

**DELAWARE COMPENSATION RATING BUREAU, INC.**

**ACTUARIAL COMMITTEE**

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**Summary of Material for Modification of Experience  
December 1, 2020 Residual Market Rate and Voluntary Market Loss Cost Revision**

**Amended**

DELAWARE 2020 RESIDUAL MARKET RATE AND VOLUNTARY MARKET LOSS COST FILING

PROPOSED EFFECTIVE DATE - DECEMBER 1, 2020

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**EXHIBIT I**

**INDICATED CHANGE IN RATE LEVEL**

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>	
(1a) Policy Year 2015 Loss and Loss Adjustment Expense Ratio	0.3278	0.4017	0.7295	
(1b) Policy Year 2016 Loss and Loss Adjustment Expense Ratio	0.3036	0.4334	0.7370	
(1c) Policy Year 2017 Loss and Loss Adjustment Expense Ratio	0.2767	0.3939	0.6706	
(1d) Policy Year 2018 Loss and Loss Adjustment Expense Ratio	0.2580	0.3584	0.6164	
(1e) Average (Midpoint = 7/1/2017)	0.2915	0.3969	0.6884	
(2a) Policy Year 2015 Loss and LAE Ratio Trended to 12/1/2020	0.2217	0.3863		
(2b) Policy Year 2016 Loss and LAE Ratio Trended to 12/1/2020	0.2194	0.4195		
(2c) Policy Year 2017 Loss and LAE Ratio Trended to 12/1/2020	0.2136	0.3838		
(2d) Policy Year 2018 Loss and LAE Ratio Trended to 12/1/2020	0.2127	0.3515		
(2e) Average at 12/1/2021	0.2169	0.3853	0.6022	
(3a) Excess Loss Factor at \$1,742,306 (Post-Legislative Basis)			0.0796	
(3b) Provision for Excess Loss (4a) - (2e)			0.0521	
(4a) Total Trended Loss and LAE Ratio (2e) / (1.0 - (3a))	0.2226	0.4317	0.6543	
(4b) Percentage of Total	34.02%	65.98%		
(5) Permissible Loss and Loss Adjustment Ratio			0.6866	
(6) Indicated Change in Rates (4a) / (5)			0.9530	
(7) Estimated Effect of the 7/1/21 Benefit Change			1.0036	
(8) Indicated Change in Residual Market Rate Level (6) * (7)			0.9564	
(8a) Factor to Adjust for Compromise With Insurance Department			0.95358	
(8b) Change in Residual Market Rate Level to Reflect Compromise (9) * (9a)			0.9120	
			<b>-8.80%</b>	
(9) Indicated Change in Voluntary Market Loss Costs (8) * [0.7186 / 0.7411]			0.9274	
(9a) Factor to Adjust for Compromise With Insurance Department			0.95358	
(9b) Change in Voluntary Market Loss Cost Level to Reflect Compromise (10) * (10a)			0.8844	
			<b>-11.56%</b>	
	<b>Mfg.</b>	<b>Cont.</b>	<b>Other</b>	
	<b>Total</b>			
(10) Current Collectible Premium Ratio	1.1130	1.0522	0.9358	
(11) Proposed Collectible Premium Ratio	1.0913	1.0498	0.9260	
(12) Change in Collectible Premium Ratio (11) / (10)	0.9805	0.9977	0.9895	0.9898
(13) Change in Residual Market Manual Rate Level (8) * (12)	0.8942	0.9099	0.9024	0.9027
(14) Change in Voluntary Market Manual Loss Cost Level (9) * (12)	0.8671	0.8823	0.8751	0.8753
(15) Current Offset for Residual Market Surcharge				0.9946
(16) Proposed Offset for Residual Market Surcharge				0.9957
(17) Adjusted Change in Voluntary Market Manual Loss Cost Level (14) * (16) / (15)	0.8681	0.8833	0.8761	0.8763

**EXHIBIT II**  
**EXPENSE LOADING**

	<u>Current %</u>	<u>Proposed %</u>
<b>LOSS AND LOSS ADJUSTMENT EXPENSE</b>		
Losses	57.50	54.43
Loss Adjustment Expense	13.78	14.23 a
Loss & Loss Adjustment	71.28	68.66
<b>UNDERWRITING EXPENSES</b>		
Commission	5.43	5.45
Other Acquisition	2.14	2.04
General Expenses	3.16	2.84
Premium Discount	8.63	8.59
State Premium Tax	2.00	2.00
Other State Tax	0.33	0.32
Uncollectible Premium	2.00	2.30
Administrative Assessment	2.83	3.20 b
Workers Compensation Fund	2.00	2.00
Deviations	0.00	0.00
Policyholder Dividends	0.00	0.00
Underwriting Profit	0.20	2.60
Underwriting Expense Total	28.72	31.34

a - As ratio to loss, Loss Adjustment Expense = 0.2614

b - As ratio to loss, Administrative Assessment = 0.0588

**RESIDUAL MARKET MINIMUM PREMIUM:**

It is proposed that the Minimum Premium formula increase from  $(275 * \text{Rate}) + \text{Expense Constant}$  to

$$(280 * \text{Rate}) + \text{Expense Constant}$$

It is proposed that the Minimum Premium be subject to a Maximum Minimum Premium of \$2000.

It is proposed to use a multiplier of 140.00 in the Minimum Premium formula for the Farm Classes, (0006, 0016, 0034, 0036, 0083).

**RESIDUAL MARKET EXPENSE CONSTANT:**

It is proposed that the expense constant increase from \$315 to \$320.

**EXHIBIT III**

**INTERNAL RATE OF RETURN ANALYSIS  
STATE OF DELAWARE - 2020  
TABLE I: INPUTS, ASSUMPTIONS & OUTPUTS**

Section 1: Inputs & Assumptions		
(1)	Commissions *	5.45
(2)	Other Expenses	5.20
(2A)	Other Acquisitions *	2.04
(2B)	General Expenses *	2.84
(2C)	Other Tax **	0.32
(3)	State Premium Taxes & Uncollectible Premium	
(3A)	Tax1 - Premium Tax **	2.00
(3B)	Uncollectible Premium **	2.30
(3C)	Tax3 - Workers Compensation Fund **	2.00
(4)	Premium Discount ***	8.59
(5)	Deviations	0.00
(6)	Dividends to Policyholders	0.00
(7)	Premium Written	1,000,000
Investment Income		
(8A)	Pre-Tax Return on Assets	4.13
(8B)	Investment Income Tax Rate	0.68
(8C)	Post-Tax Return on Assets	3.45
(10)	Reserve to Surplus Ratio	1.86
(11)	Internal Rate of Return (Cost of Capital)	9.61
* Applies to standard premium at DCRB level (before premium discount)		
** Applies to net premium at company level (after deviations and premium discounts)		
*** Applies to standard premium at company level (after deviations)		

Section 2: Outputs		
(1)	Loss Ratio - including loss adjustment expense & loss based assessments	71.86
(2)	Profit & Contingencies	2.60

**EXHIBIT IV - 1**

**POLICY YEAR LOSS RATIO 2018\***

(1) Standard Earned Premium Reported (Table I)			174,630,877
(2) Factor to 12/1/19 Rate Level (Exhibit V-1)			1.0241
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0069
(4) Expense Constant Removal Factor			0.9973
(5) DCCPAP On-Level Factor			1.0134
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			181,991,400
<b>Losses - Paid-to-30th Method</b>	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(8) Paid Losses (Table I-D & I-E)	8,100,242	15,508,644	23,608,886
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	4.4527	2.6225	
(10) Ultimate Incurred Losses (8) * (9)	36,067,948	40,671,419	76,739,367
<b>Losses - Incurred Method</b>			
(11) Incurred Losses (Table I-B & I-C)	20,291,478	31,309,939	51,601,417
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.7795	2.0037	
(13) Ultimate Incurred Losses (11) * (12)	36,108,685	62,735,725	98,844,410
<b>Losses - Average of Incurred and Paid-to-30th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	36,088,317	51,703,572	87,791,889
(15) Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.0314	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2614	1.2614	
(17) Adjusted Losses (14) * (15) * (16)	46,951,188	65,218,886	112,170,074
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2580	0.3584	0.6164
(19) Normalized Claim Frequency (Exhibit VII-3)	0.4918	0.4918	
(20) Severity Ratio** (18) / (19)	0.5246	0.7287	1.2533

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT IV - 2**

**POLICY YEAR LOSS RATIO 2017\***

(1) Standard Earned Premium Reported (Table I)	177,798,697
(2) Factor to 12/1/19 Rate Level (Exhibit V-1)	0.9891
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)	0.9988
(4) Expense Constant Removal Factor	0.9975
(5) DCCPAP On-Level Factor	1.0134
(6) Other Adjustments	1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)	177,561,315

**Losses - Paid-to-30th Method**

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(8) Paid Losses (Table I-D & I-E)	17,878,010	24,334,702	42,212,712
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	2.2490	1.9225	
(10) Ultimate Incurred Losses (8) * (9)	40,207,644	46,783,465	86,991,109

**Losses - Incurred Method**

(11) Incurred Losses (Table I-B & I-C)	27,662,892	37,042,212	64,705,104
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.2919	1.7310	
(13) Ultimate Incurred Losses (11) * (12)	35,737,690	64,120,069	99,857,759

**Losses - Average of Incurred and Paid-to-30th**

(14) Ultimate Incurred Losses ((10) + (13)) / 2	37,972,667	55,451,767	93,424,434
(15) Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.0257	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2614	1.2614	
(17) Adjusted Losses (14) * (15) * (16)	49,129,719	69,946,859	119,076,578
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2767	0.3939	0.6706
(19) Normalized Claim Frequency (Exhibit VII-3)	0.5662	0.5662	
(20) Severity Ratio** (18) / (19)	0.4887	0.6957	1.1844

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT IV - 3**

**POLICY YEAR LOSS RATIO 2016\***

<b>(1)</b> Standard Earned Premium Reported (Table I)			165,860,349
<b>(2)</b> Factor to 12/1/19 Rate Level (Exhibit V-1)			0.9658
<b>(3)</b> Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0008
<b>(4)</b> Expense Constant Removal Factor			0.9973
<b>(5)</b> DCCPAP On-Level Factor			1.0153
<b>(6)</b> Other Adjustments			1.0000
<b>(7)</b> Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			162,332,153
<b>Losses - Paid-to-30th Method</b>	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
<b>(8)</b> Paid Losses (Table I-D & I-E)	23,190,828	27,508,910	50,699,738
<b>(9)</b> Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.6237	1.7153	
<b>(10)</b> Ultimate Incurred Losses (8) * (9)	37,654,947	47,186,033	84,840,980
<b>Losses - Incurred Method</b>			
<b>(11)</b> Incurred Losses (Table I-B & I-C)	32,525,372	41,786,912	74,312,284
<b>(12)</b> Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1551	1.5401	
<b>(13)</b> Ultimate Incurred Losses (11) * (12)	37,570,057	64,356,023	101,926,080
<b>Losses - Average of Incurred and Paid-to-30th</b>			
<b>(14)</b> Ultimate Incurred Losses ((10) + (13)) / 2	37,612,502	55,771,028	93,383,530
<b>(15)</b> Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.0389	1.0000	
<b>(16)</b> Factor to Include Loss Adjustment Expense	1.2614	1.2614	
<b>(17)</b> Adjusted Losses (14) * (15) * (16)	49,289,998	70,349,575	119,639,573
<b>(18)</b> Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.3036	0.4334	0.7370
<b>(19)</b> Normalized Claim Frequency (Exhibit VII-3)	0.5637	0.5637	
<b>(20)</b> Severity Ratio** (18) / (19)	0.5386	0.7688	1.3074

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.



**EXHIBIT IV - 4**

**POLICY YEAR LOSS RATIO 2015\***

(1) Standard Earned Premium Reported (Table I)			146,348,416
(2) Factor to 12/1/19 Rate Level (Exhibit V-1)			1.0197
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0006
(4) Expense Constant Removal Factor			0.9965
(5) DCCPAP On-Level Factor			1.0166
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			151,265,830
<b>Losses - Paid-to-30th Method</b>	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(8) Paid Losses (Table I-D & I-E)	28,475,986	29,229,793	57,705,779
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.3779	1.6007	
(10) Ultimate Incurred Losses (8) * (9)	39,237,061	46,788,130	86,025,191
<b>Losses - Incurred Method</b>			
(11) Incurred Losses (Table I-B & I-C)	32,274,000	35,301,800	67,575,800
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0937	1.4038	
(13) Ultimate Incurred Losses (11) * (12)	35,298,074	49,556,667	84,854,741
<b>Losses - Average of Incurred and Paid-to-30th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	37,267,568	48,172,399	85,439,967
(15) Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.0549	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2614	1.2614	
(17) Adjusted Losses (14) * (15) * (16)	49,590,121	60,764,664	110,354,785
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.3278	0.4017	0.7295
(19) Normalized Claim Frequency (Exhibit VII-3)	0.6438	0.6438	
(20) Severity Ratio** (18) / (19)	0.5092	0.6240	1.1332

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT IV - 5**

**POLICY YEAR LOSS RATIO 2014\***

(1) Standard Earned Premium Reported (Table I)			148,049,227
(2) Factor to 12/1/19 Rate Level (Exhibit V-1)			0.9244
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0001
(4) Expense Constant Removal Factor			0.9966
(5) DCCPAP On-Level Factor			1.0141
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			138,333,217
<b>Losses - Paid-to-30th Method</b>	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(8) Paid Losses (Table I-D & I-E)	28,091,047	25,785,752	53,876,799
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.2558	1.5211	
(10) Ultimate Incurred Losses (8) * (9)	35,276,737	39,222,707	74,499,444
<b>Losses - Incurred Method</b>			
(11) Incurred Losses (Table I-B & I-C)	31,360,276	36,876,132	68,236,408
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0604	1.3047	
(13) Ultimate Incurred Losses (11) * (12)	33,254,437	48,112,289	81,366,726
<b>Losses - Average of Incurred and Paid-to-30th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	34,265,587	43,667,498	77,933,085
(15) Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.0564	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2614	1.2614	
(17) Adjusted Losses (14) * (15) * (16)	45,660,367	55,082,182	100,742,549
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.3301	0.3982	0.7283
(19) Normalized Claim Frequency (Exhibit VII-3)	0.6127	0.6127	
(20) Severity Ratio** (18) / (19)	0.5387	0.6499	1.1886

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT IV - 6**

**POLICY YEAR LOSS RATIO 2013\***

(1) Standard Earned Premium Reported (Table I)	135,130,720
(2) Factor to 12/1/19 Rate Level (Exhibit V-1)	1.0172
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)	1.0003
(4) Expense Constant Removal Factor	0.9966
(5) DCCPAP On-Level Factor	1.0139
(6) Other Adjustments	1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)	138,933,417

**Losses - Paid-to-30th Method**

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(8) Paid Losses (Table I-D & I-E)	35,672,970	32,302,350	67,975,320
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1857	1.4598	
(10) Ultimate Incurred Losses (8) * (9)	42,297,441	47,154,971	89,452,412

**Losses - Incurred Method**

(11) Incurred Losses (Table I-B & I-C)	38,966,037	39,245,608	78,211,645
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0403	1.2319	
(13) Ultimate Incurred Losses (11) * (12)	40,536,368	48,346,664	88,883,032

**Losses - Average of Incurred and Paid-to-30th**

(14) Ultimate Incurred Losses ((10) + (13)) / 2	41,416,905	47,750,818	89,167,723
(15) Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.0688	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2614	1.2614	
(17) Adjusted Losses (14) * (15) * (16)	55,837,622	60,232,882	116,070,504
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.4019	0.4335	0.8354
(19) Normalized Claim Frequency (Exhibit VII-3)	0.7173	0.7173	
(20) Severity Ratio** (18) / (19)	0.5603	0.6043	1.1646

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT IV - 7**

**POLICY YEAR LOSS RATIO 2012\***

(1) Standard Earned Premium Reported (Table I)			115,267,794
(2) Factor to 12/1/19 Rate Level (Exhibit V-1)			1.2474
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0003
(4) Expense Constant Removal Factor			0.9966
(5) DCCPAP On-Level Factor			1.0156
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			145,575,257
<b>Losses - Paid-to-30th Method</b>	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(8) Paid Losses (Table I-D & I-E)	33,881,021	30,628,239	64,509,260
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1414	1.4098	
(10) Ultimate Incurred Losses (8) * (9)	38,671,797	43,179,691	81,851,488
<b>Losses - Incurred Method</b>			
(11) Incurred Losses (Table I-B & I-C)	36,945,367	35,439,535	72,384,902
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0274	1.1779	
(13) Ultimate Incurred Losses (11) * (12)	37,957,670	41,744,228	79,701,898
<b>Losses - Average of Incurred and Paid-to-30th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	38,314,734	42,461,960	80,776,694
(15) Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.0919	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2614	1.2614	
(17) Adjusted Losses (14) * (15) * (16)	52,771,751	53,561,516	106,333,267
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.3625	0.3679	0.7304
(19) Normalized Claim Frequency (Exhibit VII-3)	0.6879	0.6879	
(20) Severity Ratio** (18) / (19)	0.5270	0.5348	1.0618

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT IV - 8**

**POLICY YEAR LOSS RATIO 2011\***

(1) Standard Earned Premium Reported (Table I)			105,773,822
(2) Factor to 12/1/19 Rate Level (Exhibit V-1)			1.4538
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0000
(4) Expense Constant Removal Factor			0.9968
(5) DCCPAP On-Level Factor			1.0145
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			155,504,493
<b>Losses - Paid-to-30th Method</b>	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(8) Paid Losses (Table I-D & I-E)	36,951,629	34,378,635	71,330,264
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1114	1.3675	
(10) Ultimate Incurred Losses (8) * (9)	41,068,040	47,012,783	88,080,823
<b>Losses - Incurred Method</b>			
(11) Incurred Losses (Table I-B & I-C)	37,909,305	42,070,610	79,979,915
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0187	1.1373	
(13) Ultimate Incurred Losses (11) * (12)	38,618,209	47,846,905	86,465,114
<b>Losses - Average of Incurred and Paid-to-30th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	39,843,125	47,429,844	87,272,969
(15) Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.1079	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2614	1.2614	
(17) Adjusted Losses (14) * (15) * (16)	55,680,969	59,828,005	115,508,974
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.3581	0.3847	0.7428
(19) Normalized Claim Frequency (Exhibit VII-3)	0.7647	0.7647	
(20) Severity Ratio** (18) / (19)	0.4683	0.5031	0.9714

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT IV - 9**

**POLICY YEAR LOSS RATIO 2010\***

(1) Standard Earned Premium Reported (Table I)			106,116,744
(2) Factor to 12/1/19 Rate Level (Exhibit V-1)			1.4438
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0000
(4) Expense Constant Removal Factor			0.9970
(5) DCCPAP On-Level Factor			1.0141
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			154,905,520
<b>Losses - Paid-to-30th Method</b>	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(8) Paid Losses (Table I-D & I-E)	38,498,196	39,182,391	77,680,587
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0901	1.3309	
(10) Ultimate Incurred Losses (8) * (9)	41,966,883	52,147,844	94,114,727
<b>Losses - Incurred Method</b>			
(11) Incurred Losses (Table I-B & I-C)	40,122,052	50,564,182	90,686,234
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0127	1.1067	
(13) Ultimate Incurred Losses (11) * (12)	40,631,602	55,959,380	96,590,982
<b>Losses - Average of Incurred and Paid-to-30th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	41,299,243	54,053,612	95,352,855
(15) Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.1044	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2614	1.2614	
(17) Adjusted Losses (14) * (15) * (16)	57,533,569	68,183,226	125,716,795
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.3714	0.4402	0.8116
(19) Normalized Claim Frequency (Exhibit VII-3)	0.8129	0.8129	
(20) Severity Ratio** (18) / (19)	0.4569	0.5415	0.9984

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT IV - 10**

**POLICY YEAR LOSS RATIO 2009\***

<b>(1)</b> Standard Earned Premium Reported (Table I)			118,590,101
<b>(2)</b> Factor to 12/1/19 Rate Level (Exhibit V-1)			1.3270
<b>(3)</b> Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0000
<b>(4)</b> Expense Constant Removal Factor			0.9971
<b>(5)</b> DCCPAP On-Level Factor			1.0147
<b>(6)</b> Other Adjustments			1.0000
<b>(7)</b> Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			159,219,310
<b>Losses - Paid-to-30th Method</b>	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
<b>(8)</b> Paid Losses (Table I-D & I-E)	41,996,098	35,757,344	77,753,442
<b>(9)</b> Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0742	1.2988	
<b>(10)</b> Ultimate Incurred Losses (8) * (9)	45,112,208	46,441,638	91,553,846
<b>Losses - Incurred Method</b>			
<b>(11)</b> Incurred Losses (Table I-B & I-C)	45,462,344	46,480,917	91,943,261
<b>(12)</b> Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0084	1.0835	
<b>(13)</b> Ultimate Incurred Losses (11) * (12)	45,844,228	50,362,074	96,206,302
<b>Losses - Average of Incurred and Paid-to-30th</b>			
<b>(14)</b> Ultimate Incurred Losses ((10) + (13)) / 2	45,478,218	48,401,856	93,880,074
<b>(15)</b> Factor to 7/1/20 Benefit Level (Exhibit V-3)	1.1017	1.0000	
<b>(16)</b> Factor to Include Loss Adjustment Expense	1.2614	1.2614	
<b>(17)</b> Adjusted Losses (14) * (15) * (16)	63,200,369	61,054,101	124,254,470
<b>(18)</b> Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.3969	0.3835	0.7804
<b>(19)</b> Normalized Claim Frequency (Exhibit VII-3)	0.8080	0.8080	
<b>(20)</b> Severity Ratio** (18) / (19)	0.4912	0.4746	0.9658

\* Projected losses limited on a per claim basis, with the loss limitation varying by policy year.

\*\* Severity ratio represents loss and loss adjustment expense ratio adjusted to a common level of frequency.

**EXHIBIT V - 1**  
**POLICY YEARS 2014 - 2018**  
**PREMIUM ON-LEVEL FACTORS**

POLICY YEAR		(1) RATE CHANGE DATE	(2) RATE CHANGE	(3) CUM. INDEX OF COL (2)	*	(4) PORTION OF YEAR ON-LEVEL	(5) PRODUCT (3) * (4)	FACTOR TO ADJUST TO 12/1/19 RATE LEVEL	
2018	VOL	12/01/17	BASE	0.7308	*	0.4251	0.3107		
		6/01/18	1.0000	0.7308		0.4140	0.3026		
		12/01/18	0.9000	0.6577		0.0562	0.0370		
		12/01/19	0.8671	0.5703		-----	-----		
						0.8953	0.6503		
	RM	12/01/17	BASE	1.0000	1.0000		0.0436	0.0436	
		6/01/18	0.9514	0.9514	0.9514		0.0528	0.0502	
		12/01/18	0.9271	0.8820	0.8820		0.0083	0.0073	
		12/01/19	0.8725	0.7695	0.7695		-----	-----	
						0.1047	0.1011		
*	Loss, LAE and LBA portion of 12/1/17 rate.						0.7514	1.0241	
2017	VOL	12/01/16	BASE	0.6999	*	0.8218	0.5752		
		12/01/17	0.9700	0.6789		0.0600	0.0407		
		6/01/18	0.7804	0.5298		-----	-----		
		TO 12/1/19				0.8818	0.6159		
	RM	12/01/16	BASE	1.0000	1.0000		0.1085	0.1085	
		12/01/17	0.9427	0.9427	0.9427		0.0097	0.0091	
		6/01/18	0.7696	0.7255	0.7255		-----	-----	
		TO 12/1/19				0.1182	0.1176		
	*	Loss, LAE and LBA portion of 12/1/16 rate.						0.7335	0.9891
	2016	VOL	12/01/15	BASE	0.7102	*	0.8074	0.5734	
12/01/16			1.0000	0.7102		0.0511	0.0363		
12/01/17			0.7570	0.5376		-----	-----		
TO 12/1/19						0.8585	0.6097		
RM		12/01/15	BASE	1.0000	1.0000		0.1322	0.1322	
		12/01/16	1.0000	1.0000	1.0000		0.0093	0.0093	
		12/01/17	0.7255	0.7255	0.7255		-----	-----	
		TO 12/1/19				0.1415	0.1415		
*		Loss, LAE and LBA portion of 12/1/15 rate.						0.7512	0.9658
2015		VOL	12/01/14	BASE	0.7095	*	0.7758	0.5504	
	12/01/15		1.0720	0.7606		0.0563	0.0428		
	12/01/16		0.7570	0.5758		-----	-----		
	TO 12/1/19					0.8321	0.5932		
	RM	12/01/14	BASE	1.0000	1.0000		0.1564	0.1564	
		12/01/15	1.0709	1.0709	1.0709		0.0115	0.0123	
		12/01/16	0.7255	0.7769	0.7769		-----	-----	
		TO 12/1/19				0.1679	0.1687		
	*	Loss, LAE and LBA portion of 12/1/14 rate.						0.7619	1.0197
	2014	VOL	12/01/13	BASE	0.7239	*	0.8056	0.5832	
12/01/14			0.8850	0.6407		0.0495	0.0317		
12/01/15			0.8115	0.5199		-----	-----		
TO 12/1/19						0.8551	0.6149		
RM		12/01/13	BASE	1.0000	1.0000		0.1359	0.1359	
		12/01/14	0.9030	0.9030	0.9030		0.0090	0.0081	
		12/01/15	0.7769	0.7015	0.7015		-----	-----	
		TO 12/1/19				0.1449	0.1440		
*		Loss, LAE and LBA portion of 12/1/13 rate.						0.7589	0.9244



**EXHIBIT V - 2**  
**POLICY YEARS 2009 - 2013**  
**PREMIUM ON-LEVEL FACTORS**

POLICY YEAR		(1) RATE CHANGE DATE	(2) RATE CHANGE	(3) CUM. INDEX OF COL (2)	*	(4) PORTION OF YEAR ON-LEVEL	(5) PRODUCT (3) * (4)	FACTOR TO ADJUST TO 12/1/19 RATE LEVEL	
2013	VOL	12/01/12	BASE	0.7074	*	0.7579	0.5361		
		12/01/13	1.1400	0.8064		0.0577	0.0465		
		12/01/14	0.7182	0.5792		-----	-----		
		TO 12/1/19				0.8156	0.5826		
	RM	12/01/12	BASE	1.0000		0.1724	0.1724		
		12/01/13	1.1140	1.1140		0.0120	0.0134		
		12/01/14	0.7016	0.7816		-----	-----		
		TO 12/1/19				0.1844	0.1858		
	*	Loss, LAE and LBA portion of 12/1/12 rate.						0.7684	1.0172
	2012	VOL	12/01/11	BASE	0.7343	*	0.7707	0.5659	
12/01/12			1.2166	0.8933		0.0792	0.0707		
12/01/13			0.8187	0.7313		-----	-----		
TO 12/1/19						0.8499	0.6366		
RM		12/01/11	BASE	1.0000		0.1382	0.1382		
		12/01/12	1.2606	1.2606		0.0119	0.0150		
		12/01/13	0.7815	0.9852		-----	-----		
		TO 12/1/19				0.1501	0.1532		
*		Loss, LAE and LBA portion of 12/1/11 rate.						0.7898	1.2474
2011		VOL	12/01/10	BASE	0.7688	*	0.8259	0.6350	
	12/01/11		1.1261	0.8657		0.0662	0.0573		
	12/01/12		0.9960	0.8622		-----	-----		
	TO 12/1/19					0.8921	0.6923		
	RM	12/01/10	BASE	1.0000		0.1012	0.1012		
		12/01/11	1.1826	1.1826		0.0067	0.0079		
		12/01/12	0.9852	1.1651		-----	-----		
		TO 12/1/19				0.1079	0.1091		
	*	Loss, LAE and LBA portion of 12/1/10 rate.						0.8014	1.4538
	2010	VOL	12/01/09	BASE	0.7574	*	0.8561	0.6484	
12/01/10			0.9749	0.7384		0.0679	0.0501		
12/01/11			1.1216	0.8282		-----	-----		
TO 12/1/19						0.9240	0.6985		
RM		12/01/09	BASE	1.0000		0.0696	0.0696		
		12/01/10	0.9594	0.9594		0.0064	0.0061		
		12/01/11	1.1651	1.1178		-----	-----		
		TO 12/1/19				0.0760	0.0757		
*		Loss, LAE and LBA portion of 12/1/09 rate.						0.7742	1.4438
2009		VOL	12/01/08	BASE	0.7511	***	0.8421	0.6325	
	12/01/09		0.9160	0.6880		0.0789	0.0543		
	12/01/10		1.0935	0.7523		-----	-----		
	TO 12/1/19					0.9210	0.6868		
	RM	12/01/08	BASE	1.0000		0.0743	0.0743		
		12/01/09	0.9083	0.9083		0.0044	0.0040		
		12/01/10	1.1178	1.0153		-----	-----		
		TO 12/1/19				0.0787	0.0783		
	*	Loss, LAE and LBA portion of 12/1/08 rate.						0.7651	1.3270

**EXHIBIT V - 3**  
**POLICY YEARS 2009 - 2018**  
**INDEMNITY LOSS ON-LEVEL FACTORS**

POLICY YEAR	(1) LAW AMENDMENT DATE	(2) BENEFIT CHANGE	(3) CUM. INDEX OF COL (2)	(4) PORTION OF YEAR ON-LEVEL	(5) PRODUCT (3) * (4)	FACTOR TO ADJUST TO 7/1/20 BENEFIT LEVEL
2018	7/01/17	BASE	1.0000	0.1250	0.1250	
	7/01/18	0.9861	0.9861	0.7500	0.7396	
	7/01/19	1.0231	1.0089	0.1250	0.1261	
	7/01/20	1.0128	1.0218	-----	-----	
				1.0000	0.9907	1.0314
2017	7/01/16	BASE	1.0000	0.1250	0.1250	
	7/01/17	1.0165	1.0165	0.7500	0.7624	
	7/01/18	0.9861	1.0024	0.1250	0.1253	
	7/01/19	1.0362	1.0387	-----	-----	
	TO 7/01/20			1.0000	1.0127	
2016	7/01/15	BASE	1.0000	0.1250	0.1250	
	7/01/16	1.0184	1.0184	0.7500	0.7638	
	7/01/17	1.0165	1.0352	0.1250	0.1294	
	7/01/18	1.0218	1.0578	-----	-----	
	TO 7/01/20			1.0000	1.0182	
2015	7/01/14	BASE	1.0000	0.1250	0.1250	
	7/01/15	0.9967	0.9967	0.7500	0.7475	
	7/01/16	1.0184	1.0150	0.1250	0.1269	
	7/01/17	1.0387	1.0543	-----	-----	
	TO 7/01/20			1.0000	0.9994	
2014	7/01/13	BASE	1.0000	0.1250	0.1250	
	7/01/14	1.0124	1.0124	0.7500	0.7593	
	7/01/15	0.9967	1.0091	0.1250	0.1261	
	7/01/16	1.0578	1.0674	-----	-----	
	TO 7/01/20			1.0000	1.0104	
2013	7/02/12	BASE	1.0000	0.1250	0.1250	
	7/01/13	1.0242	1.0242	0.7500	0.7682	
	7/01/14	1.0124	1.0369	0.1250	0.1296	
	7/01/15	1.0543	1.0932	-----	-----	
	TO 7/01/20			1.0000	1.0228	
2012	6/13/11	BASE	1.0000	0.1264	0.1264	
	7/02/12	1.0161	1.0161	0.7486	0.7607	
	7/01/13	1.0242	1.0407	0.1250	0.1301	
	7/01/14	1.0673	1.1107	-----	-----	
	TO 7/01/20			1.0000	1.0172	
2011	6/22/10	BASE	1.0000	0.1010	0.1010	
	6/13/11	0.9936	0.9936	0.7746	0.7696	
	7/02/12	1.0161	1.0096	0.1244	0.1256	
	7/01/13	1.0932	1.1037	-----	-----	
	TO 7/01/20			1.0000	0.9962	
2010	6/16/09	BASE	1.0000	0.1124	0.1124	
	6/22/10	0.9974	0.9974	0.7367	0.7348	
	6/13/11	0.9936	0.9910	0.1509	0.1495	
	7/02/12	1.1108	1.1008	-----	-----	
	TO 7/01/20			1.0000	0.9967	
2009	6/03/08	BASE	1.0000	0.1048	0.1048	
	6/16/09	1.0031	1.0031	0.7576	0.7599	
	6/22/10	0.9974	1.0005	0.1376	0.1377	
	6/13/11	1.1037	1.1043	-----	-----	
	TO 7/01/20			1.0000	1.0024	

**EXHIBIT VI - 1**

**DEVELOPMENT FACTORS**

**PREMIUM**

<u>Reports in Ratio</u>	<u>Calendar Years 15-16</u>	<u>Calendar Years 16-17</u>	<u>Calendar Years 17-18</u>	<u>Calendar Years 18-19</u>	<u>Unweighted Average</u>	<u>Cumulative Average</u>
2nd to 1st	1.0125	1.0063	1.0073	1.0061	1.0081	1.0069
3rd to 2nd	0.9993	0.9990	0.9986	0.9950	0.9980	0.9988
4th to 3rd	1.0002	1.0002	0.9998	1.0007	1.0002	1.0008
5th to 4th	1.0003	1.0014	1.0001	1.0001	1.0005	1.0006
6th to 5th	0.9999	1.0000	1.0001	0.9992	0.9998	1.0001
7th to 6th	1.0000	0.9999	1.0001	1.0001	1.0000	1.0003
8th to 7th	1.0000	1.0000	1.0009	1.0002	1.0003	1.0003
9th to 8th	1.0000	0.9996	1.0001	1.0001	1.0000	1.0000
10th to 9th	1.0000	1.0000	1.0004	1.0000	1.0000 *	1.0000
11th to 10th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
12th to 11th	1.0000	1.0000	1.0000	1.0002	1.0000 *	1.0000
13th to 12th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
14th to 13th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
15th to 14th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
16th to 15th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
17th to 16th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
18th to 17th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
19th to 18th	1.0000	1.0001	1.0000	1.0000	1.0000 *	1.0000
20th to 19th	1.0000	1.0001	1.0000	1.0000	1.0000 *	1.0000
21st to 20th	1.0000	1.0001	1.0013	1.0000	1.0000 *	1.0000
22nd to 21st	1.0001	1.0000	0.9988	1.0000	1.0000 *	1.0000
23rd to 22nd	1.0000	0.9999	1.0000	1.0000	1.0000 *	1.0000
24th to 23rd	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
25th to 24th	1.0002	1.0000	1.0000	1.0000	1.0000 *	1.0000
26th to 25th	1.0000	1.0003	1.0000	1.0000	1.0000 *	1.0000
27th to 26th	1.0000	1.0000	1.0002	1.0000	1.0000 *	1.0000
28th to 27th	1.0000	1.0000	1.0000	1.0002	1.0000 *	1.0000
29th to 28th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
30th to 29th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
Beyond 30th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000

\* Selected

**EXHIBIT VI - 2**

**DEVELOPMENT FACTORS**

**INDEMNITY LOSSES  
PAID METHOD - LIMITED LOSS BASIS**

Reports in Ratio	Calendar Years 15-16	Calendar Years 16-17	Calendar Years 17-18	Calendar Years 18-19	Unweighted Average	Fitted Value	Cumulative Average	
2nd to 1st	a	1.9444	2.1482	2.0038	1.8226	1.9798	1.9799	4.4527
3rd to 2nd	a	1.3806	1.4081	1.3183	1.4320	1.3848	1.3851	2.2490
4th to 3rd	a	1.2339	1.2102	1.1604	1.1546	1.1898	1.1784	1.6237
5th to 4th	a	1.0541	1.0961	1.0914	1.0603	1.0755	1.0972	1.3779
6th to 5th	a	1.0516	1.0530	1.0428	1.0416	1.0473	1.0591	1.2558
7th to 6th	a	1.0598	1.0525	1.0497	1.0393	1.0503	1.0388	1.1857
8th to 7th	a	1.0190	1.0710	1.0329	1.0202	1.0358	1.0270	1.1414
9th to 8th	a	1.0377	1.0211	1.0334	1.0211	1.0283	1.0196	1.1114
10th to 9th	a	1.0226	1.0111	1.0363	1.0088	1.0197	1.0148	1.0901
11th to 10th	a	1.0284	1.0147	1.0225	1.0139	1.0199	1.0114	1.0742
12th to 11th	a	1.0046	1.0061	1.0050	1.0115	1.0068	1.0090	1.0621
13th to 12th	a	1.0073	1.0059	1.0018	1.0118	1.0067	1.0073	1.0526
14th to 13th	a	1.0013	1.0089	1.0089	1.0016	1.0052	1.0060	1.0450
15th to 14th	a	1.0057	1.0001	1.0048	1.0042	1.0037	1.0050	1.0387
16th to 15th	a	1.0023	1.0023	1.0004	1.0024	1.0019	1.0042	1.0336
17th to 16th	a	1.0107	1.0119	1.0017	0.9980	1.0056	1.0036	1.0292
18th to 17th	a	1.0025	1.0043	1.0019	0.9980	1.0017	1.0031	1.0255
19th to 18th	a	0.9992	1.0067	1.0010	1.0048	1.0029	1.0026	1.0224
20th to 19th	a	1.0030	1.0049	1.0010	1.0000	1.0022	1.0023	1.0197
21st to 20th	a	1.0002	1.0016	1.0015	1.0016	1.0012	1.0020	1.0174
22nd to 21st	a	1.0090	1.0008	1.0010	1.0032	1.0035	1.0018	1.0154
23rd to 22nd	a	1.0011	1.0011	1.0011	0.9985	1.0005	1.0016	1.0135
24th to 23rd	a	0.9985	1.0034	1.0039	1.0011	1.0017	1.0014	1.0119
25th to 24th	a	1.0006	0.9993	1.0022	1.0021	1.0011	1.0013	1.0105
26th to 25th	a	1.0012	1.0010	0.9991	1.0014	1.0007	1.0011	1.0092
27th to 26th	a	1.0000	1.0011	0.9996	0.9982	0.9997	1.0010	1.0081
28th to 27th	a	1.0003	0.9965	1.0015	0.9995	0.9995	1.0009	1.0071
29th to 28th	a	0.9985	0.9998	0.9997	1.0009	0.9997	1.0009	1.0062
30th to 29th	b	1.0076	1.0206	1.0020	1.0077	1.0095	1.0095	1.0053
Beyond 30th	c	1.0004	1.0014	0.9808	1.0007	0.9958	0.9958	0.9958

**INCURRED METHOD**

Reports in Ratio	Calendar Years 15-16	Calendar Years 16-17	Calendar Years 17-18	Calendar Years 18-19	Unweighted Average	Fitted Value	Cumulative Average	
2nd to 1st	c	1.2774	1.4604	1.4376	1.3331	1.3771	1.3774	1.7795
3rd to 2nd	c	1.1557	1.0995	1.0951	1.1333	1.1209	1.1185	1.2919
4th to 3rd	c	1.0856	1.0302	1.0546	1.0497	1.0550	1.0561	1.1551
5th to 4th	c	1.0242	1.0276	1.0238	1.0307	1.0266	1.0314	1.0937
6th to 5th	c	1.0217	1.0085	1.0111	1.0144	1.0139	1.0193	1.0604
7th to 6th	c	1.0145	1.0296	1.0197	1.0227	1.0216	1.0126	1.0403
8th to 7th	c	1.0034	1.0167	1.0038	0.9998	1.0059	1.0085	1.0274
9th to 8th	c	1.0064	1.0054	1.0211	1.0140	1.0117	1.0060	1.0187
10th to 9th	c	1.0083	0.9947	1.0245	1.0126	1.0100	1.0042	1.0127
11th to 10th	c	0.9977	1.0030	1.0003	1.0036	1.0012	1.0031	1.0084
12th to 11th	c	1.0052	1.0038	0.9967	1.0022	1.0020	1.0023	1.0053
13th to 12th	c	1.0000	1.0017	0.9992	1.0050	1.0015	1.0017	1.0030
14th to 13th	c	0.9995	0.9987	1.0066	1.0025	1.0018	1.0013	1.0013
15th to 14th	c	0.9992	0.9989	1.0002	1.0021	1.0001	1.0010	1.0000
16th to 15th	c	0.9958	0.9954	0.9983	0.9951	0.9962	1.0007	0.9990
17th to 16th	c	1.0054	0.9985	1.0003	0.9972	1.0004	1.0006	0.9983
18th to 17th	c	1.0009	1.0027	1.0005	0.9980	1.0005	1.0004	0.9977
19th to 18th	c	0.9981	1.0004	0.9967	1.0016	0.9992	1.0003	0.9973
20th to 19th	c	1.0006	0.9992	1.0018	1.0000	1.0004	1.0003	0.9970
21st to 20th	c	0.9926	1.0000	1.0006	0.9998	0.9983	1.0002	0.9967
22nd to 21st	c	0.9942	0.9996	0.9914	1.0025	0.9969	1.0002	0.9965
23rd to 22nd	c	0.9990	1.0022	1.0006	0.9953	0.9993	1.0001	0.9963
24th to 23rd	c	0.9979	1.0005	1.0046	0.9987	1.0004	1.0001	0.9962
25th to 24th	c	0.9966	0.9985	0.9964	1.0023	0.9985	1.0001	0.9961
26th to 25th	c	0.9987	0.9970	0.9989	0.9998	0.9986	1.0001	0.9960
27th to 26th	c	0.9993	1.0027	0.9989	0.9983	0.9998	1.0001	0.9959
28th to 27th	c	0.9988	0.9976	1.0011	0.9990	0.9991	1.0000	0.9958
29th to 28th	c	0.9989	0.9994	0.9999	0.9994	0.9994	1.0000	0.9958
30th to 29th	c	0.9939	1.0065	0.9996	1.0000	1.0000	1.0000	0.9958
Beyond 30th	c	1.0004	1.0014	0.9808	1.0007	0.9958	0.9958	0.9958

- a From Table I-D
- b 29th (Paid - Table I-D) to 30th (Incurred - Table I-B)
- c From Table I-B

EXHIBIT VI - 3

FITTED DEVELOPMENT FACTORS

INDEMNITY LOSSES

**Paid Development**

	<u>4 Year Average</u>	<u>4 Year Average - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>
2nd to 1st	1.9798	0.9798	0.9799	1.9799
3rd to 2nd	1.3848	0.3848	0.3851	1.3851
4th to 3rd	1.1898	0.1898	0.1784	1.1784
5th to 4th	1.0755	0.0755	0.0972	1.0972
6th to 5th	1.0473	0.0473	0.0591	1.0591
7th to 6th	1.0503	0.0503	0.0388	1.0388
8th to 7th	1.0358	0.0358	0.0270	1.0270
9th to 8th	1.0283	0.0283	0.0196	1.0196
10th to 9th	1.0197	0.0197	0.0148	1.0148
11th to 10th	1.0199	0.0199	0.0114	1.0114
12th to 11th	1.0068	0.0068	0.0090	1.0090
13th to 12th	1.0067	0.0067	0.0073	1.0073
14th to 13th	1.0052	0.0052	0.0060	1.0060
15th to 14th	1.0037	0.0037	0.0050	1.0050
16th to 15th	1.0019	0.0019	0.0042	1.0042
17th to 16th	1.0056	0.0056	0.0036	1.0036
18th to 17th	1.0017	0.0017	0.0031	1.0031
19th to 18th	1.0029	0.0029	0.0026	1.0026
20th to 19th	1.0022	0.0022	0.0023	1.0023
21st to 20th	1.0012	0.0012	0.0020	1.0020
22nd to 21st	1.0035	0.0035	0.0018	1.0018
23rd to 22nd	1.0005	0.0005	0.0016	1.0016
24th to 23rd	1.0017	0.0017	0.0014	1.0014
25th to 24th	1.0011	0.0011	0.0013	1.0013
26th to 25th	1.0007	0.0007	0.0011	1.0011
27th to 26th	0.9997	-0.0003	0.0010	1.0010
28th to 27th	0.9995	-0.0005	0.0009	1.0009
29th to 28th	0.9997	-0.0003	0.0009	1.0009
30th to 29th*	1.0095	0.0095	0.0095	1.0095

$Y = \exp(a+b/x+c*\ln(x))$

a = 1.751642 b = -1.771941 c = -2.625722

\* Paid-Incurred four year average

**Incurred Development**

	<u>4 Year Average</u>	<u>4 Year Average - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>
2nd to 1st	1.3771	0.3771	0.3774	1.3774
3rd to 2nd	1.1209	0.1209	0.1185	1.1185
4th to 3rd	1.0550	0.0550	0.0561	1.0561
5th to 4th	1.0266	0.0266	0.0314	1.0314
6th to 5th	1.0139	0.0139	0.0193	1.0193
7th to 6th	1.0216	0.0216	0.0126	1.0126
8th to 7th	1.0059	0.0059	0.0085	1.0085
9th to 8th	1.0117	0.0117	0.0060	1.0060
10th to 9th	1.0100	0.0100	0.0042	1.0042
11th to 10th	1.0012	0.0012	0.0031	1.0031
12th to 11th	1.0020	0.0020	0.0023	1.0023
13th to 12th	1.0015	0.0015	0.0017	1.0017
14th to 13th	1.0018	0.0018	0.0013	1.0013
15th to 14th	1.0001	0.0001	0.0010	1.0010
16th to 15th	0.9962	-0.0038	0.0007	1.0007
17th to 16th	1.0004	0.0004	0.0006	1.0006
18th to 17th	1.0005	0.0005	0.0004	1.0004
19th to 18th	0.9992	-0.0008	0.0003	1.0003
20th to 19th	1.0004	0.0004	0.0003	1.0003
21st to 20th	0.9983	-0.0017	0.0002	1.0002
22nd to 21st	0.9969	-0.0031	0.0002	1.0002
23rd to 22nd	0.9993	-0.0007	0.0001	1.0001
24th to 23rd	1.0004	0.0004	0.0001	1.0001
25th to 24th	0.9985	-0.0015	0.0001	1.0001
26th to 25th	0.9986	-0.0014	0.0001	1.0001
27th to 26th	0.9998	-0.0002	0.0001	1.0001
28th to 27th	0.9991	-0.0009	0.0000	1.0000
29th to 28th	0.9994	-0.0006	0.0000	1.0000
30th to 29th	1.0000	0.0000	0.0000	1.0000
Beyond 30th+	0.9958	-0.0042	-0.0042	0.9958

$Y = a*b^x*x^c$

a = 0.446745 b = 0.844693 c = -1.427285

+ Selected four year average

**EXHIBIT VI - 4**

**DEVELOPMENT FACTORS**

**MEDICAL LOSSES  
PAID METHOD - LIMITED LOSS BASIS**

Reports in Ratio		Calendar Years <u>15-16</u>	Calendar Years <u>16-17</u>	Calendar Years <u>17-18</u>	Calendar Years <u>18-19</u>	Unweighted <u>Average</u>	Fitted <u>Value</u>	Cumulative <u>Average</u>
2nd to 1st	a	1.4064	1.3369	1.3708	1.3377	1.3630	1.3641	2.6225
3rd to 2nd	a	1.1890	1.1409	1.0890	1.1026	1.1304	1.1208	1.9225
4th to 3rd	a	1.0851	1.0735	1.0519	1.0388	1.0623	1.0716	1.7153
5th to 4th	a	1.0176	1.0656	1.0598	1.0382	1.0453	1.0523	1.6007
6th to 5th	a	1.0457	1.0568	1.0323	1.0268	1.0404	1.0420	1.5211
7th to 6th	a	1.0631	1.0408	1.0247	1.0295	1.0395	1.0355	1.4598
8th to 7th	a	1.0420	1.0426	1.0334	1.0109	1.0322	1.0309	1.4098
9th to 8th	a	1.0319	1.0235	1.0301	1.0184	1.0260	1.0275	1.3675
10th to 9th	a	1.0419	1.0396	1.0310	1.0201	1.0332	1.0247	1.3309
11th to 10th	a	1.0433	1.0216	1.0120	1.0246	1.0254	1.0224	1.2988
12th to 11th	a	1.0198	1.0179	1.0190	1.0236	1.0201	1.0205	1.2704
13th to 12th	a	1.0215	1.0175	1.0105	1.0067	1.0141	1.0188	1.2449
14th to 13th	a	1.0146	1.0321	1.0236	1.0172	1.0219	1.0173	1.2219
15th to 14th	a	1.0312	1.0131	1.0247	1.0157	1.0212	1.0159	1.2011
16th to 15th	a	1.0086	1.0148	1.0148	1.0184	1.0142	1.0147	1.1823
17th to 16th	a	1.0064	1.0066	1.0097	1.0046	1.0068	1.0136	1.1652
18th to 17th	a	1.0145	1.0034	1.0062	1.0125	1.0092	1.0126	1.1495
19th to 18th	a	1.0185	1.0209	1.0144	1.0110	1.0162	1.0116	1.1352
20th to 19th	a	1.0144	1.0065	1.0045	1.0015	1.0067	1.0107	1.1222
21st to 20th	a	1.0061	1.0097	1.0152	1.0049	1.0090	1.0099	1.1103
22nd to 21st	a	1.0092	1.0039	1.0090	1.0161	1.0096	1.0091	1.0995
23rd to 22nd	a	1.0104	1.0059	1.0039	1.0019	1.0055	1.0083	1.0895
24th to 23rd	a	1.0040	1.0092	1.0059	1.0070	1.0065	1.0076	1.0806
25th to 24th	a	1.0030	1.0022	1.0225	1.0015	1.0073	1.0069	1.0724
26th to 25th	a	1.0044	1.0042	1.0016	1.0112	1.0054	1.0063	1.0651
27th to 26th	a	1.0031	1.0088	1.0056	1.0037	1.0053	1.0057	1.0584
28th to 27th	a	1.0014	1.0137	1.0062	1.0019	1.0058	1.0051	1.0524
29th to 28th	a	1.0144	1.0005	1.0023	1.0094	1.0067	1.0045	1.0471
30th to 29th	b	1.0269	1.0862	1.0105	1.0122	1.0340	1.0340	1.0424
Beyond 30th	c	1.0067	1.0496	0.9694	1.0066	1.0081	1.0081	1.0081

**INCURRED METHOD**

Reports in Ratio		Calendar Years <u>15-16</u>	Calendar Years <u>16-17</u>	Calendar Years <u>17-18</u>	Calendar Years <u>18-19</u>	Unweighted <u>Average</u>	Fitted <u>Value</u>	Cumulative <u>Average</u>
2nd to 1st	c	1.1976	1.0249	1.3294	1.1408	1.1732	1.1575	2.0037
3rd to 2nd	c	1.1483	1.0156	1.1417	1.1850	1.1227	1.1240	1.7310
4th to 3rd	c	1.0549	1.0522	1.1532	1.0315	1.0730	1.0971	1.5401
5th to 4th	c	1.0333	0.9963	1.0453	1.1872	1.0655	1.0759	1.4038
6th to 5th	c	1.0620	1.0021	1.0721	1.0914	1.0569	1.0591	1.3047
7th to 6th	c	1.0311	1.0099	1.0506	1.0336	1.0313	1.0459	1.2319
8th to 7th	c	1.0636	1.0154	1.0860	1.0559	1.0552	1.0357	1.1779
9th to 8th	c	1.0397	1.0282	1.0851	1.0672	1.0551	1.0276	1.1373
10th to 9th	c	1.0294	1.0130	1.0211	1.0972	1.0402	1.0214	1.1067
11th to 10th	c	1.0264	1.0024	1.0035	1.0213	1.0134	1.0166	1.0835
12th to 11th	c	1.0377	0.9713	0.9961	0.9825	0.9969	1.0128	1.0658
13th to 12th	c	1.0244	1.0579	1.0037	0.9777	1.0159	1.0099	1.0524
14th to 13th	c	1.0221	1.0257	1.0164	1.0009	1.0163	1.0077	1.0421
15th to 14th	c	1.0348	1.0122	1.0004	0.9912	1.0097	1.0059	1.0341
16th to 15th	c	1.0124	1.0184	0.9760	0.9855	0.9981	1.0046	1.0280
17th to 16th	c	0.9934	1.0312	0.9991	0.9964	1.0050	1.0035	1.0233
18th to 17th	c	1.0206	1.0228	0.9587	0.9708	0.9932	1.0027	1.0198
19th to 18th	c	0.9985	1.0033	0.9939	0.9843	0.9950	1.0021	1.0170
20th to 19th	c	0.9986	1.0253	0.9989	0.9939	1.0042	1.0016	1.0149
21st to 20th	c	1.0042	1.0050	1.0084	0.9936	1.0028	1.0013	1.0133
22nd to 21st	c	0.9865	0.9780	0.9926	0.9852	0.9856	1.0010	1.0119
23rd to 22nd	c	1.0001	1.0107	1.0001	0.9680	0.9947	1.0007	1.0109
24th to 23rd	c	1.0083	1.0064	1.0097	0.9953	1.0049	1.0006	1.0102
25th to 24th	c	0.9996	1.0053	1.0023	1.0113	1.0046	1.0004	1.0096
26th to 25th	c	1.0134	1.0039	0.9905	1.0107	1.0046	1.0003	1.0092
27th to 26th	c	1.0050	0.9984	1.0051	1.0031	1.0029	1.0003	1.0089
28th to 27th	c	1.0017	1.0126	1.0061	1.0003	1.0052	1.0002	1.0086
29th to 28th	c	1.0077	1.0030	0.9918	0.9995	1.0005	1.0002	1.0084
30th to 29th	c	1.0004	0.9998	1.0002	1.0016	1.0005	1.0001	1.0082
Beyond 30th	c	1.0067	1.0496	0.9694	1.0066	1.0081	1.0081	1.0081

- a From Table I-E
- b 29th (Paid - Table I-E) to 30th (Incurred - Table I-C)
- c From Table I-C

EXHIBIT VI - 5

FITTED DEVELOPMENT FACTORS

MEDICAL LOSSES

**Paid Development**

	<u>4 Year Average</u>	<u>4 Year Average - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>
2nd to 1st	1.3630	0.3630	0.3641	1.3641
3rd to 2nd	1.1304	0.1304	0.1208	1.1208
4th to 3rd	1.0623	0.0623	0.0716	1.0716
5th to 4th	1.0453	0.0453	0.0523	1.0523
6th to 5th	1.0404	0.0404	0.0420	1.0420
7th to 6th	1.0395	0.0395	0.0355	1.0355
8th to 7th	1.0322	0.0322	0.0309	1.0309
9th to 8th	1.0260	0.0260	0.0275	1.0275
10th to 9th	1.0332	0.0332	0.0247	1.0247
11th to 10th	1.0254	0.0254	0.0224	1.0224
12th to 11th	1.0201	0.0201	0.0205	1.0205
13th to 12th	1.0141	0.0141	0.0188	1.0188
14th to 13th	1.0219	0.0219	0.0173	1.0173
15th to 14th	1.0212	0.0212	0.0159	1.0159
16th to 15th	1.0142	0.0142	0.0147	1.0147
17th to 16th	1.0068	0.0068	0.0136	1.0136
18th to 17th	1.0092	0.0092	0.0126	1.0126
19th to 18th	1.0162	0.0162	0.0116	1.0116
20th to 19th	1.0067	0.0067	0.0107	1.0107
21st to 20th	1.0090	0.0090	0.0099	1.0099
22nd to 21st	1.0096	0.0096	0.0091	1.0091
23rd to 22nd	1.0055	0.0055	0.0083	1.0083
24th to 23rd	1.0065	0.0065	0.0076	1.0076
25th to 24th	1.0073	0.0073	0.0069	1.0069
26th to 25th	1.0054	0.0054	0.0063	1.0063
27th to 26th	1.0053	0.0053	0.0057	1.0057
28th to 27th	1.0058	0.0058	0.0051	1.0051
29th to 28th	1.0067	0.0067	0.0045	1.0045
30th to 29th*	1.0340	0.0340	0.0340	1.0340

$Y = a + b \ln(x) + c/x^2$

$a = 0.053292 \quad b = -0.014758 \quad c = 0.310811$

\* Paid-Incurred four year average

**Incurred Development**

	<u>4 Year Average</u>	<u>4 Year Average - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>
2nd to 1st	1.1732	0.1732	0.1575	1.1575
3rd to 2nd	1.1227	0.1227	0.1240	1.1240
4th to 3rd	1.0730	0.0730	0.0971	1.0971
5th to 4th	1.0655	0.0655	0.0759	1.0759
6th to 5th	1.0569	0.0569	0.0591	1.0591
7th to 6th	1.0313	0.0313	0.0459	1.0459
8th to 7th	1.0552	0.0552	0.0357	1.0357
9th to 8th	1.0551	0.0551	0.0276	1.0276
10th to 9th	1.0402	0.0402	0.0214	1.0214
11th to 10th	1.0134	0.0134	0.0166	1.0166
12th to 11th	0.9969	-0.0031	0.0128	1.0128
13th to 12th	1.0159	0.0159	0.0099	1.0099
14th to 13th	1.0163	0.0163	0.0077	1.0077
15th to 14th	1.0097	0.0097	0.0059	1.0059
16th to 15th	0.9981	-0.0019	0.0046	1.0046
17th to 16th	1.0050	0.0050	0.0035	1.0035
18th to 17th	0.9932	-0.0068	0.0027	1.0027
19th to 18th	0.9950	-0.0050	0.0021	1.0021
20th to 19th	1.0042	0.0042	0.0016	1.0016
21st to 20th	1.0028	0.0028	0.0013	1.0013
22nd to 21st	0.9856	-0.0144	0.0010	1.0010
23rd to 22nd	0.9947	-0.0053	0.0007	1.0007
24th to 23rd	1.0049	0.0049	0.0006	1.0006
25th to 24th	1.0046	0.0046	0.0004	1.0004
26th to 25th	1.0046	0.0046	0.0003	1.0003
27th to 26th	1.0029	0.0029	0.0003	1.0003
28th to 27th	1.0052	0.0052	0.0002	1.0002
29th to 28th	1.0005	0.0005	0.0002	1.0002
30th to 29th	1.0005	0.0005	0.0001	1.0001
Beyond 30th+	1.0081	0.0081	0.0081	1.0081

$Y = 1 - \exp(-a \cdot b^x)$

$a = 0.222050 \quad b = 0.772059$

+ Selected four year average

**EXHIBIT VII - 1**

**DETERMINATION OF TREND**

**INDEMNITY**

Policy Year	2012	2013	2014	2015	2016	2017	2018
Actual Loss Ratio	0.3625	0.4019	0.3301	0.3278	0.3036	0.2767	0.2580
Normalized Frequency	0.6879	0.7173	0.6127	0.6438	0.5637	0.5662	0.4918
Severity Loss Ratio	0.5270	0.5603	0.5387	0.5092	0.5386	0.4887	0.5246
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.5270	0.5603	0.5387	0.5092	0.5386	0.4887	0.5246

**7 Point Exponential Regression:  $y = 0.548347 * 0.989791 ^ x$**

**Selected Annual Trend = -1.0%**

Policy Year	Annual Trend Factor (1)	Trend Period # Years to 12/1/21 (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2015	0.9898	5.9167	0.9411	0.7187
2016	0.9898	4.9167	0.9508	0.7600
2017	0.9898	3.9167	0.9606	0.8036
2018	0.9898	2.9167	0.9705	0.8497

**Trended Loss Ratio**

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2015	0.3278	0.6764	0.2217
2016	0.3036	0.7226	0.2194
2017	0.2767	0.7719	0.2136
2018	0.2580	0.8246	0.2127
Average			0.2169

# See Page 24 for column (4).



**EXHIBIT VII - 2**

**DETERMINATION OF TREND**

**MEDICAL**

Policy Year	2012	2013	2014	2015	2016	2017	2018
Actual Loss Ratio	0.3679	0.4335	0.3982	0.4017	0.4334	0.3939	0.3584
Normalized Frequency	0.6879	0.7173	0.6127	0.6438	0.5637	0.5662	0.4918
Severity Loss Ratio	0.5348	0.6043	0.6499	0.6240	0.7688	0.6957	0.7287
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.5348	0.6043	0.6499	0.6240	0.7688	0.6957	0.7287

**7 Point Exponential Regression:  $y = 0.537011 * 1.050439 ^ x$**

**Selected Annual Trend = 5.0%**

Policy Year	Annual Trend Factor (1)	Trend Period # Years to 12/1/21 (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2015	1.0504	5.9167	1.3380	0.7187
2016	1.0504	4.9167	1.2737	0.7600
2017	1.0504	3.9167	1.2126	0.8036
2018	1.0504	2.9167	1.1543	0.8497

**Trended Loss Ratio**

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2015	0.4017	0.9616	0.3863
2016	0.4334	0.9680	0.4195
2017	0.3939	0.9744	0.3838
2018	0.3584	0.9808	0.3515
Average			0.3853

# See Page 24 for column (4).

**EXHIBIT VII - 3**

**DETERMINATION OF TREND**

**CLAIM FREQUENCY**

Policy Year Frequency per \$1 million of Expected Losses

Policy Year	Claim Frequency	Normalized Frequency
2006	12.24	1.0000
2007	11.33	0.9257
2008	10.04	0.8203
2009	9.89	0.8080
2010	9.95	0.8129
2011	9.36	0.7647
2012	8.42	0.6879
2013	8.78	0.7173
2014	7.50	0.6127
2015	7.88	0.6438
2016	6.90	0.5637
2017	6.93	0.5662
2018	6.02	0.4918

Policy Year	2012	2013	2014	2015	2016	2017	2018
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.6879	0.7173	0.6127	0.6438	0.5637	0.5662	0.4918

**7 Point (2012 - 2018) Exponential Regression:  $y = 0.759572 * 0.945702 ^ x$**

**Selected Annual Trend =** -5.4%

Policy Year	Annual Trend Factor (1)	# of Years to 12/1/21 (2)	Frequency Trend Factor (3) = (1)^(2)
2015	0.9457	5.9167	0.7187
2016	0.9457	4.9167	0.7600
2017	0.9457	3.9167	0.8036
2018	0.9457	2.9167	0.8497

TABLE I

## POLICY YEAR DATA ACCUMULATED TO END OF CALENDAR YEAR

## ACCUMULATED STANDARD EARNED PREMIUM

Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year	Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior				Prior			
to 1986	490,822,657	490,822,657	1.0000	to 1987	564,297,200	564,297,203	1.0000
1986	73,474,543	73,474,543	1.0000	1987	85,943,515	85,943,515	1.0000
1987	85,943,515	85,943,515	1.0000	1988	102,949,395	102,949,395	1.0000
1988	102,949,395	102,949,395	1.0000	1989	110,768,371	110,768,371	1.0000
1989	110,768,371	110,768,371	1.0000	1990	99,948,026	99,947,912	1.0000
1990	99,948,026	99,948,026	1.0000	1991	95,933,003	95,962,865	1.0003
1991	95,915,069	95,933,003	1.0002	1992	87,086,967	87,086,969	1.0000
1992	87,086,900	87,086,967	1.0000	1993	87,798,331	87,801,353	1.0000
1993	87,798,462	87,798,462	1.0000	1994	82,331,367	82,320,327	0.9999
1994	82,320,327	82,331,367	1.0001	1995	78,691,441	78,691,441	1.0000
1995	78,691,441	78,691,441	1.0000	1996	82,672,594	82,678,809	1.0001
1996	82,676,981	82,676,970	1.0000	1997	81,857,161	81,863,105	1.0001
1997	81,880,902	81,880,897	1.0000	1998	86,443,563	86,448,932	1.0001
1998	86,444,445	86,444,449	1.0000	1999	80,897,648	80,897,648	1.0000
1999	80,901,994	80,901,977	1.0000	2000	89,553,797	89,553,797	1.0000
2000	89,557,126	89,557,124	1.0000	2001	88,080,811	88,080,811	1.0000
2001	88,128,508	88,128,800	1.0000	2002	114,192,701	114,192,701	1.0000
2002	114,271,524	114,271,531	1.0000	2003	129,543,523	129,543,523	1.0000
2003	129,614,117	129,614,097	1.0000	2004	152,893,886	152,895,078	1.0000
2004	153,026,014	153,025,990	1.0000	2005	186,169,392	186,171,051	1.0000
2005	187,894,454	187,894,291	1.0000	2006	205,773,242	205,776,172	1.0000
2006	207,243,931	207,244,065	1.0000	2007	199,887,660	199,891,429	1.0000
2007	200,008,047	200,004,671	1.0000	2008	151,069,626	151,013,810	0.9996
2008	151,154,980	151,156,239	1.0000	2009	118,571,401	118,569,653	1.0000
2009	118,689,759	118,689,773	1.0000	2010	106,015,702	106,009,876	0.9999
2010	106,242,308	106,234,512	0.9999	2011	105,745,325	105,743,602	1.0000
2011	106,335,304	106,364,437	1.0003	2012	115,084,547	115,247,366	1.0014
2012	115,574,875	115,601,320	1.0002	2013	135,193,150	135,225,120	1.0002
2013	136,106,737	136,015,774	0.9993	2014	148,219,374	148,064,859	0.9990
2014	147,252,615	149,088,245	1.0125	2015	145,539,422	146,452,216	1.0063
2015	79,465,763	147,372,640	1.8545	2016	87,557,081	165,480,644	1.8900
2016		88,216,288		2017		93,396,340	

  

Policy Year Valued	As of 12/31/17	As of 12/31/18	Ratio to Prior Year	Policy Year Valued	As of 12/31/18	As of 12/31/19	Ratio to Prior Year
Prior				Prior			
to 1988	650,116,801	650,116,791	1.0000	to 1989	752,956,395	752,956,400	1.0000
1988	102,949,395	102,949,395	1.0000	1989	110,749,576	110,749,576	1.0000
1989	110,768,371	110,768,371	1.0000	1990	99,918,040	99,918,040	1.0000
1990	99,934,859	99,934,859	1.0000	1991	95,943,791	95,964,951	1.0002
1991	95,947,530	95,966,485	1.0002	1992	87,056,863	87,056,863	1.0000
1992	87,086,969	87,086,969	1.0000	1993	87,770,982	87,770,982	1.0000
1993	87,801,353	87,801,353	1.0000	1994	82,285,706	82,285,706	1.0000
1994	82,320,327	82,320,327	1.0000	1995	78,654,617	78,654,617	1.0000
1995	78,691,441	78,691,441	1.0000	1996	82,540,859	82,540,859	1.0000
1996	82,678,809	82,575,994	0.9988	1997	81,921,802	81,921,802	1.0000
1997	81,863,105	81,965,920	1.0013	1998	86,403,533	86,403,942	1.0000
1998	86,448,932	86,448,932	1.0000	1999	80,847,508	80,847,926	1.0000
1999	80,897,648	80,897,648	1.0000	2000	89,482,335	89,482,794	1.0000
2000	89,553,605	89,553,605	1.0000	2001	88,003,203	88,003,203	1.0000
2001	88,074,135	88,074,135	1.0000	2002	114,130,309	114,130,309	1.0000
2002	114,189,999	114,189,999	1.0000	2003	129,497,030	129,497,030	1.0000
2003	129,540,805	129,540,806	1.0000	2004	152,848,419	152,848,419	1.0000
2004	152,893,519	152,894,012	1.0000	2005	186,118,336	186,118,337	1.0000
2005	186,170,909	186,171,636	1.0000	2006	205,712,731	205,717,577	1.0000
2006	205,768,543	205,769,722	1.0000	2007	199,830,762	199,865,396	1.0002
2007	199,891,429	199,893,328	1.0000	2008	151,065,057	151,069,567	1.0000
2008	151,013,810	151,074,601	1.0004	2009	118,585,410	118,590,101	1.0000
2009	118,569,653	118,585,410	1.0001	2010	106,106,904	106,116,744	1.0001
2010	106,009,876	106,106,904	1.0009	2011	105,754,587	105,773,822	1.0002
2011	105,743,602	105,754,587	1.0001	2012	115,258,614	115,267,794	1.0001
2012	115,247,366	115,258,614	1.0001	2013	135,232,793	135,130,720	0.9992
2013	135,225,120	135,232,793	1.0001	2014	148,028,975	148,049,227	1.0001
2014	148,064,859	148,028,975	0.9998	2015	146,248,253	146,348,416	1.0007
2015	146,452,216	146,248,253	0.9986	2016	166,693,833	165,860,349	0.9950
2016	165,480,644	166,693,833	1.0073	2017	176,718,905	177,798,697	1.0061
2017	93,396,340	176,718,905	1.8921	2018	95,664,944	174,630,877	1.8254
2018		95,938,159		2019		92,800,253	

NOTE: So as to maximize the use of available data, the companies used in one stage of development were allowed to be independent of those used in the other stage of development; therefore, the figures shown at each valuation may vary.

TABLE I - A - Individual Losses Limited \*

## POLICY YEAR DATA ACCUMULATED TO END OF CALENDAR YEAR

## INCURRED LOSSES EXCLUDING BULK AND IBNR RESERVES

Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year	Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior				Prior			
to 1986	237,359,733	237,443,712	1.0004	to 1987	269,302,925	269,903,187	1.0022
1986	31,757,298	31,611,163	0.9954	1987	41,208,386	41,401,082	1.0047
1987	40,884,074	40,935,843	1.0013	1988	39,109,258	39,124,067	1.0004
1988	39,127,397	39,109,257	0.9995	1989	44,706,894	44,798,462	1.0020
1989	44,660,506	44,706,820	1.0010	1990	47,456,665	47,526,459	1.0015
1990	47,313,513	47,454,867	1.0030	1991	44,033,751	43,994,047	0.9991
1991	44,142,587	44,033,706	0.9975	1992	40,398,826	40,433,964	1.0009
1992	40,338,730	40,398,827	1.0015	1993	45,428,579	45,542,971	1.0025
1993	45,454,607	45,426,899	0.9994	1994	36,932,777	37,128,208	1.0053
1994	37,042,698	36,722,891	0.9914	1995	39,431,989	39,091,862	0.9914
1995	39,551,106	39,431,094	0.9970	1996	50,941,868	51,045,990	1.0020
1996	50,944,861	50,933,662	0.9998	1997	45,994,473	46,397,232	1.0088
1997	46,055,161	45,974,830	0.9983	1998	40,536,631	40,596,523	1.0015
1998	40,199,387	40,532,748	1.0083	1999	48,656,982	49,168,211	1.0105
1999	48,706,387	48,742,873	1.0007	2000	65,083,253	65,850,362	1.0118
2000	64,917,034	65,080,973	1.0025	2001	56,848,930	57,111,054	1.0046
2001	56,101,522	56,843,380	1.0132	2002	59,536,938	59,815,388	1.0047
2002	59,017,271	59,558,966	1.0092	2003	68,508,005	69,222,463	1.0104
2003	67,863,986	68,572,300	1.0104	2004	72,140,008	74,099,051	1.0272
2004	70,746,076	72,138,459	1.0197	2005	74,273,178	73,444,649	0.9888
2005	75,653,224	76,456,283	1.0106	2006	79,253,905	79,469,551	1.0027
2006	78,326,429	79,701,737	1.0176	2007	79,602,082	79,854,020	1.0032
2007	77,945,332	79,622,507	1.0215	2008	75,958,382	77,219,396	1.0166
2008	73,590,161	75,958,382	1.0322	2009	81,693,235	83,009,162	1.0161
2009	80,028,826	81,807,903	1.0222	2010	81,483,811	83,041,860	1.0191
2010	78,163,407	81,499,655	1.0427	2011	74,714,401	75,108,087	1.0053
2011	72,777,697	74,872,820	1.0288	2012	66,872,329	67,712,408	1.0126
2012	62,770,811	67,208,643	1.0707	2013	69,116,380	71,922,418	1.0406
2013	60,190,658	69,349,717	1.1522	2014	52,757,518	55,784,128	1.0574
2014	43,479,628	53,744,448	1.2361	2015	48,469,831	58,049,910	1.1977
2015	17,449,328	49,041,259	2.8105	2016	18,665,442	46,489,315	2.4907
2016		18,852,610		2017		18,326,008	

  

Policy Year Valued	As of 12/31/17	As of 12/31/18	Ratio to Prior Year	Policy Year Valued	As of 12/31/18	As of 12/31/19	Ratio to Prior Year
Prior				Prior			
to 1988	311,507,648	310,639,357	0.9972	to 1989	349,812,767	349,924,534	1.0003
1988	39,124,067	39,116,357	0.9998	1989	44,684,092	44,704,824	1.0005
1989	44,798,462	44,684,092	0.9974	1990	47,644,812	47,616,279	0.9994
1990	47,524,854	47,647,935	1.0026	1991	44,028,219	44,000,631	0.9994
1991	43,992,772	44,028,219	1.0008	1992	40,269,913	40,267,933	1.0000
1992	40,434,021	40,270,955	0.9960	1993	45,472,649	45,632,654	1.0035
1993	45,544,975	45,472,961	0.9984	1994	37,357,950	37,567,510	1.0056
1994	37,128,208	37,368,013	1.0065	1995	39,097,307	38,995,595	0.9974
1995	39,093,024	39,108,912	1.0004	1996	50,639,858	49,843,800	0.9843
1996	51,054,466	50,640,718	0.9919	1997	46,562,816	46,378,236	0.9960
1997	46,400,278	46,564,885	1.0035	1998	40,625,464	40,521,323	0.9974
1998	40,598,131	40,625,746	1.0007	1999	48,900,253	48,783,138	0.9976
1999	49,171,173	48,952,526	0.9956	2000	64,608,628	64,259,799	0.9946
2000	65,852,445	64,746,217	0.9832	2001	57,061,043	56,316,506	0.9870
2001	57,112,452	57,101,889	0.9998	2002	58,883,135	58,695,755	0.9968
2002	59,818,633	59,137,920	0.9886	2003	69,239,494	68,606,833	0.9909
2003	69,231,424	69,249,605	1.0003	2004	74,885,329	74,661,345	0.9970
2004	74,101,495	74,930,264	1.0112	2005	73,527,341	73,658,493	1.0018
2005	73,444,752	73,535,080	1.0012	2006	79,184,934	78,621,173	0.9929
2006	79,472,345	79,186,848	0.9964	2007	80,005,579	79,445,406	0.9930
2007	80,136,540	80,281,956	1.0018	2008	78,970,638	79,948,683	1.0124
2008	77,219,396	78,979,348	1.0228	2009	87,260,502	91,943,261	1.0537
2009	83,009,342	87,260,502	1.0512	2010	86,948,263	90,686,234	1.0430
2010	83,044,293	86,948,263	1.0470	2011	77,761,761	79,979,915	1.0285
2011	75,109,807	77,761,761	1.0353	2012	70,412,382	72,384,902	1.0280
2012	67,712,474	70,412,382	1.0399	2013	74,373,193	78,211,645	1.0516
2013	71,922,881	74,373,193	1.0341	2014	61,488,584	68,236,408	1.1097
2014	55,786,282	61,488,584	1.1022	2015	64,968,307	67,575,800	1.0401
2015	58,050,337	64,968,307	1.1192	2016	63,962,559	74,312,284	1.1618
2016	46,489,891	63,962,559	1.3758	2017	53,221,575	64,705,104	1.2158
2017	18,326,216	53,221,575	2.9041	2018	22,852,186	51,601,417	2.2581
2018		22,880,694		2019		22,623,165	

NOTE: So as to maximize the use of available data, the companies used in one stage of development were allowed to be independent of those used in the other stage of development; therefore, the figures shown at each valuation may vary.

\* Losses limited on a per-claim basis, with the actual limitation varying by policy year as described in Exhibit 1a.

Losses are expressed on a post-HB373 basis.

TABLE I - B - Individual Losses Limited \*

POLICY YEAR DATA ACCUMULATED TO END OF CALENDAR YEAR

INDEMNITY INCURRED LOSSES EXCLUDING BULK AND IBNR RESERVES

Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year	Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1986	190,829,827	190,840,409	1.0001	Prior to 1987	215,223,258	215,266,277	1.0002
1986	24,307,922	24,158,648	0.9939	1987	29,967,580	30,162,192	1.0065
1987	29,918,915	29,886,315	0.9989	1988	28,763,957	28,747,466	0.9994
1988	28,799,708	28,763,956	0.9988	1989	31,316,797	31,240,118	0.9976
1989	31,337,492	31,316,797	0.9993	1990	33,412,196	33,503,977	1.0027
1990	33,456,674	33,411,903	0.9987	1991	30,661,795	30,569,864	0.9970
1991	30,764,975	30,661,795	0.9966	1992	26,370,931	26,331,966	0.9985
1992	26,426,342	26,370,931	0.9979	1993	29,972,477	29,987,417	1.0005
1993	30,002,010	29,972,477	0.9990	1994	23,554,271	23,606,362	1.0022
1994	23,615,750	23,477,610	0.9942	1995	24,397,028	24,387,134	0.9996
1995	24,579,705	24,397,028	0.9926	1996	30,430,261	30,431,523	1.0000
1996	30,409,420	30,426,668	1.0006	1997	29,152,197	29,128,119	0.9992
1997	29,204,576	29,148,751	0.9981	1998	25,165,314	25,174,957	1.0004
1998	25,142,352	25,165,314	1.0009	1999	29,756,939	29,836,501	1.0027
1999	29,658,089	29,819,626	1.0054	2000	38,622,753	38,563,469	0.9985
2000	38,783,324	38,622,316	0.9958	2001	34,018,728	33,861,368	0.9954
2001	34,042,454	34,015,657	0.9992	2002	33,804,322	33,768,477	0.9989
2002	33,836,736	33,821,405	0.9995	2003	38,839,971	38,791,063	0.9987
2003	38,871,092	38,871,219	1.0000	2004	39,508,295	39,576,443	1.0017
2004	39,302,040	39,508,193	1.0052	2005	40,036,637	40,190,095	1.0038
2005	41,530,784	41,433,793	0.9977	2006	44,033,524	44,163,669	1.0030
2006	43,931,690	44,294,171	1.0083	2007	42,765,469	42,538,186	0.9947
2007	42,501,415	42,772,948	1.0064	2008	38,552,085	38,759,211	1.0054
2008	38,421,644	38,552,085	1.0034	2009	43,247,085	43,970,447	1.0167
2009	42,698,487	43,316,857	1.0145	2010	38,286,685	39,418,941	1.0296
2010	37,473,707	38,287,619	1.0217	2011	36,871,659	37,184,474	1.0085
2011	36,069,936	36,944,438	1.0242	2012	34,772,157	35,731,420	1.0276
2012	32,225,900	34,985,878	1.0856	2013	36,424,283	37,523,267	1.0302
2013	31,542,747	36,452,541	1.1557	2014	26,237,534	28,849,118	1.0995
2014	20,963,150	26,779,213	1.2774	2015	19,224,680	28,076,076	1.4604
2015	6,570,700	19,428,654	2.9569	2016	7,682,739	19,964,398	2.5986
2016		7,750,242		2017		7,175,013	

  

Policy Year Valued	As of 12/31/17	As of 12/31/18	Ratio to Prior Year	Policy Year Valued	As of 12/31/18	As of 12/31/19	Ratio to Prior Year
Prior to 1988	245,819,800	245,268,696	0.9978	Prior to 1989	273,737,917	273,761,093	1.0001
1988	28,747,466	28,737,390	0.9996	1989	31,237,378	31,236,843	1.0000
1989	31,240,118	31,237,378	0.9999	1990	33,539,124	33,517,890	0.9994
1990	33,502,136	33,539,733	1.0011	1991	30,535,809	30,504,463	0.9990
1991	30,568,558	30,535,809	0.9989	1992	26,302,821	26,257,081	0.9983
1992	26,331,966	26,303,076	0.9989	1993	29,879,574	29,872,227	0.9998
1993	29,987,417	29,879,574	0.9964	1994	23,710,276	23,765,007	1.0023
1994	23,606,362	23,714,832	1.0046	1995	24,396,550	24,363,904	0.9987
1995	24,387,134	24,402,243	1.0006	1996	30,174,109	30,032,368	0.9953
1996	30,434,995	30,174,269	0.9914	1997	29,148,756	29,221,284	1.0025
1997	29,130,042	29,148,866	1.0006	1998	25,219,384	25,214,321	0.9998
1998	25,174,957	25,219,384	1.0018	1999	29,701,391	29,701,389	1.0000
1999	29,836,501	29,736,681	0.9967	2000	38,496,613	38,558,755	1.0016
2000	38,563,543	38,584,227	1.0005	2001	33,856,259	33,789,433	0.9980
2001	33,864,339	33,874,264	1.0003	2002	33,678,178	33,582,678	0.9972
2002	33,768,477	33,712,042	0.9983	2003	38,797,041	38,606,069	0.9951
2003	38,794,766	38,801,758	1.0002	2004	39,818,328	39,903,283	1.0021
2004	39,577,052	39,838,668	1.0066	2005	40,156,549	40,257,042	1.0025
2005	40,190,132	40,158,182	0.9992	2006	44,019,850	44,240,293	1.0050
2006	44,166,463	44,020,168	0.9967	2007	42,559,295	42,652,926	1.0022
2007	42,820,133	42,834,891	1.0003	2008	39,707,812	39,849,686	1.0036
2008	38,759,211	39,708,319	1.0245	2009	44,898,447	45,462,344	1.0126
2009	43,970,447	44,898,447	1.0211	2010	39,569,653	40,122,052	1.0140
2010	39,419,372	39,569,653	1.0038	2011	37,917,354	37,909,305	0.9998
2011	37,185,031	37,917,354	1.0197	2012	36,126,331	36,945,367	1.0227
2012	35,731,451	36,126,331	1.0111	2013	38,414,622	38,966,037	1.0144
2013	37,523,397	38,414,622	1.0238	2014	30,427,313	31,360,276	1.0307
2014	28,850,835	30,427,313	1.0546	2015	30,746,118	32,274,000	1.0497
2015	28,076,328	30,746,118	1.0951	2016	28,700,759	32,525,372	1.1333
2016	19,964,669	28,700,759	1.4376	2017	20,750,171	27,662,892	1.3331
2017	7,175,048	20,750,171	2.8920	2018	8,610,073	20,291,478	2.3567
2018		8,623,272		2019		7,637,836	

NOTE: So as to maximize the use of available data, the companies used in one stage of development were allowed to be independent of those used in the other stage of development; therefore, the figures shown at each valuation may vary.

\* Losses limited on a per-claim basis, with the actual limitation varying by policy year as described in Exhibit 1a.

Losses are expressed on a post-HB373 basis.

TABLE I - C - Individual Losses Limited \*

## POLICY YEAR DATA ACCUMULATED TO END OF CALENDAR YEAR

## MEDICAL INCURRED LOSSES EXCLUDING BULK AND IBNR RESERVES

Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year	Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1986	46,529,906	46,603,303	1.0016	Prior to 1987	54,079,667	54,636,910	1.0103
1986	7,449,376	7,452,515	1.0004	1987	11,240,806	11,238,890	0.9998
1987	10,965,159	11,049,528	1.0077	1988	10,345,301	10,376,601	1.0030
1988	10,327,689	10,345,301	1.0017	1989	13,390,097	13,558,344	1.0126
1989	13,323,014	13,390,023	1.0050	1990	14,044,469	14,022,482	0.9984
1990	13,856,839	14,042,964	1.0134	1991	13,371,956	13,424,183	1.0039
1991	13,377,612	13,371,911	0.9996	1992	14,027,895	14,101,998	1.0053
1992	13,912,388	14,027,896	1.0083	1993	15,456,102	15,555,554	1.0064
1993	15,452,597	15,454,422	1.0001	1994	13,378,506	13,521,846	1.0107
1994	13,426,948	13,245,281	0.9865	1995	15,034,961	14,704,728	0.9780
1995	14,971,401	15,034,066	1.0042	1996	20,511,607	20,614,467	1.0050
1996	20,535,441	20,506,994	0.9986	1997	16,842,276	17,269,113	1.0253
1997	16,850,585	16,826,079	0.9985	1998	15,371,317	15,421,566	1.0033
1998	15,057,035	15,367,434	1.0206	1999	18,900,043	19,331,710	1.0228
1999	19,048,298	18,923,247	0.9934	2000	26,460,500	27,286,893	1.0312
2000	26,133,710	26,458,657	1.0124	2001	22,830,202	23,249,686	1.0184
2001	22,059,068	22,827,723	1.0348	2002	25,732,616	26,046,911	1.0122
2002	25,180,535	25,737,561	1.0221	2003	29,668,034	30,431,400	1.0257
2003	28,992,894	29,701,081	1.0244	2004	32,631,713	34,522,608	1.0579
2004	31,444,036	32,630,266	1.0377	2005	34,236,541	33,254,554	0.9713
2005	34,122,440	35,022,490	1.0264	2006	35,220,381	35,305,882	1.0024
2006	34,394,739	35,407,566	1.0294	2007	36,836,613	37,315,834	1.0130
2007	35,443,917	36,849,559	1.0397	2008	37,406,297	38,460,185	1.0282
2008	35,168,517	37,406,297	1.0636	2009	38,446,150	39,038,715	1.0154
2009	37,330,339	38,491,046	1.0311	2010	43,197,126	43,622,919	1.0099
2010	40,689,700	43,212,036	1.0620	2011	37,842,742	37,923,613	1.0021
2011	36,707,761	37,928,382	1.0333	2012	32,100,172	31,980,988	0.9963
2012	30,544,911	32,222,765	1.0549	2013	32,692,097	34,399,151	1.0522
2013	28,647,911	32,897,176	1.1483	2014	26,519,984	26,935,010	1.0156
2014	22,516,478	26,965,235	1.1976	2015	29,245,151	29,973,834	1.0249
2015	10,878,628	29,612,605	2.7221	2016	10,982,703	26,524,917	2.4152
2016		11,102,368		2017		11,150,995	

  

Policy Year Valued	As of 12/31/17	As of 12/31/18	Ratio to Prior Year	Policy Year Valued	As of 12/31/18	As of 12/31/19	Ratio to Prior Year
Prior to 1988	65,687,848	65,370,661	0.9952	Prior to 1989	76,074,850	76,163,441	1.0012
1988	10,376,601	10,378,967	1.0002	1989	13,446,714	13,467,981	1.0016
1989	13,558,344	13,446,714	0.9918	1990	14,105,688	14,098,389	0.9995
1990	14,022,718	14,108,202	1.0061	1991	13,492,410	13,496,168	1.0003
1991	13,424,214	13,492,410	1.0051	1992	13,967,092	14,010,852	1.0031
1992	14,102,055	13,967,879	0.9905	1993	15,593,075	15,760,427	1.0107
1993	15,557,558	15,593,387	1.0023	1994	13,647,674	13,802,503	1.0113
1994	13,521,846	13,653,181	1.0097	1995	14,700,757	14,631,691	0.9953
1995	14,705,890	14,706,669	1.0001	1996	20,465,749	19,811,432	0.9680
1996	20,619,471	20,466,449	0.9926	1997	17,414,060	17,156,952	0.9852
1997	17,270,236	17,416,019	1.0084	1998	15,406,080	15,307,002	0.9936
1998	15,423,174	15,406,362	0.9989	1999	19,198,862	19,081,749	0.9939
1999	19,334,672	19,215,845	0.9939	2000	26,112,015	25,701,044	0.9843
2000	27,288,902	26,161,990	0.9587	2001	23,204,784	22,527,073	0.9708
2001	23,248,113	23,227,625	0.9991	2002	25,204,957	25,113,077	0.9964
2002	26,050,156	25,425,878	0.9760	2003	30,442,453	30,000,764	0.9855
2003	30,436,658	30,447,847	1.0004	2004	35,067,001	34,758,062	0.9912
2004	34,524,443	35,091,596	1.0164	2005	33,370,792	33,401,451	1.0009
2005	33,254,620	33,376,898	1.0037	2006	35,165,084	34,380,880	0.9777
2006	35,305,882	35,166,680	0.9961	2007	37,446,284	36,792,480	0.9825
2007	37,316,407	37,447,065	1.0035	2008	39,262,826	40,098,997	1.0213
2008	38,460,185	39,271,029	1.0211	2009	42,362,055	46,480,917	1.0972
2009	39,038,895	42,362,055	1.0851	2010	47,378,610	50,564,182	1.0672
2010	43,624,921	47,378,610	1.0860	2011	39,844,407	42,070,610	1.0559
2011	37,924,776	39,844,407	1.0506	2012	34,286,051	35,439,535	1.0336
2012	31,981,023	34,286,051	1.0721	2013	35,958,571	39,245,608	1.0914
2013	34,399,484	35,958,571	1.0453	2014	31,061,271	36,876,132	1.1872
2014	26,935,447	31,061,271	1.1532	2015	34,222,189	35,301,800	1.0315
2015	29,974,009	34,222,189	1.1417	2016	35,261,800	41,786,912	1.1850
2016	26,525,222	35,261,800	1.3294	2017	32,471,404	37,042,212	1.1408
2017	11,151,168	32,471,404	2.9119	2018	14,242,113	31,309,939	2.1984
2018		14,257,422		2019		14,985,329	

NOTE: So as to maximize the use of available data, the companies used in one stage of development were allowed to be independent of those used in the other stage of development; therefore, the figures shown at each valuation may vary.

\* Losses limited on a per-claim basis, with the actual limitation varying by policy year as described in Exhibit 1a.

Losses are expressed on a post-HB373 basis.

TABLE I - D - Individual Losses Limited \*

POLICY YEAR DATA ACCUMULATED TO END OF CALENDAR YEAR

INDEMNITY PAID LOSSES

Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year	Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1986	189,634,719	189,717,805	1.0004	Prior to 1987	213,827,066	214,023,012	1.0009
1986	23,975,835	23,947,072	0.9988	1987	29,553,014	29,717,974	1.0056
1987	29,597,706	29,553,014	0.9985	1988	28,688,050	28,681,231	0.9998
1988	28,680,050	28,688,050	1.0003	1989	31,116,893	31,007,703	0.9965
1989	31,115,341	31,116,893	1.0000	1990	32,614,673	32,649,329	1.0011
1990	32,575,098	32,614,380	1.0012	1991	30,485,603	30,517,114	1.0010
1991	30,466,135	30,485,603	1.0006	1992	26,309,675	26,290,729	0.9993
1992	26,349,762	26,309,675	0.9985	1993	29,549,447	29,650,153	1.0034
1993	29,517,212	29,549,447	1.0011	1994	23,173,927	23,198,975	1.0011
1994	22,890,172	23,097,266	1.0090	1995	24,208,012	24,227,378	1.0008
1995	24,203,873	24,208,012	1.0002	1996	29,791,443	29,839,256	1.0016
1996	29,701,840	29,791,443	1.0030	1997	28,641,626	28,782,452	1.0049
1997	28,664,930	28,641,626	0.9992	1998	24,880,162	25,046,205	1.0067
1998	24,818,129	24,880,162	1.0025	1999	29,566,301	29,692,585	1.0043
1999	29,314,538	29,628,988	1.0107	2000	37,428,727	37,873,322	1.0119
2000	37,343,708	37,428,727	1.0023	2001	32,965,669	33,040,483	1.0023
2001	32,777,931	32,965,669	1.0057	2002	33,544,945	33,546,970	1.0001
2002	33,519,419	33,562,029	1.0013	2003	37,191,467	37,520,888	1.0089
2003	36,955,942	37,225,277	1.0073	2004	38,579,689	38,806,919	1.0059
2004	38,404,399	38,579,689	1.0046	2005	39,179,515	39,416,968	1.0061
2005	39,457,524	40,576,671	1.0284	2006	41,712,218	42,325,534	1.0147
2006	41,047,665	41,976,011	1.0226	2007	39,582,518	40,021,993	1.0111
2007	38,151,658	39,590,327	1.0377	2008	35,970,447	36,730,741	1.0211
2008	35,298,291	35,970,447	1.0190	2009	37,613,251	40,284,114	1.0710
2009	35,556,416	37,683,023	1.0598	2010	34,681,222	36,501,418	1.0525
2010	32,981,908	34,684,372	1.0516	2011	32,768,341	34,503,868	1.0530
2011	31,155,723	32,841,695	1.0541	2012	28,522,194	31,262,124	1.0961
2012	23,271,764	28,715,420	1.2339	2013	25,930,102	31,380,316	1.2102
2013	18,802,942	25,959,141	1.3806	2014	16,214,457	22,831,789	1.4081
2014	8,455,931	16,442,115	1.9444	2015	8,708,720	18,707,734	2.1482
2015	1,788,691	8,805,504	4.9229	2016	1,366,646	8,082,004	5.9138
2016		1,389,968		2017		1,774,309	

  

Policy Year Valued	As of 12/31/17	As of 12/31/18	Ratio to Prior Year	Policy Year Valued	As of 12/31/18	As of 12/31/19	Ratio to Prior Year
Prior to 1988	244,155,620	244,243,229	1.0004	Prior to 1989	272,724,848	272,760,356	1.0001
1988	28,681,231	28,680,639	1.0000	1989	30,998,771	31,032,967	1.0011
1989	31,007,703	30,998,771	0.9997	1990	32,695,529	32,726,331	1.0009
1990	32,647,488	32,696,138	1.0015	1991	30,502,380	30,488,384	0.9995
1991	30,515,808	30,502,380	0.9996	1992	26,267,918	26,219,626	0.9982
1992	26,290,729	26,268,173	0.9991	1993	29,714,718	29,756,925	1.0014
1993	29,650,153	29,714,718	1.0022	1994	23,285,968	23,333,987	1.0021
1994	23,198,975	23,290,524	1.0039	1995	24,248,017	24,275,476	1.0011
1995	24,227,378	24,253,710	1.0011	1996	29,867,559	29,821,589	0.9985
1996	29,839,256	29,867,719	1.0010	1997	28,826,417	28,917,882	1.0032
1997	28,782,452	28,826,527	1.0015	1998	25,071,884	25,112,649	1.0016
1998	25,046,205	25,071,884	1.0010	1999	29,687,328	29,687,469	1.0000
1999	29,692,585	29,722,618	1.0010	2000	37,859,045	38,042,474	1.0048
2000	37,873,322	37,946,659	1.0019	2001	33,077,697	33,012,720	0.9980
2001	33,040,483	33,095,702	1.0017	2002	33,524,854	33,456,740	0.9980
2002	33,546,970	33,558,718	1.0004	2003	37,694,650	37,783,234	1.0024
2003	37,520,888	37,699,367	1.0048	2004	39,133,098	39,298,549	1.0042
2004	38,806,919	39,153,438	1.0089	2005	39,487,055	39,551,747	1.0016
2005	39,416,968	39,488,688	1.0018	2006	42,536,063	43,037,341	1.0118
2006	42,325,534	42,536,381	1.0050	2007	40,921,507	41,390,588	1.0115
2007	40,021,993	40,921,507	1.0225	2008	38,065,269	38,595,421	1.0139
2008	36,730,741	38,065,776	1.0363	2009	41,627,935	41,996,098	1.0088
2009	40,284,114	41,627,935	1.0334	2010	37,702,204	38,498,196	1.0211
2010	36,501,418	37,702,204	1.0329	2011	36,218,736	36,951,629	1.0202
2011	34,503,868	36,218,736	1.0497	2012	32,601,029	33,881,021	1.0393
2012	31,262,124	32,601,029	1.0428	2013	34,247,696	35,672,970	1.0416
2013	31,380,316	34,247,696	1.0914	2014	26,493,593	28,091,047	1.0603
2014	22,831,789	26,493,593	1.1604	2015	24,663,137	28,475,986	1.1546
2015	18,707,734	24,663,137	1.3183	2016	16,194,327	23,190,828	1.4320
2016	8,082,004	16,194,327	2.0038	2017	9,809,149	17,878,010	1.8226
2017	1,774,309	9,809,149	5.5284	2018	1,660,445	8,100,242	4.8784
2018		1,669,404		2019		1,891,396	

NOTE: So as to maximize the use of available data, the companies used in one stage of development were allowed to be independent of those used in the other stage of development; therefore, the figures shown at each valuation may vary.

\* Losses limited on a per-claim basis, with the actual limitation varying by policy year as described in Exhibit 1a.

Losses are expressed on a post-HB373 basis.

TABLE I - E - Individual Losses Limited \*

POLICY YEAR DATA ACCUMULATED TO END OF CALENDAR YEAR

MEDICAL PAID LOSSES

Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year	Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1986	44,622,260	44,973,568	1.0079	Prior to 1987	52,165,237	52,482,698	1.0061
1986	7,257,401	7,269,882	1.0017	1987	10,347,241	10,441,192	1.0091
1987	10,200,697	10,347,241	1.0144	1988	10,266,283	10,271,062	1.0005
1988	10,251,948	10,266,283	1.0014	1989	13,096,681	13,275,886	1.0137
1989	13,056,736	13,096,681	1.0031	1990	12,797,686	12,910,165	1.0088
1990	12,740,281	12,796,358	1.0044	1991	13,176,793	13,232,662	1.0042
1991	13,137,222	13,176,793	1.0030	1992	13,778,696	13,809,256	1.0022
1992	13,723,672	13,778,696	1.0040	1993	14,390,133	14,522,907	1.0092
1993	14,241,867	14,390,133	1.0104	1994	12,734,229	12,809,511	1.0059
1994	12,486,172	12,601,004	1.0092	1995	13,886,651	13,941,070	1.0039
1995	13,802,888	13,886,651	1.0061	1996	17,937,305	18,111,886	1.0097
1996	17,682,535	17,937,305	1.0144	1997	15,503,069	15,603,553	1.0065
1997	15,221,998	15,503,069	1.0185	1998	14,250,595	14,548,217	1.0209
1998	14,046,899	14,250,595	1.0145	1999	17,724,351	17,784,582	1.0034
1999	17,636,509	17,749,006	1.0064	2000	23,688,670	23,844,465	1.0066
2000	23,486,993	23,688,670	1.0086	2001	19,331,427	19,617,892	1.0148
2001	18,745,930	19,331,427	1.0312	2002	23,373,117	23,678,184	1.0131
2002	23,044,714	23,380,445	1.0146	2003	24,736,599	25,529,535	1.0321
2003	24,249,779	24,771,417	1.0215	2004	28,285,322	28,780,731	1.0175
2004	27,736,164	28,285,464	1.0198	2005	28,353,253	28,859,689	1.0179
2005	27,929,150	29,139,203	1.0433	2006	29,453,418	30,091,005	1.0216
2006	28,447,557	29,640,269	1.0419	2007	30,725,569	31,941,430	1.0396
2007	29,788,039	30,739,324	1.0319	2008	30,578,198	31,296,851	1.0235
2008	29,346,111	30,578,198	1.0420	2009	32,638,184	34,028,790	1.0426
2009	30,742,532	32,683,086	1.0631	2010	35,771,044	37,231,905	1.0408
2010	34,223,740	35,787,824	1.0457	2011	31,405,964	33,188,935	1.0568
2011	30,947,408	31,493,505	1.0176	2012	27,042,973	28,818,274	1.0656
2012	25,024,783	27,155,216	1.0851	2013	27,651,527	29,684,134	1.0735
2013	23,419,192	27,844,970	1.1890	2014	20,696,093	23,611,970	1.1409
2014	14,981,328	21,070,076	1.4064	2015	19,327,070	25,838,121	1.3369
2015	5,129,908	19,564,519	3.8138	2016	4,297,125	18,199,896	4.2354
2016		4,336,725		2017		4,403,048	

  

Policy Year Valued	As of 12/31/17	As of 12/31/18	Ratio to Prior Year	Policy Year Valued	As of 12/31/18	As of 12/31/19	Ratio to Prior Year
Prior to 1988	62,693,105	63,016,184	1.0052	Prior to 1989	73,485,256	73,784,420	1.0041
1988	10,271,062	10,288,887	1.0017	1989	13,305,830	13,424,763	1.0089
1989	13,275,886	13,305,830	1.0023	1990	12,988,079	13,110,636	1.0094
1990	12,910,165	12,990,593	1.0062	1991	13,307,183	13,333,112	1.0019
1991	13,232,662	13,307,183	1.0056	1992	13,830,394	13,881,194	1.0037
1992	13,809,256	13,831,181	1.0016	1993	14,849,509	15,015,744	1.0112
1993	14,522,907	14,849,821	1.0225	1994	12,878,952	12,897,823	1.0015
1994	12,809,511	12,884,459	1.0059	1995	13,989,179	14,086,447	1.0070
1995	13,941,070	13,995,091	1.0039	1996	18,274,535	18,309,188	1.0019
1996	18,111,886	18,275,235	1.0090	1997	15,839,244	16,094,383	1.0161
1997	15,603,553	15,841,203	1.0152	1998	14,613,013	14,684,831	1.0049
1998	14,548,217	14,613,295	1.0045	1999	18,024,026	18,050,561	1.0015
1999	17,784,582	18,041,009	1.0144	2000	23,941,716	24,205,479	1.0110
2000	23,844,413	23,991,691	1.0062	2001	19,780,353	20,026,916	1.0125
2001	19,613,217	19,803,194	1.0097	2002	23,808,627	23,918,499	1.0046
2002	23,678,158	24,029,548	1.0148	2003	26,153,591	26,634,222	1.0184
2003	25,529,535	26,158,985	1.0247	2004	29,435,634	29,898,096	1.0157
2004	28,780,731	29,460,229	1.0236	2005	29,156,001	29,657,989	1.0172
2005	28,859,689	29,162,107	1.0105	2006	30,660,984	30,867,041	1.0067
2006	30,091,005	30,662,580	1.0190	2007	32,324,549	33,088,859	1.0236
2007	31,941,430	32,325,328	1.0120	2008	32,258,826	33,051,449	1.0246
2008	31,296,851	32,267,029	1.0310	2009	35,053,377	35,757,344	1.0201
2009	34,028,790	35,053,377	1.0301	2010	38,474,016	39,182,391	1.0184
2010	37,231,905	38,474,016	1.0334	2011	34,008,811	34,378,635	1.0109
2011	33,188,935	34,008,811	1.0247	2012	29,749,407	30,628,239	1.0295
2012	28,818,274	29,749,407	1.0323	2013	31,459,971	32,302,350	1.0268
2013	29,684,134	31,459,971	1.0598	2014	24,837,126	25,785,752	1.0382
2014	23,611,970	24,837,126	1.0519	2015	28,138,946	29,229,793	1.0388
2015	25,838,121	28,138,946	1.0890	2016	24,948,912	27,508,910	1.1026
2016	18,199,896	24,948,912	1.3708	2017	18,191,832	24,334,702	1.3377
2017	4,403,048	18,191,832	4.1316	2018	4,323,038	15,508,644	3.5874
2018		4,324,898		2019		4,276,736	

NOTE: So as to maximize the use of available data, the companies used in one stage of development were allowed to be independent of those used in the other stage of development; therefore, the figures shown at each valuation may vary.

\* Losses limited on a per-claim basis, with the actual limitation varying by policy year as described in Exhibit 1a.

Losses are expressed on a post-HB373 basis.



EXHIBIT VIII  
DELAWARE COMPENSATION RATING BUREAU, INC.  
RATE AND LOSS COST FORMULAE

The experience used for classification relativities for the December 1, 2020 revision will include all available risks. It is proposed that catastrophes be limited in accordance with the procedure previously employed in other DCRB filings. The experience period will be five (5) years for all classifications regardless of whether a classification might meet the full credibility requirements with less than five years of data. Credibility will be based on reported payrolls for classifications using payroll as the exposure base. For non-payroll classifications, expected losses will be used as the basis for credibility. Thus, two credibility tables will be prepared for use in the December 1, 2020 filing. The values for these respective tables will be established such that the credibility assigned to a payroll-based classification having the same portion of total statewide expected losses and payrolls attributable to its experience using each table would be equal. All occupational disease losses will be included in the exhibit of classification experience, with the total amount of such losses by type of injury being shown on a separate line on the classification rate worksheets.

The larger classifications are subject to standard procedures as described below. However, circumstances will sometimes require that some classifications' rating procedure be modified to recognize situations where the normal rating process would not be appropriate. Such classifications, and the manner in which their rates or loss costs have been derived, are separately identified within the filing material.

The calculation of assigned risk classification rates will be made in accordance with the following procedure:

- (1) Determine the pure premiums underlying present Manual Residual Market Rates by category (serious, non-serious, medical only and total) for each classification.
- (2) Adjust the present pure premiums by category (serious, non-serious, medical only and total) to the December 1, 2020 on-rate-level to obtain present on-rate-level pure premiums.
- (3) Determine Expected Losses (serious, non-serious, medical only and total) for each classification by multiplying the exposures from the experience period by the pure premiums underlying present Manual Rates.
- (4) Determine the indicated pure premiums (serious, non-serious, medical only and total) from the exposures and losses from the experience period.
- (5) Test the indicated total pure premiums by multiplying the exposures of the latest three years for each classification and obtaining the total Actual Losses for all classifications combined.
- (6) Calculate Expected Losses by multiplying the present pure premiums by the exposures from the last three years for each classification and by the overall average rate change.
- (7) Obtain correction factors by category of loss (serious, non-serious and medical only) by dividing the Expected Losses derived in (6) by the Actual Losses derived in (5).
- (8) Multiply the indicated (pre-test) pure premiums from (4) times the correction factors derived in (7) to obtain indicated (post-test) pure premiums.

RATE AND LOSS COST FORMULAE (continued)

- (9) Determine “formula” pure premiums from (2) and (8) above for each type of loss (serious, non-serious and medical only), with credibility for each category of loss corresponding to either the amount of reported payroll (for all classifications in which payroll is the exposure base) or to the amount of Expected Losses (for all “non-payroll” classifications). Credibility weights will be taken from exhibits appearing in the Class Book. The complement of credibility is in each case to be assigned to the present on December 1, 2020 level pure premiums for each category of loss.
- (10) Select proposed total pure premiums for each classification, using the middle value from the total pure premiums derived in (2), (8) and (9) above. If the proposed pure premium selected on this basis is different from the formula pure premium derived in (9) above, partial pure premiums are to be allocated between categories (serious, non-serious and medical only) in the same proportion as the partial pure premiums comprising the formula pure premium.
- (11) Test the proposed total pure premiums selected in (10) by multiplying by the exposures of the three latest years for each classification and obtaining the total Expected Losses for all classifications combined.
- (12) Obtain a correction factor by dividing the Expected Losses derived in (6) above by the Expected Losses derived in (11) above.
- (13) Calculate the “composite pure premium multipliers” for each industry group as the product of the following items:
  - (a) The pure premium correction factor determined in (12) above.
  - (b) The proposed experience rating plan off-balance factor (Collectible Premium Ratio).
  - (c) The inverse of the permissible loss and loss adjustment ratio.
  - (d) The estimated effect of the July 1, 2021 benefit change.
- (14) Apply the composite pure premium multiplier obtained in (13) above to the proposed total pure premiums to obtain Manual Rates.
- (15) Test to assure that the maximum departure of the Manual Rates derived in (14) above from current Manual Rates is in accordance with the following parameters:

Maximum Change in Rates:  
Upward: The industry group average change plus 25% rounded to the nearest 1%.  
Downward: The industry group average change minus 25% rounded to the nearest 1%.
- (16) Manual rates are to be rounded to the nearest \$.01.
- (17) Test the Manual Rates derived in (16) above to determine if balance has been achieved within 0.0005 of the indicated change in rate level by industry group. If such balance has not been achieved, calculate the necessary correction factor to adjust the composite pure premium multipliers derived in (13) above to achieve the necessary balance. Perform steps (14) through (17) iteratively until the desired balance is achieved.

## RATE AND LOSS COST FORMULAE (continued)

### Non-reviewed Classifications

- (18) For classifications with insufficient credibility (non-reviewed classifications), an alternative calculation is used to derive indicated rates.

Insufficient credibility is defined as having five-year payroll less than that necessary to achieve 5% credibility for the non-serious component of pure premium. For non-payroll based classifications, expected losses replace payrolls.

For these non-reviewed classes, the indicated rate is calculated as follows:

- a) An average loss cost using Pennsylvania loss cost values and the Delaware distribution of business by class is calculated.
- b) Classification relativities are then calculated that relate the Pennsylvania loss cost by classification to the average overall loss cost calculated in (a) above.
- c) Indicated average loss costs are calculated by class by multiplying the relativities in (b) above times the average Delaware loss cost value for all classes combined times the average manual change in rates times the indicated composite pure premium multiplier.
- d) A second indicated rate is calculated by applying the average manual change in rates by industry group to the current Delaware rate for the class.
- e) A final indicated rate, subject to capping and balancing criteria previously described, is calculated by applying one-third weight to (c) above plus two-thirds weight to (d) above.

### Loss Costs

The calculation of non-assigned risk classification loss costs will be made in accordance with the following procedure:

- (19) Multiply the proposed assigned risk Manual Rates by classification by the permissible loss, loss adjustment expense and loss based assessment ratio.

**EXHIBIT IX****COLLECTIBLE PREMIUM RATIOS \***

Manual Years 2017 to 2019 Market Profile Report Data

Manual Year	Premium at Manual Rates	Collected Premium (Excluding Constants)	Collectible Premium Ratio (2)/(3)
(1)	(2)	(3)	(4)
<b>ALL INDUSTRIES</b>			
2017	320,024,528	330,796,314	0.9674
2018	326,213,792	325,845,507	1.0011
2019	304,894,066	324,587,523	0.9393
<b>TOTAL</b>	<b>951,132,386</b>	<b>981,229,344</b>	<b>0.9693</b>
<b>MANUFACTURING AND UTILITIES</b>			
2017	40,041,092	35,661,221	1.1228
2018	43,986,740	40,072,602	1.0977
2019	38,276,797	36,339,547	1.0533
<b>TOTAL</b>	<b>122,304,629</b>	<b>112,073,370</b>	<b>1.0913</b>
<b>CONTRACTING AND QUARRYING</b>			
2017	63,571,427	60,054,651	1.0586
2018	69,895,285	64,050,095	1.0913
2019	70,153,188	69,864,337	1.0041
<b>TOTAL</b>	<b>203,619,900</b>	<b>193,969,083</b>	<b>1.0498</b>
<b>OTHER INDUSTRIES</b>			
2017	216,412,010	235,080,442	0.9206
2018	212,331,767	221,722,810	0.9576
2019	196,464,081	218,383,639	0.8996
<b>TOTAL</b>	<b>625,207,858</b>	<b>675,186,891</b>	<b>0.9260</b>

\* Excludes classifications and coverages not subject to experience rating.

**EXHIBIT X**

**EXPECTED LOSS RATE FACTORS**

**CALCULATION OF EXPECTED LOSS RATE FACTORS**

<b>Policy Year Beginning 12/1 (1)</b>	<b>Average Law Multiplier (2)</b>	<b>Adjustment Factor (3)</b>	<b>Loss Ratio Development Factor (4)</b>	<b>Expense Allowance ** 1 / (PLR/CPR) (5)</b>	<b>Trend Factor (6)</b>	<b>Product (2) * (3) * (4) * (5) * (6) (7)</b>	<b>Expected Loss Rate Factor 1.0 / (7) (8)</b>	<b>Factor to Reflect Approved Rate Levels* (9)</b>	<b>Combined Effect (8) * (9) (10)</b>
<b><u>Manufacturing and Utilities</u></b>									
2016	1.0098	1.0000	1.5350	2.0050	1.1288	3.5081	0.2851	1.0488	0.2990
2017	1.0135	1.0000	1.7870	2.0050	1.0939	3.9723	0.2517	1.0488	0.2640
2018	1.0085	1.0000	2.4113	2.0050	1.0609	5.1727	0.1933	1.0488	0.2027
<b><u>Contracting and Quarrying</u></b>									
2016	1.0098	1.0000	1.4871	1.9287	1.1288	3.2693	0.3059	1.0487	0.3208
2017	1.0135	1.0000	1.9543	1.9287	1.0939	4.1789	0.2393	1.0487	0.2510
2018	1.0085	1.0000	2.4818	1.9287	1.0609	5.1213	0.1953	1.0487	0.2048
<b><u>Other Industries</u></b>									
2016	1.0098	1.0000	1.5808	1.7013	1.1288	3.0656	0.3262	1.0488	0.3421
2017	1.0135	1.0000	1.8334	1.7013	1.0939	3.4581	0.2892	1.0488	0.3033
2018	1.0085	1.0000	2.4447	1.7013	1.0609	4.4500	0.2247	1.0488	0.2357

\* (12/1/20 Filed Change in Manual Rate Level)/(12/1/20 Approved Change in Manual Rate Level) by Industry Group, from Exhibit 12, Page 1.

\*\* Permissible Loss Ratio = 0.5443  
 Collectible Premium Ratios  
     Manufacturing = 1.0913  
     Contracting = 1.0498  
     All Other = 0.9260

**EXHIBIT XI**

**CALCULATION OF TAX MULTIPLIER FOR USE IN RETROSPECTIVE RATING PLANS  
(O/T U.S.L. & H.W. Act Coverages)**

**Expense Provisions for O/T U.S.L. & H.W. Classes**

Losses	54.43
Loss Adjustment Expense	14.23
Loss & Loss Adjustment	68.66
Premium Discount	8.59
Acquisition	7.49
General Expenses	2.84
Profit and Contingencies	2.60
Taxes	2.32
Uncollectible Premium	2.30
Workers' Compensation Fund	2.00
Administrative Assessment	3.20
	31.34

If

- T = Tax multiplier
- E = Expense provision in rates (General, Acquisition, and Profit), less premium discount
- L = Loss provision in rates
- C = Loss conversion factor
- B = Assessments made on premiums
- A = Assessments made on losses (adjusted so as not to collect profit and general expense dollars on the extra premium generated by the assessments)

Using average discount (Schedule Y) this yields:

$$E = 0.0434 = \frac{ACQ}{0.0749} + \frac{GEN}{0.0284} + \frac{PROFIT}{0.0260} - \frac{PREM DISC}{0.0859}$$

$$A = 0.0564 = 0.0588 \times \frac{1 - 0.0434 - 0.0662}{1 - 0.0058 - 0.0662}$$

Then

$$T = \frac{E + L(1 + C + A)}{E + L(1 + C)} \times \frac{1}{1 - B - S}$$

$$S = \text{Delaware Insurance Plan Subsidy} = 0.0121$$

$$T = \frac{0.0434 + 0.5443(1 + 0.2614 + 0.0564)}{0.0434 + 0.5443(1 + 0.2614)} \times \frac{1}{1 - 0.0662 - 0.0121} = 1.1306$$

## EXHIBIT XII

### DELAWARE RETROSPECTIVE DEVELOPMENT FACTORS \*

Retrospective development factors for first, second and third adjustments are calculated below. They are intended for use in retrospective plans with no loss limitation and applicable to the expected loss portion of premium.

First Adjustment	RDF =	0.5944
Second Adjustment	RDF =	0.4615
Third Adjustment	RDF =	0.3581

For those companies using retrospective development factors with loss limitations, the following formula may be used.

$$\text{RDF(LIM)} = (1.0 - \text{ELF}) \times \text{RDF}$$

RDF(LIM) = Retrospective Development Factors at limited basis  
ELF = Excess Loss (Pure Premium) Factors exclusive of allocated loss adjustment expenses for given Hazard Group and Loss Limitation  
RDF = Retrospective Development Factors without Loss Limitation

For Example:

$$\text{\$25,000 limit Hazard Group C ELF} = 0.603$$

$$\text{First Adjustment RDF} = (1 - 0.603) \times 0.5944 = 0.2360$$

\* The use of retrospective development factors is optional.