ACTUARIAL STANDARDS BOARD

• EXPOSURE DRAFT •

Proposed Revision of
Actuarial Standard
of Practice
No. 12

Risk Classification
(for All Practice Areas)

Comment Deadline:
May 1, 2024

Developed by the
Task Force to Revise ASOP No. 12 of the
General Committee of the
Actuarial Standards Board

Approved for Exposure by the
Actuarial Standards Board
September 2023

T A B L E O F C O N T E N T S

Transmittal Memorandum iv

STANDARD OF PRACTICE

Section 1. Purpose, Scope, Cross References, and Effective Date 1
- 1.1 Purpose 1
- 1.2 Scope 1
- 1.3 Cross References 1
- 1.4 Effective Date 1

Section 2. Definitions 2
- 2.1 Adverse Selection 2
- 2.2 Financial or Personal Security System 2
- 2.3 Risk Characteristics 2
- 2.4 Risk Class 2
- 2.5 Risk Classification Framework 2
- 2.6 Risk Measure 2
- 2.7 Risk Subject 2
- 2.8 Unintended Bias 2

Section 3. Analysis of Issues and Recommended Practices 2
- 3.1 Introduction 2
- 3.2 Considerations for Risk Classification 2
  - 3.2.1 Intended Purpose 3
  - 3.2.2 Data and Model 3
  - 3.2.3 Relationship of Risk Characteristics and the Risk Measures 3
  - 3.2.4 Multivariate Effects 3
  - 3.2.5 Effect of Adverse Selection 3
  - 3.2.6 Objectivity 3
  - 3.2.7 Practicality 4
  - 3.2.8 External Environment 4
  - 3.2.9 Effectiveness 4
- 3.3 Existing Risk Classification Frameworks 4
- 3.4 Potential for Unintended Bias 4
- 3.5 Protected Classes 4
- 3.6 Reliance on Information Provided by Another Party 5
- 3.7 Documentation 5

Section 4. Communications and Disclosures 5
- 4.1 Required Disclosures in an Actuarial Report 5
- 4.2 Additional Disclosures in an Actuarial Report 6
- 4.3 Confidential Information 6

APPENDIX

Appendix—Background and Current Practices	7
Background	7
Current Practices	8

<u>EXPOSURE DRAFT—September 2023</u>

September 2023

TO: Members of the American Academy of Actuaries and Other Persons Interested in Risk Classification (for All Practice Areas)

FROM: Actuarial Standards Board (ASB)

SUBJ: Proposed Revision of Actuarial Standard of Practice (ASOP) No. 12

This document contains the exposure draft of a proposed revision of ASOP No. 12, *Risk Classification (for All Practice Areas)*. Please review this exposure draft and give the ASB the benefit of your comments and suggestions. Each written comment letter or email received by the comment deadline will receive consideration by the drafting committee and the ASB.

The ASB appreciates comments and suggestions on all areas of this proposed standard. The ASB requests comments be provided using the Comments Template that can be found here and submitted electronically to **comments@actuary.org**. Include the phrase "ASOP No. 12 COMMENTS" in the subject line of your message. Also, please indicate in the template whether your comments are being submitted on your own behalf or on behalf of a company.

The ASB posts all signed comments received on its website to encourage transparency and dialogue. Comments received after the deadline may not be considered. Anonymous comments will not be considered by the ASB nor posted on the website. Comments will be posted in the order that they are received. The ASB disclaims any responsibility for the content of the comments, which are solely the responsibility of those who submit them.

For more information on the exposure process, please see the ASB Procedures Manual.

Deadline for receipt of comments: **May 1, 2024**

<u>History of the Standard</u>

In 1989, the Actuarial Standards Board adopted the original ASOP No. 12, then titled *Concerning Risk Classification*. The original ASOP No. 12 was developed as the need for more formal guidance on risk classification increased as the selection process became more complex and more subject to public scrutiny. The ASOP was updated in 2005 to reflect ongoing changes in actuarial work related to risk classification at that time. In light of the evolution in practice since 2005, the ASB believes it is appropriate to revise this standard in order to reflect current generally accepted actuarial practice.

Notable Changes from the Existing ASOP

A cumulative summary of the notable changes from the existing ASOP are summarized below. Notable changes do not include additional changes made to improve readability, clarity, or consistency.

1. Section 1.2, Scope, has been revised to expand the list of activities to which this standard applies. Other changes include moving most of the third paragraph to the Background section of the appendix.

2. The definitions for "advice," "credibility," "homogeneity," and "practical" have been removed. New definitions have been added for "risk measure" and "unintended bias." "Risk" has been changed to "risk subject" to clearly differentiate risk subjects from perils. "Risk classification system" has been changed to "risk classification framework" to clarify that risk classification systems refer broadly to frameworks or processes used for risk classification, not specifically to computer systems.

3. Section 3.2, Considerations in the Selection of Risk Characteristics, has been changed to Considerations for Risk Classification and now includes a list of nine considerations, most of which were pulled from other sections of the 2005 version.

4. Sections in 3.2 on causality, applicable law, industry practices, and business practices have been removed and a new section on multivariate effects has been added. The content from the section on causality is now incorporated into section 3.2.3, Relationship of Risk Characteristics and the Risk Measures. The content from the sections on applicable law, industry practices, and business practices is now covered in section 3.2.8, External Environment. The section on practicality has been revised to include a discussion of considerations related to homogeneity.

5. References throughout the document to expected outcomes, as in the former section 3.2.1, Relationship of Risk Characteristics and Expected Outcomes, have been changed to references to the risk measure. A brief discussion of rational explanation is now included in section 3.2.3, Relationship of Risk Characteristics and the Risk Measures.

6. New sections 3.2.2, Data and Model; 3.2.4, Multivariate Effects; 3.2.9, Effectiveness; 3.4, Potential for Unintended Bias; 3.5, Protected Classes; and 3.7, Documentation, have been added to the ASOP.

7. The previous section 3.3, Considerations in Establishing Risk Classes, and section 3.4, Testing the Risk Classification System, have been consolidated into section 3.3, Existing Risk Classification Frameworks. Most of the content remains but has been rearranged in sequence. The sections on credibility, practicality, reasonableness of results, and

quantitative analysis are no longer separate sections, but most of the content has been included in the revised version.

8. Section 4.1, Required Disclosures in an Actuarial Report, has been updated to reflect the above changes in the standard. Section 4.2, Additional Disclosures in an Actuarial Report, and section 4.3, Confidential Information, have been updated to reflect the current standard format.

The ASB thanks Sam Early for his contribution to the ASOP No. 12 Task Force. The ASB voted in September 2023 to approve this exposure draft.

The Actuarial Standards Board (ASB) sets standards for appropriate actuarial practice in the United States through the development and promulgation of Actuarial Standards of Practice (ASOPs). These ASOPs describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services.

<u>EXPOSURE DRAFT—September 2023</u>

PROPOSED REVISION OF ACTUARIAL STANDARD OF PRACTICE NO. 12

RISK CLASSIFICATION (FOR ALL PRACTICE AREAS)

STANDARD OF PRACTICE

Section 1. Purpose, Scope, Cross References, and Effective Date

1.1 Purpose—This actuarial standard of practice (ASOP or standard) provides guidance to actuaries when performing actuarial services with respect to risk classification.

1.2 Scope—This standard applies to actuaries when performing actuarial services with respect to designing, developing, selecting, modifying, reviewing, evaluating, or opining on any elements of a **risk classification framework** in connection with **financial or personal security systems**. This standard also applies to actuaries when performing actuarial services with respect to using any elements of a **risk classification framework** in connection with **financial or personal security systems**, to the extent practical and consistent with the scope of the actuary's assignment.

The guidance in this ASOP does not apply to actuaries when performing actuarial services with respect to individual pension benefit calculations or nondiscrimination testing.

If the actuary determines that the guidance in this standard conflicts with a practice-area ASOP, the practice-area ASOP governs.

If a conflict exists between this standard and applicable law (statutes, regulations, and other legally binding authority), the actuary should comply with applicable law. If the actuary departs from the guidance set forth in this standard in order to comply with applicable law, or for any other reason the actuary deems appropriate, the actuary should refer to section 4.

1.3 Cross References—When this standard refers to the provisions of other documents, the reference includes the referenced documents as they may be amended or restated in the future, and any successor to them, by whatever name called. If any amended or restated document differs materially from the originally referenced document, the actuary should follow the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard is effective for work performed on or after six months after adoption by the Actuarial Standards Board.

Section 2. Definitions

The terms below are defined for use in this standard and appear in bold throughout the ASOP. The actuary should also refer to ASOP No. 1, *Introductory Actuarial Standard of Practice*, for definitions and discussions of common terms, which do not appear in bold in this standard.

2.1 Adverse Selection—The result of actions regarding an element of choice taken by **risk subjects**, which could adversely impact the effectiveness of a **risk classification framework** or the viability of the **financial or personal security system**. **Adverse selection** is sometimes referred to as "antiselection."

2.2 Financial or Personal Security System—A private or governmental program that is intended to mitigate the impact of unfavorable outcomes of contingent events. **Financial or personal security systems** include systems where the mitigation takes the form of financial payments, direct service to the **risk subject**, or both. Examples include insurance, self-funded programs, Medicare, and pension plans.

2.3 Risk Characteristics—Attributes used to assign **risk subjects** to **risk classes**.

2.4 Risk Class—A group of **risk subjects** based on **risk characteristics**.

2.5 Risk Classification Framework—The system, process, or schema used to assign **risk subjects** to **risk classes**, based on the **risk characteristics** of each **risk subject**.

2.6 Risk Measure—A measurement of the outcomes of a contingent event mitigated by the **financial or personal security system**. Examples of **risk measures** include mortality rates, healthcare costs, and claim frequency and severity.

2.7 Risk Subject—An individual or entity that is or may be covered by a **financial or personal security system**.

2.8 Unintended Bias—Impacts or outcomes on specific **risk subjects** resulting from the use of a **risk classification framework** that is not intentionally designed to result in such impacts or outcomes.

Section 3. Analysis of Issues and Recommended Practices

3.1 Introduction—This section provides guidance for actuaries when performing actuarial services with respect to risk classification within the scope of this ASOP.

3.2 Considerations for Risk Classification—The intended purpose of and approaches to risk classification can vary significantly. The actuary should exercise professional judgment when providing actuarial services related to risk classification. The actuary may use data, information, or studies that are reasonable in the actuary's professional judgment.

3.2.1 Intended Purpose—The actuary should confirm that the **risk classification framework** is appropriate for the intended purpose and intended use.

3.2.2 Data and Model—The actuary should confirm that the data and model(s) used for the **risk classification framework** are appropriate. The actuary should refer to ASOP No. 23, *Data Quality*, and ASOP No. 56, *Modeling*.

3.2.3 Relationship of Risk Characteristics and the Risk Measures—The actuary should have a rational explanation that the relationship between a **risk characteristic** and a **risk measure** is not obscure, irrelevant, or arbitrary; however, the actuary is not required to demonstrate a causal relationship.

In some cases, the actuary may lack clear evidence or face other practical impediments to demonstrate a consistent relationship between **risk characteristics** and a **risk measure**. In such circumstances, the actuary may use professional judgment to select **risk characteristics**.

Whether it is appropriate to use a **risk characteristic** may depend on societal, regulatory, and industry practices or may depend on the scope and context of the actuary's work.

3.2.4 Multivariate Effects—The actuary should assess whether multivariate effects, interdependencies, or correlations among **risk characteristics** are material to the assignment of **risk subjects** to an appropriate **risk class**. To the extent practical, the actuary should take into account multivariate effects, interdependencies, or correlations.

3.2.5 Effect of Adverse Selection—The actuary should assess the potential for **adverse selection** effects that may result or have resulted from the design, development, selection, modification, or continued use of the **risk classification framework**. The actuary should take into account that a lack of ongoing monitoring of the **risk classification framework** may increase the risk of **adverse selection**. When practical and appropriate within the scope of the actuary's assignment, the actuary should consider estimating the potential impact of **adverse selection** or mitigating the impacts of material **adverse selection**.

3.2.6 Objectivity—The actuary should take into account whether the **risk characteristics** can be objectively determined. A **risk characteristic** can be objectively determined if it is based on verifiable facts or if, in the actuary's judgment, the potential for manipulation is not significant. For example, "blindness" may not be an objectively determinable **risk characteristic**, whereas "vision corrected to no better than 20/100" is a **risk characteristic** more clearly based on verifiable facts.

3.2.7 Practicality—The cost, time, and effort associated with risk classification may increase as the complexity increases. The actuary should take into account the following:

a. the balance among homogeneity within **risk classes**, heterogeneity between **risk classes**, and credibility of the individual **risk classes**; and

b. simplicity, ease of use, ease of explanation, and market acceptance.

3.2.8 External Environment—The actuary should take into account known or emerging external influences that have the potential for material adverse impacts on the effectiveness of the **risk classification framework** or on the viability of the **financial or personal security system**. Such external influences include applicable law and business, government, and industry practices.

3.2.9 Effectiveness—The actuary should evaluate the effectiveness of the **risk classification framework** at supporting the viability of the **financial or personal security system**.

3.3 Existing Risk Classification Frameworks—When modifying, using, reviewing, evaluating, or opining on any elements of an existing **risk classification framework**, the actuary should understand the frequency of past reviews and the extent of previous changes made to the **risk classification framework**. The actuary should take into account whether past, recent, or expected changes or lack of changes made to the **risk classification framework** have the potential to have a material adverse impact on the effectiveness of the **risk classification framework** or on the viability of the **financial or personal security system**. The actuary should take into account whether the **risk classification framework** will remain appropriate for its intended purpose and use. Such changes could include those affecting the **risk characteristics** or **risk measures** used for risk classification.

3.4 Potential for Unintended Bias—The actuary should consider the potential for **unintended bias** as appropriate within the scope of the actuary's assignment.

3.5 Protected Classes—The actuary must follow applicable law regarding prohibited impacts or outcomes on **risk subjects** in protected classes. When doing so, the actuary should understand the following:

a. how protected classes are defined and identified according to applicable law;

b. how **unintended bias** is treated under applicable law, if applicable; and

c. how methods for estimating the impact of the **risk classification framework** on protected classes are addressed under applicable law, if applicable.

3.6 Reliance on Information Provided by Another Party—When relying on and thereby disclaiming responsibility for data and other information relevant to the use of data provided by another party, the actuary should refer to ASOP No. 23.

When relying on and thereby disclaiming responsibility for a model provided by another party, the actuary should refer to ASOP No. 56.

When relying on and thereby disclaiming responsibility for information other than data or a model provided by another party, the actuary should review the information for reasonableness and consistency to the extent practicable and appropriate within the scope of the actuary's assignment. In addition, the actuary should be reasonably satisfied that the reliance is appropriate, taking into account the following, as applicable:

a. when the other party is an actuary, whether the actuary knows that the other party is appropriately qualified and has followed applicable ASOPs;

b. whether the actuary knows that the other party has expertise in the applicable field;

c. whether the actuary knows the other party's stated purpose for the information and the extent to which it is consistent with the actuary's intended purpose; and

d. whether the actuary knows of differences of opinion within the other party's field of expertise that are material to the actuary's use of the information.

3.7 Documentation—The actuary should consider preparing and retaining documentation to support compliance with the requirements of section 3 and the disclosure requirements of section 4. If preparing documentation, the actuary should consider preparing such documentation in a form such that another actuary qualified in the same practice area could assess the reasonableness of the actuary's work. The amount, form, and detail of such documentation should be based on the professional judgment of the actuary and may vary with the complexity and purpose of the actuarial services. In addition, the actuary should refer to ASOP No. 41, *Actuarial Communications*, for guidance related to the retention of file material other than that which is to be disclosed under section 4.

Section 4. Communications and Disclosures

4.1 Required Disclosures in an Actuarial Report—When issuing an actuarial report, the actuary should refer to ASOP Nos. 23, 41, and 56. In addition, the actuary should disclose the following in such actuarial reports, if applicable:

a. the intended purpose and intended use of the **risk classification framework** (see section 3.2.1);

b. data and model(s) which are used or relied on by the actuary (see section 3.2.2);

c. the selected **risk measure(s)** (see section 3.2.3);

d. the selected **risk characteristics** (see section 3.2.3);

e. the impact of significant **adverse selection** on the effectiveness of the **risk classification framework** or on the viability of the **financial or personal security system** (see section 3.2.5);

f. external influences that have a known material adverse impact on the effectiveness of the **risk classification framework** or on the viability of the **financial or personal security system** (see section 3.2.8);

g. the effectiveness of the **risk classification framework** on the viability of the **financial or personal security system** (see section 3.2.9);

h. changes made to the **risk classification framework**, and the impact such changes could have on the effectiveness of the **risk classification framework** or on the viability of the **financial or personal security system** (see section 3.3); and

i. reliance on information provided by another party (see section 3.6).

4.2 Additional Disclosures in an Actuarial Report—The actuary also should include disclosures in an actuarial report in accordance with ASOP No. 41 for the following circumstances:

a. if any material assumption or method was prescribed by applicable law;

b. the disclosure in ASOP No. 41, if the actuary states reliance on other sources and thereby disclaims responsibility for any material assumption or method selected by a party other than the actuary; and

c. the disclosure in ASOP No. 41 if, in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this standard.

4.3 Confidential Information—Nothing in this standard is intended to require the actuary to disclose confidential information.

Appendix

Background and Current Practices

Note: The following appendix is provided for informational purposes and is not part of the standard of practice.

Background

Risk classification is generally used to help ensure consistent treatment of participants with similar risk characteristics, to permit appropriate economic incentives for participants, to encourage the availability of coverage, and to protect the viability of the financial or personal security system. A risk classification framework can be a key element of a financial or personal security system.

Risk classification has been a fundamental part of actuarial practice since the beginning of the profession. Financial distress can result from ignoring the impact of differences in risk characteristics, as was illustrated by the failure of assessment societies, where life insurance was provided at rates that disregarded age. Failure to recognize actuarial principles regarding risk classification for voluntary coverages can result in underutilization of the financial or personal security system by lower-risk individuals and in coverage at insufficient rates for higher-risk individuals, which threatens the viability of the entire system.

Adverse selection may result from the design of the risk classification framework or may result from constraints on risk classification. Classes that are overly broad may produce an undesirable distribution of risk characteristics within a class. For example, if a specific risk characteristic is not used, or its use is precluded, this may result in individuals with the characteristic applying for coverage in greater numbers and/or amounts, leading to increased overall costs.

The concepts of unfair discrimination, adverse selection, causality and correlation, and actuarial soundness with respect to the use of risk classification for insurance have a long history and extensive development within actuarial practice, research, and education. Since the last revision to ASOP No. 12 in 2005, there has been a continuing evolution of development of predictive models, technical advances, big data sources and uses, and their applications to actuarial work from the fields of predictive analytics, machine learning, data science, artificial intelligence, and behavior science. These advances have had a significant impact on actuarial work in risk classification.

Risk classification can affect and be affected by many actuarial activities, such as the setting of quantitative values (for example, premiums, rates, contributions, reserves, benefits, dividends, or experience refunds); the analysis or projection of quantitative or qualitative experience or results; marketing, underwriting, or claims actions; establishing eligibility requirements or suitability guidelines; predicting decisions or behaviors of applicants, participants, beneficiaries, or claimants; and developing assumptions (for example, for pension valuations or optional forms of benefits).

The following actuarial literature provides further background with respect to risk classification:

1. In 1980, the American Academy of Actuaries published the *Risk Classification Statement of Principles*, elements of which were either adopted within the 2005 revisions to ASOP No. 12 or captured in the Academy's 2011 monograph titled *On Risk Classification*.

2. In 1988, the Casualty Actuarial Society published a set of basic insurance ratemaking principles, *The Statement of Principles Regarding Property and Casualty Ratemaking*. This is a reference for U.S.-regulated ratemaking.

3. In 1992, the Committee on Actuarial Principles of the Society of Actuaries published *Principles of Actuarial Science*, which discusses risk classification in the context of the principles on which actuarial science is based.

4. In 2008, the Society of Actuaries published *Principles Underlying Actuarial Science*, (also published for the 2010 International Congress of Actuaries), which expands upon the 1992 *Principles of Actuarial Science* to include principles on risk classification, antiselection, and actuarial soundness along with discussions of adverse selection and homogeneity.

5. In 2011, the American Academy of Actuaries Risk Classification Work Group published *On Risk Classification*, a public policy monograph. The combination of 2005 revisions to ASOP No. 12 and this monograph was intended to cover the matters addressed in the 1980 *Risk Classification Statement of Principles*, and subsequent developments through 2011. The monograph was not promulgated by a standard setting body and is not binding upon any actuary, but provides background regarding the purpose of risk classification and the design and management of risk classification frameworks.

Current Practices

Over the years, risk classification frameworks have been designed, used, and modified as a result of experience. Advances in medical science, economics, and other disciplines, as well as in actuarial science, will likely result in continued evolution of these systems. While future developments cannot be foreseen with accuracy, practicing actuaries can take reasonable steps to keep abreast of emerging and current practices. These practices may vary significantly by area of practice. For example, the risk classes for voluntary life insurance may reflect the applicant's health habits and occupation, while these factors are usually not considered in pension systems.

Risk classification frameworks may be the subject of laws and regulations. The use of gender, for example, may not be permitted in some states. The insurance rating laws in many states hold that rates shall not be "excessive, inadequate, or unfairly discriminatory." The actuarial profession has long considered that rates meet those rating laws if the rates are actuarially sound. But understanding the precise meanings of "actuarially sound" and "unfairly discriminatory" requires a more nuanced understanding than a simple definition can convey. Additionally, changing views on social structures and advances in data science and analytics have caused actuaries to re-evaluate risk classification frameworks for unfair discrimination, which may contribute to socially undesirable inequities in products, services, prices, and availability.

The concepts of unintended bias, multi-variate interdependencies and proxy discrimination have emerged as major considerations for actuarial work and have had a significant impact on business practices, on the industry, and on the attention of regulators and consumers concerned about how such practices are impacting the public. These developments continue to be discussed, and actuarial techniques continue to be refined to incorporate, reflect, and respond to these issues.

Risk classification issues in some instances may pose a dilemma for an actuary working in the public policy arena when political considerations support a system that contradicts to some degree practices called for in this ASOP. Also, when designing, reviewing, or changing a risk classification framework, actuaries may perform professional services related to a designated set of specific assumptions that place certain restraints on the risk classification framework. In such situations, it is important for those requesting such professional services to have the benefit of professional actuarial advice.

This ASOP is not intended to prevent the actuary from performing professional services in the situations described above. In such situations, the communication and disclosure guidance in section 4.1 will be particularly pertinent, and section 4.1(h) requires disclosures regarding significant adverse selection.