

Professionalism for Actuaries in Entrepreneurial and Non-Traditional Roles

May 6, 2010 Webcast



SOCIETY OF ACTUARIES

Today's Panelists

- **Chris DesRochers, LECG-SMART**
- **Michael L. Frank, Aquarius Capital**
- **James Ramenda, Northington Partners**
- **Mike Boot, SOA - Moderator**



Agenda for Today

- Introduction
- Case study issue in Investment, Capital Markets, and M&A – James
- Non-traditional roles- Michael
- Actuary as Expert Witness-Chris
- Actuary as Litigation Consultant-Michael
- Q&A - All



Code of Conduct – Common Sense Ethics



Resources available to actuaries

- Code of conduct
- Regulations
- Qualification standards
- Actuarial Standards of Practice
- Peers
- Common sense
- Other support networks



Pop Quiz

- Which actuarial organization is responsible for adopting and overseeing the Code of Professional Conduct?
 - A. AAA
 - B. SOA
 - C. CCA
 - D. ASPPA
 - E. CAS
 - F. All of the above
 - G. A and B
 - H. A, B and E



Pop Quiz

- Which actuarial organization is responsible for adopting and overseeing the Code of Professional Conduct?

F. All of the above



Code of Professional Conduct

- You are required to keep current with the Code, as well as applicable Law and other rules of professional conduct within your jurisdictions
 - http://www.actuary.org/pdf/prof/code_of_conduct.pdf



Professionalism: Capital Markets Perspective

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May 6, 2010



Capital Markets Perspective

- Experience includes:
 - Stock Research
 - M&A
 - Private Equity
- Common themes:
 - Making Assumptions/Models/Projections
 - Valuations/Opinions



Special Considerations

- Time frame usually compressed
- Market pricing in real time
- New emerging areas
- Limited data
 - Sometimes only publicly available
 - Client's/Counterparty's documents as given



Client Realities

- Actuarial value vs. market value
 - Want a market value
 - Haven't thought about the differences
- Level of understanding of actuarial work
- Level of understanding of insurance



Understanding the Principal

- Analytical user
- Decision-maker
- Investors
- Others? Future? (e.g., litigants)



Actuarial Services

*“Professional services provided to a Principal by an individual acting in the **capacity of an actuary**. Such services include the rendering of **advice, recommendations, findings, or opinions** based on **actuarial considerations**.”*



Pro-Active Approach

- Engagement letter: two-pronged approach
 - Negative: What the work **is not** (and why)
 - Positive: What the work **is** governed by (and why)
- Reiterate in the work product & disclaimer



Case Study: Stock Valuation

- Investors wish to understand more than common ratios (P/E, P/BV)
- Reconcile Statutory & GAAP
- Experience analysis
- DAC Recoverability
- Embedded Value



Embedded Value

- Insight beyond GAAP
- Intrinsic value of a stock
- Private market value
- Part of disclosure in some regions outside the U.S.



Data Limitations

- Embedded value requires data not publicly available
- Approximations should be made with care (*The Actuary*, May 2004)
- Disclose limitations – distinguish work from “Actuarial Services”



Case Study: M&A

- Again, focus is on market value
- Advisor/Intermediary, not actuary
- Set ask (bid) price
- Assist in auction, due diligence, negotiation



Potential Gray Areas

- Assess impact of emerging experience on the price/process
- Actuarial values may be available or in development
 - Input to the advisor, not vice versa
 - Best to have formal, independent
- Clarify advisor role (e.g., B-D, RIA)



Some Observations

- Use of cash flow testing, recoverability studies, etc., in lieu of a valuation
- Spurious values (less common than in the past)
- Model validation – volume, mix, but... not always income



Case Study: Private Equity

- Business projections
- Impact of new products, features on consumer behavior, experience
- By definition, no experience exists
- Industry knowledge vs. actuarial knowledge



Case Study: Emerging Areas

Qualification Standards (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.”



Potential Issues

- No prior data (or no insured data)
- Historical examples:
 - LTC insurance
 - Life settlements
- Troubled business
- Desire for a fresh look



Future of the Actuary/CERA

- Interest in expanding the role of actuaries/CERAs
 - ERM across industries; globally
 - May encounter the same type of potential dual governance systems as in Capital Markets



Professionalism: Non-traditional Roles

Michael L. Frank, ASA, FCA, MAAA

President and Actuary

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May 6, 2010



Knowledge in the Insurance Space

- Actuarial - Pricing, Reserving, Product Development
- Underwriting
- Financial Reporting & Analysis
- Claims Management
- Reinsurance Purchasing
- Broker/Intermediary Issues
- Product Development
- Audits (e.g., Forensic Audits)
- Expert Witness



Roles of Intermediary

- Bring Parties Together in Insurance/Reinsurance
- Identify Type of Transactions
- Involvement in Recording of Transaction
- Knowledge of Pros/Cons of Transaction
 - Provide easily understandable solution
 - Identify economics of both parties
 - Underwriting your partners (is there a risk of not being paid once you close a deal?)



Qualifications/Credibility

- Work Experience
 - Experience on the subject matter
 - Previous Employment
 - Credibility – Having a positive track record
- Other Designations
 - Credentialed actuary
 - Licensed Broker/Agent
 - Reinsurance Intermediary



Sample Intermediary Transactions

- Retail Brokering (Life, Accident & Health Insurance)
 - Employee Benefits
- Reinsurance
 - Traditional Transactions
 - Structure Risk Finance/Reinsurance
- Retiree Life & Health Buyouts
- Life Settlements
 - Traditional Settlements, Hybrid Transactions, Options
- Acquisition/Sale of Company
- Assumption/Sale of Block of Business



Success Factors as an Intermediary

- Ability to Source Successful Deals
 - Finding Motivated Buyers/Sellers
 - Credibility - Positive Track Record
 - Underwrite deal from buyer/seller's perspective
- Provide Value Added Services (Analytics)
- Identify your role in transaction (e.g., finder)
 - Do parties think you are providing actuarial services in your role?
 - How are they using the information? Was it as intended?



Success Factors (Continued)

- Know how you are getting paid & who will be paying
 - Consulting Fee and/or Successful Transaction Fee (or Commission) – May be a combination
 - Have an agreement with payer(s) - Seek legal advise
- Reputation Risk
 - Do you want to be associated with this transaction (or parties of this transactions)?
- Managing the “Highs & Lows”
 - You might need a psychologist
 - Successful deals may take a while
 - Be prepared to deal with non-level income streams



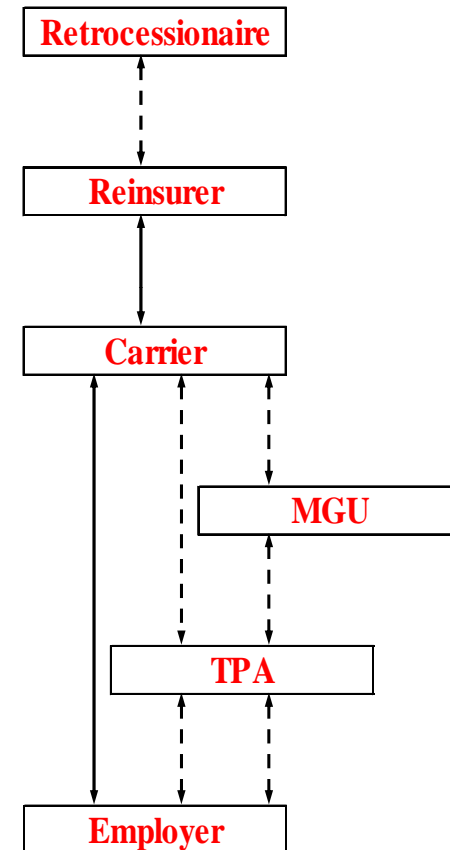
Reasons for Failed Transactions

- Ultimately does not work for one party
 - Economics
 - Executives not comfortable with transaction
- Transaction takes too long
 - Resources allocated elsewhere
 - Change in liquidity
 - Reason for transaction no longer there
- Regulatory Environment
 - Ability to meet risk transfer requirements
 - Non-preferred classes of business (e.g., Structure Finance)
 - Change in tax implications – LILAC policies adversely impacted



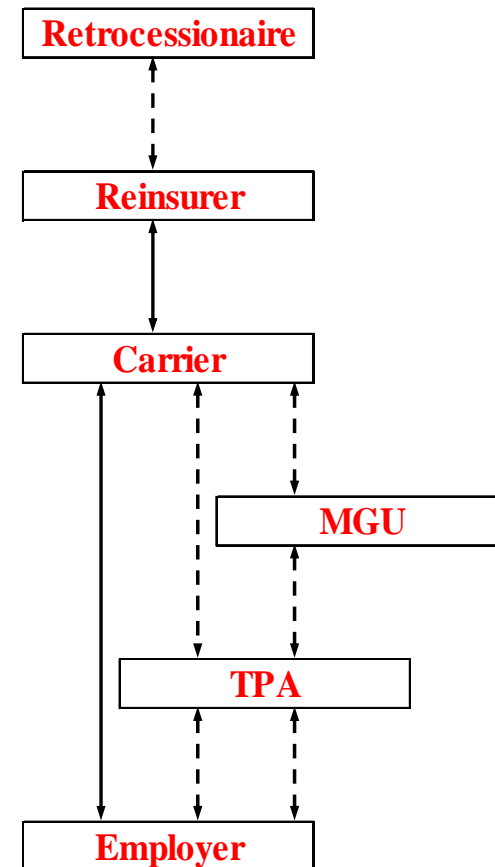
The Reinsurer's Perspective – The Reinsurance Food Chain

- Employer contracts with carrier
 - Fully insured or Self-Funded
- Carrier's administration options:
 - Provided directly to employer
 - Outsourced admin and/or marketing through TPA
 - Outsourced underwriting through MGU
- Reinsurer assumes risk from carrier
- Multiple reinsurers/retrocessionaires
- **Brokers/Reinsurance Intermediaries**



Reinsurance “Food Chain”

- Potential for Disputes
 - Underwriting -- MGUSs
 - Claims Administration – TPAs
 - Brokers/Intermediaries
 - Direct Writer vs Reinsurer
 - Reinsurance vs Retrocessionaire
 - Many combinations
- Challenges in the “food chain”
 - Misrepresentations/Miscommunications
 - Results may vary depending on where you are in the food chain.



Potential roles in the “food chain”

- Broker: Selling the underlying policy to employer/insured
- Underwriter: Assessing the risk based on actuary’s pricing model
- Pricing Actuary: Developing the rate model used by the underwriter
- Valuation Actuary: Setting reserves and financial forecasts for the business
- Reinsurance Intermediary: Placing the reinsurance and/or retrocession coverage(s)
- Product Development

- *QUESTION: DO THE PARTIES KNOW WHAT MY ROLE IS?*



Precepts

- Precept 1 Professional Integrity
- Precept 2 Qualification Standards
- Precept 3 Standards of Practice
- Precepts 4-6 Communication & Disclosure
- Precept 7 Conflict of Interest
- Precept 8 Control of Work
- Precept 9 Confidentiality
- Precept 10 Courtesy & Cooperation
- Precept 11 Advertising
- Precept 12 Titles & Designations
- Precepts 13-14 Violations of Code of Professional Conduct



Life Settlements “Food Chain”

- Client
 - Insured, Policyholder & Beneficiaries
- Referring Party(ies) – Broker/General Agent/Other
- Life Settlement Broker(s)
- Life Settlement Provider
- Life Settlement Funder(s)
- Funders’ Funders - Private Equity/Hedge Funds
- Reinsurers
- Medical Underwriting
- Other Parties
 - Premium Finance, Aggregators, Trusted Advisors, Lawyers
- And so on.....



Services Outsourced

- Actuarial Valuations
 - Development of Pricing Models & Underwriting Box
 - Portfolio Valuations
 - Financial Modeling
- Brokering & Consulting – Sourcing Policies
 - First Time Life Settlement Policies
 - Intermediary Services for Portfolios
- Product Development Consulting (e.g., Options)
- Legal & Compliance Consulting
- Financing
- Fiduciary Services



Risks & Considerations

- Data: How credible is the data that we are working with?
- Reputation Risk
 - History of Industry
 - What parties are you dealing with?
 - How does changes in regulations impact this market?
- Representation
 - How did you disclose your role?
 - How are the other parties representing your role and is it consistent with you understanding?



Retiree Buyouts - Necessary Data to Complete Actuarial Valuation

- Summary of Plan Offerings
- Census Information
- Plan Costs
- Actuarial Assumptions
- Seller
 - Needs to write a large check (cash transaction)



Actuarial Assumptions (Pricing vs Valuation)

- Benefit costs – Pre 65 vs Post 65
- Healthcare cost trend rate
- Interest discount rate
- Mortality rates
- Aging Assumptions (Age/Sex Factors)
- Asset return on investments (if funded)
- Plan Participation % (potential opt-outs)
- Contribution Rates



Challenges in Buyout

- Quality of Data
- Impact of Current Experience
- Limitations in collective bargaining flexibility
- Fully insured vs. Self-funded
- Can Buyer adjust contributions or plan design?
- Availability of funds in the public sector?



Expert Testimony by Actuaries: Professionalism Issues under ASOP 17

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LECG SMART
Senior Managing Director



“Experience has shown that opposite opinions of persons professing to be experts may be obtained to any amount; and it often occurs that not only many days, but even weeks, are consumed in cross-examinations, to test the skill or knowledge of such witnesses and the correctness of their opinions, wasting the time and wearying the patience of both court and jury, and perplexing, instead of elucidating, the questions involved in the issue.”

*Winans v. The New York and Erie Railroad Company,
62 U.S. 88 (1858)*



Introduction

- For many years, actuaries have served as expert witnesses in a variety of court proceedings.
 - Recently been increasing in scope and frequency.
 - Assignments cross virtually every actuarial specialty, and may involve individuals, corporations or various governmental agencies and bodies.
 - It is expected that this trend will continue, leading to increasing public exposure of actuarial experts.
- The topic of this discussion is to focus on three professionalism-related issues:
 - Standards of practice that apply to expert testimony.
 - Standards generally applied by the courts in judging expert testimony.
 - Case studies in which actuarial testimony has been excluded by the courts.



Background

- There are two primary actuarial standards of practice that apply to expert testimony.
 - ASOP 17 Expert Testimony by Actuaries.
 - ASOP 41 Actuarial Communications.
- In addition to complying with this standard, the actuary providing expert testimony should review and comply with applicable actuarial standards of practice, the Qualification Standards for Prescribed Statements of Actuarial Opinion, and the Code of Professional Conduct.
 - The actuary providing expert testimony should satisfy the Qualification Standards for Prescribed Statements of Actuarial Opinion promulgated by the American Academy of Actuaries in each practice area that is a primary subject of the actuary's testimony.



Professionalism

Actuarial opinions that are widely divergent may raise a question about the reasonableness of one or more opinions. This question is likely to arise when the basis for any opinion is not soundly thought out or not well explained. By contrast, actuarial opinions that are supportable and carefully prepared and explained, though divergent, can generate confidence in actuaries' competence to evaluate the costs and benefits of future contingent events. The focus of this standard is on the preparation and delivery of sound expert testimony by actuaries.



ASOP 17 -- Scope

- ASOPs apply to actuaries providing professional services in the United States.
- ASOP 17 applies to actuaries when they testify as actuarial experts at trial, in hearing or arbitration, in deposition, or by declaration or affidavit.
- ASOP 17 does not apply to actuaries providing litigation support other than the expert testimony itself.
 - Actuaries providing such litigation support may consider the guidance in ASOP 17 to the extent that it is applicable and appropriate.



ASOP 17 -- Definitions

- Expert—One who is qualified by knowledge, skill, experience, training, or education to render an opinion or otherwise testify concerning the matter at hand.
- Actuarial Opinion—A conclusion drawn by an actuary from actuarial knowledge or from the application of one or more actuarial methods to a body of data.
- Testimony—Communication presented in the capacity of an expert witness at trial, in hearing or arbitration, in deposition, or by declaration or affidavit.
 - Testimony may be oral or written, direct or responsive, formal or informal.



Advocacy

- Nothing in this standard prohibits the actuary from acting as an advocate.
 - Acting as an advocate does not relieve the actuary of the responsibility to comply with the Code of Professional Conduct and to use reasonable assumptions and appropriate methods.
- ASOP 17 appears to differ from other actuarial standards with respect to advocacy.
 - Canada.
 - UK.



Other Issues

- When the actuary testifies concerning other relevant testimony, including opposing testimony, the actuary should testify objectively, focusing on the reasonableness of the other testimony and not solely on whether it agrees or disagrees with the actuary's own opinion.
- If, after giving expert testimony, the actuary discovers that a material error was made, the actuary should make appropriate disclosure of the error to the principal or the principal's representative as soon as practicable.
- An actuary must be prepared to justify the use of any procedures that depart materially from those set forth in this standard and must include, in any actuarial communication disclosing the results of the procedures, an appropriate statement with respect to the nature, rationale, and effect of such use, subject to the constraints imposed by the nature of the forum.



Federal Rules of Evidence Rule 702

- A witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if:
 - (1) the testimony is based upon sufficient facts or data,
 - (2) the testimony is the product of reliable principles and methods, and
 - (3) the witness has applied the principles and methods reliably to the facts of the case.



Daubert

- Rule 702 has been amended in response to *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and to the many cases applying Daubert.
- Daubert announced a four-part test to determine admissibility of an expert witness's testimony.
 - Is the witness an expert in the sense of having credentials or experience?
 - Does the testimony have a basis in fact?
 - Is it relevant and reliable?
 - Are there other factors that bear upon the question of admissibility?



Daubert Criteria

- 1) Whether the expert's technique or theory can be or has been tested,
 - a. whether the expert's theory can be challenged in some objective sense, or
 - b. whether it is instead simply a subjective, conclusory approach that cannot reasonably be assessed for reliability;
- 2) Whether the technique or theory has been subject to peer review and publication;
- 3) The known or potential rate of error of the technique or theory when applied;
- 4) The existence and maintenance of standards and controls; and
- 5) Whether the technique or theory has been generally accepted in the scientific community.



Case Study #1

- Case dealt with variable annuities purchased by qualified retirement plans (IRAs).
- Plaintiffs alleged that they were not told that the tax deferral feature was “unnecessary” or redundant when a variable annuity was used in a tax-qualified retirement arrangement.
- Plaintiffs offered expert testimony that the defendant insurer did not disclose an “implicit charge” for tax deferral which plaintiffs argued would “erode any ‘other reason’ to purchase the variable annuity inside a qualified plan.”



Case Study #1

- While finding Actuary A to be qualified as an expert, the Court held that he had not “identified any reliable actuarial method that he has used to form his opinions.”
 - Actuary A did not provide any other objective analysis or study to support the assertions in his expert report.
 - Actuary A could not point to an academic article or actuarial discussion paper that refers to an “implicit charge” or “implicit cost.”
 - Although Actuary A stated he had discussions with other actuaries on these subjects, he could not identify an actuary that he talked to about these issues.
- The Court also rejected Actuary A’s opinions on the further grounds that they were not supported by sufficient facts, noting that he erred in relying on plaintiff’s attorneys to select and provide to him the documents necessary to form his opinions.



Case Study #2

- The court found that the report filed by Actuary B had improperly reused verbiage from a report he had filed for the same lawyers in a separate case in a different state.
 - Was also “substantially similar” to the language of a report filed by an entirely different expert in a Louisiana case.
- Concluded that the report reflected the view of plaintiff attorneys, not the independent expert.



Exclusion of Experts

- Rejection of expert testimony is the exception rather than the rule.
- According to PWC, from 2000 to 2007, 50% of all financial expert challenges were directed specifically at economists, accountants, and statisticians.
- These groups were also the most likely of any of the financial witnesses to survive a challenge.
 - Lack of reliability was the leading cause of a financial expert opinion being excluded in whole or in part, followed by lack of relevance and lack of qualifications.



Summary

- Standards are a key element in an expert engagement.
 - Actuarial science is not a “cutting edge” discipline.
 - Assuming you stick to generally accepted practices, testimony will be considered based in fact.
- The core of actuarial science is the standards—courts can use them to come to a common understanding of how contingent financial transactions can be evaluated.



Summary

- Standards set commonly accepted limits on what individual experts can do.
 - Most trial judges would find it very discomfiting to have experts rely on nonstandard methodologies.
- When an actuary presents evidence based on a novel methodology, yet can show that it makes sense in light of the issue presented, the court probably will admit the testimony.
 - This is especially true if the expert can point to published opinions of other experts who think that the new approach is an acceptable way to proceed.



Professionalism: Actuary as Litigation Consultant

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President and Actuary

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May 6, 2010



Challenges of Expert Witness Work

- The initial engagement/presentation
- Being impartial regardless of who is paying the bill
- Sticking to the facts
- Educate the “court” on a subject
- Addressing conflicts of interest
- Prior Work by Expert – Does opinion conflict?
- Is “Expert” also a “Fact” Witness?



Challenges (Con't)

- Understanding the “Big Picture”
- Did your opinion change in your mind through the process?
- Knowledge of the topic
- Ability to articulate
- Integrity
- Availability of Time



What might be in an Expert Report?

- Introduction
- List Key Parties in Case
- Documents/Information Reviewed
- Statement of Facts
- Process for Developing Opinion
- Supporting Facts/Analysis
- Executive Summary/Conclusion
- Disclosure (ASOP #17)
- Supporting Exhibits



Do you know how to handle the following questions/topics?

- Reserve/Liability Valuations
- Actuarial Equivalency
- Premium Adequacy
- Solvency Reviews
- Experience Rating
- Risk Transfer (e.g., 10/10, finite risk, others)
- Valuing impact of disputes/damages
 - Economic valuations/life expectancies



Is Actuarial Science a Science?

How does it apply in the legal system?



What is the correct mortality tables to use?

- Types of Tables
 - SOA 1975-80 Basic Table (Later 1985-90, 1990-95)
 - 2001 VBT or 2008 VBT (Valuation Basic Table)
 - 1980 CSO or 2001 CSO (Commissioner Standard Ordinary)
 - RP2000 – Retirement Protection Act in 1994
 - 83 GAM or 94 GAM (Group Annuity Mortality)
 - US 91 Table
 - UP 84 Table (Uninsured Pension)
 - Others – Industry vs Homegrown vs Hybrid Tables



Tips for Testimony

- Listening is Important
- Preparation is Key
- This is not a memory test
- Pace yourself
- Get a good night sleep if possible
- The process is not fun.
- Review Precepts, ASOPs and related items



Resources to Know

- Actuarial standards of Practice (ASOPs)
 - Know these – well this is your “bible”
 - Today: There are 44 of them – Know which apply
 - Find them at the following address:
<http://www.actuarialstandardsboard.org/asops.asp>
 - Know the standards, the exceptions, the theory, the practical application(s)
 - Know that they are “safe harbors”, not recipes especially based on the facts



Code of Professional Conduct

- Revised Code of Professional Conduct took effect 1/1/2001.
- The code identifies the professional and ethical standards required of actuaries who belong to the Academy.
- Identical codes have been adopted by the Society of Actuaries, the American Society of Pension Professionals and Actuaries, the Casualty Actuarial Society, and the Conference of Consulting Actuaries.
- 14 Precepts
- http://www.actuary.org/pdf/prof/code_of_conduct.pdf

SUGGESTION: Re-read this before accepting the project.



Precepts

- Precept 1 Professional Integrity
- Precept 2 Qualification Standards
- Precept 3 Standards of Practice
- Precepts 4-6 Communication & Disclosure
- Precept 7 Conflict of Interest
- Precept 8 Control of Work
- Precept 9 Confidentiality
- Precept 10 Courtesy & Cooperation
- Precept 11 Advertising
- Precept 12 Titles & Designations
- Precepts 13-14 Violations of Code of Professional Conduct



Expected Questions

- Do you have the correct credentials? (Actuarial and non-actuarial)
- Have you met the continuing education requirements to provide opinion/testimony?
- Did you prepare the report?
- How many hours did you spend?
- What did you rely on from client?
- What documents did you review?
- How much were you paid?
- Would you consider your opinion an actuarial opinion?
- What ASOPs and other published information support your opinion? Is your opinion the industry standard and if not, then what is?
- Are you published in the subject matter? Will it haunt you later?



Testimony – Special Considerations

- Anticipating project workload
 - May be tricky
 - It will impact other client work (plan accordingly)
- What do I charge? Premium for deposition ?
- How paid? Who pays? When paid?
 - Contract/Service Agreement
 - Will outcome of case impact whether you get paid?
 - Will entity be around to pay you?
 - Hold harmless and indemnification
- Budgeting for other expenses (e.g., travel)



What was learned from Expert Witness Work?

- Develop better work products
 - More accurate and consistent work
 - Peer reviews
- Obtain a different perspective of client projects
 - Better understanding of client's use of final product
- Become more of a student of the professional
 - Additional review of Actuarial Standards of Practice
 - Additional review of Code of Professional Conduct
 - ABCD Board can be a resource for challenging issues!



QUESTIONS?

