

The New US Standard of Practice on Unpaid Claim and Claim Adjustment Expense Estimates

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Unpaid Claim Estimate Standard

- Effective for all US general insurance estimates after 1 September 2007
- Addresses the estimation process for unpaid claim liabilities
 - Not the selection of the provision to be carried on an insurer's balance sheet, although the provision could equal the estimate

Agenda

■ Background

- US Actuarial Standards of Practice and the Actuarial Standards Board
- Why do we need an unpaid claim estimate standard?

■ The new standard

- Purpose and Scope
- Analysis of Issues and Recommended Practice
- Communications and Disclosure

■ Discussion

Background – US Standards

- US Actuarial Standards of Practice are developed by the Actuarial Standards Board
 - Independent, comprised of 9 senior Actuaries
 - Representing all practice areas
- Practice Standards intended to apply to ALL actuaries practicing in the United States
 - Actuaries are not in general licensed
 - Required by Code of Conduct of all 5 US-based organizations (AAA, ASPPA, CAS, CCA, SoA)
 - Other actuaries subject to their Association's Code, but not following Standards could be considered malpractice

Background – Purpose of Standards

- Framework for performing professional assignments
- Guidance on relevant issues, recommended practice, documentation & disclosure
- Not narrowly prescriptive; do not dictate a single approach or outcome
- Outline appropriate practice based on sound actuarial principles
- Scope of each standard relatively narrow – allows for manageable development

Background – US Standards

- Proposed by a practice-specific committee
- Development approved by the ASB
- Drafting – 6 months to 2 years
- Review by ASB – 3 to 6 months
- Exposure to all US actuaries, regulators, employers, accounting profession. . .
– minimum 3 months
- Review & redrafting – 3 months
- Approval & release by ASB, or re-Exposure
- Effective about 6 months after approval

Why do US actuaries need this standard?

- No standard currently exists for developing unpaid claim estimates
 - Although there is a standard on how to *opine* on a technical provision in a financial standard
- The IAA is expected to develop standards in conjunction with the IASB work - ASB wants to be proactive
- Recent publicity with regard to adequacy of loss reserves in financial reports

Scope of the standard

- Provide guidance to actuaries when estimating unpaid claim and claim adjustment expenses for property/casualty coverages
- Applicable when estimating unpaid claims for all classes of entities (e.g., governmental entities, self insureds, insurance companies)
- Applicable when developing unpaid claims for events that have already occurred as of a specified date.
- Examples where standard **not** applicable:
 - Estimation of losses in a ratemaking context
 - Estimation of claim liability for losses that have not occurred for policies in force
 - Estimates of liabilities for renewal of policies currently in force

What actuarial communications are covered by the reserve standard?

- “Communication of Significant Actuarial Findings” (as described in ASOP 41) in written or electronic form
 - Does not apply to oral communications
 - Does not apply to informal communications (e.g., preliminary calculations done while in a meeting)
- Applies to the actions taken by the actuary (actions taken by the principal are beyond the scope)

Analysis of Issues and Recommended Practice Outline

- Purpose or Use
- Constraints
- Scope
- Understanding of the Nature of Claims
- Unpaid Claim Estimate Analysis
 - Methods
 - Assumptions
 - Data
 - Recoverables (incl. collectibility, gross vs. net)
 - External conditions, changing conditions
 - Uncertainty
- Unpaid Claim Estimate
 - Reasonableness tests
 - Presentation

Purpose or Use

“The actuary should identify the intended purpose or use of the unpaid claim estimate”

- Examples include external financial reporting, internal management reporting, etc.
- Has an impact on many items, such as
 - Selection of intended measure
 - Needed level of understanding of nature of claims
 - Choice of method or model
 - Whether uncertainty needs to be measured
 - Presentation of results
 - Documentation and disclosures
- Once the intended measure is decided, the purpose and use should not bias the estimate relative to that intended measure

Handling of Constraints

Sometimes constraints exist in the performance of an actuarial analysis, such as those due to limited data, staff or time. Where the actuary believes that such constraints create a significant risk that a more in-depth analysis would produce a materially different result, the actuary should notify the principal of that risk communicate the constraints on the analysis to the principal

Scope of the Estimate

“The actuary should determine the scope of the unpaid claims estimate.”

- Intended measure
- Gross or net
- Collectibility risk
- Unpaid claim adjustment expenses
- Cohorts of claims
- Other items needed to sufficiently describe scope

Scope of the Estimate – Intended Measure

- Must be clear what the actuary is estimating
 - “Best Estimate” or “Actuarial Estimate” not sufficient
 - Best estimate of what? Mean? Mode? Low or High? Risk margin included? Etc.
- Actuarial Central Estimate
- Statistical Mean
- Median
- Mode
- “Low” or “High”
- Specified Percentile
- Some other basis (describe)

Scope of the Estimate – Actuarial Central Estimate

Actuarial Central Estimate—An estimate that represents an expected value over the range of reasonably possible outcomes.

- . . . Such range of reasonably possible outcomes may not include all conceivable outcomes, as, for example, it would not include conceivable extreme events where the contribution of such events to an expected value is not reliably estimable. An actuarial central estimate may or may not be the result of the use of a probability distribution or a statistical analysis. This description is intended to clarify the concept rather than assign a precise statistical measure, as commonly used actuarial methods typically do not result in a statistical mean.

Scope of the Estimate – Actuarial Central Estimate

Actuarial Central Estimate

- Doesn't require producing a loss distribution or statistical analysis
- Not required to consider speculative or remote outcomes
- Conveys the intent as being a mean – with acknowledgement that commonly used actuarial methods typically do not result in a statistical mean

Appropriate Understanding of the Nature of Unpaid Claims

- Appropriate understanding is needed
- Required understanding will vary with the purpose, nature and scope of the unpaid claim estimate analysis
- Requirement is based on what a qualified actuary in the same practice area could reasonably be expected to know or foresee as relevant at the time of the analysis. Actuary need not be familiar with every aspect of potential unpaid claims
- Requirement not based on hindsight

Methods and Models

Actuary should select specific methods and/or models, modify or develop new ones based on relevant issues:

- Intended purpose, nature and scope
- Nature of claims, exposures
- Development characteristics
- Characteristics of available data and applicability to available data
- Validity of assumptions underlying each method or model

Methods and Models

- A number of methods may be available - selection based on facts & circumstances
- Different components of the estimate may require different methods
- **“actuary should use multiple applicable methods to estimate unpaid loss for a particular component, unless**
 - Reliance on a single estimate reasonable in actuary’s judgment
 - Disclose rationale for the decision in the actuarial communication
- Don’t have to use same method as the past
- Evaluate the appropriateness of chosen method(s) even if same method as the past

Assumptions

- Assumptions may be implicit or explicit
- Consider reasonableness of assumptions underlying method
- **Assumptions should have no deliberate or conscious bias to under estimation or overestimation (whatever the intended measure of the estimate).**
 - Bias with regard to an expected value estimate would not necessarily be bias with regard to a measure intended to be higher or lower than an expected value estimate
- Assumptions should not be internally inconsistent
- Consider sensitivity of estimate to reasonable alternative assumptions (If very sensitive, understand why, communicate)
- Okay to use assumptions dictated to you, subject to appropriate disclosure

Data, Recoverables, etc.

- Actuary directed to ASOP 23 – Data Quality
- Actuary should consider if material recoverables/offsets exist
 - unless outside the scope
- Gross vs. Ceded vs. Net
 - Consider facts and circumstances when choosing which components to estimate

External conditions, Changing conditions

- Consider external conditions that may have a material effect, to the extent they are generally known to the actuary and amenable to estimation
- Consider significant changing conditions likely to be insufficiently reflected in the data or assumptions

Uncertainty

- Actuarial estimates are inherently uncertain
- Actuary is not required to measure uncertainty
- If uncertainty is in the scope
 - Understand types and sources of uncertainty (process risk, model risk, parameter risk)
 - Choose the appropriate methods and assumptions to measure such uncertainty
 - Consider covariance when there are multiple components
 - May include consideration of process, model and/or parameter risk

Reasonableness

Do a reasonableness test on the estimate against relevant indicators – a priori reasonable assumptions do not always yield reasonable estimates

“The actuary should assess the reasonableness of the unpaid claim estimate, using appropriate indicators or tests that, in the actuary’s professional judgment, provide a validation that the unpaid claim estimate is reasonable.”

“When the actuary’s unpaid claim estimate comprises multiple components, the actuary should consider whether, in the actuary’s professional judgment, the estimates of the multiple components are reasonably consistent.”

Unpaid Claim Estimate Presentation

- Actuary should consider the intended purpose or use of the unpaid claim estimate when deciding how to present the unpaid claim estimate
- Multiple possible presentations (not an exhaustive list):
 - Point estimate
 - Range of estimates
 - Point estimate + margin for adverse deviation
 - Probability distribution

Communications & Disclosures

- General Guidance:
ASOP 41 Actuarial Communications
 - Principal & Scope, Form & Content, Timing, etc.
 - An actuarial report may be required
 - Documentation should be sufficient for another actuary practicing in the same field to evaluate the work
- *ASOP 23 Data Quality*

Communications & Disclosures Specific to the Proposed Standard

- Clearly convey the intended purpose or use
 - More than one intended use?
 - Any compromises in order to produce a single work product for multiple intended uses?
- Any resource constraint issues?
- Clearly define the scope of the estimate

Dates Associated with the Estimate

- Actuarial communication should include
 - Accounting date
 - Valuation date
- Review date may have to be included in certain circumstances

As an example, “This unpaid claim estimate as of December 31, 2005 was based on data evaluated as of November 30, 2005 and additional information provided to me through January 17, 2006”

Communications & Disclosures

Uncertainty

- The actuarial communication should include discussion of the uncertainties in the estimated claim liability
- This discussion should include both the uncertainty in the estimate and the uncertainty of actual results varying from the estimate

Significant Events & Assumptions

- Include explicit discussion of any significant assumptions or events underlying the estimate that may not be obvious to the intended audience, including significant assumptions regarding the accounting basis or application of an accounting rule
- Where the final work product reflects a material assumption or methodology that differs from what the actuary believes to be reasonable
 - Disclose the dependency of the final result and
 - Disclose the source

Ranges

- What is the range intended to convey?
- For example:
 - a range of estimates of the actuarial central estimate;
 - a range representing a confidence interval within the range of outcomes produced by a particular model or models;
 - a range representing a confidence interval reflecting both process and parameter risk;
 - some other clearly defined range

Material Changes

- If the analysis is an update, disclose any material changes in assumptions
- Disclose the reasons for the change
- Not required to quantify the effect

Questions for discussion

- Is the guidance in this standard sufficiently principles-based to be useful outside US practice?
- What has the US profession left out that could/should have been included?

About the Author:

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Mrs. Miller is a founder and the senior consulting actuary with Select Actuarial Services. With more than 20 years of property and casualty actuarial experience, she provides actuarial consulting services on several major accounts and is additionally responsible for the professional development of the other members. Her expertise is frequently called upon to assist clients in making decisions regarding the maintenance and design of their risk management programs.

Prior to the formation of Select Actuarial Services, Mrs. Miller was the Senior Vice President and Chief Actuary for five years at Sedgwick Actuarial Services. As Chief Actuary she performed a wide spectrum of actuarial studies and also managed the actuarial staff. Before joining Sedgwick in 1993, Mrs. Miller was reinsurance actuary with American States Insurance Companies, where her duties included pricing within the Reinsurance Division, as well as the design and development of specialized software targeting property catastrophe exposures, case reserving for automobile and workers' compensation long-term disability claims, and evaluating treaty commutation proposals.

Mrs. Miller graduated with highest honor from the Honors College at Michigan State University with Bachelor of Arts degrees in Mathematics and Linguistics. She is a Fellow of the Casualty Actuarial Society, a member of the American Academy of Actuaries, a Fellow of the Conference of Consulting Actuaries, and a Chartered Property and Casualty Underwriter. She was elected an Honorary Fellow of the Institute of Actuaries (UK) in 2005. She has been an active contributor to the actuarial profession since achieving fellowship in 1988, and has chaired the CAS Professionalism Education Committee, the Education Policy Committee, and task forces on mutual recognition and future education planning. She was Vice-President for Admissions of the Casualty Actuarial Society from 2000 to 2002, President-Elect in 2003, President in 2004, and she chaired the CAS Board in 2005. She has been a member of the Boards of Directors of the American Academy of Actuaries and the Conference of Consulting Actuaries and currently serves on the Academy's Committee on Qualifications. As a member of the Actuarial Standards Board subcommittee on reserves, Mrs. Miller was a drafter the standards of practice for reserve opinions and unpaid claim estimates in the United States.