**ARTIFICIAL INTELLIGENCE/MACHINE LEARNING
LIFE INSURANCE SURVEY**

FILING GUIDANCE AND DATA DEFINITIONS

This document provides survey filing guidance and data definitions. It is organized by survey sections.

This survey aims to aid regulators in understanding what artificial intelligence/machine learning (AI/ML) techniques life insurers are using and where in their insurance operations they are using them. This survey does not aim to have insurers provide details of trade secret components of the various techniques they are implementing. This Life Insurance survey is restricted to interests in three operational areas: 1) pricing and underwriting; 2) marketing; and 3) risk management. Within each operational area, interest is restricted to a limited number of use cases. It is expected that leaders and data scientists in these operational areas will have significant involvement in responding to the survey items.

Any company licensed to write life insurance in one of the 14 participating states (Colorado, Connecticut, Illinois, Iowa, Louisiana, Minnesota, Nebraska, North Dakota, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, and Wisconsin) and meeting one or more of the criteria below is required to complete the survey.

Criteria for Selecting Participating Insurance Companies:

1. A selected InsurTech company.
2. A company with more than $250 million in premiums on all individual policies in 2021.
3. A term life insurance writer that has issued policies on more than 10,000 lives in 2021.
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atednformation will be issued, but the survey is being conducted pursuant to
, and as such will be held confidential by the states and the NAIC.

The NAIC has contracted with Qualtrics, LLC, a secure third-party survey platform to collec p# -# Fè¨©þ œ ¬¼ "dr(

Certification; and FedRAMP Authorization. All survey responses will be retained in data centers located in the United States, and NAIC staff's access to the survey responses will be strictly limited to those granted administrative authority.

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.

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Standard features of AI systems adopted for purposes of this survey include:
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It is important for the primary company contact for the survey to complete the Respondent Information, General Information and Underwriting and Pricing Product Matrix sections before forwarding the survey link to those assigned to complete designated sections of the operational sections (Pricing and Underwriting, Marketing, Risk Management, and Governance) of the survey. The Respondent Information, General Information, and Underwriting and Pricing Product Matrix sections contain survey items that must be completed before the operational sections of the survey can be completed. A table of contents will appear after the questions in the Underwriting and Pricing Product Matrix section are completed. Once respondents get to the table of contents, they may jump to any section of the survey that has been assigned to them. It is possible to navigate back to the Respondent Information, General Information, and Underwriting and Pricing Product Matrix sections from the operational sections of the survey. The "Previous Page" and Next Page" buttons allow respondents to move freely between different sections of the survey as well. The table of contents is just a quicker way to get to a particular section of the survey. The table of contents discussion below goes into more detail regarding the navigational aspect of the table of contents. The sections of the table of contents are appended as Appendix B.

Section 1: Respondent Information

This section requests basic demographic information on the respondent, as depicted below.

Respondent Information
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

Comments are optional but are encouraged if<</MCID 14 >B0.004 f3beTw-0.86(e)06Td[a453 ph(m)20n7t5mIsfroEsponses(n)-0.

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2. Provide the implementation status of AI/ML in each of the operational areas identified above. The status options are:
   a. N/A
   b. < 1 Year
   c. 1–3 Years
   d. > 3 Years
3. List areas other than

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If only researching the "use" of an AI model for an operational area, it is understood a model may not have a name associated with it. If that is the case, the respondent should indicate "Not Yet Named" as the AI/ML model name and complete the remaining columns. If better information can be provided through a brief description of the model, as opposed to a model name, that is acceptable. However, if a third-party vendor has given its model a specific name, then that name should be provided.

For each named model, the survey asks the respondent to indicate whether a named model was developed internally, by a third party, or both.

If the named model was developed by a third party, the respondent must enter the name(s) of the third parties involved.

The survey next asks the respondent to indicate the level of decisions influenced by the named model. The options to choose from are:

1. Automation (no human intervention on execution)
2. Augmentation (model advises human who makes the decision; model suggests the answer)
3. Support (model provides information but does not suggest a decision or action)
4. Other

The respondent need not specify an option for the "Other" category.

The survey next asks whether there is a model governance structure in place for each named model. This response expected is either "Yes" or "No" for the named model.

within AI systems.

4. **Public Records**: Such as criminal convictions (excluding auto-related convictions), bankruptcy records, mortgage information, driving records, an officer in a skydiving club, etc.

5. **Demographic**: Age, gender, address, marital status, other non-behavioral attributes of a consumer or population attributes of an area; Education: Level of education, GPA; Stability: current employment, length of employment at prior employers, unemployment; Income: Annual income, income source; Occupation: Primary profession, service, or trade for which a person is paid.

6. **Telematics Type Data**

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The grid above only reflects the first three third-party data elements. The complete list of third-party data elements vendors are requested as follows:

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. Online Media
10. Other Nontraditional Elements

The respondent may further elaborate on any response in the "Additional Comments" text entry box below the grid. The respondent is not required to add additional commentary.

These are the end of the common sections for the three operational areas. Questions unique to each operational area are discussed in

manner that avoids harmful or unintended consequences and corrects and remediates for such consequences when they occur.

Accountable

AI actors should be accountable for ensuring that AI systems comply with these principles consistent with the actors' roles, within the appropriate context and evolving technologies. Any AI system should comply with legal requirements governing its use of data and algorithms during its phase of the insurance life cycle. Data supporting the final outcome of an AI application should be retained and be able to be produced in accordance with applicable insurance laws and regulations in each jurisdiction. AI actors should be responsible for any AI system's creation, implementation, and impacts, even if the impacts are unintended. AI actors should implement mechanisms and safeguards consistent with the degree and nature of the risks posed by AI to ensure all applicable laws and regulations are followed, including ongoing (human or otherwise) monitoring and, when appropriate, human intervention.

Compliant

AI actors must have the knowledge and resources to comply with all applicable insurance laws and regulations. AI actors must recognize that insurance is primarily regulated by the individual states and territories of the U.S., as well as by the federal government, and that AI systems must comply with the insurance laws and regulations within each jurisdiction. Compliance is required whether the violation is intentional or unintentional. Compliance with legal requirements is an ongoing process. Thus, any deployed AI system must be consistent with applicable laws and safeguards against outcomes that are either unfairly discriminatory or otherwise violate legal standards, including privacy and data security laws and regulations.

Transparent

To improve the public's confidence in AI, AI actors should commit to transparency and responsible disclosures regarding AI systems to relevant stakeholders. AI actors must be able to protect the confidentiality of proprietary algorithms, provided adherence to individual state law and regulations in all states where AI is deployed can be demonstrated. These proactive disclosures include revealing the data being used, the purpose of the data in the AI system and the consequences for all stakeholders.

Consistent with applicable laws and regulations, stakeholders (which includes regulators and consumers) should have a way to inquire about, review, and seek recourse for AI-driven insurance decisions. This information should be easy-to-understand and describe the factors that lead to the prediction, recommendation, or decision. This information may be presented differently and should be appropriate for applicable stakeholders.

Secure, Safe, and Robust

AI systems should be robust, secure, and safe throughout the entire life cycle so that in conditions of normal or reasonably foreseeable use, or adverse conditions, they can function in compliance with applicable laws and regulations. To this end, AI actors

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data algorithms' intended impacts or "No" if they do not have any practices in place using the radio buttons. If the respondent has practices in place, the respondent is expected to briefly describe those practices in the space provided.

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by a third party or a hybrid of an internal governance structure and a third party. The expected responses are "Yes" or "No" as indicated by the radio buttons.

10. **This is a follow-up question to number 9 above: 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 respondent is asked to select the appropriate radio button to respond to this