Lights! Camera! Professionalism!

CAS Spring Meeting

May 22-24, 2017

Antitrust Notice

- **The Casualty Actuarial Society is committed to adhering strictly to the letter and spirit of the antitrust laws. Seminars conducted under the auspices of the CAS are designed solely to provide a forum for the expression of various points of view on topics described in the programs or agendas for such meetings.**

- **Under no circumstances shall CAS seminars be used as a means for competing companies or firms to reach any understanding – expressed or implied – that restricts competition or in any way impairs the ability of members to exercise independent business judgment regarding matters affecting competition.**

- **It is the responsibility of all seminar participants to be aware of antitrust regulations, to prevent any written or verbal discussions that appear to violate these laws, and to adhere in every respect to the CAS antitrust compliance policy.**

Legal Disclosure

The views expressed by the panelists are their own and may not necessarily reflect those of their respective employers.

Agenda

- Professional Guidance
- Skit
- Small Group Discussion
- Large Group Discussion
- Takeaways

Professionalism Skit:
The Canadian Captive

Professional Guidance

- Precept 1 of the Code of Conduct: An Actuary shall act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public and to uphold the reputation of the actuarial profession.
  - Annotation 1-1 -- An Actuary shall perform Actuarial Services with <u>skill</u> and <u>care</u>.

Professional Guidance

- Precept 2:

  An Actuary shall perform Actuarial Services <u>only when the Actuary is qualified to do so</u> on the basis of basic and continuing education and experience and only when the Actuary satisfies applicable qualification standards.

  It is the professional responsibility of the Actuary to observe applicable qualification standards…<u>for the jurisdiction</u> in which the member renders *professional services* and to keep current regarding changes in those standards.

Professional Guidance

- PRECEPT 10. An Actuary shall perform Actuarial Services with courtesy and professional respect and shall cooperate with others in the Principal's interest.

Professional Guidance

- Canadian Rule 13

A member who becomes aware of an apparent material noncompliance with the Rules or the standards of practice by another member shall attempt to discuss the situation with the other member and resolve the apparent noncompliance. In the absence of such discussion and resolution, the member shall report such apparent noncompliance to the Committee on Professional Conduct

**In the US, Precept 13 states you “should consider” to discuss the situation.

Canadian Professional Guidance

Standard 2120.07

- The actuary should ensure that the application of margins for adverse deviations with respect to the insurance contract liabilities and the related reinsurance recoverables results in an increase to the value of the liability net of reinsurance.
  - 2250.02 *The selected margin for adverse deviations should vary:*
    - ***between premium liabilities and claim liabilities***,
    - ***among lines of business, and***
    - ***among accident years, policy years, or underwriting years, as the case may be***

US Professional Guidance

ASOP 43 section 3.6.8

- Uncertainty—The actuary should consider the uncertainty associated with the unpaid claim estimate analysis. This standard does not require or prohibit the actuary from measuring this uncertainty.

ASOP 43 section 3.6.8

- Adverse Deviation—The actuary should consider whether there are significant risks and uncertainties that could result in future paid amounts being materially greater than those provided for in the reserves.

Professional Guidance

- Standard 2120.29
- The actuary would value the insurance contract liabilities and reinsurance recoverables so that their aggregate value in combination with the value of other policy-related items in the statement of financial position appropriately takes account of the time value of money.

Professional Guidance

ASOP 36 Actuarial Statement of Opinion

- 3.4 Stated Basis of Reserve Presentation—The actuary should identify the stated basis of reserve presentation, which is a description of the nature of the reserves. The stated basis often depends upon regulatory or accounting requirements. It includes, as appropriate, the following:
  - whether reserves are stated as being <u>nominal or discounted </u>for the time value of money and, if discounted, the items discounted and the stated basis for the interest;
  - whether the reserves are stated to include an <u>explicit risk margin</u> and, if so, the stated basis for the explicit risk margin

Professional Guidance – ASOP 41 Actuarial Communications

- **3.4.4 Responsibility for Assumptions and Methods**
  - An actuarial communication should identify the party responsible for each material assumption and method. Where the communication is silent, the actuary who issued the communication will be assumed to have taken responsibility.
    - a. If the assumption or method is specified by applicable law (statutes, regulations, and other legally binding authority), the actuary should include the disclosures identified in section 4.2. These disclosures should be made whether or not the actuary believes the assumption or method is reasonable for the purpose of the communication.

Skit Background

- Olivia is a Fellow of the Canadian Institute of Actuaries who owns her own reserving firm.
- Charles is a captive manager for Island Captive Management in Bermuda. Olivia is working with Charles to review the adequacy of the reserves and is the appointed actuary for a Bermuda-domiciled Captive Group that is 100% Canadian owned.

Skit Background

- Jack is Fellow of the Casualty Actuarial Society who also owns a reserving firm. Up to this year, he has done all of the reserving for Island Captive Management. This year he is doing it all except for the Captive Group now done by Olivia. This is a sore subject.

Scene 1: Charles and Olivia

Scene 2: Olivia and Jack

Lights, Camera, Action!

General Questions

- Did Jack materially violate any Actuarial Standards? If so, which ones?

- Does it matter that the aggregate reserves themselves would likely not have changed?

- What options (if any) does Olivia have?

Just Put It In the Model

Committee on Professionalism Education

Professional Guidance

- Precept 1 of the Code of Conduct: “An Actuary shall act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public and to uphold the reputation of the actuarial profession.”

Professional Guidance

- Code of Conduct, Annotation 1-2
  - "An Actuary shall not provide Actuarial Services for any Principal if the Actuary has reason to believe that such services may be used to violate or evade the Law or in a manner that would be detrimental to the reputation of the actuarial profession."

Professional Guidance

- PRECEPT 8. An Actuary who performs Actuarial Services shall take reasonable steps to ensure that such services are not used to mislead other parties.
  - ANNOTATION 8-1. Recognize the risk of Misquotation, Misinterpretation or other Misuse of an Actuarial Communication.

Professional Guidance

- Precept 10 of the Code of Conduct: “An Actuary shall perform Actuarial Services with courtesy and professional respect and shall cooperate with others in the Principal's interest.”

Professional Guidance

- CAS Statement of Principles Regarding Property and Casualty Insurance Ratemaking
  – Principle 1: A rate is an estimate of the expected value of future costs.
  – Principle 2: A rate provides for all costs associated with the transfer of risk.

Professional Guidance

- CAS Statement of Principles Regarding Property and Casualty Insurance Ratemaking, Section III: Ratemaking Considerations
  - Catastrophes
  - Trends
  - Actuarial Judgement

Professional Guidance

- ASOP 13: Trending Procedures in Property/Casualty Insurance
  - Section 3.1 – Purpose or Use of Trending Procedures: The actuary should apply trending procedures that are appropriate for the applicable purpose or use
  - Section 3.3 – Economic and Social Influences: The actuary should consider economic and social influences that can have a significant impact on trends

Professional Guidance

- ASOP 13: Trending Procedures in Property/Casualty Insurance
  - Section 3.1 – Purpose or Use of Trending Procedures: The actuary should apply trending procedures that are appropriate for the applicable purpose or use
  - Section 3.3 – Economic and Social Influences: The actuary should consider economic and social influences that can have a significant impact on trends

Professional Guidance – ASOP 38 Using Models Outside Area of Expertise

– 3.1 Introduction

- In performing actuarial work, an actuary may find it appropriate to use models that incorporate specialized knowledge outside of the actuary's own area of expertise. When using such a model, the actuary should do <u>all</u> of the following:
  a. determine appropriate reliance on experts;
  b. have a basic understanding of the model;
  c. evaluate whether the model is appropriate for the intended application;
  d. determine that appropriate validation has occurred; and
  e. determine the appropriate use of the model.

Professional Guidance – ASOP 38 Using Models Outside Area of Expertise

– 3.2 Appropriate Reliance on Experts

- An actuary may rely on experts concerning those aspects of a model that are outside of the actuary’s own area of expertise. The experts relied upon may either be the experts who provided the model or other experts. In determining the appropriate level of reliance, the actuary should consider the following:
  a. Are they experts in the applicable field;
  b. the extent to which the model has been reviewed or opined on by experts in the applicable field; and
  c. whether there are standards that apply to the model or to the testing or validation of the model, and whether the model has been certified as having met such standards.

Professional Guidance – ASOP 41 Actuarial Communications

- **2.1 Actuarial Communication -** A written, electronic, or <u>oral communication</u> issued by an actuary with respect to actuarial services.
  - **3.4.4 Responsibility for Assumptions and Methods**
    - An actuarial communication should identify the party responsible for each material assumption and method. Where the communication is silent, the actuary who issued the communication will be assumed to have taken responsibility.

Skit Background

- Do Doppelgänger Insurance is a large non-standard auto operation. Every year they purchase reinsurance coverage from Face Slap Re, a Medium sized reinsurance company. Face Slap Re is feeling the effects and are worried about the soft market. However, due to competitive pressure they renewed the reinsurance agreement with Doppelgänger at the same terms as last year.

Skit Background

- Since it is so large, Face Slap Re retrocedes a portion of the Doppelgänger business to Yellow Umbrella Re and are getting ready to compile a submission for next year’s coverage. Needless to say they really need to keep the terms in line with last year.
  - Marshall is an actuary working in modeling and analytics at Face Slap Re.
  - Barney is the chief actuary at Face Slap Re.
  - Ted is an actuary with Yellow Umbrella Re.

Lights, Camera, Action!

Discussion Questions

- Did Marshall violate any Actuarial Standards? If he did, which ones? What should his actions have been?
- Barney encouraged Marshall to use judgment in the trend selection. Is this appropriate?
- Is there any merit to the statement that the reinsurance pricing actuaries should expect optimistic submissions going into a soft market?

Key Takeaways

- Work-related predicaments, particularly when there is fear of falling out of favor with the boss or losing one’s job, can cause an actuary to blur ethical lines.

- Know the Standards that apply to the work you are doing

Professionalism Skit: Consulting Actuaries

Professional Guidance

- Precept 1 of the Code of Conduct:

“An Actuary shall act honestly, with integrity and competence, and in a manner to fulfill the profession's responsibility to the public and to uphold the reputation of the actuarial profession.”

Professional Guidance

- Precept 2 of the Code of Conduct:

"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"

Professional Guidance

- Precept 3 of the Code of Conduct:

"An Actuary shall ensure that Actuarial Services performed by or under the direction of the Actuary satisfy applicable standards of practice"

Professional Guidance

- Precept 13 of the Code of Conduct:

"An Actuary with knowledge of an apparent, unresolved, material violation of the Code by another Actuary should consider discussing the situation with the other Actuary and attempt to resolve the apparent violation. If such discussion is not attempted or is not successful, the Actuary shall disclose such violation to the appropriate counseling and discipline body of the profession, except where the disclosure would be contrary to law or would divulge Confidential Information"

Professional Guidance

- From ASOP 36 – Reserve Evaluation

"If the actuary makes use of other personnel within the actuary's control to carry out assignments relative to analyses supporting the opinion, the actuary should review their contributions and be satisfied that those contributions are reasonable."

Professional Guidance

- From ASOP 23 – Reliance on Data Supplied by Others
  - In most situations, the data is provided to the actuary by others
  - The accuracy and comprehensiveness of data supplied by others are the responsibility of those who supply the data
  - The actuary may rely on data supplied by others, but should review the data for reasonableness and consistency, unless, in the actuary’s professional judgment, such review is not necessary or not practical
  - The actuary is not required to do any of the following:
    - determine whether data or other information supplied by others are falsified or intentionally misleading;
    - develop additional data compilations solely for the purpose of searching for questionable or inconsistent data; or
    - audit the data

Professional Guidance

- From ASOP 43 – Required Disclosures
  - Significant events, assumptions, or reliances
    - Disclose those that have material impact on estimates
    - Disclose assumptions provided by Principal or outside party
    - Additional disclosure if the actuary cannot determine reasonableness
  - Type of range (if applicable); Examples include:
    - Range of estimates of the intended measure
    - Confidence level - disclose risks
  - Changes in assumptions, procedures, methods, or models if material
    - Applicable if study is an update of prior analysis
    - Discuss reasons for change (not required to quantify)

Professional Guidance

- From ASOP 41 – Subsequent Events
  - The actuary should disclose any events that
    - Became known after the latest information date
    - Become known to the actuary before the report is issued
    - Have a material effect on the findings if it were reflected, and
    - Are not practical to reflect in the report before it is issued

Professional Guidance

- From ASOP 41 – Explanation of Material Differences
  - Necessary if a later communication includes materially different results or expresses a different opinion than a former communication on the same issue
  - Should make clear that earlier results or opinion are no longer valid, and it should explain the reasons for the change

Skit Background

- Costanza and Benes is a small actuarial firm doing consulting work. Their primary work product is Statements of Actuarial Opinion. They've had a stagnant practice for a number of years, with their client base mostly made up of small regional personal lines companies.

- In mid-December, Vandoleigh Insurance Company, a small regional commercial lines carrier looked to engage their services. They've recently fired their long-time opining actuary, and need to appoint a new one by year-end to do complete their Opinion.

Lights, Camera, Action!

Key Questions

- Guidance from which specific professional standards would have been most helpful in either mitigating or even preventing the firm from landing in their current predicament? Why?

- Do the firm's actions warrant any sort of disciplinary action from the ABCD? If so, what level of discipline and why?

Small Group Discussion

Key Questions

- Guidance from which specific professional standards would have been most helpful in either mitigating or even preventing the firm from landing in their current predicament?

- Do the firm’s actions warrant any sort of disciplinary action from the ABCD? If so, what level of discipline and why?

Possible Courses of Action

- Complete new evaluation without updating prior evaluation
- Issue revisions to prior evaluation prior to completing new evaluation
- Go to the ABCD for guidance
- Report George to the ABCD?

Key Takeaways

- As Actuarial analyses gets more and more complex, the actuary should work to ensure they have an understanding of the analyses and that the work is properly documented.

- Know the Standards that apply to the work you are doing

Case Studies Overview

- “Real life” predicaments
- Structure of session
  - Read the case together
  - Review polling question
  - Discuss response

- Disclaimers:
  - Exercise is for educational purposes only.
  - Opinions expressed do not represent the opinion of the respective employers or the Casualty Actuarial Society.
  - No authoritative guidance should be expected of the panelists.

Case Study 1: Draft Issue

- You are a consulting actuary working on an actuarial opinion for an insurance company.
- Your boss has "owned" this account for a number of years and has close working relationships with the company executives. She wanted the client to see others in the firm so this is the first time she is letting another actuary serve as the appointed actuary with the boards approval.
- You deliver a draft of the opinion to the insurance company. When you are working on the draft report exhibits, you realize that you made an error on the excess loss factors. If you correct the error, it would move the actuarial central estimate 0.6%, but the carried reserves would still be in the reasonable range.

Case Study 1: Draft Issue

- Given that you have only delivered the draft, you caught it in time and plan to just update the documentation.
- Your boss <u>does not</u> want you to make the update. “The 0.6% difference is not material and the opinion does not change.” She goes on to state that the client is very sensitive and <u>freaks out</u> if there are any changes between draft and final. That is why she was always the one to do the opinion…she is a perfectionist.
- When you say you are not comfortable with that, she say you can just fix the issue in the documentation as the opinion itself only states the carried reserves not the actuarial central estimate, but don’t tell the client.

Case Study 1 Discussion

- In this situation, what is the best course of action?
  a. Your boss is right. It does not seem material so you can disregard the update. You can just make a note that the excess loss factors should be reviewed in the next analysis.
  b. You should go over your bosses head and tell the client right away. They are your principal and deserve to know. ..hopefully you can reason with them then update your documentation.
  c. You should just fix it and not bring it to the clients attention. It is a very minor issue and the opinion remains the same so they don't need to know.

Case Study 2: To Trend or Not to Trend

- You’ve been working on a pricing analysis for weeks and have a steep severity trend leading to a +10% rate indication in your largest state. After a peer review, your boss wants you to get the indication filed right away.

- While reading an economics article in your free time, you see that a recent and temporary economic phenomenon may be causing your severity issue. It makes you think that maybe you should back off of your severity trend.

- Once back at work, you realize that it will take a week or two to put together the analysis to determine if the economics article and your loss experience are really tied. This would make you miss your filing deadline.
- Just doing some sensitivity testing, if you take the trend to 0% which you think the new info might support, the indication goes slightly negative.

Case Study 2 Discussion

- In this situation, what is the best course of action?
  a. You should meet your deadline. It is your largest state and the current losses are real so the rate should reflect that.

  b. You should push the deadline. If the rate indication is so strongly influenced by the trend and you need to do research to see if other non-insurance data does in fact suggests the trend not as strong or maybe non-existent.

Case Study 3: Almost Perfect

- You are a consulting actuary and you are working on a reserve opinion for a small insurance company.
- The company provides you with the prior opinion and supporting documentation (which is spectacular!)
- However, upon examining the data you see some formulas in a spreadsheet that are making adjustments within the loss triangles for which there is no documentation.
- You bring this up with your company contact. After 4 weeks, she tells you she has no idea why that adjustment would be made, but that she was sure there was a good reason as the prior actuary was very smart and talked to the claims guys a lot.
- If you make the same adjustment, the carried reserves are in your reasonable range. Without it, they are deficient.

Case Study 3 Discussion

- In this situation, what is the best course of action?
  a. Use the adjustments. The rest of the documentation is amazing so there must be some reason why this adjustment was being made.
  b. Use the adjustments, but just make sure to document it. Documentation will set you free, right?
  c. Attempt further dialog with the company to see if you can determine what the adjustment is for or if not, reach out to the prior actuary.
  d. Don’t make the adjustment. There is no support for it which makes it unreasonable in your eyes and you are the one that has to sign your name.

Case Study 3 Discussion

- Do you need to discuss this with the prior actuary or go to the ABCD?
  a. Yes. This could be a material violation of the ASOP (and therefore Code of Conduct Precept 3) as the actuary either made an error with the formulas or did not document all assumptions.
  b. Maybe.
  c. No. The violation was not material. It was likely a documentation item she missed based on how nice the rest of the documentation was…she had nothing to hide.

Case Study 4: Overfit Model

- You were recently hired by a small but growing primary insurer which writes mostly personal lines. In the past, class plan reviews have been done using traditional actuarial methods, but for the upcoming homeowners review the chief actuary has asked the pricing actuaries to use GLMs to calculate relativities.
- The homeowners class plan analysis was completed shortly before you joined the company, and your first assignment is to oversee the filing, approval, and implementation of the new class plan.
- You review the model output, as well as the goodness-of-fit and lift results. Much to your surprise, you learn that the modelers never separated the data into training and test sets, and that the model lift is being evaluated on the data that was used to build the model.

Case Study 4: Overfit Model

- You do some work to analyze the model's performance on holdout data, and in your opinion the model actually underperforms the current rating structure.
- You discuss these concerns with your boss, who is not an actuary, but he is very dismissive of them. He informs you that much work has gone into the new rating program, and that deadlines have been repeatedly pushed back. At this point, he says, your job is to file what we have, not redo the modeling.
- You try to explain to your boss that, in your opinion, the company would be better off keeping its current rating plan in place than filing the proposed one. His response is that, after all of the work that has gone into this project, they would look very foolish if they didn't implement something.

Case Study 4 Discussion

- In this situation, what is the best course of action?
  a. You should follow your boss's directive and work on filing and implementing the proposed plan. The modeling work was done prior to you joining the company, and as long as you don't lie or say anything deceptive about the work, you are not in violation of any actuarial standards.
  b. You should go to the chief actuary with your concerns, even though that will likely upset your new boss and strain the relationship.
  c. You should refuse to defend a model that you believe is inaccurate and will harm the insurer's profitability. If that means getting fired from a company to which you were just hired, then so be it.

Case Study 5: Difficult Client

- You are a consulting actuary for a mid-size firm and you work mainly on reserve opinions. Your clients include insurers of all sizes.
- It’s near year-end, and though you are very busy, things are mostly going well.
- The only problem is, there is a chief pricing actuary of one of your smallest clients who calls you relentlessly. He feels you don’t understand one of his company’s fasting growing products, and argues by not splitting that product out in the analysis you are significantly overestimating reserves.
- He sends you mounds of news articles discussing economic trends and tries to show how that program’s losses follow those trends (which are declining.)
- The disagreement is such that your ranges of reasonable reserves don’t even meet.

Case Study 5 Discussion

- In this situation, what is the best course of action?
  a. You should take the time to try to reconcile your results with that of the company actuary. Splitting out that line of business may be correct and it would be a violation of the standards to not go through the due diligence.
  b. This is a small client and it is a very busy time of year for you. You risk missing deadlines by changing the analysis now which is unfair to other clients. It's probably best to ignore him for now and maybe look at it next year.
  c. You don't want to deal with the company actuary's incessant questions, but it would be wrong to blow off a client. The best course of action is to discuss this situation with your boss and see if you can come to an agreeable solution.