Discussion of the Proposed Actuarial Standard of Practice on Property/Casualty Ratemaking REG-4

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Existing ASOPs related to Ratemaking

ASOP No. 12, *Risk Classification (for All Practice Areas);*

ASOP No. 13, *Trending Procedures in Property/Casualty Insurance*;

ASOP No. 23, *Data Quality*;

ASOP No. 25, *Credibility Procedures;*

ASOP No. 29, *Expense Provisions in Property/Casualty Insurance Ratemaking*;

ASOP No. 30, *Treatment of Profit and Contingency Provisions and the Cost of Capital in Property/Casualty Insurance Ratemaking*;

ASOP No. 38, *Using Models Outside the Actuary's Area of Expertise (Property and Casualty)* (Note: Revision pending);

ASOP No. 39, *Treatment of Catastrophe Losses in Property/Casualty Insurance Ratemaking*;

ASOP No. 41, *Actuarial Communications*; and

ASOP No. XX, *Modeling* (Note: Pending final approval).

Second Exposure Draft Actuarial Standard Of Practice on Ratemaking

Released by Actuarial Standards Board February 4, 2016

Comment Deadline April 30, 2016

1.2 Scope (Paragraph 1)

This standard applies to all actuaries when performing professional services with respect to developing or reviewing property/casualty insurance **rates**, or elements thereof. If the actuary’s role relates to a subset of the elements of the **rate**, the guidance in this standard applies only to the professional services related to that subset. If the actuary’s role involves reviewing **rates** developed by another party, the actuary should use the guidance in section 3 as is practicable.

1.2 Scope (Paragraph 2)

The scope includes the evaluation of future costs for insurance, reinsurance, self-insurance, risk-funding or retention mechanisms, loss portfolio transfers, or any other risk-transfer mechanism. Such professional services may consist of expert testimony, regulatory activities, legislative activities, or statements concerning public policy to the extent these activities involve providing an opinion on property/casualty insurance **rates**.

1.2 Scope (Paragraph 3)

This standard is limited to the estimation of future costs. While the actuary may play a key role in the company's decisions in determining the price charged after taking into account other considerations, such as marketing goals, competition, and legal restrictions, this standard does not address the other considerations.

1.2 Scope (Paragraph 4)

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

Section 2. Definitions

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 Rating—A **rate** modification technique that involves evaluating the individual or entity's actual experience relative to the average experience of similarly classified entities to derive a **rate** unique to that individual or entity.

2.3 Exposure Base—The basic unit that is used to measure the future risk-transfer cost.

Section 2. Definitions

2.4 Method—A systematic procedure for developing, reviewing, or changing **rates** or elements thereof.

2.5 Model—A mathematical or empirical representation of a specified phenomenon.

2.6 Premium—The final price charged for the transfer of risk.

2.7 Rate—An estimate of all future costs per exposure unit associated with an individual risk transfer.

Section 2. Definitions

2.8 Ratemaking

The process of estimating future costs associated with the transfer of risk in insurance or other risk-transfer mechanisms.

This includes estimation of future costs in total as well as by the underlying levels that comprise the estimate of future cost.

Section 2. Definitions

2.9 Retrospective Rating—A rating technique that adjusts the insured's **premium** for a policy period based on the insured's loss experience during that same period.

2.10 Schedule Rating—A **rate** modification technique that considers the individual risk characteristics that are expected to affect the future loss and expense experience but are not otherwise reflected in the rating process.

Section 3. Analysis of Issues and Recommended Practices

3.1 Introduction

The actuary should identify and consider the costs associated with the elements that make up the **rate**. Such elements should include, but are not limited to, loss and loss adjustment expenses, operational and administrative expenses, and the cost of capital.

3.2 Organization of Data

The actuary should determine how data will be organized to estimate the **rate** or portion of the **rate**.

There are several acceptable aggregation **methods** including, but not limited to, aggregating by accident period, calendar period, policy period, and report period. The nature of the insurance **coverage** and the type of **ratemaking** analysis will influence the selection of the data aggregation **method**. For each element, the actuary should select the type of aggregation that is appropriate for the type of **ratemaking** analysis being performed.

3.2 Organization of Data (Continued)

The actuary also should consider the level of granularity of data needed for the type of **ratemaking** analysis being performed. For example, one level of aggregated data may be appropriate for estimating the overall **rate**, whereas more refined data may be appropriate for estimating the underlying levels that comprise the overall **rate** within a risk classification system.

3.3 Data Quality

The actuary should refer to ASOP No. 23, *Data Quality*, for guidance in the consideration of the choice and use of data for **ratemaking**.

3.4 Methods, Models, and Assumptions

The actuary should select appropriate **methods** and **models** for estimating the **rate** or portion of the **rate**. The actuary should use reasonable assumptions (including parameters) appropriate to each **method** and **model**. Assumptions may be implicit or explicit and may involve interpreting past data or projecting future trends. The actuary should use **methods**, **models**, and assumptions that, in the actuary's professional judgment, have no known significant bias to underestimation or overestimation and are not internally inconsistent.

3.5 Exposure Base

If selecting a new **exposure base** or changing the existing **exposure base**, the actuary should take into account various practical requirements, such that the **exposure base** bears a strong relationship to the risk-transfer cost, as well as being objectively measurable and easily verifiable. To the extent these criteria are in conflict, the actuary should use professional judgment to select an appropriate **exposure base** for the **ratemaking** exercise.

3.5 Exposure Base (continued)

Some complex risks have multiple **exposure bases** for each aspect of **coverage** provided (for example, sales revenue for general liability, property value for commercial property). In undertaking **ratemaking** analyses for these risks, it may be appropriate to designate one **exposure base**, referred to as the composite **exposure base**, to act as a proxy for the more refined **coverage**-by-**coverage exposure bases**.

3.6 Risk Classification System

Risk classification systems are an integral part of the development of **rates**. The actuary should refer to ASOP No. 12, *Risk Classification (for All Practice Areas)*, for guidance in the design, review, or change of the classification plan for **ratemaking**.

3.7 Use of Historical Data

The actuary should determine the extent to which historical data are available and applicable for estimating future costs. For example, the data should be consistent with insurance policy provisions or risk-management provisions of the applicable self-insurance, risk-funding or retention mechanisms, or any other risk-transfer mechanism.

3.7.1 Use of Historical Exposure and Premium Data

The actuary should adjust the historical exposure and **premium** data to reflect a consistent **rate** and exposure level. This adjustment should consider exposure changes and the effective dates of the various **rate** changes during and after the historical period. The actuary should consider any modifications applied to **rate** changes that affect the **premium** charged. The adjustment can be completed at an aggregate level (for example, on-level factors) or at an individual risk level (for example, extension of exposure). The **method** of adjustment is often dictated by the nature of the data collected and the purpose of the analysis.

3.7.2 Use of Historical Loss and Loss Adjustment Expenses

The actuary should determine the extent to which historical loss and loss adjustment expenses are available and applicable as a basis for estimating future costs. In determining the future costs related to loss and loss adjustment expenses, the actuary should consider adjusting historical data using **methods** or **models** that, in the actuary's professional judgment, reflect the potential for future development of loss and loss adjustment expense, the **coverage** being evaluated, the intended application (such as overall **rate** level analysis or risk classification analysis), the historical period and conditions in which the claims occurred, and the underlying claims adjustment process.

3.7.2 Use of Historical Loss and Loss Adjustment Expenses (Continued)

The actuary should consider whether the analysis of loss data requires different **methods** or **models** than the analysis of loss adjustment expense data. Additionally, different **coverages** within a line of business may require different **methods** or **models**.

3.7.3 Additional Adjustments to Historical Data

The actuary should consider additional adjustments to the historical data needed to reflect the environment expected to exist in the future period when the **rates** will be in effect.

3.7.3 Additional Adjustments to Historical Data (continued)

These adjustments include, but are not limited to, the following:

a. judicial, legislative, or regulatory changes;
b. mix of business changes;
c. policy contract changes;
d. claim practice or reserving changes;
e. operational changes that impact expenses;
f. accounting changes; and
g. reinsurance changes.

3.7.4 Trends

The actuary should consider past and prospective changes in claim costs, claim frequencies, exposures, and **premiums**. The actuary should refer to ASOP No. 13, *Trending Procedures in Property/Casualty Insurance*, for guidance in the selection of trends for estimating future values of costs associated with the components that make up the **rate**.

3.8 Expense Provisions

The actuary should refer to ASOP No. 29, *Expense Provisions in Property/Casualty Insurance Ratemaking*, and ASOP No. 13 for guidance in the consideration of the expense provisions for **ratemaking**

3.9 Ratemaking for New Coverages or Exposures

If the actuary is estimating the future cost for a **coverage** or exposure and the historical loss and loss adjustment expenses are either unavailable, limited, or not fully representative of the **coverage** or exposure, the actuary should consider the following:

a. data from **coverages** or exposures that are similar to the new **coverage** or exposure;
b. data on the phenomenon or events that are contemplated by the new **coverage** or exposure;
c. differences between **coverages** or exposures with available relevant data and the new **coverage** or exposure; and
d. appropriate adjustments to the available relevant data to reflect expected differences identified in section 3.9(c).

3.10 Credibility

The actuary should refer to ASOP No. 25, *Credibility Procedures*, for guidance in considering the credibility given to a particular set of data for **ratemaking**.

3.11 Modeling

The actuary should refer to [proposed ASOP on modeling,] for guidance in the consideration of **models** used for **ratemaking**.

(Note: May need revision depending on final version of proposed modeling ASOP.)

3.12 Catastrophe Provisions

The actuary should refer to ASOP No. 38, *Using Models Outside the Actuary's Area of Expertise (Property and Casualty) [Note: revision pending]* and ASOP No. 39, *Treatment of Catastrophe Losses in Property/Casualty Insurance Ratemaking*, for guidance in the consideration of the catastrophe provisions for **ratemaking**.

3.13 Treatment of Unusual Events

The actuary should refer to ASOP No. 23 and ASOP No. 39 for guidance in the consideration of other unusual events, such as large individual losses.

3.14 Reinsurance Provisions Practices

When reinsurance provisions are reflected in **ratemaking**, the actuary should select appropriate **methods** or **models** for estimating the cost associated with reinsurance arrangements expected to exist during the future period when the **rates** will be in effect. If the cost of reinsurance is treated as an expense, the actuary should refer to ASOP No. 29 for additional guidance.

3.15 Profit and Contingency Provisions and the Cost of Capital

The actuary should refer to ASOP No. 30, *Treatment of Profit and Contingency Provisions and the Cost of Capital in Property/Casualty Insurance*, for guidance in the consideration of the profit and contingency provisions and the cost of capital for **ratemaking**.

3.16 Additional Funding Sources

In some risk-transfer systems, income may come from other sources, such as assessments to policyholders or other parties including insurers, a larger group of insurance purchasers, or taxpayers. The actuary should take into account additional sources of funding and their allocation and timing when establishing **rates**.

3.17 Impact of Individual Risk Rating

An individual or entity may have sufficiently credible experience so that its historical experience or risk characteristics can be used in whole or in part to derive a **rate** unique to that individual or entity, using techniques such as **experience rating**, **retrospective rating**, or **schedule rating**. The actuary should reflect the impact of individual risk-rating plans on the overall **rate** level.

Section 4. Communications and Disclosures

4.1 Actuarial Communications

When issuing actuarial communications under this standard, the actuary should refer to ASOP No. 41, *Actuarial Communications*.

4.2 Disclosures

The actuary should also include the following, as applicable, in an actuarial communication:

a. the disclosure in ASOP No. 41, section 4.2, if any material assumption or **method** was prescribed by applicable law;
b. the disclosure in ASOP No. 41, section 4.3, if the actuary states reliance on other sources and thereby disclaims responsibility for any material assumption or **method** selected by a party other than the actuary; and
c. the disclosure in ASOP No. 41, section 4.4, if, in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this ASOP.

Draft ASOP Comment Period

Comments accepted through April 30, 2016

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Ratemaking (Second Exposure)
Actuarial Standards Board
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Questions Posed

1. Are there any conflicts between the proposed ASOP and existing practice?

2. This standard is proposed to be effective for work “performed on or after” four months following the adoption of the standard.

   Does this language appear to create any undue burden?

Questions Posed

3. Is it clear that this ASOP does not provide any guidance on the use of what is generally referred to as “price optimization,” which relates to the company’s decisions in determining price?

Questions Posed

4. The task force eliminated the reference to "expected" value of all future costs to eliminate the possible confusion that the only appropriate estimate of all future costs was a mean value without any consideration of potential variability.

   Is this change appropriate?

   Does this change lead to confusion about what is being estimated?

Questions Posed

5. Is it clear within the definition of ratemaking, section 2.8, that the ASOP provides guidance regarding the estimation of future costs at more refined levels than the aggregate?

6. Is it clear that this ASOP applies to elements of the rate, such as loss costs developed by advisory organizations such as ISO, NCCI, and AAIS?

Thank You