

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.

DELAWARE

State and Hazard Group Relativities

Proposed Effective: 12/1/2004

Hazard Group	Proposed Relativities	Current Relativities	Percentage Change
I	1.354	1.269	6.7%
II	1.108	1.160	-4.5%
III	0.738	0.769	-4.0%
IV	0.536	0.547	-2.0%

Table I  
 RUN DATE: 7/22/04

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: 7/22/04

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: 12/1/2004  
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	1,569,978	484,231,835	0.003
II	250,774,314		0.518
III	219,476,835		0.453
IV	12,410,708		0.026

\*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	Hazard Group II	III	IV
Fatal	0.001	0.307	0.619	0.073
P.T.	0.002	0.380	0.563	0.055
Major	0.003	0.475	0.490	0.032
Minor	0.005	0.623	0.355	0.017
T.T.	0.004	0.609	0.371	0.016
Medical	0.004	0.649	0.333	0.014

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	0.94827
P.T.	0.962345
Major	0.991013

(B)

Injury Type	I	Hazard Group II	III	IV
Fatal	0.697	0.889	1.110	1.322
P.T.	0.778	0.846	1.156	1.387
Major	0.872	0.925	1.073	1.237

(C)

Injury Type	I	Hazard Group II	III	IV
P.T./Major	0.854	0.907	1.097	1.294
Serious	0.853	0.907	1.098	1.295

(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.

Date: 7/22/04

DELAWARE  
Proposed Effective: 12/1/2004  
Non-Escalating Fatal Benefits -- Non-Escalating PT/Major Benefits

Exhibit IV Calculation of ELPF Trend

Policy Period	1/1/01-12/31/01	1/1/00-12/31/00	1/1/99-12/31/99
	First Report	Second Report	Third Report
(1) Proposed Effective Date of Filing		12/1/2004	
(2a) Trend to		7/1/05	
(2b) Midpoint of Policy Period	1/1/02	1/1/01	1/1/00
(3) Benefit Level to Which Losses are Brought		7/1/04	
(4a) Yrs. from (2a) to (2b)	3.5	4.5	5.5
(4b)			
(5) Indemnity Trend { $1.0689^{(4a)}$ }	1.2626	1.3496	1.4426
(6)			
(7)			
(8)			
(9)			
(10) Medical Trend { $1.0986^{(4a)}$ }	1.3898	1.5268	1.6773

Date: 7/22/04

DELAWARE  
Proposed Effective: 12/1/2004  
Policy Period: 1/1/01-12/31/01  
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	1,929,800	1.0523	1.2626	2,563,998	195,300	1.0000	1.3898	271,428	
B. P.T.	529,400	1.0781	1.2626	720,624	1,209,000	1.0000	1.3898	1,680,268	
C. Major	9,027,100	1.0721	1.2626	12,219,385	7,079,800	1.0000	1.3898	9,839,506	
D. Minor	6,408,700	1.0732	1.2626	8,683,932	6,987,200	1.0000	1.3898	9,710,811	
E. T.T.	14,571,700	1.0781	1.2626	19,835,130	21,425,300	1.0000	1.3898	29,776,882	
F. Med. Only					7,228,700	1.0000	1.3898	10,046,447	
G. Overall	32,466,700	XX	XX	44,023,069	44,125,300	1.0000	XX	61,325,342	
	(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	2,835,426	8	354,428	0.7821	277,198	1.1250	0.8438	1.661 (a)	2,614,343
B. P.T.	2,400,892	1	271,775	2.0104	546,376	5.0000	9.9017	19.164 (a)	39,336,059
C. Major	22,058,891	89	46,218	1.4464	26,782	2.2809	3.5958	3.891 (a)	82,223,982
D. Minor	18,394,743	398	1.1307	1.4464		1.3065	1.4835	1.999 (a)	32,294,524
E. T.T.	49,612,012	2,690	18,443	1.1307		1.0476	1.0426	1.368 (a)	61,414,881
F. Medical	10,046,447	XX	XX	XX	XX	XX		1.000 (b)	10,046,447

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

(b) SELECTED

Date: 7/22/04

DELAWARE  
Proposed Effective: 12/1/2004  
Policy Period: 1/1/00-12/31/00  
Report: SECOND

Exhibit V - b

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	753,400	1.0704	1.3496	1,088,371	9,800	1.0000	1.5268	14,963	
B. P.T.	581,500	1.1054	1.3496	867,510	275,000	1.0000	1.5268	419,870	
C. Major	18,646,200	1.0970	1.3496	27,605,908	12,407,400	1.0000	1.5268	18,943,618	
D. Minor	7,094,600	1.0988	1.3496	10,520,870	7,825,300	1.0000	1.5268	11,947,668	
E. T.T.	16,681,400	1.1054	1.3496	24,886,111	21,394,800	1.0000	1.5268	32,665,581	
F. Med. Only					7,395,400	1.0000	1.5268	11,291,297	
G. Overall	43,757,100	XX	XX	64,968,770	49,307,700	1.0000	xx	75,282,997	
	(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	1,103,334	2	551,667	1.0334	570,093	1.0000	1.0306	1.477 (a)	1,143,776
B. P.T.	1,287,380	1	257,188	1.9254	495,190	5.0000	8.0982	19.164 (a)	15,071,658
C. Major	46,549,526	185				1.2324	1.8054	2.102 (a)	89,659,191
D. Minor	22,468,538	476	47,203	1.4438	28,196	1.1681	1.3852	1.788 (a)	35,935,940
E. T.T.	57,551,692	2,928	19,656	1.1040		1.0065	0.9506	1.314 (a)	66,579,311
F. Medical	11,291,297	XX	XX	XX	XX	XX		1.000 (b)	11,291,297

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

(b) SELECTED

Date: 7/22/04

DELAWARE  
Proposed Effective: 12/1/2004  
Policy Period: 1/1/99-12/31/99  
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	379,700	1.0905	1.4426	597,327	1,145,500	1.0000	1.6773	1,921,347	
B. P.T.	2,251,700	1.1353	1.4426	3,687,798	3,902,000	1.0000	1.6773	6,544,825	
C. Major	19,557,700	1.1243	1.4426	31,720,931	12,365,000	1.0000	1.6773	20,739,815	
D. Minor	6,812,900	1.1269	1.4426	11,075,499	8,282,000	1.0000	1.6773	13,891,399	
E. T.T.	15,224,800	1.1353	1.4426	24,934,930	18,788,300	1.0000	1.6773	31,513,616	
F. Med. Only					7,236,700	1.0000	1.6773	12,138,117	
G. Overall	44,226,800	XX	XX	72,016,485	51,719,500	1.0000	xx	86,749,119	
	(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	2,518,674	6	419,779	1.2140	509,612	1.0000	1.0781	1.477 (a)	3,481,808
B. P.T.	10,232,623	8	331,711	1.8338	608,292	1.1250	2.4785	4.312 (a)	37,361,493
C. Major	52,460,746	181				1.1050	1.3963	1.885 (a)	83,386,487
D. Minor	24,966,898	520	48,013	1.4103	27,691	1.0808	1.2723	1.654 (a)	37,067,731
E. T.T.	56,448,546	3,043	18,550	1.1241		1.0000	0.9519	1.306 (a)	64,892,342
F. Medical	12,138,117	XX	xx	xx	xx			1.000 (b)	12,138,117

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

(b) SELECTED

Date: 7/22/04



DELAWARE  
Proposed Effective: 12/1/2004  
Non-Escalating Fatal Benefits -- Non-Escalating PT/Major Benefits

Exhibit VI Adjusted Average Cost Per Case by Injury Types For Each Hazard Group					Exhibit VII Combined Injury Weights					
					Hazard Group I			Hazard Group II		
I. * Injury Type	Average Cost Per Case Selected+	Indicated			Type of Injury	Total Incurred Losses	Injury Weights	Type of Injury	Total Incurred Losses	Injury Weights
Fatal	389,309	400,965			Death	7,240	0.003	Death	2,222,658	0.006
P.T. / Major	459,881	551,067			P.T.	183,538	0.077	P.T.	34,872,300	0.096
Minor/T.T.	24,486	27,583			Major	765,809	0.321	Major	121,253,089	0.334
					P.T./Major	949,347	0.398	P.T./Major	156,125,389	0.430
					Minor	526,491	0.220	Minor	65,600,775	0.181
					T.T.	771,546	0.323	T.T.	117,467,899	0.323
					Minor/T.T.	1,298,037	0.543	Minor/T.T.	183,068,674	0.504
II.** Injury Type	Hazard Group				Medical	133,903	XX	Medical	21,725,834	XX
	I	II	III	IV	Total	2,388,527	XX	Total	363,142,555	XX
Fatal	271,348	346,096	432,133	514,666						
P.T./Major	392,738	417,112	504,489	595,086	Hazard Group III			Hazard Group IV		
Minor/T.T.	24,486	24,486	24,486	24,486	Type of Injury	Total Incurred Losses	Injury Weights	Type of Injury	Total Incurred Losses	Injury Weights
					Death	4,481,515	0.015	Death	528,515	0.028
					P.T.	51,666,065	0.171	P.T.	5,047,307	0.264
					Major	125,082,133	0.415	Major	8,168,629	0.428
					P.T./Major	176,748,198	0.586	P.T./Major	13,215,936	0.692
					Minor	37,380,859	0.124	Minor	1,790,069	0.094
					T.T.	71,560,904	0.237	T.T.	3,086,185	0.162
					Minor/T.T.	108,941,763	0.361	Minor/T.T.	4,876,254	0.256
					Medical	11,147,462	XX	Medical	468,662	XX
					Total	301,318,938	XX	Total	19,089,367	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.

+ Credibility Weighted Average

Date: 7/22/04

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: 12/1/2004

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) Selected (c)
Injury									
Hazard Group I									
Fatal	271,348	7,240	0.0						
PT/Major	392,738	949,347	2.4						
TT/Minor	24,486	1,298,037	53.0						
Combined		2,254,624	55.4	40,697	0.02	25,738	26,037	1.354	1.354
Hazard Group II									
Fatal	346,096	2,222,658	6.4						
PT/Major	417,112	156,125,389	374.3						
TT/Minor	24,486	183,068,674	7,476.5						
Combined		341,416,721	7,857.2	43,453	0.23	28,311	31,794	1.108	1.108
Hazard Group III									
Fatal	432,133	4,481,515	10.4						
PT/Major	504,489	176,748,198	350.4						
TT/Minor	24,486	108,941,763	4,449.1						
Combined		290,171,476	4,809.9	60,328	0.18	45,018	47,774	0.738	0.738
Hazard Group IV									
Fatal	514,666	528,515	1.0						
PT/Major	595,086	13,215,936	22.2						
TT/Minor	24,486	4,876,254	199.1						
Combined		18,620,705	222.3	83,764	0.04	65,042	65,791	0.536	0.536
Total - All Hazard Groups									
Combined			12,944.8		0.29	35,243			

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: 7/22/04