

DELAWARE COMPENSATION RATING BUREAU, INC.

Excess Loss Ratios and Loss Limitations

Page 1 shows a history of loss limits consistent with an excess loss ratio of 0.0757 for excess loss factor revisions since 1981, the 0.0757 ratio corresponding to a loss limit of \$1,500,000 effective with the December 1, 2004 filing when a limited loss approach was first introduced. An exponential curve fit to the loss limitations from 1981 to 2004 showed an average annual change of 6.27% in loss limits which is applicable to policy year December 1, 2004 and prior.

After review of recent changes in loss limitations, an average annual change of 7.45% was selected for policy periods after December 1, 2004.

Page 2 shows the calculation of loss limits by policy year tied to a limit of \$3,550,000 for policies effective during the twelve months beginning December 1, 2016 and with the underlying annual changes in the loss limit as described above.

All calculations on pages 1 and 2 are made on a pre-Senate Bill 1 basis and indicate that a loss limit of \$3,550,000 is appropriate for the policy period beginning December 1, 2016.

The DCRB developed overall empirical distributions using Delaware data with losses adjusted to both pre-Senate Bill 1 and post-House Bill 373 bases. A comparison of these distributions indicated that a pre-Senate Bill 1 loss limit of \$3,550,000 produced an excess loss factor comparable to a post-House Bill 373 loss limit of \$1,799,204.

Page 3 shows the calculation of the excess loss ratio consistent with a loss limitation (post-House Bill 373) of \$1,799,204 per claim in the current filing. Excess ratios, prior to adjustments for expense and risk load, are weighted with standard premiums by hazard group to get an average excess ratio of 0.1136.

**Delaware December 1, 2016 Rate & Loss Cost Filing
Loss Limitations for Excess Loss Factor = .0757
All Losses at Pre-Senate Bill 1 Levels**

Applicable to policy years beginning 12/1/2004 and Earlier

Effective Date	Time (t)	Loss Limit at ELF = 0.0757
3/1/1981	1.0000	204,563
2/1/1988	7.9167	457,840
8/1/1994	14.4167	841,596
8/1/1997	17.4167	852,441
10/1/1998	18.5833	650,000
12/1/1999	19.7500	655,000
3/1/2001	21.0000	681,000
12/1/2001	21.7500	685,000
12/1/2002	22.7500	781,000
12/1/2003	23.7500	1,081,000
12/1/2004	24.7500	1,500,000

Annual Trend = .0627

Applicable to Policy Years after 12/1/2004

Effective Date	Time (t)	Loss Limit at ELF = 0.0757	Ratio to \$1.5M	Annual Change from \$1.5M
12/1/2004	1.0000	1,500,000		
12/1/2005	2.0000	2,116,000	1.4107	1.4107
12/1/2006	3.0000	2,824,000	1.8827	1.3721
12/1/2007	4.0000	3,465,000	2.3100	1.3219
12/1/2008	5.0000	3,553,800	2.3692	1.2407
12/1/2009	6.0000	2,578,707	1.7191	1.1145
12/1/2010	7.0000	2,081,258	1.3875	1.0561
12/1/2011	8.0000	2,085,950	1.3906	1.0482
12/1/2012	9.0000	2,525,405	1.6836	1.0673
12/1/2013	10.0000	2,799,040	1.8660	1.0718
12/1/2014	11.0000	3,450,669	2.3004	1.0869
12/1/2015	12.0000	3,459,809	2.3065	1.0789

Average of latest 5 years (12/1/2011, 12/1/2012, 12/1/2013, 12/1/2014, 12/1/2015)
2,864,175= (2,085,950 + 2,525,405 + 2,799,040 + 3,450,669 + 3,459,809) / 5

Annual Trend from 12/1/2004 to 12/1/2013
= (2,864,175 / 1,500,000) ^ (1/9) = 1.0745

Annual Trend = .0745

Delaware December 1, 2016 Rate & Loss Cost Filing
Calculation of Policy Year Loss Limitations
All Losses at Pre-Senate Bill 1 Levels

Policy Year * (1)	Midpoint (2)	Time (t) (3)	Trend period To/From 12/1/2005 (4)	Annual Trend + (5)	Trend Factor (6) = [1+(5)]^(4)	Loss Limit (7) = (6) * 1,500,000
1983	01/01/84	1.0000	-21.9167	0.0627	0.263733	395,600
1984	01/01/85	2.0000	-20.9167	0.0627	0.280269	420,404
1985	01/01/86	3.0000	-19.9167	0.0627	0.297842	446,763
1986	01/01/87	4.0000	-18.9167	0.0627	0.316517	474,776
1987	01/01/88	5.0000	-17.9167	0.0627	0.336363	504,544
1988	01/01/89	6.0000	-16.9167	0.0627	0.357453	536,179
1989	01/01/90	7.0000	-15.9167	0.0627	0.379865	569,797
1990	01/01/91	8.0000	-14.9167	0.0627	0.403682	605,524
1991	01/01/92	9.0000	-13.9167	0.0627	0.428993	643,490
1992	01/01/93	10.0000	-12.9167	0.0627	0.455891	683,837
1993	01/01/94	11.0000	-11.9167	0.0627	0.484476	726,713
1994	01/01/95	12.0000	-10.9167	0.0627	0.514852	772,278
1995	01/01/96	13.0000	-9.9167	0.0627	0.547133	820,700
1996	01/01/97	14.0000	-8.9167	0.0627	0.581439	872,158
1997	01/01/98	15.0000	-7.9167	0.0627	0.617895	926,842
1998	01/01/99	16.0000	-6.9167	0.0627	0.656637	984,955
1999	01/01/00	17.0000	-5.9167	0.0627	0.697808	1,046,712
2000	01/01/01	18.0000	-4.9167	0.0627	0.741561	1,112,341
2001	01/01/02	19.0000	-3.9167	0.0627	0.788056	1,182,085
2002	01/01/03	20.0000	-2.9167	0.0627	0.837468	1,256,201
2003	01/01/04	21.0000	-1.9167	0.0627	0.889977	1,334,965
2004	01/01/05	22.0000	-0.9167	0.0627	0.945778	1,418,667
12/01/04	12/01/05	22.9167	0.0000	-	1.000000	1,500,000
2005	01/01/06	23.0000	0.0833	0.0745	1.006004	1,509,005
2006	01/01/07	24.0000	1.0833	0.0745	1.080951	1,621,426
2007	01/01/08	25.0000	2.0833	0.0745	1.161482	1,742,222
2008	01/01/09	26.0000	3.0833	0.0745	1.248012	1,872,018
2009	01/01/10	27.0000	4.0833	0.0745	1.340989	2,011,483
2010	01/01/11	28.0000	5.0833	0.0745	1.440893	2,161,339
2011	01/01/12	29.0000	6.0833	0.0745	1.548239	2,322,359
2012	01/01/13	30.0000	7.0833	0.0745	1.663583	2,495,374
2013	01/01/14	31.0000	8.0833	0.0745	1.787520	2,681,280
2014	01/01/15	32.0000	9.0833	0.0745	1.920690	2,881,035
2015	01/01/16	33.0000	10.0833	0.0745	2.063781	3,095,672
12/01/16	12/01/17	34.9167	12.0000	0.0745	2.368520	3,552,780
						3,550,000 (Selected)

* Beginning 1/1/XX unless otherwise noted.

+ See page 1.

Delaware December 1, 2016 Rate & Loss Cost Filing
Average Excess Ratio for Losses Limited at \$1,799,204 #
(Post-House Bill 373 Basis)

Hazard Group	Standard Earned Premium	Average Excess Ratio \$1,799,204 #
A	33,498,501	0.0333
B	92,722,659	0.0804
C	246,575,318	0.0840
D	63,585,657	0.1213
E	129,576,304	0.1500
F	69,935,645	0.1997
G	16,266,165	0.2257
TOTAL	652,160,249	0.1136

\$1,799,204 represents a loss limit on a post-House Bill 373 basis consistent with a pre-Senate Bill 1 loss limit of \$3,550,000.