RESEARCH BRIEF

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WORKERS COMPENSATION EXCESS LOSS DEVELOPMENT

INTRODUCTION

Large loss development and excess loss development are relevant in determining excess loss factors used in NCCI's ratemaking methodology and in retrospective rating. In this research brief, NCCI presents the results of an update to the periodic review of these development patterns.

This brief is an update to the 2007 and 2011 NCCI studies [1, 2] and adds five calendar years of large loss experience to the most recent study.

In addition to updating our previous analysis, we explore development patterns by size of loss across a broad array of experience and development periods using enhanced visualization techniques. Also included are tables of cumulative excess loss and excess claim count development factors through development year 31 for a variety of excess layers.

KEY FINDINGS

For large claims reported to NCCI in Financial Call 31 (Large Loss and Catastrophe Call) during the time period studied and development through 31 years:

- The development of case-incurred loss amounts, paid loss amounts, and claim counts varies significantly by loss size, accident year, and development year[1]
- Claims with case-incurred losses less than $3 million generally developed upward, while claims with case-incurred losses in excess of $5 million generally developed downward
- Claims with case-incurred loss between $3 million and $5 million generally developed downward during earlier reporting periods and upward during later reporting periods
- For Florida, claims under large deductible policies had significantly more development in the excess layers than claims under other policies (i.e., guaranteed cost and small deductible)

STUDY DATA

The data source used in this study is NCCI's Call 31—Large Loss and Catastrophe Call. Under this Call, initiated in 2003, carriers annually report information by individual claim for injuries occurring in Accident Year 1984 or later where the case-incurred value of the claim is at least $500,000. Call 31 experience used in this study reflects:

- All jurisdictions for which NCCI provides ratemaking services, except TX and WV[2]
- Accident Years 1984 to 2013
- Claims evaluated at annual intervals from 12/31/00 to 12/31/14

[1] Accident year is a loss accounting definition in which experience is summarized by the calendar year in which an accident occurred. This experience is summarized annually as additional loss payments are made and reserves are adjusted; development (or report) year signifies the calendar year of summarization

[2] The 36 jurisdictions included in this study are AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, UT, VA, and VT

Experience used does not include catastrophe claims, loss adjustment expenses, or large deductible policies unless otherwise noted.

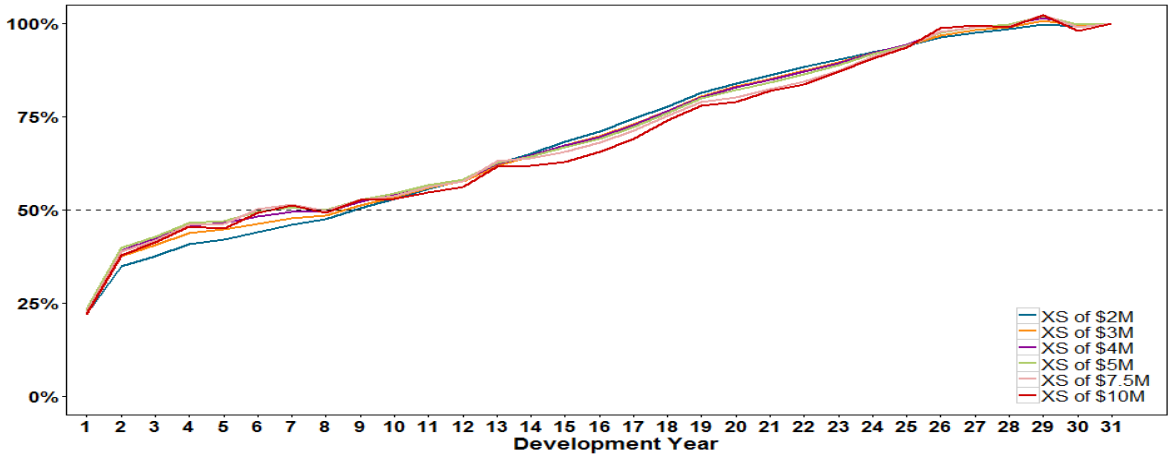
Where indicated, we have trended this experience by 5% per year on an accident year basis. More detail on the data, trend adjustments, and development factor calculations is given in the section Background and Methodology in the Appendix, along with the average development factors in tabular format.

EXCESS LOSS DEVELOPMENT PATTERNS

Exhibit 1 shows case-incurred loss emergence[3] excess of various attachment points for development years 1 to 31 relative to the 31st development year. All else being equal, the share of losses reported at early stages of development generally increases as the attachment point increases, but the reverse pattern is observed at the intermediate stages of development. This indicates that the emergence of the largest claims is faster in the early stages but then slows for the remaining duration of the claim.

Exhibit 2 shows the number of reported claim counts exceeding various attachment points for development years 1 to 31 relative to the 31st development year. Similar to Exhibit 1, incremental percentage development reported in early years generally increases with an increasing attachment point. As the attachment point increases, the development patterns become more volatile, because fewer cases contribute to the excess loss and claim count development patterns.

Excess Case-Incurred Loss Emergence
Percentage of Losses at 31 Years

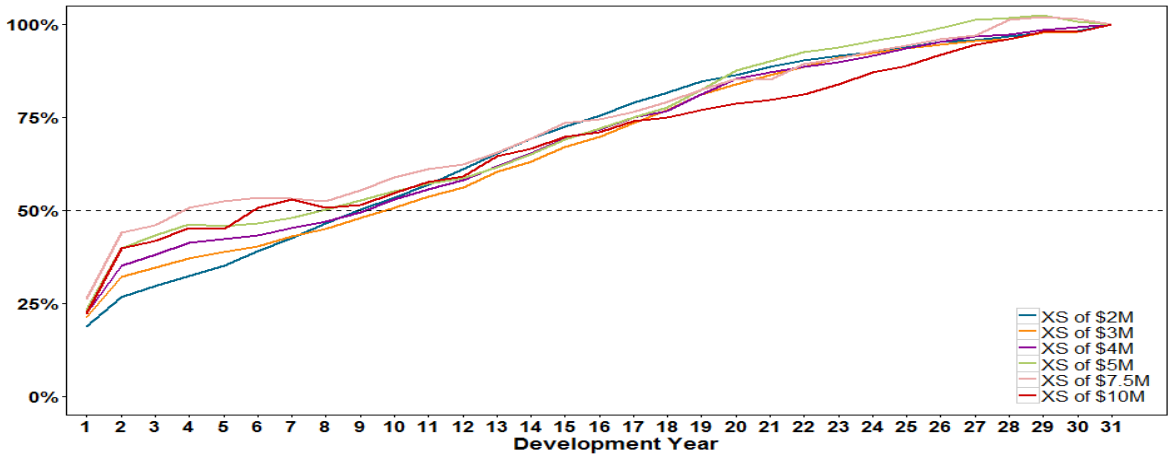


Source: Call 31 data, Accident Years 1984–2013, Calendar Years 2000–2014. Individual claims trended to Accident Year 2014 using 5% trend. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 1

[3] The percentage emergence at development year N is the reciprocal of the N-to-31st cumulative development factor

Large Claim Count Emergence
Percentage of Large Claim Counts at 31 Years
Based on Case-Incurred Losses



Source: Call 31 data, Accident Years 1984–2013, Calendar Years 2000–2014. Individual claims trended to Accident Year 2014 using 5% trend. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

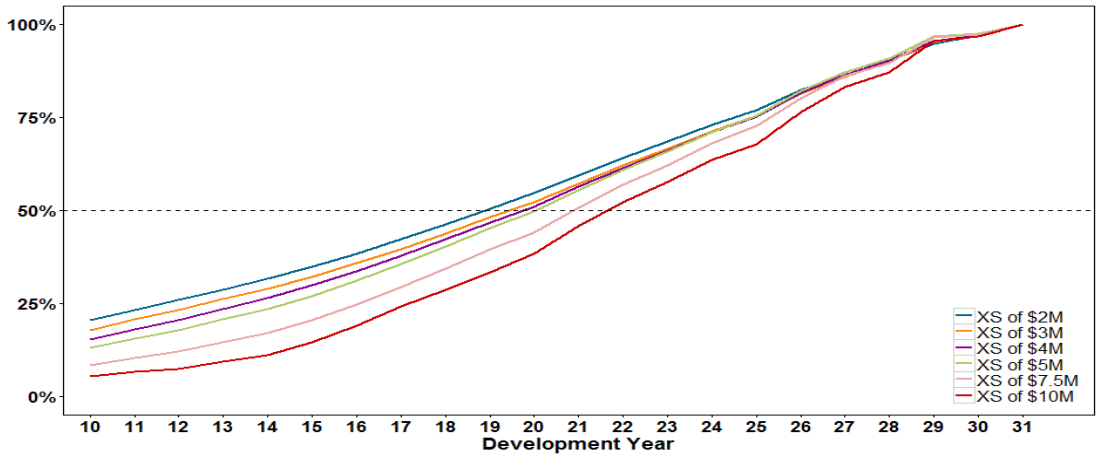
Exhibit 2

Exhibits 3 and 4 illustrate paid loss and paid claim count emergence excess of various attachment points for development years 10 to 31 relative to the 31st development year. These exhibits begin with development year 10 due to the low volume of claims with paid loss amounts in excess of the various attachment points at early stages of development.

Excess paid loss emergence increases monotonically with development year and the average incremental loss development is decreasing for all claim sizes. The share of excess paid losses reported after the 10th development year generally decreases with an increasing attachment point.

The emergence of large claim counts is generally slower as the attachment point increases, though these emergence patterns are more volatile due to the low volume of claims in excess of the largest attachment points.

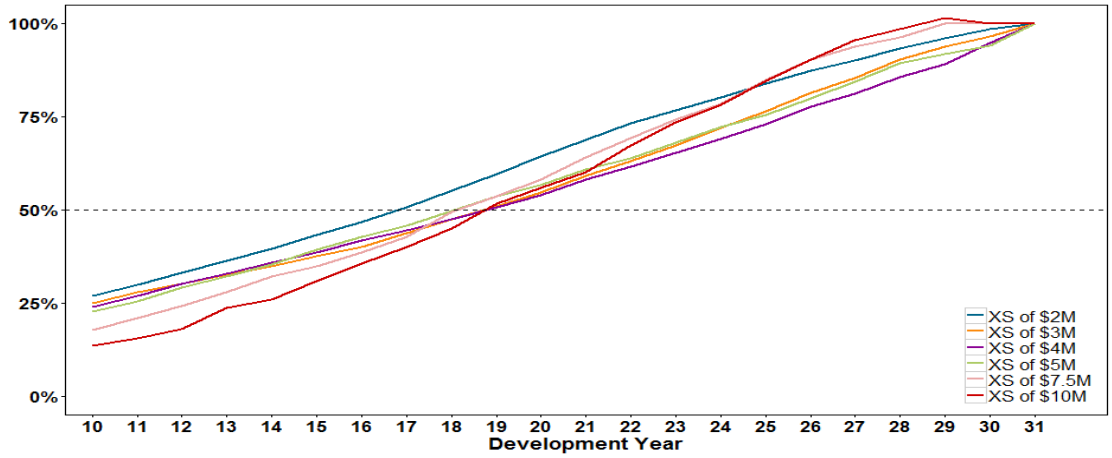
Excess Paid Loss Emergence
Percentage of Losses at 31 Years



Source: Call 31 data, Accident Years 1984–2004, Calendar Years 2000–2014. Individual claims trended to Accident Year 2014 using 5% trend. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 3

Large Claim Count Emergence
Percentage of Large Claim Counts at 31 Years
Based on Paid Losses



Source: Call 31 data, Accident Years 1984–2004, Calendar Years 2000–2014. Individual claims trended to Accident Year 2014 using 5% trend. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 4

DEVELOPMENT BY SIZE OF LOSS

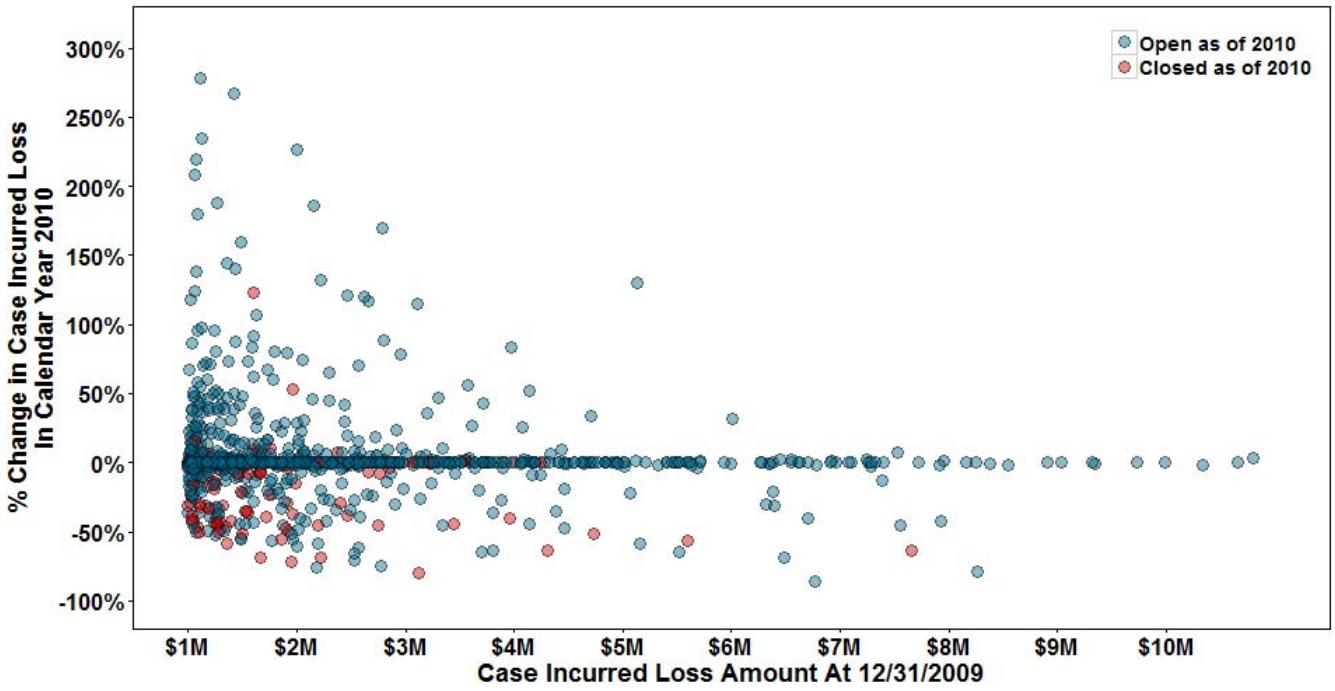
Exhibit 5 shows the development by size of loss that occurred in Calendar Year 2010 on individual claims with accident dates occurring between 2006 and 2009. Each circle represents a single claim, with the case-incurred loss evaluated as of year-end 2009 on the horizontal axis and the percentage change in the case-incurred loss from year-end 2009 to year-end 2010 on the vertical axis. Closed claims are shown in red and open claims are shown in blue.

For Call 31, carriers report on an annual basis those claims where the case-incurred value is at least $500,000. As a result of this fixed threshold, claims that develop below $500,000 are no longer reported on Call 31 and such a claim would not appear in the chart. For example, a claim that is reported at $1 million as of year-end 2009 can only develop downward by 50% to $500,000 before its downward development is such that the claim is no longer reported in Call 31. Therefore, no points in Exhibit 5 are plotted between –50% and –100% for claims whose value at year-end 2009 is $1 million. Similarly, a claim that is reported at $2 million as of year-end 2009 can only develop downward by as much as 75%, and so no points are plotted between –75% and –100% for $2 million claims. The white area in the lower left of Exhibit 5 is due to claims less than $500,000 not being reported in Call 31.

In the previous update, we observed that the largest claims were more likely to show dramatic drops in case-incurred loss than were smaller claims. For Accident Years 2006–2009, claims in excess of $5 million appear more likely to develop downward than upward.

The development tendency of smaller claims is difficult to assess since they are clustered together and the upward and downward percentage changes are displayed asymmetrically. For example, claims that experience a 100% change in case-incurred loss represent a greater distance on the vertical axis than claims that experience a –50% change in case-incurred loss, even though a claim with a 100% increase in value followed by a 50% decrease in value returns to its original value. Further, the individual claims depicted on this exhibit are at different levels of maturity. For example, claims on accidents from 2006 are observed from fourth to fifth report while claims on accidents from 2009 are observed from first to second report.

Case-Incurred Loss Development
Accident Years 2006–2009, Calendar Year 2010

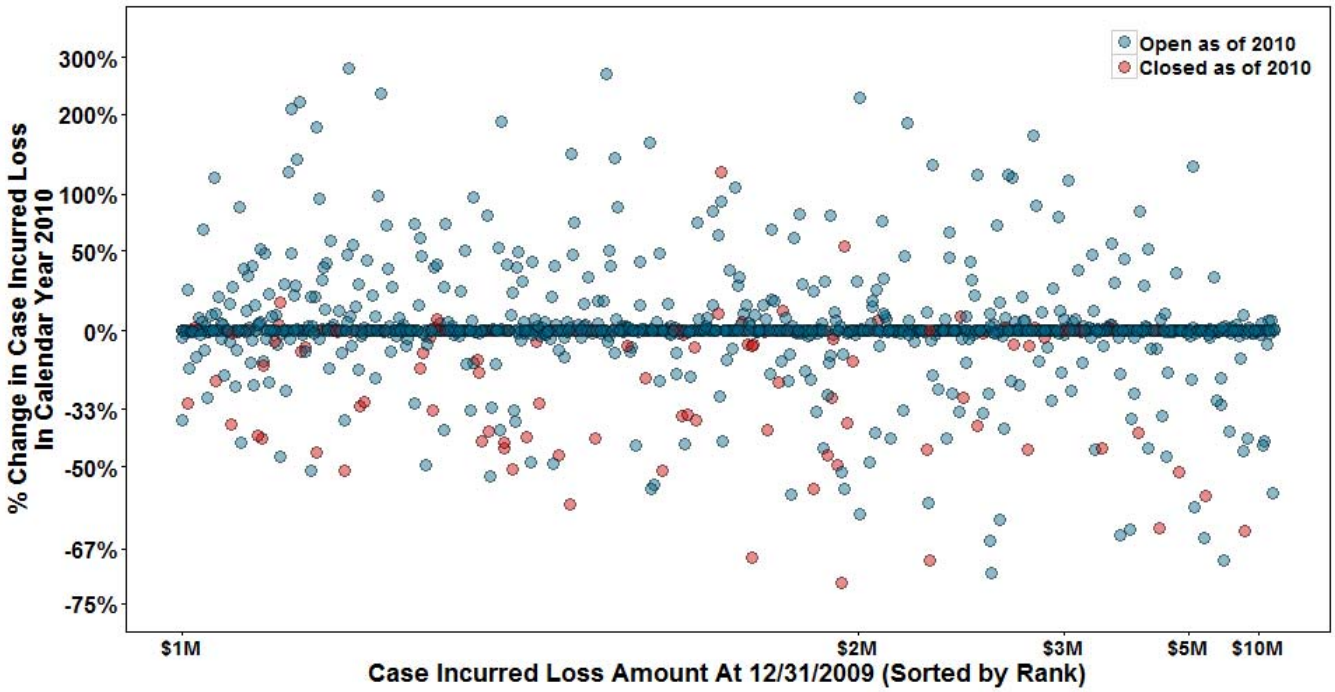


Source: Call 31 data, Accident Years 2006–2009, Calendar Years 2009–2010. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 5

Exhibit 6 is a revision of Exhibit 5 and provides a more detailed visualization of the development of individual claims. By using a symmetric (logarithmic) scale on the vertical axis, it becomes easier to contrast upward and downward percentage changes in case-incurred losses for all claim sizes. For example, claims that experience a 100% or –50% change in case-incurred losses represent the same distance on the vertical axis. The case-incurred loss amounts (as of year-end 2009) on the horizontal axis are scaled by the rank of the claim size, which provides more separation between the smaller claims. With these revisions, Exhibit 6 more clearly illustrates that claims in excess of $5 million appear more likely to develop downward than upward. However, similar to Exhibit 5, the development tendency of smaller claims is still difficult to assess because the individual claims are at different ages of maturity.

Case-Incurred Loss Development
Accident Years 2006–2009, Calendar Year 2010



Source: Call 31 data, Accident Years 2006–2009, Calendar Years 2009–2010. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 6

To visualize the development by size of loss at common ages of maturity, Exhibits 7 through 11 show the development of individual claims at common claim maturities. On each exhibit:

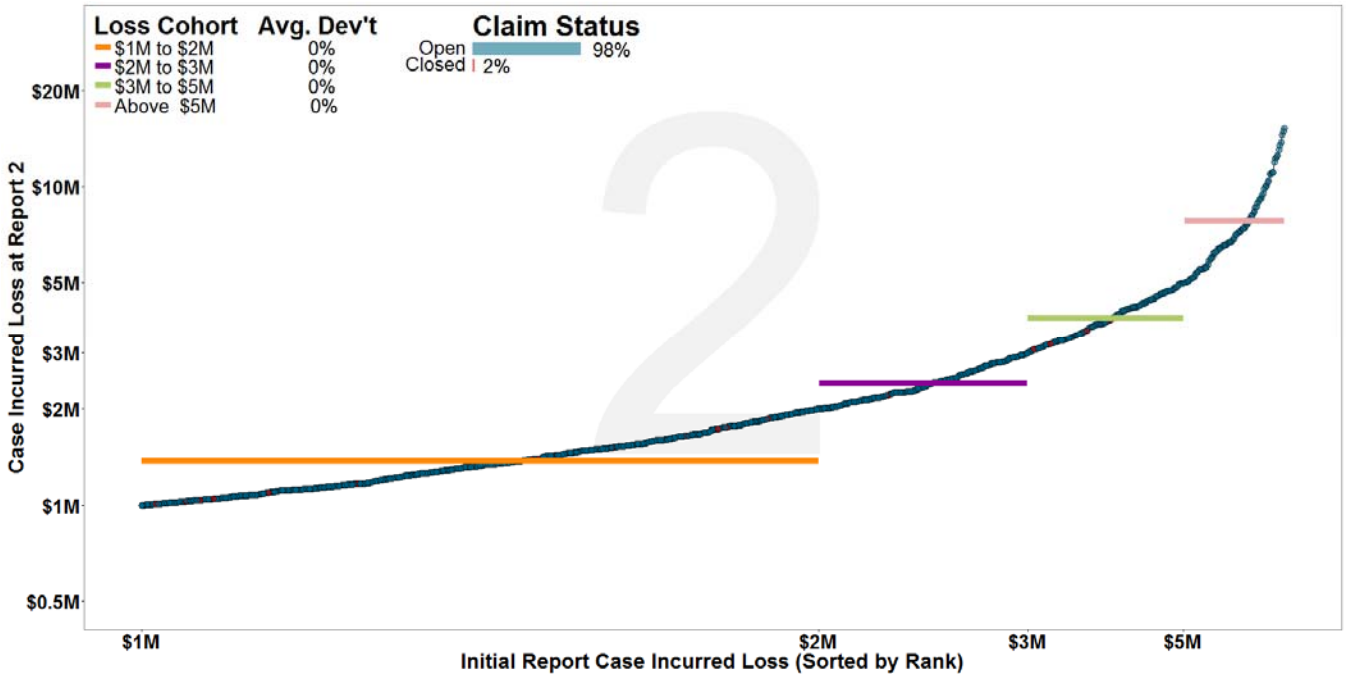
- The horizontal axis represents the case-incurred loss amounts evaluated at second report[4] and ranked by claim size
- Each circle represents a single claim and, as before, closed claims are shown in red and open claims in blue
- The vertical axis displays the case-incurred loss amounts evaluated at each report on a logarithmic scale, ranging from second report in Exhibit 7 through sixth report in Exhibit 11

The individual claims are segregated into four loss cohorts representing various claim sizes. Spanning the range of these loss cohorts are faint-colored horizontal lines, which represent the average case-incurred loss at a second report. These lighter-colored lines remain static across Exhibits 7 through 11. Also displayed for each loss cohort are darker-colored lines, which represent the average case-incurred loss for each report. For Exhibit 7, the pairs of lines are equivalent and therefore appear as single lines. On subsequent exhibits, the lines separate and the difference between them represents the average development observed from a second report to the end of a report period for each cohort. This average development is quantified at the top of each exhibit.

The following development patterns can be observed in Exhibits 7 through 11:

- Claims with case-incurred amounts less than $3 million at a second report generally developed upward
- Claims with case-incurred amounts above $3 million at a second report generally developed downward
- Claim closure percentages increased consistently across reports

Case-Incurred Loss Development
Accident Years 2006–2009, Report 2

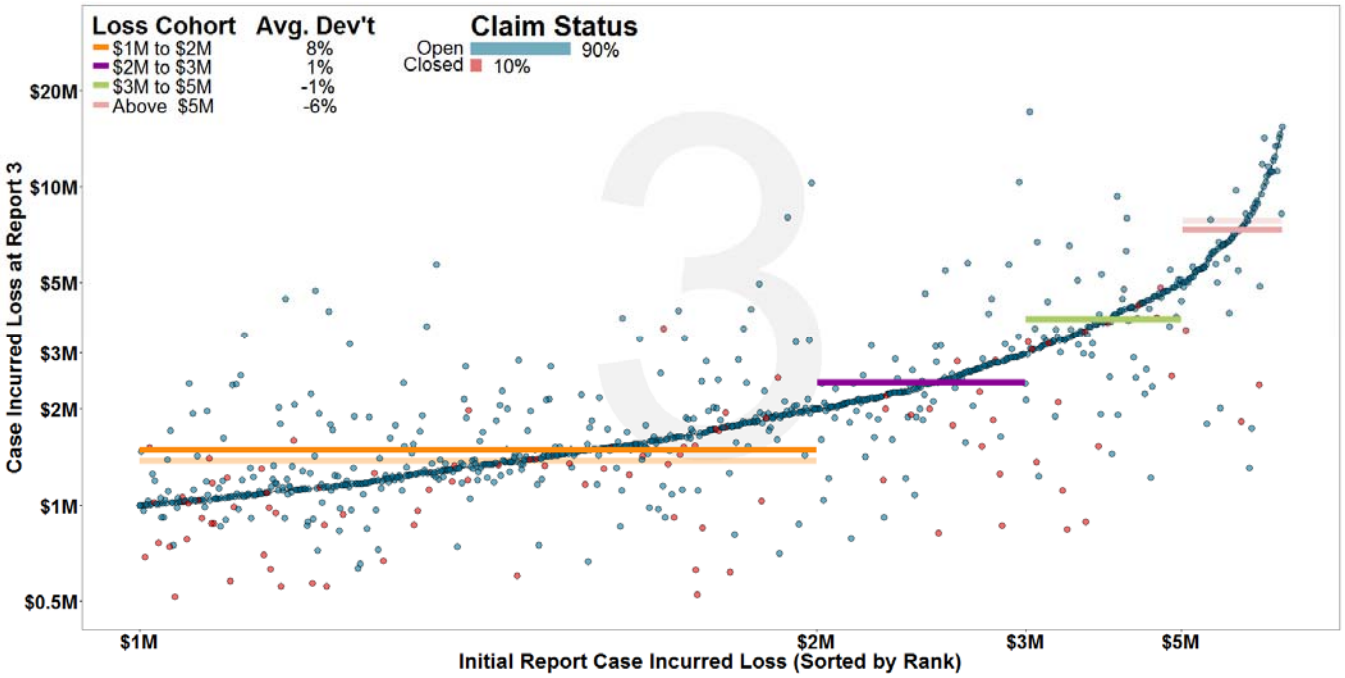


Source: Call 31 data, Accident Years 2006–2009, Report 2. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 7

[4] Here, "report" is used to denote the relative maturity of a claim. For example, an accident occurring in 2009 that is summarized as of year-end 2010 is said to be valued at a 2nd report.

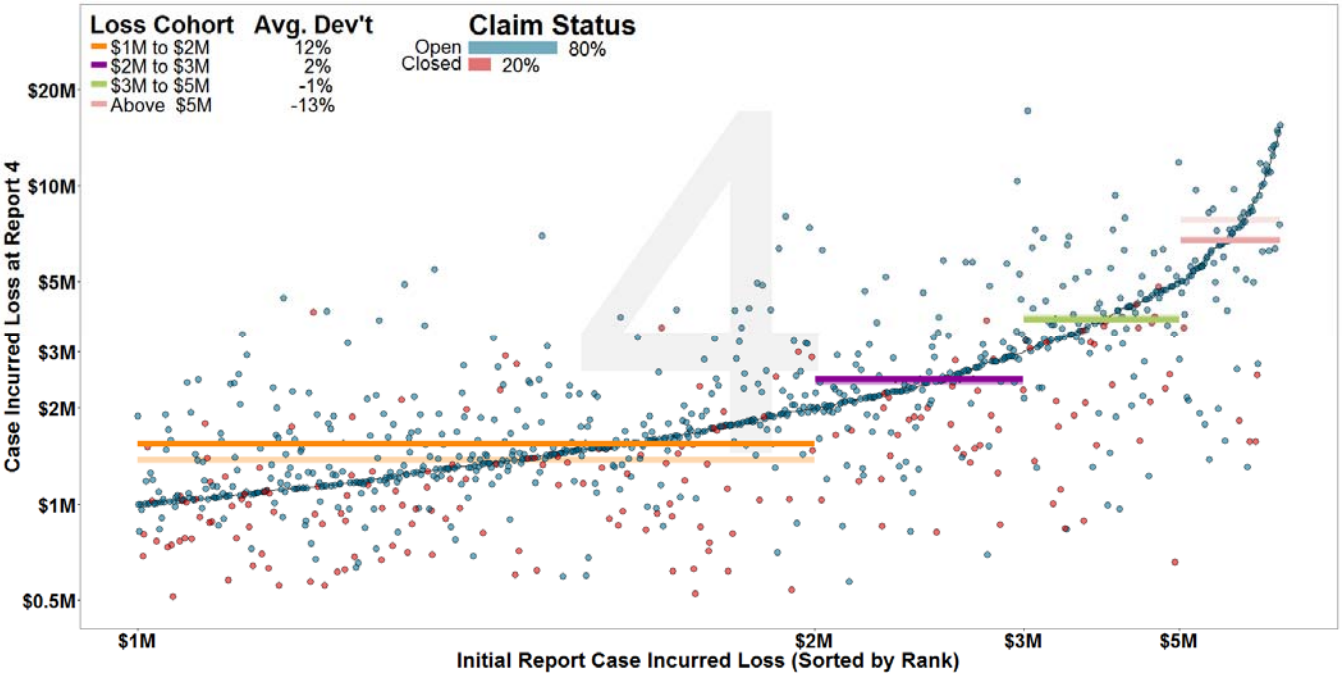
Case-Incurred Loss Development
Accident Years 2006–2009, Report 3



Source: Call 31 data, Accident Years 2006–2009, Report 3. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 8

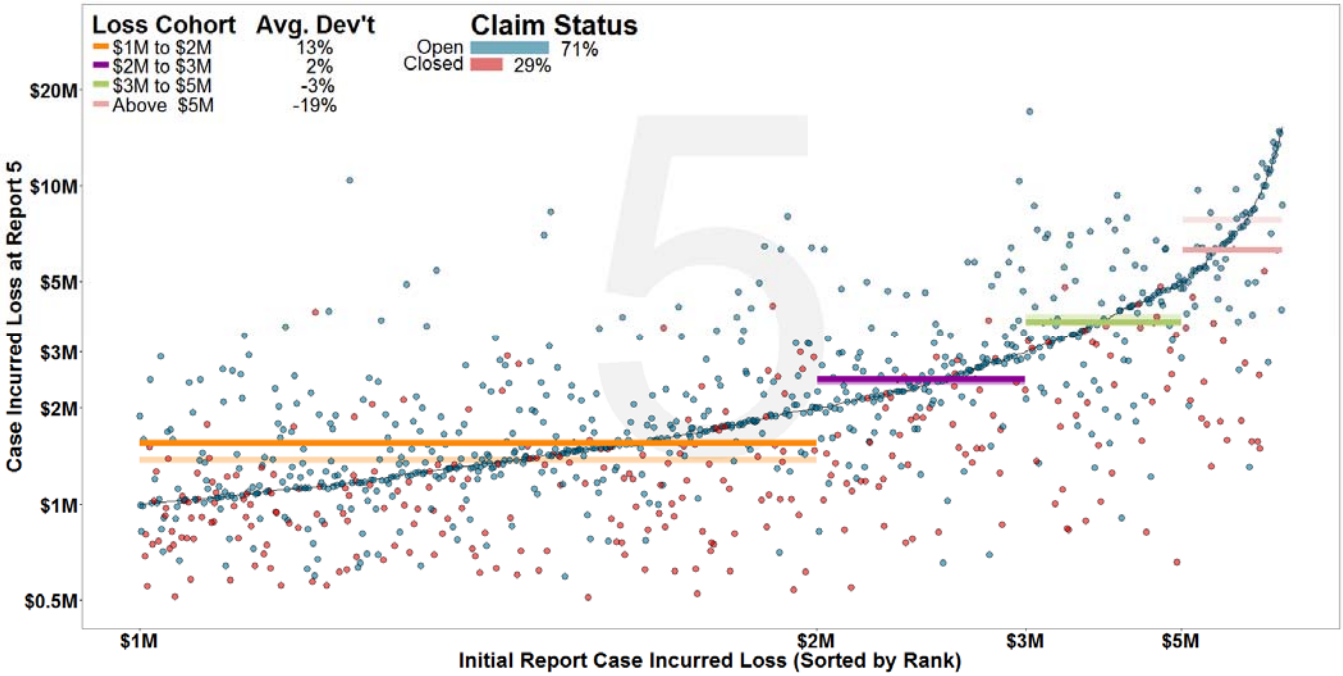
Case-Incurred Loss Development
Accident Years 2006–2009, Report 4



Source: Call 31 data, Accident Years 2006–2009, Report 4. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 9

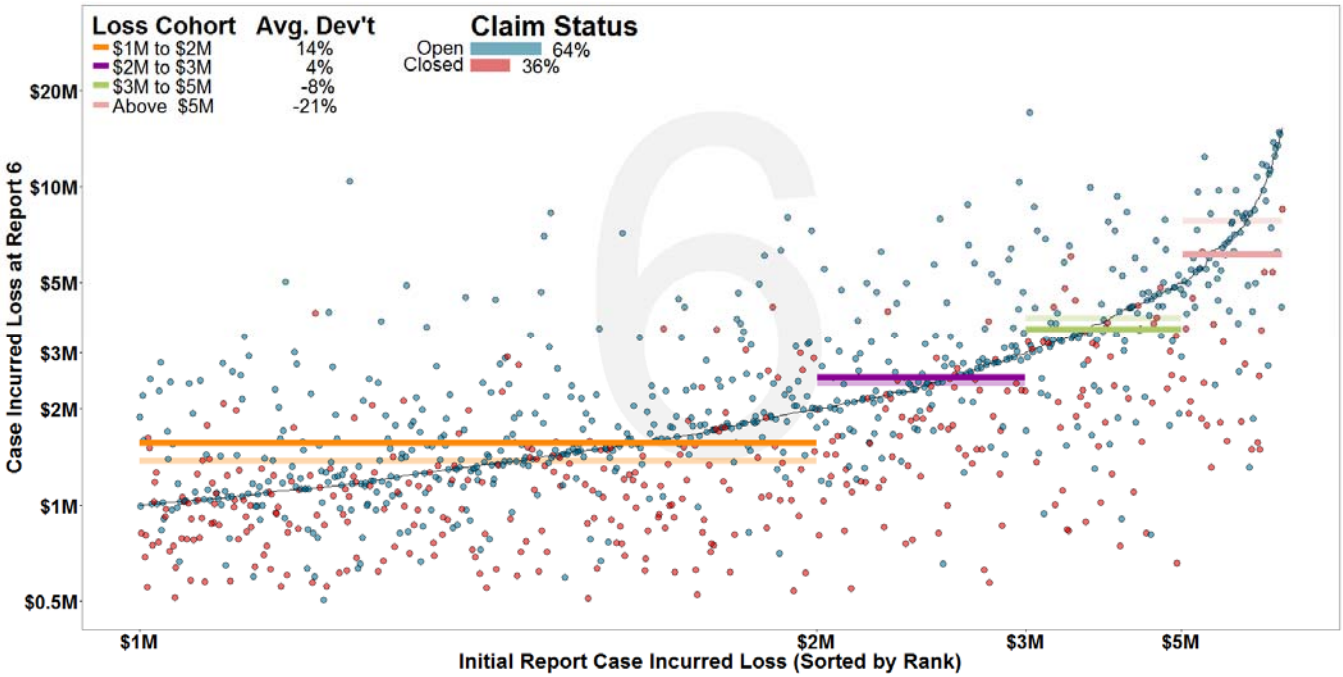
Case-Incurred Loss Development
Accident Years 2006–2009, Report 5



Source: Call 31 data, Accident Years 2006–2009, Report 5. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 10

Case-Incurred Loss Development
Accident Years 2006–2009, Report 6



Source: Call 31 data, Accident Years 2006–2009, Report 6. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 11

Exhibits 12 through 16 investigate whether the development patterns previously observed for Accident Years 2006 to 2009 hold for claims observed during a later stage of development. In these exhibits, we explore the development by size of loss for individual claims on accidents occurring between 1984 and 1989.

The previous data visualization technique in Exhibits 7 through 11 displays development across time via a sequence of images. In Exhibits 12 through 16, the visualization displays time on the horizontal axis. In these exhibits:

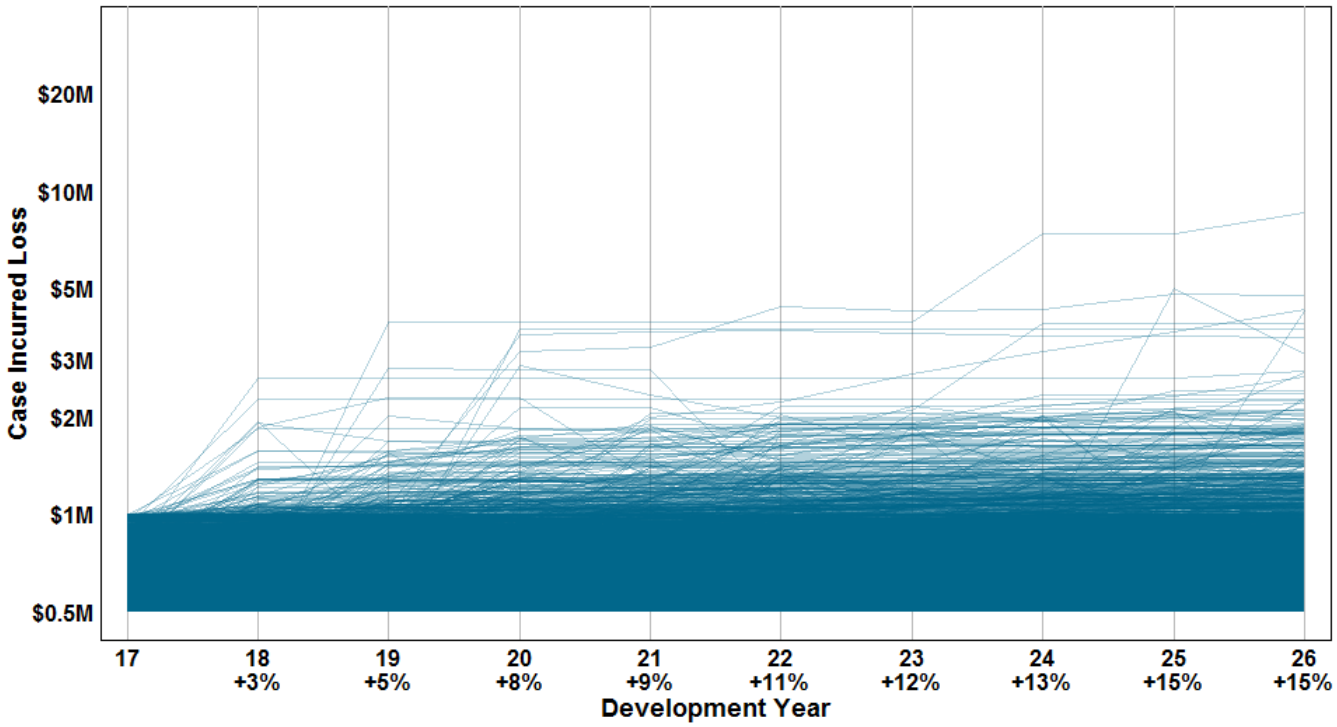
- Claims are segregated into five loss cohorts corresponding to their case-incurred loss amount in development year 17
- Each individual claim is represented by a line that is colored based on its assigned loss cohort
- The case-incurred loss amounts are displayed using a logarithmic scale on the vertical axis
- The cumulative development observed between development year 17 and 26 for all claims in the cohort is summarized along the horizontal axis

While these exhibits can illustrate individual claim development—particularly when analyzing the small volume of the largest claims in Exhibit 16—the ability to observe individual claims diminishes with larger claim volume.

The following development patterns can be observed in Exhibits 12 through 16:

- Claims with case-incurred amounts less than $3 million at a 17th report generally developed upward
- In contrast to the development patterns of claims from Accident Years 2006 to 2009, claims with case-incurred amounts between $3 and $5 million at a 17th report generally developed upward
- Claims with case-incurred amounts above $5 million at a 17th report generally developed downward

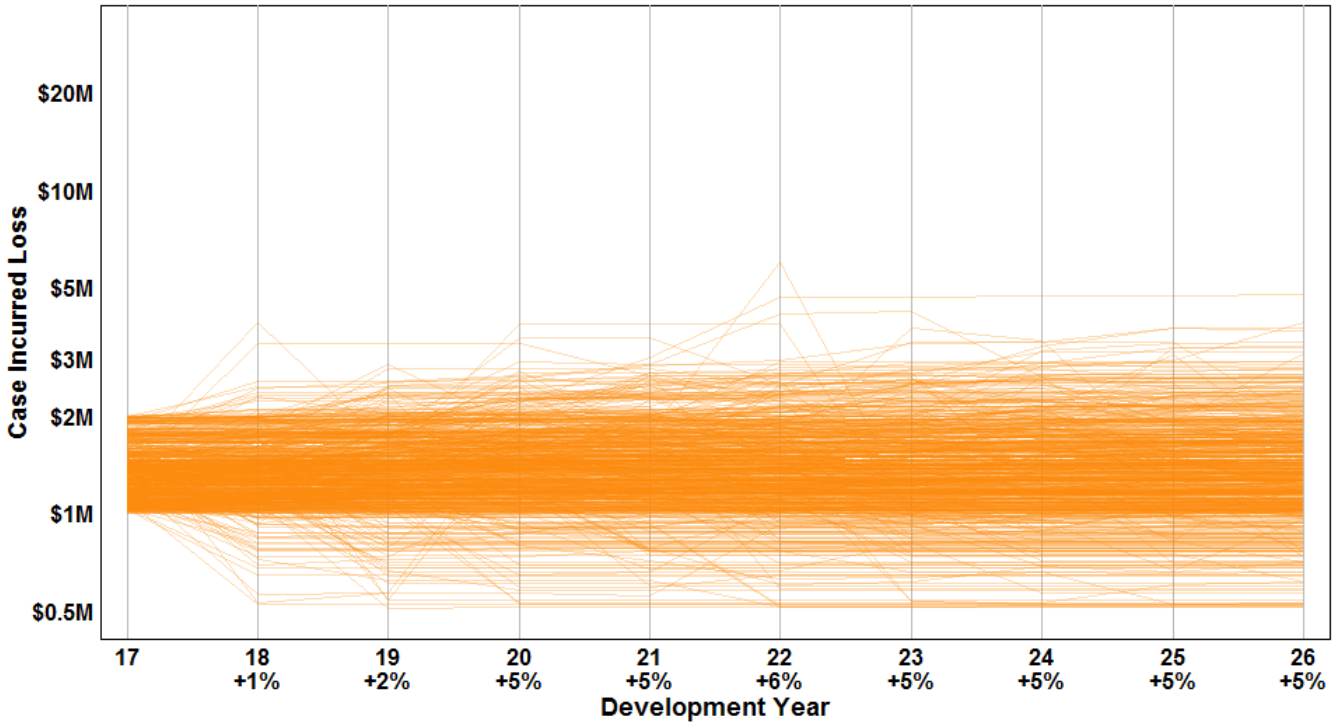
Case-Incurred Loss Development
Accident Years 1984–1989, Reports 17–26, Less Than $1M Cohort



Source: Call 31 data, Accident Years 1984–1989, Reports 17–26. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 12

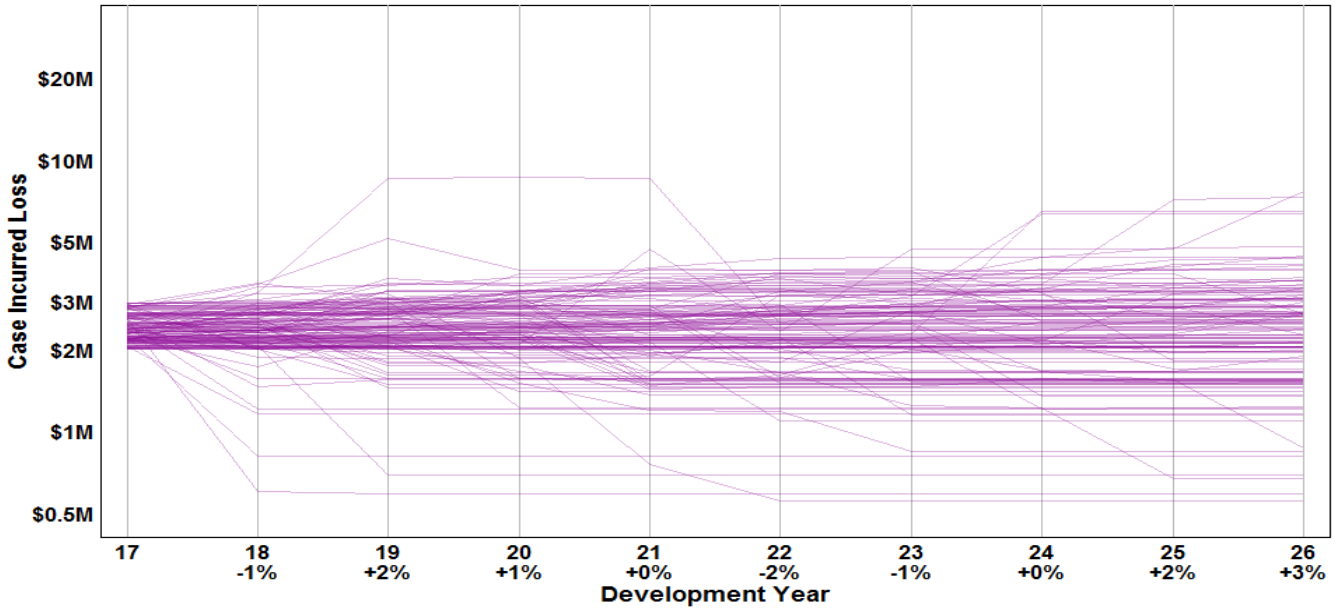
Case-Incurred Loss Development
Accident Years 1984–1989, Reports 17–26, $1M to $2M Cohort



Source: Call 31 data, Accident Years 1984–1989, Reports 17–26. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 13

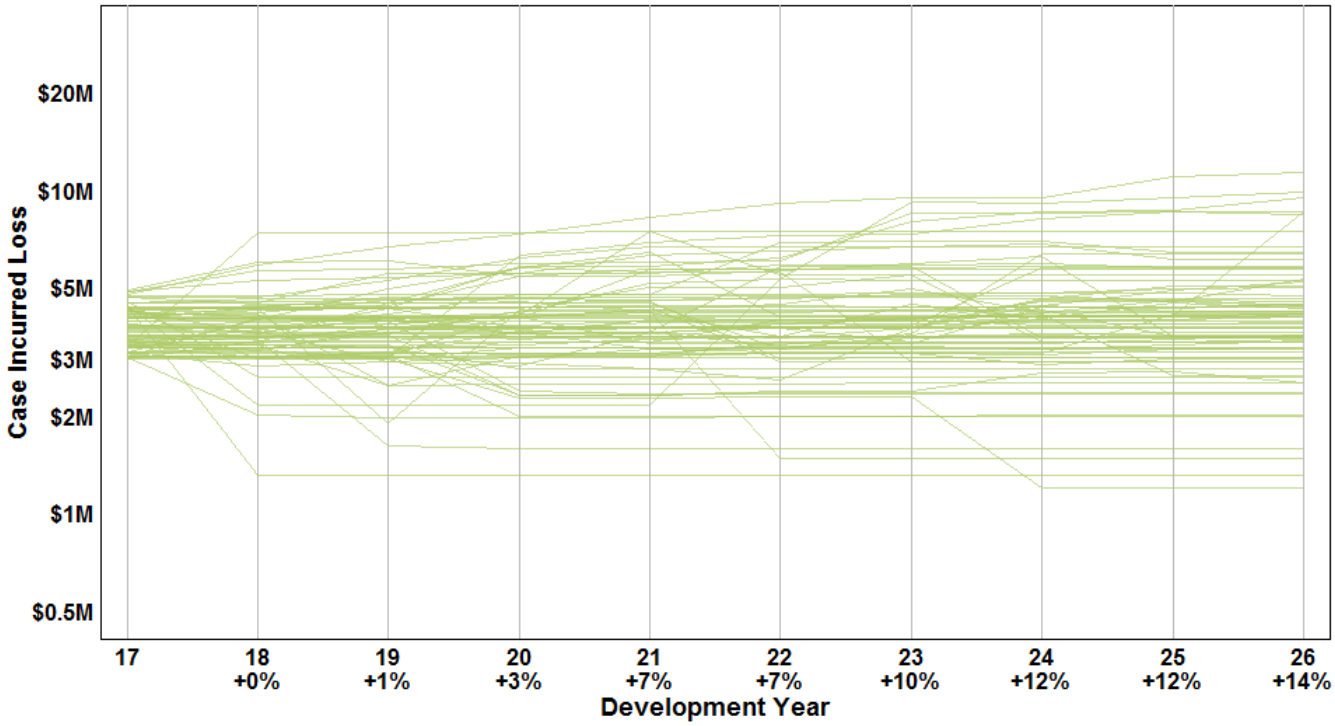
Case-Incurred Loss Development
Accident Years 1984–1989, Reports 17–26, $2M to $3M Cohort



Source: Call 31 data, Accident Years 1984–1989, Reports 17–26. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 14

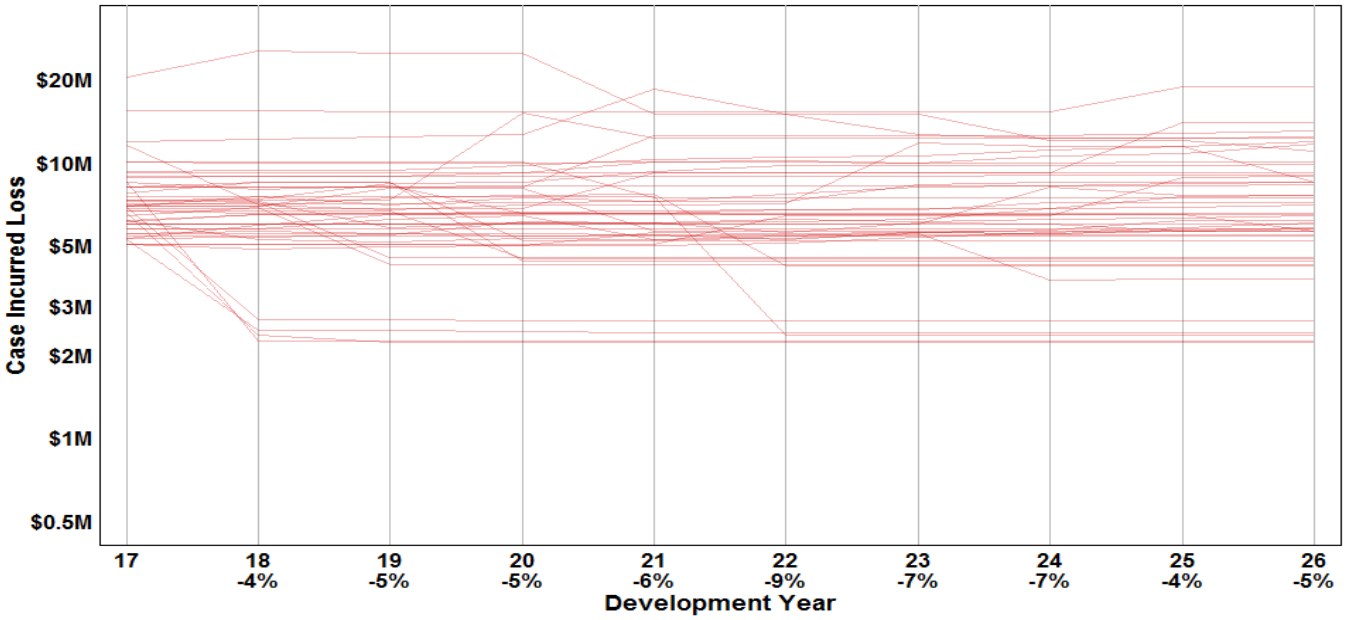
Case-Incurred Loss Development
Accident Years 1984–1989, Reports 17–26, $3M to $5M Cohort



Source: Call 31 data, Accident Years 1984–1989, Reports 17–26. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 15

Case-Incurred Loss Development
Accident Years 1984–1989, Reports 17–26, Greater Than $5M Cohort



Source: Call 31 data, Accident Years 1984–1989, Reports 17–26. Includes all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

Exhibit 16

Exhibit 17 summarizes the average case-incurred development for various accident years, development periods, and loss cohorts. Additionally, the volume of claims underlying each average development percentage is provided.

The following development patterns are generally observed:

- Claims with case-incurred losses less than $3 million generally developed upward while claims with case-incurred losses in excess of $5 million generally developed downward
- Claims with case-incurred losses between $3 million and $5 million generally developed downward during the earlier reporting periods (Reports 2–10) and upward during the later reporting periods (Reports 11–26)

Average Development and Claim Counts
Grouped by Size of Loss at Initial Report

Accident Years	Statistic	< $1M	$1M to $2M	$2M to $3M	$3M to $5M	$5M +	All Claims
2006 to 2009	Avg Dev't	22%	14%	4%	-8%	-21%	6%
2nd to 6th	# of Claims	1,717	612	188	141	91	2,749
2001 to 2005	Avg Dev't	37%	16%	7%	-9%	-21%	8%
2nd to 10th	# of Claims	1,012	494	164	122	77	1,869
1996 to 2000	Avg Dev't	30%	7%	1%	-3%	-23%	9%
5th to 15th	# of Claims	1,201	398	104	81	44	1,828
1990 to 1995	Avg Dev't	20%	11%	5%	15%	-13%	12%
11th to 20th	# of Claims	2,105	537	146	93	51	2,932
1984 to 1989	Avg Dev't	15%	5%	3%	14%	-5%	9%
17th to 26th	# of Claims	2,493	682	141	83	48	3,447

Source: Call 31 data for all jurisdictions for which NCCI provides ratemaking services, except TX and WV.

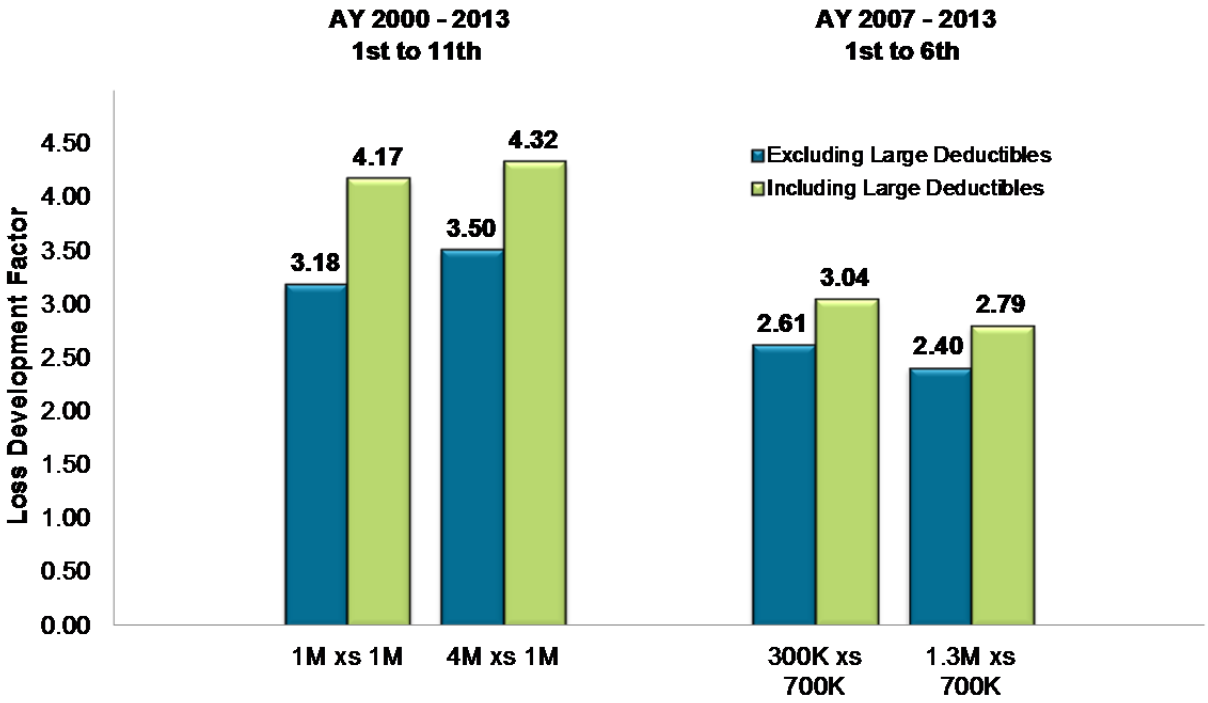
Exhibit 17

DEVELOPMENT FOR LARGE DOLLAR DEDUCTIBLE POLICIES

In the prior study, a comparison of average loss development factors including and excluding large deductible policies was established using Call 31 data for Florida, Nebraska, and Virginia. In 2012, the collection of large deductible Call 31 data was discontinued in all states except Florida.

Exhibit 18 shows the impact of large deductible policies on excess development using Florida data, by comparing loss development factors including and excluding large deductible claims. Consistent with the prior study, including claims under large deductible policies produced significantly more development in the reviewed excess layers.

Impact of Large Deductible Policies in Florida



Source: Call 31 data for Florida, Accident Years 2000–2013 and Calendar Years 2000–2014. Individual claims trended to Accident Year 2014 using 5% trend.

Exhibit 18

SOME CAVEATS

Some precautions should be taken into consideration when interpreting the implications of this study with respect to excess loss reserve estimation.

Losses-to-date can be volatile for excess layers, and applying Call 31-derived excess development factors—or any excess development factors—to actual losses may not be predictive.

Where indicated, underlying losses are trended to Accident Year 2014 and the resulting development factors may be less indicative of development in other accident years. Actual reinsurance excess layers will be affected by contractual provisions not reflected in the per-claim layers produced from Call 31 data.

Development beyond the 31st year is not addressed in this study. High development beyond the 31st year for high layers might result from the longevity of some individual claimants. At early stages, claims are reserved at expected values. At very late stages, claims with extended longevities will begin to penetrate higher layers at a time beyond the point when the notable drops due to early mortality and other causes are likely to have generally ended.

CLOSING REMARKS

Claims over $5 million showed downward development across the time period studied, while claims less than $3 million showed upward development. Claims between $3 million and $5 million generally developed downward during earlier reporting periods and upward during later reporting periods. Including large deductible claims produced significantly more development in excess layers.

ACKNOWLEDGMENTS

We thank Barry Lipton, Kirt Dooley, John Robertson, Brad Rosin, and Eric Anderson from NCCI's Actuarial & Economic Services Division for valuable contributions to this study.

REFERENCES

[1] Jon Evans, Workers Compensation Excess Development, 2007, **ncci.com**

[2] Jon Evans, Workers Compensation Excess Loss Development, 2011, **ncci.com**

APPENDIX

Background and Methodology

Loss development factors and patterns presented in this report are derived from data reported to NCCI under Call 31. The Call was initiated to allow limited loss development in aggregate ratemaking. The data utilized in this report includes all claims, gross of reinsurance recoveries, at least $500,000 from Accident Years 1984 to 2013, valued at annual intervals from 12/31/00 through 12/31/14.

Adjustment for Trend

The average size of claims for workers compensation benefits have generally been increasing for an extended period. As a result, the share of claims and the share of claim dollars that exceed a fixed attachment point generally grow over time. For example, if the average claim size has doubled over a 10-year period, then loss development patterns in excess of $2 million at the end of the period are expected to be similar to loss development patterns in excess of $1 million at the beginning of the period.

We have adjusted for this inflation by trending ground-up loss amounts for each individual claim at a constant rate of 5% from the accident year of the claim to Accident Year 2014. This adjustment approximates changes in prices (wages and prices for medical services) but does not account for changes in claim duration or the utilization of medical services. While not shown in this report, NCCI analyzed several alternative trends and determined the sensitivity of the results of this study to the selected accident year trend was immaterial.

Loss Cohorts

Exhibits 7 through 17 segregated ground-up claim amounts into loss cohorts with which average development was summarized over time. As the selection of these loss cohorts was arbitrary, NCCI conducted a sensitivity analysis by varying the ranges of loss size for the cohorts. For example, the lower (upper) boundary of the $3 million to $5 million loss cohort was shifted down (up) in $100K increments with each neighboring cohort adjusted accordingly. While not shown in this report, NCCI determined the findings of the report generally hold with alternative loss cohorts.

Bases for Loss Development Factors

Call 31 data was used to compute development factors on the following bases:

- Claim values are either paid amounts or case-incurred amounts (paid plus case reserves) for indemnity and medical benefits combined, without loss adjustment expenses.
- Individual claim amounts are trended from the accident year of the claim to Accident Year 2014 using a constant rate of 5% per year.
- The number of years used to calculate development factors varies by attachment point:
  - 31 years of development for attachment points of $2 million or greater
  - 14 years for attachment points of at least $1 million but less than $2 million
  - 7 years for attachment points of at least $700,000 but less than $1 million
- Losses or claim counts, underlying the denominators of individual accident year link ratios, are used as weights to calculate volume-weighted average incremental development factors across accident years. Volume-weighted cumulative development factors across multiple development years are the product of volume-weighted incremental development factors.

Weighted-Average Cumulative Development Factors to Age 31

The following Tables 1 through 4 contain the cumulative development factors underlying the emergence curves depicted in Exhibits 1 through 4. These factors **do not** represent selections made by NCCI and are instead provided as a convenience to the reader.

Table 1: Excess Case-Incurred Loss Development Factors to Development Year 31

Age to 31	XS of $2M	XS of $3M	XS of $4M	XS of $5M	XS of $7.5M	XS of $10M
1/31	4.557	4.397	4.319	4.297	4.465	4.563
2/31	2.872	2.662	2.560	2.516	2.572	2.639
3/31	2.653	2.470	2.369	2.340	2.398	2.423
4/31	2.455	2.281	2.180	2.149	2.175	2.200
5/31	2.382	2.238	2.155	2.123	2.157	2.221
6/31	2.267	2.158	2.070	2.020	1.993	2.029
7/31	2.170	2.092	2.017	1.975	1.944	1.950
8/31	2.103	2.064	2.017	2.001	2.013	2.032
9/31	1.985	1.955	1.913	1.895	1.897	1.895
10/31	1.885	1.870	1.846	1.839	1.860	1.890
11/31	1.798	1.791	1.771	1.765	1.778	1.828
12/31	1.726	1.738	1.726	1.724	1.732	1.783
13/31	1.607	1.619	1.606	1.599	1.587	1.621
14/31	1.536	1.554	1.550	1.553	1.565	1.615
15/31	1.466	1.486	1.488	1.498	1.527	1.589
16/31	1.410	1.432	1.436	1.446	1.471	1.523
17/31	1.345	1.369	1.373	1.384	1.406	1.448
18/31	1.289	1.308	1.310	1.316	1.332	1.351
19/31	1.229	1.245	1.246	1.253	1.269	1.285
20/31	1.192	1.203	1.208	1.219	1.249	1.267
21/31	1.161	1.174	1.179	1.190	1.214	1.221
22/31	1.133	1.144	1.147	1.157	1.184	1.196
23/31	1.108	1.116	1.118	1.125	1.144	1.149
24/31	1.084	1.086	1.085	1.089	1.100	1.104
25/31	1.064	1.064	1.062	1.064	1.068	1.070
26/31	1.038	1.033	1.027	1.025	1.023	1.014
27/31	1.026	1.019	1.011	1.011	1.012	1.006
28/31	1.016	1.011	1.003	1.002	1.008	1.011
29/31	1.002	0.993	0.985	0.981	0.979	0.979
30/31	1.009	1.005	1.003	1.003	1.010	1.021

Table 2: Excess Claim Count Development Factors to Development Year 31 Based on Case-Incurred Losses

Age to 31	XS of $2M	XS of $3M	XS of $4M	XS of $5M	XS of $7.5M	XS of $10M
1/31	5.329	4.701	4.518	4.286	3.819	4.486
2/31	3.734	3.111	2.847	2.512	2.269	2.512
3/31	3.368	2.893	2.621	2.308	2.174	2.389
4/31	3.085	2.691	2.420	2.166	1.968	2.204
5/31	2.857	2.584	2.359	2.188	1.910	2.217
6/31	2.565	2.476	2.316	2.154	1.872	1.977
7/31	2.345	2.321	2.214	2.087	1.877	1.889
8/31	2.150	2.218	2.129	1.988	1.904	1.968
9/31	1.993	2.087	2.017	1.895	1.803	1.941
10/31	1.869	1.968	1.888	1.815	1.699	1.831
11/31	1.761	1.859	1.794	1.753	1.637	1.739
12/31	1.637	1.782	1.721	1.707	1.603	1.695
13/31	1.532	1.658	1.617	1.622	1.524	1.547
14/31	1.445	1.585	1.534	1.537	1.445	1.505
15/31	1.379	1.490	1.445	1.450	1.360	1.433
16/31	1.324	1.432	1.392	1.389	1.343	1.410
17/31	1.266	1.361	1.333	1.333	1.307	1.350
18/31	1.226	1.299	1.304	1.286	1.265	1.332
19/31	1.183	1.232	1.234	1.212	1.213	1.302
20/31	1.157	1.194	1.172	1.143	1.172	1.269
21/31	1.129	1.157	1.149	1.112	1.174	1.257
22/31	1.106	1.128	1.128	1.081	1.121	1.232
23/31	1.093	1.098	1.113	1.065	1.100	1.193
24/31	1.080	1.085	1.092	1.046	1.078	1.148
25/31	1.065	1.070	1.069	1.031	1.060	1.127
26/31	1.050	1.059	1.049	1.010	1.042	1.091
27/31	1.043	1.047	1.033	0.988	1.031	1.057
28/31	1.033	1.042	1.030	0.983	0.988	1.041
29/31	1.024	1.023	1.015	0.976	0.980	1.020
30/31	1.018	1.020	1.008	0.993	0.986	1.020

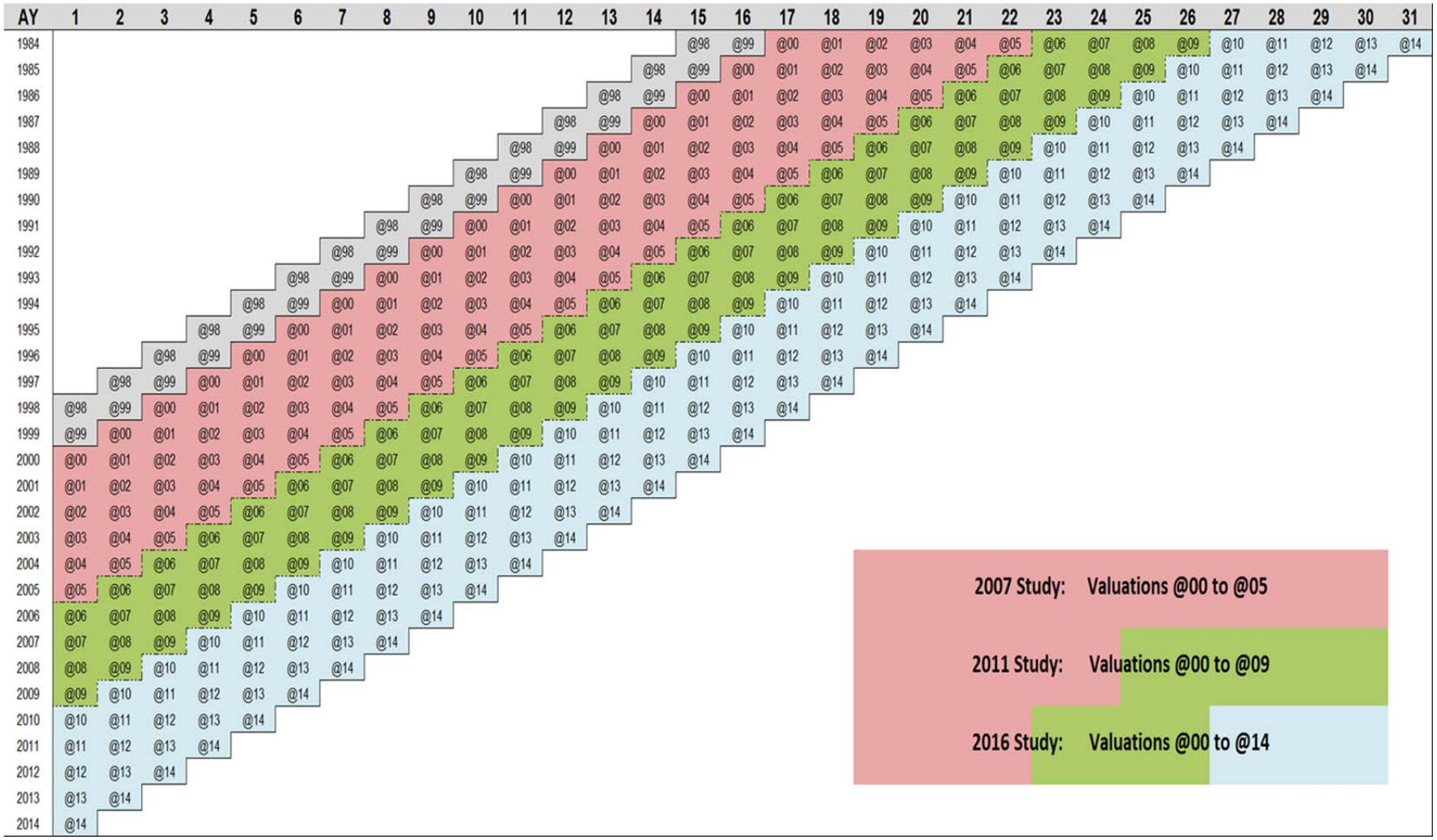
Table 3: Excess Paid Loss Development Factors to Development Year 31

Age to 31	XS of $2M	XS of $3M	XS of $4M	XS of $5M	XS of $7.5M	XS of $10M
10/31	4.889	5.627	6.526	7.719	11.913	18.253
11/31	4.291	4.822	5.531	6.422	9.622	14.859
12/31	3.868	4.315	4.883	5.628	8.339	13.398
13/31	3.481	3.823	4.252	4.818	6.858	10.743
14/31	3.172	3.451	3.787	4.242	5.872	8.947
15/31	2.874	3.101	3.355	3.704	4.865	6.829
16/31	2.605	2.788	2.965	3.215	4.061	5.268
17/31	2.372	2.526	2.647	2.816	3.408	4.150
18/31	2.163	2.283	2.363	2.478	2.914	3.487
19/31	1.981	2.079	2.137	2.210	2.532	2.987
20/31	1.833	1.919	1.964	2.015	2.274	2.613
21/31	1.682	1.748	1.774	1.806	1.976	2.192
22/31	1.559	1.613	1.628	1.645	1.759	1.917
23/31	1.459	1.504	1.515	1.522	1.609	1.739
24/31	1.369	1.403	1.408	1.408	1.468	1.573
25/31	1.298	1.325	1.329	1.326	1.377	1.473
26/31	1.215	1.228	1.227	1.219	1.246	1.309
27/31	1.157	1.163	1.160	1.148	1.162	1.202
28/31	1.106	1.109	1.109	1.100	1.116	1.148
29/31	1.055	1.051	1.047	1.033	1.035	1.047
30/31	1.032	1.031	1.030	1.025	1.028	1.034

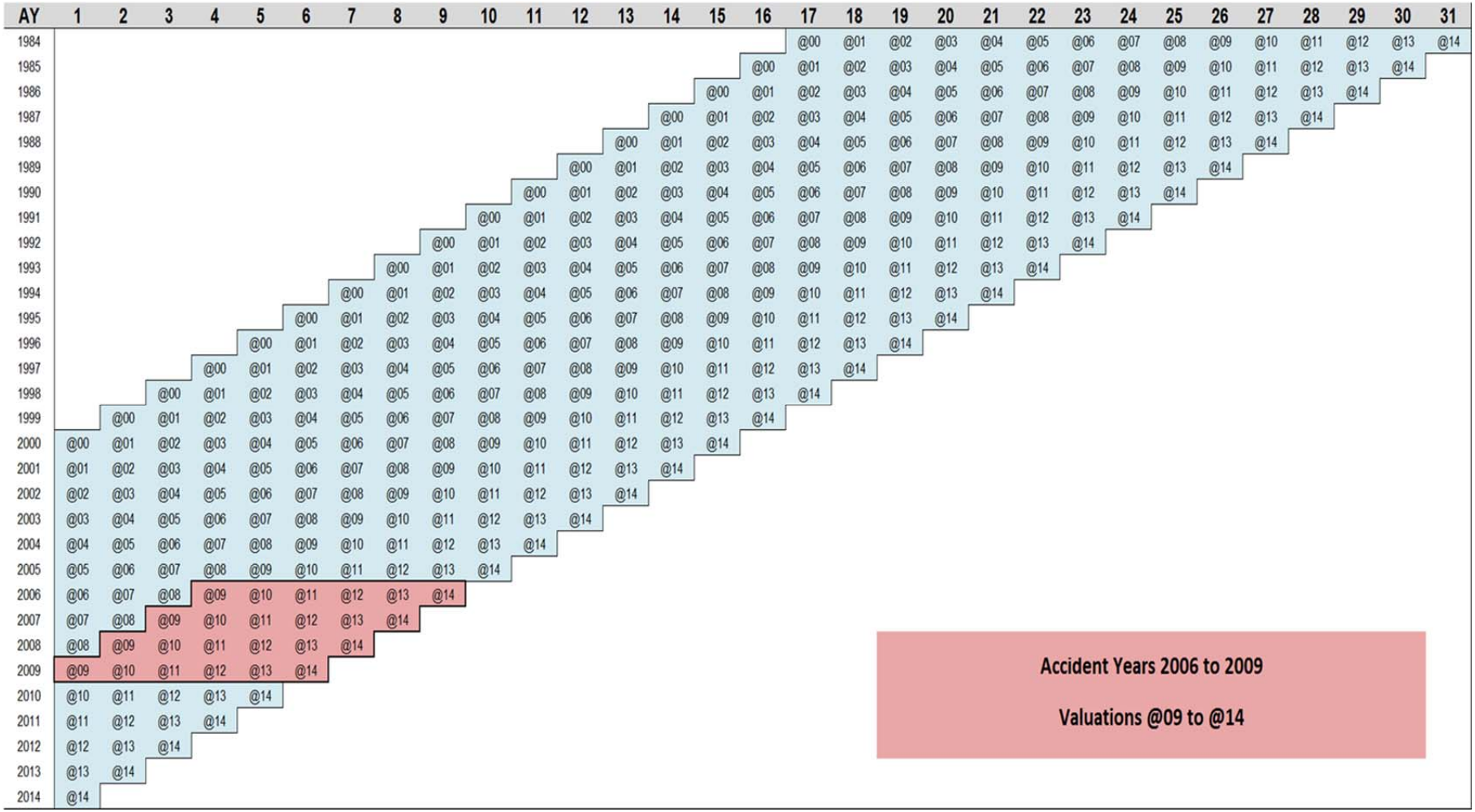
Table 4: Excess Claim Count Development Factors to Development Year 31 Based on Paid Losses

Age to 31	XS of $2M	XS of $3M	XS of $4M	XS of $5M	XS of $7.5M	XS of $10M
10/31	3.712	4.014	4.183	4.381	5.628	7.381
11/31	3.339	3.569	3.719	3.925	4.765	6.397
12/31	3.030	3.329	3.323	3.433	4.126	5.515
13/31	2.756	3.068	3.035	3.104	3.583	4.225
14/31	2.528	2.861	2.796	2.821	3.120	3.873
15/31	2.315	2.670	2.591	2.540	2.879	3.234
16/31	2.140	2.492	2.388	2.332	2.598	2.806
17/31	1.971	2.282	2.248	2.187	2.344	2.497
18/31	1.816	2.112	2.105	2.007	2.026	2.228
19/31	1.679	1.962	1.969	1.860	1.860	1.933
20/31	1.555	1.832	1.855	1.763	1.721	1.792
21/31	1.452	1.690	1.720	1.643	1.563	1.665
22/31	1.364	1.587	1.626	1.566	1.444	1.484
23/31	1.303	1.485	1.533	1.472	1.346	1.363
24/31	1.247	1.389	1.449	1.384	1.274	1.278
25/31	1.193	1.307	1.370	1.325	1.180	1.182
26/31	1.143	1.229	1.287	1.250	1.108	1.106
27/31	1.111	1.171	1.234	1.185	1.066	1.047
28/31	1.073	1.108	1.167	1.121	1.040	1.016
29/31	1.040	1.066	1.124	1.089	1.000	0.987
30/31	1.016	1.037	1.055	1.063	1.000	1.000

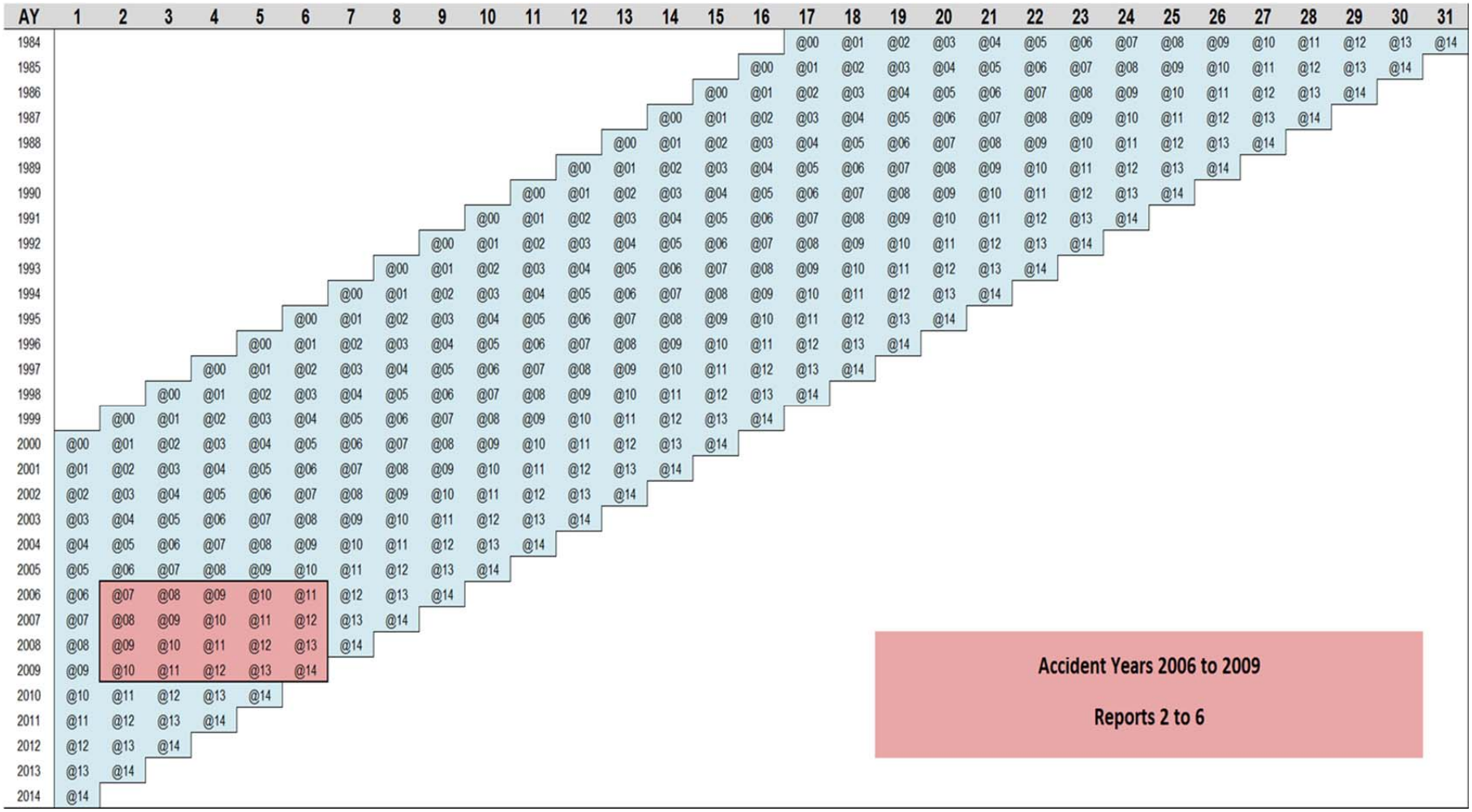
Triangle 1: Graphical Representation of Call 31 Data Utilized



Triangle 2: Graphical Representation of Call 31 Data Underlying Exhibits 5–6



Triangle 3: Graphical Representation of Call 31 Data Underlying Exhibits 7–11



Triangle 4: Graphical Representation of Call 31 Data Underlying Exhibits 12–16