ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 1

Introductory Actuarial Standard of Practice

Developed by the
General Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
March 2013

Doc. No. 170

Note: *Nonguaranteed Charges or Benefits for Life Insurance Policies or Annuity Contracts,* which was formerly known as ASOP No. 1, has been renumbered as ASOP No. 2 effective on March 21, 2013. *Recommendations for Actuarial Communications Related to Statements of Financial Accounting Standards Nos. 87 and 88,* which was formerly labeled ASOP No. 2, was repealed on March 14, 2011 and does not apply to actuarial communications issued after that date.

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TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in the Introductory Actuarial Standard of Practice

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice No. 1

This document contains the final version of a revision of the Introduction to ASOPs, now titled ASOP No. 1, *Introductory Actuarial Standard of Practice*.

Background

This Introductory ASOP is a revision of the *Introduction to the Actuarial Standards of Practice*. The Introduction was adopted in 2004 to replace a Preface to the standards that was adopted in 1989. The Introduction was intended to offer actuaries guidance on the ASB's operations, the content and format of standards, and the ASB's intent with respect to certain terms that appear frequently in the text of the standards themselves.

The Introduction was updated in October 2008 to make clear that the ASB, in promulgating ASOPs, seeks to define an appropriate level of practice (rather than simply codifying current practices), to remove references to "prescribed statements of actuarial opinion" in light of revisions made to the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* and to conform the provisions on deviations from the ASOPs to the deviation provisions of ASOP No. 41, *Actuarial Communications*, in accordance with the ASB's project to standardize the "deviation" provisions in all ASOPs. The ASB received a number of comments on the Introduction at the time of this 2008 revision and concluded that further review would be appropriate. The revision is a result of that review.

In addition, to reinforce that the Introductory ASOP contains guidance, it has been numbered as ASOP No. 1. The previous ASOP No. 1, *Nonguaranteed Charges or Benefits for Life Insurance Policies and Annuity Contracts*, has been renumbered as ASOP No. 2. The previous ASOP No. 2, *Recommendations for Actuarial Communications Related to Statements of Financial Accounting Standards Nos. 87 and 88*, was repealed in March 2011. The sole reference to ASOP No. 1, which appears in ASOP No. 24, *Compliance with the NAIC Life Insurance Illustrations Model Regulation*, has been updated to reflect this change.

Exposure Draft

The exposure draft of this ASOP was approved for exposure in December 2011 with a comment deadline of May 31, 2012. Thirteen comment letters were received and considered in making clarifications that were reflected in this final ASOP. For a summary of the issues contained in

these comment letters, please see appendix 2. In general, the suggestions helped improve the clarity of the standard but did not result in substantive changes to the standard.

Key Changes

Many comments were received with respect to the terms "must," "should," and "should consider." Some commentators objected to the concept that failure to comply with a "should" statement constitutes a deviation from the guidance in the ASOP and hence triggers disclosures. These commentators indicated that failure to follow a "should" statement had not previously been understood to be a deviation requiring disclosure, so that ASOPs were in effect being retroactively changed. Other commentators indicated the distinction between the two terms "must" and "should" was not clear.

To assist in reviewing these and other comments, the General Committee analyzed the use of the terms "should," "should consider," and "must" in the various ASOPs. The General Committee concluded that the use of these terms in this ASOP No. 1 would not retroactively change the intended meaning of the terms as used in the various ASOPs, and so the Introductory ASOP reaffirms that a failure to follow a "should" statement constitutes a deviation from the guidance.

In order to better contrast and clarify the meaning of "must" vs. "should," the definitions have been combined into a single "must/should" discussion that defines each term and highlights the distinction between the terms.

The General Committee concluded that a definition of "should consider" is not needed. The terms "must" and "should" are generally followed by an action (for example, "disclose" or "document"). When the term "should consider" is used, the action required to be performed (or to be disclosed as a deviation if not performed) is to consider something. Thus, there is no need to separately define "should consider." The revised ASOP makes clear that if the actuary considers something the ASOP indicates he or she should consider, but determines that the item being considered is inappropriate or impractical, the actuary has complied with the guidance and there is no deviation to be disclosed.

The final version of this Introductory ASOP contains several other clarifications but none are considered substantial. Notable changes are the addition of a definition of "deviation" and clarifying changes to the definitions of a number of other items, largely as a result of comments received.

The ASB thanks everyone who took the time to contribute comments and suggestions on the exposure draft.

The ASB voted in March 2013 to adopt this standard.

The ASB establishes and improves standards of actuarial practice. These ASOPs identify what the actuary should consider, document, and disclose when performing an actuarial assignment. The ASB's goal is to set standards for appropriate practice for the U.S.

ASOP No. 1—March 2013

INTRODUCTORY ACTUARIAL STANDARD OF PRACTICE

Section 1. Overview

The Actuarial Standards Board (ASB) promulgates actuarial standards of practice (ASOPs) for use by actuaries when rendering actuarial services in the United States. The ASB is vested by the U.S.-based actuarial organizations[1] with the responsibility for promulgating ASOPs for actuaries rendering actuarial services in the United States. Each of these organizations requires its members, through its *Code of Professional Conduct*[2] (Code), to satisfy applicable ASOPs when rendering actuarial services in the United States.

This Introductory ASOP sets forth principles that have been broadly applicable to the work of the ASB since its inception, and carries the same weight and authority as other ASOPs. Any Actuarial Compliance Guidelines promulgated or republished by the ASB that have not been repealed or superseded carry the same weight as ASOPs.

The ASB establishes and improves standards of actuarial practice. These ASOPs identify what the actuary should consider, document, and disclose when performing an actuarial assignment. The ASB's goal is to set standards for appropriate practice for the U.S. The ASB promulgates ASOPs through a notice and comment process described in the *ASB Procedures Manual*. The ASB has exclusive authority in the United States to determine whether an ASOP is needed in a particular actuarial practice area, to promulgate ASOPs, and to amend or repeal ASOPs. The ASB is the final authority for determining the content of ASOPs.

ASOPs are binding on members of the U.S.-based actuarial organizations when rendering actuarial services in the U.S. While these ASOPs are binding, they are not the only considerations that affect an actuary's work. Other considerations may include legal and regulatory requirements, professional requirements promulgated by employers or actuarial organizations, evolving actuarial practice, and the actuary's own professional judgment informed by the nature of the engagement. The ASOPs provide a basic framework that is intended to accommodate these additional considerations.

This introductory standard is effective for all actuarial services performed on or after June 1, 2013.

[1] The American Academy of Actuaries (Academy), the American Society of Pension Professionals and Actuaries, the Casualty Actuarial Society, the Conference of Consulting Actuaries, and the Society of Actuaries.
[2] These organizations adopted the *Code of Professional Conduct* effective January 1, 2001.

Section 2. Definitions, Discussions, and Related Guidance

Each ASOP includes a list of definitions of certain terms used within it. With the exception of this Introductory ASOP, those terms are defined only for use in that particular ASOP, and the definitions can and do differ among ASOPs, reflecting different uses of language in various segments of the profession. Definitions and discussions included in this Introductory ASOP are intended to apply to all other ASOPs if the term is used in such ASOPs, unless the ASOP includes a specific definition of the term.

ASOPs frequently use terms that, while not defined within them, are integral to an informed reading of the ASOPs. Where terms are not defined or discussed within the ASOPs, the actuary is expected to interpret a term in a straight-forward manner, consistent with the common usage of the term. If an actuary has any questions about the meaning of a specific term, the actuary should consult the Actuarial Board for Counseling and Discipline (ABCD) for guidance.

Following are some common terms used in the ASOPs:

2.1 Terms of Construction

a. *Must/Should*—The words "must" and "should" are used to provide guidance in the ASOPs. "Must" as used in the ASOPs means that the ASB does not anticipate that the actuary will have any reasonable alternative but to follow a particular course of action. In contrast, the word "should" indicates what is normally the appropriate practice for an actuary to follow when rendering actuarial services. Situations may arise where the actuary applies professional judgment and concludes that complying with this practice would be inappropriate, given the nature and purpose of the assignment and the principal's needs, or that under the circumstances it would not be reasonable or practical to follow the practice.

Failure to follow a course of action denoted by either the term "must" or "should" constitutes a deviation from the guidance of the ASOP. In either event, the actuary is directed to ASOP No. 41, *Actuarial Communications*.

The terms "must" and "should" are generally followed by a verb or phrase denoting action(s), such as "disclose," "document," "consider," or "take into account." For example, the phrase "should consider" is often used to suggest potential courses of action. If, after consideration, in the actuary's professional judgment an action is not appropriate, the action is not required and failure to take this action is not a deviation from the guidance in the standard.

b. *May*—"May" as used in the ASOPs means that the course of action described is one that would be considered reasonable and appropriate in many circumstances. "May" in ASOPs is often used when providing examples (for example, factors the actuary may consider; methods that may be appropriate). It is not intended to indicate that a course of action is reasonable and appropriate in all circumstances, nor to imply that alternative courses of action are impermissible.

2.2 *Actuarial Services*—Professional services provided to a principal by an individual acting in the capacity of an actuary. Such services include the rendering of advice, recommendations, findings or opinions based on actuarial considerations.

2.3 *Actuarial Soundness*—The phrase "actuarial soundness" has different meanings in different contexts and might be dictated or imposed by an outside entity. In rendering actuarial services, if the actuary identifies the process or result as "actuarially sound," the actuary should define the meaning of "actuarially sound" in that context.

2.4 *Deviation*—The act of departing from the guidance of an ASOP.

2.5 *Known*—ASOPs frequently refer to circumstances, factors, practices of the principal, or other items that are known to the actuary. In many cases, the actuary must rely upon the principal and others acting on the principal's behalf to supply relevant information. Unless an ASOP clearly indicates otherwise, "known" means that the actuary had actual knowledge of the item in question at the time the actuary rendered actuarial services.

2.6 *Materiality*—"Materiality" is a consideration in many aspects of the actuary's work. An item or a combination of related items is material if its omission or misstatement could influence a decision of an intended user. When evaluating materiality, the actuary should consider the purposes of the actuary's work and how the actuary anticipates it will be used by intended users. The actuary should evaluate materiality of the various aspects of the task using professional judgment and any applicable law (statutes, regulations, and other legally binding authority), standard, or guideline. In some circumstances, materiality will be determined by an external user, such as an auditor, based on information not known to the actuary. The guidance in ASOPs need not be applied to immaterial items.

2.7 *Practical or Practicable*—ASOPs frequently call upon actuaries to undertake certain inquiries, perform certain analytical tests, or make disclosures if it is "practical" or "practicable" to do so. These terms are intended to suggest that all possible steps need not always be taken to complete an assignment. A professional assignment frequently requires the actuary to adopt a course of action that is likely to yield an appropriate result without being unnecessarily time-consuming, elaborate, or costly relative to the principal's needs. Thus, it is appropriate for the actuary, exercising professional judgment, to decide that the circumstances surrounding a particular assignment are such that it would not be necessary to undertake a particular task. (Note: ASOPs commonly use "practical" and "practicable" interchangeably.)

2.8 *Principal*—A client or employer of the actuary.

2.9 *Professional Judgment*—Actuaries bring to their assignments not only highly specialized training, but also the broader knowledge and understanding that come from experience. For example, the ASOPs frequently call upon actuaries to apply both training and

experience to their professional assignments, recognizing that reasonable differences may arise when actuaries project the effect of uncertain events.

2.10 *Reasonable*—In many instances, the ASOPs call for the actuary to take "reasonable" steps, make "reasonable" inquiries, select "reasonable" assumptions or methods, or otherwise exercise professional judgment to produce a "reasonable" result when rendering actuarial services. The intent is to call upon the actuary to exercise the level of care and diligence that, in the actuary's professional judgment, is necessary to complete the assignment in an appropriate manner.

Because actuarial practice commonly involves the estimation of uncertain events, there will often be a range of reasonable methods and assumptions, and two actuaries could follow a particular ASOP, both using reasonable methods and assumptions, and reach different but reasonable results.

2.11 *Reliance*—Actuaries frequently rely upon others for information and professional judgments that are pertinent to an assignment. Similarly, actuaries often rely upon others to perform some component of an actuarial analysis. Accordingly, some ASOPs permit the actuary to rely in good faith upon such individuals, subject to appropriate disclosure of such reliance, if required by applicable ASOPs (for example, ASOP Nos. 23, *Data Quality,* and 41).

2.12 *Significance/Significant*—Significance can have different meanings. A result may be deemed to be statistically significant if it is determined that the probability that the result was produced by random chance is small. An event may be described as significant if the likelihood of its occurrence is more than remote. In addition, a result may be significant because it is of consequence. Other uses may be encountered in actuarial practice. The actuary should exercise care in interpreting or using these words.

Section 3. Purpose and Format of Actuarial Standards of Practice

3.1 The Purpose of ASOPs—ASOPs identify what should be considered, done, documented, and disclosed when rendering actuarial services.

3.1.1 The ASB promulgates standards for appropriate actuarial practice. In the course of developing or revising an ASOP, the ASB seeks the input of the actuarial profession and other interested parties. This process of exposure is intended to seek input on the effect that the proposed ASOP would have on the level of practice.

3.1.2 The ASOPs are not intended to shift the burden of proof or the burden of production during litigation, and deviation from one or more provisions of an ASOP should not, in and of itself, be presumed to be malpractice. ASOPs are intended for use by actuaries who are qualified to make use of them by virtue of having the necessary education and experience to understand and apply them (see Precept 2, Qualification Standards, of the Code). Other individuals should

consider obtaining the advice of a qualified actuary before making use of, or otherwise relying upon, ASOPs.

3.1.3 The ASOPs are intended to provide guidance for dealing with commonly encountered situations. Actuaries in professional practice may also have to handle new or non-routine situations not anticipated by the ASOPs. In all situations, the actuary should exercise professional judgment in rendering actuarial services.

3.1.4 The ASOPs are principles-based and do not attempt to dictate every step and decision in an actuarial assignment. Generally, ASOPs are not narrowly prescriptive and neither dictate a single approach nor mandate a particular outcome. Rather, ASOPs provide the actuary with an analytical framework for exercising professional judgment, and identify factors that the actuary typically should consider when rendering a particular type of actuarial service. The ASOPs allow for the actuary to use professional judgment when selecting methods and assumptions, conducting an analysis, and reaching a conclusion, and recognize that actuaries can reasonably reach different conclusions when faced with the same facts.

3.1.5 There are situations where applicable law (statutes, regulations, and other legally binding authority) may require the actuary to deviate from the guidance of an ASOP. Where requirements of law conflict with the guidance of an ASOP, the requirements of law shall govern. The ASOPs provide guidance on this and other situations where the actuary deviates from the guidance of an ASOP (see section 4.5).

3.1.6 Unlike the ASOPs, which are binding upon actuaries, other actuarial literature provides information that an actuary may choose, but is not required, to consider when rendering actuarial services. For example, practice notes published by the Academy describe various methods actuaries may use, but do not establish standards of practice and are not binding upon actuaries. Similarly, research papers, learned treatises, study notes, actuarial textbooks, journal articles, and presentations at actuarial meetings can be informative, keeping the actuary abreast of developments as actuarial science evolves, but do not establish binding requirements upon the actuary.

3.1.7 Each ASOP has a specified effective date. Prior to that date, exposure drafts of the ASOP, and the ASOP itself from the date of its publication to its effective date, form part of the literature of the actuarial profession; actuaries may look to them at their discretion for advisory guidance. An ASOP is not binding until the effective date of the ASOP. Unless specified otherwise, in the case of a revision to an existing ASOP, the existing ASOP is binding until the effective date of the revised ASOP.

3.2 The Format of ASOPs—Each ASOP document includes (1) a transmittal memorandum, (2) the ASOP itself, and (3) one or more supporting appendices.[3] The transmittal memorandum and the appendices are not part of the ASOP and are nonbinding, but may be useful to the actuary in interpreting the standard.

Section 4. Compliance with ASOPs

4.1 ASOPs are binding upon actuaries. Failure to comply with an applicable ASOP results in a breach of the Code. Such breaches subject the actuary to the profession's counseling and discipline processes.

4.2 Actuaries should take a good faith approach in complying with ASOPs, exercising good judgment and professional integrity. It is not appropriate for users of ASOPs to make a strained interpretation of the provisions of an ASOP.

4.3 Actuaries should comply with those ASOPs that are applicable to the task at hand. However, not all ASOPs will apply. An ASOP should not be interpreted as having applicability beyond its stated scope and purpose. Actuaries are responsible for determining which ASOPs apply to the task at hand. If no ASOPs specific to the task are applicable, the actuary may, but is not required to, consider the guidance in related ASOPs. Most, but not all, ASOPs are task-specific, dealing with particular kinds of actuarial services. A few ASOPs, however, deal more broadly with particular aspects of many types of actuarial services (such as ASOP Nos. 23 and 41, and this Introductory ASOP).

4.4 When an actuary believes that multiple ASOPs have conflicting provisions when applied to a specific situation and none provide explicit guidance concerning which governs, the actuary should apply professional judgment and may wish to contact the ABCD for confidential guidance on appropriate practice.

4.5 The ASOPs make specific provision for those situations where the actuary is required to or deems it appropriate to deviate from one or more provisions of an ASOP. It is not a breach of an ASOP to deviate from one or more of its provisions if the actuary does so in the manner described in the ASOP, including making the disclosures related to the deviation as required in such ASOP and in ASOP No. 41.

[3] With respect to how the ASOP document is organized, the current ASOP format differs from that of some earlier ASOPs, but all ASOP documents contain similar content, as described in the appendix 1 to this *Introductory ASOP*.

Appendix 1

Background and Additional Information

Note: This appendix is provided for informational purposes, but is not part of the standard of practice and is nonbinding.

Clarification of Language

As the ASB revises ASOPs, it strives to improve clarity and consistency in language. For example, the 2010 update to ASOP No. 41, *Actuarial Communications*, included changes in definitions to be more consistent with those found in the *Code of Professional Conduct* (Code) and in the recently revised Qualification Standards, and also incorporated language to help create consistency in the treatment of deviation language within all ASOPs. Similarly, in this Introductory ASOP, a number of definitions and discussions of terms used in many of the ASOPs have been added and, where the terms added also appear in the Code, they have been made consistent. In addition, an effort has been made to replace undefined terms or phrases with phrases that include terms that are defined, discussed, or used in the Code.

Role and Scope of ASOPs

The Introductory ASOP has been revised to clarify the role and scope of ASOPs. While ASOPs are binding on actuaries rendering actuarial services in the U.S., the Introductory ASOP now more directly acknowledges that actuaries are subject to a range of requirements and considerations that may affect how they do their work. These include legal and regulatory requirements, their employer's peer review or other quality assurance processes and policies, continuing education requirements, the Code, and the actuary's own professional and ethical standards. Because the ASOPs are not overly prescriptive and allow for disclosed deviations, the ASOP framework is designed to accommodate the actuary's judgment in providing high-quality actuarial services and acting with integrity. The Academy's Council on Professionalism publishes advisory Applicability Guidelines to assist actuaries in identifying the ASOPs that may be relevant.

Development of ASOPs

Proposals for developing new ASOPs and revising existing ones come from a variety of sources, such as individual actuaries, actuarial firms, professional committees, the ABCD, the ASB committees, and the ASB itself. If it accepts a proposal, the ASB assigns it to the appropriate committee or task force to begin the project.

The process of developing a new ASOP or revising an existing ASOP usually begins with the identification of practices that the ASB believes are appropriate to the proper performance of a

particular type of actuarial service. After reviewing the current range of practices, the ASB determines whether it is appropriate under the circumstances to develop a new or revise an existing ASOP to reflect emerging issues in actuarial practice, recent advancements in actuarial science, or for other reasons.

Organization of ASOPs

The ASB strives to organize all ASOPs in a similar fashion to the extent feasible. The ASOP document includes a transmittal memorandum, the ASOP itself, and appendices. The transmittal memorandum provides brief background information and a description of the key issues related to the development or revision of the ASOP. The appendices (1) provide additional background and historical issues, (2) describe current or alternative practices, and (3) summarize the major issues raised in the exposure process and their disposition by the drafting committee. Additional appendices may also contain supporting documents, bibliographies, or illustrative examples.

Each ASOP contains four sections. Except for this Introductory ASOP, the sections are organized as follows:

- The first section summarizes the scope, cross references, and effective date of the ASOP.
- The second section defines or discusses certain terms used within the ASOP.
- The third section provides an analysis of issues and recommended practices.
- The fourth section addresses communications and disclosures.

The scope identifies the intended application of the ASOP to the work of the actuary. In some instances, the actuary serves as an advisor to a principal and does not actually make decisions or take actions on the principal's behalf. In those instances, the ASOP may indicate in its scope to what extent the ASOP addresses the actuary's role in advising the principal. However, the ASOPs are not intended to make the actuary responsible if the principal acts contrary to the actuary's advice.

The Analysis of Issues and Recommended Practices section is organized into major topics or issues, or major tasks involved in rendering actuarial services within the ASOP's scope. Emphasis is placed on providing the actuary with an appropriate analytical framework for completing an assignment that is within the scope of the ASOP.

Communications or disclosures pertinent to the subject of the ASOP and applicable limitations are identified in the Communications and Disclosures section and in ASOP No. 41. Where appropriate, reference may be made to applicable provisions of the Code. This section also includes a description of what an actuary should do when, in the actuary's professional judgment, a deviation from the guidance in the ASOP is deemed to be appropriate.

Appendix 2

Comments on the Exposure Draft and Responses

The exposure draft of the Introductory ASOP was issued in December 2011 with a comment deadline of May 31, 2012. Thirteen comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term "commentator" may refer to more than one person associated with a particular comment letter. The General Committee of the Actuarial Standards Board carefully considered all comments received, and the ASB reviewed (and modified, where appropriate) the changes proposed by the General Committee.

Summarized below are the significant issues and questions contained in the comment letters and the responses.

The term "reviewers" in appendix 2 includes the General Committee and the ASB. Also, unless otherwise noted, the section numbers and titles used in appendix 2 refer to those in the exposure draft.

GENERAL COMMENTS	
Comment	A number of commentators indicated that the Introductory ASOP needs a number (for example, ASOP No. 0 or ASOP No. 1) so that actuaries understand that it is an ASOP that contains guidance.
Response	The reviewers agree and numbered the Introductory ASOP as ASOP No. 1. The previous ASOP No. 1, *Nonguaranteed Charges or Benefits for Life Insurance Policies and Annuity Contracts*, has been renumbered as No. 2, since ASOP No. 2, *Recommendations for Actuarial Communications Related to Statements of Financial Accounting Standards Nos. 87 and 88*, was repealed in March 2011.
Comment	One commentator suggested moving the general deviation language from ASOP No. 41, *Actuarial Communications*, to the Introductory ASOP, and having ASOP No. 41 deal only with deviations related to communication of results.
Response	The reviewers believe ASOP No. 41 is an appropriate vehicle for guidance on communicating deviation from any ASOP, because ASOP No. 41 applies to actuaries issuing actuarial communications within any practice area. As a result, no change was made.

SECTION 1: OVERVIEW	
Comment	Some commentators believed that the sentence "Each of these organizations requires its members, through its *Code of Professional Conduct*[4] (Code), to observe ASOPs when rendering actuarial services in the United States," contradicts the Code because it is incomplete (i.e. the sentence doesn't mention that actuaries must also under the Code satisfy standards of practice in a non-U.S. jurisdiction where they render services).
Response	The reviewers disagree and made no change. The reviewers believe the statement is accurate as written, and is not inaccurate merely because it does not also describe Code requirements that relate to actuarial standards of practice that exist in other jurisdictions in which the actuary may render actuarial services.
Comment	One commentator suggested revising the sentence "Each of these organizations requires its members, through its Code[5], to observe ASOPs when rendering actuarial services in the United States," to match the wording in the Code by replacing "observe" with "satisfy applicable."
Response	The reviewers made the suggested change but note that the Code uses both terms in the discussion of this topic.
Comment	One commentator indicated that the sentence "The ASOPs provide a basic framework that will typically accommodate these additional considerations." should be revised to read "The ASOPs provide a basic framework that should accommodate these additional considerations."
Response	The reviewers agree and made the following change: "The ASOPs provide a basic framework that is intended to accommodate these additional considerations."
SECTION 2: DEFINITIONS, DISCUSSIONS, AND RELATED GUIDANCE	
Comment	One commentator suggested that the definition of Deviation ("The act of departing from the guidance of an ASOP.") in ASOP No. 41 also be included here.
Response	The reviewers agree and added the definition.
Section 2.1, Terms of Construction	
Comment	One commentator asked whether the Committee meant "under ordinary circumstances" rather than "under the circumstances" in "*Must*—"Must" as used in the ASOPs means that, under the circumstances, the actuary has no reasonable alternative but to follow a particular course of action."
Response	The reviewers disagree that "under ordinary circumstances" was intended, but note that changes made to the section should eliminate potential confusion.

[4] These organizations adopted the *Code of Professional Conduct* effective January 1, 2001.
[5] These organizations adopted the *Code of Professional Conduct* effective January 1, 2001.

Comment	Many comments were received with respect to the terms "must," "should," and "should consider," as follows: • Commentators indicated that, because failure to follow a "must" or a "should" statement both constitute a deviation requiring disclosure, the distinction between the two terms was not clear. • Commentators objected to the concept that failure to comply with a "should" statement constitutes a deviation that must be disclosed under ASOP No. 41. These commentators indicated that failure to follow a "should" statement had not previously been understood to be a deviation requiring disclosure, so that ASOPs were in effect being retroactively changed, and actuaries should be afforded an opportunity to comment on the use of the word should in the various ASOPs in that light. • A commentator questioned whether a definition of "should consider" was needed. • A commentator requested that the ASOP specifically indicate that it does not create a duty to document actions considered but not taken and the reasons therefor.
Response	To assist in reviewing the comments, the reviewers analyzed the use of the terms "should," "should consider," and "must" in the various ASOPs, and reached the following conclusions: • In order to better contrast the meaning of "must" versus "should," the definitions have been combined into a single "Must/Should" discussion that defines each term and highlights the distinction between the terms. • The Introductory ASOP reaffirms that a failure to follow a "should" statement constitutes a deviation. • The reviewers agree that a definition of "should consider" is not needed. The terms "must" and "should" are generally followed by an action (for example, "disclose" or "document"). When the term "should consider" is used, the action to be performed (or to be disclosed as a deviation if not performed) is to consider something. Thus, there is no need to separately define "should consider." The revised ASOP makes clear that if the actuary considers something the ASOP indicates he or she should consider, but determines that the item being considered is inappropriate or impractical, the actuary has complied with the guidance and there is no deviation to be disclosed. • Because the ASOP does not indicate that actions considered but not taken (and the reasons therefor) must be disclosed, the reviewers do not believe it is necessary for the ASOP to indicate that they need not be disclosed. Thus, no changes have been made in response to this comment.

Comment	A commentator requested that a statement "Failure to follow the course of action which follows 'may' does not constitute a deviation" be added.
Response	Because the ASOP does not suggest that failure to follow the course of action that follows "may" constitutes a deviation, the reviewers do not believe it is necessary for the ASOP to indicate that it would not be a deviation. Therefore, no change was made in response to this comment.
Section 2.2, Actuarial Services	
Comment	A commentator indicated that "actuarial services" is defined in ASOP No. 41 and questioned whether the definition should be in two ASOPs. In addition, a commentator suggested a small change in the definition in the Introductory ASOP to match the definition in the Code (i.e., change "on" to "upon" in "Such services include the rendering of advice, recommendations, findings or opinions based on actuarial considerations."). Other commentators suggested adding "but are not limited to" after "Such services include" in the sentence above.
Response	Because the term actuarial services is applicable to all ASOPs and used in nearly all of them, the reviewers decided that including the definition in the Introductory ASOP is appropriate. The reviewers also made the indicated change (i.e. "on" to "upon") to match the definition in the Code (which also appears in ASOP No. 41). The reviewers decided not to add "but are not limited to" to the definition. The revised definition matches the definition in the Code. In addition, the reviewers believe the list of services in the definition to be illustrative rather than comprehensive.
Section 2.3, Actuarial Soundness	
Comment	A commentator suggested that a statement be added indicating that "actuarial soundness" is not an actuarial concept, but is a concept imposed by outside entities. In addition, another commentator requested that the ASOP indicate that the term "actuarial soundness" only needs to be defined once in an actuarial communication. A third commentator indicated that in property and casualty ratemaking the term "actuarial soundness" is well defined by the Casualty Actuarial Society's ratemaking principles, and should not need to be defined in an actuarial communication.
Response	The reviewers agree that the concept of actuarial soundness might be imposed by an outside entity and added a statement to that effect. However, the reviewers do not believe it is necessary to explicitly state that actuarial soundness need not be defined multiple times in a single actuarial communication, and no change has been made in this regard. With respect to the third comment, no change was made. The reviewers note that ASOP No. 41 already provides that an actuarial communication can direct the reader to information provided in other documents and thus an actuary can direct the reader to the "actuarial soundness" definition intended.

Section 2.4, Known	
Comment	One commentator indicated that the third sentence in this discussion, which reads "The actuary cannot reasonably be expected to act based on information that was not provided" could be interpreted to excuse an actuary from making reasonable inquiries to try to obtain information.
Response	The reviewers do not believe the sentence added anything to the discussion and deleted the sentence. This should avoid the potential misinterpretation.
Section 2.5, Materiality	
Comment	There were a number of comments on this section: • A commentator suggested that the ASOP not define material since "materiality" standards are normally imposed by others, and where they aren't there isn't a difference between significance and materiality. The commentator suggested using the materiality definition to define significant instead. • A commentator indicated that the statement "The provisions of ASOPs need not be applied to immaterial items" was somewhat circular, because an actuary would need to apply the ASOP to determine that an item is immaterial and that the ASOP allows it to be disregarded. • A commentator indicated that information should be required to be disclosed to allow others to make an assessment of the reasonability of the decision to exclude items as immaterial.
Response	The reviewers note that the words "material" and "materiality" are used in a number of ASOPs and, therefore, retaining the discussion is appropriate. The reviewers disagree with the other two comments.
Section 2.6, Practical or Practicable	
Comment	One commentator wanted to add the statement "No ASOP requires the actuary to perform a task that in the actuary's professional judgment is impractical based on the needs of and contractual relationship with the principal." Another commentator wanted the terms "practical" and "reasonable" and the difference between them clarified further.
Response	The reviewers consider the proposed statement overly broad and note that deviation from the guidance in an ASOP is permitted when appropriate, with disclosure in accordance with ASOP No. 41. Therefore, no changes were made in response to the first comment. In general, the reviewers believe that the term "practical" applies to a process while "reasonable" applies to a result, and changes were made in the discussion of "reasonable" to make that clear.

Section 2.8, Professional Judgment	
Comment	A commentator suggested that the phrase "recognizing that reasonable differences may arise when actuaries project the effect of uncertain events" in this discussion also belonged in the discussion of reasonable.
Response	The reviewers agree and added the sentence "Because actuarial practice commonly involves the estimation of uncertain events, there will often be a range of reasonable methods and assumptions, and two actuaries could follow a particular ASOP, both using reasonable methods and assumptions, and reach different but reasonable results" to the discussion of reasonable.
Section 2.9, Reasonable	
Comment	A commentator felt that the discussion should focus on "the act of reasoning or reaching conclusions based on supported evidence, logical argument and actuarial judgment," which the commentator believes would better parallel the usage in other ASOPs. Another commentator suggested avoiding the use of the stem "reason" or "reasonable" in the discussion.
Response	The reviewers do not agree. As mentioned above, the reviewers believe that the discussion of reasonable should focus on producing a reasonable result, and the discussion was modified to accomplish this by adding to the discussion "to produce a 'reasonable' result when rendering actuarial services."
Section 2.11, Significance/Significant	
Comment	There were several comments on this discussion, primarily indicating that there was not a clear distinction between the terms material and significant.
Response	The reviewers note that there are several different common uses of the word significant, and different usages are used in different ASOPs. Section 2.11 was intended as a discussion of the various ways in which the term is used, rather than a definition. The discussion was expanded to include an additional common usage ("An event may be described as significant if the likelihood of its occurrence is more than remote."). With the changes to the wording for both "materiality" and "significance/significant," the reviewers believe there is a clearer distinction between the two terms.

SECTION 3. PURPOSE AND FORMAT OF ACTUARIAL STANDARDS OF PRACTICE	
Comment	A commentator indicated that the placement of this section within the body of the Introductory ASOP is inconsistent with the Introductory ASOP itself being an ASOP, because there is nothing in this section that an actuary must understand or do. The commentator suggested moving this section to the appendix or another document.
Response	The reviewers note that the Introductory ASOP is unique and can have a different structure from the other ASOPs. The reviewers decided to leave this within the body of the Introductory ASOP to ensure it received appropriate visibility.
Section 3.1.2	
Comment	A commentator believed the term "production in litigation" should have been "results in litigation" in the sentence "ASOPs are not intended to shift the burden of proof or production in litigation, and failure to satisfy one or more provisions of an ASOP should not, in and of itself, be presumed to be malpractice."
Response	The reviewers changed the wording to clarify that a deviation from a standard should not result in the presumption of malpractice.
Comment	A commentator believed that the sentence "Other individuals should consider obtaining the advice of a qualified actuary before making use of, or otherwise relying upon, ASOPs" should be replaced with "ASOPs should not be used or relied upon by those who are not actuaries."
Response	The reviewers disagree and made no change.
Section 3.1.4	
Comment	A commentator wanted to add "generally" before "not narrowly prescriptive," and "typically" before "neither dictate" in the following sentence "The ASOPs are not narrowly prescriptive and neither dictate a single approach nor mandate a particular outcome." Another commentator noted that some sections of ASOPs are prescriptive.
Response	The reviewers agree that adding "generally" to the sentence is appropriate and made the change but do not believe the addition of "typically" would enhance the understanding.

Comment	A commentator suggested that the sentence "For example, because actuarial practice commonly involves the measurement of uncertain events, there will often be a range of reasonable assumptions, and two actuaries could follow a particular ASOP, both using reasonable methods and assumptions, and reach different but reasonable results" be moved into the discussion of reasonable.
Response	The reviewers agree and moved the sentence (with minor wording changes).
Section 3.1.5	
Comment	A commentator thought that this point (that an actuary may deviate from an ASOP to comply with applicable statutes, regulations or other binding authority) was better explained in other ASOPs and that the language should be modified.
Response	The reviewers believe the language is clear and consistent with the Code, and therefore made no change.
Section 3.1.6	
Comment	A commentator suggested that the word "might" be changed to "may" in the sentence "Unlike the ASOPs, which are binding upon actuaries, other actuarial literature provides information that an actuary might choose, but is not required, to consider when rendering actuarial services."
Response	The reviewers agree and made the change.
Section 3.1.7	
Comment	A commentator suggested this section be revised to indicate that early adoption of the revised Introductory ASOP is permitted.
Response	The reviewers believe that there is nothing in this revised Introductory ASOP that would result in noncompliance with the current Introduction to the ASOPs. Therefore, no change was made.
SECTION 4: COMPLIANCE WITH ASOPS	
Section 4.1	
Comment	A commentator found this confusing, saying that you can deviate from an ASOP if you disclose the deviation, so failure to comply with an ASOP is not a breach of the Code. Another commentator suggested adding information to further clarify that deviations, with appropriate disclosures, are permitted.
Response	The reviewers note that the deviation from the guidance in an ASOP and disclosing the deviation is not a failure to comply with the ASOP, as discussed in section 4.5. Accordingly, no substantive changes were made in response to these comments, although the second sentence in this section was simplified.
Comment	Some commentators believe this section belongs in the appendix, not the body of the ASOP, because it doesn't tell the actuary to do anything.
Response	Failure to comply with the ASOPs results in a breach of the Code. The reviewers believe this is an important point that belongs in the body of the Introductory ASOP. Therefore, no change was made.

Comment	A commentator suggested adding "may" before "subject the actuary" in the sentence "Such breaches subject the actuary to the profession's counseling and discipline processes."
Response	The reviewers note that a breach subjects the actuary to ABCD processes, even though it may not result in ABCD action. Therefore, no changes were made.
Section 4.2	
Comment	A commentator believes that the sentence "It is not appropriate for users of ASOPs to make a strained interpretation of the provisions of an ASOP " is not needed because the point is covered by the first sentence, and also indicated that an undefined term like "strained" should not be used.
Response	The reviewers believe the second sentence differs from the first and decided against deleting it.
Section 4.3	
Comment	A commentator suggested that the word "relevant" be replaced with "applicable" in the sentence "Actuaries should comply with those ASOPs that are relevant to the task at hand; not all ASOPs will apply." because the Code doesn't use the word "relevant," it uses "applicable."
Response	The reviewers agree with replacing "relevant" with "applicable" and made that change.
Comment	A commentator suggested that the following sentence be deleted: "An ASOP should not be interpreted as having applicability beyond its stated scope and purpose" because the commentator believes it discourages an actuary from looking at ASOPs applicable to similar issues when there is no ASOP directly applicable, which the commentator believes to be a good practice that should not be discouraged.
Response	The reviewers believe that clearly defined applicability is important and does not discourage other uses. Therefore, the sentence was not deleted.
Comment	A commentator questioned whether the actuary has unfettered discretion to come to a conclusion about which ASOPs apply, even though the ASOPs may seem to suggest otherwise, and whether the actuary's determination was open to challenge.
Response	The reviewers do not agree that the section suggests that the actuary has unfettered discretion and, therefore, made no change.
APPENDIX 1: BACKGROUND AND ADDITIONAL INFORMATION	
Role and Scope of ASOPs	
Comment	A commentator objected to the use of the phrase "to better define" in the first sentence.
Response	The reviewers agree and replaced the phrase "to better define" with "to clarify" in the first sentence.

Comment	A commentator indicated that the sentence below belongs in the body of the ASOP, not in appendix 1, because the commentator believes it is requiring the actuary to do something. "Because the ASOPs are not overly prescriptive, and allow for disclosed deviations, the ASOP framework is designed to accommodate the actuary's providing high quality actuarial services and acting with integrity, taking all appropriate considerations into account."
Response	The reviewers do not believe this sentence adds any guidance and, therefore, made no change.

ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 2

Revised Edition

Nonguaranteed Elements for Life Insurance and Annuity Products

Developed by the
Task Force to Revise ASOP No. 2 of the
Life Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
September 2021

Doc. No. 204

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APPENDIXES

September 2021

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Nonguaranteed Elements for Life Insurance and Annuity Products

FROM: Actuarial Standards Board (ASB)

SUBJ: Revision of Actuarial Standard of Practice (ASOP) No. 2

This document contains the revision of ASOP No. 2, now titled *Nonguaranteed Elements for Life Insurance and Annuity Products*.

History of the Standard

In 1986, the Interim Actuarial Standards Board adopted the original version of ASOP No. 2, which was titled *The Redetermination (or Initial Determination) of Non-Guaranteed Charges and/or Benefits for Life Insurance and Annuity Contracts*. In 1990, the ASB adopted a reformatted version of ASOP No. 2. (Prior to 2013, ASOP No. 2 was numbered ASOP No. 1.)

In 1995, the ASB adopted ASOP No. 24, *Compliance with the NAIC Life Insurance Illustrations Model Regulation*, which was created in conjunction with the National Association of Insurance Commissioners' (NAIC) *Life Insurance Illustrations Model Regulation* (the *Model*). Not all illustrated life insurance and annuity policies are subject to the *Model*. The 2004 revision of ASOP No. 2 imposed new obligations on the actuary for policy illustrations not subject to the *Model*.

Since ASOP No. 2 was last updated in 2004, there has been increased attention to the practices insurers use to determine and manage NGEs within individual life insurance and annuity products. The ASOP is being updated to reflect current practices and provide additional guidance on the determination of NGEs. In developing this revision, the task force reviewed and incorporated concepts from documents that supported the development of the original version of this ASOP in 1986.

First Exposure Draft

The first exposure draft was issued in March 2019 with a comment deadline of July 15, 2019. Sixteen comment letters were received and considered in making changes that were reflected in the second exposure draft.

Second Exposure Draft

The second exposure draft was issued in July 2020 with a comment deadline of November 13, 2020. Seven comment letters were received and considered in making changes that are reflected in the final standard.

For a summary of issues contained in these comment letters, please see appendix 2.

Notable Changes from the Second Exposure Draft

Notable changes made to the second exposure draft are summarized below. Additional changes were made to improve readability, clarity, or consistency.

1. Section 1.2 was clarified to specify that actuarial services with respect to in-force policies performed after the effective date of this standard are in scope.

2. In section 2.5, the definition of NGE framework was clarified.

3. In section 2.6, the definition of NGE scales was clarified to include NGE scales that may vary by one or more parameters or may not vary by any parameter, and additional examples were provided.

4. Section 3.1 was updated to eliminate duplication with the definition of NGE framework in section 2.5.

5. In section 3.3.1, language was clarified to recognize that policy classes could be defined at various levels and to include methodology reflecting policy duration, and an example was added.

6. In section 3.4, changes were made to clarify the guidance in instances when following the determination policy would be inconsistent with section 3.2 and to clarify the language to improve alignment with section 3.2.

7. The language in section 3.4.1(g) was clarified to reference the determination policy rather than section 3.4.2.4.

8. In section 3.4.2.4, changes were made to improve consistency with section 3.4.2.3 and to clarify reliance on prior analysis.

9. In section 3.4.2.5, language was added to address circumstances where the insurer allocates past losses or gains.

10. In section 3.5, the language was changed to be consistent with the language in the existing ASOP.

11. In section 4.1, disclosure 4.1(q) was added to reflect changes in section 3.4.2.5.

Notable Changes to 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. In section 1.2, the scope was clarified to exclude actuarial services with respect to the determination of any reinsurance contract elements the are not guaranteed.

2. In section 2, the definitions were expanded and clarified.

3. In sections 2.5 and 3.1, the concept of an insurer's NGE framework was defined and introduced.

4. In section 3.2, guidance was expanded for advising on the actuarial aspects of the determination policy, including advice that is consistent with the following:

    a. NGE scales are determined with the expectation that they will be revised only if anticipated experience factors have changed since issue or, alternatively, since the previous revision; and

    b. NGE scales are determined based on reasonable expectations of future experience and are not determined with the objective of recouping past losses or distributing past gains.

5. In section 3.3, guidance for establishing or making changes to policy classes was expanded.

6. In section 3.4, guidance for determining NGE scales was expanded to align with sections 3.2 and 3.3 and to include guidance on additional considerations that were not part of the previous determination of NGE scales.

7. In section 3.5, guidance for recommending NGE scales used in illustrations not subject to ASOP No. 24 was updated.

8. In section 3.6, guidance for providing opinions and disclosures to meet regulatory requirements was added.

9. In sections 3.7, 3.8, and 3.9, guidance for relying on data, projections, and supporting analysis supplied by others, relying on assumptions or methods selected by another party, and reliance on another actuary was added.

10. In section 3.10, documentation requirements were added.

11. In section 4, disclosure requirements were added, mostly to address expanded guidance throughout section 3.

The ASB thanks everyone who took the time to contribute comments and suggestions on the exposure drafts.

The ASB voted in September 2021 to adopt this standard.

Task Force to Revise ASOP No. 2

Gabriel R. Schiminovich, Chairperson
David J. Hippen
Brian R. Lessing
Donna C. Megregian
Linda D. Rodway
Lance E. Schulz

Life Committee of the ASB

Linda M. Lankowski, Chairperson
Janice A. Duff
Lisa S. Kuklinski
Donna C. Megregian
Gabriel R. Schiminovich
Jeremy Starr

Actuarial Standards Board

Darrell D. Knapp, Chairperson
Elizabeth K. Brill
Robert M. Damler
Kevin M. Dyke
David E. Neve
Cande J. Olsen
Kathleen A. Riley
Judy K. Stromback
Patrick B. Woods

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.

ACTUARIAL STANDARD OF PRACTICE NO. 2

NONGUARANTEED ELEMENTS FOR LIFE INSURANCE AND ANNUITY PRODUCTS

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 the determination of **nonguaranteed elements** (NGEs) for life insurance and annuity products, including riders attached to such products.

1.2 Scope—This standard applies to actuaries when performing actuarial services with respect to the determination and, if applicable, illustration of **NGEs** for life insurance and annuity **policies** written on individual **policy** forms where **NGEs** may vary at the discretion of the insurer, except as provided below. Actuarial services performed on or after the effective date of this standard also include determinations and illustrations for **policies** in force on the effective date of this standard.

Throughout this standard, the term "determination" includes both the initial determination at **policy** issue and subsequent determinations for in-force **policies**.

The standard also applies to actuaries when performing similar actuarial services for group master contracts with individual certificates where **NGEs** are determined in a similar manner to products written on individual life and annuity **policy** forms. Examples of products within the scope of this standard include universal life, indeterminate premium life, and deferred annuity products. Such products may be fixed, variable, or indexed.

Actuarial services for group products with **NGEs** that are not determined in a similar manner to those written on individual life and annuity **policy** forms are not in scope. Two examples are traditional group term life insurance and certain retirement funding products (for example, synthetic guaranteed interest contracts). To the extent that actuarial services for a product do not clearly fall into the scope, the actuary should use professional judgment to determine whether the services are in scope.

This standard does not apply to actuaries when performing actuarial services with respect to policyholder dividends, which are covered by ASOP No. 15, *Dividends for Individual Participating Life Insurance, Annuities, and Disability Insurance*. To the extent that a product involves both **NGEs** and policyholder dividends, this standard applies to actuaries when performing actuarial services with respect to **NGEs**, and ASOP No. 15 applies to actuaries when performing actuarial services with respect to policyholder dividends.

This standard does not apply to actuaries when performing actuarial services with respect to the determination of any reinsurance contract elements that are not guaranteed in a reinsurance contract.

This standard does not apply to actuaries when performing actuarial services with respect to illustrations of **NGEs** subject to ASOP No. 24, *Compliance with the NAIC Life Insurance Illustrations Model Regulation*.

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

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 consider the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard is effective for actuarial services performed on or after June 1, 2022.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice and appear in bold throughout the ASOP.

2.1 Anticipated Experience Factor—An assumption of future experience used in the determination of **NGEs**. Examples of **anticipated experience factors** include rates of investment income, mortality, morbidity, **policy** persistency, and expense.

2.2 Determination Policy—The insurer's principles or objectives for determining **NGEs**. For example, the **determination policy** could include the insurer's governing principles and requirements, profitability objectives, capital objectives, guidelines for drafting **policy** provisions related to **NGEs**, principles for addressing illustration requirements, and requirements for and frequency of reviews of **NGEs** on in-force products.

2.3 Guaranteed Element—A premium, value, charge, or benefit that limits an **NGE**. **Guaranteed elements** are specified in the **policy**. Examples of **guaranteed elements** include maximum premium charges, maximum expense charges, minimum credited interest rates, maximum cost of insurance charges, maximum gross premiums, minimum index parameters, maximum mortality and expense (M&E) risk charges, and maximum **policy** loan interest rates.

2.4 Nonguaranteed Element (NGE)—Any premium, charge, or benefit within an insurance **policy** that 1) affects **policy** costs or values, 2) is not guaranteed in the **policy**, and 3) can be changed at the discretion of the insurer. An **NGE** may provide a more favorable value to the policyholder than a **guaranteed element**. For the purpose of this ASOP, an **NGE** reflects expectations of future experience as opposed to, for example, a dividend, which reflects participation in past experience. Examples of premiums, charges, or benefits that can be changed at the discretion of the insurer may include credited interest, cost of insurance (COI) charges, bonuses, indeterminate premiums, index parameters used to determine credited interest, and expense charges.

2.5 NGE Framework—The **determination policy**, methodology for establishing **policy classes**, and any additional practices, methods, and criteria used by the insurer to determine **NGE scales** that might not be part of the **determination policy** or methodology for establishing **policy classes**.

2.6 NGE Scale—For each **NGE**, a series of one or more rates or values as determined by the insurer at a point in time. The elements of an **NGE scale** may vary by one or more parameters or may not vary by any parameter. Examples include the following:

a. COI rates that could vary based on issue age, underwriting class, and duration;

b. an expense load that could vary by duration and be applicable over a limited number of **policy** years; and

c. an interest rate that does not vary by any parameter.

2.7 Policy—An individual life insurance **policy**, an individual annuity contract, or a group certificate that has **NGEs** that operate in substantially the same manner as **NGEs** in an individual life insurance **policy** or an individual annuity contract. A **policy** includes any attached rider or endorsement.

2.8 Policy Class—**Policies** that are grouped together for the purposes of determining an **NGE**.

2.9 Profitability Metric—A measurement used to assess a product's projected level of financial results.

Section 3. Analysis of Issues and Recommended Practices

3.1 NGE Framework—The actuary should understand the insurer's **NGE framework** in relation to the actuarial services requested. The actuary should understand how the **NGE framework** has been applied in the past in relation to the actuarial services requested, if available. The actuary should take into account the elements of the **NGE framework** that are relevant to the actuarial services requested. Examples of elements of the **NGE framework** include the following:

a. the methodology for evaluating experience and developing **anticipated experience factors**;

b. the source or sources of data used in developing **anticipated experience factors**;

c. the frequency of review of **anticipated experience factors** and **policy classes**;

d. the methodologies for allocating expenses and investment income;

e. the models or methods used;

f. the marketing objectives, such as distribution channels, target markets, and competitive objectives;

g. the objectives used in setting **profitability metrics**;

h. the methodology for determining reserves and capital objectives; and

i. the insurer's governance process, including the decision and approval process.

If the **NGE framework** is absent, or in the actuary's professional judgment, is incomplete or needs to be updated to reflect the current environment, the actuary should recommend that the **NGE framework** be created, completed, or updated.

3.2 Providing Advice on the Actuarial Aspects of the Determination Policy—The actuary may provide advice on 1) developing or modifying the **determination policy**, or 2) applying the **determination policy**.

When providing advice on the actuarial aspects of the **determination policy**, the actuary should provide advice consistent with the following:

a. **NGE scales** are determined with the expectation that they will be revised only if **anticipated experience factors** have changed since issue, or alternatively, since the previous revision.

b. **NGE scales** are determined based on reasonable expectations of future experience and are not determined with the objective of recouping past losses or distributing past gains.

3.2.1 Providing Advice on Developing or Modifying the Determination Policy—When advising an insurer on developing or modifying its **determination policy**, the actuary should take into account the following, if applicable:

a. the **policy** provisions and applicable law;

b. how **anticipated experience factors** reflect expectations of future experience;

c. how the variability and credibility of each **anticipated experience factor** may impact the determination of the **NGE scales**;

d. the insurer's reserve, profitability, capital, surplus, and marketing objectives;

e. reinsurance and taxes; and

f. periodic review of **NGEs** in in-force **policies**, such as the maximum time period between successive insurer reviews of **NGEs**.

The actuary may take into account other items relevant to the **determination policy**.

The actuary should document the sources of the **determination policy** used in developing the advice and how (a)–(f) above and any additional relevant items were taken into account. For example, portions of the **determination policy** may be found in the insurer's governance processes, corporate policies, or operating practices.

3.2.2 Providing Advice on Applying the Determination Policy—When advising on applying the **determination policy** for determining initial **NGE scales**, evaluating whether to revise existing **NGE scales**, or revising existing **NGE scales**, the actuary should take into account the following, if applicable:

a. the need to make additional assumptions about how the **determination policy** applies to the assignment;

b. **guaranteed elements**, policyholder options including the likelihood of antiselection, and other relevant provisions of the **policy**;

c. impacts on or from reserve, profitability, capital, surplus, and marketing objectives, or changes in such objectives;

d. impact on or from reinsurance and taxation;

e. applicable law (including, for example, for variable products, any constraints or other requirements imposed by applicable securities law); and

f. resources available.

If, in the actuary's professional judgment, the actuary believes that the **determination policy** may be inconsistent with the guidance in sections 3.2 and 3.2.1, the actuary should recommend that the **determination policy** be revised.

3.3 Establishment of or Changes to Policy Classes—When preparing for an assignment, the actuary should review the existing **policy classes** for the product or similar products within the insurer's **NGE framework**.

3.3.1 For Future Sales of a New or Existing Product—If the **policy classes** for future sales have not been defined in the **NGE framework**, or if they have been defined, but in the actuary's professional judgment are incomplete, do not reflect changing circumstances (for example, new underwriting practices, or new profit or marketing objectives), or are inconsistent with the items below, the actuary should recommend the establishment of or changes to the **policy classes** that are

a. consistent with the guidance in ASOP No. 12, *Risk Classification*;

b. appropriate for each **NGE** (a particular **policy** may be assigned to one or more **policy classes** at issue based on **anticipated experience factors** and **NGEs**, for example, one **policy class** for credited interest and a different **policy class** for COI charges);

c. appropriately reflective of differences within **anticipated experience factors** (for example, smoker versus nonsmoker mortality);

d. refined appropriately to mitigate antiselection; and

e. not expected to be redefined after issue.

Policy classes may be defined by grouping **policies** at various levels, for example, at a product level, across multiple products, or within a product or products.

The actuary may recommend **policy classes** that use different grouping methodologies based on **policy** duration. For example, a **policy class** may be defined in terms of a select and ultimate mortality method, or a **policy class** may be defined in terms of an investment year interest crediting method that uses a new money method in the early durations and a portfolio method in the later durations.

When recommending **policy classes** for future sales, the actuary should take into account the **policy** provisions, the structure of **guaranteed elements** and **NGEs**, the date on which the recommended **policy classes** would take effect (for example, **policies** issued before or after a particular date could be in different **policy classes**), and the underwriting characteristics and marketing objectives for the product. The actuary may also take into account any additional relevant factors.

3.3.2 For In-Force Policies—The actuary should recommend that in-force **policies** remain assigned to their **policy classes**, unless there is new information that is material to the **anticipated experience factors** and supports reassigning the **policies** to different **policy classes**. For example, a change in one state's premium tax that affects some **policies** within a **policy class** differently than it affects others could justify reassigning such **policies** to a different **policy class**.

In addition, the actuary may recommend combining or redefining **policy classes** if, in the actuary's professional judgment, such combinations or redefinitions would be appropriate. For example, if the experience for a **policy class** is not credible, the **policy class** could be combined with other **policy classes** for the purposes of determining **anticipated experience factors**.

When recommending a change in the assignment of **policies** to **policy classes**, or combining or redefining **policy classes**, the actuary should follow the guidance in section 3.3.1.

3.4 Determination Process for NGE Scales—When determining **NGE scales** for future sales of a new or existing product and for in-force **policies** in accordance with the **NGE framework**, the actuary should take into account the **determination policy** and the following:

a. the appropriateness of the models, methods, and **profitability metrics**;

b. how the **anticipated experience factors** relate to **NGE scales**;

c. the consistency of **NGE scales** with **policy** provisions;

d. any limits on **NGE scales** due to regulatory constraints;

e. any limits on **NGE scales** due to **guaranteed elements**; and

f. the impact on or from reserve, profitability, capital, surplus, and marketing objectives.

The actuary may take into account practical constraints and any other relevant circumstances.

The actuary may use approximation methods, such as smoothing and interpolation, when determining **NGE scales**.

If, in the actuary's professional judgment, the actuary believes that following the **determination policy** when determining **NGE scales** would be inconsistent with the guidance in section 3.2, the actuary should consider discussing these inconsistencies with the insurer. The actuary should document any unresolved inconsistencies and should consider providing advice consistent with section 3.2.2.

3.4.1 Determination Process for Future Sales of a New or Existing Product—When determining **NGE scales** for future sales of a new or existing product, the actuary should take into account the following:

a. how **anticipated experience factors** were developed and whether they reflect the product's features, intended markets, distribution methods, underwriting procedures, and **policy classes** (see section 3.3.1);

b. how **NGE scales** are structured to cover costs under the product design, as well as the potential impact on profitability if policyholder behavior varies from expectations;

c. that **NGE scales** are determined with the expectation that they will not be revised unless the **anticipated experience factors** change;

d. whether the **NGE scales** are consistent with the language of the **policy**;

e. projected profitability;

f. constraints on the ability to revise **NGE scales** to reflect future changes in **anticipated experience factors** (for example, **guaranteed elements**, contractual limitations, development and implementation cost, systems constraints); and

g. how elements of the **determination policy** affect the ability to revise **NGE scales** after issue.

The actuary may use prior analysis in the determination of the **NGE scales**, if appropriate. For example, changes in credited interest may be based on a previously established interest rate spread.

The actuary should document the **NGE** determination process and results, including how items (a)–(g) and any prior analysis were taken into account.

The actuary should consider conducting sensitivity analyses to evaluate the impact of future deviations from the anticipated experience. The actuary should consider recommending how often such **anticipated experience factors** be reviewed.

3.4.2 Determination Process for In-Force Policies—The determination process for in-force **policies** consists of reviewing prior determinations, analyzing emerging experience relative to **anticipated experience factors**, considering whether to recommend a revision in the **NGE scales**, and, if a revision is to be made, determining the revised **NGE scales**.

3.4.2.1 Reviewing Prior Determinations—The actuary should review prior determinations, including the original determination in effect at the time of **policy** issue. This may include information such as previous **anticipated experience factors**, **profitability metrics**, pattern of profits, **NGE scales**, and other assumptions.

If the information related to prior determinations is not available or incomplete, the actuary should reconstruct prior determinations to the extent practicable and necessary for the determination process, and document the methods and assumptions used. If reconstructing the prior determinations is not practicable due to incomplete information or other limitations, the actuary should select and document a reasonable approach to gain an understanding of the prior determination.

3.4.2.2 Analyzing Experience—When analyzing how experience is emerging relative to **anticipated experience factors**, the actuary should take into account the following, if applicable:

a. the time elapsed since the last analysis of experience;

b. the credibility of experience;

c. the size of the relevant group of **policies** or **policy classes**, such as number of **policies**, premium volume, insurance amount, or account value;

d. the materiality of any change in the experience relative to the existing **anticipated experience factors**;

e. whether existing **anticipated experience factors**, including any projected trends, are supported by actual experience; and

f. whether profitability was particularly sensitive to changes in any **anticipated experience factors**, as disclosed in previous actuarial reports.

The actuary should recommend that the **anticipated experience factors** be updated, if warranted by the results of the analysis.

The actuary should document how (a)–(f) above and any additional relevant items were taken into account.

3.4.2.3 Considering Whether to Recommend a Revision to NGE Scales—When considering whether to recommend a revision to **NGE scales**, the actuary should take into account the following, if applicable:

a. time elapsed since **NGE scales** were last reviewed;

b. the **anticipated experience factors** that are used for revising **NGE scales** under the terms of the **policy** and applicable law;

c. deviations in emerging experience from what was assumed in the prior determination of **NGE scales**;

d. how any recommended revision could affect reserves, capital, reinsurance, and taxation;

e. the appropriateness of the **profitability metrics** and objectives. For example, an internal rate of return metric may have been used at **policy** issue, but a different metric may be appropriate when applied to in-force **policies**;

f. the change in the prospective profitability due to the change in **anticipated experience factors** and any additional factors for which a change may be reflected in the determination of **NGEs** under section 3.2(b), the terms of the **policy**, and applicable law;

g. the complexity of the analysis needed. For example, when changing credited interest rates, the actuary may limit the analysis to changes in investment income, while other changes, such as COIs, may require more complex analysis and modeling, which could reflect multiple **anticipated experience factors** and require consideration of other **NGEs**;

h. whether other analyses, such as sensitivity analysis, are needed;

i. costs, practical implementation difficulties, and materiality of making revisions to the **NGE scale**; and

j. potential impacts on the policyholder (for example, policyholder behavior or policyholder equity) or the insurer of revising or not revising **NGE scales** to reflect changes in **anticipated experience factors**.

The actuary should document the results of the analysis, including how (a)-(j) above and any additional relevant items were taken into account, whether the actuary recommends a revision or not.

3.4.2.4 Determining the Revised NGE Scales—When determining revised **NGE scales**, the actuary should take into account the provisions of section 3.4.1(a)-(g) and should

a. identify the **anticipated experience factors** to be used when revising **NGE scales**, taking into account the terms of the **policy** and applicable law;

b. base the revision of the **NGE scales** on changes in the **anticipated experience factors** identified in (a) above; and

c. determine new **NGE scales** using a method that is consistent with sections 3.2(a) and 3.2(b). For example, it might be appropriate to use a method to determine the revised **NGE scales** such that the prospective profitability from the time of revision, taking into account the prospective pattern of profits by duration, is not materially greater than that using the original **NGE scales** and original **anticipated experience factors**, holding all other assumptions constant between the projections.

The actuary may use approximation and smoothing methods that are reasonable in relation to the costs and benefits provided.

The actuary should perform an appropriate level of analysis based on the **anticipated experience factors** and the type of revision being considered. The actuary may use relevant prior analysis in making the determination. For example, as discussed in section 3.4.2.3(g), changing COIs may require more complex analysis and modeling than routine changes in credited interest rates, which may rely on prior interest rate spread analysis. The actuary should ensure that the method and results of any analysis used to support the determination of the revised **NGE scales**, including how the provisions of section 3.4.1(a)-(g) and any additional relevant items as noted above were taken into account, are documented or addressed in prior documentation.

3.4.2.5 Additional Considerations—When recommending or determining a revision to **NGE scales**, the actuary may consider using additional **anticipated experience factors** that were not part of the previous determination of **NGE scales**, such as a new tax-related expense.

If circumstances arise under which the insurer allocates past losses or gains by making adjustments to the **NGE scales**, for example, due to regulatory requirements, the actuary should document the circumstances and should consider recommending a methodology to separately account for such adjustments when considering future determinations of the **NGE scales**.

3.5 NGEs Used in Illustrations Not Subject to ASOP No. 24—The actuary should recommend **NGE scales** to be used in illustrations not subject to ASOP No. 24 that have been determined consistently with section 3.4. The actuary should also follow applicable

regulations, guidelines, and standards for illustrations, such as those that are based upon the following:

a. *Annuity Disclosure Model Regulation* (Model 245); and

b. *Variable Life Insurance Model Regulation* (Model 270) and NAIC Actuarial Guideline 15.

The actuary should consider conducting tests of illustrated **NGE scales** to ascertain whether those illustrated **NGE scales** could be supported by **anticipated experience factors** and other reasonable assumptions.

3.6 Providing Opinions and Disclosures to Meet Regulatory Requirements—When providing opinions and disclosures to meet regulatory requirements relating to **NGEs** (for example, a response to an NAIC annual statement interrogatory) or actuarial services in support of such opinions and disclosures, the actuary should be knowledgeable about the requirements and information necessary to support the opinion or disclosure. Such information may include some or all of the following for the relevant products:

a. the insurer's **NGE framework**;

b. the requirements of applicable law;

c. the determination process, including how experience and financial results are emerging; and

d. previous regulatory filings.

3.7 Reliance on Others for Data, Projections, and Supporting Analysis—The actuary may rely on data, projections, and supporting analysis supplied by others. When practicable, the actuary should review the data, projections, and supporting analysis for reasonableness and consistency. For further guidance, the actuary should refer to ASOP No. 23, ASOP No. 41, *Actuarial Communications*, and ASOP No. 56, *Modeling*. The actuary should disclose the extent of any such reliance.

3.8 Reliance on Assumptions or Methods Selected by Another Party—When relying on assumptions or methods selected by another party, the actuary should refer to ASOP No. 41 for guidance. The actuary should disclose the extent of any such reliance.

3.9 Reliance on Another Actuary—The actuary may rely on another actuary who has performed actuarial services related to the determination of **NGEs**. However, the relying actuary should be reasonably satisfied that the other actuary is qualified to perform the actuarial service, the actuarial service was performed in accordance with applicable ASOPs, and the actuarial service performed is appropriate for the objective of the assignment. The actuary should disclose the extent of any such reliance.

3.10 Documentation—In addition to the documentation requirements throughout the rest of section 3, the actuary should consider preparing and retaining documentation to support compliance with the remaining requirements of section 3 and the disclosure requirements of section 4. When preparing documentation, the actuary should prepare it in a form such that another actuary qualified in the same practice area could assess the reasonableness of the actuary's work. The degree of 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 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 to which this standard applies, the actuary should refer to ASOP Nos. 12, 23, 41, and 56. In addition, the actuary should disclose the following (if applicable):

a. any recommendations that were made with respect to developing, completing, or updating the **NGE framework** (see section 3.1);

b. advice the actuary provided on developing or modifying the **determination policy** (see sections 3.2 and 3.2.1);

c. advice the actuary provided on how to apply the **determination policy**, including any advice that was inconsistent with the **determination policy** in order to follow the guidance in sections 3.2 or that was inconsistent with the guidance in sections 3.2 in order to comply with the **determination policy**, and the rationale for such inconsistencies (see section 3.2);

d. recommendations made by the actuary to establish or change **policy classes** for future sales of a new or existing product (see sections 3.3.1 and 3.4.1[a]);

e. recommendations made by the actuary for reassignment of in-force **policies** to different **policy classes** (see section 3.3.2);

f. any inconsistency with the **determination policy** and the guidance in section 3.2 when determining **NGE scales** (see section 3.4);

g. a description of the **anticipated experience factors** used in the determination of **NGEs** and any changes to such factors since any prior determination (see sections 3.4.1 and 3.4.2);

h. a description of any material constraints on the ability to revise **NGE scales** (see sections 3.4.1[f] and [g] and 3.4.2.4);

i. results, observations, or recommendations from the determination process for **NGE scales** for future sales of a new or existing product, including results and

observations from any profitability analysis or sensitivity analysis (see section 3.4.1);

j. observations from the analysis that indicate that the profitability is particularly sensitive to changes in certain **anticipated experience factors** (see sections 3.4.1 and 3.4.2.3[h]);

k. any use of prior analysis (see section 3.4.1 and 3.4.2.4);

l. any reconstructed prior determinations or reasonable approaches used when reconstructing the prior determinations was not possible (see section 3.4.2.1);

m. any recommendation that **anticipated experience factors** be updated and how these updated factors were taken into account when recommending changes to **NGE scales** (see section 3.4.2.2);

n. observations or recommendations to revise or not revise in-force **NGE scales**, including results from any profitability or sensitivity analysis (see section 3.4.2.3);

o. results, observations, or recommendations from the determination process used to support any revisions to **NGE scales** for in-force **policies**, including results and observations from any analysis (see section 3.4.2.4);

p. the circumstances and rationale for using any additional **anticipated experience factors** that were not part of the previous determination of **NGE scales** (see section 3.4.2.5);

q. the circumstances under which the insurer allocates past losses or gains by making adjustments to the **NGE scales** and any recommendations for a methodology to separately account for such adjustments when considering future determinations of the **NGE scales** (see section 3.4.2.5); and

r. results from any tests of illustrated **NGE scales** not subject to ASOP No. 24 to ascertain whether those illustrated **NGE scales** could be supported by **anticipated experience factors** and other reasonable assumptions (see section 3.5).

s. extent of any reliance on the data, projections, and supporting analysis of others (see section 3.7);

t. extent of any reliance on assumptions or methods selected by another party (see section 3.8); and

u. extent of any reliance on another actuary (see section 3.9).

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

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

b. 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. if in the actuary's professional judgment, the actuary has deviated materially from the guidance of this ASOP.

Appendix 1

Background and Current Practices

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

Background

In the mid-1970s, activity increased with respect to individual life and annuity products with nonguaranteed elements (NGEs) as opposed to dividends under traditional participating policies.

Because of the increased activity on these products, they came to represent significant market share and financial significance, and it was deemed necessary to develop an actuarial standard of practice in this area. Thus, the Interim Actuarial Standards Board adopted the original version of this ASOP as ASOP No. 1 in October 1986. (Prior to 2013, ASOP No. 2 was known as ASOP No. 1.) The Actuarial Standards Board adopted a reformatted version of ASOP No. 1 in 1990.

In 1986, the policies in question were still evolving, and there was little standardization in areas such as benefit design, pricing structure, marketing practices, and investment philosophies. It was therefore impossible for the standard to offer guidance on these issues. Rather, the standard reflected that the actuary's essential obligations were (1) to assure the completion of all activities required to advise the client professionally, and (2) to prepare an actuarial communication for the client presenting this advice.

By the early 2000s, the volume of these products sold had continued to grow, and considerable product innovation had taken place. ASOP No. 1 was revised to reflect this new environment. It was also revised to be consistent, where appropriate, with ASOP No. 15, *Dividend Determination for Participating Individual Life Insurance Policies and Annuity Contracts*, and ASOP No. 24, *Compliance with the NAIC Life Insurance Illustrations Model Regulation*. The resulting revision of ASOP No. 1 was adopted in March 2004.

In May 2011, ASOP No. 1 was updated for deviation language, and in March 2013, it was renumbered ASOP No. 2.

In recent years, further developments affecting products with NGEs have taken place, such as the following:

- continued increase in the sales of products with NGEs;
- continued product evolution, including index features, persistency bonuses, living benefit riders, secondary guarantees, and new ancillary benefits;
- advances in actuarial techniques for modeling, stochastic testing, and sensitivity analysis;
- changes in life insurance company taxation, reserve valuation, and capital objectives;

- enhancement of insurer governance procedures with respect to the determination of NGEs;

- increased public awareness of changes to NGEs for in-force policies; and

- increased regulation of NGEs, such as the promulgation of New York Regulation 210 in March 2018.

In response to such developments, actuarial practices have evolved, and ASOP No. 2 has been updated to reflect these changes.

Current Practices

The actuary may provide professional services in three principal areas with respect to NGEs. The actuary is normally involved in the determination of NGE scales in accordance with insurer determination policy. The actuary may also be involved in advising the insurer on setting the determination policy or the establishment of or changes to policy classes. When determining NGEs, the actuary considers corporate governance practices, policy administration, regulation, marketing objectives, and consumer expectations, among other factors.

The actuary may be called upon to determine NGE scales for future sales of a new or existing product and for in-force policies. Although the steps needed to complete these two broad categories of assignments have many common elements, there are significant differences with respect to the principles, methodologies, and criteria that are commonly followed.

Appendix 2

Comments on the Second Exposure Draft and Responses

The second exposure draft of this ASOP, *Nonguaranteed Elements for Life Insurance and Annuity Products,* was issued in July 2020 with a comment deadline of November 13, 2020. Seven comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term "commentator" may refer to more than one person associated with a particular comment letter. The ASOP No. 2 Task Force carefully considered all comments received, reviewed the exposure draft, and proposed changes. The ASB Life Committee and the ASB reviewed the proposed changes and made modifications where appropriate.

Summarized below are the significant issues and questions contained in the comment letters and the responses. Minor wording or punctuation changes that were suggested but not significant are not reflected in this appendix, although they may have been adopted.

The term "reviewers" in appendix 2 includes the ASOP No. 2 Task Force, the ASB Life Committee, and the ASB. Also, unless otherwise noted, the section numbers and titles used in appendix 2 refer to those in the second exposure draft.

GENERAL COMMENTS	
Comment	One commentator suggested defining "take into account" because it is unclear how it differs from "consider" or "reflect."
Response	The reviewers do not believe "take into account" or "reflect" require definitions that differ from the ordinary English definitions. Note that the term "should consider" is discussed in ASOP No. 1, *Introductory Standard of Practice*. ASOP No. 1 states, > The terms "must" and "should" are generally followed by a verb or phrase denoting action(s), such as "disclose," "document," "consider," or "take into account." For example, the phrase "should consider" is often used to suggest potential courses of action. If, after consideration, in the actuary's professional judgment an action is not appropriate, the action is not required and failure to take this action is not a deviation from the guidance in the standard. Therefore, the reviewers made no change in response to this comment.
Comment	One commentator requested that the ASOP be reviewed for applicability to annuities.
Response	The reviewers note that section 1.2 describes which annuities are in scope and added examples applicable to both life and annuities throughout the ASOP.
Comment	One commentator suggested differentiating between routine NGE changes and more complex NGE changes.
Response	The reviewers clarified the language in section 3.4.2.4 in response to this comment.
Comment	One commentator requested more guidance on the initial determination.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.

Comment	One commentator said that it is unclear whether the actuary can improve an NGE or reverse an increase without the full analysis described in the ASOP.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
Comment	One commentator was concerned that the ASOP poses limitations on alternative rate-setting processes, such as following an established plan (such as tracking an index or market rates).
Response	The reviewers disagree and made no change in response to this comment.
Comment	One commentator said that the ASOP was written for a consultant and not a company actuary.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.2, Scope	
Comment	One commentator suggested adding language to clarify that the ASOP is not retroactively applicable to prior determinations before the effective date of the ASOP.
Response	The reviewers clarified the language.
Comment	One commentator suggested moving the sentence "Throughout this standard, the term determination includes both initial determination and subsequent redeterminations" to section 1.1.
Response	The reviewers disagree and made no change in response to this comment.
Comment	One commentator suggested adding "to the extent possible" when referring to future determinations of in-force products after the effective date to provide sufficient flexibility.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
Comment	One commentator noted that ASOP No. 15, *Dividends for Individual Participating Life Insurance, Annuities, and Disability Insurance*, does not appear to define "dividend" and suggested adding a definition to ASOP No. 2.
Response	The reviewers disagree with the suggestion and made no change in response to this comment. The reviewers note that section 2.4 states "For the purpose of this ASOP, an NGE reflects expectations of future experience as opposed to, for example, a dividend, which reflects participation in past experience."
Section 1.4, Effective Date	
Comment	One commentator suggested an effective date six months after approval by the ASB.
Response	The reviewers note the effective date is June 1, 2022.
SECTION 2. DEFINITIONS	
Section 2.1, Anticipated Experience Factor	
Comment	One commentator suggested adding "may include but are not limited to" before the list of examples.
Response	The reviewers note that examples are illustrative, not exhaustive, and made no change.
Comment	One commentator suggested clarifying whether "rates of" applies to investment income only or the entire list.
Response	The reviewers believe the language is appropriate and made no change.

Comment	One commentator suggested modifying the example to reference policyholder elections.
Response	The reviewers disagree and made no change.
Section 2.3, Guaranteed Element	
Comment	One commentator suggested adding "typically" before "specified in the policy" and in the example sentence.
Response	The reviewers believe the language is appropriate and made no change.
Section 2.4, Nonguaranteed Element	
Comment	One commentator suggested rewording the second sentence for clarity.
Response	The reviewers agree and clarified the language accordingly.
Comment	One commentator suggested changing "can be changed at the discretion of the insurer" to "may be changed…"
Response	The reviewers disagree and made no change.
Section 2.6, NGE Scale	
Comment	One commentator suggested either deleting NGE scale as a defined term or referencing anticipated experience factors in the definition.
Response	The reviewers disagree with the suggestion but clarified the language and added examples.
Section 2.9, Profitability Metric	
Comment	One commentator suggested revising the language to replace "a product's expected level of financial results" with "projected profitability."
Response	The reviewers changed "expected" to "projected" based on this comment.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.1, NGE Framework	
Comment	Two commentators suggested the difference between the determination policy and the NGE framework is unclear and suggested incorporating the concept of the NGE framework into the determination policy.
Response	The reviewers disagree with the suggestion to incorporate the concept of the NGE framework into the determination policy but clarified the language in sections 2.5 and 3.1.
Comment	One commentator suggested deleting the examples and moving them to the definition of NGE framework, because it is unclear whether the list is intended to be a documentation requirement.
Response	The reviewers disagree with moving the examples and refer the commentator to sections 3.10 and 4.1(a) with respect to documentation and disclosure**.**
Section 3.1(e) (now section 3.1[d])	
Comment	One commentator suggested deleting 3.1(e), methodology for allocating income and costs.
Response	The reviewers clarified the language.
Section 3.1(g) (now section 3.1[f])	
Comment	One commentator suggested deleting "distribution strategy" from section 3.1(g).
Response	The reviewers changed "distribution strategy" to "distribution channels" (now 3.1[f]).

Section 3.2, Providing Advice on the Actuarial Aspects of the Determination Policy	
Comment	One commentator suggested combining sections 3.2 and 3.4.
Response	The reviewers believe the guidance is appropriate and made no change.
Section 3.2(a)	
Comment	Several commentators suggested deleting or modifying sections 3.2(a), 3.4.1(c), and 3.4.2.4 because the language is too prescriptive and best left to regulation.
Response	The reviewers believe the guidance is appropriate and made no change in response to these comments.
Section 3.2(b)	
Comment	Several commentators expressed concern about the phrase "recouping past losses or distributing past gains" being too prescriptive or ambiguous and suggested either deleting that language or inserting "if required by statute or regulation" as a condition.
Response	The reviewers disagree but added clarifying language to section 3.4.2.5 to address this comment.
Comment	One commentator suggested adding back the guidance from the first exposure draft regarding prospective pattern of profits by duration in sections 3.2(b), 3.4.1(g), and 3.4.2.4(c).
Response	The reviewers believe the guidance is appropriate and therefore made no change.
Section 3.2.1, Providing Advice on Developing or Modifying the Determination Policy	
Comment	One commentator suggested replacing the list (a)-(f) with a reference to section 3.1.
Response	The reviewers clarified the language in section 3.1 and the definition of NGE framework in section 2.5, but made no change to this section in response to this comment.
Section 3.2.2, Providing Advice on Applying the Determination Policy	
Comment	One commentator suggested combining this section with section 3.2.1.
Response	The reviewers disagree and made no change.
Section 3.2.2(b)	
Comment	One commentator suggested coordinating the reference to options with language in ASOP No. 7, *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*, on materiality, likelihood of antiselection, and impact on profitability metrics ("cash flows").
Response	The reviewers added clarifying language to section 3.2.2(b).
Section 3.2.2(d)	
Comment	One commentator stated that the reference to reinsurance may be misconstrued as a requirement for post-reinsurance pricing.
Response	The reviewers disagree and made no change.
Section 3.3, Establishment of or Changes to Policy Classes	
Comment	One commentator suggested providing more guidance on the term "review."
Response	The reviewers believe the guidance is appropriate and therefore made no change.
Comment	One commentator suggested adding consideration of contractual provisions before establishing or changing policy classes.
Response	The reviewers believe the guidance is appropriate and note that section 3.3.1 states that "the actuary should take into account the policy provisions."

Section 3.3.1, For Future Sales of a New or Existing Product	
Section 3.3.1(b)	
Comment	One commentator disagreed that policies can be assigned to more than one policy class.
Response	The reviewers believe the guidance is appropriate and made no change.
Section 3.3.1(e)	
Comment	One commentator suggested deleting the item that says that the actuary should not expect to redefine policy classes after issue.
Response	The reviewers added clarifying language and examples to section 3.3.1.
Comment	One commentator suggested adding "unless changes in anticipated experiences support changes to policy classes."
Response	The reviewers made no change in this section but added clarifying language to address redefinition of policy classes after issue in section 3.3.2.
Section 3.3.2, For In-Force Policies	
Comment	One commentator stated that this section should recognize that some policies cannot be reassigned if the actuary is limited by contract language.
Response	The reviewers believe this is covered in the requirement to follow the guidance in section 3.3.1 and made no change in response to this comment.
Comment	One commentator suggested identifying and using a different example.
Response	The reviewers believe the example is appropriate and made no change.
Section 3.4, Determination Process for NGE Scales	
Comment	One commentator suggested adding "the actuary should consider discussing these differences with management" in the last paragraph of section 3.4.
Response	The reviewers added clarifying language to section 3.4.
Comment	One commentator questioned using the word "relationship" in (b) and (f).
Response	The reviewers clarified the language in sections 3.4(b) and (f) in response to this comment.
Comment	One commentator suggested combining sections 3.2 and 3.4.
Response	The reviewers disagree with combining sections 3.2 and 3.4 but clarified the language in section 3.4 to reference section 3.2 in its entirety.
Comment	One commentator suggested that sections 3.4(f), 3.2.2(c), and 3.2.1(e) are inconsistent.
Response	The reviewers clarified the language in these sections to improve consistency.
Section 3.4.1, Determination Process for Future Sales of a New or Existing Product	
Comment	Two commentators suggested adding "if applicable" after "following."
Response	The reviewers disagree and made no change in response to this comment.
Comment	One commentator questioned whether the section works for rates based on the market or based on an index.
Response	The reviewers added clarifying language to the definition of Nonguaranteed Element (NGE) in section 2.4 in response to this comment.

Comment	One commentator suggested that there is a bias in this section toward negative NGE changes and toward changes that are made infrequently, such as COI.
Response	The reviewers disagree that the language is biased toward negative NGE changes. The reviewers added an example of a change that could be made more frequently.
Section 3.4.1(d)	
Comment	One commentator suggested (d) was redundant with (f) and suggested deleting (d).
Response	The reviewers disagree and made no change.
Section 3.4.1(g)	
Comment	One commentator found the reference to section 3.4.2.4, which then refers to section 3.2, circular and confusing and suggested deleting (g).
Response	The reviewers deleted the reference to section 3.4.2.4 and clarified the language in response to this comment.
Section 3.4.2, Determination Process for In-Force Policies	
Comment	One commentator said that it is unclear whether the anticipated experience factors being referenced are those that were identified in the past, those that are currently experienced, or those that are expected in the future.
Response	The reviewers believe the language of this section, as well as the definition of anticipated experience factor in section 2.1, is clear and made no change.
Section 3.4.2.1, Reviewing Prior Determinations	
Comment	One commentator suggested adding "may" in the second sentence of the first paragraph.
Response	The reviewers agree and made the change.
Section 3.4.2.2, Analyzing Experience	
Comment	One commentator said that this section could be interpreted as saying that favorable past experience must be reflected in future anticipated experience factors and asked for clarification.
Response	The reviewers disagree and made no change.
Comment	One commentator noted that experience can come from a variety of sources.
Response	The reviewers added item (b) to the list of examples in section 3.1 in response to this comment.
Comment	One commentator said this section should not be limited to the determination of in-force policies.
Response	The reviewers note section 3.4.1(a) addresses consideration of how experience factors were developed for future sales of a new or existing product and therefore made no change in response to this comment.
Section 3.4.2.3, Considering Whether to Recommend a Revision to NGE Scales	
Section 3.4.2.3(e)	
Comment	One commentator suggested replacing "at issue" and "in force" with "determination" and "redetermination," respectively.
Response	The reviewers disagreed with the suggestion but clarified the use of the term "determination" in section 1.2 in response to this comment.

Section 3.4.2.3(j)	
Comment	One commentator suggested replacing "policyholder" with "policyholder behavior."
Response	The reviewers clarified the language.
Section 3.4.2.4, Determining the Revised NGE Scales	
Comment	One commentator questioned whether the reference to section 3.2 in this section conflicts with the reference to section 3.2 in the last paragraph of section 3.4.
Response	The reviewers clarified the language in the last paragraph of section 3.4.
Comment	One commentator suggested replacing "appropriate level of analysis" with language more similar to 3.4.2.3(g).
Response	The reviewers believe the guidance is appropriate and made no change.
Comment	One commentator suggested combining sections 3.4.2.4 and 3.4.2.3.
Response	The reviewers believe the guidance is appropriate and made no change.
Section 3.4.2.4(a)	
Comment	Two commentators suggested deleting section 3.4.2.4(a) because "the reference to 'under the terms of the policy and applicable law' makes this a legal question, not an actuarial one."
Response	The reviewers clarified the language.
Section 3.4.2.4(c)	
Comment	Two commentators suggested deleting the "prospective pattern of profits by duration" from the example because it was too prescriptive.
Response	The reviewers clarified the language.
Comment	One commentator suggested deleting the entire example because this method may not be required by regulation.
Response	The reviewers kept the example but clarified the language.
Section 3.4.2.5, Additional Considerations	
Comment	One commentator suggested adding an example.
Response	The reviewers added an example.
Section 3.5, NGEs Used in Illustrations Not Subject to ASOP No. 24	
Comment	One commentator suggested deleting this section, the related disclosure in section 4.1(q), and language related to ASOP No. 24, *Compliance with the NAIC Life Insurance Illustrations Model Regulation,* in section 1.2.
Response	The reviewers disagree but clarified language related to illustrations not subject to ASOP No. 24.
Section 3.6, Providing Regulatory Opinions and Disclosures (now Providing Opinions and Disclosures to Meet Regulatory Requirements)	
Comment	One commentator suggested clarifying the meaning of "regulatory opinion."
Response	The reviewers clarified the language.

SECTION 4. COMMUNICATIONS AND DISCLOSURES	
4.1, Required Disclosures in an Actuarial Report	
4.1 (p)	
Comment	One commentator suggested combining sections 4.1(p) and (g) because new anticipated experience factors don't need special documentation.
Response	The reviewers disagree and made no change.

ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 3

Revised Edition

Continuing Care Retirement Communities and At Home Programs

Developed by the
ASOP No. 3 Task Force of the
Health Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
September 2021

Doc. No. 202

ASOP No. 3—Doc. No. 202

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

ASOP No. 3—Doc. No. 202

APPENDIXES

ASOP No. 3—Doc. No. 202

September 2021

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Continuing Care Retirement Communities and At Home Programs

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 3

This document contains the revision of ASOP No. 3, *Continuing Care Retirement Communities and At Home Programs*.

History of the Standard

In 1987, the Interim Actuarial Standards Board adopted a document titled *Relating to Continuing Care Retirement Communities (CCRCs)*. In 1990, the ASB revised and reformatted ASOP No. 3, *Relating to Continuing Care Retirement Communities.* In 1994, the ASB adopted another revision titled *Practices Relating to Continuing Care Retirement Communities*. In 2008, the standard was revised to reflect current, generally accepted actuarial practice and to adopt the updated format for standards. The industry also refers to Continuing Care Retirement Communities (CCRCs) as Life Plan Communities (LPCs), and for the purpose of this standard CCRCs refers to both CCRCs and LPCs.

Within CCRCs, the provision of benefits through At Home Programs has emerged as a new area of practice. Various terms are used in the industry to describe At Home Programs, which are most commonly known as Continuing Care At Home and Lifecare At Home Programs. This ASOP addresses actuarial practice for both CCRCs and At Home Programs. For the purposes of this ASOP, the term "CCRC" reflects the traditional industry product and the term "At Home Program" reflects benefits offered to members who are not residents.

CCRCs arose from a desire of individuals to have both housing and long-term care provided by the same organization. Over time, the CCRC model has evolved, with contracts providing for individuals who have delayed entry to a CCRC as well as individuals who may have never intended to move into a CCRC. At Home Programs cover members who do not intend to move into the CCRC. Many states have developed regulations to address both traditional CCRCs and At Home Programs under the CCRC umbrella. Several states limit At Home Programs to the confines of an existing CCRC.

ASOP No. 3—Doc. No. 202

Exposure Draft

The exposure draft was issued in November 2020 with a comment deadline of February 1, 2021. Five comment letters were received and considered in making changes that are reflected in the final ASOP.

Notable Changes from Exposure Draft

Notable changes made to the exposure draft are summarized below. Notable changes do not include changes made to improve readability, clarity, or consistency.

1. The terms “resident” and “non-resident” were replaced with “contractual resident” and “non-contractual resident” throughout the ASOP.

2. Examples of services covered by the ASOP proposed to be deleted in the exposure draft were restored in section 1.2, Scope.

3. A definition for “occupancy rate” was added in section 2.20, and the occupancy rate assumption was included in section 3.7.1, Actuarial Assumptions.

4. Guidance was clarified regarding the consistency among related assumptions in section 3.7.6, Reasonableness of Assumptions.

5. Guidance was clarified to state that the combined effect of financial and demographic assumptions is expected to have no significant bias except for margins for uncertainty in section 3.7.6, Reasonableness of Assumptions.

Notable Changes from the Existing ASOP

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

1. The ASOP was revised to address actuarial practice for At Home Programs that are not regulated as an insurance entity.

2. The ASOP was revised to include new disclosure requirements that the ASB believes are appropriate and are intended to enhance the quality of actuarial communications regarding CCRCs and At Home Programs.

The ASB thanks everyone who took the time to contribute comments and suggestions on the exposure draft.

ASOP No. 3—Doc. No. 202

The ASB would like to posthumously thank Matthew P. Chamblee for his contribution to the ASB Health Committee.

The ASB voted in September 2021 to adopt this standard.

ASOP No. 3—Doc. No. 202

ASOP No. 3 Task Force

Dave Bond, Chairperson

Christopher J. Borcik
John C. Lloyd
Lisa M. Parker
Molly J. Shaw
Darryl G. Wagner
Gregory T. Zebolsky

Health Committee of the ASB

Rick Lassow, Chairperson

Jinn-Feng Lin
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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.

ACTUARIAL STANDARD OF PRACTICE NO. 3

CONTINUING CARE RETIREMENT COMMUNITIES AND AT HOME PROGRAMS

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 **Continuing Care Retirement Communities (CCRCs**), also known as Life Plan Communities (LPCs), or **At Home Programs** that are not regulated as insurance entities.

1.2 Scope—This standard applies to actuaries when performing actuarial services, including giving advice, in connection with **CCRCs** (including nonprofit and for-profit entities) or **At Home Programs** that are not regulated as insurance entities. These actuarial services may be performed for owners, operators, financing entities, or current or prospective **contractual residents** or **members**, as well as for other professionals or regulatory bodies.

Examples of the services covered by this ASOP include the following:

a. testing the financial condition for satisfactory actuarial balance;

b. estimating actuarial values of assets and liabilities;

c. evaluating the **fee structure** for existing **contractual residents** or **members**, or a **cohort of new contractual residents or members**;

d. developing **population projections**, including **contractual resident** or **member** movements, **independent living unit** turnover, and **health center** utilization;

e. projecting future cash flows and **cash and investment balances**;

f. designing and pricing new **residency agreements** or **membership agreements**;

g. estimating the future services obligation under GAAP;

h. assisting in developing financial feasibility studies;

i. performing mortality, **morbidity**, and **withdrawal** experience studies; and

j. providing appropriate rates of mortality, **morbidity**, or life expectancies.

This standard does not apply to actuaries when performing actuarial services with respect to **At Home Programs** regulated as insurance entities. When performing actuarial services with respect to such organizations, the actuary should review ASOP No. 18, *Long-Term Care Insurance*, for applicability.

If the actuary determines that the guidance in this ASOP conflicts with a cross-practice ASOP (applies to all practice areas), this ASOP governs.

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

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 consider 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 June 1, 2022.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice and appear in bold throughout the ASOP.

2.1 Actuarial Balance Sheet—A measure of the assets and liabilities, as of the **valuation date**, associated with current **contractual residents** or current **members**.

2.2 Actuarial Present Value—The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions with regard to future events, observations of market or other valuation data, or a combination of assumptions and observations.

2.3 Additional Fee—An amount that may be payable by a **contractual resident** or **member**, in accordance with a **residency agreement** or **membership agreement**, for services made available but not covered by the **advance fee** and the **periodic fees**. Examples of **additional fees** include fees for guest meals, additional meals, barber/beauty shop, use of a carport, and non-covered health care services.

2.4 Advance Fee—An amount payable by a **contractual resident** at the inception of a **residency agreement** or by a **member** at the inception of a **membership agreement**. The **advance fee** is usually specified in the **residency agreement** or **membership agreement** and is usually payable prior to occupancy of the residence or receipt of benefits.

2.5 At Home Program—An organization that provides social and health care services in return for some combination of an **advance fee**, **periodic fees**, and **additional fees**. **At Home Programs** differ from **CCRCs** in that they do not provide a direct **independent living unit** for **members**.

2.6 Cash and Investment Balance—The value of cash, cash equivalents, and marketable securities (historically referred to as "cash balance" by industry organizations). This excludes the value of the **physical property** assets.

2.7 Cohort of New Contractual Residents or New Members—A hypothetical group of new **contractual residents** or **members** assumed to enter a **CCRC** or **At Home Program** over a specified period of time and assumed to have certain demographic characteristics.

2.8 Continuing Care Retirement Community (CCRC)—An organization that provides contractual residential housing and stated housekeeping, social, and health care services in return for some combination of an **advance fee**, **periodic fees**, and **additional fees**. **CCRCs** are also known as Life Plan Communities (LPCs).

2.9 Contractual Resident—A person who has signed a **residency agreement**.

2.10 Fee Structure—A combination of fees that includes **advance fees** and **periodic fees**, and that may include **additional fees**.

2.11 Health Care Guarantee—A clause in a **residency agreement** or **membership agreement** guaranteeing access to health care and defining the type of health care services to be provided to the **contractual resident** or **member**. These health care services may be offered with or without adjustments to the **periodic fees**.

2.12 Health Center—A facility associated with a **CCRC** or **At Home Program** where health care is provided to **contractual residents** or **members** in accordance with the **residency agreement** or **membership agreement**. The facility typically includes some combination of assisted living, memory care, and nursing care units. **Non-contractual residents** may also live in the facility.

2.13 Independent Living Unit—Living quarters designed for **contractual residents** capable of living independently. A **contractual resident** could receive home health care in the **independent living unit**, but a **contractual resident** who needs full-time health care on either a temporary or permanent basis is normally transferred to the **health center**.

2.14 Level(s) of Care—Varying degrees of care based on a **contractual resident's** or **member's** health status. Typical **levels of care** include independent living, assisted living, nursing care, and memory care. The **levels of care** may be dictated by state licensure.

2.15 Living Unit—The various living quarters of a **CCRC**, including **independent living units** and **health center** units.

2.16 Member—A person who has signed a **membership agreement** with an **At Home Program**.

2.17 Membership Agreement—A contract between one or more **members** and an **At Home Program** that describes the services to be provided, the obligations of the parties, the **health care guarantee**, and any **refund guarantee**. The contract is usually of long duration and may be for the life of each **member**.

2.18 Morbidity—The incurral of an illness or disability requiring the transfer to a different **level of care**. The **permanent transfer** rates and the **temporary transfer** rates together comprise the rate of **morbidity**.

2.19 Non-Contractual Resident—A person living in the **CCRC** without a **health care guarantee** and without a **refund guarantee**. **Non-contractual residents** normally pay for all health care services received on a fee for service basis. Examples of **non-contractual residents** are rental or lease residents, and direct admissions to the **health center**.

2.20 Occupancy Rate—The number of occupied units at each **level of care** by **contractual** and **non-contractual residents**, relative to available units.

2.21 Periodic Fee—Amounts payable periodically (usually monthly) by a **contractual resident** or **member**. The amounts are typically adjusted from time to time to reflect changes in operating costs.

2.22 Permanent Transfer—A move from one **level of care** to another **level of care** without expectation of returning to the former **level of care**.

2.23 Physical Property—Physical assets, such as land, building, furniture, fixtures, or equipment. These assets, excluding land, are assumed to depreciate over their respective lifetimes. These assets are also referred to as the fixed assets.

2.24 Population Projection—An estimate of the expected number of **contractual residents** or **members** at various future times.

2.25 Refund Guarantee—A clause in a **residency agreement** or **membership agreement** that provides for a refund of any portion of the **advance fee** upon termination of the agreement.

2.26 Residency Agreement—A contract between one or more residents and a **CCRC** that includes a **health care guarantee** or a **refund guarantee**, and describes the services to be provided and the obligations of the parties. The contract is usually of long duration and may be for the life of each **contractual resident**.

2.27 Temporary Transfer—A move from one **level of care** to another **level of care** with the expectation of returning to the former **level of care**.

2.28 Trend—Measure of rates of change, over time, that affects revenues, costs, or actuarial assumptions.

2.29 Valuation Date—The date as of which the assets and liabilities of the **CCRC** or **At Home Program** are estimated.

2.30 Withdrawal—The termination of a **residency agreement** or **membership agreement** by the **contractual resident** or **member** for reasons other than death.

Section 3. Analysis of Issues and Recommended Practices

3.1 Introduction—When providing actuarial services related to **CCRCs** or **At Home Programs**, the actuary should take into account the relevant financial items associated with the organizations, current **contractual residents** or **members**, new **contractual residents** or **members**, and **levels of care** provided, as well as relevant **residency agreement** or **membership agreement** provisions and applicable law. The actuary should use methods and assumptions that are, in the actuary's professional judgment, appropriate considering the scope and purpose of the assignment.

3.2 Determination of Satisfactory Actuarial Balance—In determining whether the **CCRC** or **At Home Program** is in satisfactory actuarial balance as of the **valuation date**, the actuary should evaluate whether the **CCRC** or **At Home Program** meets all of the following three conditions:

3.2.1 Condition 1: Adequate Resources for Current Contractual Residents or Members—The resources available to current **contractual residents** or **members** include any existing net assets plus the **actuarial present value** of future revenues, such as **periodic fees**, **additional fees**, and third-party payments (for example, Medicare, Medicaid, and long-term care insurance).

Condition 1 would be met if the resources are greater than or equal to any existing liabilities for the current **contractual residents** or **members** plus the **actuarial present value** of the expected costs associated with the contractual obligations to current **contractual residents** or **members**. The actuary should determine if this condition is satisfied using the **actuarial balance sheet** (see section 3.3).

3.2.2 Condition 2: Adequate Fee Structure for a Cohort of New Contractual Residents or New Members—For a **cohort of new contractual residents or new members**, the expected fees are the sum of the **advance fees** paid plus the **actuarial present value** of the new **contractual residents**' or new **members**' expected future revenues, such as **periodic fees**, **additional fees**, and third-party payments (for example, Medicare, Medicaid, and long-term care insurance).

Condition 2 would be met if the expected fees are greater than or equal to the **actuarial present value** of the costs associated with the contractual obligations

determined at an appropriate occupancy or membership date for the cohort. The actuary should determine if this condition is satisfied using the cohort pricing analysis (see section 3.4).

3.2.3 Condition 3: Positive Projected Cash and Investment Balances—The projection of **cash and investment balance**s over the projection period should include revenue and expenses from all known sources, including current **contractual residents** or **members**, new **contractual residents** or **members**, and any **non-contractual residents**.

The actuary should choose a projection period that extends to a point at which, in the actuary's professional judgment, the use of a longer period would not materially affect the results and conclusions.

Condition 3 would be met if the **cash and investment balances** are positive in each projection year. The actuary should determine whether this condition is satisfied using the cash flow projection (see section 3.5).

In the event the **CCRC** or **At Home Program** fails to meet any of the three conditions as specified above, the actuary should consult with the organization to address possible corrective actions to achieve satisfactory actuarial balance.

For a proposed or start-up **CCRC** or **At Home Program**, the actuary should evaluate conditions 1 and 2 using a future **valuation date** and should begin evaluating condition 3 as of a future date. The actuary should select such future dates that are consistent with the end of the start-up period. For example, the actuary may evaluate these conditions using the earlier of a short-term period (such as three to five years) after opening or when the **CCRC** or **At Home Program** reaches the targeted number of **contractual residents** or **members**.

3.3 Actuarial Balance Sheet—The actuary should develop the **actuarial balance sheet** according to the following:

3.3.1 Closed-Group Projection of Current Contractual Residents or Members—The actuary should use a **population projection** that is performed solely with respect to current **contractual residents** or **members** on the **valuation date**. The actuary should project the surviving **contractual residents**' or **members'** movements through various **levels of care** until contract termination. This projection excludes new **contractual residents**, new **members**, and any **non-contractual residents**.

3.3.2 Assets—The actuary should estimate the **actuarial present value** of each of the following: the future **periodic fees** (described in section 3.6.1), the future **additional fees** and third-party payments (described in section 3.6.2), and the **physical property** for assets currently in service (described in section 3.6.3).

The actuary should reflect in the **actuarial balance sheet** other assets from the accounting balance sheet as appropriate, in the actuary's professional judgment. These assets generally include such items as **cash and investment balances**, current receivables, and other items not specifically reflected in the above guidance.

3.3.3 Liabilities—The actuary should estimate the **actuarial present value** of each of the following: the future use of **physical property** (described in section 3.6.4), the future operating expenses (described in section 3.6.5), the future refunds due to **refund guarantees** (described in section 3.6.6), and the long-term debt (described in section 3.6.7).

The actuary should reflect in the **actuarial balance sheet** other liabilities from the accounting balance sheet as appropriate, in the actuary's professional judgment. These liabilities generally include such items as current payables, prepaid **contractual resident** or **member** deposits, fees paid in advance, short-term debt obligations, and other items not specifically reflected in the above guidance.

3.4 Cohort Pricing Analysis—The actuary should develop the cohort pricing analysis based on the **actuarial present value** of revenues and expenses associated with a **cohort of new contractual residents** or **new members**.

The actuary should use a **population projection** that is performed solely with respect to a **cohort of new contractual residents or new members**. The actuary should project surviving **contractual resident** or **member** movements through various **levels of care** until contract termination. This **population projection** excludes any **non-contractual residents**.

The revenues include the **advance fees**, the **actuarial present value** of future **periodic fees** (described in section 3.6.1), and the **actuarial present value** of future **additional fees** and third-party payments (described in section 3.6.2).

The expenses include the **actuarial present value** of each of the following: the future use of **physical property** (described in section 3.6.4), the future operating expenses (described in section 3.6.5), and the future refunds due to **refund guarantees** (described in section 3.6.6).

The actuary may consider, subject to disclosure, the use of expense levels consistent with the targeted number of **contractual residents** or **members** when a material change in the population, such as growth resulting from new construction or expansion, is expected.

3.5 Cash Flow Projections—The actuary should perform cash flow projections using an open group **population projection** that includes existing **contractual residents** or **members** on the **valuation date** together with expected future **contractual residents** or **members** consistent with assumed **occupancy rates** and membership levels. For **CCRCs**, the actuary should include **non-contractual residents** in this **population projection** that use

unoccupied units or beds in various **levels of care** consistent with assumed **occupancy rates**.

The actuary should select assumptions in the cash flow projections that are consistent with those used in the development of the **actuarial balance sheet** and cohort pricing analysis (see sections 3.3 and 3.4).

The actuary should reflect revenues from all known sources (such as **advance fees**, **periodic fees**, **additional fees**, payments from **non-contractual residents**, third-party payments, and investment income). The actuary should reflect expenses from all known sources (such as operating expenses, capital expenditures, debt interest and principal payments, any cost of using an offsite health facility, and refunds due to **refund guarantees**).

In the cash flow projection, the actuary should develop the **cash and investment balances** at the beginning and end of each projection year.

3.6 Actuarial Asset and Liability Values—When developing the **actuarial balance sheet** or the cohort pricing analysis, the actuary should develop the following **actuarial present value** items.

3.6.1 Future Periodic Fees—The actuary should estimate the **actuarial present value** of future **periodic fees** by projecting the fees payable by the surviving **contractual residents** or **members** of the appropriate closed-group population in each **level of care** in each future year, and discounted to the **valuation date**. In the estimate of future fees, the actuary should reflect current rates adjusted for projected future fee increases.

3.6.2 Future Additional Fees and Third-Party Payments—The actuary should estimate the **actuarial present value** of future **additional fees** (such as guest meals and additional meals) and third-party payments. When projecting future payments, the actuary should project the additional revenue payable by, or on behalf of, the surviving **contractual residents** or **members** attributable to the appropriate closed-group population in each **level of care** in each future year. In the estimate of these future payments, the actuary should reflect current experience adjusted for projected future increases.

3.6.3 Physical Property for Assets Currently in Service—The actuary should estimate the **actuarial present value** of **physical property** for assets currently in service as the **actuarial present value** of the projected remaining annual capital expense charges associated with assets in service as of the **valuation date**.

The actuary should estimate the annual capital expense charge for the use of an asset for each year using its useful lifetime. The projected annual capital expense charge consists of the imputed interest charge for the use of the asset plus the change in asset value from one year to the next. In calculating the capital expense

charges, the actuary should use a rate consistent with the cost of capital at the time the asset was originally put into service or the cost of capital in the current economic environment.

3.6.4 Future Use of Physical Property—The actuary should estimate the **actuarial present value** of the future use of **physical property** by taking the projected annual capital expense charges for both the current and replacement fixed assets allocated to the surviving **contractual residents** of the appropriate closed-group population in each future year and discounting the result back to the **valuation date**. The actuary should consider developing the **actuarial present value** estimates for each **level of care**.

The actuary should use a methodology to estimate the annual capital expense charges that is consistent with the methodology used to estimate the annual capital expense charges of **physical property** for assets currently in service (see section 3.6.3).

3.6.5 Future Operating Expenses—The actuary should estimate the **actuarial present value** of future operating expenses by taking the operating expenses allocated to the **contractual residents** or **members** of the appropriate closed-group population in each future year and discounting the result back to the **valuation date**. The actuary should exclude from future operating expenses (a) future capital expenditures, which are discussed in section 3.6.4; and (b) the future long-term debt interest and principal payments, which are discussed in section 3.6.7.

When estimating future operating expenses, the actuary should reflect future cost **trends** and reflect underlying expense consumption patterns in the allocation. The actuary should allocate expenses across the various **levels of care** and within each **level of care** on an appropriate basis such as per person, per unit, or per square foot.

3.6.6 Future Refunds Due to Refund Guarantees—The actuary should estimate the **actuarial present value** of future refunds due to **refund guarantees** by estimating the amount of refund due to each terminating **contractual resident** or **member** of the appropriate closed-group population in each future year and discounting the amounts back to the **valuation date**. The refund calculation is for the contractual amount of the **advance fee** refund. The actuary should calculate the estimate of the **advance fee** refund based on the contractual liability for each future year on the terms of the **residency agreement** or **membership agreement** assumed to be applicable to that **contractual resident** or **member** and the organization's actual practice, if any, with regard to payment of refunds.

3.6.7 Long-Term Debt—The actuary should estimate the present value of long-term debt as the discounted value of the projected remaining principal and interest payments as of the **valuation date**. The present value of long-term debt may be different than the amount on the accounting balance sheet depending on the relationship between the discount rate and the actual or expected interest rate on the debt.

3.7 Selection of Actuarial Assumptions—The actuary should take into account the following when selecting assumptions.

3.7.1 Actuarial Assumptions—In selecting actuarial assumptions for mortality, **morbidity**, **withdrawal**, and **occupancy rates**, the actuary should reflect each of the following as appropriate:

a. age and gender;

b. health characteristics;

c. **permanent transfer** and **temporary transfer** patterns;

d. **level of care** status and expected differences in experience between **contractual residents** or **members** in different **levels of care**;

e. time elapsed since the last change in the **level of care**;

f. single or joint contracts;

g. demographic profile and number of new **contractual residents** or **members**;

h. time elapsed since the **contractual resident** or **member** entered the **CCRC** or **At Home Program**;

i. actual experience of the **CCRC** or **At Home Program**, and the credibility of the experience;

j. contractual guarantees, such as **health care guarantees** and **refund guarantees**; and

k. operational policies and practices of the organization, such as transfer policies.

The actuary should select **trend** assumptions to project mortality (sometimes referred to as "mortality improvement," which can be positive or negative), **morbidity**, **withdrawal**, and **occupancy rates** that are reasonable, in the actuary's professional judgment. In selecting **trend** assumptions, the actuary should consider and review appropriate data. The data may include **trend** experience studies, appropriate industry studies, and management **occupancy rate** projections.

3.7.2 Trend Assumptions for Fees and Expenses—The actuary should set **trend** assumptions for **periodic fees**, **advance fees**, **additional fees**, and other revenue items. The actuary should also set **trend** assumptions for operating expenses,

capital expenditures, and other expense items. The actuary may use different **trend** assumptions, as appropriate, for various categories of revenues and expenses. In setting **trend** assumptions for **periodic fees**, the actuary should also take into account practical, competitive, and contractual considerations.

The actuary should select assumptions for future **trends** in **periodic fees** that are consistent with the **trend** assumptions that are used in projecting future expenses. If the actuary uses different **trend** assumptions for **periodic fees** and operating expenses, the actuary should disclose this difference.

3.7.3 Investment Rate and Discount Rate Assumptions—The actuary should select investment rate and discount rate assumptions that are individually reasonable, mutually consistent, and reflective of the long-term nature of the **residency agreement** or **membership agreement** as follows:

a. short- and long-term market expectations, and the future investment strategy of the organization to estimate investment income for the cash flow projection; and

b. a discount rate to estimate **actuarial present values** that, in the actuary's professional judgment, is reasonable and appropriate, and is consistent with the investment rate.

3.7.4 Revenue and Expense Allocation Assumptions—The actuary should assume an allocation of general revenues and expenses to the various **levels of care**, and to current and new **contractual residents** or **members**. The actuary should determine whether the sum of all allocated expenses reconciles to the total projected expenses of the **CCRC** or **At Home Program**.

3.7.5 Going-Concern Assumption—The **actuarial balance sheet**, the cohort pricing analysis, and the cash flow projection rely on assumptions predicated on the ongoing financial viability and continuation of the **CCRC** or **At Home Program**. This implies that the organization will be able to maintain appropriate **occupancy rates** or membership levels by attracting new **contractual residents** or **members** to replace existing **contractual residents** or **members**. The actuary should assess the ability of the organization to attract new **contractual residents** or **members** or any other known, significant circumstances that, in the actuary's professional judgment, may affect the organization's ability to remain a going concern.

3.7.6 Reasonableness of Assumptions—The actuary should review the assumptions for reasonableness. The assumptions should be reasonable, in the actuary's professional judgment, in the aggregate and for each assumption individually. The actuary should identify material changes in assumptions, and methods relating to the use of those assumptions, compared to the most recent prior analysis if applicable.

In reviewing the assumptions for reasonableness, the actuary should take into account the following:

a. the intended purpose of the measurement;

b. the frequency with which the projections are expected to be updated;

c. the length of the projection period;

d. the sensitivity of the projections to the effect of variations in key actuarial assumptions;

e. the potential variability of the assumption;

f. consistency among related assumptions;

g. the size of the **CCRC's contractual resident** population or **At Home Program** membership;

h. the ability to increase fees or decrease expenses in future periods;

i. the level of capital available to provide for adverse fluctuation;

j. any significant margins for uncertainty that have been included in the actuarial assumptions; and

k. the expectation of no material bias (i.e., it is not materially optimistic or pessimistic) relative to the purpose of the measurement, excluding the effect of a margin.

3.8 Benevolence Funds and Financial Assistance Subsidies—The actuary should determine the benevolence funds or financial assistance subsidies available as well as the potential future liabilities for **contractual residents** or **members** who do not pay the contractual fees. For example, some organizations may set aside assets or funds from charitable contributions to assist **contractual residents** or **members**, while other organizations may include the costs of any assistance in the basic **fee structure**.

3.9 For-Profit CCRCs or At Home Programs—When performing actuarial services with respect to for-profit organizations, the actuary should determine the nature and financial implications of the ownership arrangement, including owner's equity, past and possible future equity distributions, potential income tax liability, and historical and future capital expenditures funded by the owner.

3.10 Equity or Cooperative CCRCs or At Home Programs—When performing actuarial services with respect to equity or cooperative **CCRCs** or **At Home Programs**, the actuary should determine the nature and financial implications of any **contractual resident** or **member**

ownership arrangement, including **advance fee** payments and refunds due to **refund guarantees**, and the value of assets invested in the **physical property** and the replacement costs of these fixed assets.

3.11 Additional Considerations Affecting CCRC or At Home Program Finances—The actuary should determine the scope of the organization's commitments to current and prospective **contractual residents** or **members** and the nature of its **fee structure**. The actuary may obtain this information from the applicable **residency agreements** or **membership agreements** and any other reasonable source of information about the organization. When interpreting these documents, the actuary should determine the following:

a. the admission and underwriting criteria and how they are applied;

b. the terms of the **residency agreement** or **membership agreement** and any limitations on the period for which commitments are made;

c. any known, significant limitations on the organization's ability to change future **periodic fees**;

d. any **refund guarantees**;

e. any limitation on the services provided and any collectability risk for services limited under the contract or requiring additional payment;

f. any contract provisions for prepaid health care or for additional charges if a **contractual resident** or **member** receives health care;

g. any affiliation with another entity and the extent to which any such entity would assume responsibility for the organization's obligations; and

h. any other matter that, in the actuary's professional judgment, is expected to have a material effect on the organization's current or future financial statements.

3.12 External Restrictions—The actuary should take into account restrictions on the **CCRC** or **At Home Program** from external sources, such as applicable law, regulation, or other binding authority. Examples include a state's Medicaid reimbursement policy, regulations restricting the use of **health center** beds by **non-contractual residents**, and any relevant lender-imposed restrictions.

3.13 Reliance on Data or Other Information Supplied by Others—When relying on data or other information supplied by others, the actuary should refer to ASOP No. 23, *Data Quality*, and ASOP No. 41, *Actuarial Communications*, for guidance.

3.14 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. When preparing documentation, the actuary should prepare documentation in a

form such that another actuary qualified in the same practice area could assess the reasonableness of the actuary's work. The degree 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 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 to which this standard applies, the actuary should refer to ASOP Nos. 23 and 41. In addition, the actuary should disclose the following in such actuarial reports, if applicable:

a. historical and current financial data used to produce the **actuarial balance sheet**, cohort pricing analysis, and cash flow projections, in accordance with sections 3.3, 3.4, and 3.5;

b. summary of historical **contractual resident** or **member** data and population statistics for **contractual residents** or **members** as of the **valuation date**, in accordance with sections 3.3, 3.4, and 3.5;

c. assumptions and methodology used in performing the **population projections**, in accordance with sections 3.3, 3.4, and 3.5;

d. assumed expense levels consistent with the targeted number of **contractual residents** or **members** when a material change in the population is expected, in accordance with section 3.4;

e. assumptions and methodology used to estimate each **actuarial present value**, in accordance with section 3.6;

f. assumptions and methodology used to value and depreciate the **physical property**, in accordance with sections 3.6.3 and 3.6.4;

g. mortality, **morbidity**, **withdrawal**, and **occupancy rate** assumptions (including **trend** assumptions, if any), and methodology used in selecting such assumptions, in accordance with sections 3.7.1;

h. **trend** rates for revenues and expenses, and the relationship between the two, in accordance with section 3.7.2;

i. investment rate and discount rate, in accordance with section 3.7.3;

j. assumptions and methodology used to allocate general revenue and expenses, in accordance with section 3.7.4;

k. any known significant circumstances that may affect the organization's ability to remain a going concern, in accordance with section 3.7.5;

l. assumptions and methodology used for any significant margin for uncertainty, or a similar adjustment or provision, included in the actuarial valuation, including any significant assumptions affecting the valuation regarding surplus available to provide for adverse fluctuations, in accordance with section 3.7.6;

m. any material changes in assumptions or methods from the most recent prior analysis, in accordance with section 3.7.6;

n. the results of any sensitivity tests performed, in accordance with section 3.7.6; and

o. any assistance assumed to be derived from dedicated benevolence funds or financial assistance subsidies, in accordance with section 3.8.

4.2 Assignments Involving an Opinion on Satisfactory Actuarial Balance—The actuarial report should disclose the **actuarial balance sheet**, the cohort pricing analysis, and the **cash and investment balances** at the beginning and end of each projection year, which were prepared to test the three conditions, in accordance with sections 3.3, 3.4, and 3.5 and state whether or not each condition is met.

If one or more of the three conditions is not met, the actuary should disclose the implications of the deficiency and, if known, a description of management's plans to address the deficiency for each unmet condition.

If the actuary is unable to form the needed opinion regarding whether the organization is in satisfactory actuarial balance, or if the opinion is adverse (due to failing one or more of the conditions) or otherwise qualified, then the actuary should disclose why the actuary is unable to form an unqualified favorable opinion.

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

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

b. 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. if in the actuary's professional judgment, the actuary has deviated materially from the guidance of this ASOP.

Appendix 1

Background and Current Practices

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

Background

Certain contractual obligations of a CCRC or At Home Programs are contingent upon the occurrence, timing, and duration of certain future events. The CCRC contractual resident or At Home Program member typically pays for such future promised services through a combination of advance and periodic fees, typically before the services are provided. Actuarial methods are used to establish the fee structure and to measure the organization's liabilities for the provision of future promised services.

High occupancy, sound pricing, care management, and effective financial management are some of the keys to the successful operation of a CCRC. The ability of a CCRC to attract new contractual residents to fill vacancies will depend on keeping the CCRC competitive with respect to its physical property, its fee schedule, and the general attractiveness of its whole environment. Membership levels, sound pricing, care management, and effective financial management are some of the keys to the successful operation of an At Home Program.

Current Practices

Current actuarial practices for CCRCs are generally now well established. Prior to the release of the first edition of this ASOP and the release of subsequent educational material by various entities, actuaries used differing analytical approaches. These approaches included differing methods to determine closed and open-group contractual resident projections, projected refunds due to refund guarantees, physical property valuations, long-term debt, and other items. While historically differences did exist, these differences have now mostly been eliminated and standardized practices have evolved.

Illustrative Capital Expense Charge Development and Physical Property Valuation

The physical property, or fixed assets, of a CCRC are a significant asset of the CCRC, and also a significant cost to the contractual residents of the CCRC. In order to provide for equity among generations of contractual residents, it is necessary to allocate an appropriate part of the cost of the use of physical property to current contractual residents as of the valuation date and to the cohort of new contractual residents.

The method described in this appendix for developing and assigning the annual capital expense charge for asset use, determining the asset's actuarial value, and determining the liability for asset

use is one illustrative method designed to provide for equity among generations of contractual residents. (Illustrative formulas for expensing and valuing physical property are presented at the end of this appendix.)

Physical property assets may be valued and depreciated using level, decreasing, or increasing depreciation methodologies based on actuarial principles, the nature of the underlying assets, and other factors.

Capital Expense (Imputed Interest plus Depreciation) Charges—The annual capital expense charge for physical property consists of the imputed interest for the use of the asset, or opportunity cost of using cash resources for purchasing a fixed asset (because it is not an interest-earning investment), plus the change in asset value from one year to the next.

a. Each item of physical property is assigned an assumed useful lifetime and an appropriate rate of inflation. While GAAP expected lifetimes might be available, alternative lifetimes may be available from other sources such as engineering studies performed by the client. In the case of land, the expected useful lifetime may be perpetual.

b. The annual capital expense charge for the use of an asset is developed for each year using its useful lifetime and is calculated as one of a series of annual amounts. The present value of this series, discounted to the time of acquisition, equals the cost of the asset. This series of annual amounts may be decreasing, level, or increasing.

c. In similar fashion, capital expense charges are developed for physical property assumed to be purchased in future years. It is assumed that each asset will be replaced at the end of its useful lifetime with a new asset. The cost of the new asset is assumed to equal the original cost indexed for inflation. The asset is continually replaced at the end of successive useful lifetimes.

   An approximation of these replacement costs that better reflects the expected magnitude and timing of future capital expenditures may also be used. These approximations reflect a sufficient level of future capital expenditures necessary to maintain the physical property for future use.

Capital expense charges are developed for the following items:

a. Actuarial Value of Physical Property for Assets Currently in Service—Reflected as an asset on the actuarial balance sheet;

b. Actuarial Present Value of Future Use of Physical Property Consumed by Current Contractual residents throughout Their Respective Lifetimes—Reflected as a liability on the actuarial balance sheet; and

c. Actuarial Present Value for Future Use of Physical Property Consumed by a Hypothetical Group of Prospective Contractual Residents—Reflected as a liability on the cohort pricing analysis.

Value of Physical Property for Assets Currently in Service—The actuarial value of each asset is the discounted value (without survivorship) of the remaining annual capital expense charges as of the valuation date. The sum of these values for all such assets in service as of the valuation date is reflected as an asset on the actuarial balance sheet.

Value of Future Use of Physical Property for Existing Contractual Residents—The actuarial present value of the future use of physical property for existing contractual residents is the discounted value (with survivorship) of the annual capital expense charges for the physical property, *and* its replacements, allocated to existing contractual residents as of the valuation date.

a. The part of each future year's capital expense charge that relates to the existing contractual residents as of the valuation date is determined by estimating the ratio of the existing contractual resident survivorship group use to total CCRC use. The ratio may be in proportion to population, number of CCRC occupied beds or units, square footage, or some other appropriate measure. For years during fill-up or material change in population, it may be appropriate to substitute a target or ultimate level of use for the actual estimated level of total use.

b. The current actuarial liability for the promised future use of a physical asset (and its replacements) with respect to the existing contractual resident closed group is the sum (for all years) of the part of such capital expense charge in each future year related to the existing closed group, as determined in (a), discounted to the valuation date.

Value of Future Use of Physical Property for the New Entrant Cohort—The actuarial present value of the future use of physical property for the new entrant cohort is the discounted value (with survivorship) of the annual capital expense charges for the physical property, and its replacements, allocated to the new entrant cohort closed group.

a. The part of each future year's capital expense charge that relates to the new entrant cohort is determined by estimating the ratio of the new entrant cohort survivorship group use to total CCRC use.

b. The current actuarial liability for the promised future use of a physical asset (and its replacements) with respect to the new entrant cohort is the sum (for all years) of the part of such capital expense charge in each future year related to the new entrant cohort closed group, as determined in (a), discounted to the valuation date.

Illustrative Formulas for Expensing and Valuing Physical Property

Note: These formulas illustrate allocations on a per contractual resident basis. Other allocation bases such as units, beds, square footage, etc. may be more appropriate for certain assets.

A. Relationships of Asset Cost, Asset Value, and Open-Group Annual Expense

A = Actual asset

e = Expected years of the asset's useful lifetime.

E_n = Annual expense in year n for use of the asset. For simplicity in these illustrations, we assume it is payable at the end of the year.

j = Assumed annual rate of increase in E. Note that j could be zero. Setting $j = k$ makes it possible to anticipate a smooth progression in annual expense at the time the asset is replaced when its useful lifetime ends. (It is not necessary that E_n's form a geometric series. However, in this example the E_n's do form such a series.)

k = Assumed annual rate of increase in replacement cost of A.

i = Assumed annual discount, or cost of capital, rate.

v = $1/(1 + i)$.

A_o = Acquisition cost of the asset.

$$A_o = v * E_1 + v^2 * E_2 + ... + v^e * E_e.$$

From this we obtain

$$E_1 = \frac{A_o * (i - j)}{1 - [v * (1 + j)]^e}, \qquad \text{provided } i \neq j$$

V_n = Value of the current asset at duration n, where $n < e$.

$$V_n = v * E_{n+1} + v^2 * E_{n+2} + ... + v^{e-n} * E_e.$$

From this we obtain

$$E_{n+1} = i * V_n + (V_n - V_{n+1}).$$

This shows that the annual expense for a physical asset consists of the interest that is forgone (because it is not an interest-earning investment), plus the change in asset value from one year to the next. In the case of land, the annual expense consists of only the interest that is forgone, since there is no assumed change in asset value (lifetime is perpetual).

B. Relationship of Closed-Group Liability with Open-Group Expense

P_n = Projected total population at duration n, determined on an open-group basis. Depending on the circumstances, a reasonable approximation for P may be a constant number equaling the current population.

C_n = Projected surviving population at duration n from a specified closed group. The closed group may be the closed group of current contractual residents or the closed group for a cohort of new contractual residents.

If a part of a given CCRC is used for persons not under contract, only the fraction devoted to those under contract should be considered. One way of accomplishing this is to include those not under contract in P_n but not in C_n.

$R_{n+1} = \dfrac{C_n + C_{n+1}}{P_n + P_{n+1}}$, representing the ratio of the projected closed group population to the projected total population.

L_n = Liability at duration n for the future use of the asset and its replacements by a specific closed group.

$$L_n = v * R_{n+1} * E_{n+1} + v^2 * R_{n+2} * E_{n+2} + ... + v^{e-n} * R_e * E_e$$
$$+ v^{e-n+1} * R_{e+1} * E_{e+1} + v^{e-n+2} * R_{e+2} * E_{e+2} + ... + v^{2e-n} * R_{2e} * E_{2e}$$
$$+ ..... + \text{until } R = 0.$$

Appendix 2

Comments on the Exposure Draft and Responses

The exposure draft of the proposed revision of ASOP No. 3, *Continuing Care Retirement Communities and At Home Programs*, was issued in November 2020 with a comment deadline of February 1, 2021. Five comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term "commentator" may refer to more than one person associated with a particular comment letter. The ASOP No. 3 Task Force carefully considered all comments received, and the ASB reviewed (and modified, where appropriate) the changes proposed by the ASOP No. 3 Task Force and the ASB Health Committee.

Summarized below are the significant issues and questions contained in the comment letters and the responses. Minor wording or punctuation changes that were suggested but not significant are not reflected in the appendix, although they may have been adopted.

The term "reviewers" in appendix 2 includes the ASOP No. 3 Task Force, the ASB Health Committee, and the ASB. Also, the section numbers and titles used in appendix 2 refer to those in the exposure draft, which are then cross referenced with those in the final ASOP.

GENERAL COMMENT	
Comment	One commentator felt itemized paragraph 1 on page vi, announcing the applicability of the ASOP to "At Home Programs that are not regulated as an insurance entity" raises numerous questions among them including: 1) why aren't [At Home Programs] regulated as long term care insurance? and 2) Is it wise for the Academy to participate in encouraging long term care insurance programs by unlicensed entities?
Response	The reviewers believe ASOP No. 3 is intended to provide guidance to actuaries within the context of the existing regulatory environment.
Comment	One commentator felt that Continuing Care Retirement Communities (CCRCs) residents should have been represented on the ASOP No. 3 task force. The commentator also felt actuarial studies should be prepared for an audience that includes state regulators and residents. Lastly, the commentator also felt that actuarial studies should meet the needs of residents.
Response	The reviewers note the purpose of ASOPs is to provide guidance to actuaries practicing in this area and not to advocate for the interest of a particular stakeholder. The ASOP No. 3 task force is composed of actuaries with experience in the field. Any interested party, including non-actuaries, has an opportunity to offer comments through the exposure process prior to finalization of a standard.

Comment	One commentator felt the drafters missed the strategic opportunity to educate stakeholders on the difference between GAAP requirements and ASOPs.
Response	The reviewers disagree and believe the guidance regarding CCRCs is appropriate. The reviewers note the education of stakeholders is beyond the scope of this ASOP. The reviewers also note that ASOP No. 1, *Introductory Actuarial Standard of Practice*, provides guidance for situations where regulatory guidance conflicts with ASOPs. Therefore, the reviewers made no change in response to this comment.
Comment	One commentator felt the exposure draft fell short of providing additional definitions and guidance for the differences between At Home Programs and Continuing Care Retirement Communities.
Response	The reviewers believe CCRCs and At Home Programs are currently regulated in a similar manner state-by-state and, therefore, believe both are appropriately addressed in the revision of ASOP No. 3. Therefore, the reviewers made no change in response to this comment.
SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.1, Purpose	
Comment	One commentator felt that the limitation to "At Home Programs that are not regulated as insurance entities" is repeated in sections 1.1 and 1.2, and felt one would infer that [At Home Programs] offered by licensed insurers are subject to different standards though it's hard to understand why the actuarial characteristics would be differentiated.
Response	The reviewers believe that this language is necessary to distinguish At Home Programs from long-term care insurance, which would be covered under ASOP No. 18, *Long-Term Care Insurance*, and made no change.
Section 1.2, Scope	
Comment	One commentator stated examples of services covered in the existing ASOP were removed but should have been retained.
Response	The reviewers agree and modified the language.
SECTION 2. DEFINITIONS	
Section 2.4, Advance Fee	
Comment	One commentator felt the definition in section 2.4 departs from the terms that are commonly used for single-premium-life-annuity-type prepayments of fees that would otherwise be paid on a recurrent basis over the insured's ("resident" or "member" in the terminology of the ASOP) lifetime.
Response	The reviewers disagree and made no change in response to this comment.
Section 2.11, Health Center (now section 2.12)	
Comment	One commentator felt that the definition of "non-resident" (a term used in section 2.11) was confusing. Furthermore, the commentator felt clarity was needed regarding the difference between "residents" and "non-residents."
Response	The reviewers agree and modified the terms "resident" to "contractual resident" and "non-resident" to "non-contractual resident."
Section 2.24, Residency Agreement (now section 2.26)	
Comment	One commentator felt the sentence in section 2.24 reading, "The contract is usually of long duration and may be for the life of each resident," is at odds with the AICPA Guidance that CCRC contracts are month-to-month because the resident may cease paying.
Response	The reviewers disagree and do not believe AICPA Guidance is relevant to this definition, and made no change in response to this comment.

SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Comment	One commentator felt specific guidance should be included in section 3 to assist actuaries in understanding the interaction between ASOP No. 3 and ASOP No. 56, *Modeling*.
Response	The reviewers note that the *Code of Professional Conduct* (Code) directs the actuary to consider all applicable ASOPs.
Section 3.2, Determination of Satisfactory Actuarial Balance	
Comment	One commentator felt the second to the last paragraph in section 3.2 that reads, "In the event the CCRC or At Home Program fails to meet any of three conditions as specified above, the actuary should consult with the organization to address possible corrective actions to achieve satisfactory actuarial balance," raises the question of what the responsibility of the actuary is if the "organization" refuses to follow the advice.
Response	The reviewers believe this question is outside the scope of ASOP No. 3. Therefore, the reviewers made no change.
Section 3.3.2, Assets	
Comment	One commentator stated that additional disclosures are needed in section 3.3.2 regarding actuarial present value.
Response	The reviewers disagree and believe this topic is adequately addressed in section 3.6 and 4.1(e). Therefore, the reviewers made no change.
Section 3.4, Cohort Pricing Analysis	
Comment	One commentator suggested that the ASOP should provide an example of the methodology regarding temporary transfers among levels of care.
Response	The reviewers noted that the concept of temporary transfers is discussed in sections 2.27 and 3.7.1. The reviewers also note ASOPs are principles based and are not educational in nature, and made no change in response to this comment.
Section 3.5, Cash Flow Projections	
Comment	Two commentators suggested the cross reference to ASOP No. 7, *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*, is not appropriate.
Response	The reviewers agree and removed the cross reference.
Section 3.6.4, Future Use of Physical Property	
Comment	One commentator noted that in developing the present value of physical property and operating expenses both involve allocation of expenses to level of care.
Response	The committee agreed and modified section 3.6.4 to reflect the allocation of physical property expenses to level of care.
Section 3.6.6, Future Refunds Due to Refund Guarantees	
Comment	One commentator suggested changing "refund guarantee" terminology due to the uncertain nature of the contractual provision.
Response	The reviewers disagree and made no change in response to this comment.

Section 3.7, Selection of Actuarial Assumptions	
Comment	One commentator felt there should be a requirement that the combined effect of the assumptions is expected to have no significant bias except for margins for uncertainty.
Response	The reviewers agree and modified the language in section 3.7.6.
Section 3.7.1, Mortality, Morbidity, and Withdrawal Assumptions (now Actuarial Assumptions)	
Comment	One commentator suggested that documentation should be provided regarding the development of reasonable assumptions as discussed in section 3.7.1 and 3.7.6.
Response	The reviewers disagree and made no change in response to this comment.
Comment	One commentator felt that that it should be explicitly stated that the actuary should consider future mortality improvement.
Response	The reviewers agree and modified the language in response to this comment.
Section 3.7.2, Trend Assumptions for Fees and Expenses	
Comment	One commentator expressed the need to document and communicate the development of revenue and expense assumptions, as identified in section 3.7.2.
Response	The reviewers note that the standard addresses this issue in sections 3.7.2 and 4.1(h), and made no change.
Section 3.7.5, Going-Concern Assumption	
Comment	One commentator suggested the ASOP require an actuary to perform a capital adequacy analysis and develop actuarial reserves.
Response	The reviewers disagree and made no change.
Section 3.7.6, Reasonableness of Assumptions	
Comment	One commentator suggested that section 3.7.6 should indicate that there should be consistency among the assumptions.
Response	The reviewers agree and modified the language in response to this comment.
Section 3.8, Benevolence Funds and Financial Assistance Subsidies	
Comment	One commentator suggested addressing the situation where the benevolence funds are being used for something other than residential financial assistance.
Response	The reviewers believe that section 3.8 appropriately addresses this situation and note that it states "the actuary should determine the benevolence funds or financial assistance subsidies available as well as the potential future liabilities for contractual residents or members who do not pay the contractual fees." Therefore, the reviewers made no change in response to this comment.
Section 3.10, Equity or Cooperative CCRCs or At Home Programs	
Comment	One commentator believes the ownership structure of the organization is not material to the actuarial valuation.
Response	The reviewers disagree and made no change in response to this comment.
Section 3.11, Additional Considerations Affecting CCRC or At Home Program Finances	
Comment	One commentator suggested adding more objective guidance to the actuary when analyzing residency contracts and membership agreements.
Response	The reviewers disagree and made no change in response to this comment. The reviewers note that section 3.11 provides an objective list of contractual items for the actuary to consider.
Section 3.14, Documentation	
Comment	One commentator suggested more specific guidance regarding documentation of assumptions and methodology, as well as retention of documentation.
Response	The reviewers disagree and note the language is consistent with standard language found in current ASOPs. Therefore, the reviewers made no change.

SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.1, Required Disclosures in an Actuarial Report	
Comment	One commentator suggested more specific guidance regarding disclosure of demographic assumptions.
Response	The reviewers agree and modified section 4.1(g) to reflect this comment.
Comment	One commentator suggested that there should be a requirement to show sufficient detail to permit another qualified actuary to assess the level and pattern of each assumption.
Response	The reviewers note that ASOP No. 41, *Actuarial Communications*, contains these requirements and applies to all actuarial reports issued. Therefore, the reviewers made no change in response to this comment.
Section 4.2, Assignments Involving an Opinion on Satisfactory Actuarial Balance	
Comment	One commentator suggested that the actuary may not know management's plan to address deficiencies for each unmet condition. Therefore, the actuary would be unable to disclose such information.
Response	The reviewers agree and modified section 4.2.

ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 4

Revised Edition

Measuring Pension Obligations and Determining Pension Plan Costs or Contributions

Developed by the
Pension Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
December 2021

Doc. No. 205

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APPENDIX

ASOP No. 4—Doc. No. 205

December 2021

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Measuring Pension Obligations and Determining Pension Plan Costs or Contributions

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 4

This document contains a revision of ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions.*

History of the Standard

The ASB provides guidance for measuring pension and retiree group benefit obligations through the series of ASOPs listed below.

1. ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*;

2. ASOP No. 6, *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*;

3. ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*;

4. ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*;

5. ASOP No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*; and

6. ASOP No. 51, *Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions.*

The last revision of ASOP No. 4 was issued in December 2013.

In response to specific requests for changes in the ASOPs and other activity related to public pension plans, in July 2014 the ASB issued a Request for Comments on the topic of ASOPs and Public Pension Plan Funding and Accounting. Over 50 comment letters were received covering a wide variety of potential ASB actions. In December 2014, the ASB formed the Pension Task Force and charged it with reviewing these comments and other relevant reports and input to develop recommendations for ASB next steps. In July 2015, the ASB held a public hearing on actuarial standards of practice applicable to actuarial work regarding public plans. The Pension Task Force provided its report to the ASB in February 2016. The report included suggestions for changes to the ASOPs that would apply to all areas of pension practice. In June 2016, the ASB

directed its Pension Committee to draft appropriate modifications to the actuarial standards of practice, in accordance with ASB procedures, to implement the suggestions of the Pension Task Force.

One of the suggestions made by the Pension Task Force was the calculation and disclosure of a solvency value for all valuations of pension plans done for funding purposes. In response to this suggestion, calculation and disclosure of an investment risk defeasement measure was added in the first exposure draft, and a low-default-risk obligation measure was added in the second and third exposure drafts as well as in this final version. The ASB believes that the calculation and disclosure of this measure provides appropriate, useful information for the intended user regarding the funded status of a pension plan. The calculation and disclosure of this additional measure is not intended to suggest that this is the "right" liability measure for a pension plan. However, the ASB does believe that this additional disclosure provides a more complete assessment of a plan's funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.

First Exposure Draft

The first exposure draft was approved in March 2018 with a comment deadline of July 31, 2018. Sixty-seven comment letters were received and considered in making changes that were reflected in the second exposure draft.

Second Exposure Draft

The second exposure draft was approved in December 2019 with a comment deadline of July 31, 2020. Nineteen comment letters were received and considered in making changes that were reflected in the third exposure draft.

Third Exposure Draft

The third exposure draft was approved in June 2021 with a comment deadline of October 15, 2021. Seven comment letters were received and considered in making changes that are reflected in the final ASOP.

Notable Changes from the Third Exposure Draft

Notable changes made to the third exposure draft are summarized below. Additional changes were made to improve readability, clarity, or consistency.

1. Section 3.2, General Procedures, added language directing the actuary to refer to ASOP No. 56, *Modeling*, for guidance on models when measuring pension obligations, determining periodic costs, or determining actuarially determined contributions. In addition, the list of ASOPs in section 4.1 now includes ASOP No. 56.

2. Section 3.11, Low-Default-Risk Obligation Measure, was clarified to state that, for purposes of the obligation measure, the actuary should consider reflecting the impact, if

any, of investing plan assets in low-default-risk fixed income securities on the pattern of benefits expected to be paid in the future, such as in a variable annuity plan.

Notable Changes from the Existing ASOP

Notable changes from the version of ASOP No. 4 adopted December 2013 include the following:

1. All references to "plan obligations" were changed to "pension obligations" for consistency.

2. All references to "actuarial assumptions" were changed to "assumptions" for consistency.

3. Section 1.2, Scope, was expanded to clarify the application of the standard when the actuary selects an output smoothing method and when an assumption or method is not selected by the actuary.

4. Section 2.8, Definition of Contribution Allocation Procedure, was clarified to state a contribution allocation procedure is one that determines one or more actuarially determined contributions for a plan.

5. Section 2.12, Funding Valuation, was added in conjunction with added guidance in section 3.

6. Section 2.13, Gain and Loss Analysis, was added in conjunction with added guidance in section 3.22.

7. Section 2.18, Output Smoothing Method, was clarified to state that for the purposes of this standard, an asset valuation method is not an output smoothing method.

8. Section 3.2, General Procedures, was revised to include specific references to sections 3.11, Low-Default-Risk Obligation Measure; 3.14, Amortization Methods; 3.16, Output Smoothing Method; 3.19, Implications of Contribution Allocation Procedure or Funding Policy; 3.20, Contribution Lag; 3.21, Reasonable Actuarially Determined Contribution; 3.22, Gain and Loss Analysis; 3.24, Assessment of Assumptions and Methods Not Selected by the Actuary; 3.25, Approximations and Estimates; and 3.26, Documentation. In addition, subsections of section 3 were reordered and renumbered.

9. The guidance in section 3.3.2, Uncertainty or Risk, was revised to refer only to the relevant ASOPs.

10. The title of section 3.8 was changed from "Actuarial Assumptions" to "Assumptions." This section was expanded to provide additional guidance regarding selection of assumptions. In addition, exceptions to significant bias now include when alternative assumptions are used for the assessment of risk, in accordance with ASOP No. 51. Section 3.8 also was revised for clarity.

11. Section 3.11, Low-Default-Risk Obligation Measure, was added to provide guidance regarding the calculation of this measure when the actuary is performing a funding valuation.

12. Section 3.14, Amortization Methods, was added to provide guidance on the selection of amortization methods.

13. Section 3.16, Output Smoothing Methods, was added to provide guidance on the selection of output smoothing methods.

14. Section 3.17 (previously 3.14), Allocation Procedure, was expanded to provide additional guidance regarding the selection of a cost allocation procedure or contribution allocation procedure.

15. Section 3.14.2 (now 3.19), Implications of Contribution Allocation Procedure or Funding Policy, was modified to eliminate exceptions to the requirement that the actuary should assess such implications whenever the actuary is performing a funding valuation.

16. Section 3.20, Contribution Lag, was added to provide guidance on calculating an actuarially determined contribution, and the passage of time between the measurement date and the expected timing of actual contributions.

17. Section 3.21, Reasonable Actuarially Determined Contribution, was added to provide further guidance on performing a funding valuation that does not include a prescribed assumption or method set by law.

18. Section 3.22, Gain and Loss Analysis, was added to provide guidance regarding the performance of a gain and loss analysis when performing a funding valuation.

19. Section 3.16 (now section 3.23), Volatility, was modified to direct an actuary analyzing potential economic and demographic volatility to refer to ASOP No. 51 for additional guidance.

20. Section 3.26, Documentation, was added to provide guidance on documenting work within the scope of this ASOP.

21. Section 4.1, Communication Requirements, was renamed "Required Disclosures in an Actuarial Report," was expanded to provide additional guidance concerning disclosures, and was reordered to follow the order of the guidance in section 3.

The ASB voted in December 2021 to adopt this standard.

Pension Committee of the ASB

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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.

ASOP No. 4—Doc. No. 205

ACTUARIAL STANDARD OF PRACTICE NO. 4

MEASURING PENSION OBLIGATIONS AND DETERMINING PENSION PLAN COSTS OR CONTRIBUTIONS

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 measuring obligations under a defined benefit pension plan (also referred to as "plan" or "pension plan" throughout this standard) and determining **periodic costs** or **actuarially determined contributions** for such plans. Other actuarial standards of practice address assumptions, asset valuation methods, and assessment of risk. This standard addresses broader measurement issues, including **cost allocation procedures** and **contribution allocation procedures**. This standard provides guidance for coordinating and integrating all of the elements of an **actuarial valuation** of a pension plan.

1.2 Scope—This standard applies to actuaries when performing actuarial services with respect to the following tasks in connection with a pension plan:

a. measurement of pension obligations, such as determinations of **funded status**, assessments of solvency upon plan termination, market measurements, and measurements for use in pricing benefit provisions;

b. assignment of the value of pension obligations to time periods, such as **actuarially determined contributions**, **periodic costs**, and **actuarially determined contribution** or **periodic cost** estimates for potential plan changes;

c. development of a **cost allocation procedure** used to determine **periodic costs** for a plan;

d. development of a **contribution allocation procedure** used to determine **actuarially determined contributions** for a plan;

e. determination of the types and levels of benefits supportable by specified cost or contribution levels; and

f. projection of pension obligations, **periodic costs** or **actuarially determined contributions**, and other related measurements, such as cash flow projections and projections of a plan's **funded status**.

Throughout this standard, any reference to selecting assumptions, **actuarial cost methods**, asset valuation methods, **amortization methods**, and **output smoothing methods** also includes giving advice on selecting assumptions, **actuarial cost methods**, asset valuation methods, **amortization methods**, and **output smoothing methods**. In addition, any reference to developing or modifying a **cost allocation procedure** or **contribution allocation procedure** includes giving advice on developing or modifying a **cost allocation procedure** or **contribution allocation procedure**.

ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*, and ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*, provide guidance concerning assumptions. ASOP No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*, provides guidance concerning asset valuation methods. In the event of a conflict between the guidance provided in this ASOP and the guidance in any of the aforementioned ASOPs, this standard governs.

This standard does not apply to actuaries when performing services with respect to individual benefit calculations, individual benefit statement estimates, annuity pricing, nondiscrimination testing, and social insurance programs as described in section 1.2, Scope, of ASOP No. 32, *Social Insurance* (unless an ASOP on social insurance explicitly calls for application of this standard).

As discussed in ASOP No. 41, *Actuarial Communications*, an assumption or method may be selected by the actuary or selected by another party. Nothing in this standard is intended to require the actuary to select an assumption or method that has otherwise been selected by another party. When performing actuarial services using an assumption or method not selected by the actuary, the guidance in section 3 and section 4 concerning assessment and disclosure applies.

This standard does not require the actuary to evaluate the ability or willingness of the plan sponsor or other contributing entity to make contributions to the plan when due.

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 consider the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard is effective for any actuarial report that meets the following criteria: (a) the actuarial report is issued on or after February 15, 2023; and (b) the

measurement date in the actuarial report is on or after February 15, 2023.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice and appear in bold throughout the ASOP.

2.1 Actuarial Accrued Liability—The portion of the **actuarial present value of projected benefits** (and **expenses**, if applicable), as determined under a particular **actuarial cost method** that is not provided for by future **normal costs**. Under certain **actuarial cost methods**, the **actuarial accrued liability** is dependent upon the actuarial value of assets.

2.2 Actuarial Cost Method—A procedure for allocating the **actuarial present value of projected benefits** (and **expenses**, if applicable) to time periods, usually in the form of a **normal cost** and an **actuarial accrued liability**. For purposes of this standard, a pay-as-you-go method is not considered to be an **actuarial cost method**.

2.3 Actuarial Present Value—The discounted value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of assumptions with regard to future events, observations of market or other valuation data, or a combination of assumptions and observations.

2.4 Actuarial Present Value of Projected Benefits—The **actuarial present value** of benefits that are expected to be paid in the future, taking into account the effect of such items as future service, advancement in age, and anticipated future compensation (sometimes referred to as the "present value of future benefits").

2.5 Actuarial Valuation—The measurement of relevant pension obligations and, when applicable, the determination of **periodic costs** or **actuarially determined contributions**.

2.6 Actuarially Determined Contribution—A potential payment to the plan as determined by the actuary using a **contribution allocation procedure**. It may or may not be the amount actually paid by the plan sponsor or other contributing entity.

2.7 Amortization Method—A method under a **contribution allocation procedure** or **cost allocation procedure** for determining the amount, timing, and pattern of recognition of the unfunded **actuarial accrued liability**.

2.8 Contribution Allocation Procedure—A procedure that determines one or more **actuarially determined contributions** for a plan. The procedure uses an **actuarial cost method** and may use an asset valuation method, an **amortization method**, or an **output smoothing method**. The procedure may produce a single value, such as **normal cost** plus an amortization payment of the unfunded **actuarial accrued liability**, or a range of values, such as the range from the ERISA minimum required contribution to the maximum tax-deductible amount.

2.9 Cost Allocation Procedure—A procedure that determines the **periodic cost** for a plan (for example, the procedure to determine the net periodic pension cost under accounting standards). The procedure uses an **actuarial cost method**, and may use an asset valuation method or an **amortization method**.

2.10 Expenses—Administrative or investment fees or other payments borne or expected to be borne by the plan.

2.11 Funded Status—Any comparison of a particular measure of plan assets to a particular measure of pension obligations.

2.12 Funding Valuation—A measurement of pension obligations or projection of cash flows performed by the actuary intended to be used by the principal to determine plan contributions or to evaluate the adequacy of specified contribution levels to support benefit provisions.

2.13 Gain and Loss Analysis—An analysis of the effect on the plan's **funded status** between two **measurement dates** resulting from the difference between expected experience based upon a set of assumptions and actual experience.

2.14 Immediate Gain Actuarial Cost Method—An **actuarial cost method** under which actuarial gains and losses are included as part of the unfunded **actuarial accrued liability** of the pension plan, rather than as part of the **normal cost** of the plan.

2.15 Market-Consistent Present Value—An **actuarial present value** that is estimated to be consistent with the price at which benefits that are expected to be paid in the future would trade in an open market between a knowledgeable seller and a knowledgeable buyer. The existence of a deep and liquid market for pension cash flows or for entire pension plans is not a prerequisite for this present value measurement.

2.16 Measurement Date—The date as of which the values of the pension obligations and, if applicable, assets are determined.

2.17 Normal Cost—The portion of the **actuarial present value of projected benefits** (and **expenses**, if applicable) that is allocated to a period, typically twelve months, under the **actuarial cost method**. Under certain **actuarial cost method**s, the **normal cost** is dependent upon the actuarial value of assets.

2.18 Output Smoothing Method—A method to reduce volatility of the results of a **contribution allocation procedure**. The **output smoothing method** may be a component of the **contribution allocation procedure** or may be applied to the results of a **contribution allocation procedure**. **Output smoothing methods** include techniques such as 1) phasing in the impact of assumption changes on contributions, 2) blending a prior valuation with a subsequent valuation to determine contributions, or 3) placing a corridor around changes in the dollar amount, contribution rate, or percentage change in contributions from year to

year. An **output smoothing method** may involve a combination of techniques. For purposes of this standard, an asset valuation method is not an **output smoothing method**.

2.19 Participant—An individual who satisfies the requirements for participation in the plan.

2.20 Periodic Cost—The amount assigned to a period using a **cost allocation procedure** for purposes other than funding. This may be a function of pension obligations, **normal cost**, **expenses**, or assets. In many situations, **periodic cost** is determined for accounting purposes.

2.21 Plan Provisions—The relevant terms of the plan document and any relevant administrative practices known to the actuary.

2.22 Prescribed Assumption or Method Set by Another Party—A specific assumption or method that is selected by another party, to the extent that law, regulation, or accounting standards gives the other party responsibility for selecting such an assumption or method. For this purpose, an assumption or method set by a governmental entity for a plan that such governmental entity or a political subdivision of that entity directly or indirectly sponsors is deemed to be a **prescribed assumption or method set by another party**.

2.23 Prescribed Assumption or Method Set by Law—A specific assumption or method that is mandated or that is selected from a specified range or set of assumptions or methods that is deemed to be acceptable by applicable law (statutes, regulations, or other legally binding authority). For this purpose, an assumption or method set by a governmental entity for a plan that such governmental entity or a political subdivision of that entity directly or indirectly sponsors is not deemed to be a **prescribed assumption or method set by law**.

2.24 Spread Gain Actuarial Cost Method—An **actuarial cost method** under which actuarial gains and losses are included as part of the current and future **normal costs** of the plan.

Section 3. Analysis of Issues and Recommended Practices

3.1 Overview—Measuring pension obligations and determining **periodic costs** or **actuarially determined contributions** are processes in which the actuary may be required to make judgments or recommendations on the choice of assumptions, **actuarial cost methods**, asset valuation methods, **amortization methods**, and **output smoothing methods**.

The actuary may have the responsibility and authority to select some or all assumptions, **actuarial cost methods**, asset valuation methods, **amortization methods**, and **output smoothing methods**. In other circumstances, the actuary may be asked to advise the individuals who have that responsibility and authority. In yet other circumstances, the actuary may perform actuarial calculations using **prescribed assumptions or methods set by another party** or **prescribed assumptions or methods set by law**.

3.2 General Procedures—When measuring pension obligations, determining **periodic costs**, or determining **actuarially determined contributions**, the actuary should perform the following general procedures:

a. identify the purpose of the measurement (section 3.3);

b. identify the **measurement date** (section 3.4);

c. identify **plan provisions** applicable to the measurement and any associated valuation issues (section 3.5);

d. gather data necessary for the measurement (section 3.6);

e. obtain from the principal other information necessary for the purpose of the measurement (section 3.7);

f. select assumptions (section 3.8);

g. measure accrued or vested benefits, if applicable (section 3.9);

h. measure **market-consistent present values**, if applicable (section 3.10);

i. calculate a low-default-risk obligation measure, if applicable (section 3.11);

j. reflect how plan or plan sponsor assets as of the **measurement date** are reported, if applicable (section 3.12);

k. select an **actuarial cost method**, if applicable (section 3.13);

l. select an **amortization method**, if applicable (section 3.14);

m. select an asset valuation method, if applicable (section 3.15);

n. select an **output smoothing method**, if applicable (section 3.16);

o. select a **cost allocation procedure** or **contribution allocation procedure**, if applicable (sections 3.17 and 3.18);

p. assess the implications of the **contribution allocation procedure** or plan's funding policy, if applicable (section 3.19);

q. take into account the contribution lag, if applicable (section 3.20);

r. calculate a reasonable **actuarially determined contribution**, if applicable (section 3.21);

s. perform a **gain and loss analysis**, if applicable (section 3.22);

t. take into account the sources of significant volatility, if applicable (section 3.23);

u. assess the assumptions and methods not selected by the actuary, if applicable (section 3.24); and

v. consider preparing and retaining documentation (section 3.26).

The actuary should refer to ASOP No. 56, *Modeling*, for guidance with respect to models when measuring pension obligations, determining **periodic costs**, or determining **actuarially determined contributions**.

In addition, the actuary may use approximations and estimates where circumstances warrant (section 3.25).

3.3 Purpose of the Measurement—The actuary should reflect the purpose of the measurement. Examples of measurement purposes include the following:

a. determining **periodic costs** or **actuarially determined contributions**;

b. assessing **funded status**;

c. pricing benefit provisions;

d. comparing benefit provisions between plans;

e. determining withdrawal liabilities or benefit plan settlements; and

f. measuring pension obligations for plan sponsor mergers and acquisitions.

3.3.1 Projected or Point-in-Time Measurements—The actuary should consider using different assumptions or methods for measurements projected into the future versus point-in-time measurements.

3.3.2 Uncertainty or Risk—The actuary should refer to the guidance on uncertainty and risk in ASOP No. 41 and ASOP No. 51, *Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions*.

3.4 Measurement Date Considerations—The actuary should address the following **measurement date** considerations:

3.4.1 Information as of a Different Date—The actuary may estimate asset and **participant** information at the **measurement date** on the basis of information as of a different date. In these circumstances, the actuary should make appropriate

adjustments to the data. Alternatively, the actuary may calculate the obligations as of a different date and then adjust the obligations to the **measurement date** (see section 3.4.3 for additional guidance). In either case, the actuary should determine that any such adjustments are reasonable in the actuary's professional judgment, given the purpose of the measurement.

3.4.2 Events after the Measurement Date—If the actuary is aware of events that occur subsequent to the **measurement date** and prior to the date of the actuarial communication, the actuary should reflect those events appropriately for the purpose of the measurement. Unless the purpose of the measurement requires or prohibits the inclusion of such events, the actuary may, but need not, reflect these events in the measurement.

3.4.3 Adjustment of Prior Measurement—The actuary may adjust the results from a prior measurement in lieu of performing a new detailed measurement if, in the actuary's professional judgment, such an adjustment would produce a reasonable result for the purpose of the new measurement. To determine whether such an adjustment would produce a reasonable result, the actuary should consider reflecting items such as the following, if known to the actuary:

a. changes in the number of **participants** or the demographic characteristics of that group;

b. length of time since the prior measurement;

c. differences between actual and expected contributions, benefit payments, **expenses**, and investment performance;

d. changes in economic and demographic expectations; and

e. changes in **plan provisions**.

When adjusting obligations from a prior **measurement date**, the actuary should consider using revised assumptions to determine the obligations if appropriate for the purpose of the new measurement.

3.5 Plan Provisions—When measuring pension obligations and determining **periodic costs** or **actuarially determined contributions**, the actuary should reflect all significant **plan provisions** known to the actuary, as appropriate for the purpose of the measurement. However, if in the actuary's professional judgment, omitting a significant **plan provision** is appropriate for the purpose of the measurement, the actuary should disclose the omission in accordance with section 4.1(e).

3.5.1 Adopted Changes in Plan Provisions—Unless contrary to applicable law or not appropriate for the purpose of the measurement, the actuary should reflect **plan provisions** adopted on or before the **measurement date** for at least the portion of

the period during which those provisions are in effect. Unless the purpose of the measurement requires or prohibits that such **plan provisions** be reflected, the actuary may, but need not, reflect **plan provisions** adopted after the **measurement date**.

3.5.2 Proposed Changes in Plan Provisions—The actuary should reflect proposed changes in **plan provisions** as appropriate for the purpose of the measurement.

3.5.3 Plan Provisions That are Difficult to Measure—Some **plan provisions** may create pension obligations that are difficult to appropriately measure using traditional valuation procedures. Examples of such **plan provisions** include the following:

a. gain-sharing provisions that trigger benefit increases when investment returns are favorable but do not trigger benefit decreases when investment returns are unfavorable;

b. floor-offset provisions that provide a minimum defined benefit in the event a **participant's** account balance in a separate plan falls below some threshold;

c. benefit provisions that are tied to an external index, but subject to a floor or ceiling, such as certain cost-of-living-adjustment provisions and cash-balance-crediting provisions; and

d. benefit provisions that may be triggered by an event such as a plant shutdown or a change in control of the plan sponsor.

For such **plan provisions**, the actuary should consider using alternative valuation procedures, such as stochastic modeling, option-pricing techniques, or deterministic procedures in conjunction with assumptions that are adjusted to reflect the impact of variations in experience from year to year. When selecting alternative valuation procedures for such **plan provisions**, the actuary should use professional judgment based on the purpose of the measurement and other relevant factors.

The actuary should disclose the valuation procedures used to value any significant **plan provisions** of the type described in this section 3.5.3, in accordance with section 4.1(f).

3.6 Data—With respect to the data used for measurements, including data supplied by others, the actuary should refer to ASOP No. 23, *Data Quality*, for guidance.

3.6.1 Participants—The actuary should include in the measurement all **participants** reported to the actuary, except in appropriate circumstances where the actuary may exclude persons such as those below a minimum age or service level. When

appropriate, the actuary may include employees who might become **participants** in the future.

3.6.2 Hypothetical Data—When appropriate, the actuary may prepare measurements based on assumed demographic characteristics of current or future plan **participants**.

3.7 Other Information from the Principal—The actuary should obtain from the principal other information, such as accounting policies or funding elections, necessary for the purpose of the measurement.

3.8 Assumptions—The actuary should refer to ASOP Nos. 27 and 35 for guidance on the selection and assessment of assumptions.

In addition, the actuary should assess whether the combined effect of assumptions is expected to have no significant bias (i.e., it is not significantly optimistic or pessimistic) except when provisions for adverse deviation are included or when alternative assumptions are used for the assessment of risk, in accordance with ASOP No. 51. For this purpose, the actuary should assess assumptions other than 1) **prescribed assumptions or methods set by law** and 2) assumptions that the actuary has not selected and is unable to assess for reasonableness for the purpose of the measurement.

3.9 Measuring the Value of Accrued or Vested Benefits—Depending on the scope of the assignment, the actuary may measure the value of any accrued or vested benefits as of a **measurement date**. The actuary should take into account the following when making such measurements:

a. relevant **plan provisions** and applicable law;

b. the status of the plan (for example, whether the plan is assumed to continue to exist or be terminated);

c. the contingencies upon which benefits become payable, which may differ for ongoing-basis and termination-basis measurements;

d. the extent to which **participants** have satisfied relevant eligibility requirements for accrued or vested benefits and the extent to which future service or advancement in age may satisfy those requirements;

e. whether or the extent to which death, disability, or other ancillary benefits are accrued or vested;

f. whether the **plan provisions** regarding benefits earned provide an appropriate attribution pattern for the purpose of the measurement (for example, if the plan's benefit accruals are significantly back-loaded, it may be appropriate to value accrued benefits with a less back-loaded attribution pattern); and

g. the impact of a special event (such as a plant shutdown or plan termination), when applicable. Examples of factors that may impact the measurement include the following:

1. the effect of the special event on continued employment;

2. the impact of the special event on **participant** behavior due to factors such as subsidized payment options;

3. **expenses** associated with a potential plan termination, including transaction costs to liquidate plan assets; and

4. changes in investment policy.

3.10 Market-Consistent Present Values—When calculating a **market-consistent present value**, the actuary should do the following:

a. select assumptions based on the actuary's observation of the estimates inherent in market data in accordance with the guidance in ASOP Nos. 27 and 35, depending on the purpose of the measurement; and

b. reflect benefits earned as of the **measurement date**.

In addition, the actuary may reflect benefit payment default risk or the financial health of the plan sponsor in the calculation.

3.11 Low-Default-Risk Obligation Measure—When performing a **funding valuation**, the actuary should calculate and disclose a low-default-risk obligation measure of the benefits earned (or costs accrued if appropriate under the actuarial cost method used for this purpose) as of the **measurement date**. The actuary need not calculate and disclose this obligation measure more than once per year.

When calculating this measure, the actuary should use an **immediate gain actuarial cost method**.

When calculating this measure, the actuary should select a discount rate or discount rates derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future. Examples of discount rates that may meet these requirements include, but are not limited to, the following:

a. US Treasury yields;

b. rates implicit in settlement of pension obligations including payment of lump sums and purchases of annuities from insurance companies;

c. yields on corporate or tax-exempt general obligation municipal bonds that receive one of the two highest ratings given by a recognized ratings agency;

d. non-stabilized ERISA funding rates for single employer plans; and

e. multiemployer current liability rates.

When plan provisions create pension obligations that are difficult to appropriately measure using traditional valuation procedures, such as benefits affected by actual investment returns, movements in a market index, or other similar factors, the actuary should consider using alternative valuation procedures such as those described under section 3.5.3 to calculate the low-default-risk obligation measure of those benefits earned or costs accrued as of the **measurement date**.

For purposes of this obligation measure, the actuary should consider reflecting the impact, if any, of investing plan assets in low-default-risk fixed income securities on the pattern of benefits expected to be paid in the future, such as in a variable annuity plan.

When calculating this measure, the actuary should not reflect benefit payment default risk or the financial health of the plan sponsor.

Other than the discount rate or discount rates, the actuary may use the same assumptions used in the **funding valuation** for this measure. Alternatively, the actuary may select other assumptions that are consistent with the discount rate or discount rates and reasonable for the purpose of the measurement, in accordance with ASOP Nos. 27 and 35.

The actuary should provide commentary to help the intended user understand the significance of the low-default-risk obligation measure with respect to the **funded status** of the plan, plan contributions, and the security of **participant** benefits. The actuary should use professional judgment to determine the appropriate commentary for the intended user.

3.12 Relationship between Asset and Obligation Measurement—The actuary should reflect how plan or plan sponsor assets as of the **measurement date** are reported. For example, if the plan or plan sponsor assets have been reduced to reflect a lump sum paid, the lump sum or the related annuity value should also be excluded from the obligation.

3.13 Actuarial Cost Method—When selecting an **actuarial cost method** to assign **periodic costs** or **actuarially determined contributions** to time periods in advance of the time benefit payments are due, the actuary should select an **actuarial cost method** that meets the following criteria:

a. the period over which **normal costs** are allocated for a **participant** begins no earlier than the date of employment and does not extend beyond the last assumed retirement age. The period may be applied to each individual **participant** or to groups of **participants** on an aggregate basis;

When a plan has no active **participants** and no **participants** are accruing benefits, a reasonable **actuarial cost method** will not produce a **normal cost** for benefits. For purposes of this standard, an employee does not cease to be an active **participant** merely because he or she is no longer accruing benefits under the plan;

b. the attribution of **normal costs** bears a reasonable relationship to some element of the plan's benefit formula or the **participant's** compensation or service. The attribution basis may be applied on an individual or group basis. For example, the **actuarial present value of projected benefits** for each **participant** may be allocated by that **participant's** own compensation or may be allocated by the aggregated compensation for a group of **participants**;

c. **expenses** are considered when assigning **periodic costs** or **actuarially determined contributions** to time periods. For example, the **expenses** for a period may be added to the **normal cost** for benefits, or **expenses** may be reflected as an adjustment to the investment return assumption or the discount rate. As another example, **expenses** may be reflected as a percentage of pension obligation or **normal cost**; and

d. the sum of the **actuarial accrued liability** and the **actuarial present value** of future **normal costs** equals the **actuarial present value of projected benefits** and **expenses**, to the extent **expenses** are included in the **actuarial accrued liability** and **normal cost**. For purposes of this criterion, under a **spread gain actuarial cost method**, the sum of the actuarial value of assets and the unfunded **actuarial accrued liability**, if any, shall be considered to be the **actuarial accrued liability**.

When disclosing a **funded status** measurement using a **spread gain actuarial cost method**, the actuary should also calculate and disclose a **funded status** measurement using an **immediate gain actuarial cost method**.

3.14 Amortization Method—When selecting an **amortization method**, the actuary should select an **amortization method** for each amortization base that is expected to produce amortization payments that fully amortize the amortization base within a reasonable time period or reduce the outstanding balance by a reasonable amount each year.

For purposes of determining a reasonable time period or a reasonable amount, the actuary should take into account factors including, but not limited to, the following, if applicable:

a. whether the **amortization method** is open or closed;

b. the source of the amortization base;

c. the anticipated pattern of the amortization payments, including the length of time until amortization payments exceed nominal interest on the outstanding balance;

d. whether the amortization base is positive or negative;

e. the duration of the **actuarial accrued liability**;

f. the average remaining service lifetime of active plan **participants**; and

g. the **funded status** of the plan or period to plan insolvency.

When selecting an **amortization method**, the actuary should select an **amortization method** that is expected to produce total amortization payments that are expected to fully amortize the unfunded **actuarial accrued liability** within a reasonable time period or reduce the unfunded **actuarial accrued liability** by a reasonable amount within a sufficiently short period.

The actuary should assess whether the unfunded **actuarial accrued liability** is expected to be fully amortized.

For purposes of this section, the actuary should assume that all assumptions will be realized and **actuarially determined contributions** will be made when due.

3.15 Asset Valuation Method—The actuary should refer to ASOP No. 44 for guidance on the selection and use of an asset valuation method.

3.16 Output Smoothing Method—When selecting an **output smoothing method**, the actuary should select an **output smoothing method** that results in a reasonable relationship between the smoothed contribution and the corresponding **actuarially determined contribution** without output smoothing. A reasonable relationship includes the following:

a. the **output smoothing method** produces a value that does not fall below a reasonable range around the corresponding **actuarially determined contribution** without output smoothing; and

b. any shortfalls of the smoothed contribution to the corresponding **actuarially determined contribution** without output smoothing are recognized within a reasonable period of time.

3.17 Allocation Procedure—When selecting a **cost allocation procedure** or **contribution allocation procedure**, the actuary should take into account the following:

a. the balance among benefit security, intergenerational equity, and stability or predictability of **periodic costs** or **actuarially determined contributions**;

b. the timing and duration of expected benefit payments;

c. the nature and frequency of plan amendments; and

d. relevant input from the principal, for example, a desire to achieve a target funding level within a specified time frame.

3.18 Consistency between Contribution Allocation Procedure and the Payment of Benefits—When selecting a **contribution allocation procedure**, the actuary should select a **contribution allocation procedure** that, in the actuary's professional judgment, is consistent with the plan accumulating adequate assets to make benefit payments when due, assuming that all assumptions will be realized and that the plan sponsor or other contributing entity will make **actuarially determined contributions** when due. In some circumstances, a **contribution allocation procedure** may not be expected to produce adequate assets to make benefit payments when they are due even if the actuary uses a combination of assumptions selected in accordance with ASOP Nos. 27 and 35, an **actuarial cost method** selected in accordance with section 3.13 of this standard, and an asset valuation method selected in accordance with ASOP No. 44.

Examples of such circumstances include the following:

a. a plan covering a sole proprietor with funding that continues past an expected retirement date with payment due in a lump sum;

b. using the aggregate **actuarial cost method** for a plan covering three employees, in which the principal is near retirement and the other employees are relatively young; and

c. a plan amendment with an amortization period so long that overall plan **actuarially determined contributions** would be scheduled to occur too late to make plan benefit payments when due.

3.19 Implications of Contribution Allocation Procedure or Funding Policy—When performing a **funding valuation**, the actuary should do the following:

a. qualitatively assess the implications of the **contribution allocation procedure** or the plan's funding policy on the plan's expected future contributions and **funded status**;

b. estimate how long before any contribution as determined by the **contribution allocation procedure** or the plan's funding policy is expected to exceed the **normal cost**, plus interest on the unfunded **actuarial accrued liability**, if applicable;

c. estimate the period over which the unfunded **actuarial accrued liability**, if any, is expected to be fully amortized; and

d. assess whether the **contribution allocation procedure** or funding policy is significantly inconsistent with the plan accumulating assets adequate to make

benefit payments when due, and estimate the approximate time until assets are depleted.

For purposes of this section, contributions set by law or by a contract, such as a collective bargaining agreement, constitute a funding policy.

For purposes of this section, the actuary may presume that all assumptions will be realized and the plan sponsor (or other contributing entity) will make contributions anticipated by the **contribution allocation procedure** or funding policy.

3.20 Contribution Lag—When calculating an **actuarially determined contribution**, the actuary should consider reflecting the passage of time between the **measurement date** and the expected timing of actual contributions.

3.21 Reasonable Actuarially Determined Contribution—When performing a **funding valuation**, except where the **actuarially determined contribution** is based on a **prescribed assumption or method set by law**, the actuary should also calculate and disclose a reasonable **actuarially determined contribution**. For this purpose, an **actuarially determined contribution** is reasonable if it uses a **contribution allocation procedure** that satisfies the following conditions:

a. all significant assumptions selected by the actuary are reasonable, all significant **prescribed assumptions or methods set by another party** do not significantly conflict with what in the actuary's professional judgment is reasonable in accordance with ASOP Nos. 27 and 35, and the combined effect of these assumptions is expected to have no significant bias (i.e., it is not significantly optimistic or pessimistic) except when provisions for adverse deviation are included;

b. the **actuarial cost method** used should be consistent with section 3.13. If an **actuarial cost method** with individual attribution is used, each **participant's normal cost** should be based on the **plan provisions** applicable to that **participant**;

c. if an **amortization method** is used, it should be consistent with section 3.14;

d. if an asset valuation method is used, it should be consistent with section 3.15;

e. if an **output smoothing method** is used, it should be consistent with section 3.16; and

f. the **contribution allocation procedure** should, in the actuary's professional judgment, be consistent with the plan accumulating assets adequate to make benefit payments when due, assuming that all assumptions will be realized and that the plan sponsor or other contributing entity will make **actuarially determined contributions** when due.

3.22 Gain and Loss Analysis—When performing a **funding valuation**, the actuary should perform a **gain and loss analysis** for the period between the prior **measurement date** and the current **measurement date**, unless in the actuary's professional judgment, successive **gain and loss analyses** would not be appropriate for assessing the reasonableness of the assumptions. For example, successive **gain and loss analyses** may not provide useful information about the reasonableness of the assumptions for a small plan in which a single individual accounts for most of the **actuarial accrued liability**. If a **gain and loss analysis** is performed, the actuary should at least separate the total gain or loss into investment gain or loss and other gain or loss.

3.23 Volatility—If the scope of the actuary's assignment includes an analysis of the potential range of future pension obligations, **periodic costs**, **actuarially determined contributions**, or **funded status**, the actuary should take into account sources of volatility that, in the actuary's professional judgment, are significant. Examples of potential sources of volatility include the following:

a. plan experience differing from that anticipated by the economic or demographic assumptions, as well as the effect of new entrants;

b. changes in economic or demographic assumptions;

c. the effect of discontinuities in applicable law or accounting standards, such as full funding limitations, the end of amortization periods, or liability recognition triggers;

d. the delayed effect of smoothing techniques, such as the pending recognition of prior experience losses; and

e. patterns of rising or falling **periodic cost** expected when using a particular **actuarial cost method** for the plan population.

When analyzing potential variations in economic and demographic experience or assumptions, the actuary should refer to ASOP No. 51 for additional guidance, where applicable.

3.24 Assessment of Assumptions and Methods Not Selected by the Actuary—For each **measurement date**, the actuary should assess whether an assumption or method not selected by the actuary is reasonable for the purpose of the measurement, other than 1) **prescribed assumptions or methods set by law** and 2) assumptions or methods that the actuary has not selected and is unable to assess for reasonableness for the purpose of the measurement. For purposes of this assessment, reasonable assumptions or methods are not necessarily limited to those the actuary would have selected for the measurement. In this assessment, the actuary should determine whether the assumption or method significantly conflicts with what, in the actuary's professional judgment, would be reasonable for the purpose of the measurement. If, in the actuary's professional judgment, there is a

significant conflict, the actuary should disclose this conflict in accordance with section 4.2(a).

3.25 Approximations and Estimates—Where circumstances warrant, the actuary may use approximations or estimates in performing the actuarial services. The following are some examples of such circumstances:

a. situations in which the actuary reasonably expects the results to be substantially the same as the results of detailed calculations;

b. situations in which the actuary's assignment requires informal or rough estimates; and

c. situations in which the actuary reasonably expects the amounts being approximated or estimated to represent only a minor part of the overall pension obligation, **periodic cost**, or **actuarially determined contribution**.

When using approximations or estimates, the actuary should use professional judgment to establish a balance between the degree of refinement of methodology and whether the impact on the results is material.

3.26 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 degree 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 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 to which this standard applies, the actuary should refer to ASOP Nos. 23, 27, 35, 41, 44, 51, and 56. In addition, such communication should contain the following disclosures when relevant and material. An actuarial communication can comply with some, or all, of the specific requirements of this section by making reference to information contained in other actuarial communications available to the intended users (as defined in ASOP No. 41), such as an annual **actuarial valuation** report.

a. a statement of the purpose of the measurement and a statement to the effect that the measurement may not be applicable for other purposes (see section 3.3);

b. the **measurement date** (see section 3.4);

c. a description of adjustments made for events after the **measurement date** (see section 3.4.2);

d. a description of adjustments of prior measurements (see section 3.4.3);

e. an outline or summary of the **plan provisions** reflected in the **actuarial valuation**, a description of known changes in significant **plan provisions** reflected in the **actuarial valuation** from those used in the immediately preceding measurement prepared for a similar purpose, and a description of any significant **plan provisions** not reflected in the **actuarial valuation**, along with the rationale for not reflecting such significant **plan provisions** (see section 3.5);

f. a description of the valuation procedures used to value any significant **plan provisions** of the type described in section 3.5.3, such that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the actuary's work as presented in the actuarial report (see section 3.5.3);

g. the date(s) as of which the **participant** and financial information were compiled;

h. a summary of the **participant** information (see section 3.6.1);

i. if hypothetical data are used, a description of the data (see section 3.6.2);

j. a description of any accounting policies or funding elections made by the principal that are pertinent to the measurement (see section 3.7);

k. a description of known changes in significant assumptions and methods from those used in the immediately preceding measurement prepared for a similar purpose. For assumption and method changes that are not the result of a **prescribed assumption or method set by another party** or a **prescribed assumption or method set by law**, the actuary should include an explanation of the information and analysis that led to those changes. The explanation may be brief but should be pertinent to the plan's circumstances (see section 3.8);

l. a statement indicating whether, in the actuary's professional judgment, the combined effect of the assumptions other than 1) **prescribed assumptions or methods set by law** and 2) assumptions that the actuary has not selected and is unable to assess for reasonableness for the purpose of the measurement is expected to have no significant bias (i.e., it is not significantly optimistic or pessimistic), except when provisions for adverse deviation are included or when alternative assumptions are used for the assessment of risk, in accordance with ASOP No. 51 (see section 3.8);

m. a description of the types of benefits regarded as accrued or vested if the actuary measured the value of accrued or vested benefits, and, to the extent the attribution

pattern of accrued benefits differs from or is not described by the **plan provisions**, a description of the attribution pattern (see section 3.9);

n. a description of whether and how benefit payment default risk or the financial health of the plan sponsor was included, if a **market-consistent present value** measurement was performed (see section 3.10);

o. if applicable, a low-default-risk obligation measure (see section 3.11). In addition to the measure, the actuary should disclose the following:

1. the discount rate or discount rates used and rationale for selection;

2. a description of other significant assumptions, if any, that differ from those used in the **funding valuation** and rationale for their selection;

3. the **immediate gain actuarial cost method** used;

4. a description of the valuation procedures that differ from those used in the **funding valuation** to value any significant **plan provisions** of the type described in section 3.5.3 such that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the actuary's work; and

5. commentary to help the intended user understand the significance of the low-default-risk obligation measure with respect to the **funded status** of the plan, plan contributions, and the security of **participant** benefits;

p. a description of the **actuarial cost method** and the manner in which **normal costs** are allocated, in sufficient detail such that another actuary qualified in the same practice area would be able to understand the significant characteristics of the method (for example, how the **actuarial cost method** is applied to multiple benefit formulas, compound benefit formulas, or benefit formula changes, where such **plan provisions** are significant) (see section 3.13);

q. if applicable, a description of the particular measures of plan assets and obligations that are included in the actuary's disclosure of the plan's **funded status**. For **funded status** measurements that are not prescribed by federal law or regulation, the actuary should accompany this description with each of the following additional disclosures:

1. whether the **funded status** measure is appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations;

2. whether the **funded status** measure is appropriate for assessing the need for or the amount of future contributions; and

3. if applicable, a statement that the **funded status** measure would be different if the measure reflected the market value of assets rather than the actuarial value of assets;

r. **funded status** based on an **immediate gain actuarial cost method** if the actuary discloses a **funded status** based on a **spread gain actuarial cost method** (see section 3.13). A description of the **immediate gain actuarial cost method** used for this purpose should be disclosed;

s. the remaining balance to be amortized, the remaining amortization period, and the amortization payment included in the **periodic cost** or **actuarially determined contribution** for each amortization base along with a disclosure if the unfunded **actuarial accrued liability** is not expected to be fully amortized (see section 3.14);

t. a description of any **output smoothing method** used. If an **output smoothing method** is used, the actuary should also disclose the corresponding **actuarially determined contribution** without output smoothing (see section 3.16);

u. a description of the **cost allocation procedure** or **contribution allocation procedure** including a description of the **amortization method** and any pay-as-you-go funding (i.e., the intended payment by the plan sponsor of some or all benefits when due) (see section 3.17);

v. a description of all changes in **cost allocation procedures** or **contribution allocation procedures** that are not a result of a **prescribed assumption or method set by law**, including the resetting of an actuarial asset value. The actuary should disclose the reason for the change and the general effects of the change on relevant **periodic cost**, **actuarially determined contribution**, **funded status**, or other measures by words or numerical data, as appropriate. The disclosure of the reason for the change and the general effects of the change may be brief but should be pertinent to the plan's circumstances (see section 3.17);

w. a qualitative description of the implications of the **contribution allocation procedure** or plan's funding policy on future expected plan contributions and **funded status** (see section 3.19[a]), if applicable. The actuary should disclose the significant characteristics of the **contribution allocation procedure** or plan's funding policy, and the significant assumptions used in the assessment;

x. if applicable, an estimate of how long before any contribution as determined by the **contribution allocation procedure** or the plan's funding policy is expected to exceed the **normal cost**, plus interest on the unfunded **actuarial accrued liability** (see section 3.19[b]);

y. an estimate of the period over which the unfunded **actuarial accrued liability**, if any, is expected to be fully amortized (see section 3.19[c]);

z. if applicable, a statement indicating that the **contribution allocation procedure** or funding policy is significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due, as well as an estimate of the approximate time until assets are depleted (see section 3.19[d]);

aa. if applicable, a reasonable **actuarially determined contribution**, the corresponding **funded status**, and any material assumptions or methods that were used in the calculation that are not otherwise disclosed. The actuary should include a description of how pertinent conditions discussed in section 3.17 have been taken into account in determining the reasonable **actuarially determined contribution** (see section 3.21). The disclosure may be brief but should be relevant to the plan's circumstances;

bb. if applicable, the results of the **gain and loss analysis** separating the total gain or loss into investment gain or loss and other gain or loss. The actuary may meet the disclosure requirements of this section by providing more detailed results of the **gain and loss analysis** performed (see section 3.22). For example, the actuary could separate the non-investment gain or loss into demographic and economic gains or losses, or could identify gains or losses caused by individual decrements (for example, withdrawal, retirement, mortality) and other economic factors (for example, salary growth, inflation);

cc. if, in the actuary's professional judgment, the actuary's use of approximations and estimates could produce results that differ materially from results based on a detailed calculation, a statement to this effect (see section 3.25); and

dd. a statement, appropriate for the intended users, indicating that future measurements (for example, of pension obligations, **periodic costs**, **actuarially determined contributions**, or **funded status**, as applicable) may differ significantly from the current measurement. For example, a statement such as the following could be applicable: "Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's **funded status**); and changes in **plan provisions** or applicable law." (See section 3.23)

In addition, the actuarial communication should include one of the following:

1. if the scope of the actuary's assignment included an analysis of the range of such future measurements, disclosure of the results of such analysis together with a description of the factors considered in determining such range; or

2. a statement indicating that, due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

4.2 Disclosures in an Actuarial Report about Assumptions or Methods Not Selected by the Actuary—The actuary should include disclosures in an actuarial report stating the source of any material assumptions or methods that the actuary has not selected.

With respect to any assumption or method that the actuary has not selected, other than **prescribed assumptions or methods set by law**, the actuary's report should identify the following, if applicable:

a. any assumption or method that the actuary has not selected that, individually or in combination with other assumptions or methods, significantly conflicts with what, in the actuary's professional judgment, is reasonable for the purpose of the measurement (see section 3.24); or

b. any assumption or method that the actuary has not selected and is unable to assess for reasonableness for the purpose of the measurement.

4.3 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 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

b. if in the actuary's professional judgment, the actuary has deviated materially from the guidance of this ASOP.

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

Appendix

Comments on the Third Exposure Draft and Responses

The third exposure draft of the proposed revision of ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*, was approved in June 2021 with a comment deadline of October 15, 2021. Seven comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of the appendix, the term "commentator" may refer to more than one person associated with a particular comment letter. The Pension Committee carefully considered all comments received, and the ASB reviewed (and modified, where appropriate) the changes proposed by the Pension Committee.

Summarized below are the significant issues and questions contained in the comment letters and the responses to each. Minor wording or punctuation changes that were suggested but not significant are not reflected in the appendix, although they may have been adopted.

The term "reviewers" in the appendix includes the Pension Committee and the ASB. Also, the section numbers and titles used in the appendix refer to those in the third exposure draft.

GENERAL COMMENTS	
Comment	One commentator recommended that ASOP No. 4 explicitly recognize and state that many provisions would not apply to small defined benefit plans.
Response	The reviewers disagree and made no change.
SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES AND EFFECTIVE DATE	
Section 1.2, Scope	
Comment	One commentator suggested a reference to ASOP No. 56, *Modeling*, be added to the scope section.
Response	The reviewers disagree and made no change in response to this comment. The reviewers note the paragraph in scope addresses potential conflicts with pension-related ASOPs that provide guidance directly related to this standard. The reviewers also note that a reference to ASOP No. 56 was added to section 3.2.
SECTION 2. DEFINITIONS	
Section 2.8, Contribution Allocation Procedure	
Comment	One commentator suggested changing the second sentence in section 2.8 to state, "The procedure uses an actuarial cost method and may use an asset valuation method, an amortization method, and/or an output smoothing method."
Response	The reviewers disagree and made no change as the use of "and/or" is inconsistent with ASOP style since the use of "or" incorporates "and."
Section 2.9, Cost Allocation Procedure	
Comment	One commentator suggested changing the second sentence in section 2.9 to state, "The procedure uses an actuarial cost method, and may use an asset valuation method and/or an amortization method."
Response	The reviewers disagree and made no change as the use of "and/or" is inconsistent with ASOP style since the use of "or" incorporates "and."

SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.2, General Procedures	
Comment	One commentator suggested adding modeling to the list of general procedures, as well as adding a new subsection.
Response	The reviewers disagree on the inclusion of a new subsection but added a reference to ASOP No. 56 in section 3.2.
Section 3.4.3, Adjustments of Prior Measurements	
Comment	One commentator suggested changing the last sentence in section 3.4.3 to state, "When adjusting obligations from a prior measurement date, the actuary should consider using revised assumptions to determine the obligations if appropriate for the purpose of the measurement."
Response	The reviewers agree and modified the language in response to this comment.
Section 3.8, Assumptions	
Comment	One commentator suggested the term "assess" in section 3.8 should be clarified to determine whether the combined effect of assumptions significantly conflicts with what would be reasonable.
Response	The reviewers believe the guidance is sufficiently clear and made no change.
Section 3.9, Measuring the Value of Accrued or Vested Benefits	
Comment	One commentator recommended section 3.9(g)(3) (expenses associated with a potential plan termination, including transaction costs to liquidate plan assets) and (4) (changes in investment policy) be deleted, changed, or moved to section 3.3.
Response	The reviewers modified the guidance in section 3.9 in response to this comment.
Section 3.10, Market-Consistent Present Values	
Comment	One commentator suggested eliminating this section and stated that, if the concept is retained, it should be made clear that ABO and PBO under ASC 715 are likely not market consistent present values.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
Comment	One commentator suggested that if section 3.10 is retained, the portion permitting the reflection of payment default risk or the financial health of the sponsor should be eliminated.
Response	The reviewers disagree and made no change in response to this comment.
Comment	One commentator stated that in sections 3.10 and 3.11 it is not clear whether "benefits earned as of the valuation date" are the same thing as "accrued benefits" in section 3.9, Measuring the Value of Accrued or Vested Benefits. If so, the ASOP should use the same terminology in all three of these sections. If a distinction is intended, it should be made clear what the difference is.
Response	The reviewers clarified the guidance in section 3.9 in response to this comment.
Section 3.11, Low-Default-Risk Obligation Measure	
Comment	Several commentators suggested changing "…should calculate…" to "…should consider calculating…" in first paragraph of section 3.11.
Response	The reviewers disagree and made no change in response to this comment.
Comment	Several commentators provided alternative language for the variable annuity plan language in section 3.11.
Response	The reviewers modified the guidance to read, "For purposes of this obligation measure, the actuary should consider reflecting the impact, if any, of investing plan assets in low-default-risk fixed income securities on the pattern of benefits expected to be paid in the future, such as in a variable annuity plan."

Comment	One commentator felt the ASB should include an explanation about why and how including LDROM disclosure provides appropriate and useful information for the intended user for inclusion in all funding valuations.
Response	The reviewers believe the guidance is appropriate and note the transmittal memorandum of the ASOP states, "...this additional disclosure provides a more complete assessment of a plan's funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date."
Comment	One commentator stated it is not clear what "costs accrued" means in the context of section 3.11.
Response	The reviewers agree and clarified the guidance in response to this comment.
Comment	One commentator suggested modifying the language in the fourth paragraph of section 3.11 to state, "When plan provisions create pension obligations that are difficult to appropriately measure using traditional valuation procedures, such as benefits affected by actual investment returns, movements in a market index, or other similar factors, the actuary should consider using alternative valuation procedures such as those described under section 3.5.3, including the use of alternative discount rates if indicated by such procedures, to calculate the low-default-risk obligation measure of those benefits earned or costs accrued as of the measurement date."
Response	The reviewers disagree and made no change in response to this comment. The reviewers note modifications were made to the fifth paragraph as follows: "For purposes of this obligation measure, the actuary should consider reflecting the impact, if any, of investing plan assets in low-default-risk fixed income securities on the pattern of benefits expected to be paid in the future, such as in a variable annuity plan."
Section 3.14, Amortization Method	
Comment	One commentator felt section 3.14 should state that the actuary should "consider" the items listed, not that the actuary should necessarily "take them into account," as some of them may not be necessary or appropriate to take into account.
Response	The reviewers note that the guidance in section 3.14 states, "the actuary should take into account factors including, but not limited to, the following, if applicable." Therefore, the reviewers made no change.
Comment	One commentator suggested requiring that a reasonable actuarially determined contribution use an amortization method that is designed to fully amortize the unfunded actuarial liability.
Response	The reviewers believe the guidance is appropriate and made no change.
Section 3.17, Allocation Procedure	
Comment	One commentator felt section 3.17 should state that the actuary should "consider" the items listed, not that the actuary should necessarily "take them into account," as some of them may not be necessary or appropriate to take into account (e.g., relevant input from the principal, potentially intergenerational equity).
Response	The reviewers disagree and made no change.
Section 3.19, Implications of Contribution Allocation Procedure or Funding Policy	
Comment	One commentator felt the disclosure contemplated in section 3.19(b) should not be required as long as the contribution allocation procedure produces an expected contribution that exceeds normal cost plus interest on the unfunded.
Response	The reviewers believe the guidance is appropriate and made no change. The reviewers note that the guidance states, "For purposes of this section, the actuary may presume that all assumptions will be realized and the plan sponsor (or other contributing entity) will make contributions anticipated by the contribution allocation procedure or funding policy."

Comment	One commentator suggested alternative wording for paragraphs (b), (c), and (d) in section 3.19 to clarify that "contribution" refers to "plan's expected future contributions."
Response	The reviewers believe the guidance is appropriate and made no change. The reviewers note that the guidance states, "For purposes of this section, the actuary may presume that all assumptions will be realized and the plan sponsor (or other contributing entity) will make contributions anticipated by the contribution allocation procedure or funding policy."
Section 3.21, Reasonable Actuarially Determined Contribution	
Comment	One commentator suggested alternative wording for 3.21(b).
Response	The reviewers agree and modified the language in response to this comment.
Comment	One commentator suggested section 3.21(b) should be clarified to allow an entry age normal cost calculation to use "the current plan of benefits for each participant," for the purposes of determining a reasonable actuarially determined contribution.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
Section 3.22, Gain and Loss Analysis	
Comment	In section 3.22, one commentator suggested replacing "single individual" with "limited group of individuals" to provide a more meaningful example.
Response	The reviewers believe the guidance is appropriate and made no change in response to this comment.
Section 3.26, Documentation	
Comment	In section 3.26, one commentator felt that the sentence, "In addition, the actuary should refer to ASOP No. 41 for guidance related to the retention of file material other than that which is to be disclosed under section 4" was unnecessary and should be deleted.
Response	The reviewers disagree and made no change.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.1, Required Disclosures in an Actuarial Report	
Comment	Two commentators suggested adding ASOP No. 56 to the list of ASOPs in section 4.1.
Response	The reviewers note that guidance on ASOP No. 56 was added to section 3 and, therefore, was added to the list of ASOPs in section 4.1
Comment	One commentator suggested inserting "significant" before "assumptions" in section 4.1(k).
Response	The reviewers agree and modified the language in response to this comment.
Comment	One commentator objected to the requirement in section 4.1(o)(1) that the rationale for the selection of the discount rate be disclosed.
Response	The reviewers believe the guidance is appropriate and made no change.
Comment	One commentator suggested that the disclosure requirement in section 4.1(o)(5) be deleted as it is entirely unclear what the ASB expects the actuary to disclose in response to this requirement.
Response	The reviewers disagree and made no change in response to this comment. The reviewers note that the guidance in section 3.11 states, "The actuary should use professional judgment to determine the appropriate commentary for the intended user."
Comment	While one commentator appreciated the elimination of the second exposure draft's section 4.1(v) from the third exposure draft, the commentator stated the associated additions to section 4.1(aa) were equally, and unnecessarily, burdensome.
Response	The reviewers disagree and made no change. The reviewers note section 4.1(aa) states that, "the disclosure may be brief but should be relevant to the plan's circumstances."

ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 5

Revised Edition

Incurred Health and Disability Claims

Developed by the
Task Force to Revise ASOP No. 5 of the
Health Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
March 2017

Doc. No. 186

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APPENDIXES

ASOP No. 5—Doc. No. 186

March 2017

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Incurred Health and Disability Claims

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 5

This document contains a final revision of ASOP No. 5, *Incurred Health and Disability Claims*.

Background

ASOP No. 5, then titled *Incurred Health Claim Liabilities,* was adopted in 1991. Under direction from the ASB and its Health Committee, a task force revised ASOP No. 5, retitled *Incurred Health and Disability Claims,* which was adopted in 2000 and updated for deviation language in 2011.

This revision of ASOP No. 5 reflects a number of changes to other standards that have been made since the 2000 revision, including updating the ASOP, where appropriate, to incorporate reference to new standards that have been issued since the 2000 revision, eliminate guidance that does not conform to current ASOP practices regarding references to other standards of practice, and make consistent the definitions used in the standard with those of other standards of practice. In addition, this revision of ASOP No. 5 has been updated to reflect relevant legal, regulatory, and practice developments that have occurred since the 2000 revision.

Exposure Draft

The exposure draft was released in December 2015 with a comment deadline of April 30, 2016. Eleven letters were received. The task force considered all comments received and made appropriate changes where needed. For a summary of the substantive issues contained in the comment letters on the exposure draft and the responses, please see appendix 2.

Key Changes

The most significant changes from the existing ASOP No. 5 are as follows:

1. revising certain definitions, and adding others for clarity and for consistency with other standards;

2. explicitly addressing certain considerations in estimating and analyzing incurred claims, including behavior of claimants, claim seasonality, credibility, payments and recoveries under government programs, and the purpose and intended use of the unpaid claim

estimate;

3. expanding the guidance regarding provider contractual arrangements;

4. including, in section 3.4 regarding methods for estimating incurred claims, explicit discussion of projection methods as well as an updated discussion of other methods commonly in use;

5. making the standard consistent with the revised guidance in ASOP No.1, *Introductory Actuarial Standard of Practice*, regarding use of the language "should consider"; and

6. adding a requirement to disclose any explicit provision for adverse deviation.

The ASB voted in March 2017 to adopt this standard.

Task Force to Revise ASOP No. 5

Richard A. Lassow, Chairperson
Donna C. Novak, Vice Chairperson

Cheryl G. Allari	David T. Sherman
Annette V. James	David O. Thoen
Amy Pahl	

Health Committee of the ASB

Donna C. Novak, Chairperson

Karen Bender	Richard A. Lassow
Robert M. Damler	Jinn-Feng Lin
Shannon C. Keller	Timothy J. Wilder
Annette V. James	

Actuarial Standards Board

Maryellen J. Coggins, Chairperson

Christopher S. Carlson	Barbara L. Snyder
Beth E. Fitzgerald	Kathleen A. Riley
Darrell D. Knapp	Frank Todisco
Cande J. Olsen	Ross A. Winkelman

The ASB establishes and improves standards of actuarial practice. These ASOPs identify what the actuary should consider, document, and disclose when performing an actuarial assignment. The ASB's goal is to set standards for appropriate practice for the U.S.

ASOP No. 5—Doc. No. 186

ACTUARIAL STANDARD OF PRACTICE NO. 5

INCURRED HEALTH AND DISABILITY CLAIMS

STANDARD OF PRACTICE

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

1.1 Purpose—This actuarial standard of practice (ASOP) provides guidance to actuaries estimating or reviewing **incurred claims** when preparing or reviewing financial reports, claims studies, rates, or other actuarial communications as of a **valuation date** under a **health benefit plan**, as defined in section 2.7 of this standard.

1.2 Scope—This standard applies to actuaries who estimate or review **incurred claims** under **health benefit plans** on behalf of **risk-bearing entities**, such as managed-care entities, self-funded employer plans, health care **providers**, government-sponsored plans or risk contracts, or government agencies. This standard does not provide guidance to actuaries regarding reserves such as policy reserves, premium reserves, or claim settlement expense reserves, although such reserves may be required for financial reporting. This standard does not address interpretations of statutory or generally accepted accounting practices.

This standard applies to the actuary only with respect to **incurred claim** estimates that are communicated as an actuarial finding (as described in ASOP No. 41, *Actuarial Communications*). Actions taken by the actuary's principal regarding the use of such estimates are beyond the scope of this standard.

If the actuary departs from the guidance set forth in this standard in order to comply with applicable law (statutes, regulations, and other legally binding authority) 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 consider the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard is effective for any actuarial work product covered by this standard's scope issued on or after September 1, 2017.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice.

2.1 Block of Business—All policies of a common coverage type (for example, major medical, preferred **provider** organization, or capitated managed care), demographic grouping (for example, size, age, or area), contract type, or other segmentation used in estimating **incurred claims** or used by a **risk-bearing entity** for evaluating its business.

2.2 Capitation—The amount of money paid to a **provider**, usually per covered member, to provide specific health care services under a **health benefit plan** regardless of the number or types of services actually rendered.

2.3 Carve-Outs—Contractually designated services provided by specific **providers**, such as prescription drugs or dental, or condition-specific services such as cancer, mental health, or substance abuse treatment. **Carve-outs** are often provided by a separate entity specializing in that type of designated service.

2.4 Contract Period—The time period for which a contract is effective.

2.5 Development (or Lag) Method—An estimation technique under which historical claim data, such as the number and amount of claims for the subject **block of business**, are grouped into the time periods in which claims were incurred and the time periods in which they were paid. The **development method** uses these groupings to create a claims payment pattern, which is used to help estimate the **incurred claims**.

2.6 Exposure Unit—A unit by which the cost for a **health benefit plan** is measured. For example, an **exposure unit** may be a contract, an individual covered, $100 of weekly salary, or $100 of monthly benefit.

2.7 Health Benefit Plan—A contract, such as an insurance policy, or other financial arrangement providing medical, prescription drug, dental, vision, disability income, long-term care, or other health-related benefits, whether on a reimbursement, indemnity, or service benefit basis, regardless of the form of the **risk-bearing entity**.

2.8 Incurral Date—The date a claim became a liability of the **risk-bearing entity** in accordance with the terms of the **health benefit plan**. For **health benefit plan**s where the claim must exceed a minimum threshold, for example, where there is a deductible or elimination period, the **incurral date** may be the date claims begin to accumulate toward the threshold.

2.9 Incurred Claims—For use in this ASOP, the value of all amounts paid or payable under a **health benefit plan**, determined to be a liability with an **incurral date** within the **contract period** or other appropriate period, as of the **valuation date**. It includes payments on all claims as of the **valuation date** plus a reasonable estimate of **unpaid claims liabilities** and, for certain coverages such as long-term care and long-term

disability, projection of future payments on reported claims. This definition is different than an alternate definition of **incurred claims** used for a **risk-bearing entity**'s income statements, for which **incurred claims** include payments on all claims between the prior **valuation date** and the current **valuation date** plus the estimate of **unpaid claims liabilities** as of the current **valuation date** less the estimate of **unpaid claims liabilities** as of the prior **valuation date**.

2.10 Long-Term Product—A **health benefit plan** that provides medical or disability benefits for an extended period of time. Some examples are cancer, long-term care, and long-term disability policies. The plan's benefits may not begin for several years after policy purchase and claims usually extend beyond the **valuation date**.

2.11 Projection Method—The application of an adjusted historical claim metric to an appropriate exposure base, in order to estimate **incurred claims**.

2.12 Providers—Individuals, groups, or organizations providing health care services or supplies, including but not limited to doctors, hospitals, independent physician associations, accountable care organizations, physical therapists, medical equipment suppliers, and pharmaceutical suppliers.

2.13 Risk-Bearing Entity—The entity with respect to which the actuary is estimating liabilities associated with **health benefit plans** or risk-sharing arrangements. Examples of risk-bearing entities include but are not limited to managed-care entities, insurance companies, health care **providers**, self-funded employer plans, government-sponsored plans or risk contracts.

2.14 Tabular Method—The seriatim application of factors to a volume measure (for example, number of individual claims) based on prior experience, in order to estimate **unpaid claims liabilities** for reported claims (commonly used for **long-term products**).

2.15 Time Value of Money—The principle that an amount of money available at an earlier point in time has different usefulness and value than the same amount of money has at a later point in time.

2.16 Trends—Measures of rates of change, over time, of the elements, such as cost, incidence, and severity, affecting the estimation of **incurred claims**.

2.17 Unpaid Claims Liability—The value of the unpaid portion of **incurred claims**, including unreported claims and reported but unpaid claims. For a **risk-bearing entity**'s balance sheet, the **unpaid claims liability** includes provision for all unpaid claims incurred during the current and prior periods.

2.18 Valuation Date—The date as of which the liabilities are estimated.

Section 3. Analysis of Issues and Recommended Practices

3.1 Introduction—The estimation of incurred health and disability claims is fundamental to the practice of health actuaries. It is necessary for the completion of financial statements, for the analysis and projection of **trends**, for the analysis or development of rates, and for the development of various management reports, regardless of the type of **risk-bearing entity**.

3.2 Considerations for Estimating Incurred Claims—The actuary should include items associated with the estimation that, in the actuary's professional judgment, are applicable, material, and are reasonably foreseeable to the actuary at the time of estimation.

In determining which items to include in the estimation of **incurred claims**, the actuary should consider items including but not necessarily limited to those described below, and may rely on others as described in sections 3.6 and 3.7.

3.2.1 Health Benefit Plan Provisions and Business Practices—The actuary should consider the **health benefit plan** provisions and related business practices, including special group contract holder requirements and **provider** arrangements, which in the actuary's judgment may materially affect the cost, frequency, and severity of claims. These include, for example, elimination periods, deductibles, preexisting conditions limitations, maximum allowances, and managed-care restrictions.

The actuary should make a reasonable effort to understand any changes in plan provisions or business practices made since the last estimate of **incurred claims**. The actuary should consider how such changes are likely to affect the estimation of claim costs and claim liabilities.

3.2.2 Economic and Other External Influences—The actuary should consider items such as changes in price levels, unemployment levels, medical practice, managed care contracts, cost shifting, **provider** fee schedule changes, medical procedures, epidemics or catastrophic events, and elective claims processed in recessionary periods or prior to contract termination.

3.2.3 Behavior of Claimants—The actuary should consider reasonably available information regarding claimant behavior, such as pent-up demand for new benefits, or impending benefit changes, which may impact **incurred claims**.

3.2.4 Organizational Claims Administration—The actuary should consider items that may affect claims administration practices, such as staffing levels, variable claim processing and investigation time (for example, for complicated claims or claims submitted on paper), computer system changes or downtime, seasonal backlogs of claims submitted, increased electronic submission of claims by **providers**, governmental influences, and cash flow considerations. The actuary should also be aware that the administration practices of external contracted parties (for

example, pharmacy benefit managers and third party administrators) can affect the **unpaid claims liability**. The actuary should make reasonable efforts to obtain information from appropriate personnel and evaluate whether there have been material changes in operational practices that impact the **incurred claim** estimate and, if so, make appropriate adjustments.

3.2.5 Claim Seasonality—The actuary should understand how seasonality may impact the estimation of **incurred claims** and make appropriate adjustments. Claim seasonality may be exhibited in the pattern of claims incurral and submission, or in the manner that costs actually emerge within the **health benefit plan** provisions, such as plans with high deductibles.

3.2.6 Credibility—The actuary should consider how the credibility of the data affects the development of **incurred claim** estimates and refer to ASOP No. 25, *Credibility Procedures*, for further guidance.

3.2.7 Risk Characteristics and Organizational Practices by Block of Business—The actuary should consider how marketing, underwriting, and other business practices can influence the types of risks accepted, and how the pattern of growth or contraction and relative maturity of a **block of business** can influence **incurred claims**.

3.2.8 Legislative Requirements—The actuary should consider relevant legislative and regulatory changes as they pertain to the estimation of **incurred claims**. For example, governmental mandates can influence the provision of new benefits; risk characteristics; rating, reserving, and underwriting practices; methods used to estimate **incurred claims**; or claims processing practices.

3.2.9 Carve-Outs—The actuary should consider the pertinent benefits, payment arrangements, and separate reporting of those benefits subject to **carve-outs** in **incurred claims** estimates.

3.2.10 Special Considerations for Long-Term Products—The actuary should consider the variety of benefits available in **long-term products**, such as lump-sum, fixed, or variable payments for services; provisions such as cost of living adjustments and inflation protection; payment differences based on institutional or home-based care; social insurance integration; and the criteria for benefit eligibility.

3.3 Analysis of Incurred Claims—After reviewing the considerations in sections 3.2.1–3.2.10 above, the actuary should follow the relevant procedures highlighted in sections 3.3.1–3.3.6 below.

3.3.1 Unpaid Claims Liability—Using incurral and processing dates as appropriate, the actuary should estimate **unpaid claims liabilities** for claims incurred as of the **valuation date**.

a. Purpose or Use of the Unpaid Claim Estimate—The actuary should identify the intended purpose or use of the unpaid claim estimate. Potential purposes or uses of unpaid claim estimates include, but are not limited to, establishing liability estimates for external financial reporting, internal management reporting, and various special purpose uses such as appraisal work and scenario analyses. Where multiple purposes or uses are intended, the actuary should consider the potential conflicts arising from those multiple purposes and uses and should consider adjustments to accommodate the multiple purposes to the extent that, in the actuary's professional judgment, it is appropriate and practical to make such adjustments.

b. Plan Provisions—The actuary should review the relevant plan provisions to determine if they create obligations for services or payments after the **valuation date** (for example, medical benefits that extend beyond the **contract period**, or long-term disabilities). The actuary should determine if these obligations are part of the current or future period's liability, or if these obligations make up a separate reserve.

c. Data and Reporting—The actuary should consider the relevant reporting systems for processed claims, **exposure units**, and premium rates, and the various dating methods the systems use (for example, loss recognition, service rendered, reporting, or payment status). The actuary should use professional judgment in estimating the extent to which an adjustment to the reported data is needed, based on the dating methodology.

d. Provision for Adverse Deviation—Recognizing that the estimation of liabilities for incurred but unpaid health and disability claims involves an estimate of the true obligations that will emerge, the actuary should consider what explicit provision for adverse deviation, if any, might be appropriately included. If a provision for adverse deviation is included, the **unpaid claims liability** should be appropriate, in the actuary's judgment, for the intended use. For example, in certain situations, a provision for moderately adverse deviation may be appropriate. In other situations, the appropriate provision for adverse deviation may vary as the level of uncertainty varies, for example, based on credibility of the data or stability of payment patterns.

e. Time Value of Money—The actuary should consider if the **time value of money** will have a material effect in the estimation of **incurred claims**. The use of any interest discounts depends on the purpose for which **incurred claims** are being estimated and should reflect any applicable accounting standards.

f. Consistency of Assumptions and Methodology—The actuary should use assumptions and methodology consistent with those used for estimating

related liabilities and reserves, such as claim settlement expense reserves, unless it would be inappropriate to do so.

3.3.2 Categories of Incurred Claims—The actuary should consider separate estimation of **incurred claims** for each category that may exhibit different lag patterns, costs per **exposure unit**, **trends**, or **exposure unit** growth rates. If separate estimation is performed, the actuary should define categories of **incurred claims** in a manner that is appropriate to the available data and to estimation method(s) being used. Categories may be defined broadly, such as fee-for-service claims paid to health care **providers**, **capitation** payments to **providers**, or disability income paid to insureds. Categories might be further refined to more accurately analyze or project costs and utilization data, for example, by method of payment (such as electronic vs. manual), type of contract, type of service, geographic area, premium rating method, demographic factors, distribution method, and **provider** risk-sharing arrangements.

3.3.3 Reinsurance Arrangements—The actuary should consider the effect of reinsurance arrangements in estimating the **incurred claims**. In particular, the actuary should consider the effect of different lag patterns due to the extended reporting or recovery periods often associated with certain types of reinsurance.

3.3.4 Large Claims—The actuary should consider the effect of large claims, as defined by the actuary using professional judgment. Specifically, large claims can distort claim payment patterns or historical per-unit claim levels that the actuary considers when estimating **incurred claims**. The actuary should understand how large claims, if any, impact the particular method being employed to estimate **incurred claims** and make appropriate adjustments. For example, **incurred claim** estimates may be overstated if completion factors are applied to processed claims levels that include an unusually high number or amount of large claims.

3.3.5 Coordination of Benefits (COB), Subrogation, and Government Programs—The actuary should make a reasonable effort to understand the relevant organizational practices and regulatory requirements related to COB, subrogation, and government programs (state or federal). The actuary should consider how these items are reflected in the data (for example, negative claims or income) and make appropriate adjustments for COB, subrogation, and payments or recoveries resulting from government programs.

3.3.6 Provider Contractual Arrangements—The actuary should consider the relevant contractual arrangements with **providers** and any changes in such arrangements. These arrangements can affect **trends**, claim cost levels, and claims processing.

The actuary should consider any relevant variation in these arrangements by region or product, and any **provider** contractual arrangements that do not provide for reimbursement through the claim payment process. Some examples of these latter arrangements include the following:

a. **capitation**;

b. amounts initially withheld from **provider** payments, which may later become payable based upon contractually defined experience outcomes;

c. reimbursement of services based on the expected cost for an episode of care, in which more services are at risk than would normally be the case for a given fee-for-service event;

d. bonuses or other contractual incentive payments based on financial results or achievement of contractually defined quality metrics; and

e. stop-loss contracts which limit the **provider's** risk for certain high cost, infrequent services.

The arrangements will typically specify what portion of the risk, if any, has been shifted to the **providers**. Under **provider** risk-bearing contracts, **provider** insolvency may result in reimbursement of claims on a fee-for-service basis. If **provider** insolvency may have a material effect on the **risk-bearing entity**'s ultimate liability, the actuary should disclose this risk. However, the actuary is not required to quantify the likelihood of **provider** insolvency. Depending on the purpose of the analysis, the actuary should consider any statutory limitations on the credits for such transfers of risk.

Certain contractual arrangements may also result in amounts due from **providers** (for example, risk sharing receivables, pharmacy rebates) based on financial results or other experience metrics. The actuary should consider the impact of unpaid medical costs resulting from failed **providers** bearing a material portion of the risk or losses incurred by **providers** deemed to be related parties.

3.4 Methods Used for Estimating Incurred Claims—Various methods may be used to estimate **incurred claims**. Some methods are based on statistical analysis and projection of the costs or rates at which claims were processed in recent periods.

Because no single method is necessarily better in all cases, the actuary should consider the use of more than one method to assess the reasonableness of results. The actuary should evaluate the method(s) chosen and the results obtained in light of the purpose, constraints, and scope of the assignment. The actuary should consider the reasonableness of the assumptions underlying each method used, and should consider the sensitivity of the **incurred claim** estimates to the use of reasonable alternative assumptions. The actuary should also consider the effect of **trends** both in previous periods and the current period for estimating **incurred claims**. The actuary should choose the outcome that, in the actuary's professional judgment, is the most reasonable provision for **incurred claims**, whether from a single method or a combination of several methods. Sections

3.4.1–3.4.3 below discuss some of the more common methods for estimating **incurred claims**.

3.4.1 Development Method—This method is appropriate and widely used for short-term benefits with claims subject to processing and payment (i.e. not **capitation**) and may also be appropriate for claims associated with **long-term products**.

The actuary should consider using metrics to assess the reasonableness of results for periods where historical development patterns are less credible. For example, the actuary might evaluate the ratio of estimated **incurred claims** to earned premiums or **exposure units** for reasonableness.

3.4.2 Projection Methods—**Projection methods** may be used to estimate **incurred claims** when the incidence of claims or volume of available data is limited or not sufficiently credible for other estimation methods, to supplement the **development method** for the most recent incurral months, or as a reasonableness check for other estimation methods. This method starts with the development of a historical claim metric (for example, cost per claim, cost per member per month, loss ratio) and then multiplies this value times the appropriate base for the period being estimated (for example, claim volume, member **exposure units**, earned premium, respectively.) The actuary may adjust the historical claim metric when appropriate, for example as a result of **trend**. The actuary may use utilization metrics (for example, authorized days per thousand members) to improve the projected cost levels for recent months, and to adjust for the impact of catastrophic claims. The actuary may also consider using risk adjustment techniques or other indicators such as pharmacy claims to help project shifts in the morbidity of the block.

3.4.3 Tabular Method—The **tabular method** is generally used for **long-term products** for which a reported claim event triggers an expected series of payments. This method applies factors to items such as individual claims, waived rates, or other volume measures based on previous experience in order to estimate the **unpaid claims liability** for known claims. The factors are based on items such as the age and gender of the insured, elimination period, cause of claim, length of disablement on the **valuation date**, and remaining benefit period, as appropriate to the coverage.

When using the **tabular method**, the actuary should take into account specified benefit changes throughout the lifetime of the claim and the assumptions used to develop the factors, and should select the appropriate factors to estimate the **unpaid claims liability** given the risk characteristics of the policy.

The actuary should recognize the specific impacts that recovery, mortality, and government offsets may have on tabular factors.

The **tabular method** is not appropriate by itself for estimating unreported claims.

When the **tabular method** is used, the actuary should consider whether an additional adjustment is necessary to reflect unreported **incurred claims**.

Greater availability of data and advances in computing power have resulted in alternative approaches that the actuary may consider to estimate **incurred claims**. These include (but are not necessarily limited to) regression, time series, and other statistical and econometric models, as well as different approaches to categorizing and aggregating data (for example, summarizing by weekly data cells or estimating the cost of reported claims separately from incurred but not reported claims.)

3.5 Follow-Up Studies—The actuary may conduct follow-up studies that involve performing tests of reasonableness of the prior period asset or liability estimates and the methods used over time. When conducting such follow-up studies, the actuary should, to the extent practicable, do the following:

a. acquire the data to perform such studies;

b. perform studies in the aggregate or for pertinent blocks of business; and

c. utilize the results, if appropriate, in estimating **incurred claims**.

3.6 Reliance on Data or Other Information Supplied by Others—When relying on data or other information supplied by others, the actuary should refer to ASOP No. 23, *Data Quality*, for guidance.

3.7 Reliance on Assumptions and Methods Selected by Others—When relying on assumptions and methods selected by others, the actuary should refer to ASOP No. 41 for guidance.

3.8 Documentation—The actuary should document the methods, assumptions, procedures, and the sources of the data used. The documentation should be in a form such that another actuary qualified in the same field could assess the reasonableness of the work.

Section 4. Communications and Disclosures

4.1 Actuarial Communication—When issuing an actuarial communication subject to this standard, the actuary should consider the intended purpose or use of the **incurred claim** estimate and refer to ASOP No. 41 for further guidance. The actuary should include the following items, as applicable, in an actuarial communication. This list includes certain pertinent items from ASOP No. 41 as well as additional items.

a. important dates used in the analysis such as the incurral, processing, and **valuation dates**;

b. significant limitations, if any, that constrained the actuary's **incurred claim**

estimate analysis such that, in the actuary's professional judgment, there is a significant risk that a more in-depth analysis would produce a materially different result;

c. specific significant risks and uncertainties, if any, with respect to whether actual results may vary from the **incurred claim** estimate;

d. any explicit provision for adverse deviation, as described in section 3.3.1;

e. the risk that **provider** insolvency may have a material effect on the **risk-bearing entity**'s ultimate liability (see section 3.3.6);

f. any follow-up studies the actuary may have utilized in the development of the **incurred claim** estimate, as described in section 3.5; and

g. when updating a previous estimate, changes in assumptions, procedures, methods, or models that the actuary believes to have a material impact on the **incurred claim** estimate, as well as the reasons for such changes to the extent known by the actuary. The actuary may need to disclose these changes in cases other than when updating a previous estimate, consistent with the purpose or use of the **incurred claim** estimate. This standard does not require the actuary to measure or quantify the impact of such changes.

4.2 Additional Disclosures—The actuary should also include the following, as applicable, in an actuarial communication:

a. the disclosure in ASOP No. 41, section 4.2, if any material assumption or method was prescribed by applicable law;

b. the disclosure in ASOP No. 41, section 4.3, 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, section 4.4, if, in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this ASOP.

Appendix 1

Background and Current Practices

Note: This appendix is provided for informational purposes, but is not part of the standard of practice.

Background

The estimation of incurred claims is an integral, fundamental part of the work of most health actuaries. It is necessary to set proper financial statements for ratemaking, planning, and projections. Incurred claims are part of the estimation of unpaid claim liabilities for financial reporting purposes. Incurred claims are often the starting point for premium rate development. The incurred claims from a period are adjusted to project the incurred claims for a future period.

The estimation of incurred claims has become more challenging with the proliferation of provider contracts that share risk in different ways. Having accurate data continues to be an issue.

Current Practices

Practices differ among actuaries and among types of coverage. The tabular, development, projection, and other approaches to evaluating incurred claims, as described in the standard, are representative of the range of current practices.

Appendix 2

Comments on the Exposure Draft and Responses

The exposure draft of this revision of ASOP No. 5, *Incurred Health and Disability Claims,* was issued in December 2015 with a comment deadline of April 30, 2016. Eleven comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term "commentator" may refer to more than one person associated with a particular comment letter. The task force carefully considered all comments received, and the Health Committee and ASB reviewed (and modified, where appropriate) the proposed changes.

Summarized below are the significant issues and questions contained in the comment letters and the responses to each.

The term "reviewers" includes the task force, Health Committee, and the ASB. Unless otherwise noted, the section numbers and titles used below refer to those in the exposure draft.

TRANSMITTAL MEMORANDUM	
Question 1: Is it appropriate to change the language in the first sentence of section 3.2 from "should consider" to "should include"?	
Comment	Several commentators supported the change, while several other commentators stated that the use of "should include" is inconsistent with the use of "should consider" in the remainder of the section.
Response	The reviewers changed "should include" to "should consider" and added language to clarify the meaning.
Question 2: Is the guidance in section 3.3.6 on "provider contractual arrangements" too detailed?	
Comment	One commentator considered certain provider payments discussed in this standard to be "non-claim benefit expenses" instead of "claims" and recommended changing the name of the ASOP accordingly. Another commentator believed that the discussion of example provider arrangements is more detail than is necessary. The majority of commentators agreed that the level of detail is appropriate.
Response	The reviewers believe that the payments referenced are consistent with the definition of "incurred claims" in the standard and made no change.
Question 3: Is the required disclosure on "provider insolvency risk," as discussed in section 3.3.6, appropriate?	
Comment	Several commentators agreed that the required disclosure is appropriate.
Comment	One commentator suggested that this disclosure is unnecessary because it would result in ubiquitous disclosure.
Response	The reviewers believe the standard of materiality would apply in this situation and made no change.

Comment	Two commentators suggested that the actuary is not required to assess the likelihood of provider insolvency.
Response	The reviewers agree and added clarifying language.
Question 4: Which common methods, if any, are appropriate to include in section 3.4?	
Comment	Most commentators agreed that the list of common methods is appropriate.
Comment	One commentator suggested that the following sentence be deleted: "Because no single method is necessarily better in all cases, the actuary should consider the use of more than one method."
Response	The reviewers believe this sentence sets appropriate context and made no change.
Comment	One commentator suggested including the loss ratio method.
Response	The reviewers believe this is covered by the discussion of projection methods and made no change.
Question 5: Are the methods included in section 3.4 described in appropriate detail?	
Comment	Several commentators believe the level of detail is appropriate.
Comment	One commentator suggested changes to the discussion of projecting incurred claims by category of service.
Response	The reviewers agree and deleted this language because it is already discussed in section 3.3.2.
Comment	One commentator suggested clarifying the definition of "long-term claim."
Response	The reviewers agree and made corresponding changes.
Comment	One commentator suggested that long-term disability should not be mentioned without also mentioning long-term care.
Response	The reviewers agree and made corresponding changes.
Comment	One commentator suggested that the reference to evaluating ratios in section 3.4.1 is too specific.
Response	The reviewers added language clarifying that this guidance is appropriate considering the particular drawbacks of the development method.
Comment	One commentator suggested focusing on reasonability of results in the discussion of the development method.
Response	The reviewers agree and made corresponding changes.
Comment	One commentator suggested that the methods used for estimating incurred claims should be defined in section 3 instead of in section 2.
Response	The reviewers believe it is appropriate to include these definitions in section 2 and made no change.
Comment	One commentator suggested using a more specific description of the development method.
Response	The reviewers clarified that the development method is used to estimate incurred claims rather than the unprocessed portion of incurred claims.
Comment	One commentator suggested removing language in section 3.4.1 that is redundant because it is discussed in detail in section 3.2.
Response	The reviewers agree and removed the language.

Comment	One commentator suggested moving language regarding morbidity shifts from section 3.4.3 to section 3.2.
Response	The reviewers believe this language is appropriately specific to the projection method and made no change.
Comment	One commentator suggested moving section 3.4.3, Projection Methods, immediately after section 3.4.1, Development Method, because they are related.
Response	The reviewers agree and made this change.
Question 6: Is the requirement to disclose explicit provision for adverse deviation (PAD), as discussed in section 4.1, appropriate?	
Comment	One commentator said the disclosure is not appropriate and several commentators said the disclosure is appropriate.
Response	The reviewers believe the required disclosure is appropriate and did not change the requirement.
Comment	One commentator questioned the motivation for changing language from "moderately adverse margin for uncertainty" to "provision for adverse deviation."
Response	The reviewers retained the "provision for adverse deviation" language and revised this section to include a discussion of "moderately adverse" deviation.
SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.2, Scope	
Comment	One commentator suggested identifying "principal" as coming from ASOP No. 41, *Actuarial Communications*, and as defined in the *Code of Professional Conduct.*
Response	The reviewers believe the context makes this reference clear and made no change.
Comment	One commentator suggested adding "self-funded employer plans" to the list of risk-bearing entities in section 1.2.
Response	The reviewers agree and made the change.
Comment	One commentator suggested removing "regulatory agencies" from the list of risk-bearing entities in section 1.2.
Response	The reviewers changed this item to "government agencies" in order to clarify the meaning.
Comment	One commentator suggested moving the list of risk-bearing entities to the definition section.
Response	The reviewers believe the list is appropriately included in section 1.2.
Comment	One commentator suggested removing the words "insured or non-insured" in section 1.2.
Response	The reviewers agree and made the change.
SECTION 2. DEFINITIONS	
Section 2.3, Carve-Outs	
Comment	One commentator suggested moving the definition of "carve-outs" to section 3.2.9.
Response	The reviewers believe the definition is appropriately included in section 2.3 and made no change.

Comment	One commentator suggested that the definition of "carve-outs" implies that dental services are always a carve-out.
Response	The reviewers added the word "contractually" to clarify that carve-outs are defined in the contract and not globally.
Section 2.7, Health Benefit Plan	
Comment	One commentator suggested including "insurance policy" in the definition of "health benefit plan" because policies are referred to later on.
Response	The reviewers agree and made the change.
Section 2.8, Incurred Claims (now section 2.9)	
Comment	Two commentators suggested clarifying the difference between incurred claims in the two definitions discussed.
Response	The reviewers agree and made clarifying changes.
Comment	One commentator was concerned that the definition of "incurred claims" could be interpreted not to apply to the unpaid claim liabilities booked for balance sheet and income statement purposes.
Response	The reviewers agree and made clarifying changes to the definition.
Section 2.11, Providers (now section 2.12)	
Comment	Two commentators suggested using the language "including but not limited to."
Response	The reviewers agree and made the change.
Comment	One commentator suggested expanding the list of individuals, groups, or organizations.
Response	The reviewers agree and added two more examples.
Section 2.13, Tabular Method (now section 2.14)	
Comment	One commentator suggested clarifying the definition by adding the word "seriatim."
Response	The reviewers agree and made the change.
Comment	One commentator suggested clarifying the meaning of "long-term claims."
Response	The reviewers agree and added examples.
Section 2.14, Time Value of Money (now section 2.15)	
Comment	One commentator suggested changing "different…than" to "different…from."
Response	The reviewers believe the current language is clearer and made no change.
Section 2.15, Trends (now section 2.16)	
Comment	One commentator suggested being more specific about the "elements" affecting incurred claims.
Response	The reviewers agree and added examples.
Section 2.16, Unpaid Claims Liability(now section 2.17)	
Comment	One commentator suggested adding a fourth category for future benefits paid on a claim.
Response	The reviewers agree that this category should be included and added it to the definition of "incurred claims" in section 2.9.

Comment	One commentator requested clarification of the meaning of "appropriate period."
Response	The reviewers agree this would be helpful and made clarifying changes.
Comment	One commentator observed a conflict related to "processed claims" and "paid claims" between the definitions of the "development method" and "unpaid claims liability."
Response	The reviewers agree and made changes to both definitions in this section and section 2.5.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.2, Considerations for Estimating Incurred Claims	
Comment	One commentator suggested changing "management" to "principal."
Response	The reviewers agree that reliable sources of information extend beyond management and changed "management" to "another party."
Section 3.2.1, Health Benefit Plan Provisions and Business Practices	
Comment	One commentator suggested clarifying the relationship between "plan provisions" and "business practices."
Response	The reviewers agree and made a clarifying change by adding the word "related."
Comment	One commentator suggested adding "benefit periods" and "lifetime maximums" to the list.
Response	The reviewers believed these items are generically covered by "maximum allowances" and did not include them.
Comment	One commentator suggested that a high standard is being set for the actuary regarding identifying differences between business practices and plan provisions.
Response	The reviewers removed the language related to identifying differences between business practices and plan provisions, and clarified that "reasonable effort" is the appropriate standard to apply to the understanding of changes in business practices.
Section 3.2.3, Behavior of Claimants	
Comment	One commentator suggested recognizing the difference between observed behavior and assumed behavior.
Response	The reviewers believe this distinction is covered by "reasonably available information" and made no change.
Section 3.2.4, Organizational Claims Administration	
Comment	One commentator suggested changing "electronic submission of claims" to "method of claims submission."
Response	The reviewers believe the specific example is appropriate and made no change.
Section 3.2.8, Legislative Requirements	
Comment	One commentator suggested adding "for example" to the beginning of this list.
Response	The reviewers agree and made the change.
Comment	One commentator suggested referring to developing regulatory provisions regarding estimation of incurred claims for certain long-term products.
Response	The reviewers note, as described in section 1.2, that this standard does not address interpretation of statutory or generally accepted accounting principles, and added "methods used to estimate incurred claims" to the list of example influences of government mandates.

Section 3.2.10, Special Considerations for Long-Term Products	
Comment	Several commentators suggested reversing the order of the sentences in this section.
Response	The reviewers agree and made the change.
Section 3.3.1, Unpaid Claims Liability	
Comment	One commentator suggested removing "purpose or use of the unpaid claim estimate" from the list.
Response	The reviewers believe the current discussion is appropriate and did not make this change because different estimates may be appropriate depending on the intended use.
Comment	One commentator suggested adding "as appropriate" after "using incurral and processing dates."
Response	The reviewers agree this improves clarity and made the change.
Section 3.3.1(f), Consistency of Bases (now titled "Consistency of Assumptions and Methodology")	
Comment	One commentator suggesting adding a caveat to address situations when, for example, a consulting actuary's review is limited to the unpaid claims liabilities reserve.
Response	The reviewers believe the use of consistent assumptions and methodology are also appropriate in this situation and made no change.
Comment	One commentator suggested clarifying the meaning of "bases" and "related liabilities and reserves."
Response	To improve clarity of meaning, the reviewers changed consistent basis to consistent assumptions and methodology, and included the example of claim settlement expense reserves.
Section 3.3.2, Categories of Incurred Claims	
Comment	Several commentators suggested adding detail specific to certain estimation methods, for example considerations regarding categories of incurred claims that would be specific to the development method.
Response	The reviewers note that this section is intentionally broad because of the variety of estimation methods in use, and made changes intended to clarify this point.
Section 3.3.4, Large Claims	
Comment	One commentator suggested noting that large claims could result in an understatement.
Response	The reviewers believe overstatement is an appropriate example in this context and did not make this change.
Comment	One commentator suggested defining large claims.
Response	The reviewers added language to clarify that large plans are "as defined by the actuary using professional judgment."
Section 3.3.5, Coordination of Benefits (COB), Subrogation, and Government Programs	
Comment	One commentator noted that section 3.2.1 uses "reasonable effort."
Response	The reviewers agree that there is not intended to be a difference in the meaning and added "reasonable effort."
Section 3.3.6, Provider Contractual Arrangements	
Comment	Two commentators requested clarity on the definitions of "material" and "disclosure."

Response	The reviewers note that materiality is defined in ASOP No. 1, *Introductory Standard of Practice*, and that section 4 of this standard refers to disclosure in an actuarial communication.
Section 3.4, Methods Used for Estimating Incurred Claims	
Comment	One commentator expressed concern that this section does not address developing regulatory provisions (for statutory reporting) regarding estimation of incurred claims for certain long-term products.
Response	The reviewers note, as described in section 1.2, that this standard does not address interpretation of statutory or generally accepted accounting principles, and believes that the description of the tabular method is broad enough to include required adjustments, such as required use of company experience.
Section 3.4.2, Tabular Method (now section 3.4.3)	
Comment	One commentator suggested adding "benefit periods or lifetime maximums" to the list of factors.
Response	The reviewers added language to clarify that this list is not intended to be exhaustive.
Comment	One commentator noted that "long-term disability" is mentioned, but not "long-term care," although they are similar.
Response	The reviewers agree and removed this language.
Comment	One commentator suggested noting that the tabular method is not appropriate "by itself" for estimating unreported claims.
Response	The reviewers agree and made the change.
Comment	One commentator suggested using "reported/unreported" instead of "known/unknown."
Response	The reviewers agree and made the change.
Section 3.4.3, Projection Method (now section 3.4.2)	
Comment	One commentator questioned the inclusion of the specific example of pharmacy claims.
Response	The reviewers believe it is common practice to rely on pharmacy claims because, for example, they are believed to complete more quickly than other claims, and they are an indicator of morbidity. The reviewers made no change.
Section 3.5, Follow-Up Studies	
Comment	One commentator questioned the removal of the requirement to perform testing of the reserve methodology.
Response	The reviewers believe the language removed was educational only, and does not impact any obligation to perform follow-up studies that may exist.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.1, Actuarial Communication	
Comment	In subsection (a), one commentator suggested referring to a range of incurral and processing dates.
Response	The reviewers believe the current language is adequate and would include date ranges.
Comment	One commentator suggested combining the disclosure items regarding variation of actual results compared to estimates (c) and risk of provider insolvency (f).
Response	The reviewers believe these are distinct types of risks and made no change.
Comment	In section (d), one commentator requested clarification of the need for documentation of follow-up studies.

Response	The reviewers changed the wording of this item to improve clarity.
Section 4.2, Changes in Assumptions, Procedures, Methods, or Models (now section 4.1(g))	
Comment	One commentator suggested defining "material impact."
Response	The reviewers note that materiality is defined in ASOP No. 1 and made no change.
Comment	One commentator suggested changing the structure of the sentences in this paragraph to improve clarity.
Response	The reviewers agree, moved the section into 4.1(g), and made clarifying changes.

ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 6

Revised Edition

Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions

Developed by the
Retiree Group Benefits Subcommittee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
May 2014

Doc. No. 177

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APPENDIXES

May 2014

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 6

This document contains the final version of a revision of ASOP No. 6, *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*.

Background

The ASB provides coordinated guidance for measuring pension and retiree group benefit obligations through the series of ASOPs listed below.

1. ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*;

2. ASOP No. 6, *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*;

3. ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*;

4. ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*; and

5. ASOP No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*.

Although the titles of ASOP Nos. 27, 35, and 44 reference Pension Obligations or Valuations, they are also applicable to Retiree Group Benefits Obligations or Valuations. Additional guidance is also provided in other standards, including ASOP No. 5, *Incurred Health and Disability Claims*, and ASOP No. 25, *Credibility Procedures.*

First Exposure Draft

The first exposure draft of this ASOP was issued in April 2012 with a comment deadline of July 15, 2012. Eighteen comment letters were received and considered in developing modifications that were reflected in the second exposure draft.

Second Exposure Draft

The second exposure draft of this ASOP was issued in March 2013 with a comment deadline of August 30, 2013. The Retiree Group Benefits Subcommittee carefully considered the thirteen comment letters received. Key changes made to the final standard in response to comment letters received on the second exposure draft include the following:

1. Additional guidance was provided on retiree group benefits programs participating in pooled health plans, including situations when it may be appropriate to use the pooled health plan's premium without regard to adjustments for age.

2. Language in sections 4.1(s) and 4.1(t) was clarified to state that related disclosures are not required for funded status measurements performed in accordance with or prescribed by federal law or regulation.

3. Section 4.4 regarding confidential information was added to remove potential confusion regarding the interrelationship of this standard and Precept 9 of the *Code of Professional Conduct*.

In addition, a number of other changes were made to the text. Please see appendix 2 for a detailed discussion of the comments received and the reviewers' responses.

Key Changes from Current Standard

Key changes from the version of ASOP No. 6 adopted December 2001 (and updated May 2011 for standard deviation language) include the following:

Disclosure of Funded Status
Sections 4.1(s) and 4.1(t) contain new disclosure requirements related to a retiree group benefits program's funded status if the program's funded status is disclosed.

Disclosure of Information, Analysis, and Rationale for Changes in Assumptions and Methods
Sections 4.1(i) and 4.1(x) contain new disclosure requirements for changes in the assumptions and methods.

Disclosure of Rationale for Changes in Cost or Contribution Allocation Procedure
Section 4.1(y) contains new disclosure requirements for a change in the cost or contribution allocation procedure.

Assessment of Contribution Allocation Procedure or Funding Policy
Sections 4.1(o) and 4.1(p) contain new disclosure requirements related to the implications of the contribution allocation procedure or plan sponsor's funding policy on future expected plan contributions, funded status, and ability to make benefit payments when due.

Prescribed Assumptions or Methods
The standard has been revised to address prescribed assumptions or methods set by another party or set by law (sections 2.33 and 2.34).

Pooled Health Plans (including Community Rated Plans)
Additional guidance is provided concerning retiree group benefits programs that participate in a pooled health plan.

Trend Rates
Additional guidance is provided concerning the setting of trend rates, particularly regarding the factors an actuary should consider in setting the ultimate trend rate and the select period.

Acceptance, Lapse, and Re-Enrollment Rates
More guidance is provided on the selection of acceptance, lapse, and re-enrollment rates.

Guidance on Medicare Benefits
Actuaries providing services in this area need to determine which participants are covered by Medicare and which are not. In addition, Medicare now provides prescription drug subsidies to some retiree plans. The standard was revised to provide guidance in both areas.

Dedicated Assets
The language regarding dedicated assets has been modified to clarify that, when legal or accounting requirements don't conflict, dedicated assets may include assets such as earmarked book reserves or Rabbi Trusts that are not part of an irrevocable trust.

Coordination with ASOP No. 4
The standard has been revised so that consistent guidance is provided in ASOP Nos. 4 and 6 in areas that are common to both pension and retiree group benefits.

ASOP No. 6 is intended to accommodate the concepts of financial economics as well as traditional actuarial practice.

The ASB thanks everyone who took the time to contribute comments and suggestions on the exposure drafts.

The Pension Committee thanks former committee member Gordon C. Enderle for his assistance with drafting this ASOP.

The ASB voted in May 2014 to adopt this standard.

Retiree Group Benefits Subcommittee

A. Donald Morgan, IV, Chairperson
Derek N. Guyton
Marilyn M. Oliver
James J. Rizzo
Judy L. Strachan
Dale H. Yamamoto

Pension Committee of the ASB

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The ASB establishes and improves standards of actuarial practice. These ASOPs identify what the actuary should consider, document, and disclose when performing an actuarial assignment. The ASB's goal is to set standards for appropriate practice for the U.S.

ACTUARIAL STANDARD OF PRACTICE NO. 6

MEASURING RETIREE GROUP BENEFITS OBLIGATIONS AND DETERMINING RETIREE GROUP BENEFITS PROGRAM COSTS OR ACTUARIALLY DETERMINED CONTRIBUTIONS

STANDARD OF PRACTICE

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

1.1 Purpose—This actuarial standard of practice (ASOP) provides guidance to actuaries when performing actuarial services with respect to measuring obligations under a **retiree group benefits program** and determining **periodic costs** or **actuarially determined contributions** for such **retiree group benefits programs**. This standard provides guidance on assumptions that are specific to **retiree group benefits programs**. In addition, it addresses broader measurement issues, **cost allocation procedures**, and **contribution allocation procedures**. This standard provides guidance for coordinating and integrating all of the elements of an **actuarial valuation** of a **retiree group benefits program**.

1.2 Scope—This standard applies to actuaries when performing actuarial services with respect to the following tasks in connection with a **retiree group benefits program**:

a. measurement of obligations. Examples include determinations of **funded status**, assessments of solvency upon **retiree group benefits program** termination, market measurements, and measurements for use in pricing benefit provisions;

b. assignment of the value of **retiree group benefits program** obligations to time periods. Examples include **actuarially determined contributions**, **periodic costs**, and **actuarially determined contribution** or **periodic cost** estimates for potential **retiree group benefits program** changes;

c. development of a **cost allocation procedure** used to determine **periodic costs** for a **retiree group benefits program**;

d. development of a **contribution allocation procedure** used to determine **actuarially determined contributions** for a **retiree group benefits program**;

e. determination as to the types and levels of benefits supportable by specified **periodic cost** or **actuarially determined contribution** levels; and

f. projection of **retiree group benefits** obligations, **retiree group benefits program periodic costs** or **actuarially determined contributions**, and other

related measurements. Examples include cash flow projections and projections of a **retiree group benefits program's funded status**.

Throughout this standard, any reference to selecting actuarial assumptions, **actuarial cost methods**, asset valuation methods, and **amortization methods** also includes giving advice on selecting actuarial assumptions, **actuarial cost methods**, asset valuation methods, and **amortization methods**. In addition, any reference to developing or modifying a **cost allocation procedure** or **contribution allocation procedure** includes giving advice on developing or modifying a **cost allocation procedure** or **contribution allocation procedure**.

This standard highlights health and death benefits because they are the most common forms of **retiree group benefits**. This standard applies to situations involving other types of **retiree group benefits** but does not apply to measurements of pension obligations or social insurance programs.

This standard does not require the actuary to evaluate the ability of the **plan sponsor** or other contributing entity to make **actuarially determined contributions** for the **retiree group benefits program** when due.

If the actuary departs from the guidance set forth in this standard in order to comply with applicable law (statutes, regulations, and other legally binding authority), 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 consider the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard will be effective for any actuarial work product with a **measurement date** on or after March 31, 2015; however, if roll-forward techniques are used in the measurement, the standard is not effective until three years after the last full measurement before March 31, 2015. Earlier adoption of this standard is permitted.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice.

2.1 Actuarial Accrued Liability—The portion of the **actuarial present value of projected benefits** (and **expenses**, if applicable), as determined under a particular **actuarial cost method**, that is not provided for by future **normal costs**. Under certain **actuarial cost methods**, the **actuarial accrued liability** is dependent upon the actuarial value of assets.

2.2 Actuarial Cost Method—A procedure for allocating the **actuarial present value of projected benefits** (and **expenses**, if applicable) to time periods, usually in the form of a **normal cost** and an **actuarial accrued liability**. For purposes of this standard, a pay-as-you-go method is not considered to be an **actuarial cost method**.

2.3 Actuarially Determined Contribution—A potential payment, other than by a retired **participant**, to prefund the **retiree group benefits program,** as determined by the actuary using a **contribution allocation procedure**. It may or may not be the amount actually paid by the **plan sponsor** or other contributing entity. This does not include the development of **premiums** or budget rates.

2.4 Actuarial Present Value—The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions with regard to future events, observations of market or other valuation data, or a combination of assumptions and observations.

2.5 Actuarial Present Value of Projected Benefits—The **actuarial present value** of benefits that are expected to be paid in the future, taking into account the effect of such items as future service, advancement in age, and expected future per capita health care costs (sometimes referred to as the "present value of future benefits").

2.6 Actuarial Valuation—The measurement of relevant **retiree group benefits** obligations and, when applicable, the determination of **periodic costs** or **actuarially determined contributions**.

2.7 Adverse Selection—Actions taken by one party using risk characteristics or other information known to or suspected by that party that cause a financial disadvantage to the **retiree group benefits program** (sometimes referred to as antiselection).

2.8 Amortization Method—A method under a **contribution allocation procedure** or **cost allocation procedure** for determining the amount, timing, and pattern of recognition of the unfunded **actuarial accrued liability**.

2.9 Benefit Options—Choices that a **benefit plan member** may make under a **benefit plan** including basic coverages (for example, choice of medical plans) and additional coverages (for example, contributory dental coverage).

2.10 Benefit Plan—An arrangement providing medical, prescription drug, dental, vision, legal, death, long-term care, or other benefits (excluding retirement income benefits) to **participants** of the **retiree group benefits program**, whether on a reimbursement, indemnity, or service benefit basis.

2.11 Benefit Plan Member—An individual covered by a **benefit plan**.

2.12 Contribution Allocation Procedure—A procedure that uses an **actuarial cost method,** and may include an asset valuation method, an **amortization method**, and an **output**

smoothing method, to determine the **actuarially determined contribution** for prefunding a **retiree group benefits program**. It may produce a single value, such as **normal cost** plus an amortization payment of the unfunded **actuarial accrued liability**, or a range of values. This term does not relate to the process of determining the **participant contribution**.

2.13 Cost Allocation Procedure—A procedure that uses an **actuarial cost method**, and may include an asset valuation method and an **amortization method**, to determine the **periodic cost** for a **retiree group benefits program** (for example, the procedure to determine the net periodic postretirement benefit cost under some accounting standards).

2.14 Covered Population—Active and retired **participants**, participating **dependents**, and **surviving dependents** of **participants** who are eligible for benefit coverage under a **retiree group benefits program**. The **covered population** may also include contingent **participants**.

2.15 Dedicated Assets—Assets designated for the exclusive purpose of satisfying the **retiree group benefits program** obligations. Examples include the following:

a. life insurance policies held by the **plan sponsor** to cover some of the **plan sponsor's** retired **participant** death benefits;

b. welfare benefit trusts (for example, voluntary employees' beneficiary associations);

c. Internal Revenue Code section 401(h) accounts in a qualified pension plan; and

d. Internal Revenue Code section 115 trusts sponsored by governmental entities for **retiree group benefits**.

2.16 Dependents—Individuals who are covered or may become covered under a **retiree group benefits program** by virtue of their relationship to an active or retired **participant**.

2.17 Expenses—Administrative or investment expenses borne or expected to be borne by the **benefit plan** or **retiree group benefits program**.

2.18 Funded Status—Any comparison of a particular measure of plan assets to a particular measure of plan liabilities.

2.19 Immediate Gain Actuarial Cost Method—An **actuarial cost method** under which actuarial gains and losses are included as part of the unfunded **actuarial accrued liability** of the **retiree group benefits program**, rather than as part of the **normal cost** of the **retiree group benefits program**.

2.20 Market-Consistent Present Value—An **actuarial present value** that is estimated to be consistent with the price at which benefits that are expected to be paid in the future would

trade in an open market between a knowledgeable seller and a knowledgeable buyer. The existence of a deep and liquid market for **retiree group benefits program** cash flows or for entire **retiree group benefits programs** is not a prerequisite for this present value measurement.

2.21 Measurement Date—The date as of which the values of the **retiree group benefits** obligation and, if applicable, the assets are determined (sometimes referred to as the "valuation date").

2.22 Measurement Period—The period subsequent to the **measurement date** during which the chosen assumptions or other model components will apply. The period often ends at the time the last **participant** is expected to receive the final benefit.

2.23 Medicare Integration—The approach to determining the portion of a Medicare-eligible claim that is paid by the **benefit plan** after adjustment for Medicare reimbursements for the same claim. Types of **Medicare integration** include the following:

a. Full Coordination of Benefits (Full COB)—The health plan pays the difference between total eligible charges and the Medicare reimbursement amount, or the amount it would have paid in the absence of Medicare, if less.

b. Exclusion—The health plan applies its normal reimbursement formula to the amount remaining after Medicare reimbursements have been deducted from total eligible charges.

c. Carve-Out—The health plan applies its normal reimbursement formula to the total eligible charges, and then subtracts the amount of Medicare reimbursement.

2.24 Normal Cost—The portion of the **actuarial present value of projected benefits** (and **expenses**, if applicable) that is allocated to a period, typically twelve months, under the **actuarial cost method**. Under certain **actuarial cost methods**, the **normal cost** is dependent upon the actuarial value of assets.

2.25 Normative Database—Data compiled from sources that are expected to be typical of the **retiree group benefits program**, rather than from plan-specific experience. Examples of **normative databases** include published mortality and disability tables, proprietary **premium** manuals, and experience on similar **retiree group benefits programs**.

2.26 Output Smoothing Method—A method used by the actuary to adjust the results of a **contribution allocation procedure** to reduce volatility.

2.27 Participant—An individual who (a) is currently receiving benefit coverage under a **retiree group benefits program,** (b) is reasonably expected to receive benefit coverage under a **retiree group benefits program** upon satisfying its eligibility and participation requirements, or (c) is a **dependent** of an individual described in (a) or (b).

2.28 Participant Contributions—Payments made by a **participant** to a **retiree group benefits program**.

2.29 Periodic Cost—The amount assigned to a period using a **cost allocation procedure** for purposes other than funding. This may be a function of plan obligations, **normal cost**, **expenses**, and assets. In many situations, **periodic cost** is determined for accounting purposes.

2.30 Plan Sponsor—An organization that establishes or maintains a **retiree group benefits program**. Examples of **plan sponsors** include employers and Taft-Hartley Boards of Trustees.

2.31 Pooled Health Plan—A health **benefit plan** in which **premiums** are based at least in part on the claims experience of groups other than the group being valued. The use of projection assumptions that are not based solely on the claims experience of the group being valued (for example, the health care cost **trend** rate assumption) would not by itself create a **pooled health plan**.

2.32 Premium—The price charged by a risk-bearing entity, such as an insurance or managed care company, to provide risk coverage.

2.33 Prescribed Assumption or Method Set by Another Party—A specific assumption or method that is selected by another party, to the extent that law, regulation, or accounting standards gives the other party responsibility for selecting such an assumption or method. For this purpose, an assumption or method set by a governmental entity for a **retiree group benefits program** that such governmental entity or a political subdivision of that entity directly or indirectly sponsors is deemed to be a **prescribed assumption or method set by another party**.

2.34 Prescribed Assumption or Method Set by Law—A specific assumption or method that is mandated or that is selected from a specified range or set of assumptions or methods that is deemed to be acceptable by applicable law (statutes, regulations, and other legally binding authority). For this purpose, an assumption or method set by a governmental entity for a **retiree group benefits program**, which such governmental entity or a political subdivision of that entity directly or indirectly sponsors, is not deemed to be a **prescribed assumption or method set by law**.

2.35 Retiree Group Benefits—Medical, prescription drug, dental, vision, legal, death, long-term care, or other benefits (excluding retirement income benefits) that are provided during retirement to a group of individuals, on account of an employment relationship.

2.36 Retiree Group Benefits Program—The program specifying **retiree group benefits**, including eligibility requirements, **participant contributions**, and the design of the benefits being provided.

2.37 Spread Gain Actuarial Cost Method—An **actuarial cost method** under which actuarial gains and losses are included as part of the current and future **normal costs** of the **retiree group benefits program**.

2.38 Stop-Loss Coverage—Insurance protection providing reimbursement of all or a portion of claims in excess of a stated amount. **Stop-loss coverage** may be either individual or aggregate (sometimes referred to as excess loss coverage).

2.39 Surviving Dependent—A **dependent** who qualifies as a **participant** under the **retiree group benefits program** following the death of the associated **participant**.

2.40 Trend—A measure of the rate of change, over time, of the per capita benefit payments.

Section 3. Analysis of Issues and Recommended Practices

3.1 Overview—Measuring **retiree group benefits** obligations and determining **periodic costs** or **actuarially determined contributions** are processes in which the actuary may be required to make judgments or recommendations on the choice of actuarial assumptions, **actuarial cost methods**, asset valuation methods, **amortization methods,** and **output smoothing methods**.

The actuary may have the responsibility and authority to select some or all actuarial assumptions, **actuarial cost methods**, asset valuation methods, **amortization methods**, and **output smoothing methods**. In other circumstances, the actuary may be asked to advise the individuals who have that responsibility and authority. In yet other circumstances, the actuary may perform actuarial calculations using **prescribed assumptions or methods set by another party** or **prescribed assumptions or methods set by law**.

Other actuarial standards of practice provide guidance on asset valuation methods (ASOP No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*), and actuarial assumptions and procedures not specifically addressed in this standard (for example, ASOP No. 5, *Incurred Health and Disability Claims*; ASOP No. 25, *Credibility Procedures*; ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations;* and ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*).

ASOP No. 6 addresses broader measurement issues including **cost allocation procedures** and **contribution allocation procedures**, and provides guidance for coordinating and integrating all of these elements of an **actuarial valuation** of a **retiree group benefits program**. In the event of a conflict between the guidance provided in ASOP No. 6 and the guidance in any of the aforementioned ASOPs, ASOP No. 6 governs.

3.2 General Procedures—When measuring **retiree group benefits** obligations and determining **retiree group benefits program periodic costs** or **actuarially determined contributions**, the actuary should perform the following general procedures:

a. identify the purpose of the measurement (section 3.3);

b. identify the **measurement date** (section 3.4);

c. develop a model that reasonably represents the following:

1. known provisions of the **retiree group benefits program** as they currently exist and as they are anticipated to change in the **measurement period**, as appropriate for the purpose (section 3.5);

2. the current population covered by the benefits in question, as appropriate for the purpose (section 3.6); and

3. current benefit costs (sections 3.7 and 3.8).

d. evaluate the quality and consistency of data used in construction of the model, and make appropriate adjustments (section 3.9);

e. identify any significant administrative inconsistencies and make appropriate adjustments in the model or disclose the unresolved inconsistency (section 3.10);

f. obtain from the principal other information necessary for the purpose of the measurement (section 3.11);

g. select actuarial assumptions (section 3.12);

h. evaluate **retiree group benefits** assets (section 3.13);

i. consider how to measure accrued or vested benefits, if applicable (section 3.14);

j. consider how to measure **market-consistent present values**, if applicable (section 3.15);

k. reflect how **retiree group benefits program** or **plan sponsor** assets as of the **measurement date** are reported, if applicable (section 3.16);

l. select an **actuarial cost method**, if applicable (section 3.17);

m. select a **cost allocation procedure** or **contribution allocation procedure**, if applicable (section 3.18);

n. assess the implication of the **contribution allocation procedure** or **plan sponsor's** funding policy, if applicable (section 3.18);

o. consider the use of approximations and estimates (section 3.19);

p. consider the sources of significant volatility, if applicable (section 3.20);

q. review and test the results of the calculations for reasonableness (section 3.21); and

r. evaluate **prescribed assumptions and methods set by another party**, if applicable (section. 3.22).

3.3 Purpose of Measurement—When measuring **retiree group benefits** obligations and determining **retiree group benefits program periodic costs** or **actuarially determined contributions**, the actuary should reflect the purpose of the measurement. Examples of measurement purposes are **periodic costs**, **actuarially determined contribution** requirements, benefit provision pricing, comparability assessments, **retiree group benefits program** settlement, **funded status** assessments, market value assessments, and **plan sponsor** mergers and acquisitions.

3.3.1 Projection or Point-in-Time—The actuary should consider whether assumptions or methods need to change for measurements projected into the future compared to point-in-time measurements.

3.3.2 Uncertainty or Risk—In conjunction with the related guidance in ASOP No. 41, the actuary should consider the uncertainty or risk inherent in the measurement assumptions and methods and how the actuary's measurement treats such uncertainty or risk.

3.4 Measurement Date Considerations—When measuring **retiree group benefits** obligations and determining **retiree group benefits program periodic costs** or **actuarially determined contributions** as of a **measurement date**, the actuary should address the following:

3.4.1 Information as of a Different Date—The actuary may estimate asset and **participant** information at the **measurement date** on the basis of information as of a different date. In these circumstances, the actuary should make appropriate adjustments to the data. Alternatively, the actuary may calculate the obligations as of a different date and then adjust the obligations to the **measurement date** (see section 3.24 for additional guidance). In either case, the actuary should determine that any such adjustments are reasonable in the actuary's professional judgment, given the purpose of the measurement.

3.4.2 Events after the Measurement Date—Events known to the actuary that occur subsequent to the **measurement date** and prior to the date of the actuarial

communication may, but need not, be reflected in the measurement unless the purpose of the measurement requires the inclusion of such events.

3.5 Modeling Provisions of Retiree Group Benefits Programs—In modeling the known provisions of the **retiree group benefits program**, the actuary should give appropriate consideration to the written plan documents, historical practices, administrative practices, governmental programs, communications to participants, and, depending on the purpose of the measurement, **plan sponsor** decisions and expected future **benefit plan** designs, as described in sections 3.5.1 and 3.5.2 below.

3.5.1 Components of the Modeled Retiree Group Benefits Program—The actuary should incorporate the significant elements of the known provisions of the **retiree group benefits program** into the model. Factors that the actuary should consider include:

a. Covered Benefits—Covered benefits may include reimbursements for covered services, fixed-dollar payments for covered events (such as death benefits), and other monetary benefits (such as Medicare **premiums** or defined dollar benefits).

b. Eligibility Conditions—All relevant eligibility conditions should be considered. These include, but are not limited to, conditions related to age, service, date of hire, employment classification, and participation in other benefit programs, such as Medicare or a pension plan.

c. Plan Benefit Limitations, Exclusions, and Cost-Sharing Provisions—Benefit limitations and exclusions (such as an annual or lifetime maximum benefit in a medical plan) may affect plan payments, and such effects will change over time. The actuary should also consider participant cost-sharing provisions (such as deductibles, copayments, coinsurance, and out-of-pocket limits).

d. Participant Contributions—Many **retiree group benefits programs** require contributions from **participants** as a condition for their continued eligibility for coverage. The actuary should reflect the **participant contributions** in the model, as discussed below. In addition, **participant contributions** may affect participation rates and **adverse selection**, thus affecting per capita claim costs.

1. Participant Postretirement Contribution Formula—In modeling the **retiree group benefits program**, the actuary should reflect the actual level of **participant contributions**. There is a wide variation in how **participant contributions** are determined (examples include flat amounts, amounts based on credited service at retirement, amounts based on claims costs for retired

participants, and amounts based on combined costs for all **participants**).

2. Participant Postretirement Contribution Reasonableness—The actuary should compare for reasonableness the stated basis for **participant contributions** to what has been implemented. See section 3.10, Administrative Inconsistencies, for further guidance.

3. Preretirement Active Employee Contributions—A **retiree group benefits program** may require active employees to make preretirement contributions in order to earn eligibility for **retiree group benefits**. The actuary should consider how this requirement may affect future benefit eligibility and **plan sponsor periodic costs** or **actuarially determined contributions**.

4. Participant Contributions as Defined by Limits on Plan Sponsor Payments—Some **retiree group benefits programs** designate a maximum average per capita amount to be paid by the plan sponsor in a year. This limit is commonly known as a "cap." These maximums may be based on factors such as service, employment classification, or age at retirement. The actuary should consider whether any such limits will have a significant impact on the obligation. The actuary should consider how the **plan sponsor** is expected to implement these limits, when these limits are expected to be reached, their impact on **participant contributions**, and, thus, future participation, and, if appropriate, incorporate these limits into the modeled **retiree group benefits program**.

e. Payments from Other Sources—The cost of coverage in some **retiree group benefits programs** is partially or completely funded with payments from other sources such as retiree medical savings accounts, terminal leave balances, or non-employer funding sources. The actuary should consider payments from other sources when measuring a **retiree group benefits program's** obligations.

f. Health Care Delivery System Attributes—The actuary should consider that various health care delivery system attributes can affect costs differently.

g. Benefit Options—The actuary should consider the effect of **benefit options**.

h. Anticipated Future Changes—For most measurement purposes, the actuary should reflect only changes that have been communicated to plan **participants**, changes that result from the continuation of a historical pattern, or changes that are required by law to be implemented within a

specified period. However, depending upon the purpose of the measurement, the actuary may reflect future changes that the **plan sponsor** has requested the actuary to evaluate. The actuary should disclose that such an approach has been used (see section 4.1(d)).

3.5.2 Historical Practices—When appropriate, the actuary should consider historical practices in developing the model. Historical practices include the following:

a. Claims Payment Practices—If the actuary becomes aware of a significant inconsistency between administrative practice and plan documents, stated **plan sponsor** policies, **participant** communications, or applicable law (statutes, regulations, and other legally binding authority), the actuary should follow the guidance in section 3.10.

b. Patterns of Plan Changes—The actuary should consider the **plan sponsor's** historical practices or patterns of regular changes in the **retiree group benefits program** (such as benefits, cost-sharing, and **participant contribution** levels). Depending on the purpose of the measurement, the continuation of such past practices or patterns may warrant inclusion in the model. The actuary should consider whether a maximum average per capita amount to be paid by the **plan sponsor** in a year would be effective in light of historical practices such as past increases in the maximum.

c. Governmental Programs—The actuary should consider any patterns in the historically enacted legislative and administrative policy changes in Medicare and other governmental programs to the extent that the **retiree group benefits program** integrates with them.

3.5.3 Reviewing the Modeled Retiree Group Benefits Program—The actuary should consider whether the model continues to reflect actual known provisions and practices of the **retiree group benefits program**. If its administration has significantly deviated from the **retiree group benefits program** as modeled, the actuary should consider whether this deviation is temporary or should be treated as a permanent change in the **retiree group benefits program**. If the actuary becomes aware of a significant inconsistency between administrative practice and plan documents, stated **plan sponsor** policies, **participant** communications, or applicable law (statutes, regulations, and other legally binding authority), the actuary should follow the guidance in section 3.10.

3.5.4 Measurement Results by Category—The actuary should consider whether the measurement results need to be examined by category (for example, medical vs. dental; union vs. nonunion; retiree vs. **dependent**; **retiree group benefits program** paid vs. **participant** paid; and payments before Medicare eligibility age vs. payments after Medicare eligibility age). This examination may be necessary as a result of the nature of the assignment or to assess the reasonableness of the measurement model.

3.6 Modeling the Covered Population—The projected size and demographic composition of the **covered population** has a significant impact on the measurement. The actuary should consider the need to model variations in the **covered population** (for example, when benefit eligibility varies by type of coverage). Open group measurements should be used when appropriate for the purpose of the measurement. These issues are discussed below.

3.6.1 Census Data—The actuary should collect sufficient census data to make a reasonable estimate of the obligation. The actuary may use individual census data or grouped data, as appropriate for the measurement. Data for retirees or other former employees who decline and terminate coverage may be needed to establish participation assumptions, including election of coverage at retirement, lapse, and re-enrollment rates.

3.6.2 Employees Currently Not Accruing Benefits—Depending on the purpose of the measurement, the actuary should consider whether some or all of the employees currently not accruing service toward **retiree group benefits** eligibility may accrue service in the future and whether some or all of the employees currently not making required preretirement **participant contributions** may contribute in the future, and make appropriate allowance for them in the modeled population.

3.6.3 Contingent Participants—The actuary should examine the census data and take appropriate measures to reflect individuals who are not current **participants**, but may reasonably be expected to become **participants** through their future actions. For example, the actuary may need to make a re-enrollment assumption in situations where retirees or other former employees have opted out of medical coverage at retirement or termination, but may later elect to resume or begin coverage.

3.6.4 Dependents and Surviving Dependents of Participants—The actuary should include in the modeled population **dependents** and **surviving dependents** who are eligible for coverage and participating. In doing so, the actuary should take into account that the **retiree group benefits program's** eligibility conditions and benefit levels for **dependents** and **surviving dependents** may differ from the plan's eligibility conditions and benefit levels for retired **participants**. Benefit coverage for the **dependent** of a retired **participant** may continue subject to that **dependent** contributing to the plan, may continue for a limited period (for example, until Medicare eligibility, one year after the death of the retired **participant**, or a limiting age), or may cease when the retired **participant** dies.

The actuary should generally model **dependents** (other than dependent children) separately from retired **participants** because of differences in the timing of Medicare eligibility and in mortality between the retired **participant** and the **dependent**. For dependent children (including disabled adult dependent children), the actuary should consider whether the obligation related to dependent children is significant and model them appropriately. For example, for **retiree group**

benefits programs that have liberal early retirement eligibility conditions, dependent children coverage can significantly increase the overall number of **participants** and, therefore, have a significant effect on the size of the **covered population**.

3.6.5 Appropriateness of Pension Plan Data—**Plan sponsors** that do not maintain separate **retiree group benefits program** databases may furnish pension plan data to represent the **covered population** of the **retiree group benefits program**. In such cases, the actuary should make appropriate adjustments. Examples of the types of adjustments that may be required are discussed below.

a. Retirees Covered by the Retiree Group Benefits Program but Not Receiving Pension Benefits—Former employees may be **participants** in the **retiree group benefits program**, but may no longer be participants in the pension plan (such as employees who received lump-sum pension payments). **Dependents** and **surviving dependents** of retired **participants** may be eligible for the **retiree group benefits program**, but may not be in the pension plan census data.

b. Retirees Receiving Pension Benefits but Not Covered by the Retiree Group Benefits Program—Retirees may be participants in the pension plan, but may not be covered by the **retiree group benefits program** (such as employees who terminated with vested pension benefits now in payment status). Employees may be eligible for pension benefits upon retirement or disability, but may not satisfy the eligibility conditions of the **retiree group benefits program** or may have waived coverage for certain or all of the underlying **retiree group benefits**.

c. Provisions Affecting Certain Employees—The pension plan may be frozen for a certain group of employees or may exclude employees due to age or service eligibility requirements, which might not affect their eligibility for the **retiree group benefits program**.

3.6.6 Use of Grouping—The actuary may use grouping techniques for modeling the population when, in the actuary's judgment, grouping is not expected to significantly affect the measurement results. One such technique is to group **participants** based on common demographic characteristics (for example, age and service), where the obligation for each **participant** in the group is expected to be similar for commonly grouped individuals.

Another technique is to group health plans with similar expected costs and features. A **retiree group benefits program** with multiple health plan designs (for example, through various collective bargaining agreements) may not require separate measurement for each individual health plan. Under such circumstances, the actuary, after evaluating the eligibility conditions and range of benefits provided, may decide it is appropriate to combine health plans that have similar

expected costs and group the **covered populations** of those health plans. The actuary should disclose such combining of health plans and grouping of populations (see section 4.1(i)).

3.6.7 Hypothetical Data—When appropriate, the actuary may prepare measurements based on assumed demographic characteristics of current or future plan **participants**.

3.7 Modeling Initial Per Capita Health Care Costs—The actuary should develop assumed per capita health care costs to be the basis of the initial annual benefit costs for estimating the future health care obligations. In the actuarial development of health care costs, health plan experience is generally considered the best predictor of future claims experience, preferable to sole reliance on **normative databases** or other measures. Therefore, preferred methods involve development of annual per capita health care costs from the claims experience of the health plan when that experience is sufficiently credible. In the absence of credible health plan experience data, the actuary may use other methods (such as methods that use **premiums** and **normative databases**) to develop the per capita costs.

The process of setting the per capita health care costs generally involves (a) quantifying aggregate claims costs; (b) quantifying a measure of exposure to risk, usually the count of individuals who were eligible for the health plan during the period the claims were incurred; and (c) applying other information such as **normative databases** and **premium** as appropriate.

Multiple initial per capita health care costs may be appropriate due to the modeling of known health plan and **participant contribution** provisions (section 3.5), demographic factors influencing claims, and claims experience (for example, different rates by gender, healthy vs. disabled, retired **participants** vs. **dependents**).

The actuary should document the methods and procedures followed in developing the initial per capita health care costs, such that another actuary qualified in this practice area could assess the reasonableness of the initial per capita health care costs. The actuary should also document any significant actuarial judgments applied during the modeling process.

The sections that follow address aspects of setting the per capita health care costs that are particularly important when projecting benefit costs for a long period. The actuary should consider the following elements.

3.7.1 Net Aggregate Claims Data—In most cases, the actuary's objective is the development of a net incurred claims rate. The actuary should, however, consider the factors involved in distinguishing net claims from gross claims and incurred claims from paid claims, as discussed below.

a. Paid Claims—Aggregate claims data received by the actuary will usually be grouped by the dates of payment, not by the dates on which claims were incurred. The actuary should consider analyzing the data for the likely difference between the level of paid claims for a period and the level of incurred claims for the same period. When the differences are significant, the actuary should make an adjustment, either to the historical paid claims or to the initial claims assumption, to account for the likely future level of claims activity.

b. Gross Claim Components—Aggregate claims data received by the actuary may show only net payments or may include cost-sharing components (such as deductibles and copayments), reimbursements, costs not covered, or other elements of gross claims. The actuary may determine the initial claims rate assumption from the net payments or the gross amounts.

3.7.2 Exposure Data—In developing an initial per capita health care cost, the actuary should obtain exposure data for the same time periods and population as the claims experience data that will be used. Since exposure data are historical in nature, the exposure data typically will be different from the census data used in modeling the future **covered population**. If the differences are significant, the actuary should review the data sets for consistency (see section 3.9).

Segmenting the exposure data by age and gender or by retired **participant** vs. **dependent** may be appropriate. The actuary should either obtain information to segment the population or employ reasonable assumptions as appropriate.

3.7.3 Use of Multiple Claims Experience Periods—The actuary should consider the use of multiple claims experience periods and adjust the experience of the various periods to comparable bases as described in sections 3.7.8, 3.7.9, 3.7.10, and 3.7.11. When combining multiple experience periods, the actuary should consider the applicability of each period based upon elapsed time and changes required to adjust to comparable bases.

The actuary may consider smoothing the results to account for historical irregularities. The actuary may weight the experience periods as appropriate.

3.7.4 Credibility—When data are not available or fully credible, the actuary should make use of relevant **normative databases** or active plan experience on the same group adjusted for age and expected differences in such items as utilization and plan design. The actuary may use these supplementary data and professional judgment to validate, adjust, or replace the plan experience data.

ASOP No. 25, *Credibility Procedures*, provides guidance to the actuary when assigning credibility to sets of experience data.

3.7.5 Use of Premiums—Although an analysis of the actual claims experience is preferable when reasonably possible, the actuary may use **premiums** as the basis for initial per capita costs, with appropriate analysis and adjustment for the **premium** basis. The actuary who uses **premiums** for this purpose should adjust them for changes in benefit levels, **covered population**, or **retiree group benefits program** administration. The actuary should also make the appropriate adjustments to determine the age-specific costs (see section 3.7.7).

If **premiums**, adjusted or unadjusted, are used as the basis for initial per capita costs in the measurement, the actuary should make an appropriate disclosure and consider the factors described in other paragraphs of section 3.7.

3.7.6 Impact of Medicare and Other Offsets—When Medicare is the primary payer and has a significant impact on the per capita health care costs, the actuary should develop separate costs for Medicare-eligible participants. Such costs should reflect the **Medicare integration** approach for the **benefit plan** or how the **benefit plan** supplements Medicare. The actuary should consider using separate per capita health care costs for **benefit plan** members who are not or will not become eligible for Medicare due to exemptions, such as for certain governmental entities. The actuary should consider the proportions of retired **participants** and their **dependents** that may be eligible for Part A and not for Part B due to non-payment of the Part B premium.

The actuary should consider whether there is a significant inconsistency between the **Medicare integration** approach being applied by the claims administrator and representations to the actuary of the terms of the health plan. See section 3.10 for further guidance.

Depending on the purpose of the measurement, the actuary should consider whether it is appropriate to reflect reimbursements or other payments from the Medicare system (for example, the retiree drug subsidies for **plan sponsors** and direct subsidies for Part D plans).

The actuary should consider changes to Medicare and other governmental programs that may have affected historical data being used in the measurement and, if the impact is significant, make appropriate adjustments.

The actuary should also adjust for other offsets, such as workers' compensation and auto insurance, if their impact is considered to be significant.

3.7.7 Age-Specific Costs—Various factors influence the magnitude of costs for the group being valued, often including the ages, gender, and other characteristics of the **benefit plan** members. Considerations for reflecting these factors in modeling initial per capita health care costs are discussed below.

a. General Principles—In general, for health coverage, benefit costs vary by age. Therefore, except as noted in (c) below, the actuary should use age-specific costs in the development of the initial per capita costs and in the projection of future **benefit plan** costs. In general, the development of the age-specific costs should be based on the demographics of the group being valued and the group's total expected claims or premiums. Any age ranges used should not be overly broad. The relationship between the costs at various ages is an actuarial assumption that may be based on **normative databases**.

Additional analysis may be needed in some circumstances. For example, if the **benefit plan** comingles the experience of active and retired individuals, and the **benefit plan's premium** for non-Medicare retirees does not reflect their full age-specific cost, the **benefit plan's** active rates include an implicit subsidy for the non-Medicare retirees. The actuary should reflect the full age-specific costs, including the implicit subsidy.

b. Pooled Health Plans (including Community Rated Plans)— If the group being valued participates in a **pooled health plan**, additional analysis relating to age-specific costs may be needed. Except as noted in (c), the actuary should reflect the full age-specific cost, including the implicit subsidy, regardless of the size of the group being valued.

A **pooled health plan** may base its **premiums** for participating groups, in whole or in part, on the claims, demographics, or other risk factors of the total population of the **pooled health plan**. To the extent the **premiums** are based on the demographics of the total population of the **pooled health plan**, and not adjusted by the demographics of the group under consideration, the actuary performing a **retiree group benefits actuarial valuation** for a group should use age-specific costs based upon the **pooled health plan's** total age distribution and the **pooled health plan's** total expected claims costs or **premiums** rather than based on the group's own age distribution and its own expected claims costs or **premiums**. If, however, the **premiums** are explicitly based, in part, on the composition of the group under consideration, the actuary should take into account the distribution of the considered group's members by age, or by age and gender, to the extent appropriate.

The actuary should base the age-specific costs for the group being valued on a distribution table for the total number of covered health plan members by age, or by age and gender, provided by the **pooled health plan**. If the information is not available from the **pooled health plan**, then the actuary may make a reasonable assumption regarding the distribution table for the **pooled health plan** to determine the age-specific cost. Alternatively, the actuary may base the age-specific cost on manual rates or other sources relevant to the plan of benefits covering the members of the group being valued.

c. Possible Exceptions—In some very limited cases, the use of the **pooled health plan's premium** may be appropriate without regard to adjustments for age. The factors that an actuary should evaluate in determining whether the **premium** may be appropriate without regard to adjustments for age include:

1. the purpose of the measurement (for example, for a projection of short-term cash flow needs the use of the **premium** may be appropriate);

2. whether for the type of **benefit plan** being valued (for example, certain dental plans) the impact of using age-specific costs would not be material;

3. the extent to which there are no age-related implicit subsidies between actives and retirees that occur within the **pooled health plan**; and

4. whether the **pooled health plan** and its **premium** structure are sustainable over the **measurement period,** even if other groups or active **participants** cease to participate. The use of a **premium** without regard to adjustment for age is generally inappropriate if the **pooled health plan** and its **premium** structure are not sustainable over the **measurement period** if other groups or active **participants** cease to participate.

3.7.8 Adjustment for Benefit Plan Design Changes—The actuary should adjust the claims costs to reflect significant differences, if any, between the **benefit plan** designs in effect for the experience period and those in effect during the initial year of the **measurement period**. Where significant, the impact of changes in other provisions of the **retiree group benefits program** (for example, **participant contributions**) should be reflected.

3.7.9 Adjustment for Administrative Practices—Changes in administrative practices affect how costs emerge. The actuary should make appropriate provisions in the model for changes in administrative practices such as the following:

a. Claims Adjudication—The actuary should consider how overall costs and utilization rates may be influenced by the method by which enrollees and providers submit claims (for example, provider electronic submission vs. enrollee paper submission of claims).

b. Enrollment Practices—The actuary should consider the effect enrollment practices (for example, the ability of **participants** to drop in and out of a health plan) have had on health care costs.

3.7.10 Adjustment for Large Individual Claims—The actuary should recognize the significance that large claims may have with respect to claims experience and consider whether adjustments are appropriate. When data are relevant and available, the actuary should review the frequency and size of large claims and consider whether the prevalence of large claims is expected to be significantly different in the future. Future periods may have a higher or lower incidence of such claims than past experience periods under examination. The actuary should consider whether adjustments should be made to reflect annual or lifetime maximums. The actuary should review both **stop-loss coverage** and other large claims, as described below:

a. Stop-Loss Coverage—The actuary should consider the financial impact of stop-loss insurance in all projections.

b. Other Large Claims—The actuary should also consider large claims that may be below the **stop-loss coverage** level.

3.7.11 Adjustment for Trend—When adjusting the claims experience during earlier periods to the initial year of the measurement, the actuary should reflect the effect of **trend** that has occurred between those earlier claim periods and the initial year of the measurement. These adjustments of the initial per capita health care cost may reflect experience from outside the health plan.

The actuary should consider using separate **trend** rates for major cost components (for example, medical, drugs, and health plan administration).

3.7.12 Adjustment When Plan Sponsor is Also a Provider—The **plan sponsor** may also be a provider under the plan, as in cases where the **plan sponsor** is a hospital, medical office, clinic, or other health care provider. In these situations, the **plan sponsor** pays itself, in effect, for services it provides its own members. Therefore, the actuary should analyze the charges incurred and reimbursements received by such **plan sponsor**, and make appropriate adjustments in the measurement model to properly reflect the underlying transactions.

3.7.13 Use of Other Modeling Techniques—Health care costs may be modeled and projected using techniques other than those mentioned above. When using an alternative approach, the actuary should disclose the method used and comment on its applicability (see section 4.1(l)). Examples of alternative approaches include models that project a distribution of expected claims with an associated probability distribution and models that assign different claims costs for the last year of life.

3.7.14 Administrative and Other Expenses—In addition to the cost of claims, the **plan sponsor** is usually responsible for the cost of administering the **retiree group benefits program** and other related **expenses**. The actuary should consider these

expenses when performing the measurement. The actuary may model **expenses** in various ways. For example, **expenses** may be included in claims costs or expressed on a per capita basis, as a percentage of claims, or as fixed amounts.

3.8 Modeling the Cost of Death Benefits—Death benefits may be provided directly by the **plan sponsor** upon the death of a retired **participant** or may be paid by an insurance company through a life insurance program. The life insurance program may be either participating or nonparticipating with respect to policy dividends. The actuary should appropriately reflect the financial arrangement through which the benefits are provided, including dividends, **participant contributions**, carrier administrative **expenses**, and risk charges.

When selecting assumptions and measurement methods regarding death benefits, the actuary should consider that the actual cost of life insurance varies by age, but the insurance rates paid by the **plan sponsor** may not. The actuary should reflect appropriate costs by age in the projection model.

3.9 Model Consistency and Data Quality—The actuary should review the modeled plan provisions of the **retiree group benefits program**, **covered population**, per capita health care costs, and death benefit costs as a whole to evaluate their consistency. ASOP No. 23, *Data Quality*, provides guidance on selecting and reviewing data and making appropriate disclosures regarding the data. The actuary should also take the following steps when reviewing the data:

3.9.1 Coverage and Classification Data—The actuary should consider the importance of coverage distinctions (such as HMO vs. PPO) and classification distinctions (such as hourly vs. salaried, or benefits that vary among different groups of retired **participants**) that result in variations in the benefit availability among **participants**. The actuary should consider whether such differences are significant enough to require further refinement of the model. The actuary should document the coverage and classification distinctions incorporated in the model.

3.9.2 Consistency—If the actuary finds data elements that appear to be significantly inconsistent with known plan provisions of the **retiree group benefits program**, other data elements, or data used for prior measurements, the actuary should take appropriate steps to address such apparent inconsistencies as discussed below. To the extent that significant inconsistencies cannot be reconciled, the actuary should disclose them (see section 4.1(v)).

a. Retiree Group Benefits Program Operations—If the actuary becomes aware of a significant inconsistency between administrative practice and plan documents, stated **plan sponsor** policies, **participant** communications, or applicable law (statutes, regulations, and other legally binding authority), the actuary should follow the guidance in section 3.10.

b. Medicare-Related Data—The actuary should make and document appropriate adjustments if data concerning Medicare eligibility and age are determined to be inaccurately or inconsistently coded for either claims or **covered population**.

c. Demographic Distinctions—The actuary should consider demographic breakdowns (such as age, gender, geography, and hourly/salaried classifications), which may reveal results that are inconsistent with prior data or the actuary's prior expectations.

3.9.3 Sources of Data—The actuary should consider the various types and sources of data available for the **covered population**, for the coverage and classification of **participants**, and for benefit costs, as discussed below:

a. Census Data—In most cases, the actuary will be supplied with eligibility and demographic information about **participants** in the **retiree group benefits program**. A **participant** census used for underwriting or pension purposes may contain useful information about the **covered population**. The actuary should determine whether these sources represent **retiree group benefits program** participation with sufficient accuracy (see sections 3.6.5 and 3.7.2) and, if not, seek more accurate census information. The actuary should review coverage and classification information for **dependents** and **surviving dependents** because of the impact they may have on the results of the measurement.

b. Claims Payment Data—Various sources of data are available for establishing per capita costs, including **normative databases** and experience data specific to the **benefit plan**. The actuary should review plan experience relative to normative ranges of value but also recognize the legitimacy of the **benefit plan** experience, to the extent it is credible, and the limitations of applying normative data to an unrelated situation. ASOP No. 25 provides guidance in the assignment of credibility values to data.

c. Data Quality at Each Level of Usage—Data that may be of appropriate quality for determination of certain assumptions within a model may not be of appropriate quality for determination of other assumptions. When data are combined or separated, the actuary should review the data for suitability for the purpose. For example, data from a **benefit plan** may be sufficient for setting an aggregate per capita health care cost but not be of sufficient size to set per capita health care costs by location.

3.10 Administrative Inconsistencies—In general, the actuary may rely on the **plan sponsor's** representations. However, in the course of performing the measurement, the actuary may become aware of a significant inconsistency between administrative practice and plan documents, stated **plan sponsor** policies, **participant** communications, or applicable law

(statutes, regulations, and other legally binding authority). Examples of areas of possible inconsistencies include: **participant contribution** determinations that combine claims for active and retired **participants** resulting in "hidden" subsidies (see section 3.5.1(d)(2)); claims payment practices including ignoring lifetime limits (see section 3.5.2(a)); **Medicare integration** (see section 3.7.6); and **retiree group benefits program** operations (see section 3.9.2(a)). The actuary should do the following upon becoming aware of such an inconsistency:

a. discuss the inconsistency with the **plan sponsor**, the administrator, or any other appropriate parties;

b. adjust the model appropriately, consistent with the purposes of the measurement;

c. document the resulting steps taken by the actuary in developing the model; and

d. disclose any significant unresolved inconsistency (see section 4.1(v)).

3.11 Other Information from the Principal—The actuary should obtain from the principal other information, such as accounting policies or funding elections, necessary for the purpose of the measurement.

3.12 Projection Assumptions—In selecting projection assumptions, the actuary should consider the following:

3.12.1 Economic Assumptions—The actuary should comply with the guidance contained in ASOP No. 27 when selecting economic assumptions not covered by this ASOP to be used in measuring **retiree group benefits** obligations. In applying ASOP No. 27, the actuary should take into account the purpose of the measurement, and the differences between the characteristics of **retiree group benefits** obligations and the characteristics of pension benefit obligations. For example, the discount rate selected for measuring pension benefit obligations for purposes of ASC 715-30 Defined Benefit Plans – Pension may not be appropriate for measuring **retiree group benefits** obligations for the purposes of ASC 715-60, because the payment patterns may be different.

The actuary should determine what other economic assumptions are needed, including the following when relevant to the calculation:

a. Health Care Cost Trend Rates—Health care cost **trend** rates reflect the change in per capita health costs over time due to factors such as inflation, medical inflation, utilization, technology improvements, definition of covered charges, leveraging caused by health plan design features not explicitly modeled, and health plan participation. The actuary should not reflect aging of the **covered population** when selecting the **trend** assumption for projecting future costs (see section 3.7.7 for a discussion of

"age-specific costs"). The actuary should consider separate **trend** rates for major cost components such as hospital, prescription drugs, other medical services, **Medicare integration**, and administrative **expenses**. Even if the actuary develops one aggregate set of **trend** rates, the actuary should consider these cost components when developing the aggregate set of **trend** rates.

When developing an initial **trend** assumption, the actuary should consider known or expected changes in per capita health costs in the year(s) following the **measurement date**. The actuary should consider the sustainability of current **trends** over an extended period, and the possible need for a long-term **trend** assumption that is different from the initial **trend** assumption. If these two **trend** assumptions are different, the actuary should choose an appropriate select period and transition pattern between the initial **trend** assumption and the long-term **trend** assumption.

When developing a long-term **trend** assumption and the select period for transitioning, the actuary should consider relevant long-term economic factors such as projected growth in per capita gross domestic product (GDP), projected long-term wage inflation, and projected health care expenditures as a percentage of GDP. The actuary should select a transition pattern and select period that reasonably reflects anticipated experience.

b. Other Cost Change Rates—The actuary should consider other costs that may change in the future, such as the cost of life insurance and long-term care insurance.

c. Participant Contribution Changes—Depending on the modeled **retiree group benefits program**, the measurement may require an assumption for the rate of change in **participant contributions**. For some **retiree group benefits programs**, this may be a function of health care **trend** rates or other economic assumptions. For some other **retiree group benefits programs**, there may be no **participant contributions** currently but caps on other funding sources and assumed **trend** rates may make it likely that **participant contributions** will be required in future years. In those cases, and depending upon the purpose of the measurement, the actuary should determine when **participant contributions** are expected to be required during the **measurement period** and model subsequent increases accordingly.

d. Adverse Selection—When a **retiree group benefits program** requires **participant contributions**, those choosing to participate may have a higher average benefit cost than those not participating would have had. Also when a **retiree group benefits program** offers **benefit options**, **adverse selection** may have an impact on plan costs.

The actuary should consider whether **adverse selection** will result from such items as decreasing participation and, if **adverse selection** is projected to have a significant impact on the measurement, then the actuary should appropriately reflect that **adverse selection** in the measurement, either implicitly or explicitly. The actuary should document how that **adverse selection** is reflected in the measurement.

3.12.2 Demographic Assumptions—The actuary should comply with ASOP No. 35 when selecting the retirement, termination, mortality, and disability assumptions to be used in measuring **retiree group benefits** obligations. In applying ASOP No. 35, the actuary should take into account the purpose of the measurement and the differences between the characteristics of **retiree group benefits** obligations and the characteristics of pension benefit obligations. More refined demographic assumptions may be required to appropriately measure **retiree group benefits** obligations than are required to measure pension obligations. In determining whether demographic assumptions developed primarily for pension benefit measurements are appropriate for **retiree group benefits** measurements, the actuary should consider the following:

a. Assumptions Based on Related Pension Plan Valuation—The actuary should determine whether the assumptions used in a related pension plan valuation are appropriate for **retiree group benefits programs** and, if not, modify the assumptions appropriately.

b. Disability—Assumptions regarding disability incidence, recovery, mortality, and eligibility for Social Security disability benefits should be consistent with the coverage provided to disabled **participants** under the **retiree group benefits program**. When the actuary considers disabled life coverage significant to the measurement, the actuary should select assumptions that appropriately reflect when benefits are payable to disabled **participants**, the definition of disability, and how the benefits are coordinated with other programs.

c. Retirement—The retirement assumption is critical in retiree health plan measurements because of the higher level of primary coverage a retiree receives prior to becoming eligible for Medicare. The actuary should select explicit age- or service-related retirement rates. A single average retirement age is generally not appropriate.

d. Mortality—When the per capita health care costs are expected to increase during the projection period or when death benefits are being valued, the results of the measurement may be sensitive to the mortality assumption. The actuary should take this sensitivity into account when selecting a mortality improvement assumption under ASOP No. 35.

3.12.3 Participation and Dependent Coverage Assumptions—In addition to covering eligible retired **participants**, many **retiree group benefits programs** also cover **dependents** of retired **participants**. Also, **retiree group benefits programs** may offer some or all **participants benefit options**, such as HMOs, PPOs, and POS plans. The magnitude of the **retiree group benefits program** obligation can vary significantly as a result of the participation assumption and also the **dependent** coverage assumption. The actuary should therefore consider historical participation rates and trends in coverage rates when selecting these assumptions.

a. Retiree Group Benefits Program Participation—For **retiree group benefits programs** that require some form of **participant contribution** to maintain coverage, some eligible individuals may not elect to be covered, particularly if they have other coverage available. Plan participation in this context is the result of acceptance, lapse, and re-enrollment elections. The actuary should take into account empirical data and future expectations regarding these elections when selecting participation assumptions. When developing the participation rates, the actuary should consider how changes in **retiree group benefits program** eligibility rules, **benefit options**, and **participant contribution** rates have influenced experience over time. Furthermore, plan participation may be different in the future due to **participants**' responses to changes in **participant contribution** levels and **benefit options**. For **retiree group benefits programs** that anticipate changes in these factors, the actuary should consider the appropriateness of participation rates that vary over the projection period for both current and future retired **participants**. The actuary should also consider eligibility rules governing dropping coverage and subsequent re-enrollment when selecting participation rates.

b. Dependent Coverage—The actuary should consider who is eligible for coverage under the **retiree group benefits program** and make appropriate assumptions regarding the coverage of **dependents**. The actuary should consider the impact of the **retiree group benefits program's** rules governing changes in coverage after retirement, such as remarriage, if significant. The actuary should review historical data on **dependent** coverage rates and should consider **participant contribution** rates for **dependent** coverage. If the gender mix of future retired **participants** and currently retired **participants** differs, the actuary should consider developing separate **dependent** coverage rates for males and females.

c. Dependent Ages—Whenever practical, the actuary should use actual data for the age of **dependents** of retired **participants**. If actual data is not available for all retired **participants**, the actuary should review the empirical data and consider developing an assumption to account for the difference in age between the **participant** and the **dependent** for the missing data. The **dependents** of an active employee today may not be the

same **dependents** covered at retirement. Therefore, the actuary should generally select an assumed age difference between retired **participants** and **dependents** for purposes of projecting future **dependent** coverage.

3.12.4 Effect of Retiree Group Benefits Program Design Changes on Assumptions—When selecting assumptions, the actuary should consider the impact of relevant **retiree group benefits program** design changes during the **measurement period**. Whenever changes in provisions are being modeled, the actuary should consider whether assumptions that in combination are appropriate for measuring overall costs are also appropriate for valuing the element under study. For example, if a **plan sponsor** adds or advises the actuary of its intent to add HMO coverage options that may be selected by a portion of its group of retired **participants**, the actuary should consider how that affects the cost of current coverage, future cost **trends**, and participation. Both short-term and long-term implications of the change should be considered.

For most measurement purposes, the actuary should assume that the **retiree group benefits program** will continue indefinitely even though many **plan sponsors** have reserved the right to change unilaterally or terminate their **retiree group benefits programs**. The actuary should only include assumptions in the measurement model that attempt to quantify the probability that the current plan provisions will change significantly in the future when appropriate for the purpose of the measurement. In that event, the actuary should disclose that such an assumption has been used (see section 4.1(d)).

3.12.5 Assumptions Considered Individually and in Relation to Other Assumptions—The actuary should select reasonable actuarial assumptions. The actuary should consider the reasonableness of each actuarial assumption independently on the basis of its own merits and its consistency with the other assumptions selected by the actuary. When selecting assumptions, the actuary should consider the degree of uncertainty, the potential for fluctuation, and the consequences of such fluctuation.

3.12.6 Changes in Assumptions—Whenever a change in an assumption is considered, the actuary should review other assumptions to assess whether they remain consistent with the changed assumption. For example, if the actuary is anticipating more disabled **participants** due to recent experience, consideration should be given to the impact on **benefit plan** costs of the health risk of this group.

3.13 Retiree Group Benefits Program Assets—In measuring the unfunded obligation and allocating **periodic costs** to time periods, the actuary should take into account **dedicated assets** of the **retiree group benefits program**, if any. The actuary should consider any additional requirements or restrictions on what assets can be taken into account that are imposed by the purpose of the measurement, such as requirements imposed by accounting standards. Depending on the purpose of the measurement, such as for

management planning purposes, taking non-dedicated assets into account may be appropriate.

The actuary should obtain sufficient details regarding insurance policies held as **dedicated assets** to determine an appropriate value, reflecting the nature of the contractual obligations upon early termination of the policies, as well as the costs of continued maintenance of the policies. If the cash surrender value of the policies is not readily determinable, the actuary should rely on his or her professional judgment to develop an appropriate value, depending on the purpose of the measurement.

The actuary should refer to ASOP No. 44 for guidance on the selection and use of an asset valuation method.

3.14 Measuring the Value of Accrued or Vested Benefits— Although in many situations retiree group benefits are neither accrued nor vested, some assignments do call for the actuary to measure accrued or vested benefits. The actuary should determine the following when making such measurements:

a. the extent to which the **retiree group benefits** are accrued or vested;

b. relevant plan provisions and applicable law (statutes, regulations, and other legally binding authority);

c. the status of the plan (for example, whether the plan is assumed to continue to exist or be terminated);

d. the contingencies upon which benefits become payable, which may differ for ongoing- and termination-basis measurements;

e. the extent to which **participants** have satisfied relevant eligibility requirements for accrued or vested benefits and the extent to which future service or advancement in age may satisfy those requirements;

f. whether the plan provisions regarding accrued benefits provide an appropriate attribution pattern for the purpose of the measurement (for example, following the attribution pattern of the plan provisions may not be appropriate if the plan's benefit accruals are significantly backloaded); and

g. if the measurement reflects the effect of a special event (such as a plant shutdown or plan termination), factors such as the following:

    1. the likely effect of the special event on continued employment;

    2. the likely effect of the special event on employee behavior;

    3. the **expenses** associated with a potential plan termination, including transaction costs to liquidate plan assets; and

4. any likely changes in investment policy.

3.15 Market-Consistent Present Values—If the actuary calculates a **market-consistent present value**, the actuary should do the following:

a. select assumptions based on the actuary's observation of the estimates inherent in market data (as applied to assumptions for which guidance is provided in this standard as well as assumptions for which relevant guidance is provided in ASOP Nos. 27 and 35), depending on the purpose of the measurement; and

b. reflect benefits earned as of the **measurement date**.

In addition, the actuary may consider how benefit payment default risk or the financial health of the **plan sponsor** affects the calculation.

3.16 Relationship Between Asset and Obligation Measurement—The actuary should reflect how **retiree group benefits program** or **plan sponsor** assets as of the **measurement date** are reported. For example, if the **retiree group benefits program** or **plan sponsor** assets have been reduced to reflect a lump sum paid, the lump sum or the value of the related projected benefit payments should be excluded from the obligation.

3.17 Actuarial Cost Method—When assigning **periodic costs** or **actuarially determined contributions** to time periods before the time benefit payments are due, the actuary should select an **actuarial cost method** that meets the following criteria:

a. The period over which **normal costs** are allocated for an employee should begin no earlier than the date of employment and should not extend beyond the last assumed retirement age. The period may be applied to each individual employee or to groups of employees on an aggregate basis.

When a plan has no active **participants** and no **participants** are accruing benefits, a reasonable **actuarial cost method** will not produce a **normal cost** for benefits. For purposes of this standard, an employee does not cease to be an active **participant** merely because he or she is no longer accruing benefits under the plan.

b. The attribution of **normal costs** should bear a reasonable relationship to some element of the **retiree group benefit program's** benefit formula or the employee's compensation or service. The attribution basis may be applied on an individual or group basis. For example, the **actuarial present value of projected benefits** for each employee may be allocated by that employee's own compensation or may be allocated by the aggregated compensation for a group of employees.

c. **Expenses** should be considered when assigning **periodic costs** or **actuarially determined contributions** to time periods. For example, administrative **expenses**

may be included in the per capita costs as discussed in section 3.7.15. Alternatively, the **expenses** for a period may be added to the **normal cost** for benefits or **expenses** may be reflected as an adjustment to the investment return assumption or the discount rate. As another example, **expenses** may be reflected as a percentage of **retiree group benefits** obligations or **normal cost**.

d. The sum of the **actuarial accrued liability** and the **actuarial present value** of future **normal costs** should equal the **actuarial present value of projected benefits** and **expenses**, to the extent **expenses** are included in the liability and **normal cost**. For purposes of this criterion, under a **spread gain actuarial cost method**, the sum of the actuarial value of assets and the unfunded **actuarial accrued liability**, if any, should be considered to be the **actuarial accrued liability**.

3.18 Allocation Procedure—When selecting a **cost allocation procedure** or **contribution allocation procedure**, the actuary should consider factors such as the timing and duration of expected benefit payments and the nature and frequency of plan amendments. In addition, the actuary should consider relevant input received from the principal, such as a desire for stable or predictable **periodic costs** or **actuarially determined contributions**, or a desire to achieve a target funding level within a specified time frame.

3.18.1 Consistency Between Contribution Allocation Procedure and the Payment of Benefits—In some circumstances, a **contribution allocation procedure** may not be expected to produce adequate assets to make benefit payments when they are due even if the actuary uses a combination of assumptions selected in accordance with this standard and ASOP Nos. 27 and 35, an **actuarial cost method** selected in accordance with section 3.16 of this standard, and an asset valuation method selected in accordance with ASOP No. 44.

Examples of such circumstances include the following:

a. a plan covering a sole proprietor with funding that continues past an expected retirement date with payment due in a lump sum;

b. using the aggregate **actuarial cost method** for a plan covering three employees, in which the principal is near retirement and the other employees are relatively young; and

c. a plan amendment with an amortization period so long that overall plan **actuarially determined contributions** would be scheduled to occur too late to make plan benefit payments when due.

When selecting a **contribution allocation procedure**, the actuary should select a **contribution allocation procedure** that, in the actuary's professional judgment, is consistent with the plan being able to make benefit payments when due, assuming that all actuarial assumptions will be realized and that the **plan sponsor**

or other contributing entity will make **actuarially determined contributions** when due.

In some circumstances, the actuary's role is to determine the **actuarially determined contribution**, or range of **actuarially determined contributions**, using a **contribution allocation procedure** that the actuary did not select. If, in the actuary's professional judgment, such a **contribution allocation procedure** is significantly inconsistent with the plan being able to make benefit payments when due, assuming that all actuarial assumptions will be realized and that the **plan sponsor** or other contributing entity will make **actuarially determined contributions** when due, the actuary should disclose this in accordance with section 4.1(o).

3.18.2 Implications of Contribution Allocation Procedure—The actuary should qualitatively assess the implications of the **contribution allocation procedure** or **plan sponsor's** funding policy on the plan's expected future **actuarially determined contributions** and **funded status**. For purposes of this section, contributions set by law or by a contract, such as a collective bargaining agreement, constitute a funding policy. In making this assessment, the actuary may presume that all actuarial assumptions will be realized and the **plan sponsor** (or other contributing entity) will make **actuarially determined contributions** anticipated by the **contribution allocation procedure** or funding policy. The actuary's assessment required by this section should be disclosed in accordance with section 4.1(p).

3.19 Approximations and Estimates—The actuary should use professional judgment to establish a balance between the degree of refinement of methodology and materiality. The actuary may use approximations and estimates where circumstances warrant. Following are some examples of such circumstances:

a. situations in which the actuary reasonably expects the results to be substantially the same as the results of detailed calculations;

b. situations in which the actuary's assignment requires informal or rough estimates; and

c. situations in which the actuary reasonably expects the amounts being approximated or estimated to represent only a minor part of the overall **retiree group benefits** obligation, **periodic cost**, or **actuarially determined contribution**.

3.20 Volatility—If the scope of the actuary's assignment includes an analysis of the potential range of future **retiree group benefits** obligations, **periodic costs**, **actuarially determined contributions**, or **funded status**, the actuary should consider sources of

volatility that, in the actuary's professional judgment, are significant. Examples of potential sources of volatility include the following:

a. plan experience differing from that anticipated by the economic or demographic assumptions, as well as the effect of new entrants;

b. changes in economic or demographic assumptions, such as medical **trend**, initial per capita health care costs, acceptance rates, or lapse rates;

c. the effect of discontinuities in applicable law (statutes, regulations, and other legally binding authority) or accounting standards, such as welfare benefit fund limits or the end of amortization periods;

d. the delayed effect of smoothing techniques, such as the pending recognition of prior experience losses; and

e. patterns of rising or falling **periodic cost** expected when using a particular **actuarial cost method** for the **covered population**.

When analyzing potential variations in economic and demographic experience or assumptions, the actuary should exercise professional judgment in selecting a range of variation in these assumptions (while maintaining internal consistency among these assumptions, as appropriate) and in selecting a methodology by which to analyze them, consistent with the scope of the assignment.

3.21 Reasonableness of Results—The actuary should review the measurement results for reasonableness. For example, the actuary could compare the overall measurement results to benchmarks such as measurement of similar **retiree group benefits programs**, or could review the results for sample **participants** for reasonableness.

3.21.1 Modeled Cash Flows Compared to Recent Experience—The actuary should compare the expected costs produced by the model for the first year from the **measurement date** to actual costs available over a recent period of years. If the expected and actual costs are significantly different, the actuary should determine, and should consider documenting, if appropriate, the likely causes of such differences (for example, cost **trends**, large claims, a change in the demographics of the group, or the volatility of experience in **benefit plans** with limited credible experience), and should determine the impact of those differences on the reasonableness of the measurement results.

3.21.2 Results Compared to Last Measurement—The actuary should compare the overall results to the last measurement's results when available and applicable. If the results are significantly different from results the actuary expected based on the last measurement, the actuary should determine, and should consider documenting, if appropriate, the likely causes of such differences. If another actuary performed the prior measurement, some allowance may be made for

differences due to different actuarial techniques or modeling. The actuary should, if practical, review the prior actuary's documentation and, if necessary, seek further information.

3.22 Evaluation of Assumptions and Methods—An actuarial communication should identify the party responsible for each material assumption and method. Where the communication is silent about such responsibility, the actuary who issued the communication will be assumed to have taken responsibility for that assumption or method.

3.22.1 Prescribed Assumption or Method Set by Another Party—The actuary should evaluate whether a **prescribed assumption or method set by another party** is reasonable for the purpose of the measurement, except as provided in section 3.22.3. The actuary should be guided by Precept 8 of the Code of Professional Conduct, which states, "An Actuary who performs Actuarial Services shall take reasonable steps to ensure that such services are not used to mislead other parties." For purposes of this evaluation, reasonable assumptions or methods are not necessarily limited to those the actuary would have selected for the measurement.

3.22.2 Evaluating Prescribed Assumption or Method—When evaluating a **prescribed assumption or method set by another party**, the actuary should determine whether the prescribed assumption or method significantly conflicts with what, in the actuary's professional judgment, would be reasonable for the purpose of the measurement. If, in the actuary's professional judgment, there is a significant conflict, the actuary should disclose this conflict in accordance with section 4.2(a).

3.22.3 Inability to Evaluate Prescribed Assumption or Method—If the actuary is unable to evaluate a **prescribed assumption or method set by another party** without performing a substantial amount of additional work beyond the scope of the assignment, the actuary should disclose this in accordance with section 4.2(b).

3.23 Reliance on a Collaborating Actuary—The various elements of a **retiree group benefits** measurement require expertise in the two different actuarial fields of health data analysis and long-term projections. In recognition of the complexities involved, two or more actuaries with complementary qualifications in the health and pension practice areas may collaborate on a project. While each actuary may concentrate on his or her area of expertise during the project, the actuary (or actuaries) issuing the actuarial opinion must take professional responsibility for the overall appropriateness of the analysis, assumptions, and results.

3.24 Use of Roll-Forward Techniques—The actuary may determine that it is appropriate for the purpose of the measurement to use prior measurement results and a roll-forward technique rather than conduct a new full measurement. The actuary should not use roll-forward techniques unless, in the actuary's professional judgment at the time of the roll-

forward calculation, the resulting measurement is not expected to differ significantly from the results of a new full measurement.

3.24.1 Full and Partial Roll-Forward—Roll-forward techniques include full roll-forwards of claims data and census data, as well as partial roll-forward techniques. For example, the actuary may use partial roll-forward techniques that use health care claim costs developed for the prior measurement trended forward to the current **measurement date** coupled with updated census data.

3.24.2 Limitation—The actuary may use roll-forward techniques to reduce the frequency of full measurements. The actuary should not roll-forward prior measurement results if the **measurement date** of those results is three or more years earlier than the current **measurement date**. For example, a January 1, 2016 measurement could be used to develop roll-forward results as of January 1, 2017 and 2018, but should not be used for measurements or **periodic cost** allocations after December 31, 2018.

3.24.3 Appropriateness—The actuary should not use full roll-forward techniques when the **covered population**, **retiree group benefits program** design, or other key model components have changed significantly since the last full measurement.

Section 4. Communications and Disclosures

4.1 Communication Requirements—Any actuarial communication prepared to communicate the results of work subject to this standard should comply with the requirements of ASOP Nos. 23, 27, 35, 41, and 44. In addition, such communication should contain the following disclosures, when relevant and material. An actuarial communication can comply with some or all of the specific requirements of this section by making reference to information contained in other actuarial communications available to the intended users (as defined in ASOP No. 41, *Actuarial Communications*), such as an annual **actuarial valuation** report.

a. a statement of the intended purpose of the measurement and a statement to the effect that the measurement may not be applicable for other purposes;

b. the **measurement date**;

c. a description of adjustments made for events after the **measurement date** under section 3.4.2;

d. information about known significant **retiree group benefits program** provisions (such as types of **benefit plans** provided, benefit eligibility conditions, retired **participant** and **dependent** coverage options, and **participant contribution** requirements), a description of known changes in significant plan provisions included in the **actuarial valuation** from those used in the immediately preceding

measurement prepared for a similar purpose, a description of any known significant **retiree group benefits program** provisions not reflected in the model along with the rationale for not including such significant plan provisions, and any anticipated future changes (see sections 3.5.1(h) and 3.12.4);

e. the date(s) as of which the **participant** and financial information were compiled;

f. summary information about the **covered population**;

g. if hypothetical data are used, a description of the data;

h. a description of any accounting policies or funding elections made by the principal that are pertinent to the measurement;

i. a brief description of the information and analysis used in selecting each significant assumption that was not prescribed. Items to disclose could include any specific approaches used, sources of external advice, and how past experience and future expectations were considered. For example, for the initial per capita health care costs and Medicare-related assumptions, a brief description of the methodology used to develop these assumptions as well as any combining of **benefits plans** (section 3.6.6) for measurement purposes and a description of the extent to which they are based on **premium** (or self-funded equivalent) rates and any adjustments to those rates (see section 3.7.5) should be included. If age-specific costs were not used, the actuary should disclose the rationale for not doing so;

j. a description of the future health care cost **trend** rates used (see section 3.12.1(a));

k. a description of all other significant assumptions (including, but not limited to, participation and dependent coverage assumptions);

l. if using modeling or projection techniques other than those mentioned in section 3.7, a description of the method used and a discussion on its applicability;

m. a description of the **actuarial cost method** and the manner in which **normal costs** are allocated, in sufficient detail to permit another actuary qualified in the same practice area to assess the significant characteristics of the method (for example, how the **actuarial cost method** is applied to multiple benefit formulas, compound benefit formulas, or benefit formula changes, where such plan provisions are significant);

n. a description of the **cost allocation procedure** or **contribution allocation procedure** including a description of **amortization methods** and a description of any pay-as-you-go funding (i.e., the intended payment by the **plan sponsor** of some or all benefits when due). The actuary should disclose the outstanding

amortization balance, the amortization payment included in the periodic cost or actuarially determined contribution, and the remaining amortization period for each amortization base along with a disclosure if the unfunded **actuarial accrued liability** is not expected to be fully amortized. For purposes of this section, the actuary should assume that all actuarial assumptions will be realized and **actuarially determined contributions** will be made when due;

o. a statement indicating that the **contribution allocation procedure**, if any, is significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due, if applicable in accordance with section 3.18;

p. a qualitative description of the implications of the **contribution allocation procedure** or **plan sponsor's** funding policy on future expected plan **actuarially determined contributions** and **funded status** in accordance with section 3.18.2. The actuary should disclose the significant characteristics of the **contribution allocation procedure or plan sponsor's** funding policy, and assumptions used in the assessment;

q. a description of the types of benefits regarded as accrued or vested if the actuary measured the value of accrued or vested benefits, and, to the extent the attribution pattern of accrued benefits differs from or is not described by the plan provisions, a description of the attribution pattern;

r. a description of how benefit payment default risk or the financial health of the **plan sponsor** was included if a **market-consistent present value** measurement was performed;

s. **funded status** based on an **immediate gain actuarial cost method** if the actuary discloses a **funded status** based on a **spread gain actuarial cost method**, unless the sole purpose of the calculation was contribution determination in accordance with federal law or regulation. The **immediate gain actuarial cost method** used for this purpose should be disclosed in accordance with section 4.1(m);

t. if applicable, a description of the particular measures of plan assets and plan obligations that are included in the actuary's disclosure of the plan's **funded status**. For funded status measurements that are not prescribed by federal law or regulation, the actuary should accompany this description with each of the following additional disclosures:

    1. whether the **funded status** measure is appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations;

    2. whether the **funded status** measure is appropriate for assessing the need for or the amount of future **actuarially determined contributions**; and

3. if applicable, a statement that the **funded status** measure would be different if the measure reflected the market value of assets rather than the actuarial value of assets.

u. a brief description of the roll-forward method, if any, used in the calculations (see section 3.24);

v. a description of any significant and unresolved inconsistencies in data or administration, such as those mentioned in sections 3.9 and 3.10;

w. a statement, appropriate for the intended users, indicating that future measurements (for example, of **retiree group benefit program** obligations, **periodic costs**, **actuarially determined contributions** or **funded status** as applicable) may differ significantly from the current measurement. For example, a statement such as the following could be applicable: "Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements."

   In addition, the actuarial communication should include one of the following:

   1. if the scope of the actuary's assignment included an analysis of the range of such future measurements, disclosure of the results of such analysis together with a description of the factors considered in determining such range; or

   2. a statement indicating that, due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

x. a description of known changes in assumptions and methods from those used in the immediately preceding measurement prepared for a similar purpose. For assumption and method changes that are not the result of a **prescribed assumption or method set by another party** or a **prescribed assumption or method set by law**, the actuary should include an explanation of the information and analysis that led to those changes. The explanation may be brief but should be pertinent to the **retiree group benefit program's** circumstances;

y. a description of all changes in **cost allocation procedures** or **contribution allocation procedures** that are not a result of a **prescribed assumption or method set by law**, including the resetting of an actuarial asset value. The actuary should disclose the reason for the change, and the general effect of the change on relevant **periodic cost**, **actuarially determined contribution**, **funded status**, or other measures, by words or numerical data, as appropriate. The disclosure of the reason for the change and the general effects of the change may be brief but should be pertinent to the **retiree group benefit program's** circumstances; and

z. if, in the actuary's professional judgment, the actuary's use of approximations and estimates could produce results that differ materially from results based on a detailed calculation, a statement to this effect.

4.2 Disclosure about Prescribed Assumptions or Methods—The actuary's communication should state the source of any prescribed assumptions or methods.

With respect to **prescribed assumptions or methods set by another party**, the actuary's communication should identify the following, if applicable:

a. any **prescribed assumption or method set by another party** that significantly conflicts with what, in the actuary's professional judgment, would be reasonable for the purpose of the measurement (section 3.22.2); or

b. any **prescribed assumption or method set by another party** that the actuary is unable to evaluate for reasonableness for the purpose of the measurement (section 3.22.3).

4.3 Additional Disclosures—The actuary should also include the following, as applicable, in an actuarial communication:

a. the disclosure in ASOP No. 41, section 4.3, 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

b. the disclosure in ASOP No. 41, section 4.4, if, in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this ASOP.

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

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

Appendix 1

Background, Current Practices, and Supplementary Information

Background

The original ASOP No. 6 was effective October 17, 1988. In addition, actuaries were provided guidance by Actuarial Compliance Guideline (ACG) No. 3, *For Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions (AGC No. 3)*, which was originally effective December 1, 1992. During the time these documents were being developed, the Financial Accounting Standards Board was raising the visibility of financial issues related to retiree group benefits with its development of Statement of Financial Accounting Standard (SFAS) No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*. (Note that effective in July 2009, FASB reorganized all U.S. GAAP into one codification. Accounting Standards Codification (ASC) 715-60—Compensation—Retirement Benefits—Defined Benefit Plans—Other Postretirement replaces SFAS No. 106.) Prior to the issuance of the accounting guidance currently included in ASC 715-60, most plan sponsors provided and accounted for retiree group benefits on a pay-as-you-go basis. The move to accrual accounting necessitated greater actuarial involvement. ASOP No. 6 and ACG No. 3 were written with a high level of educational content because the measurement of retiree group benefits obligations was an emerging practice area that would be new to many actuaries.

The measurement of retiree group benefits obligations continued to develop as an actuarial field within the profession. In 1999, the ASB determined that practice in this field had developed sufficiently to permit revision of ASOP No. 6. It convened a special task force of knowledgeable practitioners in the retiree group benefits field to draft the revision of this standard. The Task Force on Retiree Group Benefits was charged with (1) updating ASOP No. 6 to provide guidance to actuaries regarding appropriate practices and to reduce the amount of educational material; (2) determining whether there was a continuing need for ACG No. 3; and (3) evaluating the applicability to retiree group benefits of ASOPs written since the original adoption of ASOP No. 6. A revised version of ASOP No. 6 was adopted by the ASB in December 2001.

The process of measuring retiree group benefits obligations is similar to the process of measuring pension obligations. Since the prior ASOP No. 6 was adopted, the ASB has adopted or revised the following standards that provide more detailed guidance regarding specific elements of the process of measuring retiree group benefits obligations:

1. ASOP No. 5, *Incurred Health and Disability Claims;*

2. ASOP No. 23, *Data Quality*;

3. ASOP No. 25, *Credibility Procedures;*

4. ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*;

5. ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*;

6. ASOP No. 41, *Actuarial Communications*; and

7. ASOP No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*.

In addition, ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*, was revised to create an "umbrella" standard to tie together the applicable standards for pension plans and address overall considerations for the actuary when measuring pension obligations.

Current Practices

This standard and the related standards listed in the Background section of this appendix 1 cover actuarial practices that are central to the work regularly performed by actuaries measuring retiree group benefits obligations. The actuarial tasks covered by the standards are performed for a number of purposes, examples of which are discussed below:

1. Periodic Cost, Plan Sponsor Actuarially Determined Contribution, and Benefit Recommendations—Calculations may be performed for purposes of determining actuarial periodic cost, plan sponsor actuarially determined contribution, and benefit recommendations and related information. Examples are calculations related to the following:

    a. recommendations for the assignment of periodic costs or actuarially determined contributions to time periods for retiree group benefits programs;

    b. recommendations for the type and levels of benefits for specified periodic cost or plan sponsor actuarially determined contribution levels;

    c. plan sponsor actuarially determined contributions required under standards imposed by statute, regulations, or other third-party requirements;

    d. maximum actuarially determined contributions deductible for tax purposes;

    e. information required to evaluate alternative plan designs, assumptions, cost management programs, and provider networks; and

    f. determination of progress toward a defined financial goal, such as funding of projected benefits or limiting annual plan cash expense.

2. Evaluations of Current Funding Status—Calculations may be performed for purposes of comparing available assets to the actuarial present value of benefits (or a subset of those benefits) specified by the plan. Examples are calculations related to the following:

    a. actuarial present value of current or future benefit accruals (to the extent retiree group benefits are accrued);

    b. actuarial present value of benefits payable to currently retired participants or active participants eligible to retire; and

    c. information required with respect to plan mergers, acquisitions, spin-offs, and business discontinuances.

3. Projection of Cash Flow—Calculations may be done for the sole purpose of projecting the annual cash flow of retiree group benefits obligations. Examples are calculations related to the following:

    a. Time horizon to exhaust trust assets; and

    b. Projections of participant contributions or changes in participant contributions.

4. Evaluations of the Impact of Government or Third-Party Funding—Calculations may be performed to estimate the effect on funding of government or third-party funding. Some examples of such funding are:

    a. Retiree Drug Subsidy (RDS) program providing partial reimbursements to plan sponsors of drug benefits for Medicare-eligible retired participants;

    b. Federal direct subsidy of Part D plans; and

    c. Pharmaceutical manufacturer discounts on brand name drugs during the coverage gap.

Supplementary Information

Modeling of Retiree Group Benefits Obligations

The models used to value retiree group benefit obligations have become increasingly sophisticated. Models commonly use age-specific initial per capita health care costs within the retired population (for example in individual age brackets). Some of these models are based on net incurred claims, while other models are based on gross expenses incurred reduced by amounts paid outside the plan or not covered by the plan. Some models project a distribution of expected claims with an associated probability distribution, while other models use separate age-specific per capita claim costs for the last year of life and for survivors.

Despite the development of these more sophisticated approaches, some actuaries continue to use highly simplified models. Examples include using pension census data as the basis for the measurement, using only two initial per capita health care costs (for Medicare eligible participants and for participants who are not yet eligible for Medicare), and developing initial per capita health care costs based solely on premiums or normative databases. Such simplified approaches may result in significantly understated or overstated retiree group benefits obligations for the following reasons:

1. Retiree group benefits eligibility requirements are often different from pension benefit eligibility requirements, so pension census data may not appropriately reflect retiree group benefits program participation;

2. Significant discrepancies between the plan sponsor's stated policy and actual plan operation may not be identified, and "hidden" subsidies may not be valued;

3. Normative databases may be applied inappropriately or may be outdated;

4. The effects of aging of the retired population on future per capita claim costs may not be appropriately taken into account;

5. A trend assumption that reaches the ultimate rate too quickly may not adequately reflect the structural upward pressures on medical costs;

6. Expected future participation rates may not reflect recent experience; or

7. The impact of expected future participant contribution increases on future participation and projected per capita claim costs of participants may not be appropriately reflected.

Possible Data Inconsistencies

As part of the development of the model, the eligibility and payment data received may conflict significantly with information received about known retiree group benefits program provisions or administration. Examples of inconsistencies include the following:

1. Average claims costs that are secondary to Medicare are very high in relation to average costs that are primary. This might reveal that the carve-out method of integration with Medicare may not have been used, despite the plan sponsor's indication of that method, or that the classification of the covered dependent is based on the retired participant's age.

2. Participant contributions before Medicare eligibility are so low that it is unlikely that plan sponsor subsidies are as limited as the plan sponsor may indicate.

3. The ratio of dependents to retired participants in total or for a subgroup (for instance, those who are not eligible for Medicare) is inconsistent with expectations. This might mean that it is unlikely surviving dependent coverage is as stated, that coding of dependent ages is inaccurate, or that surviving dependents were coded as "retired participants."

4. Reported provisions include benefit maximums, but the actuary's analysis of claims data indicates a likelihood that claims are being paid in excess of the maximum.

Measurements Using Premiums

As defined in this standard, a premium is the price charged by a risk-bearing entity, such as an insurance or managed care company, to provide risk coverage. The premium usually has a basis in the expected value of future costs, but the premium will also be affected by other considerations, such as marketing and profit goals, competition, and legal restrictions. Because of these other considerations, a premium for a coverage period is not the same as the expected cost for the coverage period.

The demographics of the group for which the premium was intended may be different from the demographics of the group being valued. When these two groups are different, the premiums are unlikely to reflect the expected health care costs for the group being valued, even if it is a subset of the total group for which the premium was determined. In particular, the expected value of future costs for a group of retired participants is unlikely to be the same as for a group consisting of active participants and the same retired participants. Examples of this are shown in the "Participant Contributions" section below.

The term "premium" is commonly used for insured group plans and self-insured group plans. In the case of self-insured plans, the "premium" may also be referred to as "budget rates" or "phantom premiums." Future changes in insured premiums are frequently affected by the experience of the insured group. Further comments about common types of retiree group benefits program premiums follow:

1. Self-Insured Premiums—Some self-insured plans have expenditures that the plan sponsor refers to as "premiums" or "premium rates." These premiums may reflect the experience of retired participants, active employees, or both. Also, the premiums may reflect only expected claims experience, or may include other adjustments (such as administrative expenses and stop-loss claims and premiums). Furthermore, the premiums may reflect the effect of the plan sponsor's contribution or managed care strategy. The premiums also may not reflect supplemental funding contributions not considered in the ratemaking process.

2. Community-Rated Premiums—In some regulatory jurisdictions, community-rated premiums are required by statute for some fully insured plans. There is variation in the structure of community-rated premiums. For example, retired participants not eligible for Medicare may be included with active employees in a community-rated premium category, while retired participants eligible for Medicare may be included in a separate community-rated premium category. There are also different community-rating methodologies, some incorporating group-specific characteristics. Note that a community-rated premium including retirees not eligible for Medicare and active employees probably understates the expected claim cost for the retirees alone.

   There are many pooled health fund entities that provide contribution rates that are a blend of active employee and pre-Medicare retiree claim experience (and may also include

Medicare retiree claim experience). Historically, similar types of funding arrangements have failed because their premium rating structure did not adequately reflect the risks of the enterprise. Since geography and demographics are key indicators of health care risk (and recognized by most of the new marketplace exchanges under the Patient Protection and Affordable Care Act, discussed in further detail below), many of today's pooled health funds may move to recognizing some variation of those risk characteristics.

3. Other Fully Insured Plans—In addition to community-rated plans, there are other types of fully insured plans, and there can be some variation in how actual plan experience affects the premiums. The comments above on self-insured premiums also apply here.

Interaction Between Trend and Plan Provisions

Plan provisions and health care trend rates in combination impact the projected net per capita health care costs. Examples of the interaction of plan provisions and health care trend rates include the following:

1. Covered charges can be affected by limits on allowable provider fees and the plan's Medicare integration approach. Benefit plan provisions may help in identifying these limits, as well as what services are covered.

2. Health plan deductibles may or may not be set at a fixed-dollar amount. Health care trend will, over time, erode the relative value of a fixed-dollar deductible.

3. Coinsurance payments may be expressed as a percentage or fixed-dollar amount. Again, over time, trend will erode the relative value of a fixed-dollar coinsurance.

4. The Medicare program provides coverage for most U.S. retirees over age 65; however, the retiree group benefits program may cover a different mix of services than Medicare. Trend rates may differ between Medicare-covered services and the retiree group benefits.

5. Other payments or offsets may exist, such as subrogation recoveries or plans other than Medicare. These payments or offsets may change in the future.

6. Lifetime and other maximum dollar limits also affect claims costs, and the effect can change over time.

Participant Contributions

Participant contributions are very important to the financial understanding of how retiree group benefits programs work. Plan sponsors must advise participants and plan administrators of the specific dollar amounts of currently required contributions. Plan sponsors usually have administrative policies for determining future contributions (formulas, subsidy limits, or overall contribution philosophy). Based on the required contributions, an individual will decide whether to participate, which may result in adverse selection.

Formulas, subsidy limits, and the contribution philosophy of the plan sponsor are subject to different interpretations about what data and techniques are to be used in deriving the current

monthly contribution used in the measurements of retiree group benefits obligations. Here are two examples:

1. The plan sponsor's stated policy is that retired participants who are not yet Medicare eligible will contribute 50% of the cost of their health care benefits. However, the plan sponsor determines a retiree contribution of $200 per month ($2,400 per year) based on average annual per capita health care claims of $4,800 for active employees and pre-Medicare retirees combined. When the actuary evaluates the claims experience of pre-Medicare retirees separately from that of the active employees, the actuary determines that the average annual claim per retired participant is $8,000. So the plan sponsor subsidy is really $5,600 or 70%, not the stated 50%.

2. A plan sponsor will pay a fixed subsidy of $4,000 annually toward retiree health care coverage for retired participants who are not Medicare eligible. The plan sponsor determines an annual retiree contribution of $1,000 based on average per capita claims of $5,000 for active employees and pre-Medicare retired participants combined. However, when the actuary evaluates the claims experience for pre-Medicare retired participants, the average annual claims per retired participant is determined to be $9,000. The actual plan sponsor subsidy is $8,000 ($9,000 average claims per retired participant less $1,000 retiree contribution)—double the fixed subsidy of $4,000.

Once the contribution is determined for the current year, future increases can then be incorporated into the model. The contribution increase assumption is often a function of the claims trend assumption. If the model assumes contributions increase at the same trend as assumed for age-specific claims costs, the projected contributions will not have a constant relationship to projected claims, due to the aging of the population.

Some plans impose conditions such that contributions will begin a certain pattern at some triggering point in the future. This can happen in a number of ways, but the most common may be the use of "cost caps," where the sponsor has limited its subsidy to an annual amount per capita that has not yet been reached. Participant contributions may or may not be required currently, but after the cap is reached, participant contributions are to absorb all the additional costs. After the caps have been reached, this design is akin to the defined dollar approach, but before that point, the plan sponsor's costs will increase. The assumptions about future health care trend rates (interacting with the cost caps) will increase projected costs to a time when the caps are reached, and thereafter participant contributions will increase.

Finally, participation rates may be lower when contributions are required. Assumptions about lower participation rates can vary by small amounts and yet result in large differences in present values. Furthermore, lower participation may result in adverse selection on the part of participants. The combination of lower participation and adverse selection assumptions may or may not be significant in a measurement model.

Health Care Reform Considerations

The Patient Protection and Affordable Care Act (PPACA) was passed in the U.S. in March 2010 and includes many provisions that actuaries will need to consider in selecting assumptions in future valuations. Because the legislation was so comprehensive, it may be years before the impact of the new provisions result in a stable set of assumptions.

Key provisions of the PPACA that may affect retiree group benefits assumptions are:

Market Reforms. Several different requirements are imposed by the PPACA with varying effective dates. Whether these requirements apply will depend on if a plan is a retiree-only plan. These effective dates also may depend on whether a plan is grandfathered. Because these market reforms do not apply to retiree-only medical plans, whether plans being valued meet the definition of such a plan (basically, a separate legal plan, unique plan identification, and coverage for fewer than two active employees) is key.

Some plans are grandfathered from certain aspects of these market reforms if they do not significantly change the plan design from the date of PPACA enactment. The most common reason a retiree plan may lose its grandfathered status is if the employer's percentage subsidy for the plan is materially reduced. All plans with a cap on the subsidy provided by the plan sponsor or other entity will eventually fail grandfathered status.

Examples of PPACA changes required for all plans (except for retiree-only plans) include the following: having no lifetime limits; having no pre-existing condition exclusions; establishing out-of-pocket limits that include all benefits and do not exceed the limits on out-of-pocket costs for High Deductible Health Plans; and providing coverage for dependent children until age 26 (can have a greater relative impact on pre-65 retiree plans than on active employee plans).

Examples of additional market reforms required for non-grandfathered plans include the following: providing coverage of preventive health care with no cost sharing; satisfying non-discrimination requirements for all medical plans; and providing the same coverage for emergency services regardless of network status.

The above reforms may significantly impact the appropriate level of starting health care claims costs as well as cost trends.

Medicare Advantage. Government payments to Medicare Advantage plans are generally reduced from those payable under prior law. These plans also must meet the same minimum loss ratio requirements that apply to other plans (greater than 85 percent). In addition, payments will be tied to quality measures and beneficiary satisfaction ratings. These changes may affect health care claims costs, trend rates, and plan participation.

Retiree Drug Subsidy. Prior law allowed the plan sponsor to receive retiree drug subsidies (RDS) from the government tax-free and not reduce its actual pharmacy costs by the amount of the retiree drug subsidy received in determining its tax-deductible benefit cost. PPACA requires the employer to reduce its actual tax deduction for pharmacy costs by the amount of the retiree drug subsidy received, effectively eliminating the tax advantage of the RDS program for many

for-profit employers. FASB required this part of the legislation be reflected in financial statements for private employers as soon as the impact could be determined.

The elimination of the tax-favored RDS has led many plan sponsors to reevaluate alternative pharmacy designs and funding to yield financially better results. Any changes the plan sponsor makes may impact the valuation assumptions and methods, including eliminating the tax asset adjustments made for current RDS payments, adjusting future trends, and adjusting claim costs for anticipated design changes.

Part D Employer Group Waiver Plans (EGWPs). PPACA improved the Medicare Part D standard benefit by closing the coverage gap (also known as the "donut hole") by 2020. This change should result in larger direct subsidy payments to Part D plans than under the previous law. However, because of the complexity of the calculation of the payments to the Part D plans, the actuary will need to work closely with the Part D plan to estimate the size and growth pattern of these Part D payments.

High Cost Plan Excise Tax. The PPACA imposes a non-deductible excise tax beginning in 2018 on plans that exceed specified dollar thresholds. For 2018, the threshold for single coverage is $10,200 (may be adjusted depending on cost trends from 2014). For individuals aged 55 to 64, an additional $1,650 is added to the threshold. Retirees with family coverage have thresholds of $27,500 and an additional $3,450. The thresholds are indexed to general inflation after 2018. Many health plans will eventually exceed these thresholds over typical projection periods and, therefore, the liabilities could include payment of the tax plus any gross-up of the tax that might be charged by the insurer.

Health Exchanges. Health exchanges (or Public Marketplaces) became available beginning in 2014. These new exchanges made available health insurance coverage for individuals who are not eligible for Medicare. Some plan sponsors may terminate current coverage or utilize the new options in their retiree benefit offerings. This may require changes to costs or the anticipation of selection of different plan options. Considerations may be similar to those involved in the current treatment of private exchanges for Medicare beneficiaries.

Appendix 2

Comments on the Second Exposure Draft and Responses

The second exposure draft of this revision of ASOP No. 6 now titled, *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions,* was issued in March 2013 with a comment deadline of August 30, 2013. Thirteen comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term "commentator" may refer to more than one person associated with a particular comment letter.

The Retiree Group Benefits Subcommittee carefully considered all comments received and the subcommittee, Pension Committee, and ASB reviewed (and modified, where appropriate) the proposed changes.

In addition, comments were received on the second exposure draft of the revision of ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions.* In areas where parallel language is included in ASOP Nos. 4 and 6, changes made to ASOP No. 4 in response to those comments are reflected in this revised standard.

Summarized below are the significant issues and questions contained in the comment letters and the responses.

The term "reviewers" in appendix 2 includes the subcommittee, the Pension Committee, and the ASB. Also, unless otherwise noted, the section numbers and titles used in appendix 2 refer to those in the second exposure draft.

GENERAL COMMENTS	
Comment	One commentator suggested that the word "cost" in connection with per capita health costs could be confused with the other uses of the word "cost."
Response	The reviewers note that this usage is common in connection with retiree group benefits programs and that the standard specifically defines "periodic cost," which is in bold letters wherever it is used, to reduce confusion. The reviewers, therefore, made no change.
Comment	A few commentators opined that retiree group benefit actuaries serve clients and not the public at large. In this view: • Actuaries serve clients and prepare work for the client's benefit and at the client's behest; • No party other than the client should expect to benefit or draw any inference from the actuary's work; • Other entities in society provide regulations that serve the public interest; • As a result of the prior bullets, the standards should not require any work or disclosure that is intended to benefit interested parties in the public at large.
Response	The reviewers considered this viewpoint but concluded the current paradigm for self-governance established by the *Code of Professional Conduct* requires the ASOPs to reflect the profession's responsibility to the public and made no change.

SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.1, Purpose	
Comment	One commentator suggested that benefit payment projections should be mentioned in this section.
Response	The reviewers note that cash flow projections are included in the scope of the standard in section 1.2 and made no change.
Comment	One commentator suggested that "defined dollar programs or programs containing health retirement accounts" as well as "executive health and/or fringe benefits for retired executives" should be included.
Response	The reviewers note that these are examples of retiree group benefits programs and do not need to be explicitly mentioned, and made no change.
Section 1.2, Scope	
Comment	One commentator suggested that the standard say that it does not apply to individual benefit calculations or nondiscrimination testing.
Response	The reviewers believe that the description of the scope of the standard was sufficiently clear and made no change.
Section 1.4, Effective Date	
Comment	One commentator expressed the opinion that using roll-forward techniques would not be appropriate for measurements performed in actuarial work covered by this standard.
Response	The reviewers considered this comment, noted that using roll-forward techniques was a common and appropriate practice in this area, and did not change the language.
SECTION 2. DEFINITIONS	
Comment	One commentator suggested that the word "group" be defined or be replaced by "population" or "covered population."
Response	The reviewers note that the use of the word "group" in the context of "group being valued" is expected to be understood by the users of the standard and that it might not be the same as the "covered population," and made no change.
Comment	One commentator suggested that the term "obligations" should be defined as this term is used in the title of the standard and throughout the standard.
Response	The reviewers believe that the common understanding of this term is sufficient for the purposes of the standard and made no change.
Comment	One commentator suggested that the phrase "implicit subsidy" be defined.
Response	The reviewers believe that the concept of "implicit subsidy" is commonly understood and made no change.
Section 2.9, Benefit Plan	
Comment	One commentator suggested changing "Benefit Plan" to "Retiree Benefit Plan," "Benefit Plan Member" to "Retiree Benefit Plan Member," and "Benefit Option" to "Retiree Benefit Option."
Response	The reviewers note that while the ASOP covers only retiree group benefits, benefit plans might cover both actives and retirees, and made no change.

Section 2.11, Contingent Participant	
Comment	One commentator suggested that this definition is not needed as the defined word "participant" includes "contingent participant."
Response	The reviewers agree with this suggestion and made the proposed change.
Section 2.13, Cost Allocation Procedure	
Comment	One commentator suggested changes to the definition.
Response	The reviewers agree with most of the suggestions and also made other minor modifications to improve clarity.
Section 2.14, Covered Population	
Comment	One commentator suggested that the phrase "participating dependents" was redundant and confusing. This commentator also asked whether the term "participant" includes "dependents."
Response	The reviewers note that "participants" was intended to include all individuals who are receiving or are reasonably expected to receive benefits coverage and therefore would include "dependents." In the standard the word "participant" is occasionally modified by the word "active" or "retired" to distinguish a specific type of "participant" from a "dependent." The reviewers modified the definition of "participant" to explicitly include a "dependent."
Section 2.16, Dependents	
Comment	One commentator indicated that it wasn't clear if yet-to-be-identified dependents were included and proposed language to make it clear that they were included in the definition.
Response	The reviewers agree and made the proposed change.
Section 2.19, Immediate Gain Actuarial Cost Method	
Comment	One commentator questioned the need to define this term.
Response	The reviewers note that it was included because of the disclosure requirements concerning "funded status" and to be consistent with ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*, and made no change.
Section 2.20, Market-Consistent Present Values	
Comment	One commentator suggested deleting the phrase "that are expected." Another commentator asked if it was possible to reflect risk loading or adjustments due to uncertainty in the benefit payments.
Response	The reviewers revised the definition to be consistent with the definition in ASOP No. 4. The reviewers made no further change.
Section 2.23, Medicare Integration	
Comment	One commentator suggested changing "health plan" to "retiree group benefits program" or to "benefit plan."
Response	The reviewers agree and changed "health plan" to "benefit plan."
Section 2.27, Participant Contributions	
Comment	One commentator suggested changes to the definition to clarify the intent.
Response	The reviewers agree that the definition could have been clearer and made changes to the language to clarify the meaning of the phrase "participant contributions."

Section 2.30, Pooled Health Plan	
Comment	One commentator suggested several changes to improve the clarity of the definition.
Response	The reviewers agree with some of the proposed changes, disagree with others, and made further changes to improve clarity.
Comment	One commentator suggested replacing "health care cost trend rate assumption" with "health care trend assumption."
Response	The reviewers disagree, noting that including the words "cost" and "rate" help improve the clarity, and made no change.
Section 2.32, Premium	
Comment	One commentator noted that the "definition of premium as a price incorporates the idea of premium as a rate" and so suggested that throughout the standard the word "premium" be used instead of "premium rate."
Response	The reviewers agree with the suggestion and made the proposed change throughout the standard.
Section 2.37, Spread Gain Actuarial Cost Method	
Comment	One commentator questioned the need to define this term.
Response	The reviewers note that it was included because of the disclosure requirements concerning "funded status" and to be consistent with ASOP No. 4, and made no change.
Section 2.40, Trend	
Comment	One commentator suggested that the definition not include the word "expected" because trend can also refer to a past change in payment levels. The commentator suggested other related changes.
Response	The reviewers agree with the suggestion of deleting the word "expected" but made no other changes.
Comment	One commentator suggested that based on the definition of "trend," in the phrase "trend rate," the word "rate" was redundant and should be deleted throughout the standard.
Response	The reviewers believe that including the word "rate" after "trend" improves the clarity of the guidance and made no change.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.3, Purpose of Measurement	
Comment	One commentator suggested that projections of benefit payments be included in the list of examples.
Response	The reviewers note that the list of examples is not intended to be exhaustive and is similar to the list included in ASOP No. 4. The reviewers, therefore, made no change.
Section 3.3.3, Risk or Uncertainty	
Comment	One commentator noted that ASOP No. 41, *Actuarial Communications*, refers to "Uncertainty or Risk" and suggested that the heading of this section be changed accordingly. The commentator also questioned this section's inclusion given the guidance in ASOP No. 41.
Response	The reviewers agree with the proposed change in the heading of the section. They note that considering the uncertainty or risk inherent in a measurement for retiree group benefit purposes is important and the reinforcement of the guidance provided in ASOP No. 41 would be useful to the actuary and retained this section.

Section 3.4.1, Information as of a Different Date	
Comment	One commentator felt that this guidance is redundant since the actuary was required in other parts of the standard to make appropriate adjustments. The commentator also felt that this section could be moved to section 3.24 on Roll-Forward Techniques.
Response	The reviewers considered the comments and concluded that the placement of the guidance in this section was appropriate in the sequence of items that an actuary should consider in measuring obligations, periodic costs, or actuarially determined contributions, since data may be as of different dates within a valuation year. Also, section 3.24 provides guidance on adjusting results to future valuation dates. Therefore, no change was made.
Section 3.5.1(d), Participant Contributions	
Comment	One commentator questioned whether a "participating dependent" was included or not.
Response	The reviewers note that the definition of "participants" has been modified to make it clear that it includes "participating dependents," and, therefore, made no change to the definition of "participant contributions."
Section 3.5.1(d)(2), Participant Postretirement Contribution Reasonableness	
Comment	One commentator suggested that the concept of "implicit subsidy" could be introduced here.
Response	The reviewers believe that the concept of "implicit subsidy" is commonly understood and applies in other parts of the standard as well, and made no change.
Section 3.5.1(d)(3), Preretirement Active Employee Contributions	
Comment	One commentator opined that the distinction among the different types of contributions could be clarified.
Response	The reviewers believe that the difference between pre-retirement active employee contributions and other types of contributions is sufficiently clear, and made no change.
Section 3.5.1(d)(4), Participant Contributions as Defined by Limits on Plan Sponsor Costs	
Comment	Several commentators suggested changes in this section to make it clearer.
Response	The reviewers agree and revised this section to make the guidance clearer.
Section 3.5.1(e), Payments from Other Sources	
Comment	One commentator asked for clarification on the guidance provided in this section.
Response	The reviewers modified the language to make the guidance clearer.
Section 3.5.1(f), Health Care Delivery System Attributes	
Comment	One commentator suggested that the considerations implied by the example might place an unrealistic burden on the actuary and asked for clarification.
Response	The reviewers agree that the example might mislead users of the standard and, therefore, deleted it.

Section 3.5.1(g), Benefit Options	
Comment	One commentator noted that the language might be unduly restrictive for several reasons, including a) new benefit options might reduce participant contributions or periodic costs as well as increase them, and b) the actuary may want to consider the effect of benefit options on participants' behavior and adverse selection.
Response	The reviewers agree and deleted the relevant language to address the concerns raised by the commentator.
Section 3.5.1(h), Anticipated Future Changes	
Comment	One commentator suggested changing the phrasing "the actuary should consider only changes…" The commentator also thought that the last sentence cross-referencing the disclosure requirement was redundant.
Response	The reviewers agree that "should consider" is not the appropriate language to use in this situation and revised it to "should reflect." To be consistent, later in the section the language "may take into account" was revised to "may reflect." The reviewers believe that reinforcing the disclosure requirement in this section is particularly important in this circumstance and left the cross-reference to the disclosure requirements in the standard.
Section 3.5.2(b), Patterns of Plan Changes	
Comment	One commentator suggested that changes similar to those recommended in section 3.5.1(d)(4) be made in this section.
Response	The reviewers agree and made those changes.
Section 3.5.2(c), Governmental Programs	
Comment	One commentator thought that the use of "historically enacted" in this section seems to suggest that the actuary has to anticipate more legislative or administrative policy changes based on history and recommended that the section be deleted or clarified.
Response	The reviewers added language to clarify the intent that this section applies to patterns of changes consistent with section 3.5.2(b).
Section 3.5.3, Reviewing the Modeled Retiree Group Benefits Program	
Comment	One commentator felt that it was inappropriate for the responsibility to determine whether the deviation was temporary or permanent to be with the actuary. The commentator recommended that the standard should require the actuary to discuss the actuary's finding of deviation with the plan sponsor to seek guidance concerning the deviation.
Response	The reviewers note that nothing in the standard precludes the actuary from talking to the plan sponsor and gathering more information to make this determination and that guidance regarding administrative inconsistencies is provided in section 3.10. The reviewers, therefore, made no change.

Section 3.6, Modeling the Covered Population	
Comment	One commentator felt that the "access only" situation should be mentioned in the standard and that guidance is needed on whether there is a responsibility to determine whether the participant is in fact paying for the entire value of the benefits received.
Response	The reviewers believe that there is sufficient guidance in the standard to cover an "access-only" situation and made no change.
Section 3.6.1, Census Data	
Comment	One commentator suggested that the language in this section be revised to be more consistent with the language in section 3.12.3(a) and other places in the standard.
Response	The reviewers agree and modified the language to be more consistent.
Section 3.6.4, Dependents and Surviving Dependents of Participants	
Comment	Several commentators suggested changes in the language in this section regarding "dependents."
Response	The reviewers revised the language in this section to clarify the intent and make it more consistent with the use in other parts of the standard.
Comment	One commentator thought that the first sentence of the second paragraph was redundant because the first paragraph refers to spouses and surviving spouses.
Response	The reviewers note that the first paragraph provides general guidance on the treatment of all dependents, both spouses and dependent children while the first sentence of the second paragraph provides specific guidance on the treatment of spouses and the second sentence of that paragraph provides specific guidance on the treatment of dependent children. The reviewers, therefore, made no change.
Section 3.6.6, Use of Grouping	
Comment	One commentator suggested revising the disclosure requirement to "…should consider disclosing, if significant…."
Response	The reviewers believe it is important to disclose the specifics regarding the combining of health plans and grouping of populations so that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the combining and grouping. They also note that, as provided for in ASOP No. 1, *Introductory Actuarial Standard of Practice*, the standards do not apply to items that are immaterial. Therefore, no change was made.
Section 3.6.7, Hypothetical Data	
Comment	One commentator suggested that several examples could be added to this section.
Response	The reviewers believe that examples are not needed and made no change.

Section 3.7, Modeling Initial Per Capita Health Care Costs	
Comment	One commentator thought there was the potential of confusion with the use of the word "cost" and suggested changing the phrase to "per capita health care rates."
Response	The reviewers note that "per capita health care costs" is a well-understood term among actuaries in this area and that "costs" is used consistently throughout the standard and understood in that context. They further note that "periodic cost" is now a defined term in both ASOP Nos. 4 and 6, and usually refers to accounting expense. As a result, the reviewers made no change.
Section 3.7.1(a), Paid Claims	
Comment	One commentator suggested changing "should analyze" to "should consider analyzing" for several reasons including the fact that the data available may not be sufficient for analysis.
Response	The reviewers agree and made the change.
Section 3.7.4, Credibility	
Comment	One commentator noted that this section does not provide a threshold definition other than "fully credible" and expressed concern that references to ASOP No. 25, *Credibility Procedures*, may need to change depending on the final version of that standard.
Response	The reviewers note that "full credibility" is defined in ASOP No. 25, and made no change.
Section 3.7.6, Impact of Medicare and Other Offsets	
Comment	One commentator suggested replacing the phrase "health plan" by "retiree group benefits program" or "benefit plan."
Response	The reviewers agree and replaced the phrase "health plan" by "benefit plan."
Comment	One commentator noted that the guidance regarding other offsets doesn't pertain to Medicare and might be better if located differently.
Response	The reviewers agree and included the guidance regarding other offsets in a separate paragraph at the end of the section.
Comment	One commentator suggested changing the phrase "should be aware" to "should consider" in the paragraph concerning changes in Medicare. In addition, the commentator noted that it was not the magnitude of the changes in Medicare programs but the impact that those changes had on the retiree group benefits program that was important for purposes of the standard.
Response	The reviewers agree and made changes to reflect these considerations.
Section 3.7.7, Age-Specific Costs	
Comment	One commentator suggested moving some of the guidance included in section 3.7.8, Pooled Health Plans (Including Community-Rated Plans), into this section as it applied in general and not just to those types of plans.
Response	The reviewers agree and combined sections 3.7.7 and 3.7.8 into one section. The general guidance that had been included in sections 3.7.7 and 3.7.8 is now in the new section 3.7.7(a).

Section 3.7.8, Pooled Health Plans (including Community Rated Plans)	
Comment	Several commentators suggested that individual circumstances needed to be taken into account in determining whether the pooled health plan's premium would be appropriate for use without adjustment for age.
Response	The reviewers agree that it would be appropriate to provide more guidance regarding the limited circumstances for using unadjusted premium rates. As noted earlier, sections 3.7.7 and 3.7.8 were combined into one section. The new section 3.7.7(c) clarifies the guidance regarding the limited circumstances for using unadjusted premium rates.
Comment	Several commentators suggested that in cases where the cost of coverage is borne by a large independent community, the use of an unadjusted premium should be allowed if the aging or demographic distribution of the individual employer's population would not affect the program's premiums, such as for many small public sector plans.
Response	The reviewers believe that implicit subsidies do exist within pooled health plans and that such subsidies should be recognized in valuations of retiree group benefits by incorporating age-specific costs in the measurement, except in some very limited cases. Thus the reviewers believe that the use of age-specific costs will generally result in a more appropriate representation of the employer's long term liabilities for retirees than the use of unadjusted premiums. They point out that there is no guarantee that the current premium structure or the pooled health plan will continue over the long term nor that the employer will continue or be allowed to continue in the pool and that the value of employer's benefit commitment independent of the method used to provide that benefit is the most appropriate basis for valuing the liability, except in some very limited cases. Accordingly, the reviewers added more guidance throughout section 3.7.7, which now also includes the guidance contained in section 3.7.8 of the second exposure draft.
Comment	Several commentators were concerned that by using age-specific costs for groups participating in a pooled health plan: • accounting liabilities could be too large considering the cash flows; and • the liability might not be defeased by contributions/expenses when all assumptions were met.
Response	The reviewers agree that year-to-year differences between cash flows/contributions based on premium and age-specific costs may occur, but believe that it is appropriate to measure the employer's long term benefit obligation based on a projection of age-specific costs. As noted previously, the reviewers clarified the guidance, including a description of factors that the actuary should consider in determining whether the use of the premium may be appropriate without regard to adjustments for age.
Comment	Several commentators agreed with the use of age-specific costs, but suggested that the standard should state explicitly that an adjustment be made to recognize in the liability calculation the age-specific subsidies (both positive and negative) from other employers, and that if this were not done the liability would be either too large or too small depending on the average age of the group relative to that of the pool.
Response	The reviewers note that all employers participating in a pooled health plan share in the collective risks and costs (some positive and some negative). As such, the reviewers believe developing a set of age-specific costs based on the total pooled health plan to measure retiree health benefits for any and all participating employers is appropriate, except in very limited circumstances as set forth in the standard. In other words, absent evidence to the contrary, the reviewers do not believe that non-guaranteed subsidies should be assumed to persist indefinitely. The reviewers, therefore, made no change.

Comment	Several commentators suggested that information would not be available to make an accurate determination of a pooled health plan's age-specific costs.
Response	The reviewers believe that either sufficient information will be available or reasonable assumptions and approximations can be developed for the actuary to make a reasonable determination of the pooled health plan's age-specific costs. The reviewers, therefore, made no change.
Comment	One commentator suggested several clarifications in the guidance regarding what the actuary should do if a distribution table for the pooled health plan is not available.
Response	The reviewers agree that the intent of the guidance was not clear and revised this language to clarify that the actuary may either make a reasonable assumption regarding the distribution or base the age-specific costs on manual rates or other sources.
Comment	One commentator suggested the standard be more explicit in encouraging the use of the individual group's own demographic distribution in developing the age-specific costs for those groups taking part in a pooled health plan.
Response	The reviewers note that pooled plans develop premiums in a wide variety of ways. The reviewers recognize that some pooled health plans charge participating groups premiums that are explicitly based in part on the composition of the given employer (whether influenced by claims or age distribution or another factor). The guidance provides that, to the extent appropriate, the composition of the group being valued should be taken into account when developing and applying age-specific costs. The reviewers, therefore, made no change.
Comment	One commentator suggested that several areas of guidance included in section 3.7.8 are more general in nature than indicated by the title of that section and might be more appropriate in section 3.7.7.
Response	The reviewers agree and, as noted earlier, combined sections 3.7.7 and 3.7.8, expanded the guidance in section 3.7.7(a) to cover certain points raised by the commentator, and removed the corresponding guidance from section 3.7.7(b).
Comment	One commentator suggested that, in the second paragraph of section 3.7.8, the term "premium equivalent" be replaced with "premium" and questioned why there was no reference to self-insured plans in that context.
Response	The reviewers agree and replaced the phrase "premium equivalent" with "premiums." The reviewers note that the phrase "claims costs" covers the situation of a self-insured plan and, therefore, no reference is needed.
Comment	One commentator suggested that, in the third paragraph of section 3.7.8, the phrase "distribution table for" be replaced with "age distribution of."
Response	The reviewers made no changes to the references to distribution tables because they believe the actuary should have the option of using distribution tables by both age and gender.
Comment	One commentator felt that the example in section 3.7.8 regarding Medicare Advantage Plans was confusing. The commentator noted that although for a Medicare Advantage plan itself the use of the premium without regard to adjustments for age could be appropriate, for a Medicare Advantage-Prescription Drug ("MA-PD") program the prescription drug portion of the benefits should be adjusted for age.
Response	The reviewers agree the example could be confusing and deleted it.

Comment	One commentator suggested that comments regarding this section made after the first exposure draft were not carefully reviewed.
Response	The Retiree Group Benefits Subcommittee, the Pension Committee, and the ASB carefully considered the comments made after the first exposure draft and took the comments into consideration when preparing the second exposure draft.
Comment	One commentator suggested that the reviewers' rationale for decisions regarding section 3.7.8 comments be more fully explained.
Response	Responses to commentators' exposure draft comments are meant to be brief in nature but to capture the essence of the issue and the decisions made. The reviewers have included more detailed responses in this section of the appendix to provide more context for the guidance in the final ASOP.
Comment	One commentator suggested that the guidance was not in any way reflective of the environment in which actuaries work.
Response	The members of the subcommittee regularly practice in, and drafted the guidance to reflect, all areas of retiree group benefits, including: public sector plans; private sector plans; funded and unfunded plans; small and large plans; and small employers and large employers. The guidance reflects the fact that there can be a number of different purposes of the measurement, including, but not limited to, funding and accounting requirements.
Section 3.7.10(b), Enrollment Practices	
Comment	One commentator suggested that instead of the general word "effect" in the phrase "effect… have had on health care practices," the standard should specify what types of effects the actuary should consider, such as adverse selection.
Response	The reviewers believe that the items that the actuary should consider should not be limited to adverse selection, as there could be other effects depending on the circumstances of the retiree group benefits program, and made no change.
Section 3.7.12, Adjustment for Trend	
Comment	One commentator recommended that the language regarding the basis for the adjustments for trend should require the actuary to take into account experience from outside the health plan.
Response	The reviewers note that in some situations it may be appropriate to consider only the experience of the health plan and made no change.
Section 3.7.15, Administrative Expenses	
Comment	One commentator noted that there are other expenses such as PPO access fees and stop-loss premiums and suggested that this section should also make reference to other non-administrative expenses.
Response	The reviewers agree, and made changes to the section heading and throughout the section.

Section 3.11, Other Information from the Principal	
Comment	One commentator questioned the inclusion of this section and indicated that "accounting election" is unclear.
Response	The reviewers believe the guidance in this section has relevance to several other sections and therefore included it in its own section. The reviewers made edits to clarify the language.
Section 3.12.1, Economic Assumptions	
Comment	One commentator noted that part of the reference to an accounting standard was missing.
Response	The reviewers agree and corrected the reference.
Section 3.12.1(a), Health Care Cost Trend Rate	
Comment	One commentator recommended that the paragraph be revised to account for the common usage of the SOA-Getzen model.
Response	The reviewers believe that the guidance is consistent with the use of the SOA-Getzen model but believe that the standard should not mandate a specific model and, therefore, did not include a reference to it in the guidance.
Comment	One commentator suggested revising the guidance regarding the select period, noting that there may be times when health care cost trend rates could reasonably be expected to increase for a short period of time before declining.
Response	The reviewers agree and revised the language to make it clearer that the trend rates could increase during the select period.
Comment	One commentator suggested moving the sentence regarding the development of an initial trend assumption from the third paragraph to the beginning of the second paragraph so that it would be before the guidance on selecting the long-term trend assumption.
Response	The reviewers agree and made the proposed change.
Comment	One commentator suggested deleting the words "cost" and "rate" in this section.
Response	The reviewers believe that including those words provide clarity and left them in the standard. The reviewers did change the word "rate" to "rates" to reflect the fact that there generally is not one trend rate.
Comment	One commentator suggested changing "the appropriate length of a select period" to "an appropriate length…" to avoid implying that there is one and only one length that the actuary could use.
Response	The reviewers agree and revised the section.
Comment	One commentator felt that "relevant long-term economic factors" may not clarify whether the projections are those of the actuary, of those who are responsible for the retiree group benefit program, or of other sources such as national agencies and suggested that additional guidance be provided.
Response	The reviewers believe the guidance provided is sufficiently clear and made no change.

Comment	One commentator felt that the sentence, "The actuary should select a transition pattern and select period that reasonably reflects anticipated experience," was redundant and should be deleted. The commentator also felt that asking an actuary to choose a select period that reasonably reflects anticipated experience goes beyond what should be expected from a trend assumption that may exceed 50 years.
Response	The reviewers disagree and made no change, believing that the sentence is not redundant and it is reasonable to require the actuary to consider what is likely to happen to trend over the long term.
Comment	One commentator suggested moving the entire economic section of ASOP No. 6 to ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*.
Response	The reviewers feel that including this guidance in the standard is useful and more convenient to the actuary working in this practice area as the economic assumptions applied can have consequences for the demographic assumptions used (for example, enrollment assumption) and made no changes.
Comment	One commentator suggested that the sentence regarding annual or lifetime maximums might be more appropriate in the section dealing with the modeling of plan provisions and suggested moving to section 3.5.1(c).
Response	The reviewers agree that guidance regarding annual or lifetime maximums would be more appropriate in section 3.5.1(c) and expanded the guidance in that section to cover annual and lifetime maximums.
Section 3.12.1(b), Other Cost Change Rates	
Comment	One commentator noted that section 2.9 references "long-term care" but not "long-term care insurance" and suggested deleting the word "insurance."
Response	The reviewers note that these are examples of types of benefits that may be affected by other economic factors and made no change.
Section 3.12.1(c), Participant Contribution Changes	
Comment	One commentator felt that this language may be construed as applying only to situations in which a cap on benefits has not yet been placed and suggested adding: "In cases in which a plan has a cap on benefits already in place, the actuary should consider modeling participant contributions based on the provisions of the Retiree Group Benefits Program and on communications to participants which describe application of the cap."
Response	The reviewers believe that the situation described by the commentator is covered by the first sentence of this section and made no change.
Section 3.12.1(d), Adverse Selection	
Comment	One commentator noted that "adverse selection" is not a "process" and that the word can be deleted, particularly since adverse selection is a defined term.
Response	The reviewers agree and made the change.
Section 3.12.2(d), Mortality	
Comment	One commentator made suggestions on revising the language in this section to discuss the interaction with trend rates.
Response	The reviewers believe that the language is sufficiently clear and made no change to reference the effect of trend rates. They did clarify the language to reference death benefits in addition to health care costs.

Section 3.12.3(b), Dependent Coverage	
Comment	One commentator suggested adding the word "materially" in connection with the guidance concerning the gender mix of participants.
Response	The reviewers note that ASOP No. 1 states that the guidance in ASOPs need not be applied to immaterial items and made no change.
Section 3.12.4, Effect of Retiree Group Benefits Program Design Changes on Assumptions	
Comment	One commentator suggested several changes to and a reordering of the language in the second paragraph of this section.
Response	The reviewers believe that the language is sufficiently clear as written and made no change.
Sections 3.14, Measuring the Value of Accrued or Vested Benefits	
Comment	One commentator suggested deleting this section as this type of calculation is not common for these types of valuations.
Response	The reviewers agree that the measurement of accrued or vested benefits is less common for these valuations than for pensions but note that the guidance is useful for those situations in which such a calculation is required and did not delete the section.
Comment	One commentator suggested that more guidance be provided and proposed several text edits, including moving 3.14(e), "whether or the extent to which any retiree group benefits are accrued or vested" to the introductory paragraph of 3.14.
Response	The reviewers believe that the level of guidance is appropriate and did not add more guidance. The reviewers did reorder the list of items that the actuary should consider. The reviewers added language to the section that indicates that in many situations these benefits are neither vested nor accrued. The reviewers did not make any other of the proposed changes.
Comment	Several commentators suggested deleting references in the section to "accrued or vested" as many retiree group benefit programs do not define these terms. One commentator suggested adding a paragraph describing how "the meaning of accrued or vested as defined by plan sponsors and their legal counsel" might "differ from the meanings used by the actuarial community."
Response	The reviewers note that the guidance in this situation applies only where the scope of the assignment requires an actuary to do this type of calculation and that many factors might determine whether benefits are considered accrued or vested, including the purpose of the measurement. They believe that the language provides the appropriate balance between guidance and flexibility for the actuary to deal with specific situations and, therefore, made no change.
Comment	One commentator suggested adding "employment contracts" after the reference to plan provisions.
Response	The reviewers note that the guidance in section 3.5 discusses the identification of the relevant plan provisions and feel that the language in that section is broad enough to include employment contracts. Therefore, the reviewers made no change.
Section 3.14(g), Measuring the Value of Accrued or Vested Benefits	
Comment	One commentator suggested adding "changes in retiree group benefits eligibility" to the list in this section.
Response	The reviewers note that the list in this section gives examples of factors for the actuary to consider and is not intended to be exhaustive, and made no change.

Section 3.15, Market-Consistent Present Values	
Comment	One commentator suggested that the phrase "benefits earned" be changed to something else as "benefits earned" is not defined.
Response	The reviewers note that depending on the purpose of the measurement the definition of "benefits earned" could vary, and made no change.
Section 3.17, Actuarial Cost Method	
Comment	In response to the question asked in the transmittal letter to the second exposure draft, several commentators indicated that the description of an actuarial cost method in the second exposure draft of ASOP No. 4 was preferable to that included in the second exposure draft of ASOP No. 6, while one commentator preferred the version in the second exposure draft of ASOP No. 6.
Response	The reviewers concluded that ASOP Nos. 4 and 6 should use the same definition of a reasonable actuarial cost method and revised the guidance to be consistent with that included in the revised version of ASOP No. 4.
Section 3.18, Allocation Procedure	
Comment	One commentator expressed the opinion that the requirement to consider relevant input received from the principal was inconsistent with the paragraph in section 1.2 indicating that the standard "does not require the actuary to evaluate the ability of the plan sponsor to make prefunding contributions to the plan when due."
Response	The reviewers disagree and made no change.
Comment	One commentator suggested that the term "principal" be replaced by "plan sponsor."
Response	The reviewers note that "principal" is defined in ASOP No. 1 and is more appropriate in this context than "plan sponsor." Therefore, no change was made.
Comment	One commentator said that section 3.18.1 and 3.18.2 appear to presuppose that the objective of prefunding contributions is to accumulate assets sufficient to pay future benefits. The commentator noted that that may not be the plan sponsor's objective and expressed the opinion that it would not be necessary for the actuary to perform the analysis described. The commentator suggested alternative language to the section and the disclosure requirements.
Response	The reviewers believe that the analysis required of a contribution allocation procedure and the related disclosure requirements concerning the funding of the retiree group benefits program are appropriate and made no change.
Sections 3.20, Volatility	
Comment	One commentator suggested adding a reference to the initial per capita health care costs as a source of possible volatility, noting that there can be significant changes from one year to the next.
Response	The reviewers agree and expanded the example of changes in assumptions to include initial per capita health care costs.
Comment	One commentator suggested adding a disclosure of the rationale for the range selected in assumptions for the purpose of analyzing the potential volatility of the results.
Purpose	The reviewers believe that the disclosure requirements are sufficient and made no change.

Sections 3.21, Reasonableness of Results	
Comment	One commentator noted that a similar section is not included in ASOP No. 4 and questioned its inclusion in ASOP No. 6.
Response	In light of the varied and complex assumptions unique to retiree group benefit valuations, the reviewers believe that requiring this analysis for reasonableness is appropriate and made no change.
Comment	One commentator suggested that the actuary should document the likely causes of the differences identified in this analysis.
Response	The reviewers revised the language in this section, including adding that the actuary "should consider documenting, if appropriate, the likely causes of such differences."
Section 3.22.3, Inability to Evaluate Prescribed Assumption or Method	
Comment	One commentator asked if this section would allow an actuary to avoid calculating age-adjusted claims costs for a pooled plan because to do such analysis would require "performing a substantial amount of additional work beyond the scope of the assignment?"
Response	The reviewers do not believe that age-adjusted claims costs for pooled plans are prescribed assumptions or methods set by another party and, therefore, made no change
Sections 3.23, Reliance on a Collaborating Actuary	
Comment	One commentator asked if all signing actuaries are responsible for the entire report, including areas in which the actuary may have limited expertise or if the intended meaning is that one principal signing actuary is responsible for the entire report and, if the latter, if language can be added to that effect.
Response	The reviewers note that this section is consistent with section 2.4, Statements of Actuarial Opinion Issued by More than One Actuary, of the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" and made no change.
Comment	One commentator suggested deleting the word "analysis" in the phrase "overall appropriateness of the analysis, assumptions, and results" because some of that analysis may never be communicated in the statement of actuarial opinion.
Response	The reviewers believe that even though the analysis may not be communicated in the statement of actuarial opinion, the actuary is still responsible for it and, therefore, made no change.

Section 3.24, Use of Roll-Forward Techniques	
Comment	One commentator expressed the opinion that roll-forward valuations should not be encouraged in actuarial standards and that the requirements regarding the use of these techniques should be revised.
Response	The reviewers believe that the guidance included in this section is appropriate for measurements regarding retiree group benefits programs. They note that the guidance provides that "the actuary should not use roll-forward techniques unless, in the actuary's professional judgment at the time of the roll-forward calculation, the resulting measurement is not expected to differ significantly from the results of a new full measurement." The reviewers made no change.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.1(g), Communication Requirements	
Comment	One commentator suggested that a requirement be added that the actuary comment about the source of any hypothetical data and whether the use of such data is expected to have a significant impact. The commentator discussed the differences between, for example, assuming dates of hire for a small percentage of the population versus assuming the demographics of the population making up a pooled plan.
Response	The reviewers believe that the issue of missing dates of hire is adequately covered by the existing section 4.1(g) and that section 4.1(i) requires disclosure of the information and analysis used in developing the age-related costs for a pooled plan. The reviewers, therefore, made no change.
Section 4.1(i), Communication Requirements	
Comment	One commentator suggested changes in the text in this disclosure requirement regarding the information and analysis used in selecting each significant assumption that was not prescribed.
Response	The reviewers note that the language in this section parallels the language in the similar disclosure requirement in ASOP No. 27. The reviewers modified the language to clarify that when age-specific costs are not used, a description of the reasons why they are not used is a part of this disclosure.
Section 4.1(k), Communication Requirements	
Comment	One commentator suggested adding references to adverse selection and plan selection/migration to the list of other significant assumptions.
Response	The reviewers note that the parenthetical list is not intended to be exhaustive and made no change.
Section 4.1(s), Communication Requirements	
Comment	One commentator asked whether this disclosure requirement applied to a calculation of the maximum deductible contribution to a voluntary employees' beneficiary association using the aggregate cost method.
Response	The reviewers note that this disclosure requirement does not apply to intermediate steps of a calculation but added language to clarify that it does not apply if the purpose of the calculation was contribution determination in accordance with federal law or regulation.
Comment	Several commentators expressed concern about the added disclosure requirements regarding "fully funded" and "funded status."
Response	The reviewers agree with concerns regarding "fully funded" and removed the proposed disclosures regarding such statements. However, the reviewers retained and modified the language of this section regarding measurements of funded status. The modified language makes it clearer that the standard does not require the disclosure of "funded status," only what is required if an actuary does

	disclose a plan's "funded status."
APPENDIX 1	
Comment	Several commentators suggested changes in the text.
Response	The reviewers made some changes to the text, taking into account the comments received, the changes in the defined terms used in the standard, and updated cost levels.

ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 7

Analysis of Life, Health, or Property/Casualty Insurer Cash Flows

Revised Edition

Developed by the
Cash Flow Testing Task Force of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
June 2002
Updated for Deviation Language Effective May 1, 2011

(Doc. No. 128)

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APPENDIXES

June 2002

TO: Members of the American Academy of Actuaries and Other Persons Interested in the Analysis of Life, Health, or Property/Casualty Insurer Cash Flows

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 7

This booklet contains the final version of ASOP No. 7. The original title, *Performing Cash Flow Testing for Insurers*, has been changed to *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*. This standard, along with a revision of ASOP No. 22, now titled *Statements of Opinion Based on Asset Adequacy Analysis by Actuaries for Life or Health Insurers*, supersedes ASOP No. 14, *When to Do Cash Flow Testing for Life and Health Insurance Companies*, which has been repealed effective April 15, 2002.

Background

Development of actuarial standards of practice in the cash flow testing area was originally undertaken separately for the life and health and the property and casualty specialties. The first to be published was ASOP No. 7, *Concerning Cash Flow Testing for Life and Health Insurance Companies*. This was developed by the American Academy of Actuaries' Committee on Life Insurance Financial Reporting in conjunction with the Life Committee of the ASB, and was adopted by the ASB in October 1988.

Subsequently, the Casualty Committee of the ASB, through its Valuation Subcommittee, developed a proposed standard titled *Cash Flow Testing for Property and Casualty Insurers*. This draft was presented to the ASB in April 1990. The ASB decided that the document should be revised so that there would be one broad standard that would apply to life and health insurers as well as to property/casualty (P/C) insurers. A Joint Casualty/Life Cash Flow Testing Task Force was appointed by the ASB to accomplish this. The resulting standard was adopted in July 1991.

Further revisions to ASOP No. 7 are now being made for several reasons. First, practice in this area has evolved and this proposed revised standard reflects this evolution. Second, the National Association of Insurance Commissioners (NAIC) adopted two new model regulations, *Synthetic Guaranteed Investment Contracts Model Regulation*, and *Separate Accounts Funding Guaranteed Minimum Benefits Under Group Contracts Model Regulation*. These two model regulations contain language requiring that life insurers submit an actuarial opinion and memorandum

related to cash flow testing. Finally, the ASB has adopted a new format for standards, and this standard has been rewritten to conform to that new format.

In addition to ASOP No. 7, as part of the project to look at all cash flow testing standards of practice, ASOP No. 14 and ASOP No. 22 were also reviewed. Relevant portions of ASOP No. 14 were incorporated within the 2001 revisions of ASOP No. 7 and ASOP No. 22.

At its September 2001 meeting, the ASB voted to adopt the revised ASOP No. 7 and ASOP No. 22 and to repeal ASOP No. 14. In April 2002, the ASB voted to defer the effective date of ASOP No. 7 to July 15, 2002 while it reviewed concerns raised by the Academy's Casualty Practice Council regarding the standard's applicability to property/casualty practice. At its June 2002 meeting, the ASB amended the scope to conform to generally accepted casualty actuarial practice. Please see appendix 3 for further information.

Exposure Draft

The exposure draft of this revised standard was issued in September 2000 with a comment deadline of March 31, 2001. The Cash Flow Testing Task Force carefully considered the twenty-one comment letters received. For a summary of the substantive issues contained in these comment letters, please see appendix 2.

The most significant changes from the exposure draft were as follows:

1. In section 3.10.1, Scenarios, and 3.10.3, Internal Consistency, a few changes were made for similar reasons to both sections to clarify the actuary's responsibilities. In 3.10.1(a), the actuary is now required to determine whether the tested scenarios reflect a range of conditions consistent with the purpose of the cash flows, and, if not, the actuary should disclose any material inconsistency in any report or communication. Similarly, in 3.10.3, the actuary is now required to determine whether the actuarial assumptions within each scenario are consistent where appropriate, and, if not, the actuary should disclose any material inconsistency in any report or other communication.

2. In section 3.10.2, Sensitivity Testing, a sentence was added noting that the further into the future that asset and policy cash flows are projected, the more potential there is for variability in future cash flows.

3. In section 4.3, Documentation, wording was added noting that the degree of documentation of the actuary's cash flow analysis will vary with the complexity and purpose of the job.

The task force thanks all those who commented on the exposure draft. The task force also thanks Susan Witcraft for her assistance in drafting this standard.

The ASB voted in June 2002 to adopt this standard.

Cash Flow Testing Task Force

Marc A. Cagen, Chairperson

Michael A. Cioffi
Owen M. Gleeson
David J. Jungk
Lew H. Nathan
Thomas A. Phillips
David K. Sandberg
Herbert S. Wolf

Life Committee of the ASB

Godfrey Perrott, Chairperson

John W. Brumbach (2001)
Marc A. Cagen (2001)
Charles Carroll
Michael Cioffi
Robert G. Meilander
Thomas A. Phillips
Alan W. Ryan
Barry L. Shemin

Actuarial Standards Board

William C. Koenig, Chairperson

David G. Hartman (2001)
Ken W. Hartwell
Roland E. King
Michael A. LaMonica
Heidi Rackley
Alan J. Stonewall
James R. Swenson (2001)
Karen F. Terry
William C. Weller
Robert E. Wilcox

ACTUARIAL STANDARD OF PRACTICE NO. 7

ANALYSIS OF LIFE, HEALTH, OR PROPERTY/CASUALTY INSURER CASH FLOWS

STANDARD OF PRACTICE

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

1.1 Purpose—This actuarial standard of practice (ASOP) provides guidance to actuaries who perform professional services involving the analysis of asset, policy, or other liability cash flows for life, health, or property/casualty insurers.

1.2 Scope—This standard applies to actuaries when performing the analysis of part or all of an insurer's asset, policy, or other liability cash flows for life or health insurers (including health benefit plans). The standard also applies to actuaries when performing the analysis of cash flows involving both invested assets and liabilities for property/casualty insurers.

Cash flow analysis subject to this standard should be considered in connection with professional services such as the following:

a. determination of reserve adequacy;

b. determination of capital adequacy;

c. product development or ratemaking studies;

d. evaluations of investment strategy;

e. financial projections or forecasts;

f. actuarial appraisals; and

g. testing of future charges or benefits that may vary at the discretion of the insurer (for example, policyholder dividend scales and other nonguaranteed elements of the insurer's liabilities).

This standard does not apply to actuaries when performing cash flow analysis for entities other than life, health, or property/casualty insurers, such as pension plans, retiree group

benefit plans, or social insurance programs.

If the actuary departs from the guidance set forth in this standard in order to comply with applicable law (statutes, regulations, and other legally binding authority), 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 consider the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard of practice is effective for actuarial work performed after July 15, 2002.

Section 2. Definitions

The definitions below are defined for use in this actuarial standard of practice.

2.1 Applicable Law—Federal, state, and local statutes, regulations, case law, and other binding authority that may govern analysis of insurer cash flows.

2.2 Asset—Any resource that can generate revenue or reduce disbursement cash flows.

2.3 Asset Risk—The risk that the amount or timing of items of cash flow connected with assets will differ from expectations or assumptions for reasons other than a change in investment rates of return. Asset risk includes delayed collectibility, default, or other financial nonperformance. This has been commonly referred to in actuarial literature as the *C-1 risk* or *credit risk*.

2.4 Cash Flow—Any receipt, disbursement, or transfer of cash.

2.5 Cash Flow Analysis—Any evaluation of the risks associated with the timing or amount of cash flows.

2.6 Cash Flow Testing—A form of cash flow analysis involving the projection and comparison of the timing and amount of cash flows resulting from economic and other assumptions.

2.7 Derivative Contract—Any security that derives its value from an underlying financial instrument. Examples include interest rate swaps, futures, and options.

2.8 Health Benefit Plan—A contract providing medical, dental, vision, disability income, accidental death and dismemberment, long-term care, and similar benefits, whether on a reimbursement, indemnity, or service benefit basis, regardless of the form of the risk-bearing organization, including benefit plans provided by self-insured plan sponsors.

2.9 Insurer—An entity that accepts the risk of financial losses or, for a specified time period, guarantees stated benefits upon the occurrence of specific contingent events, in exchange for a monetary consideration.

2.10 Investment Rate-of-Return Risk—The risk that investment rates of return will differ from expectations or assumptions, causing a change in the amount or timing of asset, policy, or other liability cash flows. This has been commonly referred to in actuarial literature as the *C-3 risk* or *asset/liability mismatch risk*.

2.11 Liability—Any commitment by, or requirement of, an insurer that can reduce revenue or generate disbursement cash flows.

2.12 Notional Asset Portfolio—A portfolio of assets, not owned by the insurer, which changes the risk characteristics of either the assets or the liabilities of the insurer.

2.13 Other Liability Cash Flows—Cash flows not specifically associated with asset or policy cash flows. Examples are corporate expenses, payables, surplus notes, shareholder dividends, or balance sheet items that result from litigation.

2.14 Policy Cash Flow Risk—The risk that the amount or timing of cash flows under a policy or contract will differ from expectations or assumptions for reasons other than a change in investment rates of return or a change in asset cash flows. This has been commonly referred to in actuarial literature as the *C-2 risk*.

2.15 Policy Cash Flows—All premiums and other amounts paid by policyholders or contract holders to the insurer and all benefits, expenses, and other amounts paid to policyholders or others as required by policy or law.

2.16 Scenario—A set of economic and other assumptions used in performing cash flow analysis.

Section 3. Analysis of Issues and Recommended Practices

3.1 Analysis of Insurer Cash Flows—The actuary may perform the analysis of part or all of an insurer's asset (including off-balance sheet asset), policy, or other liability cash flows.

3.2 Determining the Level of Analysis of Cash Flows—In deciding the level of analysis of insurer cash flows, if any, appropriate for the circumstances, the actuary should consider the type of asset, policy, or other liability cash flows and the severity of risks associated with those cash flows. As part of that consideration, the actuary should consider those risks and options embedded in the asset, policy, or other liability cash flows that the actuary judges to be material. In addition, the actuary should consider the risks that are being undertaken and determine what types of deviations from expected experience should be taken into account, if any, given the purpose of the analysis.

3.2.1 Reasons for Cash Flow Testing—The actuary should consider cash flow testing when variations in the underlying risks are likely to have a material impact on the expected
cash flows in certain products, certain lines of business, or on the company. Situations that might indicate a need for cash flow testing include the following:

a. where there are material asset risks (for example, below investment grade bonds, assets with payment timing risks such as CMOs or mortgage-backed securities, mortgages concentrated in certain regions of the country, and large illiquid assets such as real estate);

b. where there are liabilities that have cash flows far out into the future (for example, structured settlement annuities with a significant reinvestment rate-of-return risk);

c. where a company has a new or rapidly growing line of business; and

d. where options have been granted to policyholders or borrowers and the likelihood of antiselection in the exercise of these options is significant (for example, an annuity contract holder's option to surrender the annuity for cash at book value).

3.2.2 Cash Flow Testing is Not Always Necessary—Insurers are subject to different types and degrees of risk. The actuary may decide that the type or degree of risk does not warrant cash flow testing. Following are examples of situations where other types of analyses might be sufficient.

a. If the risks to be analyzed are products with short-term liabilities (for example, the vast majority of cash flows occurring within a few years)

supported by short-term assets, these risks may be more appropriately analyzed through other means. The risks may involve a small number of large individual claims over a short-term period and may be better addressed using risk theory techniques.

b. If, in the actuary's judgment, a block of business, taken together with its policy term and the associated investment strategy, is relatively insensitive to influences such as changes in economic conditions or interest-rate scenarios, the actuary may determine that cash flow testing is not necessary to support the opinion, report, or recommendation, and other methods may be sufficient.

c. If the risk being evaluated is unanticipated sources of significant claims (examples in the past include AIDS and asbestos), these risks may be analyzed with methods other than cash flow testing.

3.2.3 Use of Analyses or Data Predating the Analysis Date—If appropriate, the actuary may use analyses performed prior to the valuation date, an analysis performed at the time of policy issue, modeling based on data taken from a time that predates the analysis date, or other methods.

The actuary should document the reasonableness of such prior period data, studies, analyses, or methods, that key assumptions are still appropriate, and that no material events have occurred prior to the valuation date that would invalidate the analysis on which the actuary's opinion is based.

3.3 Identification of Assets—The actuary should identify which assets are included in the cash flow analysis.

3.3.1 Choice of Asset Subsets to Use—The same assets should not be improperly used to support different blocks of policy cash flows.

3.3.2 Notional Asset Portfolios—If the liability of the insurer is based on the performance of a notional asset portfolio, such as in the case of synthetic guaranteed investment contracts, the actuary should include the notional asset portfolio creating this liability in this analysis.

3.3.3 Other Assets—The actuary should consider whether policy loans, deferred premiums, and other policy-related assets should be included in the cash flow analysis.

3.4 Projection of Asset Cash Flows—In projecting an insurer's asset cash flows for a given scenario, the actuary should consider the assets of the insurer and the insurer's investment strategy.

3.4.1 Asset Characteristics—The characteristics of an asset affect the timing and amounts of its cash flows. The cash flows of some assets are relatively immune to external factors and can be predicted on the basis of asset structure alone (for example, high-quality noncallable bonds). The cash flows of other assets (for example, callable bonds, mortgage-backed securities, common stocks, derivative contracts, or premium receivables) are more sensitive to external events, and their analysis should be based on a combination of their structure and external factors. The actuary should consider the following issues in making cash flow projections:

a. the sensitivity to economic factors, such as interest rates, equity, or other market returns, and inflation rates on the insurer's asset cash flows;

b. any limitations on the ability to use asset cash flows to support policy or other liability cash flows, such as when a block of assets is specifically held in support of a particular block of business by contract or regulation;

c. the impact on cash flow associated with asset quality as it relates to the risk of a delay in asset cash flows being collected, asset default, or other financial nonperformance;

d. the associated costs of maintaining the assets or of converting the assets into cash when necessary;

e. the historical experience of similar assets, to the extent such experience is credible and relevant to the projection of future asset cash flows; and

f. other known factors that are likely to have a material effect on asset cash flows, particularly those factors that are likely to have an effect on asset risk or investment rate-of-return risk.

3.4.2 Investment Strategy—The actuary should consider the following in performing the cash flow analysis:

a. the insurer's strategy regarding the sale of assets prior to maturity;

b. asset segmentation in support of the insurer's policy cash flows;

c. the insurer's strategy regarding the sale of assets with a declining market value;

d. the insurer's strategy for the investment of future positive or negative cash flows;

e. to the extent the insurer's investment strategy contemplates borrowing to cover negative cash flows, whether the funds borrowed pursuant to the strategy are reasonable in relation to the insurer's existing indebtedness, borrowing capacity, and cost of borrowing funds;

f. the insurer's use of derivative contracts, including strategies to mitigate asset, policy, or other liability cash flow risk;

g. to the extent the insurer's investment strategy contemplates capital contributions from a parent or other source, whether the capital contributions can be sustained and are appropriate for the type of analysis;

h. the costs or gains due to asset, policy, or other liability cash flows denominated in foreign currencies; and

i. any other known factors that are likely to have a material effect on investment strategy or the insurer's ability to execute its investment strategy.

3.5 Projection of Policy Cash Flows—In projecting an insurer's expected policy cash flows, the actuary should consider the policy's cash flow characteristics as well as the insurer's policies concerning the management of its policy cash flows.

3.5.1 Policy Cash Flow Characteristics—The characteristics of a policy affect the timing and amounts of its cash flows. The actuary should consider the following factors in projecting policy cash flows:

a. the risk of insolvency or other nonperformance by providers of services, including reinsurers and other counter-parties;

b. the associated costs of maintaining, collecting, or paying out the policy cash flows;

c. the historical experience of similar policy cash flows, to the extent such experience is credible and relevant to the projection of future cash flows;

d. the effect of external factors such as interest rates, equity or other market returns, unemployment rates, and inflation rates on the insurer's policy cash flows;

e. the ability of the policyholder or other party to exercise options under the policy that have an effect on policy cash flows (for example, put options

subject to a predefined event occurring, or allowing the transfer of funds between contracts or funding vehicles);

f. the effect of changes in premium (for example, rate increases) or changes in other policy charges (for example, cost of insurance charges in universal life contracts); and

g. other known factors that are likely to have a material effect on policy cash flows, including off-balance sheet items.

3.5.2 Management Policy—The actuary should consider management policy concerning the settlement or payment of liabilities, and the effect that this management policy may be reasonably expected to have on the projection of policy cash flows. Considerations that might affect the projection include claim settlement and benefit payment practices, expense-control strategies, company philosophy relative to the determination of policyholder dividends, and charges or benefits that vary at the discretion of the company, as well as significant relationships between management policy and the scenarios analyzed.

3.6 Other Liability Cash Flows—The actuary should consider whether other liability cash flows should be included in the analysis being conducted.

3.7 Materiality—The actuary may determine that certain asset, policy, or other liability cash flows will not be analyzed if these asset, policy, or other liability cash flows may be reasonably expected not to have a material impact on the overall results. The analysis need not be refined if, in the judgment of the actuary, further refinement would not result in a materially different actuarial opinion, report, or recommendation.

3.8 Reinsurance—The actuary should consider whether reinsurance receivables will be collectible when due, and any terms, conditions, or other aspects that may be reasonably expected to have a material impact on the cash flow analysis.

3.9 Separate Accounts—The actuary should consider the effect of separate account asset, policy, or other liability cash flows on the general account. For example, the actuary should consider general account guarantees, recoverability of unamortized expense allowances, and allowable transfers between the separate account and the general account.

3.10 Modeling and Data—The actuary should select an appropriate model for the analysis being performed. When the asset, policy, or other liability cash flows being analyzed are represented by sample or hypothetical data, the cash flows used for modeling should be representative of the block of asset, policy, or other liability cash flows being analyzed and should be consistent with the intended purpose and use of the analysis.

3.10.1 Scenarios—The scenario is a key element in the analysis of cash flows. Depending on the purpose of the analysis, more than one scenario may be used. Scenarios may be generated by either deterministic or stochastic methods.

a. Range of Scenarios Consistent with Purpose of Analysis—The scenario(s) to be analyzed may be specified by the client or employer, by applicable law, or by the actuary. The actuary should determine whether the scenarios analyzed reflect a range of conditions consistent with the purpose of the analysis of cash flows. If not, the actuary should disclose any material inconsistency in any actuarial report prepared pursuant to section 4.2, or in any other communication of the actuary's findings.

b. Number of Scenarios—Consistent with the purpose of the analysis, the actuary should consider a sufficient number of scenarios to reasonably represent the underlying variability of the asset, policy, or other liability cash flows.

3.10.2 Sensitivity Testing—The actuary should consider and appropriately address the sensitivity of the model to the effect of variations in key assumptions. For example, the further into the future that asset and policy cash flows are projected, the more potential there is for variability in the future cash flows. In determining whether sensitivity has been appropriately addressed, the actuary should consider the intended purpose and use of the analysis and whether the results reflect a reasonable range of variation in the key assumptions, consistent with that intended purpose and use.

3.10.3 Internal Consistency—The actuary should determine the following:

a. whether actuarial assumptions within each of the interest rate and other scenarios being analyzed are consistent where appropriate; and

b. that the actuarial assumptions, methods, or models used for different segments of business are materially consistent, and that any significant interdependencies are modeled appropriately.

If not, the actuary should disclose any material inconsistency in any actuarial report prepared pursuant to section 4.2 or in any other communication of the actuary's findings.

3.10.4 External Requirements—The actuary should consider how applicable law, and other external requirements relating to such things as financial statements and operating ratios, federal income taxes, insurer capitalization, and distribution of an insurer's earnings to policyholders or shareholders are likely to affect future cash flows or

constrain the range of possible scenarios. These factors should be appropriately reflected in the analysis.

3.10.5 Projection Period—The time period over which cash flows are projected should be consistent with the purpose of the analysis. Different blocks of business may require different projection periods. If the objective is to analyze cash flows over the entire life of the block of business, then the actuary should choose a time period over which the underlying asset, policy, or other liability cash flows are material. If the objective is to analyze cash flows over a period shorter than the entire life of the block of business, then the actuary should disclose the existence of possible material cash flows beyond such a time period in analyzing results.

3.10.6 Limitations of Models, Assumptions, and Data—Cash flow estimates can vary considerably as a result of the model used, the assumptions selected, and the data. When results are highly volatile, additional analysis may be appropriate.

3.11 Negative Interim Earnings—The actuary should consider the impact of any negative interim earnings during the cash flow projection period, if it is appropriate for the purpose of the analysis.

Section 4. Communications and Disclosures

4.1 Reliance on Others for Data, Projections, and Supporting Analysis—The actuary may rely on data, projections, and supporting analysis supplied by others. In doing so, the actuary should disclose both the fact and the extent of such reliance. Such disclosure may follow the forms prescribed in the applicable NAIC model laws and regulations. The accuracy and comprehensiveness of data, projections, or supporting analysis supplied by others are the responsibility of those who supply the data, projections, or supporting analysis. When practicable, the actuary should review the data, projections, and supporting analysis for reasonableness and consistency, and disclose such a review. For further guidance, the actuary is directed to ASOP No. 23, *Data Quality*.

4.2 Actuarial Report—If appropriate, given the purpose for which the cash flow analysis was performed, the actuary should issue a written actuarial report as a means of documenting the data, assumptions, techniques, and conclusions reached.

4.3 Documentation—The degree of documentation of the actuary's cash flow analysis will vary with the complexity and purpose of the analysis. The documentation should be more complete for more significant assignments such as regulatory cash flow testing than for other assignments such as periodic income projections.

The actuary should document the following, as appropriate, for the cash flow analysis being conducted:

a. whether any analyses performed prior to the valuation date were used, and, if so, the reasonableness of the prior period data, studies, analyses, or methods;

b. the purpose of the analysis and the risks analyzed;

c. the type of analysis performed (i.e., whether cash flow testing or some other method of analysis) for each block of business analyzed;

d. the results of the analysis;

e. the actuary's conclusions or recommendations, if any;

f. any conclusions or recommendations related to sensitivity testing; and

g. the data, assumptions, and methods used with sufficient clarity that another actuary qualified in the same practice area could evaluate the reasonableness of the actuary's work. The actuary should consider whether the documentation should contain the following:

    1. the asset characteristics;

    2. any limitations on the ability to use asset cash flows to support policy and other liability cash flows;

    3. the insurer's investment strategy;

    4. how the policy cash flow characteristics are reflected in the analysis, including the insurer's policies concerning the management of its policy cash flows;

    5. any cash flows not attributable to specific asset, policy, or other liability cash flows;

    6. whether any off-balance sheet items were included in the analysis;

    7. relevant cash flows within the scope of the analysis that were specifically excluded from the cash flow analysis due to immateriality;

    8 the characteristics of any reinsurance agreements, and how these were reflected in the analysis;

9. the effect of separate account asset, policy, or other liability cash flows on the general account, such as general account guarantees;

10. the model used, including the sources of data and key assumptions;

11. the scenarios used, and the rationale supporting the methodology used to choose and develop the scenarios;

12. how any external factors were included in the analysis;

13. the time period over which cash flows are projected;

14. the existence of negative interim earnings and its effect on the analysis;

15. whether the actuary relied on asset cash flow projections or other analyses of assets supplied by others, and the extent of such reliance; and

16. any other data, assumptions, or other methods that are known to materially impact the analysis.

4.4 Retention—The actuary, to the extent practicable, should take reasonable steps to ensure that the documentation will be retained for a reasonable period of time (and no less than the length of time necessary to comply with any statutory, regulatory, or other requirements). The actuary need not retain the documentation personally; for example, it may be retained by the actuary's employer.

4.5 Disclosures—The actuary should include the following, as applicable, in an actuarial communication:

a. the disclosure in ASOP No. 41, *Actuarial Communications*, section 4.2, if any material assumption or method was prescribed by applicable law (statutes, regulations, and other legally binding authority);

b. the disclosure in ASOP No. 41, section 4.3, 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, section 4.4, if, in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this ASOP.

Appendix 1

Background and Current Practices

Note: This appendix is provided for informational purposes, but is not part of the standard of practice.

Background

Actuaries have been performing financial projections for many years. Various cash flow elements have often been an integral part of these projections. The large increase in the level and volatility of investment rates of return since the 1970s caused significant swings in asset, policy, or other liability cash flows and present values. The sophistication of insurance products has increased during this time. In addition, fluctuating operating results have led to increased attention to improving the measurement of the financial security of insurers. As a result of these changes, cash flow analysis has become an increasingly important aspect of actuarial work.

Current Practices

Common approaches to cash flow analysis typically follow these steps:

1. identify which asset, policy, or other liability cash flows are to be included in the cash flow analysis;

2. select and validate models for asset, policy, or other liability cash flows;

3. select an appropriate scenario or set of scenarios, either deterministic or stochastic;

4. project the selected asset, policy, or other liability cash flows under each selected scenario; and

5. develop conclusions based on analysis of the cash flow projections.

There are variations on this process. For example, if cash flow analysis is used to analyze the effects of changes in investment strategy, specific assets may not be identified in the initial step of the process. It may be sufficient instead to analyze variations in asset portfolio characteristics such as yield and duration.

Cash flow analysis can be used in a variety of ways, such as analyzing the performance of a particular asset or product under certain specified scenarios or evaluating the solvency of the entire company. A common current use of cash flow analysis is to meet the requirements of the

NAIC's *Actuarial Opinion and Memorandum Regulation* (*AOMR*), including any variations to this regulation passed by a state in adopting the model.

Appendix 2

Comments on the Exposure Draft and Task Force Responses

The exposure draft of this revised actuarial standard of practice was issued in September 2000 with a comment deadline of March 31, 2001. (Copies of the exposure draft are available from the ASB office.) Twenty-one comment letters were received. The Cash Flow Testing Task Force of the Life Committee of the ASB carefully considered all comments received. Summarized below are the significant issues and questions contained in the comment letters and the task force's responses.

SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.2, Scope	
Comment	A number of commentators asked for clarification whether the analysis can be for part of an insurer's asset, policy, or other liability cash flows. One commentator did not want the standard to allow testing of only assets or liabilities.
Response	The revised ASOP No. 7 allows testing of asset, policy, or other liability cash flows individually or only in part, as appropriate. The task force added wording in section 1.2 to clarify the point.
Comment	A few commentators believed that section 1.2 should specifically mention items that are relevant in today's practice, namely determination of capital adequacy (such as the C-3 RBC tests that were required for some companies for the first time in 2000) and determination of fair value.
Response	The task force agreed that capital adequacy is relevant for today's practice, but believed that fair value is not defined well enough, so the task force added only capital adequacy to the list of items.
Comment	A few commentators asked whether ASOP No. 7 was appropriate for property/casualty insurance and health benefit plans.
Response	The task force notes that a joint property/casualty and life task force originally developed ASOP No. 7, which continues to be appropriate for certain property/casualty work and for health benefit plans.
Comment	One commentator questioned the relevance of ASOP No. 7 for non-U.S. work.
Response	Annotation 3-1 of the Code of Professional Conduct requires the actuary to observe applicable standards of practice promulgated by a recognized actuarial organization for the jurisdiction in which the actuary renders actuarial services. ASOPs promulgated by the Actuarial Standards Board apply to actuarial services rendered in the United States. Actuarial services rendered in a non-U.S. jurisdiction would be subject to actuarial standards of practice promulgated by such jurisdiction's recognized actuarial organization, if any. Therefore, the task force made no change as a result of this comment.
SECTION 2. DEFINITIONS	
Section 2.2, Asset, and 2.11, Liability	
Comment	Many commentators offered suggestions for changing these definitions.
Response	The task force believes the definitions are appropriate. The definitions are consistent with those found in other standards, where practical. The definitions in ASOP No. 7 are for just this standard and are appropriate for this standard.

Section 2.5, Cash Flow Analysis, and 2.6, Cash Flow Testing	
Comment	One commentator did not like the distinctions made between "cash flow analysis" and "cash flow testing."
Response	The task force believes the definitions are appropriate, since ASOP No. 7 is now designed to make a hierarchy of types of analysis, with "cash flow analysis" being the most general term, and "cash flow testing" being one type of cash flow analysis.
Section 2.12, Notional Asset Portfolio	
Comment	A number of commentators suggested changes to this definition.
Response	The task force revised the definition in response.
Section 2.13, Other Liability Cash Flows	
Comment	One commentator noted that the term "other liability cash flows" was used, but not defined, in the exposure draft of ASOP No. 22. A commentator on ASOP No. 22 thought that the definition should include surplus notes.
Response	The task force agreed and added a definition of "other liability cash flows," which includes a reference to surplus notes, to both ASOP No. 7 and No. 22.
Section 2.15, Policy Cash Flows (previously section 2.14)	
Comment	One commentator noted that the definition did not treat premium taxes properly, as premium taxes are not paid on behalf of policyholders, but rather are paid as required by law.
Response	The task force agreed with this comment and changed the definition accordingly.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.2.1, Reasons for Cash Flow Testing, and 3.2.2, Cash Flow Testing is Not Always Necessary	
Comment	A few commentators questioned the use of the phrases "long duration" and "short-term," and noted that these can have meaning in a GAAP context.
Response	The task force agreed that the use of those phrases could cause confusion in that regard and changed the wording.
Section 3.2.2, Cash Flow Testing is Not Always Necessary	
Comment	One commentator asked that the phrase "policy term" be included as part of what the actuary should consider as to whether a block is relatively insensitive to changes in economic conditions.
Response	The task force agreed and added words to accomplish this.
Section 3.2.3, Use of Analyses or Data Predating the Analysis Date	
Comment	One commentator believed that the actuary should consider future material events in the analysis.
Response	The task force disagreed, believing such a thing is beyond the scope of cash flow analysis.
Section 3.5.1, Policy Cash Flow Characteristics	
Comment	One commentator asked that the issue of changes in the premium scales be included explicitly.
Response	The task force added section 3.5.1(f), which specifically identifies changes in premiums and other charges as items for the actuary to consider.
Section 3.7, Materiality	
Comment	A few commentators wanted further guidance on materiality. Several asked that materiality be mentioned in specific sections.
Response	The task force believes that more detailed guidance on materiality is beyond the scope of this standard. The task force notes that the guidance in section 3.7 is applicable to the entire standard, so it did not add specific mentions in other sections.

Section 3.8, Reinsurance	
Comment	One commentator asked whether section 3.8 differed from section 3.5.1(a).
Response	Section 3.5.1(a) specifically deals with policy cash flows, while section 3.8 is broader than that. The task force made no changes to either section.
Section 3.9, Separate Accounts	
Comment	A few commentators wanted more detailed guidance on treatment of flows between the general account and the separate account.
Response	The task force believes that the level of guidance in this section is appropriate. However, the task force agreed with a comment that the actuary should consider whether certain cash flows between the general and separate accounts were allowable, and changed the wording accordingly.
Section 3.10.1, Scenarios	
Comment	A number of commentators questioned the use of the word "often" in the sentence, "Often, more than one scenario will be analyzed."
Response	The task force removed the word "often" and substituted the words "depending on the purpose of the analysis."
Comment	Regarding 3.10.1(b), Number of Scenarios, one commentator wanted more detailed guidance on the number of scenarios. Another commentator wanted words that put less emphasis on the investment rate of return being the key item of interaction with asset, policy, or other liability cash flows.
Response	The task force believes that the level of guidance on the number of scenarios is appropriate. The task force did change this section to put less emphasis, when choosing the number of scenarios, on whether asset, policy, or other liability cash flows vary with investment rates of return.
Section 3.10.2, Sensitivity Testing	
Comment	A few commentators noted the issue of cash flows being more uncertain the further into the future a projection is done.
Response	The task force agreed and added words to section 3.10.2, noting more potential for variability the further into the future the cash flows are projected.
Section 3.11, Negative Interim Earnings	
Comment	One commentator mentioned that negative interim earnings were an accounting issue and that, therefore, this section should be eliminated.
Response	The task force disagreed. This section emphasizes the point that, if appropriate for the purposes of the analysis (for example, an asset adequacy test), the actuary should consider whether negative earnings in some years (the typical concern being the early projection years) affect whether future positive earnings in other (typically, later projection) years can be realized; i.e., the block tested may require the infusion of additional funds before the positive earnings years start. The task force agreed that in some types of analyses (for example, pricing and analyzing a new block of business where the company has significant surplus) the consideration of negative earnings may not be appropriate.

SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.1, Reliance on Others for Data, Projections, and Supporting Analysis	
Comment	One commentator noted that wherever the term "data" was mentioned in terms of an actuary reviewing and using the work of others, it was more appropriate to use the more comprehensive terminology "data, projections, or supporting analysis."
Response	The task force agreed and made the recommended change.
Section 4.3, Documentation	
Comment	Some commentators believed that section 4.3 should be more general and not contain a list of items needing documenting, while others liked the guidance a list gave.
Response	The task force agreed to keep the list, but shortened the descriptions of some of the items.
Comment	A few commentators noted that the amount of disclosure should vary based on the complexity of the project.
Response	The task force agreed and added wording to note this.
Comment	One commentator noted that a disclosure item should be added for analyses performed prior to the valuation date.
Response	The task force agreed and added what is now section 4.3(g).
Comment	One commentator noted that section 4.3(g)(15) (previously section 4.3(u)) on documentation of negative interim earnings should be modified to note that this should be done only if appropriate for the analysis.
Response	The task force believes this issue is covered by other wording in section 4.3, which notes that documentation should be appropriate for the analysis being done.
Section 4.4, Retention	
Comment	One commentator noted that there should be a section on document retention.
Response	The task force agreed and added a new section 4.4, Retention.

Appendix 3

Comments on the Revised Standard as Adopted in September 2001 and ASB Responses

As appendix 2 indicates, the exposure draft of this revised actuarial standard of practice was issued in September 2000 with a comment deadline of March 31, 2001. The Cash Flow Testing Task Force of the Life Operating Committee of the ASB, after carefully considering all comments received, presented a proposed final revised standard to the ASB for adoption. At its September 2001 meeting, the ASB adopted the revised standard (with minor edits) with an effective date of April 15, 2002.

In March of 2002, representatives of the Casualty Practice Council of the American Academy of Actuaries identified concerns regarding the application of the revised standard to property and casualty practice. Specifically, they expressed concern that the scope of the revised standard went beyond generally accepted actuarial practice in the property and casualty area and, arguably, called for casualty actuaries to consider cash flow testing in settings where they typically would not do so and where, in their view, cash flow testing would not be needed.

In light of these concerns, the Casualty Practice Council formally requested that the ASB defer the effective date of the revised standard to July 15, 2002, in order to provide the Council with an opportunity to present its concerns and offer one or more suggested remedies. The ASB carefully considered the Casualty Practice Council's request and agreed to defer the effective date of the revised standard to July 15, 2002.

Representatives of the Casualty Practice Council attended the ASB's June 2002 meeting and presented the Council's concerns. The chairperson of the Life Operating Committee of the ASB was also present. After considerable discussion and consideration, the ASB agreed that it would be appropriate to do the following:

1. amend the scope of the revised standard to conform more closely to current, generally accepted practice among property and casualty actuaries;

2. proceed with such amended scope without re-exposure to the membership since the scope and content of the revised standard (as adopted at the September 2001 meeting) with respect to life and health practice remained unaltered; and

3. inform the membership and all interested parties of these developments and the effective date of July 15, 2002.

The Casualty Practice Council representatives also opined that section 3.2, Determining the Level of Analysis of Cash Flows, in requiring the actuary to consider "all material risks and

options embedded in the asset, policy or other liability cash flows," was unclear as to what is or is not "material." The ASB agreed a clarification was appropriate for all practice areas, and modified the section to require the actuary to consider only those risks and options that the actuary believes to be material.

ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 8

Regulatory Filings for Health Benefits, Accident and Health Insurance, and Entities Providing Health Benefits

Revised Edition

Developed by the
Task Force on Regulatory Filings of the
Health Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
March 2014

Doc. No. 176

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March 2014

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Regulatory Filings for Health Benefits, Accident and Health Insurance, and Entities Providing Health Benefits

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 8

This document is a final version of a revision of ASOP No. 8, now titled *Regulatory Filings for Health Benefits, Accident and Health Insurance, and Entities Providing Health Benefits*.

Background

The new federal Affordable Care Act (ACA), current publicity concerning health insurance premium rate increases, and state activity in the rate increase review sponsored by federal grants have resulted in very high visibility on this actuarial activity. Due to the significant number of changes in the rate filing and rate review process due to the ACA, the American Academy of Actuaries' Health Practice Council requested that the ASB revise ASOP No. 8, *Regulatory Filings for Health Plan Entities*. The ASB reviewed the request and agreed that the current ASOP No. 8 should be expanded to provide additional guidance. The ASB authorized a task force of the Health Committee to draft a revised version of this standard. To gather input on the direction of the scope, a discussion draft was released in January 2013 before an exposure draft of the revision was issued in June 2013.

This revision to ASOP No. 8 provides guidance to actuaries who prepare or review regulatory filings under state and federal requirements for filing health insurance premium rate increases. It also provides further guidance to actuaries reviewing regulatory filings. Furthermore, ASOP No. 8 was revised to add guidance on the preparation and review of health insurance rate filings for medical lines of business that are required by state or federal regulations.

Many health regulatory filings under ACA will become due summer 2014. Although the effective date for this standard is September 1, 2014, as noted in ASOP No. 1, *Introductory Actuarial Standard of Practice*, section 3.1.7, this standard is now a part of the actuarial literature and may provide useful information to actuaries preparing filings prior to its effective date.

Exposure Draft

The exposure draft of this revised ASOP was issued in June 2013 with a comment deadline of October 15, 2013. The task force carefully considered the six comment letters received and made changes to the language in several sections in response. For a summary of the substantive issues

contained in the exposure draft comment letters and the task force's responses, please see appendix 2.

The most significant change from the exposure draft was the deletion of section 3.8, Recognition of Plan Provisions, as it was duplicative of other guidance in the ASOP. Additional changes were made to clarify language throughout the ASOP. The ASB voted in March 2014 to adopt this standard.

Task Force on Regulatory Filings

Donna Novak, Chairperson

Karen Bender
Raymond Brouillette
John C. Caruso
April Choi
Richard H. Diamond
Julia M. Lyng
Craig A. Magnuson
Brett Steven Miller
Katherine Musler
Michael E. Nordstrom
James O'Conner
Julia T. Philips
Jay C. Ripps
David A. Shea, Jr.
R. Neil Vance

Health Committee of the ASB

Nancy F. Nelson, Chairperson

David Axene
Robert G. Cosway
Shannon Keller
John Lloyd
Cynthia Miller
Donna Novak
Ross A. Winkelman

Actuarial Standards Board

Patricia E. Matson, Chairperson

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Maryellen J. Coggins
Beth E. Fitzgerald
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James J. Murphy
James F. Verlautz

The ASB establishes and improves standards of actuarial practice. These ASOPs identify what the actuary should consider, document, and disclose when performing an actuarial assignment. The ASB's goal is to set standards for appropriate practice for the U.S.

ACTUARIAL STANDARD OF PRACTICE NO. 8

REGULATORY FILINGS FOR HEALTH PLAN BENEFITS, ACCIDENT AND HEALTH INSURANCE, AND ENTITIES PROVIDING HEALTH BENEFITS

STANDARD OF PRACTICE

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

1.1 Purpose—This actuarial standard of practice (ASOP) provides guidance to actuaries when performing professional services with respect to preparing or reviewing required regulatory filings related to rates or **financial projection**s for health plan benefits, health insurance, and entities providing health benefits.

1.2 Scope—This standard applies to actuaries when performing professional services with respect to preparing or reviewing **health filings**, as defined in section 2.5, required by and made to state insurance departments, state health departments, the federal government (including those required by the Affordable Care Act), and other regulatory bodies. This includes reviewing actuaries when called upon to testify or review filings on behalf of consumers. Where specified, the guidance in this standard applies only to **filing actuaries**. Where not specified, the guidance applies to both **filing actuaries** and **reviewing actuaries**, as defined in section 2.

Health filings require projection of future contingent events and can be categorized into two broad categories: rate or benefit filings and **financial projection** filings. Some of these filings are made on behalf of health plan entities, such as filings made in conjunction with applications for licensure. Other filings are required for **health benefit plans** provided by health plan entities, such as filings for approval of rates. Such filings may be required for new and existing health plan entities, for new health benefit plans, and for revisions to existing **health benefit plans**.

The filings covered by this standard do not include filings to certify compliance with rating methods and other actuarial practices applicable to carriers for small employer **health benefit plans** (see ASOP No. 26, *Compliance with Statutory and Regulatory Requirements for the Actuarial Certification of Small Employer Health Benefit Plans*); statements of actuarial opinion relating to statutory financial statements of health plan entities (see ASOP No. 22, *Statements of Opinion Based on Asset Adequacy Analysis by Actuaries for Life and Health Insurers*, and ASOP No. 28, *Compliance with Statutory Statement of Actuarial Opinion Requirements for Hospital, Medical, and Dental Service or Indemnity Corporations, and for Health Maintenance Organizations*); **financial projection**s subject to ASOP No. 6, *Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*; filings related to benefits provided by casualty insurance policies; and

filings that are solely experience reports and do not require projection of future contingent events.

If the actuary departs from the guidance set forth in this standard in order to comply with applicable law (statutes, regulations, and other legally binding authority), 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 consider the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard will be effective for any actuarial work product covered by this standard's scope issued on or after September 1, 2014.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice.

2.1 Discount Rate—The rate used to discount projected cash flow to determine their present value.

2.2 Filing Actuary—An actuary who prepares, supervises the preparation of, or peer reviews a **health filing** on behalf of a **health plan entity**. This includes actuaries employed by the **health plan entity** and consulting actuaries. This does not include a "**reviewing actuary**," as defined in section 2.9.

2.3 Financial Projection—A projection of covered lives, premiums, claims, expenses, capital and surplus, or other financial quantities that may be required by applicable law.

2.4 Health Benefit Plan—A contract or other financial arrangement providing hospital, medical, prescription drug, dental, vision, disability income, accidental death and dismemberment, long-term care, or other health-related benefits, whether on a reimbursement, indemnity, service benefit, or other basis, irrespective of the type of **health plan entity** that provides the benefits.

2.5 Health Filing—A required regulatory filing for health benefits, accident and health insurance, and entities providing health benefits, which requires projection of future contingent events, for rates or benefits, or **financial projections**.

Rate or benefit filings include, but are not limited to, the following:

a. filings of manual rates, rating factors, or underwriting manuals;

b. filings of rating methodology, such as experience rating formulas and factors;

c. statements of actuarial soundness or rate adequacy, as may be defined by the regulatory body, for future rating periods;

d. certification of benefit values, such as actuarial value or actuarial equivalence, for example, as required by the Affordable Care Act; and

e. other filings of a similar nature as may be required by a regulatory body.

Financial projection filings include, but are not limited to, any filings in which the **financial projection**s are a stand-alone requirement, such as those for licensure requirements, or are a requirement of a broader filing, such as a rate filing or projections of future capital and surplus or other **regulatory benchmark** requirements.

2.6 Health Plan Entity—An insurance company, health maintenance organization, hospital or medical service organization, self-insured **health benefit plan** sponsor, governmental **health benefit plan** sponsor, or any other **health benefit plan** sponsor from which **health filings** are required.

2.7 Rate of Investment Return—Investment income earned on funds held over time, expressed as a percentage of those funds.

2.8 Regulatory Benchmark—A measurement that may be used by the regulatory authority in evaluating a **health filing**. Possible benchmarks may include loss ratios, capital ratios, or actuarial values.

2.9 Reviewing Actuary—An actuary who is responsible for reviewing a **health filing** on behalf of a government agency or consumers. This includes actuaries employed by the government agency and consulting actuaries engaged to review a **health filing** on behalf of the government agency or consumers.

2.10 Time Value of Money—The principle that an amount of money available at an earlier point in time has different usefulness and value than the same amount of money has at a later point in time.

Section 3. Analysis of Issues and Recommended Practices

3.1 Introduction—Many jurisdictions require **health filings** that demonstrate compliance with applicable law, which may vary considerably as to the requirements and procedures for these filings. In many cases, such law may be silent as to the assumptions and methodology to be used, thus giving the actuary discretion to exercise professional judgment in preparing and reviewing the filings.

3.2 Purpose of Filing—When preparing a filing, the **filing actuary** should include in the filing a statement of its purpose, identifying the applicable law with which it is intended to comply. For example, the **filing actuary** might state, "The purposes of this rate filing are to document the rates and to demonstrate that the anticipated loss ratio of this product with those rates meets the minimum requirements of Section XX of the statutes of [name of state]. This filing may not be appropriate for other purposes."

3.3 Applicable Law—When an actuary prepares or reviews a regulatory filing, the actuary should have knowledge and understanding of applicable law. If the actuary believes applicable law is silent or ambiguous on a relevant issue, the actuary should consider obtaining guidance from an appropriate expert. In this situation, the actuary should describe how the relevant issue was addressed when preparing or reviewing the filing.

3.4 Assumptions—The actuary should determine which assumptions are necessary for the filing and select appropriate assumptions. Assumptions the actuary should consider selecting include, but are not limited to, the following:

3.4.1 Premium Levels and Future Rate Changes—The actuary should consider current premium levels and expectations for future rate changes.

3.4.2 Projections of Covered Lives—The actuary should consider the impact of future changes in the underlying covered population on the projected claims. These changes may include, but are not limited to, changes in demographics, risk profile, or family composition.

3.4.3 Levels and Trends in Morbidity, Mortality, and Lapsation—The actuary should consider current levels of and historic trends in morbidity, mortality, and lapsation rates.

3.4.4 Non-Benefit Expenses, Including but Not Limited to Administrative Expenses, Commissions, Broker Fees, and Taxes—The actuary should use appropriate methods and assumptions for calculating the non-benefit expenses component of premium rates. Possible methods include, but are not limited to, the use of a target loss ratio or the estimation of expenses appropriately attributed to the health benefit on a percentage of premium or fixed-dollar basis. When estimating the latter amounts, the actuary should consider the **health plan entity's** own experience, reasonably anticipated internal or external future events, inflation, and business plans. The actuary may also consider relevant external studies. The actuary should consider the reasonableness of the non-benefit expense component of premium rates relative to projected expenses.

3.4.5 Investment Earnings and the Time Value of Money—The actuary should consider whether to reflect investment earnings and the **time value of money** in the calculations used in the filings. When applicable, the actuary should select assumptions for the **rate of investment return** and the **discount rate** that are

individually reasonable, mutually consistent, and reflective of the terms of the contract.

3.4.6 Health Cost Trends—The actuary should consider historical experience trends when estimating future trends. Projected trends may be based on insured or population data. When medical expense trends are projected, the actuary should consider detail by service category (for example, inpatient, outpatient, professional, and drug) or service setting (for example, nursing home, home care, or assisted living facility), separated by cost and utilization, if relevant, reasonably available, and credible.

The actuary should consider changes in benefit provisions and provider contracting when projecting future trends from historical trends, as the change in unit costs and utilization may differ from prior periods. The actuary should be aware that historical trends may not be the best predictor of future trends.

The actuary should consider whether an adjustment for leveraging is needed for products with fixed-dollar, member-cost sharing elements such as co-pays, deductibles, and out-of-pocket limits.

In analyzing trend, the actuary should make a reasonable effort to remove and separately analyze other factors that affect cost. Examples include, but are not limited to, demographic changes, plan mix changes, durational effects, and underwriting.

3.4.7 Expected Financial Results, such as Profit Margin/Surplus Contribution, Loss Ratio, or Surplus Level—The actuary should consider the appropriate methods and assumptions for calculating the profit margin/surplus contribution. Possible methods include, but are not limited to, the use of a target loss ratio or a target return on capital.

The actuary should consider the reasonableness of the profit margin/surplus contribution in relation to the degree of risk accepted by the plan sponsor.

3.4.8 Expected Impact of Known Contractual Arrangements with Health Care Providers and Administrators—A **health plan entity** may have many health care provider contracts with a wide variety of payment structures such as fee-for-service and capitation. When estimating the impact of health care provider contracts on future periods, the actuary should consider the appropriate level of detail needed to produce reasonable results.

3.4.9 Expected Impact of Reinsurance and Other Financial Arrangements—The actuary should consider how risk sharing, risk adjustment, reinsurance payments and other financial arrangements are reflected in the base period data, and how these amounts should be estimated and reflected in the projected premium rates, including their impact on financial results.

3.4.10 Provisions for Adverse Deviation—The actuary should consider whether the aggregate provisions for adverse deviation are sufficient to cover anticipated costs under moderately adverse experience.

3.5 Rating Calculations—The actuary should review and understand the formulas used to calculate premium rates and determine that, based on the available data and relevant assumptions, they are appropriate for the purpose of setting premium rates.

3.6 Use of Business Plans to Project Future Results—The **filing actuary** should request and, if available, review relevant business plans for the **health plan entity** or **health benefit plan** that is the subject of the filing. The **filing actuary** should consider the information therein along with any other information relevant to the business plan in setting the assumptions and methodologies used in the filing. The **filing actuary** is not required to use assumptions identical to those in the business plan in developing the rate filing.

3.7 Use of Past Experience to Project Future Results—The actuary should determine whether past claims experience can be used to project future results. The actuary should also determine the extent to which past experience trends are relevant to assumed future trends. The actuary should refer to ASOP No. 23, *Data Quality*, for guidance on data selection.

In making these determinations, the actuary should consider the applicability and credibility of the data. These considerations may differ for the total claims in a period, the claims for a particular service category, and the experience trends. To the extent that the **filing actuary** concludes that the experience data is not applicable or credible for a particular use, the **filing actuary** should identify additional sources that are appropriate (see ASOP No. 25, *Credibility Procedures*).

When using past experience to project future results, the actuary should make adjustments to reflect any known or expected changes that, in the actuary's professional judgment, are likely to have a material effect on expected future results. These may include, but are not limited to, changes in the following:

a. selection of risks;

b. demographic and risk characteristics of the insured population;

c. policy provisions, including but not limited to benefits, limits, and cost sharing;

d. business operations, including how health coverages are marketed, distributed, underwritten, and managed, and changes in the product portfolio;

e. provider contracts;

f. premium rates, claim payments, expenses, and taxes;

g. seasonality in incurred claims;

h. trends in mortality, morbidity, and lapse;

i. catastrophic claim variability;

j. administrative procedures, including claim payment practices;

k. federal or state regulations (for example, risk adjustment, reinsurance, risk corridors, underwriting requirements, and benefit mandates);

l. medical practice (for example, changes in medical technology and provider organization);

m. cost containment procedures or quality improvement initiatives; and

n. economic conditions.

The actuary should make adjustments to past experience, as appropriate, in a way that reasonably matches claim experience to exposure. For example, the actuary should not use ratios of paid claims to collected premiums to project future incurred loss ratios except with appropriate adjustments.

The **filing actuary** should update prior earned premium and incurred claim estimates to reflect premium and claim development experience to date when, in the actuary's professional judgment, the difference is material.

3.8 Rating Factors—For medical expense coverages, the actuary should be familiar with the rating factors used for the plans and the structure of those factors. The actuary should be familiar with the regulatory requirements for rating factors and structures.

Rating factors for medical expense coverages should be based on actuarially derived variations to the extent permitted by applicable law. In this regard, the actuary should refer to ASOP No. 12, *Risk Classification*, for guidance.

3.9 New Plans or Benefits—The actuary should consider available data relevant to new plans or benefits. In the absence of sufficient data, the actuary should use data from similar benefits or plans of coverage that are reasonably consistent with the new plans or benefits.

3.10 Projection of Future Capital and Surplus—As part of a **health filing**, the **filing actuary** may be called upon to project future capital and surplus for the entire **health plan entity** or a portion of it, such as a business unit. In doing so, the **filing actuary** should base the projection on reasonable assumptions that take into account any internal or external

future actions known to the **filing actuary** that, in the **filing actuary**'s professional judgment, are likely to have a material effect on capital or surplus.

3.11 Regulatory Benchmark—The actuary may be called upon to project results in relation to a **regulatory benchmark** for the entire **health plan entity** or a portion of it, such as a line of business. The actuary should base the projection on appropriate available information about the relevant book of business.

Regulatory benchmarks might include, but are not limited to, the following:

3.11.1 Rate Adequacy—Rates may be considered adequate if they provide for payment of claims, administrative expenses, taxes, and regulatory fees and have reasonable contingency or profit margins.

3.11.2 Rates Not Excessive—Rates may be considered excessive if they exceed the rate needed to provide for payment of claims, administrative expenses, taxes, regulatory fees, and reasonable contingency and profit margins.

3.11.3 Rates Not Unfairly Discriminatory—Rates may be considered unfairly discriminatory if the rates result in premium differences among insureds within similar risk categories that: (1) are not permissible under applicable law; or (2) in the absence of an applicable law, do not reasonably correspond to differences in expected costs.

3.11.4 Projected Loss Ratio—A projected loss ratio may be considered unreasonable if it does not meet or exceed a threshold under applicable law.

3.12 Reasonableness of Assumptions—The actuary should review the assumptions employed in the filing for reasonableness. The assumptions should be reasonable in the aggregate and for each assumption individually. The support for reasonableness should be determined based on the actuary's professional judgment, using relevant information available to the actuary. This information may include, but is not limited to, business plans; past experience of the **health plan entity** or the health benefit coverage; and any relevant industry, government, or academic studies that are generally known and reasonably available to the actuary. The actuary should make a reasonable effort to become familiar with such studies.

The **filing actuary** may rely upon others to provide assumptions for developing the regulatory filing. However, the **filing actuary** should review the assumptions for reasonableness. The **filing actuary** should use any such assumption only if the actuary believes it is reasonable, unless it is prescribed by applicable law. The **filing actuary** should disclose any such reliance in accordance with ASOP No. 41, *Actuarial Communications*.

3.13 Reliance on Data or Other Information Supplied by Others—When relying on data or other information supplied by others, the actuary should refer to ASOP No. 23, *Data*

Quality, for guidance. The **filing actuary** should disclose any such reliance in accordance with ASOP No. 41.

3.14 Documentation—The actuary should prepare and retain documentation in compliance with the requirements of ASOP No. 41. The actuary should also prepare and retain documentation to demonstrate compliance with the disclosure requirements of section 4.1.

Section 4. Communications and Disclosures

4.1 Communications and Disclosures—When issuing actuarial communications relating to **health filings** for health plan entities, the actuary should refer to ASOP Nos. 23 and 41. A **health filing** will usually require the completion of an actuarial report, as defined by ASOP No. 41. In addition, such actuarial communications should disclose the following:

a. the sources of information;

b. any material information supplied by others and the extent of the actuary's reliance on such information;

c. any unresolved concerns the actuary may have about the information that could have a material effect on the actuarial work product;

d. any material changes to rating methodology, plan provisions, sources or quality of experience data, or assumptions since a substantially similar previous filing, if any. This includes, but is not limited to, changes in covered services, cost sharing, rating factors, and non-benefit expenses;

e. limitations on the use of the actuarial work product;

f. the reasons that the **filing actuary** departed from the guidance set forth in this standard in order to comply with applicable law, or for any other reason the actuary deemed appropriate;

g. the definition of "actuarially sound," if that term is used to describe a process or result;

h. the actuary's understanding of pertinent sections of applicable law that are silent or ambiguous, as required by section 3.3;

i. any adjustments to past experience used to project future results, as discussed in section 3.7;

j. the disclosure in ASOP No. 41, section 4.2, if any material assumption or method was prescribed by applicable law (statutes, regulations, and other legally binding authority);

k. the disclosure in ASOP No. 41, section 4.3, 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

l. the disclosure in ASOP No. 41, section 4.4, if, in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this ASOP.

Appendix 1

Background and Current Practices

Note: This appendix is provided for informational purposes but is not part of the standard of practice.

Background

Many jurisdictions require the filing of actuarial memoranda or similar documents in connection with health plan entities or health insurance policy filings. An actuary may be involved in the preparation or review of these filings. The applicable laws differ as to their content, scope, and requirements. Many laws are silent as to procedures and assumptions to be employed, thus giving the actuary significant discretion to exercise professional judgment in these areas.

The recently enacted Affordable Care Act (ACA) added additional filing requirements for medical expense policies for the individual and small group markets. Beginning in 2011, rate filings for the individual and small group market must comply with new federal and state requirements resulting from the passage of the Affordable Care Act (ACA).

Current Practices

Current practices for some forms of health insurance, such as disability income and long term care are well established. However, the passage of the ACA changed the landscape for medical expense coverages.

A practice note related to ACA filings, *Actuarial Practices Relating to Preparing, Reviewing, and Commenting on Rate Filings Prepared in Accordance with the Affordable Care Act* (October 2012) (http://www.actuary.org/files/RRPN_100512_final.pdf) was published in October 2012 by the American Academy of Actuaries. A supplement to this practice note (http://www.actuary.org/files/RRPN_042613_updated_exposure_draft_final.pdf) was published as an exposure draft in April 2013. These documents provide information to actuaries providing rate filings subject to the Affordable Care Act. These documents provide information on current practice to actuaries preparing, reviewing, or commenting on rate filings in accordance with Section 2794 of the Public Health Service Act, as amended by the Affordable Care Act for the 2014 filings prepared in 2013. The addendum to the practice note addresses a revised Department of Health and Human Services (HHS) form filing called the uniform rate review template (URRT) and actuarial memorandum instructions. The originally published practice note discussed the preliminary justification form, which was replaced by the URRT and actuarial memorandum instructions by HHS.

HHS and the states will revise regulations and interpretations periodically. HHS has provided instructions for the preparation of actuarial memoranda and certifications as well as for the completion of the various required formats for submission of rate filings. These instructions should be reviewed and are located on the System for Electronic Rate and Form Filing (SERFF)

website of the National Association of Insurance Commissioners at the following link: http://www.serff.com/documents/plan_management_data_templates_help_partIII_actuarial_memo.pdf .

Other useful information can be found on the Centers for Medicare & Medicaid Services (CMS) website at the following link: http://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/index.html.

Presentations and other training material presented by CMS may also be found on the CMS website at the following link: http://www.cms.gov/CCIIO/Resources/Training-Resources/index.html.

Appendix 2

Comments on the Exposure Draft and Responses

The exposure draft of ASOP No. 8, *Regulatory Filings for Health Benefits, Health Insurance, and Entities Providing Health Benefits*, now titled *Regulatory Filings for Health Benefits, Accident and Health Insurance, and Entities Providing Health Benefits* was issued in June 2013 with a comment deadline of October 15, 2013. Six comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term "commentator" may refer to more than one person associated with a particular comment letter. The Task Force on Regulatory Filings and the Health Committee of the Actuarial Standards Board carefully considered all comments received, and the Health Committee and ASB reviewed (and modified, where appropriate) the changes proposed by the task force.

Summarized below are the significant issues and questions contained in the comment letters and the responses.

The term "reviewers" in appendix 2 includes the task force, Health Committee, and the ASB. Also, unless otherwise noted, the section numbers and titles used in appendix 2 refer to those in the exposure draft.

GENERAL COMMENTS	
Comment	One commentator was concerned that the proposed revised title for the ASOP may not clearly indicate that this ASOP is intended to apply to a broader definition of health benefits (for example, long-term care or disability insurance), and suggested revising the title to include reference to "accident" or "disability"—for example, *Regulatory Filings for Health Benefits, Accident and Health Insurance, and Entities Providing Health Benefits.*
Response	The reviewers agree and made the change.
Comment	One commentator noted that all references to "reviewing actuaries" are intended to reflect the perspective of the regulatory reviewing actuary only and not the peer-reviewing actuary. In order to clarify that different standards apply to regulatory actuaries as opposed to filing/peer reviewing actuaries, the commentator suggested the following changes to paragraphs 2 and 3 on page v: • Revisions to ASOP No. 8 will give guidance to actuaries that must prepare **or peer review** rate filings under more rigorous state and federal requirements for filing health insurance premium rate increases. It also provides further guidance to actuaries reviewing regulatory filings ~~either as peer reviewers or as regulatory actuaries~~. • ASOP No. 8 was revised to add guidance on the preparation and review of health insurance rate filings for medical lines of business that are required by state or federal regulations. The standard will apply to actuaries preparing **or peer reviewing** the rate filing, ~~peer reviewing the rate filing~~, and **to actuaries** reviewing the rate filing on behalf of state and federal regulators. In addition, the commentator noted that item 6 on page vi should reference section 3.12 rather than section 3.2.10.
Response	The reviewers removed the distinction of peer reviewers or regulatory actuaries in the first paragraph but retained the distinction of three roles in the second paragraph. The definition of "filing actuary" in

	section 2.2 of this final ASOP includes reference to peer review activity. In addition, the reviewers made sure the reference is correct.
SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE	
Section 1.2, Scope	
Comment	Several commentators noted that in section 1.2 the reference to health filings being defined in section 2.4 instead of 2.5 is incorrect.
Response	The reviewers agree and made sure the reference is correct.
Comment	One commentator suggested that in section 1.2, Scope, the ASB consider including within the scope of this ASOP actuaries who may be called upon to testify and/or review filings on behalf of consumers.
Response	The reviewers agree and added language to include those actuaries.
Comment	One commentator suggested that, in order to draw attention to the primacy of statute/regulation over standards of practice, the last paragraph of this section be revised to state: "This Standard applies to the extent it is not inconsistent with the regulatory requirements with which the filing is to comply. If the actuary departs from the guidance set forth in this standard in order to comply with applicable laws (statutes, regulations, and other legally binding authority), or for any other reason the actuary deems appropriate, the actuary should refer to section 4. It is noted that the final decision as to the approval or disapproval of a filing may not rest ultimately in the hands of the reviewing actuary."
Response	The reviewers note that the ASOP already contemplates the primacy of applicable law and, therefore, made no change.
Comment	One commentator suggested that the scope of the guidance in ASOP No. 8 should include filings made within the scope of ASOP No. 26, *Compliance with Statutory and Regulatory Requirements for the Actuarial Certification of Small Employer Health Benefit Plans.*
Response	The reviewers believe that the purpose of filings made within the scope of ASOP No. 26 is different than that of filings made within the scope of ASOP No. 8 and, therefore, retained the exclusion for filings subject to ASOP No. 26.
Comment	One commentator noted that, despite the last sentence in section 1.2, explicit disclosure of such a departure is not included in section 4 and, therefore, recommended adding the following to section 4.1: "k. in all instances where, and the reasons that, the filing actuary departed from the guidance set forth in this standard in order to comply with applicable law (statutes, regulations and other legally binding authority), or for any other reason the actuary deemed appropriate."
Response	The reviewers agree and made the change to section 4.1(f) of this final ASOP. The reviewers also refer the commentator to ASOP No. 41.
Comment	One commentator suggested that the sentence in section 1.1 that refers to "performing professional services with respect to preparing or reviewing required regulatory filings related to rates or financial projections" and the sentence in section 1.2 that states, "This standard is not meant to provide a complete set of recommended practices for the determination of health rates, financial projection entries, or other numerical information required to be included in health filings" are inconsistent.
Response	The reviewers agree and removed the language from section 1.2.
SECTION 2. DEFINITIONS	
Comment	One commentator stated it was not clear what would constitute a "peer review," and that adding a definition would be helpful.
Response	The reviewers believed that the term peer review is commonly used and made no change.

Comment	One commentator noted the difference between "rate of investment return" and "discount rate" is not clear and suggested that definitions be provided for both of these items.
Response	The reviewers agree and added definitions.
Section 2.1, Filing Actuary	
Comment	Several commentators noted that the reference to section 2.9 should be section 2.7.
Response	The reviewers checked the reference in the final version, and it is now correctly referred to as section 2.9.
Comment	One commentator noted that this section refers to work "on behalf of a health plan issuer" but that there is no definition of "health plan issuer." The commentator suggested this section refer to "health plan entity" to be consistent with the definition in section 2.5.
Response	The reviewers agree and made the change.
Comment	One commentator noted that it could be interpreted that this definition only applies to the actuary(ies) who are ultimately responsible for the filing and believed that it should apply to any actuary who worked in any way on the filing.
Response	The reviewers note that ASOP No. 1, *Introductory Actuarial Standard of Practice*, section 4.3 requires each individual actuary to be responsible for determining which ASOPs apply to the actuary's work. When the actuary is only responsible for part of the rate filing development or review, the actuary should follow the appropriate ASOPs that are applicable to the task at hand. Therefore, no change was made.
Section 2.2, Financial Projection	
Comment	One commentator noted an inconsistency in that sometimes instead of "applicable law" reference is made only to "law" (as is in section 3.9) and suggested "or regulation" be removed and a definition be added to explain "law."
Response	The reviewers agree and modified the language to remove "or regulation" as the scope has a parenthetical making it clear that the definition extends beyond "law."
Section 2.3, Health Benefit Plan	
Comment	One commentator noted that this section defines a health benefit plan to include a broad range of coverages, including vision, disability income, long-term care, etc., but most of the examples in the remaining sections seem to deal primarily with medical insurance. Therefore, the commentator felt that more non-medical examples should be included.
Response	The reviewers note that changes in the prior ASOP No. 8, which covered all lines of business, were reviewed and believe the revised ASOP No. 8 is still appropriate for the lines of business outlined in the scope, and made no change.
Comment	One commentator noted that the reference to "whether on a reimbursement, indemnity, or service benefit basis" should be expanded to "whether on a reimbursement, indemnity, service benefit or other basis" to reflect possibly that other mechanisms may be used, such as capitation or bundled payment systems.
Response	The reviewers agree and made the change.

Section 2.4, Health Filing	
Comment	One commentator felt that since some companies present substandard rating factors only in their underwriting manuals without referring to them elsewhere, that this section should be revised to read "a. filing of manual rates, rating factors, and underwriting manuals."
Response	The reviewers agree and made the change.
Comment	One commentator felt that an item should be added to the list of rate or benefit filings such as "determinations of the actuarial value or actuarial equivalence."
Response	The reviewers agree and made the change.
Section 2.5, Health Plan Entity	
Comment	One commentator questioned what is the definition of a "health benefit plan sponsor"?
Response	The reviewers note that this is a commonly used term that refers to the entity responsible for the health benefit plan and made no change.
Section 2.6, Regulatory Benchmark	
Comment	One commentator suggested it could be made clearer that the specific quantities referenced (loss ratio or capital ratio) are illustrative examples only and suggested the following rephrasing: "Regulatory Benchmark – A measurement which may be used by the regulatory authority in evaluating a health filing. Possible benchmarks include, but are not limited to, the loss ratio, a capital ratio, or actuarial value."
Response	The reviewers agree and modified the language.
Section 2.7, Reviewing Actuary	
Comment	Two commentators suggested changing the term "reviewing actuary" to "regulatory actuary" so that it is clear that the reviewing actuary is always the regulatory actuary.
Response	The reviewers believe that "regulatory actuary" is a subset of "reviewing actuary" and made no change.
Comment	One commentator felt that "reviewing actuary" should be defined as an actuary who is responsible for reviewing a health filing on behalf of the health plan issuer. The commentator said; "This would include actuaries employed by the health plan issuer and consulting actuaries, as there seems to be a trend of health plan issuers obtaining independent review of health filings by an actuary either employed by the health plan issuer or by a consulting actuary." The commentator believes this to be a different role than a peer review.
Response	The reviewers believe that the definitions of "filing actuary" and "reviewing actuary" are clear as written, and made no change.

SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.1, Introduction	
Comment	One commentator noted that the phrase "thus giving the actuary significant discretion to exercise professional judgment" appears to make a distinction between "discretion" and "significant discretion." What is the reason for including the word "significant" as a modifier to "discretion"? The commentator felt that the use of the modifier would appear to give the actuary a greater degree of latitude than simply indicating that the actuary has discretion. For clarity, the commentator recommend adding: "This Section 3 and the following Section 4 provide guidelines for filing actuaries where the law may be silent as well as in other situations where actuaries have discretion to exercise professional judgment in preparing and reviewing filings."
Response	The reviewers removed the term "significant" but believe the recommended additional language was not necessary.
Section 3.3, Legal and Regulatory Requirements	
Comment	One commentator noted that, in the current ASOP No. 8, the predecessor of the new section 3.3 is a second paragraph of 3.2.1, which deals with the statement of the purpose of the filing. The new 3.3 is more general. The commentator suggests that the greater generality requires some changes in wording.
Response	The reviewers agree and changed section 3.3 and added an item (h) under section 4.
Comment	One commentator recommended editing the second sentence to state "If the actuary believes applicable law is silent or ambiguous on a relevant issue, the actuary should disclose this and should consider obtaining guidance from an appropriate expert." The commentator also recommended that after this sentence, the following sentence should be inserted: "The name, credentials and qualifications, and guidance received from such an expert should be disclosed."
Response	The reviewers made revisions based on the first suggestion. With respect to the second, the reviewers do not believe it is necessary to disclose the name, credentials, and qualifications of anyone who was consulted, and made no change.
Comment	One commentator noted that this section indicates that "the actuary should have the necessary knowledge and understanding of applicable law." The commentator noted that laws and regulations governing health filings are very extensive. The commentator believed that either this standard or a practice note should indicate that it is extremely difficult for an actuary to know the nuances of every law or regulation in every state.
Response	The reviewers believe the actuary has always been required to understand the applicable laws where the filing is being made, and made no change.
Section 3.4, Assumptions	
Comment	Two commentators noted that the introductory paragraph contains inconsistencies and also appears to be very prescriptive. One commentator suggested adding clarification that the assumptions listed be reviewed by the actuary for "necessity and relevancy" to the rate filing.
Response	The reviewers agree and made clarifying changes to this section.
Section 3.4.4, Non-Benefit Expenses	
Comment	One commentator indicated that in the sentence "When estimating the latter amounts, the actuary should consider the health plan entity's own experience when appropriate, reasonably anticipated internal or external future events, inflation, and business plans" it is unclear why the phrase "when appropriate" modifies only "the health plan entity's own experience" as opposed to any of the other items.
Response	The reviewers agree with the commentator's suggestion and removed the phrase "when appropriate."

Comment	One commentator noted that the last sentence states "The actuary should consider the adequacy of the non-benefit expense component of premium rates relative to projected costs." The commentator went on to say that the same section, however, notes that an acceptable method for reflecting non-benefit costs is the "use of a target loss ratio."
Response	The reviewers agree and changed "adequacy" to "reasonableness" in sections 3.4.4 and 3.4.7.
Comment	One commentator stated that it is unclear why reference is made only to "relevant industry and government studies." The commentator believed that other entities such as academic institutions and public interest groups could also have published relevant studies.
Response	The reviewers agree and modified the language to include relevant external studies.
Section 3.4.5, Investment Earnings and the Time Value of Money	
Comment	One commentator noted that in the sentence, "The actuary should consider whether to reflect investment earnings and the time value of money in the calculations used in the filings," the words "whether to reflect" should be removed and that the actuary should be required to consider these factors.
Response	The reviewers believe that there are situations where these considerations are immaterial and made no change.
Section 3.4.6, Health Cost Trends	
Comment	One commentator noted that trends are addressed solely in terms of medical insurance. The commentator indicated that there probably should be some mention of LTC or DI. For long-term care the commentator recommended the following: "When long-term care trends are projected, the actuary should consider the frequency, utilization, and duration of future claims by care setting (for example, nursing home, home care, or assisted living facility)."
Response	The reviewers agree and revised the section to be more general, as well as included examples from other lines of business, to address the commentator's concerns.
Comment	One commentator suggested that a statement indicating that trends may be based on insured or population data should be included.
Response	The reviewers agree and included a sentence in section 3.4.6.
Comment	One commentator noted that the last paragraph states that, "the actuary should select an estimate of the trend based on the actuary's professional judgment. For example, historical trends may or may not be the best predictor of future trends." The commentator felt that the paragraph is probably not necessary since the process of selecting assumptions is almost always based on professional judgment.
Response	The reviewers agree and modified the language.
Comment	One commentator noted that this section includes a number of items that should be considered when determining trend. The commentator recommended also including items that should not be considered, essentially identifying factors that are outside of trend. The commentator suggested adding language such as, "In analyzing trend, the actuary should make an effort to remove and separately analyze other factors that affect cost."
Response	The reviewers agree and revised the language accordingly.
Comment	One commentator suggested adding "provider contracting" to the following: "The actuary should consider changes in benefit provisions and provider contracting when projecting future trends from historical trends, as the change in unit costs and utilization may differ from prior periods."
Response	The reviewers agree and made the change.

Comment	One commentator stated that the sentence, "When medical expense trends are projected, the actuary should consider detail by service category (for example, inpatient, outpatient, professional, and drug), separated by cost and utilization, if available, credible, and determined by the actuary to improve the accuracy of the calculation used in the filing" is problematic. The qualifier "if available" can be interpreted in different ways.
Response	The reviewers made changes to clarify the guidance.
Comment	One commentator asked if the qualifier "credible" means that the data needs to be 100% credible, or that less than fully credible data could be used to the extent of its credibility.
Response	As discussed in ASOP No. 25, *Credibility Procedures*, the reviewers believe that the determination of "credible" is up to the actuary's professional judgment and, therefore, made no change.
Comment	One commentator stated that, with regard to the phrase "determined by the actuary to improve the accuracy of the calculation used in the filing," it is unclear how the actuary could make that determination until after the detailed trend data have been reviewed and analyzed.
Response	The reviewers agree and removed the language.
Section 3.4.7, Expected Financial Results, such as Profit Margin/Surplus Contribution, Loss Ratio, or Surplus Level	
Comment	One commentator stated that the last sentence that states "The actuary should consider the adequacy of the profit margin/surplus in relation to current surplus levels" is not universally consistent with current practices nor should it be. The commentator believes that this section should be much less prescriptive than "should consider" with respect to any particular rate filing. Another commentator stated that part of that consideration of profit margin should be consistency between the target return on capital and the investment return on assets.
Response	The reviewers agree with both comments and made appropriate changes to the section.
Comment	One commentator stated it may not be clear to all actuaries what the significance of Profit Margin/Surplus Contribution is. The commentator noted that the last paragraph reads "The actuary should consider whether the provisions for adverse deviation are appropriate to provide a margin for variability and uncertainty in projected health costs. The actuary should consider the cumulative effect of any such provisions built into other assumptions." The commentator recommended the following language: "The actuary should consider whether the aggregate provisions for adverse deviation are sufficient to cover anticipated costs under moderately adverse experience."
Response	The reviewers agree and added this language as a new section 3.4.10.
Comment	One commentator stated that the sentence, "When a target return on capital is used, the actuary should consider the relationship between risk and return" could imply that when a procedure other than a target return on capital is used (for example, loss ratio target), the actuary need not consider the relationship between risk and return. The commentator felt that this is incorrect and that the actuary should always consider the relationship between risk and return when determining an appropriate "Profit Margin/Surplus Contribution."
Response	The reviewers agree and modified the language.

Comment	One commentator stated that the sentences, "The actuary should consider whether provisions for adverse deviation are appropriate to provide a margin for variability and uncertainty in projected health costs. The commentator stated that "The actuary should consider the cumulative effect of any such provisions built into other assumptions" appears to imply that the actuary can include hidden additional profit margins in various places in the filing by using values for various parameters/assumptions that are higher than the expected value. Such a procedure is not appropriate. The commentator felt that; "All the projections in the filing for various costs such as benefits and expenses should be based upon the expected future reasonable values. If the actuary believes that various margins for variability and uncertainty need to be included in the rate, those provisions should be explicitly included as part of the underwriting profit provision instead of being hidden and dispersed in various other components of the rate calculation."
Response	The reviewers believe that it is up to the actuary to determine the appropriate accounting and actuarial practice for the placement of margins for adverse experience. The reviewers removed the language in section 3.4.7 and added 3.4.10 regarding adverse deviation.
Section 3.4.9, Expected Impact of Reinsurance and Other Financial Arrangements	
Comment	One commentator stated that the sentence "The actuary should consider how risk sharing, risk adjustment, or reinsurance payments should be reflected ..." should be made more expansive. The commentator suggested possible wording: "The actuary should consider how risk sharing, risk adjustment, reinsurance payments, risk corridors and other financial arrangements should be reflected ...."
Response	The reviewers agree and added the phrase "and other financial arrangements."
Section 3.6, Use of Business Plan	
Comment	Two commentators noted that business plans are not generally reviewed for every rate filing. One commentator suggested that "should consider" be replaced with "may consider" while the other commentator suggested adding "If appropriate,…"
Response	The reviewers note "should consider" implies only that the actuary consider if business plans are relevant to the rates being filed, and made no change.
Comment	One commentator suggested that if the actuary considered business plans in preparing the filing, it should be explicitly stated in the filing, along with whether the filing actuary used the assumptions contained in the business plan. The commentator felt that; "When the actuary uses the assumptions from the business plan, there should be an explanation of why that was appropriate. Also, when the actuary does not use the assumptions in the business plan, there should be an explanation of why the actuary believed those assumptions were not appropriate for the filing."
Response	The reviewers note that a business plan is only one potential data point in preparing assumptions for a rate filing and, therefore, made no change.
Comment	One commentator suggested that this section would benefit from language that helps distinguish how business plans should be used to develop rates versus disclosed in filings. The commentator further suggested the addition of the following sentence, "The regulatory actuary should consider requesting this information when it is important to the consideration of rate adequacy for solvency."
Response	The reviewers believe that the guidance provided by this standard is adequate for appropriate practice, and made no change.

Section 3.7, Use of Past Experience to Project Future Results	
Comment	One commentator noted that in this section there is a statement that refers to "claims of a particular service category" but that it may not be clear what the term "service category" refers to.
Response	The reviewers note that in section 3.4.6, the parenthetical identifies "service categories" and made no change.
Comment	One commentator noted that this section indicates that "The filing actuary should update prior earned premium and incurred claim estimates to reflect premium and claim development experience…" but feel that that it should state: "*When appropriate*, the filing actuary…"
Response	The reviewers note that in the phrase "in the actuary's professional judgment" implies "when appropriate" and made no change.
Comment	One commentator recommended adding two more items to the list of items to which any changes may have a material effect on expected future results. Specifically the commentator suggested: One new item (k) would be "changes to federal or state regulations (e.g., risk adjustment, reinsurance, risk corridors, underwriting requirements, and benefit mandates)." The second new item (l) would be "underlying change in medical practice (e.g., changes in medical technology and provider organization)." While this could be included in item (f), listing it separately may help actuaries think about changes to these areas specifically.
Response	The reviewers agree and made the change.
Comment	One commentator suggested the following language be inserted between the second and the third paragraphs of section 3.7: "The actuary should consider the most recent data available for the plan, giving appropriate consideration to the degree of maturity likely to be present in the claim and claim liability reserves. The actuary should consider the principles of ASOP No. 23, *Data Quality*, in the use and application of the data."
Response	The reviewers agree and added a sentence to indicate that data should be selected in accordance with ASOP No. 23, *Data Quality*.
Comment	One commentator suggested adding "The filing actuary should provide adequate documentation for such adjustments" to the paragraph.
Response	The reviewers agree and added section 4.1(i).
Comment	One commentator noted that in the sentence "To the extent that the actuary concludes that the experience data is not applicable or credible for a particular use, the actuary should identify additional sources that are appropriate (see ASOP No. 25, *Credibility Procedures*)", both instances of "actuary" be changed to "filing actuary," feeling the reviewing actuary should not be required to identify additional experience sources for use in the filing.
Response	The reviewers agree and made the change.

Comment	One commentator noted that the sentences "The actuary should determine whether past claims experience can be used to project future results. The actuary should also determine the extent to which past experience trends are relevant to assumed future trends" implies that the actuary could choose not to use actual historical claims experience and trends for the filing. The commentator felt that if the actuary makes that determination, there should be an explanation of why such data were not used, since typical actuarial analyses are based on the premise that the historical information forms an appropriate starting basis for making future projections.
Response	The reviewers disagree and made no change.
Comment	One commentator questioned when would "selection of risks" be an appropriate consideration for an actuary updating past experience, unless the actuary was considering selection of risks in the past that is no longer legal?
Response	The reviewers note that selection of risks is still practiced for some of the products covered by this ASOP, such as disability income, long-term care, and grandfathered plans and excepted products under ACA. The reviewers made no change.
Comment	One commentator stated that the sentence, "The filing actuary should update prior earned premium and incurred claim estimates to reflect premium and claim development experience to date when, in the actuary's professional judgment, the difference is material" is unclear. The commentator went on to say; "Is that referring to a situation where the original data were in error and a correction has been made? Is it referring to a situation where more recent data are available than was originally used in preparing the filing? In any case, how can the actuary know whether "the difference is material" unless the actuary actually uses the new data and compares the results to that obtained from using the prior data? In any circumstance, the reason for a revision of interpretation of the data should be fully documented."
Response	The reviewers believe the guidance is clear and appropriate, and made no change.
Comment	One commentator suggested that other considerations in selecting trends can include: • Impact of higher cost sharing on decreasing utilization • Impact of the out-of-pocket expenses • Impact of narrower networks on decreasing utilization • Impact of cost containment or quality improvement initiatives, and • Impact of economic conditions on utilization and unit costs.
Response	The reviewers determined that cost sharing and out-of-pocket costs are covered in section 3.7(c). The reviewers determined that considerations for narrower networks are covered in 3.7(e). The reviewers added language in section 3.7(m) to address cost containment and quality improvement initiatives, and in section 3.7(n) to address the impact of economic conditions.
Section 3.8, Recognition of Plan Provisions	
Comment	One commentator expressed concern that the expectations of section 3.8 were overly broad and did not represent typical practices of actuaries.
Response	The reviewers disagree with the assertion that actuaries do not typically consider these items. However, the reviewers deleted the section as it duplicated guidance provided in other sections.
Section 3.9, Rating Factors	
Comment	One commentator noted the word "variation" in the first sentence of the second paragraph should be "variations."
Response	The reviewers agree and made the change.

Section 3.10, New Plans or Benefits	
Comment	One commentator suggested changing both instances of "actuary" to "filing actuary," as the reviewing actuary will not generally have access to the same data resources as the filing actuary.
Response	The reviewers note both the "filing actuary" and the "reviewing actuary" have a role to consider the available data relevant to new plans or benefits, and made no change.
Section 3.12, Regulatory Benchmarks	
Comment	One commentator noted that the use of the word "may" is weak and could imply that the rate may not be considered adequate under those circumstances. The commentator went on to say; "In addition, the wording implies that the rates are adequate to pay for the actual costs, when the proper actuarial criterion is that the rates should provide the payment of expected costs. Furthermore, only reasonable costs should be considered in making this determination. Excessive costs due to items such as inflated expenses and inefficient claim practices should be excluded." Another commentator noted that rates must be considered unfairly discriminatory if they are based on differences that cannot be considered under applicable law or regulation. A third commentator expressed concerns with the phrase "reasonable contingency and profit margins," and suggested using the term "not unreasonable" instead of "reasonable."
Response	The reviewers note that this section of the standard relates to regulatory benchmarks set by the regulatory process, and made no change.
Section 3.13, Reasonableness of Assumptions	
Comment	Two commentators expressed concerns that the list of study sources was too narrow.
Response	The reviewers agree and broadened the language.
Comment	One commentator suggested the last sentence of the first paragraph be revised to read, "The reviewing actuary should make a reasonable effort to become familiar with such studies provided by the filing actuary."
Response	The reviewers believe that both the filing and reviewing actuary should become familiar with such studies, and made no change.
Comment	One commentator noted that section 3.13 allows for the actuary to use his or her professional judgment to determine reasonableness of assumptions, stating that for any given assumption, it may be reasonable to vary the level of review of that assumption based on the materiality of the issue. To address this issue, the commentator suggests adding the following language: "The support for reasonableness should be determined based on the actuary's professional judgment, using relevant information available to the actuary, *and taking into account all aspects of the filing.*"
Response	The reviewers note that ASOP No. 1 includes guidance on the term "reasonable" and determined that the requirement that the actuary's professional judgment be applied is appropriate. As a result, the reviewers believe that the additional language is not needed, and made no change.
Comment	One commentator noted it may be worth commenting in this section on assumptions that are regulated, as this is covered in section 4.1, but also could be added here in the second paragraph as follows "The filing actuary should use any such assumption only if the actuary believes it is reasonable, *unless it is prescribed by applicable law*."
Response	The reviewers agree and added the phrase to section 3.12 of this final ASOP.

Comment	One commentator noted that the sentences, "The filing actuary may rely upon others to provide assumptions for developing the regulatory filing. However, the filing actuary should review the assumptions for reasonableness. The filing actuary should use any such assumption only if the actuary believes it is reasonable" appears to be in conflict with section 4.1(i) which discusses "the disclosure in ASOP No. 41, section 4.3, 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." The commentator stated that the former appears to indicate that the actuary is responsible for the assumption even if someone else provided it, whereas the later states the actuary can disclaim responsibility for an assumption provided by another party.
Response	The reviewers note that actuaries are always responsible for determining if the assumptions that they relied on are reasonable, unless prescribed by law. ASOP No. 41 requires that if actuaries disclaim responsibility for material assumptions, that disclaimer, and the reasons, must be disclosed. Therefore, no change was made.
Section 3.14, Reliance on Data or Other Information Supplied by Others	
Comment	One commentator suggested deleting "filing" from the first sentence, feeling this section should apply to both filing and reviewing actuaries.
Response	The reviewers agree and made the change.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.1, Communications and Disclosures	
Comment	One commentator suggested the following be added: • k. all instances where, and the reasons that, the filing actuary departed from the guidance set forth in this standard in order to comply with applicable law (statutes, regulations and other legally binding authority), or for any other reason the actuary deemed appropriate.
Response	The reviewers agree and made the change.
Comment	One commentator suggested adding that filings should be complete with respect to data templates and other documentation required by the applicable regulatory authority, and submitted in the form and manner defined by that regulatory authority. The commentator felt that the ASOP should specify that this requirement only applies to templates typically completed by the filing actuary or actuary's staff as, typically, these are the templates based upon financial projections and/or premium rates.
Response	The reviewers note that the scope of this ASOP is limited to the actuarial components of a regulatory filing. The actuary should always follow applicable law, and section 4.1 provides guidance for disclosure in the event that the law requires deviation from the guidance in the ASOP. Therefore, no change was made.
APPENDIX 1	
Comment	One commentator noted that the last sentence in the opening paragraph says "Beginning in 2013…." Since HHS promulgated its "10% threshold for unreasonable rate increases" in 2011, should "2013" be "2011" (or perhaps even 2010 with the passage of the ACA).
Response	The reviewers agree and made the change.

Comment	One commentator noted that clarification related to the discussion of the rate review practice note and addendum is needed and suggested the following language: "The addendum to the practice note addresses a revised HHS form filing called the uniform rate review template (URRT) and actuarial memorandum instructions. The commentator went on to say that the originally published practice note provided guidance on the preliminary justification form, which was replaced by the URRT and actuarial memorandum instructions by HHS."
Response	The reviewers agree and modified the language.

ACTUARIAL STANDARDS BOARD

Repeal of
Actuarial Standard
of Practice
No. 9

Documentation and Disclosure in Property and Casualty Insurance Ratemaking, Loss Reserving, and Valuations

Developed by the
Casualty Committee of the
Actuarial Standards Board

Repealed by the
Actuarial Standards Board
March 2011

(Doc. No. 105)

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March 2011

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Property and Casualty Insurance Ratemaking, Loss Reserving, and Valuations

FROM: Actuarial Standards Board (ASB)

SUBJ: Repeal of Actuarial Standard of Practice (ASOP) No. 9

ASOP No. 9, *Documentation and Disclosure in Property and Casualty Insurance Ratemaking, Loss Reserving, and Valuations*, has been repealed by the ASB.

Background

ASOP No. 9, *Documentation and Disclosure in Property and Casualty Insurance Ratemaking, Loss Reserving, and Valuations*, was adopted in 1991 and relied heavily on Interpretative Opinion No.3 of the *Guides and Interpretative Opinions as to Professional Conduct* of the American Academy of Actuaries. The following Casualty Actuarial Society documents were attached to ASOP No. 9 as separate appendices:

- *Statement of Principles Regarding Property and Casualty Ratemaking;*
- *Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves*; and
- *Statement of Principles Regarding Property and Casualty Valuations*.

In 2002, the ASB repealed Interpretative Opinion 3: Professional Communications of Actuaries when the Board adopted ASOP No. 41, *Actuarial Communications,* which superseded the guidance of Interpretative Opinion No. 3. ASOP No. 41 is applicable to all areas of actuarial practice and provides guidance with respect to written, electronic, or oral communications.

The Casualty Committee of the ASB has reviewed ASOP No. 9 and compared the various sections to ASOP No. 41 as well as the *Code of Professional Conduct*. The Committee believes that the topics in ASOP No. 9 are adequately covered in ASOP No. 41, other ASOPs, and the *Code of Professional Conduct,* and concluded that ASOP No. 9 should be repealed.

Exposure Draft

The exposure draft of this repeal document was issued in June 2007 with a comment deadline of August 15, 2007. Seven comment letters were received and were considered in finalizing this repeal document. For a summary of the substantive issues and the reviewers' responses, please see appendix 2.

The ASB reviewed the comment letters in March 2008 and decided to defer repeal of ASOP No. 9 in order to coordinate with the adoption of the ASOP No. 41 revision. The ASB adopted a revised version of ASOP No. 41 in December 2010, effective May 1, 2011.

The ASB thanks all who commented on the repeal.

Action

The ASB voted in March 2011 to repeal ASOP No. 9 effective for actuarial communications issued on or after May 1, 2011.

Casualty Committee of the ASB

Beth Fitzgerald, Chairperson

Shawna S. Ackerman	David J. Otto
Raji Bhagavatula	Marc B. Pearl
Kenneth R. Kasner	Jonathan White
Dale F. Ogden	

Actuarial Standards Board

Albert J. Beer, Chairperson

Alan D. Ford	Patricia E. Matson
Patrick J. Grannan	Robert G. Meilander
Stephen G. Kellison	James J. Murphy
Thomas D. Levy	James F. Verlautz

Appendix 1

Note: This appendix is prepared for informational purposes only.

The Casualty Committee prepared the following grid highlighting sections of ASOP No. 9 as a cross reference against ASOP No. 41, *Actuarial Communications* (effective May 1, 2011), other ASOPs and the *Code of Professional Conduct* to reflect where appropriate actuarial guidance already exists for the related item or where the item would have been considered educational material and, therefore, not included in any proposed revision other than possibly an appendix.

Sections of ASOP No. 9		**Reference to ASOP No. 41, other ASOPs or the *Code of Professional Conduct***
Section 2	Definitions	
2.1	Actuarial Report	ASOP No. 41 (2.4)
2.2	Actuarial Work Product	ASOP No. 41 (2.1, 2.3, 2.4)
2.3	Required Actuarial Documentation	ASOP No. 41 (2.1)
2.4	Statement of Actuarial Opinion	ASOP No. 41 (2.1)
2.5	Statement of Actuarial Review	ASOP No. 41 (2.1)
Section 3	Background and Historical Issues	Educational – not needed in standard
Section 4	Current Practices and Alternatives	Educational – not needed in standard
Section 5	Analysis of Issues and Recommended Practices	
5.1	Introduction	ASOP No. 41 (3.1, 3.1.1-3.1.2)
5.2	Extent of Documentation	ASOP No. 41 (3.2, 3.8); ASOP No. 43 (4.2(b)); ASOP No. 36 (4.2(a)); ASOP No. 13 (4.2(b))
5.3	Prevention of Misuse	ASOP No. 41 (3.7); *Code of Professional Conduct* (Precept 8 and Annotation 8.1)
5.4	Disclosure of Conflict with Professional Judgment, and Advocacy	ASOP No. 41 (3.4.2, 4.3)
5.5	Availability of Documentation	ASOP No. 41 (3.2, 3.7); *Code of Professional Conduct* (Annotation 10-5)
5.6	Conflicting Interests	ASOP No. 41 (3.4.2, 3.7); *Code of Professional Conduct* (Precept 7)
5.7	Signature on Work Product	ASOP No. 41 (3.1.4)
5.8	Reliance on Another	ASOP No. 41 (3.4.3, 3.4.4)
5.9	Waiver of Fee	*Code of Professional Conduct* (Precept 3)
6.1	Deviation from Standard	ASOP No. 41 (4)

Appendix 2

Comments on the Exposure Draft and Responses

The exposure draft of the repeal of ASOP No. 9, *Documentation and Disclosure in Property and Casualty Insurance Ratemaking, Loss Reserving, and Valuations*, was issued to the membership in June 2007 with a comment deadline of August 15, 2007. Seven comment letters were received. The Casualty Committee and the ASB carefully considered all comments received. Summarized below are the significant issues and questions contained in the comments and responses to each. The term "reviewers" in appendix 2 refers to the Casualty Committee and the ASB.

GENERAL COMMENTS	
Comment	One commentator said that the inclusion of the Statement of Principles (Principles) in the appendix of the ASOP gave higher visibility to the Principles. The commentator suggested that the Academy and the ASB find a way to retain access and visibility of the Principles.
Response	The reviewers note that the Principles are not issued or maintained by the ASB. The Principles are readily available on the Casualty Actuarial Society (CAS) website.
Comment	It was noted by a commentator that it was not clear whether the Principles were being retained or repealed.
Response	The action of the ASB to repeal ASOP No. 9 will have no direct impact on the retention or repeal of the Principles since they are issued by the CAS.
Comment	One commentator stated that the overlap between ASOP No. 9 and ASOP No. 41, *Actuarial Communications*, was not complete. The repeal of ASOP No. 9 would omit several key items. The commentator suggested that the ASB should revise ASOP No. 41 so that appropriate items from ASOP No. 9 are included.
Response	It is the reviewers' belief that key items within ASOP No. 9 are adequately covered in other ASOPs and the *Code of Professional Conduct*.
Comment	One commentator noted that the Annual Statement Instructions for the Statutory Statement of Actuarial Opinion for loss reserves provide references to various ASOPs, specifically including ASOP No. 9. The Casualty Actuarial Task Force (CATF) of the National Association of Insurance Commissioners (NAIC) in its Annual Guidance publications references and quotes directly from definition 2.1 of ASOP No. 9. In addition, in its comments on ASOP No. 43, *Property/Casualty Unpaid Claim Estimates*, the CATF stressed the importance of ASOP No. 9 to regulators and ASOP No. 9's relevance to ASOP No. 43.
Response	The reviewers note that references to ASOP No. 9 can be replaced by references to ASOP No. 41, other ASOPs, and the *Code of Professional Conduct*. Until these references are changed, appendix 1 of the repeal document for ASOP No. 9 provides the appropriate cross references.

Comment	Several commentators stated ASOP No. 41 sets a lower standard of practice than ASOP No. 9. They commented that ASOP No. 9 is not redundant with ASOP No. 41 and, in fact, ASOP No. 41 has weaker language in several instances.
Response	The reviewers compared ASOP No. 9 to the relevant sections of other ASOPs as well as the *Code of Professional Conduct*. The reviewers concluded that the guidance in ASOP No. 9 is adequately covered in ASOP No. 41, other ASOPs, and the *Code of Professional Conduct*.
SECTION 2. DEFINITIONS	
Section 2.1, Actuarial Report	
Comment	Several commentators noted that ASOP No. 9 in this section sets a higher standard than ASOP No. 41 since ASOP No. 9 includes additional language stating that the actuary was "ensuring that the parties addressed are aware of the significance of the actuary's opinion or finding." Failure to include this language weakens the resulting standard and opens the door to placing the burden of determining the significance on the addressees (often regulators).
Response	The reviewers believe this issue is adequately addressed by ASOP No. 41, sections 3.1 and 3.2.
SECTION 5. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 5.2, Extent of Documentation	
Comment	Several commentators noted that, particularly with regard to reserves, the elimination of language requiring the actuary to document any material changes in sources of data, assumptions, or methods from the last analysis, and to explain the reason and describe the impact of these changes, is a relaxation of the standard. Most of these commentators believe that ASOP No. 9 requires quantification of the impact of these changes. It was further suggested that no similar language is found in other ASOPs or the *Code of Professional Conduct.*
Response	The reviewers note that similar language exists within other ASOPs, including those applying to reserves. For example, the reviewers refer the readers to ASOP No. 43, section 4.2(b); ASOP No. 36, section 4.2(a); and ASOP No. 13, section 4.2(b). The reviewers also believe that the requirement to "describe the impact of these changes" in ASOP No. 9 does not require a quantification of the impact.
Comment	One commentator noted that ASOP No. 9 requires documentation to be sufficient for another actuary practicing in the same field "to evaluate the work," whereas ASOP No. 41 requires documentation to be sufficient for another actuary practicing in the same field "to evaluate the reasonableness of the actuary's work."
Response	The reviewers do not believe this difference is material.
Section 5.4, Disclosure of Conflict with Professional Judgment, and of Advocacy	
Comment	One commentator noted that ASOP No. 41 omits the requirement that the actuary should advise the principal of a conflict of professional judgment and include qualifications in the actuarial communication.
Response	It is the reviewers' belief that this topic is adequately addressed in ASOP No. 41, sections 3.4.4 and 4.3.
Section 5.5, Availability of Documentation	

Comment	One commentator noted that the correspondence between this section and ASOP No. 41 was not at all clear. While some intent of section 5.5 may overlap with sections of ASOP No. 41 and Precept 10 of the *Code of Professional Conduct*, section 5.5 is broader.
Response	Section 5.5 of ASOP No. 9 makes three basic statements: (1) Documentation should be available to the actuary's client or employer; (2) Documentation should be available to others when the client or employer requests if adequate compensation is made, and it is not improper; and (3) Ownership of documentation is established in accordance with law. Sections 2.4 and 3.2 of ASOP No. 41 provide guidance on documentation to be made available to intended users. The second statement is addressed in Precept 10 of the *Code of Professional Conduct*, which requires the actuary to cooperate in furnishing relevant information, subject to receiving reasonable compensation, when a principal has given consent. The third statement does not establish a requirement but rather notes that ownership is determined by laws outside control of the ASB. The reviewers believe removing this statement should not impact the application of law.
Section 5.6, Conflicting Interests	
Comment	One commentator noted that it was not clear that the indirect user would be covered under the term "prospective principal" as used in the *Code of Professional Conduct.*
Response	The reviewers believe that the language found in Precept 8 of the *Code of Professional Conduct* provides sufficient guidance regarding indirect users.
Section 5.9, Waiver of Fee	
Comment	One commentator noted that in Precept 3 of the *Code of Professional Conduct* the issue of waived fees is not addressed.
Response	The reviewers note that Precept 3 requires the actuary to satisfy professional standards regardless of whether there is any compensation.
SECTION 6. COMMUNICATIONS AND DISCLOSURES	
Section 6.1, Deviation from Standard	
Comment	One commentator noted that while ASOP No. 41 has a similarly titled section, Deviation from Standard, ASOP No. 9 contains additional language requiring an appropriate and explicit statement with respect to the nature, rationale, and effect of such deviation. ASOP No. 41 merely requires that the actuary justify deviation from the standard.
Response	The reviewers believe that section 4 of ASOP No. 41 adequately addresses this issue.

ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 10

U.S. GAAP for Long-Duration Life, Annuity, and Health Products

Revised Edition

Developed by the
Task Force to Revise ASOP No. 10 of the
Life Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
December 2022

Doc. No. 207

APPENDIXES

ASOP No. 10—Doc. No. 207

December 2022

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in U.S. GAAP for Long-Duration Life, Annuity, and Health Products

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 10

This document contains the revision of ASOP No. 10, now titled *U.S. GAAP for Long-Duration Life, Annuity, and Health Products*.

History of the Standard

ASOP No. 10 was originally adopted by the ASB in 1989. The 1989 standard was developed by the American Academy of Actuaries (Academy) Committee on Life Insurance Financial Reporting for the Life Committee of the ASB. In 1992, ASOP No. 10 was expanded to incorporate certain Financial Reporting Recommendations. In 2000, it was revised to reflect developments in generally accepted accounting principles (GAAP) since 1992.

Since 2000, several American Institute of Certified Public Accountants' Statements of Position pertinent to insurance contract accounting have been issued. In addition, certain features of insurance contracts are now considered under GAAP to be embedded derivatives. These features are accounted for at fair value, which has been more specifically defined. As a result of these developments, the ASB authorized an update to ASOP No. 10.

The 2011 revision removed interpretations of GAAP literature and focused the standard on those activities for which actuaries are most directly responsible. This resulted in the deletion of the "Special Situations" and "Lock-In/Adjustment" sections in the previous version of ASOP No. 10. The ASB believes these sections included interpretations of authoritative GAAP guidance, which is beyond the scope of the actuary's role. Actuaries can refer to other relevant literature for further information on topics that were deleted.

In 2018, the Financial Accounting Standards Board (FASB) issued amended guidance in Accounting Standards Update (ASU) 2018–12, *Targeted Improvements to the Accounting for Long-Duration Contracts*. ASU 2018–12 makes significant changes to how insurers account for and make financial disclosures relating to long-duration contracts. These accounting changes include periodic review and potential updates to assumptions and discount rates used to calculate liabilities for future policyholder benefits, a new classification called market risk benefits, a simplification of the deferred acquisition cost amortization methodology, and a significant expansion of required disclosures. ASU 2018–12 amended guidance on premium deficiency testing and provisions for risk of adverse deviation for certain long-duration contracts. The mandatory implementation date was subsequently delayed and also allowed for a later implementation date for certain smaller companies and non-SEC filers as defined by

FASB. This will give rise to multiple accounting standards being applicable at the same time. Because of these changes, the ASB authorized another update to ASOP No. 10.

This revision adds guidance reflecting ASU 2018–12 while retaining relevant existing guidance for GAAP because the ASB recognizes that individual company adoption dates of ASU 2018–12 will vary.

Exposure Draft

The exposure draft was approved in April 2022 with a comment deadline of June 30, 2022. Three comment letters were received and considered in making changes that were reflected in the final ASOP.

Notable Changes from the Exposure Draft

Notable changes made in this final ASOP are summarized below. Additional changes were made to improve readability, clarity, or consistency.

1. Several definitions were revised.

2. Sections 3.1 and 3.2 were revised to require that the actuary be familiar with relevant company accounting policies, rather than operating policies.

3. Section 3.2 was revised to provide guidance when the actuary is contributing to the classification of contracts, features, and benefits.

4. Section 3.9 was revised to cover a range of circumstances.

5. Section 3.12 was modified to better align with the actuary's responsibilities with respect to revenue recognition.

Notable Changes from the Existing ASOP

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

1. The title, purpose, and scope of the ASOP now encompass long-duration life, annuity, and health products. The scope was also clarified to include the review of GAAP financial statements.

2. Definitions of "cohort," "liability for future policy benefits," and "market risk benefit" were added to section 2, and several definitions were revised.

3. Section 3.1 was revised to encompass the review of methods and assumptions and to clarify the role of the actuary in developing qualitative and quantitative disclosures related to financial statements.

4. Section 3.2 was revised to provide guidance when the actuary is contributing to the classification of contracts, features, and benefits.

5. Sections 3.1 and 3.2 were also revised to require that the actuary be familiar with relevant company accounting policies

6. The statement regarding periodically reviewed and updated assumptions versus locked-in assumptions was added to section 3.3.1 (Best-Estimate Assumptions) for clarity.

7. In section 3.3.2, market risk benefits were added to the examples of items that are measured at fair value.

8. Section 3.4 was added to address discount rate assumptions.

9. Section 3.6 was added to provide guidance on the risk adjustment.

10. Section 3.7 was updated to address internal consistency by cohort and to extend the concept of consistency to risk adjustment.

11. Section 3.8 was added to provide guidance when assumptions are selected by another party.

12. Updated examples of classifications were added to section 3.9(b).

13. Section 3.10 was added to address financial statement disclosures.

14. Section 3.12 was modified to better align with the actuary's responsibilities with respect to revenue recognition.

15. New guidance was added on reliance on others for data, projections, models, and supporting analysis; reliance on another actuary; and reliance on expertise of others in sections 3.14, 3.15, and 3.16.

16. Guidance on documentation was expanded in section 3.17.

17. Disclosure requirements in section 4 were restructured and expanded.

The ASB voted in December 2022 to adopt this standard.

Task Force to Revise ASOP No. 10

Lisa S. Kuklinski, Chairperson

William C. Hines	Michael J. Park
Timothy M. Koenig	James T. Ward
Paul R. Lavallee	Shaowei Yang
Jennifer I. Nam	

Life Committee of the ASB

Linda M. Lankowski, Chairperson

Janice A. Duff	Matthew A. Monson
Lisa S. Kuklinski	Gabriel Schiminovich
Donna C. Megregian	Jeremy Starr

Actuarial Standards Board

Darrell D. Knapp, Chairperson

Elizabeth K. Brill	David E. Neve
Robert M. Damler	Christopher F. Noble
Kevin M. Dyke	Judy K. Stromback
Laura A. Hanson	Patrick B. Woods

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.

STANDARD OF PRACTICE

ACTUARIAL STANDARD OF PRACTICE NO. 10

U.S. GAAP FOR LONG-DURATION LIFE, ANNUITY, AND HEALTH PRODUCTS

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 related to the preparation or review of insurance company financial statements in accordance with U.S. generally accepted accounting principles (GAAP) for long-duration life, annuity, or health products.

1.2 Scope—This standard applies to actuaries when performing actuarial services related to the preparation or review of insurance company financial statements in accordance with GAAP for long-duration life, annuity, or health products.

The actuary should comply with this standard except to the extent it may conflict with applicable law (statutes, regulations, and other legally binding authority) or authoritative GAAP guidance (such as Accounting Standards Codification [ASC], Staff Accounting Bulletins issued by the U.S. Securities and Exchange Commission, and other guidance issued by authoritative bodies).

If the actuary is performing actuarial services that involve the review of insurance company financial statements in accordance with GAAP for long-duration life, annuity, or health products, the actuary should use the guidance in section 3 to the extent practicable.

If a conflict exists between this standard and applicable law, 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, authoritative GAAP guidance, 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 actuarial services related to the preparation or review of insurance company GAAP financial statements applicable to fiscal periods ending on or after May 1, 2023.

Section 2. Definitions

The terms below are defined for use in this standard and appear in bold throughout the ASOP. They are intended to conform with authoritative GAAP guidance, where applicable.

2.1 Best-Estimate Assumption—An assumption that reflects anticipated experience with no provision for **risk of adverse deviation**.

2.2 Cohort—A grouping of insurance contracts or policies for the purpose of measuring the **liability for future policy benefits**, **DPAC**, and any other related balances.

2.3 Costs—All benefit payments and expenses associated with issuing, maintaining (to the extent allowable by authoritative GAAP guidance), and settling a company's insurance policies and contracts, with no provision for profit.

2.4 Deferred Policy Acquisition Cost (DPAC)—An asset representing the unamortized portion of capitalized policy acquisition expenses.

2.5 Deferred Sales Inducements (DSI)—An asset representing the unamortized portion of capitalized sales inducements to policyholders.

2.6 GAAP Net Premiums—The portion of **gross premiums** that provides for certain **costs**, as defined by authoritative GAAP guidance.

2.7 Gross Premiums—Amounts contractually required to be paid or anticipated to be contributed by the policyholder.

2.8 Liability for Future Policy Benefits—An accrued obligation to policyholders that relates to insured events, such as death or disability, measured as the present value of future policy benefits minus the present value of future **GAAP net premiums**.

2.9 Lock-In—A requirement to continue using original basis assumptions (as set at issue, acquisition, or prior redetermination).

2.10 Market-Estimate Assumption—An assumption that represents what a typical market participant would use in assessing the amount the participant would pay to acquire a given asset, or the amount the participant would require to assume a given liability (also known as an "exit market" price).

2.11 Market Risk Benefit—A contract or contract feature in a long-duration contract issued by an insurance entity that both protects the contract holder from other-than-nominal capital

market risk and exposes the insurance entity to other-than-nominal capital market risk by providing a benefit in excess of account value.

2.12 Net GAAP Liability—The GAAP **policy benefit liability** less any associated intangible balances, such as **DPAC**, **VOBA**, and **DSI**.

2.13 Policy Benefit Liability—An accrued obligation to policyholders that relates to the payment of future **costs** (including unpaid claim reserves for incurred and future claims) and amounts accrued for unearned revenue.

2.14 Premium Deficiency—A condition that exists when the sum of the **net GAAP liability** and the present value of future **gross premiums** is less than the present value of future benefits and expenses using current **best-estimate assumptions**.

2.15 Risk of Adverse Deviation—The risk that actual experience may differ from **best-estimate assumptions** in a manner that produces **costs** higher than assumed or revenues less than assumed.

2.16 Value of Business Acquired (VOBA)—The balance that arises in the application of GAAP purchase accounting as the difference between the reported value and the fair value of insurance contract liabilities, or comparable amounts determined in purchased insurance business combinations.

Section 3. Analysis of Issues and Recommended Practices

3.1 Overview—The principles and methodologies used in determining financial statement amounts are generally prescribed by authoritative GAAP guidance. While insurance company GAAP financial statements are the responsibility of management, actuaries frequently participate in the processes of developing specific techniques for application of GAAP methods and selecting or considering assumptions used in the preparation of insurance company financial statements. Actuaries also frequently participate in developing both quantitative and qualitative disclosures related to financial statements, as required under GAAP. When participating in these activities, the actuary should be familiar with relevant company accounting policies as well as relevant accounting and actuarial literature.

Because GAAP financial statements are typically audited by internal and external auditors, the actuary should also refer to ASOP No. 21, *Responding to or Assisting Auditors or Examiners in Connection with Financial Audits, Financial Reviews, and Financial Examinations*.

3.2 Classification of Contracts, Features, and Benefits—The actuary should confirm that each relevant contract, contract feature, and contract benefit has been classified under GAAP. When contributing to accounting classification, the actuary should take into account all relevant levels of classification (for example, insurance or investment, **market risk**

benefit, embedded derivative), applicable law, authoritative GAAP guidance, and the company's accounting policies.

3.3 Types of Assumptions—Two types of assumptions are used in the preparation of GAAP financial statements: **best-estimate assumptions** and **market-estimate assumptions**. The type of assumption used and whether the assumption includes any provisions for risk or uncertainty are dictated by the particular circumstances and applicable accounting guidance. The actuary should confirm that the proper type of assumption is used.

The actuary should identify which **best-estimate assumptions** are periodically reviewed and updated, and which assumptions are subject to **lock-in**.

3.3.1 Best-Estimate Assumptions—Certain GAAP financial statement items (for example, **liability for future policy benefits**) are measured using **best-estimate assumptions**. The actuary should choose assumptions that reflect management's assessment of emerging experience without provisions for risk or uncertainty. Where there is no emerging experience, the actuary should choose assumptions that reflect management's expectations of how experience will emerge.

Best-estimate assumptions may be established as the mode, mean, or median of a probability distribution. Other interpretations of best estimate are possible. The actuary should use actuarial judgment to determine which interpretation of best-estimate is appropriate for the circumstances and consistent with the applicable authoritative GAAP guidance.

When advising management on the selection of **best-estimate assumptions**, the actuary should take into account items such as the characteristics and magnitude of the company's business; the maturity of the company and its rate of growth; the prior experience of the company and the trends in that experience; and medical, economic, social, and technological developments that might affect future experience. The actuary's advice should take into account the company's actual recent experience data, if, in the actuary's judgment, it is relevant and credible.

The actuary should also consider supplementing available company-specific data with relevant industry data or data from other similarly situated companies. The actuary should refer to ASOP No. 23, *Data Quality*, and ASOP No. 25, *Credibility Procedures*.

3.3.2 Market-Estimate Assumptions—Certain GAAP financial statement items (for example, derivatives, embedded derivatives, and **market risk benefits**) are measured at fair value. When the fair value of an item is not readily observable in the marketplace, the actuary should use **market-estimate assumptions** to determine a value for such items.

3.3.2.1 Direct Observation—The actuary should use **market-estimate assumptions** that reflect reliable market information to the extent reasonably observable. Some assumptions (for example, the market's

assessment of future interest rates) may be directly observable in published sources that are commonly quoted for market-based information. The general acceptance of such information by the market may serve to enhance the actuary's comfort with its reliability. The actuary should consider using multiple sources of information, when available, to help validate the reliability of the information.

3.3.2.2 Inference—When market information is not directly observable, the actuary should use **market-estimate assumptions** inferred from other observable information. Such information may be obtained by observing market transactions that imply the market's assessment of the assumption. For example, when making a **market-estimate assumption** for the volatility of one-year returns on a stock market index, the actuary may be able to deduce that assumption from observing the price at which options on that index are trading.

3.3.2.3 Relevant Information—Often, the actuary will not be able to observe market transactions that incorporate some or all of the assumptions that are needed. In such situations, the actuary should use available observable information that may have relevance in determining market participants' assessment of the assumption that is required. For example, an actuary may have no means of directly observing the market's assessment of mortality for a specific group of lives. However, industry mortality data or mortality assumptions used by market participants in pricing transactions involving similar sets of lives may be observable. The actuary may consider this information to be relevant in establishing an assumption even though the information is not directly observable for the specific group of lives under consideration.

3.3.2.4 Anticipated Experience—When there is insufficient observable information, the actuary may choose a **market-estimate assumption** based on the actuary's expectations for that assumption. Such assumptions should reflect market-observable information to the extent possible. When incorporating anticipated experience assumptions, the actuary should determine whether a market participant would require a margin to compensate for uncertainty. If so, the actuary should include an estimate of that margin based on the considerations discussed in sections 3.3.2.1 through 3.3.2.3.

3.4 Discount Rate Assumptions—When determining the discount rate assumptions for certain long-duration contracts (for example, upper-medium-grade fixed-income instrument yield used in calculating the **liability for future policy benefits**), the actuary should apply the principles of authoritative GAAP guidance and the guidance from this standard.

Where the actuary has limited or no observable market inputs to determine the discount rate assumptions, the actuary may need to extrapolate or interpolate. In such situations, the

actuary should refer to applicable sections of authoritative GAAP guidance on fair value measurement (ASC 820) and section 3.3.2 of this standard.

3.5 Provision for Risk of Adverse Deviation—In certain instances, GAAP requires a provision for the **risk of adverse deviation** in assumptions.

3.5.1 Degree of Risk—When determining a provision for **risk of adverse deviation**, the actuary should take into account the following:

a. the degree of risk and uncertainty in that assumption in total and at each future duration;

b. any policy features that reduce risk to the company, such as indeterminate premiums or dividends; and

c. the magnitude and frequency of fluctuations in relevant historical experience, if available.

For assumptions that are relatively insignificant, the actuary may decide to add little or no provision for **risk of adverse deviation**.

3.5.2 Relationship to Anticipated Experience—When determining assumptions that include a provision for the **risk of adverse deviation**, the actuary should take into account whether such assumptions bear a reasonable relationship to the anticipated experience.

3.5.3 Effect of Provision—The provision for **risk of adverse deviation** should be such that the **net GAAP liability** is increased. If the direction of the effect of including a provision for **risk of adverse deviation** in an assumption is not clear, the actuary should attempt to determine the nature of a provision for **risk of adverse deviation** that is appropriate. If the actuary is unable to determine the directional effect, then the actuary need not include a provision for **risk of adverse deviation** in that assumption. The actuary should establish the individual provisions for **risk of adverse deviation** at a level that provides for an appropriate amount of **risk of adverse deviation** in aggregate.

3.6 Risk Adjustment—In certain instances, GAAP requires a risk adjustment (also referred to as risk margin or risk premium) in the fair value calculation. The risk adjustment is not a provision for **risk of adverse deviation**; rather, it represents the additional amount that a market participant would demand as compensation for bearing uncertainty in the cash flows. The actuary should use professional judgment when applying the risk adjustment.

3.7 Internal Consistency—When advising management on the selection of assumptions, the actuary should identify assumptions that, when taken together, reflect all pertinent areas of expected future experience relevant to the product, line of business, block of business, or cohort for which financial statement values are being calculated. The actuary should recommend assumptions that are internally consistent within each product, line of business,

block of business, or **cohort**. When assumptions are not dependent on specific product features or company specific considerations (for example, U.S. Treasury yields or volatility of a common equity index), the actuary should recommend assumptions that are consistent across product lines. The actuary should apply similar concepts of consistency in establishing provisions for **risk of adverse deviation** or risk adjustment. If the assumptions or other provisions are not internally consistent, the actuary should document any known inconsistencies.

3.8 Assumptions Selected by Another Party—When using assumptions selected by another party, the actuary should review the assumptions for reasonableness. If, in the actuary's judgment, an assumption selected by the party is not reasonable or the actuary cannot determine whether it is reasonable, the actuary should refer to ASOP No. 41, *Actuarial Communications*.

3.9 Methods—Methods used to determine GAAP financial statement amounts are generally prescribed by authoritative GAAP guidance and will vary according to the specific literature that applies.

When developing detailed techniques for application of GAAP methods, the actuary should take into account the following:

a. the substance of the relationship between the issuer of the policy and the policyholder;

b. the classification of the contract (for example, short duration versus long duration, or insurance versus investment) or contract features (for example, **market risk benefits** or embedded derivatives);

c. the expected life of the contract;

d. the cash flow characteristics of the contract, including insurance company cash flows related to the contract but not directly associated with the contract provisions;

e. any other items that are expected to have a material impact on the policy cash flows;

f. the materiality of resulting financial statement amounts;

g. the sensitivity of the resulting financial statement amounts to changes in assumptions; and

h. the consistency with methods used for valuing contracts similar to those issued by the insurance company, if such information is available.

3.10 Financial Statement Disclosures—When contributing to disclosures related to GAAP financial statements, the actuary should comply with the prescribed requirements related to such disclosures. If the actuary's contribution to these disclosures meets the definition of an actuarial communication, the actuary should follow the guidance in ASOP No. 41.

3.11 Premium Deficiency Testing—When testing for **premium deficiency**, the actuary should use **best-estimate assumptions**, current at the time of testing, without making provision for **risk of adverse deviation**, consistent with authoritative GAAP guidance. If a **premium deficiency** arises, the actuary should use current **best-estimate assumptions** to determine future changes in the **policy benefit liability**, consistent with authoritative GAAP guidance. For types of contracts where **lock-in** applies, the current **best-estimate assumptions** are then subject to **lock-in**.

3.12 Recognition of Premiums—Methods to recognize premiums in income are determined by authoritative GAAP guidance and vary by the type of contract. Where the recognition of **GAAP net premiums** is applicable to the measurement of contract assets and liabilities including intangible balances, the actuary should confirm that the recognition is consistent with the recognition of **gross premiums**.

3.13 Simplifications and Approximations—The actuary may, when appropriate, use assumptions, methods, and models that simplify calculations only if the results are reasonably expected not to differ materially from more detailed calculations. The actuary should seek guidance from accounting professionals on questions related to financial statement materiality.

3.14 Reliance on Others for Data, Projections, Models, and Supporting Analysis—The actuary may rely on data, projections, models, and supporting analysis supplied by others. When practicable, the actuary should review the data, projections, models, and supporting analysis for reasonableness and consistency. For further guidance, the actuary should refer to ASOP Nos. 23, 41, and 56, *Modeling*.

3.15 Reliance on Another Actuary—The actuary may rely on another actuary who has performed actuarial services related to the preparation or review of GAAP financial statements. However, the relying actuary should be reasonably satisfied that the other actuary is qualified to perform such services, that the actuarial service was performed in accordance with applicable ASOPs, and that the actuarial service performed is appropriate for the preparation or review of GAAP financial statements.

3.16 Reliance on Expertise of Others—An actuary performing actuarial services related to the preparation or review of GAAP financial statements may rely on the expertise of others (including actuaries not performing actuarial services) in other fields of knowledge for input that is relevant and useful to the GAAP financial statements. In determining the appropriate level of such reliance, the actuary should take into account the following:

a. whether the individual or individuals upon whom the actuary is relying has expertise in the applicable field;

b. the extent to which the input provided has been reviewed or opined on by others with expertise in the applicable field, including any commonly known significant differences of opinion among others with expertise concerning aspects of the input that could be material to the actuary's use of such input; and

c. whether there are legal, regulatory, professional, industry, or other standards that apply to the input supplied by others with expertise in the applicable field, and whether the input has been represented as having met such standards.

3.17 Documentation—The actuary should prepare and retain documentation to support compliance with the requirements of section 3 and the disclosure requirements of section 4. The actuary should prepare 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 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 within the scope of this standard, the actuary should refer to ASOP Nos. 21, 23, 25, 41, and 56. In addition, the actuary should disclose the following, if applicable:

a. the assumptions chosen and the information reflected in the assumptions (see section 3.3);

b. description of the discount rates used, including any methodology used to determine the discount rates (see section 3.4);

c. description of the provision for **risk of adverse deviation** (see section 3.5);

d. description of the risk adjustment, including the assumptions and methodology used (see section 3.6);

e. any known inconsistencies in the assumptions**,** provisions for **risk of adverse deviation**, or risk adjustment, and why these inconsistencies are appropriate (see section 3.7);

f. description of assumptions selected by another party and any review performed by the actuary (see section 3.8);

g. description of any techniques developed by the actuary to determine financial statement amounts (see section 3.9);

h. description of the actuary's contributions in preparing financial statement disclosures (see section 3.10);

i. discussion of any recognition of **premium deficiency** (see section 3.11);

j. description of the actuary's contributions in formulating recognition of premiums (see section 3.12);

k. discussion of any significant simplifications or approximations (see section 3.13);

l. extent of any reliance on others for data, projections, models, and supporting analysis (see section 3.14);

m. extent of any reliance on another actuary (see section 3.15); and

n. extent of any reliance on expertise of others (see section 3.16).

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

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

b. 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. if in the actuary's professional judgment, the actuary has 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 1

Background and Current Practices

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

Background

The American Institute of Certified Public Accountants (AICPA) developed *Audits of Stock Life Insurance Companies* (*Audit Guide*) in 1972 with the cooperation of life insurance company accountants and actuaries. The *Audit Guide* represented the first effort by the accounting profession to establish GAAP for the life insurance industry. The Financial Accounting Standards Board (FASB) is now responsible for the determination of GAAP for companies whose financial statements are audited.

Until 2009, the FASB published Statements of Financial Accounting Standards (SFAS) to guide accountants on specific transactions. Once published, these SFAS were then considered to be GAAP. On September 15, 2009, the multiple SFAS were replaced by the FASB's Accounting Standards Codification (ASC), which became the standard for GAAP in the United States. The FASB now updates the ASC by issuing Accounting Standards Updates (ASUs).

GAAP standards for stock life insurance companies are primarily established by ASC Topic 944 "Financial Services, Insurance" but other topics are also relevant. Prior to GAAP codification, these standards could be found in SFAS No. 60, *Accounting and Reporting by Insurance Enterprises*, and SFAS No. 97, *Accounting and Reporting by Insurance Enterprises for Certain Long-Duration Contracts and for Realized Gains and Losses from the Sale of Investments*, among others. The FASB issued SFAS No. 60, which generally codified the concepts in the *Audit Guide*, in 1972. In 1987, the FASB issued SFAS No. 97, which (1) established GAAP for certain forms of insurance contracts not specifically addressed by SFAS No. 60, primarily universal life-type contracts; (2) established GAAP for investment contracts not involving a significant insurance component; and (3) revised GAAP for limited-payment contracts. In November 1990, the AICPA issued *Practice Bulletin 8*, providing guidance for certain questions related to SFAS No. 97.

In 1995, the FASB issued SFAS No. 120, *Accounting and Reporting by Mutual Life Insurance Enterprises and by Insurance Enterprises for Certain Long-Duration Participating Contracts*. This statement extended the requirements of SFAS No. 60 and SFAS No. 97 to mutual life insurers, established accounting for certain participating life insurance contracts of mutual life insurance enterprises (and stock life insurance subsidiaries of mutual life insurance enterprises), and permitted other stock life insurers to apply its provisions to participating life insurance contracts that meet the statement's conditions. At the same time, the AICPA provided further clarification of the accounting requirements for long-duration participating contracts in Statement of Position (SOP) No. 95-1, *Accounting for Certain Insurance Activities of Mutual Life Insurance Enterprises*. Other standards are also relevant, as is prevailing accounting practice

in areas not specifically addressed by an SFAS. Prior to the issuance of SFAS No. 120, mutual life insurers' statutory financial statements were, in practice, described as being in accordance with GAAP.

In 2018, the FASB issued ASU 2018–12, *Targeted Improvements to the Accounting for Long-Duration Contracts*. This amendment changed the measurement and disclosure requirements for insurance products and product features. The mandatory effective date for public entities filing statements with the Securities Exchange Commission (SEC) is January 1, 2023. For certain smaller companies and non-public companies, as defined by the FASB, the ASU will be effective for annual statements in 2025. Early adoption is permitted in 2022. This will give rise to multiple accounting standards being applicable at the same time.

Current Practices

The Academy promulgated *Financial Reporting Recommendations and Interpretations* applicable to GAAP for insurance companies to provide guidance to actuaries in this area before the formal appearance of ASOP No. 10 in 1989. Because of changes in GAAP resulting from SFAS No. 97, SFAS No. 120, and evolution in actuarial practice, ASOP No. 10 was revised in 2011. The 2011 revision removed interpretations of GAAP literature and focused the standard on those activities for which actuaries are most directly responsible. Since 2011, GAAP has continued to evolve, and it is appropriate once again to replace certain existing guidance and to promulgate a more generally applicable standard of actuarial practice with respect to insurance company GAAP financial statements.

The Insurance Experts Panel of the AICPA has developed certain interpretations of insurance accounting as promulgated by the FASB including for certain elements of ASU 2018–12. These interpretations have been added to the AICPA's *Audit and Accounting Guide, Life and Health Insurance Entities*.

Appendix 2

Comments on the Exposure Draft and Responses

The exposure draft of the proposed revision of ASOP No. 10, *U.S. GAAP for Long-Duration Life, Annuity, and Health Products*, was issued in April 2022 with a comment deadline of June 30, 2022. Three comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term "commentator" may refer to more than one person associated with a particular comment letter. The ASOP No. 10 Task Force and the Life Committee of the Actuarial Standards Board (ASB) carefully considered all comments received, and the ASB reviewed (and modified, where appropriate) the changes proposed by the Life Committee.

Summarized below are the significant issues and questions contained in the comment letters and the responses. Minor wording or punctuation changes that were suggested but not significant are not reflected in the appendix, although they may have been adopted.

The term "reviewers" in appendix 2 includes the ASOP No. 10 Task Force, the ASB Life Committee, and the ASB. Also, the section numbers and titles used in appendix 2 refer to those in the exposure draft, which are then cross referenced with those in the final ASOP.

GENERAL	
Comment	Two commentators suggested having the ASOP apply only to services relating to entities that have adopted ASU 2018-12, and temporarily keeping the existing version of ASOP No. 10 for services relating to entities that have yet to adopt ASU 2018-12.
Response	The reviewers acknowledge that entities are adopting ASU 2018-12 at different times but believe relevant GAAP guidance should be contained in one ASOP, and therefore made no change in response to this comment.
Comment	One commentator suggested removing the proposed expansion of ASOP No. 10 to include the review of financial statements in addition to preparation (or alternatively, providing expended guidance relating to review).
Response	The reviewers disagree and made no change in response to this comment.
Comment	One commentator suggested adding long-duration property and casualty contracts to the scope of the ASOP.
Response	The reviewers believe the scope is appropriate and made no change.
Comment	One commentator suggested except for sections 1.1 and 1.2, and the opening paragraph of section 2, references to "authoritative GAAP guidance" should be removed.
Response	The reviewers believe that the references to authoritative GAAP guidance are appropriate and made no change in response to this comment.
SECTION 2. DEFINTIONS	
Comment	One commentator suggested a definition of "assumption" be added.
Response	The reviewers disagree and made no change.

Section 2.1, Best-Estimate Assumption	
Comment	One commentator suggested revising section 2.1 as follows: "Best-Estimate Assumption—An assumption that produces a current estimate of expected performance with no provision for adverse deviation."
Response	The reviewers disagree and made no change in response to this comment.
Section 2.3, Costs	
Comment	One commentator suggested removing the parenthetic clause "(to the extent allowable by authoritative GAAP guidance)."
Response	The reviewers disagree and made no change in response to this comment.
Section 2.4, Deferred Policy Acquisition Cost (DPAC) and 2.5, Deferred Sales Inducements (DSI)	
Comment	One commentor suggested inserting the word "intangible" before "asset" and inserting the phrase, "that were deferrable" at the end.
Response	The reviewers added the word "capitalized" to the definitions in response to this comment.
Section 2.6, GAAP Net Premium	
Comment	One commentator suggested rewriting section 2.6 in a way that satisfies GAAP both before and after the effective date of ASU 2018-12: "GAAP Net Premium—The portion of gross premium that provides for all costs except (a) those that are required to be charged to expense as incurred and (b) after the effective date of ASU 2018-12, policy acquisition costs." After the effective date of ASU 2018-12, GAAP Net Premium may not exceed 100% of gross premium.
Response	The reviewers revised the definition in response to this comment.
Sections 2.6, GAAP Net Premium, and 2.7, Gross Premiums	
Comment	One commentator suggested defining these premium terms in plural and updating the references in section 3.5.2 (now section 3.4.2) to conform with other references.
Response	The reviewers agree and made the suggested changes.
Section 2.8, Liability for Future Policy Benefits	
Comment	One commentator suggested revising section 2.8 to read, "A liability of traditional insurance contracts, measured as the present value of future policy benefits minus the present value of future net premiums."
Response	The reviewers clarified the language in response to this comment.
Section 2.9, Lock-In	
Comment	One commentator suggested rewriting section 2.9 to read, "A requirement to continue using an original basis assumption as set at issue or acquisition or, prior to the effective date of ASU 2018-12, upon redetermination for a premium deficiency. After the effective date of ASU 2018-12, this requirement applies only to certain discount rates and, if the reporting entity has elected, to non-level cost assumptions."
Response	The reviewers clarified the definition in response to this comment.
Section 2.12, Net GAAP Liability	
Comment	One commentator suggested removing the reference to "intangible balances related to reinsurance."
Response	The reviewers agree and made the change.

Section 2.13, Policy Benefit Liability	
Comment	One commentator suggested adding the following language to section 2.13: "The amount accrued for unearned revenue may or may not be shown separately in the company's financial statements but is included in the policy benefit liability for purposes of this standard. Similarly, the amount accrued for unpaid claim reserves for incurred claims may or may not be shown separately in the company's financial statements but is included in the policy benefit liability for purposes of this standard."
Response	Rather than expanding this definition, the reviewers deleted the reference to financial statement placement.
Section 2.14, Premium Deficiency	
Comment	One commentator suggested adding a sentence for ASU 2018-12 changes to read: "After the effective date of ASU 2018-12, DPAC and maintenance costs are excluded from this determination."
Response	The reviewers believe the guidance is sufficient as written and made no change.
Section 2.15, Risk of Adverse Deviation	
Comment	One commentator suggested deleting this definition and removing all references to "risk of" adverse deviation from later sections.
Response	The reviewers disagree and made no change.
Section 2.16, Value of Business Acquired (VOBA)	
Comment	One commentator suggested inserting "or liability" after "asset" since purchase accounting may require a VOBA liability in certain situations.
Response	The reviewers substituted "balance" for "asset" to cover liability situations in response to this comment.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Comment	One commentator suggested deleting the "…company's operating policies…" term from sections 3.1, 3.2, 3.3.1, and 3.5.1(b), citing concerns that many accounting decisions are made at the product-level.
Response	The reviewers replaced "operating policies" with "accounting policies" in response to this comment.
Section 3.2, Classification of Contracts, Features, and Benefits	
Comment	One commentator suggested deleting the reference to short-duration vs. long-duration classification since this determination is part of accounting policy. Additionally, this commentator suggested including a reference to company accounting policies.
Response	The reviewers modified this section in response to this comment.
Section 3.3.1, Best-Estimate Assumptions	
Comment	One commentator suggested substantial revisions to the guidance on "best estimate assumptions" to include the following: "The actuary should choose assumptions to represent management's expectations of future cash flows including the effects of volatility. Depending on the probability distribution of target cash flows, best-estimate assumptions might be represented in a single scenario or in a range of scenarios. For example, death benefits of life insurance contracts depend on mortality which, in large numbers, approximates a normal distribution, such that a single set of expected mortality rates will produce substantially the same expected cash flows as a range of scenarios around mean mortality rates. In contrast, one-sided constraints on nonguaranteed benefits might require a range of scenarios to estimate the amount and timing of such benefits."
Response	The reviewers believe that this section adequately addresses the need to consider multiple scenarios in the development of best-estimate assumptions and made no changes in response to this comment.

Section 3.3.2.4, Anticipated Experience	
Comment	One commentator suggested shortening section 3.3.2.4 and combining the last two sentences.
Response	The reviewers modified the language in response to this comment.
Section 3.4, Discount Rate Assumptions	
Comment	One commentator suggested consolidating guidance on discount rates and other assumptions.
Response	The reviewers disagree and made no change.
Section 3.5.2, Relationship to Anticipated Experience	
Comment	Several commentators suggested removing the example because it could be viewed as providing an interpretation of authoritative GAAP guidance.
Response	The reviewers agree and made the change.
Section 3.10, Financial Statement Disclosures	
Comment	One commentator suggested removing the second sentence because it was not applicable in all circumstances.
Response	The reviewers agree and made the change.
Section 3.11, Premium Deficiency Testing	
Comment	One commentator stated that the current draft appears to retain premium deficiency testing wording from the prior version of the ASOP, with room for ambiguity as to whether premium deficiency testing will continue.
Response	While premium deficiency testing will be limited under ASU 2018-12, the existing language was retained because the revised ASOP No. 10 will cover pre- and post-ASU 2018-12 adoption. Authoritative GAAP guidance will determine whether premium deficiency testing must be performed.
Section 3.12, Recognition of Premiums	
Comment	One commentator suggested omitting the list of balances.
Response	The reviewers agree and modified the language in response to this comment.
Comment	Two commentators suggested modifications to this section because premium recognition methodologies are unlikely to be the actuary's responsibility.
Response	The reviewers modified the language in response to these comments.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.1, Required Disclosures in an Actuarial Report	
Comment	One commentator suggested making changes to this section to align with the suggested changes to section 3.2.
Response	The reviewers agree and made changes throughout section 4.1 to align with changes in sections 2 and 3.