

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 PCRB under the Unit Statistical Plan.

Page 1 (indemnity) and page 2 (medical) present reported standard earned premiums, incurred losses by policy year and age-to-age development factors based on reported losses separately. Losses are shown through 10th report which is the latest report currently available under the Unit Statistical Plan. A weighted average based on all available data points 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 3 and 4. Factors to ultimate are calculated by compounding the age-to-age and 10th-to-ultimate factors.

Page 3 (indemnity) and page 4 (medical) show the derivation of selected age-to-age and 10th-to-ultimate development factors.

Page 5 shows the calculation of indemnity and medical ultimate loss ratios.

Derivation of the indemnity and medical trend factors are shown on page 5 is presented on page 6 (indemnity) and page 7 (medical). Frequency trend was selected as 0% given the very limited number of claims resulting in no credible observed patterns.

Page 8 shows indemnity, medical and total ultimate loss ratio graphs for Policy Years 2012 through 2021.

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
2007	8,067,266	718,534	1,126,675	1,376,732	1,358,792	1,335,668	1,386,903	1,408,228	1,514,100	1,514,100	1,576,939
2008	7,446,294	766,266	1,028,131	1,301,614	1,313,724	1,368,724	1,423,568	1,463,980	1,102,993	1,105,224	1,100,763
2009	7,614,067	249,857	384,390	449,042	449,042	550,496	550,496	550,496	550,496	550,496	550,496
2010	5,478,068	302,481	353,923	462,568	414,621	426,746	276,746	276,746	276,746	276,746	276,746
2011	6,303,640	497,125	679,039	715,829	848,234	853,474	1,209,868	1,264,205	1,264,205	1,264,205	1,264,205
2012	11,946,683	559,069	732,437	800,154	817,738	835,209	796,982	796,982	796,982	796,982	796,982
2013	13,868,910	497,960	643,427	687,767	732,539	918,844	1,127,847	1,127,847	1,143,143	1,118,143	
2014	15,471,136	985,757	1,550,484	1,621,614	1,419,838	1,462,917	2,373,553	2,377,278	2,159,108		
2015	16,540,661	974,036	1,768,616	2,196,290	2,297,332	2,304,943	2,182,646	2,181,646			
2016	18,703,542	1,214,418	1,392,238	1,598,733	1,713,417	1,504,761	1,680,917				
2017	9,815,438	1,889,431	2,234,638	2,241,682	2,295,258	2,200,150					
2018	6,737,069	717,244	620,162	609,010	619,417						
2019	6,568,256	901,427	864,832	934,068							
2020	6,469,965	1,505,673	1,885,410								
2021	9,354,172	1,208,136									

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	10 - ULT
2007	1.5680	1.2219	0.9870	0.9830	1.0384	1.0154	1.0752	1.0000	1.0415	
2008	****	1.2660	1.0093	1.0419	1.0401	1.0284	0.7534	1.0020	0.9960	
2009	1.5384	1.1682	1.0000	1.2259	1.0000	1.0000	1.0000	1.0000	1.0000	
2010	1.1701	1.3070	0.8963	1.0292	0.6485	1.0000	1.0000	1.0000	1.0000	
2011	1.3659	1.0542	1.1850	1.0062	1.4176	1.0449	1.0000	1.0000	1.0000	
2012	1.3101	1.0925	1.0220	1.0214	0.9542	1.0000	1.0000	1.0000	1.0000	
2013	1.2921	1.0689	1.0651	1.2543	1.2275	1.0000	1.0136	0.9781		
2014	1.5729	1.0459	0.8756	1.0303	1.6225	1.0016	0.9082			
2015	1.8158	1.2418	1.0460	1.0033	0.9469	0.9995				
2016	1.1464	1.1483	1.0717	0.8782	1.1171					
2017	1.1827	1.0032	1.0239	0.9586						
2018	0.8646	0.9820	1.0171							
2019	0.9594	1.0801								
2020	1.2522									

	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10-ULT *
5 Yr. Weighted Average	1.1235	1.1016	1.0094	0.9921	1.1616	1.0074	0.9653	0.9938	0.9989	
10 Yr. Weighted Average	1.2699	1.0948	1.0197	1.0101	1.1252	1.0105	0.9506	0.9966	1.0106	
Weighted Average (All Available)	1.2927	1.1208	1.0156	1.0074	1.1252	1.0105	0.9506	0.9966	1.0106	
Selected **	1.2931	1.1134	1.0476	1.0250	1.0152	1.0102	1.0073	1.0054	1.0042	1.0121

Development Factors to Ultimate

	1-ULT	2-ULT	3-ULT	4-ULT	5-ULT	6-ULT	7-ULT	8-ULT	9-ULT	10-ULT
5 Yr. Weighted Average	1.4065	1.2519	1.1364	1.1258	1.1348	0.9770	0.9698	1.0047	1.0110	1.0121
10 Yr. Weighted Average	1.5778	1.2425	1.1349	1.1129	1.1017	0.9791	0.9689	1.0193	1.0228	1.0121
Weighted Average (All Available)	1.6332	1.2634	1.1272	1.1099	1.1017	0.9791	0.9689	1.0193	1.0228	1.0121
Selected	1.6322	1.2622	1.1336	1.0821	1.0557	1.0399	1.0294	1.0219	1.0164	1.0121

* Based on selected value

** Selected values are shown on Page 3

**** Loss development factor not used

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
2007	8,067,266	525,340	529,351	763,343	779,294	540,498	782,948	945,933	963,400	977,631	983,120
2008	7,446,294	470,052	474,481	439,863	407,649	445,593	451,093	462,093	459,093	459,093	354,093
2009	7,614,067	170,604	180,017	208,152	199,857	193,058	193,177	193,288	193,288	193,288	193,288
2010	5,478,068	268,179	289,352	301,346	300,659	301,684	283,502	283,502	283,502	283,502	283,502
2011	6,303,640	467,159	475,720	494,370	506,370	516,370	644,942	655,193	631,011	633,703	642,934
2012	11,946,683	281,354	338,570	381,480	383,173	388,144	386,075	376,126	378,683	401,607	405,598
2013	13,868,910	287,742	346,544	341,845	361,933	381,653	431,065	436,067	474,078	477,078	
2014	15,471,136	423,941	387,005	339,761	1,271,319	2,271,819	4,172,938	10,379,185	11,663,014		
2015	16,540,661	733,315	995,567	1,033,620	1,041,226	1,043,579	1,061,397	1,060,397			
2016	18,703,542	659,489	651,197	679,432	682,031	597,926	606,607				
2017	9,815,438	1,433,941	1,293,528	1,310,755	1,352,861	1,172,422					
2018	6,737,069	365,707	326,119	323,797	326,156						
2019	6,568,256	404,165		380,155	384,485						
2020	6,469,965	1,141,454	1,101,574								
2021	9,354,172	422,735									

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	10 - ULT
2007	1.0076	1.4420	1.0209	0.6936	1.4486	1.2082	1.0185	1.0148	1.0056	
2008	1.0094	0.9270	0.9268	1.0931	1.0123	1.0244	0.9935	1.0000	0.7713	
2009	1.0552	1.1563	0.9601	0.9660	1.0006	1.0006	1.0000	1.0000	1.0000	
2010	1.0790	1.0415	0.9977	1.0034	0.9397	1.0000	1.0000	1.0000	1.0000	
2011	1.0183	1.0392	1.0243	1.0197	1.2490	1.0159	0.9631	1.0043	1.0146	
2012	1.2034	1.1267	1.0044	1.0130	0.9947	0.9742	1.0068	1.0605	1.0099	
2013	1.2044	0.9864	1.0588	1.0545	1.1295	1.0116	1.0872	1.0063		
2014	0.9129	0.8779	3.7418	1.7870	1.8368	2.4873	1.1237			
2015	1.3576	1.0382	1.0074	1.0023	1.0171	0.9991				
2016	0.9874	1.0434	1.0038	0.8767	1.0145					
2017	0.9021	1.0133	1.0321	0.8666						
2018	0.8917	0.9929	1.0073							
2019	0.9406	1.0114								
2020	0.9651									

	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8	8 - 9	9 - 10	10-ULT *
5 Yr. Weighted Average	0.9370	1.0235	1.2675	1.1610	1.4217	1.9274	1.1072	1.0146	0.9534	
10 Yr. Weighted Average	1.0158	1.0195	1.1867	1.1237	1.3493	1.7594	1.0957	1.0127	0.9707	
Weighted Average (All Available)	1.0185	1.0502	1.1503	1.0777	1.3493	1.7594	1.0957	1.0127	0.9707	
Selected **	1.3193	1.1741	1.0950	1.0518	1.0282	1.0154	1.0084	1.0046	1.0025	1.0028

Development Factors to Ultimate

	1-ULT	2-ULT	3-ULT	4-ULT	5-ULT	6-ULT	7-ULT	8-ULT	9-ULT	10-ULT
5 Yr. Weighted Average	4.1537	4.4328	4.3312	3.4172	2.9434	2.0703	1.0741	0.9701	0.9561	1.0028
10 Yr. Weighted Average	3.5415	3.4865	3.4197	2.8816	2.5643	1.9005	1.0802	0.9858	0.9735	1.0028
Weighted Average (All Available)	3.4003	3.3386	3.1790	2.7636	2.5643	1.9005	1.0802	0.9858	0.9735	1.0028
Selected	1.8969	1.4378	1.2246	1.1184	1.0633	1.0341	1.0184	1.0099	1.0053	1.0028

* Based on selected value

** Selected values are shown on Page 4

**** Loss development factor not used

PENNSYLVANIA COMPENSATION RATING BUREAU

F-CLASS UNIT STATISTICAL PLAN EXPERIENCE

FITTED DEVELOPMENT FACTORS

INDEMNITY INCURRED LOSSES

Y = a*b^x*x^c

a	(0.046920)
b	0.001513
c	0.369399

R ^ 2 = 0.8137

<u>Incurred Development</u>	<u>All Year Weighted Average</u>	<u>Points Used</u>	<u>Points Used - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>
1st to 2nd	1.2927	1.2927	0.2927	0.2931	1.2931
2nd to 3rd	1.1208	1.1208	0.1208	0.1134	1.1134
3rd to 4th	1.0156	1.0156	0.0156	0.0476	1.0476
4th to 5th	1.0074	1.0074	0.0074	0.0250	1.0250
5th to 6th	1.1252	1.1252	0.1252	0.0152	1.0152
6th to 7th	1.0105	1.0105	0.0105	0.0102	1.0102
7th to 8th	0.9506	0.9506	(0.0494)	0.0073	1.0073
8th to 9th	0.9966	0.9966	(0.0034)	0.0054	1.0054
9th to 10th	1.0106	1.0106	0.0106	0.0042	1.0042
10th to 11th				0.0034	1.0034
11th to 12th				0.0027	1.0027
12th to 13th				0.0023	1.0023
13th to 14th				0.0019	1.0019
14th to 15th *	1.0000	1.0000	0	0.0017	1.0017
10th to Ultimate					1.0121

* 14th to 15th age-to-age factor set at 1.0000 to ensure proper tendency for the fitted curve.

PENNSYLVANIA COMPENSATION RATING BUREAU

F-CLASS UNIT STATISTICAL PLAN EXPERIENCE

FITTED DEVELOPMENT FACTORS

MEDICAL INCURRED LOSSES

$$Y = a + b \ln(x) / x^2 + c \exp(-x)$$

a	(0.000914)
b	0.077314
c	0.927050

R ^ 2 = 0.9372

<u>Incurred Development</u>	<u>All Year Weighted Average</u>	<u>Points Used *</u>	<u>Points Used -1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>
1st to 2nd	1.0185	1.3212	0.3212	0.3193	1.3193
2nd to 3rd	1.0502	1.1780	0.1780	0.1741	1.1741
3rd to 4th	1.1503	1.0734	0.0734	0.0950	1.0950
4th to 5th	1.0777	1.0342	0.0342	0.0518	1.0518
5th to 6th	1.3493	1.0930	0.0930	0.0282	1.0282
6th to 7th	1.7594	1.0163	0.0163	0.0154	1.0154
7th to 8th	1.0957	0.9934	(0.0066)	0.0084	1.0084
8th to 9th	1.0127	1.0123	0.0123	0.0046	1.0046
9th to 10th	0.9707	0.9669	(0.0331)	0.0025	1.0025
10th to 11th				0.0014	1.0014
11th to 12th				0.0007	1.0007
12th to 13th				0.0004	1.0004
13th to 14th				0.0002	1.0002
14th to 15th **	1.0000	1.0000	0	0.0001	1.0001
10th to Ultimate				1.0028	

* Policy Year 2014's development factors were reordered largest to smallest due to unusual development of a large claim.

** 14th to 15th age-to-age factor set at 1.00 to ensure proper tendency for the fitted curve.

PENNSYLVANIA COMPENSATION RATING BUREAU

F-CLASS UNIT STATISTICAL PLAN EXPERIENCE

ULTIMATE LOSS RATIOS

Policy Year	Standard Earned Premium	Premium On-Level Factor	Adjusted Premium	Reported Incurred Loss	Loss Level	Loss Development Factor	Trend Factor to 4/1/2024*	Ultimate Incurred Loss	Loss Ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(4)*(6)*(7)	(9)=(8)/(3)
Indemnity	2012	11,946,683	0.4802	5,736,797	796,982	10	1.0121	1,391,295	0.2425
	2013	13,868,910	0.4802	6,659,851	1,118,143	9	1.0164	1,881,229	0.2825
	2014	15,471,136	0.4864	7,525,161	2,159,108	8	1.0219	3,505,053	0.4658
	2015	16,540,661	0.4892	8,091,691	2,181,646	7	1.0294	3,423,833	0.4231
	2016	18,703,542	0.5313	9,937,192	1,680,917	6	1.0399	2,557,492	0.2574
	2017	9,815,438	0.8380	8,225,337	2,200,150	5	1.0557	3,261,381	0.3965
	2018	6,737,069	0.9186	6,188,672	619,417	4	1.0821	903,216	0.1459
	2019	6,568,256	0.9566	6,283,194	934,068	3	1.1336	1,369,341	0.2179
	2020	6,469,965	0.9566	6,189,169	1,885,410	2	1.2622	2,953,517	0.4772
	2021	9,354,172	0.9367	8,762,053	1,208,136	1	1.6322	2,348,697	0.2681

10 Year Total 115,475,832 73,599,117 14,783,977 23,595,054 0.3206

Selected Loss Ratio **0.3206**

* Selected Indemnity Severity Trend equals 4.2%. See Page 6.

Policy Year	Standard Earned Premium	Premium On-Level Factor	Adjusted Premium	Reported Incurred Loss	Loss Level	Loss Development Factor	Trend Factor to 4/1/2024*	Ultimate Incurred Loss	Loss Ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(4)*(6)*(7)	(9)=(8)/(3)
Medical	2012	11,946,683	0.4802	5,736,797	405,598	10	1.0028	728,788	0.1270
	2013	13,868,910	0.4802	6,659,851	477,078	9	1.0053	822,356	0.1235
	2014	15,471,136	0.4864	7,525,161	11,663,014	8	1.0099	6,558,330	0.8715 **
	2015	16,540,661	0.4892	8,091,691	1,060,397	7	1.0184	1,695,621	0.2096
	2016	18,703,542	0.5313	9,937,192	606,607	6	1.0341	942,531	0.0948
	2017	9,815,438	0.8380	8,225,337	1,172,422	5	1.0633	1,792,459	0.2179
	2018	6,737,069	0.9186	6,188,672	326,156	4	1.1184	501,898	0.0811
	2019	6,568,256	0.9566	6,283,194	384,485	3	1.2246	619,941	0.0987
	2020	6,469,965	0.9566	6,189,169	1,101,574	2	1.4378	1,995,596	0.3224
	2021	9,354,172	0.9367	8,762,053	422,735	1	1.8969	966,845	0.1103

10 Year Total 115,475,832 73,599,117 17,620,066 16,624,365 0.2259

Selected Loss Ratio **0.2259**

* Selected Medical Severity Trend equals 4.5%. See Page 7.

** 2014 had one very large medical claim capped at the MSL. MSL was determined by using statewide serious medical severity times 25, or MSL = 5,930,000 = 237,136 x 25.

Policy Year	Standard Earned Premium	Premium On-Level Factor	Adjusted Premium	Reported Incurred Loss	Loss Level	Loss Development Factor	Trend Factor to 4/1/2024	Ultimate Incurred Loss	Loss Ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(4)*(6)*(7)	(9)=(8)/(3)
Total	2012	11,946,683	0.4802	5,736,797	1,202,580			2,120,083	0.3696
	2013	13,868,910	0.4802	6,659,851	1,595,221			2,703,585	0.4060
	2014	15,471,136	0.4864	7,525,161	13,822,122			10,063,383	1.3373
	2015	16,540,661	0.4892	8,091,691	3,242,043			5,119,454	0.6327
	2016	18,703,542	0.5313	9,937,192	2,287,524			3,500,023	0.3522
	2017	9,815,438	0.8380	8,225,337	3,372,572			5,053,840	0.6144
	2018	6,737,069	0.9186	6,188,672	945,573			1,405,114	0.2270
	2019	6,568,256	0.9566	6,283,194	1,318,553			1,989,282	0.3166
	2020	6,469,965	0.9566	6,189,169	2,986,984			4,949,113	0.7996
	2021	9,354,172	0.9367	8,762,053	1,630,871			3,315,542	0.3784

10 Year Total 115,475,832 73,599,117 32,404,043 40,219,419 0.5465

Selected Loss Ratio **0.5465**

Indemnity Trend Calculation

<u>Fiscal Year</u>	<u>NAWW</u>	<u>Annual Percent Change</u>	<u>Period</u>	<u>NAWW Exp Fit Trend</u>
1994	369.15		2015 - 2025	3.9% 11 pt
1995	380.46	3.1%	2016 - 2025	4.2% 10 pt
1996	391.22	2.8%	2017 - 2025	4.5% 9 pt
1997	400.53	2.4%	2018 - 2025	4.8% 8 pt
1998	417.87	4.3%	2019 - 2025	5.0% 7 pt
1999	435.88	4.3%	2020 - 2025	5.3% 6 pt
2000	450.64	3.4%	2021 - 2025	5.3% 5 pt
2001	466.91	3.6%	2022 - 2025	5.0% 4 pt
2002	483.04	3.5%	2023 - 2025	4.4% 3 pt
2003	498.27	3.2%		
2004	515.39	3.4%	Selection	4.2%
2005	523.58	1.6%		
2006	536.82	2.5%		
2007	557.22	3.8%		
2008	580.18	4.1%		
2009	600.31	3.5%		
2010	612.33	2.0%		
2011	628.42	2.6%		
2012	647.60	3.1%		
2013	662.59	2.3%		
2014	673.34	1.6%		
2015	688.51	2.3%		
2016	703.00	2.1%		
2017	718.24	2.2%		
2018	735.89	2.5%		
2019	755.38	2.6%		
2020	780.04	3.3%		
2021	816.35	4.7%		
2022	863.49	5.8%		
2023	916.99	6.2%		
2024	963.29	5.0%		
2025	999.55	3.8%		

NAWW source:
<https://www.dol.gov/agencies/owcp/dlhwc/NAWWinfo>

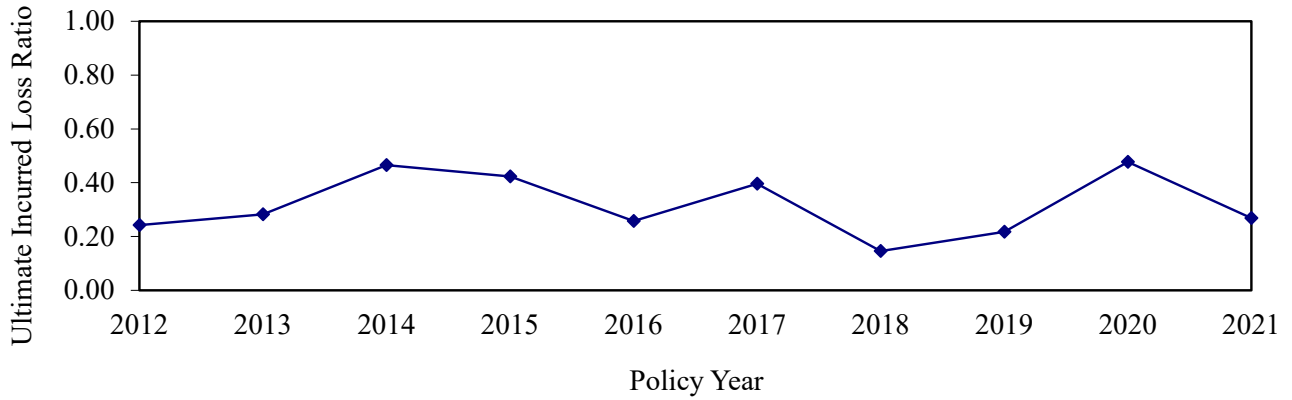
Medical Trend Calculation

Calendar Year	Medicare Index	Annual Percent Change	Period	Exp Fit Trend
2002	54		2015-2025	5.1% 11 pt
2003	59	9.3%	2016-2025	4.5% 10 pt
2004	67	13.6%	2017-2025	4.5% 9 pt
2005	78	16.4%	2018-2025	4.9% 8 pt
2006	89	14.1%	2019-2025	5.1% 7 pt
2007	94	5.6%	2020-2025	4.9% 6 pt
2008	96	2.1%	2021-2025	4.8% 5 pt
2009	96	0.0%	2022-2025	3.1% 4 pt
2010	111	15.6%	2023-2025	5.9% 3 pt
2011	115	3.6%		
2012	100	-13.0%	Selection	4.5%
2013	105	5.0%		
2014	105	0.0%		
2015	105	0.0%		
2016	122	16.2%		
2017	134	9.8%		
2018	134	0.0%		
2019	136	1.5%		
2020	145	6.6%		
2021	149	2.4%		
2022	170	14.5%		
2023	165	-3.1%		
2024	175	5.9%		
2025	185	5.9%		

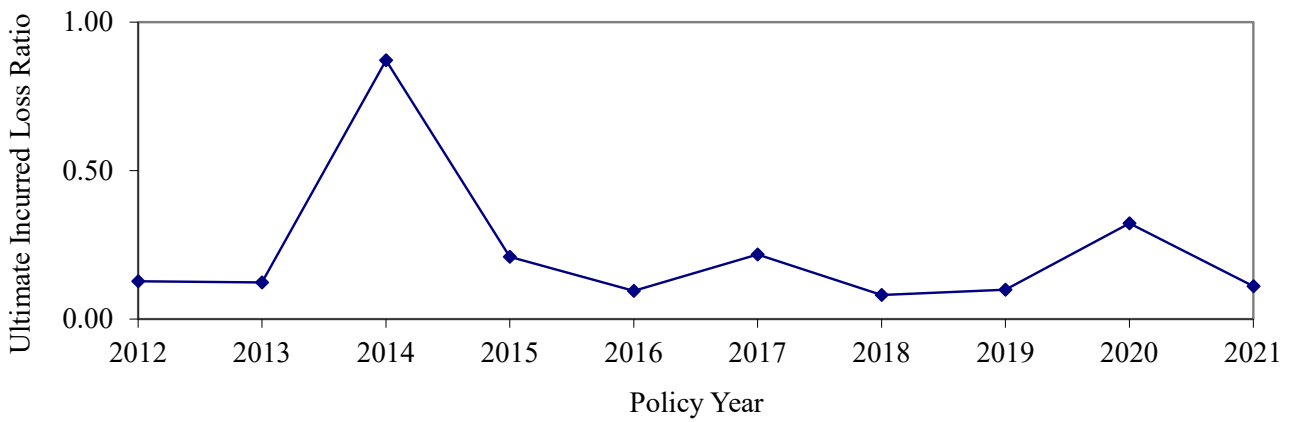
Source:
 2024 Annual Report of the Boards of Trustees of the Federal Hospital Insurance
 and Federal Supplementary Medical Insurance Trust Funds

Pennsylvania "F" Class

Indemnity Ultimate Incurred Loss Ratio



Medical Ultimate Incurred Loss Ratio



Total Ultimate Incurred Loss Ratio

