



QUANTIFYING RISK, ENABLING OPPORTUNITY

Lynette Calitz, Kevin Ross, Sajiv Issuree

STIC Reserving Survey Results

Agenda

1. Aspirations of the working party
2. Survey overview
3. Survey results

Aspirations of the working party

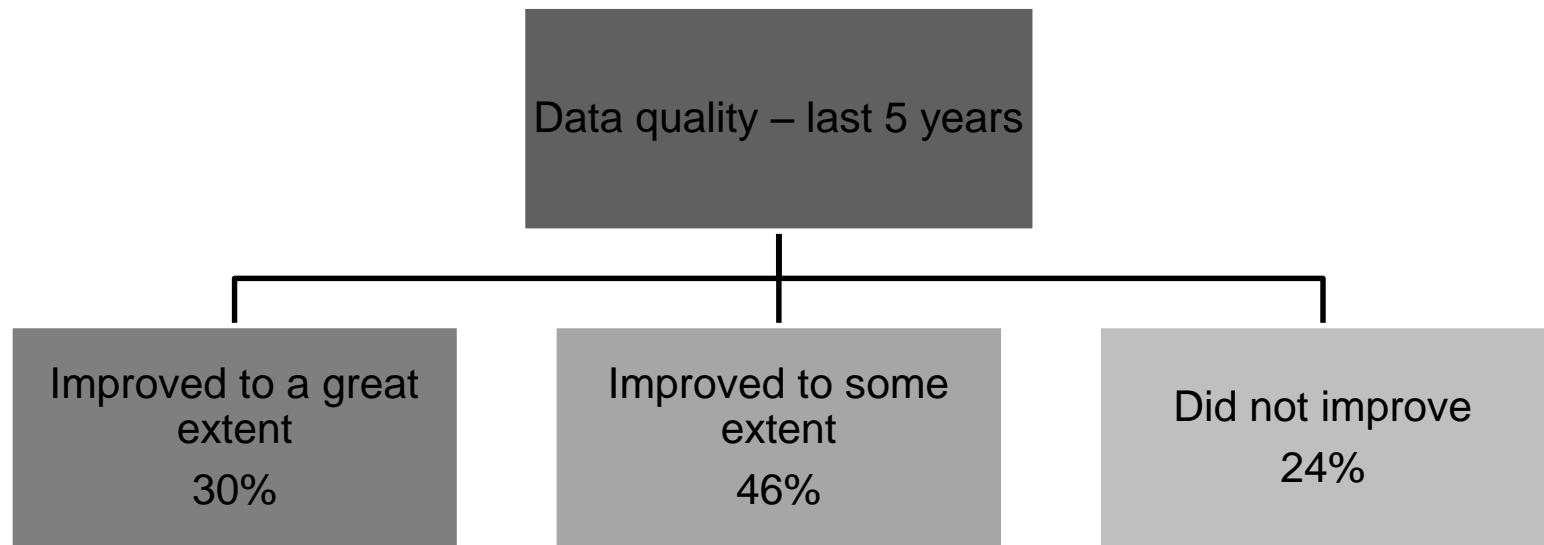
- Enthusiastic people who wants to do research
- Topics include ERM, Capital and reserving in the short-term industry
- Ascertain standard reserving practice in the industry
- Market practice for SAM and Capital
- Conduct a reserving survey
- Conduct 2nd reserving survey to build on feedback from the 1st.

Overview

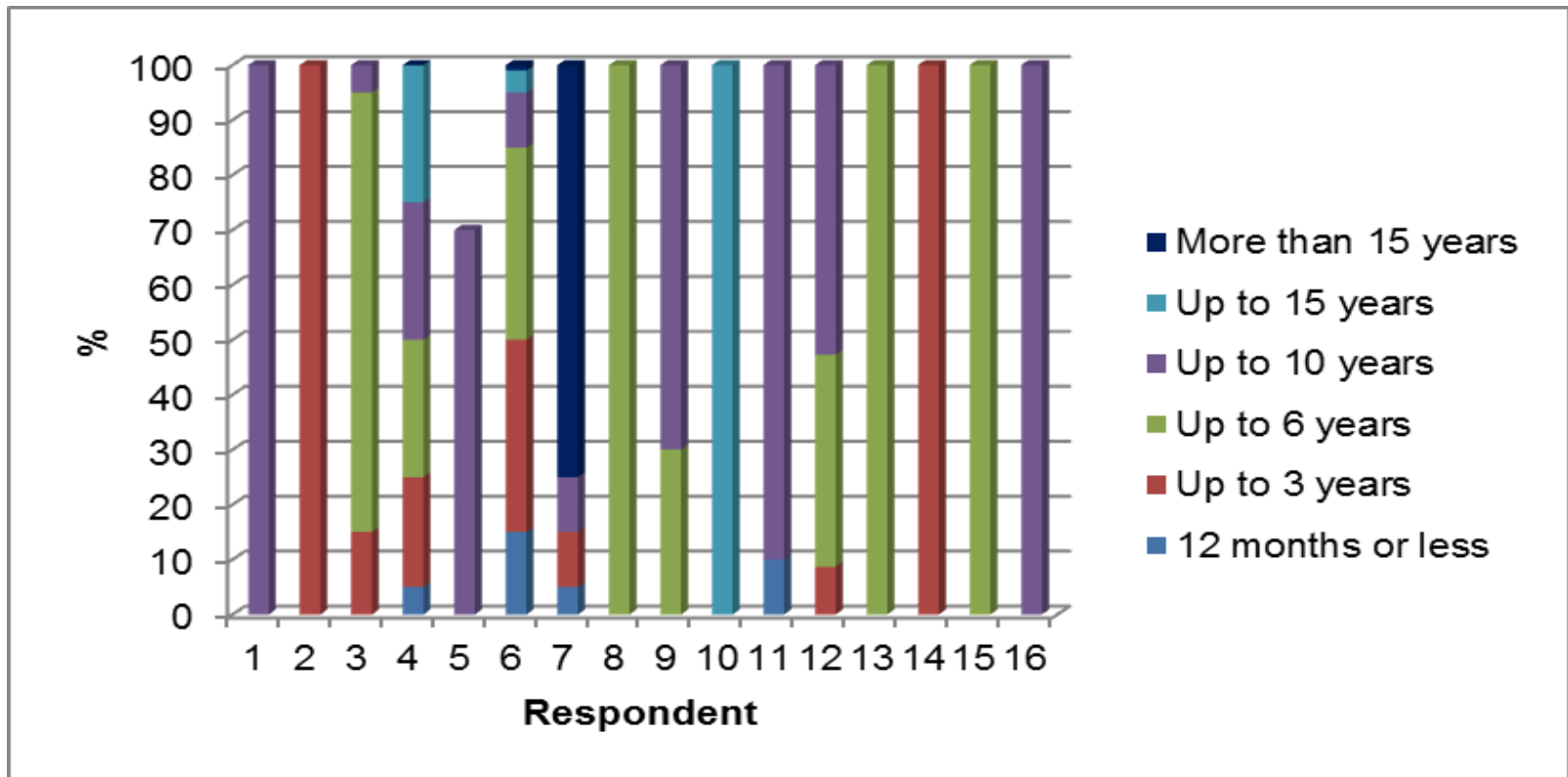
- Industry wide reserving survey conducted
- Current reserving practices for IFRS purposes
- Not based on an intended future state under SAM.
- Only reserving Actuaries completed the survey.
- 17 responses were received.
- Sample, not representative of entire industry
- Reasonable coverage across insurers
- The majority (71%) of respondents were employees of a company, the remainder were consultants.

Data

- The data quality available was rated 6/10 on average.
- The majority of respondents rated the quality of data between 6 and 8 out of 10.

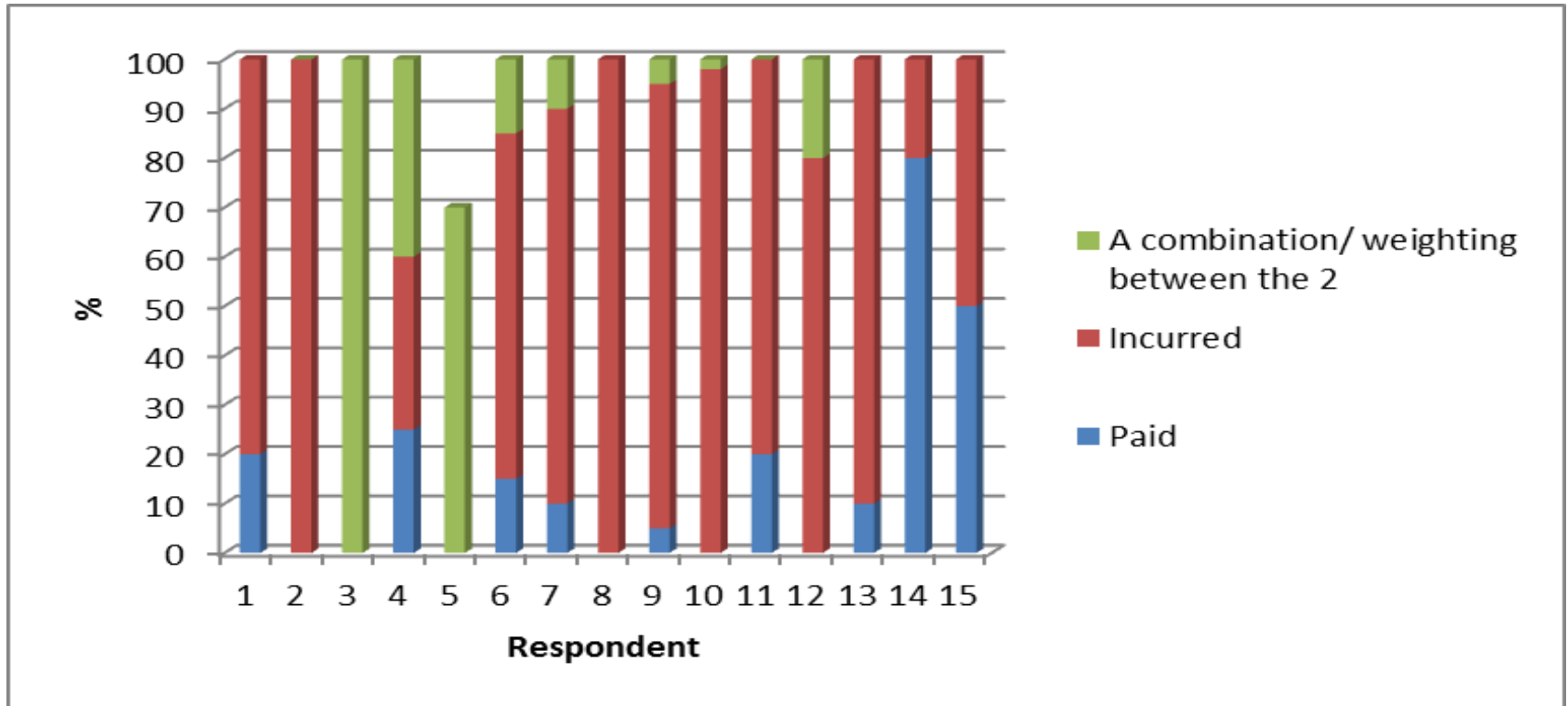


Data



- The majority of respondents uses between 4 and 10 years worth of historical data.
- 1 respondent did not fill out this question.

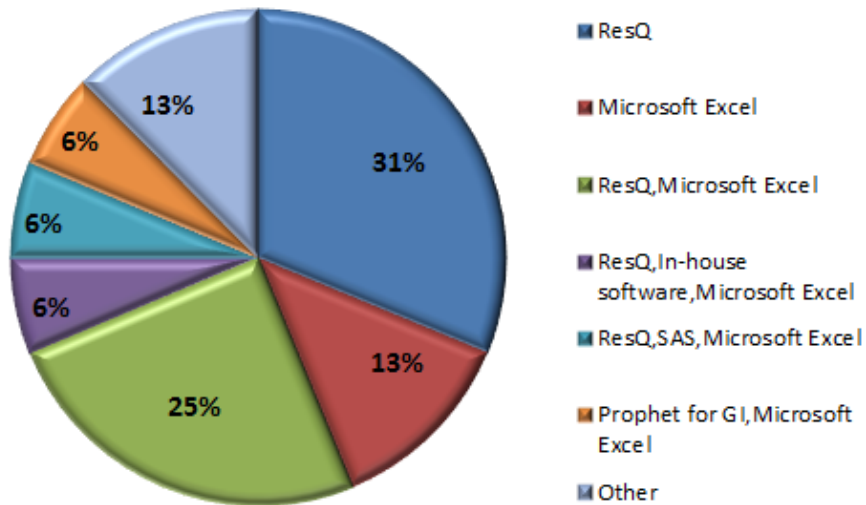
Data



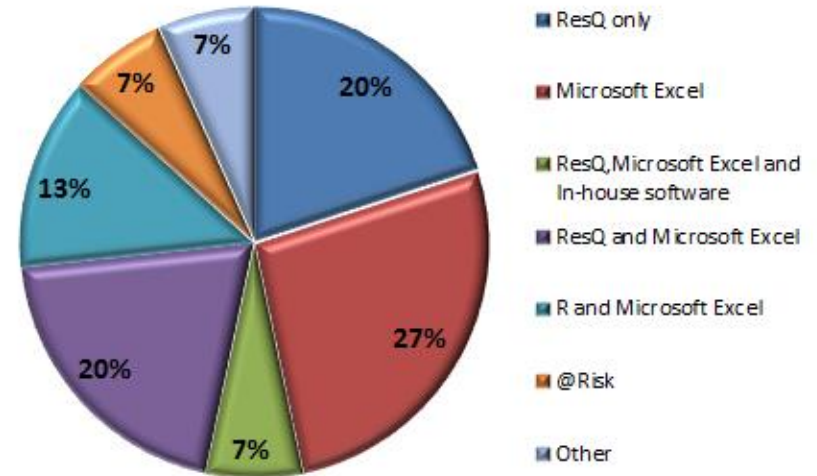
- The majority of respondents uses incurred data.
- 2 respondents did not fill out this question.

Software Used

Best Estimate IBNR

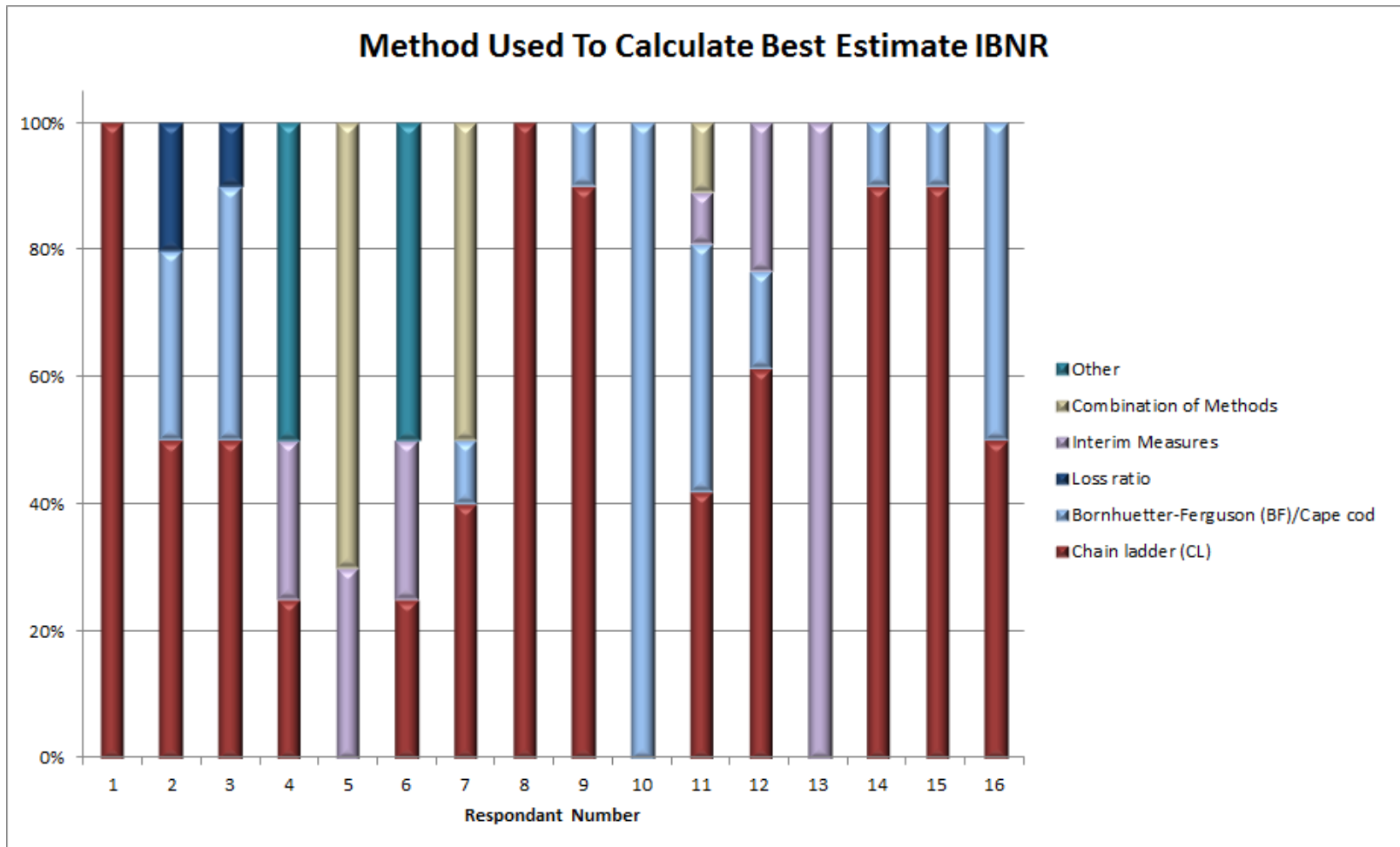


Additional Margin



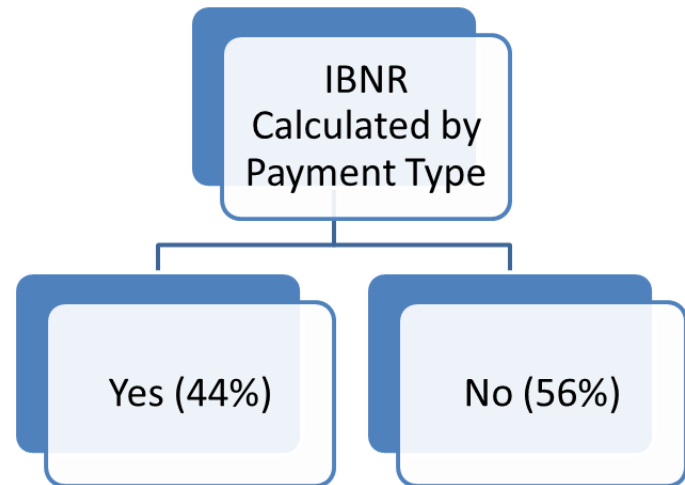
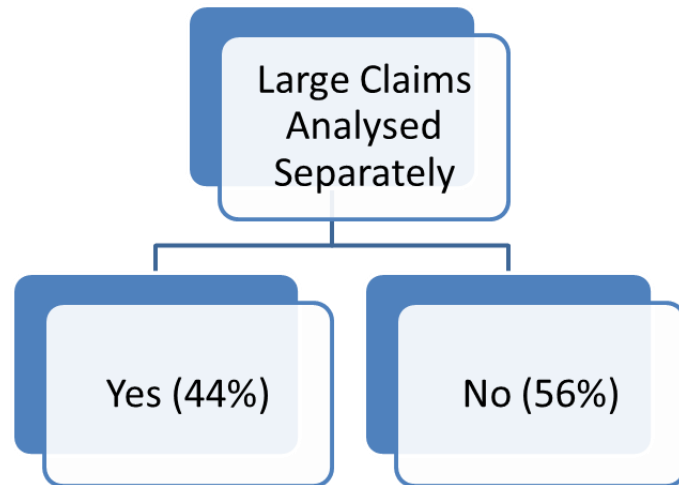
- Best estimate and additional margin:**
 ResQ and Excel are used by the majority of respondents for this calculation.
- Additional Margin:**
 82.3% companies calculate additional margin.

IFRS IBNR Calculation Method

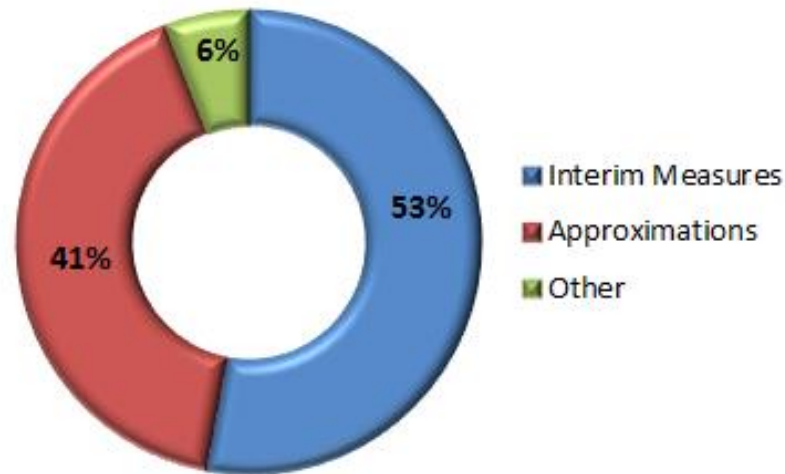


Large claims & Payment type

- Only one out of the 16 respondents excludes large claims completely from the analysis.



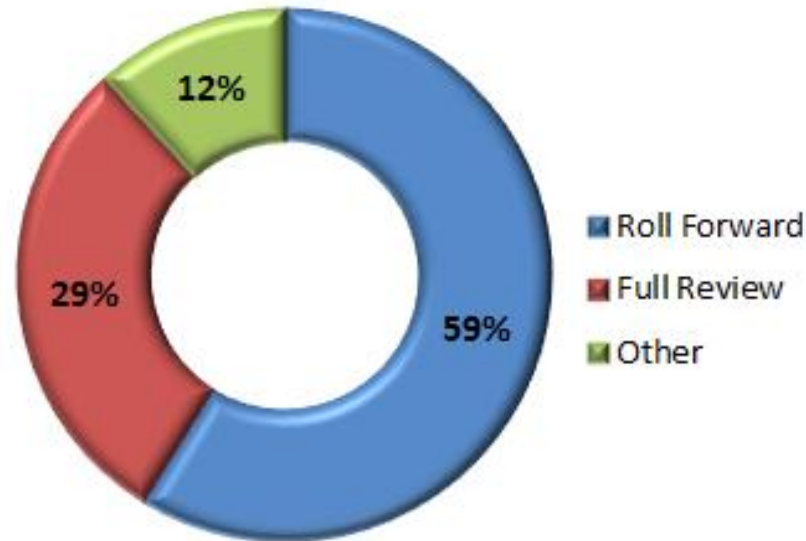
Limited data – Methodologies applied



- ***Approximations & Other***

- Loss Ratios
- Ancillary data
- Bornhuetter Ferguson
- Ratio to similar classes
- Development Pattern of Large Classes

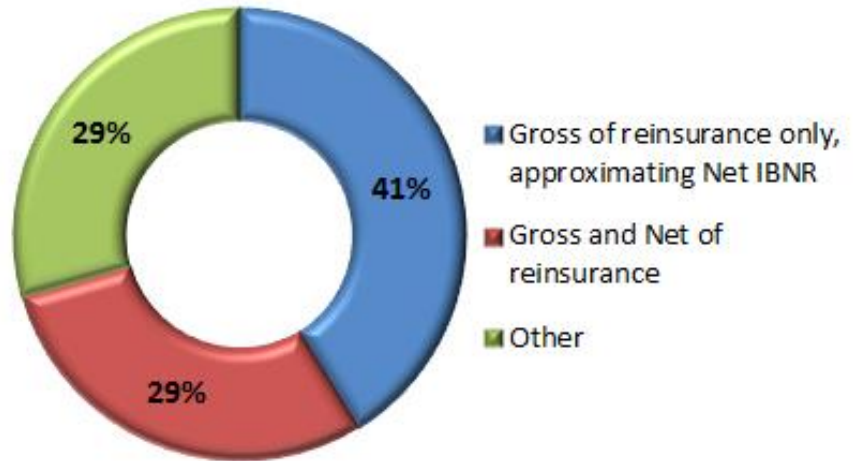
Calculation of Quarterly Estimates



- **Other**
 - Interim Measures
 - Frequency Update

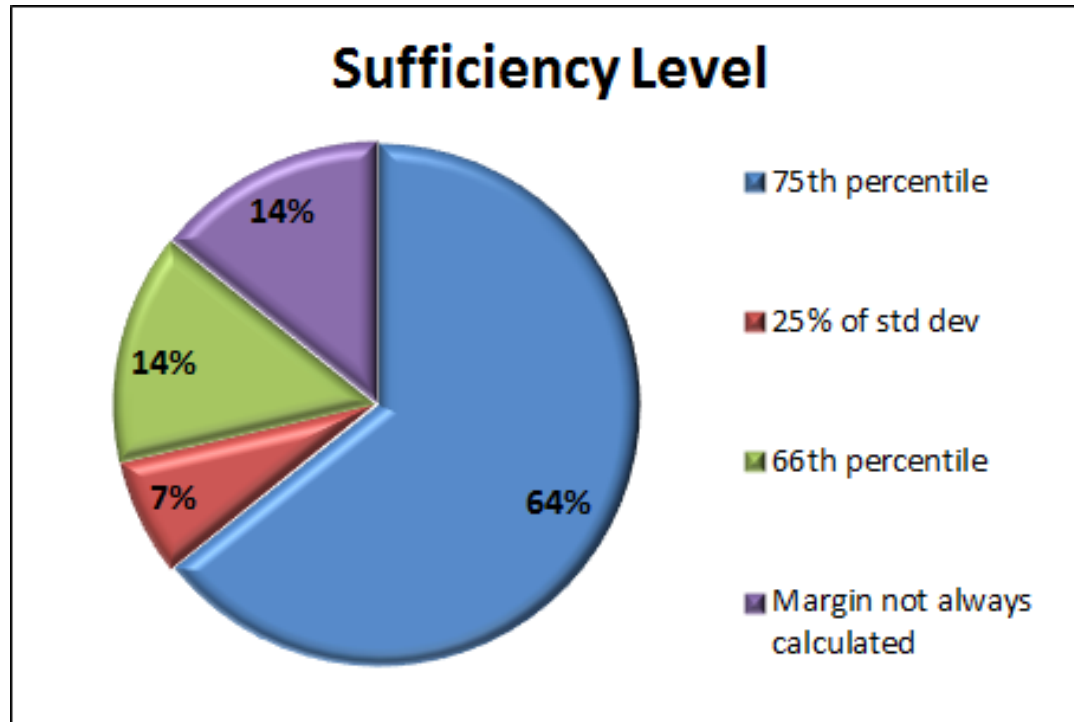
Other Allowances

- ***Reinsurance allowance in calculating IBNR:***



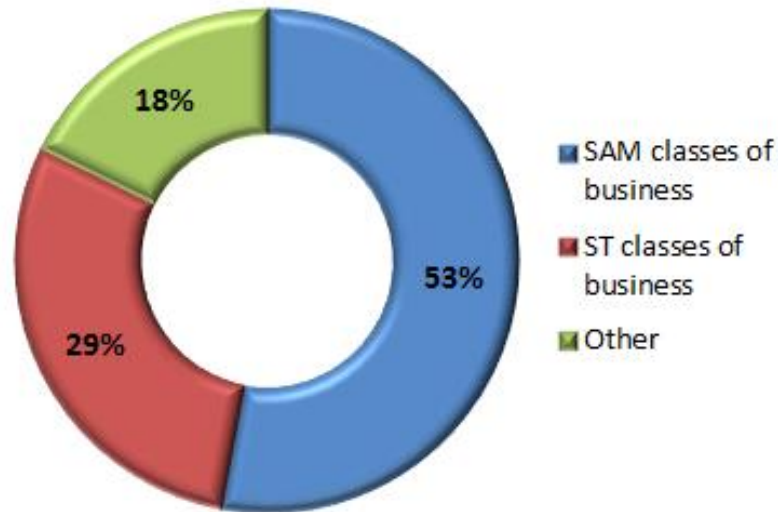
- ***IBNeR analysed separately***
71% of the companies analyse IBNeR separately.
- ***Unallocated Loss Adjustment Expense (ULAE)***
 - Explicit allowance - 59%
 - No allowance - 41%
- ***Allocated Loss Adjustment Expenses (ALAE)***
35% of the companies separate ALAEs from claim amounts.

Additional Margin (above best estimate)



- Most calculate the additional margin at 75th percentile level of sufficiency.

Segmentation



- **Other:**
 - Management internal reporting segmentation - by product line
 - Both (ST and SAM classes) and internal requirements
 - Motor Accident, Motor Third Party & Non-Motor
 - Allowance for 3rd party damages, recoveries and salvages

Reserve Review

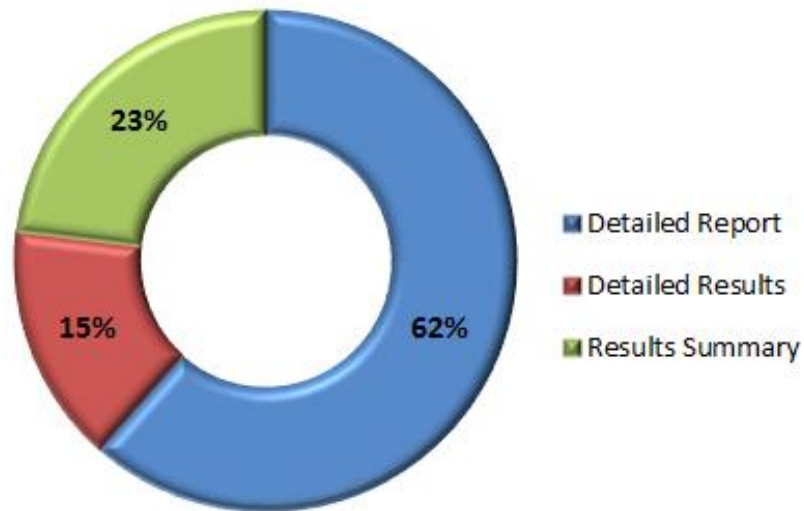
- Full reserve review performed:

Option	Percentage (%)
Annually	29%
Semi-Annually	41%
Quarterly	24%
Monthly	6%

- Number of full-time individuals in a reserving team:
 - <2 individuals (47%)
 - 3 individuals (53%)

Level of reporting

- 71% of respondents produce detailed reserving reports.
- Level of detail presented to the Board & Executives Committee level:

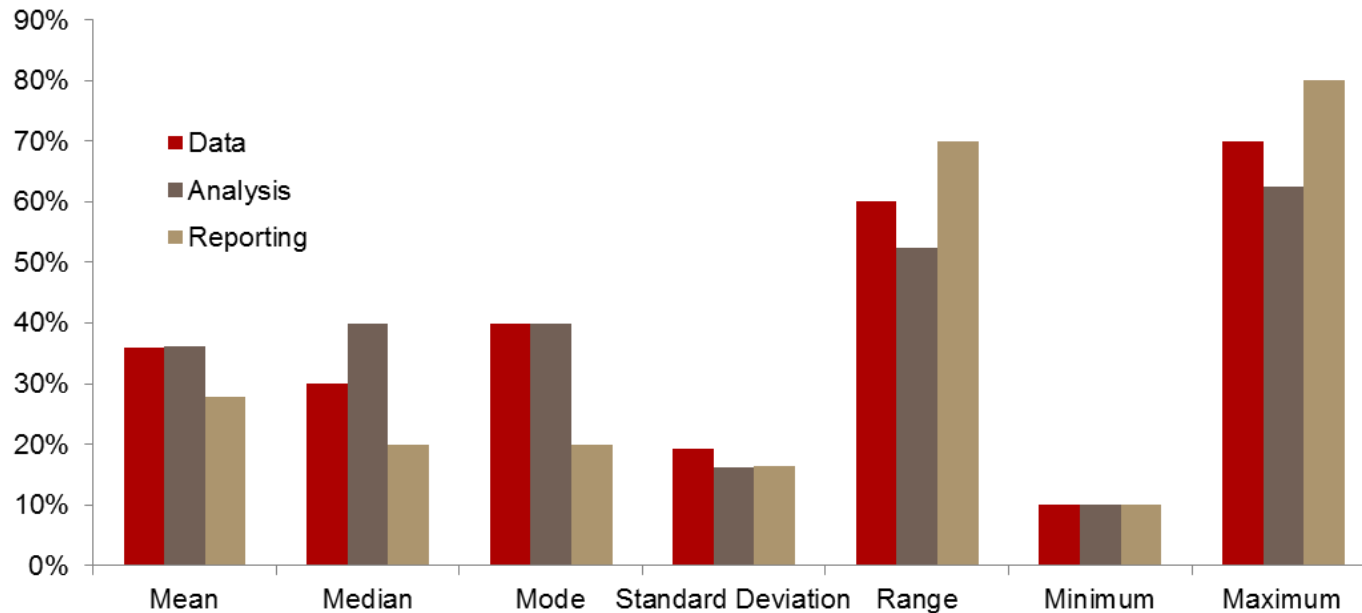


Actuarial Control Function

- Existence of 2nd line Actuarial Control Function (separate from 1st line):



Time spent during the reserving process



- On average an even amount of time is spent on each area of an insurers reserving process.
- There were a wide range of differing responses between insurers, suggesting that the reserving process for different companies do vary significantly.

Key constraints in ensuring accurate estimates are produced

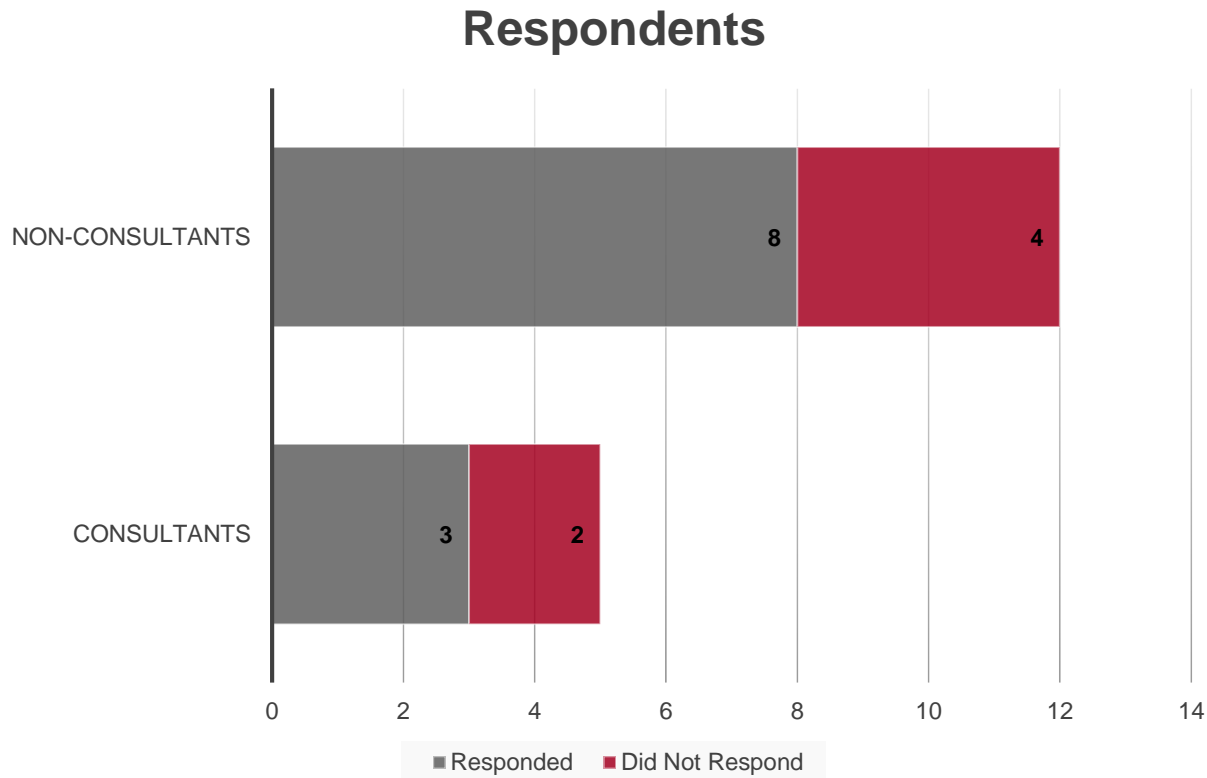
Ranking	Data	Resources	Time	SAM	Granularity	None
1	75%	0%	25%	0%	8%	0%
2	8%	25%	33%	0%	25%	0%
3	8%	25%	25%	25%	17%	0%
4	8%	25%	8%	33%	25%	0%
5	0%	25%	8%	42%	25%	0%
6	0%	0%	0%	0%	0%	100%

- Data is the key constraint against the accuracy of estimates.
- Time, was the 2nd biggest constraint.
- Resources and Granularity were similarly rated as the 3rd most important factors that influence the accuracy of the estimates.

Reserving Example

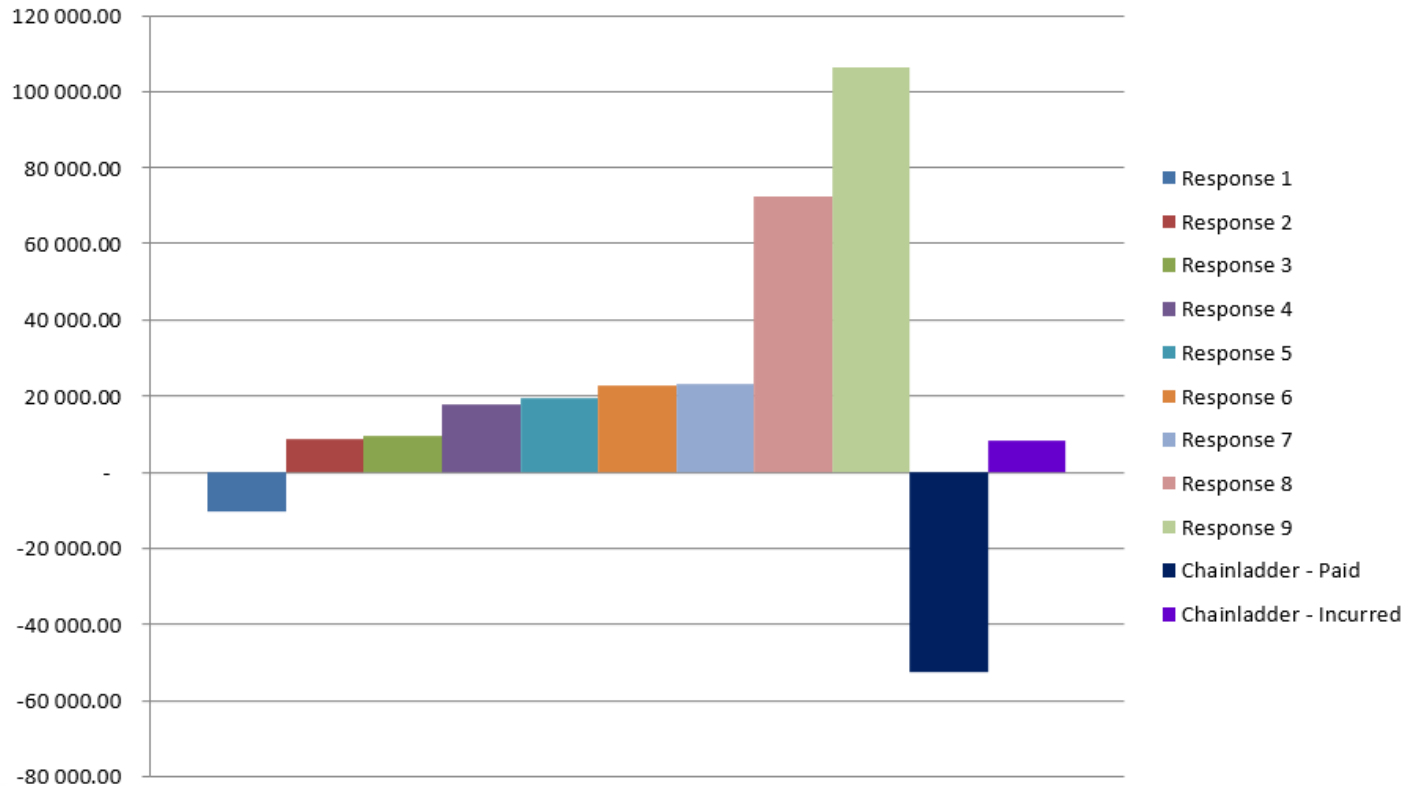
- Fun Exercise!
- Provided a template to calculate Ultimate IBNR using Paid and Incurred Claims
- Using Chain-Ladder and Bornhuetter-Ferguson (BF) methods
- We hoped to illustrate how, based on different points of view and methodologies, actuaries can arrive at a very different result.
- There is no wrong or right answer.

Reserving Example Results



- 11 people responded to the reserving example question of the 17 that did the survey.
- 2 Outliers excluded

Reserving Example Results - Total

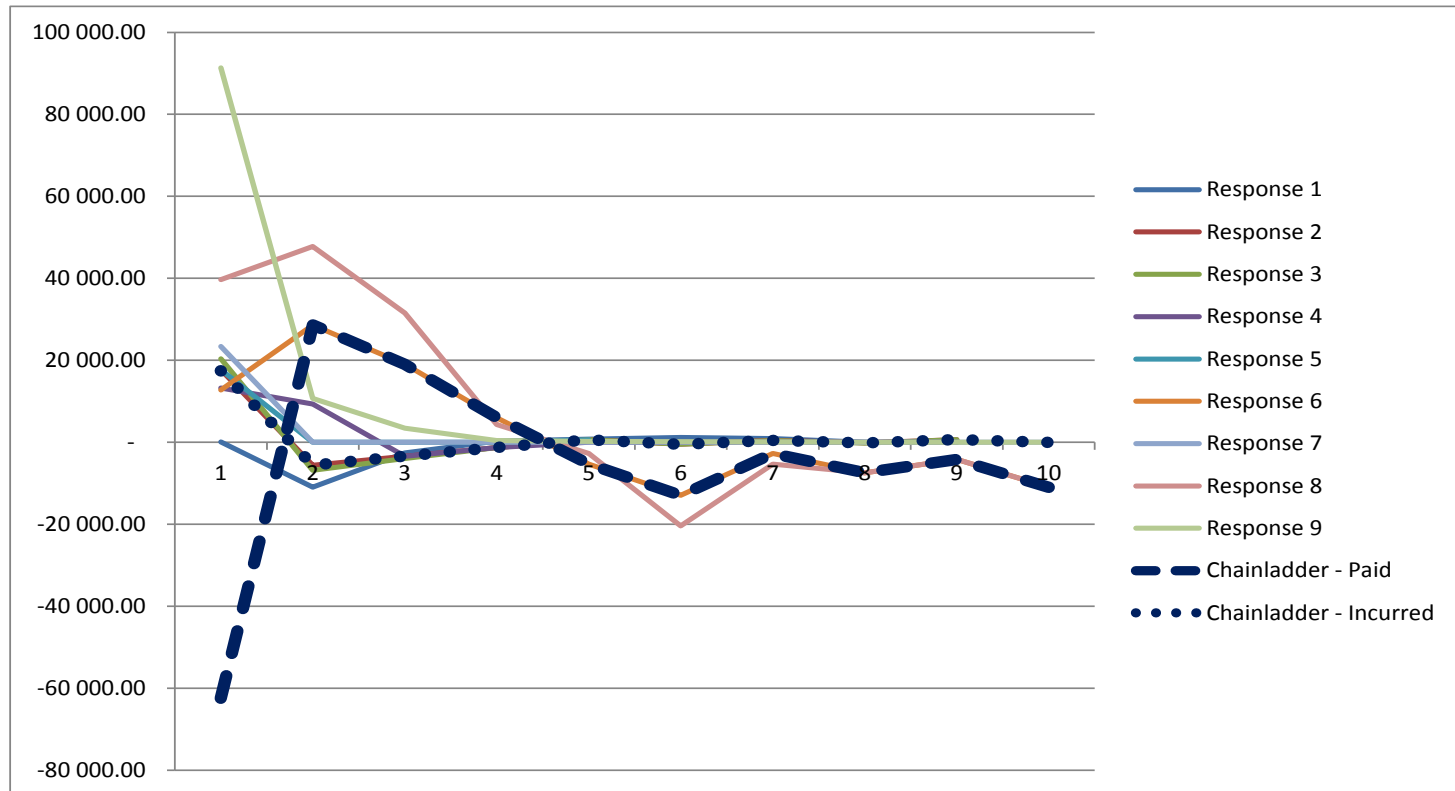


Reserving Example Results

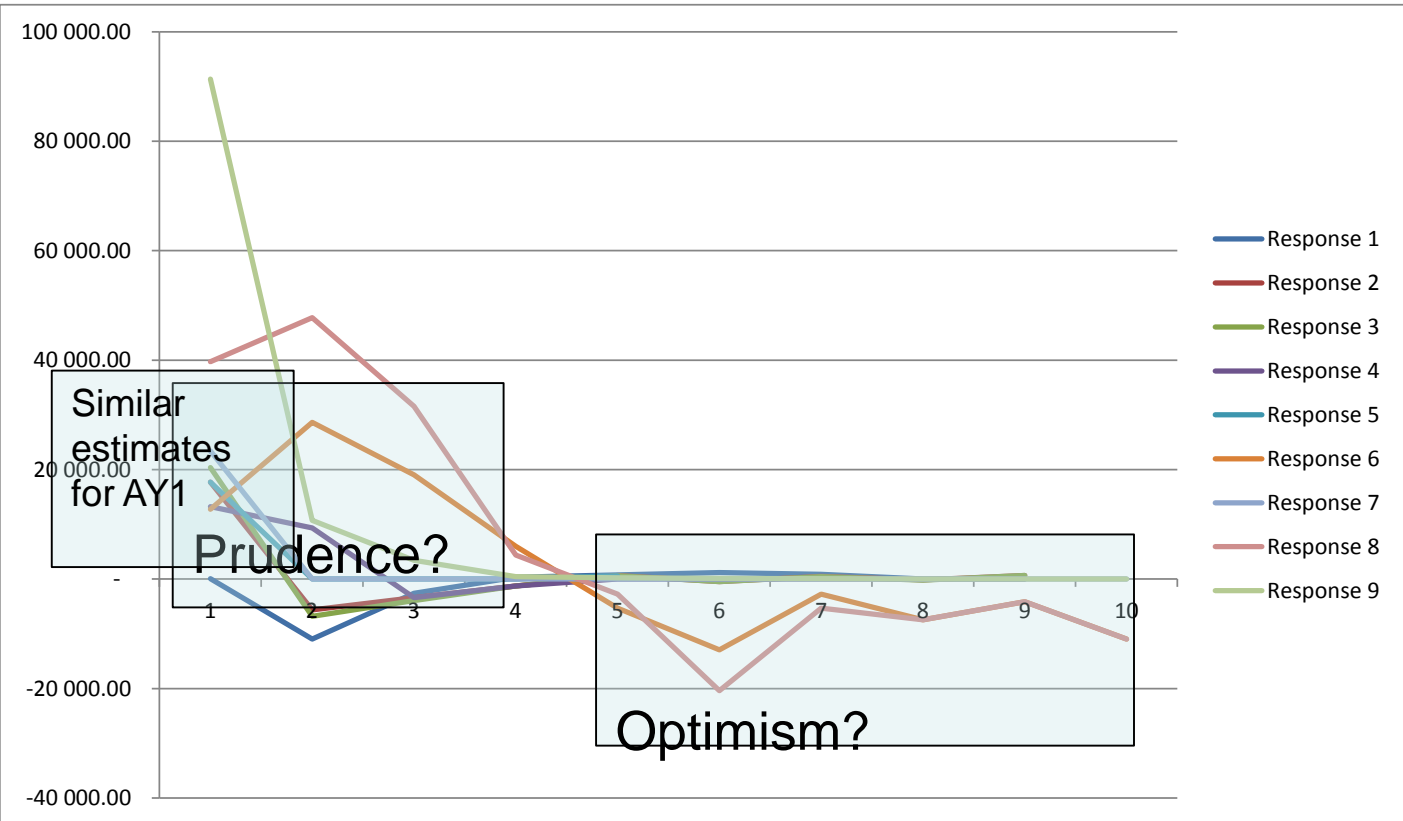
Outliers

Non-consultant	Consultant	Accident Period	Non-consultant	Consultant	Non-consultant	Non-consultant	Non-consultant	Non-consultant	Consultant	Non-consultant	Non-consultant	Chainladder - Paid	Chainladder - Incurred
-	0	1	-	-	-	-	-	-10 972	-	-10 972	2	-10 972	-
132 401	1.90%	2	-	640	632	-	632	-4 166	-	-4 166	6	-4 166	632
308 653	0.47%	3	-	-145	-176	-	-	-7 425	-	-7 425	21	-7 425	-176
597 466	0.15%	4	876	495	456	-	456	-2 735	-	-5 324	70	-2 735	456
2 390 849	0.00%	5	1 195	-460	-471	-	-	-12 950	-	-20 410	131	-12 950	-471
3 033 910	0.00%	6	754	650	606	-	606	-5 308	-	-2 742	229	-5 308	606
4 686 106	0.00%	7	320	-1 265	-1 258	-1 258	-	6 004	-	4 362	453	6 004	-1 258
7 373 734	0.00%	8	-2 591	-3 380	-3 941	-3 403	-	19 029	-	31 539	3 420	19 029	-3 403
11 897 037	0.00%	9	-10 975	-5 620	-6 812	9 315	-	28 603	-	47 758	10 705	28 603	-5 536
19 083 808	0.00%	10	73	17 680	20 383	13 231	17 690	12 767	23 383	39 694	91 350	-62 449	17 437
49 503 964	0	Total	-10 348	8 595	9 419	17 885	19 384	22 847	23 383	72 314	106 387	-52 368	8 287

Reserving Example Results - AY



Reserving Example Results



Reserving Example Results

- Some consistencies in some Accident Periods, but totally different end results
- Difference in allowance for negative IBNR's
- Difference in Conservatism/ Prudence

Members of working party

Member	Company
Lynette Calitz	M&F
Ronald Richman	AIG
Sajiv Issuree	Renasa Insurance
Kevin Ross	M&F
Michael Meyer	Standard Bank
Dhiren Motilal	Standard Bank
Ruhan Meyer	Nedbank Insurance
Clive Hogarth	Guardrisk
Nokuthula Skhosana	AIG

Calling for members

reservingworkingparty@actuarialsociety.org.za

Questions

?