

NCCI's 2016 Annual Issues Symposium

Workers Compensation Excess Loss Development

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Overview

- This updates our prior study by adding five more years of experience
- Losses are case incurred indemnity + medical
- Large deductible claims are excluded, unless otherwise noted
- Loss adjustment expenses are excluded





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Excess Loss and Claim Count Emergence



Large Loss and Catastrophe "Call 31"

- Initiated to facilitate procedure for treating large losses in aggregate ratemaking
- Includes Accident Years 1984 and forward, valued at year-end 1998 and subsequent
- At each year-end valuation, all claims with total case incurred losses over \$500K are reported
- Because claims may exceed \$500K for only some year-end valuations, we don't have a complete claims history and, therefore, can't derive ground-up loss development



Trending Individual Claims

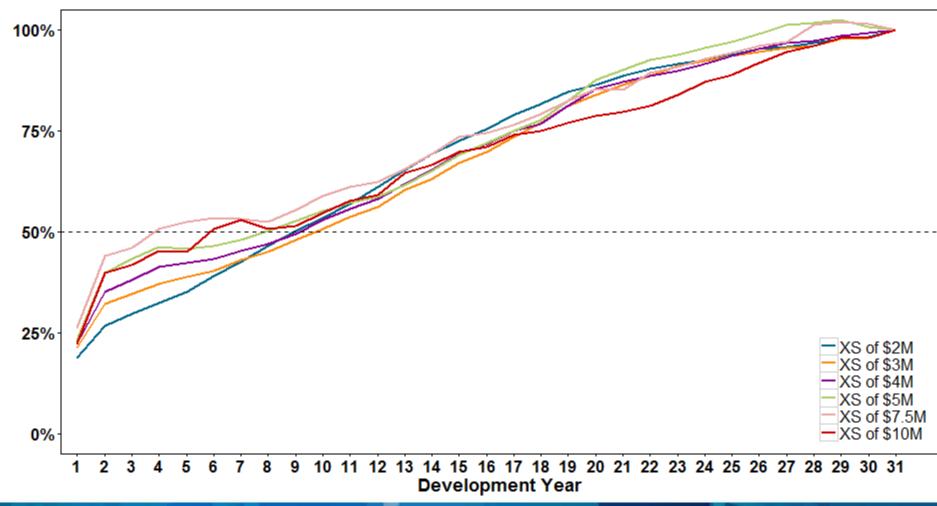
- Over time, trends in claim costs shift the relative size of a fixed attachment point compared to average claim size
 - \$500K in 1984 dollars is much higher than \$500K in 2014 dollars
- For example, if costs double over ten years, then development patterns today excess of \$2M will be comparable to those excess of \$1M ten years ago
- We compensate for this by trending individual claim amounts to Accident Year 2014 with a 5% annual inflationary trend



Initially Claims Above \$5M Emerge Faster

Large Claim Counts Emergence

Percent of Large Claim Counts at 31 Years



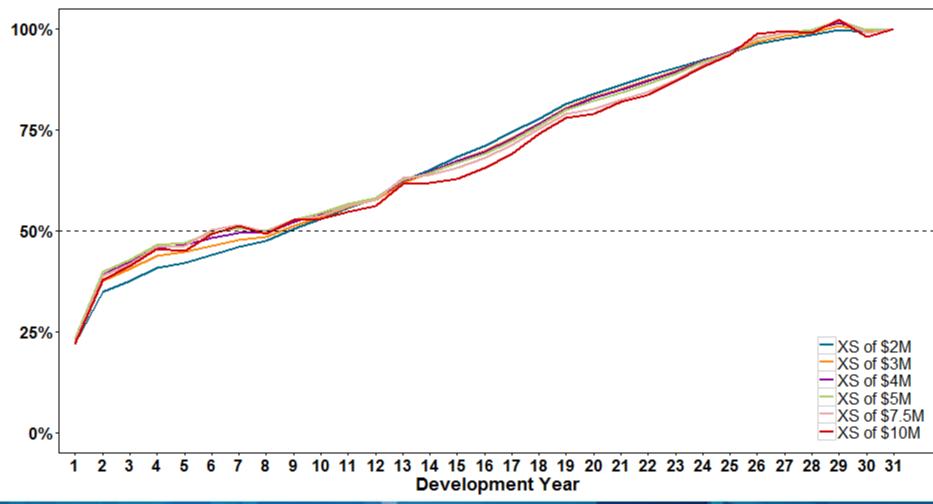
Source: Call 31 data, Accident Years 1984–2013, Calendar Years 2000–2014
Individual claims trended to Accident Year 2014 using 5% trend
Based on data for the states where NCCI provides ratemaking services, excluding TX and WV



Loss Emergence Is Similar by Layer

Excess Case Incurred Loss Emergence

Percent of Excess 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
Based on data for the states where NCCI provides ratemaking services, excluding TX and WV





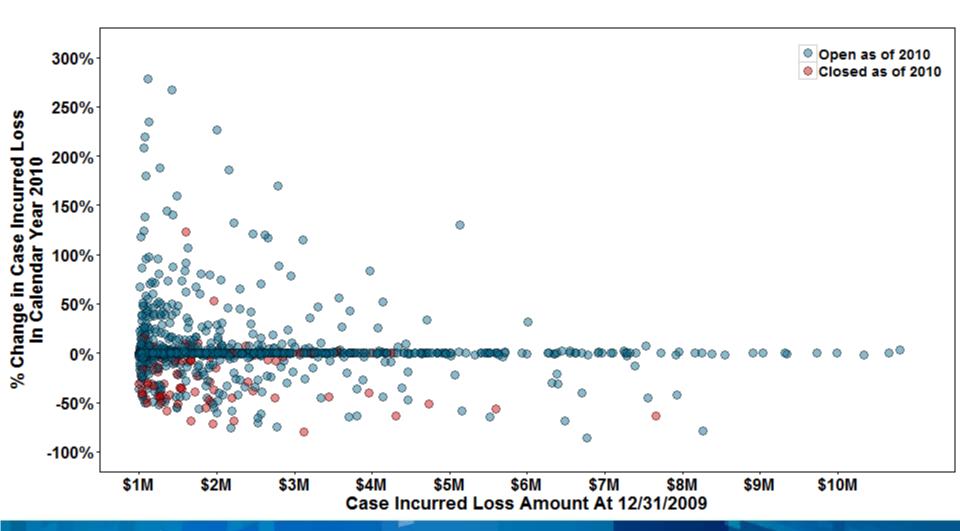
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Individual Claim Development

Accident Years 2006 to 2009

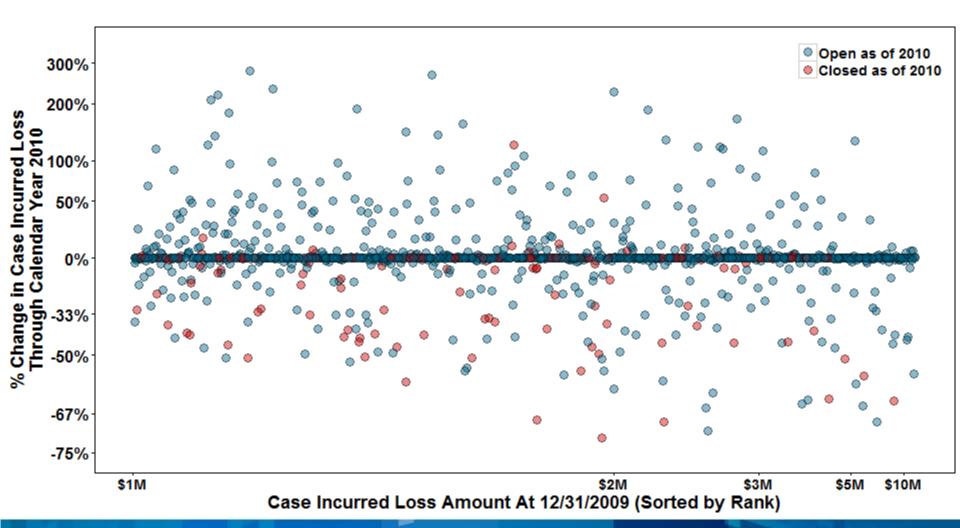


Accident Years 2006-2009, Calendar Year 2010



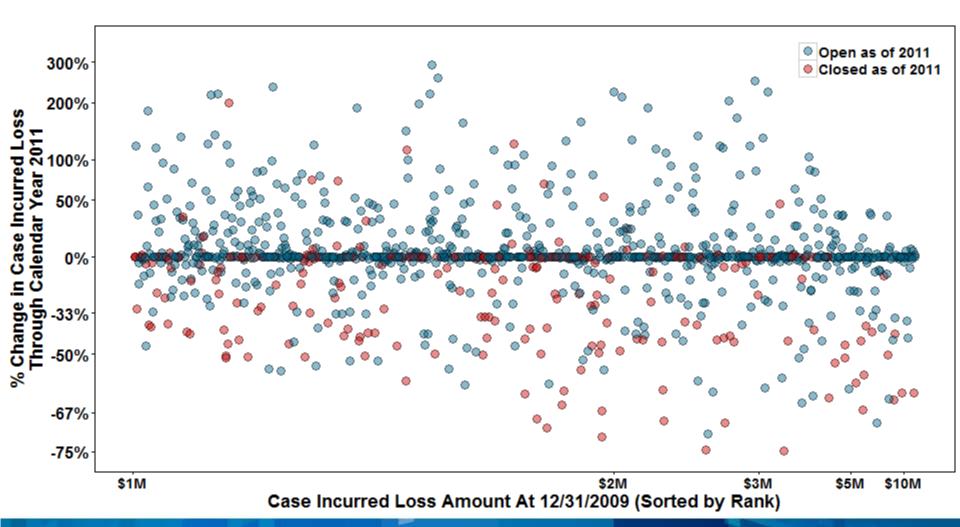


Accident Years 2006-2009, Calendar Years 2010-2014



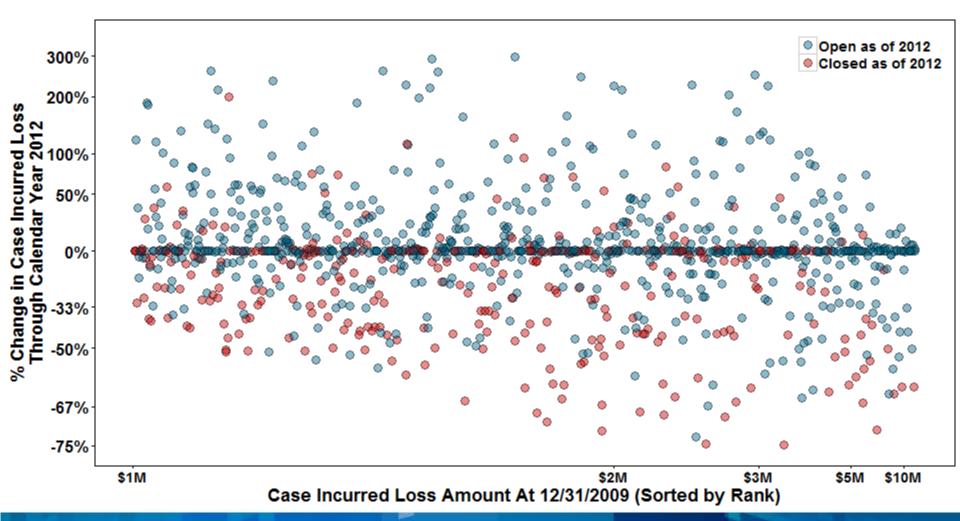


Accident Years 2006-2009, Calendar Years 2010-2014



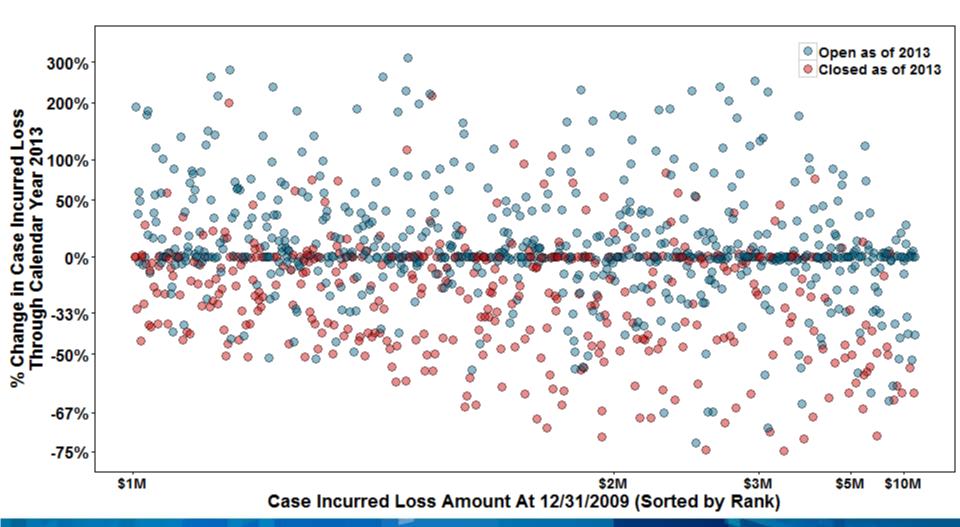


Accident Years 2006-2009, Calendar Years 2010-2014



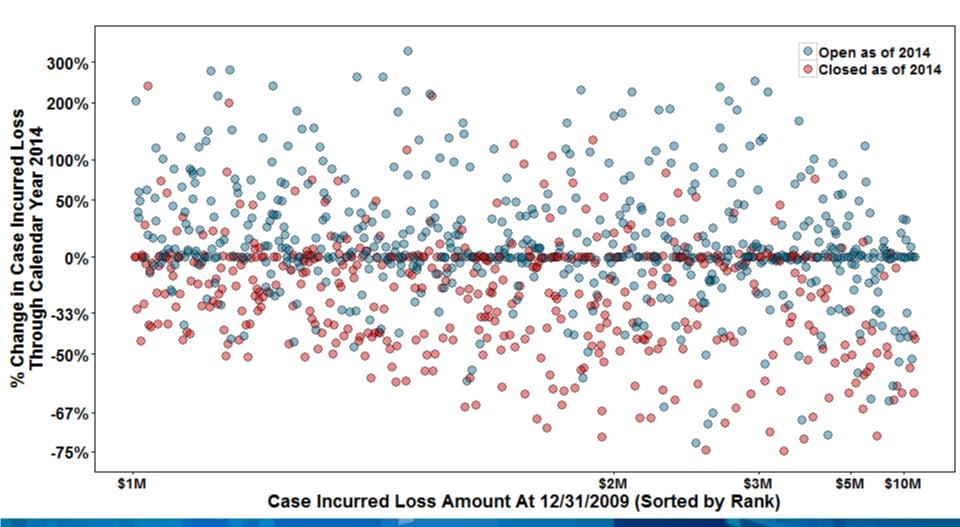


Accident Years 2006-2009, Calendar Years 2010-2014



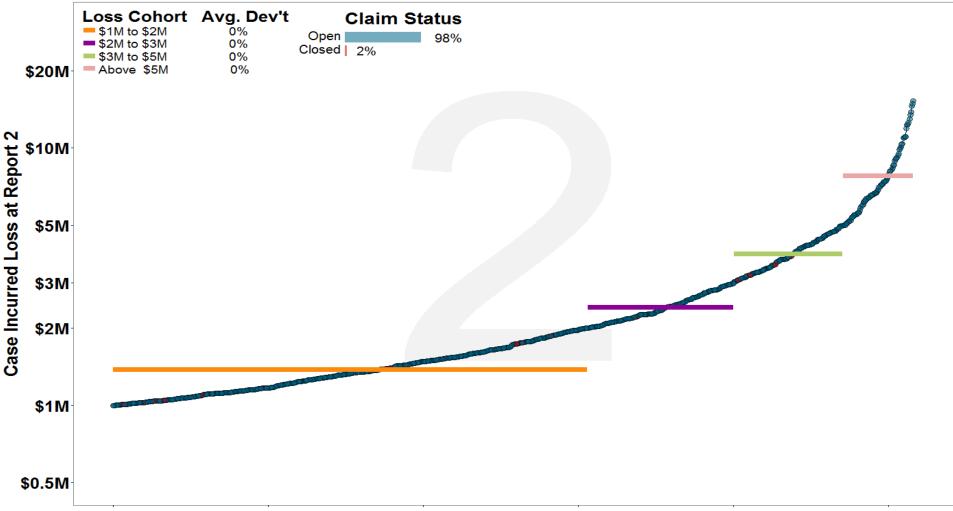


Accident Years 2006-2009, Calendar Years 2010-2014





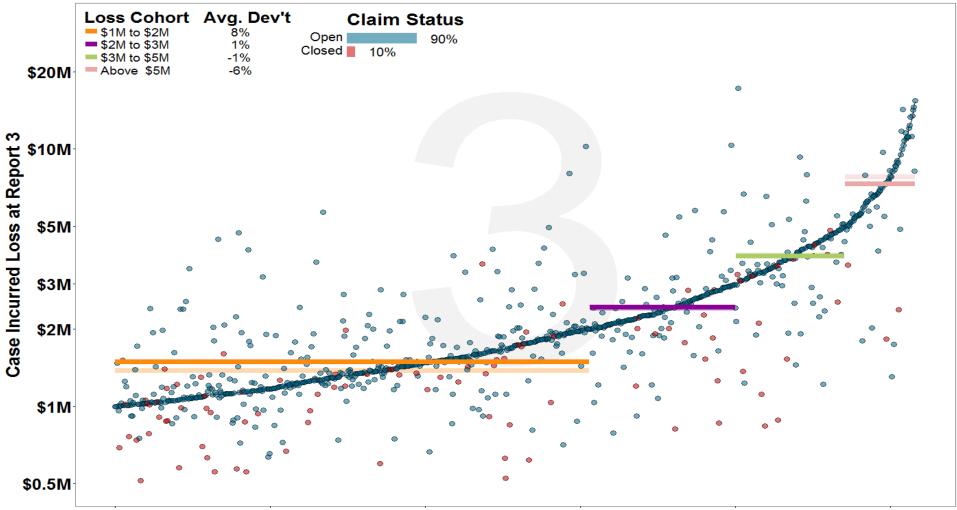
Accident Years 2006–2009, Reports 2–6



Initial Report Case Incurred Loss (Sorted by Rank)



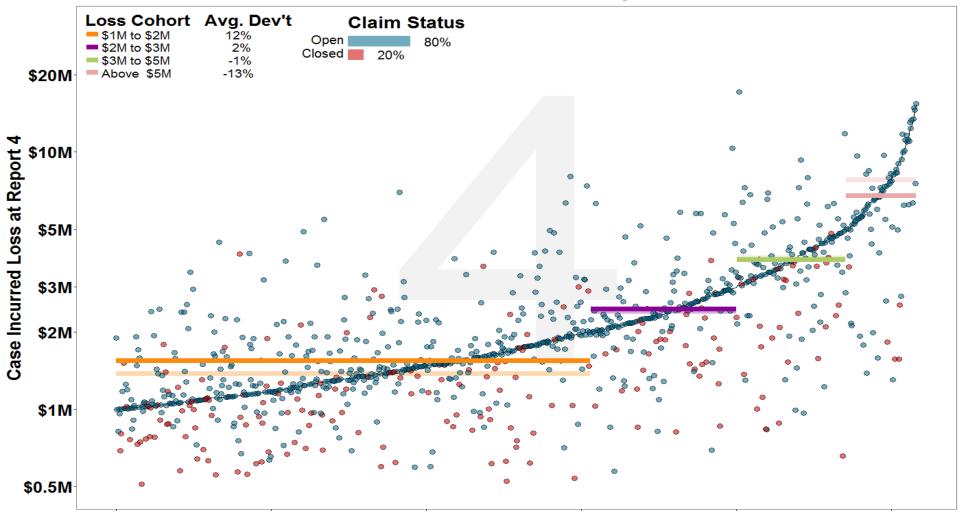
Accident Years 2006-2009, Reports 2-6



Initial Report Case Incurred Loss (Sorted by Rank)



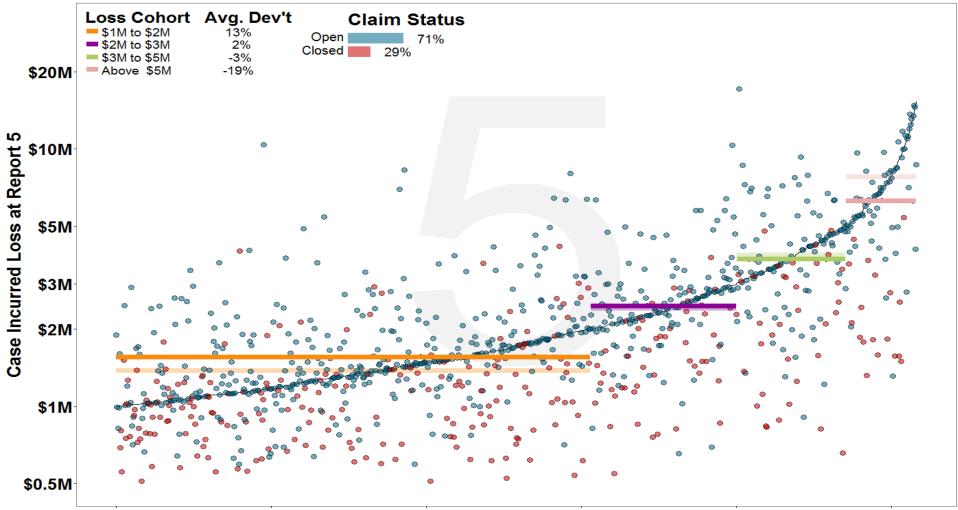
Accident Years 2006-2009, Reports 2-6



Initial Report Case Incurred Loss (Sorted by Rank)



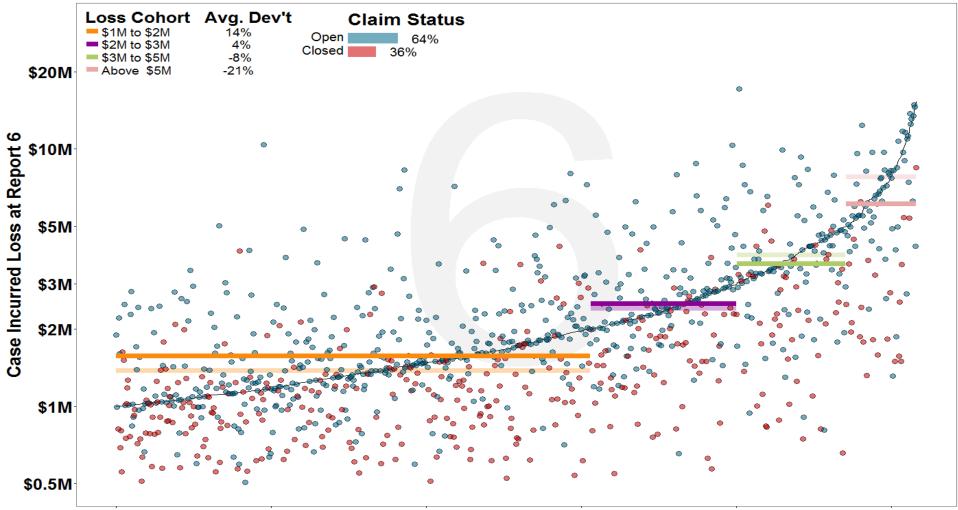
Accident Years 2006-2009, Reports 2-6



Initial Report Case Incurred Loss (Sorted by Rank)



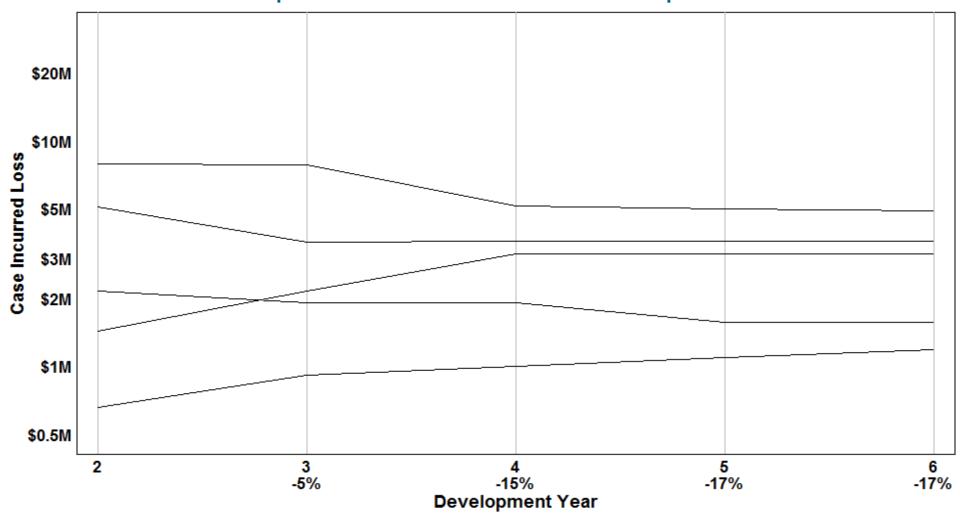
Accident Years 2006-2009, Reports 2-6



Initial Report Case Incurred Loss (Sorted by Rank)



Accident Years 2006–2009, Reports 2–6 Sample of Five Claims Above \$500K at Report 2



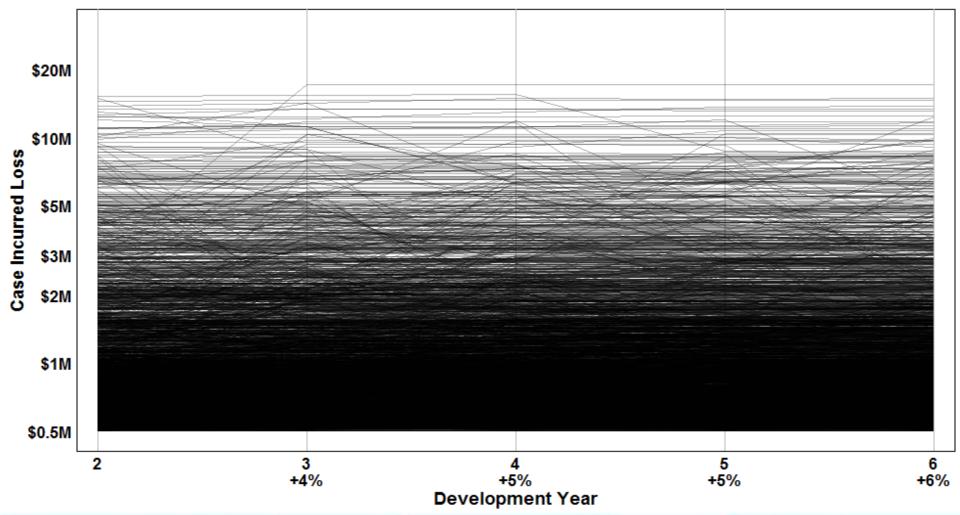
Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report



Accident Years 2006–2009, Reports 2–6

Claims Above \$500K at Report 2



Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

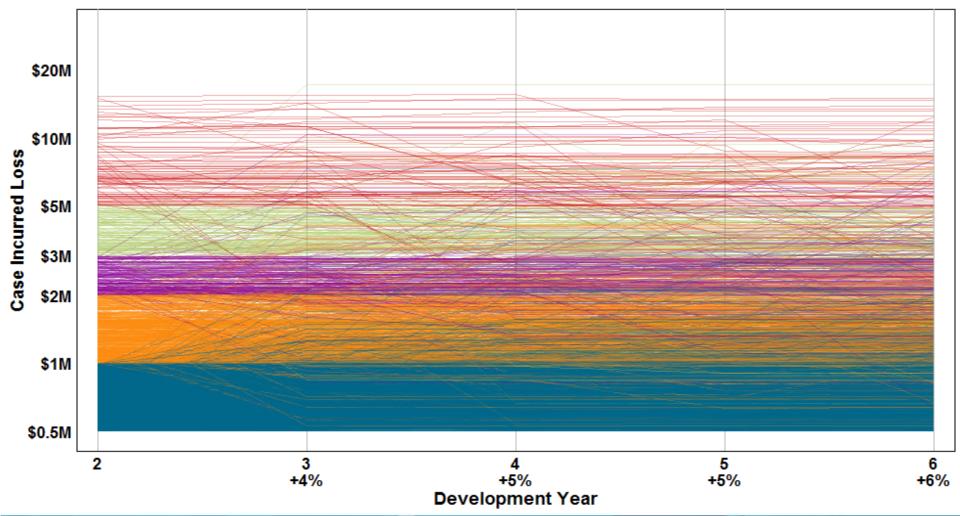
Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 2,749 claims valued at \$500K or more at each report shown



Accident Years 2006–2009, Reports 2–6

Claims Above \$500K at Report 2



Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

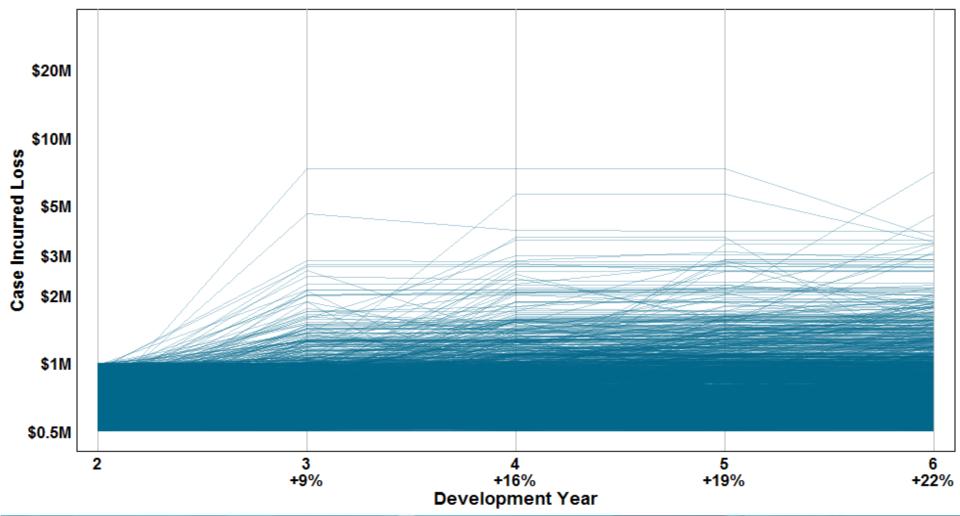
Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 2,749 claims valued at \$500K or more at each report shown



Accident Years 2006-2009, Reports 2-6

Claims Between \$500K and \$1M at Report 2



Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

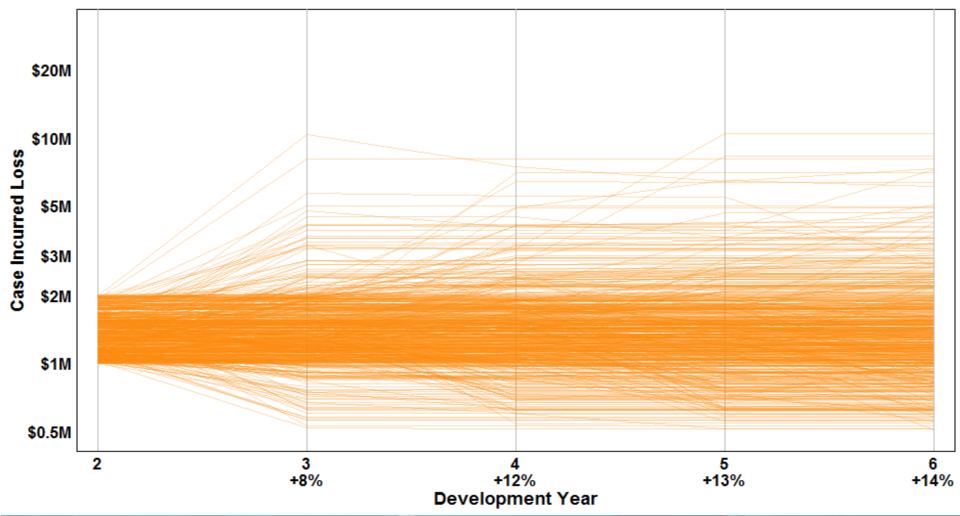
Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 1,717 claims valued at \$500K or more at each report shown



Accident Years 2006–2009, Reports 2–6

Claims Between \$1M and \$2M at Report 2



Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

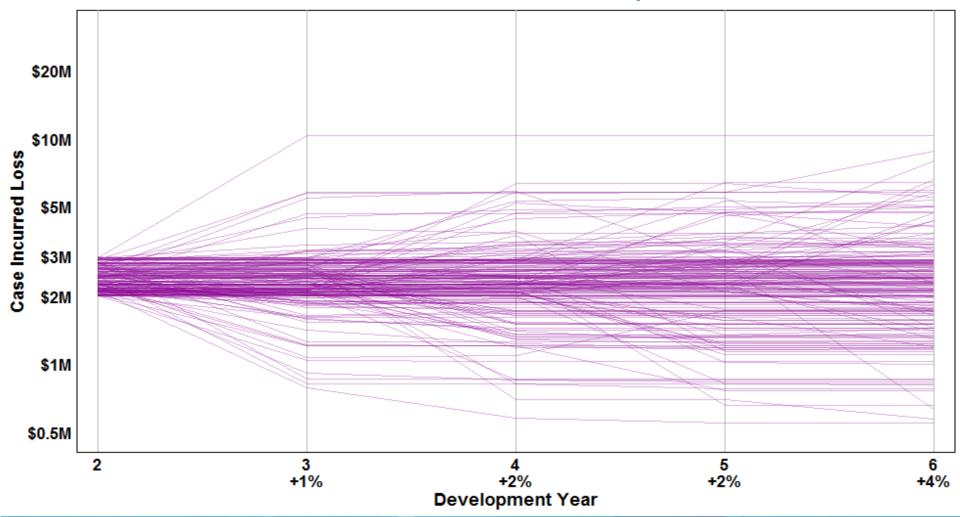
Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 612 claims valued at \$500K or more at each report shown



Accident Years 2006–2009, Reports 2–6

Claims Between \$2M and \$3M at Report 2



Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

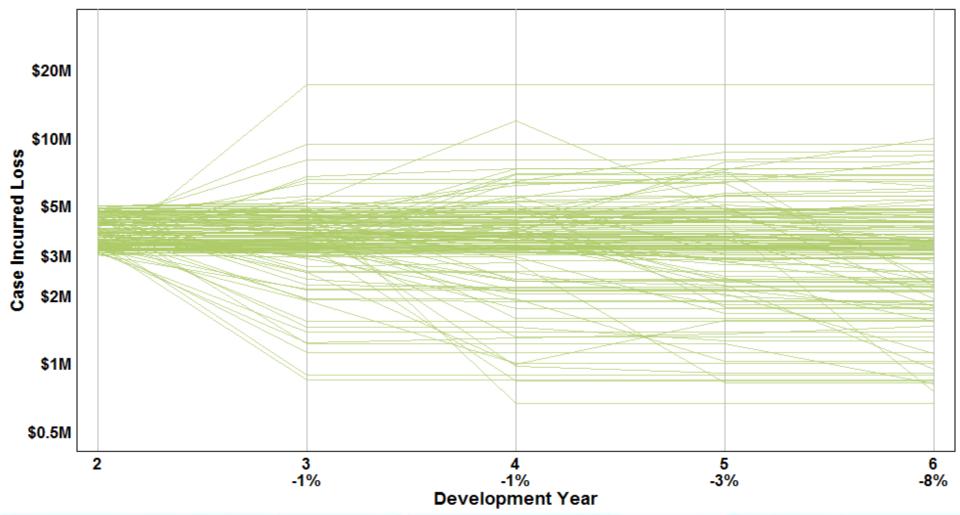
Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 188 claims valued at \$500K or more at each report shown



Accident Years 2006–2009, Reports 2–6

Claims Between \$3M and \$5M at Report 2



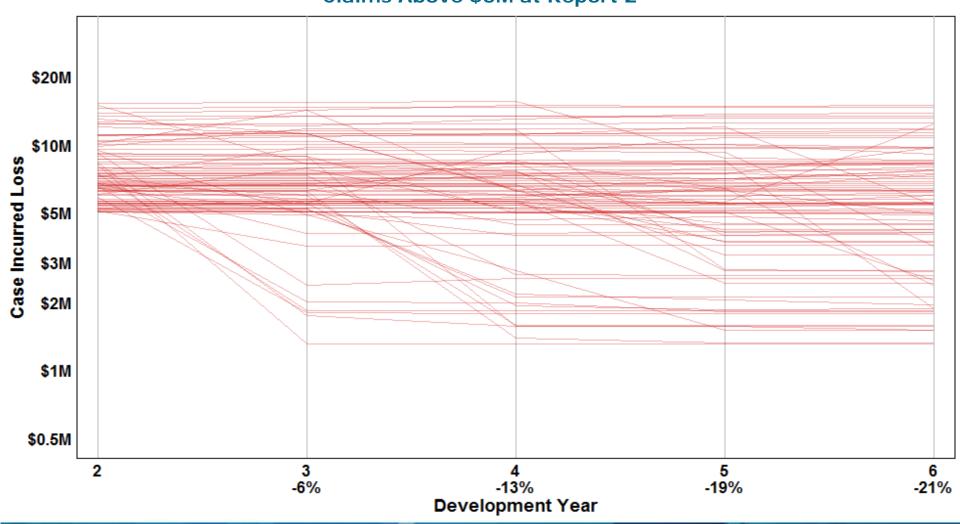
Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 141 claims valued at \$500K or more at each report shown



Accident Years 2006–2009, Reports 2–6
Claims Above \$5M at Report 2



Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 91 claims valued at \$500K or more at each report shown





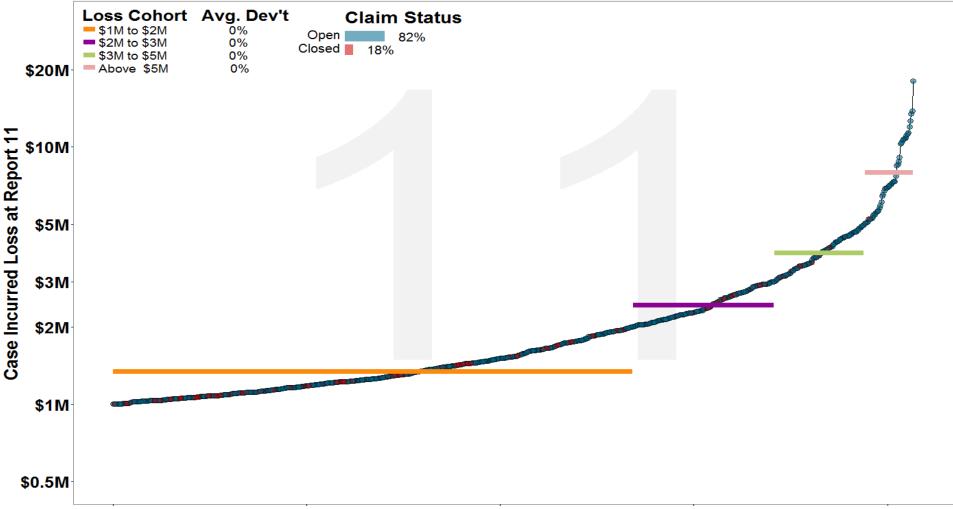
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Individual Claim Development

Accident Years 1990 to 1995



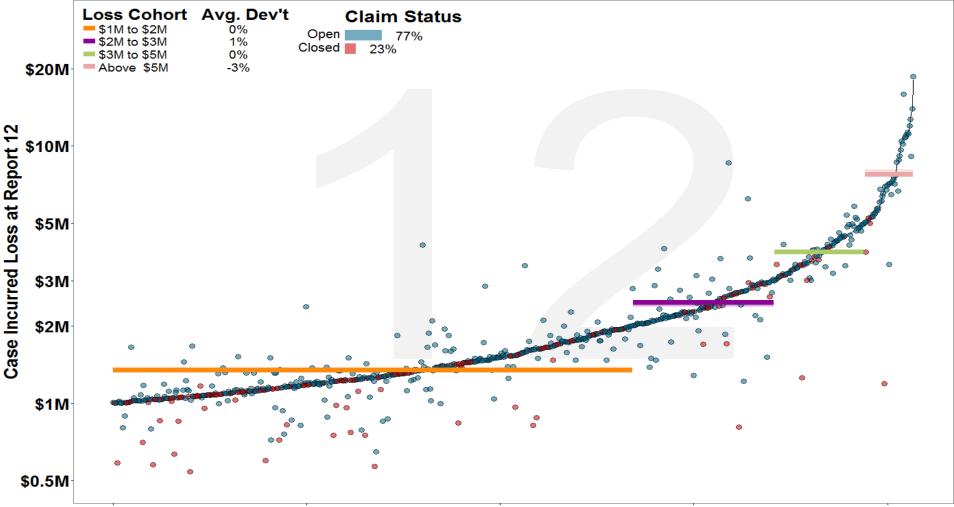
Accident Years 1990-1995, Reports 11-20



Initial Report Case Incurred Loss (Sorted by Rank)



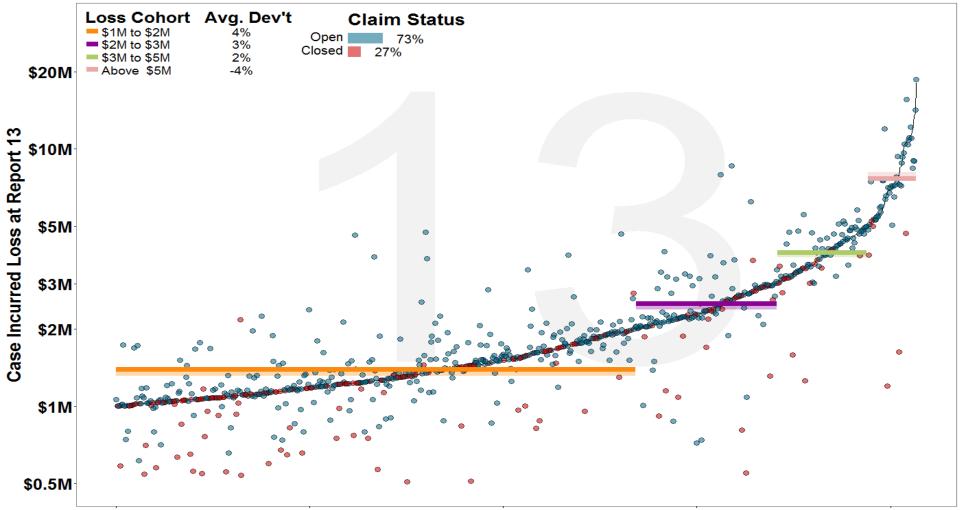
Accident Years 1990-1995, Reports 11-20



Initial Report Case Incurred Loss (Sorted by Rank)



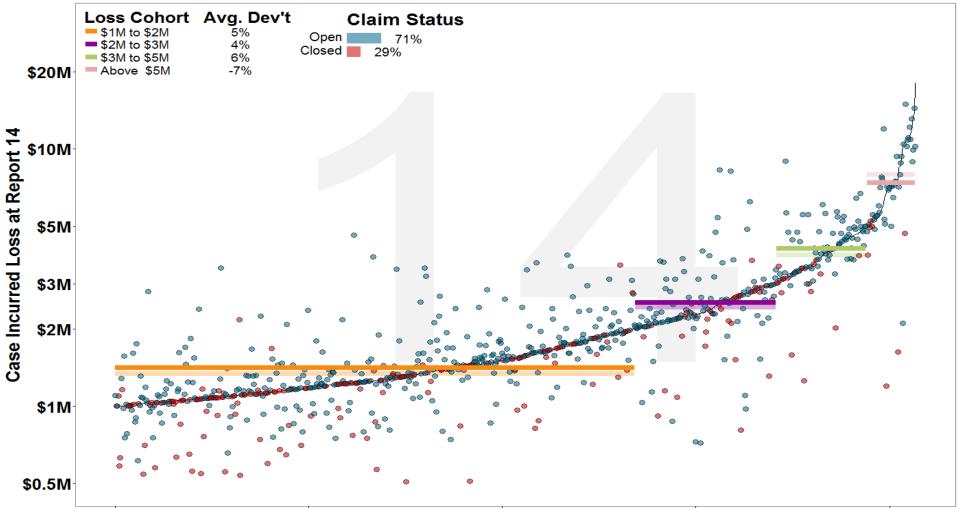
Accident Years 1990-1995, Reports 11-20



Initial Report Case Incurred Loss (Sorted by Rank)



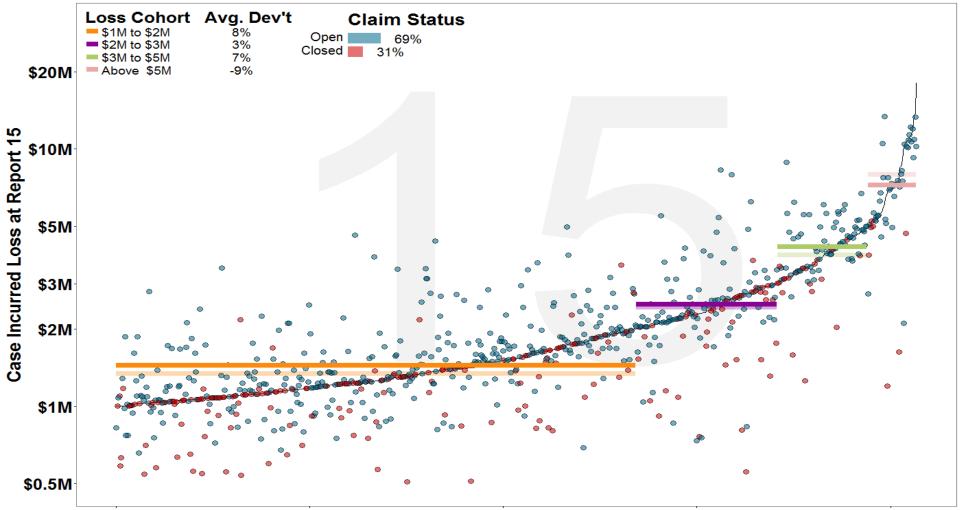
Accident Years 1990-1995, Reports 11-20



Initial Report Case Incurred Loss (Sorted by Rank)



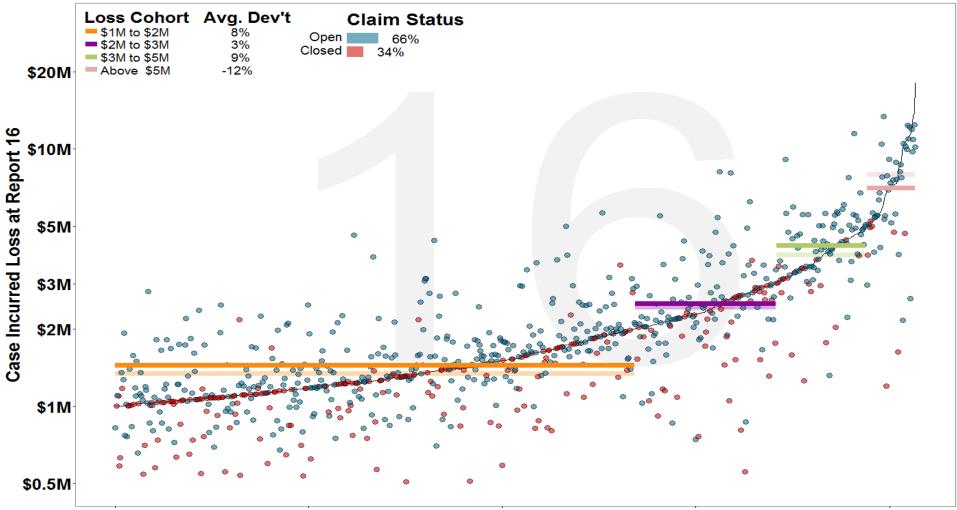
Accident Years 1990-1995, Reports 11-20



Initial Report Case Incurred Loss (Sorted by Rank)



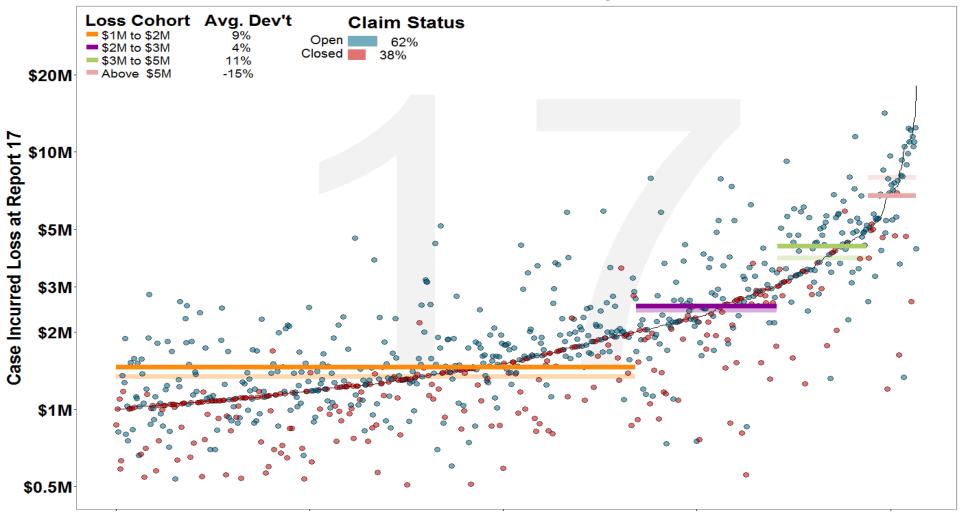
Accident Years 1990-1995, Reports 11-20



Initial Report Case Incurred Loss (Sorted by Rank)



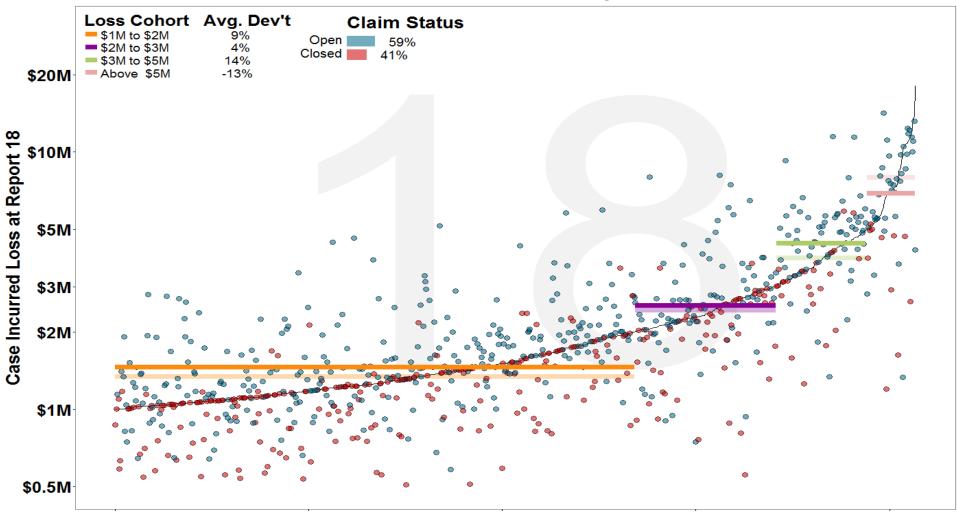
Accident Years 1990-1995, Reports 11-20



Initial Report Case Incurred Loss (Sorted by Rank)



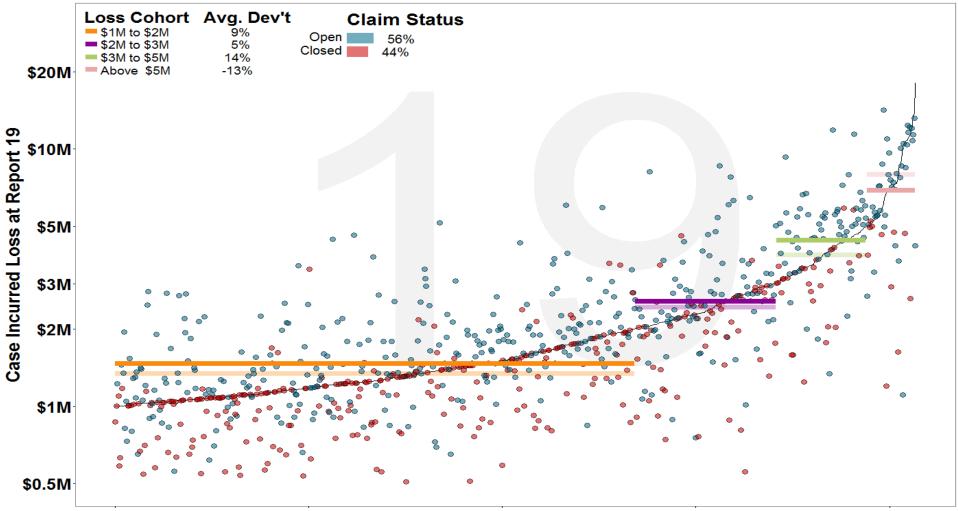
Accident Years 1990-1995, Reports 11-20



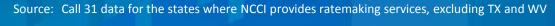
Initial Report Case Incurred Loss (Sorted by Rank)



Accident Years 1990-1995, Reports 11-20

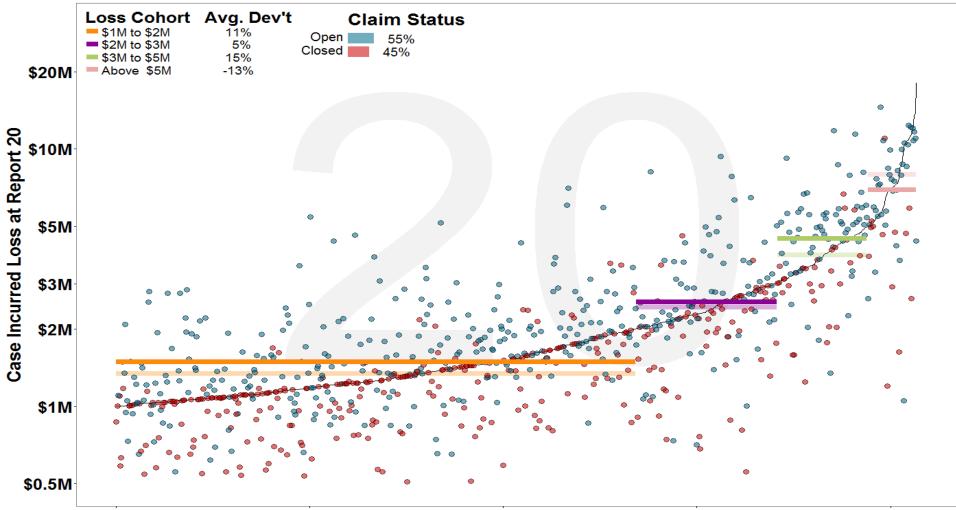


Initial Report Case Incurred Loss (Sorted by Rank)





Accident Years 1990-1995, Reports 11-20



Initial Report Case Incurred Loss (Sorted by Rank)





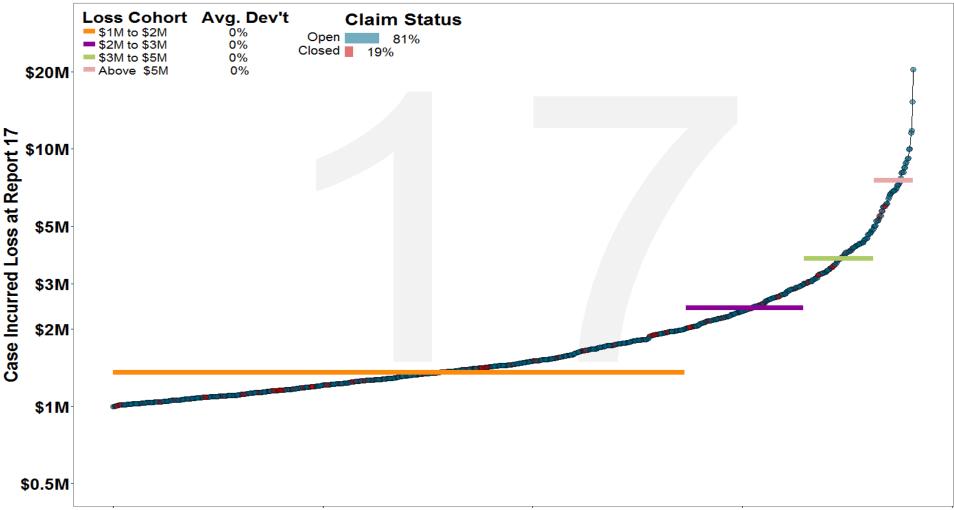
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Individual Claim Development

Accident Years 1984 to 1989



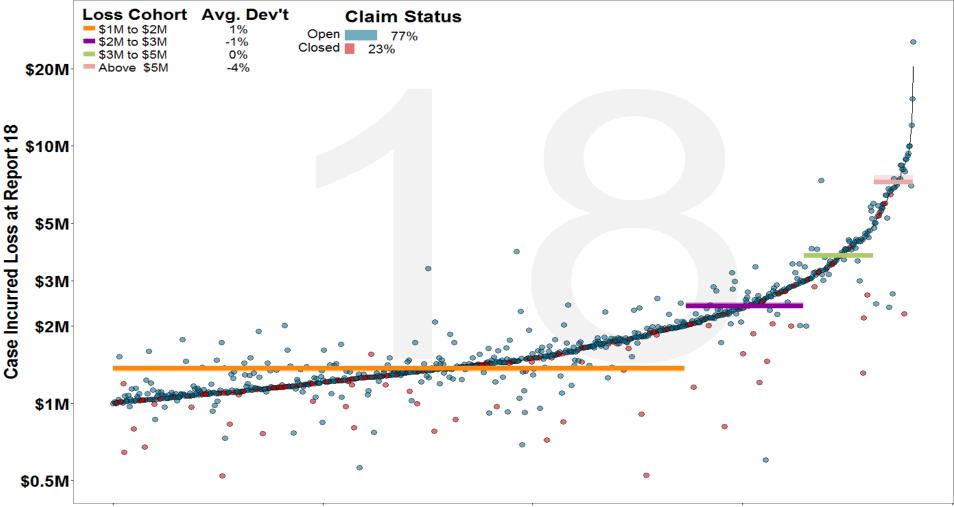
Accident Years 1984-1989, Reports 17-26



Initial Report Case Incurred Loss (Sorted by Rank)



Accident Years 1984-1989, Reports 17-26

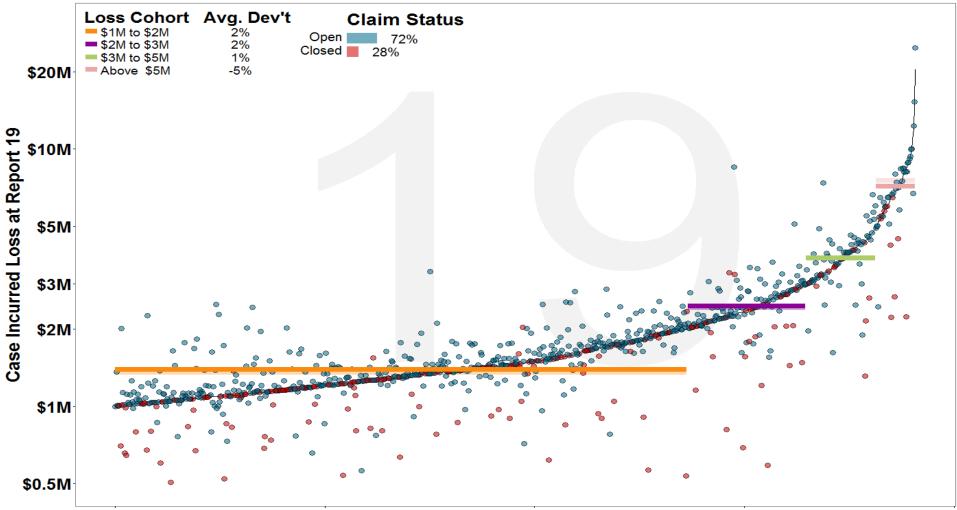


Initial Report Case Incurred Loss (Sorted by Rank)





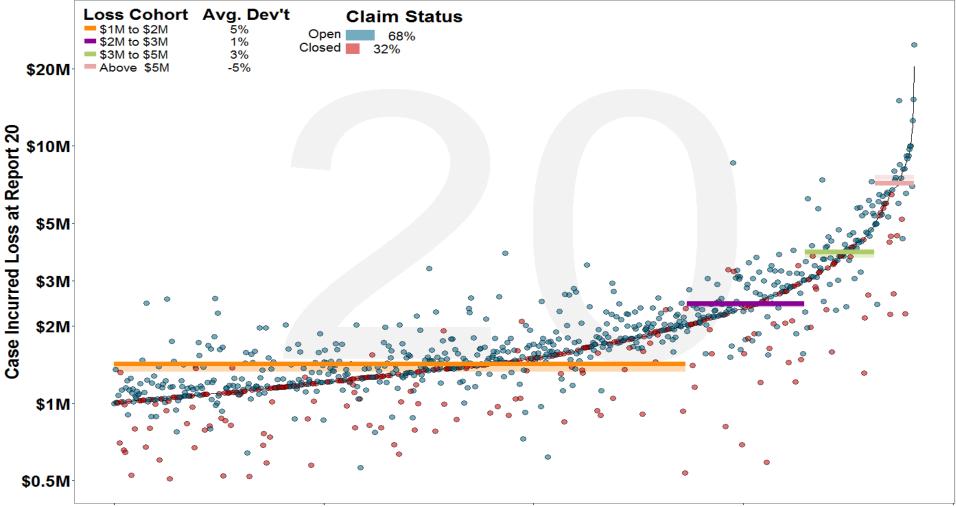
Accident Years 1984-1989, Reports 17-26



Initial Report Case Incurred Loss (Sorted by Rank)



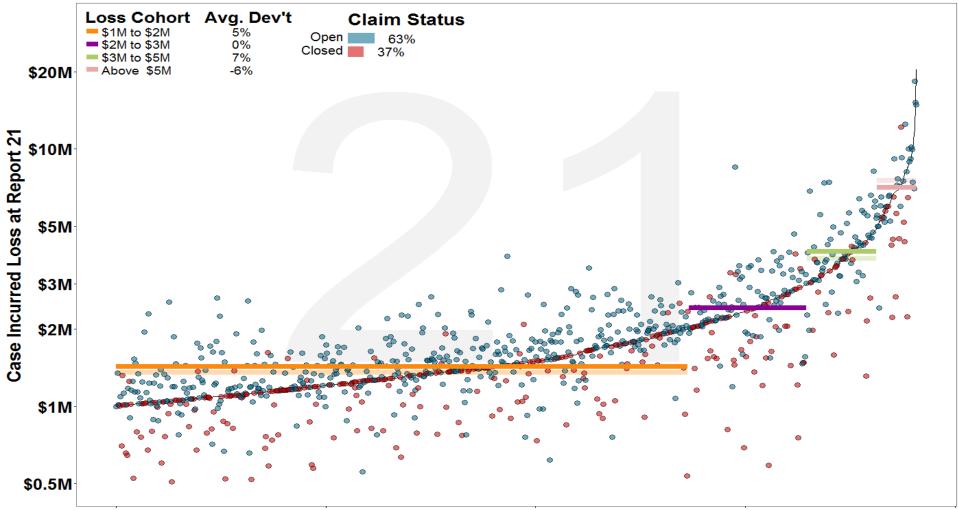
Accident Years 1984-1989, Reports 17-26



Initial Report Case Incurred Loss (Sorted by Rank)



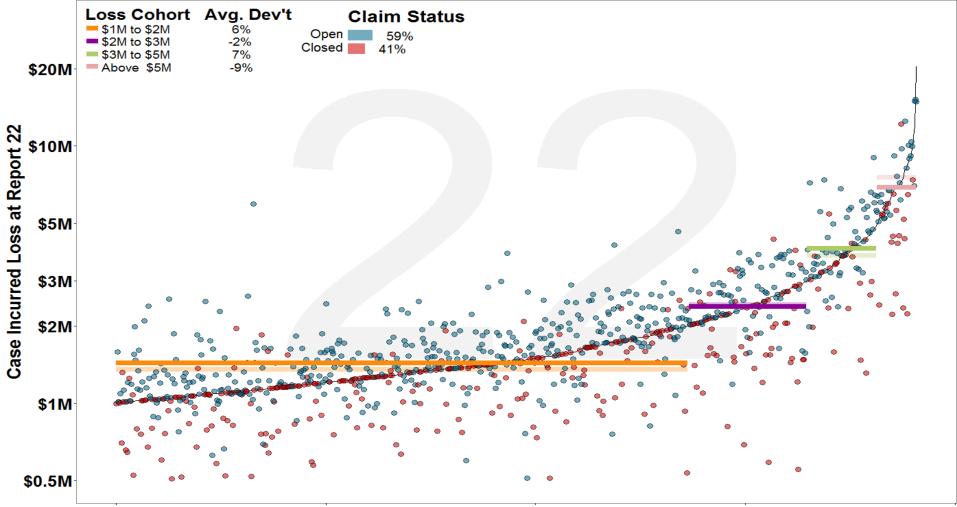
Accident Years 1984-1989, Reports 17-26



Initial Report Case Incurred Loss (Sorted by Rank)



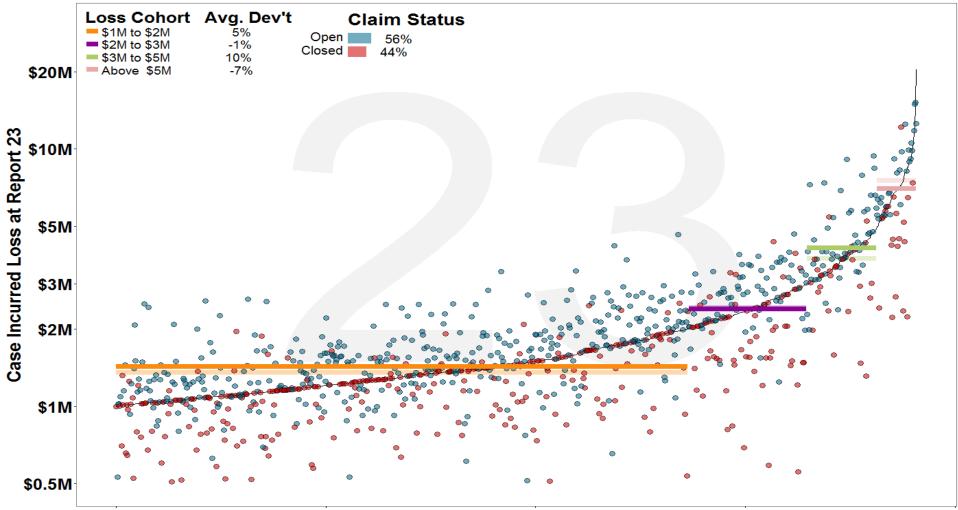
Accident Years 1984-1989, Reports 17-26



Initial Report Case Incurred Loss (Sorted by Rank)



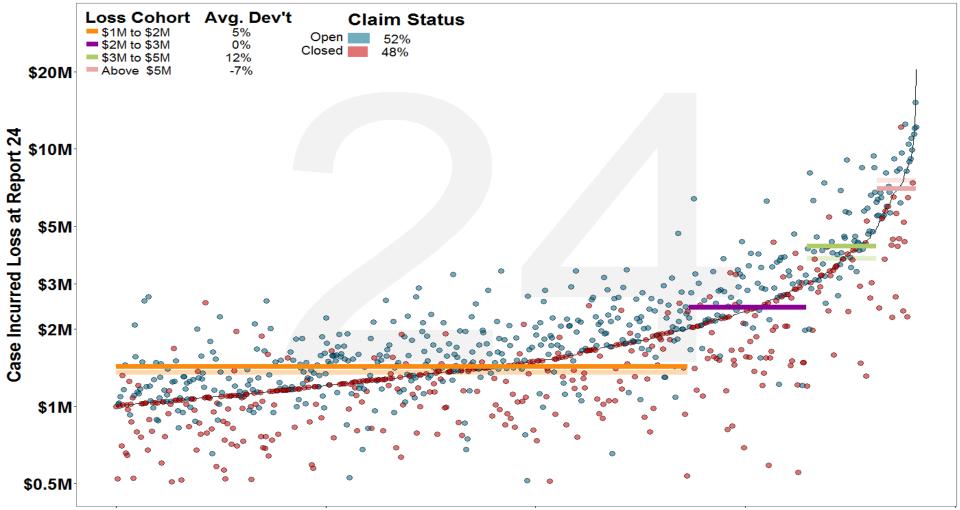
Accident Years 1984-1989, Reports 17-26



Initial Report Case Incurred Loss (Sorted by Rank)



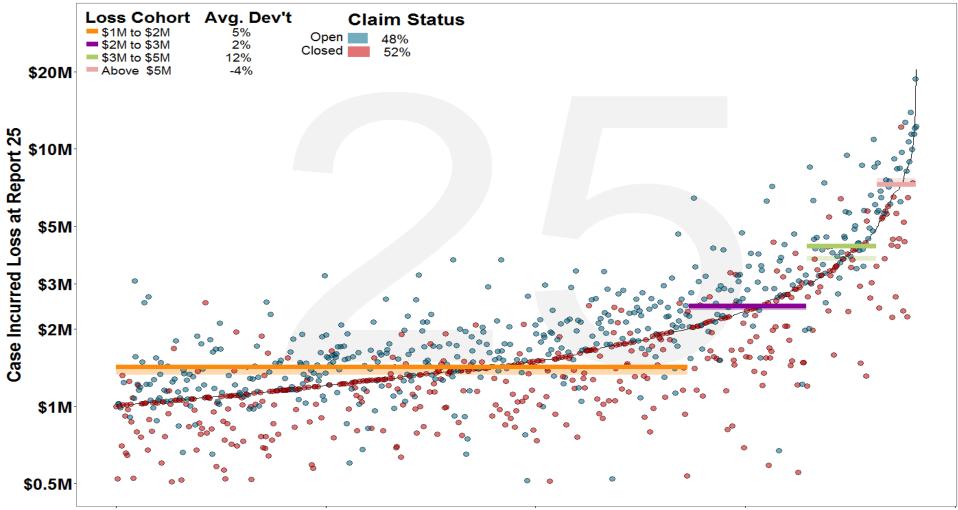
Accident Years 1984-1989, Reports 17-26



Initial Report Case Incurred Loss (Sorted by Rank)



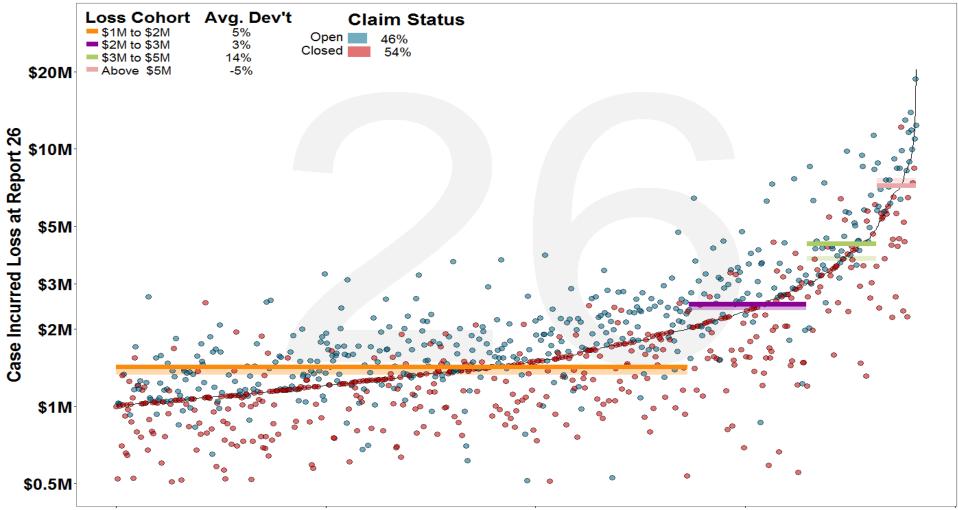
Accident Years 1984-1989, Reports 17-26



Initial Report Case Incurred Loss (Sorted by Rank)



Accident Years 1984-1989, Reports 17-26

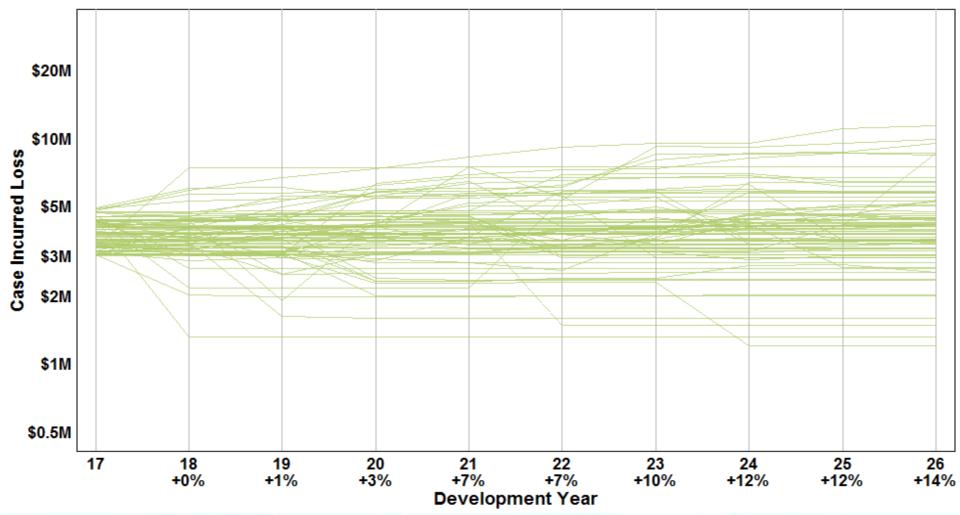


Initial Report Case Incurred Loss (Sorted by Rank)



Accident Years 1984-1989, Reports 17-26

Claims Between \$3M and \$5M at Report 17



Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

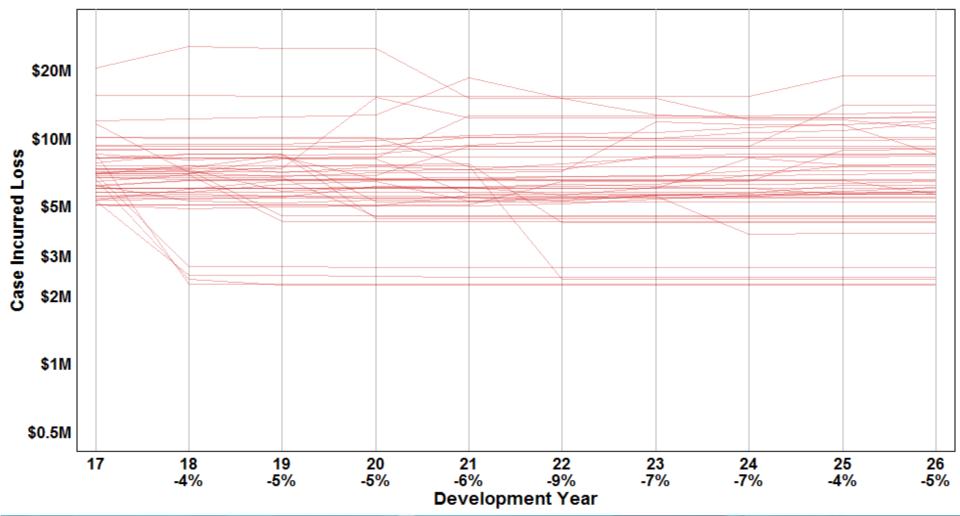
Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 83 claims valued at \$500K or more at each report shown



Accident Years 1984-1989, Reports 17-26

Claims Above \$5M at Report 17



Source: Call 31 data for the states where NCCI provides ratemaking services, excluding TX and WV

Percentages shown are the cumulative changes in the ground-up dollar value of claims from the initial report

Based on 48 claims valued at \$500K or more at each report shown





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Statistical Summary

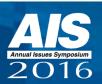
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Average Development and Claim Counts Grouped by Size of Loss at Initial Report

| 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 the states where NCCI provides ratemaking services, excluding TX and WV

Average development is the percentage change in the ground-up dollar value of the cohort of claims from the initial report to the final report



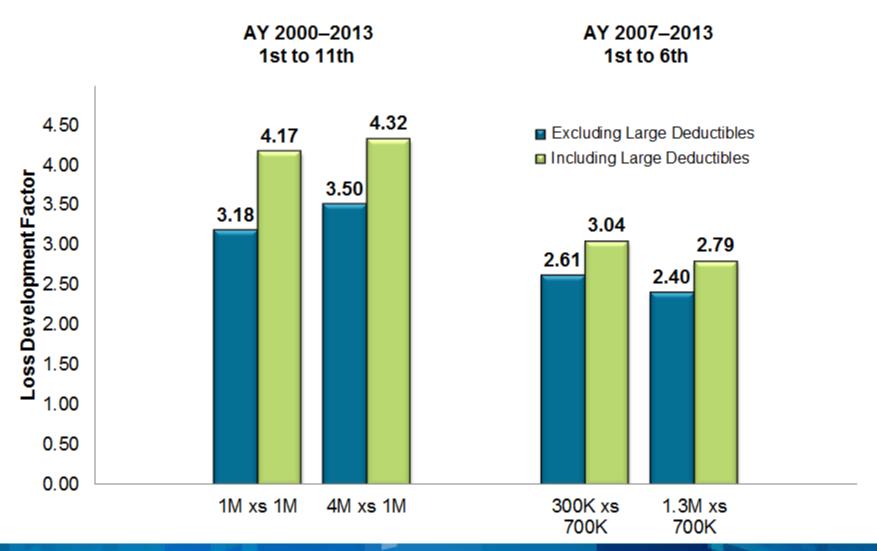


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Comparisons of Excess Loss Development Factors



Impact of Large Deductible Policies in Florida 5% Trend Rate



Source: Call 31 data for Florida, Accident Years 2000–2013, Calendar Years 2000–2014



Sensitivity of Excess Development to Trend Selection Comparison of 3% and 5% Trend Rate

| | Trend Rate | | Trend Rate | | Trend Rate | |
|--------------|------------|------|------------|------|------------|--------|
| Layers | 3% | 5% | 3% | 5% | 3% | 5% |
| | 1st to | 31st | 1st to | 16th | 16th to | o 31st |
| XS of \$2M | 4.18 | 4.56 | 2.95 | 3.23 | 1.42 | 1.41 |
| XS of \$3M | 4.10 | 4.40 | 2.86 | 3.07 | 1.43 | 1.43 |
| XS of \$4M | 4.14 | 4.32 | 2.87 | 3.01 | 1.44 | 1.44 |
| XS of \$5M | 4.22 | 4.30 | 2.90 | 2.97 | 1.46 | 1.45 |
| XS of \$7.5M | 4.62 | 4.46 | 2.97 | 3.04 | 1.56 | 1.47 |
| XS of \$10M | 4.89 | 4.56 | 2.83 | 3.00 | 1.73 | 1.52 |



Excess Development Changes Over Time Comparison of Research Update 2011 vs. 2016

| Layers | Research Update 2011 2016 1st to 26th | | Researc 2011 | h Update 2016 | Research Update 2016 | |
|--------------|---|------|-----------------|------------------|-------------------------|--|
| | | | 11th to 26th | | 26th to 31st | |
| XS of \$2M | 4.71 | 4.39 | 1.85 | 1.73 | 1.04 | |
| XS of \$3M | 4.45 | 4.26 | 1.83 | 1.73 | 1.03 | |
| XS of \$4M | 4.33 | 4.21 | 1.81 | 1.72 | 1.03 | |
| XS of \$5M | 4.30 | 4.19 | 1.82 | 1.72 | 1.03 | |
| XS of \$7.5M | 4.38 | 4.37 | 1.89 | 1.74 | 1.02 | |
| XS of \$10M | 4.36 | 4.50 | 1.99 | 1.80 | 1.01 | |





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Conclusion

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Summary

- Claims less than \$3M generally develop upward, while claims over \$5M generally develop downward
- Claims between \$3M and \$5M generally develop:
 - Downward during the early report periods
 - Upward during the late report periods
- The most recent calendar years suggest excess loss development continues beyond 26 reports



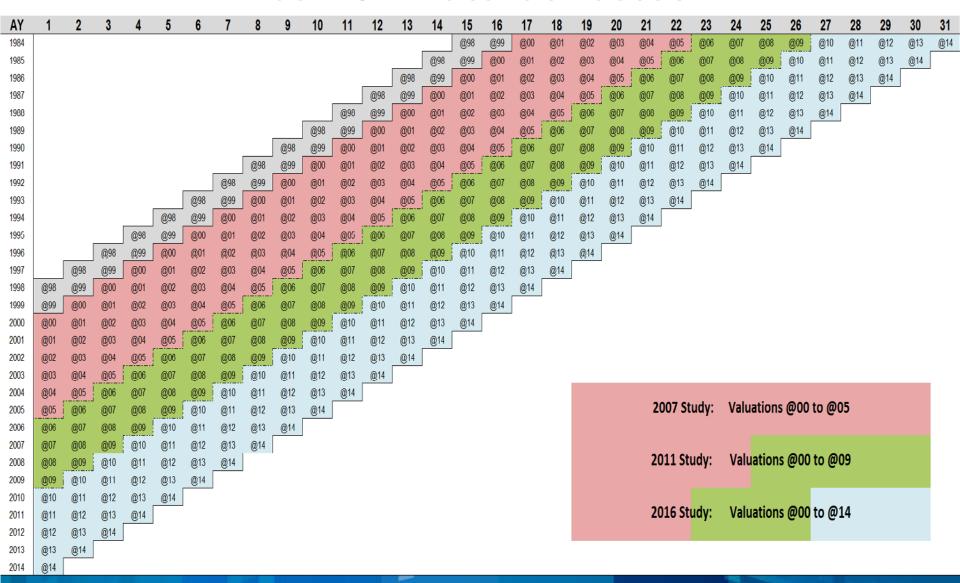


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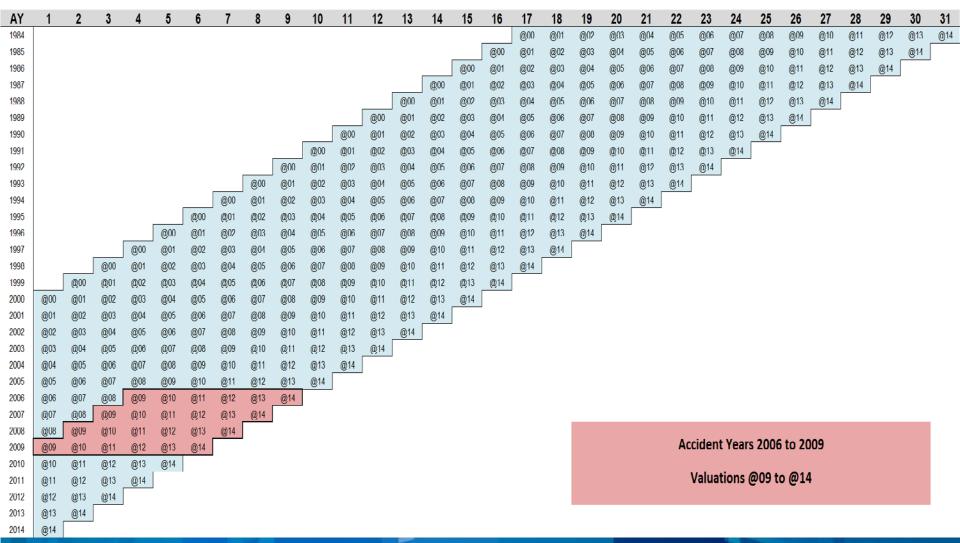
Appendix

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Call 31 Data Collected

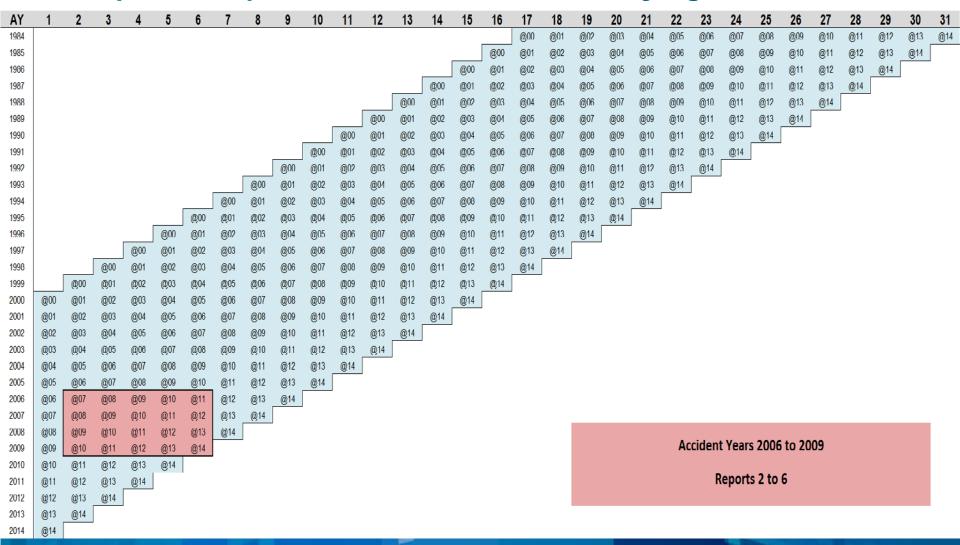


Case Incurred Loss Development Graphical Representation of Data Underlying Slides 10–14

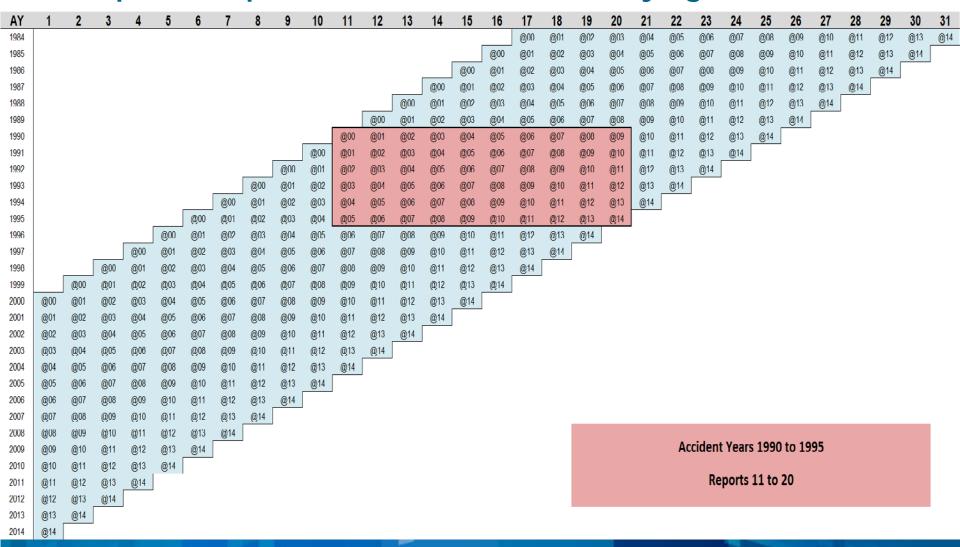




Case Incurred Loss Development Graphical Representation of Data Underlying Slides 15–27



Case Incurred Loss Development Graphical Representation of Data Underlying Slides 29–38





Case Incurred Loss Development Graphical Representation of Data Underlying Slides 40–51

