Coordination of the Actuarial and Claims Function

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Ways in which the Claims function can assist Actuarial analysis

Reserve Adequacy Review	Targeted review to ensure claims are properly and consistently valued.
Operational Review	Audit to ensure compliance with company and industry standards
Affiliate/Strategic Partner Management Review	Review of affiliate and TPAs to assess compliance with company (industry) standards
Leakage Study	Examination of hard and soft leakage to gain efficiencies and cost savings
Defense Cost Analysis	Review company's defense strategy and litigation spend
Reinsurance Audits	Evaluation of ceded/assumed loss portfolio
Forensic Underwriting Reviews	Claims due diligence of underwriting effectiveness
Corporate Self Insured Studies	Evaluate TPA effectiveness and develop loss control initiatives

Claim Department Activities that Impact Development Patterns

- **Changes in Claims Management, Methodology and Systems**

- **Organizational Changes and Workload Reallocation**

- **Year-End Events (Weather)**

- **Data Cut-Offs (Holiday Week Off)**

- **Self- Insureds - Change in TPA's or Risk Manager**

Standard Actuarial Tests May Not Produce Material Differences

- **Variability of Aggregate Statistics**

- **Gradual Change in Claim Operations**

- **Diverse Claim Servicing Centers**

- **Segment Re-classifications**

Use of Claim Statistics To Supplement Actuarial Data

- **Days Outstanding**

- **Claims Diary (claims per adjuster)**

- **Outstanding "Claim Reports"**

- **Average Duration of Claim Change**

- **Claim Distributions (by size and type)**

- **Burn Rate – WC Tail**

Example 1

New TPA or a Claim Executive Changing Claim Philosophy

Issue

Significant Change in Average Value of Case Reserve and Settlement Strategy

Does not have to be the classic reserving situation - similar process for Defense/Settlement Strategies, Subrogation and Recovery Strategies

Net Retained Development Data
Average Case Reserve Per Open Claim Valued 5/31/2013

	Age as of 5/31/2013												
Policy Year	12	24	36	48	60	72	84	96	108	120	132	144	156
5/1/97-98				45,796	61,121	77,341	62,560	75,967	67,773	78,901	70,082	26,536	23,209
5/1/98-99			55,888	54,365	62,639	86,412	76,523	85,062	89,556	98,882	91,092	86,536	82,456
5/1/99-00			44,229	34,243	36,915	63,743	63,226	75,697	71,939	67,748	65,070	40,311	32,362
5/1/00-01			16,633	14,693	23,263	43,795	38,534	40,242	37,187	35,512	33,844	32,783	54,798
5/1/01-02		15,475	13,932	14,427	24,256	25,814	52,766	48,058	63,904	42,559	64,324	83,342	
5/1/02-03	7,621	9,786	10,731	8,381	17,635	38,526	52,050	52,805	40,346	46,962	78,231		
5/1/03-04	16,578	34,430	37,281	31,076	35,561	36,388	50,025	45,825	43,601	65,846			
5/1/04-05	8,725	8,116	24,831	38,569	43,850	67,873	60,199	45,763	61,987				
5/1/05-06	9,242	24,787	50,216	47,730	65,506	62,999	48,832	64,589					
5/1/06-07	10,623	19,040	33,922	45,436	44,501	42,934	67,266						
5/1/07-08	13,310	28,646	41,786	38,360	46,534	71,756							
5/1/08-09	16,772	29,911	37,510	46,375	68,394								
5/1/09-10	14,685	18,186	43,002	51,777									
5/1/10-11	15,447	31,103	48,486										
5/1/11-12	22,285	35,826											
5/1/12-13	23,173												

Example 1

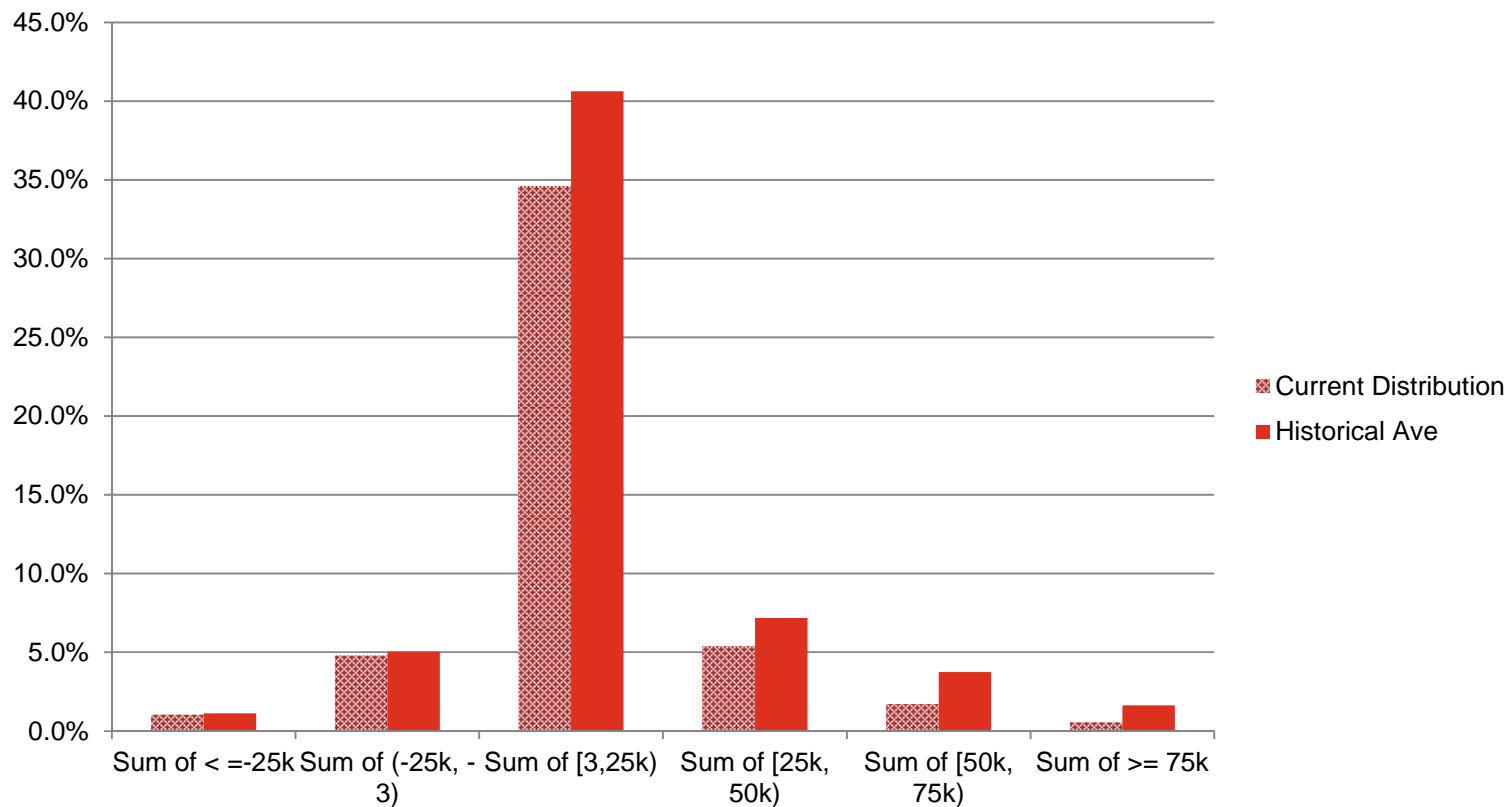### *New TPA or a Claim Executive Changing Claim Philosophy*

Analysis

- **Target Claim Sampling to Evaluate Differences in Values**

- **Target Claim Sampling to Evaluate Differences in Timing**

- **Comparisons vs. Prior Period Benchmarks**

- **Evaluate Distribution of Change in Incurred Values**

Example 1

New TPA or a Claim Executive Changing Claim Philosophy

Distribution of Change in Incurred

Example 1

New TPA or a Claim Executive Changing Claim Philosophy

AY	Counts					
	Sum of < =-25k Counts	Sum of (-25k, 0) Counts	Sum of [0,25k) Counts	Sum of [25k, 50k) Counts	Sum of [50k, 75k) Counts	Sum of >= 75k Counts
1998	3	5	156	6	8	1
1999	3	3	226	6	6	2
2000	2	2	456	12	12	5
2001	3	9	585	14	16	6
2002	5	5	571	6	7	9
2003	1	7	708	10	13	7
2004	2	9	867	12	6	5
2005	3	12	957	6	9	12
2006	1	21	1108	8	11	7
2007	2	17	1355	16	17	13
2008	6	26	1759	22	18	10
2009	5	34	1907	37	22	9
2010	8	39	2306	60	31	6
2011	11	64	2416	71	37	9
2012	17	70	2583	173	27	3
Grand Total	72	323	17960	459	240	104
Percent	0.38%	1.69%	93.75%	2.40%	1.25%	0.54%
Historical Ave	0.35%	1.60%	95.49%	1.80%	0.57%	0.19%

Example 1

New TPA or a Claim Executive Changing Claim Philosophy

AY	Values - Dollars					
	Sum of < =-25k	Sum of (-25k, 0)	Sum of [0,25k)	Sum of [25k, 50k)	Sum of [50k, 75k)	Sum of >= 75k
1998	(194,652)	(56,210)	99,372	298,440	528,816	152,779
1999	(314,196)	(40,704)	1,210,908	278,970	310,878	247,252
2000	(57,952)	(25,400)	1,172,376	309,324	765,876	618,165
2001	(145,389)	(143,649)	820,170	543,368	820,768	839,292
2002	(315,270)	(57,790)	5,507,295	230,532	474,327	1,596,114
2003	(43,452)	(26,306)	6,139,068	478,610	967,993	1,609,629
2004	(275,112)	(94,986)	6,212,922	454,236	351,804	521,950
2005	(333,159)	(7,500)	8,163,210	195,960	662,931	2,166,168
2006	(99,069)	(121,002)	7,605,312	232,576	554,686	1,212,085
2007	(97,170)	(17,357)	12,666,540	727,616	1,259,360	2,145,260
2008	(213,996)	(268,892)	29,640,909	839,080	1,015,848	2,032,490
2009	(294,485)	(620,670)	24,039,642	1,201,945	1,211,298	760,194
2010	(314,928)	(88,218)	44,452,762	1,903,740	2,010,660	998,478
2011	(423,280)	(938,496)	57,662,672	3,017,358	2,574,053	1,976,355
2012	(498,746)	(953,330)	42,175,224	5,726,992	1,925,694	681,369
Grand Total	(3,620,856)	(3,460,510)	247,568,382	16,438,747	15,434,992	17,557,580
Normalized Prior Average	(3,352,650)	(3,295,176)	228,674,678	11,207,430	6,879,638	4,004,022
Potential Strengthening			$10M - $20M **	$5M	$9M	$13M
Average Change	(50,290)	(10,714)	13,784	35,814	64,312	168,823
Historical Average	(50,000)	(10,750)	12,500	32,500	63,000	110,000

Example 1

New TPA or a Claim Executive Changing Claim Philosophy

Results

- **Use of Claims Analysis to Develop:**

    - **Frequency/Severity Methods to Quantify Impact**

    - **Management Process to Monitoring A vs. E**

Example 2

Difficulty in Selecting Tail Factor

Issue

- **Some insurers and self-insureds do not have sufficient experience from which to develop a tail factor using historical experience.**

- **Normally rely on insurance industry benchmarks for tail factor.**

- **Is the TPA establishing case reserves using industry best practices?**

Example 2

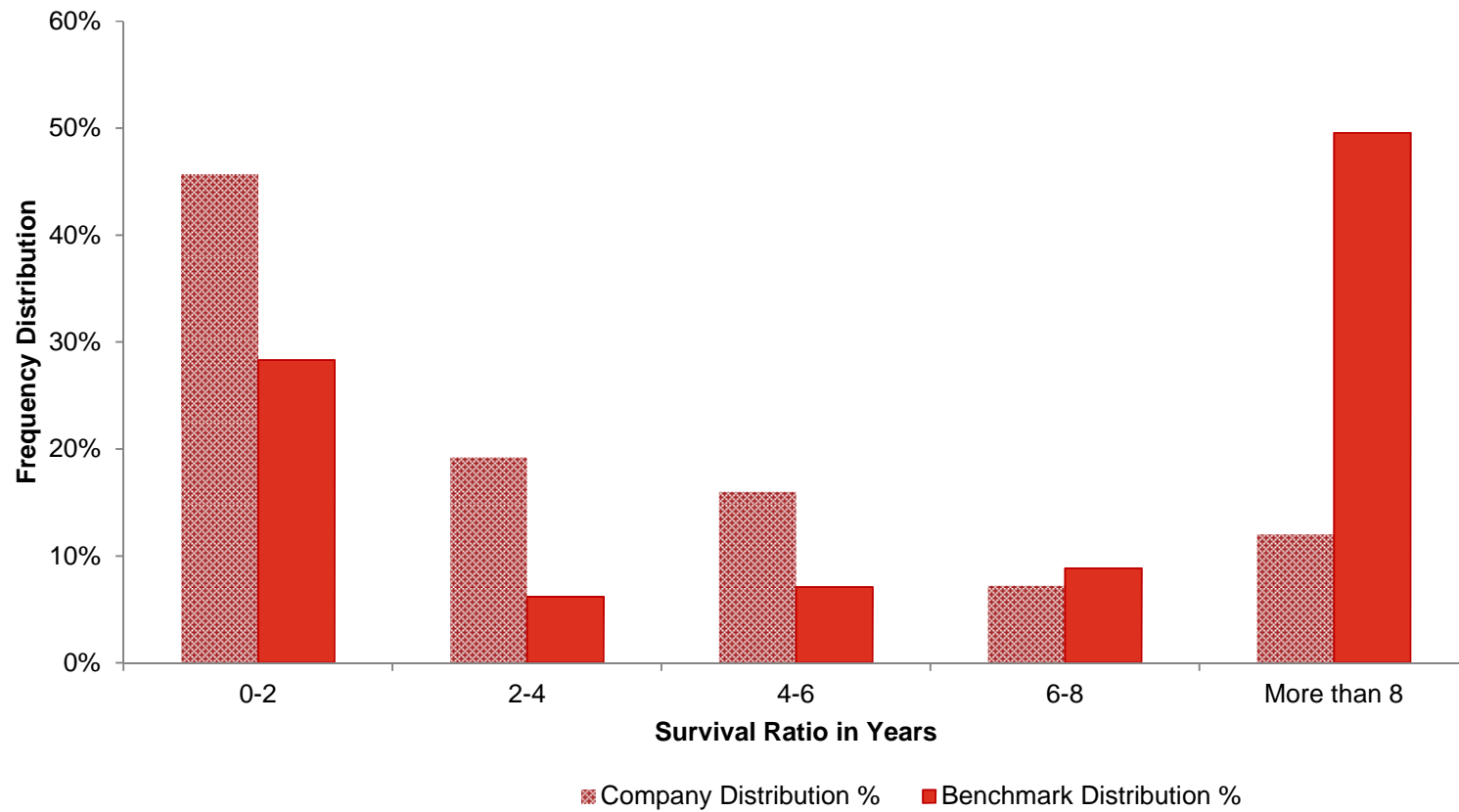### *Difficulty in Selecting Tail Factor*

Analysis

- **Compare Benchmark Paid to Incurred**

- **Consider Benchmark Burning Rates**

- **Targeted Claim Studies – Are case reserves being established using industry best practices?**

Example 2

Difficulty in Selecting Tail Factor

Histogram - Target Company vs. Benchmark

Example 2

Consolidation of Claim Service Centers

Results

- **Use Claim Case Adequacy Review to Determine Tail Factor**

- **Consider Annuity Analysis to Validate Tail**

Example 3

Consolidation of Claim Service Centers

Issue

While all service centers were suppose to be using the same company philosophy, clearly differences existed before and after the consolidation.

Example 3

Consolidation of Claim Service Centers

Analysis

- **Claim Studies to Identify Differences in Process**

- **Comparison Benchmarking Between Service Centers**

- **Statistics to Measure Potential Impact from Consolidation**

Example 3

Consolidation of Claim Service Centers

Results

- **Enhanced Standardization**

- **Metrics to Monitor Differences**

- **More Consistent Development Patterns**

Lessons Learned – Keys to Success

Time is of the essence - The sooner the claim professionals are approached the better - given the breadth and complexity of the actuarial analysis, the use of claims analysis should be considered as soon as possible.

Devil is in the details - It is important the actuarial staff articulate to the claim professionals the specifics of the issue or data anomalies to be reviewed to ensure that the appropriate analysis is performed.

Coordination is key - Close and continuous collaboration between the actuarial and claims staff is critical to ensure that meaningful results are achieved.