

PENNSYLVANIA COMPENSATION RATING BUREAU

Retrospective Test of Trend Projections for Loss Ratios

Attached is a retrospective test of the predictive accuracy of various trend procedures.

Results for both indemnity and medical are shown using both linear and exponential fits. All possible combinations of from four to ten data points, which permitted a test of the projected loss ratio three years hence, were used. Our current review trends policy year 2004 3.25 years, policy year 2003 4.25 years, and policy year 2002 5.25 years. An average of those three values is then calculated.

Current estimates of policy year ultimate loss (to expected loss) ratios are compared with predicted values based on trending through earlier years. The results are shown for three loss development approaches: incurred, paid to twentieth and the average of the incurred and the paid to twentieth methods.

As an illustration, the incurred loss development approach generated an indemnity loss ratio of 0.5126 for policy year 1999. Fitting the loss ratios for policy years 1993 to 1996 using a straight line and projecting that to 1999 yielded a loss ratio of 0.2875, which understates our current estimate for 1999 by 0.2251 points.

Please note that the boxed numbers correspond to those numbers that do not have a comparable value in Exhibit 11b, Retrospective Test of Trend Projections for Severity Ratios.

Indemnity
Actual Ultimate Loss Ratios
Including Average of Paid and Incurred

INDEMNITY	Policy Year	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
	1987	0.6548	0.6499	0.6598
	1988	0.6681	0.6634	0.6729
	1989	0.7945	0.7866	0.8023
	1990	0.8093	0.8015	0.8172
	1991	0.7949	0.7913	0.7985
	1992	0.7391	0.7358	0.7423
	1993	0.7042	0.7009	0.7075
	1994	0.6791	0.6711	0.6871
	1995	0.6108	0.5969	0.6247
	1996	0.5008	0.4843	0.5174
	1997	0.5112	0.4853	0.5371
	1998	0.4986	0.4744	0.5229
	1999	0.5423	0.5126	0.5721
	2000	0.5676	0.5364	0.5989
	2001	0.5349	0.4954	0.5745
	2002	0.5276	0.4878	0.5674
	2003	0.4892	0.4420	0.5364
	2004	0.5160	0.4787	0.5533

Trend # Years = 3

**Indemnity
Linear Fit
Trended Loss Ratios**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
87-90 (4)	1993	0.9971	0.9855	1.0088
88-91 (4)	1994	0.9445	0.9401	0.9490
89-92 (4)	1995	0.7032	0.7056	0.7007
90-93 (4)	1996	0.5949	0.5966	0.5930
91-94 (4)	1997	0.5573	0.5468	0.5678
92-95 (4)	1998	0.4988	0.4753	0.5225
93-96 (4)	1999	0.3184	0.2875	0.3495
94-97 (4)	2000	0.2993	0.2579	0.3408
95-98 (4)	2001	0.3836	0.3453	0.4220
96-99 (4)	2002	0.5636	0.5225	0.6048
97-00 (4)	2003	0.6257	0.5884	0.6633
98-01 (4)	2004	0.5962	0.5438	0.6488
87-91 (5)	1994	0.9550	0.9490	0.9610
88-92 (5)	1995	0.8324	0.8305	0.8341
89-93 (5)	1996	0.6430	0.6447	0.6413
90-94 (5)	1997	0.5698	0.5645	0.5749
91-95 (5)	1998	0.4915	0.4725	0.5106
92-96 (5)	1999	0.3618	0.3343	0.3895
93-97 (5)	2000	0.3191	0.2787	0.3595
94-98 (5)	2001	0.3298	0.2899	0.3698
95-99 (5)	2002	0.4631	0.4215	0.5050
96-00 (5)	2003	0.6065	0.5644	0.6487
97-01 (5)	2004	0.5891	0.5419	0.6365
87-92 (6)	1995	0.8718	0.8682	0.8752
88-93 (6)	1996	0.7517	0.7505	0.7527
89-94 (6)	1997	0.6045	0.6010	0.6081
90-95 (6)	1998	0.5069	0.4933	0.5203
91-96 (6)	1999	0.3760	0.3520	0.4001
92-97 (6)	2000	0.3385	0.3018	0.3754
93-98 (6)	2001	0.3261	0.2856	0.3668
94-99 (6)	2002	0.3984	0.3553	0.4416
95-00 (6)	2003	0.5222	0.4791	0.5655
96-01 (6)	2004	0.5861	0.5369	0.6355
87-93 (7)	1996	0.8001	0.7976	0.8025
88-94 (7)	1997	0.6946	0.6899	0.6993
89-95 (7)	1998	0.5398	0.5291	0.5505
90-96 (7)	1999	0.4011	0.3820	0.4202
91-97 (7)	2000	0.3441	0.3112	0.3771
92-98 (7)	2001	0.3307	0.2922	0.3694
93-99 (7)	2002	0.3754	0.3315	0.4194
94-00 (7)	2003	0.4571	0.4124	0.5020
95-01 (7)	2004	0.5245	0.4751	0.5741
87-94 (8)	1997	0.7437	0.7385	0.7487
88-95 (8)	1998	0.6206	0.6101	0.6311
89-96 (8)	1999	0.4386	0.4225	0.4548
90-97 (8)	2000	0.3617	0.3338	0.3896
91-98 (8)	2001	0.3287	0.2929	0.3646
92-99 (8)	2002	0.3646	0.3223	0.4071
93-00 (8)	2003	0.4247	0.3789	0.4705
94-01 (8)	2004	0.4695	0.4192	0.5200
87-95 (9)	1998	0.6713	0.6611	0.6813
88-96 (9)	1999	0.5168	0.5015	0.5321
89-97 (9)	2000	0.3925	0.3681	0.4170
90-98 (9)	2001	0.3390	0.3074	0.3707
91-99 (9)	2002	0.3522	0.3122	0.3924
92-00 (9)	2003	0.4044	0.3596	0.4494
93-01 (9)	2004	0.4379	0.3869	0.4890
87-96 (10)	1999	0.5712	0.5568	0.5857
88-97 (10)	2000	0.4611	0.4382	0.4840
89-98 (10)	2001	0.3629	0.3344	0.3914
90-99 (10)	2002	0.3529	0.3166	0.3893
91-00 (10)	2003	0.3846	0.3417	0.4278
92-01 (10)	2004	0.4159	0.3659	0.4661

**Indemnity
Linear Fit
Differences: (Actual - Trended)**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
87-90 (4)	1993	-0.2929	-0.2846	-0.3013
88-91 (4)	1994	-0.2654	-0.2690	-0.2619
89-92 (4)	1995	-0.0924	-0.1087	-0.0760
90-93 (4)	1996	-0.0941	-0.1123	-0.0756
91-94 (4)	1997	-0.0461	-0.0615	-0.0307
92-95 (4)	1998	-0.0002	-0.0009	0.0004
93-96 (4)	1999	0.2239	0.2251	0.2226
94-97 (4)	2000	0.2683	0.2785	0.2581
95-98 (4)	2001	0.1513	0.1501	0.1525
96-99 (4)	2002	-0.0360	-0.0346	-0.0374
97-00 (4)	2003	-0.1365	-0.1464	-0.1269
98-01 (4)	2004	-0.0802	-0.0651	-0.0955
87-91 (5)	1994	-0.2759	-0.2779	-0.2739
88-92 (5)	1995	-0.2216	-0.2336	-0.2094
89-93 (5)	1996	-0.1422	-0.1604	-0.1239
90-94 (5)	1997	-0.0586	-0.0792	-0.0378
91-95 (5)	1998	0.0071	0.0020	0.0123
92-96 (5)	1999	0.1805	0.1783	0.1826
93-97 (5)	2000	0.2485	0.2577	0.2394
94-98 (5)	2001	0.2051	0.2055	0.2047
95-99 (5)	2002	0.0645	0.0664	0.0624
96-00 (5)	2003	-0.1173	-0.1224	-0.1123
97-01 (5)	2004	-0.0731	-0.0632	-0.0832
87-92 (6)	1995	-0.2610	-0.2713	-0.2505
88-93 (6)	1996	-0.2509	-0.2662	-0.2353
89-94 (6)	1997	-0.0933	-0.1157	-0.0710
90-95 (6)	1998	-0.0083	-0.0189	0.0026
91-96 (6)	1999	0.1663	0.1606	0.1720
92-97 (6)	2000	0.2291	0.2346	0.2235
93-98 (6)	2001	0.2088	0.2098	0.2077
94-99 (6)	2002	0.1292	0.1325	0.1258
95-00 (6)	2003	-0.0330	-0.0371	-0.0291
96-01 (6)	2004	-0.0701	-0.0582	-0.0822
87-93 (7)	1996	-0.2993	-0.3133	-0.2851
88-94 (7)	1997	-0.1834	-0.2046	-0.1622
89-95 (7)	1998	-0.0412	-0.0547	-0.0276
90-96 (7)	1999	0.1412	0.1306	0.1519
91-97 (7)	2000	0.2235	0.2252	0.2218
92-98 (7)	2001	0.2042	0.2032	0.2051
93-99 (7)	2002	0.1522	0.1563	0.1480
94-00 (7)	2003	0.0321	0.0296	0.0344
95-01 (7)	2004	-0.0085	0.0036	-0.0208
87-94 (8)	1997	-0.2325	-0.2532	-0.2116
88-95 (8)	1998	-0.1220	-0.1357	-0.1082
89-96 (8)	1999	0.1037	0.0901	0.1173
90-97 (8)	2000	0.2059	0.2026	0.2093
91-98 (8)	2001	0.2062	0.2025	0.2099
92-99 (8)	2002	0.1630	0.1655	0.1603
93-00 (8)	2003	0.0645	0.0631	0.0659
94-01 (8)	2004	0.0465	0.0595	0.0333
87-95 (9)	1998	-0.1727	-0.1867	-0.1584
88-96 (9)	1999	0.0255	0.0111	0.0400
89-97 (9)	2000	0.1751	0.1683	0.1819
90-98 (9)	2001	0.1959	0.1880	0.2038
91-99 (9)	2002	0.1754	0.1756	0.1750
92-00 (9)	2003	0.0848	0.0824	0.0870
93-01 (9)	2004	0.0781	0.0918	0.0643
87-96 (10)	1999	-0.0289	-0.0442	-0.0136
88-97 (10)	2000	0.1065	0.0982	0.1149
89-98 (10)	2001	0.1720	0.1610	0.1831
90-99 (10)	2002	0.1747	0.1712	0.1781
91-00 (10)	2003	0.1046	0.1003	0.1086
92-01 (10)	2004	0.1001	0.1128	0.0872

**Indemnity
Exponential Fit
Trended Loss Ratios**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
87-90 (4)	1993	1.0480	1.0346	1.0612
88-91 (4)	1994	0.9746	0.9705	0.9787
89-92 (4)	1995	0.7054	0.7072	0.7035
90-93 (4)	1996	0.6101	0.6107	0.6095
91-94 (4)	1997	0.5760	0.5666	0.5854
92-95 (4)	1998	0.5184	0.4985	0.5388
93-96 (4)	1999	0.3722	0.3497	0.3954
94-97 (4)	2000	0.3558	0.3255	0.3872
95-98 (4)	2001	0.4055	0.3728	0.4390
96-99 (4)	2002	0.5648	0.5225	0.6076
97-00 (4)	2003	0.6330	0.5945	0.6718
98-01 (4)	2004	0.6007	0.5456	0.6565
87-91 (5)	1994	0.9902	0.9842	0.9961
88-92 (5)	1995	0.8402	0.8387	0.8416
89-93 (5)	1996	0.6500	0.6507	0.6492
90-94 (5)	1997	0.5873	0.5819	0.5927
91-95 (5)	1998	0.5177	0.5015	0.5342
92-96 (5)	1999	0.4044	0.3833	0.4262
93-97 (5)	2000	0.3711	0.3415	0.4018
94-98 (5)	2001	0.3732	0.3423	0.4051
95-99 (5)	2002	0.4706	0.4325	0.5095
96-00 (5)	2003	0.6110	0.5670	0.6556
97-01 (5)	2004	0.5921	0.5431	0.6415
87-92 (6)	1995	0.8869	0.8837	0.8898
88-93 (6)	1996	0.7532	0.7521	0.7542
89-94 (6)	1997	0.6154	0.6113	0.6194
90-95 (6)	1998	0.5316	0.5191	0.5440
91-96 (6)	1999	0.4200	0.4010	0.4393
92-97 (6)	2000	0.3869	0.3592	0.4154
93-98 (6)	2001	0.3736	0.3431	0.4052
94-99 (6)	2002	0.4228	0.3871	0.4596
95-00 (6)	2003	0.5243	0.4831	0.5664
96-01 (6)	2004	0.5889	0.5376	0.6411
87-93 (7)	1996	0.8048	0.8026	0.8069
88-94 (7)	1997	0.6958	0.6908	0.7007
89-95 (7)	1998	0.5571	0.5465	0.5676
90-96 (7)	1999	0.4403	0.4239	0.4568
91-97 (7)	2000	0.3955	0.3703	0.4214
92-98 (7)	2001	0.3796	0.3505	0.4096
93-99 (7)	2002	0.4083	0.3736	0.4442
94-00 (7)	2003	0.4699	0.4307	0.5101
95-01 (7)	2004	0.5267	0.4789	0.5755
87-94 (8)	1997	0.7443	0.7389	0.7496
88-95 (8)	1998	0.6230	0.6122	0.6338
89-96 (8)	1999	0.4671	0.4523	0.4821
90-97 (8)	2000	0.4099	0.3872	0.4329
91-98 (8)	2001	0.3828	0.3557	0.4107
92-99 (8)	2002	0.4033	0.3704	0.4374
93-00 (8)	2003	0.4458	0.4079	0.4850
94-01 (8)	2004	0.4800	0.4351	0.5262
87-95 (9)	1998	0.6688	0.6580	0.6795
88-96 (9)	1999	0.5230	0.5078	0.5382
89-97 (9)	2000	0.4311	0.4100	0.4524
90-98 (9)	2001	0.3922	0.3672	0.4176
91-99 (9)	2002	0.3989	0.3681	0.4306
92-00 (9)	2003	0.4328	0.3967	0.4701
93-01 (9)	2004	0.4560	0.4129	0.5006
87-96 (10)	1999	0.5664	0.5513	0.5815
88-97 (10)	2000	0.4767	0.4552	0.4981
89-98 (10)	2001	0.4083	0.3847	0.4323
90-99 (10)	2002	0.4018	0.3733	0.4311
91-00 (10)	2003	0.4221	0.3883	0.4571
92-01 (10)	2004	0.4412	0.4002	0.4836

Indemnity
Exponential Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
87-90 (4)	1993	-0.3438	-0.3337	-0.3537
88-91 (4)	1994	-0.2955	-0.2994	-0.2916
89-92 (4)	1995	-0.0946	-0.1103	-0.0788
90-93 (4)	1996	-0.1093	-0.1264	-0.0921
91-94 (4)	1997	-0.0648	-0.0813	-0.0483
92-95 (4)	1998	-0.0198	-0.0241	-0.0159
93-96 (4)	1999	0.1701	0.1629	0.1767
94-97 (4)	2000	0.2118	0.2109	0.2117
95-98 (4)	2001	0.1294	0.1226	0.1355
96-99 (4)	2002	-0.0372	-0.0347	-0.0402
97-00 (4)	2003	-0.1438	-0.1525	-0.1354
98-01 (4)	2004	-0.0847	-0.0669	-0.1032
87-91 (5)	1994	-0.3111	-0.3131	-0.3090
88-92 (5)	1995	-0.2294	-0.2418	-0.2169
89-93 (5)	1996	-0.1492	-0.1664	-0.1318
90-94 (5)	1997	-0.0761	-0.0966	-0.0556
91-95 (5)	1998	-0.0191	-0.0271	-0.0113
92-96 (5)	1999	0.1379	0.1293	0.1459
93-97 (5)	2000	0.1965	0.1949	0.1971
94-98 (5)	2001	0.1617	0.1531	0.1694
95-99 (5)	2002	0.0570	0.0553	0.0579
96-00 (5)	2003	-0.1218	-0.1250	-0.1192
97-01 (5)	2004	-0.0761	-0.0644	-0.0882
87-92 (6)	1995	-0.2761	-0.2868	-0.2651
88-93 (6)	1996	-0.2524	-0.2678	-0.2368
89-94 (6)	1997	-0.1042	-0.1260	-0.0823
90-95 (6)	1998	-0.0330	-0.0447	-0.0211
91-96 (6)	1999	0.1223	0.1116	0.1328
92-97 (6)	2000	0.1807	0.1772	0.1835
93-98 (6)	2001	0.1613	0.1523	0.1693
94-99 (6)	2002	0.1048	0.1007	0.1078
95-00 (6)	2003	-0.0351	-0.0411	-0.0300
96-01 (6)	2004	-0.0729	-0.0589	-0.0878
87-93 (7)	1996	-0.3040	-0.3183	-0.2895
88-94 (7)	1997	-0.1846	-0.2055	-0.1636
89-95 (7)	1998	-0.0585	-0.0721	-0.0447
90-96 (7)	1999	0.1020	0.0887	0.1153
91-97 (7)	2000	0.1721	0.1661	0.1775
92-98 (7)	2001	0.1553	0.1449	0.1649
93-99 (7)	2002	0.1193	0.1142	0.1232
94-00 (7)	2003	0.0193	0.0113	0.0263
95-01 (7)	2004	-0.0107	-0.0002	-0.0222
87-94 (8)	1997	-0.2331	-0.2536	-0.2125
88-95 (8)	1998	-0.1244	-0.1378	-0.1109
89-96 (8)	1999	0.0752	0.0603	0.0900
90-97 (8)	2000	0.1577	0.1492	0.1660
91-98 (8)	2001	0.1521	0.1397	0.1638
92-99 (8)	2002	0.1243	0.1174	0.1300
93-00 (8)	2003	0.0434	0.0341	0.0514
94-01 (8)	2004	0.0360	0.0436	0.0271
87-95 (9)	1998	-0.1702	-0.1836	-0.1566
88-96 (9)	1999	0.0193	0.0048	0.0339
89-97 (9)	2000	0.1365	0.1264	0.1465
90-98 (9)	2001	0.1427	0.1282	0.1569
91-99 (9)	2002	0.1287	0.1197	0.1368
92-00 (9)	2003	0.0564	0.0453	0.0663
93-01 (9)	2004	0.0600	0.0658	0.0527
87-96 (10)	1999	-0.0241	-0.0387	-0.0094
88-97 (10)	2000	0.0909	0.0812	0.1008
89-98 (10)	2001	0.1266	0.1107	0.1422
90-99 (10)	2002	0.1258	0.1145	0.1363
91-00 (10)	2003	0.0671	0.0537	0.0793
92-01 (10)	2004	0.0748	0.0785	0.0697

Medical
Actual Ultimate Loss Ratios
Including Average of Paid and Incurred

MEDICAL	Policy Year	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
	1987	0.3580	0.3542	0.3618
	1988	0.3925	0.3830	0.4019
	1989	0.4882	0.4795	0.4968
	1990	0.5221	0.5078	0.5364
	1991	0.5453	0.5360	0.5545
	1992	0.5427	0.5361	0.5493
	1993	0.5076	0.4972	0.5180
	1994	0.4993	0.4915	0.5071
	1995	0.4886	0.4826	0.4946
	1996	0.4575	0.4570	0.4579
	1997	0.4776	0.4745	0.4807
	1998	0.4924	0.4989	0.4860
	1999	0.5121	0.5187	0.5056
	2000	0.5308	0.5389	0.5227
	2001	0.4905	0.4877	0.4934
	2002	0.4977	0.4931	0.5023
	2003	0.4970	0.4927	0.5012
	2004	0.5484	0.5528	0.5440

Trend # Years = 3

**Medical
Linear Fit
Trended Loss Ratios**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
87-90 (4)	1993	0.7048	0.6819	0.7276
88-91 (4)	1994	0.7086	0.6959	0.7212
89-92 (4)	1995	0.6086	0.6040	0.6133
90-93 (4)	1996	0.5087	0.5050	0.5124
91-94 (4)	1997	0.4458	0.4376	0.4542
92-95 (4)	1998	0.4328	0.4271	0.4385
93-96 (4)	1999	0.4158	0.4238	0.4076
94-97 (4)	2000	0.4375	0.4419	0.4329
95-98 (4)	2001	0.4932	0.5081	0.4785
96-99 (4)	2002	0.5653	0.5816	0.5493
97-00 (4)	2003	0.5839	0.6036	0.5643
98-01 (4)	2004	0.5123	0.5050	0.5196
87-91 (5)	1994	0.7133	0.6963	0.7302
88-92 (5)	1995	0.6769	0.6698	0.6840
89-93 (5)	1996	0.5509	0.5432	0.5587
90-94 (5)	1997	0.4818	0.4780	0.4855
91-95 (5)	1998	0.4383	0.4330	0.4437
92-96 (5)	1999	0.4044	0.4065	0.4023
93-97 (5)	2000	0.4352	0.4406	0.4298
94-98 (5)	2001	0.4707	0.4843	0.4572
95-99 (5)	2002	0.5266	0.5434	0.5100
96-00 (5)	2003	0.5846	0.6016	0.5678
97-01 (5)	2004	0.5328	0.5369	0.5287
87-92 (6)	1995	0.6973	0.6856	0.7089
88-93 (6)	1996	0.6195	0.6108	0.6283
89-94 (6)	1997	0.5190	0.5125	0.5256
90-95 (6)	1998	0.4641	0.4616	0.4665
91-96 (6)	1999	0.4110	0.4119	0.4102
92-97 (6)	2000	0.4191	0.4211	0.4171
93-98 (6)	2001	0.4601	0.4729	0.4474
94-99 (6)	2002	0.5029	0.5190	0.4870
95-00 (6)	2003	0.5544	0.5723	0.5366
96-01 (6)	2004	0.5476	0.5535	0.5418
87-93 (7)	1996	0.6523	0.6402	0.6643
88-94 (7)	1997	0.5811	0.5736	0.5886
89-95 (7)	1998	0.4958	0.4911	0.5006
90-96 (7)	1999	0.4339	0.4361	0.4317
91-97 (7)	2000	0.4186	0.4199	0.4172
92-98 (7)	2001	0.4410	0.4501	0.4319
93-99 (7)	2002	0.4883	0.5039	0.4729
94-00 (7)	2003	0.5318	0.5495	0.5143
95-01 (7)	2004	0.5328	0.5419	0.5239
87-94 (8)	1997	0.6175	0.6070	0.6279
88-95 (8)	1998	0.5511	0.5454	0.5568
89-96 (8)	1999	0.4634	0.4632	0.4637
90-97 (8)	2000	0.4338	0.4364	0.4312
91-98 (8)	2001	0.4351	0.4428	0.4274
92-99 (8)	2002	0.4673	0.4799	0.4549
93-00 (8)	2003	0.5157	0.5332	0.4983
94-01 (8)	2004	0.5190	0.5297	0.5084
87-95 (9)	1998	0.5880	0.5795	0.5964
88-96 (9)	1999	0.5145	0.5129	0.5161
89-97 (9)	2000	0.4574	0.4580	0.4567
90-98 (9)	2001	0.4440	0.4521	0.4360
91-99 (9)	2002	0.4576	0.4688	0.4465
92-00 (9)	2003	0.4941	0.5091	0.4791
93-01 (9)	2004	0.5078	0.5196	0.4960
87-96 (10)	1999	0.5519	0.5475	0.5562
88-97 (10)	2000	0.5017	0.5012	0.5022
89-98 (10)	2001	0.4620	0.4679	0.4561
90-99 (10)	2002	0.4615	0.4728	0.4503
91-00 (10)	2003	0.4819	0.4957	0.4682
92-01 (10)	2004	0.4903	0.5010	0.4797

Medical
Linear Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
87-90 (4)	1993	-0.1972	-0.1847	-0.2096
88-91 (4)	1994	-0.2093	-0.2044	-0.2141
89-92 (4)	1995	-0.1200	-0.1214	-0.1187
90-93 (4)	1996	-0.0512	-0.0480	-0.0545
91-94 (4)	1997	0.0318	0.0369	0.0265
92-95 (4)	1998	0.0596	0.0718	0.0475
93-96 (4)	1999	0.0963	0.0949	0.0980
94-97 (4)	2000	0.0933	0.0970	0.0898
95-98 (4)	2001	-0.0027	-0.0204	0.0150
96-99 (4)	2002	-0.0676	-0.0885	-0.0470
97-00 (4)	2003	-0.0869	-0.1109	-0.0631
98-01 (4)	2004	0.0361	0.0478	0.0244

87-91 (5)	1994	-0.2140	-0.2048	-0.2231
88-92 (5)	1995	-0.1883	-0.1872	-0.1894
89-93 (5)	1996	-0.0934	-0.0862	-0.1008
90-94 (5)	1997	-0.0041	-0.0035	-0.0048
91-95 (5)	1998	0.0541	0.0659	0.0423
92-96 (5)	1999	0.1077	0.1122	0.1033
93-97 (5)	2000	0.0956	0.0983	0.0929
94-98 (5)	2001	0.0198	0.0035	0.0362
95-99 (5)	2002	-0.0289	-0.0503	-0.0077
96-00 (5)	2003	-0.0876	-0.1089	-0.0666
97-01 (5)	2004	0.0156	0.0159	0.0153

87-92 (6)	1995	-0.2087	-0.2030	-0.2143
88-93 (6)	1996	-0.1620	-0.1538	-0.1704
89-94 (6)	1997	-0.0414	-0.0380	-0.0449
90-95 (6)	1998	0.0283	0.0373	0.0195
91-96 (6)	1999	0.1011	0.1068	0.0954
92-97 (6)	2000	0.1117	0.1178	0.1056
93-98 (6)	2001	0.0304	0.0148	0.0460
94-99 (6)	2002	-0.0052	-0.0259	0.0153
95-00 (6)	2003	-0.0574	-0.0796	-0.0354
96-01 (6)	2004	0.0008	-0.0007	0.0022

87-93 (7)	1996	-0.1948	-0.1832	-0.2064
88-94 (7)	1997	-0.1035	-0.0991	-0.1079
89-95 (7)	1998	-0.0034	0.0078	-0.0146
90-96 (7)	1999	0.0782	0.0826	0.0740
91-97 (7)	2000	0.1123	0.1191	0.1055
92-98 (7)	2001	0.0495	0.0376	0.0615
93-99 (7)	2002	0.0094	-0.0108	0.0294
94-00 (7)	2003	-0.0348	-0.0568	-0.0131
95-01 (7)	2004	0.0156	0.0109	0.0201

87-94 (8)	1997	-0.1399	-0.1325	-0.1472
88-95 (8)	1998	-0.0587	-0.0465	-0.0708
89-96 (8)	1999	0.0487	0.0555	0.0419
90-97 (8)	2000	0.0970	0.1025	0.0915
91-98 (8)	2001	0.0554	0.0449	0.0660
92-99 (8)	2002	0.0304	0.0132	0.0474
93-00 (8)	2003	-0.0187	-0.0405	0.0029
94-01 (8)	2004	0.0294	0.0231	0.0356

87-95 (9)	1998	-0.0956	-0.0806	-0.1104
88-96 (9)	1999	-0.0024	0.0058	-0.0105
89-97 (9)	2000	0.0734	0.0809	0.0660
90-98 (9)	2001	0.0465	0.0356	0.0574
91-99 (9)	2002	0.0401	0.0243	0.0558
92-00 (9)	2003	0.0029	-0.0164	0.0221
93-01 (9)	2004	0.0406	0.0332	0.0480

87-96 (10)	1999	-0.0398	-0.0288	-0.0506
88-97 (10)	2000	0.0291	0.0377	0.0205
89-98 (10)	2001	0.0285	0.0198	0.0373
90-99 (10)	2002	0.0362	0.0203	0.0520
91-00 (10)	2003	0.0151	-0.0030	0.0330
92-01 (10)	2004	0.0581	0.0518	0.0643

**Medical
Exponential Fit
Trended Loss Ratios**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
87-90 (4)	1993	0.7987	0.7671	0.8306
88-91 (4)	1994	0.7764	0.7638	0.7891
89-92 (4)	1995	0.6165	0.6126	0.6205
90-93 (4)	1996	0.5084	0.5045	0.5124
91-94 (4)	1997	0.4509	0.4427	0.4591
92-95 (4)	1998	0.4386	0.4328	0.4443
93-96 (4)	1999	0.4199	0.4265	0.4135
94-97 (4)	2000	0.4393	0.4431	0.4356
95-98 (4)	2001	0.4933	0.5085	0.4787
96-99 (4)	2002	0.5719	0.5906	0.5540
97-00 (4)	2003	0.5902	0.6129	0.5682
98-01 (4)	2004	0.5117	0.5039	0.5198
87-91 (5)	1994	0.7996	0.7776	0.8214
88-92 (5)	1995	0.7228	0.7176	0.7282
89-93 (5)	1996	0.5520	0.5443	0.5598
90-94 (5)	1997	0.4826	0.4786	0.4868
91-95 (5)	1998	0.4436	0.4381	0.4492
92-96 (5)	1999	0.4122	0.4134	0.4109
93-97 (5)	2000	0.4375	0.4420	0.4332
94-98 (5)	2001	0.4708	0.4838	0.4582
95-99 (5)	2002	0.5277	0.5456	0.5105
96-00 (5)	2003	0.5928	0.6124	0.5737
97-01 (5)	2004	0.5335	0.5376	0.5295
87-92 (6)	1995	0.7669	0.7534	0.7803
88-93 (6)	1996	0.6435	0.6354	0.6517
89-94 (6)	1997	0.5190	0.5124	0.5256
90-95 (6)	1998	0.4660	0.4631	0.4690
91-96 (6)	1999	0.4183	0.4184	0.4183
92-97 (6)	2000	0.4247	0.4259	0.4235
93-98 (6)	2001	0.4608	0.4726	0.4493
94-99 (6)	2002	0.5026	0.5189	0.4869
95-00 (6)	2003	0.5571	0.5768	0.5381
96-01 (6)	2004	0.5506	0.5568	0.5446
87-93 (7)	1996	0.6981	0.6844	0.7118
88-94 (7)	1997	0.5950	0.5881	0.6020
89-95 (7)	1998	0.4958	0.4910	0.5007
90-96 (7)	1999	0.4375	0.4389	0.4361
91-97 (7)	2000	0.4248	0.4253	0.4243
92-98 (7)	2001	0.4442	0.4520	0.4365
93-99 (7)	2002	0.4879	0.5032	0.4732
94-00 (7)	2003	0.5321	0.5508	0.5141
95-01 (7)	2004	0.5339	0.5434	0.5247
87-94 (8)	1997	0.6490	0.6378	0.6603
88-95 (8)	1998	0.5595	0.5545	0.5647
89-96 (8)	1999	0.4638	0.4634	0.4642
90-97 (8)	2000	0.4376	0.4393	0.4360
91-98 (8)	2001	0.4393	0.4457	0.4331
92-99 (8)	2002	0.4684	0.4799	0.4572
93-00 (8)	2003	0.5151	0.5329	0.4979
94-01 (8)	2004	0.5190	0.5298	0.5084
87-95 (9)	1998	0.6100	0.6014	0.6186
88-96 (9)	1999	0.5184	0.5177	0.5191
89-97 (9)	2000	0.4584	0.4587	0.4581
90-98 (9)	2001	0.4469	0.4538	0.4403
91-99 (9)	2002	0.4597	0.4695	0.4501
92-00 (9)	2003	0.4938	0.5083	0.4798
93-01 (9)	2004	0.5073	0.5191	0.4958
87-96 (10)	1999	0.5651	0.5614	0.5688
88-97 (10)	2000	0.5049	0.5051	0.5047
89-98 (10)	2001	0.4630	0.4683	0.4578
90-99 (10)	2002	0.4630	0.4731	0.4532
91-00 (10)	2003	0.4822	0.4950	0.4698
92-01 (10)	2004	0.4903	0.5004	0.4804

Medical
Exponential Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-20)
87-90 (4)	1993	-0.2911	-0.2699	-0.3126
88-91 (4)	1994	-0.2771	-0.2723	-0.2820
89-92 (4)	1995	-0.1279	-0.1300	-0.1259
90-93 (4)	1996	-0.0509	-0.0475	-0.0545
91-94 (4)	1997	0.0267	0.0318	0.0216
92-95 (4)	1998	0.0538	0.0661	0.0417
93-96 (4)	1999	0.0922	0.0922	0.0921
94-97 (4)	2000	0.0915	0.0958	0.0871
95-98 (4)	2001	-0.0028	-0.0208	0.0147
96-99 (4)	2002	-0.0742	-0.0975	-0.0517
97-00 (4)	2003	-0.0932	-0.1202	-0.0670
98-01 (4)	2004	0.0367	0.0489	0.0242

87-91 (5)	1994	-0.3003	-0.2861	-0.3143
88-92 (5)	1995	-0.2342	-0.2350	-0.2336
89-93 (5)	1996	-0.0945	-0.0873	-0.1019
90-94 (5)	1997	-0.0050	-0.0041	-0.0061
91-95 (5)	1998	0.0488	0.0608	0.0368
92-96 (5)	1999	0.0999	0.1053	0.0947
93-97 (5)	2000	0.0933	0.0969	0.0895
94-98 (5)	2001	0.0197	0.0039	0.0352
95-99 (5)	2002	-0.0300	-0.0525	-0.0082
96-00 (5)	2003	-0.0958	-0.1197	-0.0725
97-01 (5)	2004	0.0149	0.0152	0.0145

87-92 (6)	1995	-0.2783	-0.2708	-0.2857
88-93 (6)	1996	-0.1860	-0.1784	-0.1938
89-94 (6)	1997	-0.0414	-0.0379	-0.0449
90-95 (6)	1998	0.0264	0.0358	0.0170
91-96 (6)	1999	0.0938	0.1003	0.0873
92-97 (6)	2000	0.1061	0.1130	0.0992
93-98 (6)	2001	0.0297	0.0151	0.0441
94-99 (6)	2002	-0.0049	-0.0258	0.0154
95-00 (6)	2003	-0.0601	-0.0841	-0.0369
96-01 (6)	2004	-0.0022	-0.0040	-0.0006

87-93 (7)	1996	-0.2406	-0.2274	-0.2539
88-94 (7)	1997	-0.1174	-0.1136	-0.1213
89-95 (7)	1998	-0.0034	0.0079	-0.0147
90-96 (7)	1999	0.0746	0.0798	0.0695
91-97 (7)	2000	0.1060	0.1136	0.0984
92-98 (7)	2001	0.0463	0.0357	0.0569
93-99 (7)	2002	0.0098	-0.0101	0.0291
94-00 (7)	2003	-0.0351	-0.0581	-0.0129
95-01 (7)	2004	0.0145	0.0094	0.0193

87-94 (8)	1997	-0.1714	-0.1633	-0.1796
88-95 (8)	1998	-0.0671	-0.0556	-0.0787
89-96 (8)	1999	0.0483	0.0553	0.0414
90-97 (8)	2000	0.0932	0.0996	0.0867
91-98 (8)	2001	0.0512	0.0420	0.0603
92-99 (8)	2002	0.0293	0.0132	0.0451
93-00 (8)	2003	-0.0181	-0.0402	0.0033
94-01 (8)	2004	0.0294	0.0230	0.0356

87-95 (9)	1998	-0.1176	-0.1025	-0.1326
88-96 (9)	1999	-0.0063	0.0010	-0.0135
89-97 (9)	2000	0.0724	0.0802	0.0646
90-98 (9)	2001	0.0436	0.0339	0.0531
91-99 (9)	2002	0.0380	0.0236	0.0522
92-00 (9)	2003	0.0032	-0.0156	0.0214
93-01 (9)	2004	0.0411	0.0337	0.0482

87-96 (10)	1999	-0.0530	-0.0427	-0.0632
88-97 (10)	2000	0.0259	0.0338	0.0180
89-98 (10)	2001	0.0275	0.0194	0.0356
90-99 (10)	2002	0.0347	0.0200	0.0491
91-00 (10)	2003	0.0148	-0.0023	0.0314
92-01 (10)	2004	0.0581	0.0524	0.0636