

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.

Reported Premium and Losses - 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.

Indicated Loss Development Factors - Page 3 (indemnity) and page 4 (medical) show age-to-age development factors based on reported losses. A three year average for indemnity and a five year average, where available, for 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 8th-to-ultimate factors.

Selected Loss Development Factors - Pages 5 (indemnity) and page 6 (medical) show the derivation of selected age-to-age and 8th-to-ultimate development factors. The residuals of 3 year average indicated age-to-age development factors from pages 3 and 4 were fitted to a curve of the form $y = a + b / x$. A value of 1.0000 was selected from the 10th-to-11th development stage to ensure a more reasonable shape for the final fitted curve. Fitted values that went below zero were set equal to zero and the resulting values were expressed in factor form by adding one. The 8th-to-ultimate factor was then calculated by compounding the age-to-age factors for 8th-to-9th and all subsequent development stages. These factors became the "selected" values on pages 3 and 4.

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

Graphs - Indemnity, medical and total ultimate loss ratio graphs for policy years 1990 through 1999 are shown on page 8.

Trend Summary - 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.

PENNSYLVANIA COMPENSATION RATING BUREAU

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

REPORTED STANDARD EARNED PREMIUM AND INDEMNITY INCURRED LOSSES

Policy Year	Standard Earned Premium	Reported Indemnity Incurred Losses									
		Report Level									
		1	2	3	4	5	6	7	8	9	10
86					2,910,265	2,556,536					
87				1,147,248	1,378,614	1,461,244					
88	3,577,883		1,104,767	1,062,101	1,270,511	1,404,271					
89	5,025,216	739,039	1,463,513	1,780,716	1,918,404						
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	3,697,531	3,697,531
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	
92	8,224,657	1,685,379	2,634,208	3,008,151	3,529,773	4,244,023	4,212,388	4,275,709	4,454,897		
93	8,868,022	940,865	1,776,487	2,104,171	3,036,597	3,237,829	3,961,820	3,583,232			
94	8,613,777	2,017,088	3,072,208	3,229,962	3,208,208	2,995,170	3,167,237				
95	9,317,313	518,260	1,106,477	1,403,489	916,600	1,123,965					
96	10,841,351	1,628,776	2,237,575	2,845,850	3,598,540						
97	6,064,041	1,665,526	2,640,215	3,053,855							
98	9,715,467	2,291,720	2,780,609								
99	12,343,030	2,322,813									

PENNSYLVANIA COMPENSATION RATING BUREAU

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

REPORTED STANDARD EARNED PREMIUM AND MEDICAL INCURRED LOSSES

Policy Year	Standard Earned Premium	Reported Medical Incurred Losses									
		Report Level									
		1	2	3	4	5	6	7	8	9	10
86					2,959,224	2,784,613					
87				537,233	580,325	620,518					
88	3,577,883		417,789	428,172	440,026	458,451					
89	5,025,216	410,073	598,964	700,574	764,346						
90	6,197,957	866,108	1,179,772	1,505,424	1,539,693	1,448,816		1,389,184	1,381,063	1,375,363	1,382,943
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	
92	8,224,657	1,324,644	1,725,261	1,848,169	1,828,378	1,846,771	1,825,230	1,893,390	1,855,969		
93	8,868,022	662,636	801,635	823,492	819,314	819,568	824,504	821,236			
94	8,613,777	1,001,710	1,187,641	1,071,712	958,351	1,057,731	920,582				
95	9,317,313	321,942	409,250	422,749	394,452	472,415					
96	10,841,351	644,990	785,475	790,234	868,964						
97	6,064,041	775,865	864,292	772,460							
98	9,715,467	2,970,977	2,029,372								
99	12,343,030	1,027,590									

PENNSYLVANIA COMPENSATION RATING BUREAU
"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE
INDEMNITY INCURRED LOSS DEVELOPMENT FACTORS

Age-to-Age Development Factors

Policy Year	Report									
	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	8 - ULT
86				0.8785						
87			1.2017	1.0599						
88		0.9614	1.1962	1.1053						
89	1.9803	1.2167	1.0773	N/A						
90	1.6639	1.3966	0.9066	1.2043			1.0353	1.0079	1.0000	
91	1.2543	1.6395	1.0209	0.9720	1.0360	1.0225	1.0955	0.9454		
92	1.5630	1.1420	1.1734	1.2024	0.9925	1.0150	1.0419			
93	1.8881	1.1845	1.4431	1.0663	1.2236	0.9044				
94	1.5231	1.0513	0.9933	0.9336	1.0574					
95	2.1350	1.2684	0.6531	1.2262						
96	1.3738	1.2718	1.2645							
97	1.5852	1.1567								
98	1.2133									
3 Yr Avg	1.3908	1.2323	0.9703	1.0754	1.0912	0.9806	1.0576			
5 Yr Avg	1.5167	1.2047	1.0210	1.0801						
8 Yr Avg	1.5603	1.1998	1.0726	1.0963						
Selected (Fitted - 3 Yr Avg)	1.3913	1.1716	1.0983	1.0617	1.0397	1.0251	1.0146			1.0073

Development Factors to Ultimate

	1-ULT	2-ULT	3-ULT	4-ULT	5-ULT	6-ULT	7-ULT	8-ULT *
3 Yr Avg	2.0385	1.4657	1.1894	1.2258	1.1399	1.0446	1.0653	1.0073
5 Yr Avg								
8 Yr Avg								
Selected (Fitted - 3 Yr Avg)	2.0705	1.4882	1.2702	1.1565	1.0893	1.0477	1.0220	1.0073

* Based on selected value

PENNSYLVANIA COMPENSATION RATING BUREAU
"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE
MEDICAL INCURRED LOSS DEVELOPMENT FACTORS

Age-to-Age Development Factors

Policy Year	Report									
	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	8 - ULT
86				0.9410						
87			1.0802	1.0693						
88		1.0249	1.0277	1.0419						
89	1.4606	1.1696	1.0910	N/A						
90	1.3622	1.2760	1.0228	0.9410			0.9942	0.9959	1.0055	
91	1.2019	1.2468	1.0500	0.9891	0.9856	1.0295	1.0357	0.9325		
92	1.3024	1.0712	0.9893	1.0101	0.9883	1.0373	0.9802			
93	1.2098	1.0273	0.9949	1.0003	1.0060	0.9960				
94	1.1856	0.9024	0.8942	1.1037	0.8703					
95	1.2712	1.0330	0.9331	1.1976						
96	1.2178	1.0061	1.0996							
97	1.1140	0.8937								
98	0.6831									
3 Yr Avg	1.0050	0.9776	0.9756	1.1005	0.9549	1.0209	1.0034			
5 Yr Avg (where available)	1.0821	1.0063	0.9932	1.0602	0.9549	1.0209	1.0034			
8 Yr Avg	1.1794	1.0627	1.0206	1.0355						
Selected (Fitted - 5 Yr Avg)	1.0714	1.0290	1.0148	1.0077	1.0035	1.0007	1.0000			1.0000

Development Factors to Ultimate

	1-ULT	2-ULT	3-ULT	4-ULT	5-ULT	6-ULT	7-ULT	8-ULT *
5 Yr Avg (where available)	1.1216	1.0365	1.0300	1.0371	0.9782	1.0244	1.0034	1.0000
Selected (Fitted - 5 Yr Avg)	1.1321	1.0567	1.0269	1.0119	1.0042	1.0007	1.0000	1.0000

* Based on selected value

PENNSYLVANIA COMPENSATION RATING BUREAU

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

FITTED DEVELOPMENT FACTORS

INDEMNITY INCURRED LOSSES

$$y = a + b / x$$

$$a = (0.0482)$$

$$R^2 = 0.7856$$

$$b = 0.4395$$

<u>Incurred Development</u>	<u>3 Year Average</u>	<u>3 Year Average - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>
1st to 2nd	1.3908	0.3908	0.3913	1.3913
2nd to 3rd	1.2323	0.2323	0.1716	1.1716
3rd to 4th	0.9703	(0.0297)	0.0983	1.0983
4th to 5th	1.0754	0.0754	0.0617	1.0617
5th to 6th	1.0912	0.0912	0.0397	1.0397
6th to 7th	0.9806	(0.0194)	0.0251	1.0251
7th to 8th	1.0576	0.0576	0.0146	1.0146
8th to 9th			0.0067	1.0067
9th to 10th			0.0006	1.0006
10th to 11th	1.0000		(0.0043)	1.0000
8th to Ultimate				1.0073

- (a) 10th to 11th age-to-age factor set at 1.0000 to ensure proper tendency for the fitted curve.
 (b) Negative values are set to 0.0000 for final fit.

PENNSYLVANIA COMPENSATION RATING BUREAU

"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

FITTED DEVELOPMENT FACTORS

MEDICAL INCURRED LOSSES

$$y = a + b / x$$

$$a = (0.0135)$$

$$b = 0.0849$$

$$R^2 = 0.3000$$

<u>Incurred Development</u>	<u>5 Year Average</u>	<u>5 Year Average - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>
1st to 2nd	1.0821	0.0821	0.0714	1.0714
2nd to 3rd	1.0063	0.0063	0.0290	1.0290
3rd to 4th	0.9932	(0.0068)	0.0148	1.0148
4th to 5th	1.0602	0.0602	0.0077	1.0077
5th to 6th *	0.9549	(0.0451)	0.0035	1.0035
6th to 7th *	1.0209	0.0209	0.0007	1.0007
7th to 8th *	1.0034	0.0034	(0.0014)	1.0000
8th to 9th			(0.0029)	1.0000
9th to 10th			(0.0041)	1.0000
10th to 11th	1.0000		(0.0050)	1.0000
8th to Ultimate				1.0000

(a) 10th to 11th age-to-age factor set at 1.0000 to ensure proper tendency for the fitted curve.

(b) Negative values are set to 0.0000 for final fit.

* 3 year average as 5 yr average is not available.

PENNSYLVANIA COMPENSATION RATING BUREAU

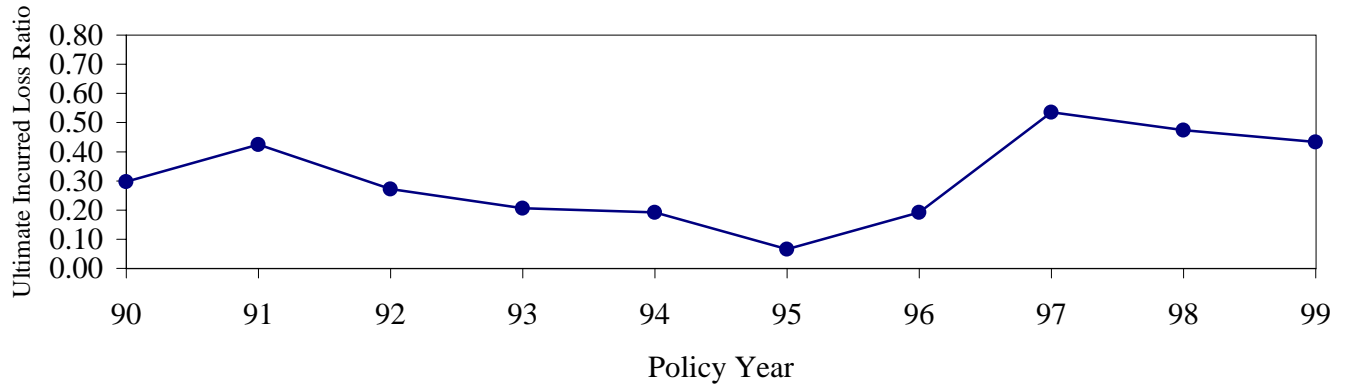
"F" CLASS UNIT STATISTICAL PLAN EXPERIENCE

ULTIMATE LOSS RATIOS

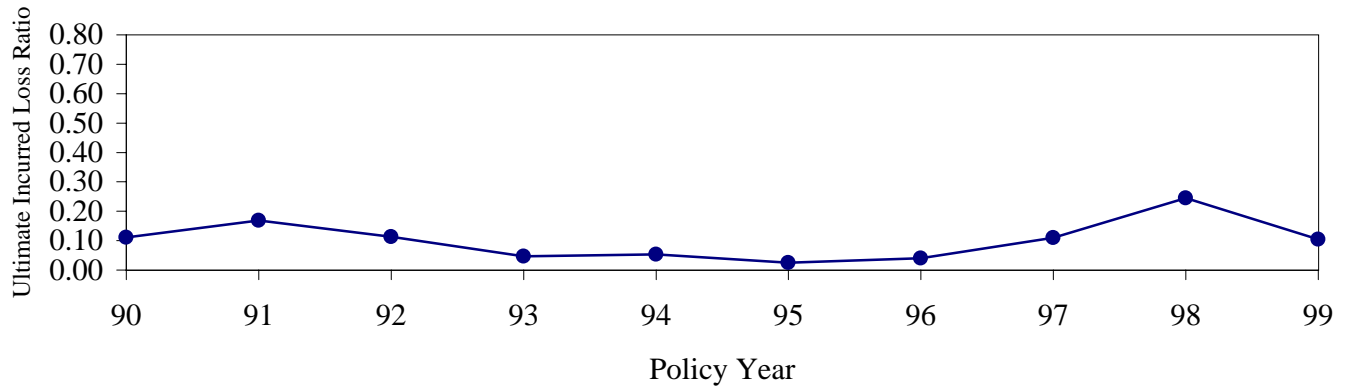
Policy Year	Standard Earned Premium (1)	Premium On-Level Factor (2)	Adjusted Premium (3)	Reported Incurred Loss (4)	Loss Level (5)	Loss Development Factor (6)	Ultimate Incurred Loss (7)=(4)*(6)	Loss Ratio (8)=(7)/(3)
Indemnity								
90	6,197,957	2.0023	12,410,169	3,668,661	8	1.0073	3,695,442	0.2978
91	7,069,911	2.0023	14,156,083	5,964,871	8	1.0073	6,008,415	0.4244
92	8,224,657	2.0023	16,468,231	4,454,897	8	1.0073	4,487,418	0.2725
93	8,868,022	2.0023	17,756,440	3,583,232	7	1.0220	3,662,063	0.2062
94	8,613,777	2.0023	17,247,366	3,167,237	6	1.0477	3,318,314	0.1924
95	9,317,313	2.0023	18,656,056	1,123,965	5	1.0893	1,224,335	0.0656
96	10,841,351	2.0023	21,707,637	3,598,540	4	1.1565	4,161,712	0.1917
97	6,064,041	1.1938	7,239,252	3,053,855	3	1.2702	3,879,007	0.5358
98	9,715,467	0.8993	8,737,119	2,780,609	2	1.4882	4,138,102	0.4736
99	12,343,030	0.8993	11,100,087	2,322,813	1	2.0705	4,809,384	0.4333
10 Year Total	87,255,526		145,478,440	33,718,680			39,384,192	0.2707
3 Year Average								0.4809
Medical								
90	6,197,957	2.0023	12,410,169	1,381,063	8	1.0000	1,381,063	0.1113
91	7,069,911	2.0023	14,156,083	2,395,676	8	1.0000	2,395,676	0.1692
92	8,224,657	2.0023	16,468,231	1,855,969	8	1.0000	1,855,969	0.1127
93	8,868,022	2.0023	17,756,440	821,236	7	1.0000	821,236	0.0463
94	8,613,777	2.0023	17,247,366	920,582	6	1.0007	921,226	0.0534
95	9,317,313	2.0023	18,656,056	472,415	5	1.0042	474,399	0.0254
96	10,841,351	2.0023	21,707,637	868,964	4	1.0119	879,305	0.0405
97	6,064,041	1.1938	7,239,252	772,460	3	1.0269	793,239	0.1096
98	9,715,467	0.8993	8,737,119	2,029,372	2	1.0567	2,144,437	0.2454
99	12,343,030	0.8993	11,100,087	1,027,590	1	1.1321	1,163,335	0.1048
10 Year Total	87,255,526		145,478,440	12,545,327			12,829,885	0.0882
3 Year Average								0.1533
Total								
90	6,197,957	2.0023	12,410,169	5,049,724			5,076,505	0.4091
91	7,069,911	2.0023	14,156,083	8,360,547			8,404,091	0.5937
92	8,224,657	2.0023	16,468,231	6,310,866			6,343,387	0.3852
93	8,868,022	2.0023	17,756,440	4,404,468			4,483,299	0.2525
94	8,613,777	2.0023	17,247,366	4,087,819			4,239,540	0.2458
95	9,317,313	2.0023	18,656,056	1,596,380			1,698,734	0.0911
96	10,841,351	2.0023	21,707,637	4,467,504			5,041,017	0.2322
97	6,064,041	1.1938	7,239,252	3,826,315			4,672,246	0.6454
98	9,715,467	0.8993	8,737,119	4,809,981			6,282,539	0.7191
99	12,343,030	0.8993	11,100,087	3,350,403			5,972,719	0.5381
10 Year Total	87,255,526		145,478,440	46,264,007			52,214,077	0.3589
3 Year Average								0.6342

Pennsylvania "F" Class

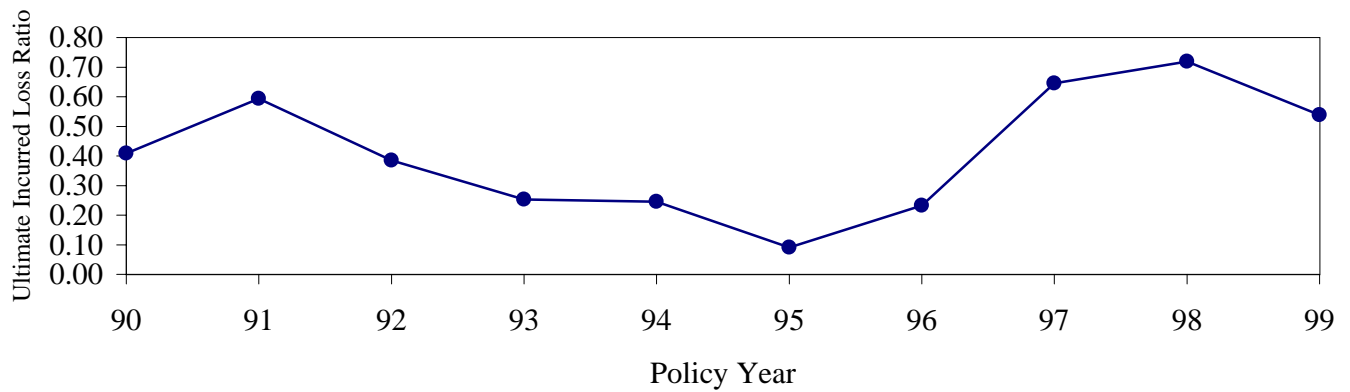
Indemnity Ultimate Incurred Loss Ratio



Medical Ultimate Incurred Loss Ratio



Total Ultimate Incurred Loss Ratio



		3 points	4 points	5 points	6 points	7 points	8 points	9 points	10 points
INDEMNITY									
LINEAR	Average Loss Ratio	0.4809	0.4086	0.3400	0.3154	0.2998	0.2964	0.3106	0.3093
	Trended Loss Ratio	0.2716	0.7123	0.8571	0.7577	0.6722	0.5800	0.4638	0.4339
	Trend Factor	0.5648	1.7433	2.5209	2.4023	2.2422	1.9568	1.4932	1.4028
	Annual. Trend Factor	0.9104	1.0816	1.1212	1.1013	1.0834	1.0624	1.0337	1.0262
EXPONENTIAL	R ²	0.9850	0.3225	0.6381	0.6090	0.5505	0.4077	0.1363	0.1081
	Trended Loss Ratio	0.3105	1.1050	2.8931	1.4705	0.9326	0.6165	0.4069	0.3564
	Trend Factor	0.6457	2.7044	8.5091	4.6623	3.1107	2.0800	1.3100	1.1523
	Annual. Trend Factor	0.9306	1.1508	1.3033	1.1847	1.1191	1.0683	1.0226	1.0109
	R ²	0.9913	0.4139	0.7002	0.5386	0.4121	0.2431	0.0630	0.0333
MEDICAL									
LINEAR	Average Loss Ratio	0.1533	0.1251	0.1051	0.0965	0.0893	0.0923	0.1008	0.1019
	Trended Loss Ratio	0.1435	0.2757	0.2900	0.2538	0.2292	0.1803	0.1308	0.1209
	Trend Factor	0.9361	2.2038	2.7593	2.6301	2.5666	1.9534	1.2976	1.1865
	Annual. Trend Factor	0.9892	1.1180	1.1338	1.1123	1.0980	1.0623	1.0218	1.0132
EXPONENTIAL	R ²	0.0009	0.2425	0.4376	0.4279	0.4274	0.2142	0.0267	0.0128
	Trended Loss Ratio	0.1289	0.5528	0.8241	0.4354	0.3115	0.1657	0.0999	0.0858
	Trend Factor	0.8408	4.4189	7.8411	4.5119	3.4882	1.7952	0.9911	0.8420
	Annual. Trend Factor	0.9719	1.2334	1.2902	1.1804	1.1319	1.0542	0.9993	0.9869
	R ²	0.0022	0.4108	0.6707	0.5361	0.4939	0.1748	0.0133	0.0004
TOTAL									
LINEAR	Average Loss Ratio	0.6342	0.5337	0.4451	0.4119	0.3891	0.3887	0.4114	0.4112
	Trended Loss Ratio	0.4151	0.9880	1.1471	1.0115	0.9014	0.7603	0.5946	0.5548
EXPONENTIAL	Trended Loss Ratio	0.4394	1.6578	3.7172	1.9059	1.2441	0.7822	0.5068	0.4422