PENNSYLVANIA COMPENSATION RATING BUREAU F CLASS FILING

ANALYSIS OF EXPERIENCE

The following pages present an analysis of Pennsylvania "F" class experience. The analysis is based on data reported to the Bureau under the Unit Statistical Plan.

<u>Reported Premium and Losses</u> - Pages 1 and 2 present reported standard earned premiums and incurred losses by policy year separately for indemnity (page 1) and medical (page 2). Losses are shown through 10th report which is the latest report currently available under the Unit Statistical Plan.

<u>Indicated Loss Development Factors</u> - Page 3 (indemnity) and page 4 (medical) show age-to-age development factors based on reported losses. A seven year average, or all available points if fewer than seven were available, for indemnity and medical was calculated and formed the basis for the factors ultimately selected. The process for calculation of selected loss development factors and a tail factor are shown on pages 5 and 6. Factors to ultimate are calculated by compounding the age-to-age and 10th-to-ultimate factors.

<u>Selected Loss Development Factors</u> - Pages 5 (indemnity) and page 6 (medical) show the derivation of selected age-to-age and 10th-to-ultimate development factors. The residuals of all years available average indicated age-to-age development factors from pages 3 and 4 were fitted to a curve of the form $y = a * (1 + x)^{h}$ b for indemnity and $y = 1 / (a + b^{*}x)$ for medical. A value of 1.0000 was selected from the 14th-to-15th development stage to ensure a more reasonable shape for the final fitted curve. The 10th-to-ultimate factor was then calculated by compounding the age-to-age factors for 10th-to-11th and all subsequent development stages through the 15th report. These factors became the "selected" values on pages 3 and 4.

Loss Ratios - Indemnity and medical ultimate loss ratios are calculated on page 7.

<u>Graphs</u> - Indemnity, medical and total ultimate loss ratio graphs for policy years 1994 through 2003 are shown on page 8.

<u>Trend Summary</u> - Ultimate loss ratios were then fitted to both a linear and experimental curve to project a loss ratio for the prospective rating period. A summary of these results are shown on page 9.

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

REPORTED STANDARD EARNED PREMIUM AND INDEMNITY INCURRED LOSSES

Policy	Standard Earned				F	Reported Indemn Repo	ity Incurred Los rt Level	ses			
Year	Premium	1	2	3	4	5	6	7	8	9	10
90	6,197,957	1,440,017	2,396,047	3,346,275	3,033,571	3,653,345		3,543,484	3,668,661	3,789,394	3,806,984
91	7,069,911	2,519,152	3,159,721	5,180,276	5,288,473	5,140,334	5,325,289	5,445,084	5,964,871	5,639,210	5,778,198
92	8,224,657	1,685,379	2,634,208	3,008,151	3,529,773	4,244,023	4,212,388	4,329,719	4,494,702	3,917,997	3,865,290
93	8,868,022	940,865	1,776,487	2,104,171	3,036,597	3,237,829	4,037,056	3,898,149	2,295,835	2,276,985	2,276,985
94	8,613,777	2,017,088	3,072,208	3,229,962	3,208,208	2,995,170	3,167,237	2,443,570	2,474,752	2,483,655	2,465,136
95	9,317,313	518,260	1,106,477	1,403,489	916,600	1,123,965	1,144,298	987,901	1,052,159	892,189	
96	10,841,351	1,628,776	2,237,575	2,717,205	3,471,694	4,897,966	4,493,113	4,383,289	4,370,894		
97	6,729,291	1,665,526	2,517,585	2,932,035	2,936,181	2,959,307	3,143,129	2,838,081			
98	11,198,940	2,189,207	2,741,853	1,455,480	1,638,418	1,655,549	2,145,803				
99	7,004,741	2,278,068	1,444,801	1,491,375	1,545,642	1,413,730					
00	10,673,321	968,974	2,575,955	3,040,976	3,271,834						
01	16,249,965	1,167,275	1,372,832	1,572,916							
02	10,267,947	907,762	1,112,013								
03	9,764,773	1,693,589									

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

REPORTED STANDARD EARNED PREMIUM AND MEDICAL INCURRED LOSSES

Policy	Standard Earned					Reported Medic	al Incurred Loss	ses			
Year	Premium	1	2	3	4	5	6	7	8	9	10
90	6,197,957	866,108	1,179,772	1,505,424	1,539,693	1,448,816		1,389,184	1,381,063	1,409,910	1,420,843
91	7,069,911	1,464,722	1,760,432	2,194,949	2,304,753	2,279,595	2,246,879	2,313,108	2,395,676	2,233,861	2,246,305
92	8,224,657	1,324,644	1,725,261	1,848,169	1,828,378	1,846,771	1,825,230	1,958,424	1,924,003	1,758,325	1,759,414
93	8,868,022	662,636	801,635	823,492	819,314	819,568	920,355	896,193	753,390	741,750	810,428
94	8,613,777	1,001,710	1,187,641	1,071,712	958,351	1,058,106	920,957	759,304	789,304	789,279	773,376
95	9,317,313	321,942	409,250	422,749	394,452	472,415	505,361	494,476	699,067	471,507	
96	10,841,351	644,990	785,475	785,093	863,747	1,167,216	1,194,582	1,338,407	1,120,582		
97	6,729,291	775,865	972,104	872,839	828,878	820,761	846,122	1,010,414			
98	11,198,940	2,954,477	2,026,872	1,430,034	1,407,195	1,407,916	2,044,227				
99	7,004,741	1,045,998	224,350	219,209	234,063	230,274					
00	10,673,321	549,267	722,368	963,165	1,153,659						
01	16,249,965	529,685	622,427	501,975							
02	10,267,947	555,469	595,505								
03	9,764,773	1,142,367									

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

INDEMNITY INCURRED LOSS DEVELOPMENT FACTORS

Age-to-Age Development Factors

Year 1-2 2-3 3-4 4-5 5-6 6-7 7-8 8-9 9-10 10-U 90 1.6639 1.3966 **** 1.2043 1.0353 **** 1.0046 91 1.2543 **** 1.0209 0.9720 **** 1.0225 1.0955 0.9454 1.0246 92 **** 1.1420 1.1734 1.2024 0.9925 **** 0.9865 93 1.8881 1.1845 **** 1.0663 **** 0.9656 **** 0.9918 1.0000 94 1.5231 **** 0.9933 0.9336 1.0574 **** 1.0128 1.0036 0.9925 95 **** 1.2684 0.6531 1.2262 **** 0.8633 1.0650 0.8480 96 1.3738 **** 1.2777 0.9173 0.9756 0.9972	<u>.T</u>
91 1.2543 1.0209 0.9720 **** 1.0225 1.0955 0.9454 1.0246 92 **** 1.1420 1.1734 1.2024 0.9925 **** 1.0381 **** 0.9865 93 1.8881 1.1845 **** 1.0663 **** 0.9956 **** 0.9918 1.0000 94 1.5231 0.9933 0.9336 1.0574 **** 1.0128 1.0036 0.9925 95 **** 1.2684 0.6531 1.2262 **** 0.8633 1.0650 0.8480	
92 **** 1.1420 1.1734 1.2024 0.9925 **** 1.0381 **** 0.9865 93 1.8881 1.1845 **** 1.0663 **** 0.9956 **** 0.9918 1.0000 94 1.5231 **** 0.9933 0.9336 1.0574 **** 1.0128 1.0036 0.9925 95 **** 1.2684 0.6531 1.2262 **** 0.8633 1.0650 0.8480	
93 1.8881 1.1845 1.0663 **** 0.9656 **** 0.9918 1.0000 94 1.5231 **** 0.9933 0.9336 1.0574 **** 1.0128 1.0036 0.9925 95 **** 1.2684 0.6531 1.2262 **** 0.8633 1.0650 0.8480	
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95 **** 1.2684 0.6531 1.2262 **** 0.8633 1.0650 0.8480	
96 1 3738 **** 1 2777 **** 0 9173 0 9756 0 9972	
97 **** 1.1646 **** 1.0079 1.0621 0.9029	
98 1.2524 **** 1.1257 1.0105 1.2961	
99 **** 1.0322 1.0364 0.9147	
00 2.6584 1.1805 1.0759	
01 1.1761 1.1457	
02 1.2250	
3 Yr Avg (Latest 3) 1.6865 1.1195 1.0793 0.9777 1.0918 0.9139 1.0250 0.9478 0.9930	
5 Yr Avg 1.5371 1.1583 1.0338 1.0186 1.0651 0.9460 1.0417 0.9472 1.0016	
7 Yr Avg 1.5853 1.1597 1.0479 1.0517 1.0651 0.9460 1.0407 0.9472 1.0016	
Selected (Fitted) 1.5853 1.1585 1.0627 1.0306 1.0170 1.0103 1.0067 1.0046 1.0033 1	0076
Development Factors to Ultimate	
1-ULT 2-ULT 3-ULT 4-ULT 5-ULT 6-ULT 7-ULT 8-ULT 9-ULT 10-UL	F *
3 Yr Avg (Latest 3)	
5 Yr Avg	
	0076
7 Yr Avg 2.0309 1.2811 1.1047 1.0542 1.0024 0.9411 0.9948 0.9559 1.0092 1	

* Based on selected value

**** Loss development factor not used

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

MEDICAL INCURRED LOSS DEVELOPMENT FACTORS

Age-to-Age Development Factors

Policy					R	eport				
Year	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10 - ULT
90	1.3622	1.2760	****	0.9410		F	0.9942	****	1.0078	
91	1.2019	****	1.0500	0.9891	****	1.0295	1.0357	0.9325	1.0056	
92	****	1.0712	0.9893	1.0101	0.9883	****	0.9824	****	1.0006	
93	1.2098	1.0273	****	1.0003	****	0.9737	****	0.9845	1.0926	
94	1.1856	****	0.8942	****	0.8704	****	1.0395	1.0000	0.9799	
95	****	1.0330	0.9331	1.1976	****	0.9785	1.4138	0.6745		
96	1.2178	****	1.1002	****	1.0234	1.1204	0.8373			
97	****	0.8979	****	0.9902	1.0309	1.1942				
98	0.6860	****	0.9840	1.0005	1.4520					
99	****	0.9771	1.0678	0.9838						
00	1.3151	1.3333	1.1978							
01	1.1751	0.8065								
02	1.0721									
	4 4 0 7 4	4 0200	4 0000	0.0015	4 4 6 9 9	4 0077	1 0000	0.0000	4 00 4 4	
3 Yr Avg (Latest 3)	1.1874	1.0390	1.0832	0.9915	1.1688	1.0977	1.0969	0.8863	1.0244	
5 Yr Avg	1.0932	1.0096	1.0566	1.0345	1.0730	1.0593	1.0617	0.8979	1.0173	
7 Yr Avg	1.1231	1.0209	1.0238	1.0245	1.0730	1.0593	1.0505	0.8979	1.0173	
Selected (Fitted)	1.1204	1.0464	1.0287	1.0208	1.0163	1.0134	1.0114	1.0099	1.0088	1.0333
				Developme	nt Factors to U	ltimate				
				-						
3 Yr Avg (Latest 3)	1-ULT	2-ULT	3-ULT	4-ULT	5-ULT	6-ULT	7-ULT	8-ULT	9-ULT	10-ULT *
5 Yr Avg										
7 Yr Avg	1.3555	1.2069	1.1822	1.1547	1.1271	1.0504	0.9916	0.9439	1.0512	1.0333
Selected	1.3500	1.2049	1.1515	1.1194	1.0966	1.0790	1.0647	1.0527	1.0424	1.0333
* Based on selected value	<u>م</u>									

* Based on selected value

**** Loss development factor not used

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

FITTED DEVELOPMENT FACTORS

INDEMNITY INCURRED LOSSES

Y = a*(1+x)^b	a =	5.46276
	b =	(3.22230)

R ^ 2 = 0.9584

Incurred Development	7 Year Average	7 Year Average - 1	Fitted Value	Fitted Value + 1
1st to 2nd	1.5853	0.5853	0.5853	1.5853
2nd to 3rd	1.1597	0.1597	0.1585	1.1585
3rd to 4th	1.0479	0.0479	0.0627	1.0627
4th to 5th	1.0517	0.0517	0.0306	1.0306
5th to 6th	1.0651	0.0651	0.0170	1.0170
6th to 7th	0.9460	(0.0540)	0.0103	1.0103
7th to 8th	1.0407	0.0407	0.0067	1.0067
8th to 9th	0.9472	(0.0528)	0.0046	1.0046
9th to 10th	1.0016	0.0016	0.0033	1.0033
10th to 11th			0.0024	1.0024
11th to 12th			0.0018	1.0018
12th to 13th			0.0014	1.0014
13th to 14th			0.0011	1.0011
14th to 15th	1.0000	-	0.0009	1.0009
10th to Ultimate				1.0076

(a) 14th to 15th age-to-age factor set at 1.0000 to ensure proper tendency for the fitted curve.

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

FITTED DEVELOPMENT FACTORS

MEDICAL INCURRED LOSSES

$Y = 1/(a+b^*x)$	a =	(4.9317)
	b =	13.2391

R ^ 2 = 0.2540

Incurred Development	All Year Average	<u>All Year Average - 1</u>	Fitted Value	Fitted Value + 1
1st to 2nd	1.1231	0.1231	0.1204	1.1204
2nd to 3rd	1.0209	0.0209	0.0464	1.0464
3rd to 4th	1.0238	0.0238	0.0287	1.0287
4th to 5th	1.0245	0.0245	0.0208	1.0208
5th to 6th	1.0730	0.0730	0.0163	1.0163
6th to 7th	1.0593	0.0593	0.0134	1.0134
7th to 8th	1.0505	0.0505	0.0114	1.0114
8th to 9th	0.8979	(0.1021)	0.0099	1.0099
9th to 10th	1.0173	0.0173	0.0088	1.0088
10th to 11th			0.0078	1.0078
11th to 12th			0.0071	1.0071
12th to 13th			0.0065	1.0065
13th to 14th			0.0060	1.0060
14th to 15th	1.0000	-	0.0055	1.0055
10th to Ultimate				1.0333

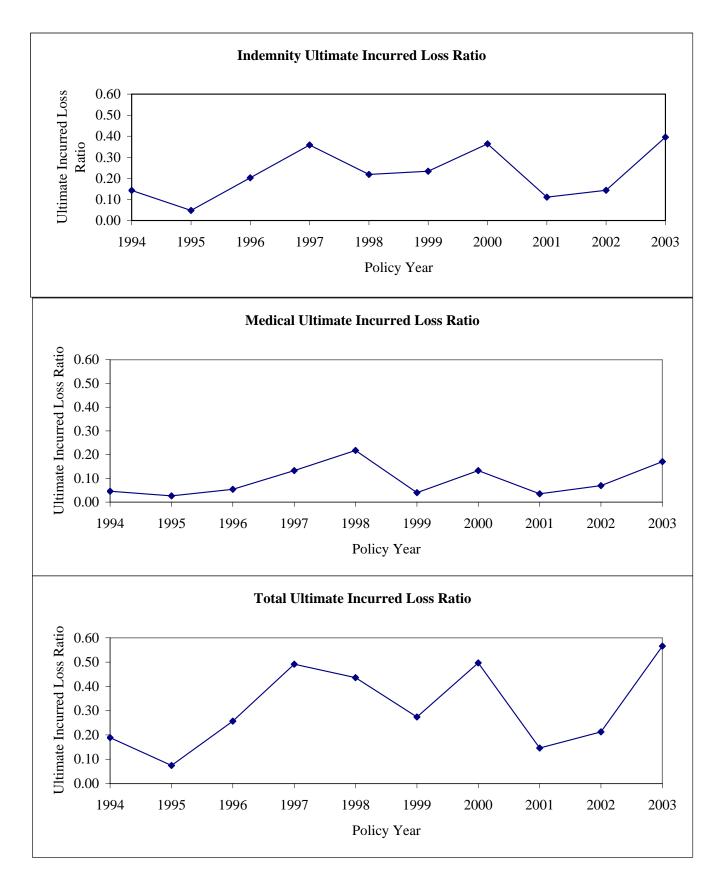
(a) 14th to 15th age-to-age factor set at 1.0000 to ensure proper tendency for the fitted curve.

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

ULTIMATE LOSS RATIOS

	Policy Year	Standard Earned Premium	Premium On-Level Factor	Adjusted Premium	Reported Incurred Loss	Loss Level	Loss Development Factor	Ultimate Incurred Loss	Loss Ratio
		(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4)*(6)	(8)=(7)/(3)
	•				0 405 400	10	4 0 0 7 0	o (oo o=)	
Indemnity		8,613,777	2.0163	17,367,959	2,465,136	10	1.0076	2,483,871	0.1430
	95	9,317,313	2.0163	18,786,498	892,189	9	1.0109	901,914	0.0480
	96	10,841,351	2.0163	21,859,416	4,370,894	8	1.0156	4,439,080	0.2031
	97	6,729,291	1.2029	8,094,664	2,838,081	7	1.0224	2,901,654	0.3585
	98	11,198,940	0.9056	10,141,760	2,145,803	6	1.0329	2,216,400	0.2185
	99	7,004,741	0.9056	6,343,493	1,413,730	5	1.0505	1,485,123	0.2341
	00	10,673,321	0.9118	9,731,934	3,271,834	4	1.0826	3,542,087	0.3640
	01	16,249,965	1.0071	16,365,340	1,572,916	3	1.1505	1,809,640	0.1106
	02	10,267,947	1.0071	10,340,849	1,112,013	2	1.3329	1,482,202	0.1433
	03	9,764,773	0.9266	9,048,039	1,693,589	1	2.1130	3,578,554	0.3955
	10 Year Total	100,661,419		128,079,952	21,776,185			24,840,525	0.1939
Medical	5 Year Average	•						I	0.2495
Weulcal									
	94	8,613,777	2.0163	17,367,959	773,376	10	1.0333	799,129	0.0460
	95	9,317,313	2.0163	18,786,498	471,507	9	1.0424	491,499	0.0262
	96	10,841,351	2.0163	21,859,416	1,120,582	8	1.0527	1,179,637	0.0540
	97	6,729,291	1.2029	8,094,664	1,010,414	7	1.0647	1,075,788	0.1329
	98	11,198,940	0.9056	10,141,760	2,044,227	6	1.0790	2,205,721	0.2175
	99	7,004,741	0.9056	6,343,493	230,274	5	1.0966	252,518	0.0398
	00	10,673,321	0.9118	9,731,934	1,153,659	4	1.1194	1,291,406	0.1327
	01	16,249,965	1.0071	16,365,340	501,975	3	1.1515	578,024	0.0353
	02	10,267,947	1.0071	10,340,849	595,505	2	1.2049	717,524	0.0694
	03	9,764,773	0.9266	9,048,039	1,142,367	- 1	1.3500	1,542,195	0.1704
	10 Year Total	100,661,419		128,079,952	9,043,886	-		10,133,441	0.0791
	5 Year Average	•						[0.0895
Total	94	8,613,777	2.0163	17,367,959	3,238,512			3,283,000	0.1890
	95	9,317,313	2.0163	18,786,498	1,363,696			1,393,413	0.0742
	96	10,841,351	2.0163	21,859,416	5,491,476			5,618,717	0.2570
	97	6,729,291	1.2029	8,094,664	3,848,495			3,977,442	0.4914
	98	11,198,940	0.9056	10,141,760	4,190,030			4,422,121	0.4360
	99	7,004,741	0.9056	6,343,493	1,644,004			1,737,641	0.2739
	00	10,673,321	0.9118	9,731,934	4,425,493			4,833,493	0.4967
	01	16,249,965	1.0071	16,365,340	2,074,891			2,387,664	0.1459
	02	10,267,947	1.0071	10,340,849	1,707,518			2,199,726	0.2127
	03	9,764,773	0.9266	9,048,039	2,835,956			5,120,749	0.5660
	10 Year Total	100,661,419	0.0200	128,079,952	30,820,071			34,973,966	0.2731
		,,		-,	, ,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

0.3390



INDEMNITY		3 points	4 points	5 points	6 points	7 points	8 points	9 points	10 points
LINEAR	Average Loss Ratio	0.2165	0.2534	0.2495	0.2443	0.2606	0.2535	0.2306	0.2219
EXPONENTIAL	Trended Loss Ratio Trend Factor Annual. Trend Factor R^2 Trended Loss Ratio Trend Factor Annual. Trend Factor	0.7981 3.6864 1.2392 0.8348 2.4864 11.4845 1.4937	0.3117 1.2301 1.0297 0.0125 0.2759 1.0888 1.0121	0.3014 1.2080 1.0237 0.0160 0.2351 0.9423 0.9927	0.3016 1.2345 1.0235 0.0279 0.2320 0.9497 0.9943	0.2253 0.8645 0.9857 0.0123 0.1786 0.6853 0.9632	0.2595 1.0237 1.0021 0.0004 0.2062 0.8134 0.9815	0.3322 1.4406 1.0307 0.1049 0.3754 1.6279 1.0412	0.3372 1.5196 1.0325 0.1532 0.3579 1.6129 1.0372
MEDICAL	R^2	0.8949	0.0103	0.0011	0.0010	0.0413	0.0093	0.1390	0.1548
	Average Loss Ratio	0.0917	0.1020	0.0895	0.1109	0.1140	0.1065	0.0976	0.0924
	Trended Loss Ratio Trend Factor Annual. Trend Factor R^2	0.3675 4.0076 1.2563 0.9244	0.1694 1.6608 1.0742 0.0973	0.1901 2.1240 1.0977 0.2754	0.0719 0.6483 0.9534 0.0305	0.0731 0.6412 0.9569 0.0447	0.1099 1.0319 1.0028 0.0004	0.1381 1.4150 1.0291 0.0528	0.1453 1.5725 1.0352 0.1013
EXPONENTIAL	Trended Loss Ratio Trend Factor Annual. Trend Factor R^2	1.8596 20.2792 1.6400 0.9934	0.1659 1.6265 1.0711 0.0680	0.2332 2.6056 1.1258 0.2589	0.0769 0.6934 0.9605 0.0037	0.0654 0.5737 0.9464 0.0318	0.0913 0.8573 0.9862 0.0005	0.1397 1.4314 1.0301 0.0932	0.1435 1.5530 1.0342 0.1356
TOTAL	Average Loss Ratio	0.3082	0.3554	0.3390	0.3552	0.3746	0.3600	0.3282	0.3143
LINEAR	Trended Loss Ratio	1.1656	0.3554	0.3390	0.3552	0.3740	0.3694	0.3282	0.3143
EXPONENTIAL	Trended Loss Ratio	4.3460	0.4418	0.4683	0.3089	0.2440	0.2975	0.5151	0.5014