

CAS Seminar on Reinsurance

Workers' Compensation Market Update - 2022

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June 13, 2022

Workers Compensation

Is it time to fold?

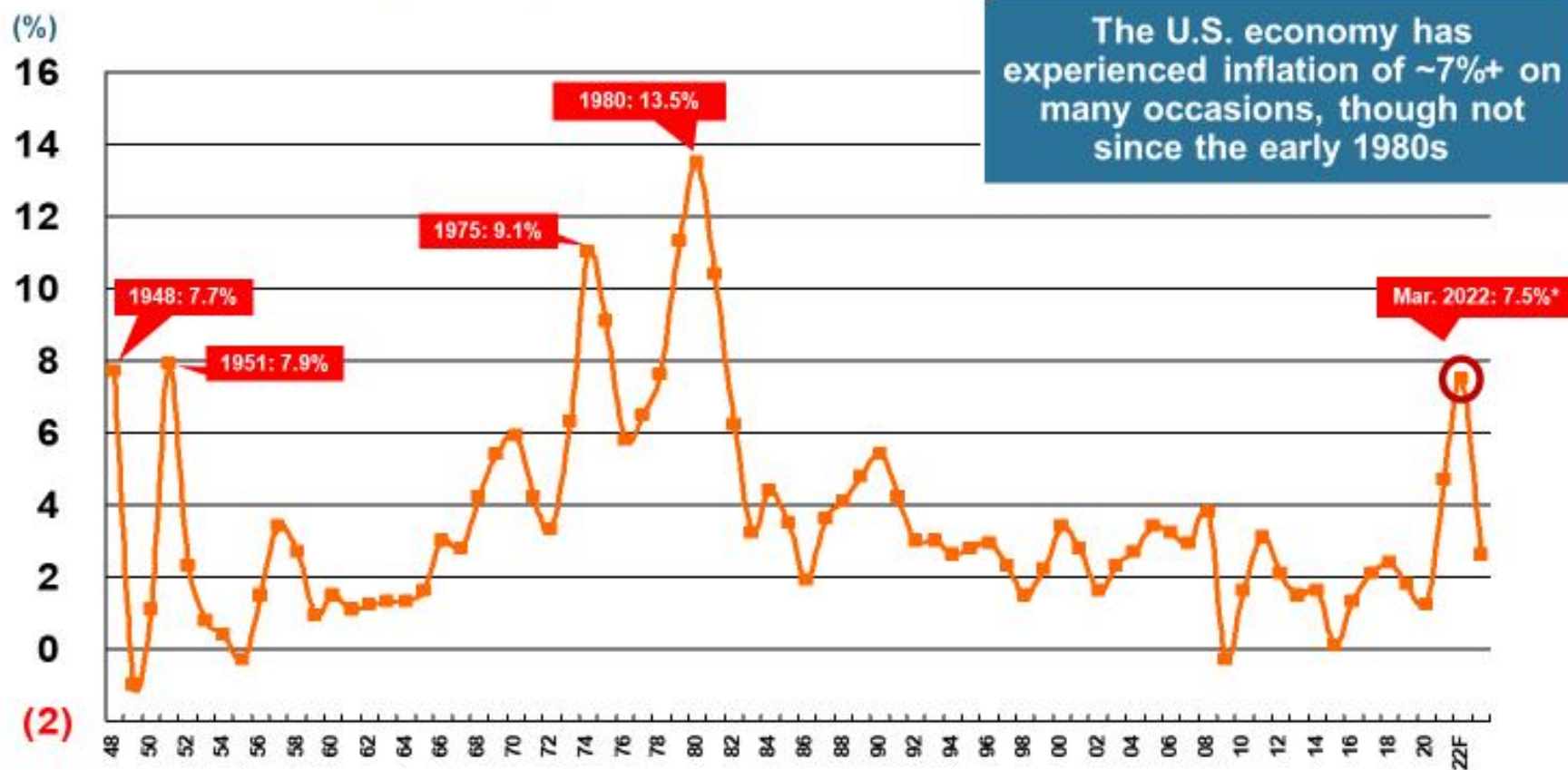


Table of Contents

- **Inflation**
- **COVID**
- **Age of Work Force**
- **Interest Rates**
- **Cycles**
- **Performance**

INFLATION

Rate of Inflation (CPI-U), 1948–2023F*

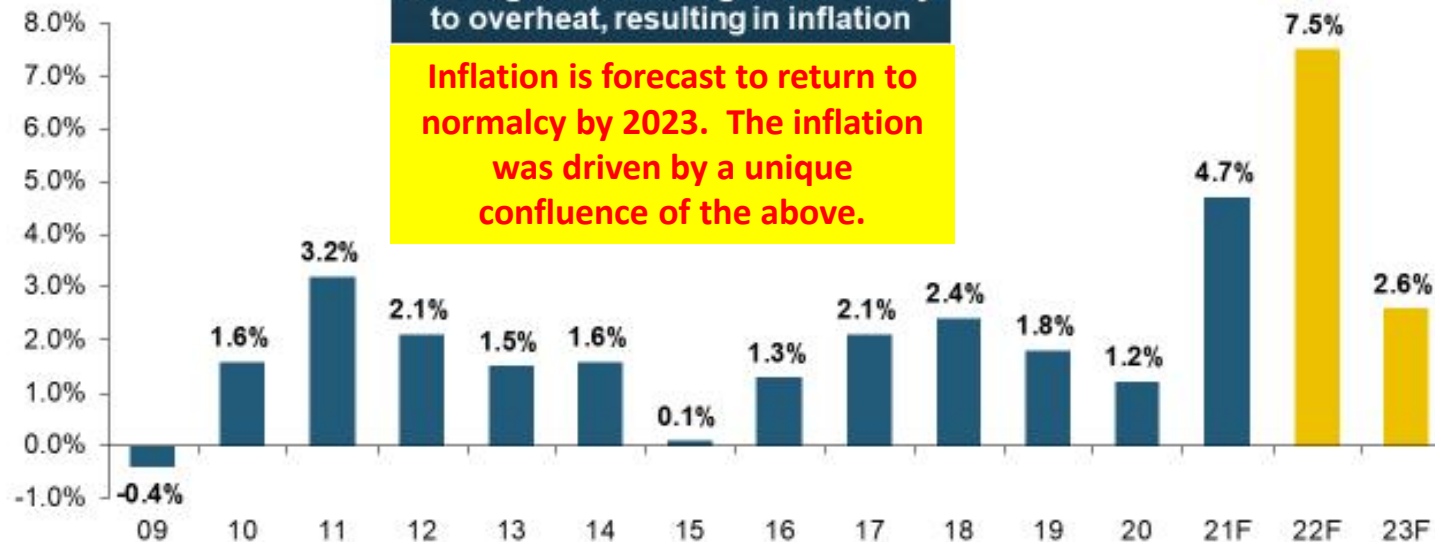


*2022/23 forecast are from (Wells Fargo Securities, Mar. 2022 forecast).

Source: U.S. Bureau of Labor Statistics; Center for Risk and Uncertainty Management, University of South Carolina.

U.S. Inflation Rate: 2009-2023F*

Percentage Change (%)



There's a great deal of concern that trillions of dollars of stimulus plus the post-COVID recovery, supply chain disruptions and labor shortages are causing the economy to overheat, resulting in inflation

Inflation is forecast to return to normalcy by 2023. The inflation was driven by a unique confluence of the above.

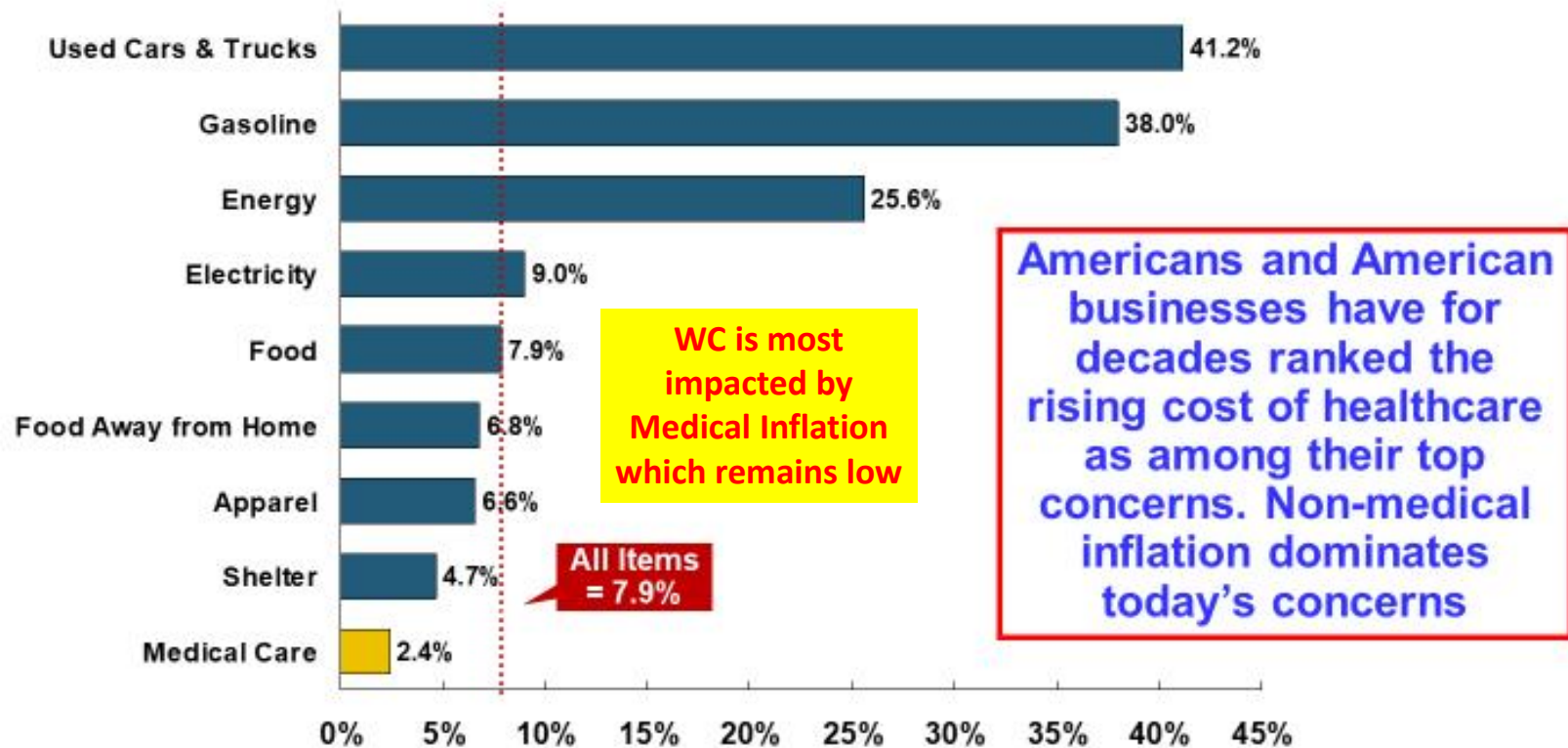
Inflation accelerated sharply in 2021 and early 2022. Inflation is now not expected to moderate until Q2 2022; Forecast is highly dependent of trajectory of energy prices

Insurer Concerns About Inflation
Rate Inadequacy
Reserve Inadequacy

*Annual change in Consumer Price Index for All Urban Consumers (CPI-U).

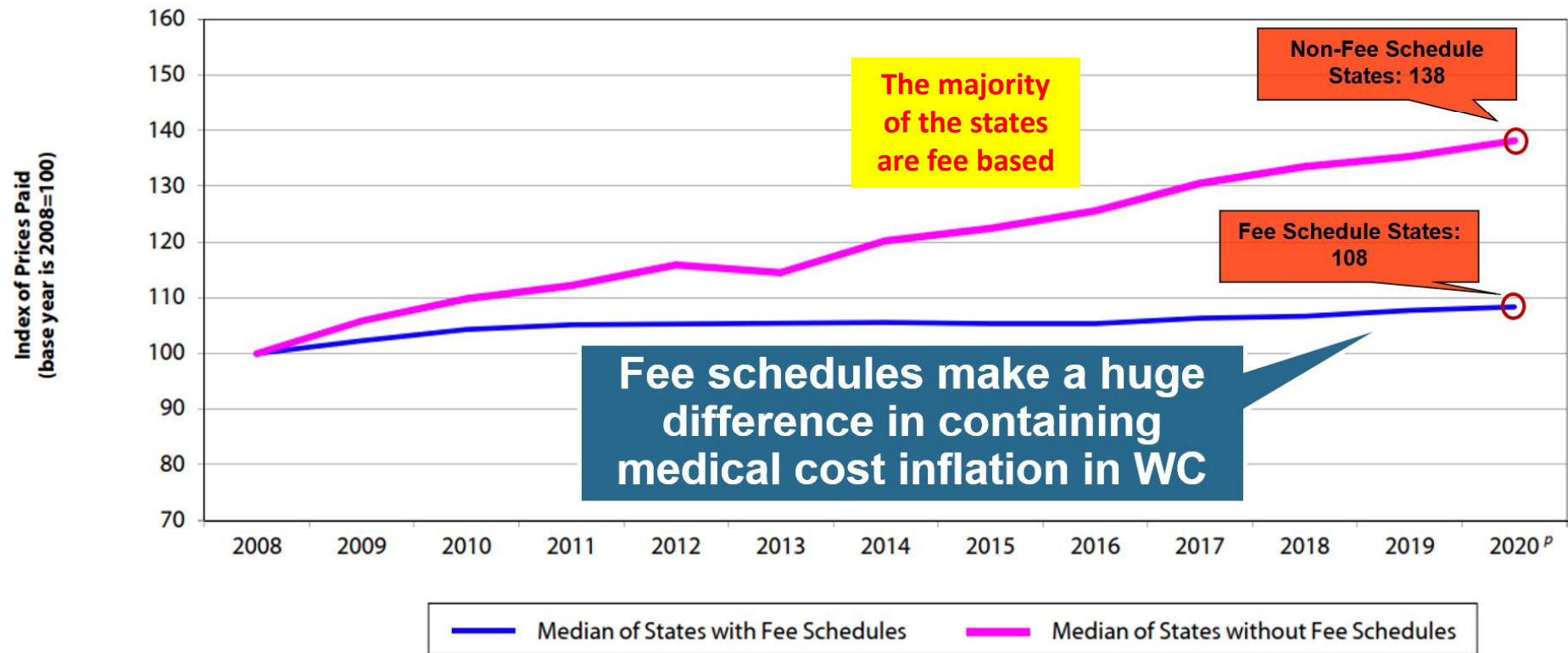
Source: U.S. Bureau of Labor Statistics; Wells Fargo Securities (3/22); USC Center for Risk and Uncertainty Management.

CPI and Select Components: 12-Month Change Ending Feb. 2022



Source: U.S. Bureau of Labor Statistics; Wall Street Journal accessed at: <https://www.wsj.com/articles/us-inflation-consumer-price-index-february-2022-11646857681>

Trends in Prices Paid for Professional Services, 2008 – 2020: Median Index Value for Fee Schedule vs. Non-Fee Schedule States*



*IA, IN, MO, NH, NJ and WI had no WC fee schedule in 2019 or 2020.

Sources: WCRI Medical Price Index for Workers' Compensation, 13th Edition (MPI-WC), Figure B.2.

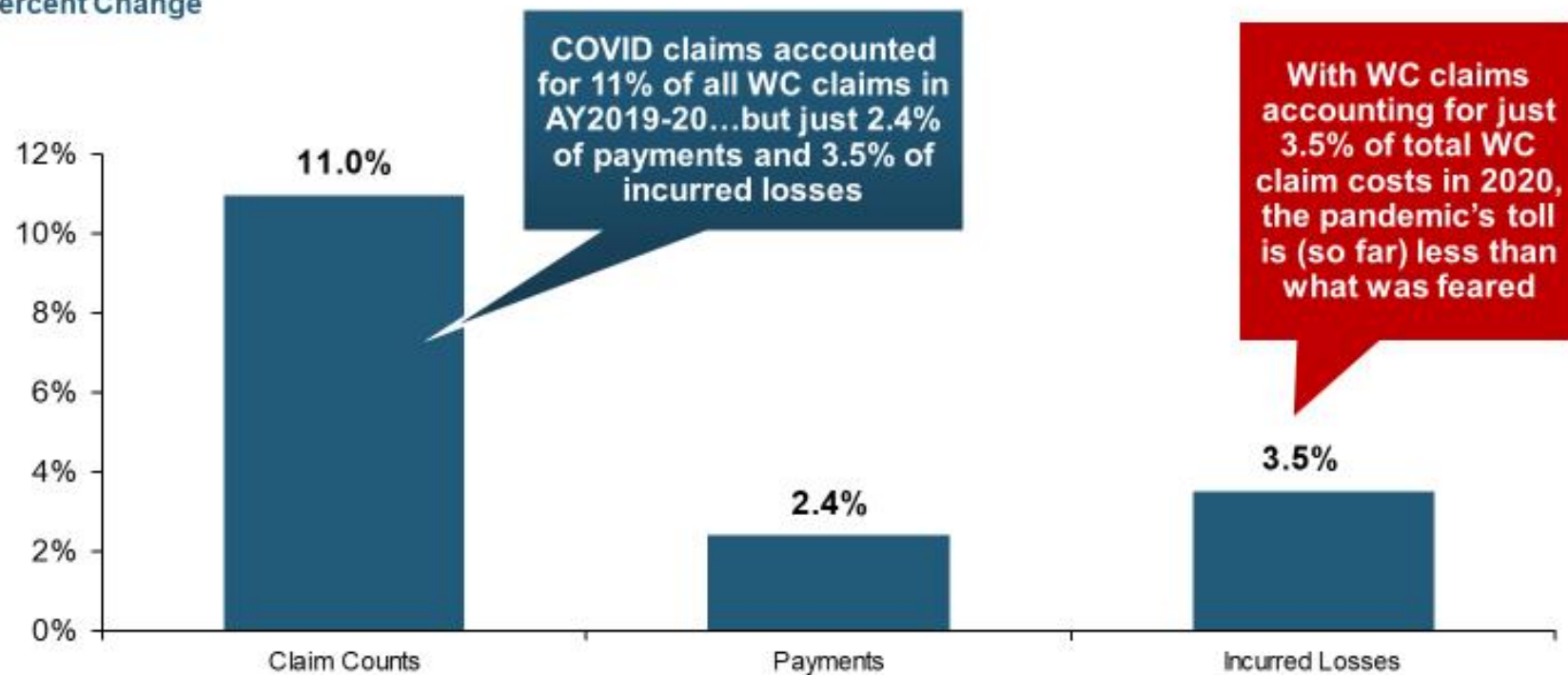
Impact of Inflation

- Medical trends biggest driver – stable and low
- Offsetting impact of utilization – overall down; largest in pharmaceuticals per NCCI Medical Data Call
- More mature claims, pharmaceutical spend is the largest (ie the tail)
- Centers for Medicare & Medicaid Services demonstrate personal health care index 1% - 3% since 2012 and forecast a slight rise in medical inflation in 2023 and stabilizing between 2.5%-2.7% after

COVID

COVID-19 Shares of Claim Counts, Payments and Incurred Losses Since 2020

Percent Change

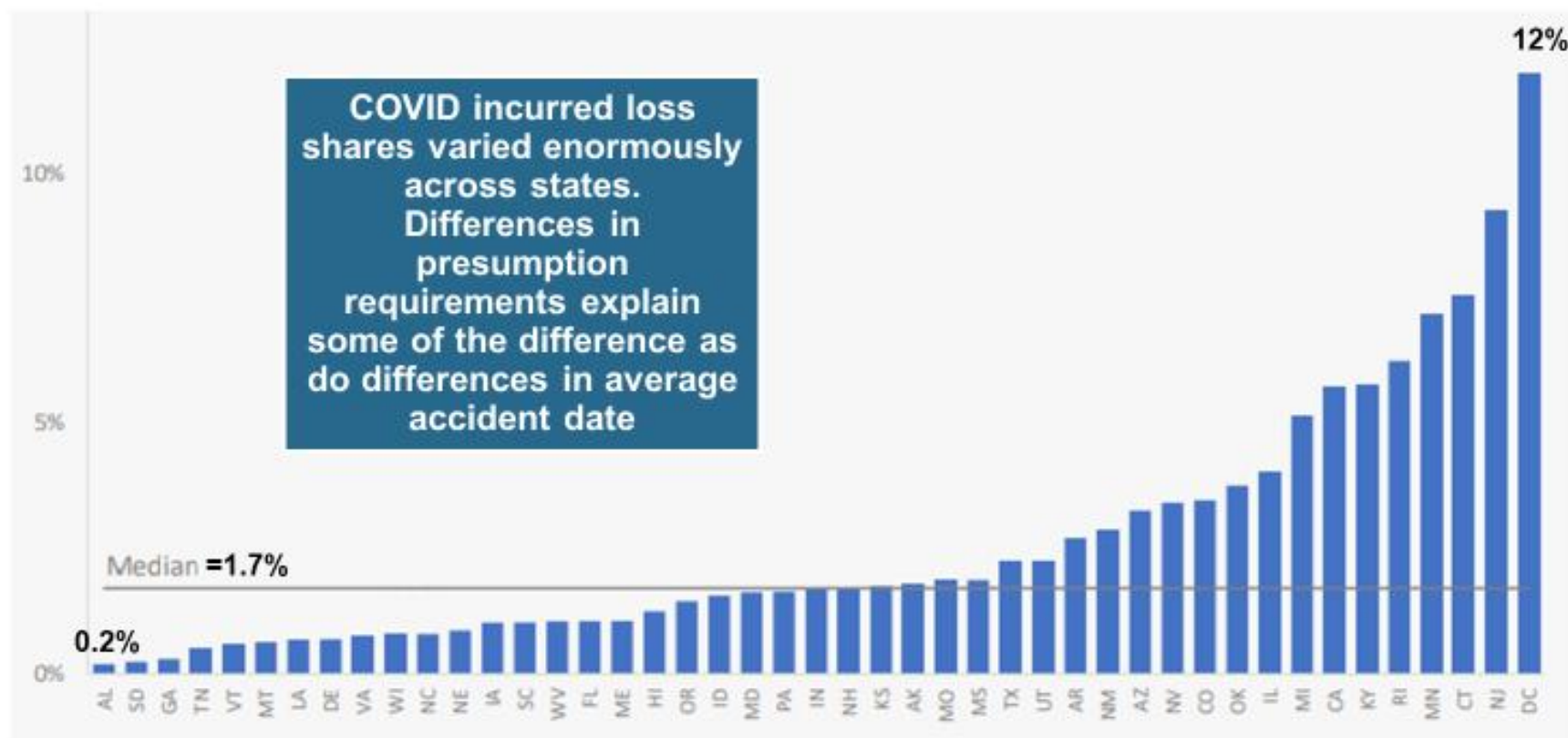


*Data are from 45 jurisdictions (excludes MA, NY, ND, OH, WA and WY)

Sources: Covid-19's Impact on Workers Compensation: A Multi-Bureau Collaboration, accessed from NCCI at:

<https://www.ncci.com/Articles/Documents/Insights-COVID19-Impact-on-WC.pdf>; Risk and Uncertainty Management Center, Univ. of South Carolina.

COVID-19 Incurred Loss Share by State



*Data are from 45 jurisdictions (excludes MA, NY, ND, OH, WA and WY)

Sources: Covid-19's Impact on Workers Compensation: A Multi-Bureau Collaboration, accessed from NCCI at:

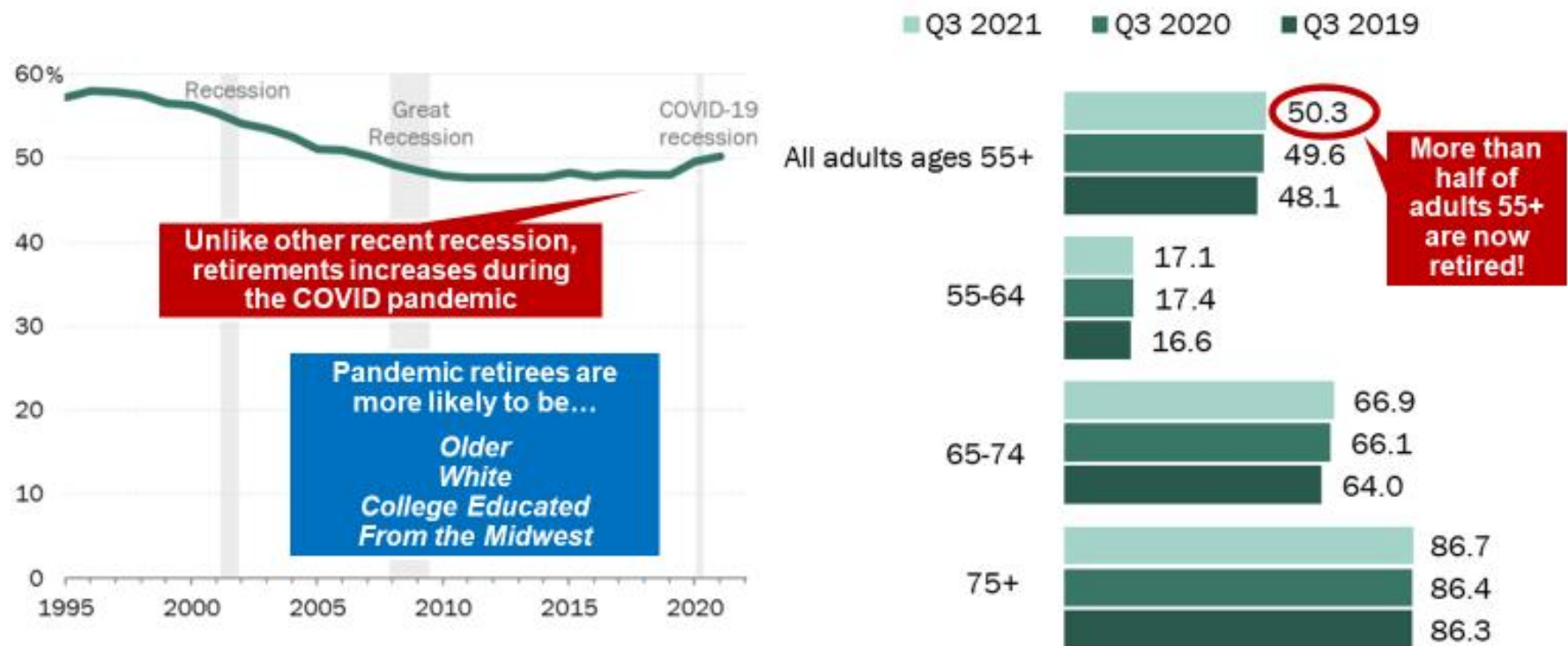
<https://www.ncci.com/Articles/Documents/Insights-COVID19-Impact-on-WC.pdf>; Risk and Uncertainty Management Center, Univ. of South Carolina.

Impact of Covid

- COVID was not the significant event anticipated for WC
- Ultimately could have a positive sustained impact on WC
 - Resulted in more teleworking reducing exposure
 - Resulted in more telemedicine reducing medical costs
- Some implications still being researched
 - Impact of deferred treatments
 - Impact on return to work and light duty programs
 - Development triangle implications
 - Long COVID

AGE OF WORKFORCE

Cumulative Percent Change in Number of U.S. Retirees, Jan. 2020 – Oct. 2021



Sources: Pew Research Center from Current Population Survey data, accessed 3/14/22 at: <https://www.pewresearch.org/fact-tank/2021/11/04/amid-the-pandemic-a-rising-share-of-older-u-s-adults-are-now-retired/>; 2021-11-04 retirement_01a/; Risk and Uncertainty Management Center, University of South Carolina.

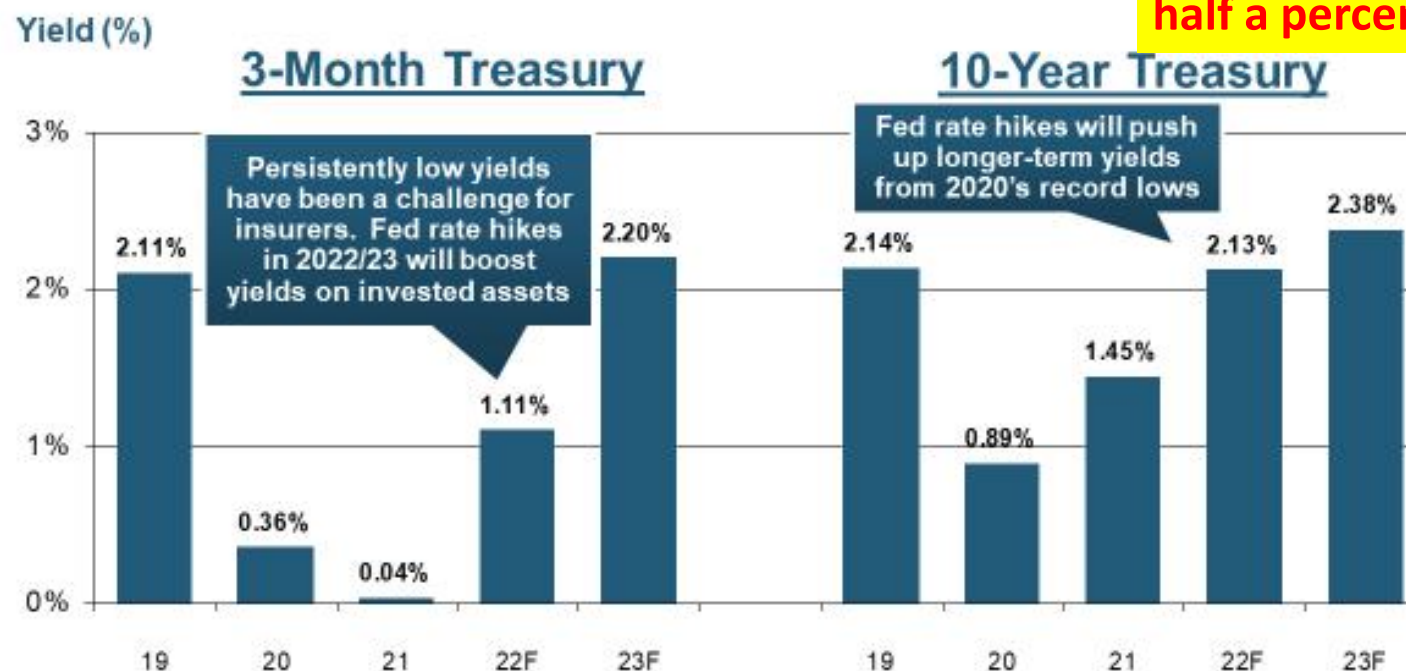
Impact of Younger Workforce

- Generally, claim frequency is higher for workers in their early twenties, late forties, and fifties.
- Claim severity is often lower for workers injured in their twenties than in other age groups
- Older workers more prone to work-related injury stemming from slips, trips or falls and more likely to have numerous conditions that may increase the propensity for job-related accidents
- Older workers have longer recovery periods following injury
- Claimants in their forties and fifties filed more claims that exceeded \$100,000 than claimants in other age groups.

INTEREST RATES

Interest Rate Forecasts: 2019 – 2023F

5/4/22 Federal Reserve raised interest rates by half a percentage point



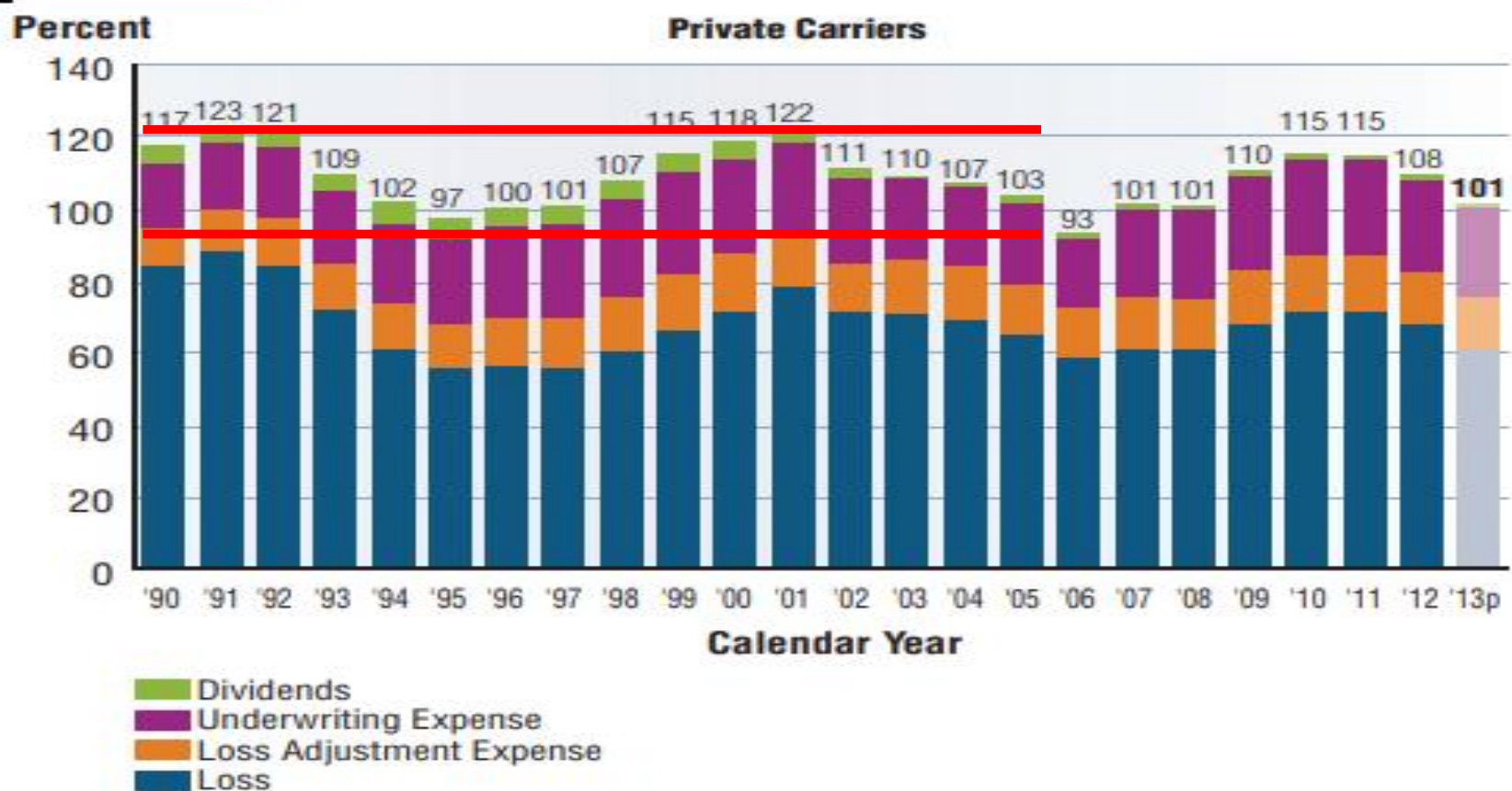
Rising interest rates will provide a modest tailwind for insurers as the Fed raises interest rates. This will be especially beneficial to longer-tailed lines such as Workers Comp.

Sources: Wells Fargo Securities (3/22); Risk and Uncertainty Management Center, University of South Carolina.

Impact of Interest Rates

- As one of the longest tail line, WC will benefit the most
- The impact of a small change can be significant on economics

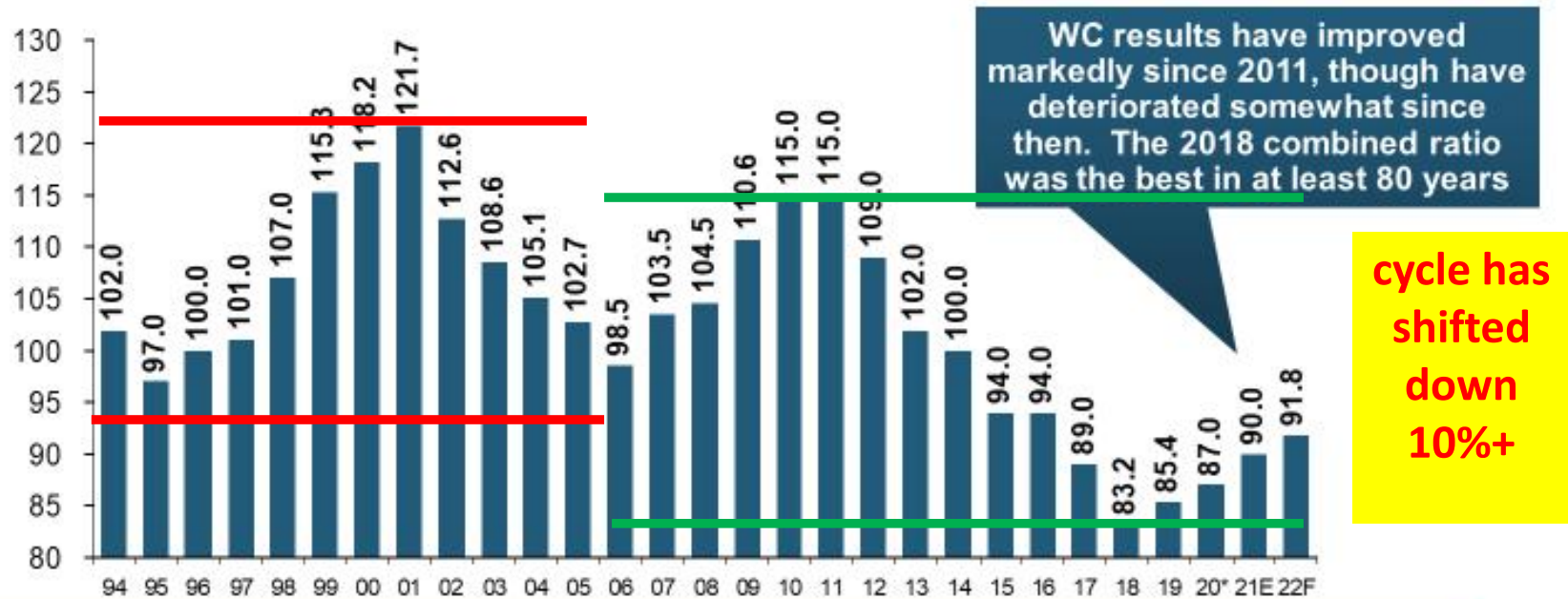
CYCLES

Exhibit 5**Workers Compensation Combined Ratio Improved Again**

p Preliminary

Sources: 1990–2012, Annual Statement data; 2013p, NCCI

Workers Compensation Combined Ratio: 1994–2022F



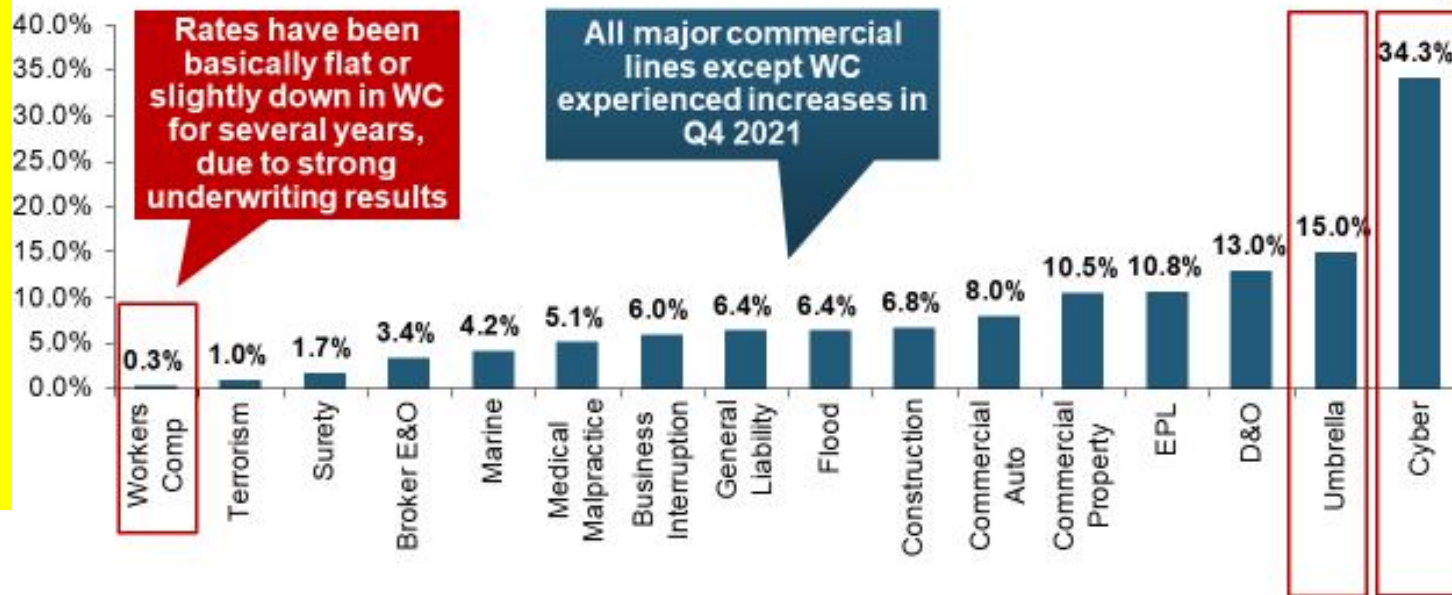
Workers Comp Results Improved Substantially Over the Past Decade with COVID Despite COVID and Major Labor Force Disruptions

Sources: A.M. Best (1994-2009 and 21E-22F); NCCI (2010-2020) and are for private carriers only. 2020 NCCI figure is preliminary.

Change in Commercial Rate Renewals, by Line: 2021:Q4

Percentage Change (%)

Per Conning, several insurers and brokers have made statements that the WC rate environment is improving, albeit slowly



Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.

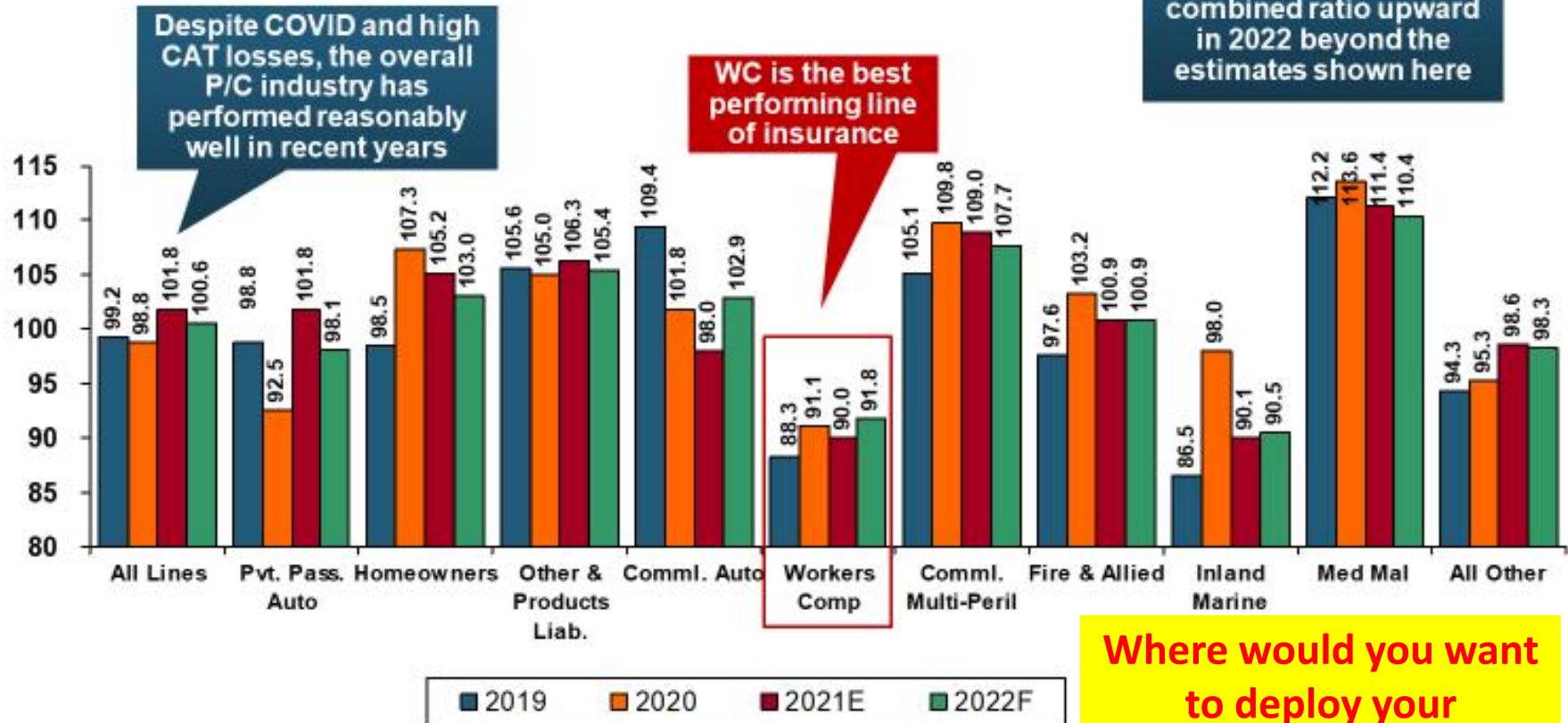
Source: Council of Insurance Agents and Brokers; USC Center for Risk and Uncertainty Management.

Causes of improved performance

- Changing economy that is moving toward industries with lower claim frequency
- Reforms enacted in many states in the 1990s resulting in safer workplaces
- Reforms impacting pharmaceuticals/opioids
- Fee Schedules in most states tied to Medicare
- Since 2000, the change in indemnity claim severity has tracked the change in average wage quite closely
- Availability of cheaper generic pharmaceuticals
- Growth of provider networks
- Improved claims practices
- Increased use of telecommuting resulting in anticipated further decline in frequency
- Success of telemedicine during the pandemic suggests that it could be a more viable option going forward

PERFORMANCE

Combined Ratios by Line: 2019 – 2022F



Source: A.M. Best Review & Preview (Feb. 2022); Univ. of South Carolina, Risk and Uncertainty Management Center.

SUMMARY

- ❖ The WC Line Remains Among the Best Performing of all P/C lines
- ❖ It Is Not An Anomaly or Luck
- ❖ There Are Many Sustainable Factors That Have Contributed To Its Profitability
- ❖ High Inflation Is Not Affecting The Line Like Others
- ❖ The Biggest Driver Of Costs Is Medical Inflation Which Remains Relatively Stable And Low
- ❖ Higher Interest Rates Will Have a Material Positive Impact on Economic Profitability
- ❖ NCCI believes there is significant redundancy in the reported AY C/R (9% for each 2018 and 2019)

Thank you

- **And a special thank you to Robert Hartwig, the NCCI and a few others for all the great material I had to pull from to illustrate my point**



Workers' Compensation Update 2022 CArE Meeting

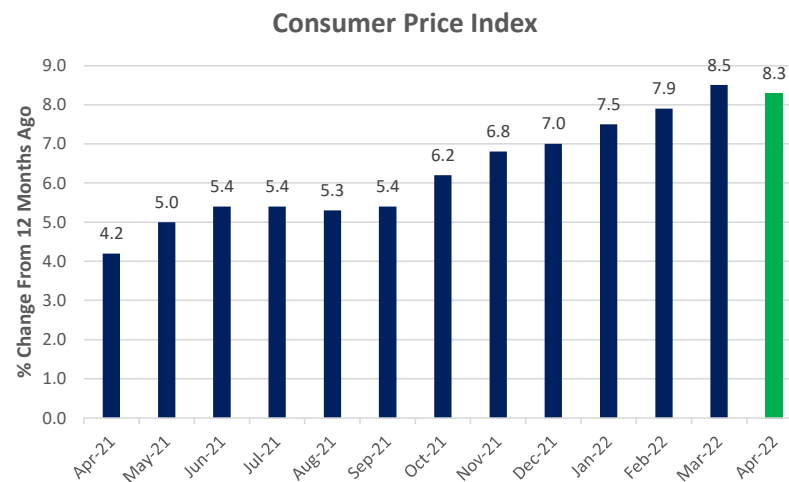
Bryan Ware

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Together**
AMTRUST FINANCIAL

Workers' Compensation Trends

Inflation

- Current inflation (April) is 8.3% CPI
 - Medical Inflation is still close to 3%
- Driven by energy costs
 - Other sectors are increasing as a result
 - Vehicles
 - Food
 - Shelter
- Social inflation isn't prevalent in Workers' Compensation



Source: Bureau of Labor Statistics

Workers' Compensation Trends

Components of Workers' Compensation Trend

- Lost Time Claim Frequency
- Medical Severity
- Indemnity Severity
- Wage Inflation



$$\frac{(1 + \text{Frequency}) * ((1 + \text{Medical Severity}) * (\text{Medical Weight}) + (1 + \text{Indemnity Severity}) * (\text{Indemnity Weight}))}{(1 + \text{Wage Growth})}$$

Workers' Compensation Guards Against Runaway Inflation

- Regulated fee schedules
- Carrier negotiated fee schedules
- Settling claims
- No-fault system, with most claims not going through courts

Workers' Compensation Trends



What to Watch For

- Extended medical inflation
 - Will affect the losses for the year more than is reflected in the pricing
 - Can also affect runoff of prior years
- High wage growth
- Changes in the guards against runaway inflation

Workers' Compensation Trends



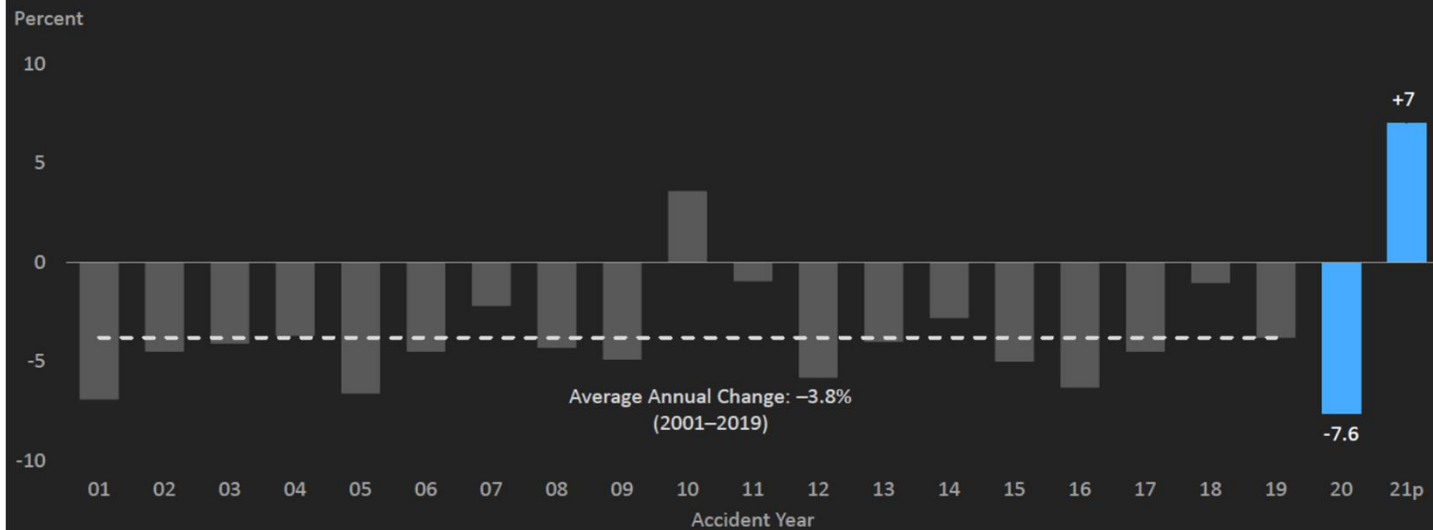
Bureau Activity

- 2022 Loss Cost (Rate) Filings
 - Most recent data is typically Policy Year 19 or Accident Year 20.
 - Latest year affected by COVID
 - Lower frequency than is typical
 - Severity is higher, but not offsetting
 - Bureau methodology produces frequency and severity trends by fitting to historic data
 - Then the selected trends are applied to the latest available data, some of which is artificially low due to COVID

Workers' Compensation Trends

WC Lost-Time Claim Frequency

Change in Claims per \$1M Pure Premium, Private Carriers and State Funds—NCCI States, Excludes COVID-19 Claims



2010–2011 and 2019–2021 have been adjusted to reflect the impact of changes in audit activity

p Preliminary, based on data valued as of 12/31/2021; excludes COVID-19 claims

Source: NCCI's Financial Call data, developed to ultimate, premium adjusted to current wage and voluntary pure premium level, excludes high-deductible policies; based on data through 12/31/2020

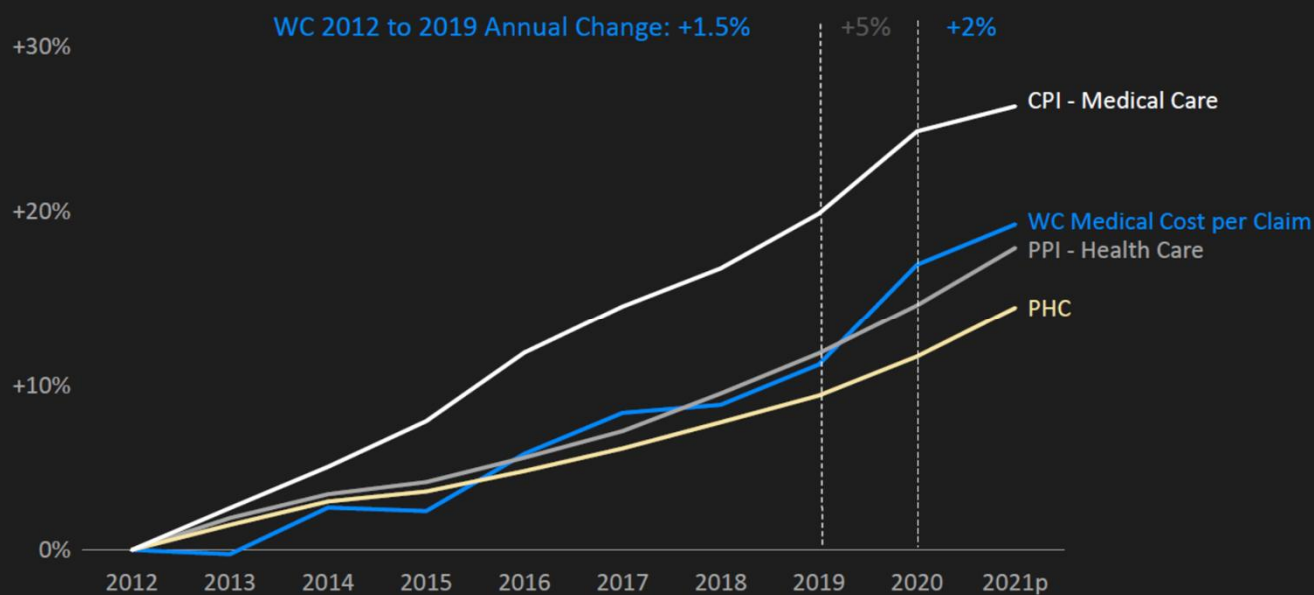
Includes all states where NCCI provides ratemaking services; NV is excluded through 2001, TX is excluded through 2006, and WV is excluded through 2011

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AIS
2022

Workers' Compensation Trends

Price Indices Compared to WC Medical Costs



p Preliminary

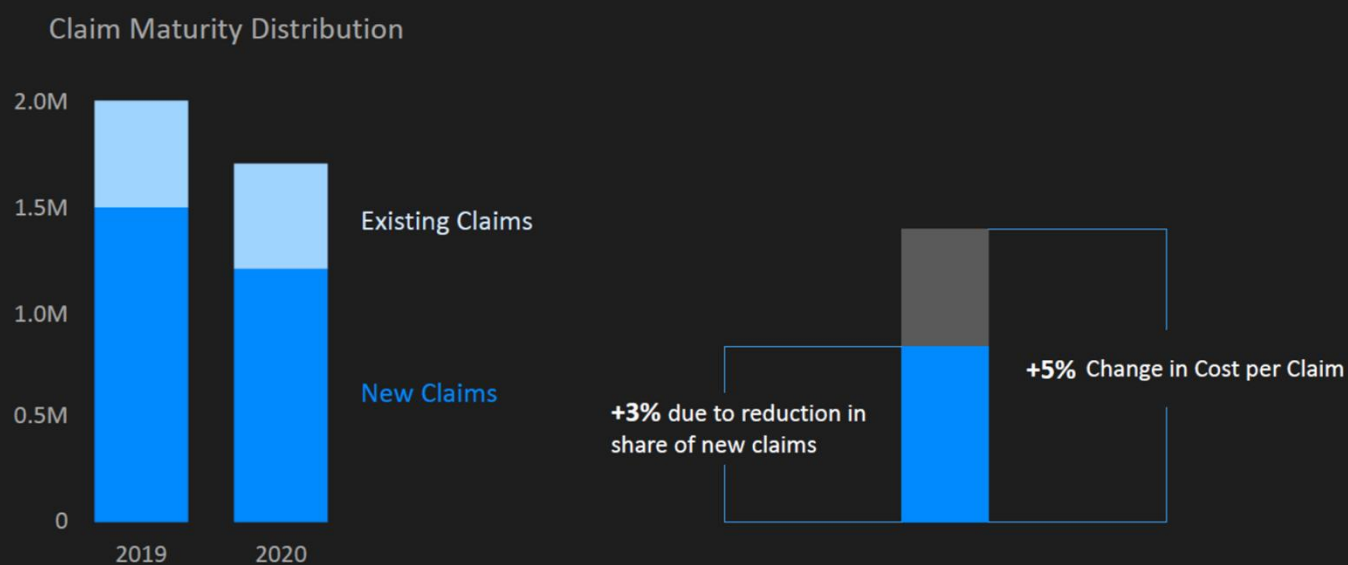
Source: Bureau of Labor Statistics (Average Annual), Centers for Medicare & Medicaid Services, and NCCI Medical Data Call

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AIS
2022

Workers' Compensation Trends

Medical Paid Cost per Claim



Source: NCCI Medical Data Call

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AIS
2022

Thank You

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NYCIRB

**New York Experience Rating Changes
Casualty Actuarial Society
Reinsurance Seminar**

New York Experience Rating Plan: Summary of Changes

New Rating Worksheets

New Mod Formula
Variable Split Points
Novel Claim Count Caps
First Year Transitional Mod Caps

Other System Changes

Merit Rating Discontinued
Interstate Ratings Won't Include New York
Ownership Changes Directly to NYCIRB
New York Specific Mod

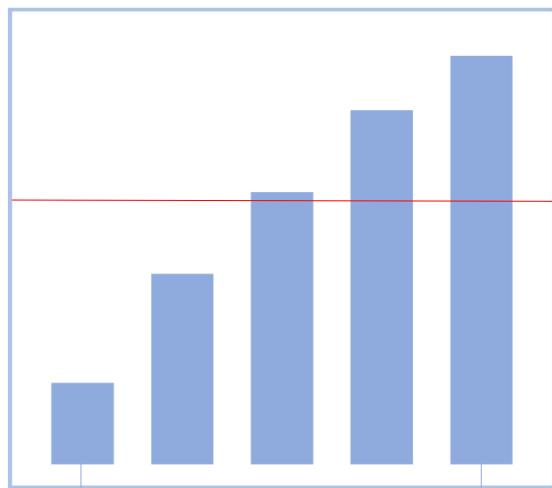
Employer's Perspective

Educating Existing Experience Rated Employers
Educating New Experience Rated Employers
Appropriate Limitations Used Throughout
Expected Impacts to Employer Mods
Importance of Safe Workplaces

<https://www.nycirb.org/experience-rating-transition.php>

The Mods Role in Premium Equity

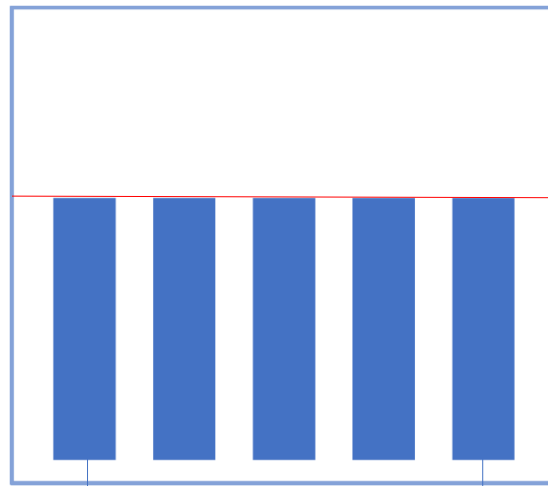
Before Experience Rating



Low Mods

High Mods

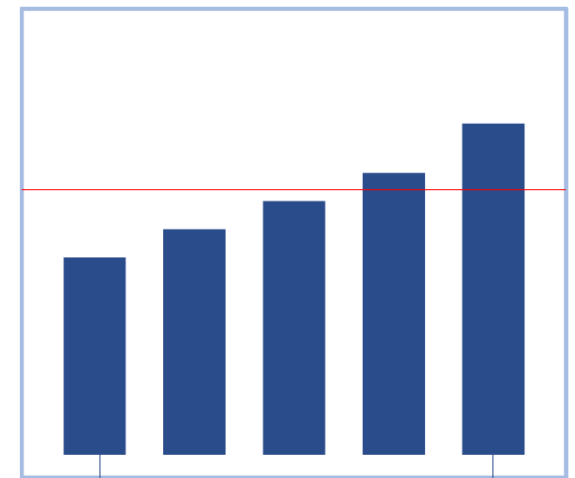
After Experience Rating
(Ideal)



Low Mods

High Mods

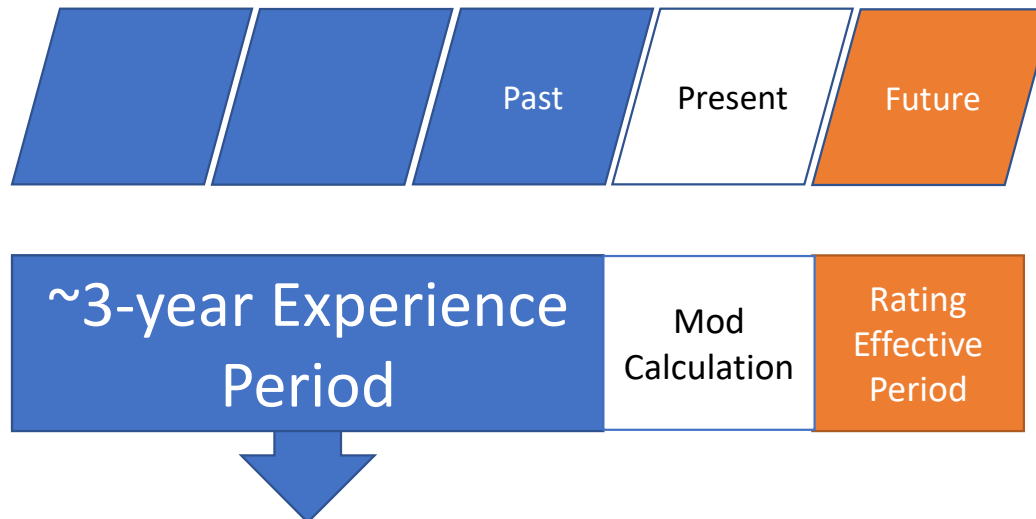
After Experience Rating
(Current Plan)



Low Mods

High Mods

The Experience Period, Expected Losses, and the State Accident Limit



$$\text{Expected Losses} = (\text{Payroll} / 100) \times \text{ELR}$$

↑
Impacted by change in the State Accident Limit (SAL)
– Now uses \$175,000 SAL

New York Experience Rating Plan: The Simplified Mod Formula

$$\text{Mod} = \frac{A_p + E_e}{E}$$

A_p = actual primary losses

E_e = expected excess losses

E = total expected losses

New York Experience Rating Plan: The Split Point

Expected Losses



Split Point

Excess Losses

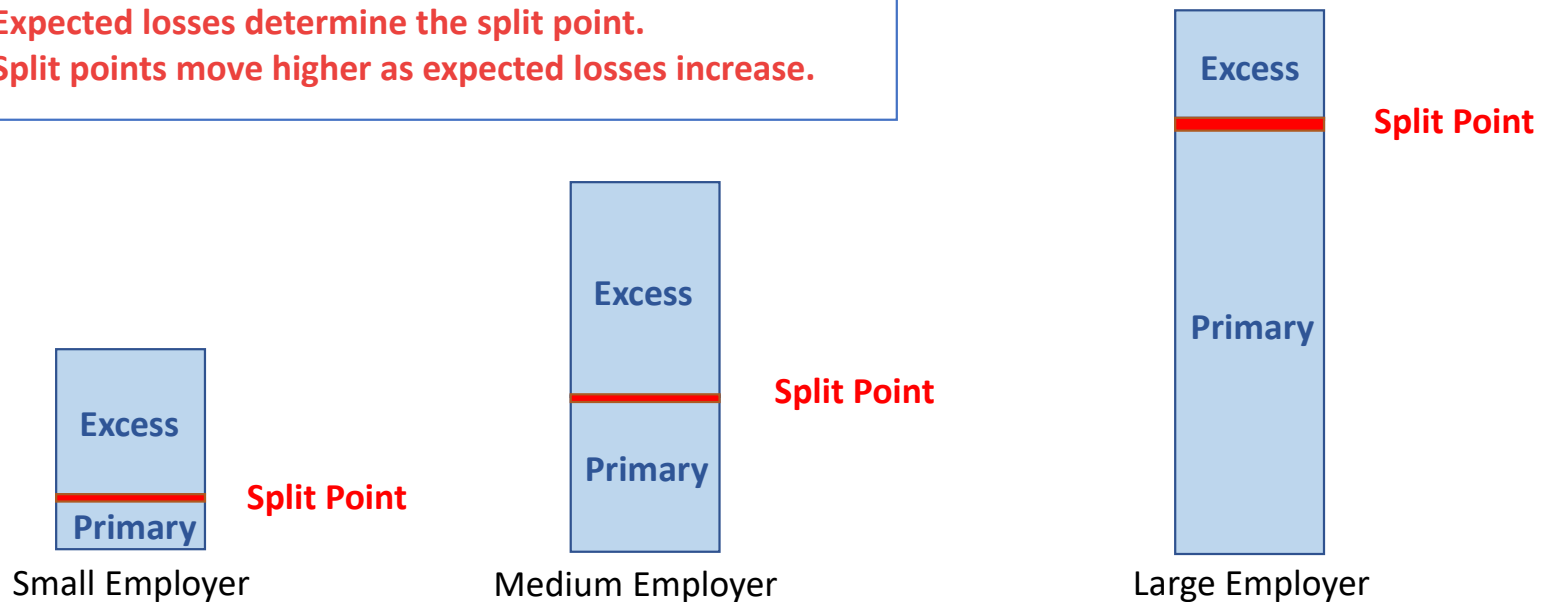


Primary Losses



New York Experience Rating Plan: The Variable Split Point

Expected losses determine the split point.
Split points move higher as expected losses increase.



As the split point moves higher, the proportion of primary losses increases, and the proportion of excess losses decreases.

New York Experience Rating Plan: The Simplified Mod Formula

$$\text{Mod} = \frac{A_p + E_e}{E}$$

A_p = actual primary losses

E_e = expected excess losses

E = total expected losses

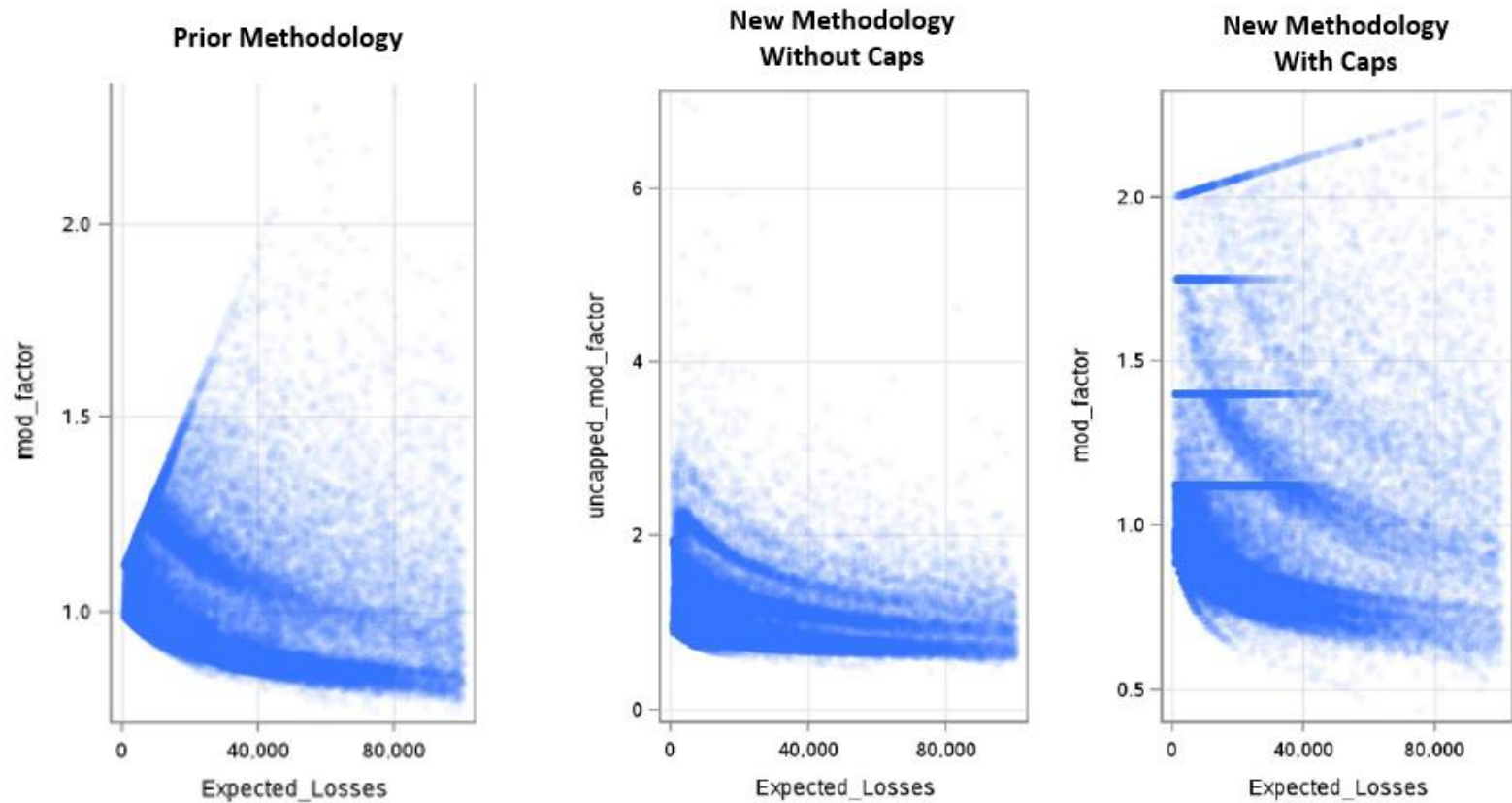
Claim Count Caps

- **1 Claim** – Mod capped at **1.12**
- **2 Claims** – Mod capped at **1.40**
- **3 Claims** – Mod capped at **1.75**
- **4+ Claims** – Mod capped by formula, resulting in a cap at just above 2.0 for the smallest risks, while permitting risks with approximately \$1M in expected losses to have mods as high as 5.0

Formula Mod Cap

$$2 + (0.000003 \times \text{expected losses})$$

A Graphical View of Small to Medium Sized Risks



Premium Equity

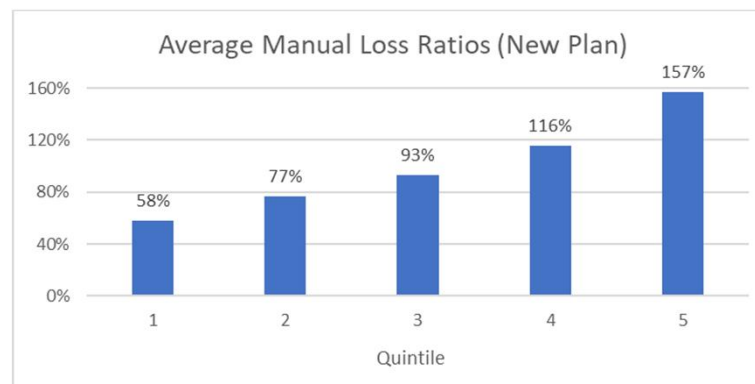
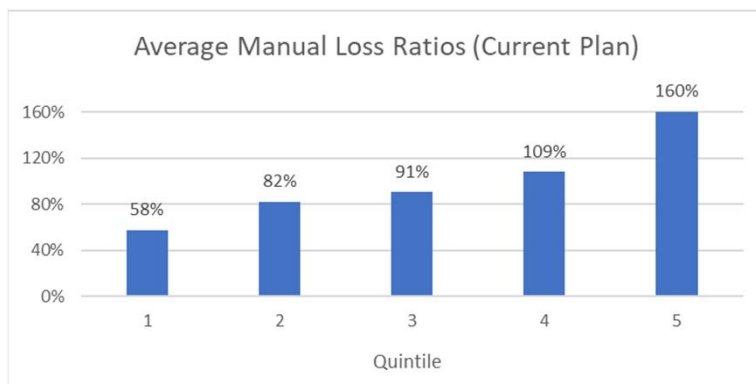


Mod is **predictive** of future experience / Mods are **equitably distributed**

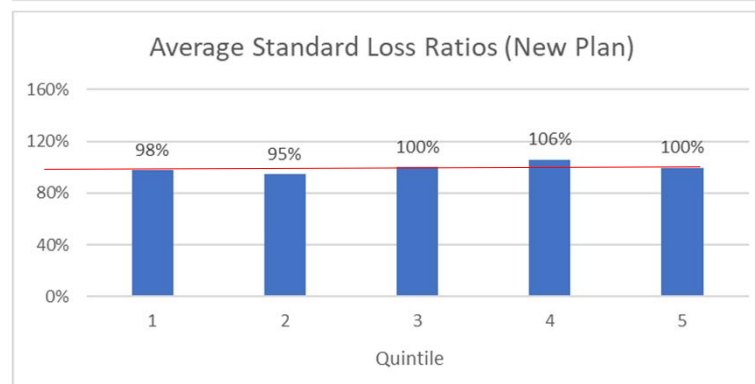
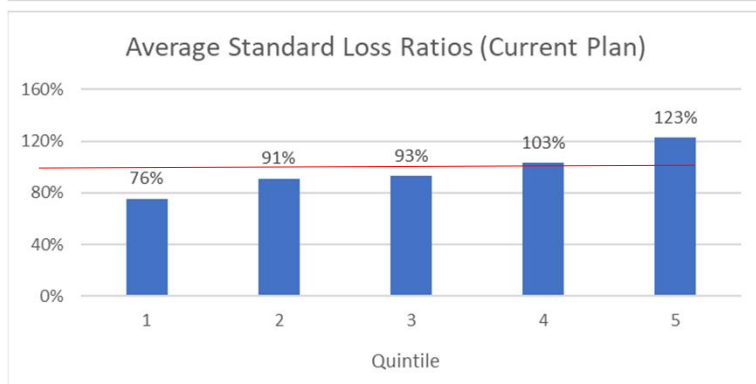
Current Plan

New Plan

Before Mod

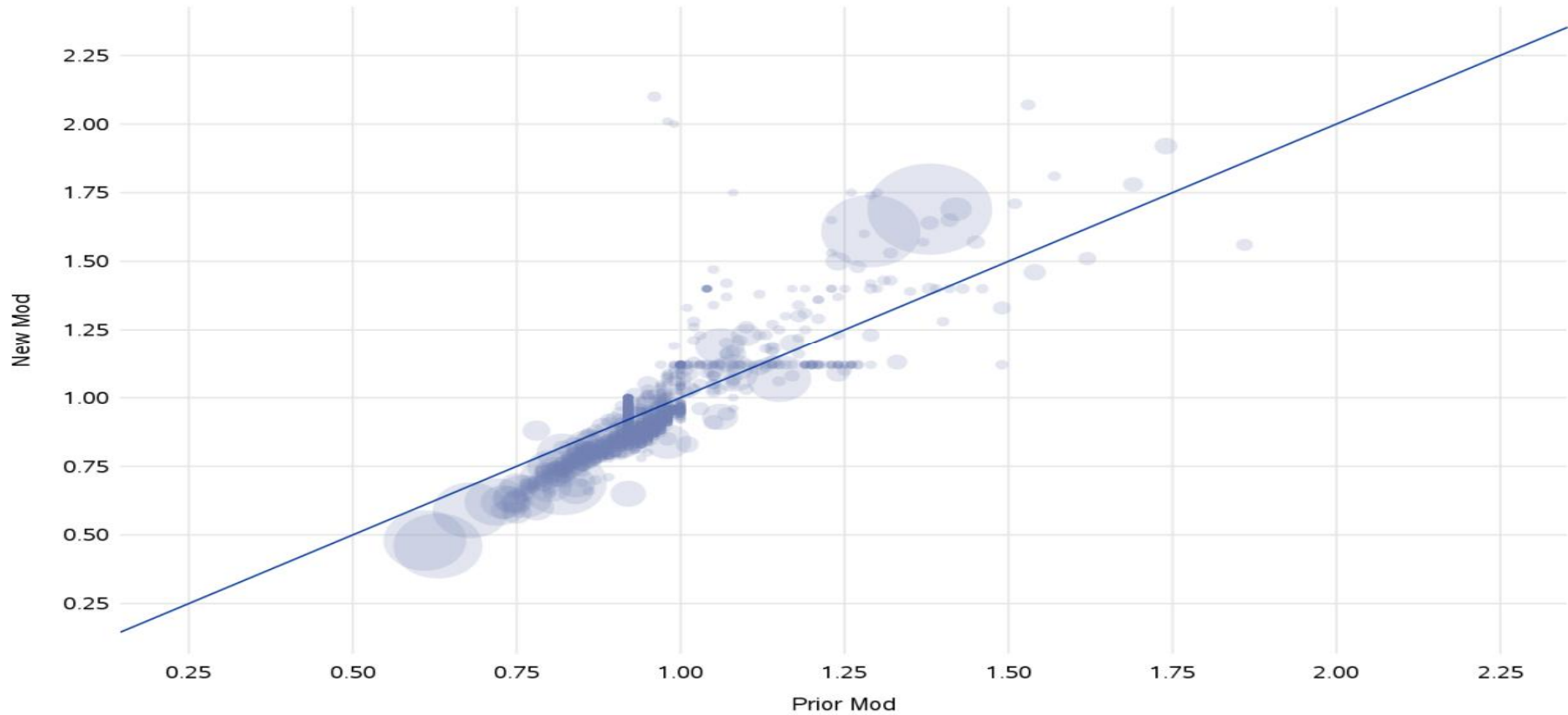


After Mod



Individual Risk Changes

Mod Changes for Individual Risks
3,000 Randomly Selected Risks
No Transition Rule



Size of circle reflects expected loss size of risk

Question and Answer Time

Questions ???



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<https://www.nycirb.org/experience-rating-transition.php>