



Observations on the Business Cycle, Conventional Economic Wisdom and Other Economic Issues

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Philadelphia, PA



Observations on Current Economic Issues

Economic Trends and the P&C Industry

Traffic Accidents
Medical Cost Drivers



Trends in Motor Vehicle Activity

Autos and Trucks

Drivers, Miles, and Accidents



Traffic Accidents

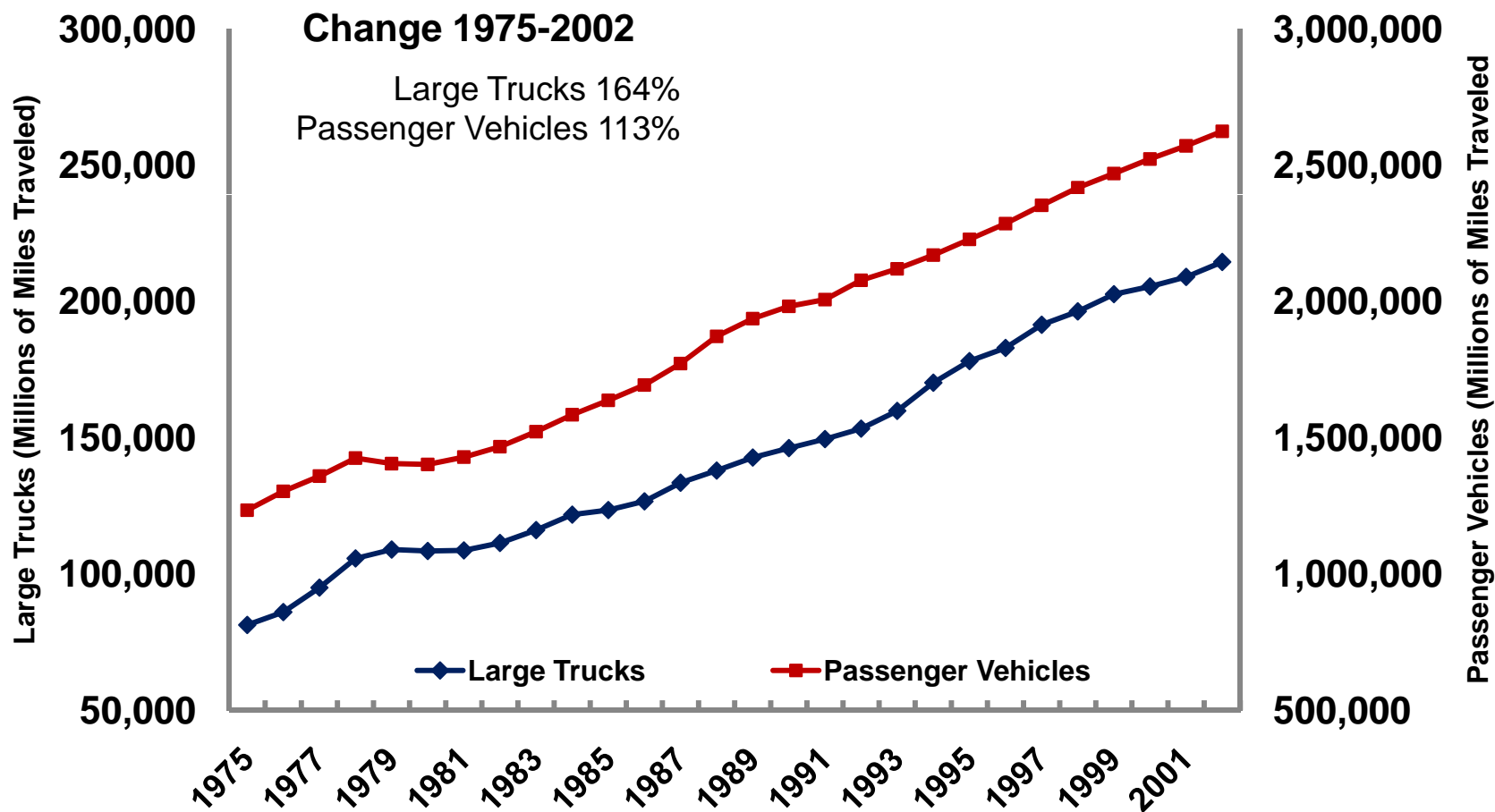
**Data from the National Highway Traffic Safety
Administration**

Trends in Motor Vehicle Injuries

- Frequency of both Fatalities and Non-fatal Injuries Has Been Declining
- Large Trucks Have Greater Frequency of Fatalities
- Passenger Vehicle Have Greater Frequency of Non-fatal Accidents

Exposure Growing – Vehicle Miles Traveled

Millions of Vehicle Miles Traveled

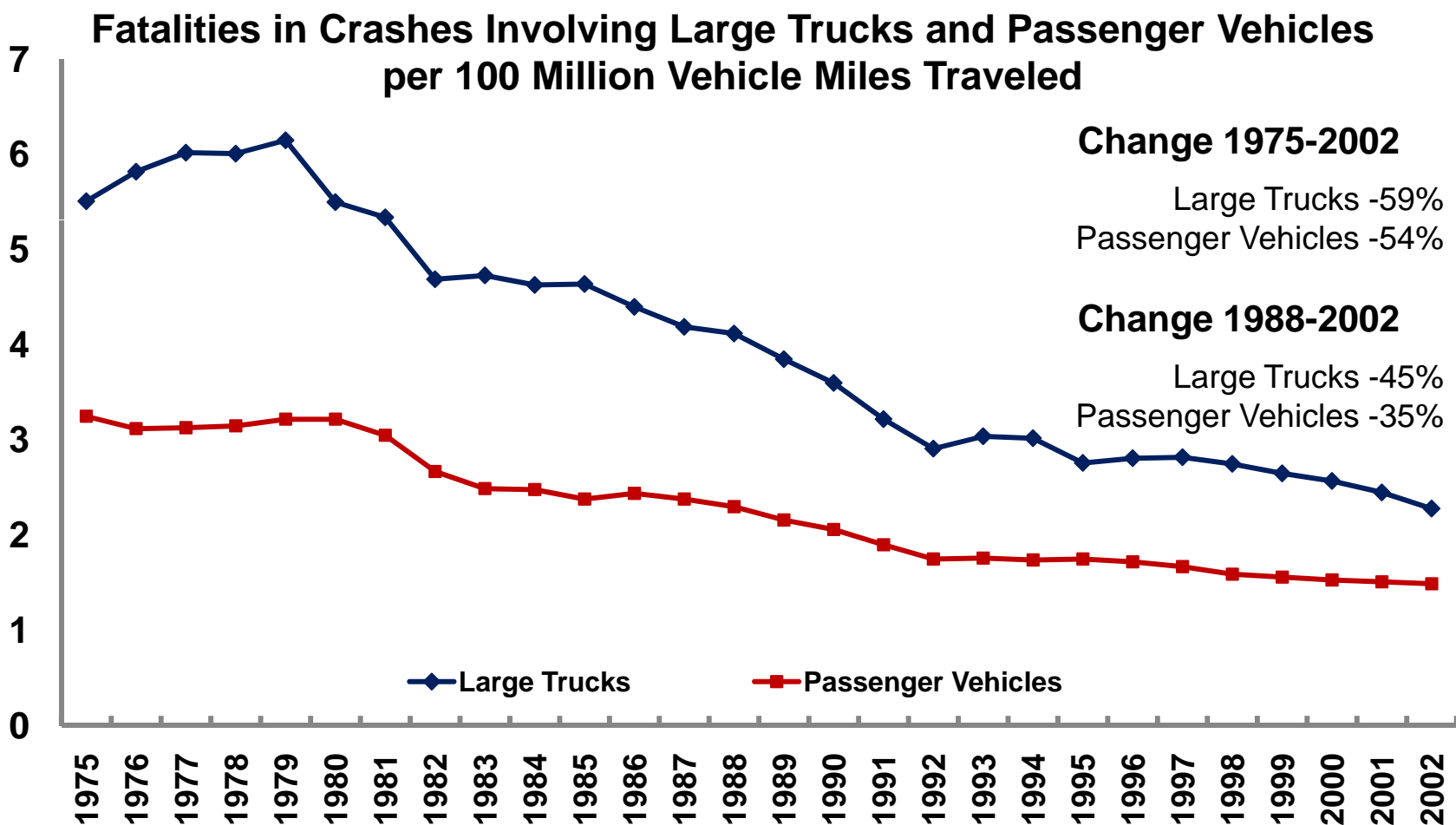


Source: US Department of Transportation

Frequency of Fatalities

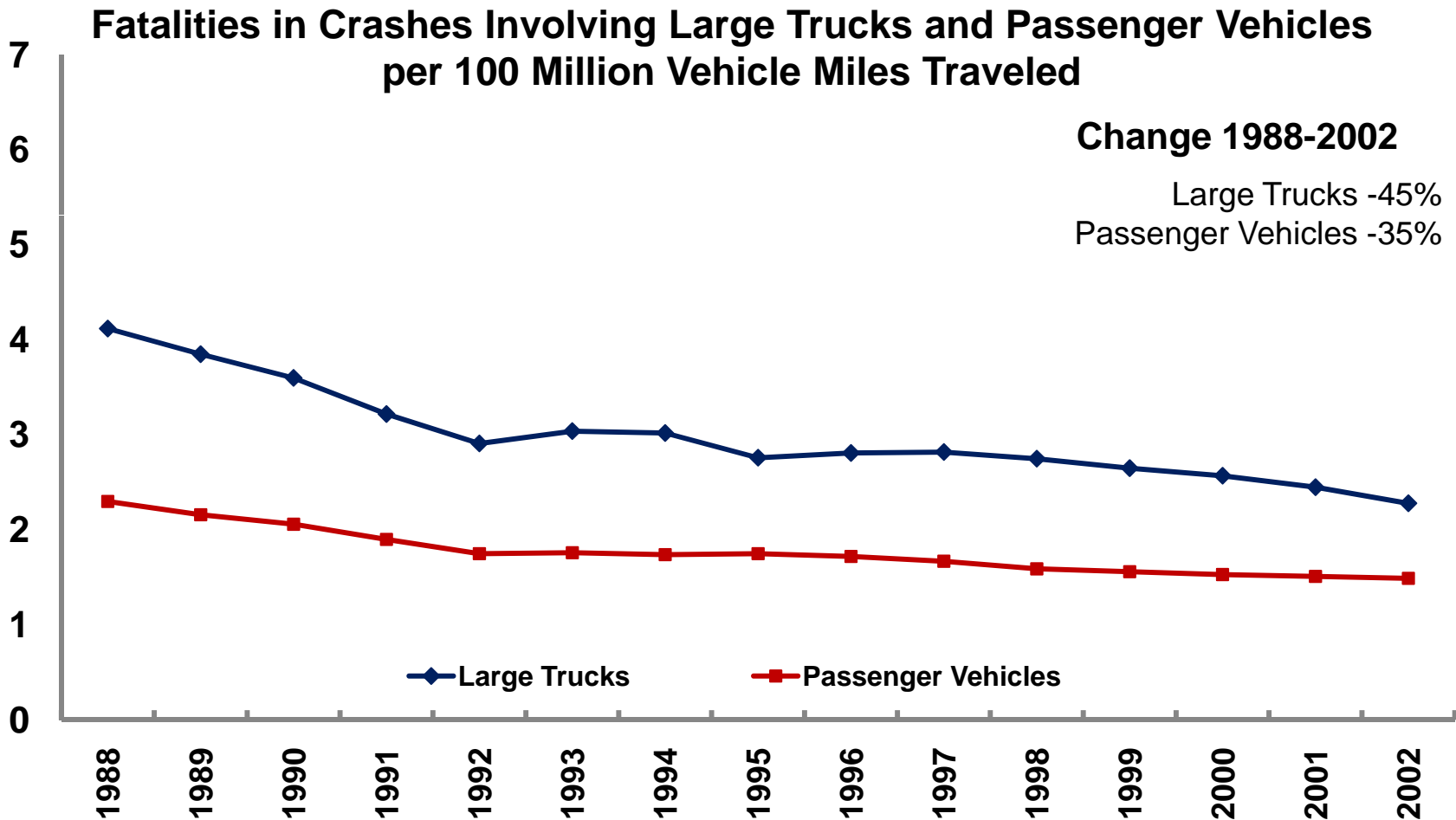
Improvement Began in the Late 1970s

for Both Large Trucks and Passenger Vehicles



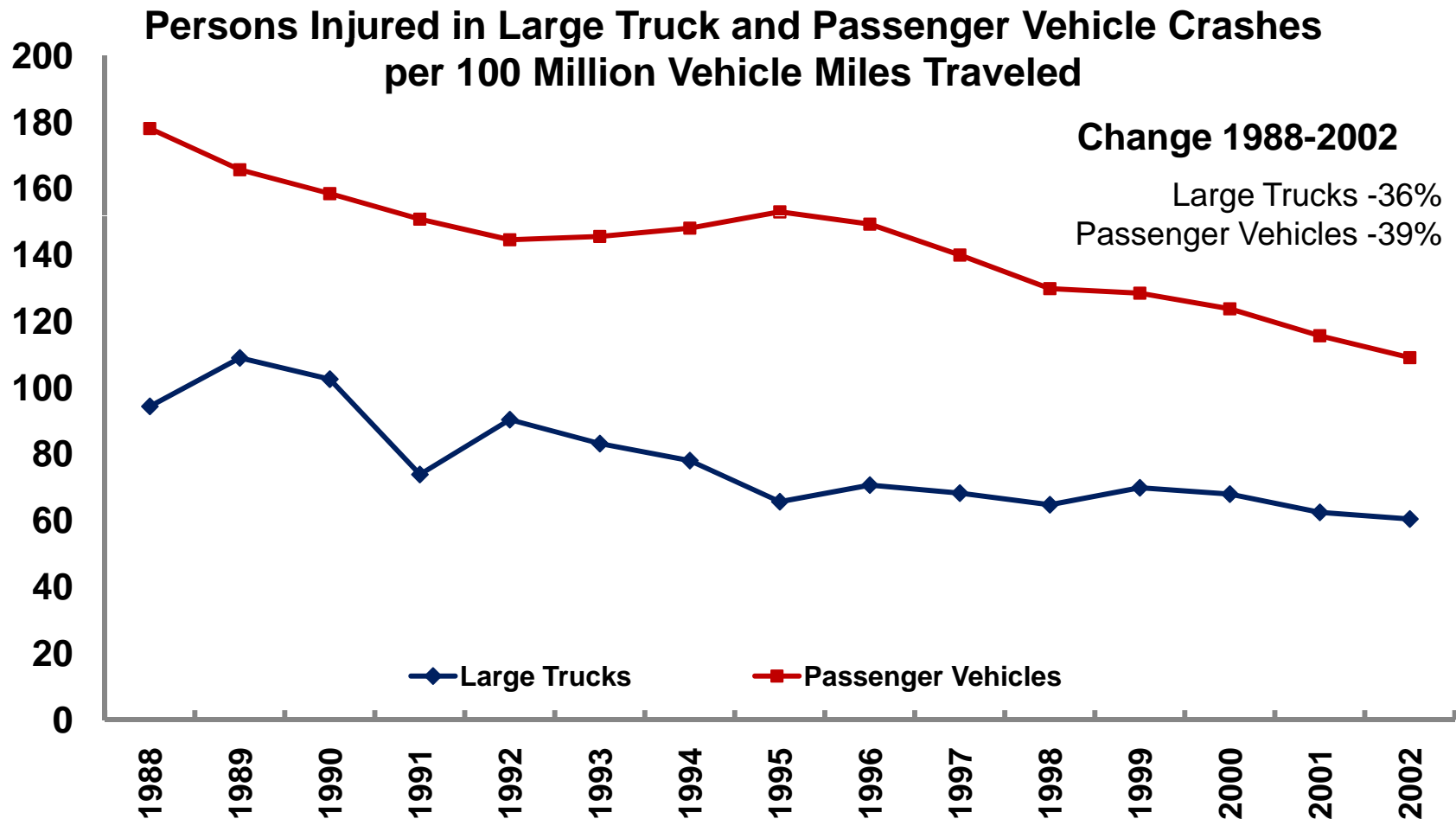
Source: US Department of Transportation

Frequency of Fatalities Has Declined for Both Large Trucks and Passenger Vehicles



Source: US Department of Transportation

Frequency of Nonfatal Injuries Also Has Declined for Both Large Trucks and Passenger Vehicles



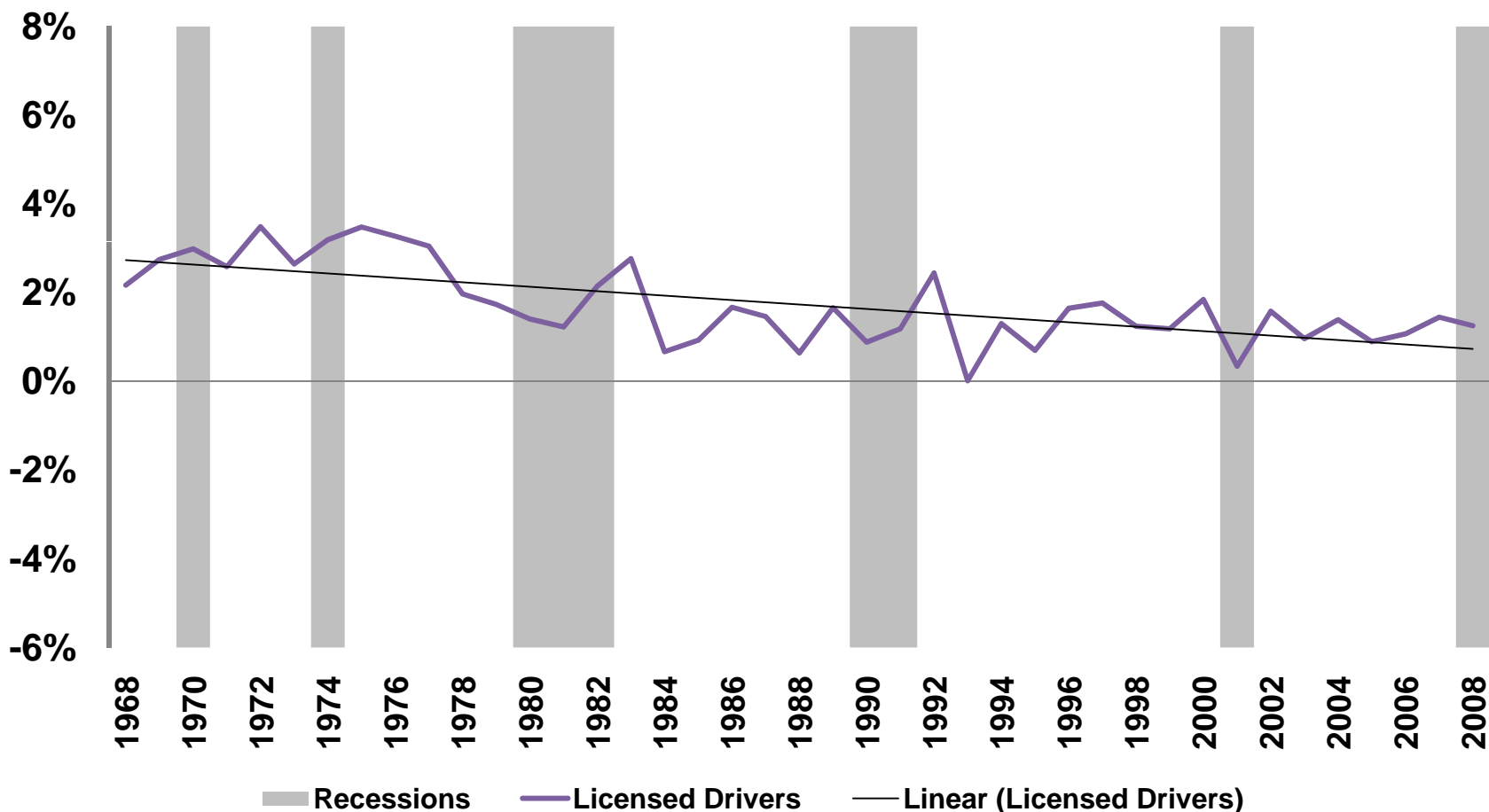
Source: US Department of Transportation



Traffic Accidents over the Business Cycle

The Annual Increase in the Number of Licensed Drivers Likely Reflects Demographics

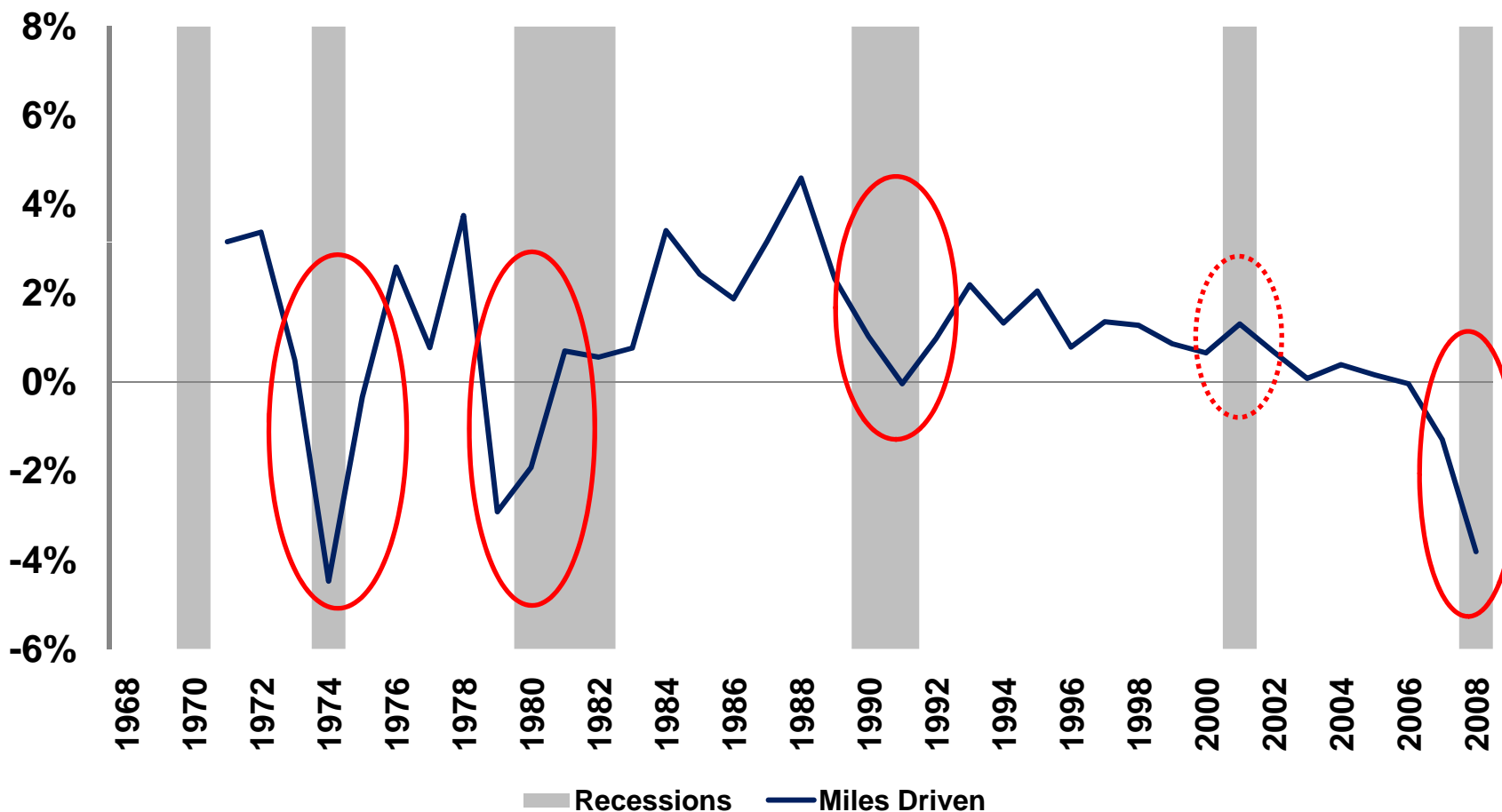
Percent Change in Total Number of Licensed Drivers



Source: US Department of Transportation - Federal Highway Administration

But the Rate of Change in Total Miles Driven is Cyclical: 1968-2008

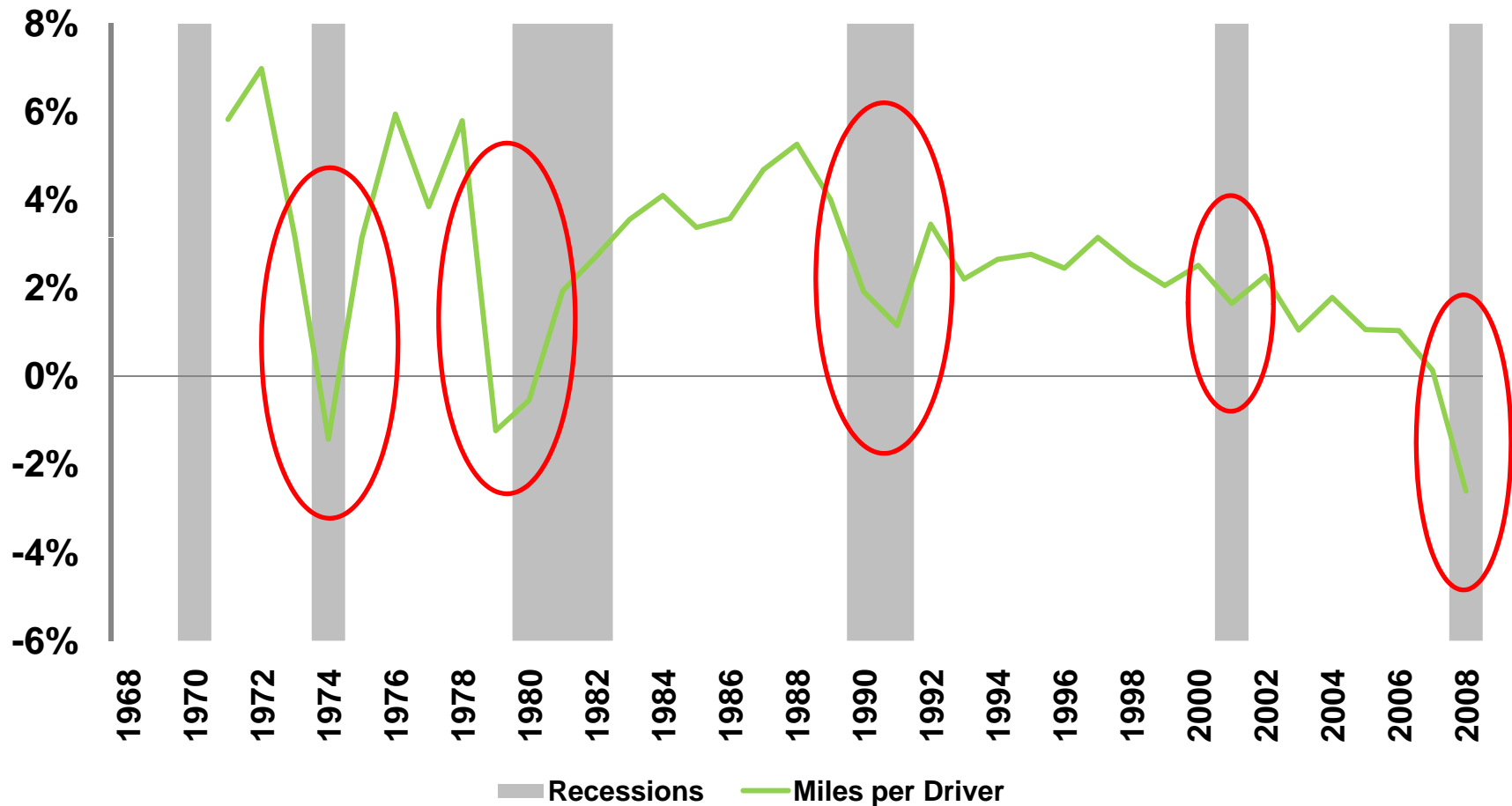
Percent Change in Total Miles Driven



Source: US Department of Transportation - Federal Highway Administration

Likely Because the Rate of Change in Average Miles per Driver is Cyclical: 1968-2008

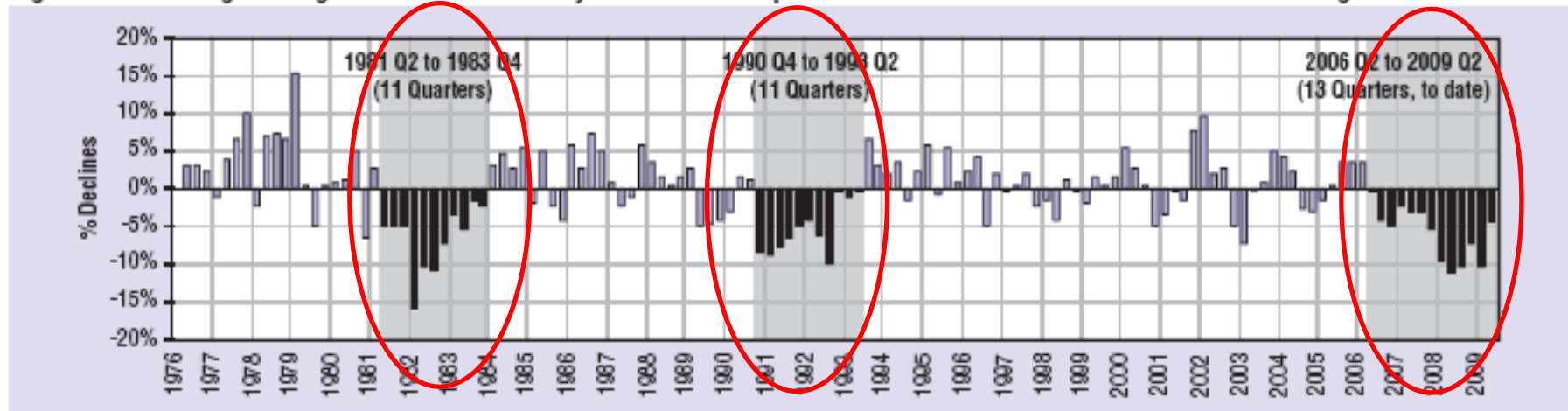
Percent Change in Average Miles per Driver



Source: US Department of Transportation - Federal Highway Administration

Changes in Traffic Fatalities are Cyclical: 1976-2009

Figure 1: Percentage Change in Fatalities in Every Quarter as Compared to the Fatalities in the Same Quarter During the Previous Year



U.S. Department of Transportation
**National Highway Traffic Safety
Administration**

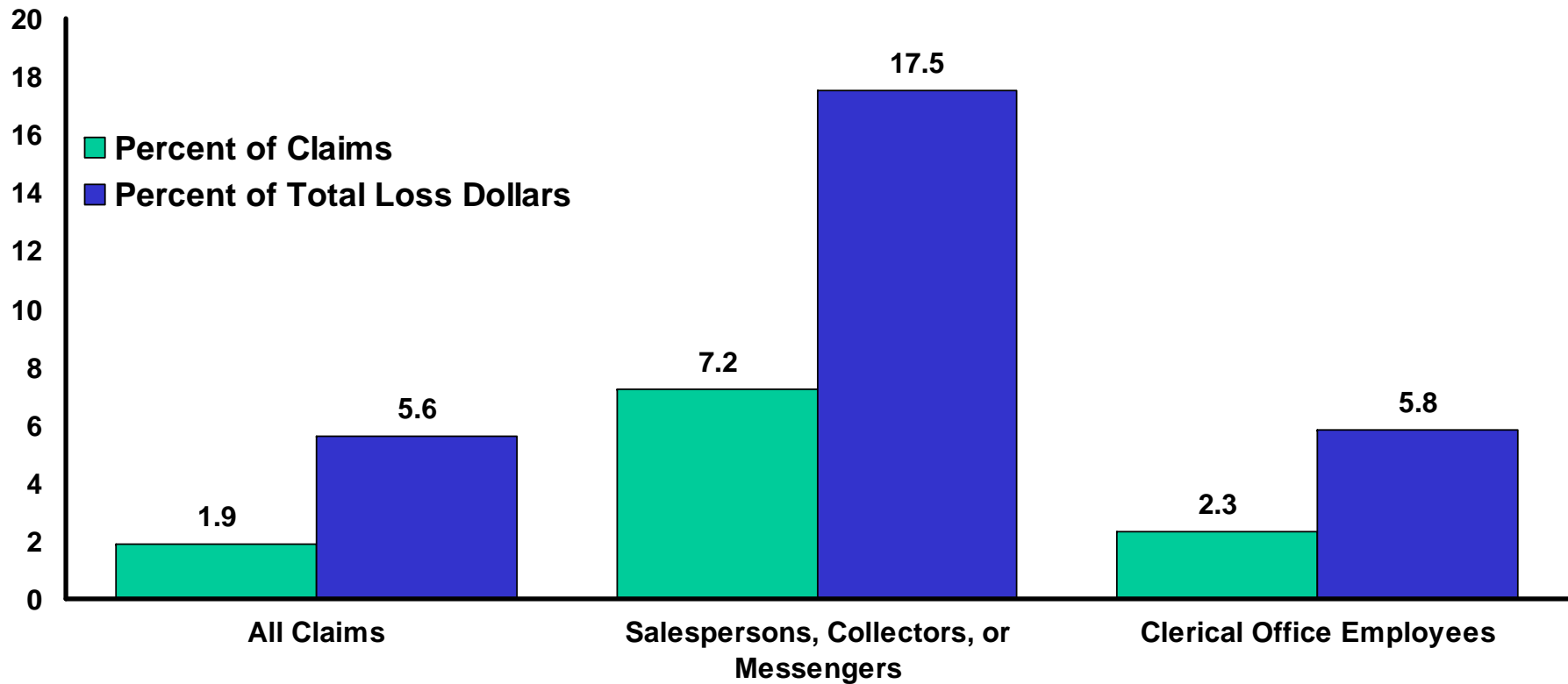


Insights on the Costs of Traffic Accidents from Data on Work Related Injuries

BLS and NCCI Data

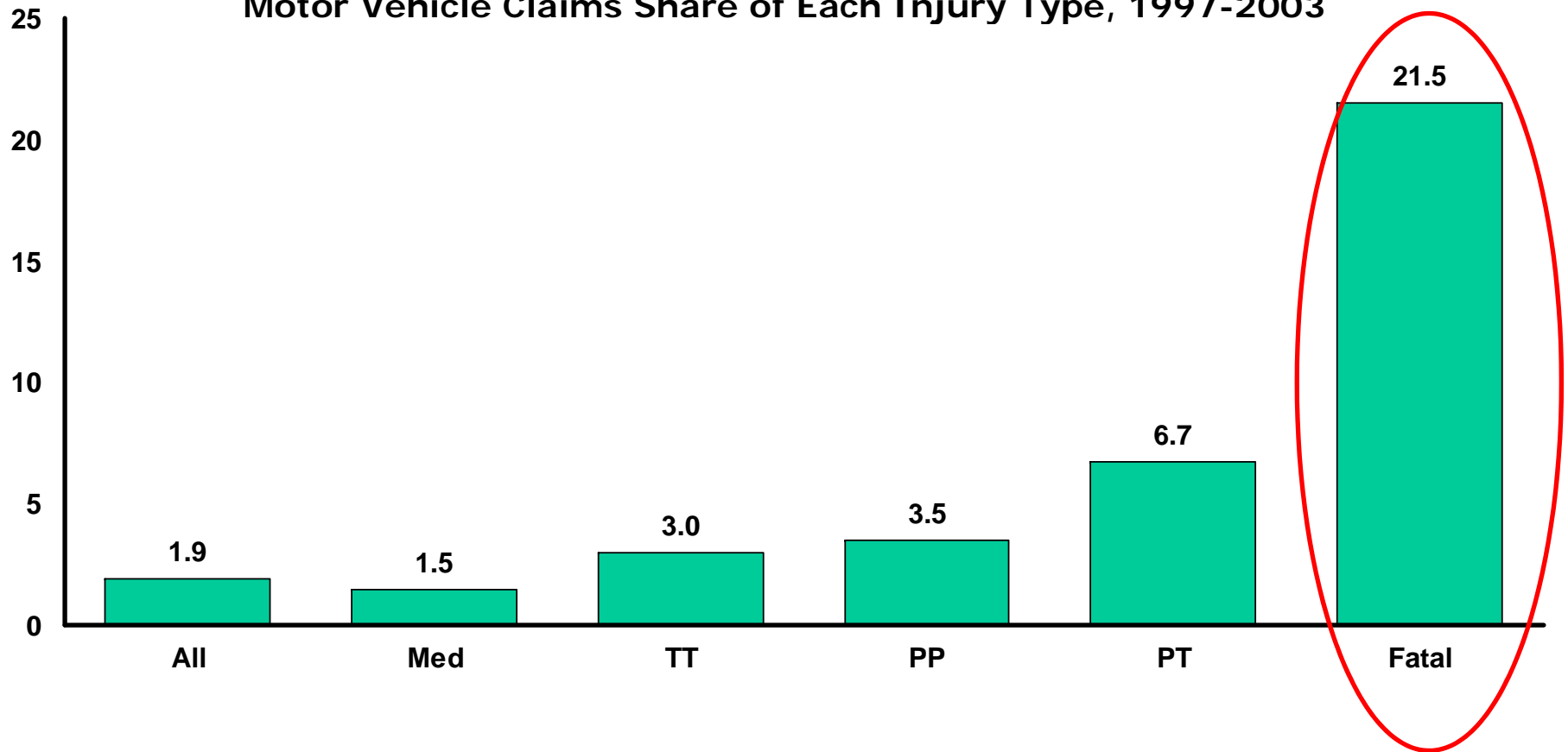
Motor Vehicle Accidents Have a Big Impact in Workers Comp

Motor Vehicle Accident Percent of Claims and Total Incurred Loss Dollars at Second Report Overall and for Two Class Codes, 1997-2003

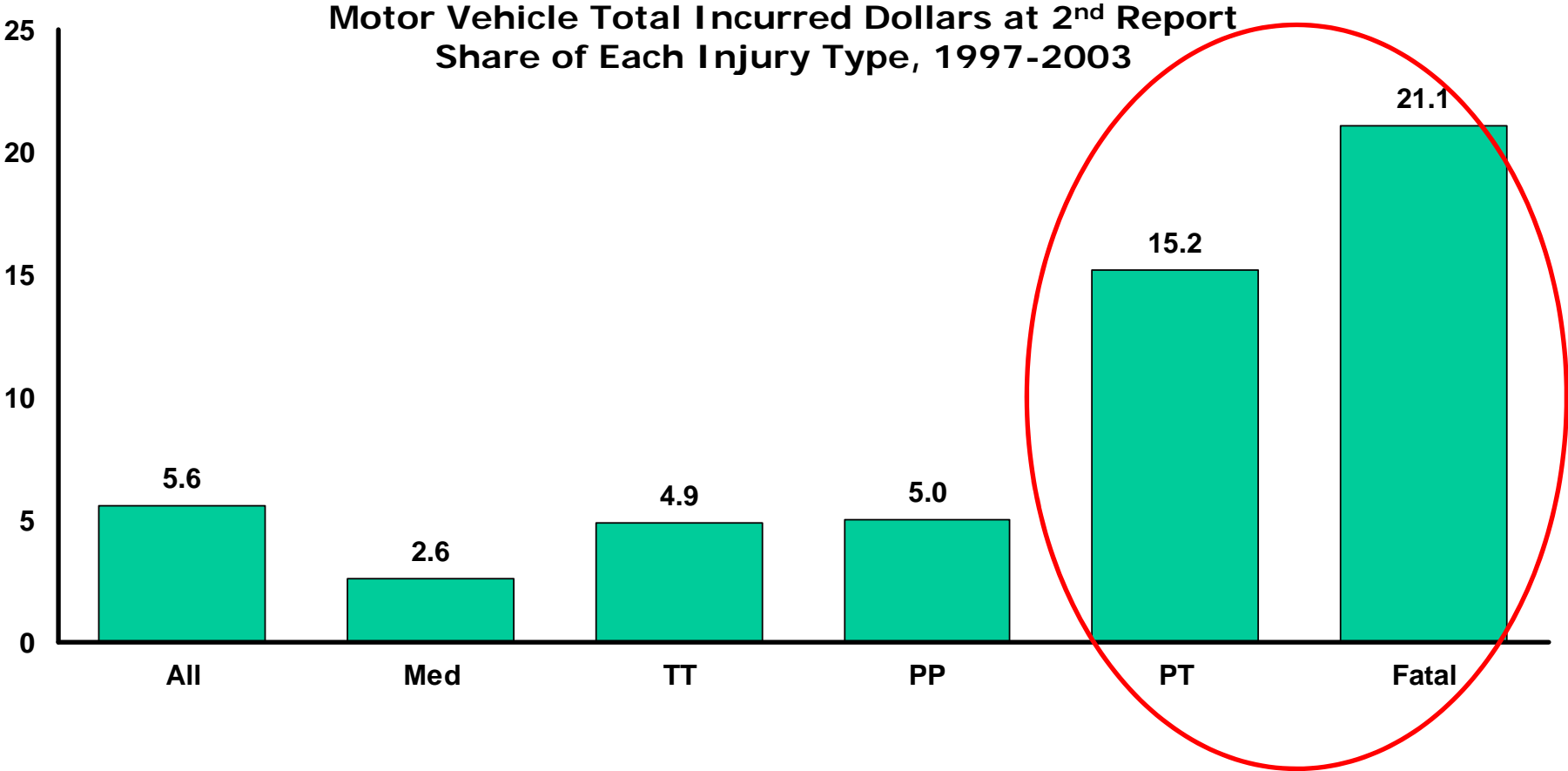


Motor Vehicle Claims Comprise a Disproportionate Share of the Most Severe Claim Types

Motor Vehicle Claims Share of Each Injury Type, 1997-2003

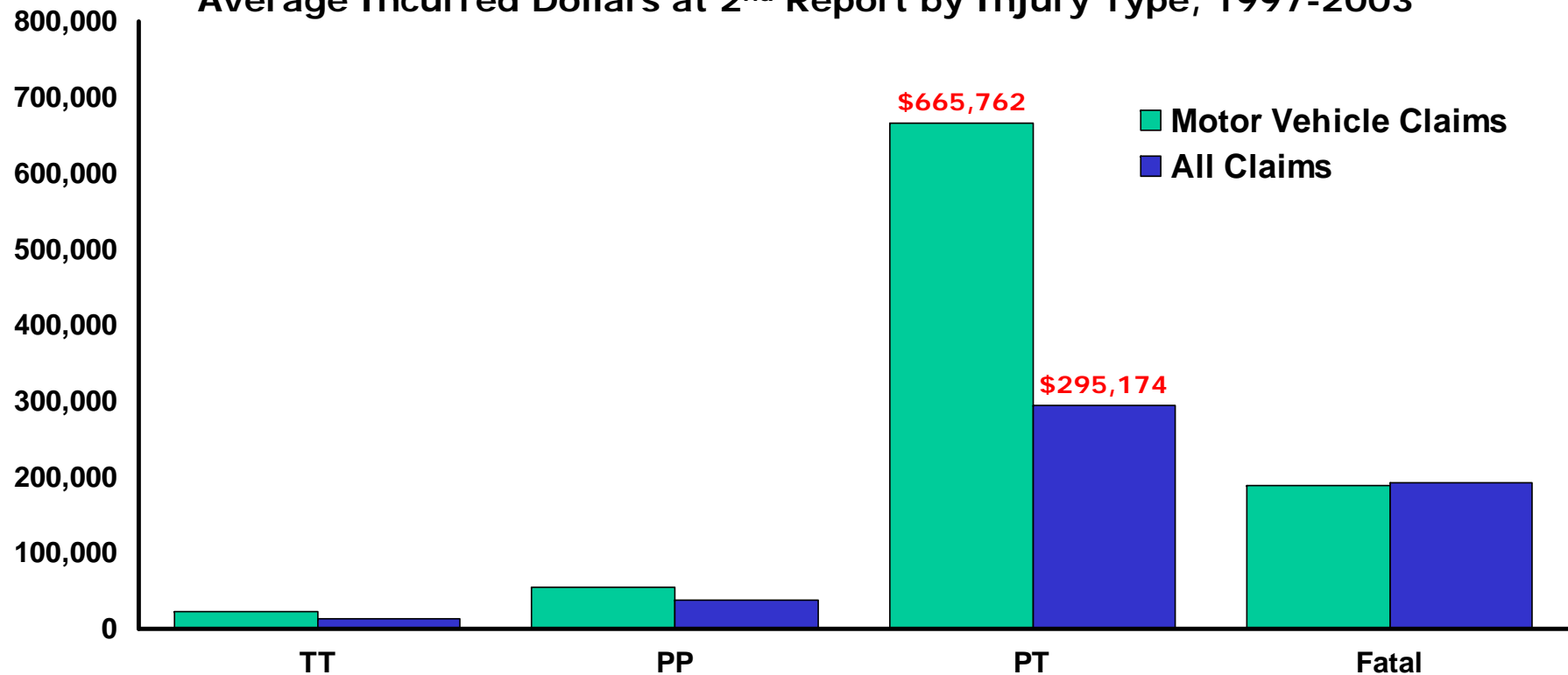



Motor Vehicle Total Incurred Dollars Comprise a Disproportionate Share of the Most Severe Claim Types



For Each Injury Type but Fatal, Severities Due to Motor Vehicle Accidents Are Higher Than for All Claims

Average Incurred Dollars at 2nd Report by Injury Type, 1997-2003





Of Special Interest to the P&C Industry

Medical Inflation



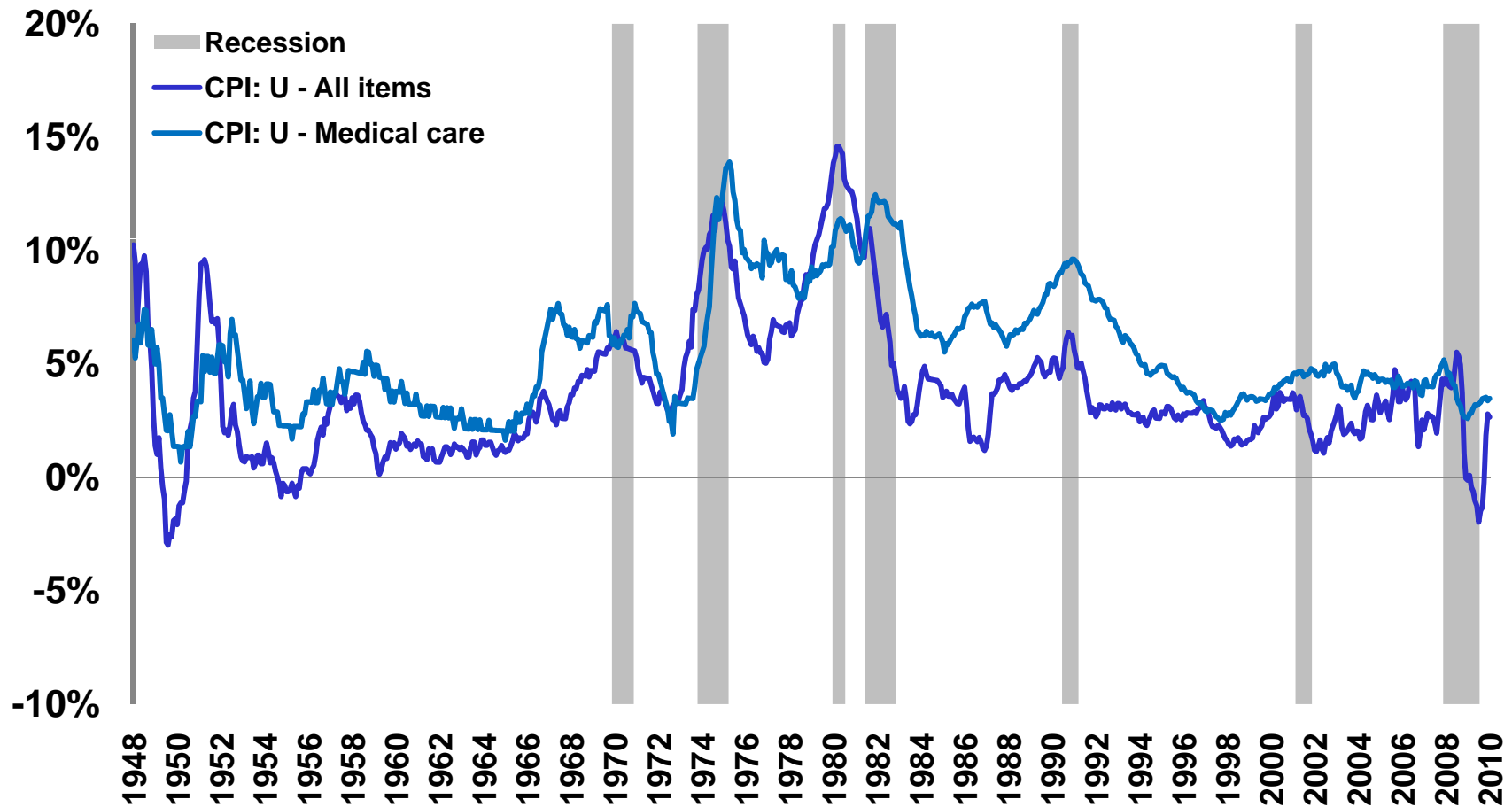
Medical Inflation

Almost always greater than inflation in the CPI

1948-2009

Medical Inflation Almost Always Greater than CPI Inflation

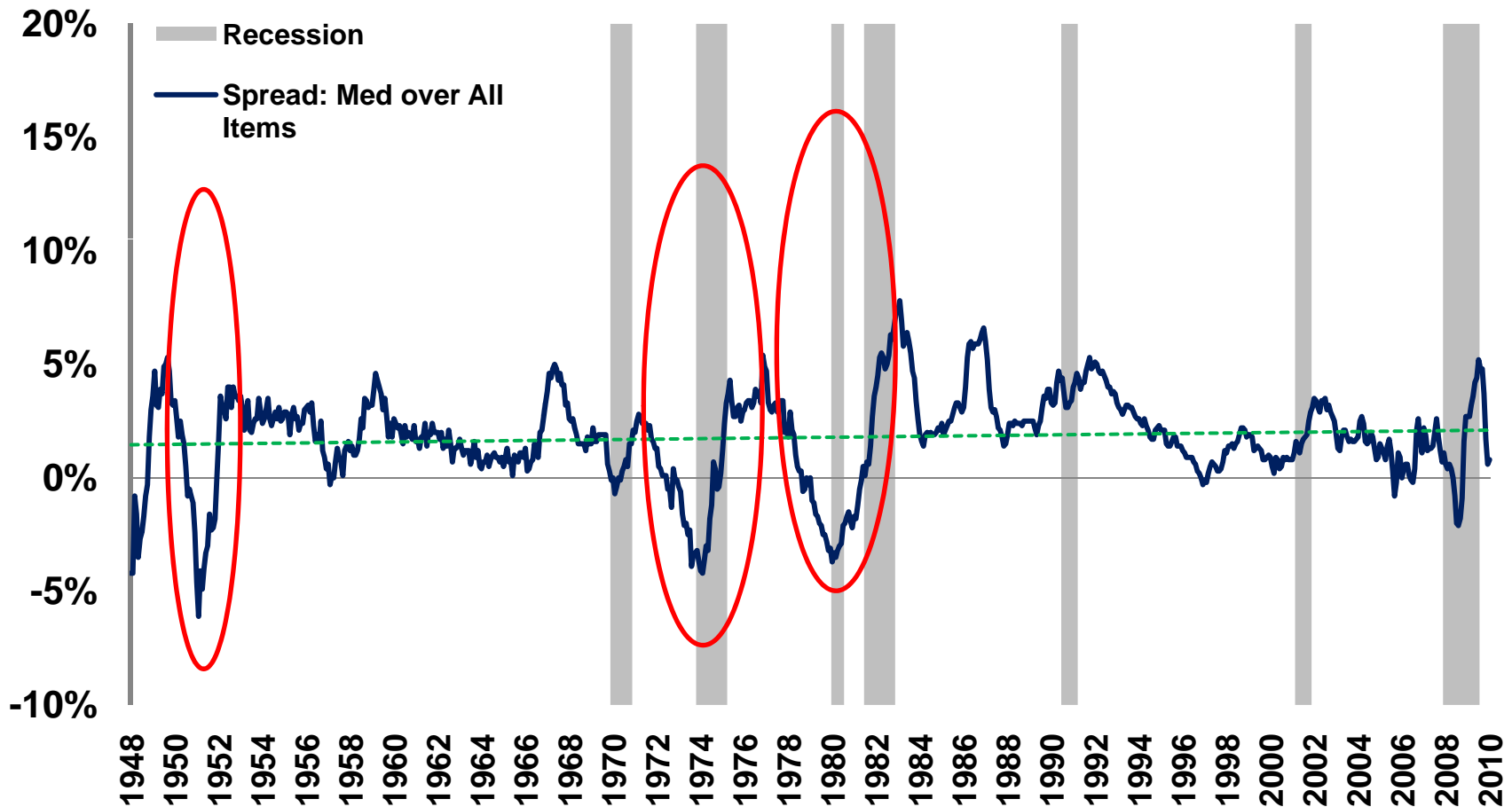
1948-2009



Source: US Bureau of Labor Statistics

Medical Inflation Almost Always Greater than CPI Inflation

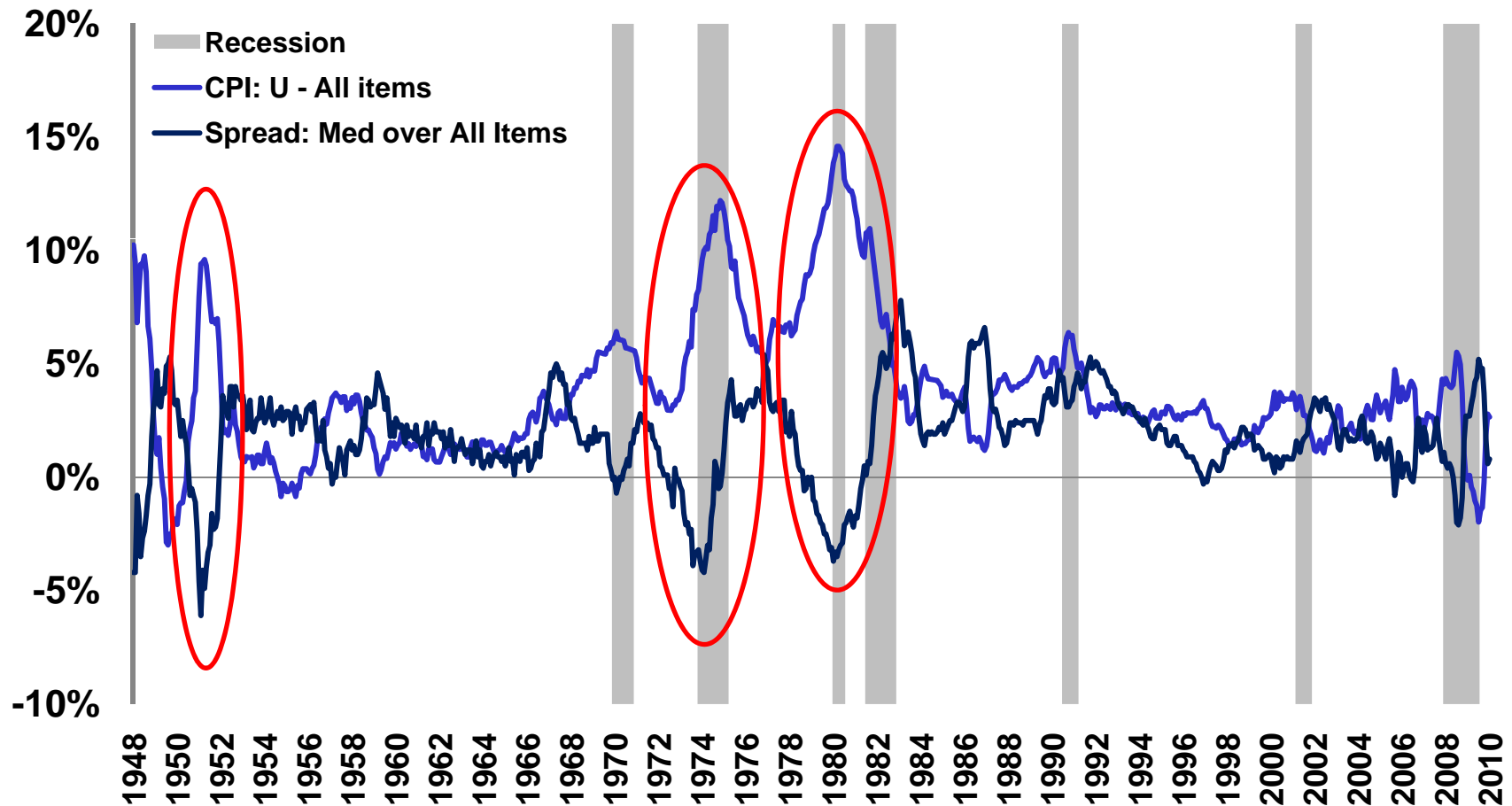
1948-2009



Source: US Bureau of Labor Statistics

Medical Inflation Lags Inflation in the CPI When the CPI Is Increasing Dramatically

1948-2009



Source: US Bureau of Labor Statistics



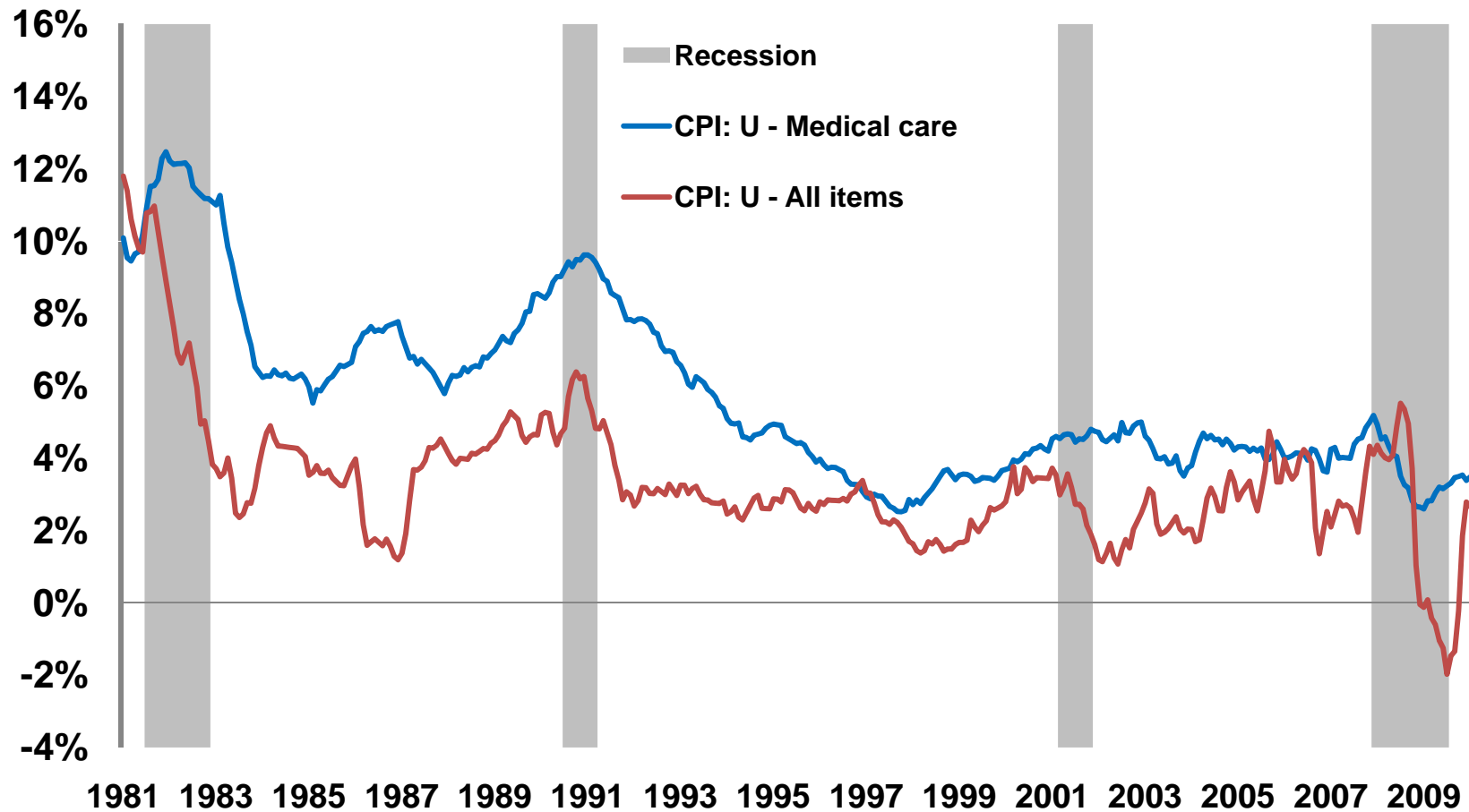
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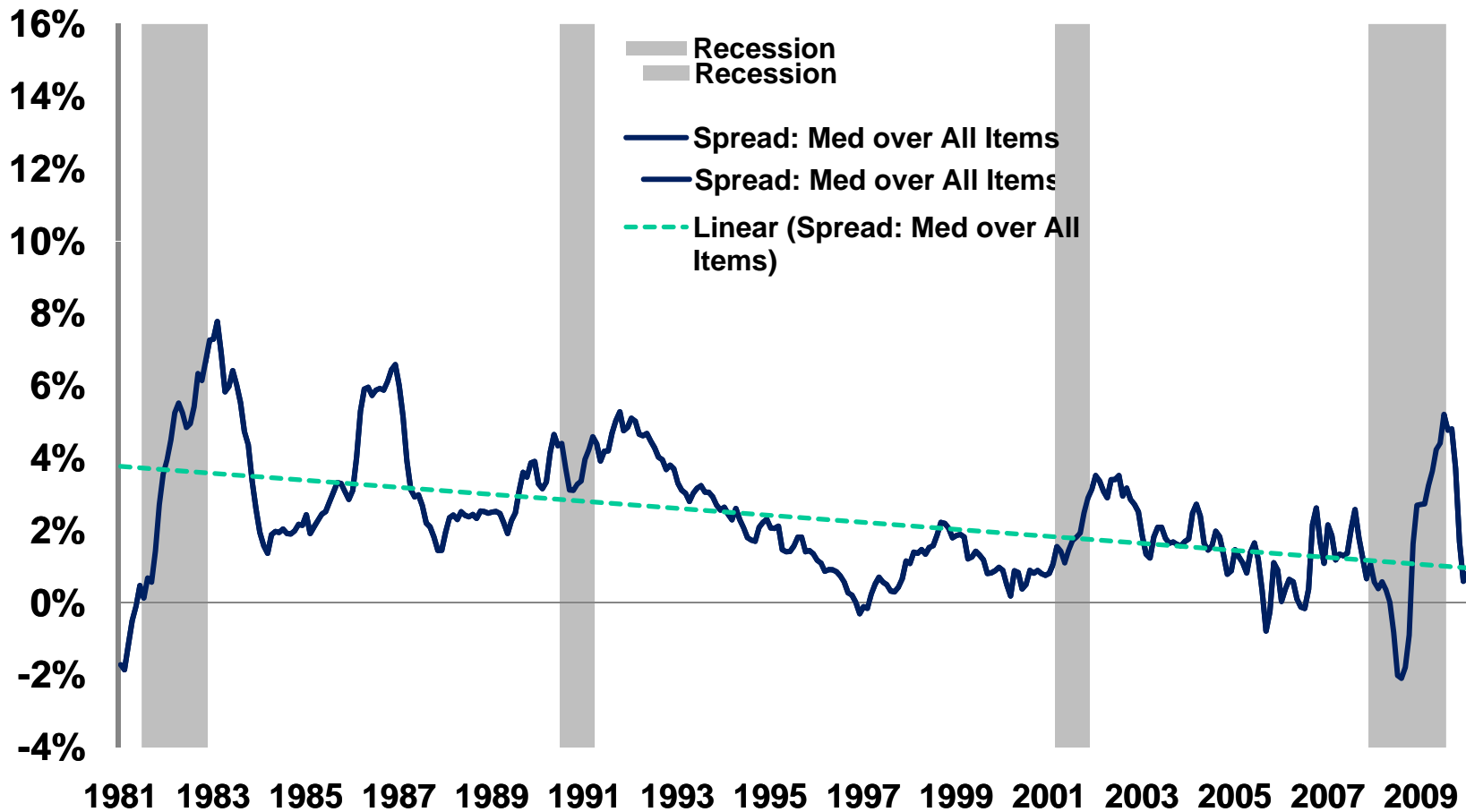
1981-2009



Source: US Bureau of Labor Statistics

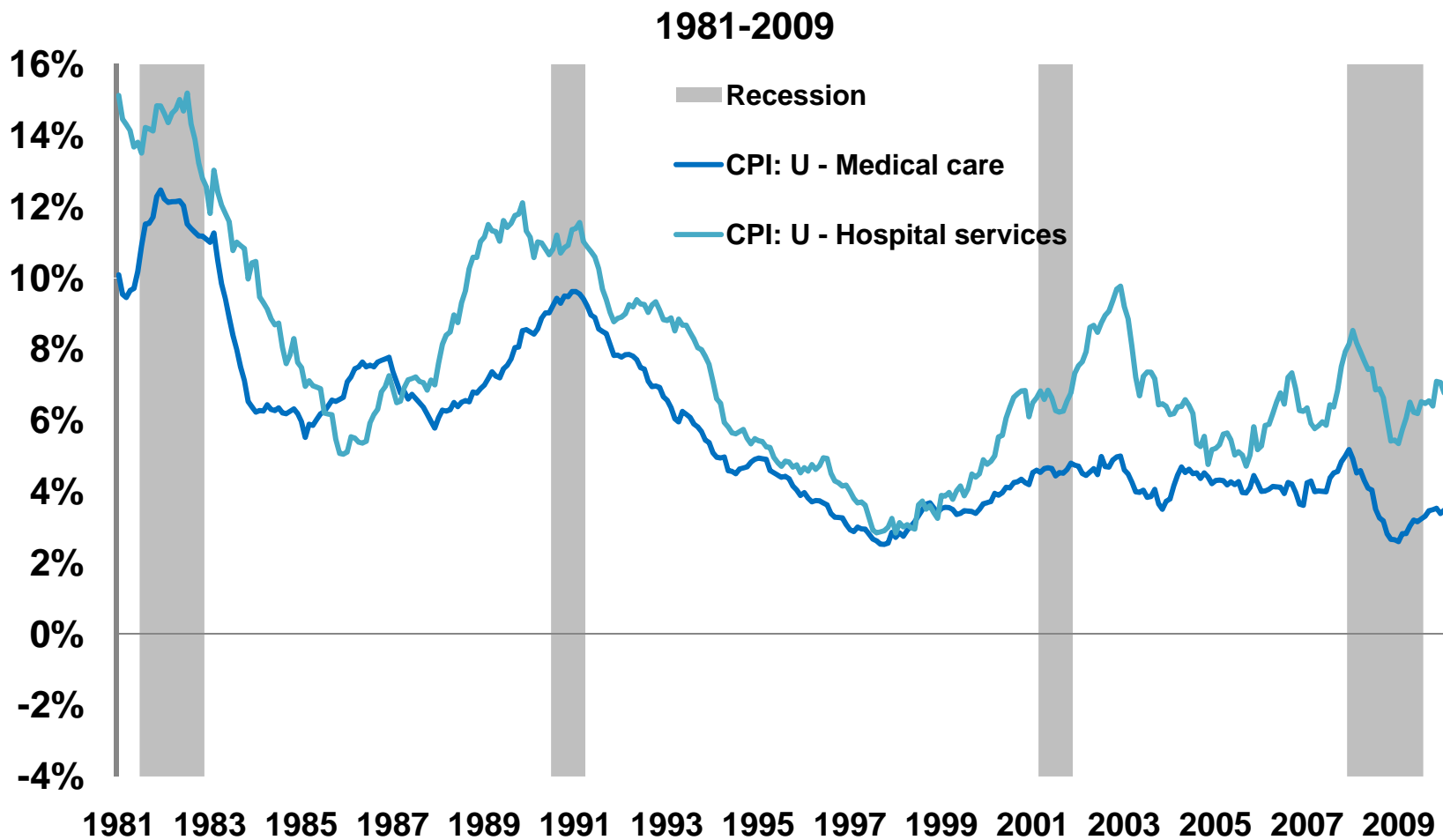
Medical Inflation Almost Always Greater than CPI Inflation

1981-2009



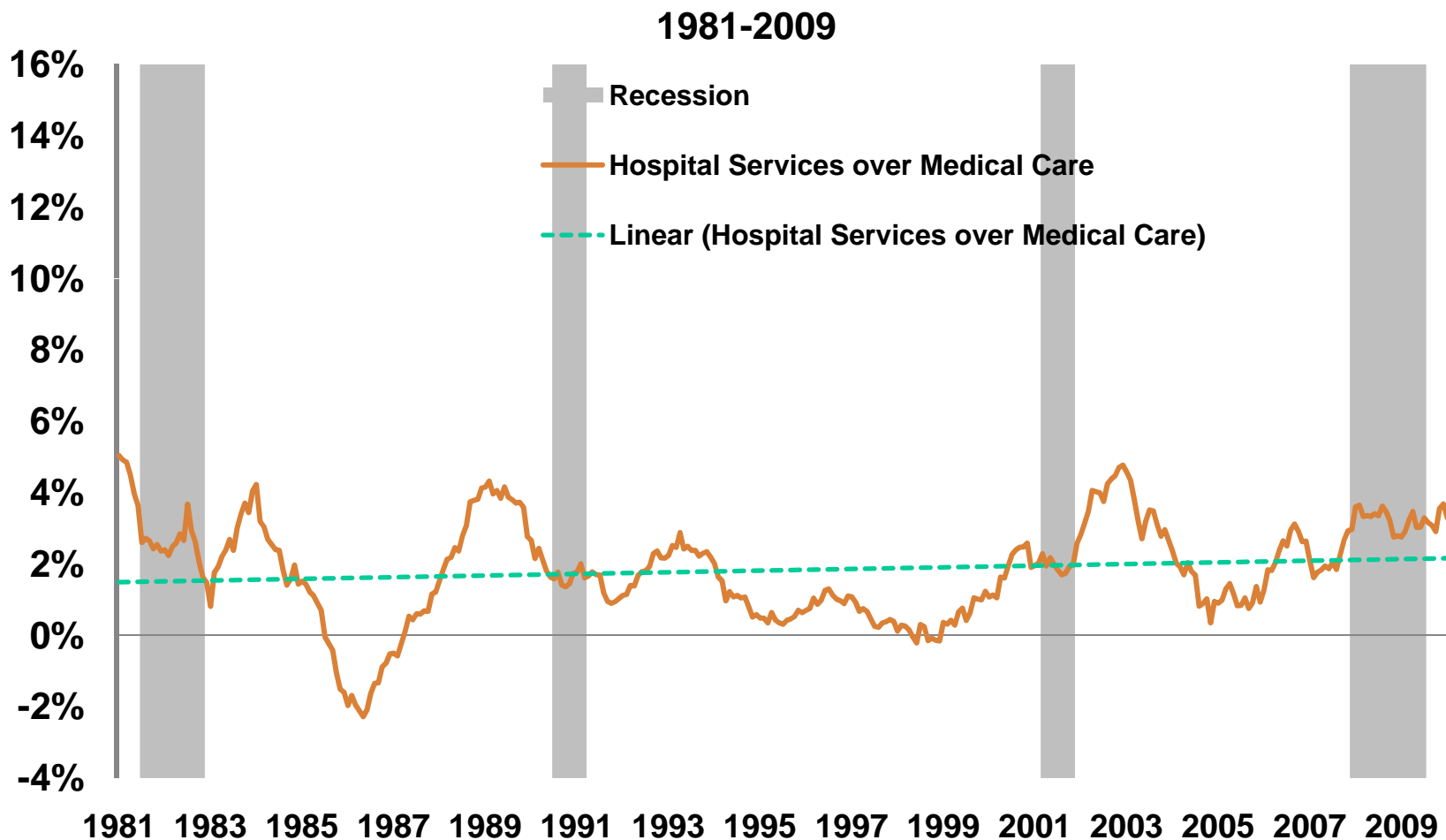
Source: US Bureau of Labor Statistics

Inflation in Hospital Services Higher and More Volatile Than Medical Care



Source: US Bureau of Labor Statistics

Inflation in Hospital Services Higher and More Volatile Than Medical Care




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Observations on Medical Trends, Health Care Cost Drivers, and the Impact of Reforms



Impact of Reform:

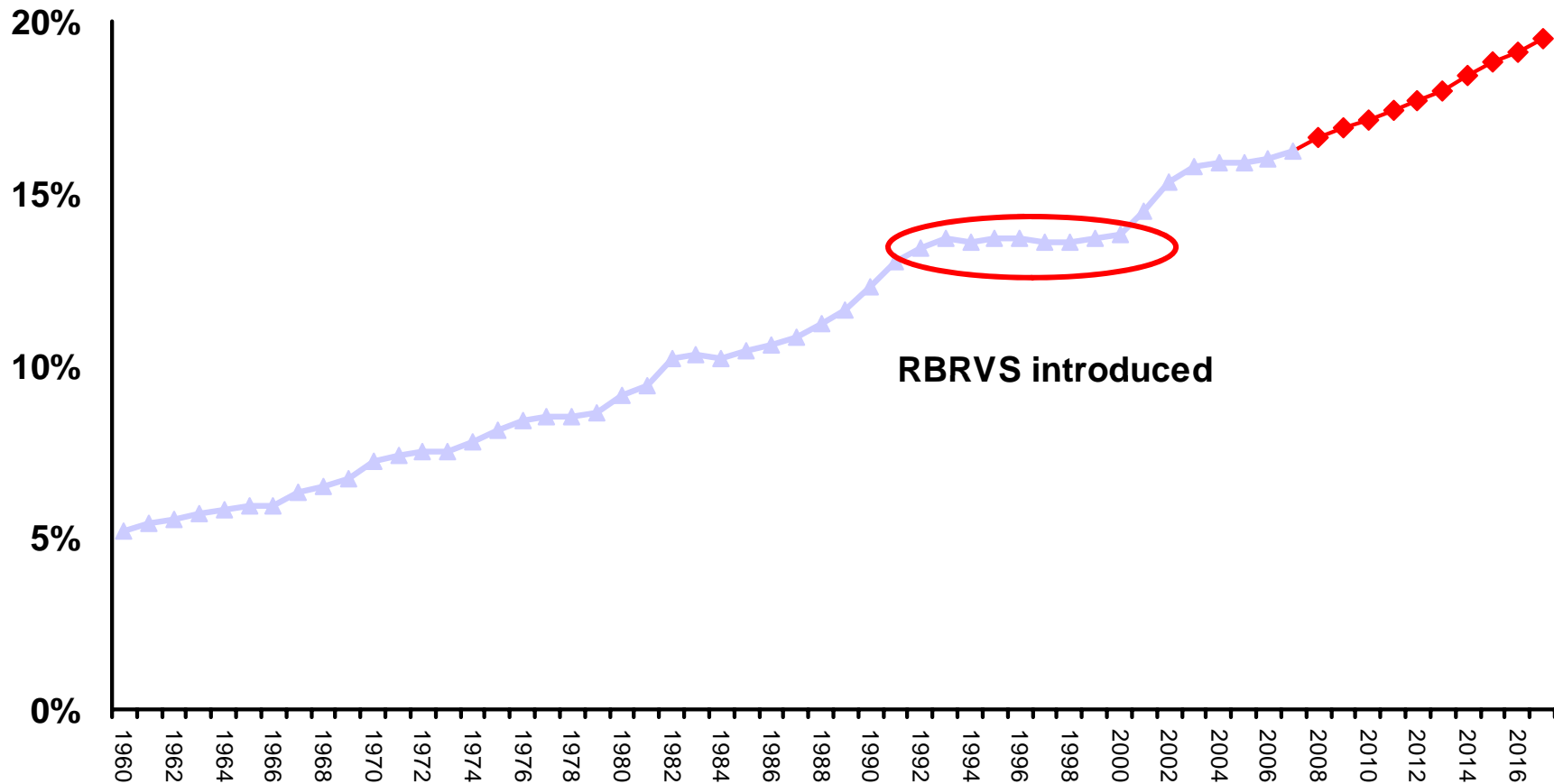


Impact of Reform:

Medicare Fees Schedules and Medical Expenditures in the US

RBRVS Eased the Growth in Medical Spending Countrywide (But Only Temporarily)

Healthcare Expenditures as Percentage of Gross Domestic Product (GDP)



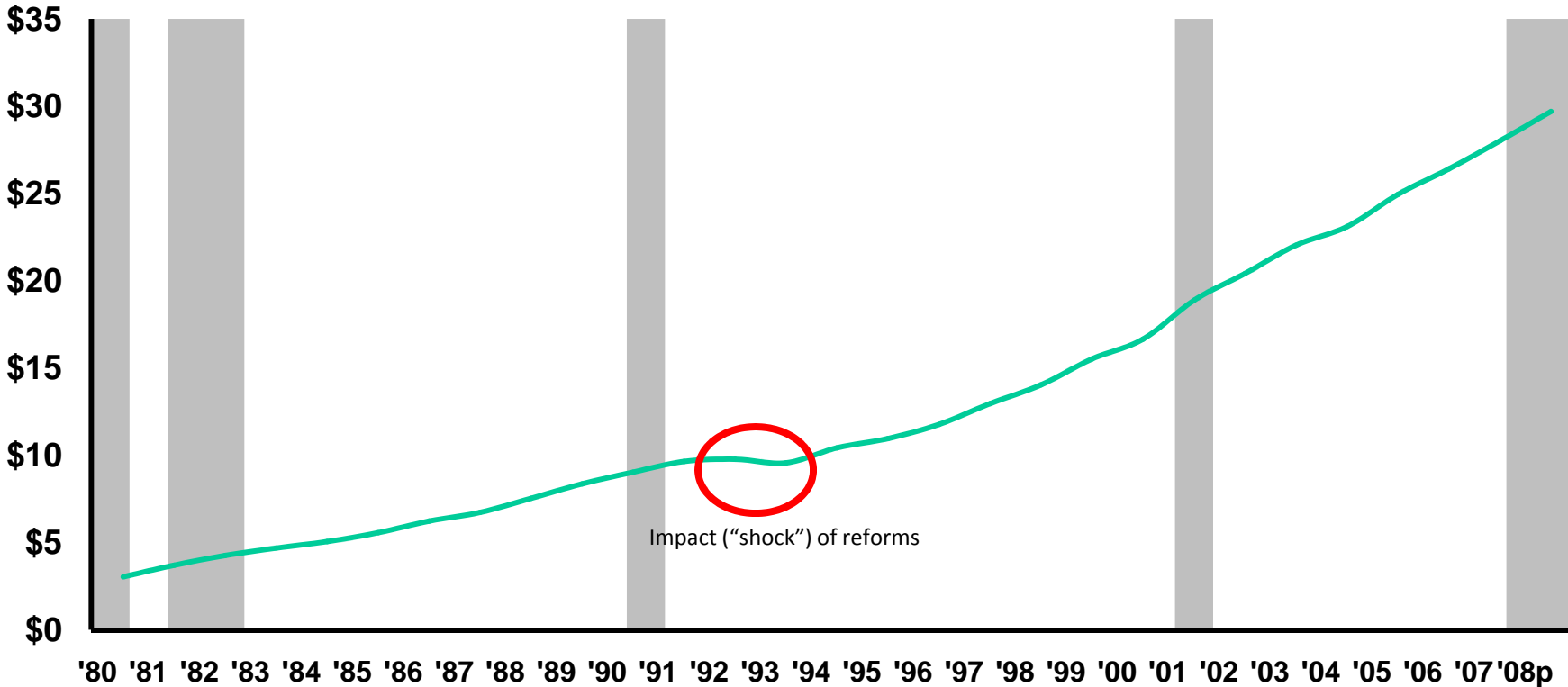
Source: Office of the Actuary, Centers for Medicare and Medicaid Services



Impact of Reform on WC Medical Severity

The Growth in Medical Severity: Temporarily Checked Following Reforms in Early 1990s

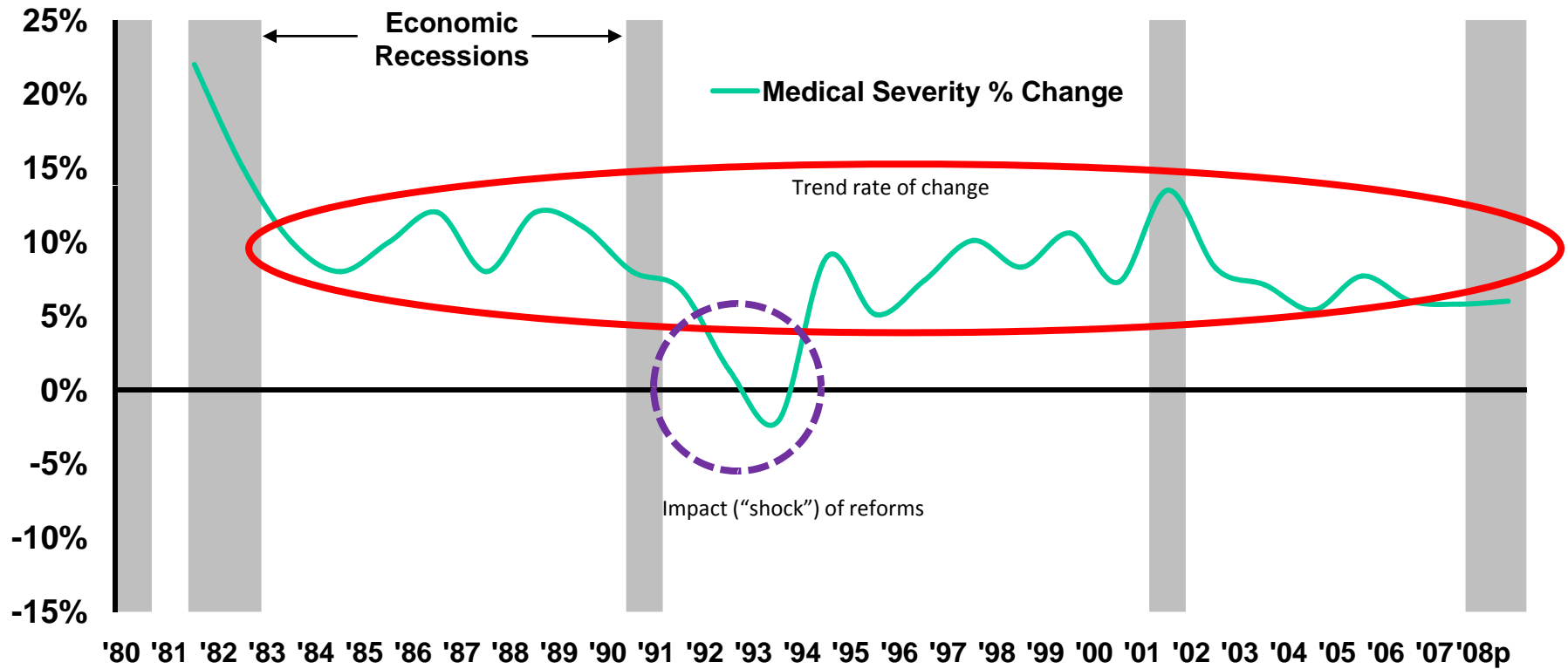
Medical Cost per Claim (\$000)



2008p: Preliminary based on data valued as of 12/31/2008
1991–2007: Based on data through 12/31/2007, developed to ultimate
Based on the states where NCCI provides ratemaking services, including state funds
Excludes high deductible policies

Medical Severity Growth Rates Show a Varied Response

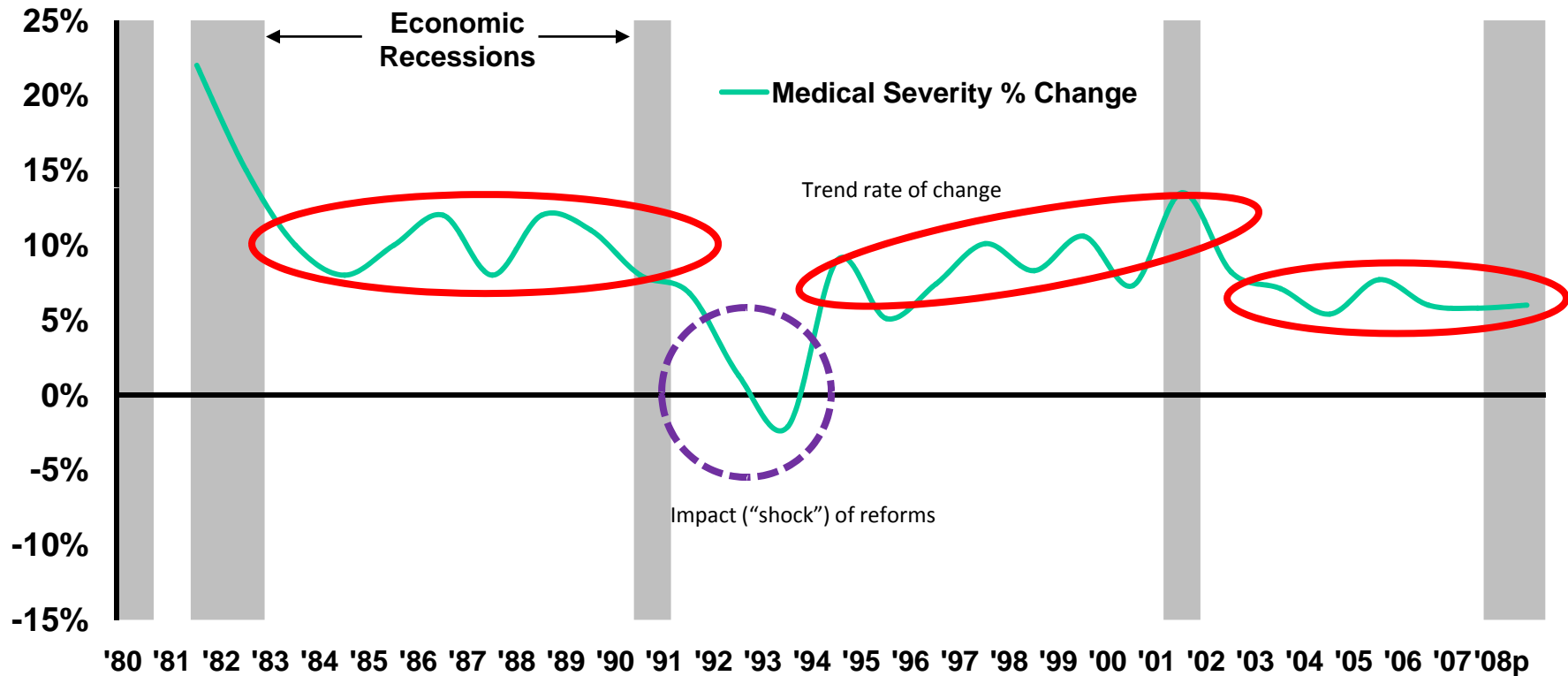
Percent Change, Lost-Time Claims



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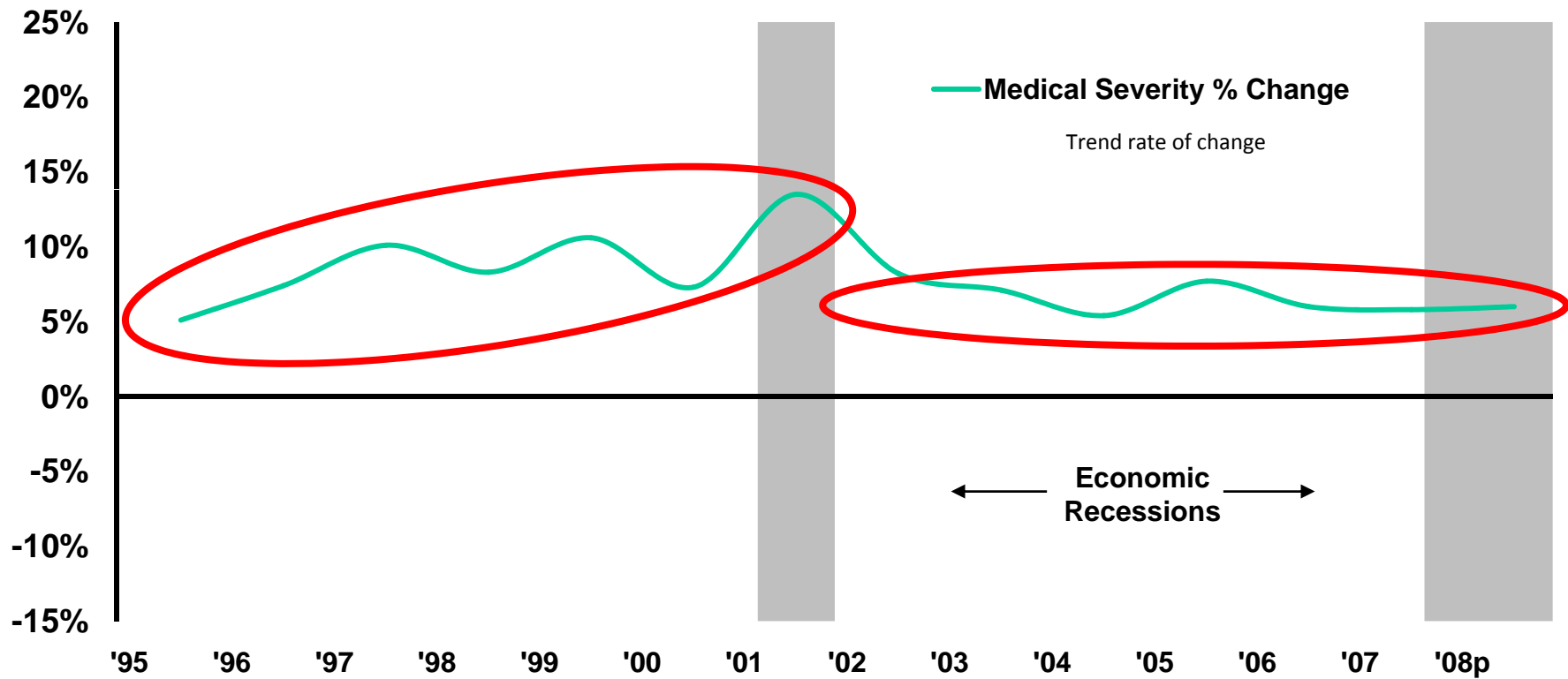
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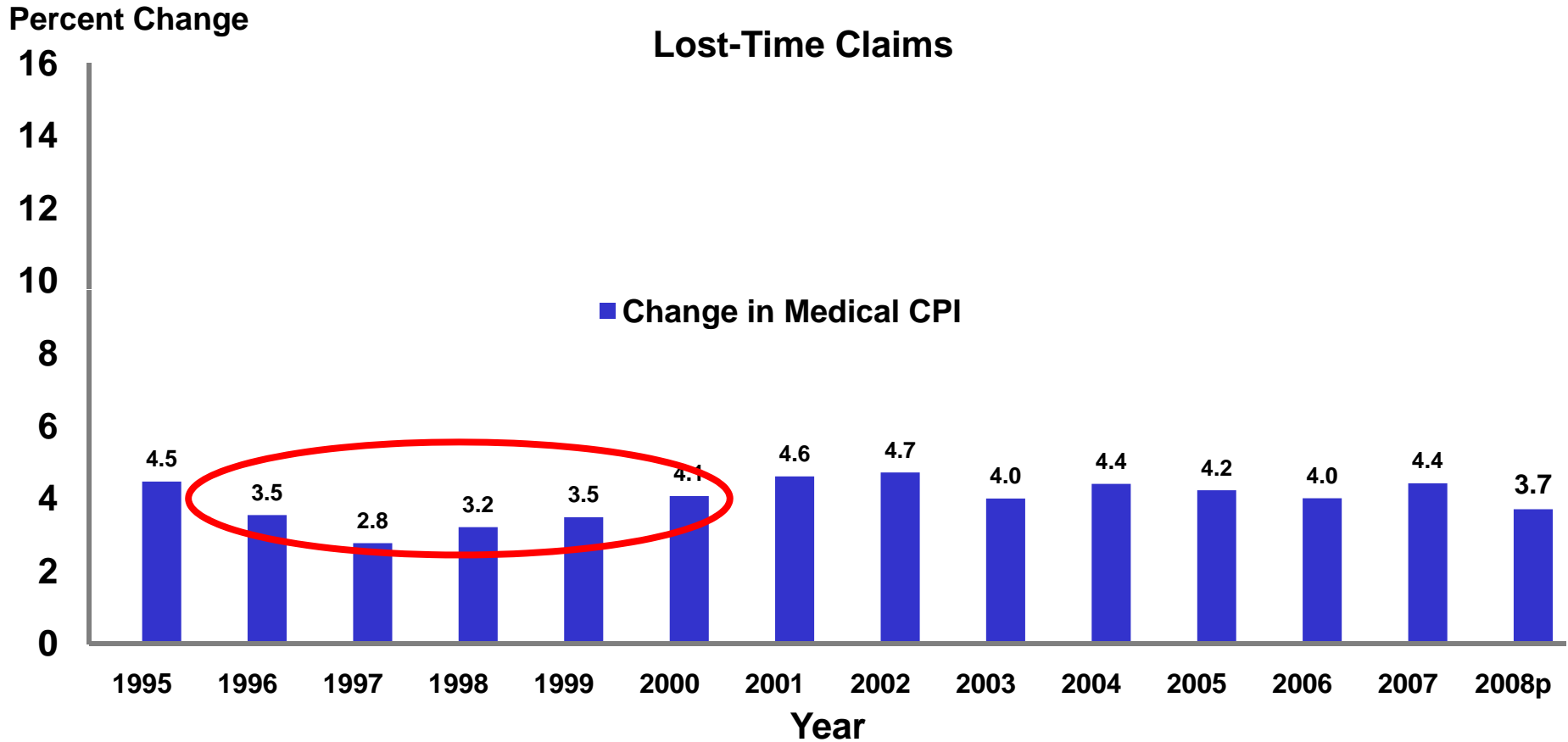
Medical Severity Growth Rates Eased—Why?

Percent Change, Lost-Time Claims



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WC Medical Severity Still Growing Faster Than the Medical CPI



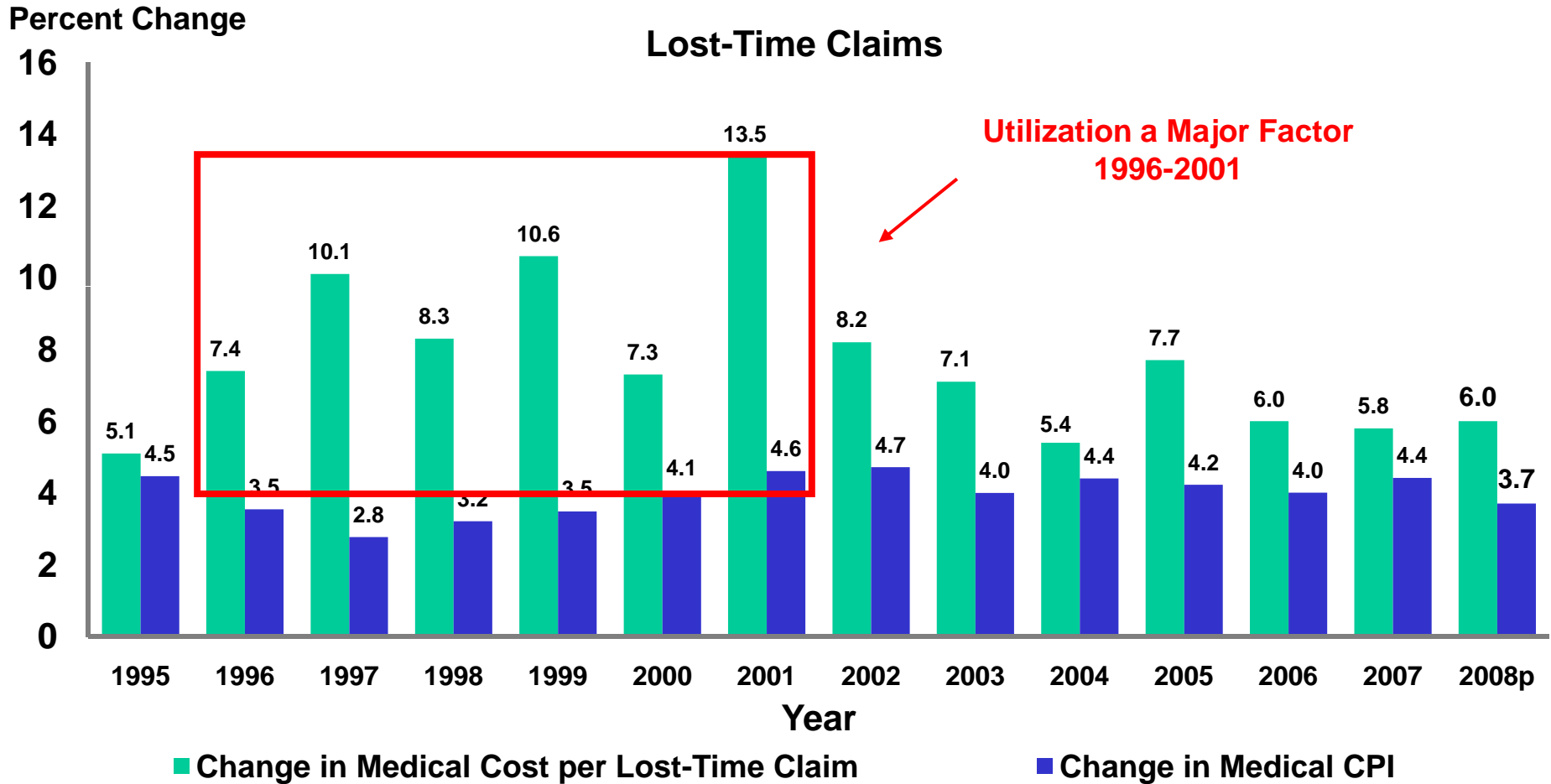
Medical severity 2008p: Preliminary based on data valued as of 12/31/2008

Medical severity 1995–2007: Based on data through 12/31/2007, developed to ultimate

Based on the states where NCCI provides ratemaking services, including state funds; excludes high deductible policies

Source: Medical CPI—All states, Economy.com; Accident year medical severity—NCCI states, NCCI

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NCCI Research

Utilization:

Understanding why medical severity increased 70%
in the late 1990s.

NCCI Research

Utilization:

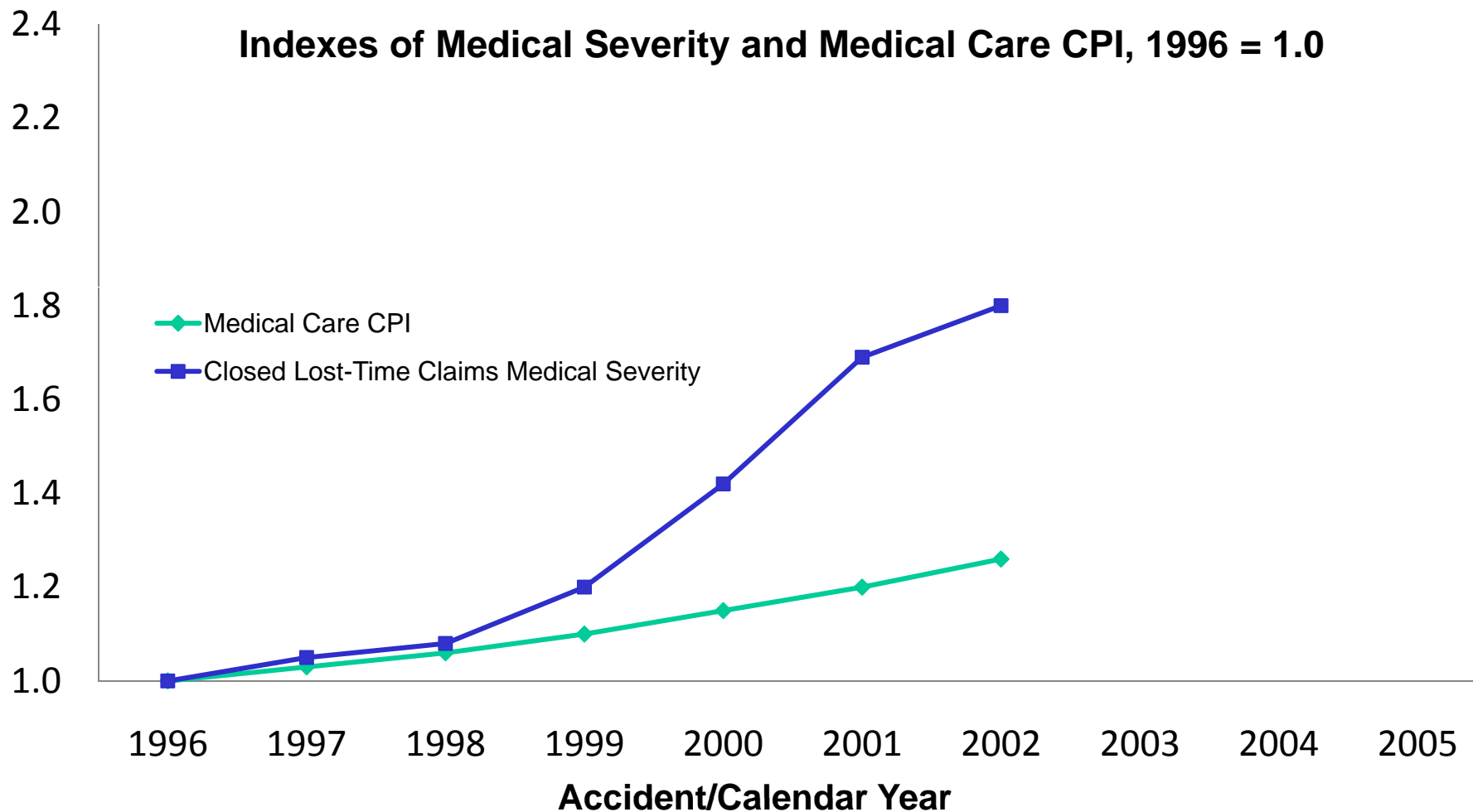
Understanding why medical severity increased 70%
in the late 1990s.

- Not Prices: Increases in WC costs per treatment tracked with the medical CPI
- Utilization surged: Due to the 35% increase in the number of billed medical treatments

Questions and More Information

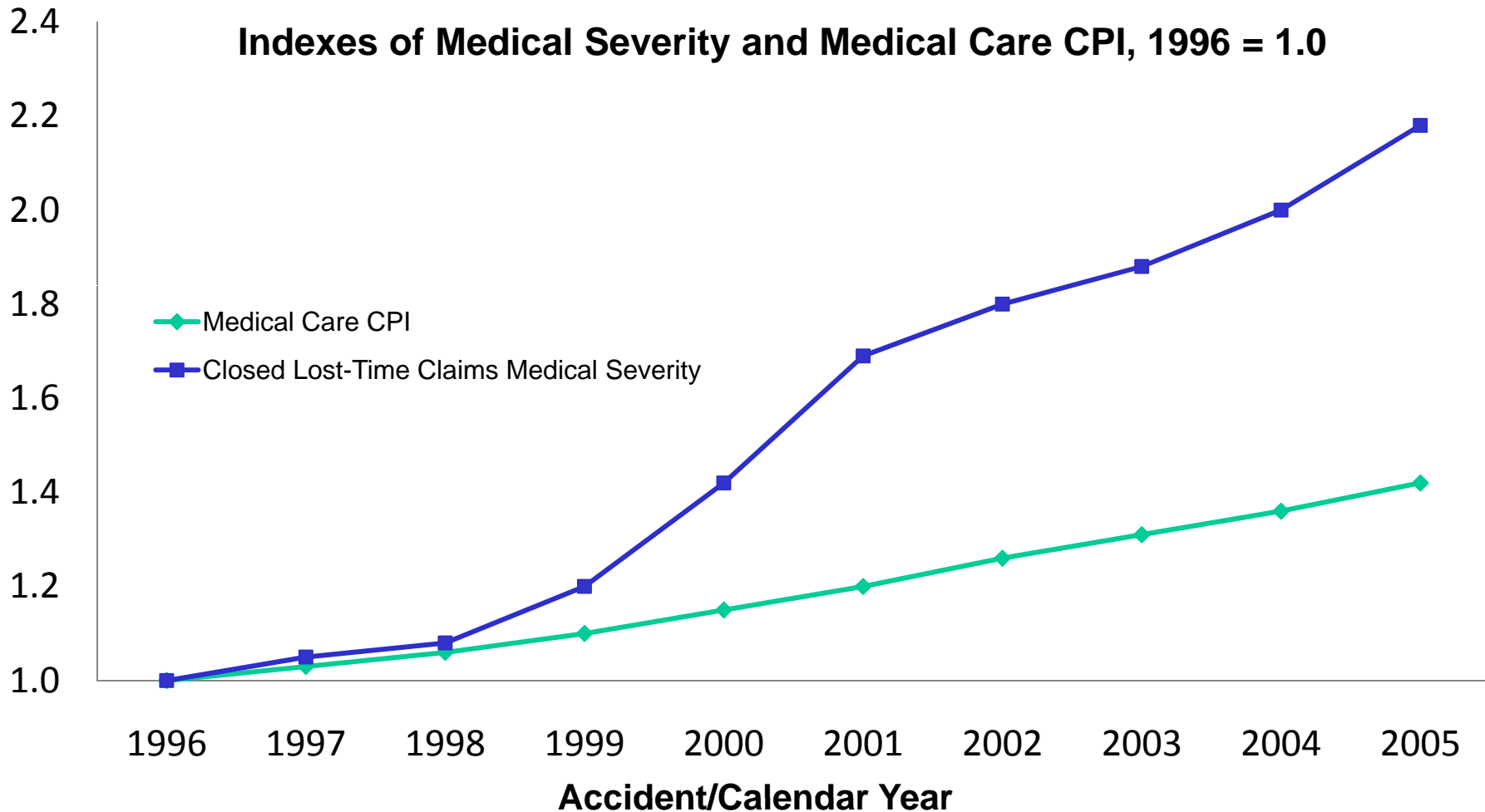
- Two papers on this subject are available for download in the Research and Outlook Section on **ncci.com**
 - “Measuring the Factors Driving Medical Severity: Price, Utilization, Mix” posted in Spring 2007
 - “Factors Influencing the Growth in Treatments per Claim” posted in September 2008

Countrywide Medical Severity Is Outpacing the Medical Care CPI



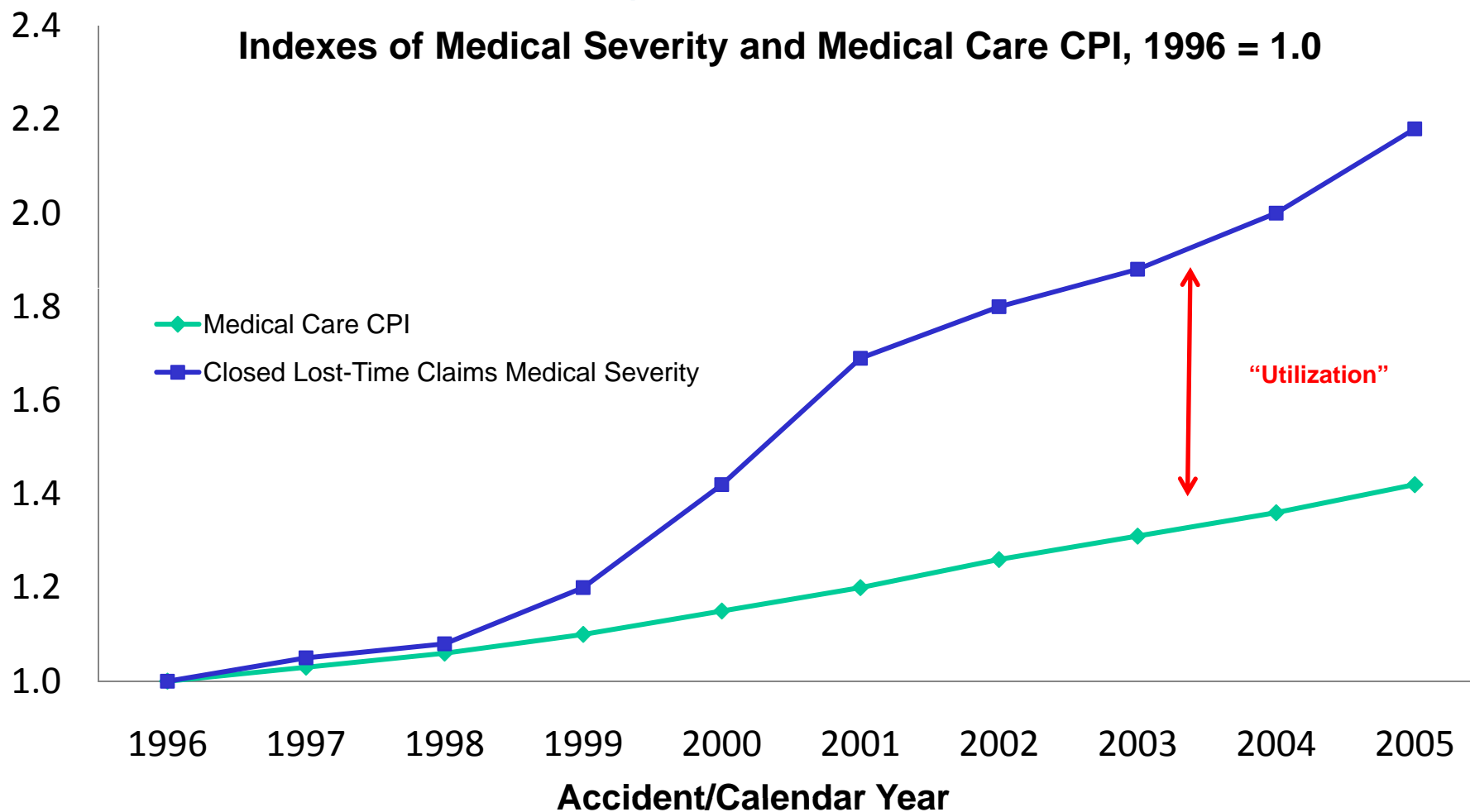
Accident year for medical severity; calendar year for Medical Care CPI
Lost-Time Claims Closed Within 24 Months of Date of Injury, NCCI States
Source: NCCI; US Bureau of Labor Statistics

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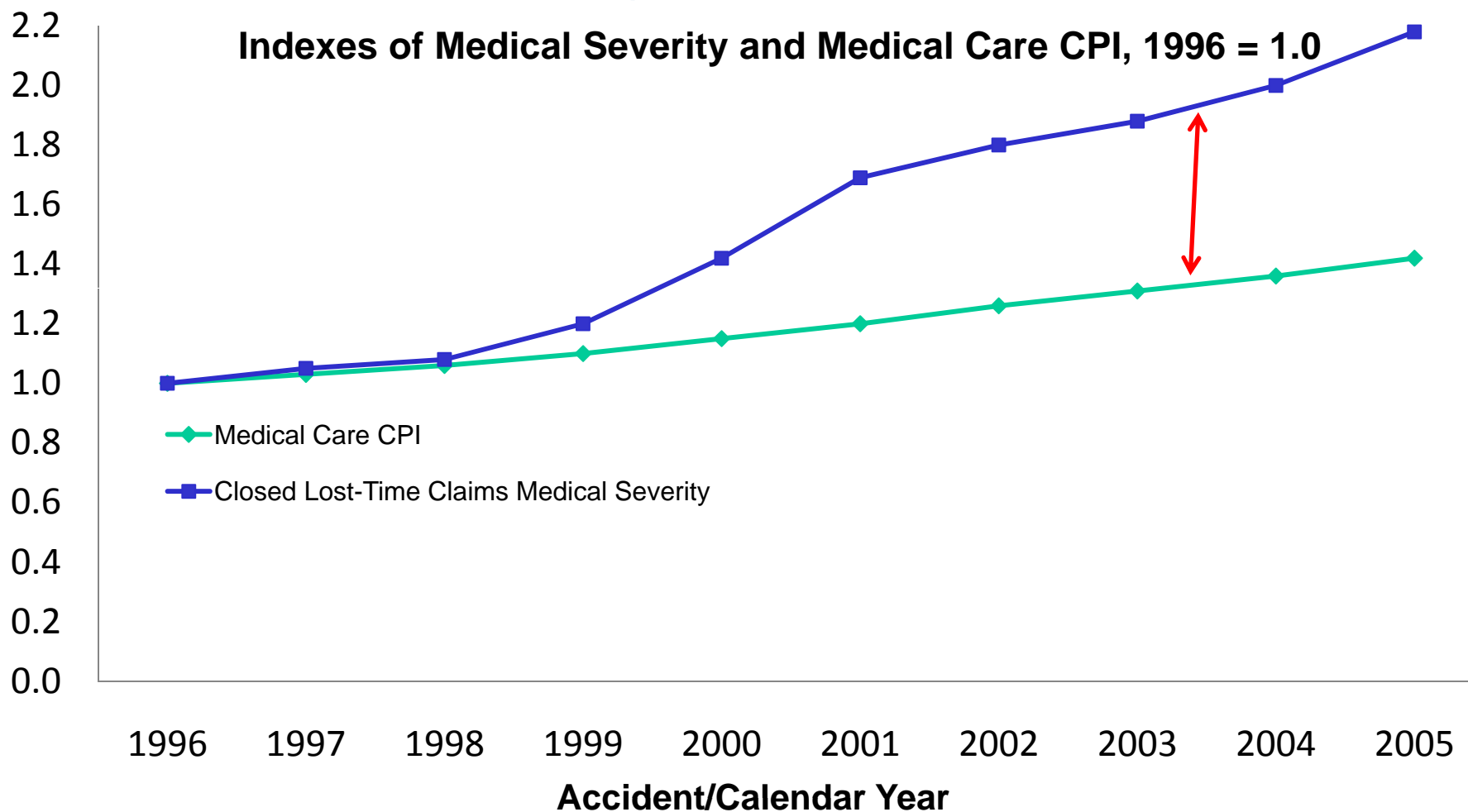
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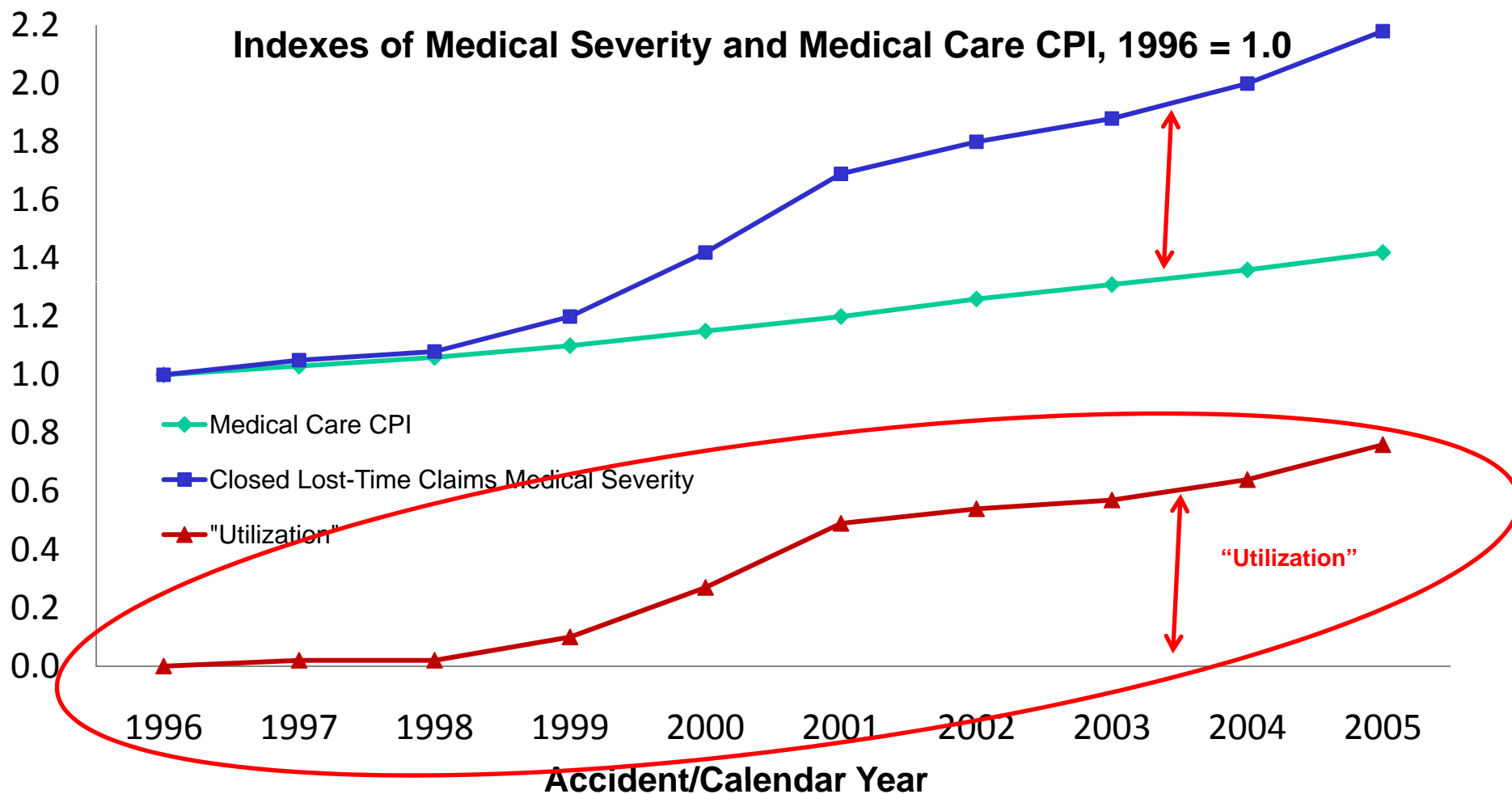
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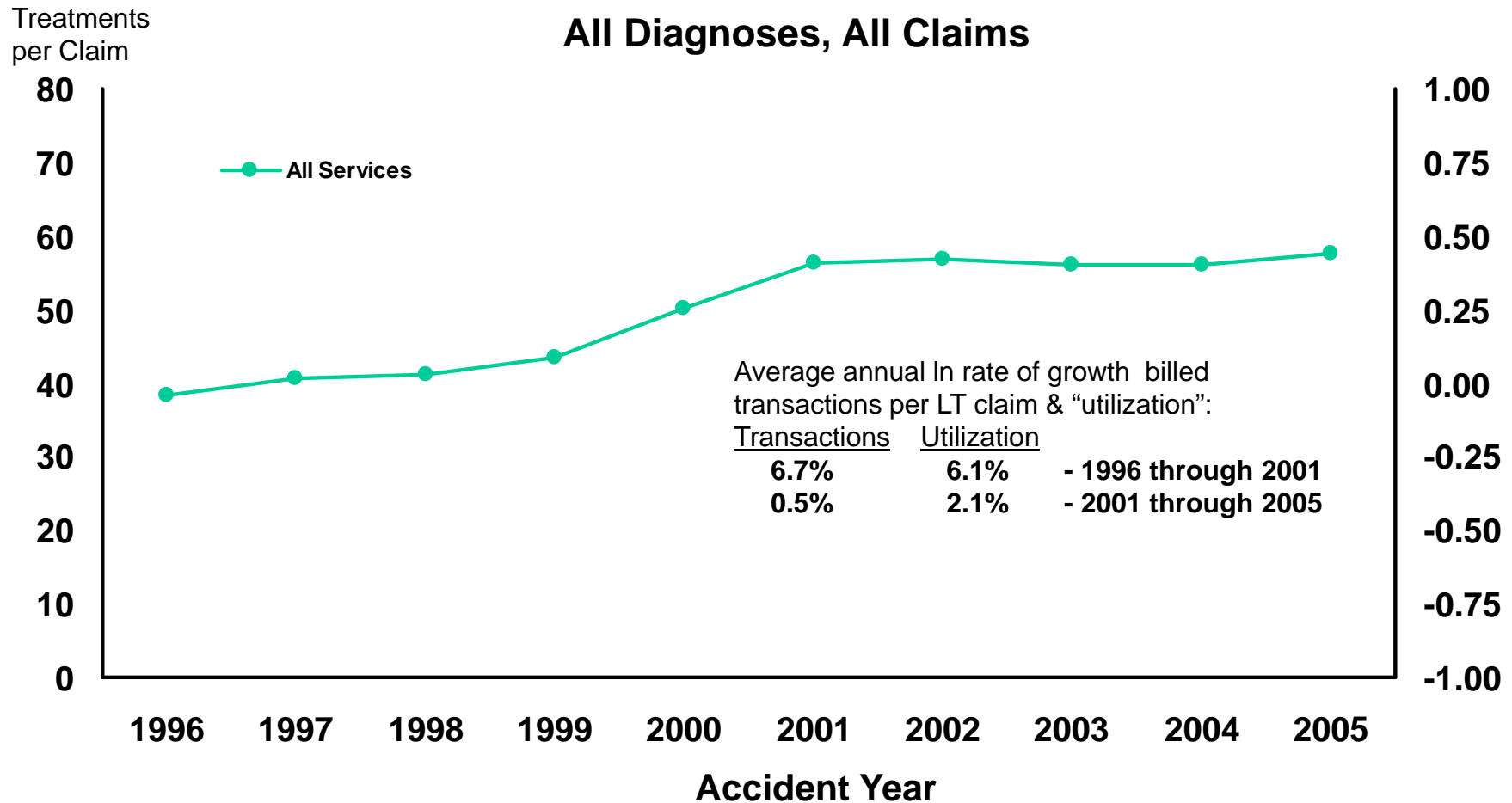
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Overall, Treatments per Claim Increased Significantly in 2000 and 2001, but Have Since Leveled Off

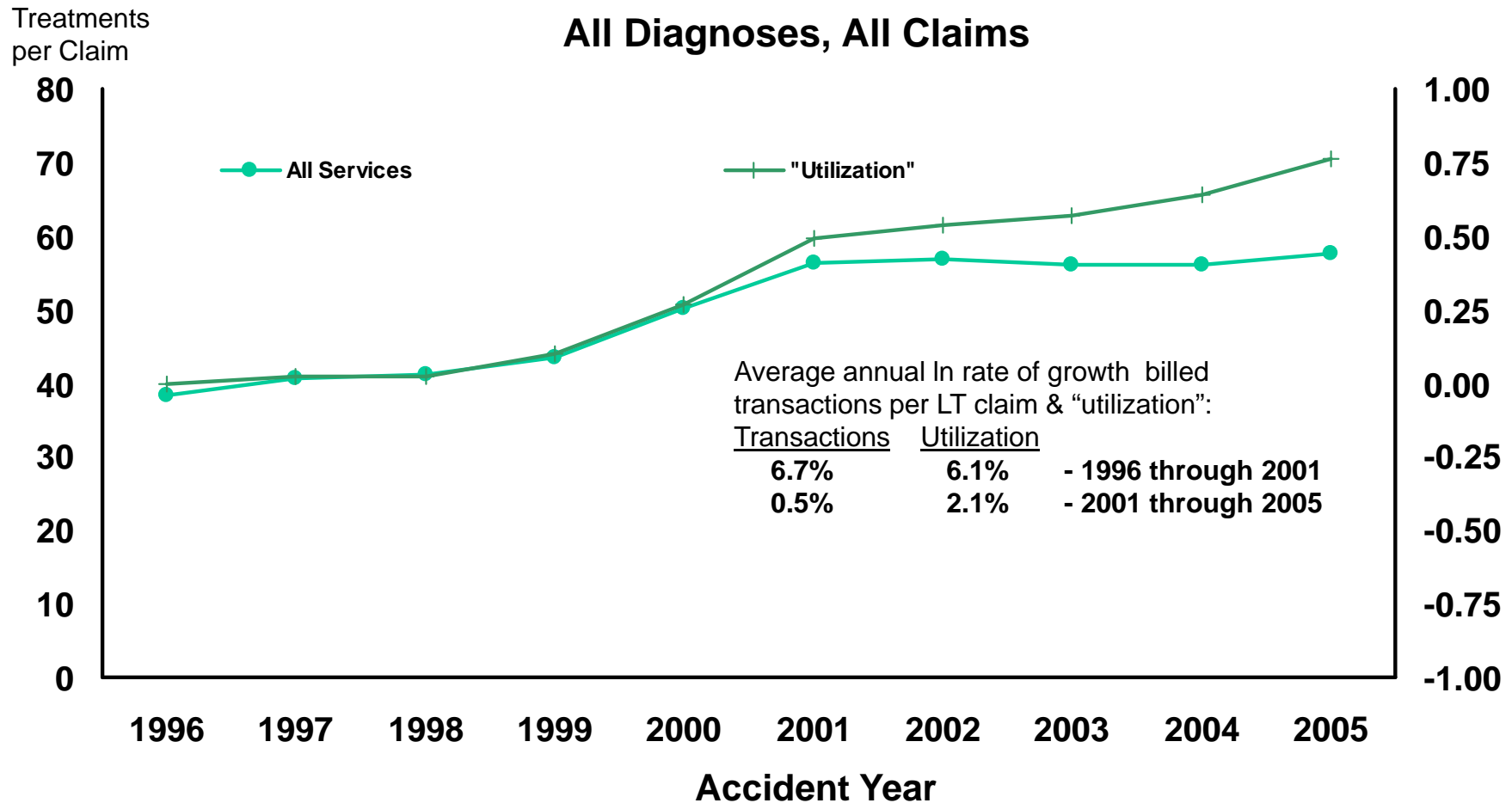
All Diagnoses, All Claims



Lost-Time Claims Closed Within 24 Months of Date of Injury, NCCI States
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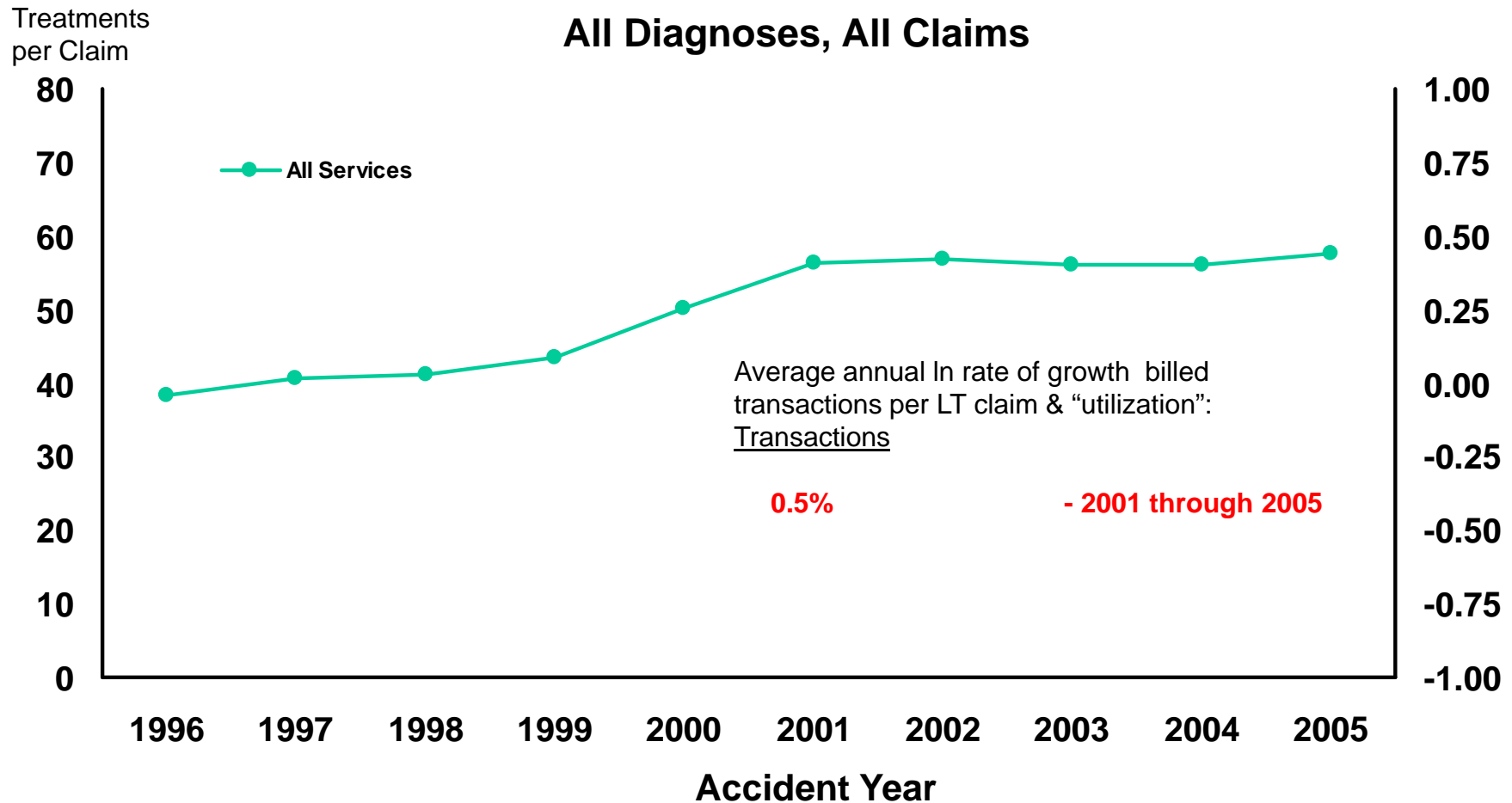
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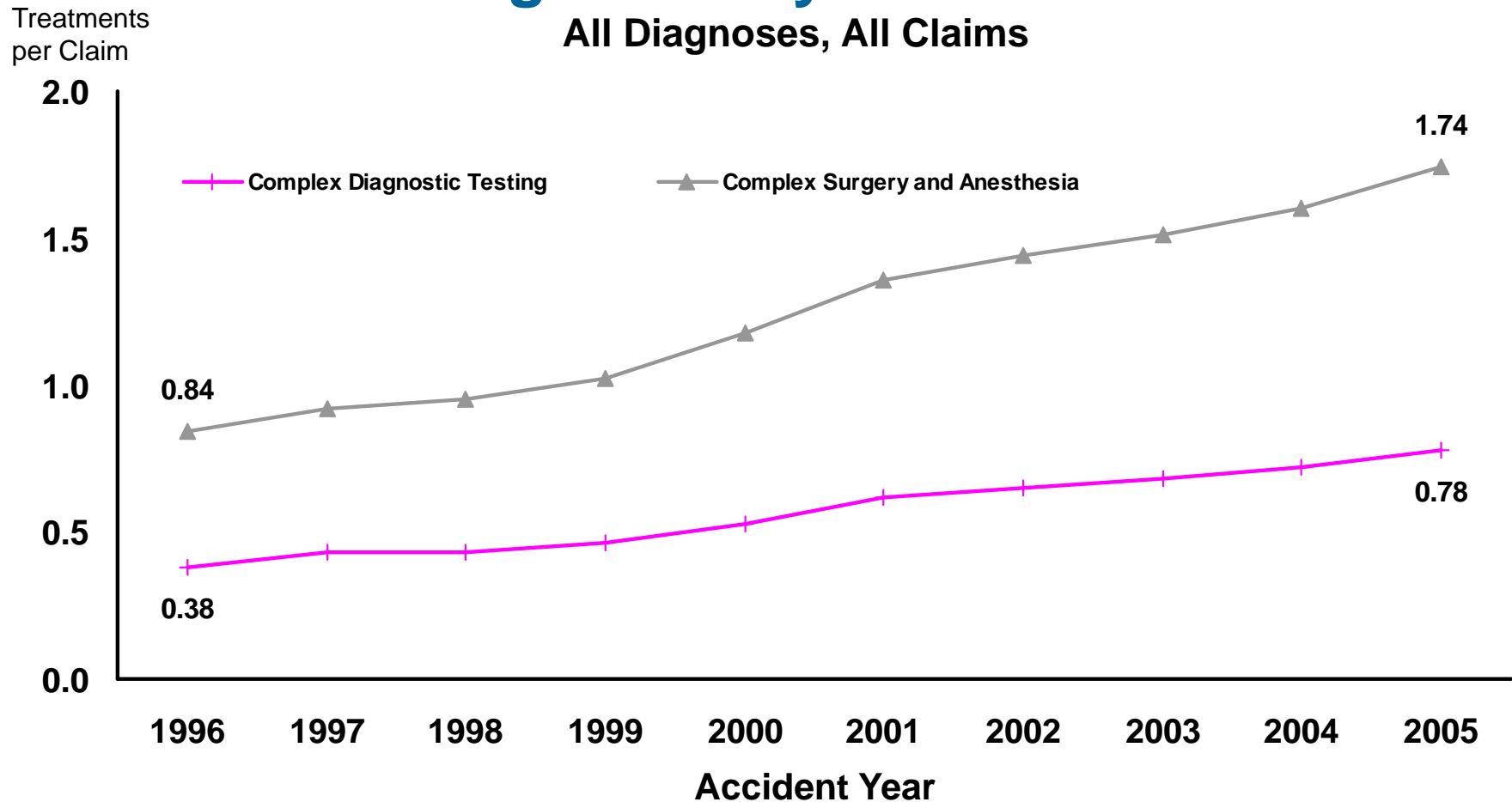
All Diagnoses, All Claims



Lost-Time Claims Closed Within 24 Months of Date of Injury, NCCI States
Source: NCCI

High Cost Services

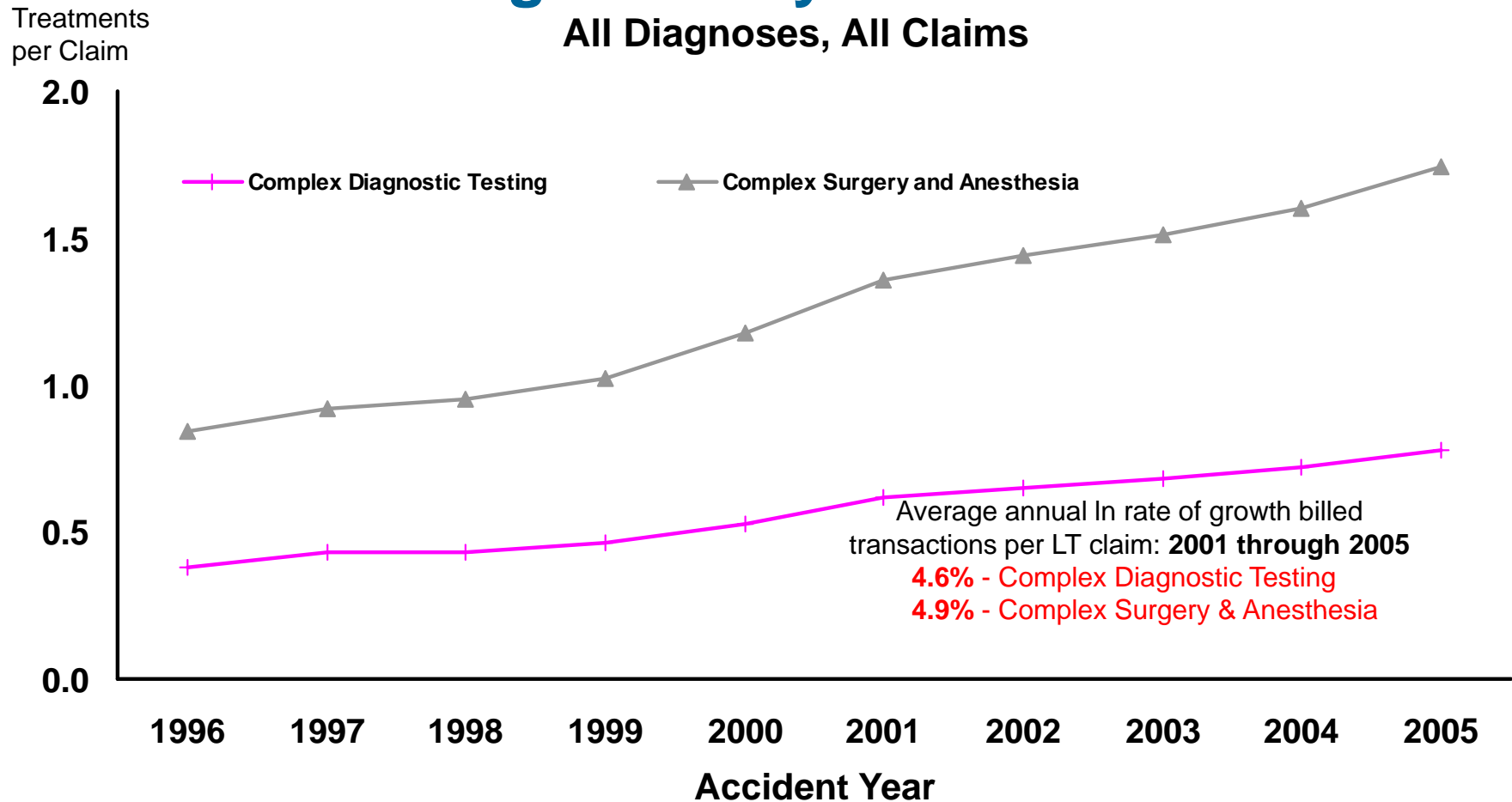
Treatments per Claim Continued to Increase Significantly after 2001



Lost-Time Claims Closed Within 24 Months of Date of Injury, NCCI States
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High Cost Services

Treatments per Claim Continued to Increase Significantly after 2001



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Containing WC Medical Costs What Are We Doing Now

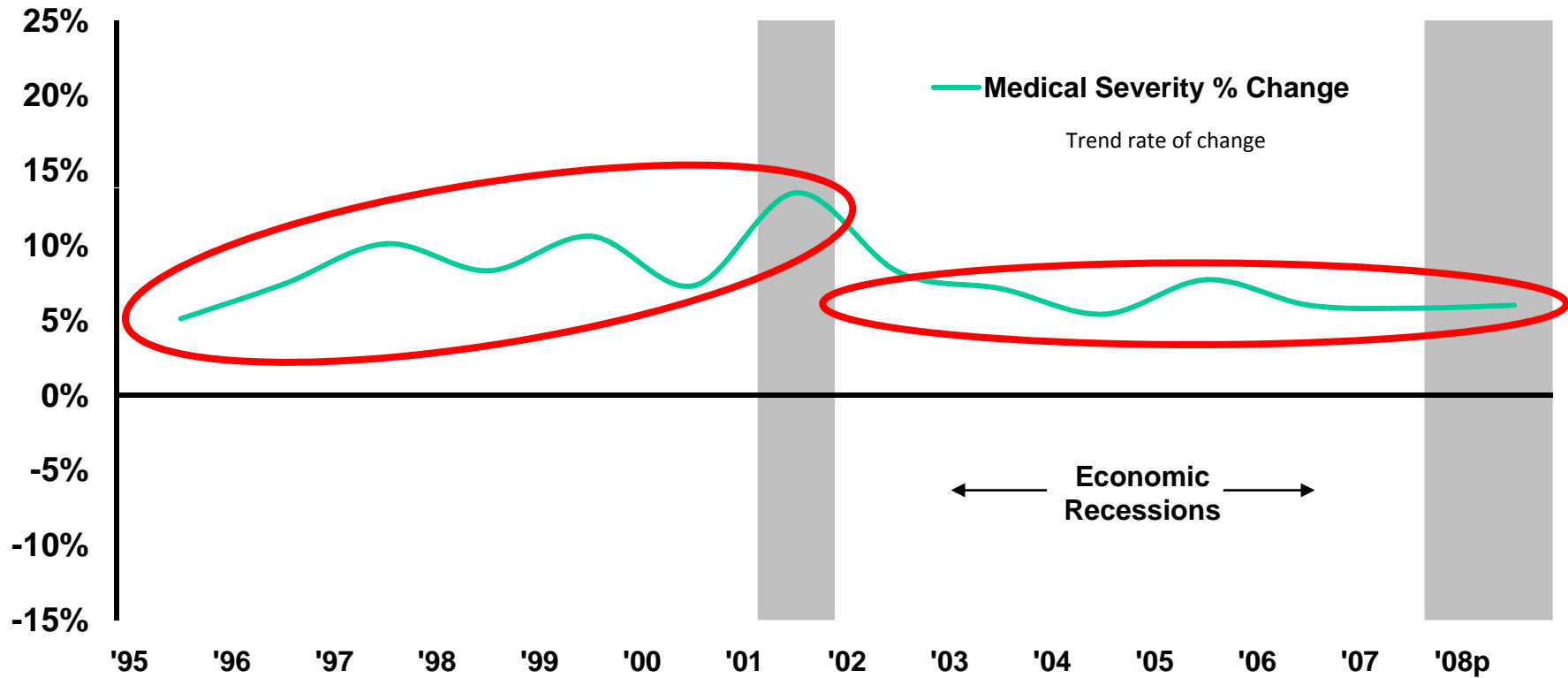
Containing WC Medical Costs

What Are We Doing Now

- How the system works now:
 - Cost containment via
 - Reimbursement rates/fee schedules
 - An incentive for providers to do more because they can't charge more
 - Increased utilization
 - Utilization reviews/prior approval

Medical Severity Growth Rates Eased—Why?

Percent Change, Lost-Time Claims



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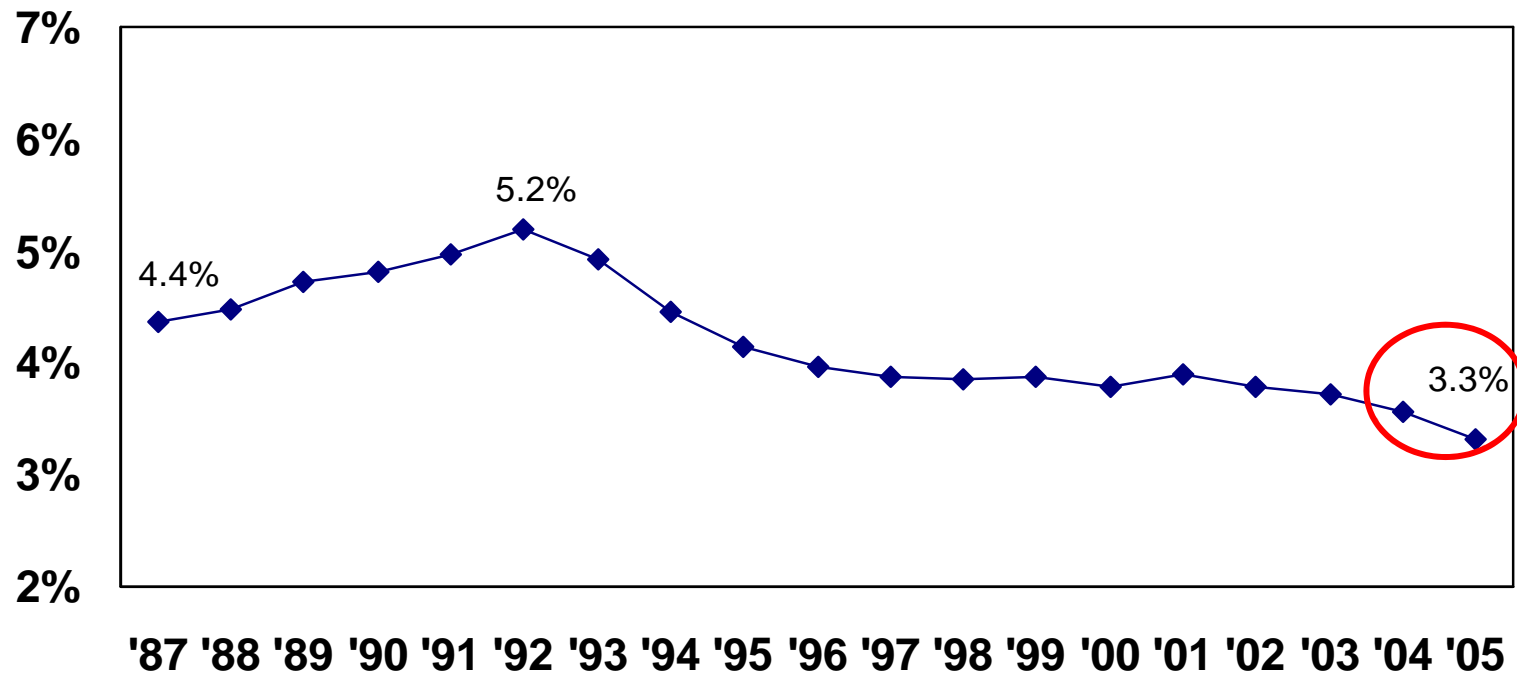
Containing WC Medical Costs What Else Can We Do?

WC Likely Will Follow the Lead of Health Care Reform


Especially Medicare

The **WC Share** of US Medical Costs: Small and Shrinking

Medical Benefits Paid Under Workers Compensation Have
Been Declining as a Share of Medical Care Spending



Sources: National Academy of Social Insurance (NASI); Centers for Medicare & Medicaid Services (CMS)



Politics and Policy: Workers Compensation and Health Reform

And This Growth Is Projected to Continue

- **Healthcare Reform – What Are the Problems?**
- **The Diverse Range of Possible Reforms**
- **Realigning Incentives - A Leading Opportunity and a Major Challenge**
- **WC and Health Care Reform**



Healthcare Reform – What Are the Problems?

The “Experts” Generally Agree



“Reforming American Healthcare,”
The Economist, June 27, 2009, p. 75-77

Problems:

- **Inadequate coverage**
- **Uneven quality**
- **Soaring costs**



Healthcare Reform – What Are the Problems?

Some Supporting Arguments

(offered by The Economist)

**“Reforming American Healthcare,”
The Economist, June 27, 2009, p. 75-77**

Coverage:

- **15% of US population uninsured**
- **Examples of Universal Coverage Mechanisms Outside the US:**
 - **Single payer systems:**
 - **UK**
 - **Canada**
 - **Sweden**
 - **Individual mandate**
 - **Switzerland**
 - **Netherlands**

**“Reforming American Healthcare,”
The Economist, June 27, 2009, p. 75-77**

Uneven quality:

- **Wide geographical variations in costs with no discernable differences in outcomes – Medicare data – research by Skinner**
- **Infant mortality high in US**

**“Reforming American Healthcare,”
The Economist, June 27, 2009, p. 75-77**

Costs – higher level likely due to:

- **High utilization due to the nature of incentives:**
 - **ESI (employer sponsored insurance) is subsidized => employers buy more generous coverage than otherwise**
 - **Low deductibles & copays => insureds consume more than otherwise**
 - **E.g., Routine care vs. catastrophic and chronic**
 - **Medical providers’ incentives under “fee for service” compensation => provide more services**




Reforming Healthcare in the US

Political Proposals to Change the System:

Consumer Driven Market Competition

or

Competition with a Government Option



The Elements of Health Care Reform

A Diverse Range of Possibilities

“Options for Slowing the Growth of Health Care Costs,” James J. Mongan, Timothy G. Ferris, and Thomas H. Lee, NEJM, April 3, 2008, p. 1509-1514

“Options for Slowing the Growth of Health Care Costs,” James J. Mongan, Timothy G. Ferris, and Thomas H. Lee, NEJM, April 3, 2008, p. 1509-1514

Greatest Potential for Cost Savings:

- **Payment reform:**
 - **Capitation/partial capitation**
 - **Pay for performance – to “augment” fee for service**
- **Electronic medical record systems**
- **Coordinated delivery – vs. current “fragmentation”**
 - **Focus on outcomes/effectiveness**
 - **Disease management – chronic disease (10% of patients => 70% of costs)**

- **Effectiveness reviews – of new technology**

“Options for Slowing the Growth of Health Care Costs,” James J. Mongan, Timothy G. Ferris, and Thomas H. Lee, NEJM, April 3, 2008, p. 1509-1514

Intermediate potential for cost savings:

- **Manage “late in life” costs**
- **Alternative organizational approaches:**
 - **Conservative – Consumerism**
 - **Larger deductibles and copayments**
 - **Health Savings Accounts**
 - **“Transparency” – prices, performance**
 - **Electronic medical record systems**
 - **Liberal – single payer => reduce administrative expenses**

“Options for Slowing the Growth of Health Care Costs,” James J. Mongan, Timothy G. Ferris, and Thomas H. Lee, NEJM, April 3, 2008, p. 1509-1514


Low potential for cost savings:

- **Reform of medical malpractice**
- **Prescription drug pricing – formularies**
- **Prevention – better quality of life, not lower cost**
- **Rationing – Medicare uses fixed, all payer budget cap**
- **Medicare – from defined benefit to defined contribution**



Addressing High Costs of Health Care

- **Market responses are already appearing:**
 - **Medical tourism**
 - **VIP medical practices**
 - **Importing Rx drugs from abroad**
 - **Outsourcing radiology interpretation**



Realigning Incentives: Challenges and Opportunities

Addressing High Costs of Health Care An Often Unrecognized Challenge

- **Medical Professionals as Business Owners:**
 - **Rent/mortgage payments**
 - **Finance costs for equipment – medical and office**
 - **Utilities and other overhead**
 - **Staff costs – medical professionals & administrative**
 - **Supplies – medical and office**

These typically follow an upward trend

- **Medical principals as business owners – anything left**



Perhaps the Most Notable Challenge

The “dominant fee for service model rewards volume and intensity rather than value.”

Meredith B. Rosenthal, PhD, Harvard School of Public Health

“Beyond Pay for Performance – Emerging Models of Provider-Payment Reform,” Meredith B. Rosenthal, NEJM, September 18, 2008, P. 1197-1200.



Realigning Incentives

Pay for Something More than Services Rendered



New Approaches Designed to Get the Incentives Better Aligned

Proposed New Approaches to Get the Incentives Better Aligned

- Pay for performance
- Pay per episode
- Evidence-based medicine



Managing Provider Payments

No Reimbursement for “Never Events”

Introduced by Minnesota HealthPartners

(2005)

Adopted by Medicare

(2008)

Medical Reform and “Never Events”

- Medical problems that could/should have been prevented by reasonable care and procedures
- Examples:
 - Additional surgery to remove objects left in body during prior surgery
 - Major surgical errors: wrong patient, wrong body part
 - Bed sores (“pressure ulcers”)
 - Certain hospital associated infections (e.g. MRSA)

“Ending Extra Payment for “Never Events” – Stronger Incentives for Patients’ Safety,” Arnold Milstein, NEJM, June 4, 2009

WC Medical and “Never Events”

- **MRSA –**
 - **Relatively minor work-related injuries or surgery followed by multiple surgeries to control what they assume to be HA (healthcare associated) MRSA infections.**
 - **In a couple of cases the outcome has been total disability,**
 - **They have not pursued subrogation against caregivers, because they don't expect success.**
 - **Over the past year [this carrier] has paid on 5 very large multi-surgery MRSA cases**

WC Medical and “Never Events”

- **MRSA –**
- **They currently have 3 \$500k-plus claims involving MRSA complications.**

Even more important

It is clear that the patients – injured workers – and their families suffered enormous physical, financial and emotional loss.

Proposed New Approaches to Get the Incentives Better Aligned

- Pay for performance
- Pay per episode
- Evidence-based medicine

**“Beyond Pay for performance – Emerging Models of Provider-Payment Reform,”
Meredith B. Rosenthal, NEJM, September 18, 2008, P. 1197-1200.**

- **One robust alternative is the primary care/medical home:**
 - **Objective: coordination and management of care to improve outcomes and lower costs**
 - **Compensation/payment:**
 - **Case management fee (“case rate”) – likely “episode” based**
 - **Pay for performance**
 - **Episode-based**
 - **Protocol based on best practices**
 - **Outcomes for preventative and chronic disease management**
 - **Patient experience**
 - **Shared savings – cost effective performance relative to some benchmark of average costs**



**“Beyond Pay for Performance – Emerging Models of Provider-Payment Reform,”
Meredith B. Rosenthal, NEJM, September 18, 2008, P. 1197-1200.**

- **“The prospects for payment reform, however, hinge more on politics than on economics.”**
- **To reduce costs – for example: a shift in emphasis and reimbursement from specialists to primary care physicians – expect “substantial resistance to even the best-designed plans.”**



How Much Healthcare Do We Want?



Higher Costs vs. Worse Outcomes

US Lifestyle Choices and Health Outcomes



Higher Costs/Worse Outcomes

Does the US Medical System Really Under Perform?
- A Comparison with Canada

- Infant Mortality
- Life Expectancy

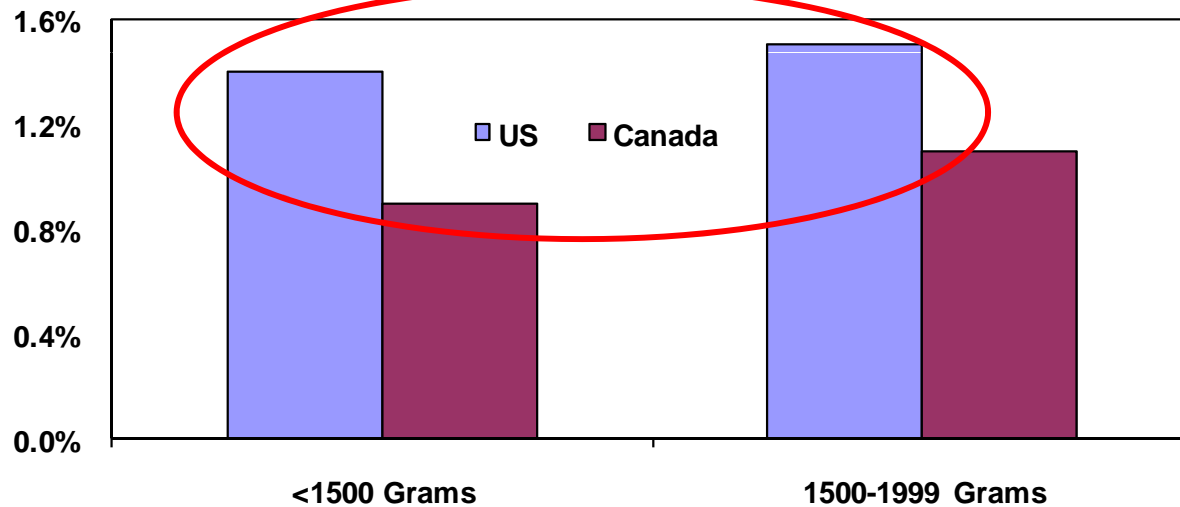


Higher Costs/Worse Outcomes

Infant Mortality

The US Has a Substantially Higher Rate of Low-Birthweight Babies

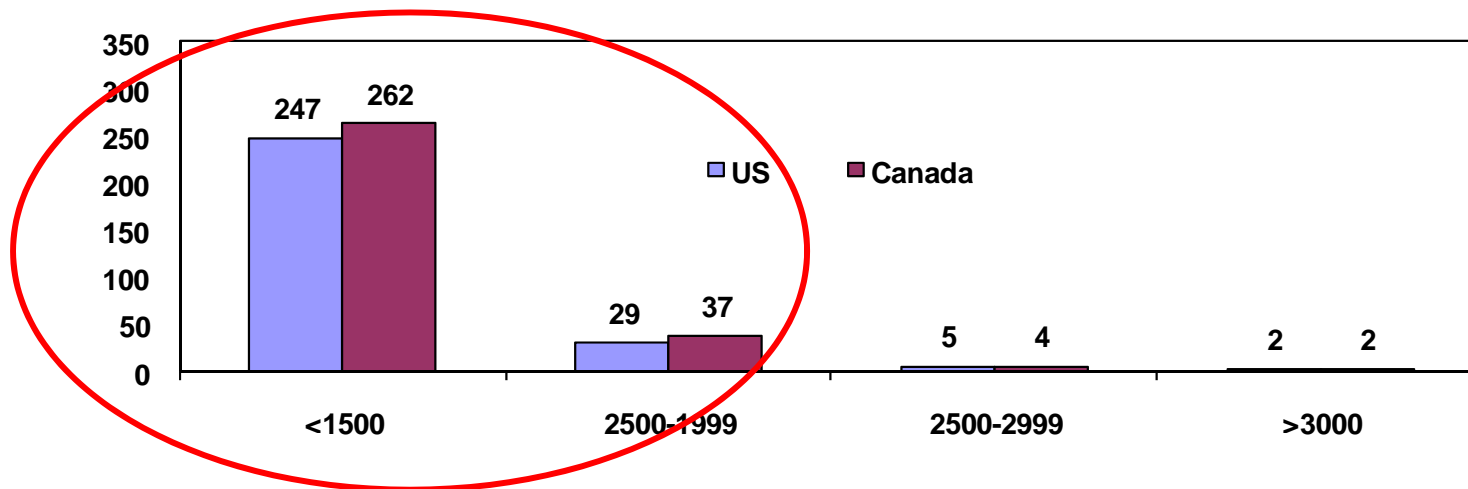
The Percentage of Low-Birthweight Infants is Substantially Higher in the US Than in Canada
Percent of Births for Infants with Known Birthweights



Source: "Health Status, Health Care and Inequality: Canada Vs. The U.S.", June E. O'Neill & Dave M. O'Neill, Working Paper 13429, National Bureau of Economic Research, September 2007

This May Explain Why the US Has Higher Infant Mortality Rates

Low-Weight Infants Have Very High Mortality; US Rate a Bit Less on a Weight-Specific Basis
Infant Mortality per 1,000 Live Births
(by Birthweight, in Grams)



Source: Table 2, "Health Status, Health Care and Inequality: Canada Vs. The U.S.", June E. O'Neill & Dave M. O'Neill,

Source: "Health Status, Health Care and Inequality: Canada Vs. The U.S.", June E. O'Neill & Dave M. O'Neill, Working Paper 13429, National Bureau of Economic Research, September 2007

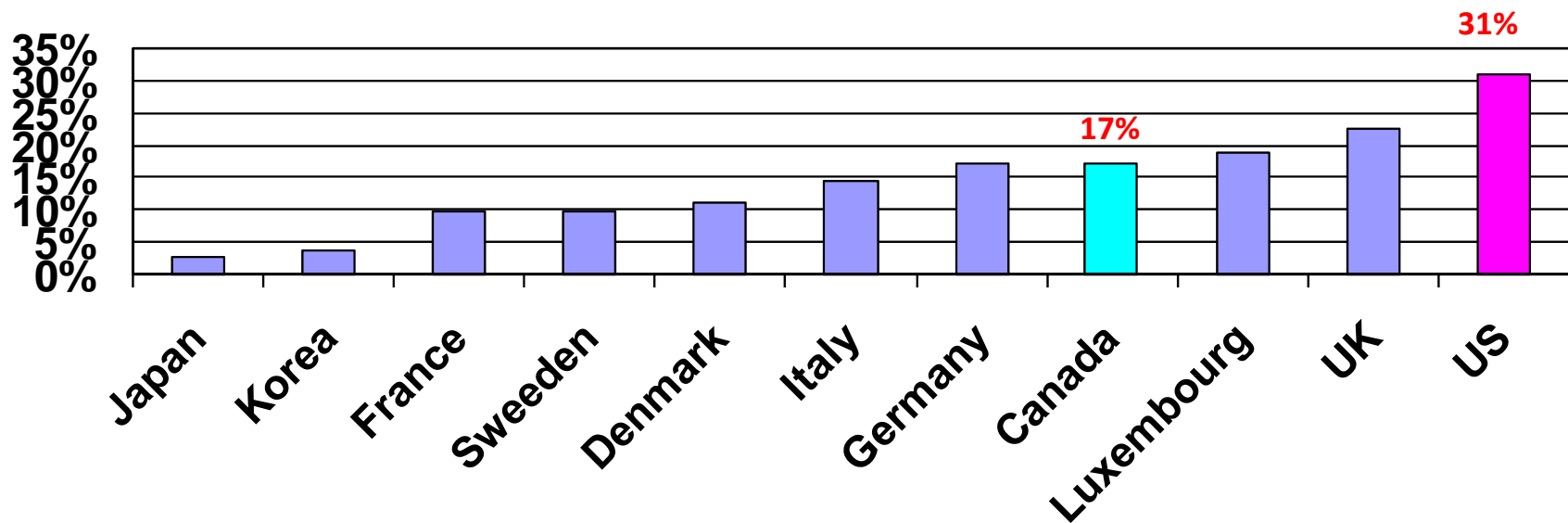


Higher Costs/Worse Outcomes

Life Expectancy

Might the US's High Rate of Obesity Contribute to Lower Life Expectancy?

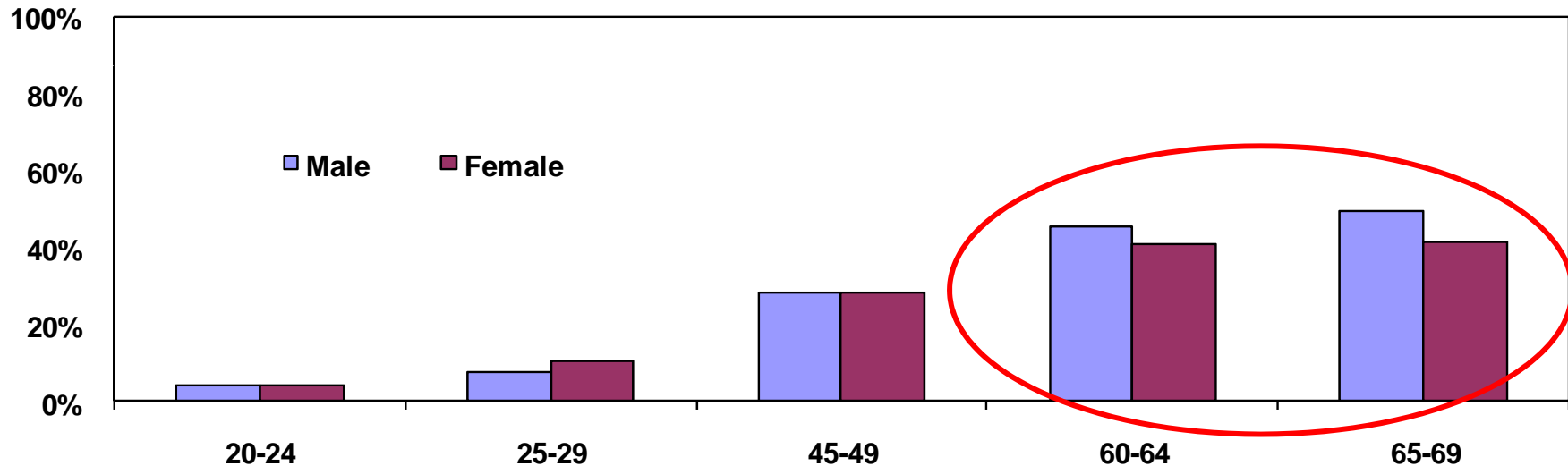
The US's Obesity Percentage Is Well Above That of Canada and Other Nations
Percent of Male Population with BMI of 30 or More



It Likely Plays a Role in the Death Rates Due to Heart Disease

Nearly Half of the Mortality Rate Difference Between the U.S. and Canada for Older Persons is Due to Diseases of the Heart

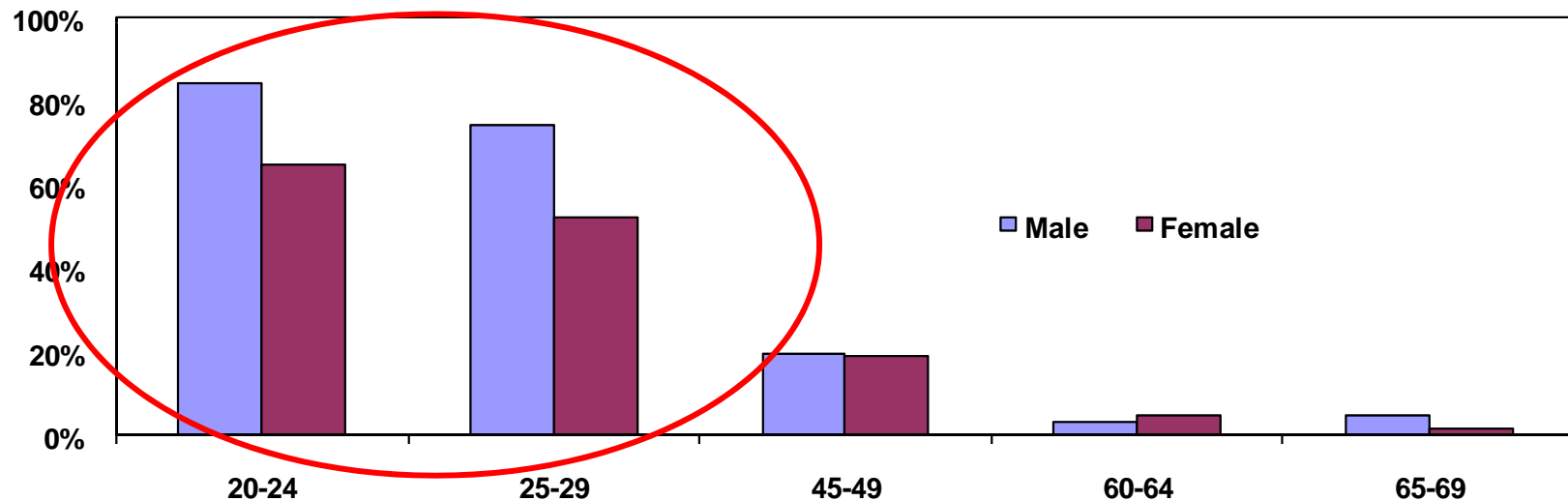
Percent of Mortality Rate Difference (US-CAN) Due to Diseases of the Heart




Source: Table 4, "Health Status, Health Care and Inequality: Canada Vs. The U.S.", June E. O'Neill & Dave M. O'Neill, Working Paper 13429, National Bureau of Economic Research, September 2007

And Homicides and Accidental Deaths Are a Big Factor in the Higher Mortality Rates of Young Americans

More Than 80% of the Difference in Mortality Rates Between the US and Canada for Younger Men Is Due to Homicides and Accidents



Source: Table 4, "Health Status, Health Care and Inequality: Canada Vs. The U.S.", June E. O'Neill & Dave M. O'Neill, Working Paper 13429, National Bureau of Economic Research, September 2007

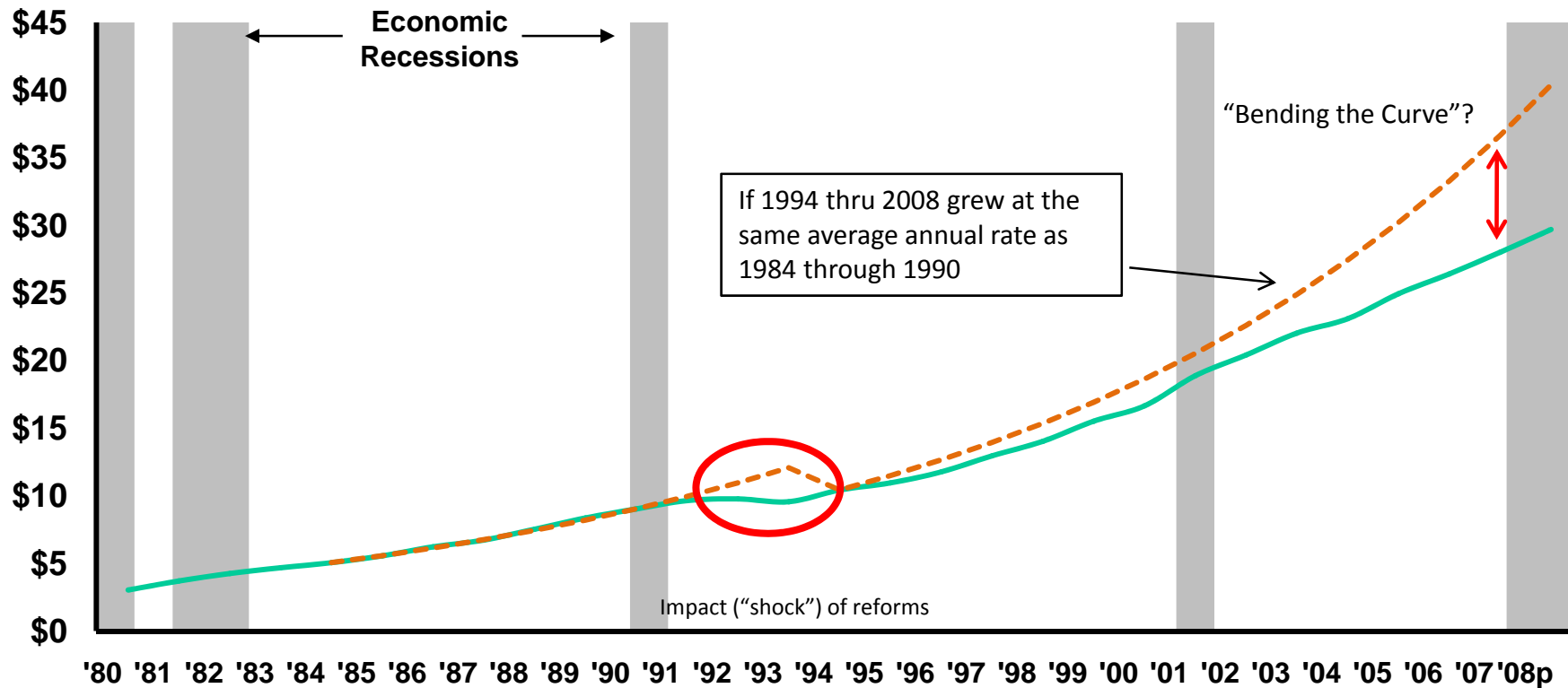
- 
- **Moral Hazard/Personal Choice as a contributor:**
 - **Smoking down – a plus**
 - **Obesity up – arguably in part because the downside can be managed by medicine**
 - **hypertension,**
 - **cholesterol,**
 - **diabetes**



A Couple of Positives for WC Medical

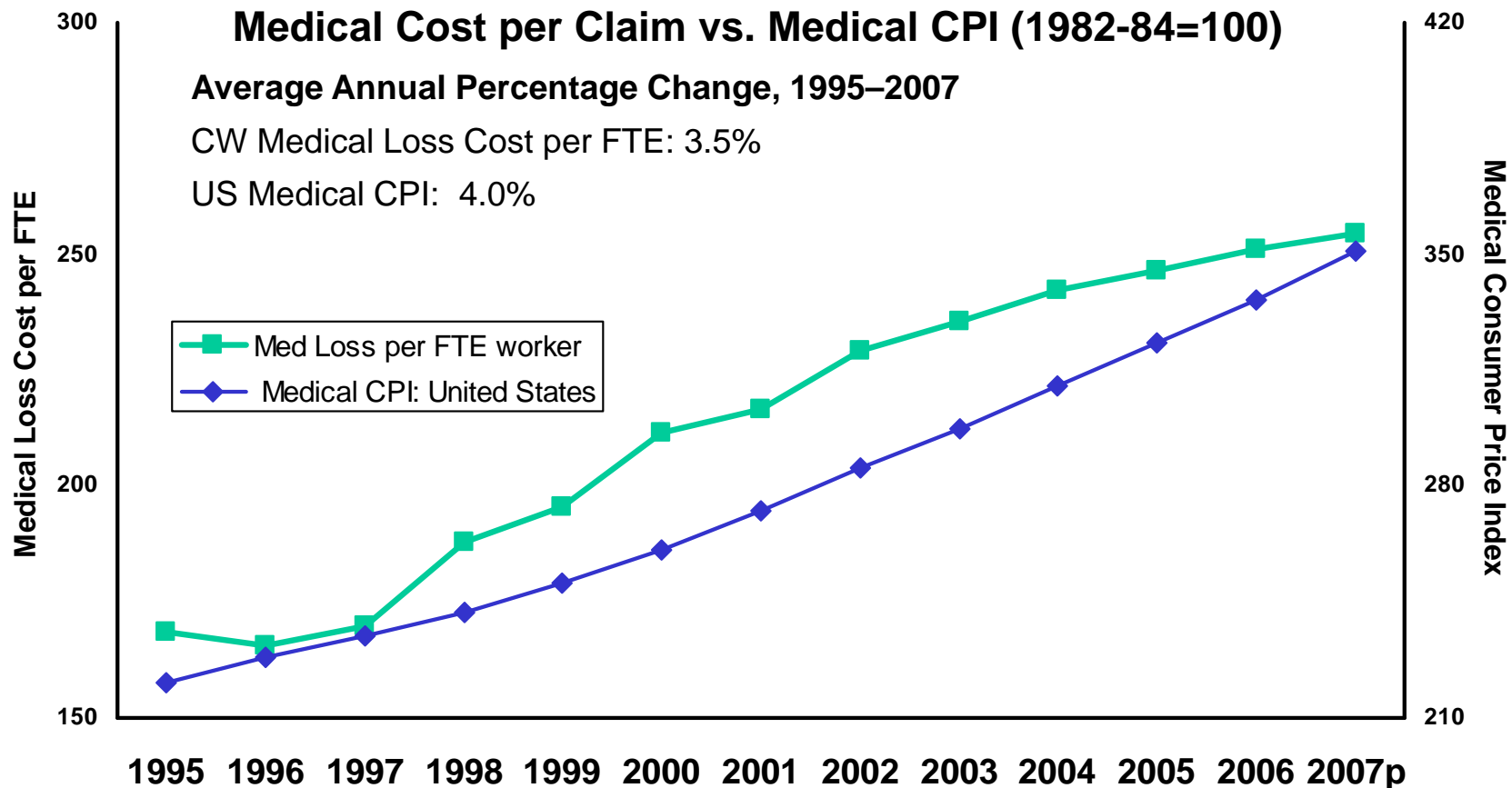
The Growth in Medical Severity Temporarily Checked Following Reforms in Early 1990s

Medical Cost per Claim (\$000)



2008p: Preliminary based on data valued as of 12/31/2008
 1991–2007: Based on data through 12/31/2007, developed to ultimate
 Based on the states where NCCI provides ratemaking services, including state funds
 Excludes high deductible policies

Countrywide Medical Cost per Covered Employee Reflects a Different Pattern



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

WC and Medical Reform

- Medical trends in WC reflect what has been and what will be happening in health care nationally
- In particular workers compensation stakeholders must be prepared to evaluate and take advantage of the likely changes to the HC delivery system:
 - Medical home for coordination
 - Evidence based medicine
 - Pay per episode
 - Pay for outcomes
 - Case rates & reimbursement schedules



Questions

More Research Available at ncci.com

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@ ncci.com

The Economic Outlook and its Impact on Workers Compensation

