

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.

Note: As part of the DCRB's review of State and Hazard group Relativities, current assignments of classifications to hazard groups were evaluated and the hazard group for certain classifications were reassigned to be consistent with those used in Pennsylvania. Page 9 provides a list of classifications with proposed changes to the hazard group assignment.

Table I
 RUN DATE: 6/30/2006

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: 6/30/2006

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: 12/1/06
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	42,803,409	584,703,083	0.073
II	262,652,980		0.449
III	222,985,242		0.381
IV	56,261,452		0.096

*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	0.020	0.247	0.482	0.251
P.T.	0.043	0.314	0.450	0.193
Major	0.066	0.409	0.409	0.116
Minor	0.121	0.527	0.291	0.061
T.T.	0.099	0.530	0.313	0.058
Medical	0.091	0.572	0.285	0.052

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	0.948337
P.T.	0.971995
Major	0.997504

(B)

Injury Type	I	Hazard Group II	III	IV
Fatal	0.697	0.889	1.110	1.322
P.T.	0.771	0.837	1.144	1.373
Major	0.866	0.919	1.066	1.229

(C)

Injury Type	I	Hazard Group II	III	IV
P.T./Major	0.840	0.894	1.096	1.299
Serious	0.839	0.894	1.097	1.300

(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: 6/30/2006

DELAWARE
Proposed Effective: 12/1/06
Non-Escalating Fatal Benefits -- Non-Escalating PT/Major Benefits

Exhibit IV Calculation of ELPF Trend

Policy Period	1/1/03-12/31/03	1/1/02-12/31/02	1/1/01-12/31/01
	First Report	Second Report	Third Report
(1) Proposed Effective Date of Filing		12/1/06	
(2a) Trend to		8/15/2006	
(2b) Midpoint of Policy Period	1/1/2004	1/1/2003	1/1/2002
(3) Benefit Level to Which Losses are Brought		7/1/2006	
(4a) Yrs. from (2a) to (2b)	2.625	3.625	4.625
(4b)			
(5) Indemnity Trend { $1.0307^{(4a)}$ }	1.0826	1.1158	1.1501
(6)			
(7)			
(8)			
(9)			
(10) Medical Trend { $1.0953^{(4a)}$ }	1.2699	1.3909	1.5235

Date: 6/30/2006

DELAWARE
Proposed Effective: 12/1/06
Policy Period: 1/1/03-12/31/03
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	406,000	1.0535	1.0826	463,051	22,200	1.0000	1.2699	28,192	
B. P.T.	528,200	1.0805	1.0826	617,862	1,884,100	1.0000	1.2699	2,392,619	
C. Major	9,836,700	1.0741	1.0826	11,438,318	6,960,400	1.0000	1.2699	8,839,012	
D. Minor	8,816,300	1.0755	1.0826	10,265,138	10,568,900	1.0000	1.2699	13,421,446	
E. T.T.	12,713,500	1.0805	1.0826	14,871,608	21,368,800	1.0000	1.2699	27,136,239	
F. Med. Only					8,446,000	1.0000	1.2699	10,725,575	
G. Overall	32,300,700	XX	XX	37,655,977	49,250,400	1.0000	XX	62,543,083	
	(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	491,243	4	122,811	4.3736	537,126	1.0000	2.9723	1.217 (a)	1,410,636
B. P.T.	3,010,481	1	237,631	3.0158	716,648	7.0000	11.3565	25.291 (a)	67,528,477
C. Major	20,277,330	97				2.5567	4.4164	6.512 (a)	108,075,834
D. Minor	23,686,584	426	55,602	1.3881	29,745	1.1596	1.0865	2.043 (a)	38,573,087
E. T.T.	42,007,847	2,532	16,591	1.3118		1.0375	1.0735	1.543 (a)	57,835,888
F. Med. Only	10,725,575	XX	XX	XX	XX	XX		1.000 (b)	10,725,575

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

Date: 6/30/2006

DELAWARE
Proposed Effective: 12/1/06
Policy Period: 1/1/02-12/31/02
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	1,336,600	1.0740	1.1158	1,601,740	1,171,000	1.0000	1.3909	1,628,744	
B. P.T.	4,046,000	1.1091	1.1158	5,007,062	14,858,200	1.0000	1.3909	20,666,270	
C. Major	17,939,900	1.1003	1.1158	22,025,080	14,629,700	1.0000	1.3909	20,348,450	
D. Minor	8,211,200	1.1023	1.1158	10,099,335	10,146,000	1.0000	1.3909	14,112,071	
E. T.T.	14,566,400	1.1091	1.1158	18,026,412	23,280,100	1.0000	1.3909	32,380,291	
F. Med. Only					7,907,700	1.0000	1.3909	10,998,820	
G Overall	46,100,100	XX	XX	56,759,629	71,992,700	1.0000	xx	100,134,646	
	(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	3,230,484	5	646,097	2.4793	1,601,868	1.0000	2.0578	1.217 (a)	5,278,242
B. P.T.	25,673,332	7	402,644	2.4396	982,290	1.4286	1.9566	5.162 (a)	116,476,103
C. Major	42,373,530	162				1.4444	2.2097	3.679 (a)	123,530,767
D. Minor	24,211,406	472	51,295	1.4898	32,166	1.0614	1.0936	1.870 (a)	37,434,206
E. T.T.	50,406,703	2,640	19,093	1.2703		1.0015	0.9891	1.489 (a)	66,044,177
F. Med. Only	10,998,820	XX	XX	XX	XX	XX		1.000 (b)	10,998,820

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

(b) SELECTED

Date: 6/30/2006

DELAWARE
Proposed Effective: 12/1/06
Policy Period: 1/1/01-12/31/01
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	1,631,500	1.0907	1.1501	2,046,577	121,900	1.0000	1.5235	185,715	
B. P.T.	1,373,500	1.1360	1.1501	1,794,496	1,357,300	1.0000	1.5235	2,067,847	
C. Major	26,561,700	1.1250	1.1501	34,367,188	21,853,500	1.0000	1.5235	33,293,807	
D. Minor	8,157,900	1.1273	1.1501	10,576,780	9,161,200	1.0000	1.5235	13,957,088	
E. T.T.	14,836,800	1.1360	1.1501	19,384,481	21,471,600	1.0000	1.5235	32,711,983	
F. Med. Only					7,928,300	1.0000	1.5235	12,078,765	
G. Overall	52,561,400	XX	XX	68,169,522	61,893,800	1.0000	xx	94,295,205	
	(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	2,232,292	6	372,049	1.8072	672,367	1.0000	1.6750	1.217 (a)	3,654,032
B. P.T.	3,862,343	2	309,625	2.3777	736,195	3.5000	3.7509	12.646 (a)	32,880,968
C. Major	67,660,995	229	51,112	1.5458	33,837	1.0917	1.5136	2.781 (a)	144,608,253
D. Minor	24,533,868	480	51,112	1.5458	33,837	1.0250	1.0979	1.806 (a)	36,818,748
E. T.T.	52,096,464	2,563	20,326	1.2485		1.0020	0.9854	1.490 (a)	67,842,322
F. Med. Only	12,078,765	XX	XX	XX	XX			1.000 (b)	12,078,765

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

Date: 6/30/2006

DELAWARE
Proposed Effective: 12/1/06
Non-Escalating Fatal Benefits -- Non-Escalating PT/Major Benefits

Exhibit VI					Exhibit VII Combined Injury Weights					
Adjusted Average Cost Per Case by Injury Types					Hazard Group I			Hazard Group II		
For Each Hazard Group					Type of Injury	Total Incurred Losses	Injury Weights	Type of Injury	Total Incurred Losses	Injury Weights
I. * Injury Type	Average Cost Per Case	Indicated			Death	206,858	0.003	Death	2,554,699	0.006
Fatal	747,271	946,136			P.T.	9,326,079	0.133	P.T.	68,102,062	0.168
P.T. / Major	621,624	815,863			Major	24,830,180	0.354	Major	153,871,875	0.380
Minor/T.T.	29,599	31,938			P.T./Major	34,156,259	0.487	P.T./Major	221,973,937	0.548
					Minor	13,651,951	0.195	Minor	59,459,324	0.147
					T.T.	18,980,516	0.271	T.T.	101,612,865	0.251
					Minor/T.T.	32,632,467	0.466	Minor/T.T.	161,072,189	0.398
II.** Injury Type	Hazard Group				Med. Only	3,076,088	XX	Med. Only	19,335,408	XX
	I	II	III	IV	Total	70,071,672	XX	Total	404,936,233	XX
Fatal	520,848	664,324	829,471	987,892						
P.T./Major	522,164	555,732	681,300	807,490						
Minor/T.T.	29,599	29,599	29,599	29,599						
					Hazard Group III			Hazard Group IV		
					Type of Injury	Total Incurred Losses	Injury Weights	Type of Injury	Total Incurred Losses	Injury Weights
					Death	4,985,283	0.014	Death	2,596,070	0.024
					P.T.	97,598,497	0.272	P.T.	41,858,911	0.388
					Major	153,871,875	0.429	Major	43,640,923	0.405
					P.T./Major	251,470,372	0.701	P.T./Major	85,499,834	0.793
					Minor	32,832,378	0.091	Minor	6,882,389	0.064
					T.T.	60,009,107	0.167	T.T.	11,119,898	0.103
					Minor/T.T.	92,841,485	0.258	Minor/T.T.	18,002,287	0.167
					Med. Only	9,633,901	XX	Med. Only	1,757,764	XX
					Total	358,931,041	XX	Total	107,855,955	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: 6/30/2006

For each hazard group the following procedure is utilized to obtain the distribution of loss. 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: 12/1/06

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	520,848	206,858	0.4						
PT/Major	522,164	34,156,259	65.4						
TT/Minor	29,599	32,632,467	1,102.5						
Combined		66,995,584	1,168.3	57,345	0.09	31,845	34,140	1.302	1.302
Hazard Group II									
Fatal	664,324	2,554,699	3.8						
PT/Major	555,732	221,973,937	399.4						
TT/Minor	29,599	161,072,189	5,441.8						
Combined		385,600,825	5,845.0	65,971	0.19	36,628	42,203	1.053	1.053
Hazard Group III									
Fatal	829,471	4,985,283	6.0						
PT/Major	681,300	251,470,372	369.1						
TT/Minor	29,599	92,841,485	3,136.6						
Combined		349,297,140	3,511.7	99,467	0.15	55,055	61,717	0.720	0.720
Hazard Group IV									
Fatal	987,892	2,596,070	2.6						
PT/Major	807,490	85,499,834	105.9						
TT/Minor	29,599	18,002,287	608.2						
Combined		106,098,191	716.7	148,037	0.07	84,145	88,617	0.502	0.502
Total - All Hazard Groups									
Combined			11,241.7		0.27	44,457			

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: 6/30/2006

DELAWARE COMPENSATION RATING BUREAU
DECEMBER 1, 2006 LOSS COST FILING
PROPOSED HAZARD GROUP ASSIGNMENTS

Class	Class Description	Hazard Group	
		Current	Revised
00070	Farm Machinery Operation	2	3
00160	Orchard	2	1
00830	Livestock Farm	2	3
01070	Candy Mfg.	1	2
01150	Tobacco Products Mfg.	1	2
01350	Hosiery Mfg.	1	2
01640	Federal Coal Mine Coverage Loading	0	4
01650	Mattress, Box Spring Mfg.	3	2
01760	Supplemental Loading For Class 513	3	2
01870	Employment Contractor Candy Mfg.	1	2
02050	Leather Goods Mfg., N.O.C.	1	2
03230	Furniture Mfg.	2	1
04060	Rolling Mill	2	3
04490	Electroplating	3	2
04590	Eyelet Mfg.	1	2
05020	Plaster Statuary Mfg.	1	2
05130	Pottery, N.O.C.	2	1
05510	Chemical Mfg., N.O.C.	4	3
05530	Gases Mfg.	4	3
06020	Road Construction	3	4
06030	Sewer Construction	3	4
06080	Flat Cement Work	3	4
06090	Excavation	3	4
06110	Pile Driving	3	4
06170	Gas, Steam Water Main Construction	3	4
06450	Wallboard Installation	3	4
06460	Furniture Fixtures Installation	2	3
06510	Carpentry - Commercial	3	4
06540	Concrete Construction	3	4
06560	Electric Line Construction	3	4
06590	Roofing	3	4
06620	Appliance Service Or Repair	3	2
06650	Painting	3	4
06690	Plastering	3	4
06750	Machinery Equipment Erection	3	4
06760	Sheet Metal Installation	3	4
06910	Employment Contractor - Excavation	3	4
06930	Employment Contractor - Commercial Carpentry	3	4
07210	Railroad Operation, N.O.C.	3	4
07440	Aircraft Manufacture	3	2
07520	Oil Or Gas Pipeline Operation	4	3
08060	Furniture Moving Storage	2	3
08140	Dealer In Mobile, Self-Propelled Equipment	3	2
08250	Automobile Storage Garage Or Parking Station Lot	3	2
08770	Employment Contractor - Department Store	2	1
08970	Fast-Food Restaurant	2	1
09080	Domestic Workers - Inside	1	2
09130	Domestic Workers - Inside	1	2
09140	Department Store	2	1
09170	Grocery Store	2	1
09190	Florist Store	1	2
09210	Furniture Store - Wholesale	3	2
09360	Broadcasting Station	3	2
09450	Hotel Restaurant	2	1
09540	Security Agency	4	3
09560	Law Firm	2	3
09640	Sheltered Work Shops	2	1
09690	Amusement, Outdoor	2	3
09750	Restaurant, N.O.C.	2	1
09770	Barber Shop Beauty Parlor Hair Styling Salon	1	2
09790	Residential Facility For The Elderly - Non-Medical	3	2
09850	Police Or Firefighters - Salaried	4	3
68430 F	Ship Building, Iron Or Steel	3	4
68720 F	Ship Repair Or Conversion - All Operations	3	4
74050	Aircraft Operation	4	3
74210	Aircraft Operation	4	3

Number of classes

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