

PENNSYLVANIA COMPENSATION RATING BUREAU

Proposed Excess Loss (Pure Premium) Factors

Proposed excess loss (pure premium) factors are shown on the first page of the attachment together with the current factors and the percentage change.

The factors were produced using a methodology that relied substantially on actual Pennsylvania size of loss experience.

Pages 2 and 3 show the derivation of the excess loss factors. Column (1) presents the Pennsylvania excess ratios from Exhibit 2 page 5. These factors are on a per-claim basis. For limits over \$1,000,000 the NCCI countrywide loss distribution, as calculated and shown on Exhibit 1 page B13, was used. Relativities were applied to the Pennsylvania excess factor at the \$1,000,000 limit. Resulting factors are shown in Column (3).

It was then necessary to adjust the per-claim distribution to a per-occurrence basis. Using factors derived in Exhibit 1 page A13. Those factors compared excess factors on a per-occurrence and per-claim basis resulting from the straight application of the NCCI methodology. Resulting Pennsylvania excess ratios on a per-occurrence basis are shown in Column (5).

Overall excess ratios (all hazard groups combined) were then adjusted to individual hazard group levels using relativities which were also derived as shown on Exhibit 1 page A13. These relativities appear in Columns (6) - (9). The resulting excess factors are shown in Columns (10) - (13).

Since published loss costs in Pennsylvania include a provision for loss based assessments and the merit rating plan off-balance, it was necessary to apply an adjustment factor to express the excess ratios as a function of loss costs. This is shown in Columns (14) - (17).

Finally, a risk load of 0.005, subject to a maximum equal to one-half each excess loss factor, was added. The resulting factors are shown in columns (18) - (21) and carried over to page 3 of the exhibit.

PENNSYLVANIA
EXCESS LOSS FACTOR STUDY
PROPOSED EFFECTIVE DATE: 4/1/02
USING PENNSYLVANIA EMPIRICAL DATA

Per Accident Limit	Proposed Excess Loss Factors				Current Excess Loss Factors				Percentage Change			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
\$10,000	0.698	0.711	0.776	0.818	0.700	0.720	0.787	0.833	-0.3%	-1.3%	-1.4%	-1.8%
\$15,000	0.636	0.652	0.732	0.781	0.648	0.666	0.752	0.797	-1.9%	-2.1%	-2.7%	-2.0%
\$20,000	0.589	0.612	0.700	0.753	0.601	0.620	0.712	0.769	-2.0%	-1.3%	-1.7%	-2.1%
\$25,000	0.553	0.572	0.663	0.726	0.560	0.582	0.684	0.743	-1.3%	-1.7%	-3.1%	-2.3%
\$30,000	0.519	0.542	0.640	0.698	0.525	0.554	0.657	0.720	-1.1%	-2.2%	-2.6%	-3.1%
\$35,000	0.486	0.513	0.613	0.671	0.496	0.526	0.631	0.701	-2.0%	-2.5%	-2.9%	-4.3%
\$40,000	0.459	0.486	0.591	0.651	0.469	0.499	0.610	0.682	-2.1%	-2.6%	-3.1%	-4.5%
\$50,000	0.418	0.446	0.550	0.617	0.430	0.460	0.569	0.641	-2.8%	-3.0%	-3.3%	-3.7%
\$75,000	0.336	0.361	0.463	0.538	0.349	0.377	0.490	0.566	-3.7%	-4.2%	-5.5%	-4.9%
\$100,000	0.279	0.306	0.408	0.478	0.295	0.324	0.432	0.512	-5.4%	-5.6%	-5.6%	-6.6%
\$125,000	0.238	0.262	0.356	0.431	0.250	0.279	0.384	0.461	-4.8%	-6.1%	-7.3%	-6.5%
\$150,000	0.206	0.229	0.319	0.387	0.217	0.244	0.340	0.419	-5.1%	-6.1%	-6.2%	-7.6%
\$175,000	0.180	0.200	0.280	0.349	0.192	0.216	0.305	0.379	-6.3%	-7.4%	-8.2%	-7.9%
\$200,000	0.159	0.179	0.254	0.315	0.171	0.193	0.273	0.342	-7.0%	-7.3%	-7.0%	-7.9%
\$225,000	0.142	0.160	0.227	0.287	0.151	0.170	0.245	0.307	-6.0%	-5.9%	-7.3%	-6.5%
\$250,000	0.129	0.144	0.208	0.261	0.134	0.152	0.218	0.277	-3.7%	-5.3%	-4.6%	-5.8%
\$275,000	0.117	0.131	0.189	0.240	0.122	0.138	0.199	0.253	-4.1%	-5.1%	-5.0%	-5.1%
\$300,000	0.108	0.122	0.176	0.222	0.111	0.125	0.180	0.230	-2.7%	-2.4%	-2.2%	-3.5%
\$325,000	0.100	0.111	0.162	0.206	0.100	0.114	0.164	0.210	0.0%	-2.6%	-1.2%	-1.9%
\$350,000	0.092	0.104	0.151	0.193	0.093	0.105	0.152	0.194	-1.1%	-1.0%	-0.7%	-0.5%
\$375,000	0.087	0.098	0.142	0.183	0.086	0.097	0.141	0.180	1.2%	1.0%	0.7%	1.7%
\$400,000	0.082	0.093	0.135	0.172	0.079	0.090	0.131	0.167	3.8%	3.3%	3.1%	3.0%
\$425,000	0.079	0.089	0.128	0.165	0.075	0.085	0.123	0.157	5.3%	4.7%	4.1%	5.1%
\$450,000	0.074	0.084	0.122	0.157	0.071	0.081	0.116	0.151	4.2%	3.7%	5.2%	4.0%
\$475,000	0.071	0.081	0.117	0.151	0.067	0.076	0.111	0.143	6.0%	6.6%	5.4%	5.6%
\$500,000	0.069	0.078	0.113	0.144	0.064	0.073	0.105	0.136	7.8%	6.8%	7.6%	5.9%
\$600,000	0.061	0.069	0.100	0.129	0.056	0.063	0.091	0.118	8.9%	9.5%	9.9%	9.3%
\$700,000	0.055	0.062	0.089	0.115	0.050	0.056	0.080	0.104	10.0%	10.7%	11.3%	10.6%
\$800,000	0.051	0.058	0.084	0.107	0.046	0.051	0.074	0.095	10.9%	13.7%	13.5%	12.6%
\$900,000	0.048	0.054	0.078	0.101	0.042	0.047	0.068	0.087	14.3%	14.9%	14.7%	16.1%
\$1,000,000	0.0450	0.0509	0.0729	0.0938	0.0396	0.0444	0.0640	0.0822	13.6%	14.6%	13.9%	14.1%
\$2,000,000	0.0275	0.0305	0.0426	0.0543	0.0246	0.0268	0.0374	0.0470	11.8%	13.8%	13.9%	15.5%
\$3,000,000	0.0213	0.0230	0.0317	0.0399	0.0188	0.0210	0.0279	0.0348	13.3%	9.5%	13.6%	14.7%
\$4,000,000	0.0178	0.0196	0.0260	0.0324	0.0162	0.0172	0.0231	0.0284	9.9%	14.0%	12.6%	14.1%
\$5,000,000	0.0154	0.0172	0.0224	0.0276	0.0135	0.0151	0.0199	0.0242	14.1%	13.9%	12.6%	14.0%
\$6,000,000	0.0140	0.0155	0.0201	0.0248	0.0119	0.0135	0.0177	0.0215	17.6%	14.8%	13.6%	15.3%
\$7,000,000	0.0122	0.0138	0.0183	0.0224	0.0102	0.0119	0.0166	0.0193	19.6%	16.0%	10.2%	16.1%
\$8,000,000	0.0113	0.0122	0.0173	0.0208	0.0096	0.0102	0.0150	0.0182	17.7%	19.6%	15.3%	14.3%
\$9,000,000	0.0098	0.0113	0.0161	0.0190	0.0089	0.0096	0.0135	0.0167	10.1%	17.7%	19.3%	13.8%
\$10,000,000	0.0089	0.0105	0.0149	0.0178	0.0080	0.0087	0.0126	0.0160	11.3%	20.7%	18.3%	11.3%

Pennsylvania
Excess Loss Factor Study

Loss Limitation	Pa Excess Ratio Per-Claim (1)	NCCI Per Claim Relativity to \$1,000,000 (2)	Adjusted Pa Per Claim Excess Ratio (1)*1000000*(2) (3)	Per-Occur Relativity To Per- Claim (4)	Pa Excess Ratio Per-Occur (3)*(4) (5)	Relativity to Total Per - Occurance			
						HG I (6)	HG II (7)	HG III (8)	HG IV (9)
\$10,000	0.7324		0.7324	1.0122	0.7413	0.9412	0.9592	1.0468	1.1044
\$15,000	0.6812		0.6812	1.0115	0.6890	0.9217	0.9457	1.0619	1.1338
\$20,000	0.6398		0.6398	1.0201	0.6527	0.9014	0.9369	1.0723	1.1537
\$25,000	0.6046		0.6046	1.0153	0.6139	0.8984	0.9299	1.0797	1.1827
\$30,000	0.5739		0.5739	1.0218	0.5864	0.8834	0.9218	1.0910	1.1906
\$35,000	0.5467		0.5467	1.0209	0.5581	0.8682	0.9165	1.0966	1.2020
\$40,000	0.5220		0.5220	1.0216	0.5333	0.8565	0.9079	1.1073	1.2190
\$50,000	0.4789		0.4789	1.0279	0.4923	0.8450	0.9010	1.1150	1.2508
\$75,000	0.3952		0.3952	1.0280	0.4063	0.8203	0.8820	1.1343	1.3212
\$100,000	0.3344		0.3344	1.0489	0.3508	0.7870	0.8641	1.1562	1.3590
\$125,000	0.2882		0.2882	1.0525	0.3033	0.7732	0.8526	1.1655	1.4150
\$150,000	0.2520		0.2520	1.0638	0.2681	0.7550	0.8425	1.1775	1.4350
\$175,000	0.2220		0.2220	1.0552	0.2343	0.7521	0.8375	1.1818	1.4766
\$200,000	0.1973		0.1973	1.0669	0.2105	0.7373	0.8299	1.1910	1.4806
\$225,000	0.1763		0.1763	1.0621	0.1872	0.7338	0.8312	1.1916	1.5162
\$250,000	0.1591		0.1591	1.0709	0.1704	0.7317	0.8223	1.1986	1.5122
\$275,000	0.1446		0.1446	1.0677	0.1544	0.7313	0.8246	1.1978	1.5336
\$300,000	0.1326		0.1326	1.0769	0.1428	0.7262	0.8214	1.2024	1.5317
\$325,000	0.1223		0.1223	1.0679	0.1306	0.7288	0.8178	1.2076	1.5508
\$350,000	0.1138		0.1138	1.0718	0.1220	0.7188	0.8170	1.2054	1.5491
\$375,000	0.1066		0.1066	1.0758	0.1147	0.7230	0.8169	1.2019	1.5587
\$400,000	0.1005		0.1005	1.0745	0.1080	0.7178	0.8168	1.2079	1.5594
\$425,000	0.0953		0.0953	1.0782	0.1028	0.7202	0.8187	1.2073	1.5699
\$450,000	0.0908		0.0908	1.0756	0.0977	0.7135	0.8162	1.2054	1.5622
\$475,000	0.0870		0.0870	1.0727	0.0933	0.7175	0.8192	1.2090	1.5706
\$500,000	0.0836		0.0836	1.0692	0.0894	0.7176	0.8176	1.2118	1.5706
\$600,000	0.0731		0.0731	1.0809	0.0790	0.7143	0.8163	1.2109	1.5850
\$700,000	0.0655		0.0655	1.0744	0.0704	0.7154	0.8154	1.2077	1.5769
\$800,000	0.0601		0.0601	1.0833	0.0651	0.7094	0.8120	1.2137	1.5812
\$900,000	0.0559		0.0559	1.0928	0.0611	0.7075	0.8113	1.2075	1.5755
\$1,000,000	0.0526		0.0526	1.0778	0.0567	0.7113	0.8144	1.2062	1.5773
\$2,000,000	0.0328	0.5444	0.0286	1.1020	0.0315	0.7222	0.8148	1.2037	1.5741
\$3,000,000	0.0220	0.4000	0.0210	1.0556	0.0222	0.7368	0.8158	1.2105	1.5789
\$4,000,000	0.0159	0.3111	0.0164	1.0714	0.0176	0.7333	0.8333	1.2000	1.5667
\$5,000,000	0.0122	0.2556	0.0134	1.0870	0.0146	0.7200	0.8400	1.2000	1.5600
\$6,000,000	0.0094	0.2222	0.0117	1.1000	0.0129	0.7273	0.8182	1.1818	1.5455
\$7,000,000	0.0073	0.2000	0.0105	1.0556	0.0111	0.7368	0.8421	1.2105	1.5789
\$8,000,000	0.0058	0.1778	0.0094	1.0625	0.0100	0.7647	0.8235	1.2353	1.5882
\$9,000,000	0.0045	0.1556	0.0082	1.1429	0.0094	0.6875	0.8125	1.1875	1.5000
\$10,000,000	0.0034	0.1444	0.0076	1.0769	0.0082	0.7143	0.8571	1.2143	1.5714

Pennsylvania
Excess Loss Factor Study

Loss Limitation	Pa Hazard Group Per - Occurance Factors				ELF adjusted for LBA's LBA Factor = 0.9931				ELF adjusted for LBA's & Risk Load			
	HG I	HG II	HG III	HG IV	HG I	HG II	HG III	HG IV	HG I	HG II	HG III	HG IV
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
	(5)*(6)	(5)*(7)	(5)*(8)	(5)*(9)	(10)*LBA	(11)*LBA	(12)*LBA	(13)*LBA	Columns (14)-(17) + 0.005 (Max Adj = 1/2 ELF)			
\$10,000	0.6977	0.7111	0.7760	0.8187	0.6929	0.7062	0.7706	0.8131	0.698	0.711	0.776	0.818
\$15,000	0.6351	0.6516	0.7316	0.7812	0.6307	0.6471	0.7266	0.7758	0.636	0.652	0.732	0.781
\$20,000	0.5883	0.6115	0.6999	0.7530	0.5842	0.6073	0.6951	0.7478	0.589	0.612	0.700	0.753
\$25,000	0.5515	0.5709	0.6628	0.7261	0.5477	0.5670	0.6582	0.7211	0.553	0.572	0.663	0.726
\$30,000	0.5180	0.5405	0.6398	0.6982	0.5144	0.5368	0.6354	0.6934	0.519	0.542	0.640	0.698
\$35,000	0.4845	0.5115	0.6120	0.6708	0.4812	0.5080	0.6078	0.6662	0.486	0.513	0.613	0.671
\$40,000	0.4568	0.4842	0.5905	0.6501	0.4536	0.4809	0.5864	0.6456	0.459	0.486	0.591	0.651
\$50,000	0.4160	0.4436	0.5489	0.6158	0.4131	0.4405	0.5451	0.6116	0.418	0.446	0.550	0.617
\$75,000	0.3333	0.3584	0.4609	0.5368	0.3310	0.3559	0.4577	0.5331	0.336	0.361	0.463	0.538
\$100,000	0.2761	0.3031	0.4056	0.4767	0.2742	0.3010	0.4028	0.4734	0.279	0.306	0.408	0.478
\$125,000	0.2345	0.2586	0.3535	0.4292	0.2329	0.2568	0.3511	0.4262	0.238	0.262	0.356	0.431
\$150,000	0.2024	0.2259	0.3157	0.3847	0.2010	0.2243	0.3135	0.3820	0.206	0.229	0.319	0.387
\$175,000	0.1762	0.1962	0.2769	0.3460	0.1750	0.1948	0.2750	0.3436	0.180	0.200	0.280	0.349
\$200,000	0.1552	0.1747	0.2507	0.3117	0.1541	0.1735	0.2490	0.3095	0.159	0.179	0.254	0.315
\$225,000	0.1374	0.1556	0.2231	0.2838	0.1365	0.1545	0.2216	0.2818	0.142	0.160	0.227	0.287
\$250,000	0.1247	0.1401	0.2042	0.2577	0.1238	0.1391	0.2028	0.2559	0.129	0.144	0.208	0.261
\$275,000	0.1129	0.1273	0.1849	0.2368	0.1121	0.1264	0.1836	0.2352	0.117	0.131	0.189	0.240
\$300,000	0.1037	0.1173	0.1717	0.2187	0.1030	0.1165	0.1705	0.2172	0.108	0.122	0.176	0.222
\$325,000	0.0952	0.1068	0.1577	0.2025	0.0945	0.1061	0.1566	0.2011	0.100	0.111	0.162	0.206
\$350,000	0.0877	0.0997	0.1471	0.1890	0.0871	0.0990	0.1461	0.1877	0.092	0.104	0.151	0.193
\$375,000	0.0829	0.0937	0.1379	0.1788	0.0823	0.0931	0.1369	0.1776	0.087	0.098	0.142	0.183
\$400,000	0.0775	0.0882	0.1305	0.1684	0.0770	0.0876	0.1296	0.1672	0.082	0.093	0.135	0.172
\$425,000	0.0740	0.0842	0.1241	0.1614	0.0735	0.0836	0.1232	0.1603	0.079	0.089	0.128	0.165
\$450,000	0.0697	0.0797	0.1178	0.1526	0.0692	0.0792	0.1170	0.1515	0.074	0.084	0.122	0.157
\$475,000	0.0669	0.0764	0.1128	0.1465	0.0664	0.0759	0.1120	0.1455	0.071	0.081	0.117	0.151
\$500,000	0.0642	0.0731	0.1083	0.1404	0.0638	0.0726	0.1076	0.1394	0.069	0.078	0.113	0.144
\$600,000	0.0564	0.0645	0.0957	0.1252	0.0560	0.0641	0.0950	0.1243	0.061	0.069	0.100	0.129
\$700,000	0.0504	0.0574	0.0850	0.1110	0.0501	0.0570	0.0844	0.1102	0.055	0.062	0.089	0.115
\$800,000	0.0462	0.0529	0.0790	0.1029	0.0459	0.0525	0.0785	0.1022	0.051	0.058	0.084	0.107
\$900,000	0.0432	0.0496	0.0738	0.0963	0.0429	0.0493	0.0733	0.0956	0.048	0.054	0.078	0.101
\$1,000,000	0.0403	0.0462	0.0684	0.0894	0.0400	0.0459	0.0679	0.0888	0.0450	0.0509	0.0729	0.0938
\$2,000,000	0.0227	0.0257	0.0379	0.0496	0.0225	0.0255	0.0376	0.0493	0.0275	0.0305	0.0426	0.0543
\$3,000,000	0.0164	0.0181	0.0269	0.0351	0.0163	0.0180	0.0267	0.0349	0.0213	0.0230	0.0317	0.0399
\$4,000,000	0.0129	0.0147	0.0211	0.0276	0.0128	0.0146	0.0210	0.0274	0.0178	0.0196	0.0260	0.0324
\$5,000,000	0.0105	0.0123	0.0175	0.0228	0.0104	0.0122	0.0174	0.0226	0.0154	0.0172	0.0224	0.0276
\$6,000,000	0.0094	0.0106	0.0152	0.0199	0.0093	0.0105	0.0151	0.0198	0.0140	0.0155	0.0201	0.0248
\$7,000,000	0.0082	0.0093	0.0134	0.0175	0.0081	0.0092	0.0133	0.0174	0.0122	0.0138	0.0183	0.0224
\$8,000,000	0.0076	0.0082	0.0124	0.0159	0.0075	0.0081	0.0123	0.0158	0.0113	0.0122	0.0173	0.0208
\$9,000,000	0.0065	0.0076	0.0112	0.0141	0.0065	0.0075	0.0111	0.0140	0.0098	0.0113	0.0161	0.0190
\$10,000,000	0.0059	0.0070	0.0100	0.0129	0.0059	0.0070	0.0099	0.0128	0.0089	0.0105	0.0149	0.0178