

# Assessment of and Insights from NAIC Climate Risk Disclosure Data

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# Executive Summary

The insurance industry faces potentially significant impacts from the escalating effects of climate due to its exposure to weather-related property risks, investment volatility, and other issues. Given the unprecedented challenges facing the insurance industry, effective climate risk disclosures will help regulators assess and evaluate insurance industry risks along with the potential for insurer actions to mitigate climate risk.

In 2010, the NAIC membership adopted the Insurer Climate Risk Disclosure Survey as a way for state insurance regulators, insurance companies, investors, and consumers to identify trends, vulnerabilities, and best practices by collecting information about how companies assess and manage climate risk. The survey's eight questions cover topics including climate risk governance, climate risk management, modeling and analytics, stakeholder engagement and greenhouse gas management. About 1,200 companies participated in 2018.

In this analysis, we used statistical methods to examine two main questions: 1) How do insurers across key characteristics assess and manage risks related to climate change? and 2) How have these responses changed over the past 10 years?

Overall, we find that:

- Reported engagement in climate-related activities has increased over the years that the survey has been collected
- Few insurers report altering their investment strategy in response to considerations of the impact of climate change on its investment portfolio
- But more than half of all companies report at least some engagement in enterprise-wide climate risk management
- A majority of insurers across every line of business reported similar levels of engagement with internal greenhouse gas management
- Opportunity exists to bring the survey into alignment with other climate risk disclosures and to increase the survey's usefulness

This report provides an overview of the survey methodology and further detail on survey responses to the questions.

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# Introduction and Purpose

Because of its exposure to property risks and investment volatility, the insurance industry faces potentially significant impacts from the escalating effects of climate change.<sup>1</sup> For example, property/casualty (P/C) insurers face increasing physical risks from extreme weather events and long-term changes in climatic patterns that will likely directly impact annual loss payouts. Meanwhile, insurers' (life, health, P/C) carbon-intensive investments are threatened by challenges inherent in the transition to a low-carbon economy. And, lastly, a wide range of potential climate liability issues could result in notable damage award costs and legal expenses for insurers over time.

Given the unprecedented challenges facing the insurance industry, information—including effective climate risk disclosures—will help state insurance regulators assess and evaluate insurance industry risks, along with the ability of insurer actions to mitigate climate risk.

In 2010, the NAIC membership adopted the Insurer Climate Risk Disclosure Survey as a way for state insurance regulators, insurance companies, investors, and consumers to identify trends, vulnerabilities, and best practices by collecting information about how companies assess and manage climate risk. The survey contains eight questions that cover topics including climate risk governance, climate risk management, modeling and analytics, stakeholder engagement, and greenhouse gas management. About 1,200 companies participate every year.

However, while the results are freely available, little publicly available analysis has been published on the data collected from these surveys. One exception is a 2016 Ceres report<sup>2</sup> that made a series of recommendations based on an evaluation of the quality and comprehensiveness of climate risk disclosures by 148 of the insurance companies that filed in 2014, data which is now six years old. The Ceres report recommended that companies prioritize

1 In 2008, the NAIC membership adopted a white paper, *The Potential Impact of Climate Change on Insurance Regulation*, which provides further details on these impacts. Accessed online at [https://www.naic.org/prod\\_serv/CCI-OP.pdf](https://www.naic.org/prod_serv/CCI-OP.pdf).

2 Max Messervy and Cynthia McHale, 2016. *Insurer Climate Risk Disclosure Survey Report & Scorecard: 2016 Findings and Recommendations*, Ceres. Accessed online at <https://www.ceres.org/resources/reports/insurer-climate-risk-disclosure-survey-report-scorecard>.

climate risk leadership at the highest levels; incorporate carbon asset risk in investment portfolios and enterprise risk management frameworks; and engage stakeholders on climate risk.

Thus, we address this NAIC climate disclosure knowledge gap by assessing information collected in the Insurer Climate Risk Disclosure Survey from both a quantitative and qualitative perspective. This report comprises the first half of that effort by matching the quantitatively oriented survey responses with the NAIC's financial data and performing statistical analyses that compare companies by key characteristics, including group filing, line of business/financial statement type, and premium collected.

Overall, we were surprised to find that a large number of companies filed the Insurer Climate Risk Disclosure Survey even if they were not required to do so. For the most part, engagement in climate-related activities has increased over the years that the survey has been collected. Few companies—mostly life and health insurers—report altering their investment strategy in response to considerations of the impact of climate change on their investment portfolios. However, more than half of all companies report at least some engagement in enterprise-wide climate risk management. A majority of companies across every line of business reported similar levels of engagement with internal greenhouse gas management.

We believe that the insights we have begun to highlight in this overall analysis will be helpful for U.S. state insurance regulators' ongoing assessment of climate risk and will add context to the ongoing dialogue related to international standards for climate disclosure. These efforts have been shaped by the Financial Stability Board's (FSB) industry-led Task Force on Climate-related Financial Disclosures (TCFD), which in 2017 released recommendations for a framework to identify, manage, and disclose climate risks and opportunities. Since then, numerous companies and investors worldwide have adopted the guidelines and called on regulators to incorporate them into mandatory reporting standards.

We begin below by providing further detail on the history and methodology of the Insurer Climate Risk Disclosure Survey. We then provide further detail on our analyses through examining responses by companies' key characteristics, including group filing, line of business/financial statement type, and premium collected. We end with some concluding thoughts on moving forward, given what we have learned from this exercise.

# Insurer Climate Disclosure Survey: History and Description

## History and state survey participants

The NAIC has been studying the growing impact of climate change since 2005, when state insurance regulators heard a presentation from climate scientists at the annual Commissioners Conference, which was held in February of that year. The NAIC Climate Change and Global Warming (EX) Task Force first met at the 2006 Summer National Meeting, kicking off an effort to bring state insurance regulators and the insurance industry together to “examine the impact of climate change issues on the insurance industry and make necessary regulatory changes and raise important issues in order to protect consumers and ensure a vibrant insurance market as we move into the future.”<sup>3</sup>

In 2008, the NAIC membership adopted a white paper, *The Potential Impact of Climate Change on Insurance Regulation*,<sup>4</sup> which began to discuss the role of climate disclosure. Here, state insurance regulators advocated for developing tools to evaluate climate risk in service of consumer protection, while acknowledging the inherent uncertainty of climate modeling.

In 2010, the NAIC membership adopted the Insurer Climate Risk Disclosure Survey as a way for state insurance regulators to identify trends, vulnerabilities, and best practices by collecting information about how companies assess and manage climate risk. Since 2010, the survey has been administered by the California Department of Insurance (CDI).

The survey contains eight questions, asking insurers to describe how they address risks related to climate change in terms of mitigation, risk management, and investments. Companies are also asked to identify how they engage key constituencies and policyholders on the topic of climate change.<sup>5</sup>

<sup>3</sup> [https://www.naic.org/prod\\_serv/CCI-OP.pdf](https://www.naic.org/prod_serv/CCI-OP.pdf).

<sup>4</sup> Ibid.

<sup>5</sup> <http://www.insurance.ca.gov/0250-insurers/0300-insurers/0100-applications/ClimateSurvey/index.cfm>.

According to the CDI, the states were initially asked to administer the survey to domestic insurance companies writing more than \$500 million in direct premium in any of the participating states. In 2010, about two dozen states deployed the survey and the CDI aggregated the results. The following year, the threshold for completion was lowered to \$300 million in premium but only California surveyed its market. For 2012, New York and Washington state joined California in requiring the survey from companies writing at least \$300 million in premium. The results were released to the public, a trend that has continued. In 2013, the threshold was lowered again, to \$100 million, and three new states began requiring survey participation: Connecticut; Minnesota; and New Mexico.

The survey continues to be administered by the CDI. Results are maintained on the CDI website at <http://www.insurance.ca.gov/0250-insurers/0300-insurers/0100-applications/ClimateSurvey/index.cfm>.

### **State participation history**

2009, 2010: California

2011: California, New York, Washington

2012: California, Connecticut, Minnesota, New York, Washington

2013: California, Connecticut, Illinois, Maryland, Minnesota, New Mexico, New York, Washington

2014-present: California, Connecticut, Minnesota, New Mexico, New York, Washington

### **Insurer participation requirement**

Insurers are currently required to file a disclosure if they report more than \$100 million on their annual Schedule T filing with the NAIC in any of the six participating states. Insurers are encouraged to submit a survey even if they are not required to.<sup>6</sup>

The 2018 survey results contain 1,245 individual company responses, representing 167 insurance groups and 321 individual companies.<sup>7</sup> Together, respondents capture roughly 70% of the U.S. insurance market in terms of direct premiums written.

<sup>6</sup> [https://interactive.web.insurance.ca.gov/apex\\_extprd/f?p=201:1](https://interactive.web.insurance.ca.gov/apex_extprd/f?p=201:1).

<sup>7</sup> Originally, 1,257 companies responded to the survey. Twelve company's results were excluded from our analysis because of inaccurate NAIC company identifiers, duplicated responses, or failure to file premium information with the NAIC.



## Survey Questions

The survey contains eight questions that require both a “yes/no” answer and a narrative. While insurers are required to respond to all eight questions, few guidelines are provided, and narrative responses vary widely in length. A number of the “no” responses simply state that the question is not relevant. The questions are listed below, along with keywords (bolded) that we have assigned for this report.

### Survey questions:

1. **EMISSIONS** Does the company have a plan to assess, reduce or mitigate its emissions in its operations or organizations? If yes, please summarize.
2. **RISK PLAN** Does the company have a climate change policy with respect to risk management and investment management? If yes, please summarize. If no, how do you account for climate change in your risk management?
3. **ASSESS** Describe your company’s process for identifying climate change-related risks and assessing the degree that they could affect your business, including financial implications.
4. **RISKS** Summarize the current or anticipated risks that climate change poses to your company. Explain the ways that these risks could affect your business. Include identification of the geographical areas affected by these risks.
5. **INVEST** Part A: Has the company considered the impact of climate change on its investment portfolio? Part B: Has it altered its investment strategy in response to these considerations? If so, please summarize steps you have taken.
6. **MITIGATE** Summarize steps the company has taken to encourage policyholders to reduce the losses caused by climate change-influenced events.
7. **ENGAGE** Discuss steps, if any, the company has taken to engage key constituencies on the topic of climate change.
8. **MANAGE** Describe actions the company is taking to manage the risks climate change poses to your business including, in general terms, the use of computer modeling. *If Yes* - Please summarize what actions the company is taking and in general terms the use if any of computer modeling in response text box.

## Summary of “Yes/No” Results

For this analysis, we are concerned with two main questions: 1) How do insurers across key characteristics assess and manage risks related to climate change?; and 2) How have these responses changed over the past 10 years? This analysis is not intended to assign scores or ratings to individual insurers.

To examine these questions, we compiled statistics related to the eight “yes/no” survey questions. Where available, NAIC Schedule T data was matched with NAIC company codes to provide the amount of total premium written by each company. The first set of figures presented below considers data from 2018, sorted by the following factors:

- Insurers that met the reporting threshold (\$100 million in direct premium in one of the states that require reporting) versus insurers that filed responses despite not being required to do so
- Survey respondents that reported as part of a larger insurance group versus individual companies that are not part of a group
- One unique response on behalf of each group versus all responses
- Insurers by line of business
- Insurers sorted and weighted by dollar amount of premium written

Descriptive statistics are provided for each of these comparisons. Two sample t-tests were used to examine whether the differences between two types of respondents (e.g., companies that were and were not required to respond) were statistically significant. Generally, statistical significance indicates that it is unlikely that the observed difference occurred by chance.

The second set of figures examines changes in survey responses from 2008 to 2018.

### Required to file and not required to file

Only some U.S. insurers are required to file the Insurer Climate Risk Disclosure Survey. However, some companies file even though they are not required to, perhaps because they are part of a larger group that is already filing. In the 2018 data, 157 out of the 167 insurance groups responded to the survey with the exact same answers to the eight questions for all their member companies.

The chart below lists the six states that participated in the 2018 survey, along with how many companies among survey respondents met the reporting threshold (\$100 million in direct premium written in any of the states requiring the survey) for each of the six states.

## Were survey participant companies required to respond (2018)?

REQUIRED TO FILE			
STATE	YES	NO	% REQUIRED
CA	247	998	19.8%
CT	57	1,188	4.6%
MN	63	1,182	5.1%
NM	14	1,231	1.1%
NY	209	1,036	16.8%
WA	84	1,161	6.7%

In 2018, a total of 430 of the insurers that filed survey responses were required to respond in at least one state, while 815 of those who filed were not required to respond in any state.

The chart below examines the difference between companies that were required and not required to file. Later in this report, we analyze companies that responded by line of business. P/C companies made up 52% of companies that were not required to file and 68% of companies that were required to file. Life companies represent 27% of companies that were not required to file and 18% of companies that were required to file. Health companies comprised 19% of companies that were not required to file and 10% of companies that were required to file.

Insurers that were required to respond in at least one state were significantly more likely to answer “yes” on several of the questions than those that were not required to file. The largest differences appeared on question 1, asking whether the company had a plan to assess its emissions, and question 5A and question 5B, which ask whether the company has changed its investment strategy in response to climate risk.

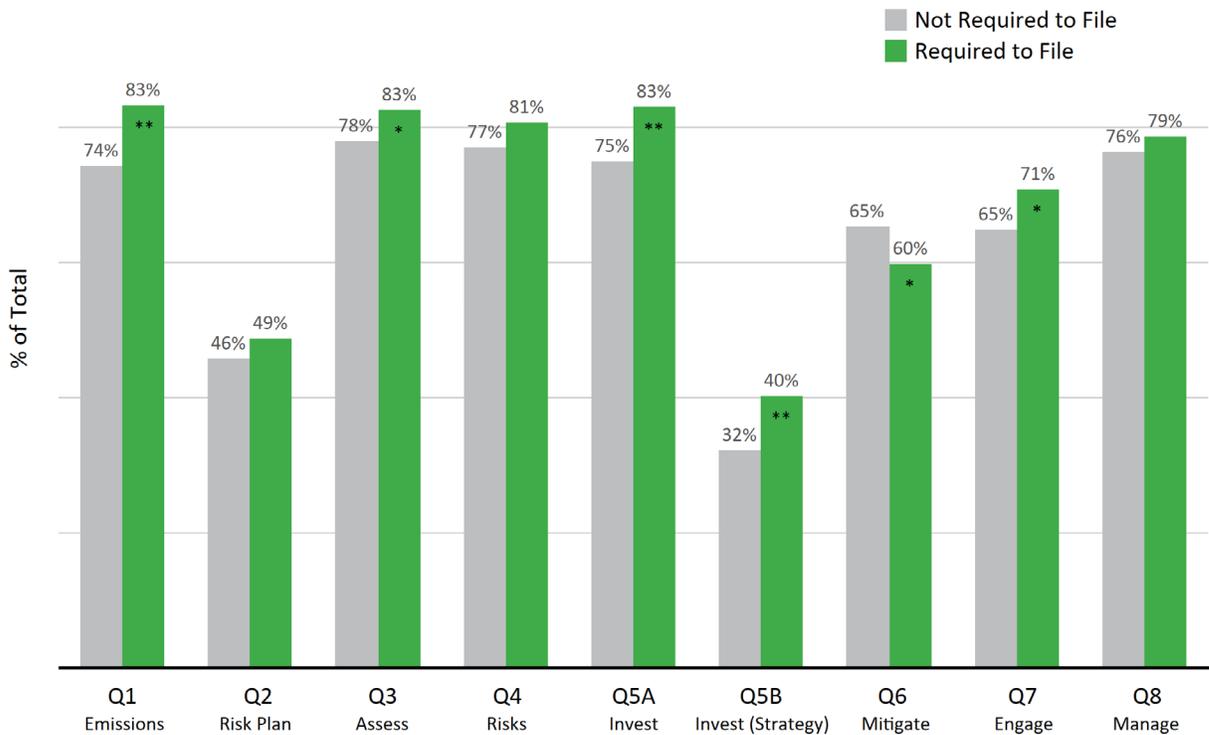
Companies that were required to respond were also more likely to answer “yes” to question 3, which asked the company to describe its process for identifying climate change-related risks and assessing the degree that they could affect its business, including financial implications; and question 7, which asked companies to discuss steps the company has taken to engage key constituencies on the topic of climate change.

Companies that were required to respond were significantly less likely to answer “yes” to question 6, which asked the company to summarize steps it

has taken to encourage policyholders to reduce the losses caused by climate change-influenced events.

**Companies that were required to respond were more likely to answer “yes”.**

Companies having at least \$100 million in premium for any of the six survey states were required to respond (Not required to file: n = 815, Required to file: n = 430)



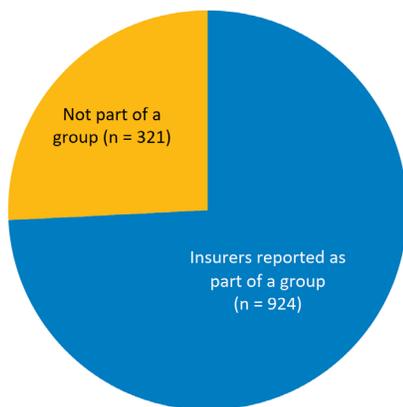
T-test for statistical significance: \* p < 0.05, \*\* p < 0.01

Source: National Association of Insurance Commissioners

**By group filling**

In 2018, a total of 924 insurers (74.2%) reported as part of a group, whereas 321 insurers (25.8%) were not part of a group.

**Most insurers reported as part of a group.**



Source: National Association of Insurance Commissioners

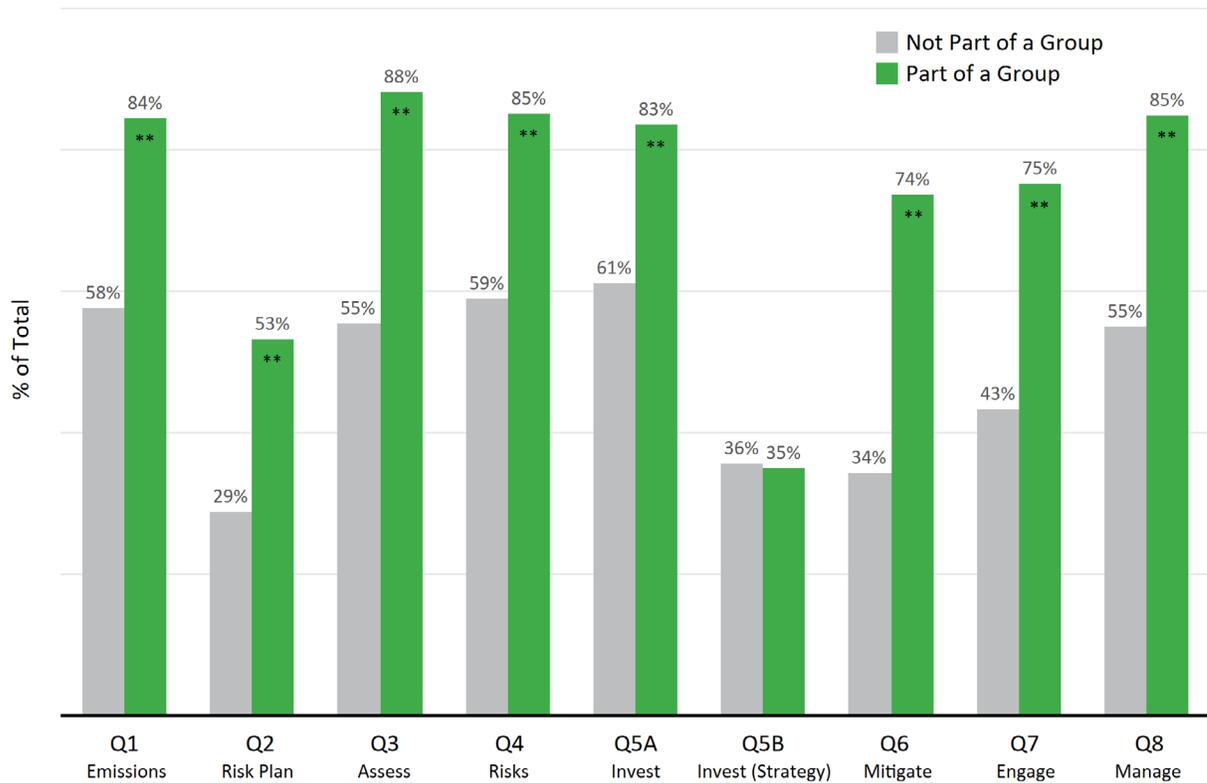
The following table reports the percentage of insurers in each category that answered “yes” to each question. For every question except question 5B, a much larger percentage of insurers that were part of a group answered “yes” than insurers that were not part of a group. Question 5B asks whether companies have altered their investment strategy in response to considerations of the impact of climate change on its investment portfolio.

The differences in “yes” answers were as large as 40 percentage points for question 6, which asks companies to summarize the steps they have taken to encourage policyholders to reduce the losses caused by climate change-influenced events. A difference of 33 percentage points emerged on question 3, which asks companies to describe their process for identifying climate change-related risks and assessing the degree that they could affect the business, including financial implications. Significance levels were strong across the questions ( $p < .01$ ), with the exception of question 5B.

Whether companies were part of a group, responses to question 5B, related to investment strategy, were uniformly low, at 35%–36%. The “yes/no” answers provide little insight into why this one question might elicit so few “yes” responses; a forthcoming qualitative analysis of the open-ended responses should provide further insight.

We theorize that “yes” responses are so much higher among insurance groups because groups are generally larger than individual companies, making the groups more likely to have the resources to address climate issues and to file a more robust response to the Insurer Climate Risk Disclosure Survey. Further, a higher percentage of groups contain P/C companies, which responded with “yes” answers in a higher proportion than life or health companies.

**Insurers that were part of a group were far more likely to answer “yes” to most questions.**  
 Insurers not part of a group (n = 321 or 26%) and Insurers part of a group (n = 924 or 74%, under 167 groups)



T-test for statistical significance: \* p < 0.05, \*\* p < 0.01

**Source:** National Association of Insurance Commissioners

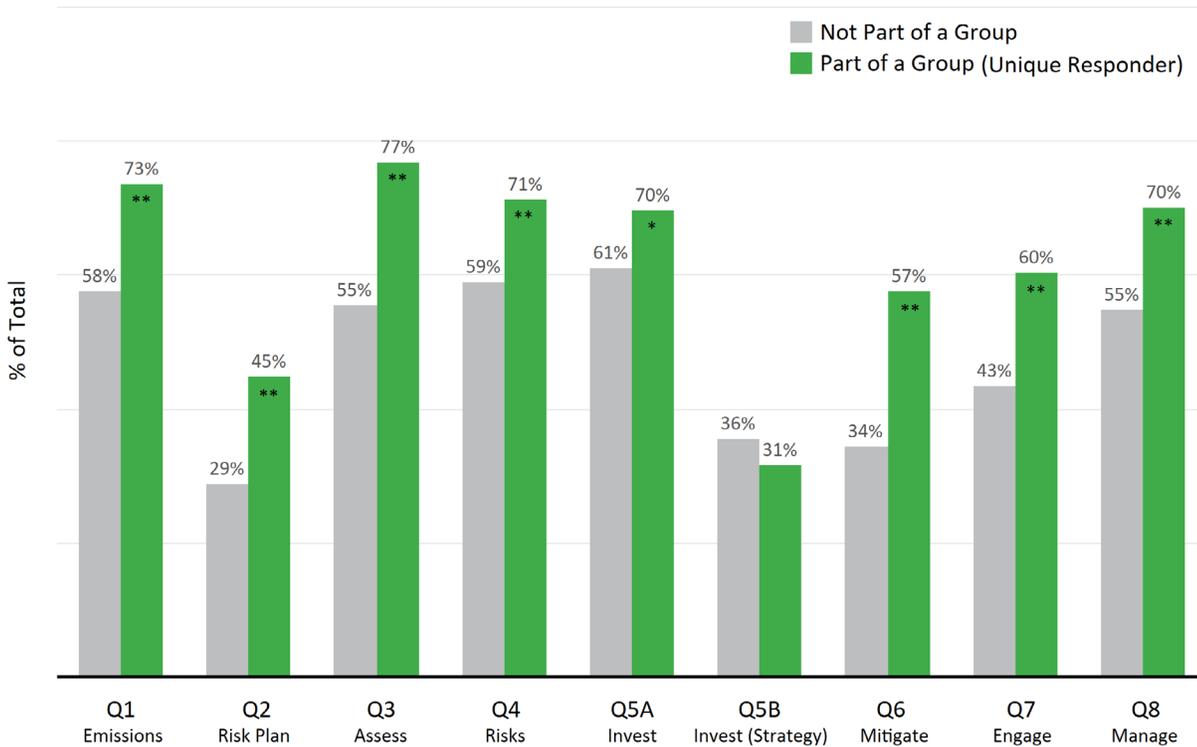
### By unique responder

Numerous insurers that are part of a group filed an identical survey as other companies within the same group, even if they represent different lines of business. In 2018, only 10 out of the 167 insurance groups had different responses within the group. This raises a question as to whether the reporting insurer actually participated in the activities being reported, or if they were simply filing the same Insurer Climate Risk Disclosure Survey responses. If climate risk is addressed at the overall group level and not all member companies that file the group answer participate, then this group answer is overcounted, which would inflate the number and percentage of “yes” answers. To overcome this problem, we aggregate the companies that are part of a group and responded the same as others within the group into one unique response.

We want to know whether the higher engagement of groups that we observed before is due to overcounting group responses. In the chart below, the insurers that are not part of a group remain the same (n = 321). We remove the duplicated responses from insurance groups and use unique responders

to represent them. After the aggregation, the 924 insurers that are part of a group become 181 unique group responses. We saw similar results as in the previous analysis, where a significantly higher percentage of “yes” responses emerged for every question except question 5B. (Question 5B asks whether companies have altered their investment strategy in response to considerations of the impact of climate change on its investment portfolio; responses are uniformly low.) The differences in percentages become quite a bit smaller after we remove duplicated group responses, ranging from a difference of 22% to 40% versus 9% to 23%. Therefore, this result indicates that insurance groups, even counted once, engage in climate risk activities more readily than nongroup insurance companies.

**Insurance groups report engaging in climate risk activities more readily than nongroup insurance companies.** Insurers not part of a group (n = 321 or 26%) and Insurers part of a group (n = 924 or 74%, under 167 groups)



T-test for statistical significance: \* p < 0.05, \*\* p < 0.01

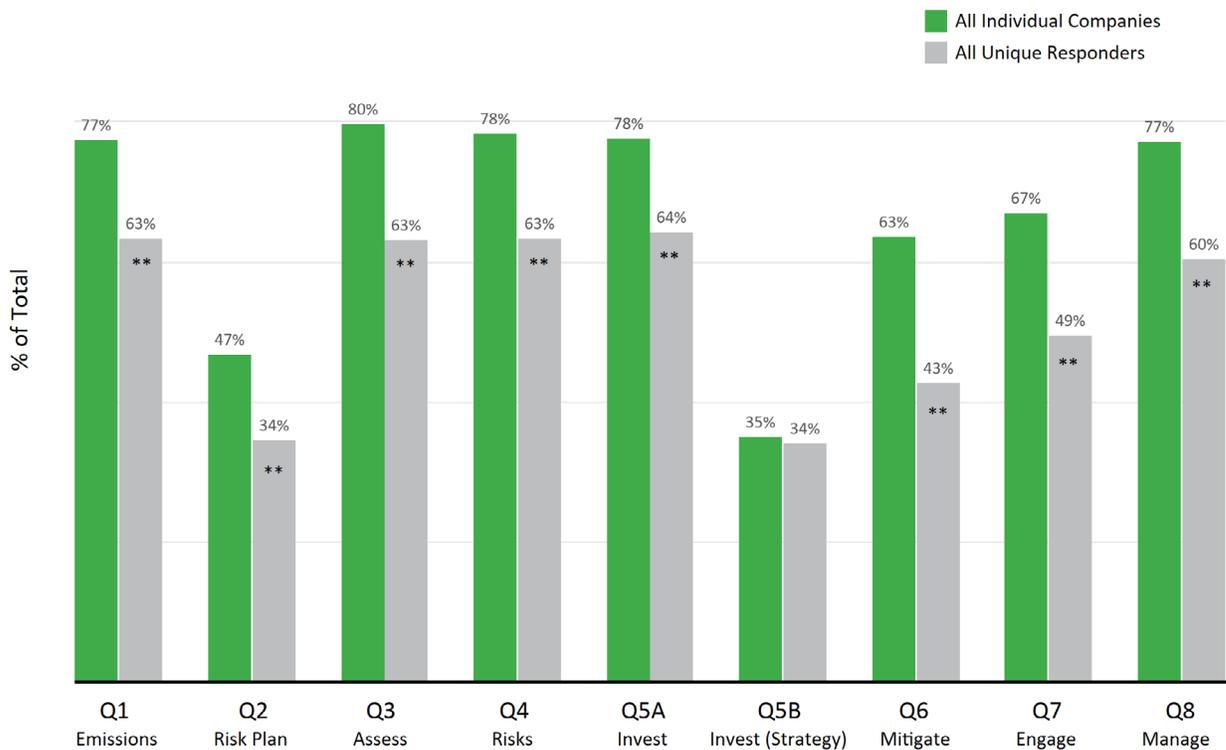
Source: National Association of Insurance Commissioners

We also want to understand how the overall survey results change when the same group responses are aggregated. Although the comparison between groups and nongroups does not change qualitatively after aggregation, this may not hold in a single state’s data or in a different data year. The following chart compares the difference in “yes” answers from all survey companies (treated as individuals even when a group submitted identical responses

multiple times) and from all unique responses. The green bars represent the 1,245 total respondents, whereas the gray bars stand for 502 total unique responders. We find that aggregating the same group responses significantly reduces the percentages of “yes” responses in all questions except question 5B. The differences are statistically significant at the 95% level, affirming our concern that the large number of duplicate responses can create the appearance of more positive engagement with climate action than we see with a reduced set of responses. Other users of the Insurer Climate Risk Disclosure Survey data should be aware of this potential data issue.

**Aggregating group responses significantly reduces “yes” responses in almost every question.**

Companies that are part of a group and responded the same as others within the group are counted as a single response (All individual companies: n = 1,245; All unique responders: n = 502, of which 321 from individual companies and 181 from groups)



T-test for statistical significance: \* p < 0.05, \*\* p < 0.01

Source: National Association of Insurance Commissioners

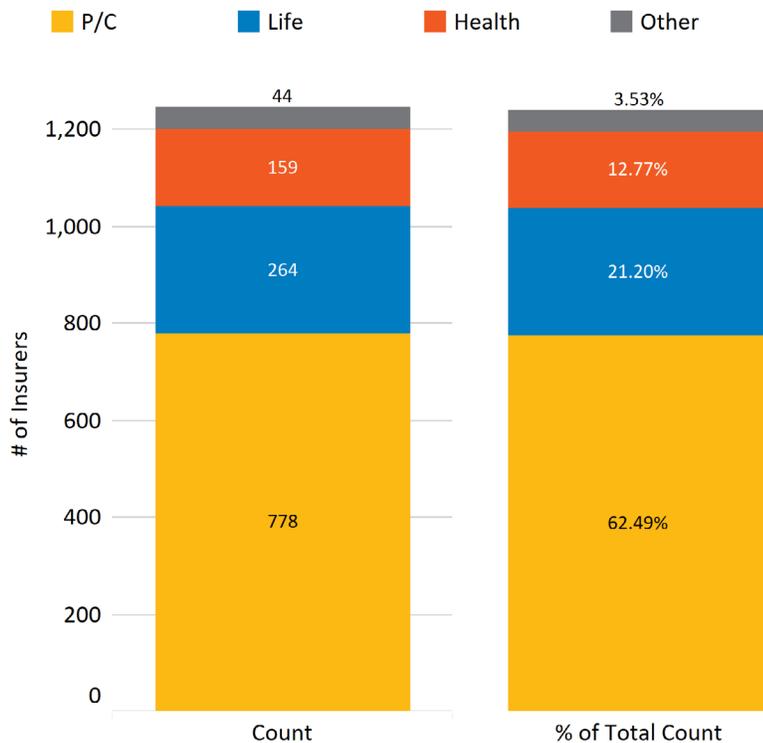
**By line of business**

We theorize that line of business might influence companies’ responses, given that climate change impacts physical, liability, and investment risk in different ways. Therefore, we analyzed the insurers that filed an Insurer Climate Risk Disclosure Survey by line of business. The largest number of companies (778, or 62.5%) were identified as P/C. Life insurance companies made up 21.2%



## P/C Insurers make up the largest number of surveyed companies.

1,245 total respondents



**Source:** National Association of Insurance Commissioners

of total responses (264 companies); with 159 companies, health comprised 12.7% of the sample. The remaining 44 companies—including title, crop and earthquake insurers—were labeled as “other.”

The table below depicts the percentage of “yes” responses within each line of business. Breaking down the questions more specifically by line of business, with the exception of question 5B, P/C companies are more likely to answer “yes” to every question.

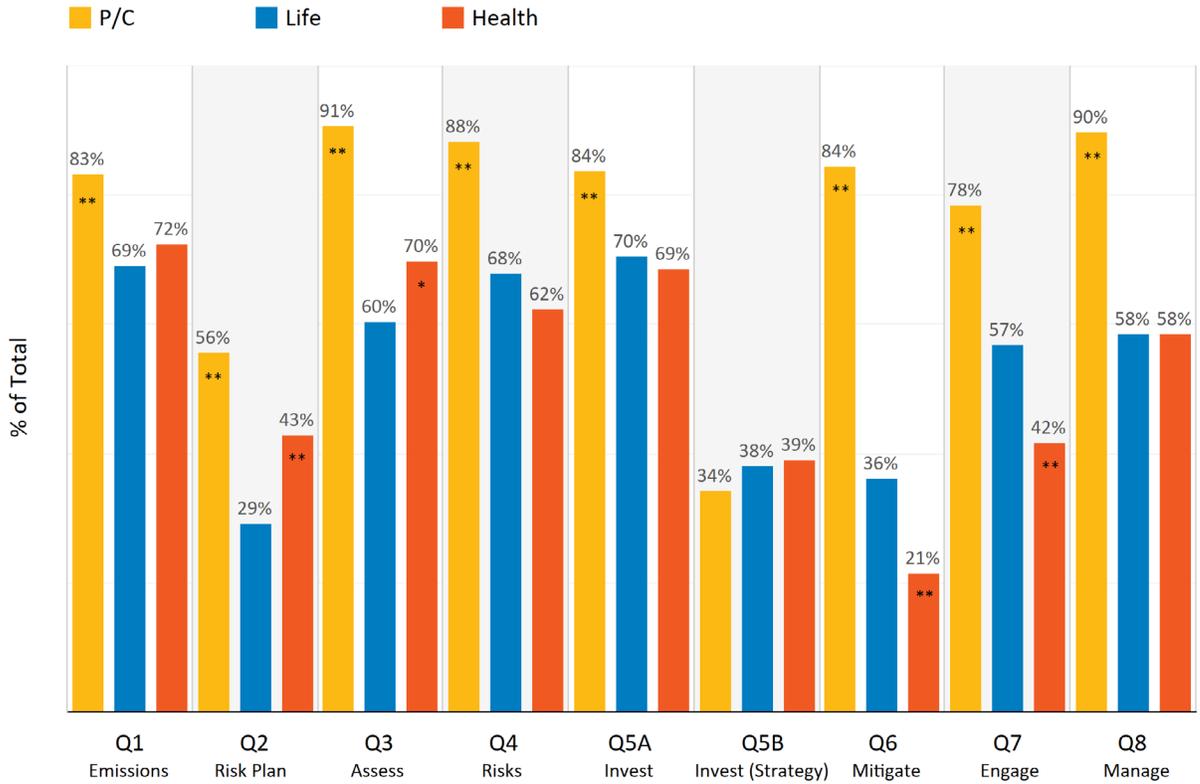
Life and health companies have similar responses, with a few notable exceptions. Health companies had a higher percentage of “yes” answers to question 2 (43% versus 29%), related to a company-wide risk- and investment-management plan, and question 3 (70% versus 60%), about the company’s process for identifying climate-change risks and assessing the degree to which they could affect the business. Life insurers had a higher percentage of “yes” answers to question 6 (36% versus 21%), which asked about steps the company has taken to encourage policyholders to reduce the losses caused by climate change-influenced events.

Once again, we see uniformly low “yes” responses to question 5B, asking whether companies have altered their investment strategy in response to

considerations of the impact of climate change on its investment portfolio. Viewed by line of business, this may reflect the fact that life and health insurance companies rely more on their investment earnings for solvency than considering risks arising from climate-related natural disasters.

**P/C Insurers are more likely to answer “yes” to almost every survey question.**

1,245 total respondents (P/C: n = 778, Life: n = 264, Health: n = 159)



T-test for statistical significance: \* p < 0.05, \*\* p < 0.01. The benchmark group is life insurers.

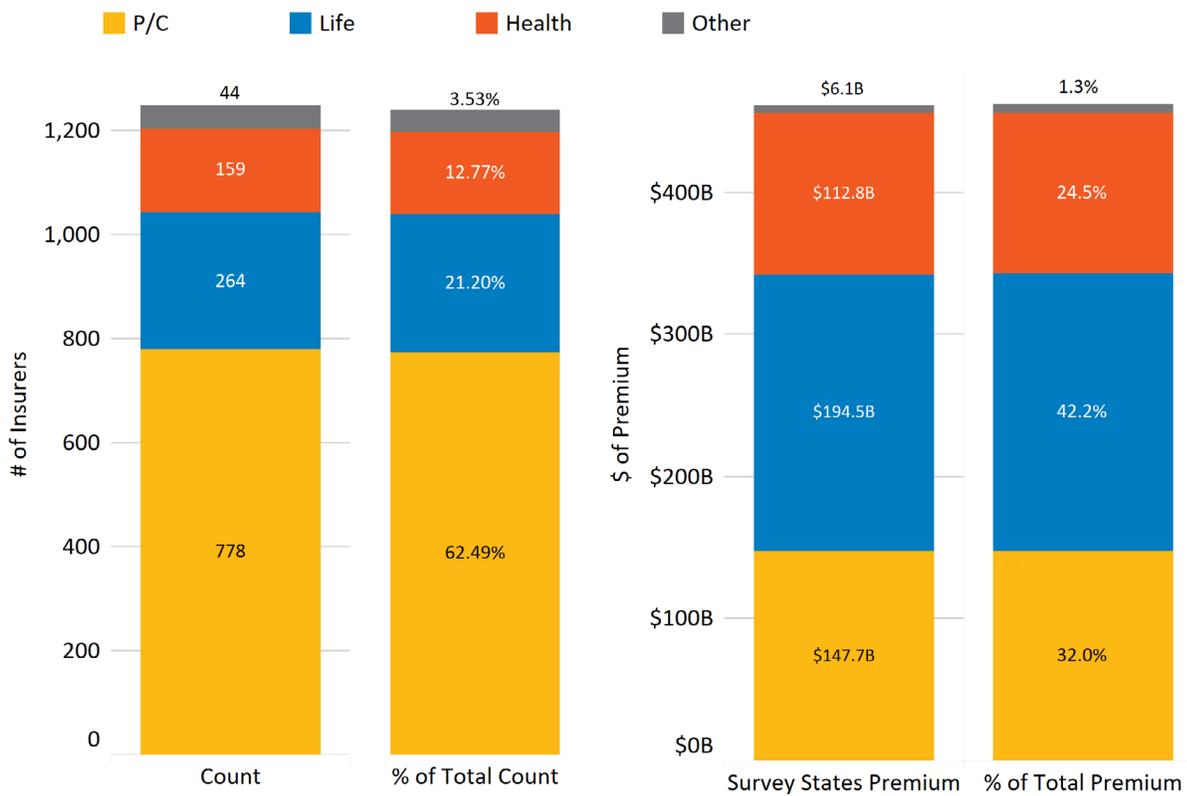
Source: National Association of Insurance Commissioners

**By line of business and premium**

While line of business is one way to categorize the insurers, it overemphasizes the number of P/C companies relative to their actual overall size in terms of premium dollars. Therefore, we compared lines of business among survey respondents by number of companies, as well as by premium dollars. Whereas P/C companies predominate by number of companies, life companies represent the majority when it comes to premium dollars. Health companies made up 13% of the overall number of insurers but represent 25% of premium dollars. In comparison, P/C companies made up 63% of the overall number of insurers but represent 32% of premium dollars.

**P/C predominates by number of companies, but life insurers represent more premium dollars.**

1,245 total respondents; Premium source: Schedule T



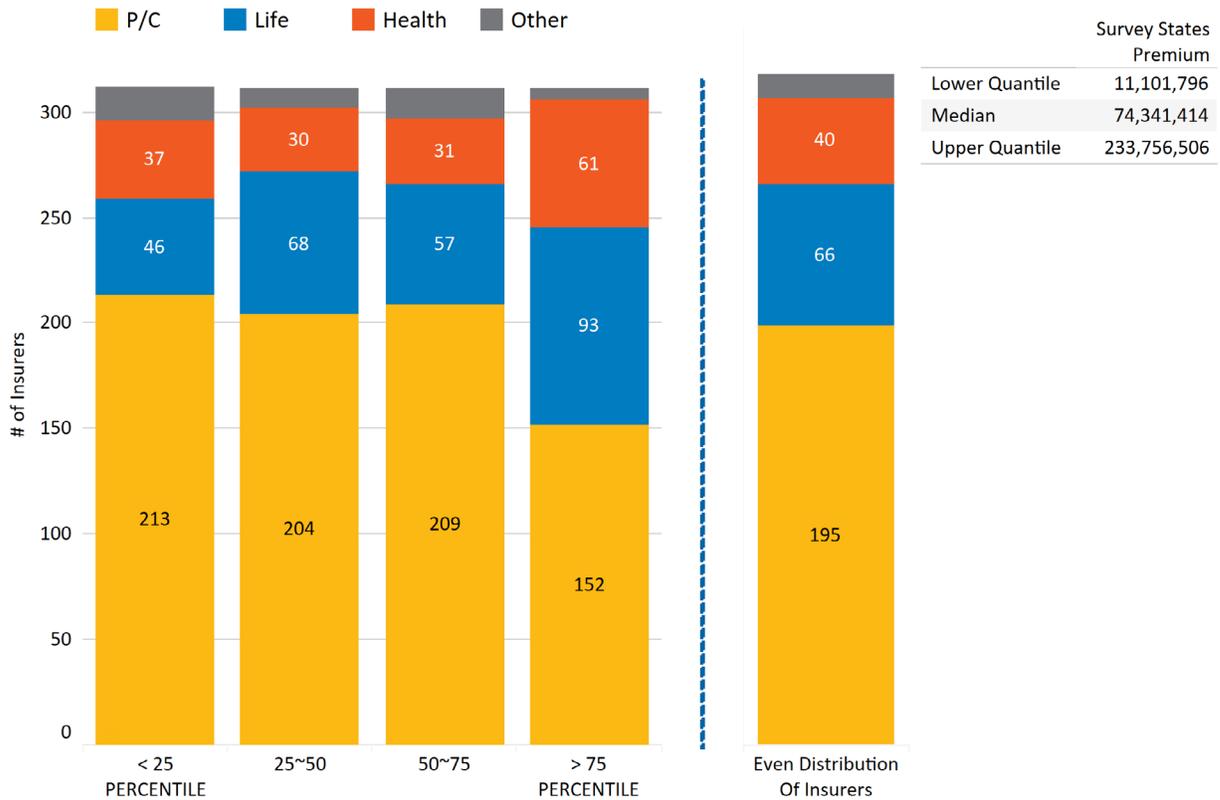
Source: National Association of Insurance Commissioners

The chart below shows insurers divided into quartiles representing the range of direct premium written. We calculate the premium quartile for all survey respondents, regardless of whether they are required to file, based on the direct premiums written in six survey states. The quartiles are fairly balanced among the three major lines of business. Among the highest quartile of premium written, life and health insurance companies comprise a comparatively larger percentage of insurers.

The bar on the far right shows how many companies would be in each quartile, by line of business, if their premiums were equal. For 2018, the Insurer Climate Risk Disclosure Survey captures companies that collected \$461,165,909,103 in premium in the six states that collected. These companies collected a total of \$1,723,478,878,398 in premium nationwide. This represents about 70% of the premium written in the U.S.

## Life and health insurers comprise a larger percentage of companies in the highest

**premium quartile.** Premium quartile based on six survey states premiums of all 1,245 respondents; Premium source: Schedule T



**Source:** National Association of Insurance Commissioners

## Raw count versus premium-weighted count

Premium size can be a critical factor influencing an insurer’s willingness and ability to consider and manage climate risk. In the narrative comments, we saw some small companies saying that they did not engage in climate risk management because their primary goal is to expand their core business.

Indeed, state insurance regulators may be more interested in disclosures from large companies. Large companies may be more important for analysis and regulatory reform because they are market leaders with the power to influence the industry in terms of managing emerging risk. Therefore, for this section, instead of counting every “yes” response as one, we assigned an importance factor to the response count so that large companies’ answers have a higher weight than small companies’ answers.

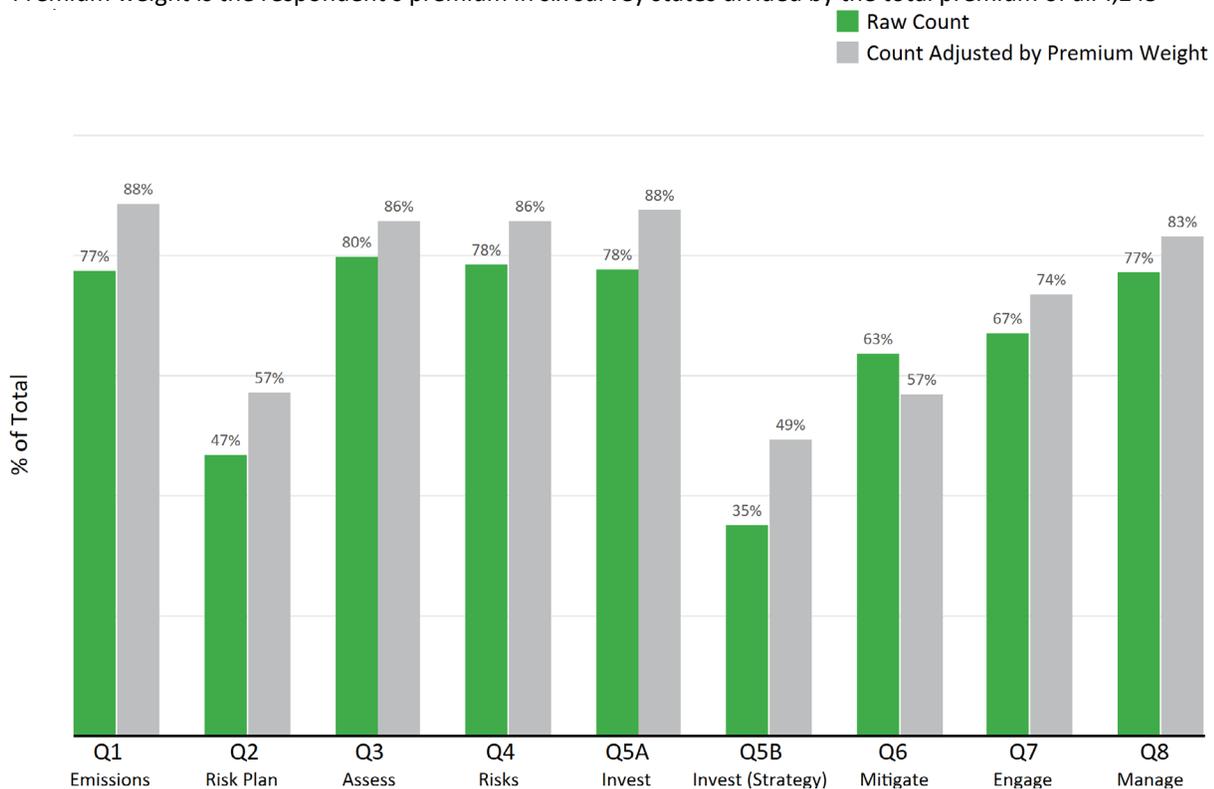
To calculate premium-weighted counts, we multiplied the raw count of “yes” responses from each company by a premium weight, which is the company’s direct premiums written in the six survey states divided by the total direct premiums written of all respondents. For example, the premium weights of a large and a small company would be 0.9 and 0.1, respectively. If the large

company answers “yes” and the small company does not, the average based on the raw count is  $(1+0)/2 = 0.5$  while the weighted average is  $0.9*1 + 0.1*0 = 0.9$ . In this case, the weighted average is higher to reflect the relative importance of disclosures reported by large companies.<sup>8</sup>

The chart below shows that the percentage of “yes” responses is higher when responses are weighted by the size of companies. This result indicates that in our survey sample, larger companies are, on average, most likely to report engagement with activities related to climate risk. The exception is question 6, where weighted responses show that large companies report a negative response. This is possibly because many of the largest insurers are life companies that do not demand catastrophic loss mitigation.

**On average, larger companies are more likely to report engagement with climate risk activities.**

Premium weight is the respondent’s premium in six survey states divided by the total premium of all 1,245



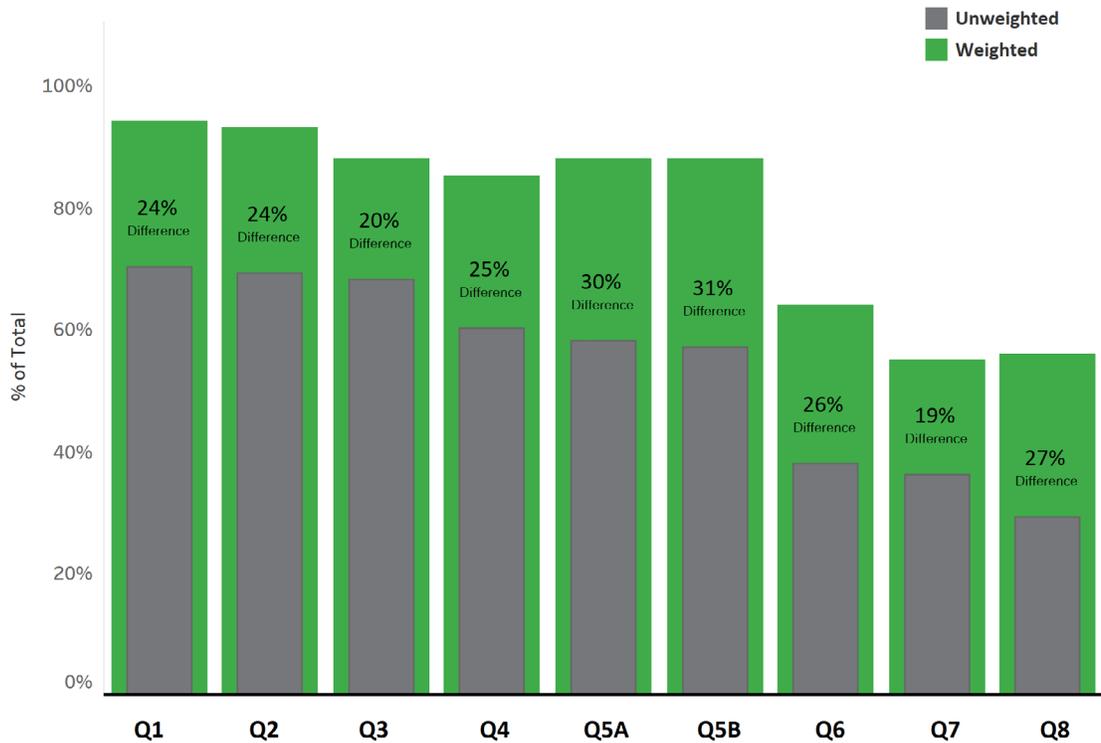
Source: National Association of Insurance Commissioners

As we have seen before, P/C companies predominate by number of companies, but life companies represent the majority when it comes to premium dollars. Using the premium weight adjustment, the following chart shows that life insurers have a jump in percentage of “yes” responses for all

8 In the opposite situation when the small company responds “yes” but the large company does not, the weighted average ( $0.9*0+0.1*1=0.1$ ) is lower than the average based on the raw count ( $1/2=0.5$ ). This is because the penalty for the large company responding “no” is also higher under the weighted method.

questions. The highest increase is 30% for question 8, which asks whether companies use advanced techniques to manage climate risks. The lowest increase is 19% for question 6, which asks about climate event-related loss mitigation.<sup>9</sup> Weighted responses among P/C companies indicate a small increase in the percentage of “yes” responses for all questions. There is only a modest difference in climate engagement among large and small health insurance companies when responses are weighted by size.

**When responses are weighted by premium, larger Life companies show more positive engagement in every area of climate risk exposure.** (Labels indicate the difference between the weighted and the unweighted counts. n = 214)

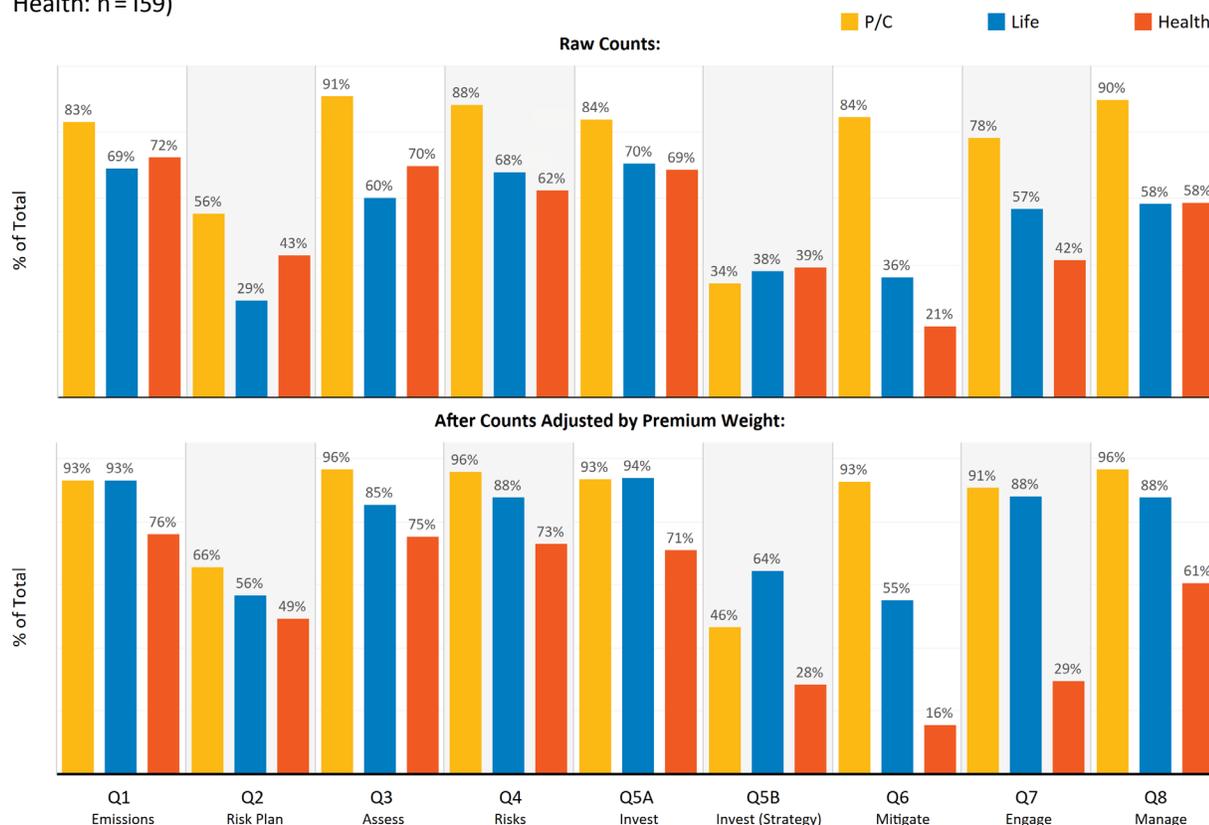


Source: National Association of Insurance Commissioners

If a state insurance regulator only focuses on the weighted premium in the bottom panel, then life insurers are similar to P/C insurers for question 1, question 7, and question 8, about emissions, constituencies, and risk management, respectively. For question 5A, related to change in investment strategy, when responses are weighted, life insurers have a slightly higher level of engagement than P/C insurers. For life insurance companies, it is essential to consider climate risk represented in investment portfolios.

9 One may think the premium weighing as the reshape of engagement distribution. Here, life insurers still have increased weighted percentage for question 6 because the reshape is among life companies only. In the previous analysis, however, the reshape is across the sectors. In that case, both giant and large life companies may receive a high premium weight, so the punishment is on more life insurers, leading the overall percentage to decrease.

**Only minor differences emerge among P/C and health companies when responses are weighted by premium.** Premium weight is the respondent’s premium in six survey states divided by the total premium of all 1,245 respondents in six survey states (P/C: n = 778, Life: n = 264, Health: n = 159)



Note: The premium weight is by sector here; e.g., equal to a P/C company’s premium divided by the total premium of all P/C companies.

Source: National Association of Insurance Commissioners

### Over years all “yes/no”

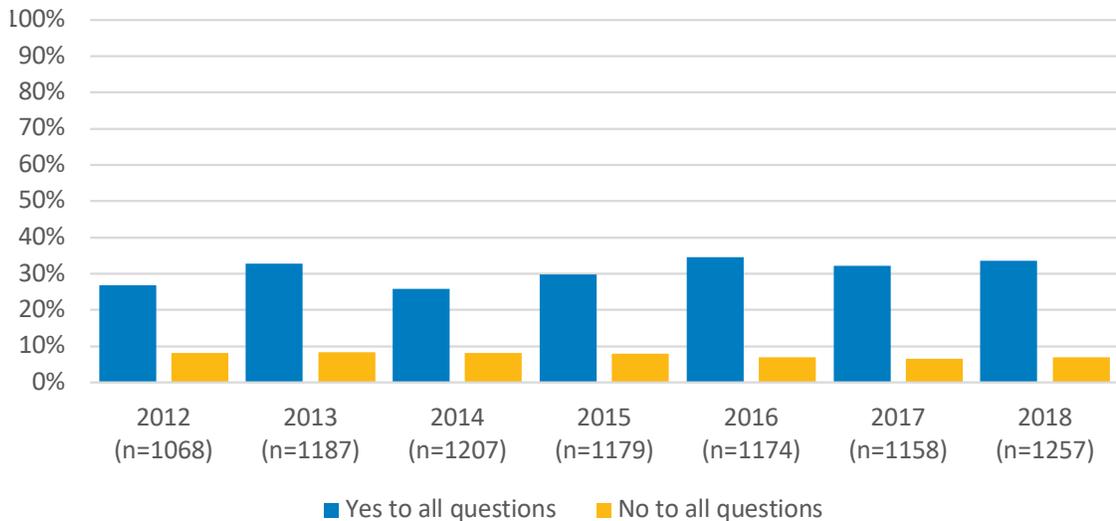
The following charts compare answers to the Insurer Climate Risk Disclosure Survey from 2012 to 2018. The number of participating companies has remained relatively stable over the years, as shown below.

#### Number of participating companies based on line of business (2012-2018)

Line	2012	2013	2014	2015	2016	2017	2018	Average
P/C	685	743	760	749	740	738	778	742
Life	231	251	249	250	250	237	264	248
Health	118	161	157	144	149	152	159	149
Other	34	32	41	36	35	31	44	36
Total	1,068	1,187	1,207	1,179	1,174	1,158	1,245	1,174

Each year, a small number of companies answer “yes” or “no” to the eight main questions in the Insurer Climate Risk Disclosure Survey. For the 2018 reporting year, the number of companies answering “no” to all questions increased slightly. This averages between one-quarter and one-third of total responses over time. In 2018, all “yes” responses represented nearly 34% of responses, while all “no” responses represented only about 7%.

**Over time, the number of companies answering “yes” or “no” to every question has remained steady.**



**Source:** National Association of Insurance Commissioners

There is considerable variation in the number of all “yes/no” answers related to question 5, with far fewer companies answering “yes” to all questions when question 5B is included. Question 5 asks, “Has the company considered the impact of climate change on its investment portfolio?” Question 5B follows up, asking, “Has it altered its investment strategy in response to these considerations? If so, please summarize steps you have taken.” Whereas in 2018, 33.5% of companies answered “yes” to all questions excluding question 5B, only 19.7% answered “yes” to all questions including question 5B.

Narrative responses to the two parts of question 5 provide greater clarity about companies’ investment strategies and suggest that the question may not accurately capture climate action underway. For example, some companies answered that they had not altered their investment strategy in response to climate considerations but indicated in their written response that changes had already taken place or that climate change was already being considered as part of a larger investment strategy, so no further changes were required.



For example, one company wrote that it “does not treat climate change risks or effects differently than other potential risks and effects when it comes to investment analysis and decisions.” The company continued, “To the extent that climate change risks affect any of those entities, our investment process is already performing the analysis that would determine whether that consideration would change the investment decision.” Therefore, “there was no reason for a change to its investment strategy.”

## Organizing by Themes Over the Years

In 2016, Ceres published an analysis<sup>10</sup> of the Insurer Climate Risk Disclosure Survey data from 2014. The authors of the Ceres report grouped the survey’s questions into themes identified as key to the insurance industry. The themes were: 1) climate governance; 2) enterprise-wide climate risk management; 3) climate change modeling and analytics; 4) stakeholder engagement; and 5) internal greenhouse gas management.

Given that this is the only major publicly available assessment of the NAIC survey data, we thought it would be useful to match our more recent data to their themes and to further understand how this data has changed over time. The following section is organized according to the themes defined by the Ceres report. For this analysis, we focused on responses representing the three main lines of business (P/C, life and health) and removed the remaining responses, which each year amounted to 20–40 entries labeled as title, crop, earthquake, and “other.”

### THEME 1: CLIMATE GOVERNANCE

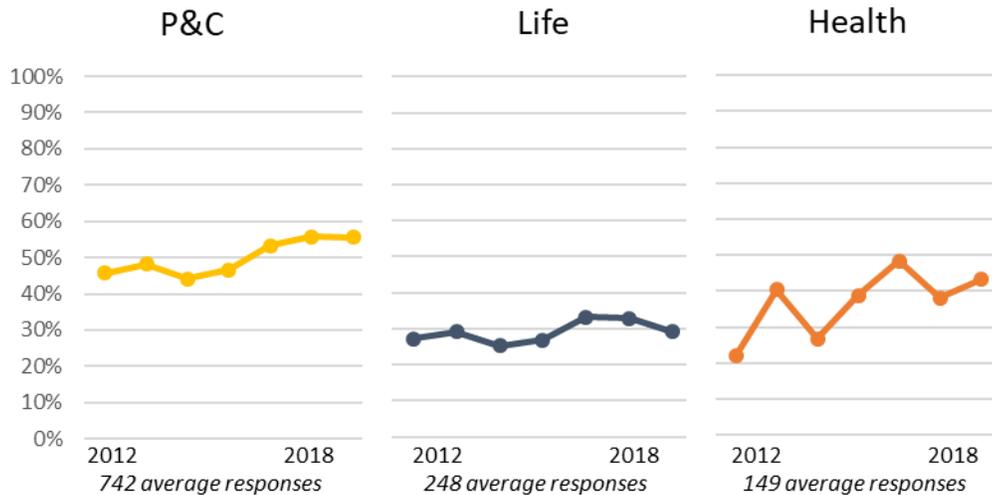
Related to the theme of climate governance, question 2 asks, “Does the company have a climate change policy with respect to risk management and investment management?”

Between 2012 and 2018, responses from P/C and health companies trended in a positive direction, although health companies’ responses were quite uneven. “Yes” responses from life companies remained fairly steady over time, at about 30%.

<sup>10</sup> Max Messervy and Cynthia McHale, 2016. *Insurer Climate Risk Disclosure Survey Report & Scorecard: 2016 Findings and Recommendations*, Ceres, p. 29. Accessed online at <https://www.ceres.org/resources/reports/insurer-climate-risk-disclosure-survey-report-scorecard>.

## Question 2: Risk Plan

**Does the company have a climate change policy with respect to risk management and investment management?** Companies answering yes by line of business, 2012–2018



**Source:** National Association of Insurance Commissioners

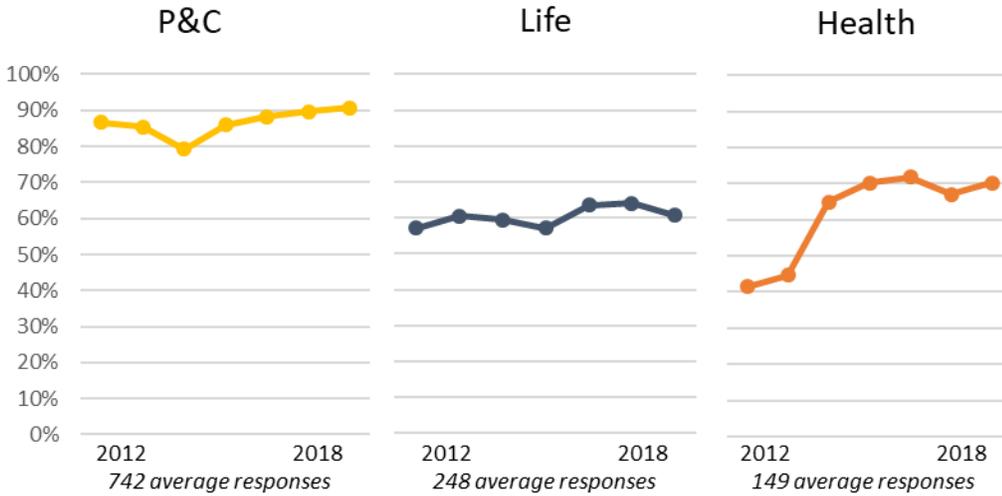
## THEME 2: ENTERPRISE-WIDE CLIMATE RISK MANAGEMENT

Three questions were identified as addressing enterprise-wide climate risk management. Question 3 directs respondents to “Describe your company’s process for identifying climate change-related risks and assessing the degree that they could affect your business, including financial implications.” Question 4 requires companies to “Summarize the current or anticipated risks that climate change poses to your company. Explain the ways that these risks could affect your business. Include identification of the geographical areas affected by these risks.” Question 5 includes two parts. Part A asks, “Has the company considered the impact of climate change on its investment portfolio?” Part B asks, “Has it altered its investment strategy in response to these considerations?”

Again, more positive responses over time suggests that P/C companies are more likely to recognize climate risks to their business, although by 2018, more than half of all companies reported some engagement. The two parts of question 5 relate to investments. “Yes” responses to the first half of the question trend upward in a similar pattern as previous questions. There are far fewer “yes” responses to the second half of the question, and the responses do not follow the established pattern of trending upward over time. The “yes/no” questions do not supply context for this seeming disparity, but our examination of the open-ended responses should provide additional insight.

Question 3: Assess

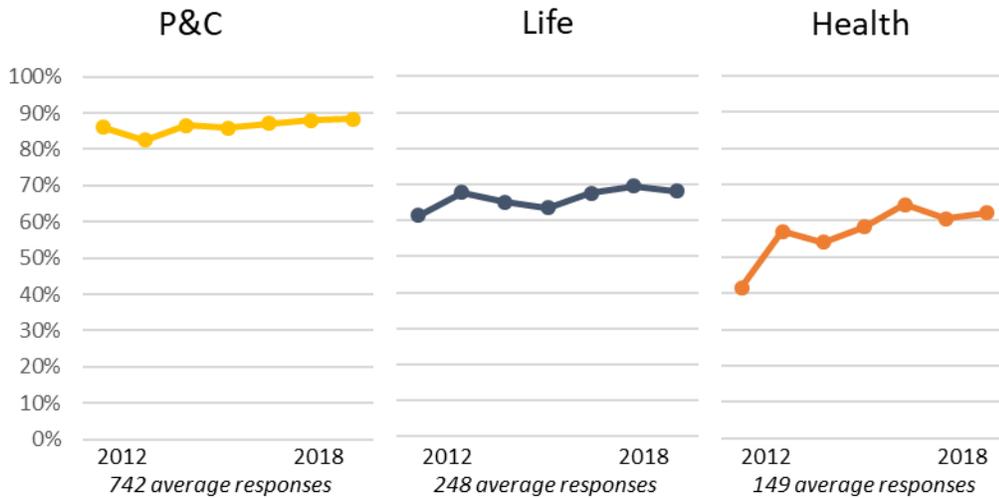
**Describe your company's process for identifying climate change-related risks and assessing the degree that they could affect your business, including financial implications.** Companies answering yes by line of business, 2012–2018



Source: National Association of Insurance Commissioners

Question 4: Risks

**Summarize the current or anticipated risks that climate change poses to your company.** Companies answering yes by line of business, 2012–2018

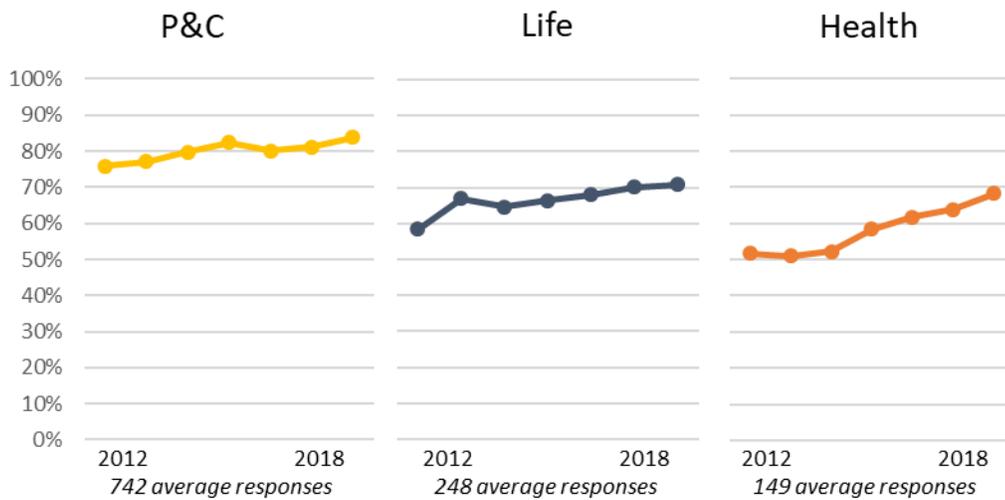


Source: National Association of Insurance Commissioners

### Question 5a: Invest

#### Has the company considered the impact of climate change on its investment portfolio?

Companies answering yes by line of business, 2012–2018

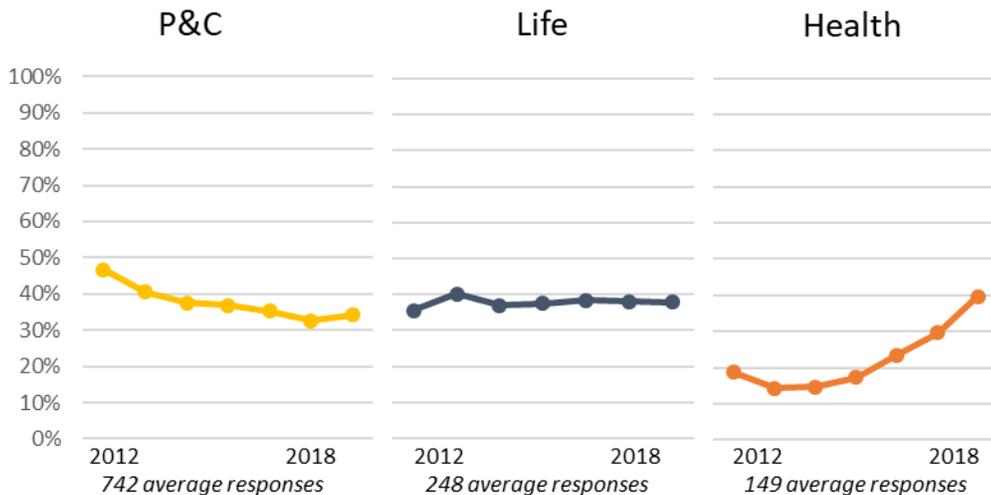


Source: National Association of Insurance Commissioners

### Question 5b: Invest (Strategy)

#### Has it altered its investment strategy in response to these considerations?

Companies answering yes by line of business, 2012–2018



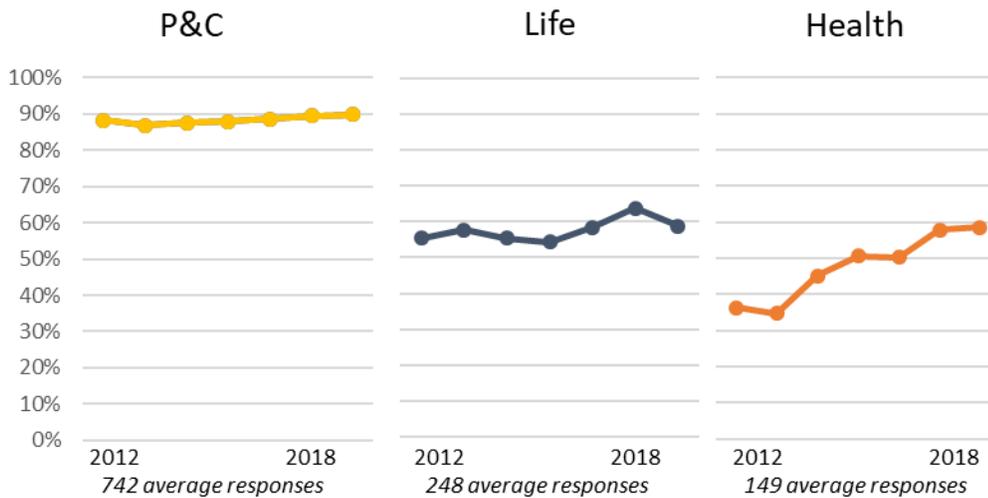
Source: National Association of Insurance Commissioners

## Theme 3: Climate change modeling and analytics

Question 8 from the Insurer Climate Risk Disclosure Survey addresses the theme of climate change modeling and analytics by asking respondents to “Describe actions the company is taking to manage the risks climate change poses to your business including, in general terms, the use of computer modeling.”

## Question 8: Manage

**Describe actions the company is taking to manage the risks climate change poses to your business including, in general terms, the use of computer modeling.** Companies answering yes by line of business, 2012–2018



**Source:** National Association of Insurance Commissioners

Once again, P/C companies are the most engaged in climate-related modeling and analytics, which makes sense because, among the three major lines of business, P/C underwriting is the most affected by climate-related increases in extreme weather events. However, other lines of business seem to acknowledge the growing relevance of climate change risks. Among health companies, “yes” responses to this question increased from about 30% to nearly 60% in 2018.

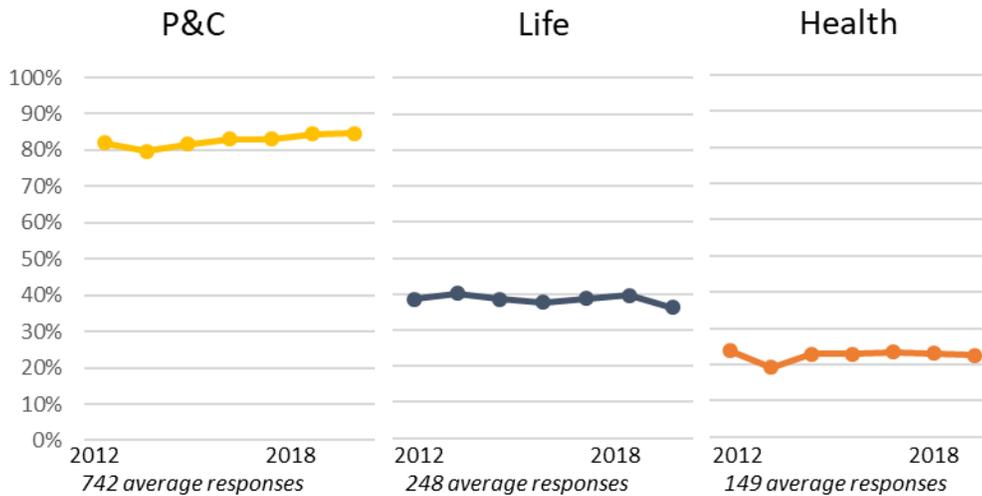
### Theme 4: Stakeholder engagement

The theme of stakeholder engagement is represented by two survey questions. Question 6 requires respondents to “Summarize steps the company has taken to encourage policyholders to reduce the losses caused by climate change-influenced events.” Question 7 asks respondents to “Discuss steps, if any, the company has taken to engage key constituencies on the topic of climate change.”

Once again, it makes sense that P/C companies are the most likely to have undertaken efforts to encourage policyholders and other stakeholders to mitigate climate impacts. P/C companies are more than twice as likely to answer “yes” to question 6, related to encouraging policyholders to reduce losses from climate-related events. The extremely low engagement among health companies suggests that an opportunity exists to educate health insurers about the direct and indirect impacts of climate change on policyholder health.

### Question 6: Mitigate

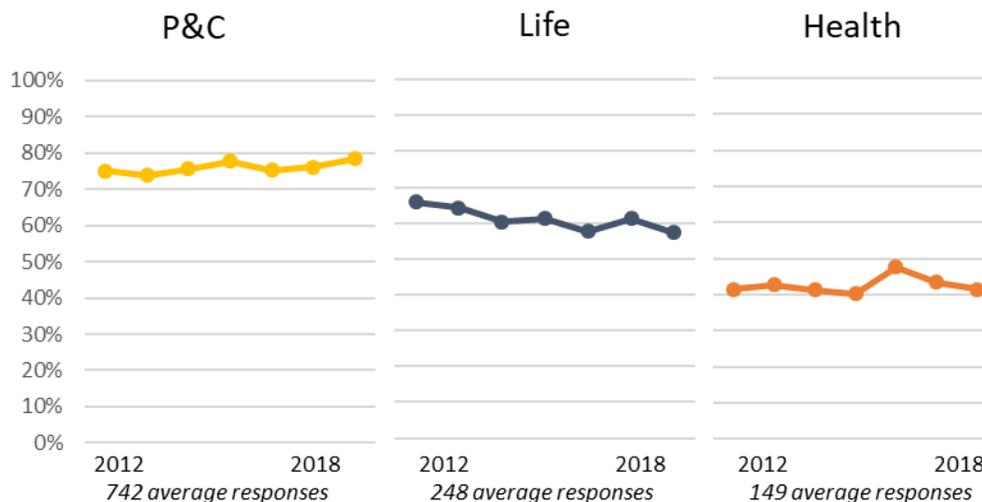
**Summarize steps the company has taken to encourage policyholders to reduce the losses caused by climate change-influenced events.** Companies answering yes by line of business, 2012–2018



Source: National Association of Insurance Commissioners

### Question 7: Mitigate

**Discuss steps the company has taken to engage key constituents on the topic of climate change.** Companies answering yes by line of business, 2012–2018



Source: National Association of Insurance Commissioners

## Theme 5: Internal greenhouse gas management

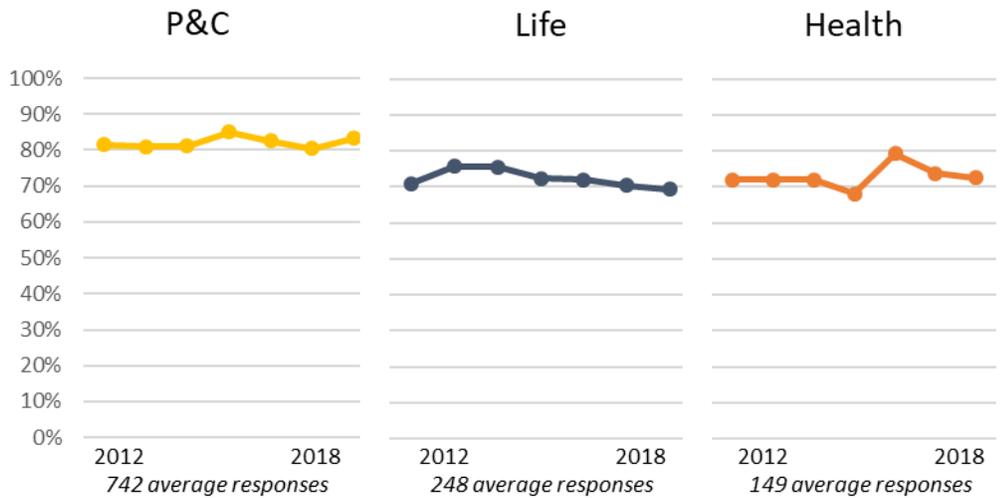
Finally, question 1 addresses internal greenhouse gas management by asking, “Does the company have a plan to assess, reduce or mitigate its emissions in its operations or organizations?”

This is one question in which responses were similarly steady across the years and lines of business. Regardless of their line of business, companies share

similar operational challenges and opportunities related to enterprise-wide emissions. For example, any company can invest in energy-efficient buildings, encourage employees to telecommute, or deliver documents electronically.

**Question 1: Emissions**

**Does the company have a plan to assess, reduce or mitigate its emissions in its operations or organizations?** Companies answering yes by line of business, 2012–2018



**Source:** National Association of Insurance Commissioners

## Summary of Findings

This analysis examined two main questions: 1) How do insurers across key characteristics assess and manage risks related to climate change?; and 2) How have these responses changed over the past 10 years?

The first set of results were based on 2018 responses to the eight “yes/no” survey questions, organized by several key factors:

- Insurers that met the reporting threshold (\$100 million in direct premium in one of the states that require reporting) versus insurers that filed responses despite not being required to do so
- Survey respondents that reported as part of a larger insurance group versus individual companies that are not part of a group
- One unique response on behalf of each group versus all responses
- Insurers by line of business
- Insurers sorted and weighted by dollar amount of premium written

### Required to file and not required to file

Insurers were required to file if they met the reporting threshold of \$100 million in direct premium in one of the states that require reporting.

Numerous insurers filed disclosures despite not being required to do so. Responses from 2018 revealed that P/C companies made up just more than half of companies that were not required to file and two-thirds of companies that were required to file. Life companies represent one-quarter of companies that were not required to file, with health making up the remaining one-fifth. Insurers that were required to respond in at least one state were significantly more likely to answer “yes” on several of the questions than those that were not required to file.

### **By group/unique response**

Survey responses included a total of 321 insurers that were not part of a group and 924 insurers that filed a total of 181 unique responses. When duplicate responses were combined, survey responses revealed a smaller percentage of engagement with climate action overall.

### **By line of business**

Only about one-third of companies reported altering their investment strategy in response to considerations of the impact of climate change on their investment portfolio. Life and health companies were more likely to answer “yes” to this question, which may reflect the fact that life and health insurance companies rely more on their investment earnings for solvency than considering risks arising from climate-related natural disasters.

### **By premium**

P/C companies make up the largest number of companies, but life insurers comprise the largest dollar amount of premium written. Overall, P/C companies report more engagement with climate issues than companies representing other lines of business.

### **Over years**

Between 2012 and 2018, climate governance responses from P/C and health companies trended in a positive direction. Health responses trended up but were quite uneven.

Related to enterprise-wide climate risk management, more positive responses over time suggests that P/C companies are more likely to recognize climate risks to their business. By 2018, more than half of all companies reported some engagement.

P/C companies are the most engaged in climate-related modeling and analytics, although, over time, other lines of business seem to acknowledge the growing relevance of climate change risks.



P/C companies are the most likely to encourage policyholders and other stakeholders to mitigate climate impacts. Extremely low engagement among health companies suggests that an opportunity exists to educate health insurers about the direct and indirect impacts of climate change on policyholder health.

Internal greenhouse gas management was one question in which responses were similarly steady across years and lines of business. Companies share similar operational challenges and opportunities related to enterprise-wide emissions.

## Shift to TCFD in the International Context

Financial regulators across a variety of industries have begun attempting to bring U.S. climate risk disclosures in line with global standards. In 2015, the FSB established the TCFD,<sup>11</sup> which represents an effort to develop consistent climate-related financial risk disclosures among companies, banks, and investors. The TCFD contains recommended disclosures in four content areas: governance; strategy; risk management; and metrics and targets. These disclosures are designed to help investors assess the impact of climate change on valuation of a company.

The TCFD disclosure recommendations<sup>12</sup> were released in June 2017. They set forth a voluntary framework for the identification, assessment, and disclosure of climate-related risks and opportunities by corporate and financial sector entities beyond insurance. In 2018, the European Commission presented its “Action Plan on Sustainable Finance,” underlining the importance of involving the finance industry in climate change mitigation. Insurance supervisors began examining the impact of climate change through the Sustainability Insurance Forum (SIF) in 2016. In 2017, the SIF released a statement in support of the TCFD recommendations and implemented a survey process for supervisors to share their efforts to address climate risks.

In 2018, the SIF and the International Association of Insurance Supervisors (IAIS) worked to develop guidance on climate change and insurance supervision. In 2020, the IAIS released the Issues Paper on the Implementation of the Recommendations of the Task Force on Climate-

<sup>11</sup> <https://www.fsb-tcf.org>.

<sup>12</sup> <https://www.fsb-tcf.org/publications/final-recommendations-report>.

related Financial Disclosures,<sup>13</sup> which reviews practices insurance supervisors have considered in developing climate disclosure requirements. The paper highlights practices that can be implemented with limited regulatory intervention, given the diversity of supervisory frameworks across jurisdictions. As of late 2020, the SIF and IAIS were collaborating on an *Application Paper on the Supervision of Climate related Risks in the Insurance Sector*, scheduled for release in 2021.

Beginning in 2019, U.S. insurers had the option of submitting their climate risk disclosure as a report based on the TCFD disclosure in lieu of filing the Insurer Climate Risk Disclosure Survey. As of October 2020, 73 TCFD disclosures had been filed on the CDI website by six individual companies and seven groups. Groups filing the TCFD disclosure were Travelers, Allianz, Swiss Re, Zurich, Assurant, American International Group, and American Enterprise.

The 2020 TCFD status report analysis<sup>14</sup> estimated that insurance companies had a 27% TCFD-aligned disclosure rate. Insurance companies were most likely to disclose information about climate-related risks and opportunities. The report provided key takeaways. One was that expert users found the impact of climate change on business and strategy to be the most useful metric for decision-making. Experts also cited as useful metrics related to material climate-related issues, reported by sector and geography.

Reporting companies identified challenges to implementing the TCFD recommendations, including the fact that climate change is so embedded into governance and risk management processes that it is difficult to discuss separately. Companies also expressed a reluctance to disclose scenario analysis assumptions that would reveal confidential business information and reported being hampered by a lack of standardized metrics for disclosure. The report suggested using expert users' insights to help companies preparing the disclosures prioritize their efforts among the recommended categories.

<sup>13</sup> [https://b9ea8c1e-dc19-4d5f-b149-9b1ea4b8d050.filesusr.com/ugd/eb1fob\\_365cc83062254d509c20d79313143868.pdf](https://b9ea8c1e-dc19-4d5f-b149-9b1ea4b8d050.filesusr.com/ugd/eb1fob_365cc83062254d509c20d79313143868.pdf).

<sup>14</sup> *Task Force on Climate-related Financial Disclosures: 2020 Status Report*, 2020. Accessed online at [https://assets.bbhub.io/company/sites/60/2020/09/2020-TCFD\\_Status-Report.pdf](https://assets.bbhub.io/company/sites/60/2020/09/2020-TCFD_Status-Report.pdf)

# Observations from Industry Stakeholders

A recent report<sup>15</sup> published by a Market Advisory Committee of the U.S. Commodity Futures Trading Commission noted that the NAIC climate disclosure survey is “outdated (it was designed in 2009 and not updated since), it does not collect quantitative information, and it falls far short of the disclosures recommended by the TCFD” (p. 48). The authors recommend that state insurance regulators and insurance regulators’ supervisory colleges should require insurers to address and disclose climate-related risks to underwriting activity and investment portfolios and conduct climate risk stress tests and scenario analyses to evaluate exposure to physical and transition risks. The report also recommends updating regulatory requirements by building on existing disclosure recommendations, including the TCFD.

In August 2020, the U.S. Senate Democrats’ Special Committee on the Climate Crisis released a report titled, *The Case for Climate Action: Building a Clean Economy for the American People*.<sup>16</sup> In the report, the committee recommended that the NAIC encourage more states to adopt the Insurer Climate Risk Disclosure Survey and to continue to align the existing Insurer Climate Risk Disclosure Survey with “TCFD-like disclosures that provide more useful and comparable information across insurers” (p. 78). Further, the committee recommends that the NAIC work with the Federal Insurance Office (FIO) to establish standards for insurers to respond to climate risks while keeping coverage affordable. The committee also recommends that state insurance regulators require stress testing and scenario analysis akin to that required by the Bank of England for insurers in the United Kingdom (UK).

The 2016 Ceres report<sup>17</sup> recommended that insurance regulators enhance the current Insurer Climate Risk Disclosure Survey and continue to expand climate risk disclosure more broadly. For P/C companies specifically, the

15 *Managing Climate Risk in the U.S. Financial System: Report of the Climate-Related Market Risk Subcommittee of the Market Risk Advisory Committee of the U.S. Commodity Futures Trading Commission*, 2020. Accessed online at <https://www.cftc.gov/sites/default/files/2020-09/9-9-20%20Report%20of%20the%20Subcommittee%20on%20Climate-Related%20Market%20Risk%20-%20Managing%20Climate%20Risk%20in%20the%20U.S.%20Financial%20System%20for%20posting.pdf>.

16 *The Case for Climate Action: Building a Clean Economy for the American People*. Accessed online at [https://www.schatz.senate.gov/imo/media/doc/SCCC\\_Climate\\_Crisis\\_Report.pdf](https://www.schatz.senate.gov/imo/media/doc/SCCC_Climate_Crisis_Report.pdf).

17 Max Messervy and Cynthia McHale, 2016. *Insurer Climate Risk Disclosure Survey Report & Scorecard: 2016 Findings and Recommendations*, Ceres. Accessed online at <https://www.ceres.org/resources/reports/insurer-climate-risk-disclosure-survey-report-scorecard>.

report recommended incorporating climate change information from experts. Ceres recommended that life and annuity insurers consider investing in sustainable infrastructure. Ceres noted that health insurers showed a lack of understanding about climate risks, despite growing evidence of morbidity and mortality impacts caused by climate change. The report recommended that health insurers work to reduce climate change-related health impacts.

## Recommendations and Conclusion

Our analysis suggests a number of recommendations in addition to those provided by external stakeholders.

As noted above, the Insurer Climate Risk Disclosure Survey has not been updated since its implementation in 2009. Further, five of the eight “yes/no” questions in the survey are not questions at all but simply statements (e.g., “Discuss steps, if any, the company has taken to engage key constituencies on the topic of climate change”). The answers to these “yes/no” questions provide only an initial amount of insight.

When filing the Insurer Climate Risk Disclosure Survey, each respondent is required to include a narrative answer along with the “yes” or “no” responses. The bulk of the information contained in the Insurer Climate Risk Disclosure Survey comes from these open-ended responses. In 2018, these open-ended responses added up to rough half a million words, the equivalent of about six novels. This immense volume of information is relatively time-consuming to parse and fraught with the possibility of subjective interpretation. To date, there has not been a comprehensive analysis of the survey responses, although a number of analyses are underway, including one being conducted within the CIPR.

Preliminary findings from our qualitative analysis suggest that the existing survey could be strengthened by incorporating key information from the narrative responses in a quantitative format.

This type of revision could make the survey easier to complete and to analyze. These changes would make the survey’s results more useful for stakeholders and would not require eliminating the existing questions. Some state insurance regulators have expressed concern about retaining the ability to compare the survey across years. It could be useful to retain the existing questions to enable this type of comparison while adding additional questions, especially questions that bring the NAIC survey in line with the TCFD’s guidelines.

The environmental nonprofit organization CDP<sup>18</sup> has developed an online response system that enables companies to complete a questionnaire that includes the TCFD’s recommended disclosures, along with several other metrics. Importantly, the CDP version incorporates multiple-choice questions, as well as character-limited open-ended response options. Closed-ended, or multiple-choice, questions provide concrete options, accessible via drop-down menus, while open-ended questions are reserved for unique insights. Multiple-choice questions could be analyzed as responses are posted, while a smaller volume of narrative responses would reduce the reporting burden on behalf of companies and would make the results much easier for end users to parse.

The CDP questionnaire also asks companies to specify the time frame they are reporting for and includes questions specific to various industries. A revised NAIC questionnaire could build on lessons learned from the CDP instrument and could perhaps tailor questions to lines of business that may have different priorities and business models.

Indeed, broad guidance for best practices could be gleaned from jurisdictions also developing or updating guidelines for climate risk disclosure. As illustrated in the previously mentioned 2020 SIF/IAIS paper, other supervisory authorities—including Japan, Malaysia, the Netherlands, Singapore, and the UK—have established processes to share information on best practices. The NAIC may want to explore establishing similar platforms to engage with the industry on climate risk disclosure in order to raise awareness and encourage the development of voluntary practices.

Before undertaking any changes, though, it may be useful for state insurance regulators to evaluate the efficacy of the survey to date and revisit the purpose of the survey going forward. Has the survey achieved its stated goals? What information does the NAIC hope to gather through the use of the survey? What questions would most effectively deliver the desired information?

State insurance regulators could specifically consider clarifying how the survey can support meeting supervisory objectives relating to climate resilience. For instance, in the Bank of England’s supervisory statement on climate change,<sup>19</sup> the Prudential Regulation Authority (PRA) specifically notes that it expects “firms to consider engaging with the TCFD Framework and

18 <https://www.cdp.net/en>.

19 “Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change,” April 2019. Accessed online at <https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2019/ss319>.

other initiatives in developing their approach to climate-related financial disclosures.”

State insurance regulators should also consider the end users of the survey. Is the survey primarily designed to provide insurance companies with benchmarks for comparison against other companies? Help investors identify companies best positioned to confront climate risks? Provide consumers with a way to choose companies that align with their values? Questions could be added to elicit information to enable each stakeholder to access the information directly and with more specificity than the current format allows.

Climate risk disclosures are vital to the insurance industry. The NAIC is uniquely positioned to elicit valuable and informative disclosures. The organization’s renewed and strengthened commitment to climate risk provides the NAIC with a unique opportunity to move the U.S. insurance industry toward increased climate resilience at this critical juncture. An improved Insurer Climate Risk Disclosure Survey could serve as a key instrument in this effort.

## Next Steps

While the “yes/no” answers provide valuable information, they provide little context about specific actions related to climate mitigation. However, valuable information is contained in the narrative responses. Therefore, our immediate next step is to report on the qualitative analysis focused on the text-based responses provided with the eight questions. We are employing a thematic-based qualitative assessment to examine this data.

Additionally, responses covering the 2019 calendar year were due Aug. 31, 2020. We will update our quantitative findings above to incorporate this most recent data. Moreover, insurers were offered the option to submit a TCFD report in lieu of the NAIC survey. As of October 2020, 73 TCFD reports had been submitted by seven groups and five companies, while 1,228 had filed the traditional NAIC survey.

# Appendices





## Appendix A: TCFD questions<sup>20</sup>

### Governance

Disclose the organization's governance around climate-related risks and opportunities.

#### Recommended disclosures

- a) Describe the board's oversight of climate-related risks and opportunities.
- b) Describe management's role in assessing and managing climate-related risks and opportunities.

### Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning where such information is material.

#### Recommended disclosures

- a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.
- b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning.
- c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario.

### Risk Management

Disclose how the organization identifies, assesses, and manages climate-related risks.

#### Recommended disclosures

- a) Describe the organization's processes for identifying and assessing climate-related risks.
- b) Describe the organization's processes for managing climate-related risks.
- c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

<sup>20</sup> Task Force on Climate-related Financial Disclosures: Overview, 2020. Accessed online at <https://www.fsb-tcfd.org/publications>.

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### Recommended disclosures

- Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
- Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
- Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

## Appendix B: Participating companies based on premium

The following table lists companies that filed surveys in 2018 and the amount of premium they collected.

State	Required to File + YES on Q6 Premium	% of YES	% of Required to File	% of Total Filers	Required to File Premium	% of Total Filers	Total Filer Premium
CA	87,047,482,999	89.4%	63.4%	63.9%	137,402,473,858	90.1%	152,458,121,276
CT	15,806,207,385	72.0%	56.9%	59.8%	27,767,512,994	75.6%	36,729,761,974
MN	10,817,229,740	63.0%	44.5%	50.2%	24,325,251,027	71.0%	34,247,519,834
NM	3,469,480,843	51.2%	51.8%	57.2%	6,699,065,767	56.6%	11,842,603,178
NY	87,361,892,153	90.0%	52.0%	53.7%	167,842,719,261	92.8%	180,778,795,088
WA	15,241,873,379	69.9%	44.6%	49.7%	34,175,905,945	77.8%	43,912,519,550
<b>Total</b>	<b>219,744,166,499</b>	<b>83.8%</b>	<b>55.2%</b>	<b>57.0%</b>	<b>398,212,928,852</b>	<b>86.6%</b>	<b>459,969,320,900</b>

Note: Premium is based on 2018 Schedule T values and includes all financial statement types.

## REFERENCE

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