ACTUARIAL STANDARDS BOARD

● **EXPOSURE DRAFT** ●

Proposed Revision of
Actuarial Standard of Practice No. 13

Trending Procedures in Property/Casualty Insurance

Comment Deadline
May 1, 2008

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

Approved for Exposure by the
Actuarial Standards Board
January 2008

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TO: Members of Actuarial Organizations Governed by the Standards of the Actuarial Standards Board and Other Persons Interested in Trending Procedures in Property/Casualty Insurance

FROM: Actuarial Standards Board (ASB)

SUBJ: Proposed Revision of Actuarial Standard of Practice (ASOP) No. 13, *Trending Procedures in Property/Casualty Insurance*

This document contains the exposure draft of a proposed revision of ASOP No. 13, *Trending Procedures in Property/Casualty Insurance*. Please review this exposure draft, and give the ASB the benefit of your comments and suggestions. Each written response and each response sent by e-mail to the address below will be acknowledged, and all responses will receive appropriate consideration by the drafting committee in preparing the final document for approval by the ASB.

The ASB accepts comments by either electronic or conventional mail. The preferred form is e-mail, as it eases the task of grouping comments by section. If you wish to use e-mail, please send a message to **comments@actuary.org**. You may include your comments either in the body of the message or as an attachment prepared in any commonly used word processing format. Please include the phrase "ASOP No. 13 Revision" in the subject line of your message.

If you wish to use conventional mail, please send comments to the following address:

ASOP No. 13 Revision
Actuarial Standards Board
1100 Seventeenth Street, NW, 7th Floor
Washington, DC 20036-4601

The ASB has decided to post all signed comments received on exposure drafts adopted on or after February 21, 2007 to its website to encourage transparency and dialogue. Unsigned or anonymous comments will not be considered by the ASB nor posted to the website. The comments will not be edited, amended, or truncated in any way. Comments will be posted in the order that they are received, based on the electronic timestamp or postmark. Comments will be removed when final action on a proposed standard is taken. The ASB web site is a public web site and all comments will be available to the general public. The ASB disclaims any responsibility for the content of the comments, which are solely the responsibility of those who submit them.

Deadline for receipt of responses in the ASB office: **May 1, 2008**

Background

The existing ASOP No. 13, *Trending Procedures in Property/Casualty Insurance Ratemaking*, was developed by the Subcommittee on Ratemaking of the Casualty Committee in July 1989 and adopted by the ASB in July 1990. Since the promulgation of the original standard, developments in trending procedures have continued, and the use of trending in non ratemaking areas has become more widespread. The Subcommittee prepared this revision of ASOP No. 13 to be consistent with the current ASOP format, and to update and reflect current, generally accepted actuarial practices with respect to trending procedures in property/casualty insurance. Further, this proposed revision expands guidance on the application of trend procedures beyond ratemaking to include reserving, valuations, underwriting, and marketing analyses.

Key Changes

The most significant changes made in this proposed revision were as follows:

1. The purpose was expanded, and the issues and recommended practices were generalized to apply beyond the issue of ratemaking for property/casualty insurance.

2. Additional sections on reliance, documentation, communication, and disclosures were included.

Request for Comments

The Subcommittee appreciates comments on all areas of this proposed revision to ASOP No. 13, and would like to draw the readers' attention to the following areas in particular:

1. Given that the original ASOP was restricted to ratemaking alone, does this proposed revision provide appropriate guidance for all areas of property/casualty insurance where trending procedures are applied?

2. The Subcommittee added sections, 3.7, *Reliance on Data or Other Information Supplied by Others*, 3.8, *Documentation*, 4.1, *Actuarial Communication*, and 4.2, *Additional Disclosures*. Do these sections provide sufficient guidance as to what the actuary is to do?

3. Section 4.2(b) highlights the fact that, in cases where a trend estimate is an update of a previous estimate, the actuary should consider whether, in the actuary's professional judgment, it would be appropriate and practical to quantify the expected impact of any material changes in assumptions, procedures, method or models. Does the proposed standard provide appropriate guidance as to what the actuary must disclose and when?

EXPOSURE DRAFT—January 2008

PROPOSED REVISION OF ACTUARIAL STANDARD OF PRACTICE NO. 13

TRENDING PROCEDURES IN PROPERTY/CASUALTY INSURANCE

STANDARD OF PRACTICE

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

1.1 Purpose—This actuarial standard of practice (ASOP) provides guidance to actuaries when performing professional services using trending procedures to estimate future values.

1.2 Scope—This standard applies to actuaries when performing professional services to estimate future values using trending procedures for all property/casualty coverages. This includes work performed for insurance or reinsurance companies, and other property/casualty risk financing systems that provide similar coverage, such as self insurance.

The actuary should comply with this standard except to the extent it may conflict with applicable law (statutes, regulations, and other legally binding authority). If compliance with applicable law requires the actuary to depart from the guidance set forth in this standard, the actuary should refer to section 4.3 regarding deviation.

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

1.4 Effective Date—This standard is effective for actuarial services performed four months after adoption by the Actuarial Standards Board.

Section 2. Definitions

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

2.1 Coverage—The terms and conditions of a plan or contract, or the requirements of applicable law, that create an obligation for claim payment associated with contingent events.

2.2 Experience Period—The period of time to which historical data used for actuarial analysis pertain.

2.3 Forecast Period—The future time period to which the historical data are projected.

2.4 Social Influences—The impact on insurance costs of societal changes such as changes in claim consciousness, court practices, and legal precedents, as well as in other noneconomic factors.

2.5 Trending Period—The time between the average date of the experience period and the corresponding date of the forecast period.

2.6 Trending Procedure—A process by which the actuary evaluates how changes over time affect items such as claim costs, claim frequencies, expenses, exposures, premiums, retention rates, response rates, conversion/issue rates, and economic indices. Trending procedures estimate future values by analyzing historical data and other relevant information.

Section 3. Analysis of Issues and Recommended Practices

3.1 Purpose or Use of Trending Procedures—The actuary should identify the intended purpose or use of the trending procedure. The actuary should apply trending procedures that are appropriate for the applicable purpose or use. Potential purposes or uses of trending procedures include, but are not limited to, ratemaking, reserving, valuations, underwriting, and marketing analyses.

Where multiple purposes or uses are intended, the actuary should consider the potential conflicts arising from those multiple purposes or uses and should consider adjustments to accommodate the multiple purposes or uses to the extent that, in the actuary's professional judgment, it is appropriate and practical to make such adjustments.

3.2 Historical Insurance and Non-Insurance Data—The actuary should select data appropriate for the trends being analyzed. The data can consist of historical insurance or non-insurance information. Other considerations should include, but not be limited to, the following:

a. the credibility assigned to the data by the actuary;

b. the time period for which the data is available;

c. the predictive versus explanatory value of the data; and

d. the effect of known biases or distortions on the data relied upon (for example, the impact of catastrophic influences, seasonality, coverage changes, nonrecurring events, and distributional changes in deductibles, types of risks, and policy limits).

3.3 Economic and Social Influences—The actuary should consider economic and social influences that can have a significant impact on trends in selecting the appropriate data to review, the trending calculation, and the trending procedure. It is inappropriate to analyze only those factors that have an impact on trend in one direction. In addition, the actuary should consider the timing of the various influences.

3.4 Selection of Trending Procedures—The actuary should select trending procedures after appropriate consideration of available data. In selecting these procedures, the actuary may consider relevant information such as the following:

a. procedures established by precedent or common usage in the actuarial profession;

b. procedures used in previous analyses;

c. procedures that predict insurance trends based on insurance, econometric, and other non-insurance data; and

d. the context in which the trend estimate is used in the overall analysis.

3.5 Criteria for Determining Trending Period—The actuary should consider both the lengths of the experience and forecast periods, and changes in the mix of data between the experience and forecast periods when determining the trending period. When incorporating non-insurance data in the trending procedure, the actuary should consider the timing relationships among the non-insurance data, historical insurance data, and the future values being estimated.

3.6 Evaluation of Trending Procedures—The actuary should evaluate the results produced by each selected trending procedure for reasonableness and revise the procedure where appropriate.

3.7 Reliance on Data or Other Information Supplied by Others—When relying on data or other information supplied by others, the actuary should refer to ASOP No. 23, *Data Quality*, for guidance.

3.8 Documentation—The actuary should prepare and retain appropriate documentation regarding the methods, assumptions, procedures, and the sources of the data used. The documentation should be in a form such that another actuary qualified in the same practice area could assess the reasonableness of the actuary’s work, and should be sufficient to comply with the disclosure requirements in section 4.

Section 4. Communications and Disclosures

4.1 Actuarial Communication—When issuing an actuarial communication subject to this standard, the actuary should refer to ASOP Nos. 23 and 41, *Actuarial Communications*. In addition, the actuary should disclose the following, as applicable, in an actuarial communication:

a. the intended purpose(s) or use(s) of the trending procedure, including adjustments that the actuary considered appropriate in order to produce a single work product for multiple purposes or uses, if any, as described in section 3.1;

b. significant limitations in the data available, if any, which constrained the trending procedure used by the actuary such that, in the actuary's professional judgment, there is a significant risk that a more in-depth analysis would produce a materially different trend estimate, as described in section 3.2; and

c. specific significant risks and uncertainties, if any, that might cause the actual trend to vary from the trend estimate.

4.2 Additional Disclosures—In certain cases, consistent with the intended purpose or use, the actuary may need to make the following disclosures in addition to those in section 4.1:

a. When the actuary specifies a range of trend estimates, the actuary should disclose the basis of the range provided.

b. When the trend estimate is an update of a previous estimate, the actuary should disclose changes in assumptions, procedures, methods or models that the actuary believes might have a material impact on the trend estimate and the reasons for such changes to the extent known by the actuary. The actuary should consider whether, in the actuary's professional judgment, it would be appropriate and practical to quantify the expected impact of such changes.

4.3 Deviation—If, in the actuary's professional judgment, the actuary has deviated materially from the guidance set forth elsewhere in this standard, the actuary can still comply with this standard by applying the following sections as appropriate:

4.3.1 Material Deviations to Comply with Applicable Law—If compliance with applicable law requires the actuary to deviate materially from the guidance set forth in this standard, the actuary should disclose that the assignment was prepared in compliance with applicable law, and the actuary should disclose the specific purpose of the assignment and indicate that the work product may not be appropriate for other purposes. The actuary should use professional judgment to determine whether additional disclosure would be appropriate in light of the purpose of the assignment and the intended users of the actuarial communication.

4.3.2 Other Material Deviations—The actuary's communication should disclose any other material deviation from the guidance set forth in this standard. The actuary should consider whether, in the actuary's professional judgment, it would be appropriate and practical to provide the reasons for, or to quantify the expected impact of, such deviation. The actuary should be prepared to explain the deviation to a principal, another actuary, or other intended users of the actuary's communication. The actuary should also be prepared to justify the deviation to the actuarial profession's disciplinary bodies.

Appendix

Background and Current Practices

Background

Recognition of the significance of trend in many property casualty analyses and difficulty of discerning turning points has led to a need for increasingly sophisticated trending procedures. The *Proceedings* and the *Syllabus of Examinations* of the CAS, and many other publications such as statistics and economics textbooks, provide extensive information on alternative procedures. The actuary may refer to these or develop other procedures, as appropriate for each situation.

Current Practices

Trending procedures are used in ratemaking, reserving, valuation, underwriting, and marketing for most property/casualty insurance plans or policies. In such procedures, actuaries generally place reliance on (1) data generated by the book of business being analyzed, (2) other insurance data, and (3) non-insurance data, in that order of preference. Mathematical techniques are often used to smooth and extrapolate from historical data. In the absence of strong contrary indications, there is a reliance on extrapolations of historical insurance data. Procedures based on non-insurance data are also used. In trending procedures, judgmental considerations generally include, but are not limited to, the historical data used, the success of these techniques in making prior projections, the statistical goodness of fit of the techniques to the historical data, and the impact of any sudden, nonrecurring changes (for example, tort reform) which had not yet been incorporated in the historical data.