

PENNSYLVANIA COMPENSATION RATING BUREAU

Empirical Pennsylvania Loss Distribution

Pages 1 through 4 of the attached exhibit present a distribution of Pennsylvania losses by size of claim. The losses used to produce this distribution include three years of experience. Losses have been trended to the midpoint of the experience period for the proposed loss costs and adjusted to reflect current benefit levels. Additionally, losses were brought to an ultimate level by applying development factors to open claims.

Page 5 of the exhibit shows a summary and includes loss ranges consistent with those published with the excess loss factors. In certain instances it was necessary to interpolate between loss size ranges in the empirical distribution in deriving excess loss factors for specified limits.

The Bureau's analysis this year again considered loss distributions by type of injury based solely on Pennsylvania experience. Pages 6 through 9 of this exhibit show excess loss ratios by loss limitation separately for death, permanent total, permanent partial and temporary total claims. The columns labeled "Actual" represent excess losses based entirely on actual losses. For each type of injury, losses of \$500,000 and higher were fitted to a loss distribution curve and actual losses and claim counts were replaced by the fitted values. Cumulative losses and claim counts were then recalculated using fitted values above \$500,000 and actual values for loss limitations below \$500,000. The resulting excess loss ratios are shown in the column labeled "Fitted". Please Note: The term "Pareto" refers to "Single Parameter Pareto Distribution".

Page 10 is a graph showing the cumulative loss distribution for the above mentioned types of injury, along with the total for all injuries. The y-axis represents the cumulative percentage of total incurred losses.

PENNSYLVANIA  
DISTRIBUTION OF LOSSES(AII)

LIMITS	ACCUMULATED CLAIMS (ADDED UP)		NUMBER OF CLAIMS	ACCUMULATED LOSSES (ADDED DOWN)		INDEMNITY AND MEDICAL	EXCESS RATIO	AVERAGE			
1	MEDICAL ONLY		725,549	588,129	\$	699,290,439	\$	699,290,439	.0000	\$	1,189
3	-	1,999	137,420	12,645	\$	714,283,775	\$	14,993,336	.0000	\$	1,186
4	2,000 -	2,999	124,775	8,186	\$	734,769,118	\$	20,485,343	.8965	\$	2,502
5	3,000 -	3,999	116,589	7,667	\$	761,535,881	\$	26,766,763	.8835	\$	3,491
6	4,000 -	4,999	108,922	6,759	\$	791,894,932	\$	30,359,051	.8714	\$	4,492
7	5,000 -	5,999	102,163	6,065	\$	825,171,678	\$	33,276,746	.8601	\$	5,487
8	6,000 -	6,999	96,098	5,608	\$	861,575,578	\$	36,403,900	.8494	\$	6,491
9	7,000 -	7,999	90,490	5,149	\$	900,145,084	\$	38,569,506	.8394	\$	7,491
10	8,000 -	8,999	85,341	4,581	\$	939,067,908	\$	38,922,824	.8300	\$	8,497
11	9,000 -	9,999	80,760	4,144	\$	978,379,134	\$	39,311,226	.8211	\$	9,486
12	10,000 -	10,999	76,616	3,789	\$	1,018,127,958	\$	39,748,824	.8126	\$	10,491
13	11,000 -	11,999	72,827	3,332	\$	1,056,440,675	\$	38,312,717	.8046	\$	11,498
14	12,000 -	12,999	69,495	3,039	\$	1,094,388,766	\$	37,948,091	.7969	\$	12,487
15	13,000 -	13,999	66,456	2,712	\$	1,130,948,672	\$	36,559,906	.7896	\$	13,481
16	14,000 -	14,999	63,744	2,535	\$	1,167,689,812	\$	36,741,140	.7827	\$	14,494
17	15,000 -	15,999	61,209	2,294	\$	1,203,233,122	\$	35,543,310	.7759	\$	15,494
18	16,000 -	16,999	58,915	2,119	\$	1,238,175,843	\$	34,942,721	.7695	\$	16,490
19	17,000 -	17,999	56,796	1,918	\$	1,271,724,844	\$	33,549,001	.7633	\$	17,492
20	18,000 -	18,999	54,878	1,703	\$	1,303,228,511	\$	31,503,667	.7573	\$	18,499
21	19,000 -	19,999	53,175	1,649	\$	1,335,355,368	\$	32,126,857	.7515	\$	19,483
22	20,000 -	20,999	51,526	1,552	\$	1,367,159,589	\$	31,804,221	.7459	\$	20,492
23	21,000 -	21,999	49,974	1,421	\$	1,397,707,248	\$	30,547,659	.7404	\$	21,497
24	22,000 -	22,999	48,553	1,287	\$	1,426,649,627	\$	28,942,379	.7351	\$	22,488
25	23,000 -	23,999	47,266	1,274	\$	1,456,596,652	\$	29,947,025	.7300	\$	23,506
26	24,000 -	24,999	45,992	1,184	\$	1,485,596,538	\$	28,999,886	.7250	\$	24,493
27	25,000 -	25,999	44,808	1,121	\$	1,514,179,912	\$	28,583,374	.7201	\$	25,498
28	26,000 -	26,999	43,687	1,052	\$	1,542,054,347	\$	27,874,435	.7153	\$	26,497
29	27,000 -	27,999	42,635	974	\$	1,568,829,882	\$	26,775,535	.7107	\$	27,490
30	28,000 -	28,999	41,661	956	\$	1,596,065,837	\$	27,235,955	.7062	\$	28,489
31	29,000 -	29,999	40,705	928	\$	1,623,438,362	\$	27,372,525	.7018	\$	29,496
32	30,000 -	30,999	39,777	774	\$	1,647,036,526	\$	23,598,164	.6974	\$	30,489
33	31,000 -	31,999	39,003	827	\$	1,673,082,062	\$	26,045,536	.6932	\$	31,494
34	32,000 -	32,999	38,176	746	\$	1,697,313,198	\$	24,231,136	.6891	\$	32,481
35	33,000 -	33,999	37,430	720	\$	1,721,421,677	\$	24,108,479	.6850	\$	33,484
36	34,000 -	34,999	36,710	637	\$	1,743,390,537	\$	21,968,860	.6810	\$	34,488
37	35,000 -	35,999	36,073	664	\$	1,766,961,311	\$	23,570,774	.6771	\$	35,498
38	36,000 -	36,999	35,409	631	\$	1,789,983,332	\$	23,022,021	.6733	\$	36,485
39	37,000 -	37,999	34,778	584	\$	1,811,886,246	\$	21,902,914	.6695	\$	37,505
40	38,000 -	38,999	34,194	576	\$	1,834,060,891	\$	22,174,645	.6658	\$	38,498
41	39,000 -	39,999	33,618	550	\$	1,855,787,474	\$	21,726,583	.6622	\$	39,503
42	40,000 -	40,999	33,068	522	\$	1,876,940,435	\$	21,152,961	.6586	\$	40,523
43	41,000 -	41,999	32,546	479	\$	1,896,805,986	\$	19,865,551	.6551	\$	41,473
44	42,000 -	42,999	32,067	463	\$	1,916,485,436	\$	19,679,450	.6516	\$	42,504
45	43,000 -	43,999	31,604	464	\$	1,936,656,750	\$	20,171,314	.6482	\$	43,473
46	44,000 -	44,999	31,140	452	\$	1,956,762,501	\$	20,105,751	.6448	\$	44,482
47	45,000 -	45,999	30,688	414	\$	1,975,594,111	\$	18,831,610	.6415	\$	45,487
48	46,000 -	46,999	30,274	419	\$	1,995,074,480	\$	19,480,369	.6382	\$	46,493
49	47,000 -	47,999	29,855	388	\$	2,013,515,041	\$	18,440,561	.6350	\$	47,527
50	48,000 -	48,999	29,467	413	\$	2,033,550,748	\$	20,035,707	.6318	\$	48,513
51	49,000 -	49,999	29,054	380	\$	2,052,362,182	\$	18,811,434	.6286	\$	49,504
52	50,000 -	50,999	28,674	338	\$	2,069,420,996	\$	17,058,814	.6255	\$	50,470

PENNSYLVANIA  
DISTRIBUTION OF LOSSES(AII)

LIMITS			ACCUMULATED CLAIMS (ADDED UP)	NUMBER OF CLAIMS	ACCUMULATED LOSSES (ADDED DOWN)	INDEMNITY AND MEDICAL	EXCESS RATIO	AVERAGE
53	51,000	-	51,999 28,336	345	\$ 2,087,181,757	\$ 17,760,761	.6225	\$ 51,480
54	52,000	-	52,999 27,991	307	\$ 2,103,300,618	\$ 16,118,861	.6195	\$ 52,504
55	53,000	-	53,999 27,684	310	\$ 2,119,886,930	\$ 16,586,312	.6165	\$ 53,504
56	54,000	-	54,999 27,374	298	\$ 2,136,128,847	\$ 16,241,917	.6135	\$ 54,503
57	55,000	-	55,999 27,076	307	\$ 2,153,169,796	\$ 17,040,949	.6106	\$ 55,508
58	56,000	-	56,999 26,769	290	\$ 2,169,555,276	\$ 16,385,480	.6077	\$ 56,502
59	57,000	-	57,999 26,479	265	\$ 2,184,782,830	\$ 15,227,554	.6048	\$ 57,462
60	58,000	-	58,999 26,214	259	\$ 2,199,931,648	\$ 15,148,818	.6020	\$ 58,490
61	59,000	-	59,999 25,955	232	\$ 2,213,726,466	\$ 13,794,818	.5992	\$ 59,460
62	60,000	-	60,999 25,723	237	\$ 2,228,063,320	\$ 14,336,854	.5964	\$ 60,493
63	61,000	-	61,999 25,486	246	\$ 2,243,194,512	\$ 15,131,192	.5937	\$ 61,509
64	62,000	-	62,999 25,240	234	\$ 2,257,822,904	\$ 14,628,392	.5910	\$ 62,514
65	63,000	-	63,999 25,006	257	\$ 2,274,128,601	\$ 16,305,697	.5883	\$ 63,446
66	64,000	-	64,999 24,749	211	\$ 2,287,736,759	\$ 13,608,158	.5856	\$ 64,494
67	65,000	-	65,999 24,538	219	\$ 2,302,080,389	\$ 14,343,630	.5829	\$ 65,496
68	66,000	-	66,999 24,319	223	\$ 2,316,911,309	\$ 14,830,920	.5803	\$ 66,506
69	67,000	-	67,999 24,096	206	\$ 2,330,821,129	\$ 13,909,820	.5777	\$ 67,523
70	68,000	-	68,999 23,890	186	\$ 2,343,567,017	\$ 12,745,888	.5751	\$ 68,526
71	69,000	-	69,999 23,704	212	\$ 2,358,297,955	\$ 14,730,938	.5726	\$ 69,486
72	70,000	-	70,999 23,492	169	\$ 2,370,215,455	\$ 11,917,500	.5700	\$ 70,518
73	71,000	-	71,999 23,323	192	\$ 2,383,952,171	\$ 13,736,716	.5675	\$ 71,545
74	72,000	-	72,999 23,131	170	\$ 2,396,276,785	\$ 12,324,614	.5650	\$ 72,498
75	73,000	-	73,999 22,961	186	\$ 2,409,945,082	\$ 13,668,297	.5626	\$ 73,485
76	74,000	-	74,999 22,775	184	\$ 2,423,657,607	\$ 13,712,525	.5601	\$ 74,525
77	75,000	-	75,999 22,591	167	\$ 2,436,266,313	\$ 12,608,706	.5577	\$ 75,501
78	76,000	-	76,999 22,424	172	\$ 2,449,428,522	\$ 13,162,209	.5552	\$ 76,524
79	77,000	-	77,999 22,252	169	\$ 2,462,527,503	\$ 13,098,981	.5528	\$ 77,509
80	78,000	-	78,999 22,083	151	\$ 2,474,383,292	\$ 11,855,789	.5505	\$ 78,515
81	79,000	-	79,999 21,932	165	\$ 2,487,496,402	\$ 13,113,110	.5481	\$ 79,473
82	80,000	-	80,999 21,767	142	\$ 2,498,926,986	\$ 11,430,584	.5458	\$ 80,497
83	81,000	-	81,999 21,625	146	\$ 2,510,824,107	\$ 11,897,121	.5434	\$ 81,487
84	82,000	-	82,999 21,479	166	\$ 2,524,515,894	\$ 13,691,787	.5411	\$ 82,481
85	83,000	-	83,999 21,313	133	\$ 2,535,622,319	\$ 11,106,425	.5388	\$ 83,507
86	84,000	-	84,999 21,180	145	\$ 2,547,869,740	\$ 12,247,421	.5365	\$ 84,465
87	85,000	-	85,999 21,035	150	\$ 2,560,701,116	\$ 12,831,376	.5343	\$ 85,543
88	86,000	-	86,999 20,885	139	\$ 2,572,722,334	\$ 12,021,218	.5320	\$ 86,484
89	87,000	-	87,999 20,746	142	\$ 2,585,145,602	\$ 12,423,268	.5298	\$ 87,488
90	88,000	-	88,999 20,604	146	\$ 2,598,070,596	\$ 12,924,994	.5276	\$ 88,527
91	89,000	-	89,999 20,458	162	\$ 2,612,578,687	\$ 14,508,091	.5253	\$ 89,556
92	90,000	-	90,999 20,296	132	\$ 2,624,522,245	\$ 11,943,558	.5232	\$ 90,482
93	91,000	-	91,999 20,164	128	\$ 2,636,232,429	\$ 11,710,184	.5210	\$ 91,486
94	92,000	-	92,999 20,036	128	\$ 2,648,076,916	\$ 11,844,487	.5188	\$ 92,535
95	93,000	-	93,999 19,908	137	\$ 2,660,885,699	\$ 12,808,783	.5167	\$ 93,495
96	94,000	-	94,999 19,771	129	\$ 2,673,075,685	\$ 12,189,986	.5145	\$ 94,496
97	95,000	-	95,999 19,642	149	\$ 2,687,305,884	\$ 14,230,199	.5124	\$ 95,505
98	96,000	-	96,999 19,493	100	\$ 2,696,955,104	\$ 9,649,220	.5103	\$ 96,492
99	97,000	-	97,999 19,393	101	\$ 2,706,801,567	\$ 9,846,463	.5082	\$ 97,490
100	98,000	-	98,999 19,292	98	\$ 2,716,453,387	\$ 9,651,820	.5062	\$ 98,488
101	99,000	-	99,999 19,194	110	\$ 2,727,399,353	\$ 10,945,966	.5041	\$ 99,509
102	100,000	-	109,999 19,084	1,139	\$ 2,846,833,634	\$ 119,434,281	.5020	\$ 104,859
103	110,000	-	119,999 17,945	1,029	\$ 2,965,212,412	\$ 118,378,778	.4822	\$ 115,043

PENNSYLVANIA  
DISTRIBUTION OF LOSSES(AII)

LIMITS			ACCUMULATED CLAIMS (ADDED UP)	NUMBER OF CLAIMS	ACCUMULATED LOSSES (ADDED DOWN)	INDEMNITY AND MEDICAL	EXCESS RATIO	AVERAGE	
104	120,000	-	129,999	16,916	959	\$ 3,084,948,711	\$ 119,736,299	.4634	\$ 124,855
105	130,000	-	139,999	15,957	925	\$ 3,209,627,106	\$ 124,678,395	.4458	\$ 134,787
106	140,000	-	149,999	15,032	812	\$ 3,327,390,147	\$ 117,763,041	.4292	\$ 145,028
107	150,000	-	159,999	14,220	837	\$ 3,457,062,810	\$ 129,672,663	.4135	\$ 154,926
108	160,000	-	169,999	13,383	759	\$ 3,582,212,792	\$ 125,149,982	.3986	\$ 164,888
109	170,000	-	179,999	12,624	683	\$ 3,701,656,956	\$ 119,444,164	.3847	\$ 174,882
110	180,000	-	189,999	11,941	633	\$ 3,818,729,387	\$ 117,072,431	.3715	\$ 184,949
111	190,000	-	199,999	11,308	576	\$ 3,931,043,311	\$ 112,313,924	.3590	\$ 194,989
112	200,000	-	209,999	10,732	538	\$ 4,041,189,099	\$ 110,145,788	.3472	\$ 204,732
113	210,000	-	219,999	10,194	480	\$ 4,144,382,953	\$ 103,193,854	.3360	\$ 214,987
114	220,000	-	229,999	9,714	489	\$ 4,254,346,070	\$ 109,963,117	.3253	\$ 224,873
115	230,000	-	239,999	9,225	442	\$ 4,358,318,886	\$ 103,972,816	.3151	\$ 235,233
116	240,000	-	249,999	8,783	416	\$ 4,460,280,011	\$ 101,961,125	.3054	\$ 245,099
117	250,000	-	259,999	8,367	369	\$ 4,554,369,280	\$ 94,089,269	.2962	\$ 254,984
118	260,000	-	269,999	7,998	369	\$ 4,652,139,307	\$ 97,770,027	.2874	\$ 264,959
119	270,000	-	279,999	7,629	318	\$ 4,739,598,005	\$ 87,458,698	.2790	\$ 275,027
120	280,000	-	289,999	7,311	310	\$ 4,827,967,894	\$ 88,369,889	.2710	\$ 285,064
121	290,000	-	299,999	7,001	307	\$ 4,918,573,951	\$ 90,606,057	.2633	\$ 295,134
122	300,000	-	314,999	6,694	419	\$ 5,047,424,210	\$ 128,850,259	.2560	\$ 307,519
123	315,000	-	329,999	6,275	402	\$ 5,177,003,431	\$ 129,579,221	.2455	\$ 322,336
124	330,000	-	344,999	5,873	347	\$ 5,294,111,139	\$ 117,107,708	.2357	\$ 337,486
125	345,000	-	359,999	5,526	365	\$ 5,422,613,399	\$ 128,502,260	.2265	\$ 352,061
126	360,000	-	374,999	5,161	341	\$ 5,547,855,956	\$ 125,242,557	.2180	\$ 367,280
127	375,000	-	389,999	4,820	302	\$ 5,663,179,700	\$ 115,323,744	.2099	\$ 381,867
128	390,000	-	404,999	4,518	291	\$ 5,778,818,889	\$ 115,639,189	.2024	\$ 397,386
129	405,000	-	419,999	4,227	254	\$ 5,883,524,816	\$ 104,705,927	.1954	\$ 412,228
130	420,000	-	439,999	3,973	296	\$ 6,010,926,362	\$ 127,401,546	.1888	\$ 430,411
131	440,000	-	459,999	3,677	244	\$ 6,120,798,839	\$ 109,872,477	.1805	\$ 450,297
132	460,000	-	479,999	3,433	251	\$ 6,238,687,450	\$ 117,888,611	.1729	\$ 469,676
133	480,000	-	499,999	3,182	242	\$ 6,357,284,738	\$ 118,597,288	.1658	\$ 490,071
134	500,000	-	519,999	2,940	194	\$ 6,456,154,313	\$ 98,869,575	.1592	\$ 509,637
135	520,000	-	539,999	2,746	173	\$ 6,547,861,978	\$ 91,707,665	.1531	\$ 530,102
136	540,000	-	559,999	2,573	178	\$ 6,645,920,413	\$ 98,058,435	.1474	\$ 550,890
137	560,000	-	579,999	2,395	169	\$ 6,742,292,220	\$ 96,371,807	.1421	\$ 570,247
138	580,000	-	599,999	2,226	134	\$ 6,821,325,789	\$ 79,033,569	.1371	\$ 589,803
139	600,000	-	629,999	2,092	161	\$ 6,920,325,155	\$ 98,999,366	.1325	\$ 614,903
140	630,000	-	659,999	1,931	165	\$ 7,026,770,581	\$ 106,445,426	.1260	\$ 645,124
141	660,000	-	699,999	1,766	218	\$ 7,175,019,603	\$ 148,249,022	.1200	\$ 680,041
142	700,000	-	749,999	1,548	204	\$ 7,322,531,877	\$ 147,512,274	.1129	\$ 723,099
143	750,000	-	799,999	1,344	173	\$ 7,456,634,382	\$ 134,102,505	.1052	\$ 775,159
144	800,000	-	849,999	1,171	137	\$ 7,569,738,507	\$ 113,104,125	.0984	\$ 825,578
145	850,000	-	899,999	1,034	122	\$ 7,676,111,927	\$ 106,373,420	.0925	\$ 871,913
146	900,000	-	999,999	912	198	\$ 7,863,692,225	\$ 187,580,298	.0873	\$ 947,375
147	1,000,000	-	1,099,999	714	126	\$ 7,995,571,702	\$ 131,879,477	.0786	\$ 1,046,663
148	1,100,000	-	1,199,999	588	104	\$ 8,114,894,513	\$ 119,322,811	.0717	\$ 1,147,335
149	1,200,000	-	1,299,999	484	79	\$ 8,213,343,920	\$ 98,449,407	.0659	\$ 1,246,195
150	1,300,000	-	1,399,999	405	59	\$ 8,292,689,035	\$ 79,345,115	.0612	\$ 1,344,832
151	1,400,000	-	1,499,999	346	38	\$ 8,347,747,058	\$ 55,058,023	.0572	\$ 1,448,895
152	1,500,000	-	1,599,999	308	39	\$ 8,408,557,705	\$ 60,810,647	.0537	\$ 1,559,247
153	1,600,000	-	1,699,999	269	33	\$ 8,463,085,121	\$ 54,527,416	.0506	\$ 1,652,346
154	1,700,000	-	1,799,999	236	24	\$ 8,505,162,808	\$ 42,077,687	.0478	\$ 1,753,237

PENNSYLVANIA  
DISTRIBUTION OF LOSSES(AII)

LIMITS			ACCUMULATED CLAIMS (ADDED UP)	NUMBER OF CLAIMS	ACCUMULATED LOSSES (ADDED DOWN)	INDEMNITY AND MEDICAL	EXCESS RATIO	AVERAGE
155	1,800,000	-	1,899,999	212	\$ 8,543,990,893	\$ 38,828,085	.0454	\$ 1,848,956
156	1,900,000	-	1,999,999	191	\$ 8,565,479,383	\$ 21,488,490	.0433	\$ 1,953,499
157	2,000,000	-	2,999,999	180	\$ 8,788,064,894	\$ 222,585,511	.0413	\$ 2,419,408
158	3,000,000	-	3,999,999	88	\$ 8,906,621,113	\$ 118,556,219	.0277	\$ 3,486,948
159	4,000,000	-	4,999,999	54	\$ 8,994,451,384	\$ 87,830,271	.0201	\$ 4,391,514
160	5,000,000	-	5,999,999	34	\$ 9,032,749,315	\$ 38,297,931	.0156	\$ 5,471,133
161	6,000,000	-	6,999,999	27	\$ 9,078,505,675	\$ 45,756,360	.0123	\$ 6,536,623
162	7,000,000	-	7,999,999	20	\$ 9,123,938,215	\$ 45,432,540	.0098	\$ 7,572,090
163	8,000,000	-	8,999,999	14	\$ 9,166,144,882	\$ 42,206,667	.0079	\$ 8,441,333
164	9,000,000	-	9,999,999	9	\$ 9,185,688,647	\$ 19,543,765	.0067	\$ 9,771,883
165	10,000,000	-	AND GREATER	7	\$ 9,309,617,660	\$ 123,929,013	.0058	\$ 17,704,145
GRAND TOTALS				725,549	EXCLUDING CONTRACT MEDICAL	\$ 9,309,617,660		\$ 12,831

**Pennsylvania Compensation Rating Bureau  
Distribution of Losses**

<u>Excess Loss Limits *</u>		Loss Amount	Number of Claims	Excess Loss Amount	Average	Empirical Excess Ratio
From	TO (<)					
				9,309,617,660		
0	10,000	978,379,134	648,933	7,565,078,526	1,508	.8126
10,000	15,000	189,310,678	15,407	7,223,792,848	12,287	.7759
15,000	20,000	167,665,556	9,683	6,943,742,292	17,315	.7459
20,000	25,000	150,241,170	6,718	6,703,821,122	22,364	.7201
25,000	30,000	137,841,824	5,031	6,492,869,298	27,398	.6974
30,000	35,000	119,952,175	3,704	6,303,672,123	32,384	.6771
35,000	40,000	112,396,937	3,005	6,131,110,186	37,403	.6586
40,000	50,000	196,574,708	4,394	5,823,555,478	44,737	.6255
50,000	75,000	371,295,425	6,083	5,191,635,053	61,038	.5577
75,000	100,000	303,741,746	3,507	4,673,818,307	86,610	.5020
100,000	125,000	297,681,209	2,648	4,229,974,598	112,439	.4544
125,000	150,000	302,309,586	2,217	3,849,227,513	136,391	.4135
150,000	175,000	314,544,727	1,938	3,518,245,286	162,346	.3779
175,000	200,000	289,108,437	1,551	3,232,174,349	186,461	.3472
200,000	225,000	268,321,201	1,263	2,979,615,648	212,532	.3201
225,000	250,000	260,915,500	1,103	2,757,587,649	236,658	.2962
250,000	275,000	235,588,645	897	2,559,499,004	262,641	.2749
275,000	300,000	222,705,295	776	2,382,843,709	286,991	.2560
300,000	325,000	215,236,406	687	2,223,532,303	313,299	.2388
325,000	350,000	203,134,868	603	2,081,155,768	337,060	.2235
350,000	375,000	210,910,730	584	1,954,261,704	360,942	.2099
375,000	400,000	192,416,537	496	1,839,745,167	387,937	.1976
400,000	425,000	175,102,710	425	1,737,167,457	412,006	.1866
425,000	450,000	150,487,398	344	1,644,005,059	437,463	.1766
450,000	475,000	143,352,697	310	1,559,146,113	462,055	.1675
475,000	500,000	148,069,441	305	1,482,332,922	485,872	.1592
500,000	600,000	464,041,051	848	1,233,091,871	547,218	.1325
600,000	700,000	353,693,814	544	1,050,998,057	650,172	.1129
700,000	800,000	281,614,779	377	916,183,278	746,989	.0984
800,000	900,000	219,477,545	259	812,705,733	847,404	.0873
900,000	1,000,000	187,580,298	198	731,925,435	947,375	.0786
1,000,000	2,000,000	701,787,158	534	384,138,277	1,314,208	.0413
2,000,000	3,000,000	222,585,511	92	257,552,766	2,419,408	.0277
3,000,000	4,000,000	118,556,219	34	186,996,547	3,486,948	.0201
4,000,000	5,000,000	87,830,271	20	145,166,276	4,391,514	.0156
5,000,000	6,000,000	38,297,931	7	114,868,345	5,471,133	.0123
6,000,000	7,000,000	45,756,360	7	91,111,985	6,536,623	.0098
7,000,000	8,000,000	45,432,540	6	73,679,445	7,572,090	.0079
8,000,000	9,000,000	42,206,667	5	62,472,778	8,441,333	.0067
9,000,000	10,000,000	19,543,765	2	53,929,013	9,771,883	.0058
10,000,000	& Over	123,929,013	7		17,704,145	
TOTAL/AVERAGE		9,309,617,660	725,549		12,831	

\* Limits consistent with published loss limits for excess loss factors  
Values have been interpolated when not available on prior pages

**PENNSYLVANIA  
DISTRIBUTION OF LOSSES**

Loss Limit	Death-Pareto		PT-Lognormal		PP-Pareto		TT-Pareto	
	Actual Excess	Fitted Excess	Actual Excess	Fitted Excess	Actual Excess	Fitted Excess	Actual Excess	Fitted Excess
	Ratio	Ratio	Ratio	Ratio	Ratio	Ratio	Ratio	Ratio
2,000	.9962	.9968	.9993	.9993	.9909	.9910	.8959	.8959
3,000	.9943	.9952	.9989	.9990	.9864	.9866	.8495	.8495
4,000	.9925	.9936	.9985	.9986	.9819	.9821	.8070	.8071
5,000	.9907	.9921	.9982	.9983	.9774	.9777	.7681	.7681
6,000	.9890	.9907	.9978	.9979	.9730	.9733	.7323	.7324
7,000	.9873	.9892	.9974	.9976	.9686	.9689	.6994	.6994
8,000	.9856	.9878	.9971	.9972	.9642	.9646	.6690	.6691
9,000	.9840	.9864	.9967	.9969	.9598	.9603	.6409	.6410
10,000	.9823	.9850	.9963	.9965	.9555	.9560	.6149	.6149
11,000	.9807	.9836	.9960	.9962	.9513	.9518	.5907	.5907
12,000	.9791	.9823	.9956	.9958	.9470	.9476	.5681	.5682
13,000	.9774	.9809	.9952	.9955	.9428	.9435	.5471	.5471
14,000	.9758	.9795	.9949	.9952	.9387	.9394	.5273	.5274
15,000	.9742	.9781	.9945	.9948	.9346	.9353	.5088	.5088
16,000	.9726	.9768	.9941	.9945	.9305	.9313	.4913	.4914
17,000	.9710	.9754	.9938	.9941	.9264	.9273	.4749	.4749
18,000	.9694	.9741	.9934	.9938	.9224	.9233	.4593	.4594
19,000	.9679	.9727	.9930	.9934	.9184	.9194	.4446	.4447
20,000	.9663	.9714	.9927	.9931	.9145	.9155	.4307	.4307
21,000	.9647	.9701	.9923	.9927	.9105	.9116	.4174	.4175
22,000	.9631	.9687	.9919	.9924	.9066	.9077	.4049	.4049
23,000	.9616	.9674	.9916	.9920	.9027	.9039	.3929	.3929
24,000	.9600	.9661	.9912	.9917	.8989	.9000	.3814	.3815
25,000	.9584	.9647	.9908	.9914	.8950	.8963	.3706	.3706
26,000	.9568	.9634	.9905	.9910	.8912	.8925	.3602	.3603
27,000	.9553	.9621	.9901	.9907	.8874	.8887	.3503	.3503
28,000	.9537	.9607	.9897	.9903	.8837	.8850	.3408	.3409
29,000	.9522	.9594	.9894	.9900	.8799	.8813	.3317	.3318
30,000	.9506	.9581	.9890	.9896	.8762	.8777	.3230	.3231
31,000	.9491	.9568	.9886	.9893	.8725	.8740	.3147	.3148
32,000	.9475	.9555	.9883	.9889	.8689	.8704	.3068	.3068
33,000	.9460	.9542	.9879	.9886	.8652	.8668	.2991	.2992
34,000	.9444	.9529	.9876	.9883	.8616	.8632	.2918	.2918
35,000	.9429	.9515	.9872	.9879	.8580	.8596	.2847	.2847
36,000	.9413	.9502	.9868	.9876	.8544	.8561	.2779	.2779
37,000	.9398	.9489	.9865	.9872	.8508	.8525	.2713	.2714
38,000	.9382	.9476	.9861	.9869	.8473	.8490	.2650	.2650
39,000	.9367	.9463	.9857	.9865	.8437	.8456	.2589	.2589
40,000	.9352	.9450	.9854	.9862	.8402	.8421	.2530	.2531
41,000	.9336	.9437	.9850	.9859	.8368	.8386	.2473	.2474
42,000	.9321	.9424	.9846	.9855	.8333	.8352	.2419	.2419
43,000	.9306	.9411	.9843	.9852	.8298	.8318	.2366	.2366
44,000	.9291	.9399	.9839	.9848	.8264	.8284	.2315	.2315
45,000	.9276	.9386	.9835	.9845	.8230	.8250	.2265	.2266
46,000	.9261	.9373	.9832	.9841	.8196	.8217	.2217	.2218
47,000	.9246	.9361	.9828	.9838	.8162	.8184	.2171	.2172
48,000	.9231	.9348	.9825	.9834	.8129	.8150	.2126	.2127
49,000	.9216	.9335	.9821	.9831	.8095	.8117	.2082	.2083
50,000	.9201	.9323	.9817	.9828	.8062	.8085	.2040	.2041

**PENNSYLVANIA  
DISTRIBUTION OF LOSSES**

Loss Limit	Death-Pareto		PT-Lognormal		PP-Pareto		TT-Pareto	
	Actual Excess Ratio	Fitted Excess Ratio	Actual Excess Ratio	Fitted Excess Ratio	Actual Excess Ratio	Fitted Excess Ratio	Actual Excess Ratio	Fitted Excess Ratio
51,000	.9186	.9310	.9814	.9824	.8029	.8052	.2000	.2000
52,000	.9172	.9297	.9810	.9821	.7996	.8020	.1960	.1961
53,000	.9157	.9285	.9806	.9817	.7964	.7987	.1921	.1922
54,000	.9142	.9272	.9803	.9814	.7931	.7955	.1884	.1884
55,000	.9127	.9260	.9799	.9810	.7899	.7923	.1847	.1848
56,000	.9112	.9247	.9795	.9807	.7867	.7892	.1811	.1812
57,000	.9097	.9234	.9792	.9804	.7835	.7860	.1776	.1777
58,000	.9082	.9222	.9788	.9800	.7803	.7829	.1743	.1743
59,000	.9068	.9209	.9785	.9797	.7772	.7798	.1709	.1710
60,000	.9053	.9197	.9781	.9793	.7741	.7767	.1677	.1678
61,000	.9038	.9184	.9777	.9790	.7709	.7736	.1646	.1646
62,000	.9024	.9172	.9774	.9786	.7678	.7705	.1615	.1615
63,000	.9009	.9160	.9770	.9783	.7647	.7674	.1585	.1585
64,000	.8995	.9147	.9766	.9780	.7616	.7644	.1555	.1556
65,000	.8980	.9135	.9763	.9776	.7586	.7614	.1526	.1527
66,000	.8965	.9123	.9759	.9773	.7555	.7584	.1498	.1499
67,000	.8951	.9110	.9756	.9769	.7525	.7554	.1471	.1472
68,000	.8936	.9098	.9752	.9766	.7495	.7524	.1444	.1445
69,000	.8922	.9086	.9748	.9763	.7465	.7494	.1418	.1418
70,000	.8907	.9073	.9745	.9759	.7435	.7465	.1392	.1393
71,000	.8893	.9061	.9741	.9756	.7405	.7435	.1367	.1367
72,000	.8878	.9049	.9737	.9752	.7375	.7406	.1342	.1343
73,000	.8864	.9036	.9734	.9749	.7346	.7377	.1318	.1319
74,000	.8849	.9024	.9730	.9745	.7317	.7348	.1294	.1295
75,000	.8835	.9012	.9727	.9742	.7287	.7319	.1271	.1272
76,000	.8820	.8999	.9723	.9739	.7258	.7290	.1248	.1249
77,000	.8806	.8987	.9719	.9735	.7229	.7261	.1226	.1226
78,000	.8791	.8975	.9716	.9732	.7201	.7233	.1204	.1204
79,000	.8777	.8963	.9712	.9728	.7172	.7205	.1182	.1183
80,000	.8763	.8951	.9708	.9725	.7144	.7177	.1161	.1162
81,000	.8748	.8938	.9705	.9722	.7115	.7149	.1140	.1141
82,000	.8734	.8926	.9701	.9718	.7087	.7121	.1120	.1120
83,000	.8719	.8914	.9698	.9715	.7059	.7093	.1099	.1100
84,000	.8705	.8902	.9694	.9711	.7031	.7065	.1080	.1080
85,000	.8691	.8889	.9690	.9708	.7003	.7038	.1060	.1061
86,000	.8676	.8877	.9687	.9704	.6975	.7010	.1041	.1042
87,000	.8662	.8865	.9683	.9701	.6948	.6983	.1022	.1023
88,000	.8648	.8853	.9680	.9698	.6920	.6956	.1004	.1005
89,000	.8633	.8841	.9676	.9694	.6893	.6929	.0986	.0987
90,000	.8619	.8829	.9672	.9691	.6865	.6902	.0968	.0969
91,000	.8605	.8817	.9669	.9687	.6838	.6875	.0951	.0952
92,000	.8590	.8804	.9665	.9684	.6811	.6848	.0934	.0935
93,000	.8576	.8792	.9661	.9681	.6784	.6822	.0917	.0918
94,000	.8562	.8780	.9658	.9677	.6758	.6795	.0901	.0901
95,000	.8547	.8768	.9654	.9674	.6731	.6769	.0884	.0885
96,000	.8533	.8756	.9651	.9670	.6705	.6743	.0869	.0869
97,000	.8519	.8744	.9647	.9667	.6678	.6717	.0853	.0854
98,000	.8505	.8732	.9643	.9663	.6652	.6691	.0838	.0838
99,000	.8490	.8720	.9640	.9660	.6626	.6665	.0822	.0823
100,000	.8476	.8708	.9636	.9657	.6600	.6639	.0808	.0808
110,000	.8334	.8587	.9600	.9623	.6345	.6387	.0672	.0672



**PENNSYLVANIA  
DISTRIBUTION OF LOSSES**

Loss Limit	Death-Pareto		PT-Lognormal		PP-Pareto		TT-Pareto	
	Actual Excess	Fitted Excess	Actual Excess	Fitted Excess	Actual Excess	Fitted Excess	Actual Excess	Fitted Excess
	Ratio	Ratio	Ratio	Ratio	Ratio	Ratio	Ratio	Ratio
120,000	.8194	.8468	.9564	.9589	.6100	.6146	.0556	.0557
130,000	.8055	.8350	.9528	.9555	.5866	.5914	.0461	.0461
140,000	.7919	.8235	.9492	.9521	.5642	.5693	.0382	.0383
150,000	.7786	.8122	.9456	.9487	.5428	.5481	.0317	.0318
160,000	.7655	.8012	.9421	.9453	.5222	.5277	.0266	.0267
170,000	.7528	.7903	.9385	.9420	.5026	.5084	.0225	.0226
180,000	.7402	.7797	.9350	.9386	.4839	.4899	.0193	.0194
190,000	.7277	.7691	.9314	.9353	.4661	.4723	.0167	.0168
200,000	.7154	.7586	.9279	.9320	.4491	.4555	.0147	.0147
210,000	.7034	.7484	.9244	.9287	.4329	.4395	.0130	.0131
220,000	.6915	.7384	.9210	.9254	.4175	.4242	.0116	.0117
230,000	.6799	.7285	.9175	.9222	.4027	.4096	.0104	.0105
240,000	.6686	.7189	.9141	.9189	.3887	.3958	.0094	.0095
250,000	.6575	.7095	.9106	.9157	.3753	.3825	.0085	.0086
260,000	.6465	.7002	.9072	.9124	.3625	.3699	.0078	.0078
270,000	.6356	.6909	.9038	.9092	.3503	.3578	.0071	.0072
280,000	.6248	.6818	.9004	.9061	.3387	.3463	.0065	.0066
290,000	.6141	.6727	.8971	.9029	.3275	.3353	.0060	.0060
300,000	.6037	.6639	.8938	.8998	.3168	.3247	.0055	.0055
315,000	.5883	.6508	.8889	.8951	.3017	.3098	.0048	.0049
330,000	.5732	.6380	.8839	.8905	.2875	.2958	.0042	.0043
345,000	.5585	.6256	.8790	.8858	.2742	.2826	.0037	.0038
360,000	.5442	.6134	.8741	.8812	.2618	.2704	.0034	.0034
375,000	.5300	.6014	.8692	.8765	.2503	.2589	.0030	.0031
390,000	.5161	.5896	.8642	.8719	.2395	.2483	.0027	.0028
405,000	.5028	.5784	.8594	.8673	.2294	.2383	.0025	.0026
420,000	.4900	.5675	.8545	.8628	.2200	.2290	.0022	.0023
440,000	.4732	.5532	.8482	.8567	.2083	.2174	.0019	.0020
460,000	.4567	.5392	.8419	.8508	.1974	.2067	.0017	.0018
480,000	.4408	.5257	.8356	.8449	.1874	.1968	.0015	.0015
500,000	.4256	.5129	.8294	.8390	.1781	.1876	.0013	.0014
520,000	.4108	.5006	.8232	.8332	.1696	.1792	.0011	.0012
540,000	.3964	.4890	.8171	.8274	.1616	.1715	.0010	.0011
560,000	.3824	.4781	.8112	.8216	.1542	.1644	.0009	.0010
580,000	.3689	.4678	.8052	.8159	.1473	.1578	.0007	.0009
600,000	.3560	.4580	.7993	.8102	.1409	.1517	.0006	.0008
630,000	.3376	.4443	.7906	.8017	.1320	.1433	.0005	.0007
660,000	.3204	.4316	.7823	.7933	.1239	.1357	.0004	.0006
700,000	.2990	.4159	.7714	.7822	.1142	.1267	.0003	.0005
750,000	.2752	.3982	.7583	.7686	.1039	.1169	.0003	.0004
800,000	.2536	.3823	.7454	.7552	.0949	.1085	.0002	.0003
850,000	.2340	.3679	.7326	.7420	.0872	.1011	.0001	.0003
900,000	.2157	.3547	.7200	.7292	.0805	.0946	.0000	.0002
1,000,000	.1817	.3316	.6963	.7042	.0696	.0837	.0000	.0002
1,100,000	.1534	.3118	.6736	.6802	.0612	.0750	.0000	.0001
1,200,000	.1321	.2947	.6514	.6571	.0544	.0678	.0000	.0001
1,300,000	.1161	.2796	.6302	.6351	.0489	.0618	.0000	.0001
1,400,000	.1041	.2663	.6102	.6140	.0444	.0568	.0000	.0001
1,500,000	.0937	.2544	.5913	.5938	.0406	.0524	.0000	.0000
1,600,000	.0837	.2437	.5732	.5745	.0372	.0487	.0000	.0000
1,700,000	.0747	.2339	.5561	.5560	.0344	.0454	.0000	.0000

**PENNSYLVANIA  
DISTRIBUTION OF LOSSES**

Loss Limit	Death-Pareto		PT-Lognormal		PP-Pareto		TT-Pareto	
	Actual Excess Ratio	Fitted Excess Ratio	Actual Excess Ratio	Fitted Excess Ratio	Actual Excess Ratio	Fitted Excess Ratio	Actual Excess Ratio	Fitted Excess Ratio
1,800,000	.0661	.2251	.5404	.5383	.0320	.0426	.0000	.0000
1,900,000	.0578	.2170	.5252	.5214	.0299	.0400	.0000	.0000
2,000,000	.0499	.2095	.5105	.5053	.0280	.0377	.0000	.0000
3,000,000	.0154	.1579	.3854	.3800	.0163	.0238	.0000	.0000
4,000,000	.0023	.1278	.2961	.2960	.0110	.0173	.0000	.0000
5,000,000	.0000	.1076	.2364	.2382	.0081	.0136	.0000	.0000
6,000,000	.0000	.0928	.1900	.1972	.0062	.0112	.0000	.0000
7,000,000	.0000	.0815	.1535	.1674	.0048	.0095	.0000	.0000
8,000,000	.0000	.0725	.1302	.1453	.0034	.0083	.0000	.0000
9,000,000	.0000	.0651	.1142	.1286	.0027	.0074	.0000	.0000
10,000,000	.0000	.0588	.1030	.1158	.0020	.0066	.0000	.0000

## Pennsylvania Compensation Rating Bureau Cumulative Distribution of Loss By Type of Injury ( 2002-2004)

