



## ACTUARIAL STANDARDS BOARD

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• **SECOND EXPOSURE DRAFT** •

**Proposed Revision of  
Actuarial Standard of Practice No. 4**

**Measuring Pension Obligations and  
Determining Pension Plan Costs or Contributions**

**Comment Deadline  
October 31, 2005**

**Developed by the  
Pension Committee of the  
Actuarial Standards Board**

**Approved for Exposure by the  
Actuarial Standards Board  
March 2005**

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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 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 second 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, 7<sup>th</sup> Floor  
Washington, DC 20036-4601

**Deadline** for receipt of responses in the ASB office: **October 31, 2005**

**Background**

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*.

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

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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. *Selection and Use of Asset Valuation Methods for Pension Valuations*, which is currently in development and at the time of this writing had been released as a second exposure draft.

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 is exposing concurrently proposed revisions of ASOP Nos. 27 and 35 to clarify that this standard takes precedence over ASOP Nos. 27 and 35 in case of a conflict between them. The ASB plans to adopt the revisions of ASOP Nos. 27 and 35 with the same effective date as the proposed revision of ASOP No. 4.

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

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

1. Section 1.2, Scope, has been revised to include projections of pension obligations, plan costs or contributions, and other related measurements.
2. Definitions of *contribution*, *contribution allocation procedure*, *cost*, and *cost allocation procedure* have been added to the proposed standard. Throughout the proposed standard references to contributions or costs have been clarified.
3. A definition of *prescribed assumption or method* has been added and addresses the relationship of the plan sponsor to law, regulation, or other binding authority for purposes of the proposed standard (section 2.15).
4. Section 3.1.1, Plan Sponsor's Responsibilities, and section 3.1.2, Actuary's Responsibilities, have been deleted. Some of the deleted provisions are now addressed in section 3.1, Overview, to clarify the actuary's role in the valuation process and to reflect generally accepted actuarial practice.
5. New sections 3.2, Prescribed Assumption or Method, and 4.2, Disclosure About Prescribed Assumptions or Methods, have been added. When the plan sponsor prescribes an assumption or method, the new sections require the actuary to consider whether, in the actuary's judgment, the prescribed assumption or method is reasonable in light of the purpose of the measurement and to make appropriate disclosure.
6. Section 3.8.1, Ongoing Plans (now 3.9.1, Ongoing Basis), requires the actuary to rely on plan provisions and applicable law, regulation, or other binding authority to determine whether, or the extent to which, a benefit is vested or accrued. In addition, the examples concerning whether disability benefits and early retirement supplements are vested have been removed.
7. Section 3.9, Actuarial Cost Method (now section 3.10), no longer prohibits the use of an actuarial cost method under which actuarial gains or losses may be produced if the actuarial assumptions are exactly realized.
8. Section 3.11, Reasonableness of Resulting Contributions or Costs, was rewritten as section 3.12, Ability to Pay Benefits When Due, which requires the actuary to evaluate the ability of the contribution allocation policy to produce assets sufficient to make benefit payments when they are due unless such an evaluation is beyond the scope of the actuary's assignment and to make appropriate disclosure.
9. Section 3.12, Stability, which had required the actuary to determine whether the level of pension costs is expected to change abruptly from one measurement period to the next, has been deleted.

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10. New section 4.1(h) requires the actuary to disclose, when appropriate, that future contributions or costs may differ significantly from current period contributions or costs, and section 4.1(i) requires the actuary to disclose, when appropriate, that the contribution allocation procedure is not expected to accumulate assets sufficient to pay benefits when due.

### **Request for Comments**

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:

1. Are the changes described above appropriate? Are the new requirements clear?
2. Does section 3.5.1, Adopted Plan Changes, provide helpful guidance consistent with generally accepted practice, or could this section and section 3.5.2, Proposed Plan Changes, be replaced with general guidance that states that the treatment of plan changes known to the actuary should be appropriate for the purpose of the measurement? Would a different approach be preferable?
3. 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 committee is aware of tensions between the traditional approach and the model advanced by advocates of financial economics. At this time, however, the committee does not believe that a consensus has emerged with respect to these issues.

In most instances, ASOPs reflect generally accepted actuarial practice. Consequently, the committee has not explicitly incorporated the principles of financial economics into the proposed standard. Should this proposed standard and related ASOPs accommodate the principles of financial economics in appropriate situations? If so:

- a. Does anything in the proposed standard or in related ASOPs preclude actuaries from applying a financial economics approach, or does the application of such procedures represent a material departure from these ASOPs that would be subject to the deviation provision of the standards?
- b. If the application of such procedures does represent a material departure, how should the language of these standards be changed to accommodate actuarial practice based on the concepts of financial economics?

The Pension Committee thanks Arthur J. Assantes and Thomas P. Adams for their assistance with drafting this proposed ASOP.

The ASB reviewed the draft at the March 2005 board meeting and approved its second exposure.

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Pension Committee of the ASB

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**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 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.

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Throughout this standard, any reference to selecting actuarial assumptions, actuarial cost methods, asset valuation methods, and amortization approaches also includes giving advice on selecting actuarial assumptions, actuarial cost methods, asset valuation methods, and amortization approaches. 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 satisfy the requirements of both applicable law, regulation, and other binding authority and this standard. However, to the extent applicable law conflicts with this standard, compliance with such applicable law shall not be deemed a deviation from this standard, provided the actuary discloses that the actuarial assignment was performed in accordance with the requirements of such applicable law.

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 scheduled contributions.

- 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 four 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, as determined under a particular actuarial cost method, which is not provided for by future normal costs. The actuarial accrued liability may include expenses to the extent 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*). Plan expenses may be applied in accordance with the allocation of the projected value of benefits or may be recognized differently.

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- 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 Valuation—The measurement of relevant pension obligations and, when applicable, the determination of periodic costs or contributions.
- 2.5 Amortization Approach—An approach 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.
- 2.6 Contribution—A potential contribution amount determined by the actuary. It may or may not be the amount actually contributed by the plan sponsor or other contributing entity.
- 2.7 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.
- 2.8 Cost—The portion of plan obligations assigned to a period for purposes other than funding.
- 2.9 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*).
- 2.10 Expenses—Administrative or investment expenses expected to be borne by the plan.
- 2.11 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*).
- 2.12 Normal Cost—The portion of the actuarial present value of projected benefits that is allocated to a period, typically twelve months, under the actuarial cost method. The normal cost may include a provision for expenses.
- 2.13 Participant—An individual who satisfies or is expected to satisfy the requirements for participation in the plan.
- 2.14 Plan Provisions—Relevant terms of the plan document and relevant administrative practices known to the actuary.
- 2.15 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

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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 approaches.

The actuary may have the responsibility and authority to select some or all actuarial assumptions, actuarial cost methods, asset valuation methods, and amortization approaches. In other circumstances the actuary may be asked to advise the individuals who have that responsibility and authority. In other circumstances the actuary may not be asked to advise those individuals.

Regardless of who selects actuarial assumptions, actuarial cost methods, or asset valuation methods, or develops or modifies a contribution allocation procedure, the actuary should assess, to the extent provided for by section 3.12, whether contributions developed under the contribution allocation procedure, in conjunction with accumulated assets, are expected to be sufficient to satisfy the plan's projected cash flow obligations if all actuarial assumptions are realized.

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. \_\_\_<sup>1</sup>, *Selection and Use of Asset Valuation Methods for Pension Valuations*, provides guidance concerning 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. 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.

The extent to which benefits of a plan should be funded in advance of the date when they must be paid is a decision to be made by the plan sponsor or other contributing entity, possibly with the assistance of the actuary. It is not the role of the actuary to evaluate the ability of the plan sponsor or other contributing entity to make scheduled contributions.

- 3.2 Prescribed Assumption or Method—When the plan sponsor prescribes an assumption or method, the actuary should consider whether the prescribed assumption or method is reasonable in light of the purpose of the measurement. If, in the actuary's judgment, the prescribed assumption or method is not reasonable for that purpose, the actuary should disclose this in accordance with section 4.2.

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<sup>1</sup> A proposed ASOP on *Selection and Use of Asset Valuation Methods for Pension Valuations* is currently in development.

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- 3.3 General Procedures—When measuring pension obligations and determining plan costs or contributions, the actuary should identify the purpose and nature of the measurement, and then perform the following procedures:
- a. identify the measurement date (see section 3.4);
  - b. identify plan provisions applicable to the measurement (see section 3.5);
  - c. gather data necessary for the measurement (see section 3.6);
  - d. select actuarial assumptions pertinent to the measurement (see section 3.7);
  - e. select an asset valuation method, if applicable (see section 3.8);
  - f. measure pension obligations independent of the actuarial cost method, if applicable (see section 3.9);
  - g. apply an actuarial cost method to produce a normal cost and actuarial accrued liability, if applicable (see section 3.10); and
  - h. apply a procedure to allocate costs or contributions to past and future periods, if applicable (see section 3.11).
- 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 3.13 for additional guidance). The actuary should conclude that any such adjustments are reasonable, 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 adopted and effective on or before the measurement date or, if applicable, the beginning of the cost or

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contribution allocation period to which the measurement date applies.

3.5.1 Adopted Plan Changes—The treatment of plan changes known to the actuary should be appropriate for the purpose of the measurement.

Unless law, regulation, or other binding authority applies, when determining current period costs or contributions, the actuary should take into account plan provisions consistent with the following:

- 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 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 No. 27 and ASOP No. 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.

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3.9 Measurements Independent of the Actuarial Cost Method—Pension obligations may be measured on an ongoing basis or on a termination basis, depending on the purpose of the measurement. The actuary should consider which, if any, of the measures of pension obligations described in sections 3.9.1 and 3.9.2 are required for the engagement.

3.9.1 Ongoing Basis—An ongoing basis presumes the plan will continue to exist, even if the plan’s benefits have been frozen or if there are no active participants. The following measures of pension obligations on an ongoing basis are independent of the actuarial cost method:

- a. Actuarial Present Value of Vested Benefits—The actuary should calculate the actuarial present value of vested benefits based on actuarial assumptions applicable to an ongoing basis. The calculations should be made in accordance with the following:
  1. In order to determine whether, or the extent to which, a benefit is vested, the actuary should rely on plan provisions and applicable law, regulation, or other binding authority.
  2. No recognition should be given to plan provisions that become effective after the measurement date.
  3. No recognition should be given to benefits for which a participant has not satisfied relevant eligibility conditions as of the measurement date.
- b. Actuarial Present Value of Accrued Benefits—The actuary should calculate the actuarial present value of accrued benefits based on actuarial assumptions applicable to an ongoing basis. The calculations should be made in accordance with the following:
  1. In order to determine whether, or the extent to which, a benefit is accrued, the actuary should rely on plan provisions and applicable law, regulation, or other binding authority.
  2. Plan provisions that have already been adopted as of the measurement date, but will become effective in the future, may be recognized, depending on the purpose of the measurement.
  3. All benefits should be valued in accordance with appropriate actuarial assumptions, even if a participant has not satisfied all relevant eligibility conditions as of the measurement date.
  4. The actuary should consider the following guidelines for determining the amounts of accrued benefit:

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- i. If the plan provisions specify how to calculate an accrued benefit, that specification should be used for the contingencies to which it applies.
  - ii. If (i) does not apply and the benefit is or may become vested, the benefit should be considered to accrue in proportion to the ratio of completed years of service to projected years of service when it would first become fully vested.
  - iii. If (i) and (ii) do not apply, the benefit should be assumed to accrue in proportion to the ratio of completed years of service to projected years of service upon anticipated separation from covered employment.
- c. Actuarial Present Value of Projected Benefits (sometimes referred to as *present value of future benefits*)—The actuary should project each participant's benefit as of each potential date of separation from covered employment. The actuarial present value should be based on actuarial assumptions applicable to an ongoing basis. The calculations should be made in accordance with the following:
1. Plan provisions should be valued consistently with section 3.5.
  2. All benefits should be valued in accordance with appropriate actuarial assumptions, even if a participant has not satisfied all relevant eligibility conditions as of the measurement date.

3.9.2 Termination Basis—A termination basis presumes the plan will be dissolved and cease to exist. The actuary should calculate the actuarial present value of benefits payable upon plan termination based on actuarial assumptions applicable to the plan termination and should reflect any plan changes that arise automatically or by plan amendment in connection with the plan termination.

Upon a plan termination, the amount of benefit, the timing of its payment, administrative expenses, and other aspects of plan operation may be different than for an ongoing plan measurement. Factors that the actuary should consider when selecting actuarial assumptions for a termination basis measurement include, but are not limited to, the following:

- a. the effect of continuing employment or reemployment on benefit entitlements;
- b. expected participant elections as to form of payment and retirement age;
- c. the actuarial basis for determining lump sums and the cost of annuities;

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- d. expenses associated with plan termination, including transaction costs and investment losses associated with the liquidation of plan assets;
- e. changes in investment policy; and
- f. governmental requirements.

3.10 Actuarial Cost Method—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, 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 benefit obligation or normal cost.
- d. The sum of the actuarial accrued liability and the 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.

3.11 Cost or Contribution Allocation Procedure—The cost or contribution allocation procedure typically brings together the normal cost under an actuarial cost method and an amortization approach to determine the cost or contribution for the period. When selecting an actuarial cost method or an amortization approach, the actuary should

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

3.12 Ability to Pay Benefits When Due—A contribution allocation procedure selected in accordance with section 3.11 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 No. 27 and ASOP No. 35, an actuarial cost method selected in accordance with section 3.10 of this standard, and an asset valuation method selected in accordance with ASOP No. \_\_, *Selection and Use of Asset Valuation Methods for Pension Valuations*.

One example of an inability to pay benefits when due is a plan covering a sole proprietor with funding designed to continue past expected retirement; a second example is 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.

Unless such an evaluation is beyond the scope of the actuary's assignment, the actuary should assess whether contributions developed under the contribution allocation procedure, in conjunction with accumulated assets, are expected to be sufficient to satisfy the plan's projected cash flow obligations if all actuarial assumptions are realized. In making such a determination, if contributions are expressed as a range, for purposes of this section it should be assumed that contributions will be made at the low end of the range.

For purposes of this section, the following apply:

- a. Pay-as-you-go funding is deemed to have the ability to pay benefits when due.
- b. A contribution allocation procedure that requires contributions to be made to maintain a target funded percentage of the present value of accrued benefits where such target is reasonably expected to exceed annual benefit payments is deemed to have the ability to pay benefits when due. An example of such a contribution allocation procedure would be to contribute the minimum required contribution where such plan is subject to section 412(l) of the Internal Revenue Code.

3.13 Adjustment of Prior Measurement—The actuary may adjust a prior measurement in lieu of a new detailed measurement if, in the actuary's professional judgment, such an adjustment would produce an appropriate result. To determine whether adjustment is appropriate, the actuary should consider items such as the following, if known to the actuary:

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- 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, if the actual asset value as of the new measurement date is known to the actuary and reflects a significant change in economic conditions, the actuary should consider whether the actuarial investment return assumption or discount rate used to determine the obligations should be revised.

3.14 Consistency Between 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 adjust the valuation interest rate in order to achieve consistency, or the actuary could value the bond portfolio by discounting the expected future cash flows, using a discount rate that is consistent with the valuation interest rate; 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 a portion of the benefit 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.

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- 3.15 Approximations and Estimates—The actuary may use approximations and estimates where, in the actuary’s professional judgment, 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 that produce results with a significant margin for error; 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.
- 3.16 Materiality—The actuary should establish a balance between the degree of refinement of methodology and materiality. The actuary is not required to use a particular measurement technique or to select a highly refined method when it is not expected to produce materially different results than would a less refined method.

### 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 No. 41, *Actuarial Communications*. The actuary should also comply with the communication requirements of ASOP No. 23, ASOP No. 27, ASOP No. 35, 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. an outline or summary of the benefits included in the actuarial valuation and of any significant benefits not included in the actuarial valuation;
  - b. the measurement date;
  - c. the date(s) as of which the participant and financial information were compiled;
  - d. a summary of the participant information;
  - e. if hypothetical data are used, a description of the data;
  - f. 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;
  - g. a description of the actuarial cost method and the period over which normal costs are allocated and a description of the cost or contribution allocation procedure, including a description of any amortization approaches;

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- h. if the scope of the actuary's engagement does not include an analysis of the potential range of future pension costs (or contributions), (1) a disclosure that such an analysis was not performed; and (2) a disclosure that future costs (or contributions) may differ significantly from current period costs (or contributions);
- i. if applicable, based on the determination under section 3.12, a statement that the contribution allocation procedure is not expected to accumulate assets sufficient to pay benefits when due;
- j. if applicable, a statement that, due to the limited scope of the actuary's assignment, the actuary is not able to offer an opinion about the ability of the plan to pay benefits when due;
- k. a description of known changes in assumptions and methods from those used in the immediately preceding measurement prepared for a similar purpose;
- l. a summary of the adjustments used under section 3.13; and
- m. if a measurement is based on approximations and estimates, as described in section 3.15, a disclosure of whether or not the actuary reasonably expects such measurement to contain a significant margin for error relative to the results if a detailed calculation had been done.

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. When the plan sponsor prescribes an assumption or method, and in the actuary's judgment the prescribed assumption or method is not reasonable in light of the purpose of the measurement, the actuary should disclose this as part of the actuarial communication.
- 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—The actuary must be prepared to justify to the actuarial profession's disciplinary bodies, or to explain to a principal, another actuary, or other intended users of the actuary's work, the use of any procedures that depart materially

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from those set forth in this standard. If a conflict exists between this standard and applicable law or regulation, compliance with applicable law or regulation is not considered to be a deviation from this standard.

**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 had been adopted by the American Academy of Actuaries in the period 1976 to 1983. The Interpretations of those Recommendations were incorporated as appendices in the standard. A reformatted version of ASOP No. 4, renamed *Measuring Pension Obligations* and incorporating several clarifying revisions, was adopted by the ASB 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 method, 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 who is 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

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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 approaches, 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;

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- c. actuarial experience gains or losses;
  - d. actuarial present value of benefits payable in the event of plan termination;
  - e. information required with respect to plan mergers, acquisitions, spin-offs, and business discontinuances; and
  - f. expected future benefits or dividend return from insurance or annuity contracts.
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.

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### Appendix 2

#### Comments on the First Exposure Draft and Committee Responses

The first exposure draft of this proposed actuarial standard of practice (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, 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. Summarized below are the significant issues and questions contained in the comment letters and the committee’s responses to each. Unless otherwise noted, the section numbers and titles used below refer to those in the first exposure draft.

<b>GENERAL COMMENTS</b>	
Comment	Two commentators suggested that the current discussion on “financial economics” be incorporated into the proposed standard.
Response	Please see the transmittal memorandum for a discussion of this issue.
Comment	One commentator noted that the proposed standard should present only recommendations about “best practices.”
Response	The committee notes that the <i>Introduction to the Actuarial Standards of Practice</i> describes the purpose of ASOPs as being to reflect generally accepted practice, i.e., practices that, over time and through common use, have come to be broadly accepted by qualified actuaries as appropriate to the proper performance of a particular type of professional assignment or aspect of professional practice.
Comment	One commentator expressed concern over the treatment of expenses as referenced in the definition of <i>actuarial accrued liability</i> and in the description of a reasonable actuarial cost method.
Response	The committee agreed with the comments expressed and more explicitly indicated the variety of ways in which expenses are treated.
Comment	One commentator expressed concern that the proposed standard did not clearly identify instances in which it might “raise the bar.”
Response	The transmittal memorandum of the first exposure draft identified the key changes that had been made from the current ASOP.
Comment	One commentator expressed concern over potential confusion between valuations for funding (i.e., contributions) and expensing (i.e., accounting).
Response	The committee agreed that confusion may exist and addressed this comment through the addition of terms and their definitions (i.e., contribution, contribution allocation procedure, cost, and cost allocation procedure).
Comment	One commentator requested explicit guidance as to which provisions of the proposed standard would apply to open- and closed-group valuations.
Response	The committee recognizes that both types of valuations are performed. The proposed standard was written to apply appropriately in all situations.
Comment	One commentator believed that the proposed standard did not address the pricing of volatility or “optionality” in benefit formulas. The commentator suggested that the proposed standard require risk or optionality adjustments.
Response	The committee added a new section 4.1(h) to address disclosure of volatility but did not address the valuation of volatility. Nevertheless, the proposed standard is not intended to preclude the actuary from

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	using risk or other adjustments where appropriate. Please see the transmittal memorandum for further discussion.
Comment	Two commentators expressed concern that the proposed standard would conflict with generally accepted accounting principles or Statement of Financial Accounting Standards Nos. 87 and 88, as set forth by the Financial Accounting Standards Board.
Response	The committee notes that section 1.2, Scope, mentions how the proposed standard interacts with other binding authorities and how compliance with the proposed standard, in light of other binding authority, is achieved.
<b>SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE</b>	
<b>Section 1.1, Purpose</b>	
Comment	A commentator asked that a sentence be included in this section to indicate that nothing in the proposed standard should be interpreted as creating a fiduciary relationship between the actuary and the plan, its sponsor, or its participants.
Response	The determination of whether a professional service provider is a “fiduciary” of a pension plan is a legal matter and depends on the particular circumstances involved. Courts have found that actuaries usually are not fiduciaries of pension plans, and the committee does not believe or intend that an actuary would become a fiduciary by satisfying this proposed standard. Consequently, no statement concerning fiduciary relationships and actuaries was added to this proposed standard.
<b>Section 1.2, Scope</b>	
Comment	A commentator requested that the tasks listed in this section be made consistent with those enumerated in the “Current Practices” section of what is now appendix 1.
Response	The committee did not share the commentator’s view that the scope of the proposed standard was co-extensive with its description of current practice and thus declined to make the requested change.
Comment	Several commentators, responding to a specific concern raised in the “Request for Comments” section of the exposure draft, asked that a distinction be made between the requirements applicable to “informal or rough estimates” and those applicable to more refined work products that fall within the scope of the proposed standard.
Response	The committee believed that the application of the proposed standard to “informal or rough estimates” was appropriate but added language that calls for such calculations to be labeled appropriately and their limitations to be communicated clearly. These additions were made in section 3.14, Approximations (now 3.15, Approximations and Estimates; in particular, see item (b)) and section 4.1, Communication Requirements (see item (m)).
Comment	Several commentators questioned the requirement of disclosure that a measurement was performed in accordance with the requirements of law, regulation, or other binding authority in cases in which these entities require the actuary to deviate from the proposed standard.
Response	The committee disagreed and believed that it was appropriate for actuaries to disclose when an actuarial assignment was performed in accordance with applicable law in the event of a conflict with an ASOP.
Comment	One commentator sought assurances that the use of prescribed assumptions would not, in and of itself, constitute a deviation from the proposed standard.
Response	The committee revised section 1.2 to clarify the relationship between applicable law, regulation, and other binding authority and the proposed ASOP. In addition, the committee added section 4.2 to address specific disclosure requirements with respect to prescribed assumptions. Also, section 4.4 states that “compliance with applicable law or regulation is not considered to be a deviation from this standard.”
Comment	Three commentators took issue with what they perceived to be imprecision in the proposed standard’s use of the term “funding policy.” Two suggested that it be made clear that the term refers to both funding and cost calculations, while one asked that “funding policy” be defined to include only calculations related to contributions.
Response	The committee eliminated the term “funding policy.” Item (c) has been replaced with items (c) and (d),

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	which indicate that both cost allocation procedures and contribution allocation procedures are covered by the standard. In section 2, “contribution allocation procedure” and “cost allocation procedure” are defined, along with several new related terms.
Comment	One commentator objected to the inclusion of the paragraph immediately following item (d) in the description of the scope of the proposed standard.
Response	The committee agreed and deleted the paragraph in question. Section 3.1 was expanded to clarify the actuary’s role.
<b>SECTION 2. DEFINITIONS</b>	
<b>Section 2.1, Actuarial Accrued Liability</b>	
Comment	One commentator suggested that the term “actuarial accrued liability” was potentially confusing and should be replaced by the term “accumulated liability.”
Response	The committee disagreed and retained the use of “actuarial accrued liability.”
<b>Section 2.3, Actuarial Present Value</b>	
Comment	One commentator suggested that the phrase “the value” should be replaced by “the present value.” Another commentator suggested that it be replaced by “the discounted value.” A third commentator requested the addition of a separate definition of the term “present value.”
Response	The committee disagreed with these suggestions and did not make the requested changes.
<b>Section 2.5, Expenses (now 2.10)</b>	
Comment	One commentator suggested that the definition be modified to make it clear that the term includes both administrative and investment expenses.
Response	The committee agreed and changed the definition accordingly.
<b>Section 2.6, Funding Policy</b>	
Comment	One commentator suggested that meeting the so-called “gateway test” under Section 412 of the Internal Revenue Code be cited as an example of funding policy.
Response	The committee did not believe that the list of examples included in the definition had to be comprehensive. As noted earlier, as part of a change in the nomenclature used in the proposed standard, the term “funding policy” and its definition were dropped.
Comment	One commentator suggested that the term “funding policy” be changed to “cost policy” and expanded to explicitly include the determination of accounting cost.
Response	As explained earlier, as part of a change in the nomenclature used in the proposed standard, the term “funding policy” and its definition were replaced with the terms “cost allocation procedure” and “contribution allocation procedure.”
Comment	One commentator suggested that the term “funding policy” be changed to rule out or severely limit the use of pay-as-you-go funding.
Response	The committee believed that the use of pay-as-you-go funding is an element of generally accepted actuarial practice in certain situations (for example, unfunded nonqualified plans) and, as such, should not be ruled out by the proposed standard.
<b>Section 2.7, Normal Cost (now 2.12)</b>	
Comment	One commentator suggested that the definition of “normal cost” specifically mention that it is sometimes referred to as “service cost.”
Response	The committee did not believe that this was necessary and did not make the requested addition.
<b>Section 2.8, Participant (now 2.13)</b>	
Comment	One commentator suggested that the definition was overly broad in that it could apply to open-group as well as closed-group valuations.
Response	The committee intended the definition to be broad enough to encompass both types of valuations and did not change the definition to make it more restrictive.

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<b>SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES</b>	
<b>Section 3.1.1, Plan Sponsor’s Responsibilities</b>	
Comment	Several commentators were concerned about having plan sponsors’ responsibilities outlined in an actuarial standard.
Response	The committee agreed and removed section 3.1.1.
<b>Section 3.1.2, Actuary’s Responsibilities</b>	
Comment	Several commentators expressed concerns about the perception third parties might have to “actuary’s responsibilities” and the actuary’s role when certain assumptions or methods are prescribed.
Response	The committee removed this section and instead expanded section 3.1 to clarify the actuary’s role. A new section 3.2 was also added to address prescribed assumptions or methods.
Comment	With respect to sections 3.1.2(a) and (b), two commentators expressed concern that “reasonableness” was not clearly defined and about the use of the term “abrupt” in referring to changes in plan costs or contributions.
Response	The committee deleted these two sections.
<b>Section 3.2, General Procedures (now 3.3)</b>	
Comment	With respect to section (a), one commentator wanted the term “measurement date” eliminated and believed that measurements could be made without the need for any specific underlying date.
Response	The committee disagreed and made no change.
Comment	With respect to section (b), one commentator suggested the addition of the word “relevant” before “plan provisions.”
Response	The committee agreed and added section 2.14, using the word “relevant” in the definition of “plan provisions.”
Comment	One commentator expressed concern that sections (d) and (e) might suggest the actuary has the responsibility for selecting the asset valuation method.
Response	The committee added a new section 3.2, Prescribed Assumption or Method, to address this concern.
Comment	With respect to section (g) (now (h)), two commentators suggested the use of funding policy was not relevant to unfunded plans.
Response	The committee agreed with these comments and introduced the terms “cost allocation procedure” and “contribution allocation procedure.”
<b>Section 3.3, Measurement Date (now 3.4, Measurement Date Considerations)</b>	
Comment	One commentator believed that using the term “measurement date” instead of “valuation date” could cause confusion and that the proposed ASOP should differentiate between the “measurement date” and the “valuation date.”
Response	The committee chose to use the term “measurement date,” including the reference that it is sometimes referred to as the “valuation date,” due to the nature of the variety of calculations covered by the proposed standard, since many determinations may not be made in conjunction with a valuation. The committee added a definition of “measurement date” in new section 2.11.
<b>Section 3.3.1, Information as of a Different Date (now 3.4.1)</b>	
Comment	One commentator suggested that this section allow the adjustment of the results of the calculations to the measurement date, as an alternative to adjusting the data itself to the measurement date.
Response	The committee agreed and added wording to allow this.
Comment	One commentator suggested that when data do not change materially over a period of time, such data might not need to be adjusted to the measurement date.
Response	The committee believed that the term “reasonable” allows for this.

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Comment	One commentator suggested the disclosure of estimates when appropriate.
Response	The committee believed that what is now section 4.1(m) addresses this.
<b>Section 3.3.2, Events after the Measurement Date (now 3.4.2)</b>	
Comment	One commentator suggested the removal of the final sentence because it is redundant.
Response	The committee disagreed and made no change.
<b>Section 3.4, Plan Provisions (now 3.5)</b>	
Comment	One commentator expressed concern that this section might obligate the actuary to determine “relevant administrative practices with respect to matters not directly addressed in the plan.”
Response	The committee agreed and removed this wording.
<b>Section 3.4.1, Plan Changes: Adopted (now 3.5.1, Adopted Plan Changes)</b>	
Comment	Several commentators expressed confusion about this section.
Response	The committee clarified this section.
<b>Section 3.4.3, Projections</b>	
Comment	Several commentators suggested that this section should clarify the application of the proposed ASOP to projections.
Response	The committee deleted this section and revised the scope to clarify that the proposed ASOP applies to projections.
<b>Section 3.5, Data (now 3.6)</b>	
Comment	One commentator suggested that this paragraph allow for “appropriately grouped data.”
Response	The committee believed that section 3.14, Approximations (now 3.15, Approximations and Estimates), addresses this.
<b>Section 3.5.1, Participants (now 3.6.1)</b>	
Comment	One commentator suggested changing the words “all known participants” to “all participants known to the actuary.”
Response	The committee clarified the language.
<b>Section 3.5.2, Hypothetical Data (now 3.6.2)</b>	
Comment	One commentator indicated that this section needed clarification.
Response	The committee agreed and clarified the language.
<b>Section 3.7, Assets (now 3.8, Asset Valuation)</b>	
Comment	One commentator believed that the example should be part of the proposed ASOP, <i>Selection and Use of Asset Valuation Methods for Pension Valuations</i> .
Response	The committee believed that this proposed standard should address overall considerations. It deleted the example in this section and included a similar example in what is now section 3.14, Consistency Between Assets and Obligations.
<b>Section 3.8, Measurements Independent of Cost Assignment (now 3.9, Measurements Independent of the Actuarial Cost Method)</b>	
Comment	Some commentators requested that the proposed standard be clear that calculations needed to be made only where they were appropriate to the assignment.
Response	The committee agreed and clarified the language.
<b>Section 3.8.1, Ongoing Plans (now 3.9.1, Ongoing Basis)</b>	
Comment	Several commentators requested that explanations of ongoing and terminating be added. They also pointed out that the basis of calculations did not depend on whether the plan was ongoing or terminated, but on the purpose for which the measurements are being prepared.
Response	The committee added explanations of ongoing basis and termination basis.

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Comment	With respect to section 3.8.1(a) (now 3.9.1(a)), many commentators expressed different opinions about the valuation of vested and accrued benefits. There was no consensus among the commentators as to whether the ASOP should require specific calculation techniques.
Response	The committee believed that multiple techniques are used. The committee added new sections 3.9.1(a)(1) and (b)(1) and also removed the examples previously found in 3.8.1(a)(2).
Comment	In section 3.8.1(c) (now 3.9.1(c)), one commentator pointed out that “actuarial present value of projected benefits” is sometimes referred to as the “present value of future benefits.”
Response	The committee made this change.
<b>Section 3.8.2, Plan Termination (now 3.9.2, Termination Basis)</b>	
Comment	One commentator stated that the second and third paragraphs appeared to give guidance on how to value benefits that are dependent on plan provisions and not actuarial criteria.
Response	The committee deleted these paragraphs and added new language that provides more direct guidance for the actuary.
Comment	Several commentators identified situations where the actuary needed to apply judgment to determine the applicability of certain eligibility criteria.
Response	The committee clarified the language.
<b>Section 3.9, Actuarial Cost Method (now 3.10)</b>	
Comment	One commentator requested that the proposed standard address whether a negative normal cost could produce reasonable contributions or costs.
Response	The committee removed the reference to “reasonable” and instead believed that the appropriate measure of a cost or contribution allocation procedure is its ability to provide adequate assets to make benefit payments when they are due.
Comment	A commentator asked for guidance on a situation where the phrase “unless otherwise appropriate” in section (a) might apply.
Response	The committee agreed that this phrase was confusing and deleted it.
Comment	Several commentators expressed confusion about whether the proposed standard required the use of the unit credit funding method for a frozen plan.
Response	The committee added language to clarify that the proposed standard does not require the use of the unit credit funding method for a frozen plan.
Comment	One commentator was concerned that there was no explicit allowance for the use of term cost for ancillary benefits, which may not be attributed on an element of the benefit formula.
Response	The committee believed that the existing ASOP No. 4 does not preclude the use of term cost for ancillary benefits, nor is this proposed standard intended to preclude such use. The committee did not believe it was necessary to revise the language.
Comment	With respect to section 3.9(d) (now 3.10(d)), many commentators believed that that the aggregate entry age normal cost method was a reasonable cost method.
Response	The committee agreed and deleted the requirement that a cost method produce no actuarial gains or losses if assumptions were exactly realized.
<b>Section 3.10, Funding Policy (now 3.11, Cost or Contribution Allocation Procedure)</b>	
Comment	Several commentators found this section confusing.
Response	The committee clarified that the proposed standard applies to both funded and unfunded plans and to both cost and contribution allocations.

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<b>Section 3.10.2, Amortization</b>	
Comment	One commentator indicated that amortization applied to cost and funding calculations.
Response	The committee clarified this distinction throughout the proposed standard and deleted this section.
<b>Section 3.11, Reasonableness of Resulting Contributions or Costs (now 3.12, Ability to Pay Benefits When Due)</b>	
Comment	One commentator asked what conclusion should be drawn if an actuarial cost method does not satisfy all the criteria for a reasonable method but is expected to produce sufficient cash flow. Other commentators said the intent of the section should be to ensure that adequate assets are accumulated to meet the plan's cash flow needs.
Response	The committee replaced this section with one that addresses the ability to pay benefits when due.
Comment	One commentator said it was not clear what factors should be considered in assessing the reasonableness of the contribution pattern. Several suggested additional clarification or examples.
Response	The committee changed the focus of the section to the ability to pay benefits when due and added examples.
Comment	Several commentators asked that "reasonable" be better defined.
Response	The committee removed the reference to "reasonable."
Comment	Several commentators requested clarification of "appropriate time period."
Response	The committee replaced "appropriate time period" with a time period based on the actuary's professional judgment.
Comment	Several commentators said that this section should not apply to the cost pattern.
Response	The committee removed the reference to cost. In addition, definitions were added to clarify the difference between costs and contributions.
Comment	Several commentators said that such projections are often not included in the scope of the actuary's engagement.
Response	The committee added language to clarify that this is not required if not within the scope.
Comment	One commentator believed that the sole requirement that the contribution pattern satisfy the projected cash flow was a "low hurdle" and that terminal funding is not an acceptable method.
Response	The committee believed that the requirement for a contribution pattern to satisfy the projected cash flow was appropriate. The committee also believed that pay-as-you-go and terminal funding may be acceptable in appropriate circumstances.
Comment	One commentator suggested that the proposed standard specify that the projections should be done assuming that there are no new entrants.
Response	The committee believed that an assumption regarding new entrants should be left to the actuary's professional judgment.
<b>Section 3.12, Stability</b>	
Comment	Many commentators believed there were problems with this section, including that the requirement is not clear, would be very difficult to implement, and does not reflect generally accepted practice. Two commentators suggested that because of difficulties that would be imposed this section, the actuary would encounter potential "deviation from standard" situations.
Response	The committee deleted this section.
<b>Section 3.13, Overall Consistency of Assumptions and Methods</b>	
Comment	Many commentators expressed concerns about this section or found it confusing.
Response	The committee deleted this section.

## SECOND EXPOSURE DRAFT—March 2005

<b>Section 3.14, Approximations (now 3.15, Approximations and Estimates)</b>	
Comment	One commentator believed that this section should deal with “informal or rough estimates” and suggested changes to the section.
Response	The committee agreed and revised the section.
<b>Section 3.15, Adjustment of Prior Measurement (now 3.13)</b>	
Comment	One commentator believed that the last sentence regarding projection of assets and actuarial liabilities in a consistent manner was too vague.
Response	The committee deleted this sentence and added a new section 3.14, Consistency Between Assets and Obligations, which includes examples.
<b>Section 3.16, Materiality (now 3.16)</b>	
Comment	One commentator believed it would be useful to narrow the definition of “materiality” and provide an example of a “material difference.”
Response	The committee disagreed and made no change.
<b>SECTION 4. COMMUNICATIONS AND DISCLOSURES</b>	
<b>Section 4.1, Communication Requirements</b>	
Comment	The exposure draft requires that communications of the results of work subject to the proposed standard comply with ASOP No. 41, <i>Actuarial Communications</i> . One commentator suggested stating that such work should also comply with ASOP No. 21, <i>Responding to or Assisting Auditors or Examiners in Connection with Financial Statements for All Practice Areas</i> , “if applicable.”
Response	Because the revised ASOP No. 21 requires the actuary to follow the guidance in ASOP No. 41, the committee did not believe it was necessary to add a reference to ASOP No. 21.
Comment	With respect to section 4.1(a), one commentator suggested that the communication should include sufficient detail that another actuary could form an opinion about the reasonableness of the result, rather than of the conclusion. Two other commentators thought this section did not add anything to what is already required by ASOP No. 41.
Response	The committee agreed with the second and third commentators and deleted this section.
Comment	Two commentators believed that sections 4.1(b)(3)–(5) overlapped with and in some cases went inappropriately beyond the requirements of ASOP No. 23, <i>Data Quality</i> .
Response	The committee agreed and eliminated part of section 4.1(b)(3) (now 4.1(c)) and all of sections 4.1(b)(4) and 4.1(b)(5), and referenced ASOP No. 23 in section 4.1.
Comment	With respect to section 4.1(b)(6) (now 4.1(d)), one commentator asked whether a “summary of the participant information” was intended to mean a listing of plan participants and relevant data.
Response	The committee believed that the summary could take the form of a list but that a list was not necessary. No change was made.
Comment	With respect to section 4.1(b)(7), one commentator believed that a communication of a derivation of the actuarial value of assets should not be required.
Response	The committee deleted this section and is addressing communications regarding asset information in the proposed standard on the selection and use of asset valuation methods for pension valuations.
Comment	With respect to section 4.1(b)(8) (now 4.1(g)), one commentator questioned the requirement to communicate the funding policy “if known to the actuary,” thinking it odd that the actuary might not know the funding policy.
Response	Consistent with changes made to sections 2 and 3, the committee replaced “funding policy” with “cost or contribution allocation procedure” and deleted the phrase “if known to the actuary.”

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Comment	Many commentators called for the elimination or substantial modification of the section 4.1(b)(9) requirement to disclose expected abrupt changes in pension costs.
Response	The committee agreed and eliminated section 4.1(b)(9), but replaced it with section 4.1(h), calling for disclosure of the inherent variability of future period costs when an analysis of the potential range of such costs is not within the scope of the actuary’s engagement.
Comment	Several commentators expressed concern about the elimination of section 6.3(g) of the current ASOP No. 4, which requires disclosure if continued use of present assumptions and methods would result in a significantly increased or decreased long-term trend of costs; the commentators believed that this section provided grounds for the actuary to indicate the use of unreasonable assumptions.
Response	The committee added sections 3.2 and 4.2 to address the concerns.
Comment	With respect to section 4.1(b)(10) (now 4.1(m)), one commentator suggested that because actuarial work routinely includes a large number of approximations, it is inappropriate to include a broad requirement to disclose all approximations made; rather, the commentator suggested a general disclosure that approximations were used, requiring specific disclosure only of “significant” approximations. A second commentator suggested a requirement to disclose any estimates or judgments that are not considered a normal component of the valuation process.
Response	The committee removed the language in this section that had required disclosure of all approximation techniques used; the committee notes that ASOP No. 35 already contains a requirement to disclose each material assumption used in the measurement. The committee added a requirement to disclose, for any measurement that is based on approximations or estimates, whether or not the actuary reasonably expects such measurement to contain a significant margin for error relative to the results if a detailed calculation had been done.
Comment	With respect to section 4.1(b)(11), which requires, when there is an assumption of an ongoing plan, a disclosure of the measurement’s inapplicability in certain other circumstances, one commentator believed that such a statement usually would be either obvious or superfluous.
Response	The committee replaced this section with a more broadly worded section 4.1(f), requiring disclosure of the purpose of the measurement and a statement to the effect that the measurement may not be applicable for other purposes. The committee also notes that all of the requirements enumerated in section 4.1 apply only “where relevant and material.”
Comment	One commentator suggested that the phrase “the intended audience” should be more narrowly referred to as “the expressly intended recipients of the current communication.”
Response	The committee instead clarified the phrase by referring to “the intended audience (as defined in ASOP No. 41).”
<b>APPENDIX (now Appendix 1)</b>	
Comment	One commentator mentioned various types of activities not mentioned in the examples of “Current Practices.”
Response	The list of examples is not intended to be exhaustive.
Comment	Two commentators noted the proposed revision’s exclusion of the illustrations in appendix 1 of the current ASOP No. 4, suggesting that they be retained because many actuaries still depend on them.
Response	The committee agreed that the illustrations are useful but believed that such educational material would be more appropriate in a different medium than an ASOP. The committee recognizes that some actuaries rely upon the illustrations in appendix 1 of the original ASOP No. 4 in exercising professional judgment to determine whether, or the extent to which, a benefit is vested or accrued. The committee has requested that the Pension Practice Council of the American Academy of Actuaries consider preparing a practice note to assist actuaries in making such determinations.