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 2008 3.25 years, policy year 2007 4.25 years, and policy year 2006 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 twenty-second and the average of the incurred and the paid to twenty-second methods.

As an illustration, the incurred loss development approach generated an indemnity loss ratio of 0.5013 for policy year 2003. Fitting the loss ratios for policy years 1997 to 2000 using a straight line and projecting that to 2003 yielded a loss ratio of 0.5849, which overstates our current estimate for 2003 by 0.0836.

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		Loss Ratio	Loss	Loss
	Policy	Average	Ratio	Ratio
	Year	(Pd & Inc)	(Incur)	(Pd-22)
	1991	0.8642	0.8642	0.8643
	1992	0.7894	0.7912	0.7876
	1993	0.7783	0.7784	0.7782
	1994	0.7421	0.7406	0.7435
	1995	0.6917	0.6842	0.6992
	1996	0.5751	0.5668	0.5833
	1997	0.5888	0.5726	0.6050
	1998	0.5544	0.5361	0.5727
	1999	0.5902	0.5701	0.6104
	2000	0.6005	0.5768	0.6242
	2001	0.5650	0.5395	0.5904
	2002	0.5562	0.5365	0.5758
	2003	0.5239	0.5013	0.5466
	2004	0.5289	0.5097	0.5481
	2005	0.5002	0.4765	0.5239
	2006	0.5010	0.4775	0.5245
	2007	0.5463	0.5108	0.5819
	2008	0.5427	0.5023	0.5832

Trend # Years =   3

11a.1

Indemnity
Linear Fit
Trended Loss Ratios

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-22)
91-94 (4)	1997	0.6237	0.6210	0.6261
92-95 (4)	1998	0.6022	0.5871	0.6172
93-96 (4)	1999	0.3998	0.3815	0.4180
94-97 (4)	2000	0.3900	0.3614	0.4186
95-98 (4)	2001	0.4233	0.3926	0.4540
96-99 (4)	2002	0.5820	0.5494	0.6149
97-00 (4)	2003	0.6154	0.5849	0.6460
98-01 (4)	2004	0.5965	0.5632	0.6295
99-02 (4)	2005	0.5161	0.4936	0.5383
00-03 (4)	2006	0.4540	0.4353	0.4729
01-04 (4)	2007	0.4802	0.4657	0.4950
02-05 (4)	2008	0.4540	0.4288	0.4792
91-95 (5)	1998	0.5770	0.5664	0.5874
92-96 (5)	1999	0.4577	0.4407	0.4746
93-97 (5)	2000	0.4022	0.3758	0.4285
94-98 (5)	2001	0.3913	0.3598	0.4228
95-99 (5)	2002	0.4882	0.4565	0.5200
96-00 (5)	2003	0.6079	0.5732	0.6427
97-01(5)	2004	0.5790	0.5463	0.6117
98-02 (5)	2005	0.5625	0.5369	0.5878
99-03 (5)	2006	0.4787	0.4559	0.5015
00-04 (5)	2007	0.4628	0.4466	0.4790
01-05 (5)	2008	0.4564	0.4363	0.4766
91-96 (6)	1999	0.4612	0.4475	0.4748
92-97 (6)	2000	0.4329	0.4086	0.4572
93-98 (6)	2001	0.3886	0.3584	0.4187
94-99 (6)	2002	0.4418	0.4089	0.4749
95-00 (6)	2003	0.5302	0.4959	0.5646
96-01 (6)	2004	0.5822	0.5462	0.6182
97-02 (6)	2005	0.5569	0.5296	0.5840
98-03 (6)	2006	0.5195	0.4943	0.5446
99-04 (6)	2007	0.4751	0.4555	0.4948
00-05 (6)	2008	0.4449	0.4250	0.4648
91-97 (7)	2000	0.4311	0.4102	0.4518
92-98 (7)	2001	0.4062	0.3777	0.4347
93-99 (7)	2002	0.4224	0.3901	0.4548
94-00 (7)	2003	0.4814	0.4460	0.5170
95-01 (7)	2004	0.5248	0.4887	0.5609
96-02 (7)	2005	0.5633	0.5320	0.5945
97-03 (7)	2006	0.5221	0.4953	0.5488
98-04 (7)	2007	0.5056	0.4835	0.5276
99-05 (7)	2008	0.4548	0.4329	0.4766
91-98 (8)	2001	0.4015	0.3760	0.4270
92-99 (8)	2002	0.4246	0.3934	0.4559
93-00 (8)	2003	0.4542	0.4191	0.4895
94-01 (8)	2004	0.4831	0.4458	0.5204
95-02 (8)	2005	0.5184	0.4859	0.5509
96-03 (8)	2006	0.5322	0.5018	0.5626
97-04 (8)	2007	0.5086	0.4846	0.5326
98-05 (8)	2008	0.4809	0.4574	0.5043
91-99 (9)	2002	0.4122	0.3834	0.4410
92-00 (9)	2003	0.4469	0.4126	0.4813
93-01 (9)	2004	0.4566	0.4193	0.4939
94-02 (9)	2005	0.4821	0.4476	0.5166
95-03 (9)	2006	0.4978	0.4659	0.5296
96-04 (9)	2007	0.5180	0.4904	0.5456
97-05 (9)	2008	0.4855	0.4606	0.5105
91-00 (10)	2003	0.4291	0.3969	0.4614
92-01 (10)	2004	0.4466	0.4098	0.4833
93-02 (10)	2005	0.4568	0.4216	0.4919
94-03 (10)	2006	0.4673	0.4335	0.5012
95-04 (10)	2007	0.4891	0.4597	0.5185
96-05 (10)	2008	0.4954	0.4674	0.5234

Indemnity
Linear Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-22)
91-94 (4)	1997	-0.0349	-0.0484	-0.0211
92-95 (4)	1998	-0.0478	-0.0510	-0.0445
93-96 (4)	1999	0.1904	0.1886	0.1924
94-97 (4)	2000	0.2105	0.2154	0.2056
95-98 (4)	2001	0.1417	0.1469	0.1364
96-99 (4)	2002	-0.0258	-0.0129	-0.0391
97-00 (4)	2003	-0.0915	-0.0836	-0.0994
98-01 (4)	2004	-0.0676	-0.0535	-0.0814
99-02 (4)	2005	-0.0159	-0.0171	-0.0144
00-03 (4)	2006	0.0470	0.0423	0.0516
01-04 (4)	2007	0.0661	0.0451	0.0869
02-05 (4)	2008	0.0888	0.0735	0.1040
91-95 (5)	1998	-0.0226	-0.0303	-0.0147
92-96 (5)	1999	0.1325	0.1294	0.1358
93-97 (5)	2000	0.1983	0.2010	0.1957
94-98 (5)	2001	0.1737	0.1797	0.1676
95-99 (5)	2002	0.0680	0.0800	0.0558
96-00 (5)	2003	-0.0840	-0.0719	-0.0961
97-01(5)	2004	-0.0501	-0.0366	-0.0636
98-02 (5)	2005	-0.0623	-0.0604	-0.0639
99-03 (5)	2006	0.0223	0.0216	0.0230
00-04 (5)	2007	0.0835	0.0642	0.1029
01-05 (5)	2008	0.0863	0.0660	0.1066
91-96 (6)	1999	0.1290	0.1226	0.1356
92-97 (6)	2000	0.1676	0.1682	0.1670
93-98 (6)	2001	0.1764	0.1811	0.1717
94-99 (6)	2002	0.1144	0.1276	0.1009
95-00 (6)	2003	-0.0063	0.0054	-0.0180
96-01 (6)	2004	-0.0533	-0.0365	-0.0701
97-02 (6)	2005	-0.0567	-0.0531	-0.0601
98-03 (6)	2006	-0.0185	-0.0168	-0.0201
99-04 (6)	2007	0.0712	0.0553	0.0871
00-05 (6)	2008	0.0978	0.0773	0.1184
91-97 (7)	2000	0.1694	0.1666	0.1724
92-98 (7)	2001	0.1588	0.1618	0.1558
93-99 (7)	2002	0.1338	0.1464	0.1210
94-00 (7)	2003	0.0425	0.0553	0.0296
95-01 (7)	2004	0.0041	0.0210	-0.0128
96-02 (7)	2005	-0.0631	-0.0555	-0.0706
97-03 (7)	2006	-0.0211	-0.0178	-0.0243
98-04 (7)	2007	0.0407	0.0273	0.0543
99-05 (7)	2008	0.0879	0.0694	0.1066
91-98 (8)	2001	0.1635	0.1635	0.1634
92-99 (8)	2002	0.1316	0.1431	0.1199
93-00 (8)	2003	0.0697	0.0822	0.0571
94-01 (8)	2004	0.0458	0.0639	0.0277
95-02 (8)	2005	-0.0182	-0.0094	-0.0270
96-03 (8)	2006	-0.0312	-0.0243	-0.0381
97-04 (8)	2007	0.0377	0.0262	0.0493
98-05 (8)	2008	0.0618	0.0449	0.0789
91-99 (9)	2002	0.1440	0.1531	0.1348
92-00 (9)	2003	0.0770	0.0887	0.0653
93-01 (9)	2004	0.0723	0.0904	0.0542
94-02 (9)	2005	0.0181	0.0289	0.0073
95-03 (9)	2006	0.0032	0.0116	-0.0051
96-04 (9)	2007	0.0283	0.0204	0.0363
97-05 (9)	2008	0.0572	0.0417	0.0727
91-00 (10)	2003	0.0948	0.1044	0.0852
92-01 (10)	2004	0.0823	0.0999	0.0648
93-02 (10)	2005	0.0434	0.0549	0.0320
94-03 (10)	2006	0.0337	0.0440	0.0233
95-04 (10)	2007	0.0572	0.0511	0.0634
96-05 (10)	2008	0.0473	0.0349	0.0598

Indemnity
Exponential Fit
Trended Loss Ratios

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-22)
91-94 (4)	1997	0.6409	0.6386	0.6430
92-95 (4)	1998	0.6137	0.6007	0.6268
93-96 (4)	1999	0.4458	0.4324	0.4594
94-97 (4)	2000	0.4348	0.4134	0.4567
95-98 (4)	2001	0.4500	0.4245	0.4761
96-99 (4)	2002	0.5815	0.5491	0.6148
97-00 (4)	2003	0.6160	0.5852	0.6470
98-01 (4)	2004	0.5968	0.5630	0.6305
99-02 (4)	2005	0.5188	0.4965	0.5407
00-03 (4)	2006	0.4631	0.4439	0.4824
01-04 (4)	2007	0.4837	0.4685	0.4991
02-05 (4)	2008	0.4586	0.4340	0.4832
91-95 (5)	1998	0.5984	0.5894	0.6073
92-96 (5)	1999	0.4881	0.4750	0.5014
93-97 (5)	2000	0.4464	0.4266	0.4665
94-98 (5)	2001	0.4317	0.4074	0.4566
95-99 (5)	2002	0.5012	0.4732	0.5299
96-00 (5)	2003	0.6080	0.5730	0.6437
97-01(5)	2004	0.5788	0.5461	0.6116
98-02 (5)	2005	0.5624	0.5369	0.5877
99-03 (5)	2006	0.4840	0.4615	0.5064
00-04 (5)	2007	0.4700	0.4533	0.4869
01-05 (5)	2008	0.4613	0.4409	0.4818
91-96 (6)	1999	0.4973	0.4864	0.5081
92-97 (6)	2000	0.4691	0.4504	0.4882
93-98 (6)	2001	0.4333	0.4105	0.4566
94-99 (6)	2002	0.4684	0.4416	0.4960
95-00 (6)	2003	0.5372	0.5057	0.5693
96-01 (6)	2004	0.5818	0.5459	0.6182
97-02 (6)	2005	0.5568	0.5298	0.5837
98-03 (6)	2006	0.5200	0.4952	0.5449
99-04 (6)	2007	0.4806	0.4610	0.5003
00-05 (6)	2008	0.4532	0.4331	0.4734
91-97 (7)	2000	0.4733	0.4570	0.4897
92-98 (7)	2001	0.4470	0.4252	0.4693
93-99 (7)	2002	0.4572	0.4318	0.4832
94-00 (7)	2003	0.4994	0.4692	0.5303
95-01 (7)	2004	0.5313	0.4979	0.5653
96-02 (7)	2005	0.5630	0.5321	0.5941
97-03 (7)	2006	0.5226	0.4964	0.5489
98-04 (7)	2007	0.5072	0.4853	0.5291
99-05 (7)	2008	0.4617	0.4401	0.4834
91-98 (8)	2001	0.4488	0.4292	0.4687
92-99 (8)	2002	0.4602	0.4358	0.4852
93-00 (8)	2003	0.4809	0.4523	0.5102
94-01 (8)	2004	0.4993	0.4671	0.5323
95-02 (8)	2005	0.5246	0.4944	0.5552
96-03 (8)	2006	0.5320	0.5025	0.5619
97-04 (8)	2007	0.5101	0.4865	0.5336
98-05 (8)	2008	0.4838	0.4606	0.5070
91-99 (9)	2002	0.4559	0.4336	0.4787
92-00 (9)	2003	0.4768	0.4494	0.5050
93-01 (9)	2004	0.4812	0.4505	0.5128
94-02 (9)	2005	0.4972	0.4671	0.5278
95-03 (9)	2006	0.5045	0.4751	0.5343
96-04 (9)	2007	0.5186	0.4918	0.5456
97-05 (9)	2008	0.4881	0.4638	0.5126
91-00 (10)	2003	0.4679	0.4425	0.4938
92-01 (10)	2004	0.4752	0.4455	0.5057
93-02 (10)	2005	0.4800	0.4506	0.5099
94-03 (10)	2006	0.4827	0.4531	0.5128
95-04 (10)	2007	0.4961	0.4689	0.5236
96-05 (10)	2008	0.4969	0.4699	0.5242

Indemnity
Exponential Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-22)
91-94 (4)	1997	-0.0521	-0.0660	-0.0380
92-95 (4)	1998	-0.0593	-0.0646	-0.0541
93-96 (4)	1999	0.1444	0.1377	0.1510
94-97 (4)	2000	0.1657	0.1634	0.1675
95-98 (4)	2001	0.1150	0.1150	0.1143
96-99 (4)	2002	-0.0253	-0.0126	-0.0390
97-00 (4)	2003	-0.0921	-0.0839	-0.1004
98-01 (4)	2004	-0.0679	-0.0533	-0.0824
99-02 (4)	2005	-0.0186	-0.0200	-0.0168
00-03 (4)	2006	0.0379	0.0336	0.0421
01-04 (4)	2007	0.0626	0.0423	0.0828
02-05 (4)	2008	0.0841	0.0683	0.1000
91-95 (5)	1998	-0.0440	-0.0533	-0.0346
92-96 (5)	1999	0.1021	0.0951	0.1090
93-97 (5)	2000	0.1541	0.1502	0.1577
94-98 (5)	2001	0.1333	0.1321	0.1338
95-99 (5)	2002	0.0550	0.0633	0.0459
96-00 (5)	2003	-0.0841	-0.0717	-0.0971
97-01(5)	2004	-0.0499	-0.0364	-0.0635
98-02 (5)	2005	-0.0622	-0.0604	-0.0638
99-03 (5)	2006	0.0170	0.0160	0.0181
00-04 (5)	2007	0.0763	0.0575	0.0950
01-05 (5)	2008	0.0814	0.0614	0.1014
91-96 (6)	1999	0.0929	0.0837	0.1023
92-97 (6)	2000	0.1314	0.1264	0.1360
93-98 (6)	2001	0.1317	0.1290	0.1338
94-99 (6)	2002	0.0878	0.0949	0.0798
95-00 (6)	2003	-0.0133	-0.0044	-0.0227
96-01 (6)	2004	-0.0529	-0.0362	-0.0701
97-02 (6)	2005	-0.0566	-0.0533	-0.0598
98-03 (6)	2006	-0.0190	-0.0177	-0.0204
99-04 (6)	2007	0.0657	0.0498	0.0816
00-05 (6)	2008	0.0895	0.0692	0.1098
91-97 (7)	2000	0.1272	0.1198	0.1345
92-98 (7)	2001	0.1180	0.1143	0.1211
93-99 (7)	2002	0.0990	0.1047	0.0926
94-00 (7)	2003	0.0245	0.0321	0.0163
95-01 (7)	2004	-0.0024	0.0118	-0.0172
96-02 (7)	2005	-0.0628	-0.0556	-0.0702
97-03 (7)	2006	-0.0216	-0.0189	-0.0244
98-04 (7)	2007	0.0391	0.0255	0.0528
99-05 (7)	2008	0.0810	0.0622	0.0998
91-98 (8)	2001	0.1162	0.1103	0.1217
92-99 (8)	2002	0.0960	0.1007	0.0906
93-00 (8)	2003	0.0430	0.0490	0.0364
94-01 (8)	2004	0.0296	0.0426	0.0158
95-02 (8)	2005	-0.0244	-0.0179	-0.0313
96-03 (8)	2006	-0.0310	-0.0250	-0.0374
97-04 (8)	2007	0.0362	0.0243	0.0483
98-05 (8)	2008	0.0589	0.0417	0.0762
91-99 (9)	2002	0.1003	0.1029	0.0971
92-00 (9)	2003	0.0471	0.0519	0.0416
93-01 (9)	2004	0.0477	0.0592	0.0353
94-02 (9)	2005	0.0030	0.0094	-0.0039
95-03 (9)	2006	-0.0035	0.0024	-0.0098
96-04 (9)	2007	0.0277	0.0190	0.0363
97-05 (9)	2008	0.0546	0.0385	0.0706
91-00 (10)	2003	0.0560	0.0588	0.0528
92-01 (10)	2004	0.0537	0.0642	0.0424
93-02 (10)	2005	0.0202	0.0259	0.0140
94-03 (10)	2006	0.0183	0.0244	0.0117
95-04 (10)	2007	0.0502	0.0419	0.0583
96-05 (10)	2008	0.0458	0.0324	0.0590

Medical
Actual Ultimate Loss Ratios
Including Average of Paid and Incurred

MEDICAL		Loss Ratio	Loss	Loss
	Policy	Average	Ratio	Ratio
	Year	(Pd & Inc)	(Incur)	(Pd-22)
	1991	0.5594	0.5562	0.5626
	1992	0.5444	0.5415	0.5472
	1993	0.5290	0.5210	0.5370
	1994	0.5190	0.5143	0.5237
	1995	0.5133	0.5083	0.5182
	1996	0.4920	0.4890	0.4951
	1997	0.5178	0.5116	0.5240
	1998	0.5220	0.5204	0.5236
	1999	0.5282	0.5199	0.5365
	2000	0.5309	0.5180	0.5439
	2001	0.4927	0.4686	0.5168
	2002	0.4958	0.4743	0.5172
	2003	0.5011	0.4768	0.5254
	2004	0.5238	0.4938	0.5537
	2005	0.4898	0.4644	0.5152
	2006	0.4759	0.4432	0.5086
	2007	0.5125	0.4825	0.5425
	2008	0.4844	0.4525	0.5162

Trend # Years =   3

11a.6

Medical
Linear Fit
Trended Loss Ratios

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-22)
91-94 (4)	1997	0.4765	0.4675	0.4855
92-95 (4)	1998	0.4799	0.4734	0.4864
93-96 (4)	1999	0.4608	0.4623	0.4595
94-97 (4)	2000	0.4993	0.4935	0.5053
95-98 (4)	2001	0.5346	0.5338	0.5355
96-99 (4)	2002	0.5658	0.5559	0.5755
97-00 (4)	2003	0.5452	0.5259	0.5647
98-01 (4)	2004	0.4801	0.4359	0.5244
99-02 (4)	2005	0.4510	0.4114	0.4904
00-03 (4)	2006	0.4663	0.4314	0.5010
01-04 (4)	2007	0.5477	0.5135	0.5818
02-05 (4)	2008	0.5047	0.4716	0.5379
91-95 (5)	1998	0.4742	0.4668	0.4816
92-96 (5)	1999	0.4593	0.4560	0.4627
93-97 (5)	2000	0.4895	0.4868	0.4923
94-98 (5)	2001	0.5181	0.5165	0.5197
95-99 (5)	2002	0.5446	0.5371	0.5520
96-00 (5)	2003	0.5623	0.5449	0.5797
97-01(5)	2004	0.4977	0.4635	0.5319
98-02 (5)	2005	0.4700	0.4285	0.5114
99-03 (5)	2006	0.4651	0.4266	0.5035
00-04 (5)	2007	0.5060	0.4662	0.5455
01-05 (5)	2008	0.5117	0.4811	0.5423
91-96 (6)	1999	0.4570	0.4522	0.4618
92-97 (6)	2000	0.4800	0.4748	0.4854
93-98 (6)	2001	0.5061	0.5060	0.5062
94-99 (6)	2002	0.5308	0.5242	0.5373
95-00 (6)	2003	0.5489	0.5348	0.5632
96-01 (6)	2004	0.5216	0.4915	0.5518
97-02 (6)	2005	0.4839	0.4481	0.5196
98-03 (6)	2006	0.4741	0.4328	0.5153
99-04 (6)	2007	0.4951	0.4529	0.5371
00-05 (6)	2008	0.4889	0.4528	0.5248
91-97 (7)	2000	0.4724	0.4664	0.4785
92-98 (7)	2001	0.4947	0.4921	0.4972
93-99 (7)	2002	0.5191	0.5147	0.5235
94-00 (7)	2003	0.5381	0.5257	0.5505
95-01 (7)	2004	0.5195	0.4938	0.5453
96-02 (7)	2005	0.5049	0.4719	0.5379
97-03 (7)	2006	0.4831	0.4454	0.5207
98-04 (7)	2007	0.4955	0.4510	0.5399
99-05 (7)	2008	0.4830	0.4437	0.5222
91-98 (8)	2001	0.4850	0.4814	0.4887
92-99 (8)	2002	0.5073	0.5017	0.5130
93-00 (8)	2003	0.5276	0.5179	0.5374
94-01 (8)	2004	0.5158	0.4931	0.5385
95-02 (8)	2005	0.5059	0.4764	0.5354
96-03 (8)	2006	0.4999	0.4641	0.5356
97-04 (8)	2007	0.4987	0.4570	0.5403
98-05 (8)	2008	0.4847	0.4425	0.5269
91-99 (9)	2002	0.4968	0.4908	0.5030
92-00 (9)	2003	0.5165	0.5065	0.5266
93-01 (9)	2004	0.5103	0.4911	0.5295
94-02 (9)	2005	0.5047	0.4779	0.5314
95-03 (9)	2006	0.5012	0.4684	0.5341
96-04 (9)	2007	0.5103	0.4703	0.5503
97-05 (9)	2008	0.4885	0.4477	0.5292
91-00 (10)	2003	0.5061	0.4961	0.5161
92-01 (10)	2004	0.5028	0.4844	0.5213
93-02 (10)	2005	0.5012	0.4777	0.5248
94-03 (10)	2006	0.5006	0.4702	0.5310
95-04 (10)	2007	0.5101	0.4726	0.5475
96-05 (10)	2008	0.4995	0.4596	0.5394

Medical
Linear Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-22)
91-94 (4)	1997	0.0413	0.0441	0.0385
92-95 (4)	1998	0.0421	0.0470	0.0372
93-96 (4)	1999	0.0674	0.0577	0.0770
94-97 (4)	2000	0.0316	0.0245	0.0386
95-98 (4)	2001	-0.0419	-0.0652	-0.0187
96-99 (4)	2002	-0.0700	-0.0816	-0.0583
97-00 (4)	2003	-0.0441	-0.0491	-0.0393
98-01 (4)	2004	0.0437	0.0579	0.0293
99-02 (4)	2005	0.0388	0.0530	0.0249
00-03 (4)	2006	0.0096	0.0118	0.0076
01-04 (4)	2007	-0.0352	-0.0310	-0.0393
02-05 (4)	2008	-0.0203	-0.0191	-0.0217
91-95 (5)	1998	0.0478	0.0536	0.0420
92-96 (5)	1999	0.0689	0.0639	0.0738
93-97 (5)	2000	0.0414	0.0312	0.0516
94-98 (5)	2001	-0.0254	-0.0479	-0.0029
95-99 (5)	2002	-0.0488	-0.0628	-0.0348
96-00 (5)	2003	-0.0612	-0.0681	-0.0543
97-01(5)	2004	0.0261	0.0303	0.0218
98-02 (5)	2005	0.0198	0.0359	0.0039
99-03 (5)	2006	0.0108	0.0166	0.0051
00-04 (5)	2007	0.0065	0.0163	-0.0030
01-05 (5)	2008	-0.0273	-0.0286	-0.0261
91-96 (6)	1999	0.0712	0.0677	0.0747
92-97 (6)	2000	0.0509	0.0432	0.0585
93-98 (6)	2001	-0.0134	-0.0374	0.0106
94-99 (6)	2002	-0.0350	-0.0499	-0.0201
95-00 (6)	2003	-0.0478	-0.0580	-0.0378
96-01 (6)	2004	0.0022	0.0023	0.0019
97-02 (6)	2005	0.0059	0.0163	-0.0044
98-03 (6)	2006	0.0018	0.0104	-0.0067
99-04 (6)	2007	0.0174	0.0296	0.0054
00-05 (6)	2008	-0.0045	-0.0003	-0.0086
91-97 (7)	2000	0.0585	0.0516	0.0654
92-98 (7)	2001	-0.0020	-0.0235	0.0196
93-99 (7)	2002	-0.0233	-0.0404	-0.0063
94-00 (7)	2003	-0.0370	-0.0489	-0.0251
95-01 (7)	2004	0.0043	0.0000	0.0084
96-02 (7)	2005	-0.0151	-0.0075	-0.0227
97-03 (7)	2006	-0.0072	-0.0022	-0.0121
98-04 (7)	2007	0.0170	0.0315	0.0026
99-05 (7)	2008	0.0014	0.0088	-0.0060
91-98 (8)	2001	0.0077	-0.0128	0.0281
92-99 (8)	2002	-0.0115	-0.0274	0.0042
93-00 (8)	2003	-0.0265	-0.0411	-0.0120
94-01 (8)	2004	0.0080	0.0007	0.0152
95-02 (8)	2005	-0.0161	-0.0120	-0.0202
96-03 (8)	2006	-0.0240	-0.0209	-0.0270
97-04 (8)	2007	0.0138	0.0255	0.0022
98-05 (8)	2008	-0.0003	0.0100	-0.0107
91-99 (9)	2002	-0.0010	-0.0165	0.0142
92-00 (9)	2003	-0.0154	-0.0297	-0.0012
93-01 (9)	2004	0.0135	0.0027	0.0242
94-02 (9)	2005	-0.0149	-0.0135	-0.0162
95-03 (9)	2006	-0.0253	-0.0252	-0.0255
96-04 (9)	2007	0.0022	0.0122	-0.0078
97-05 (9)	2008	-0.0041	0.0048	-0.0130
91-00 (10)	2003	-0.0050	-0.0193	0.0093
92-01 (10)	2004	0.0210	0.0094	0.0324
93-02 (10)	2005	-0.0114	-0.0133	-0.0096
94-03 (10)	2006	-0.0247	-0.0270	-0.0224
95-04 (10)	2007	0.0024	0.0099	-0.0050
96-05 (10)	2008	-0.0151	-0.0071	-0.0232

Medical
Exponential Fit
Trended Loss Ratios

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-22)
91-94 (4)	1997	0.4797	0.4713	0.4883
92-95 (4)	1998	0.4820	0.4757	0.4882
93-96 (4)	1999	0.4630	0.4639	0.4622
94-97 (4)	2000	0.4992	0.4934	0.5050
95-98 (4)	2001	0.5350	0.5343	0.5359
96-99 (4)	2002	0.5687	0.5583	0.5789
97-00 (4)	2003	0.5456	0.5260	0.5655
98-01 (4)	2004	0.4804	0.4387	0.5240
99-02 (4)	2005	0.4542	0.4177	0.4915
00-03 (4)	2006	0.4683	0.4352	0.5019
01-04 (4)	2007	0.5492	0.5145	0.5837
02-05 (4)	2008	0.5042	0.4712	0.5374
91-95 (5)	1998	0.4773	0.4702	0.4843
92-96 (5)	1999	0.4623	0.4590	0.4657
93-97 (5)	2000	0.4899	0.4871	0.4928
94-98 (5)	2001	0.5179	0.5163	0.5196
95-99 (5)	2002	0.5453	0.5378	0.5529
96-00 (5)	2003	0.5645	0.5464	0.5829
97-01(5)	2004	0.4972	0.4636	0.5316
98-02 (5)	2005	0.4712	0.4324	0.5114
99-03 (5)	2006	0.4671	0.4309	0.5041
00-04 (5)	2007	0.5061	0.4673	0.5452
01-05 (5)	2008	0.5114	0.4808	0.5420
91-96 (6)	1999	0.4609	0.4563	0.4655
92-97 (6)	2000	0.4814	0.4763	0.4866
93-98 (6)	2001	0.5061	0.5058	0.5064
94-99 (6)	2002	0.5308	0.5243	0.5374
95-00 (6)	2003	0.5499	0.5354	0.5645
96-01 (6)	2004	0.5213	0.4904	0.5527
97-02 (6)	2005	0.4841	0.4496	0.5194
98-03 (6)	2006	0.4752	0.4363	0.5154
99-04 (6)	2007	0.4953	0.4548	0.5367
00-05 (6)	2008	0.4891	0.4541	0.5245
91-97 (7)	2000	0.4749	0.4691	0.4808
92-98 (7)	2001	0.4953	0.4927	0.4979
93-99 (7)	2002	0.5189	0.5146	0.5233
94-00 (7)	2003	0.5383	0.5259	0.5509
95-01 (7)	2004	0.5191	0.4927	0.5457
96-02 (7)	2005	0.5046	0.4715	0.5383
97-03 (7)	2006	0.4835	0.4473	0.5206
98-04 (7)	2007	0.4956	0.4530	0.5395
99-05 (7)	2008	0.4835	0.4458	0.5218
91-98 (8)	2001	0.4866	0.4830	0.4902
92-99 (8)	2002	0.5075	0.5020	0.5131
93-00 (8)	2003	0.5276	0.5179	0.5373
94-01 (8)	2004	0.5153	0.4922	0.5385
95-02 (8)	2005	0.5055	0.4759	0.5355
96-03 (8)	2006	0.4998	0.4644	0.5359
97-04 (8)	2007	0.4986	0.4583	0.5400
98-05 (8)	2008	0.4851	0.4448	0.5265
91-99 (9)	2002	0.4978	0.4918	0.5037
92-00 (9)	2003	0.5165	0.5067	0.5265
93-01 (9)	2004	0.5099	0.4904	0.5294
94-02 (9)	2005	0.5043	0.4774	0.5314
95-03 (9)	2006	0.5010	0.4684	0.5343
96-04 (9)	2007	0.5102	0.4705	0.5507
97-05 (9)	2008	0.4886	0.4494	0.5288
91-00 (10)	2003	0.5066	0.4970	0.5163
92-01 (10)	2004	0.5028	0.4844	0.5212
93-02 (10)	2005	0.5010	0.4774	0.5247
94-03 (10)	2006	0.5004	0.4701	0.5311
95-04 (10)	2007	0.5098	0.4727	0.5477
96-05 (10)	2008	0.4993	0.4602	0.5394

Medical
Exponential Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-22)
91-94 (4)	1997	0.0381	0.0403	0.0357
92-95 (4)	1998	0.0400	0.0447	0.0354
93-96 (4)	1999	0.0652	0.0560	0.0743
94-97 (4)	2000	0.0317	0.0246	0.0389
95-98 (4)	2001	-0.0423	-0.0657	-0.0191
96-99 (4)	2002	-0.0729	-0.0840	-0.0617
97-00 (4)	2003	-0.0445	-0.0492	-0.0401
98-01 (4)	2004	0.0434	0.0551	0.0297
99-02 (4)	2005	0.0356	0.0467	0.0237
00-03 (4)	2006	0.0076	0.0080	0.0067
01-04 (4)	2007	-0.0367	-0.0320	-0.0412
02-05 (4)	2008	-0.0198	-0.0187	-0.0212
91-95 (5)	1998	0.0447	0.0502	0.0393
92-96 (5)	1999	0.0659	0.0609	0.0708
93-97 (5)	2000	0.0410	0.0309	0.0511
94-98 (5)	2001	-0.0252	-0.0477	-0.0028
95-99 (5)	2002	-0.0495	-0.0635	-0.0357
96-00 (5)	2003	-0.0634	-0.0696	-0.0575
97-01(5)	2004	0.0266	0.0302	0.0221
98-02 (5)	2005	0.0186	0.0320	0.0038
99-03 (5)	2006	0.0088	0.0123	0.0045
00-04 (5)	2007	0.0064	0.0152	-0.0027
01-05 (5)	2008	-0.0270	-0.0283	-0.0258
91-96 (6)	1999	0.0673	0.0636	0.0710
92-97 (6)	2000	0.0495	0.0417	0.0573
93-98 (6)	2001	-0.0134	-0.0372	0.0104
94-99 (6)	2002	-0.0350	-0.0500	-0.0202
95-00 (6)	2003	-0.0488	-0.0586	-0.0391
96-01 (6)	2004	0.0025	0.0034	0.0010
97-02 (6)	2005	0.0057	0.0148	-0.0042
98-03 (6)	2006	0.0007	0.0069	-0.0068
99-04 (6)	2007	0.0172	0.0277	0.0058
00-05 (6)	2008	-0.0047	-0.0016	-0.0083
91-97 (7)	2000	0.0560	0.0489	0.0631
92-98 (7)	2001	-0.0026	-0.0241	0.0189
93-99 (7)	2002	-0.0231	-0.0403	-0.0061
94-00 (7)	2003	-0.0372	-0.0491	-0.0255
95-01 (7)	2004	0.0047	0.0011	0.0080
96-02 (7)	2005	-0.0148	-0.0071	-0.0231
97-03 (7)	2006	-0.0076	-0.0041	-0.0120
98-04 (7)	2007	0.0169	0.0295	0.0030
99-05 (7)	2008	0.0009	0.0067	-0.0056
91-98 (8)	2001	0.0061	-0.0144	0.0266
92-99 (8)	2002	-0.0117	-0.0277	0.0041
93-00 (8)	2003	-0.0265	-0.0411	-0.0119
94-01 (8)	2004	0.0085	0.0016	0.0152
95-02 (8)	2005	-0.0157	-0.0115	-0.0203
96-03 (8)	2006	-0.0239	-0.0212	-0.0273
97-04 (8)	2007	0.0139	0.0242	0.0025
98-05 (8)	2008	-0.0007	0.0077	-0.0103
91-99 (9)	2002	-0.0020	-0.0175	0.0135
92-00 (9)	2003	-0.0154	-0.0299	-0.0011
93-01 (9)	2004	0.0139	0.0034	0.0243
94-02 (9)	2005	-0.0145	-0.0130	-0.0162
95-03 (9)	2006	-0.0251	-0.0252	-0.0257
96-04 (9)	2007	0.0023	0.0120	-0.0082
97-05 (9)	2008	-0.0042	0.0031	-0.0126
91-00 (10)	2003	-0.0055	-0.0202	0.0091
92-01 (10)	2004	0.0210	0.0094	0.0325
93-02 (10)	2005	-0.0112	-0.0130	-0.0095
94-03 (10)	2006	-0.0245	-0.0269	-0.0225
95-04 (10)	2007	0.0027	0.0098	-0.0052
96-05 (10)	2008	-0.0149	-0.0077	-0.0232