

PENNSYLVANIA COMPENSATION RATING BUREAU

**Summary of Material for Modification of Experience
April 1, 2019 Loss Cost Revision**

Superseded

As Filed

PENNSYLVANIA 2019 LOSS COST FILING

EFFECTIVE DATE - April 1, 2019

INDEX

PART I - INDICATED LOSS COST CHANGE

<u>Exhibit</u>	<u>Description</u>	<u>Page</u>
I	Indicated Change in Loss Cost Level	1
II	Employer Assessment Factor and Loss Assessment Load	2
III	Policy Year Ratios of Losses to Expected Losses	3
IV	Policy Year Premium On-Level Factors	13
V	Policy Year Development Factors	15
VI	Determination of Trend Factors	18

<u>Table</u>	<u>Description</u>	
I	Policy Year Data From Supplemental Call - Accumulated Standard Earned Premium	20
I-A	Adjusted Policy Year Data From Supplemental Call - Total Incurred Losses *	21
I-B	Adjusted Policy Year Data From Supplemental Call - Indemnity Incurred Losses *	22
I-C	Adjusted Policy Year Data From Supplemental Call - Medical Incurred Losses *	23
I-D	Adjusted Policy Year Data From Supplemental Call - Indemnity Paid Losses	24
I-E	Adjusted Policy Year Data From Supplemental Call - Medical Paid Losses	25

* Incurred Losses exclude IBNR and Bulk Reserves.

Note: Table I reflects the adjustment of reported data to a Post-Act 57 and HB 1846 Basis

PART II - CLASSIFICATION RELATIVITY

<u>Exhibit</u>	<u>Description</u>	
VII	Loss Cost Formulae	26

PART III - EXPERIENCE RATING PLAN

<u>Exhibit</u>	<u>Description</u>	
VIII	Collectible Premium Ratios	28
IX	Expected Loss Cost Factors	29
X	Retrospective Development Factors	30

EXHIBIT I

INDICATED CHANGE IN LOSS COSTS

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(1) Policy Year 2014 Ratio of Loss to Expected Loss	0.5317	0.6130	1.1447
(2) Policy Year 2015 Ratio of Loss to Expected Loss	0.4956	0.5374	1.0330
(3) Policy Year 2016 Ratio of Loss to Expected Loss	0.4765	0.5203	0.9968
(4) Average (Midpoint = 1/1/2016)	0.5013	0.5569	1.0582
(5) Policy Year 2014 Ratio Trended to 4/1/2020 +	0.4245	0.5070	0.9315
(6) Policy Year 2015 Ratio Trended to 4/1/2020 +	0.4130	0.4609	0.8739
(7) Policy Year 2016 Ratio Trended to 4/1/2020 +	0.4145	0.4627	0.8772
(8) Average at 4/1/2020	0.4173	0.4769	0.8942
(9a) Protz Adjustment	1.1337	1.0000	
(9b) House Bill 1840 Adjustment	0.8961	1.0000	
(10) Indicated Change in Loss Costs	0.4239	0.4769	0.9008
			-9.92%

CHANGES IN MANUAL LOSS COST LEVEL BY INDUSTRY GROUP

	<u>Mfg.</u>	<u>Cont.</u>	<u>Other</u>	<u>Total</u>
(11) Current Collectible Premium Ratio	1.0389	1.1238	0.9931	
(12) Anticipated Collectible Premium Ratio	1.0411	1.1268	0.9929	
(13) Final Indicated Change in Manual Loss Cost Level (10T) * (12) / (11)	0.9027	0.9032	0.9006	0.9015

+ Refer to pages 18 and 19

EXHIBIT II

**CALCULATION OF EMPLOYER ASSESSMENT FACTOR AND
LOADING FOR LOSS BASED ASSESSMENTS**

(1)	2017 PCRB Member Paid Loss*	2,144,419,288
(2)	2018/2019 Fiscal Year Membership Assessment Amount	
	a. Administration Fund	41,047,540
	b. Subsequent Injury Fund	143,127
	c. Supersedeas Fund	18,349,804
	d. Uninsured Employers Guaranty Fund	2,169,313
	e. Total	<u>61,709,784</u>
(3)	2017 Employer Assessment Premium Base	3,363,452,501
(4)	2018/2019 Fiscal Year Membership Assessment Rate	
	a. Administration Fund (2a) / (3)	0.0122
	b. Subsequent Injury Fund (2b) / (3)	0.0000
	c. Supersedeas Fund (2c) / (3)	0.0055
	d. Uninsured Employers Guaranty Fund (2d) / (3)	0.0006
	e. Employer Assessment Factor (4a) + (4b) + (4c) + (4d)	<u>0.0183</u>
(5)	2018/2019 Fiscal Year Budget for the Office of Small Business Advocate	275,000
(6)	2018/2019 Fiscal Year Membership Assessment Rate for the Office of Small Business Advocate (5) / (1)	0.0001
(7)	Merit Rating Plan Increment Factor	0.0033
(8)	Certified Safety Committee Program Increment Factor	0.0100
(9)	Overall Adjustment for the Office of Small Business Advocate, Merit Rating Plan and Certified Safety Committee Program (6) + (7) + (8)	0.0134

* Loss payments on deductible policies have been adjusted to a first dollar basis.

EXHIBIT III - 1

POLICY YEAR LOSS RATIO 2016

(1) Standard Earned Premium Reported (Table I)	1,492,574,056
(2) Premium Development Factor to Ultimate Level (Exhibit V-1)	1.0092
(3) Expense Constant Removal Factor	1.0000
(4) PCCPAP On-Level Factor	1.0078
(5) Factor to Remove Loss Based Assessments	0.9853
(6) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)	1,495,739,515
(7) Loss Cost Change to 1/1/19 Level	0.8518
(8) Expected Loss at Current Level (6) * (7)	1,274,070,919

Losses - Paid-to-30th Method

	Indemnity	Medical	Total
(9) Paid Losses (Table I-D & I-E)	207,070,815	358,709,085	565,779,900
(10) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	3.1043	1.9399	
(11) Ultimate Incurred Losses (9) * (10)	642,809,931	695,859,754	1,338,669,685
(12) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13) Adjusted Losses (11) * (12)	642,809,931	695,859,754	1,338,669,685
(14) Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.5045	0.5462	1.0507

Losses - Incurred Method

(15) Incurred Losses (Table I-B & I-C)	359,295,065	491,373,811	850,668,876
(16) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.5904	1.2819	
(17) Ultimate Incurred Losses (15) * (16)	571,422,871	629,892,088	1,201,314,959
(18) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19) Adjusted Losses (17) * (18)	571,422,871	629,892,088	1,201,314,959
(20) Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.4485	0.4944	0.9429

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

(21) Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	607,116,401	662,875,921	1,269,992,322
(22) Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.4765	0.5203	0.9968
(23) Normalized Claim Frequency (Exhibit VI-2)	0.5373	0.5373	
(24) Severity Ratio * (22) / (23)	0.8869	0.9684	1.8553

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 2

POLICY YEAR LOSS RATIO 2015

(1)	Standard Earned Premium Reported (Table I)			1,507,408,015
(2)	Premium Development Factor to Ultimate Level (Exhibit V-1)			1.0005
(3)	Expense Constant Removal Factor			1.0000
(4)	PCCPAP On-Level Factor			1.0076
(5)	Factor to Remove Loss Based Assessments			0.9853
(6)	Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)			1,497,285,279
(7)	Loss Cost Change to 1/1/19 Level			0.8299
(8)	Expected Loss at Current Level (6) * (7)			1,242,597,053
Losses - Paid-to-30th Method				
		<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(9)	Paid Losses (Table I-D & I-E)	391,792,076	450,619,207	842,411,283
(10)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.6693	1.5466	
(11)	Ultimate Incurred Losses (9) * (10)	654,018,512	696,927,666	1,350,946,178
(12)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13)	Adjusted Losses (11) * (12)	654,018,512	696,927,666	1,350,946,178
(14)	Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.5263	0.5609	1.0872
Losses - Incurred Method				
(15)	Incurred Losses (Table I-B & I-C)	496,705,992	534,288,608	1,030,994,600
(16)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.1630	1.1953	
(17)	Ultimate Incurred Losses (15) * (16)	577,669,069	638,635,173	1,216,304,242
(18)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19)	Adjusted Losses (17) * (18)	577,669,069	638,635,173	1,216,304,242
(20)	Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.4649	0.5140	0.9789
Losses - Average of Incurred and Paid-to-30th Method				
(21)	Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	615,843,791	667,781,420	1,283,625,211
(22)	Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.4956	0.5374	1.0330
(23)	Normalized Claim Frequency (Exhibit VI-2)	0.5803	0.5803	
(24)	Severity Ratio * (22) / (23)	0.8541	0.9261	1.7802

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 3

POLICY YEAR LOSS RATIO 2014

(1)	Standard Earned Premium Reported (Table I)			1,513,882,133
(2)	Premium Development Factor to Ultimate Level (Exhibit V-1)			1.0001
(3)	Expense Constant Removal Factor			1.0000
(4)	PCCPAP On-Level Factor			1.0066
(5)	Factor to Remove Loss Based Assessments			0.9857
(6)	Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)			1,502,232,569
(7)	Loss Cost Change to 1/1/19 Level			0.7825
(8)	Expected Loss at Current Level (6) * (7)			1,175,496,985
Losses - Paid-to-30th Method				
		<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(9)	Paid Losses (Table I-D & I-E)	488,886,040	525,968,802	1,014,854,842
(10)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.3350	1.4453	
(11)	Ultimate Incurred Losses (9) * (10)	652,662,863	760,182,710	1,412,845,573
(12)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13)	Adjusted Losses (11) * (12)	652,662,863	760,182,710	1,412,845,573
(14)	Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.5552	0.6467	1.2019
Losses - Incurred Method				
(15)	Incurred Losses (Table I-B & I-C)	564,960,436	584,417,377	1,149,377,813
(16)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0572	1.1651	
(17)	Ultimate Incurred Losses (15) * (16)	597,276,173	680,904,686	1,278,180,859
(18)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19)	Adjusted Losses (17) * (18)	597,276,173	680,904,686	1,278,180,859
(20)	Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.5081	0.5792	1.0873
Losses - Average of Incurred and Paid-to-30th Method				
(21)	Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	624,969,518	720,543,698	1,345,513,216
(22)	Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.5317	0.6130	1.1447
(23)	Normalized Claim Frequency (Exhibit VI-2)	0.6292	0.6292	
(24)	Severity Ratio * (22) / (23)	0.8451	0.9743	1.8194

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 4

POLICY YEAR LOSS RATIO 2013

(1) Standard Earned Premium Reported (Table I)	1,502,866,414
(2) Premium Development Factor to Ultimate Level (Exhibit V-1)	0.9999
(3) Expense Constant Removal Factor	1.0000
(4) PCCPAP On-Level Factor	1.0067
(5) Factor to Remove Loss Based Assessments	0.9853
(6) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)	1,490,546,396
(7) Loss Cost Change to 1/1/19 Level	0.7452
(8) Expected Loss at Current Level (6) * (7)	1,110,755,174

Losses - Paid-to-30th Method

	Indemnity	Medical	Total
(9) Paid Losses (Table I-D & I-E)	529,754,399	517,270,705	1,047,025,104
(10) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.2209	1.3978	
(11) Ultimate Incurred Losses (9) * (10)	646,777,146	723,040,991	1,369,818,137
(12) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13) Adjusted Losses (11) * (12)	646,777,146	723,040,991	1,369,818,137
(14) Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.5823	0.6509	1.2332

Losses - Incurred Method

(15) Incurred Losses (Table I-B & I-C)	578,028,628	579,531,357	1,157,559,985
(16) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0306	1.1601	
(17) Ultimate Incurred Losses (15) * (16)	595,716,304	672,314,327	1,268,030,631
(18) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19) Adjusted Losses (17) * (18)	595,716,304	672,314,327	1,268,030,631
(20) Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.5363	0.6053	1.1416

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

(21) Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	621,246,725	697,677,659	1,318,924,384
(22) Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.5593	0.6281	1.1874
(23) Normalized Claim Frequency (Exhibit VI-2)	0.6868	0.6868	
(24) Severity Ratio * (22) / (23)	0.8144	0.9146	1.7290

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 5

POLICY YEAR LOSS RATIO 2012

(1) Standard Earned Premium Reported (Table I)			1,539,247,581
(2) Premium Development Factor to Ultimate Level (Exhibit V-1)			1.0001
(3) Expense Constant Removal Factor			1.0000
(4) PCCPAP On-Level Factor			1.0067
(5) Factor to Remove Loss Based Assessments			0.9858
(6) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)			1,527,709,536
(7) Loss Cost Change to 1/1/19 Level			0.7114
(8) Expected Loss at Current Level (6) * (7)			1,086,812,564
Losses - Paid-to-30th Method	Indemnity	Medical	Total
(9) Paid Losses (Table I-D & I-E)	527,719,678	503,111,608	1,030,831,286
(10) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.1726	1.3732	
(11) Ultimate Incurred Losses (9) * (10)	618,804,094	690,872,860	1,309,676,954
(12) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13) Adjusted Losses (11) * (12)	618,804,094	690,872,860	1,309,676,954
(14) Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.5694	0.6357	1.2051
Losses - Incurred Method			
(15) Incurred Losses (Table I-B & I-C)	571,753,520	556,010,152	1,127,763,672
(16) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0249	1.1432	
(17) Ultimate Incurred Losses (15) * (16)	585,990,183	635,630,806	1,221,620,989
(18) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19) Adjusted Losses (17) * (18)	585,990,183	635,630,806	1,221,620,989
(20) Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.5392	0.5849	1.1241
Losses - Average of Incurred and Paid-to-30th Method			
(21) Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	602,397,139	663,251,833	1,265,648,972
(22) Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.5543	0.6103	1.1646
(23) Normalized Claim Frequency (Exhibit VI-2)	0.7030	0.7030	
(24) Severity Ratio * (22) / (23)	0.7885	0.8682	1.6567

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 6

POLICY YEAR LOSS RATIO 2011

(1)	Standard Earned Premium Reported (Table I)			1,650,529,182
(2)	Premium Development Factor to Ultimate Level (Exhibit V-1)			1.0001
(3)	Expense Constant Removal Factor			1.0000
(4)	PCCPAP On-Level Factor			1.0057
(5)	Factor to Remove Loss Based Assessments			0.9862
(6)	Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)			1,637,193,768
(7)	Loss Cost Change to 1/1/19 Level			0.6852
(8)	Expected Loss at Current Level (6) * (7)			1,121,805,170
Losses - Paid-to-30th Method				
		<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(9)	Paid Losses (Table I-D & I-E)	597,630,706	557,259,255	1,154,889,961
(10)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.1401	1.3522	
(11)	Ultimate Incurred Losses (9) * (10)	681,358,768	753,525,965	1,434,884,733
(12)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13)	Adjusted Losses (11) * (12)	681,358,768	753,525,965	1,434,884,733
(14)	Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.6074	0.6717	1.2791
Losses - Incurred Method				
(15)	Incurred Losses (Table I-B & I-C)	629,011,884	596,687,478	1,225,699,362
(16)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0202	1.1379	
(17)	Ultimate Incurred Losses (15) * (16)	641,717,924	678,970,681	1,320,688,605
(18)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19)	Adjusted Losses (17) * (18)	641,717,924	678,970,681	1,320,688,605
(20)	Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.5720	0.6052	1.1772
Losses - Average of Incurred and Paid-to-30th Method				
(21)	Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	661,538,346	716,248,323	1,377,786,669
(22)	Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.5897	0.6385	1.2282
(23)	Normalized Claim Frequency (Exhibit VI-2)	0.7519	0.7519	
(24)	Severity Ratio * (22) / (23)	0.7843	0.8492	1.6335

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 7

POLICY YEAR LOSS RATIO 2010

(1) Standard Earned Premium Reported (Table I)	1,602,977,986
(2) Premium Development Factor to Ultimate Level (Exhibit V-1)	0.9998
(3) Expense Constant Removal Factor	1.0000
(4) PCCPAP On-Level Factor	1.0055
(5) Factor to Remove Loss Based Assessments	0.9859
(6) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)	1,588,750,251
(7) Loss Cost Change to 1/1/19 Level	0.6909
(8) Expected Loss at Current Level (6) * (7)	1,097,667,548

Losses - Paid-to-30th Method

	Indemnity	Medical	Total
(9) Paid Losses (Table I-D & I-E)	630,380,745	559,862,860	1,190,243,605
(10) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.1208	1.3342	
(11) Ultimate Incurred Losses (9) * (10)	706,530,739	746,969,028	1,453,499,767
(12) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13) Adjusted Losses (11) * (12)	706,530,739	746,969,028	1,453,499,767
(14) Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.6437	0.6805	1.3242

Losses - Incurred Method

(15) Incurred Losses (Table I-B & I-C)	654,448,556	604,879,879	1,259,328,435
(16) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0153	1.1278	
(17) Ultimate Incurred Losses (15) * (16)	664,461,619	682,183,528	1,346,645,147
(18) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19) Adjusted Losses (17) * (18)	664,461,619	682,183,528	1,346,645,147
(20) Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.6053	0.6215	1.2268

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

(21) Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	685,496,179	714,576,278	1,400,072,457
(22) Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.6245	0.6510	1.2755
(23) Normalized Claim Frequency (Exhibit VI-2)	0.8008	0.8008	
(24) Severity Ratio * (22) / (23)	0.7799	0.8129	1.5928

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 8

POLICY YEAR LOSS RATIO 2009

(1) Standard Earned Premium Reported (Table I)	1,532,188,924
(2) Premium Development Factor to Ultimate Level (Exhibit V-1)	0.9998
(3) Expense Constant Removal Factor	1.0000
(4) PCCPAP On-Level Factor	0.9987
(5) Factor to Remove Loss Based Assessments	0.9859
(6) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)	1,508,319,575
(7) Loss Cost Change to 1/1/19 Level	0.6877
(8) Expected Loss at Current Level (6) * (7)	1,037,271,372

Losses - Paid-to-30th Method

	Indemnity	Medical	Total
(9) Paid Losses (Table I-D & I-E)	617,701,546	525,267,841	1,142,969,387
(10) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.1065	1.3184	
(11) Ultimate Incurred Losses (9) * (10)	683,486,761	692,513,122	1,375,999,883
(12) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13) Adjusted Losses (11) * (12)	683,486,761	692,513,122	1,375,999,883
(14) Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.6589	0.6676	1.3265

Losses - Incurred Method

(15) Incurred Losses (Table I-B & I-C)	634,354,346	556,677,803	1,191,032,149
(16) Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0133	1.1214	
(17) Ultimate Incurred Losses (15) * (16)	642,791,259	624,258,488	1,267,049,747
(18) Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19) Adjusted Losses (17) * (18)	642,791,259	624,258,488	1,267,049,747
(20) Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.6197	0.6018	1.2215

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

(21) Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	663,139,010	658,385,805	1,321,524,815
(22) Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.6393	0.6347	1.2740
(23) Normalized Claim Frequency (Exhibit VI-2)	0.8126	0.8126	
(24) Severity Ratio * (22) / (23)	0.7867	0.7811	1.5678

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 9

POLICY YEAR LOSS RATIO 2008

(1)	Standard Earned Premium Reported (Table I)			1,726,572,321
(2)	Premium Development Factor to Ultimate Level (Exhibit V-1)			1.0000
(3)	Expense Constant Removal Factor			1.0000
(4)	PCCPAP On-Level Factor			0.9989
(5)	Factor to Remove Loss Based Assessments			0.9862
(6)	Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)			1,700,872,603
(7)	Loss Cost Change to 1/1/19 Level			0.6492
(8)	Expected Loss at Current Level (6) * (7)			1,104,206,494
Losses - Paid-to-30th Method				
		<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(9)	Paid Losses (Table I-D & I-E)	678,358,010	598,014,414	1,276,372,424
(10)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0954	1.3018	
(11)	Ultimate Incurred Losses (9) * (10)	743,073,364	778,495,164	1,521,568,528
(12)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13)	Adjusted Losses (11) * (12)	743,073,364	778,495,164	1,521,568,528
(14)	Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.6729	0.7050	1.3779
Losses - Incurred Method				
(15)	Incurred Losses (Table I-B & I-C)	700,250,984	626,418,940	1,326,669,924
(16)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0115	1.1135	
(17)	Ultimate Incurred Losses (15) * (16)	708,303,870	697,517,490	1,405,821,360
(18)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19)	Adjusted Losses (17) * (18)	708,303,870	697,517,490	1,405,821,360
(20)	Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.6415	0.6317	1.2732
Losses - Average of Incurred and Paid-to-30th Method				
(21)	Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	725,688,617	738,006,327	1,463,694,944
(22)	Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.6572	0.6684	1.3256
(23)	Normalized Claim Frequency (Exhibit VI-2)	0.8394	0.8394	
(24)	Severity Ratio * (22) / (23)	0.7829	0.7962	1.5791

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT III - 10

POLICY YEAR LOSS RATIO 2007

(1)	Standard Earned Premium Reported (Table I)			1,875,078,635
(2)	Premium Development Factor to Ultimate Level (Exhibit V-1)			1.0000
(3)	Expense Constant Removal Factor			1.0000
(4)	PCCPAP On-Level Factor			1.0013
(5)	Factor to Remove Loss Based Assessments			0.9873
(6)	Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5)			1,853,671,781
(7)	Loss Cost Change to 1/1/19 Level			0.6098
(8)	Expected Loss at Current Level (6) * (7)			1,130,369,052
Losses - Paid-to-30th Method				
		<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(9)	Paid Losses (Table I-D & I-E)	726,048,352	663,090,515	1,389,138,867
(10)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0865	1.2849	
(11)	Ultimate Incurred Losses (9) * (10)	788,851,534	852,005,003	1,640,856,537
(12)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(13)	Adjusted Losses (11) * (12)	788,851,534	852,005,003	1,640,856,537
(14)	Policy Year Ratio of Losses to Expected Losses (13) / (8)	0.6979	0.7537	1.4516
Losses - Incurred Method				
(15)	Incurred Losses (Table I-B & I-C)	750,610,425	695,328,858	1,445,939,283
(16)	Loss Development Factor to Ultimate Valuation (Exhibit V-2 & V-3)	1.0093	1.1084	
(17)	Ultimate Incurred Losses (15) * (16)	757,591,102	770,702,506	1,528,293,608
(18)	Adjustment to Post-Act 44 Loss Levels	1.0000	1.0000	
(19)	Adjusted Losses (17) * (18)	757,591,102	770,702,506	1,528,293,608
(20)	Policy Year Ratio of Losses to Expected Losses (19) / (8)	0.6702	0.6818	1.3520
Losses - Average of Incurred and Paid-to-30th Method				
(21)	Adjusted Ultimate Incurred Losses ((13) + (19)) / 2	773,221,318	811,353,755	1,584,575,073
(22)	Policy Year Ratio of Losses to Expected Losses (21) / (8)	0.6840	0.7178	1.4018
(23)	Normalized Claim Frequency (Exhibit VI-2)	0.9081	0.9081	
(24)	Severity Ratio * (22) / (23)	0.7532	0.7905	1.5437

* Severity Ratio represents loss ratio adjusted to a common level of claim frequency.

EXHIBIT IV - 1

**POLICY YEARS 2007 - 2012
PREMIUM ON-LEVEL FACTORS**

<u>POLICY YEAR</u>	<u>(1) LOSS COST DATE</u>	<u>(2) LOSS COST CHANGE</u>	<u>(3) CUM. INDEX OF COL (2)</u>	<u>(4) PORTION OF YEAR ON-LEVEL</u>	<u>(5) PRODUCT (3) * (4)</u>	<u>FACTOR TO ADJUST to 01/01/19 LC LEVEL</u>
2007	4/01/06	BASE	1.0000	0.3043	0.3043	
	4/01/07	1.0295	1.0295	0.6957	0.7162	
	4/01/08	0.6045	0.6223	-----	-----	
	to 01/01/19			1.0000	1.0205	0.6098
2008	4/01/07	BASE	1.0000	0.3260	0.3260	
	4/01/08	0.8978	0.8978	0.6740	0.6051	
	4/01/09	0.6733	0.6045	-----	-----	
	to 01/01/19			1.0000	0.9311	0.6492
2009	4/01/08	BASE	1.0000	0.3039	0.3039	
	4/01/09	0.9700	0.9700	0.6961	0.6752	
	4/01/10	0.6941	0.6733	-----	-----	
	to 01/01/19			1.0000	0.9791	0.6877
2010	4/01/09	BASE	1.0000	0.2929	0.2929	
	4/01/10	1.0068	1.0068	0.7071	0.7119	
	4/01/11	0.6895	0.6942	-----	-----	
	to 01/01/19			1.0000	1.0048	0.6909
2011	4/01/10	BASE	1.0000	0.2923	0.2923	
	4/01/11	1.0087	1.0087	0.7077	0.7139	
	4/01/12	0.6835	0.6894	-----	-----	
	to 01/01/19			1.0000	1.0062	0.6852
2012	4/01/11	BASE	1.0000	0.3074	0.3074	
	4/01/12	0.9434	0.9434	0.6926	0.6534	
	4/01/13	0.7245	0.6835	-----	-----	
	to 01/01/19			1.0000	0.9608	0.7114

EXHIBIT IV - 2

**POLICY YEARS 2013 - 2017
PREMIUM ON-LEVEL FACTORS**

<u>POLICY YEAR</u>	<u>(1) LOSS COST DATE</u>	<u>(2) LOSS COST CHANGE</u>	<u>(3) CUM. INDEX OF COL (2)</u>	<u>(4) PORTION OF YEAR ON-LEVEL</u>	<u>(5) PRODUCT (3) * (4)</u>	<u>FACTOR TO ADJUST to 01/01/19 LC LEVEL</u>
2013	4/01/12	BASE	1.0000	0.3065	0.3065	
	4/01/13	0.9599	0.9599	0.6935	0.6657	
	4/01/14	0.7548	0.7245	-----	-----	
	to 01/01/19			1.0000	0.9722	0.7452
2014	4/01/13	BASE	1.0000	0.3119	0.3119	
	4/01/14	0.9485	0.9485	0.6881	0.6527	
	4/01/15	0.7958	0.7548	-----	-----	
	to 01/01/19			1.0000	0.9646	0.7825
2015	4/01/14	BASE	1.0000	0.3135	0.3135	
	4/01/15	0.9401	0.9401	0.6865	0.6454	
	4/01/16	0.8465	0.7958	-----	-----	
	to 01/01/19			1.0000	0.9589	0.8299
2016	4/01/15	BASE	1.0000	0.3024	0.3024	
	4/01/16	0.9910	0.9910	0.6976	0.6913	
	4/01/17	0.8541	0.8464	-----	-----	
	to 01/01/19			1.0000	0.9937	0.8518
2017	4/01/16	BASE	1.0000	0.3143	0.3143	
	4/01/17	0.9379	0.9379	0.6857	0.6431	
	2/01/18	0.9107	0.8541	-----	-----	
	to 01/01/19			1.0000	0.9574	0.8921

EXHIBIT V - 1

DEVELOPMENT FACTORS

PREMIUM

<u>Reports in Ratio</u>	<u>Policy Year</u>	<u>2016-2017 Ratio</u>	<u>Policy Year</u>	<u>2015-2016 Ratio</u>	<u>Policy Year</u>	<u>2014-2015 Ratio</u>	<u>Policy Year</u>	<u>2013-2014 Ratio</u>	<u>Unweighted Average</u>	<u>Selected Average</u>	<u>Cumulative Average</u>
2nd to 1st	2015	1.0092	2014	1.0084	2013	1.0099	2012	1.0073	1.0087	1.0087	1.0092
3rd to 2nd	2014	1.0007	2013	1.0012	2012	0.9994	2011	1.0003	1.0004	1.0004	1.0005
4th to 3rd	2013	1.0006	2012	0.9996	2011	1.0002	2010	1.0002	1.0002	1.0002	1.0001
5th to 4th	2012	0.9995	2011	0.9999	2010	1.0001	2009	0.9997	0.9998	0.9998	0.9999
6th to 5th	2011	1.0002	2010	1.0002	2009	0.9997	2008	0.9997	1.0000	1.0000	1.0001
7th to 6th	2010	1.0003	2009	1.0011	2008	1.0000	2007	0.9999	1.0003	1.0003	1.0001
8th to 7th	2009	0.9999	2008	0.9999	2007	1.0000	2006	1.0000	1.0000	1.0000	0.9998
9th to 8th	2008	0.9988	2007	1.0002	2006	1.0000	2005	1.0000	0.9998	0.9998	0.9998
10th to 9th	2007	1.0000	2006	1.0000	2005	1.0000	2004	1.0000	1.0000	1.0000	1.0000
11th to 10th	2006	1.0000	2005	1.0000	2004	1.0000	2003	0.9999	1.0000	1.0000	1.0000
12th to 11th	2005	1.0000	2004	1.0000	2003	1.0001	2002	1.0000	1.0000	1.0000	1.0000
13th to 12th	2004	1.0000	2003	1.0000	2002	1.0000	2001	1.0000	1.0000	1.0000	1.0000
14th to 13th	2003	1.0000	2002	1.0000	2001	1.0000	2000	1.0001	1.0000	1.0000	1.0000
15th to 14th	2002	1.0000	2001	1.0000	2000	1.0000	1999	1.0000	1.0000	1.0000	1.0000
16th to 15th	2001	1.0000	2000	1.0000	1999	1.0000	1998	1.0000	1.0000	1.0000	1.0000
17th to 16th	2000	1.0000	1999	0.9999	1998	1.0000	1997	1.0000	1.0000	1.0000	1.0000
18th to 17th	1999	1.0000	1998	1.0000	1997	1.0000	1996	1.0000	1.0000	1.0000	1.0000
19th to 18th	1998	1.0000	1997	0.9999	1996	1.0001	1995	1.0000	1.0000	1.0000	1.0000
20th to 19th	1997	1.0000	1996	1.0000	1995	1.0000	1994	1.0000	1.0000	1.0000	1.0000
21st to 20th	1996	1.0000	1995	1.0000	1994	1.0000	1993	1.0000	1.0000	1.0000	1.0000
22nd to 21st	1995	1.0000	1994	1.0002	1993	1.0000	1992	1.0000	1.0001	1.0000	1.0000
23rd to 22nd	1994	1.0000	1993	1.0000	1992	1.0000	1991	1.0000	1.0000	1.0000	1.0000
24th to 23rd	1993	1.0000	1992	1.0000	1991	1.0000	1990	1.0000	1.0000	1.0000	1.0000
25th to 24th	1992	1.0000	1991	1.0000	1990	1.0000	1989	1.0000	1.0000	1.0000	1.0000
26th to 25th	1991	1.0000	1990	1.0000	1989	1.0000	1988	1.0000	1.0000	1.0000	1.0000
27th to 26th	1990	1.0000	1989	1.0000	1988	1.0000	1987	1.0001	1.0000	1.0000	1.0000
28th to 27th	1989	1.0000	1988	1.0000	1987	1.0000	1986	1.0000	1.0000	1.0000	1.0000
29th to 28th	1988	1.0000	1987	1.0000	1986	1.0000				1.0000	1.0000
30th to 29th	1987	1.0000	1986	1.0000						1.0000	1.0000

<u>Policy Year</u>	<u>Present Valuation</u>	<u>Premium Development Factor</u>
1988	Twenty-Ninth	1.0000
1989	Twenty-Eighth	1.0000
1990	Twenty-Seventh	1.0000
1991	Twenty-Sixth	1.0000
1992	Twenty-Fifth	1.0000
1993	Twenty-Fourth	1.0000
1994	Twenty-Third	1.0000
1995	Twenty-Second	1.0000
1996	Twenty-First	1.0000
1997	Twentieth	1.0000
1998	Nineteenth	1.0000
1999	Eighteenth	1.0000
2000	Seventeenth	1.0000
2001	Sixteenth	1.0000
2002	Fifteenth	1.0000
2003	Fourteenth	1.0000
2004	Thirteenth	1.0000
2005	Twelfth	1.0000
2006	Eleventh	1.0000
2007	Tenth	1.0000
2008	Ninth	1.0000
2009	Eighth	0.9998
2010	Seventh	0.9998
2011	Sixth	1.0001
2012	Fifth	1.0001
2013	Fourth	0.9999
2014	Third	1.0001
2015	Second	1.0005
2016	First	1.0092

EXHIBIT V - 2

DEVELOPMENT FACTORS

**INDEMNITY LOSSES
PAID METHOD**

Reports in Ratio	Policy Year	2016-2017 Ratio	Policy Year	2015-2016 Ratio	Policy Year	2014-2015 Ratio	Policy Year	2013-2014 Ratio	Policy Year	2012-2013 Ratio	2 Year Average	3 Year Average	5 Year Average	Selected Average	Cumulative Average
2nd to 1st	a	2015	2014	1.8713	2013	1.9193	2012	1.9105	2011	1.9079	1.8298	1.8596	1.8795	1.8596	3.1043
3rd to 2nd	a	2014	2013	1.2582	2012	1.2606	2011	1.2852	2010	1.2987	1.2454	1.2504	1.2670	1.2504	1.6693
4th to 3rd	a	2013	2012	1.0979	2011	1.1011	2010	1.1133	2009	1.1150	1.0896	1.0934	1.1017	1.0934	1.3350
5th to 4th	a	2012	2011	1.0380	2010	1.0493	2009	1.0465	2008	1.0494	1.0371	1.0412	1.0439	1.0412	1.2209
6th to 5th	a	2011	2010	1.0275	2009	1.0356	2008	1.0291	2007	1.0272	1.0251	1.0286	1.0284	1.0286	1.1726
7th to 6th	a	2010	2009	1.0220	2008	1.0131	2007	1.0184	2006	1.0266	1.0193	1.0172	1.0193	1.0172	1.1401
8th to 7th	a	2009	2008	1.0111	2007	1.0144	2006	1.0152	2005	1.0175	1.0121	1.0129	1.0143	1.0129	1.1208
9th to 8th	a	2008	2007	1.0104	2006	1.0131	2005	1.0125	2004	1.0138	1.0087	1.0101	1.0113	1.0101	1.1065
10th to 9th	a	2007	2006	1.0088	2005	1.0083	2004	1.0118	2003	1.0100	1.0082	1.0082	1.0093	1.0082	1.0954
11th to 10th	a	2006	2005	1.0081	2004	1.0094	2003	1.0083	2002	1.0108	1.0077	1.0082	1.0088	1.0082	1.0865
12th to 11th	a	2005	2004	1.0068	2003	1.0071	2002	1.0057	2001	1.0074	1.0060	1.0063	1.0064	1.0063	1.0776
13th to 12th	a	2004	2003	1.0045	2002	1.0054	2001	1.0049	2000	1.0051	1.0053	1.0053	1.0052	1.0053	1.0708
14th to 13th	a	2003	2002	1.0045	2001	1.0040	2000	1.0037	1999	1.0022	1.0044	1.0042	1.0037	1.0042	1.0651
15th to 14th	a	2002	2001	1.0020	2000	1.0031	1999	1.0019	1998	1.0024	1.0027	1.0028	1.0025	1.0028	1.0606
16th to 15th	a	2001	2000	1.0021	1999	1.0013	1998	1.0024	1997	1.0026	1.0025	1.0021	1.0022	1.0021	1.0577
17th to 16th	a	2000	1999	1.0017	1998	1.0026	1997	1.0039	1996	1.0049	1.0019	1.0021	1.0030	1.0021	1.0555
18th to 17th	a	1999	1998	1.0020	1997	1.0029	1996	1.0034	1995	1.0039	1.0018	1.0022	1.0028	1.0022	1.0533
19th to 18th	a	1998	1997	1.0019	1996	1.0028	1995	1.0043	1994	1.0068	1.0018	1.0021	1.0035	1.0021	1.0510
20th to 19th	a	1997	1996	1.0028	1995	1.0034	1994	1.0054	1993	1.0053	1.0024	1.0027	1.0038	1.0027	1.0488
21st to 20th	a	1996	1995	1.0039	1994	1.0045	1993	1.0049	1992	1.0052	1.0033	1.0037	1.0042	1.0037	1.0460
22nd to 21st	a	1995	1994	1.0043	1993	1.0043	1992	1.0049	1991	1.0037	1.0037	1.0039	1.0041	1.0039	1.0421
23rd to 22nd	a	1994	1993	1.0041	1992	1.0039	1991	1.0033	1990	1.0033	1.0040	1.0040	1.0037	1.0040	1.0380
24th to 23rd	a	1993	1992	1.0040	1991	1.0034	1990	1.0030	1989	1.0037	1.0040	1.0038	1.0036	1.0038	1.0339
25th to 24th	a	1992	1991	1.0036	1990	1.0032	1989	1.0033	1988	1.0024	1.0034	1.0033	1.0031	1.0033	1.0301
26th to 25th	a	1991	1990	1.0029	1989	1.0031	1988	1.0025	1987	1.0030	1.0030	1.0030	1.0029	1.0030	1.0267
27th to 26th	a	1990	1989	1.0030	1988	1.0021	1987	1.0020	1986	1.0031	1.0027	1.0025	1.0025	1.0025	1.0236
28th to 27th	a	1989	1988	1.0019	1987	1.0021	1986	1.0021	1985	1.0023	1.0022	1.0022	1.0023	1.0022	1.0211
29th to 28th	a	1988	1987	1.0016	1986	1.0016	1985	1.0031	1984	1.0016	1.0021	1.0021	1.0021	1.0021	1.0188
30th to 29th	b	1987	1986	1.0191	1985	1.0191	1984	1.0191	1983	1.0158	1.0158	1.0158	1.0158	1.0158	1.0167
Beyond 30th	c	1986 & Prior	1985 & Prior	1.0004	1985 & Prior	1.0017	1985 & Prior	1.0010	1985 & Prior	1.0010	1.0008	1.0011	1.0010	1.0009	1.0009

INCURRED METHOD

Reports in Ratio	Policy Year	2016-2017 Ratio	Policy Year	2015-2016 Ratio	Policy Year	2014-2015 Ratio	Policy Year	2013-2014 Ratio	Policy Year	2012-2013 Ratio	2 Year Average	3 Year Average	5 Year Average	Selected Average	Cumulative Average
2nd to 1st	c	2015	2014	1.3303	2013	1.3936	2012	1.3808	2011	1.3937	1.3347	1.3543	1.3675	1.3675	1.5904
3rd to 2nd	c	2014	2013	1.0948	2012	1.1086	2011	1.0992	2010	1.1100	1.0912	1.0970	1.1000	1.1000	1.1630
4th to 3rd	c	2013	2012	1.0319	2011	1.0240	2010	1.0337	2009	1.0291	1.0213	1.0222	1.0259	1.0259	1.0572
5th to 4th	c	2012	2011	1.0040	2010	1.0060	2009	1.0037	2008	1.0089	1.0047	1.0051	1.0056	1.0056	1.0306
6th to 5th	c	2011	2010	1.0002	2009	1.0112	2008	1.0034	2007	1.0000	1.0040	1.0064	1.0045	1.0045	1.0249
7th to 6th	c	2010	2009	1.0058	2008	1.0028	2007	1.0025	2006	1.0068	1.0060	1.0049	1.0048	1.0048	1.0202
8th to 7th	c	2009	2008	0.9999	2007	1.0003	2006	1.0035	2005	1.0025	1.0020	1.0014	1.0021	1.0021	1.0153
9th to 8th	c	2008	2007	1.0013	2006	0.9989	2005	1.0026	2004	1.0050	1.0012	1.0004	1.0018	1.0018	1.0133
10th to 9th	c	2007	2006	1.0025	2005	1.0013	2004	1.0018	2003	1.0022	1.0029	1.0023	1.0022	1.0022	1.0115
11th to 10th	c	2006	2005	1.0014	2004	0.9995	2003	1.0024	2002	1.0020	1.0013	1.0007	1.0013	1.0013	1.0093
12th to 11th	c	2005	2004	1.0014	2003	0.9998	2002	1.0007	2001	1.0051	1.0013	1.0008	1.0016	1.0016	1.0080
13th to 12th	c	2004	2003	1.0007	2002	0.9986	2001	1.0014	2000	1.0015	1.0008	1.0001	1.0006	1.0006	1.0063
14th to 13th	c	2003	2002	1.0016	2001	0.9995	2000	0.9993	1999	0.9997	1.0016	1.0009	1.0004	1.0004	1.0057
15th to 14th	c	2002	2001	1.0013	2000	0.9998	1999	1.0004	1998	1.0005	1.0014	1.0008	1.0007	1.0007	1.0053
16th to 15th	c	2001	2000	0.9999	1999	0.9995	1998	1.0010	1997	1.0014	1.0000	0.9998	1.0004	1.0004	1.0047
17th to 16th	c	2000	1999	1.0005	1998	0.9996	1997	0.9983	1996	0.9998	1.0008	1.0004	0.9999	0.9999	1.0043
18th to 17th	c	1999	1998	1.0003	1997	0.9996	1996	1.0002	1995	1.0009	1.0006	1.0003	1.0004	1.0004	1.0044
19th to 18th	c	1998	1997	1.0021	1996	0.9970	1995	1.0011	1994	1.0025	1.0009	0.9996	1.0005	1.0005	1.0040
20th to 19th	c	1997	1996	0.9999	1995	1.0004	1994	1.0002	1993	1.0011	1.0002	1.0002	1.0004	1.0004	1.0036
21st to 20th	c	1996	1995	0.9984	1994	1.0008	1993	1.0017	1992	0.9992	0.9991	0.9996	1.0000	1.0000	1.0032
22nd to 21st	c	1995	1994	1.0017	1993	1.0003	1992	0.9995	1991	0.9990	1.0013	1.0010	1.0003	1.0003	1.0032
23rd to 22nd	c	1994	1993	1.0002	1992	0.9989	1991	1.0000	1990	1.0009	1.0000	0.9996	0.9999	0.9999	1.0029
24th to 23rd	c	1993	1992	1.0011	1991	1.0006	1990	1.0001	1989	1.0009	1.0009	1.0008	1.0007	1.0007	1.0030
25th to 24th	c	1992	1991	1.0008	1990	1.0002	1989	0.9996	1988	0.9999	1.0001	1.0001	1.0000	1.0000	1.0023
26th to 25th	c	1991	1990	1.0006	1989	1.0019	1988	1.0002	1987	0.9994	1.0003	1.0008	1.0004	1.0004	1.0024
27th to 26th	c	1990	1989	1.0005	1988	0.9996	1987	1.0006	1986	1.0010	1.0003	1.0001	1.0004	1.0004	1.0019
28th to 27th	c	1989	1988	1.0004	1987	1.0005	1986	1.0001	1985	1.0003	1.0004	1.0003	1.0003	1.0003	1.0016
29th to 28th	c	1988	1987	0.9992	1986	1.0010	1985	1.0010	1984	0.9994	0.9999	0.9999	0.9999	0.9999	1.0013
30th to 29th	c	1987	1986	1.0004	1985	1.0004	1984	1.0004	1983	1.0005	1.0005	1.0005	1.0005	1.0005	1.0014
Beyond 30th	c	1986 & Prior	1985 & Prior	1.0004	1985 & Prior	1.0017	1985 & Prior	1.0010	1985 & Prior	1.0010	1.0008	1.0011	1.0010	1.0009	1.0009

a From Table I-D
b 29th (Paid - Table I-D) to 30th (Incurred - Table I-B)
c From Table I-B
d Derived separately. See Exhibit 7 of the April 1, 2019 Filing.

EXHIBIT V - 3

DEVELOPMENT FACTORS

**MEDICAL LOSSES
PAID METHOD**

Reports in Ratio	Policy Year	2016-2017 Ratio	Policy Year	2015-2016 Ratio	Policy Year	2014-2015 Ratio	Policy Year	2013-2014 Ratio	Policy Year	2012-2013 Ratio	2 Year Average	3 Year Average	5 Year Average	Selected Average	Cumulative Average
2nd to 1st	a	2015	2014	1.2608	2013	1.2528	2012	1.2529	2011	1.2548	1.2550	1.2543	1.2541	1.2543	1.9399
3rd to 2nd	a	2014	2013	1.0776	2012	1.0695	2011	1.0831	2010	1.0828	1.0704	1.0701	1.0752	1.0701	1.5466
4th to 3rd	a	2013	2012	1.0372	2011	1.0350	2010	1.0390	2009	1.0403	1.0335	1.0340	1.0363	1.0340	1.4453
5th to 4th	a	2012	2011	1.0177	2010	1.0203	2009	1.0248	2008	1.0248	1.0168	1.0179	1.0207	1.0179	1.3978
6th to 5th	a	2011	2010	1.0157	2009	1.0160	2008	1.0169	2007	1.0194	1.0153	1.0155	1.0166	1.0155	1.3732
7th to 6th	a	2010	2009	1.0134	2008	1.0128	2007	1.0215	2006	1.0215	1.0138	1.0135	1.0167	1.0135	1.3522
8th to 7th	a	2009	2008	1.0110	2007	1.0135	2006	1.0150	2005	1.0162	1.0113	1.0120	1.0134	1.0120	1.3342
9th to 8th	a	2008	2007	1.0139	2006	1.0148	2005	1.0142	2004	1.0165	1.0117	1.0127	1.0138	1.0127	1.3184
10th to 9th	a	2007	2006	1.0146	2005	1.0137	2004	1.0131	2003	1.0128	1.0130	1.0132	1.0131	1.0132	1.3018
11th to 10th	a	2006	2005	1.0097	2004	1.0109	2003	1.0124	2002	1.0151	1.0096	1.0100	1.0115	1.0100	1.2849
12th to 11th	a	2005	2004	1.0095	2003	1.0108	2002	1.0156	2001	1.0120	1.0099	1.0102	1.0116	1.0102	1.2722
13th to 12th	a	2004	2003	1.0107	2002	1.0141	2001	1.0086	2000	1.0126	1.0092	1.0108	1.0107	1.0108	1.2594
14th to 13th	a	2003	2002	1.0149	2001	1.0067	2000	1.0109	1999	1.0115	1.0116	1.0099	1.0104	1.0099	1.2459
15th to 14th	a	2002	2001	1.0092	2000	1.0104	1999	1.0134	1998	1.0111	1.0101	1.0102	1.0110	1.0102	1.2336
16th to 15th	a	2001	2000	1.0081	1999	1.0079	1998	1.0076	1997	1.0113	1.0069	1.0072	1.0081	1.0072	1.2212
17th to 16th	a	2000	1999	1.0080	1998	1.0105	1997	1.0098	1996	1.0192	1.0080	1.0088	1.0111	1.0088	1.2124
18th to 17th	a	1999	1998	1.0092	1997	1.0098	1996	1.0110	1995	1.0133	1.0080	1.0086	1.0100	1.0086	1.2018
19th to 18th	a	1998	1997	1.0115	1996	1.0111	1995	1.0091	1994	1.0135	1.0099	1.0103	1.0107	1.0103	1.1916
20th to 19th	a	1997	1996	1.0117	1995	1.0082	1994	1.0121	1993	1.0145	1.0104	1.0096	1.0111	1.0096	1.1795
21st to 20th	a	1996	1995	1.0067	1994	1.0140	1993	1.0126	1992	1.0120	1.0082	1.0101	1.0110	1.0101	1.1682
22nd to 21st	a	1995	1994	1.0105	1993	1.0110	1992	1.0113	1991	1.0097	1.0115	1.0113	1.0110	1.0113	1.1565
23rd to 22nd	a	1994	1993	1.0080	1992	1.0102	1991	1.0080	1990	1.0088	1.0099	1.0100	1.0094	1.0100	1.1435
24th to 23rd	a	1993	1992	1.0118	1991	1.0067	1990	1.0070	1989	1.0105	1.0106	1.0093	1.0091	1.0093	1.1322
25th to 24th	a	1992	1991	1.0059	1990	1.0063	1989	1.0082	1988	1.0075	1.0070	1.0068	1.0072	1.0068	1.1218
26th to 25th	a	1991	1990	1.0077	1989	1.0087	1988	1.0086	1987	1.0106	1.0070	1.0076	1.0084	1.0076	1.1142
27th to 26th	a	1990	1989	1.0100	1988	1.0067	1987	1.0084	1986	1.0105	1.0080	1.0076	1.0083	1.0076	1.1059
28th to 27th	a	1989	1988	1.0058	1987	1.0070	1986	1.0123			1.0073	1.0072	1.0085	1.0072	1.0976
29th to 28th	a	1988	1987	1.0084	1986	1.0056					1.0067	1.0063	1.0063	1.0063	1.0897
30th to 29th	b	1987	1986	1.0658							1.0768	1.0768	1.0768	1.0768	1.0829
Beyond 30th	c	1986 & Prior	1.0036	1985 & Prior	1.0141	1985 & Prior	0.9925	1985 & Prior	1.0201	1985 & Prior	1.0058	1.0089	1.0034	1.0072	1.0057

INCURRED METHOD

Reports in Ratio	Policy Year	2016-2017 Ratio	Policy Year	2015-2016 Ratio	Policy Year	2014-2015 Ratio	Policy Year	2013-2014 Ratio	Policy Year	2012-2013 Ratio	2 Year Average	3 Year Average	5 Year Average	Selected Average	Cumulative Average
2nd to 1st	c	2015	2014	1.0717	2013	1.0841	2012	1.0682	2011	1.0904	1.0598	1.0679	1.0725	1.0725	1.2819
3rd to 2nd	c	2014	2013	1.0201	2012	1.0238	2011	1.0316	2010	1.0340	1.0201	1.0213	1.0259	1.0259	1.1953
4th to 3rd	c	2013	2012	1.0047	2011	0.9913	2010	1.0139	2009	1.0144	1.0011	0.9978	1.0043	1.0043	1.1651
5th to 4th	c	2012	2011	1.0088	2010	1.0052	2009	1.0164	2008	1.0125	1.0198	1.0149	1.0147	1.0147	1.1601
6th to 5th	c	2011	2010	0.9987	2009	0.9975	2008	1.0073	2007	1.0114	1.0036	1.0016	1.0047	1.0047	1.1432
7th to 6th	c	2010	2009	1.0162	2008	1.0077	2007	1.0061	2006	1.0065	1.0122	1.0107	1.0089	1.0089	1.1379
8th to 7th	c	2009	2008	0.9991	2007	0.9981	2006	1.0211	2005	1.0131	0.9982	0.9982	1.0057	1.0057	1.1278
9th to 8th	c	2008	2007	1.0062	2006	1.0066	2005	1.0108	2004	1.0141	1.0020	1.0035	1.0071	1.0071	1.1214
10th to 9th	c	2007	2006	1.0041	2005	1.0026	2004	1.0115	2003	1.0026	1.0032	1.0030	1.0046	1.0046	1.1135
11th to 10th	c	2006	2005	1.0083	2004	1.0006	2003	1.0100	2002	1.0102	1.0065	1.0045	1.0067	1.0067	1.1084
12th to 11th	c	2005	2004	0.9996	2003	1.0059	2002	1.0164	2001	1.0072	1.0035	1.0043	1.0073	1.0073	1.1009
13th to 12th	c	2004	2003	1.0033	2002	1.0069	2001	1.0088	2000	1.0044	1.0081	1.0051	1.0063	1.0063	1.0930
14th to 13th	c	2003	2002	1.0046	2001	1.0033	2000	1.0035	1999	1.0043	1.0066	1.0040	1.0038	1.0045	1.0861
15th to 14th	c	2002	2001	1.0019	2000	1.0049	1999	1.0140	1998	1.0077	1.0039	1.0042	1.0069	1.0069	1.0813
16th to 15th	c	2001	2000	1.0048	1999	0.9993	1998	1.0042	1997	1.0098	1.0027	1.0016	1.0037	1.0037	1.0740
17th to 16th	c	2000	1999	1.0035	1998	0.9995	1997	1.0065	1996	1.0121	1.0029	1.0017	1.0048	1.0048	1.0700
18th to 17th	c	1999	1998	1.0010	1997	1.0020	1996	1.0130	1995	1.0081	0.9977	0.9991	1.0037	1.0037	1.0649
19th to 18th	c	1998	1997	1.0052	1996	0.9924	1995	1.0016	1994	1.0058	1.0067	1.0019	1.0026	1.0026	1.0610
20th to 19th	c	1997	1996	1.0060	1995	1.0109	1994	1.0095	1993	1.0061	1.0020	1.0050	1.0061	1.0061	1.0582
21st to 20th	c	1996	1995	0.9991	1994	1.0073	1993	1.0108	1992	1.0093	1.0035	1.0047	1.0069	1.0069	1.0518
22nd to 21st	c	1995	1994	1.0053	1993	1.0062	1992	1.0052	1991	1.0100	1.0033	1.0043	1.0056	1.0056	1.0446
23rd to 22nd	c	1994	1993	1.0057	1992	1.0011	1991	1.0018	1990	1.0065	1.0045	1.0033	1.0037	1.0037	1.0388
24th to 23rd	c	1993	1992	1.0045	1991	1.0037	1990	1.0088	1989	1.0054	1.0046	1.0043	1.0054	1.0054	1.0350
25th to 24th	c	1992	1991	0.9988	1990	1.0033	1989	1.0042	1988	1.0107	0.9992	1.0005	1.0033	1.0033	1.0294
26th to 25th	c	1991	1990	1.0055	1989	1.0090	1988	1.0061	1987	1.0097	1.0040	1.0057	1.0066	1.0066	1.0260
27th to 26th	c	1990	1989	1.0067	1988	0.9988	1987	1.0054	1986	1.0057	1.0032	1.0017	1.0032	1.0032	1.0193
28th to 27th	c	1989	1988	1.0017	1987	1.0016	1986	1.0035			1.0014	1.0014	1.0020	1.0020	1.0160
29th to 28th	c	1988	1987	1.0013	1986	0.9979					0.9997	0.9991	0.9991	0.9991	1.0141
30th to 29th	c	1987	1986	1.0086							1.0134	1.0134	1.0134	1.0093	1.0150
Beyond 30th	c	1986 & Prior	1.0036	1985 & Prior	1.0141	1985 & Prior	0.9925	1985 & Prior	1.0201	1985 & Prior	1.0058	1.0089	1.0034	1.0072	1.0057

- a From Table I-E
- b 29th (Paid - Table I-E) to 30th (Incurred - Table I-C)
- c From Table I-C
- d Derived separately. See Exhibit 7 of the April 1, 2019 Filing.

EXHIBIT VI - 1

DETERMINATION OF TREND

INDEMNITY

Policy Year	2010	2011	2012	2013	2014	2015	2016
Actual Loss Ratio	0.6245	0.5897	0.5543	0.5593	0.5317	0.4956	0.4765
Normalized Frequency	0.8008	0.7519	0.7030	0.6868	0.6292	0.5803	0.5373
Severity Loss Ratio	0.7799	0.7843	0.7885	0.8144	0.8451	0.8541	0.8869
x	1	2	3	4	5	6	7
y	0.7799	0.7843	0.7885	0.8144	0.8451	0.8541	0.8869

7 Point Exponential Regression: $y = 0.750829 * 1.022592 ^ x$

Selected Annual Severity Trend Factor =

2.26%

Policy Year	Annual Severity Trend Factor (1)	Trend Period # of Years to 4/1/20 (2)	Severity Trend Factor (3) = (1) ^ (2)	Frequency Trend Factor (4) #
2014	1.0226	5.2500	1.1244	0.7101
2015	1.0226	4.2500	1.0996	0.7579
2016	1.0226	3.2500	1.0753	0.8090

Trended Loss Ratio

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3) * (4)	Trended Loss Ratio (7) = (5) * (6)
2014	0.5317	0.7984	0.4245
2015	0.4956	0.8334	0.4130
2016	0.4765	0.8699	0.4145

MEDICAL

Policy Year	2010	2011	2012	2013	2014	2015	2016
Actual Loss Ratio	0.6510	0.6385	0.6103	0.6281	0.6130	0.5374	0.5203
Normalized Frequency	0.8008	0.7519	0.7030	0.6868	0.6292	0.5803	0.5373
Severity Loss Ratio	0.8129	0.8492	0.8682	0.9146	0.9743	0.9261	0.9684
x	1	2	3	4	5	6	7
y	0.8129	0.8492	0.8682	0.9146	0.9743	0.9261	0.9684

7 Point Exponential Regression: $y = 0.801383 * 1.029490 ^ x$

Selected Annual Severity Trend Factor =

2.95%

Policy Year	Annual Severity Trend Factor (1)	Trend Period # of Years to 4/1/20 (2)	Severity Trend Factor (3) = (1) ^ (2)	Frequency Trend Factor (4) #
2014	1.0295	5.2500	1.1648	0.7101
2015	1.0295	4.2500	1.1315	0.7579
2016	1.0295	3.2500	1.0991	0.8090

Trended Loss Ratio

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3) * (4)	Trended Loss Ratio (7) = (5) * (6)
2014	0.6130	0.8271	0.5070
2015	0.5374	0.8576	0.4609
2016	0.5203	0.8892	0.4627

See page 19

EXHIBIT VI - 2

DETERMINATION OF TREND

CLAIM FREQUENCY

Policy Year Frequency per \$1 million of Expected Losses
{1 = PY 2005, 12 = PY 2016}

Policy Year	Claim Frequency	Normalized Frequency
2005	25.35	1.0000
2006	24.42	0.9633
2007	23.02	0.9081
2008	21.28	0.8394
2009	20.60	0.8126
2010	20.30	0.8008
2011	19.06	0.7519
2012	17.82	0.7030
2013	17.41	0.6868
2014	15.95	0.6292
2015	14.71	0.5803
2016	13.62	0.5373

Policy Year	2010	2011	2012	2013	2014	2015	2016
x	1	2	3	4	5	6	7
y	0.8008	0.7519	0.7030	0.6868	0.6292	0.5803	0.5373

7 Point Exponential Regression: $y = 0.862171 * 0.936859 ^ x$

Selected Annual Frequency Trend Factor =

-6.3%

Policy Year	Annual Frequency Trend Factor (1)	Trend Period # of Years to 4/1/20 (2)	Frequency Trend Factor (3) = (1) ^ (2)
2014	0.9369	5.2500	0.7101
2015	0.9369	4.2500	0.7579
2016	0.9369	3.2500	0.8090

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
Prior to 1986	11,270,003,930	11,270,002,435	1.0000
1986	1,399,780,511	1,399,780,511	1.0000
1987	1,668,430,035	1,668,400,312	1.0000
1988	1,858,386,098	1,858,386,098	1.0000
1989	1,988,338,672	1,988,338,672	1.0000
1990	2,245,147,958	2,245,147,958	1.0000
1991	2,332,660,111	2,332,664,363	1.0000
1992	2,164,654,772	2,164,656,978	1.0000
1993	2,294,465,498	2,294,465,498	1.0000
1994	1,721,499,568	1,721,832,130	1.0002
1995	1,572,710,109	1,572,715,440	1.0000
1996	1,492,135,961	1,492,135,492	1.0000
1997	1,233,600,116	1,233,498,713	0.9999
1998	1,181,535,270	1,181,529,594	1.0000
1999	1,189,127,076	1,189,035,153	0.9999
2000	1,244,872,551	1,244,872,847	1.0000
2001	1,325,974,300	1,325,962,965	1.0000
2002	1,380,506,692	1,380,499,686	1.0000
2003	1,448,139,650	1,448,153,855	1.0000
2004	1,565,911,962	1,565,945,507	1.0000
2005	1,743,873,990	1,743,888,342	1.0000
2006	1,732,229,909	1,732,229,725	1.0000
2007	1,787,935,442	1,788,239,502	1.0002
2008	1,651,011,268	1,650,791,507	0.9999
2009	1,469,195,419	1,470,814,925	1.0011
2010	1,538,155,138	1,538,453,936	1.0002
2011	1,579,918,334	1,579,758,670	0.9999
2012	1,448,492,533	1,447,969,688	0.9996
2013	1,390,724,937	1,392,434,479	1.0012
2014	1,369,050,958	1,380,574,220	1.0084
2015	762,374,589	1,349,300,392	1.7699
2016		763,986,020	

Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1987	12,725,082,066	12,725,080,080	1.0000
1987	1,696,103,858	1,696,133,581	1.0000
1988	1,892,997,460	1,892,967,737	1.0000
1989	2,028,267,129	2,028,267,129	1.0000
1990	2,290,237,152	2,290,233,534	1.0000
1991	2,398,356,893	2,398,359,195	1.0000
1992	2,244,461,676	2,244,461,757	1.0000
1993	2,410,370,517	2,410,370,517	1.0000
1994	1,821,555,070	1,821,555,070	1.0000
1995	1,680,387,555	1,680,387,566	1.0000
1996	1,596,667,871	1,596,668,963	1.0000
1997	1,313,190,488	1,313,191,877	1.0000
1998	1,259,206,442	1,259,209,776	1.0000
1999	1,271,772,231	1,271,772,492	1.0000
2000	1,334,900,985	1,334,908,458	1.0000
2001	1,430,995,800	1,430,998,196	1.0000
2002	1,499,195,071	1,499,188,529	1.0000
2003	1,566,155,744	1,566,149,453	1.0000
2004	1,674,834,898	1,674,833,631	1.0000
2005	1,839,468,089	1,839,505,833	1.0000
2006	1,813,980,851	1,813,987,513	1.0000
2007	1,875,147,287	1,875,078,635	1.0000
2008	1,728,696,141	1,726,572,321	0.9988
2009	1,532,354,422	1,532,188,924	0.9999
2010	1,602,462,818	1,602,977,986	1.0003
2011	1,650,159,797	1,650,529,182	1.0002
2012	1,539,983,161	1,539,247,581	0.9995
2013	1,501,970,455	1,502,866,414	1.0006
2014	1,512,765,321	1,513,882,133	1.0007
2015	1,493,674,368	1,507,408,015	1.0092
2016	841,321,118	1,492,574,056	1.7741
2017		873,888,955	

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 - ADJUSTED TO A POST ACT 57 AND HB 1846 BASIS

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
Prior to 1986	6,486,417,316	6,491,316,598	1.0008
1986	1,036,365,462	1,039,428,204	1.0030
1987	1,293,715,579	1,293,585,933	0.9999
1988	1,494,643,713	1,495,955,494	1.0009
1989	1,767,581,810	1,772,372,052	1.0027
1990	1,809,937,550	1,814,279,573	1.0024
1991	1,607,375,789	1,607,431,121	1.0000
1992	1,369,167,394	1,372,469,365	1.0024
1993	1,143,826,846	1,146,311,334	1.0022
1994	1,053,424,347	1,056,617,224	1.0030
1995	920,299,813	919,080,904	0.9987
1996	829,636,154	831,681,929	1.0025
1997	864,402,180	867,407,529	1.0035
1998	877,671,300	878,219,865	1.0006
1999	981,659,463	983,422,947	1.0018
2000	1,038,241,281	1,040,297,279	1.0020
2001	1,038,392,857	1,040,030,581	1.0016
2002	1,112,969,636	1,115,544,394	1.0023
2003	1,108,114,642	1,112,008,159	1.0035
2004	1,226,553,486	1,227,249,281	1.0006
2005	1,266,551,547	1,272,508,580	1.0047
2006	1,311,479,430	1,315,748,218	1.0033
2007	1,396,272,263	1,401,345,021	1.0036
2008	1,279,126,441	1,278,522,840	0.9995
2009	1,144,925,992	1,157,110,468	1.0106
2010	1,232,742,400	1,232,089,845	0.9995
2011	1,178,416,473	1,185,829,330	1.0063
2012	1,031,723,818	1,050,804,002	1.0185
2013	1,038,376,903	1,096,243,845	1.0557
2014	861,374,530	1,017,184,293	1.1809
2015	321,556,846	812,498,333	2.5268
2016		297,788,586	

Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1987	7,495,119,199	7,497,704,919	1.0003
1987	1,304,019,471	1,312,417,468	1.0064
1988	1,512,745,823	1,511,233,524	0.9990
1989	1,793,392,872	1,794,284,589	1.0005
1990	1,839,282,355	1,839,057,981	0.9999
1991	1,635,073,376	1,636,573,432	1.0009
1992	1,407,825,517	1,406,901,670	0.9993
1993	1,176,741,769	1,179,173,752	1.0021
1994	1,097,244,698	1,098,356,484	1.0010
1995	961,173,527	962,156,701	1.0010
1996	879,748,164	882,544,395	1.0032
1997	908,058,043	907,505,308	0.9994
1998	935,821,877	939,095,533	1.0035
1999	1,038,456,899	1,036,421,441	0.9980
2000	1,105,732,542	1,107,508,384	1.0016
2001	1,110,232,238	1,110,614,794	1.0003
2002	1,198,348,938	1,202,357,495	1.0033
2003	1,199,231,142	1,202,828,667	1.0030
2004	1,293,319,310	1,295,923,887	1.0020
2005	1,324,921,041	1,330,283,958	1.0040
2006	1,355,776,919	1,359,534,511	1.0028
2007	1,441,991,696	1,445,939,283	1.0027
2008	1,327,363,062	1,326,669,924	0.9995
2009	1,189,960,124	1,191,032,149	1.0009
2010	1,250,378,643	1,259,328,435	1.0072
2011	1,215,824,655	1,225,699,362	1.0081
2012	1,108,078,627	1,127,763,672	1.0178
2013	1,153,051,848	1,157,559,985	1.0039
2014	1,092,416,105	1,149,377,813	1.0521
2015	880,788,071	1,030,994,600	1.1705
2016	330,011,395	850,668,876	2.5777
2017		362,179,066	

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 - B - ADJUSTED TO A POST ACT 57 AND HB 1846 BASIS

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
Prior to 1986	4,671,047,086	4,671,353,956	1.0001
1986	709,958,220	710,223,713	1.0004
1987	859,471,128	858,795,309	0.9992
1988	971,713,782	972,140,554	1.0004
1989	1,129,971,629	1,130,519,400	1.0005
1990	1,154,725,763	1,155,458,990	1.0006
1991	996,986,924	997,801,259	1.0008
1992	837,728,861	838,662,162	1.0011
1993	731,532,753	731,646,821	1.0002
1994	667,404,748	668,564,530	1.0017
1995	564,381,655	563,486,707	0.9984
1996	481,434,927	481,377,066	0.9999
1997	490,465,134	491,514,461	1.0021
1998	489,050,563	489,207,206	1.0003
1999	555,033,287	555,308,615	1.0005
2000	590,913,809	590,838,562	0.9999
2001	593,685,011	594,475,158	1.0013
2002	619,093,878	620,062,653	1.0016
2003	603,367,812	603,777,247	1.0007
2004	650,858,643	651,767,703	1.0014
2005	665,360,222	666,303,453	1.0014
2006	690,507,362	692,203,844	1.0025
2007	729,703,005	730,660,505	1.0013
2008	675,382,557	675,303,249	0.9999
2009	611,742,931	615,292,553	1.0058
2010	636,210,844	636,341,190	1.0002
2011	606,667,197	609,071,866	1.0040
2012	523,810,198	540,493,744	1.0319
2013	495,301,954	542,249,780	1.0948
2014	363,630,226	483,727,223	1.3303
2015	105,828,642	343,601,938	3.2468
2016		98,250,325	

Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1987	5,346,841,588	5,347,825,880	1.0002
1987	862,871,442	863,300,994	1.0005
1988	980,028,227	979,588,821	0.9996
1989	1,141,900,342	1,142,110,456	1.0002
1990	1,166,189,332	1,166,247,884	1.0001
1991	1,011,782,148	1,011,749,304	1.0000
1992	855,690,103	855,050,848	0.9993
1993	746,201,477	746,615,911	1.0006
1994	691,457,977	691,263,631	0.9997
1995	586,822,198	587,334,801	1.0009
1996	505,695,753	505,560,965	0.9997
1997	513,904,100	514,132,168	1.0004
1998	514,921,065	514,723,208	0.9996
1999	586,249,831	586,761,348	1.0009
2000	623,301,092	624,014,355	1.0011
2001	633,975,501	634,059,265	1.0001
2002	664,081,054	664,994,362	1.0014
2003	648,692,031	649,749,346	1.0016
2004	687,507,393	688,128,676	1.0009
2005	693,210,446	693,974,966	1.0011
2006	712,262,228	713,046,040	1.0011
2007	748,179,067	750,610,425	1.0032
2008	699,565,675	700,250,984	1.0010
2009	631,770,843	634,354,346	1.0041
2010	650,390,326	654,448,556	1.0062
2011	624,150,971	629,011,884	1.0078
2012	568,700,926	571,753,520	1.0054
2013	571,991,438	578,028,628	1.0106
2014	519,468,634	564,960,436	1.0876
2015	370,945,158	496,705,992	1.3390
2016	106,662,866	359,295,065	3.3685
2017		113,343,806	

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 - C - ADJUSTED TO A POST ACT 57 AND HB 1846 BASIS

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
Prior to 1986	1,815,370,230	1,819,962,642	1.0025
1986	326,407,242	329,204,491	1.0086
1987	434,244,451	434,790,624	1.0013
1988	522,929,931	523,814,940	1.0017
1989	637,610,181	641,852,652	1.0067
1990	655,211,787	658,820,583	1.0055
1991	610,388,865	609,629,862	0.9988
1992	531,438,533	533,807,203	1.0045
1993	412,294,093	414,664,513	1.0057
1994	386,019,599	388,052,694	1.0053
1995	355,918,158	355,594,197	0.9991
1996	348,201,227	350,304,863	1.0060
1997	373,937,046	375,893,068	1.0052
1998	388,620,737	389,012,659	1.0010
1999	426,626,176	428,114,332	1.0035
2000	447,327,472	449,458,717	1.0048
2001	444,707,846	445,555,423	1.0019
2002	493,875,758	495,481,741	1.0033
2003	504,746,830	508,230,912	1.0069
2004	575,694,843	575,481,578	0.9996
2005	601,191,325	606,205,127	1.0083
2006	620,972,068	623,544,374	1.0041
2007	666,569,258	670,684,516	1.0062
2008	603,743,884	603,219,591	0.9991
2009	533,183,061	541,817,915	1.0162
2010	596,531,556	595,748,655	0.9987
2011	571,749,276	576,757,464	1.0088
2012	507,913,620	510,310,258	1.0047
2013	543,074,949	553,994,065	1.0201
2014	497,744,304	533,457,070	1.0717
2015	215,728,204	468,896,395	2.1736
2016		199,538,261	

Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1987	2,148,277,611	2,149,879,039	1.0007
1987	441,148,029	449,116,474	1.0181
1988	532,717,596	531,644,703	0.9980
1989	651,492,530	652,174,133	1.0010
1990	673,093,023	672,810,097	0.9996
1991	623,291,228	624,824,128	1.0025
1992	552,135,414	551,850,822	0.9995
1993	430,540,292	432,557,841	1.0047
1994	405,786,721	407,092,853	1.0032
1995	374,351,329	374,821,900	1.0013
1996	374,052,411	376,983,430	1.0078
1997	394,153,943	393,373,140	0.9980
1998	420,900,812	424,372,325	1.0082
1999	452,207,068	449,660,093	0.9944
2000	482,431,450	483,494,029	1.0022
2001	476,256,737	476,555,529	1.0006
2002	534,267,884	537,363,133	1.0058
2003	550,539,111	553,079,321	1.0046
2004	605,811,917	607,795,211	1.0033
2005	631,710,595	636,308,992	1.0073
2006	643,514,691	646,488,471	1.0046
2007	693,812,629	695,328,858	1.0022
2008	627,797,387	626,418,940	0.9978
2009	558,189,281	556,677,803	0.9973
2010	599,988,317	604,879,879	1.0082
2011	591,673,684	596,687,478	1.0085
2012	539,377,701	556,010,152	1.0308
2013	581,060,410	579,531,357	0.9974
2014	572,947,471	584,417,377	1.0200
2015	509,842,913	534,288,608	1.0479
2016	223,348,529	491,373,811	2.2000
2017		248,835,260	

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 - D - ADJUSTED TO A POST ACT 57 AND HB 1846 BASIS

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
Prior to 1986	4,615,442,310	4,622,309,471	1.0015
1986	696,900,534	698,564,097	1.0024
1987	847,440,598	848,791,355	1.0016
1988	955,603,586	957,466,331	1.0019
1989	1,103,735,994	1,107,001,684	1.0030
1990	1,128,642,219	1,131,885,139	1.0029
1991	966,575,323	970,035,392	1.0036
1992	810,102,571	813,374,508	1.0040
1993	705,791,401	708,686,115	1.0041
1994	641,843,514	644,824,525	1.0046
1995	545,978,294	548,117,208	1.0039
1996	467,274,536	468,566,883	1.0028
1997	483,318,146	484,217,616	1.0019
1998	482,712,773	483,668,208	1.0020
1999	547,227,987	548,170,808	1.0017
2000	580,940,771	582,187,685	1.0021
2001	583,166,232	584,322,984	1.0020
2002	600,047,342	602,757,553	1.0045
2003	581,930,148	584,538,554	1.0045
2004	621,023,099	625,253,755	1.0068
2005	639,024,711	644,182,722	1.0081
2006	659,742,866	665,549,573	1.0088
2007	695,961,031	703,186,199	1.0104
2008	642,346,262	649,491,887	1.0111
2009	580,155,804	592,912,564	1.0220
2010	588,700,310	604,872,862	1.0275
2011	548,332,094	569,162,862	1.0380
2012	441,101,700	484,288,050	1.0979
2013	366,727,262	461,424,980	1.2582
2014	196,578,853	367,854,060	1.8713
2015	35,536,327	200,610,421	5.6452
2016		33,146,038	

Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1987	5,286,418,574	5,295,502,099	1.0017
1987	852,641,232	853,880,088	1.0015
1988	964,966,867	966,472,224	1.0016
1989	1,118,301,875	1,121,185,339	1.0026
1990	1,142,602,411	1,145,284,577	1.0023
1991	983,906,099	986,836,071	1.0030
1992	830,206,732	832,797,450	1.0031
1993	723,224,997	726,072,048	1.0039
1994	666,891,546	669,464,524	1.0039
1995	571,495,824	573,086,417	1.0028
1996	492,854,468	494,205,518	1.0027
1997	506,327,000	507,328,183	1.0020
1998	509,147,214	509,937,775	1.0016
1999	578,891,498	579,813,076	1.0016
2000	614,571,578	615,828,881	1.0020
2001	623,540,881	625,285,886	1.0028
2002	646,558,664	648,714,310	1.0033
2003	629,396,524	632,027,395	1.0042
2004	658,799,931	662,796,389	1.0061
2005	670,732,234	674,126,170	1.0051
2006	685,744,354	690,652,695	1.0072
2007	720,585,443	726,048,352	1.0076
2008	673,737,119	678,358,010	1.0069
2009	609,734,463	617,701,546	1.0131
2010	620,059,446	630,380,745	1.0166
2011	584,449,524	597,630,706	1.0226
2012	509,287,964	527,719,678	1.0362
2013	489,926,380	529,754,399	1.0813
2014	396,649,412	488,886,040	1.2325
2015	219,082,176	391,792,076	1.7883
2016	36,744,328	207,070,815	5.6354
2017		38,416,320	

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 - E - ADJUSTED TO A POST ACT 57 AND HB 1846 BASIS

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
Prior to 1986	1,705,270,913	1,716,778,186	1.0067
1986	308,890,928	311,563,552	1.0087
1987	404,974,563	408,359,861	1.0084
1988	492,444,665	495,299,191	1.0058
1989	592,059,407	597,991,333	1.0100
1990	623,109,550	627,899,844	1.0077
1991	572,049,508	575,438,604	1.0059
1992	496,502,157	502,357,284	1.0118
1993	387,325,760	390,436,908	1.0080
1994	357,163,476	361,610,589	1.0125
1995	328,587,654	330,803,804	1.0067
1996	319,173,309	322,909,446	1.0117
1997	342,369,870	346,294,167	1.0115
1998	357,240,305	360,521,301	1.0092
1999	395,256,904	398,429,281	1.0080
2000	419,298,435	422,698,744	1.0081
2001	420,707,318	424,578,710	1.0092
2002	458,164,649	465,011,216	1.0149
2003	476,434,067	481,552,560	1.0107
2004	538,312,893	543,448,844	1.0095
2005	560,009,273	565,454,987	1.0097
2006	576,166,472	584,587,785	1.0146
2007	624,624,650	633,292,151	1.0139
2008	563,551,224	569,743,049	1.0110
2009	496,119,195	502,748,005	1.0134
2010	532,993,372	541,365,571	1.0157
2011	525,710,219	535,032,910	1.0177
2012	450,990,086	467,783,647	1.0372
2013	441,398,945	475,659,032	1.0776
2014	363,367,476	458,149,815	1.2608
2015	98,517,819	328,844,337	3.3379
2016		88,515,806	

Policy Year Valued	As of 12/31/16	As of 12/31/17	Ratio to Prior Year
Prior to 1987	2,026,449,865	2,039,429,362	1.0064
1987	412,904,619	416,739,984	1.0093
1988	503,382,991	505,825,828	1.0049
1989	607,210,632	612,553,295	1.0088
1990	640,909,184	644,783,537	1.0060
1991	588,505,171	592,197,669	1.0063
1992	519,279,617	523,495,677	1.0081
1993	404,446,215	408,255,169	1.0094
1994	377,179,027	381,638,691	1.0118
1995	348,746,766	352,423,286	1.0105
1996	345,226,585	348,560,947	1.0097
1997	364,314,877	367,596,686	1.0090
1998	390,695,695	393,889,797	1.0082
1999	421,169,450	424,031,014	1.0068
2000	454,071,268	457,712,491	1.0080
2001	454,082,693	456,603,866	1.0056
2002	501,668,567	507,194,708	1.0110
2003	521,367,478	525,618,743	1.0082
2004	572,227,575	576,635,051	1.0077
2005	590,176,205	596,206,243	1.0102
2006	603,698,575	609,399,839	1.0094
2007	655,702,334	663,090,515	1.0113
2008	592,395,006	598,014,414	1.0095
2009	519,307,199	525,267,841	1.0115
2010	552,047,693	559,862,860	1.0142
2011	549,135,877	557,259,255	1.0148
2012	495,292,478	503,111,608	1.0158
2013	502,324,871	517,270,705	1.0298
2014	494,683,314	525,968,802	1.0632
2015	360,733,667	450,619,207	1.2492
2016	99,076,072	358,709,085	3.6205
2017		105,006,184	

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.

EXHIBIT VII

LOSS COST FORMULAE

The experience used for classification relativities for the April 1, 2019 revision will include all available risks. It is proposed that catastrophes be limited in accordance with the procedure previously employed in other Bureau 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 April 1, 2019 filing. The values for these respective tables will be established such that the credibilities 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 loss cost worksheets.

Most 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 loss costs have been derived, are separately identified within the filing material.

The calculation of classification loss costs will be made using the following procedure:

- (1) Determine the present pure premiums 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 April 1, 2019 loss cost level.
- (3) Determine Expected Losses (serious, non-serious, medical-only and total) for each classification by multiplying the exposures from the experience period by the present pure premiums.
- (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 two 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 two years for each classification and by the overall average loss cost change.
- (7) Obtain correction factors by dividing the Expected Losses derived in (6) by the Actual Losses derived in (5).

LOSS COST FORMULAE (CONTINUED)

- (8) Multiply the indicated (pre-test) pure premiums from (4) times the correction factors derived in (7) to obtain indicated (post-test) pure premiums.
- (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 loss costs on April 1, 2019 level 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 two 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 multiplier” 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.
- (14) Apply the composite pure premium multiplier obtained in (13) above to the proposed total pure premiums to obtain classification loss costs.
- (15) Test to assure that the maximum departure of the classification loss costs derived in (14) above from current loss costs are in accordance with the following parameters:

Maximum Change in Loss Cost:
Upward: The overall average change plus 25% rounded to the nearest 1%.
Downward: The overall average change minus 25% rounded to the nearest 1%.
- (16) Loss costs are to be rounded to the nearest \$.01.
- (17) Test the limited loss costs derived in (16) above to determine if balance has been achieved within 0.0005 of the indicated change in loss cost level. 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.

EXHIBIT VIII

COLLECTIBLE PREMIUM RATIOS *

Manual Year (1)	Premium at Manual Rates (2)	Collected Premium (Excluding Constants) (3)	Collectible Premium Ratio (2)/(3) (4)
ALL INDUSTRIES			
2013	2,766,011,508	2,696,545,428	1.0258
2014	2,760,704,168	2,683,299,409	1.0288
2015	2,681,727,250	2,619,302,172	1.0238
TOTAL	8,208,442,926	7,999,147,009	1.0262
MANUFACTURING AND UTILITIES			
2013	564,108,735	542,555,306	1.0397
2014	564,454,471	542,749,865	1.0400
2015	539,960,740	517,361,937	1.0437
TOTAL	1,668,523,946	1,602,667,108	1.0411
CONTRACTING AND QUARRYING			
2013	532,737,012	475,481,439	1.1204
2014	541,022,560	475,368,814	1.1381
2015	515,063,009	459,191,927	1.1217
TOTAL	1,588,822,581	1,410,042,180	1.1268
OTHER INDUSTRIES			
2013	1,669,165,761	1,678,508,683	0.9944
2014	1,655,227,137	1,665,180,730	0.9940
2015	1,626,703,501	1,642,748,308	0.9902
TOTAL	4,951,096,399	4,986,437,721	0.9929

* Excludes classifications and coverages not subject to experience rating.

EXHIBIT IX

CALCULATION OF EXPECTED LOSS COST FACTORS (a)

Policy Year Beginning 4/1 (1)	HB 1846 Adjustment Factor (2)	Protz & HB 1840 Adjustment Factor (3)	Loss Ratio Development Factor (4)	Collectible Premium Ratio (5)	Trend Factor (6)	Product (2) * (3) * (4) * (5) * (6) (7)	Expected Loss Cost Factor 1.0 / (7) (8)
Manufacturing and Utilities							
2015	1.0000	0.9840	1.1499	1.0411	0.8546	1.0067	0.9933
2016	1.0000	0.9787	1.2269	1.0411	0.8888	1.1111	0.9000
2017	1.0000	0.9839	1.5248	1.0411	0.9244	1.4438	0.6926
Contracting and Quarrying							
2015	1.0000	0.9840	1.1819	1.1268	0.8546	1.1199	0.8929
2016	1.0000	0.9787	1.2391	1.1268	0.8888	1.2145	0.8234
2017	1.0000	0.9839	1.5031	1.1268	0.9244	1.5404	0.6492
Other Industries							
2015	1.0000	0.9840	1.1330	0.9929	0.8546	0.9460	1.0571
2016	1.0000	0.9787	1.2194	0.9929	0.8888	1.0532	0.9495
2017	1.0000	0.9839	1.5166	0.9929	0.9244	1.3695	0.7302

a Apply to pure Loss Costs (pre-LBA, Merit Rating Plan, PCCPAP and Certified Safety Committee adjustments).

EXHIBIT X

RETROSPECTIVE DEVELOPMENT FACTORS *

Retrospective development factors for first, second and third adjustments are calculated below. They are intended for application to retrospective plans with no loss limitation.

First Adjustment	RDF =	0.3123
Second Adjustment	RDF =	0.1723
Third Adjustment	RDF =	0.1223

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 Factors for given Hazard Group and Loss Limitation

RDF = Retrospective Development Factors without Loss Limitation

For Example:

$$\text{The \$25,000 limit Hazard Group C ELF} = 0.661$$

$$\begin{aligned} \text{Then First Adjustment RDF} &= (1 - 0.661) * 0.3123 \\ &= 0.1059 \end{aligned}$$

* The use of retrospective development factors is optional.