ACTUARIAL STANDARDS BOARD

• THIRD EXPOSURE DRAFT •

Proposed Revision of
Actuarial Standard of Practice No. 4

Measuring Pension Obligations and Determining Pension Plan Costs or Contributions

Comment Deadline:
March 1, 2007

Developed by the
Pension Committee of the
Actuarial Standards Board

Approved for Exposure by the
Actuarial Standards Board
August 2006

THIRD EXPOSURE DRAFT—August 2006

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

STANDARD OF PRACTICE

APPENDIXES

THIRD EXPOSURE DRAFT—August 2006

August 2006

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: Proposed Revision of Actuarial Standard of Practice (ASOP) No. 4

This booklet contains the third exposure draft of the proposed revision of ASOP No. 4, now titled *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. Please review this exposure draft, and give the ASB the benefit of your comments and suggestions. Each written response and each response sent by e-mail to the address below will be acknowledged, and all responses will receive appropriate consideration by the drafting committee in preparing the final document for approval by the ASB.

The ASB accepts comments by either electronic or conventional mail. The preferred form is e-mail, as it eases the task of grouping comments by section. If you wish to use e-mail, please send a message to **comments@actuary.org**. You may include your comments either in the body of the message or as an attachment prepared in any commonly used word processing format. Please include the phrase "ASOP No. 4 Revision" in the subject line of your message.

If you wish to use conventional mail, please send comments to the following address:

ASOP No. 4 Revision
Actuarial Standards Board
1100 Seventeenth Street, NW, 7th Floor
Washington, DC 20036-4601

Deadline for receipt of responses in the ASB office: **March 1, 2007**

Background

Pension Plan Recommendations A, B, and C were adopted and amended by the American Academy of Actuaries (Academy) during the period 1976 to 1983. In 1988, *Recommendations for Measuring Pension Obligations* was promulgated as an ASOP by the Interim Actuarial Standards Board and the Board of Directors of the American Academy of Actuaries. In 1990, the ASB republished that standard as ASOP No. 4, *Recommendations for Measuring Pension Obligations*. In October 1993, ASOP No. 4 was reformatted and published in the uniform format adopted by the ASB, with a title change, *Measuring Pension Obligations*.

THIRD EXPOSURE DRAFT—August 2006

The original ASOP No. 4 contained general recommendations for selecting economic and noneconomic assumptions, the actuarial cost method, and the asset valuation method—all key elements in the valuation of pension obligations. The evolution of actuarial practice in this area and the adoption of related ASOPs since ASOP No. 4 was adopted have made it necessary to update the guidance contained in ASOP No. 4.

The ASB intends to provide coordinated guidance through a series of ASOPs for measuring pension obligations:

1. This proposed revision of ASOP No. 4, which is intended to be an "umbrella" standard that ties together the standards below and addresses overall considerations for measuring pension obligations;

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

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

4. Proposed ASOP, *Selection and Use of Asset Valuation Methods for Pension Valuations*.

The proposed ASOP, *Selection and Use of Asset Valuation Methods for Pension Valuations*, is being exposed concurrently with this proposed revision of ASOP No. 4, and it is the ASB's intention, in order to achieve consistency, to adopt both final standards at the same time.

The ASB had also intended to provide guidance regarding the selection of actuarial cost methods in a separate ASOP. Because the selection of an actuarial cost method is integral to developing a cost or contribution allocation procedure, the ASB has decided that it would be best to include guidance on the selection of actuarial cost methods in ASOP No. 4.

ASOP Nos. 27 and 35 contain statements to the effect that, in case of a conflict between the guidance in those standards and ASOP No. 4, those standards will govern. It is the ASB's intention that when this proposed standard is adopted, it will govern in any such conflicts. The ASB plans to adopt revisions of ASOP Nos. 27 and 35 with the same effective date as the proposed revision of ASOP No. 4.

Actuarial practice is evolving in light of the application of the concepts of financial economics to measuring pension obligations and determining pension plan costs or contributions. The proposed ASOP is intended to accommodate the financial economics approach as well as traditional actuarial practice.

First Exposure Draft

The first exposure draft of this proposed ASOP was issued in December 2002, with a comment deadline of June 15, 2003. Twenty-two comment letters were received. The Pension Committee carefully considered all comments received and made changes to the language in several sections.

Second Exposure Draft

The second exposure draft of this proposed ASOP was issued in March 2005 with a comment deadline of October 31, 2005. Eighteen comment letters were received and considered in developing the third exposure draft. A summary of the substantive issues contained in the comment letters and the responses are provided in appendix 2.

The most significant changes from the second exposure draft are as follows:

1. Sections 3.2, Prescribed Assumption or Method (now Prescribed Assumption or Method Selected by the Plan Sponsor), and 4.2, Disclosure About Prescribed Assumptions or Methods, were revised. As in the second exposure draft, the actuary is required to evaluate whether a prescribed assumption or method selected by the plan sponsor is reasonable for the purpose of the measurement and make appropriate disclosure. The proposed standard makes the following changes:

    a. the proposed standard clarifies that, in making the evaluation, the actuary should be guided by Precept 8 of the *Code of Professional Conduct*; and

    b. under the proposed standard, the actuary need not make such an evaluation if the actuary does not possess the necessary expertise or if the plan sponsor or other relevant entity is unwilling or unable to provide the information necessary to do so. In such circumstances, the actuary should make appropriate disclosure.

    The proposed standard does not permit the actuary to avoid making such an evaluation merely because such an assessment is beyond the scope of the actuary's assignment, although several commentators asked the committee to make that change. The committee recognizes that these requirements represent a departure from generally accepted practice. The committee believes that an improvement in current practice in this area is appropriate.

2. Section 3.9, Measurements Independent of the Actuarial Cost Method (now 3.14, Measuring the Value of Accrued or Vested Benefits), was revised to provide guidance on general considerations for measuring the value of accrued or vested benefits and new section 4.1(l) was added requiring disclosure of the types of benefits regarded by the actuary as vested and accrued 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.

3. New section 3.9, Interrelationship Among Actuarial Assumptions, Procedures, and Plan Provisions, has been added. If plan provisions create contingent pension obligations that are difficult to measure using deterministic assumptions or procedures, the actuary is required to consider using alternative actuarial assumptions or procedures to appropriately measure the value of such contingent pension obligations. If such provisions are significant and are not included in the actuarial valuation, the actuary is required to make appropriate disclosure.

4. Section 3.12, Ability to Pay Benefits When Due (now 3.13), which had required the actuary to assess the plan's ability to pay benefits when due, was rewritten. The actuary should not select an actuarial cost method or amortization method that, in the actuary's professional judgment, is significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due and should disclose any such inconsistency if an actuarial cost method or amortization method was prescribed by applicable law or selected by the plan sponsor.

5. New section 3.15, Volatility, was added and section 4.1(h) (now (m)) was revised. The proposed standard makes the following changes:

   a. the proposed standard requires disclosure that future measurements may differ significantly from the current measurement;

   b. when the actuary's assignment includes an analysis of the potential range of future pension obligations, costs, contributions, or funded status, the proposed standard requires the actuary to consider sources of volatility, to exercise professional judgment in selecting a range of variation in these factors and in selecting a methodology by which to analyze them, and to make appropriate disclosure; and

   c. when such analysis is beyond the scope of the actuary's assignment, the proposed standard requires the actuary to make appropriate disclosure.

6. Sections 1.2, Scope, and 4.4, Deviation from Standard, were revised to reflect language proposed by the ASB concerning compliance with applicable law and deviation from the standard.

The Pension Committee thanks everyone who commented on the previous exposure drafts.

<u>Request for Comments</u>

The Pension Committee appreciates comments on all areas of this proposed standard and would like to draw the readers' attention to the following areas in particular:

THIRD EXPOSURE DRAFT—August 2006

1. Are the changes described above appropriate? Are the new requirements clear?

2. New section 3.2.2, Inability to Evaluate Prescribed Assumption or Method, describes two situations in which the actuary is not required to evaluate whether a prescribed assumption or method selected by the plan sponsor is reasonable for the purpose of the measurement—if the actuary does not possess the necessary expertise to make such an evaluation or if the plan sponsor or other relevant entity is unwilling or unable to provide the information necessary to do so. The proposed standard intentionally does not permit the actuary to avoid making such an evaluation merely because such an assessment is beyond the scope of the actuary's assignment. Are there other valid reasons why the proposed standard should not require the actuary to make such an evaluation?

3. ASOPs typically contain a clause that describes what an actuary should do when, in the actuary's professional judgment, a deviation from one or more provisions of the ASOP would be appropriate. With respect to such deviations, the ASB is proposing new language that appears in sections 4.4–4.4.2 of this proposed ASOP. Is this language appropriate and clear? If not, how should it be changed?

The Pension Committee thanks former committee members Thomas P. Adams, Arthur J. Assantes, Bruce C. Gaffney, Lawrence A. Golden, John F. Langhans, Michael B. Preston, and Phillip A. Romello for their assistance with drafting this proposed ASOP.

The ASB reviewed the draft at the August 2006 board meeting and approved its third exposure.

THIRD EXPOSURE DRAFT—August 2006

PROPOSED REVISION OF 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) provides guidance to actuaries when performing professional services with respect to measuring pension obligations and determining plan costs or contributions. Throughout this standard, the term *plan* refers to a defined benefit pension plan. Other actuarial standards of practice address actuarial assumptions and asset valuation methods. This standard addresses actuarial cost methods and provides guidance for coordinating and integrating all of these elements of an actuarial valuation of a plan.

1.2 Scope—This standard applies to actuaries when performing professional services with respect to the following tasks:

a. measurement of pension obligations. Examples include determinations of funded status, assessments of solvency upon plan termination, and measurements for use in cost or contribution determinations;

b. assignment of the value of plan obligations to time periods. Examples include contributions, accounting costs, and cost or contribution estimates for potential plan changes;

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

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

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

f. projection of pension obligations, plan costs or contributions, and other related measurements. Examples include cash flow projections and projections of a plan'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 or contribution allocation procedure includes giving advice on developing or modifying a cost or contribution allocation procedure.

The actuary should comply with this standard except to the extent it may conflict with applicable law (statutes, regulations, and other legally binding authority). If compliance with applicable law requires the actuary to depart from the guidance set forth in this standard, the actuary should refer to section 4 regarding deviation from standard.

This standard does not apply to actuaries when performing professional 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).

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

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 valuation with a measurement date six months or more after adoption by the ASB.

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, which is not provided for by future normal costs.

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 (sometimes referred to as a *funding method*).

2.3 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.

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 contributions.

2.6 Amortization Method—A method under a contribution or cost allocation procedure for determining the amount, timing, and pattern of recognition of the difference between the actuarial accrued liability and the actuarial value of assets.

2.7 Contribution—A potential payment to the plan determined by the actuary. It may or may not be the amount actually paid by the plan sponsor or other contributing entity.

2.8 Contribution Allocation Procedure—A procedure for determining the periodic contribution for a plan. It may produce a single value, such as normal cost plus twenty-year amortization of the unfunded actuarial accrued liability, or a range of values, such as that from the ERISA minimum required contribution to the maximum tax-deductible amount.

2.9 Cost—The portion of plan obligations assigned to a period for purposes other than funding.

2.10 Cost Allocation Procedure—A procedure for determining the periodic cost for a plan (for example, the procedure to determine the net periodic pension cost under Statement of Financial Accounting Standards (SFAS) No. 87, *Employers' Accounting for Pensions*).

2.11 Expenses—Administrative or investment expenses expected to be borne by the plan.

2.12 Measurement Date—The date as of which the values of the pension obligations and, if applicable, assets are determined (sometimes referred to as the *valuation date*).

2.13 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.

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

2.15 Plan Provisions—(a) Relevant terms of the plan document; and (b) relevant administrative practices known to the actuary.

2.16 Prescribed Assumption or Method—A specific assumption or method that is mandated or that is selected from a specified range that is deemed to be acceptable by law, regulation, or other binding authority. For purposes of this standard, the plan sponsor would be considered a binding authority to the extent that law, regulation, or accounting standards give the plan sponsor responsibility for selecting such an assumption or method.

Section 3. Analysis of Issues and Recommended Practices

3.1 Overview—Measuring pension obligations and determining plan costs or 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, and amortization methods.

The actuary may have the responsibility and authority to select some or all actuarial assumptions, actuarial cost methods, asset valuation methods, and amortization 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 assumptions or methods prescribed by applicable law or selected by others.

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 actuarial assumptions. ASOP No. __[1], *Selection and Use of Asset Valuation Methods for Pension Valuations*, provides guidance concerning asset valuation methods. ASOP No. 4 addresses actuarial cost methods and provides guidance for coordinating and integrating all of these elements of an actuarial valuation of a plan. In the event of a conflict between the guidance provided in ASOP No. 4 and the guidance in any of the aforementioned ASOPs, ASOP No. 4 would govern.

3.2 Prescribed Assumption or Method Selected by the Plan Sponsor—The actuary should evaluate whether a prescribed assumption or method selected by the plan sponsor is reasonable for the purpose of the measurement, except as provided in section 3.2.2. For purposes of this evaluation, reasonable assumptions or methods are not necessarily limited to those the actuary would have selected for the measurement.

3.2.1 Basis for Evaluating Prescribed Assumption or Method—When evaluating a prescribed assumption or method, the actuary should consider 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. The actuary should be guided by Precept 8 of the *Code of Professional Conduct*, which states, "An Actuary who performs Actuarial

[1] A proposed ASOP on the selection and use of asset valuation methods is currently in development and has been released as a fourth exposure draft concurrently with this proposed revision of ASOP No. 4.

Services shall take reasonable steps to ensure that such services are not used to mislead other parties." 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).

3.2.2 Inability to Evaluate Prescribed Assumption or Method—If the actuary does not possess the necessary expertise to evaluate a prescribed assumption or method, or if the plan sponsor or other relevant entity is unwilling or unable to provide the information necessary to do so, the actuary should disclose this in accordance with section 4.2(b).

3.3 General Procedures—When measuring pension obligations and determining plan costs or contributions, the actuary should perform the following procedures:

a. identify the purpose and nature of the measurement;

b. identify the measurement date (section 3.4);

c. identify plan provisions applicable to the measurement (section 3.5);

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

e. select actuarial assumptions pertinent to the measurement, if applicable (section 3.7);

f. select an asset valuation method, if applicable (section 3.8);

g. consider the interrelationship among actuarial assumptions, procedures, and plan provisions (section 3.9);

h. consider the relationship between procedures used for measuring assets and obligations (section 3.10);

i. apply an actuarial cost method to produce a normal cost and actuarial accrued liability, if applicable (section 3.11);

j. apply a procedure to allocate costs or contributions to past and future periods, if applicable (section 3.12); and

k. consider whether the actuarial cost method and amortization method are significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due, if applicable (section 3.13).

3.4 Measurement Date Considerations—When measuring pension obligations and determining plan costs or contributions as of a measurement date, the actuary should consider 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 furnished as of another date. In these circumstances, the actuary should make appropriate adjustments to the data. Alternatively, the actuary may calculate the obligations on the date as of which the data were furnished and then adjust the obligations to the measurement date (see section 3.16 for additional guidance). The actuary should conclude that any such adjustments are reasonable in the actuary's professional judgment, given the purpose and nature of the measurement.

3.4.2 Events after the Measurement Date—The treatment of events known to the actuary that occur subsequent to the measurement date and prior to the date of the actuarial communication should be appropriate for the purpose of the measurement. Unless the purpose of the measurement requires the inclusion of such events, they need not be reflected in the measurement.

3.5 Plan Provisions—When measuring pension obligations and determining plan costs or contributions, the actuary should take into account plan provisions as appropriate for the purpose and nature of the measurement.

3.5.1 Adopted Plan Changes—The actuary should take into account adopted plan provisions consistent with the following when determining current period costs or contributions, unless contrary to applicable law:

a. Provisions adopted on or before the measurement date or, if later, the beginning of the cost or contribution allocation period should be reflected for at least the portion of the period during which the provisions are in effect.

b. Provisions adopted after the later of the measurement date or the beginning of the cost or contribution allocation period may, but need not, be reflected.

c. Provisions that are not effective until future periods may, but need not, be reflected.

3.5.2 Proposed Plan Changes—The actuary should reflect proposed plan changes as appropriate for the purpose and nature of the measurement.

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. In addition, the actuary should consider the following:

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/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 the assumed demographic characteristics of individuals not yet in covered employment.

3.7 Actuarial Assumptions—With respect to the selection of actuarial assumptions, the actuary should also refer to ASOP Nos. 27 and 35 for guidance.

3.8 Asset Valuation—The actuary should also refer to ASOP No. __, *Selection and Use of Asset Valuation Methods for Pension Valuations*, for guidance on the selection and use of an asset valuation method.

3.9 Interrelationship Among Actuarial Assumptions, Procedures, and Plan Provisions—Some plan provisions may create contingent pension obligations that are difficult to measure using deterministic assumptions or procedures. Examples of such plan provisions include the following:

a. the use of favorable investment returns to provide cost-of-living increases automatically to retirees; and

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.

In such circumstances, the actuary should consider whether deterministic assumptions or procedures appropriately measure the value of such plan provisions. The actuary may consider using alternative actuarial assumptions or procedures, such as stochastic modeling, option-pricing techniques, or an assumption that includes an adjustment to reflect the plan provisions that were not explicitly valued. If, in the actuary's professional judgment, such plan provisions are significant and their contingent nature has not been reflected in the measurement, the actuary should so disclose in accordance with section 4.1(d).

3.10 Relationship Between Procedures Used for Measuring Assets and Obligations—The actuary should measure assets and obligations on a consistent basis as of the measurement date. Following are some examples, but not an exhaustive list, of such consistency:

a. if a participant was due a lump sum before the measurement date, but such lump sum had not been paid from plan assets as of the measurement date, the actuary should either include the participant's benefit due in obligations, or exclude it from the asset value, used in the measurement;

b. if a plan has a dedicated portfolio of noncallable bonds specifically designed so that emerging interest and principal payments meet specific emerging benefit payments, the actuary could value the bond portfolio at market value and value the specific emerging benefit payments using an interest rate equal to the internal rate of return of the bonds on a market value basis. Alternatively, the actuary could determine a composite valuation interest rate that reflects a weighted average of the internal rate of return of the bonds on a market value basis and the expected return on the remainder of the assets; and

c. if the actuary values bonds at amortized cost, as permitted under ASOP No. __, *Selection and Use of Asset Valuation Methods for Pension Valuations*, when the plan's investment policy provides that such bonds are expected to be held to maturity and holding such bonds to maturity is not inconsistent with the plan's investment practice and expected cash flow needs, the actuary could value an appropriate portion of the pension obligation using an interest rate equal to the internal rate of return of the bonds on an amortized cost basis. Alternatively, the actuary could determine a composite valuation interest rate that reflects a weighted average of the internal rate of return of the bonds on an amortized cost basis and the expected return on the remainder of the assets.

3.11 <u>Actuarial Cost Method</u>—When assigning costs or 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 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 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 should bear a reasonable relationship to some element of the plan's benefit formula or the participants' 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 should be considered when assigning costs or 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.

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 an actuarial cost method that does not directly calculate an actuarial accrued liability, the sum of plan assets and the unfunded actuarial liability, if any, shall be considered to be the actuarial accrued liability.

3.12 Cost or Contribution Allocation Procedure—The cost or contribution allocation procedure typically combines the normal cost under an actuarial cost method and an amortization method to determine the cost or contribution for the period. When selecting an actuarial cost method or an amortization method, 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 input received from sources such as the plan administrator or plan sponsor regarding relevant factors that may include the following:

a. limitations on the availability of future contributions;

b. the desired pattern of costs or contributions over time; and

c. the desire to achieve or maintain a funding goal or level of benefit security.

3.13 Ability to Pay Benefits When Due—In some circumstances, a contribution allocation procedure selected in accordance with section 3.12 may not necessarily 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 3.11 of this standard, and an asset valuation method selected in accordance with ASOP No. __, *Selection and Use of Asset Valuation Methods for Pension Valuations*.

3.13.1 Actuary Selects Actuarial Cost Method or Amortization Method—When performing professional services with respect to contributions for a plan, the actuary should not select an actuarial cost method or amortization method that, in the actuary's professional judgment, is significantly inconsistent with the plan accumulating adequate assets 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 contributions when due.

3.13.2 Actuary Does Not Select Actuarial Cost Method or Amortization Method—In some circumstances, the actuary's role is to determine the contribution, or range of contributions, using an actuarial cost method or amortization method prescribed by applicable law or selected by the plan sponsor. If, in the actuary's professional judgment, such an actuarial cost method or amortization method is significantly inconsistent with the plan accumulating adequate assets 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 contributions when due, the actuary should disclose this in accordance with section 4.1(j).

Examples of such inconsistencies are a plan covering a sole proprietor with funding that continues past an expected retirement date with payment due in a lump sum; using the aggregate funding method for a plan covering three employees, in which the principal is near retirement and the other employees are relatively young; and a plan amendment with an amortization period so long that overall plan contributions would be scheduled to occur too late to make plan benefit payments when due.

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

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

a. relevant plan provisions and applicable law;

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

c. the contingencies upon which benefits become payable, which may differ for ongoing- 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 accrued benefits provide an appropriate attribution pattern for the purpose of the measurement (for example, it may not be appropriate if the plan's benefit accruals are severely backloaded); and

g. if the measurement reflects the impact of a special event (such as a plant shutdown or plan termination), the actuary should consider factors such as the following:

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

    2. the impact of the special event on employee 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.

3.15 Volatility—If the scope of the actuary's assignment includes an analysis of the potential range of future pension obligations, costs, 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;

c. the effect of discontinuities in applicable cost or funding regulations, 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 cost expected when using a particular actuarial cost method for the plan population.

In analyzing potential variations in economic and demographic experience or assumptions, the actuary should exercise professional judgment in selecting a range of variation in these factors and in selecting a methodology by which to analyze them, consistent with the scope of the assignment.

3.16 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 an appropriate result for purposes of the measurement. To determine whether adjustment is appropriate, the actuary should consider 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; and

d. changes in economic and demographic expectations.

For example, when adjusting obligations from a prior measurement date, the actuary should consider whether the interest rate or other assumptions used to determine the obligations should be revised.

3.17 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, but not an exhaustive list, 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 benefits being valued to represent only a minor part of the overall pension obligation, cost, or contribution.

3.18 Reliance on Data, Plan Provisions, or Other Information Supplied by Others—When relying on data, plan provisions, or other information supplied by others, the actuary should refer to ASOP No. 23 for guidance.

3.19 Documentation—The actuary should prepare and retain documentation in compliance with the requirements of ASOP No. 41, *Actuarial Communications*. 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 Communication Requirements—Any actuarial communication prepared to communicate the results of work subject to this standard must comply with the requirements of ASOP Nos. 23, 27, 35, 41, and ASOP No. __, *Selection and Use of Asset Valuation Methods for Pension Valuations*. In addition, such communication should contain the following elements, where relevant and material:

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. an outline or summary of the benefits included in the actuarial valuation and of any significant benefits not included in the actuarial valuation;

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

f. a summary of the participant information;

g. if hypothetical data are used, a description of the data;

h. 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 material 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);

i. a description of the cost or contribution allocation procedure, including a description of amortization methods;

j. if applicable in accordance with section 3.13.2, a statement indicating that the actuarial cost method or amortization method is significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due;

k. if the plan is funded in whole or in part on a pay-as-you-go basis, a statement to that effect;

l. if the actuary measured the value of accrued or vested benefits, a description of the types of benefits regarded as vested and accrued 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;

m. a statement indicating that future measurements (for example, of pension obligations, costs, 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."

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;

n. a description of known changes in assumptions and methods from those used in the immediately preceding measurement prepared for a similar purpose;

o. a description of adjustments of prior measurements used under section 3.16; and

p. if, in the actuary's professional judgment, the actuary's use of approximations or estimates could result in a significant margin for error relative to the results if a detailed calculation had been done, a statement to this effect.

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 audience (as defined in ASOP No. 41), such as an annual actuarial valuation report.

4.2 Disclosure About Prescribed Assumptions or Methods—The actuary's communication should state the source of any prescribed assumptions or methods. In addition, with respect to prescribed assumptions or methods selected by the plan sponsor, the actuary's communication should identify the following, if applicable:

a. any prescribed assumption or method that significantly conflicts with what, in the actuary's professional judgment, would be reasonable for the purpose of the measurement (section 3.2.1); or

b. any prescribed assumption or method whose reasonableness for the purpose of the measurement the actuary is unable to evaluate and the reason for such inability (section 3.2.2).

4.3 Prescribed Statement of Actuarial Opinion—This ASOP does not require a prescribed statement of actuarial opinion as described in the *Qualification Standards for Prescribed Statements of Actuarial Opinion* promulgated by the American Academy of Actuaries. However, law, regulation, or accounting requirements may also apply to an actuarial communication prepared under this standard, and as a result, such actuarial communication may be a prescribed statement of actuarial opinion.

4.4 Deviation from Standard—If, in the actuary's professional judgment, the actuary has deviated materially from the guidance set forth elsewhere in this standard, the actuary can still comply with this standard by applying the following sections as appropriate:

4.4.1 Material Deviations to Comply with Applicable Law—If compliance with applicable law requires the actuary to deviate materially from the guidance set forth in this standard, the actuary should disclose that the assignment was prepared in compliance with applicable law, and the actuary should disclose the specific purpose of the assignment and indicate that the work product may not be appropriate for other purposes. The actuary should use professional judgment to determine whether additional disclosure would be appropriate in light of the purpose of the assignment and the intended users of the actuarial communication.

4.4.2 Other Material Deviations—The actuary's communication should disclose any other material deviation from the guidance set forth in this standard. The actuary should consider whether, in the actuary's professional judgment, it would be appropriate and practical to provide the reasons for, or to quantify the expected impact of, such deviation. The actuary should be prepared to explain the deviation to a principal, another actuary, or other intended users of the actuary's communication. The actuary should also be prepared to justify the deviation to the actuarial profession's disciplinary bodies.

Appendix 1

Background and Current Practices

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

Background

Actuarial standard of practice (ASOP) No. 4, *Recommendations for Measuring Pension Obligations*, was first adopted by the Interim Actuarial Standards Board in January 1988. This standard superseded *Pension Plan Recommendations A, B, and C*, which the American Academy of Actuaries adopted in the period 1976 to 1983. The Interpretations of those Recommendations were incorporated as appendices in the standard. The ASB adopted a reformatted version of ASOP No. 4, renamed *Measuring Pension Obligations* and incorporating several clarifying revisions, in October 1993 (prior ASOP No. 4).

Since the prior ASOP No. 4 was adopted, the ASB has adopted the following standards or exposure drafts of standards that provide more detailed guidance regarding specific elements of the process of measuring pension obligations:

1. ASOP No. 23, *Data Quality*;

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

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

4. ASOP No. 41, *Actuarial Communications*; and

5. Proposed ASOP, *Selection and Use of Asset Valuation Methods for Pension Valuations*.

The prior ASOP No. 4 contained general recommendations for selecting economic and noneconomic assumptions, actuarial cost methods, and asset valuation method—all key elements in the measurement of pension obligations. The ASB decided to revise ASOP No. 4 to create an "umbrella" standard to tie together these existing and proposed standards and address overall considerations for the actuary when measuring pension obligations. In addition, because the prior ASOP No. 4 and this revision cover the determination of plan costs or contributions, the name of the standard was changed to *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*.

Because the prior ASOP No. 4 contained guidance that is now covered in other standards, ASOP No. 4 has been revised to remove any guidance that is now contained in those standards and to add references to those standards. Some of the material in the prior ASOP No. 4 was educational rather than guidance on actuarial practice and consequently was not included in this revised standard.

The revision of ASOP No. 4 has been written to reflect that at times the actuary may have the responsibility and authority to select actuarial assumptions, actuarial cost methods, asset valuation methods, and amortization methods, but in other circumstances the actuary may only advise, or may not even have an opportunity to advise, the individuals who have that responsibility and authority. For instance, the actuary may advise the plan administrator or plan sponsor on selecting an actuarial cost method for purposes of determining minimum funding requirements under ERISA, but the plan administrator or plan sponsor is ultimately responsible for selecting the method.

Current Practices

This standard and the related standards listed above cover actuarial practices that are central to the work regularly performed by actuaries in the pension field. The actuarial tasks covered by the standards are performed for a number of purposes, examples of which are discussed below:

1. Cost, Contribution, and Benefit Recommendations—Calculations may be performed for purposes of determining actuarial cost, contribution, and benefit recommendations and related information. Examples are calculations related to the following:

    a. recommendations as to the assignment of costs or contributions to time periods for defined benefit plans;

    b. recommendations as to the type and levels of benefits for specified cost or contribution levels;

    c. contributions required under minimum funding standards imposed by statute or regulations;

    d. maximum contributions deductible for tax purposes;

    e. information required with respect to plan design; and

    f. determination of progress towards a defined financial goal, such as funding of vested or accrued benefits.

2. Evaluations of Current Funding Status—Calculations may be performed for purposes of comparing available assets to the actuarial present value of benefits specified by the plan. Examples are calculations related to the following:

    a. actuarial present value of accrued benefits;

    b. actuarial present value of vested benefits;

c. actuarial present value of benefits payable in the event of plan termination; and

d. information required with respect to plan mergers, acquisitions, spin-offs, and business discontinuances.

3. Comparison of Actuarial Present Values—Calculations may be performed to compare the actuarial present values of different pension obligations, such as optional benefit forms or commencement dates.

Appendix 2

Comments on the Second Exposure Draft and Responses

The second exposure draft of this proposed actuarial standard of practice (ASOP) was issued in March 2005, with a comment deadline of October 31, 2005. Eighteen 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 Pension Committee carefully considered all comments received, and the ASB reviewed (and modified, where appropriate) the proposed changes to the proposed ASOP. Summarized below are the significant issues and questions contained in the comment letters and the responses to each. The term "reviewers" includes the Pension Committee and the ASB. Unless otherwise noted, the section numbers and titles used below refer to those in the second exposure draft.

GENERAL COMMENTS	
Comment	Several commentators, responding to a specific question raised in the "Request for Comments" section of the second exposure draft, wanted the proposed standard to accommodate the principles of financial economics in appropriate situations.
Response	The reviewers agreed with these comments. While the proposed standard does not make an explicit statement that permits the actuary to apply financial economic principles, the proposed standard is not intended to preclude the actuary from applying those principles when appropriate in the actuary's professional judgment.
Comment	One commentator wrote that it was premature to take account of the principles of financial economics and suggested that the proposed standard should not accommodate those principles.
Response	The proposed standard does not make any explicit statement concerning the application of financial economic principles, nor is it intended as an endorsement of those principles.
Comment	The second exposure draft asked whether any language in the proposed standard or related standards would preclude an actuary from applying the principles of financial economics. None of the commentators identified specific problems in the proposed standard, but some identified difficulties with ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*.
Response	The Pension Committee intends to review ASOP No. 27 and will take those comments into consideration at that time.
Comment	One commentator noted that the proposed standard describes generally accepted practice and not "best" practices. The commentator expressed concern that evolving practice that represents a deviation from the proposed standard, or any ASOP, may never become generally accepted practice.
Response	The reviewers do not believe the proposed standard would preclude the application of emerging "best" practices. The reviewers note that the ASB is encouraging further dialogue on whether standards provide an appropriate level of guidance.

Comment Response	One commentator requested guidance concerning the treatment of "gain-sharing," a plan feature that provides for automatic benefit increases or extra plan distributions to retirees following favorable investment experience. Another commentator asked for guidance concerning the measurement of complex benefits such as "floor-offset" arrangements. The reviewers added section 3.9, Interrelationship Among Actuarial Assumptions, Procedures, and Plan Provisions, to address plan provisions such as gain-sharing and floor-offset arrangements that create contingent obligations that are difficult to measure using deterministic assumptions or procedures.
Comment Response	One commentator suggested that the requirement that an actuarial cost method produce no actuarial gains or losses if assumptions were exactly realized, which was included in the first exposure draft and deleted from the second, be retained. The reviewers believed that such a requirement would be overly restrictive and made no change.
Comment Response	One commentator asked that the proposed standard be simplified to advise the actuary to identify the purpose of the measurement and to follow applicable statutes, regulations, case law, and other legally binding authority. The reviewers believed that the level of guidance in the proposed standard was appropriate.
Comment Response	Several commentators suggested various editorial changes in addition to those addressed specifically below. The reviewers implemented such changes if they enhanced clarity and did not alter the intent of the section.
	SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE
Section 1.2, Scope	
Comment Response	One commentator suggested that a statement be made if the reviewers intended the list in section 1.2 to be exhaustive. While the reviewers believed the list to be comprehensive, circumstances not listed could arise in which an actuary exercising professional judgment would determine that the standard is applicable. The reviewers did not wish to preclude such a result.
Comment Response	With respect to section 1.2(b), one commentator noted that plan obligations could be assigned only through actual experience but that the value of plan obligations could be assigned in advance. The reviewers agreed and modified the wording.
Comment Response	With respect to section 1.2(c), one commentator noted that a cost allocation procedure does not determine cost; rather, it assigns cost. The reviewers considered the definitions of *cost* and *cost allocation procedure* and found that no change was needed.
Comment Response	One commentator suggested that, when compliance with applicable law would be a breach of the proposed standard, disclosure of compliance with the law should not be required. The reviewers believed it was appropriate for the proposed standard to contain such a disclosure requirement. The reviewers updated the language in sections 1.2 and 4.4 to reflect the current disclosure requirements proposed by the ASB with respect to deviations from the proposed standard.
Comment Response	With respect to the final paragraph, one commentator suggested removing the word "scheduled" and adding "to the plan" at the end of the sentence. The reviewers agreed and changed the language similarly.

Section 1.4, Effective Date	
Comment	One commentator expressed concern that an effective date of four months following adoption by the ASB was too short a time period and could result in different standards applying within one fiscal year of a plan sponsor having multiple plans with different plan years.
Response	The reviewers extended the effective date from four months to six months after adoption.
SECTION 2. DEFINITIONS	
Section 2.1, Actuarial Accrued Liability, and 2.2, Actuarial Cost Method	
Comment	One commentator suggested that the treatment of expenses in sections 2.1 and 2.2 was more appropriately discussed in section 3.10(c) (now 3.11(c)) rather than in a definition.
Response	The reviewers agreed and deleted the sentences relating to expenses in sections 2.1, 2.2, and what is now 2.13.
Section 2.3, Actuarial Present Value	
Comment	One commentator suggested adding “and the application of generally accepted actuarial procedures” to the end of the definition.
Response	The reviewers believed that such a statement was unnecessary.
Section 2.5, Amortization Approach (now 2.6, Amortization Method)	
Comment	One commentator objected to the use of the term “amortization approach” because it is not used in practice and suggested that the term “amortization” be used instead.
Response	The reviewers did not believe that the term “amortization” would capture the variety of amortization techniques used in practice. However, the reviewers changed the term to “amortization method” to be more consistent with common usage.
Section 2.6, Contribution (now 2.7)	
Comment	Several commentators pointed out that the definition was circular.
Response	The reviewers agreed and revised the definition.
Section 2.13, Participant (now 2.14)	
Comment	Several commentators stated that the phrase “or is expected to satisfy” should be deleted, noting that section 3.6.1 addresses future plan participants.
Response	The reviewers agreed and deleted the phrase.
Section 2.14, Plan Provisions (now 2.15)	
Comment	Two commentators requested that the applicability of the phrase “known to the actuary” be clarified.
Response	The reviewers divided the definition into two sections to clarify that “known to the actuary” applied only to the relevant administrative practices. In addition, the reviewers added section 3.18 to reference ASOP No. 23, *Data Quality*. The reviewers also note that the meaning of the term “known” for these purposes is clarified in section 4.5.1 of the *Introduction to the Actuarial Standards of Practice*.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.1, Overview	
Comment	Several commentators requested a specific reference to ASOP No. 4 in the list of applicable standards.
Response	The reviewers agreed and made the change.
Comment	One commentator pointed out the section’s inconsistent applicability to “cost” and “contribution” and suggested deleting two paragraphs.
Response	The reviewers agreed and deleted the paragraphs.

Section 3.2, Prescribed Assumption or Method (now Prescribed Assumption or Method Selected by the Plan Sponsor)	
Comment Response	Some commentators disagreed with the requirement for the actuary to consider whether a prescribed assumption or method was reasonable. For example, one concern was that any statement about prescribed assumptions or methods could lead to conflict with plan sponsors. However, other commentators agreed that actuaries should review prescribed assumptions or methods for reasonableness. The reviewers revised this section, as well as section 4.2, to focus on whether the prescribed assumption or method significantly conflicts with what would be appropriate in the actuary's professional judgment. The transmittal memorandum of this exposure draft contains further discussion about this issue.
Comment Response	Several commentators provided examples of situations where an actuary might not be in a position to evaluate whether a prescribed assumption or method is reasonable. The reviewers revised the wording to address this concern. The actuary may disclose that he or she is unable to evaluate the prescribed assumption or method for reasonableness or has not been provided with the information that would be needed to make such an evaluation.
Section 3.4.2, Events After the Measurement Date	
Comment Response	One commentator believed the last sentence of the section should be deleted. The reviewers believed that the final sentence provided appropriate emphasis and retained it.
Comment Response	One commentator suggested that "nor disclosed" should be added at the end of the section. The reviewers did not add such language because it could have the unintended consequence of discouraging such disclosure.
Section 3.5.1, Adopted Plan Changes, and section 3.5.2, Proposed Plan Changes	
Comment Response	The second exposure draft asked whether sections 3.5.1 and 3.5.2 provided helpful guidance consistent with generally accepted practice, or whether they could be replaced with more general guidance. One commentator suggested that the guidance could be reduced; another commentator believed there should be more guidance with respect to what was meant by "adopted" and "effective." Three commentators believed the sections were appropriate as written. The reviewers concluded the sections were appropriate and made no substantive changes.
Section 3.9, Measurements Independent of the Actuarial Cost Method (now 3.14, Measuring the Value of Accrued or Vested Benefits)	
Comment Response	Commentators expressed a variety of opinions on this section. Some commentators questioned whether the proposed standard should include this section; others wanted the proposed standard to include or allow other types of measurements or variations of these measurements; still others wanted the proposed standard to provide only general guidance to the actuary in calculating these measurements. The reviewers believed that the comments—both on their own and in combination with comments on the first exposure draft—demonstrated that there is not general consensus among the profession and that multiple approaches represent generally accepted practice. Therefore, the reviewers revised the section to provide guidance on general considerations for measuring pension obligations related to accrued or vested benefits and added section 4.1(k) requiring a description of the types of benefits regarded as vested and accrued 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.
Section 3.10, Actuarial Cost Method (now 3.11)	
Comment Response	One commentator noted that participants sometimes continue to accrue benefits after their employment has ended, for example, employees who terminate due to long-term disability. The commentator asked that the proposed standard permit actuaries to assign a normal cost to such participants. The reviewers agreed and made the recommended change.

Comment Response	One commentator suggested the addition of a statement that there may be circumstances in which an actuary believes it is reasonable to assign a normal cost to inactive participants not accruing benefits. The reviewers did not believe that such a statement was appropriate.
Comment Response	One commentator suggested adding the phrase "unless the legislative/regulatory authority restricts such approach" at the end of the second sentence of section (c). The reviewers did not believe an explicit statement was necessary in this section because compliance with applicable law is always required and because section 1.2, Scope, addresses this matter. No change was made.
Section 3.11, Cost or Contribution Allocation Procedure (now 3.12)	
Comment Response	Several commentators suggested minor wording changes for increased clarity without altering the substance of this section. The reviewers implemented some of these suggestions. In addition, the reviewers added two other factors for the actuary to consider in selecting an actuarial cost method or amortization method: the timing of expected benefit payments and the nature and frequency of plan amendments.
Section 3.12, Ability to Pay Benefits When Due (now 3.13)	
Comment Response	One commentator agreed that assessing a plan's ability to pay benefits when due is a step that actuaries should be taking but that the requirement in this section does not accurately represent current practice and, therefore, should not be included in the proposed ASOP. Another commentator believed that the evaluation of the ability to pay benefits when due should be time limited, to perhaps the next five or ten years, and that a full evaluation is both burdensome and unreliable with respect to distant years. The reviewers believed that an improvement in current practice was appropriate in this area. However, the reviewers agreed that in many circumstances the assessment required in the second exposure draft would have been an impractical approach to achieving this objective. The reviewers revised this section to rely on the actuary's professional judgment in determining whether an actuarial cost method or amortization method is significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due.
Comment Response	One commentator thought the two examples of inability to pay benefits when due were not helpful because they are both examples of situations where the underlying contribution allocation procedure is probably not reasonable. The reviewers believed that the two examples illustrated the intended purpose of this section. The reviewers modified the wording of one of the examples for clarity and also added a third example.
Comment Response	Several commentators believed the proposed standard should limit the evaluation of the plan's ability to pay benefits when due to situations in which the scope of the assignment explicitly included such an evaluation. Some commentators believed the section placed a burden on the actuary to define the scope of the assignment. The reviewers believed that determining the scope of the assignment would not be an undue burden for the actuary. Nevertheless, the revised section does not require the actuary to determine whether such an evaluation is within the scope of the actuary's assignment.
Comment Response	One commentator suggested changing the wording to assess "risk or uncertainty" concerning the ability to pay benefits when due, believing that the proposed standard did not intend for this evaluation to be a "yes-or-no" test. For purposes of this section, consistency between an actuarial cost method or amortization method and the timing and form of expected benefit payments is based on the assumption that all actuarial assumptions will be realized. As such, this section does not address risk or uncertainty. The reviewers addressed the broader issue of risk and uncertainty through the disclosure requirements in section 4.1(h) (now 4.1(m)) and new section 3.15 providing guidance on dealing with volatility.

Comment Response	One commentator, while agreeing that pay-as-you-go funding should be deemed to have the ability to pay benefits when due, noted that if *any* prefunding were added to such a plan, the plan might go from having to not having the ability to pay benefits when due. The new approach to this section does not require the actuary to make any distinctions among fully prefunded, partially prefunded, and pay-as-you-go plans, due to the assumption that contributions will be made when due.
Section 3.13, Adjustment of Prior Measurement (now 3.16)	
Comment Response	One commentator suggested that, because the last sentence of this section touches on matters addressed in ASOP No. 27, the phrase “pursuant to ASOP No. 27” should be added to the final paragraph. The reviewers believed that a reference to ASOP No. 27 was unnecessary.
Section 3.14, Consistency Between Assets and Obligations (now 3.10, Relationship Between Procedures Used for Measuring Assets and Obligations)	
Comment Response	One commentator asked whether the approach in section (b) could be used if only a portion of the plan’s liabilities were covered by a dedicated bond portfolio (for example, the inactive participants). The reviewers believed that section (b) addresses this situation because “specific emerging benefit payments” could include all or part of a plan’s obligations.
Comment Response	One commentator suggested that sections (b) and (c) both address the same concept and should be combined. The reviewers believed that sections (b) and (c) represented different ideas because section (b) deals with using a valuation interest rate equal to the internal rate of return on the *market value* of the bond portfolio while section (c) deals with using a valuation interest rate equal to the internal rate of return on the *amortized cost value* of the bond portfolio. Consequently, the reviewers did not combine sections (b) and (c), but they did revise the wording in section (b) for consistency with section (c). The reviewers deleted the part of section (b) that described valuing the bond portfolio by discounting the future bond cash flows using the benefit valuation interest rate, because such an asset valuation method would not comply with the proposed ASOP, *Selection and Use of Asset Valuation Methods for Pension Valuations*.
Comment Response	One commentator suggested that the proposed standard should state that the use of amortized cost value for bonds is discouraged by the Internal Revenue Code. The reviewers believed that the language regarding compliance with applicable law in section 1.2 of the proposed ASOP was sufficient.
Comment Response	One commentator suggested that the reference to the “plan’s investment practice” be deleted from section (c) because it places a burden on the actuary to monitor the investment practice of the plan sponsor. The reviewers made no change, noting that the language in section (c) is similar to that in the proposed ASOP, *Selection and Use of Asset Valuation Methods for Pension Valuations*. with respect to the use of amortized cost value for bonds, which requires that the use of such method be accompanied by some knowledge of the plan’s investment practice. The actuary may rely on information provided by the plan sponsor concerning the plan’s investment practice in accordance with ASOP No. 23.

Section 3.16, Materiality (now part of 3.17, Approximations and Estimates)	
Comment	One commentator wrote that this section was unclear about how the actuary should assess "materiality." The commentator suggested that the proposed standard should recommend that the actuary discuss the level of materiality with the principal before using techniques that would produce less accuracy than the actuary could otherwise achieve.
Response	The reviewers believed that detailed guidance on materiality was beyond the scope of the proposed ASOP. The reviewers identified redundancy between sections 3.16 and 3.15, Approximations and Estimates (now 3.17). Therefore, the reviewers deleted section 3.16 and moved some of its guidance into what is now section 3.17.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Comment	A number of comments were received about the general increase in level of disclosure and the form of these disclosures. Some of the recommended disclosures were seen as a "raising of the bar."
Response	The reviewers acknowledge that the disclosure requirements in the proposed revision are more extensive than those in the existing ASOP No. 4 but believe that these changes are appropriate and reflect the evolution of current practice.
Section 4.1, Communication Requirements	
Comment	One commentator believed that disclosure should be made affirmatively, i.e., what was done, rather than in the negative.
Response	The reviewers believed the revisions of section 4.1 address this commentator's concern.
Comment	One commentator suggested that the proposed ASOP should require the actuary to disclose the existence and treatment in the measurement of any known material event that occurs after the measurement date.
Response	The reviewers added section (c) to require disclosure of adjustments made for events after the measurement date under section 3.4.2. The reviewers did not believe that the proposed standard should require the disclosure of events that occur after the measurement date that have not been reflected in the measurement.
Comment	With respect to section (h) (now (m)), several commentators wrote that it should be evident whether an analysis of a potential range of future costs or contributions is part of an assignment and that the absence of such analysis need not be disclosed.
Response	The reviewers believed that a disclosure that future measurements may differ significantly from the current measurement, together with a disclosure that the actuary did not perform an analysis of the potential range of future measurements, were helpful disclosures for the intended users of the actuarial communication. The reviewers believed that intended users frequently do not understand these facts.
Comment	Several commentators suggested that section (h) (now (m)) implied that the actuary should always perform an analysis of the variability of future costs or contributions.
Response	The reviewers revised this section to clarify that the scope of the actuary's assignment may not have included such an analysis.

Comment Response	One commentator was concerned that section (j) might require an attachment to Schedule B stating that the contribution allocation procedure is not expected to accumulate assets sufficient to pay benefits when due. The reviewers believed that the disclosures required by the proposed standard could be contained in a cover letter, in an attachment to Schedule B, or in some other medium, depending on what is appropriate in the actuary's judgment. The reviewers also note that the proposed standard no longer requires the actuary to evaluate whether the contribution allocation procedure is expected to accumulate assets sufficient to pay benefits when due. The proposed standard was revised to require the actuary to disclose if, in the actuary's professional judgment, the actuarial cost method or amortization method is significantly inconsistent with the timing and form of expected benefit payments.
Comment Response	Several commentators wrote that most actuarial measurements include approximations and estimates and expressed concern about the disclosure requirement in section (m) (now (p)). Some commentators believed that this section was unclear and should be deleted; other commentators recommended specific editorial changes. The reviewers clarified that disclosure is required only when, in the actuary's professional judgment, the actuary's use of approximations or estimates could result in a significant margin for error.
Section 4.2, Disclosure About Prescribed Assumptions or Methods	
Comment Response	One commentator recommended that "plan sponsor" be changed to "principal." The reviewers disagreed and retained the term "plan sponsor" for consistency with other sections of the standard. Precept 8 of the Code of Professional Conduct covers all situations and thus obviates a comprehensive identification of all others who must be informed of the results of the actuary's measurement.