

**DELAWARE COMPENSATION RATING BUREAU, INC.**

**ACTUARIAL COMMITTEE**

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**Summary of Material for Modification of Experience  
December 1, 2017 Residual Market Rate and Voluntary Market Loss Cost Revision**

Superseded

**As Filed**

DELAWARE 2017 RESIDUAL MARKET RATE AND VOLUNTARY MARKET LOSS COST FILING

PROPOSED EFFECTIVE DATE - DECEMBER 1, 2017

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# EXHIBIT I

## INDICATED CHANGE IN RATE LEVEL

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
(1a) Policy Year 2012 Loss and Loss Adjustment Expense Ratio	0.2614	0.4256	0.6870
(1b) Policy Year 2013 Loss and Loss Adjustment Expense Ratio	0.2925	0.4933	0.7858
(1c) Policy Year 2014 Loss and Loss Adjustment Expense Ratio	0.2546	0.4461	0.7007
(1d) Policy Year 2015 Loss and Loss Adjustment Expense Ratio	0.2384	0.5472	0.7856
(1e) Average (Midpoint = 7/1/2014)	0.2617	0.4781	0.7398
(2a) Policy Year 2012 Loss and Loss Adjustment Expense Ratio	0.2435	0.5040	
(2b) Policy Year 2013 Loss and Loss Adjustment Expense Ratio	0.2758	0.5677	
(2c) Policy Year 2014 Loss and Loss Adjustment Expense Ratio	0.2429	0.4989	
(2d) Policy Year 2015 Loss and Loss Adjustment Expense Ratio	0.2302	0.5947	
(2e) Average at 12/1/2018	0.2481	0.5413	0.7894
(3a) House Bill 373 Adjustment	1.0000	0.6859	
(3b) Average Trended Loss and LAE Ratio Post-Legislation (2e) * (3a)	0.2481	0.3713	0.6194
(4a) Excess Loss Factor at \$1,930,710 (Post-Legislative Basis) *			0.0817
(4b) Provision for Excess Loss (5a) - (3b)			0.0551
(5a) Total Trended Loss and LAE Ratio (3b) / (1.0 - (4a))	0.2614	0.4131	0.6745
(5b) Percentage of Total	38.75%	61.25%	
(6) Permissible Loss and Loss Adjustment Ratio			0.7056
(7) Indicated Change in Rates (5a) / (6)			0.9559
(8) Estimated Effect of the 7/1/18 Benefit Change			0.9948
(9) Indicated Change in Residual Market Rate Level (7) * (8)			0.9509 <b>-4.91%</b>
(10) Indicated Change in Voluntary Market Loss Costs (9) * [0.7308 / 0.7102]			0.9785 <b>-2.15%</b>

## CHANGES IN MANUAL PREMIUM LEVEL BY INDUSTRY GROUP

	<b>Mfg.</b>	<b>Cont.</b>	<b>Other</b>	<b>Total</b>
(11) Current Collectible Premium Ratio	1.0282	1.0294	0.9197	
(12) Proposed Collectible Premium Ratio	1.0910	1.0442	0.9299	
(13) Change in Collectible Premium Ratio (12) / (11)	1.0611	1.0144	1.0111	1.0182
(14) Change in Residual Market Manual Rate Level (9) * (13)	1.0090	0.9646	0.9615	0.9682
(15) Change in Voluntary Market Manual Loss Cost Level (10) * (13)	1.0383	0.9926	0.9894	0.9963
(16) Current Offset for Residual Market Surcharge				0.9905
(17) Proposed Offset for Residual Market Surcharge				0.9927
(18) Adjusted Change in Voluntary Market Manual Loss Cost Level (15) * (17) / (16)	1.0406	0.9948	0.9916	0.9985

\* \$2,744,000 on a Post-HB175, Pre-HB373 basis.

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

	<u>Current %</u>	<u>Proposed %</u>
<b>LOSS AND LOSS ADJUSTMENT EXPENSE</b>		
Losses	56.50	58.38
Loss Adjustment Expense	11.59	12.18 a
Loss & Loss Adjustment	68.09	70.56
<b>UNDERWRITING EXPENSES</b>		
Commission	5.56	5.38
Other Acquisition	2.56	2.39
General Expenses	3.63	3.26
Premium Discount	8.62	8.38
State Premium Tax	2.00	2.00
Other State Tax	0.32	0.33
Uncollectible Premium	1.32	1.10
Administrative Assessment	1.90	2.52 b
Workers Compensation Fund	2.00	3.00
Deviations	0.00	0.00
Policyholder Dividends	0.00	0.00
Underwriting Profit	4.00	1.08
Underwriting Expense Total	31.91	29.44

a - As ratio to loss, Loss Adjustment Expense = 0.2087

b - As ratio to loss, Administrative Assessment = 0.0431

**RESIDUAL MARKET MINIMUM PREMIUM:**

It is proposed that the Minimum Premium formula remain at

$$(265 * \text{Rate}) + \text{Expense Constant}$$

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

It is proposed to use a multiplier of 132.50 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 remain at \$295.

# EXHIBIT III

## INTERNAL RATE OF RETURN ANALYSIS STATE OF DELAWARE - 2017 TABLE I: INPUTS, ASSUMPTIONS & OUTPUTS

Section 1: Inputs & Assumptions		
(1) Commissions *		5.38
(2) Other Expenses		5.98
(2A)	Other Acquisitions *	2.39
(2B)	General Expenses *	3.26
(2C)	Other Tax **	0.33
(3) State Premium Taxes & Uncollectible Premium		
(3A)	Tax1 - Premium Tax **	2.00
(3B)	Uncollectible Premium **	1.10
(3C)	Tax3 - Workers Compensation Fund **	3.00
(4) Premium Discount ***		8.38
(5) Deviations		0.00
(6) Dividends to Policyholders		0.00
(7) Premium Written		1,000,000
Investment Income		
(8A)	Pre-Tax Return on Assets	4.51
(8B)	Investment Income Tax Rate	1.07
(8C)	Post-Tax Return on Assets	3.44
(10) Reserve to Surplus Ratio		1.92
(11) Internal Rate of Return (Cost of Capital)		8.71
* 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		73.08
(2) Profit & Contingencies		1.08

# EXHIBIT IV - 1

## POLICY YEAR LOSS RATIO 2015\*

(1) Standard Earned Premium Reported (Table I)			147,359,751
(2) Factor to 12/1/16 Rate Level (Exhibit V-1)			1.4149
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0078
(4) Expense Constant Removal Factor			0.9963
(5) DCCPAP On-Level Factor			1.0141
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			212,299,950
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
(8) Paid Losses Reported (Table I-D & I-E)	9,169,573	29,887,525	39,057,098
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	5.0284	3.1733	
(10) Ultimate Incurred Losses (8) * (9)	46,108,281	94,842,083	140,950,364
<b>Losses - Incurred Method</b>			
(11) Incurred Losses Reported (Table I-B & I-C)	19,974,736	46,731,090	66,705,826
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.7523	2.0841	
(13) Ultimate Incurred Losses (11) * (12)	35,001,730	97,392,265	132,393,995
<b>Losses - Average of Incurred and Paid-to-27th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	40,555,006	96,117,174	136,672,180
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.0323	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	50,602,144	116,176,828	166,778,972
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2384	0.5472	0.7856
(19) Normalized Claim Frequency (Exhibit VII-3)	0.4928	0.4928	
(20) Severity Ratio** (18) / (19)	0.4838	1.1104	1.5942

\* 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 2014\*

(1) Standard Earned Premium Reported (Table I)			148,439,581
(2) Factor to 12/1/16 Rate Level (Exhibit V-1)			1.2747
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0020
(4) Expense Constant Removal Factor			0.9967
(5) DCCPAP On-Level Factor			1.0141
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			191,633,163
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
(8) Paid Losses Reported (Table I-D & I-E)	16,337,903	31,848,646	48,186,549
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	2.5646	2.2722	
(10) Ultimate Incurred Losses (8) * (9)	41,900,186	72,366,493	114,266,679
<b>Losses - Incurred Method</b>			
(11) Incurred Losses Reported (Table I-B & I-C)	26,665,181	40,674,472	67,339,653
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.3577	1.6985	
(13) Ultimate Incurred Losses (11) * (12)	36,203,316	69,085,591	105,288,907
<b>Losses - Average of Incurred and Paid-to-27th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	39,051,751	70,726,042	109,777,793
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.0338	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	48,797,274	85,486,567	134,283,841
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2546	0.4461	0.7007
(19) Normalized Claim Frequency (Exhibit VII-3)	0.4630	0.4630	
(20) Severity Ratio** (18) / (19)	0.5498	0.9634	1.5132

\* 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 2013\*

(1) Standard Earned Premium Reported (Table I)			135,182,833
(2) Factor to 12/1/16 Rate Level (Exhibit V-1)			1.4022
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0016
(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)			191,841,176
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
(8) Paid Losses Reported (Table I-D & I-E)	25,879,943	41,845,771	67,725,714
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.7672	1.9559	
(10) Ultimate Incurred Losses (8) * (9)	45,735,035	81,846,143	127,581,178
<b>Losses - Incurred Method</b>			
(11) Incurred Losses Reported (Table I-B & I-C)	36,373,343	49,519,933	85,893,276
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1827	1.5094	
(13) Ultimate Incurred Losses (11) * (12)	43,018,753	74,745,387	117,764,140
<b>Losses - Average of Incurred and Paid-to-27th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	44,376,894	78,295,765	122,672,659
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.0461	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	56,111,080	94,636,091	150,747,171
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2925	0.4933	0.7858
(19) Normalized Claim Frequency (Exhibit VII-3)	0.5353	0.5353	
(20) Severity Ratio** (18) / (19)	0.5465	0.9216	1.4681

\* 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 2012\*

(1) Standard Earned Premium Reported (Table I)			114,622,483
(2) Factor to 12/1/16 Rate Level (Exhibit V-1)			1.7196
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0020
(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)			199,898,044
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
(8) Paid Losses Reported (Table I-D & I-E)	28,580,744	40,807,785	69,388,529
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.4834	1.7947	
(10) Ultimate Incurred Losses (8) * (9)	42,396,676	73,237,732	115,634,408
<b>Losses - Incurred Method</b>			
(11) Incurred Losses Reported (Table I-B & I-C)	34,848,701	48,503,151	83,351,852
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1051	1.3923	
(13) Ultimate Incurred Losses (11) * (12)	38,511,299	67,530,937	106,042,236
<b>Losses - Average of Incurred and Paid-to-27th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	40,453,988	70,384,335	110,838,323
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.0687	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	52,255,941	85,073,546	137,329,487
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2614	0.4256	0.6870
(19) Normalized Claim Frequency (Exhibit VII-3)	0.5123	0.5123	
(20) Severity Ratio** (18) / (19)	0.5102	0.8307	1.3409

\* 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 2011\***

(1) Standard Earned Premium Reported (Table I)			105,492,262
(2) Factor to 12/1/16 Rate Level (Exhibit V-1)			2.0042
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0014
(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)			214,106,243
Losses - Paid-to-27th Method	Indemnity	Medical	Total
(8) Paid Losses Reported (Table I-D & I-E)	32,727,413	47,199,848	79,927,261
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.3439	1.6831	
(10) Ultimate Incurred Losses (8) * (9)	43,982,370	79,442,064	123,424,434
Losses - Incurred Method			
(11) Incurred Losses Reported (Table I-B & I-C)	36,827,314	56,963,141	93,790,455
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0646	1.3119	
(13) Ultimate Incurred Losses (11) * (12)	39,206,358	74,729,945	113,936,303
Losses - Average of Incurred and Paid-to-27th			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	41,594,364	77,086,005	118,680,369
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.0843	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	54,513,299	93,173,854	147,687,153
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2546	0.4352	0.6898
(19) Normalized Claim Frequency (Exhibit VII-3)	0.5718	0.5718	
(20) Severity Ratio** (18) / (19)	0.4453	0.7611	1.2064

\* 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 2010\***

<b>(1)</b> Standard Earned Premium Reported (Table I)			105,086,397
<b>(2)</b> Factor to 12/1/16 Rate Level (Exhibit V-2)			1.9902
<b>(3)</b> Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0000
<b>(4)</b> Expense Constant Removal Factor			0.9970
<b>(5)</b> DCCPAP On-Level Factor			1.0141
<b>(6)</b> Other Adjustments			1.0000
<b>(7)</b> Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			211,455,587
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
<b>(8)</b> Paid Losses Reported (Table I-D & I-E)	34,481,955	53,581,074	88,063,029
<b>(9)</b> Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.2611	1.5966	
<b>(10)</b> Ultimate Incurred Losses (8) * (9)	43,485,193	85,547,543	129,032,736
<b>Losses - Incurred Method</b>			
<b>(11)</b> Incurred Losses Reported (Table I-B & I-C)	38,078,910	64,669,828	102,748,738
<b>(12)</b> Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0410	1.2532	
<b>(13)</b> Ultimate Incurred Losses (11) * (12)	39,640,145	81,044,228	120,684,373
<b>Losses - Average of Incurred and Paid-to-27th</b>			
<b>(14)</b> Ultimate Incurred Losses ((10) + (13)) / 2	41,562,669	83,295,886	124,858,555
<b>(15)</b> Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.0809	1.0000	
<b>(16)</b> Factor to Include Loss Adjustment Expense	1.2087	1.2087	
<b>(17)</b> Adjusted Losses (14) * (15) * (16)	54,300,955	100,679,737	154,980,692
<b>(18)</b> Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2568	0.4761	0.7329
<b>(19)</b> Normalized Claim Frequency (Exhibit VII-3)	0.6100	0.6100	
<b>(20)</b> Severity Ratio** (18) / (19)	0.4210	0.7805	1.2015

\* 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 2009\*

(1) Standard Earned Premium Reported (Table I)			117,158,752
(2) Factor to 12/1/16 Rate Level (Exhibit V-2)			1.8292
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0000
(4) Expense Constant Removal Factor			0.9971
(5) DCCPAP On-Level Factor			1.0147
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			216,826,473
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
(8) Paid Losses Reported (Table I-D & I-E)	36,492,210	47,722,708	84,214,918
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.2059	1.5260	
(10) Ultimate Incurred Losses (8) * (9)	44,005,956	72,824,852	116,830,808
<b>Losses - Incurred Method</b>			
(11) Incurred Losses Reported (Table I-B & I-C)	41,726,944	56,526,958	98,253,902
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0263	1.2088	
(13) Ultimate Incurred Losses (11) * (12)	42,824,363	68,329,787	111,154,150
<b>Losses - Average of Incurred and Paid-to-27th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	43,415,160	70,577,320	113,992,480
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.0780	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	56,569,024	85,306,807	141,875,831
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2609	0.3934	0.6543
(19) Normalized Claim Frequency (Exhibit VII-3)	0.6100	0.6100	
(20) Severity Ratio** (18) / (19)	0.4277	0.6449	1.0726

\* 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 2008\*

(1) Standard Earned Premium Reported (Table I)			149,417,895
(2) Factor to 12/1/16 Rate Level (Exhibit V-2)			1.4686
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0000
(4) Expense Constant Removal Factor			0.9974
(5) DCCPAP On-Level Factor			0.9989
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			218,623,838
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
(8) Paid Losses Reported (Table I-D & I-E)	35,322,768	45,674,044	80,996,812
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1661	1.4667	
(10) Ultimate Incurred Losses (8) * (9)	41,189,880	66,990,120	108,180,000
<b>Losses - Incurred Method</b>			
(11) Incurred Losses Reported (Table I-B & I-C)	37,976,718	56,120,579	94,097,297
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0168	1.1741	
(13) Ultimate Incurred Losses (11) * (12)	38,614,727	65,891,172	104,505,899
<b>Losses - Average of Incurred and Paid-to-27th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	39,902,304	66,440,646	106,342,950
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.0821	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	52,189,591	80,306,809	132,496,400
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2387	0.3673	0.6060
(19) Normalized Claim Frequency (Exhibit VII-3)	0.6109	0.6109	
(20) Severity Ratio** (18) / (19)	0.3908	0.6013	0.9921

\* 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 2007\*

(1) Standard Earned Premium Reported (Table I)			199,461,360
(2) Factor to 12/1/16 Rate Level (Exhibit V-2)			1.0884
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0000
(4) Expense Constant Removal Factor			0.9977
(5) DCCPAP On-Level Factor			0.9974
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			216,031,283
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
(8) Paid Losses Reported (Table I-D & I-E)	39,357,798	46,299,443	85,657,241
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1361	1.4161	
(10) Ultimate Incurred Losses (8) * (9)	44,714,394	65,564,641	110,279,035
<b>Losses - Incurred Method</b>			
(11) Incurred Losses Reported (Table I-B & I-C)	42,850,116	55,399,647	98,249,763
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0104	1.1466	
(13) Ultimate Incurred Losses (11) * (12)	43,295,757	63,521,235	106,816,992
<b>Losses - Average of Incurred and Paid-to-27th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	44,005,076	64,542,938	108,548,014
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.1007	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	58,545,061	78,013,049	136,558,110
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2710	0.3611	0.6321
(19) Normalized Claim Frequency (Exhibit VII-3)	0.6899	0.6899	
(20) Severity Ratio** (18) / (19)	0.3928	0.5234	0.9162

\* 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 2006\*

(1) Standard Earned Premium Reported (Table I)			206,582,882
(2) Factor to 12/1/16 Rate Level (Exhibit V-2)			1.0602
(3) Premium Development Factor to Ultimate Level (Exhibit VI-1)			1.0000
(4) Expense Constant Removal Factor			0.9975
(5) DCCPAP On-Level Factor			0.9960
(6) Other Adjustments			1.0000
(7) Standard Earned Premium on Level (1) * (2) * (3) * (4) * (5) * (6)			217,597,737
<b>Losses - Paid-to-27th Method</b>	<b>Indemnity</b>	<b>Medical</b>	<b>Total</b>
(8) Paid Losses Reported (Table I-D & I-E)	41,913,458	44,852,727	86,766,185
(9) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.1126	1.3724	
(10) Ultimate Incurred Losses (8) * (9)	46,632,913	61,555,883	108,188,796
<b>Losses - Incurred Method</b>			
(11) Incurred Losses Reported (Table I-B & I-C)	44,219,299	53,304,431	97,523,730
(12) Loss Development Factor to Ultimate Valuation (Exhibit VI-2 & VI-4)	1.0060	1.1244	
(13) Ultimate Incurred Losses (11) * (12)	44,484,615	59,935,502	104,420,117
<b>Losses - Average of Incurred and Paid-to-27th</b>			
(14) Ultimate Incurred Losses ((10) + (13)) / 2	45,558,764	60,745,693	106,304,457
(15) Factor to 7/1/17 Benefit Level (Exhibit V-3)	1.1304	1.0000	
(16) Factor to Include Loss Adjustment Expense	1.2087	1.2087	
(17) Adjusted Losses (14) * (15) * (16)	62,247,599	73,423,319	135,670,918
(18) Policy Year Loss and Loss Adjustment Expense Ratio (17) / (7)	0.2861	0.3374	0.6235
(19) Normalized Claim Frequency (Exhibit VII-3)	0.7417	0.7417	
(20) Severity Ratio** (18) / (19)	0.3857	0.4549	0.8406

\* 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 2010 - 2015  
PREMIUM ON-LEVEL FACTORS**

<u>POLICY YEAR</u>		<u>(1) RATE CHANGE DATE</u>	<u>(2) RATE 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 12/1/16 RATE LEVEL</u>
2015	VOL	12/01/14	BASE	0.7095	*	0.7914	0.5615	
		12/01/15	1.0720	0.7606		0.0585	0.0445	
		12/01/16	1.0000	0.7606		-----	-----	
						0.8499	0.6060	
	RM	12/01/14	BASE	1.0000		0.1391	0.1391	
		12/01/15	1.0709	1.0709		0.0110	0.0118	
		12/01/16	1.0000	1.0709		-----	-----	
						0.1501	0.1509	
	* Loss, LAE and LBA portion of 12/1/14 rate.						0.7569	1.4149
2014	VOL	12/01/13	BASE	0.7239	*	0.8069	0.5841	
		12/01/14	0.8850	0.6407		0.0493	0.0316	
		12/01/15	1.0720	0.6868		-----	-----	
		TO 12/1/16				0.8562	0.6157	
	RM	12/01/13	BASE	1.0000		0.1348	0.1348	
		12/01/14	0.9030	0.9030		0.0090	0.0081	
		12/01/15	1.0709	0.9670		-----	-----	
		TO 12/1/16				0.1438	0.1429	
	* Loss, LAE and LBA portion of 12/1/13 rate.						0.7586	1.2747
2013	VOL	12/01/12	BASE	0.7074	*	0.7587	0.5367	
		12/01/13	1.1400	0.8064		0.0576	0.0464	
		12/01/14	0.9487	0.7650		-----	-----	
		TO 12/1/16				0.8163	0.5831	
	RM	12/01/12	BASE	1.0000		0.1717	0.1717	
		12/01/13	1.1140	1.1140		0.0120	0.0134	
		12/01/14	0.9670	1.0772		-----	-----	
		TO 12/1/16				0.1837	0.1851	
	* Loss, LAE and LBA portion of 12/1/12 rate.						0.7682	1.4022
2012	VOL	12/01/11	BASE	0.7343	*	0.7714	0.5664	
		12/01/12	1.2165	0.8933		0.0791	0.0707	
		12/01/13	1.0815	0.9661		-----	-----	
		TO 12/1/16				0.8505	0.6371	
	RM	12/01/11	BASE	1.0000		0.1376	0.1376	
		12/01/12	1.2606	1.2606		0.0119	0.0150	
		12/01/13	1.0773	1.3580		-----	-----	
		TO 12/1/16				0.1495	0.1526	
	* Loss, LAE and LBA portion of 12/1/11 rate.						0.7897	1.7196
2011	VOL	12/01/10	BASE	0.7688	*	0.8260	0.6350	
		12/01/11	1.1261	0.8657		0.0662	0.0573	
		12/01/12	1.3158	1.1391		-----	-----	
		TO 12/1/16				0.8922	0.6923	
	RM	12/01/10	BASE	1.0000		0.1011	0.1011	
		12/01/11	1.1826	1.1826		0.0067	0.0079	
		12/01/12	1.3580	1.6060		-----	-----	
		TO 12/1/16				0.1078	0.1090	
	* Loss, LAE and LBA portion of 12/1/10 rate.						0.8013	2.0042
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	1.4817	1.0941		-----	-----	
		TO 12/1/16				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	1.6060	1.5408		-----	-----	
		TO 12/1/16				0.0760	0.0757	
	* Loss, LAE and LBA portion of 12/1/09 rate.						0.7742	1.9902



**EXHIBIT V - 2**  
**POLICY YEARS 2006 - 2009**  
**PREMIUM ON-LEVEL FACTORS**

<u>POLICY YEAR</u>		<u>(1) RATE CHANGE DATE</u>	<u>(2) RATE 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 12/1/16 RATE LEVEL</u>
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	1.4445	0.9938		-----	-----	
		TO 12/1/16				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	1.5408	1.3995		-----	-----	
		TO 12/1/16				0.0787	0.0783	
	*	Loss, LAE and LBA portion of 12/1/08 rate.					0.7651	1.8292
2008	VOL	12/01/07	BASE	0.7627	*	0.2616	0.1995	
		10/01/08	0.8843	0.6745		0.5907	0.3984	
		12/01/08	0.8354	0.5635		0.0513	0.0289	
		12/01/09	1.3232	0.7456		-----	-----	
		TO 12/1/16				0.9036	0.6268	
	RM	12/01/07	BASE	1.0000		0.0286	0.0286	
		10/01/08	0.8843	0.8843		0.0646	0.0571	
		12/01/08	0.8484	0.7502		0.0032	0.0024	
		12/01/09	1.3995	1.0499		-----	-----	
		TO 12/1/16				0.0964	0.0881	
	*	Loss, LAE and LBA portion of 12/1/07 rate.					0.7149	1.4686
2007	VOL	12/01/06	BASE	0.7292	*	0.8181	0.5966	
		12/01/07	0.8225	0.5998	+	0.0392	0.0235	
		10/01/08	0.8843	0.6448	+	0.0126	0.0081	
		12/01/07 & 10/01/08	0.7273	0.5304	+	0.0103	0.0055	
		12/01/08	1.1054	0.5863	+	-----	-----	
		TO 12/1/16				0.8802	0.6337	
	RM	12/01/06	BASE	1.0000	+	0.1140	0.1140	
		12/01/07	0.7800	0.7800	+	0.0032	0.0025	
		10/01/08	0.8843	0.8843	+	0.0018	0.0016	
		12/01/07 & 10/01/08	0.5898	0.6898	+	0.0008	0.0006	
		12/01/08	1.1873	0.8189	+	-----	-----	
		TO 12/1/16				0.1198	0.1187	
	*	Loss, LAE and LBA portion of 12/1/06 rate.					0.7524	1.0884
2006	VOL	12/01/05	BASE	0.7479	*	0.7753	0.5798	
		12/01/06	1.0000	0.7479		0.0491	0.0367	
		12/01/07	0.5040	0.6013		-----	-----	
		TO 12/1/16				0.8244	0.6165	
	RM	12/01/05	BASE	1.0000		0.1662	0.1662	
		12/01/06	1.0257	1.0257		0.0094	0.0096	
		12/01/07	0.8190	0.8400		-----	-----	
		TO 12/1/16				0.1756	0.1758	
	*	Loss, LAE and LBA portion of 12/1/05 rate.					0.7923	1.0602
	+	Cumulative rate change						
Area				Area				
I	0.7292		0.7292	I	1.0000		1.0000	
II	0.7292 x 0.8225		0.5998	II	1.0000 x 0.7800		0.7800	
III	0.7292 x 0.8843		0.6448	III	1.0000 x 0.8843		0.8843	
IV	0.7292 x 0.8225 x 0.8843		0.5304	IV	1.0000 x 0.7800 x 0.8843		0.6898	
Current	Cumulative to 12/1/16		0.5863	Current	Cumulative to 12/1/16		0.8189	

**EXHIBIT V - 3**  
**POLICY YEARS 2006 - 2015**  
**INDEMNITY LOSS ON-LEVEL FACTORS**

<u>POLICY YEAR</u>	<u>(1) LAW AMENDMENT DATE</u>	<u>(2) BENEFIT 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 7/1/17 BENEFIT LEVEL</u>
2015	7/01/14	BASE	1.0000	0.1250	0.1250	1.0323
	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	1.0165	1.0317	-----	-----	
				1.0000	0.9994	
2014	7/01/13	BASE	1.0000	0.1250	0.1250	1.0338
	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	1.0352	1.0446	-----	-----	
	TO 7/01/17			1.0000	1.0104	
2013	7/02/12	BASE	1.0000	0.1250	0.1250	1.0461
	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	1.0318	1.0699	-----	-----	
	TO 7/01/17			1.0000	1.0228	
2012	6/13/11	BASE	1.0000	0.1264	0.1264	1.0687
	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	1.0446	1.0871	-----	-----	
	TO 7/01/17			1.0000	1.0172	
2011	6/22/10	BASE	1.0000	0.1010	0.1010	1.0843
	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	1.0699	1.0802	-----	-----	
	TO 7/01/17			1.0000	0.9962	
2010	6/16/09	BASE	1.0000	0.1124	0.1124	1.0809
	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	1.0871	1.0773	-----	-----	
	TO 7/01/17			1.0000	0.9967	
2009	6/03/08	BASE	1.0000	0.1048	0.1048	1.0780
	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	1.0801	1.0806	-----	-----	
	TO 7/01/17			1.0000	1.0024	
2008	6/07/07	BASE	1.0000	0.0891	0.0891	1.0821
	6/03/08	1.0189	1.0189	0.7645	0.7789	
	6/16/09	1.0031	1.0221	0.1464	0.1496	
	6/22/10	1.0773	1.1011	-----	-----	
	TO 7/01/17			1.0000	1.0176	
2007	6/07/06	BASE	1.0000	0.0938	0.0938	1.1007
	6/07/07	1.0297	1.0297	0.7399	0.7619	
	6/03/08	1.0189	1.0492	0.1663	0.1745	
	6/16/09	1.0807	1.1339	-----	-----	
	TO 7/01/17			1.0000	1.0302	
2006	6/06/05	BASE	1.0000	0.0951	0.0951	1.1304
	6/07/06	1.0200	1.0200	0.7396	0.7544	
	6/07/07	1.0297	1.0503	0.1653	0.1736	
	6/03/08	1.1011	1.1565	-----	-----	
	TO 7/01/17			1.0000	1.0231	

# EXHIBIT VI - 1

## DEVELOPMENT FACTORS

### PREMIUM

<u>Reports in Ratio</u>	<u>Calendar Years 12-13</u>	<u>Calendar Years 13-14</u>	<u>Calendar Years 14-15</u>	<u>Calendar Years 15-16</u>	<u>Unweighted Average</u>	<u>Cumulative Average</u>
2nd to 1st	1.0016	1.0016	1.0074	1.0125	1.0058	1.0078
3rd to 2nd	0.9998	0.9996	1.0031	0.9992	1.0004	1.0020
4th to 3rd	0.9993	1.0012	0.9978	1.0001	0.9996	1.0016
5th to 4th	1.0001	0.9999	1.0020	1.0003	1.0006	1.0020
6th to 5th	0.9999	1.0000	1.0057	0.9999	1.0014	1.0014
7th to 6th	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8th to 7th	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
9th to 8th	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10th to 9th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
11th to 10th	0.9998	1.0000	1.0000	1.0000	1.0000 *	1.0000
12th to 11th	0.9994	1.0002	1.0000	1.0000	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	1.0001	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	1.0000	1.0000	1.0000	1.0000 *	1.0000
20th to 19th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
21st to 20th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
22nd to 21st	1.0003	1.0000	1.0000	1.0001	1.0000 *	1.0000
23rd to 22nd	1.0000	1.0006	1.0000	1.0000	1.0000 *	1.0000
24th to 23rd	1.0000	1.0000	1.0002	1.0000	1.0000 *	1.0000
25th to 24th	1.0000	1.0000	1.0000	1.0002	1.0000 *	1.0000
26th to 25th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
27th to 26th	1.0000	1.0000	1.0000	1.0000	1.0000 *	1.0000
Beyond 27th	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 12-13	Calendar Years 13-14	Calendar Years 14-15	Calendar Years 15-16	Unweighted Average	Fitted Value	Cumulative Average
2nd to 1st	a	2.0196	2.0411	1.8383	1.9436	1.9607	1.9607	5.0284
3rd to 2nd	a	1.5790	1.3944	1.4468	1.3822	1.4506	1.4512	2.5646
4th to 3rd	a	1.1852	1.1993	1.1634	1.2347	1.1957	1.1913	1.7672
5th to 4th	a	1.1193	1.1210	1.0871	1.0535	1.0952	1.1038	1.4834
6th to 5th	a	1.0797	1.0546	1.0898	1.0517	1.0690	1.0657	1.3439
7th to 6th	a	1.0528	1.0310	1.0399	1.0588	1.0456	1.0458	1.2611
8th to 7th	a	1.0353	1.0547	1.0198	1.0194	1.0323	1.0341	1.2059
9th to 8th	a	1.0347	1.0284	1.0410	1.0379	1.0355	1.0264	1.1661
10th to 9th	a	1.0193	1.0164	1.0184	1.0227	1.0192	1.0211	1.1361
11th to 10th	a	1.0155	1.0341	1.0075	1.0288	1.0215	1.0172	1.1126
12th to 11th	a	1.0126	1.0127	1.0075	1.0043	1.0093	1.0143	1.0938
13th to 12th	a	1.0108	1.0112	1.0088	1.0073	1.0095	1.0120	1.0784
14th to 13th	a	1.0226	1.0087	1.0090	1.0011	1.0104	1.0101	1.0656
15th to 14th	a	1.0028	1.0028	1.0068	1.0053	1.0044	1.0085	1.0549
16th to 15th	a	1.0129	1.0101	1.0020	1.0023	1.0068	1.0072	1.0461
17th to 16th	a	1.0061	1.0084	1.0078	1.0107	1.0083	1.0061	1.0386
18th to 17th	a	1.0025	1.0035	1.0031	1.0025	1.0029	1.0052	1.0323
19th to 18th	a	1.0023	1.0005	1.0036	0.9989	1.0013	1.0044	1.0269
20th to 19th	a	1.0025	1.0387	1.0015	1.0029	1.0114	1.0036	1.0224
21st to 20th	a	0.9976	1.0007	1.0025	0.9997	1.0001	1.0030	1.0188
22nd to 21st	a	1.0032	0.9984	1.0051	1.0090	1.0039	1.0024	1.0157
23rd to 22nd	a	1.0006	1.0198	0.9972	1.0008	1.0046	1.0019	1.0133
24th to 23rd	a	1.0038	1.0021	1.0040	0.9982	1.0020	1.0014	1.0114
25th to 24th	a	1.0078	0.9999	1.0027	0.9966	1.0018	1.0010	1.0100
26th to 25th	a	0.9848	1.0002	0.9968	1.0014	0.9958	1.0006	1.0090
27th to 26th	b	1.0191	1.0154	1.0097	1.0065	1.0127	1.0127	1.0083
Beyond 27th	c	0.9941	0.9901	0.9976	1.0011	0.9957	0.9957	0.9957

**INCURRED METHOD**

Reports in Ratio		Calendar Years 12-13	Calendar Years 13-14	Calendar Years 14-15	Calendar Years 15-16	Unweighted Average	Fitted Value	Cumulative Average
2nd to 1st	c	1.2854	1.3204	1.2829	1.2727	1.2904	1.2906	1.7523
3rd to 2nd	c	1.2485	1.0990	1.1065	1.1560	1.1525	1.1480	1.3577
4th to 3rd	c	1.0580	1.0575	1.0444	1.0863	1.0616	1.0702	1.1827
5th to 4th	c	1.0537	1.0628	0.9855	1.0245	1.0316	1.0381	1.1051
6th to 5th	c	1.0290	1.0332	1.0341	1.0220	1.0296	1.0226	1.0646
7th to 6th	c	1.0321	1.0349	1.0030	1.0136	1.0209	1.0143	1.0410
8th to 7th	c	1.0059	1.0101	1.0098	1.0050	1.0077	1.0094	1.0263
9th to 8th	c	1.0091	1.0009	1.0135	1.0062	1.0074	1.0063	1.0168
10th to 9th	c	1.0075	1.0083	1.0008	1.0080	1.0062	1.0044	1.0104
11th to 10th	c	1.0017	1.0237	1.0017	0.9975	1.0062	1.0030	1.0060
12th to 11th	c	1.0026	0.9964	0.9997	1.0050	1.0009	1.0021	1.0030
13th to 12th	c	1.0178	1.0020	0.9949	0.9999	1.0037	1.0015	1.0009
14th to 13th	c	0.9951	1.0031	0.9989	0.9994	0.9991	1.0010	0.9994
15th to 14th	c	0.9963	0.9977	0.9964	0.9985	0.9972	1.0007	0.9984
16th to 15th	c	1.0019	0.9997	0.9983	0.9964	0.9991	1.0005	0.9977
17th to 16th	c	1.0039	0.9981	1.0003	1.0061	1.0021	1.0003	0.9972
18th to 17th	c	0.9987	0.9962	0.9966	1.0007	0.9981	1.0002	0.9969
19th to 18th	c	1.0328	0.9993	1.0029	0.9977	1.0082	1.0002	0.9967
20th to 19th	c	0.9924	0.9884	0.9988	1.0004	0.9950	1.0001	0.9965
21st to 20th	c	0.9964	0.9989	1.0103	0.9919	0.9994	1.0001	0.9964
22nd to 21st	c	0.9968	0.9983	1.0029	0.9946	0.9982	1.0001	0.9963
23rd to 22nd	c	0.9986	1.0086	0.9991	0.9991	1.0014	1.0001	0.9962
24th to 23rd	c	1.0022	0.9988	1.0008	0.9976	0.9999	1.0001	0.9961
25th to 24th	c	1.0041	0.9978	1.0149	0.9927	1.0024	1.0001	0.9960
26th to 25th	c	0.9901	0.9990	0.9954	0.9985	0.9958	1.0001	0.9959
27th to 26th	c	0.9984	0.9997	1.0015	0.9994	0.9998	1.0001	0.9958
Beyond 27th	c	0.9941	0.9901	0.9976	1.0011	0.9957	0.9957	0.9957

a From Table I-D

b 26th (Paid - Table I-D) to 27th (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	1.9607	0.9607	0.9607	1.9607
3rd to 2nd	1.4506	0.4506	0.4512	1.4512
4th to 3rd	1.1957	0.1957	0.1913	1.1913
5th to 4th	1.0952	0.0952	0.1038	1.1038
6th to 5th	1.0690	0.0690	0.0657	1.0657
7th to 6th	1.0456	0.0456	0.0458	1.0458
8th to 7th	1.0323	0.0323	0.0341	1.0341
9th to 8th	1.0355	0.0355	0.0264	1.0264
10th to 9th	1.0192	0.0192	0.0211	1.0211
11th to 10th	1.0215	0.0215	0.0172	1.0172
12th to 11th	1.0093	0.0093	0.0143	1.0143
13th to 12th	1.0095	0.0095	0.0120	1.0120
14th to 13th	1.0104	0.0104	0.0101	1.0101
15th to 14th	1.0044	0.0044	0.0085	1.0085
16th to 15th	1.0068	0.0068	0.0072	1.0072
17th to 16th	1.0083	0.0083	0.0061	1.0061
18th to 17th	1.0029	0.0029	0.0052	1.0052
19th to 18th	1.0013	0.0013	0.0044	1.0044
20th to 19th	1.0114	0.0114	0.0036	1.0036
21st to 20th	1.0001	0.0001	0.0030	1.0030
22nd to 21st	1.0039	0.0039	0.0024	1.0024
23rd to 22nd	1.0046	0.0046	0.0019	1.0019
24th to 23rd	1.0020	0.0020	0.0014	1.0014
25th to 24th	1.0018	0.0018	0.0010	1.0010
26th to 25th	0.9958	-0.0042	0.0006	1.0006
27th to 26th*	1.0127	0.0127	0.0127	1.0127

$$Y = a + b/x + c/x^2 + d/x^3 + e/x^4$$

$$a = -0.008144 \quad b = 0.214380 \quad c = -0.074312 \quad d = 5.102322 \quad e = -4.273554$$

\* 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	1.2904	0.2904	0.2906	1.2906
3rd to 2nd	1.1525	0.1525	0.1480	1.1480
4th to 3rd	1.0616	0.0616	0.0702	1.0702
5th to 4th	1.0316	0.0316	0.0381	1.0381
6th to 5th	1.0296	0.0296	0.0226	1.0226
7th to 6th	1.0209	0.0209	0.0143	1.0143
8th to 7th	1.0077	0.0077	0.0094	1.0094
9th to 8th	1.0074	0.0074	0.0063	1.0063
10th to 9th	1.0062	0.0062	0.0044	1.0044
11th to 10th	1.0062	0.0062	0.0030	1.0030
12th to 11th	1.0009	0.0009	0.0021	1.0021
13th to 12th	1.0037	0.0037	0.0015	1.0015
14th to 13th	0.9991	-0.0009	0.0010	1.0010
15th to 14th	0.9972	-0.0028	0.0007	1.0007
16th to 15th	0.9991	-0.0009	0.0005	1.0005
17th to 16th	1.0021	0.0021	0.0003	1.0003
18th to 17th	0.9981	-0.0019	0.0002	1.0002
19th to 18th	1.0082	0.0082	0.0002	1.0002
20th to 19th	0.9950	-0.0050	0.0001	1.0001
21st to 20th	0.9994	-0.0006	0.0001	1.0001
22nd to 21st	0.9982	-0.0018	0.0001	1.0001
23rd to 22nd	1.0014	0.0014	0.0001	1.0001
24th to 23rd	0.9999	-0.0001	0.0001	1.0001
25th to 24th	1.0024	0.0024	0.0001	1.0001
26th to 25th	0.9958	-0.0042	0.0001	1.0001
27th to 26th	0.9998	-0.0002	0.0001	1.0001
Beyond 27th+	0.9957	-0.0043	-0.0043	0.9957

$$Y = a + b/x + c/x^2 + d/x^3$$

$$a = 0.002509 \quad b = -0.106239 \quad c = 1.194782 \quad d = -0.800426$$

+ Selected four year average

**EXHIBIT VI - 4**

**DEVELOPMENT FACTORS**

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

Reports in Ratio		Calendar Years 12-13	Calendar Years 13-14	Calendar Years 14-15	Calendar Years 15-16	Unweighted Average	Fitted Value	Cumulative Average
2nd to 1st	a	1.3538	1.3633	1.4562	1.4129	1.3966	1.3966	3.1733
3rd to 2nd	a	1.1659	1.1124	1.1747	1.1928	1.1615	1.1617	2.2722
4th to 3rd	a	1.0989	1.1048	1.0792	1.0864	1.0923	1.0898	1.9559
5th to 4th	a	1.0908	1.0574	1.0719	1.0181	1.0596	1.0663	1.7947
6th to 5th	a	1.0467	1.0531	1.0852	1.0465	1.0579	1.0542	1.6831
7th to 6th	a	1.0464	1.0357	1.0517	1.0606	1.0486	1.0463	1.5966
8th to 7th	a	1.0386	1.0455	1.0336	1.0430	1.0402	1.0404	1.5280
9th to 8th	a	1.0252	1.0287	1.0443	1.0325	1.0327	1.0357	1.4667
10th to 9th	a	1.0398	1.0274	1.0197	1.0424	1.0323	1.0319	1.4161
11th to 10th	a	1.0348	1.0320	1.0315	1.0442	1.0356	1.0287	1.3724
12th to 11th	a	1.0233	1.0330	1.0217	1.0202	1.0246	1.0260	1.3341
13th to 12th	a	1.0273	1.0212	1.0499	1.0218	1.0301	1.0236	1.3003
14th to 13th	a	1.0122	1.0217	1.0140	1.0143	1.0156	1.0115	1.2703
15th to 14th	a	1.0106	1.0046	1.0190	1.0317	1.0165	1.0197	1.2436
16th to 15th	a	1.0172	1.0047	1.0167	1.0084	1.0118	1.0181	1.2195
17th to 16th	a	1.0243	1.0226	1.0089	1.0064	1.0156	1.0166	1.1979
18th to 17th	a	1.0276	1.0181	1.0098	1.0147	1.0176	1.0153	1.1783
19th to 18th	a	1.0114	1.0141	1.0219	1.0177	1.0163	1.0141	1.1605
20th to 19th	a	1.0146	1.0243	1.0065	1.0141	1.0149	1.0131	1.1444
21st to 20th	a	1.0082	1.0086	1.0054	1.0051	1.0068	1.0121	1.1296
22nd to 21st	a	1.0086	1.0116	1.0128	1.0097	1.0107	1.0112	1.1161
23rd to 22nd	a	1.0128	1.0083	1.0073	1.0104	1.0097	1.0103	1.1037
24th to 23rd	a	1.0130	1.0072	1.0130	1.0029	1.0090	1.0096	1.0925
25th to 24th	a	1.0065	1.0167	1.0097	1.0004	1.0083	1.0089	1.0821
26th to 25th	a	1.0332	1.0050	1.0196	1.0045	1.0156	1.0082	1.0726
27th to 26th	b	1.0466	1.0771	1.0097	1.0236	1.0393	1.0393	1.0638
Beyond 27th	c	1.0553	1.0222	0.9933	1.0237	1.0236	1.0236	1.0236

**INCURRED METHOD**

Reports in Ratio		Calendar Years 12-13	Calendar Years 13-14	Calendar Years 14-15	Calendar Years 15-16	Unweighted Average	Fitted Value	Cumulative Average
2nd to 1st	c	1.1849	1.2411	1.2929	1.1994	1.2296	1.2270	2.0841
3rd to 2nd	c	1.1308	1.0854	1.1432	1.1516	1.1278	1.1253	1.6985
4th to 3rd	c	1.0672	1.0691	1.0433	1.0578	1.0594	1.0841	1.5094
5th to 4th	c	1.0527	1.1209	1.0654	1.0343	1.0683	1.0613	1.3923
6th to 5th	c	1.0358	1.0814	1.0597	1.0622	1.0598	1.0468	1.3119
7th to 6th	c	1.0396	1.0224	1.0443	1.0281	1.0336	1.0368	1.2532
8th to 7th	c	1.0117	1.0619	1.0289	1.0665	1.0423	1.0295	1.2088
9th to 8th	c	0.9937	1.0329	1.0080	1.0406	1.0188	1.0240	1.1741
10th to 9th	c	1.0220	1.0161	1.0268	1.0282	1.0233	1.0197	1.1466
11th to 10th	c	0.9769	1.0119	1.0346	1.0272	1.0127	1.0163	1.1244
12th to 11th	c	0.9936	1.0135	1.0121	1.0386	1.0145	1.0136	1.1064
13th to 12th	c	1.0208	0.9987	1.0215	1.0239	1.0162	1.0113	1.0916
14th to 13th	c	0.9926	0.9887	1.0231	1.0243	1.0072	1.0095	1.0794
15th to 14th	c	1.0145	0.9764	0.9916	1.0323	1.0037	1.0079	1.0692
16th to 15th	c	1.0111	0.9990	1.0184	1.0107	1.0098	1.0067	1.0608
17th to 16th	c	1.0210	1.0017	1.0029	0.9937	1.0048	1.0056	1.0538
18th to 17th	c	0.9968	0.9846	1.0036	1.0210	1.0015	1.0047	1.0479
19th to 18th	c	1.0116	0.9932	1.0200	1.0036	1.0071	1.0039	1.0430
20th to 19th	c	0.9801	0.9761	1.0026	0.9999	0.9897	1.0033	1.0389
21st to 20th	c	1.0014	1.0122	1.0058	1.0046	1.0060	1.0027	1.0355
22nd to 21st	c	0.9944	1.0034	1.0071	0.9885	0.9984	1.0022	1.0327
23rd to 22nd	c	0.9917	0.9838	1.0153	1.0001	0.9977	1.0019	1.0305
24th to 23rd	c	1.0027	1.0027	1.0040	1.0073	1.0042	1.0015	1.0285
25th to 24th	c	0.9995	1.0077	1.0115	0.9977	1.0041	1.0013	1.0270
26th to 25th	c	1.0281	0.9967	1.0122	1.0073	1.0111	1.0011	1.0256
27th to 26th	c	0.9757	1.0041	1.0039	1.0051	0.9972	1.0009	1.0245
Beyond 27th	c	1.0553	1.0222	0.9933	1.0237	1.0236	1.0236	1.0236

- a From Table I-E  
b 26th (Paid - Table I-E) to 27th (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	1.3966	0.3966	0.3966	1.3966
3rd to 2nd	1.1615	0.1615	0.1617	1.1617
4th to 3rd	1.0923	0.0923	0.0898	1.0898
5th to 4th	1.0596	0.0596	0.0663	1.0663
6th to 5th	1.0579	0.0579	0.0542	1.0542
7th to 6th	1.0486	0.0486	0.0463	1.0463
8th to 7th	1.0402	0.0402	0.0404	1.0404
9th to 8th	1.0327	0.0327	0.0357	1.0357
10th to 9th	1.0323	0.0323	0.0319	1.0319
11th to 10th	1.0356	0.0356	0.0287	1.0287
12th to 11th	1.0246	0.0246	0.0260	1.0260
13th to 12th	1.0301	0.0301	0.0236	1.0236
14th to 13th	1.0156	0.0156	0.0215	1.0215
15th to 14th	1.0165	0.0165	0.0197	1.0197
16th to 15th	1.0118	0.0118	0.0181	1.0181
17th to 16th	1.0156	0.0156	0.0166	1.0166
18th to 17th	1.0176	0.0176	0.0153	1.0153
19th to 18th	1.0163	0.0163	0.0141	1.0141
20th to 19th	1.0149	0.0149	0.0131	1.0131
21st to 20th	1.0068	0.0068	0.0121	1.0121
22nd to 21st	1.0107	0.0107	0.0112	1.0112
23rd to 22nd	1.0097	0.0097	0.0103	1.0103
24th to 23rd	1.0090	0.0090	0.0096	1.0096
25th to 24th	1.0083	0.0083	0.0089	1.0089
26th to 25th*	1.0156	0.0156	0.0082	1.0082
27th to 26th*	1.0393	0.0393	0.0393	1.0393

$$Y = a + b/x + c/x^2 + d/x^3 + e/x^4 + f/x^5$$

$$a = -0.009609 \quad b = 0.498032 \quad c = -1.430087 \quad d = 2.932843 \quad e = -1.182398 \quad f = -0.412184$$

\* 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	1.2296	0.2296	0.2270	1.2270
3rd to 2nd	1.1278	0.1278	0.1253	1.1253
4th to 3rd	1.0594	0.0594	0.0841	1.0841
5th to 4th	1.0683	0.0683	0.0613	1.0613
6th to 5th	1.0598	0.0598	0.0468	1.0468
7th to 6th	1.0336	0.0336	0.0368	1.0368
8th to 7th	1.0423	0.0423	0.0295	1.0295
9th to 8th	1.0188	0.0188	0.0240	1.0240
10th to 9th	1.0233	0.0233	0.0197	1.0197
11th to 10th	1.0127	0.0127	0.0163	1.0163
12th to 11th	1.0145	0.0145	0.0136	1.0136
13th to 12th	1.0162	0.0162	0.0113	1.0113
14th to 13th	1.0072	0.0072	0.0095	1.0095
15th to 14th	1.0037	0.0037	0.0079	1.0079
16th to 15th	1.0098	0.0098	0.0067	1.0067
17th to 16th	1.0048	0.0048	0.0056	1.0056
18th to 17th	1.0015	0.0015	0.0047	1.0047
19th to 18th	1.0071	0.0071	0.0039	1.0039
20th to 19th	0.9897	-0.0103	0.0033	1.0033
21st to 20th	1.0060	0.0060	0.0027	1.0027
22nd to 21st	0.9984	-0.0016	0.0022	1.0022
23rd to 22nd	0.9977	-0.0023	0.0019	1.0019
24th to 23rd	1.0042	0.0042	0.0015	1.0015
25th to 24th	1.0041	0.0041	0.0013	1.0013
26th to 25th	1.0111	0.0111	0.0011	1.0011
27th to 26th	0.9972	-0.0028	0.0009	1.0009
Beyond 27th+	1.0236	0.0236	0.0236	1.0236

$$Y = a + b \cdot \log(x) + c/x^{.5}$$

$$a = -0.213084 \quad b = 0.039182 \quad c = 0.440115$$

+ Selected four year average

# EXHIBIT VII - 1

## DETERMINATION OF TREND

### INDEMNITY

Policy Year	2009	2010	2011	2012	2013	2014	2015
Actual Loss Ratio	0.2609	0.2568	0.2546	0.2614	0.2925	0.2546	0.2384
Normalized Frequency	0.6100	0.6100	0.5718	0.5123	0.5353	0.4630	0.4928
Severity Loss Ratio	0.4277	0.4210	0.4453	0.5102	0.5465	0.5498	0.4838
<b>x</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>y</b>	0.4277	0.4210	0.4453	0.5102	0.5465	0.5498	0.4838

7 Point Exponential Regression:  $y = 0.410462 * 1.040379 ^ x$

Selected Annual Trend =

4.0%

Policy Year	Annual Trend Factor (1)	Trend Period # Years to 12/1/18 (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2012	1.0404	5.9167	1.2639	0.7372
2013	1.0404	4.9167	1.2149	0.7762
2014	1.0404	3.9167	1.1677	0.8172
2015	1.0404	2.9167	1.1224	0.8604

### Trended Loss Ratio

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2012	0.2614	0.9317	0.2435
2013	0.2925	0.9430	0.2758
2014	0.2546	0.9542	0.2429
2015	0.2384	0.9657	0.2302
Average			0.2481

# See Page 24 for column (4).



# EXHIBIT VII - 2

## DETERMINATION OF TREND

### MEDICAL

Policy Year	2009	2010	2011	2012	2013	2014	2015
Actual Loss Ratio	0.3934	0.4761	0.4352	0.4256	0.4933	0.4461	0.5472
Normalized Frequency	0.6100	0.6100	0.5718	0.5123	0.5353	0.4630	0.4928
Severity Loss Ratio	0.6449	0.7805	0.7611	0.8307	0.9216	0.9634	1.1104
<b>x</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>y</b>	0.6449	0.7805	0.7611	0.8307	0.9216	0.9634	1.1104

7 Point Exponential Regression:  $y = 0.615106 * 1.083386 ^ x$

Selected Annual Trend =

8.3%

Policy Year	Annual Trend Factor (1)	Trend Period # Years to 12/1/18 (2)	Severity Trend Factor (3) = (1)^(2)	Frequency Trend Factor (4) #
2012	1.0834	5.9167	1.6062	0.7372
2013	1.0834	4.9167	1.4826	0.7762
2014	1.0834	3.9167	1.3685	0.8172
2015	1.0834	2.9167	1.2631	0.8604

### Trended Loss Ratio

Policy Year	Actual Loss Ratio (5)	Combined Trend Factor (6) = (3)*(4)	Trended Loss Ratio (7) = (5)*(6)
2012	0.4256	1.1841	0.5040
2013	0.4933	1.1508	0.5677
2014	0.4461	1.1183	0.4989
2015	0.5472	1.0868	0.5947
Average			0.5413

# 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
2003	11.77	1.0000
2004	10.38	0.8819
2005	9.28	0.7884
2006	8.73	0.7417
2007	8.12	0.6899
2008	7.19	0.6109
2009	7.18	0.6100
2010	7.18	0.6100
2011	6.73	0.5718
2012	6.03	0.5123
2013	6.30	0.5353
2014	5.45	0.4630
2015	5.80	0.4928

Policy Year	2009	2010	2011	2012	2013	2014	2015
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.6100	0.6100	0.5718	0.5123	0.5353	0.4630	0.4928

7 Point (2009 - 2015) Exponential Regression:  $y = 0.645767 * 0.956075^x$

Annual Trend = **-4.4%**

Policy Year	2007	2008	2011	2012	2013	2014	2015
<b>x</b>	1	2	3	4	5	6	7
<b>y</b>	0.6899	0.6109	0.5718	0.5123	0.5353	0.4630	0.4928

7 Point (2007 - 2008, 2011 - 2015) Exponential Regression:  $y = 0.693214 * 0.943461^x$

Annual Trend = **-5.7%**

**Selected Annual Trend (Average of -4.4% and -5.7%) = -5.0%**

Policy Year	Annual Trend Factor (1)	# of Years to 12/1/18 (2)	Frequency Trend Factor (3) = (1)^(2)
2012	0.9498	5.9167	0.7372
2013	0.9498	4.9167	0.7762
2014	0.9498	3.9167	0.8172
2015	0.9498	2.9167	0.8604

TABLE I

## POLICY YEAR DATA ACCUMULATED TO END OF CALENDAR YEAR

## ACCUMULATED STANDARD EARNED PREMIUM

Policy Year Valued	As of 12/31/12	As of 12/31/13	Ratio to Prior Year	Policy Year Valued	As of 12/31/13	As of 12/31/14	Ratio to Prior Year
Prior				Prior			
to 1986	499,313,202	499,313,213	1.0000	to 1986	475,901,634	475,901,634	1.0000
1986	74,540,210	74,540,210	1.0000	1986	68,727,386	68,727,386	1.0000
1987	87,187,766	87,187,766	1.0000	1987	81,080,364	81,080,364	1.0000
1988	104,156,834	104,156,834	1.0000	1988	98,509,492	98,509,492	1.0000
1989	112,006,449	112,006,449	1.0000	1989	105,487,107	105,487,107	1.0000
1990	100,769,966	100,769,966	1.0000	1990	94,125,731	94,125,731	1.0000
1991	97,023,519	97,050,962	1.0003	1991	90,695,845	90,750,388	1.0006
1992	89,189,995	89,190,039	1.0000	1992	82,084,698	82,084,698	1.0000
1993	90,725,310	90,724,421	1.0000	1993	84,936,458	84,936,458	1.0000
1994	83,151,960	83,154,380	1.0000	1994	77,193,665	77,193,605	1.0000
1995	79,874,949	79,874,943	1.0000	1995	73,445,394	73,445,418	1.0000
1996	83,668,945	83,668,917	1.0000	1996	77,188,731	77,188,734	1.0000
1997	86,953,643	86,953,607	1.0000	1997	80,784,678	80,784,703	1.0000
1998	92,377,889	92,377,869	1.0000	1998	84,068,560	84,068,572	1.0000
1999	87,625,454	87,625,393	1.0000	1999	80,572,172	80,572,143	1.0000
2000	94,748,288	94,748,147	1.0000	2000	85,738,581	85,738,501	1.0000
2001	95,701,134	95,643,936	0.9994	2001	88,449,374	88,449,339	1.0000
2002	118,877,369	118,858,069	0.9998	2002	113,699,746	113,717,630	1.0002
2003	134,183,507	134,184,277	1.0000	2003	129,655,791	129,655,762	1.0000
2004	153,036,271	153,036,527	1.0000	2004	149,122,206	149,121,079	1.0000
2005	187,891,445	187,888,080	1.0000	2005	183,000,631	182,998,946	1.0000
2006	207,191,524	207,185,868	1.0000	2006	202,487,230	202,495,026	1.0000
2007	200,029,903	200,007,564	0.9999	2007	195,753,446	195,750,621	1.0000
2008	151,139,871	151,152,969	1.0001	2008	148,482,656	148,479,227	1.0000
2009	118,168,783	118,087,574	0.9993	2009	116,318,345	116,311,214	0.9999
2010	105,661,606	105,645,526	0.9998	2010	104,350,998	104,476,537	1.0012
2011	106,218,857	106,385,661	1.0016	2011	105,111,781	105,072,860	0.9996
2012	59,119,378	114,744,657	1.9409	2012	113,287,818	113,468,957	1.0016
2013		70,122,448		2013	69,315,160	132,994,694	1.9187
				2014		76,798,021	
Policy Year Valued	As of 12/31/14	As of 12/31/15	Ratio to Prior Year	Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year
Prior				Prior			
to 1986	490,822,657	490,822,657	1.0000	to 1986	490,822,657	490,822,657	1.0000
1986	73,474,543	73,474,543	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	99,948,026	1.0000	1990	99,948,026	99,948,026	1.0000
1991	95,894,161	95,915,069	1.0002	1991	95,915,069	95,933,003	1.0002
1992	87,086,900	87,086,900	1.0000	1992	87,086,900	87,086,967	1.0000
1993	87,798,462	87,798,462	1.0000	1993	87,798,462	87,798,462	1.0000
1994	82,320,327	82,320,327	1.0000	1994	82,320,327	82,331,367	1.0001
1995	78,691,448	78,691,441	1.0000	1995	78,691,441	78,691,441	1.0000
1996	82,677,008	82,676,981	1.0000	1996	82,676,981	82,676,970	1.0000
1997	83,865,046	83,865,017	1.0000	1997	83,865,017	83,865,012	1.0000
1998	86,444,463	86,444,445	1.0000	1998	86,444,445	86,444,449	1.0000
1999	80,901,980	80,901,994	1.0000	1999	80,901,994	80,901,977	1.0000
2000	89,557,141	89,557,126	1.0000	2000	89,557,126	89,557,124	1.0000
2001	90,799,185	90,805,701	1.0001	2001	90,805,701	90,806,330	1.0000
2002	114,272,115	114,271,524	1.0000	2002	114,271,524	114,271,531	1.0000
2003	129,612,918	129,614,075	1.0000	2003	129,494,762	129,494,810	1.0000
2004	153,025,541	153,025,932	1.0000	2004	152,871,327	152,871,385	1.0000
2005	187,890,751	187,894,404	1.0000	2005	187,799,467	187,799,312	1.0000
2006	207,236,689	207,243,922	1.0000	2006	206,582,739	206,582,882	1.0000
2007	200,003,004	200,008,027	1.0000	2007	199,464,717	199,461,360	1.0000
2008	151,148,083	151,154,105	1.0000	2008	149,416,538	149,417,895	1.0000
2009	118,011,756	118,689,735	1.0057	2009	117,158,714	117,158,752	1.0000
2010	106,031,849	106,242,328	1.0020	2010	105,094,206	105,086,397	0.9999
2011	106,569,572	106,335,247	0.9978	2011	105,462,999	105,492,262	1.0003
2012	115,223,852	115,576,402	1.0031	2012	114,609,213	114,622,483	1.0001
2013	135,120,835	136,119,967	1.0074	2013	135,289,131	135,182,833	0.9992
2014	78,165,318	147,276,890	1.8842	2014	146,603,738	148,439,581	1.0125
2015		79,473,287		2015	79,461,959	147,359,751	1.8545
				2016		88,172,419	

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 12/31/12	As of 12/31/13	Ratio to Prior Year	Policy Year Valued	As of 12/31/13	As of 12/31/14	Ratio to Prior Year
Prior				Prior			
to 1986	266,264,008	266,758,240	1.0019	to 1986	256,189,020	256,118,171	0.9997
1986	37,210,762	36,886,275	0.9913	1986	34,299,613	34,371,297	1.0021
1987	46,854,568	47,000,182	1.0031	1987	43,529,819	43,582,993	1.0012
1988	44,703,010	44,813,846	1.0025	1988	42,758,172	42,682,360	0.9982
1989	51,400,917	51,522,530	1.0024	1989	49,983,507	50,063,922	1.0016
1990	54,515,982	54,293,917	0.9959	1990	50,134,256	50,145,679	1.0002
1991	52,029,312	51,811,360	0.9958	1991	48,162,019	48,097,801	0.9987
1992	47,420,639	47,351,996	0.9986	1992	43,969,779	43,992,091	1.0005
1993	56,042,514	55,327,629	0.9872	1993	52,319,420	52,550,771	1.0044
1994	44,098,339	45,114,792	1.0230	1994	40,880,497	40,175,253	0.9827
1995	47,458,844	47,352,800	0.9978	1995	43,853,617	43,697,899	0.9964
1996	61,005,698	61,759,779	1.0124	1996	58,127,018	57,567,472	0.9904
1997	57,138,013	57,489,359	1.0061	1997	54,213,262	54,199,651	0.9997
1998	51,691,392	51,944,522	1.0049	1998	47,976,263	47,945,046	0.9993
1999	63,005,461	62,620,545	0.9939	1999	55,570,395	54,861,391	0.9872
2000	85,655,950	87,313,942	1.0194	2000	78,903,914	78,566,444	0.9957
2001	70,395,710	70,266,590	0.9982	2001	60,044,466	60,056,690	1.0004
2002	75,103,254	74,260,745	0.9888	2002	70,783,822	71,155,799	1.0053
2003	82,977,943	84,231,347	1.0151	2003	80,629,186	82,037,187	1.0175
2004	84,018,086	84,082,302	1.0008	2004	81,143,064	82,156,462	1.0125
2005	89,377,208	90,186,248	1.0091	2005	86,112,488	87,658,921	1.0180
2006	88,191,367	91,373,016	1.0361	2006	89,434,715	92,803,143	1.0377
2007	88,680,258	91,581,452	1.0327	2007	87,744,116	90,204,028	1.0280
2008	79,703,466	83,939,391	1.0531	2008	80,546,243	85,416,397	1.0605
2009	81,541,006	86,682,424	1.0631	2009	85,377,226	93,461,651	1.0947
2010	75,835,724	89,112,618	1.1751	2010	85,098,746	90,584,998	1.0645
2011	65,664,765	80,258,527	1.2222	2011	78,992,300	86,160,235	1.0907
2012	16,795,430	54,675,782	3.2554	2012	54,015,655	68,767,443	1.2731
2013		19,861,811		2013	19,459,465	56,967,349	2.9275
				2014		20,092,711	

  

Policy Year Valued	As of 12/31/14	As of 12/31/15	Ratio to Prior Year	Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year
Prior				Prior			
to 1986	262,784,736	262,584,063	0.9992	to 1986	262,583,714	262,871,426	1.0011
1986	35,978,904	35,974,941	0.9999	1986	35,974,070	35,945,978	0.9992
1987	46,419,493	46,523,411	1.0022	1987	46,522,625	46,588,454	1.0014
1988	44,501,986	44,606,289	1.0023	1988	44,606,814	44,602,966	0.9999
1989	51,380,848	51,475,241	1.0018	1989	51,474,877	51,556,482	1.0016
1990	53,648,747	54,378,219	1.0136	1990	54,378,125	54,478,327	1.0018
1991	51,181,233	51,285,866	1.0020	1991	51,287,107	51,013,519	0.9947
1992	46,983,651	47,273,128	1.0062	1992	47,274,304	47,364,040	1.0019
1993	53,274,710	53,525,582	1.0047	1993	53,526,326	53,500,420	0.9995
1994	43,472,618	43,829,535	1.0082	1994	43,828,599	43,468,508	0.9918
1995	46,639,335	46,666,080	1.0006	1995	46,667,303	46,570,736	0.9979
1996	60,494,740	61,184,589	1.0114	1996	61,183,778	61,193,293	1.0002
1997	55,850,435	55,841,702	0.9998	1997	55,840,155	55,861,757	1.0004
1998	47,934,629	48,008,613	1.0015	1998	48,007,309	48,502,989	1.0103
1999	58,106,381	58,579,290	1.0081	1999	58,578,169	58,577,444	1.0000
2000	78,759,695	78,282,539	0.9939	2000	78,280,315	78,561,252	1.0036
2001	68,249,820	68,984,722	1.0108	2001	68,983,893	70,035,631	1.0152
2002	70,696,670	71,316,325	1.0088	2002	71,316,773	72,211,134	1.0125
2003	81,856,202	82,365,074	1.0062	2003	82,319,471	83,354,357	1.0126
2004	85,118,368	86,772,976	1.0194	2004	86,769,052	88,799,140	1.0234
2005	91,755,439	93,135,585	1.0150	2005	93,132,038	94,433,308	1.0140
2006	94,811,690	95,808,706	1.0105	2006	95,712,632	97,523,730	1.0189
2007	94,271,039	96,186,041	1.0203	2007	95,821,154	98,249,763	1.0253
2008	89,293,999	91,668,956	1.0266	2008	90,407,256	94,097,297	1.0408
2009	94,488,259	99,071,025	1.0485	2009	96,151,183	98,253,902	1.0219
2010	95,585,150	98,797,074	1.0336	2010	98,141,212	102,748,738	1.0469
2011	87,634,690	91,467,231	1.0437	2011	91,020,271	93,790,455	1.0304
2012	69,476,177	78,355,048	1.1278	2012	77,931,789	83,351,852	1.0695
2013	58,149,313	74,934,212	1.2887	2013	74,465,063	85,893,276	1.1535
2014	20,534,798	55,119,445	2.6842	2014	54,864,870	67,339,653	1.2274
2015		23,198,223		2015	23,198,189	66,705,826	2.8755
				2016		24,656,381	

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-HB175, pre-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 12/31/12	As of 12/31/13	Ratio to Prior Year	Policy Year Valued	As of 12/31/13	As of 12/31/14	Ratio to Prior Year
Prior				Prior			
to 1986	196,132,456	195,982,413	0.9992	to 1986	188,471,221	188,225,681	0.9987
1986	25,566,184	25,524,465	0.9984	1986	23,719,146	23,731,437	1.0005
1987	30,818,405	30,513,276	0.9901	1987	28,468,412	28,459,985	0.9997
1988	29,047,053	29,165,883	1.0041	1988	27,743,452	27,716,668	0.9990
1989	31,754,934	31,823,671	1.0022	1989	30,874,445	30,808,001	0.9978
1990	33,637,629	33,589,068	0.9986	1990	31,471,715	31,433,113	0.9988
1991	31,239,209	31,138,223	0.9968	1991	28,913,710	29,162,109	1.0086
1992	26,874,373	26,776,405	0.9964	1992	24,775,339	24,732,319	0.9983
1993	32,468,111	32,221,496	0.9924	1993	30,533,907	30,500,297	0.9989
1994	23,847,685	24,629,014	1.0328	1994	22,213,561	21,954,842	0.9884
1995	24,904,241	24,871,482	0.9987	1995	23,171,143	23,155,440	0.9993
1996	30,718,152	30,837,167	1.0039	1996	28,997,312	28,886,000	0.9962
1997	30,819,148	30,878,693	1.0019	1997	29,211,673	29,156,756	0.9981
1998	27,326,980	27,227,091	0.9963	1998	25,000,270	24,993,071	0.9997
1999	32,162,045	32,005,593	0.9951	1999	28,301,328	28,235,220	0.9977
2000	42,375,590	43,131,523	1.0178	2000	38,518,736	38,638,806	1.0031
2001	35,685,895	35,778,762	1.0026	2001	30,657,742	30,718,747	1.0020
2002	35,874,672	35,937,086	1.0017	2002	34,296,238	34,173,910	0.9964
2003	39,492,238	39,789,350	1.0075	2003	38,027,883	38,929,667	1.0237
2004	38,592,084	38,941,594	1.0091	2004	37,430,241	37,740,359	1.0083
2005	41,224,237	41,468,858	1.0059	2005	40,221,563	40,256,411	1.0009
2006	41,548,789	42,881,960	1.0321	2006	41,841,377	42,261,971	1.0101
2007	39,866,983	41,022,794	1.0290	2007	39,391,547	40,766,785	1.0349
2008	35,054,007	36,936,038	1.0537	2008	34,971,447	36,131,726	1.0332
2009	36,936,198	39,078,455	1.0580	2009	38,488,732	40,904,904	1.0628
2010	28,520,358	35,608,736	1.2485	2010	34,221,982	36,191,047	1.0575
2011	24,427,985	31,398,557	1.2854	2011	30,838,158	33,891,551	1.0990
2012	7,139,956	22,086,928	3.0934	2012	21,788,276	28,768,580	1.3204
2013		8,105,756		2013	7,944,988	24,115,779	3.0353
				2014		8,678,504	
Policy Year Valued	As of 12/31/14	As of 12/31/15	Ratio to Prior Year	Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year
Prior				Prior			
to 1986	192,583,382	192,568,780	0.9999	to 1986	192,568,780	192,682,099	1.0006
1986	24,643,786	24,625,574	0.9993	1986	24,625,574	24,589,805	0.9985
1987	30,168,487	30,135,100	0.9989	1987	30,135,100	30,104,317	0.9990
1988	29,003,725	29,047,813	1.0015	1988	29,047,813	29,018,939	0.9990
1989	31,640,745	31,494,044	0.9954	1989	31,494,044	31,474,674	0.9994
1990	33,164,716	33,657,980	1.0149	1990	33,657,980	33,606,375	0.9985
1991	31,012,642	31,036,407	1.0008	1991	31,036,407	30,809,322	0.9927
1992	26,528,445	26,504,425	0.9991	1992	26,504,425	26,441,781	0.9976
1993	30,272,673	30,360,540	1.0029	1993	30,360,540	30,331,752	0.9991
1994	23,504,701	23,745,710	1.0103	1994	23,745,710	23,616,533	0.9946
1995	24,650,213	24,619,767	0.9988	1995	24,619,767	24,421,175	0.9919
1996	30,366,259	30,454,217	1.0029	1996	30,454,217	30,466,990	1.0004
1997	30,095,064	29,993,001	0.9966	1997	29,993,001	29,922,577	0.9977
1998	25,237,510	25,245,596	1.0003	1998	25,245,596	25,263,186	1.0007
1999	29,734,057	29,684,320	0.9983	1999	29,684,320	29,865,918	1.0061
2000	39,027,997	38,885,692	0.9964	2000	38,885,692	38,744,654	0.9964
2001	34,842,686	34,804,788	0.9989	2001	34,804,788	34,751,719	0.9985
2002	33,922,994	33,750,646	0.9949	2002	33,750,646	33,730,928	0.9994
2003	38,901,165	38,890,760	0.9997	2003	38,875,467	38,872,294	0.9999
2004	39,255,405	39,321,121	1.0017	2004	39,321,121	39,519,389	1.0050
2005	41,503,706	41,538,566	1.0008	2005	41,538,566	41,435,228	0.9975
2006	43,346,576	43,930,838	1.0135	2006	43,868,285	44,219,299	1.0080
2007	42,398,414	42,815,757	1.0098	2007	42,584,108	42,850,116	1.0062
2008	38,320,224	38,434,823	1.0030	2008	37,788,201	37,976,718	1.0050
2009	41,284,545	42,692,891	1.0341	2009	41,167,909	41,726,944	1.0136
2010	38,048,628	37,497,727	0.9855	2010	37,258,735	38,078,910	1.0220
2011	34,519,636	36,052,524	1.0444	2011	35,944,927	36,827,314	1.0245
2012	29,100,363	32,198,396	1.1065	2012	32,080,465	34,848,701	1.0863
2013	24,587,617	31,542,747	1.2829	2013	31,463,549	36,373,343	1.1560
2014	8,876,765	21,005,457	2.3663	2014	20,951,501	26,665,181	1.2727
2015		6,662,339		2015	6,662,339	19,974,736	2.9982
				2016		7,812,761	

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-HB175, pre-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 12/31/12	As of 12/31/13	Ratio to Prior Year	Policy Year Valued	As of 12/31/13	As of 12/31/14	Ratio to Prior Year
Prior				Prior			
to 1986	70,131,552	70,775,827	1.0092	to 1986	67,717,799	67,892,490	1.0026
1986	11,644,578	11,361,810	0.9757	1986	10,580,467	10,639,860	1.0056
1987	16,036,163	16,486,906	1.0281	1987	15,061,407	15,123,008	1.0041
1988	15,655,957	15,647,963	0.9995	1988	15,014,720	14,965,692	0.9967
1989	19,645,983	19,698,859	1.0027	1989	19,109,062	19,255,921	1.0077
1990	20,878,353	20,704,849	0.9917	1990	18,662,541	18,712,566	1.0027
1991	20,790,103	20,673,137	0.9944	1991	19,248,309	18,935,692	0.9838
1992	20,546,266	20,575,591	1.0014	1992	19,194,440	19,259,772	1.0034
1993	23,574,403	23,106,133	0.9801	1993	21,785,513	22,050,474	1.0122
1994	20,250,654	20,485,778	1.0116	1994	18,666,936	18,220,411	0.9761
1995	22,554,603	22,481,318	0.9968	1995	20,682,474	20,542,459	0.9932
1996	30,287,546	30,922,612	1.0210	1996	29,129,706	28,681,472	0.9846
1997	26,318,865	26,610,666	1.0111	1997	25,001,589	25,042,895	1.0017
1998	24,364,412	24,717,431	1.0145	1998	22,975,993	22,951,975	0.9990
1999	30,843,416	30,614,952	0.9926	1999	27,269,067	26,626,171	0.9764
2000	43,280,360	44,182,419	1.0208	2000	40,385,178	39,927,638	0.9887
2001	34,709,815	34,487,828	0.9936	2001	29,386,724	29,347,943	0.9987
2002	39,228,582	38,323,659	0.9769	2002	36,497,584	36,931,899	1.0135
2003	43,485,705	44,441,997	1.0220	2003	42,601,303	43,107,520	1.0119
2004	45,426,002	45,140,708	0.9937	2004	43,712,823	44,416,103	1.0161
2005	48,152,971	48,717,390	1.0117	2005	45,890,925	47,402,510	1.0329
2006	46,642,578	48,491,056	1.0396	2006	47,593,338	50,541,172	1.0619
2007	48,813,275	50,558,658	1.0358	2007	48,352,569	49,437,243	1.0224
2008	44,649,459	47,003,353	1.0527	2008	45,574,801	49,284,671	1.0814
2009	44,604,808	47,603,969	1.0672	2009	46,888,494	52,556,747	1.1209
2010	47,315,366	53,503,882	1.1308	2010	50,876,764	54,393,951	1.0691
2011	41,236,780	48,859,970	1.1849	2011	48,154,142	52,268,684	1.0854
2012	9,655,474	32,588,854	3.3752	2012	32,227,879	39,998,863	1.2411
2013		11,756,055		2013	11,514,477	32,851,570	2.8531
				2014		11,414,207	

  

Policy Year Valued	As of 12/31/14	As of 12/31/15	Ratio to Prior Year	Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year
Prior				Prior			
to 1986	70,201,354	70,015,283	0.9973	to 1986	70,014,934	70,189,327	1.0025
1986	11,335,118	11,349,367	1.0013	1986	11,348,496	11,356,173	1.0007
1987	16,251,006	16,388,341	1.0085	1987	16,387,525	16,484,137	1.0059
1988	15,498,261	15,558,476	1.0039	1988	15,559,001	15,584,027	1.0016
1989	19,740,103	19,981,197	1.0122	1989	19,980,833	20,081,808	1.0051
1990	20,484,031	20,720,239	1.0115	1990	20,720,145	20,871,952	1.0073
1991	20,168,591	20,249,459	1.0040	1991	20,250,700	20,204,197	0.9977
1992	20,455,206	20,768,703	1.0153	1992	20,769,879	20,922,259	1.0073
1993	23,002,037	23,165,042	1.0071	1993	23,165,786	23,168,668	1.0001
1994	19,967,917	20,083,825	1.0058	1994	20,082,889	19,851,975	0.9885
1995	21,989,122	22,046,313	1.0026	1995	22,047,536	22,149,561	1.0046
1996	30,128,481	30,730,372	1.0200	1996	30,729,561	30,726,303	0.9999
1997	25,755,371	25,848,701	1.0036	1997	25,847,154	25,939,180	1.0036
1998	22,697,119	22,763,017	1.0029	1998	22,761,713	23,239,803	1.0210
1999	28,372,324	28,894,970	1.0184	1999	28,893,849	28,711,526	0.9937
2000	39,731,698	39,396,847	0.9916	2000	39,394,623	39,816,598	1.0107
2001	33,407,134	34,179,934	1.0231	2001	34,179,105	35,283,912	1.0323
2002	36,773,676	37,565,679	1.0215	2002	37,566,127	38,480,206	1.0243
2003	42,955,037	43,474,314	1.0121	2003	43,444,004	44,482,063	1.0239
2004	45,862,963	47,451,855	1.0346	2004	47,447,931	49,279,751	1.0386
2005	50,251,733	51,597,019	1.0268	2005	51,593,472	52,998,080	1.0272
2006	51,465,114	51,877,868	1.0080	2006	51,844,347	53,304,431	1.0282
2007	51,872,625	53,370,284	1.0289	2007	53,237,046	55,399,647	1.0406
2008	50,973,775	53,234,133	1.0443	2008	52,619,055	56,120,579	1.0665
2009	53,203,714	56,378,134	1.0597	2009	54,983,274	56,526,958	1.0281
2010	57,536,522	61,299,347	1.0654	2010	60,882,477	64,669,828	1.0622
2011	53,115,054	55,414,707	1.0433	2011	55,075,344	56,963,141	1.0343
2012	40,375,814	46,156,652	1.1432	2012	45,851,324	48,503,151	1.0578
2013	33,561,696	43,391,465	1.2929	2013	43,001,514	49,519,933	1.1516
2014	11,658,033	34,113,988	2.9262	2014	33,913,369	40,674,472	1.1994
2015		16,535,884		2015	16,535,850	46,731,090	2.8260
				2016		16,843,620	

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-HB175, pre-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 12/31/12	As of 12/31/13	Ratio to Prior Year	Policy Year Valued	As of 12/31/13	As of 12/31/14	Ratio to Prior Year
Prior				Prior			
to 1986	194,089,572	194,291,064	1.0010	to 1986	186,797,787	186,807,878	1.0001
1986	25,045,187	25,065,995	1.0008	1986	23,341,510	23,384,622	1.0018
1987	30,529,737	30,066,824	0.9848	1987	28,028,889	28,069,999	1.0015
1988	28,679,334	28,902,059	1.0078	1988	27,479,629	27,484,014	1.0002
1989	31,385,318	31,506,030	1.0038	1989	30,556,804	30,554,738	0.9999
1990	32,954,836	32,975,564	1.0006	1990	30,857,938	30,924,148	1.0021
1991	30,197,199	30,294,868	1.0032	1991	28,070,278	28,627,391	1.0198
1992	26,807,966	26,742,909	0.9976	1992	24,741,843	24,702,998	0.9984
1993	31,302,131	31,380,660	1.0025	1993	29,693,071	29,713,188	1.0007
1994	22,865,662	22,917,750	1.0023	1994	20,502,297	21,295,912	1.0387
1995	24,265,770	24,325,458	1.0025	1995	22,640,556	22,652,527	1.0005
1996	29,686,664	29,867,143	1.0061	1996	28,160,638	28,258,471	1.0035
1997	29,230,959	29,608,942	1.0129	1997	27,959,965	28,196,116	1.0084
1998	26,345,303	26,418,866	1.0028	1998	24,188,898	24,433,673	1.0101
1999	30,717,242	31,410,094	1.0226	1999	27,854,681	27,933,529	1.0028
2000	39,910,185	40,340,520	1.0108	2000	36,164,222	36,478,502	1.0087
2001	33,580,199	34,001,822	1.0126	2001	29,304,966	29,633,353	1.0112
2002	33,846,230	34,370,055	1.0155	2002	32,729,207	33,144,822	1.0127
2003	36,308,217	37,010,246	1.0193	2003	35,350,335	36,556,005	1.0341
2004	36,288,481	37,547,882	1.0347	2004	36,032,836	36,622,679	1.0164
2005	36,385,912	37,668,829	1.0353	2005	36,635,736	37,676,535	1.0284
2006	35,559,704	37,438,712	1.0528	2006	36,390,932	38,381,669	1.0547
2007	33,578,904	36,255,075	1.0797	2007	34,858,288	35,939,694	1.0310
2008	28,762,856	32,193,491	1.1193	2008	30,703,603	32,379,947	1.0546
2009	24,570,133	29,121,704	1.1852	2009	28,811,650	32,297,848	1.1210
2010	15,546,650	24,548,469	1.5790	2010	24,233,150	29,063,153	1.1993
2011	9,487,937	19,162,016	2.0196	2011	18,902,189	26,356,445	1.3944
2012	1,505,071	7,919,682	5.2620	2012	7,817,826	15,956,580	2.0411
2013		1,729,152		2013	1,705,951	10,137,892	5.9427
				2014		1,462,937	

  

Policy Year Valued	As of 12/31/14	As of 12/31/15	Ratio to Prior Year	Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year
Prior				Prior			
to 1986	191,043,107	191,201,440	1.0008	to 1986	191,201,440	191,411,698	1.0011
1986	24,203,120	24,257,046	1.0022	1986	24,257,046	24,296,816	1.0016
1987	29,764,001	29,788,711	1.0008	1987	29,788,711	29,770,168	0.9994
1988	28,769,685	28,900,329	1.0045	1988	28,900,329	28,911,436	1.0004
1989	31,372,060	31,272,647	0.9968	1989	31,272,647	31,274,906	1.0001
1990	32,650,666	32,739,226	1.0027	1990	32,739,226	32,786,333	1.0014
1991	30,467,924	30,590,285	1.0040	1991	30,590,285	30,487,457	0.9966
1992	26,500,795	26,427,845	0.9972	1992	26,427,845	26,380,525	0.9982
1993	29,477,819	29,627,306	1.0051	1993	29,627,306	29,649,966	1.0008
1994	22,845,771	22,903,123	1.0025	1994	22,903,123	23,110,377	1.0090
1995	24,131,863	24,168,647	1.0015	1995	24,168,647	24,160,965	0.9997
1996	29,612,319	29,717,640	1.0036	1996	29,717,640	29,802,922	1.0029
1997	29,202,168	29,293,955	1.0031	1997	29,293,955	29,260,902	0.9989
1998	24,054,336	24,846,779	1.0078	1998	24,846,779	24,908,812	1.0025
1999	29,303,782	29,361,110	1.0020	1999	29,361,110	29,675,561	1.0107
2000	37,105,696	37,359,648	1.0068	2000	37,359,648	37,445,404	1.0023
2001	33,245,650	33,544,938	1.0090	2001	33,544,938	33,721,850	1.0053
2002	33,149,713	33,442,031	1.0088	2002	33,442,031	33,479,842	1.0011
2003	36,654,500	36,930,321	1.0075	2003	36,915,028	37,184,363	1.0073
2004	38,137,725	38,423,480	1.0075	2004	38,423,480	38,588,764	1.0043
2005	38,729,503	39,441,588	1.0184	2005	39,441,588	40,578,106	1.0288
2006	39,429,449	41,047,665	1.0410	2006	40,985,112	41,913,458	1.0227
2007	37,408,806	38,150,779	1.0198	2007	37,919,130	39,357,798	1.0379
2008	33,942,366	35,297,234	1.0399	2008	34,650,612	35,322,768	1.0194
2009	32,615,731	35,543,414	1.0898	2009	34,464,518	36,492,210	1.0588
2010	30,379,657	33,026,286	1.0871	2010	32,787,294	34,481,955	1.0517
2011	26,769,523	31,142,813	1.1634	2011	31,066,216	32,727,413	1.0535
2012	16,081,712	23,266,578	1.4468	2012	23,148,647	28,580,744	1.2347
2013	10,228,367	18,802,942	1.8383	2013	18,723,744	25,879,943	1.3822
2014	1,480,003	8,457,917	5.7148	2014	8,405,827	16,337,903	1.9436
2015		1,788,691		2015	1,788,691	9,169,573	5.1264
				2016		1,386,181	

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-HB175, pre-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 12/31/12	As of 12/31/13	Ratio to Prior Year	Policy Year Valued	As of 12/31/13	As of 12/31/14	Ratio to Prior Year
Prior				Prior			
to 1986	65,992,065	66,851,885	1.0130	to 1986	63,767,461	64,379,268	1.0096
1986	10,855,468	10,988,680	1.0123	1986	10,259,661	10,294,227	1.0034
1987	14,776,982	15,268,223	1.0332	1987	14,040,508	14,198,308	1.0112
1988	15,334,975	15,435,250	1.0065	1988	14,863,241	14,938,101	1.0050
1989	18,796,851	19,040,454	1.0130	1989	18,449,735	18,757,160	1.0167
1990	18,901,988	19,144,161	1.0128	1990	17,625,479	17,751,845	1.0072
1991	19,541,562	19,709,337	1.0086	1991	18,300,459	18,451,790	1.0083
1992	20,136,346	20,300,490	1.0082	1992	18,919,338	19,139,701	1.0116
1993	21,213,890	21,522,839	1.0146	1993	20,280,319	20,453,819	1.0086
1994	18,125,225	18,331,723	1.0114	1994	16,510,178	16,911,289	1.0243
1995	19,974,382	20,525,465	1.0276	1995	18,749,874	19,014,491	1.0141
1996	25,426,278	26,044,103	1.0243	1996	24,716,079	25,162,890	1.0181
1997	23,028,325	23,424,878	1.0172	1997	22,317,471	22,822,128	1.0226
1998	22,545,831	22,785,495	1.0106	1998	21,168,520	21,267,951	1.0047
1999	27,475,845	27,811,387	1.0122	1999	24,598,185	24,711,948	1.0046
2000	36,466,686	37,462,448	1.0273	2000	34,255,399	34,997,227	1.0217
2001	28,698,952	29,367,949	1.0233	2001	25,466,041	26,005,906	1.0212
2002	32,729,754	33,869,497	1.0348	2002	32,014,392	33,071,322	1.0330
2003	35,099,118	36,494,736	1.0398	2003	35,065,144	36,185,700	1.0320
2004	38,536,147	39,507,808	1.0252	2004	38,069,592	39,112,068	1.0274
2005	38,785,617	40,282,277	1.0386	2005	38,767,169	39,881,535	1.0287
2006	37,706,122	39,454,395	1.0464	2006	38,818,303	40,585,627	1.0455
2007	40,089,833	41,961,336	1.0467	2007	40,519,384	41,963,904	1.0357
2008	36,709,975	40,041,705	1.0908	2008	38,803,114	40,865,385	1.0531
2009	36,795,046	40,435,174	1.0989	2009	39,983,598	42,279,761	1.0574
2010	36,839,909	42,949,985	1.1659	2010	41,590,669	45,949,544	1.1048
2011	28,702,939	38,857,277	1.3538	2011	38,468,845	42,793,593	1.1124
2012	4,548,276	23,691,030	5.2088	2012	23,489,899	32,024,419	1.3633
2013		5,229,946		2013	5,109,384	23,898,255	4.6773
				2014		4,364,034	
Policy Year Valued	As of 12/31/14	As of 12/31/15	Ratio to Prior Year	Policy Year Valued	As of 12/31/15	As of 12/31/16	Ratio to Prior Year
Prior				Prior			
to 1986	66,687,986	67,193,191	1.0076	to 1986	67,192,842	67,791,080	1.0089
1986	10,989,485	11,038,317	1.0044	1986	11,037,446	11,058,886	1.0019
1987	15,235,827	15,372,293	1.0090	1987	15,371,477	15,594,097	1.0145
1988	15,408,859	15,443,759	1.0023	1988	15,444,284	15,464,001	1.0013
1989	19,241,342	19,619,321	1.0196	1989	19,618,957	19,677,158	1.0030
1990	19,059,164	19,243,890	1.0097	1990	19,243,796	19,330,407	1.0045
1991	19,664,663	19,920,268	1.0130	1991	19,921,509	19,929,795	1.0004
1992	20,335,135	20,482,842	1.0073	1992	20,484,018	20,543,732	1.0029
1993	21,322,317	21,594,192	1.0128	1993	21,594,936	21,818,503	1.0104
1994	18,658,794	18,758,633	1.0054	1994	18,757,697	18,939,147	1.0097
1995	20,434,253	20,567,161	1.0065	1995	20,568,384	20,673,132	1.0051
1996	26,137,281	26,710,312	1.0219	1996	26,709,501	27,085,594	1.0141
1997	23,216,062	23,443,780	1.0098	1997	23,442,233	23,858,137	1.0177
1998	21,013,095	21,200,299	1.0089	1998	21,198,995	21,510,649	1.0147
1999	26,324,563	26,763,782	1.0167	1999	26,762,661	26,934,869	1.0064
2000	34,730,581	35,390,393	1.0190	2000	35,388,169	35,684,628	1.0084
2001	28,802,306	29,204,956	1.0140	2001	29,204,127	30,128,808	1.0317
2002	32,930,309	34,572,054	1.0499	2002	34,572,502	35,066,155	1.0143
2003	35,823,574	36,600,193	1.0217	2003	36,569,883	37,367,991	1.0218
2004	40,558,928	41,836,203	1.0315	2004	41,832,279	42,675,810	1.0202
2005	41,434,626	42,250,185	1.0197	2005	42,246,638	44,115,787	1.0442
2006	41,235,375	43,061,394	1.0443	2006	43,027,873	44,852,727	1.0424
2007	43,513,733	44,977,414	1.0336	2007	44,844,176	46,299,443	1.0325
2008	42,222,088	44,406,558	1.0517	2008	43,791,480	45,674,044	1.0430
2009	42,742,271	46,384,289	1.0852	2009	44,995,285	47,722,708	1.0606
2010	48,153,993	51,618,190	1.0719	2010	51,201,320	53,581,074	1.0465
2011	43,271,496	46,700,759	1.0792	2011	46,361,396	47,199,848	1.0181
2012	32,235,298	37,867,875	1.1747	2012	37,562,547	40,807,785	1.0864
2013	24,359,269	35,473,170	1.4562	2013	35,083,219	41,845,771	1.1928
2014	4,466,387	22,723,524	5.0877	2014	22,541,869	31,848,646	1.4129
2015		7,638,688		2015	7,638,654	29,887,525	3.9127
				2016		6,603,857	

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-HB175, pre-HB373 basis.



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

The experience used for classification relativities for the December 1, 2017 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, 2017 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, 2017 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, 2017 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, 2018 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 2014 to 2016 Market Profile Report Data

Manual Year	Premium at Manual Rates	Collected Premium (Excluding Constants)	Collectible Premium Ratio (2)/(3)
(1)	(2)	(3)	(4)
ALL INDUSTRIES			
2014	258,211,562	260,286,052	0.9920
2015	247,095,158	259,025,925	0.9539
2016	286,601,879	297,368,719	0.9638
TOTAL	791,908,599	816,680,696	0.9697
MANUFACTURING AND UTILITIES			
2014	34,335,697	31,534,717	1.0888
2015	33,641,793	30,869,674	1.0898
2016	35,919,716	32,826,790	1.0942
TOTAL	103,897,207	95,231,181	1.0910
CONTRACTING AND QUARRYING			
2014	50,143,592	47,541,230	1.0547
2015	48,303,173	46,969,170	1.0284
2016	57,816,413	55,135,715	1.0486
TOTAL	156,263,179	149,646,115	1.0442
OTHER INDUSTRIES			
2014	173,732,273	181,210,105	0.9587
2015	165,150,191	181,187,081	0.9115
2016	192,865,750	209,406,215	0.9210
TOTAL	531,748,213	571,803,400	0.9299

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

**EXHIBIT X**

**EXPECTED LOSS RATE FACTORS**

**CALCULATION OF EXPECTED LOSS RATE FACTORS**

Policy Year Beginning 12/1	Average Law Multiplier	Adjustment Factor	Loss Ratio Development Factor	Expense Allowance * 1 / (PLR/CPR)	Trend Factor	Product (2) * (3) * (4) * (5) * (6)	Expected Loss Rate Factor 1.0 / (7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b><u>Manufacturing and Utilities</u></b>							
2013	0.9236	1.0000	1.6885	1.8688	1.2960	3.7771	0.2648
2014	0.9614	1.0000	1.7518	1.8688	1.2139	3.8206	0.2617
2015	0.9849	1.0000	2.5313	1.8688	1.1375	5.2997	0.1887
<b><u>Contracting and Quarrying</u></b>							
2013	0.9236	1.0000	1.5963	1.7886	1.2960	3.4176	0.2926
2014	0.9614	1.0000	1.8923	1.7886	1.2139	3.9499	0.2532
2015	0.9849	1.0000	2.5263	1.7886	1.1375	5.0622	0.1975
<b><u>Other Industries</u></b>							
2013	0.9236	1.0000	1.6005	1.5928	1.2960	3.0514	0.3277
2014	0.9614	1.0000	1.8439	1.5928	1.2139	3.4276	0.2917
2015	0.9849	1.0000	2.3951	1.5928	1.1375	4.2739	0.2340

\* Permissible Loss Ratio = 0.5838  
Collectible Premium Ratios  
Manufacturing = 1.0910  
Contracting = 1.0442  
All Other = 0.9299

# 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	58.38
Loss Adjustment Expense	12.18
Loss & Loss Adjustment	<u>70.56</u>
Premium Discount	8.38
Acquisition	7.77
General Expenses	3.26
Profit and Contingencies	1.08
Taxes	2.33
Uncollectible Premium	1.10
Workers' Compensation Fund	3.00
Administrative Assessment	<u>2.52</u>
	29.44

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:

$$E = 0.0373 = \frac{ACQ}{0.0777} + \frac{GEN}{0.0326} + \frac{PROFIT}{0.0108} - \frac{PREM DISC}{0.0838}$$

$$A = 0.0418 = 0.0431 \times \frac{1 - 0.0373 - 0.0643}{1 - 0.0099 - 0.0643}$$

Then

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

$$S = \text{Delaware Insurance Plan Subsidy} = 0.0255$$

$$T = \frac{0.0373 + 0.5838(1 + 0.2087 + 0.0418)}{0.0373 + 0.5838(1 + 0.2087)} \times \frac{1}{1 - 0.0643 - 0.0255} = 1.1347$$

## 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 =	0.5936
Second Adjustment	RDF =	0.4595
Third Adjustment	RDF =	0.3797

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:

$$\text{\$25,000 limit Hazard Group C ELF} = 0.651$$

$$\text{First Adjustment RDF} = (1 - 0.651) \times 0.5936 = 0.2072$$

\* The use of retrospective development factors is optional.