

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 2009 3.25 years, policy year 2008 4.25 years, and policy year 2007 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 0.5083 for policy year 2004. Fitting the loss ratios for policy years 1998 to 2001 using a straight line and projecting that to 2004 yielded a loss ratio of 0.5644, which overstates our current estimate for 2004 by 0.0561.

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-23)
	1992	0.7797	0.7810	0.7783
	1993	0.7658	0.7649	0.7668
	1994	0.7299	0.7270	0.7328
	1995	0.6759	0.6681	0.6837
	1996	0.5704	0.5617	0.5791
	1997	0.5849	0.5692	0.6006
	1998	0.5487	0.5319	0.5655
	1999	0.5770	0.5580	0.5960
	2000	0.5899	0.5703	0.6096
	2001	0.5600	0.5387	0.5814
	2002	0.5552	0.5403	0.5701
	2003	0.5203	0.5025	0.5382
	2004	0.5212	0.5083	0.5341
	2005	0.4874	0.4693	0.5054
	2006	0.4785	0.4619	0.4951
	2007	0.5060	0.4808	0.5312
	2008	0.5060	0.4692	0.5428
	2009	0.4882	0.4460	0.5305

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-23)
92-95 (4)	1998	0.5815	0.5658	0.5974
93-96 (4)	1999	0.3974	0.3796	0.4151
94-97 (4)	2000	0.3971	0.3706	0.4235
95-98 (4)	2001	0.4298	0.4022	0.4573
96-99 (4)	2002	0.5629	0.5334	0.5923
97-00 (4)	2003	0.5946	0.5706	0.6188
98-01 (4)	2004	0.5900	0.5644	0.6157
99-02 (4)	2005	0.5276	0.5137	0.5416
00-03 (4)	2006	0.4602	0.4471	0.4734
01-04 (4)	2007	0.4711	0.4644	0.4777
02-05 (4)	2008	0.4299	0.4119	0.4478
03-06 (4)	2009	0.4302	0.4131	0.4471
92-96 (5)	1999	0.4501	0.4328	0.4674
93-97 (5)	2000	0.4047	0.3798	0.4296
94-98 (5)	2001	0.3953	0.3670	0.4235
95-99 (5)	2002	0.4816	0.4528	0.5105
96-00 (5)	2003	0.5897	0.5612	0.6184
97-01 (5)	2004	0.5678	0.5423	0.5935
98-02 (5)	2005	0.5642	0.5466	0.5818
99-03 (5)	2006	0.4864	0.4715	0.5015
00-04 (5)	2007	0.4608	0.4519	0.4696
01-05 (5)	2008	0.4392	0.4264	0.4518
02-06 (5)	2009	0.4194	0.4015	0.4372
92-97 (6)	2000	0.4308	0.4072	0.4544
93-98 (6)	2001	0.3904	0.3630	0.4178
94-99 (6)	2002	0.4366	0.4068	0.4665
95-00 (6)	2003	0.5210	0.4921	0.5500
96-01 (6)	2004	0.5704	0.5415	0.5995
97-02 (6)	2005	0.5533	0.5338	0.5729
98-03 (6)	2006	0.5212	0.5039	0.5387
99-04 (6)	2007	0.4765	0.4656	0.4875
00-05 (6)	2008	0.4347	0.4219	0.4473
01-06 (6)	2009	0.4246	0.4106	0.4384
92-98 (7)	2001	0.4048	0.3783	0.4314
93-99 (7)	2002	0.4176	0.3880	0.4471
94-00 (7)	2003	0.4739	0.4437	0.5042
95-01 (7)	2004	0.5188	0.4892	0.5486
96-02 (7)	2005	0.5578	0.5343	0.5815
97-03 (7)	2006	0.5199	0.5010	0.5389
98-04 (7)	2007	0.5038	0.4903	0.5173
99-05 (7)	2008	0.4489	0.4354	0.4623
00-06 (7)	2009	0.4203	0.4068	0.4338
92-99 (8)	2002	0.4184	0.3894	0.4474
93-00 (8)	2003	0.4475	0.4171	0.4779
94-01 (8)	2004	0.4780	0.4470	0.5091
95-02 (8)	2005	0.5167	0.4914	0.5421
96-03 (8)	2006	0.5283	0.5059	0.5509
97-04 (8)	2007	0.5043	0.4890	0.5197
98-05 (8)	2008	0.4736	0.4587	0.4886
99-06 (8)	2009	0.4315	0.4175	0.4453
92-00 (9)	2003	0.4394	0.4091	0.4697
93-01 (9)	2004	0.4519	0.4204	0.4834
94-02 (9)	2005	0.4806	0.4533	0.5080
95-03 (9)	2006	0.4969	0.4727	0.5212
96-04 (9)	2007	0.5126	0.4938	0.5315
97-05 (9)	2008	0.4770	0.4607	0.4933
98-06 (9)	2009	0.4528	0.4377	0.4678
92-01 (10)	2004	0.4409	0.4094	0.4726
93-02 (10)	2005	0.4553	0.4268	0.4838
94-03 (10)	2006	0.4667	0.4404	0.4931
95-04 (10)	2007	0.4865	0.4656	0.5075
96-05 (10)	2008	0.4865	0.4673	0.5057
97-06 (10)	2009	0.4569	0.4408	0.4730

Indemnity
Linear Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-23)
92-95 (4)	1998	-0.0328	-0.0339	-0.0319
93-96 (4)	1999	0.1796	0.1784	0.1809
94-97 (4)	2000	0.1929	0.1997	0.1861
95-98 (4)	2001	0.1302	0.1365	0.1241
96-99 (4)	2002	-0.0077	0.0069	-0.0222
97-00 (4)	2003	-0.0743	-0.0681	-0.0806
98-01 (4)	2004	-0.0688	-0.0561	-0.0816
99-02 (4)	2005	-0.0402	-0.0444	-0.0362
00-03 (4)	2006	0.0183	0.0148	0.0218
01-04 (4)	2007	0.0349	0.0164	0.0535
02-05 (4)	2008	0.0761	0.0573	0.0950
03-06 (4)	2009	0.0580	0.0329	0.0834
92-96 (5)	1999	0.1269	0.1252	0.1286
93-97 (5)	2000	0.1852	0.1905	0.1801
94-98 (5)	2001	0.1647	0.1717	0.1579
95-99 (5)	2002	0.0736	0.0875	0.0596
96-00 (5)	2003	-0.0694	-0.0587	-0.0802
97-01 (5)	2004	-0.0466	-0.0340	-0.0594
98-02 (5)	2005	-0.0768	-0.0773	-0.0764
99-03 (5)	2006	-0.0079	-0.0096	-0.0064
00-04 (5)	2007	0.0452	0.0289	0.0616
01-05 (5)	2008	0.0668	0.0428	0.0910
02-06 (5)	2009	0.0688	0.0445	0.0933
92-97 (6)	2000	0.1591	0.1631	0.1552
93-98 (6)	2001	0.1696	0.1757	0.1636
94-99 (6)	2002	0.1186	0.1335	0.1036
95-00 (6)	2003	-0.0007	0.0104	-0.0118
96-01 (6)	2004	-0.0492	-0.0332	-0.0654
97-02 (6)	2005	-0.0659	-0.0645	-0.0675
98-03 (6)	2006	-0.0427	-0.0420	-0.0436
99-04 (6)	2007	0.0295	0.0152	0.0437
00-05 (6)	2008	0.0713	0.0473	0.0955
01-06 (6)	2009	0.0636	0.0354	0.0921
92-98 (7)	2001	0.1552	0.1604	0.1500
93-99 (7)	2002	0.1376	0.1523	0.1231
94-00 (7)	2003	0.0464	0.0588	0.0340
95-01 (7)	2004	0.0024	0.0191	-0.0145
96-02 (7)	2005	-0.0704	-0.0650	-0.0761
97-03 (7)	2006	-0.0414	-0.0391	-0.0438
98-04 (7)	2007	0.0022	-0.0095	0.0139
99-05 (7)	2008	0.0571	0.0338	0.0805
00-06 (7)	2009	0.0679	0.0392	0.0967
92-99 (8)	2002	0.1368	0.1509	0.1227
93-00 (8)	2003	0.0728	0.0854	0.0603
94-01 (8)	2004	0.0432	0.0613	0.0250
95-02 (8)	2005	-0.0293	-0.0221	-0.0367
96-03 (8)	2006	-0.0498	-0.0440	-0.0558
97-04 (8)	2007	0.0017	-0.0082	0.0115
98-05 (8)	2008	0.0324	0.0105	0.0542
99-06 (8)	2009	0.0567	0.0285	0.0852
92-00 (9)	2003	0.0809	0.0934	0.0685
93-01 (9)	2004	0.0693	0.0879	0.0507
94-02 (9)	2005	0.0068	0.0160	-0.0026
95-03 (9)	2006	-0.0184	-0.0108	-0.0261
96-04 (9)	2007	-0.0066	-0.0130	-0.0003
97-05 (9)	2008	0.0290	0.0085	0.0495
98-06 (9)	2009	0.0354	0.0083	0.0627
92-01 (10)	2004	0.0803	0.0989	0.0615
93-02 (10)	2005	0.0321	0.0425	0.0216
94-03 (10)	2006	0.0118	0.0215	0.0020
95-04 (10)	2007	0.0195	0.0152	0.0237
96-05 (10)	2008	0.0195	0.0019	0.0371
97-06 (10)	2009	0.0313	0.0052	0.0575

**Indemnity
Exponential Fit
Trended Loss Ratios**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-23)
92-95 (4)	1998	0.5945	0.5810	0.6082
93-96 (4)	1999	0.4422	0.4289	0.4557
94-97 (4)	2000	0.4376	0.4173	0.4584
95-98 (4)	2001	0.4527	0.4293	0.4764
96-99 (4)	2002	0.5626	0.5336	0.5920
97-00 (4)	2003	0.5949	0.5708	0.6192
98-01 (4)	2004	0.5904	0.5645	0.6165
99-02 (4)	2005	0.5289	0.5148	0.5431
00-03 (4)	2006	0.4673	0.4536	0.4811
01-04 (4)	2007	0.4750	0.4673	0.4828
02-05 (4)	2008	0.4369	0.4193	0.4544
03-06 (4)	2009	0.4346	0.4177	0.4513
92-96 (5)	1999	0.4811	0.4676	0.4947
93-97 (5)	2000	0.4462	0.4272	0.4655
94-98 (5)	2001	0.4323	0.4101	0.4550
95-99 (5)	2002	0.4939	0.4681	0.5200
96-00 (5)	2003	0.5896	0.5610	0.6186
97-01 (5)	2004	0.5677	0.5423	0.5934
98-02 (5)	2005	0.5642	0.5466	0.5818
99-03 (5)	2006	0.4899	0.4746	0.5052
00-04 (5)	2007	0.4673	0.4575	0.4771
01-05 (5)	2008	0.4454	0.4319	0.4587
02-06 (5)	2009	0.4269	0.4095	0.4443
92-97 (6)	2000	0.4660	0.4477	0.4847
93-98 (6)	2001	0.4325	0.4113	0.4540
94-99 (6)	2002	0.4623	0.4377	0.4874
95-00 (6)	2003	0.5276	0.5009	0.5548
96-01 (6)	2004	0.5702	0.5414	0.5994
97-02 (6)	2005	0.5534	0.5341	0.5729
98-03 (6)	2006	0.5213	0.5040	0.5389
99-04 (6)	2007	0.4808	0.4693	0.4924
00-05 (6)	2008	0.4431	0.4296	0.4564
01-06 (6)	2009	0.4319	0.4175	0.4462
92-98 (7)	2001	0.4442	0.4237	0.4652
93-99 (7)	2002	0.4514	0.4279	0.4753
94-00 (7)	2003	0.4914	0.4655	0.5179
95-01 (7)	2004	0.5248	0.4972	0.5529
96-02 (7)	2005	0.5577	0.5344	0.5812
97-03 (7)	2006	0.5204	0.5017	0.5393
98-04 (7)	2007	0.5049	0.4913	0.5185
99-05 (7)	2008	0.4551	0.4411	0.4690
00-06 (7)	2009	0.4299	0.4158	0.4439
92-99 (8)	2002	0.4537	0.4309	0.4770
93-00 (8)	2003	0.4736	0.4486	0.4991
94-01 (8)	2004	0.4935	0.4665	0.5211
95-02 (8)	2005	0.5222	0.4984	0.5462
96-03 (8)	2006	0.5283	0.5063	0.5505
97-04 (8)	2007	0.5056	0.4904	0.5210
98-05 (8)	2008	0.4761	0.4609	0.4913
99-06 (8)	2009	0.4392	0.4249	0.4535
92-00 (9)	2003	0.4691	0.4447	0.4940
93-01 (9)	2004	0.4757	0.4494	0.5025
94-02 (9)	2005	0.4946	0.4704	0.5192
95-03 (9)	2006	0.5028	0.4801	0.5257
96-04 (9)	2007	0.5132	0.4948	0.5318
97-05 (9)	2008	0.4795	0.4632	0.4958
98-06 (9)	2009	0.4568	0.4416	0.4721
92-01 (10)	2004	0.4691	0.4434	0.4954
93-02 (10)	2005	0.4772	0.4531	0.5017
94-03 (10)	2006	0.4809	0.4576	0.5045
95-04 (10)	2007	0.4928	0.4732	0.5126
96-05 (10)	2008	0.4880	0.4692	0.5068
97-06 (10)	2009	0.4608	0.4447	0.4769

Indemnity
Exponential Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-23)
92-95 (4)	1998	-0.0458	-0.0491	-0.0427
93-96 (4)	1999	0.1348	0.1291	0.1403
94-97 (4)	2000	0.1523	0.1530	0.1512
95-98 (4)	2001	0.1073	0.1094	0.1050
96-99 (4)	2002	-0.0074	0.0067	-0.0219
97-00 (4)	2003	-0.0746	-0.0683	-0.0810
98-01 (4)	2004	-0.0692	-0.0562	-0.0824
99-02 (4)	2005	-0.0415	-0.0455	-0.0377
00-03 (4)	2006	0.0112	0.0083	0.0140
01-04 (4)	2007	0.0310	0.0135	0.0484
02-05 (4)	2008	0.0691	0.0499	0.0884
03-06 (4)	2009	0.0536	0.0283	0.0792
92-96 (5)	1999	0.0959	0.0904	0.1013
93-97 (5)	2000	0.1437	0.1431	0.1441
94-98 (5)	2001	0.1277	0.1286	0.1264
95-99 (5)	2002	0.0613	0.0722	0.0501
96-00 (5)	2003	-0.0693	-0.0585	-0.0804
97-01 (5)	2004	-0.0465	-0.0340	-0.0593
98-02 (5)	2005	-0.0768	-0.0773	-0.0764
99-03 (5)	2006	-0.0114	-0.0127	-0.0101
00-04 (5)	2007	0.0387	0.0233	0.0541
01-05 (5)	2008	0.0606	0.0373	0.0841
02-06 (5)	2009	0.0613	0.0365	0.0862
92-97 (6)	2000	0.1239	0.1226	0.1249
93-98 (6)	2001	0.1275	0.1274	0.1274
94-99 (6)	2002	0.0929	0.1026	0.0827
95-00 (6)	2003	-0.0073	0.0016	-0.0166
96-01 (6)	2004	-0.0490	-0.0331	-0.0653
97-02 (6)	2005	-0.0660	-0.0648	-0.0675
98-03 (6)	2006	-0.0428	-0.0421	-0.0438
99-04 (6)	2007	0.0252	0.0115	0.0388
00-05 (6)	2008	0.0629	0.0396	0.0864
01-06 (6)	2009	0.0563	0.0285	0.0843
92-98 (7)	2001	0.1158	0.1150	0.1162
93-99 (7)	2002	0.1038	0.1124	0.0948
94-00 (7)	2003	0.0289	0.0370	0.0203
95-01 (7)	2004	-0.0036	0.0111	-0.0188
96-02 (7)	2005	-0.0703	-0.0651	-0.0758
97-03 (7)	2006	-0.0419	-0.0398	-0.0442
98-04 (7)	2007	0.0011	-0.0105	0.0127
99-05 (7)	2008	0.0509	0.0281	0.0738
00-06 (7)	2009	0.0583	0.0302	0.0866
92-99 (8)	2002	0.1015	0.1094	0.0931
93-00 (8)	2003	0.0467	0.0539	0.0391
94-01 (8)	2004	0.0277	0.0418	0.0130
95-02 (8)	2005	-0.0348	-0.0291	-0.0408
96-03 (8)	2006	-0.0498	-0.0444	-0.0554
97-04 (8)	2007	0.0004	-0.0096	0.0102
98-05 (8)	2008	0.0299	0.0083	0.0515
99-06 (8)	2009	0.0490	0.0211	0.0770
92-00 (9)	2003	0.0512	0.0578	0.0442
93-01 (9)	2004	0.0455	0.0589	0.0316
94-02 (9)	2005	-0.0072	-0.0011	-0.0138
95-03 (9)	2006	-0.0243	-0.0182	-0.0306
96-04 (9)	2007	-0.0072	-0.0140	-0.0006
97-05 (9)	2008	0.0265	0.0060	0.0470
98-06 (9)	2009	0.0314	0.0044	0.0584
92-01 (10)	2004	0.0521	0.0649	0.0387
93-02 (10)	2005	0.0102	0.0162	0.0037
94-03 (10)	2006	-0.0024	0.0043	-0.0094
95-04 (10)	2007	0.0132	0.0076	0.0186
96-05 (10)	2008	0.0180	0.0000	0.0360
97-06 (10)	2009	0.0274	0.0013	0.0536

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-23)
	1992	0.5449	0.5438	0.5460
	1993	0.5271	0.5227	0.5315
	1994	0.5128	0.5079	0.5178
	1995	0.5118	0.5069	0.5168
	1996	0.4912	0.4894	0.4930
	1997	0.5153	0.5097	0.5210
	1998	0.5154	0.5153	0.5155
	1999	0.5167	0.5094	0.5241
	2000	0.5213	0.5118	0.5309
	2001	0.4887	0.4709	0.5065
	2002	0.4976	0.4823	0.5128
	2003	0.4971	0.4791	0.5150
	2004	0.5188	0.5002	0.5375
	2005	0.4892	0.4748	0.5036
	2006	0.4723	0.4536	0.4911
	2007	0.5025	0.4873	0.5178
	2008	0.4759	0.4547	0.4971
	2009	0.4714	0.4486	0.4943

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-23)
92-95 (4)	1998	0.4730	0.4639	0.4824
93-96 (4)	1999	0.4618	0.4613	0.4624
94-97 (4)	2000	0.5019	0.4980	0.5058
95-98 (4)	2001	0.5241	0.5258	0.5224
96-99 (4)	2002	0.5441	0.5355	0.5529
97-00 (4)	2003	0.5259	0.5117	0.5401
98-01 (4)	2004	0.4766	0.4430	0.5102
99-02 (4)	2005	0.4656	0.4386	0.4923
00-03 (4)	2006	0.4725	0.4470	0.4977
01-04 (4)	2007	0.5410	0.5212	0.5608
02-05 (4)	2008	0.4991	0.4835	0.5149
03-06 (4)	2009	0.4476	0.4311	0.4643
92-96 (5)	1999	0.4562	0.4518	0.4607
93-97 (5)	2000	0.4890	0.4851	0.4931
94-98 (5)	2001	0.5137	0.5146	0.5126
95-99 (5)	2002	0.5271	0.5216	0.5326
96-00 (5)	2003	0.5428	0.5294	0.5564
97-01 (5)	2004	0.4878	0.4629	0.5128
98-02 (5)	2005	0.4761	0.4457	0.5065
99-03 (5)	2006	0.4728	0.4457	0.4997
00-04 (5)	2007	0.5064	0.4814	0.5314
01-05 (5)	2008	0.5094	0.4943	0.5245
02-06 (5)	2009	0.4658	0.4472	0.4846
92-97 (6)	2000	0.4768	0.4708	0.4831
93-98 (6)	2001	0.5010	0.5009	0.5011
94-99 (6)	2002	0.5191	0.5148	0.5234
95-00 (6)	2003	0.5315	0.5212	0.5418
96-01 (6)	2004	0.5092	0.4866	0.5318
97-02 (6)	2005	0.4834	0.4578	0.5088
98-03 (6)	2006	0.4776	0.4472	0.5079
99-04 (6)	2007	0.4983	0.4714	0.5252
00-05 (6)	2008	0.4910	0.4708	0.5112
01-06 (6)	2009	0.4805	0.4630	0.4982
92-98 (7)	2001	0.4883	0.4858	0.4908
93-99 (7)	2002	0.5081	0.5040	0.5123
94-00 (7)	2003	0.5248	0.5163	0.5334
95-01 (7)	2004	0.5070	0.4883	0.5257
96-02 (7)	2005	0.5006	0.4765	0.5246
97-03 (7)	2006	0.4821	0.4549	0.5092
98-04 (7)	2007	0.4967	0.4666	0.5267
99-05 (7)	2008	0.4873	0.4643	0.5101
00-06 (7)	2009	0.4711	0.4499	0.4924
92-99 (8)	2002	0.4961	0.4907	0.5016
93-00 (8)	2003	0.5150	0.5073	0.5228
94-01 (8)	2004	0.5057	0.4896	0.5218
95-02 (8)	2005	0.5001	0.4790	0.5211
96-03 (8)	2006	0.4959	0.4697	0.5220
97-04 (8)	2007	0.4967	0.4687	0.5246
98-05 (8)	2008	0.4873	0.4608	0.5138
99-06 (8)	2009	0.4707	0.4473	0.4941
92-00 (9)	2003	0.5038	0.4955	0.5122
93-01 (9)	2004	0.5002	0.4857	0.5147
94-02 (9)	2005	0.4999	0.4810	0.5186
95-03 (9)	2006	0.4960	0.4723	0.5196
96-04 (9)	2007	0.5060	0.4786	0.5334
97-05 (9)	2008	0.4883	0.4628	0.5139
98-06 (9)	2009	0.4726	0.4459	0.4992
92-01 (10)	2004	0.4922	0.4779	0.5065
93-02 (10)	2005	0.4957	0.4784	0.5129
94-03 (10)	2006	0.4962	0.4745	0.5177
95-04 (10)	2007	0.5047	0.4793	0.5300
96-05 (10)	2008	0.4972	0.4715	0.5228
97-06 (10)	2009	0.4749	0.4488	0.5009

Medical
Linear Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-23)
92-95 (4)	1998	0.0424	0.0514	0.0331
93-96 (4)	1999	0.0549	0.0481	0.0618
94-97 (4)	2000	0.0194	0.0138	0.0251
95-98 (4)	2001	-0.0354	-0.0549	-0.0159
96-99 (4)	2002	-0.0465	-0.0532	-0.0401
97-00 (4)	2003	-0.0288	-0.0326	-0.0251
98-01 (4)	2004	0.0423	0.0572	0.0273
99-02 (4)	2005	0.0236	0.0362	0.0113
00-03 (4)	2006	-0.0002	0.0066	-0.0066
01-04 (4)	2007	-0.0385	-0.0339	-0.0430
02-05 (4)	2008	-0.0232	-0.0288	-0.0178
03-06 (4)	2009	0.0239	0.0175	0.0300
92-96 (5)	1999	0.0605	0.0576	0.0634
93-97 (5)	2000	0.0323	0.0267	0.0378
94-98 (5)	2001	-0.0249	-0.0437	-0.0061
95-99 (5)	2002	-0.0295	-0.0393	-0.0198
96-00 (5)	2003	-0.0457	-0.0503	-0.0414
97-01 (5)	2004	0.0310	0.0373	0.0247
98-02 (5)	2005	0.0131	0.0291	-0.0029
99-03 (5)	2006	-0.0005	0.0080	-0.0086
00-04 (5)	2007	-0.0039	0.0059	-0.0136
01-05 (5)	2008	-0.0335	-0.0396	-0.0274
02-06 (5)	2009	0.0056	0.0015	0.0097
92-97 (6)	2000	0.0445	0.0410	0.0478
93-98 (6)	2001	-0.0123	-0.0300	0.0054
94-99 (6)	2002	-0.0215	-0.0325	-0.0106
95-00 (6)	2003	-0.0344	-0.0421	-0.0268
96-01 (6)	2004	0.0096	0.0136	0.0057
97-02 (6)	2005	0.0058	0.0170	-0.0052
98-03 (6)	2006	-0.0053	0.0064	-0.0168
99-04 (6)	2007	0.0042	0.0159	-0.0074
00-05 (6)	2008	-0.0151	-0.0161	-0.0141
01-06 (6)	2009	-0.0091	-0.0144	-0.0039
92-98 (7)	2001	0.0004	-0.0149	0.0157
93-99 (7)	2002	-0.0105	-0.0217	0.0005
94-00 (7)	2003	-0.0277	-0.0372	-0.0184
95-01 (7)	2004	0.0118	0.0119	0.0118
96-02 (7)	2005	-0.0114	-0.0017	-0.0210
97-03 (7)	2006	-0.0098	-0.0013	-0.0181
98-04 (7)	2007	0.0058	0.0207	-0.0089
99-05 (7)	2008	-0.0114	-0.0096	-0.0130
00-06 (7)	2009	0.0003	-0.0013	0.0019
92-99 (8)	2002	0.0015	-0.0084	0.0112
93-00 (8)	2003	-0.0179	-0.0282	-0.0078
94-01 (8)	2004	0.0131	0.0106	0.0157
95-02 (8)	2005	-0.0109	-0.0042	-0.0175
96-03 (8)	2006	-0.0236	-0.0161	-0.0309
97-04 (8)	2007	0.0058	0.0186	-0.0068
98-05 (8)	2008	-0.0114	-0.0061	-0.0167
99-06 (8)	2009	0.0007	0.0013	0.0002
92-00 (9)	2003	-0.0067	-0.0164	0.0028
93-01 (9)	2004	0.0186	0.0145	0.0228
94-02 (9)	2005	-0.0107	-0.0062	-0.0150
95-03 (9)	2006	-0.0237	-0.0187	-0.0285
96-04 (9)	2007	-0.0035	0.0087	-0.0156
97-05 (9)	2008	-0.0124	-0.0080	-0.0168
98-06 (9)	2009	-0.0012	0.0027	-0.0049
92-01 (10)	2004	0.0266	0.0223	0.0310
93-02 (10)	2005	-0.0065	-0.0036	-0.0093
94-03 (10)	2006	-0.0239	-0.0209	-0.0266
95-04 (10)	2007	-0.0022	0.0080	-0.0122
96-05 (10)	2008	-0.0213	-0.0168	-0.0257
97-06 (10)	2009	-0.0035	-0.0002	-0.0066

**Medical
Exponential Fit
Trended Loss Ratios**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-23)
92-95 (4)	1998	0.4756	0.4670	0.4844
93-96 (4)	1999	0.4638	0.4631	0.4645
94-97 (4)	2000	0.5017	0.4979	0.5055
95-98 (4)	2001	0.5243	0.5261	0.5226
96-99 (4)	2002	0.5456	0.5366	0.5548
97-00 (4)	2003	0.5259	0.5117	0.5403
98-01 (4)	2004	0.4769	0.4450	0.5099
99-02 (4)	2005	0.4670	0.4413	0.4929
00-03 (4)	2006	0.4737	0.4492	0.4982
01-04 (4)	2007	0.5422	0.5224	0.5621
02-05 (4)	2008	0.4987	0.4832	0.5144
03-06 (4)	2009	0.4491	0.4325	0.4659
92-96 (5)	1999	0.4595	0.4554	0.4636
93-97 (5)	2000	0.4894	0.4855	0.4934
94-98 (5)	2001	0.5135	0.5145	0.5125
95-99 (5)	2002	0.5274	0.5218	0.5330
96-00 (5)	2003	0.5440	0.5301	0.5581
97-01 (5)	2004	0.4877	0.4633	0.5126
98-02 (5)	2005	0.4768	0.4478	0.5065
99-03 (5)	2006	0.4738	0.4478	0.5000
00-04 (5)	2007	0.5064	0.4817	0.5313
01-05 (5)	2008	0.5092	0.4943	0.5242
02-06 (5)	2009	0.4659	0.4473	0.4847
92-97 (6)	2000	0.4784	0.4726	0.4843
93-98 (6)	2001	0.5011	0.5009	0.5013
94-99 (6)	2002	0.5191	0.5148	0.5234
95-00 (6)	2003	0.5319	0.5215	0.5423
96-01 (6)	2004	0.5089	0.4860	0.5321
97-02 (6)	2005	0.4836	0.4588	0.5088
98-03 (6)	2006	0.4783	0.4492	0.5080
99-04 (6)	2007	0.4983	0.4719	0.5249
00-05 (6)	2008	0.4911	0.4712	0.5110
01-06 (6)	2009	0.4801	0.4625	0.4977
92-98 (7)	2001	0.4892	0.4868	0.4917
93-99 (7)	2002	0.5081	0.5040	0.5123
94-00 (7)	2003	0.5249	0.5164	0.5335
95-01 (7)	2004	0.5066	0.4877	0.5257
96-02 (7)	2005	0.5004	0.4763	0.5248
97-03 (7)	2006	0.4825	0.4562	0.5092
98-04 (7)	2007	0.4966	0.4673	0.5265
99-05 (7)	2008	0.4874	0.4650	0.5099
00-06 (7)	2009	0.4714	0.4506	0.4923
92-99 (8)	2002	0.4967	0.4914	0.5020
93-00 (8)	2003	0.5150	0.5074	0.5227
94-01 (8)	2004	0.5054	0.4890	0.5217
95-02 (8)	2005	0.4999	0.4788	0.5211
96-03 (8)	2006	0.4959	0.4699	0.5222
97-04 (8)	2007	0.4966	0.4693	0.5244
98-05 (8)	2008	0.4874	0.4617	0.5135
99-06 (8)	2009	0.4711	0.4483	0.4940
92-00 (9)	2003	0.5041	0.4960	0.5123
93-01 (9)	2004	0.5000	0.4854	0.5146
94-02 (9)	2005	0.4997	0.4808	0.5186
95-03 (9)	2006	0.4959	0.4724	0.5196
96-04 (9)	2007	0.5059	0.4786	0.5335
97-05 (9)	2008	0.4884	0.4635	0.5136
98-06 (9)	2009	0.4729	0.4473	0.4989
92-01 (10)	2004	0.4925	0.4784	0.5067
93-02 (10)	2005	0.4957	0.4784	0.5129
94-03 (10)	2006	0.4961	0.4745	0.5177
95-04 (10)	2007	0.5045	0.4793	0.5300
96-05 (10)	2008	0.4971	0.4717	0.5227
97-06 (10)	2009	0.4751	0.4500	0.5007

Medical
Exponential Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-23)
92-95 (4)	1998	0.0398	0.0483	0.0311
93-96 (4)	1999	0.0529	0.0463	0.0596
94-97 (4)	2000	0.0196	0.0139	0.0254
95-98 (4)	2001	-0.0356	-0.0552	-0.0161
96-99 (4)	2002	-0.0480	-0.0543	-0.0420
97-00 (4)	2003	-0.0288	-0.0326	-0.0253
98-01 (4)	2004	0.0419	0.0552	0.0276
99-02 (4)	2005	0.0222	0.0335	0.0107
00-03 (4)	2006	-0.0014	0.0044	-0.0071
01-04 (4)	2007	-0.0397	-0.0351	-0.0443
02-05 (4)	2008	-0.0228	-0.0285	-0.0173
03-06 (4)	2009	0.0223	0.0161	0.0284
92-96 (5)	1999	0.0572	0.0540	0.0605
93-97 (5)	2000	0.0319	0.0263	0.0375
94-98 (5)	2001	-0.0248	-0.0436	-0.0060
95-99 (5)	2002	-0.0298	-0.0395	-0.0202
96-00 (5)	2003	-0.0469	-0.0510	-0.0431
97-01 (5)	2004	0.0311	0.0369	0.0249
98-02 (5)	2005	0.0124	0.0270	-0.0029
99-03 (5)	2006	-0.0015	0.0058	-0.0089
00-04 (5)	2007	-0.0039	0.0056	-0.0135
01-05 (5)	2008	-0.0333	-0.0396	-0.0271
02-06 (5)	2009	0.0055	0.0013	0.0096
92-97 (6)	2000	0.0429	0.0392	0.0466
93-98 (6)	2001	-0.0124	-0.0300	0.0052
94-99 (6)	2002	-0.0215	-0.0325	-0.0106
95-00 (6)	2003	-0.0348	-0.0424	-0.0273
96-01 (6)	2004	0.0099	0.0142	0.0054
97-02 (6)	2005	0.0056	0.0160	-0.0052
98-03 (6)	2006	-0.0060	0.0044	-0.0169
99-04 (6)	2007	0.0042	0.0154	-0.0071
00-05 (6)	2008	-0.0152	-0.0165	-0.0139
01-06 (6)	2009	-0.0087	-0.0139	-0.0034
92-98 (7)	2001	-0.0005	-0.0159	0.0148
93-99 (7)	2002	-0.0105	-0.0217	0.0005
94-00 (7)	2003	-0.0278	-0.0373	-0.0185
95-01 (7)	2004	0.0122	0.0125	0.0118
96-02 (7)	2005	-0.0112	-0.0015	-0.0212
97-03 (7)	2006	-0.0102	-0.0026	-0.0181
98-04 (7)	2007	0.0059	0.0200	-0.0087
99-05 (7)	2008	-0.0115	-0.0103	-0.0128
00-06 (7)	2009	0.0000	-0.0020	0.0020
92-99 (8)	2002	0.0009	-0.0091	0.0108
93-00 (8)	2003	-0.0179	-0.0283	-0.0077
94-01 (8)	2004	0.0134	0.0112	0.0158
95-02 (8)	2005	-0.0107	-0.0040	-0.0175
96-03 (8)	2006	-0.0236	-0.0163	-0.0311
97-04 (8)	2007	0.0059	0.0180	-0.0066
98-05 (8)	2008	-0.0115	-0.0070	-0.0164
99-06 (8)	2009	0.0003	0.0003	0.0003
92-00 (9)	2003	-0.0070	-0.0169	0.0027
93-01 (9)	2004	0.0188	0.0148	0.0229
94-02 (9)	2005	-0.0105	-0.0060	-0.0150
95-03 (9)	2006	-0.0236	-0.0188	-0.0285
96-04 (9)	2007	-0.0034	0.0087	-0.0157
97-05 (9)	2008	-0.0125	-0.0088	-0.0165
98-06 (9)	2009	-0.0015	0.0013	-0.0046
92-01 (10)	2004	0.0263	0.0218	0.0308
93-02 (10)	2005	-0.0065	-0.0036	-0.0093
94-03 (10)	2006	-0.0238	-0.0209	-0.0266
95-04 (10)	2007	-0.0020	0.0080	-0.0122
96-05 (10)	2008	-0.0212	-0.0170	-0.0256
97-06 (10)	2009	-0.0037	-0.0014	-0.0064