Actuarial Committee

Meeting Agenda

Date	Time	Location	Staff Contact
April 5, 2016	9:30 AM	WCIRB California 1221 Broadway, Suite 900 Oakland, CA	David M. Bellusci

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Released: March 29, 2016

To Members of the Actuarial Committee, WCIRB Members and All Interested Parties:

I.   Approval of Minutes

   None

II.   Working Group Meeting Summaries

   None

III. Unfinished Business

   A. AC16-03-01: First Quarter 2016 Review of Diagnostics

   B. AC16-03-02: 12/31/15 Experience – Review of Methodologies

   C. AC16-03-03: Loss Development at Earlier and Later Maturities

IV.   New Business

   A. AC16-04-01: 12/31/15 Loss Adjustment Expense Experience Review

   B. AC16-04-02: 12/31/15 Experience – Alternative Loss Projections

   C. AC16-04-03: Computation of Industry Average Filed Rates as of 1/1/2016

V.   Matters Arising at Time of Meeting

VI.   Next Meeting Date: June 17, 2016

VII. Adjournment

Antitrust Notice

As members of the Workers' Compensation Insurance Rating Bureau of California, you are bound, when involved in meetings or other activities of the WCIRB California, to limit your actions (and discussions other than social ones) to matters relating to the business of the WCIRB California. Matters that do not relate directly to WCIRB California business should be avoided. Members should particularly avoid discussions or conduct that could be construed as intended to affect competition (or access to markets). Thus, as members, you should not discuss or pursue the business interests of individual insurers or others, including, in particular, the plans of individual members involving, or the possibility or desirability of (a) raising, lowering, or stabilizing prices (premiums or commissions); (b) doing business or refusing to do business with particular, or classes of, insurers, reinsurers, agents, brokers, or insureds, or in particular locales; or (c) potential actions that would affect the availability of products or service either generally or in specific markets or locales.

Item AC16-03-01
First Quarter 2016 Review of Diagnostics

At the March 22, 2016 meeting, the Committee reviewed the WCIRB's first quarter 2016 summary of diagnostics. The information was also reviewed by the WCIRB Claims Working Group at the March 23, 2016 meeting. A summary of the input of the Claims Working Group on several of the diagnostics discussed at the Actuarial Committee's March 22, 2016 meeting will be provided at the meeting.

Item AC16-03-02
12/31/2015 Experience – Review of Methodologies

At the March 22, 2016 meeting, the Committee reviewed a preliminary summary of accident year experience through December 31, 2015. The attached Exhibits 1 through 8 contain an updated analysis of December 31, 2015 experience. In total, almost 100% of the market is included. The loss projection methodologies are consistent with those reflected in the analysis presented at the March 22, 2016 meeting and those reflected in the January 1, 2016 Pure Premium Rate Filing and include the updated adjustments for Senate Bill No. 863 that were adopted by the Committee at the March 22, 2016 meeting. Wage and loss levels are projected to April 1, 2016—the approximate midpoint of experience on policies incepting during the period from July 1, 2016 through December 31, 2016. Premiums have been on-leveled to the January 1, 2016 industry average filed pure premium rate level.[1] Other changes from the analysis presented at the March 22, 2016 meeting include revisions to several insurer data submissions.

As shown on Exhibit 8, based on December 31, 2015 accident year experience, the projected loss ratio for policies incepting during the period from July 1, 2016 through December 31, 2016 is 0.659. (The projected July 1, 2016 policy period loss ratio benchmarked to the industry average filed pure premium rate as of July 1, 2015 is identical to the 0.637 presented at the March 22, 2016 meeting and compares to 0.685 reflected in the January 1, 2016 Pure Premium Rate Filing.)

Exhibits 9 through 12 include supplemental information based on December 31, 2015 experience.

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[1] The analysis presented at the March 22, 2016 meeting on-leveled premiums to the July 1, 2015 industry average filed pure premium rate level.

California Workers' Compensation
Accident Year Experience as of December 31, 2015

Year	Earned Premium	Paid Indemnity	Indemnity Reserves	Paid Medical**	Medical Reserves	IBNR*	Total Incurred**	Loss Ratio*
1985	2,873,069,049	1,276,842,237	5,221,379	980,474,811	27,361,821	19,174,130	2,309,074,378	0.804
1986	3,508,220,885	1,380,350,151	6,725,683	1,125,164,178	43,099,748	59,763,857	2,615,103,617	0.745
1987	4,374,633,116	1,502,568,746	7,438,267	1,320,170,732	54,524,192	36,386,094	2,921,088,031	0.668
1988	5,173,024,985	1,699,036,635	8,914,044	1,522,995,339	55,539,533	49,364,758	3,335,850,309	0.645
1989	5,676,279,371	1,935,212,902	10,602,882	1,776,220,786	74,229,737	51,626,308	3,847,892,615	0.678
1990	5,705,868,231	2,255,622,354	10,203,319	2,024,066,551	71,545,368	68,840,883	4,430,278,475	0.776
1991	5,872,566,346	2,472,504,709	21,136,635	2,174,424,358	85,373,840	76,610,738	4,830,050,280	0.822
1992	5,692,939,950	1,971,655,030	18,580,509	1,731,616,208	85,722,658	75,354,509	3,882,928,914	0.682
1993	5,942,544,967	1,688,625,872	18,545,539	1,479,169,711	111,614,954	65,757,371	3,363,713,447	0.566
1994	5,034,832,088	1,618,932,209	26,433,473	1,433,693,639	129,174,095	68,123,770	3,276,357,186	0.651
1995	3,790,123,513	1,750,953,941	39,303,625	1,566,803,501	155,243,728	82,396,810	3,594,701,605	0.948
1996	3,748,266,525	1,934,730,621	46,528,191	1,664,472,084	160,861,710	86,461,590	3,893,054,196	1.039
1997	3,928,295,572	2,296,304,739	58,757,894	1,961,829,371	191,165,028	145,968,157	4,654,025,189	1.185
1998	4,333,678,943	2,742,480,991	72,933,637	2,555,240,149	304,392,376	235,373,518	5,910,420,671	1.364
1999	4,551,891,247	3,019,129,256	80,728,570	2,922,968,472	305,811,474	325,527,552	6,654,165,324	1.462
2000	5,923,847,825	3,378,239,216	105,008,181	3,448,053,729	369,651,336	462,754,260	7,763,706,722	1.311
2001	10,112,328,817	4,739,761,177	170,229,917	5,136,555,444	611,334,999	718,360,289	11,376,241,826	1.125
2002	13,432,883,148	4,670,822,677	153,419,867	5,261,750,203	553,178,156	1,033,457,514	11,672,628,417	0.869
2003	19,477,785,340	4,410,057,570	228,528,674	4,803,616,603	582,986,169	1,451,229,898	11,476,418,914	0.589
2004	23,104,564,373	3,093,290,225	200,676,246	3,828,485,214	515,944,984	1,460,064,167	9,098,460,836	0.394
2005	21,406,773,529	2,412,946,176	178,467,354	3,411,564,431	486,161,139	1,243,994,804	7,733,133,904	0.361
2006	17,267,560,696	2,477,381,494	207,408,590	3,489,371,004	538,389,398	939,643,837	7,652,194,323	0.443
2007	13,306,236,289	2,563,543,453	247,773,620	3,690,642,590	610,395,259	1,012,931,710	8,125,286,632	0.611
2008	10,840,254,905	2,597,718,724	268,274,785	3,660,019,294	629,987,220	823,853,518	7,979,853,541	0.736
2009	9,017,907,435	2,419,112,091	295,126,540	3,427,094,888	643,234,839	798,805,114	7,583,373,472	0.841
2010	9,529,589,971	2,366,345,948	332,905,429	3,385,814,321	677,356,674	1,011,831,109	7,774,253,481	0.816
2011	10,292,096,107	2,201,305,123	417,318,704	2,884,913,131	831,324,520	1,604,576,571	7,939,438,049	0.771
2012	11,908,578,021	2,037,616,234	515,221,515	2,571,325,042	902,921,912	2,022,579,422	8,049,664,125	0.676
2013	14,331,715,575	1,720,309,374	674,754,469	2,091,037,939	1,086,224,070	3,350,857,922	8,923,183,774	0.623
2014	16,082,002,182	1,129,152,772	861,637,084	1,451,755,887	1,274,310,199	5,065,694,536	9,782,550,478	0.608
2015	17,064,858,996	371,978,429	715,086,190	599,622,444	1,290,023,294	6,877,764,373	9,854,474,730	0.577

* Shown for informational purposes only

** Paid medical for accident years 2011 and subsequent exclude the paid cost of medical cost containment programs (MCCP). Paid medical for accident years 2010 and prior include paid MCCP costs.

Source: WCIRB quarterly experience calls

Incurred Indemnity Loss Development Factors

Accident Year	Age-to-Age (in months)															
	24/12	36/24	48/36	60/48	72/60	84/72	96/84	108/96	120/108	132/120	144/132	156/144	168/156	180/168	192/180	204/192
1990																1.001
1991															1.003	1.000
1992														1.002	1.001	0.999
1993													1.002	1.001	0.998	0.999
1994												1.002	1.002	0.997	1.000	1.000
1995											1.003	1.003	1.000	1.002	1.002	1.000
1996										1.001	1.004	1.000	1.000	1.000	1.001	1.002
1997									1.007	1.005	1.002	1.002	1.003	1.002	1.001	1.001
1998								1.008	1.004	1.004	1.002	1.003	1.004	1.001	1.002	1.001
1999							1.011	1.006	1.007	1.004	1.002	1.003	1.003	1.002	1.002	1.001
2000						1.015	1.011	1.008	1.004	1.004	1.005	1.003	1.001	1.004	1.002	
2001					1.023	1.021	1.014	1.009	1.006	1.007	1.006	1.005	1.003	1.002		
2002				1.033	1.033	1.018	1.011	1.010	1.010	1.007	1.005	1.003	1.002			
2003			1.069	1.056	1.033	1.021	1.018	1.015	1.015	1.009	1.006	1.004				
2004		1.158	1.083	1.042	1.041	1.026	1.028	1.018	1.014	1.007	1.007					
2005	1.503	1.218	1.098	1.068	1.053	1.040	1.028	1.016	1.012	1.006						
2006	1.690	1.247	1.111	1.080	1.053	1.035	1.023	1.015	1.009							
2007	1.784	1.273	1.120	1.070	1.049	1.037	1.022	1.012								
2008	1.858	1.302	1.136	1.074	1.045	1.030	1.019									
2009	1.983	1.293	1.142	1.076	1.048	1.024										
2010	1.994	1.315	1.131	1.069	1.045											
2011	1.997	1.277	1.133	1.062												
2012	1.992	1.279	1.114													
2013	1.931	1.260														
2014	1.961															
Selected (a)	1.961	1.260	1.114	1.062	1.045	1.024	1.019	1.012	1.012	1.007	1.006	1.004	1.002	1.003	1.002	1.001
Cumulative	3.373	1.720	1.365	1.225	1.154	1.104	1.078	1.058	1.046	1.033	1.026	1.020	1.016	1.014	1.011	1.009

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.

Incurred Indemnity Loss Development Factors (Continued)

	Age-to-Age (in months)														
Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	ULT/372Inc (b)
1980										1.001	0.998	1.000	1.000		1.002
1981									1.001	1.001	1.002	0.999	1.001		1.001
1982								1.001	1.000	1.002	1.000	1.001	1.001		1.002
1983							1.001	1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.001
1984						1.001	1.000	1.000	1.001	1.001	1.000	1.001	1.001	1.000	1.001
1985					1.001	1.001	1.000	1.001	1.000	1.001	1.001	1.001	1.001	1.000	1.001
1986				1.000	1.000	1.001	1.001	1.000	1.001	1.002	1.001	1.000	0.999		
1987			1.000	1.000	0.999	1.000	1.000	1.001	1.002	1.000	1.001	1.001			
1988		1.001	1.000	1.001	1.000	1.001	1.002	1.001	1.000	1.000	1.000				
1989	1.003	1.000	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.001					
1990	1.000	1.001	1.000	0.999	1.001	1.000	1.000	1.000	1.000						
1991	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000							
1992	0.998	1.001	1.001	1.000	1.001	1.001	1.000								
1993	0.999	1.001	1.001	1.001	1.001	1.000									
1994	1.001	1.001	1.002	1.000	1.001										
1995	1.003	1.001	0.998	1.001											
1996	1.003	1.000	1.000												
1997	1.000	1.000													
1998	1.003														
Selected (a)	1.002	1.000	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.001	1.000	1.000	
Cumulative	1.008	1.006	1.006	1.006	1.005	1.004	1.004	1.004	1.004	1.004	1.003	1.003	1.002	1.002	1.001 (c)

(b) To adjust for non-repeating asbestosis claim patterns in older accident years, these factors are reflected at 20% of the reported ULT/372Inc factors. The original factors were 1.012, 1.005, 1.009, 1.004, 1.004, and 1.003, respectively.

(c) Six-year average of the ULT/372Inc factors is selected.

Incurred Medical Loss Development Factors

Age-to-Age (in months) (b)

Accident 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	168/156	180/168	192/180	204/192
1990																1.004
1991															1.011	1.004
1992														1.002	1.010	1.011
1993													1.009	1.013	1.018	1.007
1994												1.018	1.008	1.009	1.021	1.011
1995											1.011	1.023	1.028	1.016	1.005	1.009
1996										1.019	1.014	1.024	1.018	1.013	1.014	1.005
1997									1.015	1.023	1.030	1.012	1.015	1.012	1.003	1.007
1998								1.024	1.038	1.023	1.020	1.017	1.004	1.014	1.008	1.012
1999							1.026	1.038	1.030	1.019	1.018	1.013	1.011	1.013	1.005	0.999
2000						1.029	1.044	1.028	1.017	1.024	1.018	1.018	1.012	1.006	0.999	
2001					1.041	1.045	1.040	1.034	1.035	1.022	1.017	1.015	1.013	1.001		
2002				1.039	1.056	1.040	1.036	1.029	1.028	1.022	1.014	1.010	0.999			
2003			1.057	1.059	1.060	1.042	1.042	1.037	1.029	1.018	1.011	1.003				
2004		1.135	1.113	1.081	1.060	1.061	1.043	1.032	1.026	1.012	1.006					
2005	1.389	1.172	1.087	1.074	1.084	1.055	1.045	1.032	1.020	1.006						
2006	1.460	1.196	1.103	1.081	1.066	1.048	1.040	1.022	1.012							
2007	1.518	1.204	1.124	1.081	1.070	1.050	1.032	1.018								
2008	1.527	1.212	1.129	1.092	1.061	1.041	1.026									
2009	1.604	1.227	1.140	1.087	1.061	1.030										
2010	1.620	1.245	1.134	1.077	1.045											
2011	1.667	1.222	1.125	1.070												
2012	1.626	1.197	1.099													
2013	1.591	1.164														
2014	1.561															
Selected (a)	1.561	1.164	1.099	1.070	1.045	1.030	1.026	1.018	1.019	1.012	1.010	1.009	1.008	1.007	1.004	1.006
Cumulative	2.762	1.769	1.520	1.383	1.293	1.237	1.201	1.170	1.150	1.128	1.115	1.103	1.093	1.084	1.077	1.073

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.
(b) Incurred medical loss development factors include the paid cost of medical cost containment programs.

Exhibit 2.2.1

Incurred Medical Loss Development Factors (Continued)

Age-to-Age (in months)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	ULT/372Inc (d)
1980										1.005	1.005	1.013	1.006		1.066
1981									1.002	1.001	1.003	1.002	1.001		1.040
1982								1.000	1.014	1.006	1.004	1.003	1.009		1.065
1983							1.005	1.001	1.006	1.004	1.002	1.006	1.003	1.004	1.016
1984						1.004	1.002	1.003	1.003	1.002	1.003	1.001	1.003	1.001	1.032
1985					1.004	1.000	1.001	1.003	1.003	1.003	1.005	1.002	1.003	0.998	1.007
1986				1.001	1.005	1.003	1.006	1.005	1.006	1.004	1.005	1.000	1.002		
1987			1.006	1.000	1.003	1.011	0.999	1.007	1.003	1.004	1.005	1.001			
1988		1.004	1.002	1.006	1.005	1.005	1.002	1.005	1.003	1.003	1.002				
1989	0.999	1.007	1.006	1.005	1.005	1.008	1.006	1.000	1.003	0.999					
1990	1.003	1.007	1.007	1.005	1.003	1.003	1.003	0.997	1.002						
1991	1.008	1.005	1.006	1.002	1.003	1.002	1.003	1.001							
1992	1.005	1.004	1.002	1.005	1.003	1.005	1.000								
1993	1.007	1.011	1.014	1.004	0.999	1.000									
1994	1.011	1.004	1.007	1.006	1.001										
1995	1.015	0.996	1.006	0.999											
1996	1.008	1.005	1.001												
1997	1.001	0.994													
1998	1.001														
Selected (a)	1.003	0.998	1.005	1.003	1.001	1.002	1.002	0.999	1.003	1.002	1.004	1.001	1.003	1.001	
Cumulative	1.066	1.063	1.065	1.060	1.056	1.055	1.053	1.051	1.052	1.049	1.047	1.043	1.041	1.039	1.038 (c)

(c)   Six-year average of the ULT/372Inc factors is selected.
(d)   ULT/372Inc factors have been adjusted for the effects of medical inflation.

Paid Indemnity Loss Development Factors

Accident 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	168/156	180/168	192/180	204/192
																Age-to-Age (in months)
1990																1.002
1991															1.004	1.003
1992														1.004	1.003	1.003
1993													1.004	1.004	1.004	1.003
1994												1.008	1.007	1.006	1.003	1.003
1995											1.012	1.008	1.007	1.005	1.005	1.003
1996										1.014	1.012	1.009	1.006	1.006	1.004	1.004
1997									1.018	1.016	1.012	1.008	1.007	1.006	1.006	1.005
1998								1.027	1.021	1.015	1.012	1.009	1.009	1.007	1.006	1.006
1999							1.036	1.025	1.018	1.015	1.011	1.009	1.008	1.007	1.006	1.004
2000						1.052	1.035	1.025	1.016	1.013	1.010	1.009	1.008	1.007	1.005	
2001					1.077	1.051	1.034	1.024	1.017	1.014	1.012	1.011	1.008	1.007		
2002				1.127	1.075	1.046	1.031	1.020	1.018	1.015	1.014	1.008	1.008			
2003			1.249	1.128	1.072	1.043	1.030	1.026	1.023	1.021	1.015	1.012				
2004		1.522	1.236	1.116	1.073	1.049	1.041	1.035	1.030	1.020	1.015					
2005	2.734	1.512	1.235	1.121	1.079	1.060	1.047	1.042	1.028	1.020						
2006	2.866	1.539	1.229	1.135	1.090	1.068	1.050	1.035	1.026							
2007	2.905	1.547	1.246	1.140	1.092	1.066	1.046	1.033								
2008	2.927	1.577	1.271	1.150	1.092	1.060	1.041									
2009	3.069	1.616	1.280	1.156	1.092	1.061										
2010	3.157	1.628	1.281	1.147	1.091											
2011	3.208	1.613	1.266	1.145												
2012	3.137	1.597	1.264													
2013	3.169	1.608														
2014	3.233															
Selected (a)	3.233	1.608	1.264	1.145	1.091	1.061	1.041	1.033	1.028	1.020	1.015	1.010	1.008	1.007	1.006	1.005
Cumulative Unadjusted for Impact of SB 863	10.667	3.299	2.052	1.623	1.418	1.300	1.225	1.177	1.139	1.108	1.086	1.070	1.059	1.051	1.044	1.038
Cumulative Adjusted for Impact of SB 863 (b)	11.478	3.550	2.087	1.615	1.411	---	---	---	---	---	---	---	---	---	---	---

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.

(b) The 24-to-ultimate factor for accident year 2014, the 36-to-ultimate factor for accident year 2013, the 48-to-ultimate factor for accident year 2012, and the 60-to-ultimate factor for accident year 2011 have been adjusted by 7.6%, 1.7%, -0.5%, and -0.5% respectively, for the impacts of SB 863 on indemnity loss development. (See Impact of Senate Bill No. 863 on Loss Development Patterns, WCIRB, August 13, 2013.)

Paid Indemnity Loss Development Factors (Continued)

Accident Year							Age-to-Age (in months)									
	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	372Inc/372Pd	ULT/372Inc (c)
1980									1.001	1.000	1.001	1.002			1.007	1.002
1981									1.002	1.002	1.003	1.000	1.001		1.007	1.001
1982								1.002	1.002	1.003	1.000	1.001	1.002		1.006	1.002
1983							1.001	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.006	1.001
1984						1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.004	1.001
1985					1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.004	1.001
1986				1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001			
1987			1.001	1.001	1.001	1.001	1.001	1.001	1.002	1.001	1.001	1.001				
1988		1.001	1.002	1.001	1.001	1.001	1.002	1.001	1.001	1.001	1.001					
1989	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001						
1990	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001							
1991	1.002	1.002	1.001	1.001	1.002	1.001	1.001	1.001								
1992	1.002	1.002	1.002	1.002	1.002	1.001	1.001									
1993	1.002	1.003	1.003	1.002	1.002	1.001										
1994	1.004	1.003	1.003	1.003	1.002											
1995	1.005	1.005	1.003	1.003												
1996	1.005	1.004	1.003													
1997	1.004	1.003														
1998	1.006															
Selected (a)	1.005	1.004	1.003	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.005	
Cumulative	1.032	1.027	1.023	1.020	1.017	1.015	1.014	1.013	1.012	1.011	1.010	1.009	1.008	1.007		1.001(d)

(c) To adjust for non-repeating asbestosis claim patterns in older accident years, these factors are reflected at 20% of the reported ULT/372Inc factors. The original factors were 1.012, 1.005, 1.009, 1.004, 1.004, and 1.003, respectively.

(d) A six-year average of the ULT/372Inc and a three-year average of the 372Inc/372Pd factors are selected.

Paid Medical Loss Development Factors

Unadjusted (a) — Age-to-Age (in months)

Accident 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	168/156	180/168	192/180	204/192
1990																1.005
1991															1.009	1.007
1992														1.010	1.010	1.017
1993													1.012	1.014	1.013	1.011
1994												1.018	1.014	1.017	1.013	1.012
1995											1.024	1.021	1.019	1.018	1.018	1.015
1996										1.025	1.027	1.023	1.020	1.018	1.016	1.013
1997									1.033	1.028	1.026	1.022	1.019	1.016	1.014	1.014
1998								1.039	1.033	1.032	1.030	1.021	1.019	1.019	1.015	1.017
1999							1.044	1.035	1.032	1.032	1.025	1.025	1.016	1.016	1.018	1.015
2000						1.056	1.042	1.038	1.031	1.027	1.023	1.020	1.020	1.017	1.013	
2001					1.076	1.057	1.045	1.038	1.034	1.030	1.022	1.022	1.022	1.017		
2002				1.112	1.072	1.054	1.046	1.034	1.032	1.024	1.023	1.018	1.016			
2003			1.170	1.112	1.074	1.057	1.048	1.041	1.030	1.030	1.026	1.019				
2004		1.345	1.189	1.123	1.092	1.070	1.055	1.040	1.036	1.034	1.024					
2005	2.251	1.345	1.209	1.138	1.095	1.073	1.054	1.049	1.038	1.031						
2006	2.340	1.399	1.220	1.140	1.099	1.068	1.056	1.042	1.034							
2007	2.416	1.413	1.230	1.142	1.097	1.075	1.057	1.041								
2008	2.325	1.421	1.241	1.148	1.103	1.072	1.051									
2009	2.408	1.447	1.251	1.160	1.104	1.067										
2010	2.479	1.468	1.265	1.152	1.096											
2011	2.580	1.470	1.248	1.146												
2012	2.552	1.455	1.243													
2013	2.484	1.457														
2014	2.525															

Adjusted (b) — Age-to-Age (in months)

Accident 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	168/156	180/168	192/180	204/192
1997																1.015
1998															1.015	1.018
1999														1.017	1.019	1.016
2000													1.021	1.018	1.013	
2001												1.023	1.024	1.018		
2002											1.024	1.019	1.017			
2003										1.031	1.027	1.020				
2004									1.038	1.036	1.025					
2005								1.051	1.041	1.033						
2006							1.058	1.045	1.036							
2007						1.079	1.060	1.044								
2008					1.108	1.077	1.054									
2009				1.168	1.110	1.070										
2010			1.277	1.160	1.100											
2011		1.492	1.260	1.151												
2012	2.624	1.471	1.247													
2013	2.511	1.458														
2014	2.516															
Selected (c)	2.516	1.458	1.247	1.151	1.100	1.070	1.054	1.044	1.038	1.033	1.025	1.021	1.021	1.018	1.016	1.016
Cumulative	9.801	3.895	2.672	2.143	1.861	1.692	1.582	1.500	1.437	1.384	1.340	1.306	1.280	1.254	1.232	1.213

(a) Paid medical loss development factors include the paid cost of medical cost containment programs.

(b) These factors are adjusted for the following impacts: (i) reduction of historical outstanding medical losses paid prior to January 1, 2013 by the estimated 4.4% cost savings due to applicable SB 863 provisions; (ii) adjustment to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 1.8% decrease in costs, and losses paid prior to January 1, 2015 by an estimated 0.6% increase in costs due to RBRVS.

(c) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors.

Exhibit 2.4.1

Paid Medical Loss Development Factors (Continued)

Unadjusted (a) — Age-to-Age (in months)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	372Inc/372Pd	ULT/372Inc (e)
1980										1.006	1.006	1.008	1.008		1.032	1.066
1981									1.006	1.005	1.006	1.005	1.004		1.061	1.040
1982								1.008	1.006	1.007	1.009	1.006	1.006		1.038	1.065
1983							1.005	1.005	1.003	1.005	1.004	1.004	1.003	1.004	1.039	1.016
1984						1.004	1.004	1.003	1.004	1.003	1.004	1.004	1.003	1.003	1.027	1.032
1985					1.005	1.006	1.004	1.004	1.003	1.004	1.004	1.004	1.003	1.002	1.027	1.007
1986				1.004	1.005	1.004	1.005	1.005	1.005	1.005	1.005	1.005	1.004			
1987			1.006	1.007	1.006	1.005	1.005	1.005	1.005	1.005	1.005	1.003				
1988		1.006	1.007	1.006	1.005	1.005	1.006	1.005	1.005	1.004	1.003					
1989	1.005	1.006	1.007	1.005	1.006	1.008	1.006	1.007	1.006	1.003						
1990	1.006	1.005	1.005	1.005	1.005	1.006	1.004	1.004	1.003							
1991	1.007	1.006	1.006	1.005	1.006	1.005	1.006	1.003								
1992	1.008	1.007	1.002	1.006	1.008	1.006	1.005									
1993	1.011	1.011	1.010	1.013	1.011	1.007										
1994	1.013	1.009	1.010	1.010	1.009											
1995	1.011	1.016	1.013	1.012												
1996	1.014	1.013	1.011													
1997	1.014	1.011														
1998	1.013															

Adjusted (b) — Age-to-Age (in months)

Accident Year	216/204	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	372Inc/372Pd	ULT/372Inc (e)
1980															1.032	1.066
1981															1.061	1.040
1982															1.038	1.065
1983														1.004	1.039	1.016
1984													1.003	1.003	1.027	1.032
1985												1.004	1.003	1.002	1.027	1.007
1986											1.005	1.006	1.005			
1987										1.005	1.005	1.004				
1988									1.005	1.005	1.003					
1989								1.007	1.006	1.003						
1990							1.004	1.004	1.003							
1991						1.006	1.007	1.004								
1992					1.008	1.007	1.005									
1993				1.013	1.011	1.008										
1994			1.011	1.011	1.009											
1995		1.016	1.013	1.013												
1996	1.015	1.014	1.012													
1997	1.014	1.012														
1998	1.014															
Selected (c)	1.014	1.014	1.012	1.012	1.009	1.007	1.005	1.005	1.005	1.004	1.004	1.005	1.004	1.003	1.037	
Cumulative	1.194	1.177	1.161	1.147	1.133	1.122	1.115	1.109	1.103	1.098	1.093	1.089	1.084	1.080		1.038 (d)

(d) Six-year averages of the ULT/372Inc and 372Inc/372Pd factors are selected.
(e) ULT/372Inc factors have been adjusted for the effects of medical inflation.

Selected Indemnity Development Factors - Paid to Age 216, Incurred from Age 216 to Ultimate

Age-to-Age (in months)

Accident 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	168/156	180/168	192/180	204/192	216/204	216Inc/216Pd (c)
1990																1.002	1.002	1.011
1991															1.004	1.003	1.002	1.016
1992														1.004	1.003	1.003	1.002	1.016
1993													1.004	1.004	1.004	1.003	1.002	1.018
1994												1.008	1.007	1.006	1.003	1.003	1.004	1.023
1995											1.012	1.008	1.007	1.005	1.005	1.003	1.005	1.034
1996										1.014	1.012	1.009	1.006	1.006	1.004	1.004	1.005	1.032
1997									1.018	1.016	1.012	1.008	1.007	1.006	1.006	1.005	1.004	1.029
1998								1.027	1.021	1.015	1.012	1.009	1.009	1.007	1.006	1.006	1.006	1.027
1999							1.036	1.025	1.018	1.015	1.011	1.009	1.008	1.007	1.006	1.004		
2000						1.052	1.035	1.025	1.016	1.013	1.010	1.009	1.008	1.007	1.005			
2001					1.077	1.051	1.034	1.024	1.017	1.014	1.012	1.011	1.008	1.007				
2002				1.127	1.075	1.046	1.031	1.020	1.018	1.015	1.014	1.008	1.008					
2003			1.249	1.128	1.072	1.043	1.030	1.026	1.023	1.021	1.015	1.012						
2004		1.522	1.236	1.116	1.073	1.049	1.041	1.035	1.030	1.020	1.015							
2005	2.734	1.512	1.235	1.121	1.079	1.060	1.047	1.042	1.028	1.020								
2006	2.866	1.539	1.229	1.135	1.090	1.068	1.050	1.035	1.026									
2007	2.905	1.547	1.246	1.140	1.092	1.066	1.046	1.033										
2008	2.927	1.577	1.271	1.150	1.092	1.060	1.041											
2009	3.069	1.616	1.280	1.156	1.092	1.061												
2010	3.157	1.628	1.281	1.147	1.091													
2011	3.208	1.613	1.266	1.145														
2012	3.137	1.597	1.264															
2013	3.169	1.608																
2014	3.233																	
Selected (a)	3.233	1.608	1.264	1.145	1.091	1.061	1.041	1.033	1.028	1.020	1.015	1.010	1.008	1.007	1.006	1.005	1.005	1.029
Cumulative Unadjusted for Impact of SB 863	10.752	3.326	2.068	1.636	1.429	1.310	1.235	1.186	1.148	1.117	1.095	1.079	1.068	1.059	1.052	1.046	1.041	
Cumulative Adjusted for Impact of SB 863 (b)	11.569	3.578	2.103	1.628	1.422	---	---	---	---	---	---	---	---	---	---	---	---	

(a) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors. Paid development factors are selected to age 216, where an incurred-to-paid ratio is chosen, and subsequently, incurred loss development factors are selected until ultimate.

(b) The 24-to-ultimate factor for accident year 2014, the 36-to-ultimate factor for accident year 2013, the 48-to-ultimate factor for accident year 2012, and the 60-to-ultimate factor for accident year 2011 have been adjusted by 7.6%, 1.7%, -0.5%, and -0.5% respectively, for the impacts of SB 863 on indemnity loss development. (See Impact of Senate Bill No. 863 on Loss Development Patterns, WCIRB, August 13, 2013.)

(c) A three-year average of the 216Inc/216Pd factor is selected.

Selected Indemnity Development Factors - Paid to Age 216, Incurred from Age 216 to Ultimate (Continued)

Accident Year	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	ULT/372Inc (d)
1980									1.001	0.998	1.000	1.000		1.002
1981								1.001	1.001	1.002	0.999	1.001		1.001
1982							1.001	1.000	1.002	1.000	1.001	1.001		1.002
1983						1.001	1.001	1.000	1.000	1.001	1.001	1.001	1.001	1.001
1984					1.001	1.000	1.000	1.001	1.001	1.000	1.001	1.001	1.000	1.001
1985				1.001	1.001	1.000	1.001	1.000	1.001	1.001	1.001	1.001	1.000	1.001
1986			1.000	1.000	1.001	1.001	1.000	1.001	1.002	1.001	1.000	0.999		
1987		1.000	1.000	0.999	1.000	1.000	1.001	1.002	1.000	1.001	1.001			
1988	1.001	1.000	1.001	1.000	1.001	1.002	1.001	1.000	1.000	1.000				
1989	1.000	1.000	1.001	1.000	1.001	1.000	1.000	1.000	1.001					
1990	1.001	1.000	0.999	1.001	1.000	1.000	1.000	1.000						
1991	1.001	1.001	1.000	1.000	1.000	1.000	1.000							
1992	1.001	1.001	1.000	1.001	1.001	1.000								
1993	1.001	1.001	1.001	1.001	1.000									
1994	1.001	1.002	1.000	1.001										
1995	1.001	0.998	1.001											
1996	1.000	1.000												
1997	1.000													
Selected (a)	1.000	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.001	1.001	1.000	1.000	
Cumulative	1.006	1.006	1.006	1.005	1.004	1.004	1.004	1.004	1.004	1.003	1.003	1.002	1.002	1.001 (e)

(d) To adjust for non-repeating asbestosis claim patterns in older accident years, these factors are reflected at 20% of the reported ULT/372Inc factors. The original factors were 1.012, 1.005, 1.009, 1.004, 1.004, and 1.003, respectively.

(e) A six-year average of the ULT/372Inc factors is selected.

Selected Medical Development Factors - Paid to Age 216, Incurred from Age 216 to Ultimate

Unadjusted (a)

Accident 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	168/156	180/168	192/180	204/192	216/204	216Inc/216Pd (d)
1990																1.005	1.006	1.047
1991															1.009	1.007	1.007	1.057
1992														1.010	1.010	1.017	1.008	1.066
1993													1.012	1.014	1.013	1.011	1.011	1.101
1994												1.018	1.014	1.017	1.013	1.012	1.013	1.118
1995											1.024	1.021	1.019	1.018	1.018	1.015	1.011	1.144
1996										1.025	1.027	1.023	1.020	1.018	1.016	1.013	1.014	1.117
1997									1.033	1.028	1.026	1.022	1.019	1.016	1.014	1.014	1.014	1.117
1998								1.039	1.033	1.032	1.030	1.021	1.019	1.019	1.015	1.017	1.013	1.118
1999							1.044	1.035	1.032	1.032	1.025	1.025	1.016	1.016	1.018	1.015		
2000						1.056	1.042	1.038	1.031	1.027	1.023	1.020	1.020	1.017	1.013			
2001					1.076	1.057	1.045	1.038	1.034	1.030	1.022	1.022	1.022	1.017				
2002				1.112	1.072	1.054	1.046	1.034	1.032	1.024	1.023	1.018	1.016					
2003			1.170	1.112	1.074	1.057	1.048	1.041	1.030	1.030	1.026	1.019						
2004		1.345	1.189	1.123	1.092	1.070	1.055	1.040	1.036	1.034	1.024							
2005	2.251	1.345	1.209	1.138	1.095	1.073	1.054	1.049	1.038	1.031								
2006	2.340	1.399	1.220	1.140	1.099	1.068	1.056	1.042	1.034									
2007	2.416	1.413	1.230	1.142	1.097	1.075	1.057	1.041										
2008	2.325	1.421	1.241	1.148	1.103	1.072	1.051											
2009	2.408	1.447	1.251	1.160	1.104	1.067												
2010	2.479	1.468	1.265	1.152	1.096													
2011	2.580	1.470	1.248	1.146														
2012	2.552	1.455	1.243															
2013	2.484	1.457																
2014	2.525																	

Adjusted (b)

Accident 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	168/156	180/168	192/180	204/192	216/204	216Inc/216Pd (d)
1996																	1.015	1.117
1997																1.015	1.014	1.117
1998															1.015	1.018	1.014	1.118
1999														1.017	1.019	1.016		
2000													1.021	1.018	1.013			
2001												1.023	1.024	1.018				
2002											1.024	1.019	1.017					
2003										1.031	1.027	1.020						
2004									1.038	1.036	1.025							
2005								1.051	1.041	1.033								
2006							1.058	1.045	1.036									
2007						1.079	1.060	1.044										
2008					1.108	1.077	1.054											
2009				1.168	1.110	1.070												
2010			1.277	1.160	1.100													
2011		1.492	1.260	1.151														
2012	2.624	1.471	1.247															
2013	2.511	1.458																
2014	2.516																	
Selected (c)	2.516	1.458	1.247	1.151	1.100	1.070	1.054	1.044	1.038	1.033	1.025	1.021	1.021	1.018	1.016	1.016	1.014	1.117
Cumulative	9.889	3.930	2.696	2.162	1.878	1.707	1.596	1.514	1.450	1.397	1.352	1.318	1.292	1.265	1.243	1.224	1.205	

(a) Paid medical loss development factors include the paid cost of medical cost containment programs.

(b) These factors are adjusted for the following impacts: (i) reduction of historical outstanding medical losses paid prior to January 1, 2013 by the estimated 4.4% cost savings due to applicable SB 863 provisions; (ii) adjustment to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 1.8% decrease in costs, and losses paid prior to January 1, 2015 by an estimated 0.6% increase in costs due to RBRVS.

(c) Selections are latest year for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors. Paid development factors are selected to age 216, where an incurred-to-paid ratio is chosen, and subsequently, incurred loss development factors are selected until ultimate.

(d) A three-year average of the 216Inc/216Pd factor is selected.

Exhibit 2.6.1

Accident Year	228/216	240/228	252/240	264/252	276/264	288/276	300/288	312/300	324/312	336/324	348/336	360/348	372/360	ULT/372Inc (f)
1980														1.066
1981														1.040
1982														1.065
1983													1.004	1.016
1984												1.003	1.001	1.032
1985											1.002	1.003	0.998	1.007
1986										1.005	1.000	1.002		
1987									1.004	1.005	1.001			
1988								1.003	1.003	1.002				
1989							1.000	1.003	0.999					
1990						1.003	0.997	1.002						
1991					1.002	1.003	1.001							
1992				1.003	1.005	1.000								
1993			1.004	0.999	1.000									
1994		1.007	1.006	1.001										
1995	0.996	1.006	0.999											
1996	1.005	1.001												
1997	0.994													
Selected (c)	0.998	1.005	1.003	1.001	1.002	1.002	0.999	1.003	1.002	1.004	1.001	1.003	1.001	
Cumulative	1.063	1.065	1.060	1.056	1.055	1.053	1.051	1.052	1.049	1.047	1.043	1.041	1.039	1.038 (e)

(e) Six-year average of the ULT/372Inc factors is selected.
(f) ULT/372Inc factors have been adjusted for the effects of medical inflation.

Developed Indemnity Loss Ratios Using Selected Loss Development Factors
Based on Experience as of December 31, 2015

		Development Factors			
			Cumulative		
	(1)	(2)	(3)	(4)	
Accident Year	Paid or Incurred Loss Ratio (a)	Annual (b)	Unadjusted for Impact of SB 863 (b)	Adjusted for Impact of SB 863 (b)	Projected Ultimate Loss Ratio (5) = (1) x (4)
1985	0.446	1.000	1.001	1.001	0.447
1986	0.395	1.000	1.002	1.002	0.396
1987	0.345	1.000	1.002	1.002	0.346
1988	0.330	1.001	1.003	1.003	0.331
1989	0.343	1.001	1.003	1.003	0.344
1990	0.397	1.000	1.004	1.004	0.399
1991	0.425	1.000	1.004	1.004	0.426
1992	0.350	1.000	1.004	1.004	0.351
1993	0.287	1.000	1.004	1.004	0.288
1994	0.327	1.000	1.004	1.004	0.328
1995	0.472	1.001	1.005	1.005	0.475
1996	0.529	1.001	1.006	1.006	0.532
1997	0.600	1.000	1.006	1.006	0.603
1998	0.650	1.000	1.006	1.006	0.654
1999	0.663	1.005	1.041	1.041	0.690
2000	0.570	1.005	1.046	1.046	0.596
2001	0.469	1.006	1.052	1.052	0.493
2002	0.348	1.007	1.059	1.059	0.368
2003	0.226	1.008	1.068	1.068	0.242
2004	0.134	1.010	1.079	1.079	0.144
2005	0.113	1.015	1.095	1.095	0.123
2006	0.143	1.020	1.117	1.117	0.160
2007	0.193	1.028	1.148	1.148	0.221
2008	0.240	1.033	1.186	1.186	0.284
2009	0.268	1.041	1.235	1.235	0.331
2010	0.248	1.061	1.310	1.310	0.325
2011	0.214	1.091	1.429	1.422	0.304
2012	0.171	1.145	1.636	1.628	0.279
2013	0.120	1.264	2.068	2.103	0.252
2014	0.070	1.608	3.326	3.578	0.251
2015	0.022	3.233	10.752	11.569	0.252

(a)   Based on Exhibit 1. To reflect the selected loss development
        methodology, reported loss ratios displayed prior to 1999 are on an
        incurred basis. Subsequent reported loss ratios are on a paid basis.

(b)   See Exhibit 2.5.

Developed Medical Loss Ratios Using Selected Loss Development Factors
With Adjustment for SB 863
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)
					Adjusted for SB 863	
	Unadjusted	Adjusted			Adjusted	Projected
Accident	Paid or Incurred	Paid or Incurred	Development Factors		Developed	Ultimate
Year	Loss Ratio (a)	Loss Ratio (b)	Annual (c)	Cumulative	Loss Ratio (d)	Loss Ratio
					(2) x (4)	(1) + ((5) - (2))
1985	0.351	0.351	1.000	1.038	0.364	0.364
1986	0.333	0.333	1.001	1.039	0.346	0.346
1987	0.314	0.314	1.003	1.041	0.327	0.327
1988	0.305	0.305	1.001	1.043	0.318	0.318
1989	0.326	0.326	1.004	1.047	0.341	0.341
1990	0.367	0.367	1.002	1.049	0.385	0.385
1991	0.385	0.385	1.003	1.052	0.405	0.405
1992	0.319	0.319	0.999	1.051	0.335	0.335
1993	0.268	0.268	1.002	1.053	0.282	0.282
1994	0.310	0.310	1.002	1.055	0.328	0.328
1995	0.454	0.454	1.001	1.056	0.480	0.480
1996	0.487	0.487	1.003	1.060	0.516	0.516
1997	0.548	0.548	1.005	1.065	0.583	0.583
1998	0.660	0.660	0.998	1.063	0.701	0.701
1999	0.642	0.608	1.014	1.205	0.733	0.767
2000	0.582	0.551	1.016	1.224	0.675	0.706
2001	0.508	0.481	1.016	1.243	0.599	0.625
2002	0.392	0.371	1.018	1.265	0.470	0.490
2003	0.247	0.234	1.021	1.292	0.302	0.315
2004	0.166	0.157	1.021	1.318	0.207	0.216
2005	0.159	0.151	1.025	1.352	0.205	0.213
2006	0.202	0.192	1.033	1.397	0.268	0.278
2007	0.277	0.264	1.038	1.450	0.383	0.396
2008	0.338	0.322	1.044	1.514	0.488	0.503
2009	0.380	0.364	1.054	1.596	0.581	0.597
2010	0.355	0.343	1.070	1.707	0.585	0.598
2011	0.280	0.273	1.100	1.878	0.512	0.520
2012	0.216	0.213	1.151	2.162	0.460	0.463
2013	0.146	0.146	1.247	2.696	0.393	0.393
2014	0.090	0.090	1.458	3.930	0.356	0.355
2015	0.035	0.035	2.516	9.889	0.347	0.347

(a) Based on Exhibit 1. Paid MCCP costs are excluded from accident years 2011 and subsequent. To reflect the selected loss development methodology, reported loss ratios displayed prior to 1999 are on an incurred basis. Subsequent reported loss ratios are on a paid basis.

(b) Based on experience evaluated as of December 31, 2015. Reflects an adjustment for SB 863 of -4.4% applied to payments made before January 1, 2013, and adjustments for RBRVS of -1.8% applied to payments made before January 1, 2014, and 0.6% applied to payments made before January 1, 2015. No adjustments are applied to the incurred loss ratios.

(c) Based on Exhibit 2.6. Reflects an adjustment for SB 863 of -4.4% applied to payments made before January 1, 2013, and adjustments for RBRVS of -1.8% applied to payments made before January 1, 2014, and 0.6% applied to payments made before January 1, 2015.

(d) The developed medical loss ratios shown were derived based on an adjustment to reflect an adjustment for SB 863 and RBRVS. They are only for purposes of projecting future medical loss ratios and do not reflect true estimates of ultimate loss ratios for those accident years.

Indemnity Benefit Level Factors

Accident Year	(1) Annual Benefit Change Prior to Frequency Adjustments (a)	(2) Frequency Adjustments (a)	(3) Annual Impact on Indemnity Benefits Due to Wage Inflation (b)	(4) Annual Cost Impact on Indemnity (c)	(5) Composite Indemnity Adjustment Factor (d)	
1985	0.0	0.0	2.0	2.0	1.411	
1986	0.0	0.0	1.6	1.6	1.389	
1987	0.0	0.0	1.9	1.9	1.363	
1988	0.0	0.0	1.5	1.5	1.343	
1989	0.0	0.0	1.5	1.5	1.323	
1990	2.3	19.9	1.7	24.7	1.060	
1991	4.9	14.8	0.8	21.4	0.874	
1992	1.8	-8.3	1.6	-5.2	0.921	
1993	0.2	-18.1	0.4	-17.6	1.118	
1994	-5.1	0.2	0.6	-4.3	1.169	
1995	6.3	0.6	1.0	8.0	1.082	
1996	5.3	0.4	1.2	7.0	1.011	
1997	9.7	0.2	1.6	11.7	0.906	
1998	6.5	0.0	1.8	8.4	0.835	
1999	5.7	0.0	2.1	7.9	0.774	
2000	3.9	0.0	3.1	7.1	0.723	
2001	-0.3	0.0	0.2	-0.1	0.723	
2002	-0.7	0.0	0.2	-0.5	0.743	(e)
2003	7.3	0.0	1.1	8.5	0.742	(e)
2004	-6.0	-13.7	1.7	-17.5	1.021	(e)
2005	-31.6	-15.3	1.1	-41.5	1.387	
2006	5.6	-5.7	1.6	1.2	1.370	
2007	1.6	0.0	1.6	3.2	1.328	
2008	4.8	0.6	0.7	6.2	1.250	
2009	0.4	1.4	0.2	2.0	1.226	
2010	0.4	0.0	1.0	1.4	1.209	
2011	0.0	0.0	1.6	1.6	1.196	(f)
2012	0.3	0.0	2.1	2.4	1.168	(f)
2013	-0.6	-0.3	0.2	-0.7	1.170	
2014	7.0	1.5	1.6	10.3	1.061	
2015	0.3	0.0	1.6	1.9	1.041	
2016	0.3	0.0	1.9	2.2		
4/1/2017	0.2 (Annual 0.2)	0.0	1.7 (Annual 2.3)	1.9		

(a) Based on WCIRB evaluations of the average impact of legislative changes on the cost of indemnity benefits. These annual changes in benefits reflect the WCIRB's retrospective estimates of the cost impact of recent legislation, including SB 863 as reflected in emerging post-reform costs. The annual cost impacts have been segregated between claim severity and claim frequency impacts.

(b) These impacts are based on the weekly wages of injured workers and the legislatively scheduled benefits for that year.

(c) { [Column (1) /100 + 1.0] x [Column (2) /100 + 1.0] x [Column (3) /100 + 1.0] - 1.0 } x 100.

(d) These factors represent the combined impact of the annual benefit changes on claim severity shown in Column (1), claim frequencies shown in Column (2) and wage inflation impact on benefits shown in Column (3), adjusted to the 4/1/2017 level.

(e) On-level factors for accident years 2002, 2003 and 2004 adjust the portion of permanent disability claims that are estimated to not be subject to the January 1, 2005 PDRS (95% for accident year 2002, 75% for accident year 2003 and 40% for accident year 2004) to the January 1, 2005 PDRS level, and adjust for the corresponding utilization impacts on all 2002, 2003 and 2004 indemnity claims.

(f) On-level factors for accident years 2011 and 2012 adjust the portion of indemnity losses not impacted by the adjustments to outstanding indemnity claims for the impact of SB 863 (see Exhibit 2.5).

Annual Medical Cost Level Change - Non-Legislative

Accident Year	(1) Proportion of Medical Subject to Fee Schedule (a)	(2) Proportion of Medical Not Subject to Fee Schedule (a)	(3) Impact of Fee Schedule Change on Total Medical (b)	(4) Change in Medical CPI (c)	(5) Impact of CPI Change on Total Medical (d)	(6) Annual Non-Legislative Cost Impact on Total Medical (e)
1985	0.665	0.335	2.3%	6.5%	2.2%	4.5%
1986	0.604	0.396	0.0%	9.1%	3.0%	3.0%
1987	0.610	0.390	0.9%	7.4%	2.9%	3.8%
1988	0.649	0.351	0.8%	7.7%	3.0%	3.8%
1989	0.647	0.353	0.0%	8.6%	3.0%	3.0%
1990	0.661	0.339	0.0%	10.4%	3.7%	3.7%
1991	0.631	0.369	0.0%	10.6%	3.6%	3.6%
1992	0.628	0.372	0.0%	8.1%	3.0%	3.0%
1993	0.565	0.435	0.0%	7.3%	2.7%	2.7%
1994	0.691	0.309	-3.6%	4.3%	1.3% (i)	-2.3%
1995	0.681	0.319	0.0%	3.0%	0.9%	0.9%
1996	0.663	0.337	0.0%	3.0%	1.0%	1.0%
1997	0.643	0.357	0.0%	2.2%	0.7%	0.7%
1998	0.658	0.342	0.0%	2.2%	0.8%	0.8%
1999	0.728	0.272	1.6%	3.3%	0.9% (ii)	2.5%
2000	0.715	0.285	0.5%	4.3%	1.2%	1.7%
2001	0.722	0.278	1.5%	4.8%	1.4%	2.9%
2002	0.635	0.365	0.6%	5.1%	1.4%	2.0%
2003	0.786	0.214	0.0%	4.8%	1.4% (iii)	1.4%
2004	0.952	0.048	0.0%	5.0%	0.0% (iv),(v)	0.0%
2005	0.936	0.064	0.0%	4.8%	0.0% (v)	0.0%
2006	0.926	0.074	0.0%	4.1%	0.3%	0.3%
2007	0.923	0.077	1.4%	5.3%	0.4%	1.8%
2008	0.896	0.104	-0.1%	4.2%	0.3%	0.2%
2009	0.894	0.106	0.0%	3.6%	0.4%	0.4%
2010	0.895	0.105	0.0%	2.8%	0.3%	0.3%
2011	0.969	0.031	0.0%	3.2%	0.3%	0.3%
2012	0.969	0.031	0.0%	2.7%	0.1%	0.1%
2013	0.938	0.062	0.0%	2.6%	0.1%	0.1%
2014	0.929	0.071	1.1%	4.2%	0.3%	1.4%
2015	0.929	0.071	0.2%	2.9%	0.2%	0.4%
2016	0.929	0.071	0.2%	2.2%	0.2%	0.4%
4/1/2017	0.929	0.071	0.1% (Annual 0.1%)	1.7% (Annual 2.3%)	0.1%	0.2%

(a) From a Special Carrier Study through 1990. Based on WCIRB's Aggregate Indemnity and Medical Costs Calls for years 1991 through 2012. Based on WCIRB medical transaction data from 2013 onwards. Accident years 2011 and subsequent do not include MCCP costs.

(b) Based on the WCIRB's evaluation of the cost impact of changes in the medical fee schedules. Includes the 1/1/2014 changes to the physician fee schedule to a resource-based relative value scale (RBRVS) except for the proportion reflected in loss development (See Exhibit 2.4).

(c) Based on a component of the Consumer Price Index. Projections furnished by the California Department of Finance.

(d) Adjusted CPI on workers' compensation medical costs that are not subject to fee schedules. The current year impact is the weighted average of 0% and Column (4), with Columns (1) and (2) from prior years as weights. (i) 1993's non-fee proportion is reduced by 13.8% due to the new medical-legal fee schedule enacted in 1994. (ii) 1998's non-fee proportion is reduced by 7.7% due to the Inpatient Hospital Fee Schedule (IHFS) effective 4/1/1999. (iii) 2002's non-fee proportion is reduced by 7.6% due to the new pharmaceutical fee schedule effective 1/1/2003. (iv) 2003's non-fee proportion is reduced by 17.2% due to the outpatient fee schedule effective 1/1/2004. (v) Given the anticipated impact of legislative reform, a 0% inflation rate has been assumed for 2004 and 2005.

(e) Column (6) = Column (3) + Column (5).

Annual Medical Cost Level Change - Legislative

Accident Year	(1) Annual Legislative Cost Impact on Medical Severity(a)	(2) Annual Legislative Cost Impact on Medical Due to Frequency Changes(b)	(3) Annual Total Legislative Cost Impact on Medical(c)
1985	0.0%	0.0%	0.0%
1986	0.0%	0.0%	0.0%
1987	0.0%	0.0%	0.0%
1988	0.0%	0.0%	0.0%
1989	0.0%	0.0%	0.0%
1990	-0.7%	19.9%	19.1%
1991	-1.6%	14.7%	12.9%
1992	0.5%	-8.4%	-7.9%
1993	-0.7%	-18.1%	-18.7%
1994	-2.6%	0.3%	-2.3%
1995	0.0%	0.5%	0.5%
1996	0.0%	0.4%	0.4%
1997	0.0%	0.2%	0.2%
1998	12.6%	0.0%	12.6%
1999	12.6%	0.0%	12.6%
2000	7.0%	0.0%	7.0%
2001	6.6%	0.0%	6.6%
2002	-5.6%	0.0%	-5.6%
2003	-6.0%	0.0%	-6.0%
2004	-24.4%	-12.5%	-33.9%
2005	0.0%	-13.9%	-13.9%
2006	0.1%	-5.2%	-5.1%
2007	0.1%	0.0%	0.1%
2008	0.2%	0.3%	0.5%
2009	0.0%	1.0%	1.0%
2010	0.0%	0.0%	0.0%
2011	0.0%	0.0%	0.0%
2012	-1.0%	0.0%	-1.0%
2013	-1.0%	-0.2%	-1.2%
2014	-3.0%	1.3%	-1.7%
2015	0.0%	0.0%	0.0%
2016	0.0%	0.0%	0.0%
4/1/2017	0.0%	0.0%	0.0%

(a) These annual cost impacts reflect the WCIRB's retrospective estimates of the cost impact of legislation based on WCIRB cost monitoring results. These factors do not include the estimated - 4.4% impact of 1/1/2013 medical provisions in SB 863, which was reflected in loss development projections.

(b) This reflects the annual percentage impact on medical costs due to changes in the frequency of indemnity claims as a result of benefit changes.

(c) [Column (1) + 1.0] x [Column (2) + 1.0] - 1.0

Total Medical Cost Level Factors

Accident Year	(1) Annual Non-Legislative Cost Impact on Medical (a)	(2) Annual Legislative Cost Impact on Medical(b)	(3) Total Annual Cost Impact on Medical(c)	(4) Composite Medical On-level Factor(d)
1985	4.5%	0.0%	4.5%	1.040
1986	3.0%	0.0%	3.0%	1.009
1987	3.8%	0.0%	3.8%	0.972
1988	3.8%	0.0%	3.8%	0.937
1989	3.0%	0.0%	3.0%	0.909
1990	3.7%	19.1%	23.5%	0.737
1991	3.6%	12.9%	16.9%	0.630
1992	3.0%	-7.9%	-5.2%	0.664
1993	2.7%	-18.7%	-16.5%	0.795
1994	-2.3%	-2.3%	-4.6%	0.833
1995	0.9%	0.5%	1.4%	0.822
1996	1.0%	0.4%	1.4%	0.810
1997	0.7%	0.2%	0.9%	0.803
1998	0.8%	12.6%	13.5%	0.708
1999	2.5%	12.6%	15.4%	0.613
2000	1.7%	7.0%	8.8%	0.563
2001	2.9%	6.6%	9.7%	0.514
2002	2.0%	-5.6%	-3.7%	0.534
2003	1.4%	-6.0%	-4.7%	0.560
2004	0.0%	-33.9%	-33.9%	0.846
2005	0.0%	-13.9%	-13.9%	0.983
2006	0.3%	-5.1%	-4.8%	1.033
2007	1.8%	0.1%	1.9%	1.013
2008	0.2%	0.5%	0.7%	1.006
2009	0.4%	1.0%	1.4%	0.992
2010	0.3%	0.0%	0.3%	0.989
2011	0.3%	0.0%	0.3%	0.986
2012	0.1%	-1.0%	-0.9%	0.995
2013	0.1%	-1.2%	-1.1%	1.006
2014	1.4%	-1.7%	-0.4%	1.021 (e)
2015	0.4%	0.0%	0.4%	1.019 (e)
2016	0.4%	0.0%	0.4%	
4/1/2017	0.2%	0.0%	0.2%	

(a) See Exhibit 4.2, Column (6).
(b) See Exhibit 4.3, Column (3).
(c) Column (3) = [1.0 + Column (1)] x [1.0 + Column (2)] - 1.0.
(d) These factors adjust the annual impact shown in Column (3) to the 4/1/2017 level.
(e) The on-level factors for accident years 2014 and 2015 include the estimated impact of the January 1, 2014 physician fee schedule for the service years 2016 and subsequent.

Annual Wage Level Changes

Year	Annual Wage Level Change	Factor to a 4/1/2017 Wage Level
1985	5.7	3.025
1986	4.7	2.890
1987	5.6	2.736
1988	4.4	2.621
1989	4.3	2.513
1990	5.0	2.393
1991	2.3	2.340
1992	4.7	2.235
1993	1.2	2.208
1994	1.8	2.169
1995	2.9	2.108
1996	3.4	2.039
1997	4.7	1.947
1998	5.2	1.851
1999	6.2	1.743
2000	9.0	1.599
2001	0.6	1.589
2002	0.6	1.580
2003	3.3	1.529
2004	4.8	1.459
2005	3.2	1.414
2006	4.7	1.351
2007	4.5	1.292
2008	2.1	1.266
2009	0.6	1.258
2010	3.0	1.222
2011	3.1	1.185
2012	4.0	1.139
2013	0.2	1.137
2014	3.0	1.104
2015	3.0	1.072
Projected:		
2016	3.7	
4/1/2017	3.4 (Annual = 4.5)	

Source: California average annual wage level changes for 1985 to 2017 derived from information published by the UCLA Anderson School of Business as of December 2015.

Premium Adjustment Factors

Calendar Year	(1) Factor to a 4/1/2017 Wage Level (a)	(2a) Ratio of Industry Average Charged Rates to Advisory Pure Premium Rates (b)	(2b) Factor to Industry Average Filed Pure Premium Rate Level as of January 1, 2016 (c)	(2c) Factor to Adjust Insurer Premium to an Industry Average Filed Pure Premium Rate Level as of January 1, 2016 (d)	(3) Adjustment to Remove Surcharge Premium (e)	(4) Average Experience Modification (f)	(5) Off-Balance Correction in Advisory January 1, 2016 Pure Premium Rates	(6) Factor to Adjust for Impact of Premium Resulting from Audits (g)	(7) Composite Premium Adjustment Factor (h)
1985	3.025	---	---	1.068	0.991	0.984	1.028	---	3.166
1986	2.890	---	---	0.976	0.991	0.983	1.028	---	2.766
1987	2.736	---	---	0.858	0.992	0.983	1.028	---	2.305
1988	2.621	---	---	0.767	0.993	0.963	1.028	---	2.018
1989	2.513	---	---	0.755	0.993	0.945	1.028	---	1.941
1990	2.393	---	---	0.737	0.991	0.942	1.028	---	1.804
1991	2.340	---	---	0.682	0.987	0.939	1.028	---	1.631
1992	2.235	---	---	0.655	0.982	0.940	1.028	---	1.486
1993	2.208	---	---	0.646	0.981	0.949	1.028	---	1.434
1994	2.169	---	---	0.740	0.986	0.948	1.028	---	1.624
1995	2.108	---	---	1.001	0.995	0.958	1.028	---	2.133
1996	2.039	1.023	1.064	1.040	1.000	0.935	1.028	---	2.206
1997	1.947	0.989	1.062	1.074	1.000	0.949	1.028	---	2.143
1998	1.851	0.965	1.106	1.146	1.000	0.959	1.028	---	2.152
1999	1.743	0.972	1.118	1.150	1.000	0.954	1.028	---	2.044
2000	1.599	1.005	1.013	1.008	1.000	0.970	1.028	---	1.616
2001	1.589	1.030	0.892	0.866	1.000	0.969	1.028	---	1.382
2002	1.580	1.157	0.799	0.691	1.000	0.991	1.028	---	1.071
2003	1.529	1.266	0.654	0.517	1.000	1.005	1.028	---	0.765
2004	1.459	1.396	0.665	0.476	1.000	0.981	1.028	---	0.689
2005	1.414	1.470	0.800	0.544	1.000	0.982	1.028	---	0.762
2006	1.351	1.447	1.031	0.713	1.000	0.956	1.028	---	0.979
2007	1.292	1.493	1.405	0.941	1.000	0.931	1.028	0.985	1.252
2008	1.266	1.426	1.672	1.173	1.000	0.946	1.028	0.991	1.513
2009	1.258	1.366	1.648	1.206	1.000	0.937	1.028	1.034	1.630
2010	1.222	1.383	1.615	1.168	1.000	0.941	1.028	1.005	1.482
2011	1.185	1.402	1.613	1.150	1.000	0.982	1.028	---	1.351
2012	1.139	1.225	1.330	1.086	1.000	1.000	1.028	---	1.203
2013	1.137	1.139	1.071	0.940	1.000	0.983	1.028	---	1.058
2014	1.104	1.127	0.987	0.876	1.000	0.962	1.028	---	0.978
2015	1.072	1.109	0.959	0.865	1.000	0.954	1.028	---	0.945

(a)   See Exhibit 5.1.
(b)   Based on WCIRB calendar year experience calls. The industry average charged rates reflect most rating plan adjustments but do not reflect the application of deductible credits or retrospective rating plan adjustments.
(c)   Reflects (1) advisory pure premium rate level changes to bring premium to the advisory January 1, 2016 pure premium rate level and (2) an additional adjustment factor, which is the ratio of the average advisory January 1, 2016 pure premium rate ($2.42) to the industry average filed pure premium rate as of January 1, 2016 ($2.57).
(d)   (2b) ÷ (2a). This column adjusts premiums at the industry average charged rate level to the industry average filed pure premium rate level as of January 1, 2016.
(e)   Based on unit statistical data.
(f)   Based on average promulgated experience modifications. Calendar years 1996 through 2000 include adjustments for the impacts of AB 1913 and SB 1217 (1998).
(g)   Based on a comparison of premium reported on a calendar year basis to premium reported on an estimated ultimate policy year basis over the course of two accident years. The factor is applied only for calendar years 2007 to 2010, during which reported premiums were impacted by recessionary economic forces.
(h)   (1)x(2c)x(3)x(6) ÷ [(4)x(5)] for calendar years 2007 to 2010. (1)x(2c)x(3) ÷ [(4)x(5)] for all other calendar years.

2015 Accident Year Indemnity Claim Frequency Model
As of PY 2013 Preliminary 1st Set & December 2015 UCLA

| | Annual % Changes Intra-Class Ind Freq | Annual Log Differences | | | | | | |
| | | Intra-Class Indemnity Frequency per $M Exposure at PY 2015 Level | | | AY+1 Indemnity Benefit Level | Cumulative Injury Index | Economic Variables (1st Prin. Comp.) | CalOSHA Dummy Variable |
AY	Total	Total	Cumulative	Non-cum.				
1979	0.5%	0.005	-0.053	0.007	0.000	-0.060	0.134	0.000
1980	-6.5%	-0.068	-0.132	-0.066	0.033	-0.066	-0.079	0.000
1981	-3.5%	-0.036	-0.028	-0.036	0.000	0.008	-0.078	0.000
1982	-1.6%	-0.016	0.153	-0.022	0.352	0.175	-0.292	0.000
1983	6.2%	0.060	0.214	0.054	0.081	0.160	0.029	0.000
1984	9.5%	0.091	0.235	0.084	0.000	0.151	0.221	0.000
1985	2.0%	0.020	0.138	0.014	0.000	0.124	0.080	0.000
1986	-2.4%	-0.024	0.039	-0.028	0.000	0.067	0.077	0.000
1987	1.5%	0.015	0.053	0.013	0.000	0.041	0.150	0.000
1988	0.7%	0.007	0.104	0.000	0.000	0.104	0.088	0.000
1989	2.5%	0.024	0.212	0.009	0.046	0.203	0.045	0.000
1990	9.0%	0.087	0.337	0.061	0.071	0.276	-0.120	0.000
1991	0.3%	0.003	0.166	-0.018	0.023	0.184	-0.291	0.000
1992	-11.1%	-0.118	-0.272	-0.098	0.013	-0.174	-0.185	0.068
1993	-14.9%	-0.162	-0.240	-0.153	-0.057	-0.088	-0.022	0.464
1994	-12.8%	-0.136	-0.462	-0.107	0.061	-0.355	0.106	0.173
1995	-4.6%	-0.048	-0.016	-0.050	0.053	0.034	0.092	0.295
1996	-6.8%	-0.070	-0.136	-0.065	0.096	-0.071	0.074	0.000
1997	-3.3%	-0.033	-0.023	-0.034	0.066	0.011	0.137	0.000
1998	-3.8%	-0.038	-0.040	-0.038	0.058	-0.002	0.078	0.000
1999	1.5%	0.014	0.100	0.008	0.040	0.092	0.127	0.000
2000	4.0%	0.039	0.071	0.037	-0.003	0.034	0.066	0.000
2001	-6.9%	-0.071	-0.017	-0.076	-0.007	0.059	-0.100	0.000
2002	-2.8%	-0.028	0.002	-0.031	0.060	0.033	-0.197	0.000
2003	-3.1%	-0.032	-0.008	-0.034	-0.065	0.026	-0.022	0.000
2004	-16.8%	-0.184	-0.211	-0.181	-0.398	-0.030	0.098	0.000
2005	-13.6%	-0.146	-0.298	-0.133	0.051	-0.165	0.143	0.000
2006	-5.7%	-0.058	-0.049	-0.059	0.016	0.009	0.090	0.000
2007	-1.6%	-0.016	0.021	-0.019	0.049	0.040	-0.095	0.000
2008	-2.7%	-0.027	0.038	-0.032	0.006	0.071	-0.320	0.000
2009	-0.1%	-0.001	0.169	-0.017	0.066	0.186	-0.414	0.000
2010	9.0%	0.086	0.133	0.081	0.012	0.052	-0.077	0.000
2011	1.3%	0.013	0.036	0.010	0.003	0.026	0.048	0.000
2012	4.8%	0.047	0.113	0.039	-0.008	0.074	0.125	0.000
2013	1.3%	0.013	0.186	-0.010	0.071	0.195	0.156	0.000
2014*	1.2%	0.012	0.155	-0.021	0.003	0.176	0.156	0.000
2015	-0.1%	-0.001	-0.001	-0.001	0.003	0.000	0.194	0.000
2016	-0.3%	-0.003	-0.003	-0.003	0.003	0.000	0.174	0.000
2017	-1.2%	-0.012	-0.012	-0.012	0.003	0.000	0.077	0.000
2018	-1.6%	-0.017	-0.017	-0.017	0.003	0.000	0.029	0.000

Y = Hazardousness-Adjusted Noncumulative Indemnity Claim Frequency

Constant	-0.020				
Std Err of Y Est	0.042				
R Squared	0.563				
No. of Observations	36				
Degrees of Freedom	31				
X Coefficient(s)		0.176	0.270	0.096	-0.141
Std Err of Coef.		0.077	0.064	0.048	0.081

Notes:

Indemnity Benefit Level variable is leading. The benefit level change for AY 2004 is related to the AY 2003 change in non-cumulative frequency.

The Indemnity Benefit Level change for Ogilvie & Almaraz / Guzman in 2009-2010 is not leading.

The Indemnity Benefit Level variable excludes indemnity benefit utilization, and changes in the death and permanent total benefits.

The Indemnity Benefit Level variable has been revised due to on-leveling reassessments. See Actuarial Committee item AC09-03-03.

For 1993 on, cumulative claims include both cumulative trauma and occupational disease claims. See March 19, 2014 Actuarial Committee Agenda Item III.

Economic variables are historical through 2014; December 2015 UCLA Anderson Forecasts for 2015 on.

Regression is over AY 1979 through AY 2014. AY 2015 through AY 2018 are projections.

The constant term, -0.020, consists of measured offsets that recognize annual changes in real benefit levels relative to nominal

benefit levels and long-term economic growth. Without these offsets, the indemnity benefit level and economic variables would project

frequency to increase without bound.

*AY 2014 is preliminary and change is based on a comparison of 2014 accidents on 2013 policies to 2013 accidents on 2012 policies.

Projection of Indemnity Severity Trends by Accident Year
Based on Experience as of December 31, 2015

Accident Year	(1) Estimated Ultimate Severity	(2) Annual % Change	(3) Indemnity Adjustment Factor(a)	(4) Ultimate On-level Severity (1) x (3)	(5) Annual % Change
1990	9,962	---	1.705	16,983	---
1991	10,905	9.5%	1.612	17,581	3.5%
1992	10,993	0.8%	1.559	17,135	-2.5%
1993	11,961	8.8%	1.549	18,533	8.2%
1994	12,920	8.0%	1.623	20,970	13.1%
1995	14,506	12.3%	1.512	21,928	4.6%
1996	16,229	11.9%	1.419	23,022	5.0%
1997	19,312	19.0%	1.273	24,580	6.8%
1998	21,107	9.3%	1.174	24,779	0.8%
1999	23,225	10.0%	1.088	25,265	2.0%
2000	24,656	6.2%	1.016	25,039	-0.9%
2001	27,063	9.8%	1.017	27,511	9.9%
2002	26,208	-3.2%	1.044	27,353	-0.6%
2003	25,724	-1.8%	1.043	26,824	-1.9%
2004	20,953	-18.5%	1.239	25,959	-3.2%
2005	18,880	-9.9%	1.424	26,894	3.6%
2006	20,634	9.3%	1.328	27,395	1.9%
2007	22,473	8.9%	1.286	28,904	5.5%
2008	24,833	10.5%	1.219	30,265	4.7%
2009	25,799	3.9%	1.211	31,255	3.3%
2010	25,596	-0.8%	1.195	30,580	-2.2%
2011	25,286	-1.2%	1.182	29,883	-2.3%
2012	25,197	-0.4%	1.154	29,078	-2.7%
2013	25,861	2.6%	1.153	29,817	2.5%
2014	27,944	8.1%	1.061	29,640	-0.6%
2015	28,933	3.5%	1.041	30,119	1.6%

(6) Estimated Annual Exponential Trend Based on 2005 to 2015:   0.8%
(7) Estimated Annual Exponential Trend Based on 2010 to 2015:   -0.2%

Selected Indemnity Severity Trend: 0.0%

(a) These adjustment factors are based on Exhibit 4.1, excluding the impact of frequency.

Source: WCIRB experience calls.

Projection of Medical Severity Trends by Accident Year
Based on Experience as of December 31, 2015

Accident Year	(1) Estimated Ultimate Severity(a)	(2) Annual % Change	(3) Medical Adjustment Factor(b)	(4) Ultimate On-level Severity (1) x (3)	(5) Annual % Change
1990	8,990	---	1.096	9,850	---
1991	9,685	7.7%	1.075	10,414	5.7%
1992	9,743	0.6%	1.039	10,127	-2.8%
1993	10,847	11.3%	1.021	11,078	9.4%
1994	12,026	10.9%	1.074	12,917	16.6%
1995	13,716	14.1%	1.066	14,615	13.1%
1996	14,773	7.7%	1.055	15,585	6.6%
1997	17,681	19.7%	1.048	18,528	18.9%
1998	21,548	21.9%	0.924	19,915	7.5%
1999	24,571	14.0%	0.801	19,686	-1.1%
2000	27,879	13.5%	0.737	20,542	4.3%
2001	33,058	18.6%	0.673	22,232	8.2%
2002	33,625	1.7%	0.699	23,499	5.7%
2003	32,139	-4.4%	0.734	23,602	0.4%
2004	29,791	-7.3%	0.973	28,984	22.8%
2005	30,769	3.3%	0.975	29,992	3.5%
2006	33,920	10.2%	0.972	32,983	10.0%
2007	38,222	12.7%	0.957	36,568	10.9%
2008	41,860	9.5%	0.956	40,002	9.4%
2009	44,433	6.1%	0.956	42,464	6.2%
2010	45,039	1.4%	0.958	43,133	1.6%
2011	41,331 (c)	---	0.961	39,730 (c)	---
2012	40,058	-3.1%	0.978	39,175	-1.4%
2013	38,525	-3.8%	0.993	38,261	-2.3%
2014	37,678	-2.2%	1.022	38,498	0.6%
2015	37,998	0.8%	1.019	38,724	0.6%

Selected Medical Severity Trend: 2.5%

(a) Estimated ultimate severities for all accident years are derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts. The estimated ultimate medical severities were derived from the projected ultimate loss ratios shown in Exhibit 3.2, column (6).

(b) These adjustment factors are based on Exhibit 4.4, excluding the impact of frequency, and including the impact of SB 863 provisions applicable to outstanding medical losses.

(c) Severities for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Severities for accident years 2010 and prior do reflect MCCP costs.

Source: WCIRB experience calls.

Projection of Medical Severity Trends by Accident Year
Adjusted to Remove the Cost of Medical Cost Containment Programs (MCCP)
Based on Experience as of December 31, 2015

| (1) | MCCP Included | | | | MCCP Removed Based on WCIRB Aggregate Calendar Year Data Calls (b) | | | |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
Accident Year	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change	Estimated Ultimate Severity (a)	Annual % Change	Ultimate On-Level Severity (c)	Annual % Change
2005	30,769	---	29,993	---	29,024	---	28,292	---
2006	33,920	10.2%	32,983	10.0%	31,659	9.1%	30,784	8.8%
2007	38,222	12.7%	36,568	10.9%	35,523	12.2%	33,985	10.4%
2008	41,860	9.5%	40,002	9.4%	38,031	7.1%	36,343	6.9%
2009	44,433	6.1%	42,464	6.2%	40,546	6.6%	38,749	6.6%
2010	45,039	1.4%	43,133	1.6%	41,057	1.3%	39,319	1.5%
2011	45,508	1.0%	43,746	1.4%	41,331	0.7%	39,730	1.0%
2012	44,185	-2.9%	43,211	-1.2%	40,058	-3.1%	39,175	-1.4%
2013	42,777	-3.2%	42,484	-1.7%	38,525	-3.8%	38,261	-2.3%
2014	42,061	-1.7%	42,976	1.2%	37,678	-2.2%	38,498	0.6%
2015	42,334	0.6%	43,143	0.4%	37,998	0.8%	38,724	0.6%

Estimated Annual Exponential
Trend Based on 2005 to 2015:   3.2%   2.8%
Trend Based on 2010 to 2015:   -0.2%   -0.6%

                                   Selected Medical Severity Trend: 2.5%

(a) Estimated ultimate severities for all accident years were derived by dividing ultimate medical losses on indemnity claims by ultimate indemnity claim counts.

(b) Adjustments to accident years 2005 through 2010 based on WCIRB's Annual Calls for Direct California Workers' Compensation Aggregate Indemnity and Medical Costs.

(c) Ultimate severities are on-leveled based on adjustment factors shown on Exhibit 4.4, excluding the impact of frequency.

Source: WCIRB experience calls.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
1985	0.447	1.411	3.166	0.199
1986	0.396	1.389	2.766	0.199
1987	0.346	1.363	2.305	0.205
1988	0.331	1.343	2.018	0.220
1989	0.344	1.323	1.941	0.234
1990	0.399	1.060	1.804	0.234
1991	0.426	0.874	1.631	0.228
1992	0.351	0.921	1.486	0.217
1993	0.288	1.118	1.434	0.225
1994	0.328	1.169	1.624	0.236
1995	0.475	1.082	2.133	0.241
1996	0.532	1.011	2.206	0.244
1997	0.603	0.906	2.143	0.255
1998	0.654	0.835	2.152	0.254
1999	0.690	0.774	2.044	0.261
2000	0.596	0.723	1.616	0.267
2001	0.493	0.723	1.382	0.258
2002	0.368	0.743	1.071	0.255
2003	0.242	0.742	0.765	0.235
2004	0.144	1.021	0.689	0.214
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.284	1.250	1.513	0.235
2009	0.331	1.226	1.630	0.249
2010	0.325	1.209	1.482	0.265
2011	0.304	1.196	1.351	0.269
2012	0.279	1.168	1.203	0.270
2013	0.252	1.170	1.058	0.279
2014	0.251	1.061	0.978	0.273
2015	0.252	1.041	0.945	0.278
				Projections (d)
2016				0.273
4/1/2017				0.271

(a) See Exhibit 3.1.
(b) See Exhibit 4.1.
(c) See Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from Exhibit 6.2, the actual frequency trend for accident year 2015 from Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

**On-Level Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using December 31, 2015 Valuations**

On-level indemnity to industry average filed pure premium ratios (see Exhibit 7.1).

The 4/1/2017 indemnity to industry average filed pure premium ratio was calculated based on separate frequency and severity trends applied to the 2014 and 2015 years.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)
				On-Level Medical to
Accident	Developed Medical	Composite Medical	Composite Premium	Industry Average Filed
Year	Loss Ratio(a)	On-Level Factor(b)	Adjustment Factor(c)	Pure Premium Ratio
				(1)×(2)÷(3)
1985	0.364	1.040	3.166	0.120
1986	0.346	1.009	2.766	0.126
1987	0.327	0.972	2.305	0.138
1988	0.318	0.937	2.018	0.148
1989	0.341	0.909	1.941	0.160
1990	0.385	0.737	1.804	0.157
1991	0.405	0.630	1.631	0.156
1992	0.335	0.664	1.486	0.150
1993	0.282	0.795	1.434	0.156
1994	0.328	0.833	1.624	0.168
1995	0.480	0.822	2.133	0.185
1996	0.516	0.810	2.206	0.190
1997	0.583	0.803	2.143	0.219
1998	0.701	0.708	2.152	0.231
1999	0.733	0.613	2.044	0.220
2000	0.675	0.563	1.616	0.235
2001	0.599	0.514	1.382	0.223
2002	0.470	0.534	1.071	0.234
2003	0.302	0.560	0.765	0.221
2004	0.207	0.846	0.689	0.255
2005	0.205	0.983	0.762	0.264
2006	0.268	1.033	0.979	0.283
2007	0.383	1.013	1.252	0.310
2008	0.488	1.006	1.513	0.325
2009	0.581	0.992	1.630	0.354
2010	0.585	0.989	1.482	0.390
2011	0.512	0.986	1.351	0.374
2012	0.460	0.995	1.203	0.381
2013	0.393	1.006	1.058	0.374
2014	0.356	1.021	0.978	0.371
2015	0.347	1.019	0.945	0.375
				Projections (d)
2016				0.384
4/1/2017				0.388

(a) See Exhibit 3.2. Medical loss ratios for accident years 2011 and subsequent do not reflect the cost of medical cost containment programs (MCCP). Ratios for accident years 2010 and prior do reflect MCCP costs.
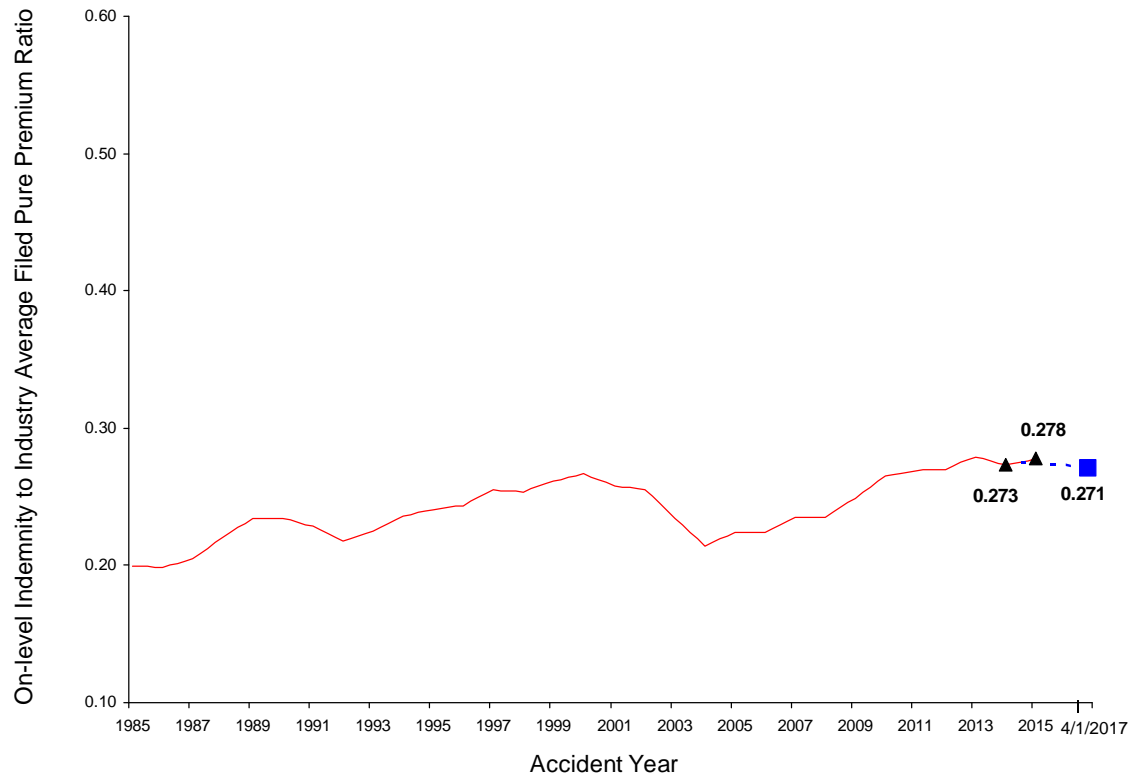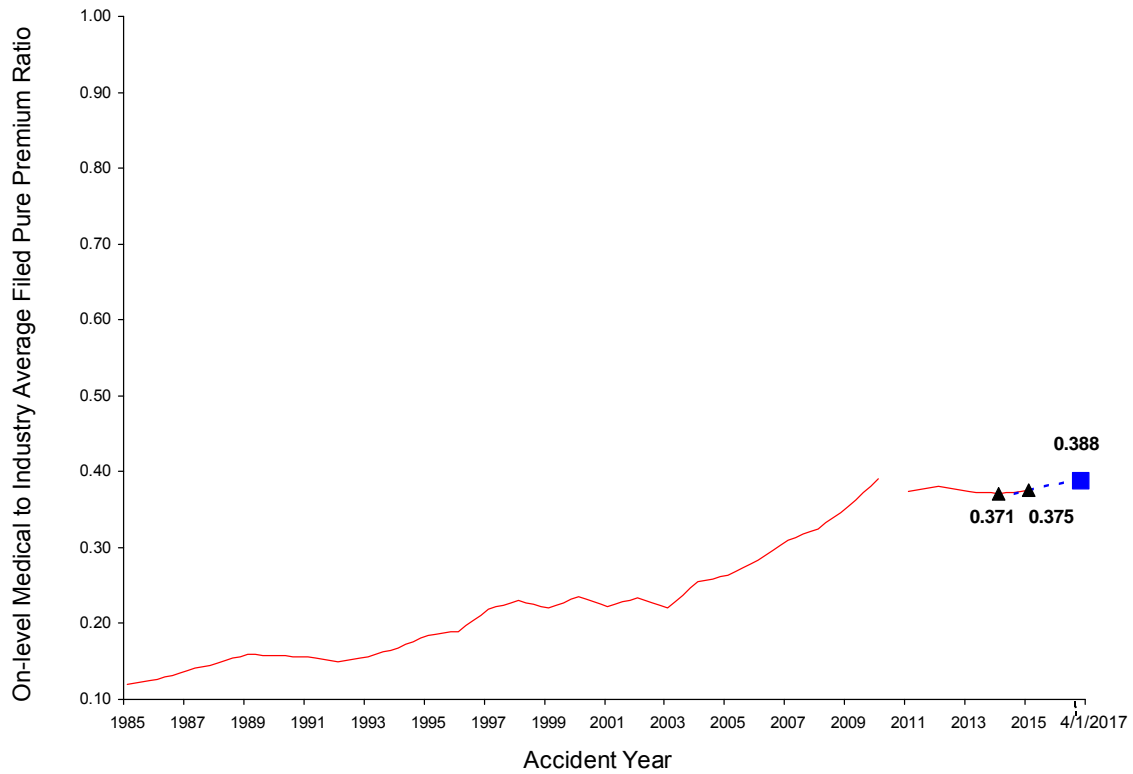
(b) See Exhibit 4.4.

(c) See Exhibit 5.2.

(d) These on-level ratios were projected based on an estimated annual medical severity trend from Exhibit 6.4, the actual frequency trend for accident year 2015 from Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

**On-Level Medical Loss to Industry Average Filed Pure Premium Ratios
Using December 31, 2015 Valuations**

Indicated Loss to Industry Average Filed Pure Premium Ratios
For Policies with Effective Dates between July 1, 2016 and December 31, 2016
Based on Experience as of December 31, 2015

	Indemnity	Medical	Total
1. Projected Loss to Industry Average Filed Pure Premium Ratio (See Exhibits 7.1 and 7.3)	0.271	0.388	0.659

Quarterly Incurred Indemnity Loss Development Factors
Through December 31, 2015

Age in Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
6/3									2.417	2.724	2.785	3.031	3.116	3.052	3.238	3.344	3.303	3.209
9/6									1.656	1.776	1.820	1.848	1.904	2.001	1.966	1.940	1.960	1.948
12/9									**1.448**	**1.511**	**1.510**	**1.530**	**1.564**	**1.632**	**1.587**	**1.585**	**1.570**	**1.572**
15/12	1.229	1.260	1.268	1.250	1.257	1.238	1.180	1.149	1.189	1.234	1.248	1.293	1.306	1.306	1.303	1.301	1.301	
18/15	1.172	1.202	1.188	1.184	1.206	1.167	1.101	1.103	1.140	1.158	1.182	1.194	1.197	1.195	1.206	1.178	1.190	
21/18	1.145	1.140	1.150	1.148	1.153	1.127	1.066	1.096	1.117	1.128	1.139	1.153	1.140	1.146	1.141	1.141	1.132	
24/21	**1.126**	**1.112**	**1.121**	**1.111**	**1.117**	**1.094**	**1.045**	**1.082**	**1.098**	**1.106**	**1.106**	**1.114**	**1.119**	**1.117**	**1.111**	**1.104**	**1.114**	
27/24	1.074	1.096	1.093	1.100	1.094	1.073	1.045	1.070	1.082	1.081	1.088	1.089	1.091	1.085	1.087	1.081		
30/27	1.078	1.069	1.074	1.082	1.064	1.051	1.040	1.054	1.057	1.072	1.075	1.075	1.080	1.071	1.068	1.067		
33/30	1.045	1.058	1.048	1.062	1.047	1.032	1.036	1.042	1.049	1.053	1.059	1.052	1.064	1.053	1.060	1.047		
36/33	**1.043**	**1.046**	**1.039**	**1.046**	**1.035**	**1.020**	**1.029**	**1.033**	**1.039**	**1.043**	**1.051**	**1.049**	**1.049**	**1.043**	**1.041**	**1.043**		
39/36	1.038	1.041	1.035	1.038	1.028	1.017	1.027	1.029	1.031	1.033	1.040	1.039	1.039	1.041	1.035			
42/39	1.027	1.028	1.034	1.030	1.023	1.018	1.020	1.020	1.031	1.033	1.036	1.038	1.035	1.032	1.028			
45/42	1.024	1.026	1.026	1.020	1.009	1.019	1.018	1.024	1.026	1.028	1.030	1.035	1.027	1.033	1.022			
48/45	**1.025**	**1.020**	**1.022**	**1.013**	**1.008**	**1.013**	**1.013**	**1.021**	**1.019**	**1.021**	**1.024**	**1.024**	**1.026**	**1.023**	**1.023**			
51/48	1.022	1.017	1.018	1.015	1.010	1.016	1.010	1.018	1.021	1.018	1.022	1.023	1.021	1.018				
54/51	1.019	1.018	1.013	1.009	1.007	1.017	1.009	1.017	1.021	1.020	1.021	1.020	1.020	1.016				
57/54	1.014	1.017	1.012	1.006	1.008	1.011	1.011	1.018	1.017	1.014	1.018	1.017	1.015	1.014				
60/57	**1.013**	**1.014**	**1.007**	**1.005**	**1.008**	**1.009**	**1.011**	**1.013**	**1.019**	**1.016**	**1.013**	**1.015**	**1.012**	**1.013**				
63/60	1.012	1.012	1.007	1.007	1.008	1.008	1.010	1.014	1.013	1.015	1.011	1.014	1.014					
66/63	1.014	1.009	1.005	1.006	1.011	1.008	1.010	1.013	1.016	1.014	1.015	1.013	1.013					
69/66	1.010	1.007	1.003	1.005	1.008	1.007	1.011	1.012	1.011	1.010	1.009	1.012	1.007					
72/69	**1.009**	**1.006**	**1.005**	**1.005**	**1.005**	**1.009**	**1.009**	**1.013**	**1.011**	**1.009**	**1.009**	**1.009**	**1.010**					
75/72	1.006	1.004	1.004	1.005	1.003	1.005	1.007	1.010	1.011	1.010	1.010	1.008						
78/75	1.007	1.004	1.003	1.007	1.005	1.006	1.006	1.012	1.009	1.010	1.006	1.006						
81/78	1.005	1.002	1.003	1.004	1.004	1.005	1.006	1.010	1.009	1.007	1.007	1.006						
84/81	**1.003**	**1.003**	**1.005**	**1.003**	**1.006**	**1.006**	**1.007**	**1.008**	**1.005**	**1.009**	**1.006**	**1.004**						
87/84	1.003	1.003	1.002	1.003	1.004	1.002	1.007	1.010	1.007	1.004	1.005							
90/87	1.001	1.003	1.003	1.003	1.003	1.004	1.008	1.008	1.008	1.008	1.004							
93/90	1.001	1.002	1.004	1.003	1.002	1.005	1.006	1.008	1.006	1.007	1.006							
96/93	**1.002**	**1.003**	**1.001**	**1.004**	**1.002**	**1.006**	**1.006**	**1.003**	**1.002**	**1.003**	**1.004**							

Source: WCIRB accident year experience calls

Quarterly Incurred Medical Loss Development Factors *
Through December 31, 2015

Age in Months	1998	1999	2000	2001	2002	2003	2004	2005	Accident Year 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
6/3									2.584	2.662	2.782	2.892	2.992	2.757	2.889	2.878	2.956	2.895
9/6									1.650	1.744	1.717	1.807	1.800	1.827	1.846	1.833	1.853	1.897
12/9									**1.453**	**1.443**	**1.466**	**1.454**	**1.488**	**1.521**	**1.493**	**1.509**	**1.491**	**1.461**
15/12	1.144	1.168	1.201	1.207	1.203	1.197	1.132	1.145	1.138	1.182	1.167	1.199	1.206	1.228	1.221	1.215	1.208	
18/15	1.093	1.116	1.123	1.144	1.151	1.126	1.086	1.087	1.103	1.106	1.126	1.135	1.129	1.141	1.142	1.124	1.122	
21/18	1.078	1.086	1.101	1.122	1.116	1.093	1.055	1.061	1.073	1.081	1.090	1.097	1.101	1.103	1.090	1.092	1.083	
24/21	**1.074**	**1.072**	**1.080**	**1.083**	**1.082**	**1.060**	**1.040**	**1.052**	**1.070**	**1.074**	**1.067**	**1.074**	**1.080**	**1.080**	**1.070**	**1.068**	**1.059**	
27/24	1.044	1.061	1.070	1.080	1.075	1.042	1.034	1.048	1.055	1.058	1.053	1.071	1.066	1.072	1.060	1.052		
30/27	1.044	1.052	1.058	1.070	1.051	1.038	1.039	1.049	1.046	1.054	1.057	1.048	1.063	1.052	1.049	1.041		
33/30	1.035	1.047	1.051	1.059	1.035	1.018	1.032	1.030	1.041	1.045	1.045	1.051	1.055	1.045	1.047	1.034		
36/33	**1.037**	**1.042**	**1.035**	**1.040**	**1.029**	**1.016**	**1.024**	**1.034**	**1.042**	**1.033**	**1.042**	**1.040**	**1.041**	**1.037**	**1.030**	**1.028**		
39/36	1.029	1.032	1.034	1.037	1.018	1.012	1.028	1.025	1.027	1.029	1.033	1.031	1.040	1.039	1.029			
42/39	1.025	1.031	1.036	1.026	1.019	1.013	1.017	1.020	1.025	1.035	1.036	1.037	1.037	1.031	1.023			
45/42	1.025	1.033	1.032	1.023	1.012	1.019	1.033	1.021	1.025	1.029	1.026	1.030	1.028	1.027	1.023			
48/45	**1.028**	**1.023**	**1.026**	**1.017**	**1.008**	**1.013**	**1.025**	**1.018**	**1.022**	**1.025**	**1.029**	**1.034**	**1.022**	**1.023**	**1.021**			
51/48	1.019	1.020	1.024	1.014	1.009	1.013	1.018	1.015	1.020	1.021	1.021	1.026	1.024	1.019				
54/51	1.025	1.027	1.017	1.016	1.010	1.012	1.021	1.019	1.022	1.022	1.027	1.023	1.019	1.018				
57/54	1.027	1.024	1.014	1.007	1.011	1.017	1.020	1.018	1.019	1.019	1.023	1.020	1.017	1.018				
60/57	**1.021**	**1.021**	**1.015**	**1.009**	**1.008**	**1.014**	**1.020**	**1.019**	**1.018**	**1.017**	**1.019**	**1.016**	**1.015**	**1.013**				
63/60	1.014	1.020	1.013	1.012	1.008	1.016	1.015	1.021	1.015	1.018	1.016	1.020	1.015					
66/63	1.023	1.016	1.010	1.012	1.015	1.013	1.015	1.022	1.019	1.018	1.017	1.015	1.010					
69/66	1.025	1.013	1.006	1.008	1.016	1.018	1.015	1.023	1.017	1.017	1.015	1.014	1.010					
72/69	**1.020**	**1.009**	**1.007**	**1.009**	**1.015**	**1.010**	**1.014**	**1.015**	**1.013**	**1.014**	**1.012**	**1.011**	**1.009**					
75/72	1.015	1.008	1.006	1.008	1.010	1.009	1.012	1.012	1.011	1.018	1.013	1.008						
78/75	1.012	1.012	1.008	1.012	1.010	1.011	1.018	1.013	1.012	1.012	1.010	1.008						
81/78	1.006	1.006	1.006	1.009	1.010	1.014	1.018	1.017	1.016	1.009	1.009	1.005						
84/81	**1.008**	**1.006**	**1.009**	**1.014**	**1.009**	**1.007**	**1.012**	**1.011**	**1.008**	**1.010**	**1.008**	**1.007**						
87/84	1.005	1.008	1.008	1.010	1.009	1.010	1.012	1.014	1.012	1.008	1.007							
90/87	1.002	1.005	1.008	1.008	1.009	1.012	1.009	1.009	1.013	1.008	1.006							
93/90	1.006	1.007	1.015	1.009	1.011	1.010	1.011	1.012	1.009	1.009	1.007							
96/93	**1.007**	**1.007**	**1.010**	**1.012**	**1.008**	**1.010**	**1.011**	**1.009**	**1.005**	**1.006**	**1.005**							

Source: WCIRB accident year experience calls

* Incurred medical loss development factors include the paid cost of medical cost containment programs.

Quarterly Paid Indemnity Loss Development Factors
Through December 31, 2015

Age in Months	1998	1999	2000	2001	2002	2003	2004	2005	Accident Year 2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
6/3									4.376	4.495	4.553	4.807	4.911	4.722	4.854	5.099	5.076	5.056
9/6									2.259	2.375	2.377	2.398	2.452	2.432	2.484	2.462	2.462	2.484
12/9									**1.812**	**1.834**	**1.810**	**1.825**	**1.861**	**1.869**	**1.877**	**1.866**	**1.879**	**1.912**
15/12	1.499	1.536	1.538	1.552	1.550	1.516	1.491	1.456	1.482	1.488	1.481	1.507	1.532	1.539	1.506	1.539	1.540	
18/15	1.380	1.399	1.395	1.401	1.403	1.379	1.331	1.306	1.306	1.327	1.332	1.343	1.355	1.361	1.361	1.353	1.364	
21/18	1.323	1.298	1.303	1.303	1.311	1.297	1.241	1.217	1.233	1.235	1.243	1.259	1.257	1.261	1.261	1.263	1.267	
24/21	**1.259**	**1.257**	**1.256**	**1.258**	**1.260**	**1.244**	**1.183**	**1.181**	**1.195**	**1.191**	**1.194**	**1.206**	**1.209**	**1.215**	**1.213**	**1.204**	**1.216**	
27/24	1.186	1.199	1.203	1.200	1.205	1.186	1.140	1.142	1.151	1.149	1.153	1.162	1.165	1.168	1.164	1.159		
30/27	1.157	1.161	1.165	1.175	1.172	1.161	1.122	1.117	1.126	1.129	1.130	1.141	1.141	1.137	1.134	1.141		
33/30	1.118	1.125	1.130	1.142	1.136	1.123	1.097	1.096	1.100	1.101	1.108	1.114	1.116	1.112	1.111	1.111		
36/33	**1.102**	**1.103**	**1.103**	**1.115**	**1.111**	**1.097**	**1.085**	**1.081**	**1.080**	**1.084**	**1.092**	**1.094**	**1.098**	**1.091**	**1.091**	**1.096**		
39/36	1.074	1.081	1.081	1.092	1.087	1.072	1.070	1.066	1.064	1.067	1.074	1.078	1.077	1.073	1.075			
42/39	1.067	1.071	1.077	1.080	1.073	1.063	1.059	1.058	1.058	1.062	1.067	1.067	1.071	1.070	1.065			
45/42	1.057	1.054	1.063	1.064	1.056	1.049	1.047	1.049	1.047	1.051	1.058	1.059	1.057	1.055	1.054			
48/45	**1.049**	**1.050**	**1.055**	**1.053**	**1.046**	**1.044**	**1.041**	**1.044**	**1.043**	**1.047**	**1.049**	**1.051**	**1.050**	**1.048**	**1.048**			
51/48	1.039	1.038	1.043	1.044	1.036	1.035	1.033	1.036	1.036	1.037	1.042	1.042	1.043	1.039				
54/51	1.035	1.038	1.036	1.037	1.034	1.035	1.030	1.028	1.035	1.036	1.038	1.041	1.038	1.036				
57/54	1.029	1.033	1.037	1.030	1.028	1.026	1.025	1.028	1.030	1.032	1.033	1.033	1.032	1.033				
60/57	**1.025**	**1.030**	**1.027**	**1.026**	**1.024**	**1.024**	**1.024**	**1.024**	**1.028**	**1.029**	**1.029**	**1.032**	**1.027**	**1.030**				
63/60	1.023	1.026	1.024	1.021	1.022	1.019	1.019	1.021	1.023	1.025	1.025	1.024	1.026					
66/63	1.023	1.023	1.023	1.021	1.019	1.019	1.019	1.020	1.025	1.025	1.025	1.025	1.023					
69/66	1.019	1.021	1.020	1.017	1.016	1.017	1.016	1.021	1.020	1.020	1.020	1.022	1.020					
72/69	**1.018**	**1.016**	**1.018**	**1.016**	**1.016**	**1.015**	**1.017**	**1.015**	**1.020**	**1.019**	**1.019**	**1.019**	**1.018**					
75/72	1.015	1.016	1.015	1.014	1.012	1.012	1.013	1.015	1.019	1.018	1.016	1.016						
78/75	1.014	1.014	1.012	1.013	1.012	1.011	1.012	1.015	1.017	1.016	1.015	1.016						
81/78	1.013	1.013	1.011	1.012	1.011	1.010	1.012	1.015	1.015	1.016	1.015	1.015						
84/81	**1.011**	**1.011**	**1.013**	**1.010**	**1.010**	**1.009**	**1.011**	**1.013**	**1.015**	**1.014**	**1.013**	**1.012**						
87/84	1.012	1.010	1.008	1.010	1.009	1.008	1.009	1.012	1.014	1.013	1.010							
90/87	1.008	1.009	1.010	1.009	1.008	1.008	1.011	1.012	1.013	1.012	1.011							
93/90	1.009	1.009	1.008	1.008	1.007	1.008	1.012	1.011	1.011	1.012	1.010							
96/93	**1.008**	**1.009**	**1.006**	**1.007**	**1.007**	**1.007**	**1.008**	**1.011**	**1.011**	**1.008**	**1.009**							

Source: WCIRB accident year experience calls

Quarterly Paid Medical Loss Development Factors *
Through December 31, 2015

Age in Months	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
																	Accident Year	
6/3									5.308	5.615	6.579	6.101	6.048	5.854	5.942	6.232	5.646	5.716
9/6									2.348	2.381	2.348	2.375	2.361	2.327	2.395	2.490	2.424	2.305
12/9									**1.716**	**1.765**	**1.731**	**1.723**	**1.756**	**1.746**	**1.762**	**1.740**	**1.752**	**1.714**
15/12	1.453	1.490	1.514	1.547	1.554	1.510	1.437	1.423	1.429	1.444	1.413	1.429	1.445	1.472	1.449	1.441	1.459	
18/15	1.241	1.267	1.286	1.310	1.330	1.295	1.243	1.230	1.227	1.259	1.243	1.259	1.268	1.282	1.284	1.263	1.268	
21/18	1.164	1.168	1.192	1.219	1.211	1.179	1.153	1.151	1.163	1.173	1.170	1.178	1.182	1.187	1.189	1.192	1.192	
24/21	**1.132**	**1.124**	**1.149**	**1.159**	**1.154**	**1.125**	**1.115**	**1.118**	**1.127**	**1.133**	**1.132**	**1.137**	**1.144**	**1.153**	**1.151**	**1.147**	**1.145**	
27/24	1.096	1.108	1.121	1.128	1.123	1.093	1.090	1.093	1.106	1.107	1.110	1.112	1.119	1.120	1.120	1.120		
30/27	1.077	1.088	1.101	1.108	1.103	1.077	1.084	1.087	1.097	1.100	1.100	1.106	1.107	1.111	1.106	1.109		
33/30	1.065	1.072	1.086	1.089	1.077	1.063	1.071	1.065	1.081	1.083	1.086	1.092	1.094	1.093	1.091	1.089		
36/33	**1.055**	**1.066**	**1.069**	**1.076**	**1.061**	**1.055**	**1.062**	**1.062**	**1.071**	**1.072**	**1.072**	**1.077**	**1.083**	**1.082**	**1.076**	**1.078**		
39/36	1.051	1.059	1.060	1.061	1.049	1.044	1.053	1.056	1.057	1.059	1.061	1.066	1.071	1.066	1.068			
42/39	1.044	1.049	1.055	1.054	1.041	1.044	1.049	1.054	1.055	1.058	1.059	1.061	1.068	1.063	1.060			
45/42	1.039	1.045	1.047	1.044	1.036	1.037	1.040	1.047	1.048	1.049	1.054	1.053	1.056	1.056	1.052			
48/45	**1.035**	**1.039**	**1.044**	**1.037**	**1.032**	**1.035**	**1.037**	**1.043**	**1.043**	**1.046**	**1.047**	**1.050**	**1.051**	**1.046**	**1.045**			
51/48	1.030	1.035	1.037	1.034	1.031	1.030	1.033	1.037	1.036	1.036	1.039	1.041	1.043	1.040				
54/51	1.031	1.036	1.032	1.027	1.030	1.029	1.034	1.034	1.035	1.035	1.036	1.042	1.038	1.035				
57/54	1.026	1.030	1.027	1.024	1.024	1.024	1.029	1.031	1.034	1.031	1.033	1.038	1.034	1.034				
60/57	**1.026**	**1.028**	**1.026**	**1.021**	**1.023**	**1.026**	**1.028**	**1.029**	**1.028**	**1.032**	**1.032**	**1.035**	**1.030**	**1.030**				
63/60	1.023	1.025	1.022	1.019	1.019	1.020	1.024	1.024	1.024	1.024	1.027	1.027	1.026					
66/63	1.026	1.021	1.020	1.020	1.018	1.021	1.023	1.024	1.026	1.026	1.029	1.029	1.024					
69/66	1.021	1.022	1.019	1.018	1.016	1.019	1.021	1.023	1.023	1.021	1.024	1.024	1.022					
72/69	**1.022**	**1.018**	**1.016**	**1.017**	**1.018**	**1.016**	**1.021**	**1.021**	**1.022**	**1.022**	**1.023**	**1.021**	**1.020**					
75/72	1.017	1.016	1.014	1.015	1.015	1.014	1.018	1.020	1.019	1.019	1.018	1.018						
78/75	1.018	1.015	1.014	1.015	1.016	1.015	1.016	1.018	1.017	1.022	1.019	1.018						
81/78	1.015	1.014	1.013	1.014	1.013	1.014	1.018	1.018	1.015	1.019	1.018	1.015						
84/81	**1.013**	**1.012**	**1.013**	**1.012**	**1.012**	**1.013**	**1.016**	**1.016**	**1.015**	**1.018**	**1.015**	**1.015**						
87/84	1.013	1.011	1.010	1.012	1.012	1.012	1.014	1.013	1.015	1.017	1.013							
90/87	1.013	1.012	1.011	1.013	1.012	1.013	1.015	1.013	1.015	1.013	1.013							
93/90	1.011	1.010	1.011	1.012	1.011	1.013	1.013	1.012	1.014	1.014	1.013							
96/93	**1.010**	**1.010**	**1.008**	**1.010**	**1.010**	**1.009**	**1.013**	**1.015**	**1.016**	**1.011**	**1.011**							

Source: WCIRB accident year experience calls

* Paid medical loss development factors include the paid cost of medical cost containment programs.

Reported Indemnity Claim Count Development

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204
1991																1.000
1992															1.000	1.000
1993														1.000	1.000	1.000
1994													1.000	1.000	1.000	1.000
1995												1.000	1.001	1.000	1.001	1.000
1996											1.001	1.001	1.000	1.000	1.000	1.000
1997										1.001	1.000	1.000	1.000	1.000	1.000	1.000
1998									1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999								1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000							1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	
2001						1.000	0.999	1.000	0.999	1.000	1.000	1.000	1.000	1.000		
2002					1.000	0.999	1.000	0.999	0.999	1.000	1.000	1.000	1.000			
2003				1.000	0.999	0.998	0.999	0.999	0.999	0.999	1.000	1.000				
2004			1.003	1.000	0.999	0.999	0.999	0.999	0.999	1.000	1.000					
2005		1.008	1.001	1.001	1.000	1.001	0.999	1.000	1.000	1.000						
2006	1.098	1.006	1.005	1.002	1.000	1.000	1.000	1.001	1.001							
2007	1.121	1.015	1.006	1.004	1.002	1.000	1.001	1.001								
2008	1.153	1.023	1.011	1.005	1.003	1.002	1.001									
2009	1.193	1.029	1.011	1.006	1.003	1.002										
2010	1.216	1.030	1.011	1.006	1.004											
2011	1.231	1.032	1.013	1.008												
2012	1.243	1.035	1.015													
2013	1.242	1.035														
2014	1.246															

Latest Year

Age-to-Age																
1.246	1.035	1.015	1.008	1.004	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Age-to-Ultimate																
1.331	1.068	1.032	1.018	1.010	1.006	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.001	1.001

Notes: All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 75% to 99% of the total California workers' compensation insured market measured using 2015 earned premium levels).

Quarterly Reported Indemnity Claim Count Development Factors

Accident Year	3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
2007	2.562	1.703	1.361	1.087	1.018	1.009	1.004	1.005	1.004	1.002	1.003	1.002	1.002	1.002	1.001
2008	2.539	1.651	1.340	1.095	1.026	1.015	1.010	1.009	1.007	1.004	1.003	1.003	1.002	1.003	1.002
2009	2.693	1.682	1.388	1.113	1.037	1.021	1.012	1.010	1.007	1.007	1.005	1.004	1.003	1.003	1.002
2010	2.714	1.717	1.408	1.128	1.039	1.022	1.016	1.011	1.008	1.006	1.005	1.003	1.004	1.003	1.001
2011	2.702	1.738	1.421	1.129	1.042	1.027	1.019	1.010	1.011	1.006	1.005	1.004	1.004	1.003	1.002
2012	2.757	1.742	1.420	1.126	1.053	1.029	1.019	1.013	1.010	1.007	1.004	1.005	1.004	1.003	1.003
2013	2.848	1.746	1.426	1.139	1.044	1.027	1.016	1.012	1.011	1.007	1.005				
2014	2.775	1.733	1.429	1.137	1.048	1.026	1.019								
2015	2.844	1.743	1.423												

Reported Indemnity Claim Settlement Ratios

| Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
1991																99.2%	99.3%
1992															99.0%	99.1%	99.2%
1993														98.6%	98.8%	98.9%	99.0%
1994													98.2%	98.4%	98.6%	98.8%	98.9%
1995												97.5%	97.8%	98.1%	98.4%	98.5%	98.7%
1996											96.8%	97.2%	97.6%	98.0%	98.2%	98.4%	98.6%
1997										96.0%	96.6%	97.1%	97.5%	97.8%	98.0%	98.2%	98.4%
1998									94.4%	95.3%	96.1%	96.7%	97.1%	97.4%	97.7%	98.0%	98.2%
1999								92.5%	94.0%	95.1%	95.9%	96.5%	96.9%	97.3%	97.6%	97.9%	98.1%
2000							89.5%	91.7%	93.3%	94.6%	95.4%	96.1%	96.6%	97.1%	97.5%	97.8%	
2001						84.0%	87.8%	90.4%	92.2%	93.5%	94.5%	95.2%	96.0%	96.6%	96.9%		
2002					78.9%	84.4%	88.1%	90.7%	92.3%	93.7%	94.7%	95.8%	96.4%	96.9%			
2003				70.4%	79.0%	84.5%	88.2%	90.4%	92.3%	93.6%	95.1%	95.9%	96.4%				
2004			60.4%	72.3%	80.3%	84.9%	87.9%	90.3%	92.2%	94.2%	95.2%	95.9%					
2005		48.9%	63.1%	74.5%	81.1%	85.3%	88.3%	90.6%	93.0%	94.4%	95.4%						
2006	27.0%	50.3%	64.8%	74.8%	81.3%	85.5%	88.5%	91.5%	93.2%	94.5%							
2007	27.4%	49.7%	63.6%	73.6%	80.2%	84.5%	88.8%	91.3%	93.1%								
2008	27.6%	48.1%	61.8%	72.1%	79.2%	85.1%	88.9%	91.5%									
2009	26.7%	46.3%	60.1%	70.8%	79.2%	84.7%	88.6%										
2010	26.9%	46.9%	60.8%	72.6%	80.6%	86.0%											
2011	27.6%	47.3%	62.2%	73.7%	81.7%												
2012	27.7%	48.2%	63.5%	75.1%													
2013	27.0%	48.6%	64.8%														
2014	26.9%	49.9%															
2015	27.5%																

Evaluated as of (in months):

Notes: All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 75% to 99% of the total California workers' compensation insured market measured using 2015 earned premium levels).

Estimated Ultimate Indemnity Claim Settlement Ratios

Accident Year	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204
												Evaluated as of (in months):					
1991																99.0%	99.1%
1992															98.9%	99.0%	99.1%
1993														98.5%	98.6%	98.8%	98.9%
1994													97.9%	98.1%	98.4%	98.6%	98.7%
1995												97.1%	97.4%	97.8%	98.1%	98.4%	98.6%
1996											96.5%	97.0%	97.5%	97.8%	98.0%	98.3%	98.5%
1997										95.7%	96.4%	96.9%	97.3%	97.6%	97.9%	98.1%	98.3%
1998									94.1%	95.1%	95.9%	96.6%	96.9%	97.3%	97.6%	97.9%	98.1%
1999								92.3%	93.8%	94.9%	95.8%	96.3%	96.8%	97.1%	97.5%	97.8%	98.0%
2000							89.5%	91.6%	93.2%	94.4%	95.2%	95.9%	96.4%	97.0%	97.4%	97.7%	
2001						84.1%	87.8%	90.4%	92.2%	93.4%	94.4%	95.1%	95.9%	96.5%	96.9%		
2002					79.0%	84.6%	88.2%	90.8%	92.4%	93.7%	94.6%	95.7%	96.3%	96.8%			
2003				70.8%	79.4%	84.9%	88.4%	90.6%	92.3%	93.6%	95.0%	95.8%	96.3%				
2004			60.5%	72.6%	80.6%	85.1%	88.1%	90.4%	92.2%	94.1%	95.1%	95.8%					
2005		48.3%	62.8%	74.2%	80.9%	85.1%	88.2%	90.5%	92.9%	94.2%	95.3%						
2006	24.2%	49.5%	64.1%	74.4%	81.0%	85.2%	88.2%	91.2%	93.1%	94.3%							
2007	23.7%	48.2%	62.5%	72.8%	79.7%	84.2%	88.5%	91.1%	92.9%								
2008	22.8%	45.9%	60.3%	71.1%	78.5%	84.6%	88.5%	91.3%									
2009	21.2%	43.9%	58.5%	69.7%	78.4%	84.1%	88.2%										
2010	20.9%	44.3%	59.1%	71.5%	79.9%	85.4%											
2011	21.1%	44.4%	60.3%	72.4%	80.9%												
2012	20.9%	45.1%	61.5%	73.8%													
2013	20.3%	45.5%	62.8%														
2014	20.2%	46.7%															
2015	20.7%																

Notes: All figures in each accident year contain information from the same combination of insurers, all of whom submitted complete data for all evaluations for that accident year. Therefore, each accident year may contain a different mix of insurers (ranging from 75% to 99% of the total California workers' compensation insured market measured using 2015 earned premium levels).

Quarterly Ultimate Settlement Ratios

Accident Year	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
							Evaluated as of (in months):									
2007	0.8%	5.3%	13.3%	23.7%	33.0%	39.5%	43.9%	48.2%	51.7%	55.6%	58.7%	62.5%	65.3%	67.9%	70.4%	72.8%
2008	0.8%	5.5%	13.3%	22.9%	31.5%	37.7%	42.0%	45.9%	49.6%	53.3%	56.8%	60.3%	63.3%	66.0%	68.7%	71.1%
2009	0.7%	4.7%	12.2%	21.2%	29.5%	35.5%	39.8%	43.9%	47.5%	51.2%	55.0%	58.5%	61.6%	64.6%	67.2%	69.7%
2010	0.7%	4.7%	11.7%	20.9%	29.6%	35.6%	39.9%	44.3%	48.1%	52.1%	55.6%	59.1%	62.3%	65.6%	68.6%	71.5%
2011	0.8%	5.1%	11.8%	21.1%	29.4%	35.5%	40.0%	44.4%	48.2%	52.5%	56.4%	60.4%	63.6%	66.6%	69.7%	72.4%
2012	0.8%	4.9%	11.9%	20.9%	29.0%	35.5%	40.3%	45.1%	49.2%	53.5%	57.7%	61.5%	65.0%	68.2%	71.1%	73.8%
2013	0.9%	4.9%	11.4%	20.3%	28.7%	35.2%	40.6%	45.5%	50.2%	54.7%	58.8%	62.8%				
2014	0.7%	4.6%	11.4%	20.2%	29.1%	35.9%	41.6%	46.7%								
2015	0.8%	4.6%	11.8%	20.7%												

Accident Year	3-6	6-9	9-12	12-15	15-18	18-21	21-24	24-27	27-30	30-33	33-36	36-39	39-42	42-45	45-48
							Quarterly Incremental Change								
2007	4.5%	8.0%	10.4%	9.3%	6.5%	4.5%	4.3%	3.5%	3.8%	3.2%	3.8%	2.8%	2.6%	2.5%	2.4%
2008	4.6%	7.8%	9.7%	8.6%	6.2%	4.3%	3.9%	3.6%	3.7%	3.5%	3.5%	2.9%	2.8%	2.6%	2.4%
2009	4.0%	7.5%	9.0%	8.2%	6.0%	4.4%	4.0%	3.6%	3.7%	3.8%	3.6%	3.0%	3.1%	2.6%	2.5%
2010	4.1%	7.0%	9.2%	8.6%	6.0%	4.4%	4.3%	3.8%	4.0%	3.6%	3.5%	3.1%	3.3%	3.0%	2.9%
2011	4.3%	6.8%	9.2%	8.3%	6.1%	4.5%	4.4%	3.9%	4.3%	3.9%	4.0%	3.3%	3.0%	3.0%	2.8%
2012	4.1%	7.0%	9.0%	8.1%	6.5%	4.8%	4.8%	4.1%	4.3%	4.2%	3.8%	3.4%	3.2%	2.9%	2.8%
2013	4.0%	6.5%	8.9%	8.4%	6.5%	5.4%	4.9%	4.7%	4.5%	4.1%	4.0%				
2014	3.9%	6.8%	8.9%	8.9%	6.8%	5.7%	5.1%								
2015	3.8%	7.1%	8.9%												

California Workers' Compensation
Estimated Indemnity Claim Frequency by Accident Year

Year-to-Year Change
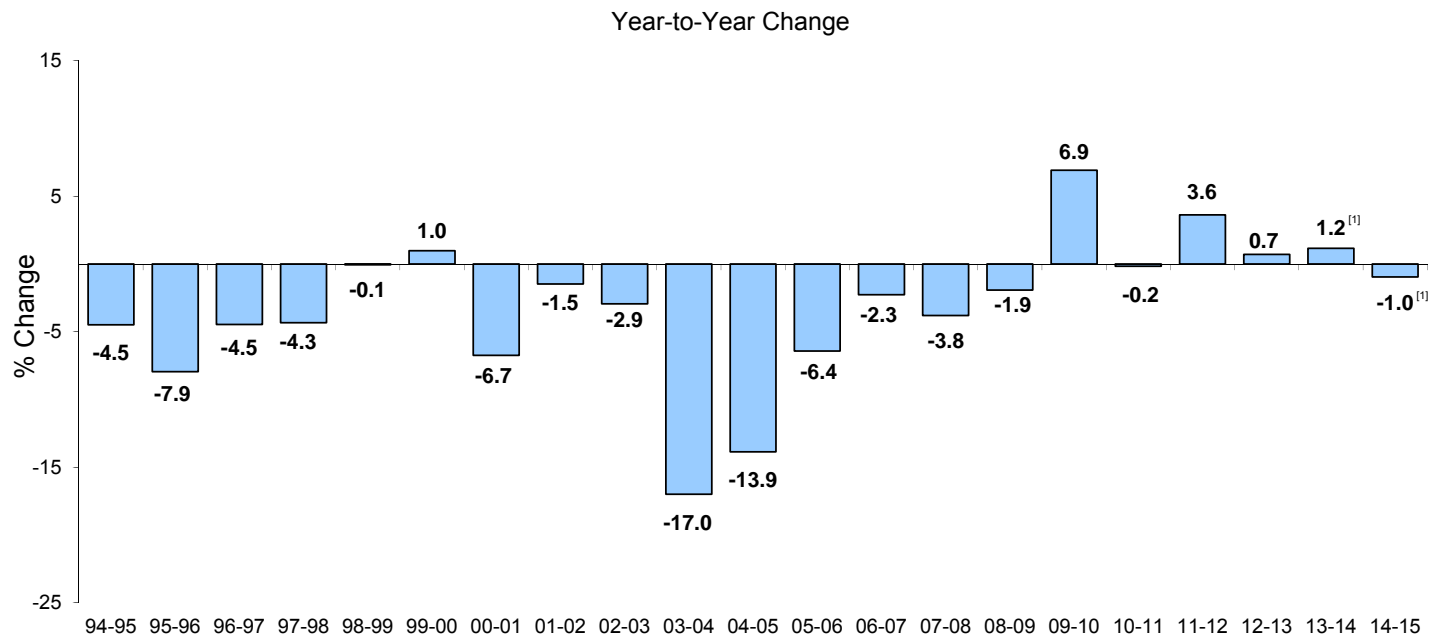
[1] The 2013-2014 estimate is based on partial year unit statistical data.   The 2014-2015 estimate is based on comparison of claim counts based on WCIRB accident year experience as of December 31, 2015 relative to the estimated change in statewide employment. Prior years are based on unit statistical data.

Item AC16-03-03
Loss Development at Earlier and Later Maturities

In 2014, the Committee reviewed a study of loss development that included an analysis of potential alternative approaches to projecting loss development at earlier maturities.[1] Specifically, the Bornhuetter-Ferguson (BF) expected loss ratio (ELR)-based approach was shown to produce developed loss ratios that were often more accurate than those produced by chain-ladder (CL) methods. The Committee suggested staff continue to refine the BF approach and study its applicability to projecting developed loss ratios for less mature accident years, where CL development factors are highly leveraged.

At the March 18, 2015 meeting, the Committee reviewed a study of allocated loss adjustment expense (ALAE) development which showed that an inverse power curve fit very well to the paid ALAE age-to-age factors at later maturities.[2] This approach, with some refinements, was adopted by the Committee for the ALAE projection at that meeting and reflected in the January 1, 2016 Pure Premium Rate Filing. At the meeting, the Committee recommended studying the applicability of an inverse power curve fit to the indemnity and medical loss development tails.

Staff's preliminary analysis of these potential alternative loss development approaches is discussed below.

Loss Development at Earlier Maturities – BF Method
In the 2014 loss development study, staff compared several ELR-based approaches including the BF as well as alternatives including the Cape Cod and Benktander methods to the CL approach. In that study it was noted that, compared to the standard BF approach, the alternative ELR-based methods resulted in significant additional complexity in the calculation but did not increase the accuracy of the projections. Staff had also reviewed several approaches of projecting the ELR including adjusting the projected loss ratio from the most recent pure premium rate filing to the target accident year level, trending loss ratios from older accident years at the target maturity to the target accident year, or developing the loss ratios from the immediate prior accident years to the target maturity and then trending them to the target year. Staff found that the approach that trends from older years at the target maturity involved the fewest assumptions and produced projections at least as accurate as the other alternatives tested. As a result, for this study staff has focused on the standard BF approach with the ELR based on the reported loss ratios from accident years at the target maturity trended to the target accident year.

Staff conducted retrospective tests of the BF method compared to the CL method for both paid and incurred indemnity and medical loss development. The BF methods included ELRs projected by (a) trending from the latest two years and (b) trending from the latest year only, while the CL method was based on latest-year age-to-age development.[3] The trending approach used in the ELR projections was based on separate frequency and severity trend projections with the frequency trend based on the actual indemnity claim frequency changes from the base year to the target year and the severity projections based on the five-year average on-level indemnity or medical severity trends. The premium and losses in the base year's reported loss ratio were also on-leveled to the target year. Contrary to the 2014 study, in which all on-level and trend factors were based on hindsight actual data, the on-level and trend selections in this study were based on the information available in the pure premium rate filing in which the target accident year would have been used (for example, to project accident year 2014, the base year(s) utilized on-level and trend factors from the January 1, 2016 Pure Premium Rate Filing). In this way, the retrospective tests more accurately show how each method would have performed at the time of its use.

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[1] See Item AC14-03-03 of the March 19, 2014 and June 11, 2014 Actuarial Committee Agendas.

[2] See Item AC14-12-02 of the March 18, 2015 Actuarial Committee Agenda.

[3] None of the methods tested reflected adjustments to development for the impact of Senate Bill No. 863 or other reforms.

As an example, Exhibit 1 shows the BF calculation for accident year 2013 paid development projected from 12 months to 24 months.

Exhibits 2.1 and 2.2 show for indemnity and medical, respectively, the percentage difference in the developed paid or incurred loss ratio under each method compared to actual paid or incurred loss ratio that emerged for that accident year. Projections to 24 months, 36 months, and 48 months were analyzed. Exhibits 3.1 and 3.2 show ranks of the absolute value of these differences, while Exhibits 4.1 through 4.3 show the absolute value of these differences graphically.

The accident years tested were grouped approximately by claim environment, including the Minniear pre-reform era (1998-2001), the reform transition era (2002-2004), the post-reform/recession era (2005-2008), and the post-recession/SB 863 era (2009-2013). The root mean squared error (rMSE) of the projections and average rank by claims environment are summarized on Exhibits 5.1 through 5.3. While the BF methods were more accurate in some cases, the CL methods performed much better overall. In general, during periods where uncertainty in the rate claims were paid or incurred was greater than uncertainty in changes in the overall loss level, the BF approach tended to perform better than the CL approach, and vice versa, since the BF method relies less on the most recent loss development factors and more on accurate on-level and trend projections. However, reforms and other system shocks that occurred during these periods often affected the overall loss level much more significantly than the rate of loss development at early maturities.

Loss Development at Later Maturities – Inverse Power Curve
The WCIRB's current "calendar year development" approach to developing the loss tail is based on relating the reported aggregate calendar year incremental change in incurred losses for all accident years older than the "base" year (for example, accident year 1984 is the "base" year for December 31, 2014 experience) to the cumulative reported losses for the "base" year. For many years, the resulting factors for indemnity have been reduced to 20% of their reported values for asbestosis claims in pre-1980 accident years.[4] Since 2012, the factors for medical have been adjusted for the effects of medical inflation that adjusts the calendar year incremental incurred changes to the inflation level that is estimated to be in effect when the "base" year is at the specified maturity level.[5] A six-year average of these tail development factors are selected to improve stability.

At the March 18, 2015 meeting, the Committee reviewed several alternative tail development approaches for ALAE including a calendar year development approach similar to that used for losses as well as several approaches that fit the paid ALAE age-to-age factors to a function and extrapolated a tail development factor based on the fitted factors. At that meeting, the Committee noted that the inverse power curve fit very well to the paid ALAE age-to-age factors and much better than the other functions tested. It was also noted that the inverse power curve approach utilized less tail development data and required fewer additional adjustments (such as for the effects of inflation) than the calendar year development approach. As a result, the Committee adopted this approach for ALAE at that meeting and recommended studying its applicability to indemnity and medical losses.

Staff analyzed several fits of the inverse power curve to the paid and incurred indemnity and medical age-to-age factors.[6] As with ALAE, the assumptions of the inverse power tail approach include (a) the number of calendar years' factors to use in the fit (additional years improve stability but may reduce responsiveness), (b) the maturity at which to start the fit (starting earlier may improve the fit but may also

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[4] This adjustment was last reviewed in detail by the Committee at the March 22, 2004 meeting (Item AC02-03-02).

[5] See Item AC11-12-04 of the March 20, 2012 and June 15, 2012 Actuarial Committee Agendas.

[6] Due to properties of the inverse power curve, it cannot be fitted to development factors less than 1, since this would involve taking the natural logarithm of a negative number. In the instances where the 3-year through 6-year average of factors resulted in a factor less than 1, it was ignored in the fit. These observations occurred in less than 3% of the empirical factors, the majority of which were from the fit to the 3-year average indemnity factors.

over fit to the less mature factors), and (c) the point at which to stop the extrapolation to determine the development tail. For ALAE, the approach adopted by the Committee at the March 18, 2015 meeting and reflected in the January 1, 2016 Pure Premium Rate Filing fit the inverse power curve to the average of the latest three calendar years' paid ALAE age-to-age factors starting with the 10th development year and extrapolated to the 65th development year. For the applicability to indemnity and medical losses, staff tested several variations of these assumptions, including (a) fitting to 3-year through 6-year averages of age-to-age factors, (b) starting fit points from 10 years through 20 years (all fits ended at 29 years, the latest available maturity for which multi-year averages of factors are available), and (c) stopping extrapolation points through 100 years.

Exhibit 6.1 shows an example calculation based on December 31, 2014 experience for fitting the 6-year average indemnity incurred factors and Exhibit 6.2 shows the calculation for fitting the 6-year average medical incurred factors. The goodness of fit measured by the overall R-squared was generally very good when fitting from the 10th year and decreased when starting with later development years.

In order to further test the reasonableness of the fits, staff fit age-to-age factors from periods up through December 31, 2013 and compared the resulting fitted factors to the empirical data as well as the actual age-to-age factors emerging for December 31, 2014 experience. These comparisons are shown graphically on Exhibits 7.1 through 7.8. In general, fitting from the 10th year fit reasonably well to both the empirical and actual data, and converged to 1.000 more rapidly than the alternative starting points.

As shown on Exhibits 7.1 through 7.8, the inverse power curve fit reasonably well to both paid and incurred age-to-age factors. However, as discussed at the March 19, 2014 and June 11, 2014 meetings and in recent pure premium rate filings, use of paid development factors from older accident years may be distorted by shifts in paid and incurred development patterns occurring in the mid-1990s.[7] As a result, inasmuch as the paid age-to-age factors from older accident years are not used in the WCIRB's current loss development methodology, staff focused mainly on the incurred age-to-age factors.

Exhibits 8.1 through 8.4 summarize various alternative approaches for fitting from the 10th through 29th development years based on December 31 experience. The 348-to-ultimate factor based on fitting the indicated number of calendar years (3 through 6) and stopping point (40 years through 100 years) is shown. The R-squared for each fit is also shown and the fit indicating the greatest R-squared for each set of December 31 experience is highlighted. While no number of calendar years indicated a consistently better fit, they generally fit very well to the data and produced tail factors reasonably close to each other within each stopping point.

Also shown for comparison on Exhibits 8.1 and 8.2 are the 6-year average adjusted incurred 348-to-ultimate factors indicated by the WCIRB's current "calendar year development" approach as well as the unadjusted factors for indemnity (i.e., not including the 80% reduction for asbestosis claims) and medical (i.e., not including the adjustment for medical inflation). The fitted tail factors are reasonably close to those indicated by the WCIRB's current approach and generally in between the adjusted and unadjusted "calendar year development" factors. An advantage of the fitted approach is that it does not require the additional adjustments made in the calendar year development approach, which include their own assumptions, since no factors prior to 1980 (where most asbestosis claims are assumed to have occurred) are used in the fit and the fit only uses cumulative age-to-age factors (so distortions for inflation are minimal).

As a measure of stability, the lower section of Exhibits 8.1 through 8.4 show the standard deviation in each of the fitted approaches as well as that for the calendar year development approach. In general, using more calendar years in the fit and stopping earlier results in more stable tail factors. Particularly for incurred medical (Exhibit 8.2), fits using 6-year averages of factors were significantly more stable than the

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[7] See Item AC14-03-03 of the March 19, 2014 and June 11, 2014 Actuarial Committee Agendas.

current adjusted calendar year development approach. In order to determine an appropriate stopping point, staff reviewed data from the most recent Long Term Loss Development Survey and found that positive incurred development continues to occur on claims over 77 years old, suggesting a stopping point of 80 years may be appropriate.

Table 1 summarizes a number of the inverse power curve fit approaches as well as the calendar year development approach based on December 31, 2014 experience.

Table 1 – Alternative Incurred Tail Development Approaches					
Component	Approach	# of Calendar Years Used	Starting Point of Fit	Stopping Point of Extrapolation	Incurred 348-to-Ult. Factor
Indemnity	CY Dev (Adj.)	6	N/A	N/A	1.002
Indemnity	CY Dev (Unadj.)	6	N/A	N/A	1.008
Indemnity	Inverse Power	3	Year 10	65 Years	1.003
Indemnity	Inverse Power	6	Year 10	65 Years	1.004
Indemnity	Inverse Power	6	Year 10	80 Years	1.005
Medical	CY Dev (Adj.)	6	N/A	N/A	1.049
Medical	CY Dev (Unadj.)	6	N/A	N/A	1.027
Medical	Inverse Power	3	Year 10	65 Years	1.023
Medical	Inverse Power	6	Year 10	65 Years	1.038
Medical	Inverse Power	6	Year 10	80 Years	1.044

Exhibit 1

Bornhuetter-Ferguson Paid Development Method Calculation
Data Evaluated as of 12/31/2014

	Paid to 24 Months	
	Indemnity	Medical
1. AY 2013 Reported Paid Loss Ratio at 12 Months	0.024	0.040
2. Reported Paid Loss Ratios at 24 Months for ELR		
a. 2011	0.092	0.131
b. 2012	0.085	0.118
3. Actual Frequency Changes*		
a. 2012	3.2%	3.2%
b. 2013	4.9%	4.9%
4. 5-Year Average Severity Change*	0.5%	4.5%
5. Composite Loss On-Level Adjustment Factors*		
a. 2011	1.147	1.004
b. 2012	1.124	1.003
c. 2013	1.131	1.056
6. Composite Premium On-Level Adjustment Factors*		
a. 2011	1.274	1.274
b. 2012	1.140	1.140
c. 2013	1.002	1.002
7. AY 2013 Expected Paid Loss Ratio at 24 Months		
a. Projected from 2011 ((2a) x (3a) x (3b) x (4)^2 x (5c)/(5a) x (6a)/(6c))	0.080	0.116
b. Projected from 2012 ((2b) x (3b) x (4) x (5c)/(5b) x (6b)/(6c))	0.078	0.108
c. Average	0.079	0.112
8. Projected 12-to-24 Paid Development Factor	3.137	2.553
9. AY 2013 Projected Paid Loss Ratio at 24 Months	0.078	0.108
10. Actual AY 2013 Paid Loss Ratio at 24 Months	0.075	0.100
11. Difference from Actual		
a. Projected from 2012	2.6%	5.6%
b. Projected from 2011 and 2012	3.5%	7.9%
12. Chain Ladder Estimate ((1) x (8))	0.074	0.102
13. Chain Ladder Difference from Actual	-0.9%	2.2%

* Factors are from 1/1/2016 Pure Premium Rate Filing

Deviation of Alternative Loss Development Indication from Actual Loss Ratio: Indemnity

Deviation from Actual Paid or Incurred Indemnity Loss Ratio at 24 Months
Developed from 12 to 24 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CL-LYPaid	0.4%	-2.2%	-0.7%	-3.3%	-1.2%	5.4%	14.1%	5.0%	-4.8%	-1.3%	-0.7%	-4.6%	-2.8%	-1.6%	2.2%	-0.9%
CL-LYIncurred	-7.4%	-3.0%	-3.6%	-2.5%	-5.4%	6.5%	19.9%	-6.5%	-10.9%	-5.3%	-4.0%	-6.3%	-0.6%	-0.2%	0.1%	3.0%
BF-LYPaid	0.2%	-2.8%	7.9%	3.8%	0.9%	7.5%	6.1%	-12.7%	-6.6%	-6.9%	-4.9%	-6.6%	-1.3%	-1.3%	2.9%	2.6%
BF-LYIncurred	-6.8%	-3.5%	3.3%	11.2%	9.8%	25.4%	39.7%	4.2%	-13.8%	-13.7%	-10.6%	-9.9%	1.4%	1.5%	5.2%	7.8%
BF-2YAvgPaid	-2.1%	-1.8%	10.6%	6.9%	1.3%	8.8%	8.3%	-13.4%	-18.0%	-9.5%	-7.3%	-7.1%	-2.7%	0.4%	2.0%	3.5%
BF-2YAvgIncurred	-5.9%	-3.7%	2.1%	2.3%	-2.7%	9.7%	18.9%	-8.5%	-14.9%	-8.7%	-6.8%	-8.6%	-1.6%	0.5%	1.7%	4.6%

Deviation from Actual Paid or Incurred Indemnity Loss Ratio at 36 Months
Developed from 12 to 36 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CL-LYPaid	-0.1%	-5.9%	-4.0%	-7.0%	-5.4%	10.7%	31.9%	17.7%	-5.9%	-3.6%	-3.1%	-8.7%	-5.9%	-1.3%	4.1%
CL-LYIncurred	-11.1%	-7.8%	-5.3%	-5.3%	-7.0%	17.7%	29.1%	-8.6%	-17.2%	-9.4%	-8.0%	-7.7%	-1.6%	1.1%	2.7%
BF-LYPaid	-5.3%	-3.1%	12.1%	8.1%	-1.8%	16.3%	29.2%	-7.7%	-34.4%	-16.0%	-13.3%	-11.9%	-7.3%	3.0%	2.7%
BF-LYIncurred	-10.4%	-7.8%	3.1%	1.5%	-3.1%	22.9%	32.8%	-9.7%	-27.8%	-15.4%	-13.3%	-10.9%	-5.0%	3.9%	3.6%
BF-2YAvgPaid	-5.1%	-5.2%	13.7%	7.7%	0.9%	16.7%	28.3%	-4.5%	-33.0%	-28.4%	-16.6%	-13.1%	-8.0%	1.4%	3.4%
BF-2YAvgIncurred	-10.0%	-9.3%	3.2%	0.4%	-2.1%	22.6%	33.1%	-6.9%	-26.9%	-23.2%	-15.6%	-12.1%	-5.6%	2.6%	4.4%

Deviation from Actual Paid or Incurred Indemnity Loss Ratio at 48 Months
Developed from 12 to 48 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
CL-LYPaid	-2.2%	-8.5%	-7.0%	-11.1%	-6.3%	14.9%	41.0%	23.0%	-4.3%	-4.4%	-5.9%	-12.3%	-8.2%	-1.2%
CL-LYIncurred	-14.7%	-10.0%	-6.0%	-5.2%	-3.2%	22.7%	31.8%	-11.0%	-20.3%	-12.4%	-11.1%	-10.3%	-2.4%	1.2%
BF-LYPaid	-7.0%	-9.1%	12.3%	3.5%	2.8%	20.8%	36.3%	2.3%	-31.9%	-43.3%	-23.1%	-18.0%	-11.2%	0.1%
BF-LYIncurred	-13.4%	-12.5%	3.0%	0.1%	3.3%	27.5%	37.3%	-6.0%	-29.4%	-34.8%	-21.5%	-16.1%	-7.3%	1.5%
BF-2YAvgPaid	-6.1%	-8.5%	12.6%	4.0%	1.8%	23.2%	33.3%	1.2%	-30.0%	-44.6%	-33.4%	-20.6%	-12.8%	-0.3%
BF-2YAvgIncurred	-12.7%	-12.4%	2.7%	-0.4%	2.1%	28.6%	35.6%	-5.8%	-28.1%	-35.9%	-28.6%	-18.5%	-8.8%	1.4%

Exhibit 2.1

Deviation of Alternative Loss Development Indication from Actual Loss Ratio: Medical

Deviation from Actual Paid or Incurred Medical Loss Ratio at 24 Months
Developed from 12 to 24 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CL-LYPaid	-3.4%	-5.5%	-7.8%	-10.6%	-1.9%	10.3%	9.6%	0.7%	-3.5%	-4.6%	3.9%	-3.5%	-2.9%	-5.1%	0.7%	2.2%
CL-LYIncurred	-7.5%	-4.9%	-6.9%	-9.3%	-2.6%	2.2%	13.4%	-4.5%	-4.6%	-3.8%	-0.6%	-4.8%	-1.0%	-2.8%	4.9%	4.2%
BF-LYPaid	-4.2%	-3.4%	2.8%	-1.5%	2.3%	12.2%	16.0%	-2.4%	-5.6%	-8.1%	-0.3%	-2.2%	0.9%	-2.3%	2.0%	5.6%
BF-LYIncurred	-7.8%	-5.2%	-2.1%	0.1%	4.8%	19.6%	29.6%	-2.4%	-9.6%	-11.2%	-7.3%	-8.0%	-0.3%	-1.2%	7.9%	8.7%
BF-2YAvgPaid	-5.8%	-3.3%	5.4%	1.4%	3.8%	13.6%	19.0%	-2.2%	-7.1%	-11.5%	-1.9%	-1.8%	0.8%	-0.2%	0.8%	7.9%
BF-2YAvgIncurred	-7.7%	-4.4%	-1.4%	-2.9%	0.6%	6.2%	16.4%	-5.2%	-6.7%	-7.7%	-2.3%	-3.9%	0.4%	-1.1%	4.7%	6.7%

Deviation from Actual Paid or Incurred Medical Loss Ratio at 36 Months
Developed from 12 to 36 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CL-LYPaid	-7.8%	-11.1%	-15.2%	-15.1%	-1.3%	22.8%	15.7%	-2.2%	-7.9%	-9.2%	2.3%	-5.7%	-6.7%	-6.7%	1.7%
CL-LYIncurred	-13.9%	-12.5%	-12.5%	-13.0%	-2.3%	15.5%	20.1%	-8.4%	-9.5%	-6.3%	-1.9%	-6.7%	-3.6%	-2.1%	6.5%
BF-LYPaid	-12.0%	-8.1%	1.8%	0.9%	7.9%	27.5%	31.7%	-5.2%	-13.9%	-20.5%	-6.1%	-3.2%	-2.6%	1.6%	2.2%
BF-LYIncurred	-14.8%	-11.9%	-4.6%	-4.2%	4.0%	22.0%	27.3%	-9.3%	-13.2%	-14.1%	-5.1%	-5.3%	-2.3%	2.0%	4.9%
BF-2YAvgPaid	-11.3%	-9.4%	1.7%	1.6%	10.0%	29.3%	31.8%	-2.1%	-13.0%	-24.2%	-9.3%	-2.6%	-2.8%	1.0%	2.5%
BF-2YAvgIncurred	-14.2%	-12.7%	-5.3%	-4.3%	5.1%	23.1%	27.3%	-7.9%	-13.0%	-16.8%	-7.2%	-4.6%	-2.5%	1.3%	5.4%

Deviation from Actual Paid or Incurred Medical Loss Ratio at 48 Months
Developed from 12 to 48 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
CL-LYPaid	-12.3%	-15.8%	-17.9%	-17.0%	2.0%	28.3%	16.7%	-6.3%	-11.6%	-12.2%	-0.3%	-8.9%	-9.3%	-7.7%
CL-LYIncurred	-21.3%	-17.1%	-15.2%	-13.2%	3.5%	23.4%	19.8%	-10.8%	-13.3%	-7.3%	-5.5%	-9.7%	-4.1%	-2.0%
BF-LYPaid	-14.9%	-15.2%	-0.8%	0.9%	16.7%	35.2%	33.6%	-3.0%	-16.1%	-31.1%	-15.4%	-5.0%	-5.5%	-0.2%
BF-LYIncurred	-20.8%	-17.6%	-8.4%	-3.6%	13.4%	32.9%	28.2%	-8.6%	-16.6%	-22.3%	-13.3%	-6.8%	-3.2%	1.0%
BF-2YAvgPaid	-13.6%	-13.6%	-0.8%	0.9%	17.6%	36.9%	32.0%	-3.9%	-13.0%	-35.0%	-18.7%	-8.4%	-6.1%	-0.5%
BF-2YAvgIncurred	-20.6%	-16.9%	-8.4%	-4.6%	13.9%	33.4%	27.6%	-8.8%	-14.9%	-25.2%	-15.5%	-9.4%	-3.7%	0.8%

Exhibit 2.2

Rank of Absolute Deviation of Methodology Indication from Actual Loss Ratio: Indemnity

Rank of Absolute Deviation from Actual Paid or Incurred Indemnity Loss Ratio
Developed from 12 to 24 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CL-LYPaid	2	2	1	3	2	1	3	2	1	1	1	1	6	6	4	1
CL-LYIncurred	6	4	4	2	5	2	5	3	3	2	2	2	1	1	1	3
BF-LYPaid	1	3	5	4	1	3	1	5	2	3	3	3	2	4	5	2
BF-LYIncurred	5	5	3	6	6	6	6	1	4	6	6	6	3	5	6	6
BF-2YAvgPaid	3	1	6	5	3	4	2	6	6	5	5	4	5	2	3	4
BF-2YAvgIncurred	4	6	2	1	4	5	4	4	5	4	4	5	4	3	2	5

Rank of Absolute Deviation from Actual Paid or Incurred Indemnity Loss Ratio
Developed from 12 to 36 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CL-LYPaid	1	3	3	4	5	1	4	6	1	1	1	2	4	2	5
CL-LYIncurred	6	4	4	3	6	4	2	4	2	2	2	1	1	1	2
BF-LYPaid	3	1	5	6	2	2	3	3	6	4	4	4	5	5	1
BF-LYIncurred	5	5	1	2	4	6	5	5	4	3	3	3	2	6	4
BF-2YAvgPaid	2	2	6	5	1	3	1	1	5	6	6	6	6	3	3
BF-2YAvgIncurred	4	6	2	1	3	5	6	2	3	5	5	5	3	4	6

Rank of Absolute Deviation from Actual Paid or Incurred Indemnity Loss Ratio
Developed from 12 to 48 Months for Accident Year

| Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
CL-LYPaid	1	1	4	6	6	1	6	6	1	1	1	2	3	4
CL-LYIncurred	6	4	3	5	4	3	1	5	2	2	2	1	1	3
BF-LYPaid	3	3	5	3	3	2	4	2	6	5	4	4	5	1
BF-LYIncurred	5	6	2	1	5	5	5	4	4	3	3	3	2	6
BF-2YAvgPaid	2	2	6	4	1	4	2	1	5	6	6	6	6	2
BF-2YAvgIncurred	4	5	1	2	2	6	3	3	3	4	5	5	4	5

Exhibit 3.1

Rank of Absolute Deviation of Methodology Indication from Actual Loss Ratio: Medical

Rank of Absolute Deviation from Actual Paid or Incurred Medical Loss Ratio
Developed from 12 to 24 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CL-LYPaid	1	6	6	6	2	3	1	1	1	2	5	3	6	6	1	1
CL-LYIncurred	4	4	5	5	4	1	2	5	2	1	2	5	5	5	5	2
BF-LYPaid	2	2	3	3	3	4	3	3	3	4	1	2	4	4	3	3
BF-LYIncurred	6	5	2	1	6	6	6	4	6	5	6	6	1	3	6	6
BF-2YAvgPaid	3	1	4	2	5	5	5	2	5	6	3	1	3	1	2	5
BF-2YAvgIncurred	5	3	1	4	1	2	4	6	4	3	4	4	2	2	4	4

Rank of Absolute Deviation from Actual Paid or Incurred Medical Loss Ratio
Developed from 12 to 36 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CL-LYPaid	1	3	6	6	1	3	1	2	1	2	2	5	6	6	1
CL-LYIncurred	4	5	5	5	2	1	2	5	2	1	1	6	5	5	6
BF-LYPaid	3	1	2	1	5	5	5	3	6	5	4	2	3	3	2
BF-LYIncurred	6	4	3	3	3	2	4	6	5	3	3	4	1	4	4
BF-2YAvgPaid	2	2	1	2	6	6	6	1	4	6	6	1	4	1	3
BF-2YAvgIncurred	5	6	4	4	4	4	3	4	3	4	5	3	2	2	5

Rank of Absolute Deviation from Actual Paid or Incurred Medical Loss Ratio
Developed from 12 to 48 Months for Accident Year

Method	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
CL-LYPaid	1	3	6	6	1	2	1	3	1	2	1	4	6	6
CL-LYIncurred	6	5	5	5	2	1	2	6	3	1	2	6	3	5
BF-LYPaid	3	2	1	2	5	5	6	1	5	5	4	1	4	1
BF-LYIncurred	5	6	4	3	3	3	4	4	6	3	3	2	1	4
BF-2YAvgPaid	2	1	2	1	6	6	5	2	2	6	6	3	5	2
BF-2YAvgIncurred	4	4	3	4	4	4	3	5	4	4	5	5	2	3

Exhibit 3.2

Exhibit 4.1
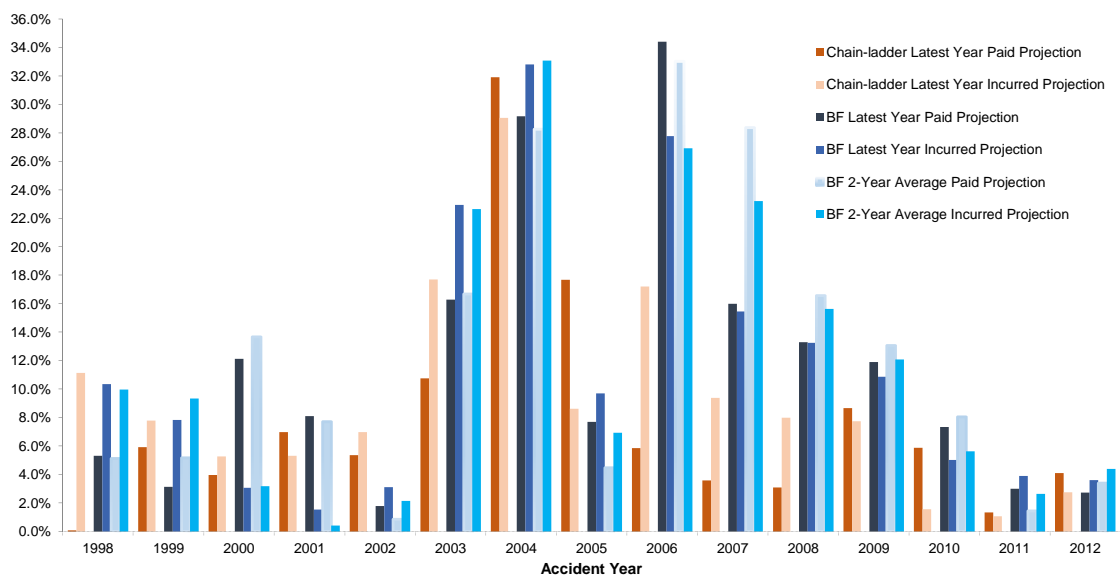

Absolute Differences of Indemnity Loss Ratio Projection from Actual Development to 24 Months from 12 Months
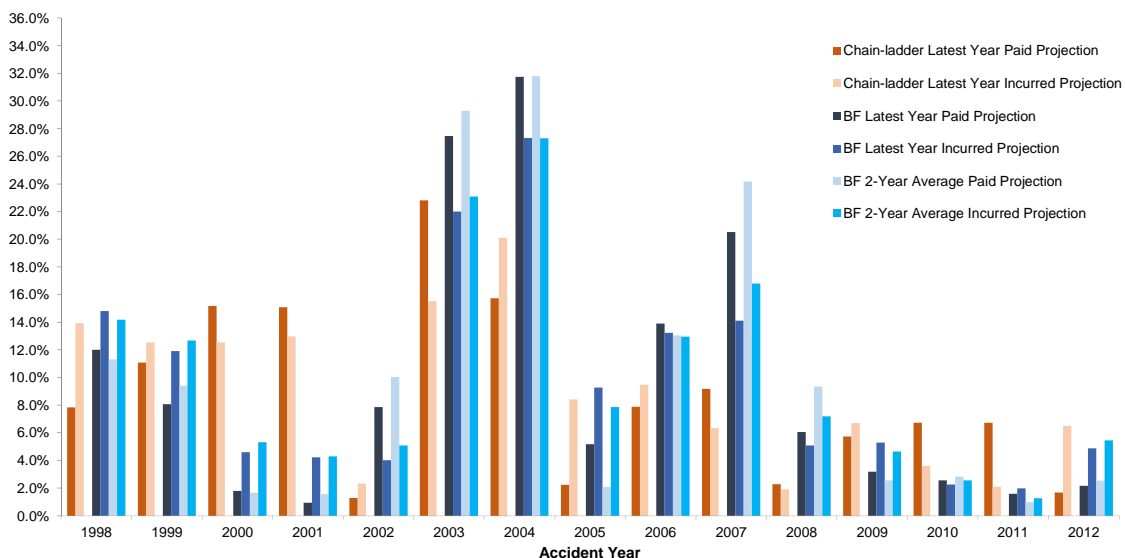

Absolute Differences of Medical Loss Ratio Projection from Actual Development to 24 Months from 12 Months
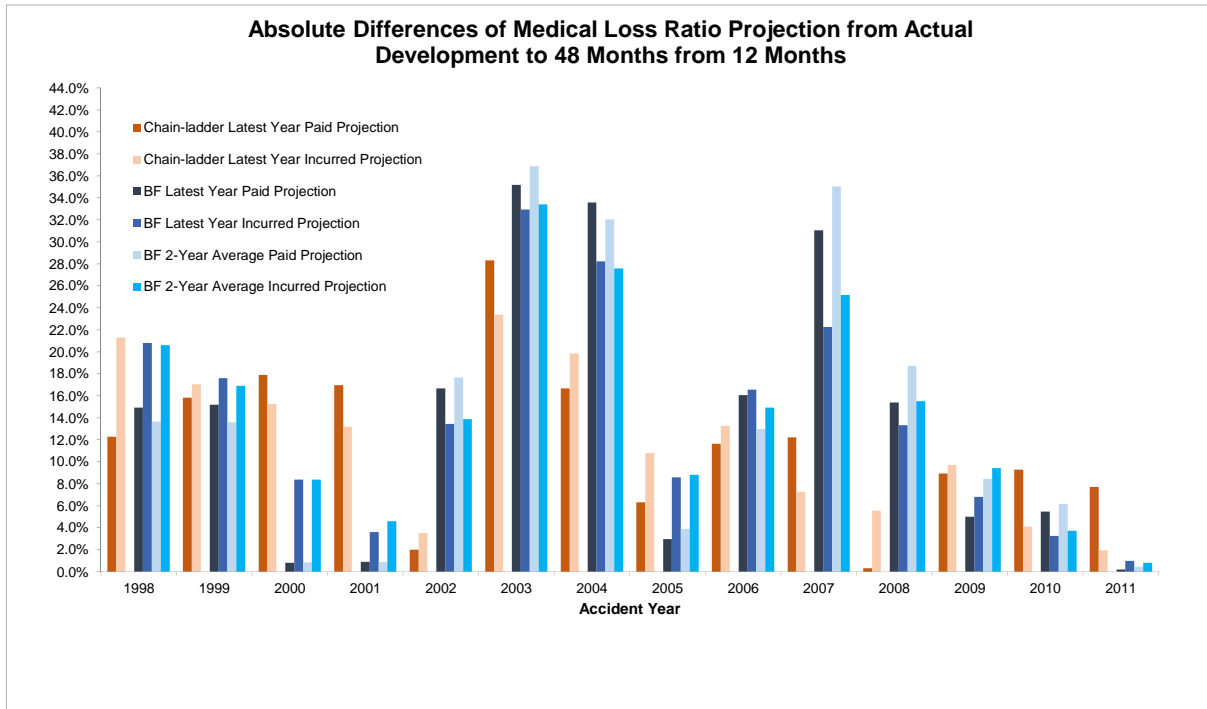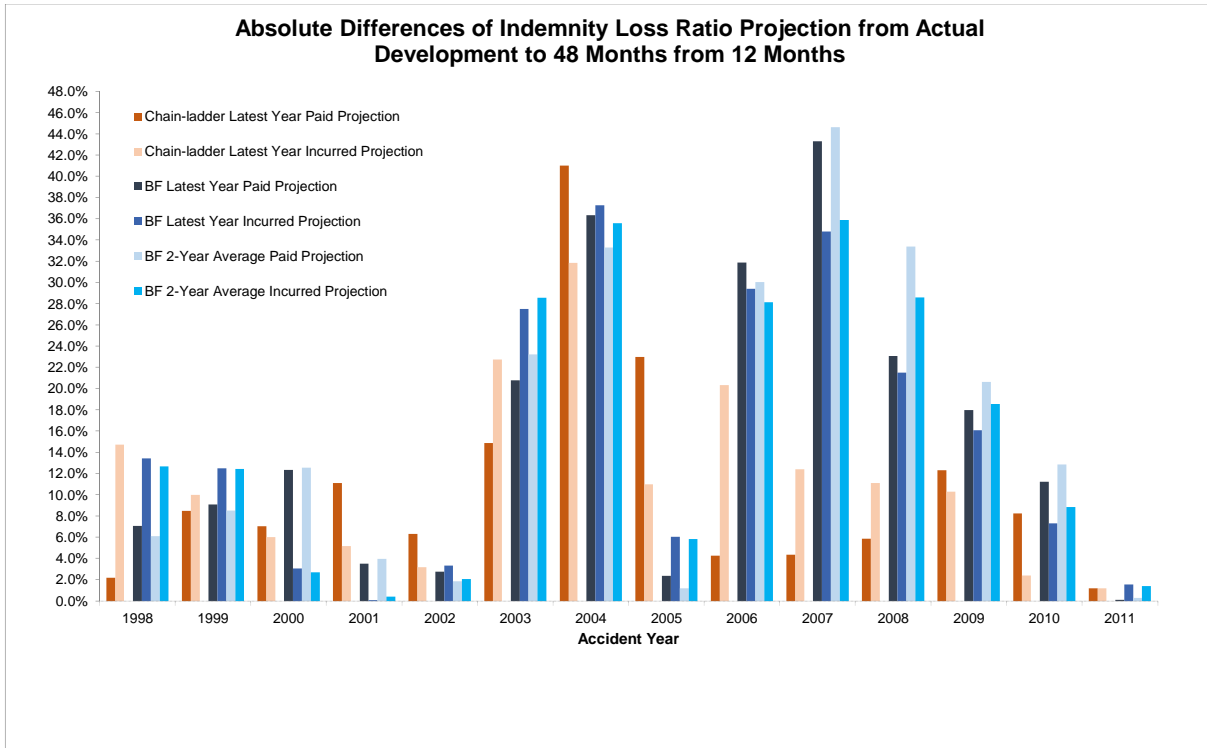
Exhibit 4.2

Absolute Differences of Indemnity Loss Ratio Projection from Actual
Development to 36 Months from 12 Months

Absolute Differences of Medical Loss Ratio Projection from Actual
Development to 36 Months from 12 Months

Exhibit 4.3
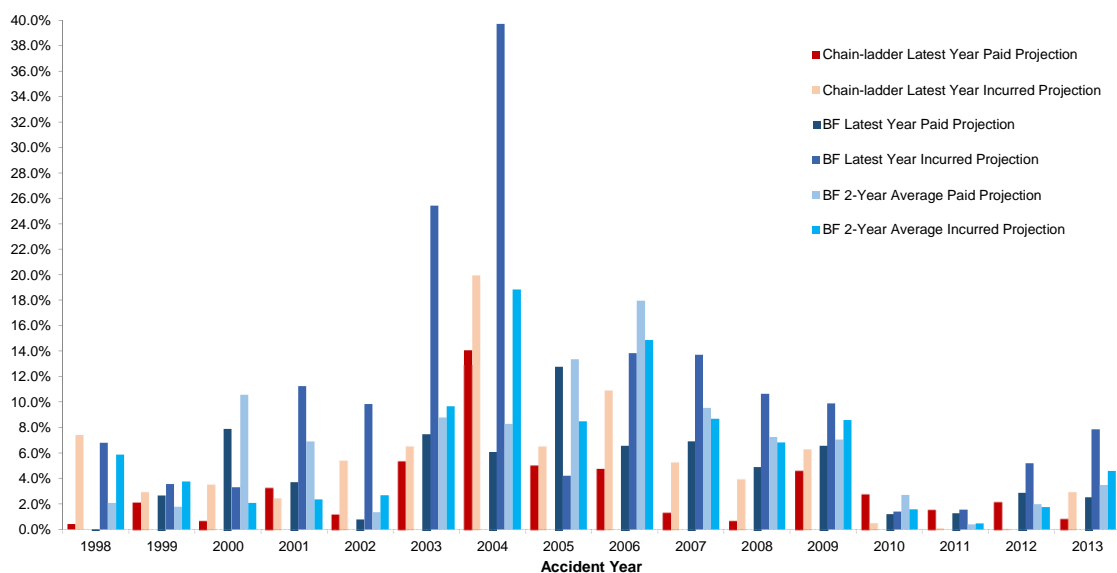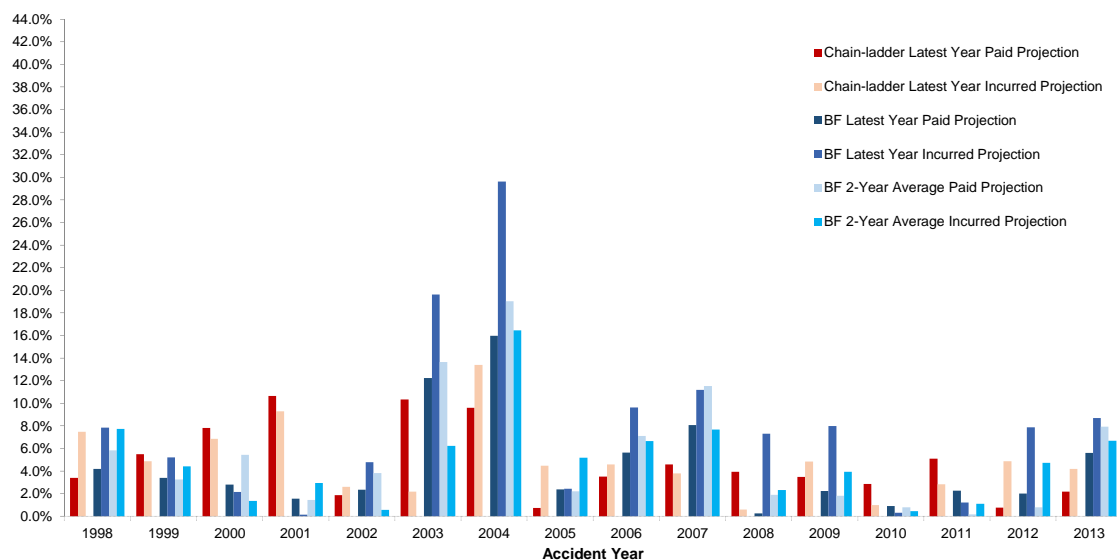
Absolute Differences of Indemnity Loss Ratio Projection from Actual Development to 48 Months from 12 Months

Absolute Differences of Medical Loss Ratio Projection from Actual Development to 48 Months from 12 Months

Mean Square Error and Average Rank of Absolute Difference from Actual Paid or Incurred Loss Ratio at 24 Months by Claims Environment

Indemnity

	Root Mean Square Error (rMSE)				Average Rank of Absolute Difference			
Development Methodology	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)
CL-LYPaid	0.020	0.087	0.036	0.027	2.0	2.0	1.3	3.6
CL-LYIncurred	0.045	0.125	0.072	0.031	4.0	4.0	2.5	1.6
BF-LYPaid	0.046	0.056	0.083	0.035	3.3	1.7	3.3	3.2
BF-LYIncurred	0.070	0.278	0.113	0.062	4.8	6.0	4.3	5.2
BF-2YAvgPaid	0.065	0.070	0.127	0.038	3.8	3.0	5.5	3.6
BF-2YAvgIncurred	0.038	0.123	0.102	0.045	3.3	4.3	4.3	3.8

Medical

	Root Mean Square Error (rMSE)				Average Rank of Absolute Difference			
Development Methodology	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)
CL-LYPaid	0.074	0.082	0.035	0.032	4.8	2.0	2.3	3.4
CL-LYIncurred	0.073	0.080	0.037	0.038	4.5	2.3	2.5	4.4
BF-LYPaid	0.031	0.117	0.051	0.030	2.5	3.3	2.8	3.2
BF-LYIncurred	0.048	0.207	0.083	0.064	3.5	6.0	5.3	4.4
BF-2YAvgPaid	0.044	0.137	0.069	0.037	2.5	5.0	4.0	2.4
BF-2YAvgIncurred	0.047	0.102	0.058	0.041	3.3	2.3	4.3	3.2

Exhibit 5.1

Mean Square Error and Average Rank of Absolute Difference from Actual Paid or Incurred Loss Ratio at 36 Months by Claims Environment

Indemnity

Development Methodology	Root Mean Square Error (rMSE)				Average Rank of Absolute Difference			
	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)
CL-LYPaid	0.050	0.197	0.096	0.057	2.8	3.3	2.3	3.3
CL-LYIncurred	0.077	0.200	0.114	0.042	4.3	4.0	2.5	1.3
BF-LYPaid	0.079	0.193	0.205	0.073	3.8	2.3	4.3	3.8
BF-LYIncurred	0.067	0.232	0.179	0.065	3.3	5.0	3.8	3.8
BF-2YAvgPaid	0.087	0.190	0.234	0.079	3.8	1.7	4.5	4.5
BF-2YAvgIncurred	0.070	0.232	0.197	0.071	3.3	4.7	3.8	4.5

Medical

Development Methodology	Root Mean Square Error (rMSE)				Average Rank of Absolute Difference			
	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)
CL-LYPaid	0.127	0.160	0.063	0.056	4.0	1.7	1.8	4.5
CL-LYIncurred	0.130	0.147	0.071	0.051	4.8	1.7	2.3	5.5
BF-LYPaid	0.073	0.247	0.130	0.024	1.8	5.0	4.5	2.5
BF-LYIncurred	0.100	0.204	0.110	0.039	4.0	3.0	4.3	3.3
BF-2YAvgPaid	0.074	0.256	0.145	0.023	1.8	6.0	4.3	2.3
BF-2YAvgIncurred	0.101	0.208	0.119	0.039	4.8	3.7	4.0	3.0

Exhibit 5.2

Mean Square Error and Average Rank of Absolute Difference from Actual Paid or Incurred Loss Ratio at 48 Months by Claims Environment

Indemnity

	Root Mean Square Error (rMSE)				Average Rank of Absolute Difference			
Development Methodology	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)
CL-LYPaid	0.079	0.254	0.122	0.086	3.0	4.3	2.3	3.0
CL-LYIncurred	0.097	0.227	0.142	0.061	4.5	2.7	2.8	1.7
BF-LYPaid	0.086	0.242	0.293	0.122	3.5	3.0	4.3	3.3
BF-LYIncurred	0.093	0.268	0.254	0.102	3.5	5.0	3.5	3.7
BF-2YAvgPaid	0.084	0.234	0.317	0.140	3.5	2.3	4.5	4.7
BF-2YAvgIncurred	0.090	0.264	0.271	0.119	3.0	3.7	3.8	4.7

Medical

	Root Mean Square Error (rMSE)				Average Rank of Absolute Difference			
Development Methodology	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)	Minniear Pre-Reform Era (1998-2001)	Reform Transition Era (2002-2004)	Post-Reform/ Recession Era (2005-2008)	Post-Recession/ SB 863 Era (2009-2013)
CL-LYPaid	0.159	0.190	0.090	0.087	4.0	1.3	1.8	5.3
CL-LYIncurred	0.170	0.178	0.097	0.062	5.3	1.7	3.0	4.7
BF-LYPaid	0.107	0.297	0.192	0.043	2.0	5.3	3.8	2.0
BF-LYIncurred	0.144	0.262	0.160	0.044	4.5	3.3	4.0	2.3
BF-2YAvgPaid	0.096	0.300	0.210	0.060	1.5	5.7	4.0	3.3
BF-2YAvgIncurred	0.142	0.263	0.171	0.059	3.8	3.7	4.5	3.3

Exhibit 5.3

Incurred Indemnity 348-to-Ultimate Factor Based on "Power Tail" Fit with Different Starting and Ending Points
Factors Fit to 6-Year Average

Age-to-Age	t	Incurred Indemnity 6-Year Average @12/31/2014	Fitted Factors Using Inverse Power Curve [$f(t)=1.0 + a \times t^b$] Fit to t Range:								
			10 to 29	11 to 29	12 to 29	13 to 29	14 to 29	15 to 29	16 to 29	18 to 29	20 to 29
12 - 24	2	1.95963									
24 - 36	3	1.29002									
36 - 48	4	1.12932									
48 - 60	5	1.07271									
60 - 72	6	1.04805									
72 - 84	7	1.03162									
84 - 96	8	1.02177									
96 - 108	9	1.01386									
108 - 120	10	1.01042	1.00561								
120 - 132	11	1.00631	1.00435	1.00366							
132 - 144	12	1.00439	1.00345	1.00297	1.00254						
144 - 156	13	1.00324	1.00279	1.00245	1.00213	1.00181					
156 - 168	14	1.00248	1.00229	1.00205	1.00182	1.00158	1.00132				
168 - 180	15	1.00177	1.00191	1.00173	1.00157	1.00139	1.00119	1.00097			
180 - 192	16	1.00120	1.00161	1.00148	1.00136	1.00123	1.00108	1.00090	1.00074		
192 - 204	17	1.00069	1.00137	1.00128	1.00120	1.00110	1.00098	1.00085	1.00071		
204 - 216	18	1.00070	1.00117	1.00112	1.00106	1.00099	1.00090	1.00080	1.00069	1.00056	
216 - 228	19	1.00078	1.00102	1.00098	1.00094	1.00089	1.00083	1.00075	1.00067	1.00056	
228 - 240	20	1.00047	1.00089	1.00087	1.00084	1.00081	1.00077	1.00071	1.00065	1.00057	1.00044
240 - 252	21	1.00036	1.00078	1.00077	1.00076	1.00074	1.00071	1.00068	1.00063	1.00057	1.00046
252 - 264	22	1.00045	1.00069	1.00069	1.00069	1.00068	1.00067	1.00064	1.00062	1.00057	1.00049
264 - 276	23	1.00056	1.00061	1.00062	1.00062	1.00063	1.00062	1.00061	1.00060	1.00057	1.00051
276 - 288	24	1.00055	1.00055	1.00056	1.00057	1.00058	1.00058	1.00059	1.00059	1.00058	1.00054
288 - 300	25	1.00058	1.00049	1.00051	1.00052	1.00054	1.00055	1.00056	1.00057	1.00058	1.00056
300 - 312	26	1.00081	1.00044	1.00046	1.00048	1.00050	1.00052	1.00054	1.00056	1.00058	1.00059
312 - 324	27	1.00076	1.00040	1.00042	1.00044	1.00046	1.00049	1.00052	1.00055	1.00058	1.00061
324 - 336	28	1.00053	1.00036	1.00039	1.00041	1.00043	1.00046	1.00050	1.00054	1.00058	1.00064
336 - 348	29	1.00053	1.00033	1.00035	1.00038	1.00041	1.00044	1.00048	1.00053	1.00059	1.00067
348 - 360	30		1.00030	1.00033	1.00035	1.00038	1.00042	1.00046	1.00052	1.00059	1.00069
360 - 372	31		1.00028	1.00030	1.00033	1.00036	1.00040	1.00045	1.00051	1.00059	1.00072
372 - 384	32		1.00025	1.00028	1.00031	1.00034	1.00038	1.00043	1.00050	1.00059	1.00075
384 - 396	33		1.00023	1.00026	1.00029	1.00032	1.00036	1.00042	1.00049	1.00059	1.00077
396 - 408	34		1.00022	1.00024	1.00027	1.00030	1.00035	1.00041	1.00048	1.00059	1.00080
408 - 420	35		1.00020	1.00023	1.00025	1.00029	1.00033	1.00039	1.00047	1.00060	1.00083
420 - 432	36		1.00019	1.00021	1.00024	1.00027	1.00032	1.00038	1.00047	1.00060	1.00085
432 - 444	37		1.00017	1.00020	1.00022	1.00026	1.00030	1.00037	1.00046	1.00060	1.00088
444 - 456	38		1.00016	1.00018	1.00021	1.00025	1.00029	1.00036	1.00045	1.00060	1.00091
456 - 468	39		1.00015	1.00017	1.00020	1.00023	1.00028	1.00035	1.00045	1.00060	1.00094
468 - 480	40		1.00014	1.00016	1.00019	1.00022	1.00027	1.00034	1.00044	1.00060	1.00096
588 - 600	50		1.00008	1.00010	1.00012	1.00015	1.00019	1.00027	1.00039	1.00061	1.00125
768 - 780	65		1.00004	1.00005	1.00007	1.00009	1.00013	1.00020	1.00033	1.00063	1.00168
948 - 960	80		1.00002	1.00003	1.00004	1.00006	1.00009	1.00016	1.00030	1.00064	1.00214
1188 - 1200	100		1.00001	1.00002	1.00003	1.00004	1.00007	1.00013	1.00026	1.00065	1.00276

348-to-Ultimate Factors Based on Various Stopping Ages:

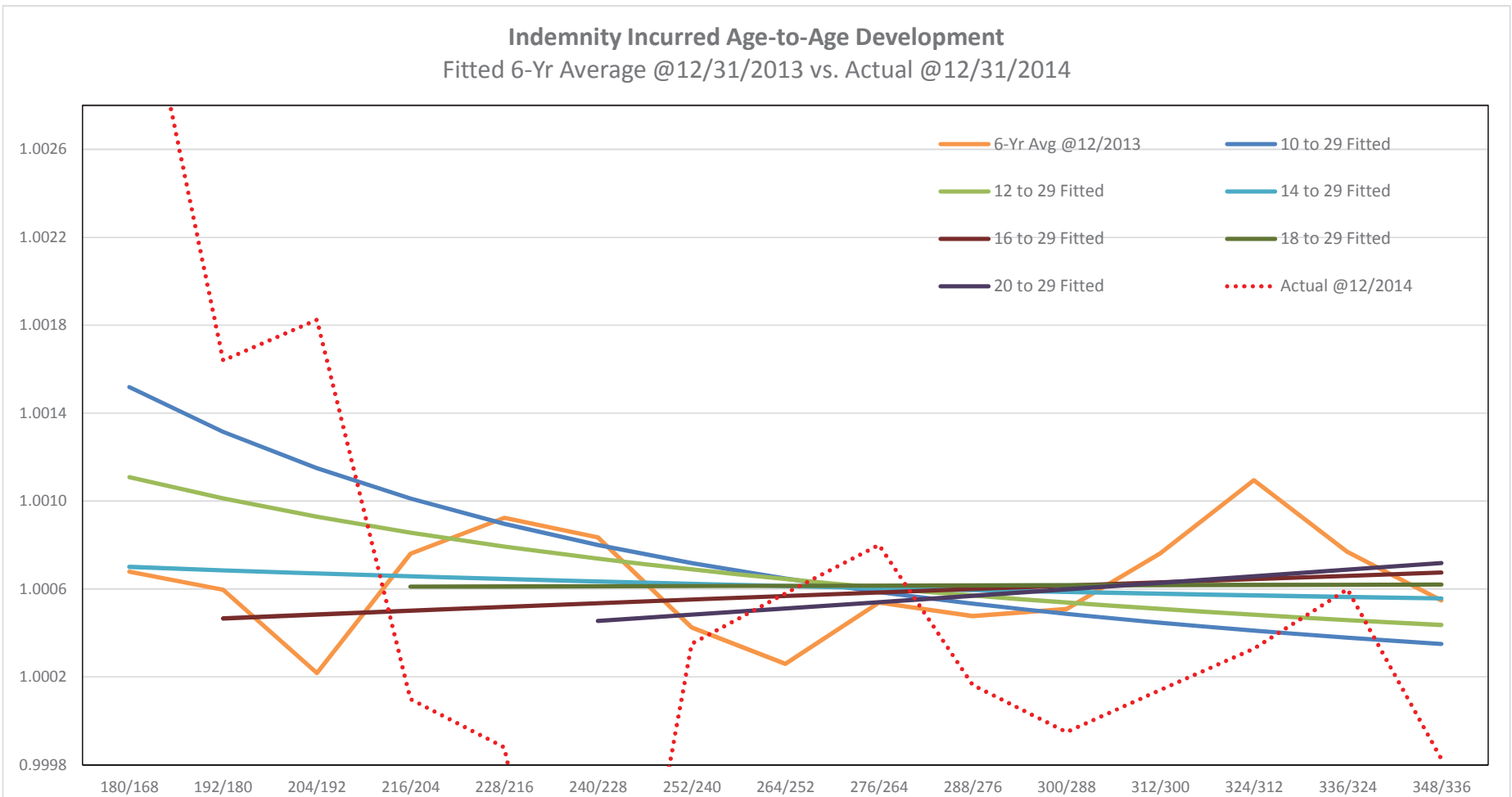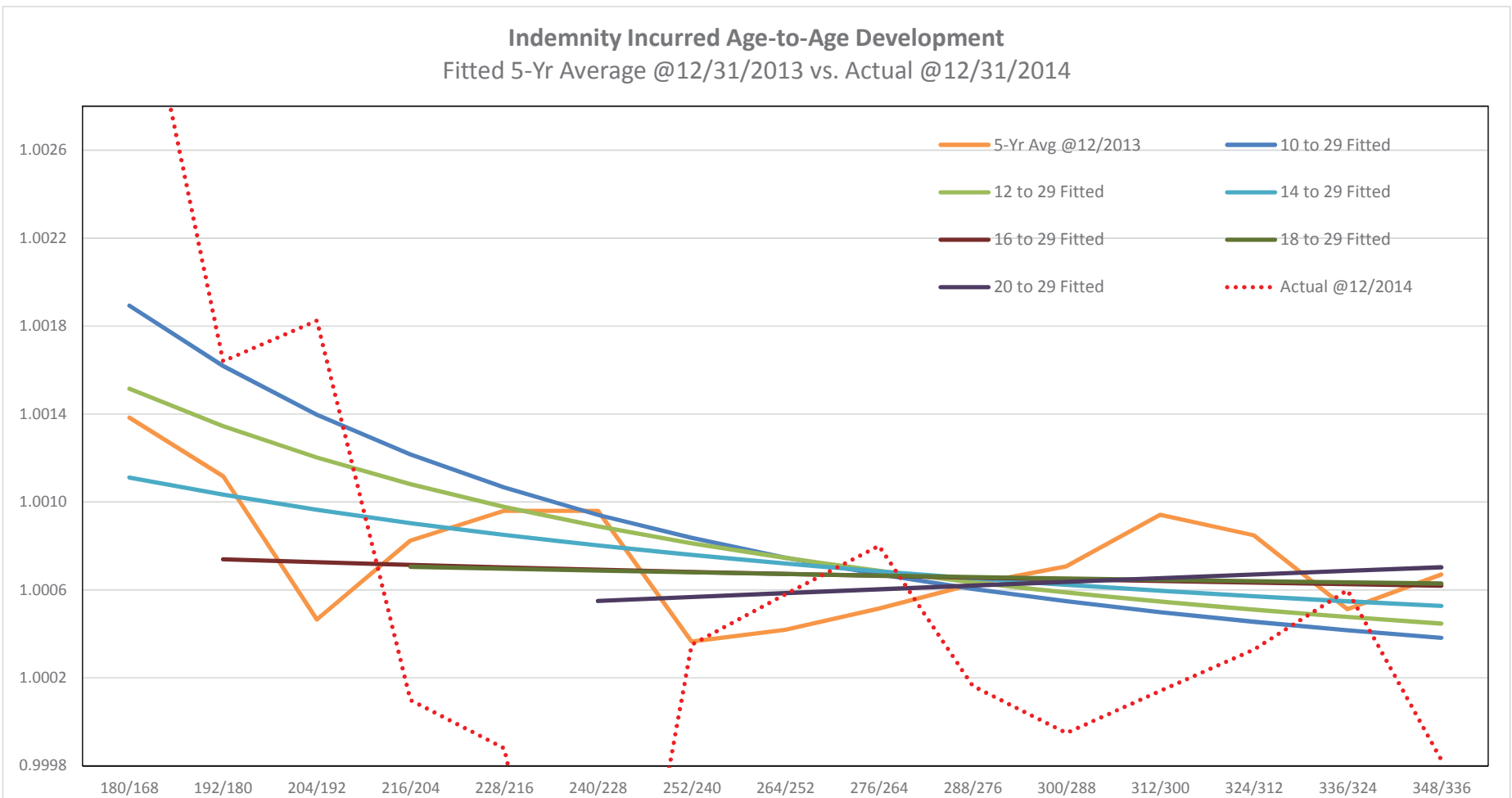|	10 to 29	11 to 29	12 to 29	13 to 29	14 to 29	15 to 29	16 to 29	18 to 29	20 to 29
40 Years	**1.002**	**1.003**	**1.003**	**1.003**	**1.004**	**1.004**	**1.005**	**1.007**	**1.009**
50 Years	**1.003**	**1.004**	**1.004**	**1.005**	**1.006**	**1.007**	**1.009**	**1.013**	**1.020**
65 Years	**1.004**	**1.005**	**1.006**	**1.007**	**1.008**	**1.011**	**1.015**	**1.022**	**1.043**
80 Years	**1.005**	**1.005**	**1.006**	**1.008**	**1.010**	**1.014**	**1.020**	**1.032**	**1.074**
100 Years	**1.005**	**1.006**	**1.007**	**1.009**	**1.012**	**1.017**	**1.025**	**1.045**	**1.128**
R Squared:	0.7862	0.7344	0.6661	0.5775	0.4617	0.3096	0.1267	0.0031	0.3655

Notes: Factors below solid line are projected based on the fit.

Incurred Medical 348-to-Ultimate Factor Based on "Power Tail" Fit with Different Starting and Ending Points
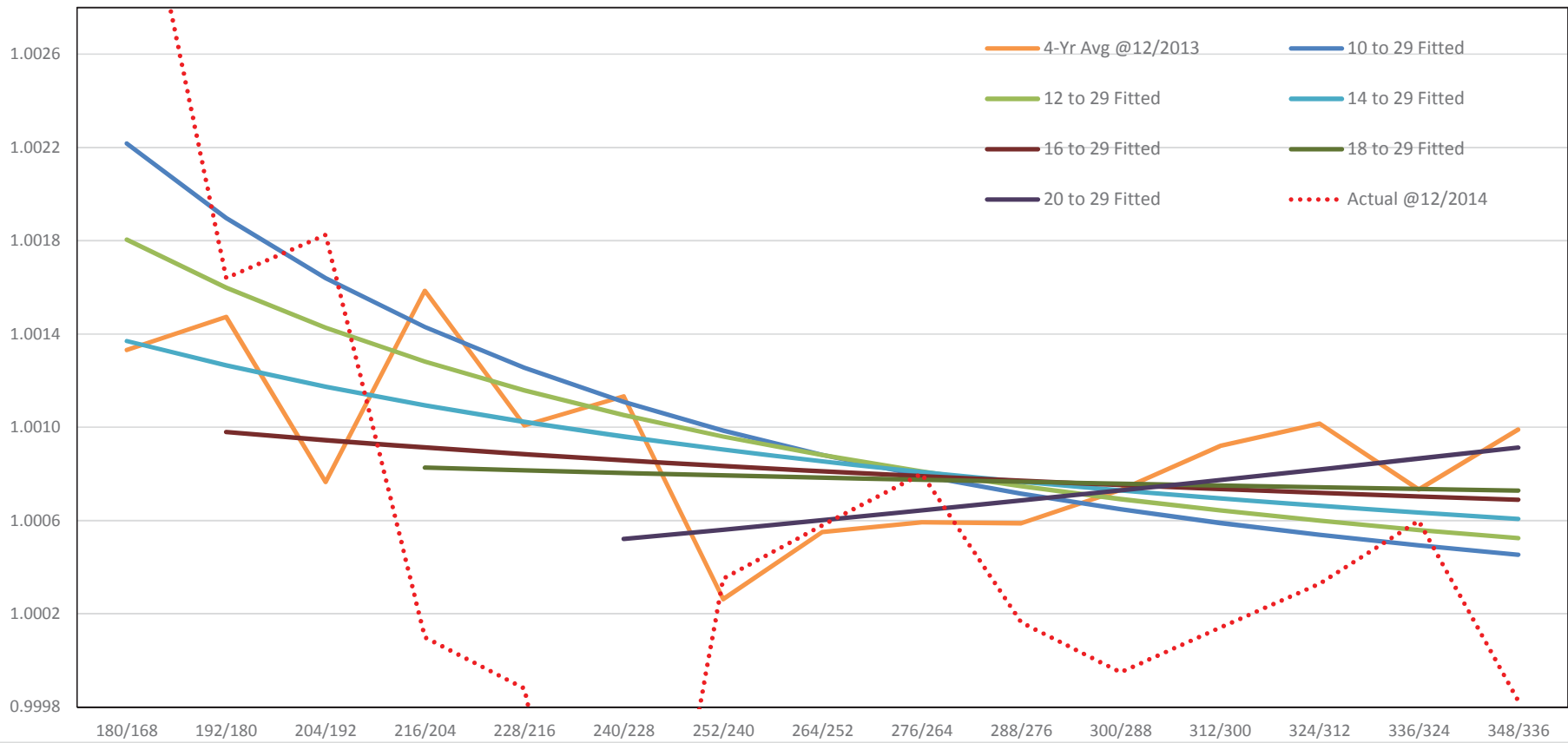Factors Fit to 6-Year Average

Age-to-Age	t	Incurred Medical 6-Year Average @12/31/2014	10 to 29	11 to 29	12 to 29	13 to 29	14 to 29	15 to 29	16 to 29	18 to 29	20 to 29
			Fitted Factors Using Inverse Power Curve [$f(t)=1.0 + a \times t^b$] Fit to t Range:									
12 - 24	2	1.60635									
24 - 36	3	1.21817									
36 - 48	4	1.12618									
48 - 60	5	1.08233									
60 - 72	6	1.06665									
72 - 84	7	1.04953									
84 - 96	8	1.03972									
96 - 108	9	1.03111									
108 - 120	10	1.02578	1.02472								
120 - 132	11	1.01929	1.02016	1.01992							
132 - 144	12	1.01623	1.01674	1.01656	1.01672						
144 - 156	13	1.01415	1.01410	1.01398	1.01409	1.01421					
156 - 168	14	1.01227	1.01203	1.01194	1.01203	1.01212	1.01213				
168 - 180	15	1.01245	1.01038	1.01032	1.01038	1.01045	1.01046	1.01042			
180 - 192	16	1.00940	1.00904	1.00900	1.00904	1.00909	1.00910	1.00907	1.00854		
192 - 204	17	1.00858	1.00794	1.00791	1.00794	1.00798	1.00799	1.00797	1.00757		
204 - 216	18	1.00786	1.00703	1.00701	1.00703	1.00706	1.00706	1.00705	1.00675	1.00617	
216 - 228	19	1.00416	1.00626	1.00625	1.00626	1.00628	1.00628	1.00627	1.00606	1.00562	
228 - 240	20	1.00708	1.00561	1.00560	1.00561	1.00562	1.00563	1.00562	1.00547	1.00514	1.00518
240 - 252	21	1.00437	1.00506	1.00505	1.00506	1.00506	1.00506	1.00506	1.00496	1.00473	1.00476
252 - 264	22	1.00307	1.00458	1.00458	1.00458	1.00458	1.00458	1.00458	1.00452	1.00437	1.00439
264 - 276	23	1.00540	1.00416	1.00417	1.00416	1.00416	1.00416	1.00416	1.00413	1.00405	1.00407
276 - 288	24	1.00305	1.00380	1.00381	1.00380	1.00380	1.00380	1.00380	1.00380	1.00376	1.00378
288 - 300	25	1.00279	1.00348	1.00349	1.00348	1.00348	1.00348	1.00348	1.00350	1.00350	1.00352
300 - 312	26	1.00334	1.00320	1.00321	1.00320	1.00320	1.00320	1.00320	1.00323	1.00328	1.00329
312 - 324	27	1.00336	1.00295	1.00296	1.00296	1.00295	1.00295	1.00295	1.00300	1.00307	1.00309
324 - 336	28	1.00415	1.00273	1.00274	1.00273	1.00273	1.00272	1.00273	1.00279	1.00288	1.00290
336 - 348	29	1.00233	1.00253	1.00255	1.00254	1.00253	1.00253	1.00253	1.00260	1.00272	1.00273
348 - 360	30		1.00236	1.00237	1.00236	1.00235	1.00235	1.00235	1.00243	1.00256	1.00257
360 - 372	31		1.00220	1.00221	1.00220	1.00219	1.00219	1.00219	1.00227	1.00242	1.00243
372 - 384	32		1.00205	1.00207	1.00206	1.00205	1.00204	1.00205	1.00213	1.00229	1.00230
384 - 396	33		1.00192	1.00194	1.00192	1.00191	1.00191	1.00192	1.00201	1.00217	1.00218
396 - 408	34		1.00180	1.00182	1.00181	1.00179	1.00179	1.00180	1.00189	1.00207	1.00207
408 - 420	35		1.00170	1.00171	1.00170	1.00169	1.00168	1.00169	1.00178	1.00197	1.00197
420 - 432	36		1.00160	1.00161	1.00160	1.00159	1.00159	1.00159	1.00169	1.00187	1.00188
432 - 444	37		1.00151	1.00152	1.00151	1.00150	1.00149	1.00150	1.00160	1.00179	1.00179
444 - 456	38		1.00142	1.00144	1.00142	1.00141	1.00141	1.00142	1.00151	1.00171	1.00171
456 - 468	39		1.00134	1.00136	1.00135	1.00134	1.00133	1.00134	1.00144	1.00163	1.00164
468 - 480	40		1.00127	1.00129	1.00128	1.00127	1.00126	1.00127	1.00137	1.00156	1.00157
588 - 600	50		1.00079	1.00080	1.00079	1.00078	1.00078	1.00079	1.00087	1.00106	1.00107
768 - 780	65		1.00045	1.00046	1.00045	1.00044	1.00044	1.00045	1.00052	1.00068	1.00068
948 - 960	80		1.00029	1.00030	1.00029	1.00028	1.00028	1.00029	1.00034	1.00047	1.00047
1188 - 1200	100		1.00018	1.00018	1.00018	1.00018	1.00018	1.00018	1.00022	1.00032	1.00032

348-to-Ultimate Factors Based on Various Stopping Ages:

	10 to 29	11 to 29	12 to 29	13 to 29	14 to 29	15 to 29	16 to 29	18 to 29	20 to 29
40 Years	**1.019**	**1.019**	**1.019**	**1.019**	**1.019**	**1.019**	**1.020**	**1.022**	**1.022**
50 Years	**1.029**	**1.030**	**1.029**	**1.029**	**1.029**	**1.029**	**1.031**	**1.035**	**1.035**
65 Years	**1.038**	**1.039**	**1.039**	**1.038**	**1.038**	**1.038**	**1.042**	**1.048**	**1.048**
80 Years	**1.044**	**1.045**	**1.044**	**1.044**	**1.044**	**1.044**	**1.048**	**1.057**	**1.057**
100 Years	**1.049**	**1.049**	**1.049**	**1.048**	**1.048**	**1.048**	**1.054**	**1.065**	**1.065**
R Squared:	0.9176	0.8976	0.8761	0.8503	0.8171	0.7753	0.7088	0.5216	0.4211

Notes: Factors below solid line are projected based on the fit.

Exhibit 7.1

Indemnity Incurred Age-to-Age Development
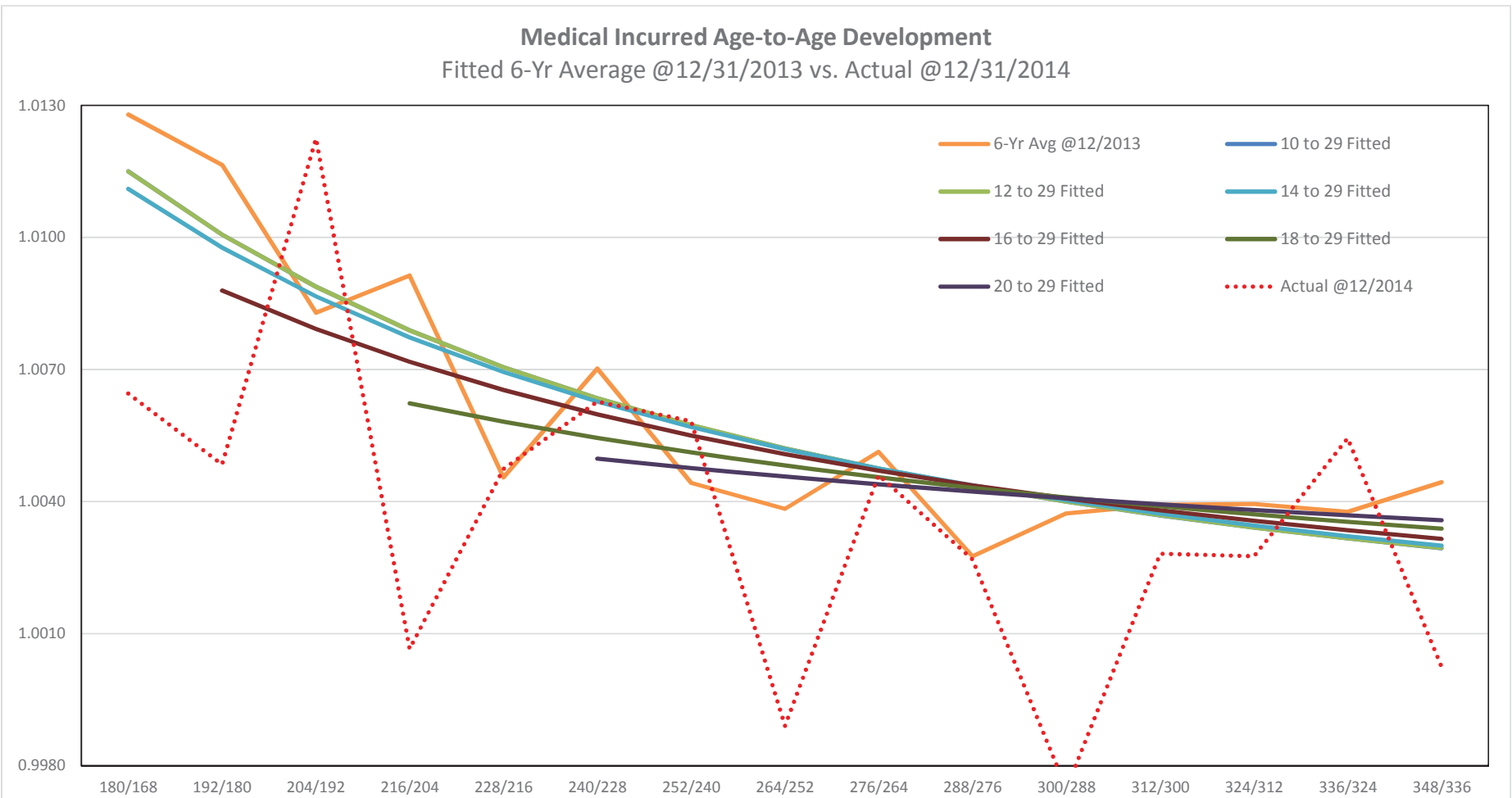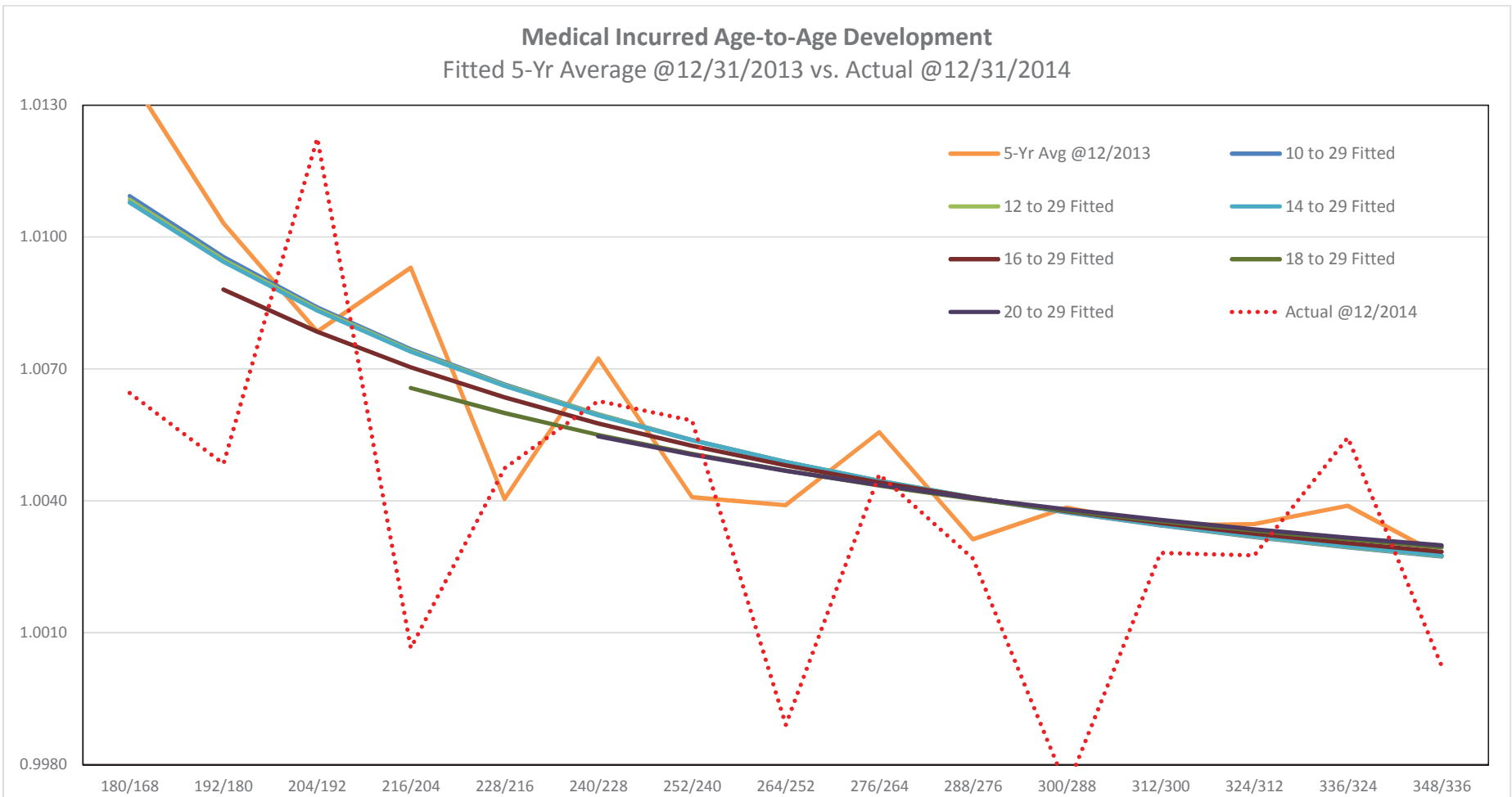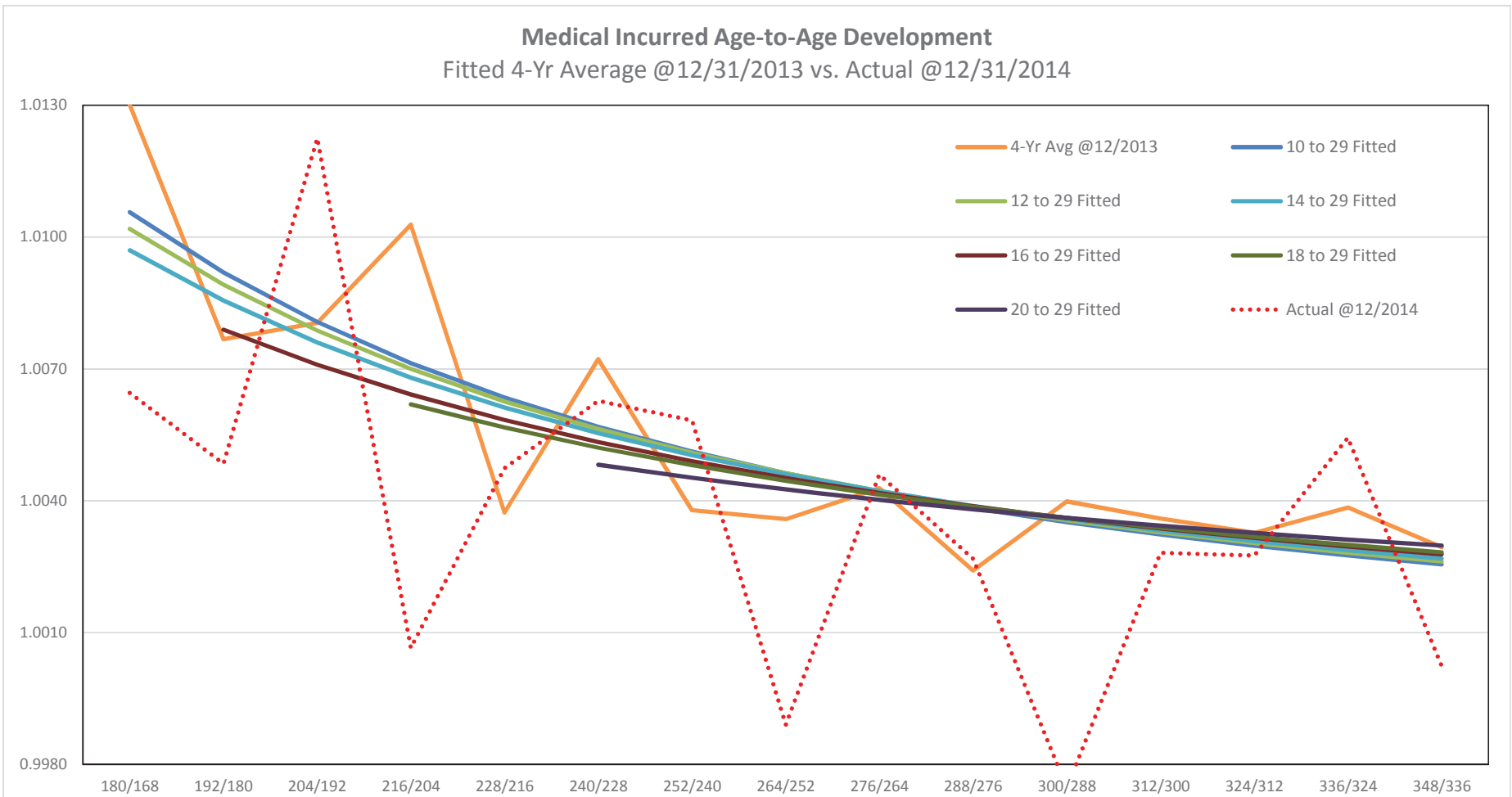### Fitted 6-Yr Average @12/31/2013 vs. Actual @12/31/2014

Indemnity Incurred Age-to-Age Development
Fitted 5-Yr Average @12/31/2013 vs. Actual @12/31/2014

Exhibit 7.3

Indemnity Incurred Age-to-Age Development
Fitted 4-Yr Average @12/31/2013 vs. Actual @12/31/2014

Exhibit 7.4

Indemnity Incurred Age-to-Age Development
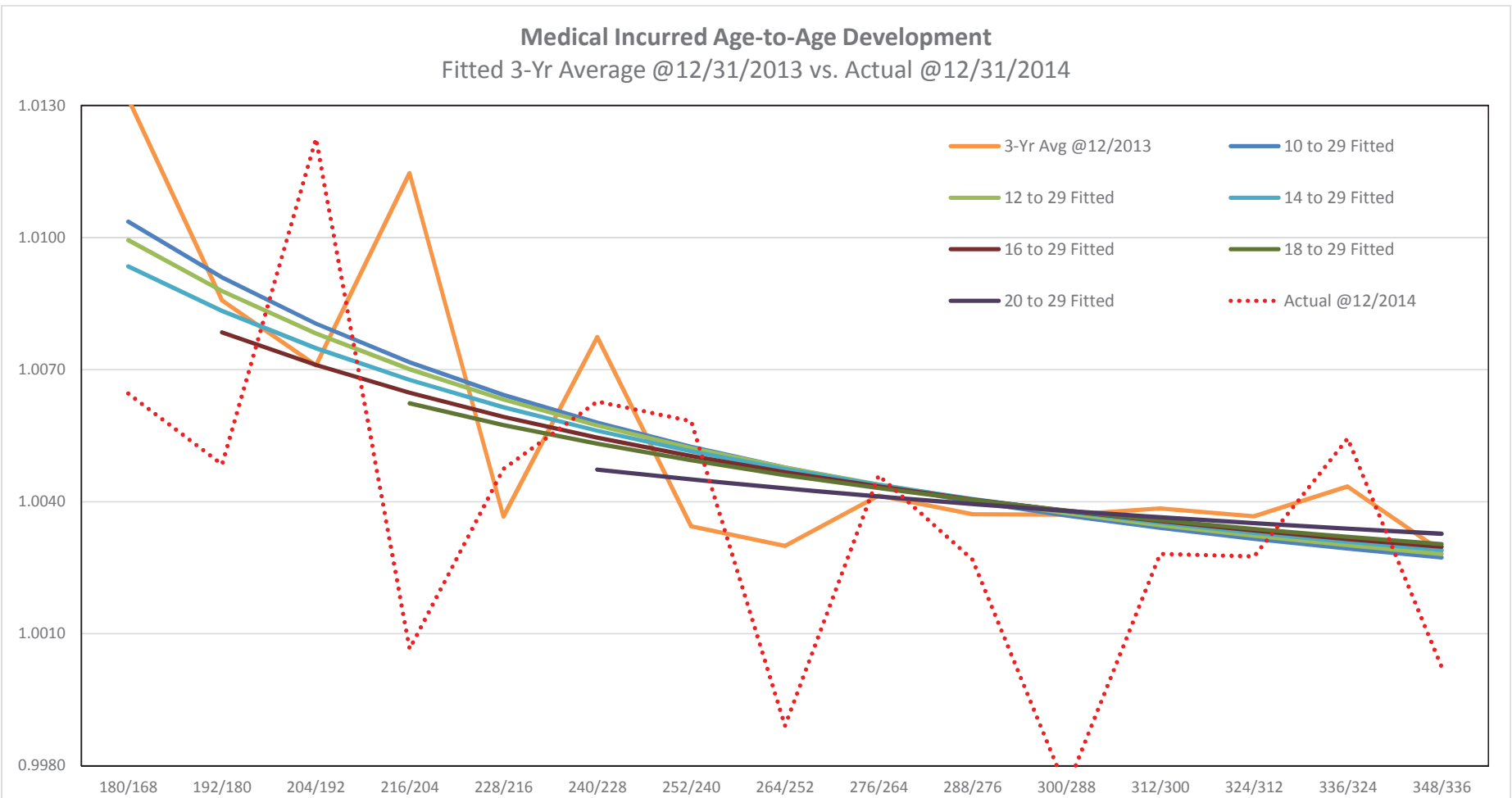### Fitted 3-Yr Average @12/31/2013 vs. Actual @12/31/2014

Exhibit 7.5

Medical Incurred Age-to-Age Development
Fitted 6-Yr Average @12/31/2013 vs. Actual @12/31/2014

Exhibit 7.6

Medical Incurred Age-to-Age Development
Fitted 5-Yr Average @12/31/2013 vs. Actual @12/31/2014

Exhibit 7.7

Medical Incurred Age-to-Age Development
Fitted 4-Yr Average @12/31/2013 vs. Actual @12/31/2014

Exhibit 7.8

Medical Incurred Age-to-Age Development
Fitted 3-Yr Average @12/31/2013 vs. Actual @12/31/2014

Projected Indemnity Incurred 348-to-Ultimate Factor: Power Tail vs. Calendar Year Development

	Fitted on Inverse Power Curve [$f(t)=1.0 + a \times t^b$] based on t=**10** to t=29				Calendar Year Development (6-Year Average)	
@12/31/2010						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.001	1.001	1.001	1.001	1.008	1.002
b. Year 50	1.002	1.001	1.001	1.002		
c. Year 65	1.002	1.002	1.002	1.002		
d. Year 80	1.003	1.002	1.002	1.003		
e. Year 100	1.003	1.002	1.002	1.003		
R-Squared	0.5052	0.5052	0.6552	0.7032		
@12/31/2011						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.001	1.001	1.002	1.002	1.008	1.002
b. Year 50	1.001	1.001	1.003	1.002		
c. Year 65	1.002	1.002	1.004	1.003		
d. Year 80	1.002	1.002	1.005	1.003		
e. Year 100	1.002	1.002	1.005	1.003		
R-Squared	0.5843	0.5223	0.3484	0.5636		
@12/31/2012						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.002	1.002	1.002	1.004	1.008	1.002
b. Year 50	1.002	1.004	1.003	1.006		
c. Year 65	1.003	1.005	1.004	1.008		
d. Year 80	1.003	1.005	1.005	1.009		
e. Year 100	1.003	1.006	1.005	1.010		
R-Squared	0.4635	0.3707	0.5258	0.7077		
@12/31/2013						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.003	1.003	1.003	1.004	1.008	1.002
b. Year 50	1.004	1.004	1.005	1.006		
c. Year 65	1.005	1.005	1.006	1.007		
d. Year 80	1.006	1.006	1.007	1.008		
e. Year 100	1.006	1.006	1.008	1.008		
R-Squared	0.5306	0.7157	0.6943	0.7537		
@12/31/2014						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.002	1.003	1.003	1.002	1.008	1.002
b. Year 50	1.003	1.004	1.004	1.003		
c. Year 65	1.004	1.005	1.005	1.003		
d. Year 80	1.005	1.005	1.005	1.003		
e. Year 100	1.005	1.006	1.006	1.003		
R-Squared	0.7862	0.7655	0.8125	0.6153		

5-Year Standard Deviation

	Inverse Power Curve				Calendar Year Development (6-Year Average)	
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	0.0006	0.0008	0.0008	0.0011	0.0002	0.0000
b. Year 50	0.0009	0.0012	0.0011	0.0017		
c. Year 65	0.0012	0.0016	0.0015	0.0023		
d. Year 80	0.0014	0.0018	0.0017	0.0027		
e. Year 100	0.0015	0.0020	0.0018	0.0030		

* Factors adjusted to 20% of reported factors for asbestosis claims in 1979 and prior.

Projected Medical Incurred 348-to-Ultimate Factor: Power Tail vs. Calendar Year Development

	Fitted on Inverse Power Curve [f(t)=1.0 + a x t^b] based on t=**10** to t=29				Calendar Year Development (6-Year Average)	
@12/31/2010						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.021	1.022	1.022	1.023	1.050	1.064
b. Year 50	1.032	1.033	1.033	1.035		
c. Year 65	1.043	1.044	1.044	1.046		
d. Year 80	1.049	1.051	1.050	1.052		
e. Year 100	1.055	1.057	1.055	1.058		
R-Squared	0.7914	0.8025	0.8086	0.8323		
@12/31/2011						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.023	1.023	1.024	1.022	1.031	1.057
b. Year 50	1.035	1.035	1.036	1.033		
c. Year 65	1.046	1.045	1.048	1.044		
d. Year 80	1.053	1.052	1.055	1.050		
e. Year 100	1.059	1.058	1.061	1.056		
R-Squared	0.8174	0.8065	0.8296	0.8796		
@12/31/2012						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.023	1.024	1.022	1.021	1.036	1.067
b. Year 50	1.036	1.037	1.034	1.032		
c. Year 65	1.047	1.049	1.045	1.041		
d. Year 80	1.054	1.057	1.052	1.047		
e. Year 100	1.061	1.063	1.058	1.052		
R-Squared	0.8853	0.9122	0.9387	0.8895		
@12/31/2013						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.023	1.021	1.019	1.021	1.030	1.055
b. Year 50	1.035	1.032	1.029	1.033		
c. Year 65	1.046	1.042	1.039	1.043		
d. Year 80	1.053	1.048	1.044	1.050		
e. Year 100	1.059	1.054	1.049	1.056		
R-Squared	0.9060	0.9237	0.8904	0.8537		
@12/31/2014						
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	1.019	1.018	1.018	1.012	1.027	1.049
b. Year 50	1.029	1.027	1.028	1.018		
c. Year 65	1.038	1.035	1.037	1.023		
d. Year 80	1.044	1.040	1.042	1.026		
e. Year 100	1.049	1.044	1.047	1.028		
R-Squared	0.9176	0.8942	0.8421	0.6516		

5-Year Standard Deviation

	Inverse Power Curve				Calendar Year Development (6-Year Average)	
Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.	Unadjusted	Adjusted*
a. Year 40	0.0015	0.0021	0.0019	0.0038	0.0080	0.0064
b. Year 50	0.0023	0.0034	0.0030	0.0060		
c. Year 65	0.0032	0.0047	0.0041	0.0082		
d. Year 80	0.0038	0.0056	0.0048	0.0097		
e. Year 100	0.0043	0.0064	0.0054	0.0111		

* Factors adjusted for medical inflation.

Projected Indemnity Paid 348-to-Ultimate Factor: Power Tail vs. Calendar Year Development

Fitted on Inverse Power Curve [$f(t)=1.0 + a \times t^b$]
based on t=**10** to t=29

@12/31/2010

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.005	1.005	1.004	1.004
b. Year 50	1.007	1.006	1.006	1.006
c. Year 65	1.009	1.008	1.007	1.007
d. Year 80	1.009	1.009	1.008	1.008
e. Year 100	1.010	1.009	1.008	1.009
R-Squared	0.8712	0.8838	0.8898	0.8829

@12/31/2011

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.005	1.004	1.005	1.004
b. Year 50	1.007	1.006	1.006	1.006
c. Year 65	1.008	1.008	1.008	1.007
d. Year 80	1.009	1.008	1.008	1.007
e. Year 100	1.009	1.009	1.009	1.008
R-Squared	0.9118	0.9180	0.9171	0.9608

@12/31/2012

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.005	1.005	1.005	1.005
b. Year 50	1.007	1.007	1.006	1.007
c. Year 65	1.008	1.008	1.008	1.009
d. Year 80	1.009	1.009	1.008	1.010
e. Year 100	1.009	1.010	1.009	1.010
R-Squared	0.9359	0.9383	0.9704	0.9631

@12/31/2013

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.005	1.005	1.005	1.006
b. Year 50	1.007	1.007	1.008	1.008
c. Year 65	1.009	1.008	1.009	1.010
d. Year 80	1.009	1.009	1.010	1.010
e. Year 100	1.010	1.009	1.011	1.011
R-Squared	0.9507	0.9758	0.9678	0.9729

@12/31/2014

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.005	1.005	1.005	1.006
b. Year 50	1.007	1.007	1.007	1.008
c. Year 65	1.008	1.009	1.009	1.009
d. Year 80	1.009	1.010	1.010	1.010
e. Year 100	1.009	1.010	1.010	1.010
R-Squared	0.9842	0.9781	0.9817	0.9751

5-Year Standard Deviation

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	0.0002	0.0003	0.0005	0.0007
b. Year 50	0.0002	0.0004	0.0007	0.0009
c. Year 65	0.0003	0.0005	0.0008	0.0011
d. Year 80	0.0004	0.0005	0.0008	0.0012
e. Year 100	0.0004	0.0005	0.0009	0.0013

Projected Medical Paid 348-to-Ultimate Factor: Power Tail vs. Calendar Year Development

Fitted on Inverse Power Curve $[f(t)=1.0 + a \times t^b]$
based on t=**10** to t=29

@12/31/2010

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.030	1.030	1.029	1.027
b. Year 50	1.048	1.046	1.044	1.042
c. Year 65	1.064	1.061	1.058	1.055
d. Year 80	1.075	1.071	1.067	1.063
e. Year 100	1.084	1.080	1.075	1.070
R-Squared	0.8752	0.8794	0.8839	0.8729

@12/31/2011

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.029	1.028	1.028	1.027
b. Year 50	1.045	1.044	1.042	1.041
c. Year 65	1.060	1.057	1.055	1.054
d. Year 80	1.069	1.066	1.063	1.061
e. Year 100	1.078	1.073	1.070	1.068
R-Squared	0.9104	0.9119	0.9015	0.9097

@12/31/2012

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.029	1.028	1.028	1.028
b. Year 50	1.044	1.043	1.043	1.042
c. Year 65	1.059	1.057	1.056	1.056
d. Year 80	1.067	1.066	1.065	1.064
e. Year 100	1.075	1.073	1.072	1.071
R-Squared	0.9363	0.9310	0.9450	0.9554

@12/31/2013

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.030	1.030	1.030	1.031
b. Year 50	1.046	1.045	1.046	1.048
c. Year 65	1.060	1.060	1.060	1.063
d. Year 80	1.069	1.069	1.069	1.072
e. Year 100	1.077	1.077	1.077	1.081
R-Squared	0.9584	0.9702	0.9765	0.9785

@12/31/2014

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	1.031	1.031	1.032	1.034
b. Year 50	1.047	1.048	1.050	1.052
c. Year 65	1.062	1.063	1.066	1.070
d. Year 80	1.072	1.072	1.076	1.080
e. Year 100	1.080	1.080	1.084	1.090
R-Squared	0.9780	0.9800	0.9808	0.9698

5-Year Standard Deviation

Stopping Point	6-Yr Avg.	5-Yr Avg.	4-Yr Avg.	3-Yr Avg.
a. Year 40	0.0007	0.0010	0.0017	0.0027
b. Year 50	0.0013	0.0016	0.0027	0.0043
c. Year 65	0.0020	0.0022	0.0037	0.0061
d. Year 80	0.0026	0.0027	0.0044	0.0073
e. Year 100	0.0032	0.0032	0.0050	0.0084

Item AC16-04-01
12/31/2015 Loss Adjustment Expense Experience Review

The WCIRB's January 1, 2016 Pure Premium Rate Filing included a provision for loss adjustment expenses (LAE) of 34.9%. This amount reflected 8.0% for unallocated loss adjustment expenses (ULAE) and 26.9% for allocated loss adjustment expenses (ALAE), including the cost of medical cost containment programs (MCCP), and was based on calendar year 2014 ULAE data and accident year ALAE and MCCP data evaluated as of March 31, 2015. The updated ULAE and ALAE projections, including MCCP costs, for the July 1, 2016 to December 31, 2016 policy period are summarized separately below.

ULAE Projection
As of this time, the WCIRB does not have available calendar year 2015 ULAE information. However, staff has computed a preliminary updated ULAE projection based on updated frequency and loss projections as of December 31, 2015 using the same methodologies as those reflected in the January 1, 2016 Pure Premium Rate Filing.

Table 1 shows the updated preliminary projections of ULAE as a percentage of loss. Using the same approach as in the WCIRB's January 1, 2016 Pure Premium Rate Filing based solely on the experience of private insurers, the ULAE projection is 8.3%.

Table 1: ULAE to Loss Ratio Projections
for Policies Incepting July 1, 2016 through December 31, 2016

ULAE Projection Method	Statewide ULAE Ratio	Private Insurer ULAE Ratio
Paid ULAE per Open Indemnity Claim-Based Projection	12.3%	9.3%
Paid ULAE to Paid Loss-Based Projection	9.8%	7.3%
Average of Indemnity Claim-Based and Paid Loss-Based Projections	11.1%	**8.3%**

ALAE Projection – Excluding MCCP
The ALAE provision reflected in the WCIRB's January 1, 2016 Pure Premium Rate Filing reflected only the experience of private insurers and was based on a methodology that projects future ALAE as a function of the anticipated future number of indemnity claims and average ALAE per indemnity claim. The WCIRB has updated the ALAE projection based on ALAE data evaluated as of December 31, 2015 as well as updated frequency and loss projections. (These ALAE projections exclude MCCP costs, which are discussed separately below.)

Exhibit 1 shows paid ALAE amounts per reported indemnity claim on a private insurer basis. Exhibits 2.1 and 2.2 show statewide and private insurer annual ALAE severity growth percentages based on estimated ultimate ALAE per indemnity claim, while Exhibit 3 shows private insurer annual growth percentages based on ratios of incremental paid ALAE per indemnity claims inventory.

Exhibits 4 and 5 show the ALAE projection, excluding MCCP costs, for statewide and private insurers, respectively. The projections in both Exhibits 4 and 5 were computed using a 4.5% ALAE severity trend selected based on the approximate average of the private insurer longer-term (post-2005) and shorter-term (five-year) growth rates of (a) the estimated ultimate ALAE per indemnity claim (Exhibit 2.2) and (b) incremental paid ALAE per open indemnity claim (Exhibit 3), which is consistent with the methodology used to select the ALAE severity trend in the last several pure premium rate filings. (The projected ALAE severity trend in reflected in the January 1, 2016 Premium Rate Filing was also 4.5%.)

The upper portion of Table 2 shows the updated preliminary projections of ALAE as a percentage of loss, excluding the cost of MCCP. The projected ratio of ALAE to loss excluding the cost of MCCP, based solely on the experience of private insurers, is 20.5%. (This compares to a projected ALAE to loss based solely on the experience of private insurers of 19.4% in the January 1, 2016 Pure Premium Rate Filing.)

ALAE Projection – MCCP
The ALAE provision reflected in the WCIRB's January 1, 2016 Pure Premium Rate Filing also included a provision for MCCP costs. The projection of MCCP costs was based on a methodology analogous to that used for ALAE excluding MCCP costs. The WCIRB has updated the MCCP cost projection based on MCCP data evaluated as of December 31, 2015 as well as updated frequency and loss projections.

Exhibit 6 shows statewide and private insurer annual MCCP severity growth percentages based on ratios of calendar year paid MCCP costs per indemnity claims inventory. Exhibits 7 and 8 show the projection of MCCP costs in ALAE on a statewide basis and for private insurers, respectively. A 4.5% MCCP severity trend was selected based on the private insurer MCCP severity growth rates from 2009 through 2014 shown on Exhibit 6. (The 7.2% projected ratio of MCCP to loss based on this methodology using only the experience of private insurers compares to 7.5% in the January 1, 2016 Pure Premium Rate Filing.)

Table 2 also shows the preliminary projections of ALAE, including the cost of MCCP, as a percentage of loss. The projected ratio of total ALAE to loss is 27.7%.

**Table 2: Projections of ALAE to Loss
for Policies Incepting July 1, 2016 through December 31, 2016**

ALAE Projection Method	Statewide ALAE Ratio	Private Insurer ALAE Ratio
Separate Projections of Indemnity Claims and Average ALAE per Indemnity Claim – Excluding MCCP Costs	19.1%	20.5%
Separate Projections of Indemnity Claims and Average MCCP Costs per Indemnity Claim	6.8%	7.2%
Total Projections of ALAE Including MCCP Costs	25.9%	**27.7%**

The total projected LAE to loss ratio for policies incepting between July 1, 2016 and December 31, 2016 is 36.0%. This compares to 34.9% reflected in the January 1, 2016 Pure Premium Rate Filing.

Average Paid ALAE[1] Per Reported Indemnity Claim - Private Insurers
As of December 31, 2015

Accident Year	Evaluated as of (in months):									
	12	24	36	48	60	72	84	96	108	120
2000								4,517	4,705	4,895
2001							5,473	5,697	5,970	6,139
2002						5,667	5,937	6,252	6,449	6,614
2003					5,466	5,907	6,305	6,588	6,808	7,014
2004				4,361	5,053	5,568	5,945	6,214	6,429	6,635
2005			3,017	3,979	4,689	5,209	5,591	5,898	6,161	6,371
2006		1,849	3,119	4,119	4,867	5,434	5,864	6,183	6,456	6,671
2007	574	1,977	3,322	4,417	5,243	5,879	6,394	6,767	7,056	
2008	619	2,117	3,618	4,883	5,816	6,529	7,071	7,475		
2009	675	2,405	4,128	5,516	6,548	7,337	7,925			
2010	744	2,588	4,350	5,685	6,714	7,463				
2011	768	2,614	4,269	5,614	6,596					
2012	773	2,602	4,337	5,694						
2013	788	2,758	4,491							
2014	887	2,965								
2015	975									

Accident Year	Annual Change									
	12	24	36	48	60	72	84	96	108	120
2001								26.1%	26.9%	25.4%
2002							8.5%	9.7%	8.0%	7.7%
2003						4.3%	6.2%	5.4%	5.6%	6.1%
2004					-7.6%	-5.7%	-5.7%	-5.7%	-5.6%	-5.4%
2005				-8.8%	-7.2%	-6.4%	-6.0%	-5.1%	-4.2%	-4.0%
2006			3.4%	3.5%	3.8%	4.3%	4.9%	4.8%	4.8%	4.7%
2007		6.9%	6.5%	7.2%	7.7%	8.2%	9.0%	9.4%	9.3%	
2008	7.9%	7.1%	8.9%	10.6%	10.9%	11.1%	10.6%	10.5%		
2009	9.0%	13.6%	14.1%	13.0%	12.6%	12.4%	12.1%			
2010	10.4%	7.6%	5.4%	3.1%	2.5%	1.7%				
2011	3.2%	1.0%	-1.9%	-1.2%	-1.8%					
2012	0.7%	-0.5%	1.6%	1.4%						
2013	1.8%	6.0%	3.6%							
2014	12.7%	7.5%								
2015	9.9%									

Annual Trend[2]

	12	24	36	48	60	72	84	96	108	120
All-Year	6.1%	5.8%	5.6%	5.1%	4.2%	3.7%	3.4%	4.1%	3.7%	3.7%
R^2	0.951	0.931	0.904	0.839	0.657	0.599	0.610	0.618	0.510	0.429
5-Year	6.3%	3.3%	1.7%	3.3%	6.2%	8.9%	9.3%	5.2%	0.8%	-0.8%
R^2	0.858	0.790	0.728	0.631	0.806	0.966	0.980	0.732	0.051	0.132

[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Trend is based on exponential distribution.
 Source: WCIRB accident year experience calls.

Estimated Ultimate ALAE Per Indemnity Claim - Statewide

Acc. Year	Paid ALAE[1] @12/31/15 (in $000) (1)	Paid ALAE Cumulative Development Factors[2] (2)	Estimated Ult. ALAE (in $000) (3)=(1)x(2)	Indemnity Claim Counts @12/31/15 (4)	Cumulative Count Development Factors[3] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ult. ALAE Per Indemnity Claim (7)=(3)/(6)x1000	Annual Change
1991	445,650	1.044	465,424	249,687	1.000	249,716	1,864	---
1992	345,404	1.047	361,510	198,421	1.000	198,454	1,822	-2.3%
1993	250,865	1.050	263,478	156,121	1.000	156,167	1,687	-7.4%
1994	234,825	1.056	247,954	143,656	1.001	143,732	1,725	2.3%
1995	260,474	1.062	276,566	135,199	1.001	135,304	2,044	18.5%
1996	305,336	1.070	326,742	133,192	1.001	133,358	2,450	19.9%
1997	388,611	1.078	418,929	137,323	1.001	137,510	3,047	24.3%
1998	563,563	1.087	612,420	147,539	1.002	147,772	4,144	36.0%
1999	615,450	1.097	675,456	148,740	1.002	149,003	4,533	9.4%
2000	760,677	1.108	843,177	162,057	1.002	162,336	5,194	14.6%
2001	955,804	1.122	1,072,485	185,729	1.002	186,108	5,763	10.9%
2002	1,012,343	1.138	1,151,889	194,810	1.002	195,262	5,899	2.4%
2003	1,016,434	1.153	1,172,340	184,411	1.002	184,813	6,343	7.5%
2004	852,170	1.173	999,757	159,220	1.002	159,593	6,264	-1.2%
2005	749,054	1.197	896,498	140,012	1.003	140,387	6,386	1.9%
2006	778,455	1.230	957,622	133,766	1.003	134,145	7,139	11.8%
2007	820,152	1.273	1,044,019	130,551	1.003	131,003	7,969	11.6%
2008	846,175	1.330	1,125,606	123,731	1.004	124,251	9,059	13.7%
2009	858,254	1.410	1,210,180	115,502	1.005	116,135	10,420	15.0%
2010	859,201	1.528	1,312,533	120,380	1.008	121,283	10,822	3.9%
2011	779,921	1.710	1,333,989	122,462	1.011	123,834	10,772	-0.5%
2012	715,980	2.037	1,458,121	129,254	1.019	131,722	11,070	2.8%
2013	587,105	2.723	1,598,862	135,394	1.034	139,972	11,423	3.2%
2014	381,012	4.617	1,759,156	135,264	1.069	144,634	12,163	6.5%
2015	102,275	19.657	2,010,448	111,799	1.332	148,906	13,501	11.0%

				Estimated Annual Exponential Trend Based on:		**R^2**
				2005 to 2015	6.9%	0.914
				2010 to 2015	4.4%	0.848
				Average:	5.7%	

Notes:
[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Based on private insurers latest year paid ALAE age-to-age development from Exhibit 5.1.
[3] See Exhibit 4.1.

Estimated Ultimate ALAE Per Indemnity Claim - Private Insurers

Acc. Year	Paid ALAE[1] @12/31/15 (in $000) (1)	Cumulative Development Factors[2] (2)	Estimated Ultimate ALAE (in $000) (3)=(1)x(2)	Indemnity Claim Counts @12/31/15 (4)	Cumulative Count Development Factors[3] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate ALAE Per Indemnity Claim (7)=(3)/(6)x1000	Annual Change
1991	411,661	1.044	429,927	175,230	1.000	175,263	2,453	---
1992	315,860	1.047	330,588	141,910	1.000	141,949	2,329	-5.1%
1993	233,192	1.050	244,917	113,510	1.000	113,562	2,157	-7.4%
1994	215,976	1.056	228,051	105,344	1.001	105,426	2,163	0.3%
1995	236,006	1.062	250,587	101,362	1.001	101,475	2,469	14.2%
1996	281,518	1.070	301,254	103,242	1.002	103,416	2,913	18.0%
1997	356,204	1.078	383,994	104,765	1.002	104,967	3,658	25.6%
1998	491,924	1.087	534,571	112,510	1.002	112,773	4,740	29.6%
1999	541,068	1.097	593,822	116,439	1.003	116,734	5,087	7.3%
2000	641,187	1.108	710,728	118,483	1.003	118,785	5,983	17.6%
2001	760,585	1.122	853,434	113,960	1.003	114,307	7,466	24.8%
2002	798,743	1.138	908,846	113,025	1.004	113,429	8,012	7.3%
2003	806,583	1.153	930,301	108,423	1.004	108,828	8,548	6.7%
2004	688,898	1.173	808,208	99,548	1.004	99,995	8,083	-5.4%
2005	638,708	1.197	764,432	97,606	1.006	98,147	7,789	-3.6%
2006	698,042	1.230	858,702	104,632	1.006	105,276	8,157	4.7%
2007	758,741	1.273	965,845	107,531	1.007	108,316	8,917	9.3%
2008	793,814	1.330	1,055,954	106,199	1.009	107,129	9,857	10.5%
2009	812,561	1.410	1,145,750	102,532	1.011	103,632	11,056	12.2%
2010	824,722	1.528	1,259,862	110,512	1.013	111,982	11,251	1.8%
2011	755,821	1.710	1,292,769	114,587	1.018	116,631	11,084	-1.5%
2012	698,173	2.037	1,421,856	122,624	1.027	125,885	11,295	1.9%
2013	571,177	2.723	1,555,484	127,176	1.043	132,591	11,731	3.9%
2014	368,687	4.617	1,702,252	124,335	1.082	134,517	12,655	7.9%
2015	98,980	19.657	1,945,678	101,545	1.368	138,883	14,009	10.7%

Estimated Annual Exponential Trend Based on:		R^2
2005 to 2015	5.4%	0.925
2010 to 2015	4.5%	0.810
Average:	4.9%	

Notes:
[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Based on the latest year paid ALAE age-to-age development from Exhibit 5.1.
[3] See Exhibit 5.2.

Ratio of Accident Year Incremental Paid ALAE[1] to Indemnity Claims Inventory[2]
By Payment Year - Private Insurers

Acc. Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1989	1,117	813	940	917	1,055	923	1,167	1,027	1,221	1,236	1,525	1,530	1,452	1,686
1990	1,360	1,316	1,252	1,449	1,198	1,086	1,406	1,138	1,341	1,386	1,584	1,777	1,707	1,577
1991	1,449	1,068	1,594	1,323	1,120	1,203	1,481	1,384	1,577	1,308	1,678	1,541	1,840	1,713
1992	1,637	1,405	1,636	1,740	1,485	1,507	1,647	1,477	1,718	1,434	1,579	1,633	1,581	1,933
1993	1,636	1,667	1,767	1,532	1,630	1,677	1,945	1,450	1,732	1,788	1,932	1,934	1,862	2,125
1994	1,423	1,276	1,488	1,750	1,784	1,748	1,864	1,389	1,514	1,774	1,830	1,812	1,846	1,956
1995	1,992	2,178	2,179	1,638	1,649	1,771	1,866	1,682	2,022	1,602	1,996	2,144	2,036	2,212
1996	2,267	2,602	2,834	2,010	2,006	2,003	2,040	1,938	1,755	1,868	2,035	2,244	2,071	2,191
1997	2,489	2,827	3,404	2,276	2,503	2,463	2,343	2,268	2,196	2,281	2,489	2,350	2,180	2,333
1998	2,250	2,818	2,997	2,835	2,604	2,405	2,426	2,374	2,398	2,338	2,401	2,362	2,357	2,347
1999	2,197	2,512	2,795	2,415	2,752	2,526	2,468	2,806	2,659	2,600	2,662	2,452	2,142	2,322
2000	2,124	2,340	2,717	2,479	2,861	2,658	2,699	2,806	2,773	2,781	2,841	2,670	2,509	2,788
2001	1,610	2,271	2,590	2,332	2,618	2,918	2,644	2,756	2,707	2,730	2,841	2,819	3,344	3,115
2002	622	1,676	2,618	2,522	2,746	3,081	2,881	2,976	2,949	3,029	2,959	3,017	3,465	3,313
2003		635	1,949	2,548	2,818	3,077	3,014	3,007	3,226	3,208	3,518	3,353	3,676	3,738
2004			553	1,816	2,562	2,919	3,062	3,170	3,256	3,156	3,084	3,264	3,585	3,588
2005				498	1,692	2,493	2,877	3,084	3,227	3,286	3,267	3,443	3,594	3,722
2006					529	1,815	2,675	2,969	3,220	3,478	3,468	3,387	3,540	3,585
2007						572	1,987	2,752	3,155	3,398	3,572	3,667	3,698	3,801
2008							620	2,095	2,976	3,480	3,559	3,657	3,860	3,982
2009								674	2,380	3,307	3,620	3,770	3,978	4,076
2010									746	2,542	3,411	3,681	3,896	4,164
2011										766	2,569	3,335	3,664	4,007
2012											773	2,589	3,439	3,881
2013												788	2,735	3,506
2014													888	2,914
2015														975
ALAE per Claim	1,580	1,742	1,973	1,852	1,915	1,979	2,047	2,160	2,318	2,480	2,563	2,611	2,756	2,895
Annual Change		10.2%	13.2%	-6.1%	3.4%	3.4%	3.4%	5.5%	7.3%	7.0%	3.4%	1.9%	5.6%	5.1%

Estimated Annual Exponential Trend Based on Payment Year:		R^2
2005-2015	4.8%	0.989
2010-2015	4.2%	0.978
Average:	4.5%	

[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Indemnity claims inventory is the sum of indemnity claims open as of January 1 of Year N and newly-reported indemnity claims between January 1 of year N and December 31 of year N.

Source: WCIRB quarterly calls and aggregate indemnity and medical cost calls for experience

Reported Indemnity Claim Count Development - Statewide

Accident	Age-to-Age Development (in months):													
Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1993														1.001
1994													1.001	1.000
1995													1.001	1.000	1.004
1996												1.001	1.001	1.001	1.000
1997											1.001	1.000	1.000	1.000	1.000
1998										1.001	1.000	1.000	1.000	1.001	1.000
1999									1.001	1.002	1.000	1.000	1.000	1.000	1.000
2000								1.000	0.998	1.000	1.000	1.000	1.001	1.000	1.000
2001							0.999	0.998	1.000	0.999	1.000	1.000	1.000	1.000	1.000
2002						0.999	1.007	1.000	0.999	1.000	1.000	1.000	1.000	1.000	
2003					0.999	1.008	0.998	0.999	0.999	0.999	0.999	1.000	1.000		
2004				1.002	1.000	0.998	1.000	0.999	0.999	0.999	1.000	1.000			
2005			1.007	1.004	1.000	1.001	1.001	0.999	1.000	1.000	1.000				
2006		1.116	1.013	1.004	1.002	1.001	1.000	1.005	1.001	1.001					
2007		1.124	1.015	1.006	1.004	1.002	1.000	1.001	1.001						
2008		1.153	1.023	1.011	1.005	1.003	1.001	1.001							
2009		1.193	1.029	1.011	1.006	1.003	1.002								
2010		1.220	1.030	1.011	1.006	1.004									
2011		1.230	1.033	1.014	1.008										
2012		1.241	1.035	1.014											
2013		1.241	1.034												
2014		1.246													

Note: The 12-24 column values are: 2006: 1.116, 2007: 1.124, 2008: 1.153, 2009: 1.193, 2010: 1.220, 2011: 1.230, 2012: 1.241, 2013: 1.241, 2014: 1.246

I. Age-to-Age (Latest Year)

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
	1.246	1.034	1.014	1.008	1.004	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000

II. Age-to-Ultimate

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
	1.332	1.069	1.034	1.019	1.011	1.008	1.005	1.004	1.003	1.003	1.003	1.002	1.002	1.002

III. Estimated Percent of Ultimate Indemnity Claims Reported

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
	75.1%	93.5%	96.7%	98.1%	98.9%	99.3%	99.5%	99.6%	99.7%	99.7%	99.7%	99.8%	99.8%	99.8%

Accident	Age-to-Age Development (in months):											
Year	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324
1989				1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1990			1.001	0.999	1.000	1.000	1.000	1.000	1.001	1.000	1.000	
1991		1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
1992	1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
1993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
1995	1.001	1.000	1.000	1.000	1.000	1.000						
1996	1.000	1.000	1.000	1.000	1.000							
1997	1.000	1.000	1.000	1.000								
1998	1.000	1.000	1.000									
1999	1.001	1.000										
2000	1.000											

I. Age-to-Age (Latest Year)

	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

II. Age-to-Ultimate

	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	
	1.002	1.002	1.002	1.002	1.001	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000

III. Estimated Percent of Ultimate Indemnity Claims Reported

	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324
	99.8%	99.8%	99.8%	99.8%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%

Source: WCIRB quarterly calls for experience

Projected Ratio of ALAE[1] to Losses - Statewide
Based on Estimated Accident Year Indemnity Claim Frequency and ALAE Severity
For Policies with Effective Dates between July 1, 2016 and December 31, 2016

Acc. Year	Paid ALAE[1] @12/31/15 (in $000) (1)	Paid ALAE Cumulative Development Factors[2] (2)	Estimated Ult. ALAE (in $000) (3)=(1)x(2)	Indemnity Claim Counts @12/31/15 (4)	Cumulative Count Development Factors[3] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ult. ALAE Per Indemnity Claim (7)=(3)/(6)x1000
1991	445,650	1.044	465,424	249,687	1.000	249,716	1,864
1992	345,404	1.047	361,510	198,421	1.000	198,454	1,822
1993	250,865	1.050	263,478	156,121	1.000	156,167	1,687
1994	234,825	1.056	247,954	143,656	1.001	143,732	1,725
1995	260,474	1.062	276,566	135,199	1.001	135,304	2,044
1996	305,336	1.070	326,742	133,192	1.001	133,358	2,450
1997	388,611	1.078	418,929	137,323	1.001	137,510	3,047
1998	563,563	1.087	612,420	147,539	1.002	147,772	4,144
1999	615,450	1.097	675,456	148,740	1.002	149,003	4,533
2000	760,677	1.108	843,177	162,057	1.002	162,336	5,194
2001	955,804	1.122	1,072,485	185,729	1.002	186,108	5,763
2002	1,012,343	1.138	1,151,889	194,810	1.002	195,262	5,899
2003	1,016,434	1.153	1,172,340	184,411	1.002	184,813	6,343
2004	852,170	1.173	999,757	159,220	1.002	159,593	6,264
2005	749,054	1.197	896,498	140,012	1.003	140,387	6,386
2006	778,455	1.230	957,622	133,766	1.003	134,145	7,139
2007	820,152	1.273	1,044,019	130,551	1.003	131,003	7,969
2008	846,175	1.330	1,125,606	123,731	1.004	124,251	9,059
2009	858,254	1.410	1,210,180	115,502	1.005	116,135	10,420
2010	859,201	1.528	1,312,533	120,380	1.008	121,283	10,822
2011	779,921	1.710	1,333,989	122,462	1.011	123,834	10,772
2012	715,980	2.037	1,458,121	129,254	1.019	131,722	11,070
2013	587,105	2.723	1,598,862	135,394	1.034	139,972	11,423
2014	381,012	4.617	1,759,156	135,264	1.069	144,634	12,163
2015	102,275	19.657	2,010,448	111,799	1.332	148,906	13,501

Projected Based on 2-Year Average of 2014 and 2015:

	Ultimate ALAE[6]	Ult. Ind. Counts[4]	Ult. ALAE per Ind. Counts[5]
2016	1,989,191	145,244	13,696
4/1/2017	2,033,557	143,661	14,155

(a) Projected ALAE Incurred ($000):	2,033,557
(b) Calendar Year 2015 Earned Premium[7] ($000):	17,064,859
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[8]:	0.659
(d) Premium Adjustment Factor for Calendar Year 2015[9]:	0.945
(e) Projected Losses ($000): (b) x (c) x (d)	10,627,226
(f) Projected Ratio of ALAE to Losses: (a)/(e)	19.1%

Notes:
[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Based on the private insurers latest year paid ALAE age-to-age development from Exhibit 5.1.
[3] Based on the latest year indemnity claim count age-to-age development from Exhibit 4.1.
[4] Estimated based on projected frequency trends for accident years 2015 to 2017. The estimated frequency changes are based on the projected growth in total or overall indemnity claim frequency. These frequency trends were then applied to the ultimate indemnity claim counts estimated from averaging 2014 and 2015.
[5] Severity is projected by applying an annual growth rate of 4.5%, which is based on the approximate average of the private insurers selected rate of growth in (i) estimated ultimate accident year ALAE severities from Exhibit 2.2 and (ii) paid ALAE per open indemnity claim from Exhibit 3, to the ultimate ALAE severity estimated from averaging 2014 and 2015.
[6] Column(6) x Column(7) / 1,000.
[7] Based on the reported earned premium for calendar year 2015 from the same group of insurers that reported the paid ALAE in column (1) and the indemnity claim counts in column (4) by accident year as of December 31, 2015.
[8] See Exhibit 8 of AC16-03-02.
[9] See Exhibit 5.2 of AC16-03-02.

Paid Allocated Loss Adjustment Expense Development - Private Insurers
As of December 31, 2015

Accident Year	Age-to-Age Development (in months):														
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192
1985								1.002	1.014	1.013	1.011	1.009	1.008	1.004	1.012
1986							1.038	1.000	1.018	1.013	1.010	1.008	1.009	1.010	1.005
1987						1.056	1.035	1.025	1.016	1.012	1.009	1.012	1.009	1.006	1.006
1988					1.095	1.055	1.036	1.023	1.016	1.011	1.010	1.014	1.005	1.004	1.004
1989				1.178	1.110	1.063	1.064	1.030	1.018	1.012	1.008	1.004	1.006	1.005	1.004
1990			1.335	1.170	1.085	1.070	1.035	1.020	1.015	1.010	1.007	1.006	1.006	1.004	1.005
1991		1.711	1.303	1.131	1.083	1.054	1.027	1.019	1.012	1.017	1.008	1.005	1.002	1.005	1.007
1992	3.520	1.631	1.249	1.134	1.081	1.050	1.028	1.021	1.024	1.010	1.008	1.004	1.007	1.005	1.006
1993	3.143	1.624	1.281	1.148	1.082	1.053	1.034	1.035	1.020	1.014	1.011	1.010	1.011	1.010	1.009
1994	3.130	1.649	1.285	1.126	1.087	1.055	1.046	1.027	1.020	1.016	1.015	1.017	1.014	1.012	1.008
1995	3.401	1.698	1.258	1.180	1.081	1.058	1.038	1.031	1.025	1.021	1.020	1.017	1.016	1.011	1.012
1996	3.147	1.569	1.330	1.132	1.081	1.061	1.049	1.036	1.033	1.028	1.022	1.018	1.014	1.010	1.009
1997	2.994	1.675	1.231	1.132	1.092	1.067	1.052	1.042	1.035	1.027	1.021	1.017	1.013	1.012	1.012
1998	3.591	1.608	1.248	1.163	1.105	1.076	1.071	1.045	1.032	1.024	1.021	1.017	1.014	1.014	1.012
1999	3.351	1.720	1.319	1.158	1.116	1.086	1.064	1.042	1.034	1.029	1.021	1.018	1.016	1.013	1.013
2000	4.051	1.752	1.315	1.183	1.121	1.090	1.053	1.042	1.033	1.025	1.021	1.019	1.015	1.014	1.012
2001	3.939	1.768	1.357	1.182	1.118	1.078	1.054	1.039	1.028	1.024	1.020	1.017	1.017	1.014	
2002	3.927	1.784	1.315	1.171	1.101	1.074	1.046	1.032	1.026	1.021	1.018	1.017	1.014		
2003	4.109	1.707	1.324	1.159	1.107	1.062	1.045	1.034	1.029	1.023	1.020	1.017			
2004	4.040	1.713	1.319	1.169	1.101	1.069	1.048	1.036	1.030	1.025	1.020				
2005	3.840	1.698	1.336	1.181	1.113	1.079	1.056	1.044	1.035	1.028					
2006	3.750	1.736	1.330	1.186	1.120	1.081	1.060	1.046	1.035						
2007	4.027	1.716	1.340	1.194	1.126	1.088	1.060	1.045							
2008	4.015	1.758	1.367	1.198	1.126	1.085	1.060								
2009	4.322	1.775	1.354	1.199	1.126	1.083									
2010	4.300	1.737	1.342	1.190	1.120										
2011	4.230	1.727	1.335	1.191											
2012	4.322	1.729	1.337												
2013	4.385	1.695													
2014	4.258														

Latest Year

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192
Age-to-Age	4.258	1.695	1.337	1.191	1.120	1.083	1.060	1.045	1.035	1.028	1.020	1.017	1.014	1.014	1.012
Cumulative	19.657	4.617	2.723	2.037	1.710	1.528	1.410	1.330	1.273	1.230	1.197	1.173	1.153	1.138	1.122

3-Year Arithmetics Average

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192
Age-to-Age	4.321	1.717	1.338	1.193	1.124	1.085	1.060	1.045	1.033	1.025	1.019	1.017	1.015	1.014	1.012
Cumulative	20.232	4.682	2.727	2.038	1.708	1.520	1.400	1.321	1.264	1.223	1.193	1.171	1.151	1.133	1.118

Average Excluding High & Low

	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192
Age-to-Age	3.828	1.706	1.315	1.168	1.103	1.069	1.048	1.032	1.025	1.019	1.015	1.013	1.011	1.009	1.008
Cumulative	15.417	4.027	2.360	1.795	1.537	1.393	1.303	1.244	1.205	1.176	1.154	1.136	1.122	1.109	1.099

Accident Year	Age-to-Age Development (in months):														
	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372
1985	1.003	1.004	1.006	1.004	1.003	1.005	1.005	1.000	1.003	1.004	1.004	1.004	1.004	1.006	1.004
1986	1.006	1.005	1.005	1.005	1.006	1.005	1.000	1.004	1.005	1.005	1.006	1.006	1.007	1.006	
1987	1.004	1.004	1.005	1.006	1.007	1.000	1.003	1.006	1.005	1.004	1.005	1.006	1.005		
1988	1.004	1.004	1.005	1.005	1.012	1.004	1.004	1.004	1.004	1.004	1.004	1.004			
1989	1.005	1.005	1.004	1.004	1.003	1.004	1.004	1.004	1.004	1.004	1.004				
1990	1.006	1.005	1.004	1.002	1.003	1.003	1.003	1.003	1.003	1.002					
1991	1.004	1.004	1.002	1.003	1.003	1.003	1.003	1.003	1.002						
1992	1.005	1.002	1.005	1.004	1.003	1.003	1.003	1.003							
1993	1.004	1.007	1.006	1.006	1.006	1.005	1.005								
1994	1.007	1.008	1.007	1.006	1.006	1.006									
1995	1.008	1.009	1.009	1.008	1.008										
1996	1.010	1.009	1.008	1.007											
1997	1.010	1.008	1.008												
1998	1.012	1.010													
1999	1.010														

Latest Year

	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372
Age-to-Age	1.010	1.010	1.008	1.007	1.008	1.006	1.005	1.003	1.002	1.002	1.004	1.004	1.005	1.006	1.004
Cumulative	1.108	1.097	1.087	1.078	1.070	1.062	1.056	1.050	1.047	*1.044*	*1.041*	*1.038*	*1.035*	*1.033*	*1.030*

3-Year Arithmetics Average

	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372
Age-to-Age	1.011	1.009	1.008	1.007	1.007	1.005	1.004	1.003	1.003	1.003	1.004	1.005	1.005	1.006	1.004
Cumulative	1.104	1.093	1.083	1.074	1.067	1.060	1.055	1.051	1.047	*1.044*	*1.041*	*1.038*	*1.035*	*1.033*	*1.030*

Average Excluding High & Low

	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	324-336	336-348	348-360	360-372
Age-to-Age	1.006	1.006	1.006	1.005	1.005	1.004	1.004	1.004	1.004	1.004	1.005	1.005	1.005		
Cumulative	1.090	1.083	1.077	1.071	1.065	1.060	1.056	1.052	1.048	*1.044*	*1.041*	*1.038*	*1.035*	*1.033*	*1.030*

Note: Factors in italics are based on powertail fit to the "3-Year Arithmetics Average" factors.
Source: WCIRB accident year experience calls. Excludes MCCP costs.

Quarterly Paid ALAE Loss Development Factors[1] - Private Insurers

Age in Months			Accident Year												
		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
3 - 6							7.976	7.570	5.434	9.136	8.769	8.694	8.529	6.311	9.828
6 - 9						2.427	3.016	2.765	2.630	3.023	3.176	3.214	3.060	3.136	3.170
9 - 12						2.022	2.078	2.021	2.034	2.077	2.165	2.113	2.134	2.139	2.147
12 - 15						1.653	1.627	1.687	1.724	1.737	1.698	1.714	1.771	1.740	
15 - 18						1.415	1.486	1.494	1.509	1.482	1.485	1.510	1.490	1.485	
18 - 21					1.318	1.357	1.328	1.289	1.326	1.334	1.343	1.338	1.346	1.328	
21 - 24					1.249	1.255	1.234	1.237	1.255	1.253	1.248	1.248	1.235	1.241	
24 - 27					1.192	1.187	1.191	1.190	1.197	1.189	1.186	1.198	1.189		
27 - 30					1.151	1.165	1.167	1.172	1.170	1.158	1.163	1.159	1.156		
30 - 33				1.127	1.145	1.128	1.119	1.135	1.138	1.133	1.131	1.130	1.122		
33 - 36				1.113	1.110	1.107	1.103	1.111	1.114	1.113	1.107	1.102	1.100		
36 - 39				1.093	1.087	1.093	1.090	1.097	1.094	1.091	1.092	1.092			
39 - 42				1.076	1.083	1.083	1.086	1.096	1.082	1.083	1.081	1.081			
42 - 45			1.063	1.077	1.068	1.063	1.069	1.069	1.074	1.069	1.068	1.071			
45 - 48			1.059	1.057	1.058	1.057	1.059	1.063	1.064	1.062	1.059	1.058			
48 - 51			1.049	1.039	1.050	1.050	1.050	1.052	1.053	1.053	1.051				
51 - 54			1.043	1.044	1.048	1.049	1.050	1.049	1.050	1.048	1.048				
54 - 57		1.038	1.045	1.037	1.037	1.038	1.043	1.045	1.043	1.040	1.043				
57 - 60		1.037	1.025	1.032	1.034	1.037	1.038	1.039	1.039	1.037	1.037				
60 - 63		1.031	1.027	1.028	1.030	1.032	1.032	1.034	1.034	1.032					
63 - 66		1.029	1.025	1.025	1.030	1.030	1.031	1.033	1.031	1.032					
66 - 69		1.027	1.023	1.022	1.026	1.027	1.029	1.028	1.028	1.028					
69 - 72		1.018	1.021	1.022	1.023	1.025	1.028	1.026	1.026	1.023					
72 - 75		1.014	1.017	1.018	1.021	1.022	1.023	1.023	1.022						
75 - 78		1.018	1.018	1.019	1.020	1.020	1.023	1.022	1.022						
78 - 81		1.017	1.013	1.015	1.019	1.019	1.020	1.020	1.020						
81 - 84		1.015	1.013	1.015	1.017	1.018	1.019	1.018	1.017						
84 - 87		1.014	1.011	1.013	1.015	1.016	1.016	1.016							
87 - 90		1.013	1.012	1.012	1.014	1.015	1.015	1.016							
90 - 93		1.010	1.011	1.011	1.013	1.014	1.014	1.014							
93 - 96		1.010	1.011	1.011	1.013	1.013	1.013	1.013							
96 - 99		1.007	1.009	1.010	1.012	1.012	1.012								
99 - 102		1.008	1.009	1.009	1.012	1.012	1.012								
102 - 105		1.007	1.008	1.008	1.010	1.012	1.011								
105 - 108		1.008	1.008	1.008	1.010	1.010	1.010								
108 - 111		1.007	1.007	1.008	1.009	1.009									
111 - 114		1.007	1.008	1.008	1.009	1.009									
114 - 117		1.006	1.007	1.007	1.009	1.008									
117 - 120		1.006	1.007	1.007	1.008	1.008									
120 - 123		1.006	1.006	1.007	1.007										

[1] All paid allocated loss adjustment expense exclude the paid cost of medical cost containment programs.

Source: WCIRB quarterly calls for experience.

Reported Indemnity Claim Count Development - Private Insurers

Accident Year	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1993														1.001
1994													1.002	1.000
1995												1.001	1.000	1.006
1996											1.001	1.001	1.002	1.001
1997										1.002	1.000	1.001	1.001	1.000
1998									1.002	1.000	1.001	1.001	1.002	1.000
1999								1.002	1.002	1.001	1.001	1.000	1.001	1.000
2000							1.001	0.998	1.000	1.000	1.001	1.001	1.001	1.001
2001						1.000	0.999	1.001	0.999	1.001	1.001	1.001	1.000	1.001
2002					1.000	1.015	1.001	1.000	1.001	1.001	1.001	1.001	1.000	
2003				1.004	1.018	0.999	1.000	1.001	1.000	1.001	1.001	1.001		
2004			1.007	1.003	1.000	1.001	1.001	1.001	1.001	1.000	1.001			
2005		1.017	1.010	1.002	1.002	1.003	1.001	1.002	1.001	1.001				
2006	1.145	1.024	1.007	1.003	1.003	1.002	1.007	1.002	1.001					
2007	1.150	1.021	1.008	1.006	1.004	1.002	1.002	1.001						
2008	1.175	1.029	1.013	1.006	1.004	1.002	1.002							
2009	1.212	1.034	1.013	1.008	1.005	1.003								
2010	1.237	1.033	1.013	1.007	1.004									
2011	1.241	1.036	1.015	1.009										
2012	1.254	1.037	1.016											
2013	1.252	1.038												
2014	1.264													

I. Age-to-Age (Latest Year)

12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1.264	1.038	1.016	1.009	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001	1.000	1.001

II. Age-to-Ultimate

12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
1.368	1.082	1.043	1.027	1.018	1.013	1.011	1.009	1.007	1.006	1.006	1.004	1.004	1.004

III. Estimated Percent of Ultimate Indemnity Claims Reported

12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180
73.1%	92.4%	95.9%	97.4%	98.2%	98.7%	98.9%	99.1%	99.3%	99.4%	99.4%	99.6%	99.6%	99.6%

Age-to-Age Development (in months):

Accident Year	180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324
1989				1.001	0.999	1.000	1.000	1.001	1.000	1.000	1.000	1.000
1990			1.001	0.999	1.000	1.000	1.001	1.000	1.001	1.000	1.000	
1991		1.001	0.998	1.000	1.000	1.000	1.000	1.001	1.000	1.000		
1992	1.001	0.999	1.000	1.000	1.001	1.000	1.000	1.000	1.000			
1993	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000				
1994	1.001	1.001	1.000	1.000	1.001	1.000	1.000					
1995	1.002	1.000	1.001	1.001	1.000	1.001						
1996	1.000	1.001	1.001	1.000	1.000							
1997	1.000	1.001	1.000	1.000								
1998	1.001	1.000	1.000									
1999	1.001	1.000										
2000	1.000											

I. Age-to-Age (Latest Year)

180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324
1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000

II. Age-to-Ultimate

180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324	
1.003	1.003	1.003	1.002	1.002	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000

III. Estimated Percent of Ultimate Indemnity Claims Reported

180-192	192-204	204-216	216-228	228-240	240-252	252-264	264-276	276-288	288-300	300-312	312-324
99.7%	99.7%	99.7%	99.8%	99.8%	99.8%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%

Source: WCIRB quarterly calls for experience

Projected Ratio of ALAE[1] to Losses - Private Insurers
Based on Estimated Accident Year Indemnity Claim Frequency and ALAE Severity
For Policies with Effective Dates between July 1, 2016 and December 31, 2016

Acc. Year	Paid ALAE[1] @12/31/15 (in $000)	Paid ALAE Cumulative Development Factors[2]	Estimated Ult. ALAE (in $000)	Indemnity Claim Counts @12/31/15	Cumulative Count Development Factors[3]	Estimated Ultimate Ind. Counts	Estimated Ult. ALAE Per Indemnity Claim
	(1)	(2)	(3)=(1)x(2)	(4)	(5)	(6)=(4)x(5)	(7)=(3)/(6)x1000
1991	411,661	1.044	429,927	175,230	1.000	175,263	2,453
1992	315,860	1.047	330,588	141,910	1.000	141,949	2,329
1993	233,192	1.050	244,917	113,510	1.000	113,562	2,157
1994	215,976	1.056	228,051	105,344	1.001	105,426	2,163
1995	236,006	1.062	250,587	101,362	1.001	101,475	2,469
1996	281,518	1.070	301,254	103,242	1.002	103,416	2,913
1997	356,204	1.078	383,994	104,765	1.002	104,967	3,658
1998	491,924	1.087	534,571	112,510	1.002	112,773	4,740
1999	541,068	1.097	593,822	116,439	1.003	116,734	5,087
2000	641,187	1.108	710,728	118,483	1.003	118,785	5,983
2001	760,585	1.122	853,434	113,960	1.003	114,307	7,466
2002	798,743	1.138	908,846	113,025	1.004	113,429	8,012
2003	806,583	1.153	930,301	108,423	1.004	108,828	8,548
2004	688,898	1.173	808,208	99,548	1.004	99,995	8,083
2005	638,708	1.197	764,432	97,606	1.006	98,147	7,789
2006	698,042	1.230	858,702	104,632	1.006	105,276	8,157
2007	758,741	1.273	965,845	107,531	1.007	108,316	8,917
2008	793,814	1.330	1,055,954	106,199	1.009	107,129	9,857
2009	812,561	1.410	1,145,750	102,532	1.011	103,632	11,056
2010	824,722	1.528	1,259,862	110,512	1.013	111,982	11,251
2011	755,821	1.710	1,292,769	114,587	1.018	116,631	11,084
2012	698,173	2.037	1,421,856	122,624	1.027	125,885	11,295
2013	571,177	2.723	1,555,484	127,176	1.043	132,591	11,731
2014	368,687	4.617	1,702,252	124,335	1.082	134,517	12,655
2015	98,980	19.657	1,945,678	101,545	1.368	138,883	14,009

Projected Based on 2-Year Average of 2014 and 2015:

	Ultimate ALAE[6]	Ult. Ind. Counts[4]	Ult. ALAE per Ind. Counts[5]
2016	1,924,956	135,280	14,229
4/1/2017	1,967,888	133,806	14,707

(a) Projected ALAE Incurred ($000):	1,967,888
(b) Calendar Year 2015 Earned Premium[7] ($000):	15,448,761
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[8]:	0.635
(d) Premium Adjustment Factor for Calendar Year 2015[9]:	0.977
(e) Projected Losses ($000): (b) x (c) x (d)	9,584,334
(f) Projected Ratio of ALAE to Losses: (a)/(e)	20.5%

Notes:
[1] All paid ALAE exclude the paid cost of medical cost containment programs.
[2] Based on the latest year paid ALAE age-to-age development from Exhibit 5.1.
[3] Based on the latest year indemnity claim count age-to-age development from Exhibit 5.3.
[4] Estimated based on projected frequency trends for accident years 2015 to 2017. The estimated frequency changes are based on the projected growth in overall indemnity claim frequency. These frequency trends were then applied to the ultimate indemnity claim counts estimated from averaging 2014 and 2015.
[5] Severity is projected by applying an annual growth rate of 4.5%, which is based on the approximate average of the selected rate of growth in (i) estimated ultimate accident year ALAE severities from Exhibit 2.2 and (ii) paid ALAE per open indemnity claim from Exhibit 3, to the ultimate ALAE severity estimated from averaging 2014 and 2015.
[6] Column(6) x Column(7) / 1,000.
[7] Based on the reported earned premium for calendar year 2015 from the same group of private insurers that reported the paid ALAE in column (1) and the indemnity claim counts in column (4) by accident year as of December 31, 2015.
[8] Based on analogous Exhibit 8 of Item AC16-03-02, applicable to private insurers only.
[9] Based on analogous Exhibit 5.2 of Item AC16-03-02, applicable to private insurers only.

Paid MCCP per Indemnity Claims Inventory[1] Calendar Year

Calendar Year	Private Insurers		Statewide	
2005	$469	---	---	---
2006	$559	19.2%	---	---
2007	$631	12.8%	$433	---
2008	$953	51.1%	$673	55.4%
2009	$830	-13.0%	$665	-1.2%
2010	$888	7.0%	$733	10.2%
2011	$931	4.8%	$786	7.1%
2012	$983	5.6%	$841	7.1%
2013	$1,022	4.1%	$901	7.1%
2014	$1,028	0.5%	$918	2.0%

Estimated Annual Exponetial Trend Based on:

2005-2014		8.5%		---
R^2		0.787		---
2009-2014		4.5%		6.8%
R^2		0.955		0.973
Selected:		4.5%		

[1] Indemnity claims inventory is the sum of indemnity claims open as of January
1 of Year N and newly-reported indemnity claims between January 1 of year
N and December 31 of year N.

Source: WCIRB expense calls, aggregate indemnity and medical cost calls and
quarterly calls for experience

Projected Ratio of MCCP to Losses - Statewide
Based on Estimated Accident Year Indemnity Claim Frequency and MCCP Severity
For Policies with Effective Dates between July 1, 2016 and December 31, 2016

Year	Paid MCCP @12/31/15 (in $000) (1)	Cumulative Development Factors[1] (2)	Estimated Ultimate MCCP (3)=(1)x(2)	Indemnity Claim Counts @12/31/15 (4)	Cumulative Count Development Factors[2] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate MCCP Per Indemnity Claim (7)=(3)/(6) x 1000	Annual change
2011	292,489	1.878	549,360	122,462	1.011	123,834	4,436	---
2012	265,398	2.162	573,746	129,254	1.019	131,722	4,356	-1.8%
2013	230,941	2.696	622,573	135,394	1.034	139,972	4,448	2.1%
2014	168,879	3.930	663,778	135,264	1.069	144,634	4,589	3.2%
2015	68,429	9.889	676,707	111,799	1.332	148,906	4,545	-1.0%

Projected Based on 2-Year Average of 2013 and 2014:

	Ultimate MCCP[5]	Ult. Ind. Counts[3]	Ult.MCCP per Ind. Counts[4]
2016	708,841	145,244	4,880
4/1/2017	724,651	143,661	5,044

(a) Projected MCCP ($000):   724,651

(b) Calendar Year 2015 Earned Premium[6] ($000):   17,064,859

(c) Projected Loss to Industry Average Filed Pure Premium Ratio[7]:   0.659

(d) Premium Adjustment Factor for Calendar Year 2015[8]:   0.945

(e) Projected Losses ($000): (b) x (c) x (d)   10,627,226

(f) Projected Ratio of MCCP to Losses: (a)/(e)   6.8%

Notes:
  [1] Based on paid medical cumulative loss development factors from Exhibit 2.6.1 of Item AC16-03-02.
  [2] Based on the latest year indemnity claim count age-to-age development from Exhibit 4.1.
  [3] Estimated based on projected frequency trends for accident years 2015 to 2017. The estimated frequency changes are based on the projected growth in total or overall indemnity claim frequency. These frequency trends were then applied to the ultimate indemnity claim counts estimated from averaging 2014 and 2015.

  [4] Severity is projected by applying an annual growth rate of 4.5%, which is based on the approximate average rate of growth, based on private insurers, in paid MCCP per indemnity claim from Exhibit 6, to the ultimate MCCP severity estimated from averaging 2014 and 2015.
  [5] Column(6) x Column(7) / 1,000.
  [6] Based on the reported earned premium for calendar year 2015 from the same group of insurers that reported the paid MCCP in column (1) and the indemnity claim counts in column (4) by accident year as of December 31, 2015.
  [7] See Exhibit 8 of AC16-03-02.
  [8] See Exhibit 5.2 of AC16-03-02.

Projected Ratio of MCCP to Losses - Private Insurers
Based on Estimated Accident Year Indemnity Claim Frequency and MCCP Severity
For Policies with Effective Dates between July 1, 2016 and December 31, 2016

Year	Paid MCCP @12/31/15 (in $000) (1)	Cumulative Development Factors[1] (2)	Estimated Ultimate MCCP (3)=(1)x(2)	Indemnity Claim Counts @12/31/15 (4)	Cumulative Count Development Factors[2] (5)	Estimated Ultimate Ind. Counts (6)=(4)x(5)	Estimated Ultimate MCCP Per Indemnity Claim (7)=(3)/(6) x 1000	Annual change
2011	282,621	1.834	518,327	114,587	1.018	116,631	4,444	---
2012	258,983	2.113	547,232	122,624	1.027	125,885	4,347	-2.2%
2013	224,649	2.635	591,949	127,176	1.043	132,591	4,464	2.7%
2014	162,291	3.852	625,145	124,335	1.082	134,517	4,647	4.1%
2015	66,099	9.779	646,379	101,545	1.368	138,883	4,654	0.1%

Projected Based on 2-Year Average of 2013 and 2014:

	Ultimate MCCP[6]	Ult. Ind. Counts[4]	Ult.MCCP per Ind. Counts[5]
2016	672,241	135,280	4,969
4/1/2017	687,234	133,806	5,136

(a) Projected MCCP ($000):		687,234
(b) Calendar Year 2015 Earned Premium[7] ($000):		15,448,761
(c) Projected Loss to Industry Average Filed Pure Premium Ratio[8]:		0.635
(d) Premium Adjustment Factor for Calendar Year 2015[9]:		0.977
(e) Projected Losses ($000): (b) x (c) x (d)		9,584,334
(f) Projected Ratio of MCCP to Losses: (a)/(e)		7.2%

Notes:

[1] Based on the analogous paid medical cumulative loss development factors from Exhibit 2.6.1 of Item AC16-03-02, applicable to private insurers only.

[2] Based on the latest year indemnity claim count age-to-age development from Exhibit 5.3.

[3] Estimated based on projected frequency trends for accident years 2015 to 2017. The estimated frequency changes are based on the projected growth in total or overall indemnity claim frequency. These frequency trends were then applied to the ultimate indemnity claim counts estimated from averaging 2014 and 2015.

[4] Severity is projected by applying an annual growth rate of 4.5%, which is based on the approximate average rate of growth, based on private insurers, in paid MCCP per indemnity claim from Exhibit 6, to the ultimate MCCP severity estimated from averaging 2014 and 2015.

[5] Column(6) x Column(7) / 1,000.

[6] Based on the reported earned premium for calendar year 2015 from the same group of private insurers that reported the paid MCCP in column (1) and the indemnity claim counts in column (4) by accident year as of December 31, 2015.

[7] Based on analogous Exhibit 8 of Item AC16-03-02, applicable to private insurers only.

[8] Based on analogous Exhibit 5.2 of Item AC16-03-02, applicable to private insurers only.

Item AC16-04-02
12/31/2015 Experience – Alternative Loss Projections

For a number of years, the WCIRB has included alternative loss development and trending methodology projections in its pure premium rate filing submissions.

Loss Development Methodologies
The loss development projections based on the methodology reflected in the WCIRB's summary analysis of December 31, 2015 experience, included in Item AC16-03-02 of this Agenda, were based on a combination of (a) latest year reform-adjusted paid loss development factors through 108 months, (b) three-year average reform-adjusted paid loss development factors from 108 months through 216 months and (c) three-year average (unadjusted) incurred loss development factors after 216 months. Attached for the Committee's review are a number of alternative loss development projections based on methodologies that have been included, for informational purposes, in prior pure premium rate filing materials or have been discussed at prior meetings. Specifically, alternative loss ratio projections, based on December 31, 2015 experience, derived using the following loss development methodologies and the trending methodology reflected in the analysis included in Item AC16-03-02 of this Agenda are included:[1]

1. 3-Year Average Unadjusted Incurred Loss Development – Exhibits 1.1 through 1.3.

2. Latest Year Unadjusted Incurred Loss Development – Exhibits 2.1 through 2.3.

3. Latest Year Incurred Loss Development Adjusted for Changes in Case Reserve Adequacy Level – Exhibits 3.1 through 3.11.

4. 3-Year Average Unadjusted Paid Loss Development – Exhibits 4.1 through 4.3.

5. Latest Year Unadjusted Paid Loss Development – Exhibits 5.1 through 5.3.

6. Latest Year Reform-Adjusted Paid Loss Development with Paid Loss Development Tail (through 372 Months) – Exhibits 6.1 through 6.3.

7. 3-Year Average Paid Loss Development Adjusted for Changes in Claim Settlement Rates and Reforms – Exhibits 7.1 through 7.15.

8. Latest Year Paid Loss Development Adjusted for Changes in Claim Settlement Rates and Reforms – Exhibits 8.1 through 8.3.

A summary of the July 1, 2016 through December 1, 2016 policy period loss ratio projections based on the alternative loss development methodologies described above is shown in Table 1.

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[1] All methodologies reflect three-year average loss development factors applied after 108 months. All paid loss development methodologies reflect three-year average incurred loss development factors applied after 216 months unless otherwise stated.

Table 1: Projected Loss Ratios for Policies Incepting between July 1, 2016 and December 31, 2016 Based on Alternative Loss Development Methodologies[2]

Loss Development Methodologies	Indemnity Loss Ratio	Medical Loss Ratio	Total Loss Ratio
Current WCIRB Methodology			
Latest Year Reform-Adjusted Paid through 108 Months; 3-Year Average Reform-Adjusted Paid through 216 Months; 3-Year Average Incurred After 216 Months	**0.271**	**0.388**	**0.659**
Alternative Methodologies			
Incurred Methodologies			
3-Year Average (Unadjusted)	0.239	0.368	0.607
Latest Year (Unadjusted)	0.230	0.335	0.565
Latest Year Adjusted for Changes in Case Reserve Adequacy Level	0.254	0.380	0.634
Paid Methodologies			
3-Year Average (Unadjusted)	0.254	0.389	0.643
Latest Year (Unadjusted)	0.251	0.378	0.629
Latest Year Reform-Adjusted with Paid Tail	0.268	0.384	0.652
3-Year Average Adjusted for Changes in Claim Settlement Rates and Reform	0.265	0.401	0.666
Latest Year Adjusted for Changes in Claim Settlement Rates and Reform	0.262	0.380	0.642

Trending Methodologies
The trending projections reflected in the summary analysis of December 31, 2015 experience, included in Item AC16-03-02 of this Agenda, were based on the average of the latest two years' on-level loss ratios with separate projections of claim frequency and claim severity growth applied. The claim frequency growth estimates were based on the preliminary 12-month frequency change for accident year 2015 and the WCIRB's claim frequency model forecasts for accident years 2016 and 2017. The severity growth estimates were based on the approximate average of the longer-term (post-2005) average on-level severity trend and the shorter-term (five-year) average on-level severity trend for indemnity, and the approximate average longer-term (post-2005) on-level severity trend for medical.

Attached for the Committee's review are a number of alternative trending projections based on methodologies that have been included, for informational purposes, in prior advisory pure premium rate filing materials or have been discussed at prior meetings. Specifically, alternative loss ratio projections, based on December 31, 2015 experience, derived using the loss development methodologies reflected in

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[2] All methodologies reflect three-year average loss development factors applied after 108 months. All paid loss development methodologies reflect three-year average incurred loss development factors applied after 216 months unless otherwise stated.

the analysis included in Item AC16-03-02 of this Agenda and the following trending methodologies have been included:

1. Separate Projections of Frequency and Severity Growth Applied to the Latest Year Only – Exhibits 9.1 and 9.2.

2. Separate Projections of Frequency and the Approximate Average of the Longer-Term (Post-2005) and Shorter-Term (5-Year) Severity Growth Rates Applied to the Latest Two Years – Exhibits 10.1 and 10.2.

3. Post-2005 On-Level Loss Ratio Exponential Trend Applied to the Latest Two Years' Loss Ratios and then Averaged – Exhibits 11.1 and 11.2.

4. 5-Year On-Level Loss Ratio Exponential Trend Applied to the Latest Two Years' Loss Ratios and then Averaged – Exhibits 12.1 and 12.2.

A summary of the July 1, 2016 through December 31, 2016 policy period loss ratio projections based on the alternative trending methodologies is shown in Table 2.

Table 2: Projected Loss Ratios for Policies Incepting between July 1, 2016 and December 31, 2016 Based on Alternative Trending Methodologies

Trending Methodologies	Indemnity Loss Ratio	Medical Loss Ratio	Total Loss Ratio
Current WCIRB Methodology Separate Projections of Frequency and Severity, with Indemnity Severity at 0% and Medical Severity at +2.5%, Applied to the Latest Two Years	**0.271**	**0.388**	**0.659**
Alternative Methodologies			
Separate Projections of Frequency and Severity Applied to the Latest Year	0.275	0.387	0.662
Separate Projections of Frequency and Severity, with Indemnity Severity at 0% and Medical Severity at +1.0%, Applied to the Latest Two Years	0.271	0.375	0.646
Post-2005 On-level Loss Ratio Exponential Trend Applied to the Latest Two Years	0.291	0.416	0.707
5-Year On-level Loss Ratio Exponential Trend Applied to the Latest Two Years	0.281	0.381	0.662

Developed Loss Ratios Using Unadjusted 3-Year Average Incurred Development Factors
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
	Reported				Reported				
	Incurred	Annual	Cumulative		Incurred	Annual	Cumulative		Total
Accident	Loss Ratio	Development	Development	Developed	Loss Ratio	Development	Development	Developed	Developed
Year	Ex IBNR(a)	Factor(b)	Factor	Loss Ratio	Ex IBNR(a)	Factor(c)	Factor	Loss Ratio	Loss Ratio
				(1) x (3)				(5) x (7)	(4) + (8)
2005	0.121	1.006	1.026	0.124	0.182	1.010	1.115	0.203	0.327
2006	0.155	1.007	1.033	0.161	0.233	1.012	1.128	0.263	0.424
2007	0.211	1.012	1.046	0.221	0.323	1.019	1.150	0.372	0.593
2008	0.264	1.014	1.061	0.280	0.396	1.024	1.177	0.466	0.746
2009	0.301	1.021	1.083	0.326	0.451	1.033	1.216	0.549	0.875
2010	0.283	1.030	1.116	0.316	0.426	1.040	1.265	0.539	0.855
2011	0.254	1.046	1.167	0.297	0.361	1.056	1.335	0.482	0.779
2012	0.214	1.069	1.248	0.268	0.292	1.078	1.439	0.420	0.687
2013	0.167	1.126	1.405	0.235	0.222	1.119	1.611	0.357	0.592
2014	0.124	1.272	1.787	0.221	0.170	1.194	1.924	0.326	0.547
2015	0.064	1.961	3.506	0.223	0.111	1.593	3.065	0.339	0.563

(a)   Based on Item AC 16-03-02, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.
(b)   Based on AC 16-03-02, Exhibit 2.1.
(c)   Based on AC 16-03-02, Exhibit 2.2.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted 3-Year Average Incurred Development Factors
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)
				On-Level Indemnity to
Accident	Developed Indemnity	Composite Indemnity	Composite Premium	Industry Average Filed
Year	Loss Ratio(a)	Adjustment Factor(b)	Adjustment Factor(c)	Pure Premium Ratio
				(1)×(2)÷(3)
2005	0.124	1.387	0.762	0.226
2006	0.161	1.370	0.979	0.225
2007	0.221	1.328	1.252	0.234
2008	0.280	1.250	1.513	0.232
2009	0.326	1.226	1.630	0.245
2010	0.316	1.209	1.482	0.258
2011	0.297	1.190	1.351	0.262
2012	0.268	1.162	1.203	0.258
2013	0.235	1.170	1.058	0.260
2014	0.221	1.061	0.978	0.240
2015	0.223	1.041	0.945	0.246

	Projections (d)
2016	0.241
4/1/2017	0.239

(a) See Exhibit 1.1.
(b) Based on AC 16-03-02, Exhibit 4.1.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted 3-Year Average Incurred Development Factors
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4a) On-Level Medical to Industry Average Filed Pure Premium Ratio (e) (1)×(2)÷(3)
2005	0.203	0.928	0.762	0.247
2006	0.263	0.975	0.979	0.262
2007	0.372	0.957	1.252	0.284
2008	0.466	0.951	1.513	0.293
2009	0.549	0.937	1.630	0.316
2010	0.539	0.935	1.482	0.340
2011	0.482	0.932	1.351	0.333
2012	0.420	0.940	1.203	0.328
2013	0.357	0.994	1.058	0.336
2014	0.326	1.027	0.978	0.343
2015	0.339	1.020	0.945	0.366

				Projections (d)
2016				0.365
4/1/2017				0.368

(a)   See Exhibit 1.1.
(b)   Based on AC 16-03-02, Exhibit 4.4.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual medical severity trend from AC 16-03-02, Exhibit 6.4, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.
(e)   Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

Developed Loss Ratios Using Unadjusted Latest Year Incurred Development Factors
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
	Reported				Reported				
	Incurred	Annual	Cumulative		Incurred	Annual	Cumulative		Total
Accident	Loss Ratio	Development	Development	Developed	Loss Ratio	Development	Development	Developed	Developed
Year	Ex IBNR(a)	Factor(b)	Factor	Loss Ratio	Ex IBNR(a)	Factor(c)	Factor	Loss Ratio	Loss Ratio
				(1) x (3)				(5) x (7)	(4) + (8)
2005	0.121	1.006	1.026	0.124	0.182	1.010	1.115	0.203	0.327
2006	0.155	1.007	1.033	0.161	0.233	1.012	1.128	0.263	0.424
2007	0.211	1.012	1.046	0.221	0.323	1.019	1.150	0.372	0.593
2008	0.264	1.012	1.058	0.280	0.396	1.018	1.170	0.463	0.743
2009	0.301	1.019	1.078	0.325	0.451	1.026	1.201	0.542	0.867
2010	0.283	1.024	1.104	0.313	0.426	1.030	1.237	0.527	0.840
2011	0.254	1.045	1.154	0.294	0.361	1.045	1.293	0.467	0.760
2012	0.214	1.062	1.225	0.263	0.292	1.070	1.383	0.403	0.666
2013	0.167	1.114	1.365	0.228	0.222	1.099	1.520	0.337	0.565
2014	0.124	1.260	1.720	0.213	0.170	1.164	1.769	0.300	0.513
2015	0.064	1.961	3.373	0.215	0.111	1.561	2.762	0.306	0.521

(a) Based on Item AC 16-03-02, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.
(b) Based on AC 16-03-02, Exhibit 2.1.
(c) Based on AC 16-03-02, Exhibit 2.2.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted Latest Year Incurred Development Factors
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.124	1.387	0.762	0.226
2006	0.161	1.370	0.979	0.225
2007	0.221	1.328	1.252	0.234
2008	0.280	1.250	1.513	0.231
2009	0.325	1.226	1.630	0.244
2010	0.313	1.209	1.482	0.255
2011	0.294	1.190	1.351	0.259
2012	0.263	1.162	1.203	0.254
2013	0.228	1.170	1.058	0.252
2014	0.213	1.061	0.978	0.231
2015	0.215	1.041	0.945	0.237
				Projections (d)
2016				0.232
4/1/2017				0.230

(a)   See Exhibit 2.1.
(b)   Based on AC 16-03-02, Exhibit 4.1.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted Latest Year Incurred Development Factors
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.203	0.928	0.762	0.247
2006	0.263	0.975	0.979	0.262
2007	0.372	0.957	1.252	0.284
2008	0.463	0.951	1.513	0.291
2009	0.542	0.937	1.630	0.312
2010	0.527	0.935	1.482	0.333
2011	0.467	0.932	1.351	0.322
2012	0.403	0.940	1.203	0.315
2013	0.337	0.994	1.058	0.317
2014	0.300	1.027	0.978	0.315
2015	0.306	1.020	0.945	0.330
				Projections (d)
2016				0.332
4/1/2017				0.335

(a) See Exhibit 2.1.
(b) Based on AC 16-03-02, Exhibit 4.4.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual medical severity trend from AC 16-03-02, Exhibit 6.4, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1, these trends were then separately applied to the 2014 and 2015 on-level ratios.

(e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

Incurred Indemnity Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

A. Indemnity Case Reserves Per Open Claim

Accident Year	____		Evaluated as of (in months)				
	12	24	36	48	60	72	84
2000							23,704
2001						19,542	21,015
2002					16,169	17,421	18,396
2003				15,081	16,635	18,504	20,895
2004			13,012	14,056	15,383	17,771	19,782
2005		9,764	11,159	12,558	14,843	17,769	20,884
2006	7,608	10,745	12,691	14,806	18,139	20,953	22,702
2007	7,323	11,127	13,882	16,127	18,097	19,925	23,967
2008	7,620	11,566	14,541	16,534	18,120	20,748	23,331
2009	7,688	12,199	14,368	16,358	18,548	21,091	22,516
2010	7,728	11,777	14,202	16,005	17,822	19,687	
2011	8,237	12,482	14,521	17,023	18,671		
2012	8,088	12,279	14,680	16,084			
2013	8,389	12,413	14,194				
2014	8,413	12,743					
2015	8,843						

B. Average Paid Indemnity per Closed Claim Adjusted to Common Benefit Level (a)

Accident Year			Evaluated as of (in months)				
	12	24	36	48	60	72	84
2000							16,682
2001						16,650	17,892
2002					14,632	16,275	17,564
2003				11,502	13,569	15,158	16,164
2004			6,660	9,396	11,322	12,541	13,394
2005		4,025	7,810	11,510	14,070	15,686	16,918
2006	1,805	4,141	7,870	11,316	13,665	15,421	16,954
2007	1,740	4,373	8,421	11,947	14,536	16,692	18,660
2008	1,838	4,555	8,830	12,560	15,538	18,231	19,953
2009	1,910	4,904	9,285	13,202	16,675	19,081	21,064
2010	1,863	4,952	9,418	13,653	16,856	19,195	
2011	1,985	5,217	9,814	13,827	16,917		
2012	2,084	5,605	10,109	13,939			
2013	2,411	6,030	10,617				
2014	2,273	5,806					
2015	2,405						
Annual Trend (b):	3.8%	4.7%	4.6%	3.6%	3.2%	2.6%	2.2%

C. Indemnity Case Reserves per Open Claim Adjusted by Paid Indemnity Severity Trend (c)

Accident Year			Evaluated as of (in months)				
	12	24	36	48	60	72	84
2000							19,226
2001						16,578	19,899
2002					15,474	17,158	20,595
2003				13,017	16,016	17,758	21,316
2004			11,535	13,473	16,576	18,380	22,062
2005		9,527	11,939	13,945	17,157	19,023	22,834
2006	6,489	9,861	12,356	14,433	17,757	19,689	23,633
2007	6,716	10,206	12,789	14,938	18,379	20,378	24,461
2008	6,951	10,563	13,237	15,461	19,022	21,091	25,317
2009	7,194	10,933	13,700	16,002	19,688	21,829	26,203
2010	7,446	11,315	14,179	16,562	20,377	22,593	
2011	7,706	11,711	14,676	17,141	21,090		
2012	7,976	12,121	15,189	17,741			
2013	8,255	12,545	15,721				
2014	8,544	12,985					
2015	8,843						

(a) Represents average paid indemnity on closed claims only. All evaluations are brought to the accident year 2015 benefit level based on benefit factors shown in AC16-03-02, Exhibit 4.1, excluding utilization impacts.

(b) Trend is based on an all-year exponential distribution.
(c) Latest evaluation for each accident year is brought to the accident year 2015 benefit level based on benefit factors shown in AC16-03-02, Exhibit 4.1, excluding utilization impacts. Evaluations prior to the latest evaluation are determined by adjusting the latest accident year average indemnity case reserves by the selected annual paid indemnity severity trend on closed claims (Item B) of 3.5%.

Source: Accident year experience of insurers with available claim count data

Incurred Indemnity Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

D. Indemnity Open Claim Counts

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2000							13,507
2001						27,297	20,932
2002					38,689	28,564	21,745
2003				51,055	36,281	26,670	20,405
2004			58,495	40,945	29,124	22,273	17,807
2005		66,350	48,281	33,470	24,755	19,275	15,329
2006	71,964	53,808	38,323	27,581	20,486	15,909	12,641
2007	78,183	60,659	44,629	32,593	24,543	19,174	13,919
2008	72,650	60,073	45,251	33,396	25,000	17,958	13,439
2009	67,119	58,680	44,882	33,203	23,801	17,599	13,101
2010	68,069	60,187	45,775	32,281	22,981	16,716	
2011	66,931	60,037	44,361	31,311	21,973		
2012	70,057	62,436	45,470	31,446			
2013	75,539	66,000	46,783				
2014	78,401	66,934					
2015	80,556						

E. Total Indemnity Case Reserves Adjusted to Common Benefit Level and by Paid Indemnity
Severity Trend (in $000) (d)

Accident Year	Evaluated as of (in months)					
	24	36	48	60	72	84
2000						259,683
2001					452,517	416,520
2002				598,684	490,094	447,842
2003			664,606	581,072	473,613	434,953
2004		674,735	551,654	482,772	409,373	392,859
2005	632,126	576,410	466,726	424,712	366,670	350,026
2006	466,950	530,579	473,538	398,068	363,772	313,231	298,750
2007	525,058	619,068	570,759	486,868	451,066	390,728	340,467
2008	504,976	634,546	598,969	516,324	475,546	378,757	340,231
2009	482,860	641,526	614,878	531,307	468,585	384,176	343,283
2010	506,834	681,031	649,060	534,632	468,276	377,672
2011	515,803	703,111	651,026	536,717	463,407
2012	558,790	756,798	690,657	557,897
2013	623,603	827,998	735,472
2014	669,883	869,106
2015	712,387

F. Paid Indemnity Loss on All Claims Adjusted to the Common Benefit Level (in $000)(e)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2000							2,533,824
2001						3,538,817	3,718,943
2002					3,407,169	3,666,961	3,837,235
2003				2,627,013	2,964,275	3,180,178	3,318,969
2004			1,533,844	1,900,025	2,120,749	2,276,089	2,388,486
2005		1,138,023	1,723,126	2,129,112	2,386,829	2,575,497	2,731,725
2006	333,350	938,097	1,426,164	1,739,659	1,966,647	2,141,402	2,286,301
2007	378,474	1,095,633	1,690,950	2,104,218	2,398,795	2,620,719	2,793,686
2008	367,274	1,071,416	1,688,079	2,145,953	2,470,581	2,699,556	2,862,820
2009	331,671	1,017,182	1,641,291	2,099,751	2,427,228	2,651,457	2,812,637
2010	328,693	1,035,172	1,681,959	2,153,628	2,468,862	2,693,865	
2011	325,919	1,041,970	1,677,143	2,123,733	2,430,461		
2012	347,199	1,090,284	1,740,269	2,198,307			
2013	367,878	1,165,784	1,872,284				
2014	352,600	1,139,138					
2015	370,744						

(d) Each amount is derived as the product of the indemnity open claim counts (Item D) and the adjusted average indemnity case reserves per open claim (Item C).
(e) Brought to accident year 2015 benefit level based on benefit factors shown in AC16-03-02, Exhibit 4.1, excluding utilization impacts.

Source: Accident year experience of insurers with available claim count data

Incurred Indemnity Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

G. Adjusted Total Indemnity Incurred (in $000)(f)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2000							2,793,507
2001						3,991,334	4,135,463
2002					4,005,853	4,157,055	4,285,076
2003				3,291,619	3,545,347	3,653,791	3,753,922
2004			2,208,579	2,451,679	2,603,521	2,685,462	2,781,345
2005		1,770,148	2,299,536	2,595,839	2,811,541	2,942,168	3,081,750
2006	800,300	1,468,676	1,899,702	2,137,727	2,330,419	2,454,633	2,585,052
2007	903,533	1,714,701	2,261,709	2,591,086	2,849,861	3,011,447	3,134,153
2008	872,250	1,705,961	2,287,048	2,662,276	2,946,126	3,078,313	3,203,051
2009	814,531	1,658,708	2,256,168	2,631,057	2,895,812	3,035,634	3,155,920
2010	835,527	1,716,203	2,331,019	2,688,261	2,937,139	3,071,538	
2011	841,721	1,745,081	2,328,169	2,660,451	2,893,868		
2012	905,989	1,847,082	2,430,926	2,756,204			
2013	991,481	1,993,782	2,607,755				
2014	1,022,483	2,008,243					
2015	1,083,130						

H. Indemnity Incurred Loss Development Factors Based on Adjusted Total Indemnity Incurred

Accident Year	Age-to-Age Development (in months):					
	12-24	24-36	36-48	48-60	60-72	72-84
2001						1.036
2002					1.038	1.031
2003				1.077	1.031	1.027
2004			1.110	1.062	1.031	1.036
2005		1.299	1.129	1.083	1.046	1.047
2006	1.835	1.293	1.125	1.090	1.053	1.053
2007	1.898	1.319	1.146	1.100	1.057	1.041
2008	1.956	1.341	1.164	1.107	1.045	1.041
2009	2.036	1.360	1.166	1.101	1.048	1.040
2010	2.054	1.358	1.153	1.093	1.046	
2011	2.073	1.334	1.143	1.088		
2012	2.039	1.316	1.134			
2013	2.011	1.308				
2014	1.964					
Latest Year	1.964	1.308	1.134	1.088	1.046	1.040

I. Indemnity Incurred Loss Development Factors Adjusted to Common Benefit Level(g)

Accident Year	Age-to-Age Development (in months):					
	12-24	24-36	36-48	48-60	60-72	72-84
2001						1.022
2002					1.033	1.018
2003				1.056	1.033	1.022
2004			1.085	1.041	1.042	1.027
2005		1.215	1.099	1.069	1.053	1.041
2006	1.624	1.221	1.105	1.080	1.052	1.033
2007	1.777	1.273	1.121	1.070	1.049	1.037
2008	1.856	1.304	1.136	1.075	1.045	1.030
2009	1.985	1.293	1.142	1.077	1.048	1.024
2010	1.983	1.313	1.131	1.070	1.045	
2011	1.991	1.273	1.134	1.062		
2012	1.991	1.279	1.113			
2013	1.938	1.258				
2014	1.960					

(f) Each amount is the sum of the adjusted total indemnity case reserves (Item E) and the adjusted total indemnity paid losses (Item F).

(g) Development factors are based on incurred losses adjusted to a common benefit level and from the same insurer mix as those which have been adjusted for case reserve level adequacy and applied in the calculation of the development factors in Item H.

Source: Accident year experience of insurers with available claim count data

**Incurred Indemnity Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy**

J. Impact of Adjustments to Common Case Reserve Level (h)

Accident Year	Age-to-Age Development (in months):					
	12-24	24-36	36-48	48-60	60-72	72-84
2001						1.39%
2002					0.42%	1.26%
2003				1.98%	-0.25%	0.58%
2004			2.35%	2.01%	-0.98%	0.86%
2005		6.90%	2.70%	1.36%	-0.67%	0.59%
2006	12.99%	5.90%	1.88%	0.97%	0.16%	1.91%
2007	6.80%	3.61%	2.20%	2.75%	0.71%	0.40%
2008	5.36%	2.79%	2.48%	2.97%	-0.01%	1.02%
2009	2.60%	5.22%	2.10%	2.24%	-0.01%	1.57%
2010	3.60%	3.41%	1.95%	2.11%	0.06%	
2011	4.15%	4.77%	0.81%	2.46%		
2012	2.38%	2.88%	1.88%			
2013	3.76%	3.98%				
2014	0.21%					

K. Indemnity Incurred Loss Development Factors Adjusted for Changes in Case Reserve Adequacy(i)

Accident Year	Age-to-Age Development (in months):					
	12-24	24-36	36-48	48-60	60-72	72-84
2001						1.035
2002					1.037	1.031
2003				1.077	1.030	1.027
2004			1.108	1.063	1.031	1.035
2005		1.302	1.128	1.083	1.046	1.046
2006	1.910	1.321	1.132	1.090	1.055	1.055
2007	1.905	1.319	1.145	1.099	1.056	1.041
2008	1.958	1.338	1.164	1.106	1.045	1.041
2009	2.035	1.361	1.166	1.100	1.048	1.040
2010	2.066	1.360	1.153	1.092	1.046	
2011	2.080	1.338	1.142	1.088		
2012	2.039	1.316	1.135			
2013	2.004	1.310				
2014	1.965					
Latest Year	1.965	1.310	1.135	1.088	1.046	1.040

(h) Each factor represents the change in age-to-age development factors from Item I to those in Item H.

(i) Each factor is the product of [1.0 + the impact of adjustments to common case reserve level (Item J)] and [the incurred indemnity age-to-age development factors from AC16-03-02, Exhibit 2.1.1].

Source: Accident year experience of insurers with available claim count data

Incurred Medical Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

A. Medical Case Reserves Per Open Indemnity Claim

Accident Year	___	___	Evaluated as of (in months)				
	12	24	36	48	60	72	84
2000							36,001
2001						26,752	34,583
2002					20,315	26,683	33,511
2003				17,616	21,602	28,978	36,790
2004			14,307	18,687	24,531	30,573	39,354
2005		13,805	17,461	21,082	25,502	34,318	42,799
2006	12,590	16,437	21,182	25,670	32,240	39,814	47,629
2007	12,946	16,807	20,965	26,518	32,682	40,114	51,272
2008	14,053	17,937	22,535	27,708	33,945	42,344	51,434
2009	14,265	18,460	23,011	28,134	34,332	42,103	49,069
2010	14,620	18,576	23,059	28,227	34,432	40,112	
2011	15,624	20,172	24,585	30,683	37,321		
2012	15,905	20,033	24,249	28,335			
2013	15,603	19,986	22,914				
2014	15,362	18,877					
2015	15,948						

B. Average Paid Medical Loss Per Claim Adjusted to the Common Benefit Level (a)

Accident Year			Evaluated as of (in months)				
	12	24	36	48	60	72	84
2000							4,367
2001						4,508	4,768
2002					4,671	5,013	5,303
2003				4,224	4,702	5,073	5,365
2004			3,686	4,414	4,989	5,441	5,834
2005		2,555	3,403	4,137	4,699	5,146	5,522
2006	1,306	2,678	3,744	4,544	5,155	5,668	6,104
2007	1,411	3,011	4,198	5,114	5,829	6,431	6,967
2008	1,625	3,359	4,711	5,808	6,710	7,430	7,960
2009	1,733	3,673	5,232	6,579	7,650	8,434	8,990
2010	1,761	3,806	5,556	7,030	8,070	8,836	
2011	1,770	4,030	5,892	7,315	8,348		
2012	1,895	4,147	5,930	7,303			
2013	2,036	4,320	6,162				
2014	2,067	4,408					
2015	2,063						
Annual Trend (b):	5.1%	6.5%	7.4%	7.8%	7.8%	7.7%	7.4%

C. Medical Case Reserves per Open Indemnity Claim Adjusted by Paid Medical Severity Trend (c)

Accident Year			Evaluated as of (in months)				
	12	24	36	48	60	72	84
2000							24,269
2001						19,780	25,968
2002					18,349	21,165	27,786
2003				14,057	19,633	22,646	29,731
2004			11,999	15,041	21,007	24,231	31,812
2005		10,341	12,839	16,094	22,478	25,928	34,039
2006	8,675	11,065	13,738	17,221	24,051	27,742	36,422
2007	9,282	11,840	14,699	18,426	25,735	29,684	38,971
2008	9,932	12,669	15,728	19,716	27,536	31,762	41,699
2009	10,627	13,556	16,829	21,096	29,464	33,986	44,618
2010	11,371	14,504	18,007	22,573	31,526	36,365	
2011	12,167	15,520	19,268	24,153	33,733		
2012	13,018	16,606	20,617	25,844			
2013	13,930	17,769	22,060				
2014	14,905	19,012					
2015	15,948						

(a) Represents average paid medical on all claims. All evaluations are brought to the accident year 2015 benefit level based on benefit factors shown in AC16-03-02, Exhibit 4.4, excluding utilization impacts.
(b) Trend is based on an all-year exponential distribution.
(c) Latest evaluation for each accident year is brought to the accident year 2015 benefit level based on benefit factors shown in AC16-03-02, Exhibit 4.4, excluding utilization impacts. Evaluations prior to the latest evaluation are determined by adjusting the latest accident year average medical case reserves by the selected annual paid medical severity trend on all claims (Item B) of 7.0%.

Source: Accident year experience of insurers with available claim count data

Incurred Medical Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

D. Total Medical Case Reserves Adjusted to the Common Benefit Level and by Paid Medical Severity Trend (in $000) (d)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2000							327,806
2001						539,935	543,567
2002					709,892	604,546	604,207
2003				717,691	712,308	603,972	606,661
2004			701,885	615,863	611,820	539,705	566,480
2005		686,155	619,879	538,670	556,441	499,754	521,785
2006	624,262	595,404	526,471	474,964	492,716	441,355	460,408
2007	725,684	718,198	656,018	600,563	631,613	569,170	542,442
2008	721,530	761,048	711,722	658,435	688,410	570,389	560,397
2009	713,260	795,438	755,332	700,454	701,272	598,115	584,544
2010	773,991	872,977	824,286	728,673	724,509	607,873	
2011	814,324	931,757	854,742	756,252	741,222		
2012	912,022	1,036,818	937,437	812,678			
2013	1,052,226	1,172,723	1,032,022				
2014	1,168,539	1,272,571					
2015	1,284,704						

E. Paid Medical Loss on All Claims Adjusted to the Common Benefit Level (in $000) (e)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2000							1,681,075
2001						2,241,387	2,377,165
2002					2,383,181	2,565,062	2,716,414
2003				2,045,282	2,285,006	2,468,096	2,612,599
2004			1,711,143	2,054,828	2,328,997	2,541,462	2,726,224
2005		1,133,446	1,537,274	1,874,985	2,133,283	2,339,670	2,511,216
2006	432,788	998,553	1,405,041	1,716,045	1,953,952	2,149,455	2,312,814
2007	506,713	1,237,585	1,745,737	2,138,627	2,442,258	2,696,598	2,921,654
2008	556,444	1,287,564	1,826,839	2,266,072	2,623,493	2,909,867	3,120,384
2009	515,680	1,240,173	1,792,074	2,262,865	2,641,230	2,916,910	3,113,051
2010	521,261	1,282,999	1,892,964	2,407,629	2,772,483	3,038,404	
2011	510,702	1,325,443	1,961,871	2,446,966	2,801,834		
2012	548,892	1,402,643	2,039,805	2,533,081			
2013	607,788	1,507,218	2,193,088				
2014	641,562	1,616,983					
2015	665,336						

F. Adjusted Total Medical Incurred (in $000) (f)

Accident Year	Evaluated as of (in months)					
	24	36	48	60	72	84
2000						2,008,881
2001					2,781,321	2,920,732
2002				3,093,073	3,169,608	3,320,621
2003			2,762,973	2,997,314	3,072,069	3,219,261
2004		2,413,028	2,670,691	2,940,817	3,081,167	3,292,704
2005	1,819,601	2,157,153	2,413,655	2,689,724	2,839,423	3,033,000
2006	1,057,050	1,593,957	1,931,511	2,191,009	2,446,668	2,590,810	2,773,221
2007	1,232,396	1,955,783	2,401,754	2,739,191	3,073,871	3,265,768	3,464,095
2008	1,277,974	2,048,611	2,538,561	2,924,506	3,311,903	3,480,256	3,680,781
2009	1,228,940	2,035,611	2,547,407	2,963,318	3,342,502	3,515,025	3,697,595
2010	1,295,251	2,155,976	2,717,251	3,136,302	3,496,992	3,646,276	
2011	1,325,026	2,257,200	2,816,613	3,203,218	3,543,056		
2012	1,460,915	2,439,462	2,977,242	3,345,760			
2013	1,660,014	2,679,940	3,225,111				
2014	1,810,100	2,889,554					
2015	1,950,041						

(d) Each amount is derived as the product of the indemnity open claim counts (Exhibit 3.2, Item D) and the adjusted average medical case reserves per open claim (Item C).

(e) Brought to accident year 2015 benefit level based on benefit factors shown in AC16-03-02, Exhibit 4.4, excluding utilization impacts.

(f) Each amount is the sum of the adjusted total medical case reserves (Item D) and the adjusted total medical paid losses (Item E).

Source: Accident year experience of insurers with available claim count data

Incurred Medical Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

G. Medical Incurred Loss Development Factors Based on Adjusted Total Medical Incurred

Accident Year	Age-to-Age Development (in months):					
	12-24	24-36	36-48	48-60	60-72	72-84
2001						1.050
2002					1.025	1.048
2003				1.085	1.025	1.048
2004			1.107	1.101	1.048	1.069
2005		1.186	1.119	1.114	1.056	1.068
2006	1.508	1.212	1.134	1.117	1.059	1.070
2007	1.587	1.228	1.140	1.122	1.062	1.061
2008	1.603	1.239	1.152	1.132	1.051	1.058
2009	1.656	1.251	1.163	1.128	1.052	1.052
2010	1.665	1.260	1.154	1.115	1.043	
2011	1.704	1.248	1.137	1.106		
2012	1.670	1.220	1.124			
2013	1.614	1.203				
2014	1.596					
Latest Year	1.596	1.203	1.124	1.106	1.043	1.052

H. Medical Incurred Loss Development Factors Adjusted to Common Benefit Level (g)

Accident Year	Age-to-Age Development (in months):					
	12-24	24-36	36-48	48-60	60-72	72-84
2001						1.048
2002					1.057	1.042
2003				1.059	1.062	1.043
2004			1.111	1.082	1.060	1.064
2005		1.168	1.090	1.074	1.086	1.056
2006	1.427	1.186	1.099	1.081	1.066	1.049
2007	1.514	1.199	1.126	1.084	1.071	1.051
2008	1.526	1.214	1.128	1.092	1.061	1.041
2009	1.605	1.227	1.140	1.087	1.061	1.030
2010	1.613	1.241	1.135	1.079	1.045	
2011	1.662	1.218	1.125	1.069		
2012	1.625	1.197	1.099			
2013	1.594	1.161				
2014	1.558					

I. Impact of Adjustments to Common Case Reserve Level (h)

Accident Year	Age-to-Age Development (in months):					
	12-24	24-36	36-48	48-60	60-72	72-84
2001						0.16%
2002					-3.04%	0.56%
2003				2.46%	-3.47%	0.50%
2004			-0.36%	1.79%	-1.19%	0.44%
2005		1.47%	2.68%	3.73%	-2.80%	1.13%
2006	5.70%	2.21%	3.22%	3.26%	-0.68%	2.05%
2007	4.81%	2.46%	1.31%	3.51%	-0.76%	0.91%
2008	5.05%	2.06%	2.13%	3.67%	-0.92%	1.61%
2009	3.19%	1.96%	2.08%	3.73%	-0.88%	2.15%
2010	3.17%	1.56%	1.72%	3.32%	-0.20%	
2011	2.48%	2.45%	1.11%	3.50%		
2012	2.76%	1.93%	2.29%			
2013	1.30%	3.63%				
2014	2.46%					

(g) Development factors are based on incurred losses adjusted to a common benefit level and from the same insurer mix as those which have been adjusted for case reserve level adequacy and applied in the calculation of the development factors in Item G.

(h) Each factor represents the change in age-to-age development factors from Item H to those in Item G.

Source: Accident year experience of insurers with available claim count data

Incurred Medical Loss Development Factors
Adjusted for Changes in Case Reserve Adequacy

J. Medical Incurred Loss Development Factors After Adjustment for Changes in Case Reserve Adequacy (i)

Accident Year	Age-to-Age Development (in months):					
	12-24	24-36	36-48	48-60	60-72	72-84
2001						1.047
2002					1.024	1.046
2003				1.085	1.023	1.047
2004			1.109	1.100	1.047	1.066
2005		1.189	1.116	1.114	1.054	1.067
2006	1.543	1.222	1.139	1.116	1.059	1.069
2007	1.591	1.234	1.139	1.119	1.062	1.060
2008	1.604	1.237	1.153	1.132	1.051	1.058
2009	1.655	1.251	1.164	1.128	1.052	1.052
2010	1.671	1.264	1.154	1.113	1.043	
2011	1.708	1.252	1.138	1.107		
2012	1.671	1.220	1.124			
2013	1.612	1.206				
2014	1.599					
Latest Year	1.599	1.206	1.124	1.107	1.043	1.052

(i) Each factor is the product of [1.0 + the impact of adjustments to common case reserve level (Item I)] and [the incurred medical age-to-age development factors from AC16-03-02, Exhibit 2.2.1].

Source: Accident year experience of insurers with available claim count data

Developed Loss Ratios Using Latest Year Incurred Development Factors
Adjusted for Changes in Case Reserve Adequacy
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
Accident Year	Incurred Loss Ratio Ex IBNR(a)	Annual Development Factor(b)	Cumulative Development Factor	Developed Loss Ratio (1) x (3)	Incurred Loss Ratio Ex IBNR(a)	Annual Development Factor(c)	Cumulative Development Factor	Developed Loss Ratio (5) x (7)	Total Developed Loss Ratio (4) + (8)
2005	0.121	1.006	1.026	0.124	0.182	1.010	1.115	0.203	0.327
2006	0.155	1.007	1.033	0.161	0.233	1.012	1.128	0.263	0.424
2007	0.211	1.012	1.046	0.221	0.323	1.019	1.150	0.372	0.593
2008	0.264	1.012	1.058	0.280	0.396	1.018	1.170	0.463	0.743
2009	0.301	1.019	1.078	0.325	0.451	1.026	1.201	0.542	0.867
2010	0.283	1.040	1.121	0.318	0.426	1.052	1.263	0.539	0.856
2011	0.254	1.046	1.173	0.298	0.361	1.043	1.318	0.476	0.774
2012	0.214	1.088	1.276	0.274	0.292	1.107	1.459	0.426	0.699
2013	0.167	1.135	1.448	0.242	0.222	1.124	1.640	0.364	0.606
2014	0.124	1.310	1.897	0.235	0.170	1.206	1.979	0.335	0.570
2015	0.064	1.965	3.728	0.238	0.111	1.599	3.165	0.350	0.588

(a) Based on AC 16-03-02, Exhibit 1. Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

(b) Age-to-age factors for developing accident years 2010 to 2015 were adjusted for changes in indemnity case reserve levels based on estimated annual severity trends on closed indemnity claims (see Exhibit 3.4, Item K). Age-to-age factors for developing accident years prior to 2010 are selected as the age-to-age factors shown in AC 16-03-02, Exhibit 2.1.

(c) Age-to-age factors for developing accident years 2010 to 2015 were adjusted for changes in medical case reserve levels based on estimated annual medical severity trend on all claims (see Exhibit 3.8, Item J). Age-to-age factors for developing accident years prior to 2010 are selected as the age-to-age factors shown in AC 16-03-02, Exhibit 2.2.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using Latest Year Incurred Development Factors
Adjusted for Changes in Indemnity Case Reserve Adequacy
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.124	1.387	0.762	0.226
2006	0.161	1.370	0.979	0.225
2007	0.221	1.328	1.252	0.234
2008	0.280	1.250	1.513	0.231
2009	0.325	1.226	1.630	0.244
2010	0.318	1.209	1.482	0.259
2011	0.298	1.190	1.351	0.263
2012	0.274	1.162	1.203	0.264
2013	0.242	1.170	1.058	0.268
2014	0.235	1.061	0.978	0.255
2015	0.238	1.041	0.945	0.262

				Projections (d)
2016				0.256
4/1/2017				0.254

(a) See Exhibit 3.9.
(b) Based on AC 16-03-02, Exhibit 4.1.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using Latest Year Incurred Development Factors
Adjusted for Changes in Medical Case Reserve Adequacy
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.203	0.928	0.762	0.247
2006	0.263	0.975	0.979	0.262
2007	0.372	0.957	1.252	0.284
2008	0.463	0.951	1.513	0.291
2009	0.542	0.937	1.630	0.312
2010	0.539	0.935	1.482	0.340
2011	0.476	0.932	1.351	0.328
2012	0.426	0.940	1.203	0.333
2013	0.364	0.994	1.058	0.342
2014	0.335	1.027	0.978	0.352
2015	0.350	1.020	0.945	0.378

				Projections (d)
2016				0.376
4/1/2017				0.380

(a) See Exhibit 3.9.
(b) Based on AC 16-03-02, Exhibit 4.4.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual medical severity trend from AC 16-03-02, Exhibit 6.4, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1, these trends were then separately applied to the 2014 and 2015 on-level ratios.
(e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs. No adjustment has been made to MCCP costs in medical reserves.

Developed Loss Ratios Using Unadjusted 3-Year Average Paid Development Factors
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			
	Reported	Annual	Cumulative		Reported	Annual	Cumulative		Total
Accident	Paid	Development	Development	Developed	Paid	Development	Development	Developed	Developed
Year	Loss Ratio(a)	Factor(b)	Factor	Loss Ratio	Loss Ratio(a)	Factor(c)	Factor	Loss Ratio	Loss Ratio
				(1) x (3)				(5) x (7)	(4) + (8)
2005	0.113	1.015	1.095	0.123	0.159	1.024	1.343	0.214	0.337
2006	0.143	1.020	1.117	0.160	0.202	1.032	1.386	0.280	0.440
2007	0.193	1.028	1.148	0.221	0.277	1.036	1.436	0.398	0.619
2008	0.240	1.037	1.190	0.285	0.338	1.044	1.499	0.506	0.791
2009	0.268	1.046	1.244	0.334	0.380	1.055	1.581	0.601	0.935
2010	0.248	1.062	1.322	0.328	0.355	1.071	1.694	0.602	0.930
2011	0.214	1.092	1.443	0.309	0.280	1.101	1.865	0.523	0.831
2012	0.171	1.149	1.659	0.284	0.216	1.153	2.149	0.464	0.748
2013	0.120	1.270	2.107	0.253	0.146	1.252	2.691	0.393	0.646
2014	0.070	1.606	3.384	0.238	0.090	1.461	3.930	0.355	0.592
2015	0.022	3.180	10.761	0.235	0.035	2.520	9.906	0.348	0.583

(a) Based on AC 16-03-02, Exhibit 1.
(b) Age-to-age factors are selected as three-year averages based on AC 16-03-02, Exhibit 2.5.
(c) Age-to-age factors are selected as three-year averages based on AC 16-03-02, Exhibit 2.6. These factors have not been adjusted
for the SB 863 reforms or RBRVS.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted 3-Year Average Paid Development Factors
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.285	1.250	1.513	0.236
2009	0.334	1.226	1.630	0.251
2010	0.328	1.209	1.482	0.268
2011	0.309	1.190	1.351	0.272
2012	0.284	1.162	1.203	0.274
2013	0.253	1.170	1.058	0.280
2014	0.238	1.061	0.978	0.258
2015	0.235	1.041	0.945	0.258
				Projections (d)
2016				0.256
4/1/2017				0.254

(a) See Exhibit 4.1.
(b) Based on AC 16-03-02, Exhibit 4.1.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Using Unadjusted 3-Year Average Paid Development Factors
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.214	0.928	0.762	0.261
2006	0.280	0.975	0.979	0.279
2007	0.398	0.957	1.252	0.304
2008	0.506	0.951	1.513	0.318
2009	0.601	0.937	1.630	0.346
2010	0.602	0.935	1.482	0.379
2011	0.523	0.932	1.351	0.361
2012	0.464	0.940	1.203	0.363
2013	0.393	0.994	1.058	0.369
2014	0.355	1.027	0.978	0.373
2015	0.348	1.020	0.945	0.376

Projections (d)

2016	0.385
4/1/2017	0.389

(a) See Exhibit 4.1.
(b) Based on AC 16-03-02, Exhibit 4.4.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual medical severity trend from AC 16-03-02, Exhibit 6.4, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.
(e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

Actuarial Committee
Meeting Agenda for April 5, 2016

Exhibit 5.1

Developed Loss Ratios Using Unadjusted Paid Development Factors
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Indemnity				Medical			Total
		Annual	Cumulative			Annual	Cumulative		
Accident	Paid	Development	Development	Developed	Paid	Development	Development	Developed	Developed
Year	Loss Ratio(a)	Factor(b)	Factor	Loss Ratio (1) x (3)	Loss Ratio(a)	Factor(c)	Factor	Loss Ratio (5) x (7)	Loss Ratio (4) + (8)
2005	0.113	1.015	1.095	0.123	0.159	1.024	1.343	0.214	0.337
2006	0.143	1.020	1.117	0.160	0.202	1.032	1.386	0.280	0.440
2007	0.193	1.028	1.148	0.221	0.277	1.036	1.436	0.398	0.619
2008	0.240	1.033	1.186	0.284	0.338	1.041	1.495	0.505	0.789
2009	0.268	1.041	1.235	0.331	0.380	1.051	1.571	0.597	0.928
2010	0.248	1.061	1.310	0.325	0.355	1.067	1.676	0.595	0.921
2011	0.214	1.091	1.429	0.306	0.280	1.096	1.837	0.515	0.821
2012	0.171	1.145	1.636	0.280	0.216	1.146	2.105	0.455	0.735
2013	0.120	1.264	2.068	0.248	0.146	1.243	2.617	0.382	0.630
2014	0.070	1.608	3.326	0.234	0.090	1.457	3.812	0.344	0.578
2015	0.022	3.233	10.752	0.234	0.035	2.525	9.626	0.338	0.573

(a)   Based on AC 16-03-02, Exhibit 1.
(b)   Age-to-age factors are selected as latest year for for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors based on AC 16-03-02, Exhibit 2.5.
(c)   Age-to-age factors are selected as latest year for for the 12-to-24 month through 96-to-108 month factors and three-year average for the subsequent age-to-age factors based on AC 16-03-02, Exhibit 2.6. These factors have not been adjusted for the SB 863 reforms or RBRVS.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Unadjusted Paid Selections
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.284	1.250	1.513	0.235
2009	0.331	1.226	1.630	0.249
2010	0.325	1.209	1.482	0.265
2011	0.306	1.190	1.351	0.269
2012	0.280	1.162	1.203	0.270
2013	0.248	1.170	1.058	0.275
2014	0.234	1.061	0.978	0.253
2015	0.234	1.041	0.945	0.258
				Projections (d)
2016				0.254
4/1/2017				0.251

(a)   See Exhibit 5.1.
(b)   Based on AC 16-03-02, Exhibit 4.1.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Unadjusted Paid Selections
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.214	0.928	0.762	0.261
2006	0.280	0.975	0.979	0.279
2007	0.398	0.957	1.252	0.304
2008	0.505	0.951	1.513	0.317
2009	0.597	0.937	1.630	0.343
2010	0.595	0.935	1.482	0.375
2011	0.515	0.932	1.351	0.355
2012	0.455	0.940	1.203	0.355
2013	0.382	0.994	1.058	0.359
2014	0.344	1.027	0.978	0.362
2015	0.338	1.020	0.945	0.365

				Projections (d)
2016				0.374
4/1/2017				0.378

(a)   See Exhibit 5.1.
(b)   Based on AC 16-03-02, Exhibit 4.4.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual medical severity trend from AC 16-03-02, Exhibit 6.4, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.
(e)   Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

Developed Loss Ratios Using Unadjusted Paid Development Factors
Through 372 Months
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Indemnity				Medical				
		Annual	Cumulative				Adjusted			Total
Accident	Paid	Development	Development	Developed	Paid	Paid	Development Factors		Developed	Developed
Year	Loss Ratio(a)	Factor	Factor	Loss Ratio (1) x (3)	Loss Ratio(a)	Loss Ratio(b)	Annual	Cumulative	Loss Ratio (5) x (7)	Loss Ratio (4) + (8)
2005	0.113	1.015	1.086	0.122	0.159	0.151	1.025	1.340	0.203	0.325
2006	0.143	1.020	1.108	0.159	0.202	0.192	1.033	1.384	0.266	0.425
2007	0.193	1.028	1.139	0.219	0.277	0.264	1.038	1.437	0.380	0.599
2008	0.240	1.033	1.177	0.282	0.338	0.322	1.044	1.500	0.484	0.766
2009	0.268	1.041	1.225	0.329	0.380	0.364	1.054	1.582	0.576	0.905
2010	0.248	1.061	1.300	0.323	0.355	0.343	1.070	1.692	0.580	0.902
2011	0.214	1.091	1.411	0.302	0.280	0.273	1.100	1.861	0.507	0.809
2012	0.171	1.145	1.615	0.276	0.216	0.213	1.151	2.143	0.456	0.732
2013	0.120	1.264	2.087	0.250	0.146	0.146	1.247	2.672	0.389	0.640
2014	0.070	1.608	3.550	0.249	0.090	0.090	1.458	3.895	0.352	0.602
2015	0.022	3.233	11.478	0.250	0.035	0.035	2.516	9.801	0.344	0.595

(a) Based on AC 16-03-02, Exhibit 1.
(b) Based on experience evaluated as of December 31, 2015. These medical paid loss ratios reflect the following: (i) an adjustment for SB 863 of -4.4% applied to payments made before January 1, 2013, (ii) an adjustment to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 1.8% decrease in costs, and losses paid prior to January 1, 2015 by an estimated 0.6% increase in costs due to RBRVS.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Based on Unadjusted Paid Selections Through 372 Months
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.122	1.387	0.762	0.223
2006	0.159	1.370	0.979	0.222
2007	0.219	1.328	1.252	0.233
2008	0.282	1.250	1.513	0.233
2009	0.329	1.226	1.630	0.247
2010	0.323	1.209	1.482	0.263
2011	0.302	1.196	1.351	0.267
2012	0.276	1.168	1.203	0.268
2013	0.250	1.170	1.058	0.277
2014	0.249	1.061	0.978	0.270
2015	0.250	1.041	0.945	0.276
				Projections (d)
2016				0.271
4/1/2017				0.268

(a) See Exhibit 6.1.
(b) Based on AC 16-03-02, Exhibit 4.1.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Based on Unadjusted Paid Selections Through 372 Months
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.203	0.983	0.762	0.262
2006	0.266	1.033	0.979	0.281
2007	0.380	1.013	1.252	0.307
2008	0.484	1.006	1.513	0.322
2009	0.576	0.992	1.630	0.351
2010	0.580	0.989	1.482	0.387
2011	0.507	0.986	1.351	0.370
2012	0.456	0.995	1.203	0.377
2013	0.389	1.006	1.058	0.370
2014	0.352	1.021	0.978	0.368
2015	0.344	1.019	0.945	0.371

				Projections (d)
2016				0.381
4/1/2017				0.384

(a) See Exhibit 6.1.
(b) Based on AC 16-03-02, Exhibit 4.4.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual medical severity trend from AC 16-03-02, Exhibit 6.4, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.
(e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

**Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates**

A. Total Reported Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							109,719
2007						123,992	124,046
2008					120,138	120,508	120,712
2009				113,694	114,344	114,734	114,966
2010			116,659	117,967	118,711	119,149	
2011		113,818	117,477	119,057	119,975		
2012	96,927	120,507	124,692	126,504			
2013	103,408	128,407	132,859				
2014	107,284	133,655					
2015	111,170						

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):						
	12-24	24-36	36-48	48-60	60-72	72-84	84-Ultimate
2006						1.000	
2007					1.002	1.000	
2008				1.005	1.003	1.002	
2009			1.011	1.006	1.003	1.002	
2010		1.030	1.011	1.006	1.004		
2011	1.231	1.032	1.013	1.008			
2012	1.243	1.035	1.015				
2013	1.242	1.035					
2014	1.246						
Latest Year	1.246	1.035	1.015	1.008	1.004	1.002	
Cumulative	1.331	1.068	1.032	1.018	1.010	1.006	1.004

Acc. Year	2015	2014	2013	2012	2011	2010	2009
Ult. Claim Counts	147,944	142,772	137,166	128,735	121,156	119,880	115,438

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							97,078
2007						104,818	110,127
2008					95,138	102,550	107,273
2009				80,491	90,543	97,135	101,865
2010			70,884	85,686	95,730	102,433	
2011		53,781	73,116	87,746	98,002		
2012	26,870	58,071	79,222	95,058			
2013	27,869	62,407	86,076				
2014	28,883	66,721					
2015	30,614						

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident Year	____ Evaluated as of (in months) ____						
	12	24	36	48	60	72	84
2006							88.2%
2007						84.2%	88.5%
2008					78.5%	84.6%	88.5%
2009				69.7%	78.4%	84.1%	88.2%
2010			59.1%	71.5%	79.9%	85.4%	
2011		44.4%	60.3%	72.4%	80.9%		
2012	20.9%	45.1%	61.5%	73.8%			
2013	20.3%	45.5%	62.8%				
2014	20.2%	46.7%					
2015	20.7%						

E. Adjusted Closed Indemnity Claim Counts at Equal Percentiles of Ultimate Claim Counts (b)

Accident Year	____ Evaluated as of (in months) ____						
	12	24	36	48	60	72	84
2006							97,104
2007						106,374	109,854
2008					98,043	103,567	106,956
2009				85,240	93,376	98,637	101,865
2010			75,228	88,520	96,969	102,433	
2011		56,619	76,029	89,462	98,002		
2012	26,639	60,161	80,785	95,058			
2013	28,384	64,101	86,076				
2014	29,544	66,721					
2015	30,614						

F. Average Paid Indemnity per Closed Claim

Accident Year	____ Evaluated as of (in months) ____						
	12	24	36	48	60	72	84
2006							13,293
2007						13,510	15,103
2008					13,272	15,573	17,043
2009				11,345	14,328	16,396	18,100
2010			8,207	11,897	14,688	16,725	
2011		4,619	8,689	12,241	14,977		
2012	1,889	5,081	9,165	12,637			
2013	2,177	5,445	9,586				
2014	2,231	5,698					
2015	2,405						

(a) Ratio of closed indemnity claim counts (Item C) to the estimated ultimate indemnity claim counts (Item B) for that accident year.

(b) The claim counts for the latest evaluation of each accident year are equal to the reported number of closed indemnity claims. All prior evaluations shown are the product of the latest ultimate indemnity claim settlement ratio (Item D) and the ultimate indemnity claim counts (Item B) for that accident year.

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

G. Adjusted Average Paid Indemnity per Closed Claim (c)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							13,303
2007						13,959	15,017
2008					14,131	15,878	16,940
2009				12,668	15,183	16,920	18,100
2010			9,152	12,626	15,045	16,725	
2011		5,068	9,303	12,662	14,977		
2012	1,875	5,386	9,460	12,637			
2013	2,207	5,670	9,586				
2014	2,268	5,698					
2015	2,405						

H. Adjusted Paid Indemnity on Closed Claims (in $000) (d)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							1,291,784
2007						1,484,857	1,649,664
2008					1,385,415	1,644,488	1,811,869
2009				1,079,812	1,417,767	1,668,903	1,843,786
2010			688,467	1,117,639	1,458,906	1,713,241	
2011		286,930	707,266	1,132,740	1,467,733		
2012	49,959	324,038	764,264	1,201,254			
2013	62,637	363,446	825,139				
2014	66,993	380,204					
2015	73,622						

I. Paid Indemnity on Open Claims (in $000)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							502,171
2007						705,024	597,920
2008					847,581	708,881	617,074
2009				891,150	788,358	685,744	573,087
2010			883,871	857,174	745,216	634,073	
2011		674,059	849,497	806,009	683,946		
2012	264,009	693,385	851,647	791,730			
2013	271,484	712,770	865,308				
2014	281,614	737,753					
2015	297,122						

(c) Adjusted based on ultimate indemnity claim settlement ratios (Item D) and assuming a log-linear relationship between maturities.
(d) Each amount is the product of the adjusted closed indemnity claim counts (Item E) and the adjusted average paid indemnity per closed claim (Item G), and divided by $1,000.

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

J. Average Paid Indemnity per Open Claim for Indemnity Claims in Transition (e)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							39,726
2007						36,770	42,898
2008					33,903	39,474	46,053
2009				26,839	33,123	38,965	45,459
2010			19,309	26,554	32,428	38,913	
2011		11,227	19,150	25,742	32,178		
2012	3,768	11,106	18,730	24,973			
2013	3,594	10,800	16,199				
2014	3,592	7,184					
2015	3,688						

K. Changes in Paid Indemnity on Open Claims Resulting from the Impact of Changes in
   Claim Settlement Rates (in $000) (f)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							-1,043
2007						-57,198	11,698
2008					-98,499	-40,157	14,589
2009				-127,449	-93,849	-58,541	
2010			-83,882	-75,243	-40,194		
2011		-31,866	-55,787	-44,177			
2012	870	-23,208	-29,271				
2013	-1,850	-18,296					
2014	-2,374						

L. Adjusted Paid Indemnity on Open Claims (in $000) (g)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							501,128
2007						647,826	609,618
2008					749,082	668,724	631,663
2009				763,701	694,510	627,203	573,087
2010			799,989	781,931	705,023	634,073	
2011		642,193	793,710	761,831	683,946		
2012	264,879	670,177	822,376	791,730			
2013	269,634	694,473	865,308				
2014	279,240	737,753					
2015	297,122						

(e) Each amount is equal to the product of [the average monthly indemnity payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly indemnity payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly indemnity payment per open indemnity claim at the same evaluation is used.

(f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by the corresponding [average paid indemnity per open claim for indemnity claims in transition (Item J)].

(g) Each amount is the sum of [paid indemnity on open claims (Item I)] and the corresponding [incremental changes in paid indemnity on open claims resulting from the impact of changes in claim settlement rates (Item K)].

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

M. Adjusted Total Paid Indemnity (in $000) (h)

Accident	Evaluated as of (in months)						
Year	12	24	36	48	60	72	84
2006							1,792,912
2007						2,132,683	2,259,281
2008					2,134,497	2,313,211	2,443,532
2009				1,843,512	2,112,277	2,296,106	2,416,873
2010			1,488,456	1,899,570	2,163,928	2,347,314	
2011		929,122	1,500,976	1,894,572	2,151,680		
2012	314,838	994,214	1,586,640	1,992,984			
2013	332,271	1,057,919	1,690,447				
2014	346,233	1,117,956					
2015	370,744						

N. Paid Indemnity Loss Development Factors Based on Adjusted Total Paid Indemnity

Accident	Evaluated as of (in months)					
Year	12-24	24-36	36-48	48-60	60-72	72-84
2007						1.059
2008					1.084	1.056
2009				1.146	1.087	1.053
2010			1.276	1.139	1.085	
2011		1.615	1.262	1.136		
2012	3.158	1.596	1.256			
2013	3.184	1.598				
2014	3.229					
Latest Year	3.229	1.598	1.256	1.136	1.085	1.053
3-Year Average	3.190	1.603	1.265	1.140	1.085	1.056

O. Paid Indemnity Loss Development Factors (i)

Accident	Evaluated as of (in months)					
Year	12-24	24-36	36-48	48-60	60-72	72-84
2007						1.066
2008					1.093	1.060
2009				1.156	1.092	1.061
2010			1.280	1.146	1.091	
2011		1.610	1.266	1.144		
2012	3.140	1.596	1.263			
2013	3.169	1.606				
2014	3.231					

(h) Each amount is the sum of the adjusted paid indemnity on closed claims (Item H) and the adjusted paid indemnity on open claims (Item L).

(i) Development factors are based on paid indemnity losses from the same insurer mix as that used in the adjustment for changes in claim settlement rates and applied in the calculation of the development factors in Item N.

Source: Accident year experience of insurers with available claim count data

Paid Indemnity Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

P. Impact of Adjustment for Changes in Claim Settlement Rates (j)

Accident	Evaluated as of (in months)					
Year	12-24	24-36	36-48	48-60	60-72	72-84
2007						-0.62%
2008					-0.82%	-0.39%
2009				-0.88%	-0.49%	-0.77%
2010			-0.33%	-0.63%	-0.59%	
2011		0.37%	-0.32%	-0.76%		
2012	0.56%	-0.02%	-0.56%			
2013	0.47%	-0.51%				
2014	-0.05%					

Q. Paid Indemnity Loss Development Factors Adjusted for Changes in Indemnity
   Claim Settlement Rates (k)

Accident	Evaluated as of (in months)					
Year	12-24	24-36	36-48	48-60	60-72	72-84
2007						1.059
2008					1.083	1.056
2009				1.146	1.087	1.053
2010			1.277	1.140	1.085	
2011		1.619	1.262	1.136		
2012	3.155	1.597	1.257			
2013	3.184	1.600				
2014	3.231					
Latest Year	3.231	1.600	1.257	1.136	1.085	1.053
3-Year Average	3.190	1.605	1.265	1.141	1.085	1.056

(j) Each factor represents the change in age-to-age development factors from Item O to those in Item N.

(k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item P)]
    and [the paid indemnity age-to-age development factor from AC 16-03-02, Exhibit 2.3.1].

Source: Accident year experience of insurers with available claim count data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

A. Total Reported Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							107,695
2007						122,056	122,117
2008					118,426	118,796	119,003
2009				112,337	112,985	113,370	113,607
2010			115,254	116,567	117,309	117,749	
2011		113,818	117,477	119,057	119,975		
2012	96,927	120,507	124,692	126,504			
2013	103,408	128,407	132,859				
2014	107,284	133,655					
2015	111,170						

B. Development of Total Reported Indemnity Claim Counts

Accident Year	Age-to-Age Development (in months):						
	12-24	24-36	36-48	48-60	60-72	72-84	84-Ultimate
2007						1.000	
2008					1.003	1.002	
2009				1.006	1.003	1.002	
2010			1.011	1.006	1.004		
2011		1.032	1.013	1.008			
2012	1.243	1.035	1.015				
2013	1.242	1.035					
2014	1.246						
Latest Year	1.246	1.035	1.015	1.008	1.004	1.002	
Cumulative	1.331	1.068	1.032	1.018	1.010	1.006	1.004

Acc. Year	2015	2014	2013	2012	2011	2010	2009
Ult. Claim Counts	147,951	142,779	137,173	128,741	121,162	118,470	114,064

C. Closed Indemnity Claim Counts

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							95,181
2007						103,050	108,306
2008					93,633	100,989	105,687
2009				79,389	89,357	95,895	100,601
2010			69,899	84,535	94,497	101,152	
2011		53,781	73,116	87,746	98,002		
2012	26,870	58,071	79,222	95,058			
2013	27,869	62,407	86,076				
2014	28,883	66,721					
2015	30,614						

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

D. Ultimate Indemnity Claim Settlement Ratio (a)

Accident Year	12	24	36	48	60	72	84
				Evaluated as of (in months)			
2006							88.1%
2007						84.1%	88.4%
2008					78.4%	84.5%	88.5%
2009				69.6%	78.3%	84.1%	88.2%
2010			59.0%	71.4%	79.8%	85.4%	
2011		44.4%	60.3%	72.4%	80.9%		
2012	20.9%	45.1%	61.5%	73.8%			
2013	20.3%	45.5%	62.8%				
2014	20.2%	46.7%					
2015	20.7%						

E. Adjusted Closed Indemnity Claim Counts at Equal Percentiles of Ultimate Claim Counts (b)

Accident Year	12	24	36	48	60	72	84
				Evaluated as of (in months)			
2006							95,259
2007						104,631	108,080
2008					96,643	102,016	105,379
2009				84,221	92,261	97,390	100,601
2010			74,340	87,474	95,824	101,152	
2011		56,619	76,029	89,462	98,002		
2012	26,639	60,161	80,785	95,058			
2013	28,384	64,101	86,076				
2014	29,544	66,721					
2015	30,614						

F. Average Paid Medical per Closed Indemnity Claim

Accident Year	12	24	36	48	60	72	84
				Evaluated as of (in months)			
2006							15,527
2007						15,627	18,022
2008					15,356	18,571	20,775
2009				13,292	17,215	20,115	22,627
2010			9,813	14,315	17,958	20,810	
2011		5,231	9,698	13,895	17,313		
2012	2,347	5,625	10,016	13,890			
2013	2,394	5,753	10,009				
2014	2,389	5,792					
2015	2,509						

(a) Ratio of closed indemnity claim counts (Item C) to the estimated ultimate indemnity claim counts (Item B) for that accident year.
(b) The claim counts for the latest evaluation of each accident year are equal to the reported number of closed indemnity claims. All prior evaluations shown are the product of the latest ultimate indemnity claim settlement ratio (Item D) and the ultimate indemnity claim counts (Item B) for that accident year.

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

G. Adjusted Average Paid Medical per Closed Indemnity Claim (c)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							15,569
2007						16,312	17,912
2008					16,598	19,032	20,624
2009				15,068	18,448	20,882	22,627
2010			11,005	15,306	18,494	20,810	
2011		5,728	10,418	14,416	17,313		
2012	2,332	5,955	10,345	13,890			
2013	2,426	5,985	10,009				
2014	2,427	5,792					
2015	2,509						

H. Adjusted Paid Medical (in $000) on Closed Indemnity Claims (d)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							1,483,077
2007						1,706,766	1,935,983
2008					1,604,106	1,941,608	2,173,318
2009				1,269,018	1,701,995	2,033,676	2,276,333
2010			818,081	1,338,841	1,772,215	2,105,021	
2011		324,292	792,078	1,289,722	1,696,710		
2012	62,126	358,278	835,710	1,320,359			
2013	68,852	383,661	861,503				
2014	71,693	386,459					
2015	76,799						

I. Paid Medical on Open Indemnity Claims (in $000)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							768,102
2007						1,057,309	956,853
2008					1,165,198	1,035,406	942,573
2009				1,186,931	1,112,894	1,020,467	885,356
2010			1,135,150	1,161,136	1,065,351	942,182	
2011		851,972	1,068,302	1,058,153	945,857		
2012	336,787	848,316	1,015,298	984,051			
2013	360,655	839,700	978,395				
2014	350,769	826,299					
2015	363,362						

(c) Adjusted based on ultimate indemnity claim settlement ratios (Item D) and assuming a log-linear
   relationship between maturities.
(d) Each amount is equal to the product of [adjusted closed indemnity claim counts (Item E)] and [adjusted
   average paid medical per closed indemnity claim (Item G)], and divided by $1,000.

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

J. Average Paid Medical per Open Indemnity Claim for Indemnity Claims in Transition (e)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							61,379
2007						55,630	64,902
2008					46,997	58,146	67,837
2009				36,024	47,101	58,396	68,128
2010			25,028	36,249	46,701	56,042	
2011		14,191	24,082	33,795	42,244		
2012	4,807	13,587	22,329	29,772			
2013	4,774	12,723	19,084				
2014	4,474	8,948					
2015	4,511						

K. Changes in Paid Medical on Open Indemnity Claims Resulting from the Impact of Changes in
   Indemnity Claim Settlement Rates (in $000) (f)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							-4,793
2007						-87,932	14,659
2008					-141,449	-59,715	20,877
2009				-174,073	-136,763	-87,315	
2010			-111,143	-106,543	-61,985		
2011		-40,277	-70,155	-57,997			
2012	1,110	-28,394	-34,896				
2013	-2,458	-21,555					
2014	-2,957						

L. Adjusted Paid Medical on Open Indemnity Claims (in $000) (g)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							763,310
2007						969,377	971,513
2008					1,023,749	975,692	963,449
2009				1,012,858	976,131	933,152	885,356
2010			1,024,007	1,054,593	1,003,366	942,182	
2011		811,694	998,146	1,000,155	945,857		
2012	337,898	819,922	980,402	984,051			
2013	358,197	818,145	978,395				
2014	347,812	826,299					
2015	363,362						

(e) Each amount is equal to the product of [the average monthly medical payment per open indemnity claim] and [the number of months for the current evaluation]. For evaluations indicating claim settlement rate decreases, the average monthly medical payment per open indemnity claim at the prior evaluation is used. For evaluations indicating claim settlement rate increases, the average monthly medical payment per open indemnity claim at the same evaluation is used.

(f) Each amount is equal to [the difference between unadjusted and adjusted closed indemnity claim counts (Items C and E)] multiplied by [the corresponding average paid medical per open indemnity claim for indemnity claims in transition (Item J)].

(g) Each amount is the sum of [paid medical on open indemnity claims (Item I)] and the corresponding [incremental changes in paid medical on open indemnity claims resulting from the impact of changes in indemnity claim settlement rates (Item K)].

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

M. Paid Medical on Medical-Only Claims (in $000)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							193,005
2007						239,655	241,337
2008					237,848	240,504	242,409
2009				217,750	221,571	224,521	226,993
2010			212,790	218,687	222,369	224,655	
2011		194,905	205,284	210,680	214,616		
2012	137,455	202,777	212,832	218,680			
2013	136,489	204,383	215,076				
2014	151,871	226,175					
2015	156,903						

N. Adjusted Total Paid Medical (in $000) (h)

Accident Year	Evaluated as of (in months)						
	12	24	36	48	60	72	84
2006							2,439,392
2007						2,915,798	3,148,833
2008					2,865,703	3,157,803	3,379,177
2009				2,499,626	2,899,697	3,191,349	3,388,682
2010			2,084,440	2,648,067	3,037,776	3,315,243	
2011		1,469,094	2,183,398	2,719,709	3,099,850		
2012	601,969	1,541,074	2,243,742	2,777,261			
2013	630,985	1,568,672	2,277,985				
2014	636,710	1,605,453					
2015	665,336						

O. Paid Medical Loss Development Factors Based on Adjusted Total Paid Medical

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2007						1.080
2008					1.102	1.070
2009				1.160	1.101	1.062
2010			1.270	1.147	1.091	
2011		1.486	1.246	1.140		
2012	2.560	1.456	1.238			
2013	2.486	1.452				
2014	2.521					
Latest Year	2.521	1.452	1.238	1.140	1.091	1.062

(h) Each amount is the sum of [adjusted paid medical on closed indemnity claims (Item H)], [adjusted paid medical on open indemnity claims (Item L)] and [paid medical on medical-only claims (Item M)]. Cumulative values of the paid cost of medical cost containment programs are also added to the totals at each valuation for accident years 2010 and subsequent in order to adjust the totals to an equivalent basis for development purposes.

Source: Accident year experience of insurers with available claim count and paid loss data

Paid Medical Loss Development Factors
With Separate Adjustments on Open and Closed Claims
for Changes in Claim Settlement Rates

P. Paid Medical Loss Development Factors (i)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2007						1.083
2008					1.109	1.073
2009				1.168	1.105	1.068
2010			1.273	1.152	1.096	
2011		1.480	1.247	1.145		
2012	2.555	1.454	1.242			
2013	2.480	1.455				
2014	2.520					

Q. Impact of Adjustment for Changes in Indemnity Claim Settlement Rates (j)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2007						-0.33%
2008					-0.66%	-0.25%
2009				-0.67%	-0.38%	-0.55%
2010			-0.17%	-0.40%	-0.44%	
2011		0.41%	-0.13%	-0.46%		
2012	0.18%	0.12%	-0.33%			
2013	0.25%	-0.20%				
2014	0.04%					

R. Paid Medical Loss Development Factors Adjusted for Changes in Indemnity
   Claim Settlement Rates (k)

Accident Year	Evaluated as of (in months)					
	12-24	24-36	36-48	48-60	60-72	72-84
2007						1.075
2008					1.101	1.074
2009				1.160	1.106	1.064
2010			1.275	1.155	1.095	
2011		1.498	1.258	1.146		
2012	2.629	1.473	1.243			
2013	2.517	1.455				
2014	2.517					
Latest Year	2.517	1.455	1.243	1.146	1.095	1.064
3-Year Average	2.554	1.475	1.259	1.154	1.101	1.071

(i) Development factors are based on paid medical losses from the same insurer mix as that used in the
   adjustment for changes in claim settlement rates and applied in the calculation of the development factors in
   Item O.
(j) Each factor represents the change in age-to-age development factors from Item P to those in Item O.

(k) Each factor is the product of [1.0 + the impact of adjustment for changes in claim settlement rates (Item Q)]
   and [the adjusted paid medical age-to-age development factor from AC 16-03-02, Exhibit 2.4.1].

Source: Accident year experience of insurers with available claim count and paid loss data

Developed Loss Ratios Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 3-Year Average Selections
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Indemnity				Medical				Total
								Adjusted		
				Developed					Developed	Developed
Accident	Paid	Development Factors		Loss	Paid	Paid	Development Factors		Loss	Loss
Year	Loss Ratio(a)	Annual(b)	Cumulative(b)	Ratio	Loss Ratio(a)	Loss Ratio(c)	Annual(d)	Cumulative(d)	Ratio	Ratio
				(1) x (3)					(6) x (8)	(4) + (9)
2005	0.113	1.015	1.095	0.123	0.159	0.151	1.025	1.352	0.205	0.328
2006	0.143	1.020	1.117	0.160	0.202	0.192	1.033	1.397	0.268	0.429
2007	0.193	1.028	1.148	0.221	0.277	0.264	1.038	1.450	0.383	0.604
2008	0.240	1.033	1.186	0.284	0.338	0.322	1.044	1.514	0.488	0.772
2009	0.268	1.041	1.235	0.331	0.380	0.364	1.054	1.596	0.581	0.913
2010	0.248	1.056	1.304	0.324	0.355	0.343	1.071	1.710	0.586	0.909
2011	0.214	1.085	1.407	0.301	0.280	0.273	1.101	1.881	0.513	0.814
2012	0.171	1.141	1.605	0.275	0.216	0.213	1.154	2.171	0.462	0.737
2013	0.120	1.265	2.076	0.249	0.146	0.146	1.259	2.732	0.398	0.647
2014	0.070	1.605	3.525	0.247	0.090	0.090	1.475	4.031	0.365	0.612
2015	0.022	3.190	11.244	0.245	0.035	0.035	2.554	10.297	0.362	0.607

(a) Based on AC 16-03-02, Exhibit 1. Column 5 is shown for informational purposes only.
(b) Age-to-age factors for developing accident years 2010 to 2015 were adjusted for changes in claim settlement rates based on 3-year average selections (see Exhibit 7.6, Item Q). The cumulative loss development factors for developing accident years 2011 through 2015 are adjusted for the impact of SB 863 (see AC 16-03-02, Exhibit 2.5.1).
(c) Based on experience evaluated as of December 31, 2015. These medical paid loss ratios reflect the following: (i) an adjustment for SB 863 of -4.4% applied to payments made before January 1, 2013, (ii) an adjustment to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 1.8% decrease in costs, and losses paid prior to January 1, 2015 by an estimated 0.6% increase in costs due to RBRVS.
(d) Age-to-age factors for developing accident years 2010 to 2015 were adjusted for changes in claim settlement rates based on 3-year average selections (see Exhibit 7.12, Item R). Age-to-age factors for developing accident years 2005 to 2015 reflect an adjustment for SB 863 of -4.4% applied to payments made before January 1, 2013 and adjustments to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 1.8% decrease in costs and losses paid prior to January 1, 2015 by an estimated 0.6% increase in costs due to RBRVS.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 3-Year Average Selections
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.284	1.250	1.513	0.235
2009	0.331	1.226	1.630	0.249
2010	0.324	1.209	1.482	0.264
2011	0.301	1.196	1.351	0.266
2012	0.275	1.168	1.203	0.266
2013	0.249	1.170	1.058	0.276
2014	0.247	1.061	0.978	0.269
2015	0.245	1.041	0.945	0.270

				Projections (d)
2016				0.267
4/1/2017				0.265

(a) See Exhibit 7.13.
(b) Based on AC 16-03-02, Exhibit 4.1.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on 3-Year Average Selections
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.205	0.983	0.762	0.264
2006	0.268	1.033	0.979	0.283
2007	0.383	1.013	1.252	0.310
2008	0.488	1.006	1.513	0.325
2009	0.581	0.992	1.630	0.354
2010	0.586	0.989	1.482	0.391
2011	0.513	0.986	1.351	0.375
2012	0.462	0.995	1.203	0.382
2013	0.398	1.006	1.058	0.379
2014	0.365	1.021	0.978	0.381
2015	0.362	1.019	0.945	0.390

				Projections (d)
2016				0.397
4/1/2017				0.401

(a)   See Exhibit 7.13.
(b)   Based on AC 16-03-02, Exhibit 4.4.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual medical severity trend from AC 16-03-02, Exhibit 6.4, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.
(e)   Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

Developed Loss Ratios Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on Latest Year Selections
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Indemnity				Medical				Total
								Adjusted		
				Developed					Developed	Developed
Accident	Paid	Development Factors		Loss	Paid	Paid	Development Factors		Loss	Loss
Year	Loss Ratio(a)	Annual(b)	Cumulative(b)	Ratio (1) x (3)	Loss Ratio(a)	Loss Ratio(c)	Annual(d)	Cumulative(d)	Ratio (6) x (8)	Ratio (4) + (9)
2005	0.113	1.015	1.095	0.123	0.159	0.151	1.025	1.352	0.205	0.328
2006	0.143	1.020	1.117	0.160	0.202	0.192	1.033	1.397	0.268	0.429
2007	0.193	1.028	1.148	0.221	0.277	0.264	1.038	1.450	0.383	0.604
2008	0.240	1.033	1.186	0.284	0.338	0.322	1.044	1.514	0.488	0.772
2009	0.268	1.041	1.235	0.331	0.380	0.364	1.054	1.596	0.581	0.913
2010	0.248	1.053	1.300	0.323	0.355	0.343	1.064	1.698	0.582	0.904
2011	0.214	1.085	1.403	0.300	0.280	0.273	1.095	1.860	0.507	0.807
2012	0.171	1.136	1.594	0.273	0.216	0.213	1.146	2.131	0.454	0.726
2013	0.120	1.257	2.048	0.246	0.146	0.146	1.243	2.648	0.386	0.632
2014	0.070	1.600	3.466	0.243	0.090	0.090	1.455	3.854	0.349	0.592
2015	0.022	3.231	11.199	0.244	0.035	0.035	2.517	9.700	0.341	0.585

(a)   Based on AC 16-03-02, Exhibit 1. Column 5 is shown for informational purposes only.

(b)   Age-to-age factors for developing accident years 2010 to 2015 were adjusted for changes in claim settlement rates based on latest year selections (see Exhibit 7.6, Item Q). The cumulative loss development factors for developing accident years 2011 through 2015 are adjusted for the impact of SB 863 (see AC 16-03-02, Exhibit 2.5.1).

(c)   Based on experience evaluated as of December 31, 2015. These medical paid loss ratios reflect the following: (i) an adjustment for SB 863 of -4.4% applied to payments made before January 1, 2013, (ii) an adjustment to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 1.8% decrease in costs, and losses paid prior to January 1, 2015 by an estimated 0.6% increase in costs due to RBRVS.

(d)   Age-to-age factors for developing accident years 2010 to 2015 were adjusted for changes in claim settlement rates based on latest year selections (see Exhibit 7.12, Item R). Age-to-age factors for developing accident years 2005 to 2015 reflect an adjustment for SB 863 of -4.4% applied to payments made before January 1, 2013 and adjustments to historical outstanding medical losses paid prior to January 1, 2014 by an estimated 1.8% decrease in costs and losses paid prior to January 1, 2015 by an estimated 0.6% increase in costs due to RBRVS.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on Latest Year Paid Selections
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.284	1.250	1.513	0.235
2009	0.331	1.226	1.630	0.249
2010	0.323	1.209	1.482	0.263
2011	0.300	1.196	1.351	0.266
2012	0.273	1.168	1.203	0.265
2013	0.246	1.170	1.058	0.272
2014	0.243	1.061	0.978	0.264
2015	0.244	1.041	0.945	0.269

	Projections (d)
2015	0.264
4/1/2017	0.262

(a) See Exhibit 8.1.
(b) Based on AC 16-03-02, Exhibit 4.1.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Adjusted for the Impact of Reforms and Changes in Claim Settlement Rates
Based on Latest Year Paid Selections
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.205	0.983	0.762	0.264
2006	0.268	1.033	0.979	0.283
2007	0.383	1.013	1.252	0.310
2008	0.488	1.006	1.513	0.325
2009	0.581	0.992	1.630	0.354
2010	0.582	0.989	1.482	0.388
2011	0.507	0.986	1.351	0.370
2012	0.454	0.995	1.203	0.375
2013	0.386	1.006	1.058	0.367
2014	0.349	1.021	0.978	0.364
2015	0.341	1.019	0.945	0.368

Projections (d)

2016	0.377
4/1/2017	0.380

(a) See Exhibit 8.1.
(b) Based on AC 16-03-02, Exhibit 4.4.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2, the actual frequency trend for accident year 2015 from AC 16-03-02, Exhibit 12, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.
(e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Severity Trends
Applied to Accident Year 2015
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.284	1.250	1.513	0.235
2009	0.331	1.226	1.630	0.249
2010	0.325	1.209	1.482	0.265
2011	0.304	1.196	1.351	0.269
2012	0.279	1.168	1.203	0.270
2013	0.252	1.170	1.058	0.279
2014	0.251	1.061	0.978	0.273
2015	0.252	1.041	0.945	0.278
				Projected (d)
2016				0.277
4/1/2017				0.275

(a)   See AC 16-03-02, Exhibit 3.1.
(b)   See AC 16-03-02, Exhibit 4.1.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual indemnity severity trend from AC 16-03-02, Exhibit 6.2 and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then applied to the 2015 on-level ratio.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency and Severity Trends
Applied to Accident Year 2015
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.205	0.983	0.762	0.264
2006	0.268	1.033	0.979	0.283
2007	0.383	1.013	1.252	0.310
2008	0.488	1.006	1.513	0.325
2009	0.581	0.992	1.630	0.354
2010	0.585	0.989	1.482	0.390
2011	0.512	0.986	1.351	0.374
2012	0.460	0.995	1.203	0.381
2013	0.393	1.006	1.058	0.374
2014	0.356	1.021	0.978	0.371
2015	0.347	1.019	0.945	0.375

				Projected (d)
2016				0.383
4/1/2017				0.387

(a)   See AC 16-03-02, Exhibit 3.2.
(b)   See AC 16-03-02, Exhibit 4.4.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual medical severity trend from AC 16-03-02, Exhibit 6.4 and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then applied to the 2015 on-level ratio.
(e)   Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency Trend and 0% Severity Trend
Based on Experience as of December 31, 2015

	(1)	(2)	(3)	(4)
				On-Level Indemnity to Industry Average Filed
Accident Year	Developed Indemnity Loss Ratio(a)	Composite Indemnity Adjustment Factor(b)	Composite Premium Adjustment Factor(c)	Pure Premium Ratio (1)×(2)÷(3)
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.284	1.250	1.513	0.235
2009	0.331	1.226	1.630	0.249
2010	0.325	1.209	1.482	0.265
2011	0.304	1.196	1.351	0.269
2012	0.279	1.168	1.203	0.270
2013	0.252	1.170	1.058	0.279
2014	0.251	1.061	0.978	0.273
2015	0.252	1.041	0.945	0.278
				Projected (d)
2016				0.273
4/1/2017				0.271

(a)   See AC 16-03-02, Exhibit 3.1.
(b)   See AC 16-03-02, Exhibit 4.1.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected based on an estimated annual indemnity severity trend of 0.0% based on an average exponential trend of the 2005-2015 and 2010-2015 severities, the actual frequency trend for accident year 2015, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Separate Applications of Frequency Trend and 1% Severity Trend
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.205	0.983	0.762	0.264
2006	0.268	1.033	0.979	0.283
2007	0.383	1.013	1.252	0.310
2008	0.488	1.006	1.513	0.325
2009	0.581	0.992	1.630	0.354
2010	0.585	0.989	1.482	0.390
2011	0.512	0.986	1.351	0.374
2012	0.460	0.995	1.203	0.381
2013	0.393	1.006	1.058	0.374
2014	0.356	1.021	0.978	0.371
2015	0.347	1.019	0.945	0.375

				Projected (d)
2016				0.376
4/1/2017				0.375

(a) See AC 16-03-02, Exhibit 3.2.
(b) See AC 16-03-02, Exhibit 4.4.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected based on an estimated annual medical severity trend of 1.0% based on an average exponential trend of the 2005-2015 and 2010-2015 severities, the actual frequency trend for accident year 2015, and projected frequency trends for accident years 2016 and 2017 from AC 16-03-02, Exhibit 6.1; these trends were then separately applied to the 2014 and 2015 on-level ratios.

(e) Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

**Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Post-2005 Exponential Trend
Based on Experience as of December 31, 2015**

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.284	1.250	1.513	0.235
2009	0.331	1.226	1.630	0.249
2010	0.325	1.209	1.482	0.265
2011	0.304	1.196	1.351	0.269
2012	0.279	1.168	1.203	0.270
2013	0.252	1.170	1.058	0.279
2014	0.251	1.061	0.978	0.273
2015	0.252	1.041	0.945	0.278
				Projected (d)
2016				0.286
4/1/2017				0.291

(a) See AC 16-03-02, Exhibit 3.1.
(b) See AC 16-03-02, Exhibit 4.1.
(c) See AC 16-03-02, Exhibit 5.2.
(d) These on-level ratios were projected by separately applying an exponential trend of approximately 2.5% based on the 2005 to 2015 on-level indemnity to industry average filed pure premium ratios to each of the 2014 and 2015 on-level indemnity to industry average filed pure premium ratios. Each stated projection is equal to the average of the corresponding trended on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Post-2005 Exponential Trend
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.205	0.983	0.762	0.264
2006	0.268	1.033	0.979	0.283
2007	0.383	1.013	1.252	0.310
2008	0.488	1.006	1.513	0.325
2009	0.581	0.992	1.630	0.354
2010	0.585	0.989	1.482	0.390
2011	0.512	0.986	1.351	0.374
2012	0.460	0.995	1.203	0.381
2013	0.393	1.006	1.058	0.374
2014	0.356	1.021	0.978	0.371
2015	0.347	1.019	0.945	0.375

				Projected (d)
2016				0.401
4/1/2017				0.416

(a)   See AC 16-03-02, Exhibit 3.2.
(b)   See AC 16-03-02, Exhibit 4.4.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected by separately applying an exponential trend of approximately 5.0% based on the 2005 to 2015 on-level medical to industry average filed pure premium ratios including MCCP costs to each of the 2014 and 2015 on-level medical to industry average filed pure premium ratios. Each stated projection is equal to the average of the corresponding trended on-level ratios.
(e)   Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

Projected On-Level Accident Year
Indemnity Loss to Industry Average Filed Pure Premium Ratios
Five-Year Exponential Trend
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Indemnity Loss Ratio(a)	(2) Composite Indemnity Adjustment Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Indemnity to Industry Average Filed Pure Premium Ratio (1)×(2)÷(3)
2005	0.123	1.387	0.762	0.224
2006	0.160	1.370	0.979	0.224
2007	0.221	1.328	1.252	0.235
2008	0.284	1.250	1.513	0.235
2009	0.331	1.226	1.630	0.249
2010	0.325	1.209	1.482	0.265
2011	0.304	1.196	1.351	0.269
2012	0.279	1.168	1.203	0.270
2013	0.252	1.170	1.058	0.279
2014	0.251	1.061	0.978	0.273
2015	0.252	1.041	0.945	0.278
				Projected (d)
2016				0.279
4/1/2017				0.281

(a)   See AC 16-03-02, Exhibit 3.1.
(b)   See AC 16-03-02, Exhibit 4.1.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected by separately applying an exponential trend of approximately 0.9% based on the 2010 to 2015 on-level indemnity to industry average filed pure premium ratios to each of the 2014 and 2015 on-level indemnity to industry average filed pure premium ratios. Each stated projection is equal to the average of the corresponding trended on-level ratios.

Projected On-Level Accident Year
Medical Loss to Industry Average Filed Pure Premium Ratios
Five-Year Exponential Trend
Based on Experience as of December 31, 2015

Accident Year	(1) Developed Medical Loss Ratio(a)	(2) Composite Medical On-Level Factor(b)	(3) Composite Premium Adjustment Factor(c)	(4) On-Level Medical to Industry Average Filed Pure Premium Ratio(e) (1)×(2)÷(3)
2005	0.205	0.983	0.762	0.264
2006	0.268	1.033	0.979	0.283
2007	0.383	1.013	1.252	0.310
2008	0.488	1.006	1.513	0.325
2009	0.581	0.992	1.630	0.354
2010	0.585	0.989	1.482	0.390
2011	0.512	0.986	1.351	0.374
2012	0.460	0.995	1.203	0.381
2013	0.393	1.006	1.058	0.374
2014	0.356	1.021	0.978	0.371
2015	0.347	1.019	0.945	0.375

				Projected (d)
2016				0.379
4/1/2017				0.381

(a)   See AC 16-03-02, Exhibit 3.2.
(b)   See AC 16-03-02, Exhibit 4.4.
(c)   See AC 16-03-02, Exhibit 5.2.
(d)   These on-level ratios were projected by separately applying an exponential trend of approximately 1.0% based on the 2010 to 2015 on-level medical to industry average filed pure premium ratios including MCCP costs to each of the 2014 and 2015 on-level medical to industry average filed pure premium ratios. Each stated projection is equal to the average of the corresponding trended on-level ratios.

(e)   Accident years 2011 and subsequent do not reflect the paid cost of medical cost containment programs (MCCP). Accident years 2010 and prior do reflect paid MCCP costs.

Item AC16-04-03
Computation of Industry Average Filed Rates as of 1/1/2016

In 2011, the WCIRB was directed by the California Insurance Commissioner to modify the manner in which it presents its proposed advisory pure premium rates to benchmark the average proposed pure premium rate against the industry average filed pure premium rate rather than the average of the advisory pure premium rates currently in effect. As a result, since that time the WCIRB, using a process developed in consultation with California Department of Insurance (CDI) staff, has been computing the industry average filed pure premium rate and using that as a benchmark to use in comparison to the filed advisory pure premium rate indication. In the January 1, 2016 Pure Premium Rate Filing, the WCIRB compared the average proposed January 1, 2016 advisory pure premium rate to the average industry filed pure premium rate as of July 1, 2015.

The approach staff uses to compute the January 1 industry average filed pure premium rate for inclusion in a potential mid-year rate filing is based on rolling the July 1 industry average filed rates forward by adjusting the average insurer rate of each insurer to reflect additional rate filing activity though January 1. Based on this approach, staff has updated the industry average filed pure premium rate and industry average filed manual rate as of January 1, 2016. The industry average filed pure premium rate as of January 1, 2016 is $2.57 per $100 of payroll, and the corresponding industry average filed manual rate is $3.79. The comparable industry average filed rates as of July 1, 2015 were $2.66 and $3.89, respectively.