

## Guidance Developments for General Insurance Actuaries in the United States

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## Agenda

- Enhancements to the legal requirements for insurance company statutory reserve opinions
- New qualification standard for all actuaries practicing in the US
- New standard of practice (ASOP) on unpaid claim estimates

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## US Statutory Reserve Opinions

- Legal requirement in the US hinges on "reasonable"
  - Management's "best estimate" is the carried reserve
  - Actuary opines that the reserve is "reasonable" if it is within a range of "reasonable" estimates (even though it may be less than the actuary's point estimate)
    - Other options are inadequate, excessive, no opinion, qualified opinion
  - ASOP 36 defines a "range of reasonable estimates"
    - "...a range of estimates that could be produced by appropriate actuarial methods or alternative sets of assumptions that the actuary judges to be reasonable."

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### Guidance circa 2001

- From the profession (ASOP 36)
- If the Actuary believes that there IS a significant risk of a material adverse deviation
  - The actuary should include an explanatory paragraph and disclose
    - Amount of adverse deviation the actuary believes to be material
    - Description of the major factors that could result in a material adverse deviation

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### Current Requirements (2005)

- Actuary discloses materiality standard in all cases (and its basis)
- Actuary states whether there is or is not a significant risk of a material adverse deviation (and the factors that could result in such)

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### Actuarial Opinion Summary

- Effective with 2005 statements
- Discloses either the actuary's point estimate and its relation to the carried reserve or the actuary's range of reasonable estimates and where the carried reserve falls in the range
- Provided to the regulator. Not publicly available

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## US Code of Professional Conduct

Precept 2 – An Actuary shall perform Actuarial services only when the Actuary is qualified to do so on the basis of basic and continuing education and experience and only when the Actuary satisfies applicable qualification standards.

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## US Qualification Standard Effective 2008

- Actuaries who issue Statements of Actuarial Opinion when rendering Actuarial Services in the United States are required by the joint *US Code of Professional Conduct* to satisfy these Qualification Standards.
- It is the expectation of the profession in the US that actuaries conducting US practice (regardless of where they reside) would also adhere to the Qualification Standards.

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## Statement of Actuarial Opinion

For purposes of these Qualification Standards, a Statement of Actuarial Opinion (SAO) is an opinion expressed by an actuary in the course of performing Actuarial Services and intended by that actuary to be relied upon by the person or organization to which the opinion is addressed.

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## Statement of Actuarial Opinion

Actuarial Services are defined in the *Code of Professional Conduct* as "Professional services provided to a Principal [client or employer] by an individual acting in the capacity of an actuary. Such services include the rendering of advice, recommendations, findings, or opinions based upon actuarial considerations."

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## Current Standard

- Current standard applies only to *prescribed* statements of actuarial opinion
  - A statement of actuarial opinion issued for purpose of compliance with law or regulation;
  - A statement of actuarial opinion issued for purpose of compliance with ASOPs as promulgated by the ASB; or
  - An actuarial communication issued for purpose of compliance with standards promulgated by the FASB, GASB, CASB, AICPA or FASAB.
- Both standards (current & new) maintain additional requirements for NAIC reserve opinions

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## Three Minimum Requirements

- Actuary should be credentialed:
  - MAAA, ACAS, FCAS, ASA, FSA, FSPA, MSPA, FCA
  - Or a full member of an IAA organization
    - Eg a fellow of the DAV, the German actuarial society
    - Actuaries who are not eligible for AAA membership practice in the US, so the standard needs to cover them
    - Equivalent of an associate from such a society would not meet the standard

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## Three Minimum Requirements

- 3 years of experience
  - defined as work that requires knowledge and skill in solving actuarial problems
- Knowledgeable of relevant US laws and regulations
  - through examination or documented professional development

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## Topic of Opinion Covered by a Specialization Track

- Could the actuary have completed a fellowship in this area in the US?
- Then the actuary must do one of the following:
  - Be a fellow in this area
  - Be a fellow in another area and have 1 year's experience under qualified review
  - Have 3 years' experience under qualified review

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## Continuing Education

- 30 hours per year (24 in 2008 for 2009)
  - 6 hours must be "organized"
  - 3 hours "professionalism"
- Relevant to the subject of the SAO
  - Under a very broad definition of relevant
  - Up to the actuary to determine
  - Not necessarily purely actuarial in nature
  - Professionalism encouraged (minimum 3 hours)
  - General business courses probably don't have enough technical content – limit to 3 hours

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### Specific Qualification Standard for NAIC p/c Opinions

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### Statutory Requirements

- Member of the CAS or
- Member of the American Academy of Actuaries
  - And approved by the Casualty Practice Council of the AAA

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### Qualification Standard Specific Education Requirements

- Must have passed relevant exams offered by the AAA or CAS on:
  - Policy forms & coverages, underwriting & marketing
  - Principles of ratemaking
  - Statutory insurance accounting & expense analysis
  - Premium, loss & expense reserves
  - Reinsurance (only change from old standard)
- Alternative – signoff on education by an actuary who is qualified to sign

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### Specific Experience Requirement Unchanged

- An actuary must obtain at least three years of responsible experience relevant to the subject of the Statement of Actuarial Opinion under review by an actuary who was qualified to issue the Statement of Actuarial Opinion at the time the review took place under standards in effect at that time.

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### Specific Continuing Education

- Current Standard
  - Average 12 hours per year in a two-year cycle
  - Minimum 6 hours “organized activities”
- New Standard
  - 15 hours per year
  - A minimum of 6 of the 15 hours must be obtained through experiences that involve interaction with outside actuaries or professionals, such as seminars, in-person or online courses, or committee work that is directly relevant
  - Excess carry forward permitted

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### Qualification vs Membership

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## Qualification vs Membership

- The qualification standards set minimum standards for an actuary who performs certain activities
  - Issue statements of actuarial opinion
  - Sign NAIC reserve opinions
- Membership is not affected
  - Retired actuaries
  - Other actuaries who do not issue opinions
- Subject to discipline process for members of US organizations or the Canadian Institute

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## Qualification vs Membership

- Membership in the CAS is akin to an academic designation
  - Recognizes a demonstrated level of knowledge
  - No experience requirement
  - No practice requirement
- Hence, the CAS does not set qualification standards
  - Standards vary depending on the jurisdiction
  - No continuing education requirement for membership
  - Code of conduct also refers to conduct, not to membership

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

Effective 9/1/07

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## Background – US Standards

- US Actuarial Standards of Practice are developed by the Actuarial Standards Board
- Practice Standards intended to apply to ALL actuaries practicing in the United States

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## 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

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### 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 (ASOP 36)
- 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

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### 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

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### Analysis of Issues and Recommended Practice

- Purpose or Use
- Constraints
- Scope
- Nature of Claims
- Unpaid Claim Estimate Analysis (process)
- Unpaid Claim Estimate (result)

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## Purpose or Use

***"The actuary should identify the intended purpose or use of the unpaid claim estimate"***

- Examples include external fin'l 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

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## 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

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## 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

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### 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)

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### Scope of the Estimate – Actuarial Central Estimate

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

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### Understanding the Nature of the 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

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## 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

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## Methods and Models

- The actuary should consider the use of multiple methods or models appropriate to the purpose, nature and scope of the assignment and the characteristics of the claims
  - unless, in the actuary's professional judgment, reliance upon a single method or model is reasonable given the circumstances.
- If for any material component of the unpaid claim estimate the actuary does not use multiple methods or models, the actuary should disclose and discuss the rationale for this decision in the actuarial communication.

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## Assumptions

- Assumptions should have no deliberate or conscious bias to under estimation or overestimation (whatever the intended measure of the estimate).
- Assumptions may be explicit or implicit
- Assumptions also underlie methods & models

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## Uncertainty

- 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

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## Reasonableness

- Is the final result reasonable?  
***“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.”***

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## 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

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## 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*

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## 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

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## 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

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### 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

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### 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

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### 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

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