

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 2011 3.25 years, policy year 2010 4.25 years, and policy year 2009 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-fifth and the average of the incurred and the paid to twenty-fifth methods.

As an illustration, the incurred loss development approach generates an indemnity loss ratio of 0.5128 for policy year 2006. Fitting the loss ratios for policy years 2000 to 2003 using a straight line and projecting that to 2006 yields a loss ratio of 0.5232, which overstates our current estimate for 2005 by 0.0104.

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-25)
	1994	0.8116	0.8136	0.8097
	1995	0.7485	0.7450	0.7521
	1996	0.6320	0.6283	0.6357
	1997	0.6440	0.6338	0.6543
	1998	0.6001	0.5875	0.6126
	1999	0.6225	0.6090	0.6359
	2000	0.6366	0.6238	0.6495
	2001	0.6094	0.5953	0.6236
	2002	0.6143	0.6056	0.6230
	2003	0.5746	0.5653	0.5839
	2004	0.5745	0.5691	0.5800
	2005	0.5316	0.5223	0.5408
	2006	0.5212	0.5128	0.5296
	2007	0.5365	0.5234	0.5496
	2008	0.5201	0.4997	0.5405
	2009	0.4978	0.4758	0.5198
	2010	0.4850	0.4634	0.5066
	2011	0.4763	0.4519	0.5007

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-25)
94-97 (4)	2000	0.4303	0.4099	0.4508
95-98 (4)	2001	0.4612	0.4385	0.4837
96-99 (4)	2002	0.5921	0.5678	0.6161
97-00 (4)	2003	0.6259	0.6097	0.6421
98-01 (4)	2004	0.6361	0.6211	0.6514
99-02 (4)	2005	0.5974	0.5910	0.6039
00-03 (4)	2006	0.5272	0.5232	0.5312
01-04 (4)	2007	0.5282	0.5303	0.5262
02-05 (4)	2008	0.4621	0.4548	0.4692
03-06 (4)	2009	0.4591	0.4504	0.4676
04-07 (4)	2010	0.4850	0.4659	0.5039
05-08 (4)	2011	0.5187	0.4888	0.5487
94-98 (5)	2001	0.4235	0.3999	0.4469
95-99 (5)	2002	0.5075	0.4843	0.5304
96-00 (5)	2003	0.6209	0.5996	0.6422
97-01(5)	2004	0.6062	0.5895	0.6229
98-02 (5)	2005	0.6242	0.6155	0.6332
99-03 (5)	2006	0.5524	0.5470	0.5579
00-04 (5)	2007	0.5224	0.5221	0.5227
01-05 (5)	2008	0.4832	0.4803	0.4860
02-06 (5)	2009	0.4486	0.4407	0.4565
03-07 (5)	2010	0.4829	0.4685	0.4973
04-08 (5)	2011	0.4848	0.4566	0.5130
94-99 (6)	2002	0.4598	0.4354	0.4840
95-00 (6)	2003	0.5480	0.5263	0.5696
96-01 (6)	2004	0.6064	0.5857	0.6272
97-02 (6)	2005	0.6044	0.5930	0.6159
98-03 (6)	2006	0.5814	0.5742	0.5887
99-04 (6)	2007	0.5391	0.5374	0.5410
00-05 (6)	2008	0.4850	0.4818	0.4880
01-06 (6)	2009	0.4626	0.4582	0.4669
02-07 (6)	2010	0.4657	0.4531	0.4784
03-08 (6)	2011	0.4807	0.4575	0.5039
94-00 (7)	2003	0.4974	0.4740	0.5208
95-01 (7)	2004	0.5498	0.5283	0.5713
96-02 (7)	2005	0.6043	0.5886	0.6201
97-03 (7)	2006	0.5732	0.5637	0.5827
98-04 (7)	2007	0.5628	0.5592	0.5666
99-05 (7)	2008	0.5023	0.4987	0.5058
00-06 (7)	2009	0.4643	0.4601	0.4683
01-07 (7)	2010	0.4700	0.4611	0.4790
02-08 (7)	2011	0.4650	0.4445	0.4854
94-01 (8)	2004	0.5047	0.4813	0.5280
95-02 (8)	2005	0.5570	0.5396	0.5744
96-03 (8)	2006	0.5774	0.5640	0.5908
97-04 (8)	2007	0.5580	0.5520	0.5640
98-05 (8)	2008	0.5258	0.5212	0.5304
99-06 (8)	2009	0.4789	0.4748	0.4830
00-07 (8)	2010	0.4673	0.4594	0.4751
01-08 (8)	2011	0.4661	0.4498	0.4823
94-02 (9)	2005	0.5155	0.4957	0.5352
95-03 (9)	2006	0.5402	0.5250	0.5554
96-04 (9)	2007	0.5627	0.5530	0.5724
97-05 (9)	2008	0.5257	0.5194	0.5319
98-06 (9)	2009	0.5000	0.4953	0.5048
99-07 (9)	2010	0.4768	0.4695	0.4841
00-08 (9)	2011	0.4621	0.4477	0.4765
94-03 (10)	2006	0.5046	0.4869	0.5222
95-04 (10)	2007	0.5314	0.5196	0.5432
96-05 (10)	2008	0.5326	0.5232	0.5420
97-06 (10)	2009	0.5017	0.4956	0.5078
98-07 (10)	2010	0.4935	0.4861	0.5008
99-08 (10)	2011	0.4691	0.4560	0.4821

Indemnity
Linear Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-25)
94-97 (4)	2000	0.2063	0.2139	0.1987
95-98 (4)	2001	0.1482	0.1568	0.1399
96-99 (4)	2002	0.0222	0.0378	0.0069
97-00 (4)	2003	-0.0513	-0.0444	-0.0582
98-01 (4)	2004	-0.0616	-0.0520	-0.0714
99-02 (4)	2005	-0.0658	-0.0687	-0.0631
00-03 (4)	2006	-0.0060	-0.0104	-0.0016
01-04 (4)	2007	0.0083	-0.0069	0.0234
02-05 (4)	2008	0.0580	0.0449	0.0713
03-06 (4)	2009	0.0387	0.0254	0.0522
04-07 (4)	2010	0.0000	-0.0025	0.0027
05-08 (4)	2011	-0.0424	-0.0369	-0.0480
94-98 (5)	2001	0.1859	0.1954	0.1767
95-99 (5)	2002	0.1068	0.1213	0.0926
96-00 (5)	2003	-0.0463	-0.0343	-0.0583
97-01(5)	2004	-0.0317	-0.0204	-0.0429
98-02 (5)	2005	-0.0926	-0.0932	-0.0924
99-03 (5)	2006	-0.0312	-0.0342	-0.0283
00-04 (5)	2007	0.0141	0.0013	0.0270
01-05 (5)	2008	0.0369	0.0194	0.0545
02-06 (5)	2009	0.0492	0.0351	0.0633
03-07 (5)	2010	0.0021	-0.0051	0.0093
04-08 (5)	2011	-0.0085	-0.0047	-0.0123
94-99 (6)	2002	0.1545	0.1702	0.1390
95-00 (6)	2003	0.0266	0.0390	0.0143
96-01 (6)	2004	-0.0319	-0.0166	-0.0472
97-02 (6)	2005	-0.0728	-0.0707	-0.0751
98-03 (6)	2006	-0.0602	-0.0614	-0.0591
99-04 (6)	2007	-0.0026	-0.0140	0.0086
00-05 (6)	2008	0.0351	0.0179	0.0525
01-06 (6)	2009	0.0352	0.0176	0.0529
02-07 (6)	2010	0.0193	0.0103	0.0282
03-08 (6)	2011	-0.0044	-0.0056	-0.0032
94-00 (7)	2003	0.0772	0.0913	0.0631
95-01 (7)	2004	0.0247	0.0408	0.0087
96-02 (7)	2005	-0.0727	-0.0663	-0.0793
97-03 (7)	2006	-0.0520	-0.0509	-0.0531
98-04 (7)	2007	-0.0263	-0.0358	-0.0170
99-05 (7)	2008	0.0178	0.0010	0.0347
00-06 (7)	2009	0.0335	0.0157	0.0515
01-07 (7)	2010	0.0150	0.0024	0.0277
02-08 (7)	2011	0.0114	0.0074	0.0153
94-01 (8)	2004	0.0698	0.0878	0.0520
95-02 (8)	2005	-0.0254	-0.0173	-0.0336
96-03 (8)	2006	-0.0562	-0.0512	-0.0612
97-04 (8)	2007	-0.0215	-0.0286	-0.0144
98-05 (8)	2008	-0.0057	-0.0215	0.0101
99-06 (8)	2009	0.0189	0.0010	0.0368
00-07 (8)	2010	0.0177	0.0040	0.0315
01-08 (8)	2011	0.0102	0.0021	0.0184
94-02 (9)	2005	0.0161	0.0266	0.0056
95-03 (9)	2006	-0.0190	-0.0122	-0.0258
96-04 (9)	2007	-0.0262	-0.0296	-0.0228
97-05 (9)	2008	-0.0056	-0.0197	0.0086
98-06 (9)	2009	-0.0022	-0.0195	0.0150
99-07 (9)	2010	0.0082	-0.0061	0.0225
00-08 (9)	2011	0.0142	0.0042	0.0242
94-03 (10)	2006	0.0166	0.0259	0.0074
95-04 (10)	2007	0.0051	0.0038	0.0064
96-05 (10)	2008	-0.0125	-0.0235	-0.0015
97-06 (10)	2009	-0.0039	-0.0198	0.0120
98-07 (10)	2010	-0.0085	-0.0227	0.0058
99-08 (10)	2011	0.0072	-0.0041	0.0186

**Indemnity
Exponential Fit
Trended Loss Ratios**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-25)
94-97 (4)	2000	0.4782	0.4634	0.4933
95-98 (4)	2001	0.4894	0.4707	0.5081
96-99 (4)	2002	0.5927	0.5693	0.6162
97-00 (4)	2003	0.6261	0.6100	0.6423
98-01 (4)	2004	0.6363	0.6213	0.6518
99-02 (4)	2005	0.5977	0.5912	0.6045
00-03 (4)	2006	0.5316	0.5268	0.5364
01-04 (4)	2007	0.5313	0.5324	0.5304
02-05 (4)	2008	0.4714	0.4639	0.4787
03-06 (4)	2009	0.4655	0.4570	0.4740
04-07 (4)	2010	0.4885	0.4708	0.5064
05-08 (4)	2011	0.5187	0.4891	0.5488
94-98 (5)	2001	0.4683	0.4506	0.4861
95-99 (5)	2002	0.5247	0.5047	0.5448
96-00 (5)	2003	0.6208	0.5997	0.6420
97-01(5)	2004	0.6065	0.5900	0.6232
98-02 (5)	2005	0.6244	0.6157	0.6333
99-03 (5)	2006	0.5541	0.5483	0.5601
00-04 (5)	2007	0.5270	0.5258	0.5283
01-05 (5)	2008	0.4894	0.4855	0.4932
02-06 (5)	2009	0.4588	0.4509	0.4667
03-07 (5)	2010	0.4867	0.4729	0.5004
04-08 (5)	2011	0.4879	0.4614	0.5147
94-99 (6)	2002	0.4933	0.4741	0.5127
95-00 (6)	2003	0.5583	0.5387	0.5780
96-01 (6)	2004	0.6065	0.5862	0.6271
97-02 (6)	2005	0.6048	0.5935	0.6162
98-03 (6)	2006	0.5812	0.5739	0.5886
99-04 (6)	2007	0.5418	0.5394	0.5444
00-05 (6)	2008	0.4921	0.4880	0.4963
01-06 (6)	2009	0.4708	0.4655	0.4759
02-07 (6)	2010	0.4732	0.4611	0.4853
03-08 (6)	2011	0.4843	0.4624	0.5064
94-00 (7)	2003	0.5215	0.5022	0.5411
95-01 (7)	2004	0.5587	0.5391	0.5786
96-02 (7)	2005	0.6046	0.5891	0.6202
97-03 (7)	2006	0.5738	0.5644	0.5833
98-04 (7)	2007	0.5633	0.5595	0.5674
99-05 (7)	2008	0.5070	0.5026	0.5114
00-06 (7)	2009	0.4733	0.4683	0.4783
01-07 (7)	2010	0.4771	0.4679	0.4862
02-08 (7)	2011	0.4719	0.4528	0.4911
94-01 (8)	2004	0.5257	0.5061	0.5457
95-02 (8)	2005	0.5645	0.5483	0.5807
96-03 (8)	2006	0.5778	0.5648	0.5909
97-04 (8)	2007	0.5593	0.5533	0.5655
98-05 (8)	2008	0.5274	0.5224	0.5326
99-06 (8)	2009	0.4856	0.4807	0.4906
00-07 (8)	2010	0.4758	0.4674	0.4840
01-08 (8)	2011	0.4732	0.4574	0.4889
94-02 (9)	2005	0.5335	0.5166	0.5507
95-03 (9)	2006	0.5479	0.5338	0.5620
96-04 (9)	2007	0.5637	0.5543	0.5732
97-05 (9)	2008	0.5280	0.5215	0.5346
98-06 (9)	2009	0.5034	0.4981	0.5088
99-07 (9)	2010	0.4838	0.4760	0.4916
00-08 (9)	2011	0.4708	0.4567	0.4849
94-03 (10)	2006	0.5224	0.5072	0.5377
95-04 (10)	2007	0.5392	0.5283	0.5502
96-05 (10)	2008	0.5344	0.5252	0.5436
97-06 (10)	2009	0.5056	0.4991	0.5120
98-07 (10)	2010	0.4977	0.4899	0.5055
99-08 (10)	2011	0.4767	0.4637	0.4897

Indemnity
Exponential Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-25)
94-97 (4)	2000	0.1584	0.1604	0.1562
95-98 (4)	2001	0.1200	0.1246	0.1155
96-99 (4)	2002	0.0216	0.0363	0.0068
97-00 (4)	2003	-0.0515	-0.0447	-0.0584
98-01 (4)	2004	-0.0618	-0.0522	-0.0718
99-02 (4)	2005	-0.0661	-0.0689	-0.0637
00-03 (4)	2006	-0.0104	-0.0140	-0.0068
01-04 (4)	2007	0.0052	-0.0090	0.0192
02-05 (4)	2008	0.0487	0.0358	0.0618
03-06 (4)	2009	0.0323	0.0188	0.0458
04-07 (4)	2010	-0.0035	-0.0074	0.0002
05-08 (4)	2011	-0.0424	-0.0372	-0.0481
94-98 (5)	2001	0.1411	0.1447	0.1375
95-99 (5)	2002	0.0896	0.1009	0.0782
96-00 (5)	2003	-0.0462	-0.0344	-0.0581
97-01(5)	2004	-0.0320	-0.0209	-0.0432
98-02 (5)	2005	-0.0928	-0.0934	-0.0925
99-03 (5)	2006	-0.0329	-0.0355	-0.0305
00-04 (5)	2007	0.0095	-0.0024	0.0213
01-05 (5)	2008	0.0307	0.0142	0.0473
02-06 (5)	2009	0.0390	0.0249	0.0531
03-07 (5)	2010	-0.0017	-0.0095	0.0062
04-08 (5)	2011	-0.0116	-0.0095	-0.0140
94-99 (6)	2002	0.1210	0.1315	0.1103
95-00 (6)	2003	0.0163	0.0266	0.0059
96-01 (6)	2004	-0.0320	-0.0171	-0.0471
97-02 (6)	2005	-0.0732	-0.0712	-0.0754
98-03 (6)	2006	-0.0600	-0.0611	-0.0590
99-04 (6)	2007	-0.0053	-0.0160	0.0052
00-05 (6)	2008	0.0280	0.0117	0.0442
01-06 (6)	2009	0.0270	0.0103	0.0439
02-07 (6)	2010	0.0118	0.0023	0.0213
03-08 (6)	2011	-0.0080	-0.0105	-0.0057
94-00 (7)	2003	0.0531	0.0631	0.0428
95-01 (7)	2004	0.0158	0.0300	0.0014
96-02 (7)	2005	-0.0730	-0.0668	-0.0794
97-03 (7)	2006	-0.0526	-0.0516	-0.0537
98-04 (7)	2007	-0.0268	-0.0361	-0.0178
99-05 (7)	2008	0.0131	-0.0029	0.0291
00-06 (7)	2009	0.0245	0.0075	0.0415
01-07 (7)	2010	0.0079	-0.0045	0.0204
02-08 (7)	2011	0.0044	-0.0009	0.0096
94-01 (8)	2004	0.0488	0.0630	0.0343
95-02 (8)	2005	-0.0329	-0.0260	-0.0399
96-03 (8)	2006	-0.0566	-0.0520	-0.0613
97-04 (8)	2007	-0.0228	-0.0299	-0.0159
98-05 (8)	2008	-0.0073	-0.0227	0.0079
99-06 (8)	2009	0.0122	-0.0049	0.0292
00-07 (8)	2010	0.0092	-0.0040	0.0226
01-08 (8)	2011	0.0031	-0.0055	0.0118
94-02 (9)	2005	-0.0019	0.0057	-0.0099
95-03 (9)	2006	-0.0267	-0.0210	-0.0324
96-04 (9)	2007	-0.0272	-0.0309	-0.0236
97-05 (9)	2008	-0.0079	-0.0218	0.0059
98-06 (9)	2009	-0.0056	-0.0223	0.0110
99-07 (9)	2010	0.0012	-0.0126	0.0150
00-08 (9)	2011	0.0055	-0.0048	0.0158
94-03 (10)	2006	-0.0012	0.0056	-0.0081
95-04 (10)	2007	-0.0027	-0.0049	-0.0006
96-05 (10)	2008	-0.0143	-0.0255	-0.0031
97-06 (10)	2009	-0.0078	-0.0233	0.0078
98-07 (10)	2010	-0.0127	-0.0265	0.0011
99-08 (10)	2011	-0.0004	-0.0118	0.0110

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-25)
	1994	0.5825	0.5792	0.5858
	1995	0.5762	0.5713	0.5812
	1996	0.5554	0.5557	0.5551
	1997	0.5801	0.5774	0.5828
	1998	0.5665	0.5619	0.5711
	1999	0.5761	0.5731	0.5790
	2000	0.5722	0.5585	0.5860
	2001	0.5381	0.5221	0.5542
	2002	0.5527	0.5390	0.5664
	2003	0.5519	0.5356	0.5682
	2004	0.5721	0.5559	0.5883
	2005	0.5338	0.5181	0.5495
	2006	0.5162	0.4987	0.5337
	2007	0.5442	0.5269	0.5614
	2008	0.5111	0.4874	0.5347
	2009	0.5003	0.4762	0.5243
	2010	0.5217	0.5011	0.5423
	2011	0.5169	0.4898	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-25)
94-97 (4)	2000	0.5610	0.5615	0.5604
95-98 (4)	2001	0.5676	0.5637	0.5714
96-99 (4)	2002	0.5914	0.5835	0.5990
97-00 (4)	2003	0.5674	0.5473	0.5876
98-01 (4)	2004	0.5231	0.4936	0.5529
99-02 (4)	2005	0.5128	0.4858	0.5401
00-03 (4)	2006	0.5329	0.5155	0.5502
01-04 (4)	2007	0.5992	0.5823	0.6161
02-05 (4)	2008	0.5362	0.5181	0.5543
03-06 (4)	2009	0.4781	0.4603	0.4959
04-07 (4)	2010	0.4960	0.4770	0.5148
05-08 (4)	2011	0.5083	0.4790	0.5373
94-98 (5)	2001	0.5581	0.5549	0.5613
95-99 (5)	2002	0.5763	0.5728	0.5796
96-00 (5)	2003	0.5849	0.5660	0.6038
97-01(5)	2004	0.5275	0.5016	0.5535
98-02 (5)	2005	0.5283	0.5025	0.5542
99-03 (5)	2006	0.5243	0.4984	0.5502
00-04 (5)	2007	0.5642	0.5464	0.5819
01-05 (5)	2008	0.5551	0.5386	0.5716
02-06 (5)	2009	0.4998	0.4804	0.5192
03-07 (5)	2010	0.5080	0.4897	0.5261
04-08 (5)	2011	0.4797	0.4533	0.5059
94-99 (6)	2002	0.5671	0.5640	0.5701
95-00 (6)	2003	0.5756	0.5620	0.5891
96-01 (6)	2004	0.5489	0.5246	0.5734
97-02 (6)	2005	0.5288	0.5041	0.5535
98-03 (6)	2006	0.5317	0.5059	0.5576
99-04 (6)	2007	0.5501	0.5257	0.5745
00-05 (6)	2008	0.5392	0.5219	0.5564
01-06 (6)	2009	0.5212	0.5032	0.5391
02-07 (6)	2010	0.5156	0.4962	0.5350
03-08 (6)	2011	0.4902	0.4658	0.5145
94-00 (7)	2003	0.5684	0.5570	0.5799
95-01 (7)	2004	0.5482	0.5287	0.5678
96-02 (7)	2005	0.5445	0.5202	0.5689
97-03 (7)	2006	0.5303	0.5049	0.5558
98-04 (7)	2007	0.5504	0.5253	0.5755
99-05 (7)	2008	0.5324	0.5096	0.5553
00-06 (7)	2009	0.5145	0.4960	0.5328
01-07 (7)	2010	0.5285	0.5101	0.5469
02-08 (7)	2011	0.4983	0.4739	0.5225
94-01 (8)	2004	0.5465	0.5294	0.5638
95-02 (8)	2005	0.5441	0.5234	0.5650
96-03 (8)	2006	0.5422	0.5168	0.5677
97-04 (8)	2007	0.5457	0.5204	0.5710
98-05 (8)	2008	0.5351	0.5111	0.5590
99-06 (8)	2009	0.5122	0.4893	0.5351
00-07 (8)	2010	0.5212	0.5024	0.5398
01-08 (8)	2011	0.5108	0.4880	0.5335
94-02 (9)	2005	0.5429	0.5240	0.5618
95-03 (9)	2006	0.5418	0.5192	0.5645
96-04 (9)	2007	0.5531	0.5274	0.5787
97-05 (9)	2008	0.5328	0.5083	0.5574
98-06 (9)	2009	0.5166	0.4925	0.5407
99-07 (9)	2010	0.5176	0.4950	0.5401
00-08 (9)	2011	0.5066	0.4840	0.5290
94-03 (10)	2006	0.5406	0.5196	0.5617
95-04 (10)	2007	0.5511	0.5275	0.5746
96-05 (10)	2008	0.5404	0.5152	0.5657
97-06 (10)	2009	0.5164	0.4916	0.5412
98-07 (10)	2010	0.5201	0.4963	0.5438
99-08 (10)	2011	0.5047	0.4792	0.5301

Medical
Linear Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-25)
94-97 (4)	2000	0.0113	-0.0030	0.0256
95-98 (4)	2001	-0.0295	-0.0416	-0.0172
96-99 (4)	2002	-0.0387	-0.0445	-0.0326
97-00 (4)	2003	-0.0155	-0.0117	-0.0194
98-01 (4)	2004	0.0490	0.0623	0.0354
99-02 (4)	2005	0.0210	0.0323	0.0094
00-03 (4)	2006	-0.0167	-0.0168	-0.0165
01-04 (4)	2007	-0.0550	-0.0553	-0.0547
02-05 (4)	2008	-0.0251	-0.0307	-0.0196
03-06 (4)	2009	0.0222	0.0160	0.0284
04-07 (4)	2010	0.0257	0.0241	0.0275
05-08 (4)	2011	0.0086	0.0108	0.0067
94-98 (5)	2001	-0.0200	-0.0327	-0.0071
95-99 (5)	2002	-0.0236	-0.0338	-0.0132
96-00 (5)	2003	-0.0330	-0.0304	-0.0356
97-01(5)	2004	0.0447	0.0543	0.0348
98-02 (5)	2005	0.0055	0.0156	-0.0047
99-03 (5)	2006	-0.0080	0.0003	-0.0165
00-04 (5)	2007	-0.0200	-0.0195	-0.0205
01-05 (5)	2008	-0.0440	-0.0512	-0.0369
02-06 (5)	2009	0.0005	-0.0042	0.0051
03-07 (5)	2010	0.0137	0.0114	0.0162
04-08 (5)	2011	0.0372	0.0365	0.0381
94-99 (6)	2002	-0.0144	-0.0250	-0.0037
95-00 (6)	2003	-0.0237	-0.0264	-0.0209
96-01 (6)	2004	0.0232	0.0313	0.0149
97-02 (6)	2005	0.0050	0.0140	-0.0040
98-03 (6)	2006	-0.0155	-0.0072	-0.0239
99-04 (6)	2007	-0.0059	0.0012	-0.0131
00-05 (6)	2008	-0.0281	-0.0345	-0.0217
01-06 (6)	2009	-0.0209	-0.0270	-0.0148
02-07 (6)	2010	0.0061	0.0049	0.0073
03-08 (6)	2011	0.0267	0.0240	0.0295
94-00 (7)	2003	-0.0165	-0.0214	-0.0117
95-01 (7)	2004	0.0239	0.0272	0.0205
96-02 (7)	2005	-0.0107	-0.0021	-0.0194
97-03 (7)	2006	-0.0141	-0.0062	-0.0221
98-04 (7)	2007	-0.0062	0.0016	-0.0141
99-05 (7)	2008	-0.0213	-0.0222	-0.0206
00-06 (7)	2009	-0.0142	-0.0198	-0.0085
01-07 (7)	2010	-0.0068	-0.0090	-0.0046
02-08 (7)	2011	0.0186	0.0159	0.0215
94-01 (8)	2004	0.0256	0.0265	0.0245
95-02 (8)	2005	-0.0103	-0.0053	-0.0155
96-03 (8)	2006	-0.0260	-0.0181	-0.0340
97-04 (8)	2007	-0.0015	0.0065	-0.0096
98-05 (8)	2008	-0.0240	-0.0237	-0.0243
99-06 (8)	2009	-0.0119	-0.0131	-0.0108
00-07 (8)	2010	0.0005	-0.0013	0.0025
01-08 (8)	2011	0.0061	0.0018	0.0105
94-02 (9)	2005	-0.0091	-0.0059	-0.0123
95-03 (9)	2006	-0.0256	-0.0205	-0.0308
96-04 (9)	2007	-0.0089	-0.0005	-0.0173
97-05 (9)	2008	-0.0217	-0.0209	-0.0227
98-06 (9)	2009	-0.0163	-0.0163	-0.0164
99-07 (9)	2010	0.0041	0.0061	0.0022
00-08 (9)	2011	0.0103	0.0058	0.0150
94-03 (10)	2006	-0.0244	-0.0209	-0.0280
95-04 (10)	2007	-0.0069	-0.0006	-0.0132
96-05 (10)	2008	-0.0293	-0.0278	-0.0310
97-06 (10)	2009	-0.0161	-0.0154	-0.0169
98-07 (10)	2010	0.0016	0.0048	-0.0015
99-08 (10)	2011	0.0122	0.0106	0.0139

**Medical
Exponential Fit
Trended Loss Ratios**

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-25)
94-97 (4)	2000	0.5609	0.5614	0.5604
95-98 (4)	2001	0.5676	0.5636	0.5714
96-99 (4)	2002	0.5919	0.5839	0.5999
97-00 (4)	2003	0.5675	0.5476	0.5876
98-01 (4)	2004	0.5237	0.4955	0.5527
99-02 (4)	2005	0.5147	0.4892	0.5408
00-03 (4)	2006	0.5336	0.5164	0.5508
01-04 (4)	2007	0.6009	0.5839	0.6178
02-05 (4)	2008	0.5357	0.5177	0.5538
03-06 (4)	2009	0.4810	0.4633	0.4986
04-07 (4)	2010	0.4983	0.4796	0.5169
05-08 (4)	2011	0.5081	0.4791	0.5371
94-98 (5)	2001	0.5582	0.5550	0.5614
95-99 (5)	2002	0.5764	0.5728	0.5798
96-00 (5)	2003	0.5852	0.5660	0.6047
97-01(5)	2004	0.5280	0.5033	0.5534
98-02 (5)	2005	0.5289	0.5041	0.5543
99-03 (5)	2006	0.5254	0.5007	0.5506
00-04 (5)	2007	0.5642	0.5465	0.5819
01-05 (5)	2008	0.5547	0.5381	0.5711
02-06 (5)	2009	0.5006	0.4815	0.5198
03-07 (5)	2010	0.5089	0.4908	0.5269
04-08 (5)	2011	0.4826	0.4570	0.5082
94-99 (6)	2002	0.5671	0.5640	0.5701
95-00 (6)	2003	0.5756	0.5620	0.5893
96-01 (6)	2004	0.5486	0.5245	0.5732
97-02 (6)	2005	0.5295	0.5058	0.5536
98-03 (6)	2006	0.5323	0.5074	0.5577
99-04 (6)	2007	0.5502	0.5264	0.5744
00-05 (6)	2008	0.5391	0.5219	0.5563
01-06 (6)	2009	0.5208	0.5028	0.5387
02-07 (6)	2010	0.5159	0.4967	0.5351
03-08 (6)	2011	0.4919	0.4679	0.5158
94-00 (7)	2003	0.5685	0.5570	0.5799
95-01 (7)	2004	0.5480	0.5285	0.5676
96-02 (7)	2005	0.5445	0.5206	0.5688
97-03 (7)	2006	0.5311	0.5066	0.5559
98-04 (7)	2007	0.5504	0.5258	0.5753
99-05 (7)	2008	0.5327	0.5105	0.5551
00-06 (7)	2009	0.5147	0.4965	0.5330
01-07 (7)	2010	0.5283	0.5099	0.5465
02-08 (7)	2011	0.4992	0.4753	0.5231
94-01 (8)	2004	0.5465	0.5294	0.5637
95-02 (8)	2005	0.5442	0.5237	0.5649
96-03 (8)	2006	0.5424	0.5175	0.5677
97-04 (8)	2007	0.5458	0.5212	0.5708
98-05 (8)	2008	0.5352	0.5119	0.5588
99-06 (8)	2009	0.5129	0.4908	0.5352
00-07 (8)	2010	0.5214	0.5028	0.5400
01-08 (8)	2011	0.5109	0.4882	0.5335
94-02 (9)	2005	0.5430	0.5244	0.5618
95-03 (9)	2006	0.5420	0.5198	0.5645
96-04 (9)	2007	0.5530	0.5277	0.5787
97-05 (9)	2008	0.5331	0.5094	0.5572
98-06 (9)	2009	0.5170	0.4938	0.5405
99-07 (9)	2010	0.5182	0.4962	0.5402
00-08 (9)	2011	0.5072	0.4848	0.5295
94-03 (10)	2006	0.5409	0.5203	0.5617
95-04 (10)	2007	0.5510	0.5279	0.5745
96-05 (10)	2008	0.5404	0.5158	0.5654
97-06 (10)	2009	0.5170	0.4933	0.5411
98-07 (10)	2010	0.5205	0.4974	0.5438
99-08 (10)	2011	0.5057	0.4809	0.5305

Medical
Exponential Fit
Differences: (Actual - Trended)

Years Used (# Yrs)	3 Yr Trend To	Loss Ratio Average (Pd & Inc)	Loss Ratio (Incur)	Loss Ratio (Pd-25)
94-97 (4)	2000	0.0113	-0.0029	0.0256
95-98 (4)	2001	-0.0295	-0.0415	-0.0172
96-99 (4)	2002	-0.0392	-0.0449	-0.0335
97-00 (4)	2003	-0.0156	-0.0120	-0.0194
98-01 (4)	2004	0.0484	0.0604	0.0356
99-02 (4)	2005	0.0191	0.0289	0.0087
00-03 (4)	2006	-0.0174	-0.0177	-0.0171
01-04 (4)	2007	-0.0567	-0.0570	-0.0564
02-05 (4)	2008	-0.0246	-0.0303	-0.0191
03-06 (4)	2009	0.0193	0.0129	0.0257
04-07 (4)	2010	0.0234	0.0215	0.0254
05-08 (4)	2011	0.0088	0.0107	0.0069
94-98 (5)	2001	-0.0201	-0.0329	-0.0072
95-99 (5)	2002	-0.0237	-0.0338	-0.0134
96-00 (5)	2003	-0.0333	-0.0304	-0.0365
97-01(5)	2004	0.0441	0.0526	0.0349
98-02 (5)	2005	0.0049	0.0140	-0.0048
99-03 (5)	2006	-0.0092	-0.0020	-0.0169
00-04 (5)	2007	-0.0200	-0.0196	-0.0205
01-05 (5)	2008	-0.0436	-0.0507	-0.0364
02-06 (5)	2009	-0.0003	-0.0053	0.0045
03-07 (5)	2010	0.0128	0.0103	0.0154
04-08 (5)	2011	0.0343	0.0328	0.0358
94-99 (6)	2002	-0.0144	-0.0250	-0.0037
95-00 (6)	2003	-0.0237	-0.0264	-0.0211
96-01 (6)	2004	0.0235	0.0314	0.0151
97-02 (6)	2005	0.0043	0.0123	-0.0041
98-03 (6)	2006	-0.0161	-0.0087	-0.0240
99-04 (6)	2007	-0.0060	0.0005	-0.0130
00-05 (6)	2008	-0.0280	-0.0345	-0.0216
01-06 (6)	2009	-0.0205	-0.0266	-0.0144
02-07 (6)	2010	0.0058	0.0044	0.0072
03-08 (6)	2011	0.0250	0.0219	0.0282
94-00 (7)	2003	-0.0166	-0.0214	-0.0117
95-01 (7)	2004	0.0241	0.0274	0.0207
96-02 (7)	2005	-0.0107	-0.0025	-0.0193
97-03 (7)	2006	-0.0149	-0.0079	-0.0222
98-04 (7)	2007	-0.0062	0.0011	-0.0139
99-05 (7)	2008	-0.0216	-0.0231	-0.0204
00-06 (7)	2009	-0.0144	-0.0203	-0.0087
01-07 (7)	2010	-0.0066	-0.0088	-0.0042
02-08 (7)	2011	0.0177	0.0145	0.0209
94-01 (8)	2004	0.0256	0.0265	0.0246
95-02 (8)	2005	-0.0104	-0.0056	-0.0154
96-03 (8)	2006	-0.0262	-0.0188	-0.0340
97-04 (8)	2007	-0.0016	0.0057	-0.0094
98-05 (8)	2008	-0.0241	-0.0245	-0.0241
99-06 (8)	2009	-0.0126	-0.0146	-0.0109
00-07 (8)	2010	0.0003	-0.0017	0.0023
01-08 (8)	2011	0.0060	0.0016	0.0105
94-02 (9)	2005	-0.0092	-0.0063	-0.0123
95-03 (9)	2006	-0.0258	-0.0211	-0.0308
96-04 (9)	2007	-0.0088	-0.0008	-0.0173
97-05 (9)	2008	-0.0220	-0.0220	-0.0225
98-06 (9)	2009	-0.0167	-0.0176	-0.0162
99-07 (9)	2010	0.0035	0.0049	0.0021
00-08 (9)	2011	0.0097	0.0050	0.0145
94-03 (10)	2006	-0.0247	-0.0216	-0.0280
95-04 (10)	2007	-0.0068	-0.0010	-0.0131
96-05 (10)	2008	-0.0293	-0.0284	-0.0307
97-06 (10)	2009	-0.0167	-0.0171	-0.0168
98-07 (10)	2010	0.0012	0.0037	-0.0015
99-08 (10)	2011	0.0112	0.0089	0.0135