

PENNSYLVANIA COMPENSATION RATING BUREAU

Loss Elimination Ratios

The attached pages show the derivation of loss elimination ratios applicable to small deductible coverages.

The method used is very similar to that employed in the calculation of excess loss factors. The methodology for calculating excess loss factors on a per-claim basis, (the complements of which are loss elimination ratios), is shown on page 3. The bottom of page 3 shows average excess loss factors for all hazard groups combined and relativities of individual hazard groups to the total.

Page 2 applies the hazard group relativities from page 3 to the excess loss factors (per claim) indicated by the Pennsylvania loss distribution. Since the Pennsylvania loss distribution did not break at \$1,000, factors derived from the general methodology which related the excess ratio for the \$1,000 limit to those at \$5,000 and \$10,000 were used to estimate the \$1,000 figure for the Pennsylvania data. The excess factors were then adjusted to reflect the inclusion of loss based assessments in Bureau loss costs (col. (14) - (21)). Columns (18) through (21) of page 2 show the resulting excess factors.

Page 1 shows the proposed loss elimination ratios which are the complement of the per-claim excess loss factors from page 2.

PENNSYLVANIA
 SMALL DEDUCTIBLE PROGRAM
 PROPOSED EFFECTIVE DATE: 4/1/03

Deductible Level	Proposed Loss Elimination Ratios				Current Loss Elimination Ratios				Percentage Change			
	Hazard Group				Hazard Group				Hazard Group			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
\$ 1,000	7.5%	7.3%	3.5%	1.4%	7.7%	7.5%	4.1%	2.4%	-2.6%	-2.7%	-14.6%	-41.7%
\$ 5,000	21.9%	21.8%	15.8%	12.4%	23.4%	22.6%	16.8%	13.9%	-6.4%	-3.5%	-6.0%	-10.8%
\$ 10,000	29.8%	29.4%	21.1%	16.9%	31.5%	30.1%	23.0%	18.5%	-5.4%	-2.3%	-8.3%	-8.6%

SMALL DEDUCTIBLE CREDIT FACTORS

PENNSYLVANIA Effective:04/01/03
 Non-Escalating Fatal Benefits -- Non-Escalating PT/Major Benefits
 Excess Loss Factors Calculation
 Per Claim Basis

LOSS LIMIT	DEATH				P.T./MAJOR				MINOR/T.T.				(1)	(2)	(3)	(4)	(5)
	RATIO TO AVE.	INJ. WGT.	EXCESS RATIO	EXCESS RATIO X INJ. WT.	RATIO TO AVE.	INJ. WGT.	EXCESS RATIO	EXCESS RATIO X INJ. WT.	RATIO TO AVE.	INJ. WGT.	EXCESS RATIO	EXCESS RATIO X INJ. WT.	AVE. EX. RAT.	P.L.R. EXCL. ASSES.	IND. ELF 1X2	FLAT FACTOR	FINAL ELF 3+4
Hazard Group I																	
\$1,000	0.00	0.003	0.996	0.003	0.00	0.476	0.997	0.475	0.06	0.447	0.947	0.423	0.901	0.994	0.896	0.005	0.901
\$2,000	0.01		0.990	0.003	0.01		0.990	0.471	0.12		0.902	0.403	0.877		0.872	0.005	0.877
\$5,000	0.02		0.981	0.003	0.01		0.990	0.471	0.29		0.795	0.355	0.829		0.824	0.005	0.829
\$10,000	0.04		0.964	0.003	0.03		0.970	0.462	0.59		0.652	0.291	0.756		0.751	0.005	0.756
Hazard Group II																	
\$1,000	0.00	0.009	0.997	0.009	0.00	0.496	0.997	0.495	0.06	0.415	0.947	0.393	0.897	0.994	0.892	0.005	0.897
\$2,000	0.01		0.990	0.009	0.01		0.990	0.491	0.12		0.902	0.374	0.874		0.869	0.005	0.874
\$5,000	0.01		0.990	0.009	0.01		0.990	0.491	0.29		0.795	0.330	0.830		0.825	0.005	0.830
\$10,000	0.03		0.972	0.009	0.03		0.970	0.481	0.59		0.652	0.271	0.761		0.756	0.005	0.761
Hazard Group III																	
\$1,000	0.00	0.021	0.998	0.021	0.00	0.650	0.998	0.649	0.05	0.282	0.956	0.270	0.940	0.994	0.934	0.005	0.939
\$2,000	0.00		0.995	0.021	0.00		0.996	0.647	0.10		0.917	0.259	0.927		0.921	0.005	0.926
\$5,000	0.01		0.990	0.021	0.01		0.990	0.644	0.26		0.812	0.229	0.894		0.889	0.005	0.894
\$10,000	0.02		0.981	0.021	0.02		0.980	0.637	0.51		0.686	0.193	0.851		0.846	0.005	0.851
Hazard Group IV																	
\$1,000	0.00	0.039	0.998	0.039	0.00	0.741	0.998	0.740	0.05	0.190	0.956	0.182	0.961	0.994	0.955	0.005	0.960
\$2,000	0.00		0.996	0.039	0.00		0.996	0.738	0.10		0.917	0.174	0.951		0.945	0.005	0.950
\$5,000	0.01		0.990	0.039	0.01		0.990	0.734	0.24		0.824	0.157	0.930		0.924	0.005	0.929
\$10,000	0.02		0.981	0.038	0.02		0.980	0.726	0.49		0.695	0.132	0.896		0.891	0.005	0.896

All Hazard Groups Combined

Relativities

LOSS LIMIT	HG I	HG I	HG II	HG II	HG III	HG III	HG IV	HG IV	WGTD EXCESS RATIO	Relativity 1,000 to Limit	Relativity to Total Per - Claim			
	EXCESS RATIO	WGTD.	EXCESS RATIO	WGTD.	EXCESS RATIO	WGTD.	EXCESS RATIO	WGTD.			HG I	HG II	HG III	HG IV
\$1,000	0.901	0.004	0.897	0.538	0.940	0.441	0.961	0.017	0.917	-	0.9826	0.9847 *	1.0251	1.0480
\$2,000	0.877	0.004	0.874	0.538	0.927	0.441	0.951	0.017	0.899	1.0200	0.9755	0.9787 *	1.0311	1.0578
\$5,000	0.829	0.004	0.830	0.538	0.894	0.441	0.930	0.017	0.860	1.0663	0.9640	0.9651	1.0395	1.0814
\$10,000	0.756	0.004	0.761	0.538	0.851	0.441	0.896	0.017	0.803	1.1420	0.9415	0.9477	1.0598	1.1158

* Selected Value.

Pennsylvania
Loss Elimination Ratio Study

Loss Limitation	Pennsylvania Excess Ratio Per-Claim	NCCI Per Claim Relativity to \$1,000,000	Adjusted Pennsylvania Per Claim Excess Ratio	Per-Occur Relativity To Per-Claim	Pennsylvania Excess Ratio Per-Occur	Relativity to Total Per - Claim				
	(1)	(2) *	(3) *	(4) *	(5) *	HG I (6)	HG II (7)	HG III (8)	HG IV (9)	
	Implied @ 1,000									
\$1,000	0.9425 (a)	N / A *	N / A *	N / A *	N / A *	0.9826	0.9847	1.0251	1.0480	
\$5,000	0.8105 (b)	"	"	"	"	0.9640	0.9651	1.0395	1.0814	
\$10,000	0.7448 (b)	"	"	"	"	0.9415	0.9477	1.0598	1.1158	

Loss Limitation	Pennsylvania Hazard Group Per - Claim Factors				ELF adjusted for LBA's LBA Factor = 0.9935				ELF adjusted for LBA's & Risk Load			
	HG I (10) (1)*(6)	HG II (11) (1)*(7)	HG III (12) (1)*(8)	HG IV (13) (1)*(9)	HG I (14) (10)*LBA	HG II (15) (11)*LBA	HG III (16) (12)*LBA	HG IV (17) (13)*LBA	HG I (18)	HG II (19)	HG III (20)	HG IV (21)
\$1,000	0.9261	0.9281	0.9662	0.9877	0.9201	0.9221	0.9599	0.9813	0.925	0.927	0.965	0.986
\$5,000	0.7813	0.7822	0.8425	0.8764	0.7762	0.7771	0.8370	0.8707	0.781	0.782	0.842	0.876
\$10,000	0.7012	0.7058	0.7893	0.8310	0.6966	0.7012	0.7842	0.8256	0.702	0.706	0.789	0.831

Columns (10)-(13) + 0.005 (Max Adj = 1/2 ELF)

* Loss elimination ratios are on a per-claim basis for values below \$100,000 and, thus, the noted columns are not relevant to this analysis

(a) Selected

(b) From the Pennsylvania Empirical Loss Distribution