ACTUARIAL STANDARDS BOARD

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

**Revised Edition**

# Measuring Pension Obligations and Determining Pension Plan Costs or Contributions

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

**Adopted by the**
**Actuarial Standards Board**
**December 2013**

**Doc. No. 173**

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**ASOP No. 4—Doc. No. 173**

December 2013

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

**FROM:** Actuarial Standards Board (ASB)

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

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

Background

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

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

2. ASOP No. 6, *Measuring Retiree Group Benefit Obligations*;

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

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

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

First Exposure Draft

The first exposure draft of this ASOP was issued in January 2012 with a comment deadline of May 31, 2012. Seventeen comment letters were received and considered in developing modifications that were reflected in the second exposure draft.

Second Exposure Draft

The second exposure draft of this ASOP was issued in December 2012 with a comment deadline of May 31, 2013. The Pension Committee carefully considered the thirteen comment letters received. Key changes made to the final standard in response to comment letters received on the second exposure draft include the following:

1. Section 4.1(k) was revised to remove the requirement for the actuary to make a disclosure if the unfunded actuarial accrued liability is expected to increase at any time during the amortization period. This section was also revised to clarify that a description of an amortization base includes the outstanding amortization balance, the amortization payment included in the periodic cost or actuarially determined contribution, and the remaining amortization period.

2. Language in section 4.1(q) was clarified to state that related disclosures are not required for funded status measurements prescribed by federal law or regulation.

3. Section 4.4 regarding confidential information was added to remove potential confusion regarding the interrelationship of this standard and Precept 9 of the *Code of Professional Conduct*.

In addition, a number of other changes were made to the text. Please see the appendix for a detailed discussion of the comments received and the reviewers' responses.

Key Changes from Current Standard

Key changes from the version of ASOP No. 4 adopted May 2011 include the following:

***Disclosure of Funded Status***
Sections 4.1(p) and 4.1(q) contain new disclosure requirements related to a plan's funded status.

***Disclosure of Rationale for Changes in Cost or Contribution Allocation Procedure***
Section 4.1(t) contains new disclosure requirements for a change in the cost or contribution allocation procedure.

***Assessment of Contribution Allocation Procedure or Funding Policy***
Section 4.1(m) contains new disclosure requirements related to the implications of the contribution allocation procedure or plan sponsor's funding policy on future expected plan contributions and funded status.

***Prescribed Assumptions or Methods***
The definition of prescribed assumption or method (section 2.16 in the current standard) has been revised to address prescribed assumptions or methods set by another party or set by law (sections 2.19 and 2.20).

***Plan Provisions that are Difficult to Measure***
Section 3.5.3 provides guidance to the actuary who needs to measure plan provisions that are difficult to appropriately measure using traditional valuation procedures.

ASOP No. 4 is intended to accommodate the concepts of financial economics as well as traditional actuarial practice.

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

The Pension Committee thanks former committee members Thomas B. Lowman, Tonya B. Manning, and Frank Todisco for their assistance with drafting this ASOP.

The ASB voted in December 2013 to adopt this standard.

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

# 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 actuarial services with respect to measuring obligations under a pension plan and determining **periodic costs** or **actuarially determined contributions** for such plans. Throughout this standard, the terms “plan” or “pension plan” refer to a defined benefit pension plan. Other actuarial standards of practice address actuarial assumptions and asset valuation methods. This standard addresses broader measurement issues, including **cost allocation procedures** and **contribution allocation procedures**. This standard provides guidance for coordinating and integrating all of the elements of an **actuarial valuation** of a pension plan.

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

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

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

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

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

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

f. projection of pension obligations, **periodic costs** or **actuarially determined contributions**, and other related measurements. 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 allocation procedure** or **contribution allocation procedure** includes giving advice on developing or modifying a **cost allocation procedure** or **contribution allocation procedure**.

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

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.

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

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

1.4 Effective Date—This standard will be effective for any actuarial work product with a **measurement date** on or after December 31, 2014.

## Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice.

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

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

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

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

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

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

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

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

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

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

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

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

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

2.14 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").

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

2.16 Output Smoothing Method—A method used by the actuary to adjust the results of a **contribution allocation procedure** to reduce volatility.

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

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

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

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

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

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

## Section 3. Analysis of Issues and Recommended Practices

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

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

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. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*, provides guidance concerning asset valuation methods. ASOP No. 4 addresses broader measurement issues including **cost allocation procedures** and **contribution allocation procedures**, and provides guidance for coordinating and integrating all of these elements of an **actuarial valuation** of a pension 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 governs.

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

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

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

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

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

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

f. select actuarial assumptions (section 3.8);

g. select an asset valuation method, if applicable (section 3.9);

h. consider how to measure accrued or vested benefits, if applicable (section 3.10);

i. consider how to measure **market-consistent present values**, if applicable (section 3.11);

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

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

l. select a **cost allocation procedure** or **contribution allocation procedure**, if applicable (section 3.14);

m. assess the implications of the **contribution allocation procedure** or plan sponsor's funding policy, if applicable (section 3.14);

n. consider the use of approximations and estimates (section 3.15);

o. consider the sources of significant volatility, if applicable (section 3.16); and

p. evaluate **prescribed assumptions and methods set by another party**, if applicable (section 3.17).

3.3 Purpose of the Measurement—When measuring pension obligations and determining **periodic costs** or **actuarially determined contributions**, the actuary should reflect the purpose of the measurement. Examples of measurement purposes are **periodic costs**, **actuarially determined contribution** requirements, benefit provision pricing, comparability assessments, withdrawal liabilities, benefit plan settlements, **funded status** assessments, market value assessments, and plan sponsor mergers and acquisitions.

3.3.1 Projection or Point-in-Time—The actuary should consider whether assumptions or methods need to change for measurements projected into the future compared to point-in-time measurements.

3.3.2 Uncertainty or Risk—In conjunction with the related guidance in ASOP No. 41, the actuary should consider the uncertainty or risk inherent in the measurement assumptions and methods and how the actuary's measurement treats such uncertainty or risk.

3.4 Measurement Date Considerations—When measuring pension obligations and determining **periodic costs** or **actuarially determined contributions** as of a **measurement date**, the actuary should address the following:

3.4.1 Information as of a Different Date—The actuary may estimate asset and **participant** information at the **measurement date** on the basis of information as of a different date. In these circumstances, the actuary should make appropriate adjustments to the data. Alternatively, the actuary may calculate the obligations as of a different date and then adjust the obligations to the **measurement date** (see section 3.4.3 for additional guidance). In either case, the actuary should determine that any such adjustments are reasonable in the actuary's professional judgment, given the purpose of the measurement.

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

3.4.3 Adjustment of Prior Measurement—The actuary may adjust the results from a prior measurement in lieu of performing a new detailed measurement if, in the actuary's professional judgment, such an adjustment would produce a reasonable result for purposes of the measurement. To determine whether such an adjustment would produce a reasonable result, 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;

d. changes in economic and demographic expectations; and

e. changes in **plan provisions**.

When adjusting obligations from a prior **measurement date**, the actuary should consider whether the assumptions used to determine the obligations should be revised.

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

3.5.1 Adopted Changes in Plan Provisions—Unless contrary to applicable law (statutes, regulations, and other legally binding authority), the actuary should reflect **plan provisions** adopted on or before the **measurement date** for at least the portion of the period during which those provisions are in effect. **Plan provisions** adopted after the **measurement date** may, but need not, be reflected.

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

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

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

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

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

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

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

The actuary should disclose the approach taken with any **plan provisions** of the type described in this section, in accordance with section 4.1(i).

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

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

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

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

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

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

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

a. relevant **plan provisions** and applicable law (statutes, regulations, and other legally binding authority);

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

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

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

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

f. whether the **plan provisions** regarding accrued benefits provide an appropriate attribution pattern for the purpose of the measurement (for example, following the attribution pattern of the **plan provisions** may not be appropriate if the plan's benefit accruals are significantly backloaded); and

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

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

2. the impact of the special event on **participant** behavior due to factors such

as subsidized payment options;

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

4. changes in investment policy.

3.11 Market-Consistent Present Values—If the actuary calculates a **market-consistent present value**, the actuary should do the following:

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

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

In addition, the actuary may consider how benefit payment default risk or the financial health of the plan sponsor affects the calculation.

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

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

a. The period over which **normal costs** are allocated for a **participant** 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 **participant's** compensation or service. The attribution basis may be applied on an individual or group basis. For example, the **actuarial present value of projected benefits** for each **participant** may be allocated by that **participant's** own compensation or may be allocated by the aggregated compensation for a group of **participants**.

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

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 **actuarial accrued liability** and **normal cost**. For purposes of this criterion, under a **spread gain actuarial cost method**, the sum of the actuarial value of assets and the unfunded **actuarial accrued liability**, if any, shall be considered to be the **actuarial accrued liability**.

3.14 Allocation Procedure—When selecting a **cost allocation procedure** or **contribution allocation procedure**, the actuary should consider factors such as the timing and duration of expected benefit payments and the nature and frequency of plan amendments. In addition, the actuary should consider relevant input received from the principal, such as a desire for stable or predictable **periodic costs** or **actuarially determined contributions**, or a desire to achieve a target funding level within a specified time frame.

3.14.1 Consistency Between Contribution Allocation Procedure and the Payment of Benefits—In some circumstances, a **contribution allocation procedure** may not be expected to produce adequate assets to make benefit payments when they are due even if the actuary uses a combination of assumptions selected in accordance with ASOP Nos. 27 and 35, an **actuarial cost method** selected in accordance with section 3.13 of this standard, and an asset valuation method selected in accordance with ASOP No. 44.

Examples of such circumstances include the following:

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

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

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

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

In some circumstances, the actuary's role is to determine the **actuarially determined contribution**, or range of **actuarially determined contributions**, using a **contribution allocation procedure** that the actuary did not select. If, in the actuary's professional judgment, such a **contribution allocation procedure** is significantly inconsistent with the plan 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 **actuarially determined contributions** when due, the actuary should disclose this in accordance with section 4.1(l).

3.14.2 Implications of Contribution Allocation Procedure or Funding Policy—The actuary should qualitatively assess the implications of the **contribution allocation procedure** or plan sponsor's funding policy on the plan's expected future contributions and **funded status**. For purposes of this section, contributions set by law or by a contract, such as a collective bargaining agreement, constitute a funding policy. In making this assessment, the actuary may presume that all actuarial assumptions will be realized and the sponsor (or other contributing entity) will make contributions anticipated by the **contribution allocation procedure** or funding policy. The actuary's assessment required by this section should be disclosed in accordance with section 4.1(m).

3.15 Approximations and Estimates—The actuary should use professional judgment to establish a balance between the degree of refinement of methodology and materiality. The actuary may use approximations and estimates where circumstances warrant. Following are some examples of such circumstances:

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

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

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

3.16 Volatility—If the scope of the actuary's assignment includes an analysis of the potential range of future pension obligations, **periodic costs**, **actuarially determined contributions**, or **funded status**, the actuary should 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 law (statutes, regulations, and other legally binding authority) or accounting standards, such as full funding limitations, the end of amortization periods, or liability recognition triggers;

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

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

When analyzing potential variations in economic and demographic experience or assumptions, the actuary should exercise professional judgment in selecting a range of variation in these assumptions (while maintaining internal consistency among these assumptions, as appropriate) and in selecting a methodology by which to analyze them, consistent with the scope of the assignment.

3.17 <u>Evaluation of Assumptions and Methods</u>—An actuarial communication should identify the party responsible for each material assumption and method. Where the communication is silent about such responsibility, the actuary who issued the communication will be assumed to have taken responsibility for that assumption or method.

3.17.1 <u>Prescribed Assumption or Method Set by Another Party</u>—The actuary should evaluate whether a **prescribed assumption or method set by another party** is reasonable for the purpose of the measurement, except as provided in section 3.17.3. The actuary should be guided by Precept 8 of the *Code of Professional Conduct*, which states, “An Actuary who performs Actuarial Services shall take reasonable steps to ensure that such services are not used to mislead other parties.” For purposes of this evaluation, reasonable assumptions or methods are not necessarily limited to those the actuary would have selected for the measurement.

3.17.2 <u>Evaluating Prescribed Assumption or Method</u>—When evaluating a **prescribed assumption or method set by another party**, the actuary should determine whether the prescribed assumption or method significantly conflicts with what, in the actuary’s professional judgment, would be reasonable for the purpose of the measurement. If, in the actuary’s professional judgment, there is a significant conflict, the actuary should disclose this conflict in accordance with section 4.2(a).

3.17.3 Inability to Evaluate Prescribed Assumption or Method—If the actuary is unable to evaluate a **prescribed assumption or method set by another party** without performing a substantial amount of additional work beyond the scope of the assignment, the actuary should disclose this in accordance with section 4.2(b).

## Section 4. Communications and Disclosures

4.1 Communication Requirements—Any actuarial communication prepared to communicate the results of work subject to this standard should comply with the requirements of ASOP Nos. 23, 27, 35, 41, and 44. In addition, such communication should contain the following disclosures when relevant and material. An actuarial communication can comply with some, or all, of the specific requirements of this section by making reference to information contained in other actuarial communications available to the intended users (as defined in ASOP No. 41), such as an annual **actuarial valuation** report.

a. a statement of the intended purpose of the measurement and a statement to the effect that the measurement may not be applicable for other purposes;

b. the **measurement date**;

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

d. an outline or summary of the **plan provisions** included in the **actuarial valuation**, a description of known changes in significant **plan provisions** included in the **actuarial valuation** from those used in the immediately preceding measurement prepared for a similar purpose, and a description of any significant **plan provisions** not included in the **actuarial valuation**, along with the rationale for not including such significant **plan provisions**;

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 any accounting policies or funding elections made by the principal that are pertinent to the measurement;

i. a description of the methods used to value any significant benefit provisions described in section 3.5.3 such that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the actuary's work as presented in the actuarial report;

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

k. a description of the **cost allocation procedure** or **contribution allocation procedure** including a description of **amortization methods** and any pay-as-you-go funding (i.e., the intended payment by the plan sponsor of some or all benefits when due). The actuary should disclose the outstanding amortization balance, the amortization payment included in the **periodic cost** or **actuarially determined contribution**, and the remaining amortization period for each amortization base along with a disclosure if the unfunded **actuarial accrued liability** is not expected to be fully amortized. For purposes of this section, the actuary should assume that all actuarial assumptions will be realized and **actuarially determined contributions** will be made when due;

l. a statement indicating that the **contribution allocation procedure** is significantly inconsistent with the plan accumulating adequate assets to make benefit payments when due, if applicable in accordance with section 3.14.1;

m. a qualitative description of the implications of the **contribution allocation procedure** or plan sponsor's funding policy on future expected plan contributions and **funded status** in accordance with section 3.14.2. The actuary should disclose the significant characteristics of the **contribution allocation procedure** or plan sponsor's funding policy, and the significant assumptions used in the assessment;

n. a description of the types of benefits regarded as accrued or vested if the actuary measured the value of accrued or vested benefits, and, to the extent the attribution pattern of accrued benefits differs from or is not described by the **plan provisions**, a description of the attribution pattern;

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

p. **funded status** based on an **immediate gain actuarial cost method** if the actuary discloses a **funded status** based on a **spread gain actuarial cost method**. The **immediate gain actuarial cost method** used for this purpose should be disclosed in accordance with section 4.1(j);

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

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

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

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

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

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;

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

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

u. a description of adjustments of prior measurements used under section 3.4.3; and

v. if, in the actuary's professional judgment, the actuary's use of approximations and estimates could produce results that differ materially from results based on a detailed calculation, a statement to this effect.

4.2 <u>Disclosure about Prescribed Assumptions or Methods</u>—The actuary's communication should state the source of any prescribed assumptions or methods.

With respect to **prescribed assumptions or methods set by another party**, the actuary's communication should identify the following, if applicable:

a. any **prescribed assumption or method set by another party** that significantly conflicts with what, in the actuary's professional judgment, would be reasonable for the purpose of the measurement (section 3.17.2); or

b. any **prescribed assumption or method set by another party** that the actuary is unable to evaluate for reasonableness for the purpose of the measurement (section 3.17.3).

4.3 <u>Additional Disclosures</u>—The actuary should also include the following, as applicable, in an actuarial communication:

a. the disclosure in ASOP No. 41, section 4.3, if the actuary states reliance on other sources and thereby disclaims responsibility for any material assumption or method set by a party other than the actuary; and

b. the disclosure in ASOP No. 41, section 4.4, if, in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this ASOP.

4.4 <u>Confidential Information</u>—Nothing in this standard is intended to require the actuary to disclose confidential information.

## Appendix

### Comments on the Second Exposure Draft and Responses

The second exposure draft of this revision of ASOP No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions,* was issued in December 2012 with a comment deadline of May 31, 2013. Thirteen comment letters were received, some of which were submitted on behalf of multiple commentators, such as by firms or committees. For purposes of this appendix, the term “commentator” may refer to more than one person associated with a particular comment letter. The Pension Committee carefully considered all comments received, and the ASB reviewed (and modified, where appropriate) the proposed changes.

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

The term “reviewers” includes the 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 | |
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| Comment<br><br>Response | Most commentators supported the practice of bolding defined terms and indicated that it increased the readability of the standard. One commentator indicated that it was distracting. One commentator suggested the use of hyperlinks instead of bolding.<br><br>The reviewers agree with the commentators who supported bolding and retained the style. The use of hyperlinks is being considered by the ASB for future ASOPs. |
| Comment<br><br>Response | One commentator expressed the desire that the actuarial profession should seek to move its ASOPs closer to “best practice,” which would seem to be a higher standard than the “appropriate practice” described in ASOP No. 1.<br><br>The reviewers note that, as described in ASOP No. 1, the ASB establishes standards of appropriate practice. |
| Comment<br><br>Response | Several commentators suggested that finalization of ASOP No. 4 be delayed until ASOP No. 6 is finalized.<br><br>The comment period for ASOP No. 6 has expired. Language in ASOP Nos. 4 and 6 is being coordinated. In finalizing ASOP No. 4, the reviewers considered the comments on ASOP No. 6. |
| Comment<br><br>Response | One commentator suggested that the reviewers re-examine all the guidance in ASOP No. 4 in light of issuance of the guidance issued in ASOP No. 1, *Introductory Actuarial Standard of Practice*, particularly with respect to use of the terms of construction such as “should,” “should consider,” etc.<br><br>The reviewers agree and made changes throughout the document to make it consistent with the terms of construction in ASOP No. 1. |

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| Comment<br><br><br><br>Response | One commentator expressed concern about the coordination of guidance between ASOP Nos. 4, 6, and 27. The commentator noted that all three ASOPs were under review at the time and suggested that the ASB take more time to coordinate guidance on assumptions for pension and retiree group benefits actuarial work.<br><br>The reviewers appreciate the concern but feel that the guidance in ASOP No. 4 is appropriate. Considerable time has been spent coordinating the three standards, but the reviewers feel that value gained by spending more time to restructure the standards does not outweigh the value lost by further delaying updated guidance. |
| Comment<br><br><br>Response | One commentator suggested that the term "liability" should only be used when market-consistent assumptions are used for the measurement.<br><br>While the reviewers agree that the use of the term "liability" has created confusion regarding actuarial work products, the reviewers note that the term "liability" is used as part of a phrase—"actuarially accrued liability"—that is defined in the ASOP. |
| **SECTION 1. PURPOSE, SCOPE, CROSS REFERENCES, AND EFFECTIVE DATE** | |
| **Section 1.1, Purpose** | |
| Comment<br><br><br>Response | One commentator suggested changing "performing professional services" to "rendering actuarial services" throughout the standard.<br><br>The reviewers agree that "actuarial services" is the appropriate term and made this change throughout the standard. |
| **Section 1.2, Scope** | |
| Comment<br><br><br><br><br>Response | One commentator suggested that, absent clarification that the purpose of the measurement is strictly for determining the impact on budgeting contributions, the ASOP should require that the actuary use the market value of benefits for the calculations anticipated by the actuarial services described in section 1.2(a) and the actuarial services described in section 1.2(e).<br><br>The reviewers believe that market-consistent present value calculations can be appropriate for use in a wide range of measurement purposes, but that requiring this calculation would be inappropriate. |
| Comment<br><br>Response | One commentator suggested changing "departs" to "deviates" in the final paragraph of this section.<br><br>The reviewers note that this is commonly used language in the standards and made no change. |
| **SECTION 2. DEFINITIONS** | |
| Comment<br><br><br>Response | Several commentators suggested that the term "plan obligations" should be defined as this term is used in the title of the standard and throughout the standard.<br><br>The reviewers believe that the common understanding of this term is sufficient for the purposes of the standard and made no changes. |
| Comment<br><br>Response | One commentator suggested adding a definition for the "aggregate cost method."<br><br>The reviewers note this term is only used in an example and believe that defining this commonly understood term would not improve the guidance provided in this standard. |
| Comment<br><br><br>Response | One commentator suggested adding a definition of "plan" to section 2 and noted that the term "pension plan" was used occasionally in the ASOP.<br><br>The reviewers note that in section 1.1. the term "plan" refers to a defined benefit pension plan and believe that further defining the term in not necessary. The reviewers adjusted language in section 1.1 to include "pension plan." |

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| **Section 2.2, Actuarial Cost Method** | |
| Comment | One commentator suggested that this definition should be modified to include the unit credit actuarial cost method. |
| Response | The reviewers believe the definition as written already includes the unit credit actuarial cost method. Therefore, no change was made. |
| **Section 2.3, Actuarial Present Value** | |
| Comment | One commentator suggested that the definition of "actuarial present value" make explicit reference to financial discounting, including the application of survivorship and discount rate assumptions. Another commentator suggested that the definition be revised to incorporate discounting. |
| Response | The reviewers believe the current language is sufficiently clear and made no change. |
| **Section 2.4, Actuarial Present Value of Projected Benefits** | |
| Comment | One commentator suggested that the definition be expanded to explicitly include open group models. |
| Response | The reviewers believe that the definition does not preclude open group models and, therefore, no change was necessary. |
| Comment | One commentator suggested that the definition be revised to incorporate discounting. |
| Response | The reviewers believe the current language is sufficiently clear and made no change. |
| **Section 2.6, Amortization Method** | |
| Comment | One commentator suggested that the definition of "amortization method" should not include the amortization period, and that the period over which the unfunded actuarial accrued liability is amortized should be defined separately. |
| Response | The reviewers believe the amortization period is appropriately part of the amortization method and did not make this change. |
| **Section 2.7, Contribution** | |
| Comment | One commentator indicated that the definition of contribution as a potential contribution determined by the actuary is contrary to the common meaning and potentially misleading. |
| Response | The reviewers agree and changed the term from "contribution" to "actuarially determined contribution" throughout this standard where appropriate. |
| **Section 2.8, Contribution Allocation Procedure** | |
| Comment | One commentator suggested that an asset valuation method and an amortization method be added as potential components of a contribution allocation procedure. Another commentator suggested that an output smoothing method (for example, a collar method that restricts the annual change in the contribution rate) be added as a potential component of a contribution allocation procedure or at least referred to in sections 3.14 and 4.1(k). Another commentator suggested that the "contribution allocation procedure" definition should be modified to accommodate other approaches such as direct smoothing or forecast valuations using funding targets. |
| Response | The reviewers added an asset valuation method, an amortization method, and an output smoothing method as potential components of a contribution allocation procedure in section 2.8. The reviewers believe the current language allows for a forecast valuation using funding targets to be a contribution allocation procedure. |

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| Comment | One commentator suggested adding "(and sometimes referred to as a funding method)" to this definition because the term "funding method" is defined in IRS Regulations and is a commonly used term. |
| Response | The reviewers note that in practice the term "funding method" is often used synonymously with "contribution allocation procedure" and "actuarial cost method." The IRS defines "funding method" to have the same meaning as "actuarial cost method" as defined in ERISA. However, the definition of "actuarial cost method" in this standard differs from the definition of "actuarial cost method" in ERISA, because of the exclusion of "pay-as-you-go" as an actuarial cost method in this standard. Therefore, to avoid any confusion, the reviewers did not include the term "funding method" in the definition section of the ASOP. |
| **Section 2.10, Cost Allocation Procedure** | |
| Comment | One commentator suggested that an asset valuation method and an amortization method be added as potential components of a cost allocation procedure. |
| Response | The reviewers agree and made the change. |
| **Section 2.11, Expenses** | |
| Comment | One commentator suggested that the standard refer to expenses "paid directly" by the plan rather than "borne" by the plan to distinguish between investment expenses that are paid directly and indirectly. Another commentator expressed concern about using the word "expenses" in the definition and suggested alternative wording. |
| Response | The reviewers believe the recognition of indirect expenses inherent in investment returns may be appropriate. The reviewers also believe the current language, which is unchanged from earlier versions of ASOP No. 4, is sufficiently clear as is. The reviewers made no change to the language. |
| **Section 2.14, Market Consistent Present Value** | |
| Comment | One commentator suggested slight modifications to the definition to indicate less purity than the current definition suggests. One commentator felt the definition would generally exclude most liability measurements since some readers could interpret "consistent with the price" as "equal to the price." |
| Response | The reviewers agree and made a slight modification to the definition. |
| Comment | Two commentators suggested that the term "market value" was a more appropriate term than "market-consistent present value." |
| Response | The reviewers note that no uniformly-accepted definition of "market value" of liability exists in the pension actuarial community and believe that the term "market-consistent present value" is an appropriate term. The reviewers also note that "market value" may be considered a subset of "market-consistent present value." |
| Comment | One commentator felt the definition was based on the economic value model whereby market participants operate to eliminate arbitrage opportunities. The commentator stated that there is no evidence that market participants use the economic value model in evaluating the finances of companies that sponsor defined benefit plans and that the standard should not include a definition that has no market evidence to support it. |
| Response | The reviewers note that the definition points to market buyers and sellers without regard to any economic theory or model. The reviewers believe the definition is appropriate and made no change. |

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| **Section 2.18, Plan Provisions** | |
| Comment | One commentator suggested that the standard define administrative practices and require the actuary to take reasonable measures to determine the existence of any administrative practices that could affect a measurement of pension obligations. |
| Response | The reviewers believe that the term “administrative practices” is well understood by pension practitioners and is clearly part of the definition of plan provisions. The reviewers made no change. |
| **Section 2.19, Prescribed Assumption or Method Set by Another Party; and Section 2.20, Prescribed Assumption of Method Set by Law** | |
| Comment | One commentator noted that sometimes the standard refers to assumptions “prescribed by” or “selected by” another party and suggested that the standard consistently use “set by” as this term is used in these definitions. |
| Response | The reviewers believe the existing language is sufficiently clear and made no change in response to this comment. |
| **SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES** | |
| **Section 3.2, General Procedures** | |
| Comment | One commentator suggested that this section be modified to explicitly require the actuary to select all three components of a cost/contribution allocation procedure (actuarial cost method, asset valuation method, and amortization method). |
| Response | The reviewers note that a cost/contribution allocation procedure may or may not include an asset valuation method and amortization method and, therefore, made a change to the stem of this section to indicate that the actuary should perform the general procedures listed, “as applicable.” |
| **Section 3.3, Purpose of the Measurement** | |
| Comment | One commentator said that the term “market value assessment” in the list of examples of measuring pension obligations was unfamiliar and confusing. |
| Response | The reviewers believe this term is sufficiently clear and note that this example of a measurement purpose does not provide guidance. Therefore, no change was made. |
| **Section 3.3.1, Anticipated Needs of Intended Users** | |
| Comment | One commentator indicated that this section implied that the actuary should know what the needs of the principal are. The commentator suggested alternative wording by adding “to the extent such needs are known.” Another commentator questioned the purpose of this section. |
| Response | The reviewers agree and have removed section 3.3.1. |
| **Section 3.3.3, Risk or Uncertainty** | |
| Comment | One commentator suggested that the reference to ASOP No. 41 was not helpful and should be deleted. Another commentator suggested that the guidance be expanded by requiring the actuary to consider whether risk or uncertainty should be addressed in the actuary's communication. The commentator suggested additional language to this effect. |
| Response | The reviewers changed the wording to more accurately describe the relationship between this section and the guidance in ASOP No. 41, but believe that the reference to ASOP No. 41 will be helpful to actuaries and retained it. The reviewers did not believe the additional language regarding the actuary's communication was necessary in this standard and made no change. |
| **Section 3.4.2, Events After the Measurement Date** | |
| Comment | One commentator suggested slightly modified language to this section. |
| Response | The reviewers agree and made the suggested change. |

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| **Section 3.4.3, Adjustment of Prior Measurement** | |
| Comment | One commentator suggested changing the language in the second sentence from, "To determine whether adjustment is appropriate" to "To determine if an adjustment would produce a reasonable result." |
| Response | The reviewers agree and made the change. |
| **Section 3.5.3, Other Valuation Issues** | |
| Comment | One commentator suggested that the reference to "plan provisions in which future benefits vary asymmetrically with future economic or demographic experience" was overly broad. Another commentator suggested the deletion of the two sentences beginning with "For example, if the purpose…" because they seemed educational and could be misinterpreted as recommended practice. Another commentator suggested alternative language for these two sentences. Another commentator stated that these two sentences were too specific and one-sided. |
| Response | The reviewers agree with the commentators and made changes to the section to better describe the intended scope and deleted the example in the two sentences. |
| Comment | Several commentators indicated that the change of control of a plan sponsor may prove to be a significant factor in the valuation, if the actuary has reason to believe a change in control is possible and should be included in examples of plan provisions that are difficult to measure. |
| Response | The reviewers agree and retained this item as an example in 3.5.3(d). |
| **Section 3.7, Other Information from the Principal** | |
| Comment | One commentator suggested changes to the wording to more appropriately describe the intended examples. |
| Response | The reviewers agree and made the suggested change. |
| **Section 3.10, Measuring the Value of Accrued or Vested Benefits** | |
| Comment | One commentator suggested that standard should restrict the actuary from using a risky discount rate to measure the present value of accrued or vested benefits unless such a measurement is prescribed. |
| Response | The reviewers believe that certain measurement purposes may require the use of a discount rate other than a risk-free discount rate and, therefore, made no change. |
| **Section 3.11, Market-Consistent Present Values** | |
| Comment | One commentator stated that the entire discussion of market-consistent present value measurements seemed to be inadequate and a little off-base. In addition, the commentator indicated that the importance given to market values of obligations in this second exposure draft was significantly diminished from earlier versions and suggested that such diminishment of guidance in this area continues the possibility of incurring significant professional reputational risk.<br><br>Another commentator stated that the application of market-consistent present values to pension obligations is insufficiently developed for articulation of requirements relating to those calculations. |
| Response | The reviewers believe that the requirements of this section are appropriate and are sufficiently broad to encompass a wide range of evolving practice, and retained the section with minor changes. |
| Comment | One commentator said the reference to benefits being traded in an open market was too restrictive and suggested that additional, more general/vague concepts be included in the ASOP. |
| Response | The reviewers believe that the guidance provides room for the actuary to apply professional judgment and made no change. The reviewers note that the revised guidance in ASOP No. 27 includes some of the concepts requested by this commentator. |

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| Comment | One commentator noted that lump sum interest rates and annuity purchase rates are uncorrelated with a plan sponsor's credit rating and, therefore, the financial health of a plan sponsor should not affect a market-consistent present value.<br><br>One commentator suggested that this section should require that the market value of pension cash flows be consistent with the value of market traded cash flows (for example, bonds, strips, swaps) that are similar to the pension cash flows in amount, timing and probability of payment. The commentator indicated that the actuary should (not "may" as proposed in the exposure draft) "consider how benefit payment default risk or the financial health of the plan sponsor affects the calculation." In addition to the credit-worthiness of the party or parties obliged to make good on the pension promise, the commentator suggested that a valuation needs to reflect (a) collateralization from segregated plan assets, and (b) that pension payments may have a de facto higher standing in bankruptcy than unsecured unfunded pension liabilities. |
| Response | The reviewers note that market-consistent measurements can serve several measurement purposes, only one of which is determining the present value of a settlement through lump sums or estimating the cost of an annuity. The guidance states that the actuary may consider how the sponsor's financial health affects the calculation. The reviewers believe the guidance provides the actuary with enough flexibility to treat a sponsor's financial health in a manner consistent with the purpose of the measurement and made no change. |
| Comment | One commentator suggested softening the guidance by indicating that if an actuary calculates a market-consistent present value, the actuary "should consider doing the following" rather than "should do the following." |
| Response | The reviewers believe that the current language provides reasonable guidance for calculation of market-consistent present values. |
| Comment | One commentator read section 3.11(b) as implying that a market value calculation only applies to an accrued benefit-type cash flow (for example, accumulated benefit obligation (ABO)). The commentator wanted to know if this was intended by the drafters of the standard. |
| Response | The reviewers intend that market-consistent present values only reflect benefits earned as of the measurement date; the benefits valued in an ABO measurement are one example of benefits earned as of the measurement date. |
| **Section 3.13, Actuarial Cost Method** | |
| Comment | One commentator suggested changing "last assumed retirement age" to "last assumed retirement date." |
| Response | The reviewers did not believe that this proposed change significantly improved the longstanding language included in prior versions of ASOP No. 4 and made no change. |
| Comment | One commentator stated that administrative expenses are rarely correlated to investment returns and, therefore, should not be reflected in the investment return assumption. |
| Response | The reviewers believe the treatment of administrative expenses described in the standard may be appropriate in some circumstances and left this language unchanged. |
| Comment | One commentator suggested combining the last two sentences of section 3.13(c) and suggested alternative wording. |
| Response | The reviewers did not believe that this proposed change significantly improved the existing language and made no change. |
| **Section 3.14.1, Consistency Between Contribution Allocation Procedure and the Payment of Benefits** | |
| Comment | One commentator suggested changing "may not necessarily produce" with "may not be expected to produce." |
| Response | The reviewers agreed that the suggested wording more accurately described the intended meaning and made the suggested change. |

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| Comment<br><br><br><br>Response | One commentator argued that an impractical burden is imposed on the actuary by the requirement for disclosure when in the actuary's professional judgment, a contribution allocation procedure prescribed by law or selected by another party is significantly inconsistent with accumulation of sufficient assets to pay benefits when due, and the requirement should be deleted.<br><br>The reviewers believe that this longstanding disclosure requirement is an important responsibility of a pension actuary and the requirement was retained. |
| Comment<br><br>Response | One commentator requested that a definition of the term "when due" be added.<br><br>The reviewers believe this concept is sufficiently clear and made no change. |
| **Section 3.14.2, Implications of Contribution Allocation Procedure** | |
| Comment<br><br><br>Response | One commentator argued that this section should be deleted because of potential ambiguity about the funding policy to be evaluated, and because the required assessment may be burdensome.<br><br>The reviewers agree that sponsor funding policies may be ambiguous. The reviewers note that the actuary is required to disclose the material characteristics of the contribution allocation procedure or plan sponsor's funding policy used in the assessment of a contribution allocation procedure. The reviewers believe that this qualitative assessment is appropriate and made no change. |
| Comment<br><br><br>Response | Another commentator suggested language to clarify the use of anticipated contributions set in law or by a contract accommodate the situation where the funding policy is not known.<br><br>The reviewers agree and made changes to the language in section 3.14.2 to clarify that contributions set by law or by a contract constitute a funding policy. |
| **Section 3.16, Volatility** | |
| Comment<br><br><br><br>Response | One commentator felt that the example in 3.16(e), describing rising or falling costs as a result of using a particular actuarial cost method for the plan population, was an example of expected change but not of volatility.<br><br>The reviewers believe that this section includes all sources of volatility including expected changes, and made no change. |
| Comment<br><br><br>Response | One commentator suggested adding "as appropriate" to the requirement to maintain internal consistency among assumptions.<br><br>The reviewers agree that latitude should be given to the actuary's professional judgment in analyzing potential variations and made the suggested change. |
| **Section 3.17, Evaluation of Assumptions and Methods** | |
| Comment<br><br><br><br>Response | One commentator suggested deleting the word "material" from this paragraph and stated that the actuary should identify the party responsible for all assumptions, regardless of their likely materiality.<br><br>The reviewers note that section 2.6 of ASOP No. 1 provides that "The guidance in ASOPs need not be applied to immaterial items," and made no change. |
| **Section 3.17.1, Prescribed Assumption or Method Set by Another Party** | |
| Comment<br><br><br>Response | One commentator suggested deleting the reference to Precept 8 and suggested alternative wording for the last sentence.<br><br>The reviewers note that both the reference to Precept 8 and the current wording of the last sentence are found in the current version of ASOP No. 4. The reviewers believe the reference to Precept 8 remains appropriate. The reviewers do not believe that the proposed change significantly improves the language included in the current version of ASOP No. 4, and made no change. |

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| **Section 3.17.3 Inability to Evaluate Prescribed Assumption or Method** | |
| Comment<br><br>Response | One commentator requested deletion of "a substantial amount" because the expansion of the actuary's assignment should be left to the discretion of the actuary and the principal.<br><br>The reviewers believe the actuary should use professional judgment to determine what constitutes a substantial amount of additional work based on the scope of the assignment and made no change. |
| **SECTION 4. COMMUNICATIONS AND DISCLOSURES** | |
| Comment<br><br>Response | One commentator said that the standard should require the actuary to disclose a low-risk market-consistent measurement.<br><br>The reviewers discussed this topic at length, and did not support adding this requirement to the standard. Therefore, no change was made. |
| Comment<br><br>Response | One commentator suggested changing "when relevant and material" to "when applicable, relevant, and material" in the opening paragraph and deleting "if applicable" from affected subparagraphs.<br><br>The reviewers did not add "applicable" to the opening paragraph but did revise the language of several subparagraphs in response to this comment. |
| **Section 4.1(d)** | |
| Comment<br><br>Response | One commentator suggested language to clarify to which prior measurement assumptions should be compared.<br><br>The reviewers agree that the suggested change clarified the intent of the section and made the change. |
| **Section 4.1(f)** | |
| Comment<br><br>Response | One commentator requested clarification in the form of examples of how to satisfy the requirement to disclose a summary of the participant information. The commentator also indicated that the standard should be clear that in no event, is the actuary required to disclose, directly or indirectly, personal information on individual participants.<br><br>The reviewers believe the level of detail in the current guidance regarding disclosure of participant information is reasonable and made no change. In response to the second comment, the reviewers added a new section 4.4 to reiterate the confidentiality concept in Precept 9 of the *Code of Professional Conduct* to address this concern regarding disclosure of confidential information. |
| **Section 4.1(i)** | |
| Comment<br><br>Response | One commentator suggested language to clarify that the description of methods be sufficient to permit appraisal by another actuary qualified in the same practice area.<br><br>The reviewers agree and made the change. |
| **Section 4.1(j)** | |
| Comment<br><br>Response | One commentator suggested that the scope of this disclosure requirement be limited and that the guidance specify the level of detail of the required disclosure. The commentator also suggested replacing "material" with "significant" to avoid conflict with ASOP No. 1.<br><br>The reviewers note that the exposure draft does not substantively alter the disclosure requirement from the current standard and believe that the scope and specificity of the requirement are appropriate. The reviewers made the suggested change to use "significant," but made no other changes. |

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| **Section 4.1(k)** | |
| Comment | One commentator requested clarification of what is meant by "a description of amortization methods and amortization bases," specifically whether it required disclosure of specific amortization base amounts. |
| Response | The reviewers clarified the language to indicate a description of amortization bases includes a description of the outstanding balance, the amortization payment included in the periodic cost or actuarially determined contribution, and remaining amortization period for each amortization base. |
| Comment | Several commentators expressed concerns about the proposed requirement to disclose if the unfunded actuarial accrued liability is expected to grow at any time because the amount of work required significantly outweighs the benefit of the disclosure. |
| Response | The reviewers agree with the commentators' concerns and modified the requirements in this section. |
| **Section 4.1(l)** | |
| Comment | One commentator suggested that this subparagraph be expanded to indicate the extent to which this requirement applies to a plan when another party, for example the PBGC, will pay all benefits when due immediately after the plan assets are insufficient to do so. |
| Response | The reviewers believe the language is clear that the requirement applies to the plan absent the benefit payment guarantee of any other external party, and made no change. |
| **Section 4.1(m)** | |
| Comment | Most commentators indicated that requiring disclosure of a qualitative assessment of the implication of the contribution allocation policy was preferable to requiring disclosure of a quantitative assessment and generally supported this requirement, but several commentators expressed concern about additional work and increased professional risk. |
| Response | The reviewers believe the amount of work necessary for a qualitative assessment is justified by the benefit received and made no change. |
| Comment | One commentator requested inclusion of examples of what constitutes a qualitative description of the implications of the contribution allocation procedure or sponsor funding policy on the future expected contributions or funded status. |
| Response | The reviewers want actuaries to rely on their professional judgment in applying this section. Inclusion of examples may create reliance on sample language, which could be inappropriate for any specific situation. |
| Comment | One commentator suggested that the phrase "the actuary should assume that all assumptions will be realized" should be included in this section with the clarification that it means that assumptions will remain the same. |
| Response | The reviewers note that that actuary may or may not assume that all assumptions will remain the same. The language was changed to require the actuary to disclose the significant assumptions used in the assessment. Section 3.14.2 already allowed the actuary to presume all actuarial assumptions will be realized in making the assessment. |
| Comment | One commentator suggested that some short-term quantitative assessments may be beneficial, particularly for public sector and multiemployer plans. |
| Response | The reviewers note that the appropriate pension practice conveyed by the guidance issued is applicable to all areas of pension practice, not just to certain areas. Hence, the reviewers made no change. |
| Comment | One commentator suggested that the expected percentage increase in the unfunded accrued liability for the year following the measurement date should be included in the required disclosure. |
| Response | The reviewers believe that a qualitative assessment is appropriate and made no change. |

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| Comment<br><br>Response | One commentator suggested language that “none of the disclosures under section 4.1 are intended to compel the actuary to forecast valuation results where such a forecast is beyond the scope of the assignment.”<br><br>The reviewers note that the requirements of a qualitative assessment are up to the professional judgment of the actuary and made no change. |
| **Section 4.1(o)** | |
| Comment<br><br>Response | One commentator indicated that the disclosure requirement in this section was unclear as written.<br><br>The reviewers agree and revised the language to clarify the intent. |
| Comment<br><br>Response | One commentator stated that the financial health of the plan sponsor is irrelevant to the extent not reflected in the potential benefit payment default risk.<br><br>The reviewers agree that an adjustment for financial health may not be necessary for the purposes of all such measurements, but that in any event, if such an adjustment is made, it should be disclosed. |
| Comment<br><br>Response | One commentator indicated that this disclosure requirement (how the benefit payment default risk or the financial health of the plan sponsor was included in the measurement) was not consistent with section 3.11. The commentator also indicated that this information may not be available and asked if it was a deviation of the standard to disclose that it was not included.<br><br>The reviewers note that if the actuary did not reflect payment default risk in a market-consistent present value measurement, the actuary’s disclosure should reflect that fact. The reviewers also note that section 3.11 states the actuary may consider default risk, and it is not a deviation from the standard for the actuary to not make such considerations if it is appropriate for the purpose of the measurement. |
| **Section 4.1(q)** | |
| Comment<br><br>Response | One commentator requested that the section be revised to explicitly state that where a particular disclosure of funded status is required by statutes, regulations, accounting standards or other binding authority, the content and format required by such authority controls.<br><br>The reviewers believe that the requested modification to the section provided too broad an exemption, but did revise the language to specifically exclude funded status measurements that are prescribed by federal law or regulation from the requirements of the section. |
| Comment<br><br>Response | One commentator requested that the requirements of the section be replaced by a requirement to disclose the purpose of the measurement.<br><br>The reviewers believe that the suggested replacement would not adequately serve the purpose of the section and left the existing requirements. |
| Comment<br><br>Response | One commentator suggested changing the language in section 4.1(q)(2) from “the need for future contributions” to “the amount of any anticipated future contributions.”<br><br>The reviewers agreed and made changes to the language. |
| **Section 4.1(r)** | |
| Comment<br><br>Response | One commentator suggested that language be added to clarify that actuarial forecasts outside the scope of an annual valuation are not required by the standard.<br><br>The reviewers believe that this concept is sufficiently clear and made no change. |
| **Section 4.1(s) and Section 4.1(t)** | |
| Comment<br><br>Response | Regarding section 4.1(s), one commentator suggested that the actuary should not be required to disclose confidential information when disclosing an explanation of the information and analysis that led to an assumption change.<br><br>The reviewers added section 4.4 to indicate that nothing in the standard is intended to require the actuary to disclose confidential information. |

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| Comment | One commentator objected to the requirements of these sections as potentially conflicting with the confidentiality of client information and as being burdensome. |
| Response | The reviewers added section 4.4 to clarify that nothing in the standard is intended to require disclosure of confidential information. The reviewers believe the disclosure requirements are appropriate and note that the disclosure may be brief. |
| **Section 4.1(v)** | |
| Comment | One commentator suggested changes to clarify the intended disclosure requirement. |
| Response | The reviewers agree and modified the language accordingly. |
| **Section 4.2, Disclosure about Prescribed Assumptions or Methods** | |
| Comment | One commentator thought that it was inappropriate for the proposed language of section 4.2 to expand the disclosure requirements beyond the disclosure requirements under ASOP No. 41 when assumptions or methods are prescribed. |
| Response | The reviewers disagree and made no change. The reviewers note the expanded disclosure requirements are only applicable to prescribed assumptions or methods set by another party. |