

DELAWARE COMPENSATION RATING BUREAU, INC.

Loss Development Triangles – Limited Losses

Pages 1 through 3 of this exhibit display indemnity triangles for incurred and paid loss development factors and the ratios of incurred to paid losses. Reported indemnity losses are not adjusted as there are no reforms impacting these losses.

Pages 4 through 6 of this exhibit display medical triangles on a post-House Bill 373 basis for incurred and paid loss development factors and the ratios of incurred to paid losses.

The number of diagonals shown in this exhibit are limited due to the change from a pre-Senate Bill 1 basis to a post-House Bill 373 basis in the rate and loss cost filing effective December 1, 2017.

Policy Year	INDEMNITY INCURRED																													
	1/2	2/3	3/4	4/5	5/6	6/7	7/8	8/9	9/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	
1986																										1.0008	0.9984	1.0005	0.9993	0.9939
1987																									1.0001	0.9901	0.9997	0.9990	0.9989	1.0068
1988																														
1989																								1.0009	1.0041	0.9990	1.0017	0.9988	0.9994	0.9996
1990																														
1991																						0.9993								
1992																							0.9987	1.0022	0.9978	0.9954	0.9993	0.9976	0.9999	1.0013
1993																							0.9986	0.9988	1.0149	0.9987	1.0029	1.0010	0.9993	1.0006
1994																														
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2023																														
AVERAGES																														20th to ULT
	3 Year	1.4009	1.1653	1.0740	1.0271	1.0225	1.0081	1.0020	1.0039	0.9983	1.0042	1.0004	1.0004	1.0030	1.0001	0.9995	1.0044	1.0010	1.0013	1.0007	1.0001	1.0001	1.0002	1.0000	1.0001	1.0002	0.9999	0.9975	0.9995	0.9993
	4 Year	1.3868	1.1427	1.0716	1.0257	1.0157	1.0051	1.0052	1.0017	0.9990	1.0024	1.0013	1.0004	1.0018	1.0008	0.9996	1.0039	1.0013	1.0015	1.0011	0.9999	0.9998	1.0001	0.9999	1.0000	0.9998	0.9995	0.9979	0.9996	0.9995
	5 Year	1.3803	1.1411	1.0647	1.0223	1.0141	1.0055	1.0047	1.0022	0.9991	1.0027	1.0012	1.0004	1.0028	1.0006	0.9991	1.0027	1.0011	1.0007	1.0006	1.0003	0.9999	1.0002	1.0000	1.0001	0.9999	0.9987	0.9983	0.9997	0.9994
	8 Year	1.3720	1.1307	1.0596	1.0257	1.0129	1.0104	1.0059	1.0065	1.0037	1.0028	1.0022	1.0009	1.0031	1.0008	0.9986	1.0019	1.0004	1.0000	1.0004	1.0002	0.9991	1.0001	1.0003	1.0002	0.9999	0.9990	0.9988	0.9996	0.9998
	All Available	1.3511	1.1408	1.0564	1.0270	1.0174	1.0163	1.0081	1.0071	1.0040	1.0036	1.0015	1.0033	1.0018	0.9999	0.9988	1.0015	0.9983	1.0032	0.9985	0.9998	0.9989	1.0005	1.0002	1.0009	0.9986	0.9995	0.9988	0.9995	0.9999
	Last Year Selected	1.3567	1.1383	1.0534	1.0215	1.0094	1.0047	1.0028	1.0020	1.0016	1.0013	1.0012	1.0011	1.0010	1.0009	1.0009	1.0008	1.0008	1.0007	1.0007										0.9988
	Last Year Cumulative	1.7101	1.2605	1.1073	1.0512	1.0291	1.0195	1.0147	1.0119	1.0099	1.0082	1.0069	1.0057	1.0046	1.0036	1.0027	1.0018	1.0010	1.0002	0.9995										0.9988
	Selected*	1.3852	1.1518	1.0597	1.0249	1.0115	1.0063	1.0041	1.0031	1.0026	1.0023	1.0021	1.0019	1.0018	1.0017	1.0016	1.0016	1.0015	1.0015	1.0014										0.9990
	Cumulative	1.8106	1.3071	1.1348	1.0709	1.0449	1.0330	1.0265	1.0223	1.0192	1.0165	1.0142	1.0121	1.0102	1.0083	1.0066	1.0050	1.0034	1.0019	1.0004										0.9990

*Y = a+b*log(x)/x^2+c*exp(-x)
a = 0.000971 b = 0.054924 c = 1.044355

Policy Year	INDEMNITY PAID																																	
	1/2	2/3	3/4	4/5	5/6	6/7	7/8	8/9	9/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30					
1986																									1.0024	1.0008	1.0018	1.0022	0.9988					
1987																								1.0001	0.9848	1.0015	1.0008	0.9985	1.0056					
1988																								1.0019	1.0078	1.0002	1.0045	1.0003	0.9998	1.0000				
1989																						0.9997	1.0038	0.9999	0.9968	1.0000	0.9965	0.9997	1.0003					
1990																					1.0017	1.0006	1.0021	1.0027	1.0012	1.0011	1.0015	1.0009	1.0019					
1991																				1.0055	1.0032	1.0198	1.0040	1.0006	1.0010	0.9996	0.9995	0.9988	0.9990					
1992																			1.0062	0.9976	0.9984	0.9973	0.9985	0.9993	0.9991	0.9982	0.9999	1.0000	0.9999					
1993																				1.0063	1.0025	1.0007	1.0051	1.0011	1.0034	1.0022	1.0014	1.0029	1.0012	1.0006	1.0000			
1994																					1.0023	1.0387	1.0025	1.0090	1.0011	1.0039	1.0021	1.0029	1.0017	1.0008	1.0000	0.9999		
1995																					1.0021	1.0025	1.0005	1.0015	1.0002	1.0008	1.0011	1.0011	1.0013	1.0005	0.9995	0.9974	0.9991	0.9971
1996																						1.0025	1.0036	1.0030	1.0016	1.0010	1.0012	1.0001	1.0035	1.0001	0.9991	0.9995	0.9996	
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AVERAGES																																		
3 Year	1.9478	1.3640	1.1828	1.0833	1.0357	1.0282	1.0132	1.0137	1.0052	1.0050	1.0042	1.0018	1.0057	1.0046	1.0024	1.0073	1.0026	1.0007	1.0036	1.0007	1.0003	1.0009	1.0014	1.0005	1.0002	1.0000	0.9992	0.9996	0.9990	20th to ULT				
4 Year	1.9199	1.3744	1.1826	1.0793	1.0342	1.0258	1.0158	1.0129	1.0064	1.0042	1.0044	1.0029	1.0045	1.0048	1.0024	1.0064	1.0037	1.0011	1.0031	1.0008	1.0003	1.0006	1.0012	1.0005	1.0002	0.9999	0.9996	0.9998	0.9992					
5 Year	1.9228	1.3865	1.1753	1.0812	1.0367	1.0243	1.0154	1.0139	1.0072	1.0063	1.0050	1.0041	1.0053	1.0044	1.0021	1.0054	1.0033	1.0008	1.0028	1.0014	1.0003	1.0007	1.0010	1.0011	1.0003	1.0002	0.9999	0.9999	0.9998	0.9992				
8 Year	1.9275	1.3860	1.1738	1.0787	1.0431	1.0295	1.0209	1.0166	1.0106	1.0111	1.0074	1.0051	1.0055	1.0045	1.0019	1.0042	1.0020	1.0015	1.0019	1.0013	1.0010	1.0017	1.0013	1.0014	1.0006	1.0002	1.0000	0.9998	0.9998					
All Available	1.9513	1.4151	1.1849	1.0880	1.0536	1.0370	1.0281	1.0226	1.0132	1.0143	1.0081	1.0068	1.0075	1.0048	1.0036	1.0058	1.0026	1.0022	1.0051	1.0013	1.0019	1.0024	1.0017	1.0015	0.9994	1.0008	1.0000	0.9999	1.0003					
Last Year Selected	1.9207	1.3854	1.1582	1.0702	1.0355	1.0210	1.0144	1.0111	1.0091	1.0079	1.0069	1.0062	1.0057	1.0052	1.0049	1.0045	1.0043	1.0040	1.0038															
Last Year Cumulative	3.8164	1.9870	1.4342	1.2383	1.1571	1.1174	1.0945	1.0789	1.0671	1.0574	1.0492	1.0420	1.0356	1.0297	1.0244	1.0194	1.0148	1.0104	1.0064															
Selected*	1.9170	1.3907	1.1620	1.0728	1.0372	1.0221	1.0151	1.0115	1.0093	1.0079	1.0068	1.0060	1.0054	1.0048	1.0044	1.0040	1.0037	1.0035	1.0032															
Cumulative	3.8463	2.0064	1.4428	1.2416	1.1574	1.1158	1.0917	1.0755	1.0633	1.0535	1.0452	1.0381	1.0319	1.0264	1.0215	1.0170	1.0130	1.0092	1.0057															

*Y = a+b*log(x)/x^2+c*exp(-x)
 a =0.000728 b = 0.305608 c = 2.490586
 ** Selected Paid Tail Factor = Incurred Tail Factor * Selected Paid Bridge Factor (0.9990 * 1.0035 = 1.0025)

Policy Year	INDEMNITY INCURRED - PAID RATIO																																
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th			
1986																										1.0095	1.0148	1.0139	1.0113	1.0113	1.0153		
1987																									1.0127	1.0091	1.0085	1.0051	1.0026	1.0023	1.0020		
1988																								1.0118	1.0101	1.0083	1.0071	1.0064	1.0075	1.0077	0.9949		
1989																							1.0207	1.0186	1.0165	1.0280	1.0245	1.0264	1.0259	1.0242	1.0229		
1990																						1.0344	1.0278	1.0187	1.0146	1.0058	1.0018	1.0011	1.0005	1.0005	1.0000		
1991																					1.0025	1.0013	1.0012	1.0029	1.0023	1.0016	1.0013	1.0014	1.0003	1.0000	1.0000		
1992																			1.0372	1.0268	1.0265	1.0247	1.0143	1.0114	1.0055	1.0039	1.0023	1.0010	1.0004	1.0005			
1993																			1.0428	1.0747	1.0309	1.0368	1.0165	1.0178	1.0183	1.0185	1.0164	1.0108	1.0090	1.0099	1.0100		
1994																		1.0262	1.0224	1.0222	1.0187	1.0078	1.0068	1.0062	1.0036	1.0045	1.0041	1.0029	1.0001	1.0001	1.0010		
1995																	1.0346	1.0325	1.0222	1.0248	1.0213	1.0200	1.0104	1.0071	1.0062	1.0037	1.0023	1.0020	1.0000	1.0000			
1996																1.0539	1.0429	1.0341	1.0244	1.0177	1.0122	1.0113	1.0105	1.0039	1.0045	1.0036	1.0028	1.0026	1.0025				
1997																1.0368	1.0306	1.0229	1.0161	1.0115	1.0053	1.0059	1.0041	1.0014	1.0010	1.0000	1.0000	1.0000	1.0000				
1998														1.0464	1.0190	1.0108	1.0110	1.0064	1.0050	1.0005	1.0005	1.0005	1.0005	1.0005	1.0000	1.0000	1.0000						
1999																																	
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3 Year	1.9687	1.4355	1.2553	1.1410	1.1031	1.0797	1.0630	1.0345	1.0254	1.0189	1.0340	1.0256	1.0232	1.0245	1.0240	1.0207	1.0126	1.0120	1.0089	1.0069	1.0048	1.0078	1.0080	1.0064	1.0034	1.0009	1.0015	1.0009	1.0033	1.0038			
4 Year	1.9819	1.4605	1.2500	1.1528	1.0919	1.0834	1.0561	1.0318	1.0324	1.0268	1.0273	1.0253	1.0308	1.0224	1.0231	1.0198	1.0123	1.0099	1.0113	1.0057	1.0076	1.0089	1.0061	1.0048	1.0034	1.0013	1.0019	1.0029	1.0026	1.0029			
5 Year	2.0107	1.4913	1.2661	1.1422	1.1001	1.0785	1.0515	1.0395	1.0380	1.0238	1.0270	1.0323	1.0284	1.0227	1.0225	1.0184	1.0115	1.0111	1.0092	1.0081	1.0088	1.0072	1.0051	1.0047	1.0035	1.0019	1.0037	1.0025	1.0021	1.0023			
8 Year	2.1213	1.5521	1.2745	1.1523	1.1047	1.0798	1.0596	1.0434	1.0414	1.0347	1.0342	1.0318	1.0265	1.0215	1.0215	1.0163	1.0131	1.0124	1.0102	1.0076	1.0075	1.0073	1.0053	1.0065	1.0057	1.0039	1.0029	1.0049	1.0056	1.0042			
All Available	2.2773	1.6074	1.3200	1.1854	1.1317	1.1025	1.0863	1.0640	1.0522	1.0438	1.0381	1.0354	1.0312	1.0262	1.0247	1.0214	1.0170	1.0163	1.0188	1.0124	1.0133	1.0111	1.0091	1.0085	1.0077	1.0067	1.0062	1.0055	1.0056	1.0052			

Policy Year	MEDICAL INCURRED (POST-HB373)																												
	1/2	2/3	3/4	4/5	5/6	6/7	7/8	8/9	9/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
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AVERAGES																													
3 Year	1.0396	1.0013	0.9838	1.0047	1.0123	0.9945	0.9972	1.0016	1.0081	1.0170	1.0002	0.9978	0.9917	1.0001	0.9970	0.9966	0.9977	1.0042	0.9924	1.0008	0.9908	1.0017	0.9930	1.0005	0.9983	1.0001	0.9993	0.9921	0.9999
4 Year	1.0384	1.0080	0.9873	0.9985	1.0097	0.9976	1.0056	1.0032	1.0043	1.0116	1.0010	0.9947	0.9958	0.9993	1.0023	0.9967	0.9976	1.0018	0.9948	0.9974	0.9908	0.9985	0.9947	1.0003	0.9931	1.0007	0.9991	0.9947	1.0004
5 Year	1.0452	0.9988	0.9823	0.9960	1.0041	0.9948	1.0020	1.0045	1.0008	1.0061	0.9991	0.9924	0.9948	1.0002	0.9994	0.9935	0.9949	1.0010	0.9955	0.9974	0.9899	0.9965	0.9960	0.9993	0.9936	0.9970	0.9992	0.9958	1.0008
8 Year	1.0581	1.0107	0.9907	1.0049	1.0086	0.9962	1.0004	1.0052	1.0036	1.0029	0.9980	0.9935	1.0007	1.0010	1.0000	0.9955	0.9897	0.9978	0.9973	0.9993	0.9907	0.9954	0.9985	1.0018	0.9955	0.9966	1.0005	0.9976	0.9992
All Available	1.1201	1.0577	1.0225	1.0243	1.0269	1.0137	1.0152	1.0128	1.0112	1.0056	1.0021	1.0035	1.0029	1.0029	1.0047	1.0019	0.9962	1.0000	0.9975	1.0008	0.9927	0.9970	1.0005	1.0030	1.0012	0.9965	1.0022	0.9992	0.9985
Last Year Selected	1.0655	1.0176	1.0084	1.0052	1.0037	1.0029	1.0022	1.0017	1.0012	1.0007	1.0002	0.9998	0.9994	0.9989	0.9985	0.9981	0.9977	0.9973	0.9969										
Last Year Cumulative	1.0963	1.0289	1.0111	1.0026	0.9975	0.9938	0.9909	0.9887	0.9871	0.9859	0.9852	0.9850	0.9852	0.9858	0.9869	0.9883	0.9902	0.9925	0.9952										
Selected*	1.0385	1.0034	1.0014	1.0008	1.0006	1.0004	1.0004	1.0003	1.0003	1.0002	1.0002	1.0002	1.0002	1.0002	1.0001	1.0001	1.0001	1.0001	1.0001										
Cumulative	1.0432	1.0045	1.0011	0.9997	0.9989	0.9983	0.9979	0.9975	0.9972	0.9969	0.9967	0.9965	0.9963	0.9961	0.9959	0.9957	0.9956	0.9955	0.9954										

*Y = a*b*(1/x)*x^c
a = 0.000792 b = 48.584832 c = -0.689123

20th to ULT

**** Selected Paid Tail Factor = Incurred Tail Factor * Selected Paid Bridge Factor (0.9953 * 1.0312 = 1.0264)**

Policy Year	MEDICAL INCURRED - PAID RATIO																													
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th
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3 Year	1.6661	1.3532	1.2123	1.1640	1.0949	1.0727	1.0687	1.0574	1.0696	1.0661	1.0757	1.0692	1.0614	1.0629	1.0591	1.0563	1.0585	1.0550	1.0870	1.0751	1.0667	1.0440	1.0386	1.0303	1.0202	1.0152	1.0197	1.0241	1.0162	1.0129
4 Year	1.7164	1.3498	1.2159	1.1500	1.0926	1.0831	1.0662	1.0667	1.0719	1.0611	1.0798	1.0712	1.0722	1.0657	1.0583	1.0629	1.0609	1.0748	1.0844	1.0660	1.0715	1.0441	1.0328	1.0252	1.0292	1.0195	1.0216	1.0243	1.0167	1.0105
5 Year	1.7133	1.3464	1.2121	1.1419	1.1005	1.0787	1.0701	1.0693	1.0712	1.0689	1.0779	1.0841	1.0727	1.0657	1.0618	1.0659	1.0789	1.0771	1.0739	1.0728	1.0687	1.0407	1.0290	1.0324	1.0350	1.0213	1.0228	1.0232	1.0139	1.0102
8 Year	1.7163	1.3380	1.2121	1.1482	1.1115	1.0968	1.0862	1.0907	1.0990	1.1026	1.1013	1.0973	1.0873	1.0912	1.0907	1.0866	1.0898	1.0795	1.0749	1.0663	1.0654	1.0513	1.0422	1.0418	1.0409	1.0276	1.0193	1.0270	1.0244	1.0127
All Available	1.6050	1.3034	1.2124	1.1654	1.1460	1.1423	1.1376	1.1383	1.1407	1.1385	1.1312	1.1247	1.1135	1.1075	1.1009	1.1045	1.0999	1.0891	1.0855	1.0724	1.0682	1.0531	1.0447	1.0386	1.0399	1.0331	1.0274	1.0275	1.0244	1.0182