WCIRB Actuarial Committee Meeting

Materials Presented at the WCIRB Actuarial Committee Meeting (March 21, 2017)

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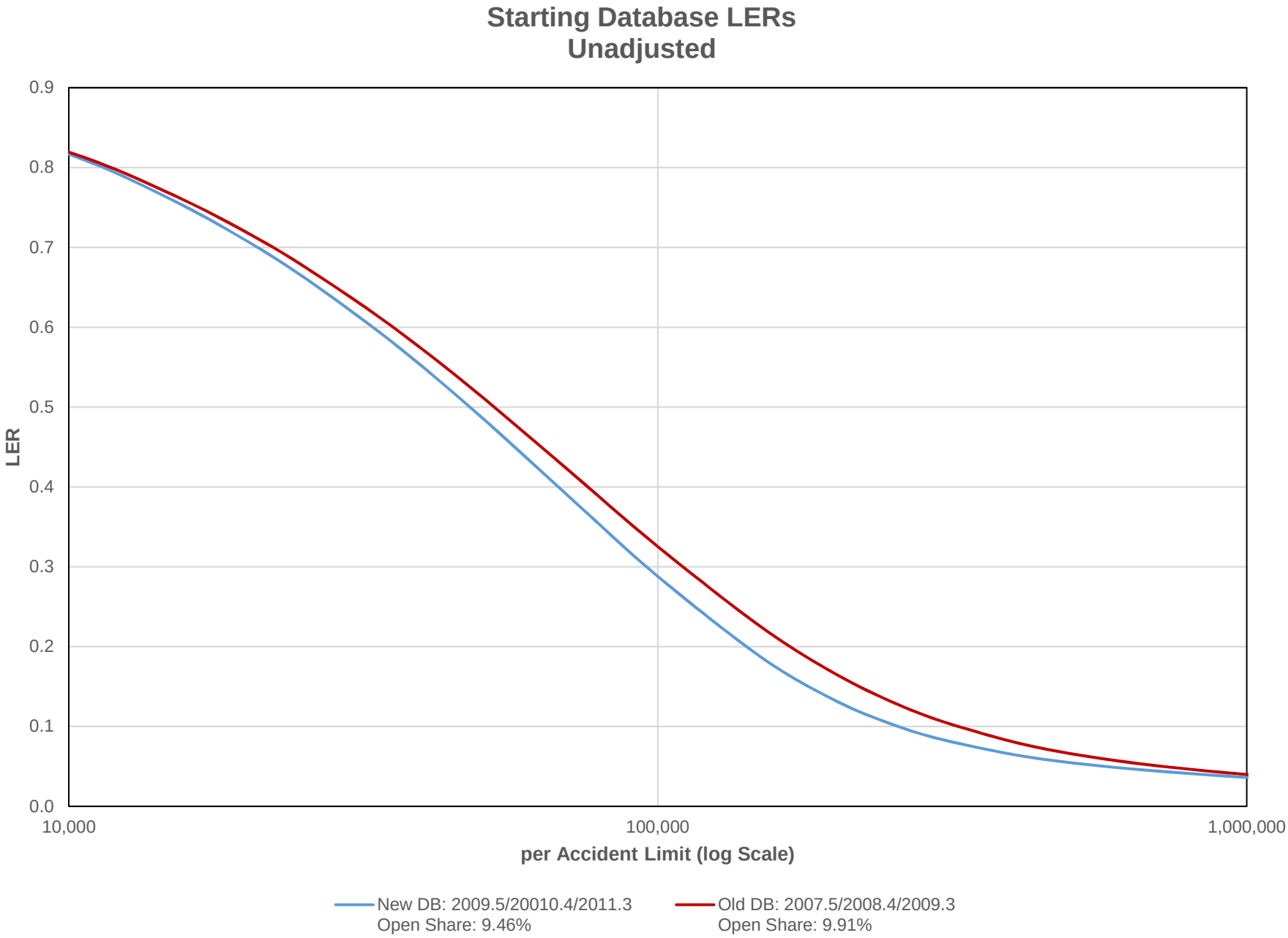
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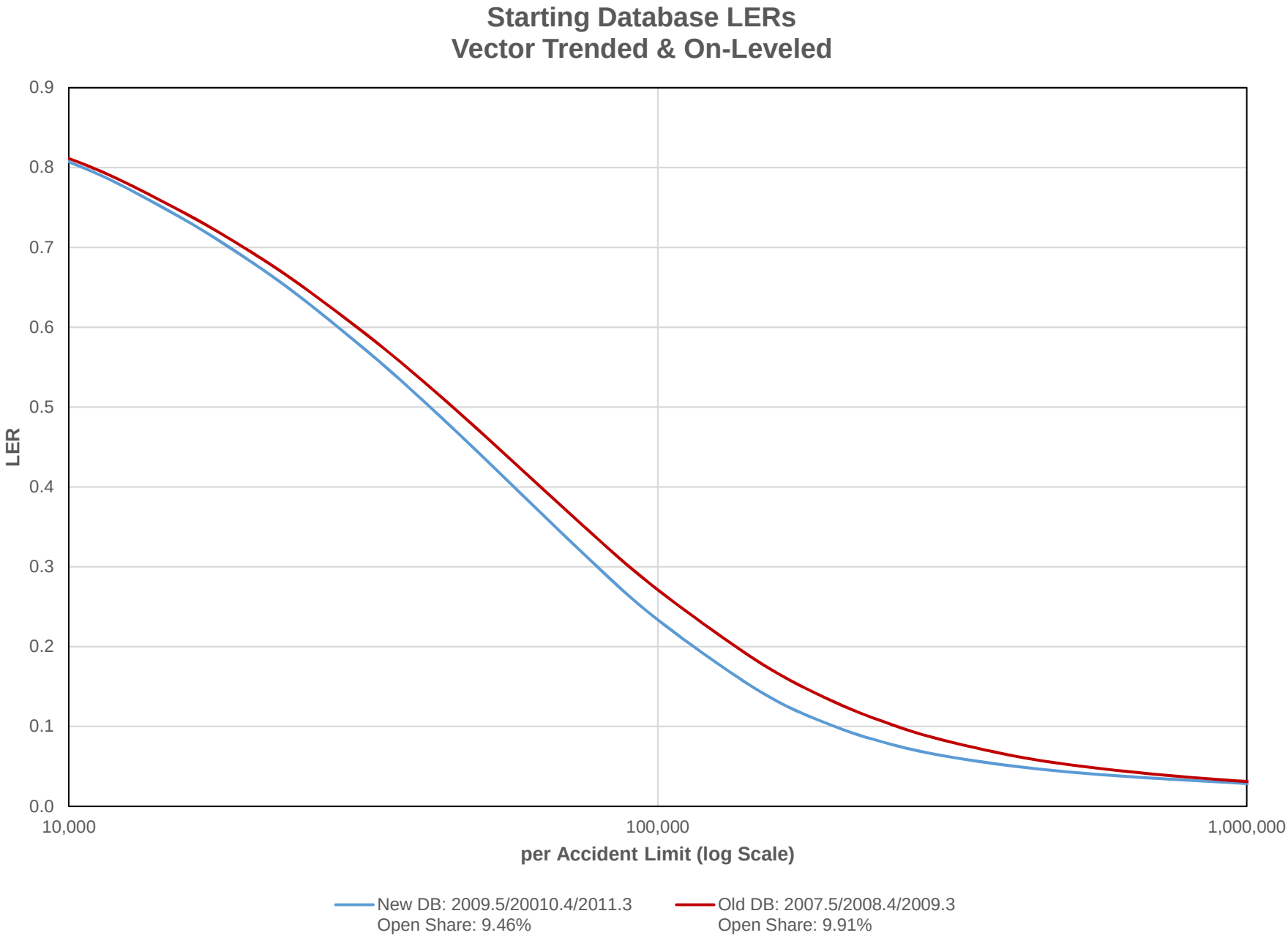
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Retrospective Rating Plan Updates – Hazard Group Assignments

WCIRB Actuarial Committee Meeting
March 21, 2017


Starting Database LERs
Unadjusted
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
LER
10,000
100,000
1,000,000
per Accident Limit (log Scale)
New DB: 2009.5/20010.4/2011.3
Open Share: 9.46%
Old DB: 2007.5/2008.4/2009.3
Open Share: 9.91%


Starting Database LERs
Vector Trended & On-Leveled
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
LER
10,000
100,000
1,000,000
per Accident Limit (log Scale)
New DB: 2009.5/20010.4/2011.3
Open Share: 9.46%
Old DB: 2007.5/2008.4/2009.3
Open Share: 9.91%

Policy Year 2018 Table of Ultimate Incurred
Pure Loss Elimination Ratios by California Hazard Group

Accident Limit	California Hazard Group 1	2	3	4	5	6	7	All
25,000	0.665	0.685	0.713	0.744	0.769	0.802	0.836	0.719
35,000	0.586	0.611	0.643	0.680	0.711	0.749	0.791	0.650
50,000	0.492	0.522	0.557	0.601	0.638	0.683	0.734	0.567
75,000	0.381	0.415	0.453	0.501	0.546	0.594	0.656	0.465
100,000	0.308	0.344	0.382	0.430	0.479	0.527	0.595	0.394
150,000	0.224	0.261	0.295	0.339	0.391	0.435	0.510	0.308
200,000	0.181	0.216	0.247	0.287	0.337	0.378	0.455	0.260
250,000	0.155	0.189	0.217	0.253	0.302	0.341	0.417	0.229
300,000	0.138	0.169	0.196	0.230	0.277	0.315	0.388	0.207
400,000	0.116	0.144	0.168	0.198	0.242	0.278	0.347	0.179
500,000	**0.103**	**0.128**	**0.150**	**0.177**	**0.218**	**0.254**	**0.319**	**0.160**
600,000	0.094	0.117	0.137	0.162	0.201	0.235	0.296	0.147
700,000	0.086	0.108	0.127	0.150	0.187	0.220	0.278	0.136
800,000	0.080	0.100	0.118	0.140	0.175	0.207	0.262	0.127
900,000	0.075	0.094	0.111	0.132	0.165	0.196	0.249	0.119
1,000,000	0.071	0.089	0.105	0.124	0.156	0.187	0.238	0.113
2,000,000	0.047	0.059	0.070	0.082	0.105	0.127	0.165	0.075
3,000,000	0.035	0.044	0.052	0.061	0.078	0.094	0.123	0.056
4,000,000	0.027	0.033	0.040	0.047	0.060	0.072	0.094	0.043
5,000,000	0.021	0.026	0.031	0.037	0.046	0.056	0.073	0.033
6,000,000	0.016	0.021	0.024	0.029	0.037	0.044	0.058	0.026
7,000,000	0.013	0.016	0.019	0.023	0.029	0.035	0.046	0.021
8,000,000	0.010	0.013	0.016	0.018	0.023	0.028	0.037	0.017
9,000,000	0.008	0.011	0.013	0.015	0.019	0.023	0.030	0.014
10,000,000	0.007	0.009	0.010	0.012	0.015	0.019	0.024	0.011
15,000,000	0.003	0.003	0.004	0.005	0.006	0.007	0.009	0.004
20,000,000	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.002

Note: Loss elimination ratios have been brought to a policy year 2018 cost level using the latest indemnity and medical trend factors (0.3% and 2.5%; see the 1/1/2017 Pure Premium Rate Filing), and the latest benefit on-level factors. The cost of medical cost containment programs (MCCP) was implicitly removed in the derivation of the medical trend factor.

Policy Year 2018 Table of Ultimate Incurred
Loss & ALAE Elimination Ratios by California Hazard Group

Accident Limit	California Hazard Group 1	2	3	4	5	6	7	All
25,000	0.712	0.727	0.750	0.775	0.795	0.822	0.850	0.754
35,000	0.640	0.658	0.685	0.716	0.740	0.773	0.807	0.690
50,000	0.549	0.572	0.603	0.640	0.670	0.708	0.751	0.610
75,000	0.434	0.463	0.497	0.540	0.577	0.621	0.674	0.506
100,000	0.353	0.384	0.419	0.464	0.506	0.552	0.612	0.429
150,000	0.251	0.285	0.318	0.362	0.408	0.452	0.520	0.329
200,000	0.195	0.228	0.259	0.300	0.346	0.386	0.458	0.270
250,000	0.161	0.193	0.221	0.259	0.304	0.343	0.414	0.232
300,000	0.139	0.169	0.196	0.231	0.275	0.312	0.381	0.206
400,000	0.113	0.140	0.163	0.194	0.235	0.270	0.336	0.173
500,000	**0.097**	**0.122**	**0.143**	**0.170**	**0.209**	**0.242**	**0.304**	**0.152**
600,000	0.087	0.109	0.128	0.154	0.190	0.222	0.280	0.137
700,000	0.079	0.100	0.118	0.141	0.175	0.206	0.261	0.126
800,000	0.073	0.092	0.109	0.131	0.164	0.193	0.245	0.117
900,000	0.068	0.086	0.102	0.123	0.154	0.182	0.232	0.110
1,000,000	0.064	0.081	0.096	0.116	0.145	0.173	0.220	0.103
2,000,000	0.042	0.053	0.063	0.076	0.096	0.116	0.150	0.068
3,000,000	0.031	0.040	0.047	0.057	0.072	0.087	0.112	0.051
4,000,000	0.024	0.031	0.037	0.044	0.056	0.067	0.087	0.040
5,000,000	0.019	0.024	0.029	0.035	0.044	0.053	0.069	0.031
6,000,000	0.015	0.020	0.023	0.028	0.036	0.043	0.056	0.025
7,000,000	0.013	0.016	0.019	0.023	0.029	0.035	0.045	0.020
8,000,000	0.010	0.013	0.016	0.019	0.024	0.029	0.037	0.017
9,000,000	0.009	0.011	0.013	0.016	0.020	0.024	0.031	0.014
10,000,000	0.007	0.009	0.011	0.013	0.017	0.020	0.026	0.012
15,000,000	0.003	0.004	0.005	0.006	0.007	0.009	0.012	0.005
20,000,000	0.002	0.002	0.002	0.003	0.004	0.005	0.006	0.003

Note: Loss and allocated loss adjustment expense (ALAE) elimination ratios have been brought to a policy year 2018 cost level using the latest indemnity and medical trend factors (0.3% and 2.5%; see 1/1/2017 Pure Premium Rate Filing), the latest benefit on-level factors, and the latest projected ratio of ALAE, including medical cost containment programs (MCCP), to loss (26.4%; see filing).

Trend and Benefit On-Level Factors
to a Policy Year 2018 Cost Level

	Accident Year			
	2009	2010	2011	2012
Indemnity Benefit On-Level Factors				
Death	1.040	1.035	1.035	1.034
Permanent	1.072	1.067	1.067	1.062
Major	1.139	1.135	1.135	1.133
Minor	1.166	1.161	1.161	1.157
Temporary	1.040	1.035	1.035	1.030
Medical Benefit On-Level Factors				
	0.834	0.834	0.834	0.851
Aggregate Trend Factors				
Indemnity	0.937	0.958	0.989	1.026
Medical	1.046	1.029	1.117	1.131

Note: The cost of medical cost containment programs (MCCP) was implicitly removed in the derivation of the medical trend factor. Observed indemnity and medical trends are used through AY 2015 (see 1/1/2017 Pure Premium Rate Filing). The latest indemnity and medical trend factors (0.3% and 2.5%; see filing) are used to trend losses from AY 2015 to a PY 2018 cost level.

2018 PURE PREMIUM RATE FILING
TABLE OF CLASSIFICATIONS BY CALIFORNIA HAZARD GROUP

Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group
0005	1	2150	1	3146	1	3840	3	4683	3	5479	4	7382	3	8070	5	8804	3	9151	1
0016	2	2163	4	3152	2	4000	4	4691	3	5482	7	7392	1	8071	3	8806	1	9154	3
0034	3	2211	3	3165	2	4034	5	4692	3	5484	3	7403	2	8078	1	8807	2	9155	3
0035	1	2222	2	3169	3	4036	4	4717	3	5485	7	7405	1	8102	2	8808	2	9156	1
0036	2	2362	6	3175	3	4038	3	4720	2	5506	6	7409	7	8103	5	8810	2	9180	5
0038	5	2402	3	3178	1	4041	3	4740	5	5507	7	7410	2	8106	4	8813	1	9181	3
0040	2	2413	3	3179	1	4049	4	4771	3	5538	5	7413	1	8107	2	8818	2	9182	4
0041	5	2501	1	3180	5	4111	4	4828	3	5542	6	7421	2	8110	2	8820	4	9184	2
0042	3	2570	3	3220	3	4112	2	4829	5	5552	7	7424	6	8111	3	8821	2	9185	5
0044	4	2571	3	3241	1	4114	4	4831	4	5553	6	7428	2	8113	3	8822	3	9220	4
0045	4	2576	4	3255	1	4130	5	4922	4	5606	4	7429	2	8116	1	8823	2	9402	5
0050	5	2578	1	3257	1	4133	4	4983	5	5610	4	7500	5	8117	3	8827	4	9403	4
0079	2	2584	1	3300	1	4150	3	5020	5	5630	6	7515	6	8204	3	8829	3	9410	3
0096	4	2585	1	3339	5	4239	3	5027	6	5631	5	7520	5	8209	1	8830	3	9420	3
0106	7	2586	1	3365	2	4240	2	5028	5	5632	6	7538	7	8215	5	8831	1	9422	2
0171	5	2589	3	3372	4	4243	1	5029	5	5633	5	7539	7	8227	6	8834	2	9424	4
0172	3	2623	1	3373	4	4244	4	5040	7	5645	6	7580	6	8232	5	8838	4	9426	4
0251	5	2660	2	3383	3	4250	4	5057	6	5650	3	7600	3	8264	5	8839	2	9501	1
0400	3	2683	2	3400	5	4251	2	5059	7	5697	5	7601	3	8265	7	8840	6	9507	2
0401	5	2688	1	3401	5	4279	3	5102	5	5951	3	7605	4	8267	4	8846	1	9516	4
1122	5	2702	7	3501	3	4283	3	5107	3	6003	7	7606	3	8278	6	8847	2	9519	3
1123	4	2710	1	3507	4	4286	2	5108	5	6011	7	7607	4	8286	3	8850	2	9521	3
1124	4	2727	7	3560	2	4295	4	5128	6	6204	7	7610	4	8290	2	8851	3	9522	3
1320	7	2731	2	3566	4	4297	3	5140	5	6206	6	7706	6	8291	5	8852	5	9529	5
1322	7	2757	3	3567	4	4299	3	5146	4	6213	6	7707	7	8292	2	8859	2	9549	3
1330	4	2759	3	3568	1	4304	3	5160	7	6216	6	7720	4	8293	4	8868	2	9552	6
1438	2	2790	1	3569	2	4312	3	5183	4	6218	6	7721	3	8304	5	8875	3	9586	2
1452	4	2797	2	3570	4	4351	3	5184	6	6220	7	7722	5	8324	4	8901	2	9610	2
1463	6	2806	3	3572	2	4354	1	5185	5	6233	7	7855	7	8350	2	9007	3	9620	4
1624	5	2812	4	3573	3	4360	3	5186	3	6235	7	8001	1	8387	3	9008	2		
1699	3	2819	2	3574	5	4361	1	5187	6	6237	7	8004	6	8388	3	9009	5		
1701	6	2840	1	3577	2	4362	3	5188	5	6251	4	8006	2	8389	4	9010	3		
1710	6	2842	3	3578	4	4410	3	5190	6	6254	4	8008	1	8390	2	9011	4		
1741	6	2852	2	3579	4	4414	3	5191	5	6258	6	8013	4	8391	3	9015	4		
1803	4	2881	2	3612	3	4420	2	5192	3	6307	5	8015	4	8392	4	9016	3		
1925	4	2883	4	3620	4	4431	4	5195	3	6308	6	8017	2	8393	4	9031	3		
2002	2	2915	4	3632	3	4432	4	5201	3	6315	6	8018	3	8397	2	9033	3		
2003	2	2923	5	3634	2	4470	4	5205	7	6316	7	8019	3	8400	5	9043	3		
2014	5	2960	1	3643	1	4478	4	5207	7	6325	5	8021	3	8500	5	9048	1		
2030	5	3004	1	3647	3	4492	2	5212	6	6361	4	8028	4	8601	6	9050	2		
2063	3	3018	1	3651	2	4494	2	5213	6	6364	3	8031	2	8604	6	9053	1		
2081	5	3022	1	3681	4	4495	1	5214	3	6400	1	8032	3	8631	7	9059	2		
2095	3	3030	6	3682	1	4496	3	5222	6	6504	3	8039	2	8720	4	9060	3		
2102	4	3039	4	3683	2	4497	3	5225	6	6834	3	8041	4	8729	3	9061	1		
2106	3	3040	1	3719	7	4498	2	5348	2	7133	7	8042	3	8740	2	9066	1		
2107	1	3060	3	3724	5	4499	5	5403	6	7198	3	8046	3	8741	4	9067	3		
2108	1	3066	4	3726	5	4511	3	5432	5	7207	4	8057	4	8742	4	9069	2		
2109	2	3070	3	3805	3	4512	3	5436	2	7219	4	8059	2	8743	6	9070	2		
2111	3	3076	3	3807	3	4557	5	5443	4	7227	4	8060	3	8745	3	9079	2		
2113	3	3081	2	3808	1	4558	2	5446	3	7232	6	8061	3	8748	3	9085	3		
2116	1	3082	3	3815	3	4567	3	5447	6	7248	4	8062	4	8749	1	9092	2		
2117	2	3085	3	3821	3	4611	3	5467	4	7272	6	8063	2	8755	6	9095	4		
2121	2	3099	4	3828	2	4623	4	5470	4	7332	1	8064	3	8800	1	9096	1		
2123	1	3110	6	3830	5	4635	5	5473	6	7360	2	8065	2	8801	1	9097	3		
2142	3	3131	3	3831	2	4665	3	5474	5	7365	5	8066	2	8803	3	9101	5		

2018 PURE PREMIUM RATE FILING
TABLE OF CLASSIFICATIONS BY DECIMALIZED CALIFORNIA HAZARD GROUP

Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group	Class No.	Hazard Group
0005	0.9	2150	1.2	3146	1.1	3840	3.2	4683	3.3	5479	4.1	7382	2.8	8070	4.8	8804	3.1	9151	1.3
0016	2.0	2163	3.6	3152	1.6	4000	4.2	4691	3.0	5482	6.9	7392	1.0	8071	2.5	8806	1.4	9154	2.6
0034	3.3	2211	3.5	3165	2.0	4034	4.7	4692	3.2	5484	3.2	7403	1.7	8078	1.0	8807	1.8	9155	2.7
0035	1.0	2222	2.5	3169	2.6	4036	3.8	4717	3.4	5485	6.8	7405	1.0	8102	2.0	8808	1.6	9156	1.0
0036	1.9	2362	5.6	3175	2.6	4038	3.3	4720	1.7	5506	6.1	7409	6.6	8103	4.8	8810	2.4	9180	5.3
0038	5.3	2402	3.1	3178	1.0	4041	2.8	4740	4.9	5507	7.2	7410	1.7	8106	4.3	8813	1.4	9181	3.4
0040	1.8	2413	2.5	3179	1.2	4049	3.6	4771	3.2	5538	4.8	7413	1.0	8107	1.5	8818	2.4	9182	3.7
0041	5.4	2501	1.1	3180	4.5	4111	3.7	4828	3.3	5542	5.8	7421	1.8	8110	1.9	8820	3.8	9184	1.9
0042	2.7	2570	3.3	3220	3.2	4112	1.8	4829	5.1	5552	7.5	7424	5.8	8111	3.5	8821	2.0	9185	5.1
0044	4.1	2571	3.2	3241	1.2	4114	3.7	4831	4.2	5553	6.5	7428	2.2	8113	3.5	8822	3.1	9220	3.8
0045	3.6	2576	3.6	3255	0.8	4130	4.5	4922	4.5	5606	4.0	7429	2.3	8116	1.0	8823	1.8	9402	5.3
0050	5.1	2578	1.1	3257	0.8	4133	3.7	4983	4.8	5610	4.0	7500	5.4	8117	3.4	8827	3.9	9403	4.4
0079	1.5	2584	1.3	3300	0.8	4150	2.9	5020	5.1	5630	6.1	7515	6.0	8204	3.5	8829	2.7	9410	3.4
0096	3.6	2585	1.0	3339	5.0	4239	2.6	5027	6.4	5631	5.2	7520	5.4	8209	1.0	8830	2.7	9420	3.0
0106	6.9	2586	1.0	3365	2.3	4240	2.0	5028	4.5	5632	6.1	7538	6.6	8215	5.0	8831	1.4	9422	2.2
0171	4.8	2589	3.0	3372	3.7	4243	1.0	5029	5.5	5633	5.2	7539	6.8	8227	6.1	8834	2.3	9424	4.0
0172	3.1	2623	1.0	3373	3.7	4244	4.1	5040	6.6	5645	6.1	7580	5.9	8232	4.7	8838	3.6	9426	3.9
0251	4.6	2660	1.7	3383	3.0	4250	4.5	5057	5.5	5650	3.2	7600	2.8	8264	4.8	8839	1.7	9501	1.4
0400	3.3	2683	2.4	3400	4.7	4251	1.8	5059	7.0	5697	5.2	7601	3.2	8265	6.9	8840	5.7	9507	2.4
0401	5.0	2688	1.1	3401	4.8	4279	3.4	5102	5.0	5951	2.8	7605	4.2	8267	3.6	8846	0.9	9516	3.6
1122	4.7	2702	6.8	3501	3.2	4283	3.0	5107	3.0	6003	6.7	7606	3.2	8278	6.4	8847	2.0	9519	2.8
1123	4.1	2710	1.1	3507	4.2	4286	2.2	5108	4.5	6011	6.5	7607	3.5	8286	3.4	8850	2.4	9521	2.9
1124	4.0	2727	6.6	3560	2.2	4295	3.6	5128	6.1	6204	6.8	7610	4.1	8290	1.7	8851	3.4	9522	2.6
1320	6.8	2731	1.6	3566	3.5	4297	2.6	5140	4.6	6206	6.0	7706	5.8	8291	4.7	8852	4.8	9529	5.0
1322	6.8	2757	3.0	3567	3.5	4299	2.7	5146	3.8	6213	5.9	7707	6.8	8292	2.5	8859	2.5	9549	2.9
1330	4.2	2759	2.5	3568	1.4	4304	3.0	5160	6.6	6216	5.5	7720	4.1	8293	3.9	8868	2.0	9552	6.2
1438	2.5	2790	1.0	3569	2.4	4312	3.2	5183	4.1	6218	6.3	7721	3.4	8304	5.2	8875	2.7	9586	2.0
1452	3.9	2797	1.8	3570	3.9	4351	2.7	5184	6.3	6220	7.0	7722	5.0	8324	3.8	8901	2.4	9610	2.1
1463	6.0	2806	3.3	3572	2.2	4354	1.1	5185	4.7	6233	7.1	7855	6.6	8350	1.9	9007	3.2	9620	4.0
1624	5.1	2812	3.9	3573	2.8	4360	3.3	5186	3.2	6235	6.8	8001	1.1	8387	3.1	9008	1.9		
1699	3.3	2819	2.2	3574	5.0	4361	0.9	5187	5.9	6237	6.7	8004	5.9	8388	2.8	9009	4.6		
1701	6.4	2840	1.2	3577	1.5	4362	3.3	5188	4.7	6251	3.6	8006	1.9	8389	4.0	9010	2.6		
1710	6.0	2842	2.7	3578	3.5	4410	3.3	5190	5.5	6254	3.6	8008	1.4	8390	1.7	9011	3.7		
1741	6.3	2852	1.5	3579	3.5	4414	3.3	5191	4.8	6258	6.1	8013	3.6	8391	3.0	9015	3.7		
1803	4.4	2881	2.3	3612	3.0	4420	1.9	5192	3.4	6307	5.1	8015	3.5	8392	4.3	9016	3.4		
1925	3.7	2883	4.4	3620	4.3	4431	3.8	5195	3.4	6308	5.7	8017	2.0	8393	3.7	9031	2.9		
2002	2.2	2915	4.1	3632	3.2	4432	3.7	5201	3.2	6315	6.4	8018	3.2	8397	1.7	9033	3.2		
2003	2.0	2923	4.6	3634	2.0	4470	3.6	5205	6.7	6316	7.3	8019	2.7	8400	4.6	9043	2.7		
2014	4.9	2960	1.1	3643	1.1	4478	3.8	5207	6.5	6325	5.2	8021	3.5	8500	5.2	9048	1.0		
2030	4.5	3004	1.3	3647	3.1	4492	1.8	5212	6.3	6361	4.2	8028	4.5	8601	5.6	9050	2.1		
2063	3.3	3018	1.3	3651	1.8	4494	2.3	5213	6.0	6364	3.1	8031	1.8	8604	5.6	9053	1.2		
2081	4.7	3022	1.4	3681	3.5	4495	1.3	5214	2.9	6400	1.3	8032	2.6	8631	6.9	9059	2.2		
2095	3.2	3030	5.7	3682	1.4	4496	3.0	5222	5.9	6504	2.6	8039	2.1	8720	4.5	9060	2.6		
2102	4.2	3039	3.9	3683	2.0	4497	2.8	5225	6.1	6834	3.1	8041	3.6	8729	3.5	9061	1.2		
2106	3.4	3040	0.9	3719	7.1	4498	1.9	5348	2.0	7133	6.8	8042	2.9	8740	1.9	9066	0.7		
2107	1.0	3060	3.3	3724	5.5	4499	4.7	5403	6.1	7198	3.0	8046	3.0	8741	4.0	9067	3.0		
2108	1.2	3066	3.7	3726	5.3	4511	2.6	5432	5.2	7207	4.3	8057	3.6	8742	4.2	9069	1.5		
2109	1.6	3070	2.8	3805	3.3	4512	2.7	5436	1.9	7219	4.4	8059	1.8	8743	5.9	9070	1.6		
2111	3.4	3076	2.6	3807	3.2	4557	5.1	5443	3.6	7227	4.1	8060	3.1	8745	3.5	9079	2.0		
2113	2.8	3081	2.3	3808	1.3	4558	2.3	5446	3.4	7232	6.4	8061	2.5	8748	2.6	9085	3.0		
2116	0.5	3082	3.2	3815	3.4	4567	3.1	5447	5.5	7248	4.5	8062	3.6	8749	1.5	9092	1.6		
2117	2.2	3085	3.4	3821	2.9	4611	2.7	5467	3.8	7272	5.6	8063	1.7	8755	6.4	9095	4.0		
2121	2.5	3099	4.2	3828	2.1	4623	4.2	5470	4.2	7332	1.3	8064	2.8	8800	1.2	9096	0.6		
2123	1.3	3110	5.7	3830	5.0	4635	5.2	5473	5.7	7360	2.2	8065	1.9	8801	0.8	9097	2.7		
2142	2.8	3131	2.9	3831	2.3	4665	3.2	5474	4.7	7365	4.6	8066	2.3	8803	3.0	9101	4.6		

Calculation of Interquartile Ranges for Select Classifications' $500,000 Pure Loss LER

	p5	p10	p25	p50	p75	p90	p95	Interquartile Range p75 - p25	Interquartile Range p95 - p50
9079 - Restaurants	0.117	0.119	0.125	0.129	0.133	0.137	0.140	0.008	0.010
8810 - Clerical	0.124	0.127	0.131	0.137	0.142	0.145	0.148	0.011	0.011
8017 - Retail Stores	0.114	0.116	0.124	0.129	0.136	0.142	0.144	0.013	0.015
8018 - Wholesale Stores	0.132	0.138	0.146	0.153	0.160	0.167	0.171	0.013	0.018
9043 - Hospitals	0.117	0.125	0.134	0.144	0.154	0.161	0.164	0.019	0.020
Small Classification	**0.000**	**0.000**	**0.000**	0.231	0.259	0.358	0.382	0.259	0.151
Very Small Classification	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	0.264	0.273	**0.000**	0.273

Current vs. Proposed RHGs (Page 1 of 3)

Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG
0005	1	1	0.88	2163	3	4	3.64	3179	1	1	1.20
0016	3	2	1.98	2211	3	3	3.49	3180	1	5	4.51
0034	4	3	3.30	2222	2	2	2.47	3220	3	3	3.16
0035	1	1	1.03	2362	3	6	5.64	3241	1	1	1.18
0036	2	2	1.91	2402	1	3	3.08	3257	2	1	0.78
0038	5	5	5.35	2413	4	3	2.53	3339	3	5	5.01
0040	2	2	1.80	2501	2	1	1.05	3365	4	2	2.34
0041	2	5	5.38	2570	4	3	3.28	3372	4	4	3.67
0042	2	3	2.71	2571	4	3	3.20	3383	3	3	3.03
0044	4	4	4.12	2576	3	4	3.63	3400	4	5	4.74
0045	3	4	3.64	2584	2	1	1.30	3401	2	5	4.77
0050	4	5	5.15	2585	2	1	0.99	3501	2	3	3.20
0079	1	2	1.53	2589	3	3	2.98	3507	3	4	4.22
0096	3	4	3.59	2660	2	2	1.67	3560	2	2	2.21
0106	7	7	6.94	2683	2	2	2.38	3568	2	1	1.44
0171	4	5	4.82	2688	2	1	1.08	3569	4	2	2.42
0172	3	3	3.10	2702	7	7	6.84	3570	1	4	3.89
0251	3	5	4.60	2710	3	1	1.05	3572	3	2	2.21
0400	3	3	3.27	2727	6	7	6.58	3573	2	3	2.83
0401	5	5	5.04	2731	2	2	1.65	3574	1	5	5.03
1122	4	5	4.69	2757	1	3	3.05	3577	1	2	1.51
1123	4	4	4.05	2759	4	3	2.53	3612	2	3	2.98
1124	4	4	4.03	2790	1	1	0.96	3620	3	4	4.27
1320	6	7	6.81	2797	2	2	1.83	3632	4	3	3.17
1322	7	7	6.77	2806	2	3	3.34	3634	2	2	2.03
1330	4	4	4.23	2812	2	4	3.95	3643	2	1	1.10
1438	3	2	2.48	2819	4	2	2.24	3647	4	3	3.06
1452	4	4	3.85	2840	2	1	1.24	3651	2	2	1.84
1463	4	6	6.02	2842	3	3	2.71	3681	3	4	3.54
1624	4	5	5.15	2852	2	2	1.54	3682	2	1	1.39
1699	3	3	3.34	2881	2	2	2.27	3683	3	2	2.03
1701	4	6	6.40	2883	1	4	4.45	3719	7	7	7.10
1710	6	6	6.02	2915	3	4	4.13	3724	5	5	5.48
1741	5	6	6.32	2923	1	5	4.61	3726	5	5	5.26
1803	5	4	4.43	3018	3	1	1.27	3805	4	3	3.28
1925	4	4	3.71	3022	2	1	1.44	3808	1	1	1.30
2002	3	2	2.25	3030	3	6	5.73	3815	2	3	3.39
2003	2	2	2.00	3039	3	4	3.93	3821	4	3	2.93
2014	3	5	4.85	3040	3	1	0.94	3828	2	2	2.07
2030	5	5	4.54	3060	3	3	3.33	3830	2	5	4.95
2063	1	3	3.26	3066	3	4	3.72	3831	2	2	2.27
2081	1	5	4.70	3070	1	3	2.84	3840	2	3	3.22
2095	2	3	3.19	3076	2	3	2.62	4000	4	4	4.19
2102	2	4	4.16	3081	3	2	2.35	4034	3	5	4.67
2107	2	1	0.95	3082	4	3	3.24	4036	3	4	3.83
2108	3	1	1.21	3085	3	3	3.39	4038	3	3	3.27
2109	3	2	1.63	3099	3	4	4.22	4041	3	3	2.83
2111	2	3	3.37	3110	5	6	5.69	4049	2	4	3.56
2113	4	3	2.79	3131	3	3	2.89	4111	3	4	3.69
2116	2	1	0.50	3146	3	1	1.11	4112	2	2	1.80
2117	1	2	2.22	3152	2	2	1.59	4114	3	4	3.66
2121	3	2	2.47	3165	1	2	1.98	4130	1	5	4.53
2123	3	1	1.32	3169	1	3	2.64	4150	2	3	2.91
2142	3	3	2.75	3175	2	3	2.60	4239	3	3	2.64
2150	3	1	1.16	3178	2	1	0.98	4240	1	2	1.96

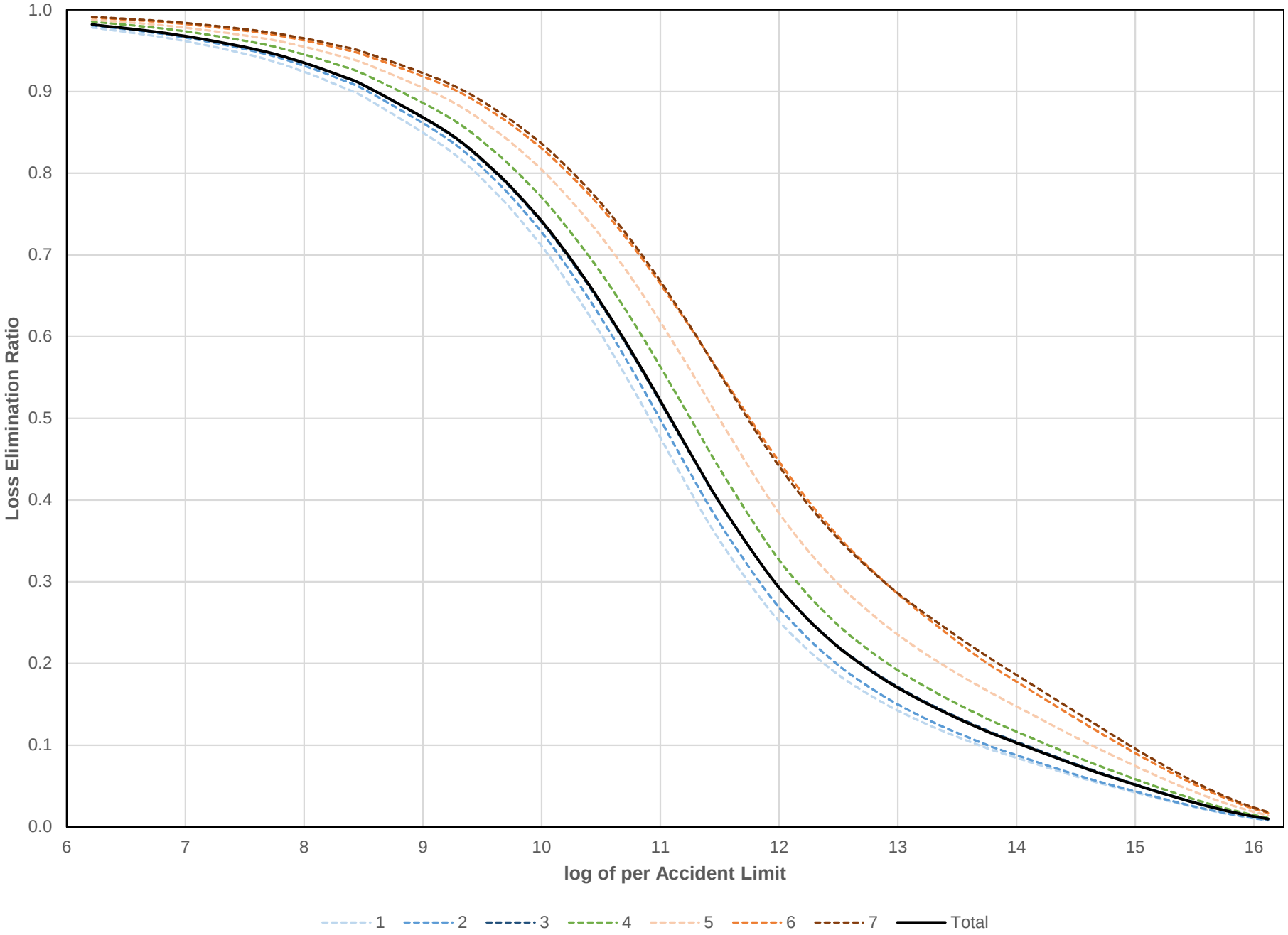
Current and Proposed RHGs (Page 2 of 3)

Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG
4243	1	1	0.99	5102	5	5	5.05	6216	5	6	5.53
4244	4	4	4.05	5107	3	3	3.03	6218	6	6	6.34
4250	2	4	4.48	5108	4	5	4.53	6220	7	7	6.98
4251	2	2	1.79	5128	3	6	6.08	6233	6	7	7.12
4279	2	3	3.40	5140	3	5	4.60	6235	7	7	6.84
4283	3	3	3.05	5146	4	4	3.82	6237	6	7	6.72
4286	1	2	2.24	5160	5	7	6.59	6251	4	4	3.57
4295	3	4	3.58	5183	4	4	4.10	6258	5	6	6.08
4297	3	3	2.59	5184	6	6	6.31	6307	4	5	5.10
4299	4	3	2.67	5185	3	5	4.71	6308	5	6	5.73
4304	3	3	3.03	5186	3	3	3.22	6315	6	6	6.37
4312	4	3	3.25	5187	7	6	5.94	6316	6	7	7.30
4351	3	3	2.68	5190	4	6	5.53	6325	4	5	5.24
4354	1	1	1.11	5191	4	5	4.83	6361	4	4	4.20
4361	1	1	0.92	5192	3	3	3.36	6364	3	3	3.11
4362	3	3	3.28	5195	4	3	3.42	6400	3	1	1.34
4410	1	3	3.32	5201	3	3	3.20	6504	2	3	2.60
4420	2	2	1.85	5205	7	7	6.73	6834	4	3	3.10
4432	4	4	3.66	5212	7	6	6.30	7133	6	7	6.83
4470	3	4	3.63	5213	6	6	5.97	7198	2	3	3.01
4478	2	4	3.79	5214	4	3	2.95	7207	4	4	4.30
4492	2	2	1.78	5222	6	6	5.93	7219	4	4	4.39
4494	3	2	2.30	5225	7	6	6.14	7227	4	4	4.10
4495	3	1	1.29	5348	2	2	2.00	7232	5	6	6.43
4496	4	3	3.02	5403	5	6	6.06	7248	4	4	4.46
4497	2	3	2.76	5432	4	5	5.17	7272	5	6	5.62
4498	2	2	1.90	5436	2	2	1.89	7332	1	1	1.35
4499	2	5	4.70	5443	4	4	3.55	7360	3	2	2.17
4511	3	3	2.60	5446	3	3	3.42	7365	5	5	4.63
4512	3	3	2.66	5447	5	6	5.52	7382	2	3	2.83
4557	3	5	5.14	5467	4	4	3.76	7392	2	1	0.95
4558	1	2	2.33	5470	5	4	4.21	7403	2	2	1.72
4611	3	3	2.73	5473	5	6	5.67	7405	2	1	1.02
4623	1	4	4.19	5474	4	5	4.72	7409	6	7	6.61
4635	5	5	5.15	5479	3	4	4.07	7410	2	2	1.67
4665	4	3	3.22	5482	7	7	6.92	7421	1	2	1.80
4683	3	3	3.32	5484	3	3	3.17	7424	4	6	5.76
4691	2	3	2.97	5485	5	7	6.80	7428	4	2	2.18
4692	2	3	3.21	5506	5	6	6.08	7429	3	2	2.26
4717	3	3	3.37	5507	6	7	7.19	7500	3	5	5.41
4720	3	2	1.68	5538	3	5	4.83	7515	7	6	6.02
4740	4	5	4.94	5542	5	6	5.79	7520	3	5	5.41
4771	4	3	3.19	5552	7	7	7.50	7538	5	7	6.61
4828	3	3	3.28	5553	7	6	6.46	7539	5	7	6.77
4829	4	5	5.09	5606	4	4	4.04	7580	5	6	5.94
4831	3	4	4.15	5610	3	4	4.00	7600	3	3	2.76
4922	2	4	4.48	5632	5	6	6.06	7601	5	3	3.18
4983	4	5	4.76	5633	4	5	5.17	7605	4	4	4.19
5020	5	5	5.09	5650	3	3	3.18	7606	2	3	3.16
5027	6	6	6.36	5951	1	3	2.76	7607	3	4	3.51
5028	4	5	4.52	6003	6	7	6.68	7610	4	4	4.11
5029	5	5	5.48	6011	6	7	6.52	7706	6	6	5.84
5040	7	7	6.58	6204	5	7	6.78	7707	6	7	6.78
5057	5	6	5.54	6206	6	6	6.01	7720	5	4	4.14
5059	7	7	6.98	6213	6	6	5.86	7721	4	3	3.36

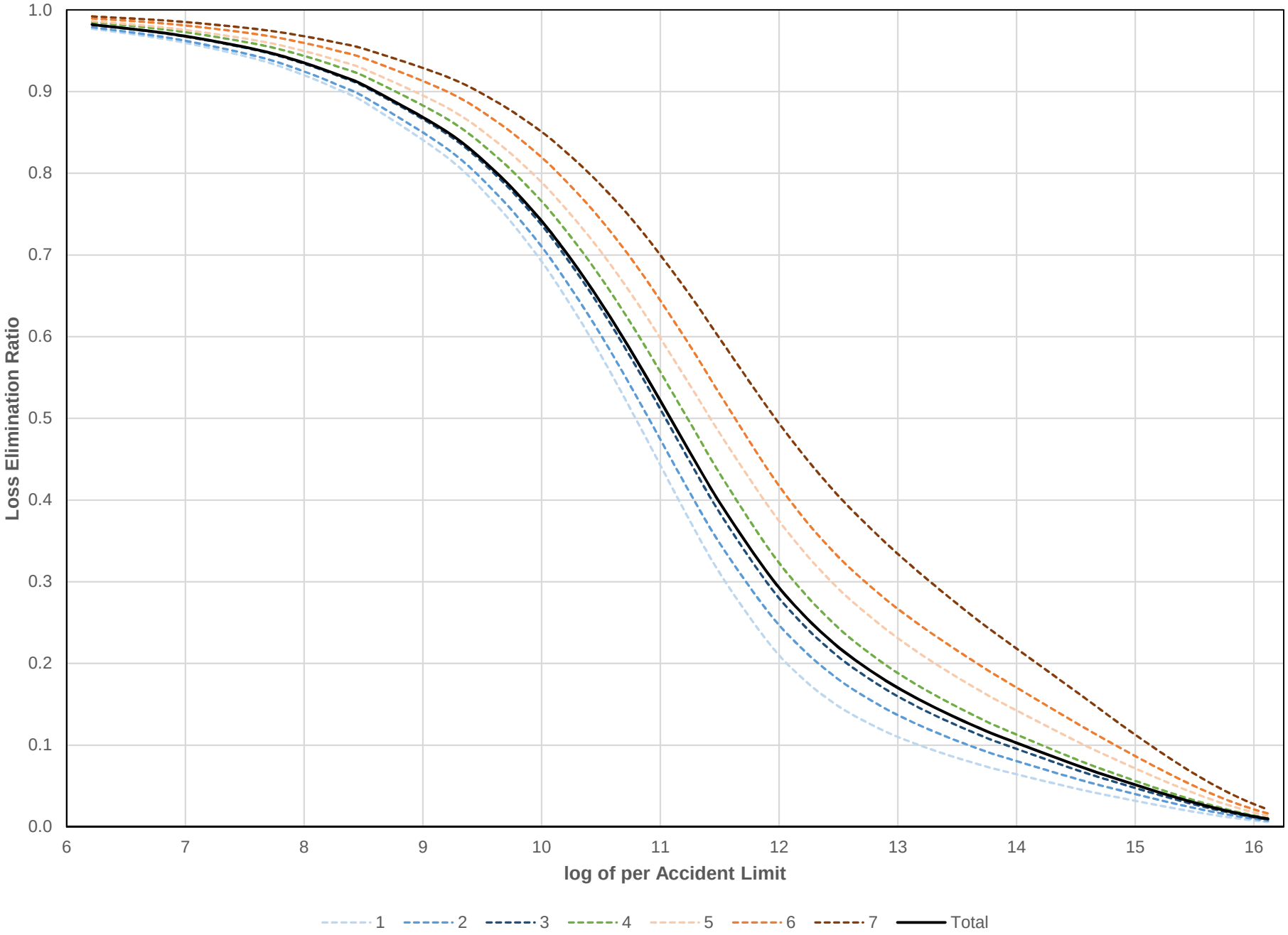
Current and Proposed RHGs (Page 3 of 3)

Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG	Class	Current RHG	Proposed RHG	Decimal RHG
7722	5	5	5.00	8388	3	3	2.83	9011	4	4	3.74
7855	6	7	6.64	8389	4	4	3.95	9015	3	4	3.65
8001	1	1	1.05	8390	2	2	1.67	9016	3	3	3.40
8004	1	6	5.89	8391	3	3	2.99	9031	4	3	2.94
8006	1	2	1.87	8392	4	4	4.28	9033	3	3	3.23
8008	1	1	1.37	8393	4	4	3.73	9043	1	3	2.74
8013	4	4	3.62	8397	4	2	1.65	9048	2	1	1.04
8015	3	4	3.55	8400	3	5	4.56	9050	1	2	2.08
8017	1	2	2.01	8500	3	5	5.18	9053	1	1	1.23
8018	3	3	3.17	8601	4	6	5.61	9059	2	2	2.15
8019	3	3	2.68	8631	6	7	6.93	9060	3	3	2.64
8021	3	3	3.49	8720	4	4	4.46	9061	2	1	1.17
8028	4	4	4.45	8729	3	3	3.46	9066	3	1	0.70
8031	1	2	1.77	8740	4	2	1.87	9067	3	3	3.01
8032	3	3	2.59	8741	4	4	4.03	9069	3	2	1.55
8039	3	2	2.15	8742	3	4	4.17	9070	1	2	1.59
8041	1	4	3.63	8743	6	6	5.90	9079	1	2	1.97
8042	3	3	2.89	8745	5	3	3.46	9085	1	3	2.99
8046	1	3	2.95	8748	4	3	2.61	9092	4	2	1.59
8057	3	4	3.59	8749	3	1	1.49	9095	3	4	4.00
8059	3	2	1.77	8755	6	6	6.36	9096	3	1	0.57
8060	5	3	3.06	8800	2	1	1.18	9097	3	3	2.75
8061	2	3	2.54	8801	2	1	0.84	9101	3	5	4.58
8062	1	4	3.62	8803	4	3	2.96	9151	1	1	1.28
8063	2	2	1.74	8804	3	3	3.10	9154	1	3	2.58
8064	2	3	2.80	8806	2	1	1.37	9155	2	3	2.73
8065	2	2	1.87	8807	3	2	1.76	9156	3	1	0.99
8066	3	2	2.31	8808	2	2	1.58	9180	3	5	5.26
8070	3	5	4.80	8810	1	2	2.38	9181	1	3	3.40
8071	2	3	2.52	8813	3	1	1.39	9182	1	4	3.68
8078	1	1	0.98	8818	2	2	2.38	9184	3	2	1.89
8102	1	2	1.95	8820	3	4	3.85	9185	2	5	5.12
8106	4	4	4.27	8821	3	2	2.02	9220	3	4	3.78
8107	3	2	1.53	8822	4	3	3.12	9402	4	5	5.32
8110	3	2	1.94	8823	2	2	1.77	9403	4	4	4.36
8111	5	3	3.47	8827	4	4	3.87	9410	4	3	3.45
8116	3	1	0.98	8829	1	3	2.71	9420	3	3	2.97
8117	3	3	3.43	8830	1	3	2.74	9422	1	2	2.25
8209	1	1	0.98	8831	3	1	1.38	9424	3	4	4.04
8215	4	5	5.04	8834	2	2	2.29	9426	5	4	3.91
8227	4	6	6.09	8838	2	4	3.60	9501	2	1	1.37
8232	5	5	4.71	8839	2	2	1.69	9507	4	2	2.41
8264	1	5	4.76	8840	4	6	5.67	9516	4	4	3.58
8265	6	7	6.93	8846	1	1	0.92	9519	4	3	2.79
8267	3	4	3.61	8847	4	2	1.95	9521	3	3	2.91
8278	7	6	6.44	8850	4	2	2.40	9522	3	3	2.59
8286	4	3	3.38	8851	2	3	3.40	9529	5	5	5.05
8290	3	2	1.66	8852	4	5	4.80	9549	2	3	2.90
8291	5	5	4.75	8859	2	2	2.48	9552	6	6	6.15
8292	1	2	2.47	8868	2	2	1.99	9586	1	2	1.98
8293	4	4	3.93	8875	3	3	2.68	9610	4	2	2.13
8304	2	5	5.19	9007	3	3	3.22	9620	3	4	3.96
8324	3	4	3.78	9008	1	2	1.89				
8350	4	2	1.86	9009	4	5	4.59				
8387	3	3	3.06	9010	3	3	2.56				

LERs with Current RHGs



LERs with Proposed RHGs



SB 863 Cost Monitoring – Adjustments to Pure Premium Ratemaking

WCIRB Actuarial Committee Meeting
March 21, 2017

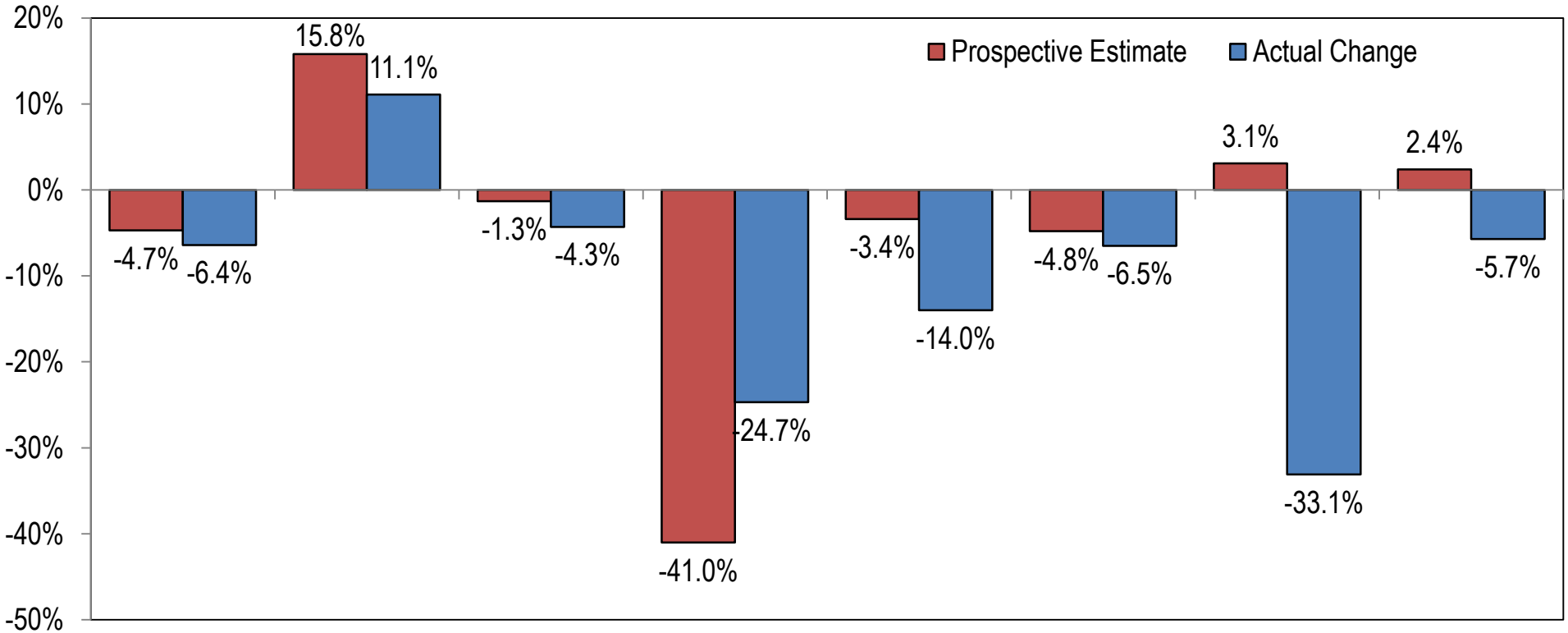
WCIRB 2016 SB 863 Cost Monitoring Report – Indemnity Reforms

SB 863 Provisions	WCIRB Original Cost Estimates ($'s in billions)	Monitoring Results Impact on Net SB 863 Savings	Updated Estimates ($'s in billions)
Changes to Weekly PD Benefits	+$0.6	=	+$0.6
Changes to SJDB	($0.01)	▼	**+$0.02**
Replacement of FEC Factor	+$0.6	=	+$0.6
Elimination of PD Add-ons	($0.2)	=	($0.2)
Three-Tiered Weekly PD Benefits	($0.1)	=	($0.1)
Ogilvie Decision	($0.2)	▼	($0.1)
Indemnity Claim Frequency	Small Increase	=	---
Indemnity Severities (Incl. Trend)	Increases	=	---
Total Indemnity Reforms	**+$0.7**	---	**+$0.8**

WCIRB 2016 SB 863 Cost Monitoring Report – Medical & LAE Reforms

SB 863 Provisions	WCIRB Original Cost Estimates ($'s in billions)	Monitoring Results Impact on Net SB 863 Savings	Updated Estimates ($'s in billions)
Liens	($0.5)	=	($0.5)
Surgical Implant Hardware	($0.1)	▲	($0.1)
ASC Fees	($0.1)	=	($0.1)
IMR – Impact on Frictional Costs	($0.2)	▼	+$0.1
IMR – Impact on TD Duration	($0.2)	▼	**$0.0**
MPN Strengthening	($0.2)	=	($0.2)
RBRVS Fee Schedule	+$0.3	▲	**($0.3)**
Copy Services Fee Schedule	$0.0	=	$0.0
Medical Severities	No Impact	▲	**($1.0)**
ALAE and ULAE Severities	Significant Decline	▼	---
Total Medical & LAE Reforms	**($0.9)**	---	**($2.1)**
Total Estimate – All Items	**($0.2)**	---	**($1.3)**

Projected vs. Actual Change in Physician Fees – 2013 to 2014 Transactions through 2Q 2016 (30 Months)

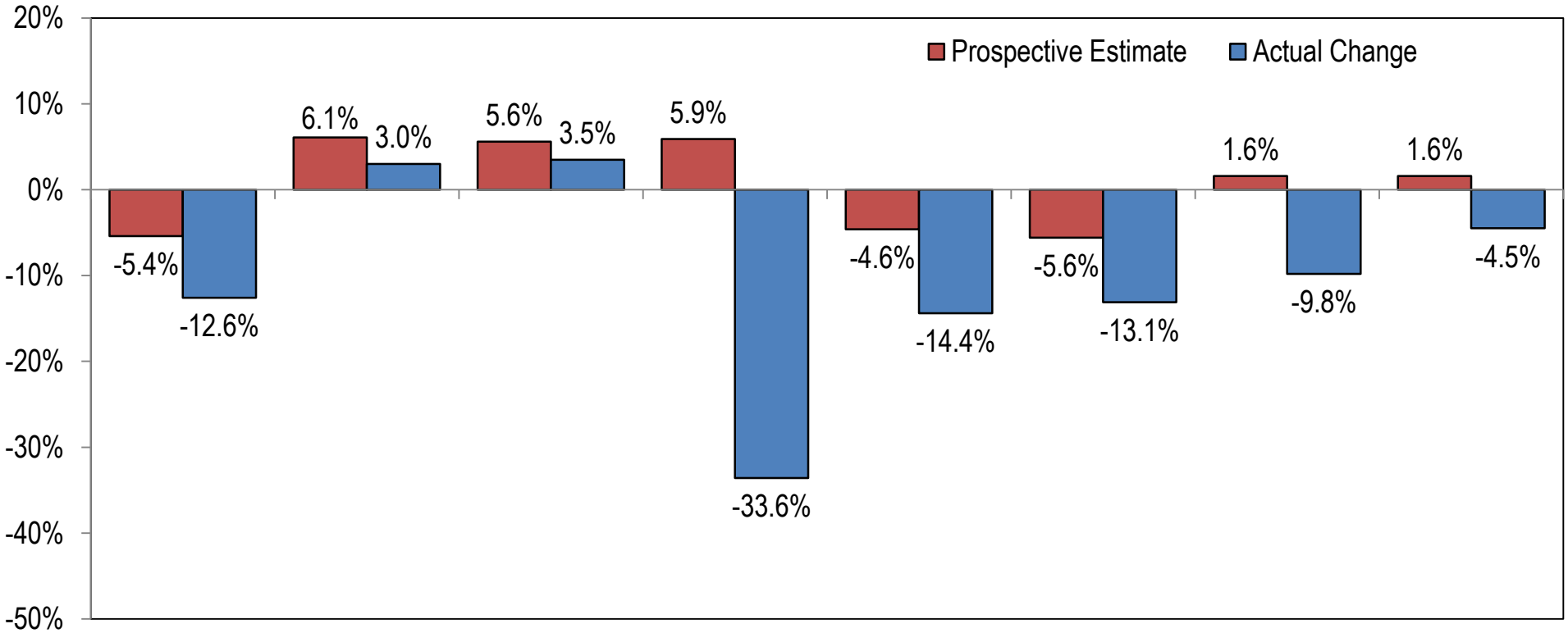


Share of Payments (Prior Year)							
2%	27%	25%	6%	11%	19%	10%	100%

* Includes Physical Medicine, Chiropractic and Acupuncture

Source: WCIRB Medical Data Call.

Projected vs. Actual Change in Physician Fees – 2014 to 2015 Transactions through 2Q 2016 (18 Months)

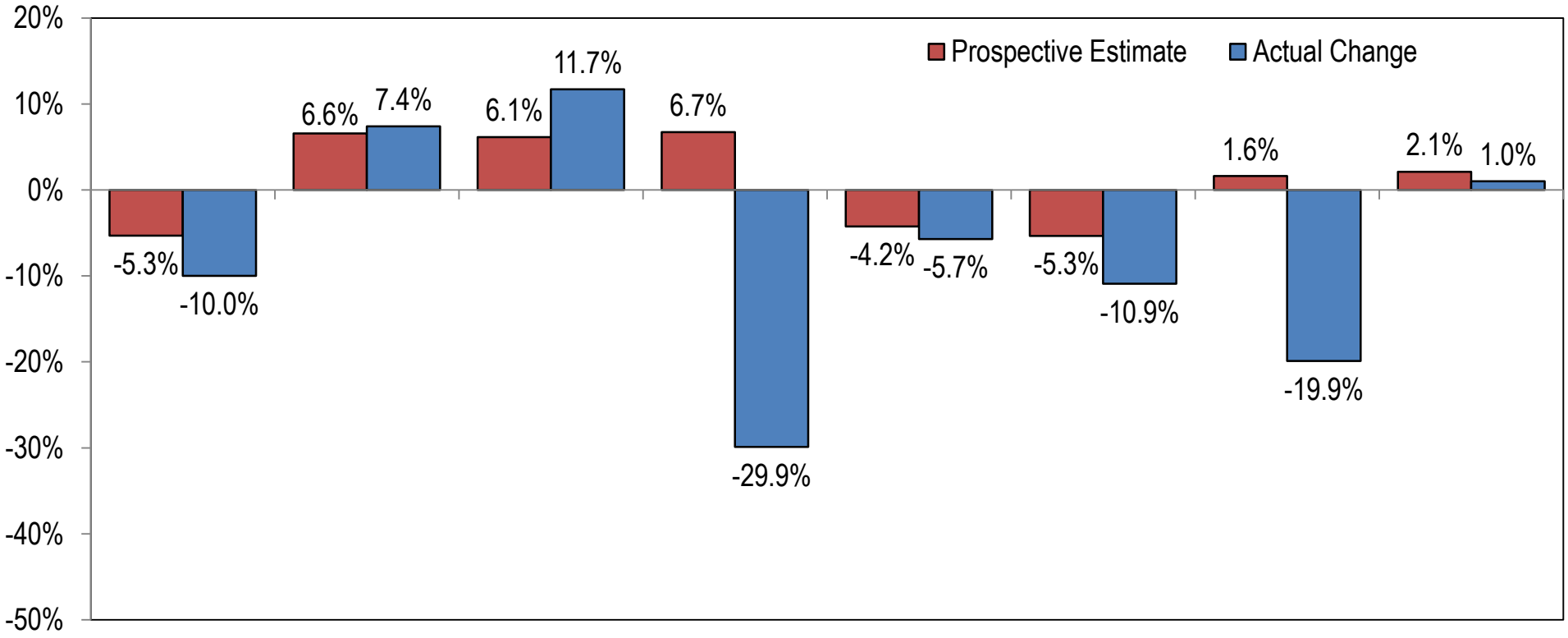


	Anesthesia	E&M	Medicine*	Pathology & Laboratory	Radiology	Surgery	Special Services & Reports	Total Physician Cost per Fee Schedule Claim
Share of Payments (Prior Year)	2%	32%	25%	5%	10%	19%	7%	100%

* Includes Physical Medicine, Chiropractic and Acupuncture

Source: WCIRB Medical Data Call.

Projected vs. Actual Change in Physician Fees – 2015 to 2016 Transactions through 2Q 2016 (6 Months)



Share of Payments (Prior Year)							
2%	35%	27%	3%	9%	17%	9%	100%

* Includes Physical Medicine, Chiropractic and Acupuncture

Source: WCIRB Medical Data Call.

On-leveling for SB 863

- 1/1/17 Filing reflected SB 863 reforms in on-level adjustments and loss development
- Recommended updates to indemnity for SJDB cost increase (small) and elimination of TD duration savings
  - Update both paid loss development adjustments for 2013 & 2014 and on-level factors for older years (incl. freq. impacts)
  - Eliminate loss development adjustments for 2011 and 2012 (small and mostly related to TD)
- Recommended updates to paid medical loss development for additional RBRVS savings and other changes
  - SY 2013 adjustment updated from -4.4% to **-4.2%**
  - SY 2014 adjustment updated from -1.8% to **-2.1%**
  - SY 2015 adjustment updated from -0.9% to **-1.7%**
  - SY 2016 adjustment **eliminated** (updated from +0.8%)

SB 863 Impact on Medical Utilization

- 1/1/17 Filing reflected 10% decrease in medical utilization resulting from SB 863
  - Based on analysis of post-SB 863 medical severities after reflecting updated SB 863 cost impacts & trends
  - Distributed to AYs 2012-2014 based on approximate change in post-SB 863 paid development by AY
- 10% decrease continues to be indicated in 2016 Cost Monitoring Report
- Current distribution to prior AYs appears weighted too heavily towards more recent years
- Committee recommended staff review alternative distributions

Distribution of Medical Utilization Change to Prior AYs – Staff Recommended Approach

- Medical utilization change assumed to be less pronounced in development after 48 months
- Distribution applied based on estimated unpaid medical development for that AY as of 12/31/2013 relative to total paid development estimated @48 mos.
- Other approaches reviewed did not significantly improve the distribution

Estimated Impact of SB 863 Medical Utilization Change by Accident Year

Accident Year	Age in Months @12/31/13	Estimated Unpaid @12/31/13	Estimated Unpaid to 48 Mos.	Unpaid to 48 Mos. Relative to Paid @48 Mos.	Cumulative Impact of -10% Medical Util. Change	Incremental Impact of -10% Medical Util. Change
2010	48	56%	0%	0%	0%	0%
2011	36	66%	10%	22%	-2%	-2%
2012	24	77%	21%	48%	-5%	-3%
2013	12	91%	35%	80%	-8%	-3%
2014	0	100%	44%	100%	-10%	-2%

Summary of Recommended Changes – Indemnity

- Loss development adjustments (@12/31/16):

Accident Year	Before Update	After Update
2011	-0.5%	---
2012	-0.5%	---
2013	+0.3%	+2.0%
2014	+4.5%	+6.5%

- Benefit level adjustments (incl. frequency but excl. wage inflation):

Accident Year	Before Update	After Update
2013	-0.9%	+2.4%
2014	+8.6%	+8.6%

Summary of Recommended Changes – Medical

- Loss development adjustments:

Calendar Year	Before Update	After Update
2013	-4.4%	-4.2%
2014	-1.8%	-2.1%
2015	-0.9%	-1.7%
2016	+0.8%	---

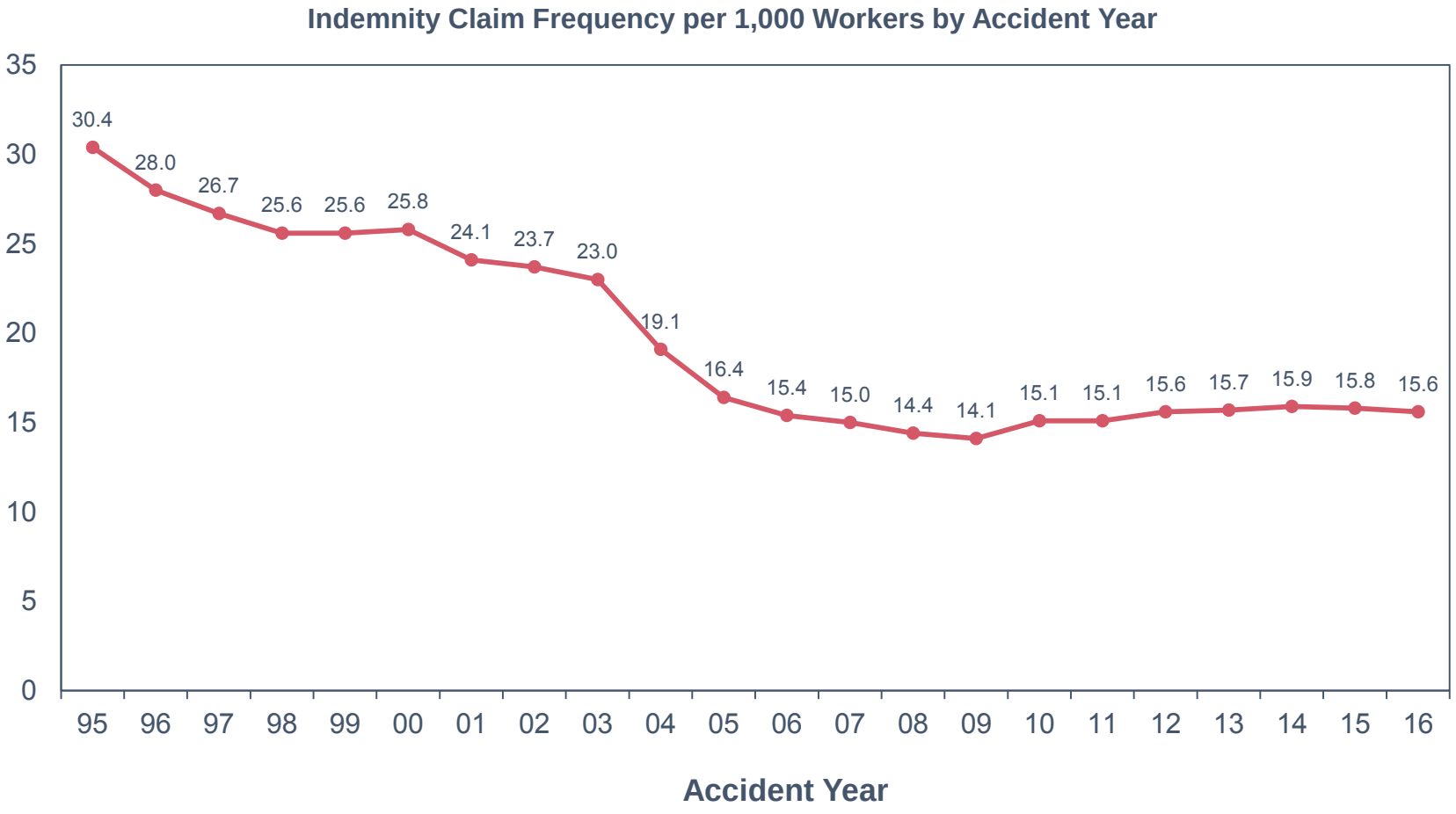
- Change in on-level severity (@12/31/16):

Accident Year	Before Update	After Update
2011	+0.3%	+2.4%
2012	-2.0%	-0.9%
2013	-2.5%	-1.3%
2014	+4.1%	+0.2%

First Quarter 2017 Review of Diagnostics

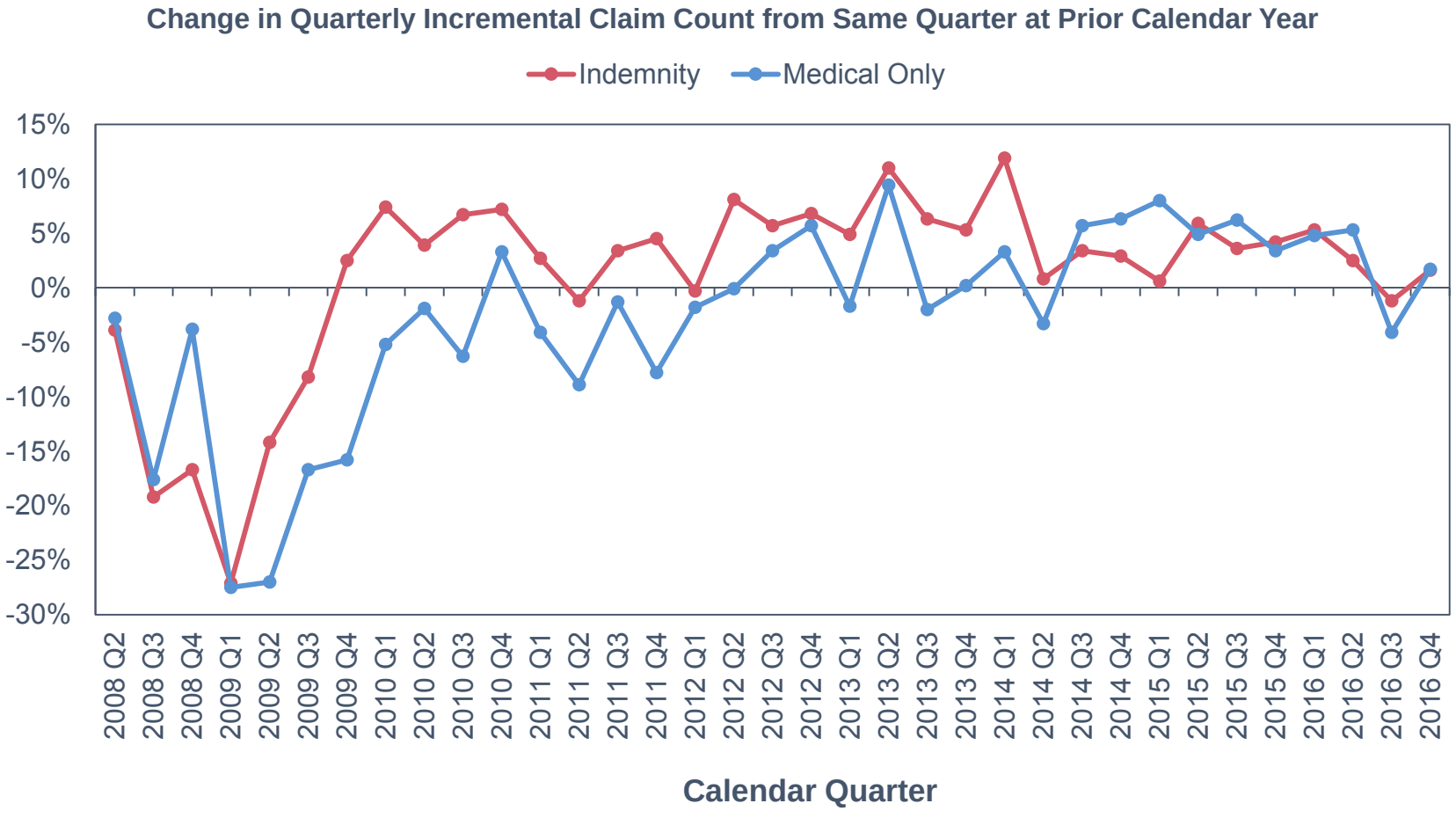
March 21, 2017

Indemnity Claim Frequency
(Exhibit C6; pg. IV-A-22)



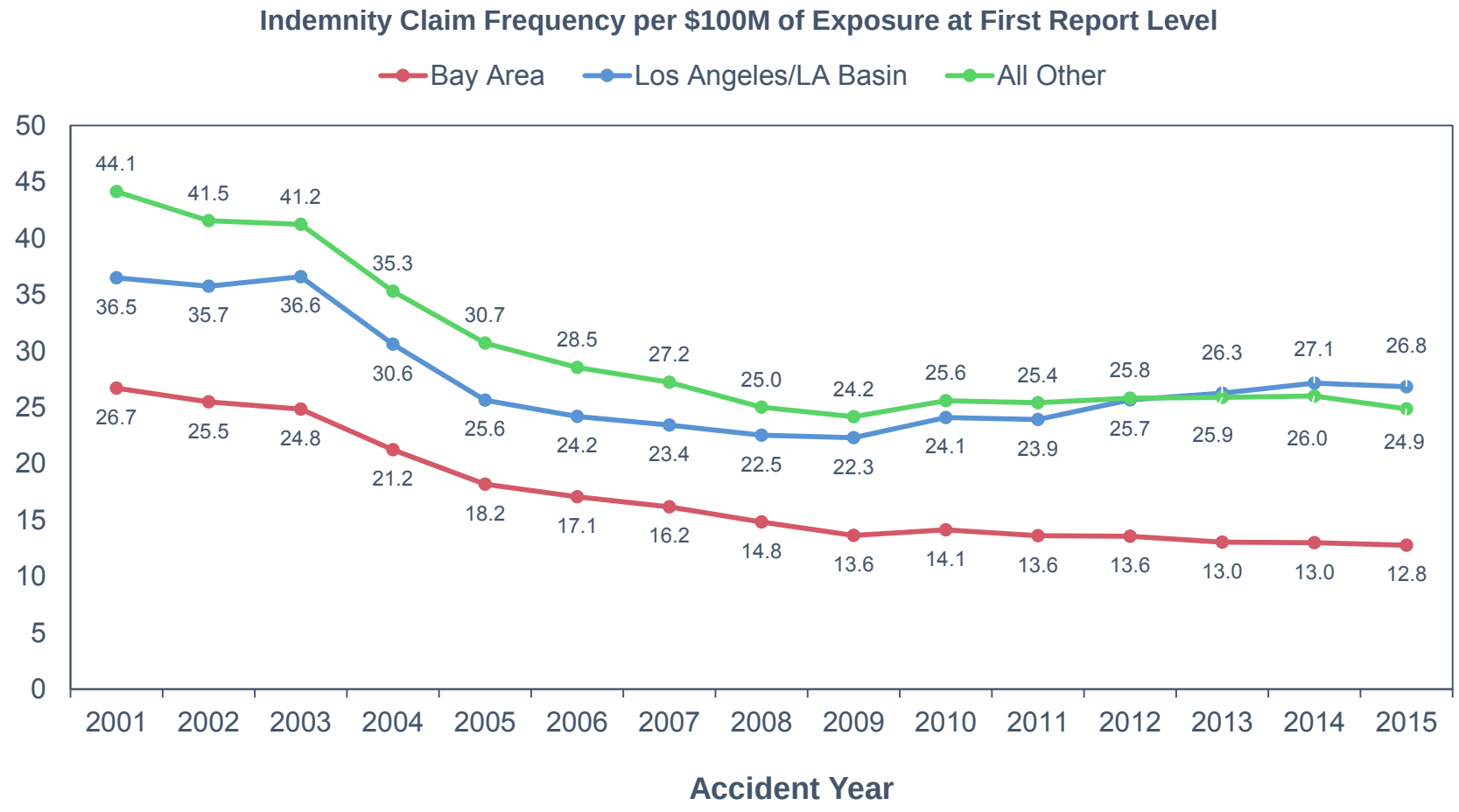
Source: WCIRB quarterly calls for experience and WCIRB unit statistical data

Changes in Incremental Claim Counts (Exhibit C11; pg. IV-A-25, Updated)



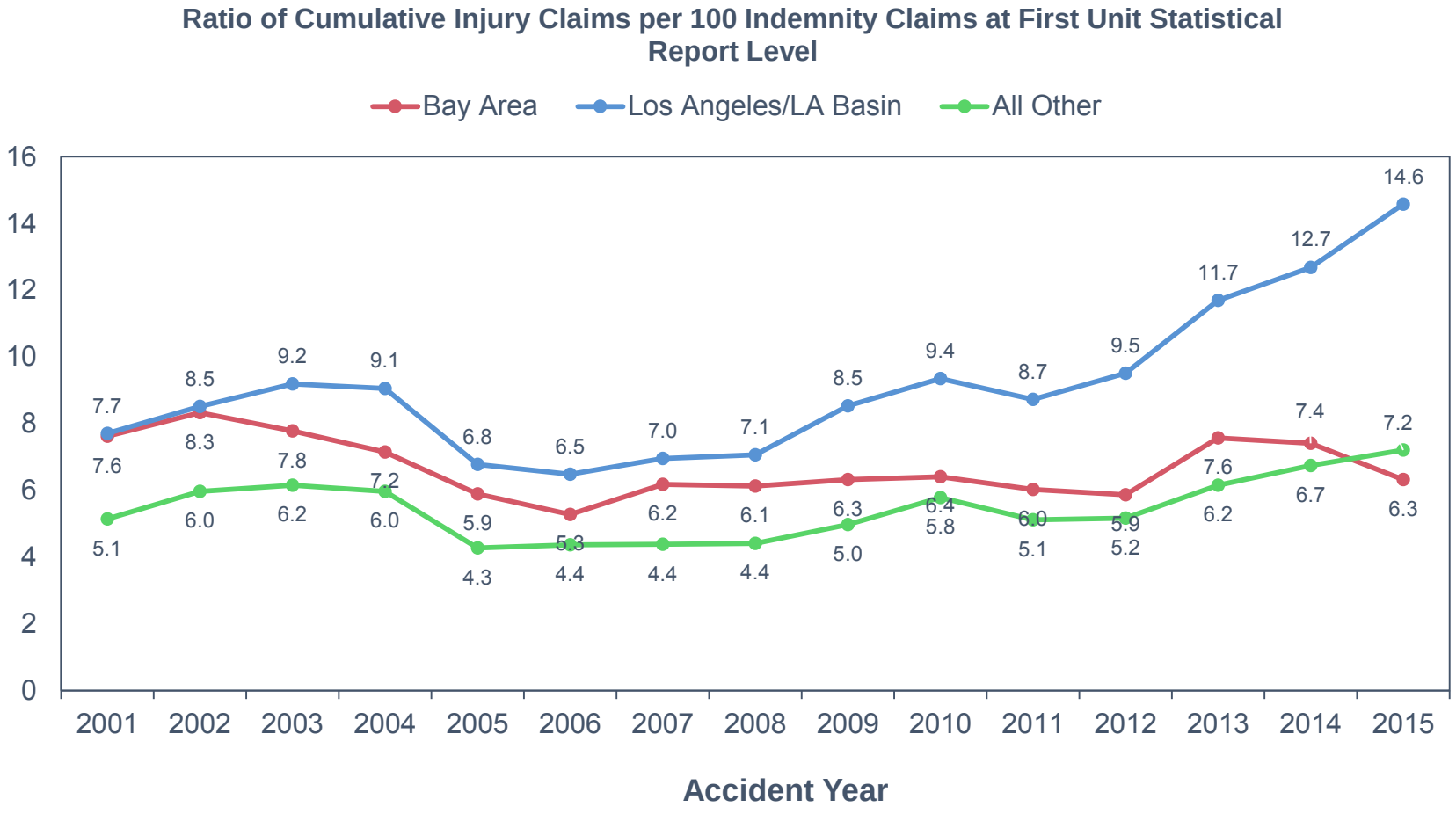
Source: WCIRB quarterly calls for experience

Indemnity Claim Frequency
(Exhibit C21; pg. IV-A-29)



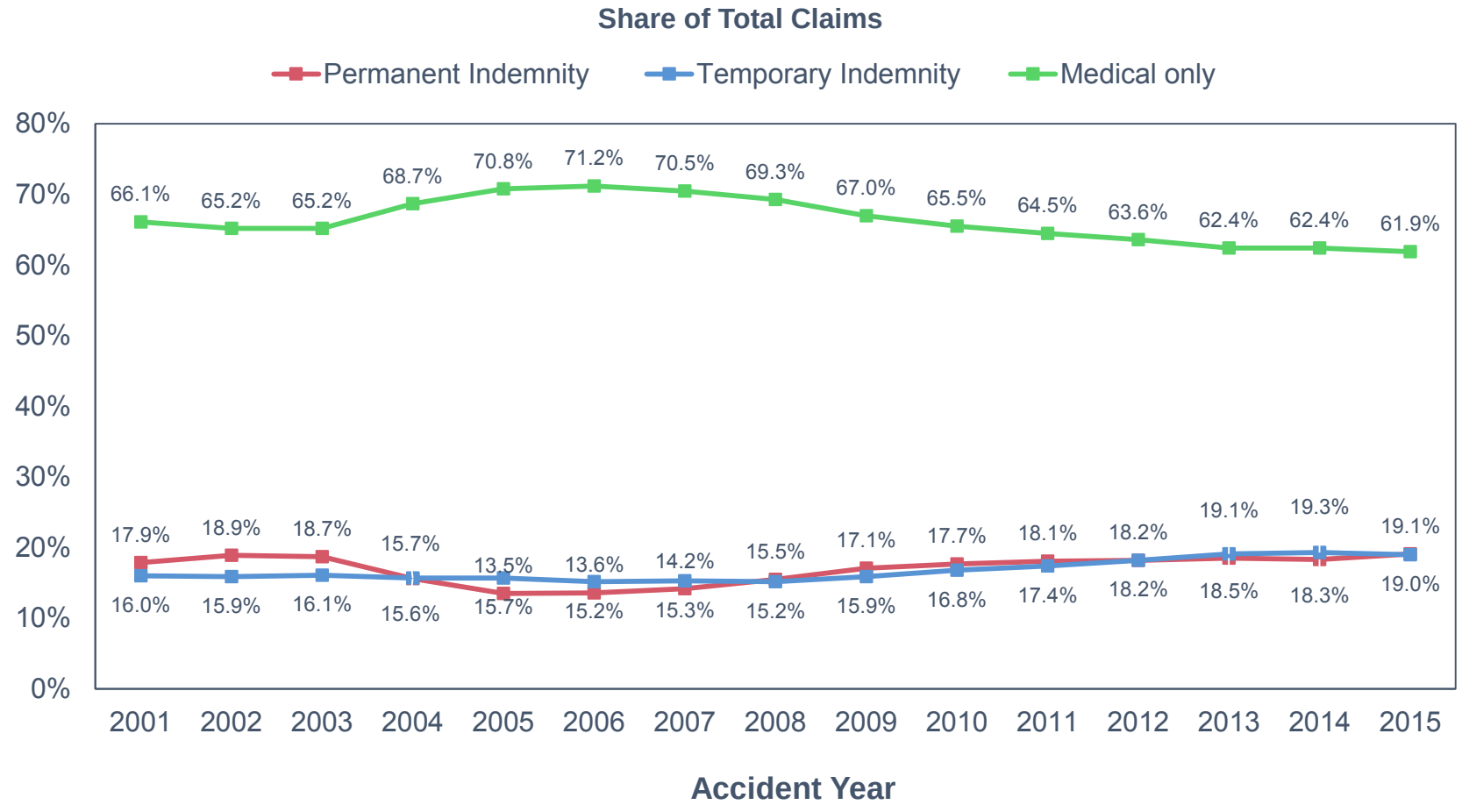
Source: WCIRB unit statistical data

Cumulative Injury Claim Count Ratios (Exhibit C17; pg. IV-A-27)



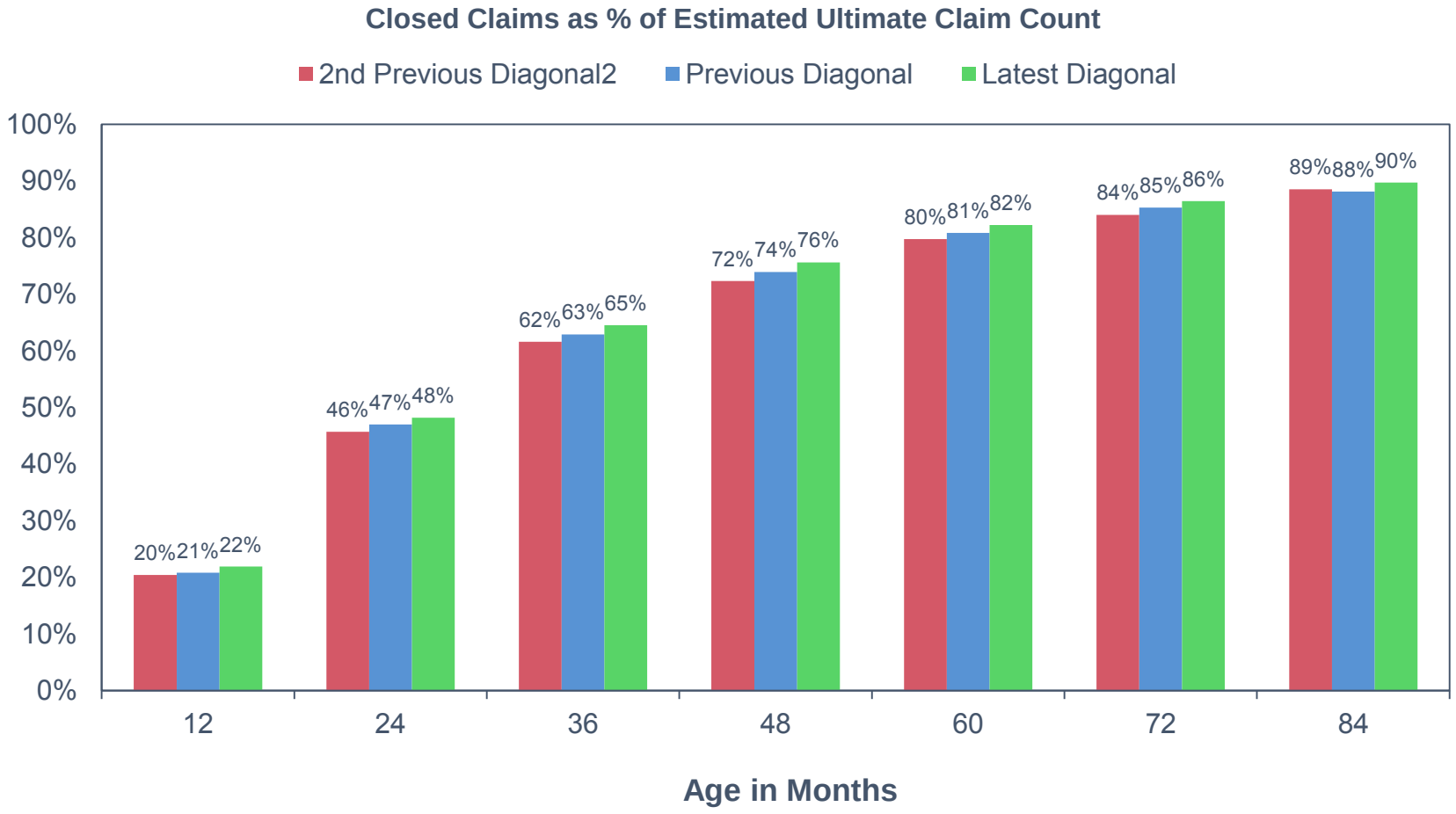
Source: WCIRB unit statistical data

Estimated Ultimate Injury Type Distribution (Exhibit M4; pg. IV-A-4)



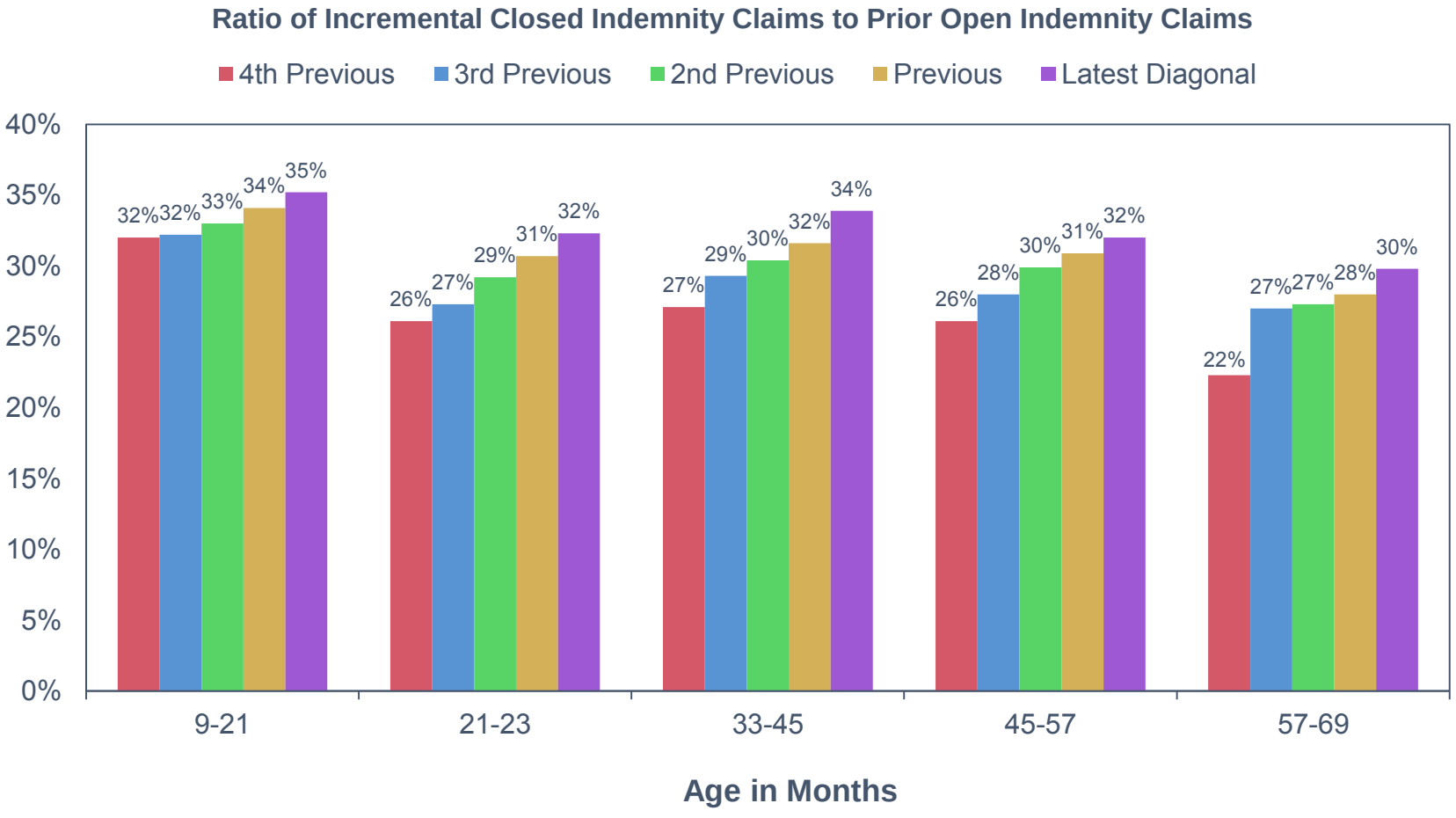
Source: WCIRB unit statistical data

Percent Closed—Indemnity
(Exhibit C2.1; pg. IV-A-14, Updated)



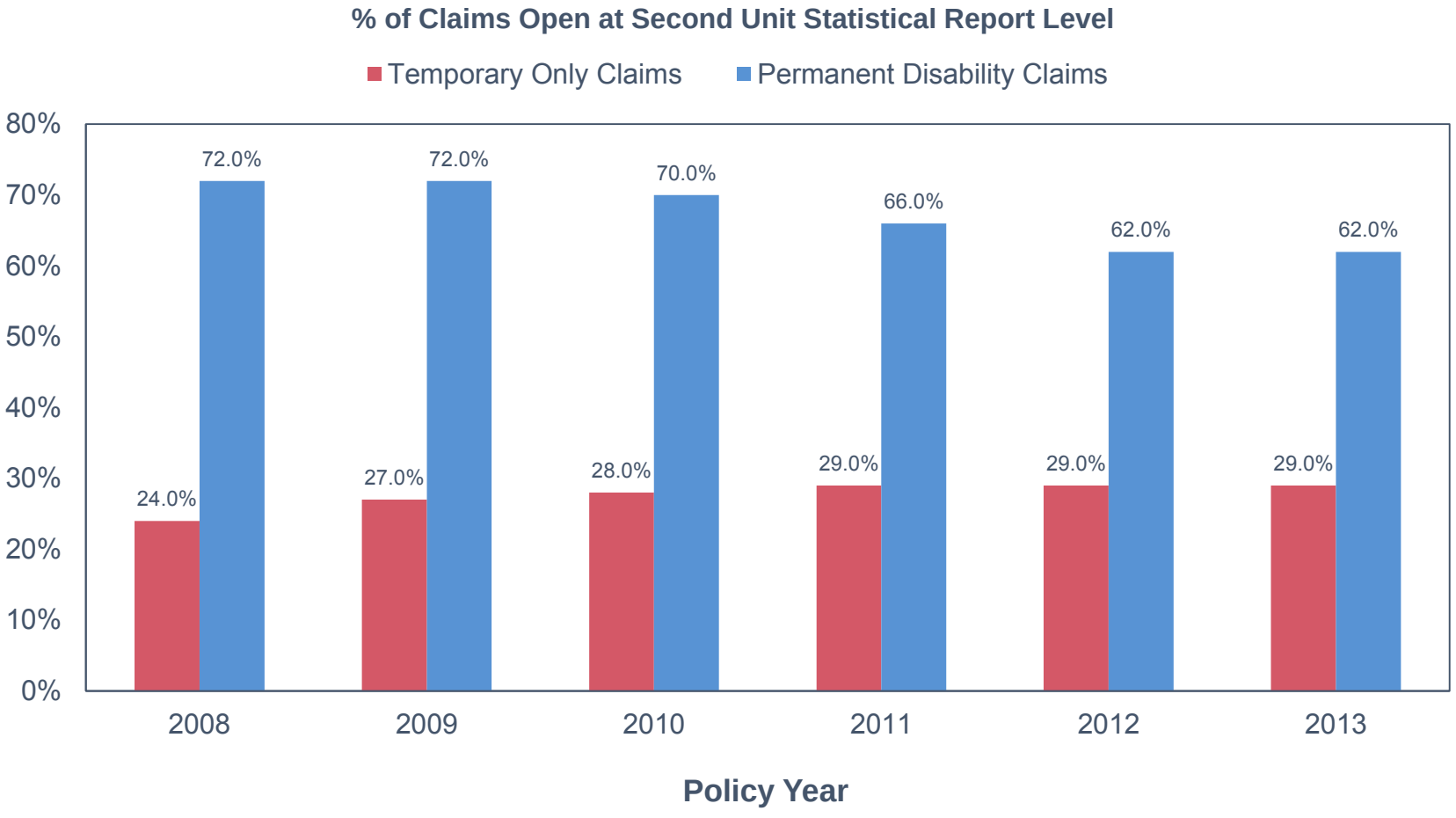
Source: WCIRB quarterly calls for experience

Percent of Open Indemnity Claims Closing (Exhibit C3.1; pg. IV-A-17)



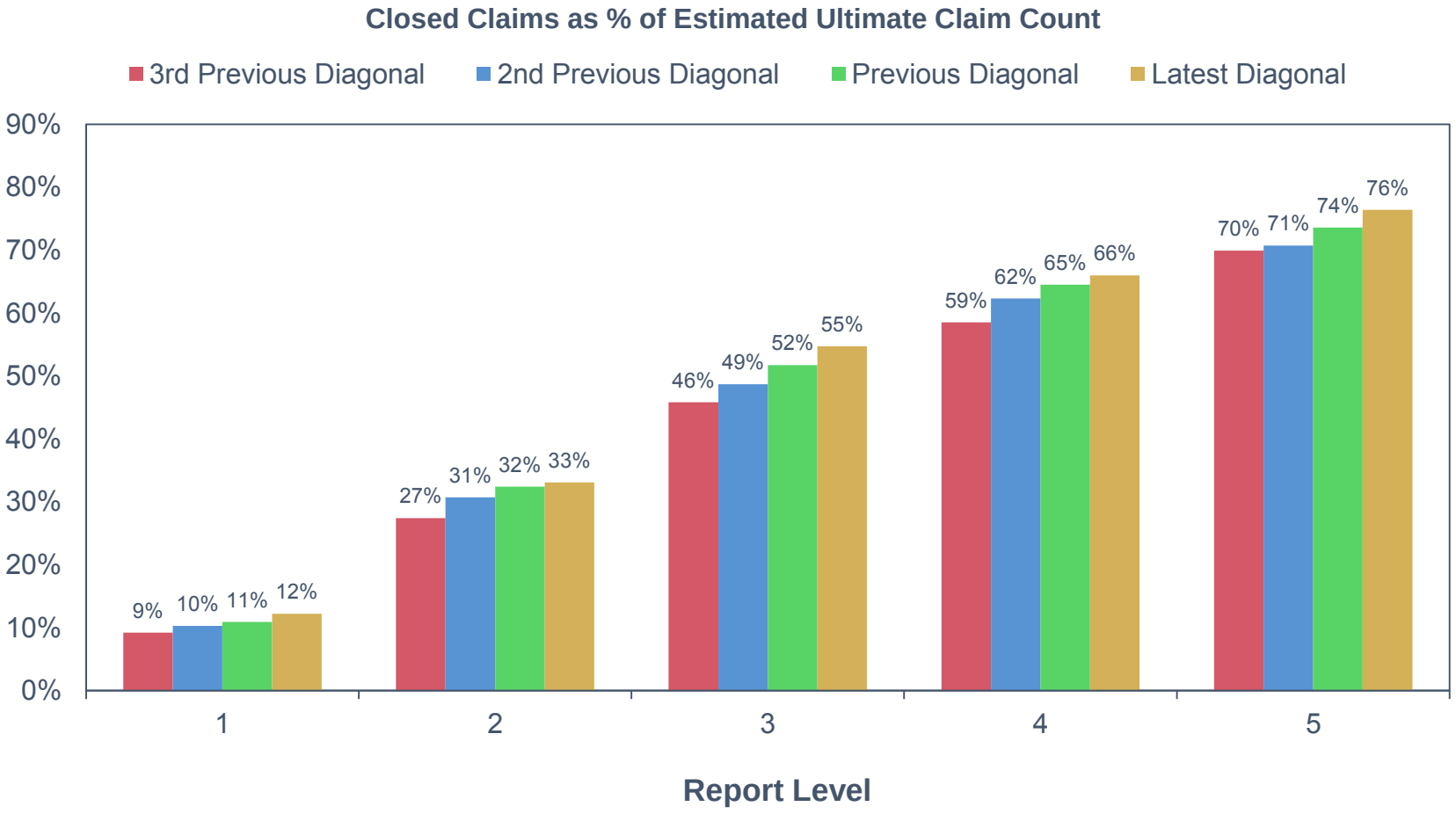
Source: WCIRB quarterly calls for experience

Percentage of Claims Open by Injury Type (Exhibit M5; pg. IV-A-5)



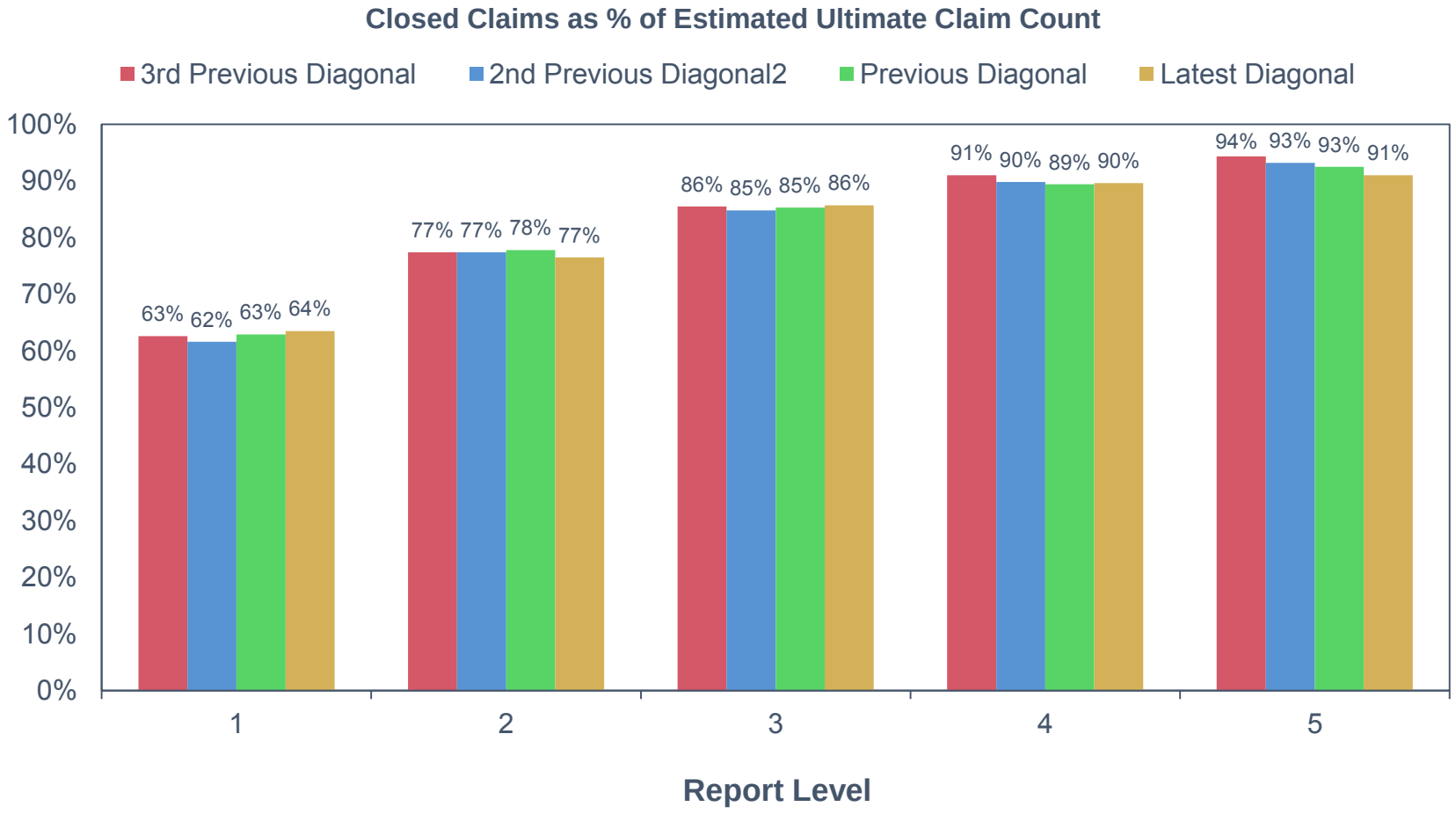
Source: WCIRB unit statistical data

Percent Closed—Permanent Indemnity (Exhibit C2.2; pg. IV-A-15)



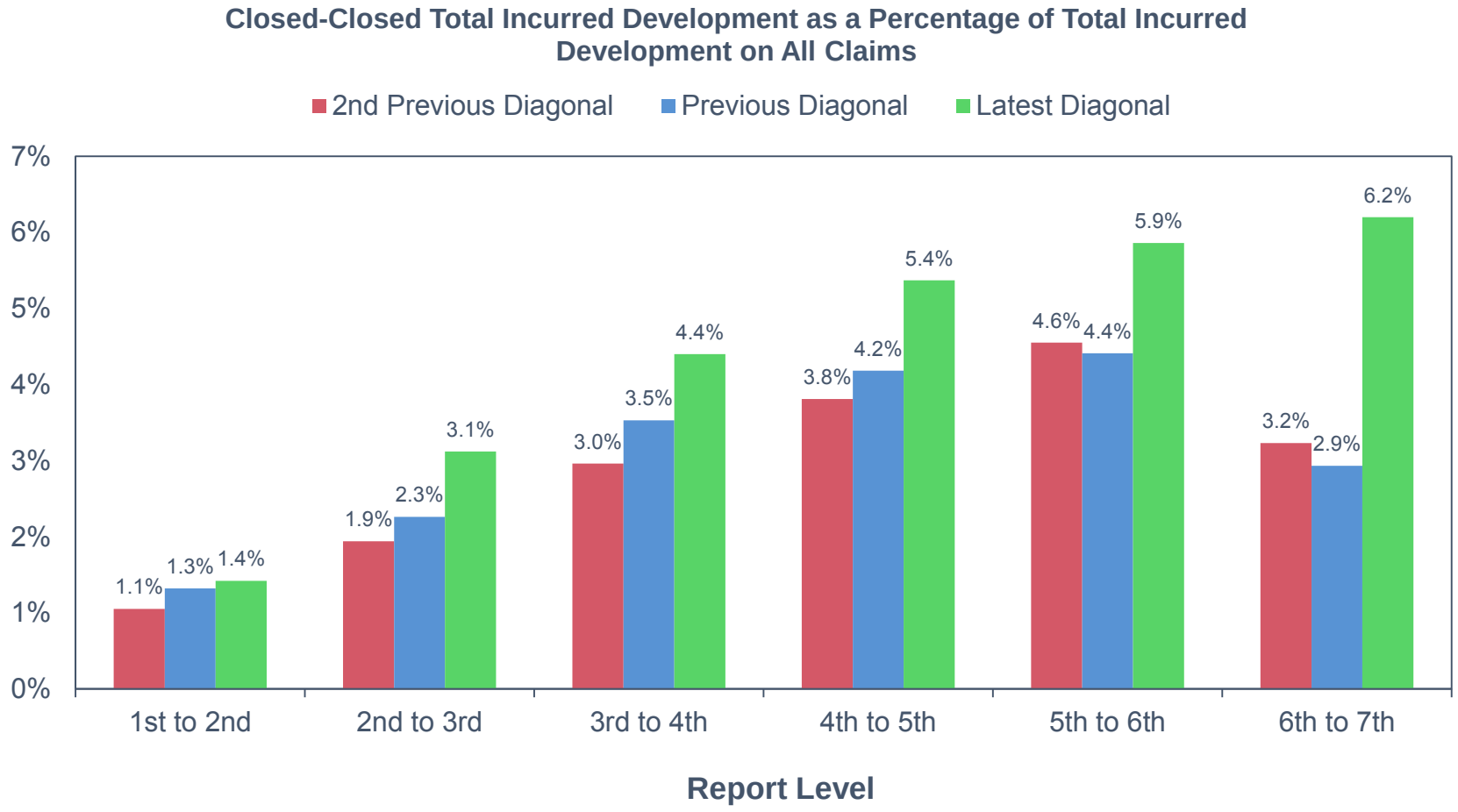
Source: WCIRB unit statistical data

Percent Closed—Temporary Indemnity (Exhibit C2.2; pg. IV-A-15)



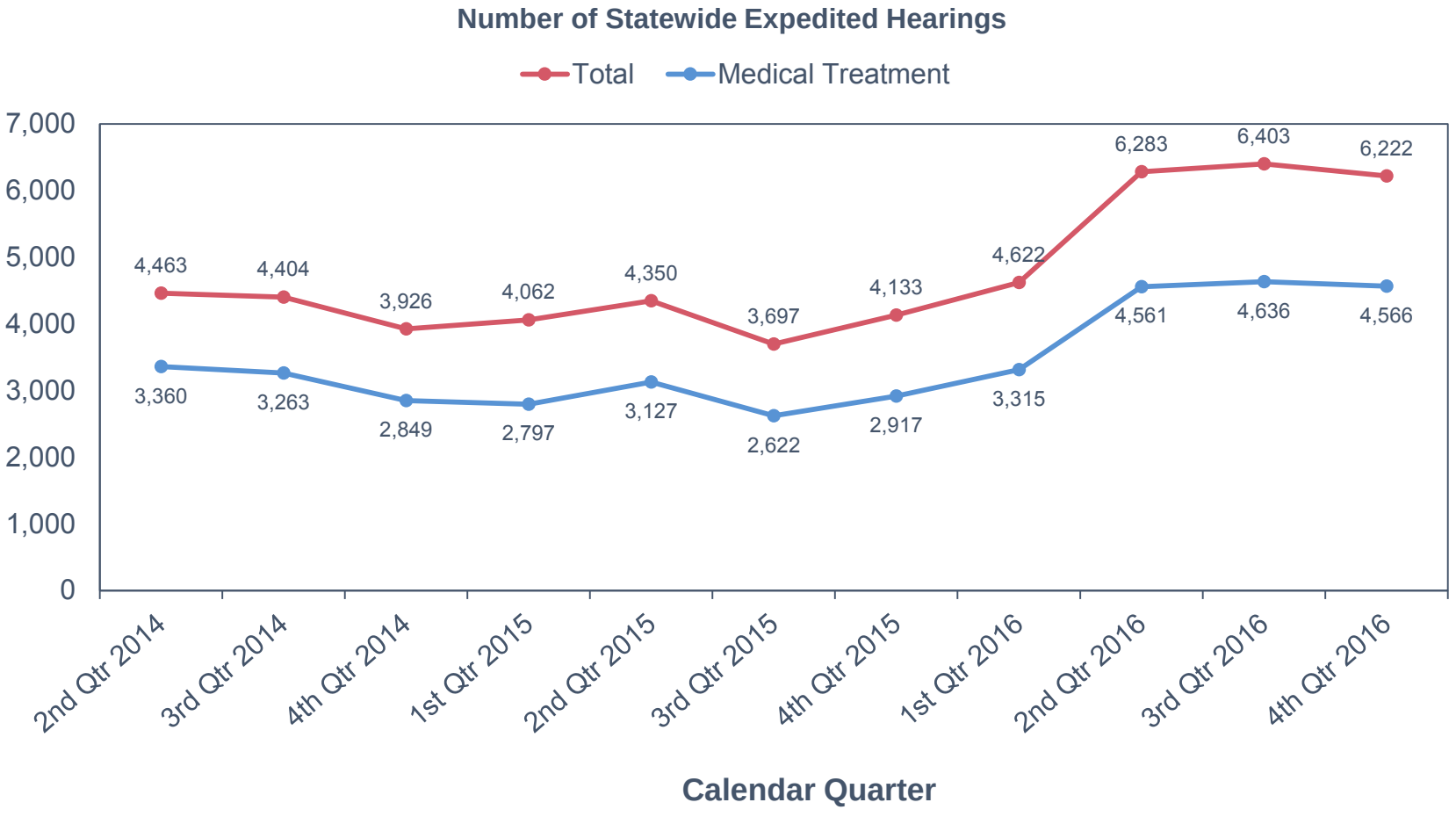
Source: WCIRB unit statistical data

Closed-Closed Percent of Total Incurred (Exhibit C5; pg. IV-A-21)



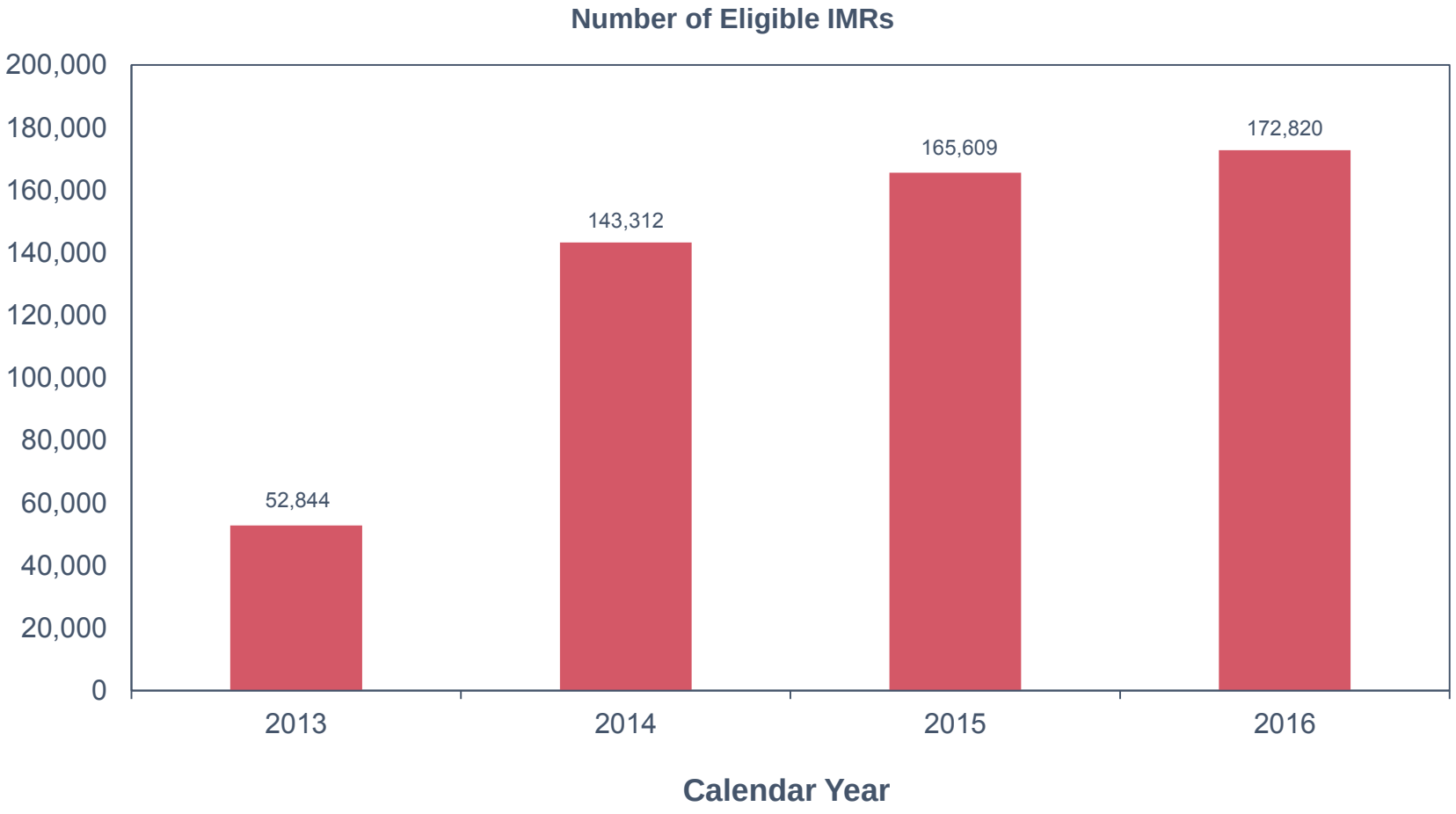
Source: WCIRB unit statistical data

Expedited Hearings
(Exhibit M8.2; pg. IV-A-11)



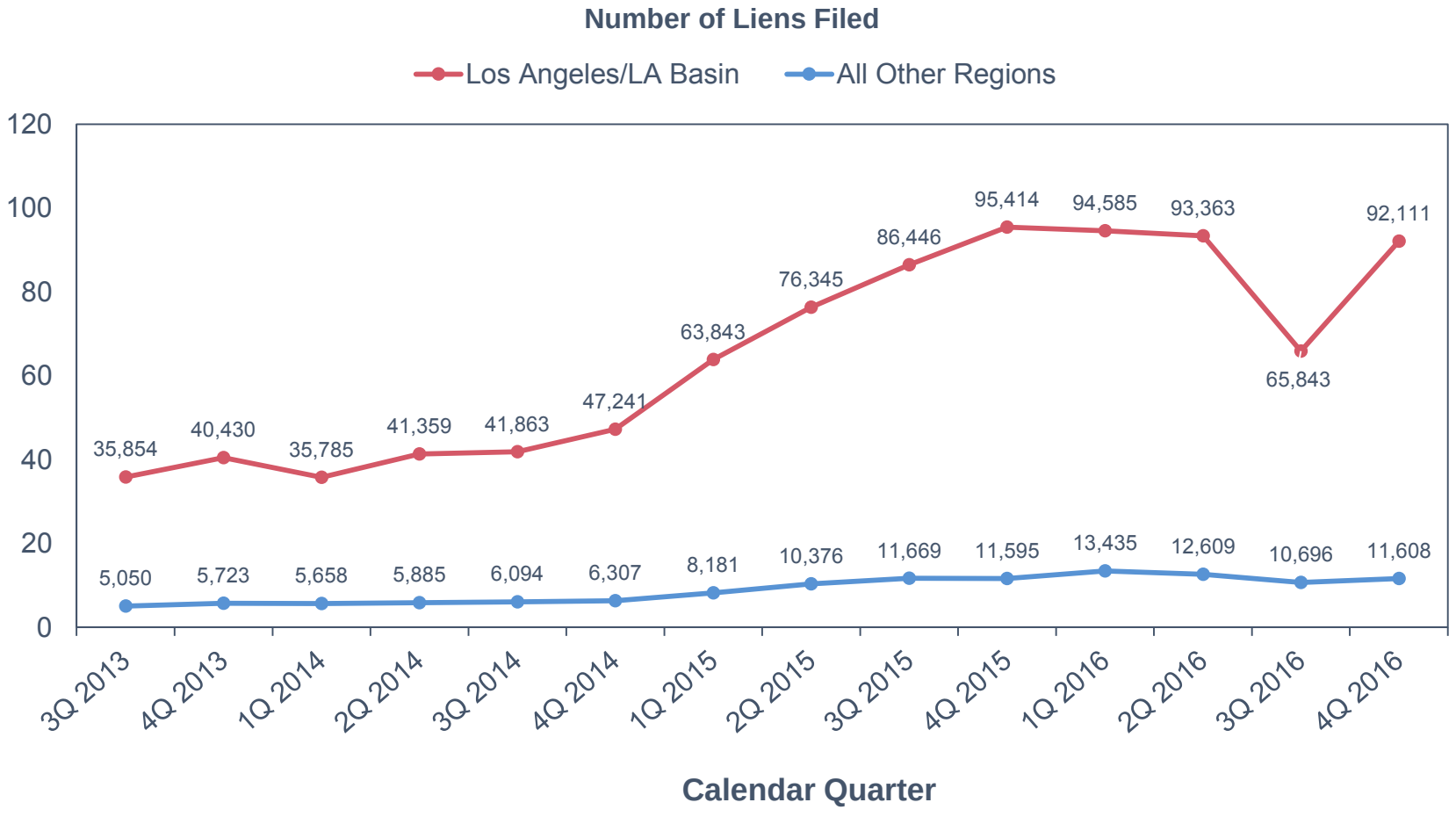
Source: DWC

Independent Medical Review
(Exhibit M14; pg. IV-A-13)



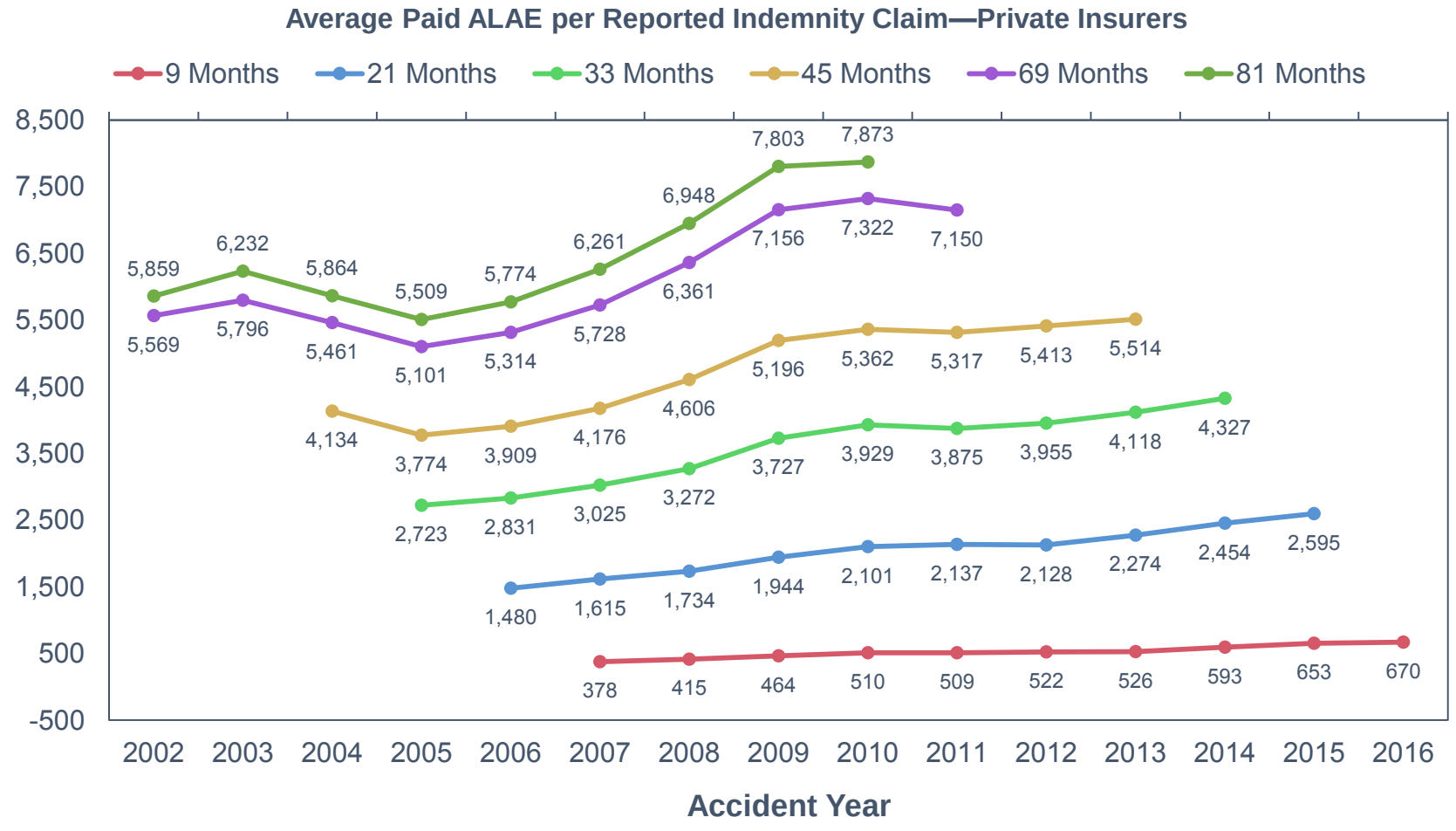
Source: DWC collected from IMR vendor

Filed Lien Counts
(Exhibit M9; pg. IV-A-12)



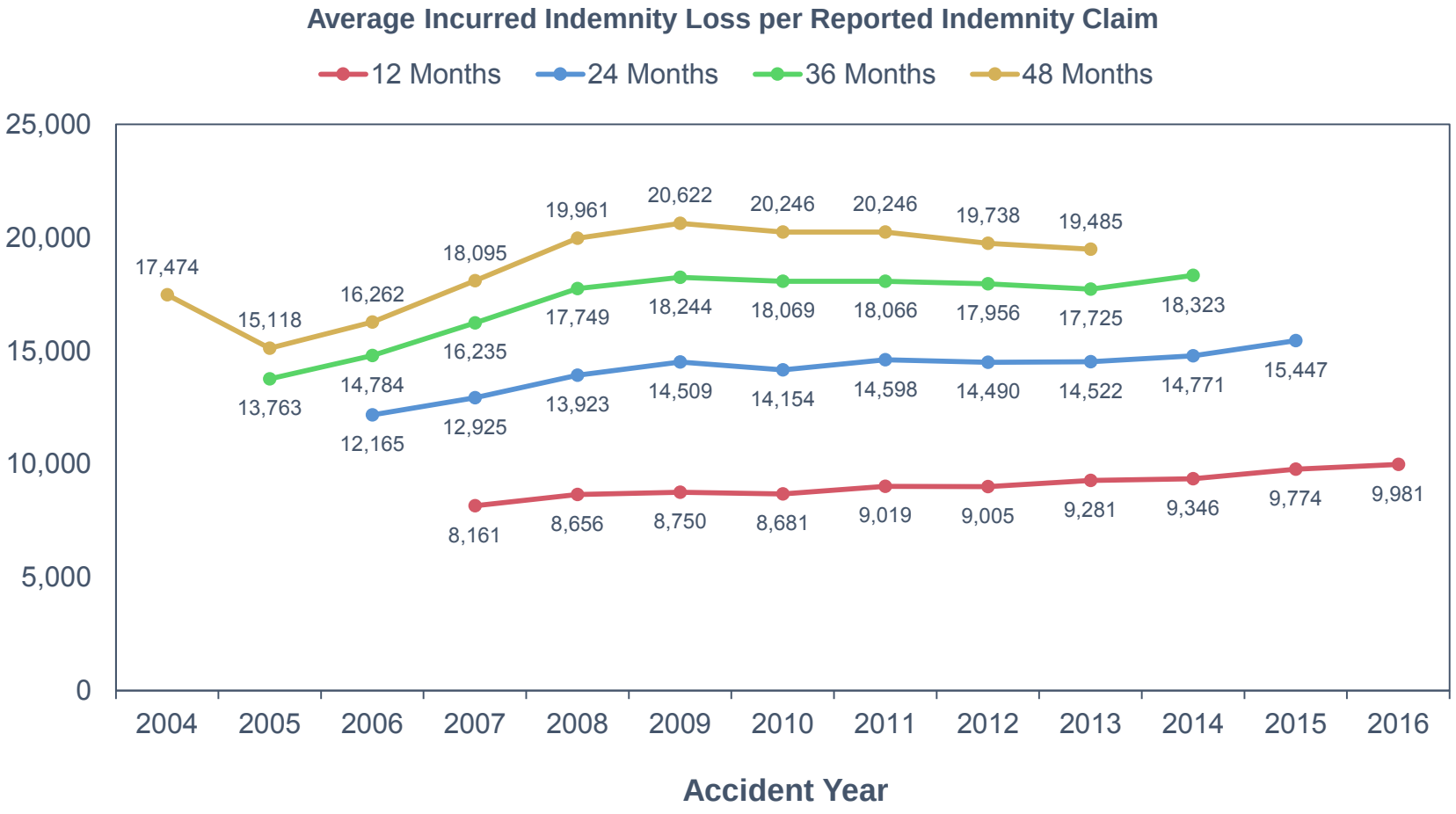
Source: EAMS liens data

Paid ALAE per Indemnity Claim—Private Insurers (Exhibit E5; pg. IV-A-54)



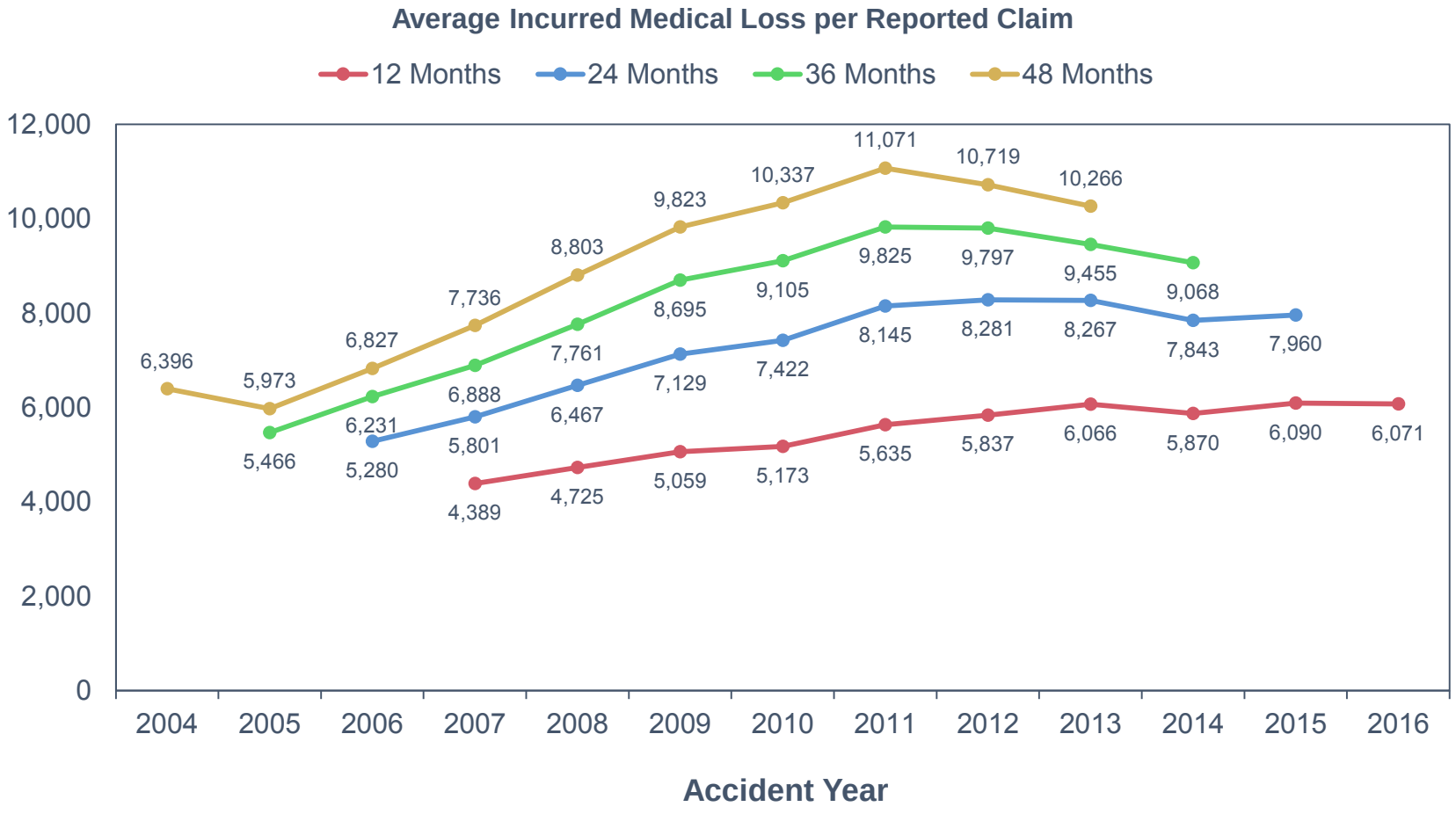
Source: WCIRB accident year experience calls

Severity—Incurred Indemnity per Indemnity Claim (Exhibit S2.1; pg. IV-A-36, Updated)



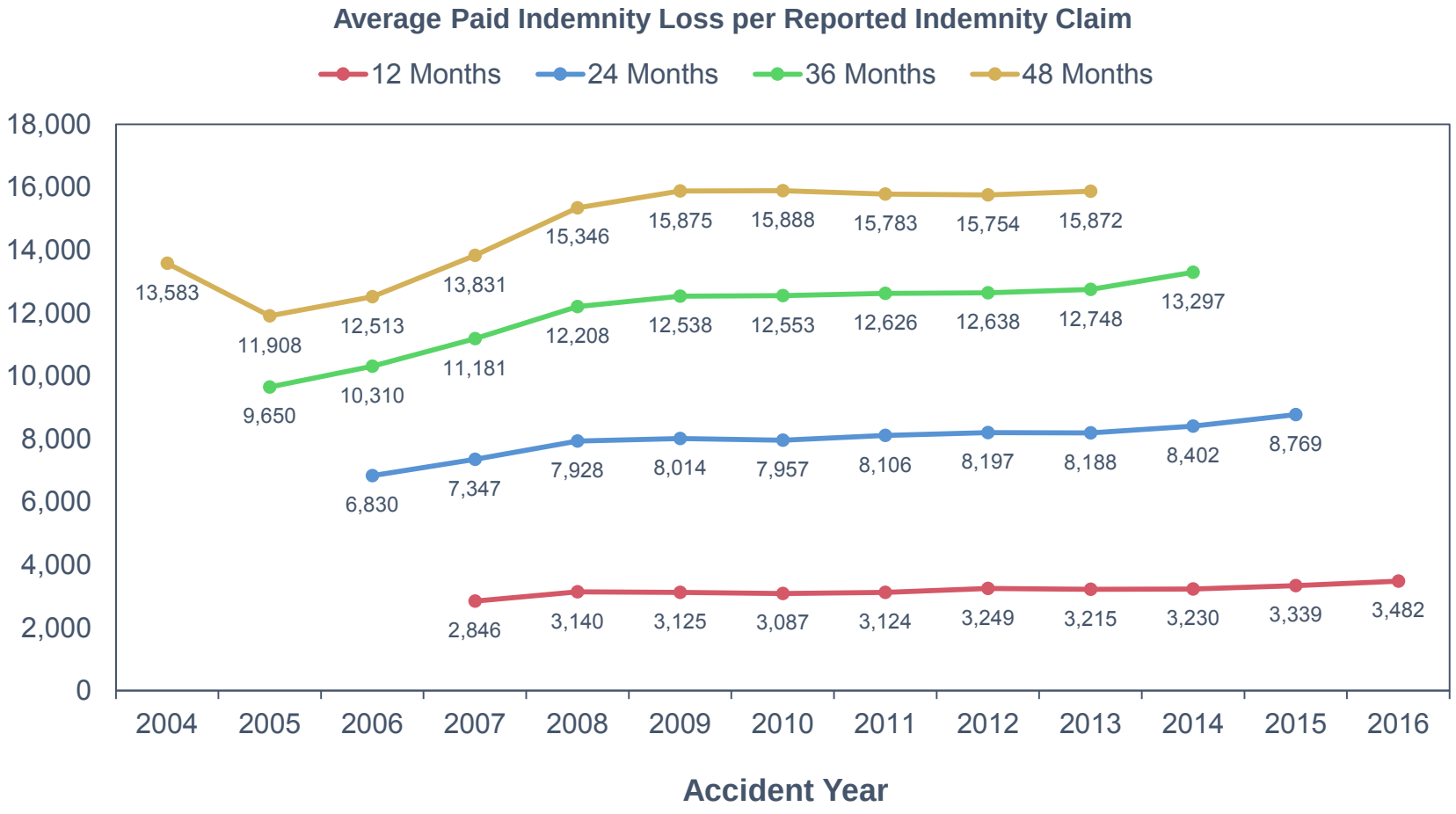
Source: WCIRB quarterly calls for experience

Severity—Incurred Medical per Claim (Exhibit S2.2; pg. IV-A-37, Updated)



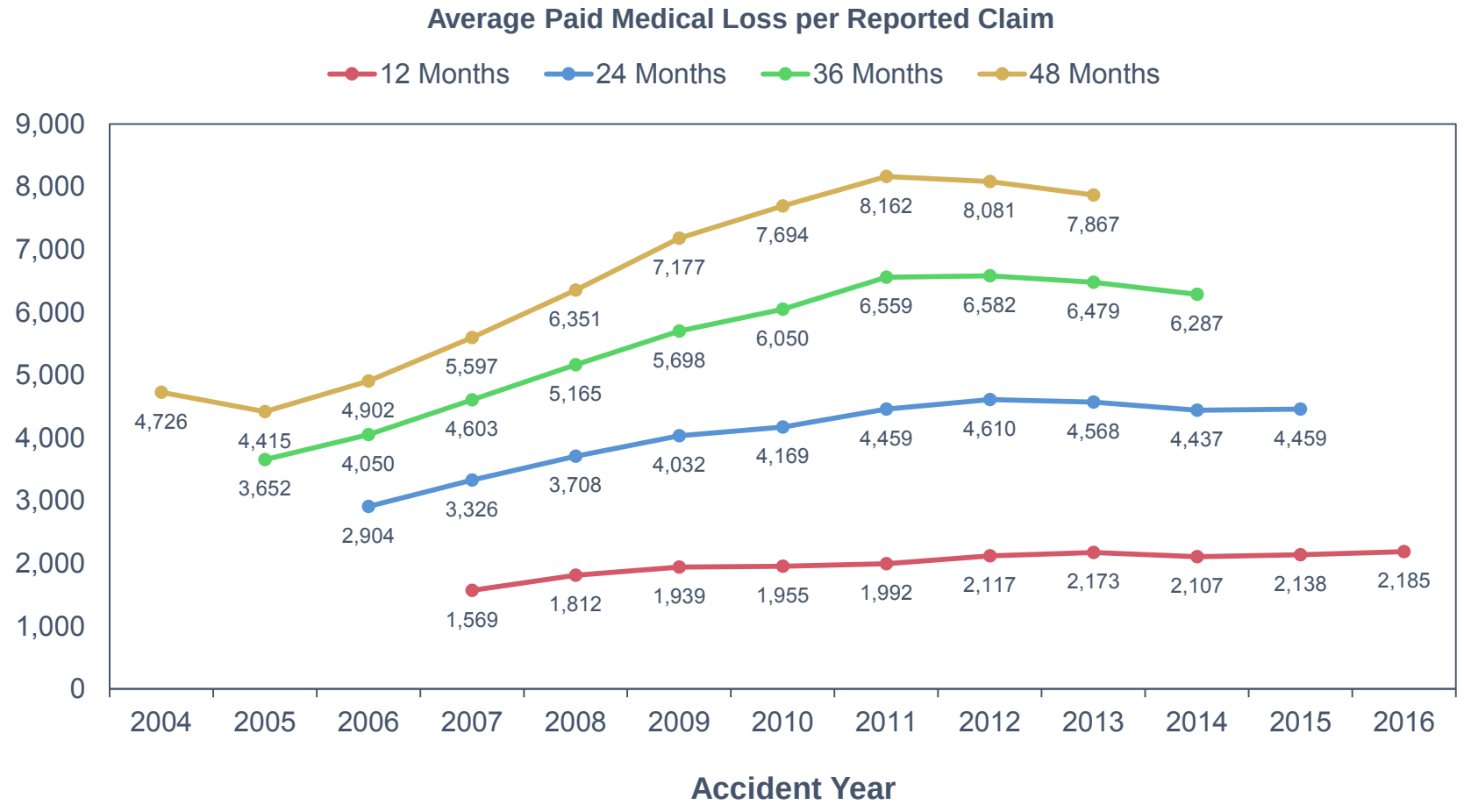
Source: WCIRB quarterly calls for experience

Severity—Paid Indemnity per Indemnity Claim (Exhibit S4.1; pg. IV-A-40, Updated)



Source: WCIRB quarterly calls for experience

Severity—Paid Medical per Claim (Exhibit S4.3; pg. IV-A-42, Updated)



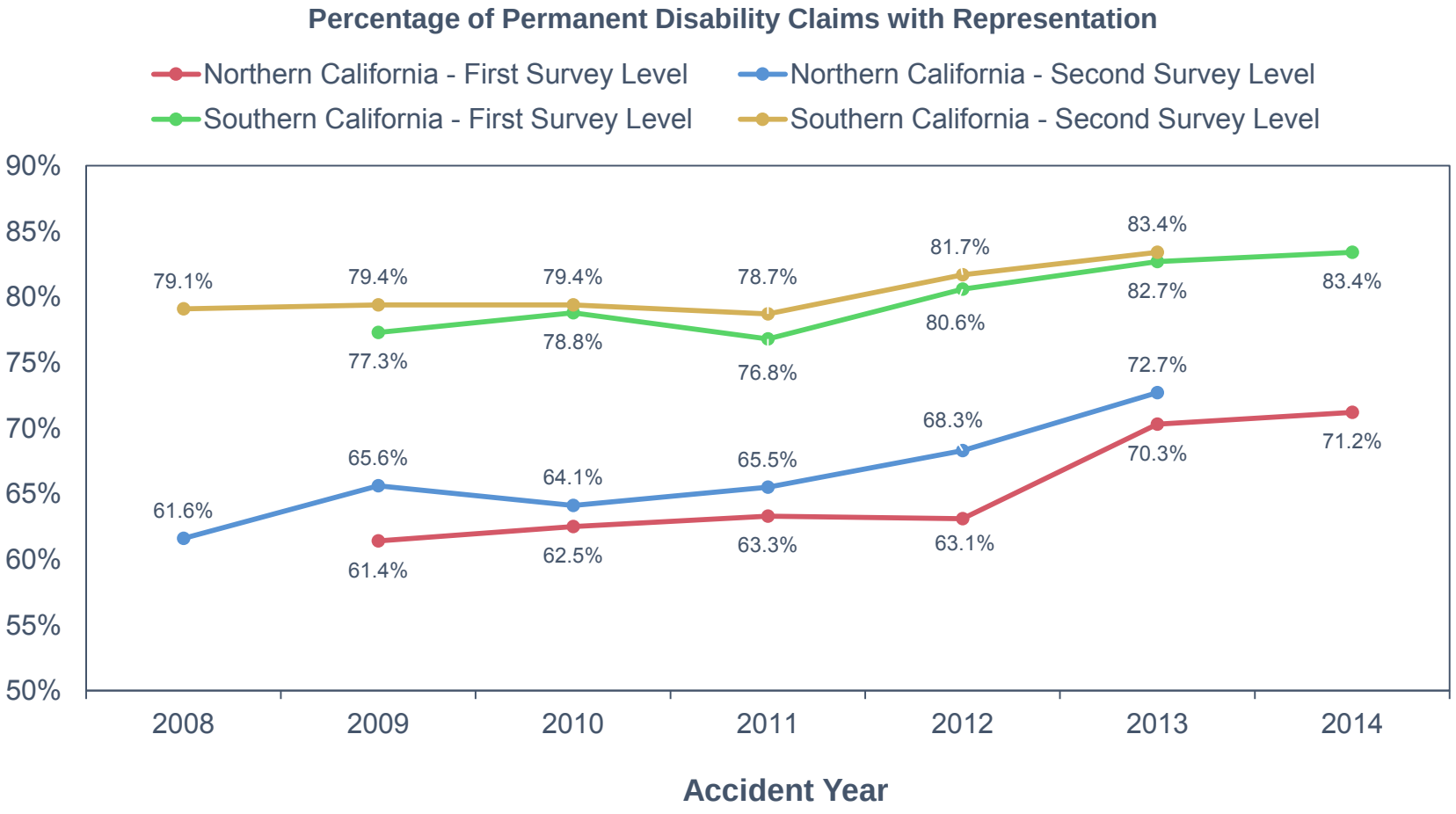
Source: WCIRB quarterly calls for experience

Temporary Disability Duration—PD Claims (Exhibit S10.2; pg. IV-A-50)



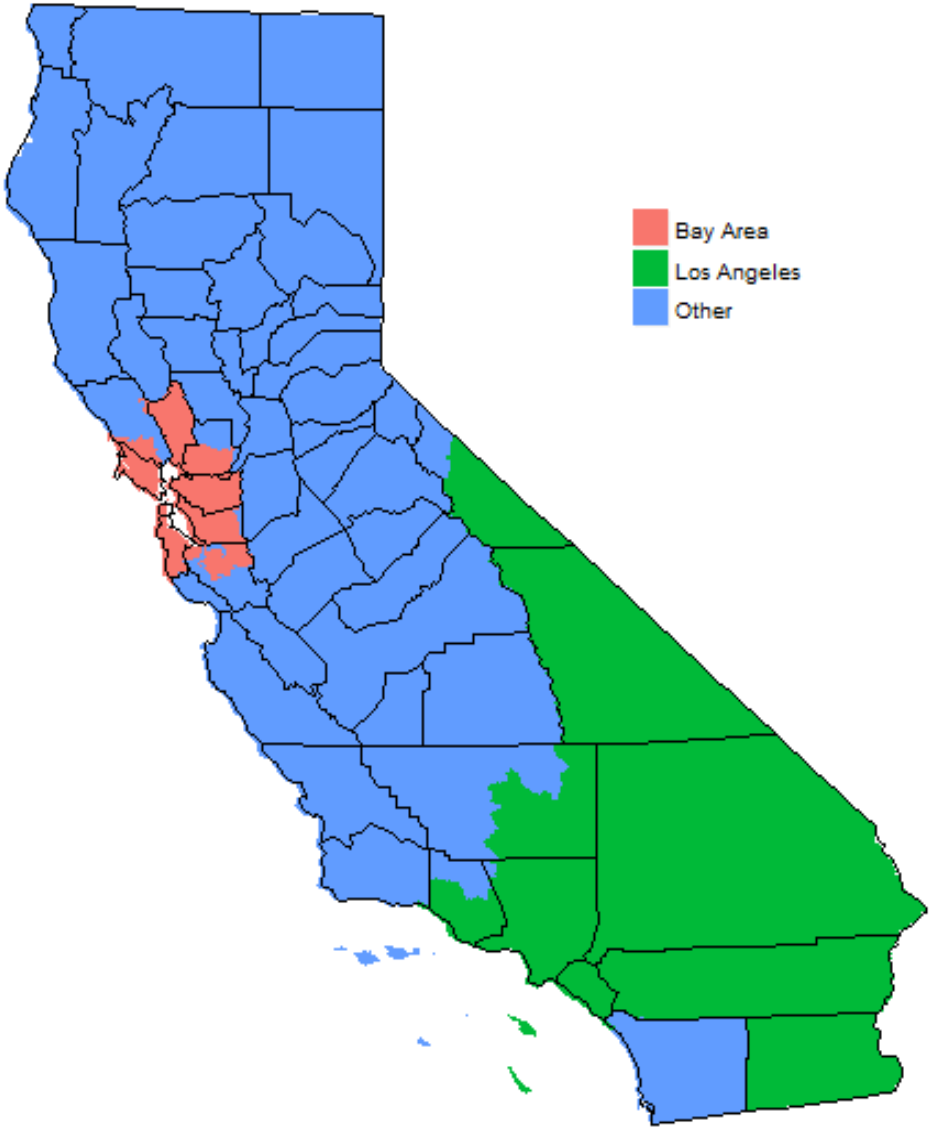
Source: WCIRB Permanent Disability Claim Survey

Permanent Disability Representation (Exhibit E7; pg. IV-A-56)



Source: WCIRB Permanent Disability Claim Survey

Region Definitions



12/31/2016 Experience – Review of Methodologies

WCIRB Actuarial Committee Meeting
March 21, 2017

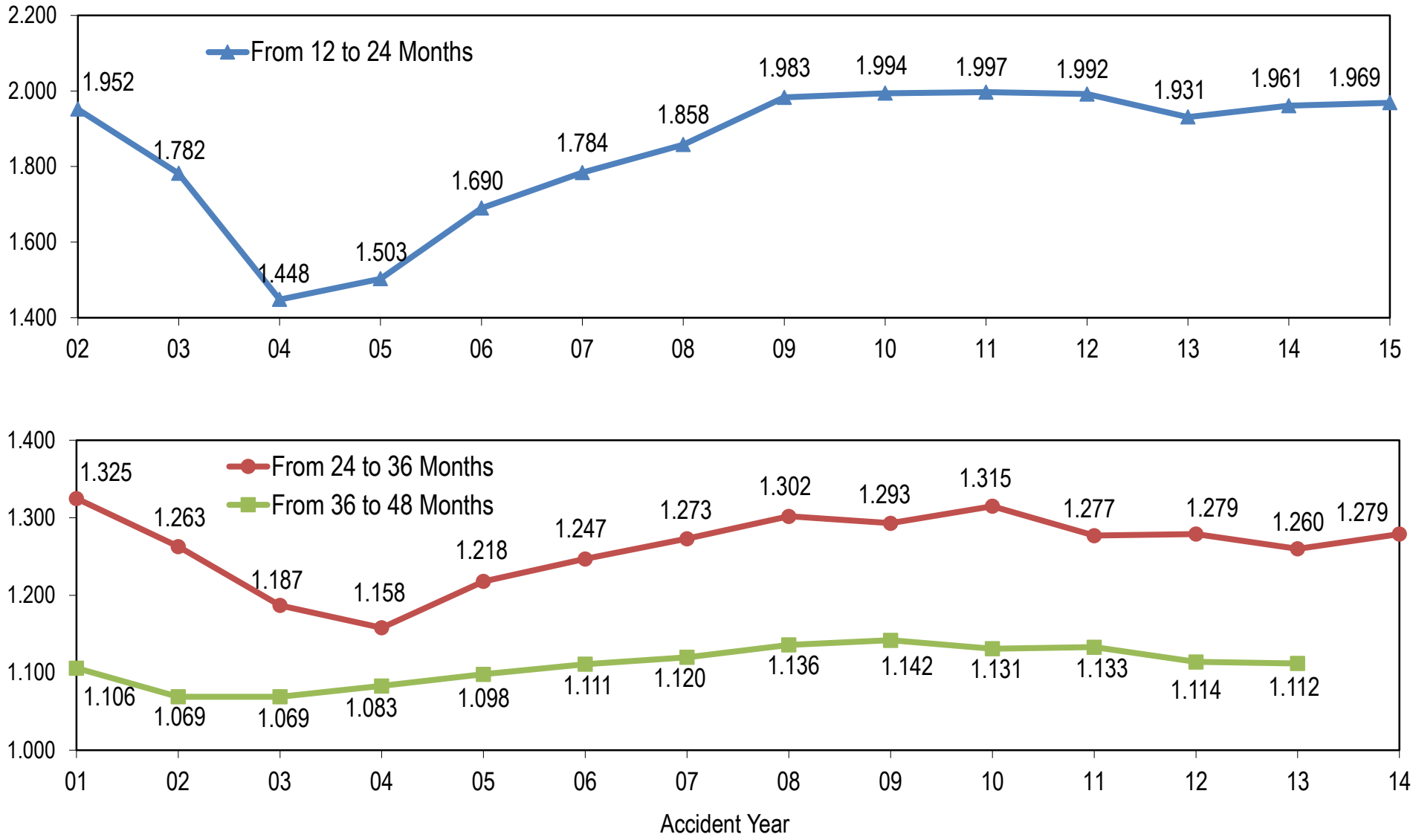
Summary of December 31, 2016 Experience

- Almost 100% of market reflected
- Same methodologies as in 1/1/17 Filing (incl. SB 863 adj.)
- Projected July 1, 2017 policy period loss ratio: 0.591
  - Projection with staff recommended SB 863 adjustments: 0.596
- Approx. 3.5 point decrease from 12/6/16 Agenda (0.625 based on 9/30/16 data)
- Approx. 5 point decrease from Amended 1/1/17 Filing (0.642 based on 6/30/16 data)

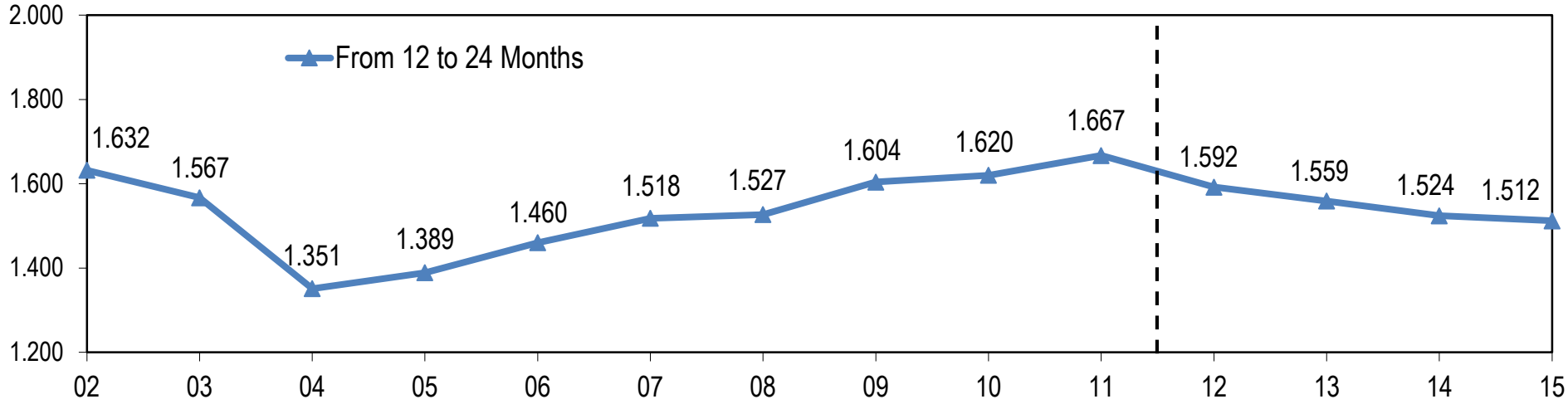
Approximate Change in Loss Ratio Projection

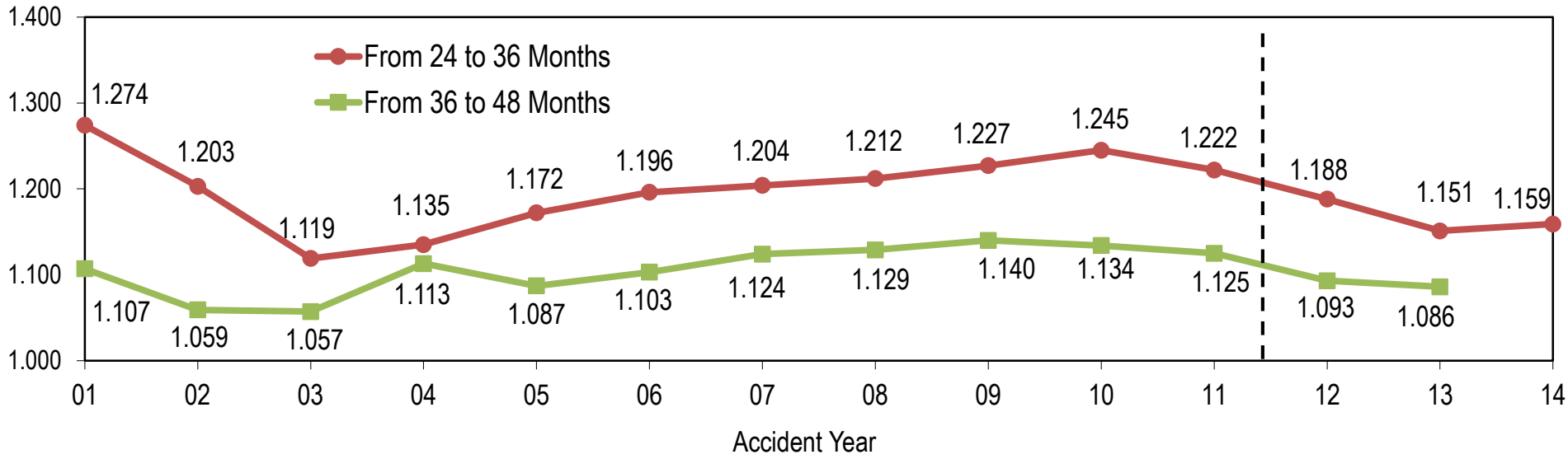
Factor	Approx. Change in Percentage Points	
	From Amended 1/1/17 Filing	From 12/6/16 Agenda
Lower Loss Development	-3.0	-1.5
Inclusion of 2016 Accident Year	-1.0	-1.0
Updated UCLA Forecast	0.0	0.0
Updated Frequency Trends	-0.5	-0.5
Trend to July 1, 2017 Policy Period	-0.5	-0.5
Total (to 3/21/17 Agenda)	**-5.0**	**-3.5**
Updated SB 863 Adjustments	+0.5	+0.5
Updated Total	**-4.5**	**-3.0**

Incurred Indemnity Loss Development Factors
(Exhibit 2.1.1)



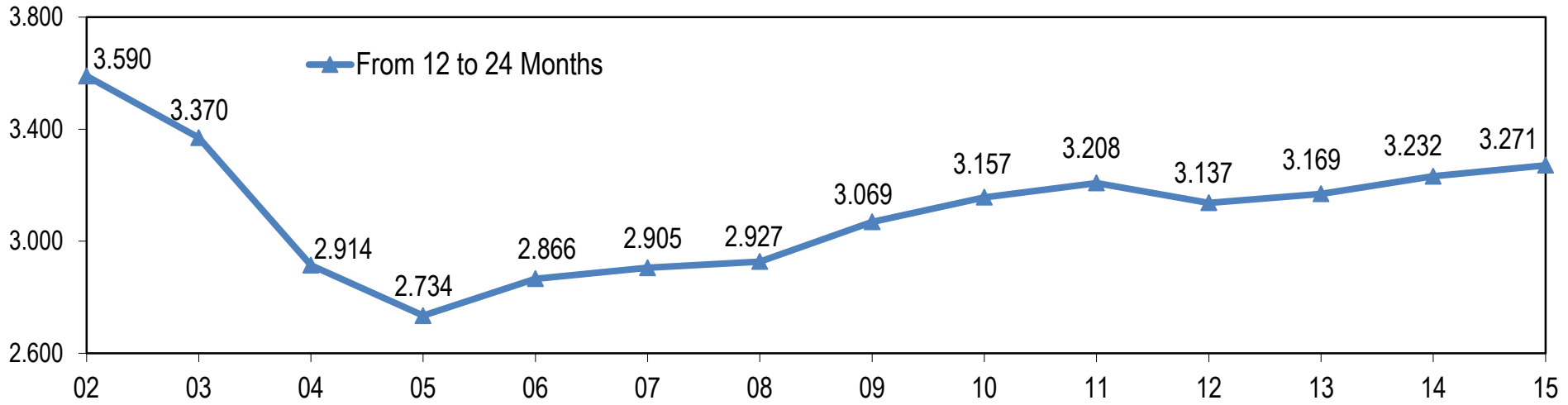
Incurred Medical Loss Development Factors (Exhibit 2.2.1)

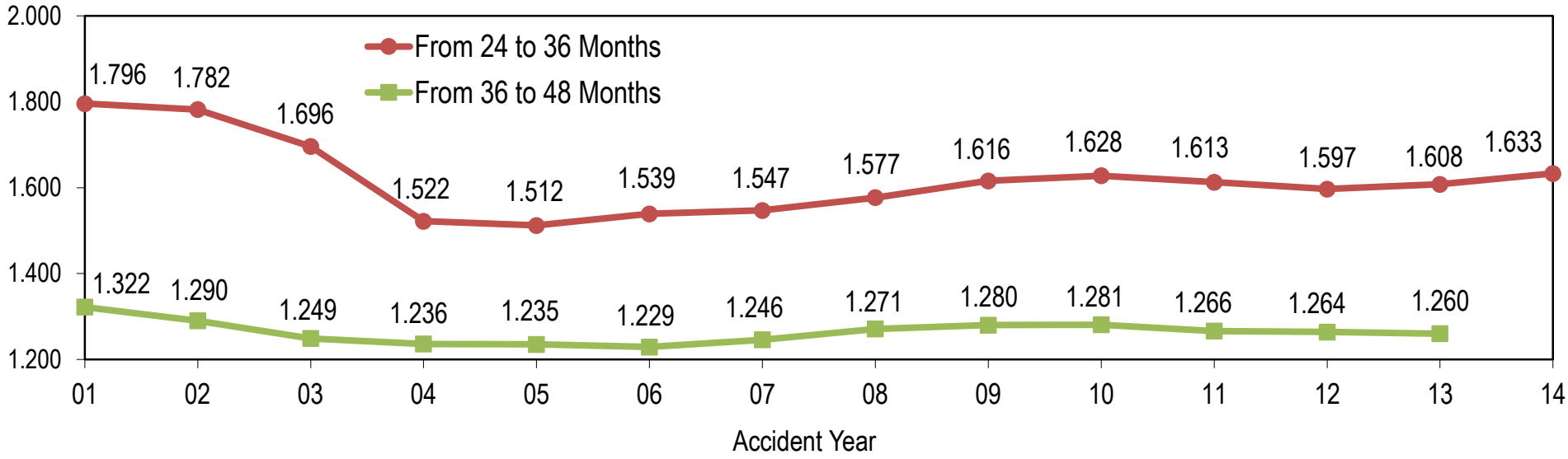




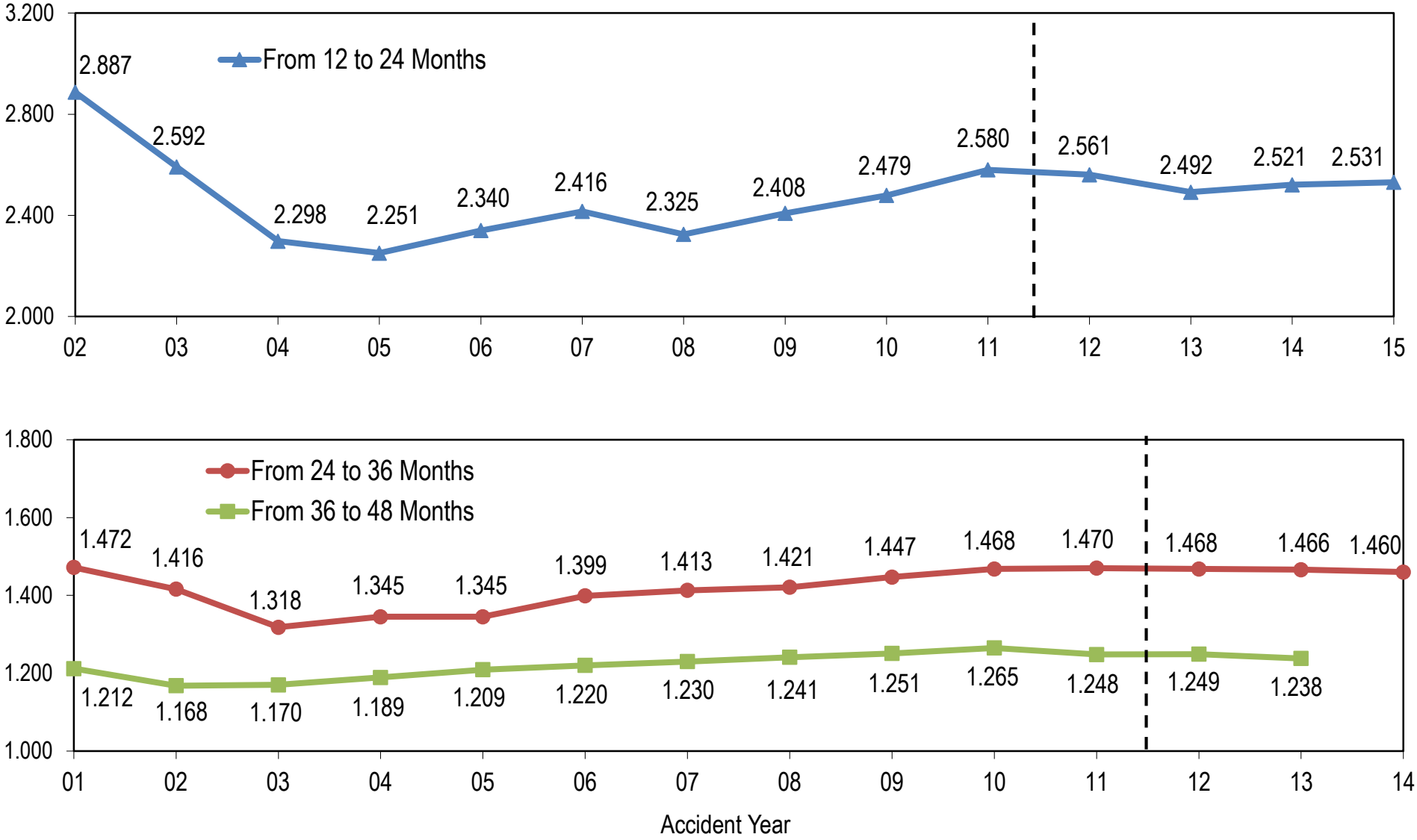
Note: MCCP development is included in incurred medical loss development for 2011 and prior.

Paid Indemnity Loss Development Factors
(Exhibit 2.3.1)



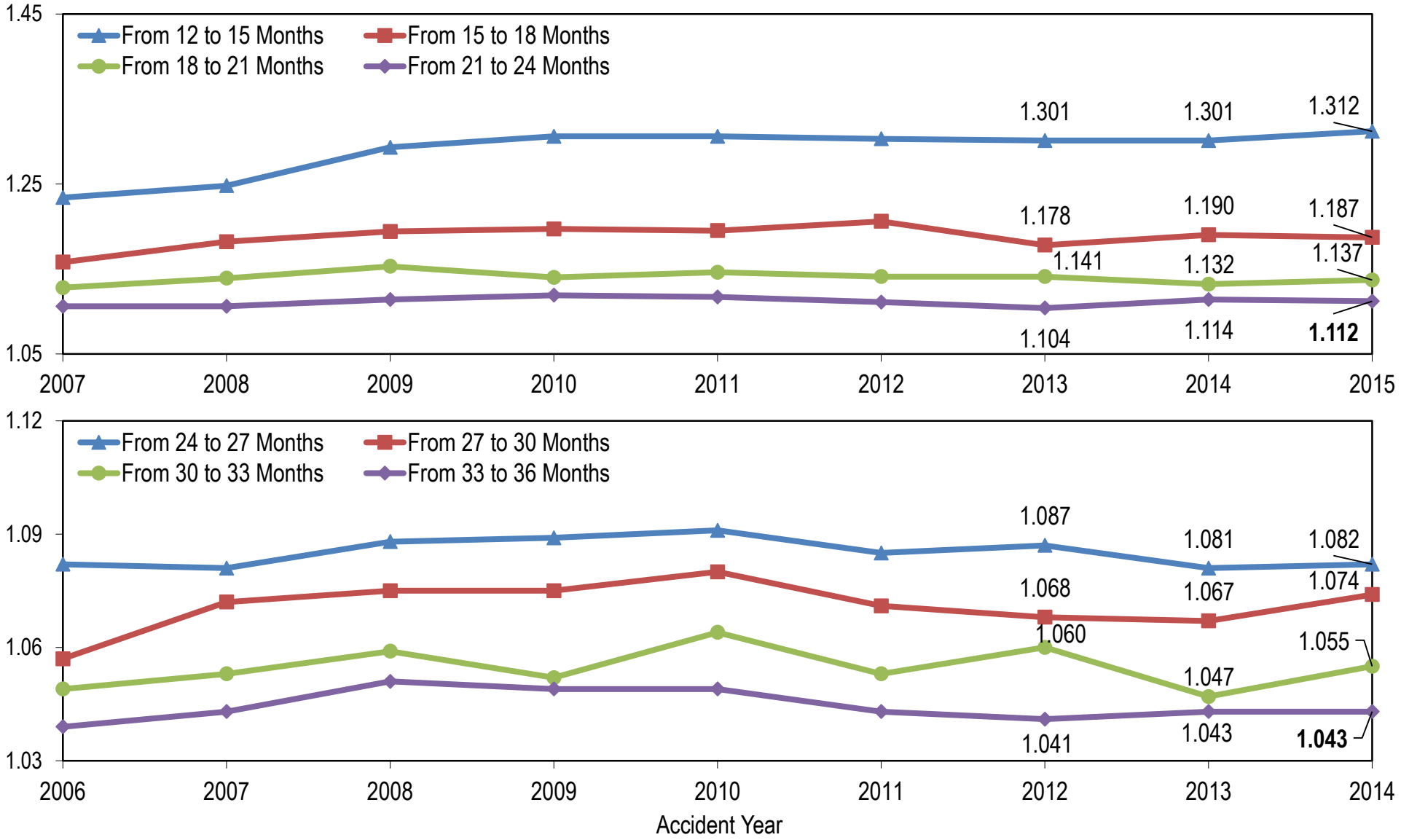


Paid Medical Loss Development Factors
(Exhibit 2.4.1)

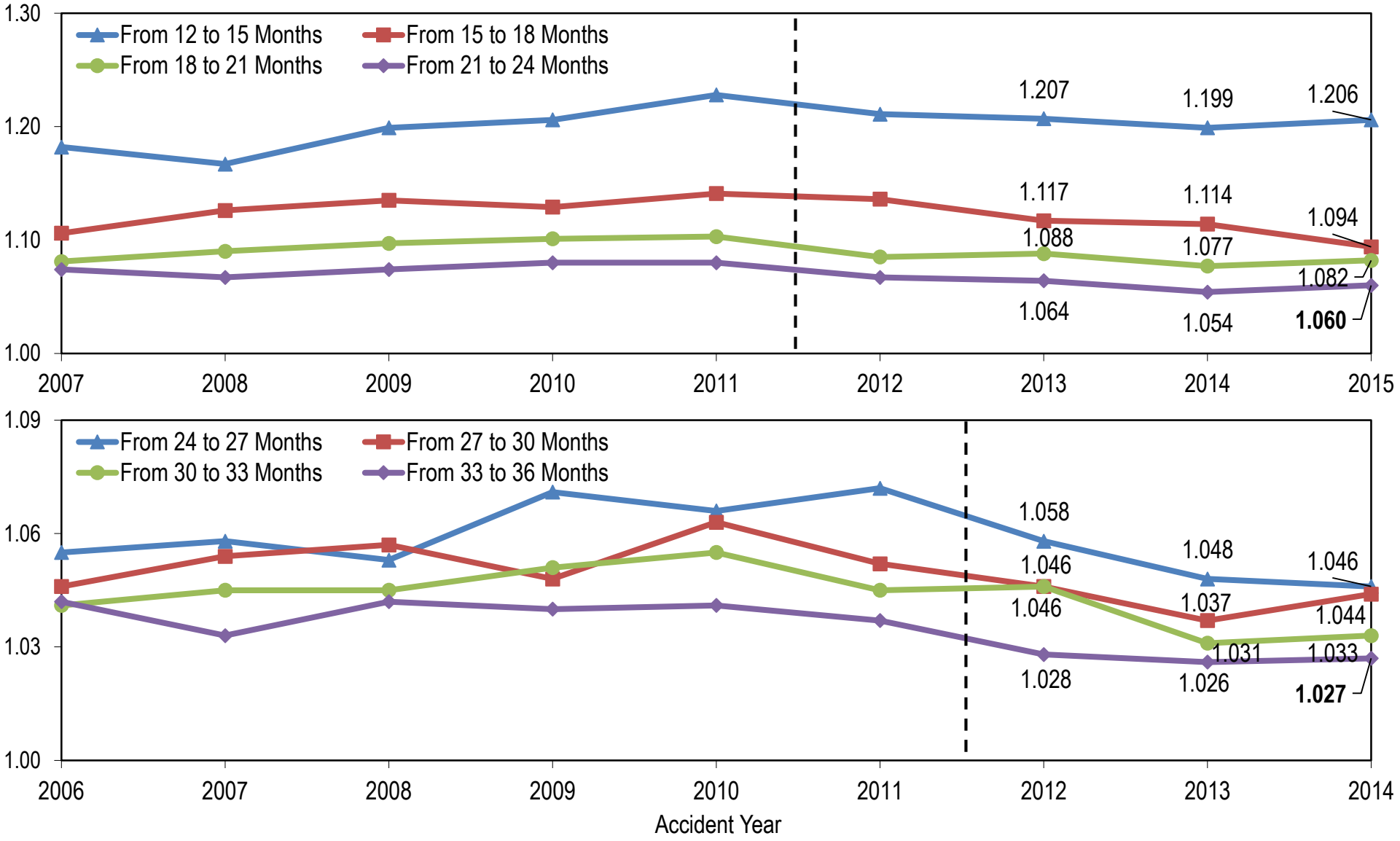


Note: MCCP development is included in paid medical loss development for 2011 and prior.

Quarterly Incurred Indemnity Development (Exhibit 9.1)

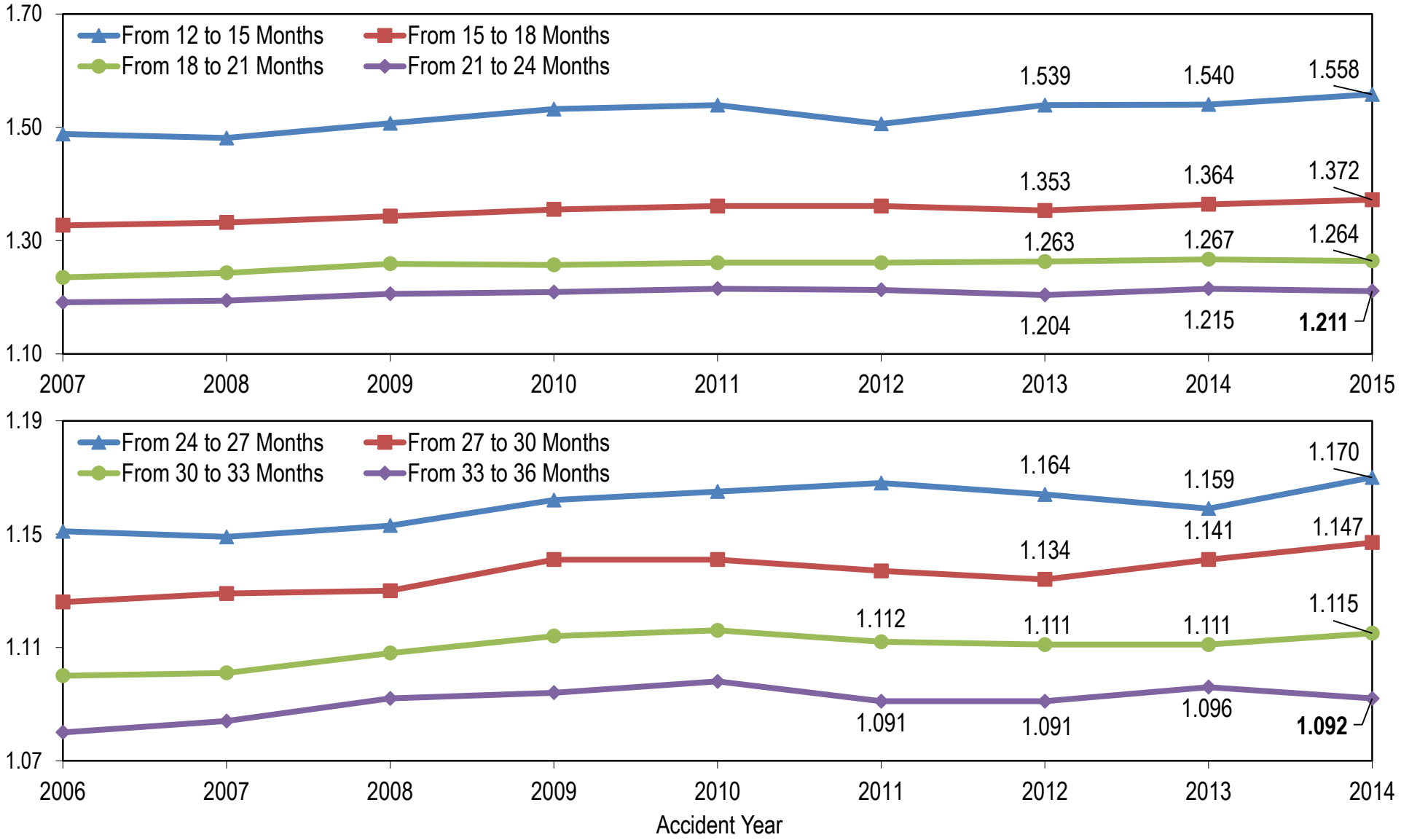


Quarterly Incurred Medical Development
(Exhibit 9.2)

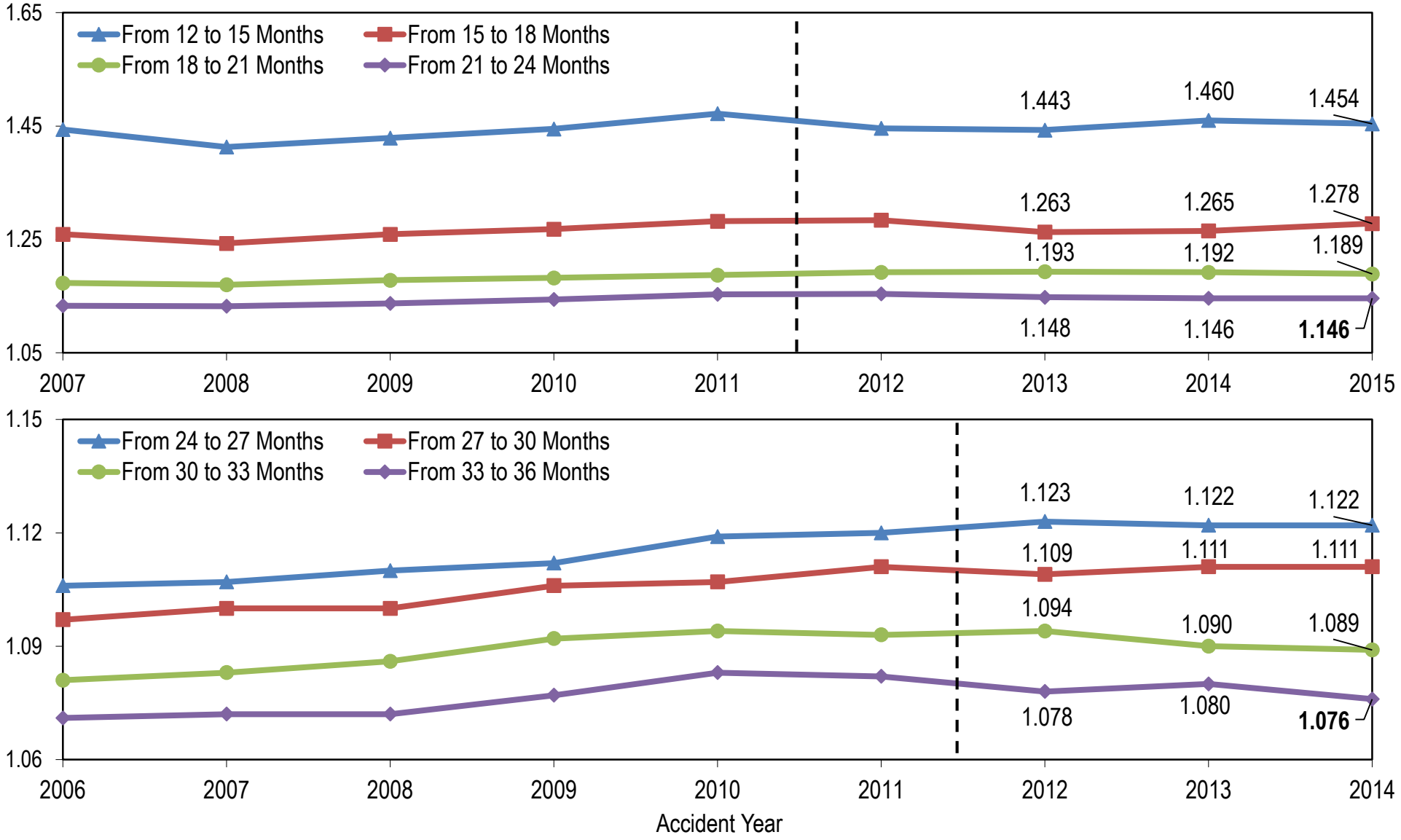


Note: MCCP development is included in incurred medical loss development for 2011 and prior.

Quarterly Paid Indemnity Development
(Exhibit 9.3)

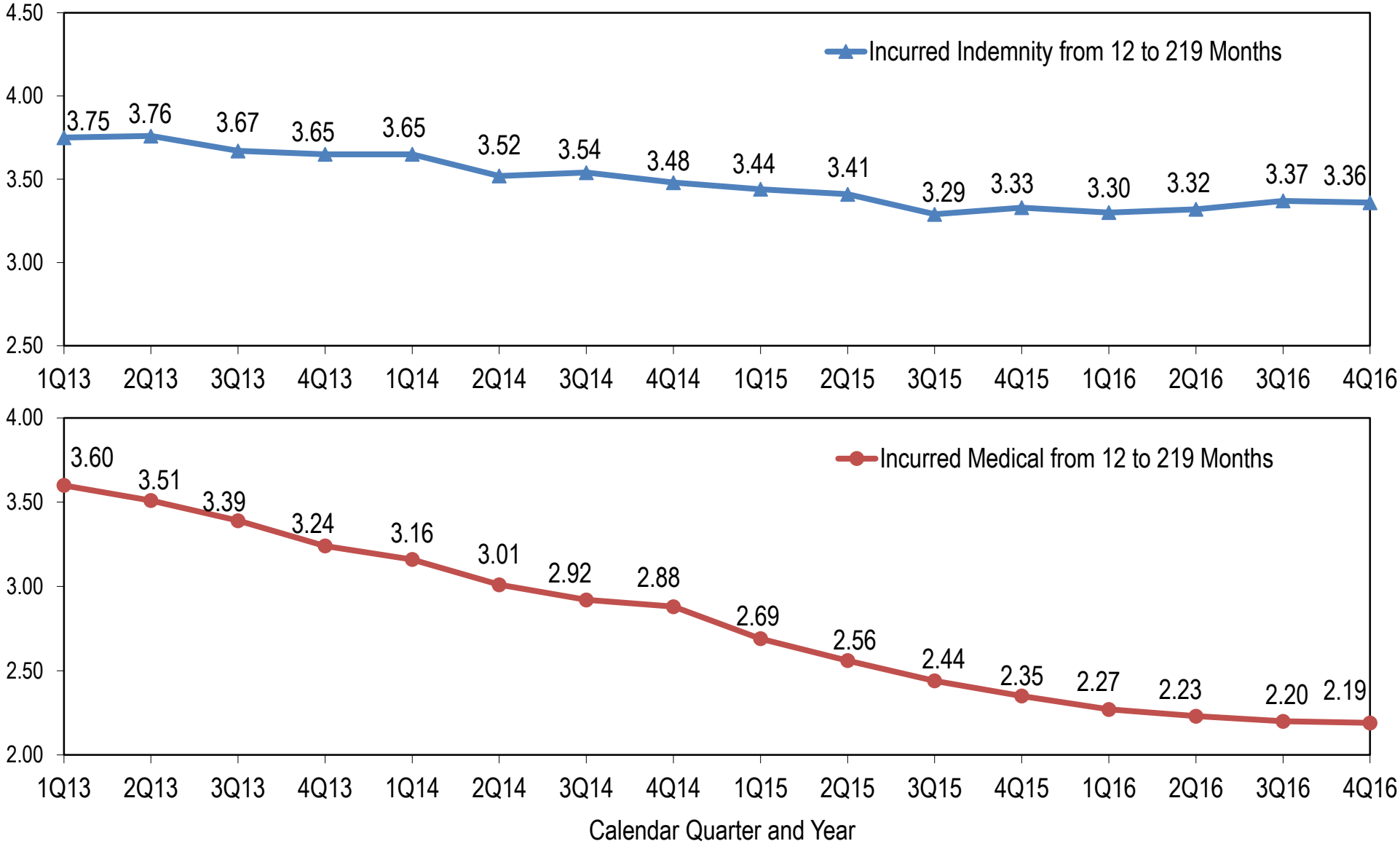


Quarterly Paid Medical Development
(Exhibit 9.4)

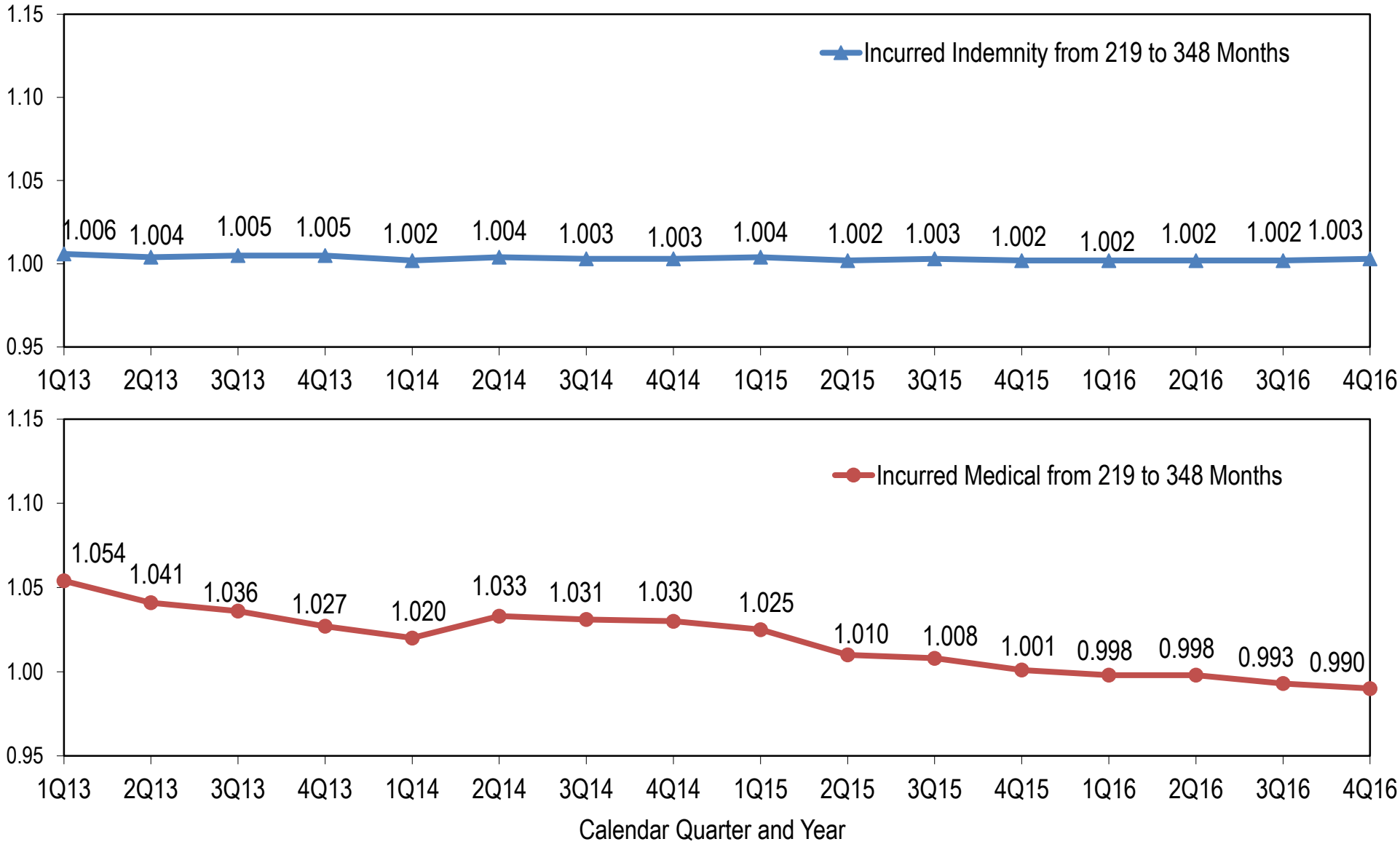


Note: MCCP development is included in paid medical loss development for 2011 and prior.

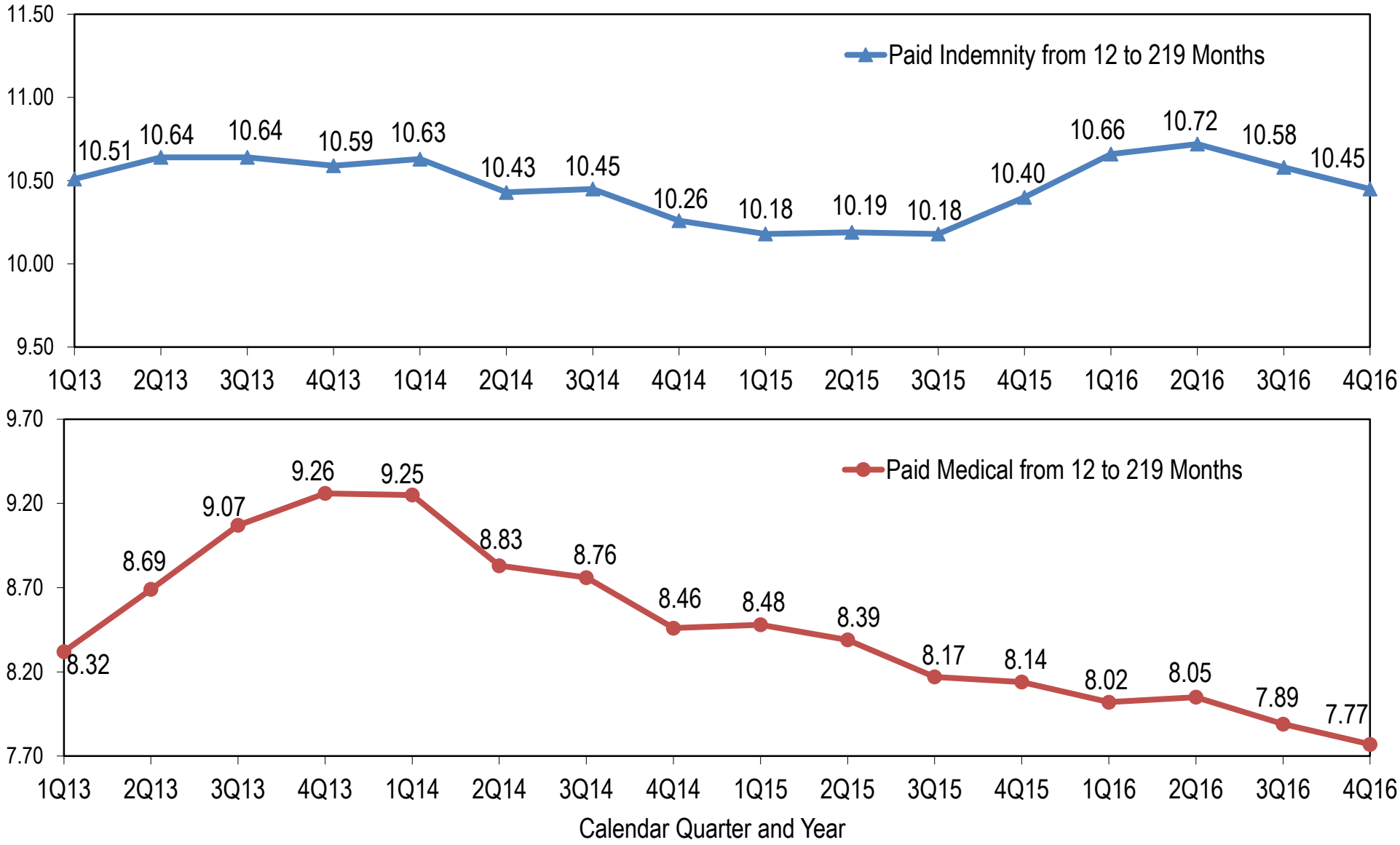
Cumulative Incurred Development by Quarter



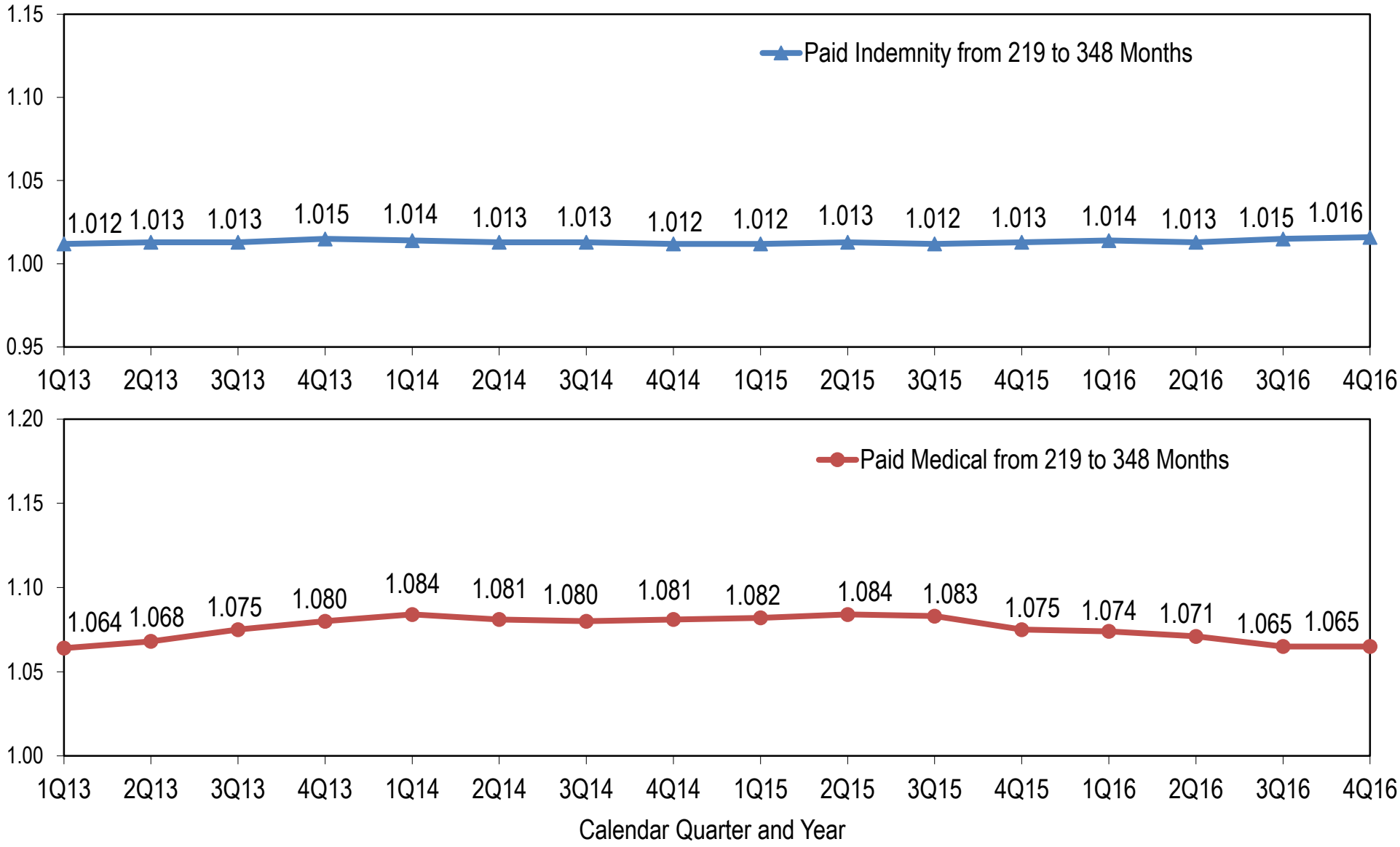
Cumulative Incurred Development by Quarter



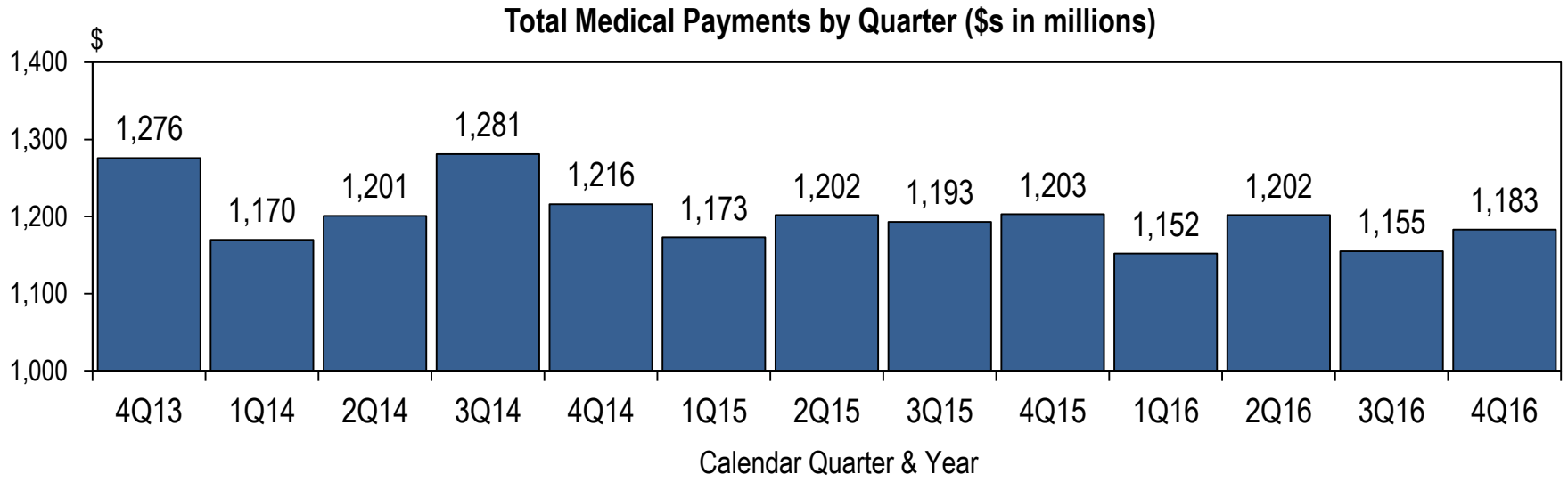
Cumulative Paid Development by Quarter

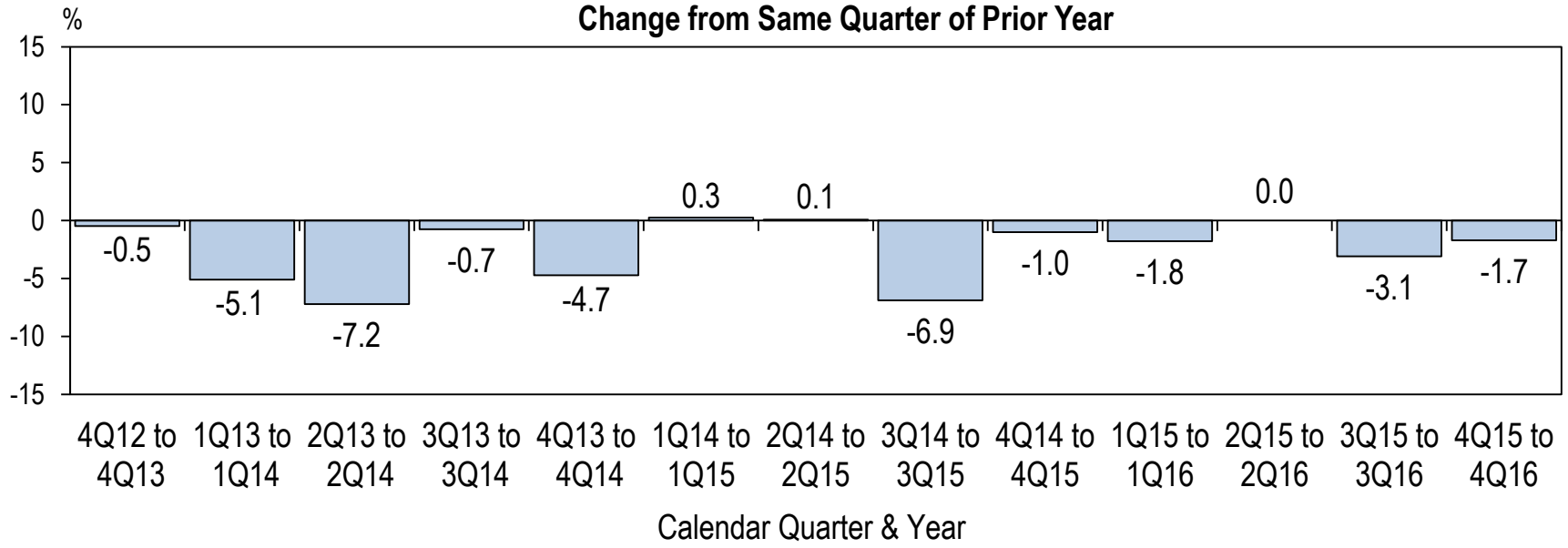


Cumulative Paid Development by Quarter



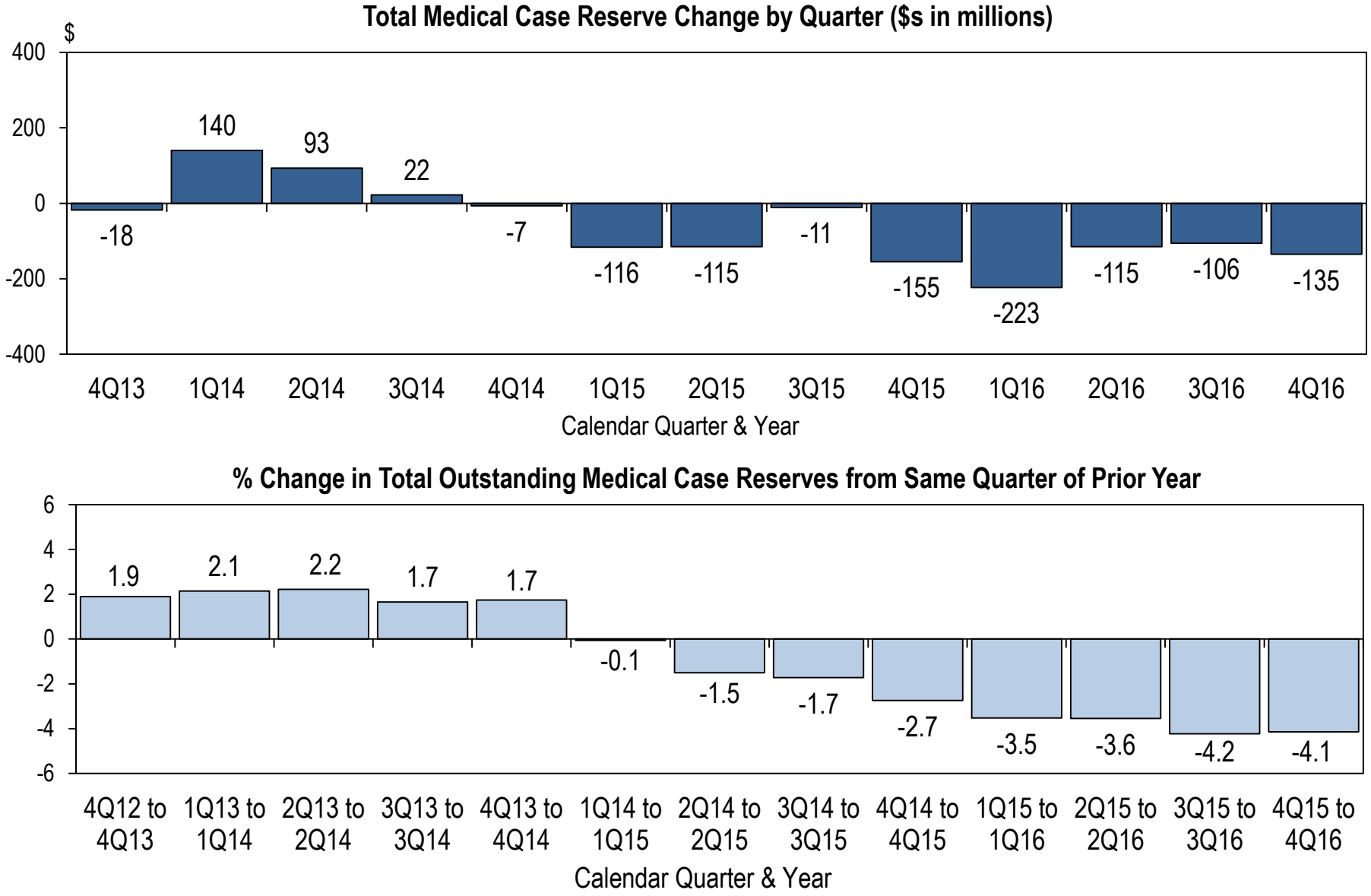
Total Medical Payments by Calendar Quarter





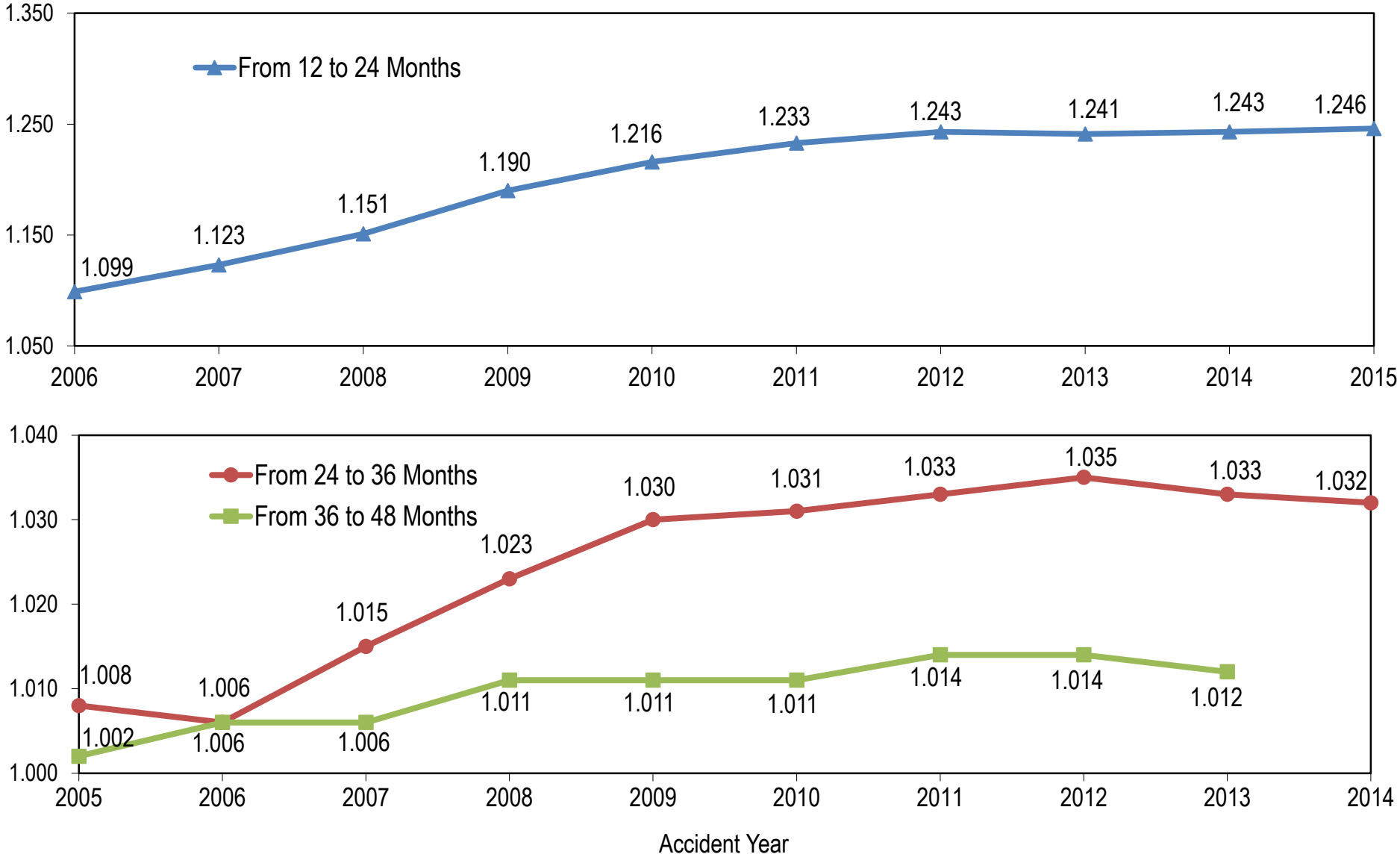
Source: WCIRB Quarterly Calls for Experience

Total Change in Medical Case Reserves by Calendar Quarter

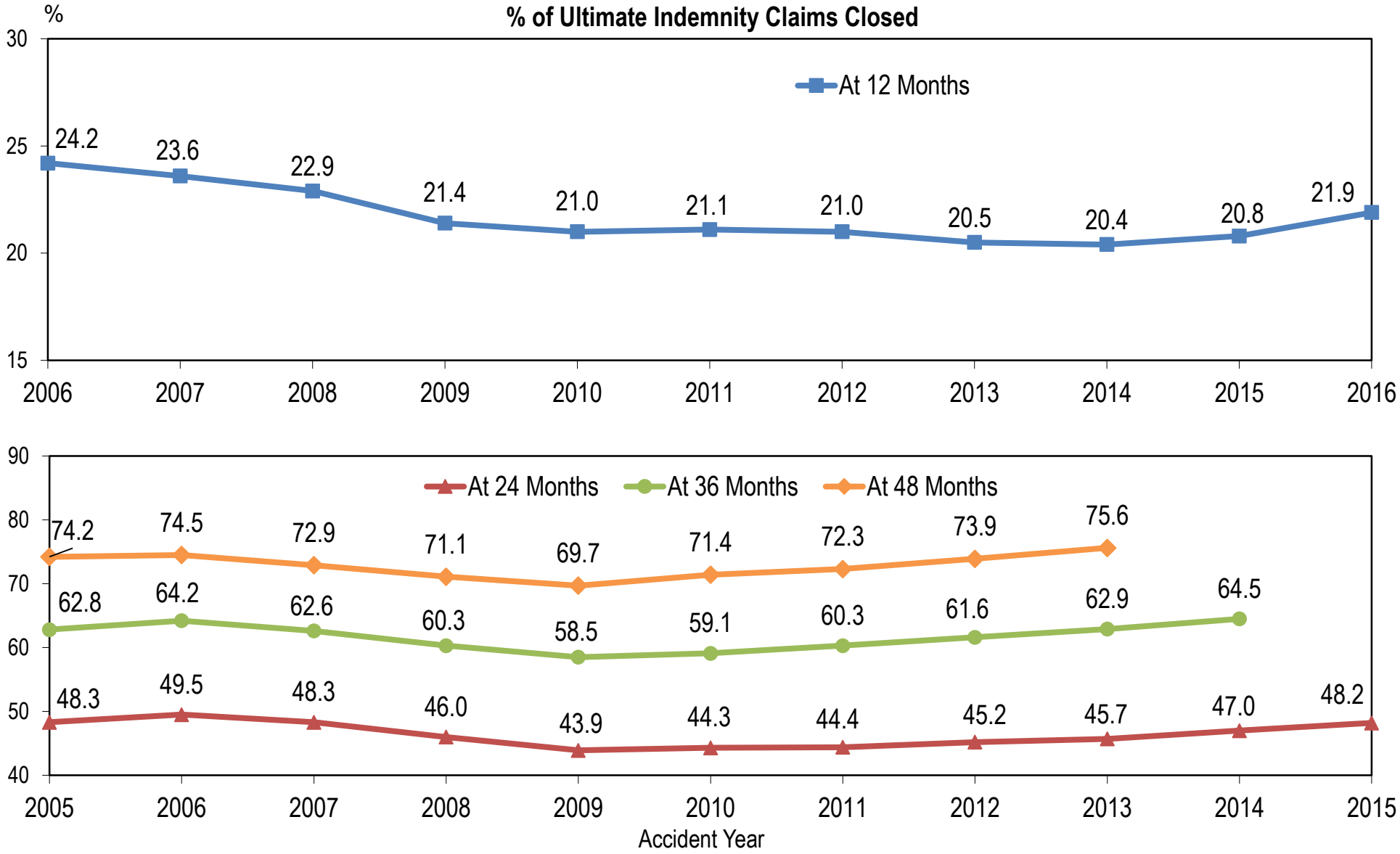


Source: WCIRB Quarterly Calls for Experience

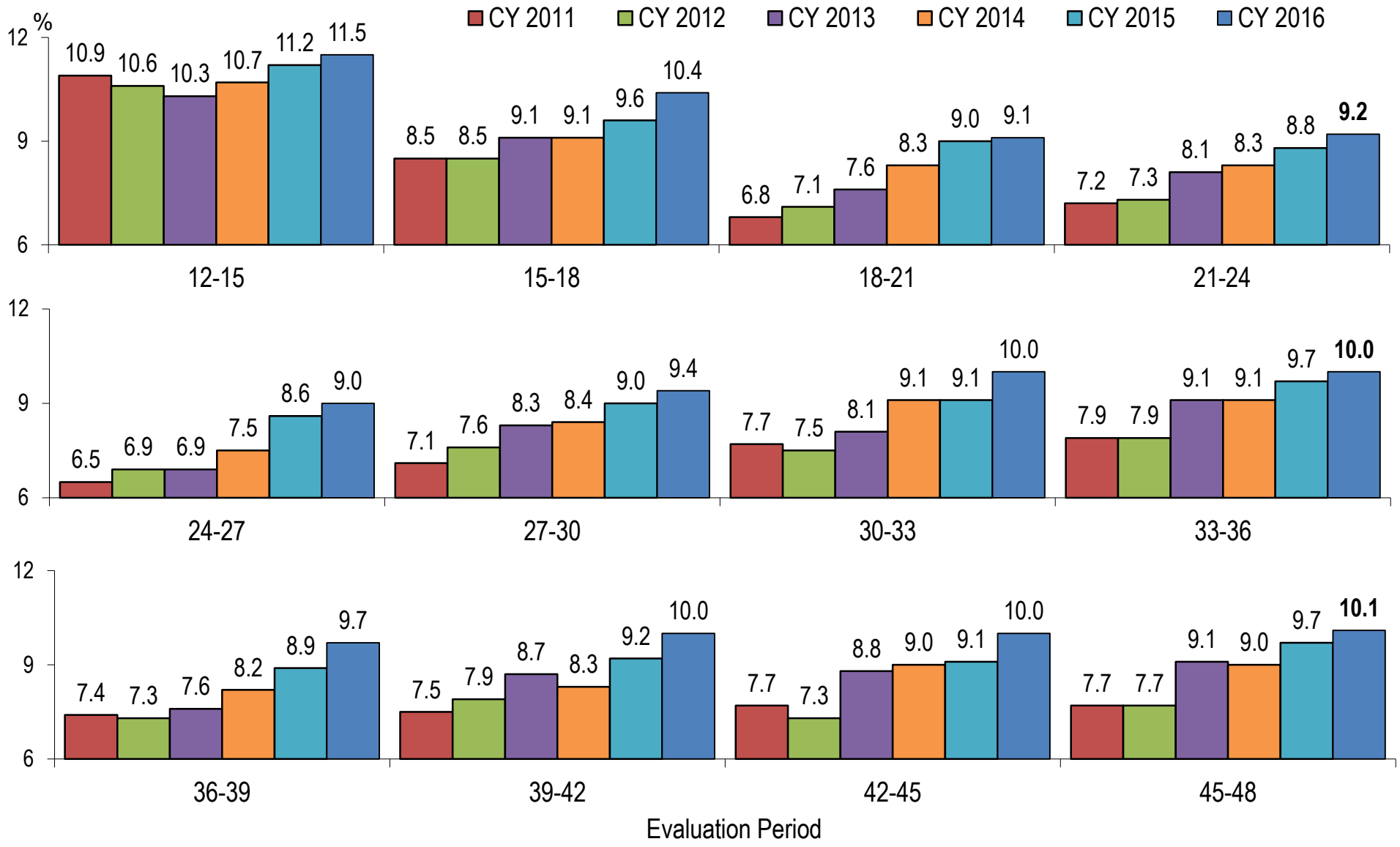
Indemnity Claim Count Development
(Exhibit 10.1)



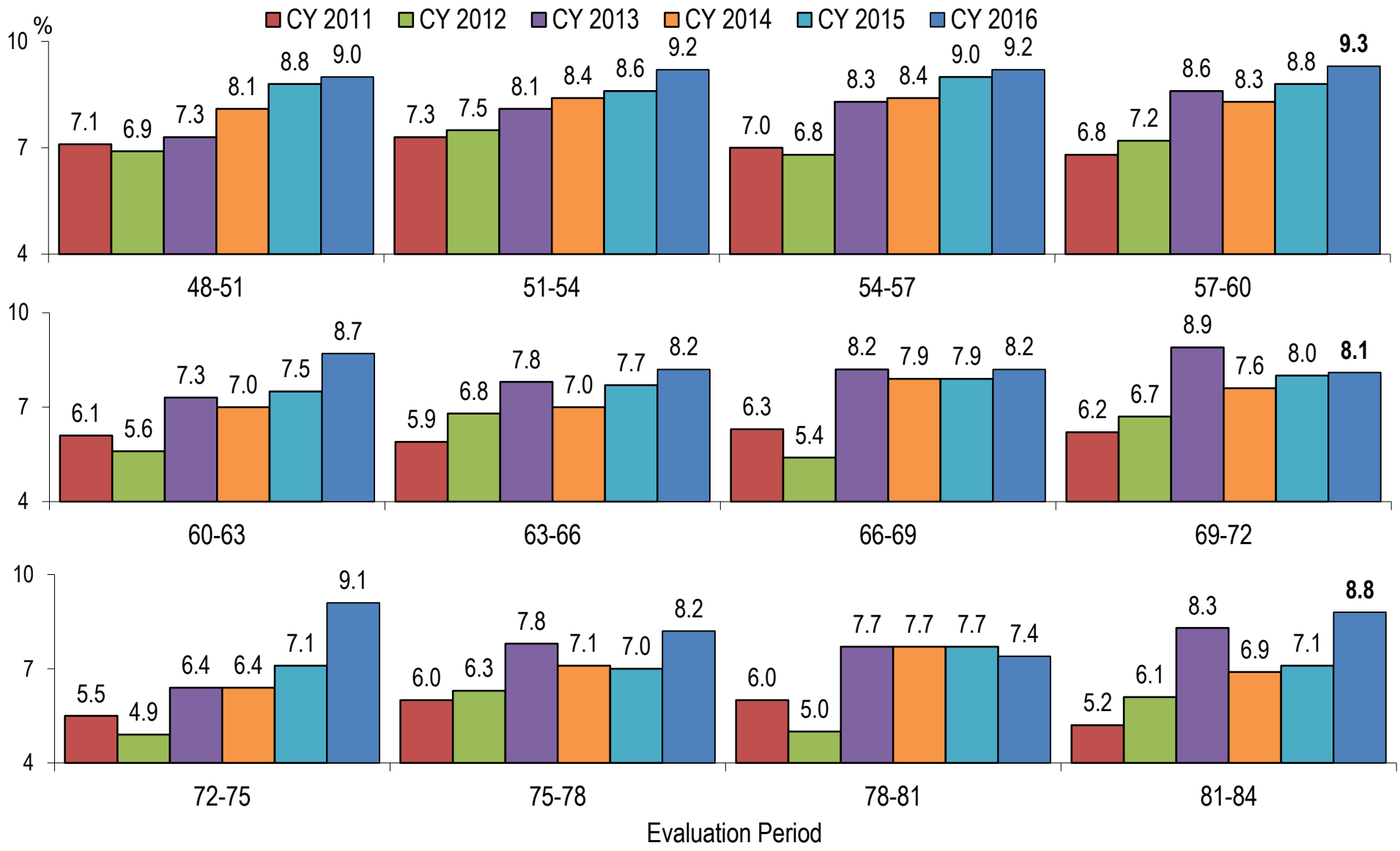
Indemnity Claim Settlement Ratios
(Exhibit 11.2)



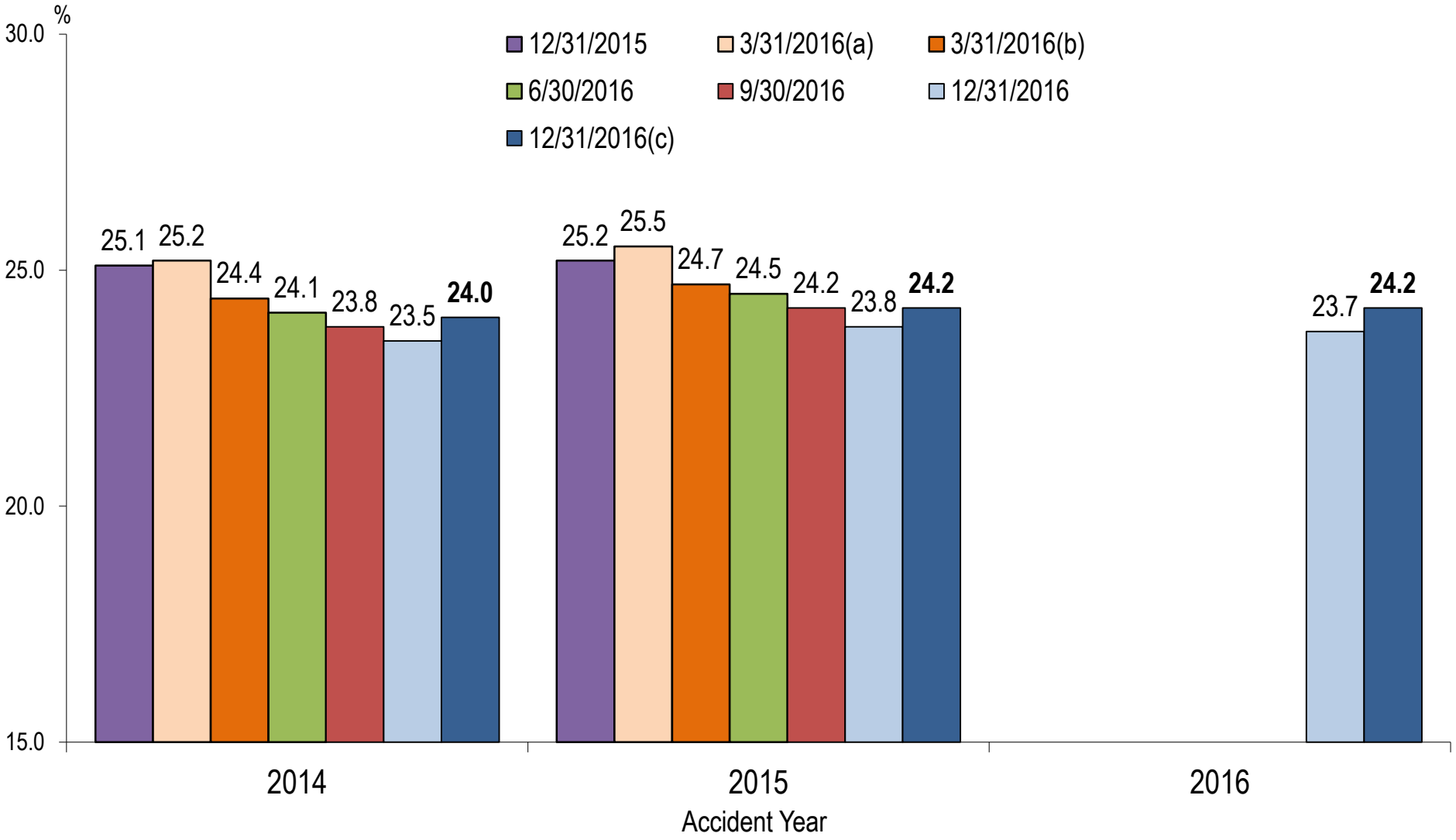
Ratio of Incremental Closed Indemnity Claims to Estimated Open Indemnity Claims



Ratio of Incremental Closed Indemnity Claims to Estimated Open Indemnity Claims (Continued)

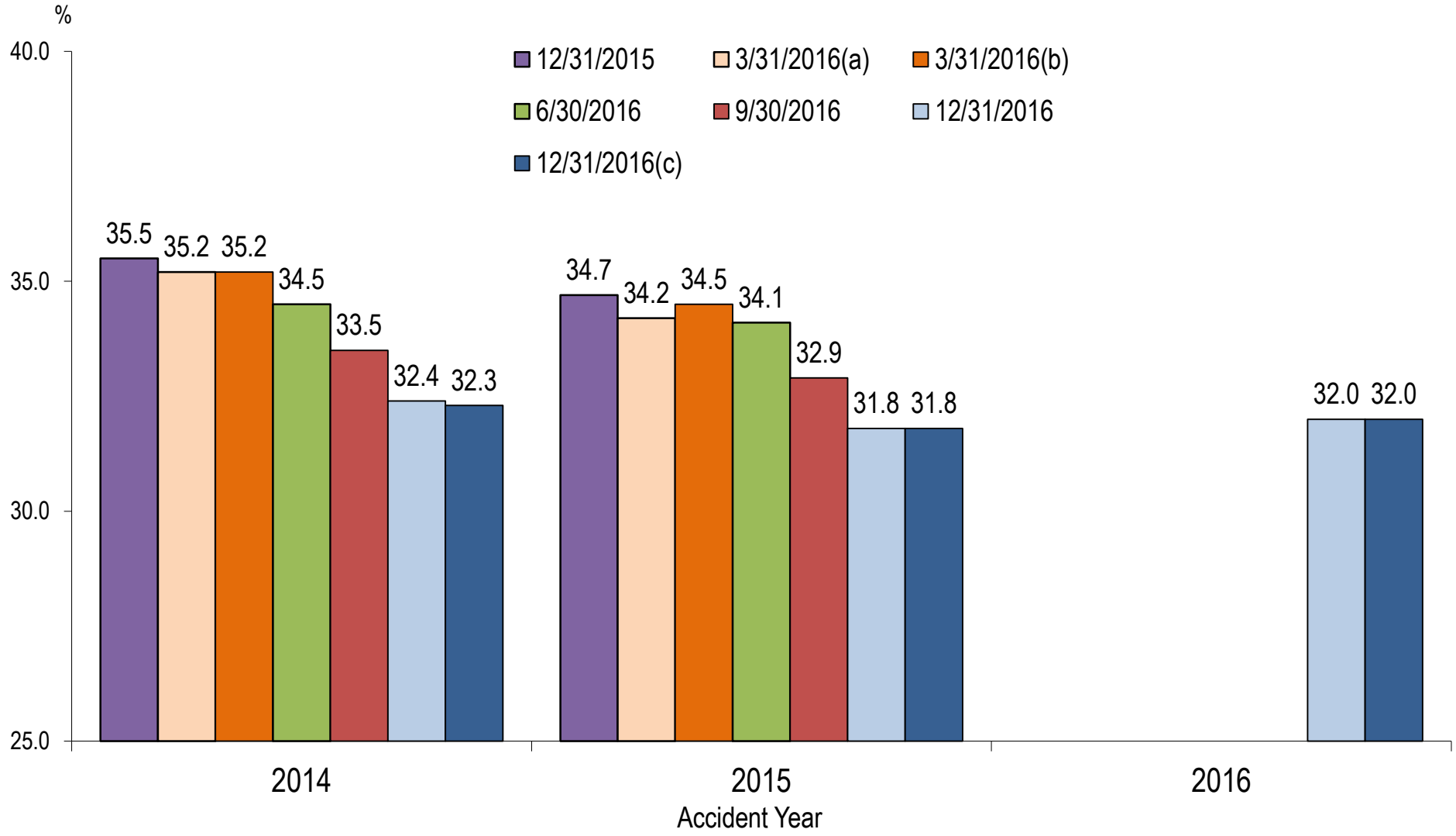


Projected Ultimate Indemnity Loss Ratios (Exhibit 3.1)



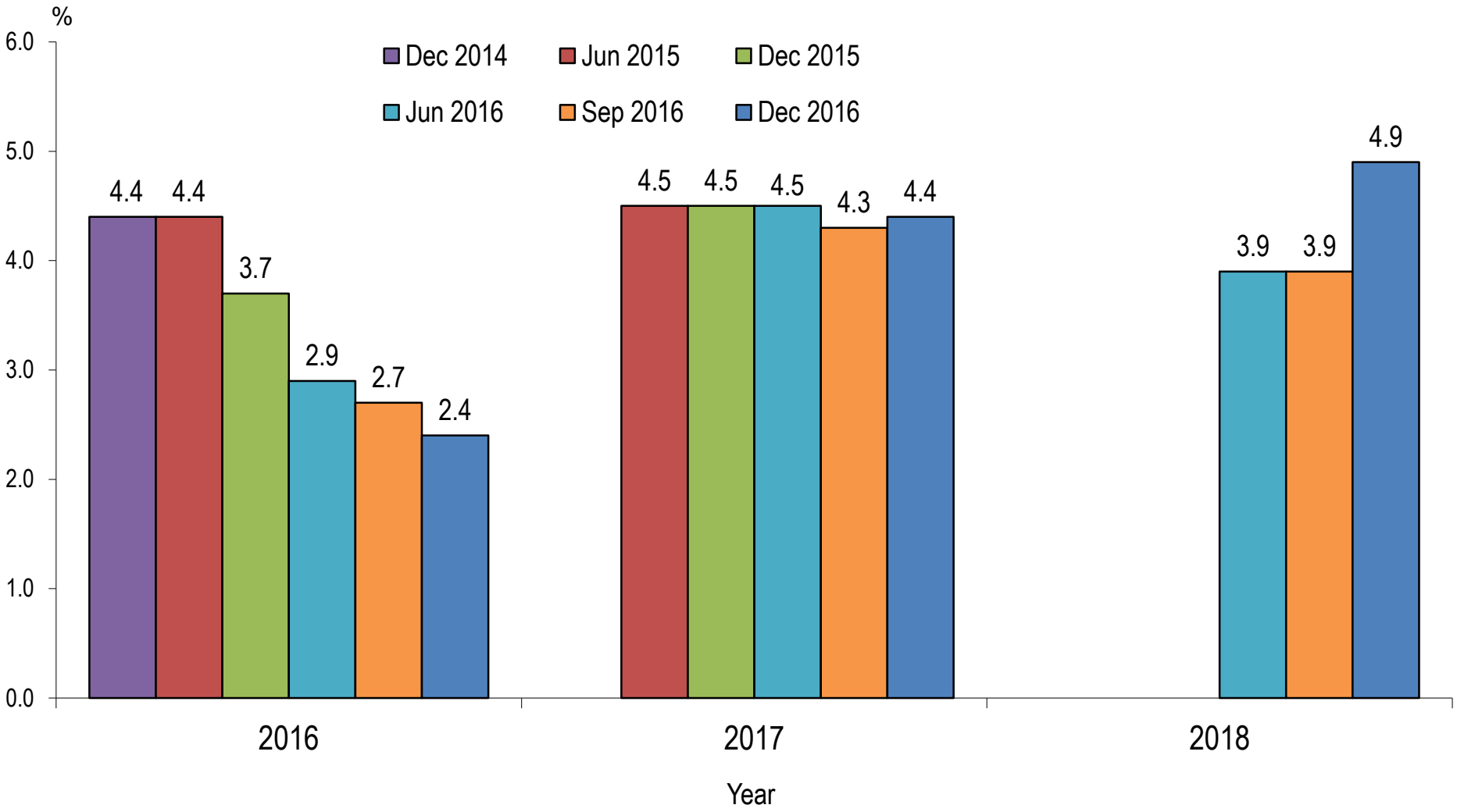
(a) Latest year reform-adjusted paid method (8/3/16 Agenda)
(b) Latest year reform and claim settlement rate-adjusted paid method (1/1/17 Filing)
(c) Updated with staff recommended SB 863 adjustments to loss development

Projected Ultimate Medical Loss Ratios (Exhibit 3.2)

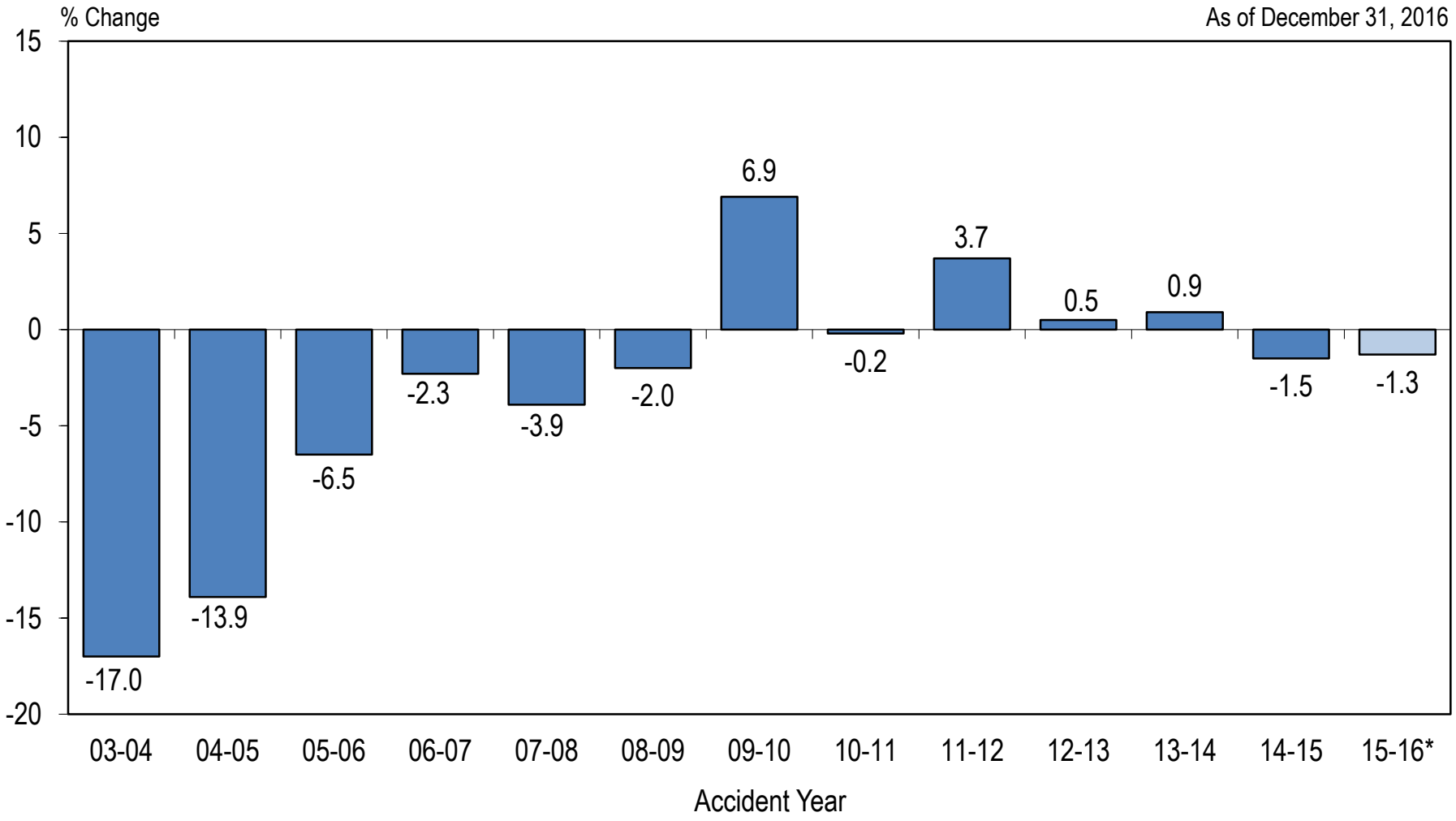


(a) Latest year reform-adjusted paid method prior to SB 863 and MCCP development updates (6/17/16 Agenda)
(b) Latest year reform and claim settlement rate-adjusted paid method after SB 863 and MCCP development updates (1/1/17 Filing)
(c) Updated with staff recommended SB 863 adjustments to loss development

UCLA Forecasts of Wage Level Changes (Exhibit 5.1)

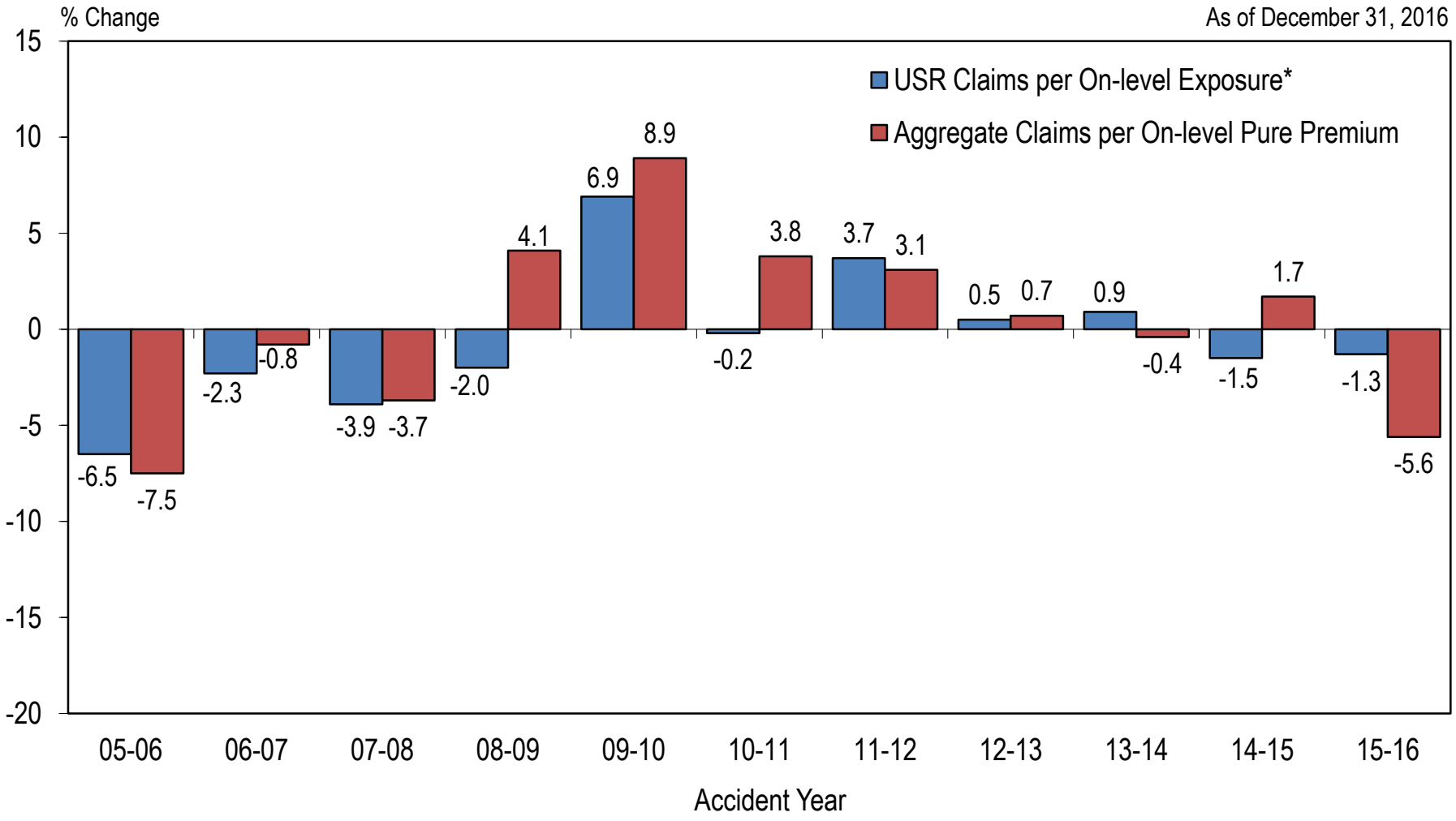


Estimated Change in Indemnity Claim Frequency (Exhibit 12)



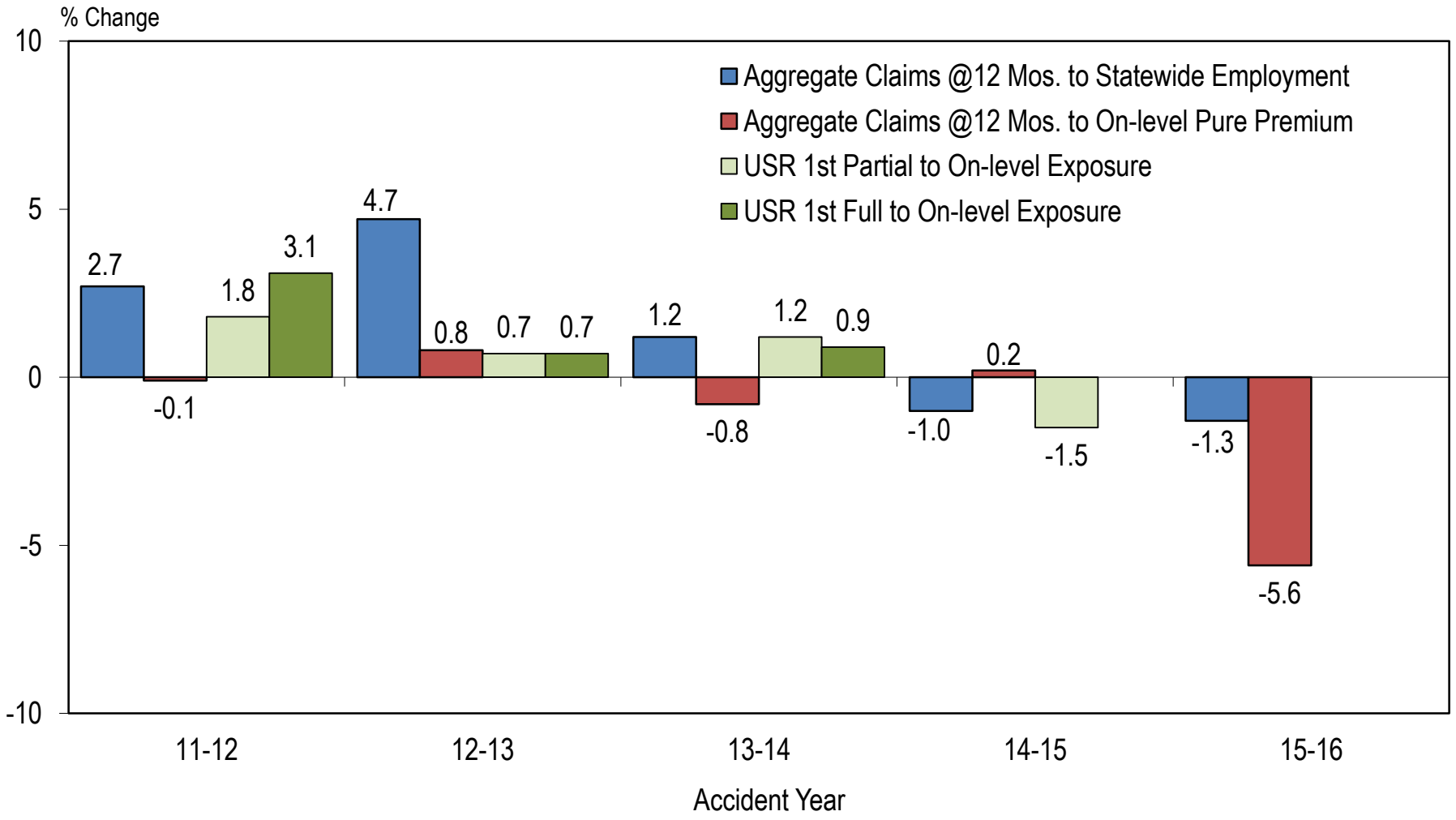
* Based on changes in reported aggregate indemnity claim counts compared to changes in statewide employment. All other estimates based on unit statistical indemnity claims compared to reported insured payroll.

Comparison of Changes in Indemnity Claim Frequency

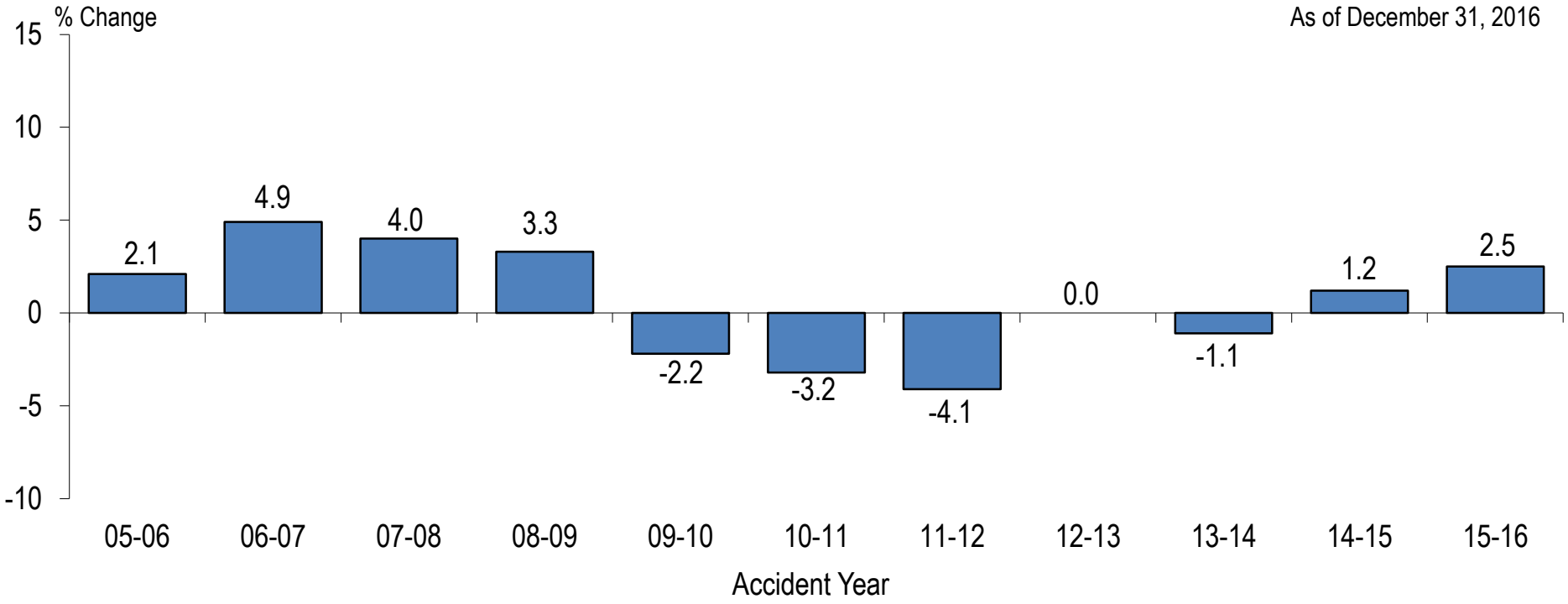


* 2015-2016 change based on changes in reported aggregate indemnity claim counts compared to changes in statewide employment.

Early Indicators of Changes in Indemnity Claim Frequency



Change in On-Level Indemnity Severity (Exhibit 6.2)



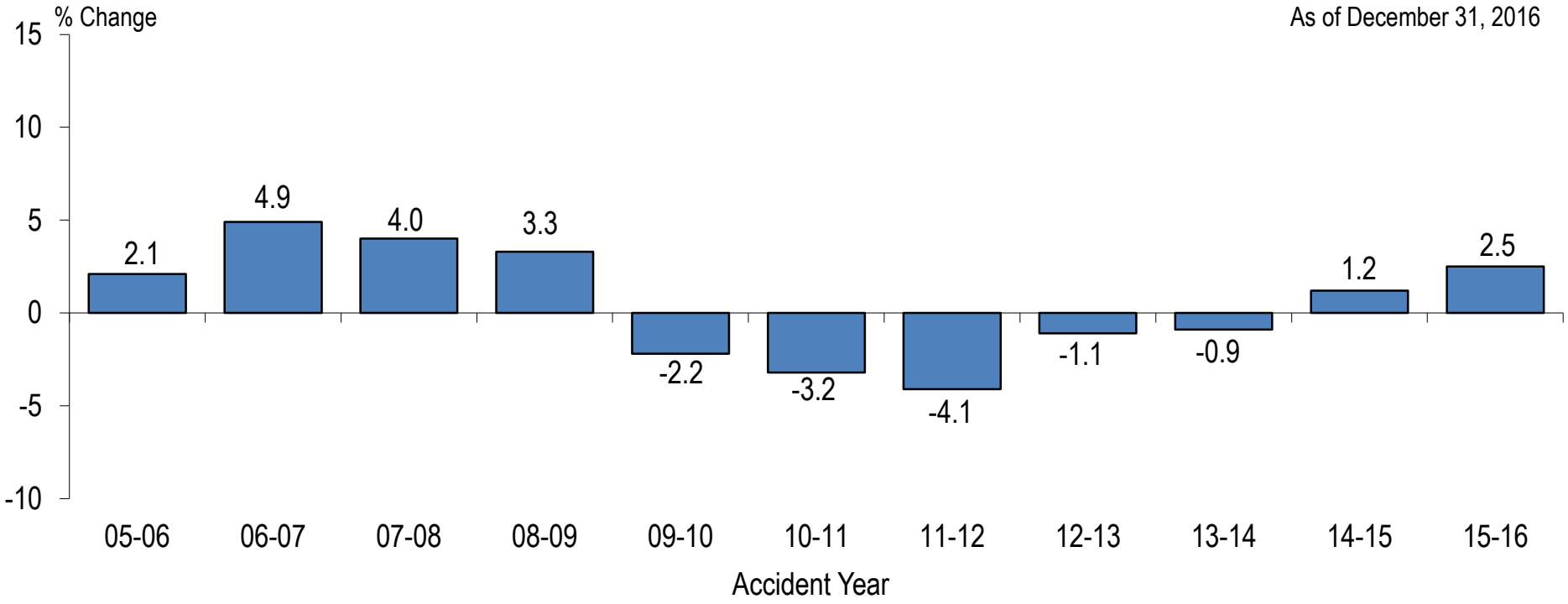
Annual Exponential Trend Based on:

2005 to 2016: 0.0%

2011 to 2016: -0.3%

Agenda Selected: 0.0%

Change in On-Level Indemnity Severity (Updated SB 863)



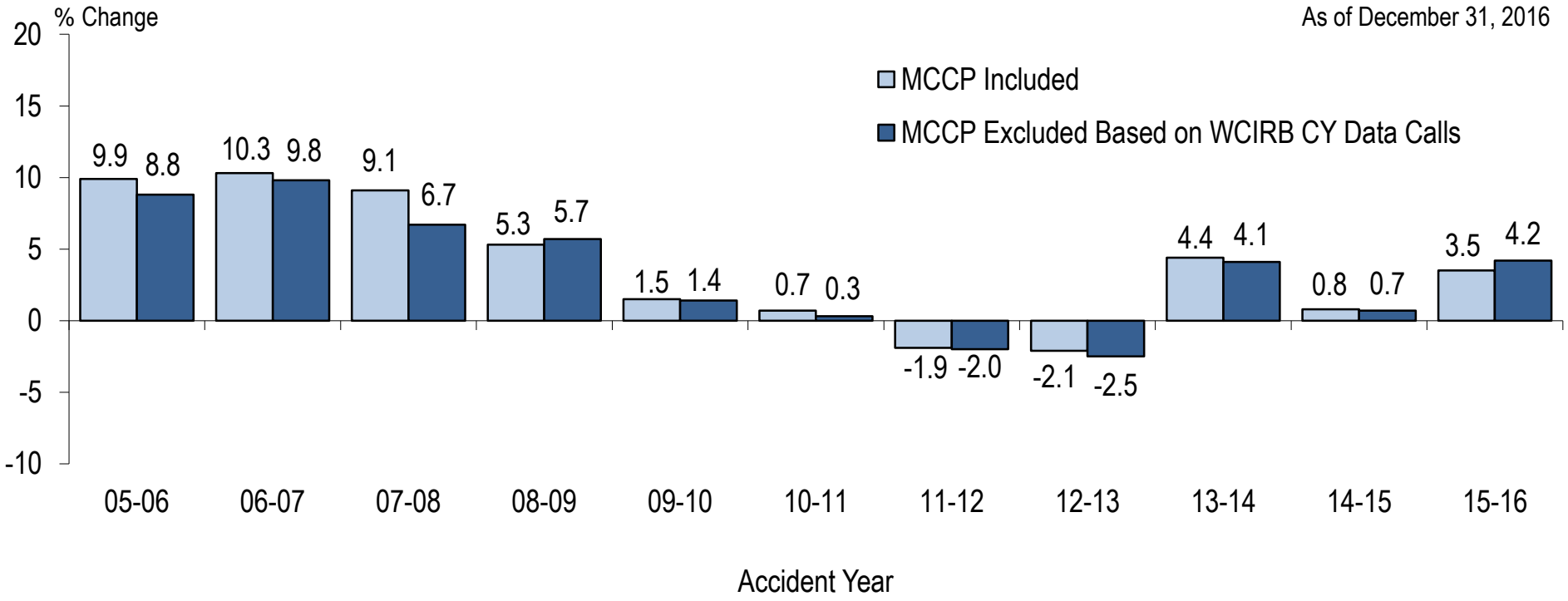
Annual Exponential Trend Based on:

2005 to 2016: -0.1%

2011 to 2016: -0.5%

Agenda Selected: 0.0%

Change in On-Level Medical Severity
(Exhibit 6.4)



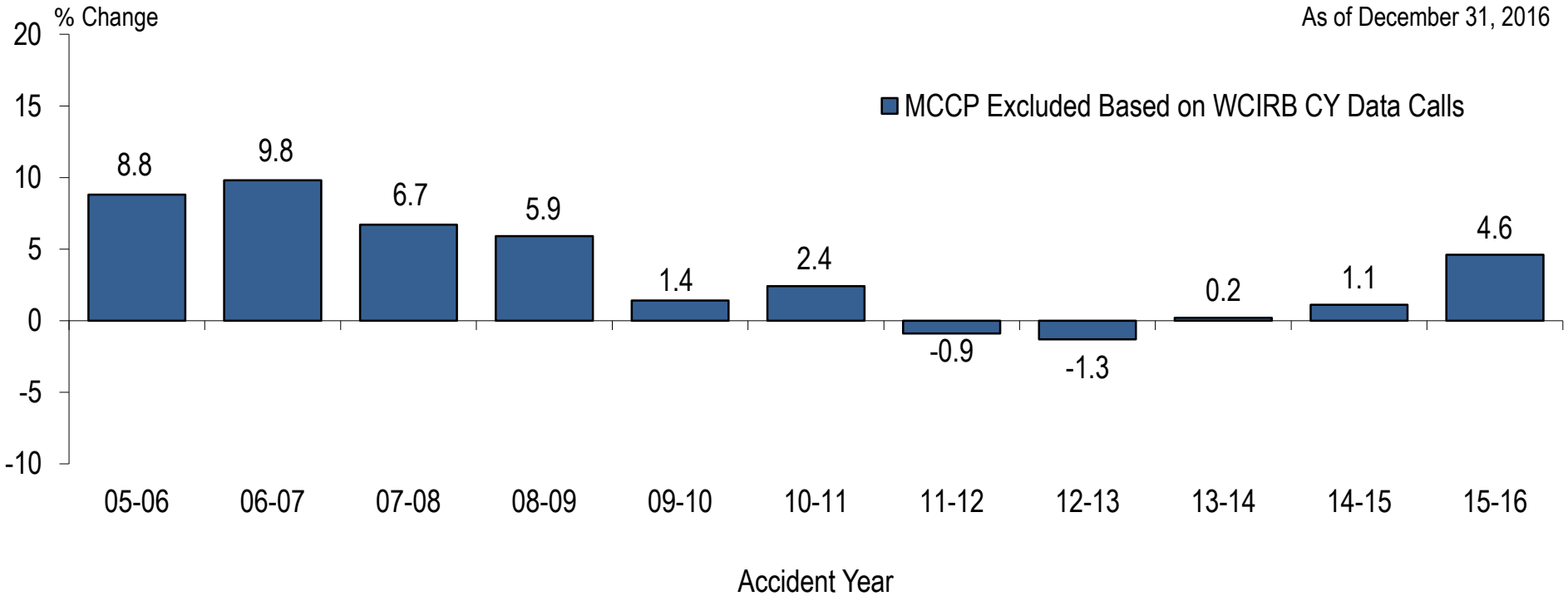
Annual Exponential Trend (Excluding MCCP) Based on:

2005 to 2015: +2.5%

2010 to 2015: +0.9%

Agenda Selected: 2.5%

Change in On-Level Medical Severity Excl. MCCP (Updated SB 863)



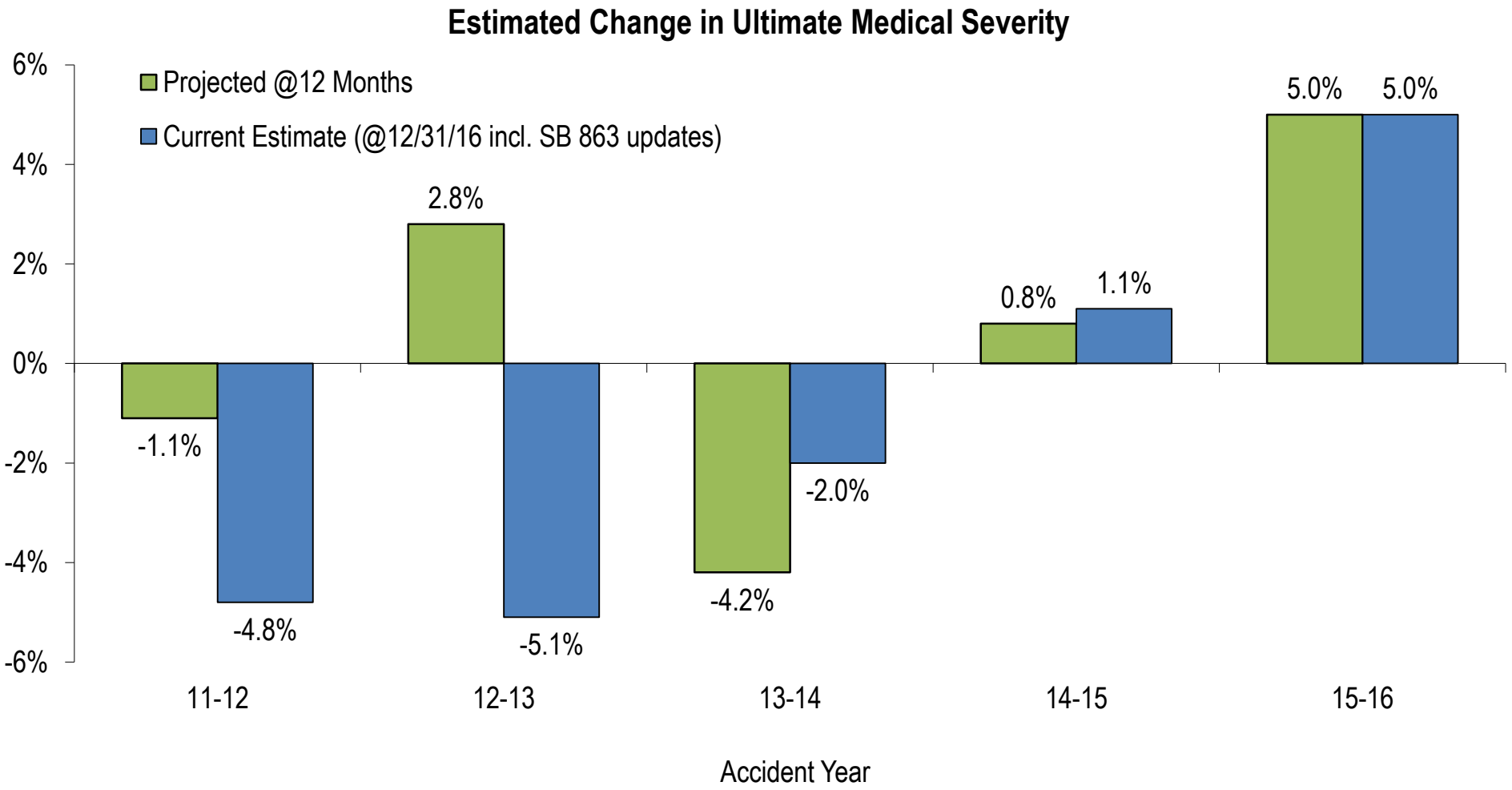
Annual Exponential Trend (Excluding MCCP) Based on:

2005 to 2015: +2.8%

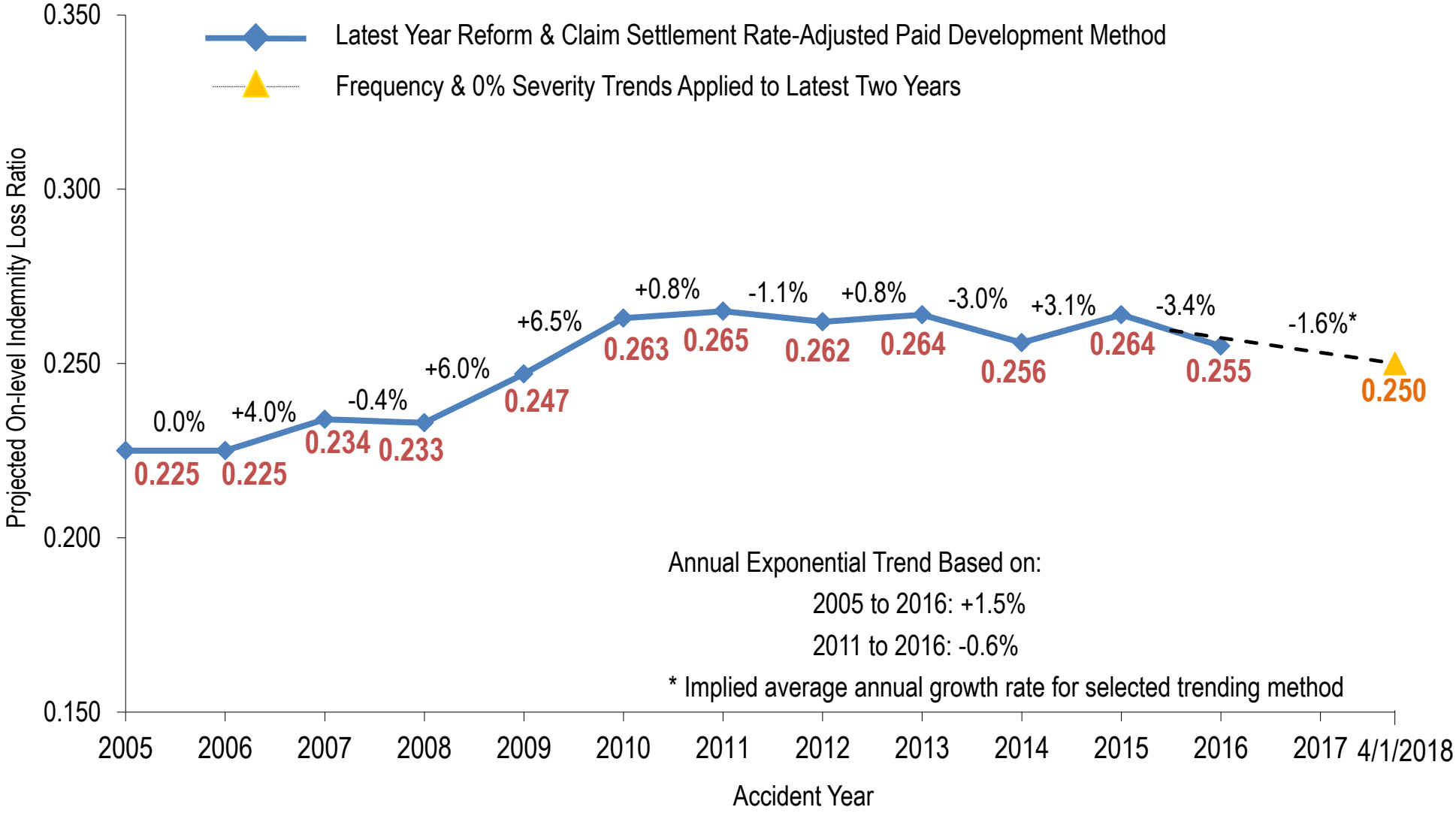
2010 to 2015: +0.5%

Agenda Selected: 2.5%

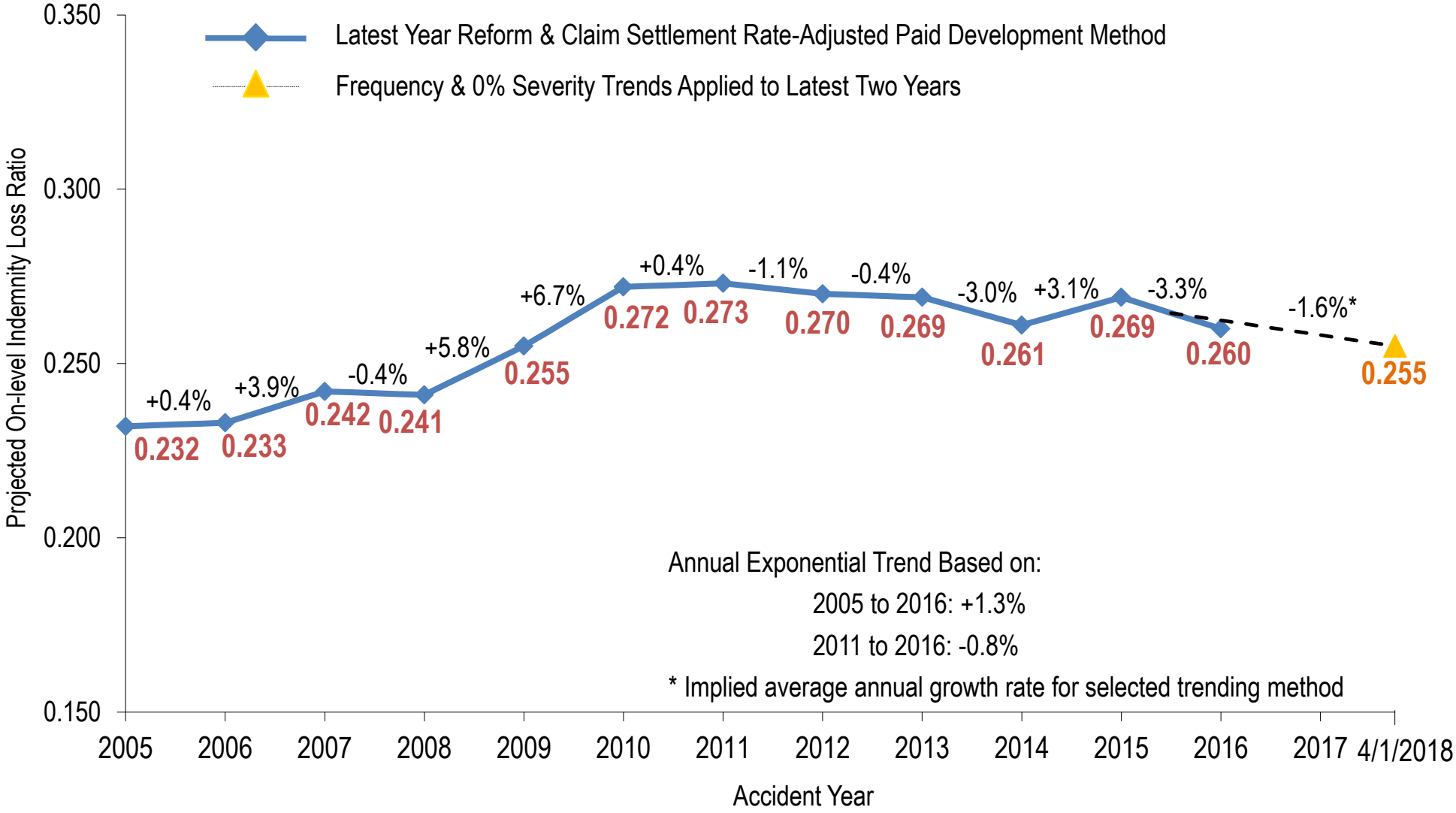
Comparison of Estimates of Medical Severity Changes



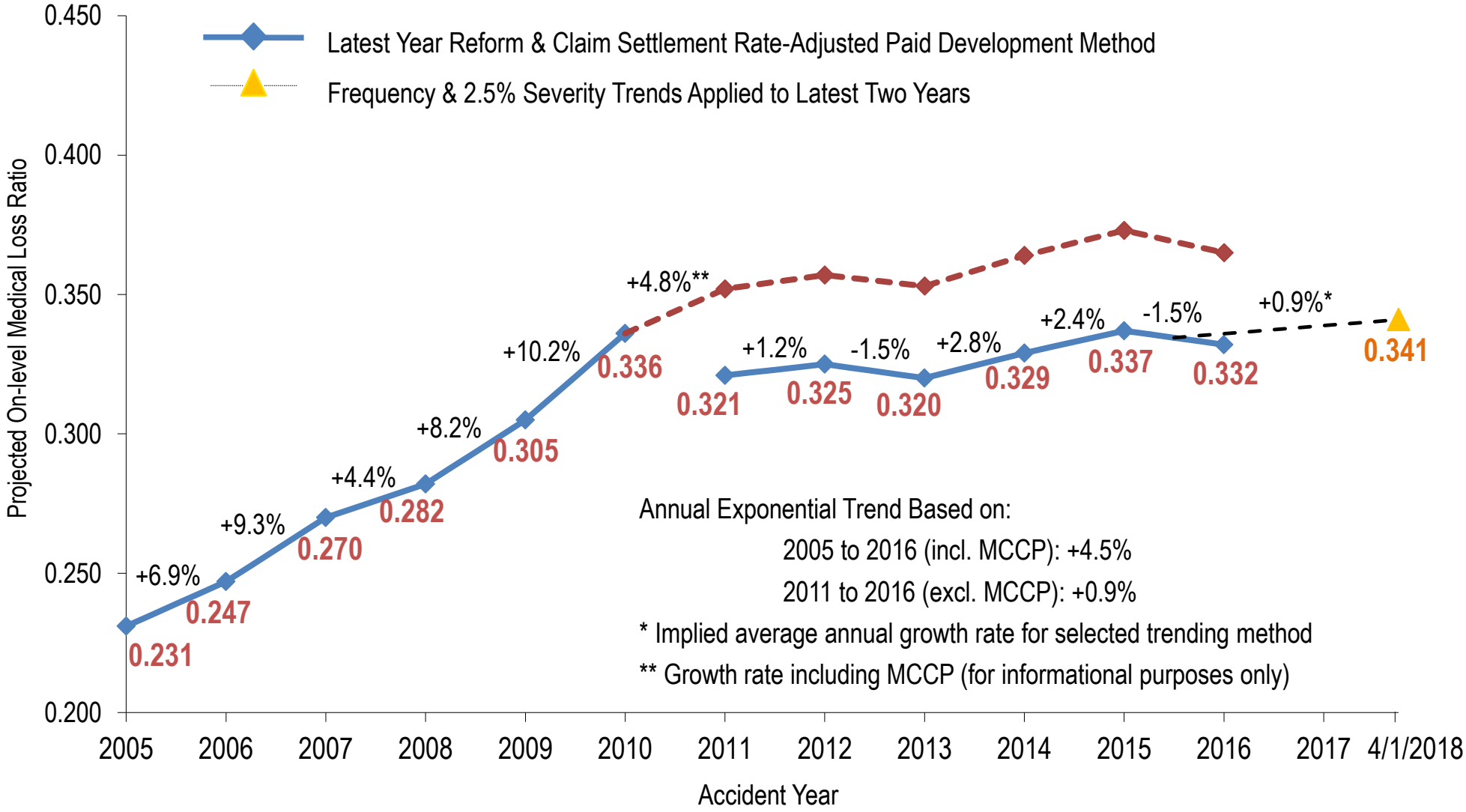
Indemnity Loss Trend & Projections
(Exhibit 7.1)



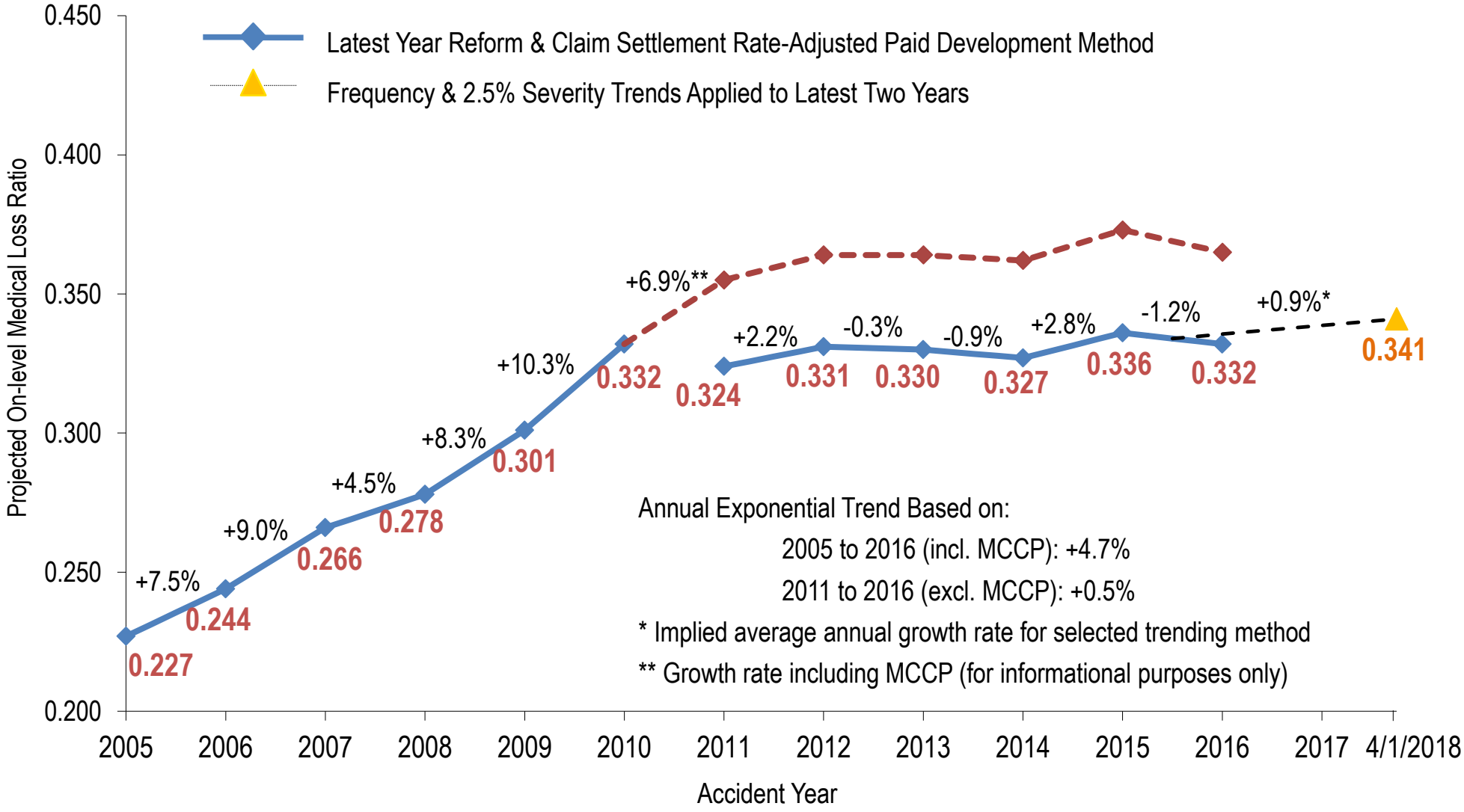
Indemnity Loss Trend & Projections (Updated SB 863) (Exhibit 7.1)



Medical Loss Trend & Projections
(Exhibit 7.3)



Medical Loss Trend & Projections (Updated SB 863)



Study of Claim Settlement Rate Adjustments to Loss Development

WCIRB Actuarial Committee Meeting
March 21, 2017

Claim Settlement Rate Adjustment to Paid Loss Development – Background

- Adjustment based on traditional "Berquist-Sherman" approach
  - Modified for WC to include adjustments to open claims
- Method reflected in prior filings during period of settlement rate decrease
  - Retrospective tests showed it generally improved projection during this period
- Settlement rates increasing significantly over most recent year
- Actuarial Committee directed that method be studied before reflecting in filing projection
  - Further retrospective tests of method performance
  - Validate partial payments are treated appropriately
  - Investigate impact of different closing rates by injury type

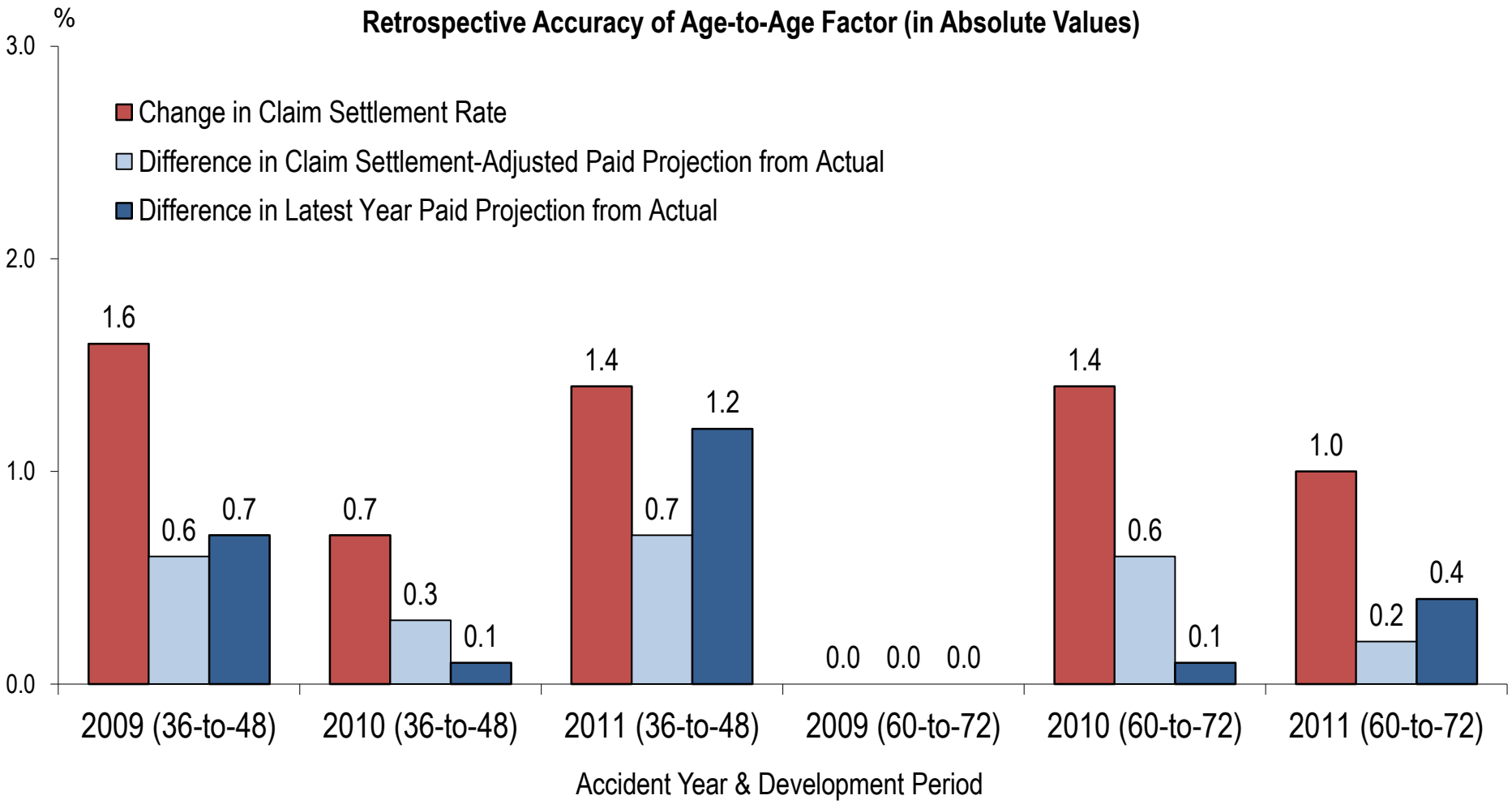
Overview of Current Claim Settlement Rate Adjustment
Part 1 – Adjustments to Closed Claims

- Closed claim counts adjusted for current settlement pattern
  - Latest CY assumed for "current" settlement pattern (Assumption 1)
  - Settlement rates applied to projected ultimate counts for AY
- Adjustment to cumulative paid losses per closed claim
  - Interpolation between reported AY settlement rates that bracket the "current" settlement rate
  - Log-linear relationship assumed between settlement ratio and average paid per closed claim (Assumption 2)

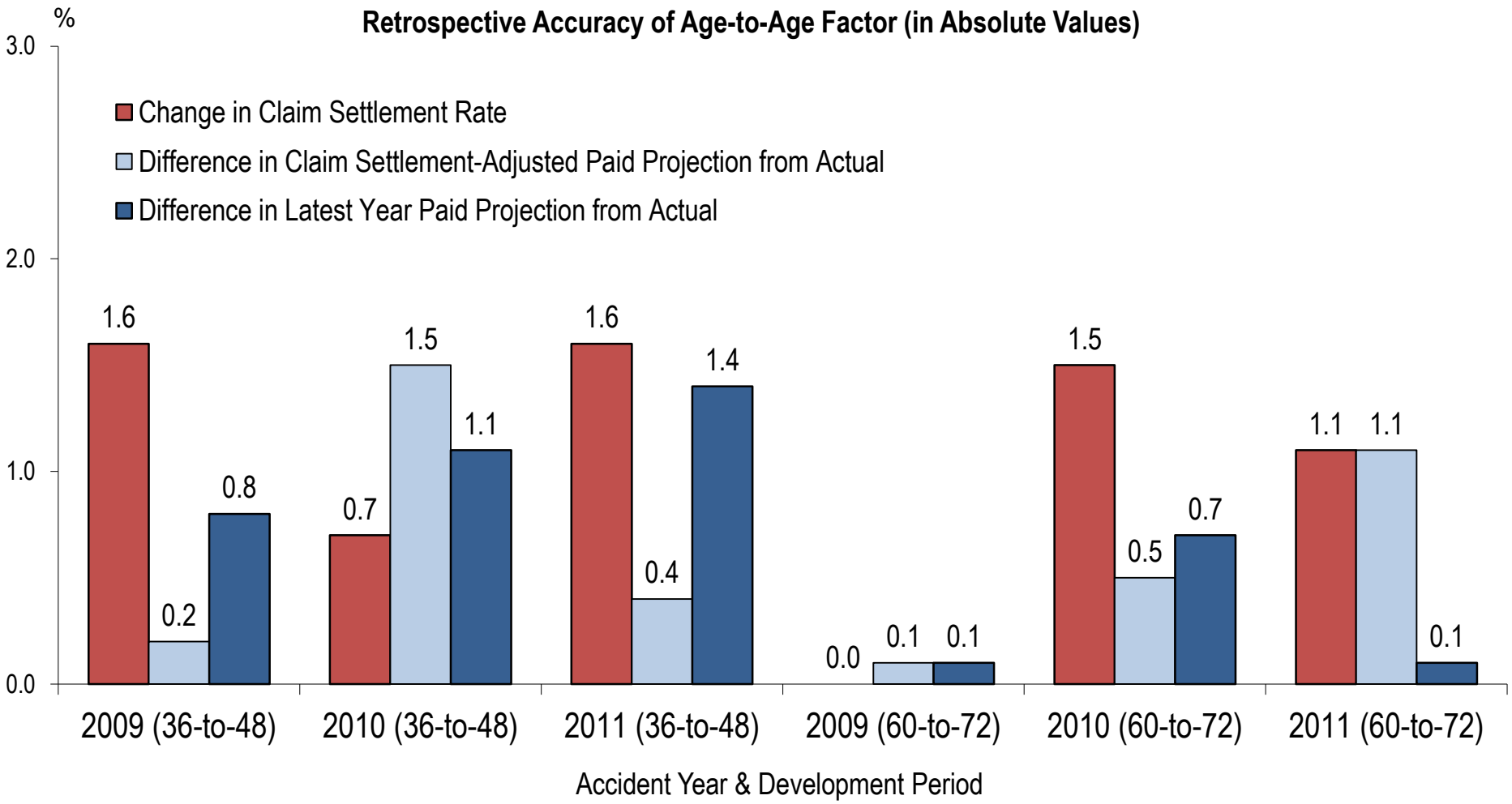
Overview of Current Claim Settlement Rate Adjustment
Part 2 – Adjustments to Open Claims

- Treatment of partial payments on open claims not addressed in original "Berquist-Sherman" approach
- Claims "transitioning" between open and closed status will affect paid on closed claims but have offsetting effect on paid on open claims
- Current approach assumes "transition" claims will have similar severities to other claims open at that maturity (Assumption 3)
  - Claim settlement rate decrease – use prior evaluation paid per open claim extended for another year of payments
  - Claim settlement rate increase – use current evaluation paid per open claim
- Adjusted paid on closed and open recombined to form adjusted paid loss triangle (through 84 months)

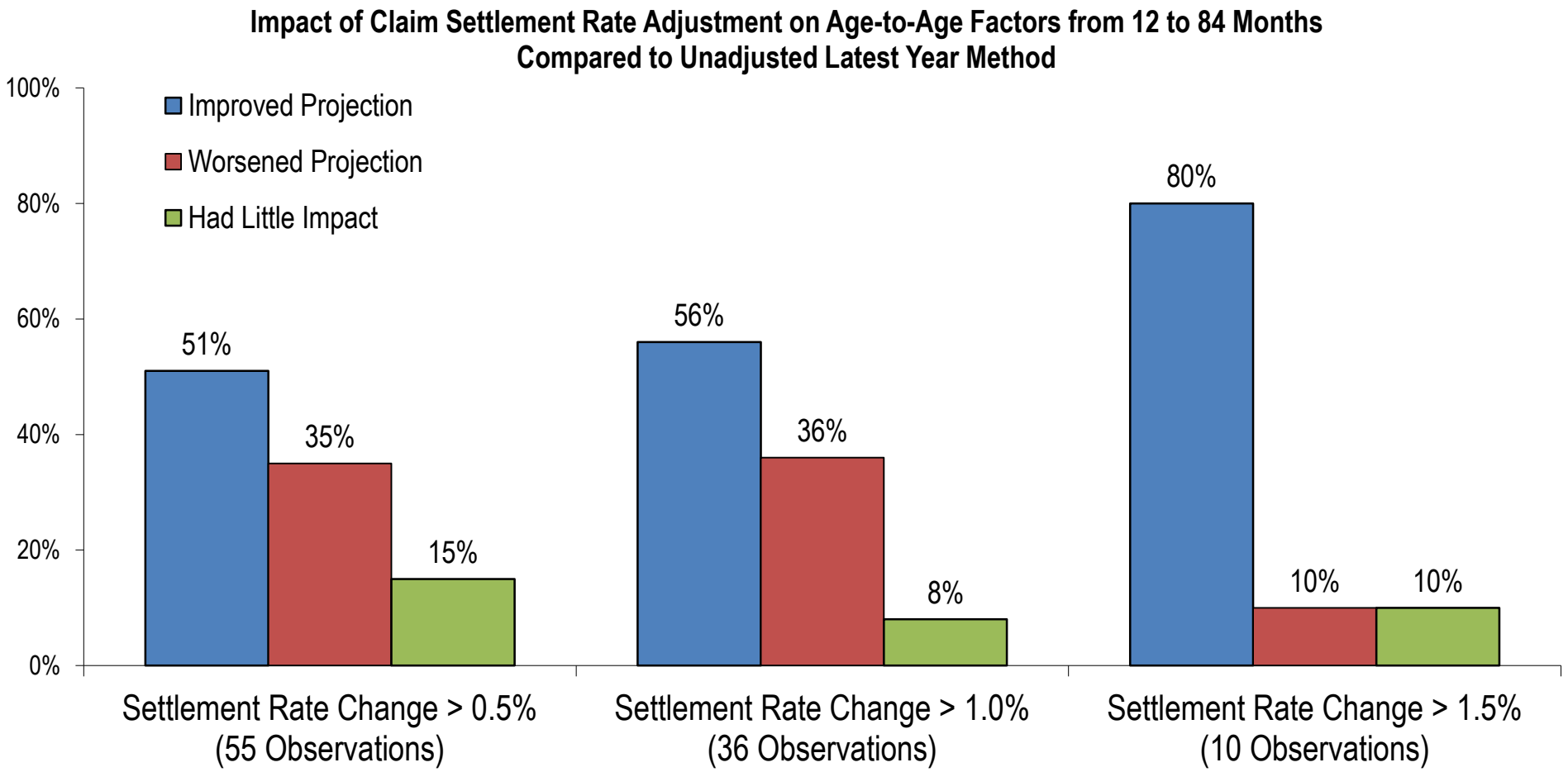
Retrospective Testing of Claim Settlement Method – Indemnity (Exhibit 1.1)



Retrospective Testing of Claim Settlement Method – Medical (Exhibit 1.2)



Retrospective Testing of Claim Settlement Method – Summary (Exhibit 2)



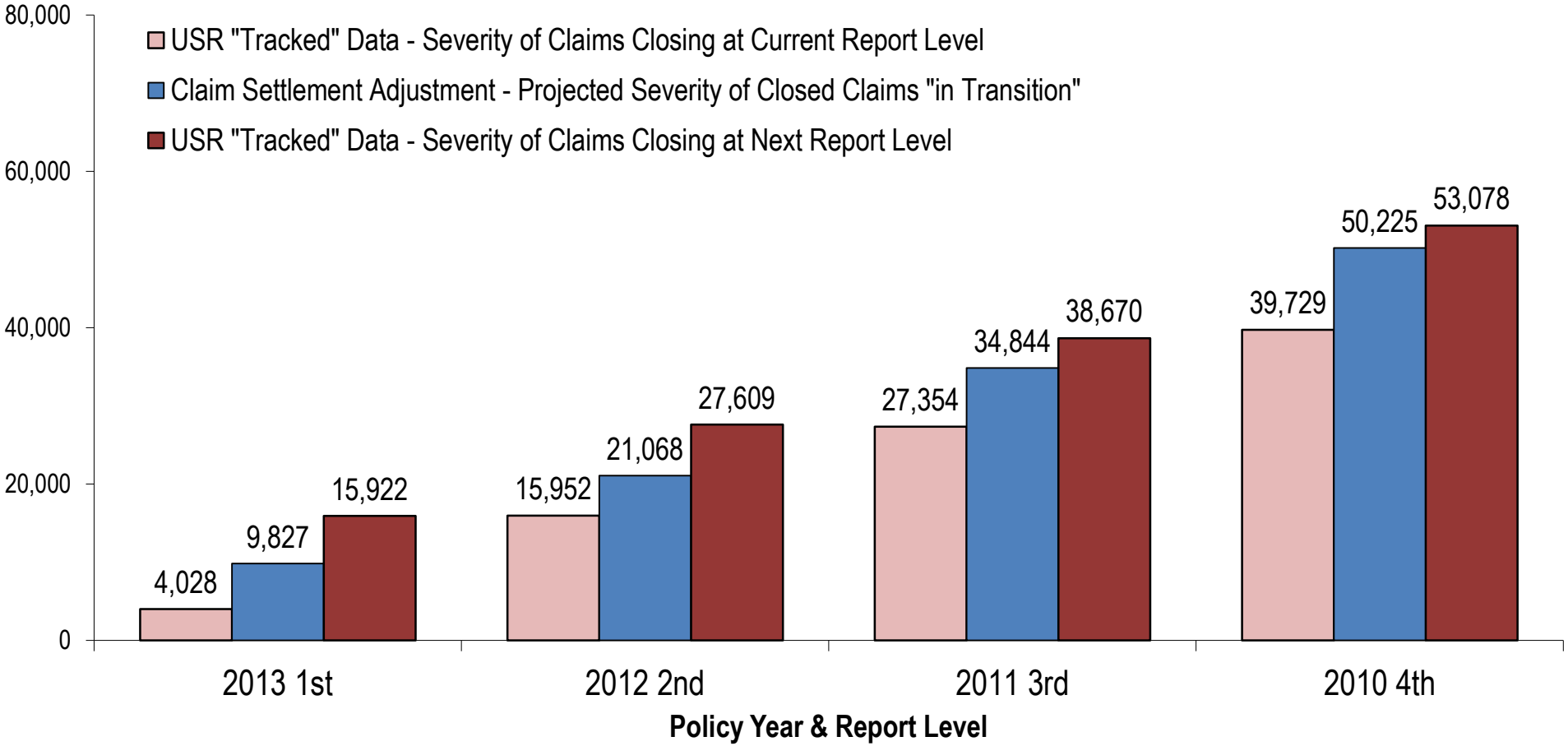
Analysis of Assumptions in Claim Settlement Rate Adjustment

- Assumption 1: Latest-year claim settlement pattern
  - Latest-year pattern more responsive but may be volatile
  - Latest observation for older AYs may not be indicative of settlement rate once more current AYs reach that point
  - Staff reviewed using
    - 2-year average settlement rates (more stable; less responsive)
    - Incremental settlement rates (more responsive; less stable)
  - Alternatives reviewed significantly worsened projection

Analysis of Assumptions in Claim Settlement Rate Adjustment

- Assumption 2: Log-linear relationship of settlement rate and closed claim severity
  - Statistical fits of these measures were very good ($R^2 > 0.98$)
  - Fit over all observations more curved at later maturities but reasonable as interpolation between two points
  - Comparison of implied closed claim severity on "transition" claims to closing claim severities from USR "tracked" data was also reasonable for most periods

Comparison of Closing Claim Severities – Paid Medical (Exhibit 4.2)

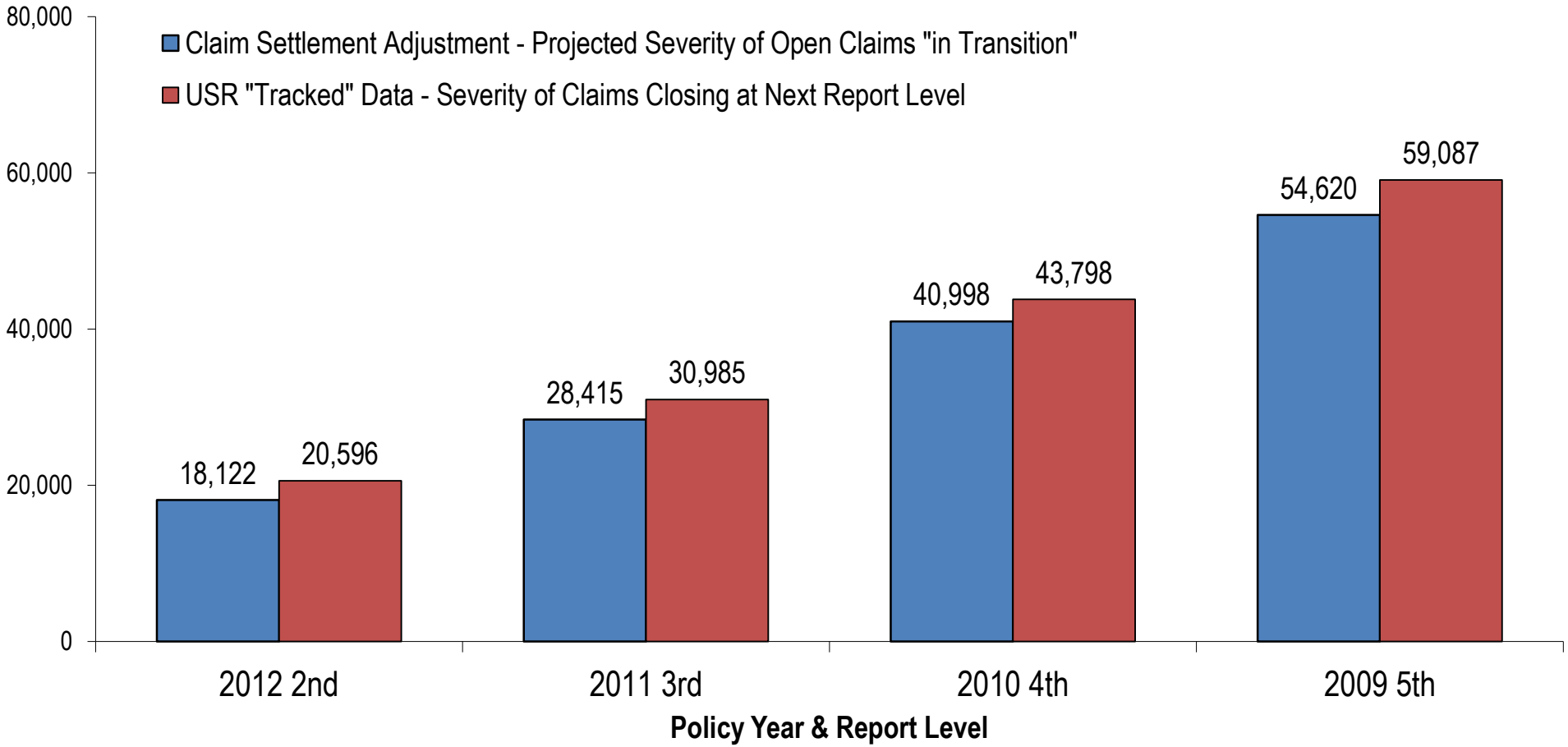


Note: Adjustment is occurring during period of claim settlement rate increase, therefore claims that had closed at a later period are transitioning into closing at an earlier period.

Analysis of Assumptions in Claim Settlement Rate Adjustment

- Assumption 3: Adjustment for partial payments on open claims
  - Current approach assumes open claim severity for "transition" claims consistent with other claims open at that period
  - Comparison to open claim severities from USR "tracked" data was slightly understated but overall reasonable
  - May be reasonable to expect "transition" claims are smaller since they were closing earlier

Comparison of Open Claim Severities – Paid Medical (Exhibit 4.2)

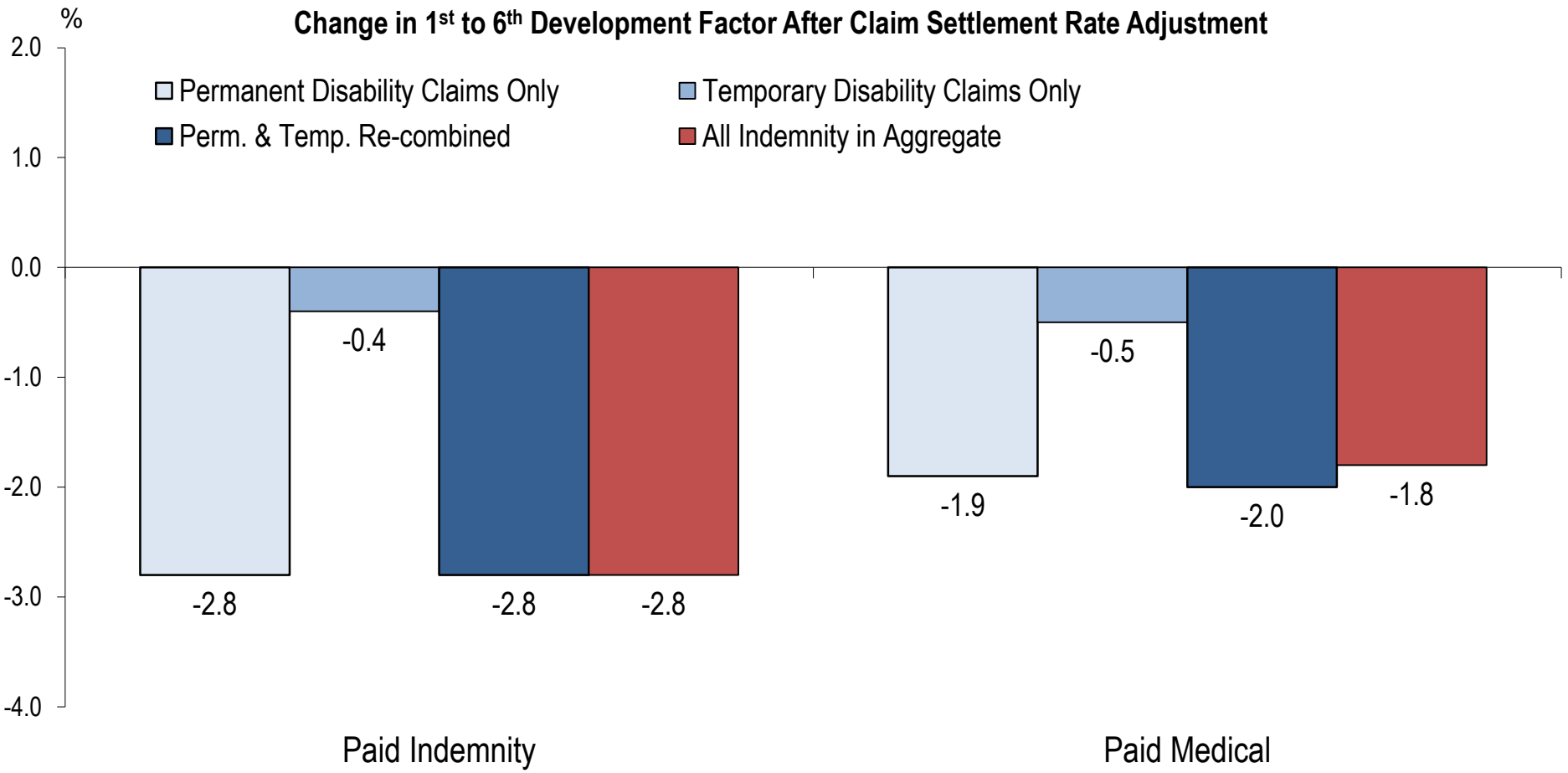


Note: Adjustment is occurring during period of claim settlement rate increase, therefore claims that had closed at a later period are transitioning into closing at an earlier period.

Impact of Changes in Claim Settlement Rates by Injury Type

- Prior periods of claim settlement change affected Temporary and PD claims consistently
- Current period shows PD claim settlement rates increasing while Temp rates mostly flat
- Majority of late-term development is on PD claims
- Currently all indemnity types are adjusted in aggregate which may understate impact of adjustment

Impact of Claim Settlement Rate Adjustment by Injury Type (Table 1)



Summary of Findings & Next Steps

- Current claim settlement rate adjustment can improve projection but only consistently during periods of significant settlement rate change
- Adjustment does not add much value after 84 months since settlement rate changes are small at late maturities
- Primary assumptions of "Berquist-Sherman" method appear reasonable
- Current adjustments for partial payments appear reasonable
- Impact differs significantly by injury type but preliminarily aggregated approach not causing significant distortion
- Staff to continue to review alternative approaches & injury type impact and report back to Committee at the June 16 meeting

Experience Rating – Treatment of Small Medical Claims

WCIRB Actuarial Committee Meeting
March 21, 2017

CHANGES IN EFFICIENCY FROM BASELINE

E[Loss] Cohort	Change in Efficiency from Baseline Variable Split 2010	2011	2012	2013	2014	5-Yr Avg.
L01 Q1 P1	0.7%	1.9%	0.1%	0.3%	-0.2%	0.6%
L01 Q1 P2	-0.9%	0.3%	1.1%	0.6%	-0.4%	0.1%
L01 Q1 P3	-0.7%	1.5%	0.5%	-1.2%	-0.7%	-0.1%
L01 Q1 P4	-1.7%	-0.9%	-0.5%	-1.0%	0.0%	-0.9%
L01 Q1 P5	-0.3%	0.0%	-1.1%	0.9%	-0.2%	-0.1%
L01 Q2	-0.9%	-0.2%	-1.2%	-0.5%	-0.7%	-0.7%
L01 Q3	-1.7%	-1.7%	-1.7%	-1.3%	-1.4%	-1.6%
L01 Q4	-1.2%	-2.5%	-1.1%	-1.1%	-1.0%	-1.3%
L01 Q5	-2.0%	-1.3%	-2.6%	-0.5%	-1.1%	-1.5%
L02	-3.0%	-2.3%	-1.1%	-1.5%	-1.1%	-1.6%
L03	-2.1%	-2.9%	-2.4%	-1.3%	-2.0%	-2.1%
L04	-1.3%	-1.7%	-2.0%	-2.1%	-1.4%	-1.7%
L05	-2.4%	-2.5%	-2.6%	-2.9%	-3.1%	-2.7%
L06	-3.7%	-2.2%	-3.2%	-3.7%	-2.9%	-3.1%
L07	-2.8%	-3.4%	-3.3%	-2.5%	-2.2%	-2.7%
L08	-11.0%	-2.5%	-1.8%	-0.3%	-0.5%	-2.0%
L09	-3.5%	-2.8%	-2.3%	-5.0%	-2.3%	-3.1%
L10	-7.1%	-4.5%	-6.1%	-1.6%	-7.9%	-4.8%
L11	-1.3%	-3.5%	-0.6%	-6.3%	-4.6%	-2.8%
L12	-14.3%	-4.9%	-5.4%	-3.7%	-3.1%	-5.1%
L13	-1.4%	-4.9%	-2.7%	-2.0%	-5.3%	-2.9%
L14	0.3%	0.9%	-2.9%	-1.6%	-3.8%	-1.9%
L15	-1.0%	-2.0%	-2.2%	-2.1%	-3.1%	-2.0%
L16	-1.4%	-3.8%	-6.4%	-1.5%	-0.2%	-2.2%
L17	0.0%	-1.1%	-4.6%	-1.7%	-4.0%	-2.2%
L18	-11.3%	-2.2%	-8.2%	-3.2%	-6.0%	-6.1%
L19	-8.3%	-6.9%	-12.7%	-7.0%	-4.4%	-7.4%
L20	-24.2%	-9.9%	-6.3%	-15.5%	-2.8%	-9.5%
E[Loss] - Weighted						
L01 - L20	-0.4%	0.6%	-0.2%	-0.3%	-0.6%	-0.2%
L01 - L10	-0.4%	0.6%	-0.2%	-0.3%	-0.5%	-0.1%
L11 - L20	-3.3%	-3.5%	-3.1%	-3.4%	-3.9%	-3.4%
Risk - Weighted						
L01 - L20	-2.5%	-2.0%	-2.0%	-1.8%	-1.9%	-2.0%
L01 - L10	-2.2%	-1.7%	-1.7%	-1.5%	-1.5%	-1.7%
L11 - L20	-3.8%	-3.5%	-3.6%	-3.4%	-3.8%	-3.6%

CHANGES FROM BASELINE EFFICIENCY BY INDUSTRY

E[Loss] Cohort	Change in Five-Year Average Efficiency: Baseline to $250 First Aid Limit						
	All Risks	*Construction*	*Manufacturing*	*Restaurants*	*Clerical*	*Outside Sales*	*All Other*
L01 Q1 P1	0.6%	-0.4%	1.0%	-1.4%	0.5%	-0.4%	1.1%
L01 Q1 P2	0.1%	-0.2%	-0.1%	8.9%	-0.5%	0.0%	0.3%
L01 Q1 P3	-0.1%	-0.5%	-1.5%	-1.6%	-0.2%	0.0%	0.4%
L01 Q1 P4	-0.9%	-0.8%	-0.3%	-7.2%	-0.7%	-0.7%	-0.8%
L01 Q1 P5	-0.1%	0.0%	-0.9%	-0.1%	0.1%	3.3%	0.2%
L01 Q2	-0.7%	-0.4%	0.8%	-1.3%	-2.2%	-5.5%	-0.6%
L01 Q3	-1.6%	-1.8%	-2.5%	-6.7%	-1.0%	-0.1%	-1.5%
L01 Q4	-1.3%	-0.3%	-2.4%	-3.2%	-0.8%	-14.3%	-1.4%
L01 Q5	-1.5%	-1.5%	-0.7%	-2.0%	-1.4%	-0.8%	-1.8%
L02	-1.6%	-5.0%	-1.0%	0.3%	-1.5%	-1.7%	-1.7%
L03	-2.1%	-2.0%	-1.5%	-7.8%	-1.6%	-1.6%	-2.6%
L04	-1.7%	-9.6%	-1.0%	-195.7%	-0.7%	-0.8%	-1.9%
L05	-2.7%	-7.9%	-2.8%	-0.3%	-0.7%	-1.9%	-3.0%
L06	-3.1%	-17.0%	-4.9%	2.3%	-1.7%	-5.6%	-3.3%
L07	-2.7%	-7.4%	-1.8%	-2.8%	-2.9%	-0.9%	-2.9%
L08	-2.0%	-3.1%	-0.9%	-0.9%	-0.1%	-2.7%	-2.8%
L09	-3.1%	-10.3%	-1.5%	3.2%	-1.0%	-5.2%	-3.6%
L10	-4.8%	-4.9%	0.8%	-11.8%	-4.0%	9.3%	-5.4%
L11	-2.8%	-4.4%	-4.4%	21.9%	-1.1%	-2.5%	-3.4%
L12	-5.1%	-9.2%	-3.2%	-1.7%	-2.1%	-1.6%	-5.7%
L13	-2.9%	-5.2%	-5.8%	87.8%	0.3%	-6.4%	-3.9%
L14	-1.9%	-0.8%	-6.0%	5.7%	-1.2%	0.4%	-3.3%
L15	-2.0%	-3.1%	-6.3%	-3.2%	-1.9%	-4.2%	-1.5%
L16	-2.2%	9.3%	-6.8%	-90.2%	-0.2%	-4.7%	-1.3%
L17	-2.2%	-4.8%	1.4%	-2.3%	0.2%	6.0%	-3.8%
L18	-6.1%	-18.8%	-12.7%	-11.3%	-5.6%	-4.8%	-4.3%
L19	-7.4%	-48.2%	-2.9%	2.1%	-6.3%	-6.0%	-7.7%
L20	-9.5%	-40.0%	-11.6%	-7.1%	-19.0%	-14.6%	-6.1%
E[Loss] - Weighted							
L01 - L20	-0.2%	-0.6%	-0.4%	-1.5%	-0.2%	-0.1%	0.2%
L01 - L10	-0.1%	-0.6%	-0.4%	-1.5%	-0.2%	-0.1%	0.2%
L11 - L20	-3.4%	-5.9%	-4.9%	-2.1%	-1.5%	-2.5%	-3.8%
Risk - Weighted							
L01 - L20	-2.0%	-3.6%	-1.7%	-2.2%	-1.3%	-0.9%	-2.2%
L01 - L10	-1.7%	-3.1%	-1.3%	-2.0%	-1.2%	-0.4%	-1.8%
L11 - L20	-3.6%	-6.8%	-5.0%	-3.3%	-1.8%	-2.8%	-3.8%

Exhibit 3.1: Change in Modification from Variable Split Baseline
PYs 2010-2014: All Expected Loss Cohorts

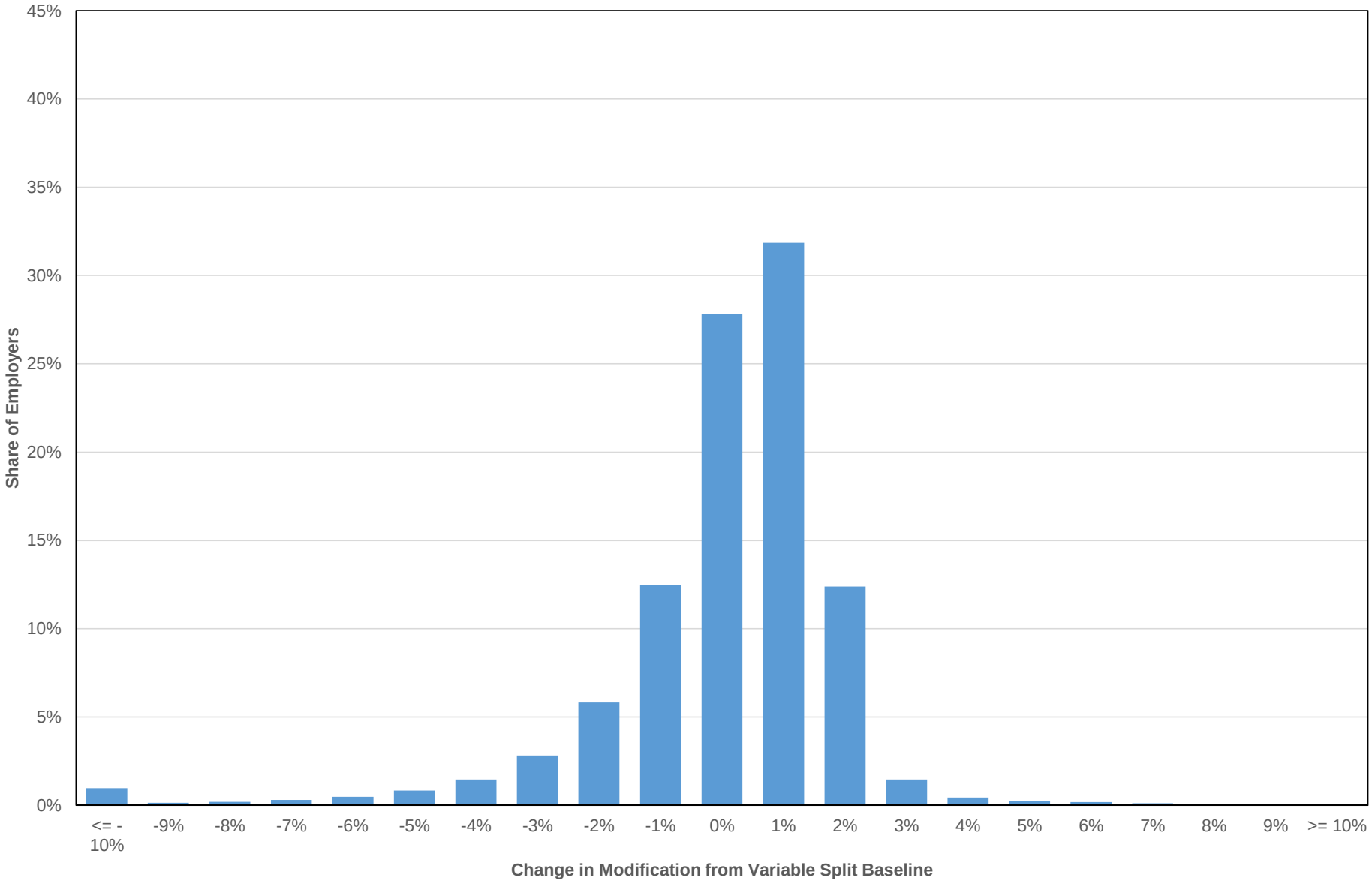


Exhibit 3.2: Change in Modification from Variable Split Baseline
PY 2010: All Expected Loss Cohorts

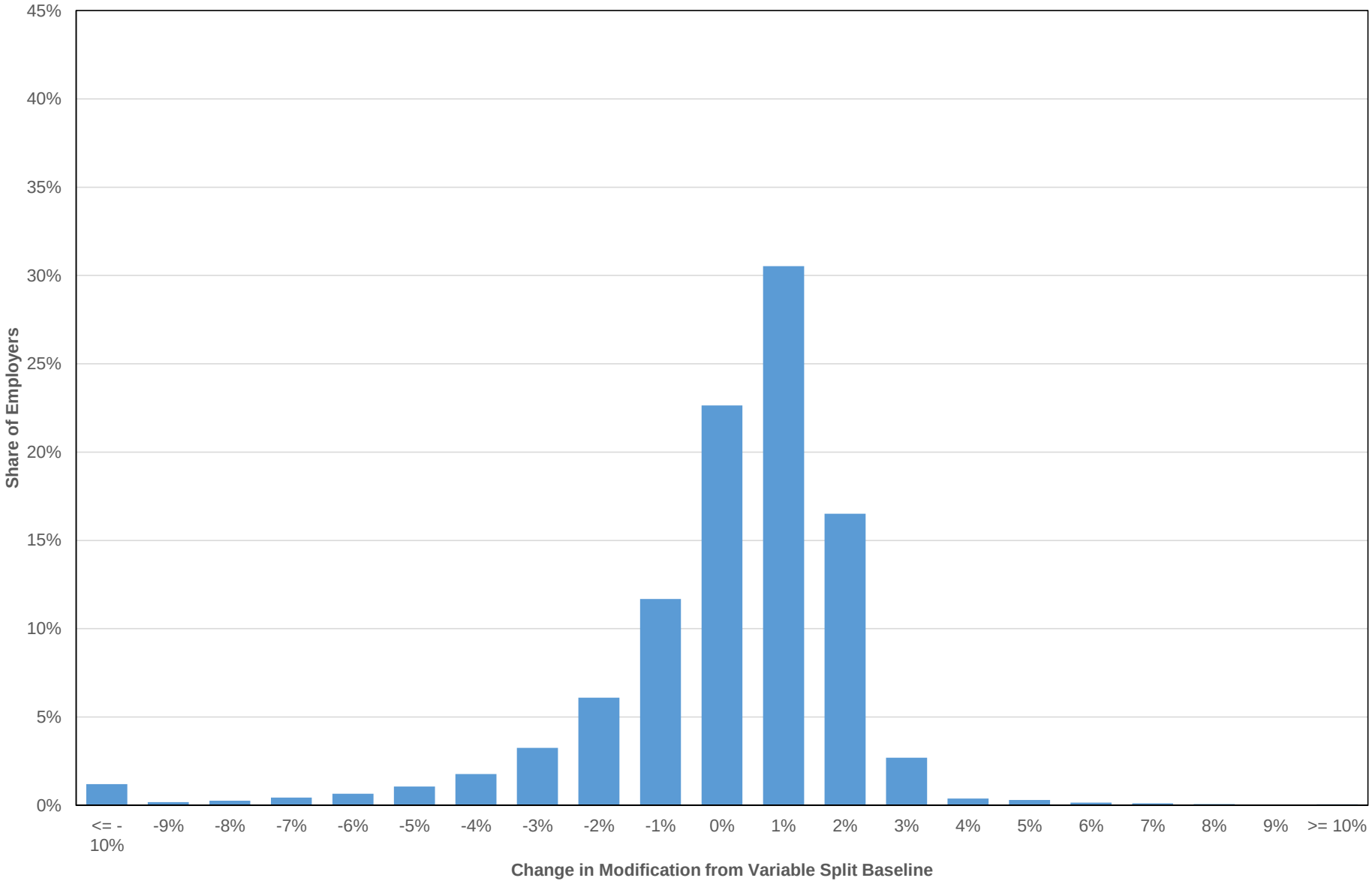


Exhibit 3.3: Change in Modification from Variable Split Baseline
PY 2011: All Expected Loss Cohorts

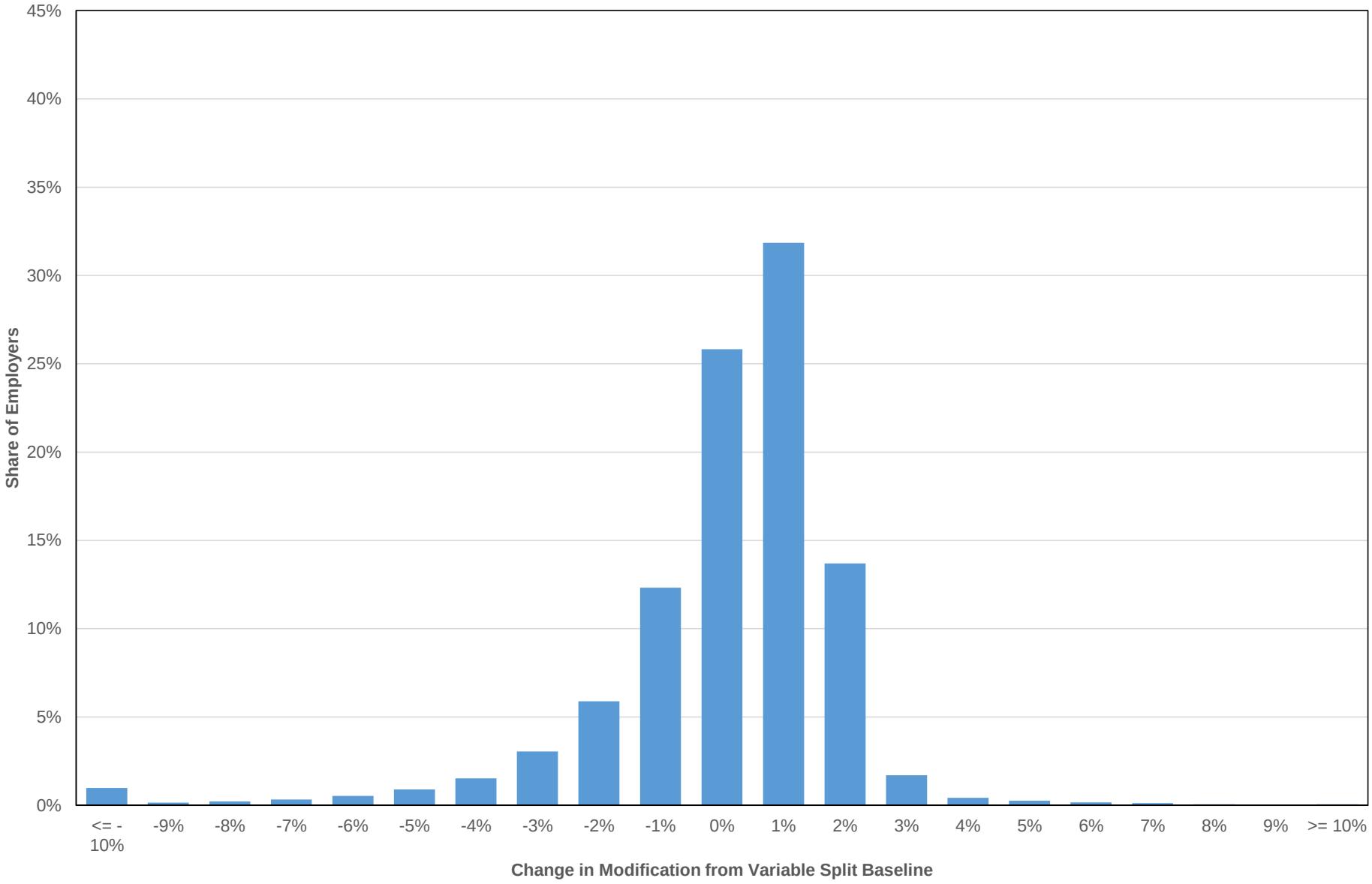


Exhibit 3.4: Change in Modification from Variable Split Baseline
PY 2012: All Expected Loss Cohorts

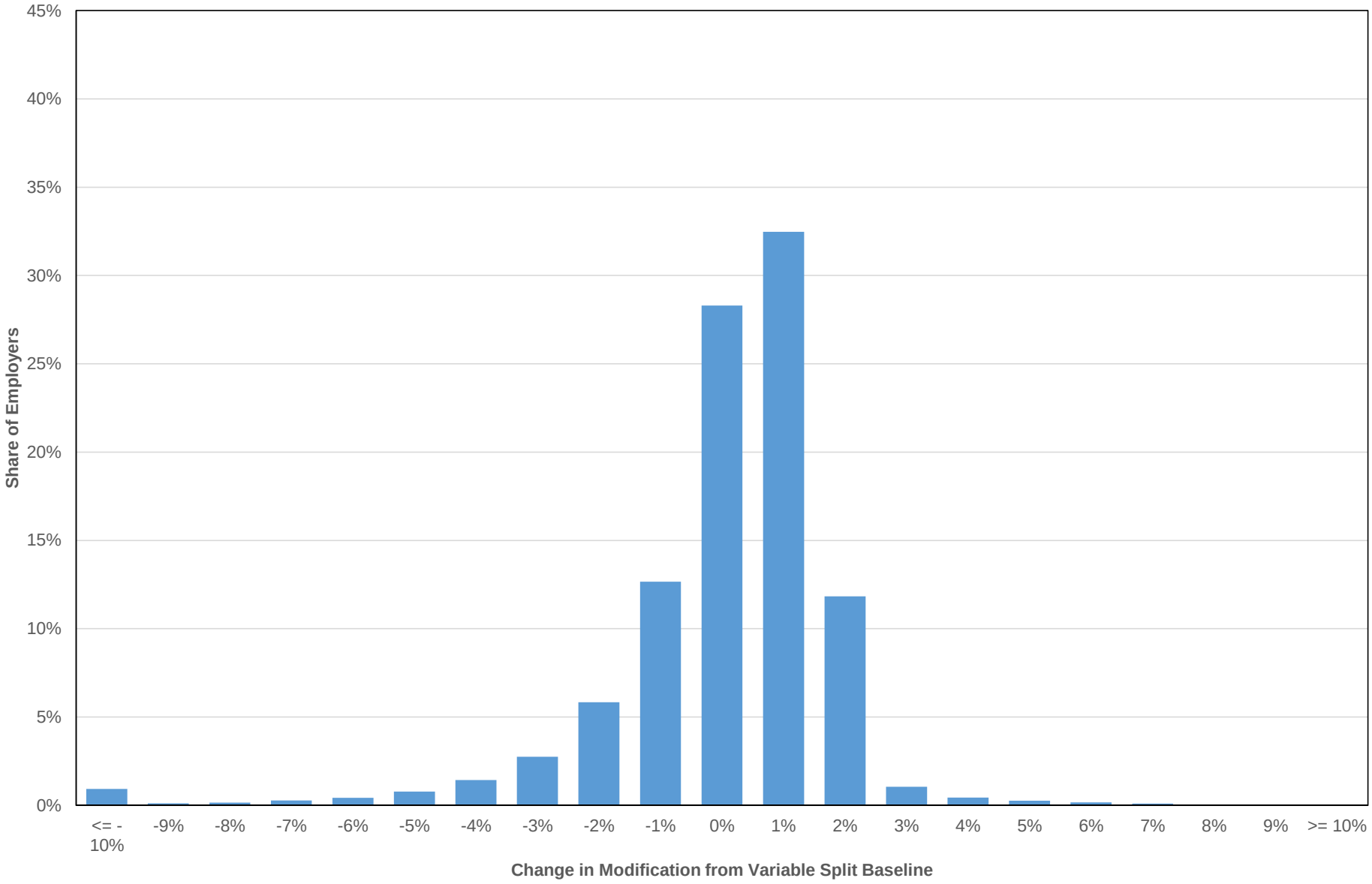


Exhibit 3.5: Change in Modification from Variable Split Baseline
PY 2013: All Expected Loss Cohorts

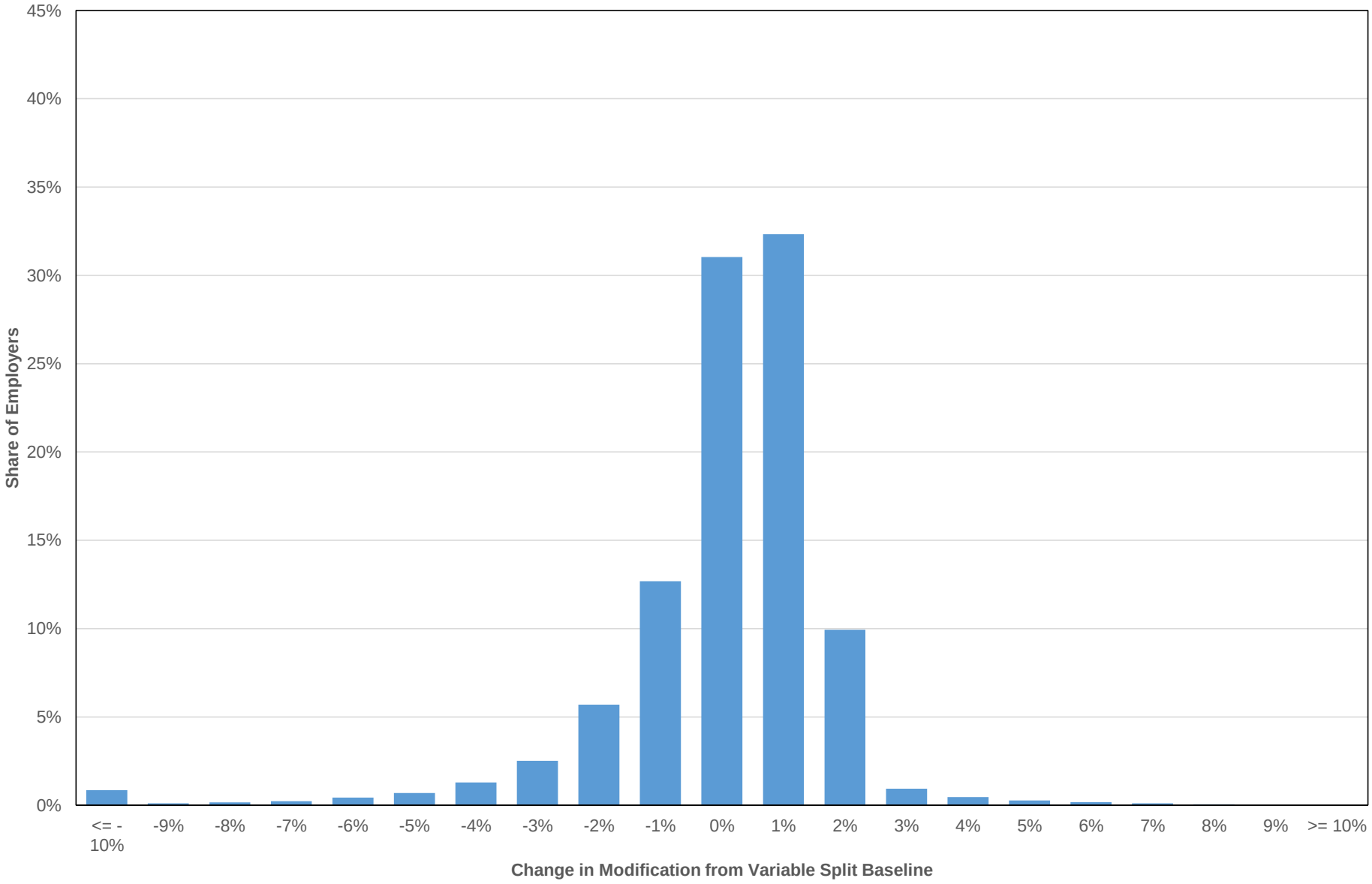


Exhibit 3.6: Change in Modification from Variable Split Baseline
PY 2014: All Expected Loss Cohorts

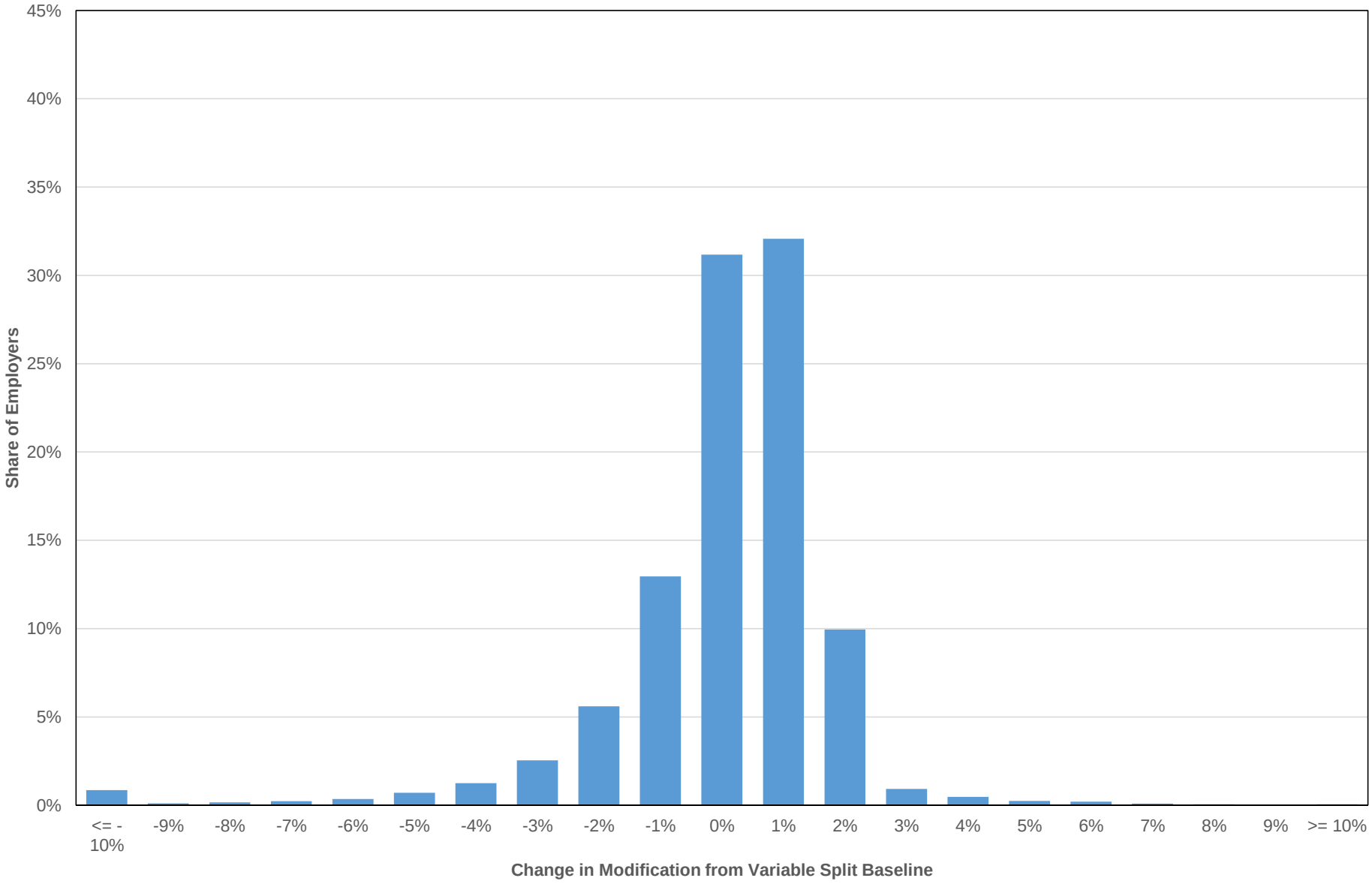


Exhibit 3.7: Change in Modification from Variable Split Baseline
PYs 2010-2014: Expected Loss Cohorts L11 - L20 (Small Risks)

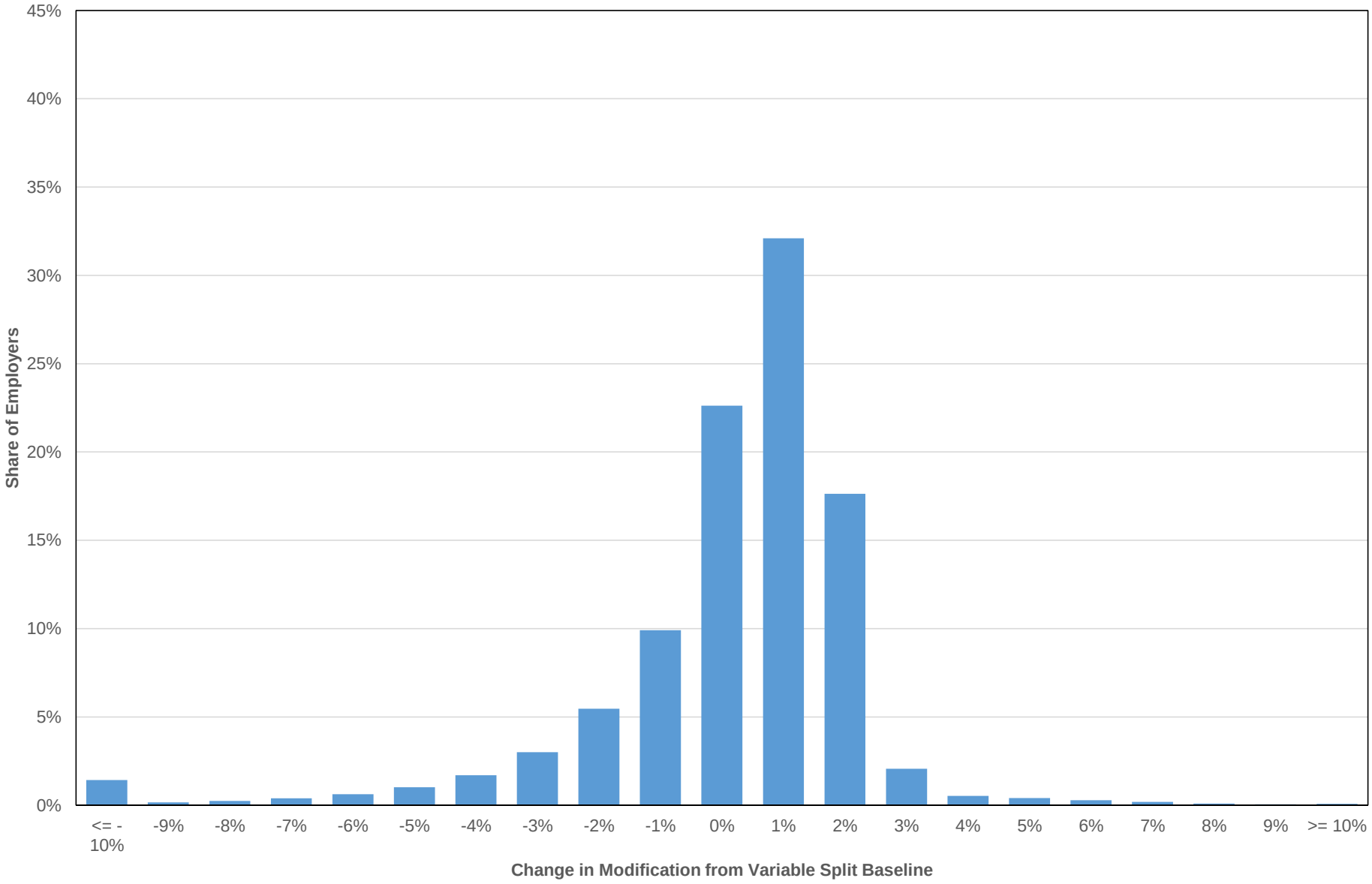


Exhibit 3.8: Change in Modification from Variable Split Baseline
PY 2010: Expected Loss Cohorts L11 - L20 (Small Risks)

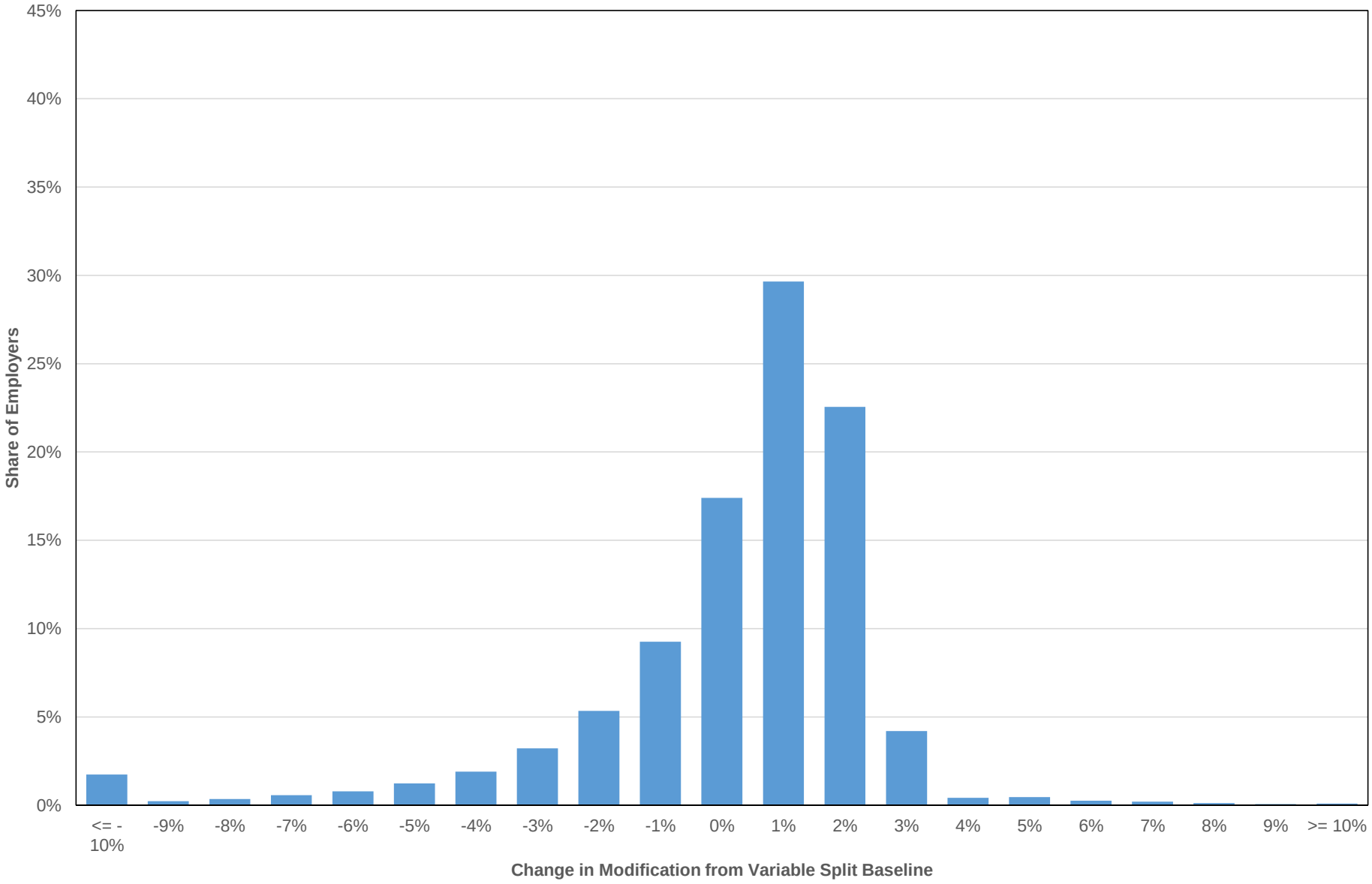


Exhibit 3.9: Change in Modification from Variable Split Baseline
PY 2011: Expected Loss Cohorts L11 - L20 (Small Risks)

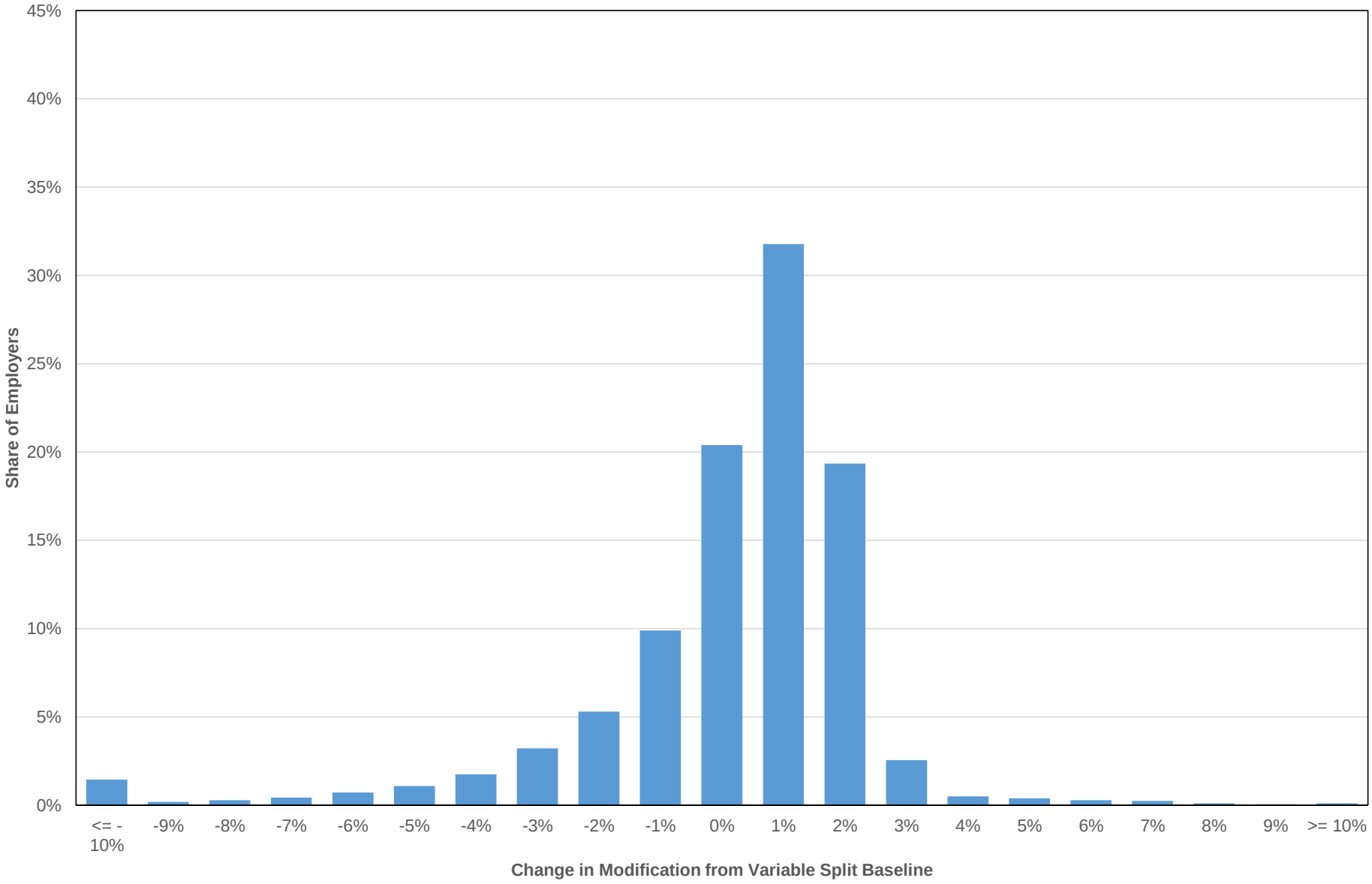


Exhibit 3.10: Change in Modification from Variable Split Baseline
PY 2012: Expected Loss Cohorts L11 - L20 (Small Risks)

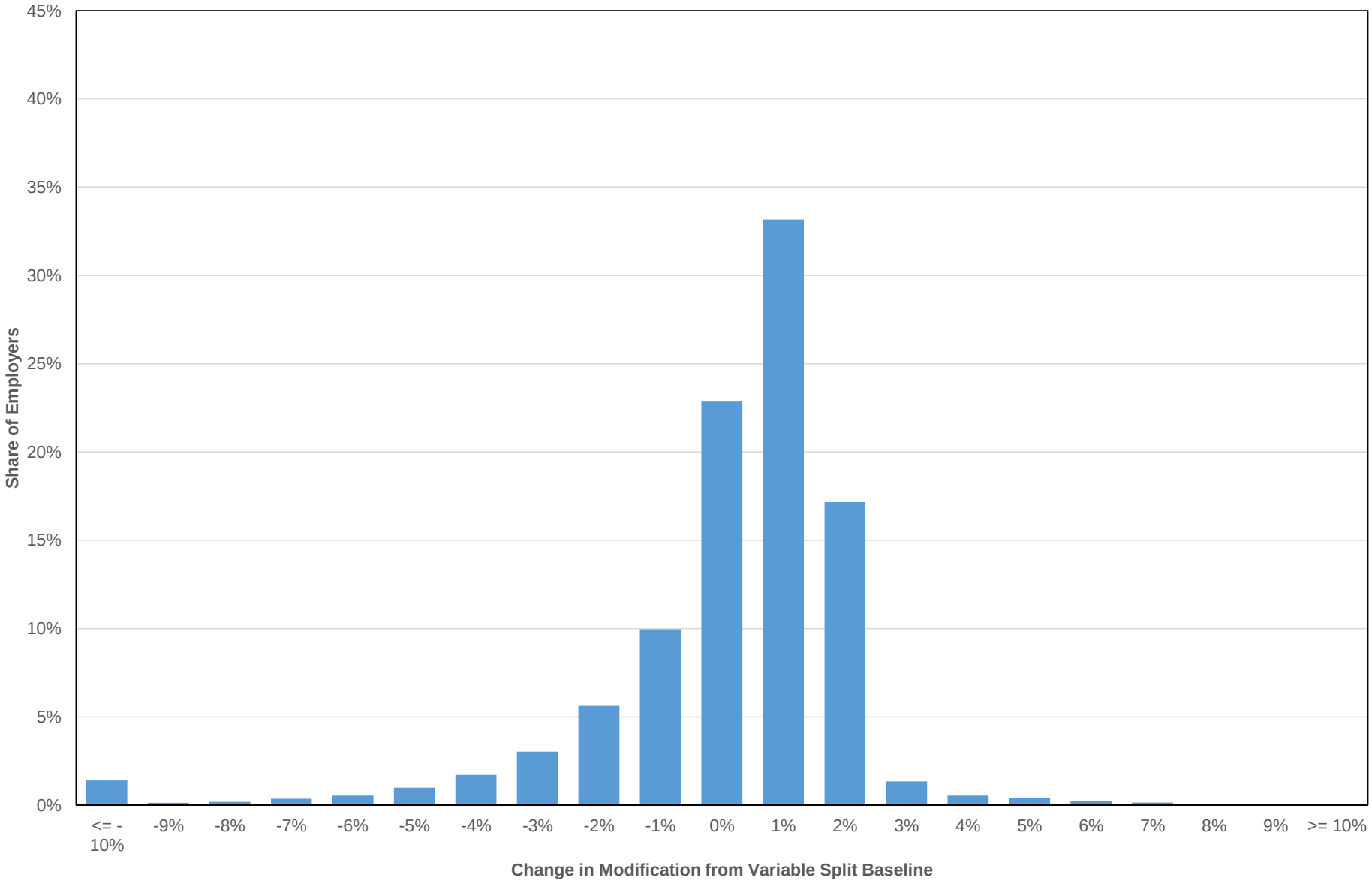


Exhibit 3.11: Change in Modification from Variable Split Baseline
PY 2013: Expected Loss Cohorts L11 - L20 (Small Risks)

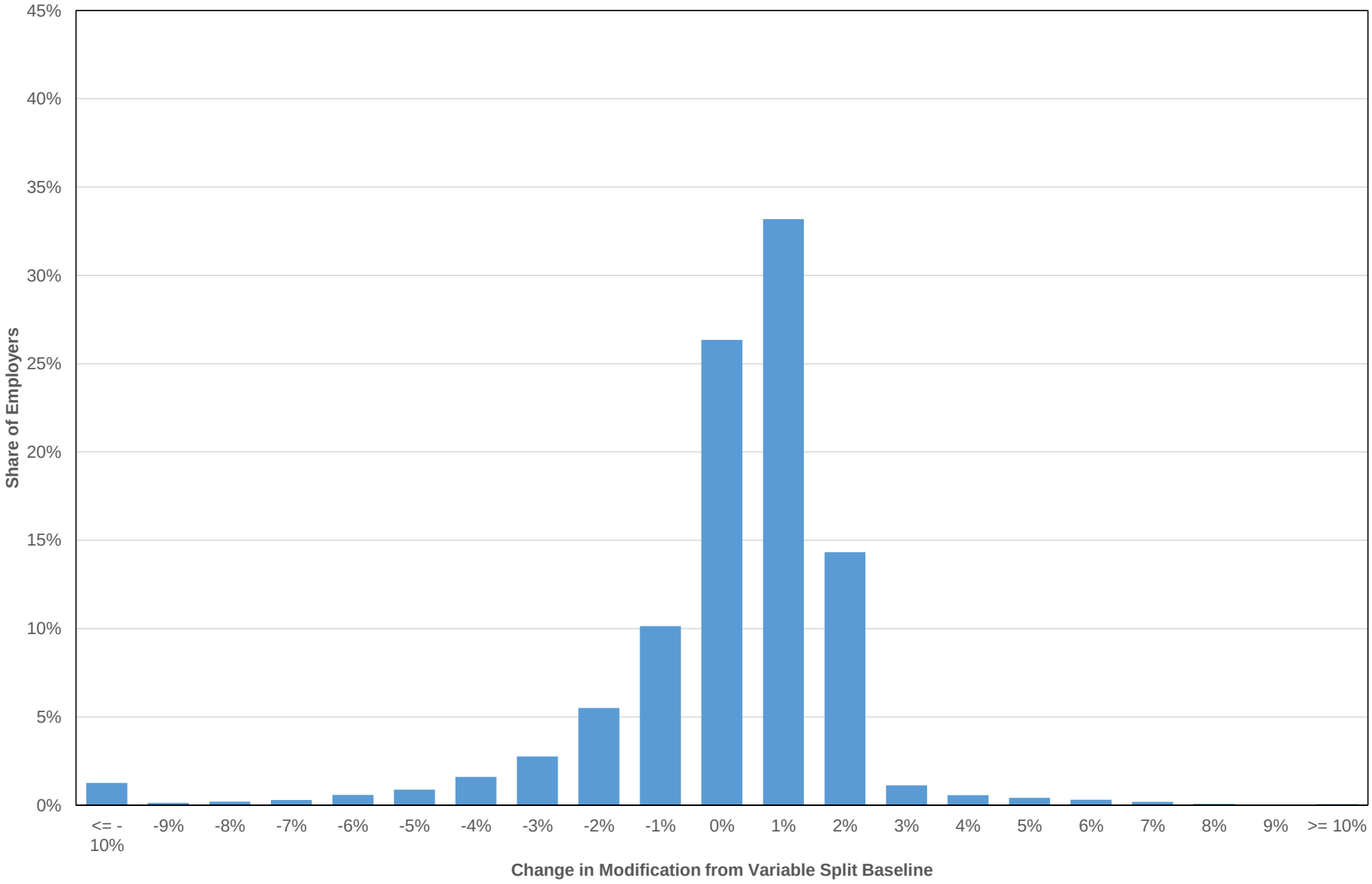


Exhibit 3.12: Change in Modification from Variable Split Baseline
PY 2014: Expected Loss Cohorts L11 - L20 (Small Risks)

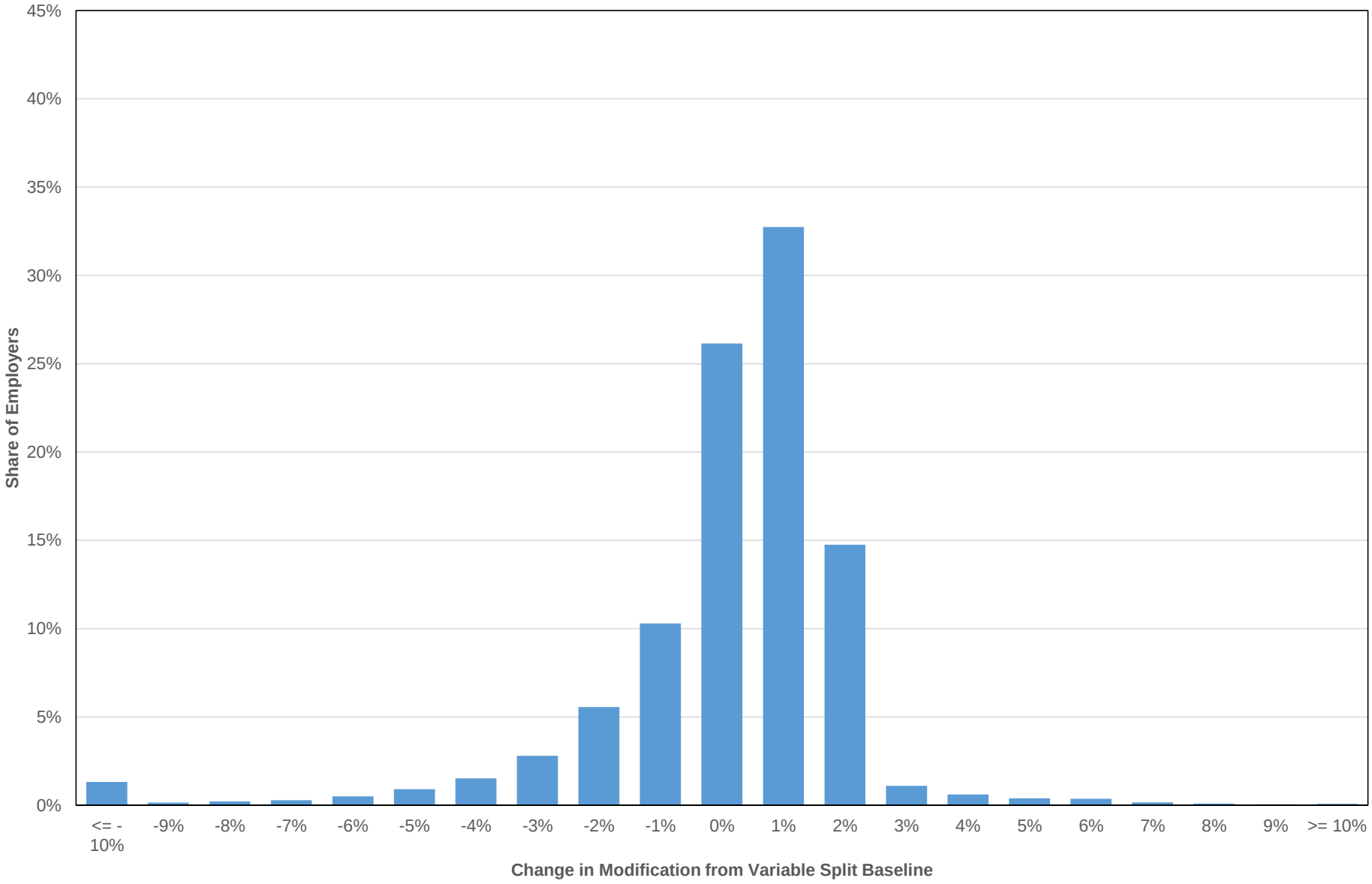


Exhibit 3.13: Change in Modification from Variable Split Baseline
PYs 2010-2014: Expected Loss Cohorts L01 - L10 (Large Risks)

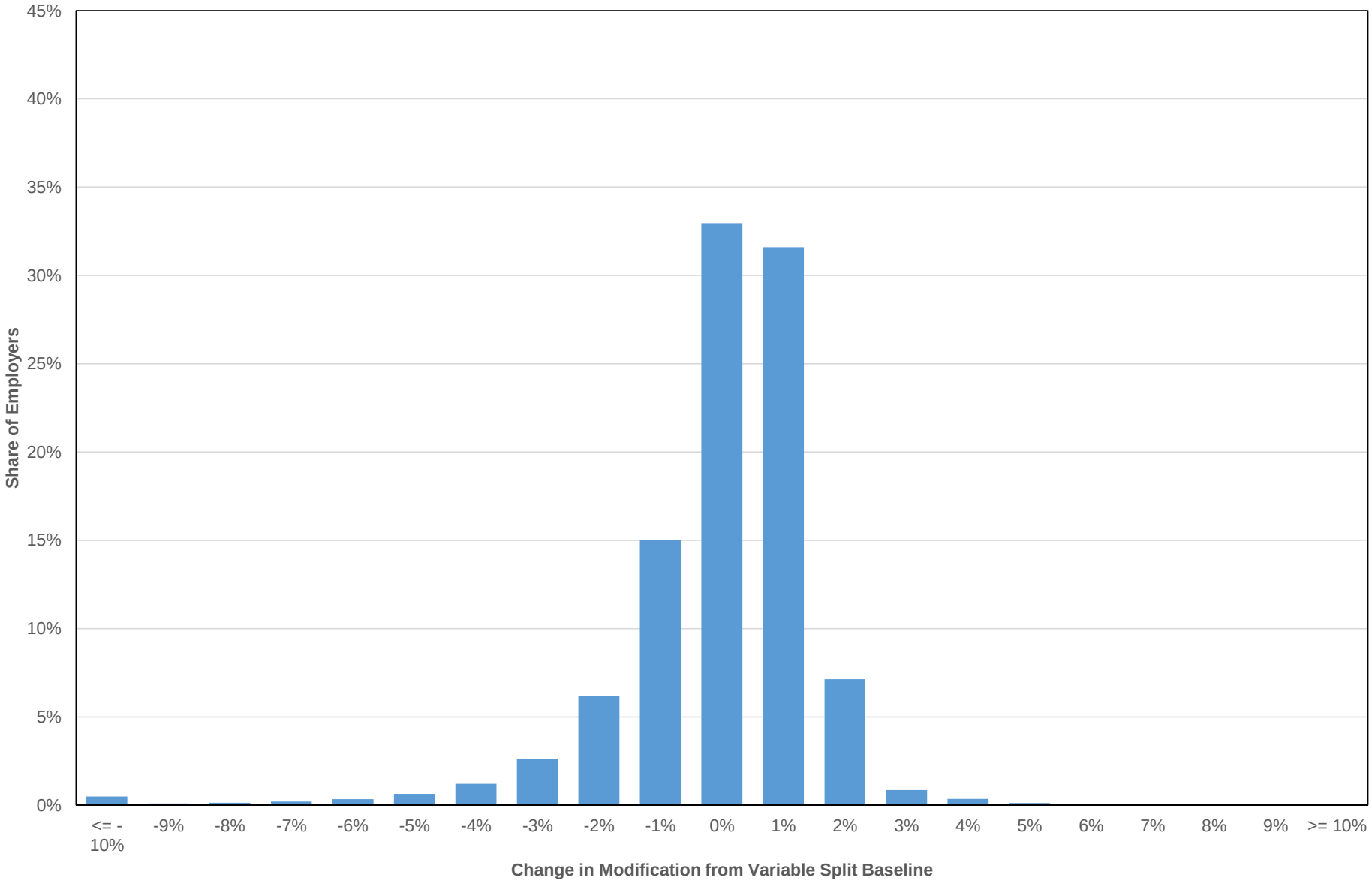


Exhibit 3.14: Change in Modification from Variable Split Baseline
PY 2010: Expected Loss Cohorts L01 - L10 (Large Risks)

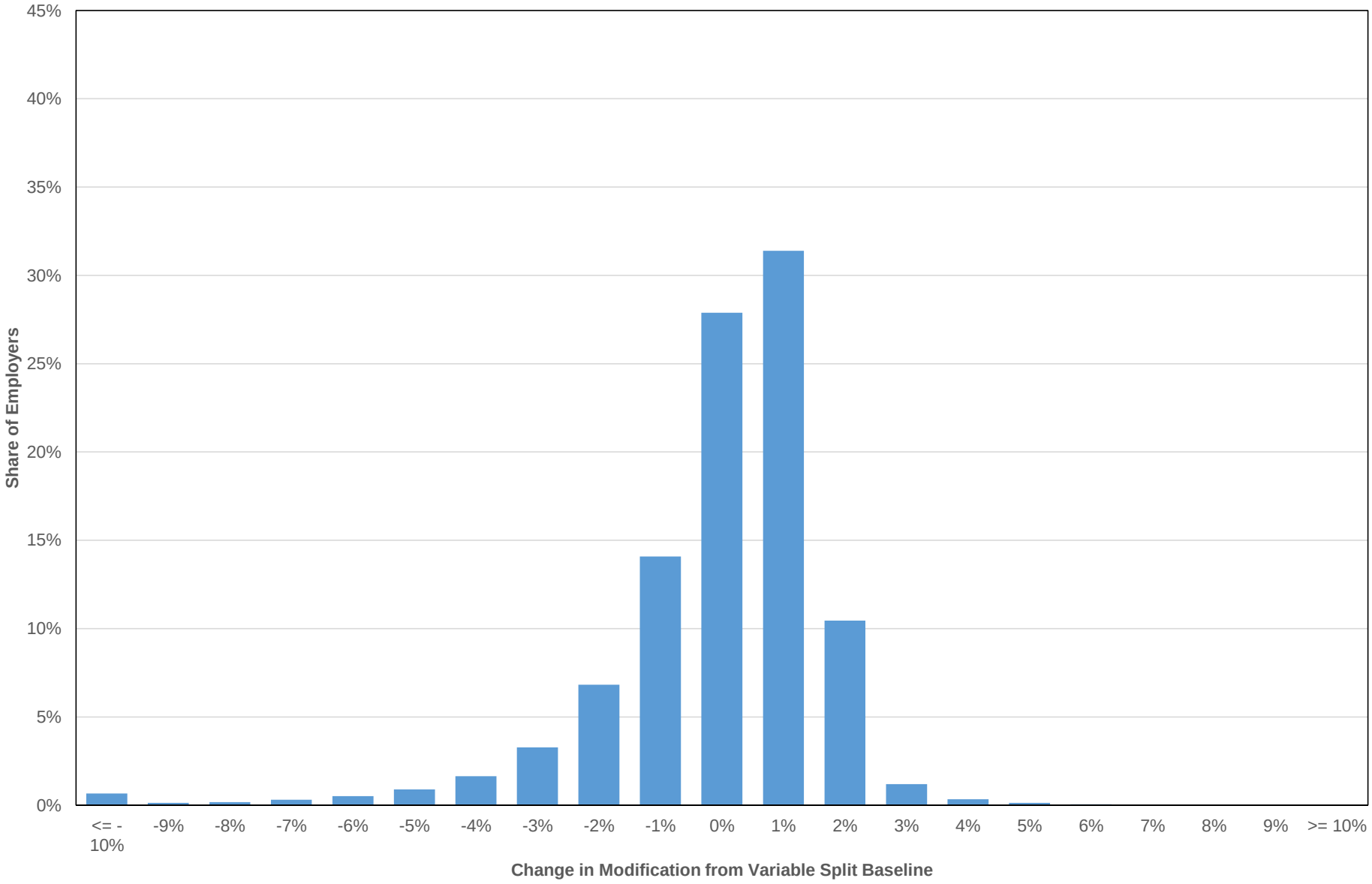


Exhibit 3.15: Change in Modification from Variable Split Baseline
PY 2011: Expected Loss Cohorts L01 - L10 (Large Risks)

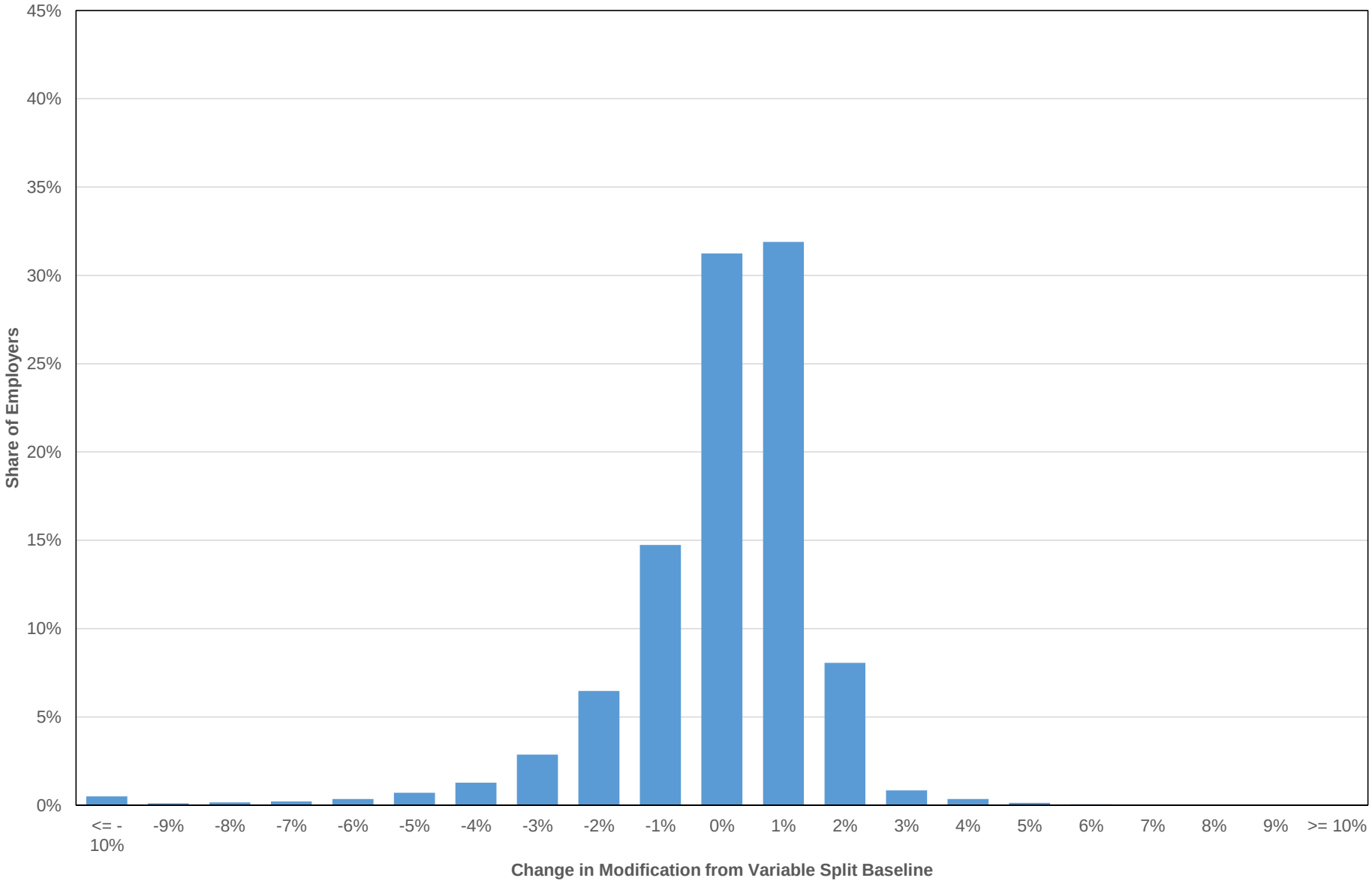


Exhibit 3.16: Change in Modification from Variable Split Baseline
PY 2012: Expected Loss Cohorts L01 - L10 (Large Risks)

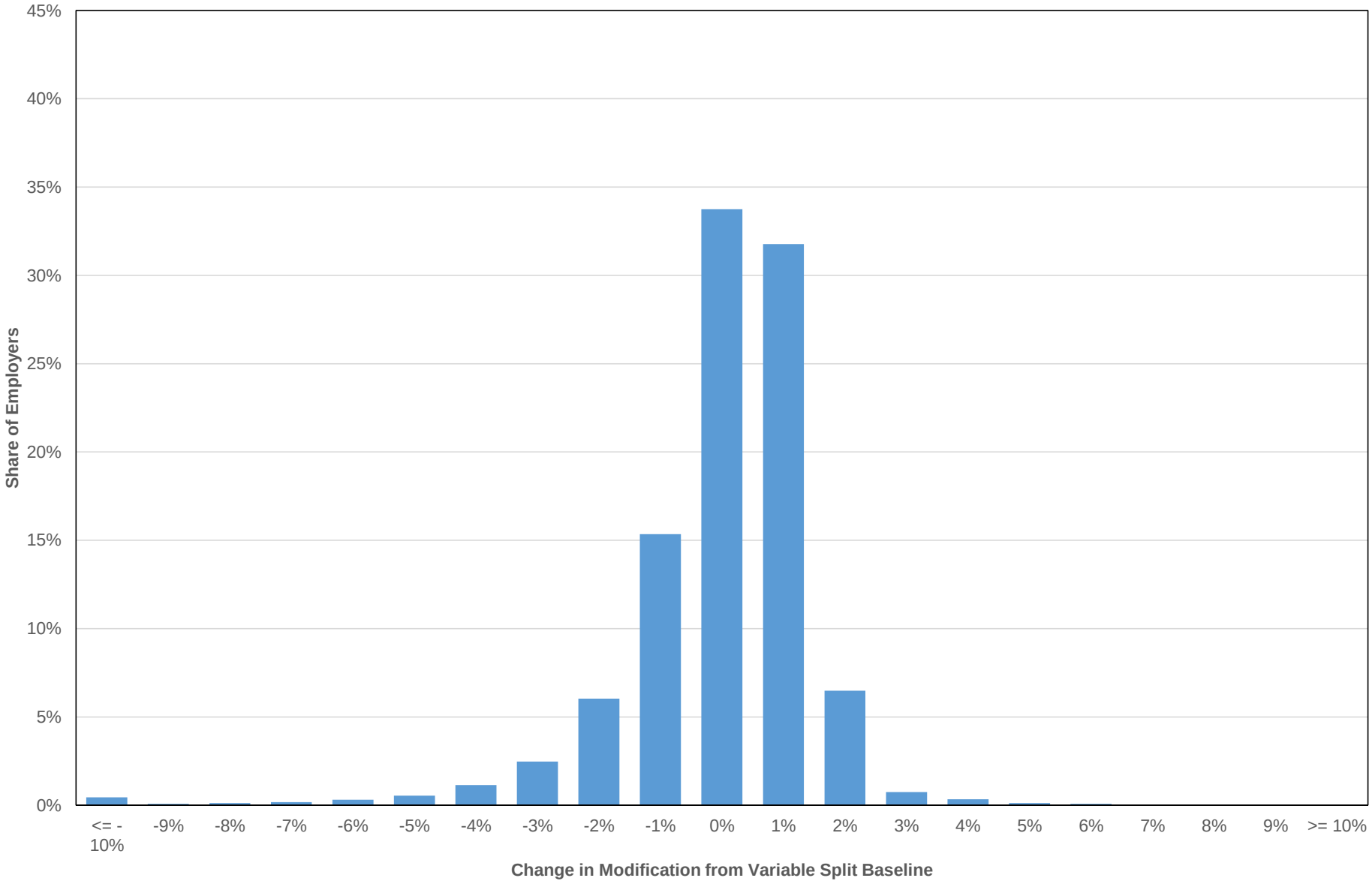


Exhibit 3.17: Change in Modification from Variable Split Baseline
PY 2013: Expected Loss Cohorts L01 - L10 (Large Risks)

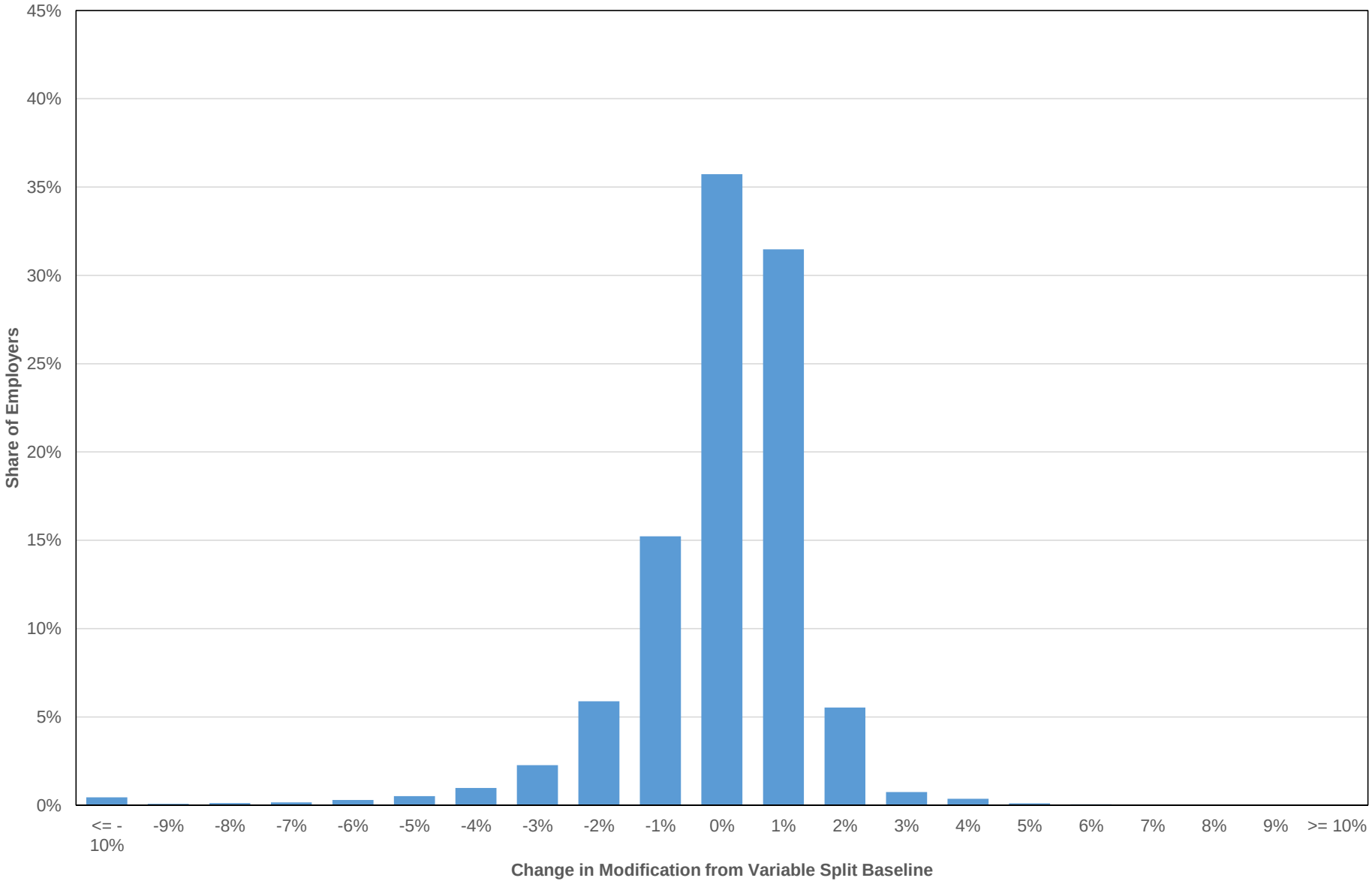


Exhibit 3.18: Change in Modification from Variable Split Baseline
PY 2014: Expected Loss Cohorts L01 - L10 (Large Risks)

