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Workers Compensation Excess Loss Development

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2011 Casualty Loss Reserve Seminar
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September 15-16, 2011

Overview

- This is an update of the NCCI 2007 study, “Workers Compensation Excess Development,” adding four calendar years of Call 31 experience
- As part of our review of excess loss factors, we investigate countrywide excess loss development
- We also look at excess loss development for
 - States grouped by lump sum settlement rules
 - States grouped by ELF's at a \$1 million limit
 - Large Deductible policies

Call 31

- Initiated in 2003 to allow limited loss development in aggregate ratemaking
- Includes all claims over \$500K for Accident Years 1984 and subsequent, valued annually for 12/31/1998 and subsequent end of calendar years

Key Findings

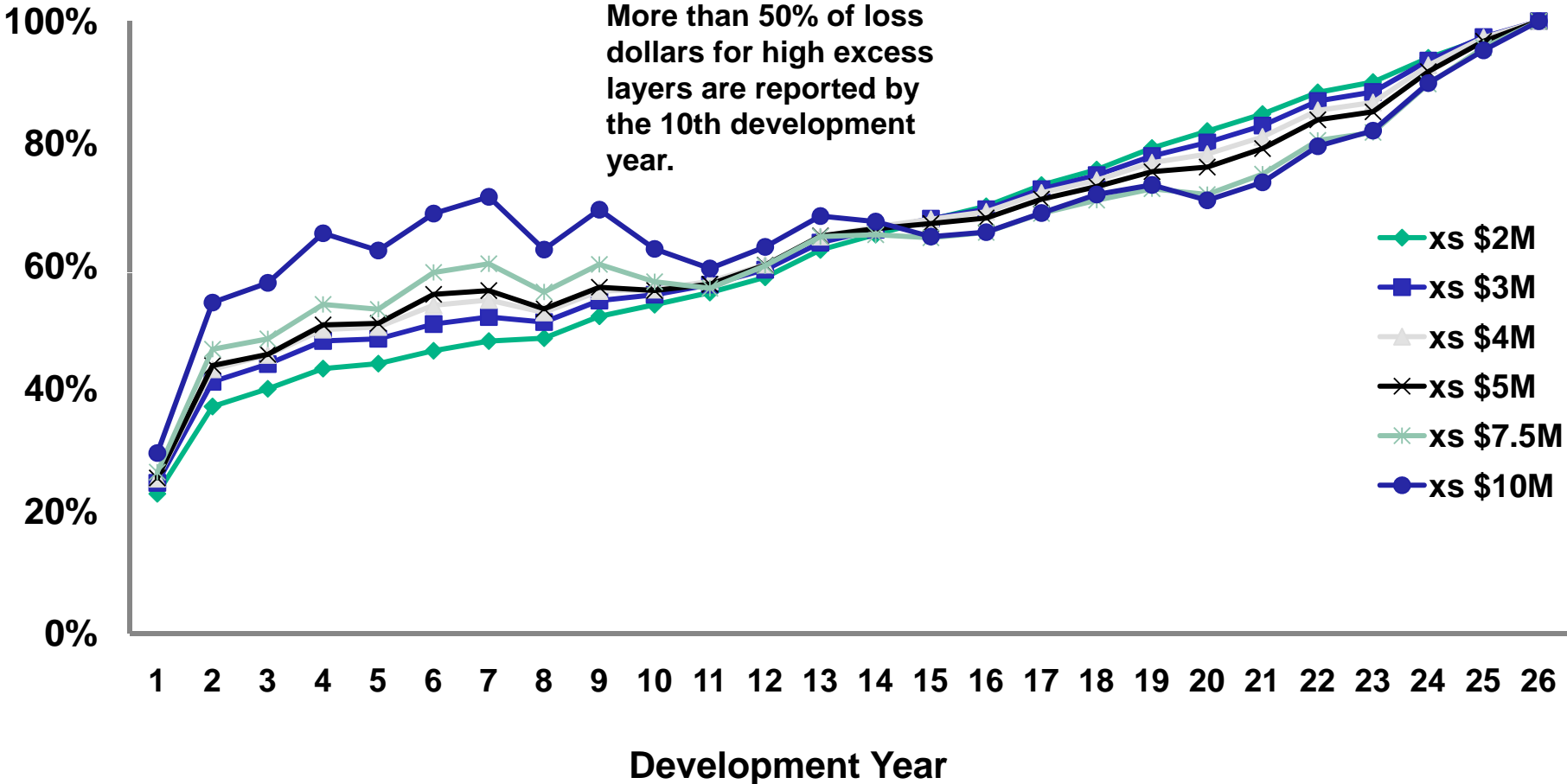
- Claims over \$5 million were more likely to develop down than up through 26 years of development. This is in contrast to claims of about \$1 million, which are more likely to develop up rather than down through 26 years
- Claims under Large Deductible policies had significantly more development in the excess layers reviewed than claims under ground-up policies
- States allowing medical lump sum settlements had more development for high excess layers than states that do not allow medical lump sum settlements

Study Design

- Claim values in this study
 - Are case incurred losses
 - Combine indemnity and medical
 - Do not include loss adjustment expense
- Excess amounts are excess per claim

Excess Case Incurred Loss Emergence

Percentage of Losses at 26 Years



Source: Call 31 data, Accident Years 1984–2008, Calendar Years 2000–2009

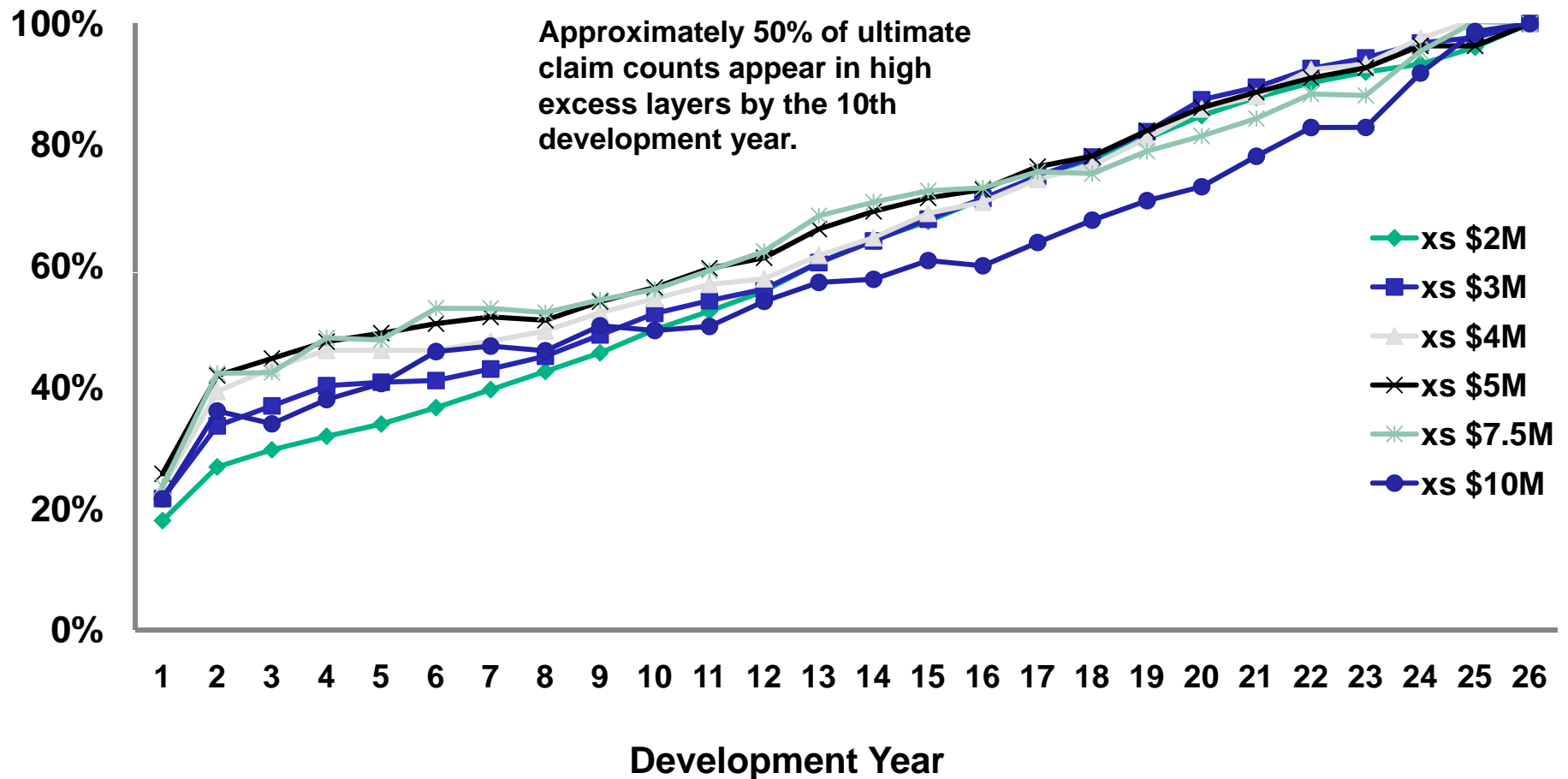
Combination of 3% and 5% trend

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



Large Claim Counts Emergence

Percentage of Large Claim Counts at 26 Years



Source: Call 31 data, Accident Years 1984–2008, Calendar Years 2000–2009

Combination of 3% and 5% trend

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

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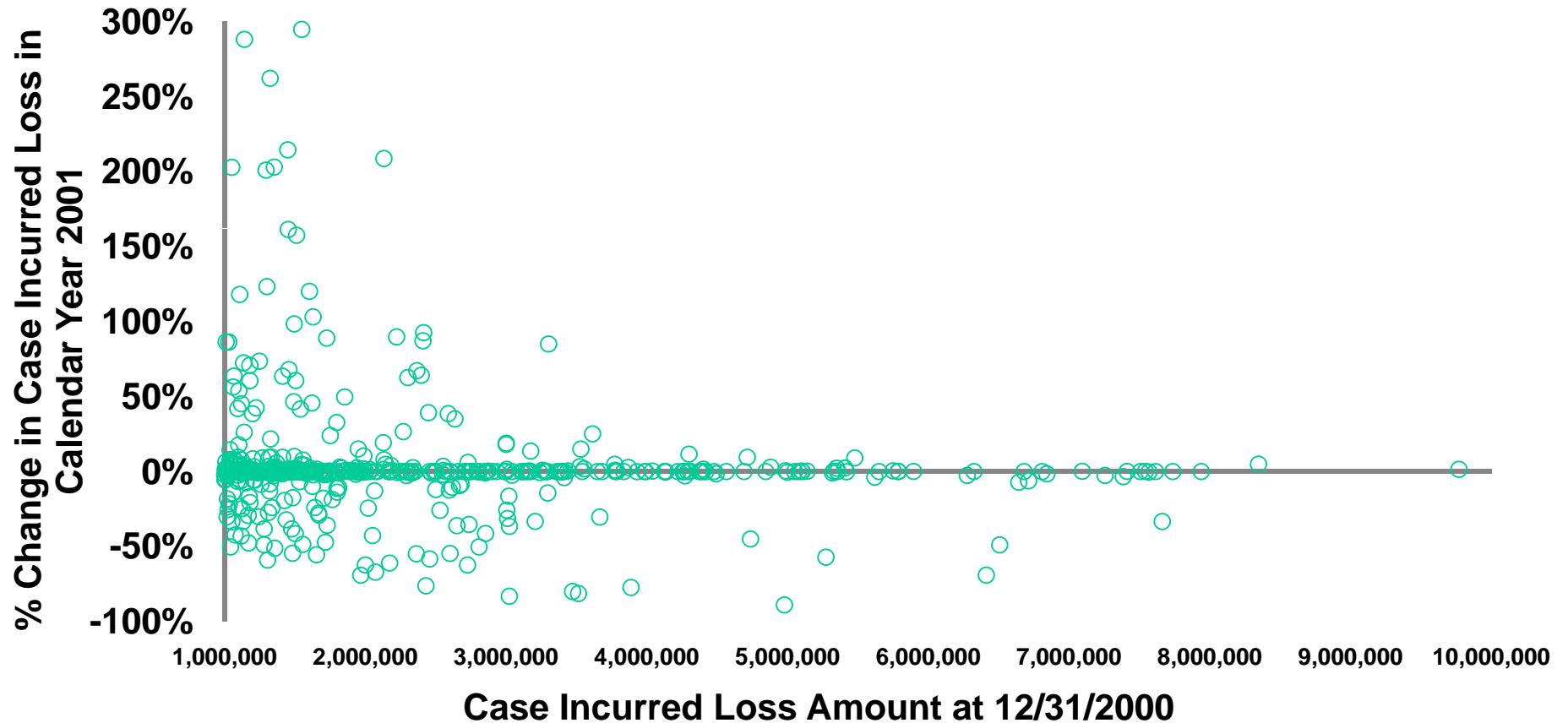
Development of Individual Large Losses

Development of Individual Large Losses

- In the previous look at calendar years 2001–2005, very large losses were more likely to show dramatic drops in case incurred value than increases
- The following scatter plots show that this pattern persists into calendar years 2006–2009
- This gives rise to instances where development for higher layers is approximately the same or less than development for lower layers
- For very mature development ages, the increases and decreases are more balanced

Case Incurred Loss Development By Size of Loss in 2001

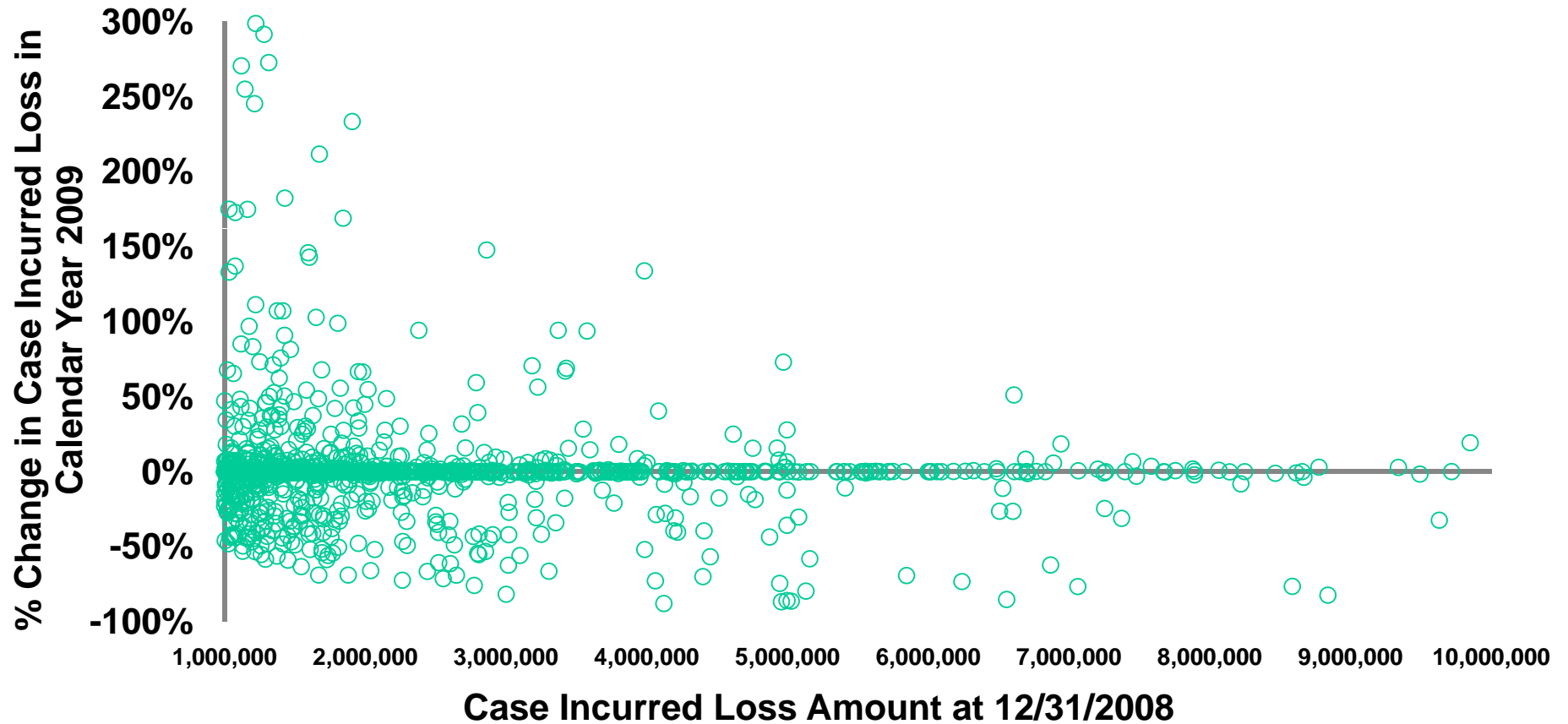
Accident Years 1996-2000



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

Case Incurred Loss Development By Size of Loss in 2009

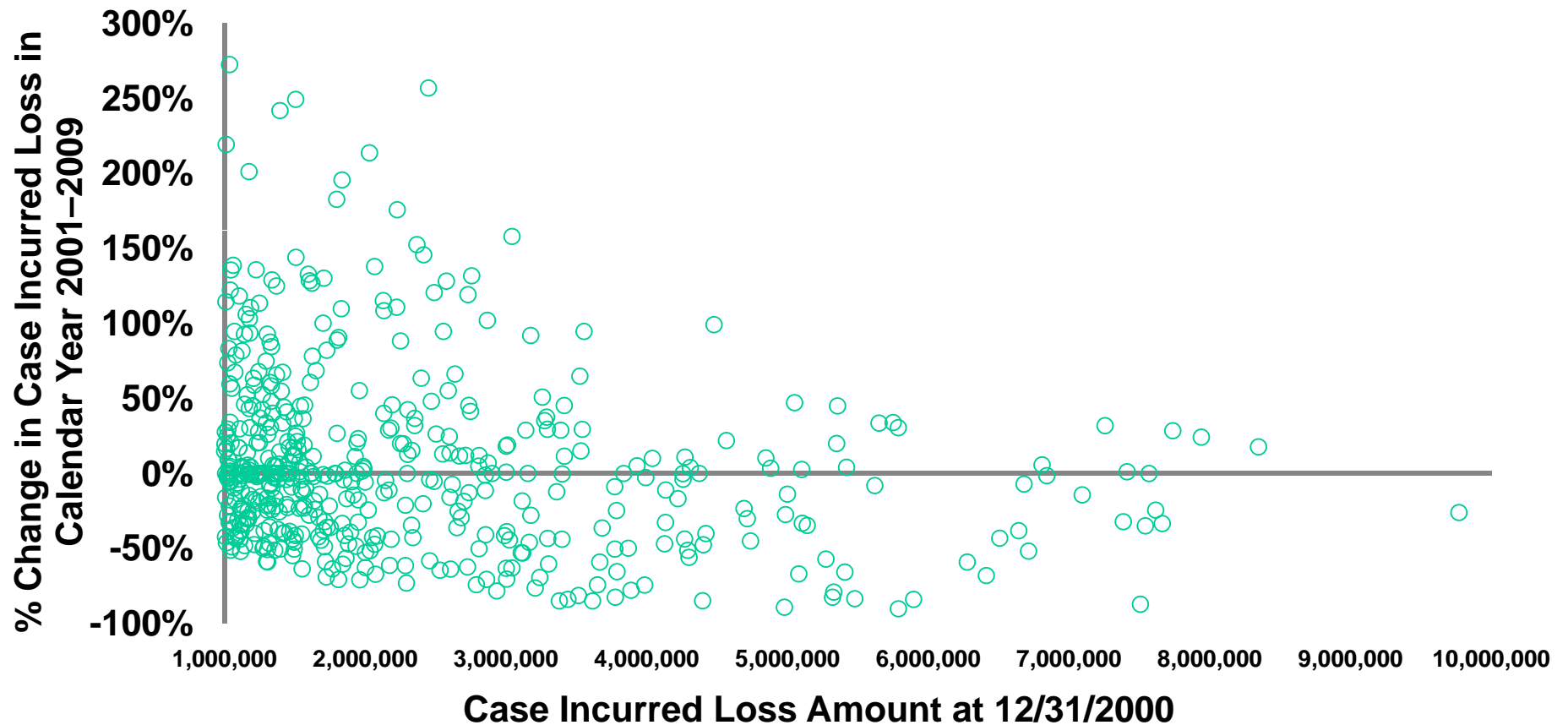
Accident Years 2004-2008



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

Case Incurred Loss Development By Size of Loss in 2001–2009

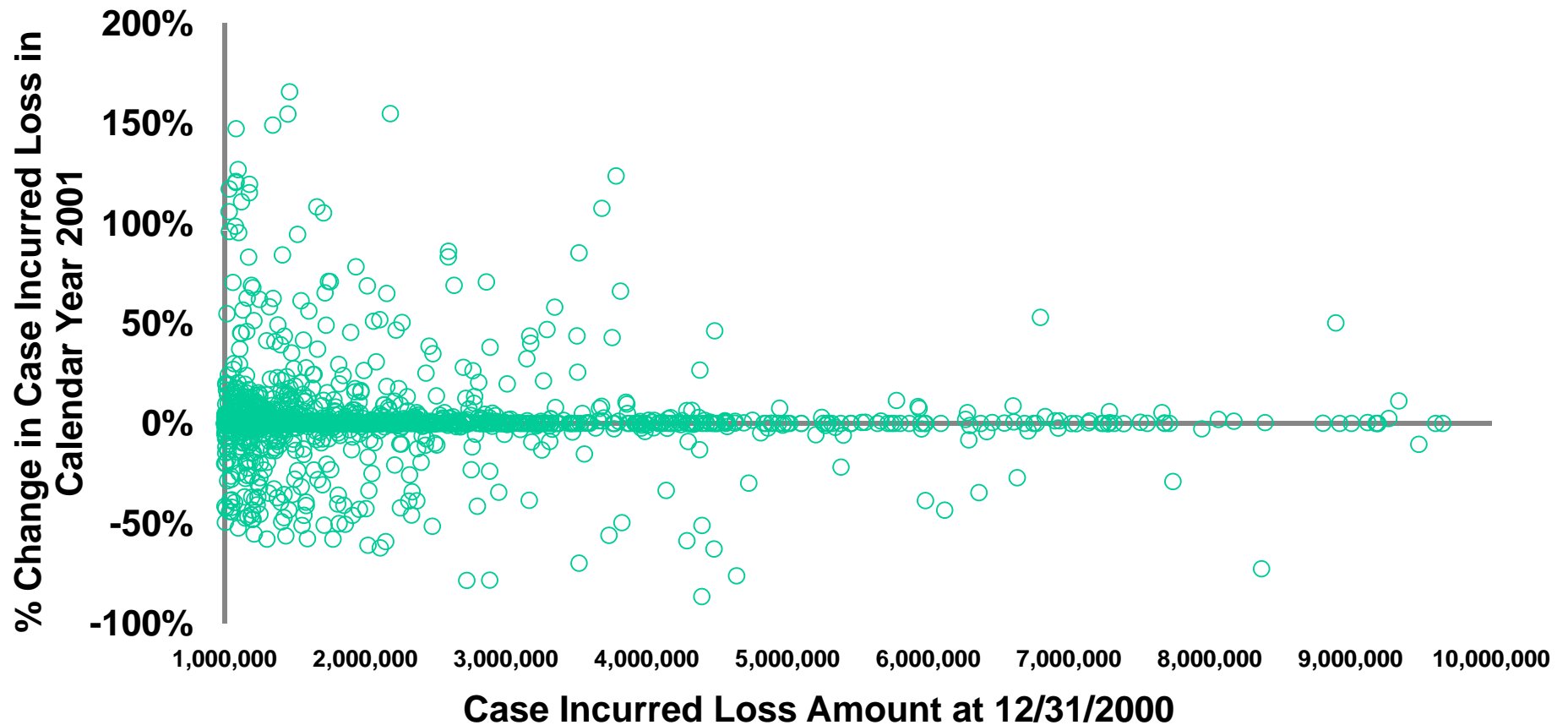
Accident Years 1996-2000



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

Case Incurred Loss Development By Size of Loss in 2001

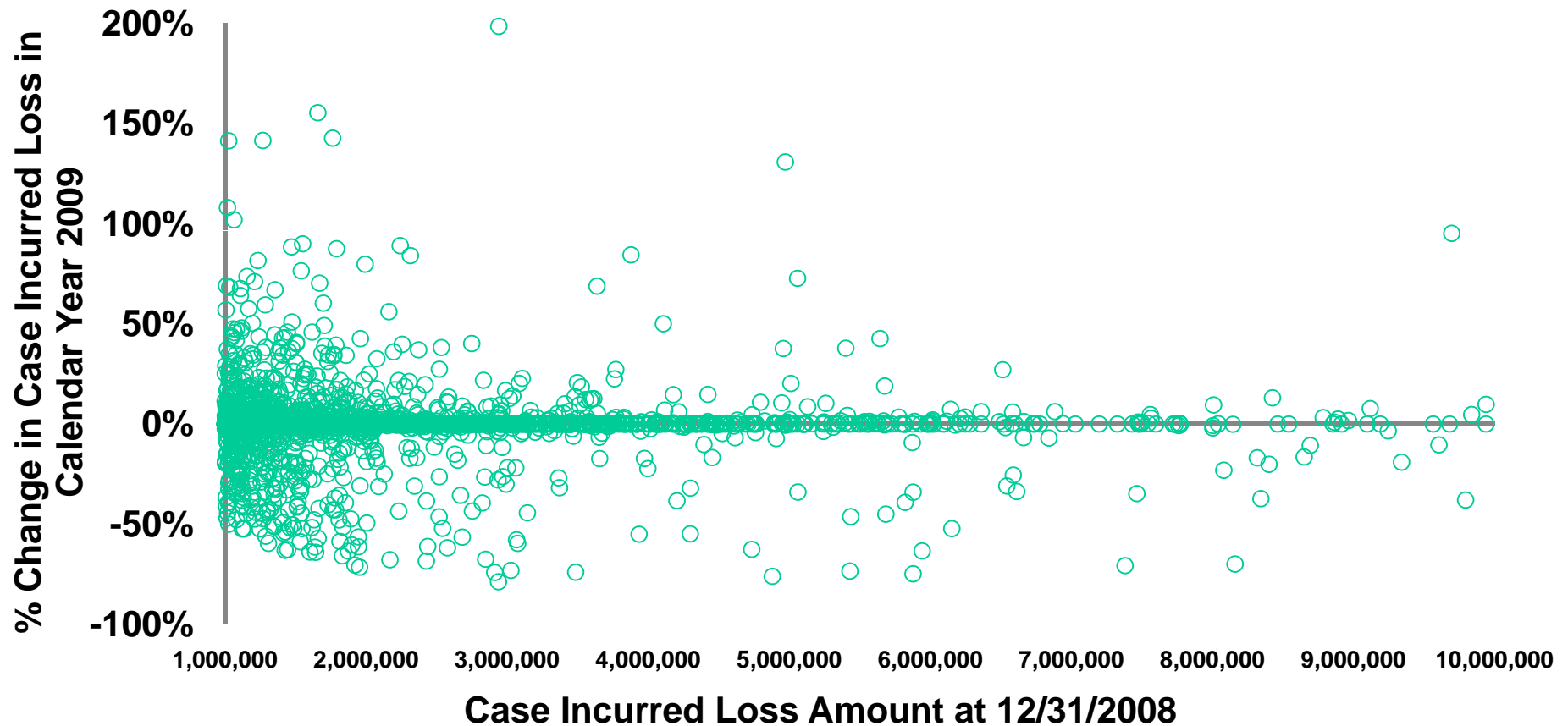
Accident Years 1984-1995



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

Case Incurred Loss Development By Size of Loss in 2009

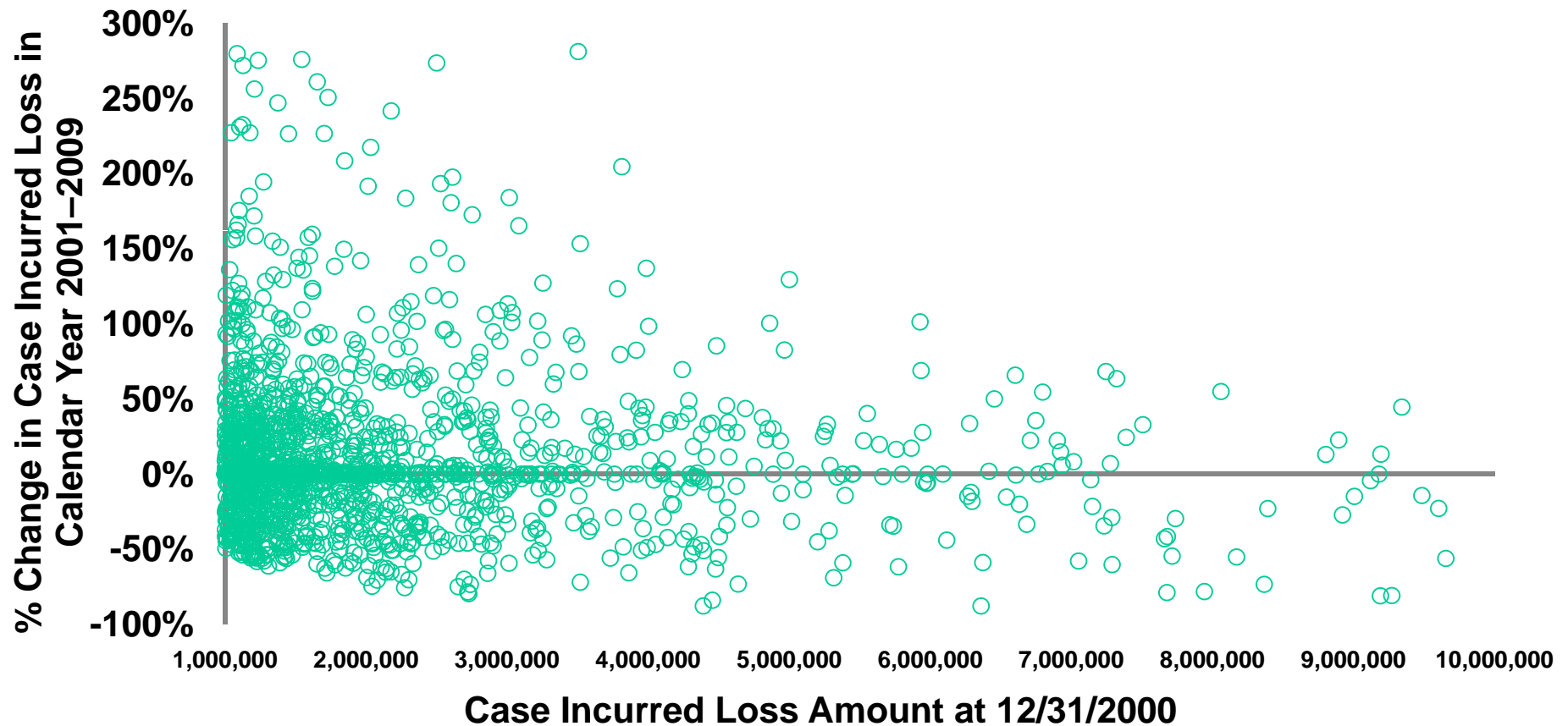
Accident Years 1992-2003



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

Case Incurred Loss Development By Size of Loss in 2001–2009

Accident Years 1984-1995



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

Trending Losses Underlying Excess Development Factors

- Trends in claim costs change the relationship between average claim size and any fixed limit
- For example, if costs increase by 100% over 10 years, then development patterns today excess of \$2M might be similar to those excess of \$1M 10 years ago
- We compensate for this by trending individual claim amounts to a common date

Turning Call 31 Into Excess Development Factors

- Claims trended on a ground-up basis by 5% and 3% from accident year to 2010
 - 26 years of development for attachments \geq \$2M
 - 11 years for attachments \geq \$1M
 - 6 years for attachments \geq \$700K
- Longer development is not available for low attachments because the cumulative trend backward corresponds to claim sizes below the \$500K minimum for Call 31 reporting



Large Dollar Deductible Policies

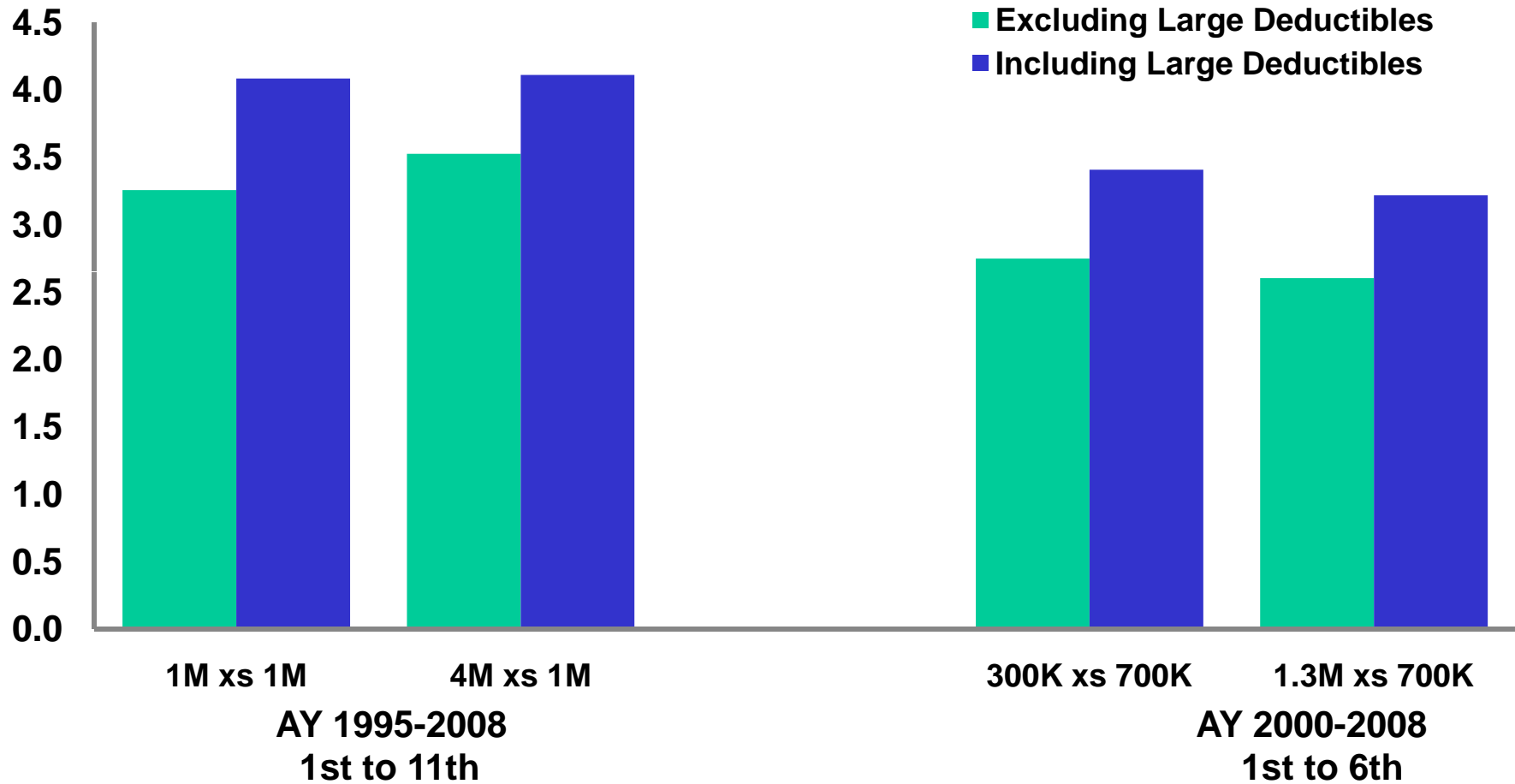
Large Dollar Deductible Policies

- Large Deductible claims are reported in Call 31 for four states—Florida, Nebraska, Oregon, and Virginia. Oregon has insufficient claims volume reported, so this analysis is based on Florida, Nebraska, and Virginia
- Only limits of \$1M and smaller are reviewed, in order to have sufficient claim volume
- We compare loss emergence including Large Deductible claims, and excluding Large Deductible claims

Impact of Large Dollar Deductible Policies

Loss Development
Factor

3% Trend Rate



Cumulative Development Factors Derived From Call 31

Calendar Years 2000-2009, 1st Through 26th Calendar Year Past Accident Year,
Case Incurred Loss Trended From Accident Year to 2010
Florida, Nebraska, Virginia

	Layers	3% Trend Rate		5% Trend Rate	
		Excluding Large Deductibles	Including Large Deductibles	Excluding Large Deductibles	Including Large Deductibles
AY 1995–2008 <i>1st to 11th</i>	1M xs 1M	3.26	4.09	3.45	4.30
	4M xs 1M	3.53	4.11	3.64	4.28
AY 2000–2008 <i>1st to 6th</i>	300K xs 700K	2.75	3.41	2.78	3.45
	1.3M xs 700K	2.60	3.22	2.62	3.25



Lump Sum Settlement State Groups

State Groups by Lump Sum Settlement Rules

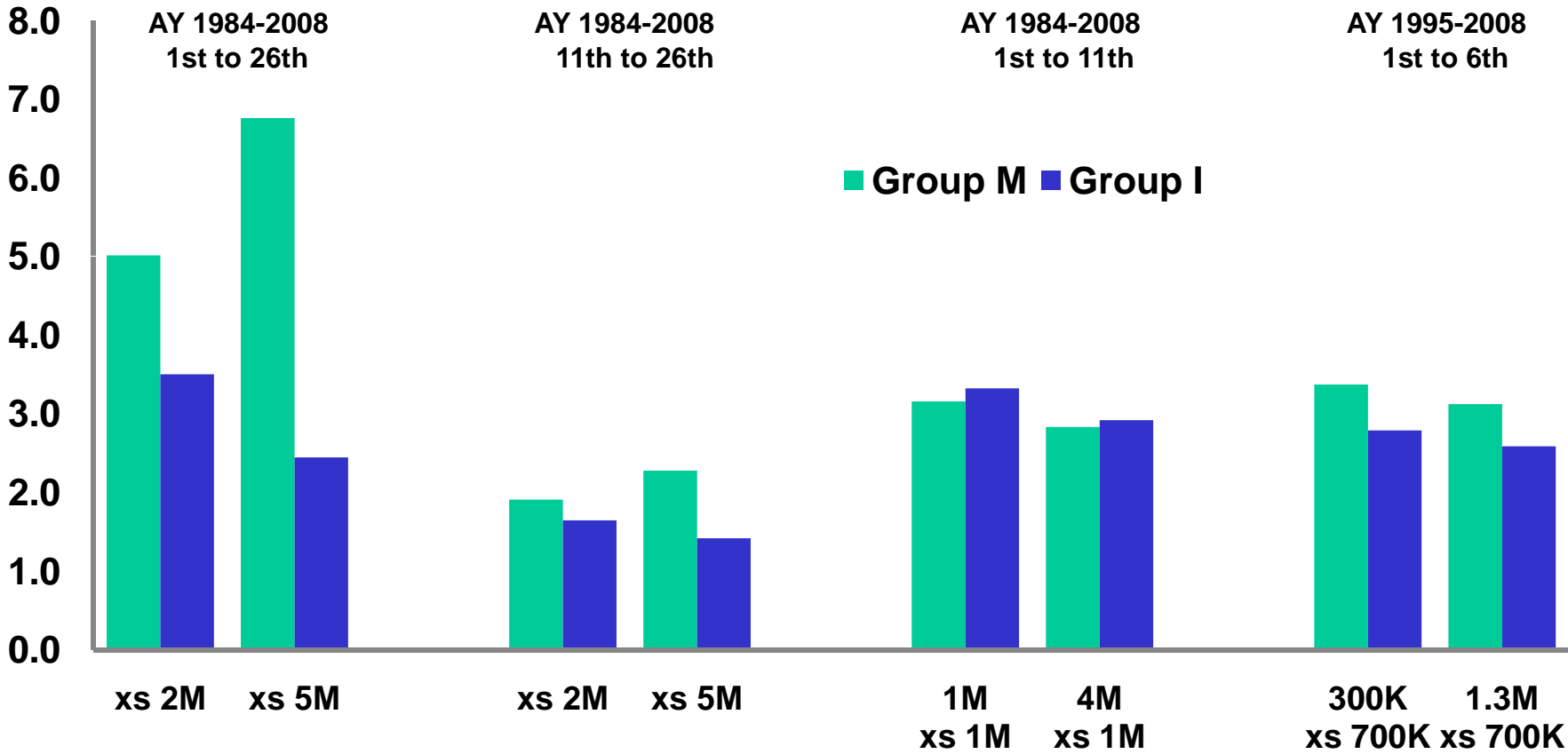
Although lump sum rules vary by state and change over time, for recent years the following groups have somewhat similar rules

- Group M — States allowing medical liability to be extinguished in some circumstances: AL, AR, CO, FL, GA, HI, IL, IA, KS, ME, MS, MO, MT, NE, NC, OK, RI, SC, TN, UT, VT, and VA
- Group I — States permitting only indemnity lump sum settlements: AK, AZ, DC, KY, LA, NH, NM, OR, and SD

State Groups by Lump Sum Settlement Rules

Loss Development Factor

3% Trend Rate



Cumulative Development Factors Derived From Call 31

Calendar Years 2000-2009, 1st Through 26th Calendar Year Past Accident Year,
Case Incurred Loss Trended From Accident Year to 2010

	Layers	3% Trend Rate		5% Trend Rate	
		Group M	Group I	Group M	Group I
AY 1984–2008 <i>1st to 26th</i>	xs 2M	5.02	3.51	5.04	4.19
	xs 5M	6.76	2.45	5.48	2.83
AY 1984–2008 <i>11th to 26th</i>	xs 2M	1.91	1.65	1.87	1.83
	xs 5M	2.28	1.42	2.00	1.50
AY 1995–2008 <i>1st to 11th</i>	1M xs 1M	3.16	3.33	3.51	3.75
	4M xs 1M	2.84	2.92	3.08	3.30
AY 2000–2008 <i>1st to 6th</i>	300K xs 700K	3.38	2.79	3.41	2.82
	1.3M xs 700K	3.13	2.59	3.16	2.63

State Groups by Lump Sum Settlement Rules

Medical lump sum settlements tend to increase both early and later development factors, particularly for high attaching layers



Excess Loss Factors and Excess Loss Development by State

Excess Loss Factor

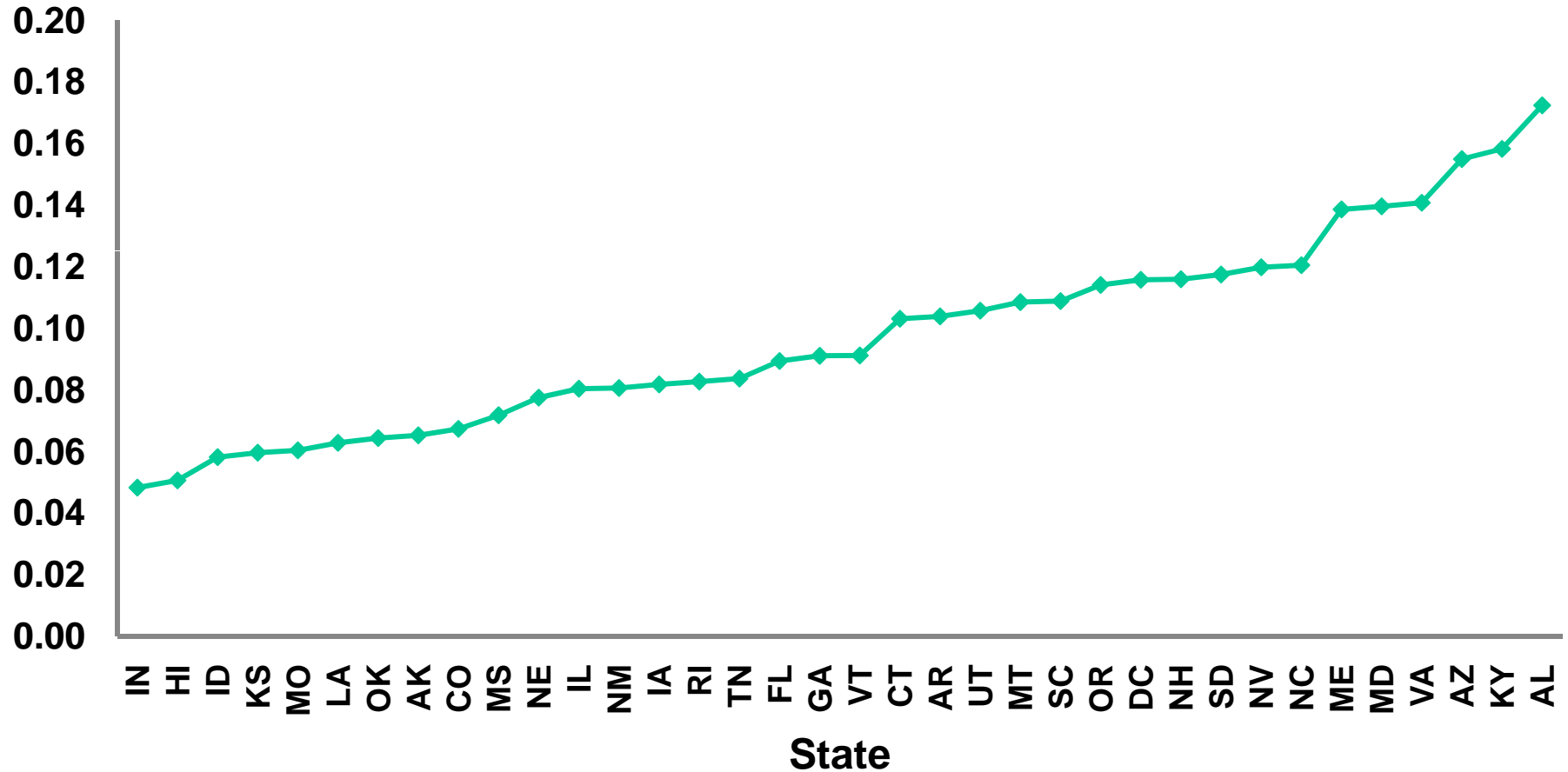
- An excess loss factor (ELF) at a limit is the ratio of losses excess of the limit to total losses
- NCCI publishes ELF's, which vary by state, hazard group, and year

States Grouped by ELF at \$1 Million Limit

- High (H) Group: AL, AZ, KY, ME, MD, and VA
- Medium (M) Group: AR, CT, DC, MT, NV, NC, NH, OR, SC, SD, and UT
- Low (L) Group: AK, CO, FL, GA, HI, ID, IL, IA, KS, LA MS, MO, NE, NM, OK, RI, TN , and VT

ELFs for Hazard Group D

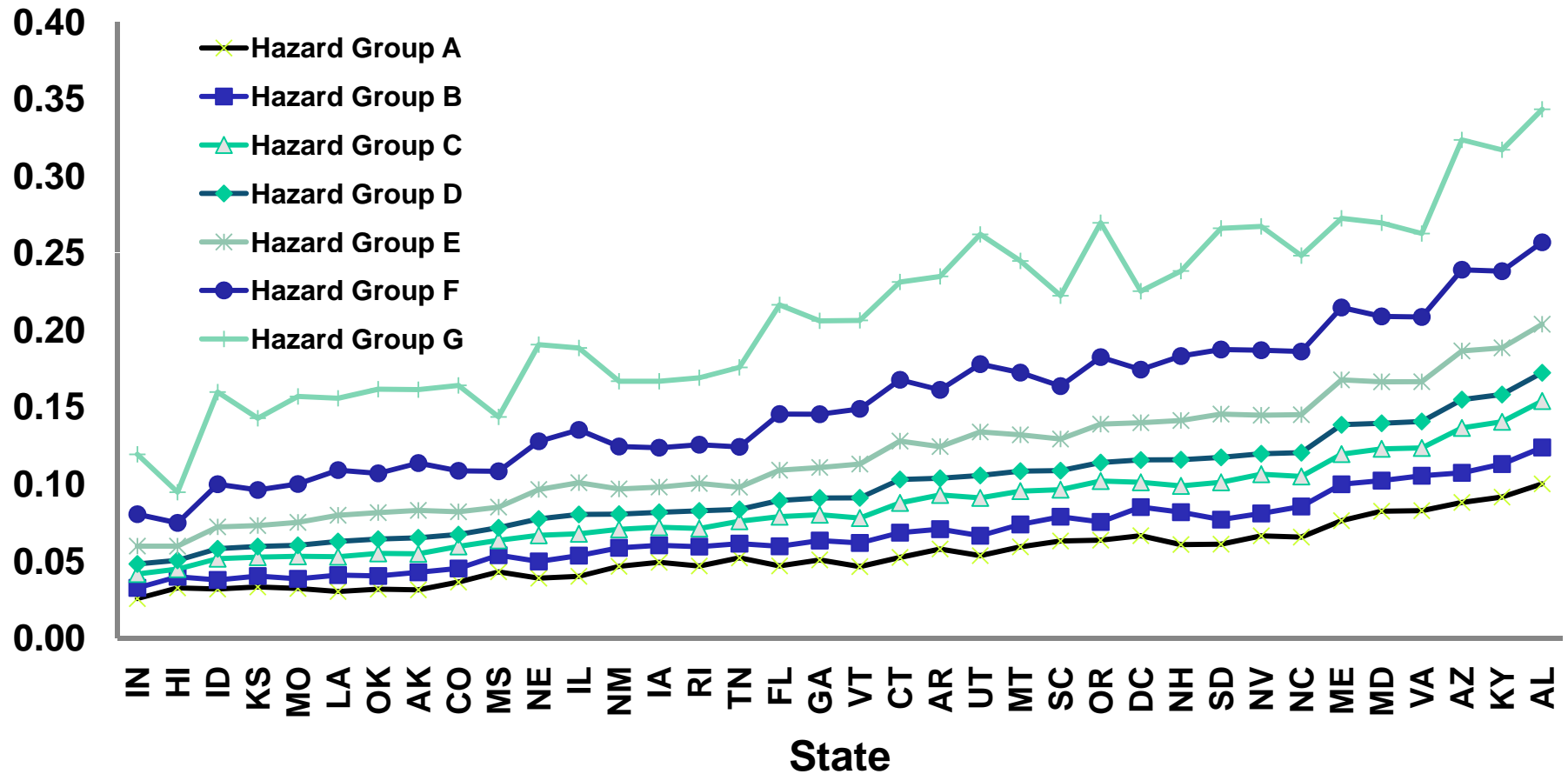
Adjusted per Claim
Excess Ratio



Source: NCCI Excess Loss Factors as of 01/01/2011

ELFs by Hazard Group and State

Adjusted per Claim
Excess Ratio

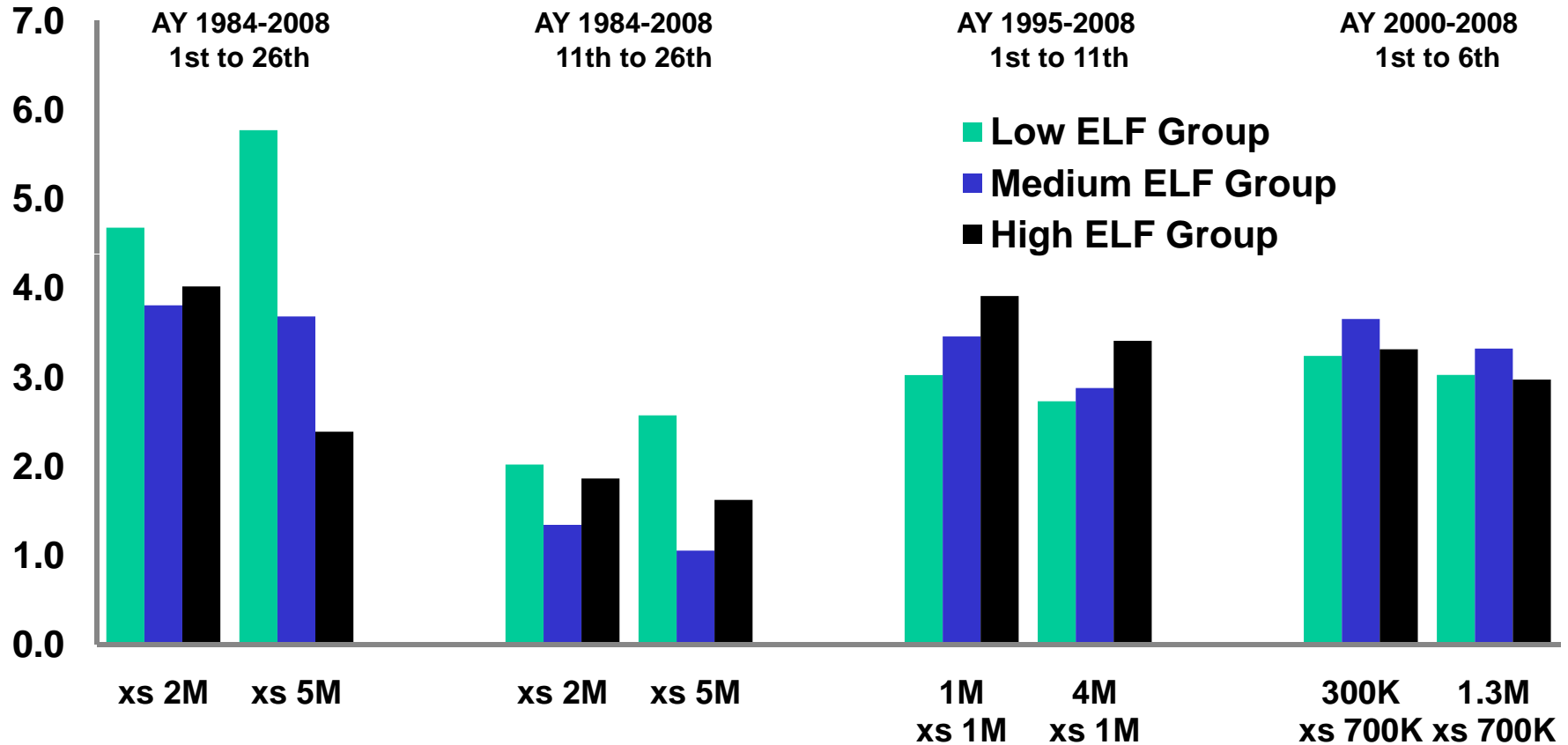


Source: NCCI Excess Loss Factors as of 01/01/2011

States Grouped By ELF's at \$1 Million Limit

Loss Development Factor

3% Trend Rate



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



Cumulative Development Factors Derived From Call 31

Calendar Years 2000-2009, 1st Through 26th Calendar Year Past Accident Year,
Case Incurred Loss Trended From Accident Year to 2010

		3% Trend Rate			5% Trend Rate		
Layers		Low ELF	Medium ELF	High ELF	Low ELF	Medium ELF	High ELF
AY 1984–2008 <i>1st to 26th</i>	xs 2M	4.68	3.81	4.02	4.66	4.20	5.02
	xs 5M	5.77	3.68	2.39	4.78	3.76	2.88
AY 1984–2008 <i>11th to 26th</i>	xs 2M	2.02	1.34	1.86	1.89	1.49	2.18
	xs 5M	2.57	1.05	1.62	2.20	1.20	1.60
AY 1995–2008 <i>1st to 11th</i>	1M xs 1M	3.02	3.46	3.91	3.35	3.88	4.41
	4M xs 1M	2.73	2.88	3.41	2.97	3.16	3.88
AY 2000–2008 <i>1st to 6th</i>	300K xs 700K	3.24	3.65	3.31	3.26	3.70	3.37
	1.3M xs 700K	3.02	3.32	2.97	3.05	3.38	3.03

States Grouped by ELF at \$1 Million Limit

- States in the Low ELF group tend to show more development in high excess layers, and less development in the lower excess layers, than states in the High and Medium ELF groups
- However, it is not clear from this analysis that there is a credible and consistent relationship between ELFs and excess loss development

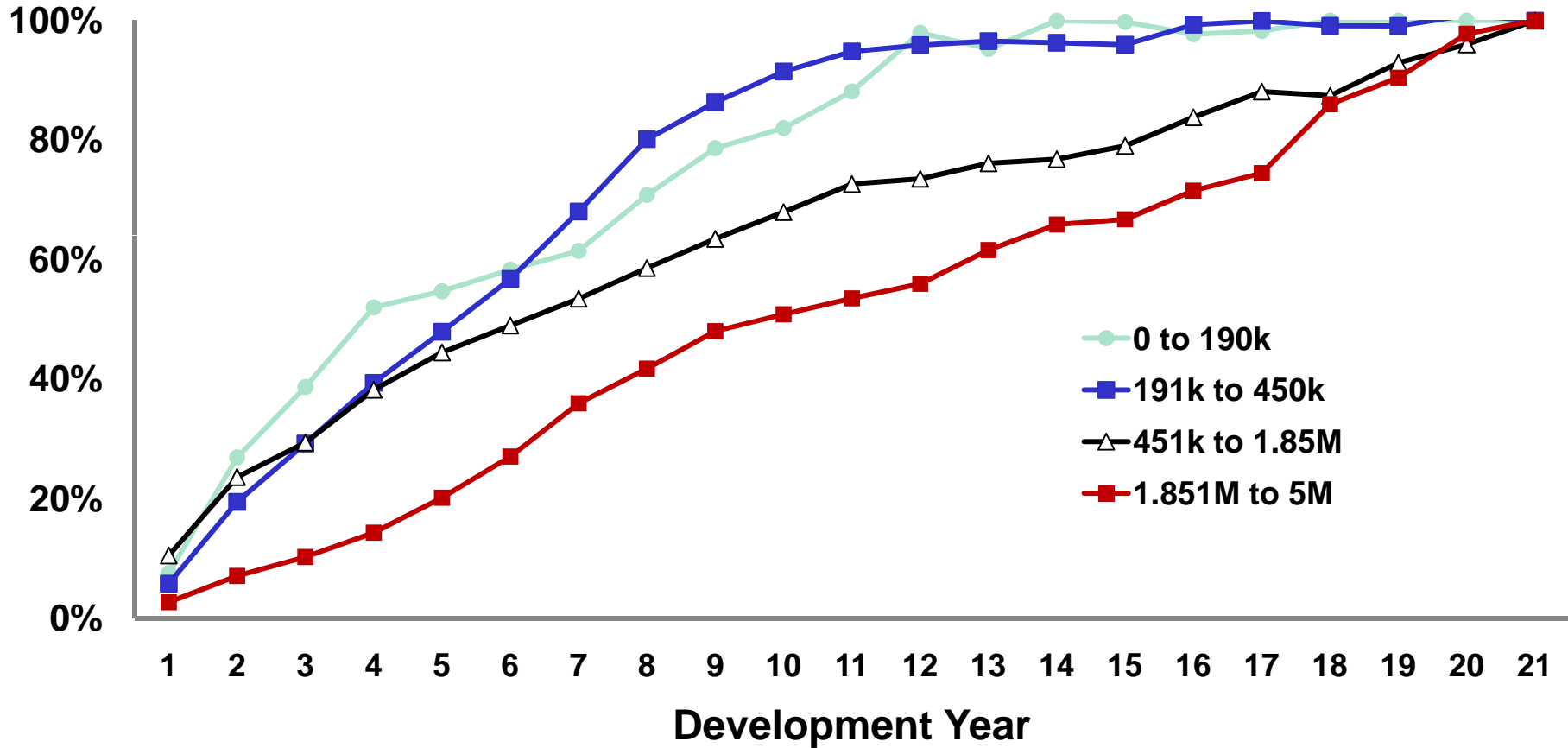
RAA Excess Reinsurance Loss Development

RAA Excess Reinsurance Loss Development

- Reinsurance Association of America (RAA) excess triangles are compiled by ranges of attachment points without distinction by limit
- Reinsurance coverage is usually on a per occurrence basis
- Losses are affected by various reinsurance contract provisions
- Losses may include reinsurer adjusted estimates for ceded case reserves
- Losses may include excess loss for claims settling below attachment, as part of commutation agreement
- Reporting is affected by delays in reports to reinsurer

RAA Excess Reinsurance Loss Development

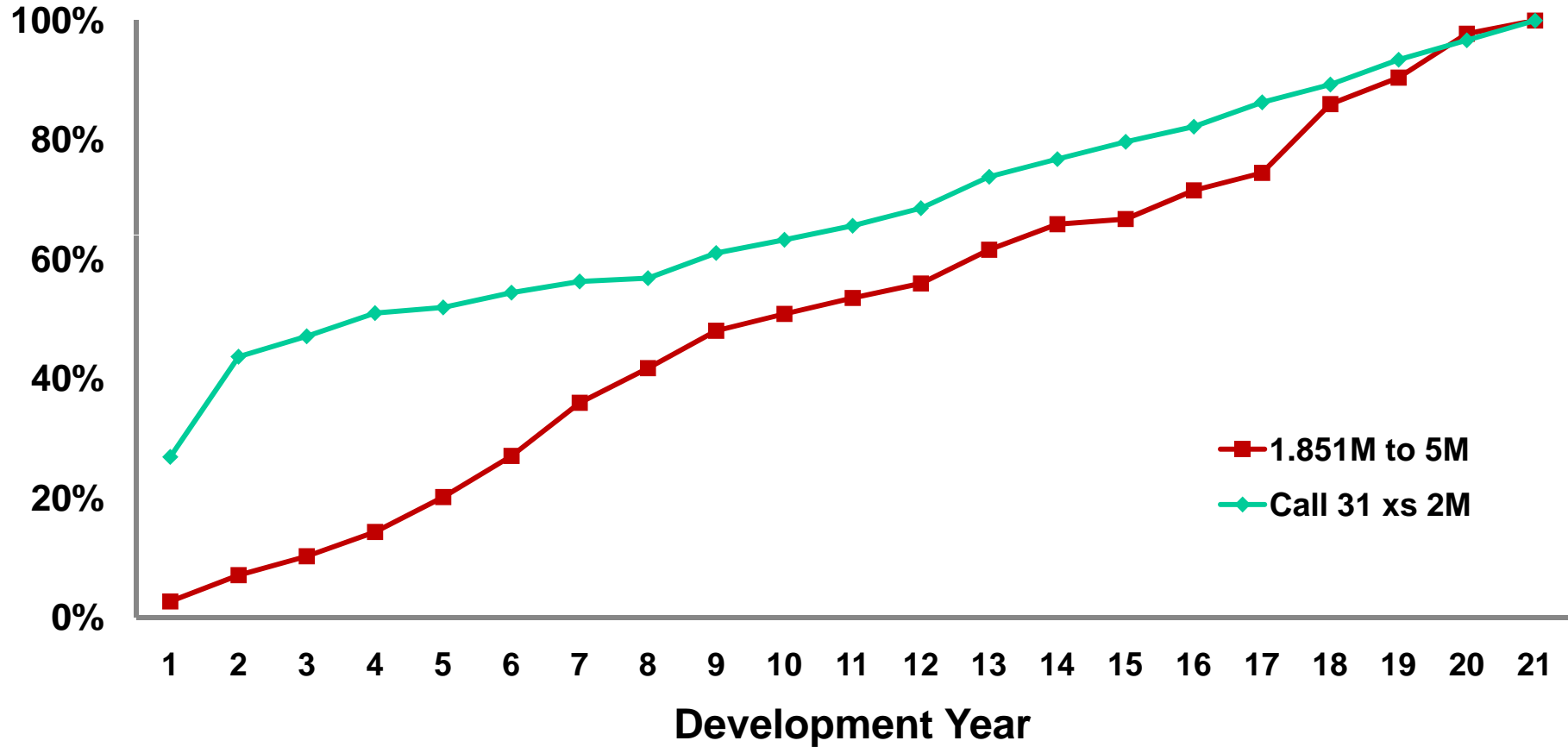
Percentage of Case Incurred Loss at 21 Years of Development



Sources: Volume weighted for Accident Years 1986–2006 and Calendar Years 2000–2006, derived from the Reinsurance Association of America's *Historical Loss Development Study (2007)*

RAA Excess Reinsurance Loss Development

Percentage of Case Incurred Loss at 21 Years of Development



■ 1.851M to 5M
◆ Call 31 xs 2M

Sources:

1. Call 31 data, Accident Years 1984–2008, Calendar Years 2000–2009, Combination of 3% and 5% trend Based on data for the states where NCCI provides ratemaking services, excluding TX and WV
2. Volume weighted for accident years 1986-2006 and calendar years 2000-2006, derived from the Reinsurance Association of America's *Historical Loss Development Study (2007)*

Comparison Between Call 31 Excess Development And RAA Excess Development

- Recent RAA data shows some reversal patterns, where higher attachment points have similar or lower development factors than lower attachment points
- This pattern is less pronounced than in older RAA data
- This continues to confirm the reversal patterns observed in Call 31 excess development