AMERICAN PROPERTY CASUALTY INSURANCE ASSOCIATION

# Analysis of the Impact of Removing the Colorado Noneconomic Damage Caps

April 1, 2024

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April 1, 2024

Rhonda A Hurwitz, Esq.
Senior Director, Liability & Counsel
American Property Casualty Insurance Association
555 12th St. NW, Suite 550
Washington, DC 20004

**RE: Analysis of the Impact of Removing the Colorado Noneconomic Damage Caps**

Dear Ms. Hurwitz:

Attached is the final report prepared by Pinnacle Actuarial Resources, Inc. (Pinnacle) regarding the impact of removing the caps on noneconomic damage losses in Colorado.

Roosevelt C. Mosley, Jr., FCAS, MAAA, CSPA, is responsible for the content and conclusions set forth in the report. I am a Fellow of the Casualty Actuarial Society and a member of the American Academy of Actuaries, and am qualified to render the actuarial opinion contained herein.

It has been a pleasure working with you and your team to complete this study. I remain available for any questions or comments you have regarding the report and its conclusions.

Respectfully Submitted,

Roosevelt C. Mosley, Jr.

Roosevelt C. Mosley, Jr., FCAS, MAAA, CSPA
Principal and Consulting Actuary

cc: Radost Wenman, FCAS, MAAA, CSPA – Pinnacle
Michael Chen, FCAS, MAAA, CSPA – Pinnacle

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# American Property & Casualty Insurance Association

## Analysis of the Impact of Removing the Colorado Noneconomic Damage Cap

## PURPOSE & SCOPE

Pinnacle Actuarial Resources, Inc. (Pinnacle) was retained by the American Property and Casualty Insurance Association (APCIA) to prepare an actuarial analysis of the impact of removing the noneconomic damage caps in Colorado. A ballot initiative has been filed in Colorado to remove the noneconomic damage caps applicable to medical malpractice and personal injury cases in Colorado. The current personal injury cap is $729,790, and the medical malpractice cap is $300,000. These caps have been in place since 1986. The caps are adjusted every two years based on the Consumer Price Index (CPI).

APCIA has engaged Pinnacle to complete a study analyzing the impact of the removal of the noneconomic damage caps on insurance company expected claim costs.

This report has been prepared for the internal use of APCIA management to present our findings with respect to this analysis. This report is being provided to APCIA for its use and the use of makers of public policy in evaluating impacts if the noneconomic damage cap is removed. Permission is hereby granted for this distribution on the condition that the entire report, including the exhibits, is distributed rather than any excerpt.

The tables and charts included in support of our conclusions are an integral part of this report. These sections have been prepared so that our actuarial assumptions and judgments are documented. Judgments about the analysis and findings presented in this report should be made only after considering the report in its entirety. Our projections are predicated on a number of assumptions as to future conditions and events. These assumptions are documented in this report, and should be understood in order to place the actuarial estimates in their appropriate context. In addition, these projections are subject to a number of reliances and limitations, as described in this report.

We are available to answer any questions that may arise regarding this report. We assume that the user of this report will seek such explanation on any matter in question.

## DISTRIBUTION

Our report is delivered under the following terms and conditions:

- This report is provided to APCIA solely for the intended purpose. This report is being provided to APCIA for its use and the use of makers of public policy in evaluating impacts if the noneconomic damage caps are removed

- This report has been prepared for use by persons technically competent in the areas covered and with the necessary background information

- Draft versions of this report must not be relied upon by any person for any purpose

We accept no responsibility for any consequences arising from any third party relying on this report. If we agree to provide this report to a third party, APCIA is responsible for ensuring that the report is provided in its entirety, that the third party is made aware of the fact that they are not entitled to rely upon it, and that they may not distribute the report to any other party.

Any third parties receiving the report should recognize that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein that would result in the creation of any duty or liability by Pinnacle to the third party.

## RELIANCES AND LIMITATIONS

Listed in a subsequent section of this report are the data sources Pinnacle has relied on in our analysis. We have relied on the accuracy of these data sources in our calculations. If it is subsequently discovered that the underlying data or information is erroneous, then our calculations would need to be revised accordingly.

We have also relied on a number of assumptions about the removal of the noneconomic damage caps and other assumptions regarding the calculations contained herein. Those assumptions are described in detail in this report.

We have relied on publicly available data and information and research studies without audit or verification. However, we did review as many elements of the data and information as practical for reasonableness and consistency with our knowledge of the insurance industry. It is possible that the historical data used to develop our estimates may not be predictive of future loss and loss adjustment expense (LAE) experience in Colorado. We have not anticipated any additional extraordinary changes to the legal, social or economic environment which might affect the number or cost of insurance claims beyond those contemplated in the removal of the noneconomic damage caps.

Pinnacle is not qualified to provide formal legal interpretation of proposed changes to Colorado statutes. The elements of this report that require legal interpretation should be recognized as reasonable interpretations of the available statutes, regulations and administrative rules. State governments and courts are also constantly in the process of changing and reinterpreting these statutes.

## BACKGROUND

Significant tort reform was passed in Colorado in 1986. Elements of this tort reform included:

- modified comparative negligence (bar on recovery if claimant is 50% or more at fault),
- several liability (joint and several liability in limited circumstances such as civil conspiracy claims),
- short statutes of limitation, and
- non-economic damage caps.

Noneconomic damage caps were increased in 1998 and then again in 2008 and 2020. The noneconomic damage cap for claims that occur on or after January 1, 2022 is $642,180, and the noneconomic damage cap for wrongful death claims is $598,350.

Colorado recognizes three types of recoverable damages in civil context:

- non-economic (past and future),
- economic (past and future), and
- physical impairment or disfigurement.

Colorado defines impairment as follows: "If someone inflicts a permanent injury on another he or she has taken away something valuable which is independent and different from other recognized elements of damages such as pain and suffering and loss of earning capacity."[1]

Economic and impairment damages are not capped.

In the wrongful death context, non-economic damages include past and future grief, loss of companionship, impairment of the quality of life, inconvenience, and emotional stress. Economic damages include reasonable funeral, burial, internment, or cremation expenses and any net financial loss which the plaintiff has had because of the death of the decedent. (Net financial loss is the same as the financial benefit the plaintiff might reasonably have expected to receive from the decedent had he/she lived.)

Colorado Proposed Ballot Initiative 2023-2024 #150 would remove the noneconomic damage cap in cases of catastrophic injury or wrongful death. Catastrophic injury is defined as "death, dismemberment, permanent injury to the body or mind, or a severe injury that seriously limits

[1] Reference?

activities of normal daily life." Wrongful death is defined as "death caused by a person's or company's negligence or misconduct."[2]

Due to the nature of these definitions, APCIA believes this would effectively remove the noneconomic damage caps for insured claims. APCIA has engaged Pinnacle to estimate the impact of removing the noneconomic damage caps on claim costs.

[2] Colorado Secretary of State 2023 – 2024 Initiative Filings, Agendas and Results
https://www.sos.state.co.us/pubs/elections/Initiatives/titleBoard/filings/2023-2024/150Final.pdf

# DATA

In our analysis, we have relied on data from the following sources:


1. National Association of Insurance Commissioners (NAIC), Insurance Services Offices (ISO), Independent Statistical Services (ISS), National Insurance Statistical Services (NISS) Fast Track Private Passenger Auto Loss Data – 3rd Quarter, 2023
2. A.M. Best annual statement data, 2024
3. Legislative Analysis Office November 15, 2019 Letter. https://lao.ca.gov/ballot/2019/190595.pdf
4. Congressional Budget Office. The Effects of Tort Reform: Evidence from the States. June 2004
5. Browne, Mark J., and Robert Puelz, "The Effect of Legal Rules on the Value of Economic and Non-Economic Damages and the Decision to File," Journal of Risk and Uncertainty, vol. 18, no. 2 (1999), pp. 189-213.
6. Yoon, Albert, "Damage Caps and Civil Litigation: An Empirical Study of Medical Malpractice Litigation in the South," American Law and Economics Review, vol. 3, no. 2 (2001), pp. 199-227.
7. Viscusi, W. Kip, and others, "The Effect of 1980s Tort Reform Legislation on General Liability and Medical Malpractice Insurance," Journal of Risk and Uncertainty, vol. 6 (1993), pp. 165-186.
8. Thorpe, Kenneth E., "The Medical Malpractice 'Crisis": Recent Trends and the Impact of State Tort Reforms," Health Affairs—Web Exclusive (January 21, 2004), available at http://content.healthaffairs.org/cgi/reprint/hlthaff.w4.20v1.pdf.
9. Grace, Martin F. and J. Tyler Leverty, "How Tort Reform Affects Insurance Markets," March 1, 2010.
10. American Medical Association, "Medical Liability Reform Now! 2023 – the facts you need to know to address the broken liability system."
11. Born PW, Viscusi K, Baker T. "The Effects of Tort Reform on Medical Malpractice Insurers' Ultimate Losses." The Journal of Risk and Insurance. 2009;76(1):197-219.
12. Kilgore ML, Morrisey MA, Nelson LJ. "Tort Law and Medical Malpractice Insurance Premiums." Inquiry. 2006;43:255–270.
13. Mello MM. "Medical Malpractice: Impact of the Crisis and Effect of State Tort Reforms." The Robert Wood Johnson Foundation; 2006. Research Synthesis Report No. 10.
14. National Association of Insurance Commissioners. "2020/2021 Auto Insurance Database Report." January 2024. https://content.naic.org/sites/default/files/publication-aut-pb-auto-insurance-database.pdf

## FINDINGS

Based on our analysis, and subject to the considerations set forth in the Reliances & Limitations section, we have reached the conclusions set forth below.

The estimated impact of removing the noneconomic damage caps would be an increase in claim costs between $667 million and $912 million. This represents an estimated increase in losses of 16.8% to 22.9% for the affected liability lines of business, and an estimated increase in losses of 6.5% to 8.9% for all lines of business combined.

The estimated impacts are shown in Table 1.

*Table 1: Estimated Impact on Losses of the Removal of the Noneconomic Damage Caps*

| | (1) | (2) | (3) | | (4) | (5) |
|---|---|---|---|---|---|---|
| | | Estimated Loss Impact - Percentage | | | Estimated Loss Impact - Dollar | |
| **Lines of Business** | **2022 Colorado Industry Annual Statement Incurred Loss ($,000)** | **Low** | **High** | | **Low** | **High** |
| Medical Professional Liability (Total) | 92,602 | 20.0% | 30.0% | | 18,520 | 27,781 |
| Other Liab (Total) | 1,012,482 | 10.0% | 15.0% | | 101,248 | 151,872 |
| Products Liability (Total) | 143,356 | 10.0% | 15.0% | | 14,336 | 21,503 |
| Private Passenger Auto Liability | 2,277,001 | 18.0% | 24.0% | | 409,860 | 546,480 |
| Commercial Auto Liability | 455,189 | 27.0% | 36.0% | | 122,901 | 163,868 |
| | | | | | | |
| **Subtotal - Liability Lines** | **3,980,630** | **16.8%** | **22.9%** | | **666,865** | **911,505** |
| | | | | | | |
| **Total All Lines of Business** | **10,294,566** | **6.5%** | **8.9%** | | **666,865** | **911,505** |
| | | | | | | |
| (1) | Source: 2022 A.M. Best Annual Statement Information | | | | | |
| (2) | Estimated based on analysis, Subtotal and Total = (4) / (1) | | | | | |
| (3) | Estimated based on analysis, Subtotal and Total = (5) / (1) | | | | | |
| (4) | (1) * (2), Subtotal and Total are sum of individual lines | | | | | |
| (5) | (1) * (3), Subtotal and Total are sum of individual lines | | | | | |

The estimated impact on premiums of removing the noneconomic damage cap would be an increase between $918 million and $1.263 billion. This represents an estimated increase in premium of 14.4% to 19.8% for the affected liability lines of business, and an estimated increase in premium of 5.3% to 7.3% for all lines of business combined.

The estimated impacts are shown in Table 2.

*Table 2: Estimated Impact on Premium of the Removal of the Noneconomic Damage Cap*

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | | | Estimated Loss Impact - Percentage | | Estimated Premium Impact - Percentage | | Estimated Premium Impact - Dollar | |
| **Lines of Business** | **2022 Colorado Industry Annual Statement Earned Ppremium** | **Ratio of General and Other Acquision Expenses to Earned Premium** | **Low** | **High** | **Low** | **High** | **Low** | **High** |
| Medical Professional Liability (Total) | 188,688 | 11.7% | 20.0% | 30.0% | 17.7% | 26.5% | 33,333 | 49,999 |
| Other Liab (Total) | 2,119,666 | 10.0% | 10.0% | 15.0% | 9.0% | 13.5% | 190,777 | 286,165 |
| Products Liability (Total) | 97,834 | 10.6% | 10.0% | 15.0% | 8.9% | 13.4% | 8,749 | 13,124 |
| Private Passenger Auto Liability | 3,276,817 | 12.9% | 18.0% | 24.0% | 15.7% | 20.9% | 513,977 | 685,303 |
| Commercial Auto Liability | 704,090 | 10.1% | 27.0% | 36.0% | 24.3% | 32.4% | 170,944 | 227,925 |
| **Subtotal - Liability Lines** | **6,387,095** | | **14.4%** | **19.8%** | | | **917,780** | **1,262,516** |
| **Total All Lines of Business** | **17,393,255** | | **5.3%** | **7.3%** | | | **917,780** | **1,262,516** |

| | |
|---|---|
| (1) | Source: 2022 A.M. Best Annual Statement Information |
| (2) | Source: 2022 A.M. Best Annual Statement Information |
| (3) | Table 5, Column 2 |
| (4) | Table 5, Column 3 |
| (5) | (3) * [ 1.00 - (2)] |
| (6) | (4) * [ 1.00 - (2)] |
| (7) | (1) * (5) |
| (8) | (1) * (6) |

The analysis section provides details on how Pinnacle arrived at these estimates.

# ANALYSIS

Noneconomic damage caps impact claim costs into at least three ways. First, the cap on noneconomic damages limits claim costs in the event that a jury awards noneconomic damages in excess of the cap. Second, the presence of a noneconomic damage cap can influence the claim severity of injury claims, even if the claim does not make it to a jury settlement. The potential for the application of a noneconomic damage cap may influence the claimant or attorney in accepting a lower claim settlement amount. Third, the presence of a noneconomic damage cap may discourage the filing of a claim, especially if the economic damages are not significant.

To estimate the impact of the removal of the noneconomic damage caps in Colorado, Pinnacle undertook the following analyses:

1. Review of studies estimating the impact of noneconomic damage caps
2. Analysis of Fast Track loss frequency and severity for private passenger automobile insurance

As the noneconomic damage caps apply to injury cases, we have limited our analysis to the key lines of business involving injury coverages. These lines of business are:

- Medical Malpractice
- Other Liability
- Products Liability
- Private Passenger Automobile Liability
- Commercial Automobile Liability

## Review of Studies Estimating the Impact of Noneconomic Damage Caps

Pinnacle conducted a search of existing research studies related to estimating the impact of noneconomic damage caps. We summarize the studies which we relied upon below.

On November 15, 2019, the Legislative Analysis Office of California (LAO) provided a letter to the attorney general of California estimating the impact of changes to the Medical Injury Compensation Reform Act (MICRA) on medical malpractice claim costs.[3] One of the proposed changes was the removal of or significant increase to the noneconomic damage cap.

[3] Legislative Analysis Office November 15, 2019 Letter. https://lao.ca.gov/ballot/2019/190595.pdf

In 1975, the California legislature enacted MICRA in response to high medical malpractice insurance costs. The reforms enacted included:

- $250,000 cap on noneconomic damages
- Cap on attorney fees
- Allowed evidence of outside support
- Allowed periodic payments of damages
- Established statute of limitations

The proposed changes in 2019 included:

- Raising the noneconomic damage cap to reflect increases in inflation
- Removing the noneconomic damage cap in case of catastrophic injury
- Raising the cap on attorney fees to reflect inflation
- Removing cap on attorney fees in case of catastrophic injuries
- No longer allowing evidence of external support
- Eliminating periodic payments
- Extending the statute of limitations

Based on a review of studies looking at other states, the LAO estimated that the proposed 2019 reforms would increase medical malpractice claim costs by 20 – 30%.

In June 2004, the Congressional Budget Office released a report titled "The Effects of Tort Reform: Evidence from the States." This study reviewed a series of studies estimating the impact of various tort reform measures, including noneconomic damage caps. One of the conclusions of the study was that caps decreased the value of noneconomic damage claims made to insurers and also decreased the number of claims filed. The studies discussed in this report included:

- A 1999 study by Mark J. Browne and Robert Puelz analyzed auto insurance claims closed in 1999 for 45 states.[4] This study concluded that caps on noneconomic damage claims resulted in a 19% decline in the value of the noneconomic claim. It also decreased the probability of the claim being filed from 4.0% to 1.4%.

[4] Browne, Mark J., and Robert Puelz, "The Effect of Legal Rules on the Value of Economic and Non-Economic Damages and the Decision to File," Journal of Risk and Uncertainty, vol. 18, no. 2 (1999), pp. 189-213.

- In 2001, Albert Yoon studied the enactment and repeal of damage caps in Alabama on medical malpractice recoveries.[5] Alabama implemented a $400,000 cap on noneconomic damages in 1987, and the cap was found to be unconstitutional in 1991. When the cap was implemented, recovery amounts fell by $23,000. When the cap was ruled unconstitutional, recovery amounts increased by $20,000.

- In 1993, W. Kip Viscusi studied the impact of reforms implemented in 1985 – 1987 on general liability and medical malpractice claim costs.[6] Viscusi concluded that general liability claim costs decreased by 8% due to noneconomic damage caps, and medical malpractice claim costs decreased by 14.7% due to noneconomic damage caps.

- In 2004, Kenneth Thorpe studied NAIC premium and loss data to estimate the impact of noneconomic damage caps.[7] Thorpe concluded loss ratios were 11.7% lower and premiums were 17.1% lower in states that had noneconomic damage caps.

In 2010, Martin Grace and J. Tyler Leverty studied the impact of tort reform on insurance claim costs.[8] This study was completed in aggregate across all lines of business. The authors completed a regression model analysis using aggregate Annual Statement data from 1985 through 2010. The authors concluded that the impact of a noneconomic damage cap across all lines of business is to reduce claim costs by 5.7%. This is the impact across all lines of business, even lines with little or no liability exposure. Therefore, the impact on the liability lines will be more significant.

In 2023, the American Medical Association (AMA) released a paper advocating for medical liability reform.[9] As part of this paper, the AMA reviewed multiple studies on the impact of tort reform measures. There were three studies reviewed in this paper that discussed the impact of noneconomic damage caps.

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[5] Yoon, Albert, "Damage Caps and Civil Litigation: An Empirical Study of Medical Malpractice Litigation in the South," American Law and Economics Review, vol. 3, no. 2 (2001), pp. 199-227.

[6] Viscusi, W. Kip, and others, "The Effect of 1980s Tort Reform Legislation on General Liability and Medical Malpractice Insurance," Journal of Risk and Uncertainty, vol. 6 (1993), pp. 165-186.

[7] Thorpe, Kenneth E., "The Medical Malpractice 'Crisis": Recent Trends and the Impact of State Tort Reforms," Health Affairs—Web Exclusive (January 21, 2004), available at http://content.healthaffairs.org/cgi/reprint/hlthaff.w4.20v1.pdf.

[8] Grace, Martin F. and J. Tyler Leverty, "How Tort Reform Affects Insurance Markets," March 1, 2010.

[9] American Medical Association, "Medical Liability Reform Now! 2023 – the facts you need to know to address the broken liability system."

- In 2005, Viscusi and Born examined the impact of caps and other tort reforms that were enacted in the mid- to late 1980s.[10] They found that insurers in states that enacted caps on noneconomic damages had claim costs of 17% lower than those of insurers in other states.

- In 2006, Kilgore, Morrisey and Nelson (2006) investigated the association between a number of different types of tort reforms and medical liability premiums over the 1991 to 2004 period.[11] Their results showed that, on average, internal medicine premiums in coverage regions in states with caps on noneconomic damages were 17.3% lower than in regions in states without caps. The impact of caps on general surgery and obstetrics/gynecology premiums was larger, 20.7% and 25.5%, respectively.

- A 2006 literature review by the Robert Wood Johnson Foundation concluded that caps appear to be associated with a 23% to 31% reduction in average awards.[12]

Table 3 summarizes the estimated increase in claim costs due to the removal of noneconomic damage caps. For studies which calculated savings associated with noneconomic damage caps, the estimated increase due to removal of the cap was estimated as (1.0 / (1.0 – Savings Percentage)) – 1.0.

[10] Born PW, Viscusi K, Baker T. "The Effects of Tort Reform on Medical Malpractice Insurers' Ultimate Losses." The Journal of Risk and Insurance. 2009;76(1):197-219.

[11] Kilgore ML, Morrisey MA, Nelson LJ. "Tort Law and Medical Malpractice Insurance Premiums." *Inquiry*. 2006;43:255–270.

[12] Mello MM. "Medical Malpractice: Impact of the Crisis and Effect of State Tort Reforms." The Robert Wood Johnson Foundation; 2006. Research Synthesis Report No. 10.

*Table 3: Estimated Increase in Claim Costs Due to Removal of Noneconomic Damage Caps - Study Review*

| Study | Author | Line of Business | Estimated Decrease in Losses | Estimated Increase in Losses |
|---|---|---|---|---|
| Letter to Attorney General | Legislative Analysis Office of California | Medical Malpractice | | 20 - 30% |
| The Effect of Legal Rules on the Value of Economic and Non-Economic Damages and the Decision to File | Browne, Mark J., and Robert Puelz | Private Passenger Auto | 72.3% | 261.6% |
| The Effect of 1980s Tort Reform Legislation on General Liability and Medical Malpractice Insurance | Viscusi, W. Kip, and others | General Liability | 8% | 8.7% |
| The Effect of 1980s Tort Reform Legislation on General Liability and Medical Malpractice Insurance | Viscusi, W. Kip, and others | Medical Malpractice | 14.7% | 17.2% |
| The Medical Malpractice 'Crisis": Recent Trends and the Impact of State Tort Reforms | Thorpe, Kenneth E. | Medical Malpractice | 17.1% | 20.6% |
| How Tort Reform Affects Insurance Markets | Grace, Martin F. and J. Tyler Leverty | All Lines | 5.7% | 6.0% |
| The Effects of Tort Reform on Medical Malpractice Insurers' Ultimate Losses | Born PW, Viscusi K, Baker T. | Medical Malpractice | 17.0% | 20.5% |
| Tort Law and Medical Malpractice Insurance Premiums | Kilgore ML, Morrisey MA, Nelson LJ | Medical Malpractice | 17.3 - 25.5% | 20.9% - 34.2% |
| Medical Malpractice: Impact of the Crisis and Effect of State Tort Reforms | Robert Wood Johnson Foundation | Medical Malpractice | 23.0% - 31.0% | 29.9% - 44.9% |

## Analysis of Fast Track Loss Frequency and Severity for Private Passenger Automobile Insurance

Pinnacle also analyzed loss frequency and severity information using industry Fast Track data as of the third quarter of 2023. To estimate the impact of removing the noneconomic damage cap, Pinnacle completed the following analyses:

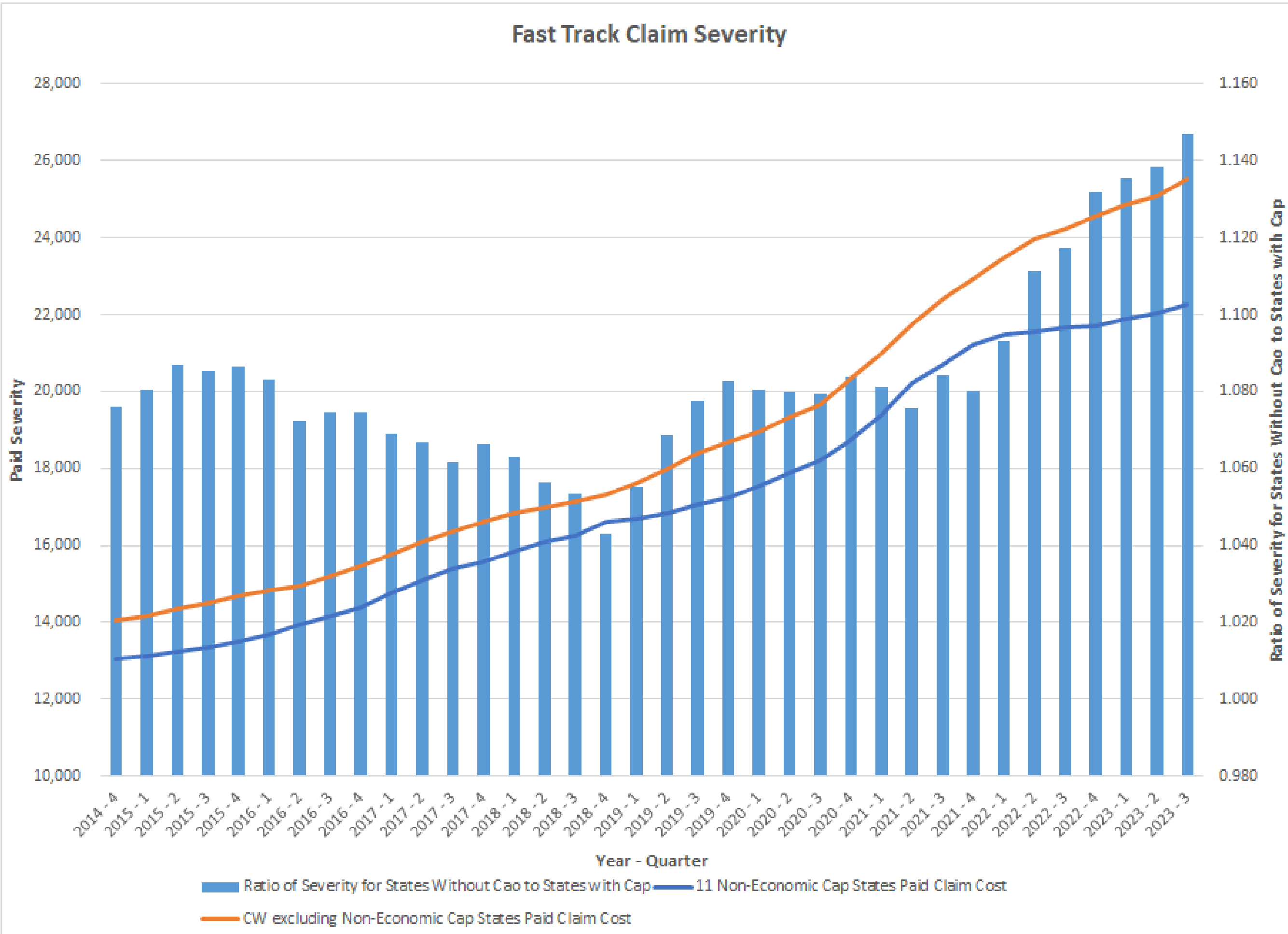
1. A comparison of Bodily Injury Liability frequency and severity levels for states with noneconomic damage caps with the frequency and severity for states without noneconomic damage caps

2. A comparison of the trend in Bodily Injury Liability frequency and severity costs for states with noneconomic damage caps versus states without noneconomic damage caps

### Comparison of Frequency and Severity for States with Noneconomic Damage Caps Versus States without Noneconomic Damage Caps

There are currently 11 states with noneconomic damage caps. These states are Alaska, Colorado, Hawaii, Idaho, Maine, Maryland, Mississippi, Ohio, Oklahoma, Oregon, and Tennessee. Chart 1 shows the claim severity for the fourth quarter of 2014 through the third quarter of 2023 for states with a cap and for states without a cap. Also shown is the ratio of the severity for states without a noneconomic damage cap to the severity for states with a noneconomic damage cap.

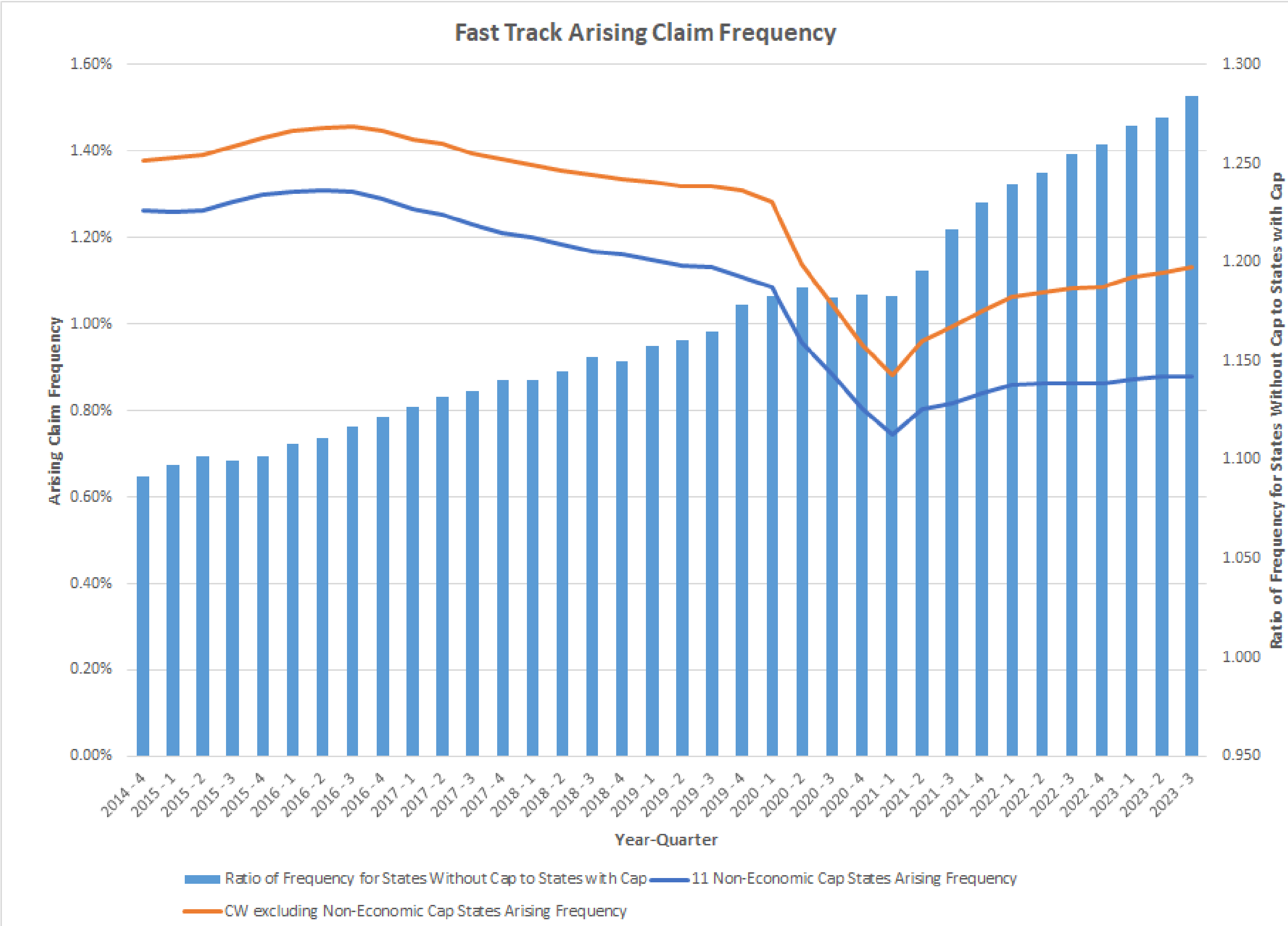
*Chart 1: Comparison of Paid Claim Severity for States with and without Noneconomic Damage Caps*




As can be seen in the bars in the chart above, the severity in states without noneconomic damage caps is consistently higher than the severity in states with noneconomic damage caps. The ratio was 1.076 in the fourth quarter of 2014, and has increased to 1.147 in the third quarter of 2023.

Chart 2 shows the arising claim frequency for the fourth quarter of 2014 through the third quarter of 2023, and the ratio of the arising claim frequency for states without a noneconomic damage cap to the arising claim frequency for states with a noneconomic damage cap. The arising claim frequency is based on claims that have been reported.

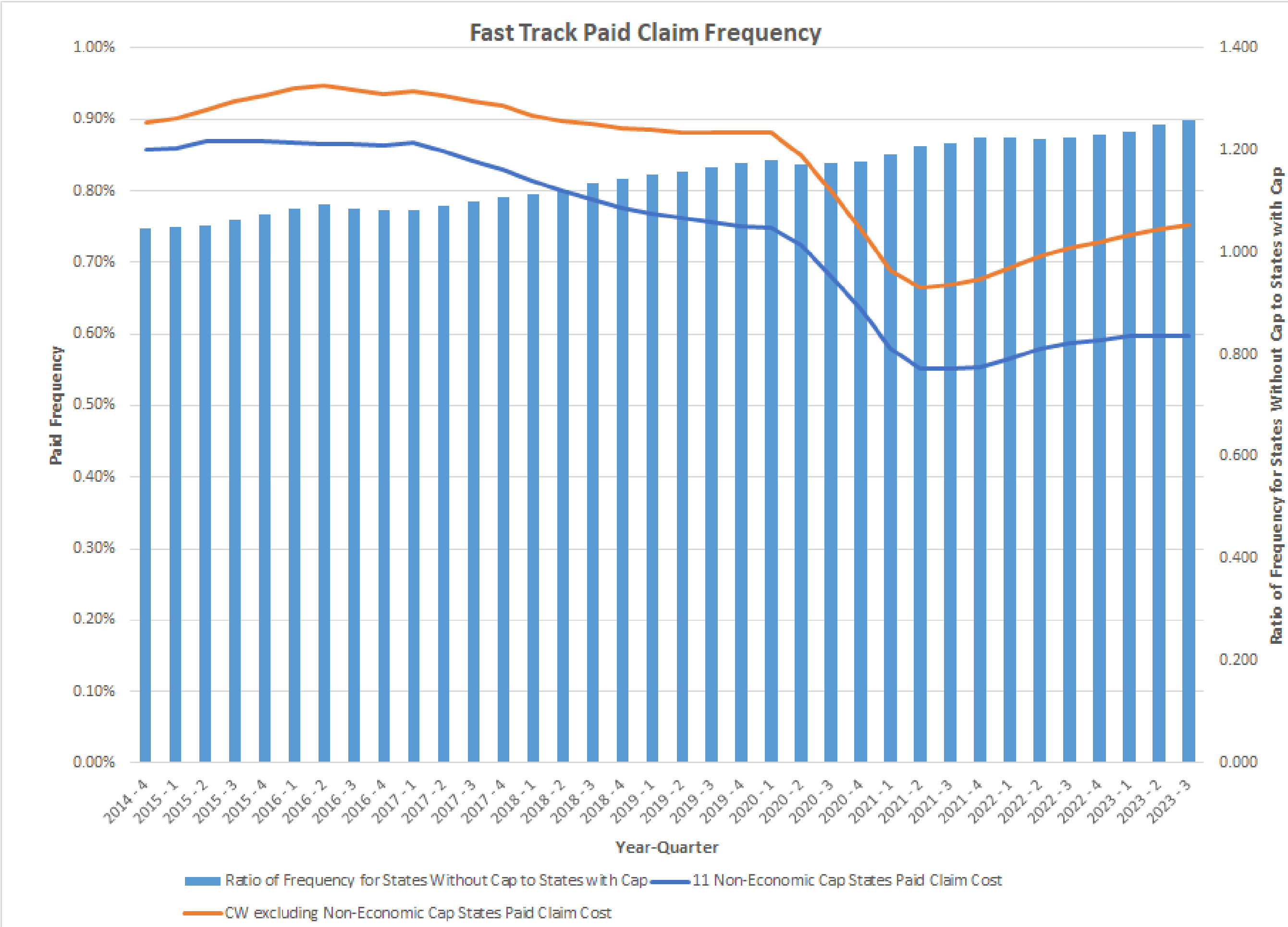
*Chart 2: Comparison of Arising Claim Frequency for States with and without Noneconomic Damage Caps*




The arising claim frequency in states without noneconomic damage caps is consistently higher than the arising claim frequency in states with noneconomic damage caps. The ratio was 1.092 in the fourth quarter of 2014, and has increased significantly to 1.284 in the third quarter of 2023.

Chart 3 shows the paid claim frequency for the fourth quarter of 2014 through the third quarter of 2023, and the ratio of the paid claim frequency for states without an economic damage cap to the paid claim frequency for states with an economic damage cap. The paid claim frequency is based on claims for which payments have been made.

*Chart 3: Comparison of Arising Claim Frequency for States with and without Noneconomic Damage Caps*




The paid claim frequency in states without noneconomic damage caps is consistently higher than the paid claim frequency in states with noneconomic damage caps. The ratio was 1.045 in the fourth quarter of 2014, and has increased significantly to 1.259 in the third quarter of 2023.

Below, we summarize the ratio of severity and frequency for states without a noneconomic cap to states with a noneconomic cap for the past three years.

*Table 4: Ratio of Severity and Frequency for States Without Noneconomic Damage Cap to States with Noneconomic Damage Caps*

| Year Ended | Paid Severity | Arising Frequency | Paid Frequency | Pure Premium |
|---|---|---|---|---|
| 2021 - 3 | 1.084 | 1.216 | 1.215 | 1.317 |
| 2022 - 3 | 1.117 | 1.255 | 1.224 | 1.367 |
| 2023 - 3 | 1.147 | 1.284 | 1.259 | 1.444 |

The pure premium is the product of the paid severity ratio and the paid frequency ratio.

## Comparison of the Trend in Frequency and Severity Costs for States with Noneconomic Damage Caps Versus States Without Noneconomic Damage Caps

In addition to analyzing the absolute difference in frequency and severity in states with noneconomic damage caps versus states without caps, we also compared the trend in frequency and severity costs in those states. Without caps, there is the potential that claim costs over time could grow at a higher rate in states without caps. This potential is exacerbated by the trends in significant or nuclear verdicts.

Table 5 shows the difference in trends for paid severity, paid frequency and arising frequency for states with and without noneconomic damage caps. We looked at the difference in trends over the last three years and the last nine years.

*Table 5: Difference in Annual Trend for States with and without Noneconomic Damage Caps*

| | 11 NonEconomic Cap States | CW Excluding NonEconomic Cap States | Difference |
|---|---|---|---|
| Annual Paid Severity Trend - 2020-3 through 2023-3 | 6.9% | 9.1% | 2.2% |
| Annual Paid Severity Trend - 2014-4 through 2023-3 | 6.3% | 7.1% | 0.8% |
| Annual Paid Frequency Trend - 2020-3 through 2023-3 | -4.3% | -2.0% | 2.3% |
| Annual Paid Frequency Trend - 2014-4 through 2023-3 | -4.0% | -2.0% | 2.1% |
| Annual Arising Frequency Trend - 2020-3 through 2023-3 | 0.0% | 2.8% | 2.8% |
| Annual Arising Frequency Trend - 2014-4 through 2023-3 | -4.0% | -2.2% | 1.8% |

There are a few things that are apparent from Table 5. In each case, the trend is higher for states without noneconomic damage caps than it is for states with noneconomic damage caps. This difference ranges from 0.8% to 2.8% higher per year.

Additionally, the difference in trend for states without a cap versus states with a cap over the last three years in each case is higher than the trend over the last nine years. This shows that the rate of increase in claim costs has increased over the latest three years. The difference in trends over the last three years ranges from 2.2% to 2.8% higher.

When combining the impact of the trend differences for paid frequency and severity, claim costs for states without noneconomic damage caps are increasing at a rate of about 4.5% faster than for states with noneconomic damage caps. Therefore, in addition to higher overall claim costs due to the removal of non-economic damage caps, there is the potential for the impact to continue to be felt over time as the claim cost trend increases. At this additional rate of increase, claim costs in three years could be an additional 14.1% higher than they would be today.

## Estimated Impact

Based on the review of studies and Pinnacle's additional analysis, we estimate the following impacts on claim costs.

For Medical Malpractice, based on the studies reviewed, we estimate a 20 – 30% increase in claim costs.

For Products Liability and Other Liability, the Viscusi study estimates the impact on general liability of 8.7%. The Grace study estimates an impact of 6.0% on losses for all lines of business. Adjusting this estimate to only apply to the liability lines of business identified, we estimate the impact on liability claim costs of 15.6%. This is calculated based on the fact that 38.7% of losses are related to the liability lines (6% / (1.00 - 0.387)), based on Colorado 2022 Annual Statement data. Based on these studies, we estimate an impact of 10% to 15% on claim costs.

Based on the Fast Track analysis, we estimate the impact would be 30% to 40% on private passenger automobile Bodily Injury claim costs. We also assume the same impact will apply to Uninsured and Underinsured Motorists coverages. As the Annual Statement private passenger automobile liability line includes Property Damage, we adjusted the impact based on the ratio of Bodily Injury, Uninsured and Underinsured Motorists losses to Property Damage losses in Colorado. This ratio was determined from the NAIC 2020/2021 Auto Insurance Database Report based on incurred losses in Colorado in 2020. The adjusted liability impact is 15.4% to 20.5%.

For commercial auto, we assume the same 30% to 40% impact on commercial auto Bodily Injury claims. We estimate that Bodily Injury claims account for 90% of commercial auto liability losses based on data provided by APCIA members. We also assume this same impact on commercial automobile liability loss costs. The adjusted commercial auto liability impact is 27.0% to 36.0%.

To estimate the dollar impact of the removal of the cap on noneconomic damages, we applied the estimated impacts selected above to the 2022 Colorado incurred losses by the Annual Statement lines of business identified earlier. These losses represent aggregate losses for all insurers for insurance policies written in Colorado.

*Table 6: Estimated Impact of the Removal of the Noneconomic Damage Cap*

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | | Estimated Loss Impact - Percentage | | Estimated Loss Impact - Dollar | |
| **Lines of Business** | **2022 Colorado Industry Annual Statement Incurred Loss ($,000)** | **Low** | **High** | **Low** | **High** |
| Medical Professional Liability (Total) | 92,602 | 20.0% | 30.0% | 18,520 | 27,781 |
| Other Liab (Total) | 1,012,482 | 10.0% | 15.0% | 101,248 | 151,872 |
| Products Liability (Total) | 143,356 | 10.0% | 15.0% | 14,336 | 21,503 |
| Private Passenger Auto Liability | 2,277,001 | 18.0% | 24.0% | 409,860 | 546,480 |
| Commercial Auto Liability | 455,189 | 27.0% | 36.0% | 122,901 | 163,868 |
| | | | | | |
| **Subtotal - Liability Lines** | **3,980,630** | **16.8%** | **22.9%** | **666,865** | **911,505** |
| | | | | | |
| **Total All Lines of Business** | **10,294,566** | **6.5%** | **8.9%** | **666,865** | **911,505** |

| | |
|---|---|
| (1) | Source: 2022 A.M. Best Annual Statement Information |
| (2) | Estimated based on analysis, Subtotal and Total = (4) / (1) |
| (3) | Estimated based on analysis, Subtotal and Total = (5) / (1) |
| (4) | (1) * (2), Subtotal and Total are sum of individual lines |
| (5) | (1) * (3), Subtotal and Total are sum of individual lines |

As estimated in Table 6, the estimated impact of removing the noneconomic damage cap would be an estimated increase in losses between approximately $667 million and $912 million. This represents an estimated increase in losses of 16.8% to 22.9% for the affected liability lines of business, and an estimated increase in losses of 6.5% to 8.9% for all lines of business combined.

The cost estimates in this report are generally stated in terms of the impact on claim dollars paid on behalf of the claimant. The impact on claim dollars cannot be used interchangeably with the impact on premiums. This is because a portion of premium is for general overhead (rent, utilities, etc.) and will not decrease proportionately with the claim dollars. Table 7 shows earned premium and the ratio of general and other acquisition expenses to earned premium. To estimate the premium impacts corresponding to the cost impacts shown in this report, it is necessary to multiply the cost increase by one minus the general and other acquisition expense ratio. The premium impacts are shown in Table 7.

*Table 7: Estimated Premium Impact of the Removal of the Noneconomic Damage Cap*

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | | | Estimated Loss Impact - Percentage | | Estimated Premium Impact - Percentage | | Estimated Premium Impact - Dollar | |
| **Lines of Business** | **2022 Colorado Industry Annual Statement Earned Ppremium** | **Ratio of General and Other Acquision Expenses to Earned Premium** | **Low** | **High** | **Low** | **High** | **Low** | **High** |
| Medical Professional Liability (Total) | 188,688 | 11.7% | 20.0% | 30.0% | 17.7% | 26.5% | 33,333 | 49,999 |
| Other Liab (Total) | 2,119,666 | 10.0% | 10.0% | 15.0% | 9.0% | 13.5% | 190,777 | 286,165 |
| Products Liability (Total) | 97,834 | 10.6% | 10.0% | 15.0% | 8.9% | 13.4% | 8,749 | 13,124 |
| Private Passenger Auto Liability | 3,276,817 | 12.9% | 18.0% | 24.0% | 15.7% | 20.9% | 513,977 | 685,303 |
| Commercial Auto Liability | 704,090 | 10.1% | 27.0% | 36.0% | 24.3% | 32.4% | 170,944 | 227,925 |
| | | | | | | | | |
| **Subtotal - Liability Lines** | **6,387,095** | | **14.4%** | **19.8%** | | | **917,780** | **1,262,516** |
| | | | | | | | | |
| **Total All Lines of Business** | **17,393,255** | | **5.3%** | **7.3%** | | | **917,780** | **1,262,516** |

| | |
|---|---|
| (1) | Source: 2022 A.M. Best Annual Statement Information |
| (2) | Source: 2022 A.M. Best Annual Statement Information |
| (3) | Table 5, Column 2 |
| (4) | Table 5, Column 3 |
| (5) | (3) * [ 1.00 - (2)] |
| (6) | (4) * [ 1.00 - (2)] |
| (7) | (1) * (5) |
| (8) | (1) * (6) |

As estimated in Table 7, the impact of removing the noneconomic damage cap would result in an estimated increase in premium between approximately $918 million and $1.263 billion. This represents an estimated increase in premium of 14.4% to 19.8% for the affected liability lines of business, and an estimated increase in losses of 5.3% to 7.3% for all lines of business combined.