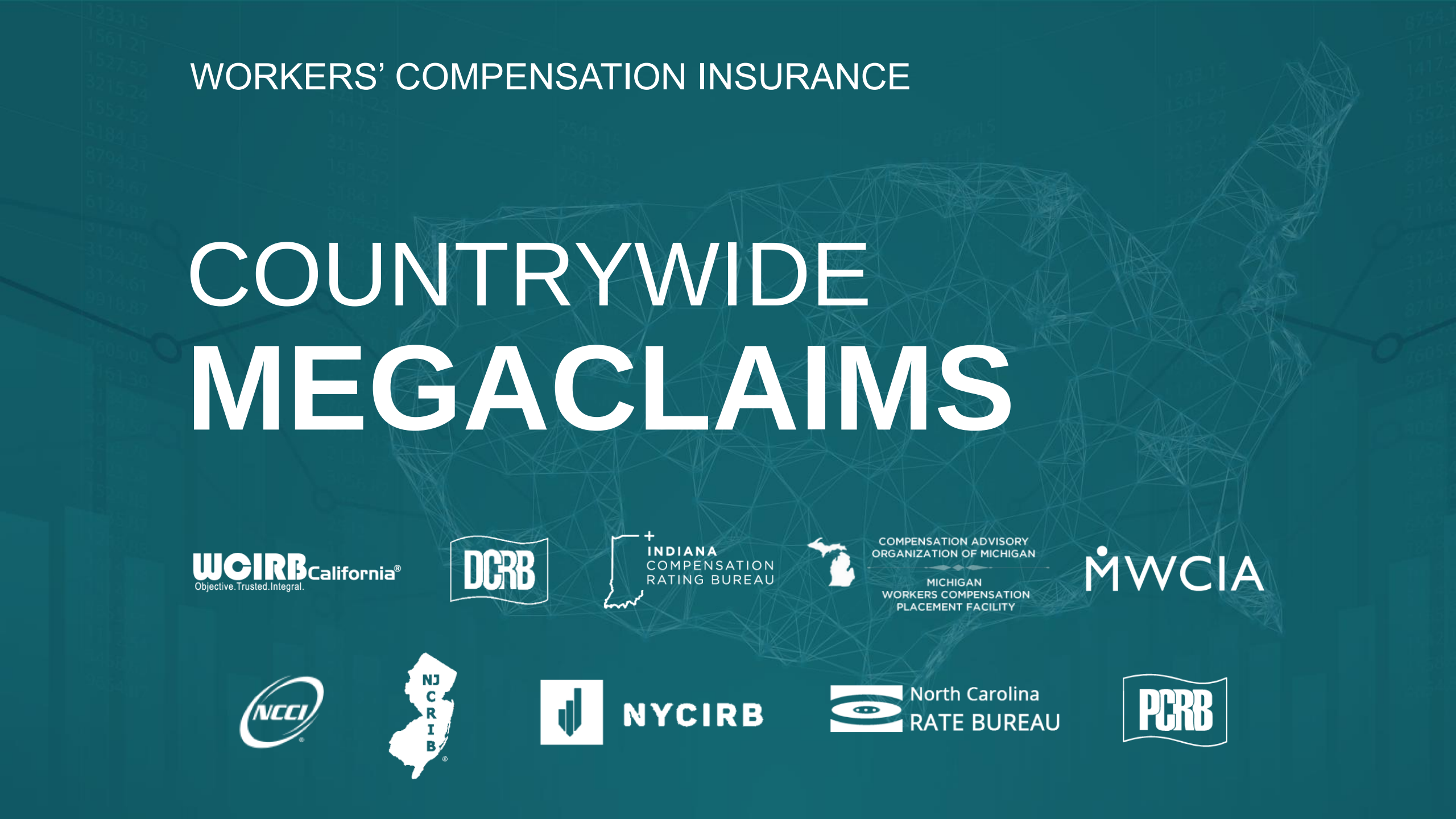
WORKERS' COMPENSATION INSURANCE

COUNTRYWIDE
MEGACLAIMS



INTRODUCTION

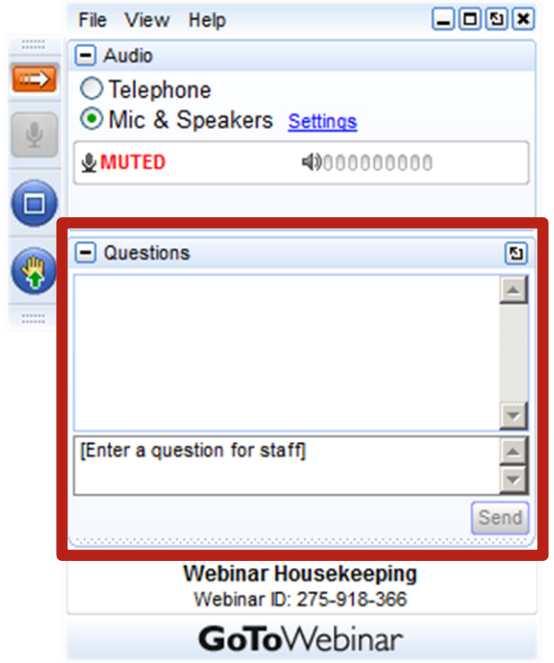
Dave Bellusci, Executive Vice President, Chief Actuary

WCIRB

Introduction

Asking a Question

You may submit questions using the **Questions** panel. Time permitting, we may be able to answer your question during the webinar; otherwise, we will respond offline.



Background & Research Questions

Background

- Stakeholder concerns that frequency of mega claims may be increasing
- Limited information available on mega claims on a countrywide basis
- Rating bureaus collaborated on study of mega claims from most states

Research Questions

- How frequent are mega claims and are they becoming more or less frequent?
- What are mega claim characteristics and are they changing?
- Are mega claims being recognized as such more quickly?
- Do patterns of mega claim recognition vary by claim characteristic?
- Are there significant differences in mega claim characteristic by state?

Study Approach

Data Collected

- Claim counts in excess of $3, $5 and $10 million reported by each participating bureau
- Claim amounts adjusted to 2018 cost levels
- Claim counts by accident year beginning with 2001 reported at annual intervals
- Separate summaries by various claim characteristics (e.g., industry, nature of injury)

Data Analysis

- “Countrywide” mega claim summaries compiled
- Reported claim counts developed to an ultimate level
- Comparisons made to total indemnity claims
- Patterns over time and by characteristic analyzed

FREQUENCY OF MEGA CLAIMS

Brett King, Director of Actuarial Research

NYCIRB

Chart 1: Distribution of Mega Claims by Size Interval Based on Reported and Estimated Ultimate Claims

RESULTS

Combining data across 17 years and multiple states gave us about 4500 mega claims to study.

Only 0.04% of lost time claims reach the mega loss threshold. This means that about 1 in 2500 indemnity claims will be mega claims.

Most mega claims are between $3 million and $5 million. Only 10% of mega claims are over $10 million.

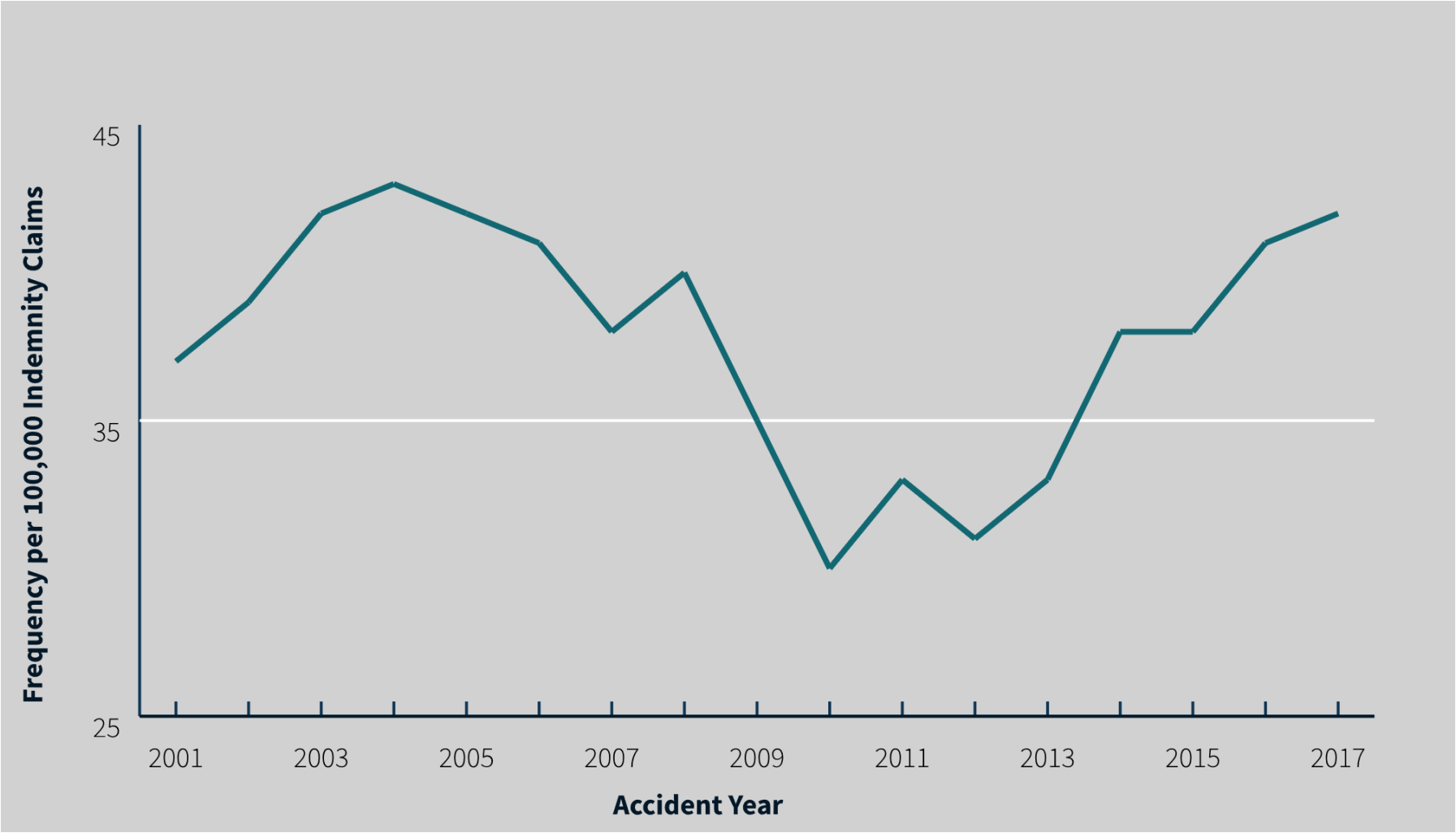
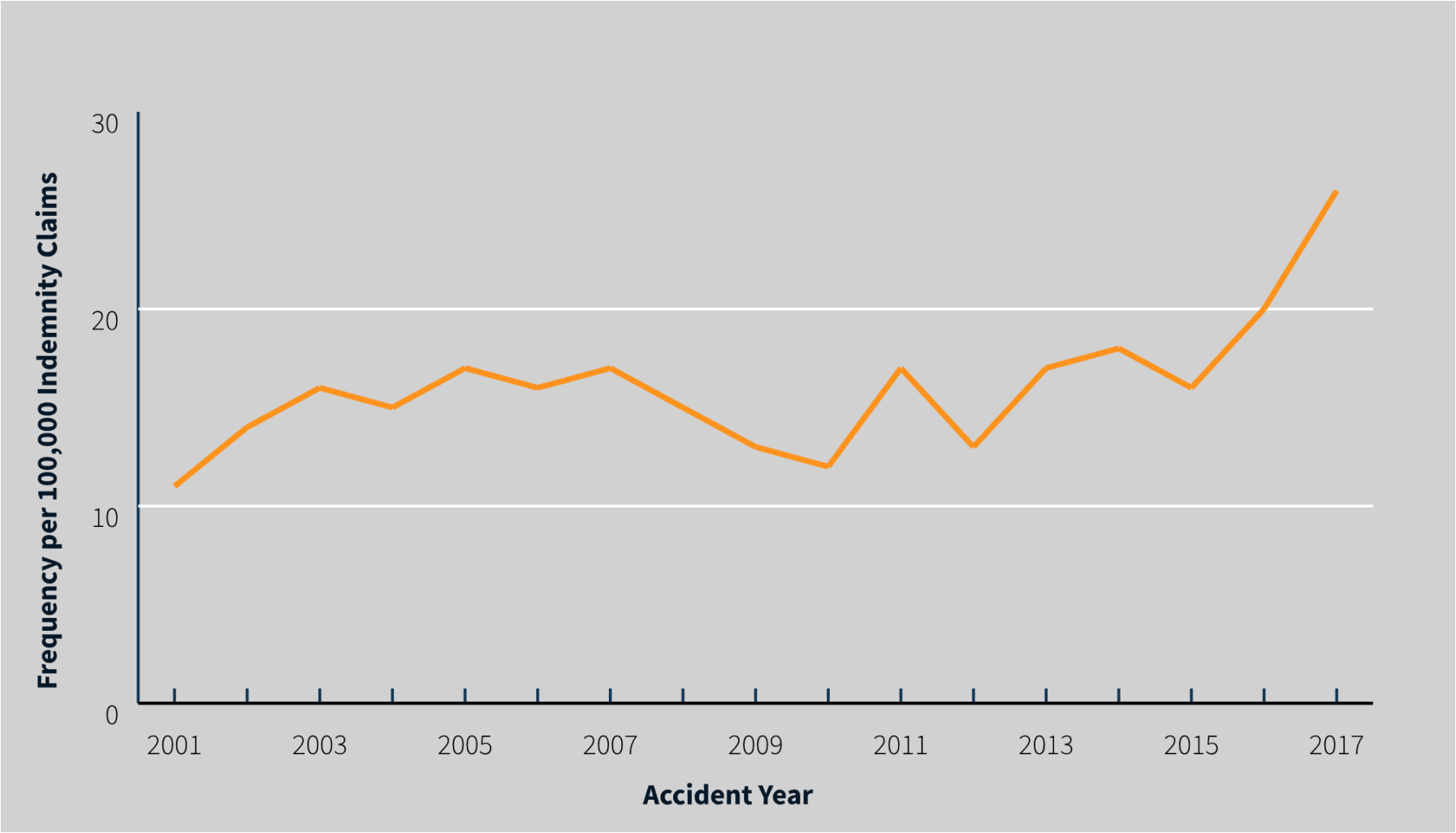


Chart 2: Estimated Frequency of Claims in Excess of $3 Million per 100,000 Indemnity Claims

RESULTS

Mega claims dropped sharply during the Great Recession as construction employment plummeted and began to increase after 2013 as the economy rebounded.

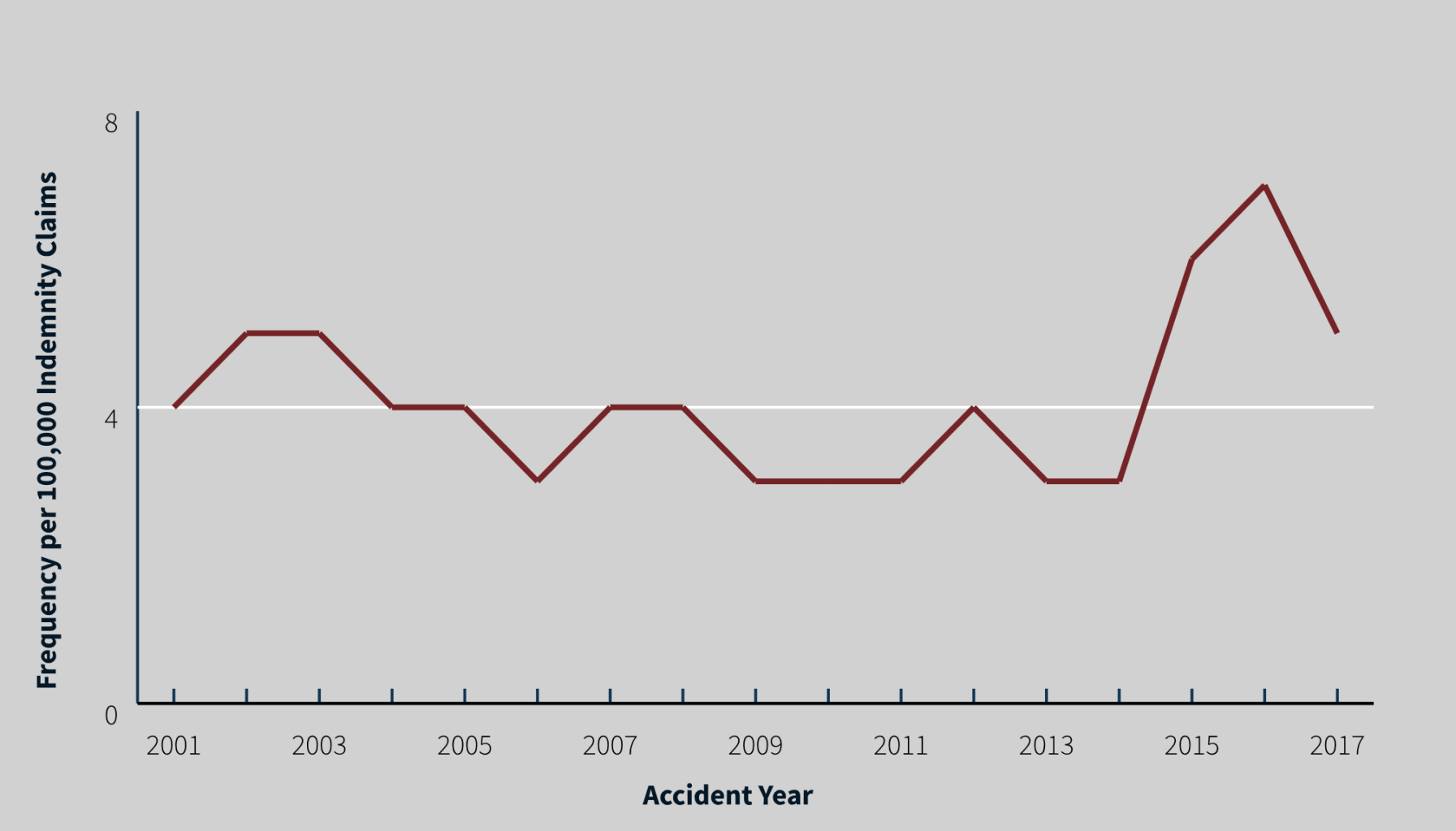
Accident years 2016 and 2017 are at near “all time” high levels. Since claim count development is highly leveraged at these early reports, there is some uncertainty around the ultimate claim count for these immature years.



RESULTS

Patterns in the $5 million to $10 million size range have been a little more stable but follow the same patterns overall.

Chart 3: Frequency of Claims in Excess of $5 Million per 100,000 Indemnity Claims



RESULTS

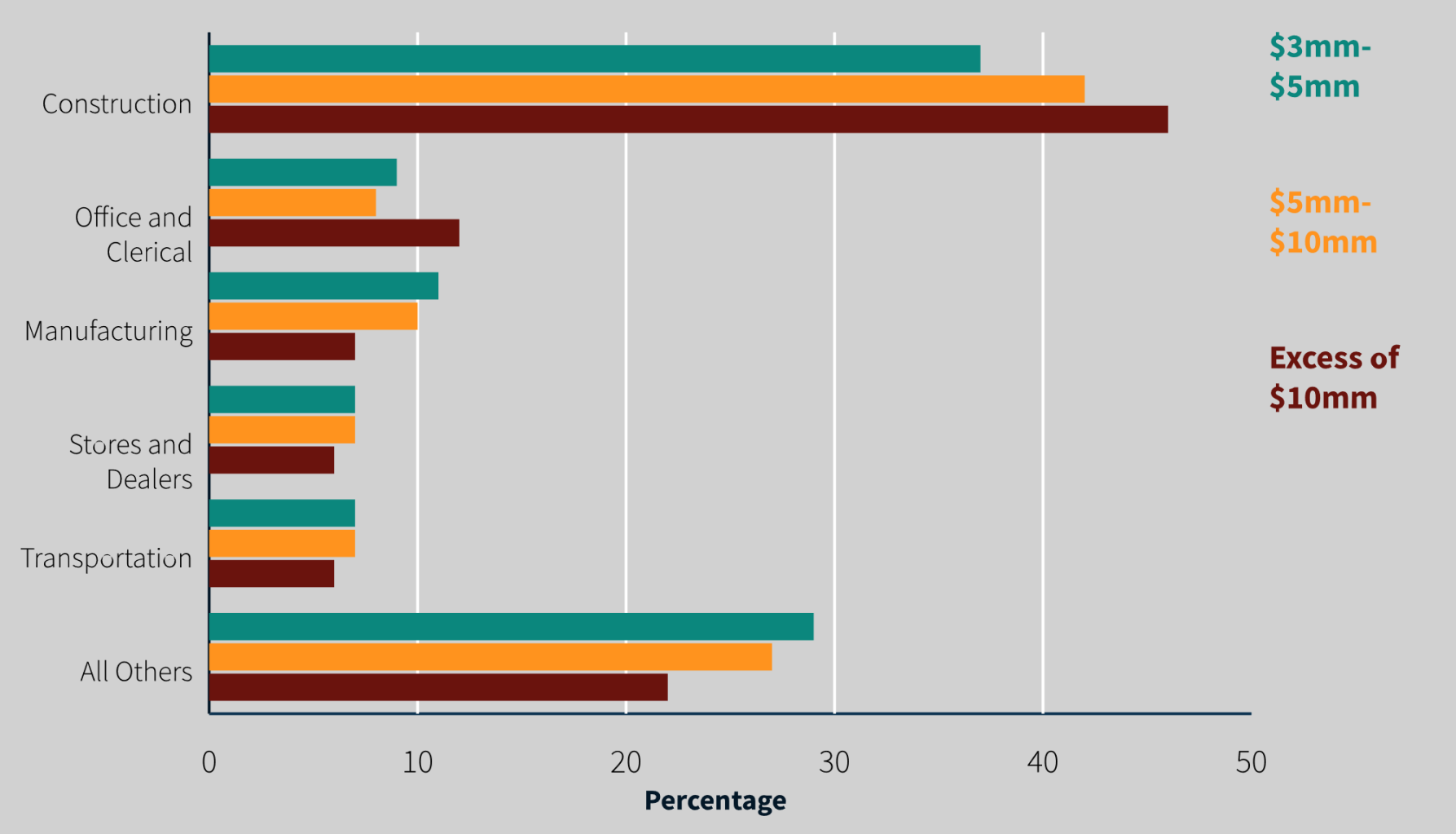
Although very rare, patterns in the frequency of claims over $10 million have also been somewhat stable, with an increase of these claims over the last 3 years.

Chart 4: Frequency of Claims in Excess of $10 Million per 100,000 Indemnity Claims

MEGA CLAIMS CHARACTERISTICS

Krystal Ross, Chief Actuary

NJCRIB



RESULTS

Claims from the construction sector comprise more than 35% of all mega claims. In comparison, for most states, construction claims comprise below 20% of the overall claims volume.

Nearly half of all mega claims greater than $10 million are attributed to the construction sector.

Chart 5: Shares of Mega Claims by Industry Sector

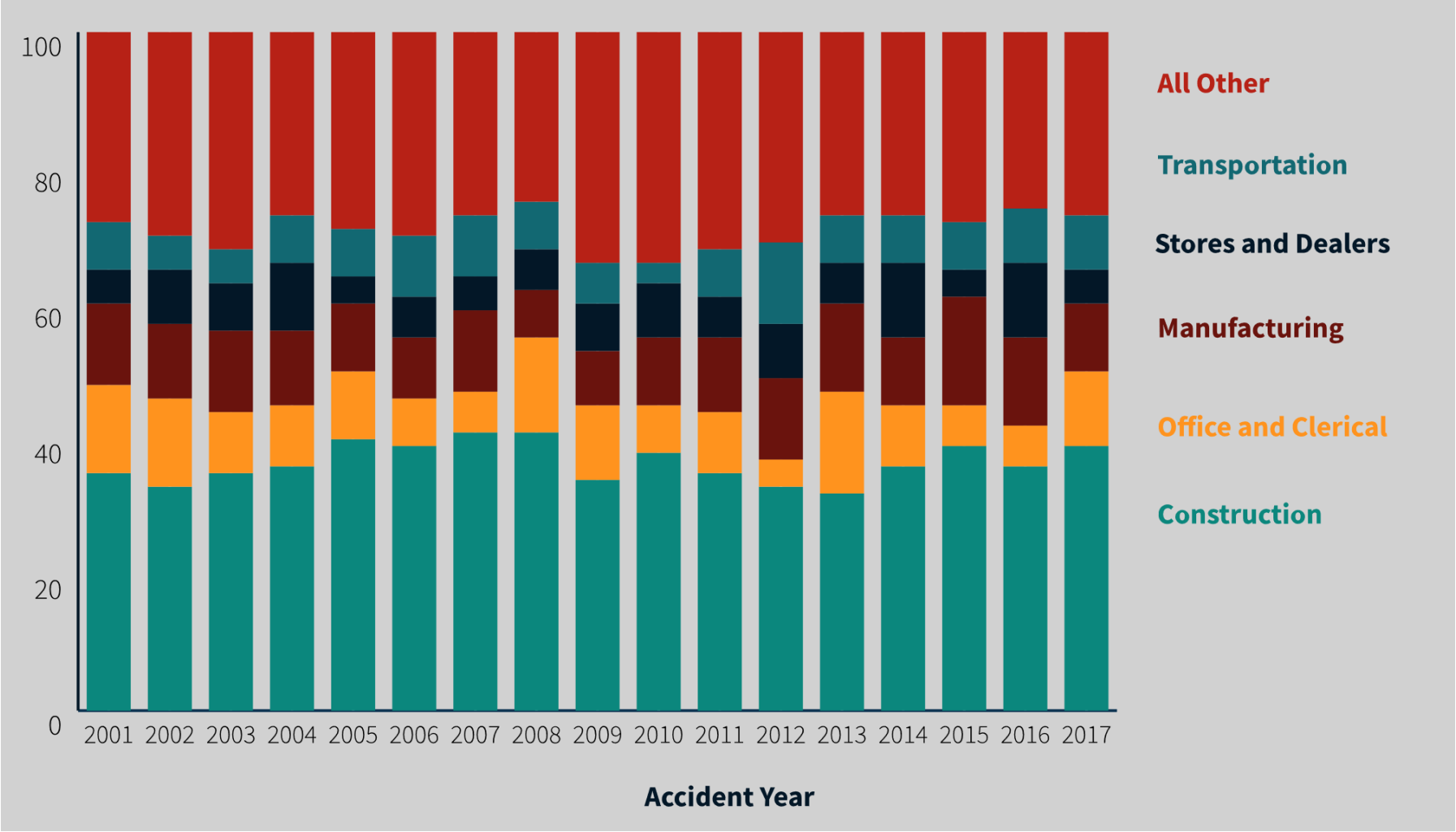


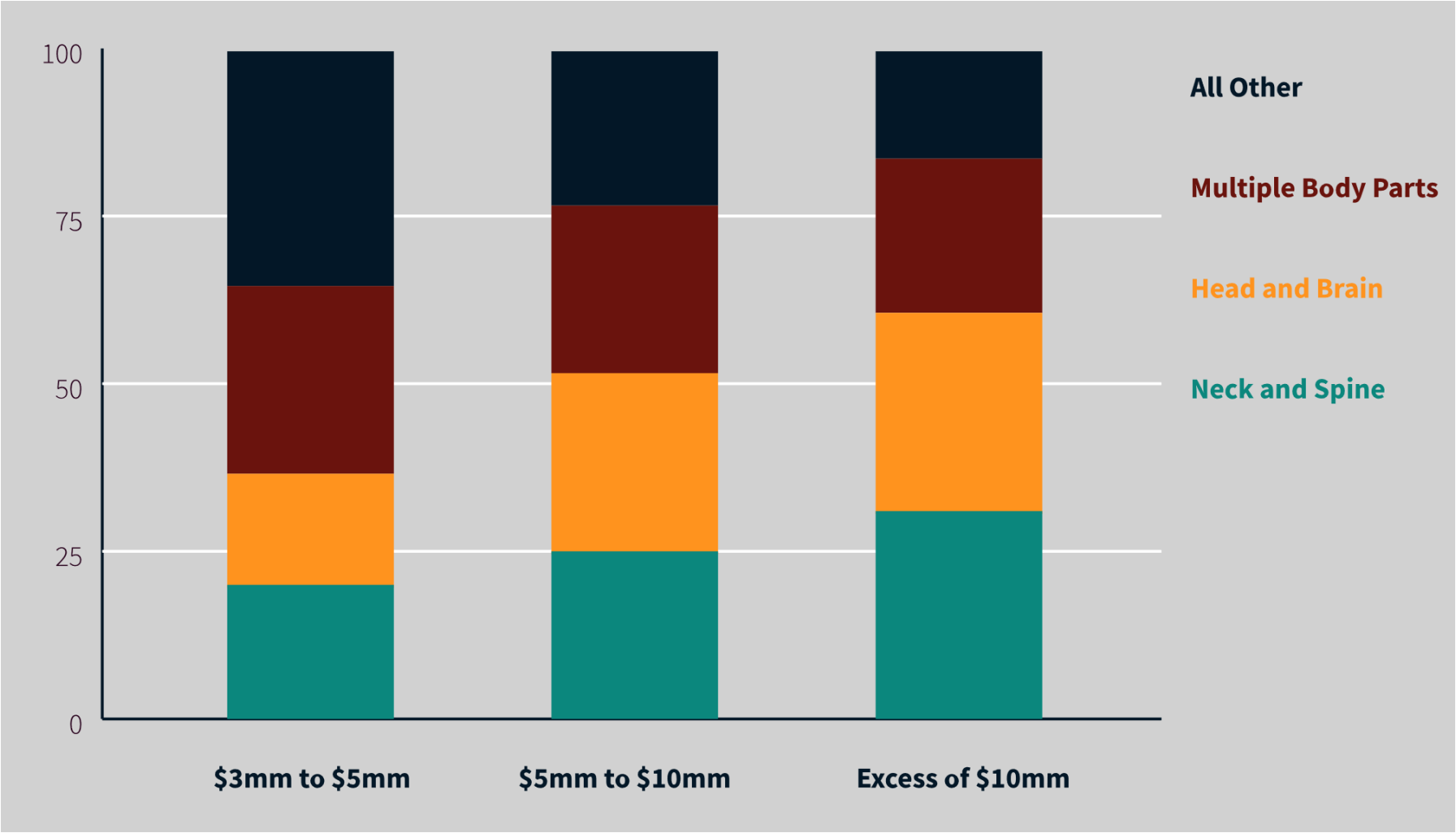
Chart 6: Shares of Ultimate Claims in Excess of $3 Million by Industry and Accident Year

RESULTS

Mega claims by industry segment have remained relatively consistent over time.

Construction declined during the Great Recession due to a decline in construction employment.

Subsequent to 2013, the share of mega claims from the construction segment has generally increased.

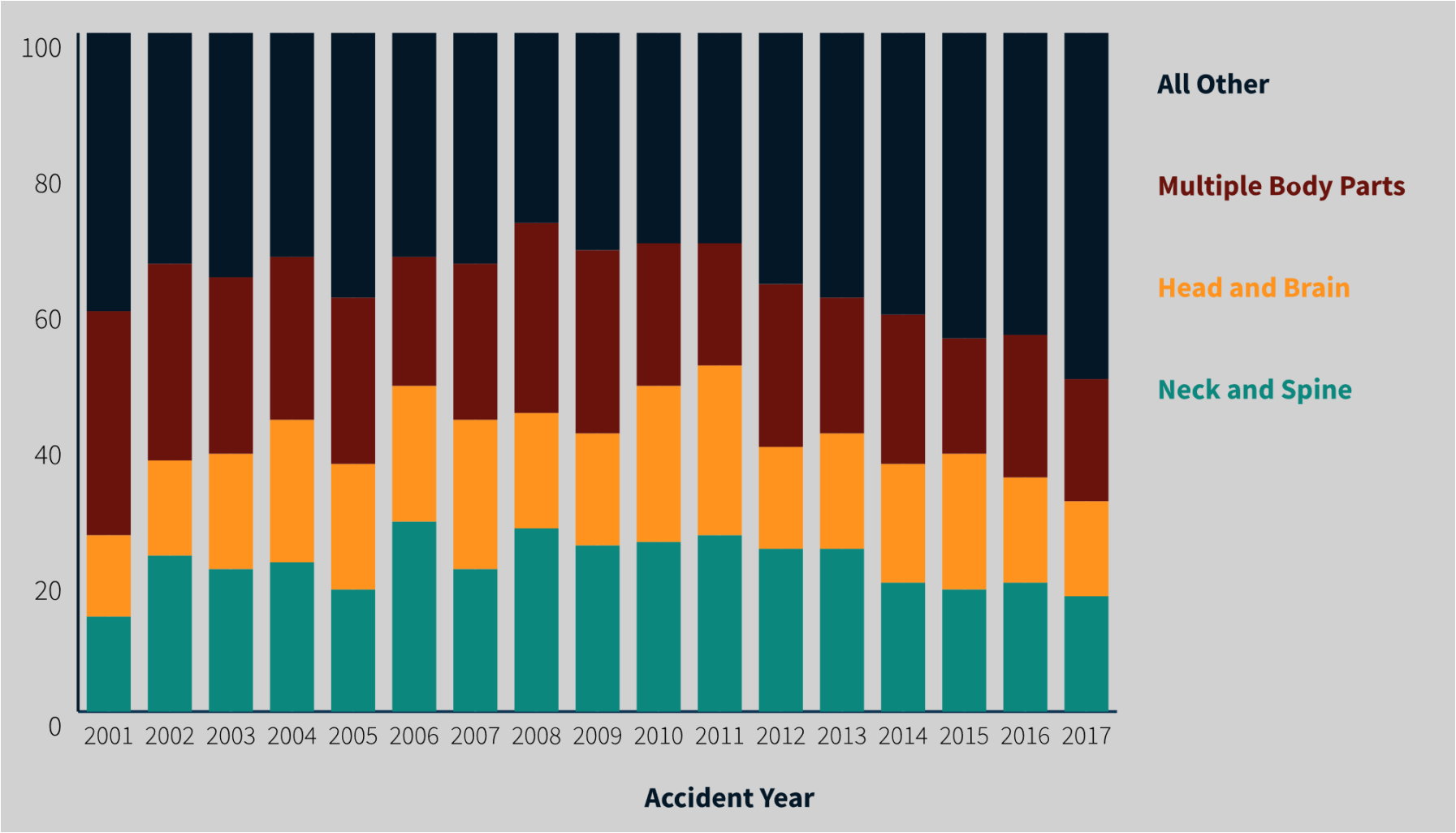


RESULTS

Head/Brain injuries involved 17% of claims between $3 million and $5 million, 27% between $5 million and $10 million and 30% in excess of $10 million. These claims comprise less than 5% of all workers' compensation claims in most states.

Neck/Spine and Head/Brain injuries account for over 50% of all claims greater than $5 million.

Chart 7: Shares of Mega Claims by Part of Body



RESULTS

Shares of mega claims in the all other body part category have grown noticeably over the past 5 years.

Chart 8: Shares of Ultimate Claims in Excess of $3 Million by Part of Body and Accident Year

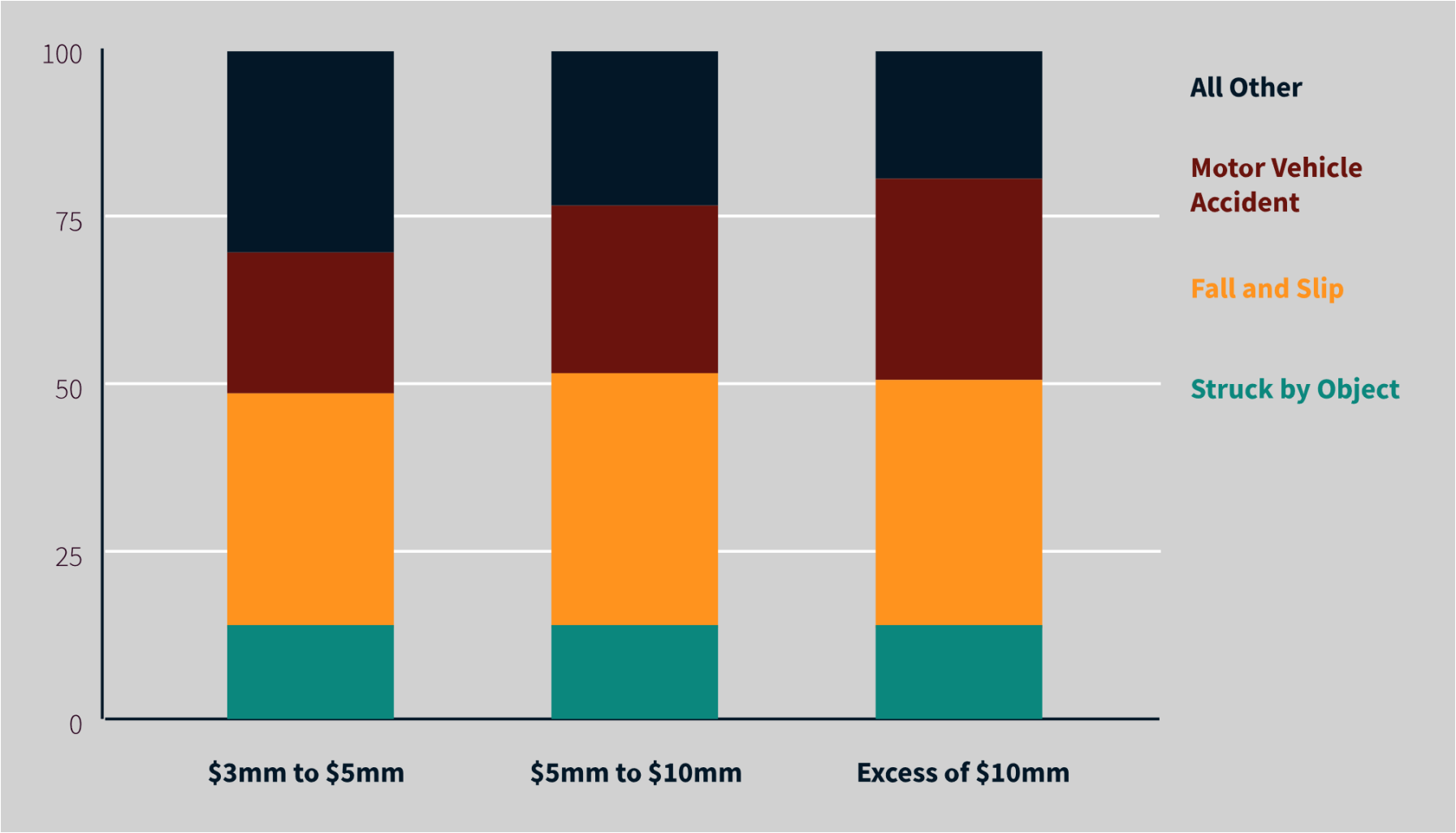
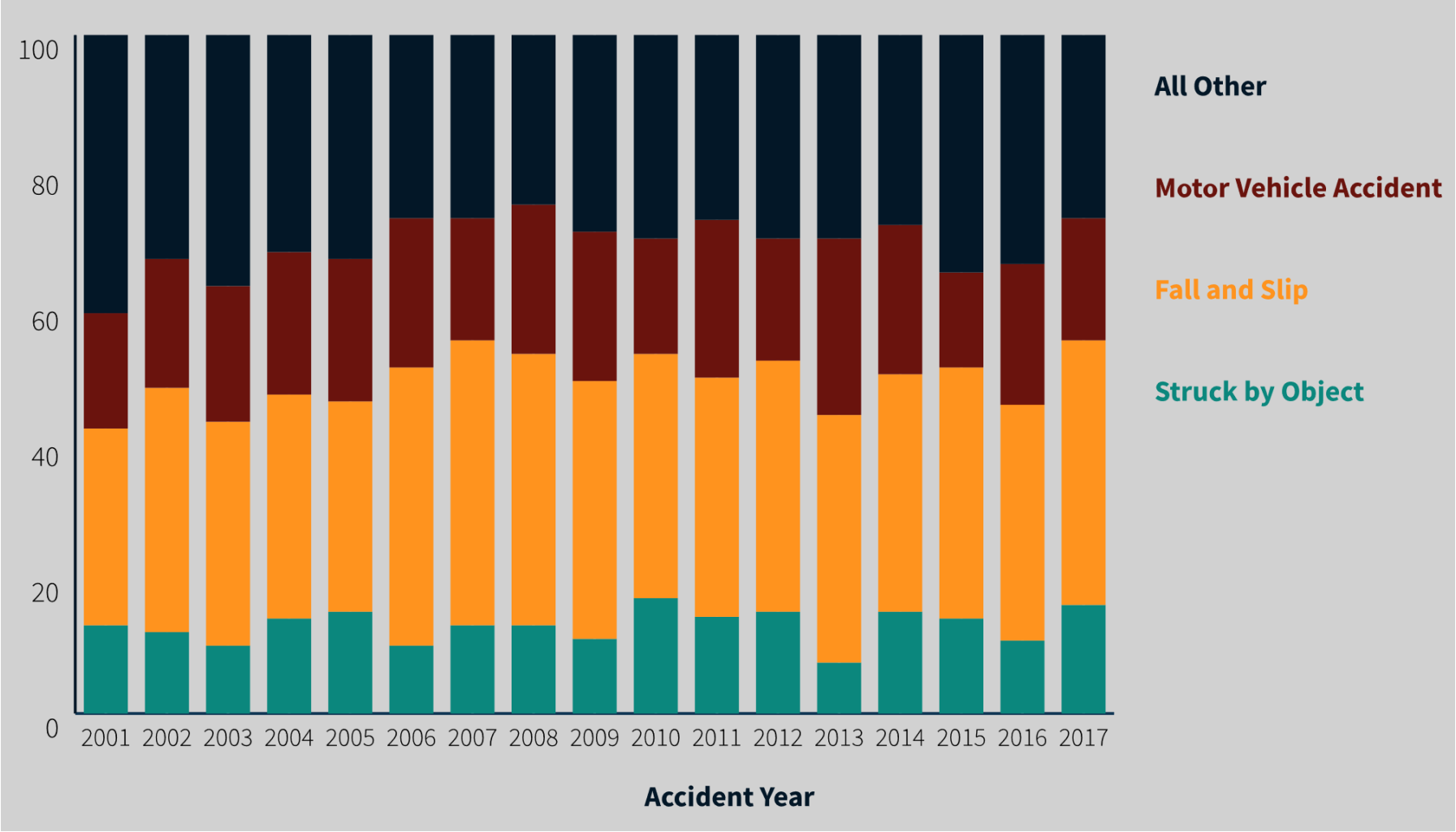


Chart 9: Shares of Mega Claims by Cause of Injury

RESULTS

Fall and slip injuries are the leading cause of mega claims in all layers.

Motor vehicle accidents account for more than 20% of all mega claims and 30% of mega claims over $10 million. These claims comprise less than 5% of all workers' compensation claims in most states.

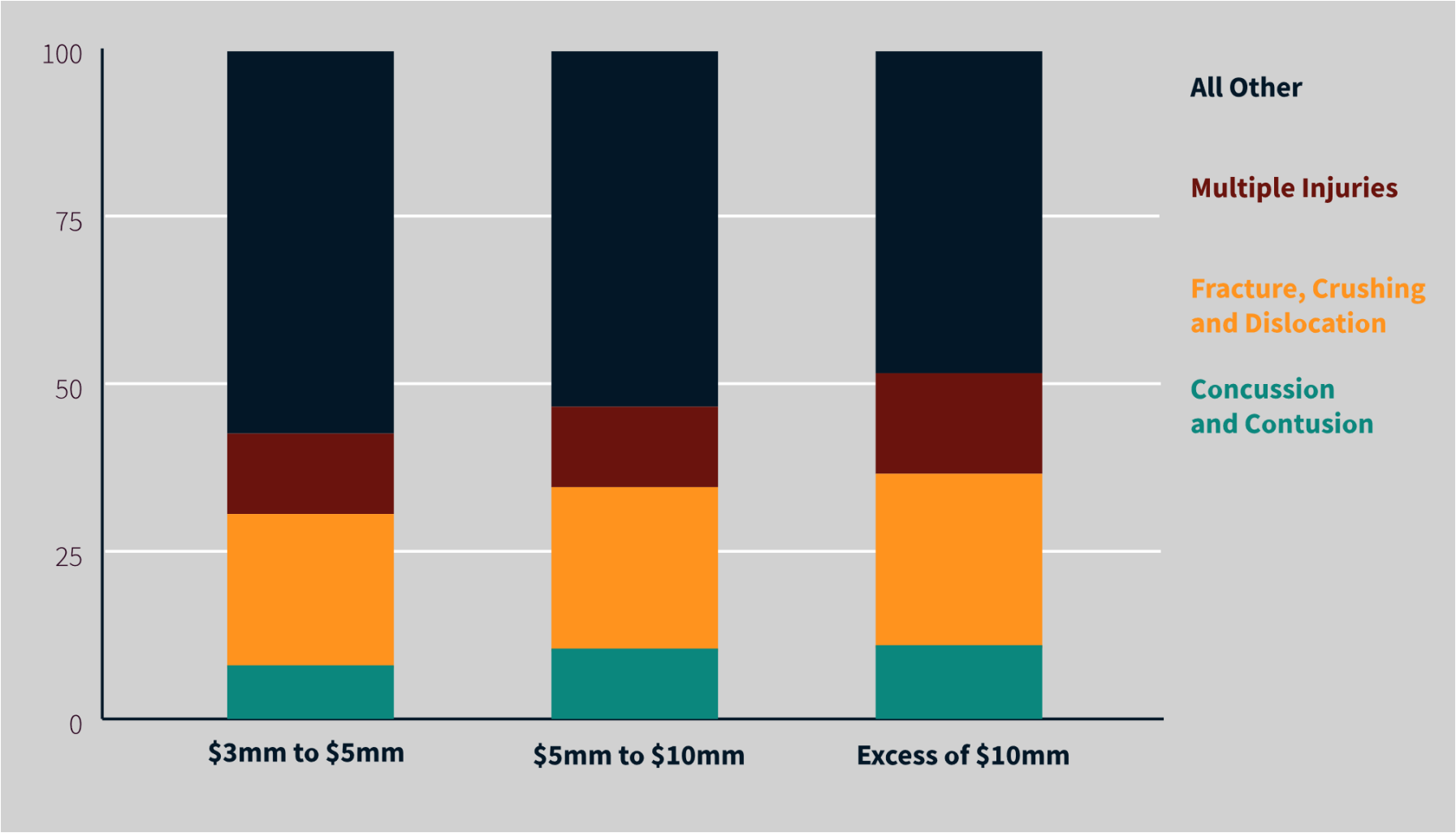


RESULTS

Fall and slip injuries comprise more than 35% of all mega claims.

Shares of mega claims by cause of injury group have been relatively consistent over time.

Chart 10: Shares of Ultimate Claims in Excess of $3 Million by Cause of Injury and Accident Year



RESULTS

The All Other nature of injury category accounts for over 50% of all mega claims.

The largest categories within the all other injury grouping are:

- Amputation/Severance
- Burn/Electrical shock
- Cumulative Injury
- Strain/Sprain

Strain/Sprain comprise 10% of mega claims between $3 million and $5 million, but only 3% of those over $10 million.

Chart 11: Shares of Mega Claims by Nature of Injury

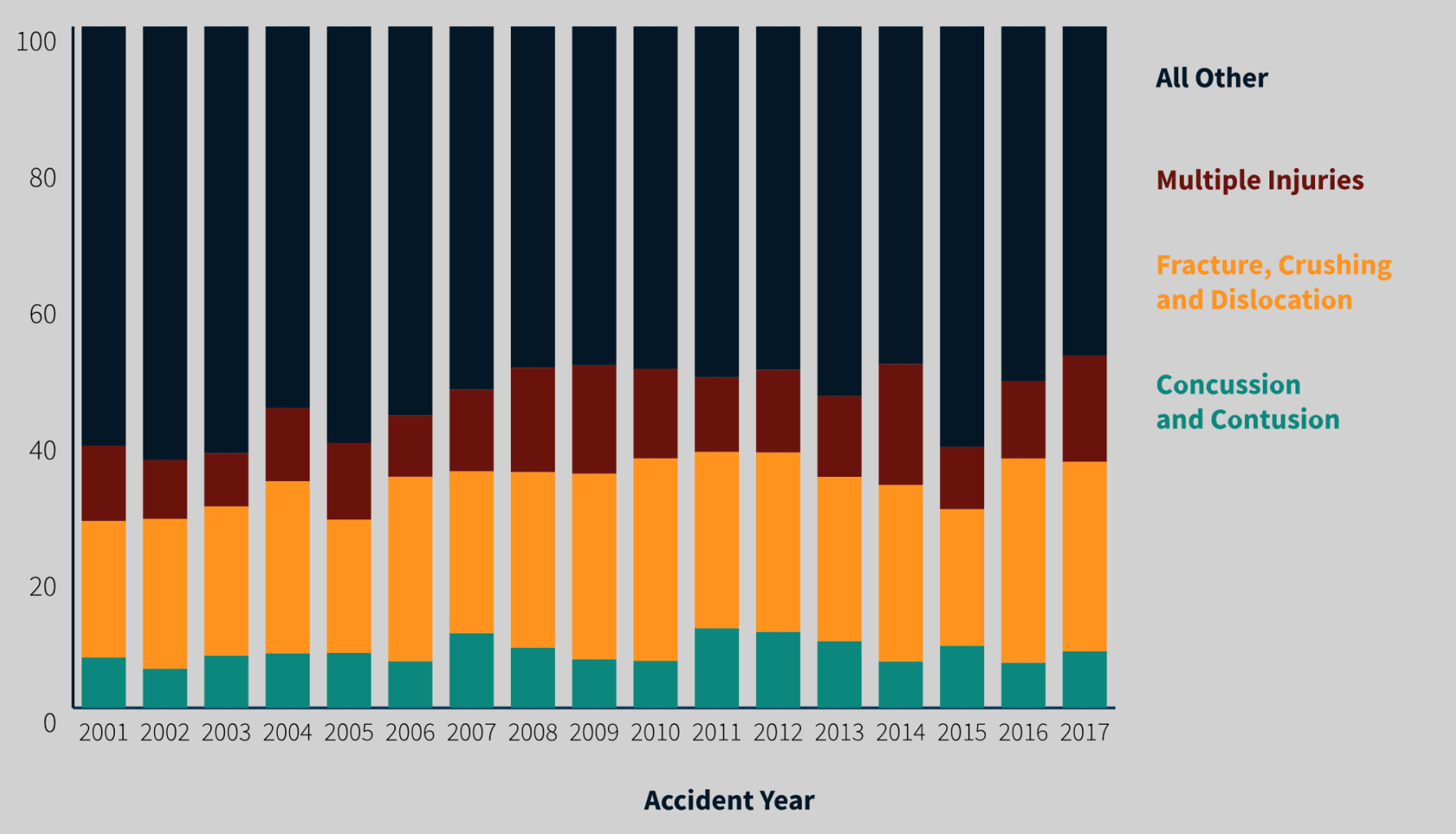
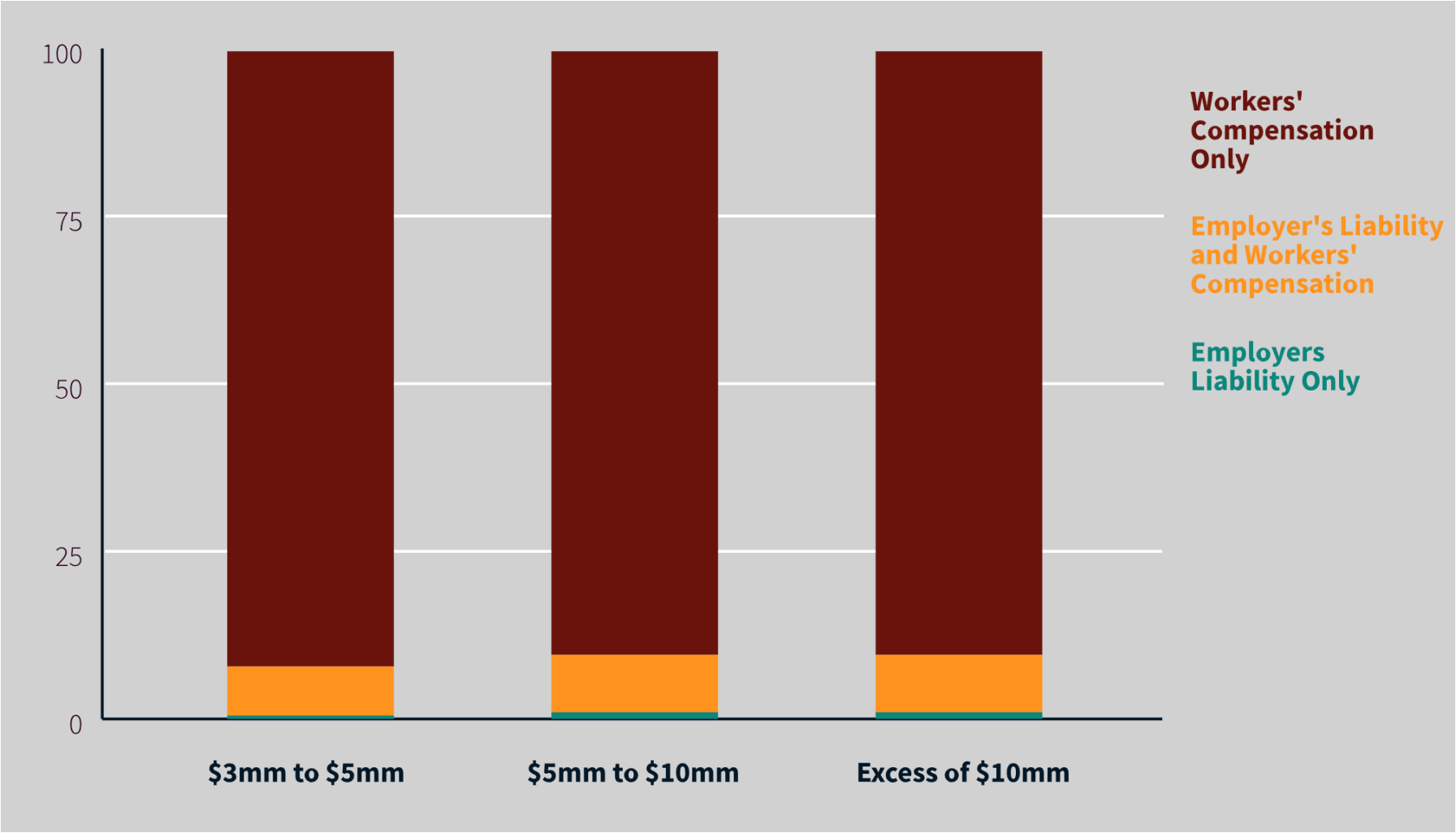


Chart 12: Shares of Ultimate Claims in Excess of $3 Million by Nature of Injury and Accident Year

RESULTS

Burn/electrical shock mega claims, which are included in the all other category, have become more common, increasing from about 3% early in the period to almost 10% in the more recent years. This increase may be attributable to advances in medical treatment and improved mortality of patients with serious burns.

Fracture, crushing, and dislocation (the 2nd largest category) has remained relatively consistent over time.



RESULTS

Approximately 10% of all mega claims involve employers' liability, the majority of which, particularly at the higher amounts, arise in New York.

Chart 13: Shares of Mega Claims by Type of Coverage

RECOGNITION OF MEGA CLAIMS

Ryan Voll, Associate Actuary

NCCI

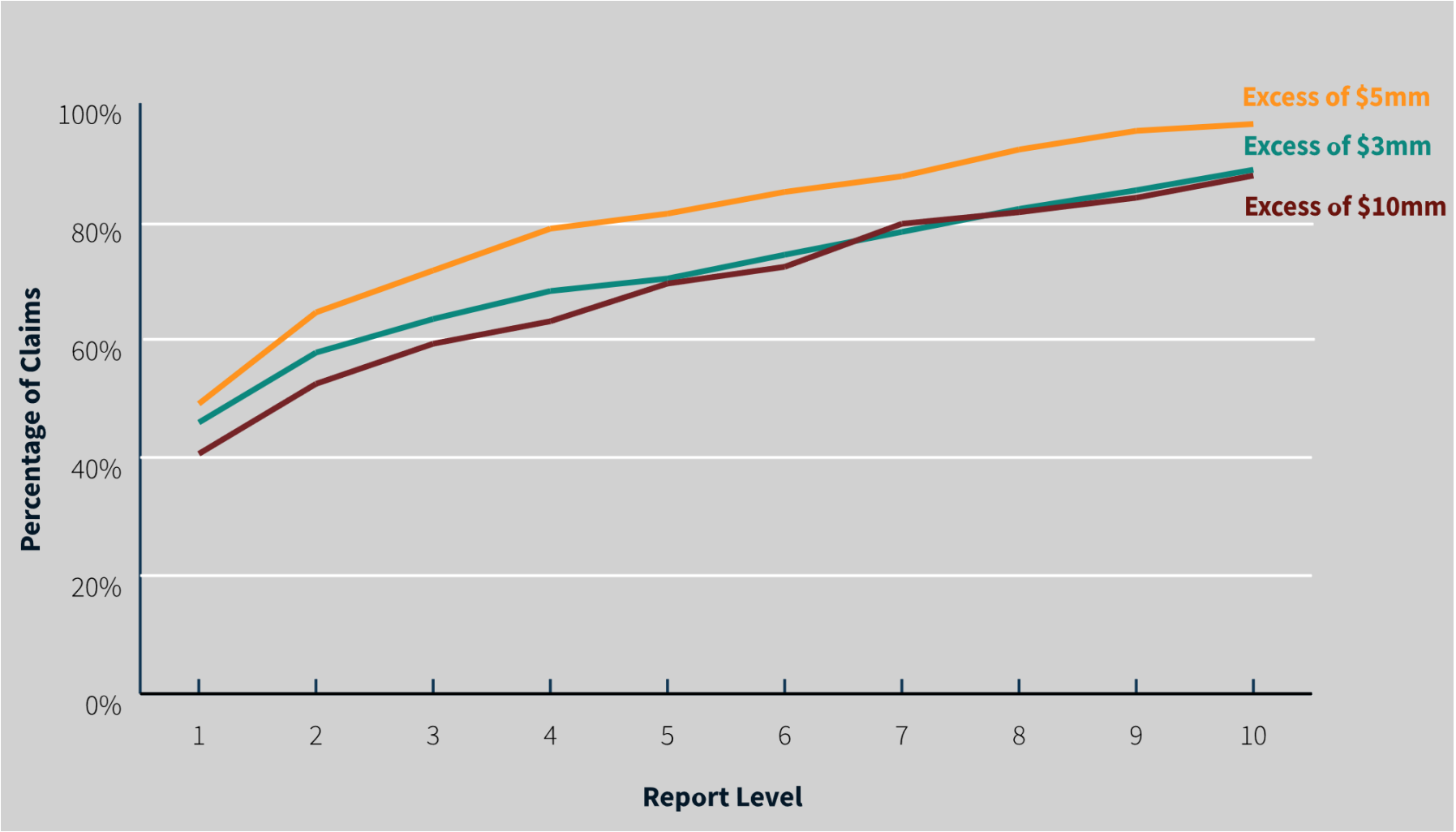


Chart 14: Mega Claims Reported as a Percentage of Ultimate by Threshold

RESULTS

Fewer than 50% of claims in excess of $3mm reach that threshold by 1st report

Less than 90% of claims in excess of $3mm reach that threshold by a 10th report

Mega claims in excess of $5mm typically reach that threshold sooner than mega claims in excess $3mm or $10mm

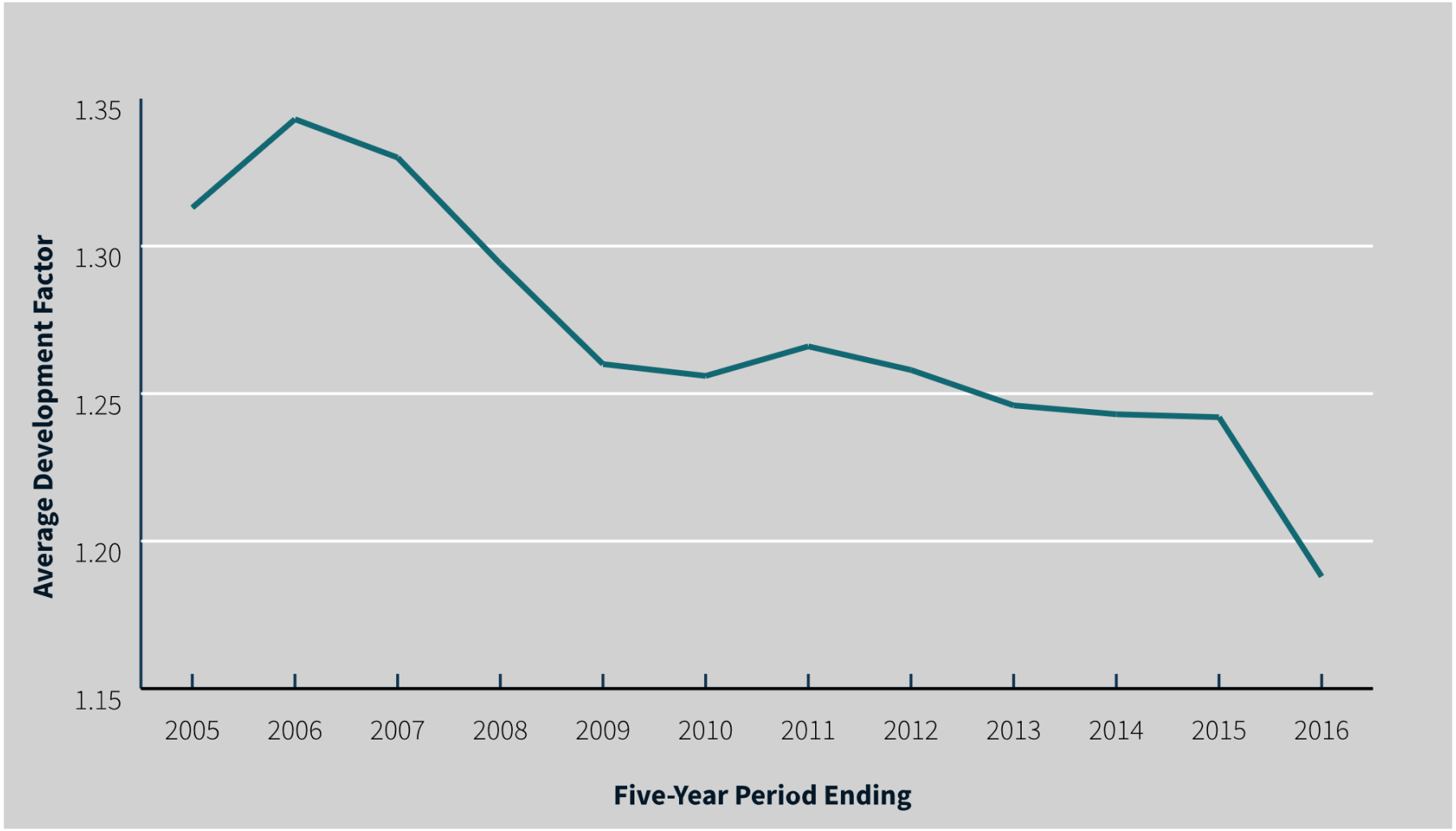


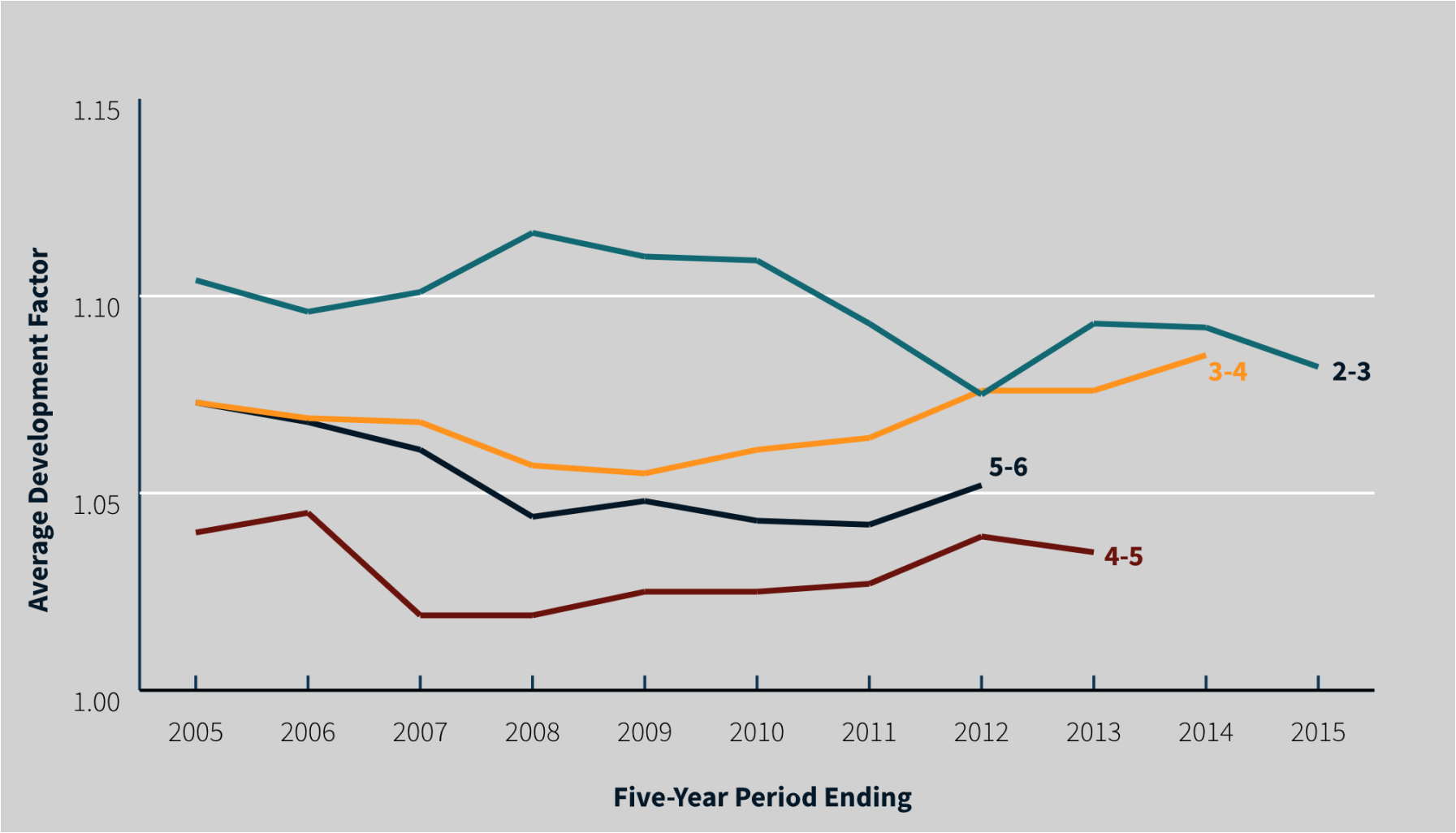
Chart 15: 5-Year Moving Average First-to-Second Report Level Development Factors over Time

RESULTS

1st-to-2nd report development factors have generally decreased over time

Greater use of analytical models may have contributed to the observed decline in development factors

These models may help provide an earlier identification of potentially high cost claims—allowing them to be triaged earlier in the claim handling process



RESULTS

The moving average of the 2nd-to-3rd report development factors has generally declined over time

The magnitude of the mid-term development factors in each of the other categories has remained relatively consistent over time

The 5th-to-6th report development factors have historically been higher than those from a 4th-to-5th report

Chart 16: 5-Year Moving Average Mid-Term Development Factors over Time

RESULTS

All late-term, moving average development factors have generally declined over time

Chart 17: 5-Year Moving Average Late-Term Development Factors over Time

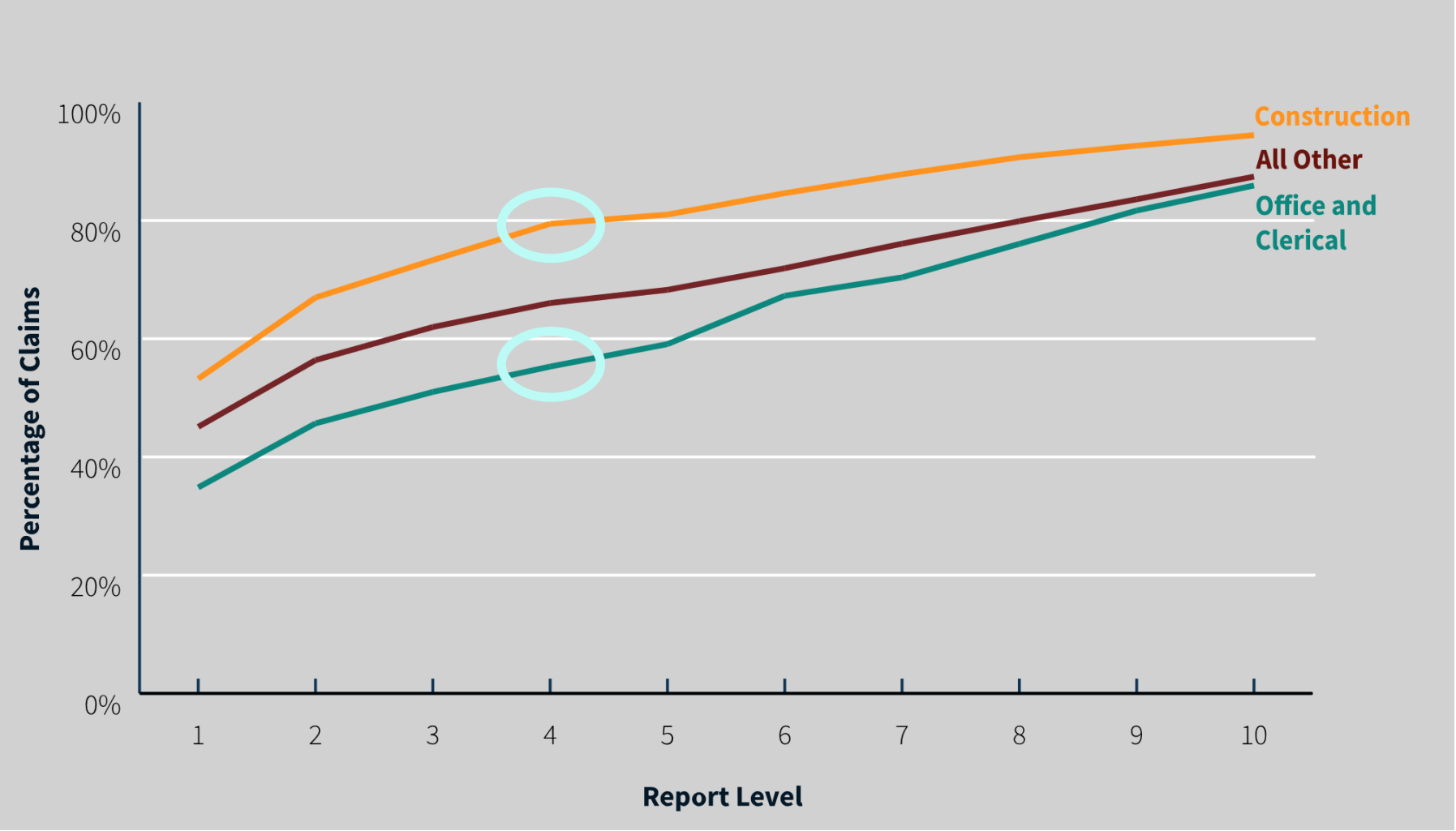


Chart 18: Mega Claims Reported as a % of Ultimate by Industry

RESULTS

Mega claims in the construction sector generally reach the $3mm threshold more quickly than mega claims in the other sectors reviewed

The largest disparity between these sectors occurs at 4th report—where 80% of construction mega claims have the reached $3mm threshold, but only 55% of office and clerical mega claims have done so

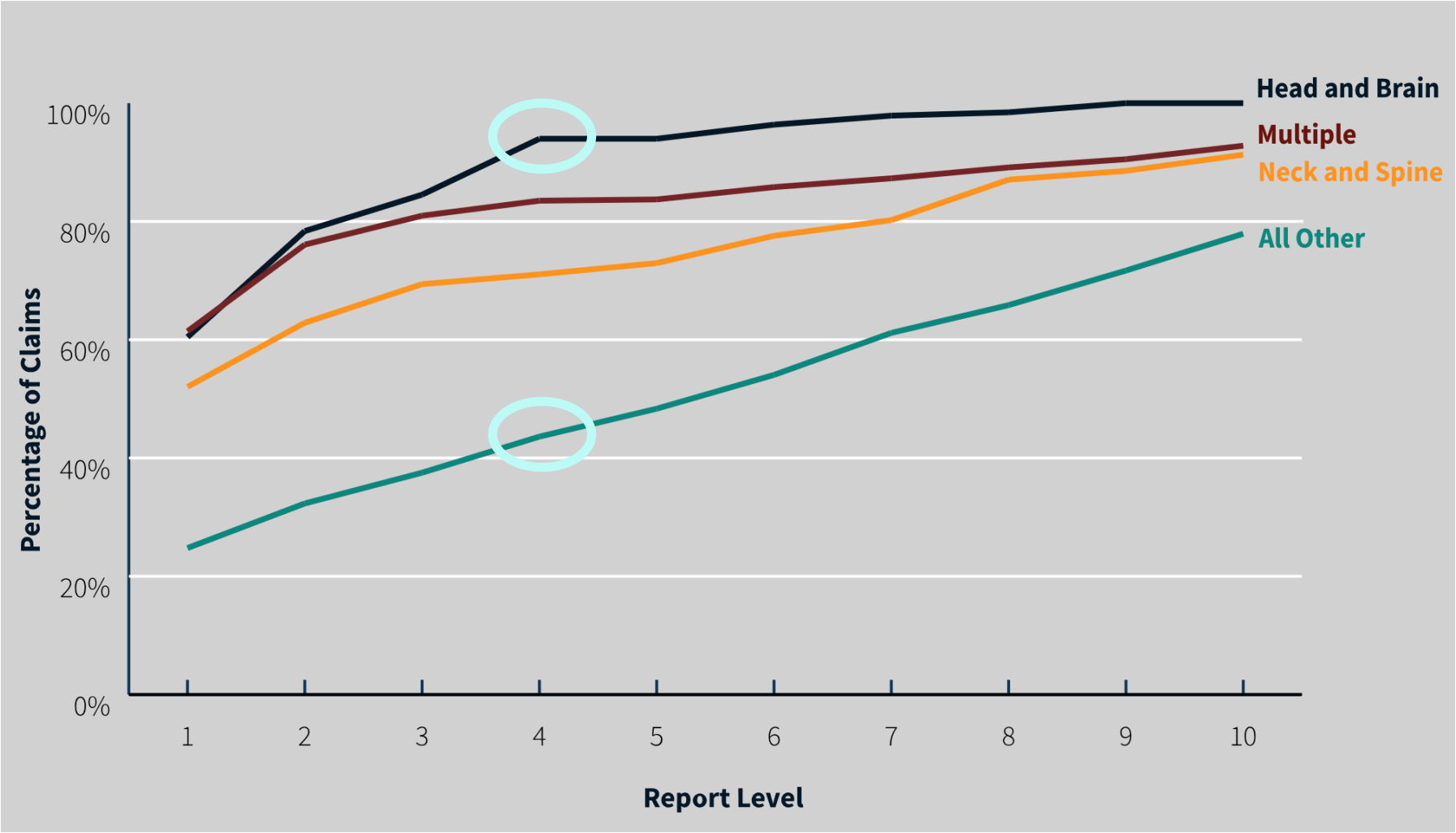


Chart 19: Mega Claims Reported as a % of Ultimate by Part of Body

RESULTS

Mega claims involving injuries to the head/brain and multiple body parts reach the $3mm threshold more quickly than injuries to other parts of the body

Approximately 94% of mega claims involving injuries to the head/brain reach the $3mm threshold by a 4th report—compared with about 43% of mega claims in the “all other” category

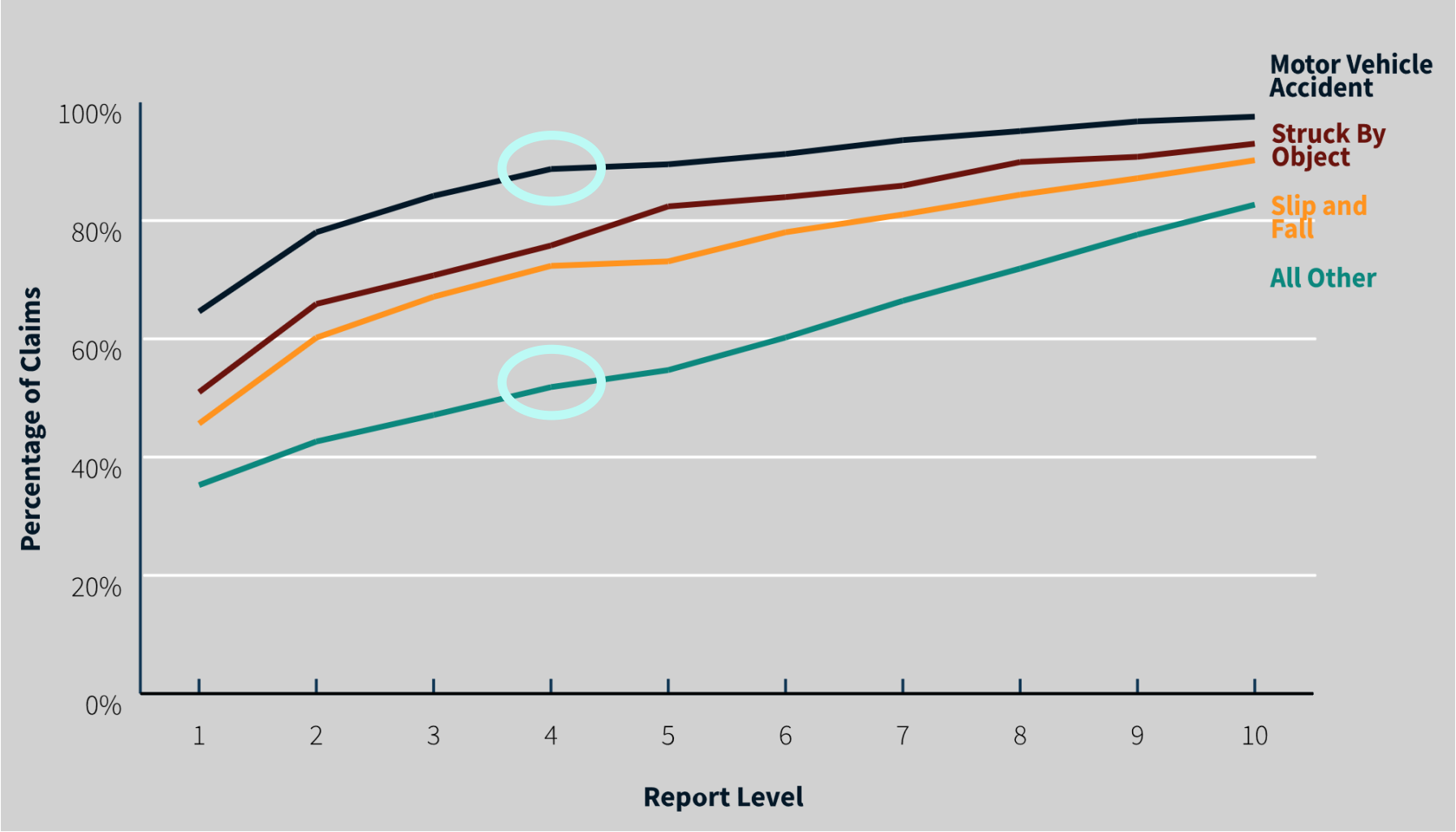


Chart 20: Mega Claims Reported as a % of Ultimate by Cause of Injury

RESULTS

Mega claims arising from motor vehicle accidents, slips and falls, and being struck by objects reach the $3mm threshold more quickly than mega claims from “all other” causes

Approximately 90% of mega claims arising from motor vehicle accidents reach the $3mm threshold by a 4th report—compared with about 54% of mega claims in the “all other” category

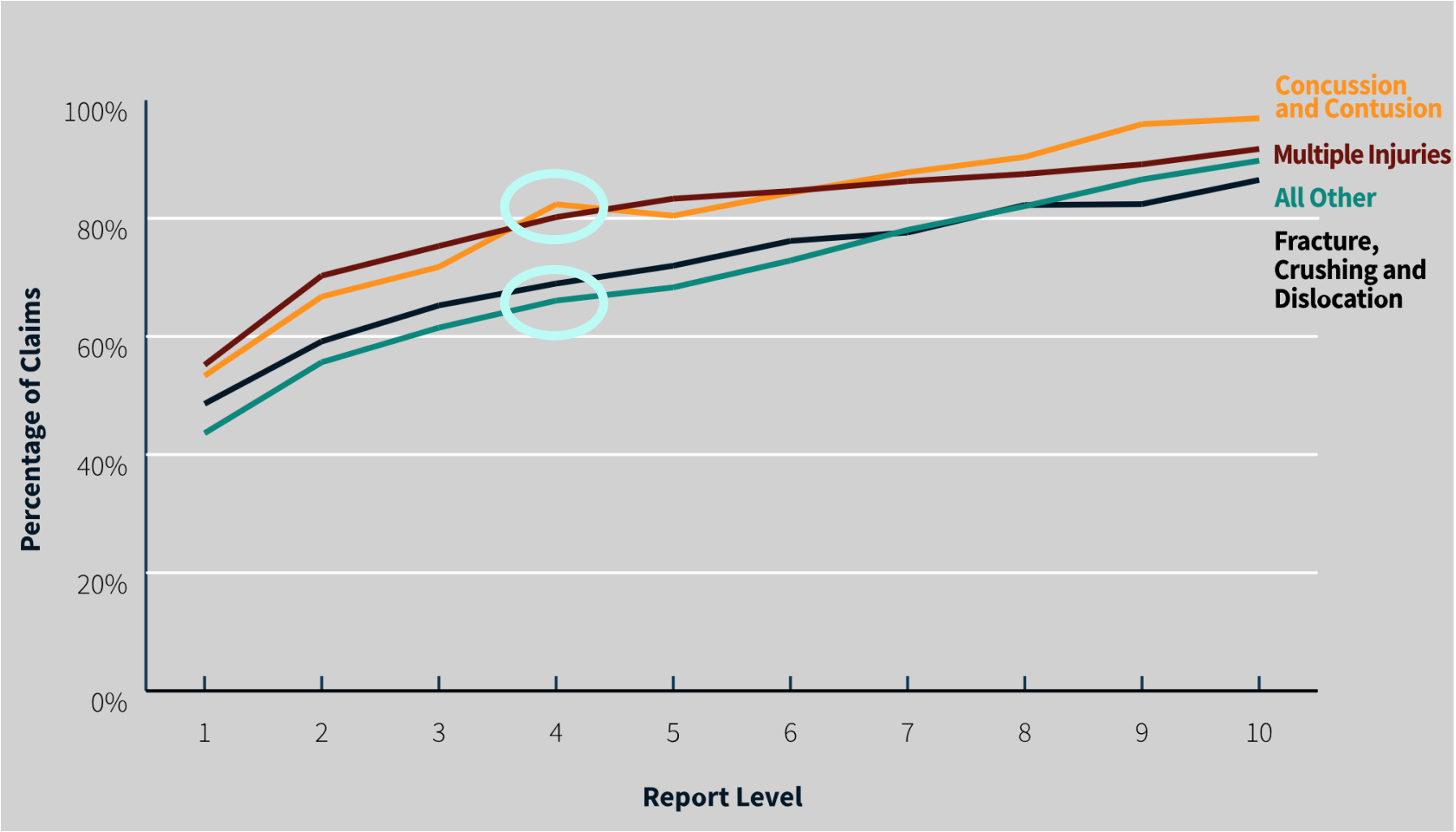


Chart 21: Mega Claims Reported as a % of Ultimate by Nature of Injury

RESULTS

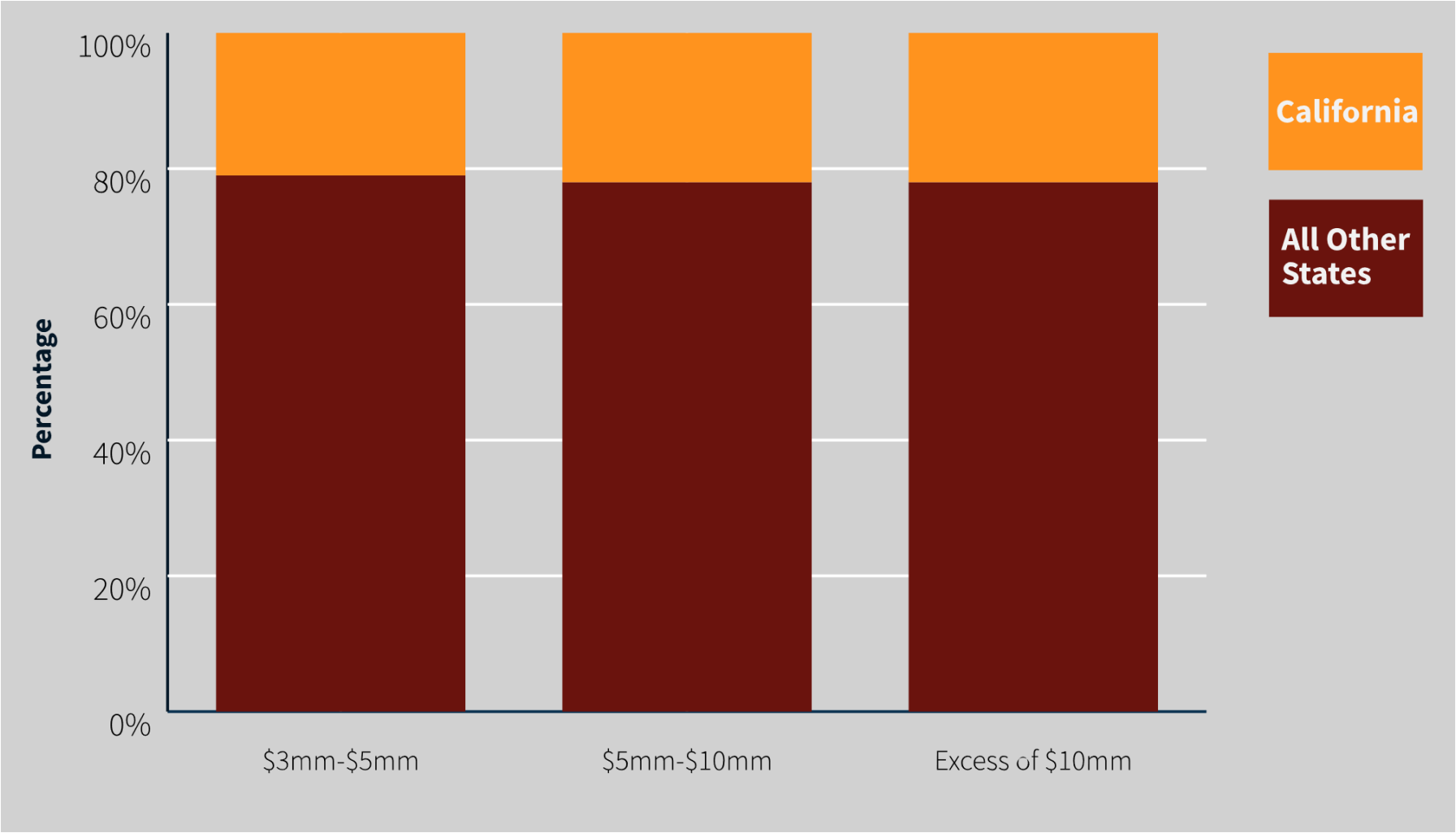
Mega claims arising from Concussions/Contusions and Multiple Causes of Injuries reach the $3mm threshold more quickly compared with mega claims arising from “All Other” natures of injury.

Approximately 82% of mega claims arising from Concussions and Contusions reach the $3mm threshold by a 4th report—compared with about 67% of mega claims in the “All Other” category.

CALIFORNIA MEGA CLAIMS

Laura Carstensen, Vice President Actuarial Research

WCIRB



RESULTS

21% of the mega claims in the study are from California compared to 19% of all indemnity claims.

The share of mega claims from California is relatively similar regardless of claim size with larger claims slightly more common in California.

Chart 22: Distribution of Mega Claims in California vs. Other States

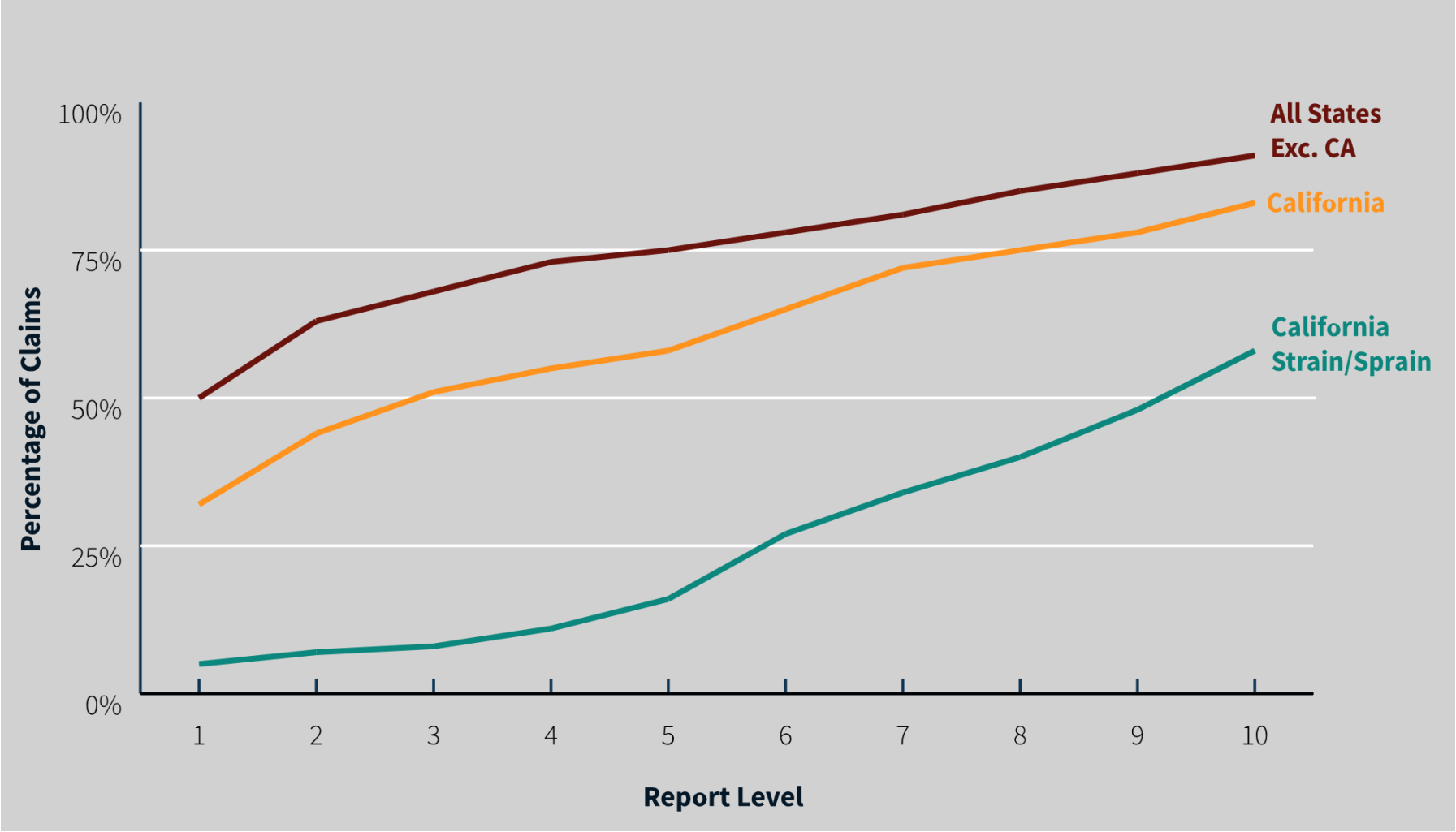


Chart 23: Mega Claims Reported as a % of Ultimate– California vs. Other States

RESULTS

Historically, mega claims take longer to emerge in California than in the rest of the country.

One reason is the prevalence of large claims due to strains and sprains which emerge much more slowly than claims with other natures of injury.

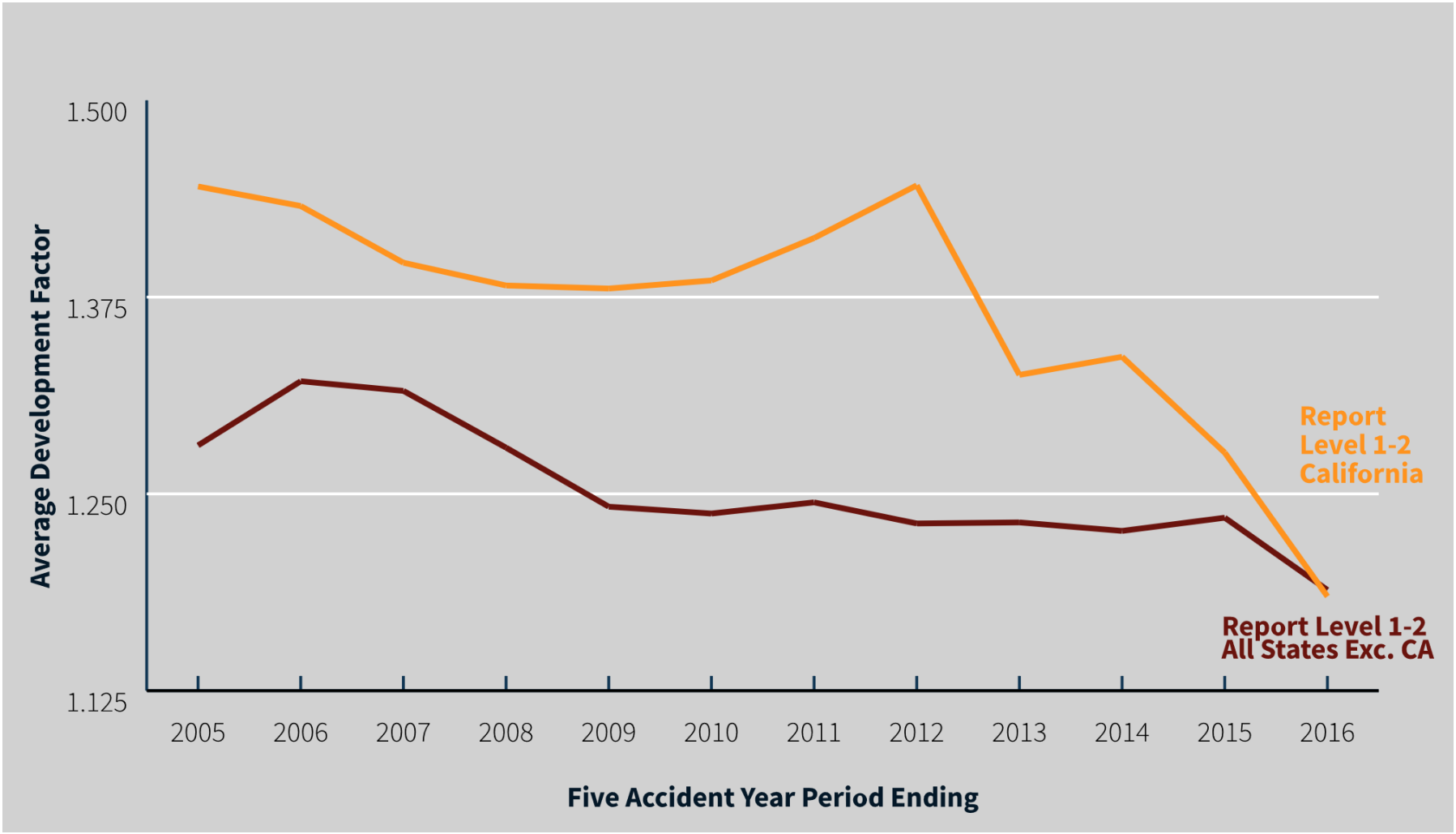
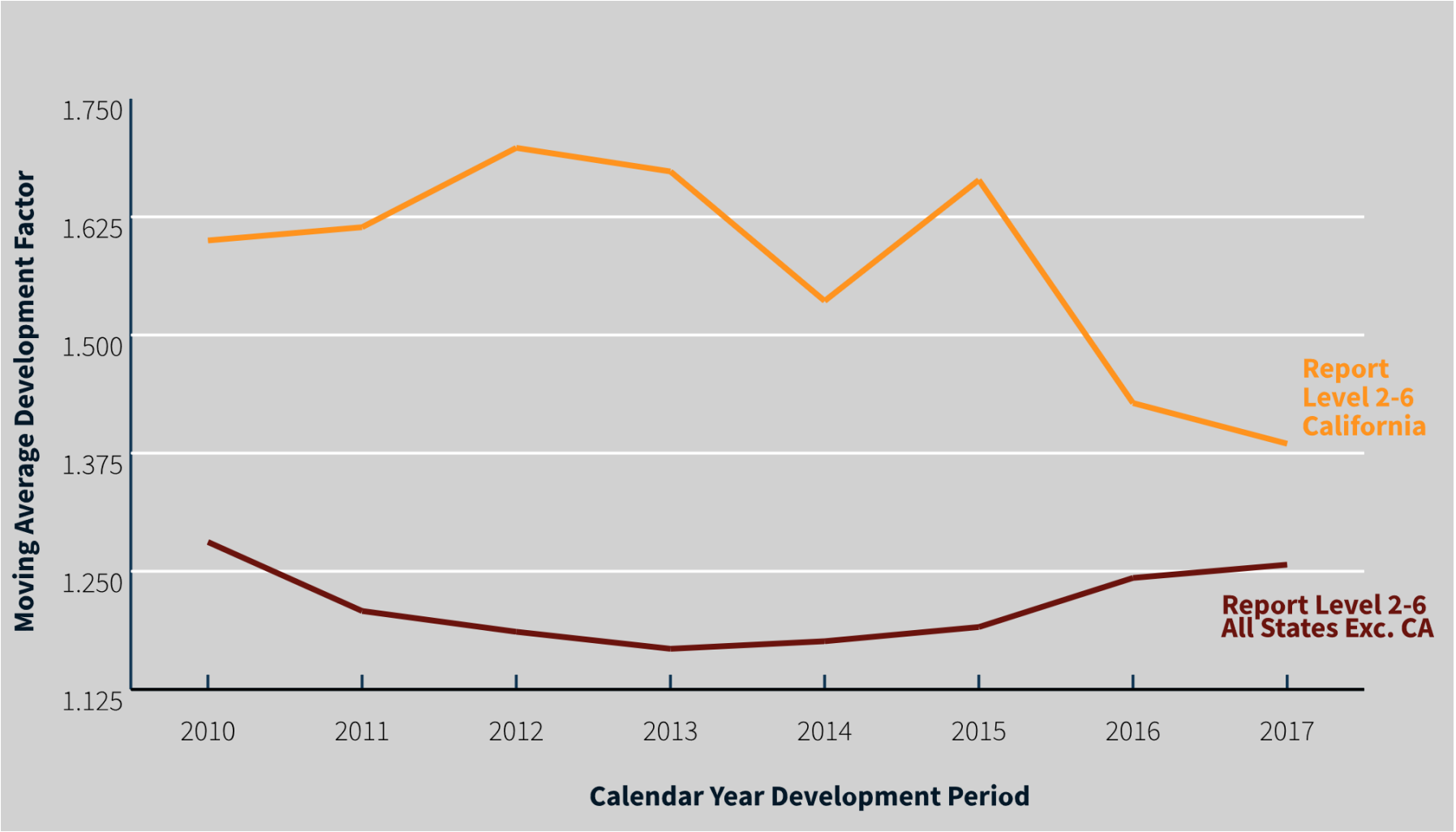


Chart 24: Comparison of 5-Year Moving Average First-to-Second Report Development Factors for California vs. Other States

RESULTS

Over time, early claims emergence has sped up in California relative to other states.

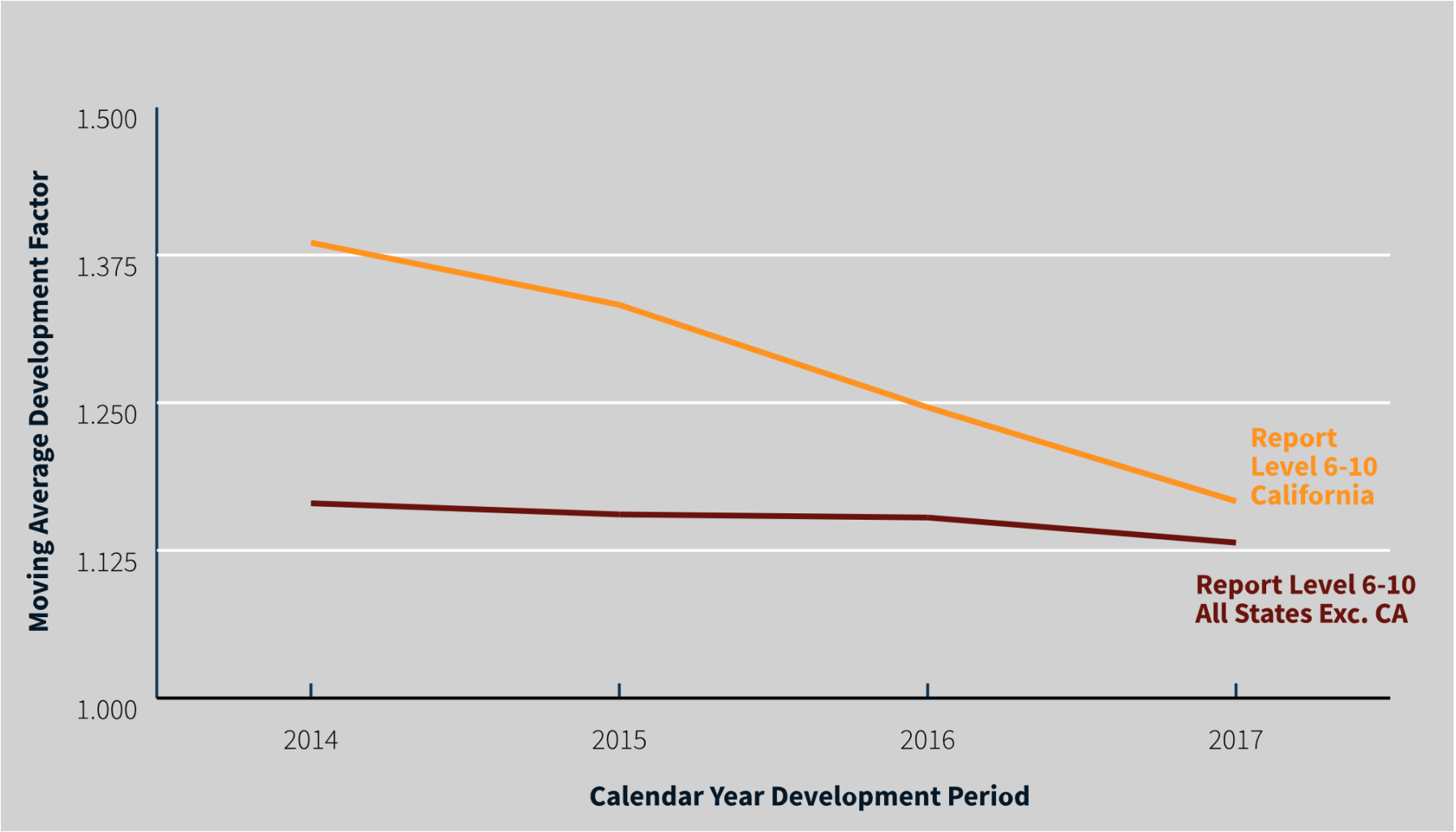
In the most recent year, early emergence has been similar to that in other states.



RESULTS

In recent years, claims emergence in California during the mid-term period has sped up moderately but is still slower than in other states.

Chart 25: Comparison of 5-Year Moving Average Mid-Term Development Factors for California vs. Other States



RESULTS

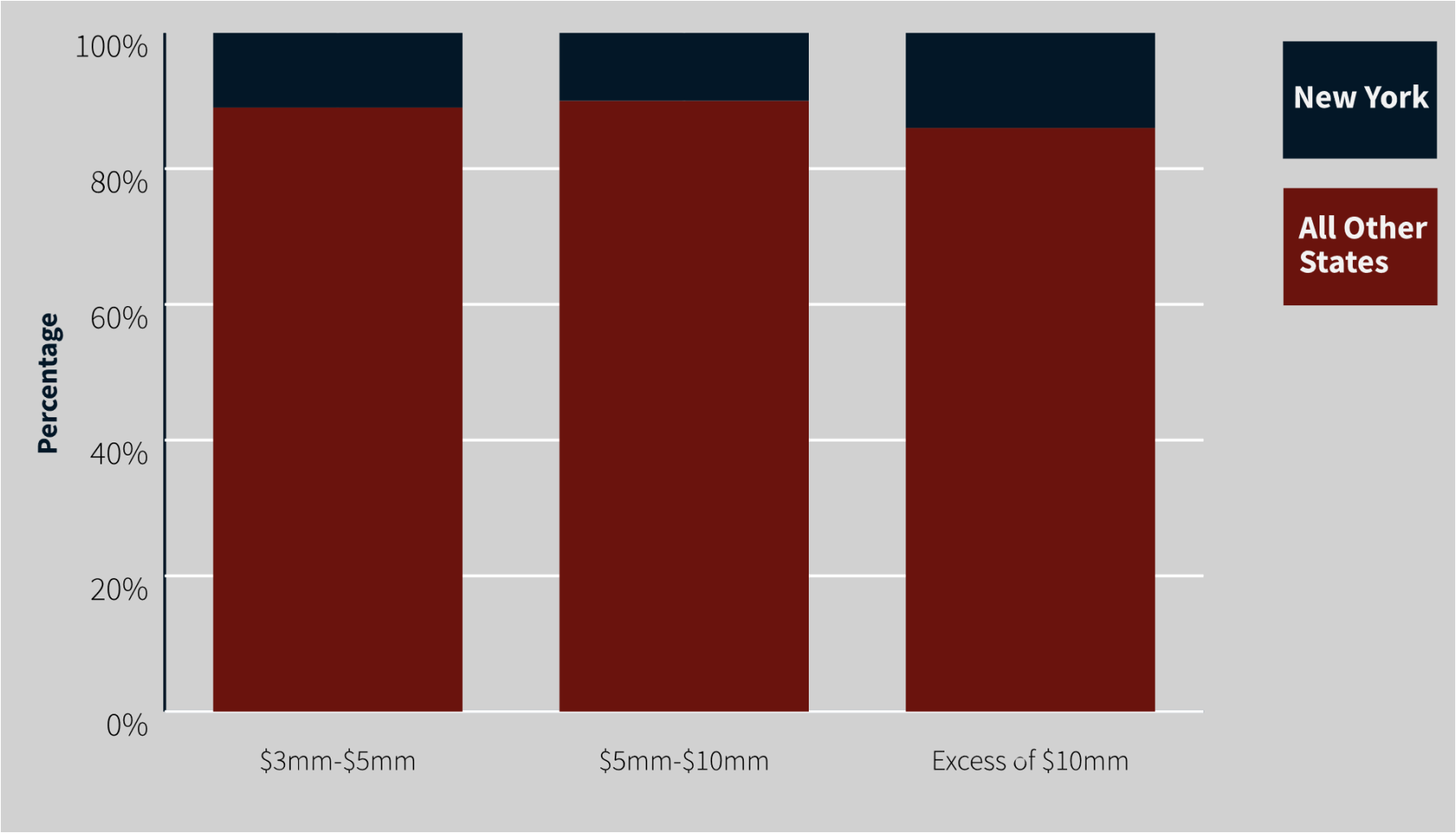
In recent years, claims emergence in California during the late-term period has sped up significantly and is approaching the emergence pattern in other states.

Chart 26: Comparison of 5-Year Moving Average Late-Term Development Factors for California vs. Other States

NEW YORK MEGA CLAIMS

Brett King, Director of Actuarial Research

NYCIRB



RESULTS

New York has about 11% of the overall mega claims in this study.

The incidence rate of claims greater than $10 million is a little higher than market size would indicate, especially in pre-2007 reform years.

Chart 27: Distribution of Mega Claims in New York vs. Other States

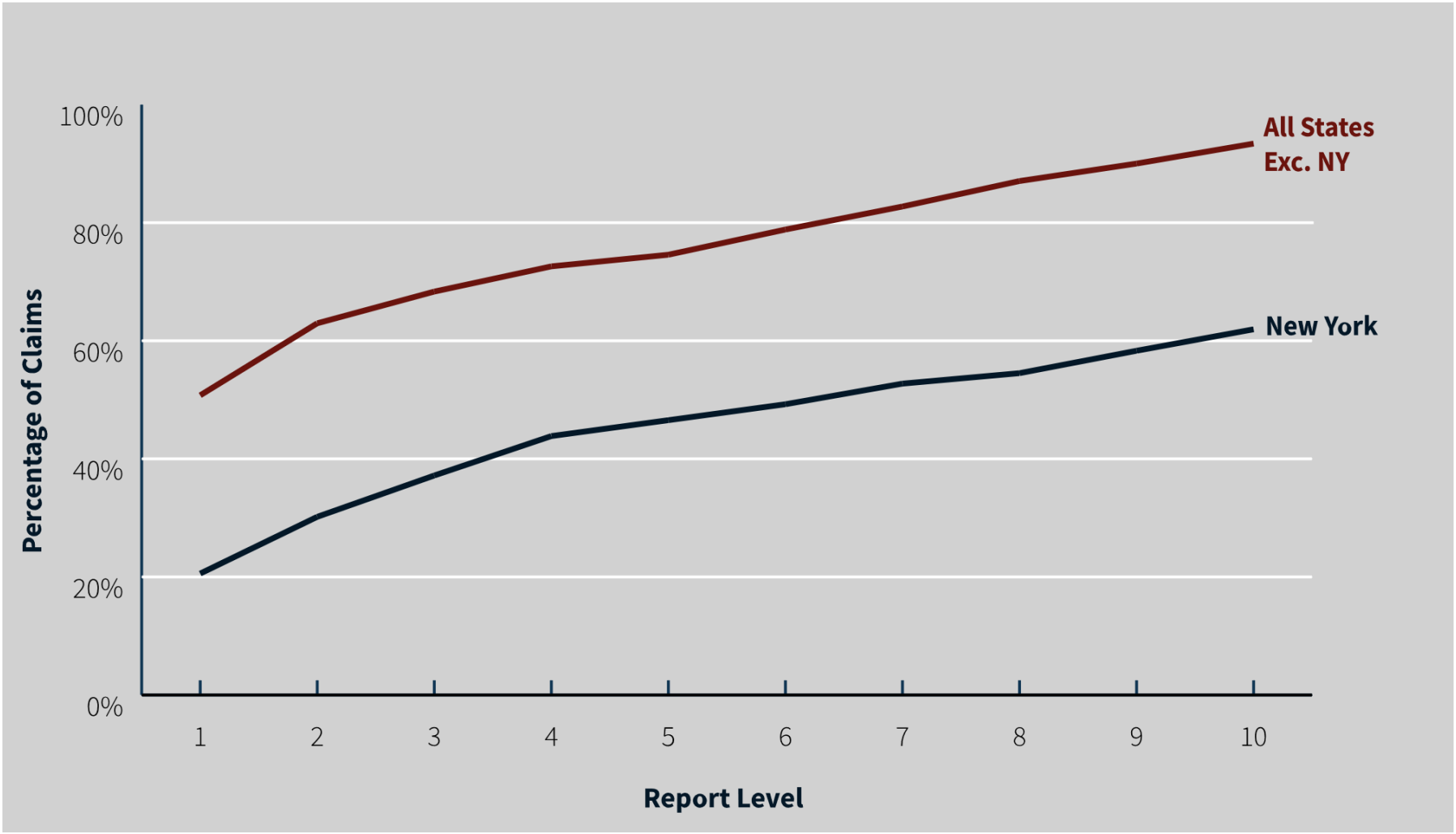
RESULTS

The 2007 reforms delineate markedly different results pre and post reform, with mega claims share decreasing but lost time claims increasing in the post reform years.

2007 Reform Impact on New York Share of Mega and Lost Time Claims

Period	NY 3mm to 5mm	NY 5mm to 10mm	NY > 10mm	NY Lost Time
Pre-2007	13.7%	11.7%	16.5%	6.3%
Post-2007	8.5%	8.0%	9.5%	7.3%
Impact	**-38%**	**-31%**	**-43%**	**16%**

Chart 28: Impact of 2007 Reforms on New York Mega Claims



RESULTS

New York mega claims have been historically recognized at a slower rate than in other states.

Too early to tell how much the 2007 reform has impacted this pattern as these claims are too immature to study completely.

Chart 29: New York Development Patterns vs. Other States

RESULTS

Average Number of New York Mega Claims Reported per Year

Unit Report Period	1-3	4-6	7-9	10
Strain and Sprain Mega Claims	0.7	2.4	4.7	4.5
All Mega Claims > $3mm	17.0	26.3	29.9	32.3
% Strain and Sprain Reported	16.0%	51.9%	81.5%	100%
% of All Reported Claims	52.5%	81.3%	92.4%	100%
Strain and Sprain % Reported in Period	**4.2%**	**17%**	**37%**	**34%**

Note: uses reported claims only

Mega claim injuries in the strain and sprain category are generally reported at later report levels and become a sizeable proportion of later identified mega claims.

These mega claims are typically on the low end of the range of mega claims and less likely to reach the $10 million level.

Chart 30: New York Average Number of Mega Claims Reported per Period per Year

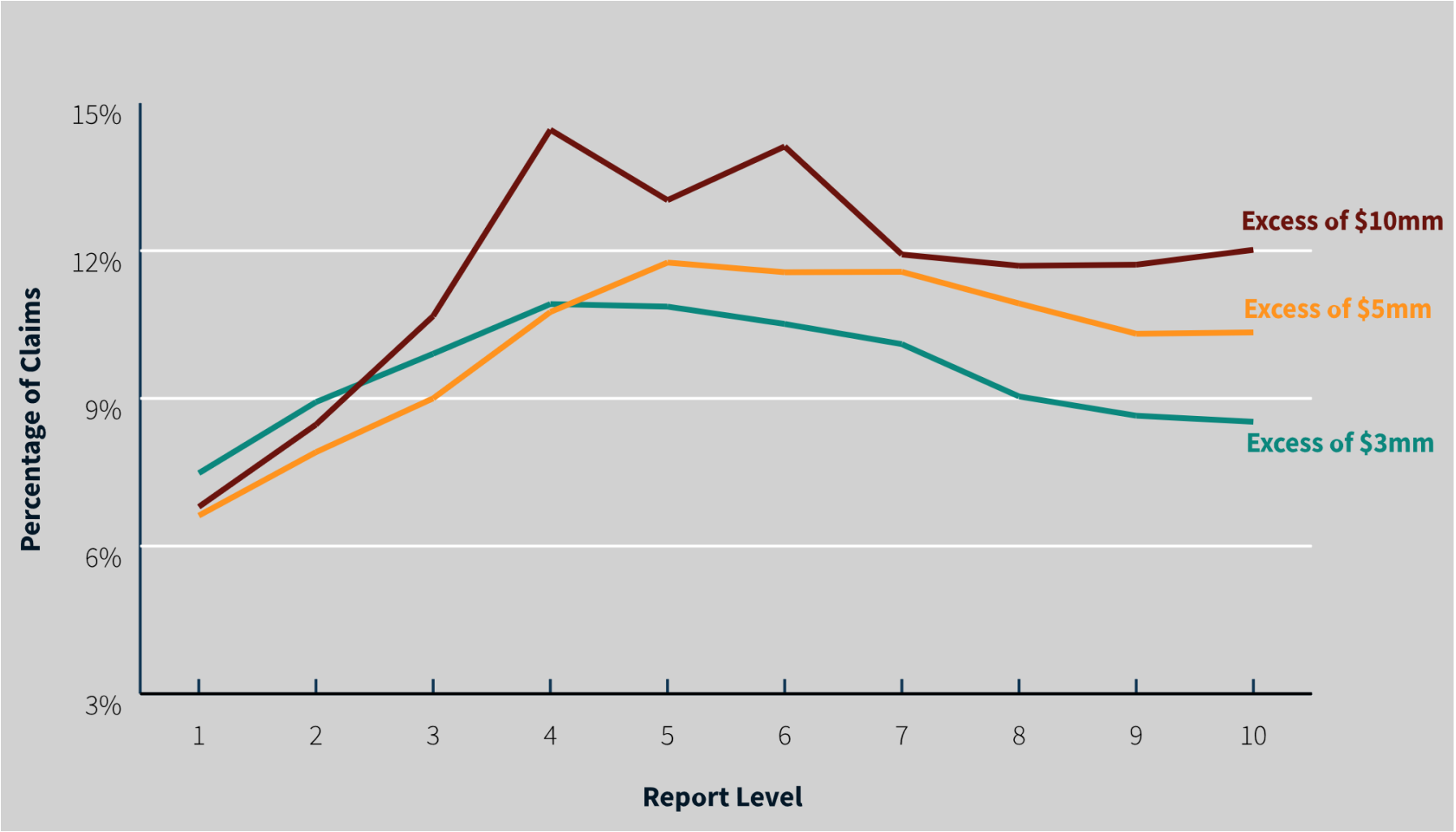
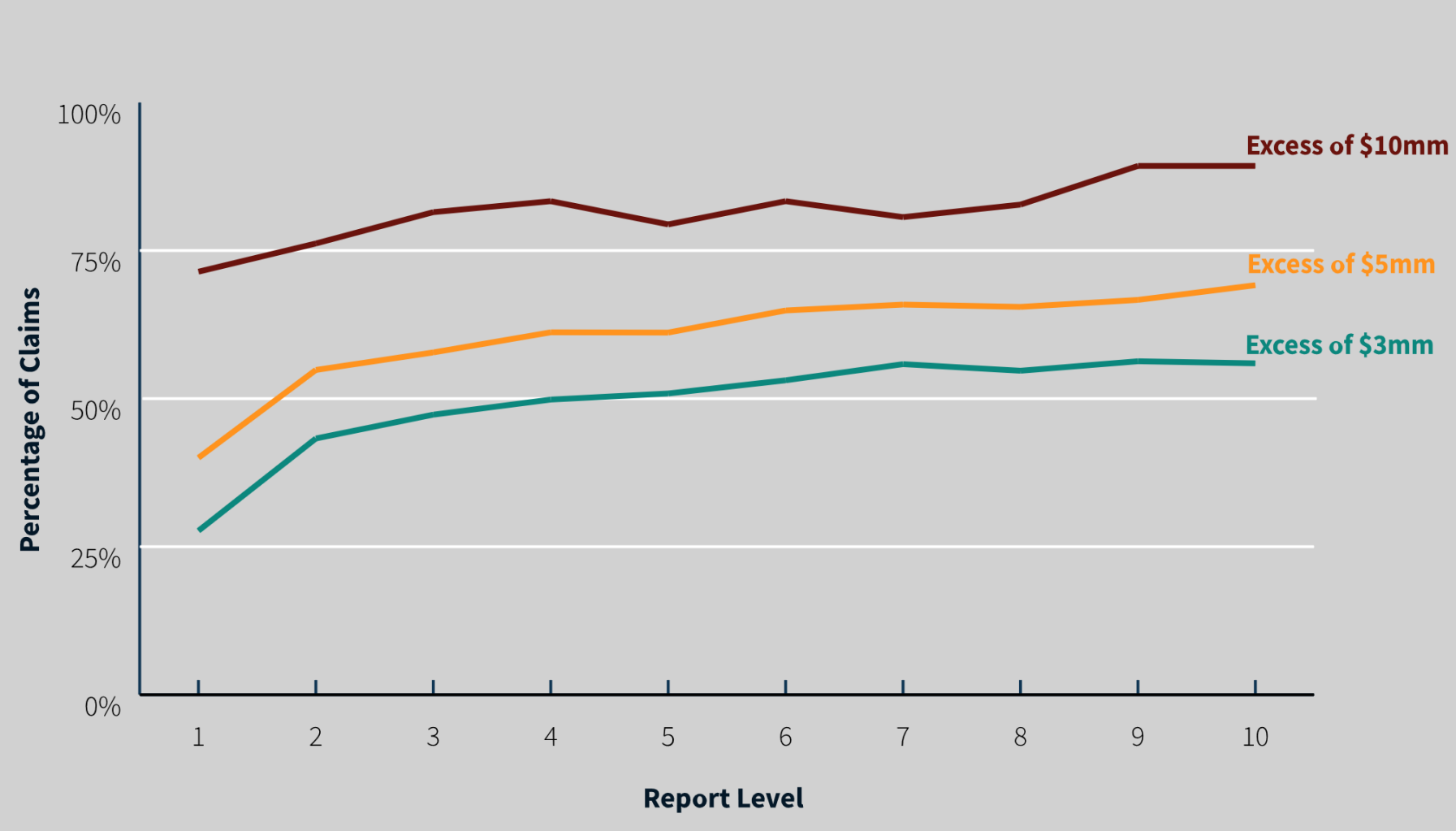


Chart 31: Mega Claims Involving an Employers' Liability Component by Report Level and Size

RESULTS

About 10% of all mega claims involve an employer's liability component.

Larger size mega claims are slightly more likely to involve an employer's liability component.



RESULTS

New York has a large share of the employer's liability claims with an increasing share of these claims as the size level of the mega claims with an employer's liability component increases.

New York has no limit of liability for the employer's liability component.

Chart 32: New York's Share of Employers' Liability Claims by Report Level and Size

Conclusions

Share of Mega Claim Increasing Since 2013

- 2016 and 2017 at or near all-time highs

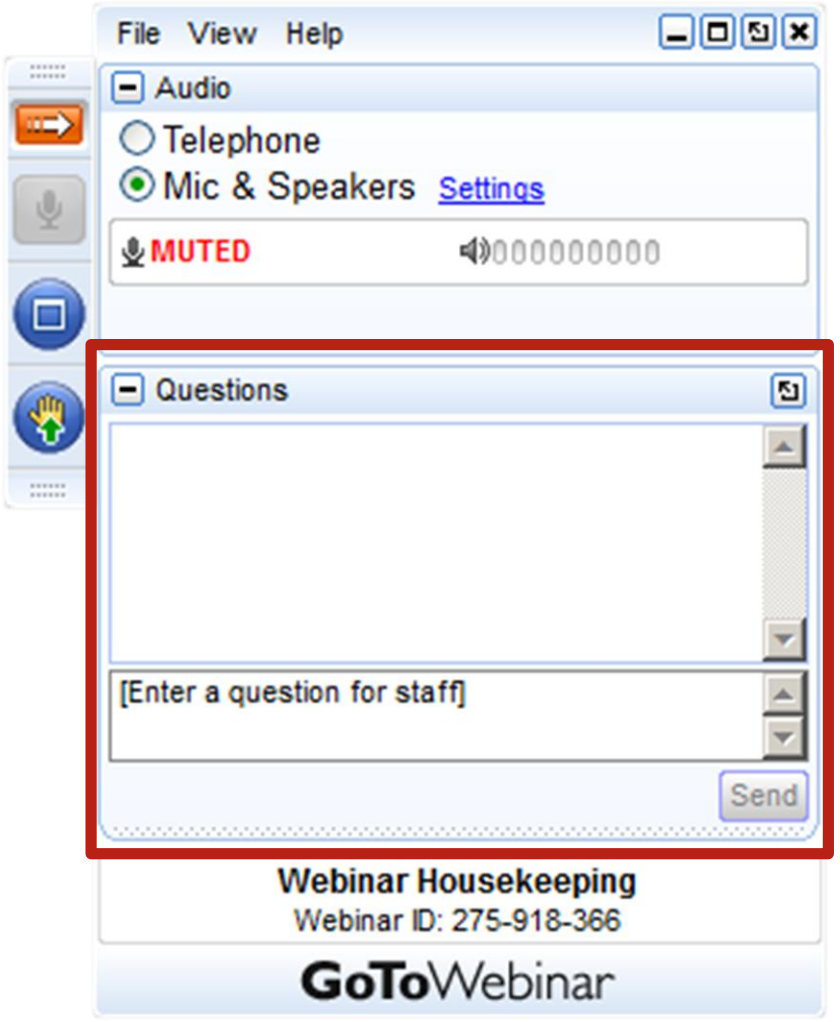
Mega Claims Vary by Characteristic

- Disproportionate shares in constructions, falls and motor vehicle accidents

Mega Claims are Not Recognized Quickly

- Less than one-half by 18 months and less than 90% by 126 months
- Mega claims are being recognized more quickly than in the past
- Construction claims recognized more quickly than in other industries

QUESTIONS AND ANSWERS



Asking a Question

You may submit questions using the **Questions** panel. Time permitting, we may be able to answer your question during the webinar; otherwise, we will respond offline.

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1221 Broadway, Suite 900, Oakland, CA 94612
888-229-2472 | wcirb.com

DCRB

Delaware Compensation Rating Bureau
30 South 17th Street - Suite 1500, Philadelphia, PA 19103-4007
302-654-1435 | dcrb.com

INDIANA COMPENSATION RATING BUREAU

Indiana Compensation Rating Bureau
5920 Castleway W Dr # 121, Indianapolis, IN 46250
317-842-2800 | icrb.net

COMPENSATION ADVISORY ORGANIZATION OF MICHIGAN
MICHIGAN WORKERS COMPENSATION PLACEMENT FACILITY

Compensation Advisory Organization of Michigan
17197 N. Laurel Park Drive, Suite 311, Livonia, Michigan 48152
734-462-9600 | caom.com

MWCIA

Minnesota Workers' Compensation Insurers Association
7701 France Ave S # 450, Edina, MN 55435
952-897-1737 | mwcia.org |

NCCI

National Council on Compensation Insurance
901 Peninsula Corporate Cir., Boca Raton, FL 33487
800-622-4123 | ncci.com

NYCIRB

New York Compensation Insurance Rating Board
733 3rd Ave 5th floor, New York, NY 10017
212-697-3535 | nycirb.org

NJ CRIB

New Jersey Compensation Rating and Inspection Bureau
60 Park Pl, Newark, NJ 07102
973-622-6014 | njcrib.com

North Carolina RATE BUREAU

North Carolina Rate Bureau
2910 Sumner Blvd, Raleigh, NC 27616
919-783-9790 | ncrb.org

PCRB

Pennsylvania Compensation Rating Bureau
30 South 17th Street - Suite 1500, Philadelphia, PA 19103-4007
302-654-1435 | dcrb.com