



**SEAN MICHAEL SHAW, ESQ.**  
INSURANCE CONSUMER ADVOCATE

VIA ELECTRONIC TRANSMISSION

February 26, 2010

Mr. Michael Milnes, Deputy Director  
Property and Casualty Product Review  
Office of Insurance Regulation  
200 East Gaines Street  
Tallahassee, FL 32399-4206

RE: In the Matter of First Professionals Insurance Company  
OIR Filing No.: 10-01380  
Actuarial Review

Dear Mr. Milnes:

I respectfully submit the attached actuarial report related to the above referenced matter authored by Mr. Stephen A. Alexander, FCAS, MAAA, MBA actuary for the Office of the Insurance Consumer Advocate.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sean Michael Shaw".

Sean Michael Shaw, Esq.  
Insurance Consumer Advocate

cc w/ attachments: Kevin McCarty, Insurance Commissioner  
Steve Parton, Deputy Commissioner  
Belinda Miller, Deputy Commissioner  
Richard Koon, Director, Property & Casualty Product Review  
Robert Boor, Actuary, Office of Insurance Regulation

February 26, 2010

**Actuarial Analysis of  
Office of Insurance Regulation  
Filing Number 10-01380**

**Medical Malpractice Insurance  
First Professionals Insurance Company**

**Office of the Insurance Consumer Advocate  
State of Florida**

Prepared by:  
Stephen A. Alexander, FCAS, MAAA, MBA



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## INDICATED RATE CHANGE

The Insurance Consumer Advocate's (ICA) indicated rate change for the subject filing is -.6% and the ICA's selected rate change is 0%. In comparison First Professionals Insurance Company's (FPIC) indicated rate change is +12.4% and FPIC's selected rate change is +5.0%.

The difference between the two indications is due to differences in loss development techniques and trend rate selections. In consequence of these differences, the ICA projects for the prospective rate period an average loss and ALAE ratio of 64.8% compared to FPIC's 75.2%.

## LOSS DEVELOPMENT

The differences in loss development between the ICA and FPIC result in substantially different projected ultimate losses and ALAE for the most immature 2008 and 2009 report years:

Office of the Insurance Consumer Advocate  
Review of OIR Filing Number 10-01380  
First Professionals Insurance Company

Report Year Estimated Ultimate Loss & ALAE

Report Year	FPIC	ICA	Difference
2008	60,233,007	58,301,118	1,931,889
2009	62,005,312	55,840,301	6,165,011
Total	122,238,319	114,141,419	8,096,900

The ICA's projected ultimate losses and ALAE for these report years are based upon the use of five generally accepted actuarial loss development techniques: paid development, incurred development, Bornhuetter-Ferguson paid development, Bornhuetter-Ferguson incurred development and Backward Recursive Method. The data provided in the subject filing was insufficient to use any other generally accepted actuarial techniques.

FPIC used just three loss development techniques (paid development, incurred development and the Berquist-Sherman Method). The use of only three loss development techniques in the subject filing is noteworthy, because FPIC used at least eight loss development techniques to set its 2008 loss reserves while acknowledging to the Securities and Exchange Commission that each of the eight techniques it used had "inherent benefits and shortcomings (e.g. biases)".

Furthermore, FPIC selected the average of only two methods (the Berquist-Sherman Method and the incurred loss development method) for the two most immature years (2008 and 2009), even though a major shortcoming of the Berquist-Sherman Method is that it is very sensitive to the selected trend rate, and it requires the exercise of substantial actuarial judgment.

It is also noteworthy that FPIC did not use the Bornhuetter-Ferguson methods even though it acknowledged in its report to the Securities and Exchange Commission that these methods are “more relevant to immature accident years” such as 2008 and 2009.

It is the position of the ICA that FPIC should be consistent in its use of loss development techniques for both rates and reserves, because both rates and reserves require estimation of ultimate losses for historical report years.

FPIC describes on pages 23 and 24 of its 2008 annual report to the Securities and Exchange Commission the multiple methods that it uses to set its loss reserves:

*“Actuarial techniques and primary factors that impact our reserve estimates – We establish loss and LAE reserves taking into account the results of multiple actuarial techniques applied as well as other assumptions and factors regarding our business. The actuarial techniques we use that are material to our evaluation of loss and LAE reserves include the following:*

- Loss Development Methods (Incurred and Paid Development);
- Berquist-Sherman Case Reserve Adjustment Method
- Frequency/Severity Methods;
- Allocated Loss Adjustment Expense (ALAE”) development Methods (Incurred and Paid Development);
- Bornhuetter-Ferguson Expected Loss Projection Methods; and
- Backward Recursive Method

Each technique has inherent benefits and shortcomings (i.e., biases), particularly when applied to company-specific characteristics and trends. For example, certain methods (e.g., the Bornhuetter-Ferguson methods) are more relevant to immature accident years, and other methods (e.g., the loss development methods) provide more meaningful information for years with a greater level of maturity. Because each method has its own set of attributes, we do not rely exclusively upon a single method. Rather, we evaluate each of the methods for the different perspectives that they provide. Each method is applied in a consistent manner from period to period and the methods encompass a review of selected claims data, including claim and incident counts, average indemnity payments and loss adjustment costs.”

## **TREND RATES**

The ICA's selected annual loss ratio trend rate is 4.8% compared to FPIC's 6.0%. It is believed that the 1.2% difference in selections is due to FPIC's higher selected ultimate losses and ALAE for the most immature 2008 and 2009 report years as discussed above.

## **EXHIBITS**

Exhibits 1 through 5

Office of the Consumer Advocate  
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Indicated Rate Change

	(1)	(2)
	FPIC	ICA
(3) Selected Loss & ALAE Ratio	75.2%	64.8%
(4) DD&R	1.027	1.027
(5) ULAE	1.055	1.055
(6) General & Other Acquisition	16.0%	16.0%
(7) Variable Expenses	13.3%	13.3%
(8) Indicated Overall Rate Level Change	12.4%	-0.6%
(9) Selected Overall Rate Level Change	5.0%	0.0%

Notes:

- (1) FPIC Exhibit 1
- (3) Exhibit 2, Row (18)
- (8)  $((3) \times (4) \times (5) + (6)) / (1 - (7))$
- (9) based on actuarial judgment

Office of the Insurance Consumer Advocate  
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Selected Ultimate Losses

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Earned Premium @ Current Rate Level	Incurred BF	Paid BF	Developed Incurred	Developed Paid	Backward Recursive	Selected	Selected Loss & ALAE Ratio	Fitted Loss & ALAE Ratio
(10) 2004	134,827,989						58,896,099	43.7%	46.5%
(11) 2005	132,377,412						74,041,026	55.9%	48.7%
(12) 2006	121,151,422						56,747,165	46.8%	51.1%
(13) 2007	106,174,966						55,941,233	52.7%	53.5%
(14) 2008	99,163,235	56,487,543	64,534,418	56,940,493	105,477,454	55,242,017	58,301,118	58.8%	56.1%
(15) 2009	97,093,881	55,998,826	56,707,280	56,943,501	104,283,983	53,711,598	55,840,301	57.5%	58.8%
(16) 2010									61.6%
(17) 2011									64.6%
(18) 8/1/2011									64.8%
(19)							Selected Annual Trend Rate		4.8%

## Notes:

- (1) FPIC Exhibit 5, Sheet 2, Column (2)
- (2) Exhibit 3, Column (10)
- (3) Exhibit 4, Column (10)
- (4) FPIC Exhibit 6, Sheet 1, Column (4)
- (5) FPIC Exhibit 6, Sheet 1, Column (3)
- (6) Exhibit 5, Sheet 1
- (7) FPIC Exhibit 6, Sheet 1, Column (6) or the average of (2), (3), (4) and (6) for 2008 and 2009 based on actuarial judgment
- (8) (7) / (1)
- (9) exponential fit on (8)
- (18) (17) x ((17) / (16))^(1/12)
- (19) (17) / (16) - 1

Office of the Insurance Consumer Advocate  
 Review of OIR Filing Number 10-01380  
 First Professionals Insurance Company

Bornheutter-Ferguson Method  
 Estimated Ultimate Reported Loss & ALAE

Report Year	(1) Earned Premium @ Current Rate Level	(2) FPIC Selected Losses	(3) FPIC Selected Loss & ALAE Ratio	(4) ICA Fitted Loss & ALAE Ratio	(5) ICA Expected Loss & ALAE Ratio	(6) ICA Expected Ultimate Loss & ALAE	(7) Reported Loss & ALAE @12/31/2009	(8) Reported LDF	(9) Unreported Loss & ALAE	(10) ICA Estimated Ultimate Reported Loss & ALAE
2004	134,827,989	58,896,099	43.7%	46.8%						
2005	132,377,412	74,041,026	55.9%	48.6%						
2006	121,151,422	56,747,165	46.8%	50.5%						
2007	106,174,966	55,941,233	52.7%	52.5%						
2008	99,163,235			54.6%	54.6%	54,102,232	48,002,707	1.186	0.157	56,487,543
2009	97,093,881			56.7%	56.7%	55,051,999	28,583,373	1.992	0.498	55,998,826

Notes:

- (1) FPIC Exhibit 5, Sheet 2, Column (2)
- (2) FPIC Exhibit 2, Column (2)
- (3) (2) / (3)
- (4) Exponential fit on (3)
- (5) (4)
- (6) (4) x (1)
- (7) FPIC Exhibit 6, Sheet 3, Column (2)
- (8) FPIC Exhibit 6, Sheet 3, Column (1)
- (9) 1 - 1/(8)
- (10) (9) x (6) + (7)

Office of the Insurance Consumer Advocate  
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Bornheutter-Ferguson Method  
 Estimated Ultimate Paid Loss & ALAE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Report Year	Earned Premium @ Current Rate Level	FPIC Selected Losses	FPIC Selected Loss & ALAE Ratio	ICA Fitted Loss & ALAE Ratio	ICA Expected Loss & ALAE Ratio	ICA Expected Ultimate Loss & ALAE	Paid Loss & ALAE @12/31/09	Paid LDF	Unpaid Loss & ALAE	ICA Estimated Ultimate Paid Loss & ALAE
2004	134,827,989	58,896,099	43.7%	46.8%						
2005	132,377,412	74,041,026	55.9%	48.6%						
2006	121,151,422	56,747,165	46.8%	50.5%						
2007	106,174,966	55,941,233	52.7%	52.5%						
2008	99,163,235			54.6%	54.6%	54,102,232	21,419,642	4.924	0.797	64,534,418
2009	97,093,881			56.7%	56.7%	55,051,999	3,506,266	29.742	0.966	56,707,280

## Notes:

- (1) FPIC Exhibit 5, Sheet 2, Column (2)
- (2) FPIC Exhibit 2, Column (2)
- (3) (2) / (3)
- (4) Exponential fit on (3)
- (5) (4)
- (6) (4) x (1)
- (7) FPIC Exhibit 6, Sheet 2, Column (2)
- (8) FPIC Exhibit 6, Sheet 2, Column (1)
- (9) 1 - 1/(8)
- (10) (9) x (6) + (7)

Office of the Insurance Consumer Advocate  
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First Professionals Insurance Company

Backward Recursive Method

Projected Ultimate Loss & ALAE

Report Year	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
(1) Case Reserves	25,077,107	26,583,065	23,020,747	14,216,584	9,230,840	7,665,550	10,293,363	5,603,419	2,135,115	1,718,486	642,917	1,449,133	749,876
(2) D Ratio	2.00	1.27	1.20	1.24	1.39	1.49	1.76	1.74	1.58	2.54	3.03	2.38	2.00
(3) Developed Reserves	50,205,332	33,822,375	27,585,152	17,597,886	12,852,199	11,425,864	18,166,850	9,734,105	3,373,560	4,364,292	1,949,259	3,453,827	1,499,752
(4) Cumulative Paid	3,506,266	21,419,642	24,997,089	36,048,505	57,465,431	47,898,989	96,569,042	114,307,131	88,705,808	76,762,540	63,814,488	72,810,822	82,800,910
(5) Ultimate	53,711,598	55,242,017	52,582,241	53,646,391	70,317,630	59,324,853	114,735,892	124,041,236	92,079,368	81,126,832	65,763,747	76,264,649	84,300,662

Notes:

- (1) Exhibit 5, Sheet 3
- (2) Exhibit 5, Sheet 2
- (3) (1) x (2)
- (4) Exhibit 5, Sheet 4
- (5) (3) + (4)

Office of the Insurance Consumer Advocate  
Review of OIR Filing Number 10-01380  
First Professionals Insurance Company

Backward Recursive Method

Selected R, P & D Ratios

R Ratio

Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	Ult./156
1997	1.08	0.70	0.52	0.58	0.59	0.59	1.02	0.56	0.96	0.86	0.34	1.10	
1998	1.28	0.60	0.58	0.78	0.62	0.83	0.71	0.79	0.47	0.71	0.99		
1999	1.19	0.65	0.65	0.63	0.65	0.76	0.31	1.15	0.46	0.60			
2000	1.34	0.77	0.62	0.72	0.78	0.35	0.81	0.60	0.67				
2001	1.34	0.72	0.70	0.61	0.44	0.76	0.78	0.44					
2002	1.14	0.92	0.65	0.57	0.62	0.60	0.63						
2003	1.50	0.80	0.66	0.66	0.68	0.62							
2004	1.50	0.82	0.71	0.67	0.53								
2005	1.56	0.78	0.63	0.47									
2006	1.29	0.65	0.61										
2007	1.33	0.70											
2008	1.00												
Latest Diagonal	1.00	0.70	0.61	0.47	0.53	0.62	0.63	0.44	0.67	0.60	0.99	1.10	
2 Year Average	1.17	0.68	0.62	0.57	0.60	0.61	0.70	0.52	0.56	0.66	0.66	1.10	
3 Year Average	1.21	0.71	0.65	0.60	0.61	0.66	0.74	0.73	0.53	0.72	0.66	1.10	
5 Year Average	1.34	0.75	0.65	0.60	0.61	0.62	0.65	0.71	0.64	0.72	0.66	1.10	
5 Year ex High/Low	1.37	0.76	0.65	0.61	0.61	0.66	0.70	0.65	0.57	0.71	0.66	1.10	
All Year Average	1.30	0.74	0.63	0.63	0.61	0.64	0.71	0.71	0.64	0.72	0.66	1.10	
Selected	1.21	0.71	0.65	0.60	0.61	0.66	0.74	0.73	0.53	0.72	0.66	1.10	0.00

P Ratio

Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	Ult./156
1997	0.37	0.33	0.37	0.33	0.32	0.36	0.07	0.47	0.30	0.13	2.67	0.19	
1998	0.29	0.38	0.43	0.27	0.39	0.17	0.23	0.48	0.17	0.70	0.24		
1999	0.42	0.36	0.37	0.24	0.24	0.23	0.26	0.17	0.41	0.21			
2000	0.36	0.43	0.29	0.51	0.14	0.32	0.10	0.20	0.10				
2001	0.27	0.33	0.62	0.33	0.24	0.14	0.51	1.39					
2002	0.27	0.33	0.36	0.46	0.52	0.51	0.83						
2003	0.41	0.37	0.29	0.40	0.47	0.32							
2004	0.50	0.26	0.36	0.32	0.47								
2005	0.56	0.40	0.50	0.48									
2006	0.36	0.43	0.31										
2007	0.35	0.44											
2008	0.68												
Latest Diagonal	0.68	0.44	0.31	0.48	0.47	0.32	0.83	1.39	0.10	0.21	0.24	0.19	
2 Year Average	0.52	0.43	0.41	0.40	0.47	0.42	0.67	0.79	0.26	0.45	1.45	0.19	
3 Year Average	0.46	0.42	0.39	0.40	0.49	0.32	0.48	0.58	0.23	0.35	1.45	0.19	
5 Year Average	0.49	0.38	0.37	0.40	0.37	0.30	0.39	0.54	0.24	0.35	1.45	0.19	
5 Year ex High/Low	0.47	0.40	0.34	0.40	0.39	0.29	0.33	0.38	0.23	0.21	1.45	0.19	
All Year Average	0.40	0.37	0.39	0.37	0.35	0.29	0.33	0.54	0.24	0.35	1.45	0.19	
Selected	0.46	0.42	0.39	0.40	0.49	0.32	0.48	0.58	0.23	0.35	1.45	0.19	2.00

D Ratio

D Ratio	2.00	1.27	1.20	1.24	1.39	1.49	1.76	1.74	1.58	2.54	3.03	2.38	2.00
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Notes:

P Ratio = Incremental Paid Loss and ALAE / Prior Year Ending Case and ALAE Reserves

R Ratio = Year Ending Case and ALAE Reserves / Prior Year Ending Case and ALAE Reserves

D Ratio = R Ratio x Prior Year D Ratio + P Ratio

Office of the Insurance Consumer Advocate  
Review of OIR Filing Number 10-01380  
First Professionals Insurance Company

Backward Recursive Method

Incremental Paid and Year Ending Case Reserves

Incremental Paid Loss and ALAE

Year	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144
1997	19,899,761	19,173,159	15,263,087	6,932,277	4,034,020	2,638,606	288,877	2,092,509	735,136	311,785	5,414,337	131,942
1998	12,772,327	21,826,487	14,559,247	5,399,095	6,013,315	1,618,079	1,804,004	2,663,566	717,614	1,443,408	349,583	
1999	17,915,477	18,116,615	12,110,863	5,130,826	3,246,306	1,988,179	1,704,477	339,078	960,708	221,999		
2000	14,985,126	23,981,215	12,470,131	13,630,349	2,675,925	4,887,905	545,001	843,837	262,443			
2001	12,060,499	20,091,375	26,794,551	10,026,083	4,445,895	1,146,916	3,194,984	6,705,807				
2002	16,630,733	23,386,023	23,287,180	19,642,411	12,471,170	7,584,511	7,420,835					
2003	19,257,739	26,217,271	16,491,301	14,827,738	11,616,386	5,405,401						
2004	12,381,851	9,554,636	10,987,608	6,999,124	6,758,122							
2005	14,341,144	15,803,896	15,413,348	9,359,602								
2006	10,096,325	15,574,799	7,361,564									
2007	8,653,440	14,318,858										
2008	18,052,786											

Year Ending Case Loss and ALAE Reserves

Year	12	24	36	48	60	72	84	96	108	120	132	144	156
1997	54,358,767	58,454,284	41,066,730	21,259,809	12,434,873	7,392,249	4,352,171	4,445,986	2,476,877	2,367,648	2,029,664	684,615	749,876
1998	44,260,796	56,866,769	33,891,762	19,731,166	15,336,014	9,458,819	7,838,219	5,526,270	4,344,996	2,054,964	1,467,211	1,449,133	
1999	42,428,031	50,650,925	32,733,381	21,332,099	13,388,203	8,751,336	6,620,669	2,031,007	2,341,960	1,074,381	642,917		
2000	41,502,388	55,817,632	42,952,540	26,826,766	19,324,322	15,162,821	5,317,721	4,313,259	2,572,451	1,718,486			
2001	44,750,529	60,063,894	43,155,694	30,187,702	18,383,767	8,139,840	6,225,531	4,835,061	2,135,115				
2002	61,911,306	70,693,179	65,136,567	42,393,327	24,199,733	14,927,446	8,931,056	5,603,419					
2003	46,628,797	70,130,810	56,206,960	37,031,610	24,548,785	16,636,900	10,293,363						
2004	24,661,148	36,899,772	30,300,246	21,591,576	14,445,447	7,665,550							
2005	25,520,451	39,689,600	30,875,822	19,578,909	9,230,840								
2006	28,059,083	36,120,879	23,414,486	14,216,584									
2007	24,555,365	32,771,219	23,020,747										
2008	26,494,361	26,583,065											
2009	25,077,107												

Note:

Exhibit 5, Sheet 4

Office of the Insurance Consumer Advocate  
Review of OIR Filing Number 10-01380  
First Professionals Insurance Company

Backward Recursive Method

Paid and Incurred Loss and ALAE

Paid Loss and ALAE

Year	12	24	36	48	60	72	84	96	108	120	132	144	156
1997	5,885,414	25,785,175	44,958,334	60,221,421	67,153,698	71,187,718	73,826,324	74,115,201	76,207,710	76,942,846	77,254,631	82,668,968	82,800,910
1998	3,644,097	16,416,424	38,242,911	52,802,158	58,201,253	64,214,568	65,832,647	67,636,651	70,300,217	71,017,831	72,461,239	72,810,822	
1999	2,079,960	19,995,437	38,112,052	50,222,915	55,353,741	58,600,047	60,588,226	62,292,703	62,631,781	63,592,489	63,814,488		
2000	2,480,608	17,465,734	41,446,949	53,917,080	67,547,429	70,223,354	75,111,259	75,656,260	76,500,097	76,762,540			
2001	4,239,698	16,300,197	36,391,572	63,186,123	73,212,206	77,658,101	78,805,017	82,000,001	88,705,808				
2002	3,884,268	20,515,001	43,901,024	67,188,204	86,830,615	99,301,785	106,886,296	114,307,131					
2003	2,753,206	22,010,945	48,228,216	64,719,517	79,547,255	91,163,641	96,569,042						
2004	1,217,648	13,599,499	23,154,135	34,141,743	41,140,867	47,898,989							
2005	2,547,441	16,888,585	32,692,481	48,105,829	57,465,431								
2006	3,015,817	13,112,142	28,686,941	36,048,505									
2007	2,024,791	10,678,231	24,997,089										
2008	3,366,856	21,419,642											
2009	3,506,266												

Incurred Loss and ALAE

Year	12	24	36	48	60	72	84	96	108	120	132	144	156
1997	60,244,181	84,239,459	86,025,064	81,481,230	79,588,571	78,579,967	78,178,495	78,561,187	78,684,587	79,310,494	79,284,295	83,353,583	83,550,786
1998	47,904,893	73,283,193	72,134,673	72,533,324	73,537,267	73,673,387	73,670,866	73,162,921	74,645,213	73,072,795	73,928,450	74,259,955	
1999	44,507,991	70,646,362	70,845,433	71,555,014	68,741,944	67,351,383	67,208,895	64,323,710	64,973,741	64,666,870	64,457,405		
2000	43,982,996	73,283,366	84,399,489	80,743,846	86,871,751	85,386,175	80,428,980	79,969,519	79,072,548	78,481,026			
2001	48,990,227	76,364,091	79,547,266	93,373,825	91,595,973	85,797,941	85,030,548	86,835,062	90,840,923				
2002	65,795,574	91,208,180	109,037,591	109,581,531	111,030,348	114,229,231	115,817,352	119,910,550					
2003	49,382,003	92,141,755	104,435,176	101,751,127	104,096,040	107,800,541	106,862,405						
2004	25,878,796	50,499,271	53,454,381	55,733,319	55,586,314	55,564,539							
2005	28,067,892	56,578,185	63,568,303	67,684,738	66,696,271								
2006	31,074,900	49,233,021	52,101,427	50,265,089									
2007	26,580,156	43,449,450	48,017,836										
2008	29,861,217	48,002,707											
2009	28,583,373												

Note:  
FPIC Appendix B, Sheets 1 and 2

