# DELAWARE COMPENSATION RATING BUREAU, INC. 

Indicated Residual Market Rate Change

Page 1 presents the overall indicated changes in rates and loss costs.
Derivation of the indemnity and medical trend factors and trended loss ratios shown on page 1 is presented on pages 2 and 3 .

Page 4 shows the derivation of overall frequency trend factors for each of the latest four policy years.

Due to the impact of Senate Bill 1 and consistent with an adjustment to medical severity trend that was a part of the compromise reached with the Insurance Department for the 2009 Filing, medical severity trend is separated between pre-Senate Bill 1 and Post Senate Bill 1 trends. The difference between the two trend rates is a reduction of 1.5 points in medical trend attributed in the resolution of the 2009 filing to effects of the implementation of a medical fee schedule which was substantially operational beginning $9 / 1 / 2008$. The original adjustment to medical trend was a reduction of 1.8 points; however, certain provisions of Senate Bill 1 were not able to be implemented as initially intended, reducing the estimated impact to 1.5 points as noted above. Senate Bill 238 corrected for those unimplemented provisions of Senate Bill 1 and restored the adjustment to medical trend to a 1.8 point reduction effective January 31, 2013.

In addition, for this filing staff is also taking into account the impact of savings attributable to Senate Bill 238 and House Bill 175.
(1a) Policy Year 2008 Loss and Loss Adjustment Expense Ratio
(1b) Policy Year 2009 Loss and Loss Adjustment Expense Ratio
(1c) Policy Year 2010 Loss and Loss Adjustment Expense Ratio
(1d) Policy Year 2011 Loss and Loss Adjustment Expense Ratio
(1e) Average (Midpoint $=7 / 1 / 2010$ )
(2a) Policy Year 2008 Loss and LAE Ratio Trended to 12/1/2014
(2b) Policy Year 2009 Loss and LAE Ratio Trended to 12/1/2014
(2c) Policy Year 2010 Loss and LAE Ratio Trended to 12/1/2014
(2d) Policy Year 2011 Loss and LAE Ratio Trended to 12/1/2014
(2e) Average at 12/1/2014
(3ai) Senate Bill 1 Adjustment
(3aii) Senate Bill 238 Adjustment
(3aiii) House Bill 175 Adjustment
(3a) Combined Legislative Adjustment
(3b) Average Trended Loss and LAE Ratio Legislation (2e)*(3a)
(4a) Excess Loss Factor at \$1,919,854 (Post-Legislative Basis) *
(4b) Provision for Excess Loss (5a)-(3b)
(5a) Total Trended Loss and LAE Ratio (3b)/(1.0-(4a))
(5b) Percentage of Total
$0.2754 \quad 0.6924 \quad 0.9678$
(6) Permissible Loss and Loss Adjustment Ratio
(7) Indicated Change in Rates (5a) / (6)
(8) Estimated Effect of the 7/1/14 Benefit Change
(9) Indicated Change in Residual Market Rate Level (7) * (8)

| Indemnity | Medical | Total |
| :---: | :---: | :---: |
| 0.2544 | 0.4603 | 0.7147 |
| 0.2732 | 0.5157 | 0.7889 |
| 0.2599 | 0.6351 | 0.8950 |
| 0.3172 | 0.7176 | 1.0348 |
| 0.2762 | 0.5822 | 0.8584 |
| 0.2447 | 0.6736 |  |
| 0.2645 | 0.7071 |  |
| 0.2532 | 0.8158 |  |
| 0.3111 | 0.8636 |  |
| 0.2684 | 0.7650 | 1.0334 |
| 1.0000 | 0.8260 |  |
| 1.0000 | 0.9958 |  |
| 1.0000 | 0.9289 |  |
| 1.0000 | 0.7640 |  |
| 0.2684 | 0.5845 | 0.8529 |
|  |  | 0.1187 |
|  |  | 0.1149 |
| 0.2754 | 0.6924 | 0.9678 |
| 28.46\% | 71.54\% |  |

1.3808
1.0032
(9a) Factor to Adjust for Compromise With Insurance Department 0.8042
$\begin{array}{ll}\text { (9b) Change in Residual Market Rate Level to Reflect Compromise (9) * (9a) } & 1.114\end{array}$
(10) Indicated Change in Voluntary Market Loss Costs (9) * $[0.7239$ / 0.7074] 1.4175
(10a) Factor to Adjust for Compromise With Insurance Department 0.8042
$\begin{array}{ll}\text { (10b) Change in Voluntary Market Loss Cost Level to Reflect Compromise (10) * (10a) } & 1.140\end{array}$

## CHANGES IN MANUAL PREMIUM LEVEL BY INDUSTRY GROUP

(12) Proposed Collectible Premium Ratio
(13) Change in Collectible Premium Ratio (12) / (11)
(14) Change in Residual Market Manual Rate Level (9b) * (13)
(15) Change in Voluntary Market Manual Loss Cost Level (10b) * (13)
(16) Current Offset for Residual Market Surcharge
0.9910
(17) Proposed Offset for Residual Market Surcharge
$\begin{array}{lllllll}\text { (18) Adjusted Change in Voluntary Market Manual Loss Cost Level } & 1.2000 & 1.1499 & 1.1475 & 1.1548\end{array}$ (15) * (17)/(16)

[^0]
## DETERMINATION OF TREND

## INDEMNITY

Policy Year
Actual Loss Ratio
Normalized Frequency
Severity Loss Ratio

|  | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 0.3059 | 0.2954 | 0.2846 | 0.2544 | 0.2732 | 0.2599 | 0.3172 |
|  | 0.6041 | 0.5686 | 0.5276 | 0.4692 | 0.4719 | 0.4714 | 0.4354 |
|  | 0.5064 | 0.5195 | 0.5394 | 0.5422 | 0.5789 | 0.5513 | 0.7285 |
| $\mathbf{x}$ | 1 |  |  | 3 | 4 | 5 | 6 |
| $\mathbf{y}$ | 0.5064 | 0.5195 | 0.5394 | 0.5422 | 0.5789 | 0.5513 | 0.7285 |

7 Point Exponential Regression: $y=0.468731$ * $1.046793^{\wedge} x$
Selected Annual Trend Factor to 12/1/14
4.7\%

| Policy <br> Year | Annual <br> Trend | Trend Period <br> \# Years | Severity <br> Trend Factor <br> $(3)=(1)^{\wedge}(2)$ | Frequency <br> Trend Factor <br> $(4) ~ \# ~$ |
| :---: | :---: | :---: | :---: | :---: |
| 2008 |  | $(2)$ |  |  |
| 2009 | 1.047 | 5.9167 | 1.3107 | 0.7337 |
| 2010 | 1.047 | 4.9167 | 1.2521 | 0.7731 |
| 2011 | 1.047 | 2.9167 | 1.1962 | 0.8146 |
|  | 1.047 |  | 1.1427 | 0.8584 |

## Trended Loss Ratio

| Policy <br> Year | Actual Loss <br> Ratio <br> $(5)$ | Combined <br> Trend Factor <br> $(6)=(3)^{*}(4)$ | Trended <br> Loss Ratio <br> $(7)=(5)^{*}(6)$ |
| :---: | :---: | :---: | :---: |
|  |  | 0.2544 | 0.9617 |
| 2008 | 0.2732 | 0.9680 | 0.2447 |
| 2009 | 0.2599 | 0.9744 | 0.2645 |
| 2010 | 0.3172 | 0.9809 | 0.2532 |
| 2011 |  |  | 0.3111 |
| Average |  |  | 0.2684 |

\# See Page 12.4 for column (4).

## DETERMINATION OF TREND



Trended Loss Ratio

| Policy |  |
| :---: | :---: |
| Year | Actual Loss <br> Ratio |
|  | $(8)$ |
| 2008 |  |
| 2009 | 0.4603 |
| 2010 | 0.5157 |
| 2011 | 0.6351 |
|  | 0.7176 |

Average
Combined
Trend Factor

$(9)=(3)^{\star}(6)^{\star}(7)$ | Trended |
| :---: |
| Loss Ratio |
| $(10)=(8)^{\star}(9)$ |
| 1.4635 |$\quad 0.6736$

\# See Page 12.4 for column (7).

## DETERMINATION OF TREND

## Claim Frequency

Policy Year Frequency per $\$ 1$ million of Expected Losses
\{1 = PY 1999, 13 = PY 2011 $\}$

|  | Policy Year |  | Claim Frequency |  | Normalized Frequency |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1999 |  | 18.31 |  | 1.0000 |  |  |
|  | 2000 |  | 16.60 |  | 0.9066 |  |  |
|  | 2001 |  | 14.47 |  | 0.7903 |  |  |
|  | 2002 |  | 14.66 |  | 0.8007 |  |  |
|  | 2003 |  | 14.03 |  | 0.7663 |  |  |
|  | 2004 |  | 12.36 |  | 0.6751 |  |  |
|  | 2005 |  | 11.06 |  | 0.6041 |  |  |
|  | 2006 |  | 10.41 |  | 0.5686 |  |  |
|  | 2007 |  | 9.66 |  | 0.5276 |  |  |
|  | 2008 |  | 8.59 |  | 0.4692 |  |  |
|  | 2009 |  | 8.64 |  | 0.4719 |  |  |
|  | 2010 |  | 8.63 |  | 0.4714 |  |  |
|  | 2011 |  | 7.97 |  | 0.4354 |  |  |
| Policy Year | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
| $\mathbf{x}$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| y | 0.6041 | 0.5686 | 0.5276 | 0.4692 | 0.4719 | 0.4714 | 0.4354 |

7 Point (2005-2011) Exponential Regression: $\mathbf{y}=0.621412$ * $0.94889039{ }^{\wedge} \mathbf{x}$

| Policy Year | Frequency |  | Frequency |
| :---: | :---: | :---: | :---: |
|  | Trend | \# of Years | Trend |
|  | Factor | to $12 / 1 / 13$ | to 12/1/13 |
|  | (1) | (2) | (3) $=(1)^{\wedge}(2)$ |
| 2008 | 0.9490 | 5.9167 | 0.7337 |
| 2009 | 0.9490 | 4.9167 | 0.7731 |
| 2010 | 0.9490 | 3.9167 | 0.8146 |
| 2011 | 0.9490 | 2.9167 | 0.8584 |


[^0]:    * $\$ 2,630,000$ on a Pre-Legislative basis.

