

# Reports and Presentations to Management and Board of Directors

Apex Webinar  
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# Outline of Presentation

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- Background on Herbers
- General Observations & Regulatory Guidance
- Essential Elements of Report
- Electronic Reports
- Presentations to Board of Directors

# Background on Herbers

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- Managing Principal at Pinnacle
- Member of Casualty Actuarial Society (CAS) & American Academy of Actuaries (AAA)
- Member of AAA Committee on Property & Liability Financial Reporting (COPLFR) for 14 years, Current Chair
  - Faculty for AAA Seminar on Effective P/C Loss Reserve Opinions
  - Practice Note, Law Manual and Model Audit Rule Subcommittees
- Member of Casualty Practice Council & Financial Reporting Committee of AAA

# Background on Herbers

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- 26 years experience as consulting actuary
- Write over 100 reserve analysis reports every year
- Reports are routinely reviewed by internal peer reviewer, auditors, regulators, reinsurers, brokers, etc.
- Involved in audit support work reviewing other actuaries' reports

# General Observations

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- **Focus of my comments are on actuarial reports & presentations to Board**

Not on SAOs or AOS

- **Actuaries are bound to abide by**

- AAA Code of Conduct
- Actuarial Standards of Practice (ASOPs) promulgated by Actuarial Standards Board (ASB)
- Law / Regulation

- **AAA Code of Conduct – Precept 4**

“take appropriate steps to ensure that the Actuarial Communication is clear and appropriate to the circumstances and its intended audience”

# Observations – ASOP 41

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## ASOP 41 (Actuarial Communications)

### Section 3.2 - Actuarial Report

“actuary should state the actuarial findings, and identify the methods, procedures, assumptions, and data 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”

# Regulatory Guidance

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**NAIC CASTF** – Regulatory Guidance Memo on Actuarial Report noted three notable weaknesses in documentation of many actuarial reports:

1. Expected Loss Ratio
2. Actuarial Judgment
3. Entity

# Observations – CASTF Guidance

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- 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

# Suggested Report Components

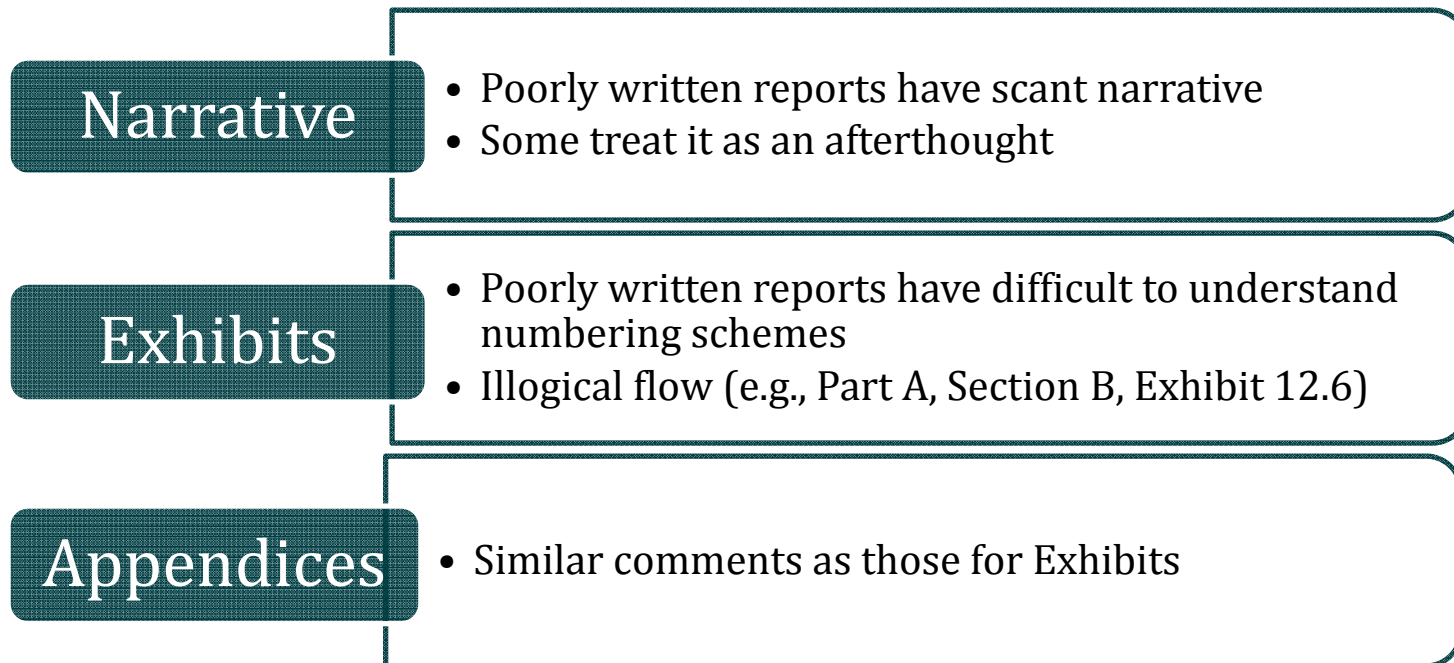
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- Title Page
- Transmittal Letter
- Table of Contents
- Purpose & Scope
- Distribution & Use
- Background
- Data Used
- Methodology
- Discussion & Analysis
- Findings
- Reliances & Limitations
- Index of Exhibits
- Exhibits
- Index of Appendices
- Appendices

# Format / Flow of Report

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- The “flow” of a report adds considerably to a reviewer’s ability to follow the work
- Most well written reports have at least 3 sections:



# Format / Flow of Report

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- Highest level of detail towards back of report
  - Appendices
    - Source data
    - Loss development triangles
    - Copies of reinsurance agreements
- Summarization of detail in Exhibits
  - Footnotes should help guide the reviewer, not provide a confusing maze for cross checking information
  - Footnotes should guide, not provide rationale for assumptions (see report narrative)
- Summary or Exhibit 1 should show held v. indicated

Summary of Reserve Deficiency/Redundancy

Reserve Category	Line of Business	Loss Reserves				Loss Adjustment Expense Reserves				Total Loss+LAE
		Case	IBNR	S/S Rec	Total	DCC		A&O	Total LAE	
						Case	IBNR			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Required Reserves	PPAL	\$1,927	\$2,451		\$4,379	\$299	\$452	\$468	\$1,219	\$5,597
	CAL	247	86		333	39	49	42	130	463
	APD	469	250	(660)	58	(15)	349	33	367	425
	GL + PL	127	501		628	24	384	418	826	1,455
	HMP	459	352		811	33	251	153	437	1,249
	TOTAL	3,229	3,641	(660)	6,210	380	1,485	1,114	2,979	9,189
Held Reserves	PPAL	1,927	2,452		4,379	299	452	468	1,219	5,598
	CAL	247	86		333	39	44	42	125	458
	APD	469	250	(660)	59	(15)	349	33	367	425
	GL + PL	127	502		629	24	387	420	831	1,460
	HMP	459	353		812	33	250	153	436	1,249
	TOTAL	3,229	3,643	(660)	6,212	380	1,482	1,116	2,978	9,190
Indicated Reserve Deficiency(-)/Redundancy(+)	PPAL		1		1		0	0	0	1
	CAL		(0)		(0)		(5)	(0)	(5)	(5)
	APD		0	(0)	0		(0)	0	(0)	0
	GL + PL		1		1		3	2	5	5
	HMP		1		1		(1)	(0)	(1)	0
	TOTAL		\$2	(\$0)	\$2		(\$3)	\$2	(\$1)	\$1

Notes

- Held reserves as of 12/31/2009 provided by Client
- Required IBNR reserves from Pages 1-4 of Exhibit 2, Col (11) for losses, Col (12) for Defense & Cost Containment
- Indicated salvage/subrogation recoveries for APD from Page 6 of Exhibit 2, Col (11)
- Indicated reserve deficiency/redundancy calculated as [Held - Required].
- Required A&O reserves from Exhibit 5

# General Comments

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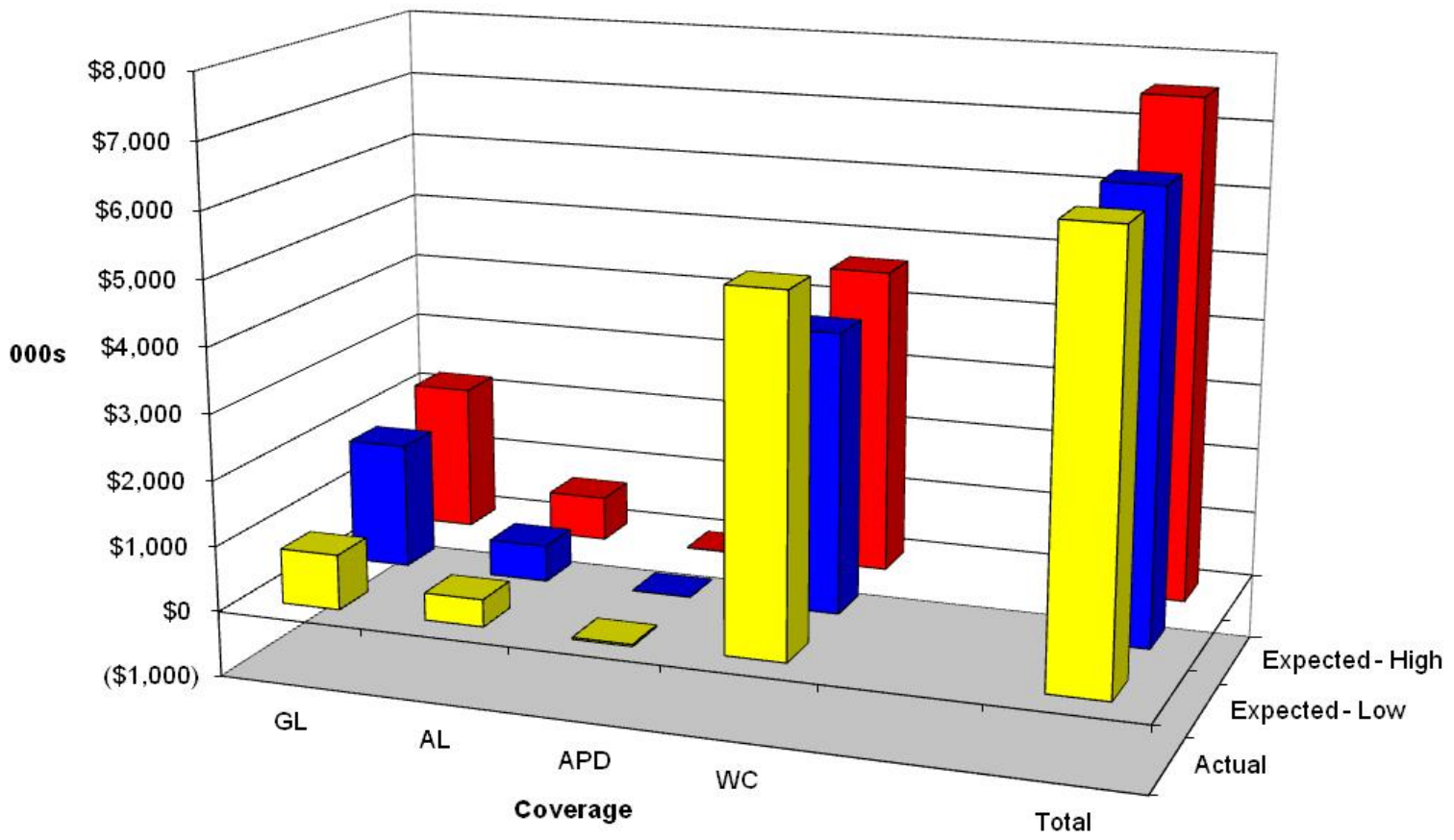
- Documentation of assumptions is often sparse
  - Background section of report with info on retentions, deductibles, unique program features is invaluable
  - Are LAE included in losses?
  - How are defense costs handled by layer (pro-rata, limits inclusive?)
  - Was A&O LAE considered?
- Footnotes 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

# Background

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- Runoff (actual v expected) can be helpful
- Description of changes in volume
- Changes in average rates
- Changes to company's net retention
- Operational changes
  - Management
  - Claims Handling
  - Underwriting
  - Markets served
  - Systems / data sources

**Actual v Expected Incurred Loss Development**  
 for the 12 months ending 6/30/2010  
 08/09 & Prior Policy Periods



	GL	AL	APD	WC		Total
Actual	\$840	413	(28)	5,362		6,587
Expected - Low	\$1,899	551	(1)	4,235		6,684
Expected - High	2,228	672	3	4,651		7,554

# Example

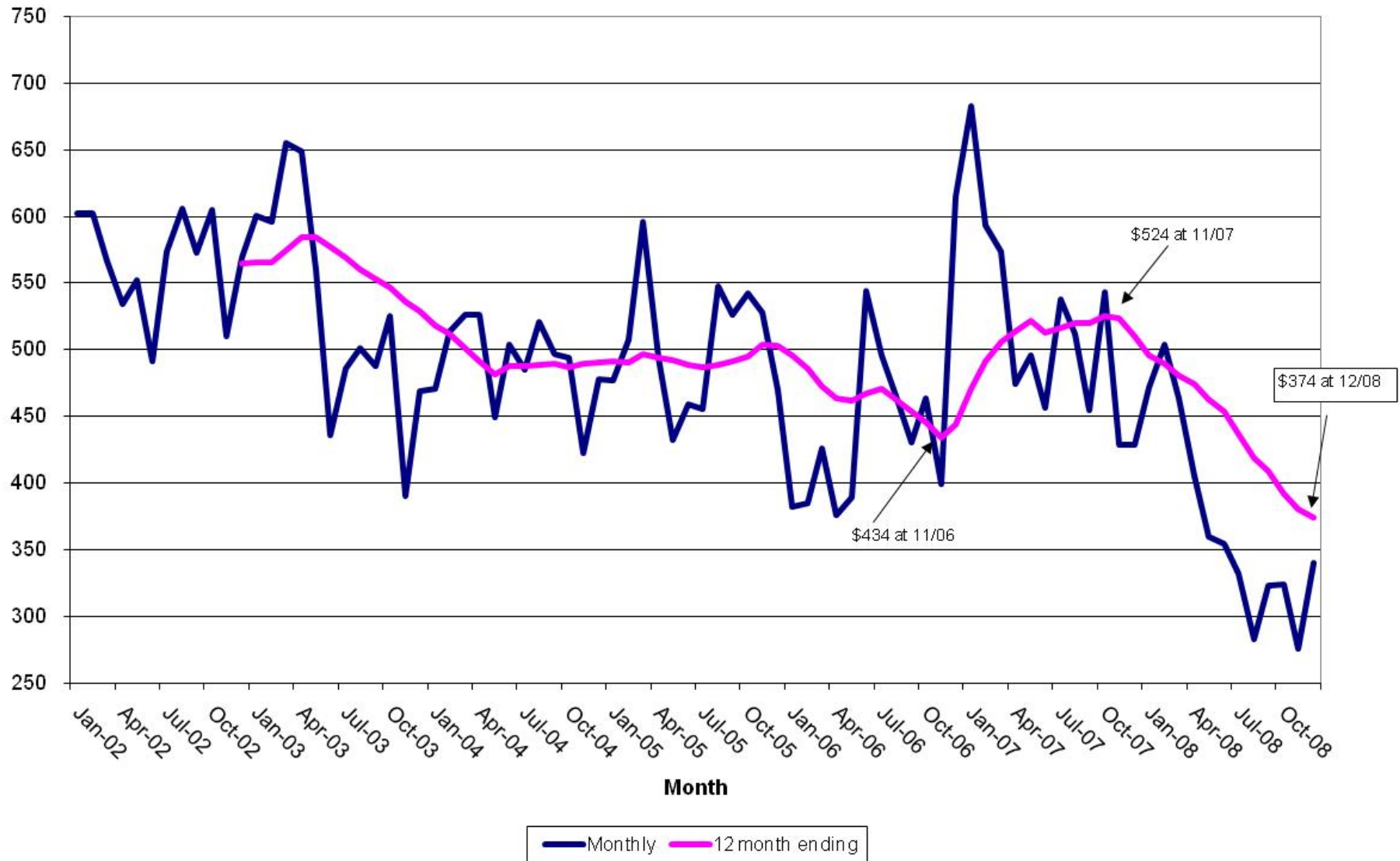
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- Private Passenger Auto Carrier in business for many years
- Very competitive market – many entrants/exits over past 20 years
  
- Company implement large rate reductions in late 2006
- New business discount of 10% implemented at same time
- Surge of new business activity in 2007
- In mid 2008, rate increases implemented, commissions scaled back, agencies cancelled
- We project much higher loss ratios in 2007-08
- Is this reasonable? Can the reviewer follow the work?

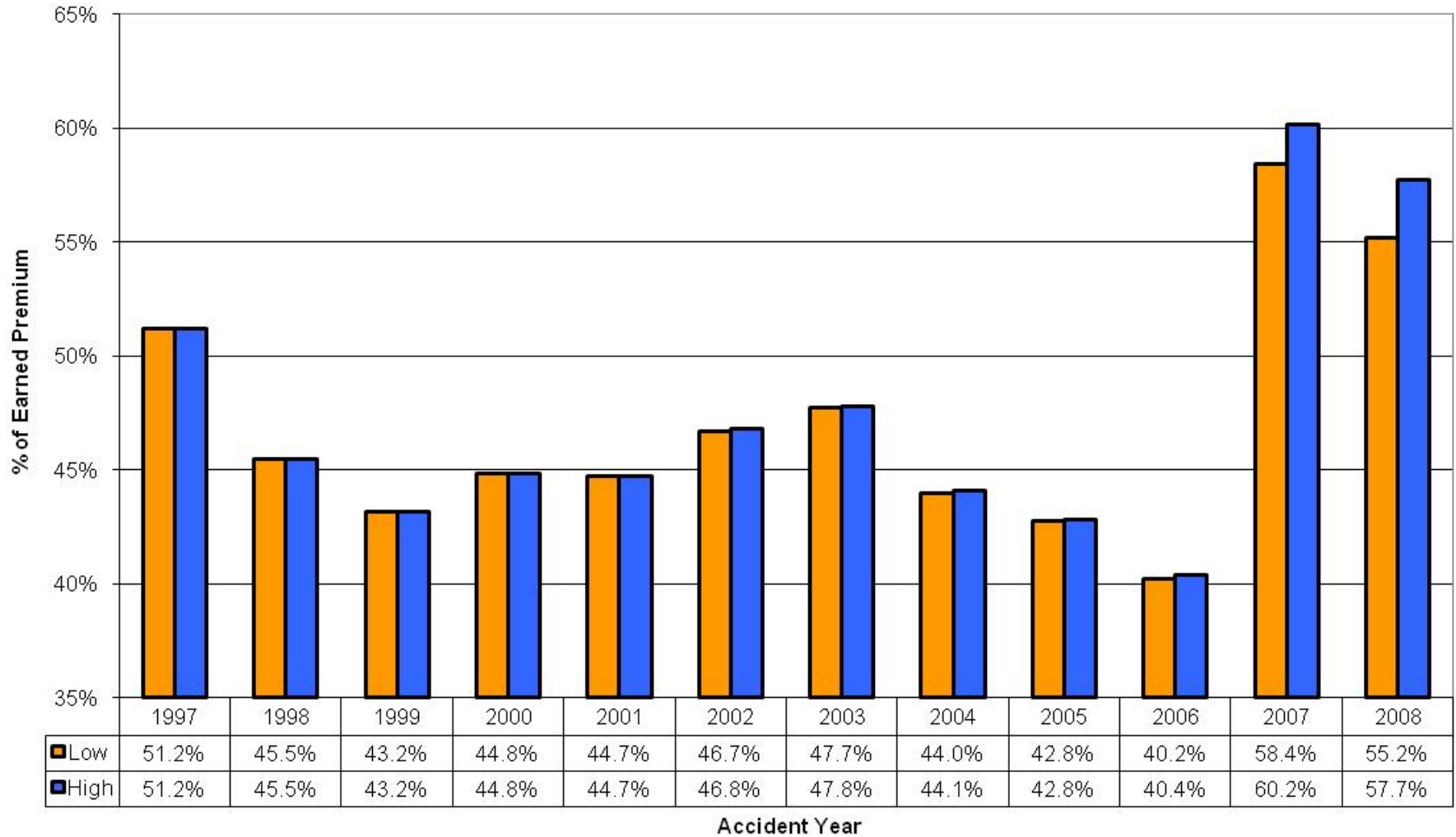
#Insured Vehicles Inforce by Month



ABC Insurance Company  
Average Written Premium per Vehicle in Force



## Estimated Ultimate Loss Ratios Auto Liability



# Actuarial Judgment

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## Per Section 4.5.3 of the Introduction to the ASOP's (Oct. 2008)

***Professional judgment*** - Actuaries bring to their assignments not only highly specialized training, but also the broader knowledge and understanding that come from experience. The ASOPs frequently call upon actuaries to thoughtfully apply both training and experience to their professional assignments, recognizing that reasonable differences of opinion are appropriate, if not inevitable, when professionals undertake to project the effect of contingent future events. The ASB anticipates that the actuary's use of professional judgment will be presented in such a way that another qualified actuary would recognize when and where judgment has been applied, even if the other qualified actuary might disagree with the resulting conclusions.

# Report Content

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- 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?

# Discussion & Analysis

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- Why are the assumptions reasonable?
- Are other assumptions not reasonable?
- What has changed since last year?
  - What are the drivers of those changes?
  - Are they random or systematic?
- What tests of reasonableness were considered?
- Are conclusions significantly different than those from last year?
- Which segments of the book of business should be more closely scrutinized than others?
- What are circumstances affecting your actuarial judgment?

# Discussion & Analysis – Flow of Report

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- General description of each block of business reviewed
- More detailed description of analysis for each block of business
  - Changes since last evaluation
  - Important assumptions
  - Impact of factor A, factor B, ...
  - Results
  - Tests of reasonableness
- Block 2, 3, ...
- Indicated reserves for all programs combined / covariance
- DCC LAE
- Time Value of Money
- Risk Margins
- A&O Expense

# Electronic Reports

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- High resolution pdf
- Security features
- Bookmarks!
- Layout mirrors hard copy
- E-signature
- Disclaimers in electronic communication

*“The electronic version of this document was released with limited security features. ABC Consulting Firm is not responsible for any additions, deletions or modifications made to this document after its release.”*

# Presentation to Board of Directors

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- See Practice Note, Appendix 12  
*“An Overview for Audit Committee Members of P/C Insurers: Effective Use of Actuarial Expertise”*
- White Paper document prepared by COPLFR in 2007
- Helpful guidance on what to include in presentations to Board of Directors

# Presentation to BOD/Audit Committee

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- Variability & Estimates of Unpaid Claims Liabilities
- Actuarial Considerations & Judgment
- Historical Accuracy (Report Card)
- Industry & Competitor Trends & Risks
- Disclosures

### Illinois Nonstandard Auto Insurance Carriers

	<u>Line of Business</u>	<u>Acc. Year</u>	<u>Safeway</u>	<u>ASI</u>	<u>UCC</u>	<u>IL Founders</u>	<u>Apollo Casualty</u>	<u>American Freedom</u>	<u>United Equitable</u>	<u>AACC</u>	<u>Average</u>
<b>Held Ultimate Loss + DCC Ratios from Schedule P</b>											
Direct	PPAL	2000	60.7%	58.4%	51.8%	63.4%	44.7%	55.5%	65.1%	62.9%	57.8%
		2001	64.0%	57.7%	54.5%	61.9%	44.4%	50.3%	56.8%	48.5%	54.8%
		2002	64.2%	55.7%	54.1%	65.3%	46.5%	44.5%	58.8%	46.3%	54.4%
		2003	57.3%	52.7%	50.9%	60.6%	47.6%	45.7%	52.4%	44.1%	51.4%
		2004	52.5%	54.5%	46.2%	56.3%	44.1%	35.7%	57.6%	38.0%	48.1%
		2005	53.0%	56.5%	56.5%	55.3%	43.3%	35.8%	58.5%	37.8%	49.6%
		2006	56.4%	56.1%	56.0%	55.2%	40.3%	43.8%	56.0%	42.8%	50.8%
		2007	58.2%	71.9%	63.9%	59.7%	55.8%	54.2%	57.0%	52.0%	59.1%
		2008	59.0%	90.0%	65.9%	59.3%	53.9%	67.1%	56.2%	58.2%	63.7%
		2009	59.1%	69.8%	72.4%	66.4%	53.8%	71.9%	58.0%	58.0%	63.7%
	APD	2008	63.5%	58.0%	62.6%	58.9%	40.7%	46.9%	44.4%	41.7%	52.1%
		2009	56.8%	54.9%	74.5%	53.2%	45.3%	58.5%	43.2%	40.7%	53.4%
Net	PPAL	2000	61.1%	63.8%	49.6%	62.8%	44.3%	56.7%	65.1%	62.9%	58.3%
		2001	64.1%	63.2%	52.2%	61.7%	44.4%	50.2%	56.8%	48.5%	55.1%
		2002	64.2%	59.9%	50.7%	64.9%	46.5%	45.4%	59.6%	46.3%	54.7%
		2003	57.0%	54.9%	46.0%	61.5%	47.6%	45.8%	52.4%	44.1%	51.2%
		2004	52.7%	54.3%	42.2%	57.7%	44.1%	35.7%	57.6%	38.0%	47.8%
		2005	54.3%	54.9%	54.8%	56.0%	43.3%	35.8%	58.5%	37.8%	49.4%
		2006	56.4%	56.5%	53.1%	55.7%	40.3%	43.8%	56.0%	42.8%	50.6%
		2007	58.4%	74.7%	62.5%	60.1%	55.8%	54.2%	57.0%	52.0%	59.3%
		2008	58.9%	96.2%	71.0%	60.5%	53.9%	67.1%	56.2%	58.2%	65.2%
		2009	59.0%	71.8%	75.5%	68.4%	53.8%	71.9%	58.0%	58.0%	64.6%
	APD	2008	63.9%	60.9%	47.8%	60.0%	40.7%	46.9%	44.4%	41.7%	50.8%
		2009	56.8%	54.5%	69.6%	54.7%	45.3%	58.5%	43.2%	40.7%	52.9%

# Presentation to BOD/Audit Committee

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- Reserve Ranges v Point Estimate
- Key Statistics & Benchmarks
- Summary of Held v Indicated
- Changes since Prior Evaluation
- Key Risk Factors
- RMAD / Materiality Threshold
- IRIS Test Results
- Explanatory Comments

# Major Risk Factors

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- Nature of coverage provided
- Class of business insured
- Geographic concentration of risk
- Relatively short time in business

## Mitigating Factors

- Company history
- Stability

# Reserve Adequacy

<u>Component</u>	<u>Held Reserves</u>	<u>Indicated</u>		<u>Difference</u>		<u>Diff. as % of Ind.</u>	
		<u>Low</u>	<u>High</u>	<u>Low</u>	<u>high</u>	<u>Low</u>	<u>high</u>
Case	\$332	\$332	\$332	\$0	\$0		
IBNR	1,379	521	1,121	859	259		
A&O	62	206	386	(144)	(324)		
Total	1,773	1,059	1,839	715	(65)	67.5%	-3.6%

# Changes in past 12 months

<u>Eval. Date</u>	<u>Acc. Year</u>	<u>Losses + DCC</u>				<u>A&amp;O Provision</u>
		<u>Paid</u>	<u>Case</u>	<u>Selected Ult. Losses</u>		
				<u>Low</u>	<u>High</u>	
12/31/2010	2007	\$456	\$175	\$650	\$675	
	2008	216	79	325	400	
	2009	180	70	350	500	
	2010	20	8	400	750	
	Total	872	332	1,725	2,325	30%
12/31/2009	2007	535	23	560	600	
	2008	191	111	400	700	
	2009	49	160	400	700	
	Total	775	294	1,360	2,000	25%
Change since prior evaluation	2007	(79)	152	90	75	
	2008	24	(32)	(75)	(300)	
	2009	131	(90)	(50)	(200)	
	Total	77	30	(35)	(425)	5%

# Conclusion

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- [Joe Herbers Bio](#)



- General Observations & Regulatory Guidance
- Essential Elements of Report
- Electronic Reports
- Presentations to Board of Directors

# Join Pinnacle November 10

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Gary Wang will be co-presenting with Bob Mathe of Evogi Group

<b>Apex Webinar</b>	<b>"Overcoming the Challenges of Implementing an Effective Usage Based Insurance Program"</b>
<b>Nov 10th</b>	Together for the first time
 Evolving Intelligent Insurance	Bob Mathe, President and COO of The Evogi Group, Inc.
 The Firm of Choice	Gary Wang, Pinnacle Consulting Actuary
<i>Experience the Pinnacle Difference!</i>	



Visit us at [pinnacleactuaries.com](http://pinnacleactuaries.com)

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## Thank You for Your Attention

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Experience the Pinnacle Difference!