ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 17

Expert Testimony by Actuaries

Revised Edition

Developed by the
Expert Witness Task Force of the
General Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
March 2002

(Doc. No. 087)

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APPENDIXES

March 2002

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Expert Testimony by Actuaries

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 17

This booklet contains the final version of ASOP No. 17, *Expert Testimony by Actuaries*.

Background

The ASB originally adopted ASOP No. 17, *Expert Testimony by Actuaries* (Doc. No. 029) in 1991. Since that time, actuarial practice in this area has evolved. Under the direction of the ASB, the Expert Witness Task Force has revised ASOP No. 17 to be consistent with the current ASOP format adopted by the ASB in May 1996 for all future actuarial standards of practice and to reflect current practices in the area of expert testimony.

Actuarial opinions that are widely divergent may raise a question about the reasonableness of one or more opinions. This question is likely to arise when the basis for any opinion is not soundly thought out or not well explained. By contrast, actuarial opinions that are supportable and carefully prepared and explained, though divergent, can generate confidence in actuaries' competence to evaluate the costs and benefits of future contingent events. The focus of this standard is on the preparation and delivery of sound expert testimony by actuaries.

Exposure Draft

The exposure draft of this revised standard was issued in March 2001 with a comment deadline of August 15, 2001. The Expert Witness Task Force with the help of the General Committee carefully considered the eighteen comment letters received. For a summary of the substantive issued contained in these comment letters, please see appendix 2.

The most significant changes from the exposure draft were as follows:

1. The first paragraph of section 1.2, Scope, was reworded to clarify the extent to which the standard applies to actuaries providing litigation support;

2. A sentence was added to section 3.5, Identity of Principal, to specifically address the extent to which the actuary can rely upon information and instructions received from representatives of principals;

3. The last sentence of section 3.9, Cross-Examination, which advised that the actuary should expect to be cross-examined on the basis of prior statements, was stricken as being redundant with section 3.10, Consistency with Prior Statements;

4. Section 3.12, Limitation of Expert Testimony (previously titled, "Nature of the Forum"), was retitled and substantially rewritten in response to suggestions that the disclosure and compliance obligations of the actuary be more precisely identified; and

5. Section 4.3, Prescribed Statement of Actuarial Opinion, was amended to use the alternative language provided in the Transmittal Memorandum of the exposure draft.

The task force would like to thank former General Committee members Donald F. Behan, Lee R. Steeneck, and Paul B. Zeisler for their contribution to the revision of this standard.

The ASB voted in March 2002 to adopt this standard.

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ACTUARIAL STANDARD OF PRACTICE NO. 17

EXPERT TESTIMONY BY ACTUARIES

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 providing expert testimony.

1.2 Scope—This standard applies to actuaries when they testify as actuarial experts at trial, in hearing or arbitration, in deposition, or by declaration or affidavit. This standard does not apply to actuaries providing litigation support other than the expert testimony itself. However, actuaries providing such litigation support may consider the guidance in this standard to the extent that it is applicable and appropriate.

This standard supplements the *Code of Professional Conduct* and is intended to provide specific guidance with respect to expert testimony. Reference should also be made to other actuarial standards of practice concerned with the actuarial substance of the assignment.

Nothing in this standard is intended to discourage reasonable differences of actuarial opinion, or to inhibit responsible creativity in advancing the practice of actuarial science. Further, this standard is not intended to restrain unreasonably the selection of actuarial assumptions or methods, the communication of actuarial opinions, or the relationship between the actuary and a principal. Nothing in this standard is intended to prevent the actuary from challenging the application or a particular interpretation of existing precedent, law, or regulation where such application or interpretation would, in the opinion of the actuary, be inconsistent with otherwise appropriate actuarial practice.

To the extent that the guidance in this standard may conflict with the guidance in other ASOPs, the actuary should use professional judgment in reconciling such conflict. If a conflict exists between this standard and applicable law or regulation, compliance with applicable law or regulation is not considered to be a deviation from this standard.

1.3 Cross References—When this standard refers to the provisions of other documents, the reference includes the referenced documents as they may be amended or restated in the future, and any

successor to them, by whatever name called. If any amended or restated document differs materially from the originally referenced document, the actuary should consider the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard is effective for all expert testimony provided on or after July 15, 2002.

Section 2. Definitions

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

2.1 Actuarial Assumption—The value of a parameter or other actuarial choice having an impact on an estimate of a future cost or other actuarial item under evaluation.

2.2 Actuarial Method—A procedure by which data are analyzed and utilized for the purpose of estimating a future cost or other actuarial item.

2.3 Actuarial Opinion—A conclusion drawn by an actuary from actuarial knowledge or from the application of one or more actuarial methods to a body of data.

2.4 Data—Statistical or other information that is generally numerical in nature or susceptible to quantification.

2.5 Expert—One who is qualified by knowledge, skill, experience, training, or education to render an opinion or otherwise testify concerning the matter at hand.

2.6 Material—An item is material if it has an impact on the affected actuarial opinion, which is significant to the interested parties.

2.7 Principal—A client or employer of the actuary.

2.8 Testimony—Communication presented in the capacity of an expert witness at trial, in hearing or arbitration, in deposition, or by declaration or affidavit. Such testimony may be oral or written, direct or responsive, formal or informal.

Section 3. Analysis of Issues and Recommended Practices

An actuary providing expert testimony performs an important service to the actuary's principal, the forum, and the public by explaining complex technical concepts that can be critical to resolution of disputes. Actuaries may differ in their conclusions even when applying reasonable assumptions and appropriate methods, and a difference of opinion between actuaries is not, in and of itself, proof that an actuary has failed to meet professional standards. However, an actuary providing expert testimony should comply with the requirements of the *Code of Professional Conduct*. In particular, the actuary should act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public, and should take reasonable steps to ensure that the expert testimony is not used to mislead other parties.

3.1 Review and Compliance—In addition to complying with this standard, the actuary providing expert testimony should review and comply with applicable actuarial standards of practice, the *Qualification Standards for Prescribed Statements of Actuarial Opinion*, and the *Code of Professional Conduct*.

3.2 Conflict with Laws and Regulations—If the actuary believes that a relevant law or regulation contains a material conflict with appropriate actuarial practices, the actuary should disclose the conflict, subject to the constraints of the forum.

3.3 Conflict of Interest—The actuary should be alert to the possibility of conflict of interest, and should address any real or apparent conflict of interest in accordance with Precept 7 of the *Code of Professional Conduct*.

3.4 Advocacy—There may be occasions when an actuary acts as an advocate for a principal when giving expert testimony. Nothing in this standard prohibits the actuary from acting as an advocate. However, acting as an advocate does not relieve the actuary of the responsibility to comply with the *Code of Professional Conduct* and to use reasonable assumptions and appropriate methods (unless using prescribed or alternative methods or assumptions and so disclosing in accordance with section 3.6).

3.5 Identity of Principal—The actuary should identify the principal on whose behalf the actuary is to give expert testimony. This principal usually names a representative, such as an attorney or manager, to whom the actuary reports during the course of the assignment. Even though that representative may retain or pay the actuary, the actuary's ultimate obligation is to the principal and not to the principal's representative. However, in the absence of evidence to the contrary, the actuary may rely upon information and instructions from the representative as though they came directly from the principal.

3.6 Prescribed or Alternative Methods and Assumptions—If the actuary performs calculations using prescribed or alternative assumptions or methods different from the assumptions or methods

selected by the actuary in forming the actuary's expert opinion, the actuary should state, subject to the constraints of the forum, whether the results are consistent with the actuary's own expert opinion.

3.7 Hypothetical Questions—The actuary may be asked to answer hypothetical questions. Hypothetical questions may fairly reflect facts in evidence, may include only a part of the facts in evidence, or may include assumptions the actuary believes to be untrue or unreasonable. The actuary may refuse to answer hypothetical questions based upon unreasonable assumptions, subject to the constraints of the forum.

3.8 Testifying Concerning Other Relevant Testimony—When the actuary testifies concerning other relevant testimony, including opposing testimony, the actuary should testify objectively, focusing on the reasonableness of the other testimony and not solely on whether it agrees or disagrees with the actuary's own opinion.

3.9 Cross-Examination—Although the actuary must respond truthfully to questions posed during cross-examinations, the actuary need not volunteer information that may be adverse to the interest of the principal.

3.10 Consistency with Prior Statements—When giving expert testimony, the actuary should be mindful of statements the actuary may have made on the same subject. If the actuary employs different methods or assumptions in the current situation, the actuary should be prepared to explain why.

3.11 Discovery of Error—If, after giving expert testimony, the actuary discovers that a material error was made, the actuary should make appropriate disclosure of the error to the principal or the principal's representative as soon as practicable.

3.12 Limitation of Expert Testimony—The actuary's expert testimony should be presented in a manner appropriate to the nature of the forum. If any constraints are imposed or expected to be imposed on the actuary's ability to comply with the *Code of Professional Conduct* or other professional standards, the actuary should consider whether it is appropriate to serve or continue to serve as an expert.

Section 4. Communications and Disclosures

4.1 Written Reports—Expert testimony delivered by means of a written report should describe the scope of the assignment, including any limitations or constraints. The written report should include descriptions and sources of the data, actuarial methods, and actuarial assumptions used in the analysis in a manner appropriate to the intended audience.

4.2 Oral Testimony—In delivering expert testimony orally, the actuary should express opinions in a manner appropriate to the intended audience. In addition, the actuary should, to the extent practicable, be prepared to document oral testimony.

4.3 Prescribed Statement of Actuarial Opinion—The actuary providing expert testimony should satisfy the *Qualification Standards for Prescribed Statements of Actuarial Opinion* promulgated by the American Academy of Actuaries in each practice area that is a primary subject of the actuary's testimony.

4.4 Deviation from Standard—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 use, subject to the constraints imposed by the nature of the forum.

Appendix 1

Background and Current Practices

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

Background

The Actuarial Standards Board first adopted Actuarial Standard of Practice No. 17, *Expert Testimony by Actuaries*, in January of 1991. The standard addressed a type of practice, expert testimony, which had not been explicitly addressed in previously adopted standards. The standard also crossed traditional practice areas to apply whenever actuaries offered expert testimony concerning pensions or insurance. As such, the standard contained a significant amount of educational material.

Since the standard was first adopted, actuaries have become increasingly active as expert witnesses, appearing in a greater variety of venues and addressing an expanding range of topics. As actuaries have become more knowledgeable about providing expert testimony, the need for educational material has lessened to some degree. The Actuarial Standards Board has also adopted a new format for standards, and this standard reflects that format.

Current Practices

Actuaries may be called upon to give expert testimony concerning a broad range of issues, such as the following:

a. actuarial present values of retirement or other benefits;

b. actuarial values incident to a divorce;

c. adequacy or appropriateness of reserves, premium rates, pricing or underwriting procedures, or provision for administrative costs;

d. cost impact of claims-made or claims-paid financing;

e. cost impact of risk classification systems, tort liability decisions, or legislative/regulatory proposals;

f. lost earnings of a decedent or injured person and the actuarial present value of such lost earnings;

g. malpractice alleged of an actuary;

h. relationships between risk and return on investments;

i. value of an insurance company or other entity; and

j. withdrawal liability assessments under multiemployer benefit plans.

Actuarial expert testimony may be given in many forums including, but not limited to, the following:

a. administrative hearings or other executive branch proceedings;

b. arbitration or other extra-judicial proceedings;

c. committee hearings or other legislative branch proceedings; and

d. courts of law or other judicial branch proceedings, including depositions, declarations, and affidavits.

Actuarial testimony may be oral or written, direct or responsive, formal or informal. Actuaries may also be called upon to provide expert analysis or other litigation support in settings where they are not expected to testify.

Although actuaries sometimes provide expert testimony and support directly to a legislator, regulator, arbitrator, or judge, more typically the actuary's principal is a party to the proceedings at which testimony is to be given. Parties to such proceedings may be the shareholders of a corporation, the policyholders of an insurer, the electorate of a political jurisdiction, the employers who maintain a state fund, or another individual or group of persons. In most instances, the principal will have retained an attorney or other representative. Often, it is the attorney or representative who retains the actuary on the principal's behalf.

Actuaries may find themselves testifying in opposition to the opinions of other actuaries or other experts in another field (for example, accountants, statisticians, or economists) who are on opposite sides of a proceeding. At times, the opinions, assumptions, and/or conclusions expressed in expert testimony by others will be in conflict with those of the actuary. These situations may generate doubt in the minds of the audience as to which expert to believe. In such a situation, if asked to comment on the differences in testimony, actuaries attempt to demonstrate factually that the other expert's opinions, assumptions, and/or conclusions are based on flawed data or methods. Alternatively, depending on the

circumstances, the actuary may seek to demonstrate that differences between the actuary's conclusions and those of the other expert are not material.

One challenge faced by actuaries testifying as experts is that often the audience lacks the necessary background to readily understand an actuary's testimony. Individuals who are unfamiliar with actuarial concepts may be unable to understand communications that presuppose basic actuarial knowledge, particularly if such communications are presented using terms or acronyms with which they are unfamiliar. When an actuary testifies, it is generally important to explain technical terms and concepts so that, to the extent practicable, the audience can understand them, particularly if the audience is not sufficiently familiar with actuarial methods and assumptions to distinguish testimony that is precisely accurate but ultimately misleading. It is usually beneficial for the actuary to provide expert testimony as clearly as practicable.

Actuarial projections have a degree of uncertainty because they are based on the probability of occurrence of future contingent events. An important challenge for the testifying actuary, and arguably a most difficult one, is to convey the inherent uncertainty of actuarial estimates. Because a projection necessarily has a degree of uncertainty associated with it, actuaries may be called upon to explain the concept of uncertainty and to convey to the audience whether the actuary's own expectations for future results are within a range believed to be acceptable to most actuaries. Moreover, when providing expert testimony, actuaries generally defend against the characterization of actuarial science or specific actuarial opinions as "guesses," "guesstimates," or the like. Although there are uncertainties inherent in future projections and stochastic processes, that uncertainty does not make an actuarially sound analysis the equivalent of a "guess."

Attorneys may seek on cross-examination to attack actuarial opinions and judgments incrementally, a tactic that may be harmful to the credibility of a testifying actuary who does not respond appropriately to it. For example, if an actuary has testified to an opinion that a reasonable range for a specific liability is between $5 and $6 million, when asked on cross-examination whether $4,999,999 would be a reasonable liability, an appropriate response would be along the lines of, "that number would fall outside of my range of reasonable estimates and would therefore be categorized as not being reasonable." A response such as "that liability is only one dollar below my range of reasonable estimates and, therefore, could be reasonable," is likely to generate further incremental attacks (for example, "what about $4,999,998?") that weaken the credibility of the actuary's testimony.

Disclosure of pertinent information (including, but not limited to, the name of the principal, the actuarial methods used, the assumptions selected and support therefor, and any potential conflicts of interest) strengthens the credibility of the actuary's testimony. Such disclosure can be particularly important when testimony is subsequently discovered to be in error. The actuary testifying as an expert witness may not have access to all parties who have relied upon expert testimony subsequently discovered to be in error, but an actuary who discovers a material error in testimony is usually prudent to correct the error, particularly if the actuary is recalled to the stand, and to document in writing the corrective steps taken.

Ultimately, the actuary seeks to provide the forum with a valid actuarial opinion based upon truthful expression of the underlying facts. This serves not only the actuary's principal, but others who may be directly or indirectly affected by the proceedings. These others may include the principal's opponent in a lawsuit, the current and potential policyholders in a rate hearing, the plan participants and their dependents in an employee benefit plan action, the creditors in bankruptcy court, or others. Actuaries benefit the public when they apply their professional skills in a manner that promotes the general welfare, and they enhance relations with their professional peers when they represent their work fairly and give credit where appropriate.

Appendix 2

Comments on the 2001 Exposure Draft and Task Force Responses

The exposure draft of this actuarial standard of practice (ASOP), titled *Expert Testimony by Actuaries*, was issued in March 2001, with a comment deadline of August 15, 2001. Eighteen comment letters were received. The Expert Witness Task Force, with the help of the General Committee, carefully considered all comments received. Summarized below are the significant issues and questions contained in the comment letters and the task force's responses.

GENERAL COMMENTS	
Comment	Some commentators suggested that the standard should more explicitly address the actuary's duty to the public and the actuarial profession by emphasizing objectivity and explicitly requiring the actuary to consider all material factors.
Response	The task force believes that the standard appropriately addresses the commentators' concerns and made no change.
Comment	One commentator suggested establishing a hierarchy of actuarial standards of practice to address potential conflicts between standards.
Response	The task force believes that the actuarial standards of practice appropriately address potential conflicts and, in any event, that the establishment of such a hierarchy would be beyond the scope of this standard.
Comment	Several commentators suggested editorial changes in various sections of the standard.
Response	The task force implemented such suggestions if they enhanced clarity and did not alter the intent of the section.
SECTION 1. PURPOSE, SCOPE, CROSS-REFERENCES, AND EFFECTIVE DATE	
Section, 1.1, Purpose	
Comment	One commentator suggested changing "the actuary" to "actuaries" in this section.
Response	The task force adopted the commentator's suggestion.
Section 1.2, Scope	
Comment	Some commentators expressed support for the scope of the proposed standard. One commentator suggested editorial changes to clarify this section. Another commentator suggested clarifying how an actuary might challenge existing precedent, law, or regulation.
Response	The task force adopted the commentators' proposed changes as appropriate.
Comment	One commentator stated that an actuary who challenges existing precedent, law or regulation should note that fact as part of the testimony.
Response	The task force believes that section 3.2 adequately addresses this point.

SECTION 2. DEFINITIONS	
Comment	One commentator suggested adding a definition of "declaration."
Response	The task force believes that this term is adequately defined in common legal usage and that, therefore, no definition is needed.
Comment	One commentator suggested restoring the definition of "actuarial literature."
Response	The term "actuarial literature" is not used in the standard and it is not the practice of the ASB to define terms that do not appear in a standard. The task force made no change.
Section 2.3, Actuarial Opinion	
Comment	One commentator suggested revising the definition of "actuarial opinion" to be "an opinion drawn by an actuary from actuarial knowledge or from the application of one or more actuarial methods and actuarial assumptions that the actuary endorses to a body of data."
Response	The task force disagreed and made no change.
Section 2.7, Principal	
Comment	One commentator suggested changing this definition to provide a broader description of client relationships and the actuary's duty to other participants in litigation.
Response	The definition is consistent with the *Code of Professional Conduct* and the task force believes that section 3.5 of the standard adequately addresses the actuary's responsibilities to the various participants in litigation. No changes were made in the definition.
SECTION 3. ANALYSIS OF ISSUES AND RECOMMENDED PRACTICES	
Section 3.1, Review and Compliance	
Comment	One commentator thought the reference to the *Code of Professional Conduct* should have spoken to the Codes of the five U.S.-based organizations representing actuaries.
Response	The task force disagreed, noting that all of the U.S.-based organizations have adopted the same *Code of Professional Conduct*.
Section 3.3, Conflict of Interest	
Comment	One commentator suggested that Precept 7 of the *Code of Professional Conduct* be reprinted in this section.
Response	The task force disagreed.
Section 3.4, Advocacy	
Comment	One commentator suggested revising this section to be more specific in addressing particular circumstances.
Response	Although the task force did not agree that particular circumstances needed to be addressed more specifically, the task force did revise section 3.4 to emphasize the actuary's responsibilities under the *Code of Professional Conduct*
Section 3.5, Identity of Principal	
Comment	One commentator suggested clarifying revisions to this section.
Response	The task force adopted the commentator's suggestion.

Section 3.6, Prescribed or Alternative Methods and Assumptions	
Comment	Two commentators observed that this section was unclear.
Response	The task force disagreed, finding the guidance in this section clear and appropriate.
Comment	One commentator suggested that this section might be interpreted to require the actuary to disclose an excessively broad range of results.
Response	The task force disagreed and made no change.
Comment	One commentator suggested that this section be revised to direct the actuary to explain why the opinion lies within the reasonable range of results rather than requiring the actuary to identify particular results that might differ.
Response	The task force believes that the guidance in the standard is appropriate and made no change.
Comment	One commentator suggested that this section might be inconsistent with section 3.9, Cross-Examination.
Response	The task force disagreed.
Section 3.7, Hypothetical Questions	
Comment	One commentator suggested adding guidance on how the actuary should respond if required to answer a hypothetical question.
Response	The task force disagreed and made no change.
Section 3.9, Cross-Examination	
Comment	Some commentators believed that this section gave the actuary too much leeway to withhold information inimical to the principal.
Response	The task force disagreed, concluding that the guidance offered in this section is appropriate when considered in conjunction with section 3.4, Advocacy.
Comment	One commentator suggested deleting the last sentence of this section as unnecessary.
Response	The task force agreed that this sentence was redundant with section 3.10 and deleted it.
Section 3.10, Consistency with Prior Statements	
Comment	One commentator believed that the guidance in this section was generic and should be moved to the appendix.
Response	The task force believed the guidance was appropriately placed within the standard and made no change.
Section 3.11, Discovery of Error	
Comment	Some commentators suggested that the actuary's responsibility to disclose error should extend beyond disclosure to the actuary's principal.
Response	The task force disagreed, concluding that the scope of the actuary's responsibility is appropriately stated and noting that the *Code of Professional Conduct* and other Actuarial Standards of Practice also provide guidance on this issue.

Section 3.12, Limitation of Expert Testimony (previously titled, "Nature of the Forum")	
Comment	One commentator expressed discomfort with the actuary's merely reviewing and explaining the standard with the principal. Another commentator offered clarifying language which focused on the actuary's presentation within a forum and the appropriate actions to be taken when constraints occur.
Response	The task force adopted part of the second commentator's suggested language and strengthened the language dealing with constraints, thereby addressing the concerns of the first commentator as well.
SECTION 4. COMMUNICATIONS AND DISCLOSURES	
Section 4.2, Oral Testimony (previously titled "Oral Reports and Testimony")	
Comment	One commentator suggested that an actuary be required to provide a written actuarial report or memorandum to support all oral testimony.
Response	The task force disagreed and made no change.
Section 4.3, Prescribed Statement of Actuarial Opinion	
Comment	Some commentators objected to characterizing expert testimony as a "prescribed statement of actuarial opinion" for purposes of the *Qualification Standards for Prescribed Statements of Actuarial Opinion*. Other commentators agreed with the characterization, while still others expressed support for the more limited approach described in the transmittal memorandum accompanying the exposure draft.
Response	After carefully considering all comments received, the task force decided to adopt the more limited language described in the transmittal memorandum.