



# Overview Of The Colorado Workers Compensation System

**Colorado Interim Committee**

**August 14, 2009**

**Mike Taylor  
NCCI**

# **Colorado Workers Compensation System— An Overview**

- **Claim frequency continues to decline but at a slower pace**
- **Decrease in the medical and indemnity loss ratios**
- **Higher than average permanent partial disability frequency, but lower than average cost per case**
- **Somewhat higher involvement by attorneys compared with that observed countrywide**

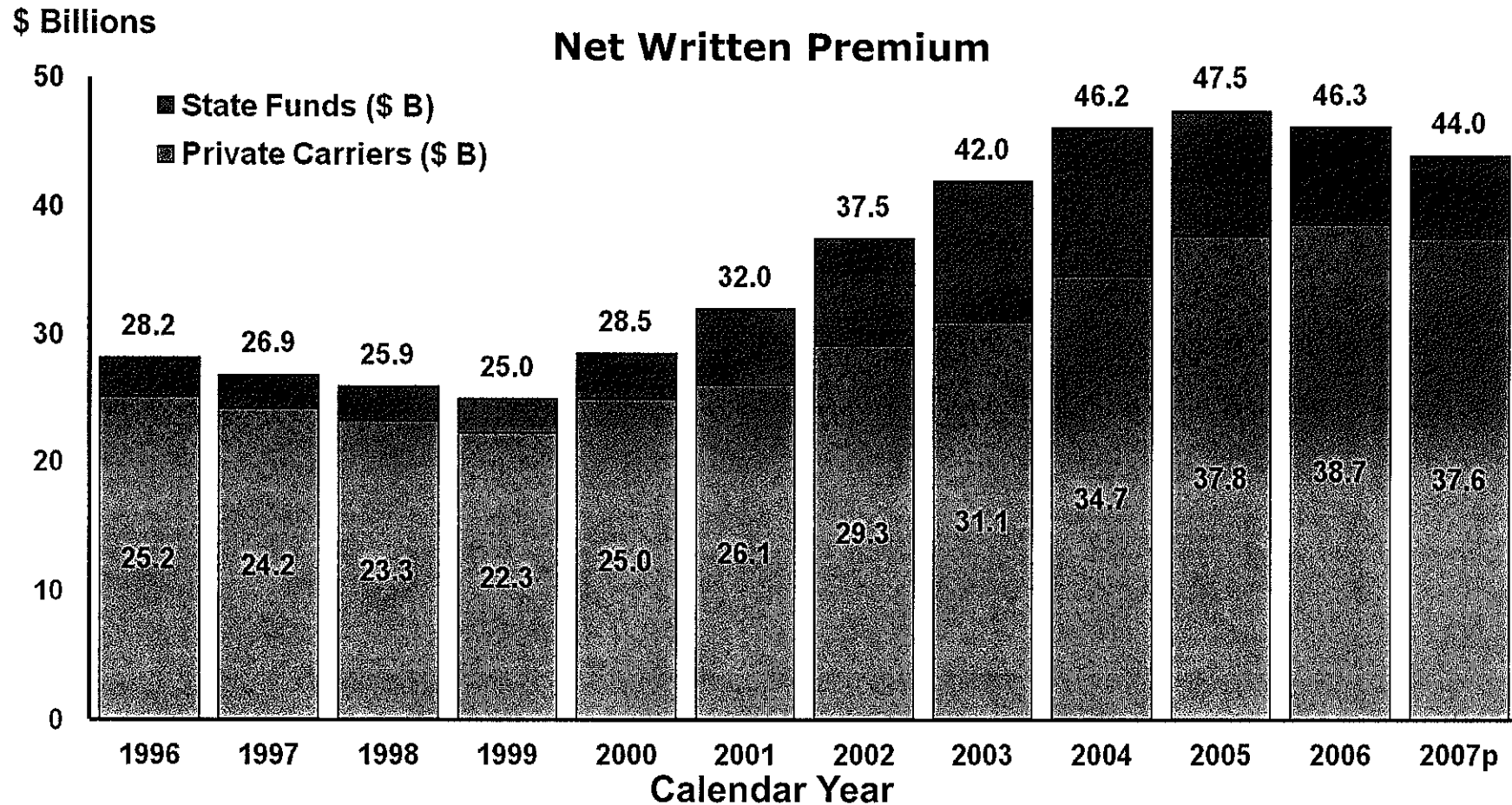
# State of the Industry An Overview

- Underwriting results continue to be good, although there has been some deterioration
- Frequency continues to decline—at a lower rate
- Medical costs remain above inflation
- Uncertain political fallout from fall elections
- Continued regulatory turnover

# Countrywide Workers Compensation Claim Frequency and Severity

- Countrywide frequency continues to decline. In fact, for each of the last 10 years (and 15 of the last 17), on-the-job claim frequency for workers compensation injuries has declined from the previous year's level
- Countrywide medical and indemnity costs continue to rise—somewhat negating the good news regarding reduced claims

# Countrywide Total Workers Compensation Premium Continues to Decline in 2007



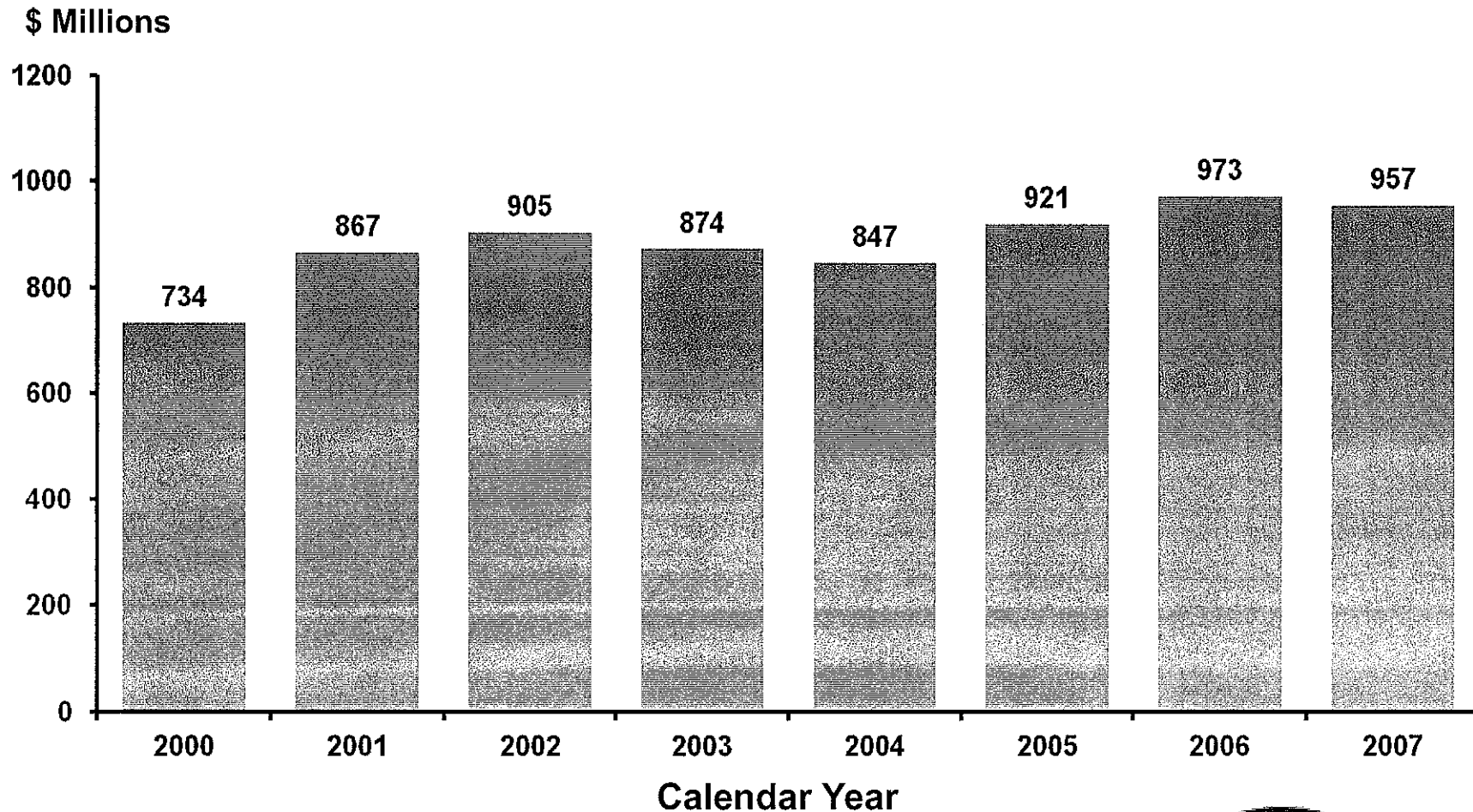
p Preliminary  
 Source: 1996-2006 Private Carriers, *Best's Aggregates & Averages*;  
 2007p, NCCI 1996-2007p State Funds: AZ, CA, CO, HI, ID, KY,  
 LA, MO, MT, NM, OK, OR, RI, TX, UT Annual Statements

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# Colorado's Workers Compensation Premium Volume

## Direct Written Premium



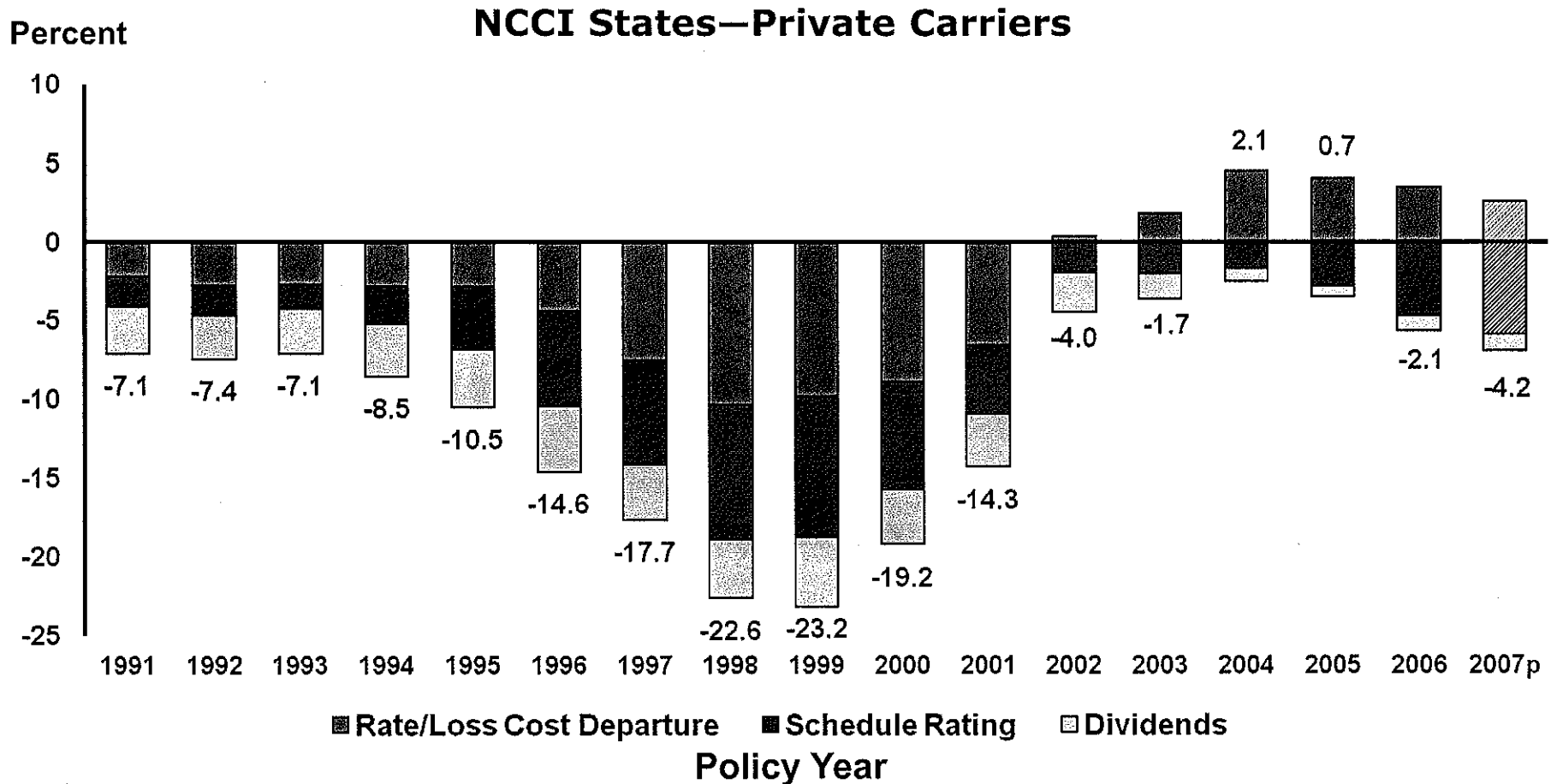
Source: NAIC Annual Statement data

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# Countrywide Impact of Discounting on Workers Compensation Premium



p Preliminary

NCCI benchmark level does not include an underwriting contingency provision

Dividend ratios are based on calendar year statistics

Based on data through 12/31/2007 for the states where NCCI provides ratemaking services

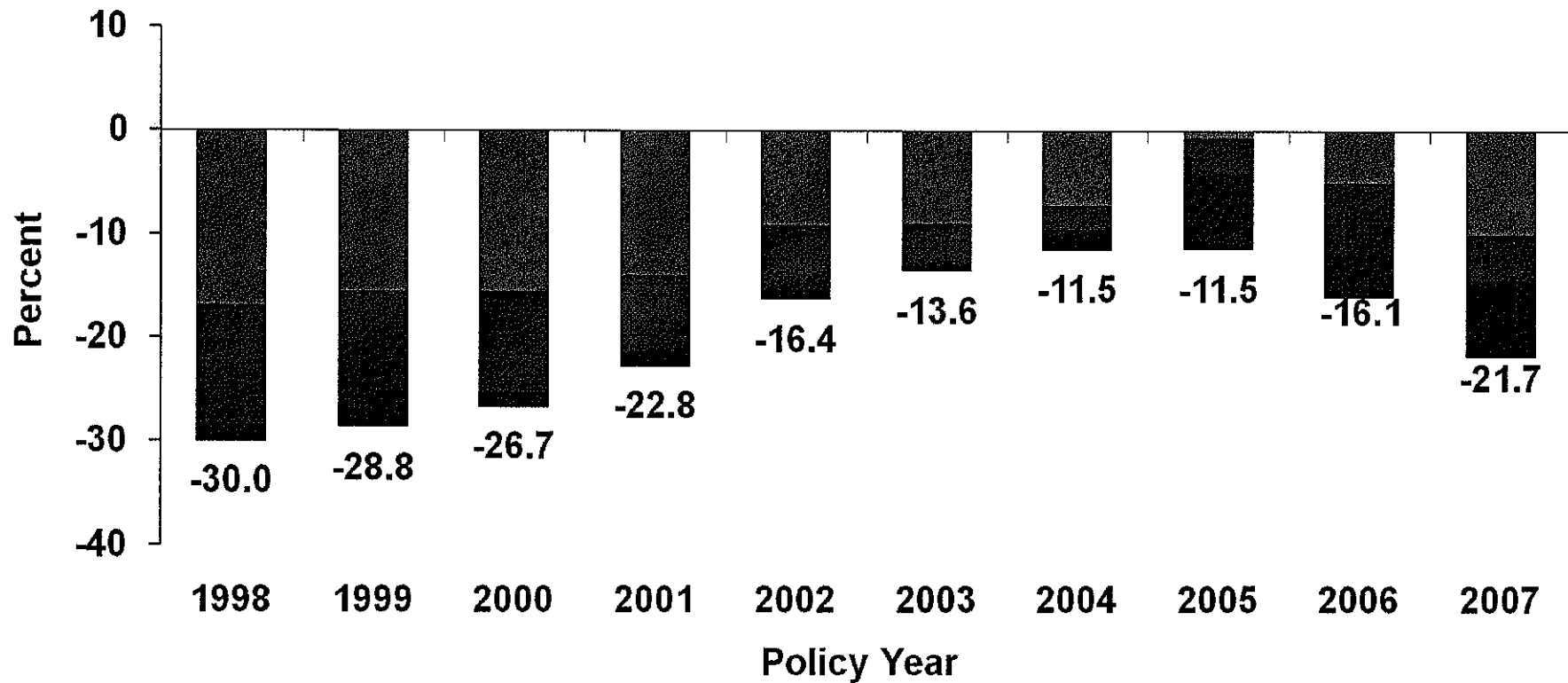
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# Rate/Loss Cost Departures, Schedule Rating and Dividends in Colorado



■ Dividends

■ Schedule Rating

■ Rate/Loss Cost Departure

Based on data through 12/31/2006.  
Dividend ratios are based on calendar year statistics.

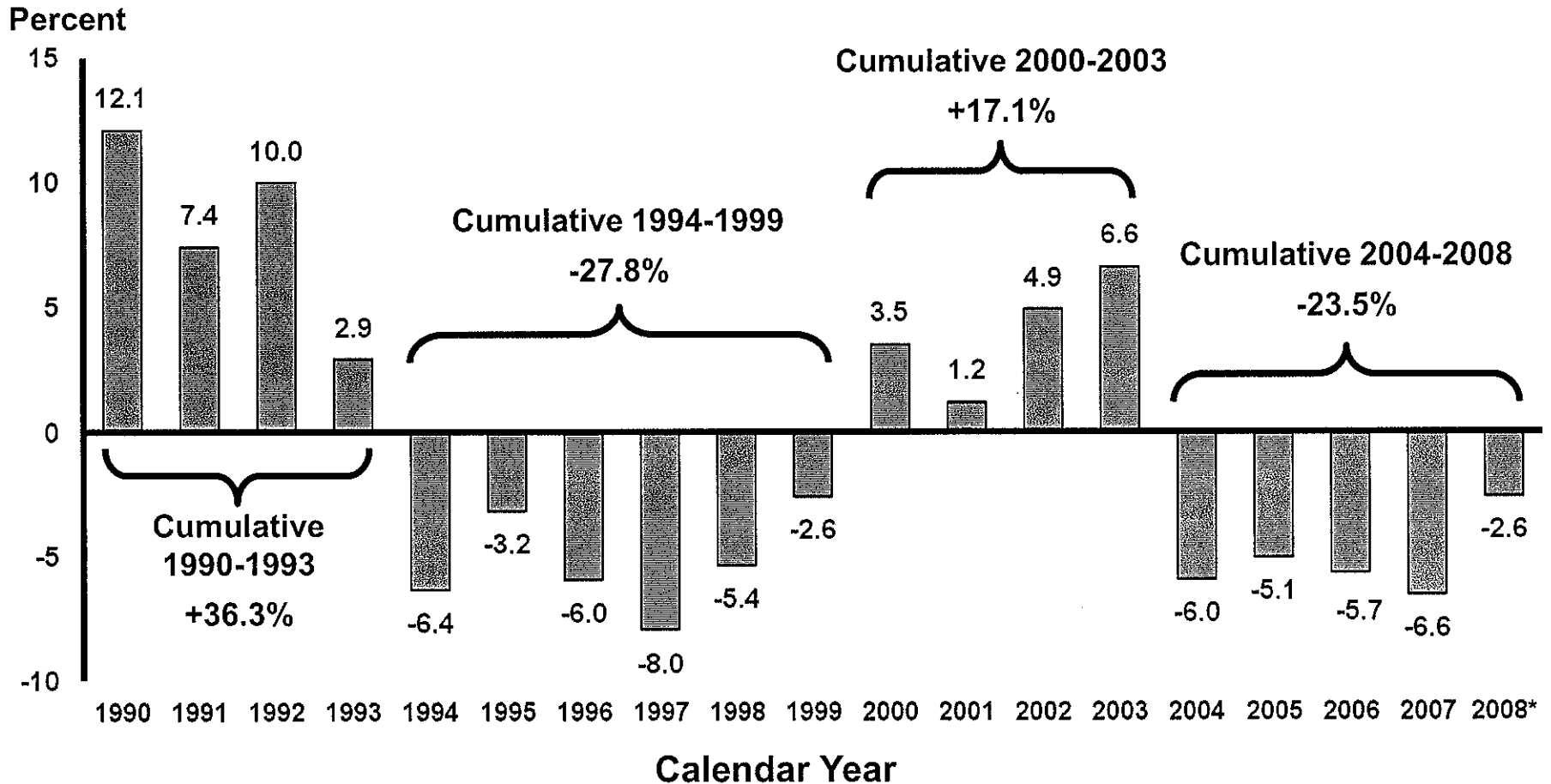
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# Countrywide Average Approved Bureau Rates/Loss Costs

## History of Average WC Bureau Rate/Loss Cost Level Changes



\* Preliminary

Countrywide approved changes in advisory rates, loss costs and assigned risk rates as filed by the applicable rating organization

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# Western State Voluntary Market Filings

Arizona	10/1/08	+7.9%
California	1/1/09	+5.0%
Montana	7/1/08	-1.8%
Idaho	1/1/09	-3.8%
Alaska*	1/1/09	-4.8%
Oregon	1/1/09	-5.9%
New Mexico	1/1/09	-6.7%
Utah	12/1/08	-7.8%
Nevada	3/1/08	-10.5%
Hawaii	1/1/09	-11.6%
Colorado	1/1/09	-15.9%

\* Pending

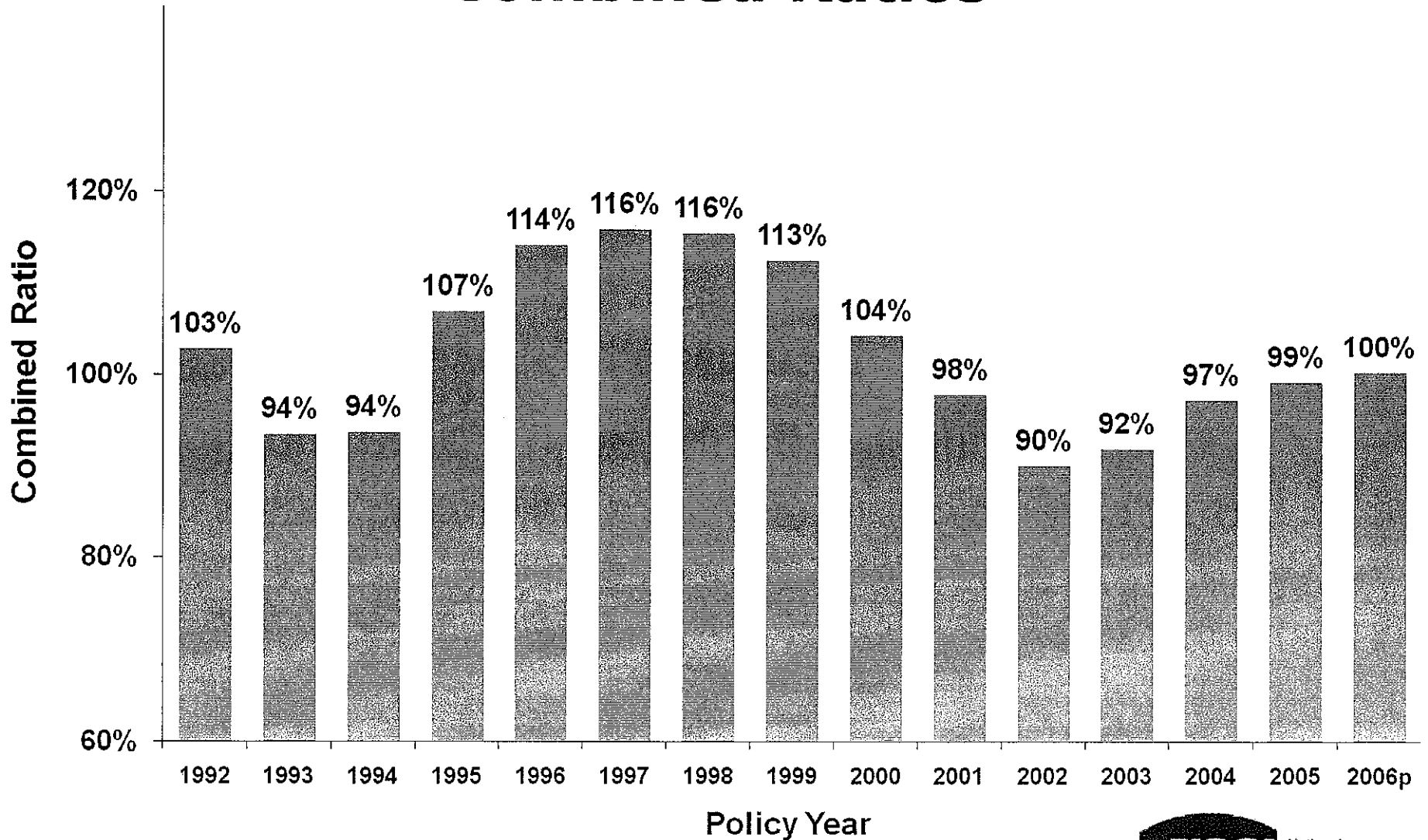
# 2008/2009 Filing Cycle

NCCI Voluntary Market Filing Activity

- Data for 36 states has been reviewed
  - 6 states have filed a change of 0% or greater or will not have a filing during this filing cycle
  - 30 states have filed decreases
- Range of voluntary filings: -18.6% to +9.1%

Based on data evaluated as of 12/31/2007.

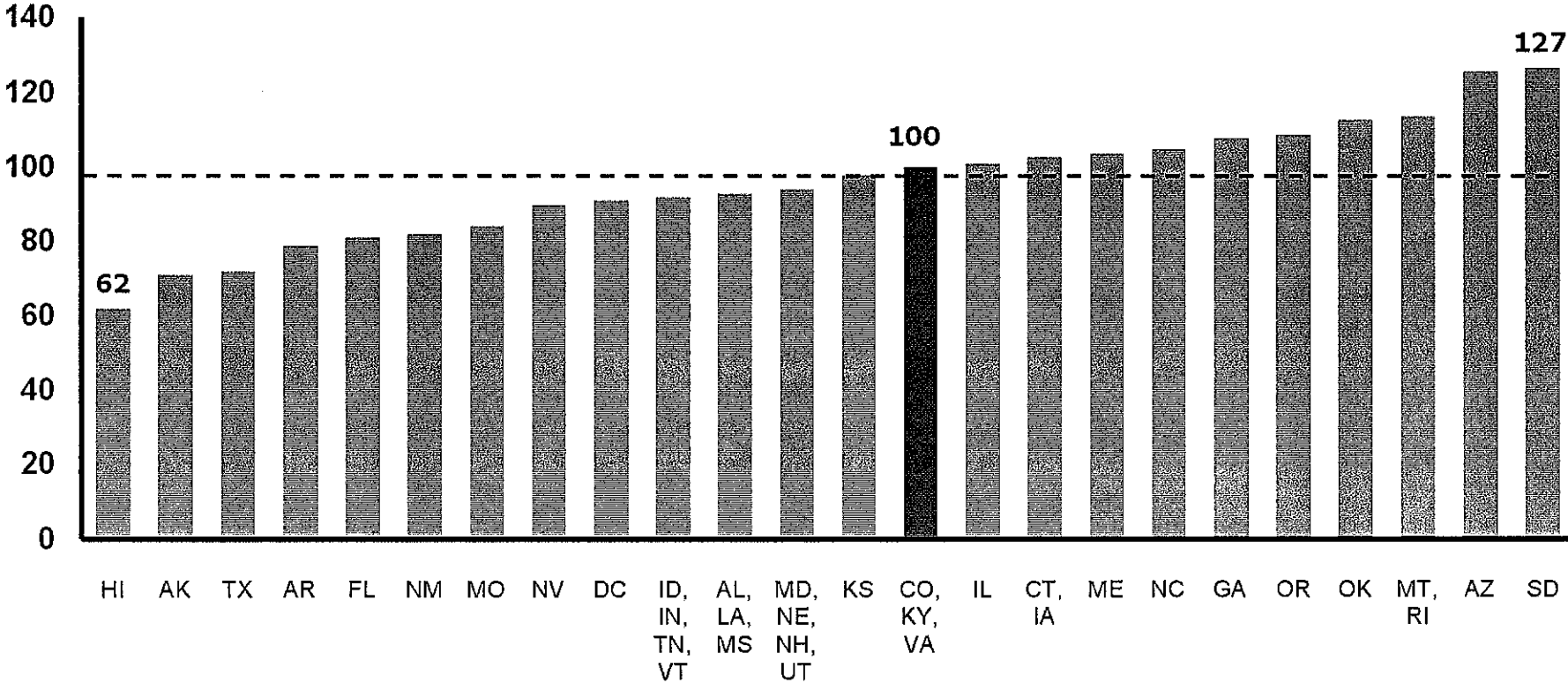
# Colorado Policy Year Combined Ratios



Source: NCCI financial data.

# Results Vary From State to State

Accident Year 2006 Combined Ratios



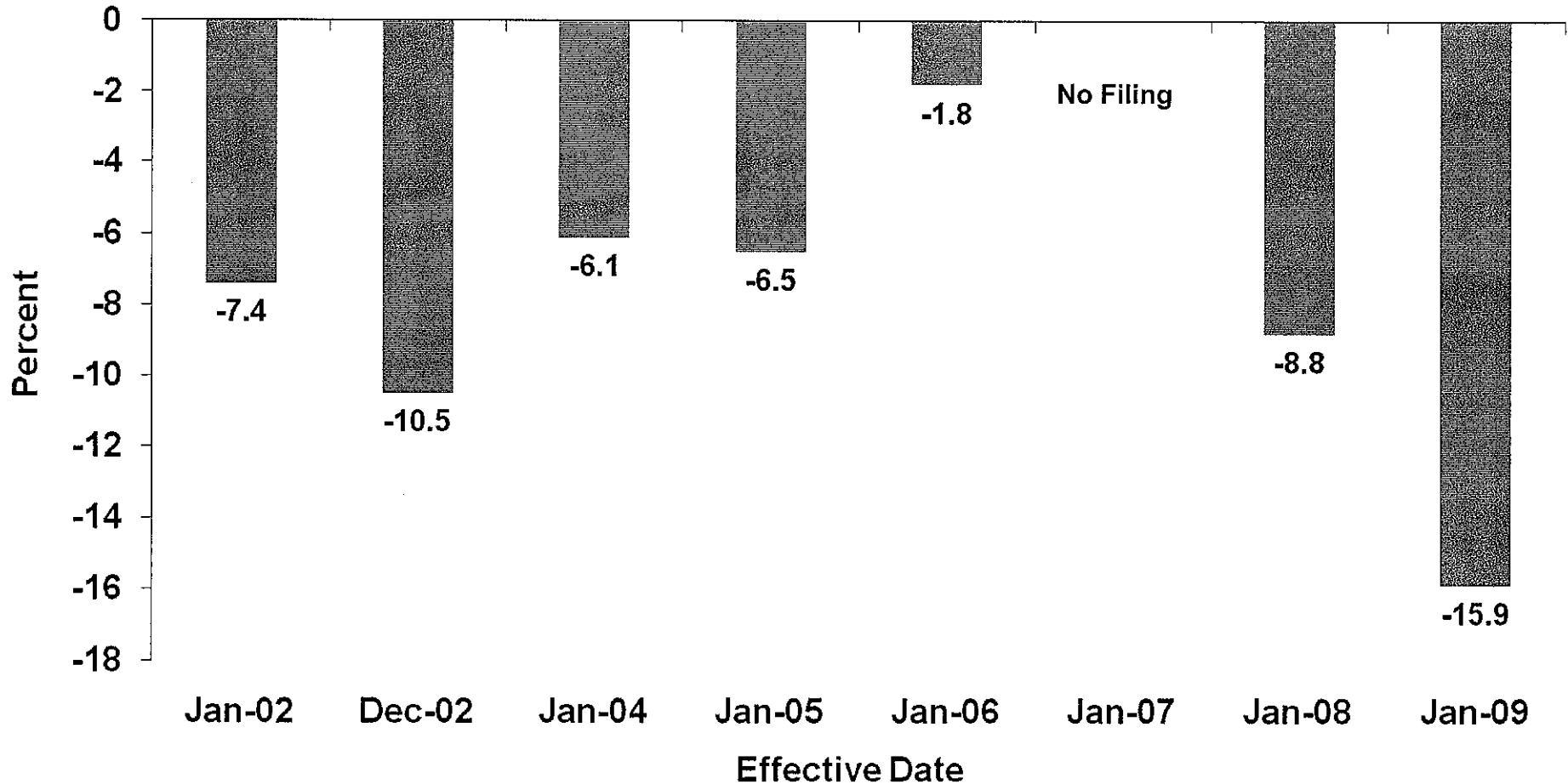
Data is evaluated as of 12/31/2006.

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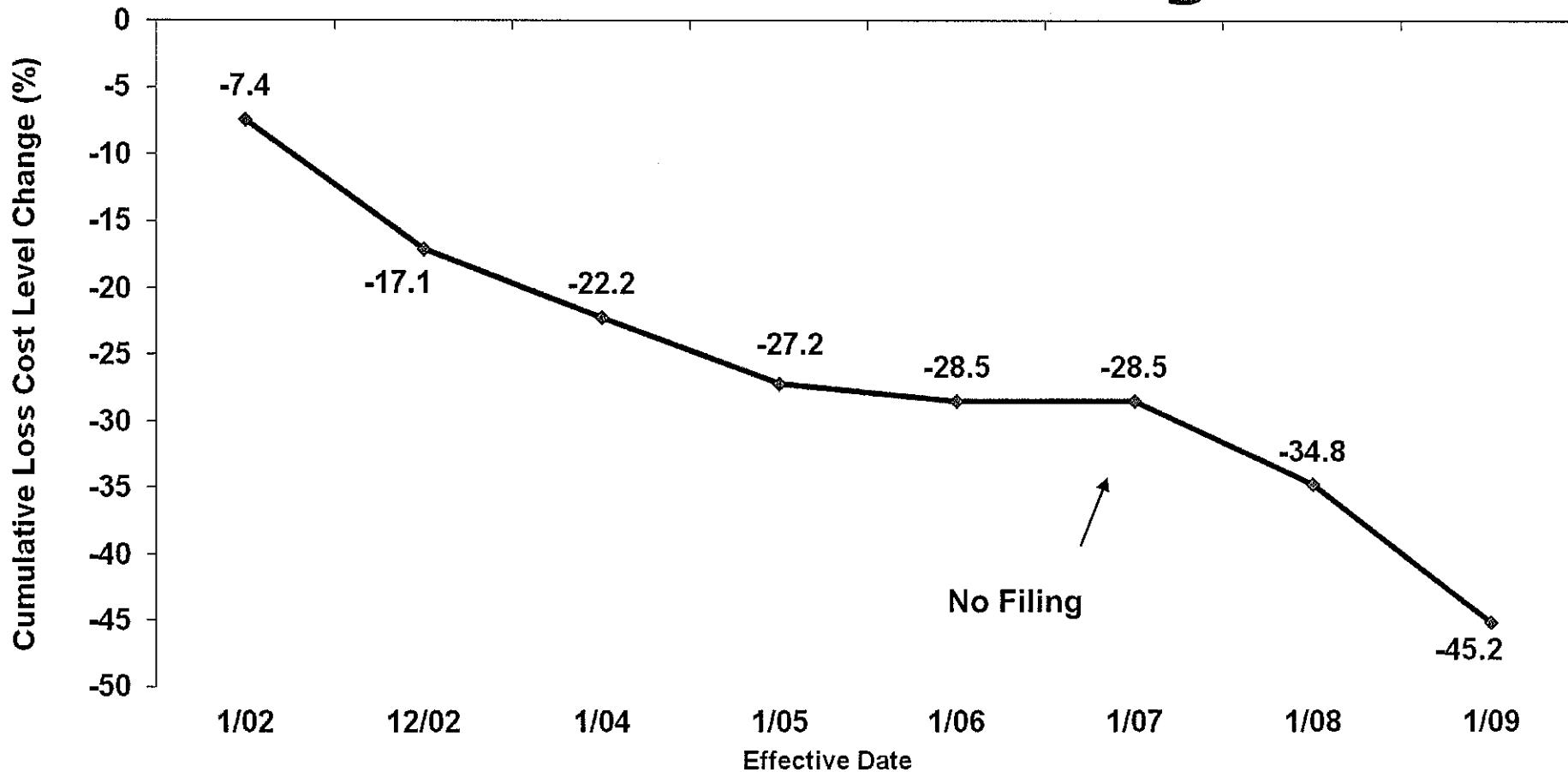


# Colorado's Filing Activity

## Voluntary Loss Cost Changes

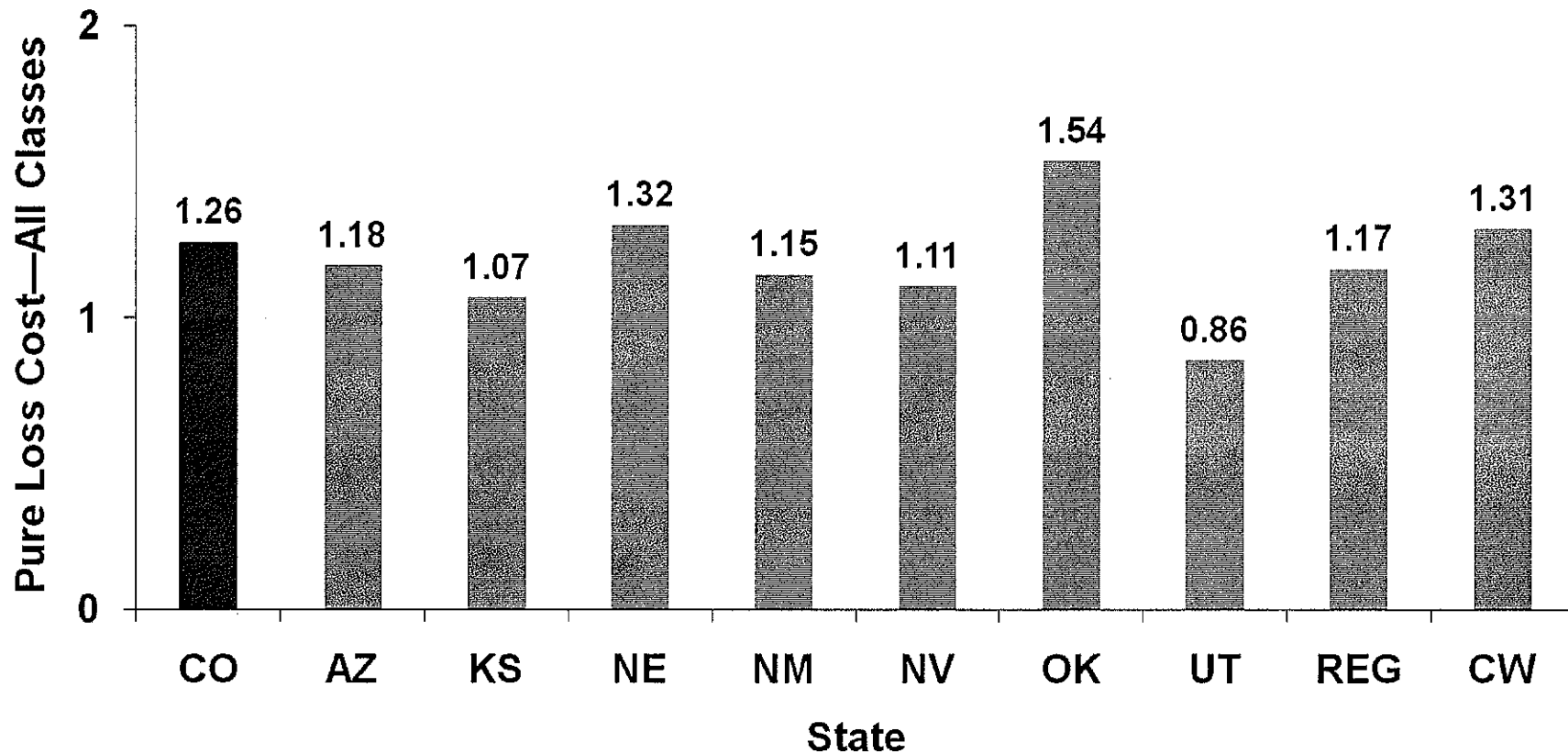


# Colorado's Cumulative Loss Cost Level Change



# Regional Average Voluntary Pure Loss Costs

## Using Colorado's Payroll Distribution



Based on the latest NCCI approved rates and loss costs in the various states.

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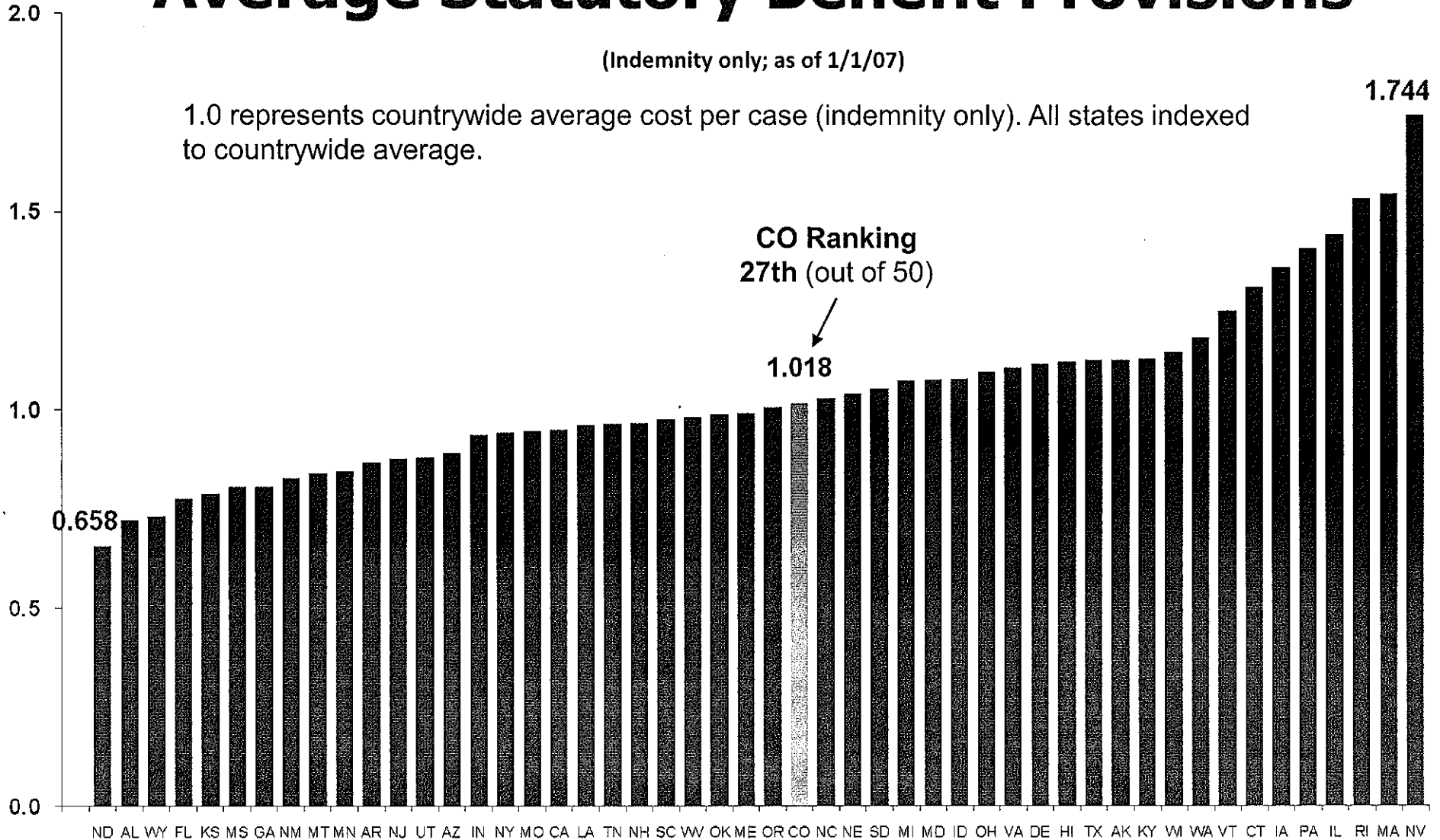




# Average Statutory Benefit Provisions

(Indemnity only; as of 1/1/07)

1.0 represents countrywide average cost per case (indemnity only). All states indexed to countrywide average.



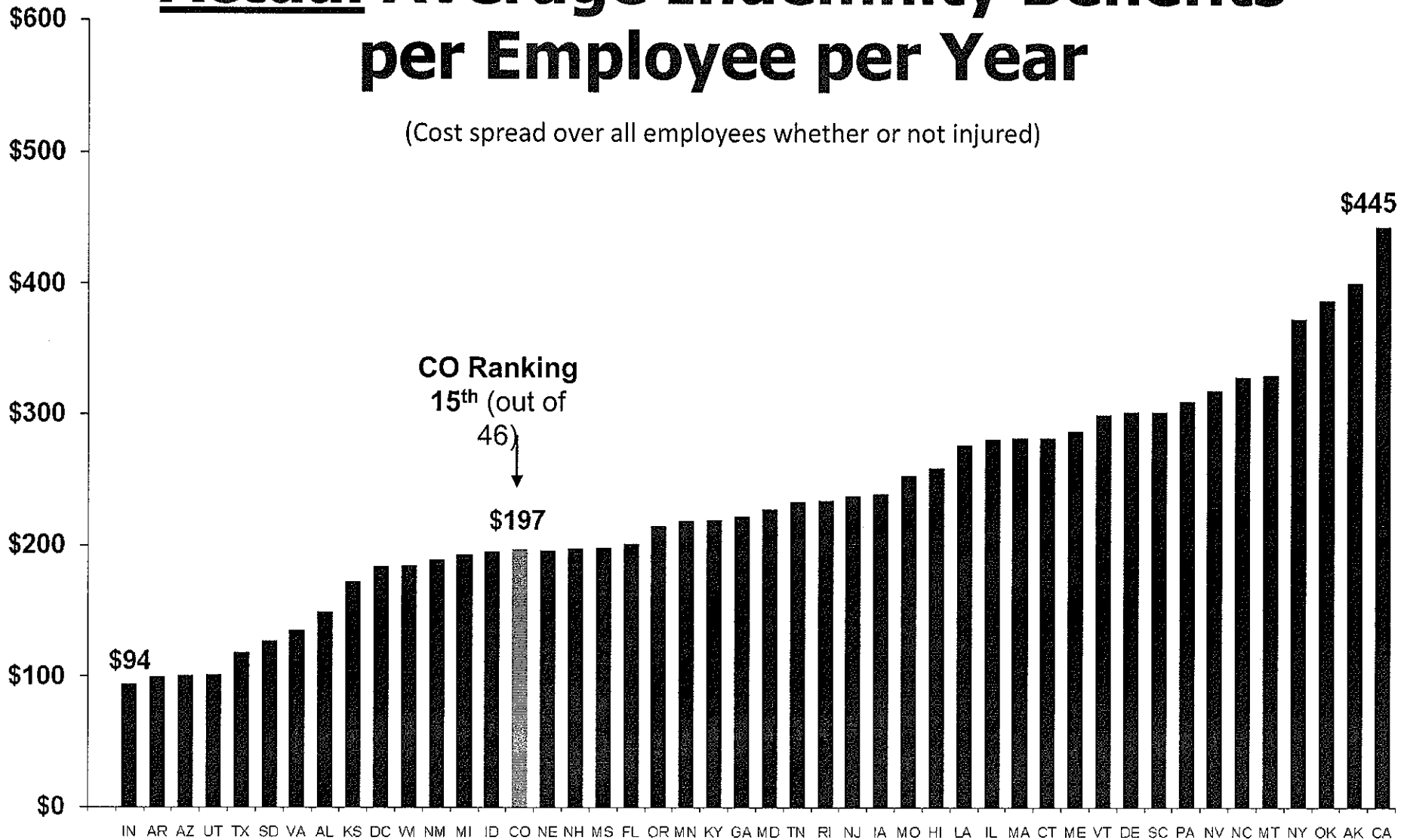
Source: *Workers Compensation State Rankings, Manufacturing Industry Costs, and Statutory Benefit Provisions, 2007 Ed.*, Prepared by Actuarial & Technical Solutions, Inc.

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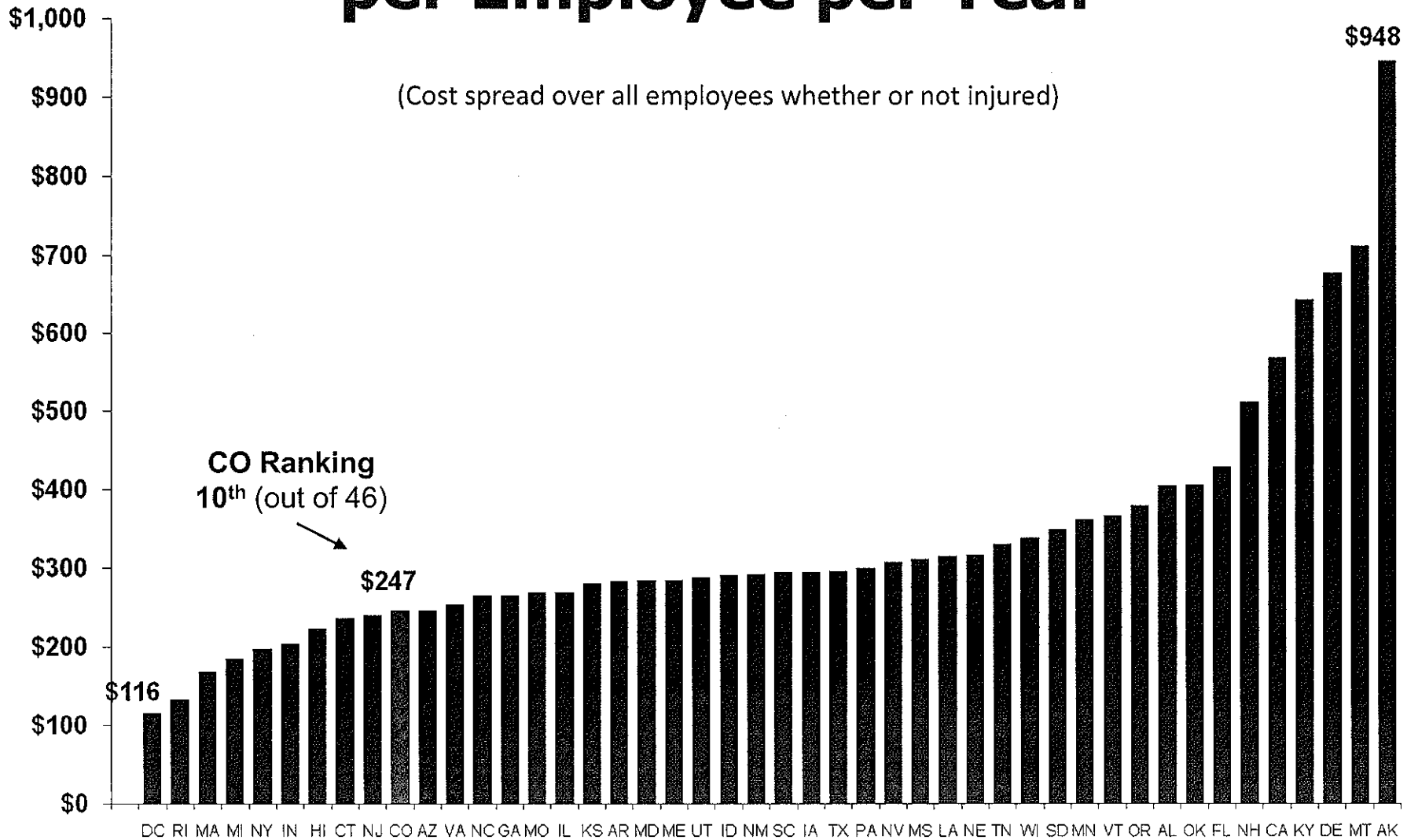
# Actual Average Indemnity Benefits per Employee per Year

(Cost spread over all employees whether or not injured)



Source: WCSP Data at first report for policies effective in 2003 and 2004

# Actual Average Medical Benefits per Employee per Year



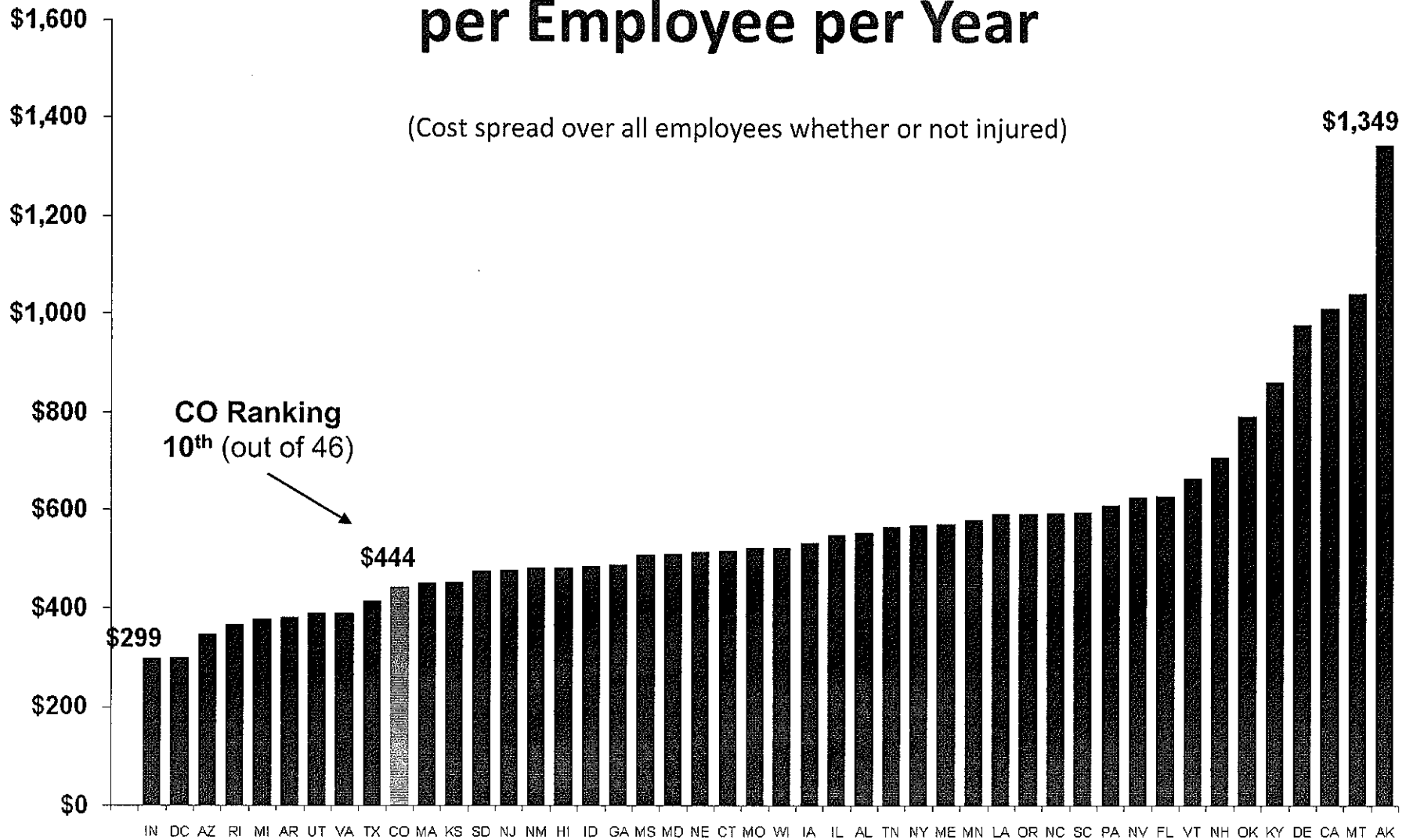
Source: WCSP Data at first report for policies effective in 2003 and 2004

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# Actual Average Total Benefits per Employee per Year

(Cost spread over all employees whether or not injured)

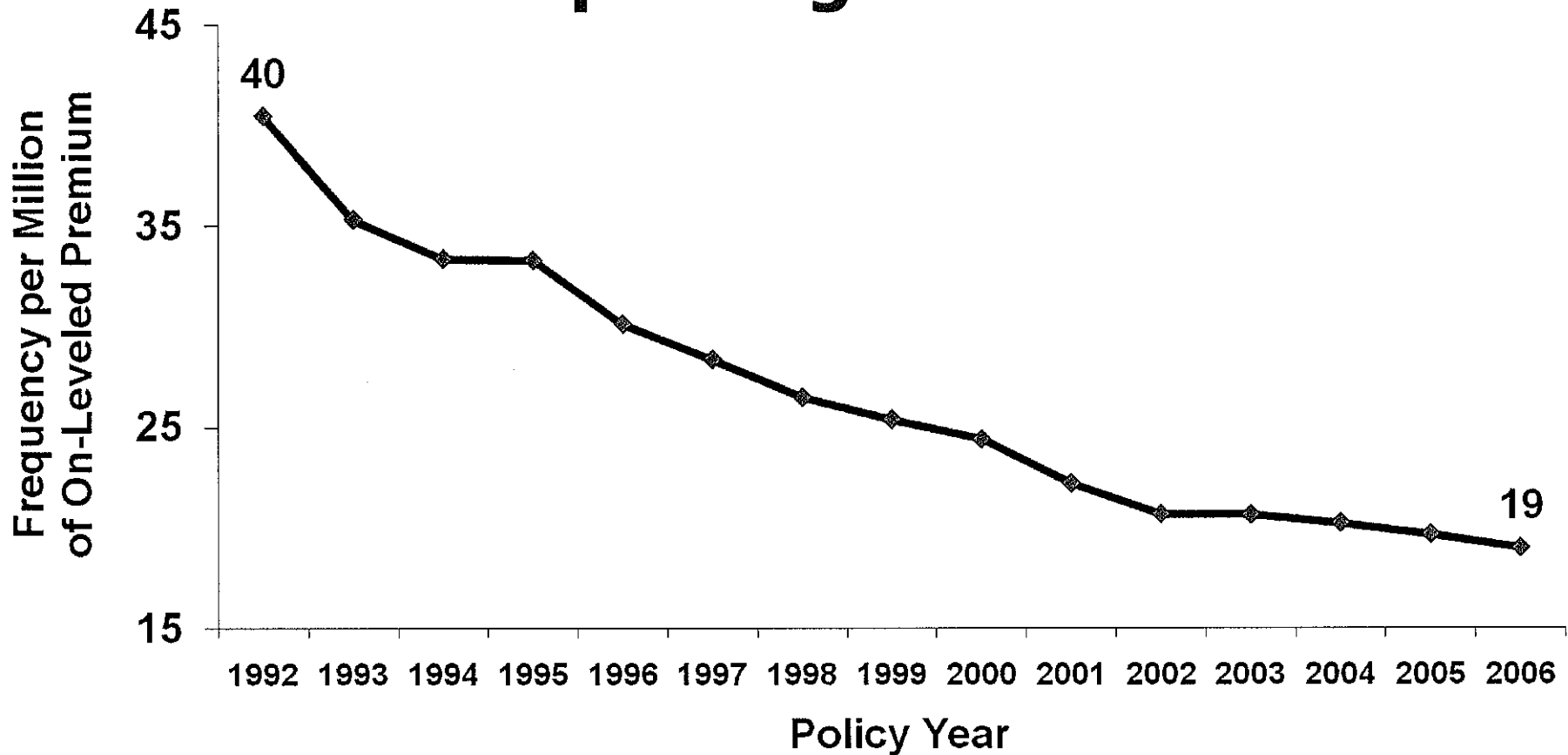


Source: WCSP Data at first report for policies effective in 2003 and 2004

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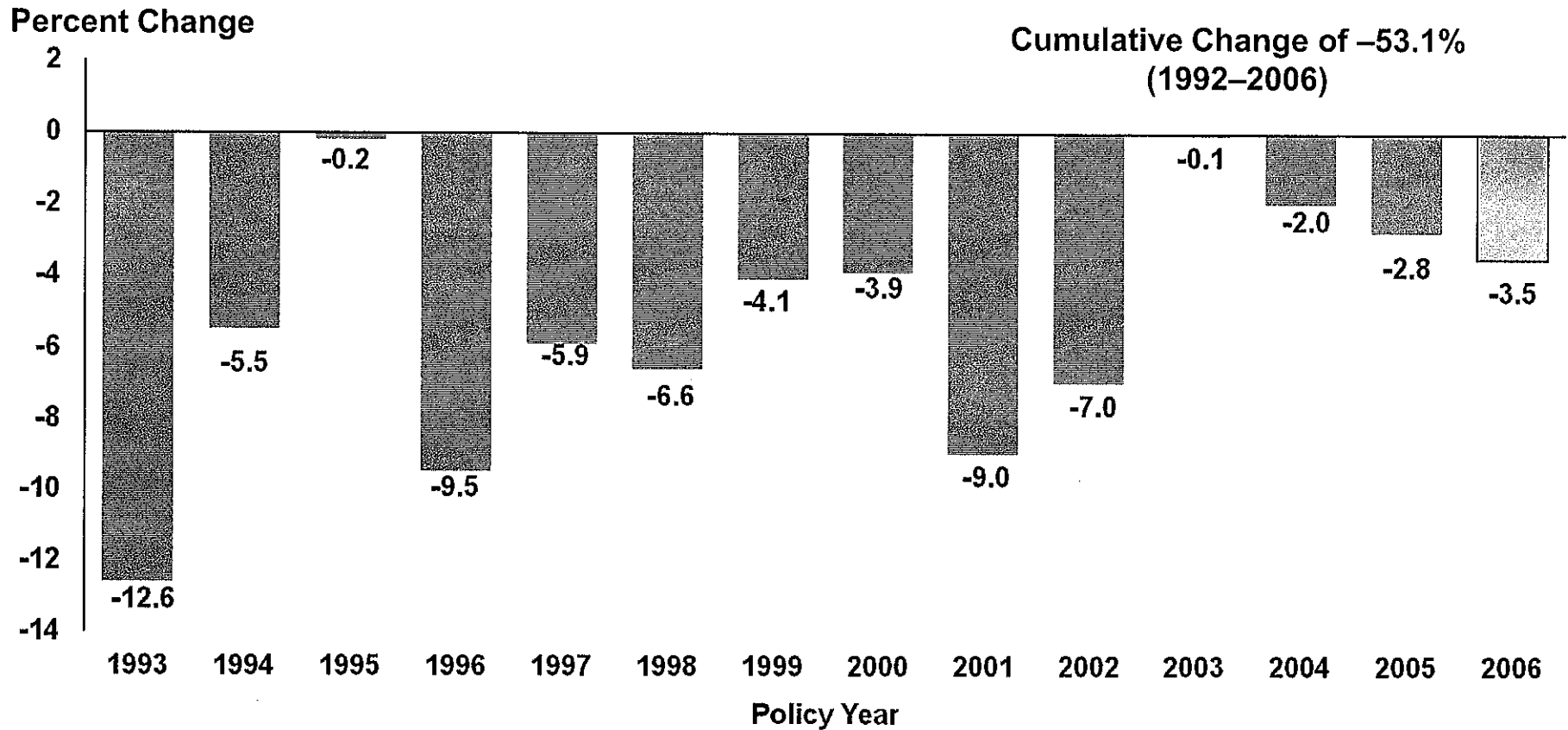
# Declines in Claim Frequency Have Contributed to Colorado's Improving Results



Based on NCCI's financial data.  
Frequency of lost-time claims.

# Colorado Workers Compensation Lost-Time Claim Frequency

## Lost-Time Claims

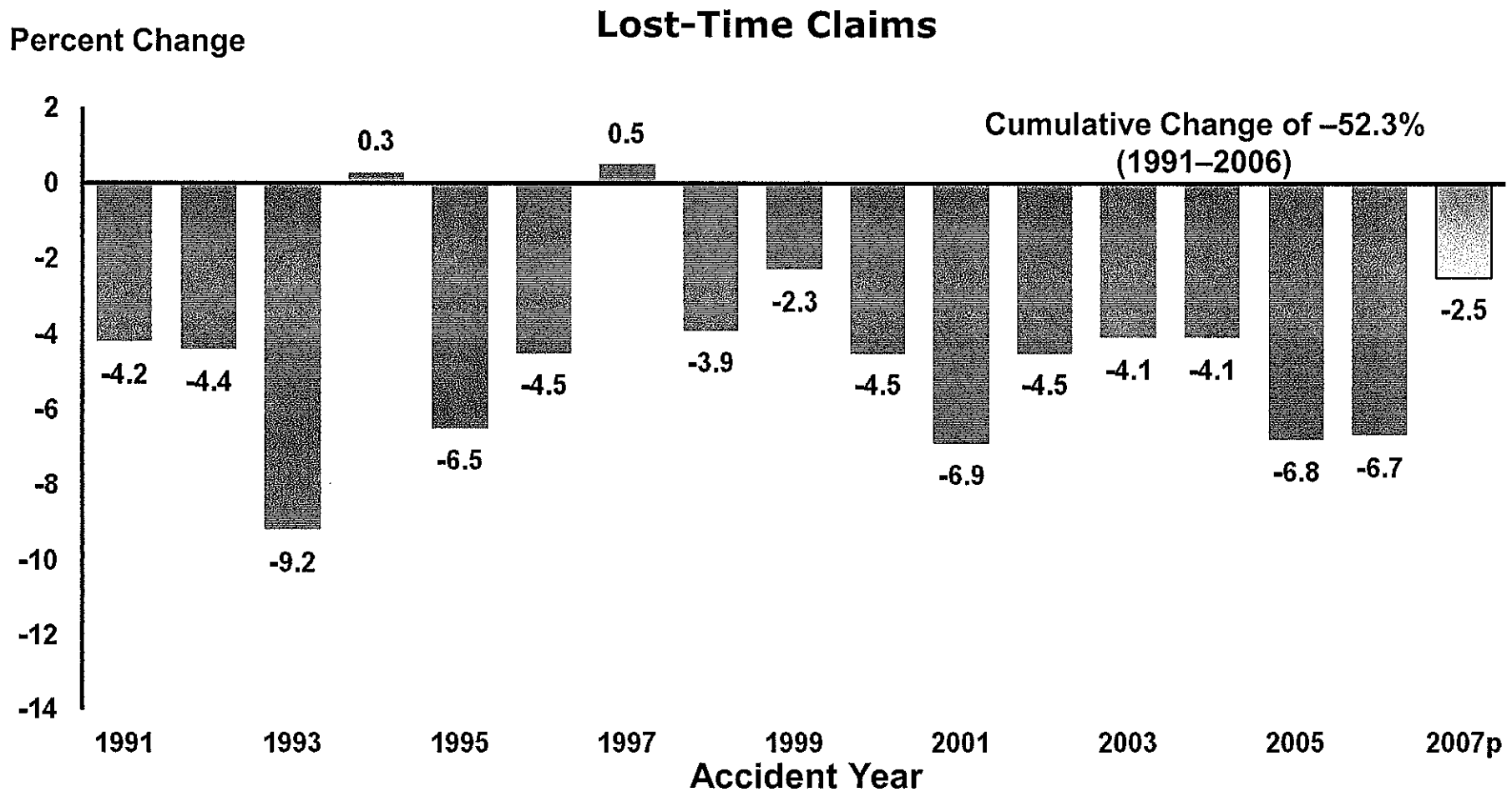


Based on data through 12/31/07, developed to ultimate.

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# Countrywide Workers Compensation Lost-Time Claim Frequency

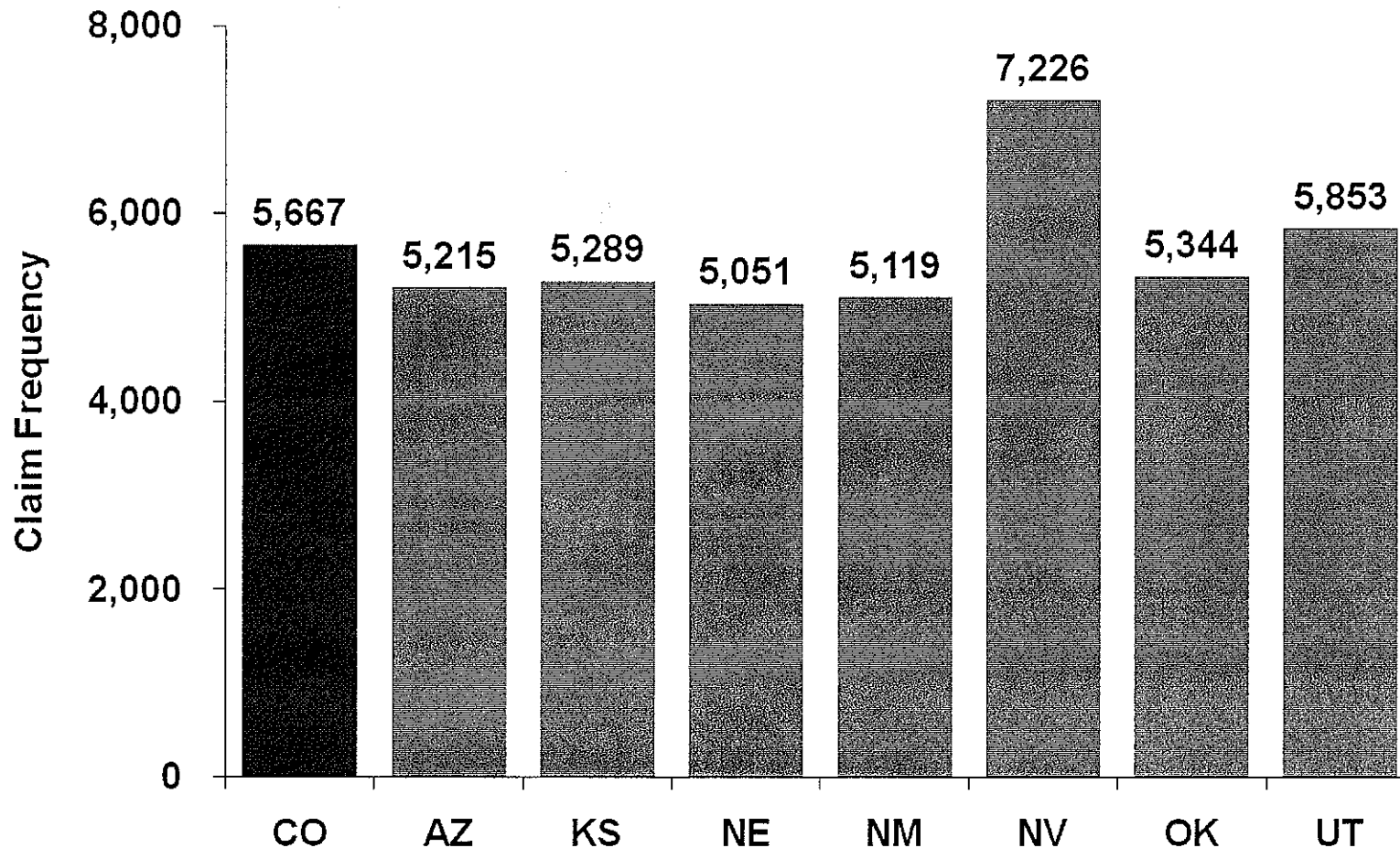


2007p: Preliminary based on data valued as of 12/31/2007  
 1991-2006: Based on data through 12/31/2006, developed to ultimate  
 Based on the states where NCCI provides ratemaking services  
 Excludes the effects of deductible policies

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# Regional Average Claim Frequency

Frequency per 100,000 Workers—All Claims

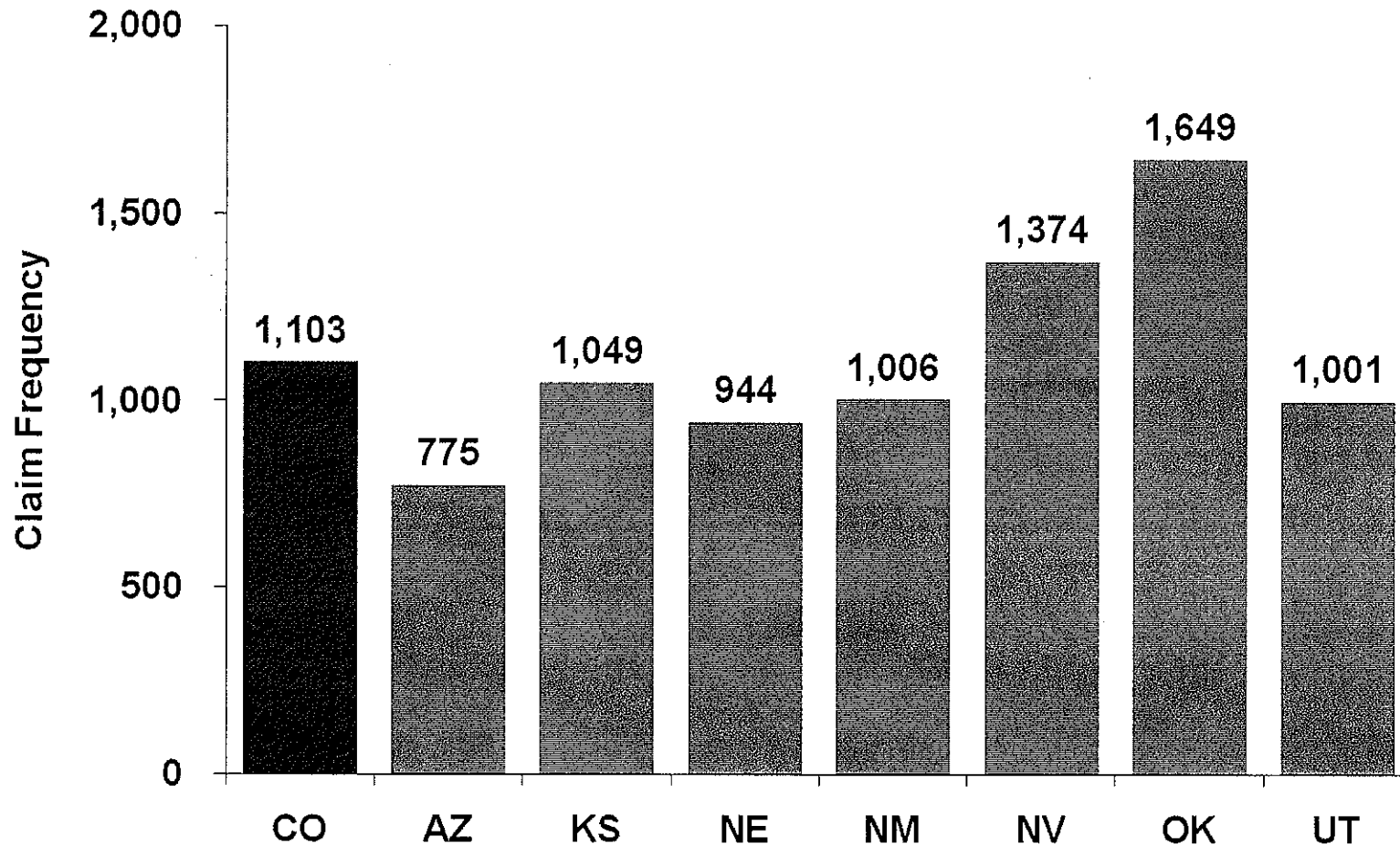


Based on NCCI's WCSP data.



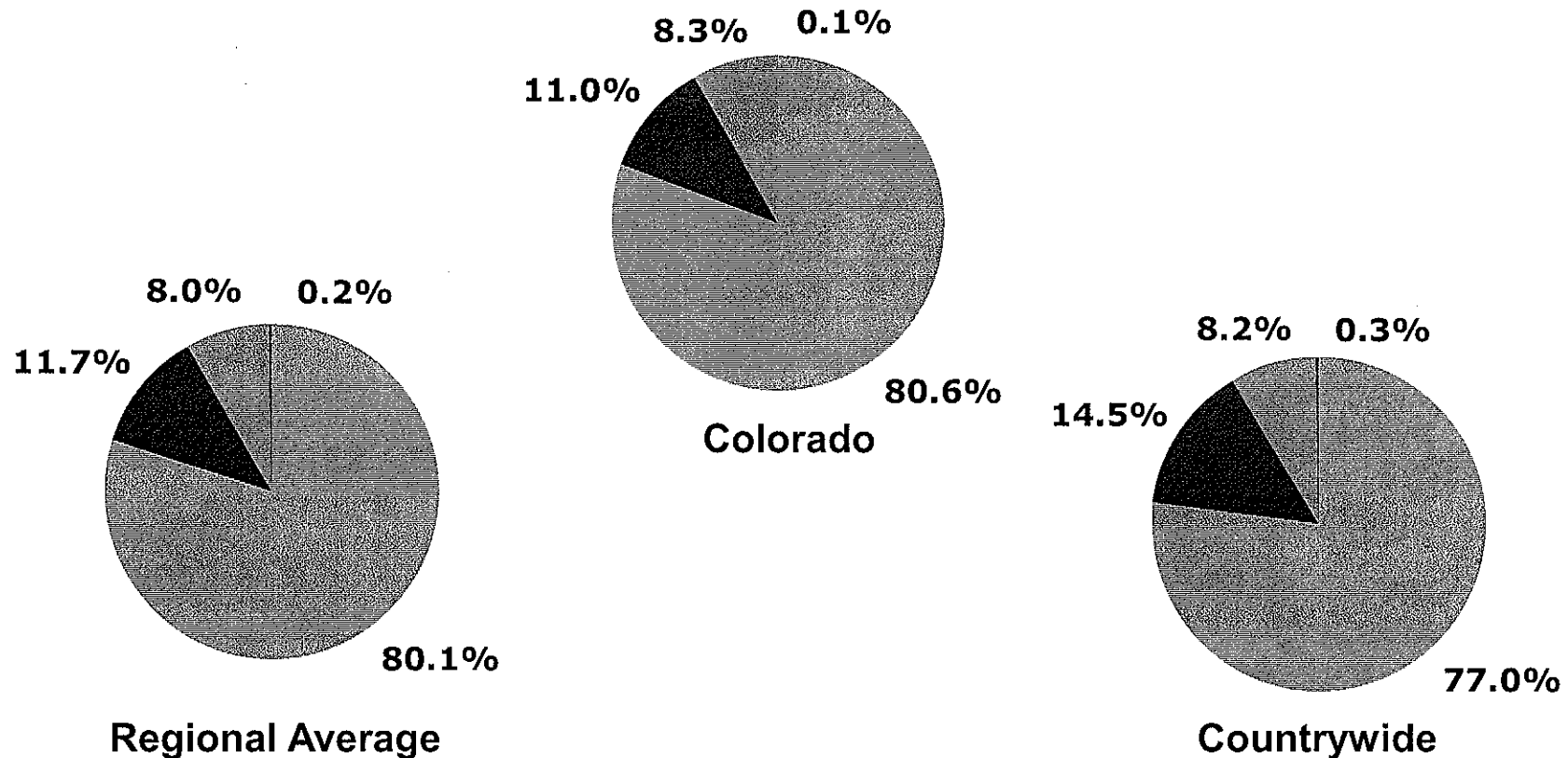
# Colorado's Average Lost-Time Claim Frequency

Frequency per 100,000 Workers—Lost-Time Claims



Based on NCCI's WCSP data.

# Colorado's Distribution of Claims by Injury Type



Medical Only
  Temporary Total
  Permanent Partial
  Permanent Total/Fatal

Regional states are AZ, KS, NE, NM, NV, OK, and UT  
Based on NCCI's WCSP data.

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# Key Drivers of Claim Frequency

- **Employment Growth – “Experienced Worker” Effect**
- **Demographic Trends Relating to the Age of the Workforce**
- **Underlying Economic and Technological Forces**

# Changes in Employment Impact Claim Frequency Through the “Experienced Worker” Effect

- In economic expansions, increases in new hires reduce the experience level of the workforce
- In recessions, the “last hired is the first fired,” so the experience level of the workforce increases
- As a result, frequency tends to come under upward pressure in expansions and downward pressure in contractions
- Of course, the actual direction of claim frequency at any given time reflects the confluence of many factors

# Frequency of Injuries: Experience Matters

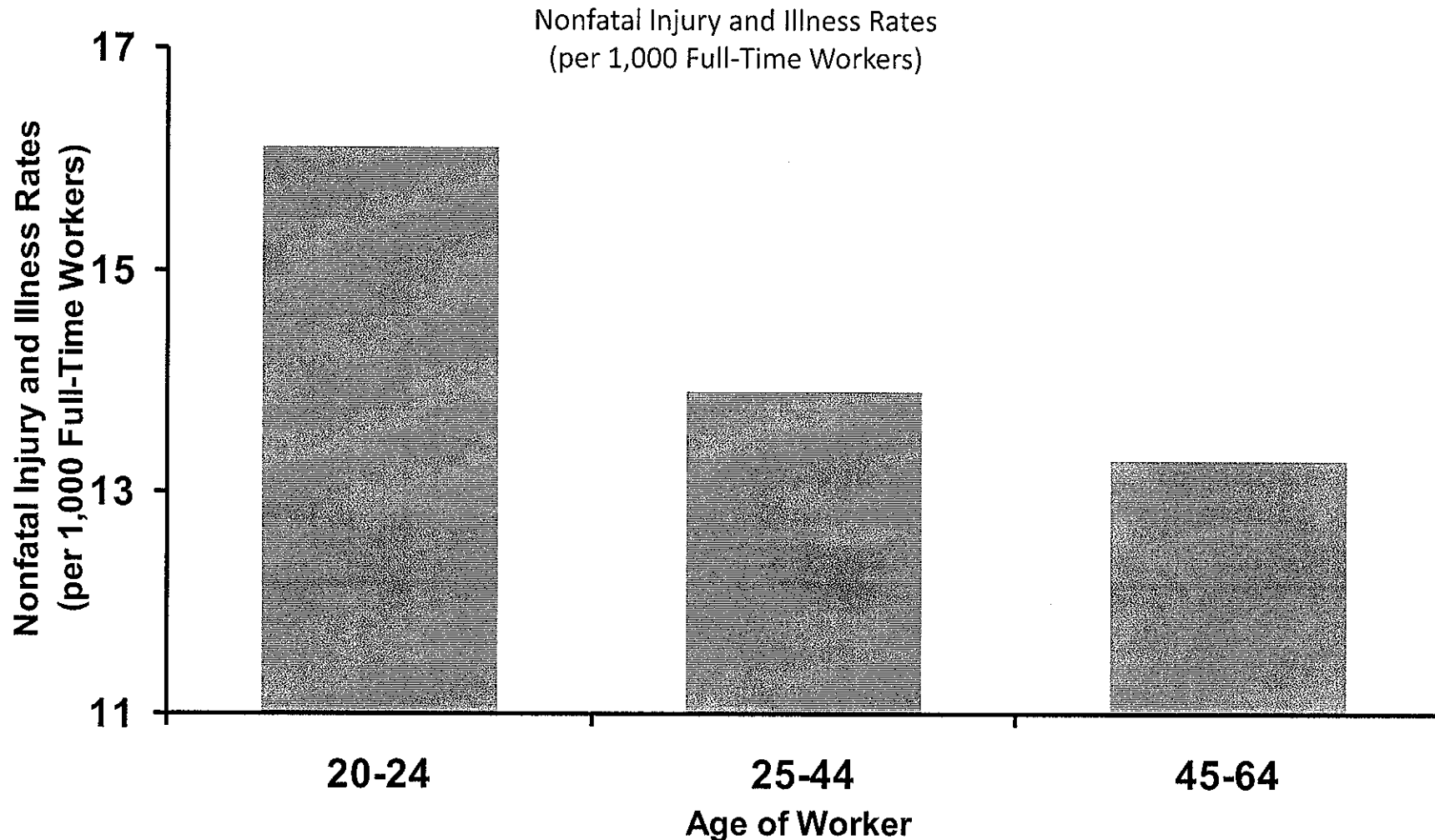
Inexperienced Have a Disproportionately  
High Share of Lost Work-Time Injuries and Illnesses

Time With Current Employer	Share of Employment (2006)	Share of Lost Work-Time Injuries & Illnesses (2006)	Relative Difference Share of Injuries vs. Employment
Less Than 1 Year	24.4%	35.5%	45.7% : Higher
1 – 5 Years	36.7%	33.7%	-8.3% : Lower
5+ Years	38.9%	30.8%	-20.8% : Lower

\*Time periods in the table are based on Share of Lost Work-time Injuries and Illnesses. Tenure "breaks" for Share of Employment classifications: 12 months or less, 13 months-to-5 years, and 5 years and above.

Source: U.S. Bureau of Labor Statistics

# Frequency Is Inversely Related to the Age of the Worker



Calculated from cases with Days Away From Work, 2003-2005

Source: NCCI estimate using data from the U.S. Bureau of Labor Statistics

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# Implications for Claim Frequency

- **Recessions, by increasing the skill level of the workforce (“last hired, first fired”), tend to place downward pressure on claim frequency**
- **NCCI research found that the unemployment rate and the share of younger workers in the workforce—both measures of the extent to which inexperienced workers are in the workforce—were statistically significant in explaining year-to-year changes in the manufacturing incidence rate**
- **The complete study is available on NCCI’s website ([www.ncci.com](http://www.ncci.com))**

# Uncertain Implications for Indemnity and Medical Severity

## Indemnity Severity

- Some downward pressure from slower wage growth and reduced employment in more hazardous industries
- Impact on worker's attitudes less clear

## Medical Severity

- Relationship with the business cycle has yet to be determined
- Economy may play a role, if only indirectly (indemnity and medical severity moved together during the 1980's and early 1990's)



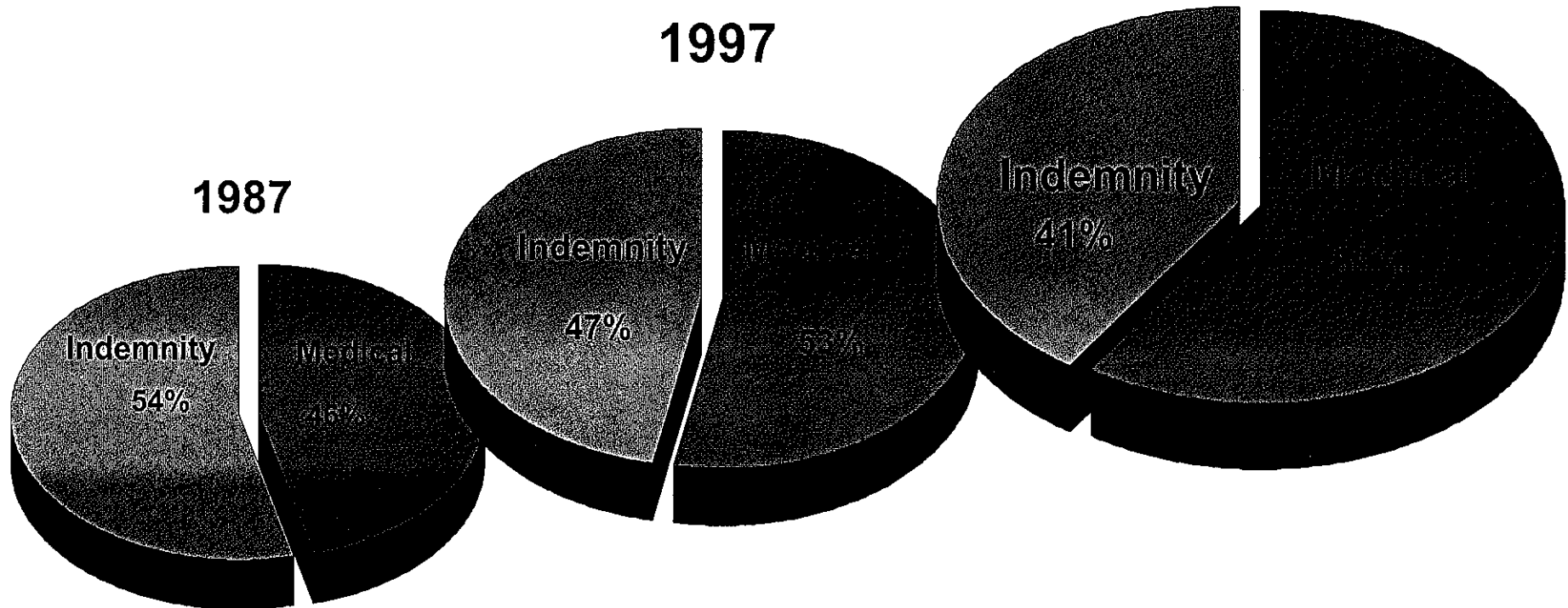
# Workers Compensation Medical Losses Are More Than Half of Total Losses

All Claims—NCCI States

2007p

1997

1987



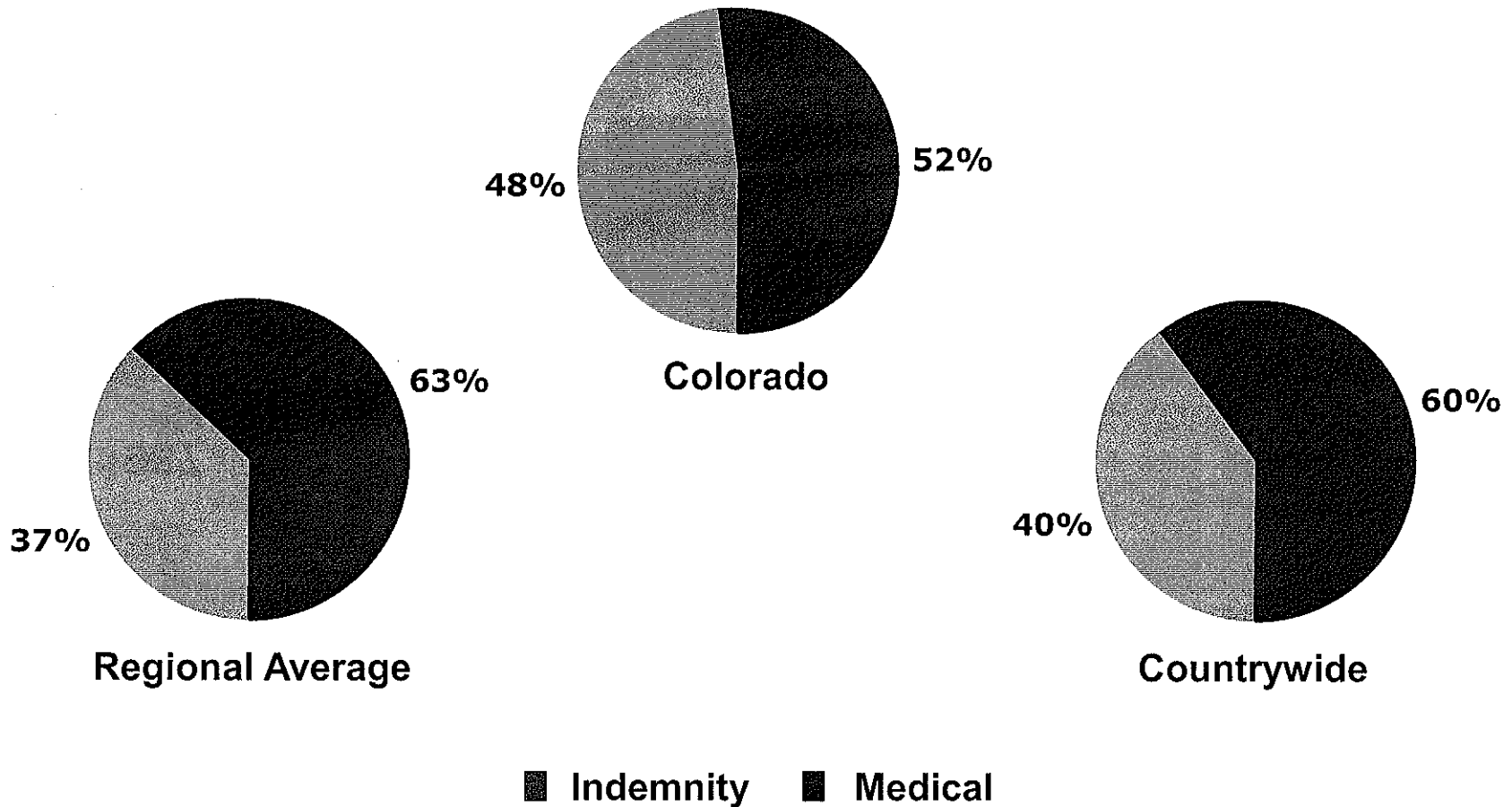
Accident Year

2007p: Preliminary based on data valued as of 12/31/2007  
 1987, 1997: Based on data through 12/31/2006, developed to ultimate  
 Based on the states where NCCI provides ratemaking services  
 Excludes the effects of deductible policies

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# Medical Benefits Constitute the Majority of Total Benefit Costs in Colorado

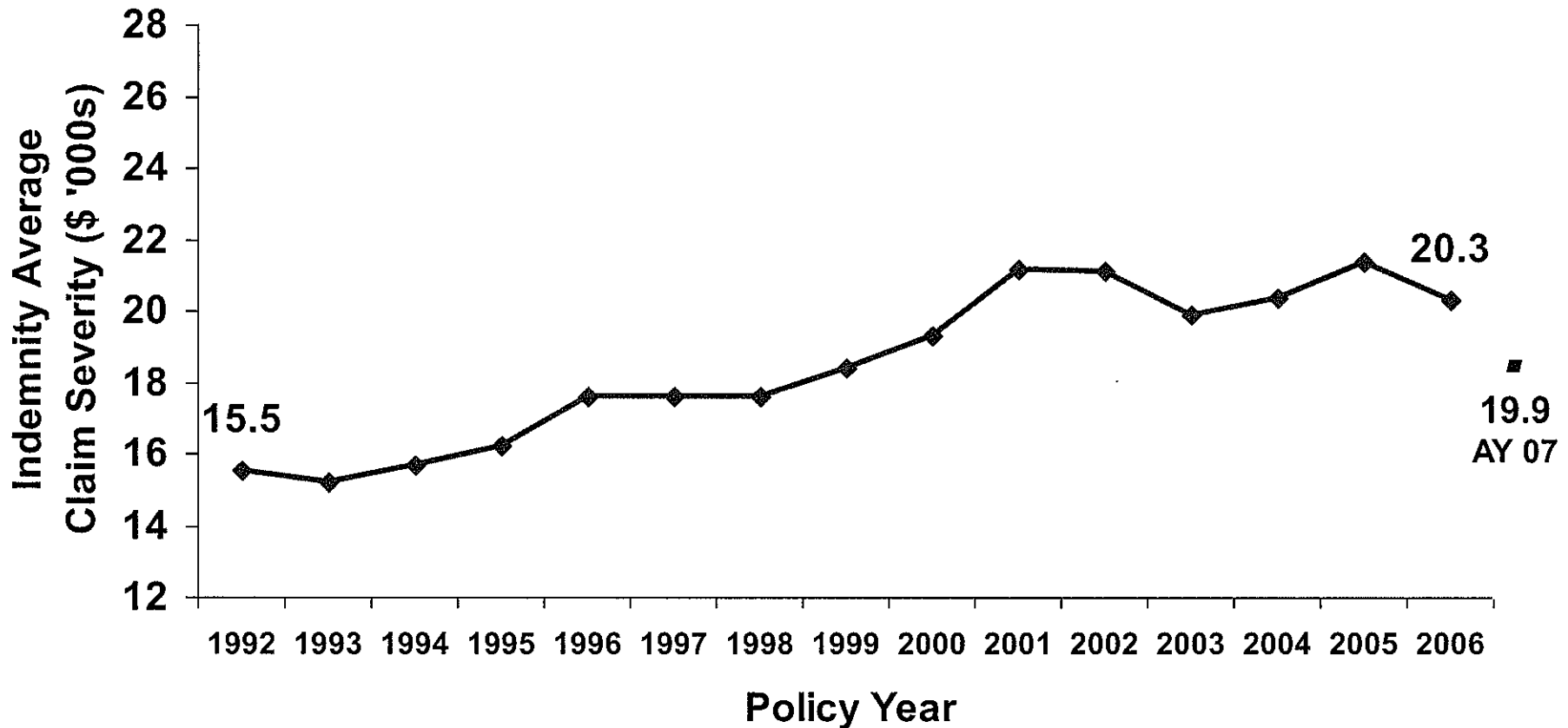


Regional states are AZ, KS, NE, NM, NV, OK, and UT.

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# Colorado's Average Indemnity Severity

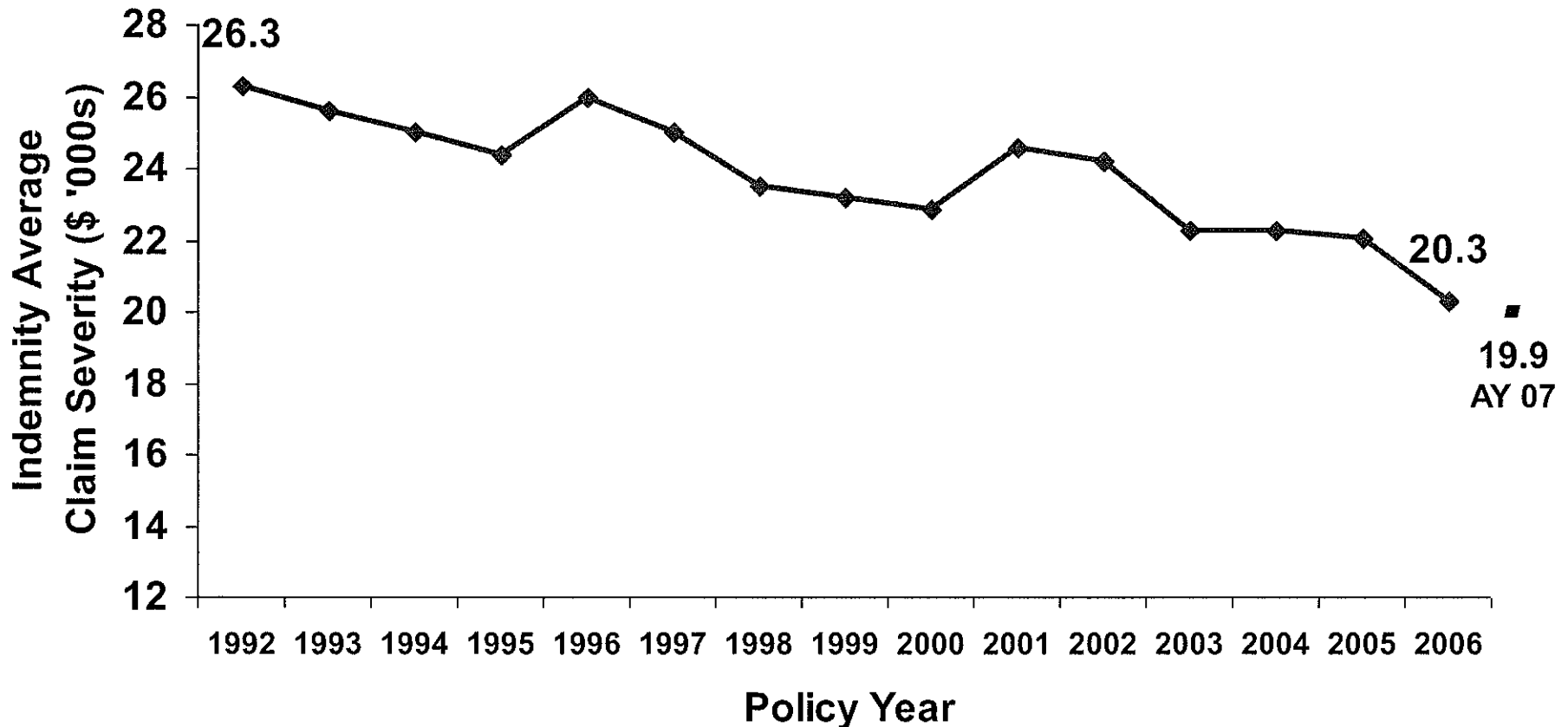


Based on NCCI's financial data for lost-time claims at current benefit level and developed to ultimate.

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# Colorado's Average Indemnity Severity in Excess of Wage Growth

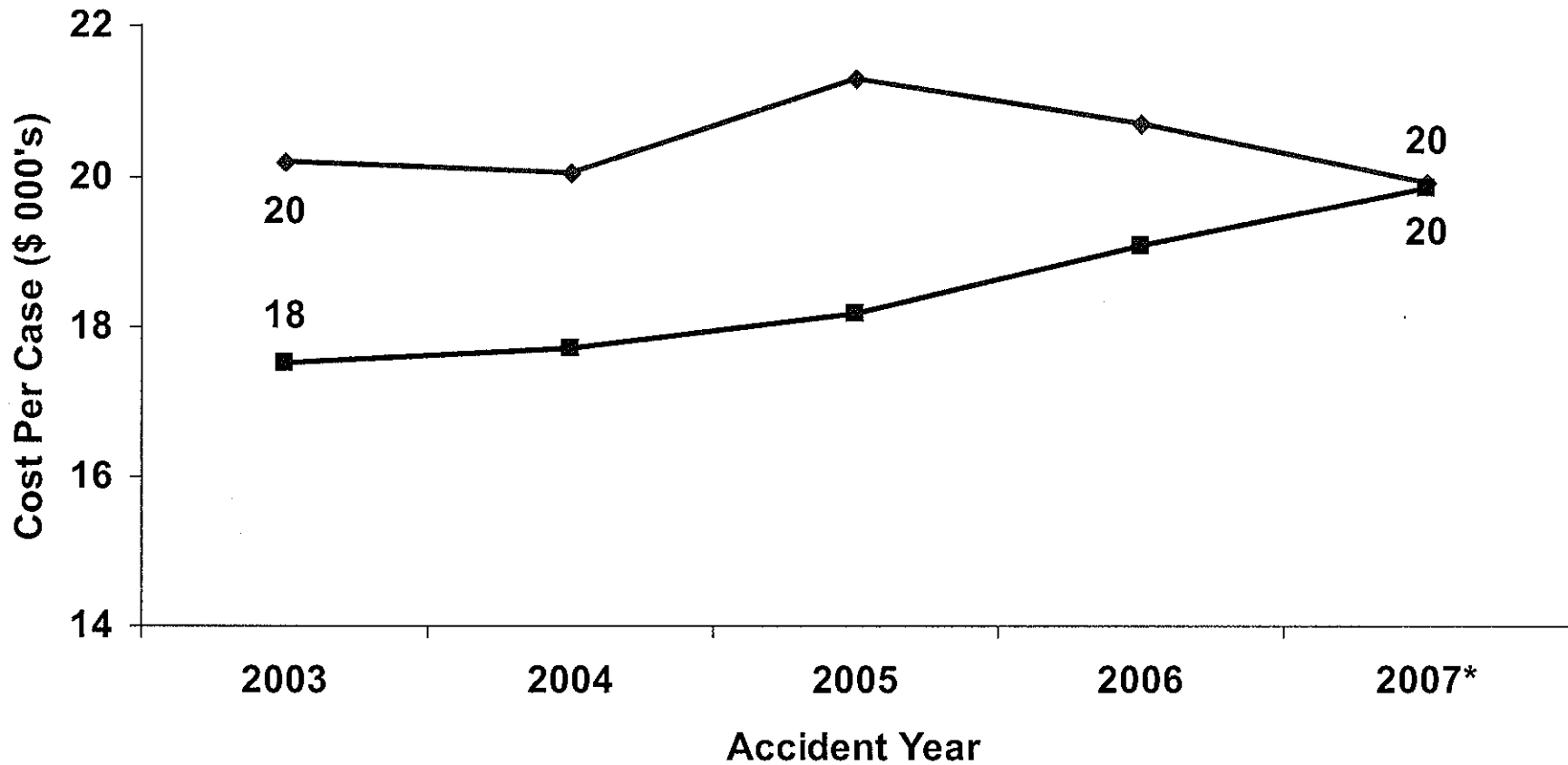


The severity figures shown are in excess of wage trend. Based on NCCI's financial data for lost-time claims at current benefit level and developed to ultimate.

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# Colorado Indemnity Average Cost per Case vs. Countrywide



◆ Colorado ■ CW

\* Countrywide figure is preliminary  
 Source: NCCI Financial Call data valued as of 12/31/07

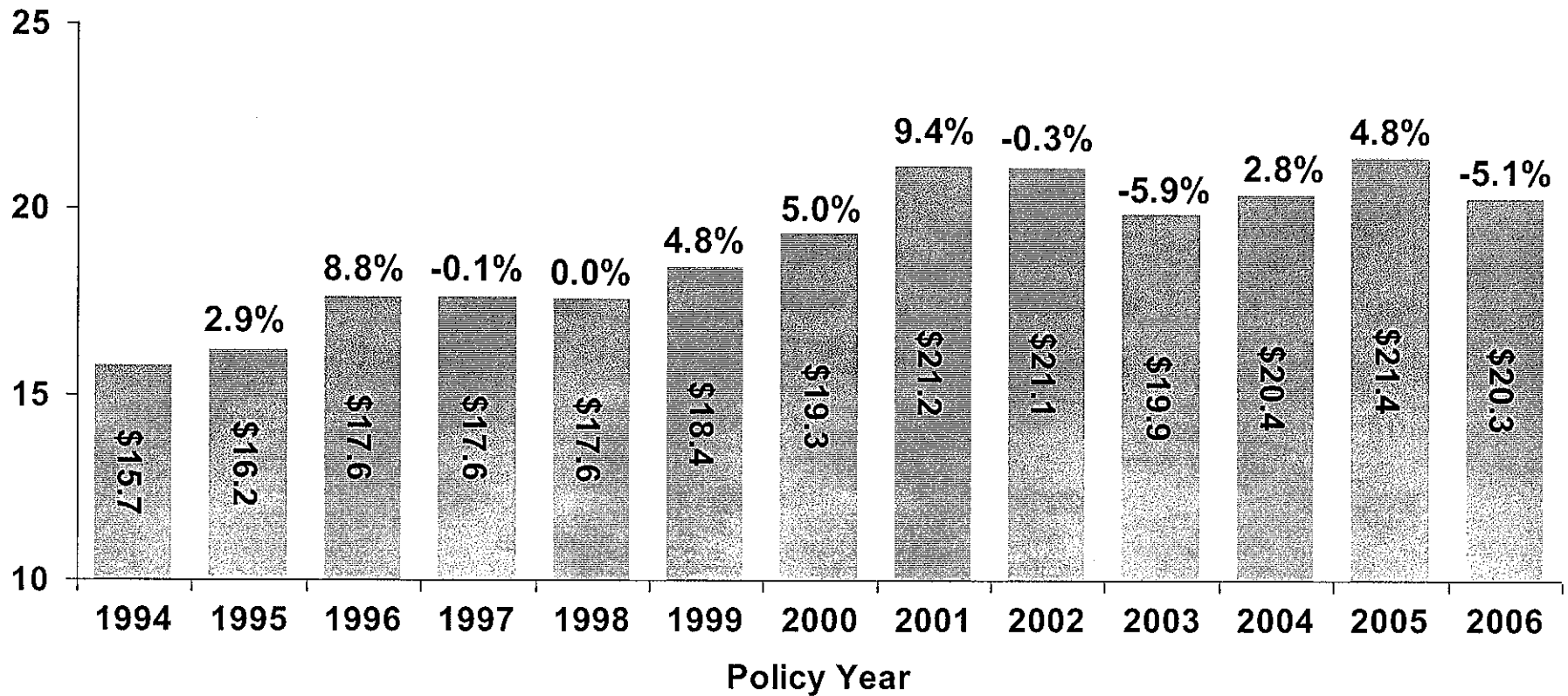
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# Colorado Workers Compensation Indemnity Claim Costs

Indemnity Claim Cost ('000s)

Lost-Time Claims

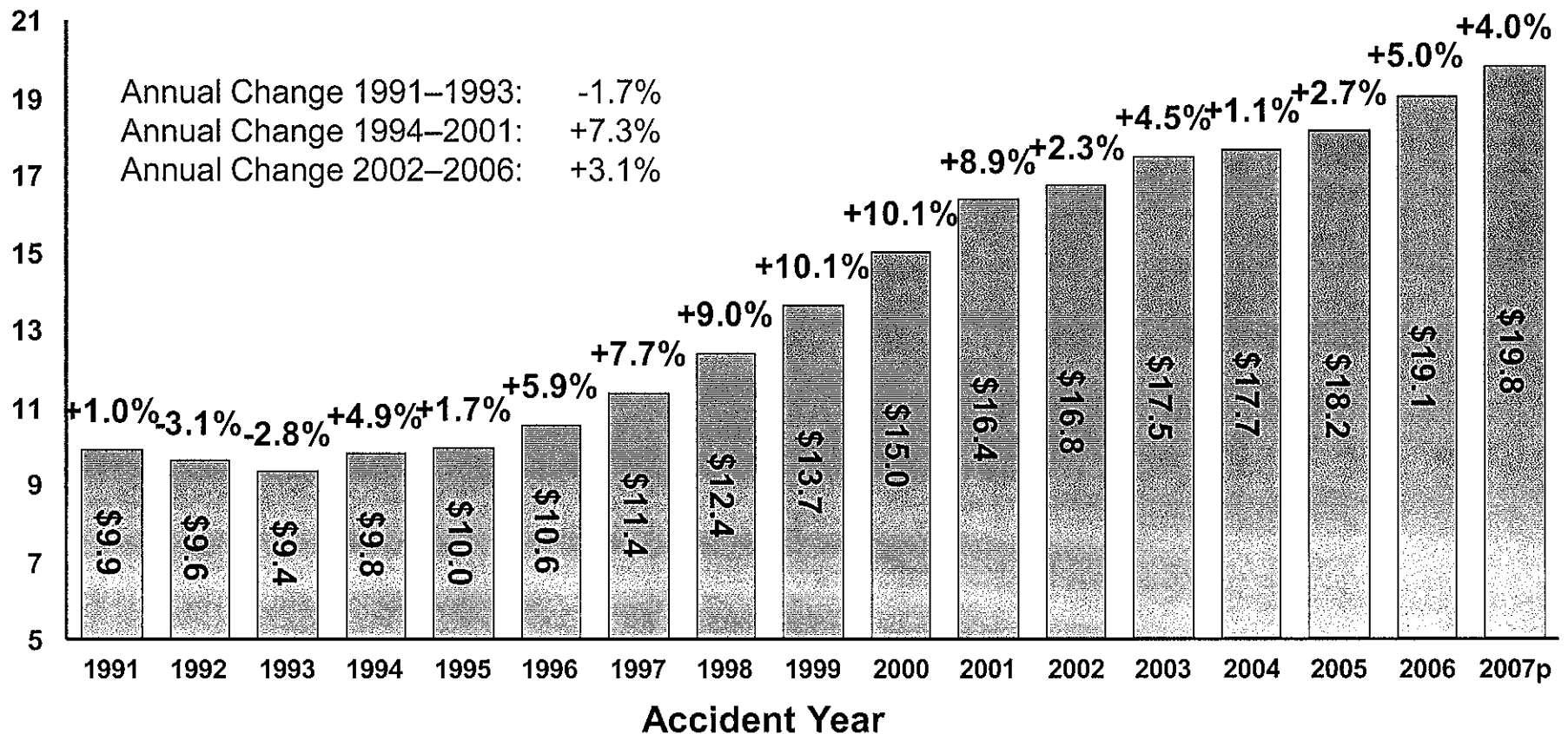


Based on data through 12/31/07, on-leveled and developed to ultimate

# Countrywide Workers Compensation Indemnity Claim Costs

Indemnity  
Claim Cost (000s)

Lost-Time Claims

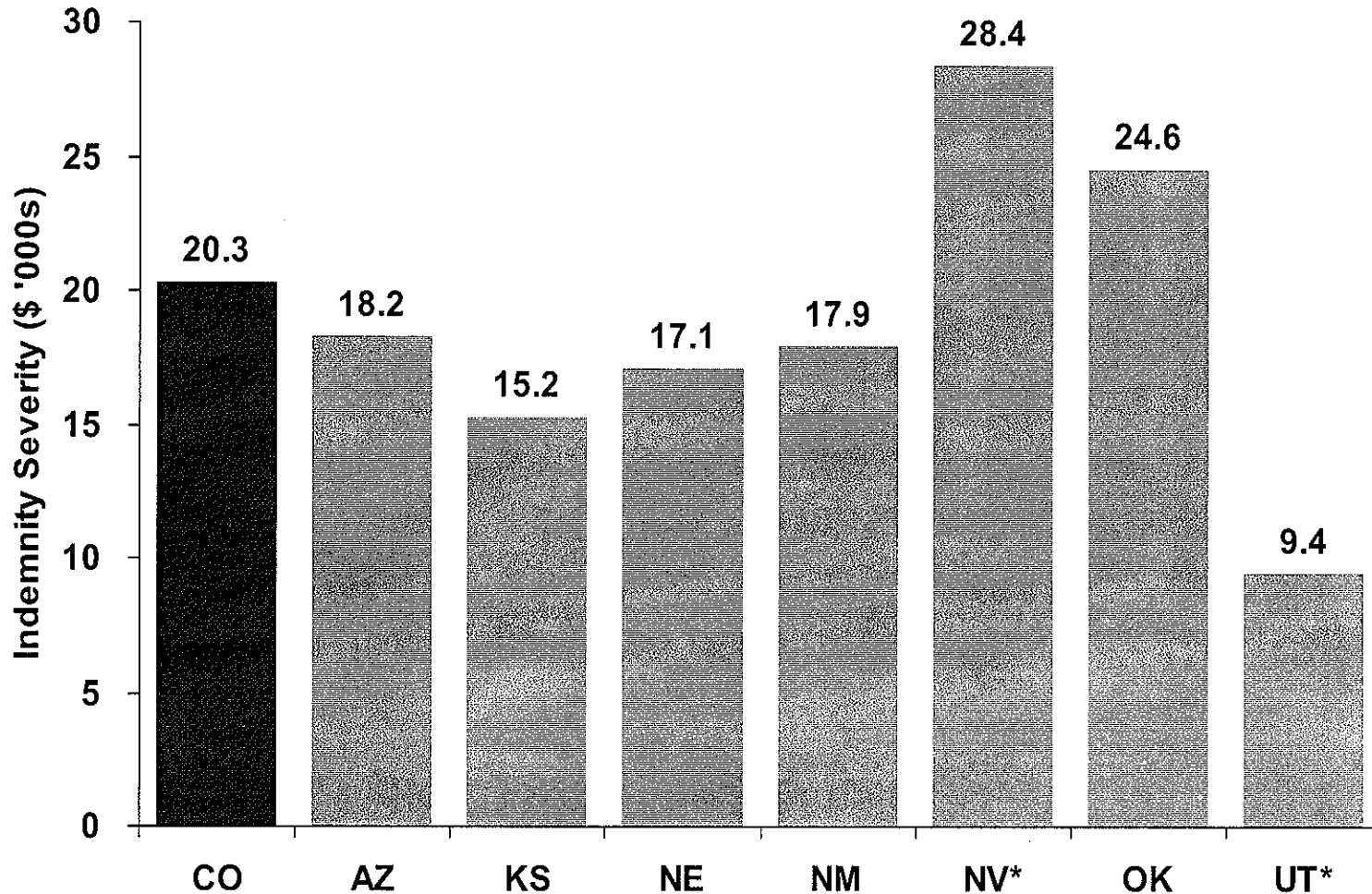


2007p: Preliminary based on data valued as of 12/31/2007  
1991–2006: Based on data through 12/31/2006, developed to ultimate  
Based on the states where NCCI provides ratemaking services  
Excludes the effects of deductible policies

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# Regional Average Indemnity Claim Severity



Based on NCCI's financial data for lost-time claims  
\*Nevada & Utah are based on Accident Year 2007  
All other states based on Policy Year 2006

**Latest PY/AY**

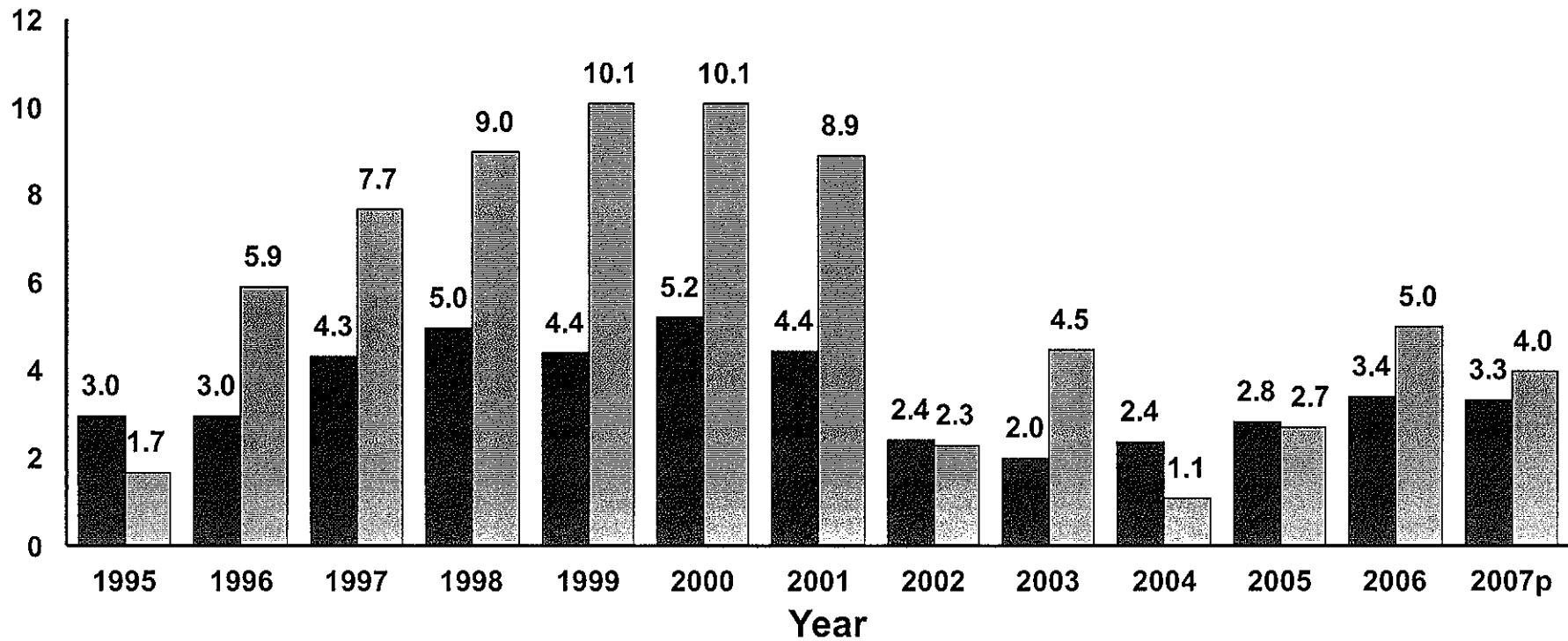
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# Countrywide Indemnity Severity Outpacing Wage Inflation

## Lost-Time Claims

Percent Change



■ Change in CPS Wage ■ Change in Indemnity Cost per Lost-Time Claim

Indemnity severity 2007p: Preliminary based on data valued as of 12/31/2007

Indemnity severity 1995–2006: Based on data through 12/31/2006, developed to ultimate

Based on the states where NCCI provides ratemaking services, excludes the effects of deductible policies

Source: CPS Wage—All states (Current Population Survey), Economy.com;

Accident year indemnity severity—NCCI states, NCCI

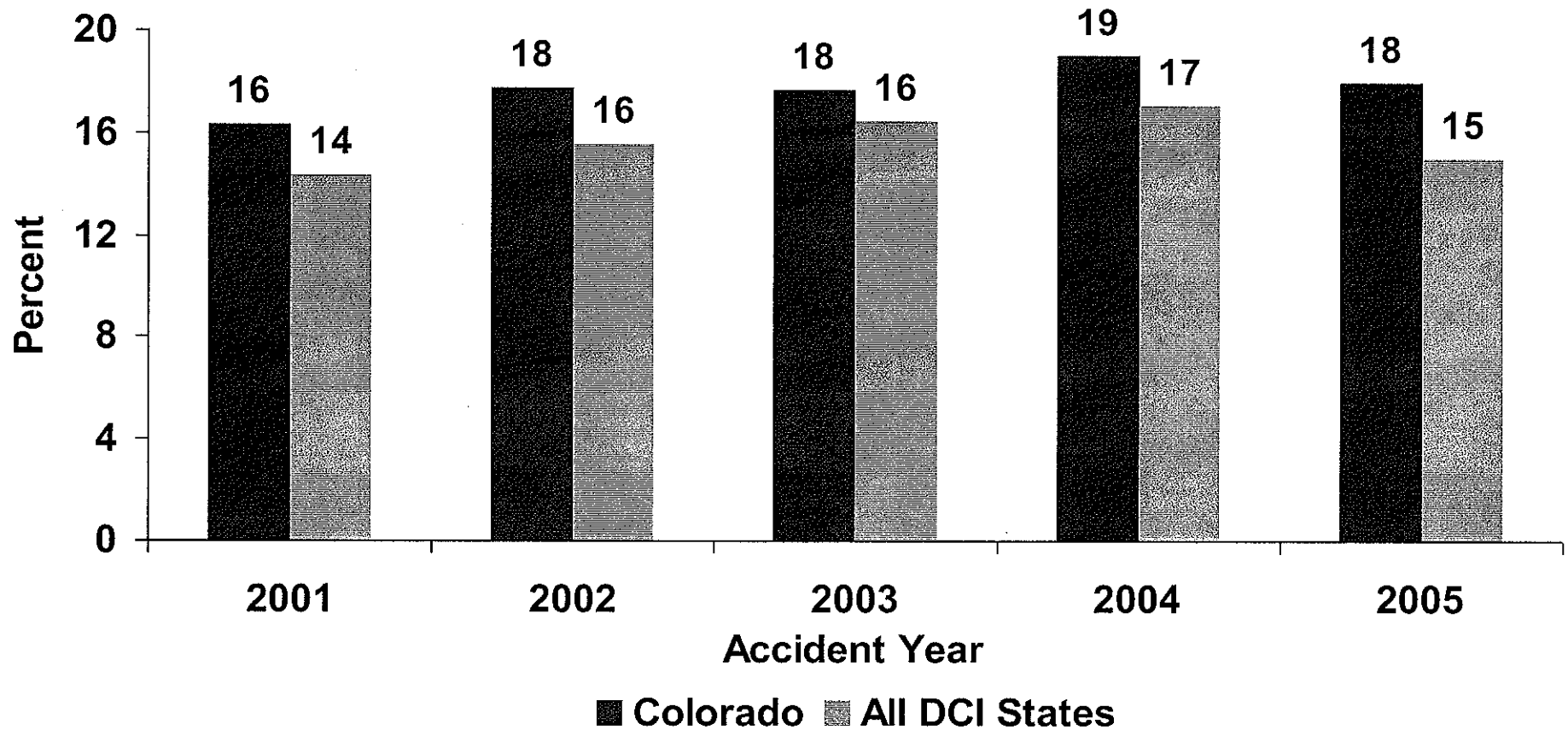
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# Percentage of Claims With Attorney Involvement

## Lost-Time Claims

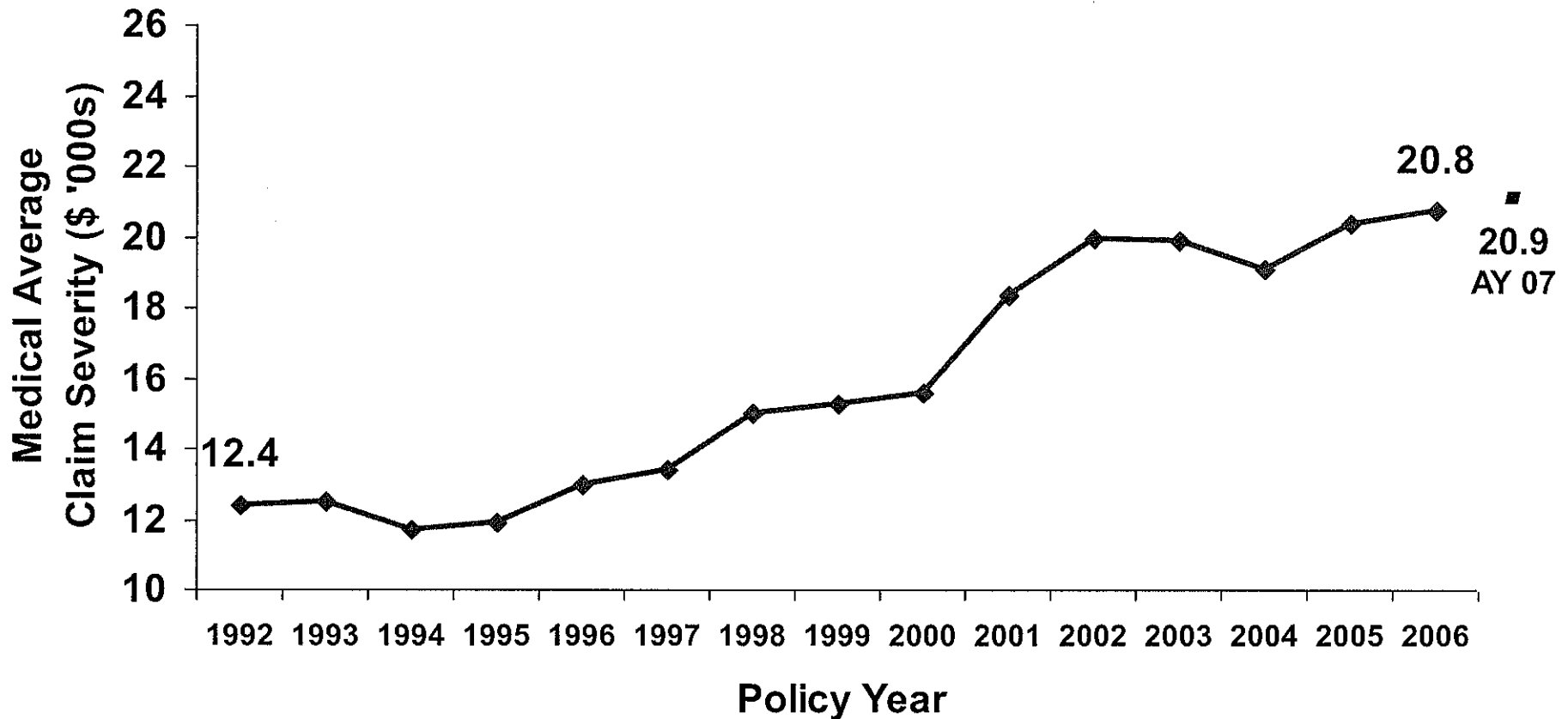


Accident Years 2001 to 2005 at 2nd report.  
Based on NCCI's DCI data.

# Drivers of Indemnity Severity

- **Wages**
  - Colorado average wages are similar to countrywide and forecasted to continue increasing.
- **Demographics**
  - How indemnity severity varies by age
- **Attorney Involvement**
  - Higher than countrywide

# Colorado's Average Medical Severity

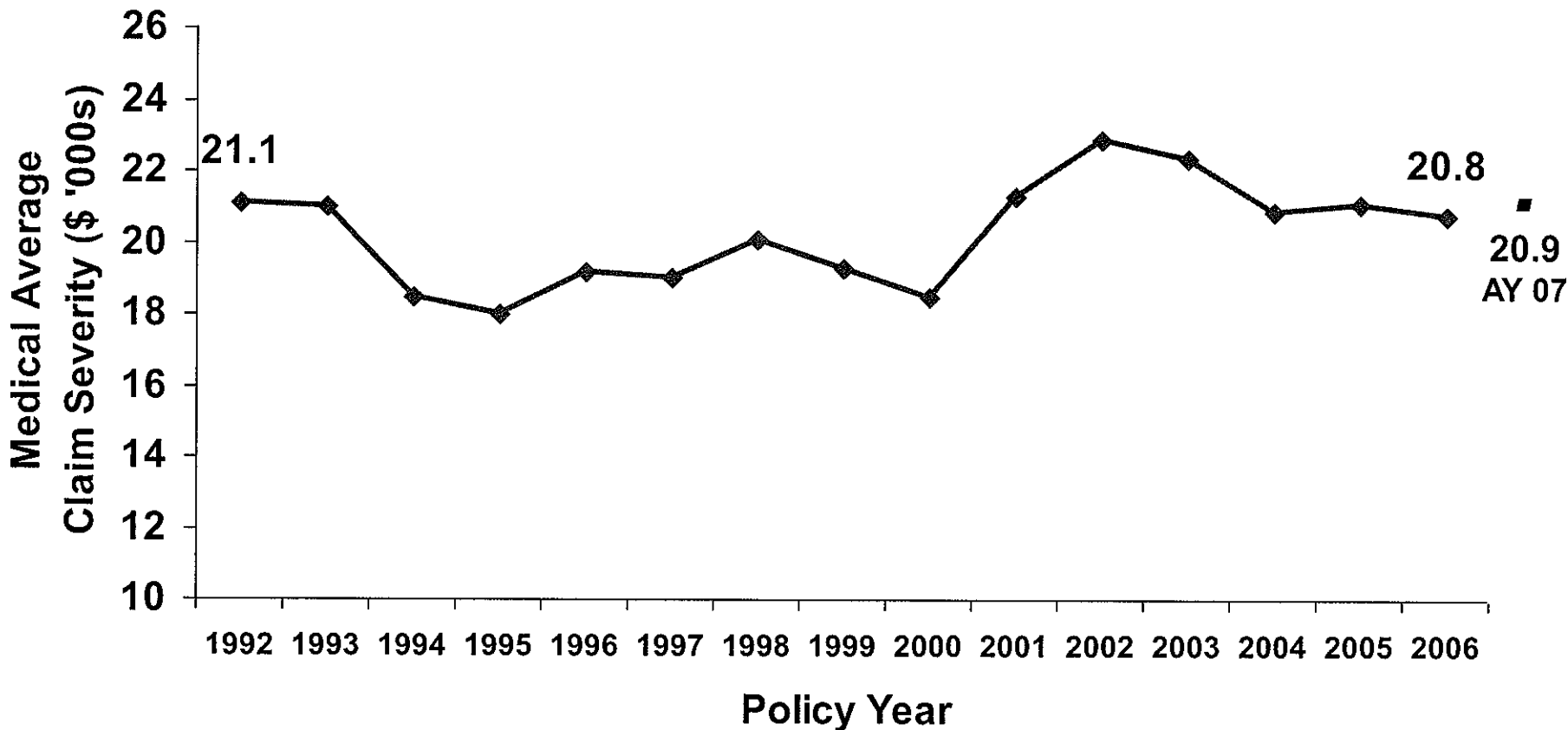


Based on NCCI's financial data for lost-time claims at current benefit level and developed to ultimate.

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# Colorado's Average Medical Severity in Excess of Wage Growth



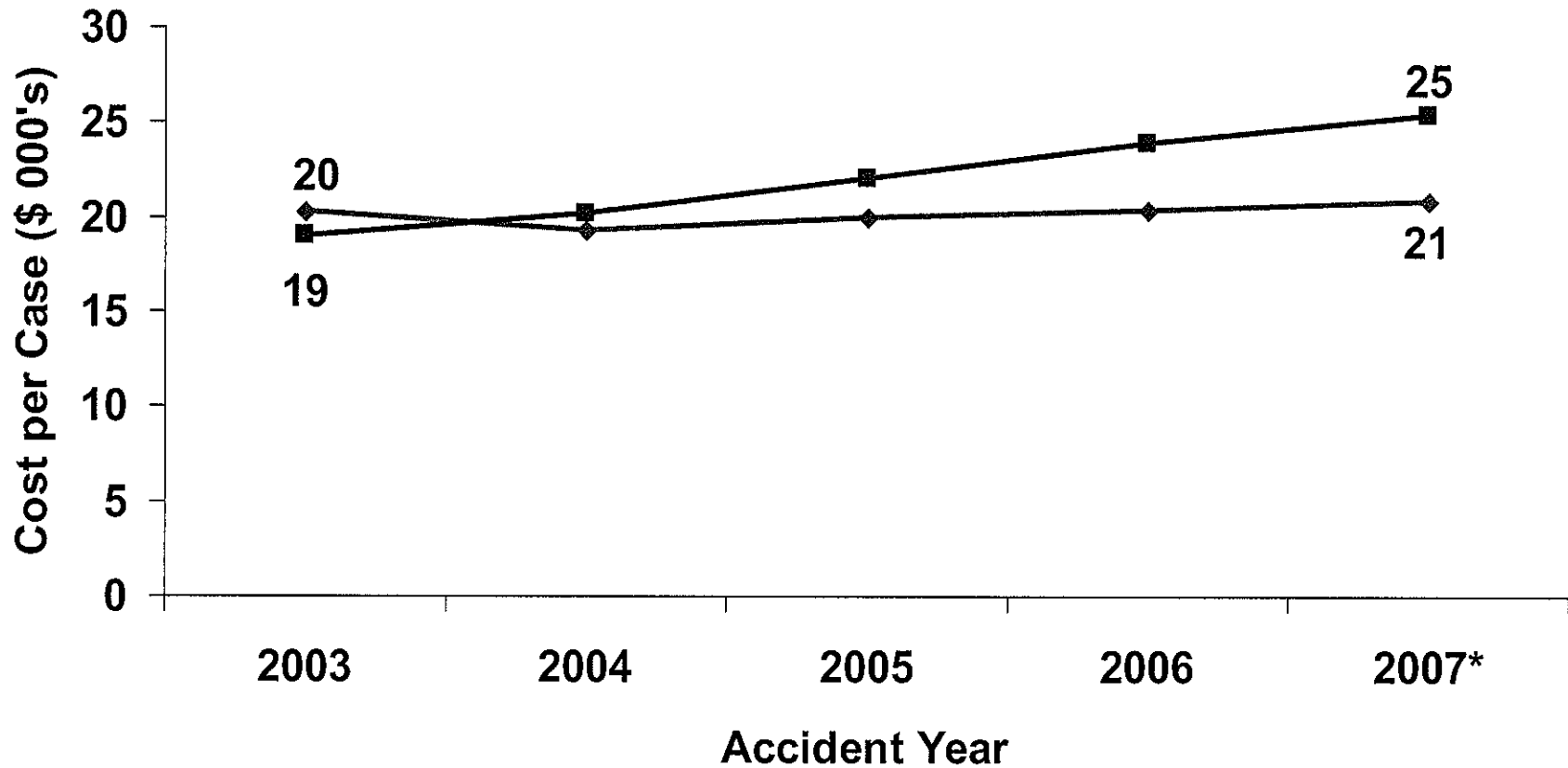
The severity figures shown are in excess of wage trend.  
Based on NCCI's financial data for lost-time claims  
at current benefit level and developed to ultimate.

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# Colorado Medical Average Cost per Case vs. Countrywide



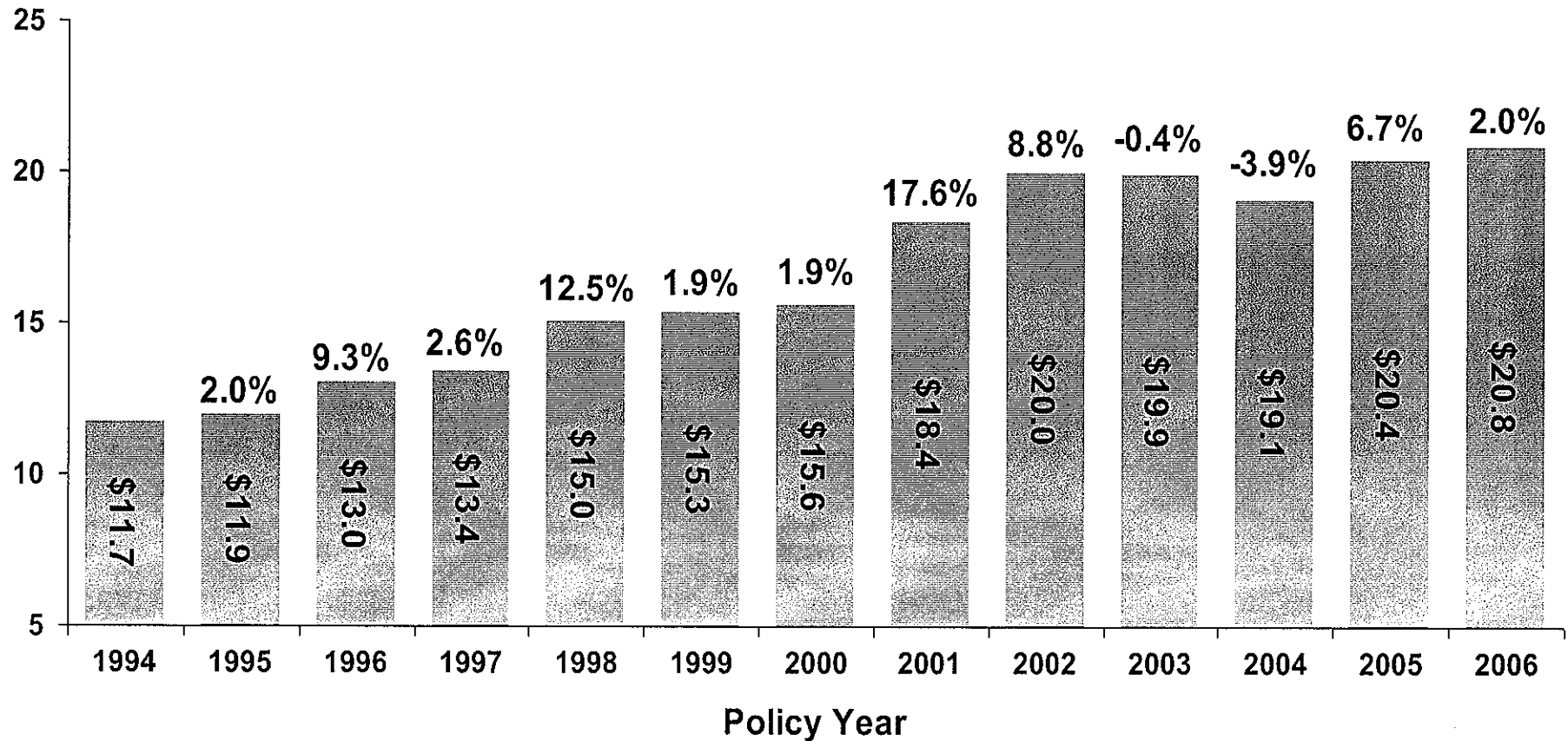
\* Countrywide figure is preliminary  
Source: NCCI Financial Call data valued as of 12/31/07

◆ Colorado ■ CW

# Colorado Workers Compensation Medical Claim Cost Trends

Medical  
Claim Cost ('000s)

Lost-Time Claims



Based on data through 12/31/07, on-leveled and developed to ultimate

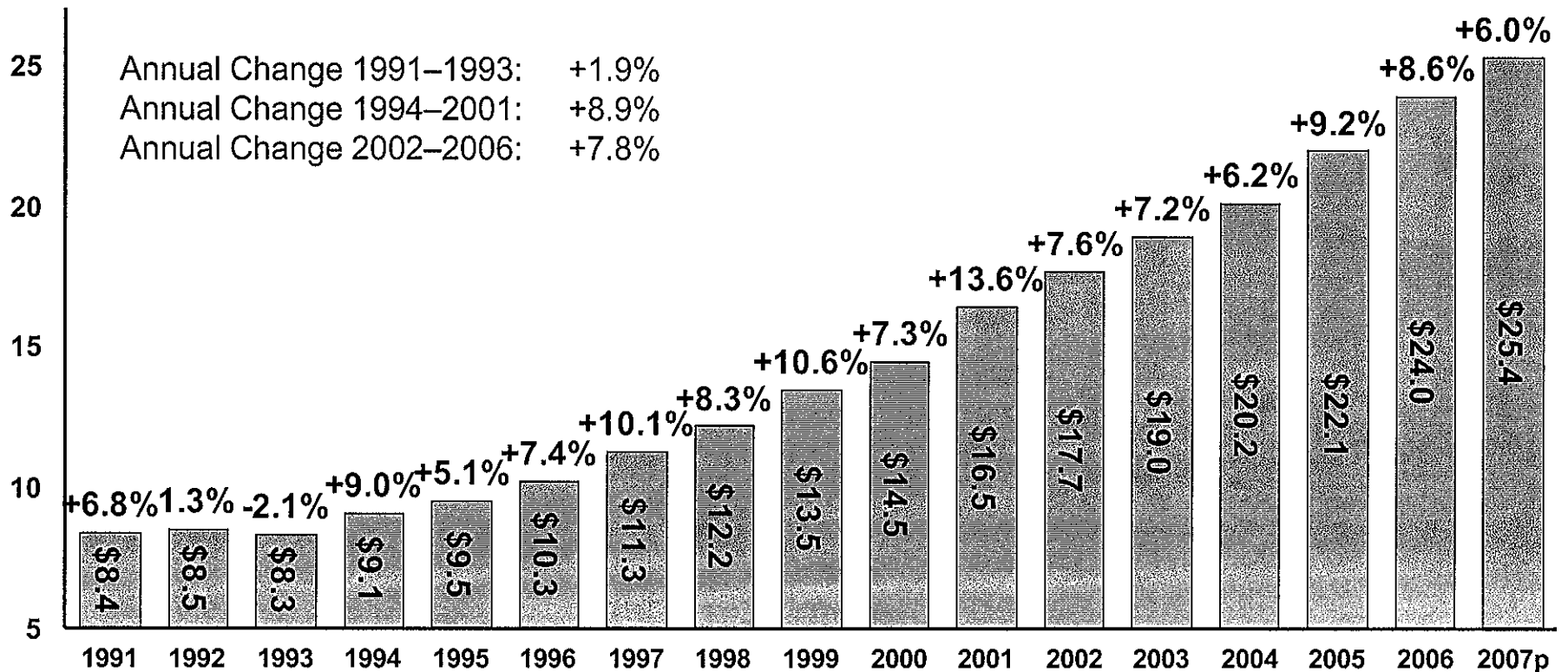
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# Countrywide WC Medical Claim Cost Trends—Growth Continues in 2007

Medical  
Claim Cost (000s)

Lost-Time Claims



Annual Change 1991–1993: +1.9%  
 Annual Change 1994–2001: +8.9%  
 Annual Change 2002–2006: +7.8%

Accident Year

2007p: Preliminary based on data valued as of 12/31/2007  
 1991–2006: Based on data through 12/31/2006, developed to ultimate  
 Based on the states where NCCI provides ratemaking services  
 Excludes the effects of deductible policies

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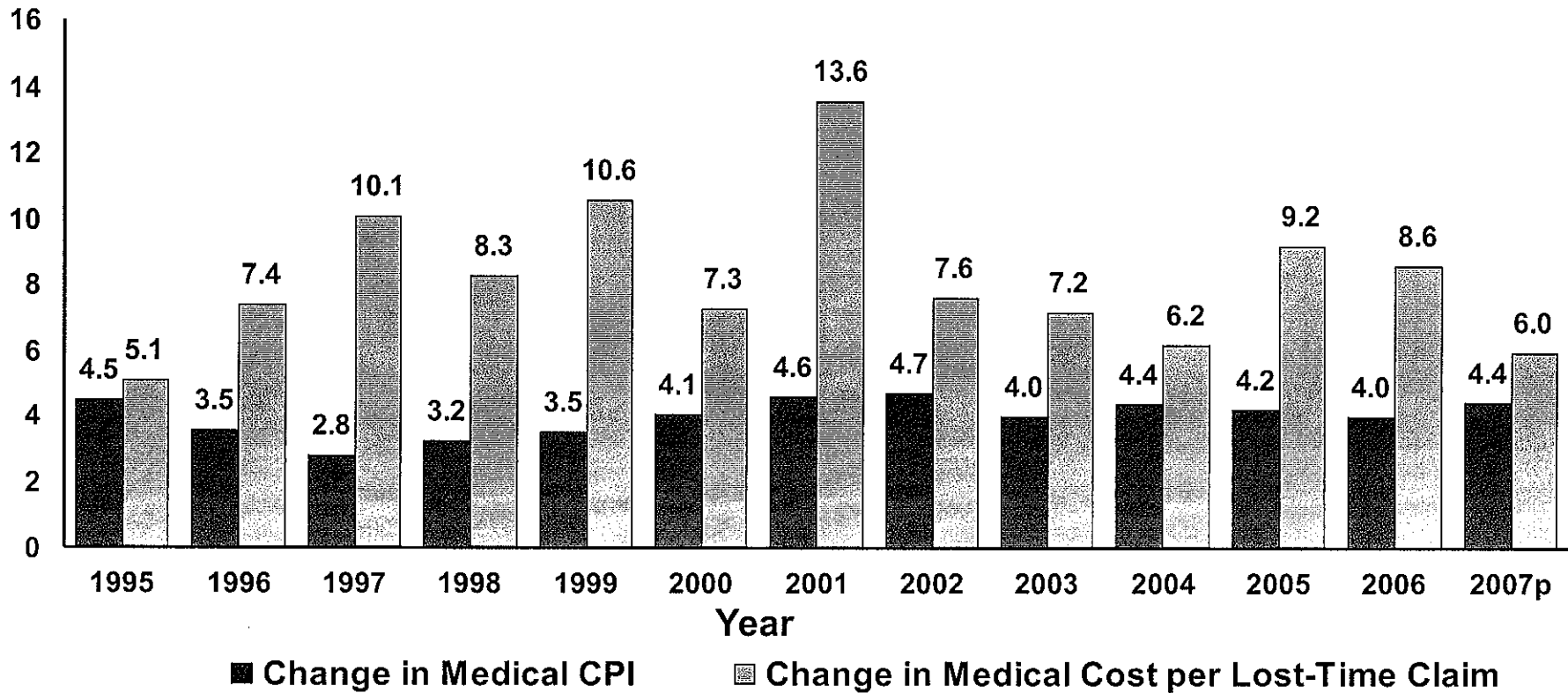




# Countrywide WC Medical Severity Still Growing Faster Than the Medical CPI

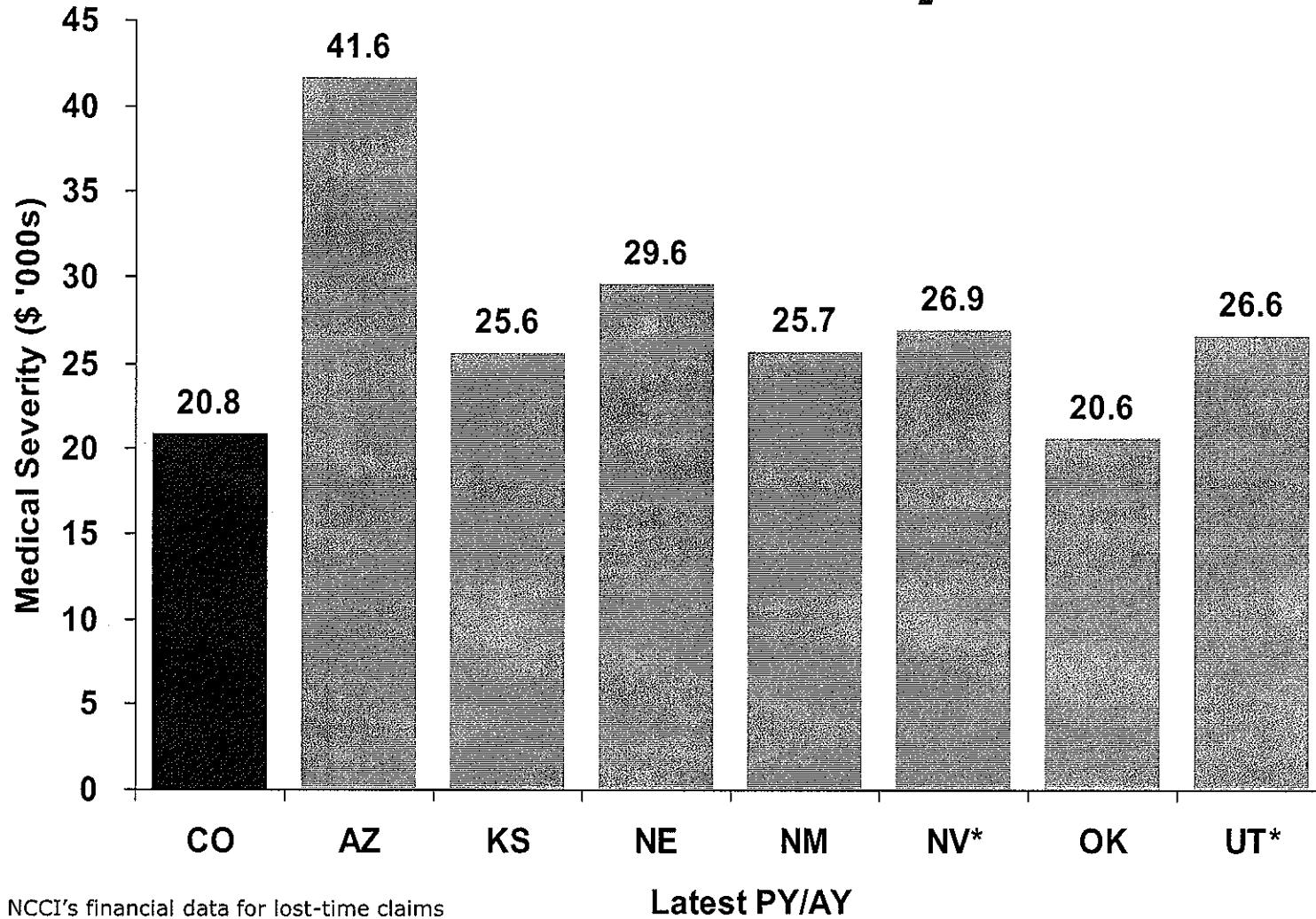
## Lost-Time Claims

Percent Change



Medical severity 2007p: Preliminary based on data valued as of 12/31/2007  
 Medical severity 1995-2006: Based on data through 12/31/2006,  
 developed to ultimate Based on the states where NCCI provides ratemaking  
 services, excludes the effects of deductible policies  
 Source: Medical CPI—All states, Economy.com;  
 Accident year medical severity—NCCI states, NCCI

# Regional Average Medical Claim Severity



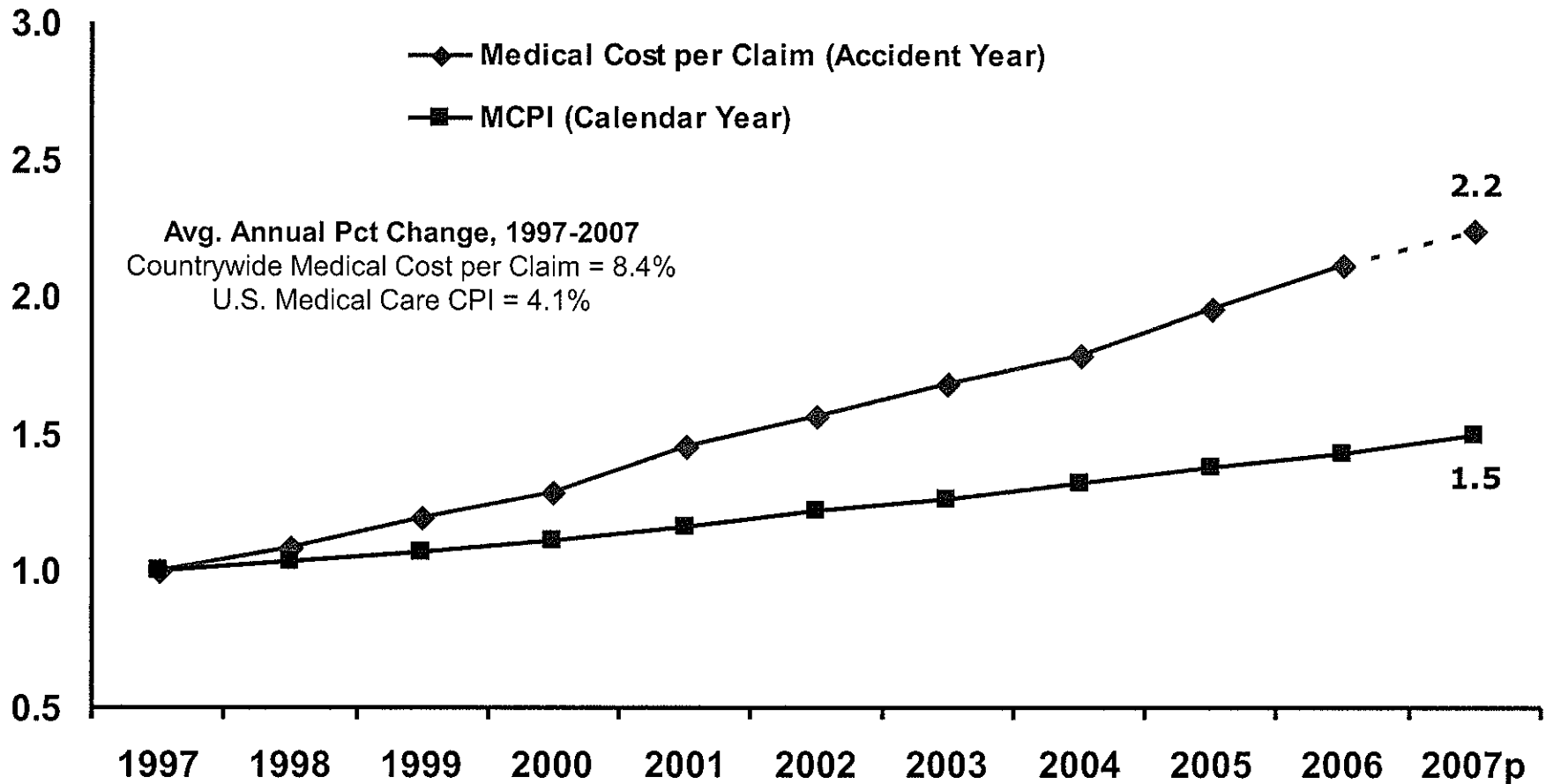
Based on NCCI's financial data for lost-time claims  
\*Nevada & Utah are based on Accident Year 2007  
All other states based on Policy Year 2006

# Drivers of Medical Severity

- Medical Inflation
- Utilization
- Demographics

# Countrywide Medical Severity Is Outpacing the Medical Care CPI

Indexes of Medical Severity\* and Medical Care CPI, 1997 = 1.0



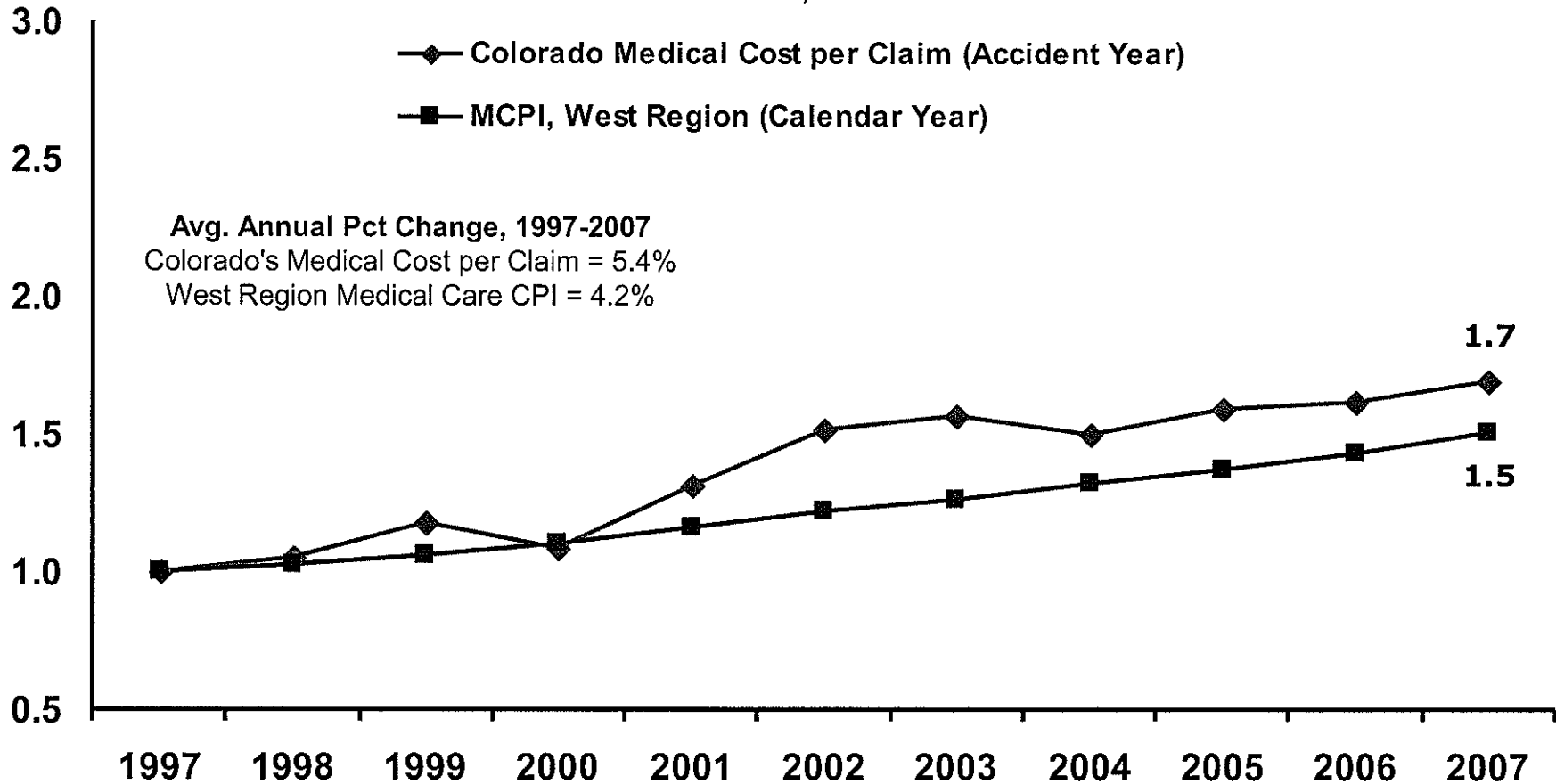
\* Lost-time claims  
 Data valued at 12/31/2007  
 Medical Severity is represented above as unlimited medical losses at ultimate without adjustments for either wage or benefit changes  
 Source: NCCI; U.S. Bureau of Labor Statistics

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# Medical Severity in Colorado Is Increasing More Than the Medical CPI

Indexes of Medical Severity\* in Colorado and  
Medical Care CPI, 1997 = 1.0



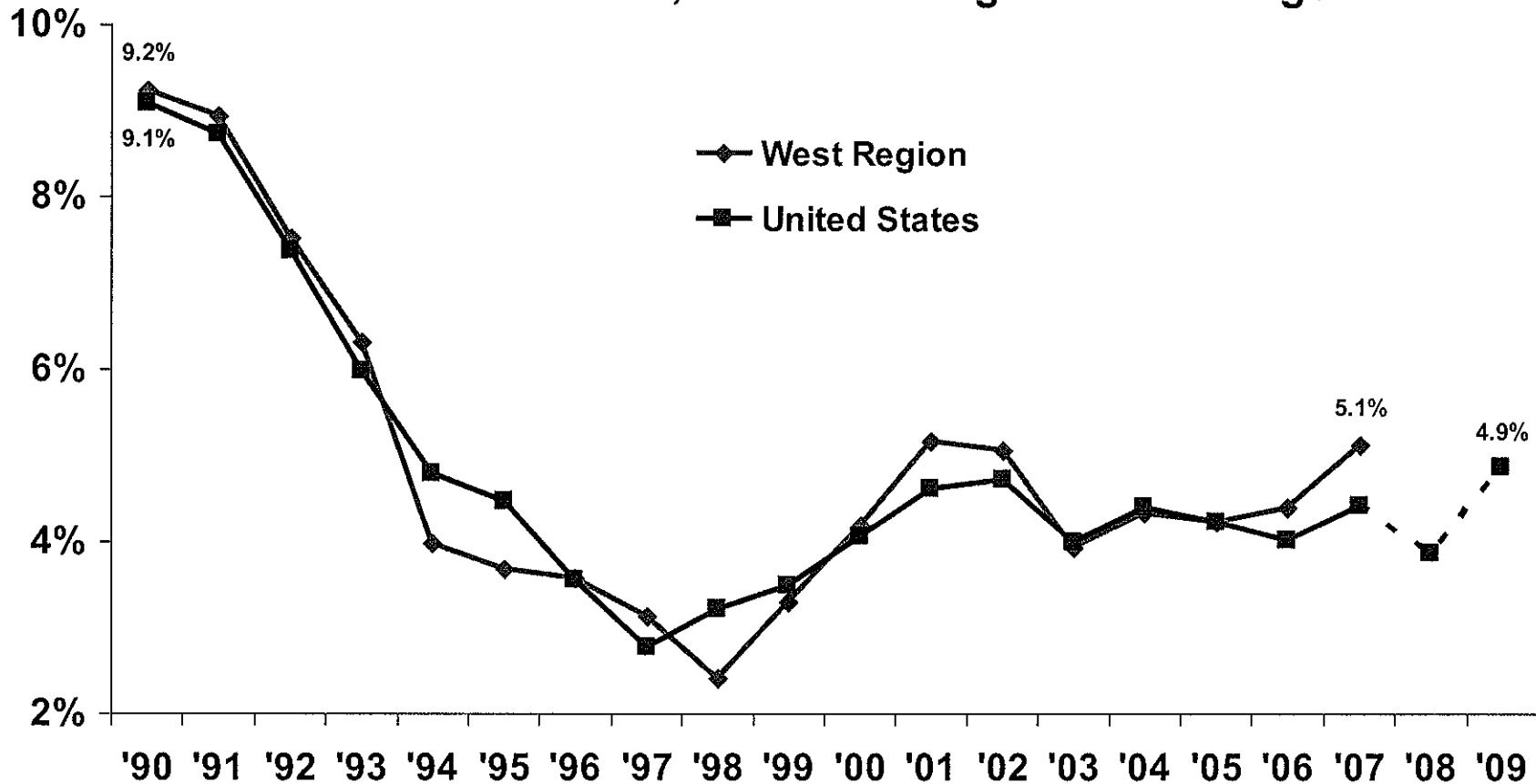
\* Lost-time claims  
Data valued at 12/31/2007  
Medical Severity is represented above as unlimited  
medical losses at ultimate without adjustments for  
either wage or benefit changes  
Source: NCCI; U.S. Bureau of Labor Statistics

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# Further Increases in Medical Care Inflation Are Expected Through 2009

Medical Care CPI, Percent Change from Year Ago



Source: U.S. Bureau of Labor Statistics and Moody's Economy.com for forecasts

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# Changes in Utilization Can Come From Many Sources

- Changes in the number of services provided
- Changes in treatment modalities (use of MRIs instead of X-rays)
- Introduction of newer pharmaceuticals/generics
- Adaptive practices by providers

# Utilization Changes Are Key to Understanding Changes in Medical Severity

- Recent NCCI research quantifies the extent to which changes in utilization help to explain the rise in medical severity
- The study focuses on claims closed within 24 months of date of injury between 1996-97 and 2001-02, a period when medical severity rose 73%
- Looks separately at impact of changes in mix, quantity and price on medical severity changes
- Full study available on NCCI's website ([www.ncci.com](http://www.ncci.com))



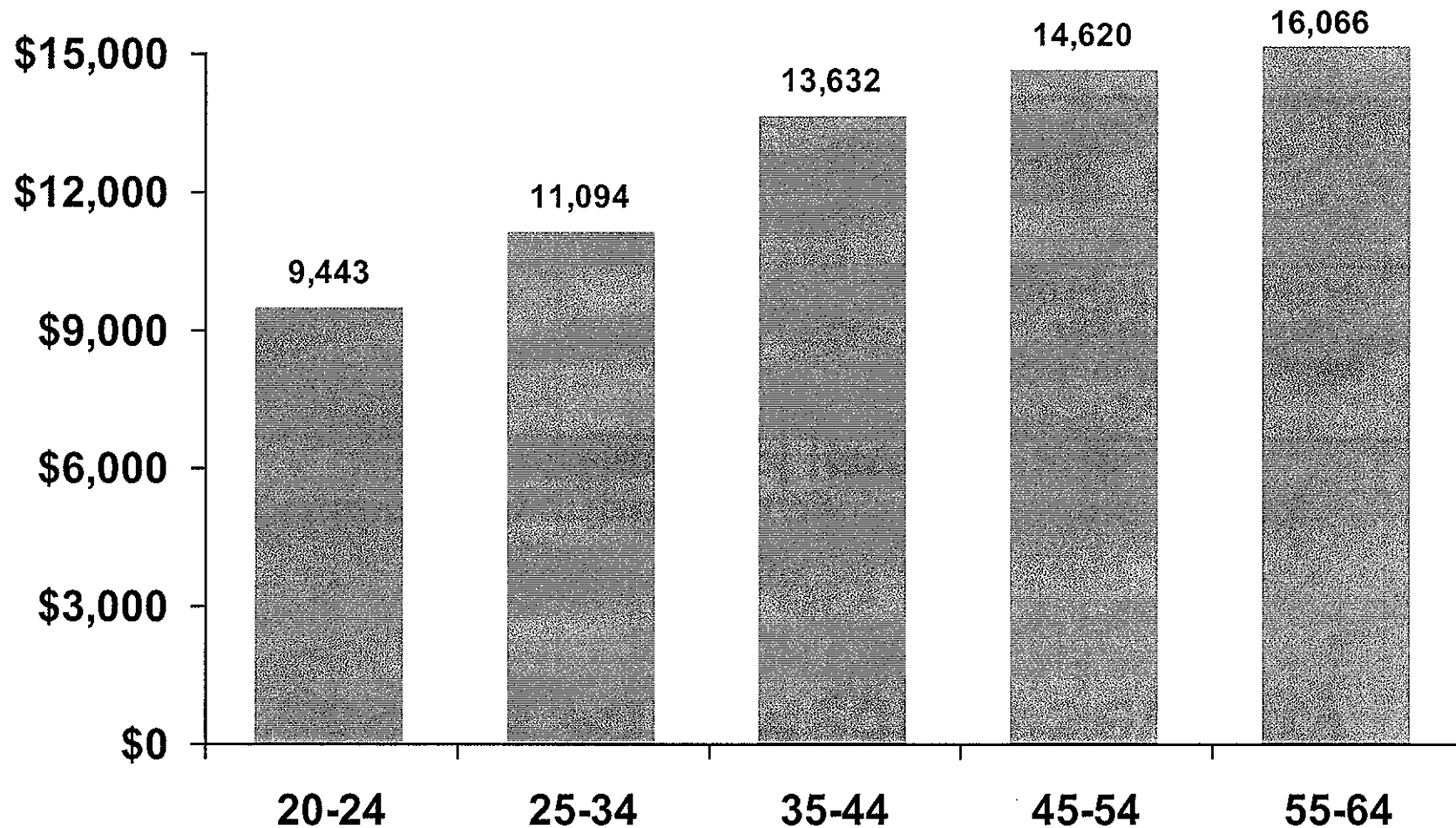
# Changes in Utilization (Mix and Quantity) Explain the Major Portion of the Increase in Paid Medical Severity

## Paid Medical Severities on Lost-Time Claims Closed Within 24 Months of Date of Injury

	Percent of Severity Increase, Accident Years 2001/02 vs. 1996/97
Increase Due to Diagnosis Mix Differences	21%
Increase Due to Number of Treatments	52%
Remaining Increase Due to Price and Other Factors	27%

# Medical Severity Increases With Age

Average Paid + Case Medical Severity Reported at 18 Months by Age  
Accident Year 2005, NCCI States



Source: NCCI

# Key Takeaways— Drivers of Medical Severity

- Ongoing increases in medical inflation and utilization suggest further upward pressure on medical severity
- Medical severity increases with age
- Upward pressure on medical severity may diminish as Baby Boomers exit the workforce
- This latter effect may be partly offset to the extent that persons work well beyond the “normal” retirement age

# Questions Or Comments

**Mike Taylor**

**503-360-8546**

**Mike\_taylor@ncci.com**

