

Arius[®]

Sample Reports



IT TAKES VISION

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Arius

Next generation reserve analysis

Arius brings together the best deterministic and stochastic tools and makes them available on a single convenient platform that provides valuable new insights into your business. Deterministic results are combined with distributions of possible outcomes from stochastic tools to model the nuances of your particular business. The result is actionable information that you can use to support complex business decisions.

With hundreds of exhibits, methods, and management reports built in, the Arius Deterministic reserving module makes it easy to evaluate your data in new ways. The system's extensive reporting takes your selections and distills them into actionable information that can be used to drive management decision-making. Beyond the custom reporting, Arius' workflow can be configured to support existing processes, up to and including the final report. The Arius Stochastic module uses a variety of simulation approaches to produce a full distribution of possible outcomes and the tools necessary to support a formal process for estimating confidence intervals around the expected value. The bottom line? Arius manages the entire analysis, with no exposed formulas or volatile links, so you'll spend more of your valuable time analyzing data, and less time assembling it.

Use Arius to:

- analyze loss development patterns and underwriting results
- estimate incurred but not reported (IBNR) reserves
- test the adequacy of established loss and loss adjustment expense (LAE) reserves
- identify claim settlement and reporting patterns
- support product development and pricing analyses
- project future cash flows
- assist with preparation of Schedule P
- calculate a distribution around your actuarial central estimate of reserves
- estimate unpaid amounts at user-specified percentiles
- estimate ultimate loss ratios, cash flows, and TVaR by percentile
- estimate discounted results based on either a constant rate or term structure

This document highlights some of the capabilities of Arius. To begin, Arius organizes more than 20 types of loss and claim information, including payments, reserves, claim counts, adjustment expenses, premiums and exposures, and salvage and subrogation. Next, Arius calculates statistics and helps you identify meaningful relationships and trends. In the final step of the deterministic process, selected statistics or development factors are used with appropriate methods to project ultimate losses and expenses. With the stochastic module, you can calculate a distribution around your deterministic estimate. This can provide you with an understanding of where within percentile ranges your estimates might fall, as well as a measure of the potential variability in your estimates. Once your analysis is complete, management reports summarize the results of the process.

The best way to understand how you can benefit from Arius is with a demonstration or by trying an evaluation copy without any obligation. Call 1-800-404-2276 or visit www.actuarialsoftware.com to learn more about how Arius can help you get the information you need, when you need it.

Summary Management Reports

Arius provides over 80 pre-defined management reports and the capability to create graphs and user-defined versions to summarize the results of your loss analysis. These concise and easy to understand formats provide excellent documentation of your work as well as a clear presentation of high-level statistics and trends, potential loss estimates, and comparisons of reserve indications.

The following pages demonstrate comparisons of claims, loss, and IBNR reserves. Trends in average loss, loss per exposure, and claim frequencies are also presented. These are just a few examples of the extensive management reporting capabilities that Arius offers.

ANY Company, Inc.
Coverage XYZ

Exhibit 1
Sheet 1

Summary of Loss Reserve Estimates
Data Evaluated at 12/31/2020

Accident Year	Ultimate Loss (1)	Selected Proportion Earned (2)	Prorated Ultimate Loss (1) x (2) (3)	Incurred Loss (4)	Paid Loss (5)	Case Loss Reserves (4) - (5) (6)	IBNR Loss Reserves (3) - (4) (7)	Total Outstanding Loss Reserves (6) + (7) (8)
2009	\$ 13,175,000	1.000	\$ 13,175,000	\$ 13,173,842	\$ 12,726,242	\$ 447,600	\$ 1,158	\$ 448,758
2010	11,625,000	1.000	11,625,000	11,589,441	11,093,059	496,382	35,559	531,941
2011	12,185,000	1.000	12,185,000	12,063,803	11,431,603	632,200	121,197	753,397
2012	14,010,000	1.000	14,010,000	13,695,663	12,719,770	975,893	314,337	1,290,230
2013	13,300,000	1.000	13,300,000	12,669,190	11,553,737	1,115,453	630,810	1,746,263
2014	13,195,000	1.000	13,195,000	12,172,858	10,733,146	1,439,712	1,022,142	2,461,854
2015	12,315,000	1.000	12,315,000	11,280,995	8,629,581	2,651,414	1,034,005	3,685,419
2016	11,135,000	1.000	11,135,000	9,699,435	6,365,073	3,334,362	1,435,565	4,769,927
2017	13,940,000	1.000	13,940,000	10,334,102	6,377,809	3,956,293	3,605,898	7,562,191
2018	10,635,000	1.000	10,635,000	6,826,828	2,818,101	4,008,727	3,808,172	7,816,899
2019	12,675,000	1.000	12,675,000	7,437,611	1,856,999	5,580,612	5,237,389	10,818,001
2020	12,755,000	1.000	12,755,000	6,332,875	244,743	6,088,132	6,422,125	12,510,257
Total	\$ 150,945,000		\$ 150,945,000	\$ 127,276,643	\$ 96,549,863	\$ 30,726,780	\$ 23,668,357	\$ 54,395,137

(1): Exhibit 2, Sheet 1

ANY Company, Inc.
Coverage XYZ

Estimated Loss Reserve Redundancy or (Deficiency)
Data Evaluated at 12/31/2020

Accident Year	Carried Case and IBNR Loss Reserves	Indicated Case and IBNR Loss Reserves	Redundancy or (Deficiency) (1) - (2)
	(1)	(2)	(3)
2009	\$ 467,557	\$ 448,758	\$ 18,799
2010	527,928	531,941	(4,013)
2011	823,676	753,397	70,279
2012	1,518,626	1,290,230	228,396
2013	1,941,111	1,746,263	194,848
2014	2,730,502	2,461,854	268,648
2015	4,521,327	3,685,419	835,908
2016	5,957,638	4,769,927	1,187,711
2017	9,099,412	7,562,191	1,537,221
2018	8,235,584	7,816,899	418,685
2019	13,492,127	10,818,001	2,674,126
2020	12,255,257	12,510,257	(255,000)
Total	\$ 61,570,745	\$ 54,395,137	\$ 7,175,608

(1): Provided by Management

(2): Exhibit 1, Sheet 1

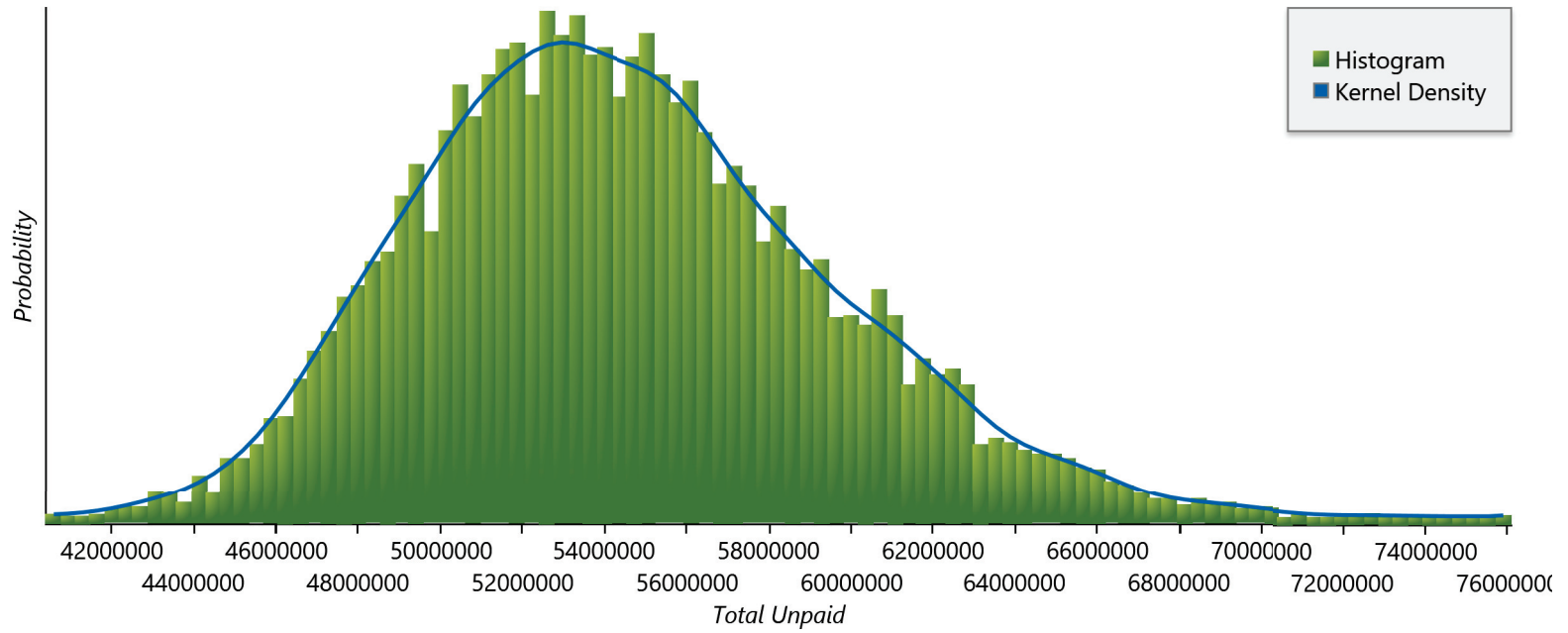
ANY Company, Inc.
Coverage XYZ

ODP Bootstrap Unpaid – Best Estimate (Weighted, Shifted)
Data Evaluated at 12/31/2020

Accident Year	Mean	Standard Error	Coefficient of Variation	Minimum	Maximum	50.0 %	75.0 %	80.0 %	85.0 %	90.0 %	95.0 %	97.5 %	99.0 %	99.5 %	99.9 %
2009	448,758	490,121	109.22 %	(23,881)	2,779,192	332,668	755,367	869,749	995,961	1,149,862	1,389,113	1,619,764	1,845,986	2,031,626	2,459,982
2010	531,941	439,462	82.61 %	(63,166)	2,598,961	426,605	799,813	898,818	1,014,238	1,161,074	1,387,293	1,564,866	1,814,098	1,958,828	2,233,308
2011	753,397	467,711	62.08 %	(90,747)	3,153,192	656,185	1,043,646	1,143,865	1,271,420	1,417,455	1,637,787	1,838,877	2,096,456	2,223,931	2,546,617
2012	1,290,230	541,004	41.93 %	205,015	4,181,988	1,194,435	1,623,428	1,739,228	1,872,989	2,049,550	2,312,113	2,544,851	2,811,442	3,008,183	3,386,291
2013	1,746,263	540,929	30.98 %	505,606	4,398,844	1,670,880	2,080,435	2,194,161	2,319,873	2,493,939	2,737,931	2,948,403	3,201,887	3,443,123	3,811,807
2014	2,461,854	574,197	23.32 %	985,589	5,359,183	2,408,066	2,813,776	2,924,467	3,054,657	3,230,829	3,487,954	3,734,018	3,989,753	4,239,521	4,730,866
2015	3,685,419	638,767	17.33 %	1,690,436	6,773,330	3,629,233	4,087,165	4,212,256	4,349,393	4,535,578	4,814,731	5,053,069	5,371,589	5,606,135	6,075,097
2016	4,769,927	787,413	16.51 %	2,386,513	8,456,189	4,732,397	5,277,709	5,419,190	5,590,103	5,796,737	6,130,454	6,394,829	6,765,595	6,977,470	7,704,672
2017	7,562,191	1,140,976	15.09 %	3,937,449	12,428,899	7,500,142	8,315,787	8,517,319	8,753,278	9,059,357	9,523,335	9,939,501	10,367,376	10,692,452	11,347,762
2018	7,816,899	1,320,517	16.89 %	3,495,105	13,844,507	7,750,045	8,677,452	8,933,476	9,210,199	9,552,671	10,080,048	10,544,844	11,116,488	11,513,655	12,225,276
2019	10,818,001	1,686,322	15.59 %	4,299,572	18,262,722	10,745,879	11,889,907	12,187,974	12,556,951	13,021,234	13,721,339	14,361,329	15,096,379	15,654,694	16,714,048
2020	12,510,257	1,791,247	14.32 %	7,003,172	22,361,813	12,387,904	13,650,820	13,992,331	14,372,459	14,872,190	15,619,658	16,297,365	17,156,978	17,751,409	18,833,042
Total	54,395,137	4,863,001	8.94 %	40,410,278	76,066,710	54,013,350	57,482,735	58,442,568	59,573,361	61,008,434	62,932,425	64,937,688	66,688,038	68,285,660	70,346,172
Normal %iles	54,395,137	4,862,758	8.94 %			54,395,137	57,675,018	58,487,738	59,435,062	60,627,012	62,393,662	63,925,968	65,707,604	66,920,772	69,422,189
Lognormal %iles	54,394,236	4,833,506	8.89 %			54,180,746	57,520,613	58,379,545	59,396,938	60,702,278	62,689,941	64,466,575	66,595,698	68,085,582	71,263,609
Gamma %iles	54,395,137	4,831,057	8.88 %			54,252,182	57,571,056	58,413,775	59,406,336	60,670,976	62,577,871	64,263,452	66,260,506	67,643,387	70,554,047
TVaR						58,278,216	60,909,045	61,644,158	62,524,459	63,628,591	65,333,875	66,828,637	68,551,820	69,768,508	72,222,422
Normal TVaR						58,275,057	60,576,219	61,202,073	61,953,769	62,929,196	64,425,611	65,763,307	67,355,429	68,457,984	70,768,482
Lognormal TVaR						58,238,196	60,704,770	61,395,972	62,237,531	63,348,074	65,092,618	66,694,464	68,653,985	70,045,361	73,054,761
Gamma TVaR						58,245,541	60,652,369	61,319,748	62,128,321	63,188,807	64,840,137	66,341,154	68,158,073	69,435,641	72,164,267

ANY Company, Inc.
Coverage XYZ

ODP Bootstrap Total Unpaid Distribution - Best Estimate (Weighted, Shifted)
Data Evaluated at 12/31/2020



ANY Company, Inc.
Coverage XYZ

Estimated Loss Ratios
Data Evaluated at 12/31/2020

Accident Year	Ultimate Loss	Ultimate Premiums	Loss Ratio (1) / (2)
	(1)	(2)	(3)
2009	\$ 13,175,000	\$ 15,483,728	85.09 %
2010	11,625,000	15,289,024	76.03 %
2011	12,185,000	14,733,743	82.70 %
2012	14,010,000	14,806,193	94.62 %
2013	13,300,000	15,144,409	87.82 %
2014	13,195,000	15,983,341	82.55 %
2015	12,315,000	16,562,773	74.35 %
2016	11,135,000	16,869,249	66.01 %
2017	13,940,000	17,313,176	80.52 %
2018	10,635,000	17,076,964	62.28 %
2019	12,675,000	17,148,189	73.91 %
2020	12,755,000	17,427,566	73.19 %
Total	\$ 150,945,000	\$ 193,838,356	77.87 %

(1): Exhibit 2, Sheet 1

(2): Based on a review of Earned Premium Development

ANY Company, Inc.
Coverage XYZ

Estimated Ultimate Average Loss
Data Evaluated at 12/31/2020

Accident Year	Ultimate Loss (1)	Ultimate Claims (2)	Ultimate Average Loss (1) / (2) (3)	Change in Ultimate Average Loss (4)	Percentage Change (4) / Prior (3) (5)
2009	\$ 13,175,000	918	\$ 14,352		
2010	11,625,000	819	14,194	(158)	-1.10 %
2011	12,185,000	767	15,887	1,692	11.92 %
2012	14,010,000	793	17,667	1,781	11.21 %
2013	13,300,000	707	18,812	1,145	6.48 %
2014	13,195,000	734	17,977	(835)	-4.44 %
2015	12,315,000	729	16,893	(1,084)	-6.03 %
2016	11,135,000	696	15,999	(894)	-5.29 %
2017	13,940,000	791	17,623	1,625	10.16 %
2018	10,635,000	705	15,085	(2,538)	-14.40 %
2019	12,675,000	749	16,923	1,837	12.18 %
2020	12,755,000	613	20,808	3,885	22.96 %
Total	\$ 150,945,000	9,021			
Exponential Fit:					
	Trend (%)		1.67 %		
	Intercept		\$ 15,041		
	R Squared		0.285		

(1): Exhibit 2, Sheet 1

(2): Based on Reported Development Method calculated internally

(4): Current (3) - Prior (3)

ANY Company, Inc.
Coverage XYZ

Estimated Ultimate Loss per Exposure
Data Evaluated at 12/31/2020

Accident Year	Ultimate Loss (1)	Exposures (2)	Ultimate Loss per Exposure (1) / (2) (3)	Change in Ultimate Loss per Exposure (4)	Percentage Change (4) / Prior (3) (5)
2009	\$ 13,175,000	200,935	\$ 65.568		
2010	11,625,000	202,054	57.534	(8.034)	-12.25 %
2011	12,185,000	206,344	59.052	1.518	2.64 %
2012	14,010,000	209,400	66.905	7.854	13.30 %
2013	13,300,000	212,289	62.650	(4.255)	-6.36 %
2014	13,195,000	221,169	59.660	(2.990)	-4.77 %
2015	12,315,000	230,342	53.464	(6.196)	-10.39 %
2016	11,135,000	232,763	47.838	(5.626)	-10.52 %
2017	13,940,000	239,215	58.274	10.436	21.81 %
2018	10,635,000	240,038	44.305	(13.968)	-23.97 %
2019	12,675,000	247,286	51.256	6.951	15.69 %
2020	12,755,000	249,453	51.132	(0.125)	-0.24 %
Total	\$ 150,945,000	2,691,288			
Exponential Fit:					
			Trend (%)		-2.55 %
			Intercept		\$ 66.325
			R Squared		0.543

(1): Exhibit 2, Sheet 1

(2): Payroll (00's)

(4): Current (3) - Prior (3)

ANY Company, Inc.
Coverage XYZ

Estimated Ultimate Claim Frequency
Data Evaluated at 12/31/2020

Accident Year	Ultimate Claims	Exposures	Ultimate Claim Frequency (1) / (2)	Change in Ultimate Claim Frequency	Percentage Change (4) / Prior (3)
	(1)	(2)	(3)	(4)	(5)
2009	918	200,935	0.005		
2010	819	202,054	0.004	(0.001)	-11.28 %
2011	767	206,344	0.004	0.000	-8.30 %
2012	793	209,400	0.004	0.000	1.88 %
2013	707	212,289	0.003	0.000	-12.06 %
2014	734	221,169	0.003	0.000	-0.35 %
2015	729	230,342	0.003	0.000	-4.64 %
2016	696	232,763	0.003	0.000	-5.52 %
2017	791	239,215	0.003	0.000	10.58 %
2018	705	240,038	0.003	0.000	-11.18 %
2019	749	247,286	0.003	0.000	3.13 %
2020	613	249,453	0.002	(0.001)	-18.87 %
Total	9,021	2,691,288			
Exponential Fit:					
			Trend (%)	-4.16 %	
			Intercept	0.004	
			R Squared	0.864	

(1): Based on Reported Claim Development Method calculated internally

(2): Payroll (00's)

(4): Current (3) - Prior (3)

ANY Company, Inc.
Coverage XYZ

Comparison of Ultimate Loss to Prior Ultimate Loss
Data Evaluated at 12/31/2020

Accident Year	Selected Ultimate Loss (1)	Prior Ultimate Loss (2)	Change in Ultimate Loss (3)	Percentage Change (3) / (2) (4)
2009	\$ 13,175,000	\$ 13,225,000	(\$ 50,000)	-0.38 %
2010	11,625,000	11,644,730	(19,730)	-0.17 %
2011	12,185,000	12,113,752	71,248	0.59 %
2012	14,010,000	13,663,982	346,018	2.53 %
2013	13,300,000	13,405,680	(105,680)	-0.79 %
2014	13,195,000	13,082,751	112,249	0.86 %
2015	12,315,000	12,324,152	(9,152)	-0.07 %
2016	11,135,000	11,350,928	(215,928)	-1.90 %
2017	13,940,000	14,424,120	(484,120)	-3.36 %
2018	10,635,000	10,588,468	46,532	0.44 %
2019	12,675,000	12,438,081	236,919	1.90 %
2020	12,755,000			
Total	\$ 150,945,000	\$ 138,261,644	(\$ 71,644)	-0.05 %

(1): Exhibit 2, Sheet 1

(2): Based on results of prior Reserve Analysis as of 12/31/19 (dated 4/13/20)

(3): (1) - (2)

ANY Company, Inc.
Coverage XYZ

Exhibit 1
Sheet 10

Actual vs Expected Using Selected Paid Loss Development
Data Evaluated at 12/31/2020

Accident Year	Prior Indicated Case and IBNR Loss Reserves	From Development Age	Ratio of Cumulative Paid Loss to Ultimate Loss	To Development Age	Ratio of Cumulative Paid Loss to Ultimate Loss	Expected Incremental Percentage [(5)-(3)]/[1-(3)]	Expected Incremental Paid Loss (1) x (6)	Actual Incremental Paid Loss	Actual Paid Loss Less Expected Paid Loss	Percentage Change from Expected (9) / (7)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2009	\$ 699,558	132	0.957	144	0.971	33.00 %	\$ 230,877	\$ 200,800	(\$ 30,077)	-13.03 %
2010	777,899	120	0.936	132	0.957	32.14 %	250,019	226,228	(23,791)	-9.52 %
2011	1,136,576	108	0.906	120	0.936	31.82 %	361,657	454,427	92,770	25.65 %
2012	1,724,488	96	0.861	108	0.906	32.28 %	556,626	780,276	223,650	40.18 %
2013	2,590,332	84	0.801	96	0.861	30.22 %	782,785	738,389	(44,396)	-5.67 %
2014	3,665,594	72	0.715	84	0.801	30.15 %	1,105,298	1,315,989	210,691	19.06 %
2015	5,095,097	60	0.591	72	0.715	30.37 %	1,547,230	1,400,526	(146,704)	-9.48 %
2016	6,578,107	48	0.432	60	0.591	28.09 %	1,847,490	1,592,252	(255,238)	-13.82 %
2017	10,090,820	36	0.284	48	0.432	20.61 %	2,080,201	2,044,509	(35,692)	-1.72 %
2018	9,160,739	24	0.138	36	0.284	16.88 %	1,546,167	1,390,372	(155,795)	-10.08 %
2019	12,029,869	12	0.027	24	0.138	11.47 %	1,380,135	1,448,787	68,652	4.97 %
2020				12	0.027			244,743		
Total	\$ 53,549,079						\$ 11,688,485	\$ 11,837,298	(\$ 95,930)	-0.82 %

(1),(2): From prior Reserve Analysis as of 12/31/19 (dated 4/13/20)

(3),(5): Based on selected paid loss development factors from Exhibit 3, Sheet 2 and ages shown in (2) and (4), respectively

(9): (8) - (7)

ANY Company, Inc.
Coverage XYZ

Exhibit 1
Sheet 11

Actual vs Expected Using Selected Incurred Loss Development
Data Evaluated at 12/31/2020

Accident Year	Prior Indicated IBNR Loss Reserves	From Development Age	Ratio of Cumulative Incurred Loss to Ultimate Loss	To Development Age	Ratio of Cumulative Incurred Loss to Ultimate Loss	Expected Incremental Percentage [(5)-(3)]/[1-(3)]	Expected Incremental Loss (1) x (6)	Actual Incremental Loss	Actual Incurred Loss Less Expected Incurred Loss	Percentage Change from Expected (9) / (7)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2009	\$ 19,957	132	0.995	144	0.995	0.00 %	\$ 0	(\$ 31,201)	(\$ 31,201)	0.00 %
2010	31,546	120	0.992	132	0.995	37.43 %	11,808	(23,743)	(35,551)	-301.08 %
2011	191,476	108	0.979	120	0.992	61.56 %	117,863	141,527	23,664	20.08 %
2012	542,733	96	0.960	108	0.979	48.14 %	261,296	574,414	313,118	119.83 %
2013	825,658	84	0.937	96	0.960	36.99 %	305,437	89,168	(216,269)	-70.81 %
2014	1,290,790	72	0.898	84	0.937	37.96 %	490,004	380,897	(109,107)	-22.27 %
2015	1,869,913	60	0.843	72	0.898	34.94 %	653,402	826,756	173,354	26.53 %
2016	2,663,442	48	0.754	60	0.843	36.15 %	962,705	1,011,949	49,244	5.12 %
2017	4,959,539	36	0.692	48	0.754	20.23 %	1,003,276	869,521	(133,755)	-13.33 %
2018	4,271,736	24	0.612	36	0.692	20.55 %	877,655	510,096	(367,559)	-41.88 %
2019	6,190,913	12	0.525	24	0.612	18.49 %	1,144,629	1,190,443	45,814	4.00 %
2020				12	0.525			6,332,875		
Total	\$ 22,857,703						\$ 5,828,076	\$ 11,872,702	(\$ 288,249)	-4.95 %

(1),(2): From prior Reserve Analysis as of 12/31/19 (dated 4/13/20)

(3),(5): Based on selected incurred development factors from Exhibit 3, Sheet 6 and ages shown in (2) and (4), respectively

(9): (8) - (7)

Loss Reserve Analysis

Arius comes complete with many pre-defined actuarial techniques for estimating ultimate loss, reserves, claims, ALAE, premiums, and salvage and subrogation. These include development techniques, trending models, frequency and severity methods, and Bornhuetter-Ferguson methods. You can even tailor the methods to suit your particular loss experience and needs.

Arius calculates statistics and produces more than 200 exhibits to help you identify meaningful relationships and trends in your data. Feedback includes development factors, claims frequencies and severities, pure premiums, payment patterns, and claim settlement and reporting patterns. By using this information, along with additional external data, and your professional judgment, you will select the various development factors, ratios, trends, or averages required by particular methods to project ultimate estimates and reserves.

The following pages illustrate some of Arius' actuarial methods, along with graphs, exhibits showing the backup data, and statistical analyses that support these methods.

ANY Company, Inc.
Coverage XYZ

Comparison of Ultimate Loss Estimates
Data Evaluated at 12/31/2020

Accident Year	Paid Loss Development	Weights- Paid Loss Development	Incurred Loss Development	Weights- Incurred Loss Development	Average Loss and Percent Change	Weights- Average Loss and Percent Change	Loss per Exposure and Percent Change	Weights- Loss per Exposure and Percent Change	Generalized Cape Cod Using Exposures and Incurred Loss	Weights- Generalized Cape Cod Using Exposures and Incurred Loss	Bornhuetter-Ferguson Using Exposures and Incurred Loss	Weights- Bornhuetter-Ferguson Using Exposures and Incurred Loss	Weighted Average	Default Selected	Manual Selected	Ultimate Loss
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
2009	\$ 13,108,029	2.000	\$ 13,239,711	2.000	\$ 13,173,300	1.000	\$ 13,060,775	1.000	\$ 13,206,761	1.000	\$ 13,238,821	1.000	\$ 13,171,892		\$ 13,175,000	\$ 13,175,000
2010	11,597,239	2.000	11,647,388	2.000	11,621,610	1.000	11,517,078	1.000	11,625,849	1.000	11,646,740	1.000	11,612,566		11,625,000	11,625,000
2011	12,214,095	2.000	12,160,494	2.000	12,187,630	1.000	12,174,296	1.000	12,129,173	1.000	12,160,604	1.000	12,175,110		12,185,000	12,185,000
2012	14,038,921	2.000	13,984,904	2.000	14,012,310	1.000	14,029,800	1.000	13,885,441	1.000	13,985,833	1.000	13,995,129		14,010,000	14,010,000
2013	13,415,063	2.000	13,195,488	2.000	13,298,670	1.000	13,374,207	1.000	13,077,335	1.000	13,202,616	1.000	13,271,741		13,300,000	13,300,000
2014	13,396,943	2.000	12,995,501	2.000	13,182,640	1.000	11,058,450	1.000	12,883,737	1.000	12,872,882	1.000	12,847,825		13,195,000	13,195,000
2015	12,063,864	2.000	12,562,872	2.000	12,341,970	1.000	12,438,468	1.000	12,518,771	1.000	12,550,179	1.000	12,387,858		12,315,000	12,315,000
2016	10,766,771	2.000	11,503,701	2.000	12,961,608	1.000	13,449,046	1.000	11,687,587	1.000	11,451,774	1.000	11,761,370		11,135,000	11,135,000
2017	14,779,991	1.000	13,698,857	1.000	16,203,872	1.000	14,789,372	1.000	13,667,686	1.000	13,800,748	1.000	14,490,088		13,940,000	13,940,000
2018	9,926,652	1.000	9,864,090	1.000	15,886,350	1.000	15,879,071	1.000	11,148,208	1.000	9,857,152	1.000	12,093,587		10,635,000	10,635,000
2019	13,409,475	0.000	12,143,671	0.000	18,565,623	1.000	17,503,641	1.000	13,346,986	1.000	12,229,172	1.000	15,411,355		12,675,000	12,675,000
2020	9,119,487	0.000	12,072,605	0.000	16,714,018	1.000	18,893,020	1.000	14,153,590	1.000	12,025,603	1.000	15,446,558		12,755,000	12,755,000
Total	\$ 147,836,529		\$ 149,069,283		\$ 170,149,601		\$ 168,167,224		\$ 153,331,124		\$ 149,022,124		\$ 158,665,079		\$ 150,945,000	\$ 150,945,000

- (1): Exhibit 3, Sheet 1
- (3): Exhibit 3, Sheet 5
- (5): Exhibit 3, Sheet 9
- (7): Exhibit 3, Sheet 10
- (9): Exhibit 3, Sheet 11
- (11): Exhibit 3, Sheet 12

ANY Company, Inc.
Coverage XYZ

Comparison of Ult. Loss Estimates
Data Evaluated at 12/31/2020

Accident Year	Paid Loss Development	Incurred Loss Development	Average Loss and Percent Change	Loss per Exposure and Percent Change	Generalized Cape Cod Using Exposures and Incurred Loss	Incurred Bornhuetter-Ferguson Using Exposures and Incurred Loss	Selected Ultimate Loss
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2009	13,108,029	13,239,711	13,173,300	13,060,775	13,206,761	13,238,821	13,175,000
2010	11,597,239	11,647,388	11,621,610	11,517,078	11,625,849	11,646,740	11,625,000
2011	12,214,095	12,160,494	12,187,630	12,174,296	12,129,173	12,160,604	12,185,000
2012	14,038,921	13,984,904	14,012,310	14,029,800	13,885,441	13,985,833	14,010,000
2013	13,415,063	13,195,488	13,298,670	13,374,207	13,077,335	13,202,616	13,300,000
2014	13,396,943	12,995,501	13,182,640	11,058,450	12,883,737	12,872,882	13,195,000
2015	12,063,864	12,562,872	12,341,970	12,438,468	12,518,771	12,550,179	12,315,000
2016	10,766,771	11,503,701	12,961,608	13,449,046	11,687,587	11,451,774	11,135,000
2017	14,779,991	13,698,857	16,203,872	14,789,372	13,667,686	13,800,748	13,940,000
2018	9,926,652	9,864,090	15,886,350	15,879,071	11,148,208	9,857,152	10,635,000
2019	13,409,475	12,143,671	18,565,623	17,503,641	13,346,986	12,229,172	12,675,000
2020	9,119,487	12,072,605	16,714,018	18,893,020	14,153,590	12,025,603	12,755,000
Total	147,836,529	149,069,283	170,149,601	168,167,224	153,331,124	149,022,124	150,945,000

- (1): Exhibit 3, Sheet 1
- (2): Exhibit 3, Sheet 5
- (3): Exhibit 3, Sheet 9
- (4): Exhibit 3, Sheet 10
- (5): Exhibit 3, Sheet 11
- (6): Exhibit 3, Sheet 12

ANY Company, Inc.
Coverage XYZ

Exhibit 3
Sheet 1

Ultimate Loss Based on Paid Loss Development
Data Evaluated at 12/31/2020

Accident Year	Age (months)	Cumulative Paid Loss	Selected Development Factors	Cumulative Development Factors	Ultimate Loss (2) x (4)
	(1)	(2)	(3)	(4)	(5)
2009	144	\$ 12,726,242	1.030	1.030	\$ 13,108,029
2010	132	11,093,059	1.015	1.045	11,597,239
2011	120	11,431,603	1.022	1.068	12,214,095
2012	108	12,719,770	1.033	1.104	14,038,921
2013	96	11,553,737	1.052	1.161	13,415,063
2014	84	10,733,146	1.075	1.248	13,396,943
2015	72	8,629,581	1.120	1.398	12,063,864
2016	60	6,365,073	1.210	1.692	10,766,771
2017	48	6,377,809	1.370	2.317	14,779,991
2018	36	2,818,101	1.520	3.522	9,926,652
2019	24	1,856,999	2.050	7.221	13,409,475
2020	12	244,743	5.160	37.261	9,119,487
Total		\$ 96,549,863			\$ 147,836,529

(3),(4): Exhibit 3, Sheet 2

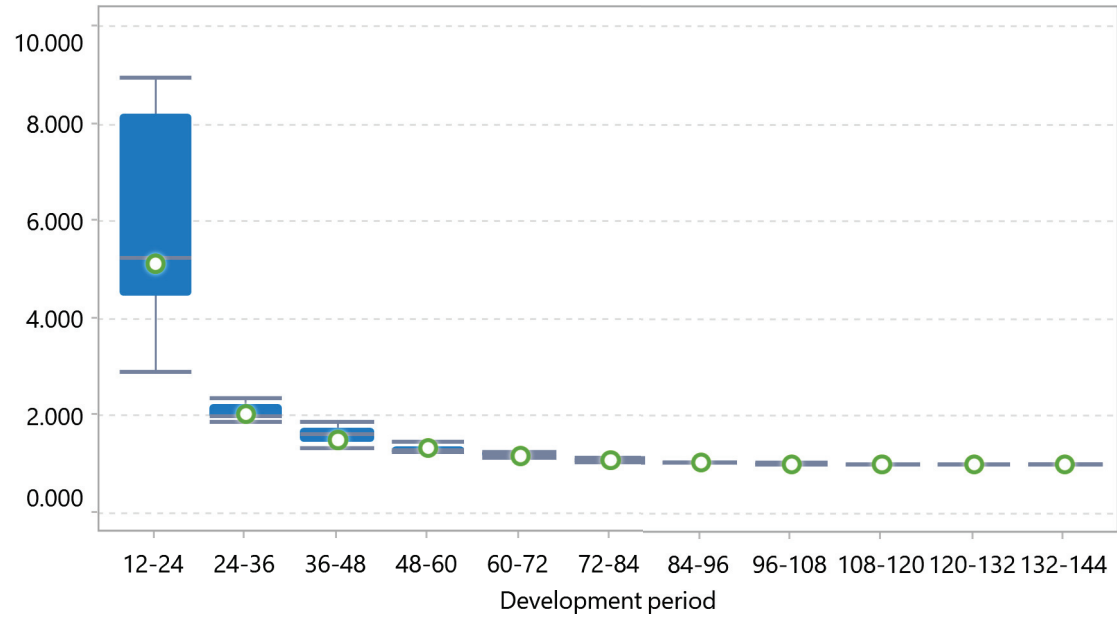
ANY Company, Inc.
Coverage XYZ

Paid Loss Development
Data Evaluated at 12/31/2020

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-Ult
2009	5.929	2.404	1.896	1.268	1.255	1.106	1.062	1.050	1.035	1.022	1.016	
2010	4.347	2.370	1.830	1.391	1.267	1.079	1.062	1.055	1.024	1.021		
2011	8.173	1.885	1.642	1.323	1.153	1.130	1.093	1.037	1.041			
2012	5.801	1.984	1.502	1.304	1.247	1.123	1.080	1.065				
2013	4.670	2.223	1.757	1.286	1.261	1.103	1.068					
2014	8.991	1.954	1.748	1.469	1.190	1.140						
2015	42.117	1.977	1.546	1.363	1.194							
2016	8.433	2.092	1.351	1.334								
2017	2.911	2.091	1.472									
2018	4.748	1.974										
2019	4.549											
2020												
Average Excluding High/Low	5.831	2.083	1.643	1.333	1.229	1.115	1.070	1.053	1.035			
Volume Weighted Average	5.173	2.077	1.622	1.339	1.224	1.114	1.073	1.052	1.033	1.022	1.016	
5 Year Average	5.160	2.018	1.575	1.351	1.209	1.115	1.073	1.052	1.033	1.022	1.016	
3 Year Average	4.069	2.052	1.456	1.389	1.215	1.122	1.080	1.053	1.033	1.022	1.016	
AM Best - Coverage XYZ	5.039	1.936	1.359	1.171	1.088	1.048	1.030	1.017	1.014	1.036	1.020	1.030
Inverse Power Curve	6.407	2.162	1.473	1.250	1.152	1.102	1.072	1.054	1.041	1.033	1.026	1.127
Weibull Curve	4.494	2.270	1.633	1.354	1.209	1.127	1.077	1.048	1.029	1.018	1.011	1.016
Default	5.173	2.077	1.622	1.339	1.224	1.114	1.073	1.052	1.033	1.022	1.016	
Manual Selected	5.160	2.050	1.520	1.370	1.210	1.120	1.075	1.052	1.033	1.022	1.015	1.030
Selected	5.160	2.050	1.520	1.370	1.210	1.120	1.075	1.052	1.033	1.022	1.015	1.030
Cumulative	37.261	7.221	3.522	2.317	1.692	1.398	1.248	1.161	1.104	1.068	1.045	1.030
Ratio to Ultimate	0.027	0.138	0.284	0.432	0.591	0.715	0.801	0.861	0.906	0.936	0.957	0.971

Paid Loss Development Factor Relative Ranges and Selections
Data Evaluated at 12/31/2020

Paid Loss Development



ANY Company, Inc.
Coverage XYZ

Paid Loss - Cumulative
Data Evaluated at 12/31/2020

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144
2009	223,229	1,323,605	3,181,380	6,032,736	7,650,309	9,599,951	10,616,029	11,275,591	11,840,601	12,249,863	12,525,442	12,726,242
2010	264,103	1,148,042	2,720,426	4,978,871	6,924,957	8,770,854	9,468,115	10,057,065	10,613,331	10,866,831	11,093,059	
2011	222,318	1,817,062	3,425,452	5,623,790	7,438,214	8,573,847	9,684,699	10,586,337	10,977,176	11,431,603		
2012	349,943	2,029,964	4,027,259	6,049,865	7,889,304	9,841,435	11,055,884	11,939,494	12,719,770			
2013	331,520	1,548,090	3,441,359	6,047,121	7,776,535	9,807,536	10,815,348	11,553,737				
2014	175,483	1,577,806	3,082,559	5,388,036	7,916,762	9,417,157	10,733,146					
2015	143,119	1,734,198	3,428,734	5,302,386	7,229,055	8,629,581						
2016	200,219	1,688,379	3,532,462	4,772,821	6,365,073							
2017	711,805	2,072,115	4,333,300	6,377,809								
2018	300,723	1,427,729	2,818,101									
2019	408,212	1,856,999										
2020	244,743											

Losses include ALAE;
CAT losses are excluded from above and are analyzed separately

ANY Company, Inc.
Coverage XYZ

Exhibit 3
Sheet 5

Ultimate Loss Based on Incurred Loss Development
Data Evaluated at 12/31/2020

Accident Year	Age (months)	Cumulative Incurred Loss	Selected Development Factors	Cumulative Development Factors	Ultimate Loss (2) x (4)
—	(1)	(2)	(3)	(4)	(5)
2009	144	\$ 13,173,842	1.005	1.005	\$ 13,239,711
2010	132	11,589,441	1.000	1.005	11,647,388
2011	120	12,063,803	1.003	1.008	12,160,494
2012	108	13,695,663	1.013	1.021	13,984,904
2013	96	12,669,190	1.020	1.042	13,195,488
2014	84	12,172,858	1.025	1.068	12,995,501
2015	72	11,280,995	1.043	1.114	12,562,872
2016	60	9,699,435	1.065	1.186	11,503,701
2017	48	10,334,102	1.118	1.326	13,698,857
2018	36	6,826,828	1.090	1.445	9,864,090
2019	24	7,437,611	1.130	1.633	12,143,671
2020	12	6,332,875	1.168	1.906	12,072,605
Total		\$ 127,276,643			\$ 149,069,283

(3),(4): Exhibit 3, Sheet 6

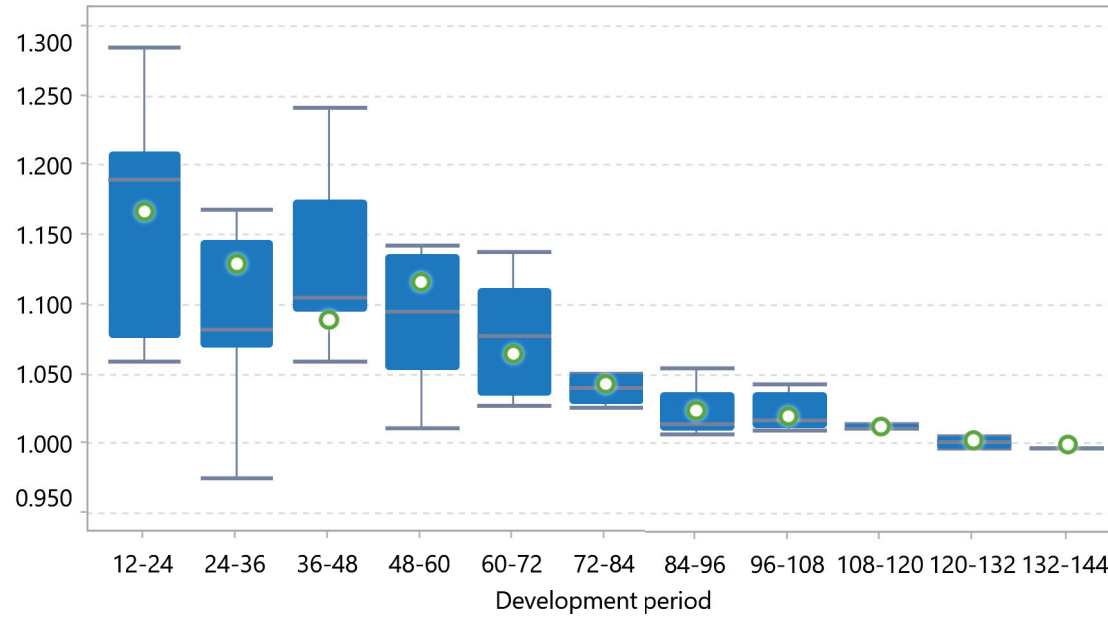
ANY Company, Inc.
Coverage XYZ

Incurred Loss Development
Data Evaluated at 12/31/2020

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-Ult
2009	1.059	0.976	1.243	1.011	1.104	1.051	1.022	1.015	1.016	1.007	0.998	
2010	1.068	1.073	1.158	1.071	1.139	1.031	1.013	1.020	1.012	0.998		
2011	1.285	1.059	1.106	1.139	1.028	1.027	1.055	1.010	1.012			
2012	1.193	1.089	1.143	1.048	1.078	1.051	1.015	1.044				
2013	1.077	1.078	1.195	1.076	1.145	1.052	1.007					
2014	1.189	1.083	1.100	1.143	1.038	1.032						
2015	1.246	1.162	1.098	1.135	1.079							
2016	1.207	1.170	1.059	1.116								
2017	1.085	1.142	1.092									
2018	1.210	1.081										
2019	1.191											
2020												
Average Excluding High/Low	1.163	1.096	1.127	1.097	1.075	1.041	1.017	1.017	1.012			
Volume Weighted Average	1.158	1.089	1.132	1.090	1.076	1.041	1.022	1.023	1.013	1.003	0.998	
5 Year Average	1.188	1.127	1.109	1.103	1.056	1.038	1.022	1.022	1.013	1.002	0.998	
3 Year Average	1.162	1.131	1.083	1.131	1.059	1.045	1.026	1.025	1.013	1.002	0.998	
AM Best - Coverage XYZ	1.180	1.151	1.123	1.060	1.042	1.020	1.020	1.015	1.005	1.000	1.000	1.005
Exponential Curve	1.217	1.148	1.101	1.069	1.047	1.032	1.022	1.015	1.010	1.007	1.005	1.010
Default	1.158	1.089	1.132	1.090	1.076	1.041	1.022	1.023	1.013	1.003	0.998	
Manual Selected	1.168	1.130	1.090	1.118	1.065	1.043	1.025	1.020	1.013	1.003	1.000	1.005
Selected	1.168	1.130	1.090	1.118	1.065	1.043	1.025	1.020	1.013	1.003	1.000	1.005
Cumulative	1.906	1.633	1.445	1.326	1.186	1.114	1.068	1.042	1.021	1.008	1.005	1.005
Ratio to Ultimate	0.525	0.612	0.692	0.754	0.843	0.898	0.937	0.960	0.979	0.992	0.995	0.995

Incurred Loss Development Factor Relative Ranges and Selections
Data Evaluated at 12/31/2020

Incurred Loss Development



ANY Company, Inc.
Coverage XYZ

Incurred Loss - Cumulative
Data Evaluated at 12/31/2020

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144
2009	8,259,083	8,748,291	8,538,045	10,612,492	10,733,776	11,847,468	12,446,769	12,723,121	12,918,051	13,118,314	13,205,043	13,173,842
2010	6,654,966	7,108,181	7,629,687	8,838,216	9,463,351	10,776,534	11,106,560	11,252,743	11,472,813	11,613,184	11,589,441	
2011	6,176,972	7,937,583	8,408,045	9,301,156	10,595,207	10,895,271	11,187,973	11,799,692	11,922,276	12,063,803		
2012	7,342,193	8,759,647	9,537,058	10,896,902	11,415,336	12,300,797	12,927,816	13,121,249	13,695,663			
2013	7,009,272	7,546,391	8,131,674	9,713,907	10,449,222	11,963,085	12,580,022	12,669,190				
2014	7,015,825	8,339,332	9,032,949	9,939,182	11,357,375	11,791,961	12,172,858					
2015	5,796,870	7,222,753	8,391,693	9,213,393	10,454,239	11,280,995						
2016	5,806,901	7,011,670	8,200,249	8,687,486	9,699,435							
2017	7,639,758	8,288,398	9,464,581	10,334,102								
2018	5,218,974	6,316,732	6,826,828									
2019	6,247,168	7,437,611										
2020	6,332,875											

Losses include ALAE;
CAT losses are excluded from above and are analyzed separately

ANY Company, Inc.
Coverage XYZ

Ultimate Loss Based on Average Loss and Percent Change
Data Evaluated at 12/31/2020

Accident Year	Ultimate Claims	Selected Average Loss	Selected Percentage Change	Estimated Average Loss	Ultimate Loss (1) x ((2) or (4))
—	(1)	(2)	(3)	(4)	(5)
2009	918	\$ 14,350.000			\$ 13,173,300
2010	819	14,190.000			11,621,610
2011	767	15,890.000			12,187,630
2012	793	17,670.000			14,012,310
2013	707	18,810.000			13,298,670
2014	734	17,960.000			13,182,640
2015	729	16,930.000			12,341,970
2016	696		10.00 %	18,623.000	12,961,608
2017	791		10.00 %	20,485.300	16,203,872
2018	705		10.00 %	22,533.830	15,886,350
2019	749		10.00 %	24,787.213	18,565,623
2020	613		10.00 %	27,265.934	16,714,018
Total	9,021				\$ 170,149,601

(1): Based on Reported Claim Development method calculated internally
(2),(3): Selected based on judgment
(4): Based on selections in (2) and (3)

ANY Company, Inc.
Coverage XYZ

Exhibit 3
Sheet 10

Ultimate Loss Based on Loss per Exposure and Percent Change
Data Evaluated at 12/31/2020

Accident Year	Exposures	Selected Loss per Exposure	Selected Percentage Change	Estimated Loss per Exposure	Ultimate Loss (1) x (2) or (4)
—	(1)	(2)	(3)	(4)	(5)
2009	200,935	\$ 65.000			\$ 13,060,775
2010	202,054	57.000			11,517,078
2011	206,344	59.000			12,174,296
2012	209,400	67.000			14,029,800
2013	212,289	63.000			13,374,207
2014	221,169	50.000			11,058,450
2015	230,342	54.000			12,438,468
2016	232,763		7.00 %	57.780	13,449,046
2017	239,215		7.00 %	61.825	14,789,372
2018	240,038		7.00 %	66.152	15,879,071
2019	247,286		7.00 %	70.783	17,503,641
2020	249,453		7.00 %	75.738	18,893,020
Total	2,691,288				\$ 168,167,224

(1): Payroll (00's)
(2),(3): Selected based on judgment
(4): Based on selections in (2) and (3)

ANY Company, Inc.
Coverage XYZ

Ultimate Loss Based on Generalized Cape Cod Using Exposures and Incurred Loss
Data Evaluated at 12/31/2020

Accident Year	Age (months)	Exposures	Exposures Adjustment Index	On-Level Exposures (2) x (3)	Cumulative Incurred Loss	Ratio of Cumulative Incurred Loss to Ultimate Loss	Developed Loss Rate (5)/((4)x(6))	Trend Index	Trended Developed Loss Rate (7) x (8)	Exposure Period Weight	Decay Ratio	Expected Loss Rate	Detrended Expected Loss Rate (12) / (8)	Expected Loss (4) x (13)	Ultimate Loss [1-(6)]x(14)+(5)	Calculated Loss Rate (15) / (2)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
2009	144	200,935	1.000	200,935	\$ 13,173,842	0.995	\$ 65.891	2.853	\$ 187.986	0.000	0.750	\$ 93.949	\$ 32.930	\$ 6,616,769	\$ 13,206,761	\$ 65.727
2010	132	202,054	1.000	202,054	11,589,441	0.995	57.645	2.594	149.531	0.000	0.750	93.949	36.218	7,317,954	11,625,849	57.538
2011	120	206,344	1.000	206,344	12,063,803	0.992	58.933	2.358	138.964	0.000	0.750	93.949	39.843	8,221,295	12,129,173	58.781
2012	108	209,400	1.000	209,400	13,695,663	0.979	66.786	2.144	143.188	0.000	0.750	93.949	43.819	9,175,803	13,885,441	66.311
2013	96	212,289	1.000	212,289	12,669,190	0.960	62.158	1.949	121.146	1.000	0.750	93.949	48.204	10,233,115	13,077,335	61.602
2014	84	221,169	1.000	221,169	12,172,858	0.937	58.758	1.772	104.120	1.000	0.750	89.974	50.775	11,229,937	12,883,737	58.253
2015	72	230,342	1.000	230,342	11,280,995	0.898	54.540	1.611	87.864	1.000	0.750	84.841	52.664	12,130,667	12,518,771	54.349
2016	60	232,763	1.000	232,763	9,699,435	0.843	49.422	1.464	72.354	1.000	0.750	79.729	54.459	12,676,125	11,687,587	50.212
2017	48	239,215	1.000	239,215	10,334,102	0.754	57.266	1.331	76.221	1.000	0.750	75.515	56.735	13,571,953	13,667,686	57.136
2018	36	240,038	1.000	240,038	6,826,828	0.692	41.094	1.210	49.724	1.000	0.750	70.746	58.468	14,034,507	11,148,208	46.444
2019	24	247,286	1.000	247,286	7,437,611	0.612	49.108	1.100	54.019	1.000	0.750	67.831	61.664	15,248,746	13,346,986	53.974
2020	12	249,453	1.000	249,453	6,332,875	0.525	48.396	1.000	48.396	1.000	0.750	65.943	65.943	16,449,625	14,153,590	56.739
Total		2,691,288		2,691,288	\$ 127,276,643									\$ 136,906,497	\$ 153,331,124	

(2): Payroll (00's)

(3),(8): Based on industry statistics

(5): Exhibit 3, Sheet 5

(6): Based on selected incurred loss development pattern in Exhibit 3, Sheet 6

(10),(11): Selected based on judgment

(12): Based on (4),(6),(9)-(11)

ANY Company, Inc.
Coverage XYZ

Ultimate Loss Based on Bornhuetter-Ferguson Using Exposures and Incurred Loss
Data Evaluated at 12/31/2020

Accident Year	Age (months)	Exposures	Selected Loss Rate	Expected Ultimate Loss (2) x (3)	Cumulative Development Factors	Percentage Undeveloped 1 - 1/(5)	Undeveloped Incurred Loss (4) x (6)	Cumulative Incurred Loss	Ultimate Loss (7) + (8)	Calculated Loss Rate (9) / (2)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2009	144	200,935	\$ 65.000	\$ 13,060,775	1.005	0.50 %	\$ 64,979	\$ 13,173,842	\$ 13,238,821	65.886
2010	132	202,054	57.000	11,517,078	1.005	0.50 %	57,299	11,589,441	11,646,740	57.642
2011	120	206,344	59.000	12,174,296	1.008	0.80 %	96,801	12,063,803	12,160,604	58.934
2012	108	209,400	67.000	14,029,800	1.021	2.07 %	290,170	13,695,663	13,985,833	66.790
2013	96	212,289	63.000	13,374,207	1.042	3.99 %	533,426	12,669,190	13,202,616	62.192
2014	84	221,169	50.000	11,058,450	1.068	6.33 %	700,024	12,172,858	12,872,882	58.204
2015	72	230,342	54.000	12,438,468	1.114	10.20 %	1,269,184	11,280,995	12,550,179	54.485
2016	60	232,763	48.000	11,172,624	1.186	15.68 %	1,752,339	9,699,435	11,451,774	49.199
2017	48	239,215	59.000	14,113,685	1.326	24.56 %	3,466,646	10,334,102	13,800,748	57.692
2018	36	240,038	41.000	9,841,558	1.445	30.79 %	3,030,324	6,826,828	9,857,152	41.065
2019	24	247,286	50.000	12,364,300	1.633	38.75 %	4,791,561	7,437,611	12,229,172	49.454
2020	12	249,453	48.000	11,973,744	1.906	47.54 %	5,692,728	6,332,875	12,025,603	48.208
Total		2,691,288		\$ 147,118,985			\$ 21,745,481	\$ 127,276,643	\$ 149,022,124	

(2): Payroll (00's)

(3): Selected based on results in Exhibit 3, Sheet 13, Column (9)

(5): Exhibit 3, Sheet 6

(8): Exhibit 3, Sheet 5

ANY Company, Inc.
Coverage XYZ

Preliminary Selected Ultimate Loss Rate
Data Evaluated at 12/31/2020

Accident Year	Paid Loss Development	Incurred Loss Development	Cumulative Paid Loss Development Factors	Cumulative Incurred Loss Development Factors	Weight for Paid Loss Development	Weight for Incurred Loss Development	Preliminary Selected Ultimate Loss (1)x(5) + (2)x(6)	Exposures	Preliminary Selected Ultimate Loss Rate (7) / (8)
—	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2009	\$ 13,108,029	\$ 13,239,711	1.030	1.005	0.494	0.506	\$ 13,174,679	200,935	65.567
2010	11,597,239	11,647,388	1.045	1.005	0.490	0.510	11,622,808	202,054	57.523
2011	12,214,095	12,160,494	1.068	1.008	0.485	0.515	12,186,515	206,344	59.059
2012	14,038,921	13,984,904	1.104	1.021	0.481	0.519	14,010,863	209,400	66.910
2013	13,415,063	13,195,488	1.161	1.042	0.473	0.527	13,299,316	212,289	62.647
2014	13,396,943	12,995,501	1.248	1.068	0.461	0.539	13,180,568	221,169	59.595
2015	12,063,864	12,562,872	1.398	1.114	0.443	0.557	12,341,614	230,342	53.580
2016	10,766,771	11,503,701	1.692	1.186	0.412	0.588	11,199,967	232,763	48.117
2017	14,779,991	13,698,857	2.317	1.326	0.364	0.636	14,092,254	239,215	58.910
2018	9,926,652	9,864,090	3.522	1.445	0.291	0.709	9,882,288	240,038	41.170
2019	13,409,475	12,143,671	7.221	1.633	0.184	0.816	12,377,099	247,286	50.052
2020	9,119,487	12,072,605	37.261	1.906	0.049	0.951	11,928,873	249,453	47.820
Total	\$ 147,836,529	\$ 149,069,283					\$ 149,296,845	2,691,288	55.474
Exponential Fit:									
Trend (%)									-3.02 %
Intercept									67.621
R Squared									0.575

(1),(3): Exhibit 3, Sheet 1
(2),(4): Exhibit 3, Sheet 5
(5),(6): Based on (3) and (4)
(8): Payroll (00's)

Sensitivity Analysis

As you can see in the previous section, Arius produces all the statistical information necessary to support a wide range of actuarial estimates. It also provides analyses of many other important trends and relationships that help you fully understand your loss history.

The following section contains a few of the many Arius reports that give you valuable insights into your actual and estimated ultimates and reserves.

ANY Company, Inc.
Coverage XYZ

Ratio of Reported Claims to Ultimate Claims
Data Evaluated at 12/31/2020

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144
2009	0.481	0.286	0.106	0.047	0.039	0.012	0.011	0.007	0.007	0.002	0.001	0.001
2010	0.526	0.276	0.090	0.039	0.037	0.009	0.012	0.007	0.004	0.000	0.000	
2011	0.472	0.240	0.138	0.065	0.040	0.010	0.014	0.005	0.008	0.004		
2012	0.398	0.327	0.127	0.064	0.034	0.016	0.013	0.006	0.009			
2013	0.373	0.315	0.133	0.072	0.038	0.028	0.020	0.008				
2014	0.399	0.304	0.129	0.084	0.034	0.022	0.010					
2015	0.388	0.321	0.136	0.073	0.037	0.014						
2016	0.388	0.339	0.128	0.060	0.034							
2017	0.421	0.306	0.131	0.056								
2018	0.409	0.302	0.135									
2019	0.414	0.299										
2020	0.401											

ANY Company, Inc.
Coverage XYZ

Ratio of Paid Loss to Incurred Loss
Data Evaluated at 12/31/2020

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144
2009	0.027	2.249	(8.836)	1.375	13.337	1.751	1.695	2.387	2.899	2.044	3.177	(6.436)
2010	0.040	1.950	3.015	1.869	3.113	1.406	2.113	4.029	2.528	1.806	(9.528)	
2011	0.036	0.906	3.419	2.461	1.402	3.785	3.795	1.474	3.188	3.211		
2012	0.048	1.185	2.569	1.487	3.548	2.205	1.937	4.568	1.358			
2013	0.047	2.265	3.235	1.647	2.352	1.342	1.634	8.281				
2014	0.025	1.060	2.169	2.544	1.783	3.452	3.455					
2015	0.025	1.116	1.450	2.280	1.553	1.694						
2016	0.034	1.235	1.552	2.546	1.573							
2017	0.093	2.097	1.922	2.351								
2018	0.058	1.027	2.726									
2019	0.065	1.217										
2020	0.039											

ANY Company, Inc.
Coverage XYZ

Ratio of Cumulative Paid Loss to Ultimate Loss
Data Evaluated at 12/31/2020

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144
2009	0.017	0.100	0.241	0.458	0.581	0.729	0.806	0.856	0.899	0.930	0.951	0.966
2010	0.023	0.099	0.234	0.428	0.596	0.754	0.814	0.865	0.913	0.935	0.954	
2011	0.018	0.149	0.281	0.462	0.610	0.704	0.795	0.869	0.901	0.938		
2012	0.025	0.145	0.287	0.432	0.563	0.702	0.789	0.852	0.908			
2013	0.025	0.116	0.259	0.455	0.585	0.737	0.813	0.869				
2014	0.013	0.120	0.234	0.408	0.600	0.714	0.813					
2015	0.012	0.141	0.278	0.431	0.587	0.701						
2016	0.018	0.152	0.317	0.429	0.572							
2017	0.051	0.149	0.311	0.458								
2018	0.028	0.134	0.265									
2019	0.032	0.147										
2020	0.019											

ANY Company, Inc.
Coverage XYZ

Ratio of Cumulative Incurred Loss to Ultimate Loss
Data Evaluated at 12/31/2020

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144
2009	0.627	0.664	0.648	0.806	0.815	0.899	0.945	0.966	0.980	0.996	1.002	1.000
2010	0.572	0.611	0.656	0.760	0.814	0.927	0.955	0.968	0.987	0.999	0.997	
2011	0.507	0.651	0.690	0.763	0.870	0.894	0.918	0.968	0.978	0.990		
2012	0.524	0.625	0.681	0.778	0.815	0.878	0.923	0.937	0.978			
2013	0.527	0.567	0.611	0.730	0.786	0.899	0.946	0.953				
2014	0.532	0.632	0.685	0.753	0.861	0.894	0.923					
2015	0.471	0.587	0.681	0.748	0.849	0.916						
2016	0.521	0.630	0.736	0.780	0.871							
2017	0.548	0.595	0.679	0.741								
2018	0.491	0.594	0.642									
2019	0.493	0.587										
2020	0.497											

Cash Flow Analysis

Arius helps you discount reserves and estimate future loss and expense related cash flows. You can use either your own payment patterns or payout data from industry sources to estimate the timing of future payments. The system will use a single discount rate or multiple rates for the future periods to discount projected payments to their present value.

ANY Company, Inc.
Coverage XYZ

Adjusted Loss Payment Pattern
Data Evaluated at 12/31/2020

Months of development	Loss Payment Pattern	Cumulative Loss Payment Pattern	Effective Annual Interest Rate	Adjusted Loss Payment Pattern	Cumulative Adjusted Loss Payment Pattern
—	(1)	(2)	(3)	(4)	(5)
12	2.68 %	2.68 %	4.00 %	2.63 %	2.63 %
24	11.16 %	13.85 %	4.00 %	10.53 %	13.16 %
36	14.54 %	28.39 %	4.00 %	13.18 %	26.34 %
48	14.76 %	43.15 %	4.00 %	12.87 %	39.21 %
60	15.97 %	59.12 %	4.00 %	13.38 %	52.59 %
72	12.41 %	71.53 %	4.00 %	10.01 %	62.60 %
84	8.58 %	80.12 %	4.00 %	6.65 %	69.25 %
96	6.01 %	86.13 %	4.00 %	4.48 %	73.73 %
108	4.48 %	90.60 %	4.00 %	3.21 %	76.94 %
120	2.99 %	93.59 %	4.00 %	2.06 %	79.00 %
132	2.06 %	95.65 %	4.00 %	1.36 %	80.36 %
144	1.43 %	97.09 %	4.00 %	0.91 %	81.28 %
156	2.91 %	100.00 %	4.00 %	1.78 %	83.06 %

(1),(3): Selected based on judgment

(2): (1) cumulated

(4): Based on (1) and (3)

(5): (4) cumulated

ANY Company, Inc.
Coverage XYZ

Future Payments of Indicated Loss Reserves
Data Evaluated at 12/31/2020

Accident Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2009	\$ 448,758												\$ 448,758
2010	175,561	356,380											531,941
2011	242,144	168,733	342,520										753,397
2012	410,550	282,732	197,016	399,933									1,290,230
2013	563,655	376,305	259,148	180,582	366,573								1,746,263
2014	743,960	554,498	370,191	254,938	177,648	360,618							2,461,854
2015	1,111,276	777,893	579,790	387,076	266,567	185,751	377,067						3,685,419
2016	1,448,486	1,001,524	701,067	522,529	348,848	240,240	167,406	339,827					4,769,927
2017	2,123,874	1,651,456	1,141,864	799,305	595,748	397,731	273,904	190,864	387,445				7,562,191
2018	1,611,437	1,742,831	1,355,169	937,003	655,902	488,865	326,374	224,763	156,621	317,934			7,816,899
2019	1,825,883	1,853,706	2,004,854	1,558,910	1,077,875	754,512	562,363	375,442	258,555	180,168	365,733		10,818,001
2020	1,435,248	1,869,261	1,897,745	2,052,484	1,595,945	1,103,482	772,438	575,723	384,362	264,697	184,449	374,422	12,510,257
Total	\$ 12,140,830	\$ 10,635,319	\$ 8,849,364	\$ 7,092,760	\$ 5,085,107	\$ 3,531,200	\$ 2,479,551	\$ 1,706,620	\$ 1,186,983	\$ 762,799	\$ 550,182	\$ 374,422	\$ 54,395,137

Based on Total Reserve results from Exhibit 1, Sheet 1 and the Cumulative Adjusted Payment Pattern from Exhibit 5, Sheet 1

ANY Company, Inc.
Coverage XYZ

Present Value of Future Payments of Indicated Loss Reserves
Data Evaluated at 12/31/2020

Accident Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2009	\$ 440,043												\$ 440,043
2010	172,151	336,019											508,170
2011	237,442	159,092	310,529										707,064
2012	402,577	266,578	178,615	348,635									1,196,405
2013	552,709	354,805	234,944	157,419	307,263								1,607,141
2014	729,512	522,817	335,616	222,238	148,906	290,646							2,249,736
2015	1,089,695	733,449	525,638	337,427	223,437	149,709	292,214						3,351,570
2016	1,420,357	944,303	635,589	455,505	292,406	193,625	129,734	253,226					4,324,746
2017	2,082,630	1,557,102	1,035,216	696,780	499,359	320,557	212,267	142,224	277,605				6,823,740
2018	1,580,144	1,643,256	1,228,599	816,816	549,780	394,009	252,929	167,485	112,219	219,038			6,964,275
2019	1,790,425	1,747,796	1,817,605	1,358,952	903,479	608,111	435,813	279,765	185,255	124,126	242,278		9,493,606
2020	1,407,376	1,762,463	1,720,500	1,789,218	1,337,729	889,369	598,614	429,007	275,396	182,361	122,187	238,494	10,752,712
Total	\$ 11,905,063	\$ 10,027,681	\$ 8,022,851	\$ 6,182,990	\$ 4,262,359	\$ 2,846,027	\$ 1,921,571	\$ 1,271,706	\$ 850,474	\$ 525,525	\$ 364,465	\$ 238,494	\$ 48,419,207

Based on Total Reserves from Exhibit 1, Sheet 1, the Cumulative Adjusted Payment Pattern from Exhibit 5, Sheet 1 and an annual effective interest rate of 4%.

ANY Company, Inc.
Coverage XYZ

Indicated Loss Reserves Versus Present Value Indicated Loss Reserves
Data Evaluated at 12/31/2020

Accident Year	Indicated Case and IBNR Loss Reserves	Present Value of Indicated Case and IBNR Loss Reserves	Difference (1) - (2)	Ratio (2)/(1)
	(1)	(2)	(3)	(4)
2009	\$ 448,758	\$ 440,043	\$ 8,715	0.981
2010	531,941	508,170	23,771	0.955
2011	753,397	707,064	46,333	0.939
2012	1,290,230	1,196,405	93,825	0.927
2013	1,746,263	1,607,141	139,122	0.920
2014	2,461,854	2,249,736	212,118	0.914
2015	3,685,419	3,351,570	333,849	0.909
2016	4,769,927	4,324,746	445,181	0.907
2017	7,562,191	6,823,740	738,451	0.902
2018	7,816,899	6,964,275	852,624	0.891
2019	10,818,001	9,493,606	1,324,395	0.878
2020	12,510,257	10,752,712	1,757,545	0.860
Total	\$ 54,395,137	\$ 48,419,207	\$ 5,975,930	0.890

(1): Exhibit 5, Sheet 2

(2): Exhibit 5, Sheet 3

ANY Company, Inc.
Coverage XYZ

Case Loss Reserves Versus Present Value of Indicated Loss Reserves
Data Evaluated at 12/31/2020

Accident Year	Case Loss Reserves	Present Value of Indicated Case and IBNR Loss Reserves	Difference (1) - (2)	Ratio (2) / (1)
	(1)	(2)	(3)	(4)
2009	\$ 447,600	\$ 440,043	\$ 7,557	0.983
2010	496,382	508,170	(11,788)	1.024
2011	632,200	707,064	(74,864)	1.118
2012	975,893	1,196,405	(220,512)	1.226
2013	1,115,453	1,607,141	(491,688)	1.441
2014	1,439,712	2,249,736	(810,024)	1.563
2015	2,651,414	3,351,570	(700,156)	1.264
2016	3,334,362	4,324,746	(990,384)	1.297
2017	3,956,293	6,823,740	(2,867,447)	1.725
2018	4,008,727	6,964,275	(2,955,548)	1.737
2019	5,580,612	9,493,606	(3,912,994)	1.701
2020	6,088,132	10,752,712	(4,664,580)	1.766
Total	\$ 30,726,780	\$ 48,419,207	(\$ 17,692,427)	1.576

(1): Exhibit 1, Sheet 1

(2): Exhibit 5, Sheet 3

ANY Company, Inc.
Coverage XYZ

Case and IBNR Loss Reserves Versus Present Value of Indicated Loss Reserves
Data Evaluated at 12/31/2020

Accident Year	Case and IBNR Loss Reserves (1)	Present Value of Indicated Case and IBNR Loss Reserves (2)	Difference (1) - (2) (3)	Ratio (2) / (1) (4)
2009	\$ 467,557	\$ 440,043	\$ 27,514	0.941
2010	527,928	508,170	19,758	0.963
2011	823,676	707,064	116,612	0.858
2012	1,518,626	1,196,405	322,222	0.788
2013	1,941,111	1,607,141	333,970	0.828
2014	2,730,502	2,249,736	480,767	0.824
2015	4,521,327	3,351,570	1,169,756	0.741
2016	5,957,638	4,324,746	1,632,892	0.726
2017	9,099,412	6,823,740	2,275,673	0.750
2018	8,235,584	6,964,275	1,271,309	0.846
2019	13,492,127	9,493,606	3,998,521	0.704
2020	12,255,257	10,752,712	1,502,545	0.877
Total	\$ 61,570,745	\$ 48,419,207	\$ 13,151,538	0.786

(1): Exhibit 1, Sheet 1

(2): Exhibit 5, Sheet 3

Management Reports

LOSS REPORTS

Actual vs Expected Using Selected Incurred Loss Development
Actual vs Expected Using Selected Paid Loss Development
Comparison of Actual vs Expected Loss Using Prior Implied Loss Development and Prior Indicated Reserves
Comparison of Actual vs Expected Loss Using Prior Selected Loss Development and Prior Indicated Reserves
Comparison of Ultimate Loss Estimates
Comparison of Ultimate Loss to Prior Ultimate Loss
Estimated Loss Ratios
Estimated Loss Reserve Redundancy or (Deficiency)
Estimated Ultimate Average Loss
Estimated Ultimate Loss per Exposure
Loss Development Patterns Based on Selected Development Factors
Percentage of Losses to Ultimate Loss
Preliminary Selected Ultimate Average Loss
Preliminary Selected Ultimate Loss Rate
Preliminary Selected Ultimate Loss Ratio
Summary of Loss Reserve Estimates

ALAE REPORTS

Actual vs Expected Using Selected Incurred ALAE Development
Actual vs Expected Using Selected Paid ALAE Development
ALAE Development Patterns Based on Selected Development Factors
Comparison of Actual vs Expected ALAE Using Prior Implied ALAE Development and Prior Indicated Reserves
Comparison of Actual vs Expected ALAE Using Prior Selected ALAE Development and Prior Indicated Reserves
Comparison of Ultimate ALAE Estimates
Comparison of Ultimate ALAE to Prior Ultimate ALAE
Estimated ALAE Ratios
Estimated ALAE Reserve Redundancy or Deficiency
Estimated Ultimate ALAE per Exposure
Future Payments of Indicated ALAE Reserves Based on Ratio of ALAE to Loss

CLAIMS REPORTS

Actual vs Expected Using Selected Closed Claim Development
Actual vs Expected Using Selected Reported Claim Development
Claim Development Patterns Based on Selected Development Factors
Comparison of Actual vs Expected Claims Using Prior Implied Claim Development and Prior Indicated Reserves
Comparison of Actual vs Expected Claims Using Prior Selected Claim Development and Prior Indicated Reserves
Comparison of Ultimate Claims Estimates
Comparison of Ultimate Claims to Prior Ultimate Claims
Comparison of Ultimate Claims with Payments to Total Ultimate Claims
Estimated Ultimate Claim Frequency
Percentage of Claims to Ultimate Claims
Summary of Claim Count Estimates

LOSS AND ALAE REPORTS

Comparison of Actual vs Expected Using Prior Implied Loss and ALAE Development and Prior Indicated Reserves
Comparison of Actual vs Expected Using Prior Selected Loss and ALAE Development and Prior Indicated Reserves
Estimated Loss and ALAE Ratios
Estimated Loss and ALAE Reserve Redundancy or Deficiency
Estimated Ultimate Loss and ALAE
Ratios of ALAE to Loss and to Loss and ALAE

PREMIUMS REPORTS

Actual vs Expected Using Selected Earned Premium Development
Actual vs Expected Using Selected Written Premium Development
Comparison of AvE Premium Using Prior Implied Premium Development and Prior Indicated Reserves
Comparison of AvE Premium Using Prior Selected Premium Development and Prior Indicated Reserves
Comparison of Ultimate Premium Estimates
Comparison of Ultimate Premiums to Prior Ultimate Premiums
Summary of Unearned Exposures
Summary of Unearned Premiums

CANADIAN (PfAD)

Comparison of Discounted and Undiscounted Liabilities
Derivation of Provision for Adverse Deviations

SALVAGE & SUBROGATION REPORTS

Actual vs Expected Using Selected Salvage and Subrogation Development
Comparison of Actual vs Expected S&S Using Prior Implied S&S Development and Prior Indicated Reserves
Comparison of Actual vs Expected S&S Using Prior Selected S&S Development and Prior Indicated Reserves
Comparison of Ultimate Salvage & Subrogation Estimates
Comparison of Ultimate Salvage and Subrogation to Prior Ultimate Salvage and Subrogation
Future Payments of Indicated Future Salvage & Subrogation Based on Ratio of S&S to Loss
Selected Loss Payment Pattern and Ratio of S&S to Loss
Summary of Salvage and Subrogation

CASH FLOW REPORTS

Adjusted ALAE Payment Pattern
Adjusted Loss Payment Pattern
Adjusted Salvage and Subrogation Payment Pattern
ALAE Payment Pattern
Case ALAE Reserves Versus Present Value of Indicated ALAE Reserves
Case and IBNR ALAE Reserves Versus Present Value of Indicated ALAE Reserves
Case and IBNR Loss Reserves Versus Present Value of Indicated Loss Reserves
Case Loss Reserves Versus Present Value of Indicated Loss Reserves
Future Payments of Indicated ALAE Reserves
Future Payments of Indicated Loss Reserves
Future Payments of Indicated Salvage & Subrogation Reserves
Future Payments of Indicated ULAE Reserves
Indicated ALAE Reserves Versus Present Value Indicated ALAE Reserves
Indicated Loss Reserves Versus Present Value Indicated Loss Reserves
Indicated Salvage & Subrogation Reserves Versus Present Value Indicated Salvage & Subrogation Reserves
Indicated ULAE Reserves versus Present Value Indicated ULAE Reserves
Loss Payment Pattern
Present Value of Future Payments of Indicated ALAE Reserves
Present Value of Future Payments of Indicated Loss Reserves
Present Value of Future Payments of Indicated Salvage & Subrogation Reserves
Present Value of Future Payments of Indicated ULAE Reserves
Salvage and Subrogation Payment Pattern

Actuarial Methods

ACTUAL VS EXPECTED METHODS

Direct Actual vs Expected

Actual vs Expected Using Prior Average Incurred Loss per Reported Claims Development

Actual vs Expected Using Prior Average Paid Loss per Closed Claims Development

Actual vs Expected Using Prior Average Paid Loss per Reported Claim Development

Actual vs Expected Using Prior Closed Claim Development

Actual vs Expected Using Prior Closed Claims with Payment Development

Actual vs Expected Using Prior Earned Premium Development

Actual vs Expected Using Prior Incurred ALAE Development

Actual vs Expected Using Prior Incurred ALAE to Incurred Loss Development

Actual vs Expected Using Prior Incurred Loss Development

Actual vs Expected Using Prior Incurred Plus IBNR ALAE Development

Actual vs Expected Using Prior Incurred Plus IBNR ALAE to Incurred Plus IBNR Loss Development

Actual vs Expected Using Prior Incurred Plus IBNR Loss Development

Actual vs Expected Using Prior Paid ALAE Development

Actual vs Expected Using Prior Paid ALAE to Paid Loss Development

Actual vs Expected Using Prior Paid Loss Development

Actual vs Expected Using Prior Ratio of Incurred Loss to Earned Premium Development

Actual vs Expected Using Prior Ratio of Incurred Loss to Written Premium Development

Actual vs Expected Using Prior Ratio of Incurred Plus IBNR Loss to Earned Premium Development

Actual vs Expected Using Prior Ratio of Incurred Plus IBNR Loss to Written Premium Development

Actual vs Expected Using Prior Ratio of Paid Loss to Earned Premium Development

Actual vs Expected Using Prior Ratio of Paid Loss to Written Premium Development

Actual vs Expected Using Prior Ratio of Salvage & Subrogation to Paid Loss Development

Actual vs Expected Using Prior Reported Claim Development

Actual vs Expected Using Prior Salvage & Subrogation Development

Actual vs Expected Using Prior Written Premium Development

Indirect Actual vs Expected

Actual vs Expected Using Prior Implied Closed Claim Development and Prior Indicated Reserves

Actual vs Expected Using Prior Implied Earned Premium Development and Prior Indicated Reserves

Actual vs Expected Using Prior Implied Incurred ALAE Development and Prior Indicated Reserves

Actual vs Expected Using Prior Implied Incurred Loss Development and Prior Indicated Reserves

Indirect Actual vs Expected (continued)

Actual vs Expected Using Prior Implied Paid ALAE Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Implied Paid Loss Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Implied Reported Claim Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Implied Salvage & Subrogation Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Implied Written Premium Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Closed Claim Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Earned Premium Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Incurred ALAE Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Incurred Loss Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Paid ALAE Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Paid Loss Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Reported Claim Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Salvage & Subrogation Development and Prior Indicated Reserves
 Actual vs Expected Using Prior Selected Written Premium Development and Prior Indicated Reserves

ALAE METHODS

Berquist-Sherman Adjusted Incurred ALAE Development
 Bornhuetter-Ferguson Using Exposures and Incurred ALAE
 Bornhuetter-Ferguson Using Exposures and Paid ALAE
 Bornhuetter-Ferguson Using Ultimate Loss and Incurred ALAE
 Bornhuetter-Ferguson Using Ultimate Loss and Paid ALAE
 Bornhuetter-Ferguson Using Ultimate Premiums and Incurred ALAE
 Bornhuetter-Ferguson Using Ultimate Premiums and Paid ALAE
 Case ALAE Reserve Development
 Generalized Cape Cod Using Ultimate Loss and Incurred ALAE
 Generalized Cape Cod Using Ultimate Loss and Paid ALAE
 Generalized Cape Cod Using Ultimate Premiums and Incurred ALAE
 Generalized Cape Cod Using Ultimate Premiums and Paid ALAE
 Incurred ALAE Development
 Incurred Plus IBNR ALAE Development
 Paid ALAE Development
 Ratio of Incremental Paid ALAE to Paid Loss
 Ratio of Incurred ALAE to Incurred Loss Development
 Ratio of Incurred Plus IBNR ALAE to Incurred Plus IBNR Loss Development
 Ratio of Paid ALAE to Paid Loss Development

ASSUMPTIONS

Preliminary Selected ALAE per Exposure
Preliminary Selected ALAE to Loss Ratio
Preliminary Selected ALAE to Premium Ratio
Preliminary Selected Average Loss
Preliminary Selected Claim Frequency
Preliminary Selected Loss Rate
Preliminary Selected Loss Ratio
Preliminary Selected Salvage & Subrogation to Loss Ratio
Prior Ultimate ALAE per Exposure
Prior Ultimate ALAE to Loss Ratio
Prior Ultimate ALAE to Premium Ratio
Prior Ultimate Average Loss
Prior Ultimate Claim Frequency
Prior Ultimate Loss Rate
Prior Ultimate Loss Ratio
Prior Ultimate Salvage & Subrogation to Loss Ratio
Trended Expected ALAE per Exposure
Trended Expected ALAE to Loss Ratio
Trended Expected ALAE to Premium Ratio
Trended Expected Average Loss
Trended Expected Claim Frequency
Trended Expected Loss Rate
Trended Expected Loss Ratio
Trended Expected Salvage & Subrogation to Loss Ratio

CANADIAN (PfAD)

Claim Development Provision for Adverse Deviation
Interest Rate Provision for Adverse Deviation
Total Provision for Adverse Deviation

CLAIMS

Bornhuetter-Ferguson Using Exposures and Closed Claims
Bornhuetter-Ferguson Using Exposures and Closed Claims with Payments
Bornhuetter-Ferguson Using Exposures and Reported Claims
Claim Frequency
Claim Frequency and Percentage Change
Closed Claim Development
Closed Claims with Payment Development
Reported Claim Development

LOSS

Ratio of Incurred Loss to Written Premium Development
Ratio of Incurred Plus IBNR Loss to Earned Premium Development
Ratio of Incurred Plus IBNR Loss to Written Premium Development
Ratio of Paid Loss to Earned Premium Development
Ratio of Paid Loss to Written Premium Development

PREMIUMS AND EXPOSURES

Annualized Exposures
Annualized Premiums
Earned Exposure Development
Earned Premium Development
Written Exposure Development
Written Premium Development

SALVAGE AND SUBROGATION

Bornhuetter-Ferguson Using Ultimate Loss and Salvage & Subrogation
Generalized Cape Cod Using Ultimate Loss and Salvage & Subrogation
Ratio of Incremental Salvage & Subrogation to Paid Loss
Ratio of Salvage & Subrogation to Paid Loss Development
Salvage & Subrogation Development

ULAE RESERVES

ULAE Reserves Based on Ratio of ULAE to Loss

Exhibits

LOSS EXHIBITS

Development

Berquist-Sherman Adjusted Incurred Loss Development
Cumulative Incurred Loss per Cumulative Reported Claims Development
Cumulative Paid Loss per Cumulative Closed Claims Development
Cumulative Paid Loss per Cumulative Reported Claims Development
Incurred Loss Development
Incurred Loss per Exposure Development
Incurred Loss to Earned Premium Development
Incurred Loss to Written Premium Development
Incurred Plus IBNR Loss Development
Incurred Plus IBNR Loss per Exposure Development
Incurred Plus IBNR Loss to Earned Premium Development
Incurred Plus IBNR Loss to Written Premium Development
Paid Loss Development
Paid Loss per Exposure Development
Paid Loss to Earned Premium Development
Paid Loss to Written Premium Development

Amounts

Incurred Plus IBNR Loss Less Ultimate Loss
Indicated Loss Reserve
Ultimate Loss Less Cumulative Incurred Loss

Loss/Premium Ratios

Cumulative Incurred Loss to Cumulative Earned Premium
Cumulative Incurred Loss to Cumulative Written Premium
Cumulative Incurred Loss to Ultimate Premiums
Cumulative Incurred Plus IBNR Loss to Cumulative Earned Premium
Cumulative Incurred Plus IBNR Loss to Cumulative Written Premium
Cumulative Incurred Plus IBNR Loss to Ultimate Premiums
Cumulative Paid Loss to Cumulative Earned Premium
Cumulative Paid Loss to Cumulative Written Premium

Loss/Premium Ratios (continued)

Cumulative Paid Loss to Ultimate Premiums

Incurred Loss to Cumulative Earned Premium

Incurred Loss to Cumulative Written Premium

Incurred Loss to Ultimate Premiums

Incurred Plus IBNR Loss to Cumulative Earned Premium-- (doc doesn't have cumulative)

Incurred Plus IBNR Loss to Cumulative Written Premium-- (doc doesn't have cumulative)

Incurred Plus IBNR Loss to Ultimate Premiums

Indicated IBNR Loss Reserves to Ultimate Premiums

Indicated Loss Reserves to Ultimate Premiums

Paid Loss to Cumulative Earned Premium

Paid Loss to Cumulative Written Premium

Paid Loss to Ultimate Premiums

Ultimate Loss to Ultimate Premiums

Other Ratios

Case and IBNR Loss Reserves to Cumulative Paid Loss

Case and IBNR Loss Reserves to Indicated Loss Reserves

Case Loss Reserves to Case and IBNR Loss Reserves

Case Loss Reserves to Cumulative Paid Loss

Case Loss Reserves to Indicated Loss Reserves

Cumulative Incurred Loss to Cumulative Incurred Plus IBNR Loss

Cumulative Incurred Loss to Ultimate Loss

Cumulative Incurred Plus IBNR Loss to Ultimate Loss

Cumulative Paid Loss to Cumulative Incurred Loss

Cumulative Paid Loss to Ultimate Loss

Indicated Loss Reserves to Case Loss Reserve

Indicated Loss Reserves to Cumulative Paid Loss

Paid Loss to Incurred Loss

Paid Loss to Prior Case and IBNR Loss Reserves

Paid Loss to Prior Case Reserves

Paid Loss to Prior Indicated Loss Reserves

Averages

Berquist-Sherman Adjusted Case Loss Reserves per Open Claim
Case and IBNR Loss Reserves per Open and IBNR Claims
Case Loss Reserves per Open Claim
Cumulative Incurred Loss per Cumulative Reported Claims
Cumulative Incurred Loss per Exposure
Cumulative Incurred Loss per Ultimate Claims
Cumulative Incurred Plus IBNR Loss per Cumulative Reported Claims
Cumulative Incurred Plus IBNR Loss per Exposure
Cumulative Incurred Plus IBNR Loss per Ultimate Claims
Cumulative Paid Loss per Cumulative Closed Claims
Cumulative Paid Loss per Cumulative Closed Claims with Payments
Cumulative Paid Loss per Cumulative Reported Claims
Cumulative Paid Loss per Exposure
Cumulative Paid Loss per Ultimate Claims
Incurred Loss per Exposure
Incurred Loss per Reported Claim
Incurred Loss per Ultimate Claims
Incurred Plus IBNR Loss per Exposure
Indicated Loss Reserves per Exposure
Indicated Loss Reserves per Open and IBNR Claims
Paid Loss per Claim Closed with Payments
Paid Loss per Closed Claim
Paid Loss per Exposure
Paid Loss per Reported Claim
Paid Loss per Ultimate Claims
Ultimate Loss per Exposure
Ultimate Loss per Ultimate Claims

CLAIMS EXHIBITS

Development

Closed Claim Development
Closed Claims with Payment Development
Closed Claims without Payments Development
Cumulative Reported Claims per Exposure Development
Reported Claim Development

Amounts

Cumulative Closed Claims without Payments
Number of Closed Claims without Payment

Ratios

Closed Claims to Prior Open and IBNR Claims
Closed Claims to Prior Open Claims
Closed Claims to Reported Claims
Closed Claims to Ultimate Claims
Closed Claims with Payments to Ultimate Claims
Cumulative Closed Claims per Exposure
Cumulative Closed Claims to Cumulative Reported Claims
Cumulative Closed Claims to Ultimate Claims
Cumulative Closed Claims with Payments per Exposure
Cumulative Closed Claims with Payments to Cumulative Closed Claims
Cumulative Closed Claims with Payments to Cumulative Reported Claims
Cumulative Closed Claims with Payments to Ultimate Claims
Cumulative Closed Claims without Payment per Exposure
Cumulative Closed Claims without Payments to Cumulative Closed Claims
Cumulative Closed Claims without Payments to Cumulative Reported Claims
Cumulative Closed Claims without Payments to Ultimate Claims
Cumulative Reported Claims per Exposure
Cumulative Reported Claims to Ultimate Claims
Open Claims to Open and IBNR Claims
Reported Claims per Exposure
Reported Claims to Ultimate Claims
Ultimate Claims per Exposure

ALAE EXHIBITS

Development

Berquist-Sherman Adjusted Incurred ALAE Development
Cumulative Incurred ALAE per Cumulative Reported Claims Development
Cumulative Paid ALAE per Cumulative Closed Claims Development
Cumulative Paid ALAE per Cumulative Reported Claims Development
Incurred ALAE Development
Incurred ALAE per Exposure Development
Incurred ALAE to Incurred Loss Development
Incurred Plus IBNR ALAE Development
Incurred Plus IBNR ALAE Exposure Development
Incurred Plus IBNR ALAE to Incurred Plus IBNR Loss Development
Paid ALAE Development
Paid ALAE per Exposure Development
Paid ALAE to Paid Loss Development

Amounts

Incurred Plus IBNR ALAE Less Ultimate ALAE
Indicated ALAE Reserves
Ultimate ALAE Less Cumulative Incurred ALAE

ALAE/Premiums Ratios

Cumulative Incurred ALAE to Ultimate Premiums
Cumulative Incurred Plus IBNR ALAE to Ultimate Premiums
Cumulative Paid ALAE to Ultimate Premiums
Incurred ALAE to Ultimate Premiums
Incurred Plus IBNR ALAE to Ultimate Premiums
Indicated ALAE Reserves to Ultimate Premiums
Indicated IBNR ALAE Reserves to Ultimate Premiums
Paid ALAE to Ultimate Premiums
Ultimate ALAE to Ultimate Premiums

ALAE/Loss Ratios

Case ALAE Reserves to Case Loss Reserves
Cumulative Incurred ALAE to Cumulative Incurred Loss
Cumulative Incurred Plus IBNR ALAE to Cumulative Incurred Plus IBNR Loss
Cumulative Paid ALAE to Cumulative Paid Loss
Incurred ALAE to Incurred Loss
Incurred Plus IBNR ALAE to Incurred Plus IBNR Loss
Indicated ALAE Reserves to Indicated Loss Reserves
Paid ALAE to Paid Loss
Ultimate ALAE to Ultimate Loss

Other Ratios

Case ALAE Reserves to Case and IBNR ALAE Reserves
Case ALAE Reserves to Cumulative Paid ALAE
Case ALAE Reserves to Indicated ALAE Reserves
Case and IBNR ALAE Reserves to Cumulative Paid ALAE
Case and IBNR ALAE Reserves to Indicated ALAE Reserves
Cumulative Incurred ALAE to Cumulative Incurred Plus IBNR ALAE
Cumulative Incurred ALAE to Ultimate ALAE
Cumulative Incurred Plus IBNR ALAE to Ultimate ALAE
Cumulative Paid ALAE to Cumulative Incurred ALAE
Cumulative Paid ALAE to Ultimate ALAE
Indicated ALAE Reserves to Case ALAE Reserves
Indicated ALAE Reserves to Cumulative Paid ALAE
Paid ALAE to Incurred ALAE
Paid ALAE to Prior Case ALAE Reserves
Paid ALAE to Prior Case and IBNR ALAE Reserves
Paid ALAE to Prior Indicated ALAE Reserves

Averages

Berquist-Sherman Adjusted Case ALAE Reserves per Open Claim
Case ALAE Reserves per Open Claim
Case and IBNR ALAE Reserves per Open and IBNR Claims
Cumulative Incurred ALAE per Cumulative Reported Claims
Cumulative Incurred ALAE per Exposure
Cumulative Incurred ALAE per Ultimate Claims

Averages (continued)

Cumulative Incurred Plus IBNR ALAE per Cumulative Reported Claims
Cumulative Incurred Plus IBNR ALAE per Exposure
Cumulative Incurred Plus IBNR ALAE per Ultimate Claims
Cumulative Paid ALAE per Cumulative Closed Claims
Cumulative Paid ALAE per Cumulative Closed Claims with Payments
Cumulative Paid ALAE per Cumulative Reported Claims
Cumulative Paid ALAE per Exposure
Cumulative Paid ALAE per Ultimate Claims
Incurred ALAE per Exposure
Incurred ALAE per Reported Claim
Incurred ALAE per Ultimate Claims
Incurred Plus IBNR ALAE per Exposure
Indicated ALAE Reserves per Exposure
Indicated ALAE Reserves per Open and IBNR Claims
Paid ALAE per Claim Closed with Payments
Paid ALAE per Closed Claim
Paid ALAE per Exposure
Paid ALAE per Reported Claim
Paid ALAE per Ultimate Claims
Ultimate ALAE per Exposure
Ultimate ALAE per Ultimate Claims

SALVAGE & SUBROGATION EXHIBITS

Cumulative Salvage & Subrogation to Ultimate Salvage & Subrogation
Cumulative Salvage and Subrogation to Cumulative Paid Loss
Salvage and Subrogation Development
Salvage and Subrogation to Paid Loss
Salvage and Subrogation to Paid Loss Development

PREMIUMS AND EXPOSURES EXHIBITS

Cumulative Earned Exposures to Ultimate Exposures

Cumulative Earned Premium per Exposure

Cumulative Earned Premium to Ultimate Premiums

Cumulative Written Exposures to Ultimate Exposures

Cumulative Written Premium per Exposure

Cumulative Written Premium to Ultimate Premiums

Earned Exposure Development

Earned Premium Development

Earned Premium per Exposure

Earned Premium to Ultimate Premiums

Ultimate Premium per Exposure

Written Exposure Development

Written Premium Development

Written Premium per Exposure

Written Premium to Ultimate Premiums

Data

INPUTS

Case ALAE Reserves
Case and IBNR ALAE Reserves
Case and IBNR Loss Reserves
Case Loss Reserves
Closed Claims
Closed Claims with Payments
Exposures
IBNR ALAE Reserves
IBNR Loss Reserves
Incurred ALAE
Incurred Loss
Incurred Plus IBNR ALAE
Incurred Plus IBNR Loss
Open Claims
Paid ALAE
Paid Loss
Reported Claims
Salvage & Subrogation Received
ULAE Reserves (Historical)
ULAE Reserves (Indicated)
Written Premium
Earned Premium