

DELAWARE COMPENSATION RATING BUREAU, INC.
F-CLASS FILING

ANALYSIS OF EXPERIENCE

The following pages present an analysis of Delaware F-Class experience. The analysis is based on data reported to the DCRB 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.

Page 6 shows indemnity, medical and total ultimate loss ratio graphs for Policy Years 2010 through 2019. Because of the limited amount of F-Class data, many of the loss ratios are relatively small and have limited credibility for determining annual trends. 10-year weighted average loss ratios and 0% annual trend were selected for both indemnity and medical losses. The resulting trended loss ratios are 31.05% for indemnity and 14.61% for medical.

DELAWARE 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
2004	98,094	19,831	78,278	79,623	79,623	79,623	79,623	79,623	79,623	79,623	79,623
2005	58,268	28,679	11,546	11,546	11,546	11,546	11,546	11,546	11,546	11,546	11,546
2006	60,391	24,302	63,269	63,269	63,269	100,202	111,096	132,507	148,484	148,484	148,484
2007	48,666	-	-	-	-	-	-	-	440	440	440
2008	48,825	-	-	-	-	-	-	-	-	-	-
2009	57,944	11,096	11,096	11,096	11,096	11,096	11,096	11,096	11,096	11,096	11,096
2010	50,384	-	-	-	-	1,217	1,217	1,217	1,217	1,217	1,217
2011	56,401	-	-	-	-	-	-	-	-	-	-
2012	392,236	460,298	688,913	734,939	619,528	619,528	619,528	619,528	619,528		
2013	424,881	415,686	407,219	456,203	456,203	456,203	456,203	456,203			
2014	714,332	22,738	21,009	21,009	21,009	21,009	21,009				
2015	711,123	27,135	27,135	27,135	27,135	27,135					
2016	435,151	855	855	855	855						
2017	450,818	17,822	20,072	20,021							
2018	223,287	33,550	33,550								
2019	227,508	6,242									

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
2004	3.9473	1.0172	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
2005	0.4026	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
2006	****	1.0000	1.0000	1.5837	1.1087	1.1927	1.1206	1.0000	1.0000	
2007	*	*	*	*	*	*	****	1.0000	1.0000	
2008	*	*	*	*	*	*	*	*	*	
2009	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
2010	*	*	*	****	1.0000	1.0000	1.0000	1.0000	1.0000	
2011	*	*	*	*	*	*	*	*	*	
2012	1.4967	1.0668	0.8430	1.0000	1.0000	1.0000	1.0000			
2013	0.9796	1.1203	1.0000	1.0000	1.0000	1.0000				
2014	0.9240	1.0000	1.0000	1.0000	1.0000					
2015	1.0000	1.0000	1.0000	1.0000						
2016	1.0000	1.0000	1.0000							
2017	1.1262	0.9975								
2018	1.0000									
7 Yr Weighted Average	1.2256	1.0815	0.9069	1.0011	1.0000	1.0000	1.0215	1.0000	1.0000	
Weighted Avg (All available)	1.2525	1.0724	0.9179	1.0286	1.0084	1.0166	1.0187	1.0000	1.0000	
Selected (All available)	1.2536	1.0636	1.0159	1.0040	1.0010	1.0003	1.0001	1.0000	1.0000	1.0000

Development Factors to Ultimate

	1-ULT	2-ULT	3-ULT	4-ULT	5-ULT	6-ULT	7-ULT	8-ULT	9-ULT	10-ULT
7 Yr Weighted Average	1.2293	1.0030	0.9274	1.0226	1.0215	1.0215	1.0215	1.0000	1.0000	1.0000
Weighted Avg (All available)	1.3244	1.0574	0.9860	1.0742	1.0443	1.0356	1.0187	1.0000	1.0000	1.0000
Selected (All available)	1.3619	1.0864	1.0214	1.0054	1.0014	1.0004	1.0001	1.0000	1.0000	1.0000

* No reported losses.

**** Loss development factor not used

DELAWARE 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
2004	98,094	53,461	59,659	55,932	56,807	56,807	56,807	56,807	56,807	56,807	56,807
2005	58,268	37,037	34,694	34,694	34,694	34,694	34,694	34,694	34,694	34,694	34,694
2006	60,391	36,593	63,593	82,957	81,768	75,628	84,886	92,386	94,664	94,664	94,664
2007	48,666	-	-	-	-	-	-	-	25,861	25,861	25,861
2008	48,825	-	-	-	-	-	-	375	375	375	375
2009	57,944	37,131	37,131	37,131	37,131	38,633	38,633	38,633	38,633	38,633	38,633
2010	50,384	-	-	-	-	3,735	3,735	3,735	3,735	3,735	3,735
2011	56,401	39	39	39	39	39	39	39	39	39	39
2012	392,236	128,335	214,965	263,895	249,833	249,833	249,833	249,833	249,833		
2013	424,881	126,996	175,831	177,772	177,767	177,767	177,767	177,767			
2014	714,332	29,757	29,757	29,757	29,757	29,757	29,757				
2015	711,123	19,685	19,685	19,685	19,685	19,685					
2016	435,151	3,547	3,547	3,547	3,547						
2017	450,818	19,888	19,499	19,489							
2018	223,287	73,256	73,293								
2019	227,508	25,581									

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
2004	1.1159	0.9375	1.0156	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
2005	0.9367	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
2006	1.7378	1.3045	0.9857	0.9249	1.1224	1.0884	1.0247	1.0000	1.0000	1.0000
2007	*	*	*	*	*	*	****	1.0000	1.0000	1.0000
2008	*	*	*	*	*	****	1.0000	1.0000	1.0000	1.0000
2009	1.0000	1.0000	1.0000	1.0000	****	1.0000	1.0000	1.0000	1.0000	1.0000
2010	*	*	*	****	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2011	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
2012	1.6750	1.2276	0.9467	1.0000	1.0000	1.0000	1.0000			
2013	1.3845	1.0110	1.0000	1.0000	1.0000	1.0000				
2014	1.0000	1.0000	1.0000	1.0000	1.0000					
2015	1.0000	1.0000	1.0000	1.0000						
2016	1.0000	1.0000	1.0000							
2017	0.9804	0.9995								
2018	1.0005									
7 Yr Weighted Average	1.3366	1.1098	0.9716	1.0073	1.0030	1.0008	1.0731	1.0000	1.0000	
Weighted Avg (All available)	1.2934	1.1010	0.9796	0.9911	1.0147	1.0116	1.0048	1.0000	1.0000	
Selected (All available)	1.2959	1.0867	1.0232	1.0060	1.0016	1.0004	1.0001	1.0000	1.0000	1.0000

Development Factors to Ultimate

	1-ULT	2-ULT	3-ULT	4-ULT	5-ULT	6-ULT	7-ULT	8-ULT	9-ULT	10-ULT
7 Yr Weighted Average	1.5635	1.1698	1.0541	1.0850	1.0772	1.0740	1.0731	1.0000	1.0000	1.0000
Weighted Avg (All available)	1.4262	1.1027	1.0015	1.0223	1.0315	1.0165	1.0048	1.0000	1.0000	1.0000
Selected (All available)	1.4526	1.1209	1.0315	1.0081	1.0021	1.0005	1.0001	1.0000	1.0000	1.0000

* No reported losses.

**** Loss development factor not used

DELAWARE COMPENSATION RATING BUREAU, INC.

F-CLASS UNIT STATISTICAL PLAN EXPERIENCE

FITTED DEVELOPMENT FACTORS

INDEMNITY INCURRED LOSSES

$$Y = a \cdot \exp(b \cdot x)$$

$$a = 1.0117609$$

$$b = (1.383529)$$

$$R^2 = 0.9940$$

<u>Incurred Development</u>	<u>All Year Average</u>	<u>Points Used</u>	<u>Points Used - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>	<u>Selected</u>
1st to 2nd	1.2525	1.2525	0.2525	0.2536	1.2536	1.2536
2nd to 3rd	1.0724	1.0724	0.0724	0.0636	1.0636	1.0636
3rd to 4th	0.9179	1.0000 *	-	0.0159	1.0159	1.0159
4th to 5th	1.0286	1.0000 *	-	0.0040	1.0040	1.0040
5th to 6th	1.0084	1.0000 *	-	0.0010	1.0010	1.0010
6th to 7th	1.0166	1.0000 *	-	0.0003	1.0003	1.0003
7th to 8th	1.0187	1.0000 *	-	0.0001	1.0001	1.0001
8th to 9th	1.0000	1.0000 *	-	-	1.0000	1.0000
9th to 10th	1.0000	1.0000 *	-	-	1.0000	1.0000
10th to Ultimate						1.0000 *

* Selected

DELAWARE COMPENSATION RATING BUREAU, INC.

F-CLASS UNIT STATISTICAL PLAN EXPERIENCE

FITTED DEVELOPMENT FACTORS

MEDICAL INCURRED LOSSES

$$Y = 1 - \exp(-a \cdot b^x)$$

$$a = 1.356569$$

$$b = 0.258597$$

$$R^2 = 0.9903$$

<u>Incurred Development</u>	<u>All Year Average</u>	<u>Points Used</u>	<u>Points Used - 1</u>	<u>Fitted Value</u>	<u>Fitted Value + 1</u>	<u>Selected</u>
1st to 2nd	1.2934	1.2934	0.2934	0.2959	1.2959	1.2959
2nd to 3rd	1.1010	1.1010	0.1010	0.0867	1.0867	1.0867
3rd to 4th	0.9796	1.0000 *	-	0.0232	1.0232	1.0232
4th to 5th	0.9911	1.0000 *	-	0.0060	1.0060	1.0060
5th to 6th	1.0147	1.0000 *	-	0.0016	1.0016	1.0016
6th to 7th	1.0116	1.0000 *	-	0.0004	1.0004	1.0004
7th to 8th	1.0048	1.0000 *	-	0.0001	1.0001	1.0001
8th to 9th	1.0000	1.0000 *	-	-	1.0000	1.0000
9th to 10th	1.0000	1.0000 *	-	-	1.0000	1.0000
10th to Ultimate						1.0000 *

* Selected

DELAWARE 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	Report Level	Loss Development Factor	Benefit On-Level Factor	Ultimate Incurred Loss	Loss Ratio
		(1)	(2)	(3) = (1) * (2)	(4)	(5)	(6)	(7)	(8)=(4)*(6)*(7)	(9)=(8)/(3)
Indemnity	2010	50,384	1.0078	50,777	0	10	1.0000	1.0136	0	0.0000
	2011	56,401	1.0248	57,800	11,096	9	1.0000	1.0147	11,259	0.1948
	2012	392,236	1.0248	401,963	1,217	8	1.0000	1.0145	1,235	0.0031
	2013	424,881	1.0248	435,418	0	7	1.0001	1.0136	0	0.0000
	2014	714,332	1.0248	732,047	619,528	6	1.0004	1.0127	627,647	0.8574
	2015	711,123	1.0248	728,759	456,203	5	1.0014	1.0118	462,232	0.6343
	2016	435,151	1.0248	445,943	21,009	4	1.0054	1.0109	21,353	0.0479
	2017	450,818	1.0251	462,134	27,135	3	1.0214	1.0098	27,987	0.0606
	2018	223,287	1.0475	233,893	855	2	1.0864	1.0083	937	0.0040
	2019	227,508	1.0653	242,364	17,822	1	1.3619	1.0065	24,430	0.1008
10 Year Total		3,686,121		3,791,098	1,154,865				1,177,080	0.3105
Medical	2010	50,384	1.0078	50,777	375	10	1.0000		375	0.0074
	2011	56,401	1.0248	57,800	38,633	9	1.0000		38,633	0.6684
	2012	392,236	1.0248	401,963	3,735	8	1.0000		3,735	0.0093
	2013	424,881	1.0248	435,418	39	7	1.0001		39	0.0001
	2014	714,332	1.0248	732,047	249,833	6	1.0005		249,958	0.3415
	2015	711,123	1.0248	728,759	177,767	5	1.0021		178,140	0.2444
	2016	435,151	1.0248	445,943	29,757	4	1.0081		29,998	0.0673
	2017	450,818	1.0251	462,134	19,685	3	1.0315		20,305	0.0439
	2018	223,287	1.0475	233,893	3,547	2	1.1209		3,976	0.0170
	2019	227,508	1.0653	242,364	19,888	1	1.4526		28,889	0.1192
10 Year Total		3,686,121		3,791,098	543,259				554,048	0.1461
Total	2010	50,384	1.0078	50,777	375	10			375	0.0074
	2011	56,401	1.0248	57,800	49,729	9			49,892	0.8632
	2012	392,236	1.0248	401,963	4,952	8			4,970	0.0124
	2013	424,881	1.0248	435,418	39	7			39	0.0001
	2014	714,332	1.0248	732,047	869,361	6			877,605	1.1988
	2015	711,123	1.0248	728,759	633,970	5			640,372	0.8787
	2016	435,151	1.0248	445,943	50,766	4			51,351	0.1152
	2017	450,818	1.0251	462,134	46,820	3			48,292	0.1045
	2018	223,287	1.0475	233,893	4,402	2			4,913	0.0210
	2019	227,508	1.0653	242,364	37,710	1			53,319	0.2200
10 Year Total		3,686,121		3,791,098	1,698,124				1,731,128	0.4566

