

DELAWARE COMPENSATION RATING BUREAU, INC

State & Hazard Group Relativities

The attached exhibit pages present the application of a methodology previously provided to the DCRB by the NCCI for calculating State and Hazard Group relativities. The procedure compares Delaware severities with countrywide (NCCI states) severities.

Table I  
 RUN DATE: 7/23/2008

Unweighted Countrywide Average Cost/Case for  
 Serious Injury Type and Hazard Group

Injury Type	Hazard Group				Weighted Average
	I	II	III	IV	
Fatal	\$69,515	\$88,694	\$110,723	\$131,911	\$105,162
P.T.	\$197,844	\$214,883	\$293,551	\$352,559	\$264,007
Major	\$69,288	\$73,525	\$85,199	\$98,235	\$80,150

Differential to Unweighted Average

Injury Type	Hazard Group			
	I	II	III	IV
Fatal	0.661	0.843	1.053	1.254
P.T.	0.749	0.814	1.112	1.335
Major	0.864	0.917	1.063	1.226

Date: 7/23/2008

Countrywide Standard Earned Premium by Hazard Group

Hazard Group	Standard Premium	Ratio to Smallest Premium
I	\$324,495,944	1.000
II	\$23,444,564,742	0.014
III	\$25,372,947,368	0.013
IV	\$1,484,071,356	0.219
Total	\$50,626,079,410	

Table II

Countrywide Type of Injury Loss Distribution Table

Hazard Group	Fatal	P.T.	Major	Minor	T.T.	Medical
I	0.057	0.131	0.220	0.391	0.343	0.328
II	0.117	0.156	0.222	0.278	0.297	0.334
III	0.270	0.264	0.262	0.181	0.207	0.196
IV	0.556	0.449	0.296	0.150	0.153	0.142

DELAWARE  
Proposed Effective: 12/1/08  
Non-Escalating Fatal Benefits -- Non-Escalating PT/Major Benefits

Exhibit I

Premium Distribution By Hazard Group\*

Hazard Group	(1) Standard Premium	(2) Total Standard Premium	(3) Ratio
I	53,847,381	783,671,146	0.069
II	349,565,417		0.446
III	299,201,649		0.382
IV	81,056,699		0.103

\*Based on Unit Statistical Data.

Exhibit II

Distribution of Losses by Injury Type Derived from Hazard Group Premium Distribution & Countrywide Loss Distribution

Injury Type	I	II	III	IV
Fatal	0.018	0.241	0.477	0.264
P.T.	0.040	0.308	0.447	0.205
Major	0.062	0.405	0.408	0.125
Minor	0.115	0.525	0.294	0.066
T.T.	0.094	0.528	0.315	0.063
Medical	0.087	0.570	0.287	0.056

For each hazard group, the following procedure is utilized to obtain the distribution of losses within each injury type:

The percentage of countrywide losses by hazard group (see Table II) is multiplied by the corresponding statewide ratio of standard earned premium to total (Exhibit I). This is then divided by the sum of these calculations for all four hazard groups. This procedure is done for each injury type.

Exhibit III

Factors to Adjust Countrywide Differential to State Differential

(A) Injury Type

Fatal	0.952995
P.T.	0.977014
Major	1.000942

(B)

Injury Type	Hazard Group			
	I	II	III	IV
Fatal	0.694	0.885	1.105	1.316
P.T.	0.767	0.833	1.138	1.366
Major	0.863	0.916	1.062	1.225

(C)

Injury Type	Hazard Group			
	I	II	III	IV
P.T./Major	0.843	0.897	1.085	1.281
Serious	0.843	0.896	1.086	1.282

(A) For each serious injury type, the countrywide hazard group unweighted average cost per case differential (Table I) is multiplied times percent of premium (Exhibit I) in the hazard group for that state. These products are summed to form the factors in (A).

(B) For each hazard group the factors from Table I are divided by the appropriate injury type factor in section (A) of this exhibit.

(C) For P.T. and Major injury types, a combined (by hazard group) differential is derived by calculating a weighted average of the two differentials using the factors from Exhibit VII as weights.

DELAWARE  
Proposed Effective: 12/1/08  
Non-Escalating Fatal Benefits -- Non-Escalating PT/Major Benefits

Exhibit IV Calculation of ELPF Trend

Policy Period	1/1/05-12/31/05	1/1/04-12/31/04	1/1/03-12/31/03
	First Report	Second Report	Third Report
(1) Proposed Effective Date of Filing		12/1/08	
(2a) Trend to		1/1/2009	
(2b) Midpoint of Policy Period	1/1/2006	1/1/2005	1/1/2004
(3) Benefit Level to Which Losses are Brought	6/3/2008 (Indemnity) 9/1/2008 (Medical)		
(4a) Yrs. from (2a) to (2b)	3.0	4.0	5.0
(4b)			
(5) Indemnity Trend { $1.0144^{(4a)}$ }	1.0438	1.0589	1.0741
(6)			
(7)			
(8)			
(9)			
(10) Medical Trend { $1.0865^{(4a)}$ }	1.2826	1.3935	1.5141

Date: 7/23/2008

DELAWARE  
Proposed Effective: 12/1/08  
Policy Period: 1/1/05-12/31/05  
Report: FIRST

Exhibit V - a

Excess Loss Premium Factor Calculation  
Average Cost Per Case

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Type of Injury	Indemnity Losses	Amend. Factor	Trend in Ind Cost per Case	Indem Trended on Level (1)x(2)x(3)	Medical Losses	Amend. Factor	Medical Trend	Medical Trended on Level (5)x(6)x(7)	
A. Death	1,344,800	1.0509	1.0438	1,475,151	52,300	1.0000	1.2826	67,080	
B. P.T.	2,603,000	1.0762	1.0438	2,924,048	3,665,400	1.0000	1.2826	4,701,242	
C. Major	10,983,700	1.0702	1.0438	12,269,614	10,662,700	1.0000	1.2826	13,675,979	
D. Minor	9,956,100	1.0716	1.0438	11,136,257	13,810,900	1.0000	1.2826	17,713,860	
E. T.T.	10,180,100	1.0762	1.0438	11,435,689	20,981,100	1.0000	1.2826	26,910,359	
F. Med. Only					9,235,100	1.0000	1.2826	11,844,939	
G. Overall	35,067,700	XX	XX	39,240,759	58,407,500	1.0000	XX	74,913,459	
	(9) Total Losses (4)+(8)	(10) No. of Claims	(11) Average Severity (9)/(10)	(12) Severity Dev. to Ult. Rep	(13) Developed Severity (11)x(12)	(14) Case Development	(15) Indemnity Dev. to Ult. Rpt.	(16) Medical Dev. to Ult. Report	(17) Total Developed (4)x(15)+(8)x(16)
A. Death	1,542,231	4	385,558	2.5371	978,199	1.0000	1.9096	1.409 (a)	2,911,464
B. P.T.	7,625,290	3	307,990	2.6933	829,509	2.3333	4.5463	8.798 (a)	54,655,127
C. Major	25,945,593	106				2.4623	4.2661	5.037 (a)	121,229,307
D. Minor	28,850,117	451	63,969	1.2506	27,910	1.2417	1.0666	1.856 (a)	44,754,856
E. T.T.	38,346,048	2,321	16,521	1.0767		0.9832	0.8156	1.365 (a)	46,059,588
F. Med. Only	11,844,939	XX	XX	XX	XX	XX		1.000 (b)	11,844,939

(a) (14) x (MED DEV 5TH TO ULT)  
(b) SELECTED

Date: 7/23/2008

DELAWARE  
Proposed Effective: 12/1/08  
Policy Period: 1/1/04-12/31/04  
Report: SECOND

Exhibit V - b

Excess Loss Premium Factor Calculation  
Average Cost Per Case

Type of Injury	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
	Indemnity Losses	Amend. Factor	Trend in Ind Cost per Case	Indem Trended on Level (1)x(2)x(3)	Medical Losses	Amend. Factor	Medical Trend	Medical Trended on Level (5)x(6)x(7)		
A. Death	1,118,400	1.0587	1.0589	1,253,791	65,500	1.0000	1.3935	91,274		
B. P.T.	2,431,200	1.0924	1.0589	2,812,272	6,692,400	1.0000	1.3935	9,325,859		
C. Major	22,691,900	1.0850	1.0589	26,070,871	19,149,300	1.0000	1.3935	26,684,550		
D. Minor	12,178,600	1.0867	1.0589	14,013,996	15,940,100	1.0000	1.3935	22,212,529		
E. T.T.	9,229,800	1.0924	1.0589	10,676,501	18,470,200	1.0000	1.3935	25,738,224		
F. Med. Only					8,696,200	1.0000	1.3935	12,118,155		
G. Overall	47,649,900	XX	XX	54,827,431	69,013,700	1.0000	xx	96,170,591		
	(9) Total Losses (4)+(8)	(10) No. of Claims	(11) Average Severity (9)/(10)	(12) Severity Dev. to Ult. Rep	(13) Developed Severity (11)x(12)	(14) Case Development	(15) Indemnity Dev. to Ult. Rpt.	(16) Medical Dev. to Ult. Report	(17) Total Developed (4)x(15)+(8)x(16)	
A. Death	1,345,065	5	269,013	2.3738	638,583	1.0000	1.5142	1.409 (a)	2,027,095	
B. P.T.	12,138,131	3	334,503	2.4063	804,915	2.0000	3.5847	7.541 (a)	80,407,454	
C. Major	52,755,421	191				1.4031	2.0289	2.870 (a)	129,479,849	
D. Minor	36,226,525	602	60,177	1.2885	30,478	1.0598	0.9693	1.584 (a)	48,768,412	
E. T.T.	36,414,725	2,287	15,922	1.1362		0.9803	0.8836	1.361 (a)	44,463,479	
F. Med. Only	12,118,155	XX	XX	XX	XX	XX		1.000 (b)	12,118,155	

(a) (14) x (MED DEV 5TH TO ULT)

(b) SELECTED

Date: 7/23/2008

DELAWARE  
Proposed Effective: 12/1/08  
Policy Period: 1/1/03-12/31/03  
Report: THIRD

Exhibit V - c

Excess Loss Premium Factor Calculation  
Average Cost Per Case

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Type of Injury	Indemnity Losses	Amend. Factor	Trend in Ind Cost per Case	Indem Trended on Level (1)x(2)x(3)	Medical Losses	Amend. Factor	Medical Trend	Medical Trended on Level (5)x(6)x(7)	
A. Death	682,000	1.0696	1.0741	783,521	1,700	1.0000	1.5141	2,574	
B. P.T.	1,516,700	1.1058	1.0741	1,801,445	1,753,300	1.0000	1.5141	2,654,672	
C. Major	31,364,700	1.0974	1.0741	36,970,116	28,394,000	1.0000	1.5141	42,991,355	
D. Minor	10,558,600	1.0993	1.0741	12,467,153	14,016,500	1.0000	1.5141	21,222,383	
E. T.T.	9,451,000	1.1058	1.0741	11,225,329	16,779,900	1.0000	1.5141	25,406,447	
F. Med. Only					8,945,600	1.0000	1.5141	13,544,533	
G. Overall	53,573,000	XX	XX	63,247,564	69,891,000	1.0000	xx	105,821,964	
	(9) Total Losses (4)+(8)	(10) No. of Claims	(11) Average Severity (9)/(10)	(12) Severity Dev. to Ult. Rep	(13) Developed Severity (11)x(12)	(14) Case Development	(15) Indemnity Dev. to Ult. Rpt.	(16) Medical Dev. to Ult. Report	(17) Total Developed (4)x(15)+(8)x(16)
A. Death	786,095	4	196,524	1.8439	362,371	1.0000	1.4642	1.409 (a)	1,150,858
B. P.T.	4,456,117	3	334,990	2.1801	730,312	2.0000	3.7322	7.541 (a)	26,742,235
C. Major	79,961,471	249	60,811	1.3531	29,993	1.1084	1.4648	2.267 (a)	151,615,228
D. Minor	33,689,536	554	15,385	1.1587		1.0325	1.0215	1.543 (a)	45,481,334
E. T.T.	36,631,776	2,381				0.9971	0.9228	1.385 (a)	45,546,663
F. Med. Only	13,544,533	XX	XX	XX	XX			1.000 (b)	13,544,533

(a) (14) x (MED DEV 5TH TO ULT)

(b) SELECTED

Date: 7/23/2008

DELAWARE  
Proposed Effective: 12/1/08  
Non-Escalating Fatal Benefits -- Non-Escalating PT/Major Benefits

Exhibit VI					Exhibit VII						
Adjusted Average Cost Per Case by Injury Types					Combined Injury Weights						
For Each Hazard Group					Hazard Group I			Hazard Group II			
I. * Injury Type	Average Cost Per Case				Type of Injury	Total Incurred Losses	Injury Weights	Type of Injury	Total Incurred Losses	Injury Weights	
Fatal	796,325	658,092			Death	109,610	0.002	Death	1,467,549	0.004	
P.T. / Major	807,168	775,871			P.T.	6,472,193	0.102	P.T.	49,835,883	0.131	
Minor/T.T.	31,054	29,484			Major	24,944,112	0.392	Major	162,941,376	0.428	
					P.T./Major	31,416,305	0.494	P.T./Major	212,777,259	0.559	
					Minor	15,985,529	0.251	Minor	72,977,416	0.192	
					T.T.	12,790,555	0.201	T.T.	71,844,817	0.189	
					Minor/T.T.	28,776,084	0.452	Minor/T.T.	144,822,233	0.381	
					Med. Only	3,263,164	XX	Med. Only	21,379,347	XX	
					Total	63,565,163	XX	Total	380,446,388	XX	
II.** Injury Type BEFORE ADJL					Hazard Group III			Hazard Group IV			
		Hazard Group				Type of Injury	Total Incurred Losses	Injury Weights	Type of Injury	Total Incurred Losses	Injury Weights
		I	II	III	IV	Death	2,904,652	0.009	Death	1,607,606	0.015
Fatal	552,650	704,748	879,939	1,047,964		P.T.	72,326,753	0.217	P.T.	33,169,987	0.316
P.T./Major	680,443	724,030	875,777	1,033,982		Major	164,148,349	0.492	Major	50,290,548	0.479
Minor/T.T.	31,054	31,054	31,054	31,054		P.T./Major	236,475,102	0.709	P.T./Major	83,460,535	0.795
						Minor	40,867,353	0.122	Minor	9,174,304	0.087
						T.T.	42,861,965	0.128	T.T.	8,572,393	0.082
						Minor/T.T.	83,729,318	0.250	Minor/T.T.	17,746,697	0.169
						Med. Only	10,764,689	XX	Med. Only	2,100,427	XX
						Total	333,873,761	XX	Total	104,915,265	XX

\* States overall developed average cost per case for each stated injury type, based upon latest three available years of U.S.P. data.

\*\* Four sets of factors for each stated type (Exhibit III sections B and C) are multiplied by stated injury type average cost per case (Section I) for each hazard group in producing the adjusted figures in Section II of this exhibit.

Date: 7/23/2008

For each hazard group the following procedure is utilized to obtain the distribution of losses. The percentage of losses by injury type (Exhibit II) is multiplied by the corresponding injury type total incurred losses to achieve combined injury weights



DELAWARE  
State and Hazard Group Relativities  
Proposed Effective: 12/1/08

Exhibit VIII

	(1) Severity	(2) Incurred Losses	(3) Calculated # Claims	(4) Average Severity	(5) Cred- ibility (a)	(6) NCCI Ave Sev (b)	(7) Delaware Cred Wtd Ave Sev	(8) Delaware Relativity (6T)/(7)	(9) Senate Bill I Factor	(10) Selected (c)
Hazard Group I										
Fatal	552,650	109,610	0.2							
PT/Major	680,443	31,416,305	46.2							
TT/Minor	31,054	28,776,084	926.6							
Combined		60,301,999	973.0	61,975	0.08	40,512	42,229	1.316	0.8843	1.488
Hazard Group II										
Fatal	704,748	1,467,549	2.1							
PT/Major	724,030	212,777,259	293.9							
TT/Minor	31,054	144,822,233	4,663.6							
Combined		359,067,041	4,959.6	72,398	0.18	50,474	54,420	1.021	0.8843	1.155
Hazard Group III										
Fatal	879,939	2,904,652	3.3							
PT/Major	875,777	236,475,102	270.0							
TT/Minor	31,054	83,729,318	2,696.2							
Combined		323,109,072	2,969.5	108,809	0.14	69,170	74,719	0.744	0.8843	0.841
Hazard Group IV										
Fatal	1,017,442	1,607,606	1.6							
PT/Major	1,033,982	83,460,535	80.7							
TT/Minor	31,054	17,746,697	571.5							
Combined		102,814,838	653.8	157,257	0.06	100,992	104,368	0.533	0.8843	0.602
Total - All Hazard Groups										
Combined			9,555.9		0.25	55,578				

Notes:

- (a) Full credibility equals 155,000 claims.  $Z = (\text{calculated \# claims} / 155,000)^{0.5}$
- (b) Credibility weighted average severity of NCCI states underlying Table M expected loss group ranges.
- (c) Selected Relativities limited to a range from 0.500 to 2.000

Date: 7/23/2008