



Pennsylvania Compensation Rating Bureau

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August 25, 2020

PCRB CIRCULAR NO. 1745

To All Members of the PCRB:

RE: **MULTI-BUREAU STUDY ON THE HISTORICAL PATTERNS OF MEGA CLAIMS**

The PCRB, in coordination and collaboration with other state rating bureaus, have completed a comprehensive study on the impacts of “Mega Claims” on the workers compensation system. We are pleased to release the report titled “Countrywide Mega Claims” which is also being distributed today by all participating bureaus. You will find the full study report below and will also be posted on the PCRB website.

This study analyzes countrywide trends in workers compensation mega claims, which are incurred losses at 2018 cost levels of \$3 million or more. Trends associated with these claims were made regarding their frequency over time and whether they developed more quickly than smaller more typical claims. Other aspects of the study dealt with claim type, causes, most frequent industry segments, and other characteristics over time.

A few of the study’s key countrywide findings include:

- Since 2013, following the Great Recession and an increase in construction work, the share of mega claims has increased steadily within the worker compensation system. The construction industry accounts for approximately 40% of these claims.
- Reported mega claims for accident years 2016 and 2017 were up significantly from prior years, which may be attributable to insurers ability in identifying these claims earlier.
- Motor vehicle accidents give rise to more than 20% of mega claims, but 5% or less of all indemnity claims in most states
- Claims often take some time to breach the \$3 million threshold. Less than one-half of mega claims reach the \$3 million threshold by 18 months from policy inception, and less than 90 percent reach that threshold by 126 months from policy inception. However, mega claims are generally reaching the \$3 million threshold more quickly than in the past.

Questions regarding the report or PCRB’s involvement in this study may be directed to Bonnie Piacentino, Senior Vice President at bpiacentino@pcrb.com or to Brent Otto, Vice President of Actuarial Services and Chief Actuary, at botto@pcrb.com.

William V. Taylor
President

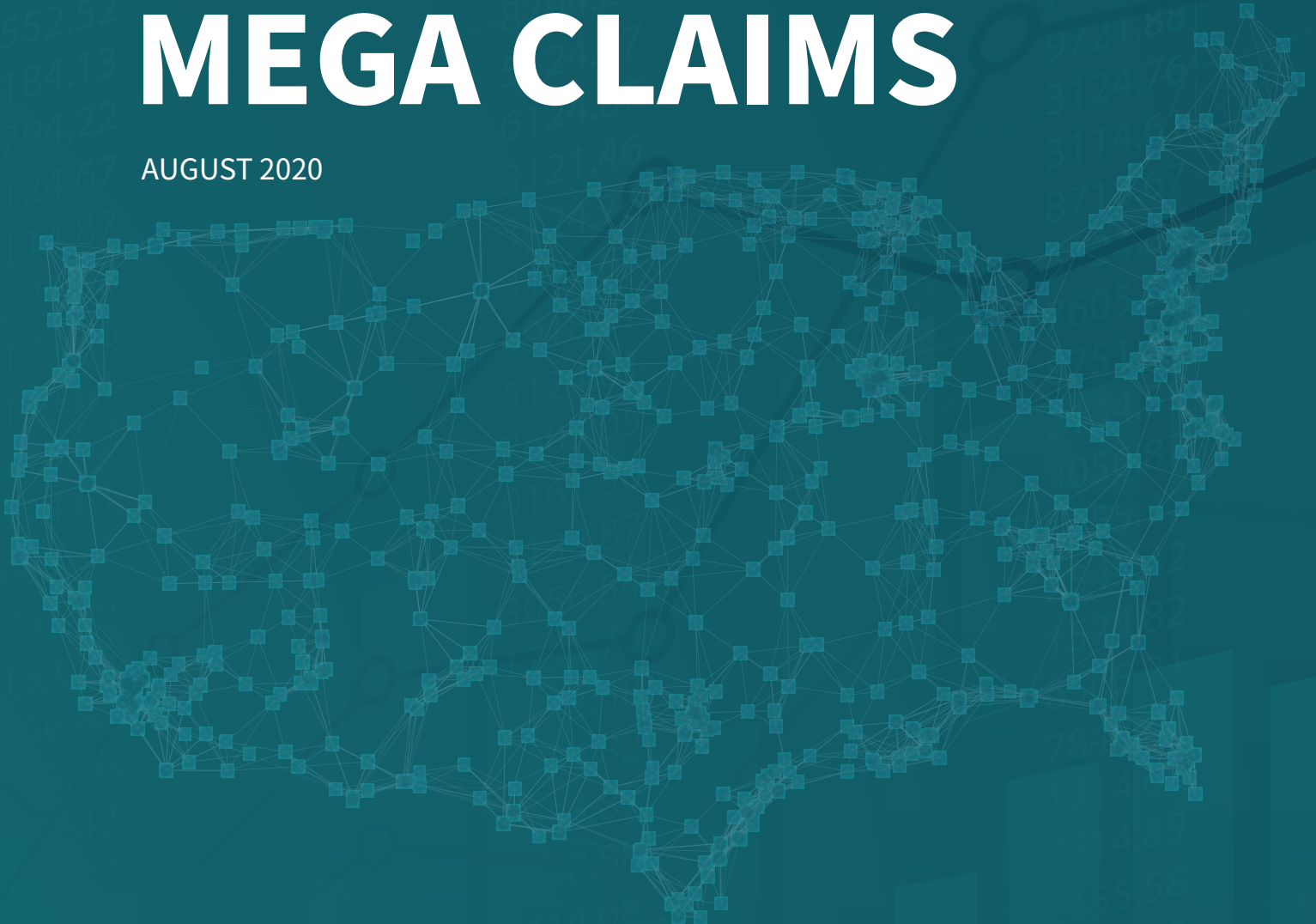
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WORKERS' COMPENSATION INSURANCE

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AUGUST 2020



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Contents

I. Executive Summary	3	Recognition Patterns by Mega Claim Characteristic	17
II. Background	4	Chart 18: Mega Claims Reported as a % of Ultimate by Industry.....	17
III. Research Questions	5	Chart 19: Mega Claims Reported as a % of Ultimate by Part of Body.....	18
IV. Study Approach	6	Chart 20: Mega Claims Reported as a % of Ultimate by Cause of Injury..	19
V. Results	7	Chart 21: Mega Claims Reported as a % of Ultimate by Nature of Injury..	19
A. Frequency of Mega Claims	7	D. State Mega Claim Characteristics	20
Chart 1: Distribution of Mega Claims by Size Interval Based on Reported and Estimated Ultimate Claims.....	7	California	20
Chart 2: Estimated Frequency of Claims in Excess of \$3 Million per 100,000 Indemnity Claims	8	Chart 22: Distribution of Mega Claims in California vs. Other States.....	20
Chart 3: Frequency of Claims in Excess of \$5 Million per 100,000 Indemnity Claims	9	Chart 23: Mega Claims Reported as a % of Ultimate–California vs. Other States.....	21
Chart 4: Frequency of Claims in Excess of \$10 Million per 100,000 Indemnity Claims.....	9	Chart 24: Comparison of 5-Year Moving Average First to Second Report Development Factors for California vs. Other States.....	21
B. Mega Claim Characteristics	10	Chart 25: Comparison of 5-Year Moving Average Mid-Term Development Factors for California vs. Other States.....	22
Industry Sector	10	Chart 26: Comparison of 5-Year Moving Average Late-Term Development Factors for California vs. Other States.....	22
Chart 5: Shares of Mega Claims by Industry Sector.....	10	New York	23
Chart 6: Shares of Ultimate Claims in Excess of \$3 Million by Industry and Accident Year.....	10	Chart 27: Distribution of Mega Claims in New York vs. Other States.....	23
Part of Body Injured	11	Chart 28: Impact of 2007 Reforms on New York Mega Claims.....	23
Chart 7: Shares of Mega Claims by Part of Body	11	Chart 29: New York Development Patterns vs. Other States.....	24
Chart 8: Shares of Ultimate Claims in Excess of \$3 Million by Part of Body and Accident Year	11	Chart 30: New York Average Number of Mega Claims Reported per Period per Year	24
Cause of Injury	12	Chart 31: Mega Claims Involving an Employers’ Liability Component by Report Level and Size.....	25
Chart 9: Shares of Mega Claims by Cause of Injury	12	Chart 32: New York’s Share of Employers’ Liability Claims by Report Level and Size	25
Chart 10: Shares of Ultimate Claims in Excess of \$3 Million by Cause of Injury and Accident Year	12	VI. Conclusions	26
Nature of Injury	13	VII. Conditions and Limitations	27
Chart 11: Shares of Mega Claims by Nature of Injury.....	13	XI. Appendix	28
Chart 12: Shares of Ultimate Claims in Excess of \$3 Million by Nature of Injury and Accident Year.....	13	Total.....	28
Employers’ Liability Claims	14	Industry.....	30
Chart 13: Shares of Mega Claims by Type of Coverage.....	14	Part of Body	32
C. Recognition of Mega Claims	15	Cause	34
Overall Patterns	15	Nature	36
Chart 14: Mega Claims Reported as a Percentage of Ultimate by Threshold	15		
Chart 15: 5-Year Moving Average First-to-Second Report Level Development Factors over Time.....	16		
Chart 16: 5-Year Moving Average Mid-Term Development Factors over Time	16		
Chart 17: 5-Year Moving Average Late-Term Development Factors over Time	17		

I. EXECUTIVE SUMMARY

Background and Objectives

Very large or “mega claims” are relatively infrequent compared to the more typical workers’ compensation claim. However, with costs comprising between \$1 billion and \$2 billion each year, these claims are a highly unpredictable component of most workers’ compensation systems. With medical advances, improving mortality patterns particularly for those with serious injuries, increasing prevalence and cost of home healthcare and reform related cost reductions in some states that have less impact on these mega claims than other claims, stakeholders have suggested that the relative frequency and cost of these claims may be increasing. In response, a number of workers’ compensation rating bureaus¹ have collaborated to conduct a comprehensive analysis of these mega claims across the country.

The objectives of the study are to identify whether mega claims, which for purposes of this study are defined as claims with incurred losses at 2018 cost levels of \$3 million or more, have become more or less common and are being recognized as mega claims more or less quickly than in the past. The study will also analyze the characteristics of these claims in terms of size, claim type and industry segment and whether those characteristics have changed over time. Finally, the study will identify and discuss some unique characteristics of mega claims in select states.

Principal Findings

1. Approximately 4,500 claims from accident year 2001 through 2017 were reported as of December 31, 2018 with incurred loss in excess of \$3 million at 2018 cost levels, which is approximately one out of every 2,500 reported indemnity claims. Of those, 57% were between \$3 million and \$5 million, 33% between \$5 million and \$10 million and 10% in excess of \$10 million.
2. The rate of reported mega claims dropped sharply during the Great Recession as construction employment plummeted in most of the country. Since 2013, the share of mega claims has increased steadily.
3. Reported mega claims for accident years 2016 and 2017 were up significantly from prior years, although some of the increase may be attributable to insurers being able to identify such claims earlier. In any case, estimated ultimate accident year 2017 mega claim counts were at a 12-year high. However, estimates of ultimate counts of mega claims for relatively immature years can be volatile.
4. Mega claims from the construction sector comprise approximately 40% of mega claims in the experience period. In contrast, less than 20% of all indemnity claims arise from the construction sector.
5. Mega claims arising from brain and head injuries comprise 17% of mega claims between \$3 million and \$5 million, but 30% of claims in excess of \$10 million. These claims comprise well below 5% of all indemnity claims in most states.
6. Motor vehicle accidents give rise to more than 20% of mega claims, but 5% or less of all indemnity claims in most states.
7. Claims often take some time to breach the \$3 million threshold. Less than one-half of mega claims reach the \$3 million threshold by 18 months from policy inception, and less than 90% reach that threshold by 126 months from policy inception. However, mega claims are generally reaching the \$3 million threshold more quickly than in the past.
8. Mega claims arising from the construction sector reach the \$3 million threshold more quickly than those arising from the office/clerical sector. Similarly, mega claims arising from motor vehicle accidents, “struck by object” injuries, and head and brain injuries reach that threshold more quickly than other mega claims. In contrast, mega claims involving strain and sprain injuries reach the \$3 million threshold more slowly.
9. On average, it takes longer for claims in both California and New York to reach the \$3 million threshold than in other states.

¹ Includes the Workers’ Compensation Insurance Rating Bureau of California, Delaware Compensation Rating Bureau, Indiana Compensation Rating Bureau, Compensation Advisory Organization of Michigan, Minnesota Workers’ Compensation Insurers Association, National Council on Compensation Insurance, New Jersey Compensation Rating and Inspection Bureau, New York Compensation Insurance Rating Board, North Carolina Rate Bureau and Pennsylvania Compensation Rating Bureau.

II. BACKGROUND

Workers' compensation insurance provides coverage for lost wages and, largely, unlimited medical benefits. Over time, reports of claims with costs of \$10 million or \$20 million or more have become less unusual. While these claims occur on a relatively infrequent basis, the cost of very large or "mega claims" is a highly unpredictable component of the cost of most workers' compensation systems. These claims involve very serious injuries that can take their toll on injured workers and their families.

Medical technological advances have improved the care provided to seriously injured patients as well as their mortality rates, but also have increased costs. In addition, home healthcare is more common and more costly for seriously injured workers. Finally, most states have experienced consistent declines in indemnity claim frequency over time. However, it is not clear that these frequency trends fully apply to mega claims. Given these trends, some system stakeholders have asked if the relative frequency and cost of these very large claims have increased over time. While there have been studies in recent years addressing large claims at a state or regional level, limited information is available on trends in these claims from a countrywide perspective.

The Workers' Compensation Insurance Rating Bureau of California, Delaware Compensation Rating Bureau, Compensation Advisory Organization of Michigan, Indiana Compensation Rating Bureau, Minnesota Workers' Compensation Insurers Association, National Council on Compensation Insurance, New Jersey Compensation Rating and Inspection Bureau, New York Compensation Insurance Rating Board, North Carolina Rate Bureau and Pennsylvania Compensation Rating Bureau have collaborated to collect data on mega claims from across the country² that have occurred over the last two decades. Based on the information collected, these participating rating bureaus have conducted an analysis of countrywide mega claims.

² Excludes Massachusetts, North Dakota, Ohio, Washington, Wisconsin and Wyoming.

III. RESEARCH QUESTIONS

Key research questions for the study include:

- How frequent are mega claims (claims in excess of \$3 million incurred at 2018 cost levels) and have they become more or less frequent in recent years?
- What are the common characteristics of mega claims and have those characteristics changed over time?
- Have the relative sizes of mega claims changed over time?
- How quickly are mega claims recognized as such, and with better analytic tools available, are mega claims being recognized more quickly in recent years?
- Do the patterns of mega claim emergence vary by claim characteristic?
- Are there significant differences in mega claim characteristics and patterns by state?

IV. STUDY APPROACH

Each of the participating rating bureaus compiled information on the count of claims in excess of \$3 million, \$5 million and \$10 million in total incurred losses at 2018 cost levels for the 2001 through 2017 accident years at annual evaluations.³ Specifically, the count of claims with incurred losses in excess of each of these size intervals were provided at each annual unit statistical valuation from 18 months from policy inception to 126 months from policy inception. In addition, for the older accident years at maturity levels greater than 126 months, when possible, a current count of claims at each incurred loss amount threshold was provided as of December 31, 2018. Separate summaries were provided for a number of claim characteristic categories including industry sector, part of body, cause of injury, nature of injury and whether the claim involved employers' liability. The data provided by each organization was based on unit statistical report⁴ information supplemented by calls for information on large claims.

Incurred loss amounts for each jurisdiction were adjusted to a current (2018) cost level by the rating bureau for that jurisdiction. Using the information provided by each participating rating bureau, separate triangles of incurred claim counts with incurred cost in excess of \$3 million, \$5 million and \$10 million were compiled by categories of industry sector, part of body, nature of injury and cause of injury on a countrywide basis.⁵ Information was also compiled relating to mega claims involving employers' liability.

The mega claim counts provided by each participating rating bureau were then compared to counts of all indemnity claims for the same time periods. Claim count development triangles were generated by claim characteristic from the countrywide analysis. Ultimate claim counts by year were estimated from the mega claim development triangles using standard actuarial age-to-age claim count development methods. Mega claim count growth beyond the latest 10th report level was projected from the historical counts using the Generalized Bondy method.⁶

The research team modeled the countrywide database to identify and analyze trends in patterns and characteristics of mega claims. Claim information in the study, which was evaluated through December 31, 2018, pre-dates the COVID-19 pandemic. The research team did not attempt to evaluate the impact of the pandemic on mega claim characteristics.

The research team also analyzed mega claim patterns in California and New York, by far the largest states in the study, to assess whether there are unique trends or patterns of mega claims in those states.

The Appendix to this report contains accident year summaries of the reported mega claim counts used in the study.

³ Not all bureaus were able to provide complete information for all the earlier accident years.

⁴ Unit statistical reports are submitted at annual intervals for up to 10 years with the first annual report submitted with losses valued at 18 months from policy inception and the 10th and final at 126 months from policy inception.

⁵ Excludes Massachusetts, Wisconsin, North Dakota, Ohio, Washington and Wyoming.

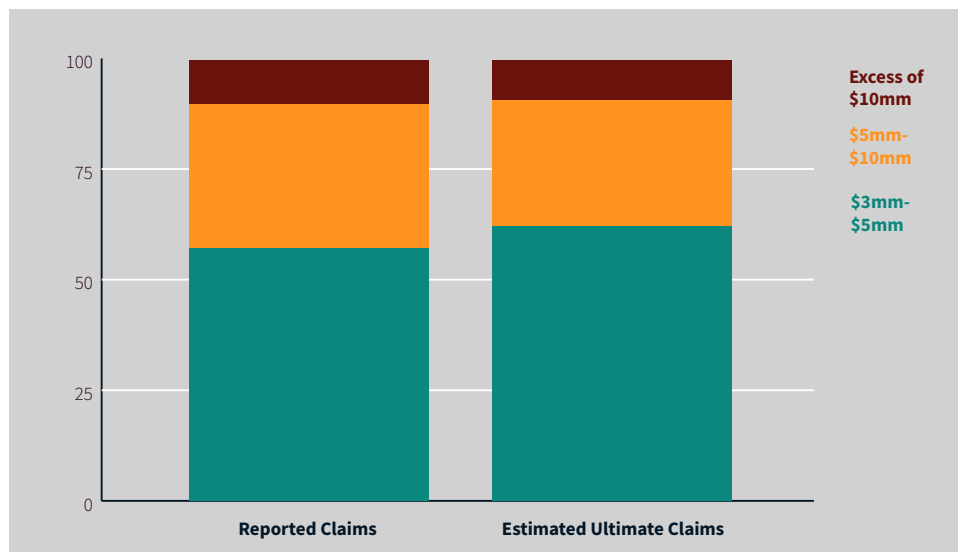
⁶ *The Estimation of Loss Development Factors: A Summary Report*, CAS Tail Factor Working Party, Casualty Actuarial Society E-Forum, Fall 2013.

V. RESULTS

A. Frequency of Mega Claims

In total, approximately 4,500 claims with total incurred losses at 2018 cost levels in excess of \$3 million were reported on a countrywide basis⁷ for accident years 2001 through 2017 as of December 31, 2018 by the study participants, with no year having more than 400 mega claims reported. This constitutes about 0.04% of the approximately 12 million indemnity claims reported over that same period or about one in every 2,500 indemnity claims. As shown in Chart 1, of those 4,500 “mega” claims, 57% were reported at between \$3 million and \$5 million, 33% were between \$5 million and \$10 million, and 10% were reported in excess of \$10 million. Chart 1 also shows the distribution of mega claims by size interval on an estimated ultimate basis. As shown, on an ultimate basis an even higher proportion of claims are estimated to be incurred in the \$3 million to \$5 million size interval (62%) as many of the claims in that interval reach the \$3 million threshold relatively late in their life.

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



The proportion of mega claims began to drop sharply during the Great Recession as construction employment plummeted and began to increase beginning in 2013 as the economy rebounded.

⁷ Excludes Massachusetts, North Dakota, Ohio, Washington, Wisconsin and Wyoming.

Chart 2 shows the estimated ultimate countrywide ratios of mega claims with losses in excess of \$3 million in total incurred losses per 100,000 reported indemnity claims for accident years 2001 through 2017 using development factors based on the latest year of development. As shown on Chart 2, the proportion of mega claims was increasing modestly until the proportion of mega claims began to drop sharply during the Great Recession as construction employment plummeted and began to increase beginning in 2013 as the economy rebounded. Reported mega claims for accident years 2016 and 2017 were up significantly from prior years. Some of the increase may be attributable to insurers implementing analytical tools to facilitate earlier identification and triage of these very large claims. In any case, on an estimated ultimate basis, using the most recent period development factor,⁸ accident year 2017 mega claim counts were at a 12-year high. However, estimates of ultimate counts for relatively immature years can be very volatile. For example, if the mega claim count development was to develop at a rate more typical of the past and development on the 2017 year was consistent with that of the average of the latest three years, ultimate 2017 mega claims would be significantly higher and at an all-time high. Conversely, if mega claim count development continues to accelerate, ultimate 2017 mega claims counts would be lower.

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



Reported mega claims for accident years 2016 and 2017 were up significantly from prior years. Some of the increase may be attributable to insurers implementing analytical tools to identify and triage these very large claims.

⁸ Development to 10th report for the totals in Chart 2 relies on a latest year development factor and the tail factor is based on a Generalized Bondy method applied to a three-year average.

The estimated ultimate ratios of claims in excess of \$5 million and \$10 million at 2018 cost levels per 100,000 indemnity claims are shown in Chart 3 and Chart 4, respectively.⁹ As shown in Chart 3, the share of claims in excess of \$5 million has shown a similar pattern as claims in excess of \$3 million, although the Great Recession decline in these large claims is not quite as pronounced. As shown in Chart 4, the frequency of claims in excess of \$10 million has been somewhat more stable over the almost two decade period studied, although the rates for the last three years are well above those of the prior years.

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

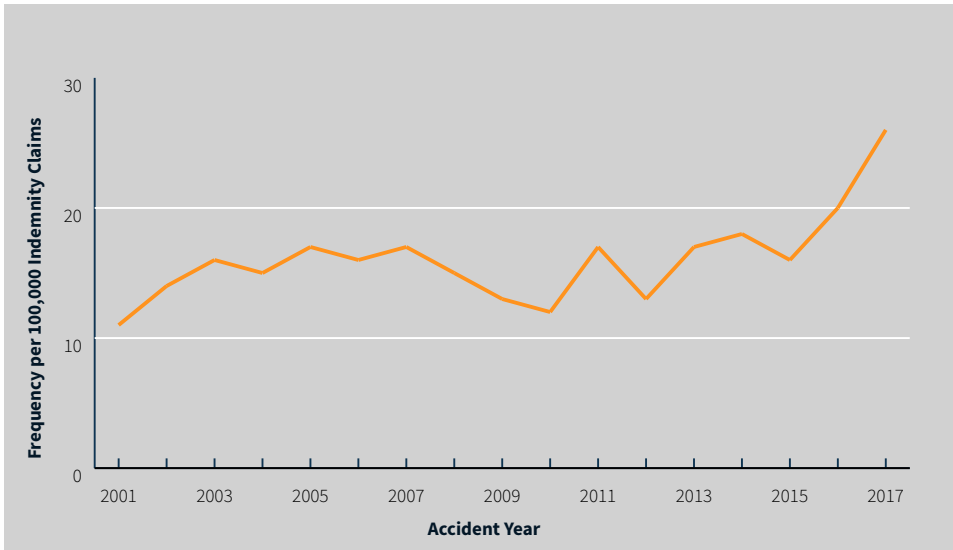
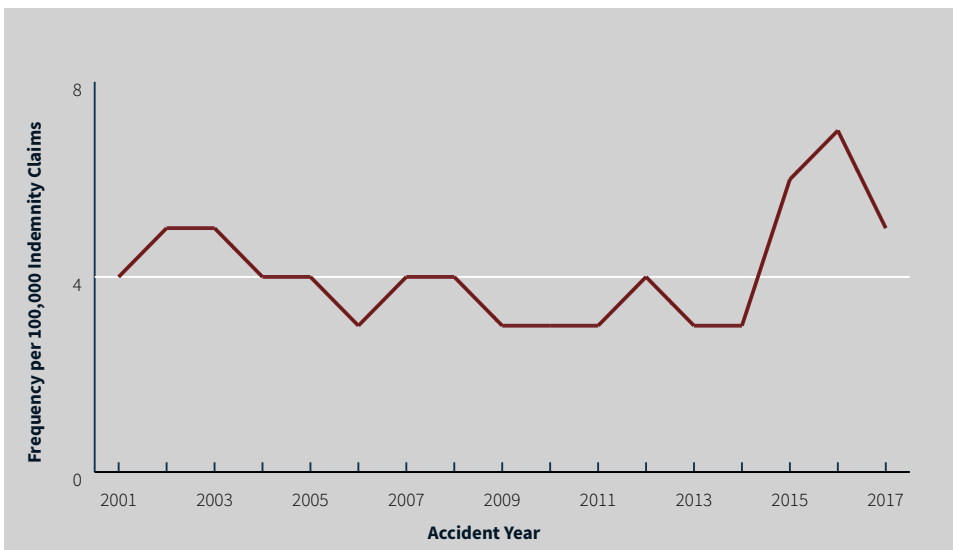


Chart 4: Frequency of Claims in Excess of \$10 Million per 100,000 Indemnity Claims



⁹ Claim counts in excess of \$5 million and in excess of \$10 million were developed to ultimate using an average of the latest three factors.

B. Mega Claim Characteristics

Industry Sector

Reported mega claims by incurred loss size interval were segregated into the following industry sectors: construction, office and clerical, manufacturing, stores and dealers, transportation and all other industries. Chart 5 shows the segregation of mega claim counts reported as of the most current unit statistical valuation into industry sectors for claims with an incurred value between \$3 million and \$5 million, between \$5 million and \$10 million and in excess of \$10 million. Not surprisingly, claims from the construction sector comprise 37% of claims between \$3 million and \$5 million, 42% of claims between \$5 million and \$10 million and 46% of claims in excess of \$10 million. In comparison, for most states, construction claims comprise below 20% of the overall claims volume in the state.

Chart 5: Shares of Mega Claims by Industry Sector

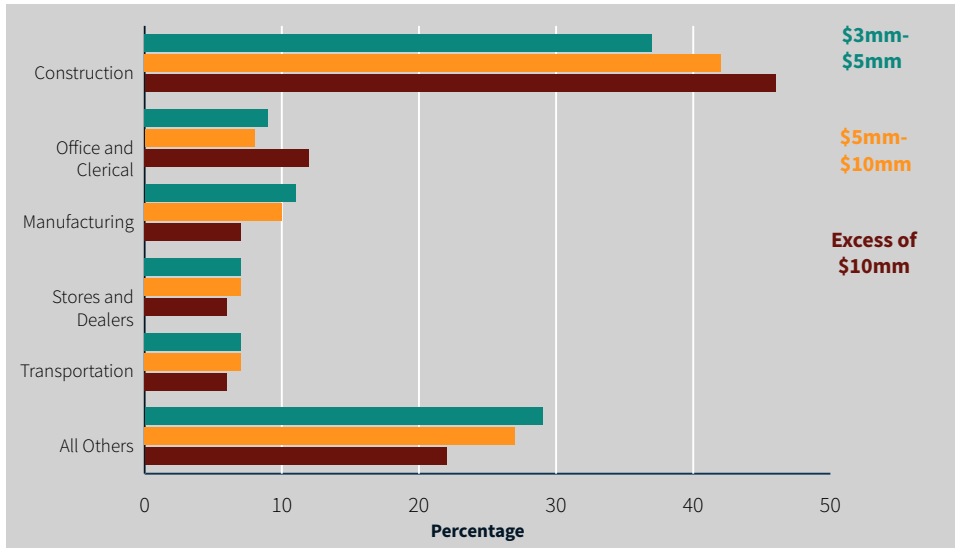
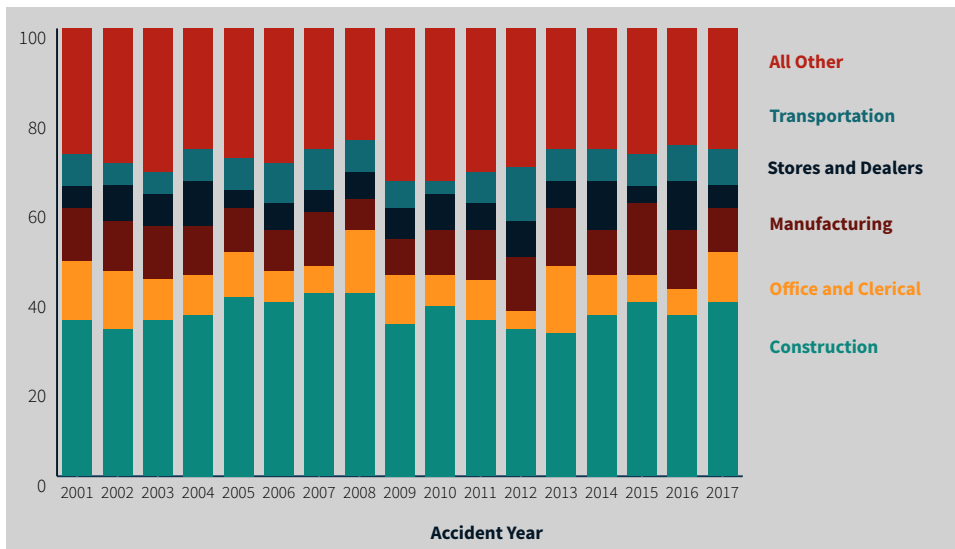


Chart 6 shows the distribution of estimated ultimate number of claims in excess of \$3 million by industry sector for each of the 2001 through 2017 accident years. As shown in Chart 6, shares of mega claims by industry sector were relatively consistent over time, although with the major decline in construction employment during the Great Recession, the share of construction claims dropped significantly during 2009 to 2013 and the share of claims in the all other industry sector increased. Since 2013, the share of mega claims arising from the construction sector has generally increased.

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

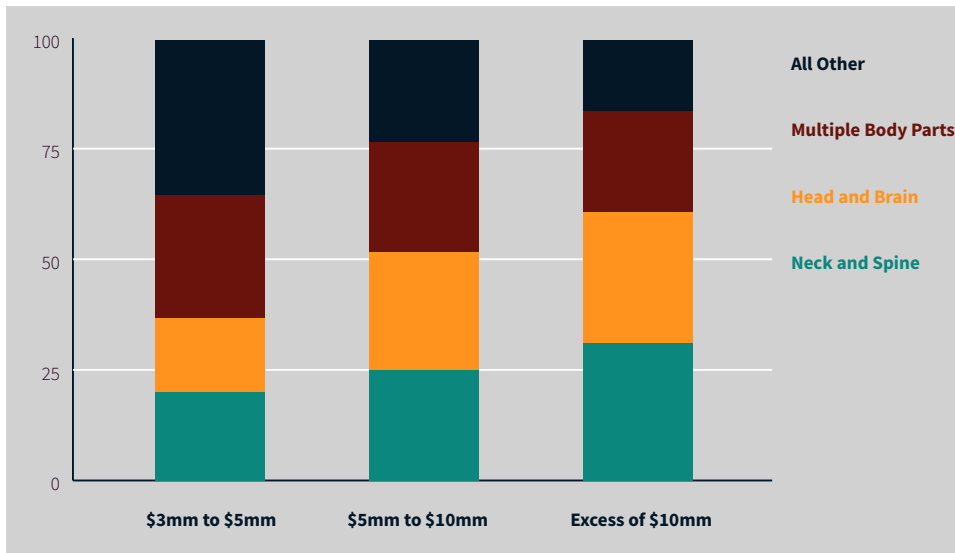


Claims from the construction sector comprise 37% of claims between \$3 million and \$5 million, 42% of claims between \$5 million and \$10 million and 46% of claims in excess of \$10 million. In comparison, for most states, construction claims comprise below 20% of the overall claims volume.

Part of Body Injured

Reported mega claims by incurred loss size interval were segregated into the following part of body categories: head/brain, neck/spine, multiple injuries and all other body parts. Chart 7 shows the segregation of mega claims reported as of the most current unit statistical valuation of each accident year included in the study into body part groups for claims with incurred value between \$3 million and \$5 million, between \$5 million and \$10 million and in excess of \$10 million. While the largest share of claims in excess of \$3 million involved all other body parts, the largest share of claims in excess of \$10 million involved head/brain and neck/spine injuries. Specifically, 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.

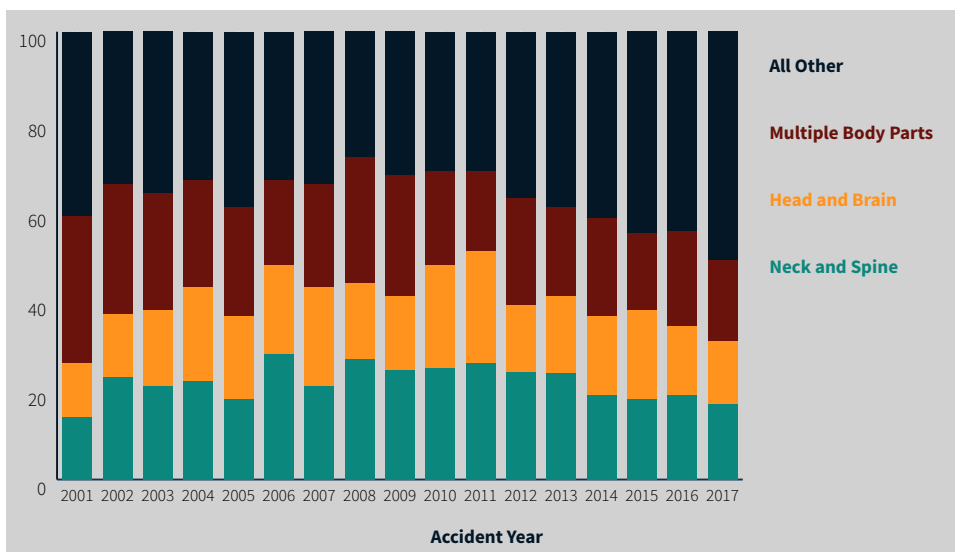
Chart 7: Shares of Mega Claims by Part of Body



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.

Chart 8 shows the distribution of the estimated ultimate number of claims in excess of \$3 million by body part group for each of the 2001 through 2017 accident years. As shown in Chart 8, shares of mega claims in the all other body part category have grown over the last decade.

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



Cause of Injury

Reported mega claims by incurred loss size interval were segregated into the following cause of injury categories: fall/slip, motor vehicle accident, struck by and all other causes. Chart 9 shows the segregation of mega claims reported as of the most current valuation of each accident year included in the study into cause of injury groups for claims with incurred value of \$3 million to \$5 million, \$5 million to \$10 million and in excess of \$10 million. Fall and slip injuries are the leading cause of mega claims, comprising more than 35% of all mega claims. Motor vehicle accidents comprise more than 20% of all mega claims and 30% of mega claims over \$10 million incurred, while for most states, they comprise less than 5% of all indemnity claims.

Fall and slip injuries are the leading cause of mega claims, comprising more than 35% of all mega claims.

Chart 9: Shares of Mega Claims by Cause of Injury

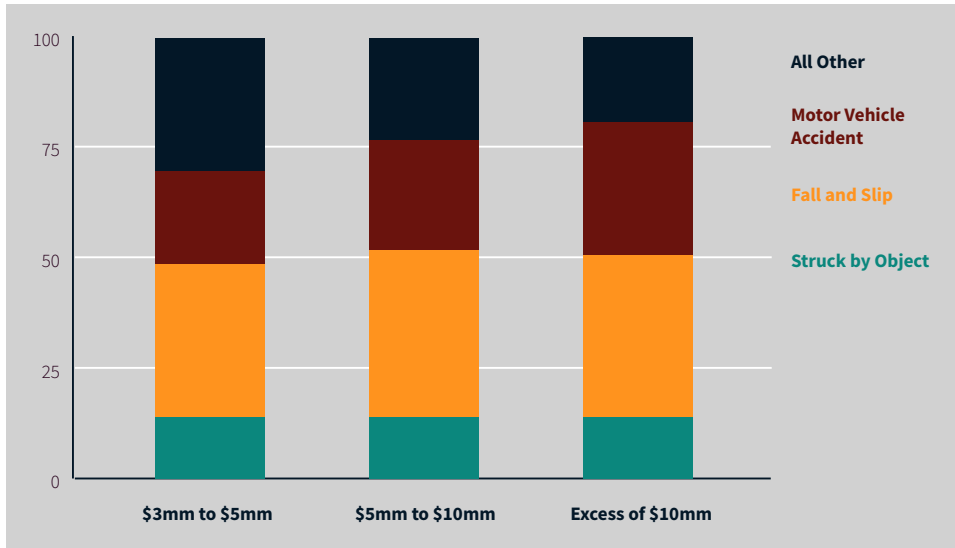
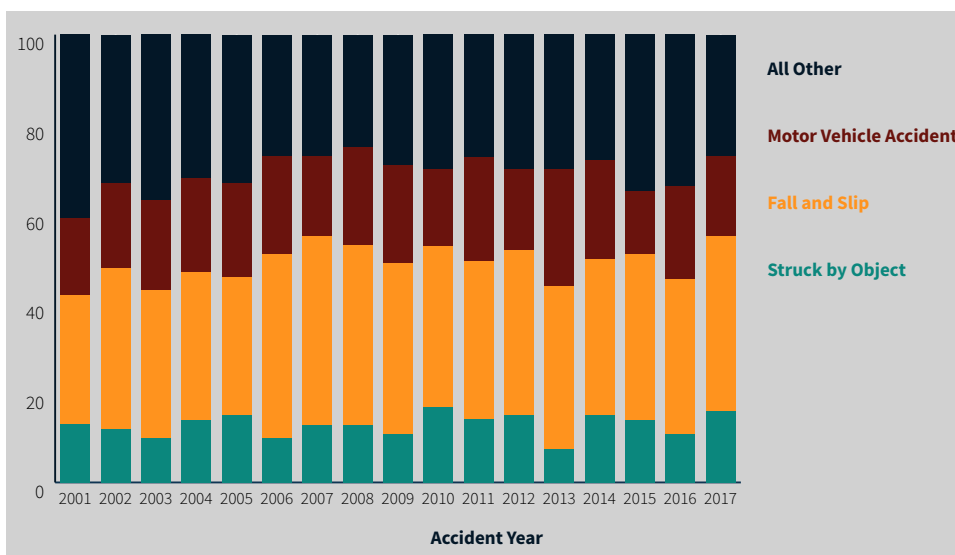


Chart 10 shows the distribution of the estimated ultimate number of claims in excess of \$3 million by cause of injury group for each of the 2001 through 2017 accident years. As shown in Chart 10, shares of mega claims by cause of injury group have been relatively consistent over time.

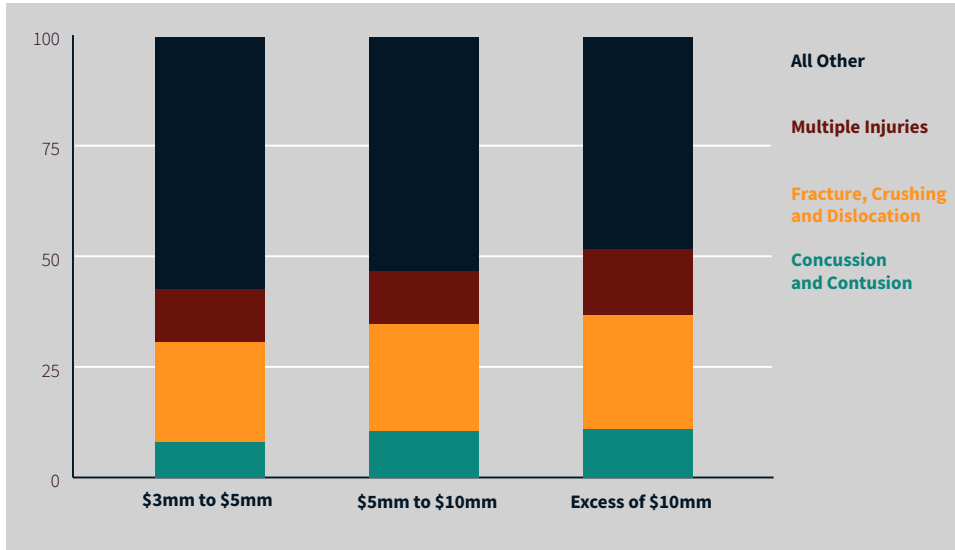
Chart 10: Shares of Ultimate Claims in Excess of \$3 Million by Cause of Injury and Accident Year



Nature of Injury

Reported mega claims by incurred loss interval were segregated into the following nature of injury categories: concussion/contusion, fracture/crushing/dislocation, multiple injuries and all other injuries. The largest categories within the all other injury grouping are amputation/severance, burn/electrical shock, cumulative injury and strain/sprain. Chart 11 shows the segregation of mega claims reported as of the most current valuation of each accident year included in the study into nature of injury groups for claims with incurred value of \$3 million to \$5 million, \$5 million to \$10 million and in excess of \$10 million. The fracture/crushing/dislocation and the all other nature of injury groupings are the two largest nature of injury groupings for mega claims. Sprains and strains, which are included in the all other category, comprise 10% of mega claims between \$3 million and \$5 million, but only 3% of those over \$10 million.

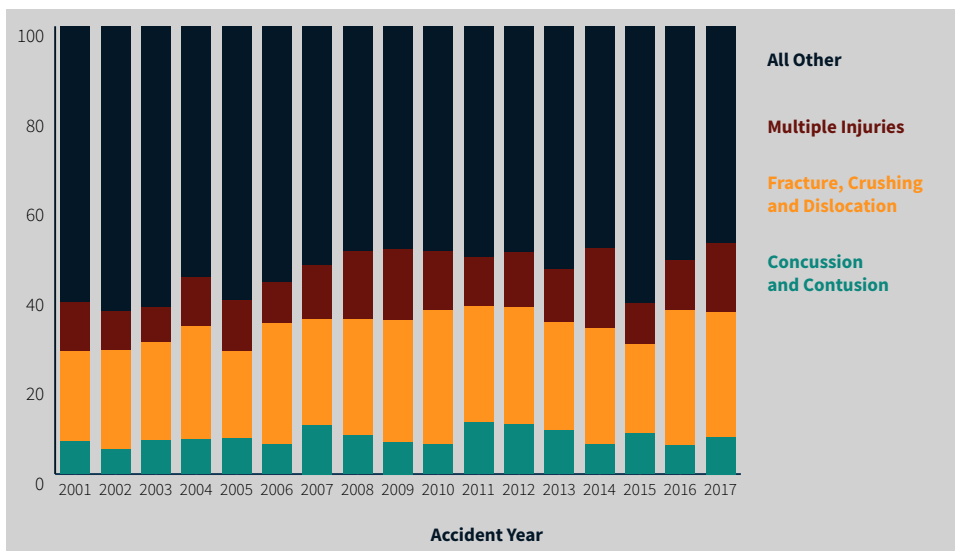
Chart 11: Shares of Mega Claims by Nature of Injury



Burn/electrical shock mega claims have become more common. This increase may be attributable to advances in medical treatment and improved mortality of patients with serious burns.

Chart 12 shows the distribution of the estimated ultimate number of claims in excess of \$3 million by nature of injury group for each of the 2001 through 2017 accident years. Although still a relatively small share of all mega claims, 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.

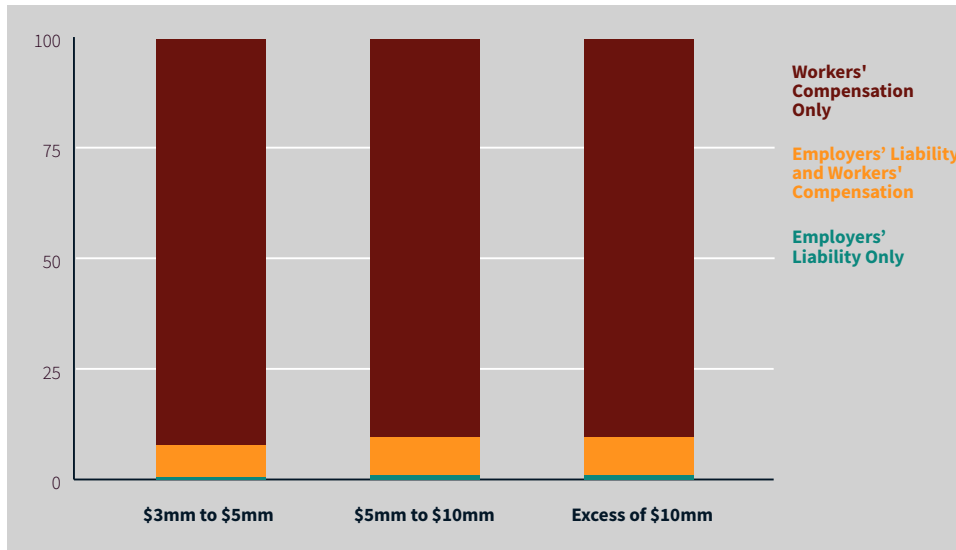
Chart 12: Shares of Ultimate Claims in Excess of \$3 Million by Nature of Injury and Accident Year



Employers' Liability Claims

Chart 13 shows the percentage of mega claims that involve employers' liability segregated between those that only involve employers' liability and those that involve both workers' compensation and employers' liability for claims with incurred value of \$3 million to \$5 million, \$5 million to \$10 million and in excess of \$10 million. Approximately 10% of all mega claims involve employers' liability, the majority of which, particularly at the higher amounts, arise in New York. (See the discussion of New York's mega claims in Section D, State Mega Claim Characteristics.)

Chart 13: Shares of Mega Claims by Type of Coverage



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

C. Recognition of Mega Claims

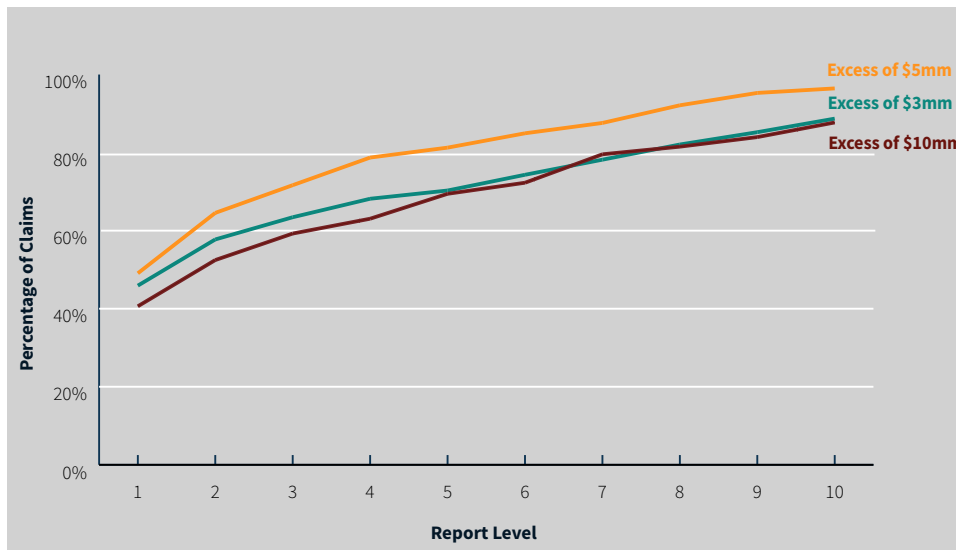
Overall Patterns

Many large or catastrophic claims are recognized as very large claims very quickly after they occur. Others are recognized later in the claims process, perhaps following a failed surgery or other adverse medical events. Many insurers are now using analytical models to identify and triage claims with high cost potential early in the process. Possibly as a result of greater use of these analytic models, mega claims are being recognized as such earlier in the claims process.

Chart 14 shows the proportion of mega claims reported with an incurred loss estimate at or above the particular threshold at each unit statistical report level.¹⁰ It can take several years before a claim pierces the \$3 million threshold. Less than one-half of claims \$3 million or more in total incurred reach that incurred loss threshold by first report level, or 18 months, from policy inception, and less than 90% reach that threshold by 10th report level, or 126 months, from policy inception. As shown on Chart 14, claims in excess of \$10 million generally reach that threshold slower than do other mega claims, although in recent years these very large claims reach that threshold at about the same rate as claims in excess of \$3 million. However, claims in excess of \$5 million in incurred losses reach that threshold more quickly than either smaller or larger mega claims reach thresholds of \$3 million or \$10 million, respectively. While we do not have the definitive explanation for this phenomenon, it is possible that claims in excess of \$5 million are generally severe enough initially that they are reserved at these high levels quickly as compared to smaller mega claims for which high cost levels are more frequently driven by medical or other developments that occur later in the life of a claim.

Less than one-half of all claims \$3 million or more in total incurred reach that incurred loss threshold by 18 months, from policy inception, and less than 90% reach that threshold by 126 months, from policy inception.

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



¹⁰ Unit statistical reports are submitted at annual intervals for up to 10 years with the first annual report submitted with losses valued at 18 months from policy inception and the 10th and final at 126 months from policy inception.

Chart 15 shows the five-year moving average¹¹ of mega claim count development from first report level to second report level. As shown, there has been steady significant acceleration in the recognition of these claims. In the early part of the 2000s, the typical growth in claims in excess of \$3 million from first to second report level was about 30% or more. For the latest five years, the average growth rate for this same period was less than 20%.

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

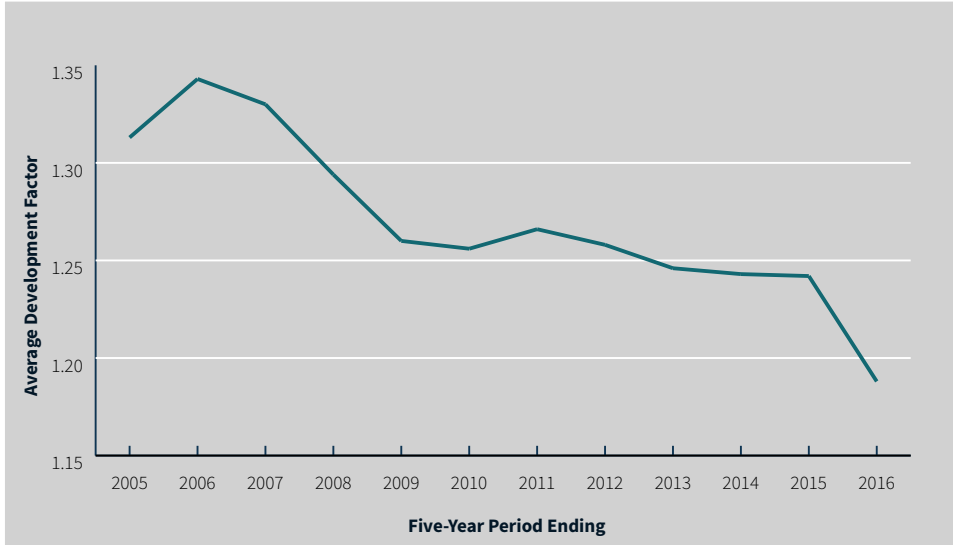
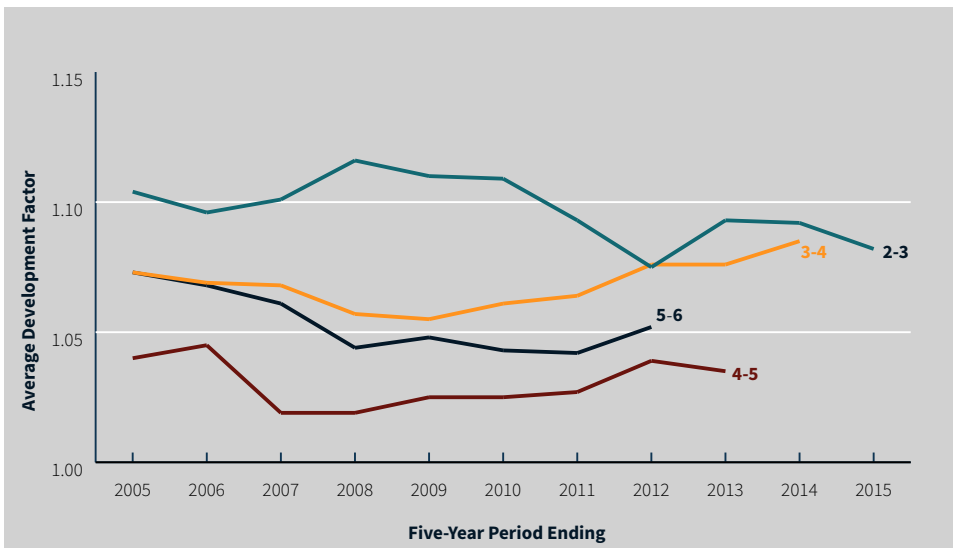


Chart 16 shows the five-year moving average mega claim count development rate for the mid-term period from second report level, or 30 months from policy inception, through sixth report level, or 78 months from policy inception, in annual intervals. As shown, there was acceleration in the rate claims were recognized at third report level from in excess of 10% growth for most periods through 2010 to about 8% more recently. However, for the other development periods shown in Chart 16, the claim count development or growth from report level to report level has been relatively consistent over the study period.

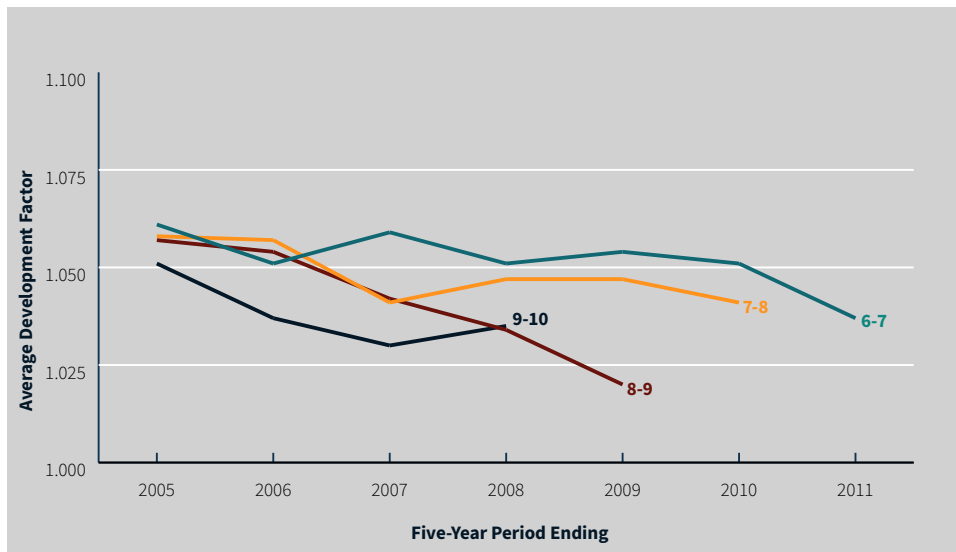
Chart 16: 5-Year Moving Average Mid-Term Development Factors over Time



¹¹ Due to the volatility involved in claim count development with the relatively small numbers of mega claims, five-year moving averages were used to measure whether recognition patterns were changing.

Chart 17 shows the five-year moving average mega claim count development for the late-term period from sixth report level, or 78 months from policy inception, through 10th report level, or 126 months from policy inception, in annual intervals. As shown, at each annual interval, there generally was acceleration in the rate claims were being recognized over time.

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

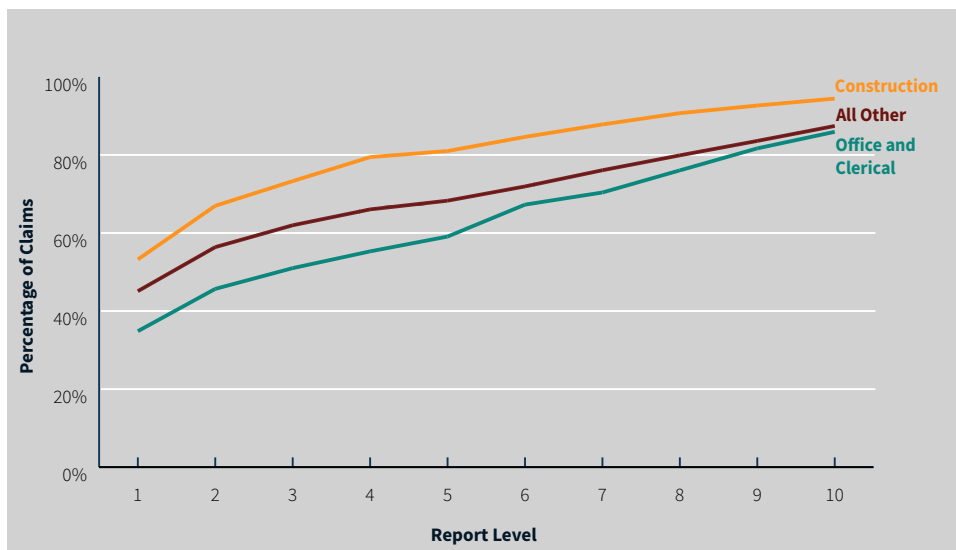


By fourth report level...80% of construction mega claims reach the \$3 million threshold while only 55% of office and clerical mega claims reach that threshold.

Recognition Patterns by Mega Claim Characteristic

Chart 18 shows the proportion of mega claims at particular report levels relative to the estimated ultimate number of mega claims by broad industry sector. Development or recognition patterns of mega claims differ by industry. Mega claims in the construction sector reach the \$3 million threshold much quicker than mega claims in other sectors reviewed. For example, by fourth report level, or 54 months from policy inception, 80% of construction mega claims reach the \$3 million threshold while only 55% of office and clerical mega claims reach that threshold. Even by 10th report level, or 126 months from policy inception, while 94% of construction sector claims have reached the \$3 million threshold, only about 85% of office and clerical sector claims have reached that threshold. The relative hazardousness of the construction industry may explain the higher share of mega claims that reach the \$3 million threshold at an earlier point in time.

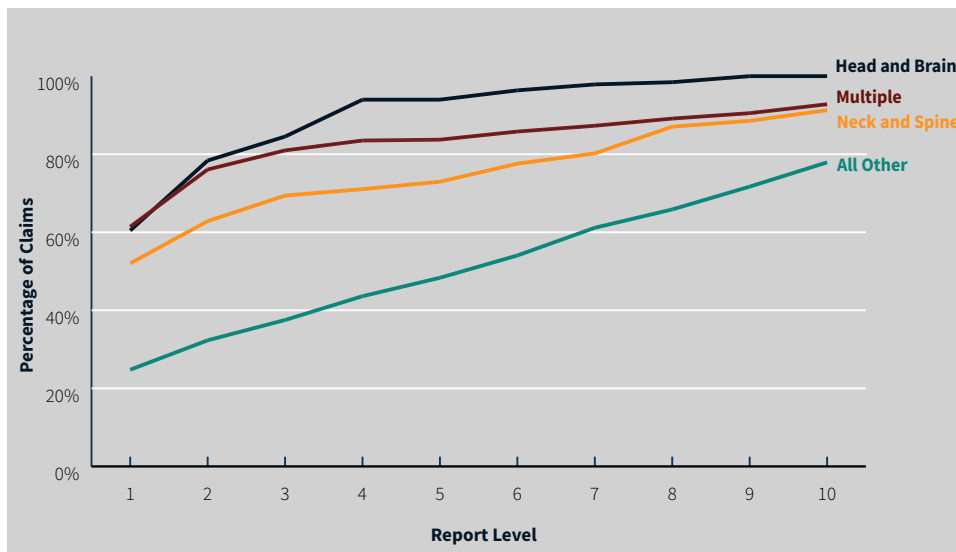
Chart 18: Mega Claims Reported as a % of Ultimate by Industry



Charts 19, 20 and 21 show the proportion of mega claims reported at each unit statistical report level as a percentage of estimated ultimate mega claims by categories of part of body, cause of injury and nature of injury, respectively. Not surprisingly, as shown on Chart 19, mega claims involving the head/brain and multiple body parts reach the \$3 million threshold much more quickly than those of other body parts. For example, approximately 94% of head/brain mega claims reach the \$3 million threshold by fourth report level, compared to only about 43% of the all other body parts category.

As shown on Chart 20, mega claims reach the \$3 million threshold more quickly on claims arising from motor vehicle accidents, slips and falls and being struck by objects than by all other causes. Similarly, as shown on Chart 21, mega claims reach the \$3 million threshold faster on multiple nature of injuries and concussions and contusions than on all other nature of injuries.

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



Approximately 94% of head/brain mega claims reach the \$3 million threshold by 54 months from policy inception, compared to only about 43% of the all other body part category.

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

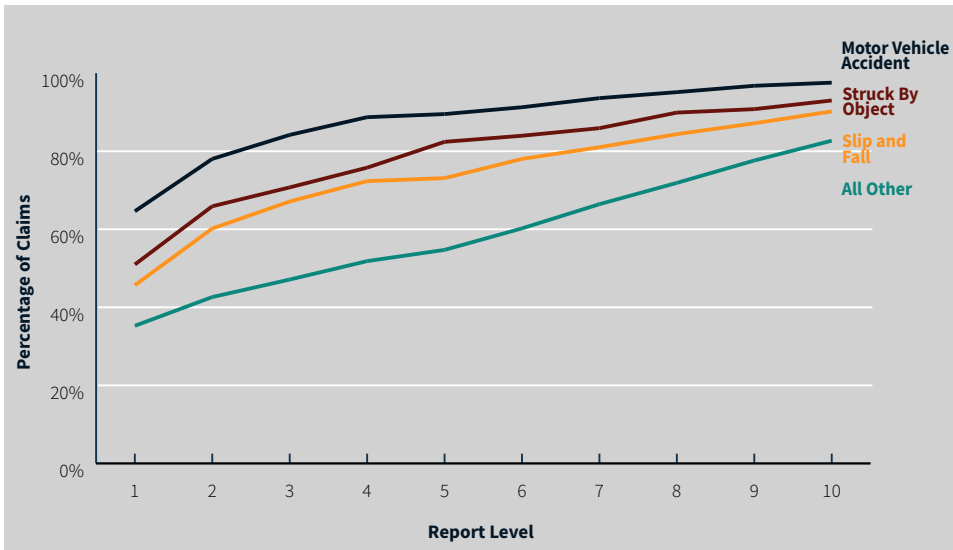
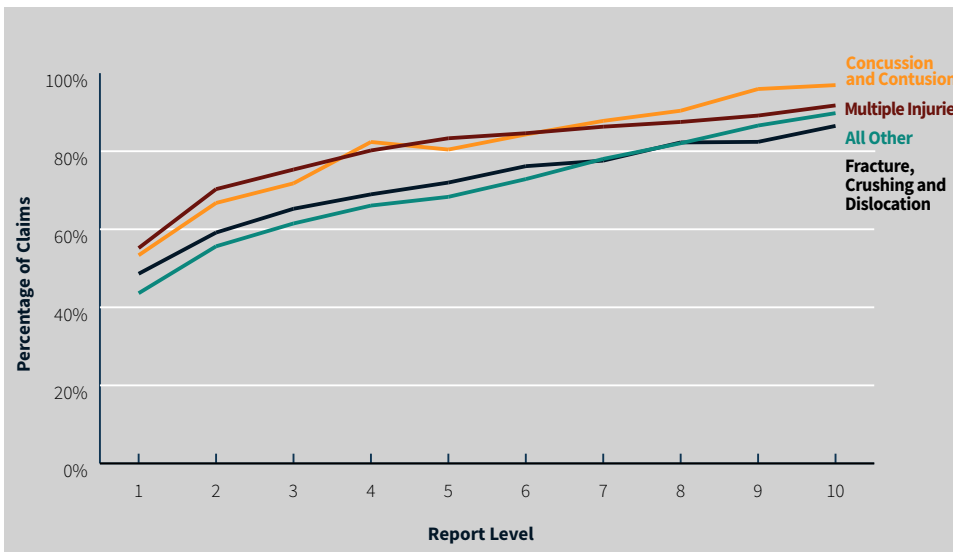


Chart 21: Mega Claims Reported as a % of Ultimate by Nature of Injury

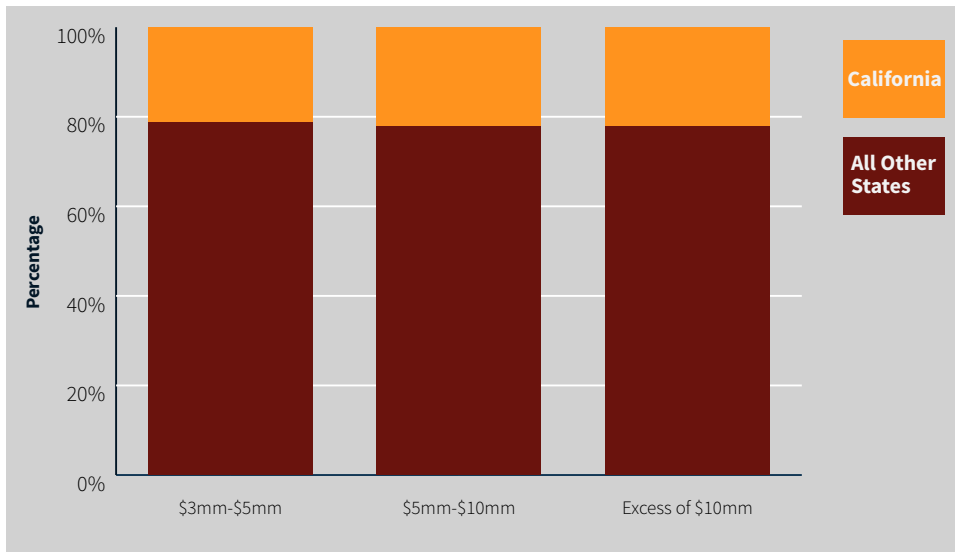


D. State Mega Claim Characteristics

California

Mega claims in California are modestly more common than in most other states. California mega claims comprise 21% of the mega claims in the study but in total California indemnity claims comprise 19% of all indemnity claims in the study. Chart 22 compares the distribution of mega claims by size interval in California compared to the average of the remaining study states based on the mega claims reported as December 31, 2018. As shown on Chart 22, California's share of countrywide mega claims is consistent by mega claim size interval.

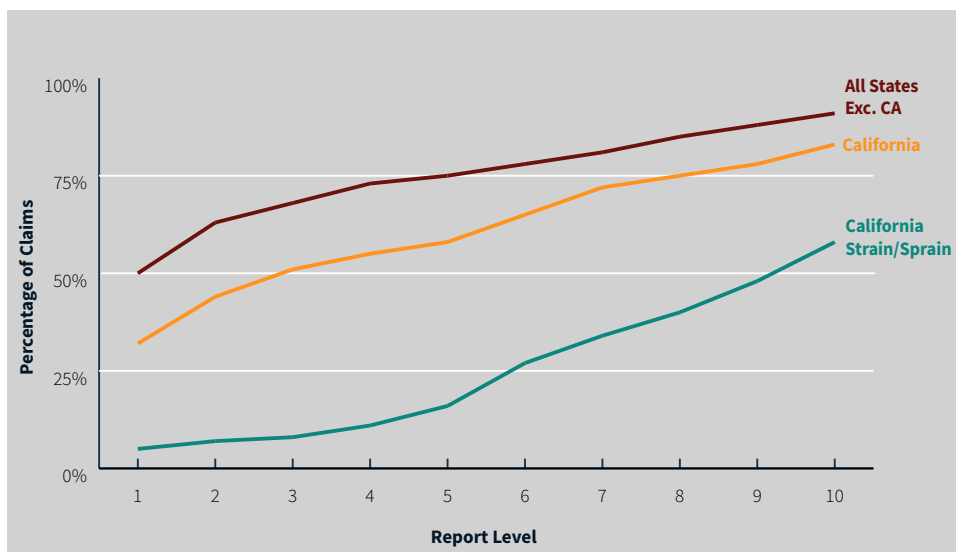
Chart 22: Distribution of Mega Claims in California vs. Other States



California mega claims are generally recognized slower than in other states. Chart 23 compares the proportion of mega claims reported with an incurred loss estimate at or above \$3 million at particular report levels for California compared to the countrywide totals shown in Chart 1 as well as to strains and sprains in California. Some of the difference between California and the rest of the country is likely due to the prevalence of strain and sprain mega claims in California. California strain and sprain mega claims comprise a disproportionate share of countrywide sprain and strain mega claims and as shown in Chart 23 reach the \$3 million threshold much slower than other California mega claims. For example, less than 20% of California strain and sprain mega claims reach the \$3 million threshold by fifth report level, or 66 months from policy inception.

Beginning in 2013, mega claim count development from first to second report level in California began to drop sharply and is now comparable to the average of other study states.

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



For the early years included in the study, California mega claims reached the \$3 million threshold much slower than mega claims in other states. In recent years, patterns in California are similar to the average of the remaining states.

For the early years included in the study, California mega claims reached the \$3 million threshold much slower than mega claims in other states. Over time, these differences have decreased, and in recent years, patterns in California are similar to the average of the remaining study states.

Chart 24 compares the five-year moving average of mega claim count development from first report to second report level for California to other study states. Through 2012, there was a sharp difference in mega claim development between California and the average of the other study states. California’s Senate Bill No. 863, which began to be implemented in 2013, and other system reforms sharply reduced medical cost levels and claim duration in California. Beginning in 2013, mega claim count development from first to second report level in California began to drop sharply and is now comparable to the average of the other study states.

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

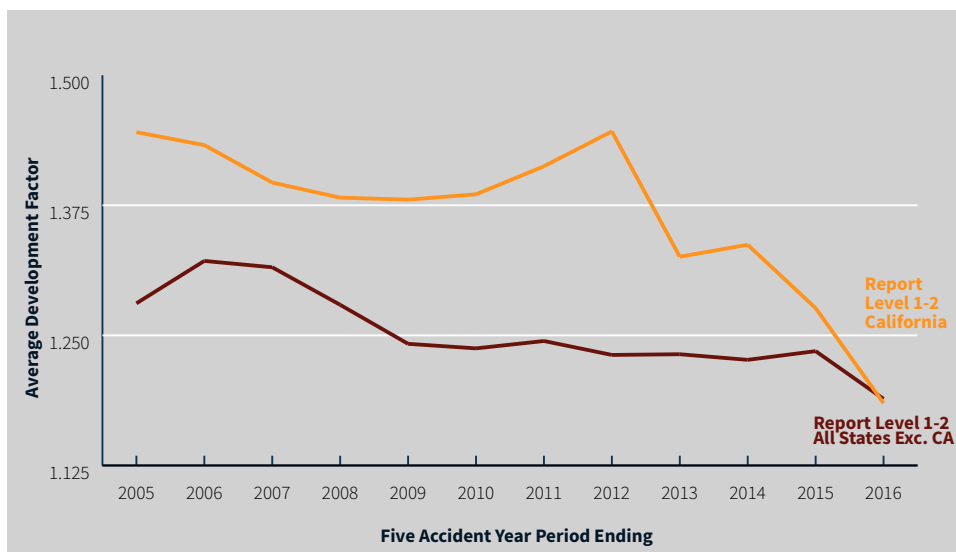


Chart 25 compares the calendar year impact of the five-year moving average mega claim count development rate for the mid-term development period in the study from second report level, or 30 months from policy inception, through sixth report level, or 78 months from policy inception, for California to other states. Chart 26 shows similar information for the late-term period from sixth report level through 10th report level, or 126 months from policy inception. As with mega claim count development from first report to second report shown in Chart 24, for earlier years, development was consistently higher in California than in other states, while recently the difference has narrowed significantly.

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

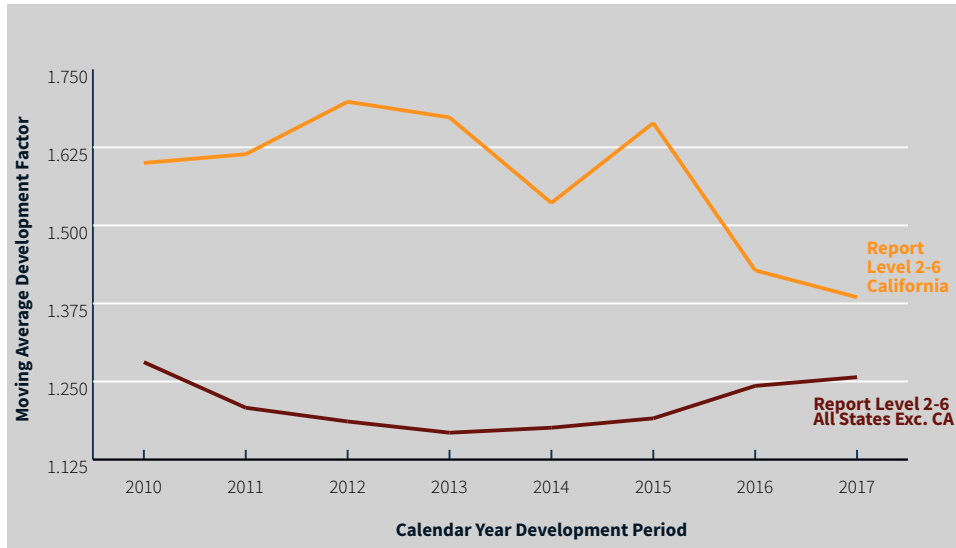
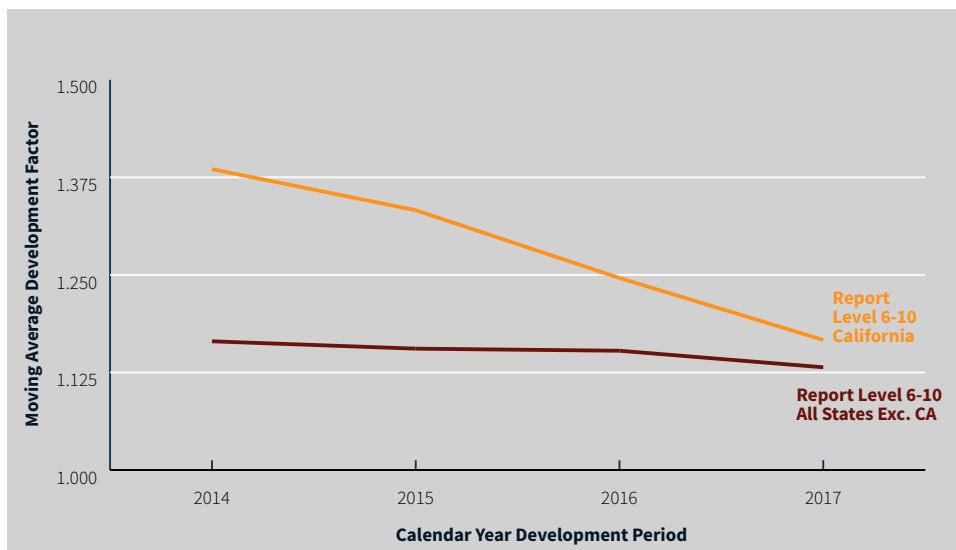


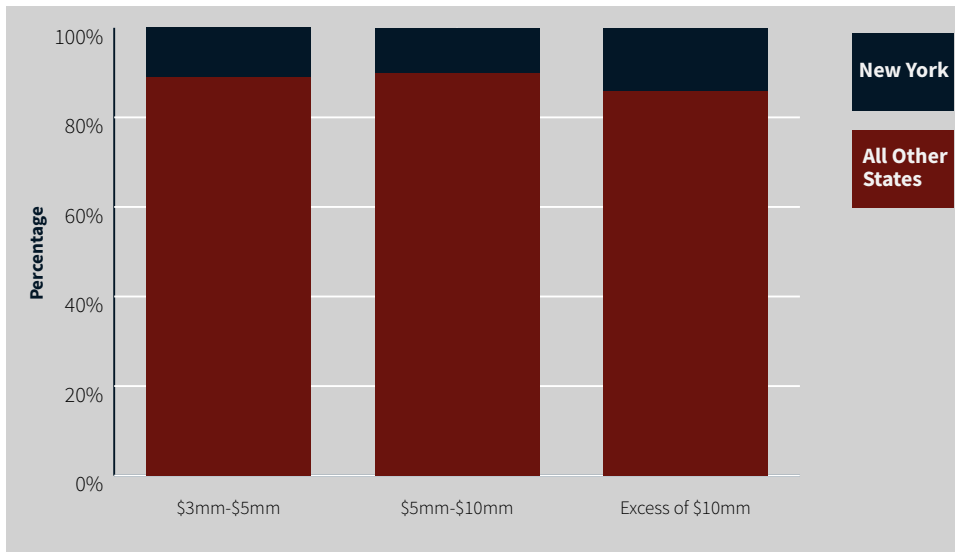
Chart 26: Comparison of 5-Year Moving Average Late-Term Development Factors for California vs. Other States



New York

New York mega claims represent 11% of the mega claims in this study. This share is generally similar or slightly higher than New York’s overall premium market share among the study states during the study period, although both the premium market share and share of mega claims can fluctuate over time. However, New York’s total lost time claims represent between 6% and 8% of all lost time claims over the study period, which is lower than its premium market share. This result is due to the larger than average severity of New York claims, when compared to most other jurisdictions in the study. Further, there is evidence that New York claims above \$10 million make up a slightly larger market share than relative market size would indicate, especially in pre-2007 reform years. Chart 27 compares the distribution of mega claims by size interval in New York compared to the rest of the other states in the study based on the mega claims reported since accident year 2001, as of December 31, 2018.

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



The reduction in the incidence rate of New York mega claims over the past decade may be due to recent efforts to reduce opioids, the implementation of medical treatment guidelines, and ever increasing efforts to improve safety. New York’s share of lost time claims may have increased due to increases in the maximum weekly indemnity benefits after 2007. Chart 28 shows these shares and changes in table format.

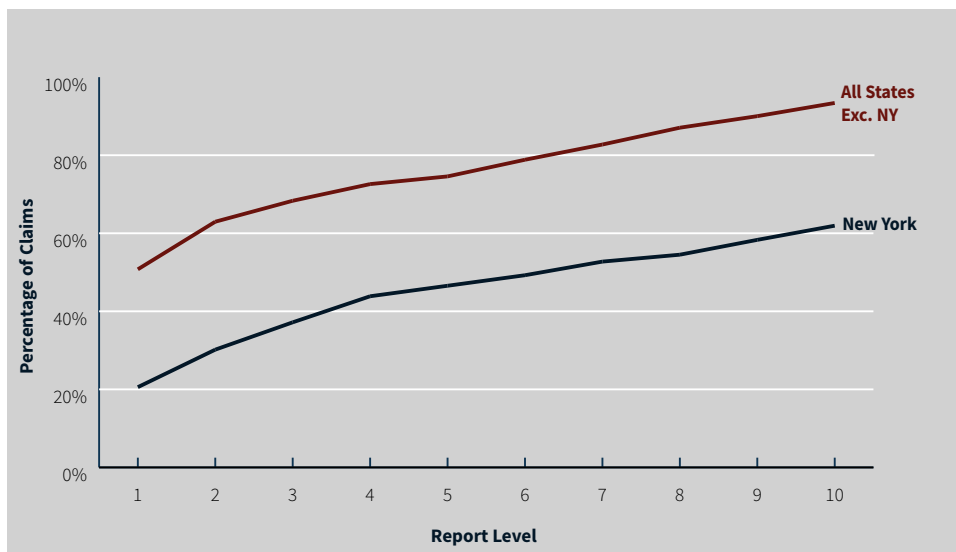
Chart 28: Impact of 2007 Reforms on New York Mega Claims

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%

The reduction in the incidence rate of New York mega claims over the last decade may be due to efforts to reduce opioids, the implementation of medical treatment guidelines and increasing efforts to improve safety.

New York mega claims have been historically recognized at a slower rate than in other states. Chart 29 compares the proportion of mega claims reported with an incurred loss estimate at or above \$3 million at different report levels for New York compared to the countrywide totals shown in Chart 14, excluding New York.

Chart 29: New York Development Patterns vs. Other States



The data in the above analysis is heavily reliant on data preceding the 2007 reform data. Because mega claims are in general slow to emerge, and even slower to emerge in New York, data from post reform years may be too immature to draw meaningful conclusions on the impact the New York reforms may have had on claim count development patterns going forward.

Strain and sprain injuries in New York have shown slower emergence patterns into higher layers, as seen in the [2019 Large Claims Study](#) of claims that reach \$250,000 in size. An examination of New York mega claims from accident years 2003 to 2008 shows that the sprain and strain injuries are often not recognized as mega claims in the first 3 USR report levels and represent a larger share of mega claims reported in later periods. These claims are typically on the low end of the range of mega claims and appear less likely to reach the \$10 million level. Chart 30 displays the average number of mega claims by report period in New York along with the percentage of mega claims reported in respective categories over time and the share of strain and sprain injuries out of total new mega claims reported in the period.

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

Average Number of New York Mega Claims Reported per Period per Year				
Unit Report Period	1-3	4-6	7-9	10
Strain and Sprain Mega Claims	0.7	2.3	3.7	4.5
All Mega Claims > \$3mm	17.0	26.3	29.9	32.3
% Strain and Sprain Reported	16.0%	51.9%	81.5%	100.0%
% of All Reported Claims	52.6%	81.3%	92.4%	100.0%
Strain and Sprain % of Reported in Period	4.2%	17%	37%	34%

Note: uses reported claims only.

Strain and sprain injuries are often not recognized as mega claims in the first three report levels. These claims are typically at the low end of the range of mega claims.

New York mega claims involving employers' liability may contribute to the slightly higher share of New York mega claims above \$10 million. In New York, there is no limit of liability for employers' liability claims. This impacts the New York share of mega claims that have an employers' liability component when compared to all other states in this study. Workers' compensation claims that involve employers' liability account for about 10% of all mega claims. New York generally generates more than 50% of the mega claims with employers' liability in excess of \$3 million and more than 70% of the mega claims with employers' liability in excess of \$10 million. Chart 31 shows the proportion of employers' liability claims in the study data reported in excess of \$3 million, \$5 million and \$10 million. Chart 32 shows the proportion of New York's share of these reported claims reported in excess of \$3 million, \$5 million and \$10 million.

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

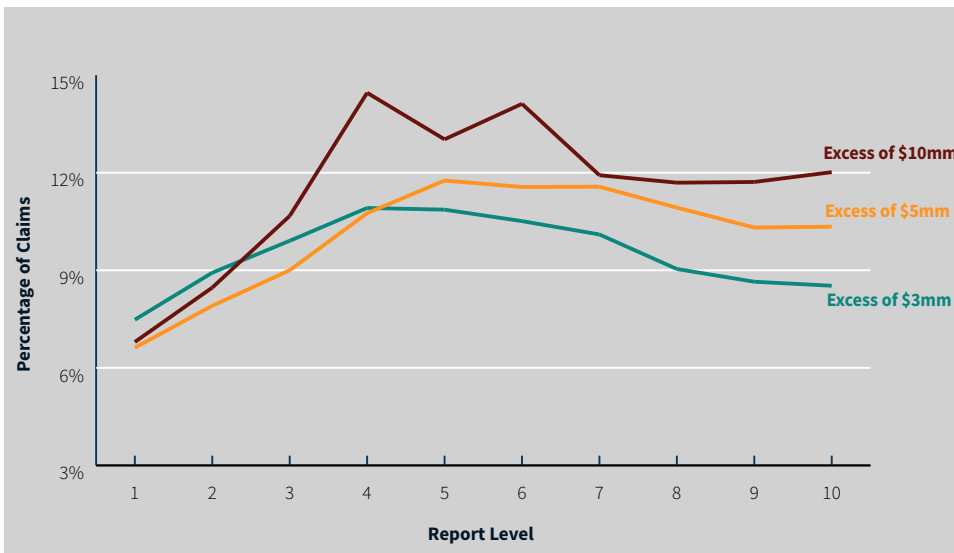
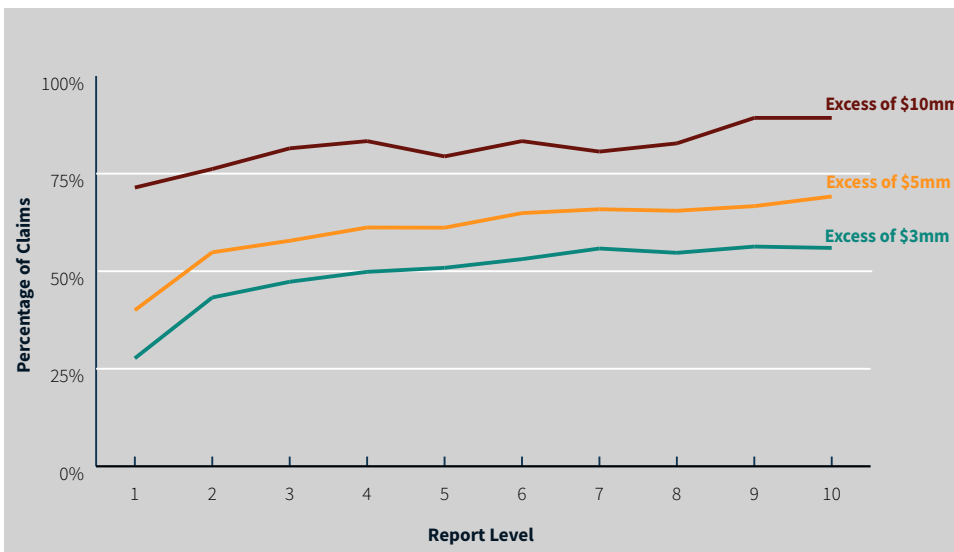


Chart 32: New York's Share of Employers' Liability Claims by Report Level and Size



VI. CONCLUSIONS

Mega claims (claims with reported incurred losses in excess of \$3 million at 2018 cost levels) comprise a relatively small percentage (0.04%) of all indemnity claims in workers' compensation, but add \$1 billion to \$2 billion in losses every year. After declining during the Great Recession with the sharp drop in construction employment, the share of mega claims has increased steadily since 2013. The share of mega claims for the latest two accident years (accident year 2016 and accident year 2017) are near an all-time high level for the study period. However, these estimated shares for 2016 and 2017 can be volatile and are heavily reliant on claim count development factors. Development has decreased over time. If development continues to decrease, these shares for 2016 and 2017 may ultimately be lower.

Mega claims disproportionately arise from the construction industry and involve slips and falls and motor vehicle accidents. Claims in excess of \$10 million disproportionately arise from head and brain or neck and spine injuries.

Mega claims are often not recognized as such for some time. Less than one-half of claims with \$3 million or more in total incurred losses reach that threshold by 18 months from policy inception, and less than 90% reach that threshold by 126 months from policy inception. In general, claims such as those in the construction industry resulting from motor vehicle injuries or involving head or brain injuries are recognized quickly. In contrast, claims such as those in the professional and clerical sectors, involving strains and sprains, and those in the all other categories emerge more slowly.

There has been a steady acceleration in recognition of mega claims, particularly at relatively early and late maturity levels. A contributing factor may be insurers' use of analytical tools that aid in quickly identifying claims with potential to develop adversely, particularly those where the seriousness of the injury cannot be known immediately.

Mega claims arising from the construction sector are recognized significantly more quickly than those arising from the office/clerical sector. Similarly, mega claims arising from motor vehicle accidents, struck by objects and head and brain injuries are recognized more quickly than mega claims arising from other causes.

VII. CONDITIONS AND LIMITATIONS

The data collected that forms the basis of this study was compiled and adjusted to a current cost by the rating bureau providing ratemaking services for each state. While data sources and on-leveling and trending methodologies are generally similar across jurisdictions, they are not always identical and results could differ somewhat based on the methodology used and which adjustments were applied.

The incurred loss information for each jurisdiction was adjusted to the 2018 cost level. However, no attempt was made to adjust for differences in benefit levels or medical fee schedule levels across jurisdictions. For the details of the on-leveling process used for each jurisdiction, contact the rating bureau providing services in that jurisdiction.

Mega claim counts were developed to an ultimate level based on historical claim development patterns and standard actuarial techniques. For some of the groupings for which the volume of data was not sufficient for claim development projections, the development patterns of larger groupings were used.

The “countrywide” data included in this study did not include claims from Massachusetts, North Dakota, Ohio, Washington, Wisconsin and Wyoming. Similarly, only the experience of insured employers was reflected and no experience of self-insured employers was included. We made no attempt to validate the applicability of the results for states not included in the study or for the experience of self-insured employers.

The distribution of claims by state reflected in the study has changed over time due to changes in the relative size of state workers’ compensation systems as well as changes in state level claims costs

The loss information reflected in this study included only case incurred indemnity and medical losses. No loss adjustment expense experience is reflected.

The claim information in this report pre-dates the COVID-19 pandemic. No attempt was made to evaluate the impact of the pandemic on mega claim patterns.

The data in this report reflects information on claims submitted by insurers to each participating rating bureau. While the individual insurer data submissions are regularly checked for consistency and comparability with other data submitted by the insurer as well as with data submitted by other insurers, the source information underlying each insurer’s data submission was relied upon by the participating rating bureaus.

XI. APPENDIX

The triangles below represent reported claim counts exceeding the listed threshold when adjusted to a current cost level basis relying on the methodology used by the reporting rating bureau. Claims are included only for states that collect 10 annual evaluations. States may be included in the triangles for some years and not for others based on the availability of the data. The distribution of claims by state reflected in the study has changed over time due to changes in the relative size of state workers' compensation systems as well as changes in state level claims costs.

Total

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	131	150	180	198	196	210	237	253	270	284
2002	136	180	193	209	233	244	246	273	287	302
2003	145	193	198	223	231	252	270	280	299	313
2004	131	186	211	222	227	244	262	271	285	299
2005	146	196	217	220	228	246	254	265	278	294
2006	142	185	211	227	231	242	259	275	288	282
2007	158	200	220	237	234	237	248	255	252	256
2008	155	180	198	211	218	219	226	242	249	268
2009	107	131	144	149	159	177	195	201	196	
2010	102	138	152	157	164	174	174	174		
2011	114	156	166	182	186	194	195			
2012	115	141	142	164	170	180				
2013	131	143	171	182	184					
2014	148	180	197	213						
2015	142	187	197							
2016	181	201								
2017	184									

Accident Year	Claim Counts Having Incurred in Excess of \$5 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	44	54	63	70	71	70	79	84	90	92
2002	65	84	95	93	99	109	107	116	123	118
2003	59	88	85	98	97	100	110	115	117	124
2004	45	76	85	98	102	102	99	110	110	112
2005	63	85	98	104	107	113	112	119	122	127
2006	54	80	85	92	96	101	107	109	115	117
2007	75	88	97	106	106	117	123	119	121	121
2008	64	78	82	89	92	95	99	104	109	107
2009	40	56	59	64	67	71	79	83	85	
2010	32	54	64	68	69	75	72	79		
2011	54	78	88	99	102	105	104			
2012	46	57	63	69	76	75				
2013	61	70	81	95	98					
2014	61	70	89	101						
2015	55	73	77							
2016	76	85								
2017	89									

Accident Year	Claim Counts Having Incurred in Excess of \$10 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	8	10	10	9	16	17	20	20	25	28
2002	15	19	24	24	29	28	33	33	35	35
2003	20	27	26	31	34	35	38	38	40	38
2004	10	14	17	24	26	25	26	25	28	30
2005	9	10	18	18	19	20	23	25	23	25
2006	10	20	26	24	23	20	20	21	20	20
2007	20	26	25	21	21	27	26	28	27	29
2008	14	10	12	14	16	21	23	28	26	29
2009	10	12	12	12	12	12	15	15	16	
2010	8	10	14	16	18	21	20	17		
2011	11	17	17	16	13	12	18			
2012	6	6	11	12	18	17				
2013	5	10	9	16	16					
2014	12	13	13	12						
2015	13	20	19							
2016	21	24								
2017	14									

Industry

OFFICE AND CLERICAL

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	14	17	19	23	25	27	28	26	30	34
2002	9	13	14	18	23	26	26	32	38	39
2003	12	14	13	14	19	24	23	25	29	28
2004	6	15	16	16	16	17	20	21	22	26
2005	12	14	16	18	17	19	21	22	26	27
2006	7	15	17	21	18	20	21	21	20	20
2007	9	12	14	14	14	16	14	16	15	14
2008	12	16	18	19	22	26	25	30	32	35
2009	7	11	13	13	16	17	21	23	20	
2010	7	10	11	10	9	10	12	12		
2011	10	14	13	12	13	14	15			
2012	4	3	2	3	3	6				
2013	12	14	21	23	23					
2014	15	14	15	15						
2015	7	7	9							
2016	8	9								
2017	15									

CONSTRUCTION

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	56	65	79	89	87	89	96	98	98	102
2002	61	79	79	84	88	89	93	101	104	104
2003	57	82	79	95	98	96	102	106	114	117
2004	62	83	94	97	96	99	101	102	107	112
2005	68	92	99	96	104	117	119	121	118	121
2006	66	89	94	101	101	108	110	116	121	120
2007	71	92	98	100	100	101	107	107	111	111
2008	62	71	84	92	92	94	99	108	110	113
2009	40	47	51	56	57	64	70	72	68	
2010	32	46	57	67	70	75	74	72		
2011	44	51	61	70	71	76	75			
2012	46	53	55	62	64	66				
2013	44	51	60	65	67					
2014	61	75	82	88						
2015	61	82	86							
2016	75	82								
2017	81									

ALL OTHER INDUSTRIES

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	61	68	82	86	83	91	108	122	137	142
2002	66	88	100	107	122	129	127	138	144	155
2003	76	97	106	114	114	132	145	145	150	161
2004	63	88	101	109	115	128	140	146	154	158
2005	66	90	102	106	107	110	112	120	133	140
2006	69	81	100	105	112	114	128	137	144	139
2007	78	96	108	123	120	120	127	132	126	131
2008	81	93	96	100	104	99	98	100	103	115
2009	60	73	80	80	86	96	104	106	108	
2010	63	82	84	80	85	89	88	90		
2011	60	91	92	100	102	104	105			
2012	65	85	85	99	103	108				
2013	75	78	90	94	94					
2014	72	91	100	110						
2015	74	98	102							
2016	98	110								
2017	88									

Part of Body

HEAD AND BRAIN

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	25	27	30	37	32	30	30	31	35	38
2002	24	35	36	43	46	46	47	47	48	47
2003	35	42	42	45	45	54	59	57	60	58
2004	28	44	53	59	61	63	66	67	70	70
2005	35	48	49	53	54	55	56	59	61	60
2006	25	40	46	53	53	55	56	60	64	61
2007	37	57	62	70	67	65	65	63	63	62
2008	31	39	42	45	46	49	49	53	51	50
2009	32	33	39	39	40	42	44	39	38	
2010	32	48	47	48	50	50	48	47		
2011	33	52	54	62	62	61	59			
2012	24	26	28	35	35	36				
2013	38	38	42	45	43					
2014	34	37	47	52						
2015	40	58	56							
2016	43	45								
2017	38									

NECK AND SPINE

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	25	23	27	22	25	29	37	39	38	40
2002	43	45	47	49	54	60	60	71	72	70
2003	38	52	48	48	49	57	56	61	67	67
2004	31	43	46	48	48	49	50	51	54	66
2005	25	35	43	46	46	48	45	48	50	52
2006	42	54	63	64	67	66	72	78	79	79
2007	41	54	62	61	57	56	61	59	59	56
2008	43	49	53	56	58	56	58	66	67	71
2009	27	36	39	37	44	47	48	53	49	
2010	20	27	33	37	33	39	40	46		
2011	35	40	44	47	47	52	51			
2012	35	37	35	37	40	45				
2013	33	35	45	47	47					
2014	33	41	43	44						
2015	24	35	41							
2016	43	44								
2017	39									

MULTIPLE

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	53	75	86	91	94	95	96	99	96	96
2002	50	73	83	84	86	86	86	88	88	90
2003	47	58	65	77	77	80	81	81	80	83
2004	46	62	69	63	64	64	67	72	73	74
2005	56	69	72	69	69	64	66	68	73	73
2006	46	50	51	54	50	55	52	54	56	55
2007	49	52	53	57	57	56	58	60	59	62
2008	54	62	67	65	63	62	62	63	70	77
2009	30	42	42	44	45	52	54	56	56	
2010	26	32	33	35	36	39	44	39		
2011	33	38	40	38	36	39	38			
2012	34	45	42	46	47	50				
2013	30	36	40	43	44					
2014	44	52	57	59						
2015	37	47	44							
2016	52	58								
2017	49									

ALL OTHER

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	27	24	35	46	42	51	67	75	94	102
2002	18	26	25	31	45	50	51	63	76	89
2003	25	41	43	53	59	60	73	76	85	97
2004	26	37	43	52	54	67	77	78	85	85
2005	26	39	44	44	53	71	76	81	85	96
2006	26	36	47	52	57	62	75	77	82	80
2007	31	37	43	49	52	60	64	73	71	76
2008	24	28	34	43	49	49	51	55	56	64
2009	18	20	24	29	30	36	49	53	53	
2010	24	31	38	37	45	46	42	42		
2011	13	26	28	35	41	42	47			
2012	22	33	37	46	48	49				
2013	30	34	44	47	50					
2014	37	50	50	58						
2015	41	47	56							
2016	43	53								
2017	58									

Cause

SLIP AND FALL

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	33	43	51	57	55	60	68	75	79	81
2002	53	70	75	83	86	85	90	97	105	107
2003	47	66	65	79	79	78	87	90	95	101
2004	41	63	73	72	69	77	84	84	90	97
2005	46	62	72	69	68	76	74	79	85	89
2006	59	79	84	97	99	106	107	110	114	112
2007	65	83	89	99	91	96	100	104	104	107
2008	54	69	75	79	84	91	91	100	100	105
2009	40	47	54	57	63	73	79	81	75	
2010	30	51	58	60	66	70	68	63		
2011	38	54	63	66	68	70	68			
2012	44	54	57	65	63	69				
2013	40	52	62	66	68					
2014	47	56	73	76						
2015	54	73	77							
2016	63	72								
2017	70									

MOTOR VEHICLE ACCIDENT

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	42	41	48	48	51	49	50	48	49	52
2002	31	38	41	45	50	55	54	55	58	60
2003	41	54	58	56	53	63	64	67	68	68
2004	39	51	54	57	59	60	65	66	66	67
2005	41	59	58	64	64	61	61	59	62	64
2006	35	46	54	57	59	61	64	68	69	66
2007	38	39	48	50	52	51	56	55	53	51
2008	41	51	54	59	60	56	55	57	60	61
2009	33	43	44	44	47	48	50	50	49	
2010	26	29	30	32	29	30	30	33		
2011	39	51	51	55	52	53	53			
2012	29	34	34	37	37	38				
2013	44	46	59	61	58					
2014	49	57	54	59						
2015	27	33	38							
2016	47	55								
2017	46									

STRUCK BY OBJECT

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	22	25	27	30	29	29	29	31	34	38
2002	22	31	30	29	33	32	31	35	35	38
2003	18	27	28	28	33	32	35	33	32	31
2004	20	30	35	39	44	46	41	44	44	44
2005	18	28	33	33	40	40	41	43	42	42
2006	13	18	24	24	25	26	29	31	31	30
2007	16	23	24	26	29	30	33	34	33	34
2008	23	27	32	32	30	29	30	33	35	36
2009	14	14	15	14	17	19	21	21	22	
2010	19	22	24	27	29	31	33	33		
2011	19	26	26	30	31	32	31			
2012	17	23	22	26	29	30				
2013	14	14	16	17	17					
2014	21	28	28	35						
2015	24	32	31							
2016	24	25								
2017	31									

ALL OTHER

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	33	40	52	61	58	67	83	90	101	105
2002	29	40	45	50	62	70	69	82	86	91
2003	39	46	47	60	66	79	84	86	98	106
2004	31	42	49	54	55	61	71	75	83	88
2005	37	42	45	46	50	61	68	76	81	87
2006	32	37	45	45	44	45	55	60	67	67
2007	39	55	59	62	61	60	59	62	62	64
2008	34	31	35	39	42	40	44	47	49	60
2009	20	27	31	34	32	37	45	49	50	
2010	27	36	40	38	40	43	43	45		
2011	18	25	26	31	35	39	43			
2012	25	30	29	36	41	43				
2013	33	31	34	38	41					
2014	31	39	42	43						
2015	37	49	51							
2016	47	49								
2017	37									

Nature

CONCUSSION AND CONTUSION

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	16	19	17	18	14	14	13	15	19	22
2002	5	14	15	16	15	15	15	19	22	19
2003	15	17	16	22	23	24	24	22	24	26
2004	12	16	16	18	17	19	24	26	25	26
2005	9	18	21	23	22	22	25	24	25	25
2006	9	16	17	17	15	17	17	18	21	21
2007	22	26	27	27	27	29	29	31	30	30
2008	16	18	21	24	23	25	25	26	26	25
2009	7	6	12	13	13	14	16	14	15	
2010	11	10	10	13	14	13	14	13		
2011	9	16	17	23	24	26	25			
2012	14	17	17	21	22	22				
2013	15	15	19	20	20					
2014	13	11	12	17						
2015	15	20	20							
2016	15	15								
2017	17									

FRACTURE, CRUSHING AND DISLOCATION

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	26	31	36	40	43	47	51	49	51	53
2002	37	42	41	44	52	55	54	61	63	65
2003	32	41	48	51	49	59	63	64	63	66
2004	42	55	56	55	58	62	60	65	70	73
2005	31	39	45	48	51	56	54	53	50	54
2006	38	52	52	61	64	61	65	70	73	74
2007	37	46	55	56	51	57	57	58	57	58
2008	28	32	40	40	46	48	51	58	57	65
2009	27	29	35	36	41	43	46	54	49	
2010	28	39	45	47	49	52	49	51		
2011	32	45	44	48	50	48	49			
2012	33	44	44	47	46	47				
2013	36	37	46	44	44					
2014	40	45	48	54						
2015	30	35	40							
2016	55	60								
2017	52									

MULTIPLE INJURIES

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	19	20	26	28	28	27	29	28	30	31
2002	15	21	23	25	27	23	21	21	24	27
2003	15	21	22	22	23	24	22	23	23	25
2004	17	28	28	27	29	32	32	33	32	33
2005	22	30	32	31	31	30	31	32	34	33
2006	25	28	26	28	26	29	28	29	27	26
2007	17	22	25	28	27	27	28	30	30	31
2008	22	29	29	31	35	32	36	37	40	41
2009	19	25	25	24	27	33	34	33	31	
2010	19	20	21	21	22	23	25	24		
2011	16	19	22	23	23	23	23			
2012	13	17	17	23	24	24				
2013	17	19	19	23	25					
2014	22	30	39	43						
2015	16	21	21							
2016	22	27								
2017	33									

ALL OTHER

Accident Year	Claim Counts Having Incurred in Excess of \$3 Million as of Report Level									
	1	2	3	4	5	6	7	8	9	10
2001	69	79	99	110	108	117	137	152	163	170
2002	78	102	112	122	137	149	154	168	175	185
2003	83	114	112	128	136	145	161	167	183	189
2004	60	87	111	122	123	131	145	145	156	164
2005	80	104	110	110	118	130	134	148	161	170
2006	67	84	112	117	122	131	145	152	160	154
2007	82	106	113	126	128	124	134	136	135	137
2008	86	99	106	114	112	111	108	116	121	131
2009	54	71	72	76	78	87	99	100	101	
2010	44	69	76	76	79	86	86	86		
2011	57	76	83	88	89	97	98			
2012	55	63	64	73	78	87				
2013	63	72	87	95	95					
2014	73	94	98	99						
2015	81	111	116							
2016	89	99								
2017	82									

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