ACTUARIAL STANDARDS BOARD

Actuarial Standard
of Practice
No. 36

Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves

Developed by the
Subcommittee on Reserving of the
Casualty Committee of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
March 2000

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March 2000

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice (ASOP) No. 36

This booklet contains the final version of Actuarial Standard of Practice No. 36, *Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves*.

Background

In 1978, to guide actuaries on their responsibilities, the American Academy of Actuaries adopted Financial Reporting Recommendation (FRR) 8, *Statement of Actuarial Opinion for Fire and Casualty Insurance Company Statutory Annual Statements*, along with Interpretations 8-A, 8-B, and 8-C.

In order to replace Recommendation 8 and its Interpretations and to provide more consistent guidance to actuaries, the Actuarial Standards Board determined that the guidance in this area should be embodied in an actuarial standard of practice. The ASB assigned the project to the Subcommittee on Reserving of the Casualty Committee.

Exposure Drafts and Public Hearing

The first exposure draft (published in February 1998) received thirty-nine letters of comment and fifty-three comment postcards. The second exposure draft (published in January 1999) received nineteen letters of comment. The third exposure draft (published in September 1999) received fifteen letters of comment. In addition, in November 1999 a public hearing was held in San Francisco to permit anyone to present their comments directly to members of the ASB. For a detailed summary of the substantive issues contained in the comment letters, and the subcommittee's responses to such, please see appendix 2.

The following highlights the significant changes made to the final ASOP from the third exposure draft.

1. Section 1.2, Scope, was changed so that the ASOP only applies if the opinion is provided to comply with law or regulation, or if the opinion is represented by the actuary as a statement of actuarial opinion. Language was added to clarify that the ASOP does not

apply to other actuarial work products, such as reserve estimates, unless the work product meets one of the two conditions specified. References in this and other sections to an actuarial report supporting the statement of actuarial opinion were deleted. Also, the scope was further clarified to say that the ASOP only applies to the portion of a statement of actuarial opinion that addresses losses and loss adjustment expenses.

2. The proposed effective date of the ASOP (see section 1.4) was revised to October 15, 2000.

3. The definition of an actuarial report (section 2.1) was deleted because the final ASOP does not reference an actuarial report supporting the statement of actuarial opinion.

4. Section 2.14, Statement of Actuarial Opinion, was changed by deleting the language regarding descriptive of numerical details not normally included in the statement of actuarial opinion.

5. Section 3.3.2, Types of Statements of Actuarial Opinion, section (c) (Determination of Redundant or Excessive Provision) was reworded to match the wording under section (b) (Determination of Deficient or Inadequate Provision) that the stated reserve amount does not make a reasonable provision for the liabilities associated with the specified reserves.

6. Section 3.3.3, Significant Risks and Uncertainties (Explanatory Paragraph), was modified to replace the previous wording "a significant risk of material adverse deviation" with "significant risks and uncertainties that could result in material adverse deviation." One of the requirements for the explanatory paragraph was changed from a description of "particular reasons underlying the actuary's conclusion that there is a significant risk" to "major factors or particular conditions underlying the risks and uncertainties." Also, language was added to clarify that the actuary is not required "to include an exhaustive list of all potential sources of risks and uncertainties."

7. For consistency with the changes to section 3.3.3, several other sections of the ASOP were modified to replace the phrases "significant risk of material adverse deviation" or "the uncertainty of the reserve estimates" with the phrase "risks and uncertainties associated with the reserves."

8. Suggested language was added to section 3.4, Materiality, to elaborate that the actuary should evaluate materiality based on professional judgement, applicable materiality guidelines or standards, and the actuary's intended purpose for the opinion.

9. Section 3.5, Reserve Analysis, was modified to incorporate portions of the section from the third exposure draft on Testing and Validation (now deleted). References to testing, validation, or verifying data, assumptions or compilations were deleted, and the phrase "be familiar with" was changed to "consider."

10. The title of section 3.6.5, Adverse Deviation, was changed to eliminate the "Risk of Material" phrase and the section was modified to incorporate portions of the section from the third exposure draft on Probability Assumptions for Adverse Deviation (now deleted). References to probability assumptions, probability models, and scenario testing were deleted.

11. Section 3.7.4, Risk Transfer Requirements, was reworded to clarify that this ASOP does not obligate the actuary to opine on risk transfer. However, if the actuary intends to address risk transfer requirements in the scope of the opinion, then the actuary needs to consider only whether a reserve adjustment to meet the risk transfer requirements is likely to have a material effect on the reserve opinion.

12. Section 4.4, Reliance on Opinions of Other Actuaries, was modified to eliminate the requirements to review, comprehend, or perform tests or analyses of another actuary's work if the actuary is not claiming reliance on the work or opinion of another actuary.

13. Section 4.5, Changes in Opining Actuary's Assumptions, Procedures, or Methods, was reworded to clarify that no disclosure is required unless the actuary believes that the change in assumptions, procedures, or methods is likely to have a material effect on the actuary's opinion. Language was eliminated that may have been interpreted to require the actuary to perform analyses of reserves using assumptions, procedures, or methods employed by a prior actuary. References to whether materiality is unknown were changed to permit the actuary to make a judgement as to whether the change is likely to have a material effect on the opinion.

14. Section 4.6, Disclosure in the Opinion, was modified to ensure that certain phrases were consistent with the phrases used elsewhere in the ASOP. Section (h) was further clarified to require disclosure of the use of discounting, the interest rate(s) used by the actuary, and the amount of the discount that was included in the stated reserve amount. Also, such disclosure is only required if the actuary believes that reliance on present values is likely to have a material effect on the actuary's opinion. Section 4.6 was changed by adding a new section (i), which states that if the actuary relied on risk margins and the actuary believes that the effect of such reliance is likely to have a material effect on the result of the actuary's reserve analysis, then the actuary should disclose that risk margins were used and, if practical, disclose the amount of risk margin included in the stated reserve amount.

The subcommittee appreciates those who submitted comments on the three exposure drafts. The subcommittee would also like to thank former members Martin Adler and John P. Tierney for their significant contribution to the development of this standard. The ASB voted in March 2000 to adopt this standard.

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ACTUARIAL STANDARD OF PRACTICE NO. 36

STATEMENTS OF ACTUARIAL OPINION REGARDING PROPERTY/CASUALTY LOSS AND LOSS ADJUSTMENT EXPENSE RESERVES

STANDARD OF PRACTICE

Section 1. Purpose, Scope, Cross References, and Effective Date

1.1 Purpose—The purpose of this actuarial standard of practice (ASOP) is to provide guidance to the actuary in issuing a written statement of actuarial opinion regarding property/casualty loss and loss adjustment expense reserves.

1.2 Scope—This standard applies to actuaries who provide written statements of actuarial opinion with respect to loss and loss adjustment expense reserves for any property/casualty insurance coverage. This standard applies to actuaries providing professional services with respect to loss and loss adjustment expense reserves of insurance or reinsurance companies and other property/casualty risk financing systems, such as self-insurance, that provide similar coverages. References in the standard to *insurance, reinsurance*, or *self-insurance* should be interpreted to include risk financing systems that provide for risk retention in lieu of risk transfer. This standard applies to practices that relate to the principles presented in the *Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves* (hereafter the *Statement of Principles*), as adopted by the Board of Directors of the Casualty Actuarial Society. This standard does not apply to statements of actuarial opinion subject to ASOP No. 22, *Statutory Statements of Opinion Based on Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers*, or Actuarial Compliance Guideline No. 4, *Statutory Statements of Opinion Not Including an Asset Adequacy Analysis by Appointed Actuaries for Life or Health Insurers*.

This standard applies only to a written statement of actuarial opinion, as defined in section 2.14 of this ASOP, for which one of the following applies:

a. the opinion is provided to comply with the requirements of law or regulation for a statement of actuarial opinion; or

b. the opinion is represented by the actuary as a statement of actuarial opinion.

This standard does not apply in instances where an actuary is providing analyses, estimates, information, data compilations, or other actuarial work products unless the actuarial work product meets one of the conditions (a) or (b) stated above.

If the actuary's statement of actuarial opinion includes an opinion regarding amounts for items other than loss and loss adjustment expense reserves, this standard applies only to the portion of the statement of actuarial opinion that relates to loss and loss adjustment expense reserves.

If any law or government regulation contains requirements for the statement of actuarial opinion for loss and loss adjustment expense reserves that conflict with the provisions of this actuarial standard of practice, then the actuary should comply with the requirements of the law or regulation and make any disclosures as specified in section 4.6(j) of this ASOP. 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 will be effective for all statements of actuarial opinion provided for reserves with a valuation date on or after October 15, 2000.

Section 2. Definitions

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

2.1 Actuarial Work Product—The result of an actuary's work. The term applies to the following actuarial communications, whether written or oral: statements of actuarial opinion, actuarial reports, statements of actuarial review, and required actuarial documents.

2.2 Appointed Actuary—An actuary who is appointed or retained in accordance with the provisions of law, regulation, or contract or other arrangement, as the designee to issue a statement of actuarial opinion.

2.3 Claim—A demand for payment under the coverage provided by a plan or contract.

2.4 Coverage—The terms and conditions of a plan or contract that provide for certain payments associated with contingent events.

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

2.6 Expected Value Estimate—An estimate of the mean value of an unknown quantity where the mean value represents a probability-weighted average of the quantity over the range of all possible values.

2.7 Exposure—The extent of risk presented by one or more entities that have been provided coverage under a plan or contract.

2.8 Loss—The cost that is associated with an event that has taken place and that is subject to coverage under a plan or contract; also known as *claim amount*.

2.9 Loss Adjustment Expense—The expense associated with investigating and settling claims.

2.10 Present Value—The value at a point in time of cash flows at other points in time, calculated at selected interest rates; also known as *discounted present value* or *discounted value*.

2.11 Reinsurance Contract—A contractual agreement whereby some element of risk contained in the coverage provided by one or more plans or contracts is transferred from the ceding entity (the reinsured) to the assuming entity (the reinsurer).

2.12 Reserve—A provision to satisfy obligations as of a specified date.

2.13 Risk Margin—An amount that recognizes uncertainty; also known as a *provision for uncertainty*.

2.14 Statement of Actuarial Opinion—A formal statement of the actuary's professional opinion on a defined subject.

Section 3. Analysis of Issues and Recommended Practices

3.1 Professional Qualifications—The following sections address professional issues of which the actuary needs to be aware.

3.1.1 Qualification Standards—Before accepting an assignment to issue a statement of actuarial opinion, the actuary should determine that he or she meets the qualifications described in the *Qualification Standards for Prescribed Statements of Actuarial Opinion*, promulgated by the American Academy of Actuaries. (See section 4.7 of this ASOP.)

3.1.2 Legal and Regulatory Requirements—When an actuary prepares a statement of actuarial opinion to satisfy the requirements of laws or regulations, the actuary should have the necessary knowledge to comply with the specific requirements of the applicable laws and of the regulatory authorities to whom the opinion is to be expressed. The actuary should make a reasonable effort to consider the relevant generally distributed interpretations of those regulatory authorities. In addition, the actuary should be satisfied that the relevant requirements of duly adopted laws and regulations have been met.

3.1.3 Appointment as Appointed Actuary—If the appointment as an entity's appointed actuary is required by law or regulation, the actuary should accept or withdraw from such an appointment in conformance with the applicable laws or regulations.

3.2 Professional Guidance Concerning Reserve Opinions—In issuing a statement of actuarial opinion regarding property/casualty loss and loss adjustment expense reserves, the actuary should consider the following:

3.2.1 Reserving Principles—The actuary should consider the *Statement of Principles*, particularly the section titled Considerations.

3.2.2 Discounting of Reserves—If the actuary is providing a statement of actuarial opinion for discounted loss and loss adjustment expense reserves, the actuary should be guided by both this standard and ASOP No. 20, *Discounting of Property and Casualty Loss and Loss Adjustment Expense Reserves*.

3.3 Contents of a Statement of Actuarial Opinion—The actuary should document the scope and intended use of the statement of actuarial opinion. The following sections provide guidance on the various types of opinion the actuary may provide, as well as specifics to be included in the opinion.

3.3.1 Items Covered by the Opinion—The statement of actuarial opinion should list the items on which the actuary expresses an opinion. The content of the list will depend upon the intended use of the opinion, particularly with respect to regulatory requirements, where applicable. If separate reserve amounts for different reserve items (for example, losses vs. loss adjustment expenses) are provided in the statement of actuarial opinion, then the actuary's opinion should state whether it applies to those items in the aggregate or individually.

3.3.2 Types of Statements of Actuarial Opinion—A statement of actuarial opinion should be made in accordance with one of the following sections (a–e):

a. Determination of Reasonable Provision—When the stated reserve amount is within the actuary's range of reasonable reserve estimates (see section 3.6.4), the actuary should issue a statement of actuarial opinion that the stated reserve amount makes a reasonable provision for the liabilities associated with the specified reserves.

b. Determination of Deficient or Inadequate Provision—When the stated reserve amount is less than the minimum amount that the actuary believes is reasonable, the actuary should issue a statement of actuarial opinion that the stated reserve amount does not make a reasonable provision for the liabilities associated with the specified reserves. (See section 4.6(d) for related disclosure requirements.)

c. Determination of Redundant or Excessive Provision—When the stated reserve amount is greater than the maximum amount that the actuary believes is reasonable, the actuary should issue a statement of actuarial opinion that the stated reserve amount does not make a reasonable provision for the liabilities associated with the specified reserves. (See section 4.6(e) for related disclosure requirements.)

d. Qualified Opinion—When, in the actuary's opinion, the reserves for a certain item or items are in question because they cannot be reasonably estimated or the actuary is unable to render an opinion on those items, the actuary should issue a qualified statement of actuarial opinion. Such a qualified opinion should state whether the stated reserve amount makes a reasonable provision for the liabilities associated with the specified reserves, *except for* the item, or items, to which the qualification relates. The actuary is not required to issue a qualified opinion if the actuary reasonably believes that the item or items in question are not likely to be material. (See section 4.6(f) for related disclosure requirements.)

e. No Opinion—The actuary's ability to give an opinion is dependent upon data, analyses, assumptions, and related information that are sufficient to support a conclusion. If the actuary cannot reach a conclusion due to deficiencies or limitations in the data, analyses, assumptions, or related information, then the actuary may issue a statement of no opinion. A statement of no opinion should include a description of the reasons why no opinion could be given.

3.3.3 Significant Risks and Uncertainties (Explanatory Paragraph)—When the actuary reasonably believes that there are significant risks and uncertainties that could result in material adverse deviation, the actuary should also include an explanatory paragraph in the statement of actuarial opinion. (See sections 3.4 and 3.6.5 for guidance on evaluating materiality and considering risks and uncertainties.) The explanatory paragraph should contain the following:

a. the amount of adverse deviation that the actuary judges to be material with respect to the statement of actuarial opinion; and

b. a description of the major factors or particular conditions underlying risks and uncertainties that the actuary believes could result in material adverse deviation.

The actuary is not required to include in the explanatory paragraph general, broad statements about risks and uncertainties due to economic changes, judicial decisions, regulatory actions, political or social forces, etc., nor is the actuary required to include an exhaustive list of all potential sources of risks and uncertainties.

3.4 Materiality—In evaluating materiality within the context of a reserve opinion, the actuary should consider the purposes and intended uses for which the actuary prepared the statement of actuarial opinion. The actuary should evaluate materiality based on professional judgement, materiality guidelines or standards applicable to the statement of actuarial opinion and the actuary's intended purpose for the statement of actuarial opinion. The actuary should understand which financial values are usually important to the intended uses of the statement of actuarial opinion and how those financial values are likely to be affected by changes in the reserves and future payments for losses and loss adjustment expenses. For example, materiality might be evaluated in terms of the specified reserve amount for which an opinion is being given. For a statement of actuarial opinion for an insurance company to be used for financial reporting to insurance regulators, materiality might be evaluated in terms of the company's reported statutory surplus. As another example, for a statement of actuarial opinion to be used for an actuarial appraisal of an insurance company, it might be appropriate to evaluate materiality in terms of both the company's net worth and annual net income, since both values are usually important factors in assessing the value of the company.

3.5 Reserve Analysis—The appropriate type and extent of reserve analysis will vary with the nature of the claims and exposures, the historical pattern of loss development, and the expectation of future conditions as they affect the liabilities associated with unpaid losses and loss adjustment expenses. A number of reserve analysis methods are available to and are used by actuaries. Selection of specific methods, a modification of such methods, or the development of new methods, should be based on an understanding of the nature of the claims, the development characteristics associated with these claims, and the applicability of various methods to the available data. The actuary may use a number of different methods for each of several segments of reserves. The actuary should be satisfied that the analysis methods chosen are appropriate to support the statement of actuarial opinion. If the actuary cannot draw a reasonable conclusion based on available methods or modifications of such methods, then the actuary should issue a qualified opinion or statement of no opinion as discussed in section 3.3.2(d) and (e).

In addition to the reserve methods used, the actuary should consider the relevant past, present, or reasonably foreseeable future conditions that are likely to have a material effect on the results of the actuary's reserve analysis or on the risks and uncertainties arising from such conditions (see section 3.6).

In conducting a reserve analysis, the actuary should consider the following:

3.5.1 Coverage Provisions—The actuary should consider the various types of coverage underlying the reserves that are the subject of a statement of actuarial opinion. The actuary should consider the significant issues regarding coverage disputes, coverage litigation, or other relevant interpretations of coverage that are likely to have a material effect on the results of the actuary's reserve analysis or on the risks and uncertainties associated with the reserves.

3.5.2 Changing Conditions—The actuary should consider the likely effect of changing conditions on the subject loss and loss adjustment expense reserves. The actuary should consider whether there have been significant changes in conditions particularly with regard to claims, losses, or exposures that are new or unusual and that are likely to be insufficiently reflected in the experience data or in the assumptions used to estimate loss and loss adjustment expense reserves. Changing conditions can arise from circumstances particular to the entity or from external factors affecting others within an industry.

The actuary should also consider the relevant characteristics of the entity's exposures to the extent that they are likely to have a material effect on the results of the actuary's reserve analysis. These characteristics may be influenced by the methods used to sell or provide coverages, the distribution channels from which the entity's business is obtained, the general underwriting practices and pricing philosophy of the entity, and the marketing objectives and strategies of the entity. Further, the actuary should consider relevant reinsurance program changes to the extent that such changes are likely to have a material effect on the results of the actuary's reserve analysis. The actuary should obtain information from the entity regarding the significant changes in the practices or philosophy used by the entity's claims personnel and ascertain whether such changes are likely to have a material effect on the results of the actuary's reserve analysis or on the risks and uncertainties associated with the reserves.

3.5.3 External Conditions—The reserves may be influenced by future contingent events. Therefore, the actuary should consider forces in the environment that are likely to have a material effect on the results of the actuary's reserve analysis. However, the actuary is not required to have detailed knowledge of all the economic changes, regulatory actions, judicial decisions, political or social forces, etc., that may affect the settlement values.

3.5.4 Data—With respect to the quality and availability of the data to be used in analyzing loss reserves, the actuary is directed to ASOP No. 23, *Data Quality*. The organization and reconciliation of data for loss reserve analysis is discussed in the *Statement of Principles*.

The actuary should consider whether there are significant data problems or issues and, if so, their implications regarding the risks and uncertainties associated with the reserves (see section 3.6).

3.5.5 Assumptions—Assumptions may be implicit or explicit, and may involve interpreting past data or estimating future trends. The actuary should consider the sensitivity of the reserve estimates to reasonable, alternative assumptions. When the use of reasonable, alternative assumptions would have a material effect on the results of the actuary's reserve analysis, the actuary should consider the implications regarding the risks and uncertainties associated with such an effect (see section 3.6).

3.5.6 Changes in Assumptions, Procedures, or Methods—If a change occurs in the opining actuary's assumptions, procedures, or methods from those previously employed in providing an opinion on the entity's reserves, the actuary should consider whether the change is likely to have a material effect on the results of the actuary's reserve analysis (see section 4.5). The use of assumptions, procedures, or methods for new reserve segments that differ from those used previously is not, however, a change in assumptions, procedures, or methods within the meaning of this section. Similarly, when the determination of reserves is based on the periodic updating of experience data, factors, or weights, such periodic updating is not a change in assumptions, procedures, or methods within the meaning of this section.

3.6 Uncertainty—Actuarial estimates are inherently uncertain because they are dependent on future contingent events. Moreover, loss and loss adjustment expense reserve estimates are generally derived from analyses of historical data, and future events or conditions often differ from the past. Even when appropriate actuarial techniques and assumptions indicate that the stated reserve amount is reasonable, the actual amount necessary to settle the unpaid claims can be significantly different from the stated reserve amount.

The actuary should consider the implications of uncertainty in loss and loss adjustment expense reserve estimates in determining a range of reasonable reserve estimates and the need for an explanatory paragraph on significant risks and uncertainties in the statement of actuarial opinion (see section 3.3.3). The sections that follow address important considerations regarding the risks and uncertainties associated with loss and loss adjustment reserves.

3.6.1 Sources of Uncertainty—Undiscounted loss and loss adjustment expense reserve estimates are essentially estimates of future payments associated with current liabilities. Variations between the estimated and actual amounts commonly occur. Such variations can be the result of many factors, including the following:

a. random chance;

b. erratic historical development data;

c. past and future changes in operations, particularly when the change is recent;

d. changes in the external environment such as inflation, coverage litigation, judicial decisions, legislative changes, claimants' attitudes with respect to settlements, etc;

e. changes in data, trends, development patterns, and payment patterns;

f. the emergence of unusual types or sizes of claims;

g. shifts in types of reported claims or reporting patterns; and

h. changes in claim frequency or severity.

If reserves are stated on a present value basis, the actuary should consider the additional sources of uncertainty associated with the use of discounted reserves, as discussed in ASOP No. 20.

3.6.2 Aggregation and External Data Sources—The level of aggregation at which reserves are analyzed is a significant factor in forming an opinion. When reserves are aggregated for analysis, greater volume may provide more stability and possibly less uncertainty in the estimates. Combining reserve data from different business segments or claim groupings, however, may mask underlying trends or patterns and actually decrease the accuracy of the reserve estimates. Less-aggregated data may provide greater insights regarding the development process and, therefore, provide a more appropriate basis for a statement of actuarial opinion. When a grouping of the entity's claims is homogeneous with respect to development, aggregation of data would be appropriate. When the data volume for a segment or grouping is too small for effective analysis, aggregation of the data or the use of relevant external data sources would be appropriate. In aggregating data for analysis, the actuary should give consideration to the homogeneity and stability of the development characteristics of the claims.

3.6.3 Expected Value Estimate—In evaluating the reasonableness of reserves, the actuary should consider one or more expected value estimates of the reserves, except when such estimates cannot be made based on available data and reasonable assumptions. Other statistical values such as the mode (most likely value) or the median (50^{th} percentile) may not be appropriate measures for evaluating loss and loss adjustment expense reserves, such as when the expected value estimates can be significantly greater than these other measures.

The actuary may use various methods or assumptions to arrive at expected value estimates. In arriving at such expected value estimates, it is not necessary to estimate or determine the range of all possible values, nor the probabilities associated with any particular values.

3.6.4 Range of Reasonable Reserve Estimates—The actuary may determine a range of reasonable reserve estimates that reflects the uncertainties associated with analyzing the reserves. A *range of reasonable estimates* is a range of estimates that could be produced by appropriate actuarial methods or alternative sets of assumptions that the actuary judges to be reasonable. The actuary may include risk margins in a range of reasonable estimates, but is not required to do so, except as may be required by ASOP No. 20. A range of reasonable estimates, however, usually does not represent the range of all possible outcomes.

3.6.5 Adverse Deviation—The potential variation in the actual amount that will be needed to pay unpaid claims gives rise to uncertainty in the reserve estimates. An adverse deviation occurs when such a variation results in paid amounts higher than provided for in the reserves. The actuary should consider whether the future paid amounts are subject to significant risks and uncertainties that could result in a material adverse deviation.

When the actuary's analyses break down the reserves into various segments or claim groupings, for example, by line of business and accident year, the actuary should consider the combined risks and uncertainties associated with the reserves that are the subject of the opinion.

3.7 Reinsurance Ceded—An insurance company, risk pool, or similar entity is liable to its policyholders, members, or reinsured companies (or entities) for all loss and loss adjustment expense obligations covered under its contracts, regardless of subsequent ceded reinsurance or retrocessions. A ceded reinsurance or retrocession transaction is usually a separate agreement providing for reimbursement of some of the entity's obligations. Insurance coverage of self-insureds, pools, or similar entities may also provide for certain payments similar to ceded reinsurance.

The sections that follow describe important considerations for the actuary's treatment of ceded reinsurance or insurance coverage in the statement of actuarial opinion.

3.7.1 Gross vs. Net Reserves—If the scope of the statement of actuarial opinion addresses both gross (direct plus assumed) reserves and net reserves, the actuary should evaluate both and provide an opinion on each. Such evaluation should utilize gross, ceded, and net data to the extent the actuary deems appropriate to reach a conclusion as to the reasonableness of both the gross and net reserves. The actuary should also consider the relationship between gross and net reserves in his or her evaluation.

3.7.2 Collectibility—If the amount of ceded reinsurance reserves is material, the actuary should consider the collectibility of ceded reinsurance in evaluating net reserves. The actuary should solicit information from management regarding collectibility problems, significant disputes with reinsurers, and practices regarding provisions for uncollectible reinsurance. The actuary's consideration of collectibility does not imply an opinion on the financial condition of any reinsurer.

3.7.3 Uncollectible Reinsurance and Commutation—The actuary should consider significant increases in net losses or reserves due to write-offs of uncollectible reinsurance or commutations of ceded reinsurance liabilities. The impact on reserves of such uncollectible reinsurance or of commutations should be considered because of its potential distorting effects on the historical patterns of development and the expectations of future conditions.

3.7.4 Risk Transfer Requirements—This standard does not obligate the actuary to opine that the reserves are established in accordance with regulatory or accounting requirements regarding risk transfer in reinsurance contracts. However, if the actuary intends to address risk transfer requirements in the scope of the opinion, then the actuary should ascertain whether an adjustment to the reserves to meet such requirements is likely to have a material effect on the results of the actuary's reserve analysis or on the risks and uncertainties associated with the reserves.

3.8 Review Opinion—An actuary may be called upon to review the opinion and supporting analyses of another actuary in order to render an opinion on the loss and loss adjustment expense reserves. (This review of the work of another actuary and an opinion given based on that review is also known as a *second opinion*.) The purpose and intended use of the review opinion should be clearly understood by the reviewing actuary, since such purpose might differ from the purpose of the opinion under review and could affect considerations of materiality. In addition, the Code of Professional Conduct should guide both the reviewing and reviewed actuaries. The following sections address the responsibilities of both actuaries.

3.8.1 Responsibilities of Reviewing Actuary—The reviewing actuary should assess the reasonableness of the data underlying the actuarial analysis and should evaluate the appropriateness of the reserving methods and assumptions, with consideration of the intended use of the reviewing actuary's opinion. The reviewing actuary need not perform an additional actuarial analysis if, in the opinion of that actuary, the reviewed actuarial analyses are sufficient for the reviewing actuary's purposes. Where, in the opinion of the reviewing actuary, the reviewed analyses need to be modified or expanded, this actuary should perform such analyses as necessary to render an opinion.

If the conclusions reached by the reviewing actuary differ materially from those of the reviewed actuary, the reviewing actuary should, when practical, contact the reviewed actuary to discuss the differences. Where material differences exist, the issues underlying the differences should be understood by the reviewing actuary and should be disclosed in the review opinion.

3.8.2 Responsibilities of Reviewed Actuary—The reviewed actuary should comply with the Code of Professional Conduct with respect to availability to respond to questions from the reviewing actuary as to the methodology, assumptions, and conclusions reached in the statement of actuarial opinion. If, in attempting to resolve any differences in conclusions, the reviewed actuary changes his or her opinion, the original statement by the reviewed actuary should be withdrawn or revised.

3.9 Financial Reporting Items Affected by Loss and Loss Adjustment Expense Reserves—In addition to loss and loss adjustment expense reserves, certain other assets and liabilities can be contingent upon losses or loss adjustment expenses. Examples of such loss-sensitive items include, but are not limited to, retrospective premiums, reinstatement premiums, policyholder dividends, agent's contingent commissions, profit-sharing agreements, and contingent commissions or sliding scale commissions on ceded or assumed reinsurance.

This standard does not obligate the actuary to undertake an evaluation of loss-sensitive asset or liability accounts except as may be needed to comply with any applicable law, regulatory requirement, or other ASOP. If the scope of the actuary's opinion includes loss-sensitive items, the actuary's evaluation of such items should be consistent with the actuary's evaluation of the related loss and loss adjustment expense reserves.

3.10 Adequacy of Assets Supporting Reserves—This standard does not obligate the actuary to undertake an evaluation of the adequacy of the assets supporting the stated reserve amount except as may be needed to comply with section 3.9 of this ASOP or any applicable law, regulatory requirement, or other ASOP.

Section 4. Communications and Disclosures

4.1 Form and Content of Statement—A statement of actuarial opinion that is within the scope of this standard of practice should include the words *statement of actuarial opinion* in the title, and should satisfy the requirements of section 3.3 of this ASOP. When the statement is provided to meet regulatory requirements, the actuary should consider the detailed requirements specified by regulators as to the form and content of the statement and supporting reports.

4.2 Documentation—The actuary should be guided by the provisions of ASOP No. 9, *Documentation and Disclosure in Property and Casualty Insurance Ratemaking, Loss Reserving, and Valuations.*

4.3 Reliance on Others for Supporting Analysis—The actuary who issues the statement of actuarial opinion assumes responsibility for it, except to the extent to which the opinion indicates reliance on the work of others. If the actuary makes use of other personnel to carry out assignments relative to analyses supporting the opinion, the actuary should not ordinarily indicate reliance on the work of others. In such cases, the actuary should review and comprehend such contributions and be satisfied that the analysis provided was reasonable. The actuary should then form an opinion without claiming reliance on the work of others.

If the actuary claims reliance on the work of others and does not take responsibility for such work, the actuary should include a disclosure in the opinion that describes the work of others and the extent to which such others' work was used in forming the opinion.

4.4 Reliance on Opinions of Other Actuaries—Another actuary may have provided a statement of actuarial opinion regarding some portion of the subject reserves on which the actuary is issuing a statement of actuarial opinion. The actuary should evaluate whether such portions of the subject reserves are likely to have a material impact on the actuary's opinion regarding the total subject reserves. If the impact is likely to be material, the actuary should decide whether or not to claim reliance on such opinions.

The actuary should claim reliance on the opinion of another actuary only if the actuary ascertains that reliance on the other actuary's opinion is consistent with the other actuary's intended use. The reliance on the opinion of another actuary should be disclosed in the subject opinion with a description of the relevant reserves or subject matter to which the reliance applies. If there is reliance on another actuary's opinion that precludes or limits the actuary's recognition of significant risks and uncertainties concerning material adverse deviation relating to the subject reserves, the actuary should disclose this limitation.

4.5 Changes in Opining Actuary's Assumptions, Procedures, or Methods—If a change occurs in the opining actuary's assumptions, procedures, or methods from those previously employed in providing an opinion on the entity's reserves, and if the actuary believes that the change is likely to have a material effect on the results of the actuary's reserve analysis, then the actuary should disclose the nature of the change. If the actuary can not make a judgement as to whether the change is likely to have a material effect on the results of the actuary's reserve analysis, then the actuary should disclose that there has been a change in actuarial assumptions, procedures, or methods, the effect of which is unknown. No disclosure is required unless the actuary believes that the change is likely to have a material effect on the results of the actuary's reserve analysis. In the case where the opining actuary did not issue the prior statement of actuarial opinion, the actuary should review the prior opining actuary's work if possible. If the actuary is unable to review the prior opining actuary's work, the actuary should disclose this limitation.

4.6 Disclosure in the Opinion—The statement of actuarial opinion should include the following disclosures:

a. If there have been changes in accounting or processing procedures that significantly affect the consistency of the data used in the reserve analysis and that the actuary believes are likely to have a material effect on the results of the actuary's reserve analysis, then the actuary should disclose the nature of such changes in accounting or processing procedures.

b. The actuary should disclose whether the loss and loss adjustment expense reserves that are the subject of the statement of actuarial opinion are on a gross basis or if the reserves are net of applicable ceded reinsurance or net of applicable excess insurance coverage.

c. If the scope of the opinion includes consideration of regulatory or accounting requirements regarding risk transfer in reinsurance contracts and if an adjustment to the reserves to satisfy such requirements is likely to have a material effect on the results of the actuary's reserve analysis, then the actuary should disclose the impact of the risk transfer requirements.

d. If the actuary determines that the stated reserve amount is deficient or inadequate, the actuary should disclose the additional amount of reserves that would be necessary to equal the minimum amount that the actuary believes is reasonable.

e. If the actuary determines that the stated reserve amount is redundant or excessive, the actuary should disclose the amount by which the stated reserve amount exceeds the maximum amount that the actuary believes is reasonable.

f. If the actuary issues a qualified opinion, he or she should disclose in the opinion the item or items to which the qualification relates, the reasons for the qualification, and the amounts for such items, if disclosed by the entity, that are included in the stated reserve amount. If the amounts for such items are not disclosed by the entity, the actuary should disclose that the stated reserve amount includes unknown amounts for such items.

g. If the actuary reasonably believes that there are significant risks and uncertainties that could result in material adverse deviation, an explanatory paragraph (as described in section 3.3.3) should be included.

h. If the statement of actuarial opinion relies on present values and if the actuary believes that such reliance is likely to have a material effect on the results of the actuary's reserve analysis, the actuary should disclose that present values were used in forming the opinion, the interest rate(s) used by the actuary, and the monetary amount of discount that was included in the stated reserve amount.

i. If the statement of actuarial opinion relies on risk margins and if the actuary believes that such reliance is likely to have a material effect on the results of the actuary's reserve analysis, then the actuary should disclose that risk margins were used in forming the opinion and, if practical, disclose the amount of risk margin that was included in the stated reserve amount.

j. If, in complying with the requirements of law or regulation, the actuary believes that the reserve provisions are other than reasonable, he or she should so state, consistent with sections 3.3.2(b–e) and 3.3.3.

4.7 Prescribed Statement of Actuarial Opinion—The actuarial communications described in section 3.3.2 of this ASOP are prescribed statements of actuarial opinion (PSAOs) as described in the *Qualification Standards for Prescribed Statements of Actuarial Opinion*, promulgated by the American Academy of Actuaries, whether or not the PSAOs are issued for purposes of compliance with law, regulation, or other standards.

4.8 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 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

In the mid-1970s, in reaction to the insolvency of a number of property/casualty insurance companies, many of which involved inadequate reserves for loss and loss adjustment expenses, the National Association of Insurance Commissioners (NAIC) recommended that a statement of actuarial opinion on loss and loss adjustment expense reserves, signed by a qualified loss reserve specialist, be submitted with the statutory annual statement to the domiciliary commissioner. The *qualified loss reserve specialist* was initially defined as a member in good standing of the American Academy of Actuaries or someone who otherwise satisfied the domiciliary commissioner of his or her qualifications.

In 1978, to guide actuaries on their responsibilities, the American Academy of Actuaries adopted Financial Reporting Recommendation 8, *Statement of Actuarial Opinion for Fire and Casualty Insurance Company Statutory Annual Statements*, along with Interpretations 8-A, 8-B, and 8-C. The Recommendation and Interpretations focused on the specific requirements at the time.

By 1990, the NAIC had adopted a change to the NAIC Instructions for the Annual Statement to require a statement of opinion by a *qualified actuary*. Over the years, the number of specific aspects upon which the signer was instructed to comment has continually grown. Such aspects currently include anticipated salvage and subrogation; discount for time value of money; underwriting pools and associations; loss portfolio transfers; financial reinsurance; reinsurance collectibility; NAIC IRIS Tests 9, 10, and 11; and any additional relevant topics. The *statement of opinion* has become a *statement of actuarial opinion*. In addition, effective with the 1993 statutory annual statements, the qualified actuary "must be appointed by the Board of Directors or its equivalent, or by a committee of the Board, by December 31 of the calendar year for which the opinion is rendered."

In addition, statements of actuarial opinion have been requested for other entities that are not covered by insurance company regulations. Such entities include self-insureds, self-insured pools, residual market mechanisms, voluntary pools, and funds or other risk-pooling entities created by legislation or regulation.

It was clear to the profession that Financial Reporting Recommendation 8 and its Interpretations are outdated and provide inadequate guidance to actuaries. Moreover, the Actuarial Standards Board determined that the guidance should be embodied in an actuarial standard of practice.

While the NAIC requirements for a statement of actuarial opinion by the appointed actuary gave a sense of urgency for such a standard to be developed, it was also recognized that actuaries often render statements of actuarial opinion, whether or not there are formal requirements. Accordingly, it was determined that a standard of practice was needed with a more universal application than the current NAIC requirements for the statement of actuarial opinion for the statutory annual statement.

Current Practices

Actuaries are guided by the *Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves* of the Casualty Actuarial Society and by other ASOPs issued by the Actuarial Standards Board. In addition, since 1993, the Casualty Practice Council of the American Academy of Actuaries has published practice notes addressing current NAIC requirements for the statement of actuarial opinion. The practice notes describe some current practices and show illustrative wording for handling issues and problems. While these practice notes can be updated to react in a timely manner to new concerns or requirements, they are not binding, and they have not gone through the exposure and adoption process of the actuarial standards of practice promulgated by the Actuarial Standards Board.

Appendix 2

Comments on the 1999 Third Exposure Draft and Subcommittee Responses

The third exposure draft of this proposed actuarial standard of practice (ASOP) was exposed for review in September 1999, with a comment deadline of December 16, 1999. (The third exposure draft summarizes the comments received on the second exposure draft, and the responses of the Subcommittee on Reserving to such comments. Copies of these exposure drafts are available from the ASB office.) Fifteen letters of comment were received on the third exposure draft. Some of the comment letters were submitted on behalf of groups of actuaries. Consequently, the references to comments in letters may represent the suggestions of a group. Summarized below are the significant issues and questions contained in the comment letters, printed in roman type. The subcommittee's responses appear in **boldface**. In order to provide more complete documentation of the important issues raised in comments letters from previous drafts, this appendix also includes some comments and responses from those previous drafts.

General Observations

What follows is a general discussion of the main issues that surfaced in the comment letters, with comments on specific sections of the standard following.

Comment letters included a request that the ASOP provide more guidance by giving examples in the various sections of the ASOP, a concern that many actuaries are not really aware of the ASOP, and a suggestion to contact all actuaries by telephone. **The subcommittee followed a format similar to other ASOPs and believed that detailed examples were not necessary for this ASOP. The subcommittee believes that sufficient notification to affected actuaries had been accomplished through the distribution of three exposure drafts to all members of the American Academy of Actuaries, the presentation and public discussion of the drafts at actuarial meetings and seminars over several years, and the holding of a public hearing.**

A comment letter expressed concern that the profession is not yet ready for an ASOP and a comment letter from a previous draft questioned the need for a formal ASOP. The chief concerns were the possible negligence that could be attributed to actuaries who fail to follow the ASOP and the possible interpretations of the ASOP that could be used against actuaries with different interpretations of how to follow the ASOP. **The subcommittee believes that regulators, auditors, and others have expressed the need for formal standards for opinions on loss and loss adjustment reserves. Since actuaries are the professionals who provide such opinions, the subcommittee believes that actuaries ought to determine their own professional standards. Without an ASOP in this area, there would be greater uncertainty about what is an acceptable statement of actuarial opinion.**

The subcommittee believes that it is appropriate to allow considerable latitude to actuaries in judging materiality and disclosing significant risks and uncertainties, and in applying other areas of the ASOP by using their own judgment. The subcommittee recognizes that

this latitude could result in different approaches among actuaries in applying this ASOP. The subcommittee believes, however, that this ASOP is needed to promote a consistency of approach such that actuaries will consider risk, materiality, and certain other factors in developing their statements of actuarial opinion. The subcommittee believes that it would not be appropriate for the ASOP to prescribe specific methods for including such considerations. The subcommittee believes that the ASOP provides adequate guidance for actuaries who provide statements of actuarial opinion.

Two comment letters from previous drafts expressed concern about the use of certain phrases in the ASOP because of possible misinterpretations that might create unrealistic expectations that actuaries will perform extensive or exhaustive investigations to support their opinions. **The phrases *should consider* and *should ascertain* were selected by the subcommittee to allow actuaries to have a minimum level of knowledge about an area as might be obtained by interviews, questionnaires, written memos or reports, or informal discussions. The subcommittee eliminated the phrases *should understand* and *should be knowledgeable about* that appeared in previous draft versions of the ASOP, because those phrases could be interpreted to mean a higher level of knowledge than was intended. The subcommittee believes that actuaries do not need to perform extensive investigations in order to comply with this standard.**

Another comment letter suggested that the reserve opinion include the actuary's point estimate as well as the actuary's range of estimates and a discussion of the impact of changing the reserves in terms of capital position, financial results, and regulatory tests. This letter also recommended that a copy of the Statement of Actuarial Opinion (SAO) be sent to the ASB to insure compliance with the ASOP and prescribed disciplinary action for lack of compliance. **The subcommittee did not believe that it was necessary for actuaries to provide a point estimate of the needed reserves that differed from the stated reserve amount, nor to disclose a range of reasonable estimates. Furthermore, the responsibilities of the ASB do not include policing compliance with ASOPs.**

Section 1. Purpose, Scope, and Effective Date

Section 1.2, Scope—Seven comment letters were submitted with comments on this section. Some of the comment letters mentioned concerns that possible misinterpretations of the scope of the ASOP could result in the erroneous expectation that various actuarial work products are SAOs or that actuaries might avoid application of the ASOP by not labeling their work product specifically as a *statement of actuarial opinion*. Previous comment letters were also concerned that the scope of the standard was too vague or that any statement of actuarial conclusion, or even an internal memo or published article, could be interpreted as subject to the ASOP. **The subcommittee modified section 1.2 to state more clearly that the standard applies only to a written SAO that is either provided to comply with law or regulation or is represented by the actuary as an SAO regarding loss and loss adjustment expense reserves. The subcommittee does not intend that this ASOP should apply to all reserve work performed by actuaries. However, the ASOP is intended to apply to the actuary who represents a formal written statement as his or her professional opinion regarding the reasonableness of**

a stated amount as a provision for defined obligations for unpaid losses and loss adjustment expenses.

One comment letter was concerned that the use of the words *statement of actuarial opinion* or something similar may create an obligation for the actuary to adhere to the ASOP when the actuary's work was not intended or represented to be an SAO. **The subcommittee believed that if the actuary represents his or her actuarial work product as an SAO, then the work product should be subject to the ASOP. Such representation could be in the title, cover letter, engagement letter, or other communication. However, use of the words alone, without any representation that the actuarial work product is an SAO, does not create an obligation under the ASOP.**

While it is fairly common for actuaries to make reserve estimates or recommendations regarding reserves for losses and loss adjustment expenses, the subcommittee does not believe that this ASOP should apply to such actuarial work. The subcommittee understands that an actuary's employer or client may expect that the actuary will be able to provide an SAO that reserves are reasonable based on the estimates or recommendations provided by the actuary. Consequently, actuaries may want to (1) clarify the use of actuarial work products that are not intended to be an SAO; (2) follow the ASOP guidance and be prepared to provide an SAO regarding the estimates or recommendations; or (3) mitigate potential misinterpretation or misuse of the actuarial work product by discussing the employer's or client's expectations regarding the work product.

The subcommittee modified the wording to clarify that this ASOP does not apply when an actuary is providing analyses, estimates, information, data compilations, or other actuarial work products unless they meet the conditions in section 1.2. Examples of actuarial work products that would generally be excluded from this standard include rate filings, reinsurance pricing, reports for internal purposes only, or work papers of actuaries supporting independent auditors. The subcommittee believes that use of the specific title, *statement of actuarial opinion*, will assist actuaries and their employers or clients in communicating the actuary's work product and the expectations regarding the actuarial standards that apply. Consequently, section 1.2 is worded so that application of the ASOP is not dependent on the use of a specific title, but rather on whether the intended use of the SAO is to comply with law or regulation requiring an SAO or if the actuary represents the work product as an SAO. The ASOP retains the requirement in section 4.1 that the title include the words *statement of actuarial opinion*, but the standard applies even if a different title is used.

Another comment letter questioned why the ASOP could not be expanded to address unearned premium reserves or other non-loss reserves, particularly if a law or regulation requires that the SAO include an opinion regarding such items. **The subcommittee did not believe that it was necessary for the ASOP to address non-loss reserves. However, section 3.9 of the ASOP does require that an actuary issuing an opinion, which addresses loss-sensitive items should be consistent with the related loss and loss adjustment expense reserves.**

One comment letter recommended that the reference to reports, workpapers, or other documentation in support of an SAO are outside the scope of this ASOP. **The subcommittee removed all references to actuarial work products or reports in support of an SAO.**

Section 1.4, Effective Date—One comment letter suggested that Actuarial Standards Board delay approving this ASOP until the NAIC can adopt similar actuarial opinion rule changes, which, under current procedures, could not be effective until 2002. Six comment letters from the previous draft strongly suggested that actuaries need substantial lead time in order to prepare for implementing this ASOP. **The subcommittee believes that this ASOP can be implemented without NAIC approval and without changing the current actuarial opinion rules of the NAIC. The subcommittee believes that in due course the NAIC may be able to incorporate the ASOP by reference in place of many of the requirements contained in the current NAIC actuarial opinion rules. The subcommittee also recognizes that variations in actuarial practice may require additional communication and preparation time for some actuaries to incorporate the requirements of this ASOP into their opinions. The subcommittee believes that sufficient notification to affected actuaries has been accomplished through the distribution of three exposure drafts to all members of the American Academy of Actuaries, the presentation and public discussion of the drafts at actuarial meetings and seminars over several years, and the holding of a public hearing. Consequently, the subcommittee revised the effective date for all statements of actuarial opinion provided for reserves with a valuation date on or after October 15, 2000.**

Section 2. Definitions

Section 2.6, Expected Value Estimate (previously section 2.7)—Two comment letters believed that the definition of an expected value estimate given in section 2.6 was inconsistent with section 3.6.3 (previously section 3.7.3) on Expected Value Estimates or section 3.6.4 (previously section 3.7.4) regarding the Range of Reasonable Estimates. While section 2.6 defined an expected value estimate in terms of a probability-weighted average over all possible values, section 3.6.3 does not require the determination of all possible values or the probabilities associated with such values. The subcommittee does not find that these sections are inconsistent and believes that the definition simply follows well-known statistical concepts of expected value and mean value. This definition refers to an *estimate* of the underlying mean value, which is a *theoretical* value, and the actuarial literature and statistical theory

provides many acceptable approaches to the estimation of an expected value or mean without determining all possible values or the probabilities of such values.

Section 2.14, Statement of Actuarial Opinion (previously section 2.15)—Three comment letters objected to the wording *normally does not include descriptive or numerical details* because they believed it appears to limit the type of actuarial work product that can be an SAO simply because of the type or extent of descriptive or numerical details it contains. **The ASB agreed and deleted this wording.**

Section 3. Analysis of Issues and Recommended Practices

Section 3.1.3, Appointment as Appointed Actuary—A comment letter asked for the rewording of this section to clarify that it is not the actuary's responsibility to be appointed. **The subcommittee agreed and reworded this section.**

Section 3.2.1, Reserving Principles—One comment letter thought that this section was repetitive with the *Statement of Principles*. Another comment letter from the previous draft expressed concern that the requirement that actuaries consider the *Statement of Principles* effectively requires actuaries to comply with all the provisions contained in that statement. **The subcommittee believes that the ASOP does not rely on the *Statement of Principles* nor are any of the statements contained in the *Statement of Principles* incorporated into this ASOP. The reference to the *Statement of Principles* is made in this ASOP so that the actuary will become familiar with the document and its contents; however, the actuary is not required by this standard to comply with any statements contained in the principles. In particular, Section III, Considerations, of the *Statement of Principles* contains several *should* statements regarding various facets of actuarial reserve work. This ASOP includes similar statements in those specific areas that the subcommittee believed the ASOP should address. There are other areas addressed in the *Statement of Principles* that are not addressed in the ASOP because the subcommittee believes that it is unnecessary to include them in the ASOP.**

The *Statement of Principles* does not set forth standards for reserve analysis. Principles are not intended to contain guidance that would direct actuarial practice, whereas an ASOP *does* specify professional practice requirements and must go through a specified due process, including exposure, response to comments, and review and approval by the independent Actuarial Standards Board.

Section 3.3.2(b), Determination of Deficient or Inadequate Provision and Section 3.3.2(c), Determination of Redundant or Excessive Provision—One comment letter stated that the phrase *does not make a reasonable provision* should equally be applied to sections 3.3.2(b) and 3.3.2(c) and should therefore be changed. **The subcommittee changed section 3.3.2(c) to the same language as section 3.3.2(b).**

Another comment letter from a previous draft was concerned about how this section should be applied where the applicable statutes require reserves to be *good and sufficient* rather than *reasonable*. **The subcommittee recognizes that actuaries are required to comply with laws and regulations. Sections 3.1.2 and 4.6(j) of the ASOP provide the guidance regarding such compliance.**

Section 3.3.2(d), Qualified Opinion—One comment letter thought that the term *qualified* had an entirely different meaning when used for audit opinions. **The subcommittee used accounting guidance in developing the logic and language for this section and therefore there should be little, if any, difference in the use of this term. The ASOP's specific usage of this term is similar to the accounting literature's guidance suggesting *except for* in a qualified audit opinion. However, the ASOP does not require the use of the term *qualified* in the SAO.**

Two previous comment letters were concerned about reserves that cannot be reasonably estimated and how large the *except for* reserves could be before the opinion is no longer useful. **The subcommittee believes that if a reserve component cannot be reasonably estimated, and the actuary has determined that such a component is not material, then the actuary *can* opine that the overall reserves are reasonable. The subcommittee recognizes that companies with hard-to-analyze exposures may receive qualified opinions.**

The subcommittee agrees that a qualified opinion is intended to exclude a portion of the reserves from the opinion. A qualified opinion allows the actuary to separate a definable segment of the reserves that cannot be evaluated for reasonableness. However, it may not be possible for the actuary to specify the amount of reserves associated with the *except for* portion of the reserves in a qualified opinion, because this is the portion that cannot be reasonably estimated. If the entity separates its reserves associated with the qualified portion, the subject reserves of the actuary's opinion could exclude the amount associated with this portion.

Section 3.3.3, Significant Risks and Uncertainties (Explanatory Paragraph) (previously titled Significant Risk of Material Adverse Deviation)—Five comment letters were received regarding this section. Some were concerned about the lack of guidance regarding what constitutes *significant* and how it should be measured. Some suggested using a title and wording that were less specific and did not appear to require specific measurement of probabilities. Others suggested using wording similar to the NAIC requirement to comment on major risk factors. One comment letter recommended use of the term *significant risks and uncertainties* as used in accounting literature, because the disclosures for loss reserve opinions intended by this section seem comparable to the disclosures required for estimations within audited financial statements (AICPA Statement of Position 94-6, *Disclosure of Significant Risks and Uncertainties*). **The subcommittee modified the language of this section to remove the implication that risk needs to be measured and the suggestions regarding the accounting disclosure guidance and the NAIC discussion of risk factors were incorporated into the revised wording. The ASOP still requires the actuary to make a judgment regarding when there are significant risks and uncertainties associated with the reserves that could result in a material adverse deviation. The changes are intended to reduce the concerns that actuaries will be expected or required to measure risk.**

One comment letter suggested that the actuary disclose *any* risk factor that can reasonably be expected to cause material deviation. **The subcommittee believes that it is unreasonable for the ASOP to require the disclosure of *any* risk factor because this could imply that the actuary has to do an unlimited amount of work to find any risk factor and then determine if any of the risk factors can be reasonably expected to cause material deviation.** Another comment letter suggested that the ASOP should also clearly state that the actuary is not compelled to identify any or all specific sources of potential deviation. **The subcommittee agrees with this comment and added wording to the ASOP to incorporate this clarification of the actuary's responsibility.**

Two previous comment letters found the ASOP flawed in the use of the terms *material* and *significant* because they believe that such terms do not give sufficient guidance. **The subcommittee's use of the term *material* in the ASOP generally is intended to refer to a financial amount selected by the actuary. Use of the term *significant* in the ASOP refers a high degree of importance or relevance and is intended to reduce or limit the actuary's work with respect to minor items or items of little impact.**

The subcommittee recognizes the challenges in considering the implications of risk and uncertainty in reserves, particularly when some commonly used actuarial methods do not address variability in reserves or materiality. Nonetheless, the subcommittee strongly believes that the actuary should be capable of providing an opinion that provides meaningful information when the risks and uncertainties associated with reserves is noteworthy. The subcommittee believes that the actuary should have sufficient flexibility to use a combination of the actuary's own judgment and analysis as may be practical and appropriate in each situation. The subcommittee believes that the actuary's decision whether to include an explanatory paragraph in the opinion needs such flexibility, and that it is not desirable to specify measures or thresholds that would, in the end, be considered arbitrary or very difficult to implement.

Section 3.4, Materiality—Two comment letters addressed several issues concerning this section. One concern was that this topic probably needs a separate standard and that it is very difficult to interpret what is expected of the actuary and how he or she is going to be judged. Another concern was what is not material to one party may be to another party, or a relatively small amount could be argued as material after a problem arises. One of the comment letters suggested wording regarding that the actuary follow applicable guidelines or regulations for determining materiality. **The subcommittee agrees that it would be better to already have a materiality standard to which to refer, but the lack of such a standard is not critical to the use of the ASOP, particularly since the principal uses of materiality in the ASOP are for the actuary to decide if an explanatory paragraph is needed or if the actuary's opinion regarding whether the reserves are reasonable will change due to certain factors, such as the use of discounting. Portions of the suggested wording regarding applicable materiality guidelines were incorporated into the ASOP.**

A previous comment letter believed that the materiality threshold for gross versus net reserves should not be the same. **The subcommittee believes that the ASOP allows for an actuary to select a different materiality threshold for gross reserves than for net reserves when the actuary is opining on both gross and net. Similarly, an actuary may select a separate materiality threshold for other amounts when the actuary is opining on them separately.**

Another previous comment letter questioned how materiality issues of actuaries compare with those of auditors. **The subcommittee provided guidance in the ASOP to direct actuaries to select one or more measures of determining materiality—specifically, measures that consider the financial values important for the intended uses of the statement of actuarial opinion. The subcommittee recognizes that the purpose and intended uses of actuarial opinions may not be the same as for audit opinions. Consequently, the materiality**

threshold for an actuarial opinion will depend on the purpose of the opinion, its intended use, and the specific circumstances involved.

Section 3.5, Reserve Analysis (previously divided into two sections, including Section 3.6, Testing and Validation, which is now deleted)—Two comment letters questioned the title *Testing and Validation* because it could be interpreted to mean a very specific procedure and may create an expectation that the actuary has audited the data underlying the opinion by testing and validating various data compilations, which is generally not current practice. Another concern was with the use of the phrase *be familiar with* because it could imply a higher degree of knowledge about specific details than is normal in most actuarial work. It was suggested that the wording be changed to *request and consider information on* in this section and in the associated sections. **The subcommittee merged the Testing and Validation section into section 3.5, Reserve Analysis, and deleted the references to testing, validation, or verifying data, assumptions or compilations, and changed *be familiar with* to *consider*. The subcommittee did not believe it was necessary to add the suggested *request information on* wording.**

Comment letters received about the Testing and Validation section from the previous draft included remarks that questioned whether the ASOP requires the actuary to know everything that could turn out to have been relevant and will be held responsible for not having dug deeply enough to have known what could have gone wrong, and whether one numerical error could put the actuary's work in question. Other comments expressed concern that the actuary will be judged using hindsight after a problem arises and that actuaries could be held to this ASOP even before its effective date. Concern was also expressed that the ASOP does not provide an effective *safe harbor* for actuaries because it is not specific enough and is too loosely defined. Further, another comment letter believed that the actuary should only be required to *inquire about* various items rather than *consider* them. **The subcommittee believes that this ASOP will not apply retroactively or before the effective date of the standard. In addition, the subcommittee disagrees with the suggestion that actuaries should be protected by a *safe harbor* which would only require collecting information or making inquiries. The ASOP is intended to require the actuary to use the information collected or the responses to the inquires in determining an opinion on the reasonableness of the stated provision for reserves. The actuary's responsibility is limited under the ASOP to when *it is likely that there is a material effect on the results of the actuary's reserve analysis or on the risks and uncertainties associated with the reserves*.**

Section 3.5.6, Changes in Assumptions, Procedures, or Methods (previously section 3.6.6)—One comment letter expressed concern about the potential problems involved when the opining actuary may change, the cumbersome procedures of having to distribute prior workpapers from the previous actuary to potential new actuaries, and the complications associated with different methods normally used by the new actuary versus the previous actuary. **The subcommittee believes that the actuary should obtain and review the previous actuarial analysis if possible. The subcommittee believes that such a review is needed to assess changes in methods or assumptions as required for NAIC opinions. Section 4.6 provides the disclosure requirements regarding such changes and the actuary's access to the prior actuarial work. That section was reworded to permit disclosure of situations where the actuary can not**

make a judgment regarding the effect of the change or where the actuary is unable to review the prior work.

Section 3.6.3, Expected Value Estimate (previously section 3.7.3)—One comment letter, which was resubmitted from the previous draft, objected to the implications that expected value estimates were preferred over other measures and that the ASOP implied that the probability distribution of reserves was not important. **The subcommittee believes that the use of expected value estimates is a common basis used by actuaries for determining the estimates used in reserve analyses. However, the standard does not require actuaries to rely only on expected value estimates, but rather to include such measures in evaluating the reasonableness of reserves. The subcommittee agrees that the probability distribution of reserves is important, but recognizes that such distributions are rarely available to the actuary.**

Section 3.6.4, Range of Reasonable Reserve Estimates (previously section 3.7.4)—One previous comment letter thought that the range should be disclosed in order for the reader of an opinion to fully understand the implications of the opinion. Another believed that the disclosure of the range should not be required. **The subcommittee believes that the actuary may be able to consider a range of reasonable estimates for purposes of the opinion without having to specify the end points of the range. This is acceptable because the actuary could be basing the opinion on various methods and estimates that produce results not much different from the stated reserve amount. Consequently, disclosure of a specific range is unnecessary.**

Several comment letters were received on the latest and the previous drafts. One comment questioned whether a risk margin should be permitted at all because an actuary might be considered negligent for not including a risk margin. Other comments objected to allowing risk margins because of the lack of current guidance regarding them, argued that allowing risk margins should require disclosure if such margins are included, and suggested that an actuarial standard that allows including a risk margin is inconsistent with accounting principles and tax laws, which do not provide this option. **The subcommittee chose the permissive language, i.e., that the actuary may include a risk margin in a range of reasonable reserve estimates, to allow actuaries to use a risk margin in special situations where the use of a risk margin is justified and consistent with the purpose or intended uses of the opinion. If the particular application does not allow a risk margin because of law or regulation, then the actuary may not be able to consider a risk margin in the opinion. The subcommittee believes that accounting rules or tax regulations are effectively law or regulation and, therefore, the guidance in the last paragraph of section 1.2 requires that the actuary follow the law or regulation. However, an actuary may be able to consider a risk margin for reserves that might otherwise be held to be redundant or excessive, if such use does not conflict with laws, regulations, or the intended purpose and uses of the opinion. Furthermore, for new companies or companies with unique exposures (for example, high severity and low frequency), a risk margin may be justified as a reasonable reserve because of the potential adverse reserve development from large infrequent losses.**

One comment letter expressed concern about an opinion that reserves are reasonable solely because of the inclusion of risk margins. **The subcommittee agreed that the use of a risk margin to extend the range of reasonable estimates so that the actuary would not have to**

issue an SAO that reserves were excessive or redundant would need to be disclosed. Section 4.6 was changed by adding section 4.6(i), such that if the actuary relied on risk margins and the actuary believes that the effect of such reliance is likely to have a material effect on the result of the actuary's reserve analysis, then the actuary should disclose that risk margins were used and, if practical, disclose the amount of risk margin included in the stated reserve amount. The subcommittee believes that there would be a material effect if reliance on risk margins was the difference between the actuary opining that the reserves were reasonable versus opining that they were not reasonable. However, the subcommittee also believed that disclosure of risk margin would not be necessary if reserves are judged to be reasonable with or without the consideration of a risk margin.

The subcommittee believes that disclosure of a risk margin amount may be impractical since it is not expected that such a margin would be a separate amount. In some cases a risk margin could be the result of the selected actuarial assumptions and methods used to evaluate the reasonableness of the reserves and cannot be readily identified. Also, the actuary's opinion addresses whether a stated amount is reasonable, and the actuary may not know how much of a risk margin, if any, is included. However, the disclosures required in section 4.6 were revised to include a disclosure that risk margins were used in forming the opinion if the actuary believes that the reliance on risk margins is likely to have a material effect on the results of the actuary's reserve analysis. Also, the actuary is required to disclose the amount of risk margin included in the stated reserve amount, if practical.

Section 3.6.5, Adverse Deviation (previously section 3.7.5, Risk of Material Adverse Deviation)—Two comment letters questioned the one-sided nature of the risk consideration in the ASOP. It was suggested that the risk of a favorable deviation should also be addressed. **The subcommittee considered whether the actuary's opinion regarding reserves should include the consideration of the risk of material favorable deviation. The subcommittee believed that a common concern among users of SAOs is the risk of material adverse deviation. This section of the ASOP does not restrict actuaries from addressing the risk of favorable deviation but the subcommittee did not believe that it was necessary to require actuaries to consider such risk in every SAO. The subcommittee recognizes that a situation could exist where the risk of overstated reserves is important, such as when a potential seller might want to know the chance of favorable deviation that could increase the net worth and consequently the price received for the sale. The subcommittee believes that this type of situation can be addressed by the actuary within the intended uses of the opinion, and that this ASOP does not need to include specific requirements for such cases.**

Section 3.7, Reinsurance Ceded (previously section 3.8)—Two comment letters were received on this section and the related sections; both contained editorial suggestions. One comment letter raised concern that the ASOP was not strong enough regarding reserves for uncollectible reinsurance and an additional requirement should be added for a provision for potentially uncollectible reinsurance. **The subcommittee made minor wording changes based on the suggestions, but did not believe that it was necessary to consider additional requirements for uncollectible reinsurance.** One letter suggested that the ASOP should address how to handle intercompany pooling arrangements, particularly with respect to the use of data for the reserve analysis. **The subcommittee recognizes that the use of intercompany pooling arrangements**

can vary from one organization to the next and the actuary may need to become familiar with the details of such arrangements depending on their impact. However, the subcommittee did not believe that this ASOP could provide guidance for such situations because each situation would need to be evaluated individually.

Section 3.7.4, Risk Transfer Requirements (previously section 3.8.4)—Six comment letters thought the requirements of this section were unclear as to when and how the actuary should evaluate risk transfer in reinsurance contracts. One comment was that the evaluation of risk transfer was not within the scope of this ASOP. Another comment letter suggested that the actuary should make sure that all ceded reinsurance contracts meet the applicable accounting standards for risk transfer. **The subcommittee believes that this ASOP should not provide guidance regarding risk transfer and reworded this section to clarify that the ASOP does not require the actuary to opine on risk transfer. The subcommittee believes that if the actuary's opinion addresses risk transfer, the actuary needs only to consider if there are any reserve adjustments needed to meet the risk transfer requirements and whether such adjustments will affect the actuary's reserve opinion.**

Section 3.9, Financial Reporting Items Affected by Loss and Loss Adjustment Expense Reserves (previously section 3.10)—A previous comment letter expressed concern that the ASOP does not require actuaries to review accruals related to ceded reinsurance contracts with loss-sensitive features for consistency with reserves net of reinsurance. **The subcommittee agrees with the concern, but did not wish to impose additional requirements on actuaries in this area, unless such requirements were needed to comply with laws, regulations, or another ASOP. The comments received on the first exposure draft were strongly opposed to including such requirements in the ASOP.**

Section 3.10, Adequacy of Assets Supporting Reserves (previously section 3.11)—A previous comment letter was concerned about situations where liabilities or undiscounted reserves exceed assets and suggested that actuaries should be required to disclose such circumstances. **The subcommittee believes that it is unnecessary for this ASOP to require actuaries to disclose asset values, either alone or in comparison to liabilities, because of the additional obligations actuaries might assume in the process.**

<u>Section 4. Communications and Disclosures</u>

Section 4.2, Documentation (previously titled Documentation and the Actuarial Report)—One comment letter expressed concern that the actuary's work papers must reference every consideration mentioned in the ASOP, including how the actuary considered the items, what the actuary found, and what effect it had on the opinion, in order to demonstrate compliance with the standard. **The disclosure and documentation requirements for actuarial work subject to this ASOP are described in section 4 of this ASOP and in ASOP No. 9. The subcommittee disagrees with the comment that every consideration must be referenced in the actuary's work papers in order to demonstrate compliance with this ASOP. The subcommittee believes that the actuary only needs to document data or information that the actuary judges to be significant. Furthermore, actuaries are guided by ASOP No. 9, regarding the**

extent of documentation needed for actuarial work performed in complying with this ASOP.

Section 4.3, Reliance on Others for Supporting Analysis—One comment letter requested including the requirement that the actuary obtain confirmation in advance from those whose work is being relied upon before claiming reliance on work performed by others. **The subcommittee did not believe that it was necessary to obtain such confirmation because the reliance is disclosed in the opinion. This is simply a disclaimer regarding the work of others for which the actuary does not accept responsibility. However, the actuary still should be satisfied that it is appropriate to rely on the work of others. The subcommittee believed it was unnecessary for the actuary to notify others or obtain such confirmation.**

Section 4.4, Reliance on Opinions of Other Actuaries—One comment letter believed that the actuary should not be responsible for reviewing the work underlying another actuary's opinion. **The subcommittee eliminated the references to using the work of another actuary but not claiming reliance on it.** Another comment letter and two others from the previous draft were concerned about reliance on another actuary's opinion without notification or implied consent. **The subcommittee did not believe that it was necessary to notify another actuary because the reliance is disclosed in the opinion. This is simply a disclaimer that the actuary relied on the opinion of another actuary and the actuary does not accept responsibility for the opinion of another actuary. The subcommittee believes that in rendering an opinion that relies on another actuary's opinion, the actuary still accepts the responsibility that relying on another actuary's opinion is appropriate given the scope, purpose and intended use of each opinion. Consequently, the subcommittee did not believe it was necessary for the actuary to notify another actuary or obtain consent in order to rely on another actuary's opinion.**

Section 4.5, Changes in Opining Actuary's Assumptions, Procedures, or Methods—One comment letter from a previous draft noted that it would be reasonable for disclosure to be required only if there were material effects associated with changes. **The subcommittee concurs with the comment. However, the subcommittee believes that disclosure is still required if a change in methods, procedures, or assumptions produces a minimal change in reserves but when the continued use of prior methods would still have resulted in a material reserve change.**

Section 4.6, Disclosure in the Opinion (previously titled Disclosure in Opinion and Report)—Three comment letters contained a few suggestions for editorial changes to various sections. **The subcommittee made minor editorial changes based on some of these suggestions.** One comment letter objected to the disclosure of the discount amount because the actuary should not be required to comment separately on the amount of discount as a separate component of the reserves. Another comment letter suggested that the disclosure of the discount amount should be limited to the amount reflected in setting the reserves. **The subcommittee felt that if the actuary believes that reliance on present values is likely to have a material effect on the results of the actuary's analysis, the actuary should be required to disclose that present values were used in forming the opinion, the interest rates used by the actuary, and the**

amount of discount included in the stated reserve amount. The subcommittee modified the wording accordingly.

Section 4.7, Prescribed Statement of Actuarial Opinion—One comment letter suggested adding a statement that not all PSAOs fall within the scope of this ASOP. **The ASB believes it is clear that section 4.7 only applies to those PSAOs that are within the scope of this standard and therefore left the text unchanged.**

The Subcommittee on Reserving thanks those who took the time and made the effort to send in comment letters on the three exposure drafts. The input was very helpful in developing this ASOP.