

Actuarial Standard of Practice No. 32

**Social Insurance** 

Developed by the Committee on Social Insurance of the American Academy of Actuaries

> Adopted by the Actuarial Standards Board January 1998

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# TABLE OF CONTENTS

Transmittal Memorandum		iv
	STANDARD OF PRACTICE	
Section 1. Pu	urpose, Scope, and Effective Date	1
1.1	Purpose	1
1.2	Scope	1
1.3	Effective Date	2
Section 2. De	efinitions	2
2.1	Actuarial Assumption	
2.2	Actuarial Report	2
2.3	Actuarial Status	2
2.4	Financial Adequacy	2
2.5	Long-Range Period	2
2.6	Program	2 2 2 2 2 3 3
2.7	Program Assets	3
2.8	Program Cost	3
2.9	Program Income	3
2.10	Required Actuarial Document	3 3
2.11	Scenario	3
2.12	Short-Range Period	
2.13	Statement of Actuarial Opinion	3 3
2.14	Trust Fund	3
Section 3. A	nalysis of Issues and Recommended Practices	3
3.1	General Considerations	3
3.2	Coverage and Program Features	3
3.3	Financing Method	3
3.3.1		4
3.3.2	Mechanism for Setting the Level of Income	4
3.4	Actuarial Assumptions	4
3.4.1	Demographic Assumptions	4
3.4.2	Economic Assumptions	5
3.4.3	Other Factors	5
3.5	Sensitivity Testing	5
3.6	Actuarial Methods	5
3.6.1	Consistency with Financing Method	5
3.6.2	Participants	6
3.6.3	Inclusion of All Material Financial Operations	6
3.6.4	Period-by-Period Estimates	6
3.6.5	Summarized Values	6

3.6.6	Tests of Financial Adequacy	6
3.7	Valuation Period	6
Section 4. Co	ommunications and Disclosures	7
4.1	Actuarial Report	7
4.1.1	Scope of Assignment	7
4.1.2	Intended Purpose	7
4.1.3	Reliances	7
4.1.4	Limitations	7
4.1.5	Program Description	7
4.1.6	Calculation Results	7
4.1.7	Actuarial Methodology	8
4.1.8	Assumptions	8
4.2	Changes	8
4.3	Users of the Report	8
4.4	Deviation from Standard	8
	<u>APPENDIXES</u>	
Appendix 1—	Background and Current Practices	10
Background		10
Characteristics of Social Insurance		10
Importance of Actuarial Opinion on Financial Adequacy		10
Importance of Projecting the Costs of Social Insurance Programs		11
Current Practices		11
Tests	of Financial Adequacy	11
Appendix 2—	Comments on the 1997 Third Exposure Draft and Committee Responses	12

**TO:** Members of Actuarial Organizations Governed by the Standards of Practice of the

Actuarial Standards Board and Other Persons Interested in Social Insurance

**Programs** 

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

**SUBJ:** Actuarial Standard of Practice No. 32

This booklet contains the final version of Actuarial Standard of Practice No. 32, *Social Insurance*.

# Background

This standard was developed by the Committee on Social Insurance of the American Academy of Actuaries, acting as a task force of the ASB. The ASB initiated the project several years ago, after taking note that no formal guidance existed on generally accepted actuarial practice for social insurance programs. Social insurance programs are important for the financial security of most citizens, and important public interests are involved in the actuarial aspects of these programs.

# First and Second Exposure Drafts

The first draft of the standard was exposed for review in a document dated July 1994, with a comment deadline of December 15, 1994. Seventeen comment letters were received. Based on the significant issues and questions contained in these letters, the committee made various changes, which included clarifying the scope; revising a number of the definitions, in particular the definitions of *financial adequacy*, *assets*, and *summarized income rates*; expanding the summary of methods for setting the level of financing; amplifying the description of open versus closed group valuation; and providing a more detailed discussion of the tests of financial adequacy.

The second draft of the standard was exposed for review in August 1995, with a comment deadline of December 15, 1995. As with the first exposure draft, the second exposure draft did not recommend a particular method, but emphasized that accepted actuarial practice includes the testing of financial adequacy for most social insurance programs. In general, the changes to the second exposure draft made the standard less specific about the actuary's choice of methods and required that specific testing for financial adequacy be done in fewer cases, but the changes also made clear that the standard was intended to apply to a broad range of programs that fit the definition of *social insurance*.

# Third Exposure Draft

The third exposure draft was released in May 1997, with a comment deadline of September 2, 1997 (which was subsequently extended to October 1, 1997). There were three major areas of change in this draft: (1) the definition of *social insurance* was further refined; (2) much of the language and terminology that was specific to the Social Security and Medicare programs was removed, allowing for tests of financial adequacy to more accurately reflect the nature of the underlying program; and (3) the committee clarified that the standard does not mandate a test of financial adequacy, but rather provides guidance to those actuaries who do perform them. (Copies of the first, second, and third exposure drafts are available from the ASB office.)

#### Substantive Issues in the Final Drafting

Four letters of comment were received on the third exposure draft and carefully reviewed by the committee. The committee had requested comments in this third draft especially regarding section 1.2, Scope, and the definition of *financial adequacy*. In developing the final standard, the committee examined again the features of what it considers to be a social insurance program (which are listed in section 1.2), and, based on a lack of comments, the text of this section remains the same. The committee also decided (again, based on a lack of comments) to include within the final standard the definition of *financial adequacy* (see section 2.4) found in the third exposure draft. A broader discussion of the significant issues contained in the comment letters, as well as the committee's responses to such, is noted in appendix 2 of this standard.

The Committee on Social Insurance thanks all those who provided input on each of the three exposure drafts. These comments were helpful in developing the final standard. The ASB voted in January 1998 to adopt the final standard.

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#### ACTUARIAL STANDARD OF PRACTICE NO. 32

#### SOCIAL INSURANCE

#### STANDARD OF PRACTICE

# Section 1. Purpose, Scope, and Effective Date

- 1.1 <u>Purpose</u>—This standard provides the actuary practicing in the field of social insurance with guidance concerning the nature of social insurance and a description of recommended practices.
- 1.2 <u>Scope</u>—This standard applies to the actuarial analysis of social insurance programs, which, for purposes of this standard, are considered to be government-sponsored programs with all of the following characteristics:
  - a. The program, including benefits and financing method, is prescribed by statute.
  - b. The program provides for explicit accountability of benefit payments and income, usually in the form of a trust fund.
  - c. The program is financed by contributions (e.g., taxes or premiums) from or on behalf of participants, which in some programs are supplemented by government income from other sources. Investment income on program assets may also be used to finance the program.
  - d. The program is universally (or almost universally) compulsory for a defined population, or the contribution is set at such a subsidized level that the vast majority of the population eligible to participate actually participate.

For programs that provide protection directly to the population, such as Social Security or Medicare, *participant* or *individual* refers to a person. For programs that provide protection through a guaranty or insurance-type arrangement, such as the Pension Benefit Guaranty Corporation (PBGC) program, *participant* or *individual* may also refer to a plan or other entity.

The standard applies, but is not limited to, the Federal Old-Age and Survivors Insurance (OASI) program, the Federal Disability Insurance (DI) program, the Federal Hospital Insurance (HI) program, the Federal Supplementary Medical Insurance (SMI) program, the PBGC program, the Railroad Retirement program, and state-sponsored unemployment insurance programs. The standard does not apply to programs established solely or primarily for government employees, to workers compensation programs, or to

programs that primarily provide property/casualty insurance except for the programs specifically identified above.

The actuary's responsibility is to apply this standard while taking into account other applicable actuarial standards of practice, legal requirements, and sound actuarial principles. This standard is not intended to inhibit the development of new and appropriate actuarial practices. In addition, it does not address every circumstance that can arise because of variations in benefits, financing method, the number of program participants, investment media and policies, measures of actuarial status, or other relevant factors.

This standard recognizes that appropriate actuarial practice differs significantly depending upon the nature of the benefit and the degree of predictability of the risk insured by the program. For programs such as OASI and DI, benefit amounts and the incidence of claims are reasonably predictable and variances from expected values usually emerge gradually. Under the PBGC's program, on the other hand, benefit amounts vary widely, the incidence of claims is highly unpredictable, and the experience of a relatively small number of participants can dramatically affect any forecast of the future.

1.3 <u>Effective Date</u>—This standard will become effective for the first valuation period beginning on or after July 1, 1998.

#### Section 2. Definitions

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

- 2.1 <u>Actuarial Assumption</u>—The value of a parameter, or other choice, having an impact on an estimate of a future cost, income, or other actuarial item of a program under evaluation.
- 2.2 <u>Actuarial Report</u>—A document, or other written presentation, prepared as a formal means of conveying an actuary's professional conclusions and recommendations; recording and communicating the methods, procedures, and assumptions; and providing the parties addressed with the actuary's opinion or findings.
- 2.3 <u>Actuarial Status</u>—A measure of the relative value of program income and program assets to program costs over a specified period of time.
- 2.4 <u>Financial Adequacy</u>—A condition in which program costs are projected not to exceed program income and assets over a specified period of time.
- 2.5 <u>Long-Range Period</u>—A period long enough to discern the general pattern and level of future costs.

- 2.6 <u>Program</u>—A system for collecting income, maintaining trust funds, and paying benefits as prescribed by law or regulation.
- 2.7 <u>Program Assets</u>—The investments held by the trust fund, including any cash balance, available to meet program costs.
- 2.8 <u>Program Cost</u>—The program's expenditures for benefits and administrative or general expenses. The expenditures for benefits are sometimes referred to as *claim costs*. The amount required to attain and maintain a target trust fund level may also be included.
- 2.9 <u>Program Income</u>—The program's tax income, investment income, premiums, and any other receipts and income, other than loan proceeds.
- 2.10 <u>Required Actuarial Document</u>—An actuarial communication of which the formal content is prescribed by law or regulation.
- 2.11 <u>Scenario</u>—A set of economic, demographic, and operating assumptions on the basis of which projections are made.
- 2.12 <u>Short-Range Period</u>—A period long enough to encompass a complete economic cycle or planning cycle, whichever is appropriate.
- 2.13 <u>Statement of Actuarial Opinion</u>—A formal statement of the actuary's professional opinion on a defined subject.
- 2.14 <u>Trust Fund</u>—An account to which income is credited and from which benefits and often administrative expenses are deducted for a specified program.

#### Section 3. Analysis of Issues and Recommended Practices

- 3.1 <u>General Considerations</u>—This standard applies to the actuary who is (1) projecting the cost or measuring the actuarial status of a social insurance program; (2) presenting a statement of actuarial opinion, an actuarial report, or a required actuarial document regarding the cost or adequacy of a social insurance program's financing; or (3) estimating the cost, or the impact on the actuarial status, of a proposed change to a social insurance program.
- 3.2 <u>Coverage and Program Features</u>—The actuary should take into consideration all relevant program features, some of which may be unique to the social insurance program or require special treatment as they relate to social insurance risks. In particular, consideration should be given to the ongoing nature of the program, based on current legislation and regulations.
- 3.3 <u>Financing Method</u>—The financing method is defined by (1) the sources of income and (2) the mechanism for setting the level of income.

- 3.3.1 <u>Sources of Income</u>—The sources of income typically include one or more of the following: (1) earmarked taxes, (2) premiums, (3) general fund revenues, and (4) investment income.
- 3.3.2 <u>Mechanism for Setting the Level of Income</u>—The actuary should consider the mechanism for setting the level of income. Four primary mechanisms follow:
  - a. Statutory—The income (tax rates or premium levels) and the benefit levels are specified by law for all future years and changed only through legislative action. Under this mechanism, the actuary should consider whether testing financial adequacy is appropriate, and, if so, establish a test
  - b. Administrative—The income (tax rates or premium levels) or the benefit levels may be changed periodically through administrative action. The actuary should project the program cost and relate that cost to the source of income.
  - c. Automatic—The income (tax rates or premium levels) or the benefit levels are adjusted automatically as specified by law to maintain financial adequacy. The actuary should project the program cost, the program income, and the automatic adjustments that are likely to occur.
  - d. Government Guarantee—The government guarantees that an excess of program cost over program income other than government subsidies will be paid out of general income. The actuary should project the program cost, the program income, and the amount of government subsidies that are likely to occur.
- 3.4 Actuarial Assumptions—The actuarial assumptions, both individually and in combination, should reflect the actuary's best judgment, taking into account anticipated future events affecting the related social insurance program. The actuary should consider the actual past experience of the social insurance program, over both short- and long-range periods, also taking into account relevant factors that may create material differences in future experience. In selecting actuarial assumptions, the actuary should be guided, to the extent appropriate, by Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations, and ASOP No. 27, Selection of Economic Assumptions for Measuring Pension Obligations.

In performing actuarial calculations regarding the cost or financing method of social insurance programs, the actuary should consider the applicability of the demographic and economic assumptions described below.

3.4.1 <u>Demographic Assumptions</u>—*Demographic assumptions* are those that relate to the projections of the numbers and characteristics of individuals that are covered

or potentially covered by the program, contribute to the program, or receive benefits from the program. The actuary should pay particular attention to the rates of entry into and withdrawal from the covered population, as well as the beneficiary population, assuring that assumed future rates are reasonable. Where the numbers of covered individuals and beneficiaries are projected using current participant data only, the actuary should consider using data from the broader population in order to check reasonableness.

- 3.4.2 <u>Economic Assumptions</u>—*Economic assumptions* are those that relate to the projections of the level of income to the program and the level of benefit payments by the program. In many cases, the relative differences between rates of increase for items that affect income versus those that affect benefits have a more direct impact on the actuarial status of the program than do the level of such rates. In such cases, the actuary should give special attention to the relationship among the rates. Nevertheless, the assumptions should be reasonable individually as provided for in ASOP No. 27.
- 3.4.3 Other Factors—In choosing assumptions, the actuary should take into consideration the actual operation of the program. For example, the rates of actual retirement may differ from the rates of receipt of the retirement benefit. The actuary should take care that assumptions include the effects of behavioral changes induced by the availability and level of benefits. The administrative costs of the program should also be considered in cases where program income finances the program's administration.
- 3.5 <u>Sensitivity Testing</u>—In addition to using actuarial judgment in selecting assumptions, the actuary should state in an actuarial report that the results depend on the assumptions used and that actual experience is likely to differ from expected. The actuary should perform an analysis of the sensitivity of the program's cost or financing method under reasonable, alternative scenarios that are different from expected experience.

When the data used in setting actuarial assumptions have limited credibility or applicability, or when the projected costs or the program's actuarial status is particularly sensitive to the assumptions, greater sensitivity testing is indicated. The intended use of the report, or the sensitivity of the program cost or financing method to the choice of the assumptions, may be considered in determining the amount of sensitivity testing to be performed.

- 3.6 <u>Actuarial Methods</u>—Many differences exist between social insurance and private insurance that may require the actuary to adapt, modify, or replace actuarial methods that are generally accepted for the valuation of private insurance and pensions. The actuary should take the following into consideration when working with social insurance programs:
  - 3.6.1 <u>Consistency with Financing Method</u>—The actuarial methods for computing and summarizing estimates of the program's financing methods should be consistent

with the financing method that has been adopted. If alternative financing methods are valued, the actuarial methods should be flexible enough to permit these valuations and provide consistent comparison of the alternative financing methods.

- 3.6.2 <u>Participants</u>—Generally, data regarding current participants and individuals expected to become participants in the future should be reflected in the actuary's calculations. Because program termination is usually not an important consideration for social insurance programs, the projections should generally be made on an open-group basis.
- 3.6.3 <u>Inclusion of All Material Financial Operations</u>—The actuary should include all material aspects of expected future program income and costs under current law and regulation, within the time frame of the valuation.
- 3.6.4 <u>Period-by-Period Estimates</u>—The actuary should produce period-by-period projections of program operations, particularly when danger exists of the program being unable to make benefit payments when due at any time during the valuation period. Period-by-period estimates also provide the basis for calculating summarized values. Normally, the valuation period would be one year.
- 3.6.5 <u>Summarized Values</u>—Summarized values of the period-by-period estimates may be useful in communicating the actuarial status of the program. The actuary should choose a summarization method that is consistent with the program's design and structure and its financing and investment structure. The choice of summarization method should include the consideration of investment income.
- 3.6.6 Tests of Financial Adequacy—An actuarial report on the financial adequacy of a program with a statutory mechanism for setting the level of financing should state whether the program financing is sufficient as determined by a test of financial adequacy that the actuary deems appropriate. Tests of financial adequacy may be based on criteria such as the following: (1) required trust fund levels under best estimate assumptions, (2) positive trust fund levels under pessimistic assumptions, or (3) a sufficiently low probability of ruin or an acceptable range of possible outcomes under a stochastic model.

For testing financial adequacy over a short-range period, the actuary should, in valuing program assets, include only those assets that are readily available for the immediate payment of benefits.

If a test of financial adequacy is appropriate, the actuary normally should apply such a test to both short- and long-range periods.

3.7 <u>Valuation Period</u>—The actuary should note any significant differences between program income and cost toward the end of the valuation period. Further, the actuary should

disclose the expected impact of such differences on the actuarial status in future valuations.

#### Section 4. Communications and Disclosures

- 4.1 <u>Actuarial Report</u>—An actuarial report should summarize and place in context the actuary's conclusions from the calculations performed. The report should identify the actuary as the source of the actuarial calculations, and should indicate the extent to which the actuary or other source(s) are available to provide supplementary information and explanation. The actuary should, where relevant, consider including the following items in the report:
  - 4.1.1 <u>Scope of Assignment</u>—The report should discuss the nature of the assignment and any limitations, including any conditions or restrictions imposed by the requestor, time constraints, or data availability. The scope of the assignment should be consistent with the intended purpose of the report, as discussed in the following paragraph.
  - 4.1.2 <u>Intended Purpose</u>—There should be a clear description of the report's intended purpose, and, if necessary, a statement of how or why it might be inappropriate for purposes other than the one for which it was intended. The description should be consistent with the scope of the work done, and it should contain any limitations on distribution of, or reference to, the report.
  - 4.1.3 <u>Reliances</u>—The report should identify the information, documents, and data used, including their source(s), and whether the actuary undertook any independent verification.
  - 4.1.4 <u>Limitations</u>—The report should identify limitations relevant to the values developed and their application to specific situations that result from the methodology or assumptions used. The report should also identify items excluded from or not reflected in the calculations, a lack of reliable data, recent or pending changes, time constraints, or other considerations.
  - 4.1.5 <u>Program Description</u>—The report should describe the program benefits, the financing method, and the population covered.
  - 4.1.6 <u>Calculation Results</u>—The report should state the results of the calculations performed. Possible results include a point estimate, a range, and a table of values. The report should also include a description of the extent and depth of testing that underlie the calculations, including a description of any sensitivity tests that have been made, the time period to which the calculations refer, and the date as of which the calculations were performed.

- 4.1.7 <u>Actuarial Methodology</u>—The report should describe the methodology or methodologies used. If someone other than the actuary selected the methodology, the actuary should disclose that fact and the source of the methodology. In addition, the actuary should characterize the methodology in terms of its reasonableness and its consistency with the financing methods, eligibility requirements, and benefit provisions of the program.
- 4.1.8 <u>Assumptions</u>—The actuary should characterize the reasonableness of the assumptions, both individually and in combination. The report should describe the assumptions in detail and the basis for their determination. Where appropriate, these requirements may be met by reference to other actuarial reports. The description should include the following, where relevant:
  - a. If any assumption was prescribed by someone other than the actuary, the actuary should disclose that fact and the source of the assumption.
  - b. If assumptions are based on judgment or historical experience, the report should describe any relevant factors that led to the choice of assumptions.
  - c. If assumptions differ from recent experience because of trends, changes in the environment, or anticipated changes in the program or its operation, the report should discuss the trends or anticipated changes that led to the choice of the assumptions used.
  - d. If assumptions are set using input or expertise from outside sources, the report should disclose the sources of such information and the reasons for reliance on them.
  - e. When the actuary knows of any significant event that has occurred since the date as of which calculations were performed that would materially affect the value of any assumption, the actuary should describe that event and its likely effect.
- 4.2 <u>Changes</u>—If any changes have occurred since the previous calculations with respect to the program, the report should quantify any material changes in the results attributable to changes in program experience, program provisions, methods or assumptions used, and the date as of which the previous calculations were performed.
- 4.3 <u>Users of the Report</u>—Reasonably foreseeable direct and indirect users should be taken into account when communicating actuarial information and opinions, as, for example, in the case of social insurance programs that are subject to scrutiny by legislators and others who may not have experience with technical terminology and concepts.
- 4.4 <u>Deviation from Standard</u>—An actuary must be prepared to justify the use of any procedures that depart materially from those set forth in this standard and must include,

in any actuarial communication disclosing the results of the procedures, an appropriate statement with respect to the nature, rationale, and effect of such departures.

# Appendix 1

# **Background and Current Practices**

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

#### Background

<u>Characteristics of Social Insurance</u>—Three characteristics of social insurance programs are of fundamental importance to the analysis of their actuarial status. First, because participation is essentially mandatory, social insurance programs can be assured of new entrants. Second, because such programs are operated by governments, program termination is usually not an important consideration when determining the program's actuarial status. Third, social insurance is based on laws and regulations that can be changed (e.g., taxes or premiums may be increased or benefits decreased) without the consent of the participants.

Social insurance may include some or all of the following features:

- 1. a minimum level of participation is required to establish coverage;
- 2. a minimum or maximum level of protection is provided based on a concern to provide adequate benefits to most participants, i.e., based on the concept of social adequacy;
- 3. individual benefits need not bear a direct relationship to individual contributions, although benefits may increase somewhat with increased contributions or with increased participation to introduce some individual equity into the benefit formula; or
- 4. receipt of benefits is not restricted based on overall financial need.

Note, as well, another important characteristic of social insurance: the laws and regulations governing private insurance and pensions do not apply. Therefore, in most cases, the actuary practicing in the social insurance field must develop tests of financial adequacy for the program being evaluated.

The above points regarding social insurance make some of the actuarial methods developed for private insurance not appropriate for social insurance. For example, the cost of a social insurance program is usually projected on an open-group basis, unlike private programs. Further, another important aspect of social insurance programs is the manner in which inflation is taken into account. Key program parameters are often indexed or adjusted frequently for inflation.

<u>Importance of Actuarial Opinion on Financial Adequacy</u>—An actuarial report may present a statement of actuarial opinion as to whether the program's financing method is adequate to

provide for the program's costs. The projection of financial adequacy depends on the financing method.

Importance of Projecting the Costs of Social Insurance Programs—Another purpose of an actuarial report is to inform policymakers and the general public of the program's cost. Regardless of the financing method, the social insurance program's costs are typically projected far enough into the future to indicate their general pattern and ultimate level. The cost is often presented in relation to an appropriate revenue base. For example, when program financing is based on taxes on earnings, expressing the cost as a percentage of the aggregate earnings subject to taxation produces a rate that can be compared directly with the tax rate. Then the difference can be used for developing a test of financial adequacy.

## **Current Practices**

<u>Tests of Financial Adequacy</u>—There are several well-established methods currently being used to test the financial adequacy of social insurance programs, as well as methods to measure the actuarial status of such programs. Many social insurance programs, however, operate without any formal test. In such cases, a projection of program operations during the next one to five years is often made. The implication is that the financing should be sufficient to keep the program solvent, but a formal statement of financial adequacy is not always made, especially if the program has borrowing authority.

For some programs, tests of financial adequacy use a method comparable to that used for one-year renewable term insurance whereby the current tax rate or premium level is compared to the expected incurred obligations of the program during the current rate-setting cycle. In addition, other tests can be developed by the actuary that are suitable to the program.

#### Appendix 2

# Comments on the 1997 Third Exposure Draft and Committee Responses

The third exposure draft of the proposed standard was exposed for review in May 1997, with a comment deadline of September 2, 1997, which was subsequently extended to October 1. (The second and third exposure drafts summarize comments received on the first and second exposure drafts, respectively, and the responses of the Committee on Social Insurance to such comments. Copies of these exposure drafts are available from the ASB office.) Four letters of comment were received on the third exposure draft. Summarized below are the significant issues and questions contained in the comment letters, printed in standard type. The committee's responses appear in **boldface**.

# **General Comments**

One commentator raised the issue of "macro" financial adequacy with respect to social insurance. The commentator suggested that, in addition to looking at the program cost relative to program income, the actuary should consider and test the ability of the economy to support the benefit payments. The committee acknowledges that the commentator has a point in that the economy may not be able to provide the program income and assets as needed by the social insurance program. However, this is an issue that is outside the scope of this actuarial standard of practice.

The same commentator suggested that if a social insurance program is skewed such that a subset of the covered population receives a disproportionately small amount of net benefit, the actuary should take this into account in determining the viability of the current program. The committee again acknowledges that the commentator has a point, but feels that any attempt to determine future program changes based on presumed participant attitudes is too speculative and is outside the scope of this actuarial standard of practice.

#### Section 1. Purpose, Scope, and Effective Date

Section 1.2, Scope—The third exposure draft specifically requested input with respect to the scope of the standard. Specifically, the committee requested comments on whether the listed exclusions regarding which programs are covered by the standard are appropriate. Three commentators commented on this area. One suggested that the scope be applied broadly to every social insurance program, or to none. The second asked if a program with prescribed benefits, but not prescribed income, wouldn't benefit from actuarial analysis. The third commented that the existence of a trust fund does not provide accountability. As for the first comment, the committee agrees that the scope should be applied broadly to every social insurance program that meets the definition of such in the standard. The committee believes the definition of social insurance program from the third exposure draft, along with the listed

examples, is satisfactory. As for the second comment, the committee notes that programs that do not meet all aspects of the definition of *social insurance* may benefit from actuarial analysis, but that it is not appropriate to subject such programs to the entire standard of practice. As for the third comment, the committee agrees, but believes that the wording in section 1.2(b), i.e., that *the program provides for explicit accountability*, is clear. No changes were made to the section.

#### Section 2. Definitions

Section 2.4, Financial Adequacy—The exposure draft specifically requested input on whether a definition for *financial adequacy* was needed and whether the proposed definition was appropriate. The one comment letter received on this section did not address the question as posed in the transmittal memorandum, but asked why a period of time is not specified within the definition. While the phrase *specified period of time* is used within the definition, section 3.6.6, Tests of Financial Adequacy, provides further guidance: *If a test of financial adequacy is appropriate, the actuary normally should apply such a test to both short- and long-range periods*. The committee feels that the definition used in the third exposure draft is adequate. No change was made.

Section 2.8, Program Cost—One commentator was concerned about the inclusion of an arbitrary target trust fund level while recognizing the need for a working cash balance. The committee notes that the inclusion of such targets is discretionary based on the actuary's judgment.

Sections 2.12, Short-Range Period, and 2.14, Trust Fund—One commentator provided minor editorial comments on these two definitions. **The committee slightly revised sections 2.12 and 2.14 to reflect these comments.** 

# Section 3. Analysis of Issues and Recommended Practices

Section 3.3.2(d), Government Guarantee—One commentator was concerned with the amount of government subsidies that are likely to occur, preferring that a range of results be provided. The committee believes that the presentation of ranges of results is adequately covered by section 3.5, Sensitivity Testing.

Section 3.4, Actuarial Assumptions—One commentator provided minor editorial comments on this section. The committee slightly revised the first paragraph of this section to reflect these comments.

Section 3.6.2, Participants—One commentator wondered why open-group projections are preferred, while another wondered whether they are preferred or mandatory. **The section was revised to better reflect the committee's intent.** 

Section 3.6.5, Summarized Values—One commentator was confused as to why summarized values can't also be appropriate for short-term valuations as well. **The committee agrees and deleted the phrase**, *For long-range valuations*, at the beginning of the sentence.

### Appendix 1—Background and Current Practices

Characteristics of Social Insurance—One commentator noted that new entrants are not included in actuarial valuations under other actuarial standards of practice. This commentator also expressed a belief that the principle of pensions *do* apply to social insurance programs. The committee believes that the statement, *the laws and regulations governing private insurance and pensions do not apply*, is correct. The committee also believes that the text in appendix 1 regarding *new entrants* and *open groups* is helpful in understanding the need for this actuarial standard of practice. No changes were made to appendix 1.

The Committee on Social Insurance of the American Academy of Actuaries thanks everyone who took the time and made the effort to submit comments on all three exposure drafts. The input was much appreciated.