

# Climate Risk Financial Disclosure (CRFD) Analysis

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# Agenda

- Academy CRFD Research Project, in 2 phases
- Summary of Results from Phase 1 of Academy Research Project
- Details on Phase 1 Results
- Phase 2, Moving towards Recommendations/Assessments based on results of Phase 1
- Plans for Phase 2 of Academy Research Project



# American Academy of Actuaries CRFD Project in 2 Phases

- Phase 1: Academy Analysis of National Association of Insurance Commissioners (NAIC) Climate Disclosure Survey Responses
  - ▣ Yes/No Responses
  - ▣ Systematic, qualitative analysis of company responses
- Phase 2 Research: Academy Assessment of Options
  - ▣ Criteria
  - ▣ Options
  - ▣ Assessments



# Academy Analysis of NAIC Survey Responses: Summary

- Y/N responses reveal differences over time, across questions, and across lines of business.
- Y/N responses must be interpreted with caution.
- Systematic, qualitative analysis reveals:
  - ~10-15% of companies provide robust responses
  - ~10-15% of companies provide some detail
  - ~70-80% indicate little of their assessment of climate risk or plans for management of that risk.



# ANALYSIS OF YES/NO QUESTIONS

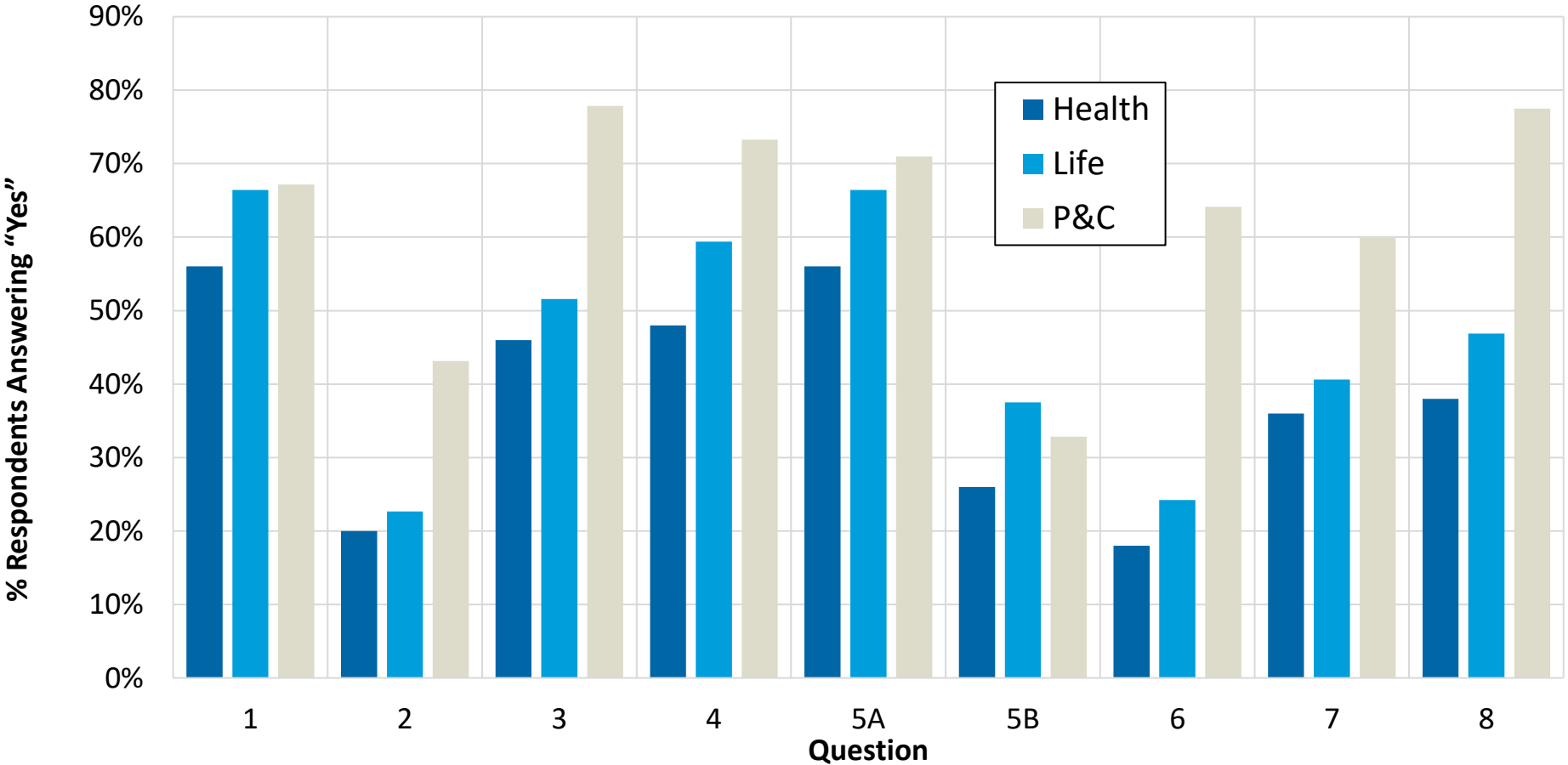


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# Academy Analysis of NAIC Survey Responses: “Yes”



**Questions**

1. Emissions Plan
2. Risk Management Policy
3. Process for Identifying Risks
4. Current or Anticipated Risks
5. Investment Policy & Strategy
6. Encourage Policyholders
7. Engage Key Constituencies
8. Actions to Manage Risks

- P&C companies answer “Yes” most frequently to most questions
- Health companies answer “Yes” least often for every question



# Academy Analysis of NAIC Survey Responses: “Yes” Interpreted with Caution

- “No” does not necessarily mean bad for climate risk
  - ▣ 31% of all companies responded “Yes” to “reviewed investment policy” and “No” to “changed investment policy.”
  - ▣ Typical comment: “[Our] investment strategy and risk management process address those [climate-related] risks and others.”
- “No” and “Yes” may not be that different:
  - ▣ Between 2018 and 2019, 259 responses changed from “No” to “Yes” or “Yes” to “No”; 35% were accompanied by identical text responses.



# QUANTITATIVE, QUALITATIVE ANALYSIS OF NARRATIVE RESPONSES



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# Academy Analysis of NAIC Survey Responses: Length of Response

## Median Length of Survey Response (# of Words)

	Health	Life	Property & Casualty
Smallest 25% of Companies	519	414	530
Middle 50% of Companies	450	555	720
Largest 25% of Companies	1,975	1,100	1,265

- Length of response is an imperfect indicator of attention to the questions asked.
- In all Lines of Business (LoBs), the largest companies file longer responses than small and midsize companies.
- The largest health companies file particularly lengthy responses.
- Midsize P&C companies file longer responses than midsize Health or Life companies.
- Size of business appears to be one driver for attention given to the survey, with the largest 25% of companies in each LoB providing the most robust responses.



# Academy Analysis of NAIC Survey Responses: Cluster Analysis of Companies' Use of Key Words or Phrases

- Most companies (80%) are in clusters where only three basic terms (“climate,” “risk,” and “change”) are mentioned frequently.
- A small proportion of the companies (8%) are in clusters where several terms (eight or more; adding to the basic terms words and phrases such as “climate change,” “management,” “policy” and “impact”) are mentioned frequently.
- Some companies (12%) are in clusters where a few terms beyond the basics are mentioned frequently.



# Words and Phrases Used Most Often by All Companies

Anticipated risks	Catastrophic losses	Climate change risk	Extreme weather events	Insurance	Investment strategy	Policy	Significant risk
Business	Change	Climate risk	Financial impact	Insurance industry	Life Insurance	Potential impact	Weather events
Business continuity	Change-related risks	Climate-related risks	Formal climate change policy	Investment	Loss	Potential losses	Weather-related events
Business continuity plans	Climate	Emerging risks	Identifying climate	Investment decisions	Management	Potential risks	
Business operations	Climate change	Environmental Impact	Impact	Investment management	Material Impact	Risk	
Catastrophic events	Climate change policy	Events	Including climate change	Investment policy	Material risk	Severe weather events	



# Academy Analysis of NAIC Survey Responses: Assessing Responses to Question #5

- Each of the eight questions requires closer analysis. We have begun with *Question #5*.
- *Question #5: Has the company considered the impact of climate change on its investment portfolio? Has it altered its investment strategy in response to these considerations?*
- *Question #5: Two Yes/No questions followed by text response, with six specific follow-up questions.*



# Academy Analysis of NAIC Survey Responses: Assessing Responses to Question #5

- Six, specific follow-up questions for Question #5:
  - ▣ *Does the company consider **regulatory-, physical-, litigation-, and competitiveness-related** climate risks, among others, when assessing investments?*
  - ▣ *Has the company considered the implications of climate change for all of its **investment classes**, e.g., equities, fixed income, infrastructure, real estate?*
  - ▣ *Does the insurer use a **shadow price** for carbon when considering investments in heavy emitting industries in markets where carbon is either currently regulated or is likely to be regulated in the future?*
  - ▣ *Does the insurer factor the physical risks of climate change (**water scarcity, extreme events, weather variability**) into security analysis or portfolio construction? If so, for what asset classes and issuers (corporate, sovereign, municipal)?*
  - ▣ *How does climate change rank compared to other **risk drivers**, given the insurer's asset liability matching strategy and investment duration?*
  - ▣ *Does the insurer have a system in place to manage **correlated climate risks** between its underwriting and investments?*
- Are companies responding to these questions?
  - ▣ **Only regulatory risk (12%) appears to have been addressed by more than 10% of companies.**





# ANALYSIS OF 2019 TCFD RESPONDENTS



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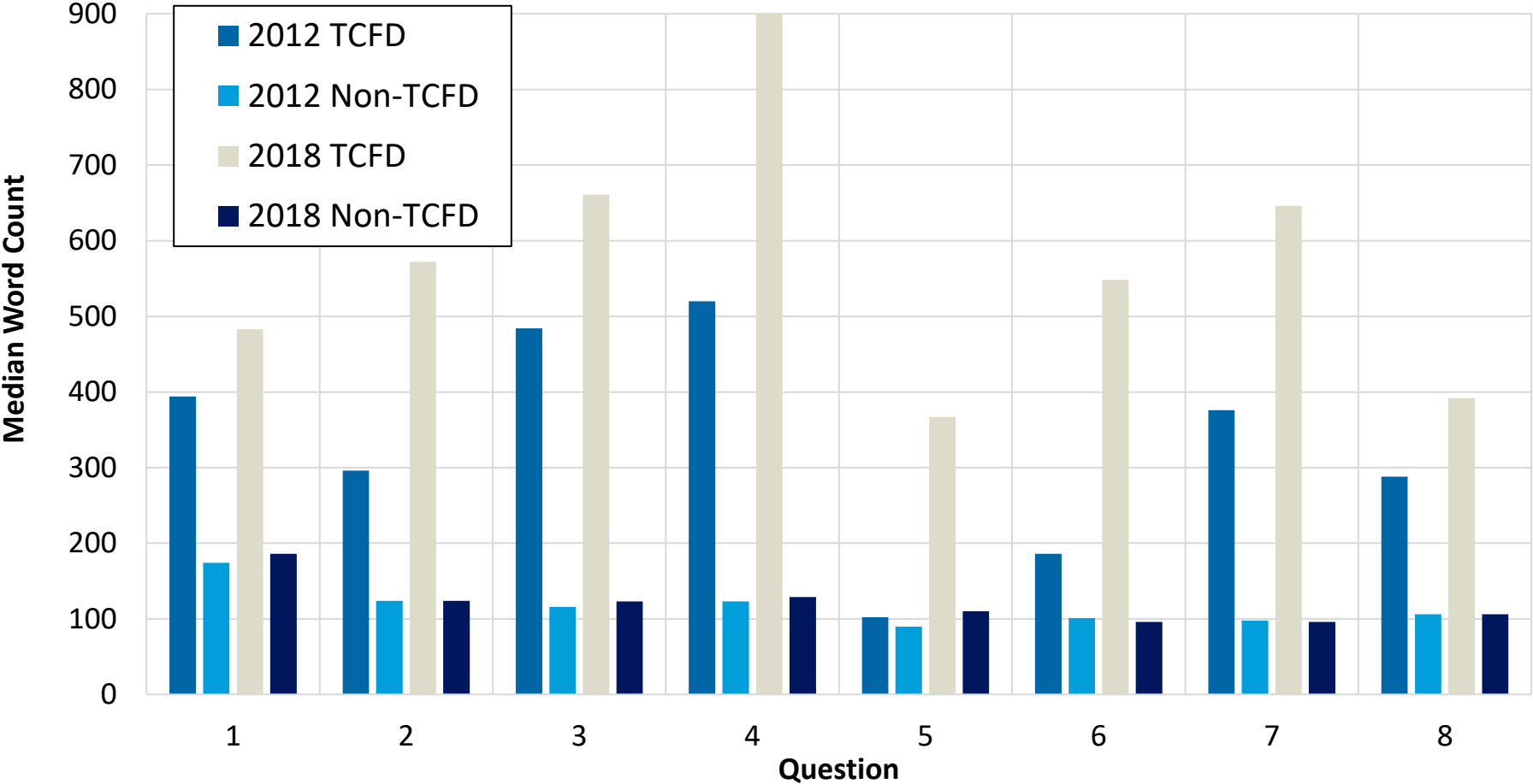
# Size of Companies, TCFD vs Non-TCFD Respondents

TCFD Companies			
Line of Business	Entities	Unique Responses	Median Premiums
Health	0	0	N/A
Life	10	3	\$4.6 billion
Property & Casualty	71	5	\$1.2 billion
Total	81	8	\$2.5 billion
NAIC Survey Companies			
Line of Business	Entities	Unique Responses	Median Premiums
Health	140	50	\$2.9 billion
Life	289	128	\$0.7 billion
Property & Casualty	764	259	\$0.9 billion
Total	1,193	437	\$1.0 billion

- TCFD Respondents represent both Life and P&C, but not Health
- Life TCFD respondents are almost 7x as large as non-TCFD respondents
- P&C TCFD respondents are 33% larger than non-TCFD respondents



# Length of TCFD vs non-TCFD Respondent Responses to NAIC Survey

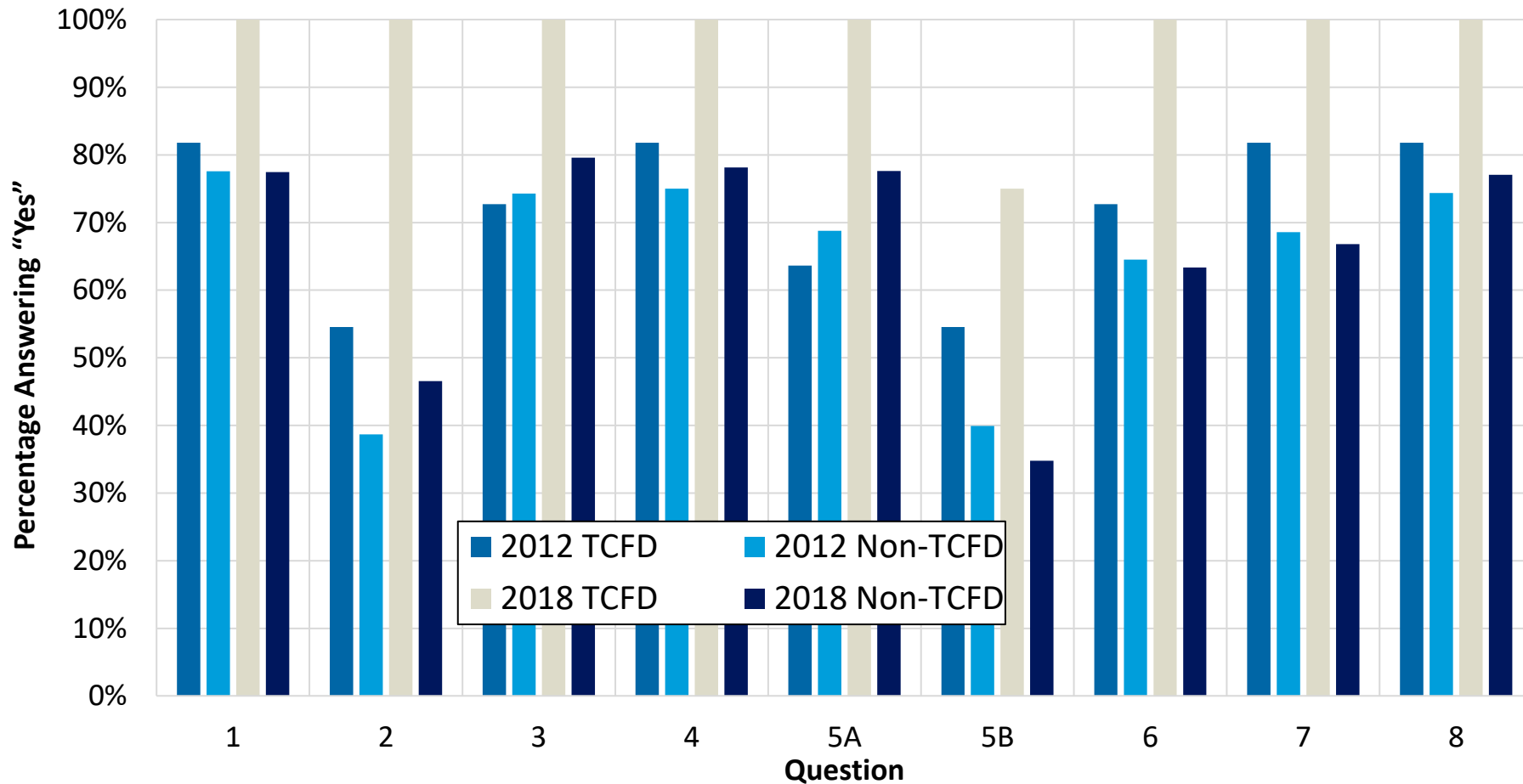


- Questions**
1. Emissions Plan
  2. Risk Management Policy
  3. Process for Identifying Risks
  4. Current or Anticipated Risks
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  6. Encourage Policyholders
  7. Engage Key Constituencies
  8. Actions to Manage Risks

- TCFD respondents were writing much more than non-TCFD respondents when they filed NAIC surveys.
- 2019 TCFD respondents wrote 4,811 words in their 2018 NAIC survey responses (at the median) while 2019 non-TCFD respondents wrote 690 words in their 2018 responses.



# TCFD vs non-TCFD Respondents Answering “Yes” to NAIC Survey



## Questions

1. Emissions Plan
2. Risk Management Policy
3. Process for Identifying Risks
4. Current or Anticipated Risks
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- 2019 TCFD respondents were more likely than non-TCFD respondents to answer Yes to all NAIC survey questions in 2018
- With only two exceptions, all 2019 TCFD respondent companies answered “Yes” to every question in 2018.



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# Summary of Conclusions from Phase 1

- Some evidence of inattention or confusion in responses to Y/N
- Certain Qs predominantly Y; others predominantly N
- Qualitative responses make clear that most companies in all LoBs provide narrow responses
- In each LoB, a small percentage of companies provide broad responses; this includes all of those companies now providing TCFD responses



# Moving towards Recommendations

- To improve climate disclosures, three steps:
  - ▣ Criteria to be considered in assessing changes
  - ▣ Options available
  - ▣ Questions which must be answered to assess options by criteria



# Criteria for Assessing Options

Criteria to be considered in deciding whether to change and/or replace the NAIC Climate Disclosure Survey:

- Gather meaningful information from all companies
  - Require useful information not currently required
  - Encourage meaningful responses from those companies currently responding in a de minimus fashion
- Minimize burden on companies
  - Different options/features might minimize burden for different categories of companies
- Analyze results to generate benchmarks, assess progress
  - Narrative responses provide insight but make comparison, benchmarking, and assessment of progress difficult
- Harmonizing disclosures with other countries
  - Harmonizing by following and/or by leading



# Options to Consider

- Modify the current NAIC survey
  - Add questions
  - Convert some existing suggested follow-up questions to Y/N questions
- Require TCFD
- Require CDP (Carbon Disclosure Project)
- Hybrid
  - For example, require modified current survey with option to submit TCFD or CDP



# Questions to Consider

- For those companies providing robust responses to the NAIC survey, what useful information are they not providing? Would they provide that information in response to TCFD or CDP?
- For those companies not currently providing robust responses, what reasons do they provide?
  - Do they refer to absence of climate risk for their businesses, to climate risk's mitigation by existing processes, and/or to general but not specific awareness?
  - Would they be encouraged to provide more robust responses by more yes/no, and/or multiple choice questions, and/or by more guidance on items to consider in responding, regardless of whether the questions are based on the NAIC survey, TCFD or CDP?



# Plans for Phase 2 Research: Beyond the Current Survey

- Beginning soon, examining two gaps:
  - ▣ Gap between most robust survey responses and the requirements of TCFD and/or CDP
  - ▣ Gap between most robust and less robust survey responses
- Assess different possible methods of encouraging more robust responses from most companies, including:
  - ▣ Careful construction and testing of questions
  - ▣ More guidance for preparers
  - ▣ More Y/N and/or multiple-choice questions
- Working toward results by summer 2021



# Thank You

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## Questions?

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