ARE YOUR OPINIONS AND ACTUARIAL REPORTS MEETING THE EXPECTATIONS OF REGULATORS AND OTHERS?

Casualty Loss Reserve Seminar 2009

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Meeting Expectations

Casualty Loss Reserve Seminar

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By:

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OUTLINE OF PRESENTATION

- Background on Herbers
- General Observations & NAIC CATF Guidance
- Others' Review of My Work
- My Review of Others' Work
- General Comments

Background on Herbers

- COPLFR Member since 1998
  - Faculty for AAA Seminar on Effective P/C Loss Reserve Opinions
  - Practice Note Subcommittee
- Appointed Actuary for 28 domestic P/C companies / RRG’s in 2008
- Loss Reserve Specialist / AA for dozens of captives
- CAS paper on Materiality and SAOs (2004)

Background on Herbers

- 24 years consulting experience
- SAOs, feasibility studies
- Funding/reserve studies commonly reviewed by regulators, auditors, reinsurers, fronting carriers, competitors
- Audit Support experience
- Financial Examination feedback

General Observations

- Focus of my comments are on actuarial reports – not on SAOs or AOS
- NAIC CATF – Regulatory Guidance Memo on Actuarial Report noted three notable weaknesses in documentation of many actuarial reports:
  - Expected Loss Ratio
  - Actuarial Judgment
  - Entity

General Observations

- Report should contain exhibit summarizing changes in estimates from prior analysis, with extended discussion of significant factors underlying the changes – *in order to improve transparency of disclosures*
- Exhibit comparing held reserve amounts with actuarial indications
- Reconciliation exhibit between financial statement and data provided to actuary
- Added disclosures for “roll forward” type analyses

Others' Review of My Work

- Document judgments underlying important assumptions – "What are the soft spots"

  - annual trend rates
  - benchmark loss development patterns – source and reasonableness given situation at hand
  - implied loss ratios
  - ratios of ceded to direct
  - changes from prior years

- Schedule P Reconciliation

Annual Trend Rates

- -2.5% WC loss cost trend?
- 0% severity trend for nonstandard auto?
- +20% trend for nursing home professional liability?
- were exposure trends contemplated?
- Sources
  - Masterson Indices
  - Rate Filings
  - Special Studies
  - Fast Track

Benchmark Loss Development Patterns

- by Line / Subline [GL – OL&T/M&C/Products versus Prof. Liability]
- Primary v Excess
- by Sector (trucking, contractors, staffing, manufacturers)
- specialty lines (garage, D&O, warranty, professional liability)
- Sources

Schedule P Reconciliation

- paid amounts gross/net of salvage/subrogation
- loss v DCC
- reconcile A&O expenses by calendar year
- A&O as % of gross v net
- reconcile to held IBNR?
- by line v by program

My Review of Other’s Work

- Document judgments underlying important assumptions

  - preponderance of optimistic v pessimistic assumptions

  - client confidential “benchmarks”

  - selected values compared with actuarial indications

  - perpetuation of “prior year” values when data shows movement

  - changes since prior year?

My Review of Other's Work

- Independent Review
  - Use same structure but use my own assumptions
  - Truly independent review
  - May impact only a portion of overall reserves
- Peer Review
  - ASOP 41 (Actuarial Communications) states

> "(A)n actuarial report should identify the data, assumptions, and methods used by the actuary with sufficient clarity that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the actuary's work as presented in the actuary's report."

Review Template

ASOP 41, section 3.1.2 states that "(t)he actuary should take appropriate steps to ensure that the **form** and **content** (emphasis added) of the actuarial communication are clear and appropriate to the particular circumstance, taking into account the intended audience."

Form

- Is the client requesting the performance of the actuarial analysis clearly identified?
- Is the actuary or actuaries responsible for the actuarial report clearly identified?
- Is the project scope clearly defined?
- Is the work product clear?

Review Template

Content

- Are all assumptions and methods specified?
- Are the assumptions and methods reasonable for this assignment?
- Are the data sources identified and appropriate for their use in the analysis?
- Are the resulting calculations correct?
- Are the results, findings and recommendations reasonable and adequately supported by the analysis?
- Does the work product meet actuarial standards of practice or other professional standards?
- Are any reliances and limitations appropriate and clearly delineated?
- Is the potential variability of results adequately discussed?

General Comments

- Documentation of assumptions is often sparse
  - Background section of report with info on retentions, deductibles, unique program features is invaluable
  - Are LAE included in losses? Was A&O LAE considered?
- Footnotes to exhibits leave something to be desired
- Data limitations are often significant and need discussion
- Tables, charts and graphs can add immeasurably to understanding of report

Q & A

Are your Opinions and Actuarial Reports meeting the expectations of Regulators and Others?

Nicole Elliott, ACAS, MAAA
Texas Dept of Insurance
CLRS 2009

How is Opinion content governed?

- Casualty Actuarial & Statistical Task Force (CASTF) of the NAIC
- NAIC P&C Annual Statement Instructions
- COPLFR Practice Note with Regulatory Guidance
- State specific regulations
- ASOPs

Presentation Outline

- Common Issues:
  - Opinion
  - Summary
  - **Report**
- Statistics

Opinion: RMAD Comments

- The entity's specific risks should be addressed, not broad external influences
- Was RMAD evaluated in a solvency context? (Consider leverage and RBC requirements)
- Consider carried reserves' relationship to the range as a possible risk

Opinion: RMAD Comments *cont.*

- RMAD on a Gross basis, but not Net?
- Is the conclusion clear? Yes or No.
- Are you using canned or prescribed language?
- RMAD amount vs. Range – they are independent but Range should be considered when deciding on RMAD

RMAD conclusion - *example*

- Materiality standard = $1.5M
- Range = $13.5M to $16.5M
- Carried = $14.5M
- Compare carried reserves to the high end of the Range = $2M
- Compare this difference to the materiality standard – the $1.5M is within the $2M difference
- There *must* be RMAD or maybe the Range is too wide or maybe the RMAD standard is too small

RMAD conclusion – *another example*

- Materiality standard = $9M
- Range = $50M to $78M
- Carried = $78M = High end of Range
- Compare carried reserves to the high end of the Range = no difference
- Compare this difference to the materiality standard
- There should not be RMAD
- The Range is already very wide

Opinion: Pooling vs. Ceding

- Depends on the approved reinsurance agreements, not the operating platform
- Instructions introduced in 2008 apply <u>only</u> when there is one lead company with 100% of the pool and the rest of the companies have 0% (Para. 1C of the Opinion instructions and par. 6 of the AOS instructions)
- Consistent treatment needed in Opinion, AOS, and Schedule P
- Three possible situations

Opinion: Pooling *Situation 1*

- Companies that cede 100%:
  - Note: This is NOT pooling
  - Non-zero Gross reserves; Zero Net reserves
  - Schedule P: Non-zero Gross reserves with all business being ceded
  - Opinion and AOS exhibits: Non-zero Gross reserves; Zero Net reserves
  - Comments: Relate to the specific company
  - New instructions **DO NOT APPLY**

Opinion: Pooling *Situation 2*

- Pooled companies with 0% retrocession; other pooled companies getting various shares of the pool (no lead company):
  - NO Gross or Net reserves
  - Schedule P: All ZERO
  - Opinion and AOS: Exhibits will have all zeros for the liabilities
  - Comments: Relate to the specific company but discussion of the pool is encouraged
  - New instructions **DO NOT APPLY**

Opinion: Pooling *Situation 3*

- Pooled companies with 0% retrocession with the lead company getting 100% of the pool:
  - NO Gross or Net reserves
  - Schedule P: All ZERO
  - File exhibits A & B with company specific values (most are zero) – RMAD is “Not Applicable”
  - Attach exhibits A & B of the lead company as an appendix
  - Comments: Relate to the pool
  - New instructions **APPLY**

AOS: Persistent Adverse Development: Inadequate disclosures

- "The one year reserve development IRIS ratio produced an unusual result that was caused by reserve strengthening."
- "The increase in loss was due to adjustment to prior year reserves as a result of re-evaluation of claims."
- See COPLFR Practice Note Regulator Guidance

AOS: Consistency among three actuarial filings – Opinion, AOS, Report

- Carried reserves in Opinion should match the AOS
- The Opinion may have other elements (e.g., long duration UEP) but the AOS is strictly for Loss and LAE
- Content of AOS is a synopsis of the Actuarial Report
- Whatever is evaluated should be presented in the AOS

Report: Analyzed Segments vs. Schedule P

- Recognize that company line of business definitions may be more meaningful than Schedule P definitions
- Classifications should be clearly addressed and documented
- Some meaningful comparison to the Annual Statement should be provided so that the reviewer can be certain that all business was evaluated

Report: Organization

- Is the report a “road map” to help the reviewer appreciate the significance of findings and conclusions?
- Do the narrative, labeling, footnotes, and index clearly convey the analysis?
- Are all lines of business written by the company addressed?
- “The Actuarial Report should not be merely a collection of data triangles with little or no rationale provided.”

Report: Ranges

- Need narrative describing methods and assumptions, including parameters
- Need technical exhibits showing some analysis and summary exhibits with conclusions
- What was the degree of rigor involved in the calculation of the Range?
- Was correlation among lines considered?

Report: Support for Selections

- Relevance of benchmark data
- Loss ratios used in Born-Ferg analysis
- Loss Development Factor selections
- Ultimate selections and/or weighting
- Grouping of data
- Credibility of data
- Assumptions made and methodologies chosen

Opinion Statistics

- Who signs Opinions?
- Type of Opinion
- Is there RMAD?
  - What RMAD standards are used?
- Point, Range, or Both?
- Where are the Carried Reserves vs. the Actuary's estimates?

Who signs Opinions?

- About 10% of the CAS membership signs statutory Opinions
- About 2,550 statutory Opinions were issued by about 475 actuaries
- Top 20 actuaries (4%):
  - 563 opinions (22%)
  - Signed between 19 and 46 opinions each
- Source: 2007 NAIC filings

Type of Opinion

- 99% are Reasonable
- This hasn’t changed in several years

Is there RMAD?

- Of valid responses:
  - 31% YES to RMAD
  - 66% NO to RMAD
  - 3% Not Applicable
- Fewer actuaries concluded Yes to RMAD over time
- Source: 2008 NAIC filings

What RMAD Standards are used?

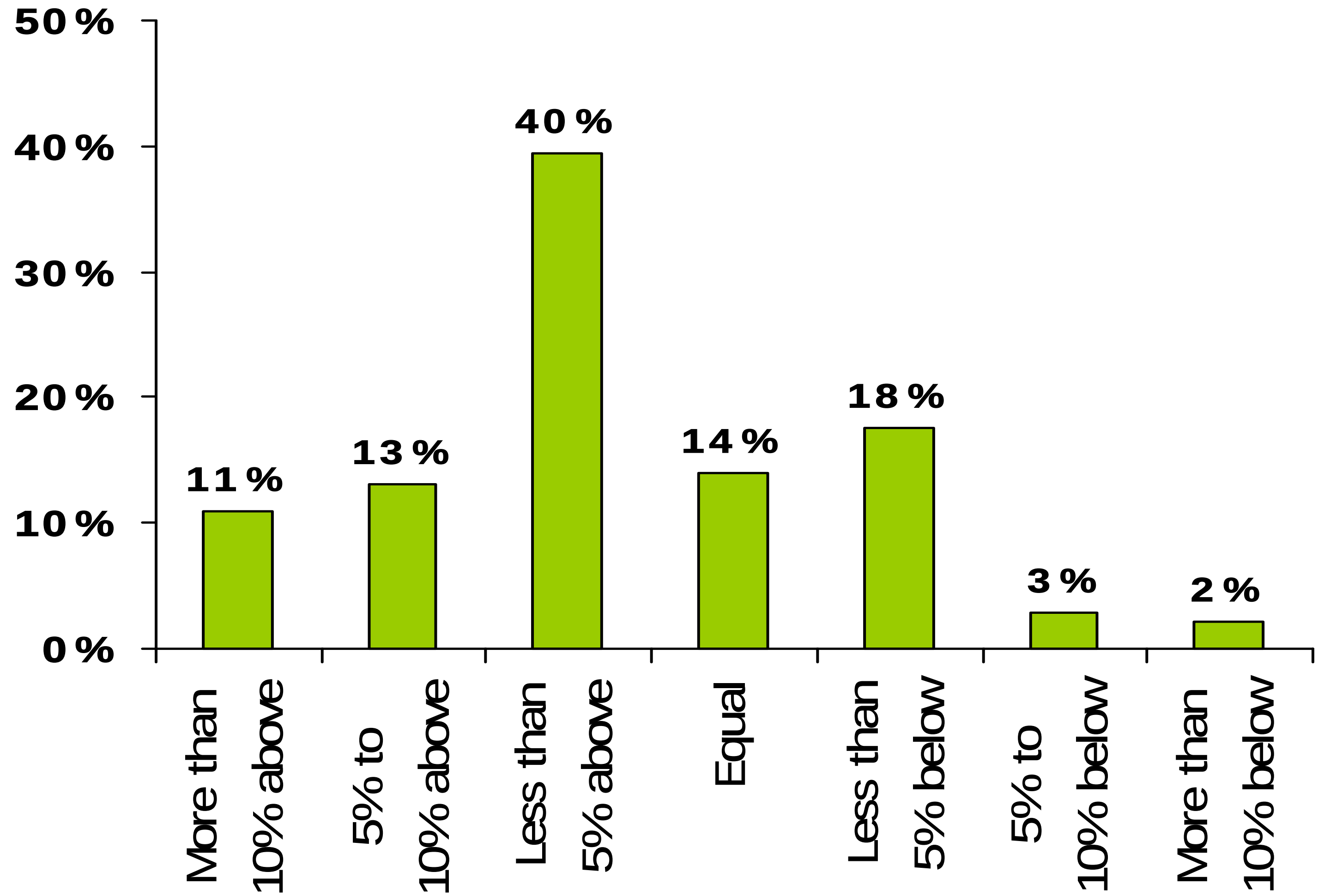
- 59% use Surplus
- 27% use a combination of surplus, LLAE, and/or RBC (minimum selected)
- 7% use Reserves
- 7% use “Other” = Reinsurance, RBC level, etc.
- Source: 2008 multi-state sample

Point, Range, or Both?

Point	51%
Range	15%
Both	34%

- Includes some companies that carry zero net reserves
- Note that the use of just Point or just Range has steadily declined while the use of Both has increased since 2006 (up from 29%)
- Source: 2008 multi-state sample

Carried Reserves Vs. Point Estimate or Midpoint of Actuary's Range



- Source: 2008 multi-state sample

Are your Opinions and Actuarial Reports meeting the expectations of Regulators and Others?

Sarah Fore, ACAS, MAAA
Illinois Dept of Insurance
CLRS 2009

Focus on Actuarial Report

- Recall Issues:
  - Selections not supported
  - Analyzed segments vs. Sch P lines of business
  - Poor organization
  - Credibility of data
- Use of “actuarial judgment”

Actuarial Report

Requirement from Annual Statement Instructions

- Narrative Component – should provide sufficient detail to clearly explain to management, the regulator, etc. the findings, recommendations and conclusions as well as their significance.
- Technical Component – should provide **sufficient documentation and disclosure for another actuary practicing in the same field to evaluate the work.**

Let's Look at Examples

- Loss Development Factor selections
- Loss ratios used in Born-Ferg analysis
- Grouping of data
- Credibility of data
- Ultimate selections and/or weighting
- Is this really the Actuarial Report?

General Liability Incurred Loss Development

AY	12-24	24-36	36-48	48-60	60-72	72-ult
2004	1.196	1.179	1.025	1.012	1.018	
2005	1.086	1.095	1.014	1.012		
2006	1.097	1.132	1.013			
2007	1.175	1.162				
2008	1.111					
Avg.	1.133	1.142	1.017	1.012	1.018	
Avg. X	1.128	1.147	1.014			
3yr avg.	1.128	1.130	1.017	1.012	1.018	
Selected	1.133	1.142	1.017	1.012	1.005	1.001

TAIL FACTOR?
Where did it come from?

- Industry data?
- Need to specify what data was used and why it is applicable to this particular company and line of business
- Curve fitting techniques? Should state what curve was used and if it was a good fit.
- Another method? Explain the method and why it is applicable to this particular company and line of business
- Actuarial judgment is not an acceptable answer
- “Selected” is not an acceptable footnote

Anything else?

- Most of the LDF selections compare closely to the averages, seem reasonable (supported by the data), and don’t need to be explained...
- But, what about the 60 – 72 month selection? This is not supported by the averages and the selection needs explanation.
- Another actuary should be able to review the selections and either see the supporting data or understand why the selection deviates from the available support.

Bornhuetter-Ferguson

Accident Year	Earned Premium	Assumed Expected Loss Ratio	Assumed Expected Losses	IBNR Factor	Estimated IBNR	Cummulative Incurred Losses	Estimated Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			(2) x (3)		(4) x (5)		(6) + (7)
2002	18,168	62.0%	11,264.16			11,250	11,250
2003	21,995	62.0%	13,636.90	0.001	14	12,725	12,739
2004	24,173	62.0%	14,987.26	0.004	60	14,413	14,473
2005	25,534	62.0%	15,831.08	0.015	235	16,066	16,301
2006	31,341	62.0%	19,431.42	0.044	846	16,776	17,622
2007	38,469	62.0%	23,850.78	0.177	4,218	16,561	20,779
Total	159,680		99,001.60		5,372	87,791	93,163

Footnotes:

(2) Provided by Company

(3) Selected by ABC Consulting Firm

Expected Loss Ratio? How was it selected?

- Based on previous year's selected ultimate loss ratio - Are these still appropriate? How was it determined last year?
- Loss ratios used in pricing
- Ultimate loss ratios from the paid and incurred loss development methods
- Actuarial judgment is not an acceptable answer
- "Selected" is not an acceptable footnote

PPA Liability – TX (grouping of data example)

AY	12	24	36	48	60	72	
2003	1205	4875	4987	4989	4990	5012	
2004	2504	2506	3508	4000	4072		
2005	1097	2500	3012	5826			
2006	1175	2406	3214				
2007	1124	3506					
2008	2045						

PPA Liability – IL

AY	12	24	36	48	60	72	
2003	1825	2998	4001	4889	5978	6054	
2004	2221	3415	3989	4918	6001		
2005	1982	3611	4372	5088			
2006	1715	3876	4232				
2007	1412	3506					
2008	2350						

How is the business broken down?

- Data is segmented by state. Why is this appropriate?
- Is all the PPA liability data included in these two triangles or is some of the data included in other triangles? Which ones? Why?
- Is there a reconciling exhibit that adds up all the data and compares it to Schedule P?

Special Property Paid DCC

AY	12	24	36	48	60	72
2003	5	4	3	3	3	3
2004	0	7	7	8	7	
2005	7	7	7	7		
2006	3	3	3			
2007	0	1				
2008	15					

Special Property Paid DCC

AY	12-24	24-36	36-48	48-60	60-72	72-ult
Simple Avg of Middle 3	1.018	1.000	1.000	.958	1.000	1.021
Simple Avg of Latest 5	1.037	.980	.979	.831	1.000	1.031
Simple Avg of Latest 3	.9330	1.000	1.048	.958	1.000	1.000
Vol Wtd Avg of Latest 5	1.467	1.049	1.000	.864	1.258	1.028
Vol Wtd Avg of Latest 3	1.100	1.000	1.059	.971	1.000	1.000
Prior Selected	1.075	1.025	1.000	1.000	1.000	1.000
Triangle 20: Selected	1.200	1.050	1.000	1.000	1.000	1.000
Selected	1.075	1.025	1.000	1.000	1.000	1.000

Credibility of data

- There is no data to do anything with
- Why not combine it with losses or another coverage?
- Why not use some other method?
- Lots of meaningless averages
- What is Triangle 20?
- How were the selections made? Why?

Comparison of LDM Projections

	(1)	(2)	(3)
Accident Yr	Paid LDM	Incurred LDM	Selected
2003	11,244	11,250	11,250
2004	12,985	12,738	12,738
2005	15,215	14,471	14,471
2006	17,588	16,308	16,308
2007	19,109	17,539	17,539
2008	21,435	20,119	20,119
Total	97,576	92,425	92,425

(1) From Exhibit 4, Sheet 2, Column (8)

(2) From Exhibit 4, Sheet 4, Column (8)

(3) Selected

Selection of Ultimates

- What was wrong with the paid method or paid data?
- Why wasn’t the average used?
- Where is the support for the selection?
- Is this similar to prior selections?
- Would use of the average, if material, constitute a material change in methods or assumptions worthy of opinion disclosure?

“Actuarial Report” example

- Background:
  - Claims made med mal; just started writing
  - NEP: $9M
  - Net LLAE Reserve: $3.8M
  - Surplus: $10.9M
- “Report” gives one page of background/ comments. Then states:

“Given that there are few reported claims and no claims history, it is of course not possible to do an actuarial analysis projecting the ultimate loss and loss adjustment expenses.”

"Actuarial Report" example *cont.*

- This is an extreme example but it is an actual example nonetheless
- Provided context for our whole discussion of providing support for assumptions and selections
- What was done to be able to issue a Reasonable opinion?
- How were carried reserves calculated? Where are the supporting workpapers?