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Life Insurance AI/ML Survey Questions - Fillable Form

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Life Insurance AI/ML Survey

This document is a blueprint for the online survey. It may look a little different on the screen than in this document because of formatting differences between the online version and this document, but all the question content is the same. Appendix A contains a listing of the machine learning acronyms and their meanings that you will see in the survey. You should also use this document along with the "Survey Filing Guidance and Definitions" document which provides definitions and detailed instructions on how to fill out the survey. This document is purely the blueprint for the survey and may be less robust than the "Survey Filing Guidance and Definitions" document.

THIS INSTRUCTION IS VERY IMPORTANT!

The survey is designed so that different sections of the survey may be assigned to individuals with the subject matter knowledge to fill out sections of the survey relevant to them. The survey is designed in blocks for this specific reason. **Survey blocks 2 through 4 must be completed by the primary contact who received the survey link from the NAIC before sending the survey link to subject matter experts to complete their assigned sections.** The information and survey blocks 2 through 4, are basic company and product information. There is required information in survey blocks 2 through 4 that must be completed before the operational sections of the survey can be completed. When subject matter experts receive the link, they will be able to use the "Next Page" key to advance past survey blocks 2 through 4 and get to the table of contents for the remaining questions in the survey. The table of contents is discussed further below and appended as Appendix B.

It is important for you to keep a copy of all the data you entered into the survey in a separate source. At the end of the survey, you will be allowed to download a PDF version of your survey responses. However, some of the questions have a wide landscape format and will not completely print in the PDF document.

The rest of this document describes the content of the survey blocks.

Survey Question Sequencing – Survey Block 1

Please be advised survey questions are numbered using a "Block" question number scheme, Q[Survey Block Number].[Question Number Within Block]. Because there are dependencies among questions, meaning if you answer a question "Yes," you may see a dependent question that you would not see if you had answered the question "No." For "No" answers, a related dependent question may appear. Don't be alarmed if you do not see all the questions in a sequence. The dependencies affect which questions in a block sequence you will see. You should see all blocks of questions if you are currently using AI/ML in your life insurance operations.

Respondent Information – Survey Block 2

These are fill-in-the-blank questions.

1. NAIC Company Code _____
2. Company Name _____
3. Contact Name _____
4. Contact Title _____
5. Contact Phone Number _____
6. Contact Email Address _____
7. Comments _____

General Information on AI/ML Use – Survey Block 3

These are the screener questions. These questions determine how much of the operational and governance questions you need to complete. If you are NOT currently using AI/ML, then the only questions you are required to address are the “Planned to Use Questions.” If you have no immediate plans to use AI/ML, then you will be directed to the “Exploring to Use Questions.”

Current Use Question

1. Does your company currently use Artificial Intelligence as defined for this survey?
(Y/N) _____
2. Which reason best describes why you are not using Artificial Intelligence as described in this survey:
 - a. There's no compelling business reason at this time? (Y/N) _____
 - b. You're waiting for regulatory guidance? (Y/N) _____
 - c. There's a lack of resources and expertise? (Y/N) _____
 - d. There's lack of reliable data? (Y/N) _____
 - e. There's lack of associated security risk? (Y/N) _____
 - f. Reliance on legacy systems requiring IT, data and technology system upgrade before starting AI/ML initiatives? (Y/N) _____
 - g. Waiting on the availability of a third-party vendor product/service? (Y/N) _____
 - h. Risk is not commensurate with current strategy or appetite? (Y/N) _____
 - i. Is it due to another reason? (Y/N) _____

You will only see this question if you answered “No” to question 1.

3. Provide additional reasons, if any, for not using Artificial Intelligence as defined in this survey.

You will only see this question if you answered “No” to question 1.

4. Do you develop Artificial Intelligence (AI)/Machine Learning (ML) systems internally or use vendors, or both internally with input from vendors?
Select an option below.

- N/A
- Develop Internally
- Develop by a Third-Party
- Develop Internally with a Third-Party

You will only see this question if you answered “Yes” to question 1.

5. Additional Commentary (There is space to add additional comments.)

You will only see this question if you answered “Yes” to question 1.

Planned Use Questions

6. Does your company plan to use Artificial Intelligence as defined for this survey? (Y/N) _____

7. Do you plan to develop Artificial Intelligence (AI)/Machine Learning (ML) systems internally or use vendors, or both internally with input from vendors?

Select an option below.

- N/A
- Develop Internally
- Develop by a Third-Party
- Develop Internally with a Third-Party

This question appears if you answered “Yes” to Question 6

8. Additional Commentary (There is space to add additional comments.)
-

Exploring Use Questions

9. Is your company exploring the use of Artificial Intelligence as defined for this survey? (Y/N) _____

10. Do you plan to develop Artificial Intelligence (AI)/Machine Learning (ML) systems internally or use vendors, or both internally with input from vendors?

Select an option below.

- N/A
- Develop Internally
- Develop by a Third-Party
- Develop Internally with a Third-Party

You will only see this question if you answered “Yes” to question 9.

11. Additional Commentary (There is space to add additional comments.) You will only see this question if you answered “Yes” to question 9.
-

12. Indicate the implementation status or plan for each of the listed areas. Indicate N/A if you do not use AI/ML for the area and do not plan to use AI/ML for the area.

There are radio buttons to assist in selecting an option.

	NA	< 1 Year	1 - 3 Years	> 3 Years
Pricing				
Underwriting				
Marketing				
Risk Management				

(Space is provided to provide commentary for selections above)

13. Pricing Additional Commentary – Pricing

14. Underwriting Additional Commentary – Underwriting

15. Marketing Additional Commentary – Marketing

16. Risk Management Additional Commentary - Risk Management

17. Please list additional areas (up to 10) where you are using or may potentially use AI/ML.

Enter Additional Areas	N/A	< 1 Year	1 - 3 Years	> 3 Years

18. Additional Commentary

19. Are you using automated machine learning tools like DataRobot or Salesforce Einstein?
(Y/N) _____

20. Does your company track each contract issued using AI/ML vs. those that go through full underwriting? (Y/N) _____

Product Matrix AI/ML Use Table – Survey Block 4

1. Indicate whether you use AI/ML to underwrite or price each of the products below. (Y/N)
 - Term Life
 - Whole Life
 - Universal or Variable Life

If you answer yes to any one of the above, additional questions as indicated in Section 5, 6, and 7 below will appear. If you answer “No” to each of the above, you will be taken to the end of the survey.

Product Matrix - Term Life

These questions will only appear if you answered “Yes” you use AI/ML to underwrite or price term insurance.

2. For which term insurance products do you use artificial intelligence to for underwriting or pricing?

Select all that apply.

- Level Term
- Convertible Term
- Annual Term
- Decreasing Term
- Group Term
- Other (Enter product type) _____

3. What is the minimum age that you will underwrite Term Life using AI?

Either select No Minimum or Enter Age,

- No Minimum
- Enter Age _____

4. What is the maximum age that you will underwrite Term Life using AI?

Either select No Maximum or Enter Age

- No Maximum
- Enter Age _____

5. What is the minimum face amount that you will underwrite Term Life using AI?

Either select No Minimum or Enter Minimum Face Amount.

- No Minimum
- Enter Minimum Face Value Amount (\$000) _____

6. What is the maximum face amount that you will underwrite Term Life using AI?

Either select No Maximum or Enter Maximum Face Amount

- No Maximum
- Enter Maximum Face Value Amount (\$000) _____

Product Matrix - Whole Life

These questions will only appear if you answered “Yes” you use AI/ML to underwrite or price whole life insurance.

7. For which Whole Life insurance products do you use artificial intelligence to for underwriting or pricing?

Select all that apply

- Single Premium
- Simplified Issue
- Guaranteed Issue
- Periodic Premium
- Other (Enter product type) _____

8. What is the minimum age that you will underwrite Whole Life using AI?

- No Minimum
- Enter Age _____

9. What is the maximum age that you will underwrite Whole Life using AI?

- No Maximum
- Enter Age _____

10. What is the minimum face amount that you will underwrite Whole Life using AI?

- No Minimum
- Enter Minimum Face Value Amount (\$000) _____

11. What is the maximum face amount that you will underwrite Whole Life using AI?

- No Maximum
- Enter Maximum Face Value Amount (\$000) _____

Product Matrix - Variable Life

These questions will only appear if you answered “Yes” you use AI/ML to underwrite or price variable life insurance.

12. For which Variable Life insurance products do you use artificial intelligence to for underwriting or pricing?

Select all that apply.

- Variable Life
- Variable Universal Life
- Other (Enter product type) _____

13. What is the minimum age that you will underwrite Variable Life using AI?

- No Minimum
- Enter Age _____

14. What is the maximum age that you will underwrite Variable Life using AI?

- No Maximum
- Enter Age _____

15. What is the minimum face amount that you will underwrite Variable Life using AI?

- No Minimum
- Enter Minimum Face Value Amount (\$000) _____

16. What is the maximum face amount that you will underwrite Variable Life using AI?

- No Maximum
- Enter Maximum Face Value Amount (\$000) _____

AI/ML Definitions and Taxonomy – Survey Block 5

This block does not contain any questions, only definitions and the ML Taxonomy.

Definition of Artificial Intelligence/Machine Learning for This Survey – Applicable to All Sections

For purposes of this survey, AI is defined as models that can simulate learning in performing tasks. ML is a subset of algorithms that facilitate learning without being explicitly programmed to achieve a predetermined result. Models that are considered AI and built using ML include robotics, natural language processing, and sentiment analysis.

Standard features of AI systems adopted for purposes of this survey include:

- Systems that adapt and adjust to new data and experiences without manual human intervention.
- Systems that arrive at results for which the outcomes and the stepwise approach toward the outcomes were not configured in advance by a human programmer.
- Systems that dynamically respond to conditions in the external environment without the specific nature of such responses being known in advance to the designers of the systems.
- Systems that use deep-learning neural network algorithms.
- Systems that learn under a supervised, semi-supervised, unsupervised, or reinforcement learning style.
- Systems that engage in automatic speech recognition, facial recognition, image recognition, text recognition, natural language processing, generation of customer-specific recommendations, automated customer communications (e.g., chatbots with non-preprogrammed prompts), or any other approach that does not require either preprogramming or human intervention in every instance of an action or decision.
- Systems that automatically generate adaptive responses based on interactions with a consumer or third party.
- Systems that determine which data elements to rely upon, in a non-preprogrammed fashion, among various possible alternatives.
- Generalized linear modeling (GLM) or generalized additive modeling (GAM) are considered ML.

See the ML Taxonomy below for an expanded list of ML techniques.

Standard features of AI systems adopted for purposes of this survey exclude:

1. Scorecards that deterministically map consumer or other risk characteristics to treatments or decisions.
2. Tables of point or factor assignments in risk classes.
3. Deterministic “phone trees” that navigate consumers through prerecorded voice prompts.

Other definitions for purpose of this survey:

1. Automated Decision-Making: A process of making a decision by automated means with little to no human involvement.
2. Automated Machine Learning: Also referred to as automated ML or AutoML, is the process of automating machine learning functions such that little computer programming language development is required on the part of the user.

3. Vendor: A party usually external to the organization that provides third-party data or AI/ML models that are used by the insurance organization.

See Appendix A for ML Taxonomy.

The Table of Contents – No Survey Block Number

The table of contents is navigational and allows respondents to jump to different parts of the survey. This feature is very useful for assigning sections of the survey to different subject matter experts to fill out. It will appear after the product matrix questions. It is important that the primary contact for the company has complete survey blocks 1 through 4 before sending the survey link to assignees to complete their sections. The elements of the table of contents are delineated below.

Use this TOC to jump around in the survey.

- AI/ML Definitions & ML Taxonomy
- Pricing & Underwriting - General Survey Instructions
- Pricing and Underwriting - Pricing Assumptions
- Pricing and Underwriting - Reduced Time to Issue
- Specialty Insurance Products for Certain Conditions, such as Diabetes
- Pricing and Underwriting - Automated Approval/Automated Denial
- Input into Non-Automated Approval Decision/Non-automated Denial Decision
- Pricing and Underwriting - Underwriting Risk Class
- Pricing and Underwriting - Other Underwriting-Related Functions
- Pricing & Underwriting Data Use
- Marketing General Instructions
- Marketing - Target Online Advertising
- Marketing - Identification of Recipients of Mail or Phone Advertising
- Marketing - Provision of Offers to Existing Customers
- Marketing - Identification of Potential Customer Groups
- Marketing - Demand Modeling
- Marketing - Direct Online Sales
- Marketing - Other Marketing-Related Functions
- Marketing Data Use
- Risk Management General Instructions
- Risk Management - Wearable Devices
- Risk Management - Wellness Initiatives
- Risk Management - Discount Medical Programs
- Risk Management - Technology to Detect Smoking
- Risk Management - Disease Detection
- Risk Management - Other Risk Management Functions
- Risk Management Data Use
- AI Governance - NAIC AI Principles Compliance
- AI Governance - Accountability for Data Algorithms' Compliance with Laws.
- AI Governance - Accountability for Data Algorithms' Intended Impacts
- AI Governance - Accountability for Data Algorithms' Unintended Impacts
- AI Governance - Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination
- AI Governance - Ensure Transparency With Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data

- AI Governance - AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections
- AI Governance - Guidance from Other Standards
- AI Governance - Consumer Data Disclosures
- AI Governance - non-FCRA Data
- End of Survey

Pricing & Underwriting - General Survey Instructions – Survey Block 6

This section of the survey asks you to discuss the AI/ML techniques you deploy in select pricing and underwriting functions. The functions are:

1. Setting Pricing Assumptions
2. Reduce time to issue
3. Specialty Insurance Products for Certain Conditions, such as Diabetes
4. Automated Approval/Automated Denial
5. Input into Non-Automated Approval Decision/Non-automated Denial Decision
6. Underwriting Risk Class
7. Other Underwriting-Related Functions

Following these sections, the survey asks you to identify the vendors you engage to supply data for certain data types. The data types are:

1. Credit-Based Insurance Score
2. Financial Credit Score
3. Other Type of "Non-Credit" Score
4. Public Records
5. Demographic
6. Telematics Type Data
7. Driving Behavior
8. Biometrics
9. Medical
10. Online Media
11. Other: Non-Traditional Data Elements

The supplementary questions that follow should be answered in respect of each of the data types above.

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			
	Option 1, 2, 3 or 4			

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1

This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
_____				_____
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_____				_____

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
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_____				_____

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

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This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
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The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

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This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
_____				_____
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The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- Automation (No human intervention on execution)
- Augmentation (Model advises human who makes decision - model suggests answer)
- Support (Model provides information but does not suggest decision or action)
- Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
_____				_____
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_____				_____
_____				_____
_____				_____

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above,

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
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This question appears if you answered “Yes” to Question 1.

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	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
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_____				_____

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 – Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

Pricing & Underwriting Data Use – Survey Block 14

- Does your company use the following data elements WITHIN AN AI/ML SYSTEM - Respond Yes or No to each Data Element Type

Select the appropriate radio button for each data type and then indicate if data source is Internal, External, or Both

	Yes	No	If yes, then indicate if data source is Internal, External, or Both
Credit Based Insurance Score			_____
Financial Credit Score			_____
Other Type of Non-Credit "Score"			_____
Public Records			_____
Demographic			_____
Telematics Type Data			_____
Driving Behavior			_____
Biometrics			_____
Medical			_____
Online Media			_____
Other: Non-Traditional Data Elements			_____

The three options are:

- Internal
- External
- Both

- Please provide examples of "other" non-traditional data elements not named above, if any. Enter "None" if there are none. (Enter in space provided)

- Additional Commentary (Enter in space provided)

Marketing General Instructions – Survey Block 15

This section of the survey asks you to discuss the AI/ML techniques you deploy in select marketing functions. The functions are:

1. Targeted Online Advertising
2. Identification of Recipients of Mail or Phone Advertising
3. Provision of Offers to Existing Customers
4. Identification of Potential Customer Groups
5. Demand Modeling
6. Direct Online Sales
7. Other Marketing-Related Functions

Following these sections, the survey asks you to identify the vendors you engage to supply data for certain data types. The data types are:

1. Credit-Based Insurance Score
2. Financial Credit Score
3. Other Type of "Non-Credit" Score
4. Public Records
5. Demographic
6. Telematics Type Data
7. Driving Behavior
8. Biometrics
9. Medical
10. Online Media
11. Other: Non-Traditional Data Elements

The supplementary questions that follow should be answered in respect of each of the data types above.

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- Automation (No human intervention on execution)
- Augmentation (Model advises human who makes decision - model suggests answer)
- Support (Model provides information but does not suggest decision or action)
- Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2- Augmentation (Model advises human who makes decision - model suggests answer)
- 4 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

Marketing Data Use – Survey Block 23

- Does your company use the following data elements WITHIN AN AI/ML SYSTEM - Respond Yes or No to each Data Element Type

If yes to 1, select the appropriate radio button for each data type and then indicate if data source is Internal, External, or Both

	Yes	No	If yes, then indicate if data source is Internal, External, or Both
Credit Based Insurance Score			_____
Financial Credit Score			_____
Other Type of Non-Credit "Score"			_____
Public Records			_____
Demographic			_____
Telematics Type Data			_____
Driving Behavior			_____
Biometrics			_____
Medical			_____
Online Media			_____
Other: Non-Traditional Data Elements			_____

The three options are:

- Internal
- External
- Both

- Please provide examples of "other" non-traditional data elements not named above, if any. Enter "None" if there are none. (Enter in space provided.)

- Additional Commentary (Enter in space provided.)

5. Additional Comments

6. Supplemental Question

Enter Responses in Spaces Provided	How do you determine the data elements are accurate and reliable?
Credit Based Insurance Score	_____
Financial Credit Score	_____
Other Type of Non-Credit "Score"	_____
Public Records	_____
Demographic	_____
Telematics Type Data	_____
Driving Behavior	_____
Biometrics	_____
Medical	_____
Online Media	_____
Other: Non-Traditional Data Elements	_____

Risk Management General Instructions – Survey Block 24

This section of the survey asks you to discuss the AI/ML techniques you deploy in select risk management functions. The functions are:

1. Wearable Devices
2. Wellness Initiatives
3. Discount Medical Programs
4. Technology to Detect Smoking
5. Disease Detection
6. Other Risk Management Functions

Following these sections, the survey asks you to identify the vendors you engage to supply data for certain data types. The data types are:

1. Credit-Based Insurance Score
2. Financial Credit Score
3. Other Type of "Non-Credit" Score
4. Public Records
5. Demographic
6. Telematics Type Data
7. Driving Behavior
8. Biometrics
9. Medical
10. Online Media
11. Other: Non-Traditional Data Elements

The supplementary questions that follow should be answered in respect of each of the data types above.

This is a continuation of the columns for the table above.

	Developed Internally, by a Third-party or Both			If Developed by a Third-party, then list the Third-party
	Internally	Third-Party	Both	
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____
_____				_____

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
	Option 1, 2, 3 or 4 _____			
	Option 1, 2, 3 or 4 _____			
	Option 1, 2, 3 or 4 _____			
	Option 1, 2, 3 or 4 _____			
	Option 1, 2, 3 or 4 _____			
	Option 1, 2, 3 or 4 _____			
	Option 1, 2, 3 or 4 _____			
	Option 1, 2, 3 or 4 _____			
	Option 1, 2, 3 or 4 _____			

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- Automation (No human intervention on execution)
- Augmentation (Model advises human who makes decision - model suggests answer)
- Support (Model provides information but does not suggest decision or action)
- Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

The options are: 1) Developed Internally, 2) Developed by a Third-Party, and 3) Developed Internally & by a Third-Party.

This is a continuation of the columns for the table above.

	Indicate the Level of Decisions Influenced by AI/ML (anticipated or already implemented)	Is Model Governance in Place?		Additional Comments
		Yes	No	
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____
_____	Option 1, 2, 3 or 4 _____			_____

The four options are:

- 1 - Automation (No human intervention on execution)
- 2 - Augmentation (Model advises human who makes decision - model suggests answer)
- 3 - Support (Model provides information but does not suggest decision or action)
- 4 - Other

This question appears if you answered “Yes” to Question 1.

4. If more than 10 AI/ML models are used, please list their names here:

This question appears if you answered “Yes” to Question 1.

Risk Management Data Use – Survey Block 31

1. Does your company use the following data elements WITHIN AN AI/ML SYSTEM? - Respond Yes or No to each Data Element Type

If yes to 1, select the appropriate radio button for each data type and then indicate if data source is Internal, External, or Both

Select Yes or No	Yes	No	If yes, then indicate if data source is Internal, External, or Both
Credit Based Insurance Score			_____
Financial Credit Score			_____
Other Type of Non-Credit "Score"			_____
Public Records			_____
Demographic			_____
Telematics Type Data			_____
Driving Behavior			_____
Biometrics			_____
Medical			_____
Online Media			_____
Other: Non-Traditional Data Elements			_____

The three options are:

- Internal
- External
- Both

2. Please provide examples of "other" non-traditional data elements not named above, if any. Enter "None" if there are none. (Enter in space provided)

3. Additional Commentary (Enter in space provided)

4. List the name of each external data vendor who provides data in each category below used in your AI/ML models.

5. Supplemental Question

Enter Responses in Spaces Provided	How do you determine the data elements are accurate and reliable?
Credit Based Insurance Score	_____
Financial Credit Score	_____
Other Type of Non-Credit "Score"	_____
Public Records	_____
Demographic	_____
Telematics Type Data	_____
Driving Behavior	_____
Biometrics	_____
Medical	_____
Online Media	_____
Other: Non-Traditional Data Elements	_____

AI Governance - NAIC AI Principles Compliance – Survey Block 32

1. If you are using data, scores and/or AI/ML models aggregated or developed by a third-party, do those contracts include any conditions that would limit disclosure or otherwise limit transparency to regulators.

Select Yes or No	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No

2. If model governance is in place, please check (Yes/No) if the following areas are documented in your governance program. Refer to the NAIC AI Principles for a description of each of the five NAIC AI principles reflected below and the Survey Guidance document more information regarding completing this question. PLEASE NOTE: It is expected for the governance levels and maturity to be commensurate with the maturity level and risk associated with the program.

Select Yes or No	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Fair and Ethical						
Accountable						
Compliant						
Transparent						
Secure, Safe and Robusto						

AI Governance - Accountability for Data Algorithms' Compliance with Laws - Survey Block 33

1. Have you adopted practices with respect to Accountability for Data Algorithms' Compliance with Laws for each operational area below?

	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Select Yes or No						
Accountability for Data Algorithms' Compliance with Laws.						

The next three questions will only display if "Yes" is selected companion areas above.

2. Briefly describe your practices with respect to Accountability for Data Algorithms' Compliance with Laws in Pricing and Underwriting.

3. Briefly describe your practices with respect to Accountability for Data Algorithms' Compliance with Laws in Marketing.

4. Briefly describe your practices with respect to Accountability for Data Algorithms' Compliance with Laws in Risk Management.

AI Governance - Accountability for Data Algorithms' Intended Impacts
Survey Block 34

1. Have you adopted practices with respect to Accountability for Data Algorithms' Intended Impacts for each operational area below?

Select Yes or No	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Accountability for Data Algorithms' Unintended Impacts						

The next three questions will only display if "Yes" is selected companion areas above.

2. Briefly describe your practices with respect to Accountability for Data Algorithms' Intended Impacts in Pricing and Underwriting.

3. Briefly describe your practices with respect to Accountability for Data Algorithms' Intended Impacts in Marketing.

4. Briefly describe your practices with respect to Accountability for Data Algorithms' Intended Impacts in Risk Management.

AI Governance - Accountability for Data Algorithms' Unintended Impacts
 Survey Block 35

1. Have you adopted practices with respect to Accountability for Data Algorithms' Unintended Impacts for each operational area below?

	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Select Yes or No						
Accountability for Data Algorithms' Unintended Impacts						

The next three questions will only display if "Yes" is selected companion areas above.

2. Briefly describe your practices with respect to Accountability for Data Algorithms' Unintended Impacts in Pricing and Underwriting.

3. Briefly describe your practices with respect to Accountability for Data Algorithms' Unintended Impacts in Marketing.

4. Briefly describe your practices with respect to Accountability for Data Algorithms' Unintended Impacts in Risk Management.

AI Governance - Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination – Survey Block 36

1. Have you adopted practices with respect to Accountability for Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination for each operational area below?

Select Yes or No	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Accountability for Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination						

The next three questions will only display if “Yes” is selected companion areas above.

2. Briefly describe your practices with respect to Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination in Pricing and Underwriting.

3. Briefly describe your practices with respect to Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination in Marketing.

4. Briefly describe your practices with respect to Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination in Risk Management.

AI Governance - Ensure Transparency with Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data – Survey Block 37

1. Have you adopted practices with respect to Ensuring Transparency with Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data for each operational area below?

Select Yes or No	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Ensuring Transparency with Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data						

The next three questions will only display if “Yes” is selected companion areas above.

Briefly describe your practices with respect to Ensure Transparency With Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data in Pricing and Underwriting.

2. Briefly describe your practices with respect to Ensure Transparency with Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data in Marketing.

3. Briefly describe your practices with respect to Ensure Transparency with Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data in Risk Management.

AI Governance - AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections – Survey Block 38

1. Have you adopted practices with respect to AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections for each operational area below?

Select Yes or No	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections for each operational area below.						

The next three questions will only display if “Yes” is selected companion areas above.

2. Briefly describe your practices with respect to AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections in Pricing and Underwriting.

3. Briefly describe your practices with respect to AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections in Marketing.

4. Briefly describe your practices with respect to AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections in Risk Management.

AI Governance - Guidance from Other Standards – Survey Block 39

	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Select Yes or No						
1. Do you follow some other existing standards or guidance in regard to governance framework?						
2. If yes, were the existing standards or guidance developed internally, provided by a third-party, or a hybrid of internally developed and third-party components?	_____		_____		_____	

The three options for the radio button are:

- Developed internally.
- Provided by a third-party
- A hybrid of internally developed and third-party components

3. If any standards or guidance are provided by a third party, please provide the following:

	Pricing & Underwriting	Marketing	Risk Management
Enter your response in space			
Name of the Third-Party	_____	_____	_____
Components of the Governance Framework provided by Third-Party	_____	_____	_____

AI Governance - Consumer Data Disclosures – Survey Block 40

Enter your response in space	Pricing & Underwriting	Marketing	Risk Management
1. What is the process, if any, that your company has for providing consumers with the data elements used in consumer impact models?	_____	_____	_____
2. What do you do to ensure compliance with regulatory frameworks, such as Model 880 and the Unfair Trade Practices Act, when using non-FCRA data?	_____	_____	_____

AI Governance - Non-FCRA Data – Survey Block 41

1. Non-FCRA Data Disclosure

	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Select Yes or No						
Are the consumers made aware of what non-FCRA data is collected, when it is used, and how it is used?						

The next three survey requests will only display if “Yes” is selected companion areas above.

- 2. Explain Process for Pricing & Underwriting
- 3. Explain Process for Marketing
- 4. Explain Process for Risk Management

5. FCRA Data

	Pricing & Underwriting		Marketing		Risk Management	
	Yes	No	Yes	No	Yes	No
Select Yes or No						
If you are using data not included in FCRA, do consumers have an opportunity to correct?						

6. AI/ML Decision Making Influence

	Pricing & Underwriting		Marketing		Risk Management	
Enter your response in space						
How does human intelligence influence the decision making based on the AI/ML results? How much human intervention is involved?	_____		_____		_____	
How are results monitored?	_____		_____		_____	

- 7. Do you have a process for applicants for life insurance to contest an adverse underwriting decision? (Y/N) _____
- 8. Do you keep a log of the number of contested underwriting decisions? (Y/N) _____

Appendix A: Machine Learning Taxonomy

The machine learning (ML) taxonomy provides a listing of ML algorithms that fall under each category that makes up an ML taxonomy. The list is representative but not exhaustive. This is one of many existing ML taxonomies. Some include more or fewer techniques than depicted below, more out of convenience than structure.

Machine Learning Taxonomy Techniques

Generally, the most common techniques are reflected in each category below. If the technique you are using is not represented by one of the categories below, select the other category and enter the ML type in the indicated column. You may enter more than one ML type separated by commas. Each category below is represented in the spreadsheet by the abbreviations in parentheses.

1. Deep Learning (DL)

- a. Deep Boltzmann Machine (DBM)
- b. Deep Belief Network (DBN)
- c. Convolutional Neural Network (CNN)
- d. Stacked Auto-Encoder

2. Ensemble (ENS)

- a. Random Forest
- b. Gradient Boosting Machine (GBM)
- c. Bootstrapped Aggregation (Bagging)
- d. AdaBoost
- e. Stacked Generalization (Blending)
- f. Gradient Boosted Regression Trees

3. Neural Networks (NN)

- a. Radial Basis Function Network (RBFN)
- b. Perceptron
- c. Back-Propagation
- d. Hopfield Network

4. Regularization (REG)

- a. Ridge Regression
- b. Least Absolute Shrinkage and Selection Operator (LASSO)
- c. Elastic Net
- d. Least Angle Regression (LARS)

5. Rule System (RS)

- a. Cubist
- b. One Rule (OneR)
- c. Zero Rule (ZeroR)
- d. Repeated Incremental Pruning to Produce Error Reduction (RIPPER)

6. Regression (REG)

- a. Linear Regression
- b. Ordinary Least Squares Regression (OLSR)
- c. Stepwise Regression

- d. Multivariate Adaptive Regression Splines (MARS)
- e. Locally Estimated Scatterplot Smoothing (LOESS)
- f. Logistic Regression

7. Bayesian (BAY)

- a. Naïve Bayes
- b. Averaged One-Dependence Estimators (AODE)
- c. Bayesian Belief Network (BBN)
- d. Gaussian Naïve Bayes
- e. Multinomial Naïve Bayes
- f. Bayesian Network (BN)

8. Decision Tree (DT)

- a. Classification and Regression Tree (CART)
- b. Iterative Dichotomiser (ID3)
- c. C4.5
- d. C5.0
- e. Chi-Square Automatic Interaction Detection (CHAID)
- f. Decision Stump
- g. Conditional Decision Trees
- h. M5

9. Dimensionality Reduction (DR)

- a. Principal Component Analysis (PCA)
- b. Partial Least Squares Regression (PLSR)
- c. Sammon Mapping
- d. Multidimensional Scaling (MDS)
- e. Project Pursuit
- f. Principal Component Regression (PCR)
- g. Partial Least Squares Discriminant Analysis
- h. Mixture Discriminant Analysis (MDA)
- i. Quadratic Discriminant Analysis (QDA)
- j. Regularized Discriminant Analysis (RDA)
- k. Flexible Discriminate Analysis (FDA)
- l. Linear Discriminant Analysis (LDA)

10. Instance-Based (IB)

- a. k-Nearest Neighbor (KNN)
- b. Learning Vector Quantization (LVQ)
- c. Self-Organizing Map (SOM)
- d. Locally Weighted Learning (LWL)

11. Clustering (CLU)

- a. k-Means
- b. k-Medians
- c. Expectation Maximization
- d. Hierarchical Clustering

12. Cox Regression (COX)

Appendix B: Table of Contents

The Table of Contents

The table of contents is navigational and allows respondents to jump to different parts of the survey. This feature is very useful for assigning sections of the survey to different subject matter experts to fill out. It will appear after the product matrix questions. It is important that the primary contact for the company complete the prior sections 1 through 7 as depicted above before sending the survey link to assignees to complete their sections. The elements of the table of contents are delineated below.

Use this TOC to jump around in the survey.

- AI/ML Definitions & ML Taxonomy
- Pricing & Underwriting - General Survey Instructions
- Pricing and Underwriting - Pricing Assumptions
- Pricing and Underwriting - Reduced Time to Issue
- Specialty Insurance Products for Certain Conditions, such as Diabetes
- Pricing and Underwriting - Automated Approval/Automated Denial
- Input into Non-Automated Approval Decision/Non-automated Denial Decision
- Pricing and Underwriting - Underwriting Risk Class
- Pricing and Underwriting - Other Underwriting-Related Functions
- Pricing & Underwriting Data Use
- Marketing General Instructions
- Marketing - Target Online Advertising
- Marketing - Identification of Recipients of Mail or Phone Advertising
- Marketing - Provision of Offers to Existing Customers
- Marketing - Identification of Potential Customer Groups
- Marketing - Demand Modeling
- Marketing - Direct Online Sales
- Marketing - Other Marketing-Related Functions
- Marketing Data Use
- Risk Management General Instructions
- Risk Management - Wearable Devices
- Risk Management - Wellness Initiatives
- Risk Management - Discount Medical Programs
- Risk Management - Technology to Detect Smoking
- Risk Management - Disease Detection
- Risk Management - Other Risk Management Functions
- Risk Management Data Use
- AI Governance - NAIC AI Principles Compliance
- AI Governance - Accountability for Data Algorithms' Compliance with Laws.
- AI Governance - Accountability for Data Algorithms' Intended Impacts
- AI Governance - Accountability for Data Algorithms' Unintended Impacts
- AI Governance - Appropriate Resources and Knowledge Involved to Ensure Compliance with Laws Including those Related to Unfair Discrimination

- AI Governance - Ensure Transparency with Appropriate Disclosures Including Notice to Consumers Specific to Data Being Used and Methods for Appeal and Recourse Related to Inaccurate Data
- AI Governance - AI Systems are Secure, Safe and Robust including Decision Traceability and Security and Privacy Risk Protections
- AI Governance - Guidance from Other Standards
- AI Governance - Consumer Data Disclosures
- AI Governance - non-FCRA Data
- End of Survey