



# **Overview & Outlook for the P/C Insurance Industry: *Trends, Challenges and Opportunities in 2013 and Beyond***

**International Association of Claims Professionals  
Tucson, AZ  
October 1, 2013**

***Download at [www.iii.org/presentations](http://www.iii.org/presentations)***

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- **P/C Insurance Industry Financial Overview**
- **Economic Factors Impacting Growth**
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# CLAIMS GURU QUIZ

**QUIZ: *What is the significance of this number?***

**\$7,932,848,563,867**



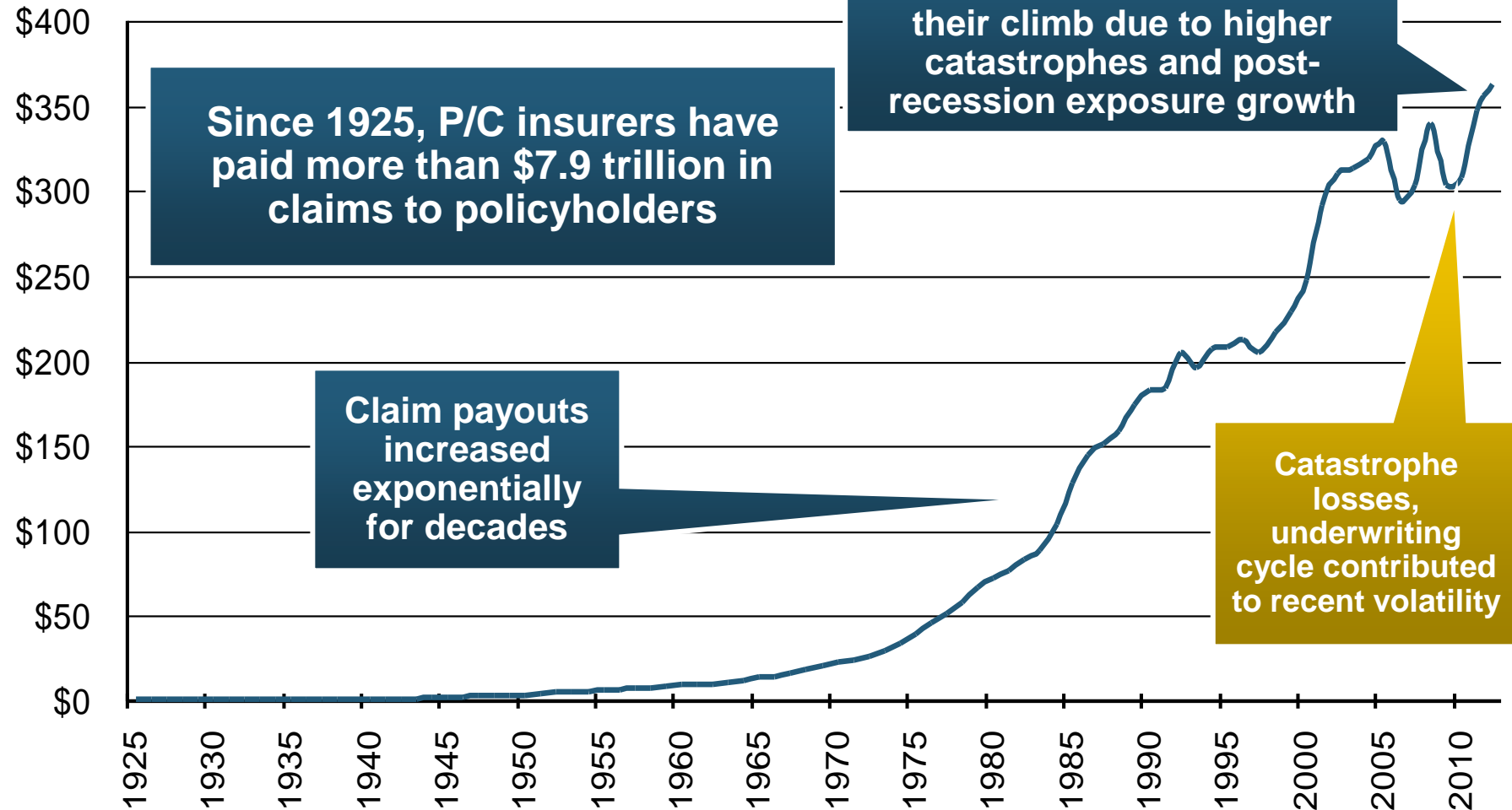
**ANSWER: This is the dollar value of claims paid by P/C insurers since 1925\***

**\$7,932,848,563,867**

\*Not adjusted for inflation.

# Dollar Value of Claims Paid by P/C Insurers to Policyholders, 1925–2012E\*

\$ Billions



\*1925 – 1934 stock companies only. Includes workers compensation state funds beginning in 1998.

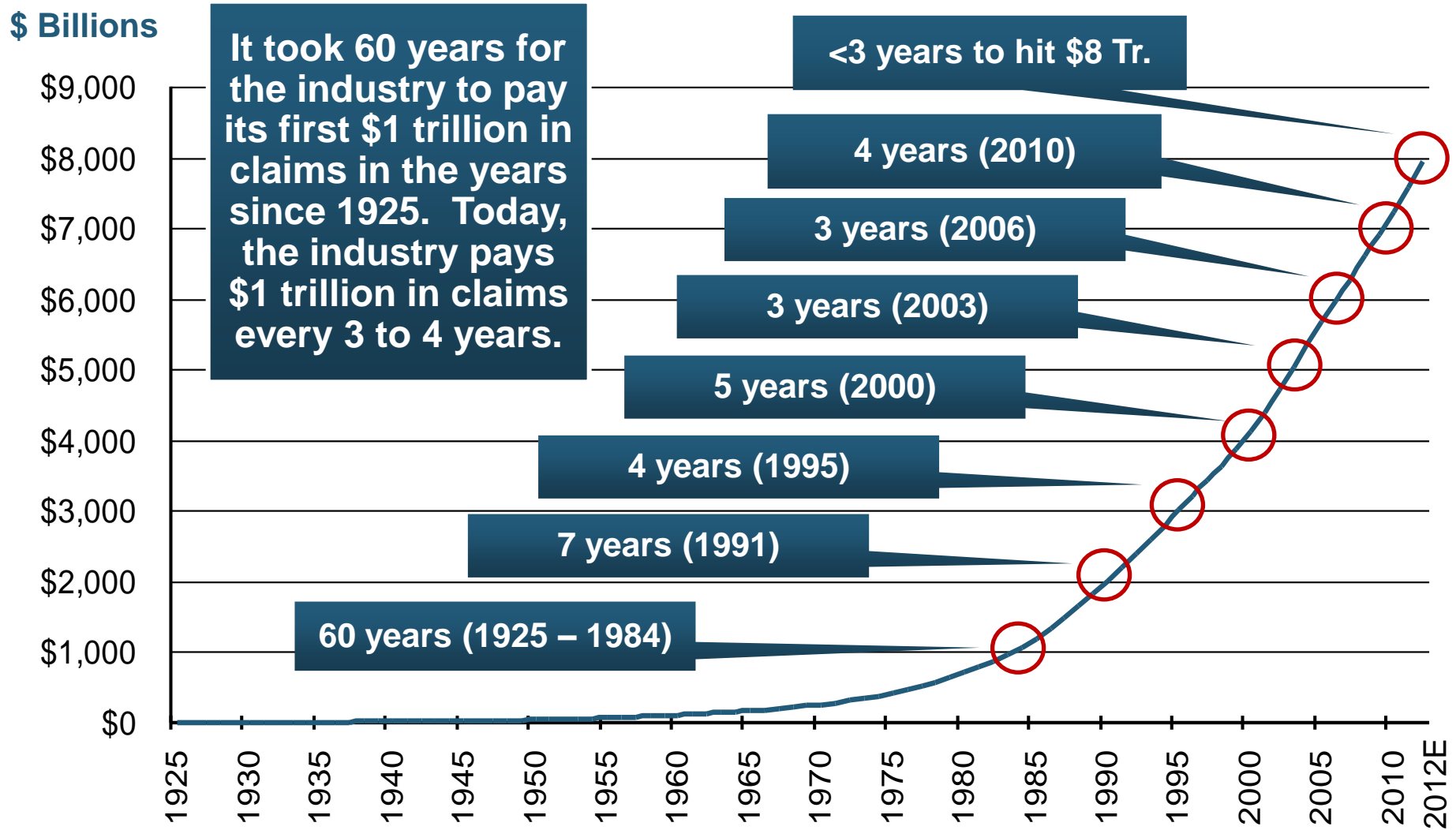
Note: Data are not adjusted for inflation.

Sources: Insurance Information Institute research and calculations from A.M. Best data.

# Cumulative Value of Claims Paid by P/C Insurers to Policyholders, 1925–2012E\*



\$ Billions



\*1925 – 1934 stock companies only. Includes workers compensation state funds beginning in 1998.

Note: Data are not adjusted for inflation.

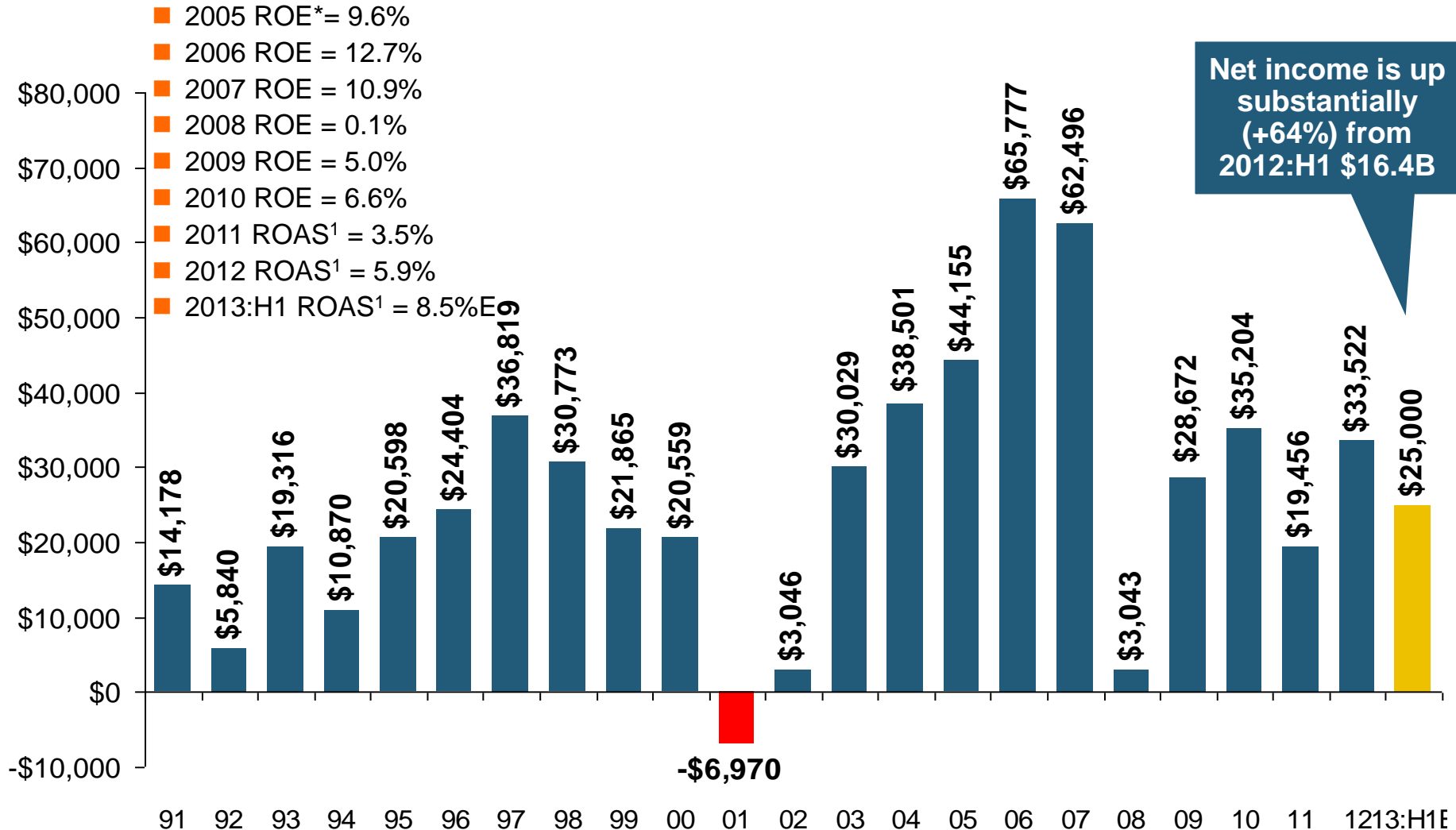
Sources: Insurance Information Institute research and calculations from A.M. Best data.



# P/C Insurance Industry Financial Overview

**So Far, So Good:  
Profit Recovery in 2013 After  
High CAT Losses in 2011-12**

# P/C Net Income After Taxes 1991–2013:H1 (\$ Millions)

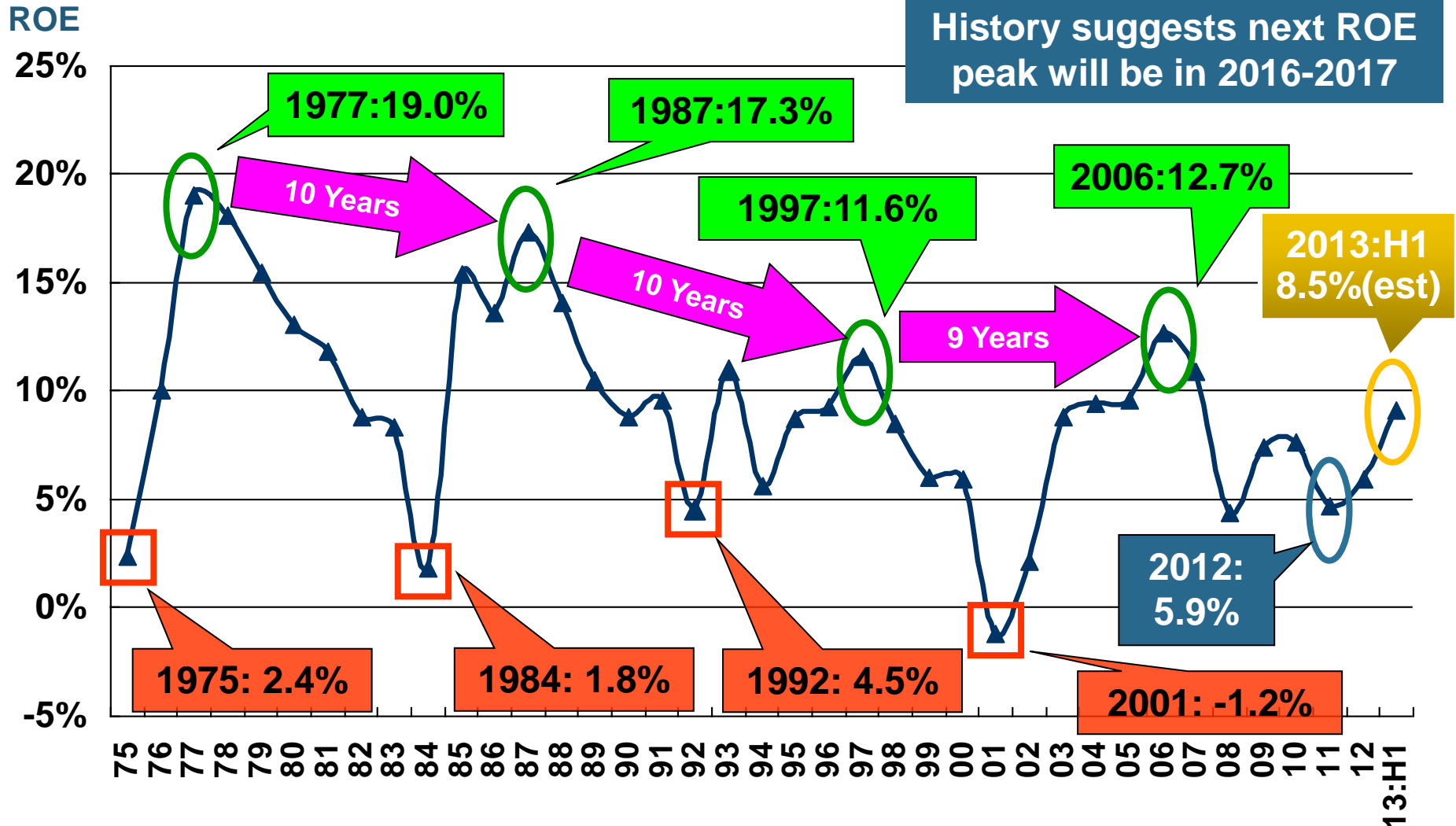


• ROE figures are GAAP; <sup>1</sup>Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.5% ROAS in 2013:H1, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

Sources: A.M. Best, ISO, Insurance Information Institute



# Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2013:H1\*



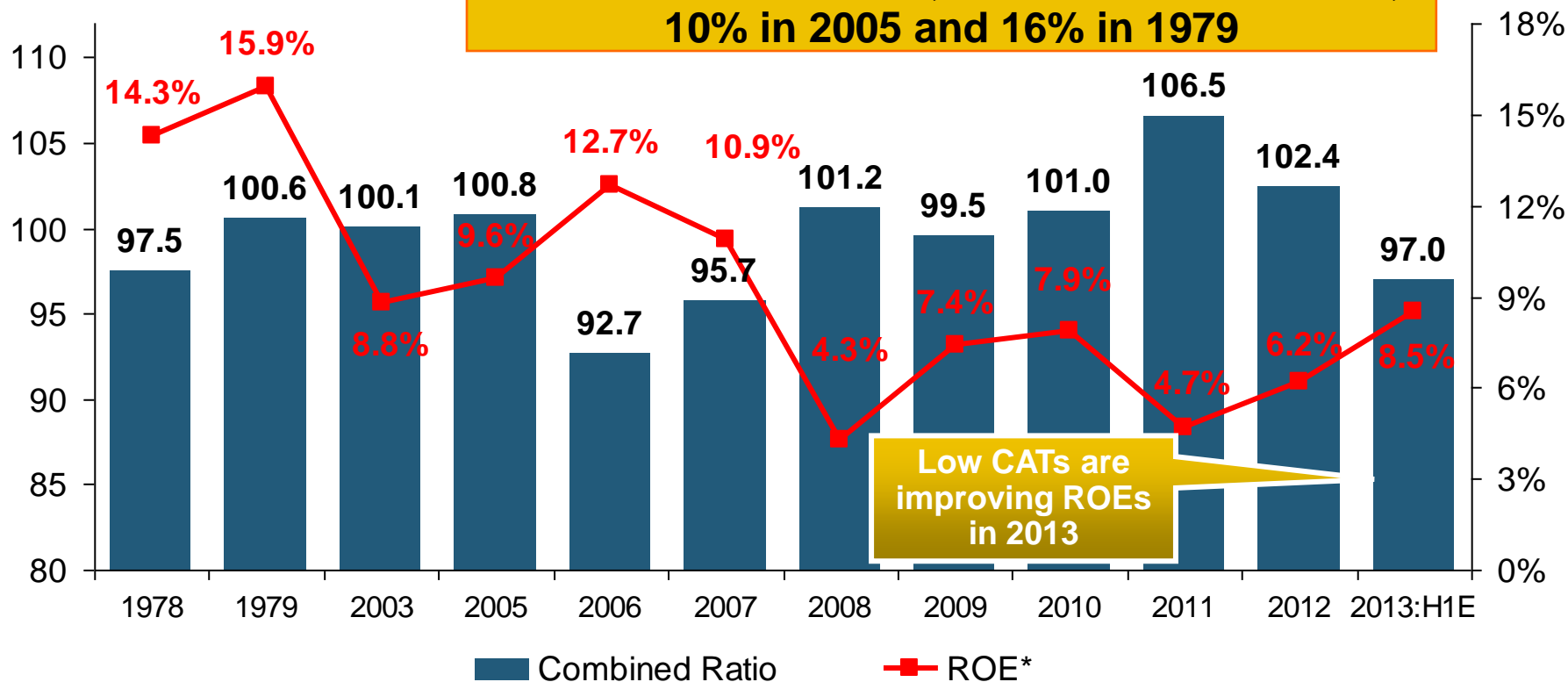
\*Profitability = P/C insurer ROEs. 2011-13 figures are estimates based on ROAS data. Note: Data for 2008-2013 exclude mortgage and financial guaranty insurers.

Source: Insurance Information Institute; NAIC, ISO, A.M. Best.

# A 100 Combined Ratio Isn't What It Once Was: Investment Impact on ROEs

## Combined Ratio / ROE

A combined ratio of about 100 generates an ROE of ~7.0% in 2012, ~7.5% ROE in 2009/10, 10% in 2005 and 16% in 1979



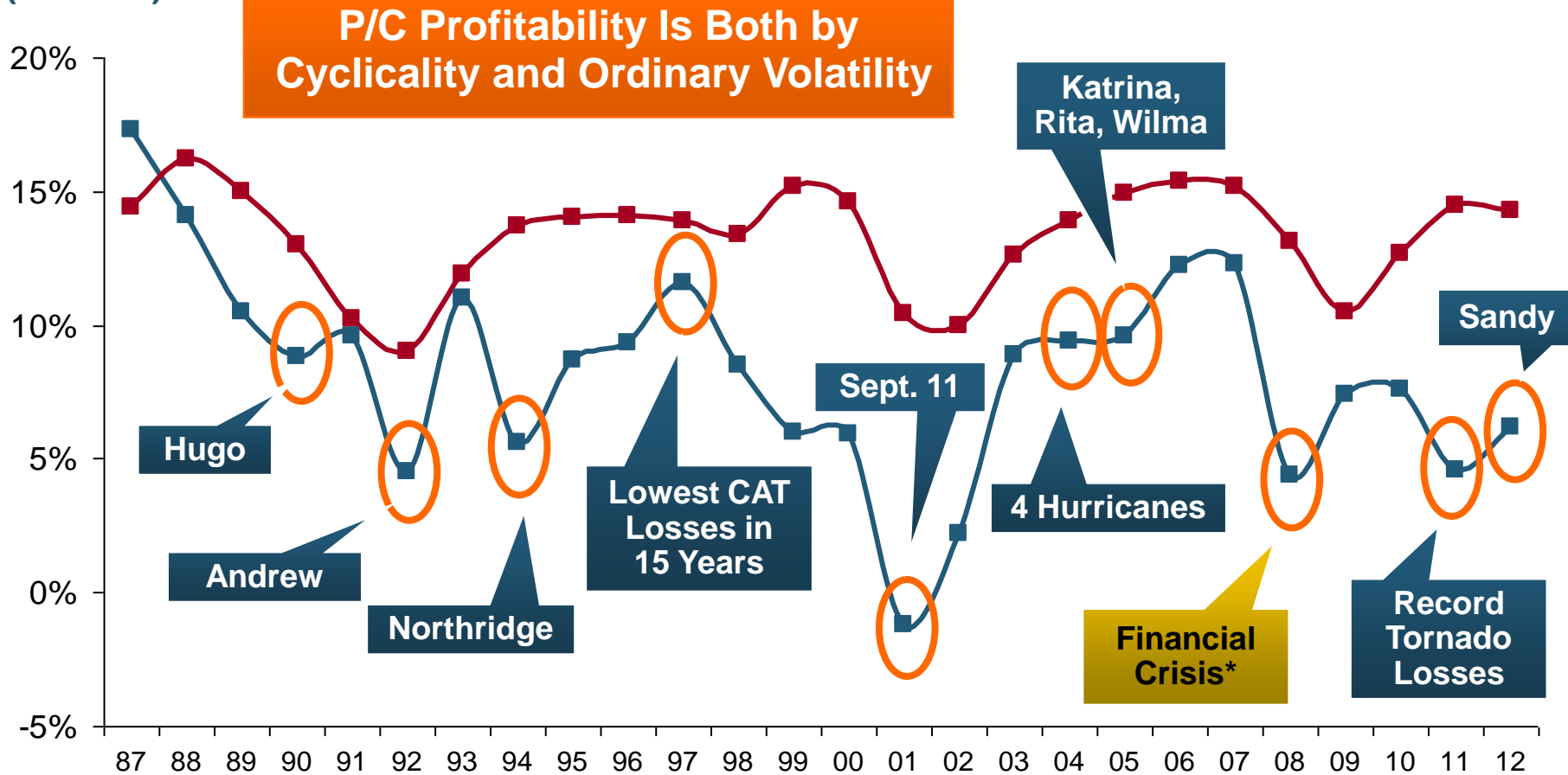
Low CATs are improving ROEs in 2013

**Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs**

\* 2008 -2013 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2012 combined ratio including M&FG insurers is 103.2, 2011 combined ratio including M&FG insurers is 108.1, ROAS = 3.5%.  
Source: Insurance Information Institute from A.M. Best and ISO data.

# ROE: Property/Casualty Insurance vs. Fortune 500, 1987–2012\*

(Percent)

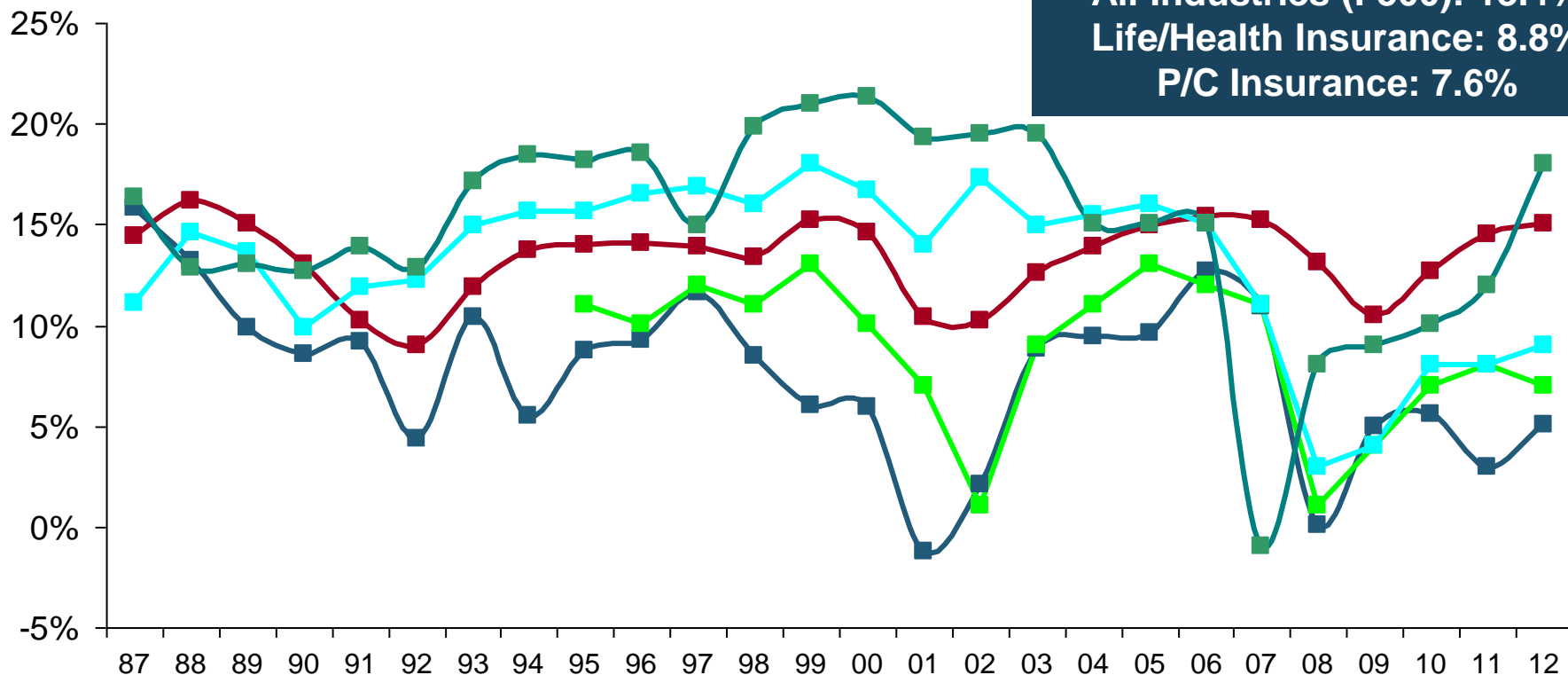


\* Excludes Mortgage & Financial Guarantee in 2008 – 2012.  
Sources: ISO, *Fortune*; Insurance Information Institute.

# ROE: ROEs by Industry vs. Fortune 500, 1987–2012\*

(Percent)

**Average: 1987-2012**  
**Diversified Finl: 15.0%**  
**Commercial Banks: 13.1%**  
**All Industries (F500): 13.4%**  
**Life/Health Insurance: 8.8%**  
**P/C Insurance: 7.6%**

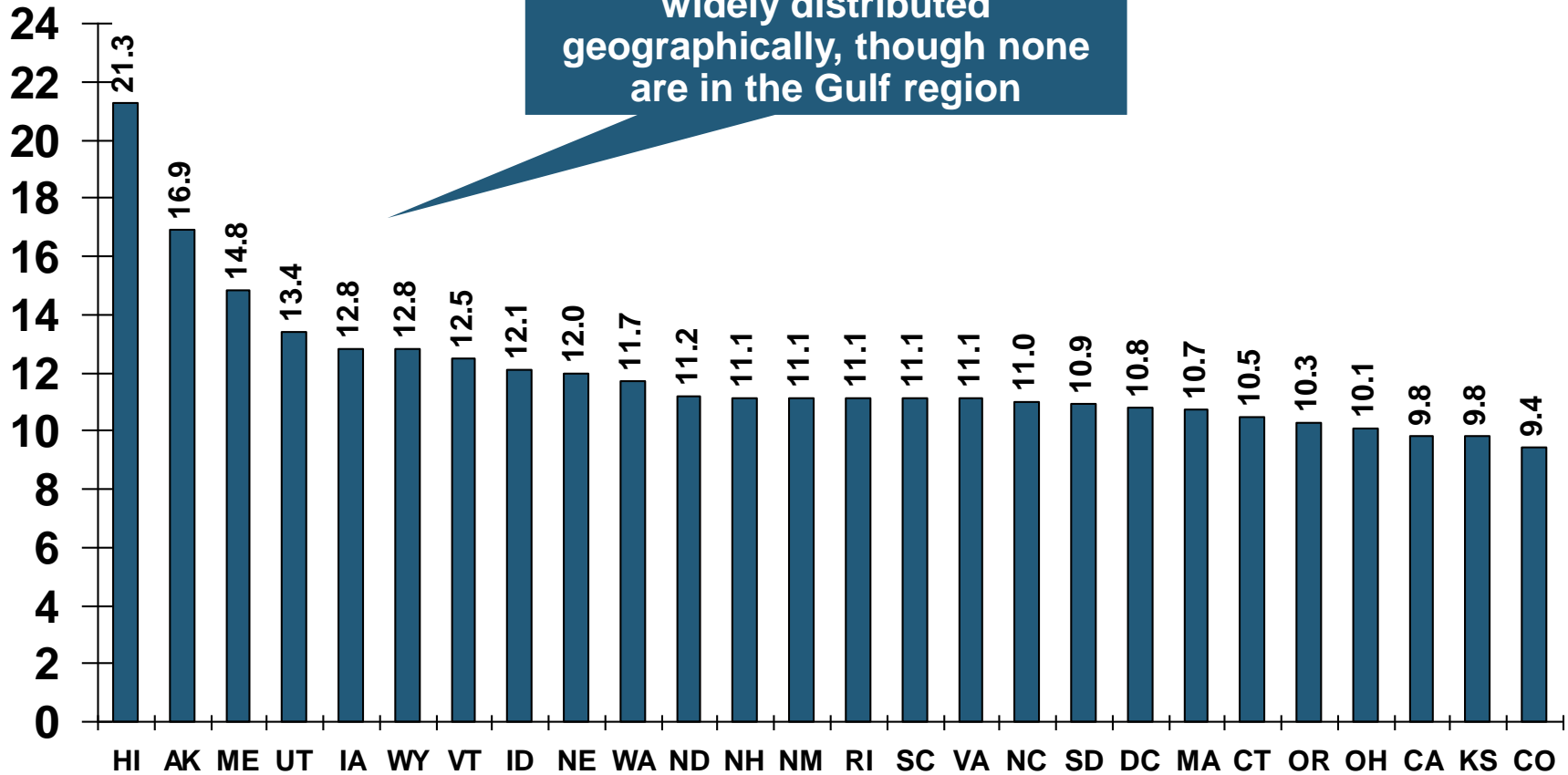


■ US P/C Insurers ■ All US Industries ■ L/H Insurance ■ Comm Banks ■ Div Fin

\* All figures are GAAP.  
 Sources: ISO, *Fortune*; Insurance Information Institute.

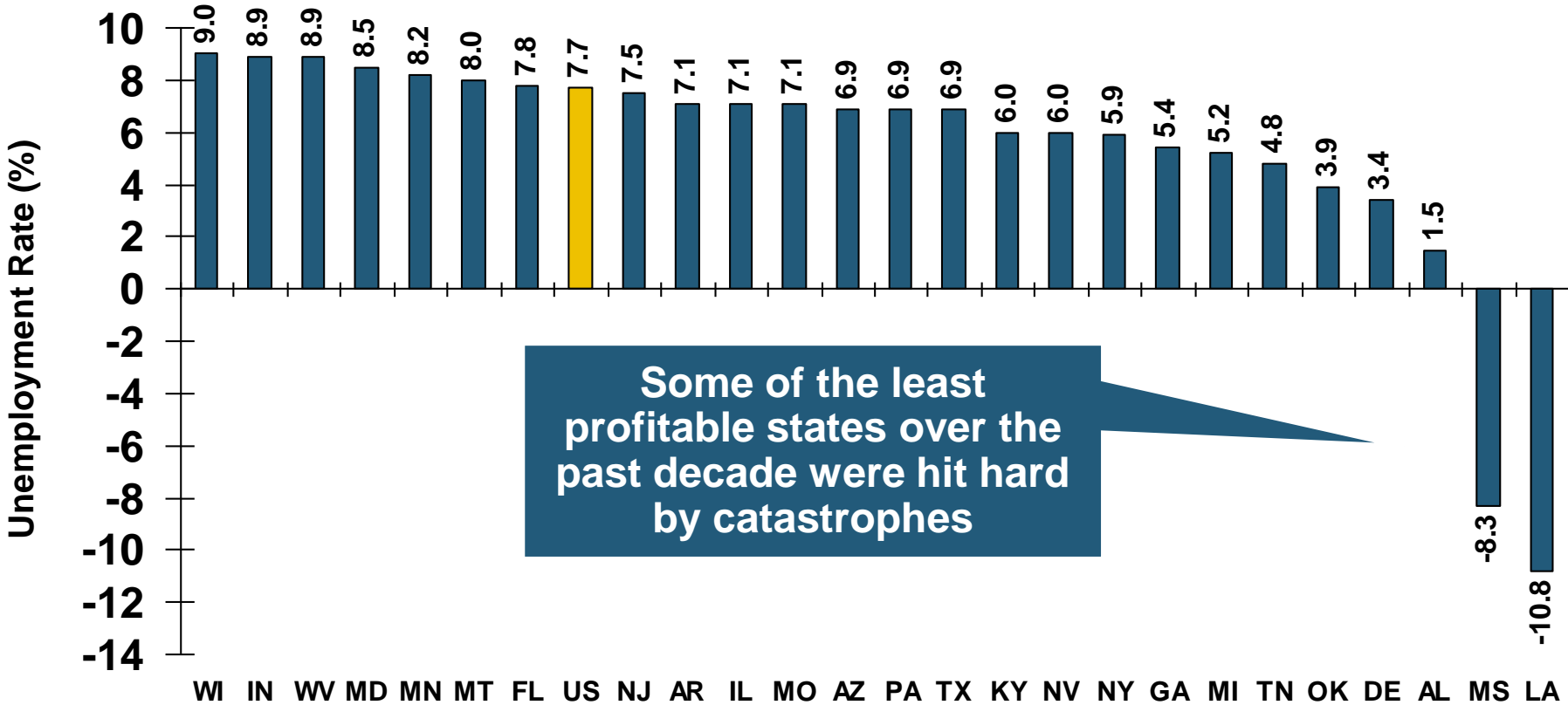
# RNW All Lines by State, 2002-2011 Average: Highest 25 States

The most profitable states over the past decade are widely distributed geographically, though none are in the Gulf region



Source: NAIC.

# RNW All Lines by State, 2002-2011 Average: Lowest 25 States



Source: NAIC.

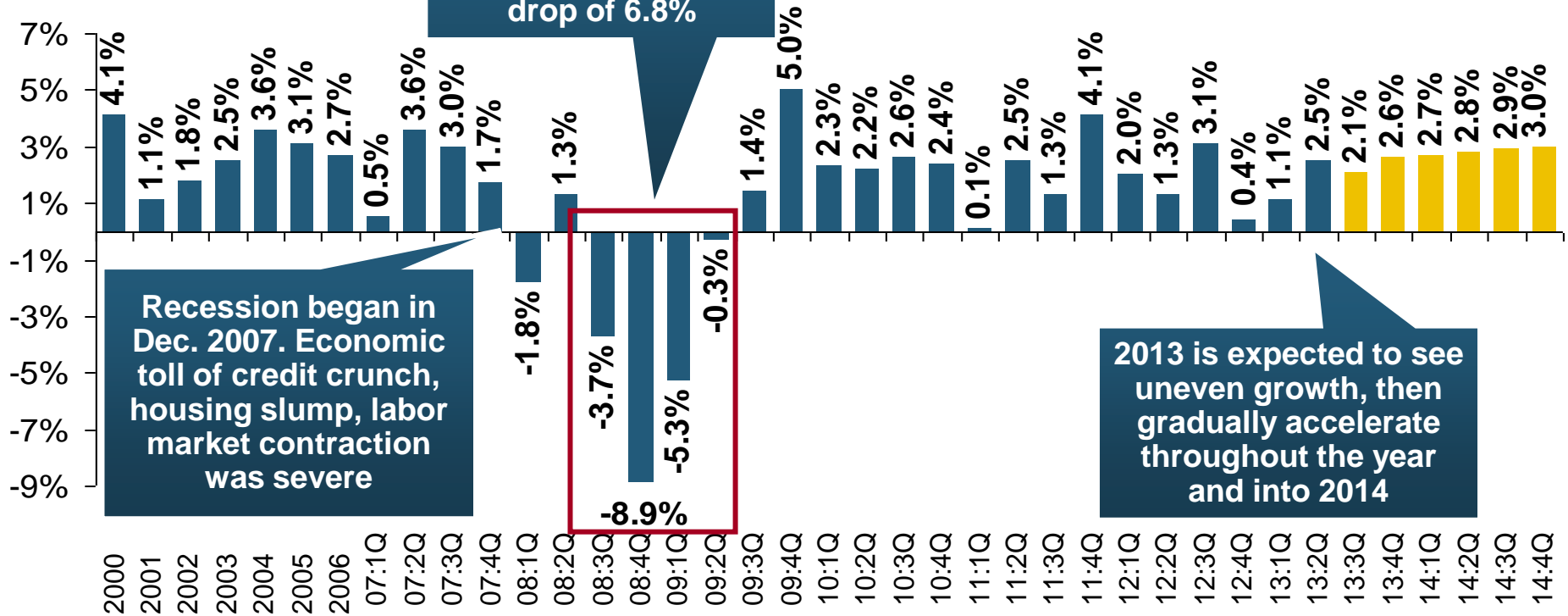


# **The Strength of the Economy Will Influence P/C Insurer Growth Opportunities**

**Growth Will Expand Insurer Exposure  
Base Across Most Lines**

# US Real GDP Growth\*

## Real GDP Growth (%)



**Demand for Insurance Continues To Be Impacted by Sluggish Economic Conditions, but the Benefits of Even Slow Growth Will Compound and Gradually Benefit the Economy Broadly**

\* Estimates/Forecasts from Blue Chip Economic Indicators.

Source: US Department of Commerce, Blue Economic Indicators 9/13; Insurance Information Institute.

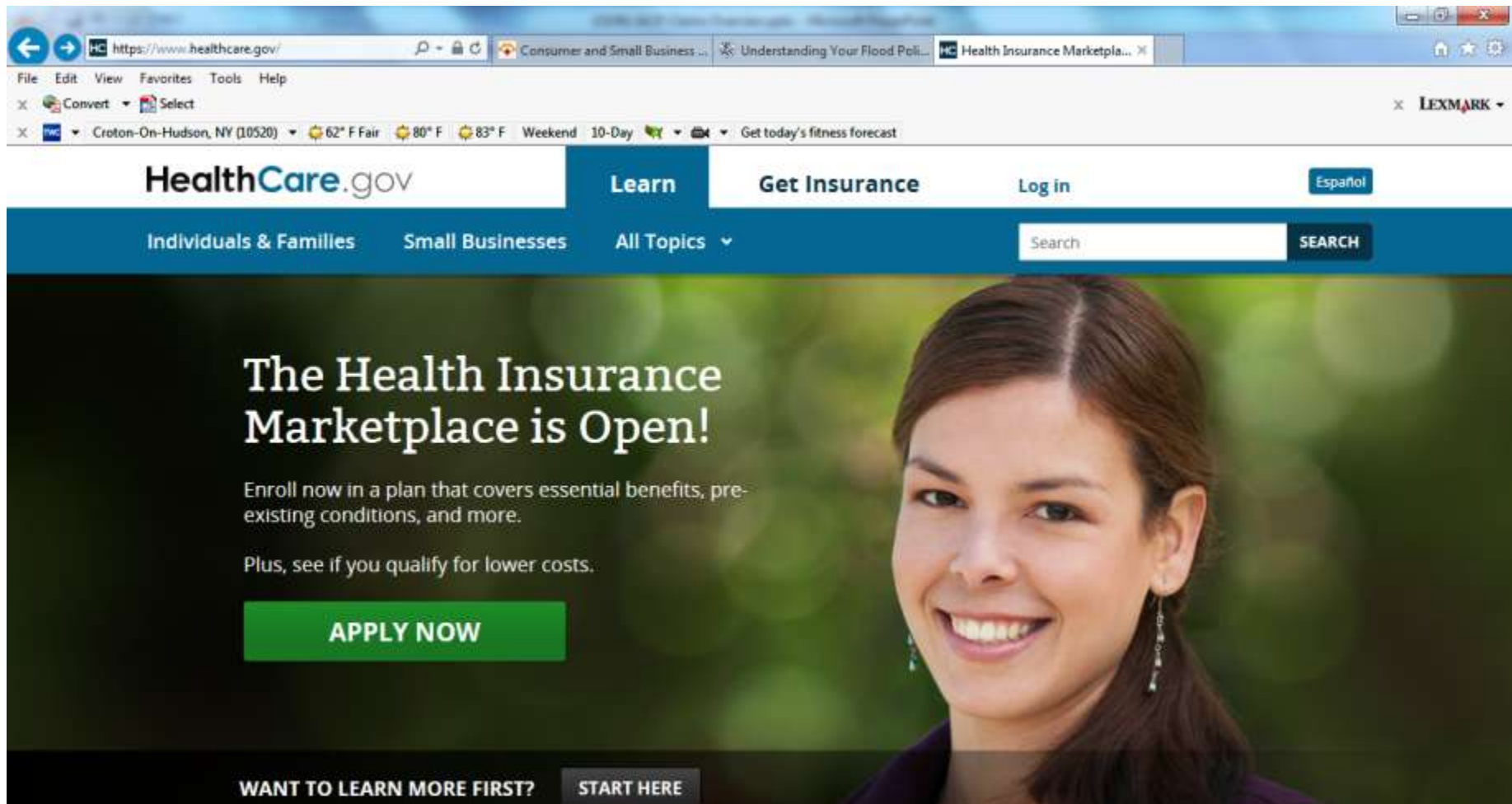


# The Federal Government Budget Debacle: Shutdown, Debt Ceiling & More

- **Congress Failed to Approve a CR → Oct. 1 Shutdown**
- **800,000 Federal Workers to Be Furloughed**
- **Estimated Economic Impact to the Economy**
  - ◆ Modest at first: \$1B in first week
  - ◆ Mushroom to \$55 billion after a month
  - ◆ Could hurt consumer confidence, car and home sales if persists
- **Impacts to P/C Insurers Are Minimal**
  - ◆ Fire, police funded locally so will continue to function
  - ◆ Insurer disaster response unaffected even if govt. shuts down
  - ◆ Market volatility impacts asset values, but is manageable
- **Impact on FEMA Unclear**
  - ◆ Aid for new disaster occurring during shutdown?
  - ◆ Pre-existing disaster aid (e.g., Sandy, CO floods)
- **Upcoming Debt Ceiling Debate (Oct. 17) More Dangerous**
  - ◆ Federal debt rating at risk; Impacts on interest rates

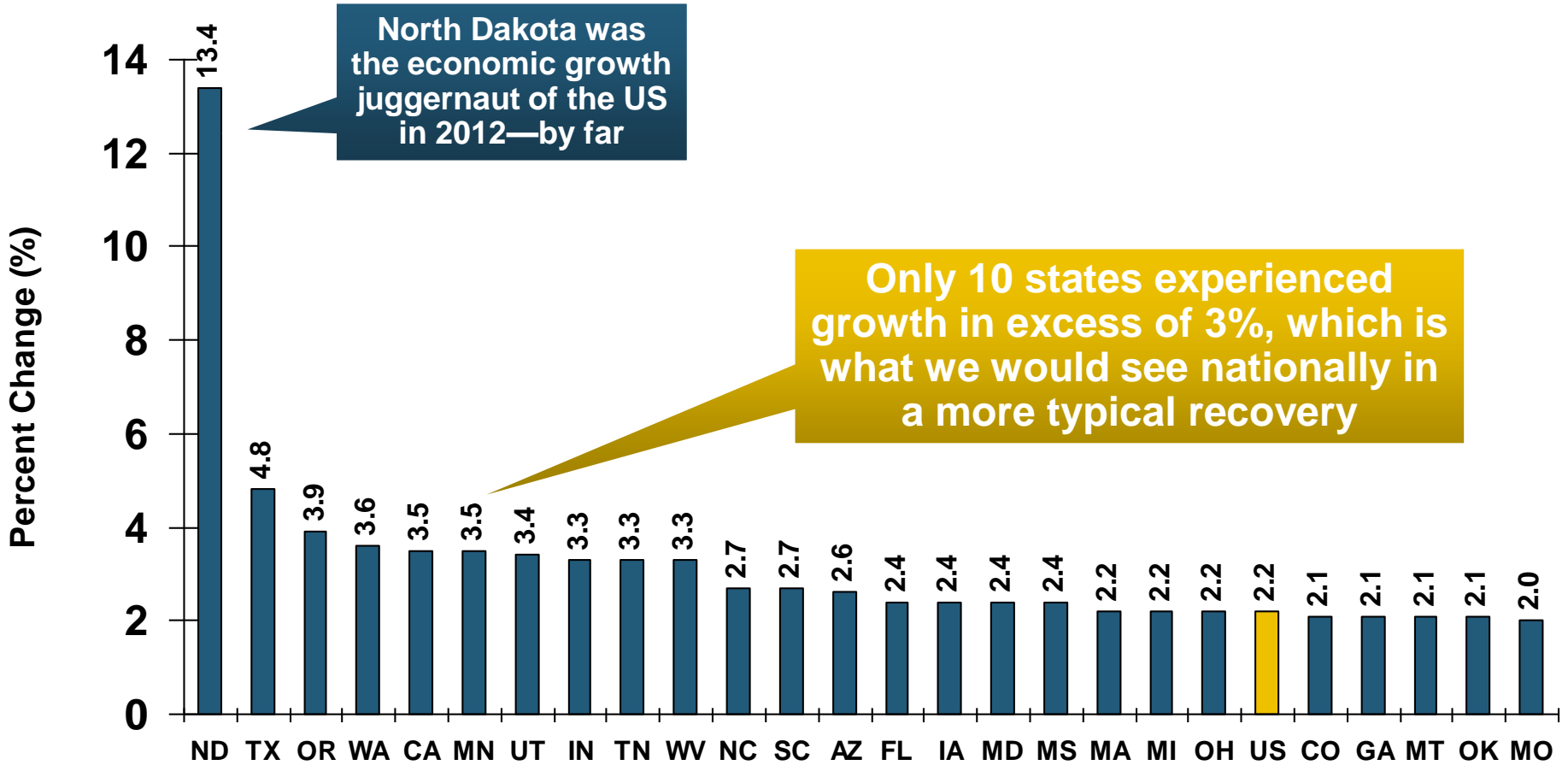
# Affordable Care Act (ObamaCare): Grand Opening Today!

Health Insurance Marketplaces Are Open



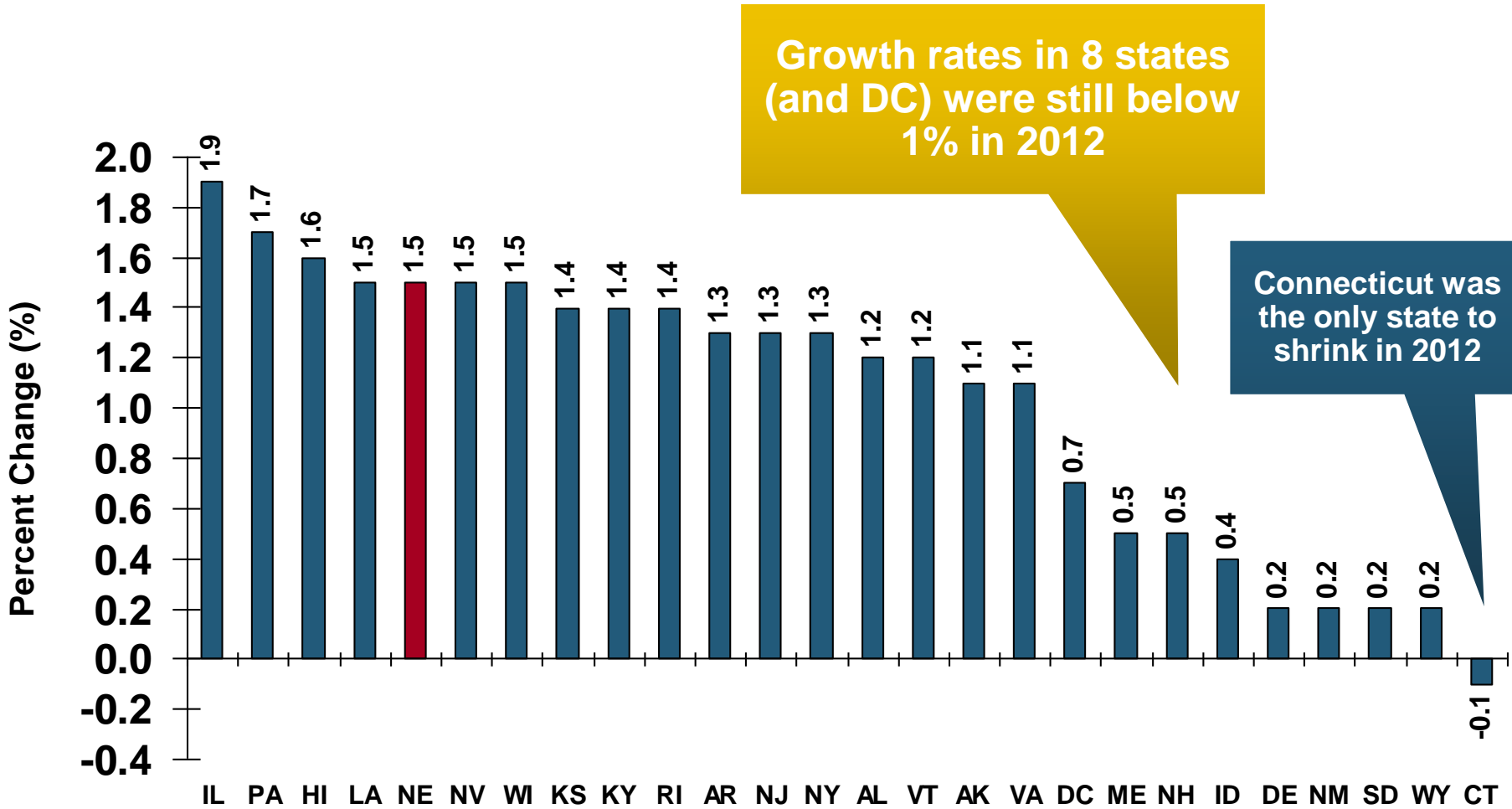
The screenshot shows the HealthCare.gov website in a browser window. The browser's address bar displays "https://www.healthcare.gov/". The website's navigation bar includes "Learn", "Get Insurance", and "Log in" buttons, along with a "Español" language option. Below the navigation bar, there are links for "Individuals & Families", "Small Businesses", and "All Topics". A search bar is also present. The main content area features a large green banner with the text "The Health Insurance Marketplace is Open!" and a sub-headline "Enroll now in a plan that covers essential benefits, pre-existing conditions, and more." Below this, it says "Plus, see if you qualify for lower costs." A prominent green button labeled "APPLY NOW" is centered on the page. At the bottom, there are two buttons: "WANT TO LEARN MORE FIRST?" and "START HERE". The background of the banner shows a smiling woman's face.

# Real GDP by State Percent Change, 2012: Highest 25 States



Sources: US Bureau of Labor Statistics; Insurance Information Institute.

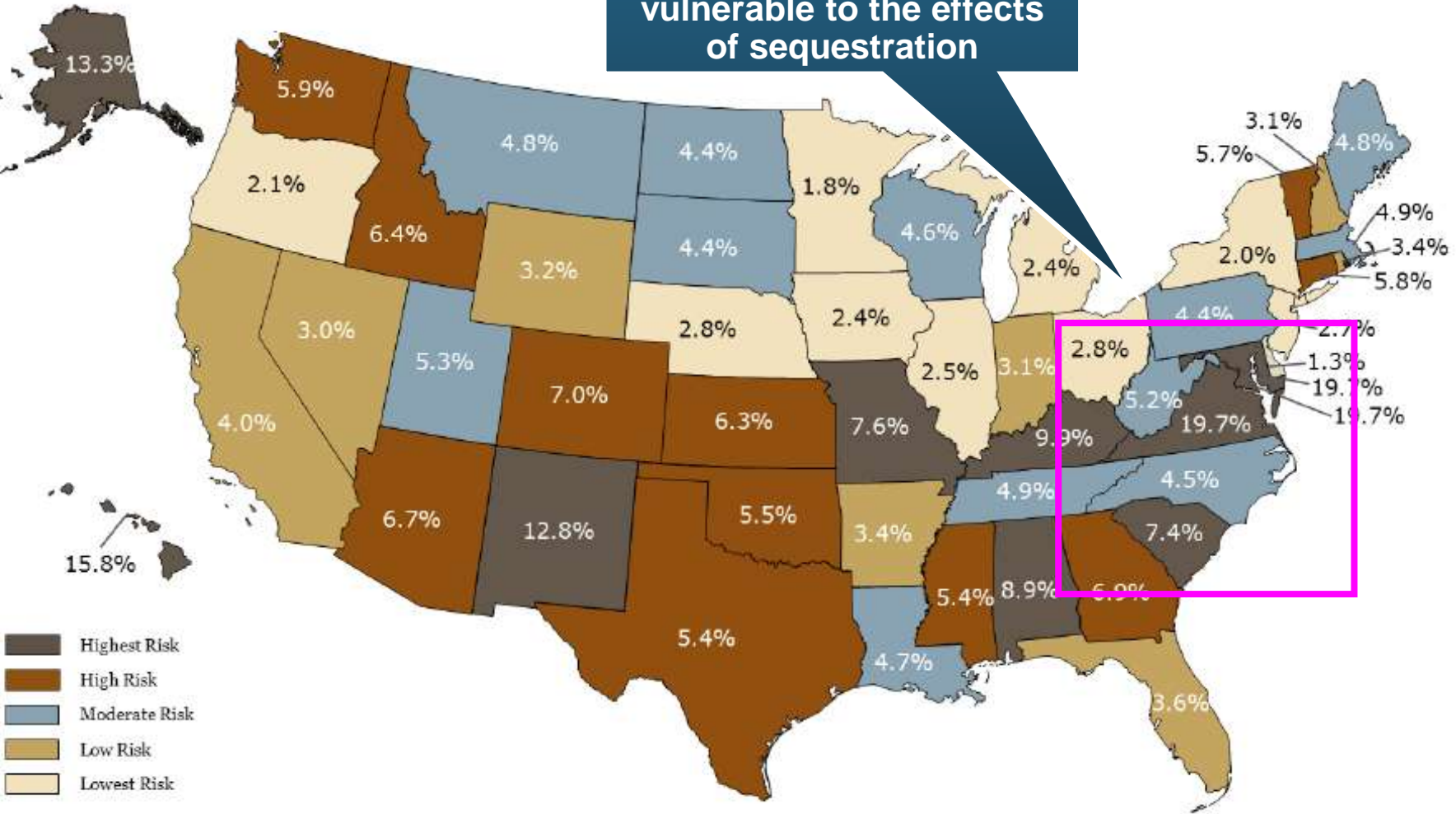
# Real GDP by State Percent Change, 2012: Lowest 25 States



Sources: US Bureau of Labor Statistics; Insurance Information Institute.

# Federal Spending as a Share of State GDP: Vulnerability to Sequestration Varies

Some Mid-Atlantic and Southern state are more vulnerable to the effects of sequestration

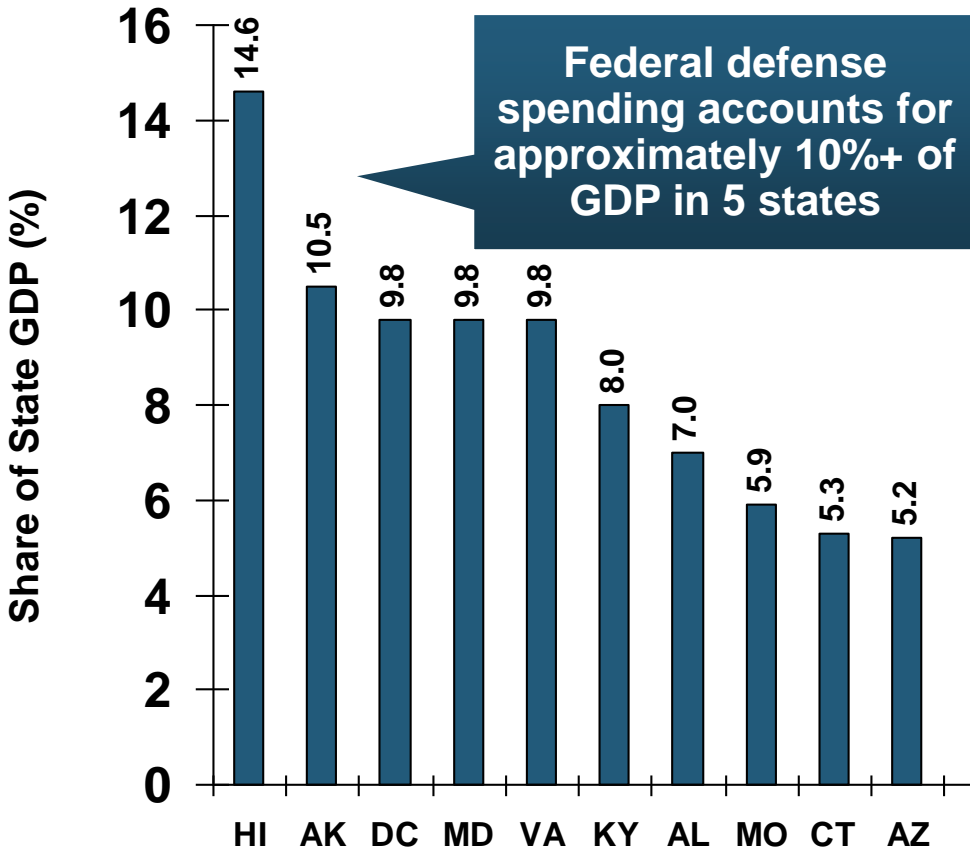


Sources: Pew Center on the States (2012) *Impact of the Fiscal Cliff on the States*; Wells Fargo; Insurance Information Institute.

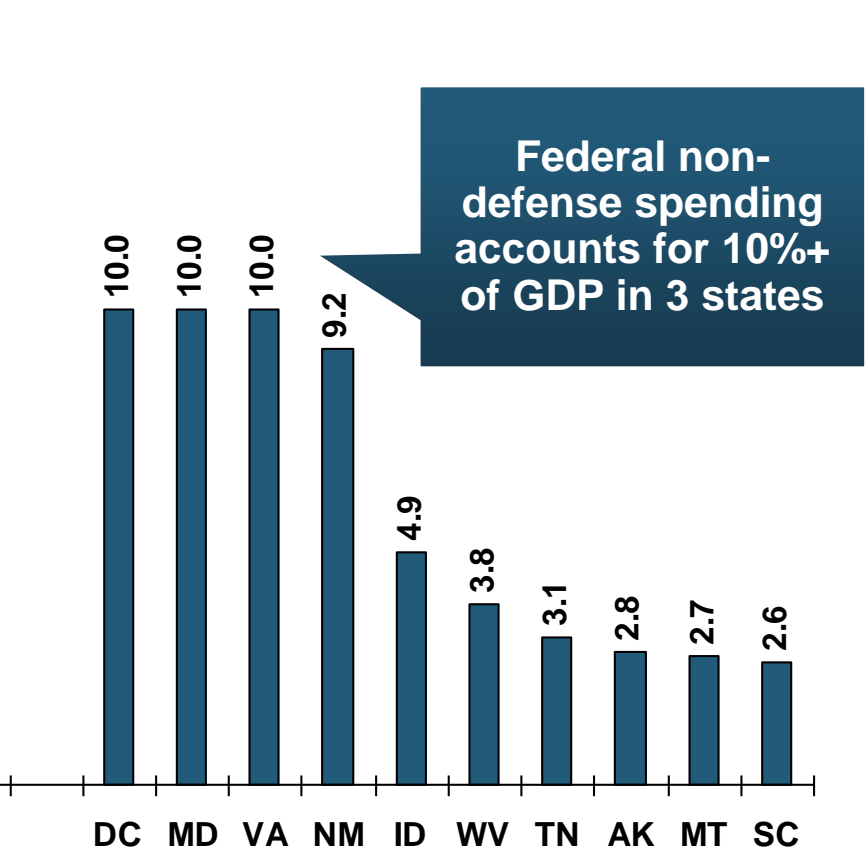
# Defense and Non-Defense Federal Spending as a Share of State GDP: Top 10 States\*



## Defense Spending



## Non-Defense Spending



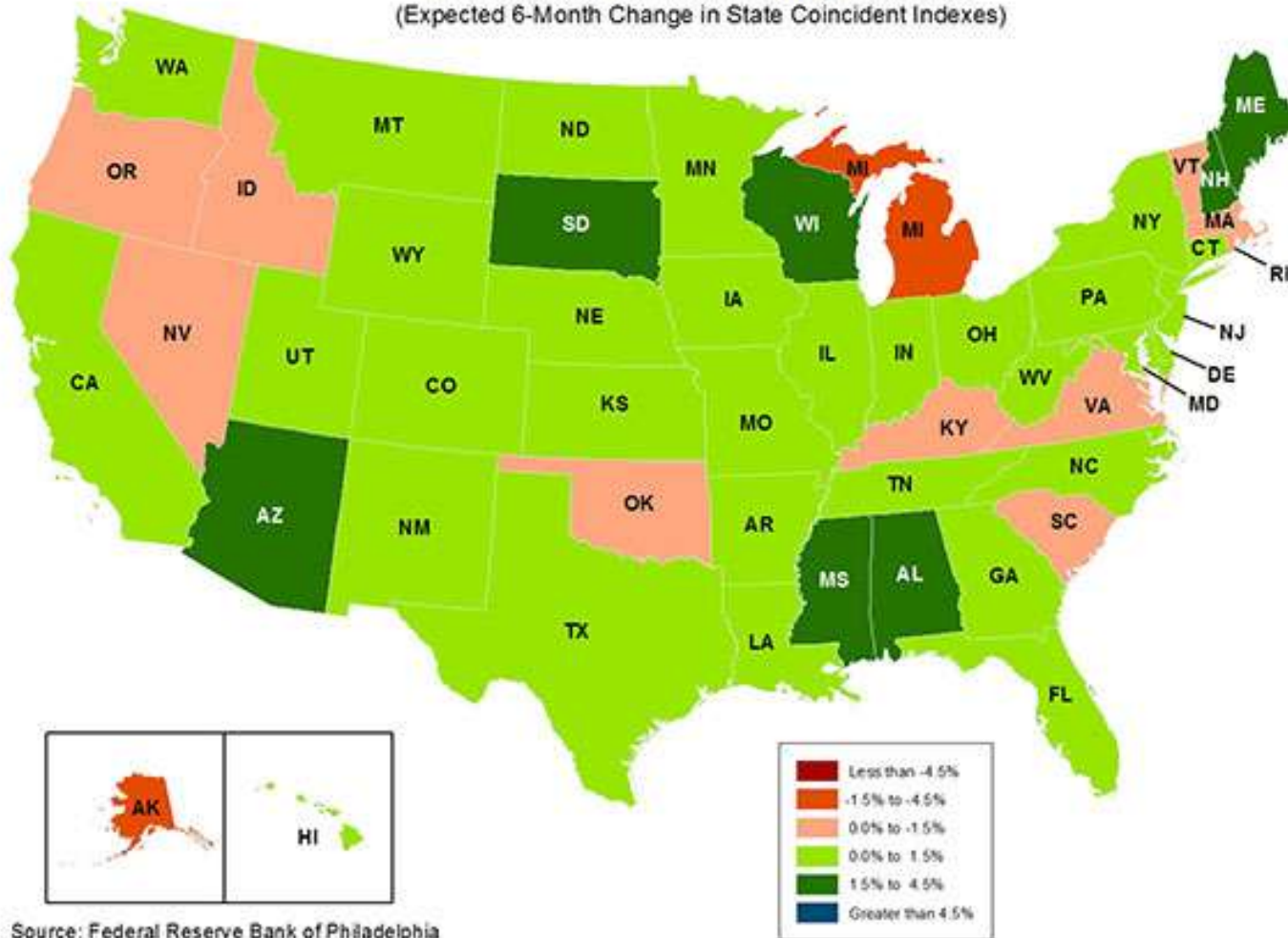
**Sequestration Could Adversely Impact Commercial Insurance Exposures Directly at Defense Contractors and Indirectly in Impacted Communities**

\*As of 2010.

Sources: Pew Center on the States (2012) *Impact of the Fiscal Cliff on the States*; Wells Fargo Securities; Insurance Information Institute.

# State-by-State Leading Indicators through 2013:Q4

**June 2013 State Leading Indexes**  
(Expected 6-Month Change in State Coincident Indexes)

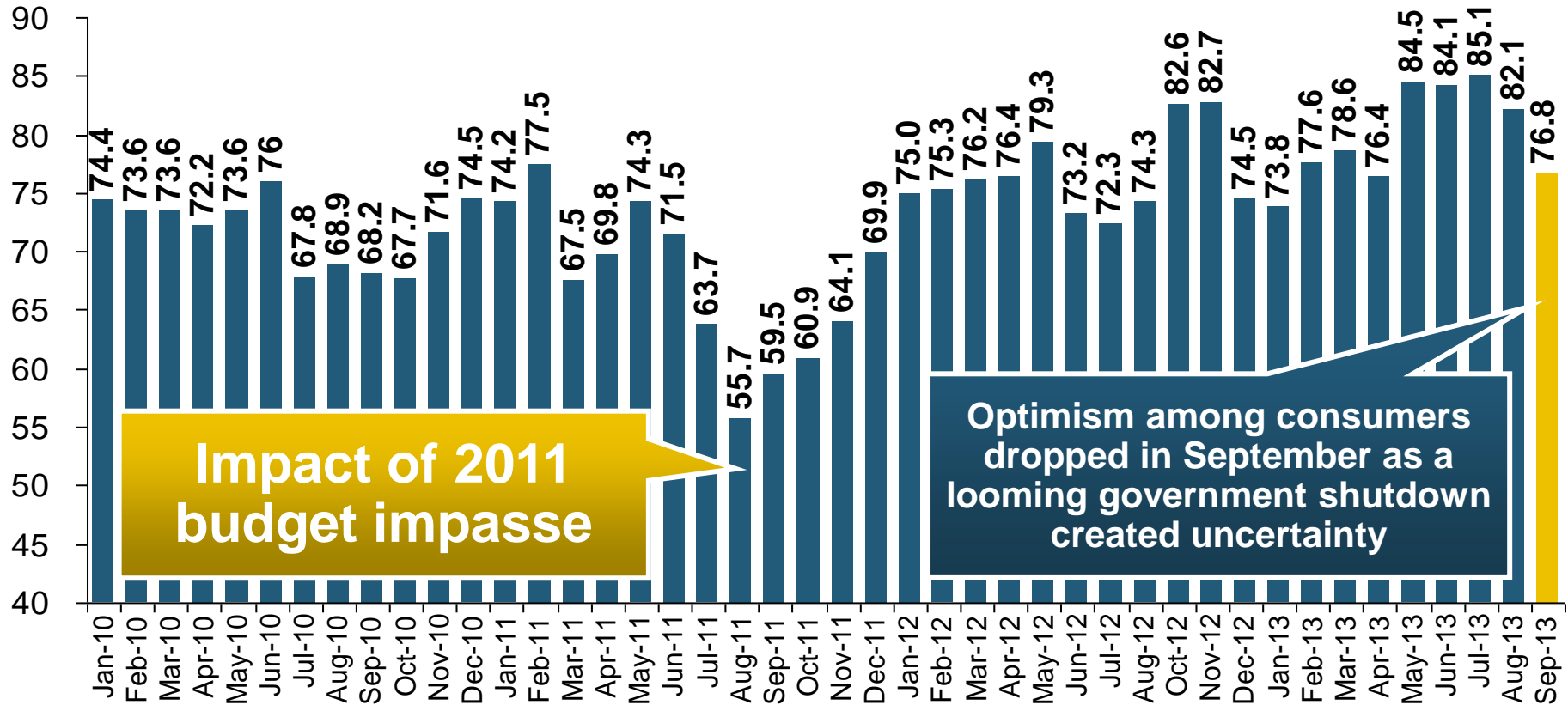


The economic outlook for Northeast and Mid-Atlantic regions is mixed but suggests growth in the creation of insurable exposures

Source: Federal Reserve Bank of Philadelphia

# Consumer Sentiment Survey (1966 = 100)

## January 2010 through August 2013



Impact of 2011 budget impasse

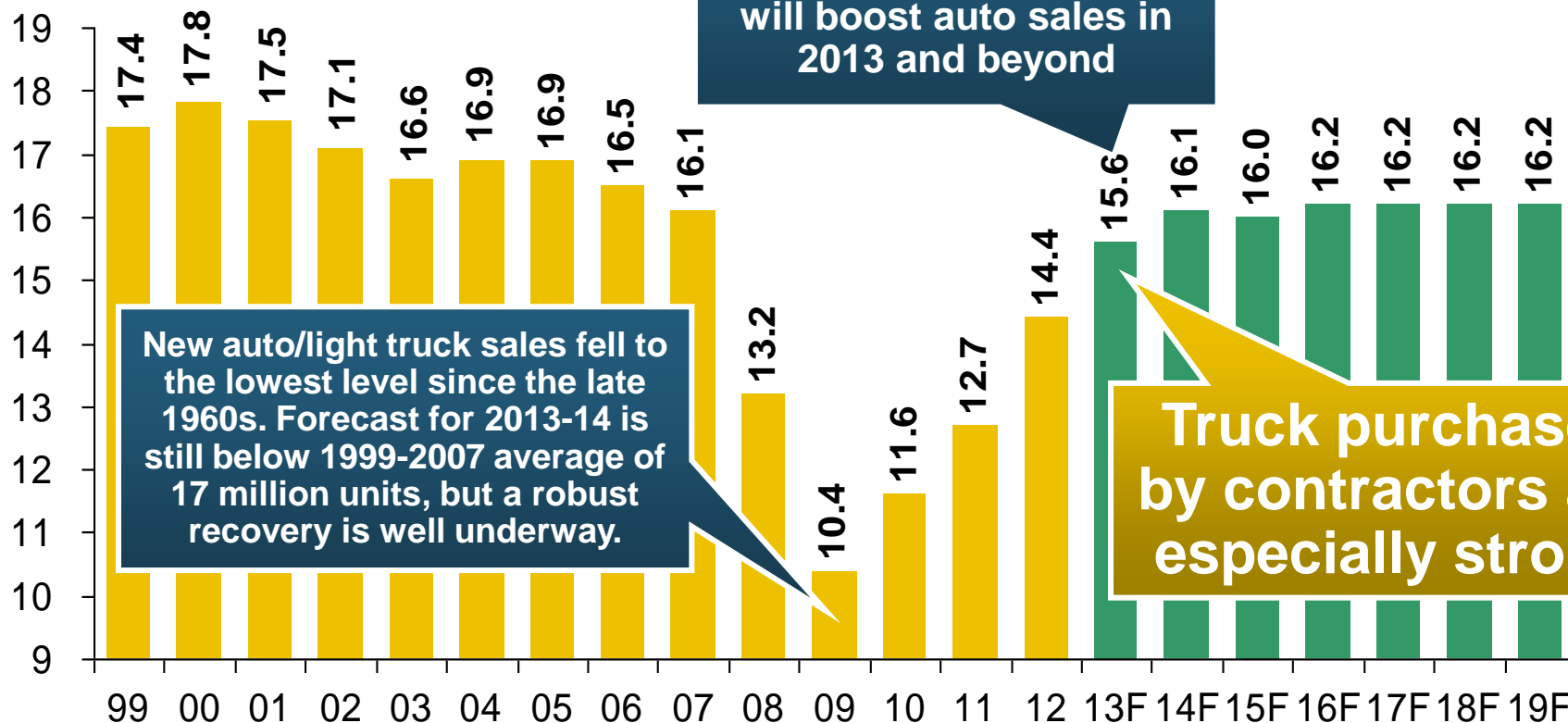
Optimism among consumers dropped in September as a looming government shutdown created uncertainty

Consumer confidence has been low for years amid high unemployment, falling home prices and other factors adversely impact consumers, but improved substantially over the past two years, though uncertainty in Washington is taking a toll.



# Auto/Light Truck Sales, 1999-2019F

(Millions of Units)



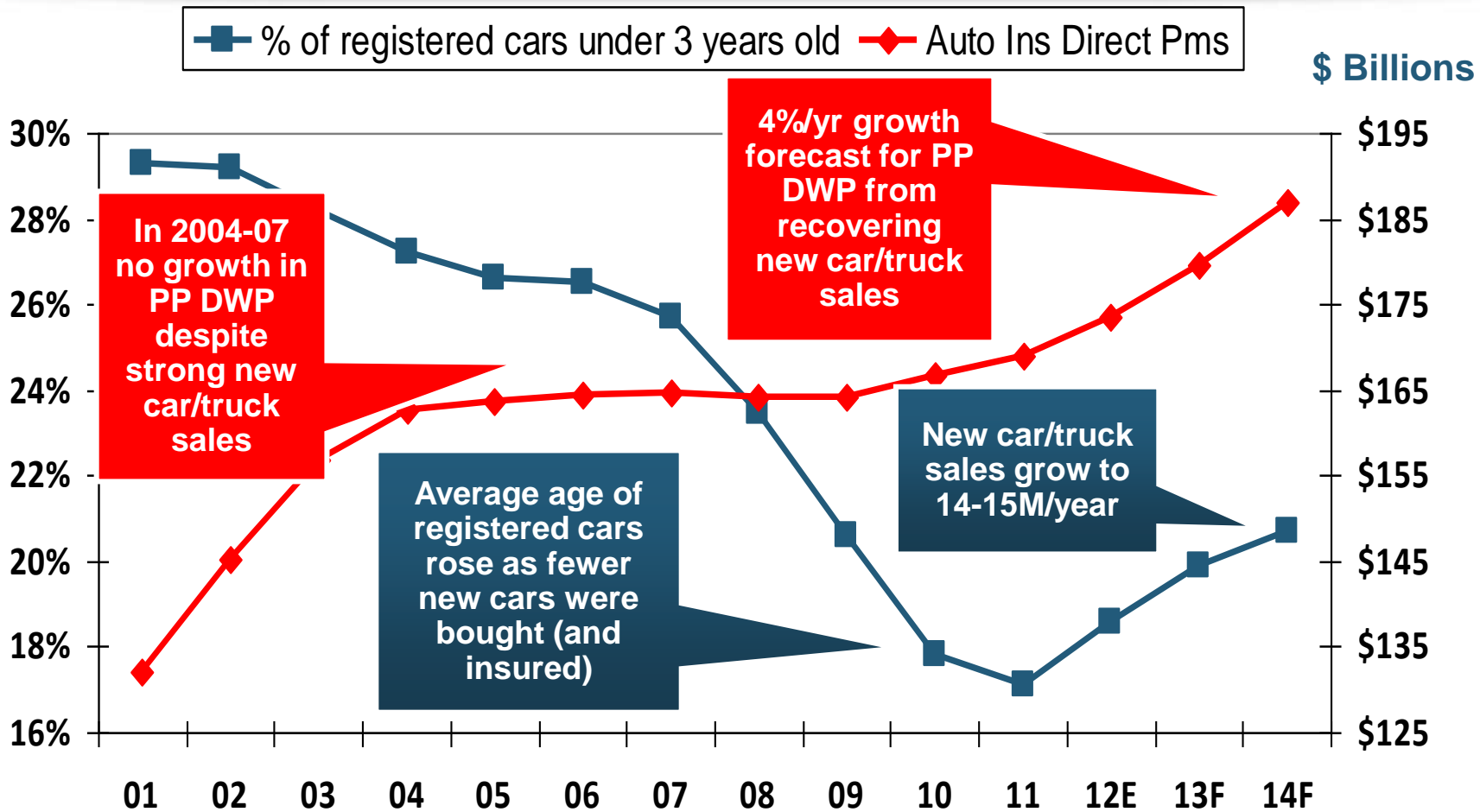
New auto/light truck sales fell to the lowest level since the late 1960s. Forecast for 2013-14 is still below 1999-2007 average of 17 million units, but a robust recovery is well underway.

Job growth and improved credit market conditions will boost auto sales in 2013 and beyond

Truck purchases by contractors are especially strong

**Car/Light Truck Sales Will Continue to Recover from the 2009 Low Point, Bolstering the Auto Insurer Growth and the Manufacturing Sector Along With Workers Comp Exposures**

# Personal Auto Insurance Direct Written Premiums vs. Recently-Registered Cars

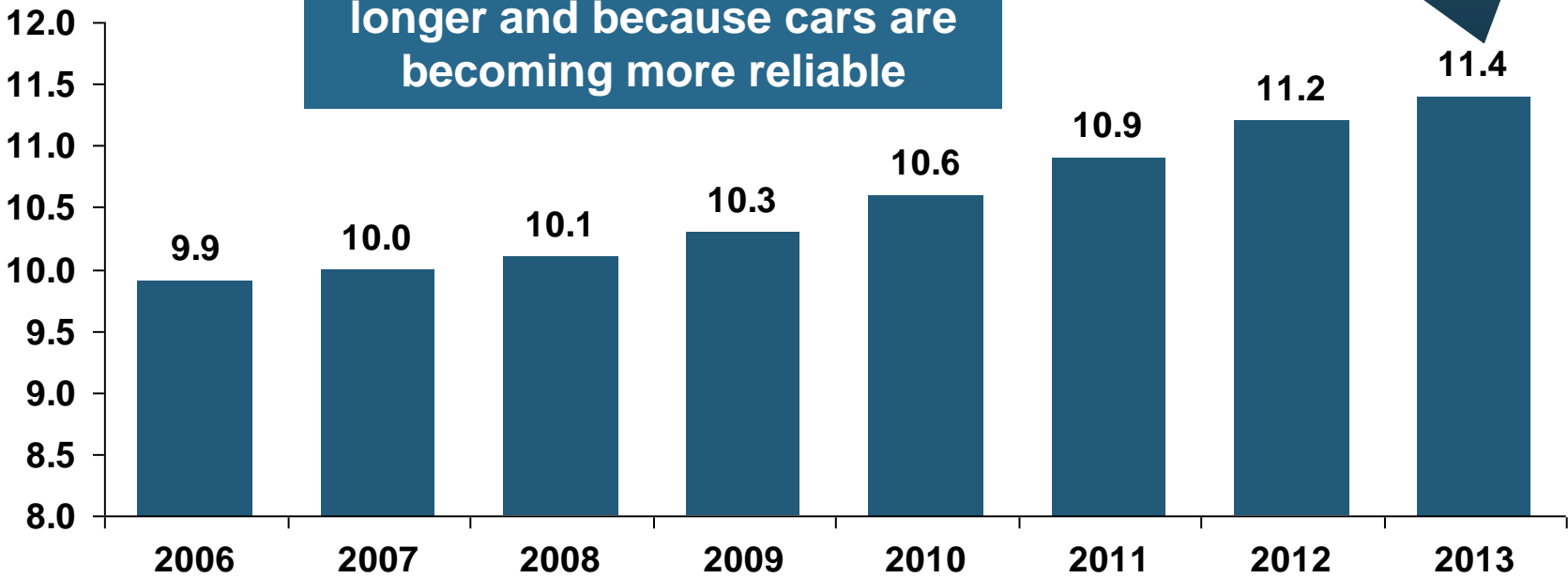


**PP DWP, flat from 2004-2009, is rising again. Conning forecasts growth at 3.5% in 2013 and 4.0% in 2014.**

Sources: AIPSO Facts (various issues); SNL Financial; Conning Research & Consulting, *Property-Casualty Forecast and Analysis*, First Quarter 2012; Insurance Information Institute.

# Average Age of Vehicles on the Road, 2006—2013

Average Vehicle Age (Years)



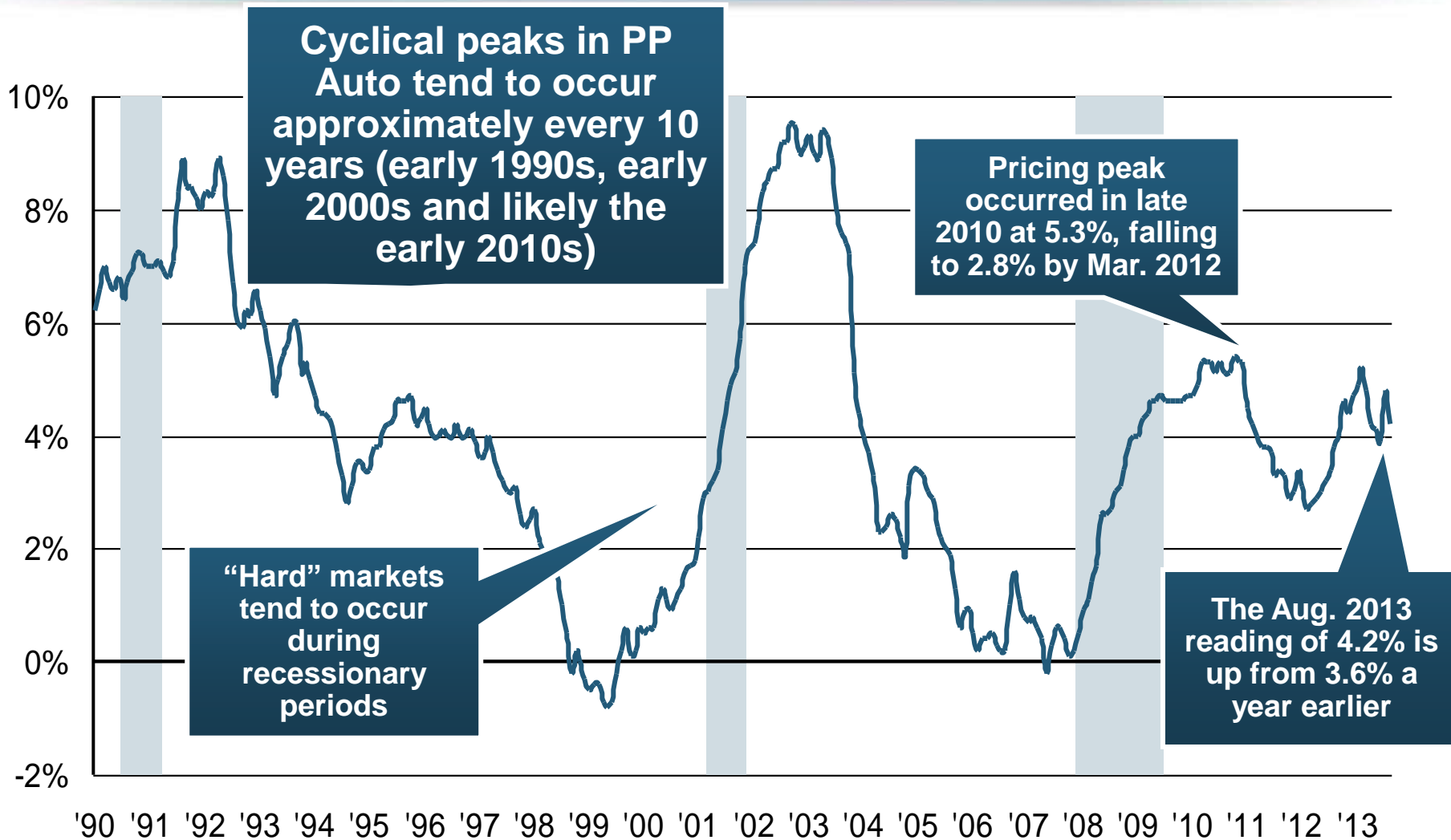
Average vehicle age continues to increase because the slow economy leads many drivers to keep cars on the road longer and because cars are becoming more reliable

The average vehicle age reached a record 11.4 years in 2013

The average age of a vehicle on the road is expected to continue to increase until 2018. By 2018, the number of vehicles 12+ years old is expected to rise 11.6% from 2013 and the number that are under 5 years old is expected to increase by 41%

Sources: Polk, August 2013 Survey; Insurance Information Institute.

# Monthly Change\* in Auto Insurance Prices, 1991–2013\*



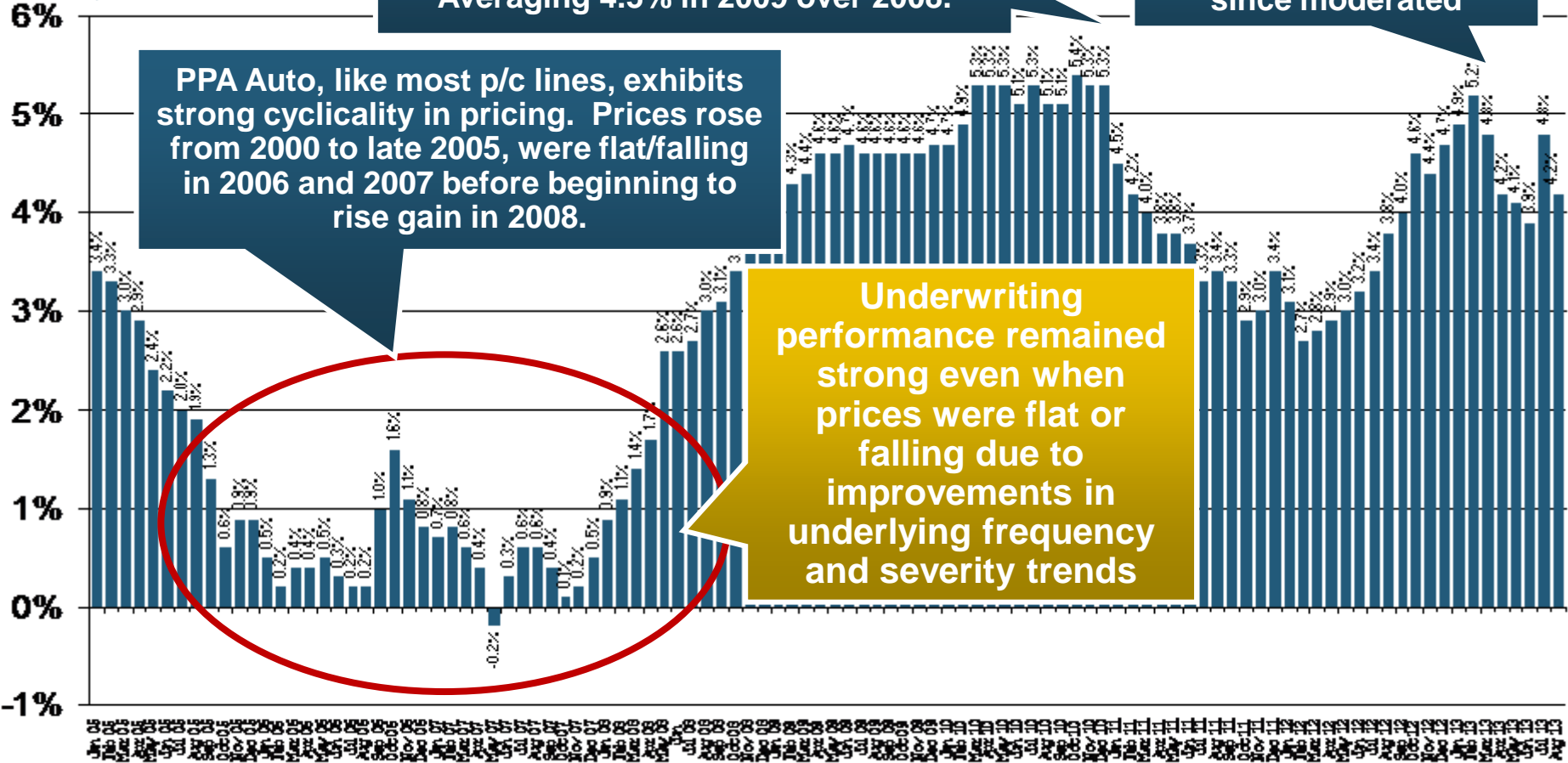
\*Percentage change from same month in prior year; through August 2013; seasonally adjusted

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics; National Bureau of Economic Research (recession dates); Insurance Information Institutes.

# Monthly Change\* in Auto Insurance Prices, January 2005 - August 2013

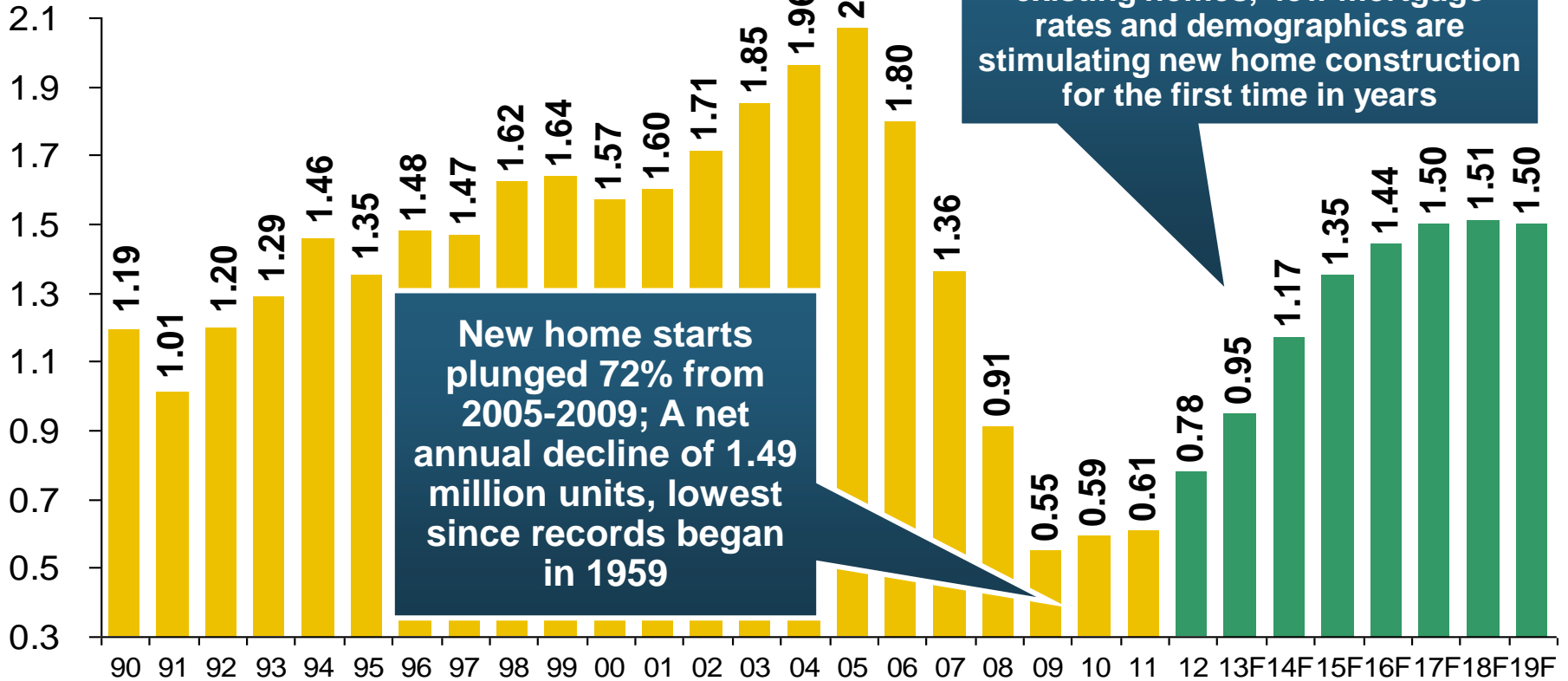
(Percent Change from same month, prior year)



\*Percentage change from same month in prior year, seasonally adjusted.  
Sources: US Bureau of Labor Statistics; Insurance Information Institute

# New Private Housing Starts, 1990-2019F

(Millions of Units)



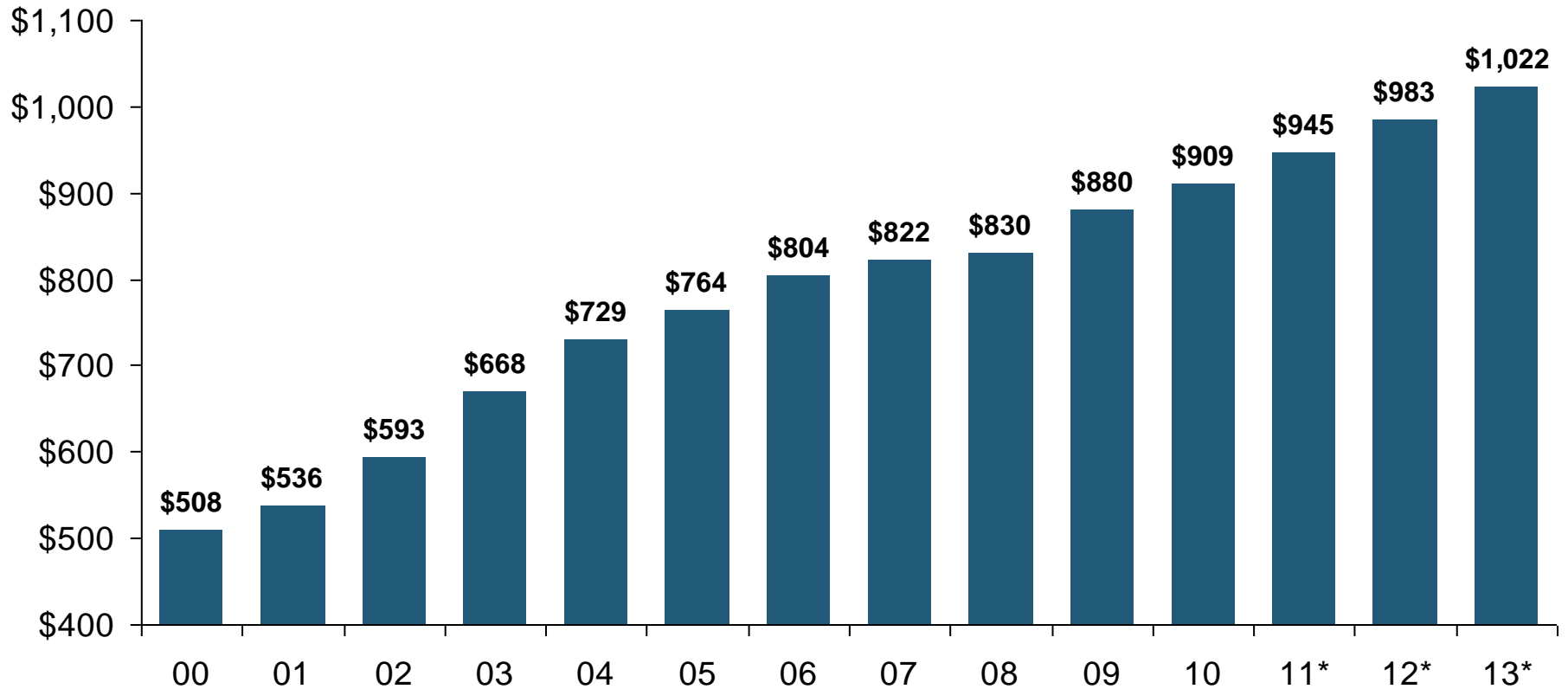
Job growth, low inventories of existing homes, low mortgage rates and demographics are stimulating new home construction for the first time in years

New home starts plunged 72% from 2005-2009; A net annual decline of 1.49 million units, lowest since records began in 1959

**Insurers Are Starting to See Meaningful Exposure Growth for the First Time Since 2005 Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of Workers Comp Exposure**

Source: U.S. Department of Commerce; Blue Chip Economic Indicators (9/13 and 3/13); Insurance Information Institute.

# Average Premium for Home Insurance Policies\*\*



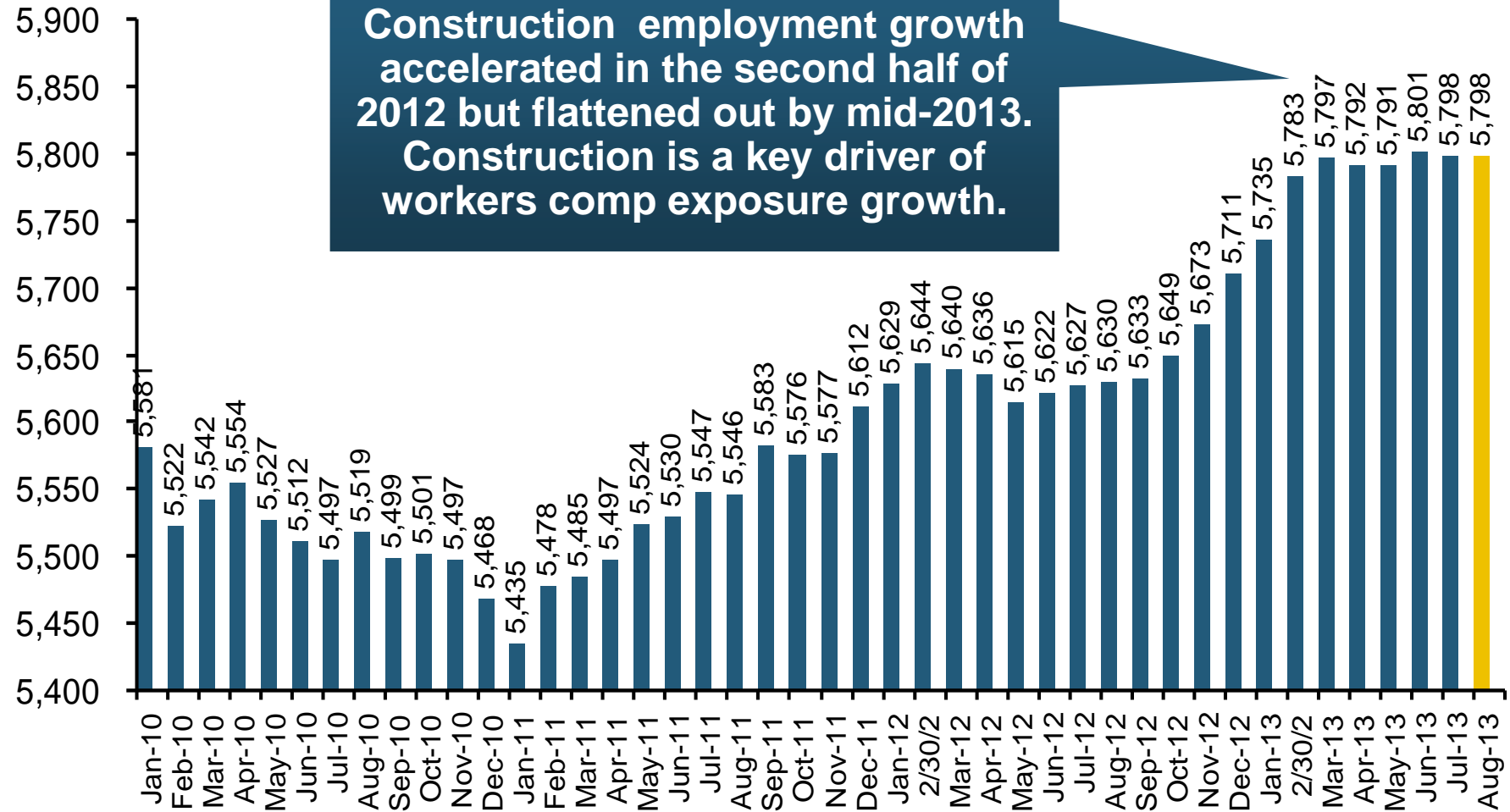
**Countrywide Home Insurance Expenditures Increased by an Estimated 4.0% in 2011-2013**

\* Insurance Information Institute Estimates/Forecasts \*\*Excludes state-run insurers.

Source: NAIC, Insurance Information Institute estimates for 2011-2013 based on CPI data and other data.

# Construction Employment, Jan. 2010—August 2013\*

(Thousands)

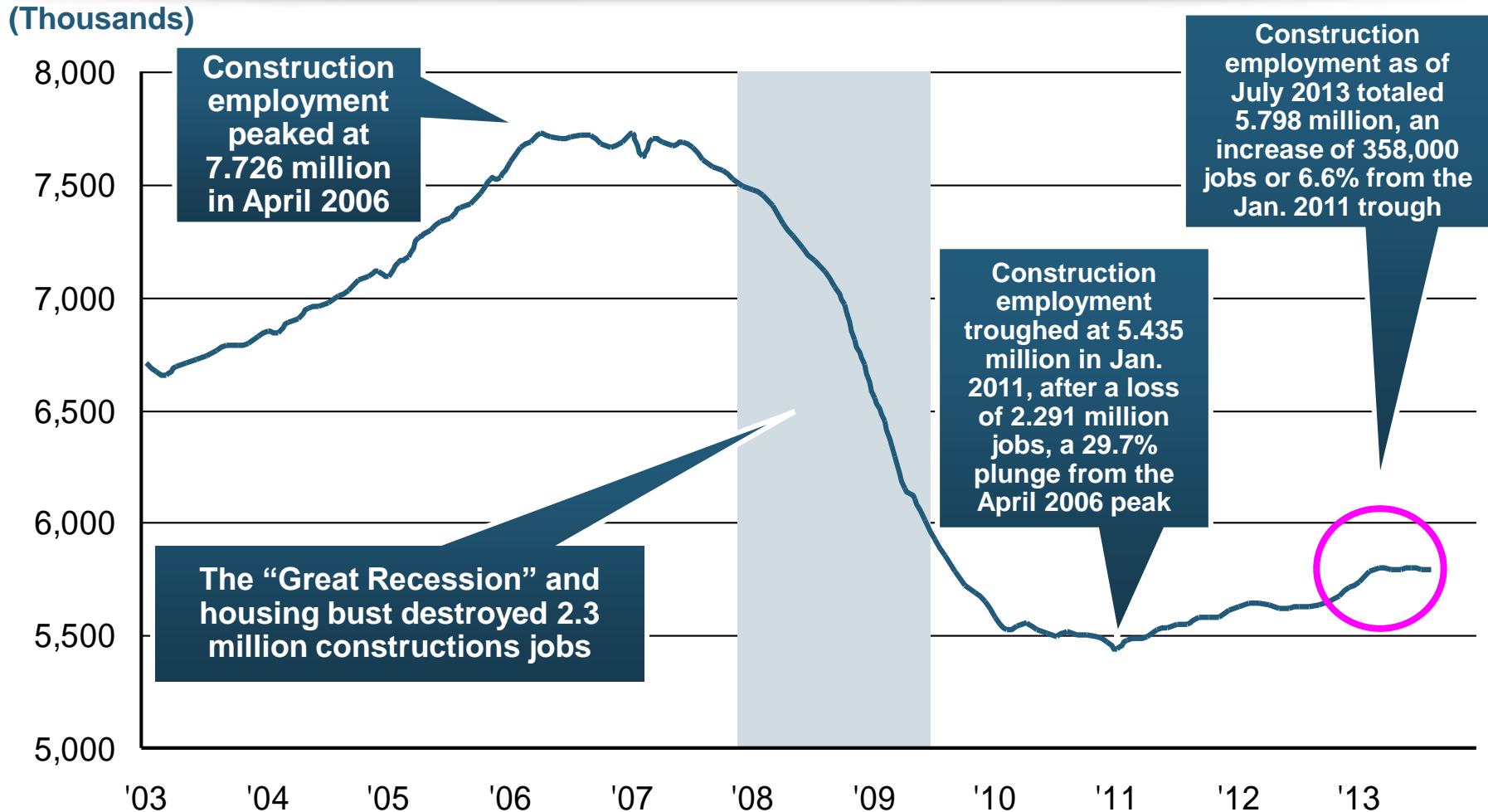


\*Seasonally adjusted

Sources: US Bureau of Labor Statistics at <http://data.bls.gov>; Insurance Information Institute.



# Construction Employment, Jan. 2003–August 2013

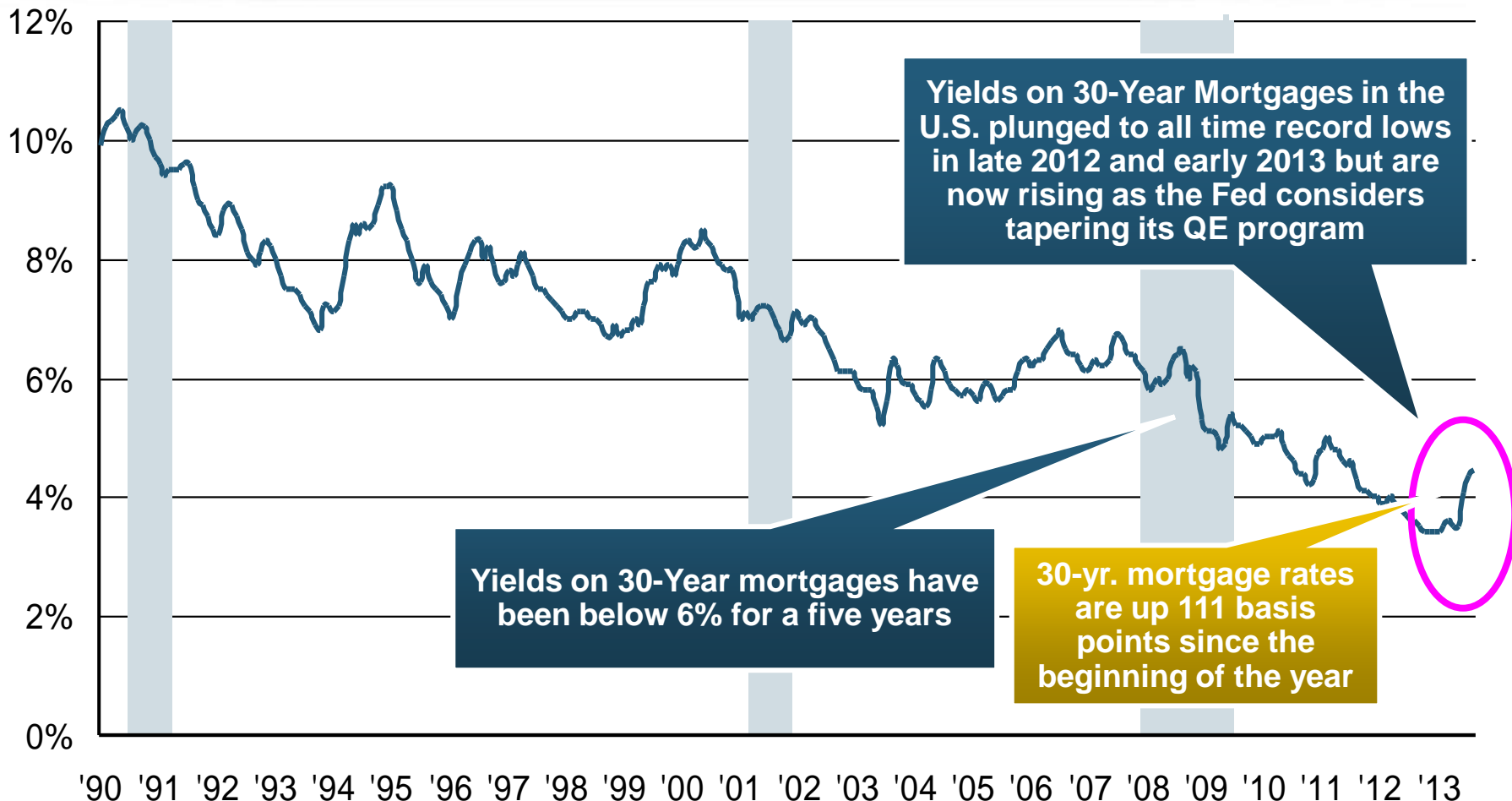


**The Construction Sector Could Be a Growth Leader in 2013 and 2014 as the Housing Market and Private Investment Recover. WC Insurers Will Benefit.**

Note: Recession indicated by gray shaded column.

Sources: U.S. Bureau of Labor Statistics; Insurance Information Institute.

# Interest Rate on Convention 30-Year Mortgages: Headed Back Up, 1990–2013\*



**Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.**

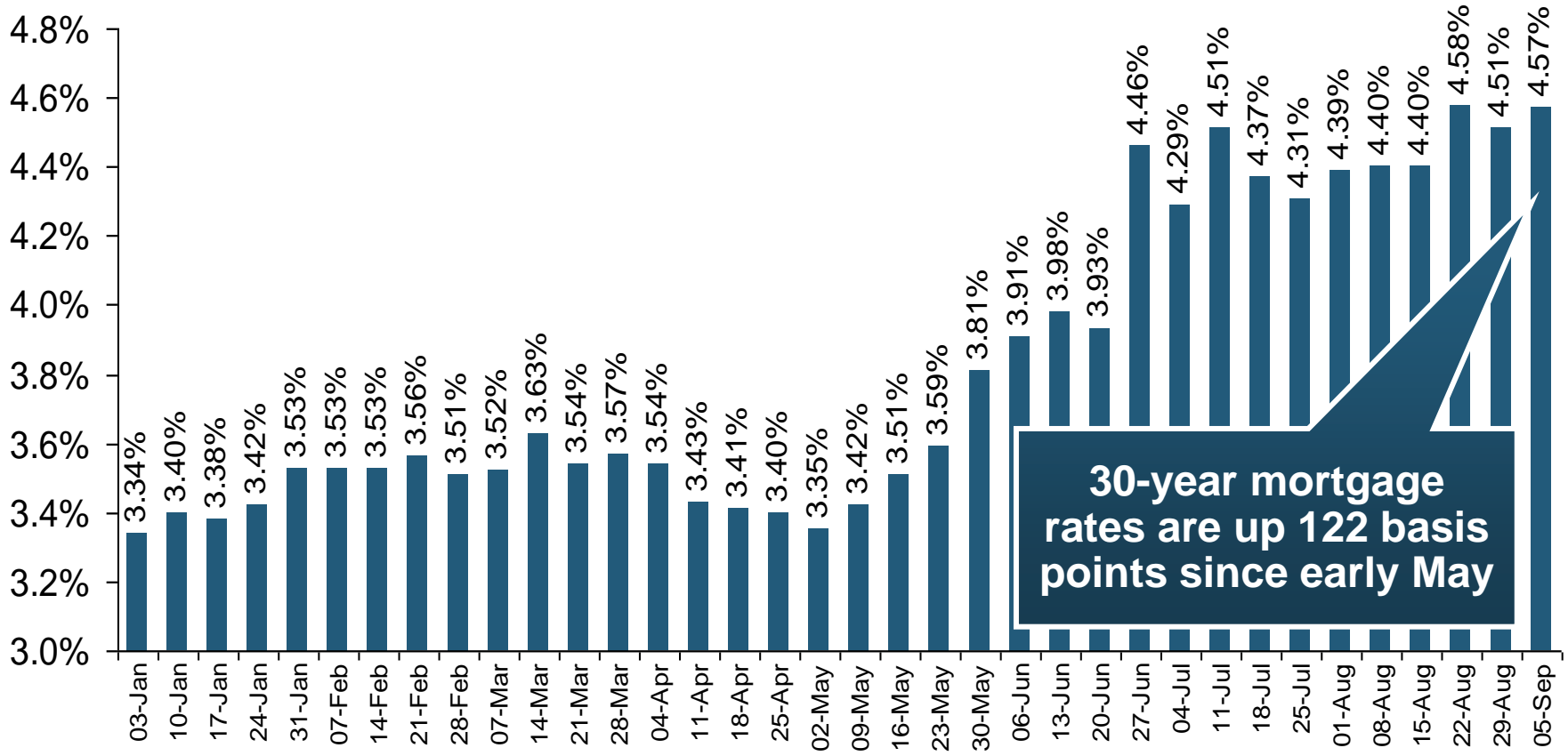
\*Monthly, through August 2013.

Note: Recessions indicated by gray shaded columns.

Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>.

National Bureau of Economic Research (recession dates); Insurance Information Institutes.

# 30-Year Mortgages in 2013 Are Rising: What Will Be the Impact on Construction?



**30-year mortgage rates are up 122 basis points since early May**

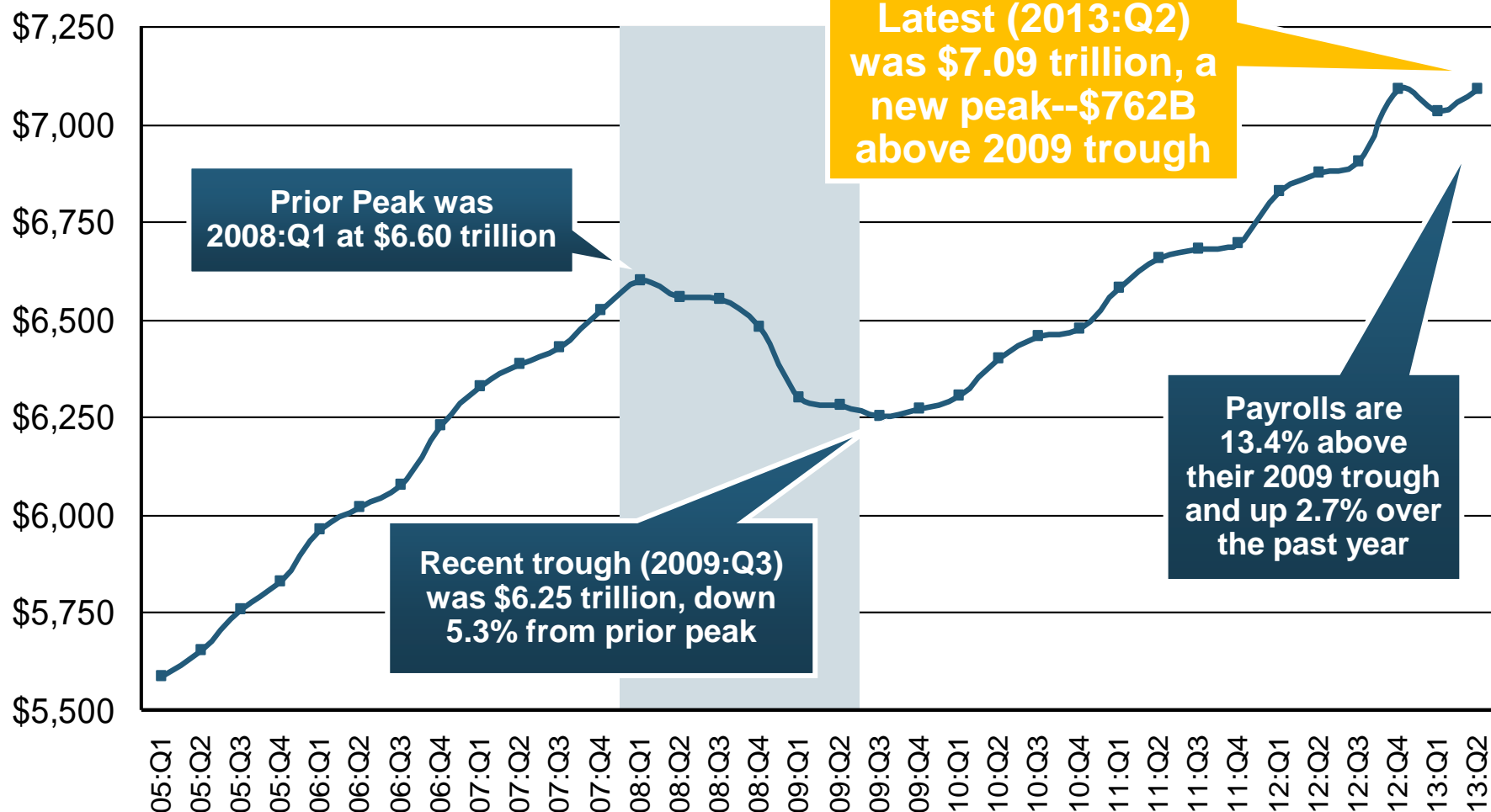
**Mortgage Interest Rates Will Rise as Expectations Over the Fed's Tapering of QE3 Persist; Still Low by Historical Standards**

\*Weekly through September 5, 2013.

Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>; Insurance Information Institutes.

# Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2013:Q2

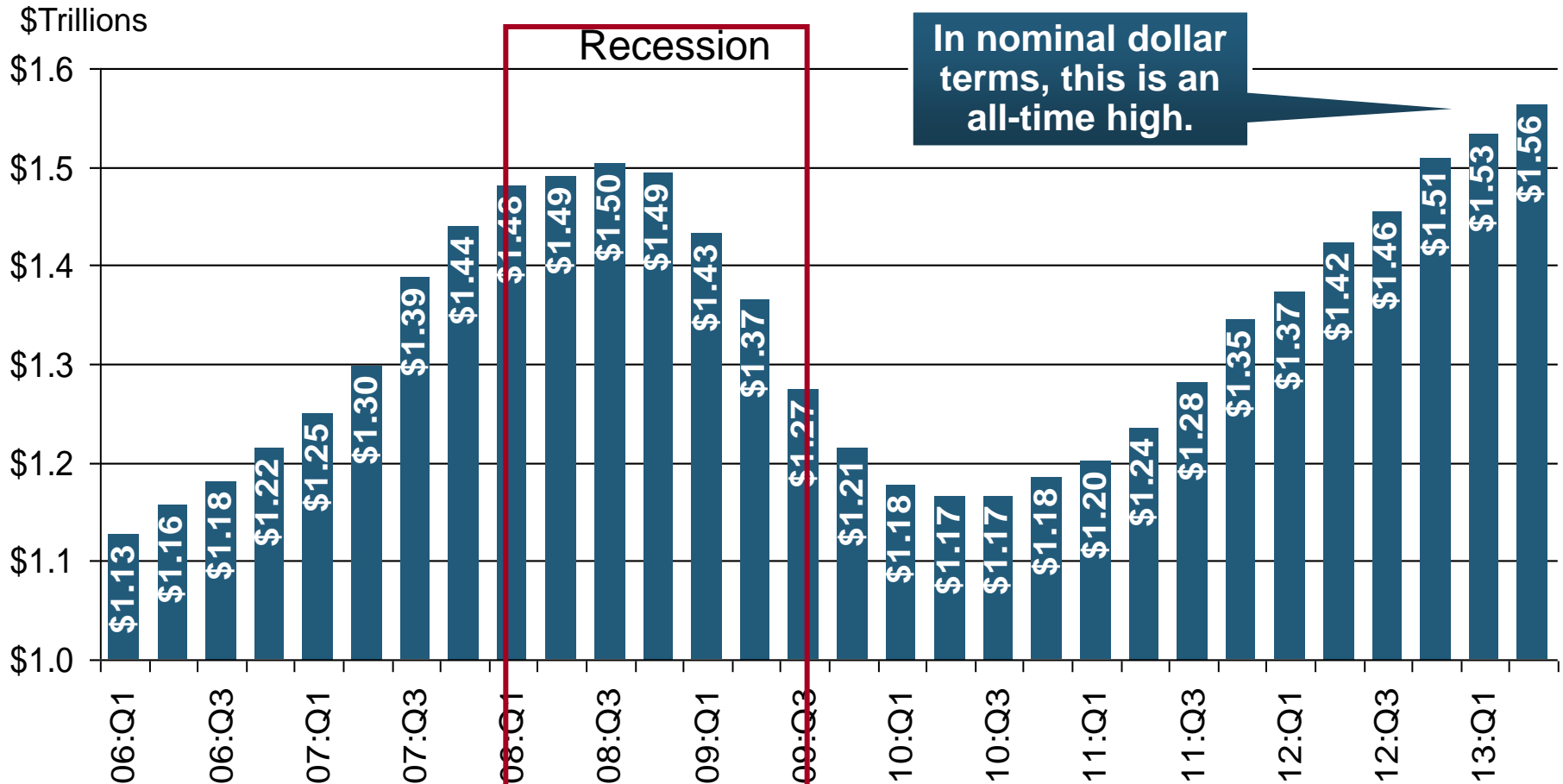
Billions



Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

Sources: <http://research.stlouisfed.org/fred2/series/WASCUR>; National Bureau of Economic Research (recession dates); Insurance Information Institute.

# Commercial & Industrial Loans Outstanding at FDIC-Insured Banks, Quarterly, 2006-2013\*

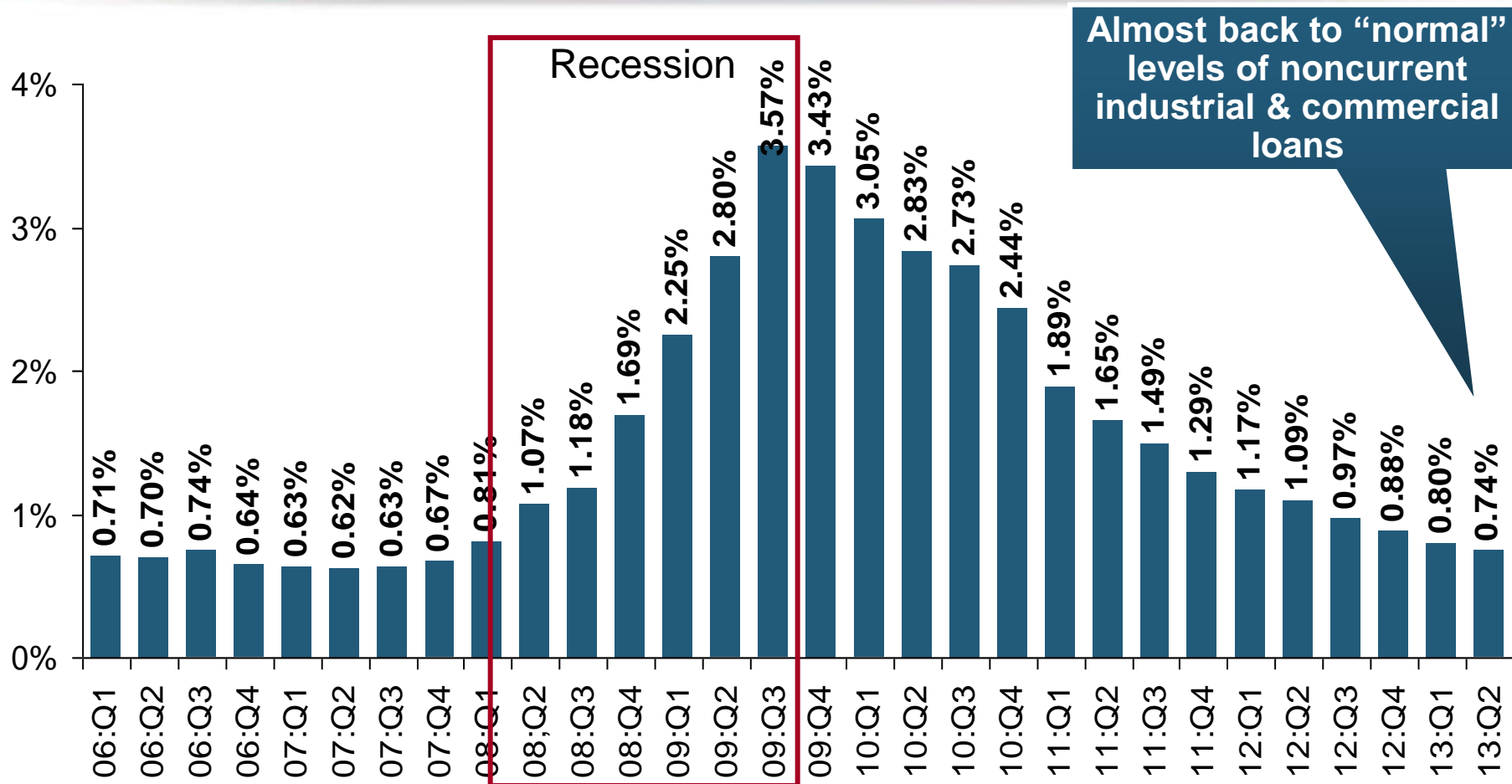


**Outstanding loan volume has been growing for over two years and (as of year-end 2012) surpassed previous peak levels.**

\*Latest data as of 9/8/2013.

Source: FDIC at <http://www2.fdic.gov/qbp/> (Loan Performance spreadsheet); Insurance Information Institute.

# Percent of Non-Current Commercial & Industrial Loans Outstanding at FDIC-Insured Banks, Quarterly, 2006-2013:Q2\*



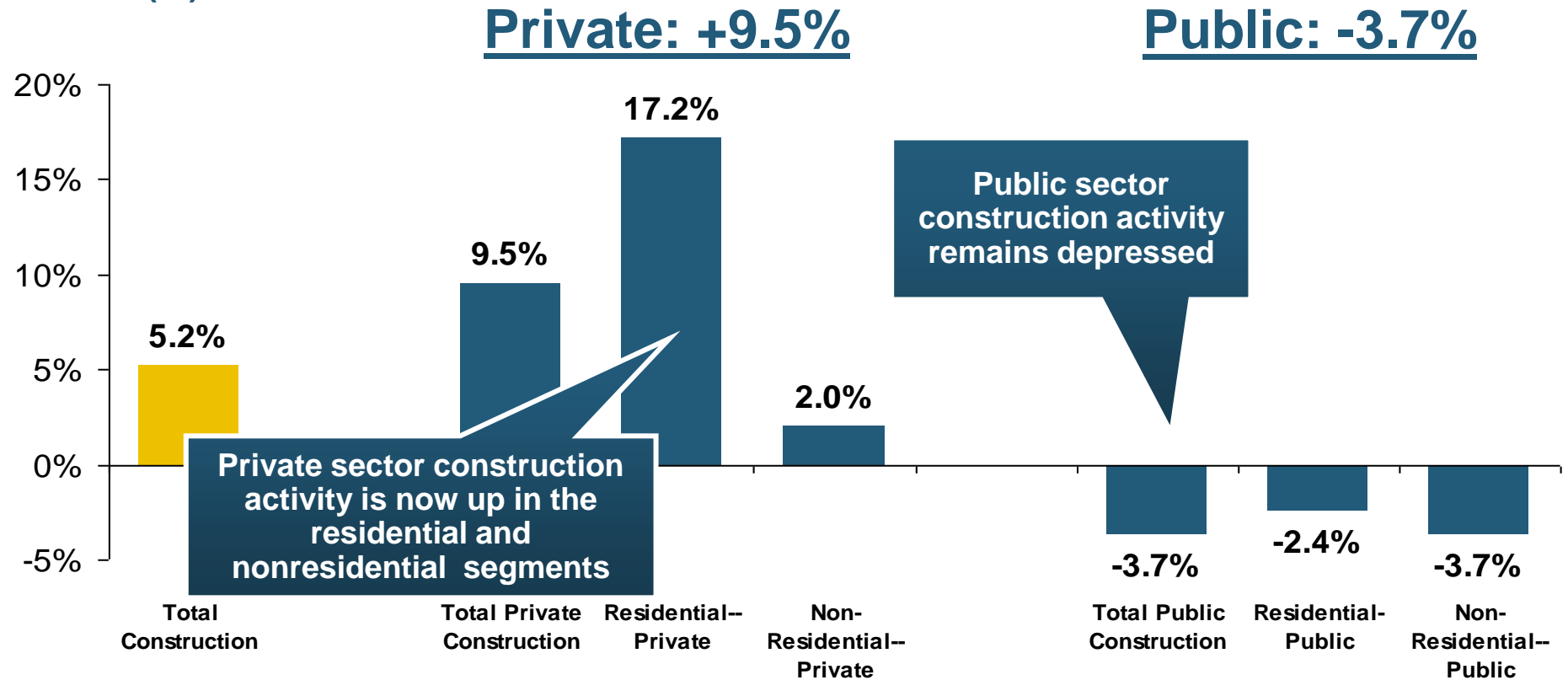
**Non-current loans (those past due 90 days or more or in nonaccrual status) are nearly back to early-recession levels, fueling bank willingness to lend.**

\*Latest data as of 9/8/2013.

Source: FDIC at <http://www2.fdic.gov/qbp/> (Loan Performance spreadsheet); Insurance Information Institute.

# Value of Construction Put in Place, July 2013 vs. July 2012\*

Growth (%)



**Overall Construction Activity is Up, But Growth Is Entirely in the Private Sector as State/Local Government Budget Woes Continue**

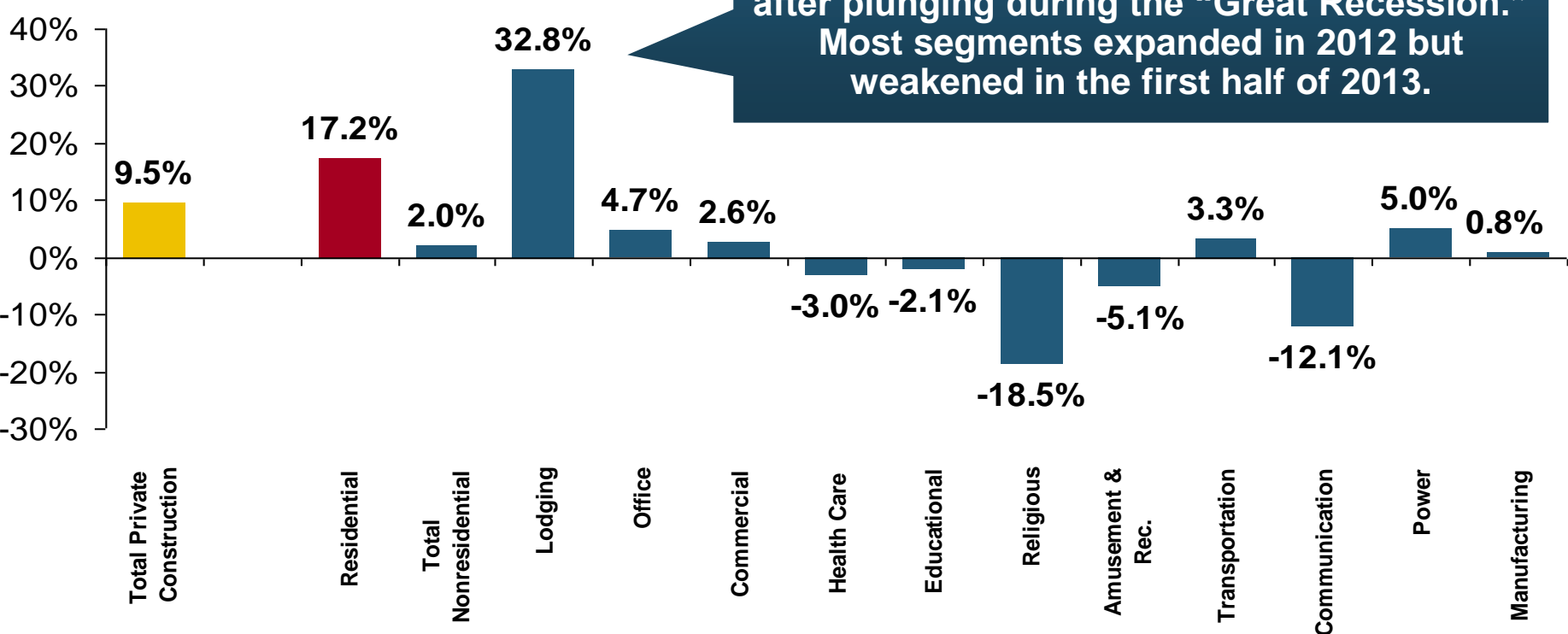
\*seasonally adjusted

Source: U.S. Census Bureau, <http://www.census.gov/construction/c30/c30index.html> ; Insurance Information Institute.

# Value of Private Construction Put in Place, by Segment, July 2013 vs. July 2012\*

Growth (%)

Led by the Residential Construction, Lodging, Power and Office segments, Private sector construction activity remains mixed after plunging during the “Great Recession.” Most segments expanded in 2012 but weakened in the first half of 2013.



**Private Construction Activity is Up in Some Segments, Including the Key Residential Construction Sector, But Weakened in the First Half of 2013**

\*seasonally adjusted

Source: U.S. Census Bureau, <http://www.census.gov/construction/c30/c30index.html> ; Insurance Information Institute.

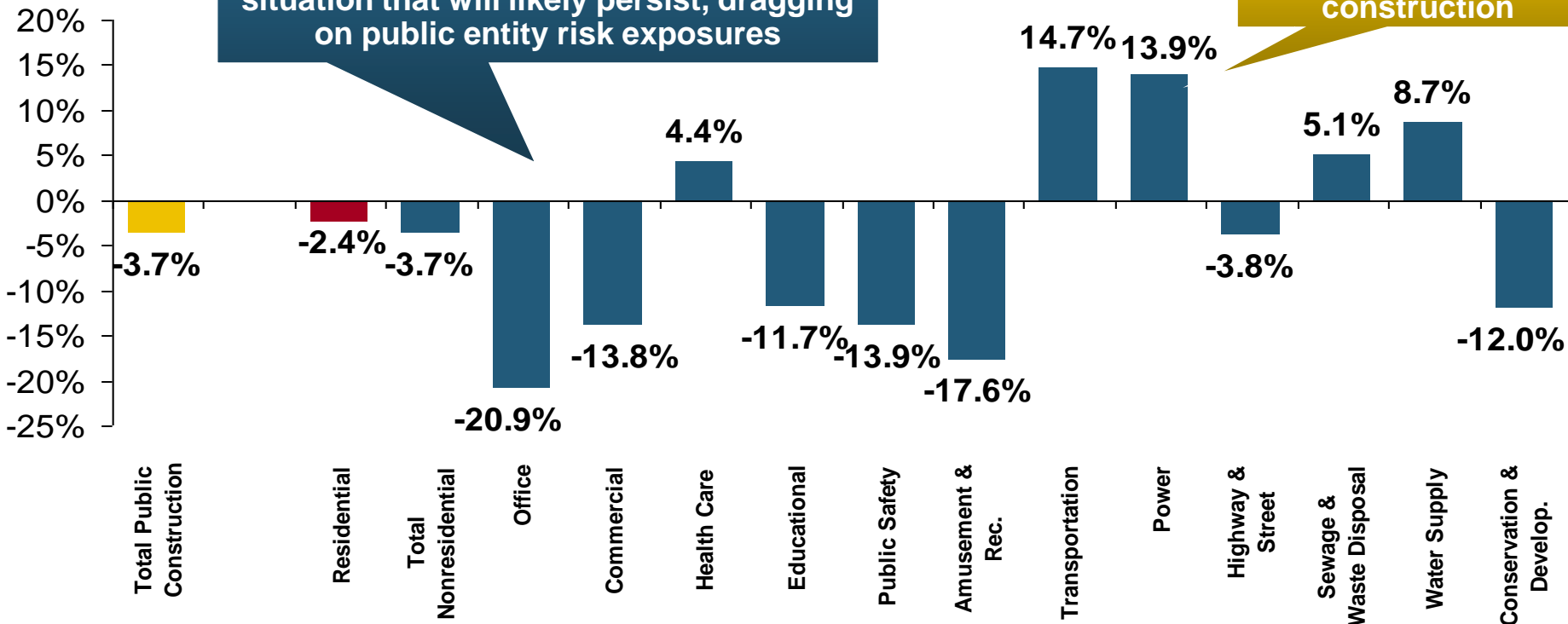


# Value of Public Construction Put in Place, by Segment, July 2013 vs. July 2012\*

Growth (%)

Public sector construction activity is down substantially in most segments, a situation that will likely persist, dragging on public entity risk exposures

Transportation and Power projects lead public sector construction



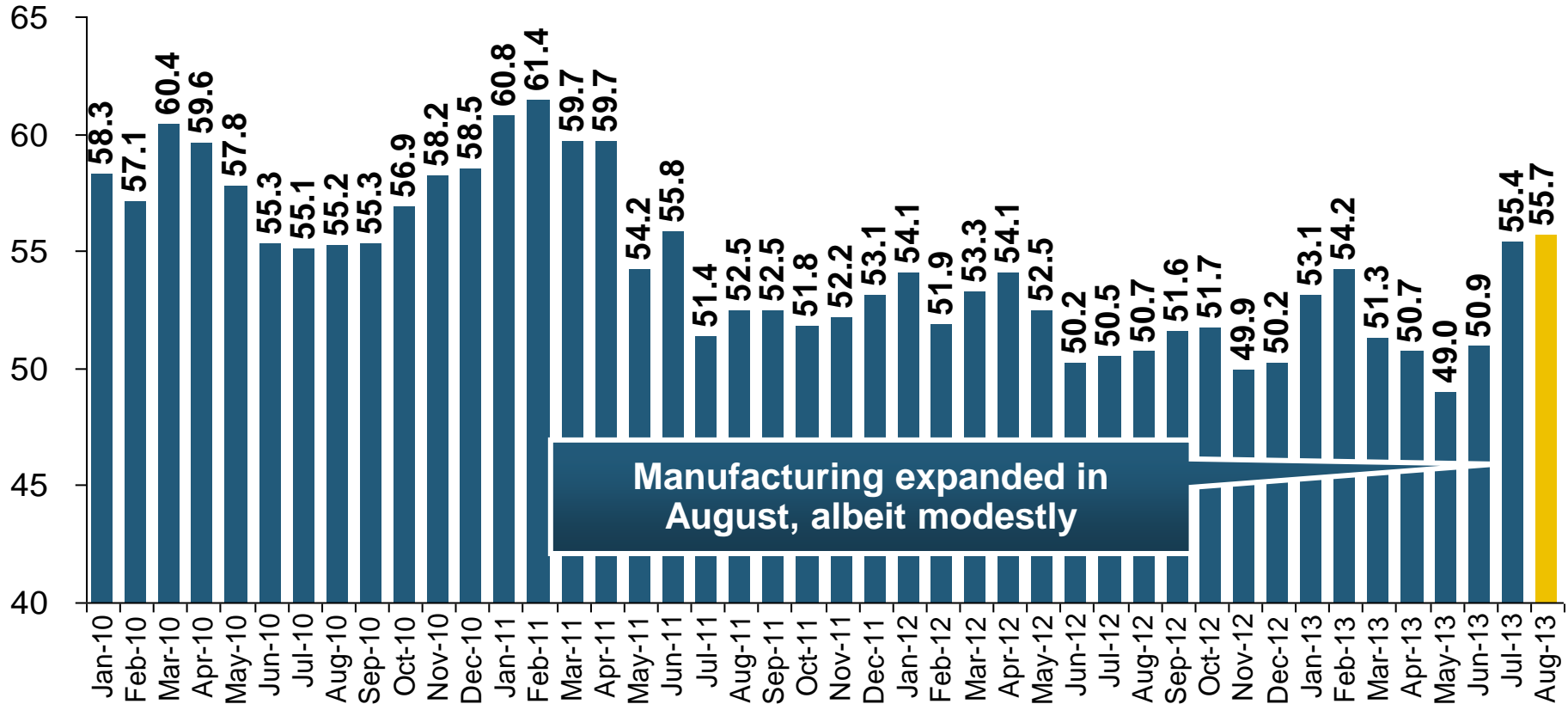
**Public Construction Activity is Down in Many Segments as State and Local Budgets Remain Under Stress; Improvement Possible in 2014.**

\*seasonally adjusted

Source: U.S. Census Bureau, <http://www.census.gov/construction/c30/c30index.html> ; Insurance Information Institute.

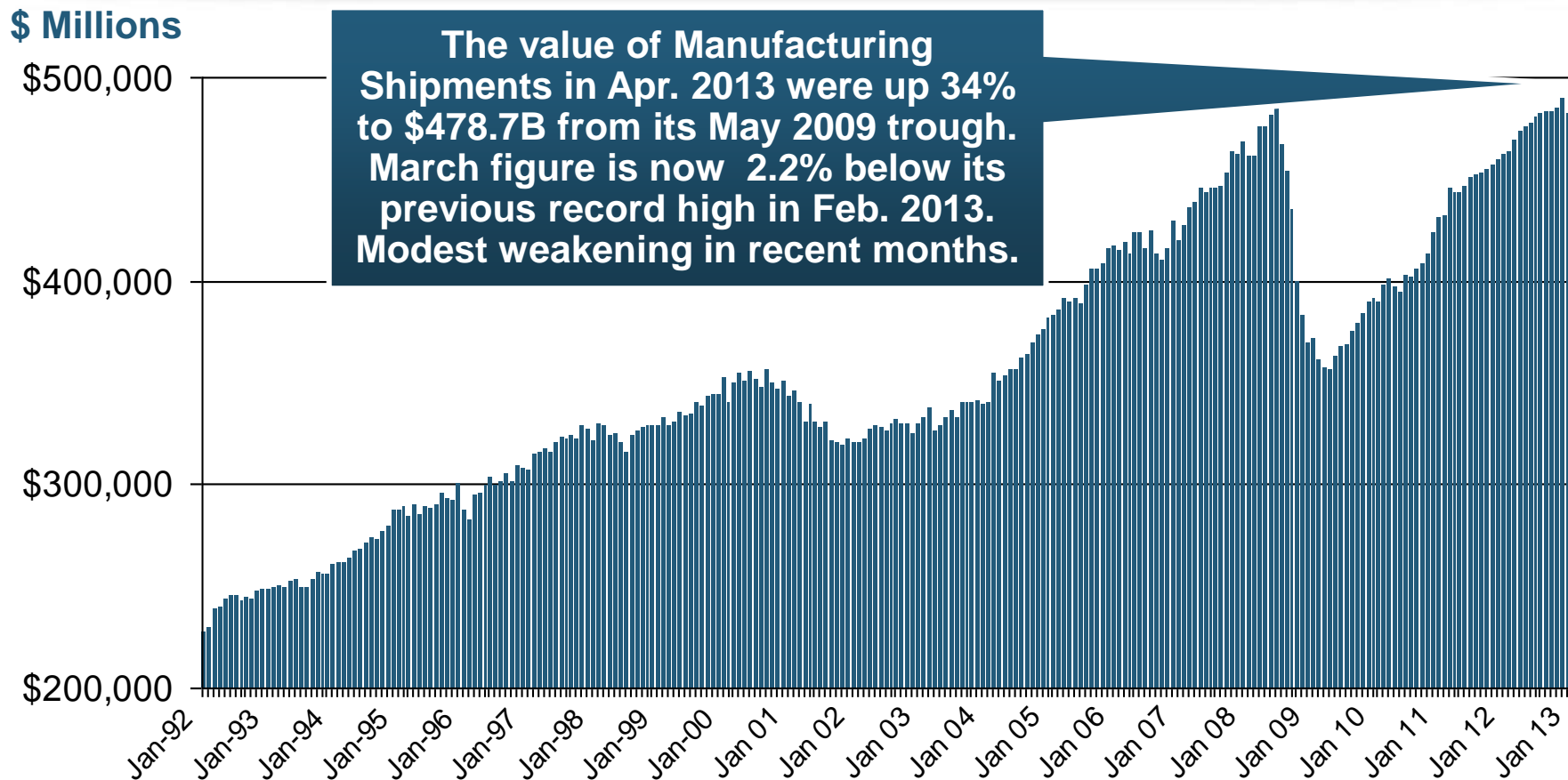
# ISM Manufacturing Index (Values > 50 Indicate Expansion)

January 2010 through August 2013



The manufacturing sector expanded for 42 of the 44 months from Jan. 2010 through June 2013. Recent weakness stems largely from woes in Europe and a Slowdown in China.

# Dollar Value\* of Manufacturers' Shipments Monthly, Jan. 1992—Apr. 2013



**Monthly shipments in Feb. 2013 exceeded their pre-crisis (July 2008) peak. Trough in May 2009. Growth from trough to Apr. 2013 was 34%. Manufacturing is an energy intensive activity and growth leads to gains in many commercial exposures: WC, Commercial Auto, Marine, Property and Various Liability Coverages**

\*seasonally adjusted

Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders*, <http://www.census.gov/manufacturing/m3/>

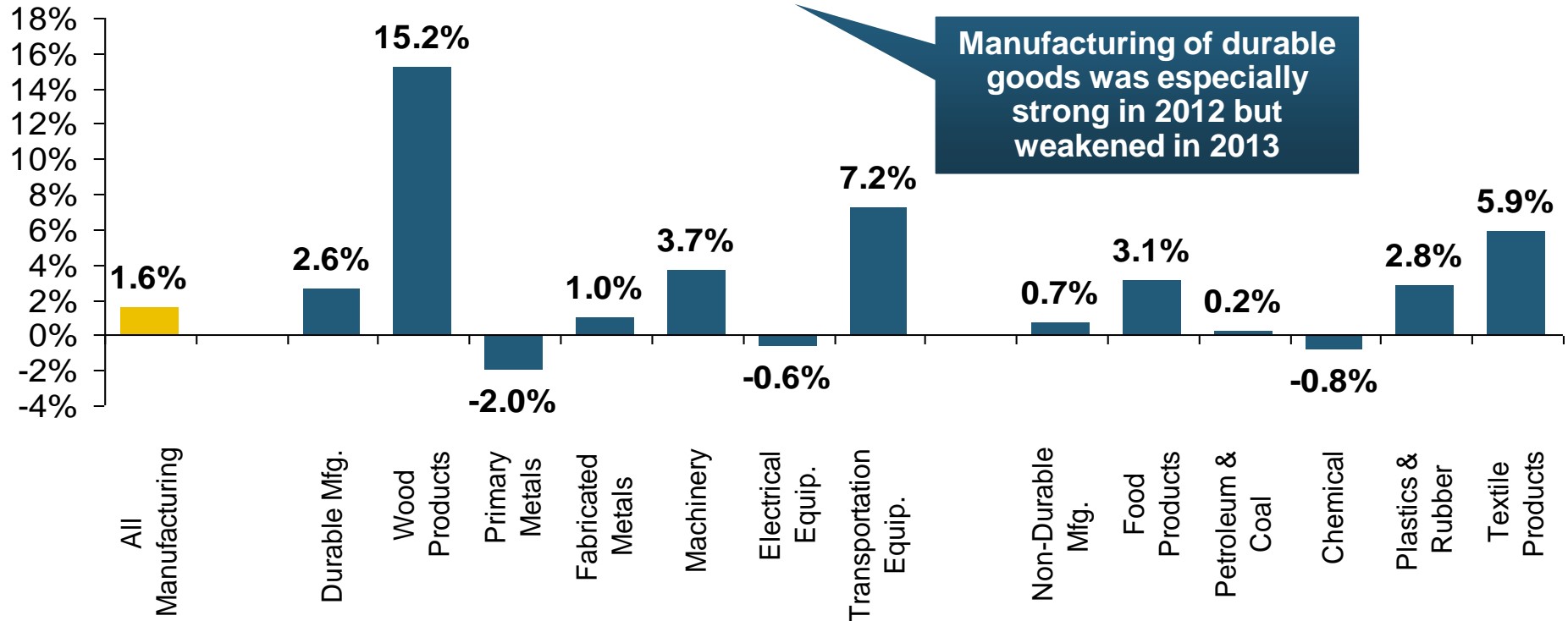
# Manufacturing Growth for Selected Sectors, 2013 vs. 2013\*

Growth (%)

**Durables: +2.6%**

**Non-Durables: +0.7%**

Manufacturing of durable goods was especially strong in 2012 but weakened in 2013



**Manufacturing Is Expanding—Albeit More Slowly—Across a Number of Sectors that Will Contribute to Growth in Insurable Exposures Including: WC, Commercial Property, Commercial Auto and Many Liability Coverages**

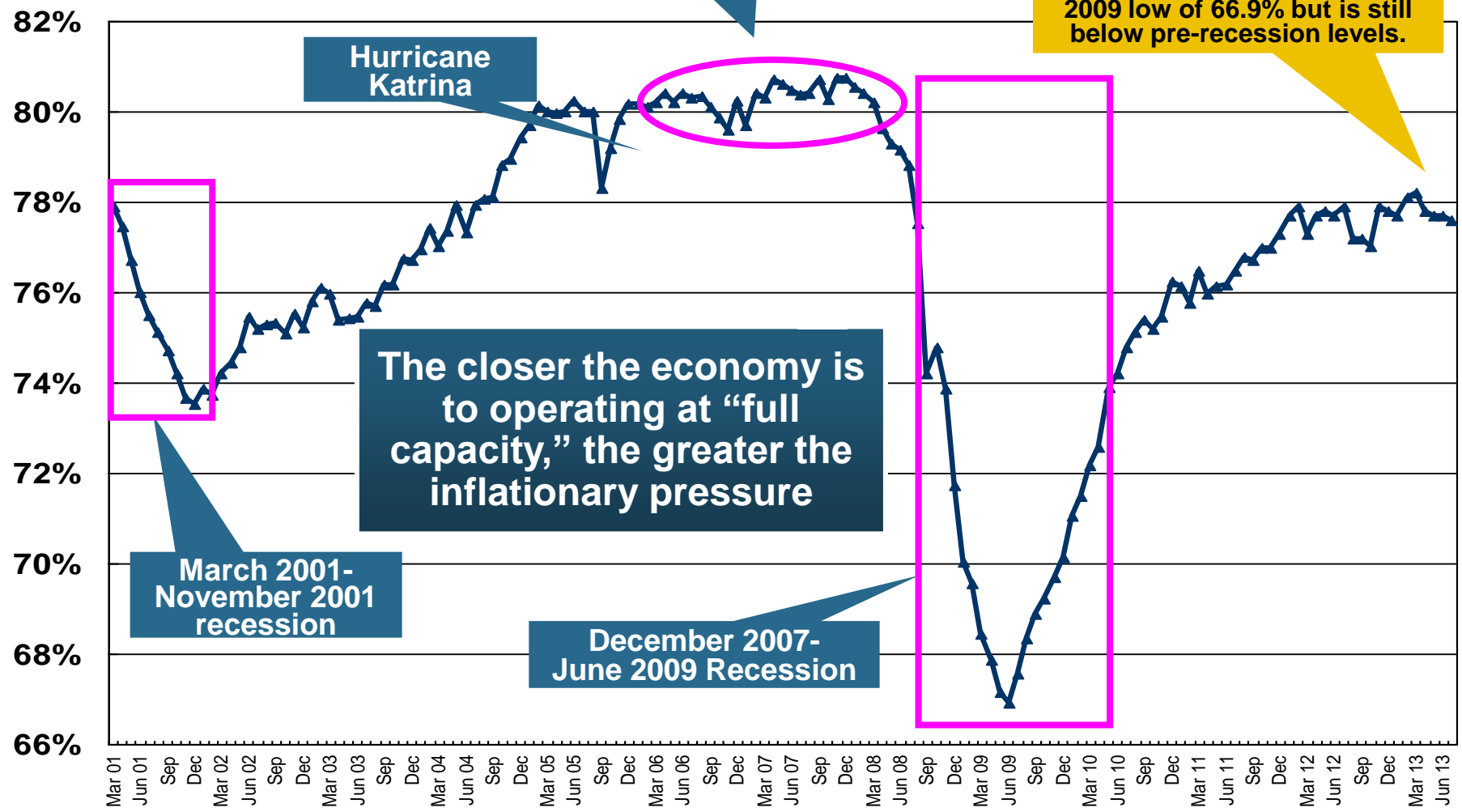
\*Seasonally adjusted; Date are YTD comparing data through July 2013 to the same period in 2012.

Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders*, <http://www.census.gov/manufacturing/m3/>

# Recovery in Capacity Utilization is a Positive Sign for Commercial Exposures

March 2001 through July 2013

Percent of Industrial Capacity

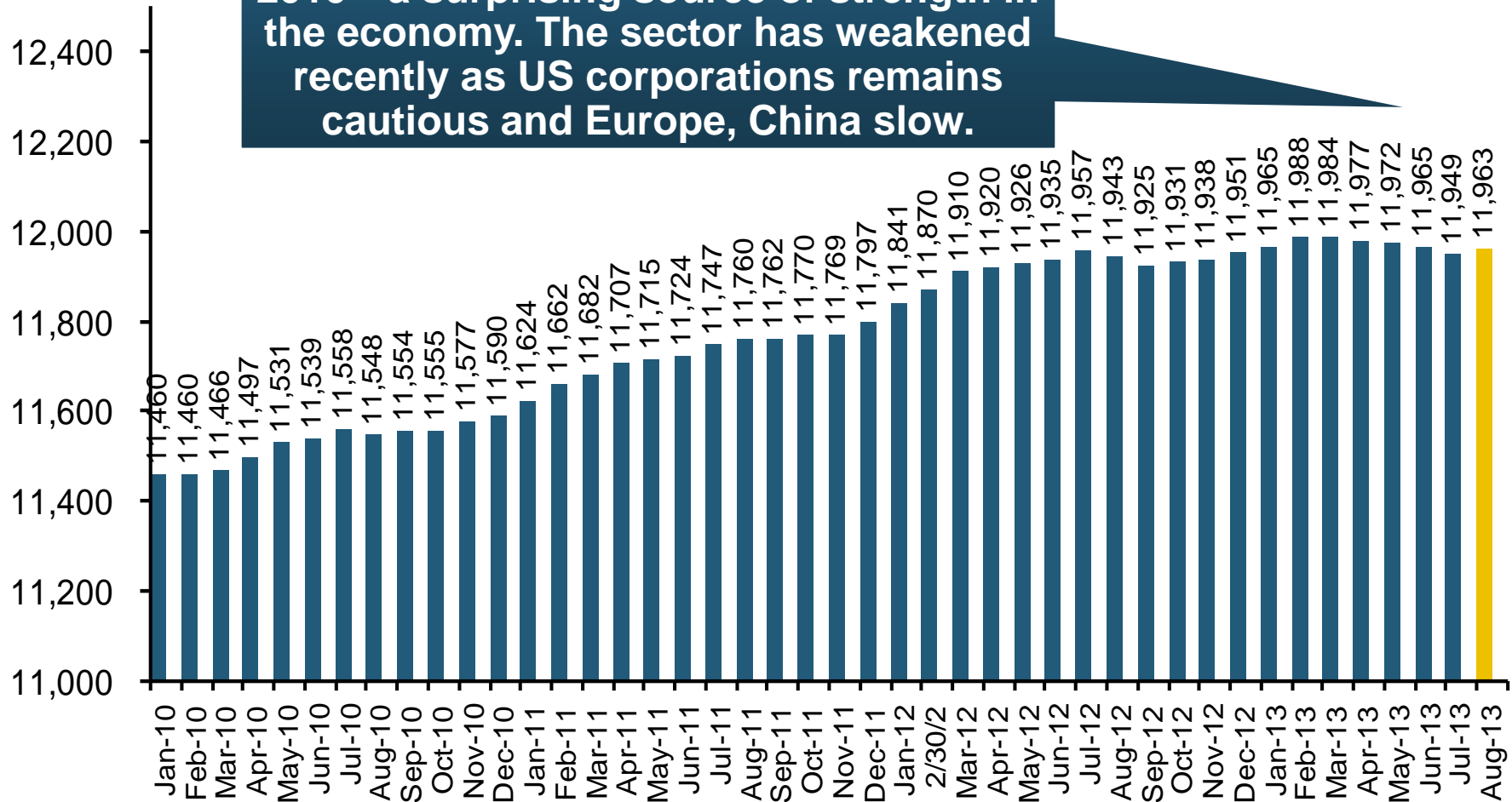


Source: Federal Reserve Board statistical releases at <http://www.federalreserve.gov/releases/q17/Current/default.htm>.

# Manufacturing Employment, Jan. 2010—August 2013\*

(Thousands)

Manufacturing employment is up by more than 500,000 or 4.4% since Jan. 2010—a surprising source of strength in the economy. The sector has weakened recently as US corporations remains cautious and Europe, China slow.

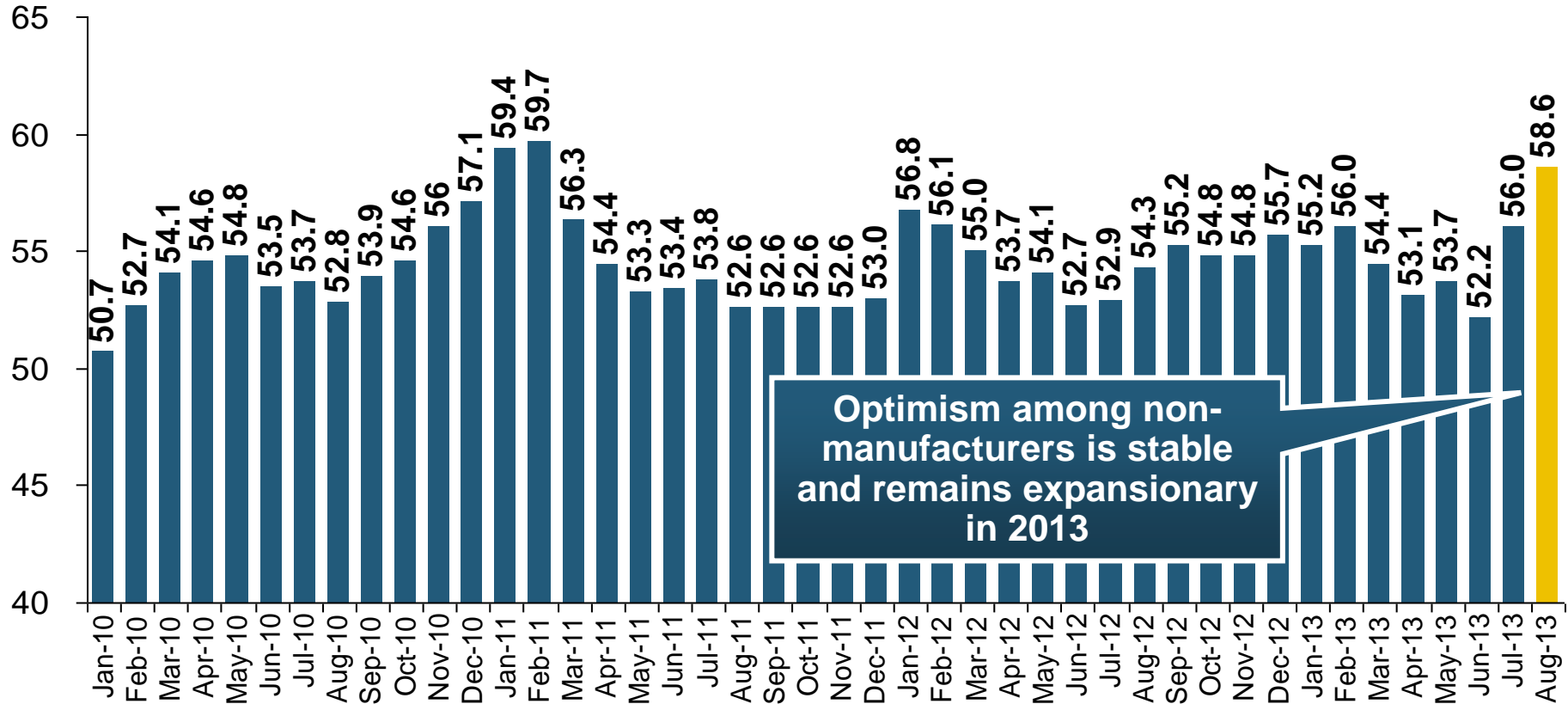


\*Seasonally adjusted

Sources: US Bureau of Labor Statistics at <http://data.bls.gov>; Insurance Information Institute.

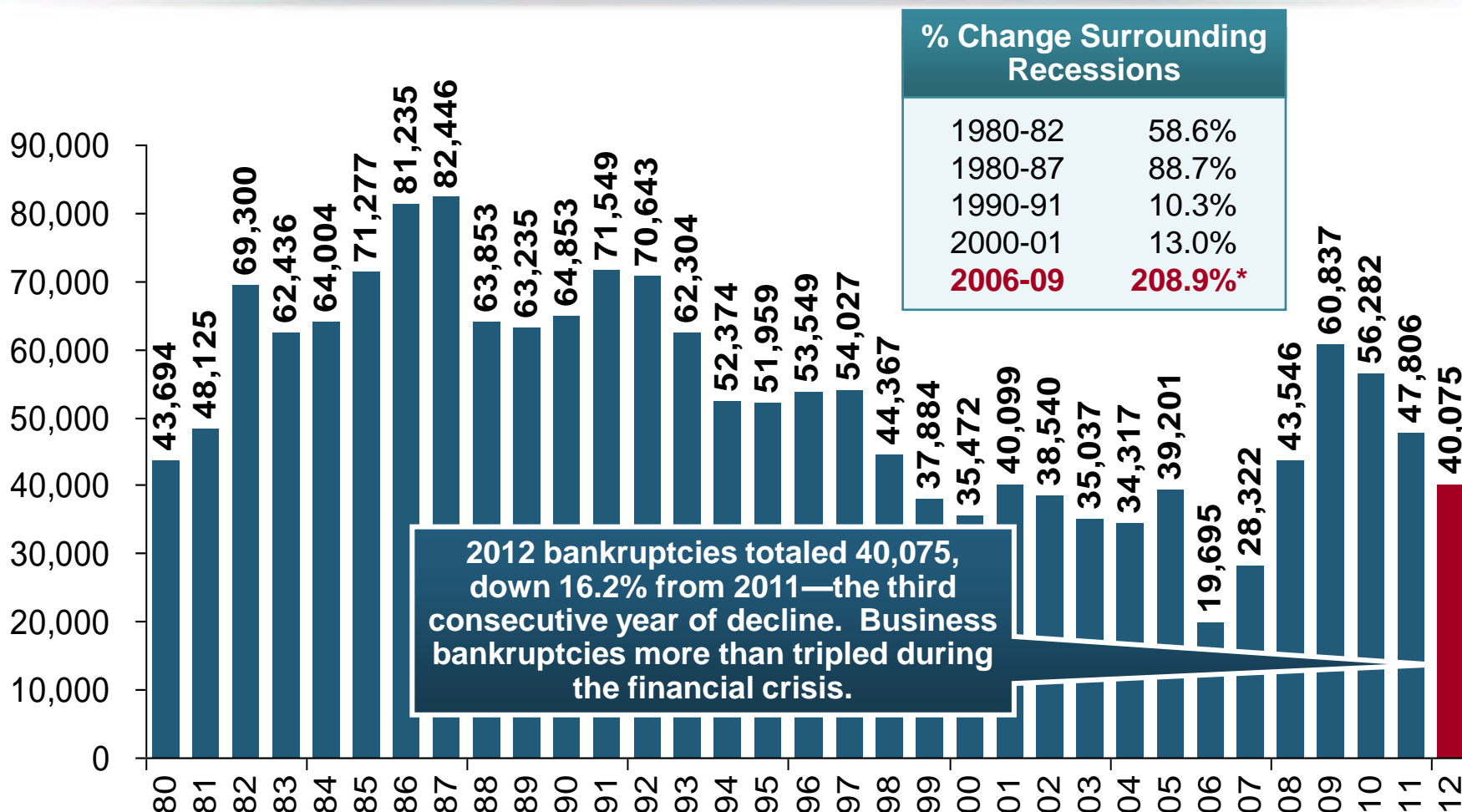
# ISM Non-Manufacturing Index (Values > 50 Indicate Expansion)

January 2010 through August 2013



**Non-manufacturing industries have been expanding and adding jobs. This trend is likely to continue into 2014.**

# Business Bankruptcy Filings, 1980-2012



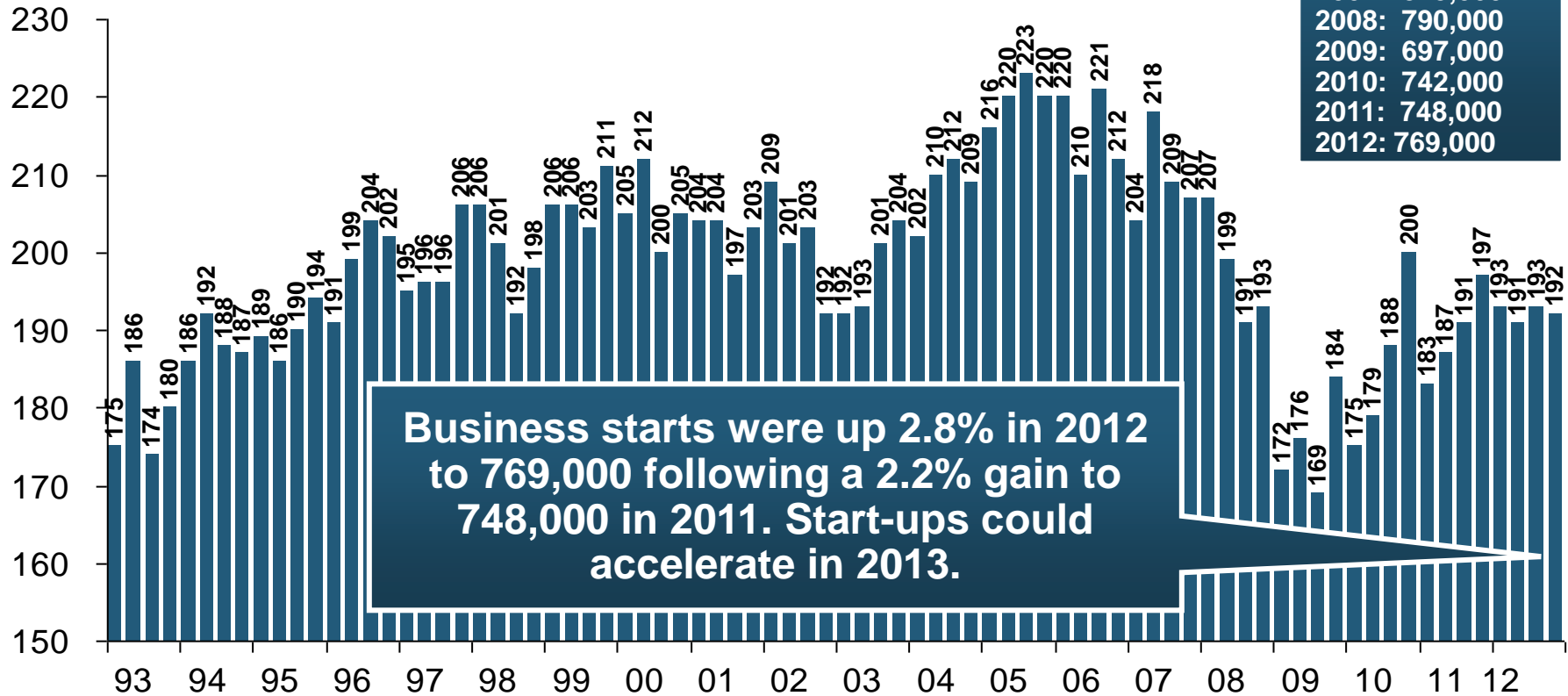
**Significant Exposure Implications for All Commercial Lines as Business Bankruptcies Begin to Decline**

Sources: American Bankruptcy Institute at <http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=61633>; Insurance Information Institute



# Private Sector Business Starts, 1993:Q2 – 2012:Q4\*

(Thousands)



Business Starts	
2006:	872,000
2007:	843,000
2008:	790,000
2009:	697,000
2010:	742,000
2011:	748,000
2012:	769,000

Business starts were up 2.8% in 2012 to 769,000 following a 2.2% gain to 748,000 in 2011. Start-ups could accelerate in 2013.

**Business Starts Were Down Nearly 20% in the Recession, Holding Back Most Types of Commercial Insurance Exposure, But Are Recovering Slowly**

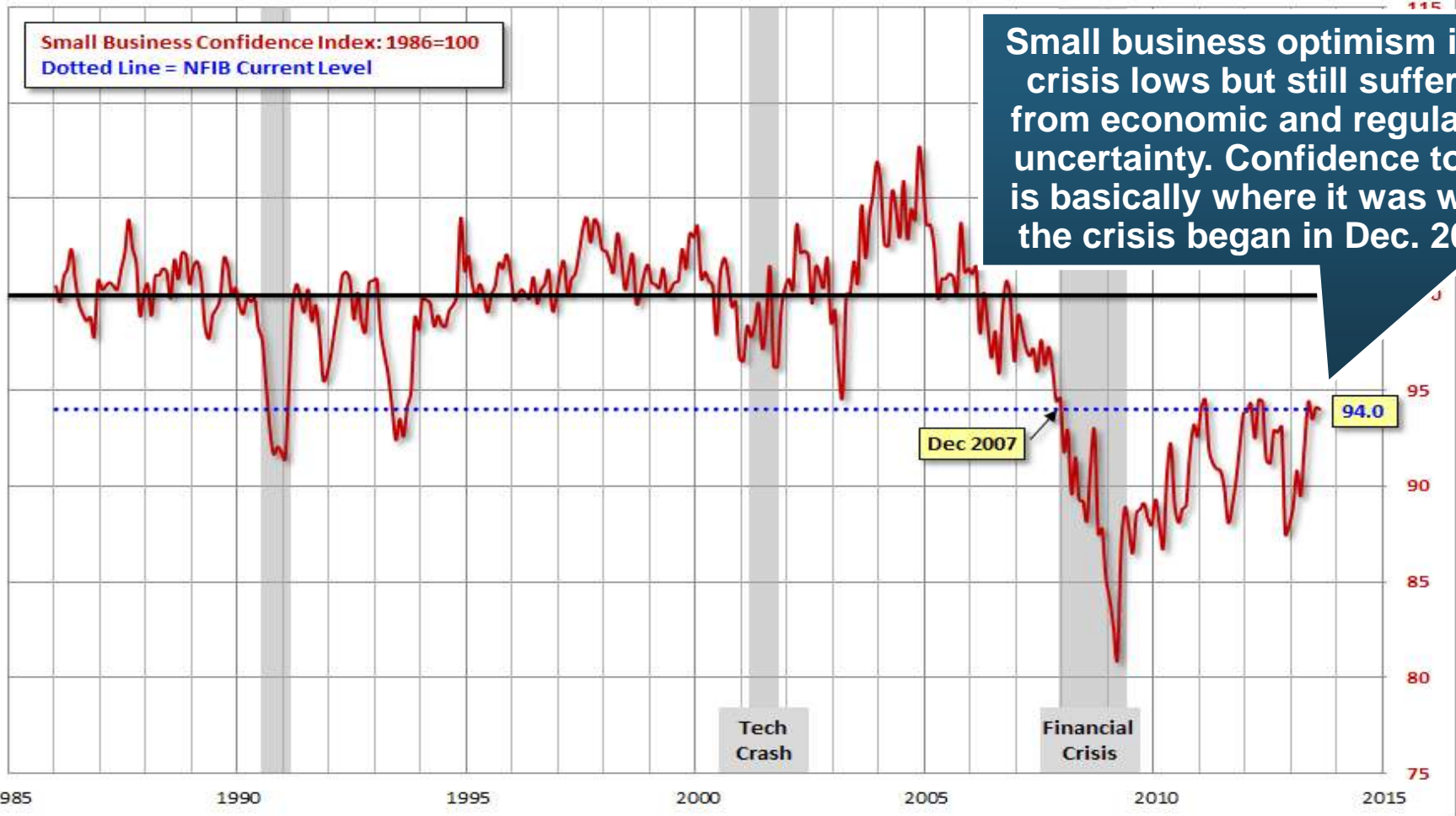
\* Data through Dec. 30, 2012 are the latest available as of Aug. 16, 2013; Seasonally adjusted.  
Source: Bureau of Labor Statistics, <http://www.bls.gov/news.release/cewbd.t08.htm>.

# NFIB Small Business Optimism Index

Data through  
August 2013

## NFIB Small Business Optimism Index with Recessions Highlighted

dshort.com  
September 2013



# 12 Industries for the Next 10 Years: Insurance Solutions Needed

Health Care

Health Sciences

Energy (Traditional)

Alternative Energy

Petrochemical

Agriculture

Natural Resources

Technology (incl. Biotechnology)

Light Manufacturing

Inourced Manufacturing

Export-Oriented Industries

Shipping (Rail, Marine, Trucking, Pipelines)



Many industries are poised for growth, though insurers' ability to capitalize on these industries varies widely

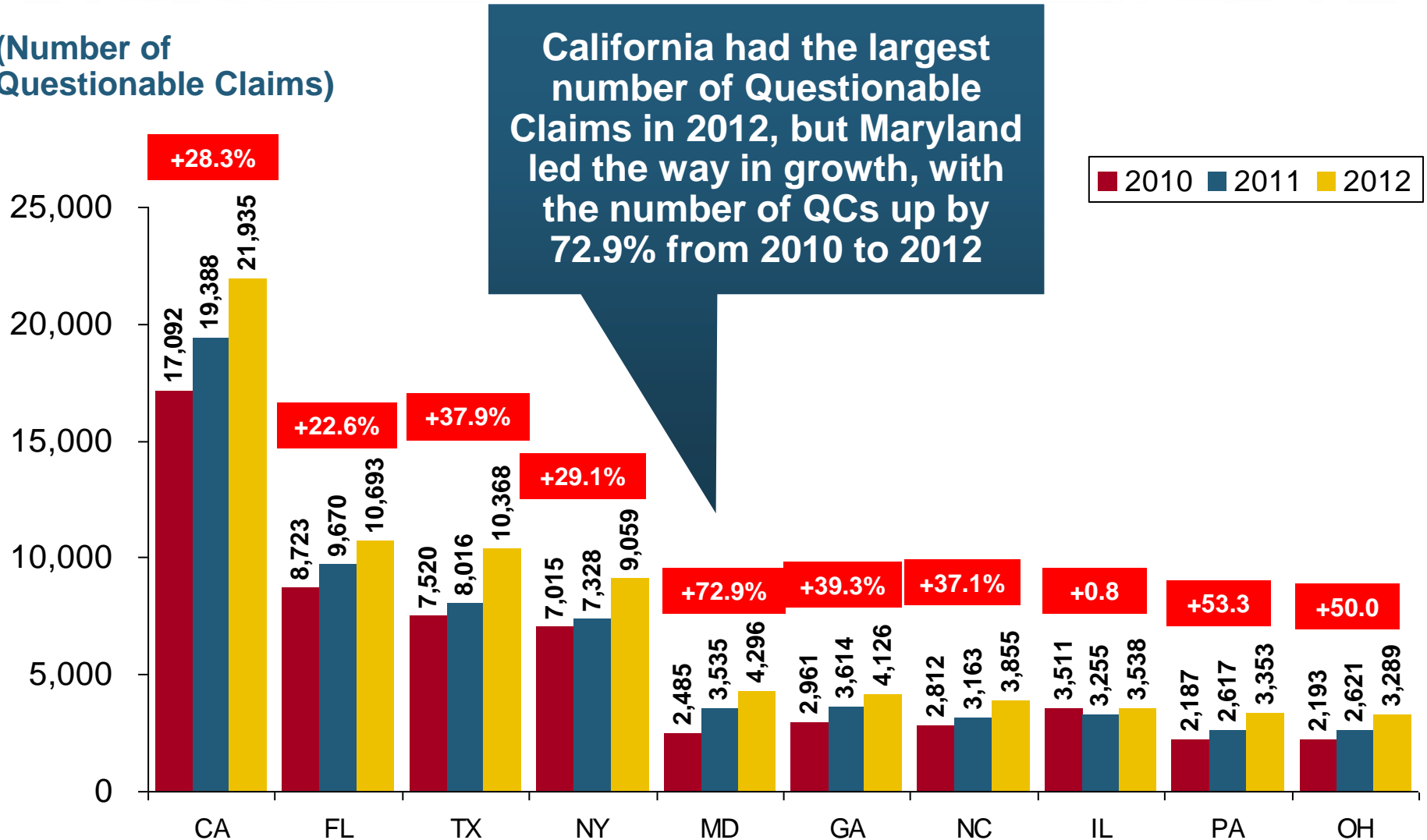


# Questionable Claims: On the Rise

**More Questionable Claims in  
Most State and Across Most  
Lines of Insurance**

# Questionable Claims, Top 10 Loss States, All Lines: 2010–2012

(Number of Questionable Claims)

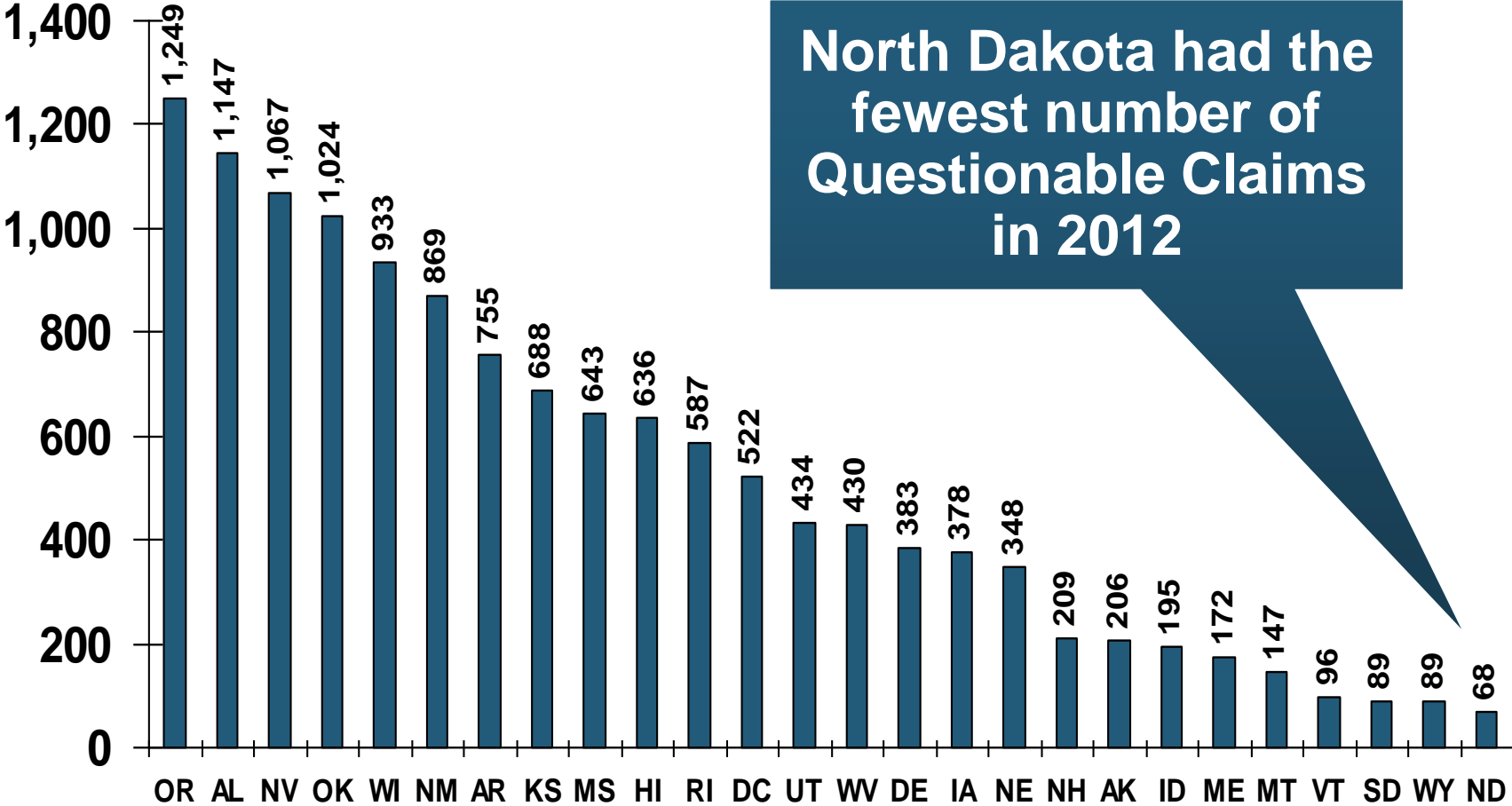


# Total Number of Questionable Claims by State, 2012: Highest 25 States



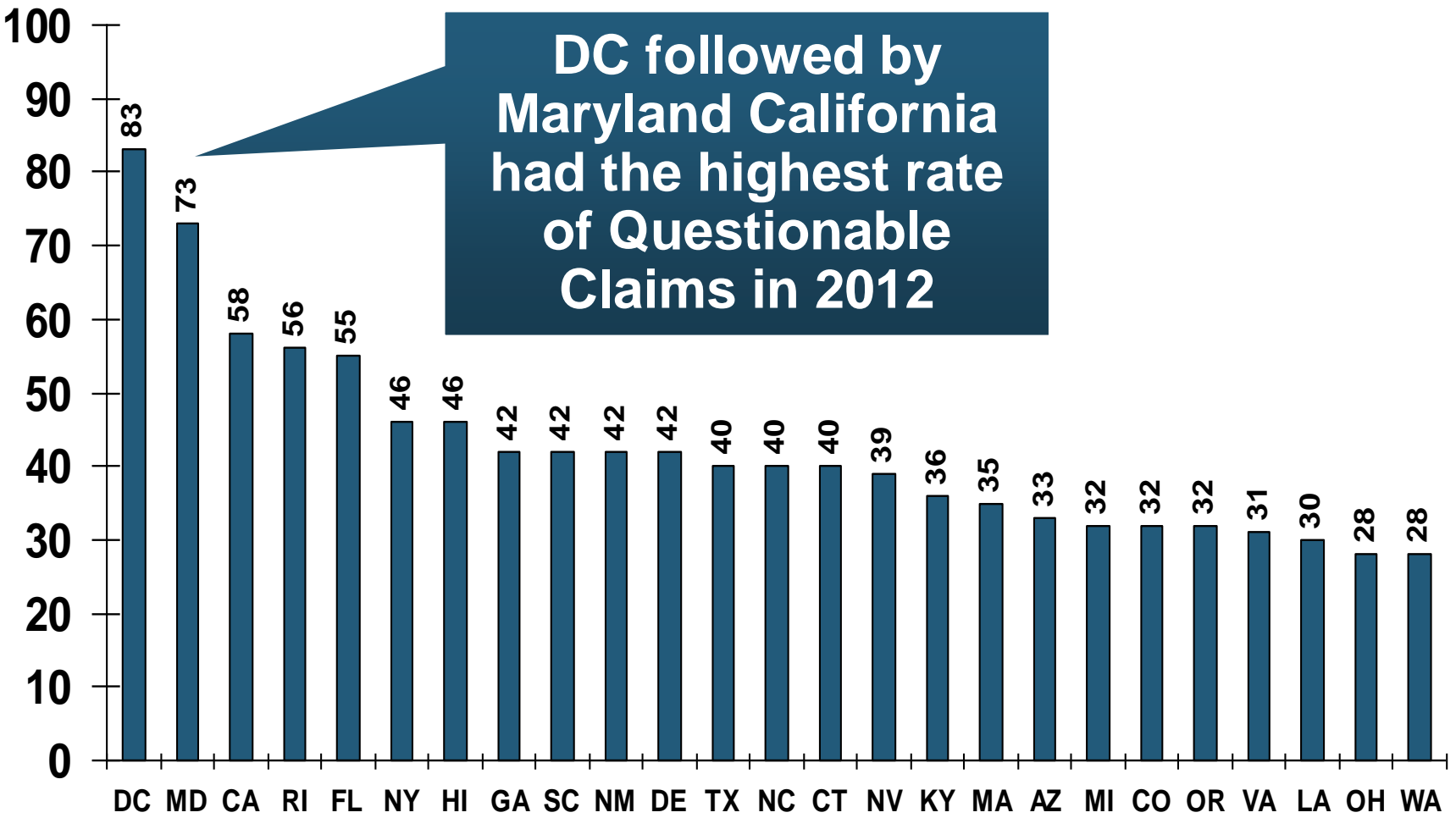
Sources: NICB; Insurance Information Institute.

# Total Number of Questionable Claims by State, 2012: Highest 25 States



Sources: NICB; Insurance Information Institute.

# Total Number of Questionable Claims by State, per 100K Persons, 2012: Highest 25 States



**DC followed by Maryland California had the highest rate of Questionable Claims in 2012**

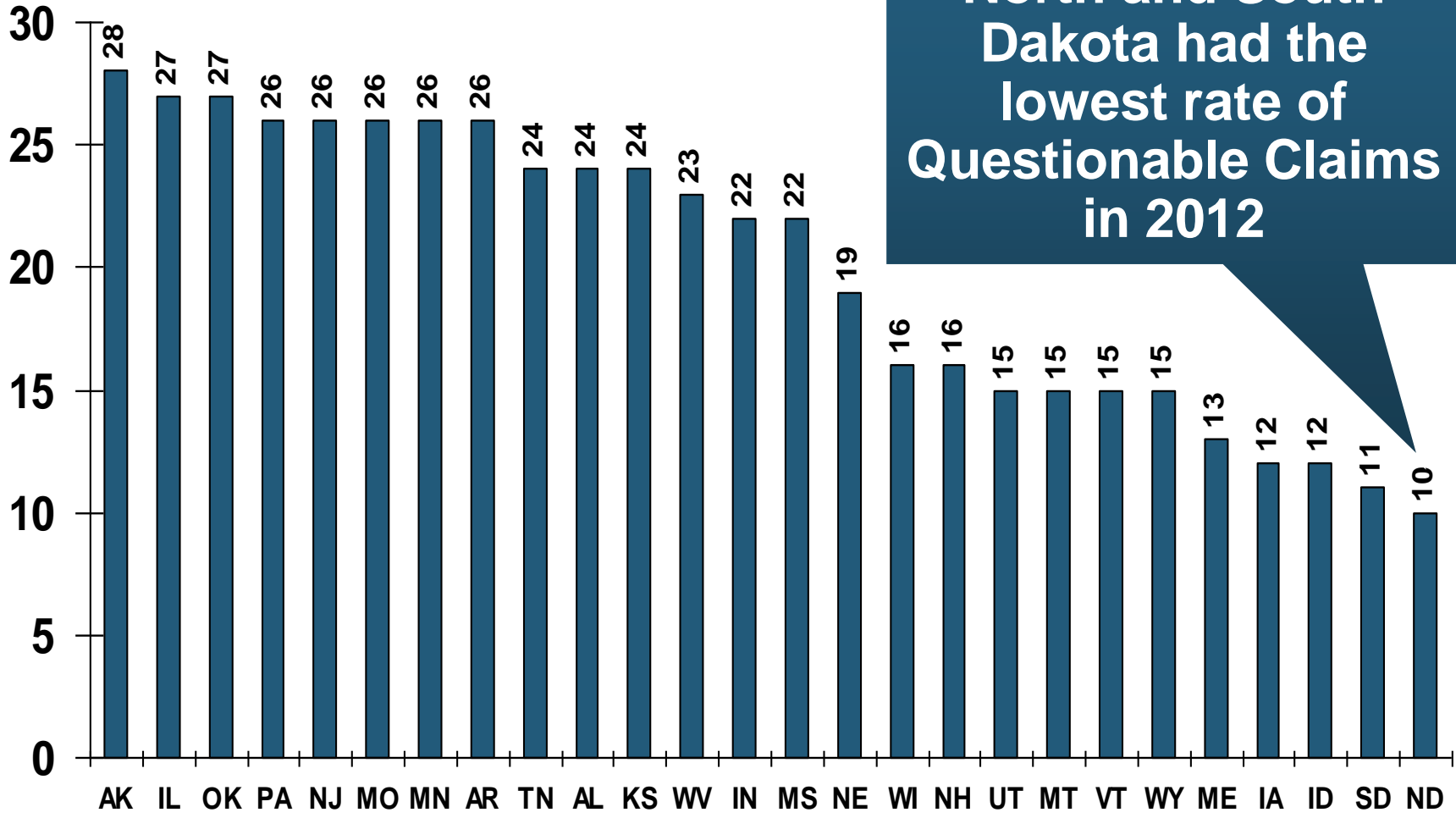
Sources: NICB; Insurance Information Institute.



# Total Number of Questionable Claims by State, per 100K Persons, 2012: Lowest 25 States



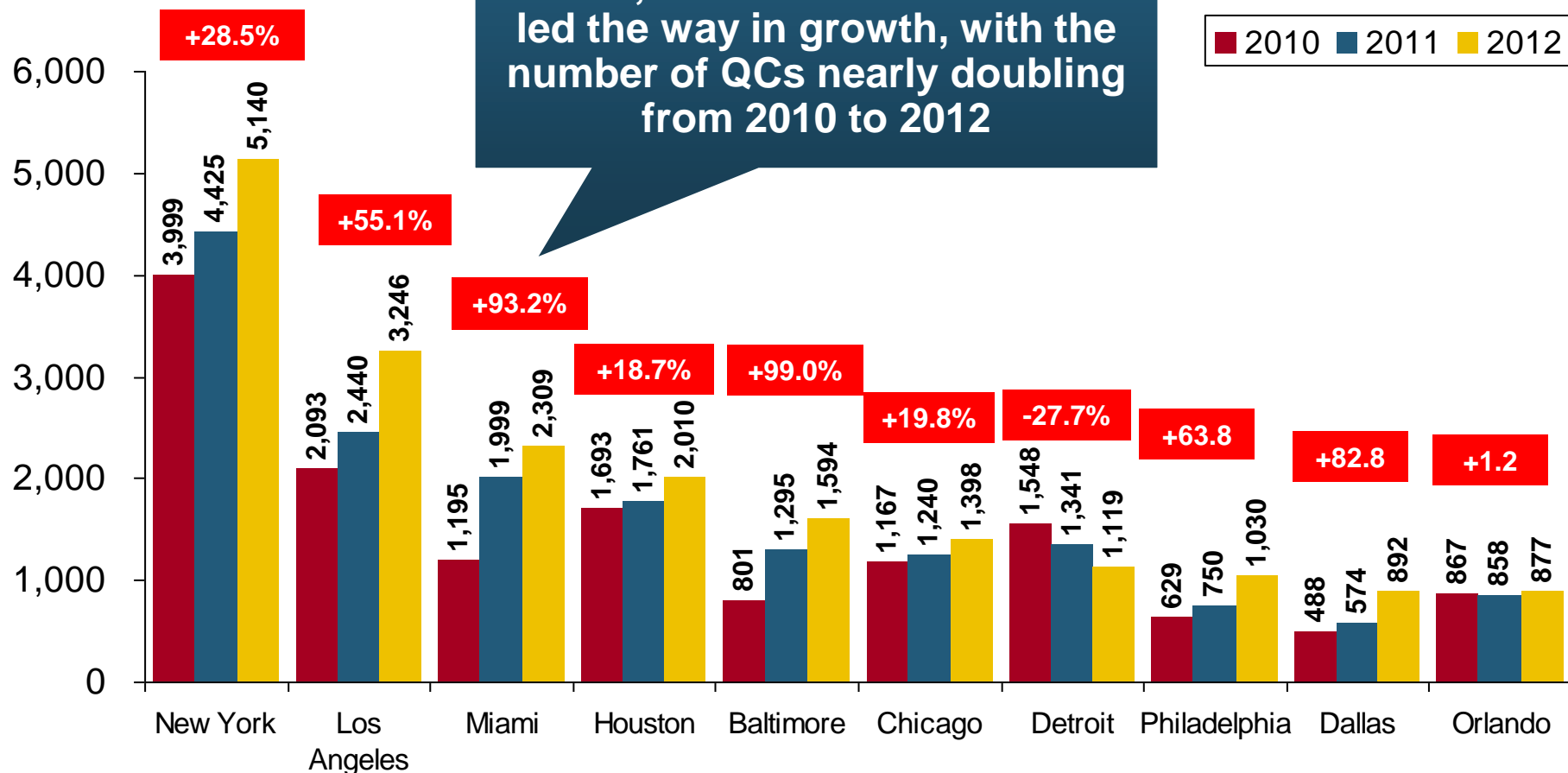
North and South Dakota had the lowest rate of Questionable Claims in 2012



Sources: NICB; Insurance Information Institute.

# Questionable Claims, Top 10 Loss Cities, All Lines: 2010–2012

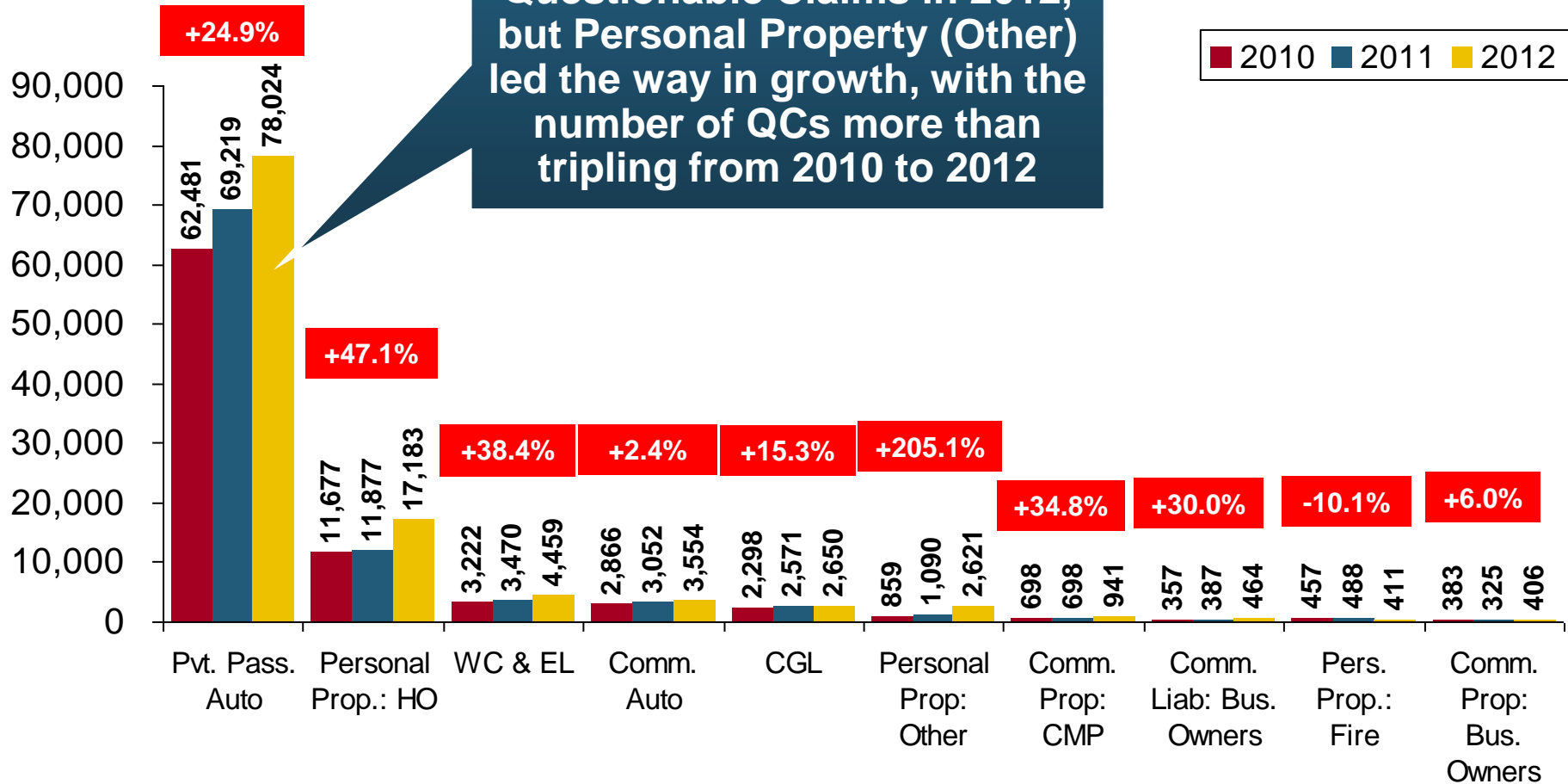
(Number of Questionable Claims)



# Questionable Claims, Top 10 Policy Types: 2010–2012

(Number of Questionable Claims)

Private Passenger Auto had the largest number of Questionable Claims in 2012, but Personal Property (Other) led the way in growth, with the number of QCs more than tripling from 2010 to 2012

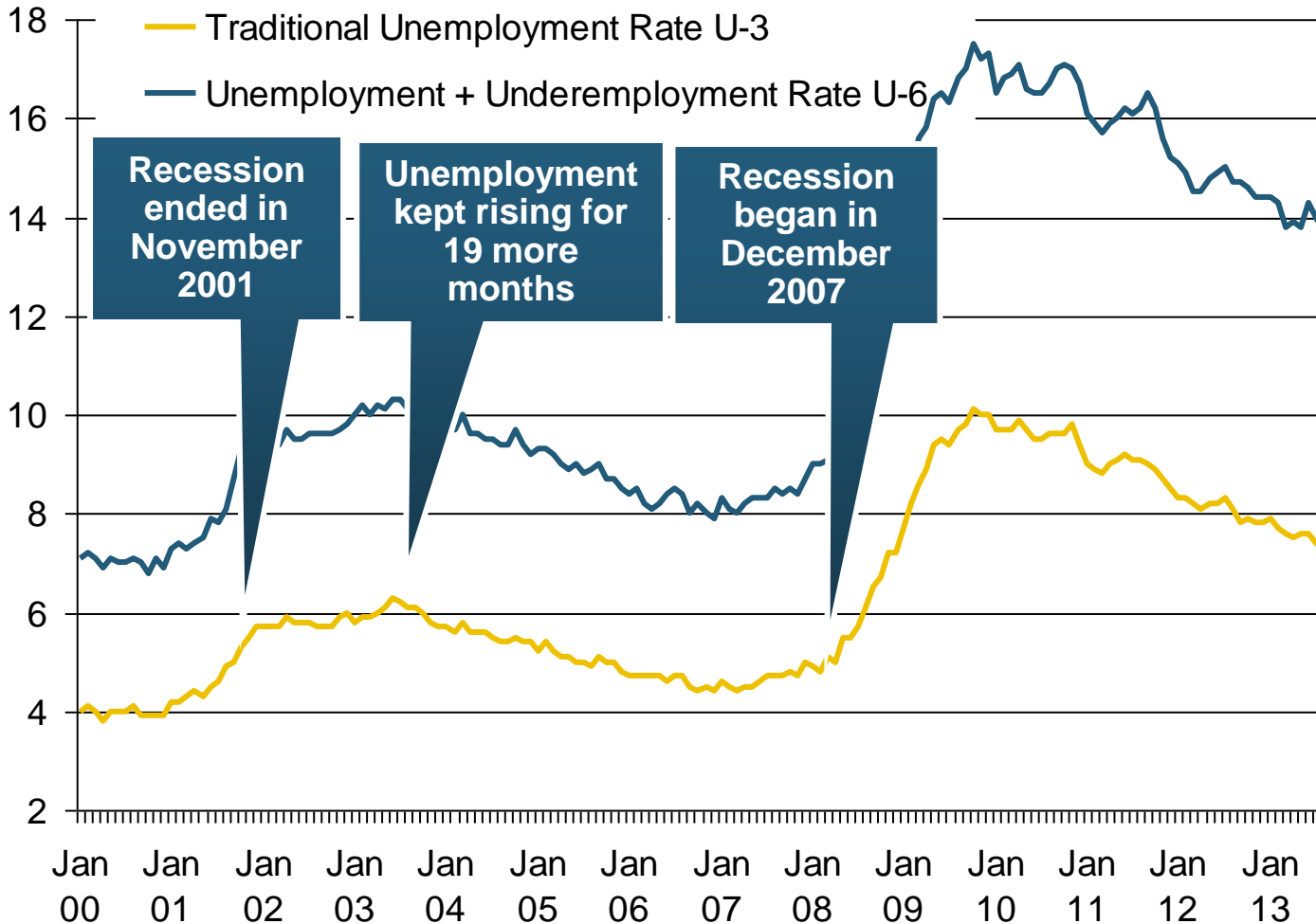


# Labor Market Trends

**Massive Job Losses Sapped the Economy and Commercial/Personal Lines Exposure, But Trend is Improving**

# Unemployment and Underemployment Rates: Stubbornly High, But Falling

January 2000 through August 2013, Seasonally Adjusted (%)



U-6 went from 8.0% in March 2007 to 17.5% in October 2009; Stood at 13.7% in August 2013

Unemployment stood at 7.3% in Aug. 2013—its lowest level since Dec. 2008.

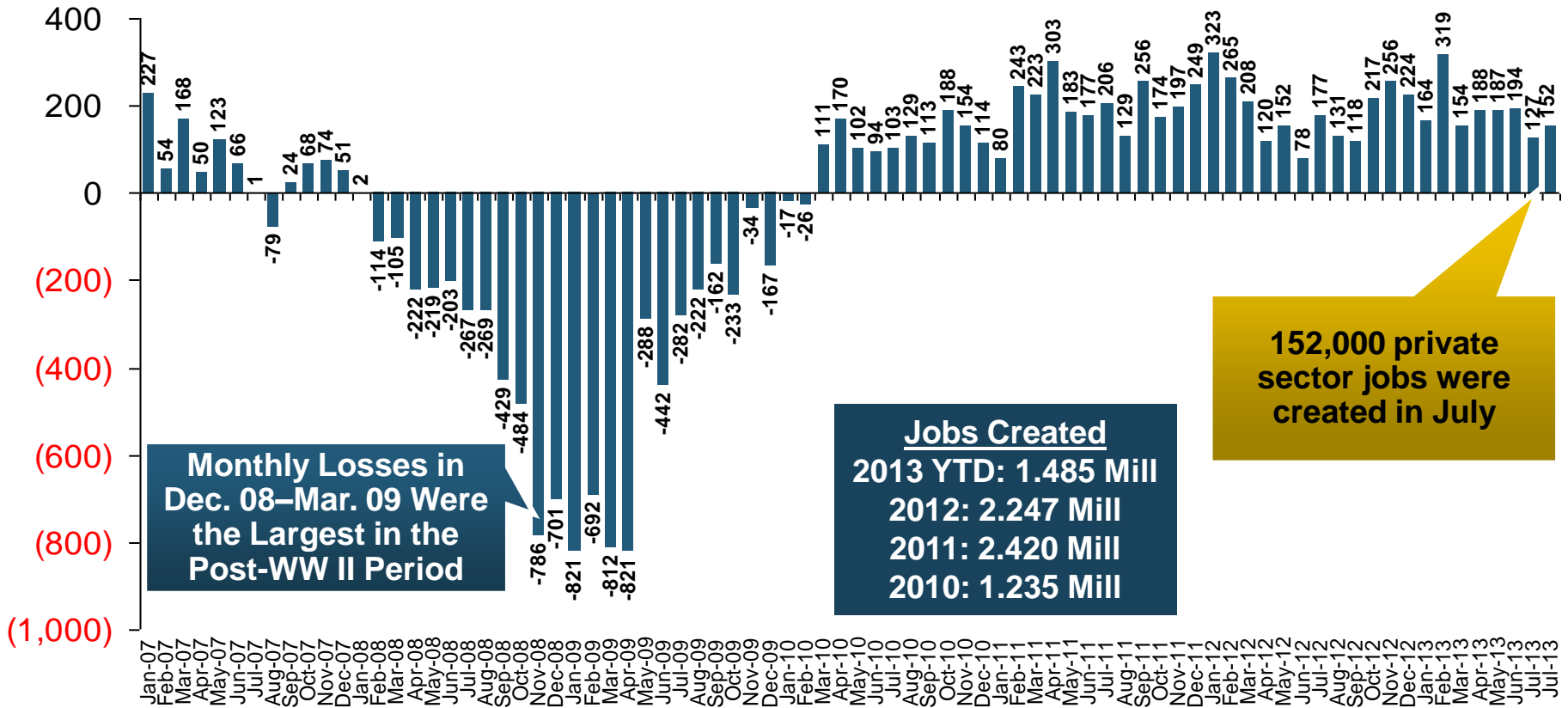
Unemployment peaked at 10.1% in October 2009, highest monthly rate since 1983.

Peak rate in the last 30 years: 10.8% in November - December 1982

**Stubbornly high unemployment and underemployment constrain overall economic growth, but the job market is now clearly improving**

# Monthly Change in Private Employment

January 2007 through August 2013 (Thousands, Seasonally Adjusted)



Monthly Losses in Dec. 08–Mar. 09 Were the Largest in the Post-WW II Period

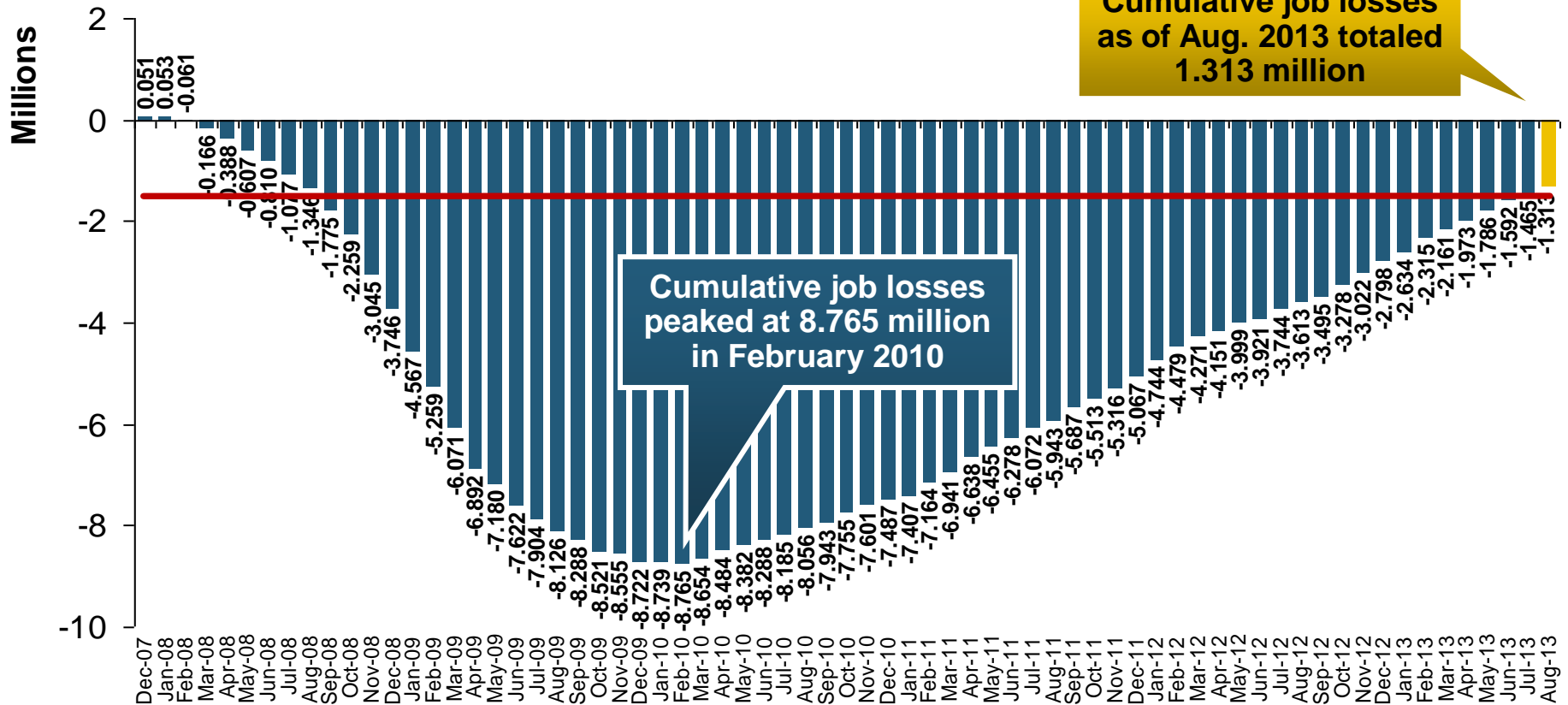
**Jobs Created**  
 2013 YTD: 1.485 Mill  
 2012: 2.247 Mill  
 2011: 2.420 Mill  
 2010: 1.235 Mill

152,000 private sector jobs were created in July

Private Employers Added 7.41 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

# Cumulative Change in Private Employment: Dec. 2007—Aug. 2013

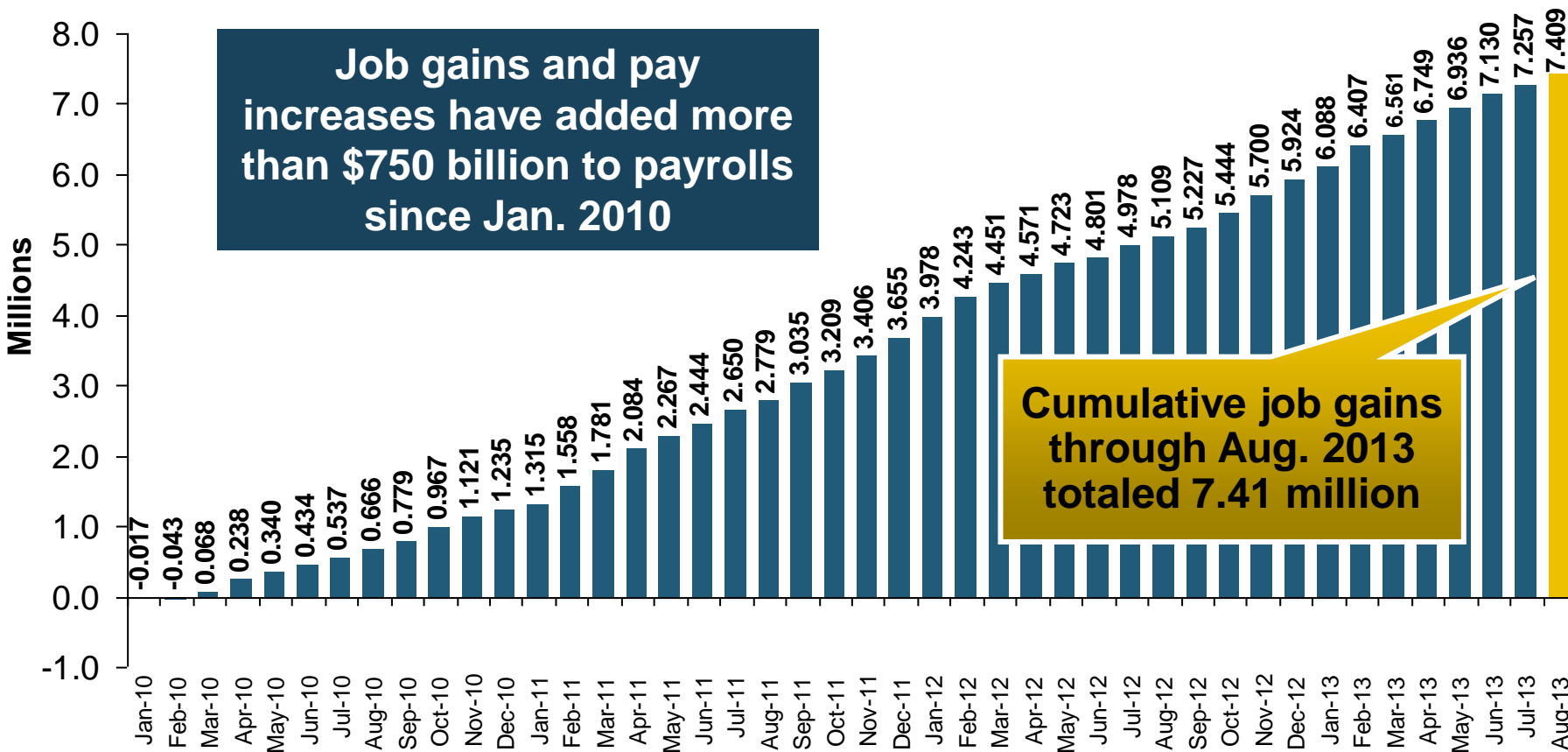
December 2007 through August 2013 (Millions)



**Private Employers Added 7.29 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)**

# Cumulative Change in Private Sector Employment: Jan. 2010—August 2013

January 2010 through August 2013\* (Millions)

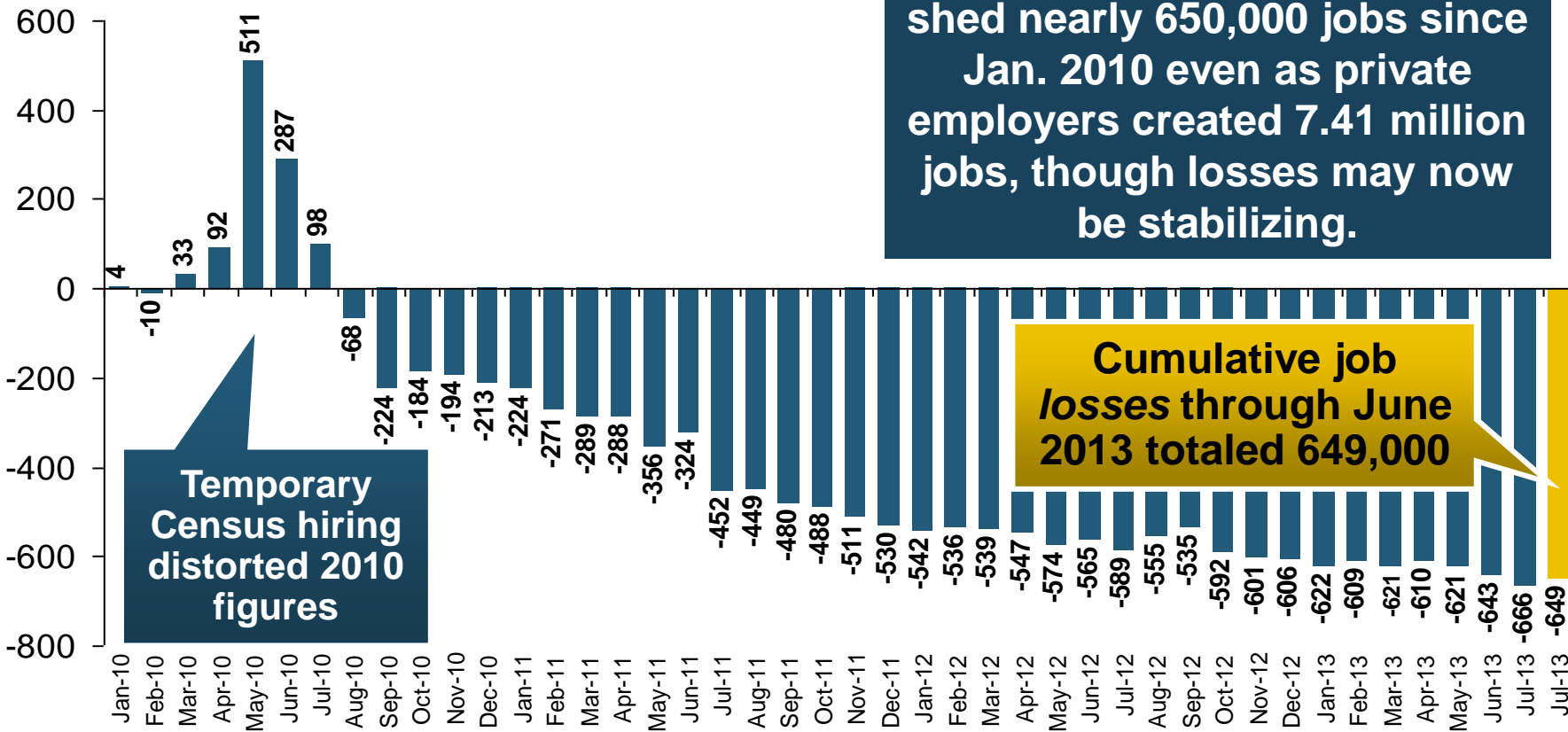


**Private Employers Added 7.41 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)**



# Cumulative Change in Government Employment: Jan. 2010—August 2013

January 2010 through August 2013\* (Millions)



Government at all levels has shed nearly 650,000 jobs since Jan. 2010 even as private employers created 7.41 million jobs, though losses may now be stabilizing.

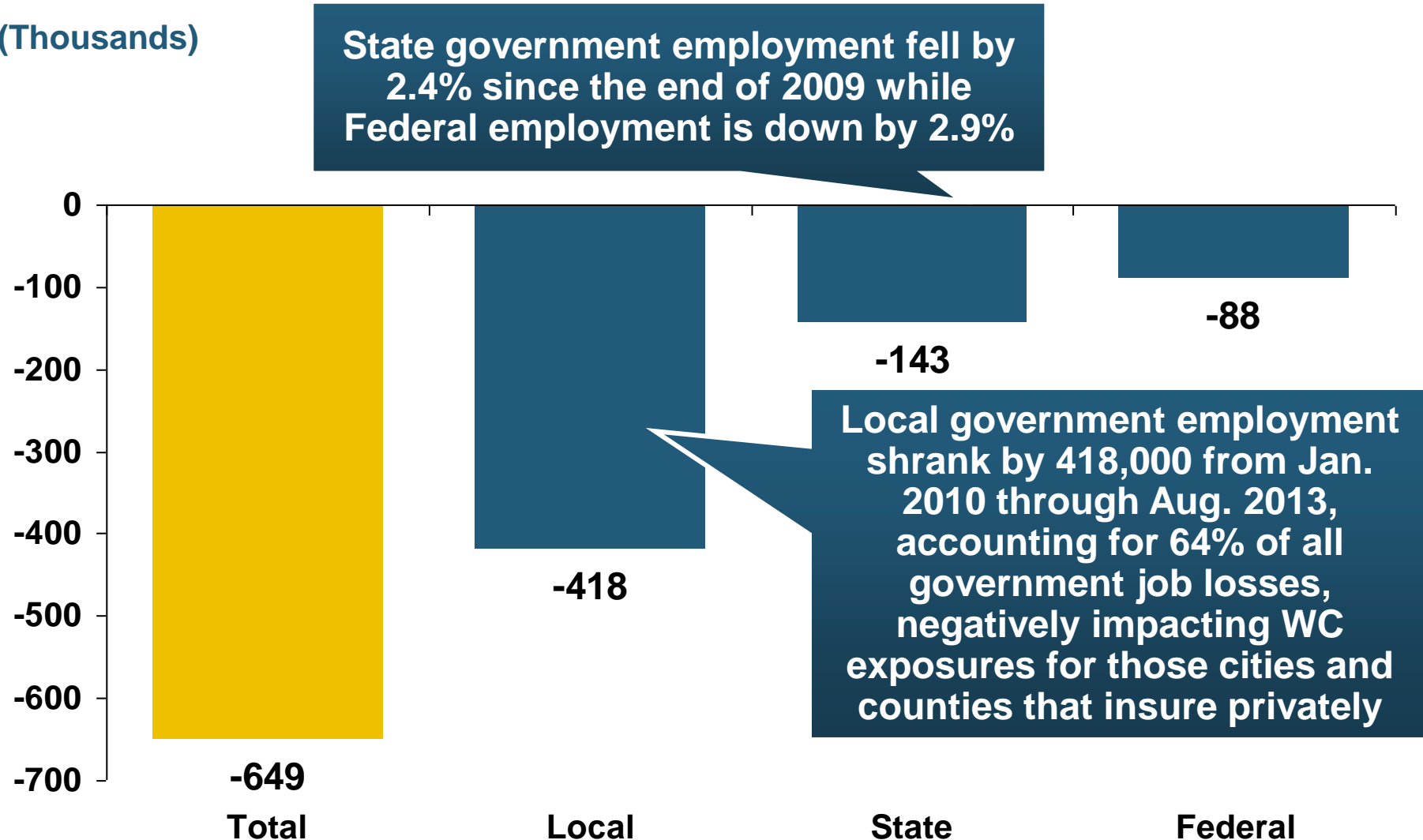
Temporary Census hiring distorted 2010 figures

Cumulative job losses through June 2013 totaled 649,000

**Governments at All Levels are Under Severe Fiscal Strain As Tax Receipts Plunged and Pension Obligations Soared During the Financial Crisis: Sequestration Will Add to this Toll**

# Net Change in Government Employment: Jan. 2010—August 2013\*

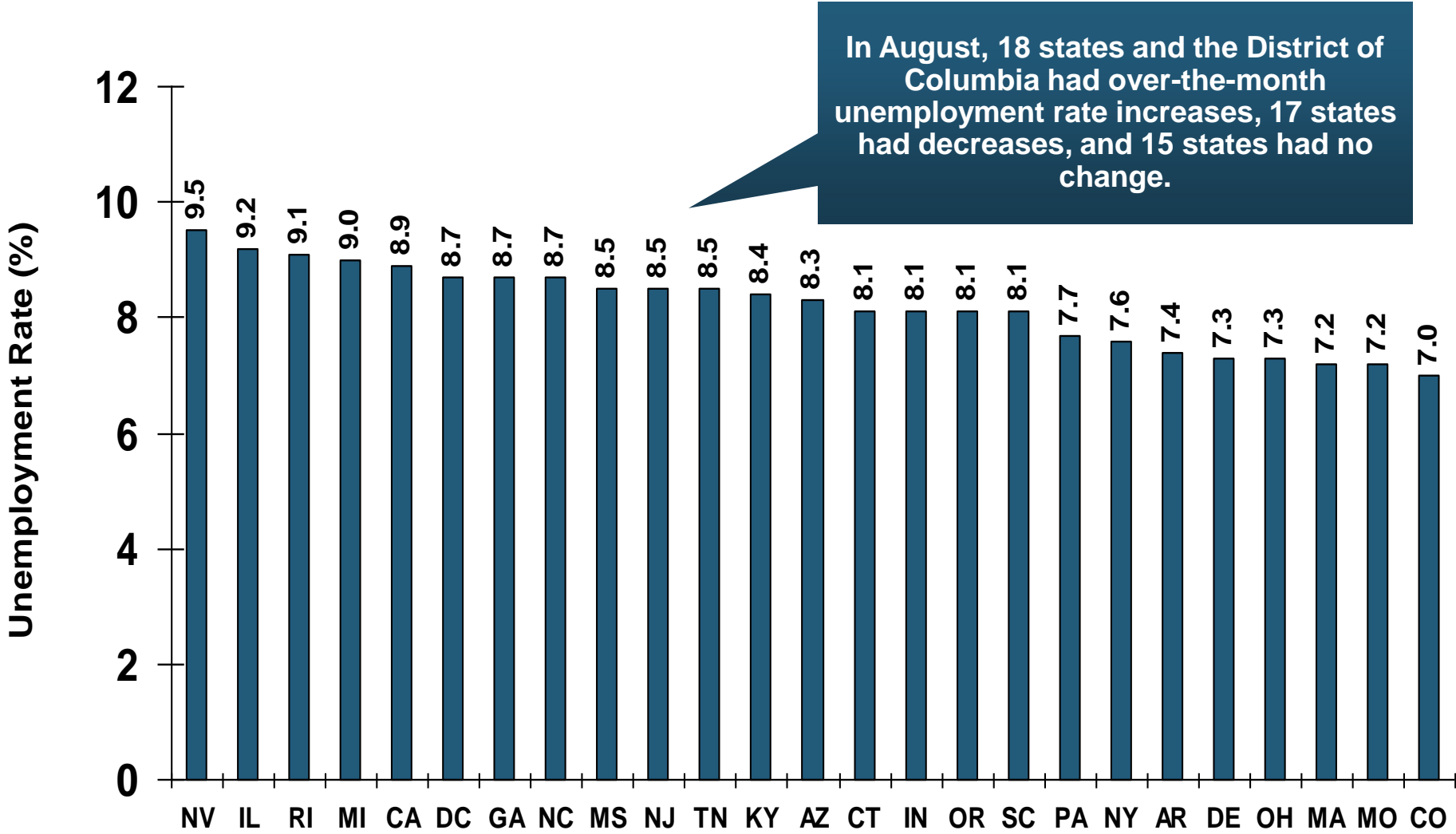
(Thousands)



\*Cumulative change from prior month; Base employment date is Dec. 2009.

Source: US Bureau of Labor Statistics <http://www.bls.gov/data/#employment>; Insurance Information Institute

# Unemployment Rates by State, August 2013: Highest 25 States\*



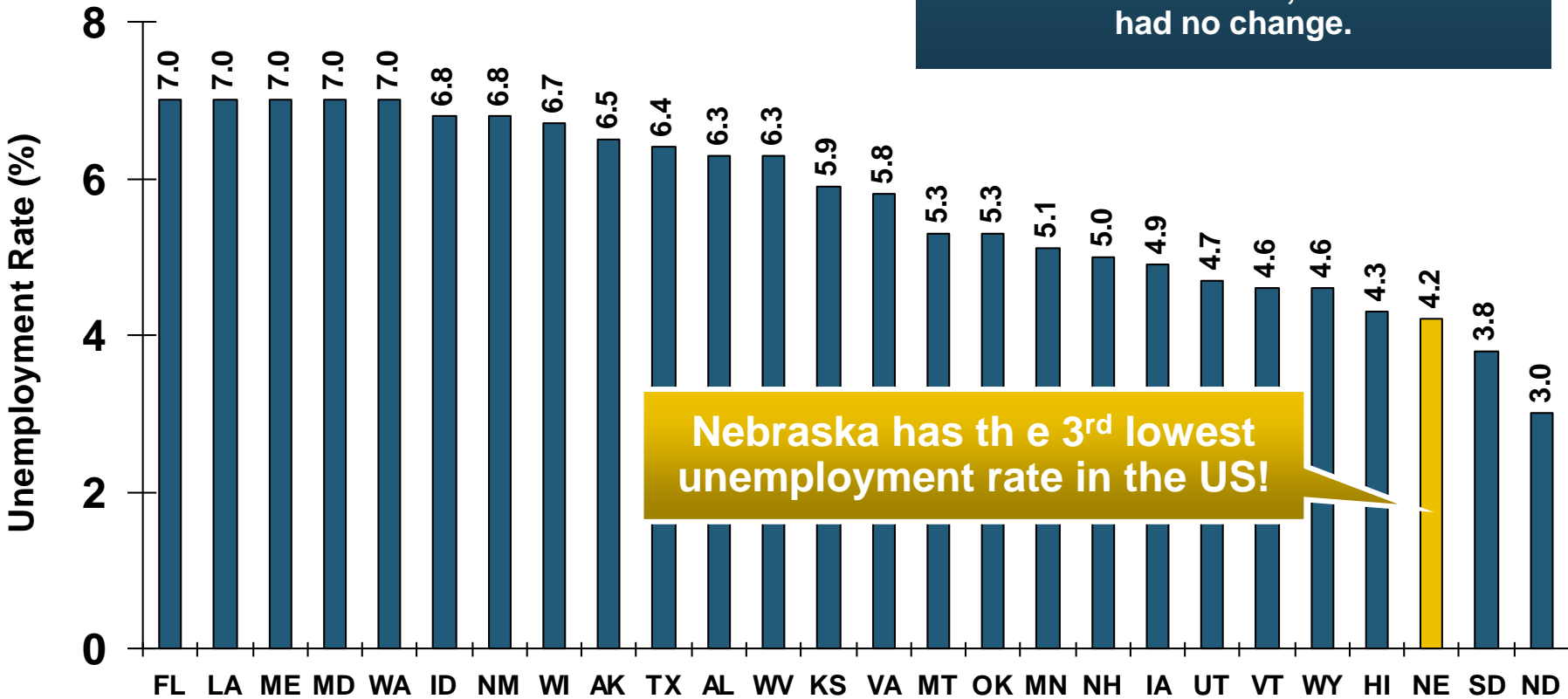
In August, 18 states and the District of Columbia had over-the-month unemployment rate increases, 17 states had decreases, and 15 states had no change.

\*Provisional figures for August 2013, seasonally adjusted.

Sources: US Bureau of Labor Statistics; Insurance Information Institute.

# Unemployment Rates by State, August 2013: Lowest 25 States\*

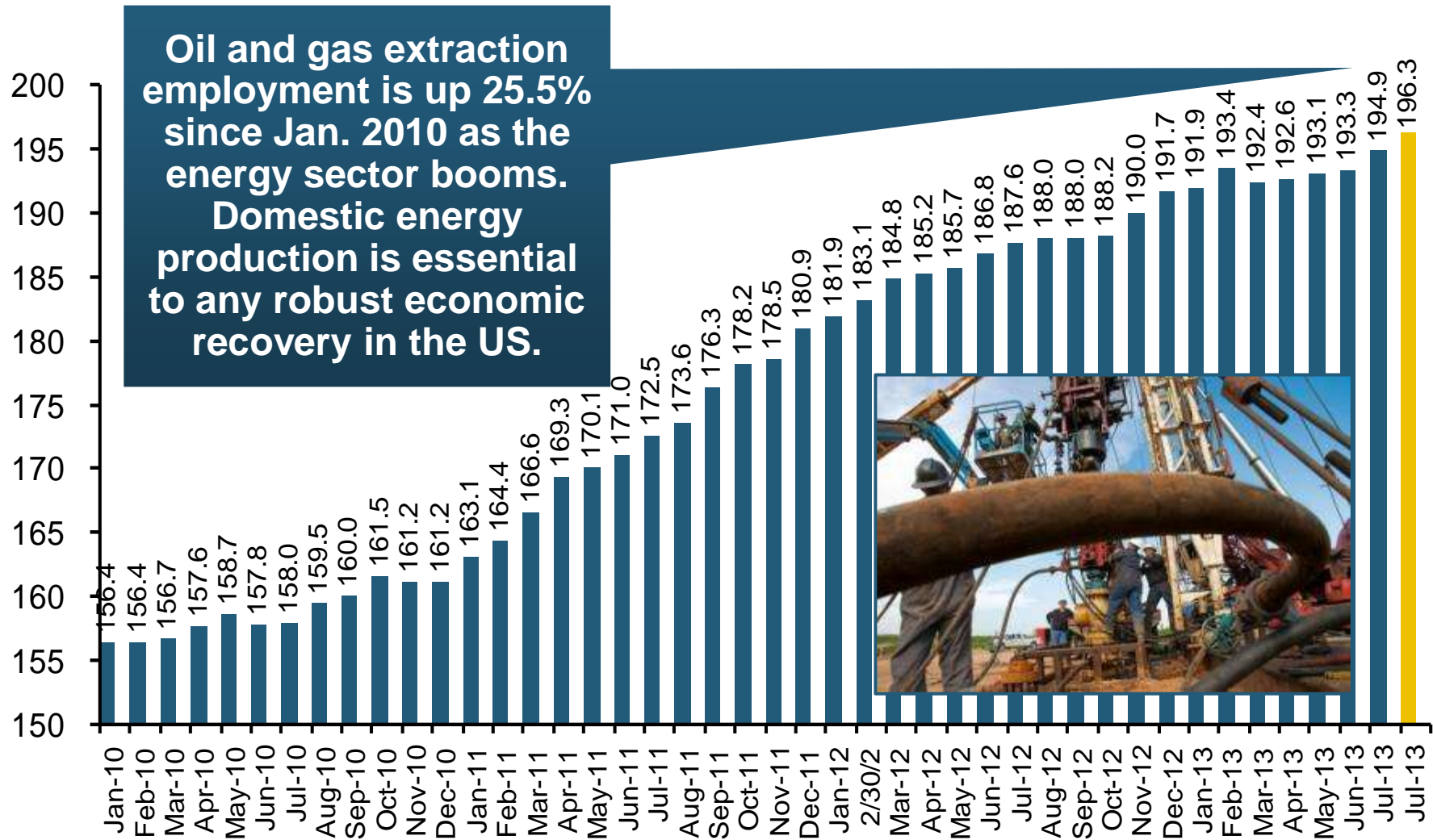
In August, 18 states and the District of Columbia had over-the-month unemployment rate increases, 17 states had decreases, and 15 states had no change.



\*Provisional figures for August 2013, seasonally adjusted.  
Sources: US Bureau of Labor Statistics; Insurance Information Institute.

# Oil & Gas Extraction Employment, Jan. 2010—August 2013\*

(Thousands)

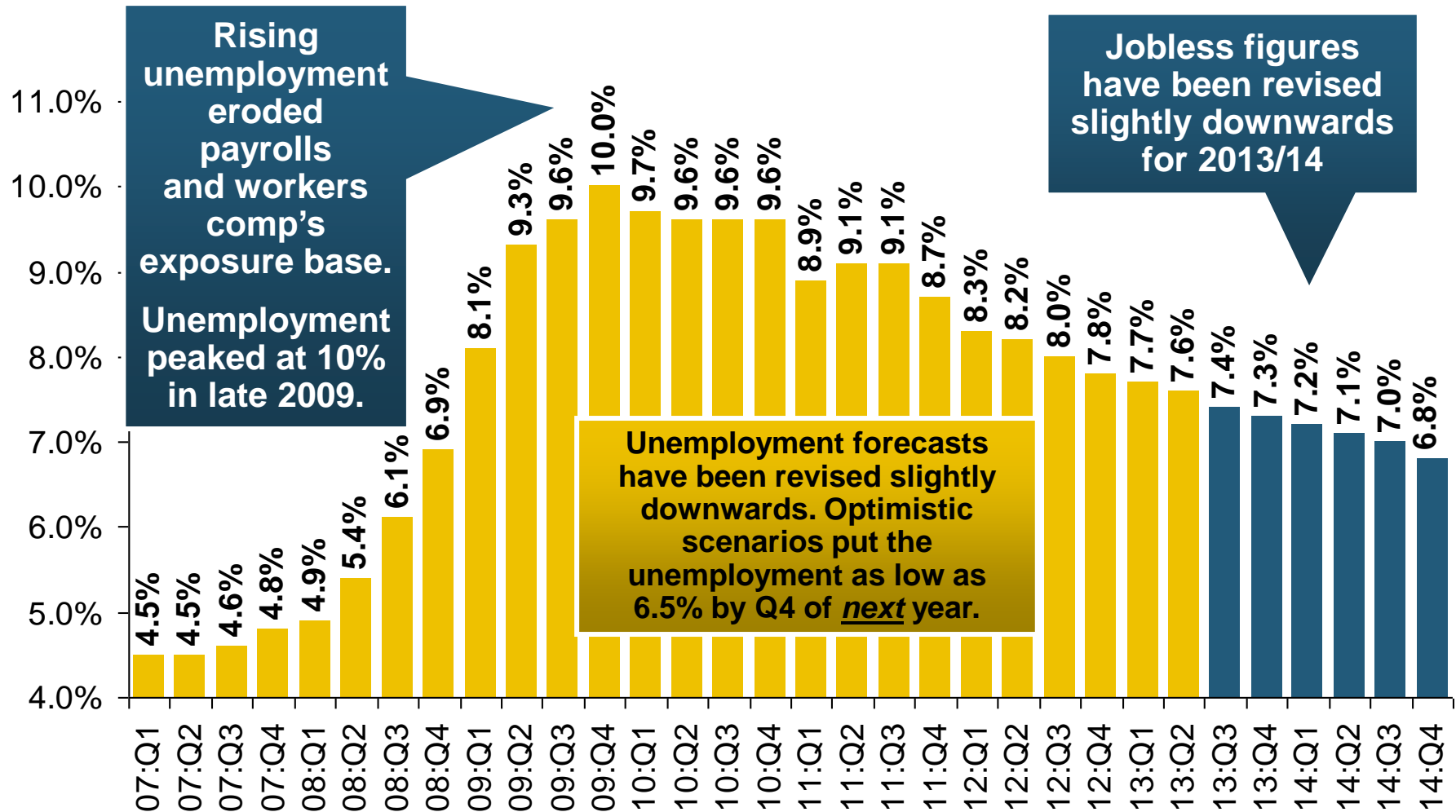


\*Seasonally adjusted

Sources: US Bureau of Labor Statistics at <http://data.bls.gov>; Insurance Information Institute.

# US Unemployment Rate Forecast

2007:Q1 to 2014:Q4F\*

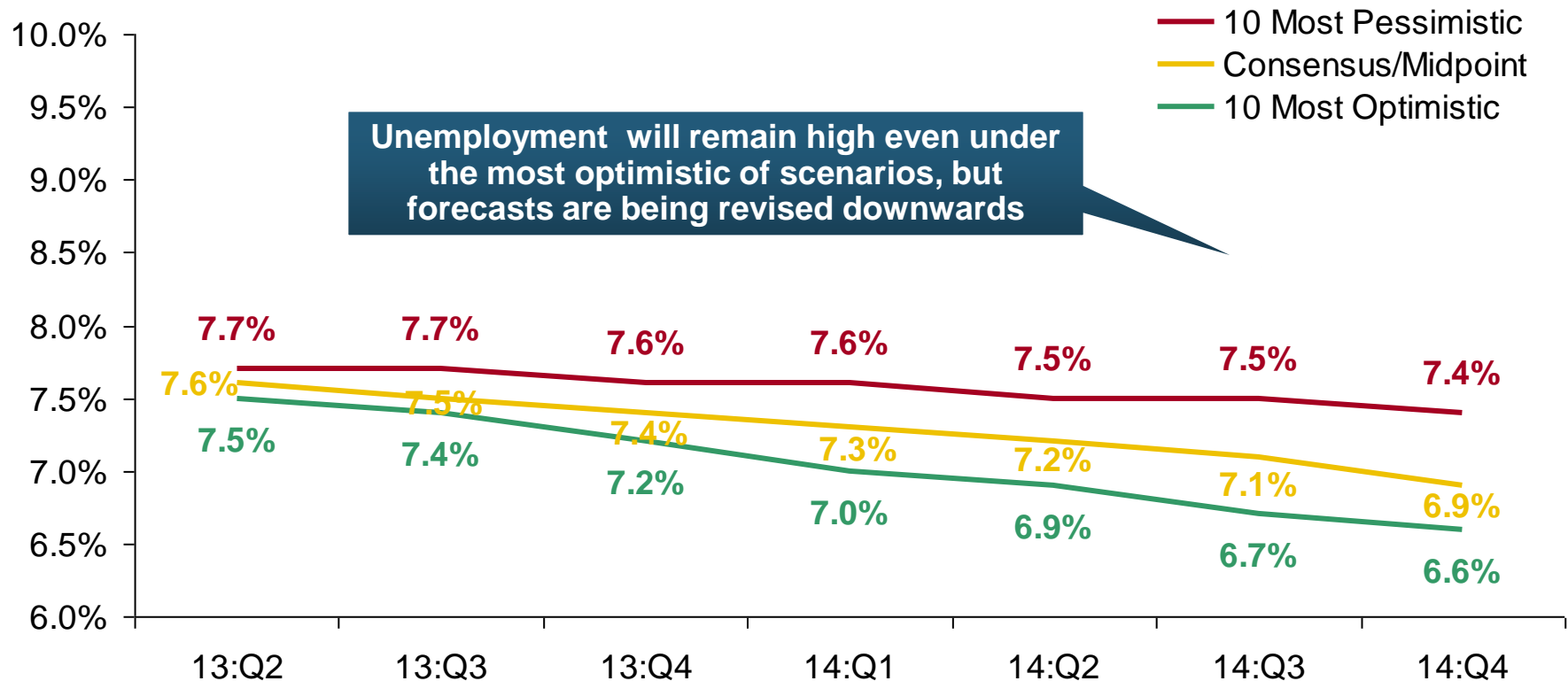


\*  = actual;  = forecasts

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (9/13 edition); Insurance Information Institute.

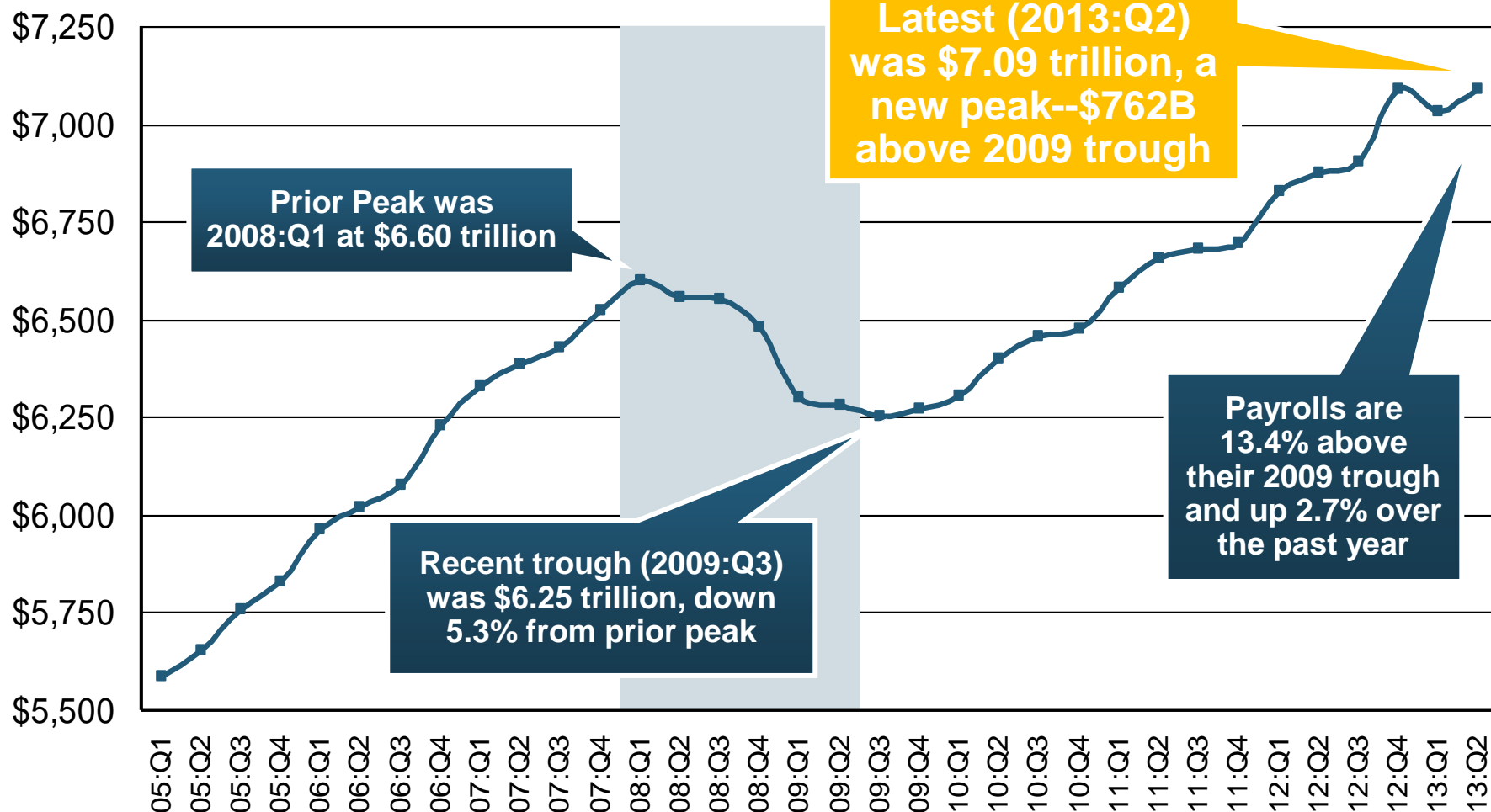
# US Unemployment Rate Forecasts

Quarterly, 2013:Q1 to 2014:Q4



# Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2013:Q2

Billions



Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

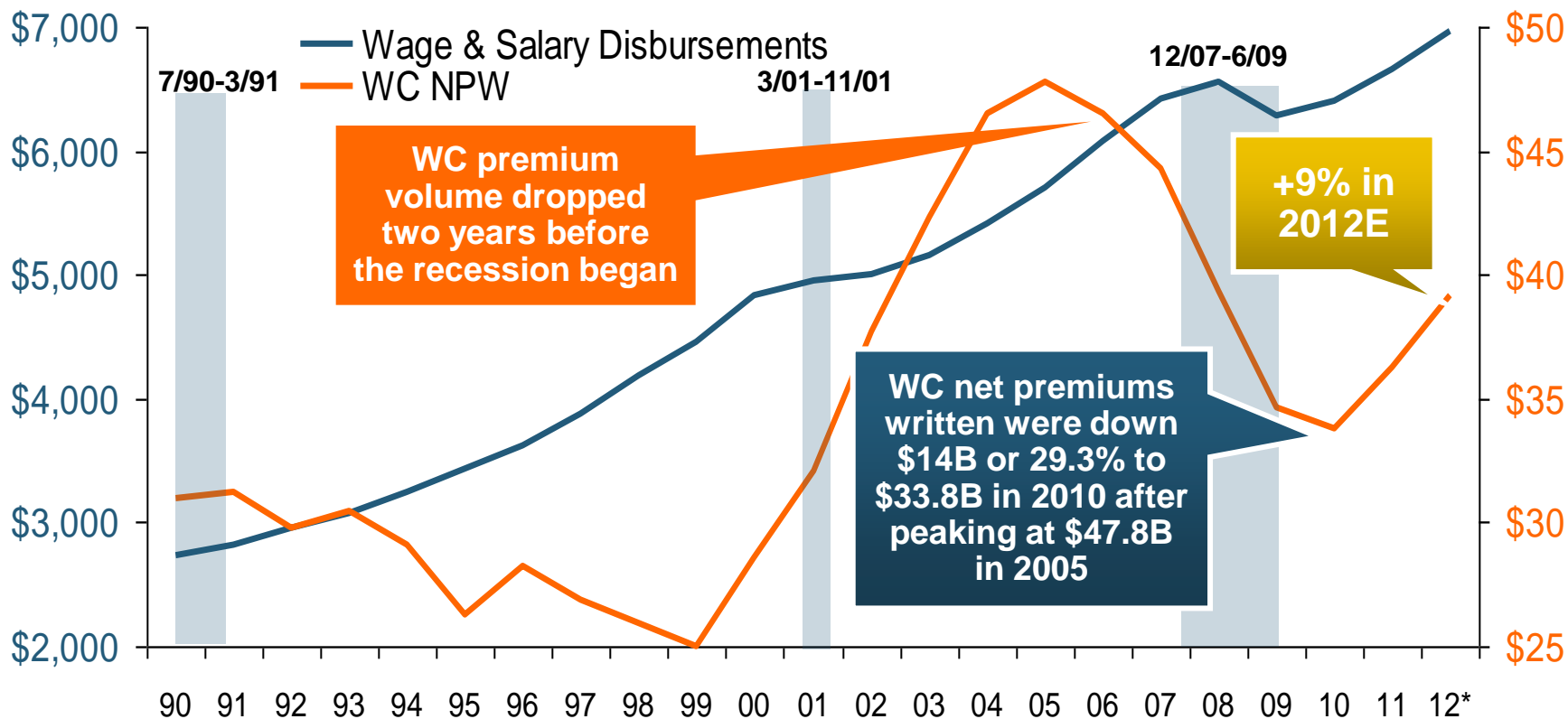
Sources: <http://research.stlouisfed.org/fred2/series/WASCUR>; National Bureau of Economic Research (recession dates); Insurance Information Institute.



# Payroll vs. Workers Comp Net Written Premiums, 1990-2012E

Payroll Base\*  
\$Billions

WC NWP  
\$Billions



**Continued Payroll Growth and Rate Increases Suggest WC NWP Will Grow Again in 2012; +7.9% Growth in 2011 Was the First Gain Since 2005**

\*Private employment; Shaded areas indicate recessions. WC premiums for 2012 are I.I.I. estimate based YTD 2012 actuals. Sources: NBER (recessions); Federal Reserve Bank of St. Louis at <http://research.stlouisfed.org/fred2/series/WASCUR> ; NCCI; I.I.I.

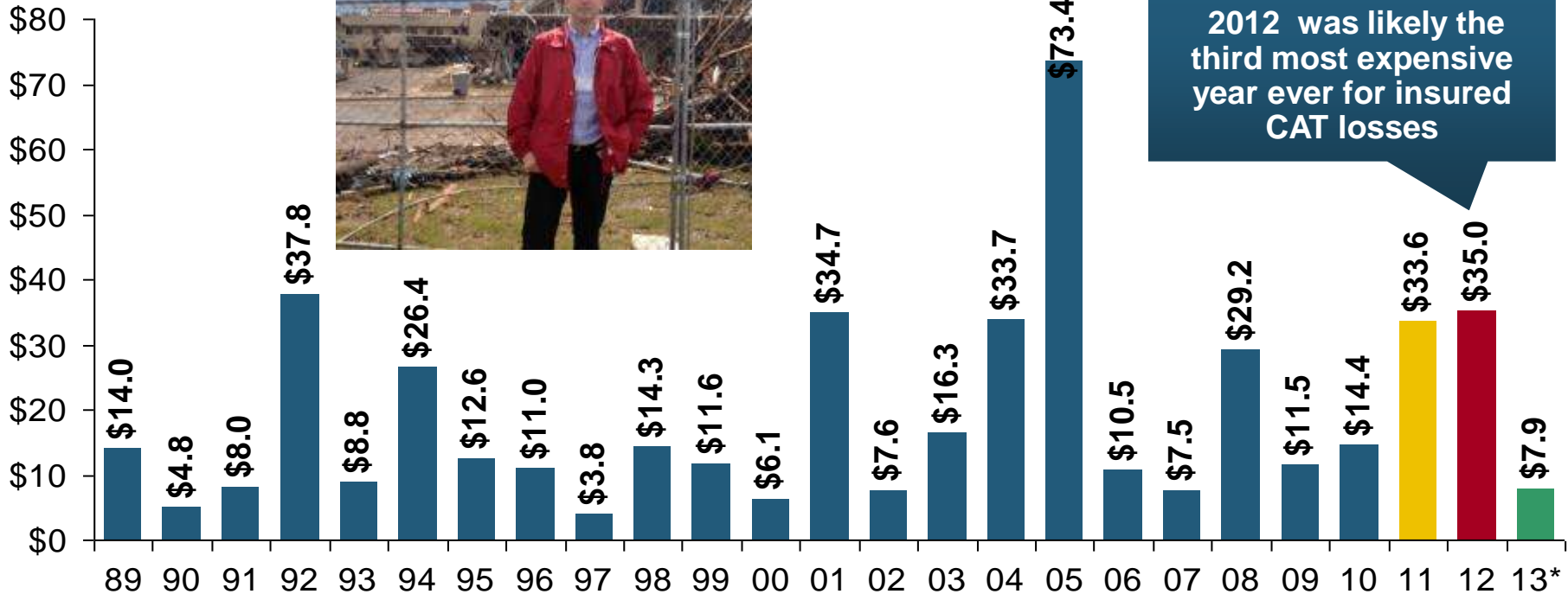


# U.S. Insured Catastrophe Loss Update

**Catastrophe Losses in Recent Years  
Have Been Very High**

# U.S. Insured Catastrophe Losses

(\$ Billions, \$ 2012)



2012 was likely the third most expensive year ever for insured CAT losses

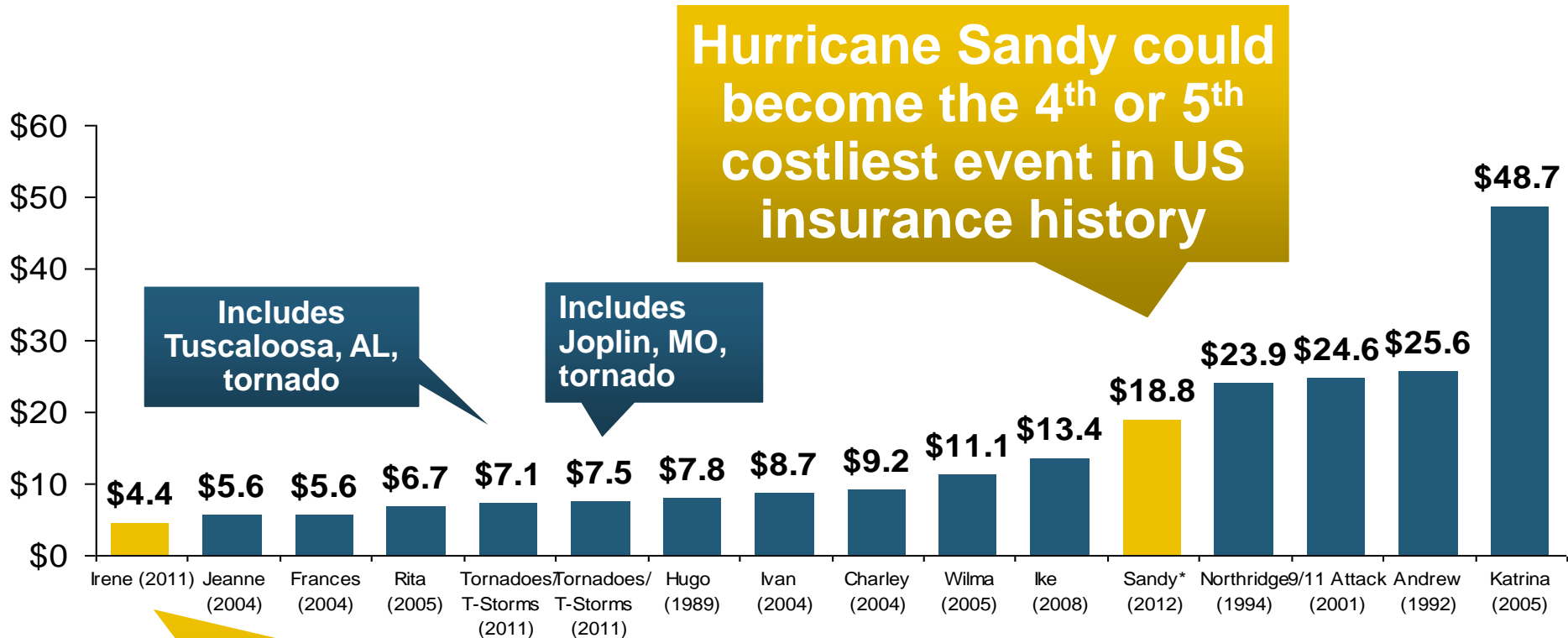
**2012 Was the 3<sup>rd</sup> Highest Year on Record for Insured Losses in U.S. History on an Inflation-Adj. Basis. 2011 Losses Were the 6<sup>th</sup> Highest. YTD 2013 Running Below Average But Q3 Is Typically the Costliest Quarter.**

Record tornado losses caused 2011 CAT losses to surge

\*Through 6/2/13. Includes \$2.6B for 2013:Q1 (PCS) and \$5.32B for the period 4/1 – 6/2/13 (Aon Benfield Monthly Global Catastrophe Recap).  
 Note: 2001 figure includes \$20.3B for 9/11 losses reported through 12/31/01 (\$25.9B 2011 dollars). Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = \$12.2B (\$15.6B in 2011 dollars).  
 Sources: Property Claims Service/ISO; Insurance Information Institute.

# Top 16 Most Costly Disasters in U.S. History

(Insured Losses, 2012 Dollars, \$ Billions)



**Hurricane Irene became the 12<sup>th</sup> most expensive hurricane in US history in 2011**

**12 of the 16 Most Expensive Events in US History Have Occurred Over the Past Decade**

\*PCS estimate as of 4/12/13.

Sources: PCS; Insurance Information Institute inflation adjustments to 2012 dollars using the CPI.

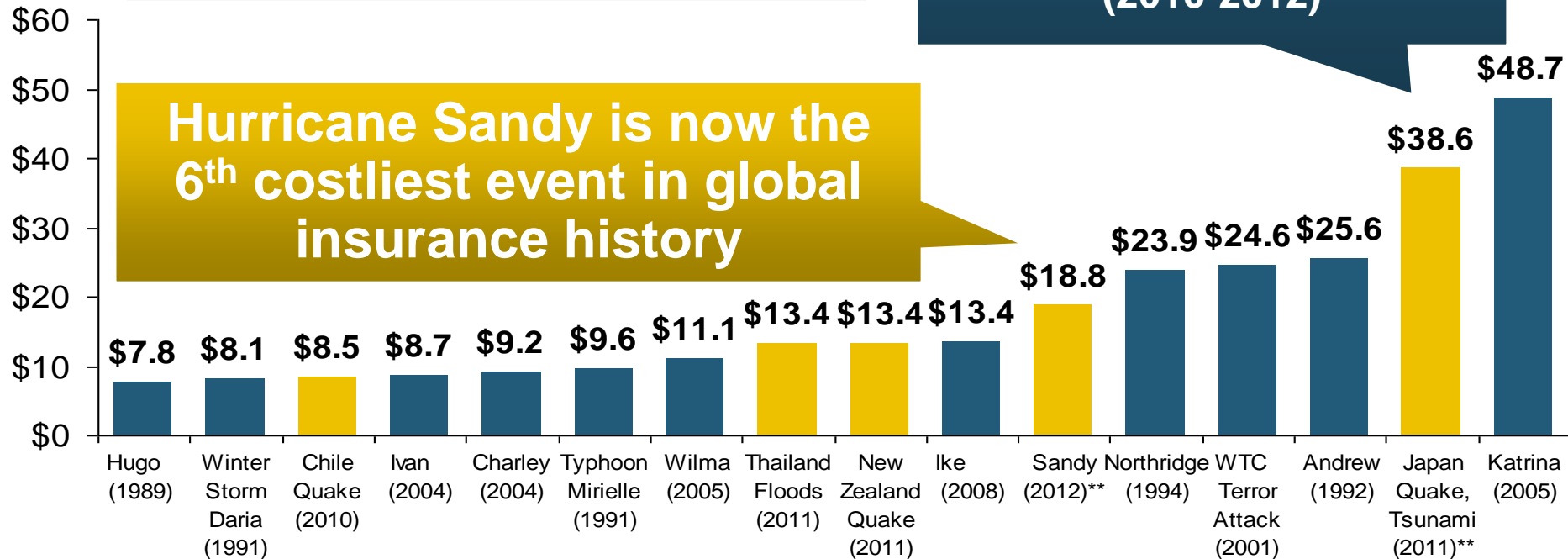
# Top 16 Most Costly World Insurance Losses, 1970-2012\*

(Insured Losses, 2012 Dollars, \$ Billions)

**2012 insured CAT Losses totaled \$60B; Economic losses totaled \$140B, according to Swiss Re**

**5 of the top 14 most expensive catastrophes in world history have occurred within the past 3 years (2010-2012)**

**Hurricane Sandy is now the 6<sup>th</sup> costliest event in global insurance history**



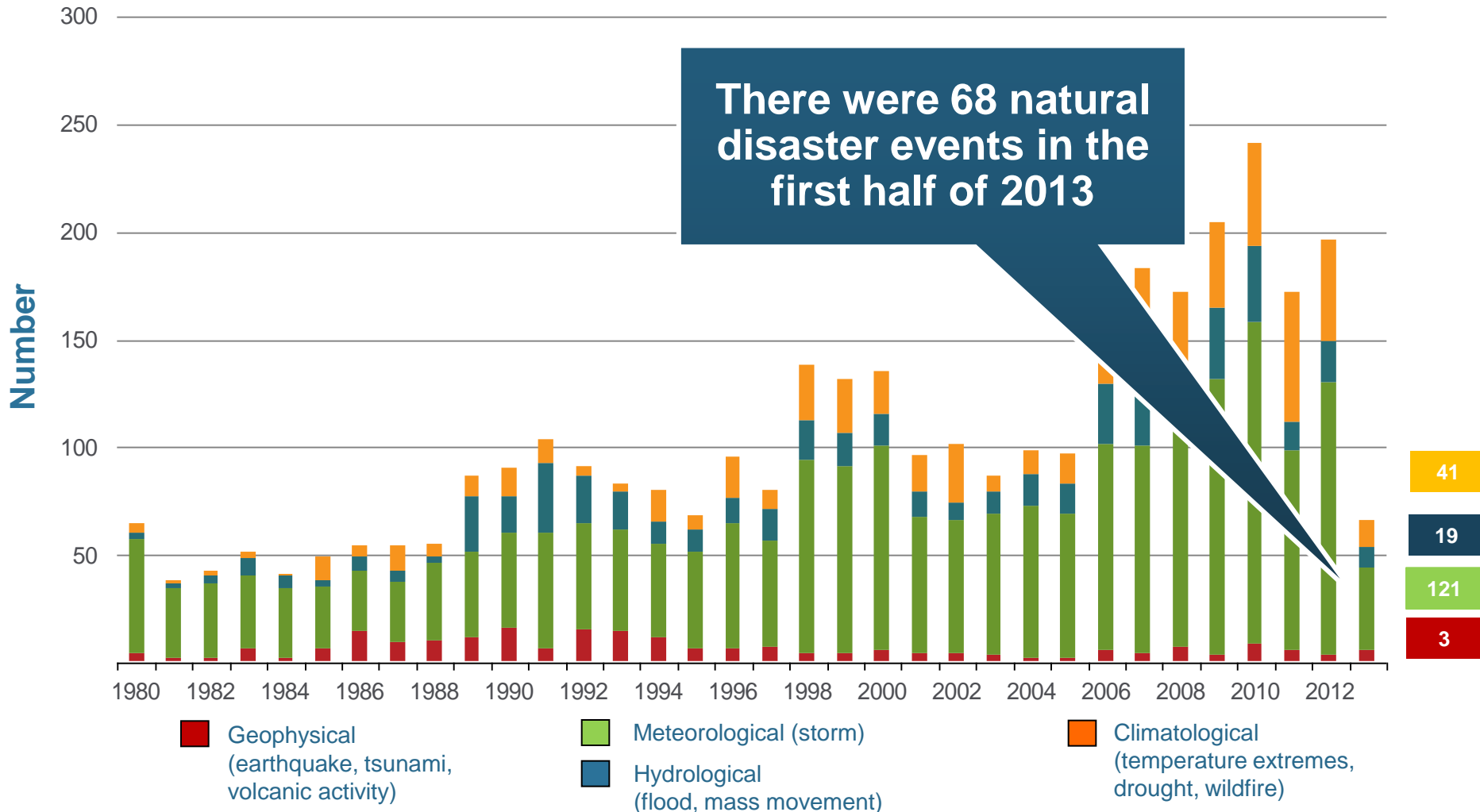
\*Figures do not include federally insured flood losses.

\*\*Estimate based on PCS value of \$18.75B as of 4/12/13.

Sources: Munich Re; Swiss Re; Insurance Information Institute research.

# Natural Disasters in the United States, 1980 – June 2013\*

Number of Events (Annual Totals 1980 – June 2013\*)



\*Through June 30, 2013.  
Source: MR NatCatSERVICE

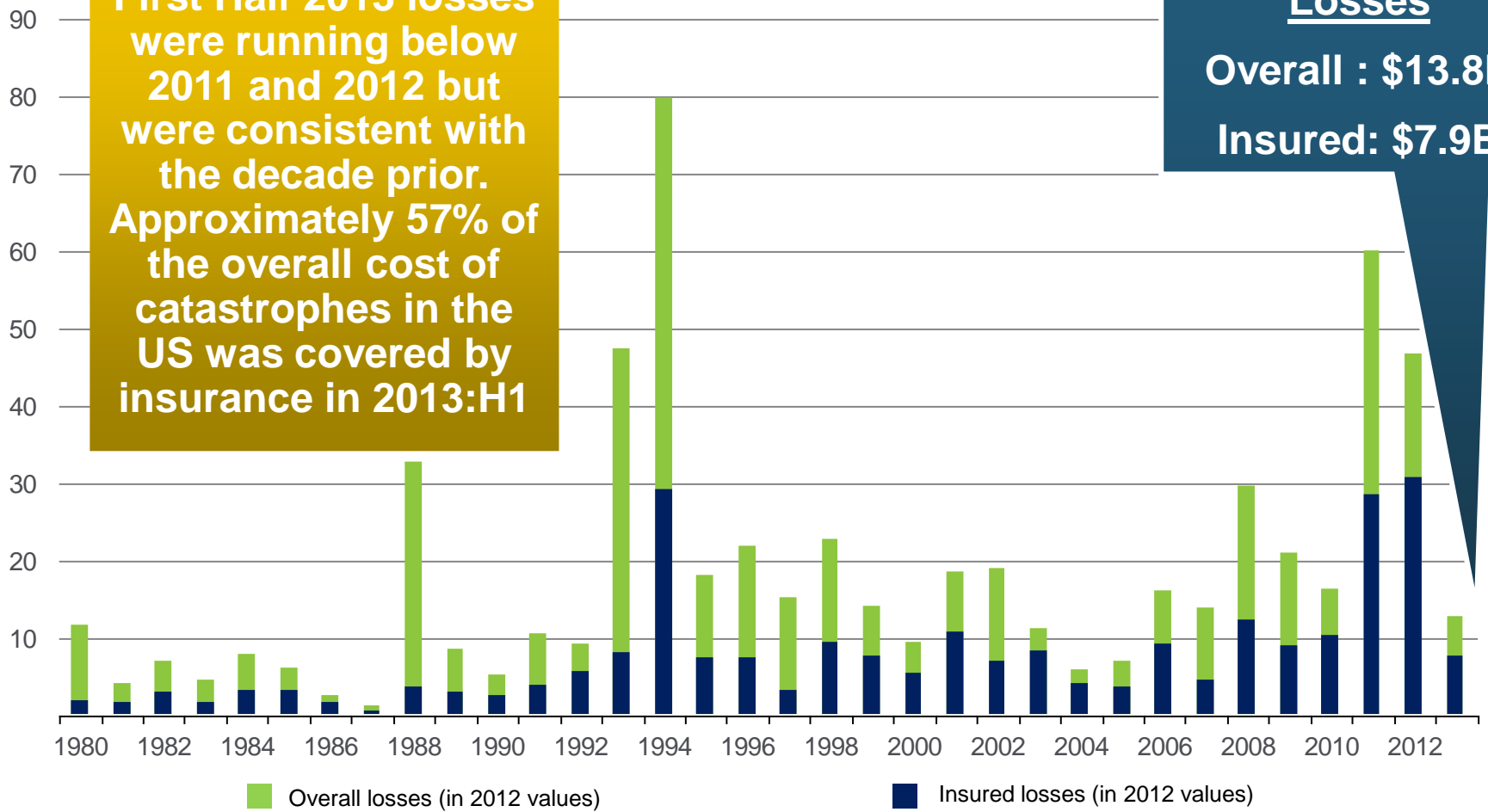
# Losses Due to Natural Disasters in the US, 1980–2013 (Jan.-June Only)

## (Overall and Insured Losses)

(2012 Dollars, \$ Billions)

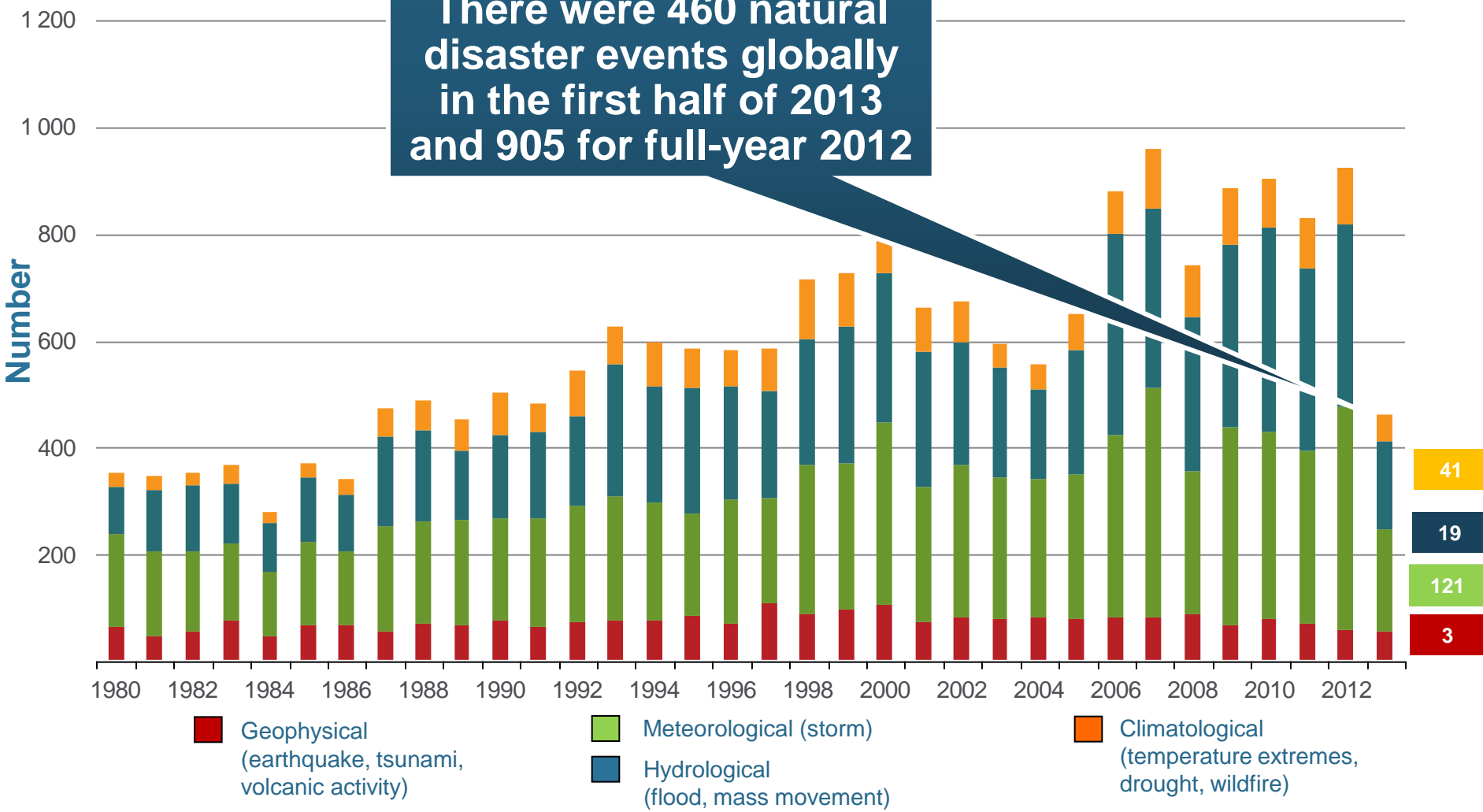
First Half 2013 losses were running below 2011 and 2012 but were consistent with the decade prior. Approximately 57% of the overall cost of catastrophes in the US was covered by insurance in 2013:H1

**2013 First Half Losses**  
**Overall : \$13.8B**  
**Insured: \$7.9B**



# Natural Disasters Worldwide, 1980 – 2013\* (Number of Events)

There were 460 natural disaster events globally in the first half of 2013 and 905 for full-year 2012



\*Through June 30, 2013.  
Source: MR NatCatSERVICE

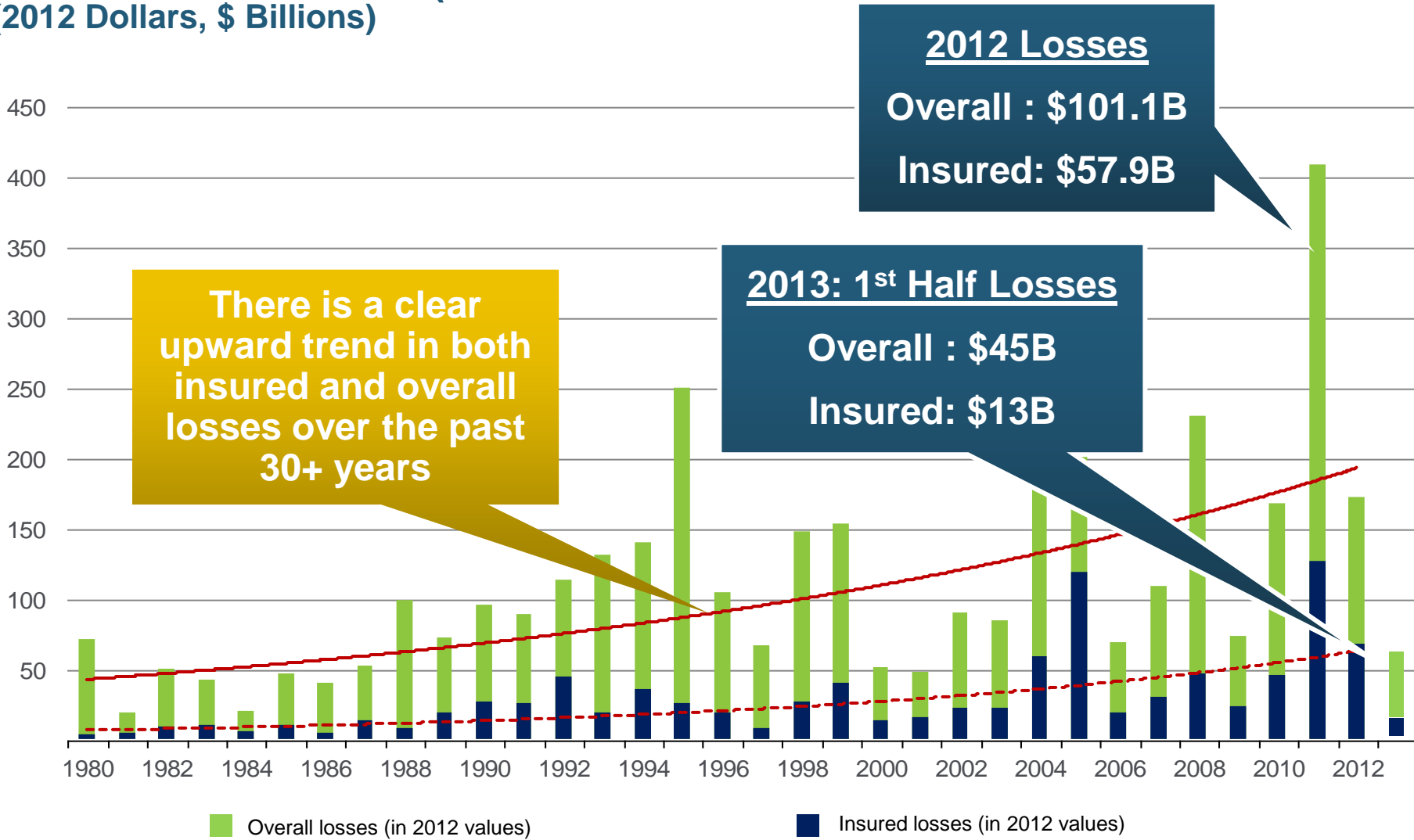


# Losses Due to Natural Disasters Worldwide, 1980–2013\* (Overall & Insured Losses)



## (Overall and Insured Losses)

(2012 Dollars, \$ Billions)



\*Through June 30, 2013.  
Source: MR NatCatSERVICE

# Natural Disaster Losses in the United States: 2012

As of January 1, 2013	Number of Events	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)
<b>Tropical Cyclone</b>	4	143	52,240	<b>26,360</b>
<b>Severe Thunderstorm</b>	115	118	27,688	<b>14,914</b>
<b>Drought</b>	2	0	20,000	<b>16,000<sup>†</sup></b>
<b>Wildfire</b>	38	13	1,112	<b>595</b>
<b>Winter Storm</b>	2	7	81	<b>38</b>
<b>Flood</b>	19	3	13	<b>0<sup>††</sup></b>
<b>TOTALS</b>	<b>184</b>	<b>284</b>	<b>\$101,134</b>	<b>\$57,907</b>

Source: MR NatCatSERVICE

† - Includes Federal Crop Insurance Losses. †† - Excludes federal flood.

# Natural Disaster Losses in the United States: First Half 2013

As of July 1, 2013	Number of Events	Fatalities	Estimated Overall Losses (US \$m)	Estimated Insured Losses (US \$m)
<b>Severe Thunderstorm</b>	29	66	10,180	6,325
<b>Winter Storm</b>	13	17	2,434	1,255
<b>Flood</b>	10	9	500	Minor
<b>Earthquake &amp; Geophysical</b>	5	0	Minor	Minor
<b>Tropical Cyclone</b>	1	1	Minor	Minor
<b>Wildfire, Heat, &amp; Drought</b>	11	23	700	365
<b>Totals</b>	<b>68</b>	<b>116</b>	<b>13,814</b>	<b>7,945</b>

# Significant Natural Catastrophes, 2012

(Events with \$1 billion economic loss and/or 50 fatalities)



Date	Event	Estimated Economic Losses (US \$m)	Estimated Insured Losses (US \$m)
June – Sept 2012	Central US Drought	20,000	16,000 <sup>†</sup>
March 2 - 3	Thunderstorms	5,000	2,500
April 2 – 4	Thunderstorms	1,550	775
April 13- 15	Thunderstorms	1,800	910
April 28 – 29	Thunderstorms	4,500	2,500
May 25 – 30	Thunderstorms	3,400	1,700
June 6 – 7	Thunderstorms	1,400	1,000
June 11 – 13	Thunderstorms	1,900	950
June 28 – July 2	Thunderstorms	4,000	2,000
August 26 - 30	Hurricane Isaac	2,000	1,220
October 28 - 30	Hurricane Sandy	50,000	25,000 <sup>††</sup>

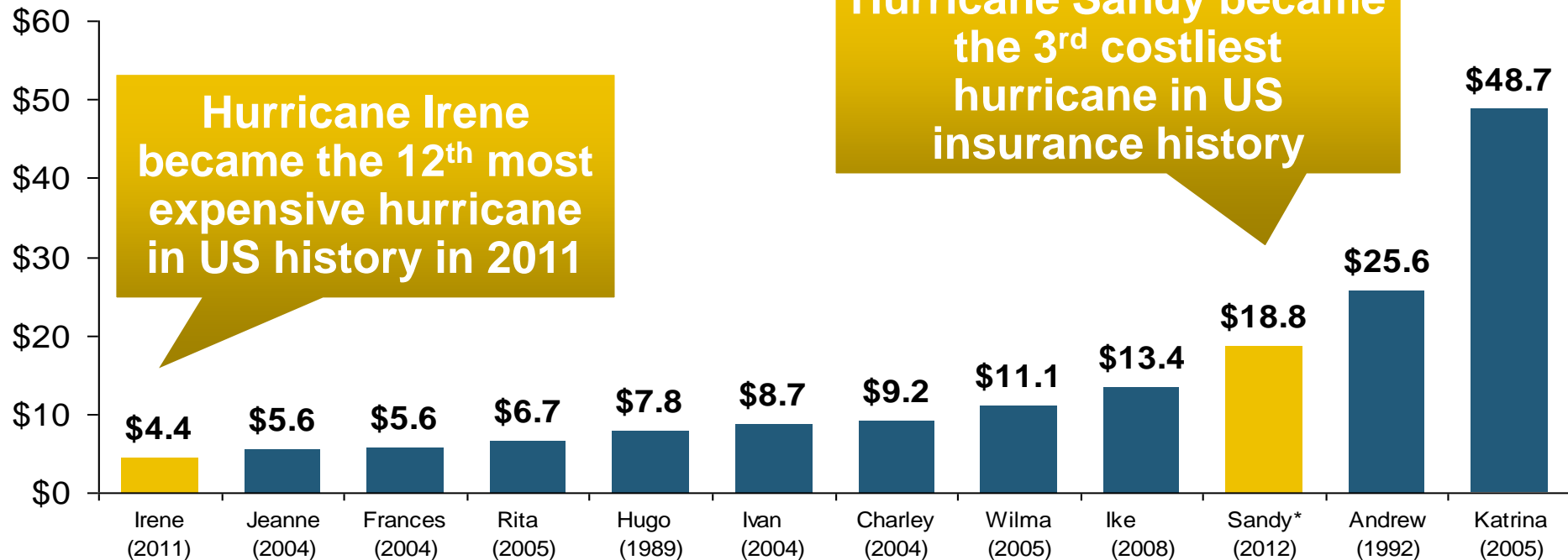
Source: MR NatCatSERVICE

<sup>†</sup> - Includes Federal Crop Insurance Losses.; <sup>††</sup> - Excludes NFIP losses.

# Top 12 Most Costly Hurricanes in U.S. History

(Insured Losses, 2012 Dollars, \$ Billions)

10 of the 12 most costly hurricanes in insurance history occurred over the past 9 years (2004—2012)

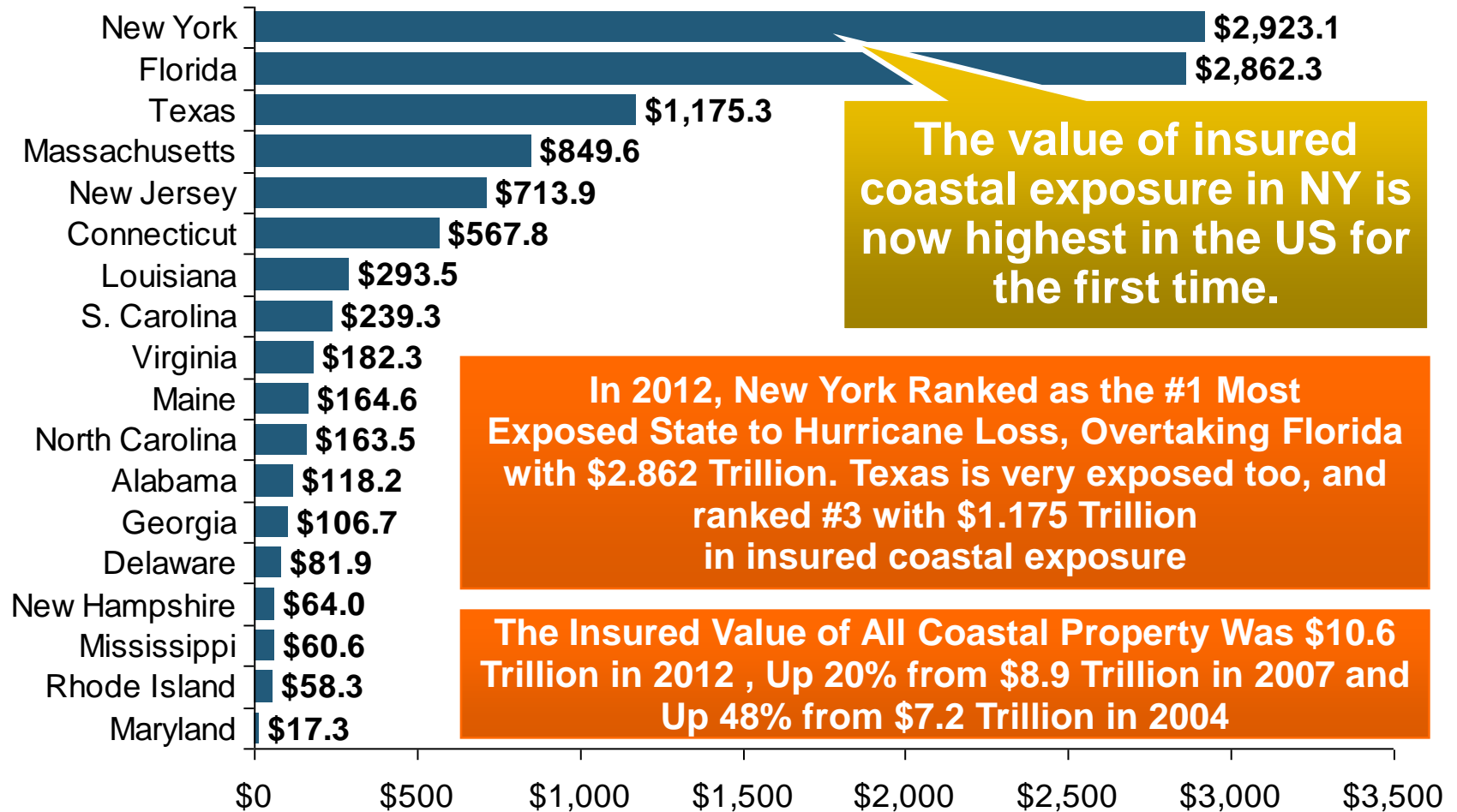


\*PCS estimate as of 4/12/13.

Sources: PCS; Insurance Information Institute inflation adjustments to 2012 dollars using the CPI.

# Total Value of Insured Coastal Exposure in 2012

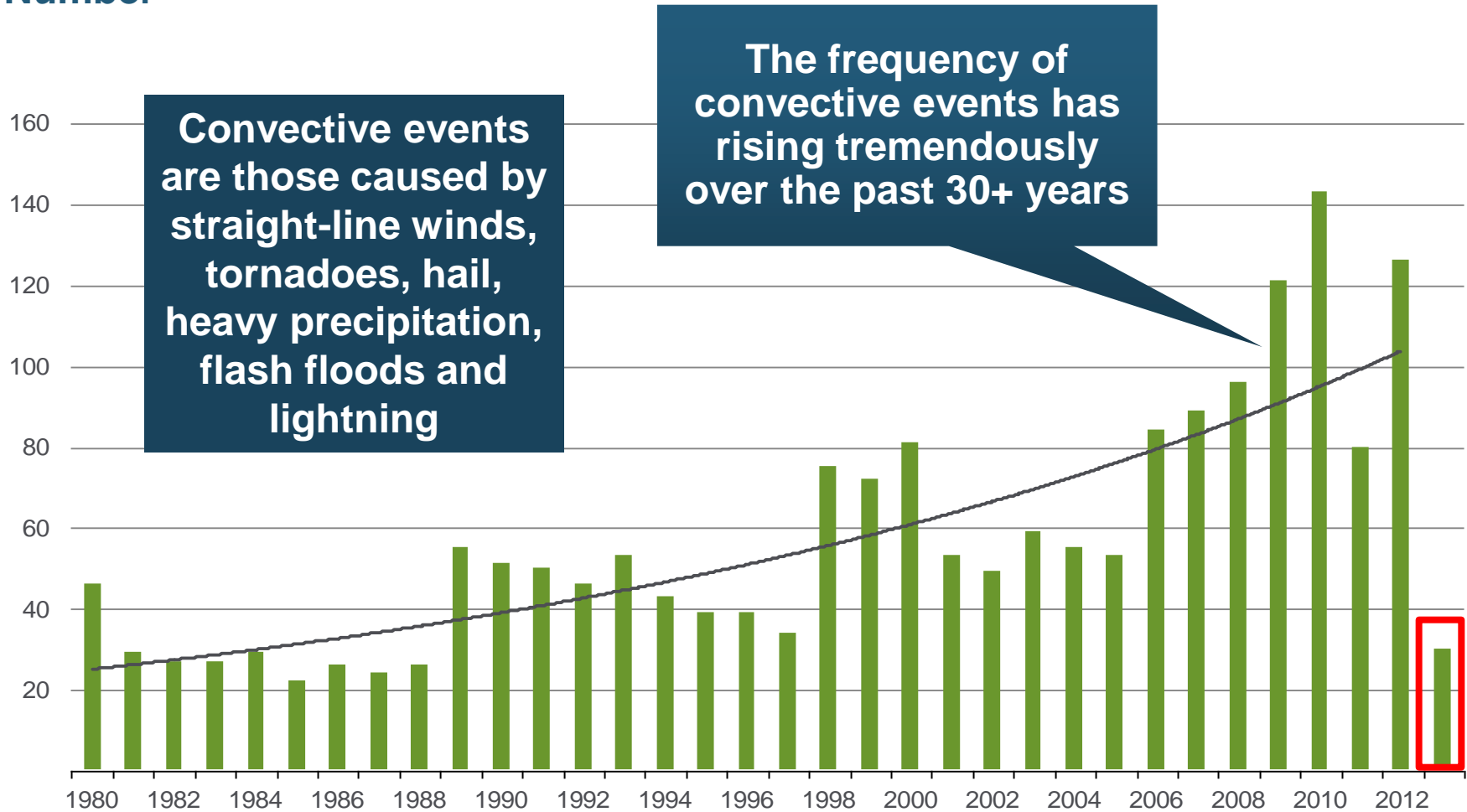
(2012, \$ Billions)



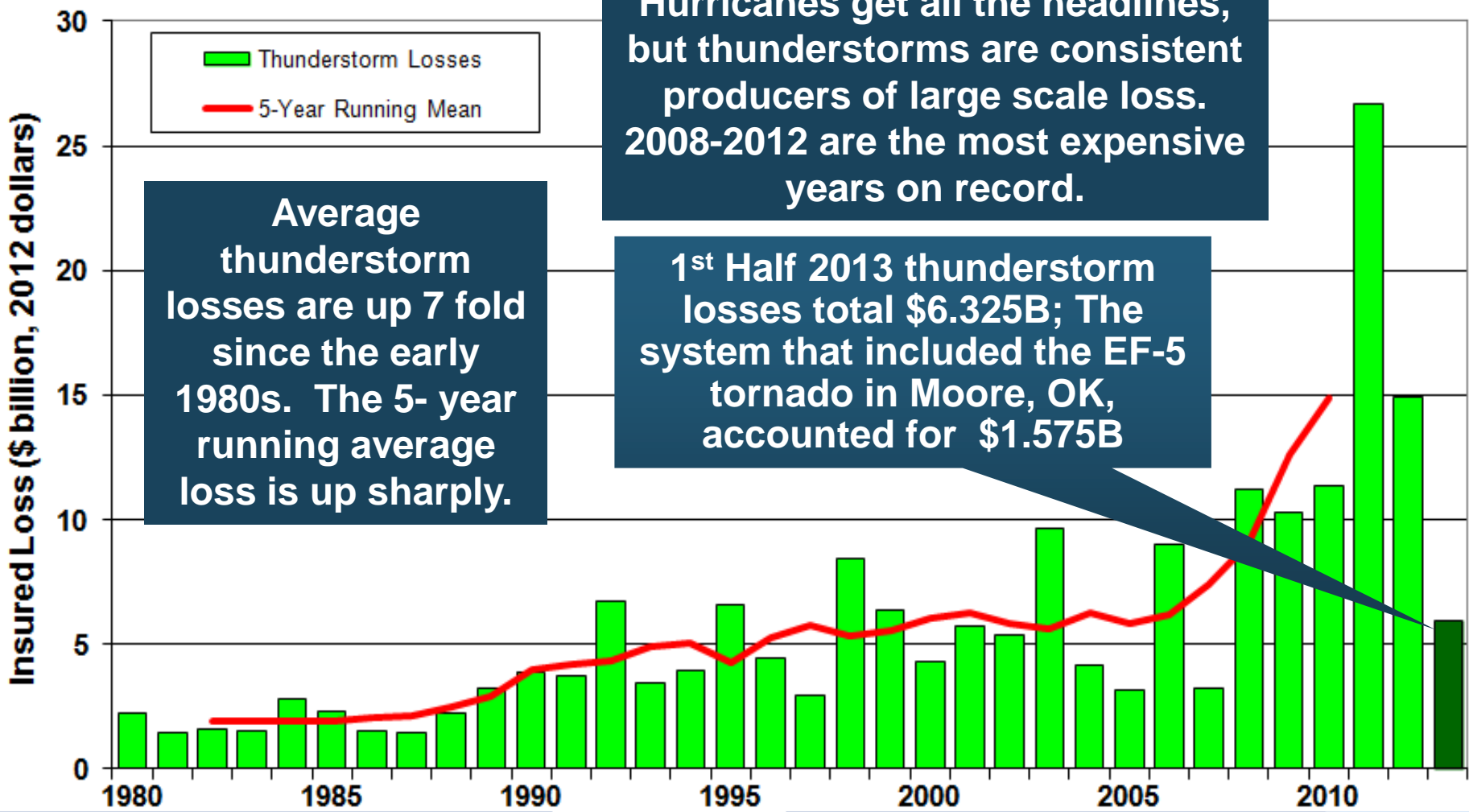
# Convective Loss Events in the U.S.

Number of events 1980 – 2012 and First Half 2013

Number



# U.S. Thunderstorm Loss Trends, 1980 – June 30, 2013



**Average thunderstorm losses are up 7 fold since the early 1980s. The 5- year running average loss is up sharply.**

**Hurricanes get all the headlines, but thunderstorms are consistent producers of large scale loss. 2008-2012 are the most expensive years on record.**

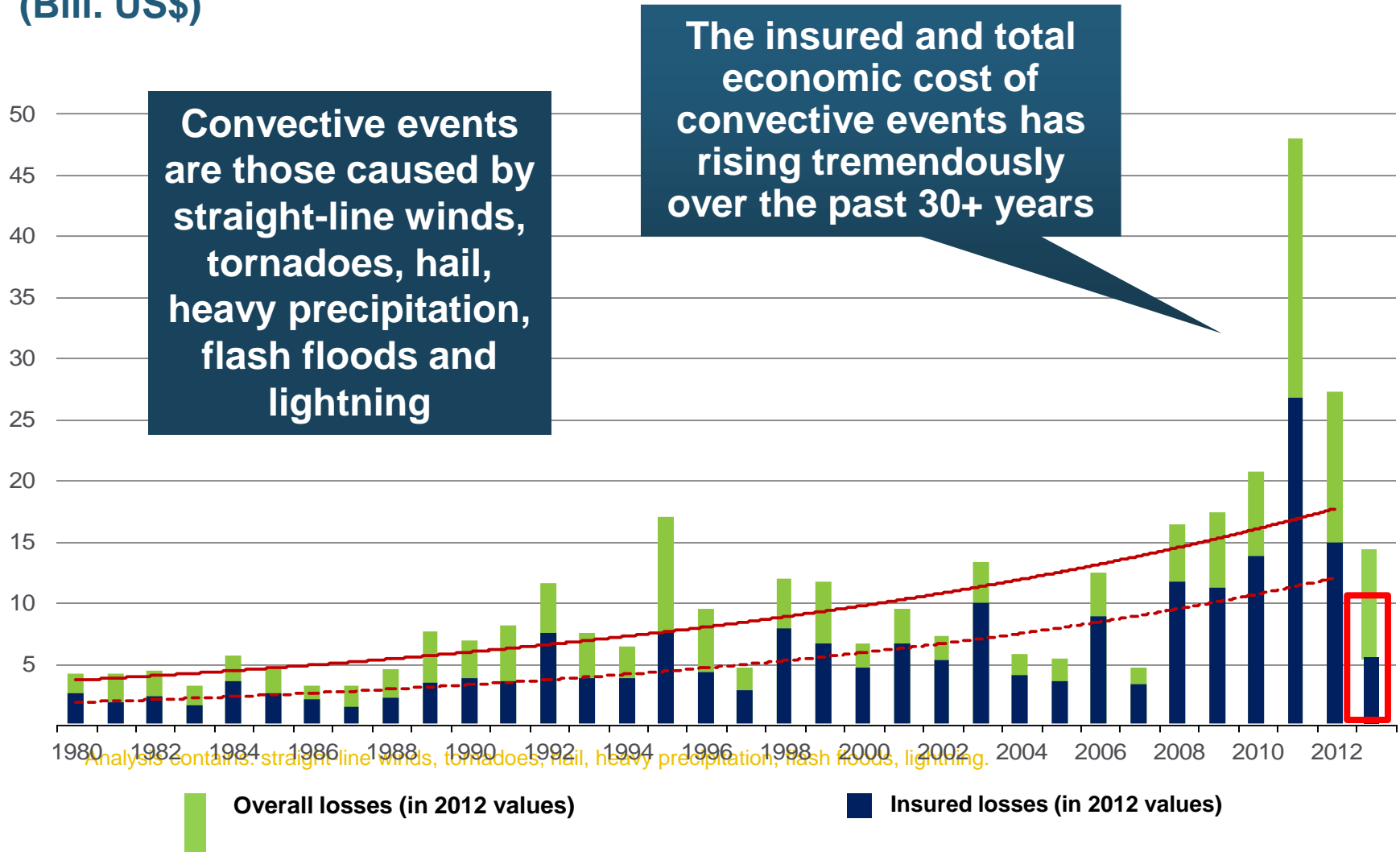
**1<sup>st</sup> Half 2013 thunderstorm losses total \$6.325B; The system that included the EF-5 tornado in Moore, OK, accounted for \$1.575B**



# Convective Loss Events in the U.S.

Overall and insured losses 1980 – 2012 and First Half 2013

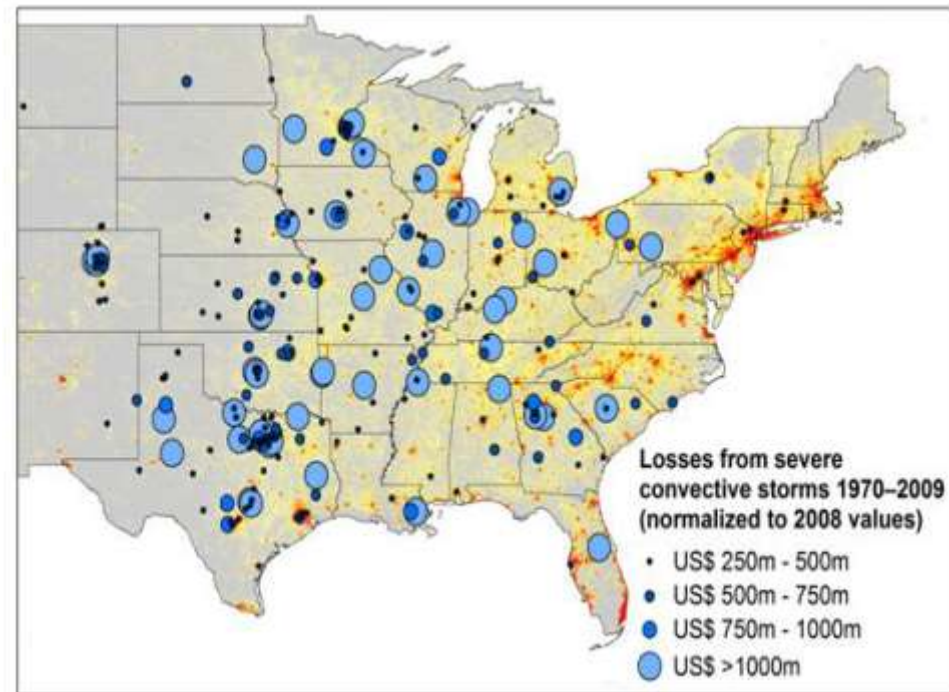
(Bill. US\$)



# New Research Suggests Increase in Convective Activity Is Costly for Insurers

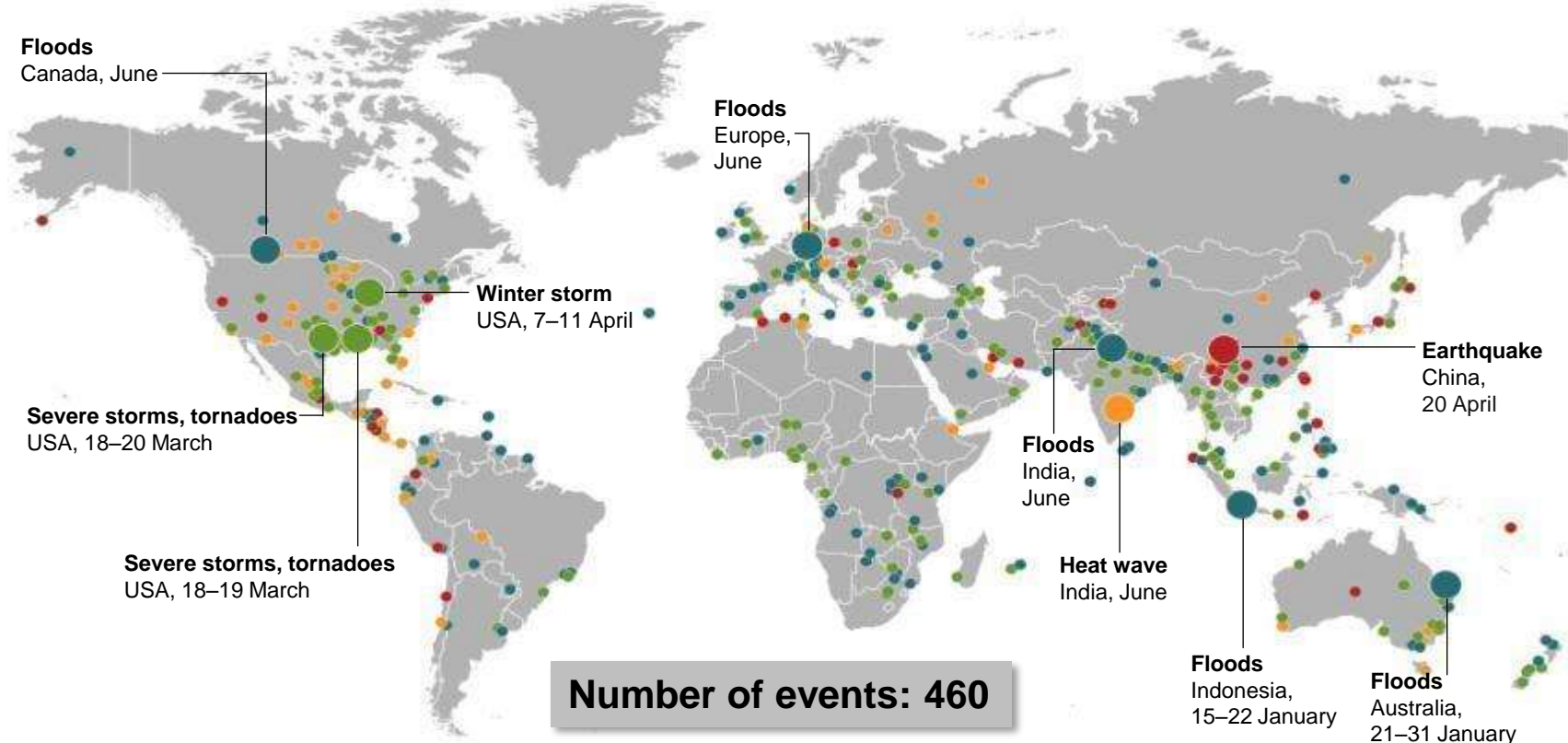
- Study examines convective (hail, tornado, thundersquall and heavy rainfall) events in the US with losses exceeding US\$ 250m in the period 1970–2009 (80% of all losses)
- Past losses are normalized (i.e., adjusted) to currently exposed values
- After normalization there are still increases of losses
- Increases are correlated with the increase in the meteorological potential for severe thunderstorms and its variability

*For the first time research shows that climatic changes have already influenced US thunderstorm losses*



# Natural Catastrophes January – June 2013

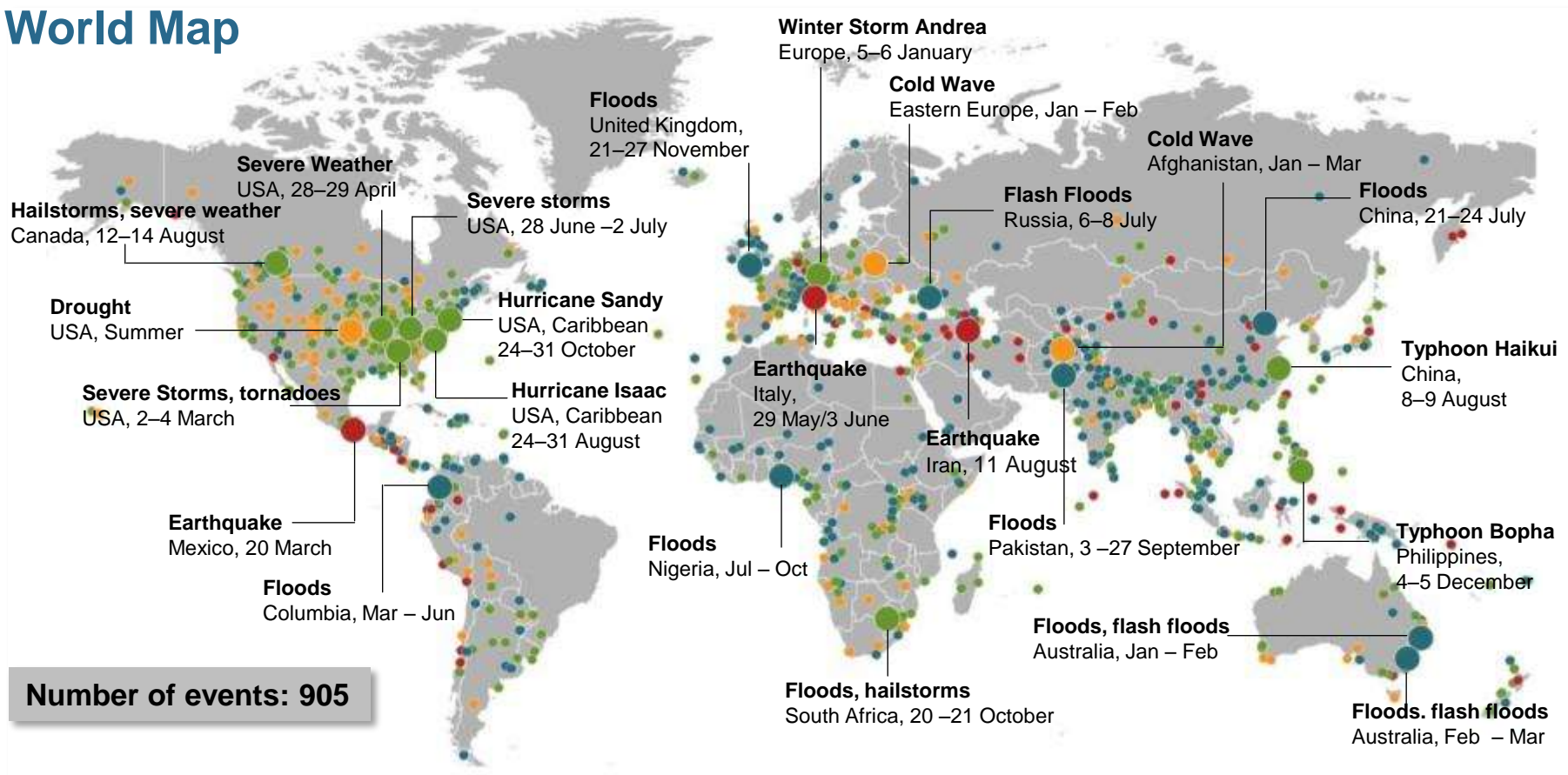
## World map with significant events



- **Natural catastrophes**
- **Selection of significant loss events**
- **Geophysical events**  
(earthquake, tsunami, volcanic activity)
- **Meteorological events**  
(storm)
- **Hydrological events**  
(flood, mass movement)
- **Climatological events**  
(extreme temperature, drought, wildfire)

# Natural Loss Events: Full Year 2012

## World Map



- Natural catastrophes
- Geophysical events (earthquake, tsunami, volcanic activity)
- Hydrological events (flood, mass movement)
- Selection of significant Natural catastrophes
- Meteorological events (storm)
- Climatological events (extreme temperature, drought, wildfire)



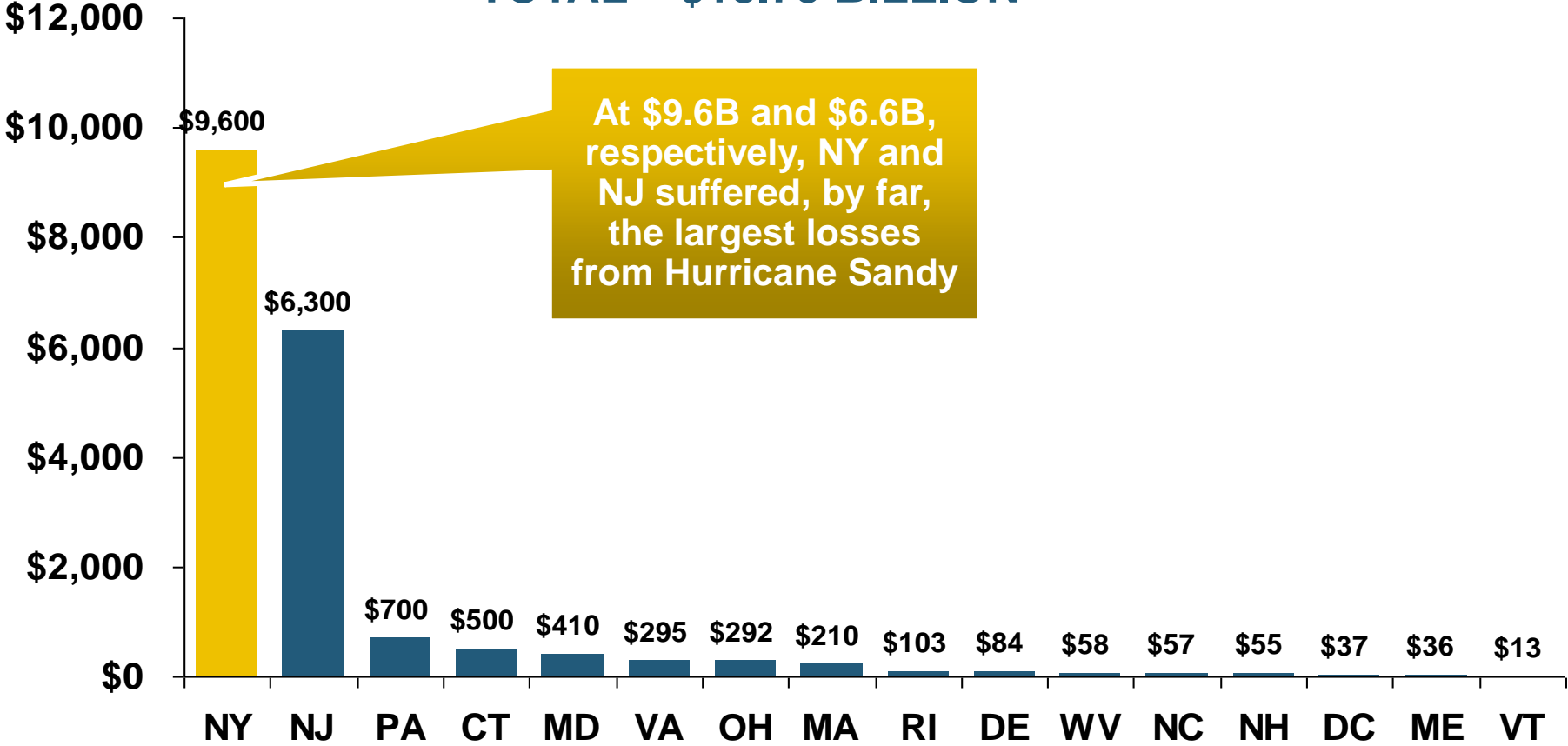
# Hurricane Sandy Summary

**Sandy Became One of the  
Most Expensive Events in  
Insurance History**

# Hurricane Sandy: Claim Payments to Policyholders, by State

(\$ Thousands)

**TOTAL = \$18.75 BILLION**



At \$9.6B and \$6.6B, respectively, NY and NJ suffered, by far, the largest losses from Hurricane Sandy

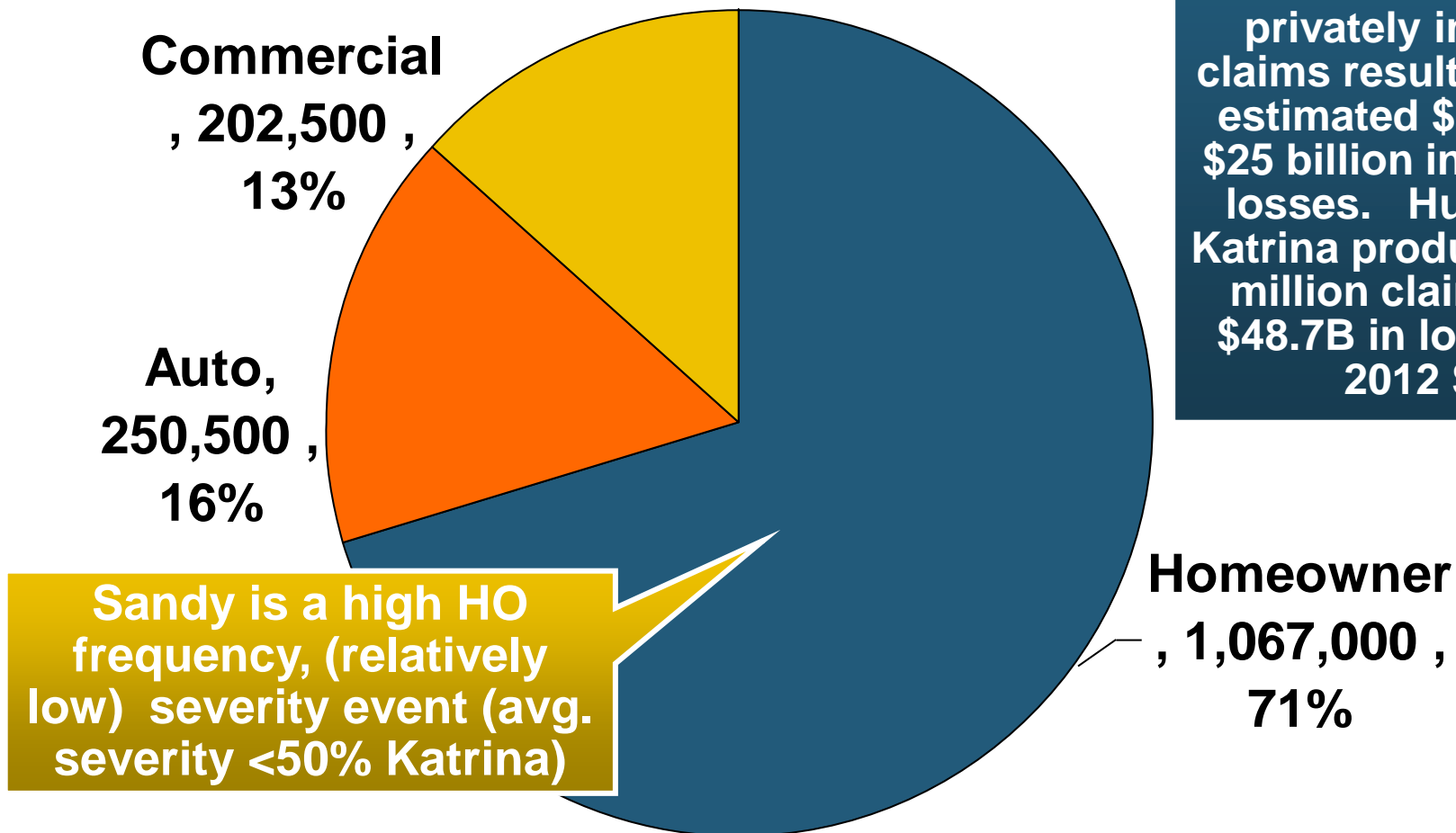
**Insurers Will Pay at Least \$18.75 Billion to 1.52 Million Policyholders Across 15 States and DC in the Wake of Hurricane Sandy**

Sources: Catastrophe loss data is for Catastrophe Serial No. 90 (Oct. 28 – 31, 2012) from PCS as of Jan. 18, 2013; Insurance Information Institute .

# Hurricane Sandy: Number of Claims by Type\*

Total Claims = 1.52 Million\*

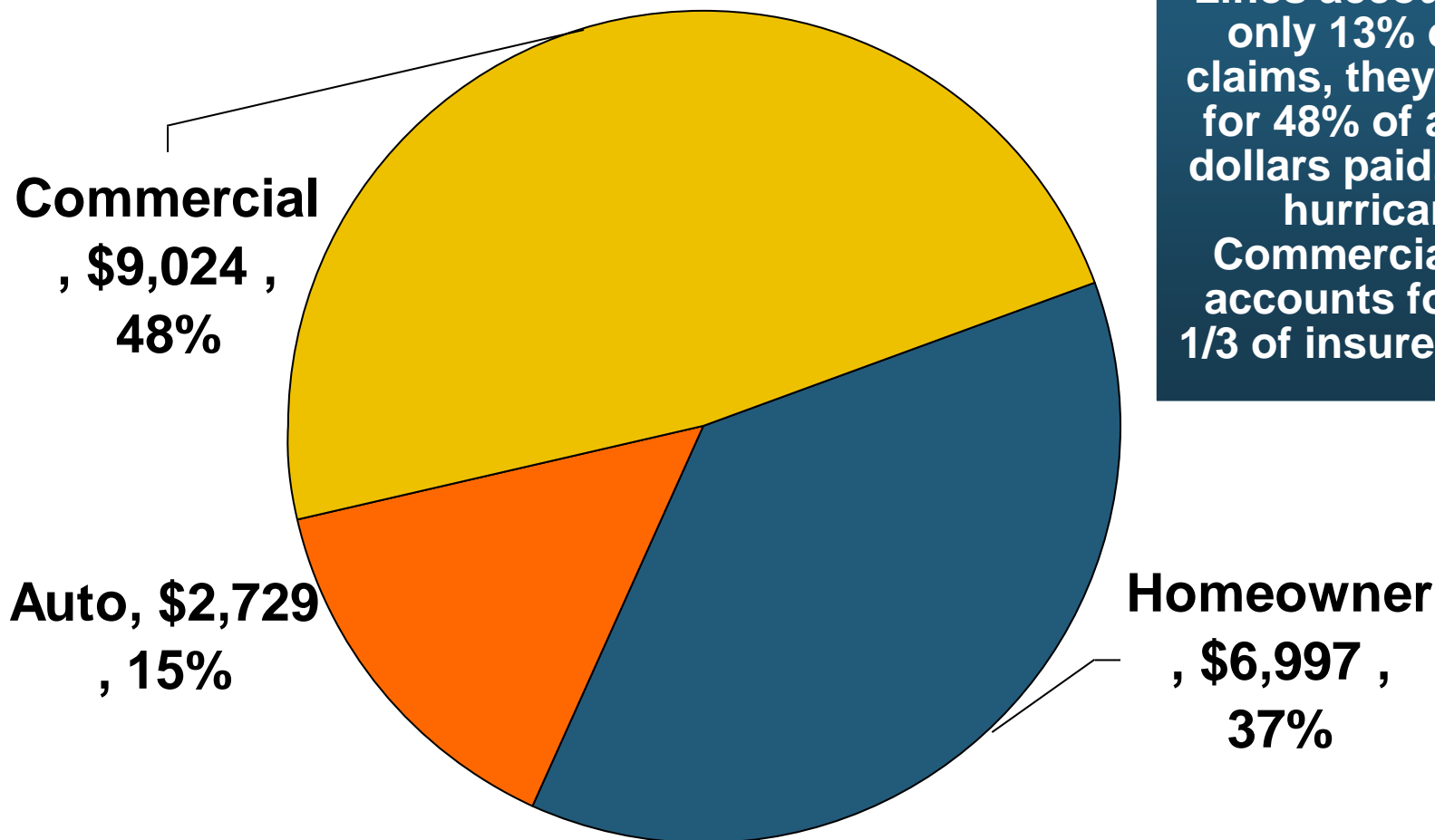
Hurricane Sandy resulted in an estimated 1.52 million privately insured claims resulting in an estimated \$18.75 to \$25 billion in insured losses. Hurricane Katrina produced 1.74 million claims and \$48.7B in losses (in 2012 \$)



\*PCS claim count estimate s as of 1/18/13. Loss estimate represents PCS total (\$18.75B) and upper end of range estimates by risk modelers RMS, Eqecat and AIR. All figures exclude losses paid by the NFIP.  
Source: PCS; AIR, Eqecat, AIR Worldwide; Insurance Information Institute.

# Hurricane Sandy: Insured Loss by Claim Type\* (\$ Millions)

**Total Claim Value = \$18.75 Billion\***



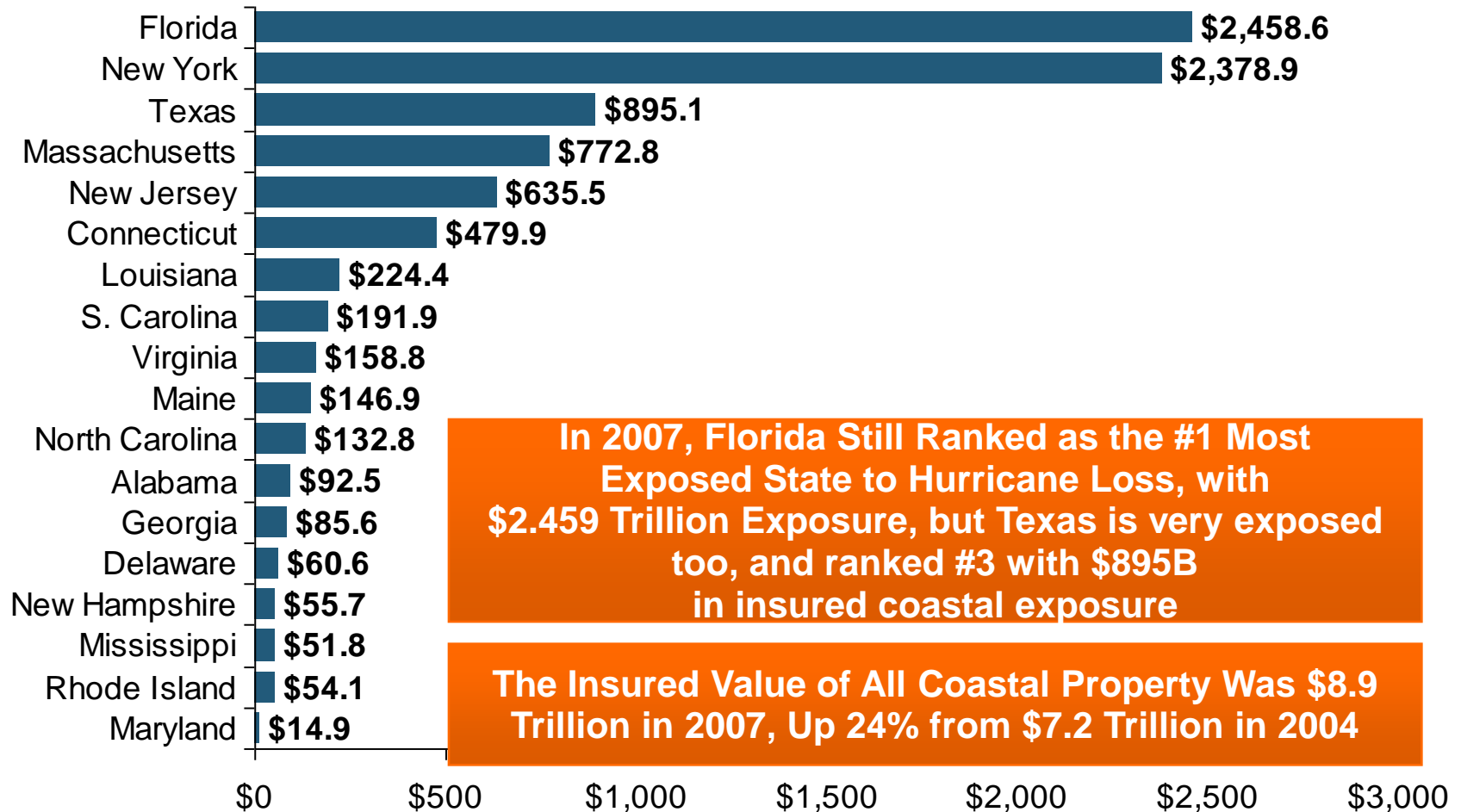
Although Commercial Lines accounted for only 13% of total claims, they account for 48% of all claim dollars paid. In most hurricanes, Commercial Lines accounts for about 1/3 of insured losses.

\*PCS insured loss estimates as of 1/18/13. Catastrophe modeler estimates range up to \$25 billion. All figures exclude losses paid by the NFIP. Source: PCS; Insurance Information Institute.



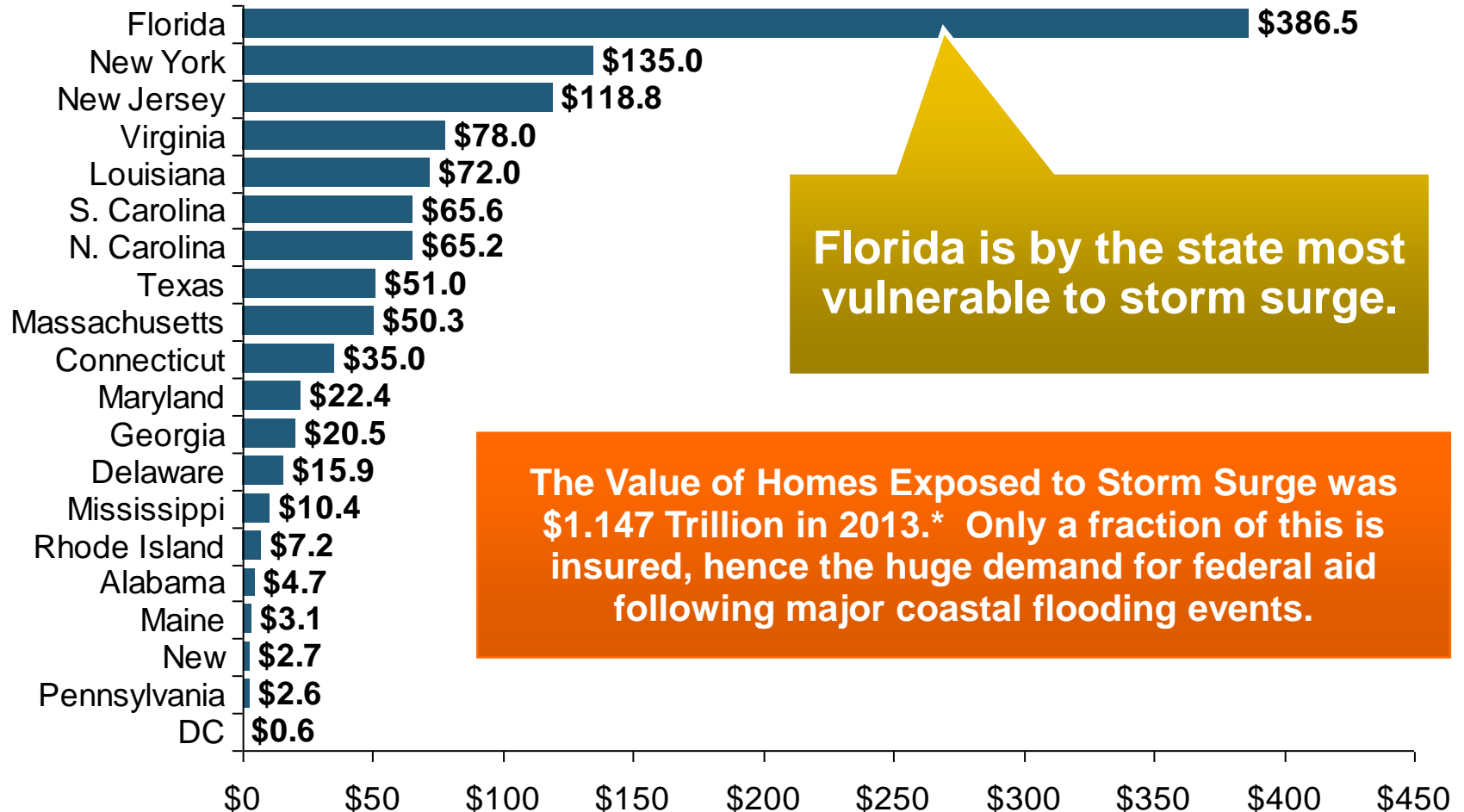
# Total Value of Insured Coastal Exposure in 2007

(2007, \$ Billions)



# Total Potential Home Value Exposure to Storm Surge Risk in 2013\*

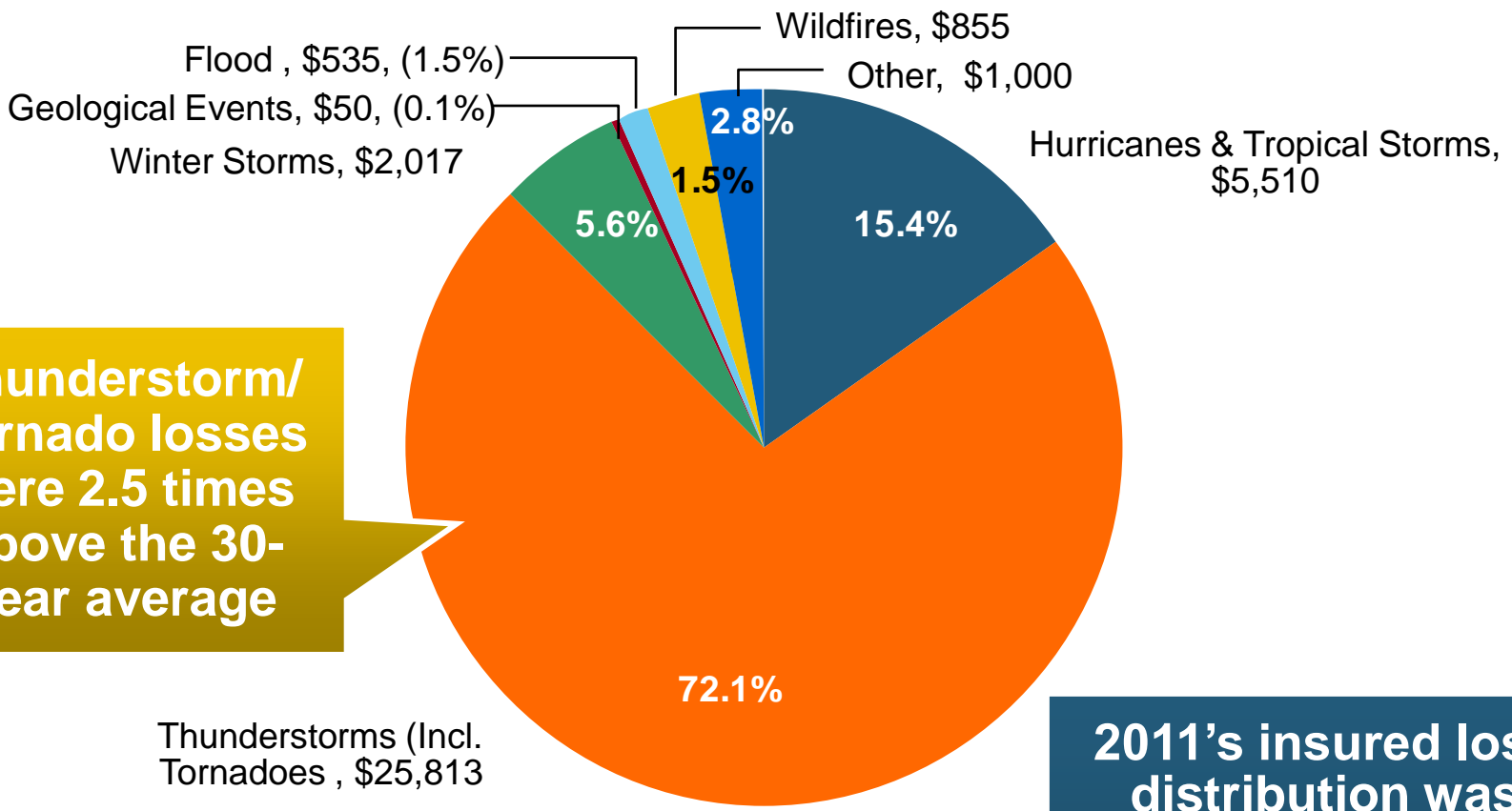
(\$ Billions)



\*Insured and uninsured property. Based on estimated property values as of April 2013.

Source: *Storm Surge Report 2013*, CoreLogic.

# U.S. Insured Catastrophe Losses by Cause of Loss, 2011 (\$ Millions)

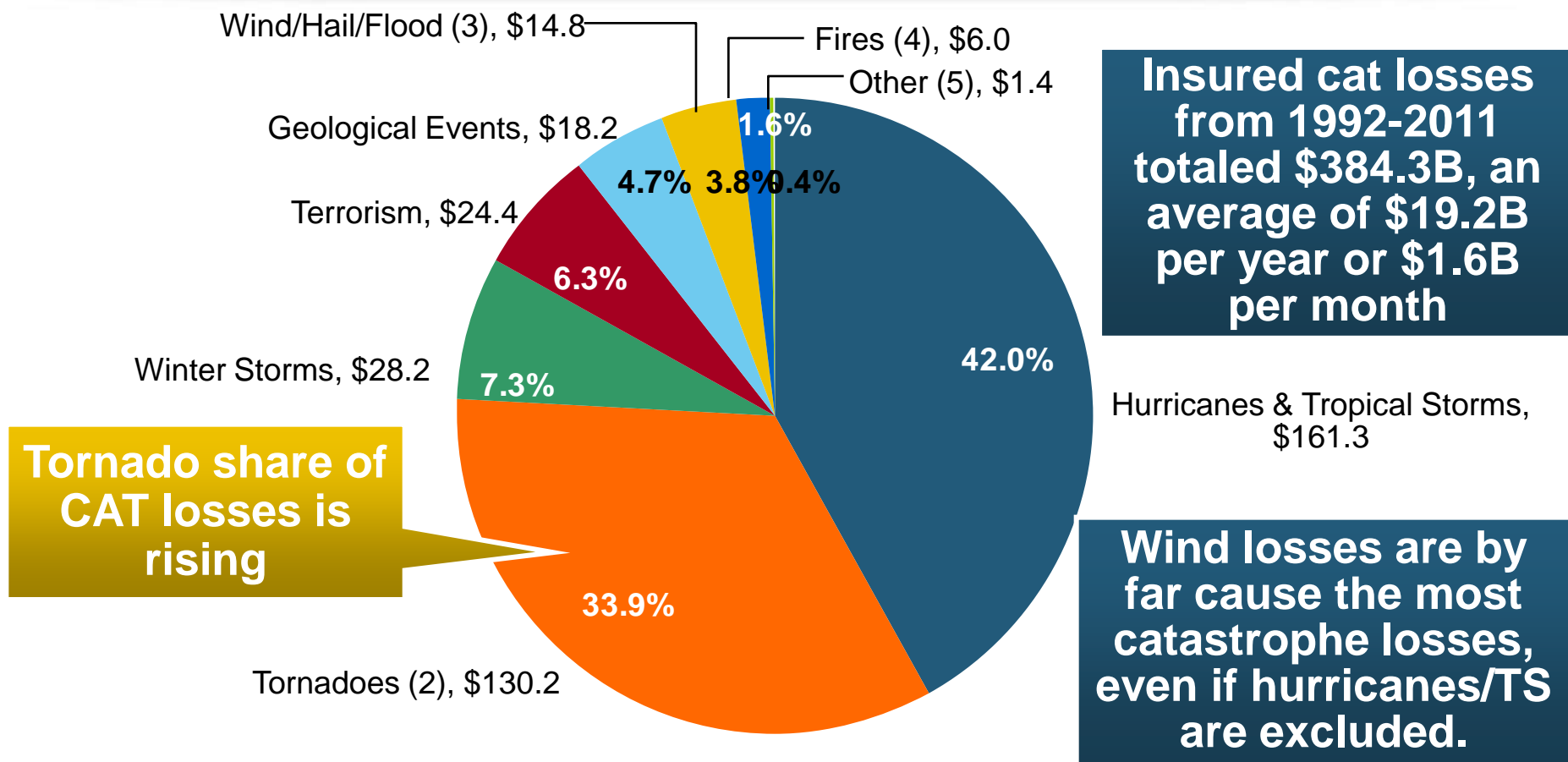


**Thunderstorm/  
Tornado losses  
were 2.5 times  
above the 30-  
year average**

**2011's insured loss  
distribution was  
unusual with tornado  
and thunderstorm  
accounting for the  
vast majority of loss**

Source: ISO's Property Claim Services Unit, Munich Re; Insurance Information Institute.

# Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1992–2011<sup>1</sup>



**Insured cat losses from 1992-2011 totaled \$384.3B, an average of \$19.2B per year or \$1.6B per month**

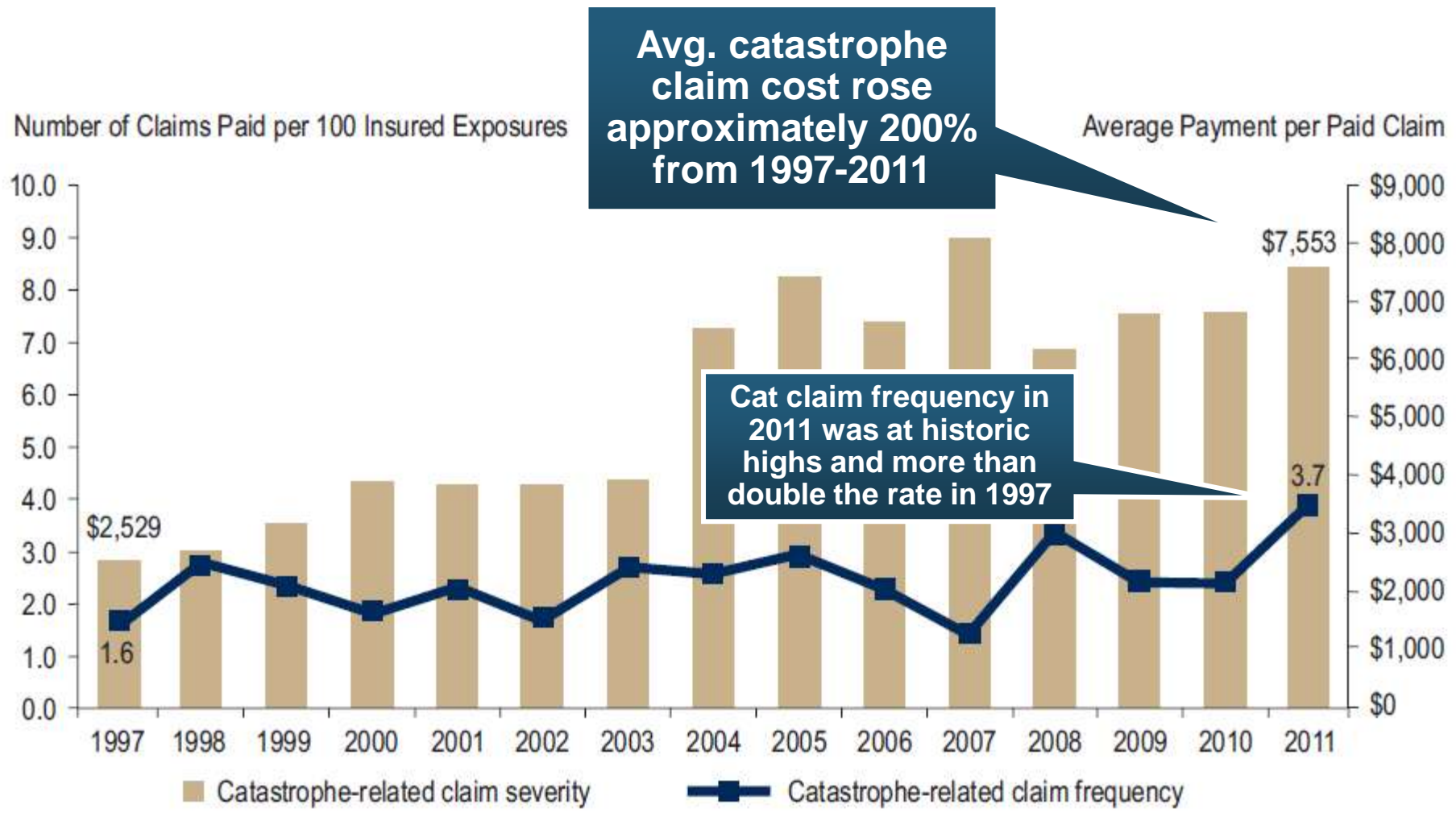
**Tornado share of CAT losses is rising**

**Wind losses are by far cause the most catastrophe losses, even if hurricanes/TS are excluded.**

1. Catastrophes are defined as events causing direct insured losses to property of \$25 million or more in 2009 dollars.
2. Excludes snow.
3. Does not include NFIP flood losses
4. Includes wildland fires
5. Includes civil disorders, water damage, utility disruptions and non-property losses such as those covered by workers compensation.

Source: ISO's Property Claim Services Unit.

# Homeowners Insurance Catastrophe-Related Claim Frequency and Severity, 1997—2012\*



\*All policy forms combined, countrywide.

Source: Insurance Research Council, *Trends in Homeowners Insurance Claims*, Sept. 2012 from ISO Fast Track data.

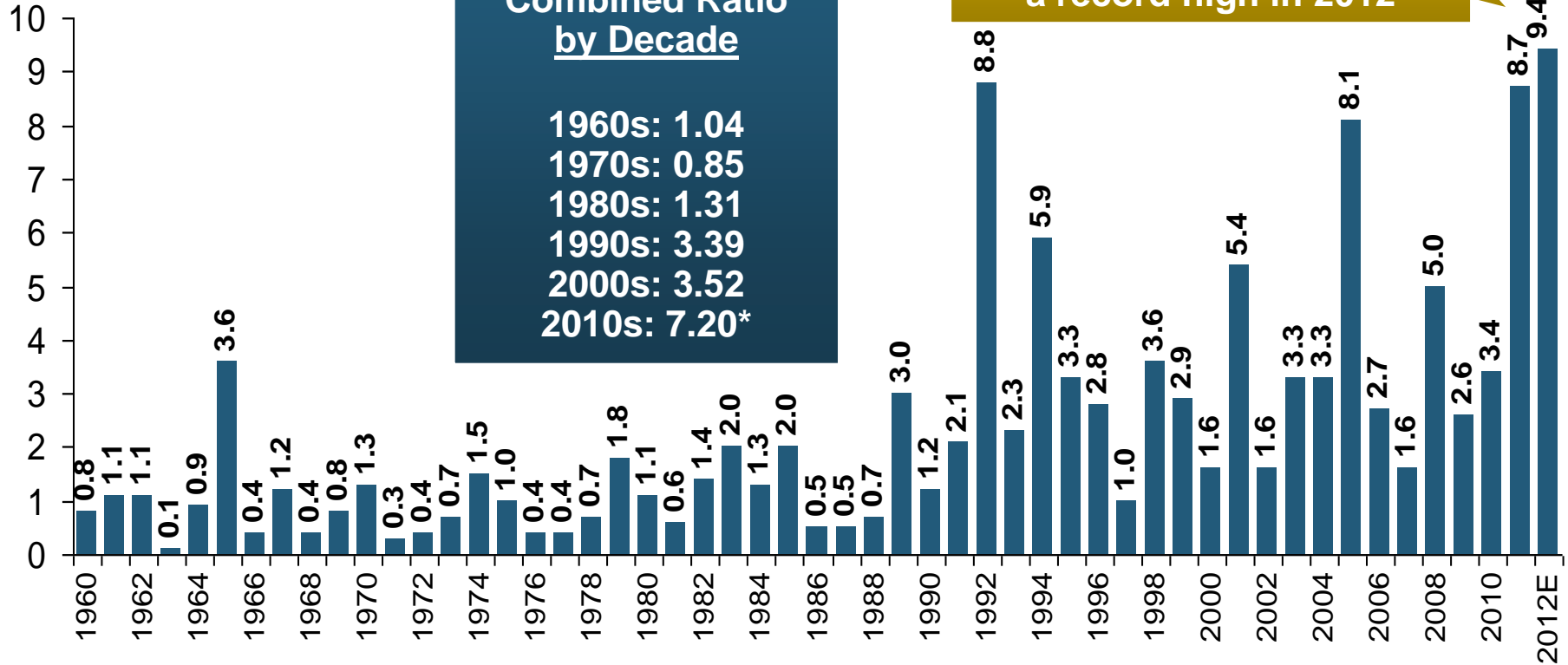
# Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2012\*

## Combined Ratio Points

**Avg. CAT Loss Component of the Combined Ratio by Decade**

1960s: 1.04  
 1970s: 0.85  
 1980s: 1.31  
 1990s: 3.39  
 2000s: 3.52  
 2010s: 7.20\*

Catastrophe losses as a share of all losses reached a record high in 2012

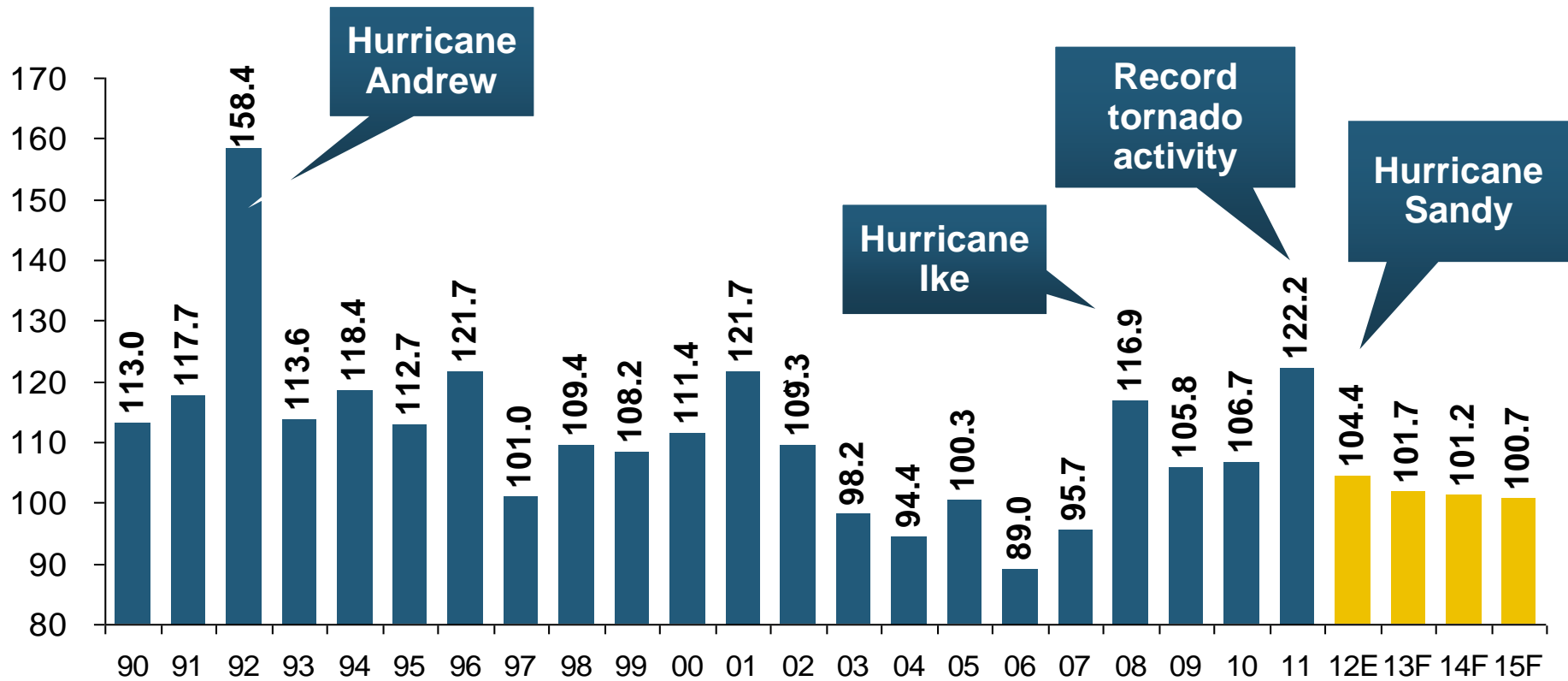


**The Catastrophe Loss Component of Private Insurer Losses Has Increased Sharply in Recent Decades**

Notes: Private carrier losses only. Excludes loss adjustment expenses and reinsurance reinstatement premiums. Figures are adjusted for losses ultimately paid by foreign insurers and reinsurers.

Source: ISO (1960-2011); A.M. Best (2012E) Insurance Information Institute.

# Homeowners Insurance Combined Ratio: 1990–2015F



**Homeowners Performance in 2011/12 Impacted by Large Cat Losses. Extreme Regional Variation Can Be Expected Due to Local Catastrophe Loss Activity**

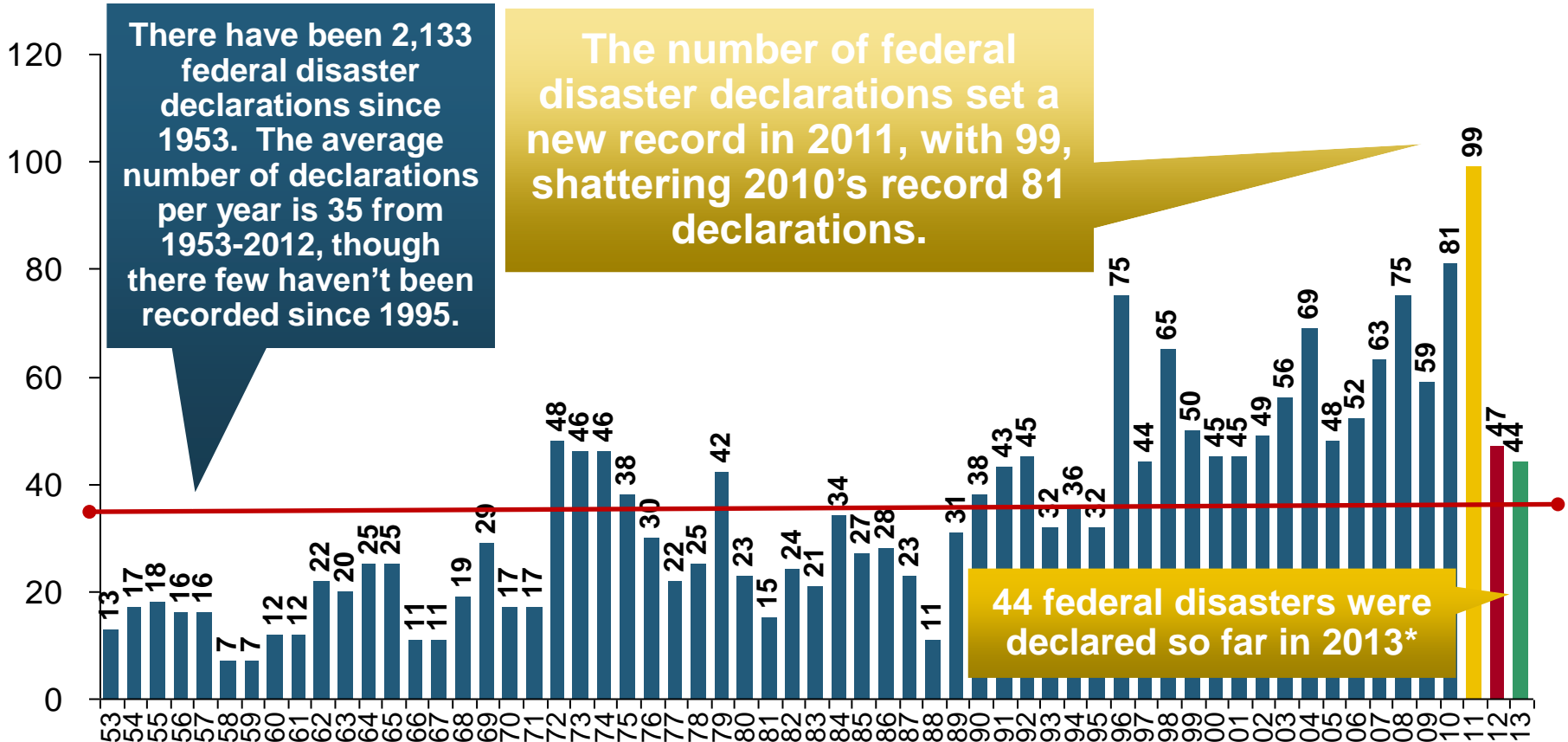


# Federal Disaster Declarations Patterns: 1953-2013

**Disaster Declarations Set New  
Records in Recent Years**



# Number of Federal Disaster Declarations, 1953-2013\*

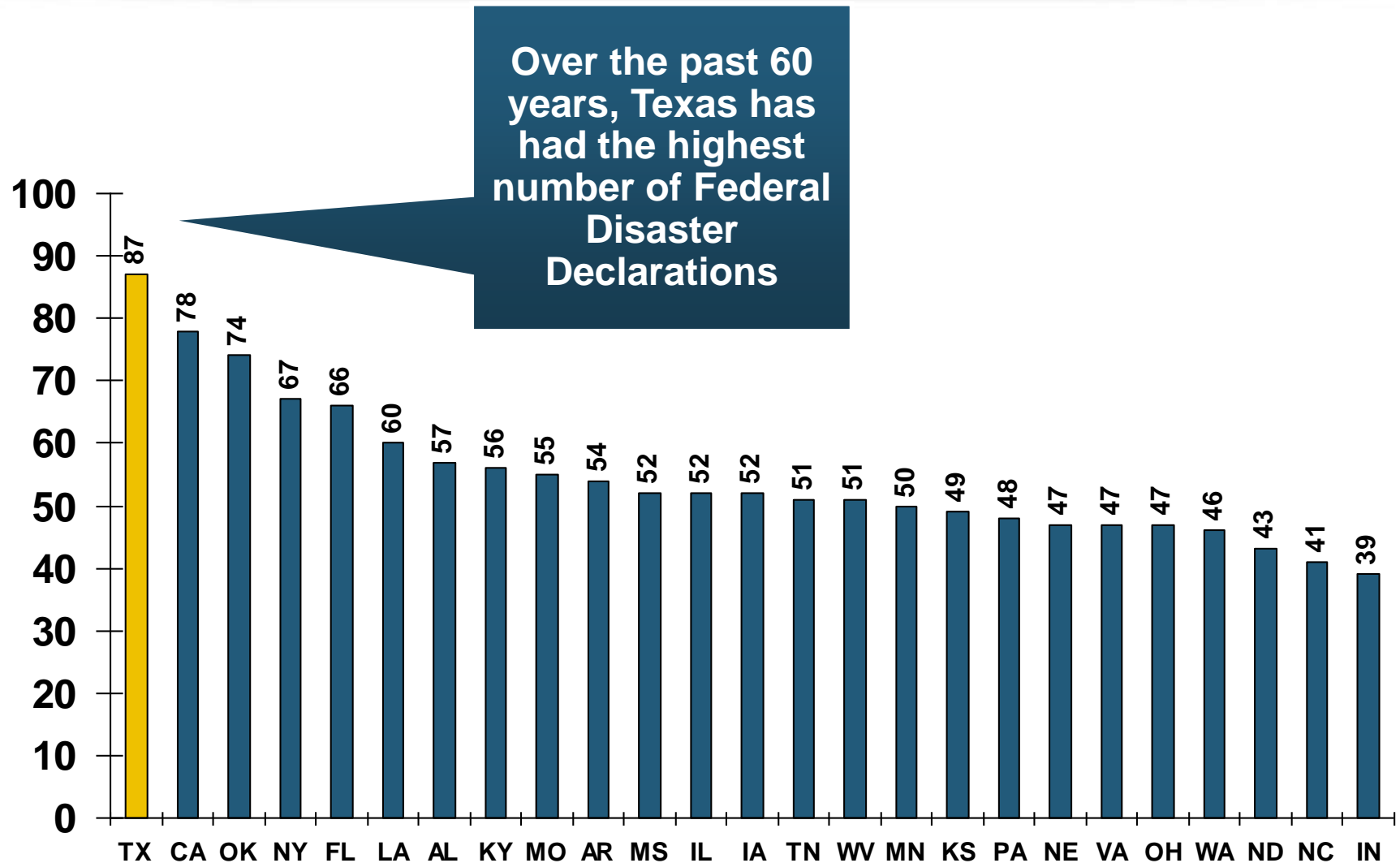


The Number of Federal Disaster Declarations Is Rising and Set New Records in 2010 *and* 2011. Hurricane Sandy Produced 13 Declarations in 2012/13.

\*Through September 30, 2013.

Source: Federal Emergency Management Administration; <http://www.fema.gov/disasters>; Insurance Information Institute.

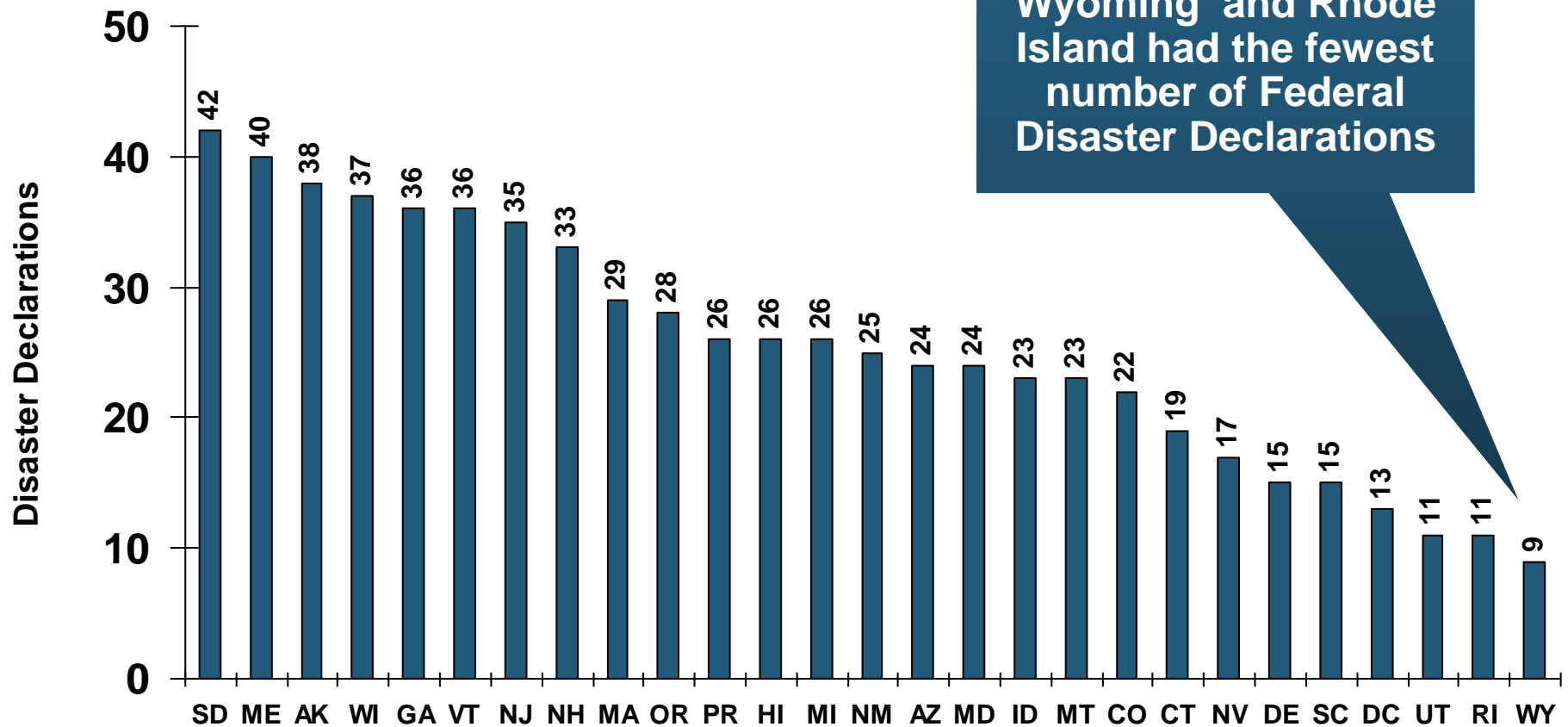
# Federal Disasters Declarations by State, 1953 – 2013: Highest 25 States\*



\*Through Sept. 30, 2013. Includes Puerto Rico and the District of Columbia.

Source: FEMA: [http://www.fema.gov/news/disaster\\_totals\\_annual.fema](http://www.fema.gov/news/disaster_totals_annual.fema); Insurance Information Institute.

# Federal Disasters Declarations by State, 1953 – 2013: Lowest 25 States\*



\*Through Sept. 30, 2013. Includes Puerto Rico and the District of Columbia.

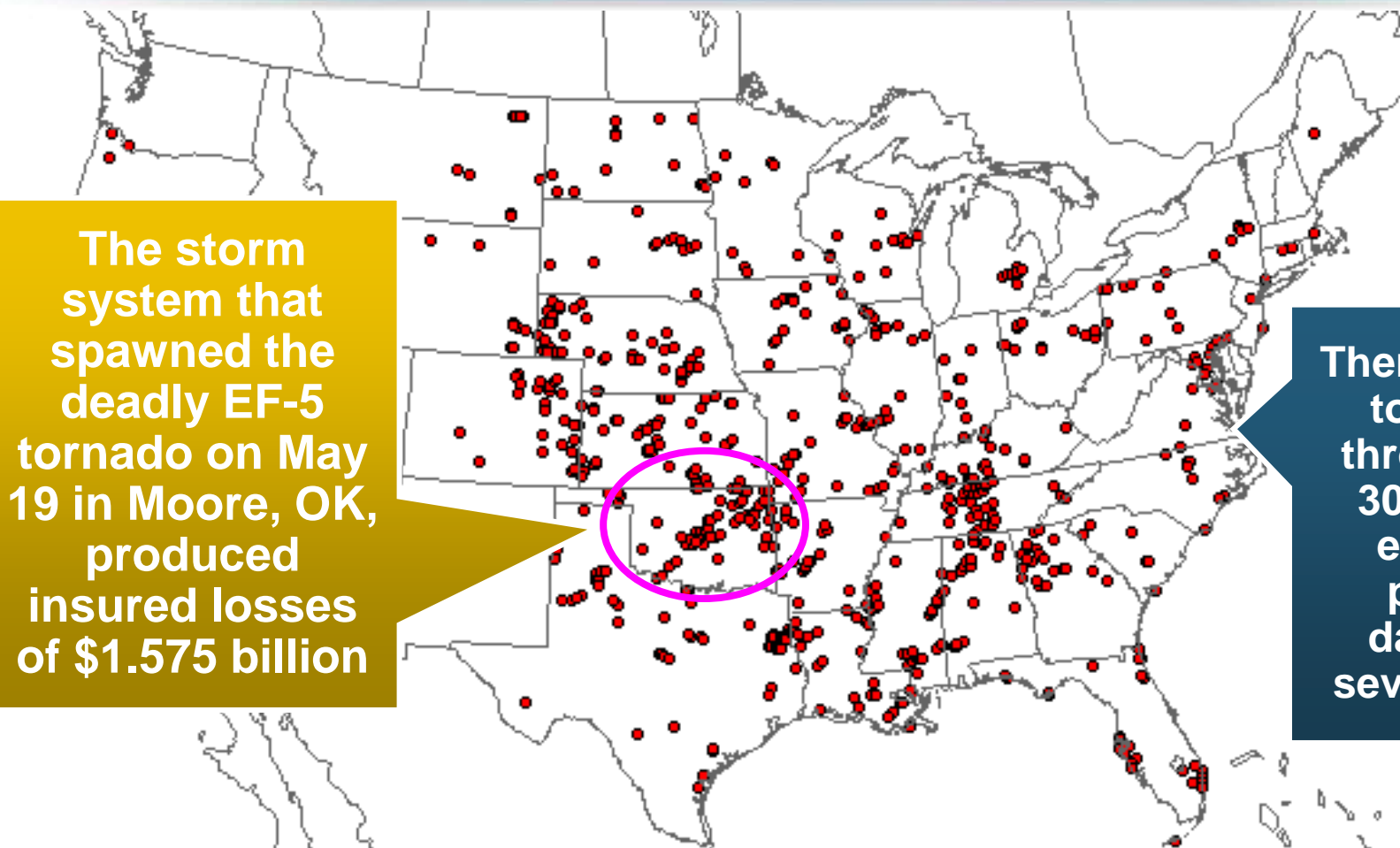
Source: FEMA: [http://www.fema.gov/news/disaster\\_totals\\_annual.fema](http://www.fema.gov/news/disaster_totals_annual.fema); Insurance Information Institute.



## SEVERE WEATHER REPORT UPDATE: 2013

*Damage from Tornadoes, Large Hail  
and High Winds Keep Insurers Busy*

# Location of Tornado Reports: Through August 30, 2013



The storm system that spawned the deadly EF-5 tornado on May 19 in Moore, OK, produced insured losses of \$1.575 billion

There were 720 tornadoes through Aug. 30, causing extensive property damage in several states



PRELIMINARY SEVERE WEATHER  
REPORT DATABASE (ROUGH LOG)

NOAA/Storm Prediction Center Norman, Oklahoma

Tornado Reports  
January 01, 2013 - August 30, 2013

Updated: Friday August 30, 2013 08:50 CT

# U.S. Tornado Count, 2005-2013\*

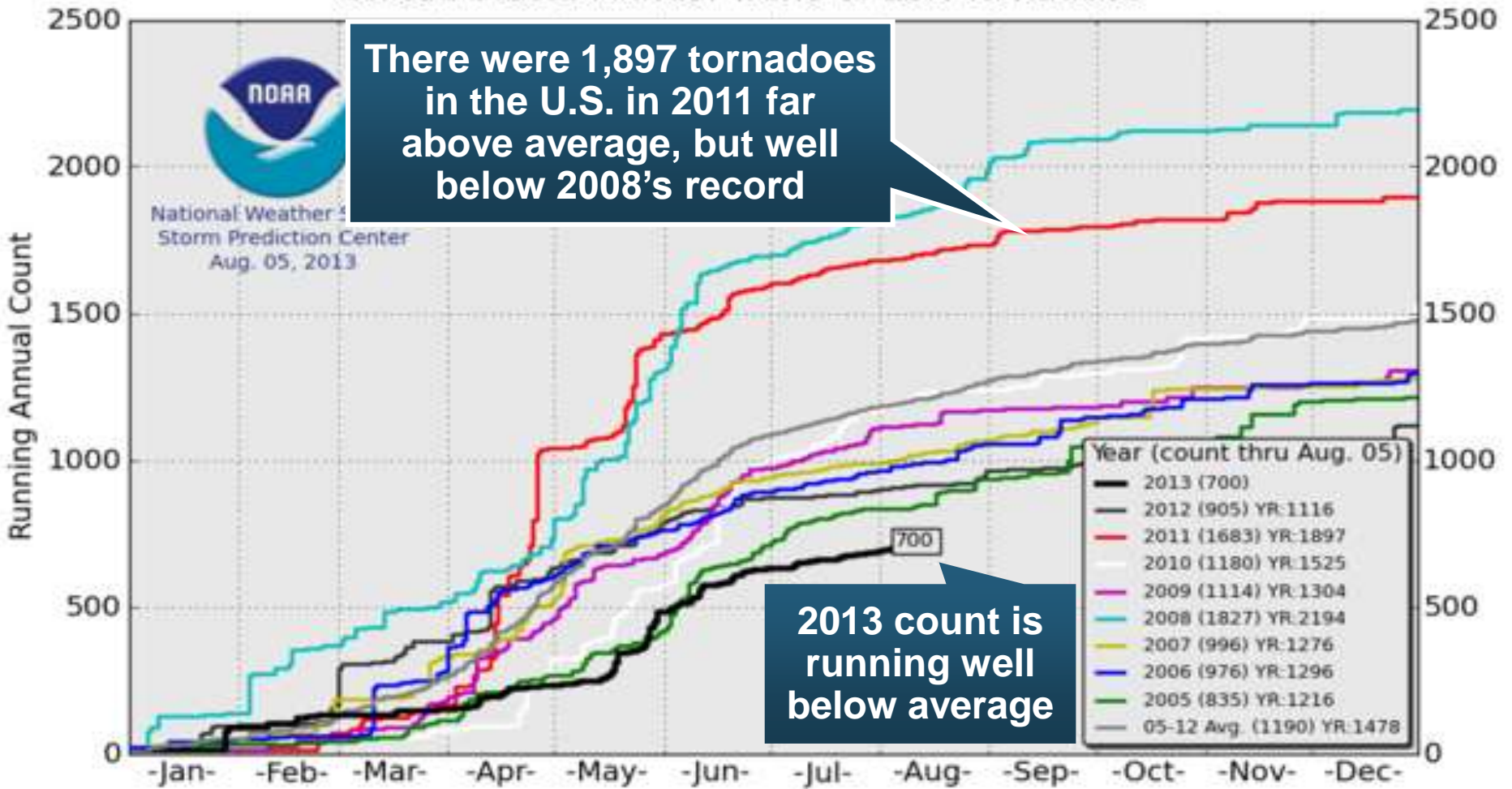
United States Annual Trend of LSR Tornadoes\*



National Weather Service  
Storm Prediction Center  
Aug. 05, 2013

There were 1,897 tornadoes in the U.S. in 2011 far above average, but well below 2008's record

2013 count is running well below average

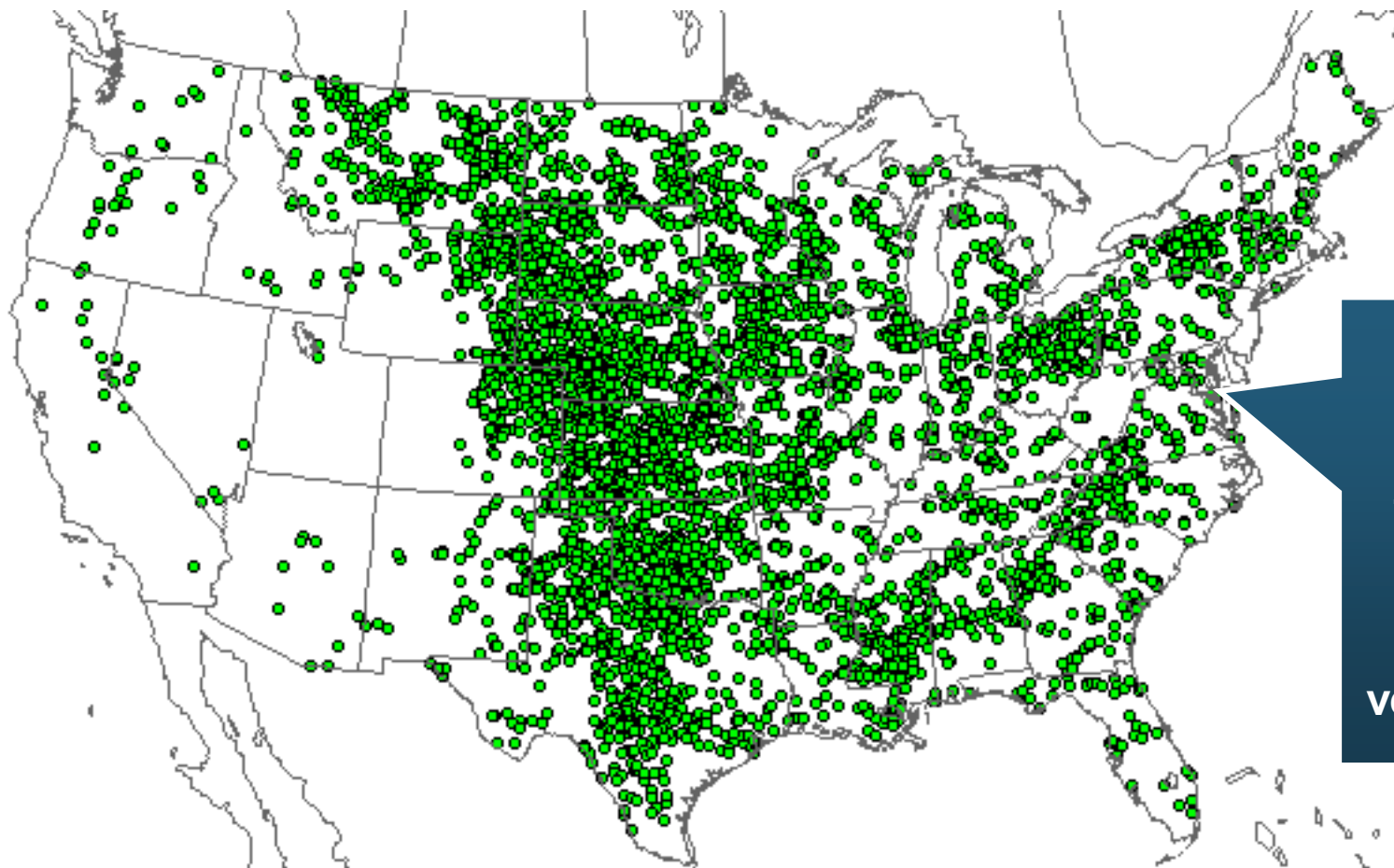


\*Preliminary tornadoes from NWS Local Storm Reports (LSRs)  
Annual average is based on preliminary LSRs, 2005-2012

\*Through August 5, 2013.

Source: <http://www.spc.noaa.gov/wcm/>.

# Location of Large Hail Reports: Through August 30, 2013



There were  
5,003 “Large  
Hail” reports  
through Aug.  
30, causing  
extensive  
property and  
vehicle damage



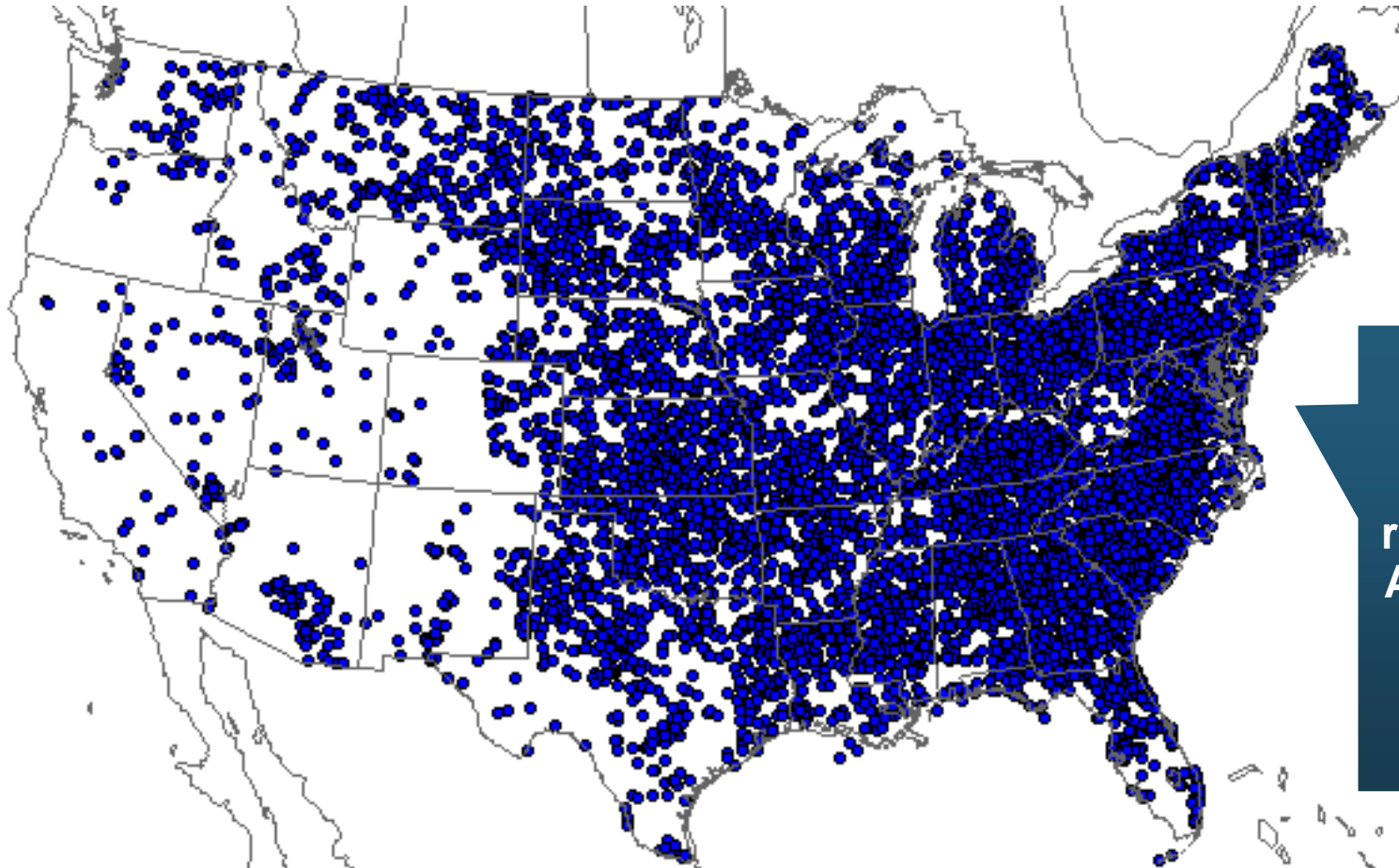
PRELIMINARY SEVERE WEATHER  
REPORT DATABASE (ROUGH LOG)

NOAA/Storm Prediction Center Norman, Oklahoma

Hail Reports  
January 01, 2013 - August 30, 2013

Updated: Friday August 30, 2013 08:50 CT

# Location of High Wind Reports: Through August 30, 2013



There were  
10,572 “Wind  
Damage”  
reports through  
Aug. 4, causing  
extensive  
property  
damage



PRELIMINARY SEVERE WEATHER  
REPORT DATABASE (ROUGH LOG)

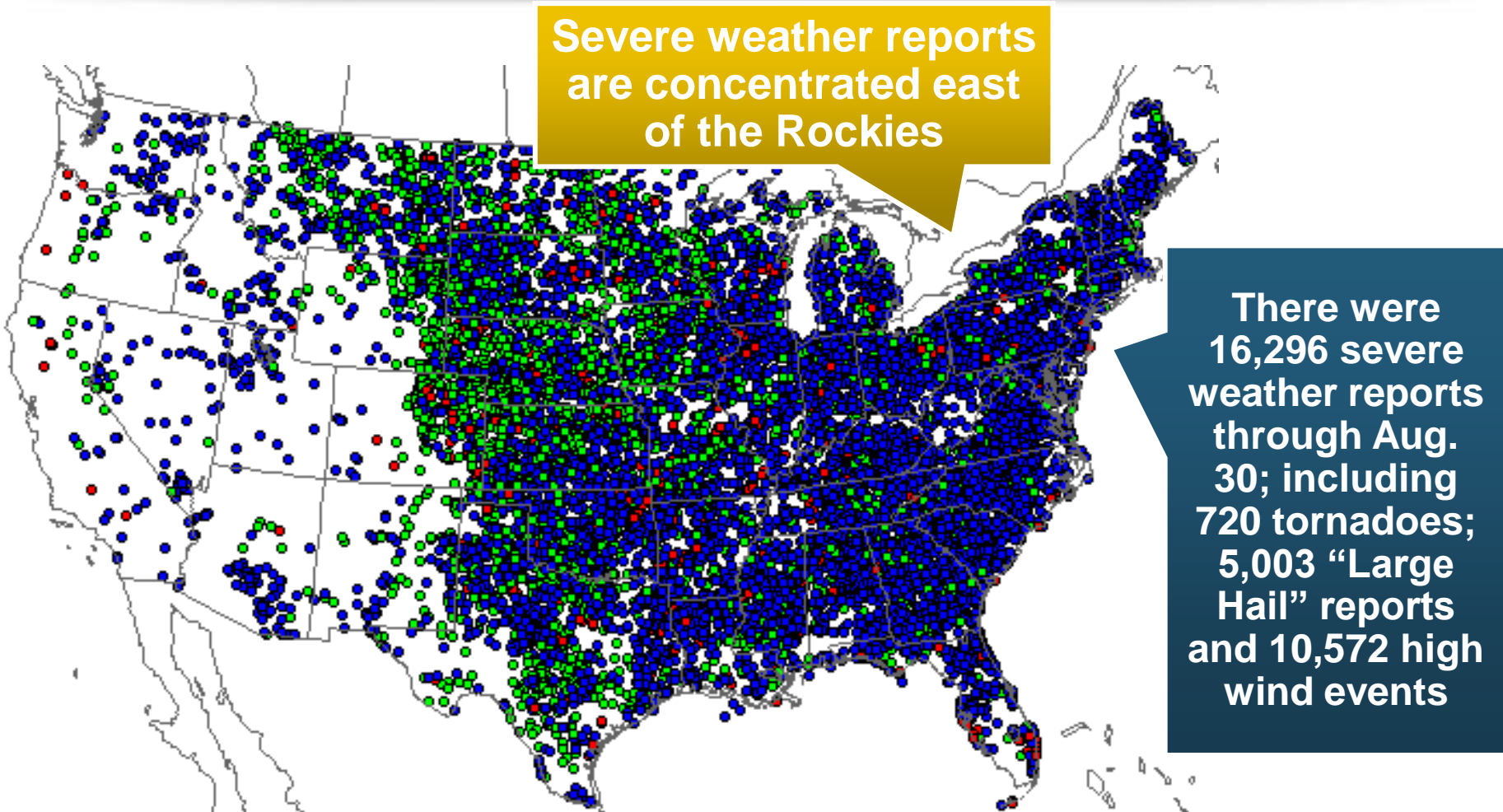
NOAA/Storm Prediction Center Norman, Oklahoma

Wind Reports  
January 01, 2013 - August 30, 2013

Updated: Friday August 30, 2013 08:50 CT



# Severe Weather Reports: Through August 30, 2013



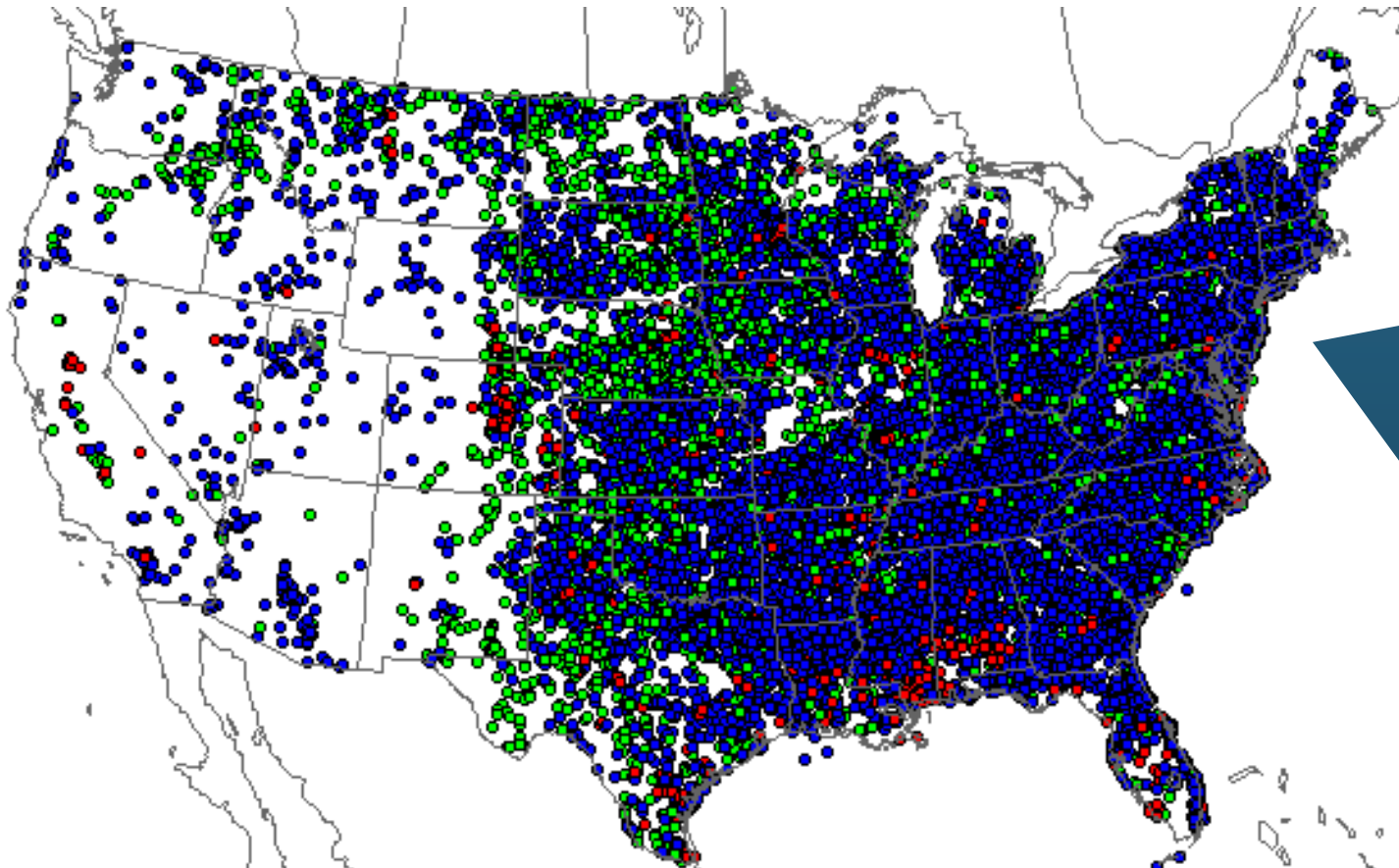
PRELIMINARY SEVERE WEATHER  
REPORT DATABASE (ROUGH LOG)

NOAA/Storm Prediction Center Norman, Oklahoma

Severe Weather Reports  
January 01, 2013 - August 30, 2013

Updated: Friday August 30, 2013 08:50 CT

# Severe Weather Reports, 2012



There were 22,503 severe weather reports in 2011; including 1,119 tornadoes; 7,033 “Large Hail” reports and 14,351 high wind events



PRELIMINARY SEVERE WEATHER  
REPORT DATABASE (ROUGH LOG)

NOAA/Storm Prediction Center Norman, Oklahoma

Severe Weather Reports  
January 01, 2012 - December 31, 2012

Updated: Sunday January 06, 2013 02:10 CT

# Terrorism Update

## Boston Marathon Bombings Underscore the Need for Extension of the Terrorism Risk Insurance Program

***Download III's Terrorism Insurance Report at:  
[http://www.iii.org/white\\_papers/terrorism-  
risk-a-constant-threat-2013.html](http://www.iii.org/white_papers/terrorism-risk-a-constant-threat-2013.html)***

# Terrorism Risk Insurance Program

- Reauthorization Was a Major Industry Initiative for 2013 Even Before Boston
- I.I.I. Testified at First Congressional Hearing on 9/11/12
  - ◆ Provided testimony at NYC hearing on 6/17/13
- I.I.I. Accelerated Planned Study on Terrorism Risk and Insurance in the Wake of Boston and Was Well Received
  - ◆ *Terrorism: A Constant Threat* issued in June 2013



## ■ Boston Marathon Bombing Has Helped Focus Attention in Congress on TRIPRA and its Looming Expiration

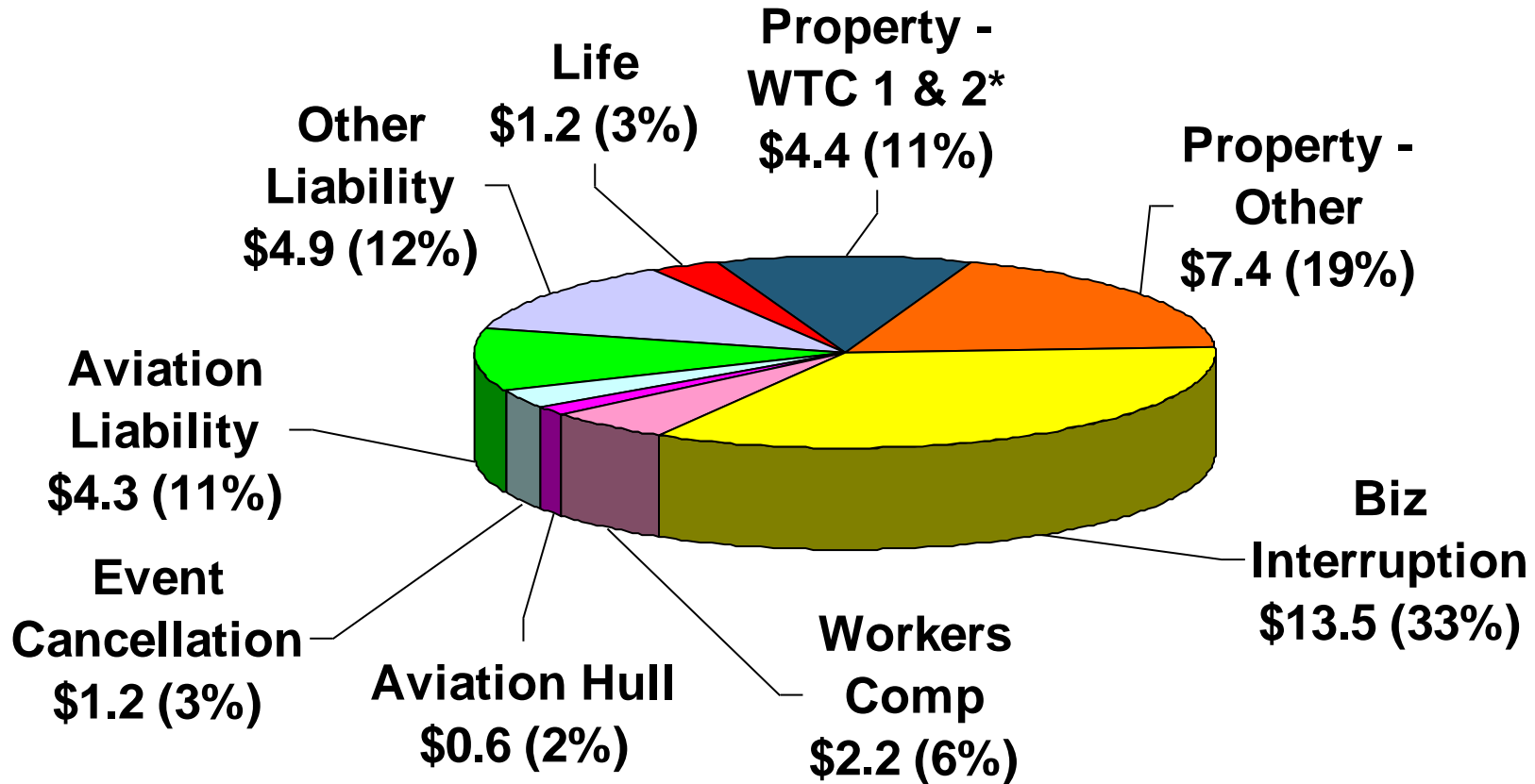
- ◆ Act expires 12/31/14
- ◆ Exclusionary language will likely be inserted for post-1/1/2014 renewals and will likely lead to significant media interest (educational opportunity)
- ◆ Numerous headwinds; not a priority issue in 2013 in Congress
- ◆ 3 extension bills introduced in 2013—2 since Boston

## ■ Media Interest Soared

- ◆ I.I.I. was conducting its first interviews within minutes after live-tweeting (nearly) from the scene; TV interest was high
- ◆ Local, national and international media focused on this topic for the first time in any significant way since TRIA's inception in late 2002
- ◆ Inquiries revealed very little/no understanding (or even awareness) outside insurance industry and business owners
- ◆ Certification process caused confusion

# Loss Distribution by Type of Insurance from Sept. 11 Terrorist Attack (\$ 2011)

(\$ Billions)



**Total Insured Losses Estimate: \$40.0B\*\***

\*Loss total does not include March 2010 New York City settlement of up to \$657.5 million to compensate approximately 10,000 Ground Zero workers or any subsequent settlements.

\*\*\$32.5 billion in 2001 dollars.

Source: Insurance Information Institute.

## ■ Difficult Reauthorization Battle Ahead

- ◆ Very difficult to overcome antigovernment/small government, Tea Party forces in the House
- ◆ Most Committee members in both houses weren't around in 2007

## ■ House Hearings in 2012; House and Senate in Sept. 2013

## ■ If Reauthorized, Insurer Participation Likely Increased

## ■ Some Have Attacked TRIA as “Corporate Welfare”

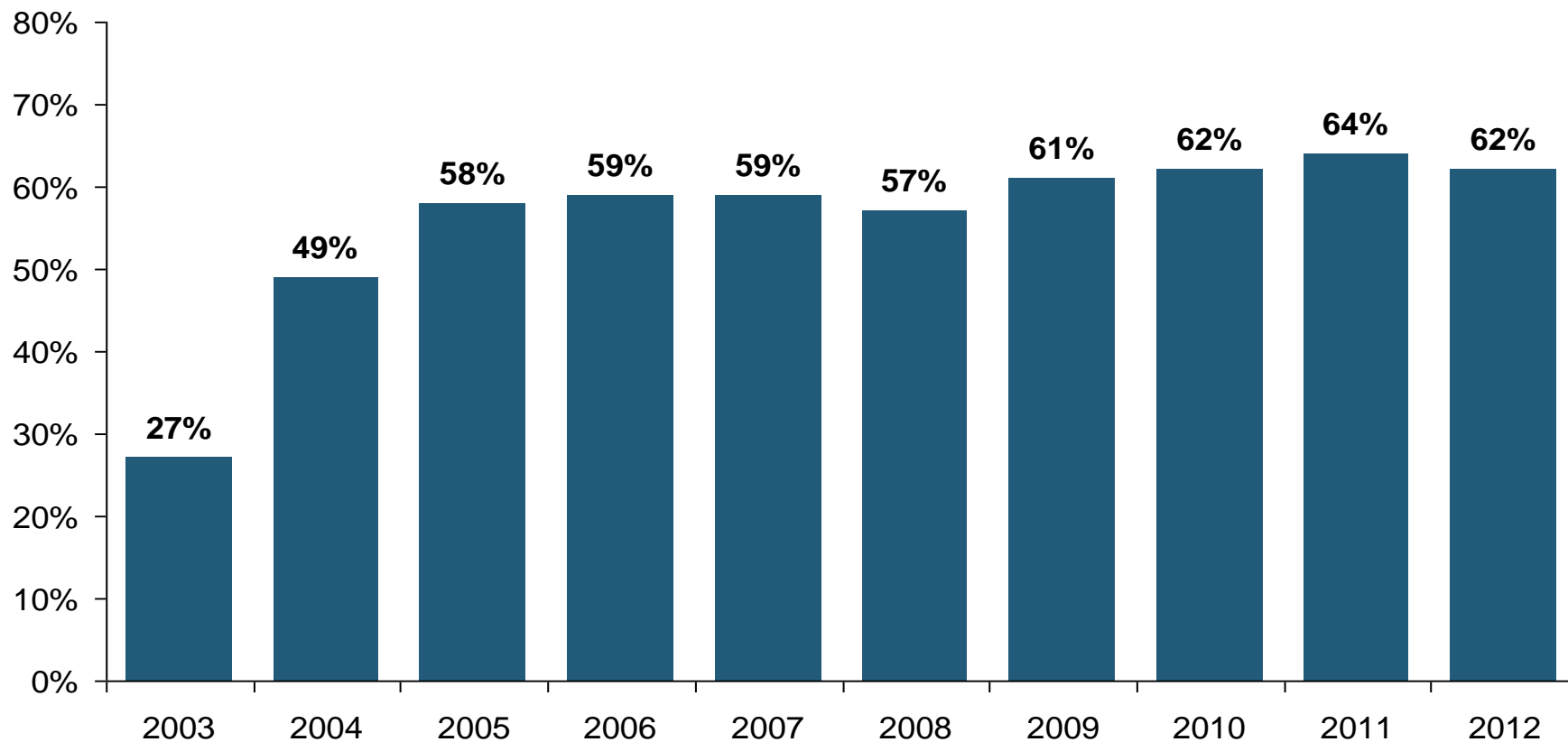
- ◆ In reality the taxpayer is 100% protected
- ◆ NFIP, Crop programs have led to misconceptions

## ■ Emphasizing Benefits to Employees Under WC is Key

## ■ Misperception by Some that Terrorism is Urban Issue

## ■ Certification Process Needs Clarification

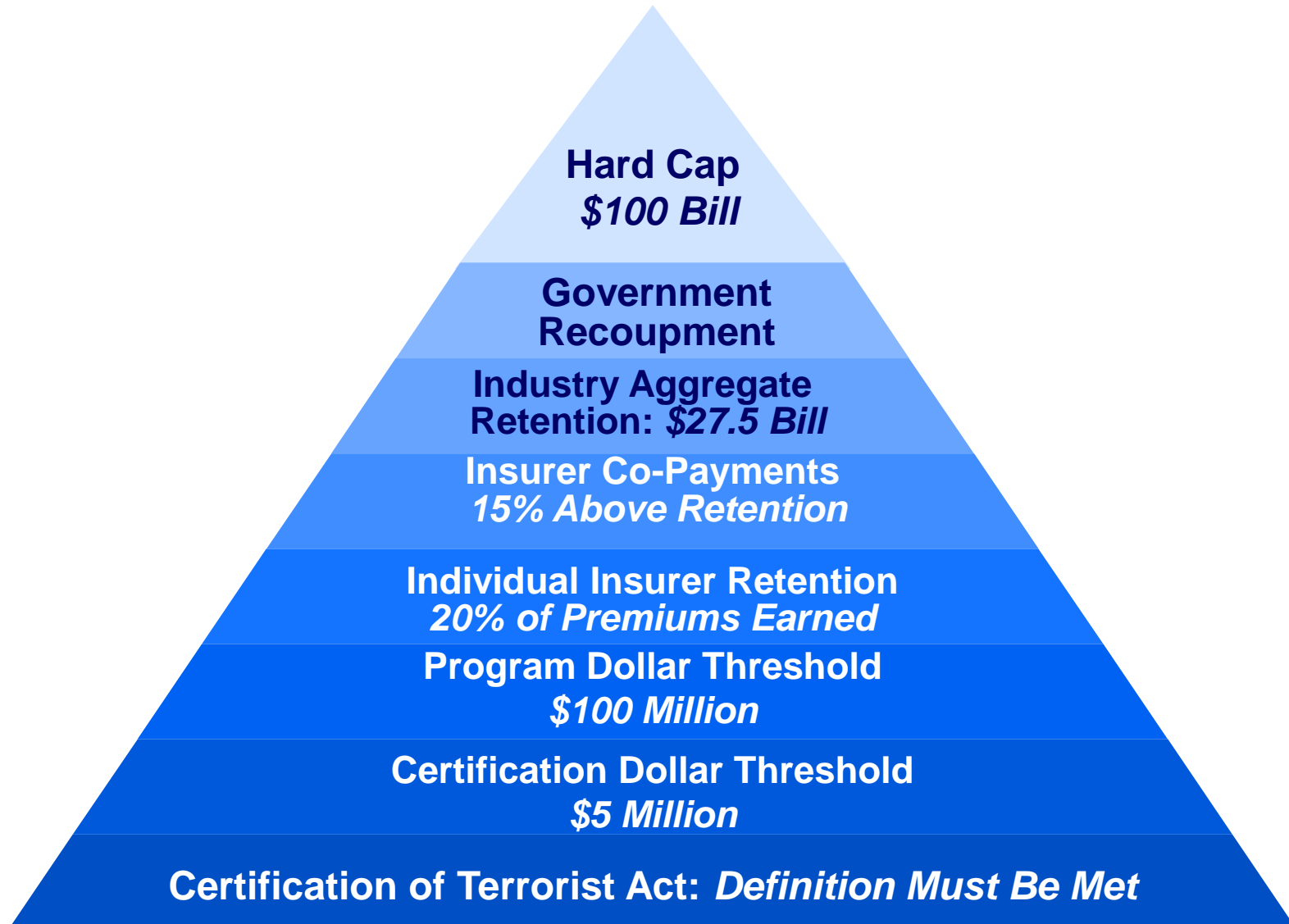
# Terrorism Insurance Take-up Rates, By Year, 2003-2012



**In 2003, the first year TRIA was in effect, the terrorism take-up rate was 27 percent. Since then, it has increased steadily, remaining in the low 60 percent range since 2009.**



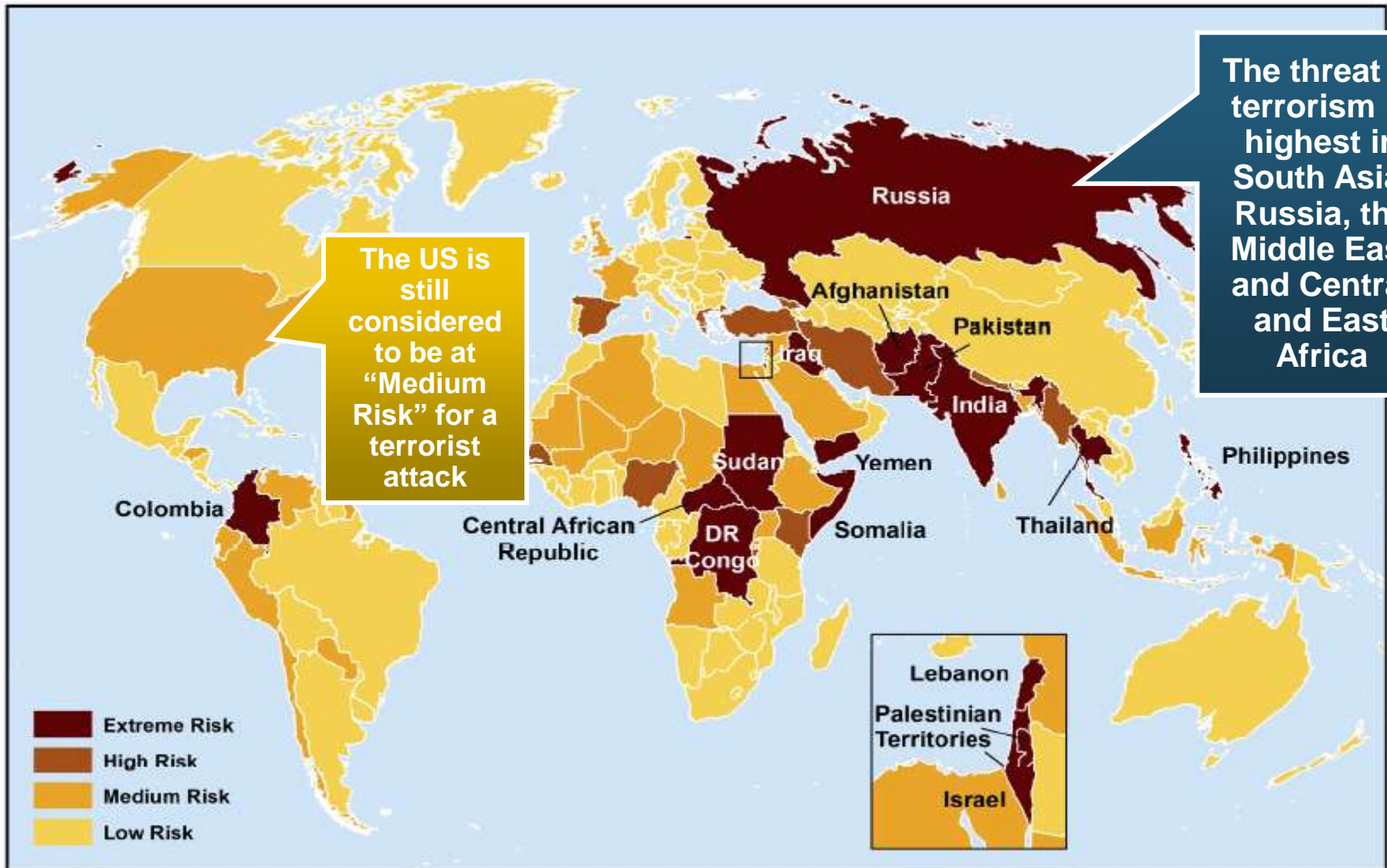
# Pyramid of Taxpayer Protection: Strong, Stable, Sound and Secure



# Summary of Terrorism Risk Insurance Program Extension Bills Introduced in 2013

Bill	Summary
<p>•H.R. 508: <i>“Terrorism Risk Insurance Act of 2002 Reauthorization Act of 2013”</i></p> <p>•Introduced Feb. 5 by Rep. Michael Grimm (D-NY)</p>	<ul style="list-style-type: none"> <li>•5-Year Extension (through 2019)</li> <li>•Extend recoupment period for any TRIA assistance from 2017 to 2019</li> </ul>
<p>•H.R. 2146: <i>“Terrorism Risk Insurance Program Reauthorization Act of 2013”</i></p> <p>•Introduced May 23 by Rep. Michael Capuano (D-MA)</p>	<ul style="list-style-type: none"> <li>•10-Year Extension (through 2024)</li> <li>•Extend recoupment period for any TRIA assistance from 2017 to 2024</li> <li>•Requires President’s Working Group on Financial Markets (PWGFM) to issue reports on long-term availability and affordability of terrorism insurance in 2017, 2020 and 2023</li> <li>•Reports to be drafted with consultation from NAIC and representatives of the insurance and securities industries and policyholders</li> </ul>
<p>•H.R. 1945: <i>“Fostering Resilience to Terrorism Act of 2013”</i></p> <p>•Introduced May 9 by Rep. Benny Thompson (D-MS)</p>	<ul style="list-style-type: none"> <li>•10-Year Extension (through 2024)</li> <li>•Recoupment period changed to 2024</li> <li>•Would transfer responsibility for certification of a “act of terrorism” to the Secretary of Homeland Security from Secretary of Treasury.</li> <li>•PWGFM to issue reports in 2017, 2020 and 2023</li> <li>•Requires Sec. of DHS to provide insureds with “timely homeland security information, including terrorism risk information, at the appropriate level of classification and information on best practices to foster resilience to an act of terrorism.”</li> </ul>

# Terrorist Risk Index



# Terrorism Violates Traditional Requirements for Insurability

Requirement	Definition	Violation
<b>Estimable Frequency</b>	<ul style="list-style-type: none"> <li>•Insurance requires large number of observations to develop predictive rate-making models (an actuarial concept known as credibility)</li> </ul>	<ul style="list-style-type: none"> <li>•Very few data points</li> <li>•Terror modeling still in infancy, untested.</li> <li>•Inconsistent assessment of threat</li> </ul>
<b>Estimable Severity</b>	<ul style="list-style-type: none"> <li>•Maximum possible/ probable loss must be at least estimable in order to minimize “risk of ruin” (insurer cannot run an unreasonable risk of insolvency though assumption of the risk)</li> </ul>	<ul style="list-style-type: none"> <li>•Potential loss is virtually unbounded.</li> <li>•Losses can easily exceed insurer capital resources for paying claims.</li> <li>•Extreme risk in workers compensation and statute forbids exclusions.</li> </ul>

# Terrorism Violates Traditional Requirements for Insurability (cont'd)

Requirement	Definition	Violation
<p><b>Diversifiable Risk</b></p>	<ul style="list-style-type: none"> <li>• Must be able to spread/distribute risk across large number of risks</li> <li>• “Law of Large Numbers” helps makes losses manageable and less volatile</li> </ul>	<ul style="list-style-type: none"> <li>• Losses likely highly concentrated geographically or by industry (e.g., WTC, power plants)</li> </ul>
<p><b>Random Loss Distribution/ Fortuity</b></p>	<ul style="list-style-type: none"> <li>• Probability of loss occurring must be purely random and fortuitous</li> <li>• Events are individually unpredictable in terms of time, location and magnitude</li> </ul>	<ul style="list-style-type: none"> <li>• Terrorism attacks are planned, coordinated and deliberate acts of destruction</li> <li>• Dynamic target shifting from “hardened targets” to “soft targets”</li> <li>• Terrorist adjust tactics to circumvent new security measures</li> <li>• Actions of US and foreign govts. may affect likelihood, nature and timing of attack</li> </ul>

Source: Insurance Information Institute



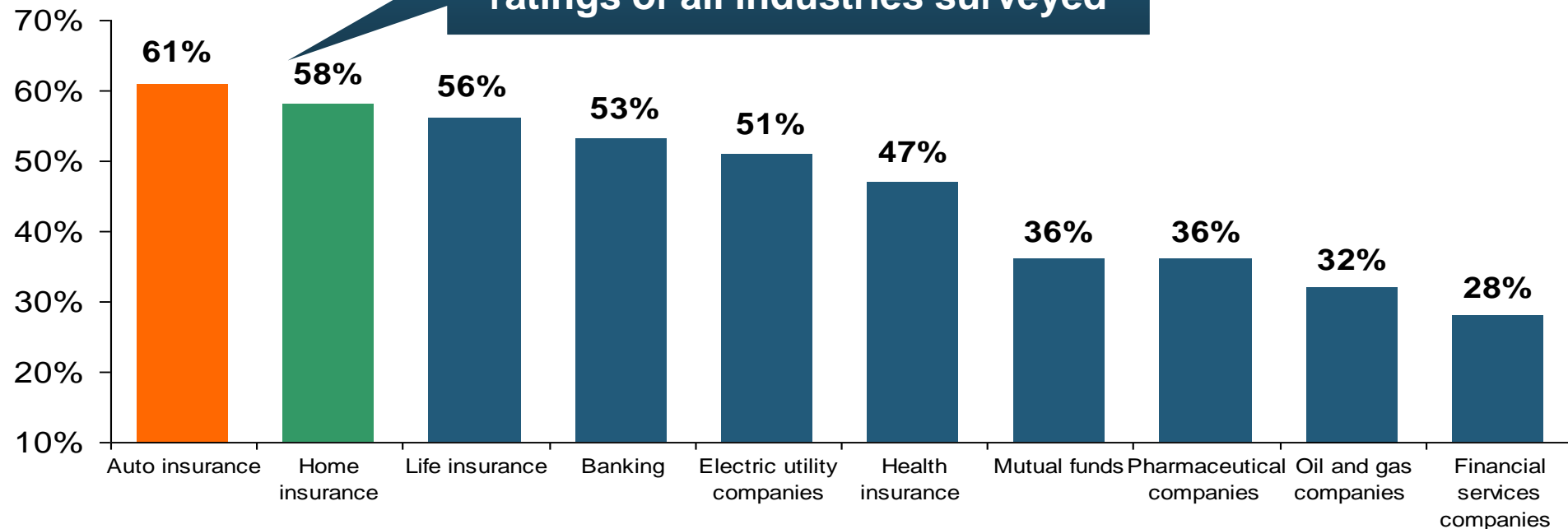
# Public Opinion Survey

**Industry Favorability Ratings**  
**Policy Forms & Disclosure**  
**Disaster Preparedness**

# I.I.I. Poll: Favorability

## Percent of Public Rating Industry as Very or Mostly Favorable, 2013

Viewed separately, auto and home insurers have highest favorability ratings of all industries surveyed

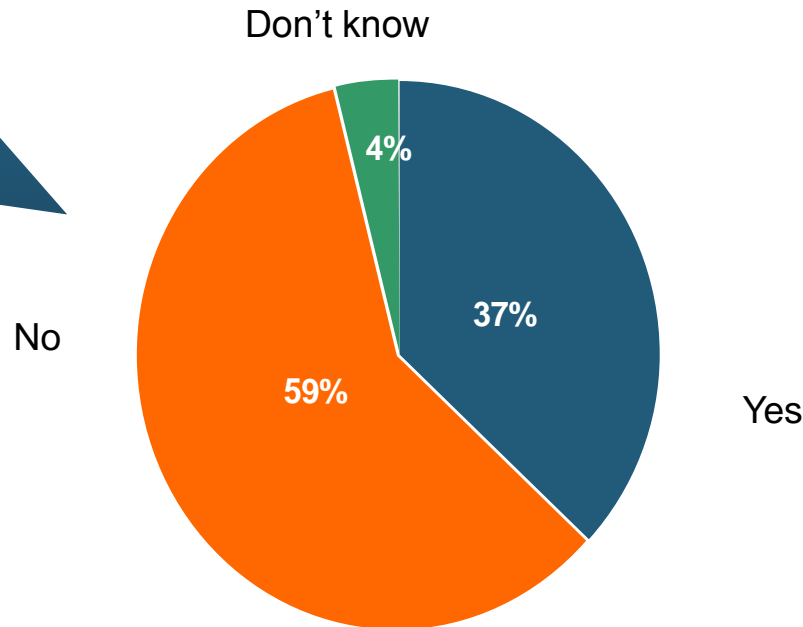


**Auto Insurers and Home Insurers Ranked Highest.**

# I.I.I. Poll: Homeowners Insurance

Q. Do you think that it is fair that people who live in areas affected by record storms in 2011 and 2012 should pay more for their homeowners insurance in the future?

Public believes it is not fair to raise premiums of homeowners due to events they cannot control



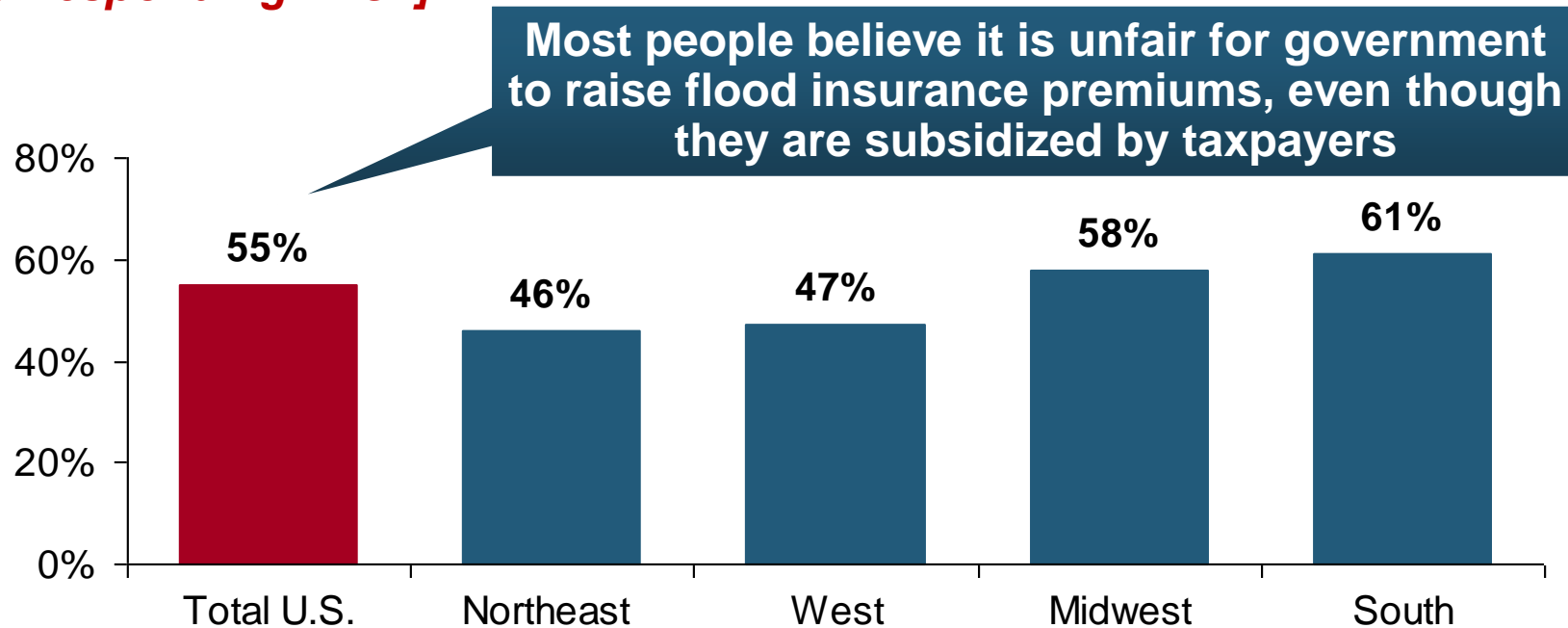
Nearly 60 percent of Americans believe that homeowners insurance premiums should not be raised as a result of recent storms in their areas.



# I.I.I. Poll: Flood Insurance

**Q. The federal government plans to raise the price of flood insurance so it reflects the costs of paying claims. Do you believe this is fair?**

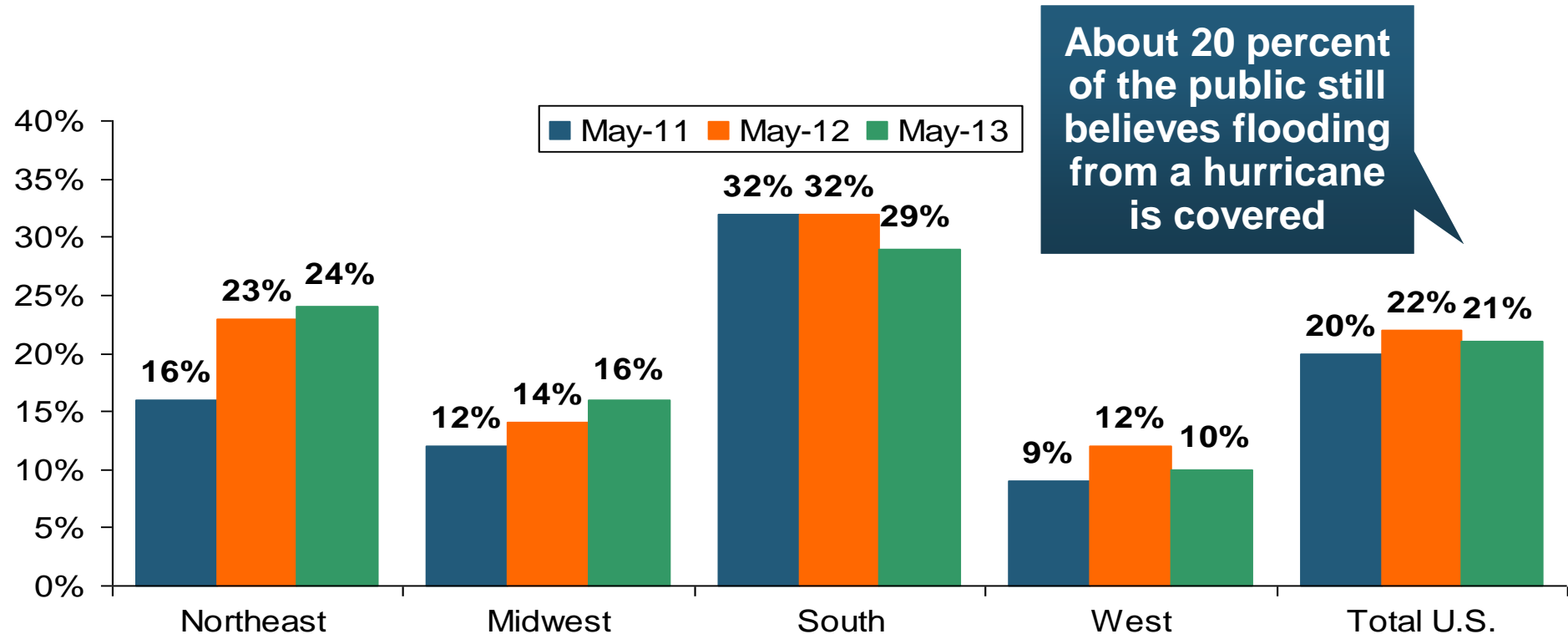
***[% Responding "NO"]***



**More than one-half of Americans do not think it is fair for the federal government to raise its flood insurance premiums to better reflect claims payouts.**

# I.I.I. Poll: Disaster Preparedness

Q. Does your homeowners policy cover damage from flooding during a hurricane?<sup>1</sup>

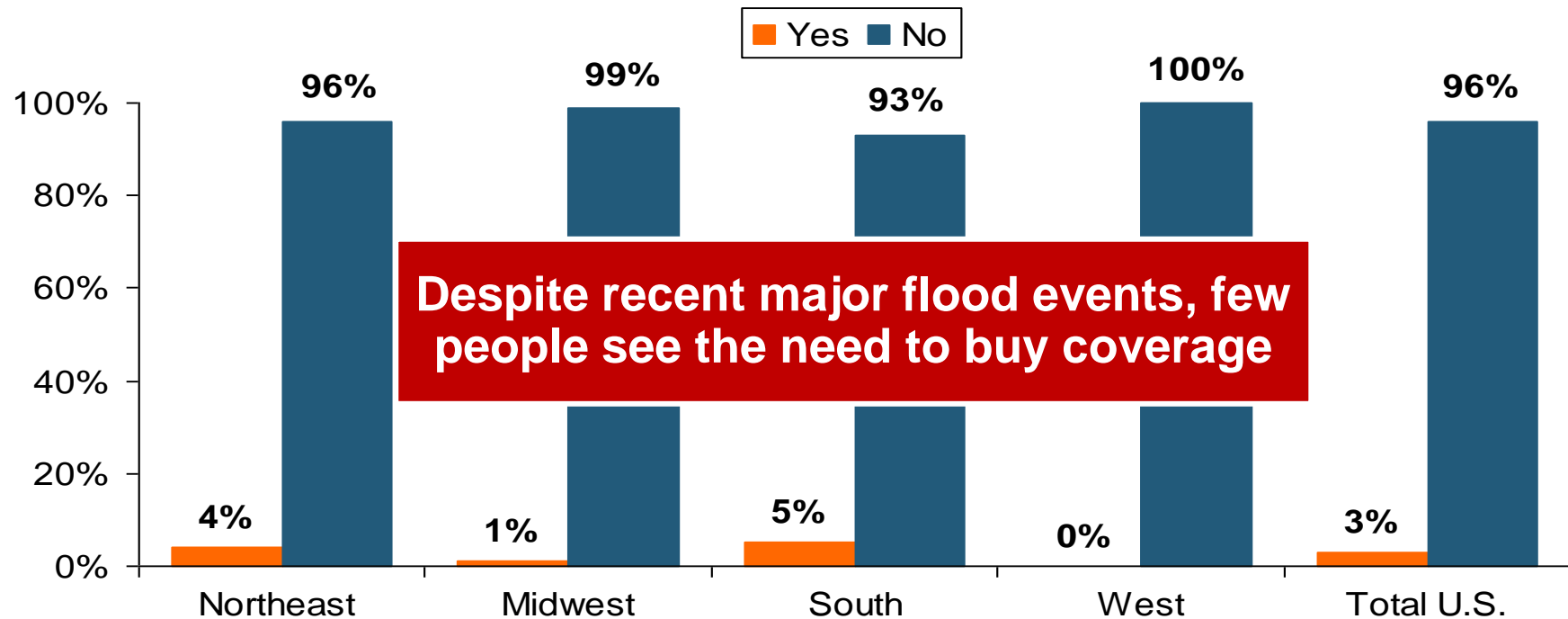


The proportion of homeowners who believe their homeowners policy covers damage from flooding during a hurricane stands at 21 percent. This proportion rises eight percentage points in the South, to 29 percent.

<sup>1</sup>Asked of those who have homeowners insurance and who responded "yes".

# I.I.I. Poll: Disaster Preparedness

Q. Have recent flooding events such as Hurricane Sandy or Hurricane Irene motivated you to buy flood coverage?<sup>1</sup>

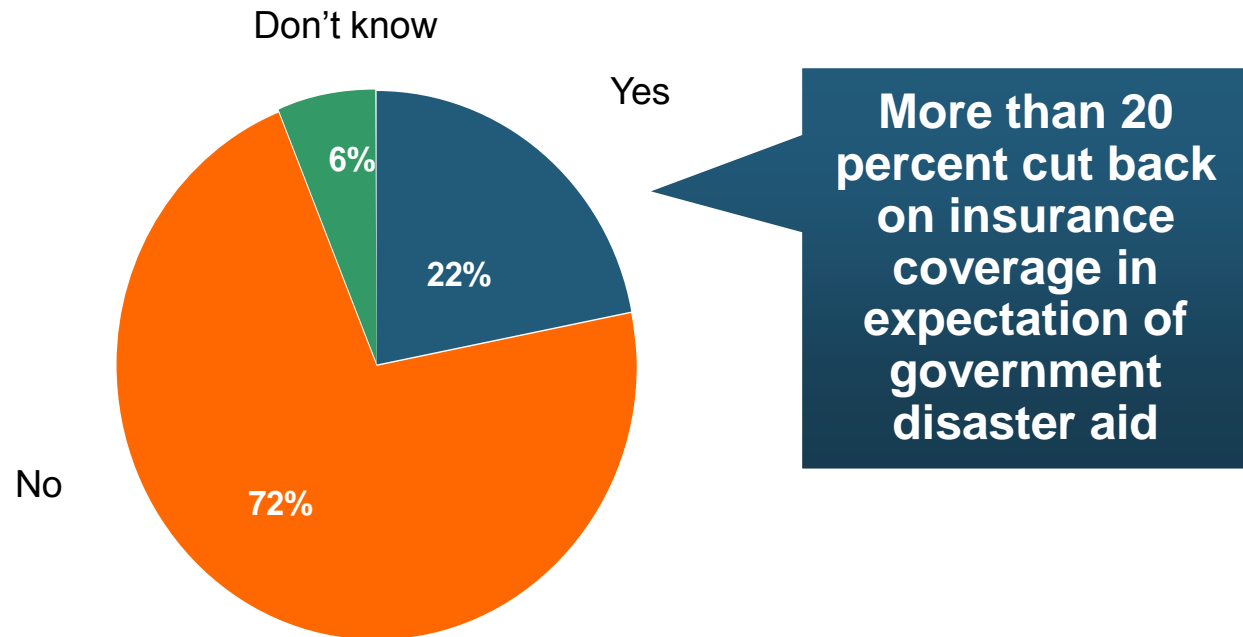


**Recent storms have not motivated people to buy flood insurance coverage**

<sup>1</sup>Asked of those who have homeowners insurance but not flood insurance.

# I.I.I. Poll: Disaster Preparedness

**Q. If you expect some relief from the government, do you purchase less insurance coverage against these natural disasters than you would have otherwise?**



**Seventy-two percent of Americans would not purchase less insurance if they expect some relief from the government—but 22% would.**

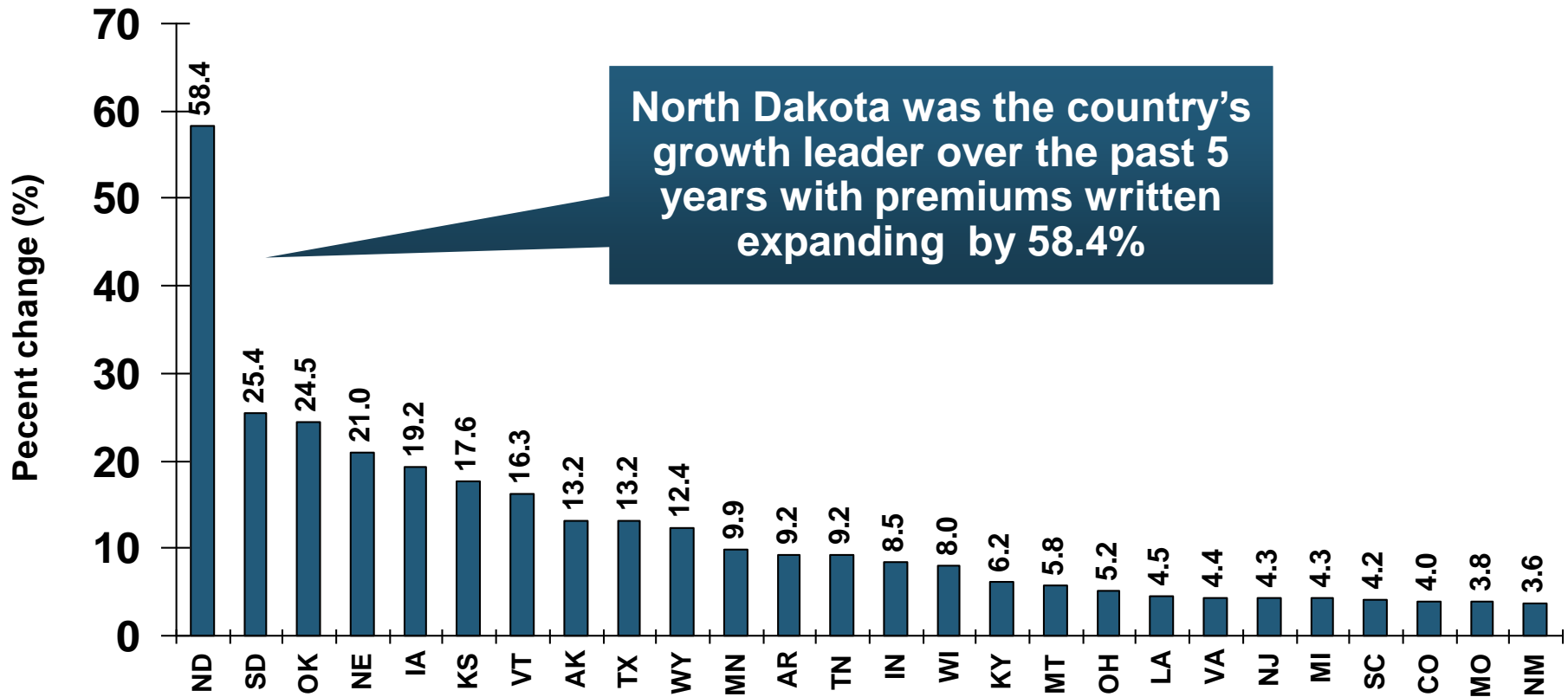


# Growth Analysis by State and Business Segment

**Premium Growth Rates Vary Tremendously by State**

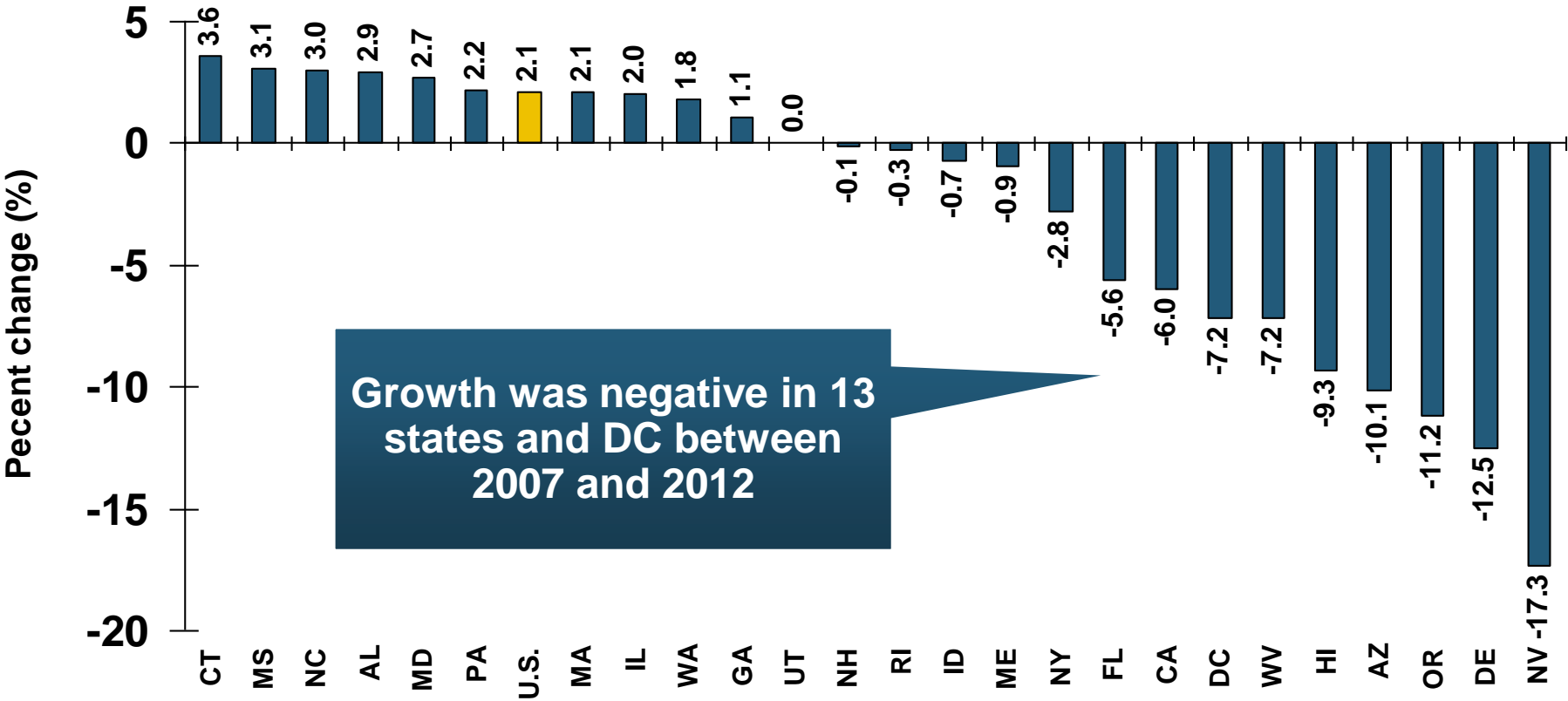
# Direct Premiums Written: Total P/C Percent Change by State, 2007-2012\*

## Top 25 States



# Direct Premiums Written: Total P/C Percent Change by State, 2007-2012\*

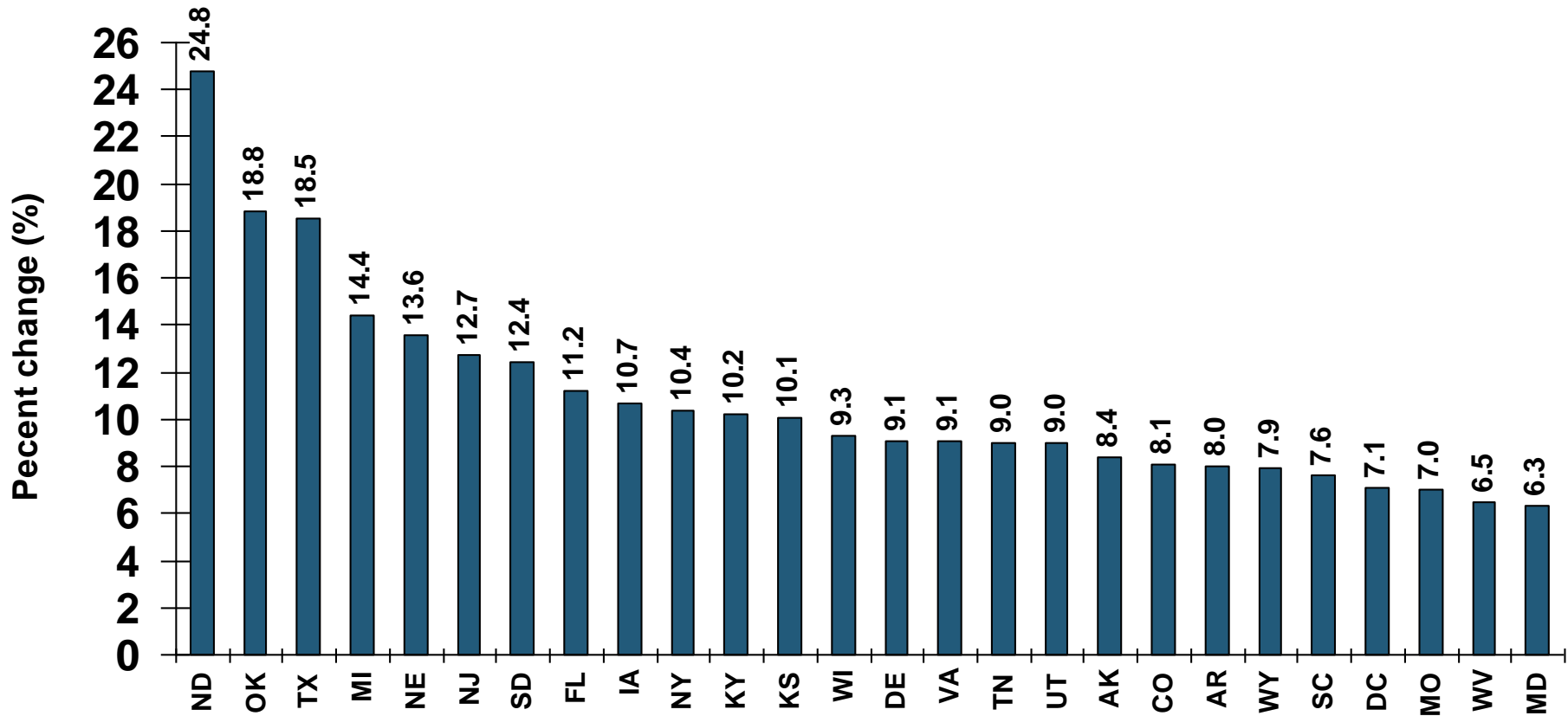
## Bottom 25 States



Sources: SNL Financial LC.; Insurance Information Institute.

# Direct Premiums Written: PP Auto Percent Change by State, 2007-2012\*

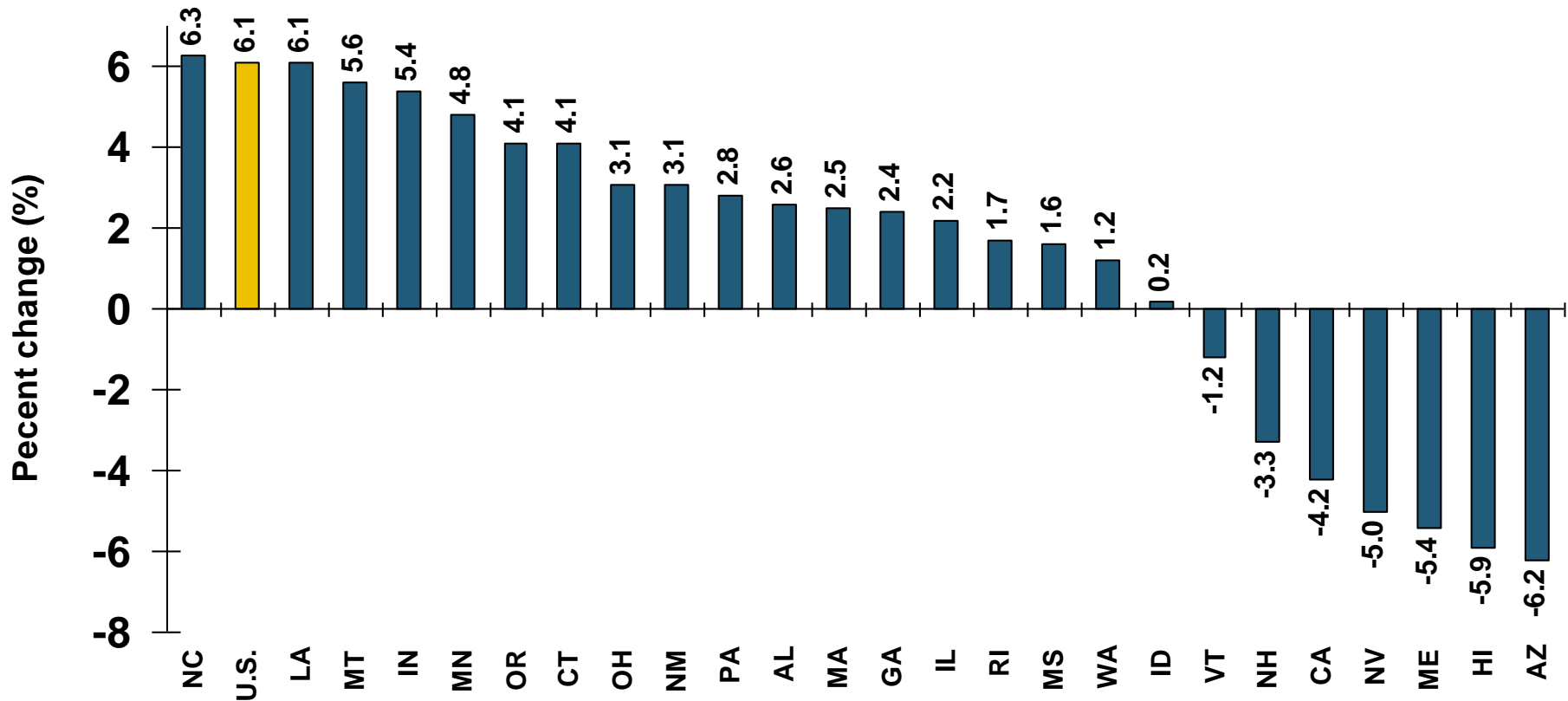
## Top 25 States





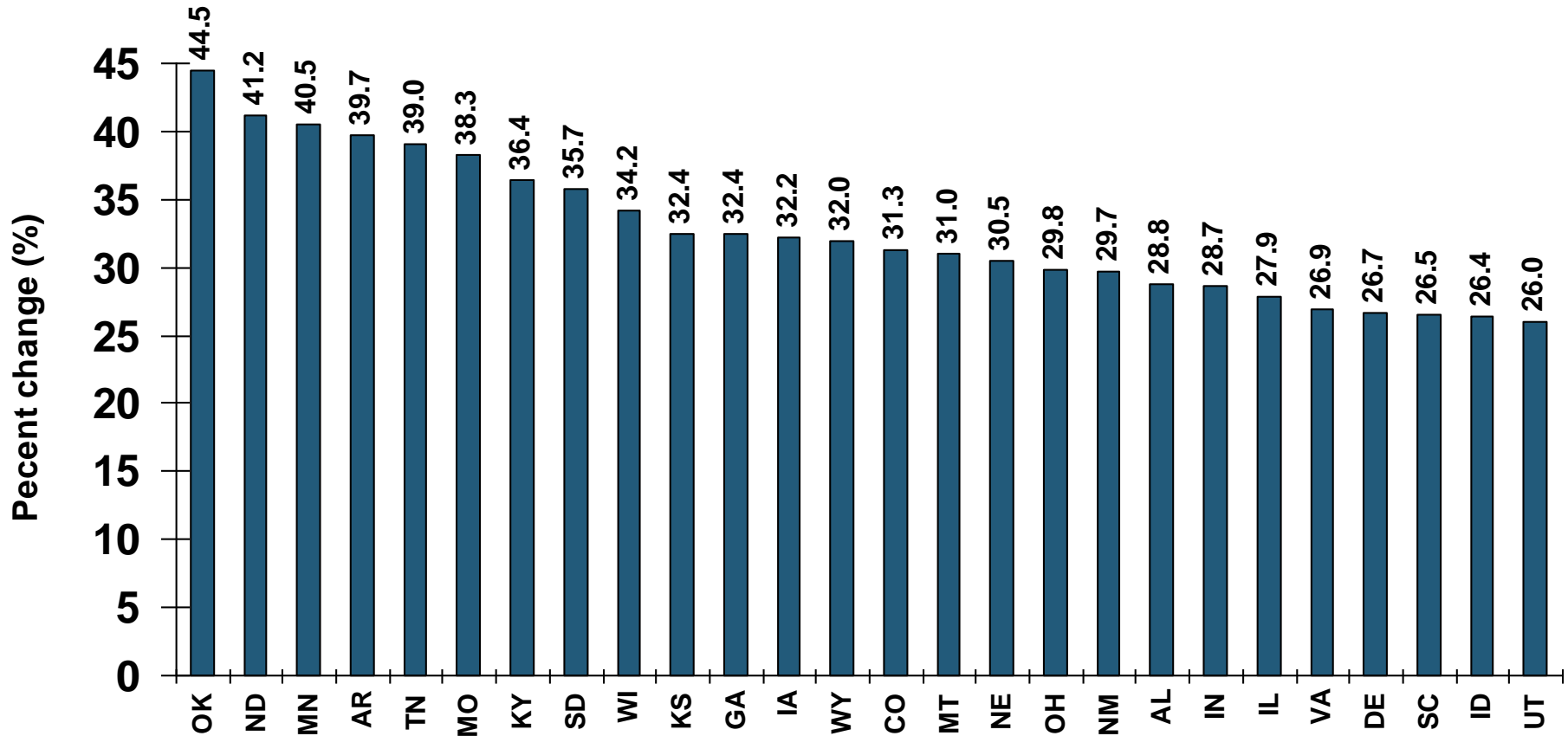
# Direct Premiums Written: PP Auto Percent Change by State, 2007-2012\*

## Bottom 25 States



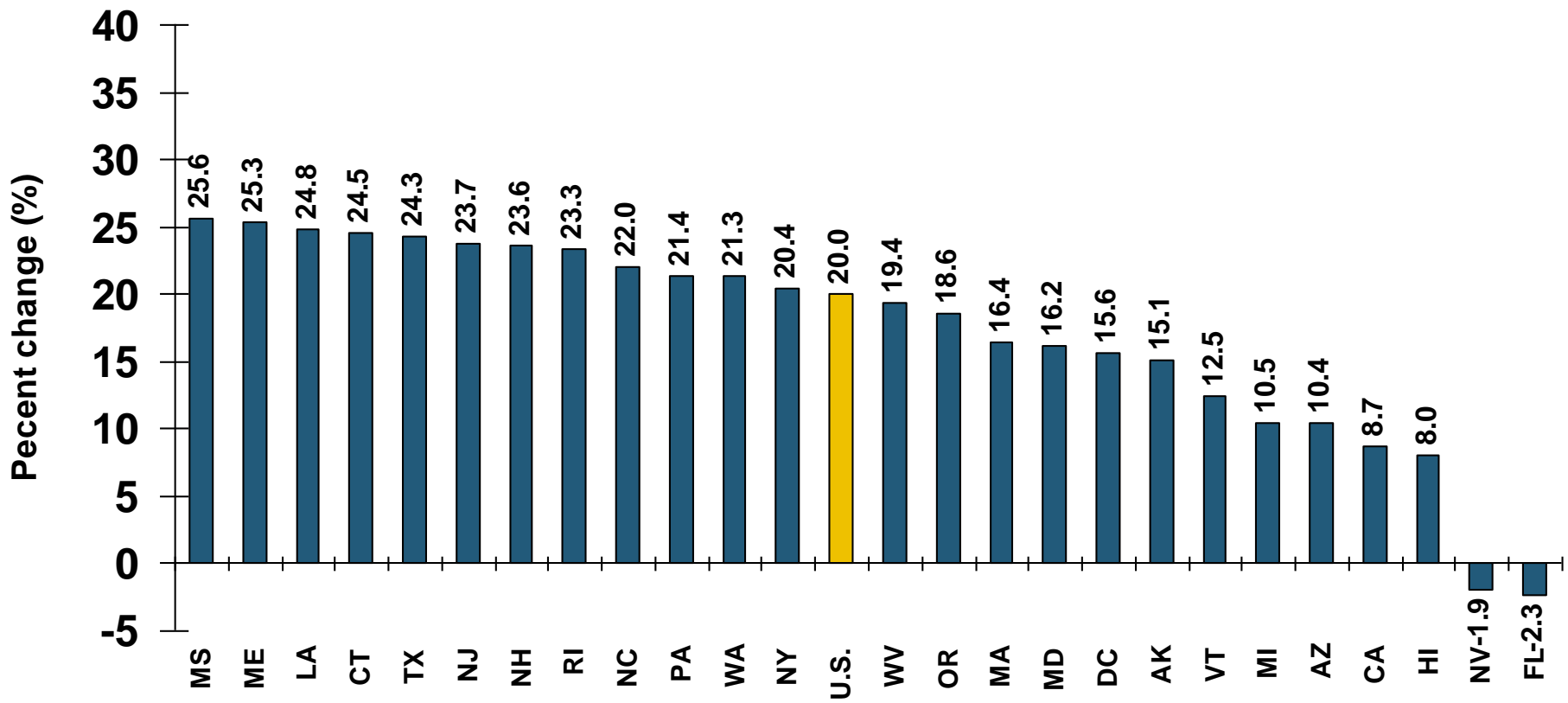
# Direct Premiums Written: Homeowners Percent Change by State, 2007-2012\*

## Top 25 States



# Direct Premiums Written: Homeowners Percent Change by State, 2007-2012\*

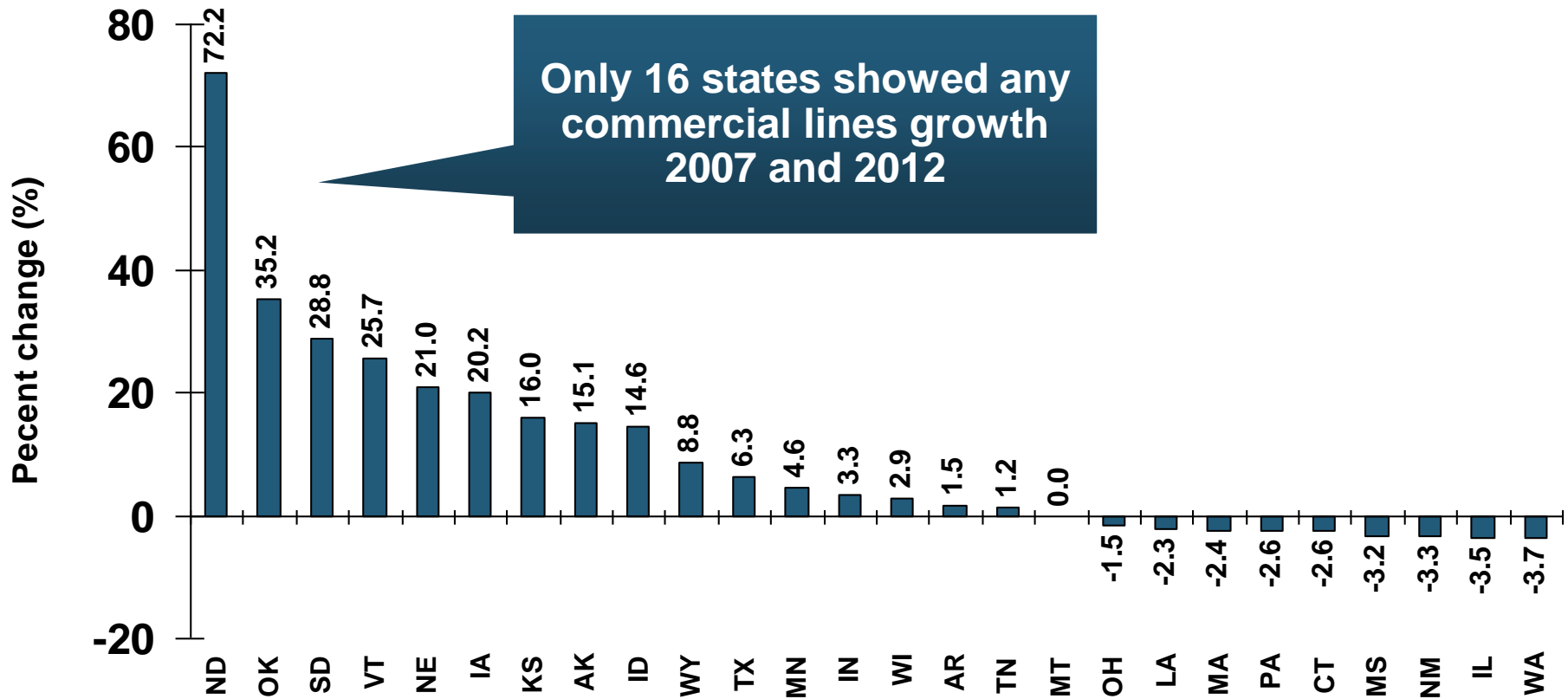
## Bottom 25 States



Sources: SNL Financial LC.; Insurance Information Institute.

# Direct Premiums Written: Comm. Lines Percent Change by State, 2007-2012\*

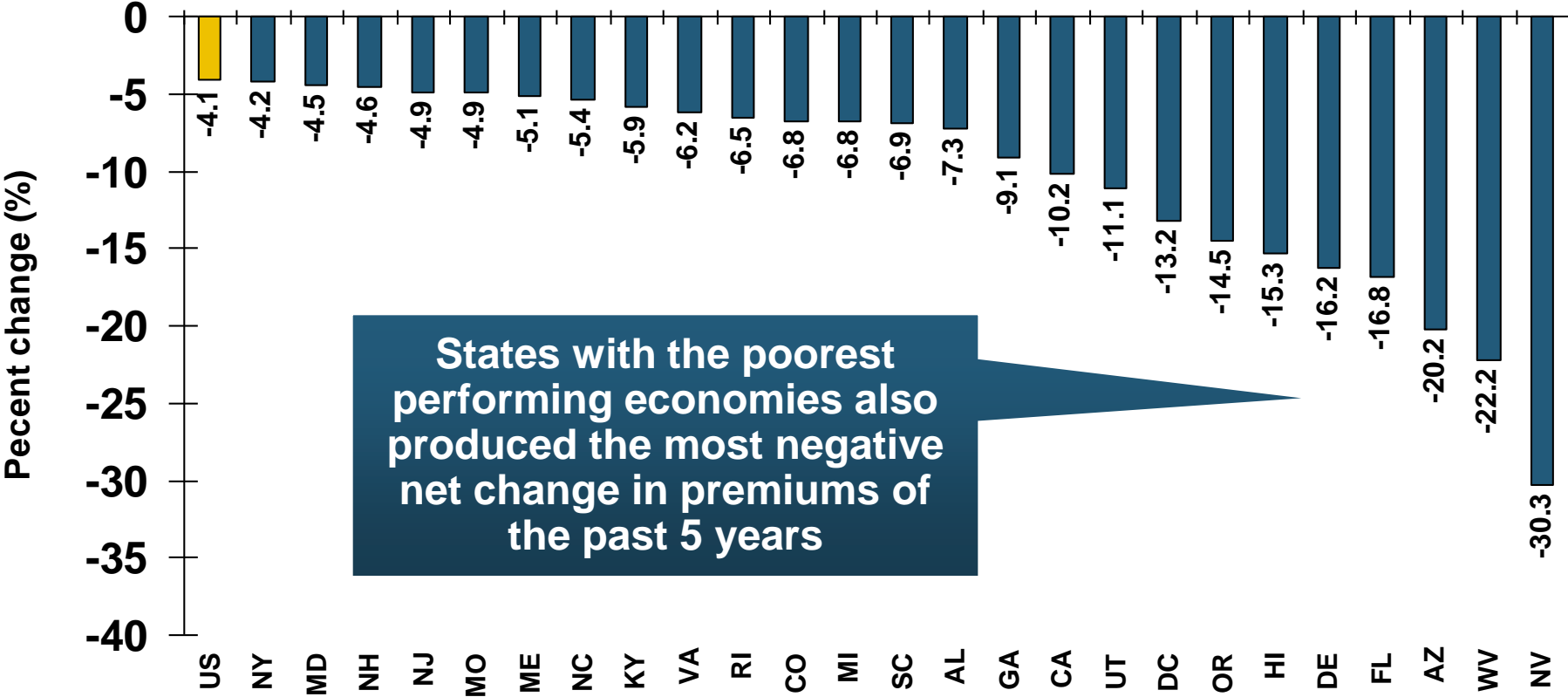
## Top 25 States



Sources: SNL Financial LC.; Insurance Information Institute.

# Direct Premiums Written: Comm. Lines Percent Change by State, 2007-2012\*

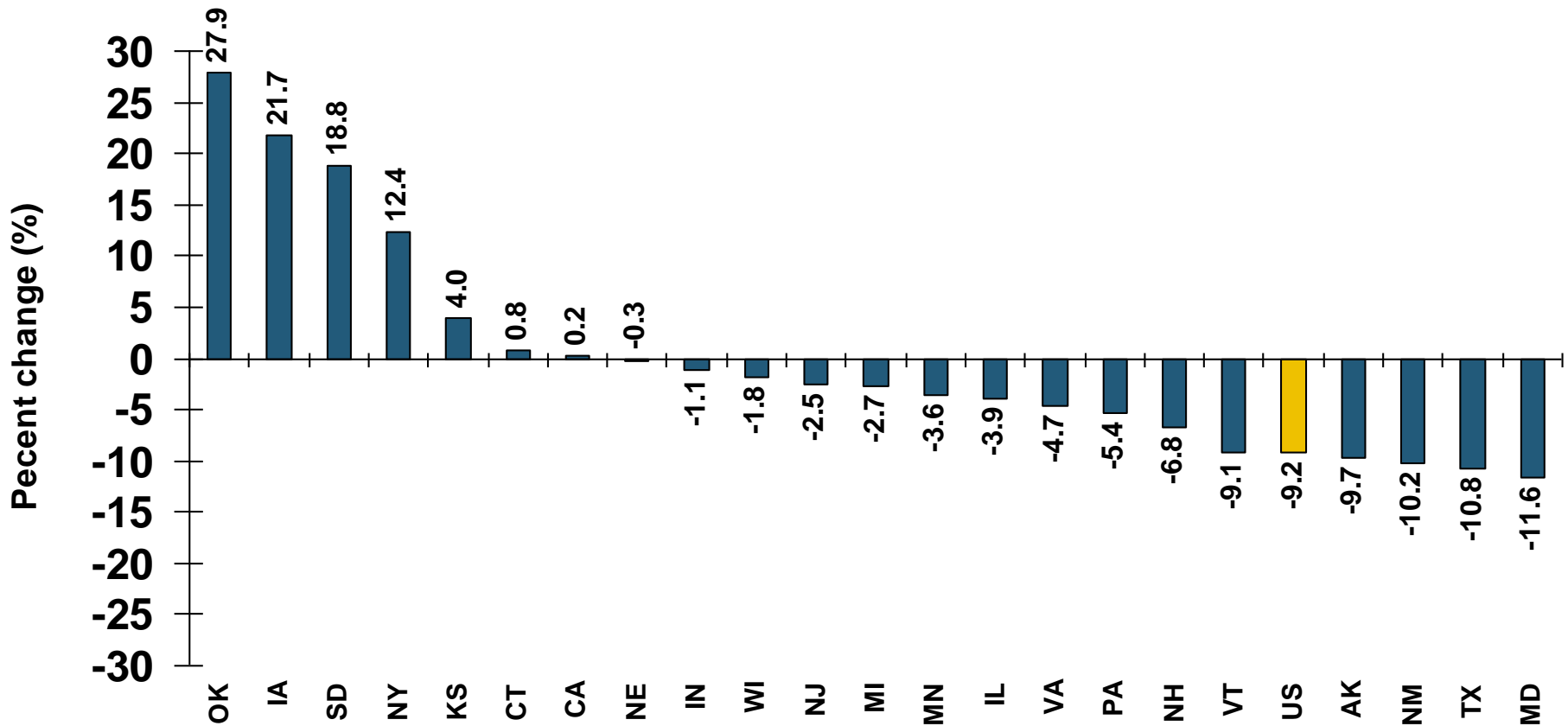
## Bottom 25 States



Sources: SNL Financial LC.; Insurance Information Institute.

# Direct Premiums Written: Workers' Comp Percent Change by State, 2007-2012\*

## Top 25 States

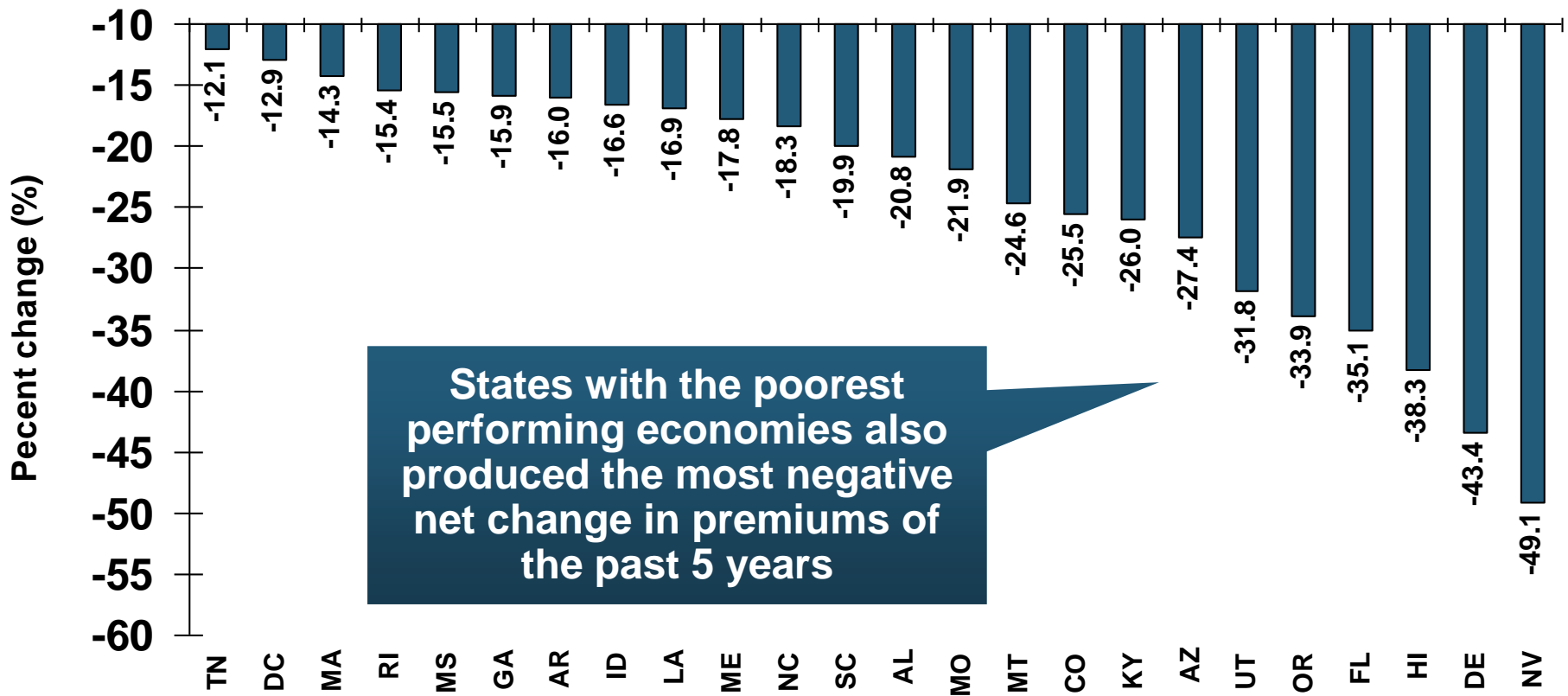


\*Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period.

Sources: SNL Financial LC.; Insurance Information Institute.

# Direct Premiums Written: Worker's Comp Percent Change by State, 2007-2012\*

## Bottom 25 States



\*Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period.

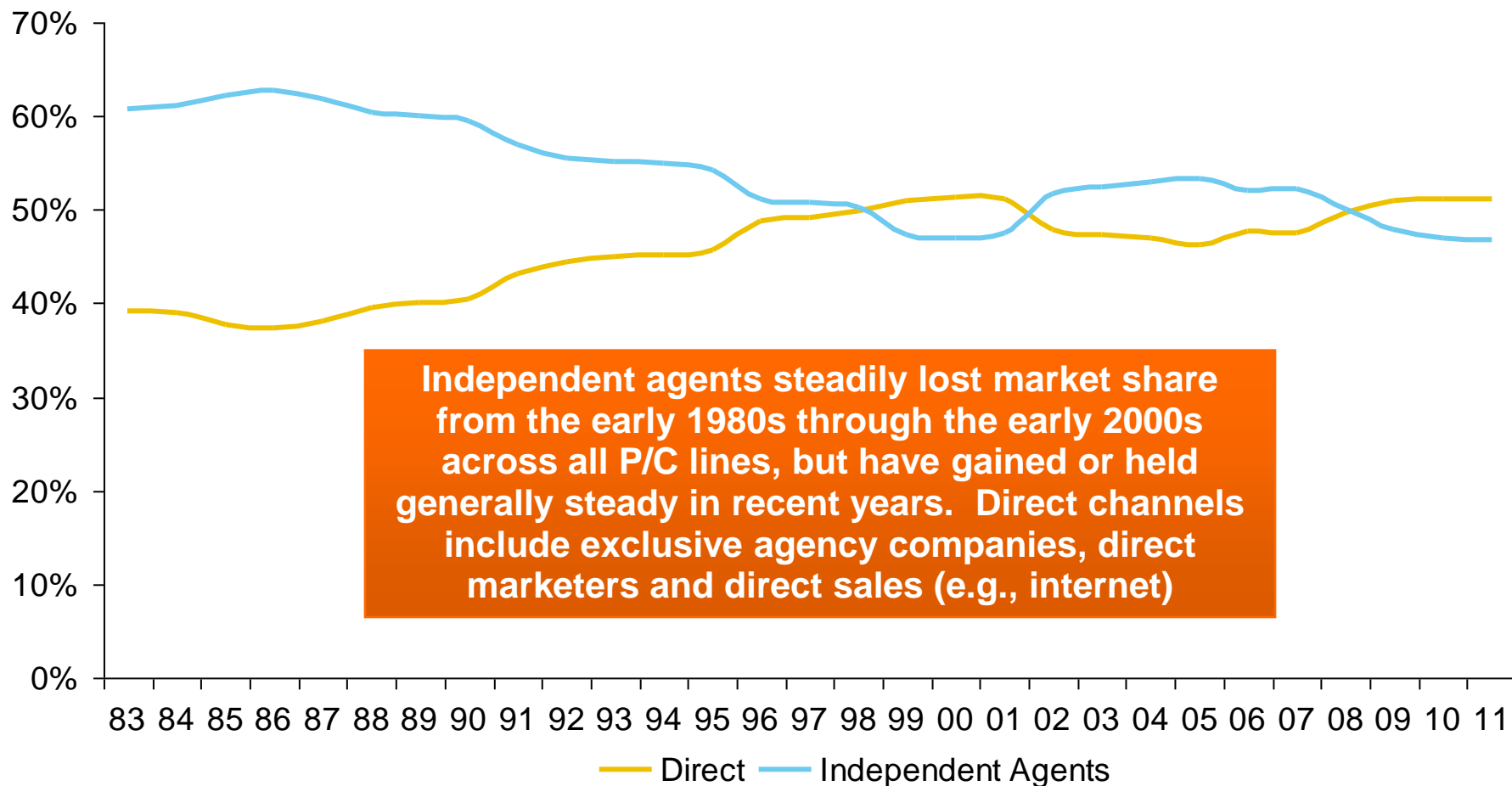
Sources: SNL Financial LC.; Insurance Information Institute.

# Distribution Trends

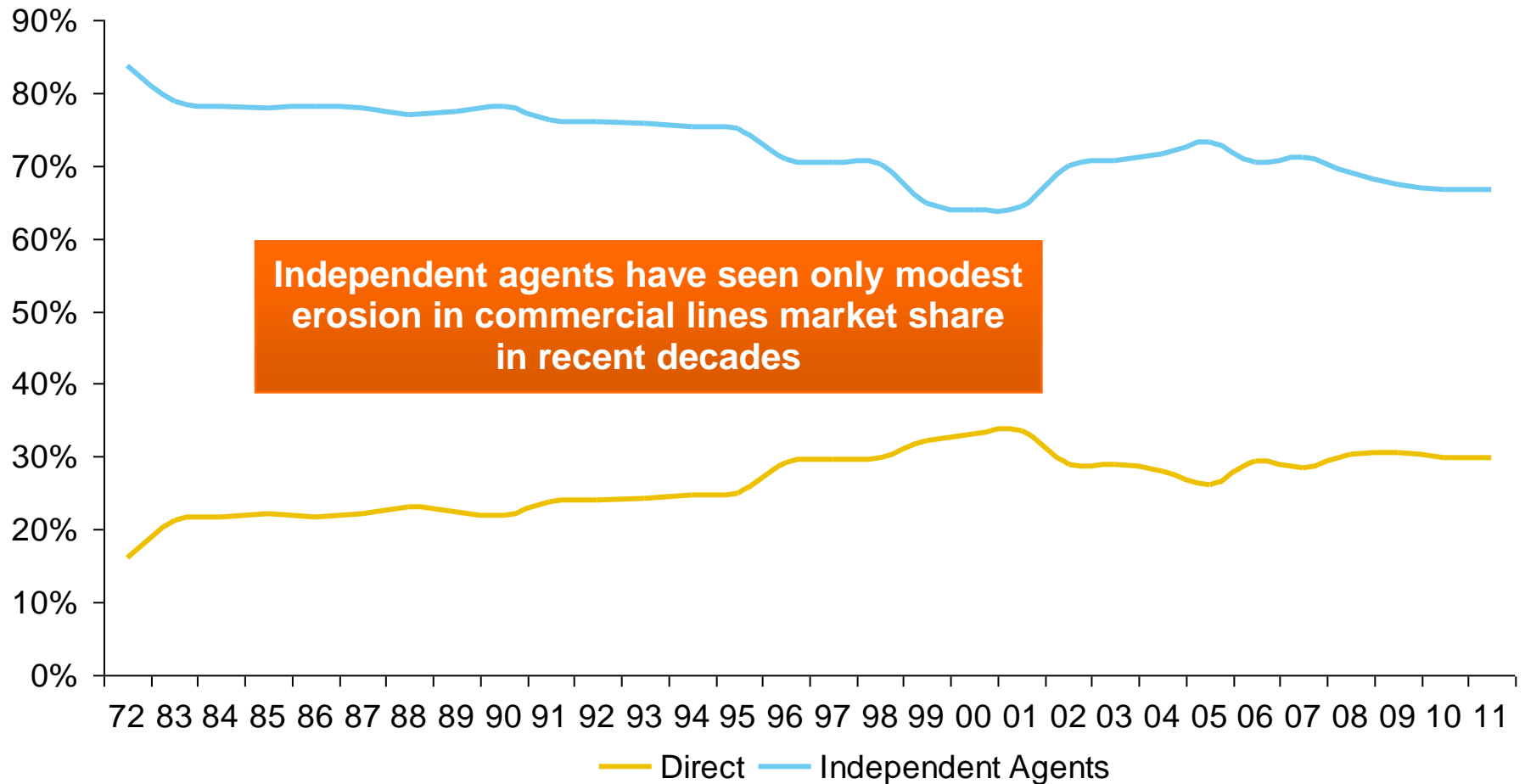
**Distribution by Channel Type  
Continues to Evolve Around  
the World**



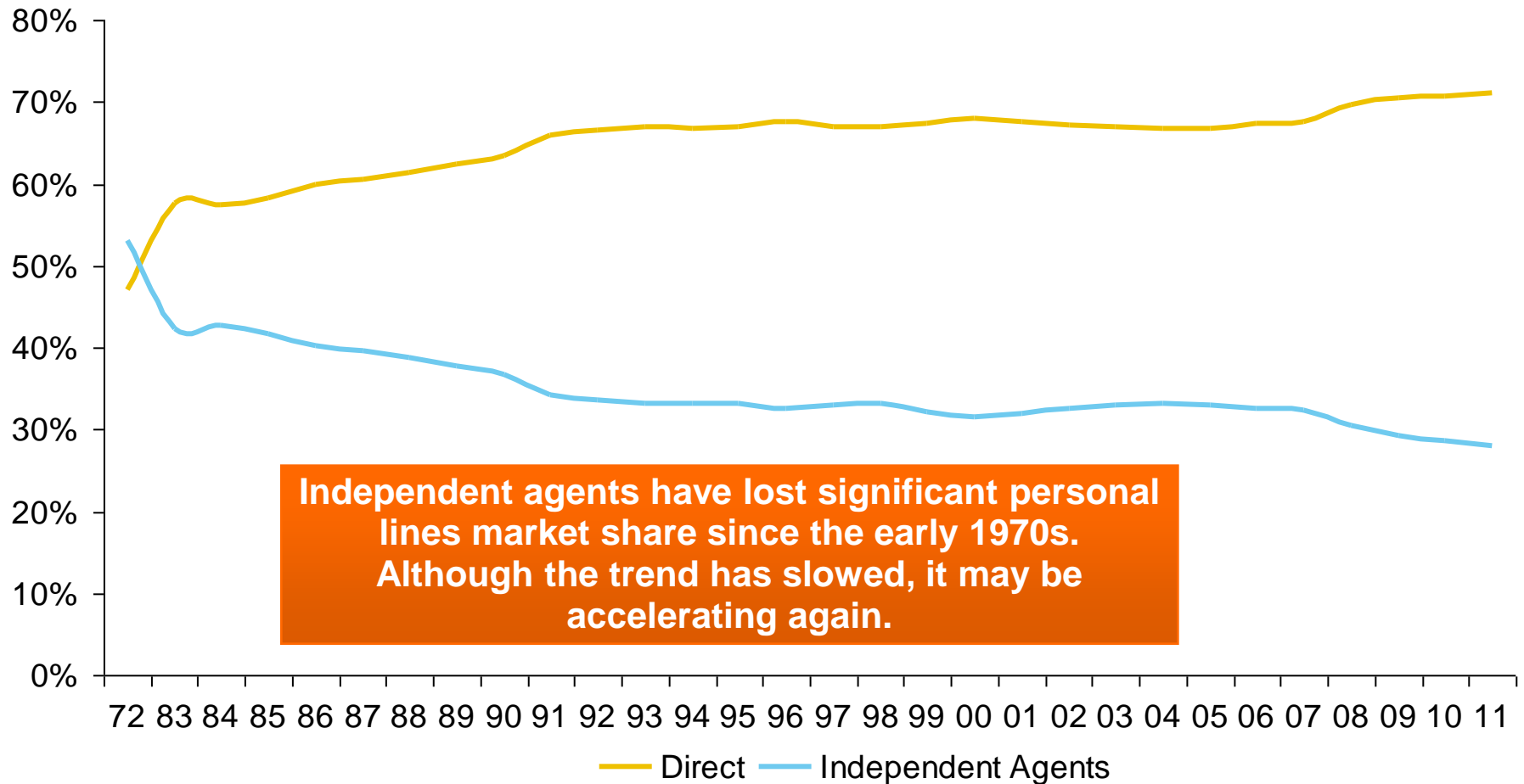
# All P/C Lines Distribution Channels, Direct vs. Independent Agents



# Commercial P/C Distribution Channels, Direct vs. Independent Agents

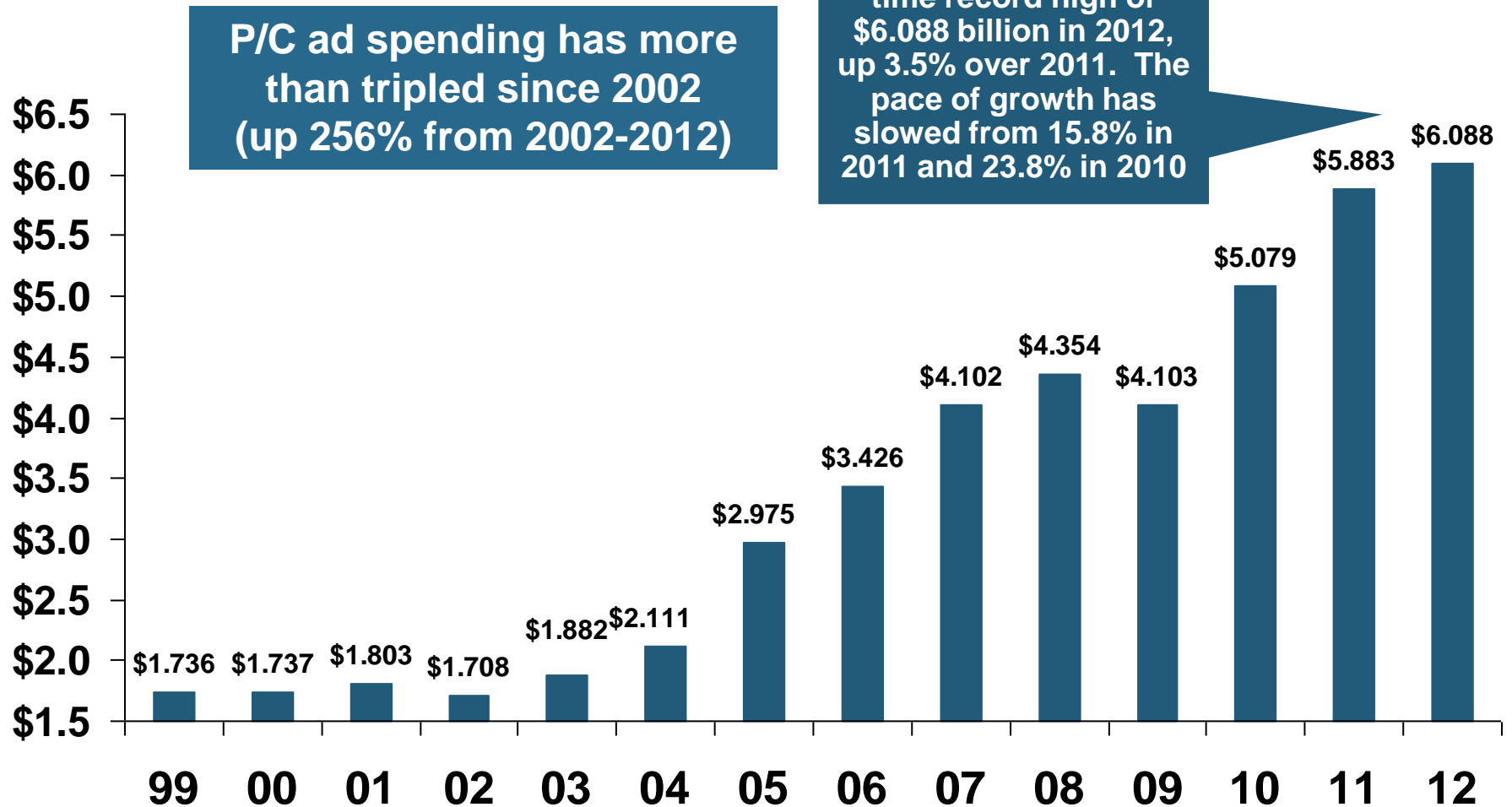


# Personal Lines Distribution Channels, Direct vs. Independent Agents



# Advertising Expenditures by P/C Insurance Industry, 1999-2012

\$ Billions



# The BIG Question: Where Is the Market Heading?

**Catastrophes and Other Factors Are  
Pressuring Insurance Markets**

***New Factor: Record Low Interest  
Rates Are Contributing to  
Underwriting and Pricing Pressures***

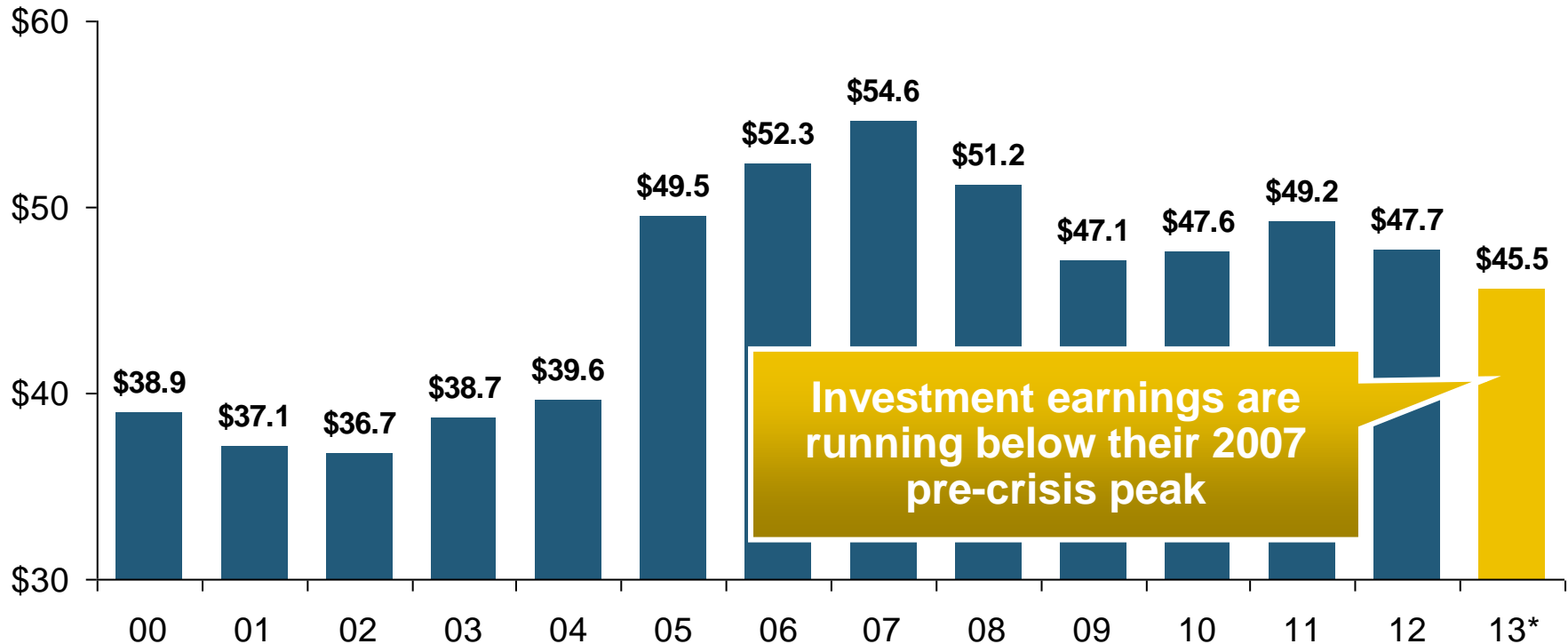
# **INVESTMENTS: THE NEW REALITY**

**Investment Performance is a Key  
Driver of Profitability**

***Depressed Yields Will Necessarily  
Influence Underwriting & Pricing***

# Property/Casualty Insurance Industry Investment Income: 2000–2013\*1

(\$ Billions)



**Investment Income Fell in 2012 and is Falling in 2013 Due to Persistently Low Interest Rates, Putting Additional Pressure on (Re) Insurance Pricing**

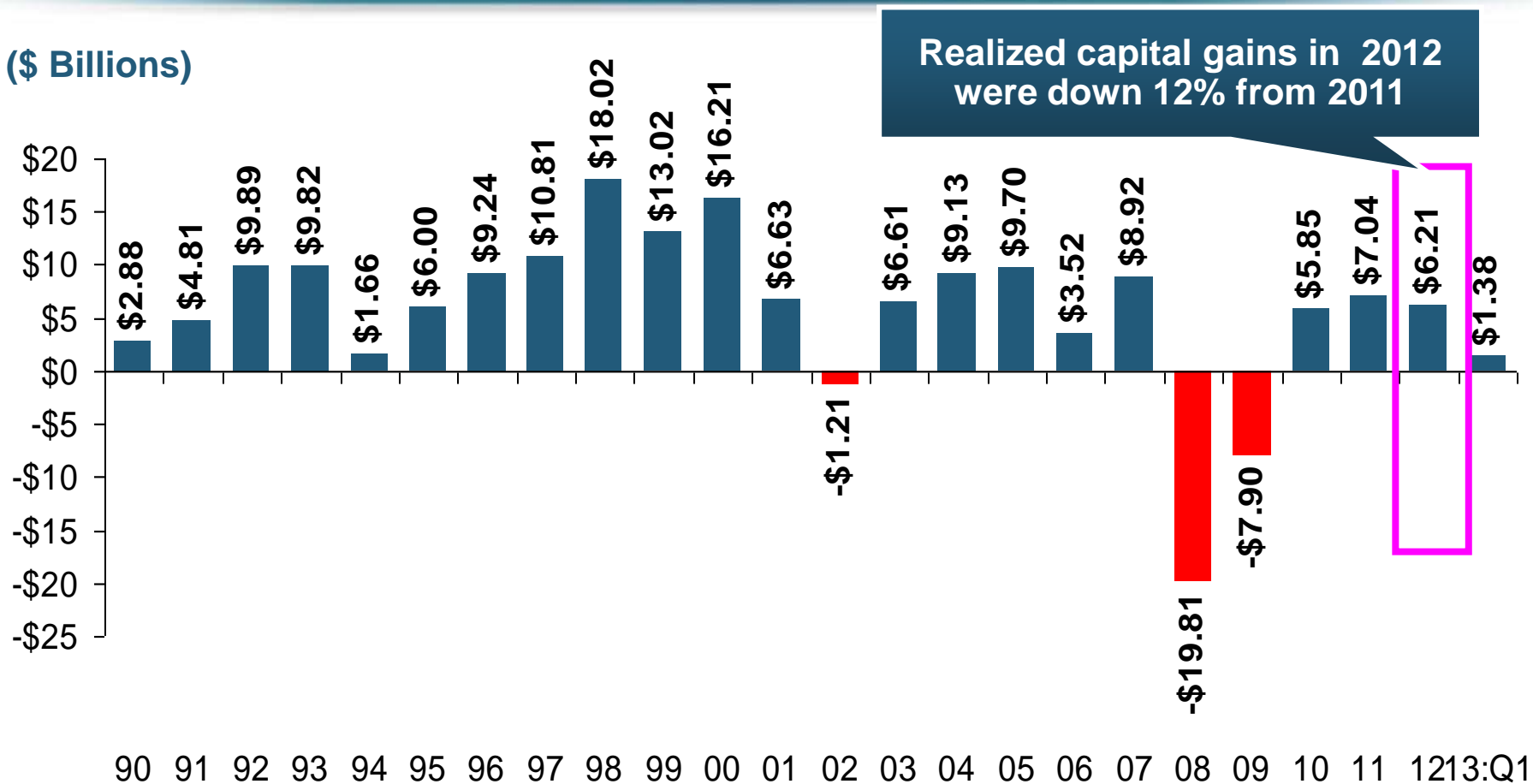
<sup>1</sup> Investment gains consist primarily of interest and stock dividends..

\*Estimate based on annualized actual Q1:2013 investment income of \$11.385B.

Sources: ISO; Insurance Information Institute.

# P/C Insurer Net Realized Capital Gains/Losses, 1990-2013:Q1

(\$ Billions)

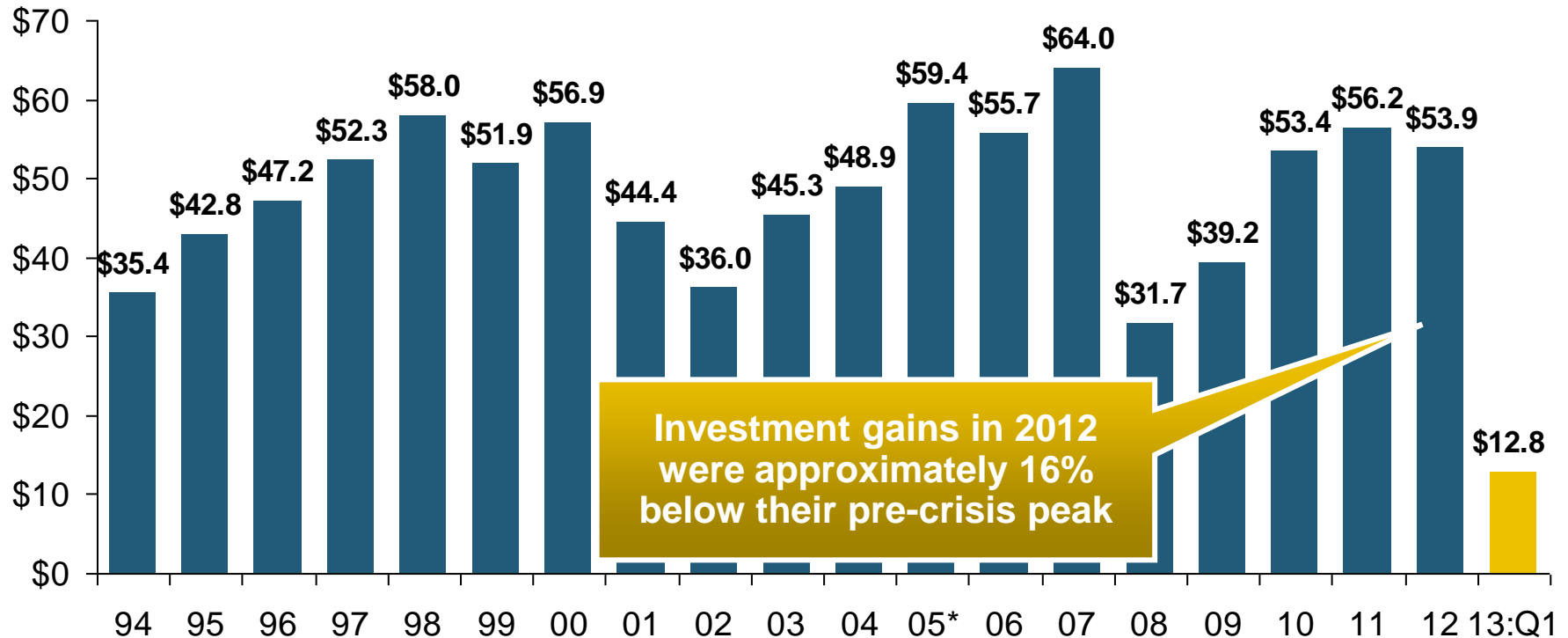


**Insurers Posted Net Realized Capital Gains in 2010, 2011 and 2012 Following Two Years of Realized Losses During the Financial Crisis. Realized Capital Losses Were the Primary Cause of 2008/2009's Large Drop in Profits and ROE**



# Property/Casualty Insurance Industry Investment Gain: 1994–2013:Q1<sup>1</sup>

(\$ Billions)



**Investment Gains Are Slipping in 2012 as Low Interest Rates Reduce Investment Income and Lower Realized Investment Gains; The Financial Crisis Caused Investment Gains to Fall by 50% in 2008**

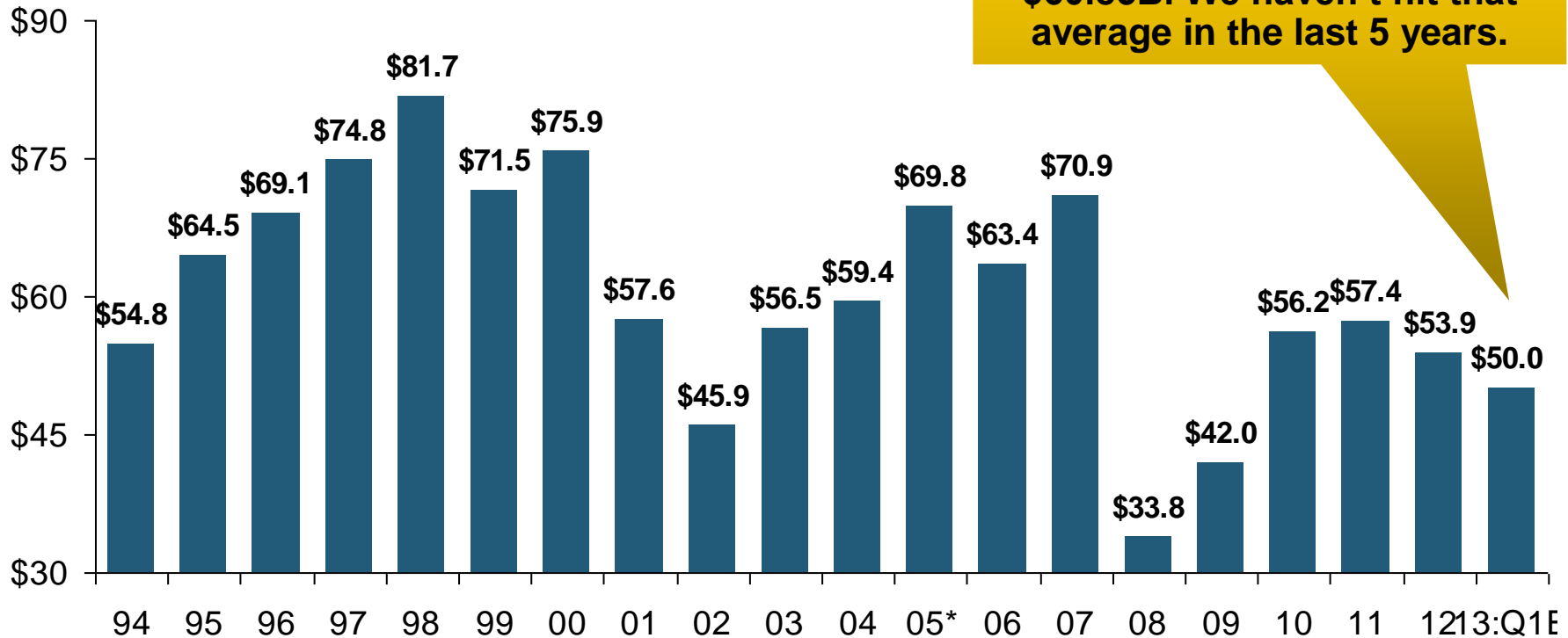
<sup>1</sup> Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

\* 2005 figure includes special one-time dividend of \$3.2B;

Sources: ISO; Insurance Information Institute.

# P/C Industry Investment Gains, Inflation-Adjusted: 1994–2012<sup>1</sup>

(\$ Billions, 2012 dollars)



**1994-2012 average yearly gain: \$60.85B. We haven't hit that average in the last 5 years.**

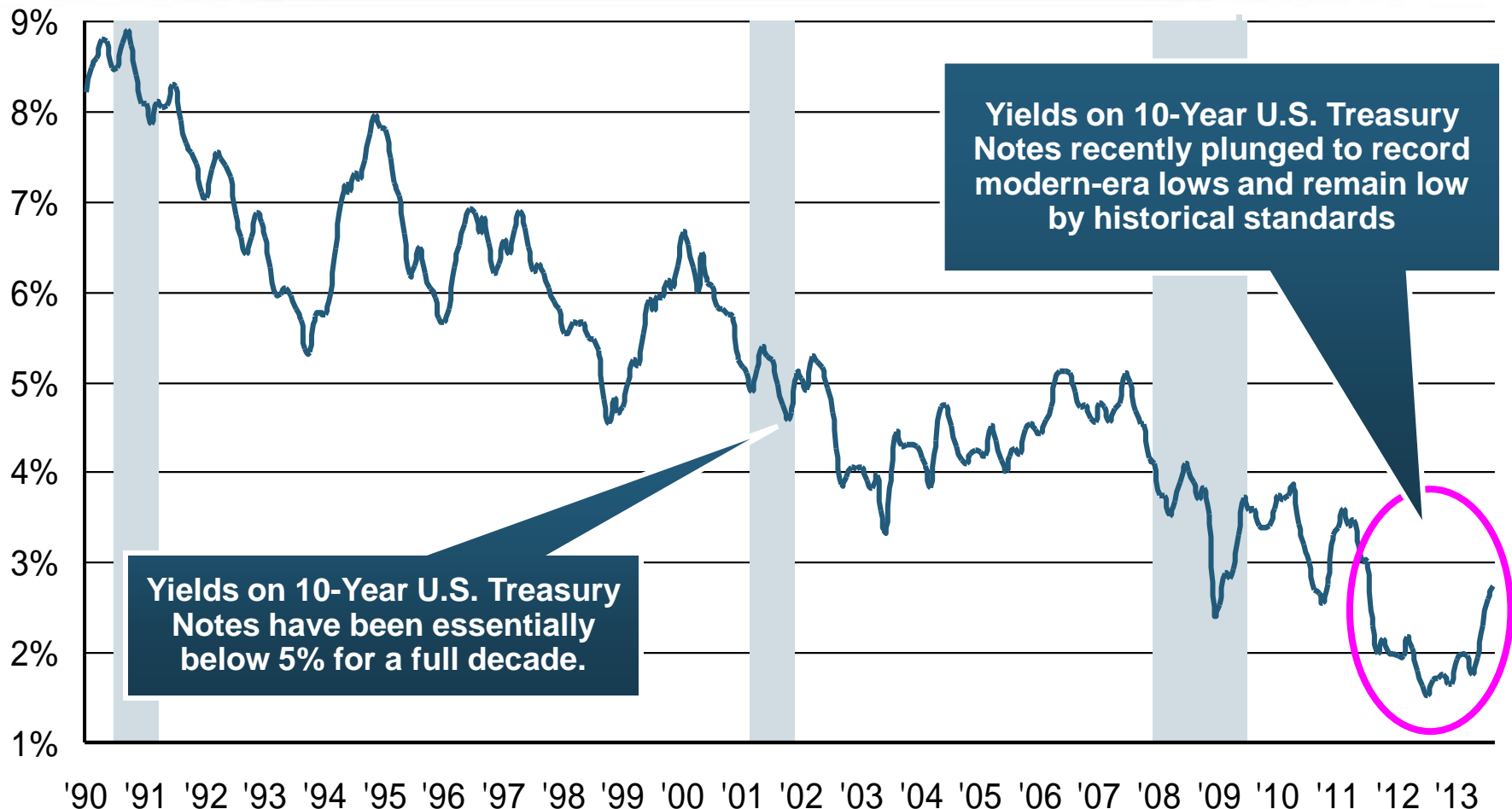
**Because the Federal Reserve Board aims to keep interest rates exceptionally low until the unemployment rate hits 6.5%—likely at least another year off—maturing bonds will be re-invested at even lower rates.**

<sup>1</sup>Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

\*2005 figure includes special one-time dividend of \$3.2B; 2013F figure is I.I.I. estimate for 2013:Q1, annualized.

Sources: ISO; Insurance Information Institute.

# U.S. 10-Year Treasury Note Yields: A Long Downward Trend, 1990–2013\*



**Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.**

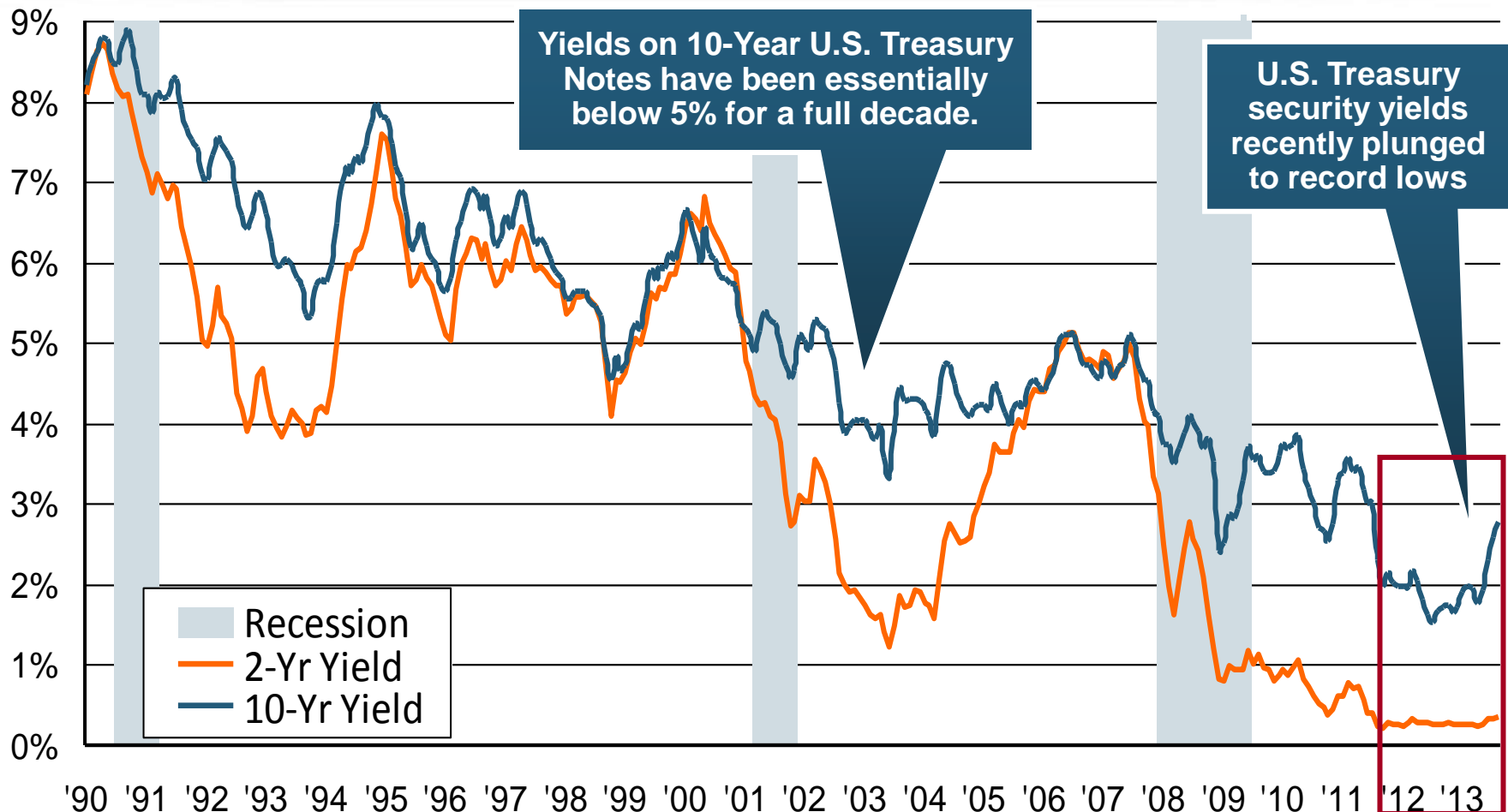
\*Monthly, through August 2013.

Note: Recessions indicated by gray shaded columns.

Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>.

National Bureau of Economic Research (recession dates); Insurance Information Institutes.

# U.S. Treasury Security Yields: A Long Downward Trend, 1990–2013\*

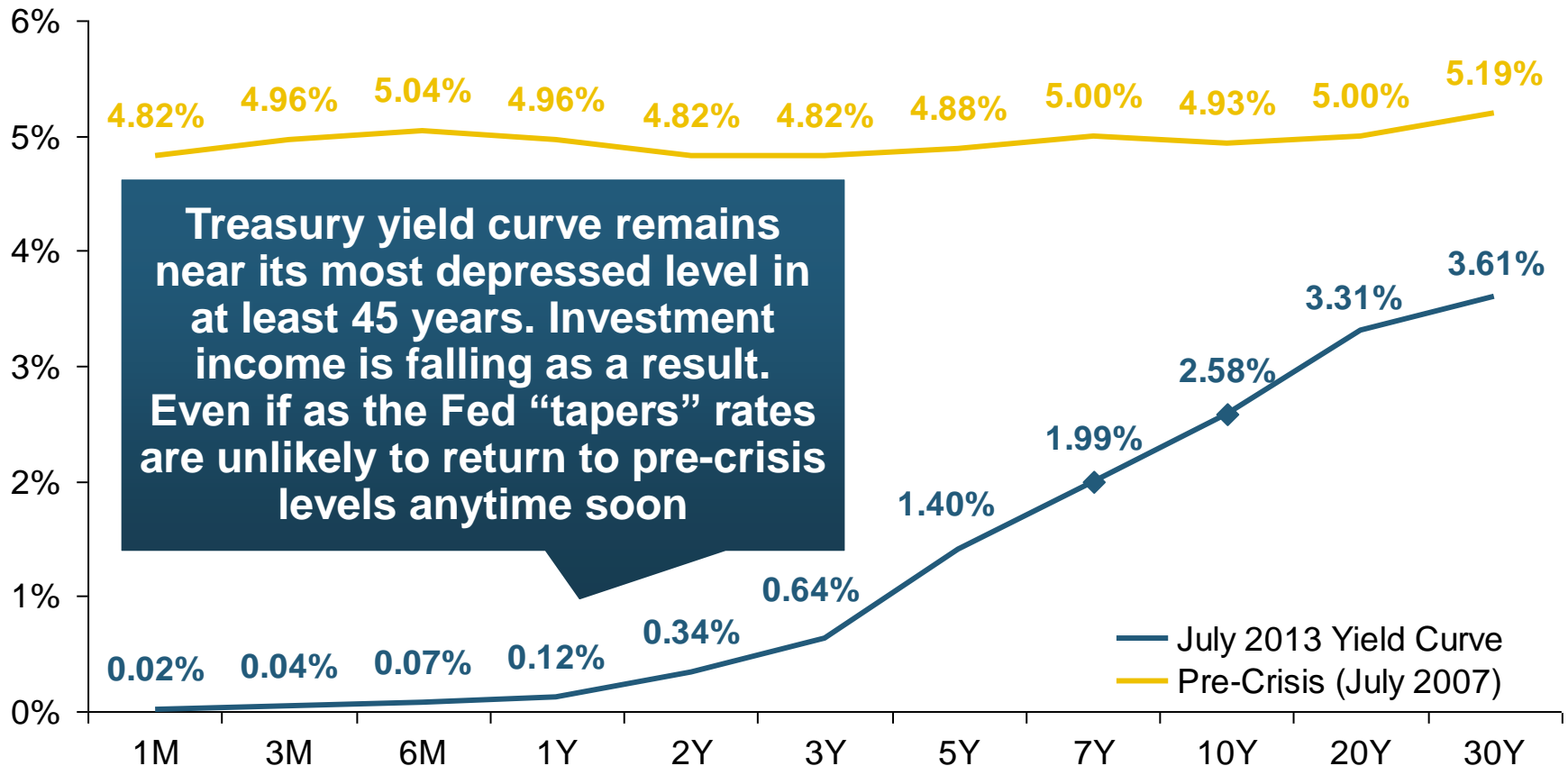


**Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.**

\*Monthly, constant maturity, nominal rates, through August 2013.

Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>.  
National Bureau of Economic Research (recession dates); Insurance Information Institute.

# Treasury Yield Curves: Pre-Crisis (July 2007) vs. July 2013

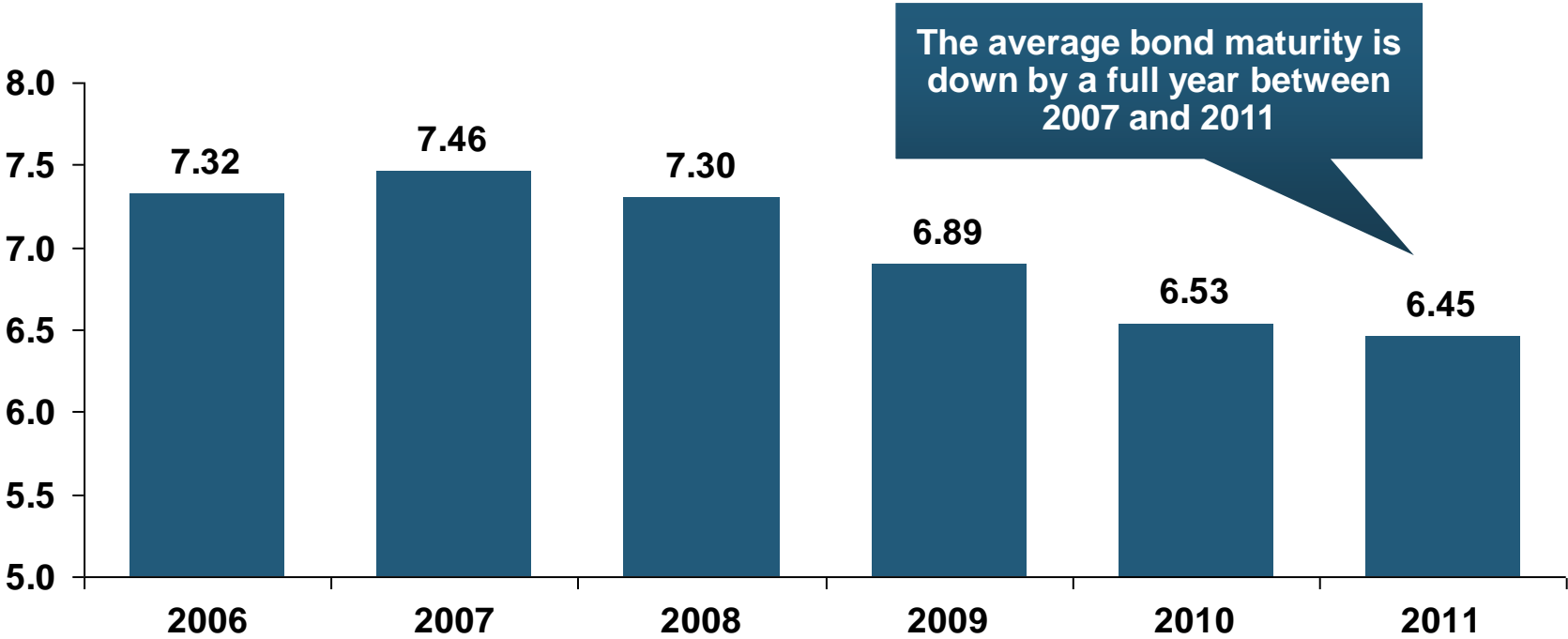


Treasury yield curve remains near its most depressed level in at least 45 years. Investment income is falling as a result. Even if as the Fed “tapers” rates are unlikely to return to pre-crisis levels anytime soon

The Fed Is Actively Signaling that it Is Determined to Keep Rates Low Until Unemployment Drops Below 6.5% or Until Inflation Expectations Exceed 2.5%; Low Rates Add to Pricing Pressure for Insurers.

# Average Maturity of Bonds Held by US P/C Insurers, 2006—2011\*

Average Maturity (Years)

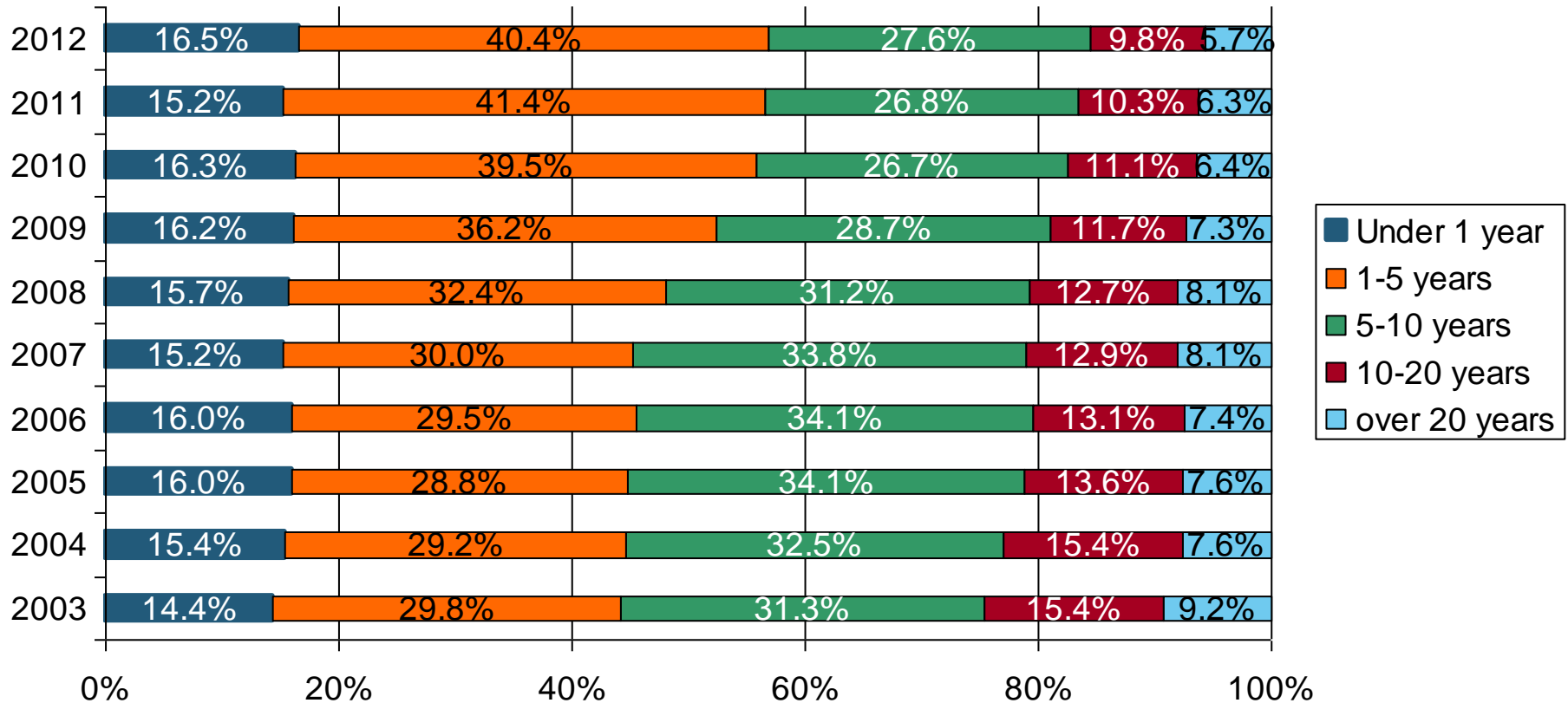


**Falling Average Maturity (and Duration) of the P/C Industry's Bond Portfolio is Contributing to the Drop in Investment Income Along With Lower Yields**

\*Year-end figures. Latest available.

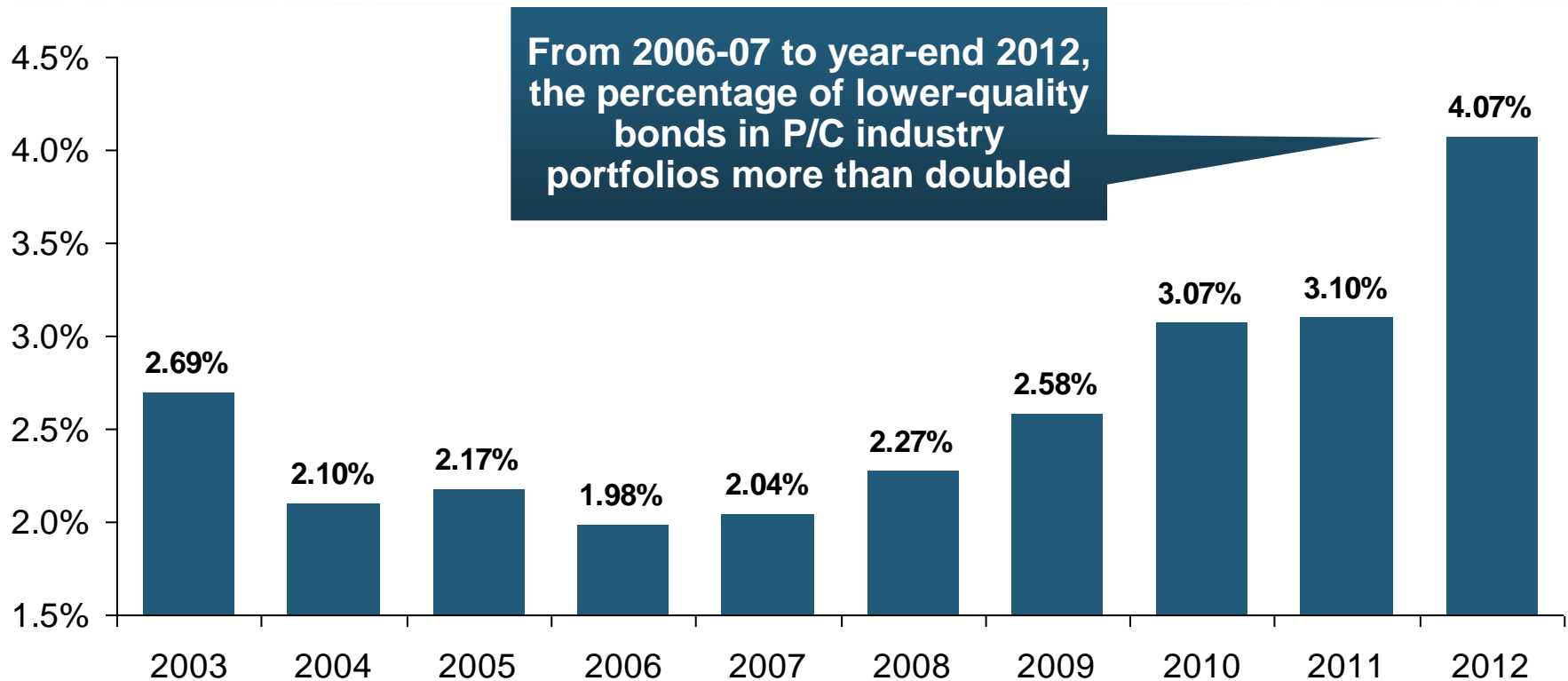
Sources: Insurance Information Institute calculations based on A.M. Best data.

# Distribution of Bond Maturities, P/C Insurance Industry, 2003-2012



The main shift over these years has been from bonds with longer maturities to bonds with shorter maturities. The industry first trimmed its holdings of over-10-year bonds (from 24.6% in 2003 to 15.5% in 2012) and then trimmed bonds in the 5-10-year category (from 31.3% in 2003 to 27.6% in 2012). Falling average maturity of the P/C industry's bond portfolio is contributing to a drop in investment income along with lower yields.

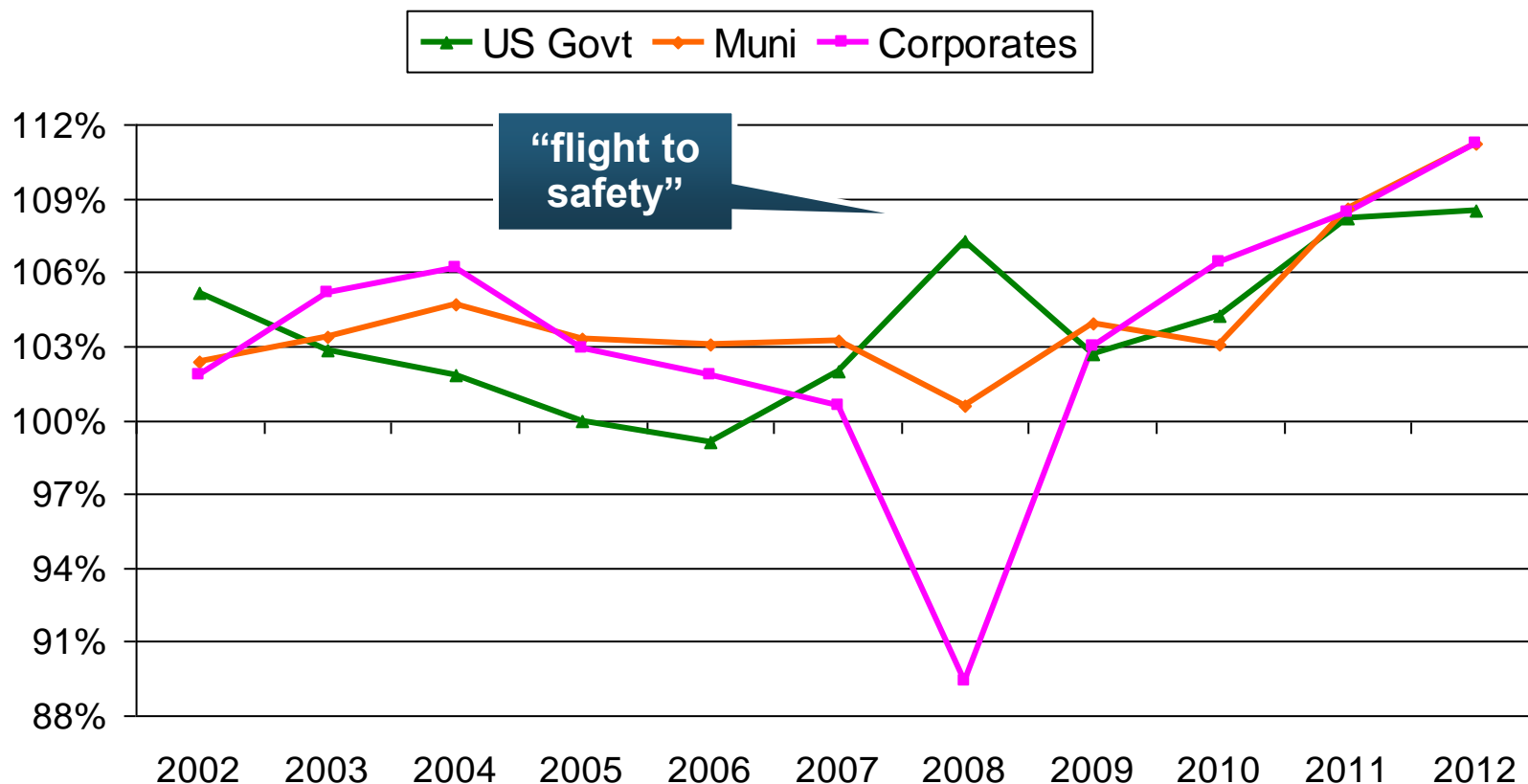
# Bonds Rated NAIC Quality Category 3-6 as a Percent of Total Bonds, 2003–2012



There are many ways to capture higher yields on bond portfolios. One is to accept greater risk, as measured by NAIC bond ratings. The ratings range from 1 to 6, with the highest quality rated 1. Even in 2012, over 95% of the industry's bonds were rated 1 or 2.

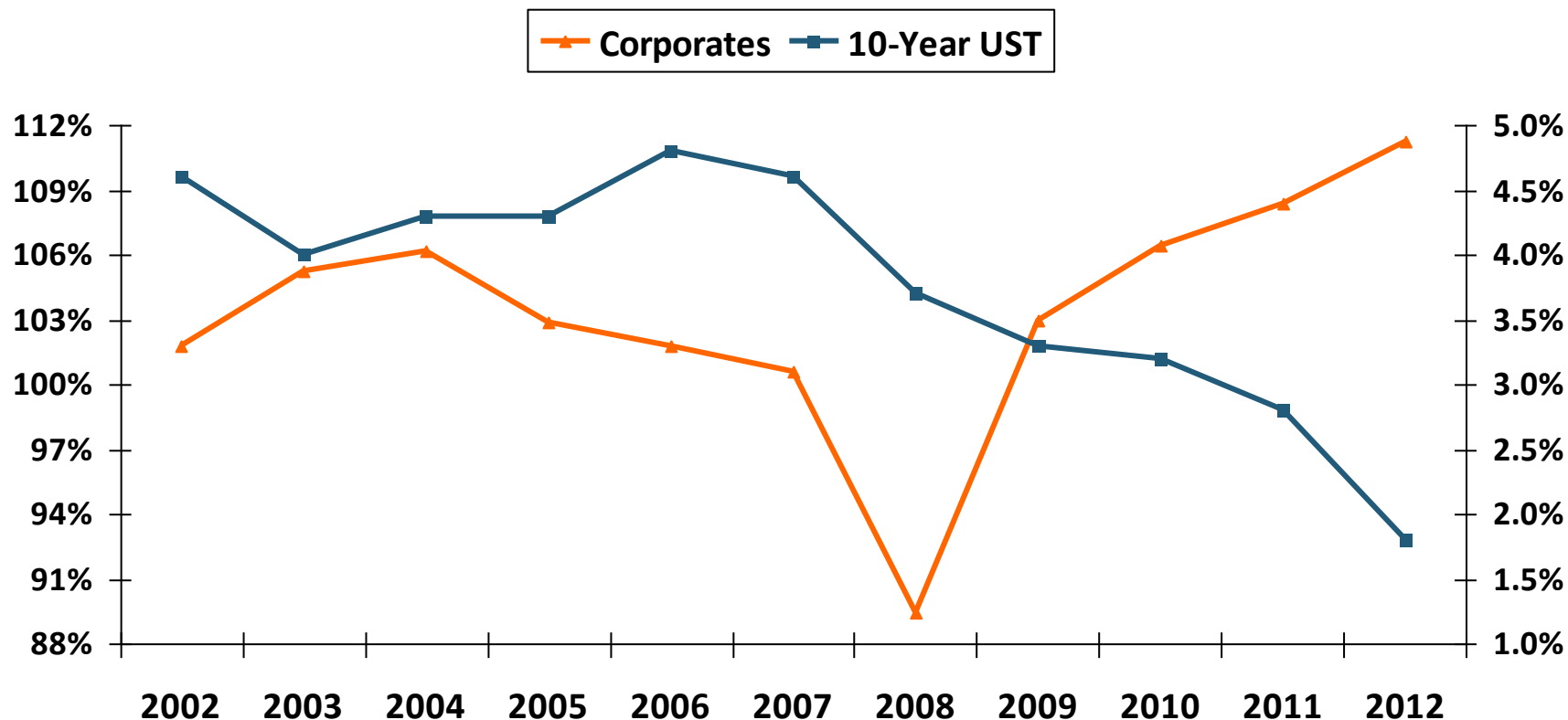


# Insurance Industry Fair Value as a Percent of Par History, by Bond Type, 2002–2012



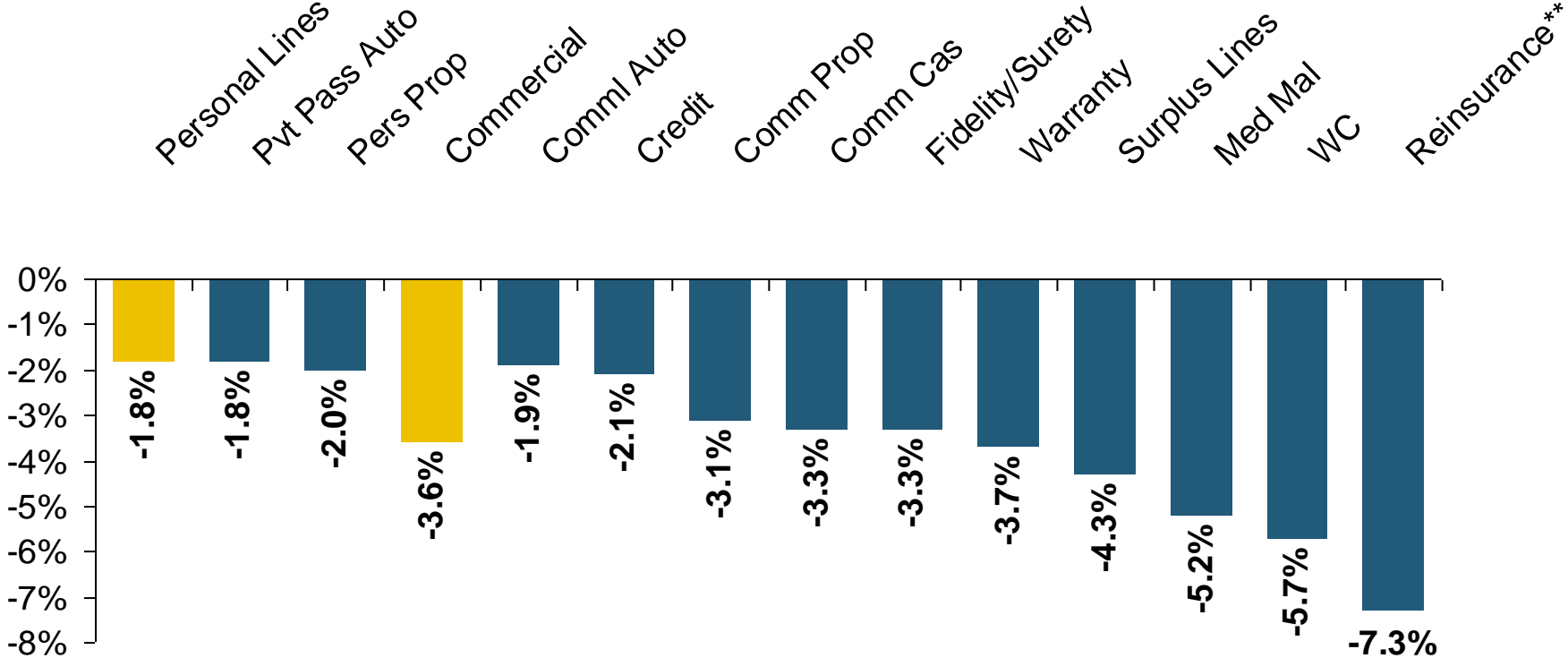
**Because the Federal Reserve Board aims to keep interest rates exceptionally low until the “headline” unemployment rate hits 6.5%, maturing bonds will be re-invested at even lower rates.**

# As Yields (Blue) Sank, Fair Value as a Percent of Par (Orange) Rose, 2002–2012



**When interest rates rise again, the Fair Value of Insurance Industry bonds will fall. How far and how fast the fall occurs depends on many factors, but the direction of change is clear.**

# Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line\*



**Lower Investment Earnings Place a Greater Burden on Underwriting and Pricing Discipline**

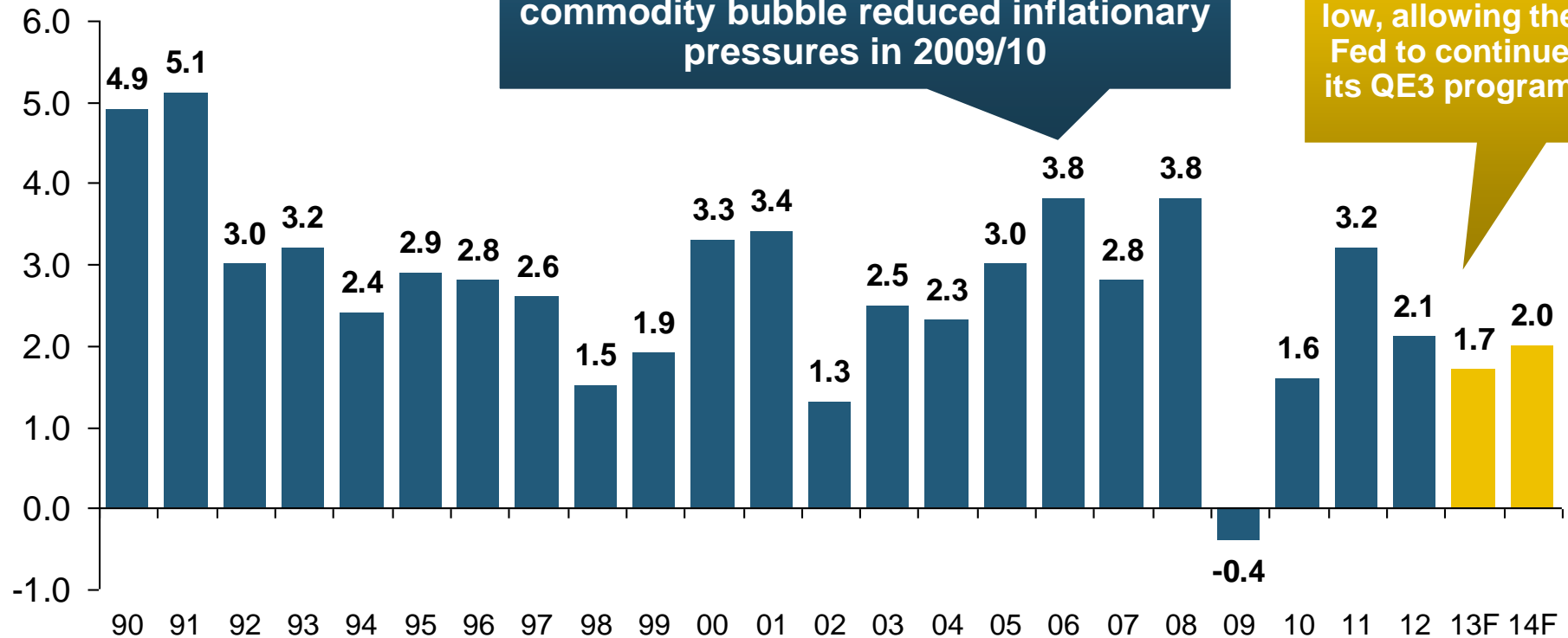
\*Based on 2008 Invested Assets and Earned Premiums

\*\*US domestic reinsurance only

Source: A.M. Best; Insurance Information Institute.

# Annual Inflation Rates, (CPI-U, %), 1990–2014F

Annual Inflation Rates (%)



Inflation peaked at 5.6% in August 2008 on high energy and commodity crisis. The recession and the collapse of the commodity bubble reduced inflationary pressures in 2009/10

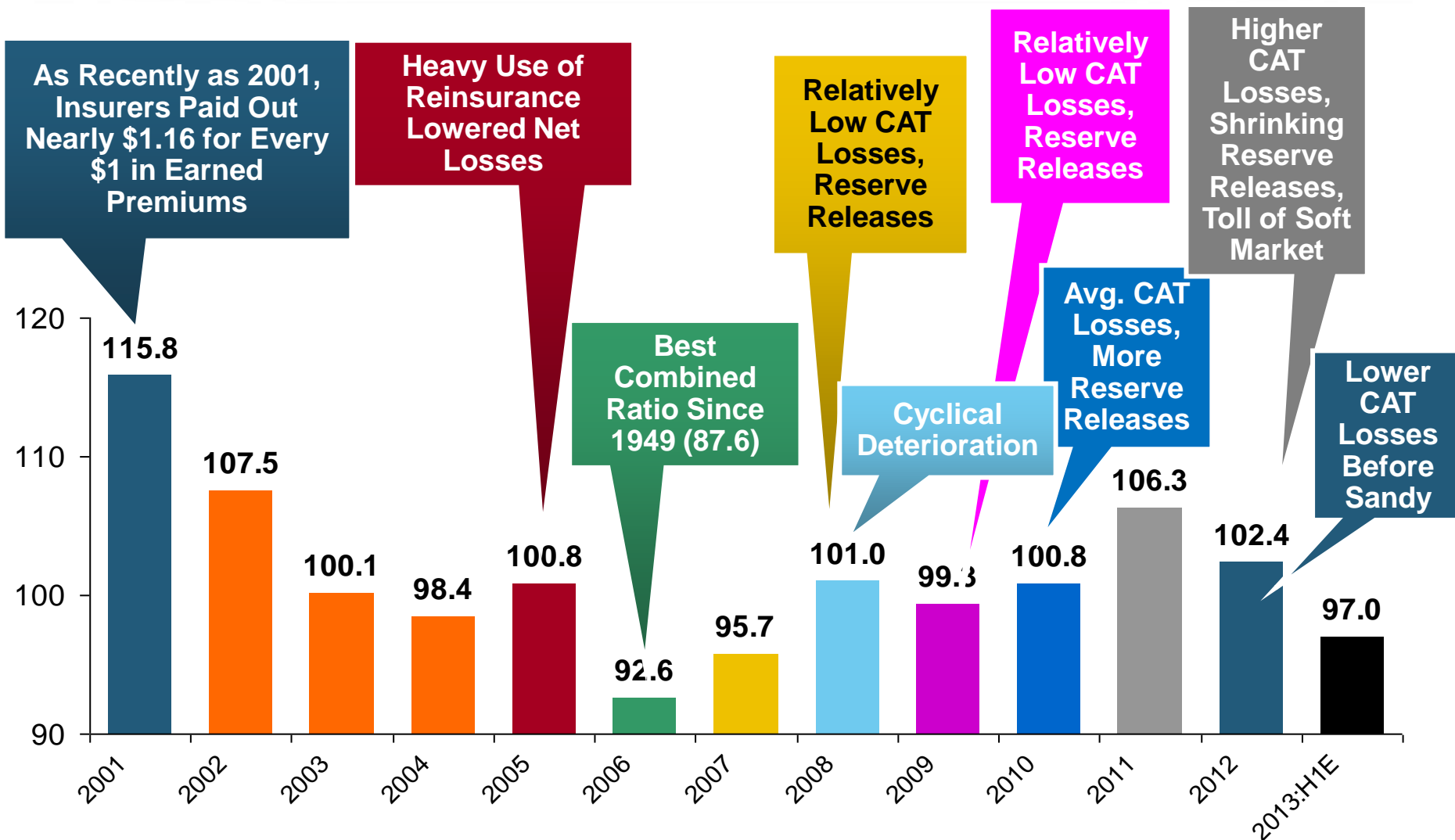
Inflationary expectations remain quite low, allowing the Fed to continue its QE3 program

The slack in the U.S. economy suggests that inflationary pressures should remain subdued for an extended period of times. Energy, health care and commodity prices, plus U.S. debt burden, remain longer-run concerns

# 1. UNDERWRITING

**Underwriting Losses in 2011  
and 2012 Are Elevated by High  
Catastrophe Losses**

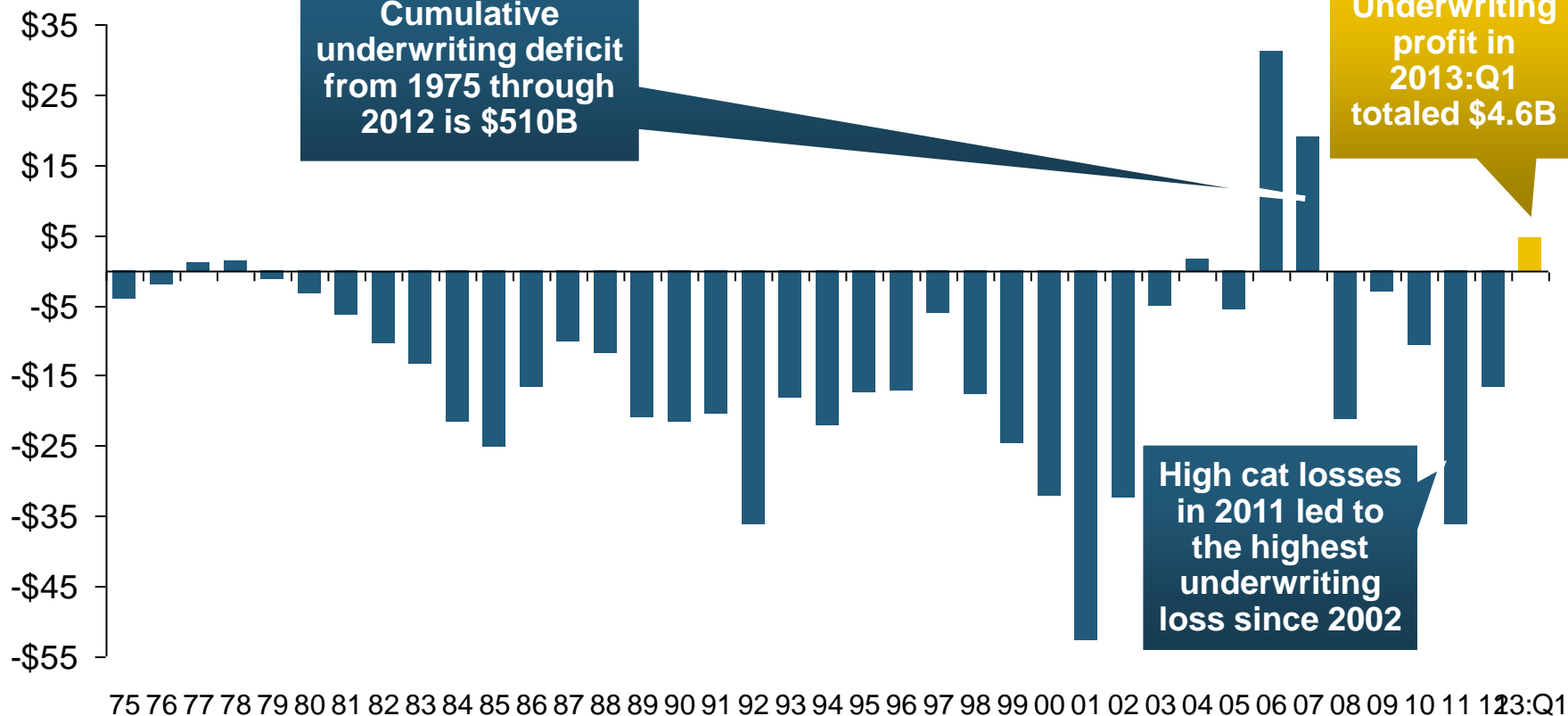
# P/C Insurance Industry Combined Ratio, 2001–2013:H1\*



\* Excludes Mortgage & Financial Guaranty insurers 2008--2013. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2.  
Sources: A.M. Best, ISO.

# Underwriting Gain (Loss) 1975–2013:Q1\*

(\$ Billions)

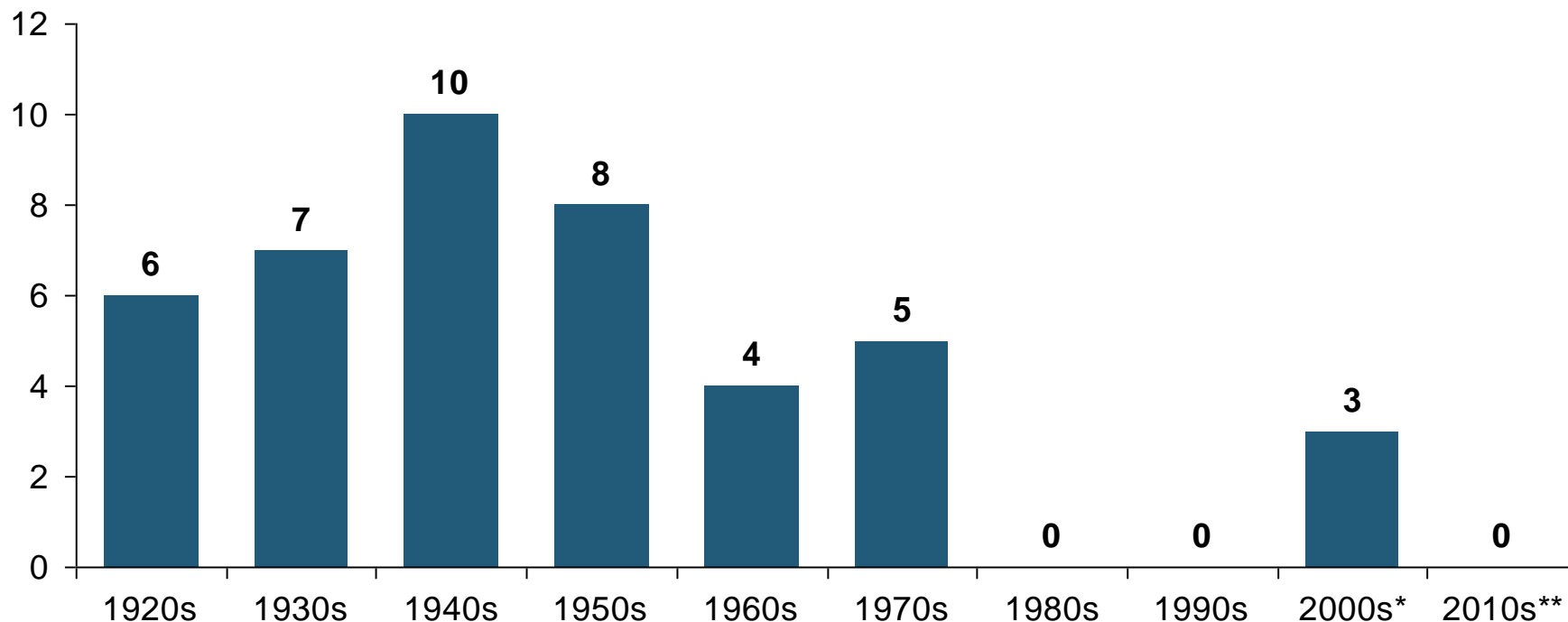


**Large Underwriting Losses Are *NOT* Sustainable  
in Current Investment Environment**

\* Includes mortgage and financial guaranty insurers in all years.  
Sources: A.M. Best, ISO; Insurance Information Institute.

# Number of Years with Underwriting Profits by Decade, 1920s–2010s

## Number of Years with Underwriting Profits



**Underwriting Profits Were Common Before the 1980s (40 of the 60 Years Before 1980 Had Combined Ratios Below 100) – But Then They Vanished. Not a Single Underwriting Profit Was Recorded in the 25 Years from 1979 Through 2003**

\* 2009 combined ratio excl. mort. and finl. guaranty insurers was 99.3, which would bring the 2000s total to 4 years with an u/w profit.

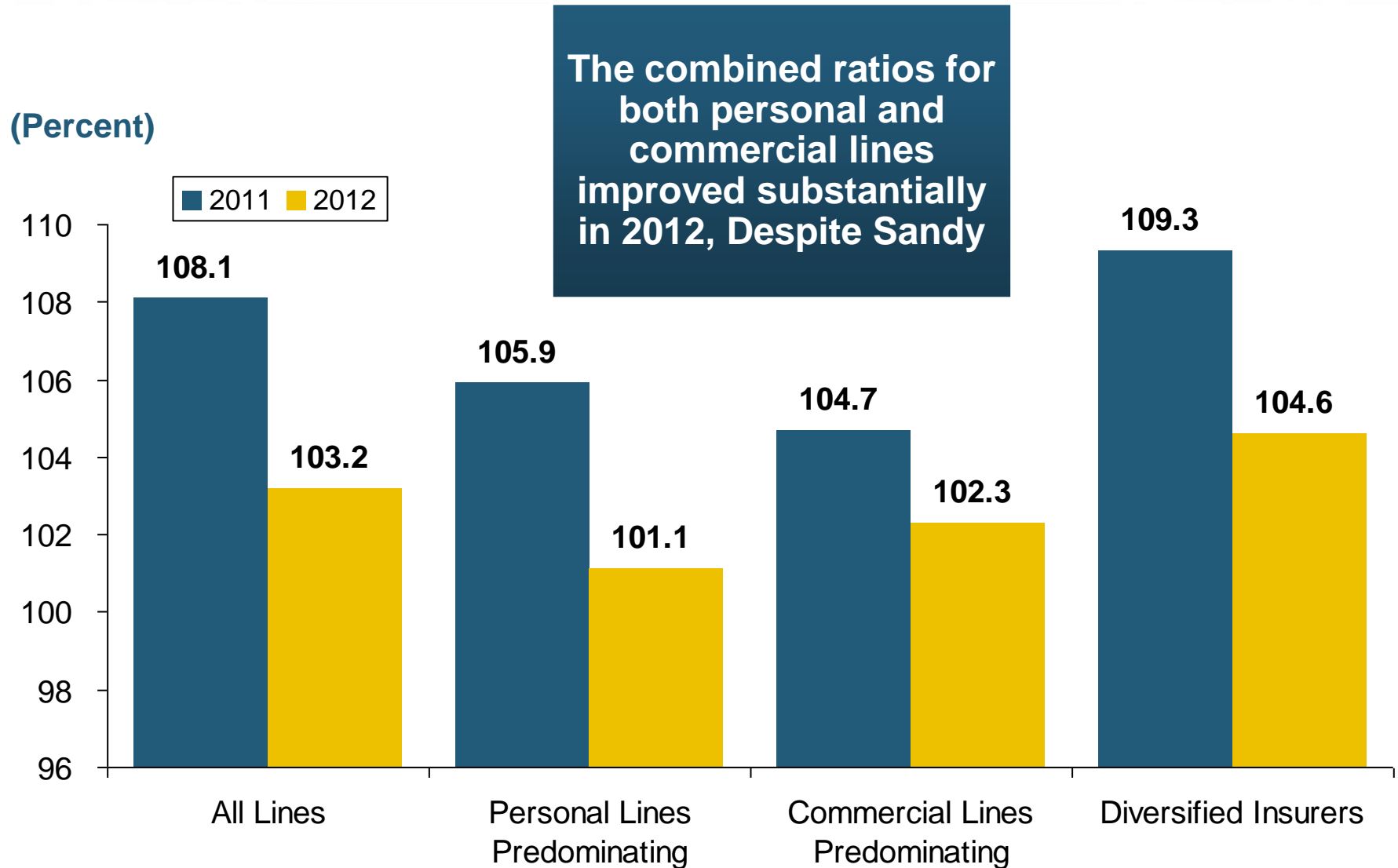
\*\*Data for the 2010s is for the period 2010 through 2012.

Note: Data for 1920–1934 based on stock companies only.

Sources: Insurance Information Institute research from A.M. Best Data.



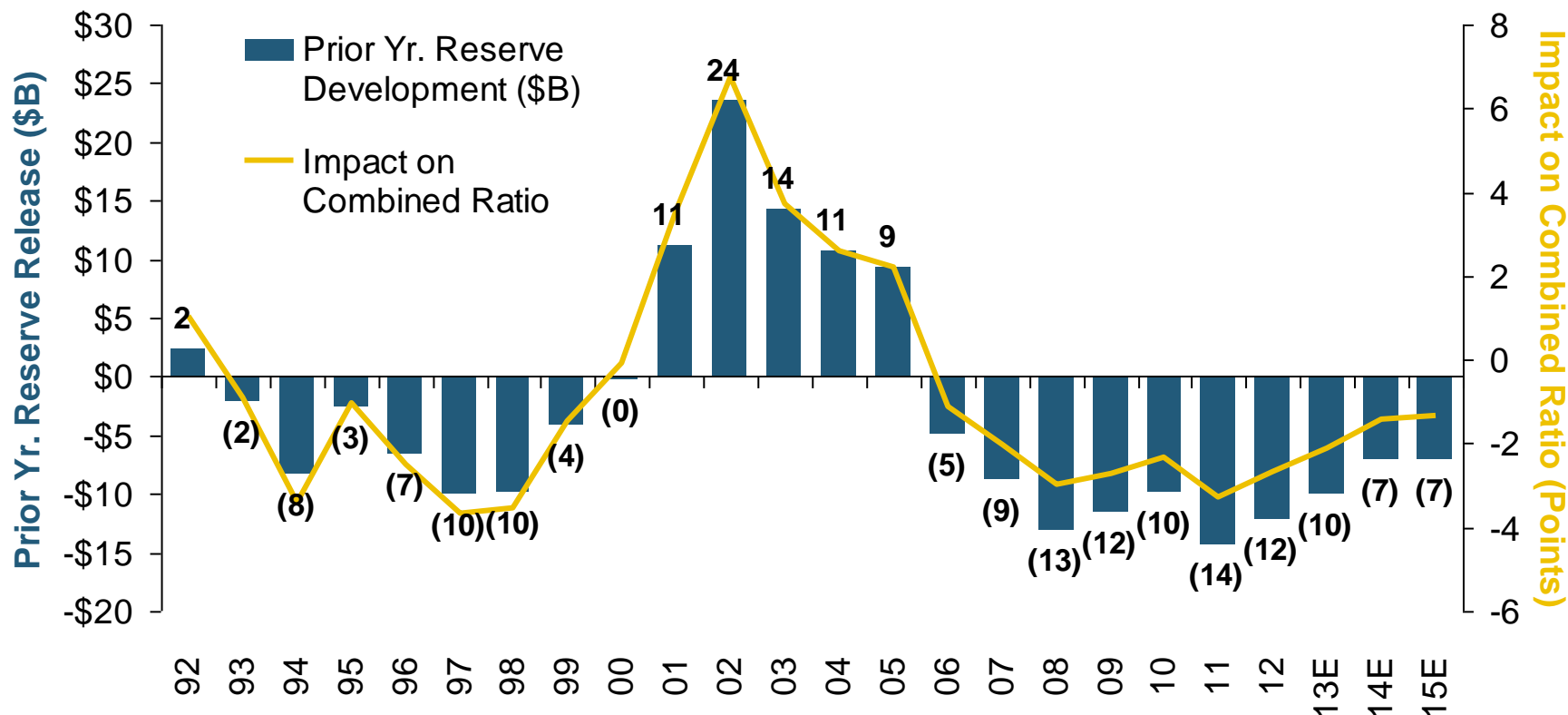
# Combined Ratios by Predominant Business Segment, 2012 vs. 2011\*



\*Excludes mortgage and financial guaranty insurers.

Source: ISO/PCI; Insurance Information Institute

# P/C Reserve Development, 1992–2015E



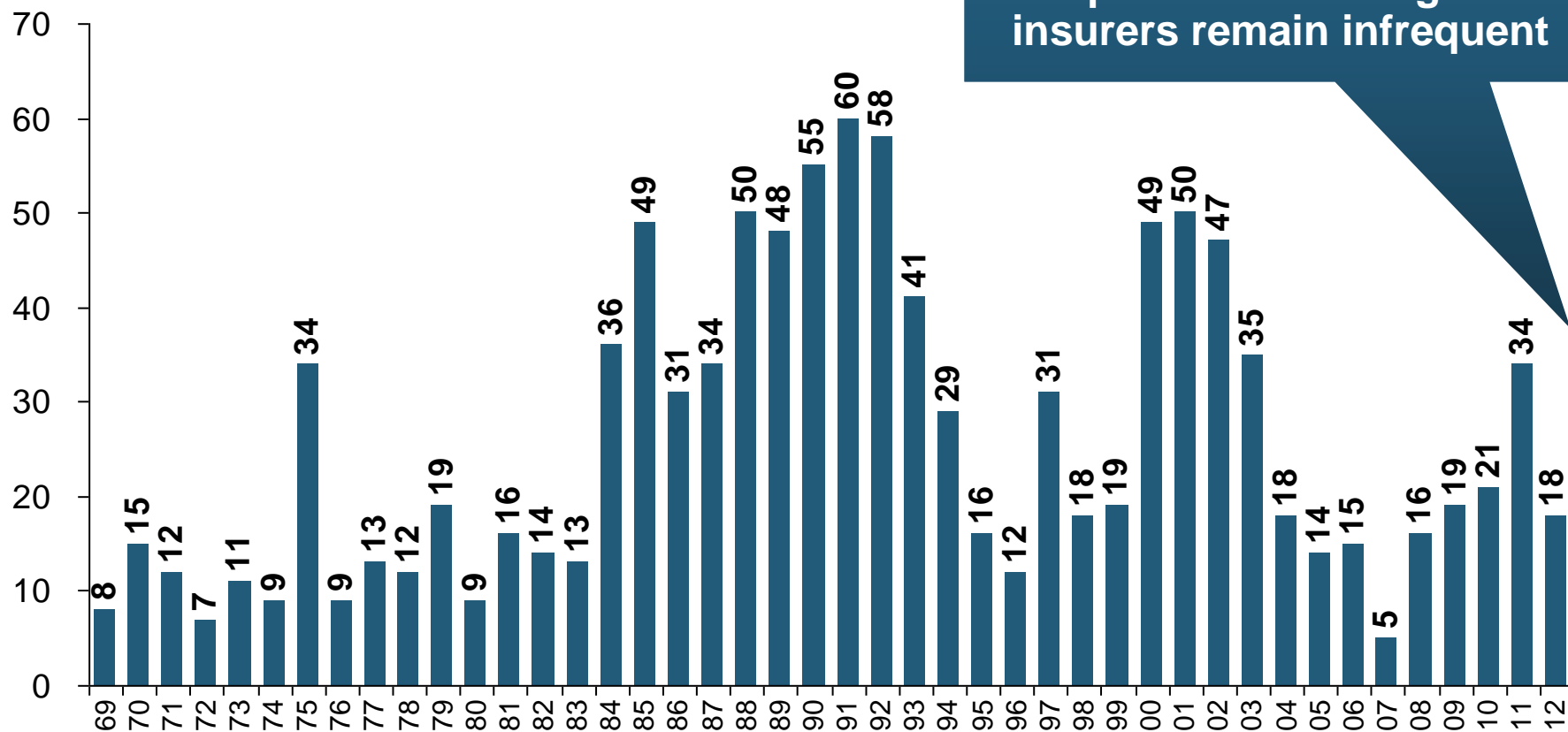
Note: 2005 reserve development excludes a \$6 billion loss portfolio transfer between American Re and Munich Re. Including this transaction, total prior year adverse development in 2005 was \$7 billion. The data from 2000 and subsequent years excludes development from financial guaranty and mortgage insurance.

Sources: A.M. Best, ISO, Barclays Research (estimates).

# **Financial Strength & Underwriting**

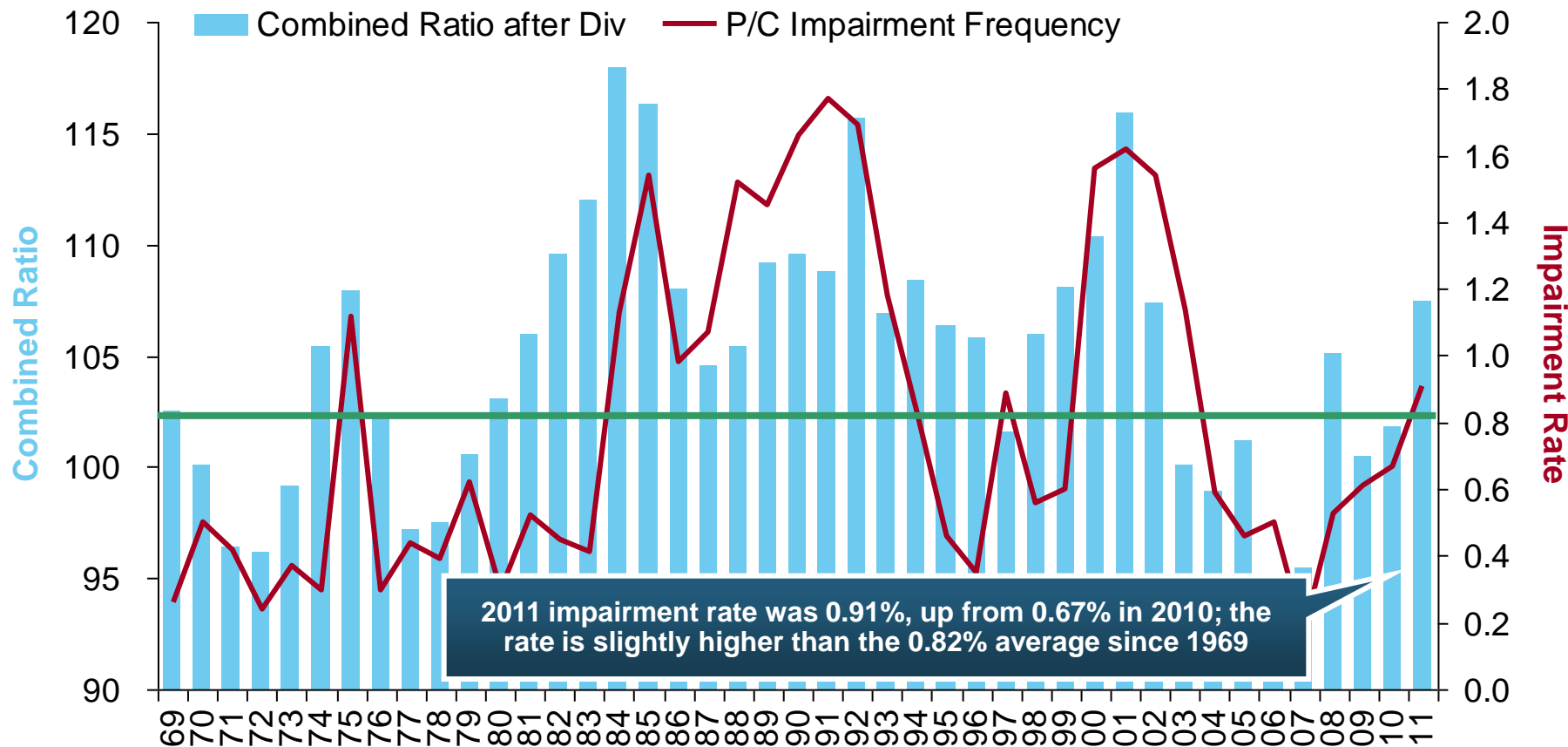
**Cyclical Pattern is P-C Impairment  
History is Directly Tied to  
Underwriting, Reserving & Pricing**

# P/C Insurer Impairments, 1969–2012



**The Number of Impairments Varies Significantly Over the P/C Insurance Cycle, With Peaks Occurring Well into Hard Markets**

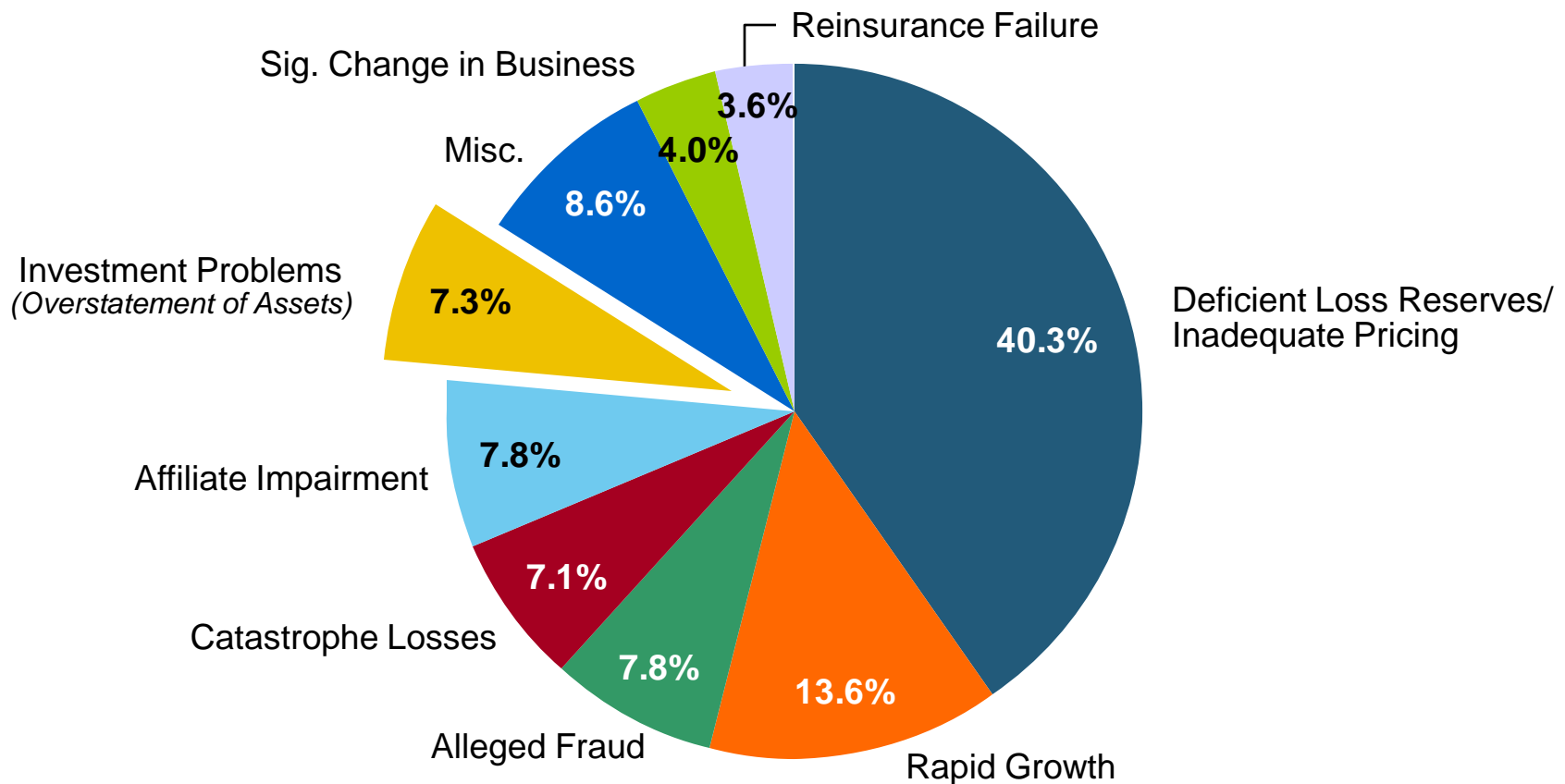
# P/C Insurer Impairment Frequency vs. Combined Ratio, 1969-2011



**Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007; Recent Increase Was Associated Primarily With Mortgage and Financial Guaranty Insurers and Not Representative of the Industry Overall**

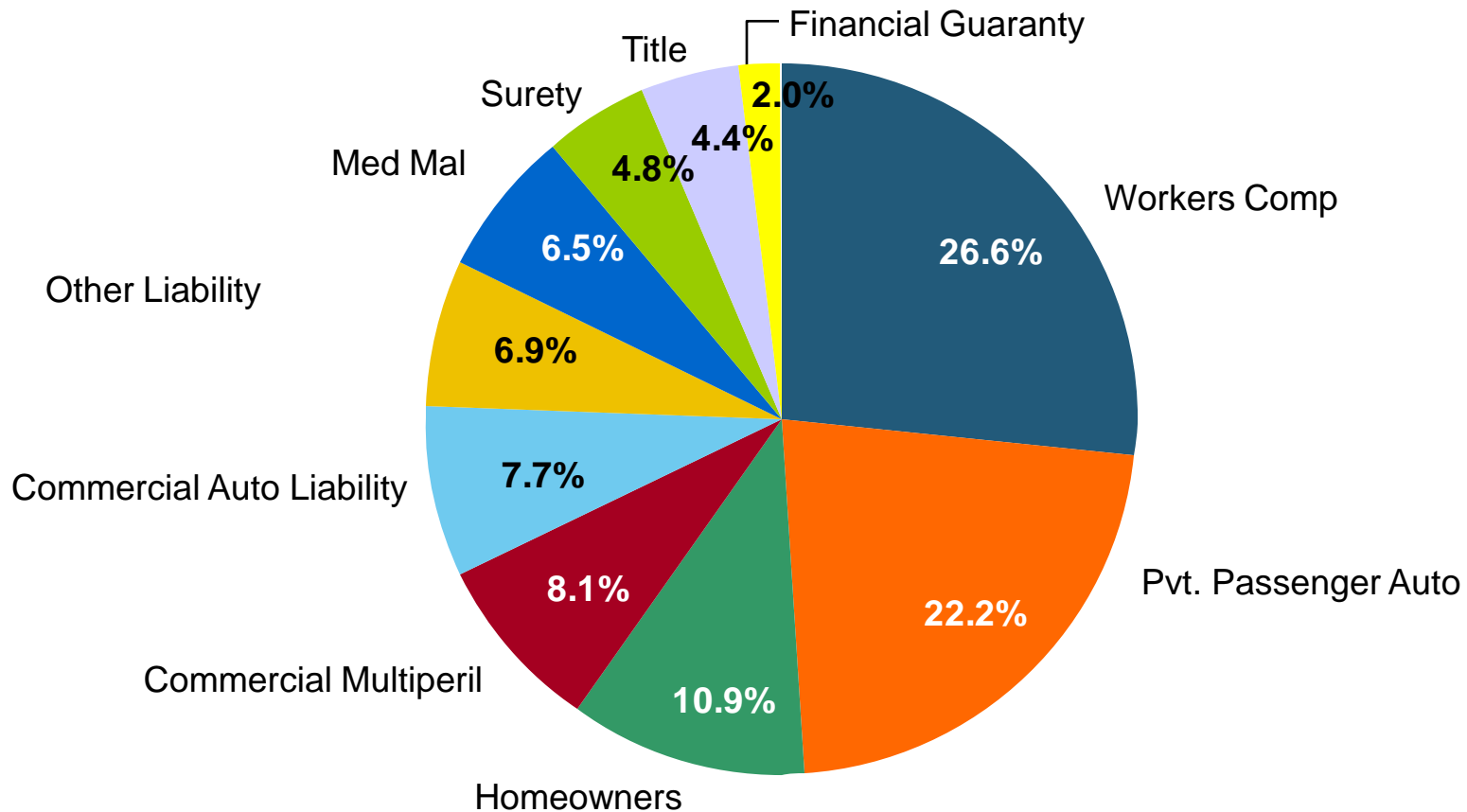
# Reasons for US P/C Insurer Impairments, 1969–2010

Historically, Deficient Loss Reserves and Inadequate Pricing Are By Far the Leading Cause of P-C Insurer Impairments. Investment and Catastrophe Losses Play a Much Smaller Role



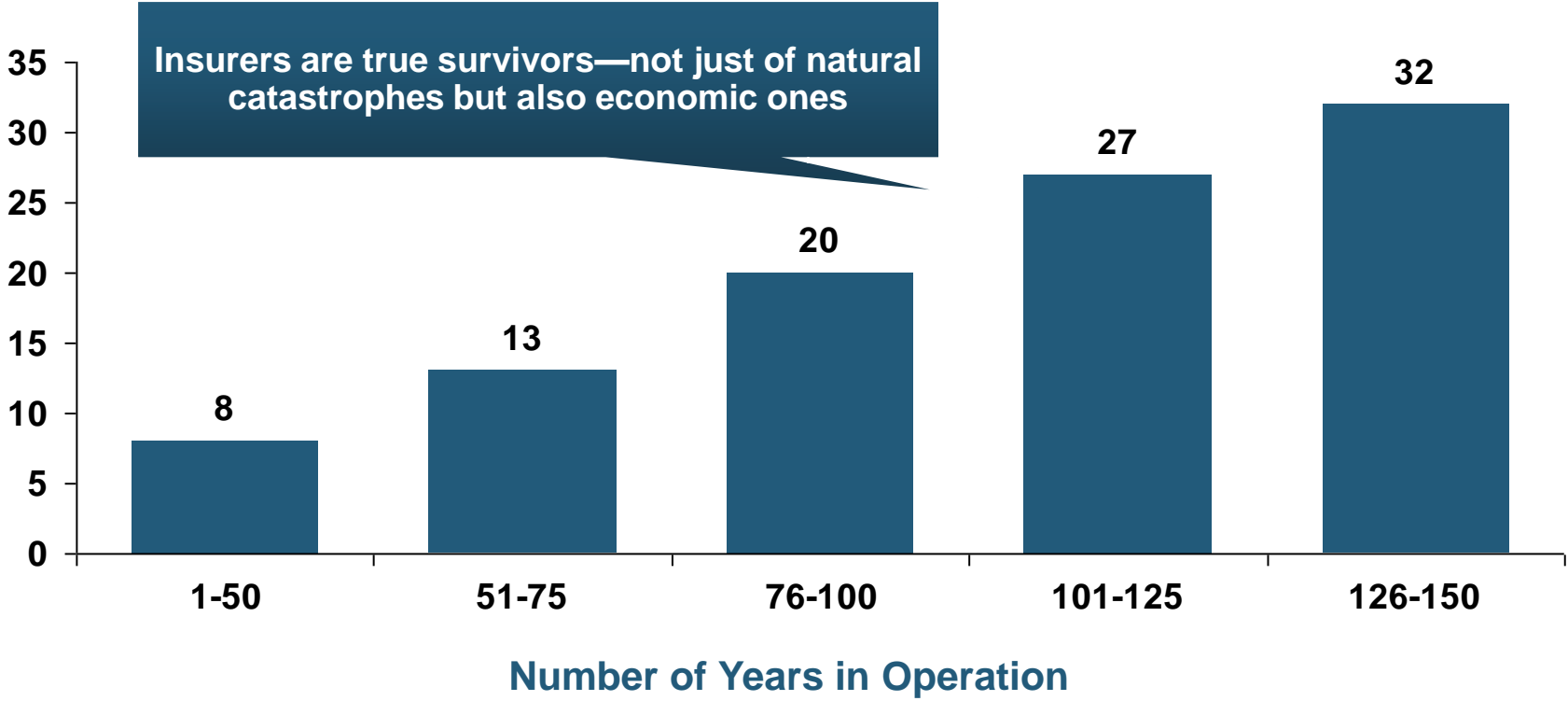
# Top 10 Lines of Business for US P/C Impaired Insurers, 2000–2010

Workers Comp and Pvt. Passenger Auto Account for Nearly Half of the Premium Volume of Impaired Insurers Over the Past Decade



# Number of Recessions Endured by P/C Insurers, by Number of Years in Operation

Number of Recessions Since 1860



Insurers are true survivors—not just of natural catastrophes but also economic ones

Many US Insurers Are Close to a Century Old or Older

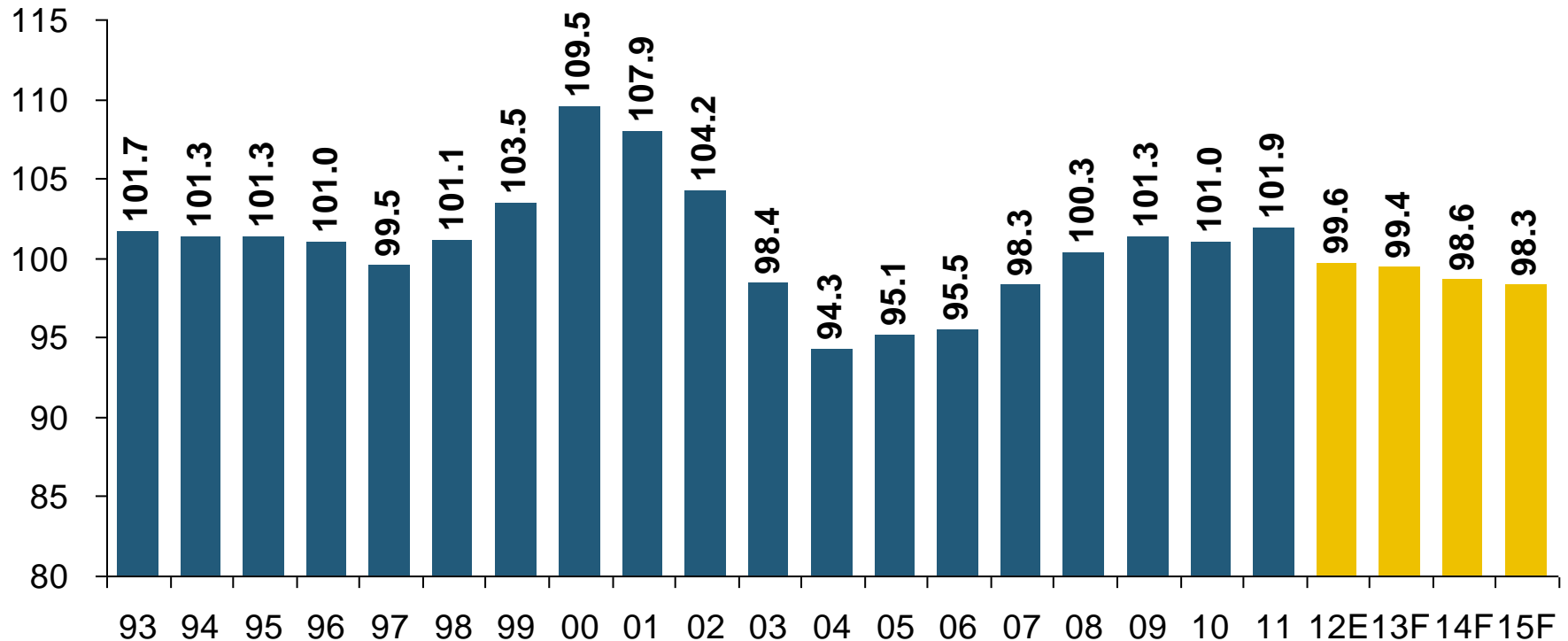
Sources: Insurance Information Institute research from National Bureau of Economic Research data.





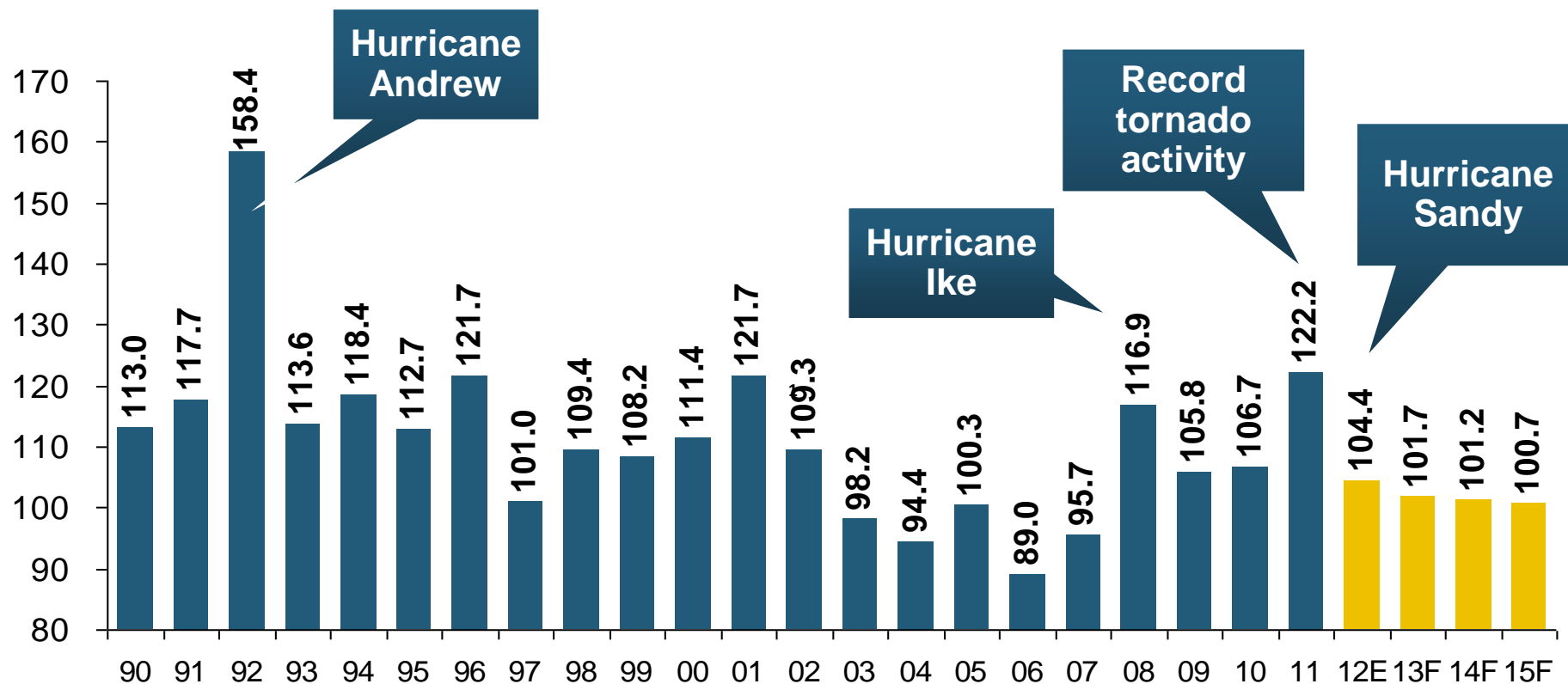
# Performance by Segment

# Private Passenger Auto Combined Ratio: 1993–2015F



**Private Passenger Auto Accounts for 34% of Industry Premiums and Remains the Profit Juggernaut of the P/C Insurance Industry**

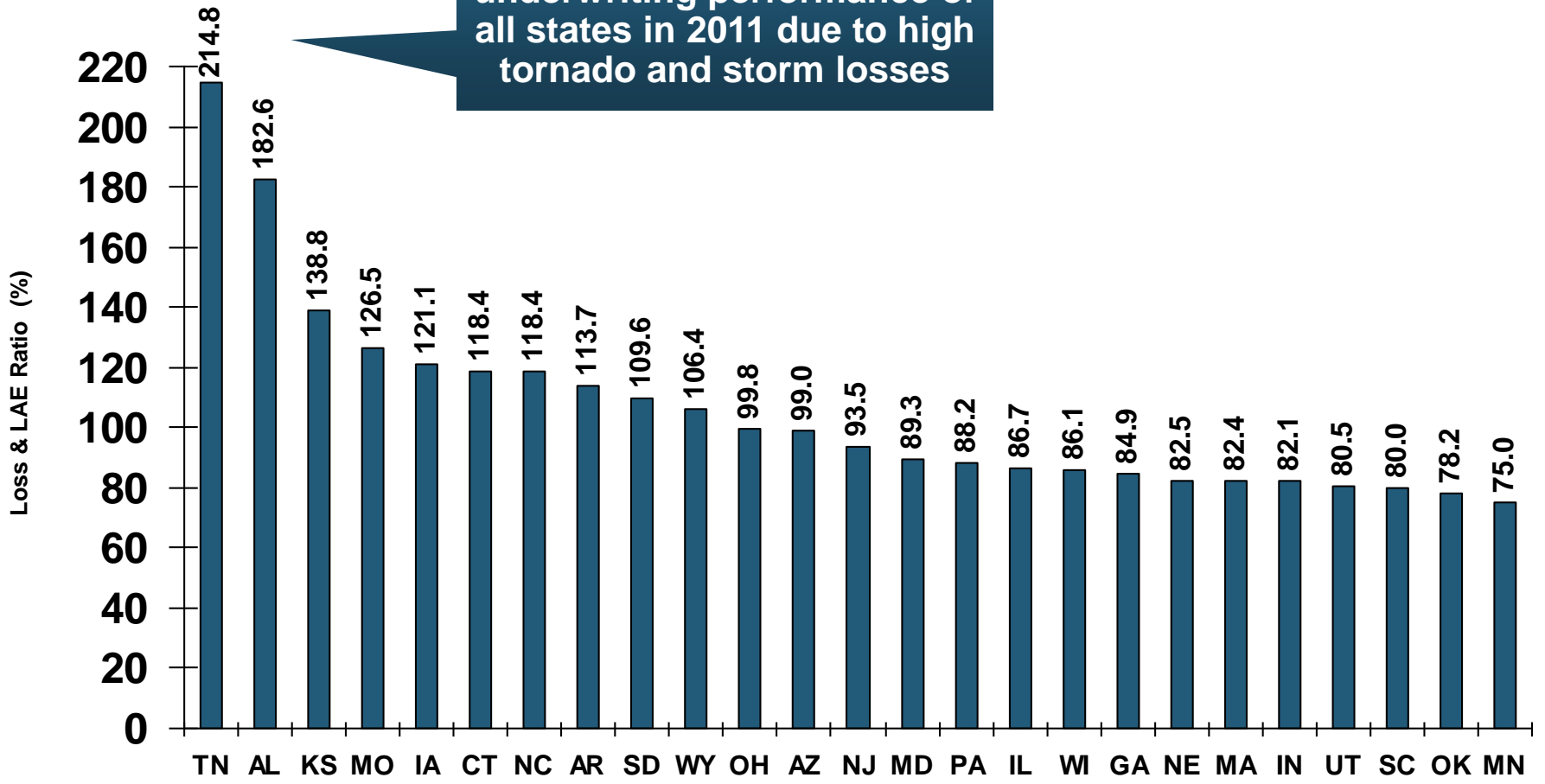
# Homeowners Insurance Combined Ratio: 1990–2015F



**Homeowners Performance in 2011/12 Impacted by Large Cat Losses. Extreme Regional Variation Can Be Expected Due to Local Catastrophe Loss Activity**

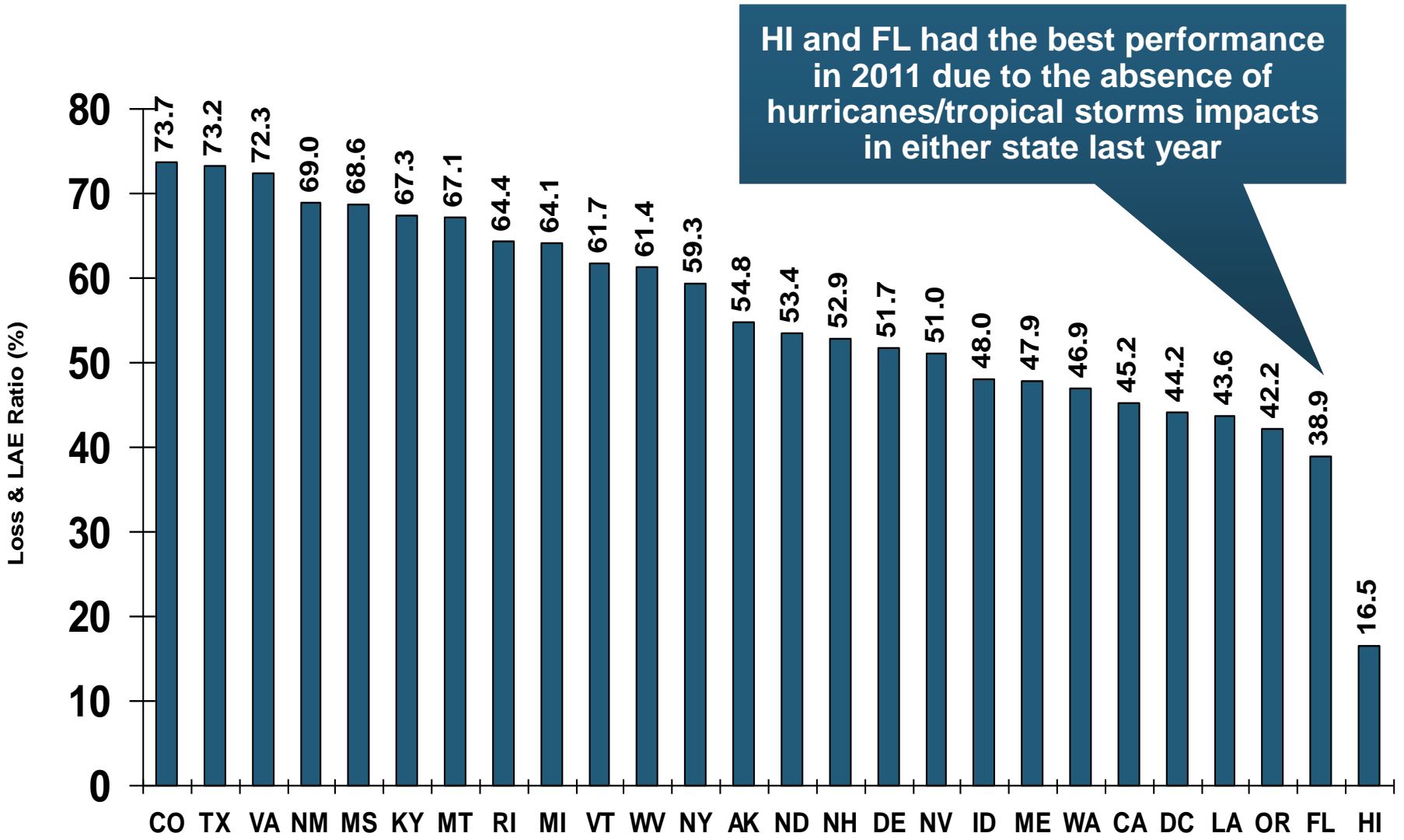
# Homeowners Multi-Peril Loss & LAE Ratio, 2011: Highest 25 States

TN and AL had the worst underwriting performance of all states in 2011 due to high tornado and storm losses



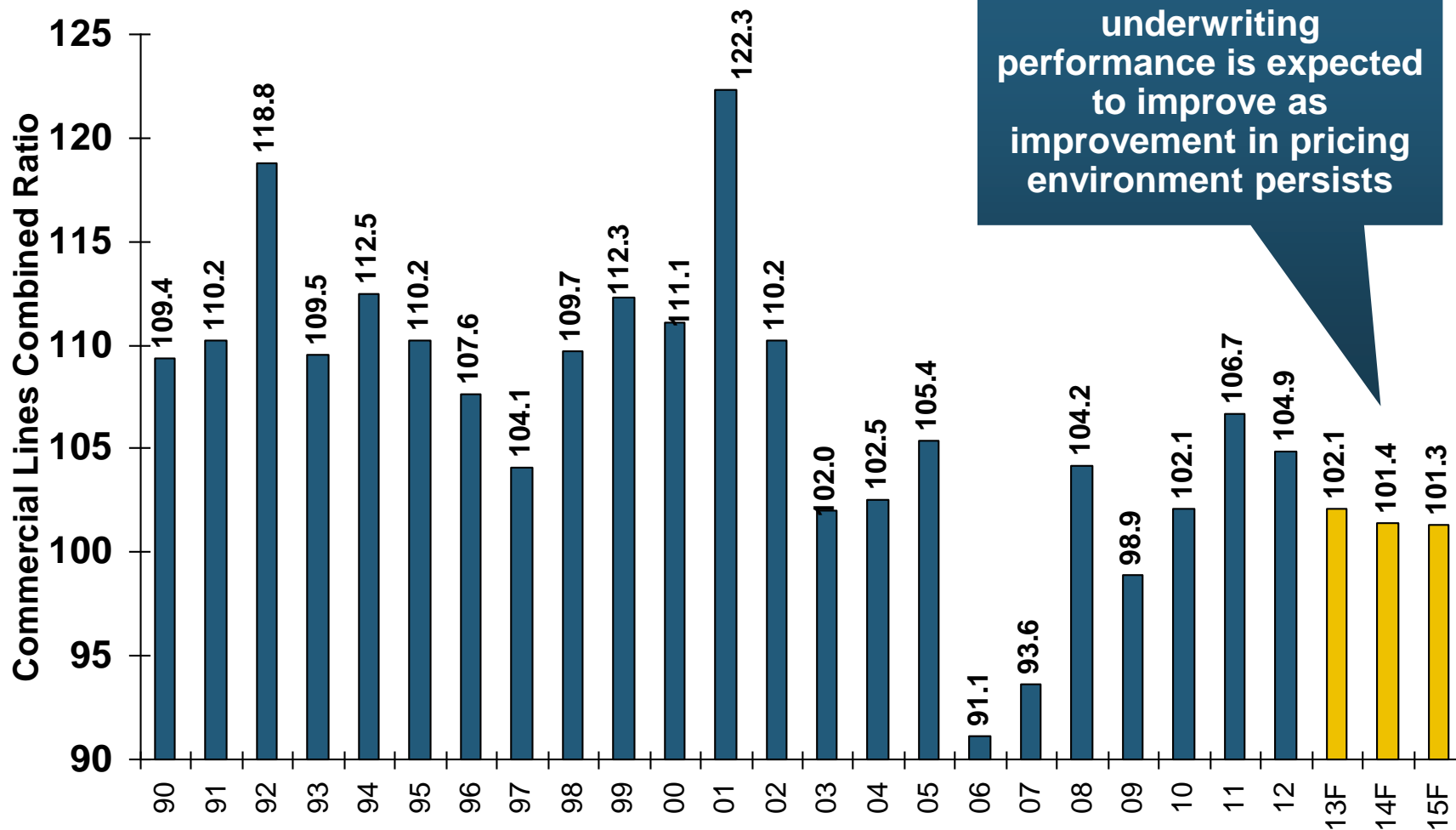
Sources: SNL Financial; Insurance Information Institute.

# Homeowners Multi-Peril Loss & LAE Ratio, 2011: Lowest 25 States



Sources: SNL Financial; Insurance Information Institute.

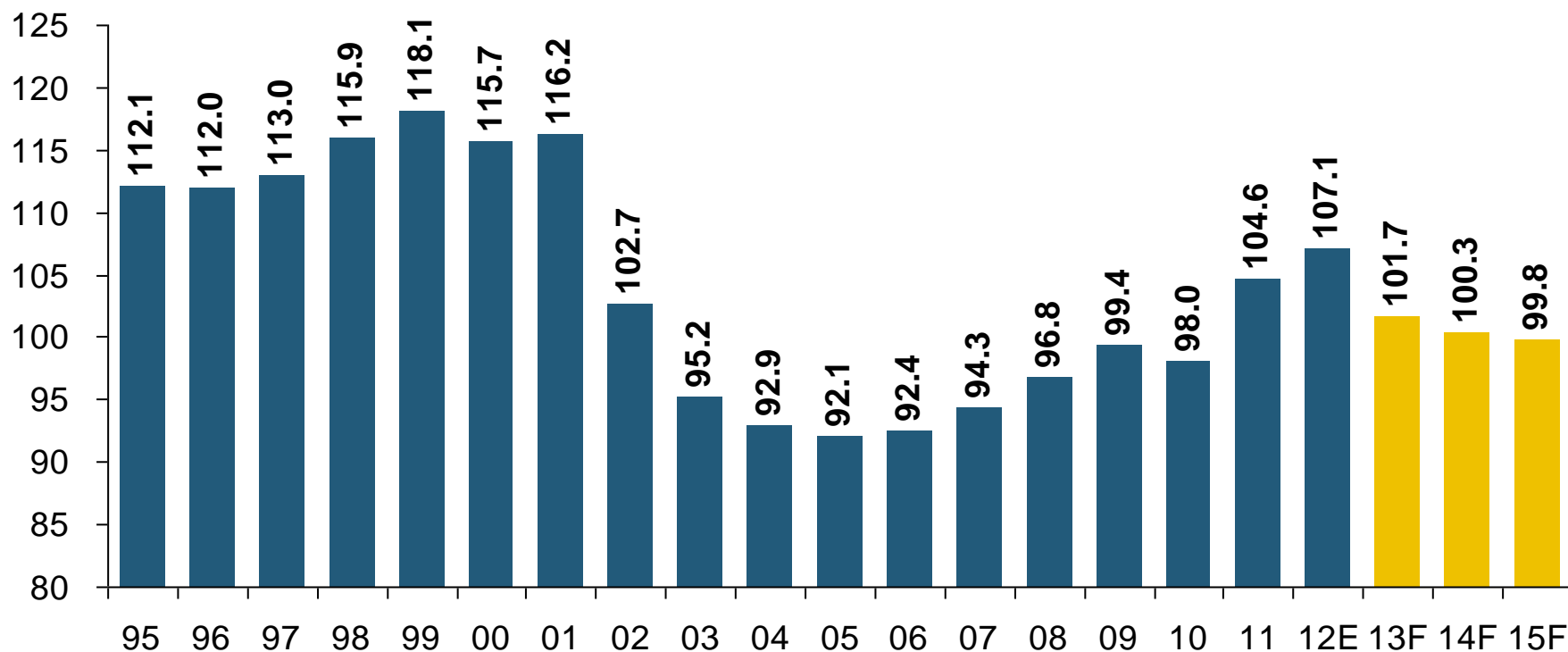
# Commercial Lines Combined Ratio, 1990-2015F\*



\*2007-2012 figures exclude mortgage and financial guaranty segments.

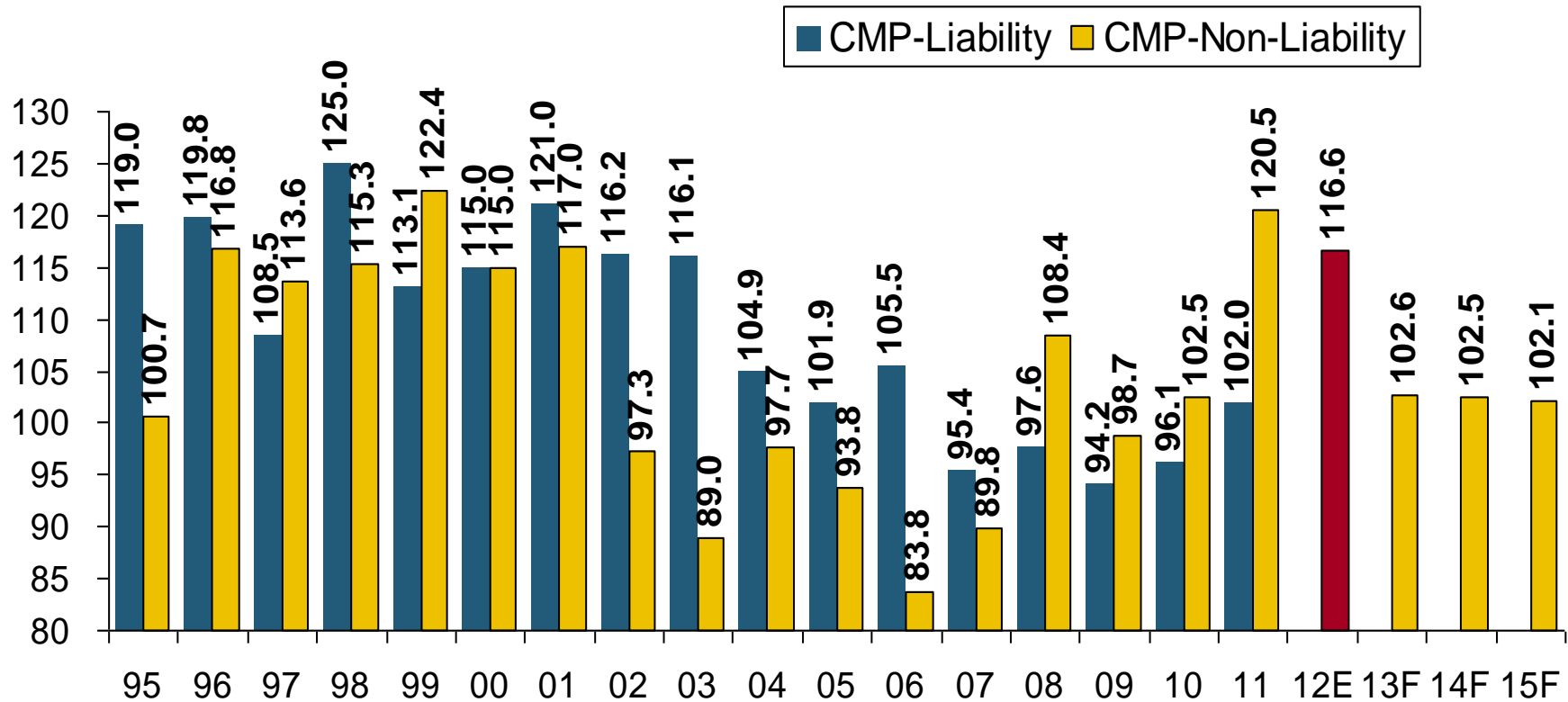
Source: A.M. Best (1990-2011); Conning (2012-2015F) Insurance Information Institute

# Commercial Auto Combined Ratio: 1993–2015F



**Commercial Auto is Expected to Improve as Rate Gains Outpace Any Adverse Frequency and Severity Trends**

# Commercial Multi-Peril Combined Ratio: 1995–2015F



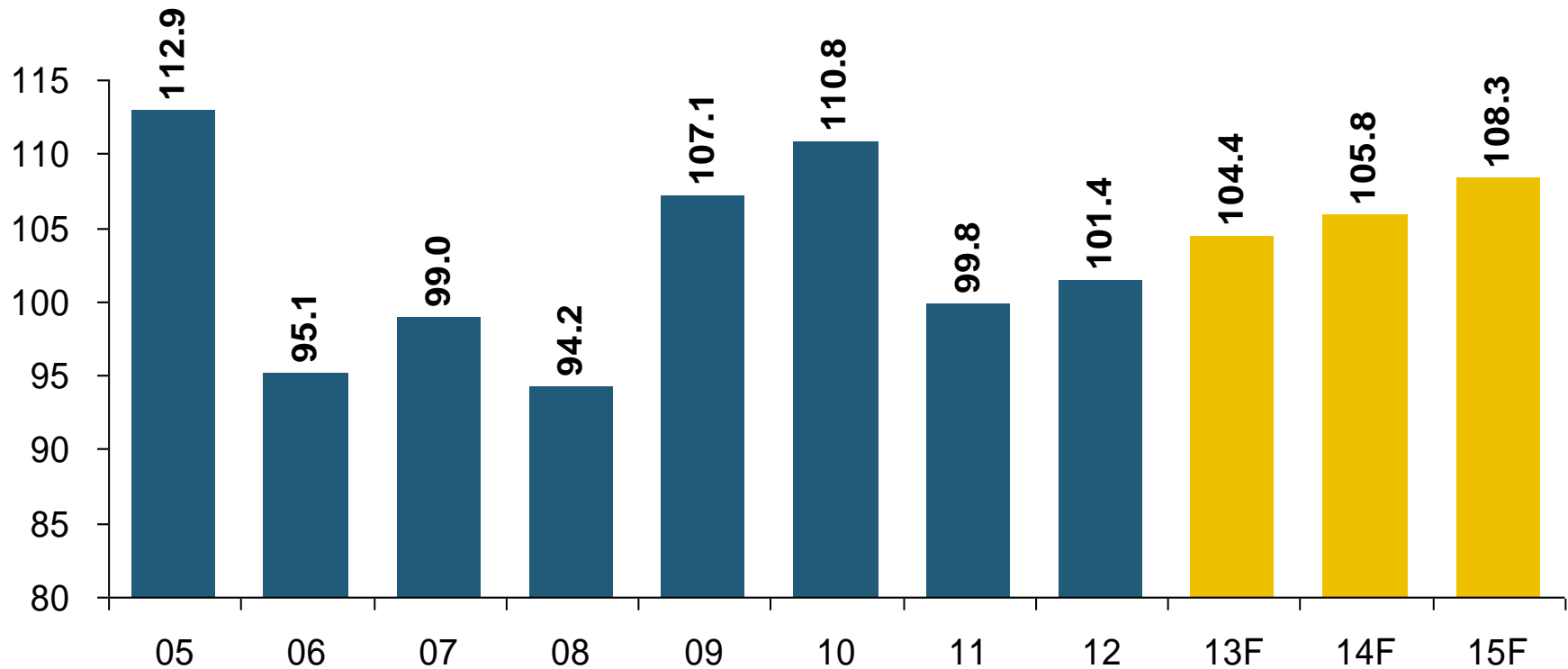
**Commercial Multi-Peril Underwriting Performance is Expected to Improve in 2013 Assuming Normal Catastrophe Loss Activity**

\*2012-2013 figures are A.M. Best estimate/forecast for the combined liability and non-liability components. Same for Conning 2014-2015F figures.

Sources: A.M. Best; Conning; Insurance Information Institute.

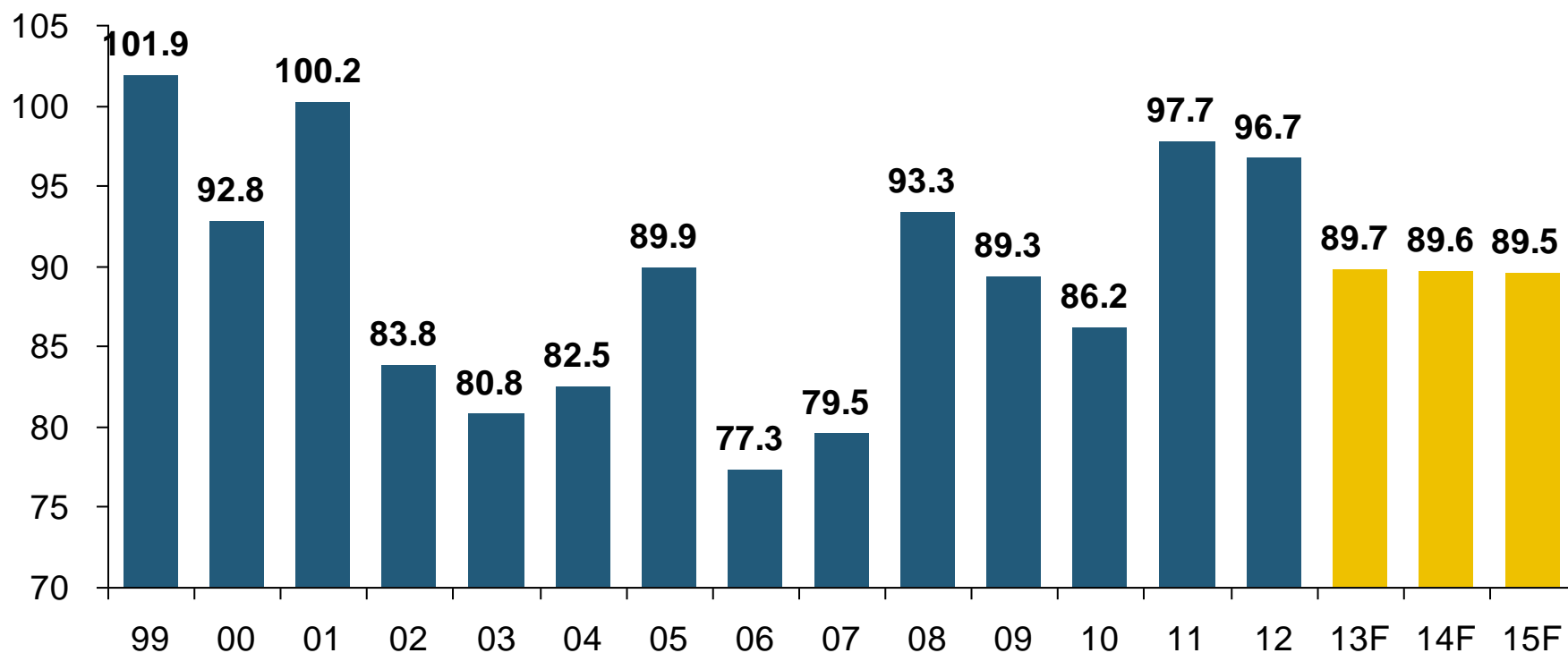


# General Liability Combined Ratio: 2005–2015F



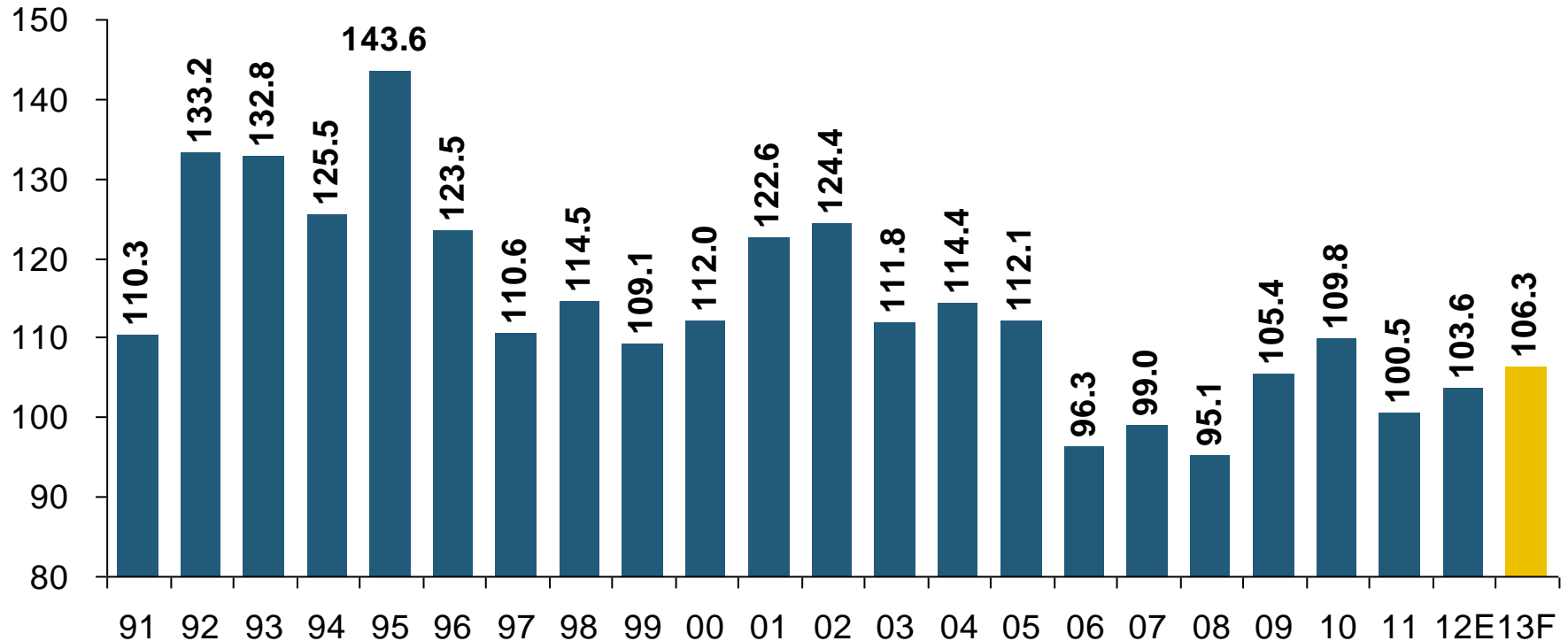
**Commercial General Liability Underwriting  
Performance Has Been Volatile in Recent Years**

# Inland Marine Combined Ratio: 1999–2015F



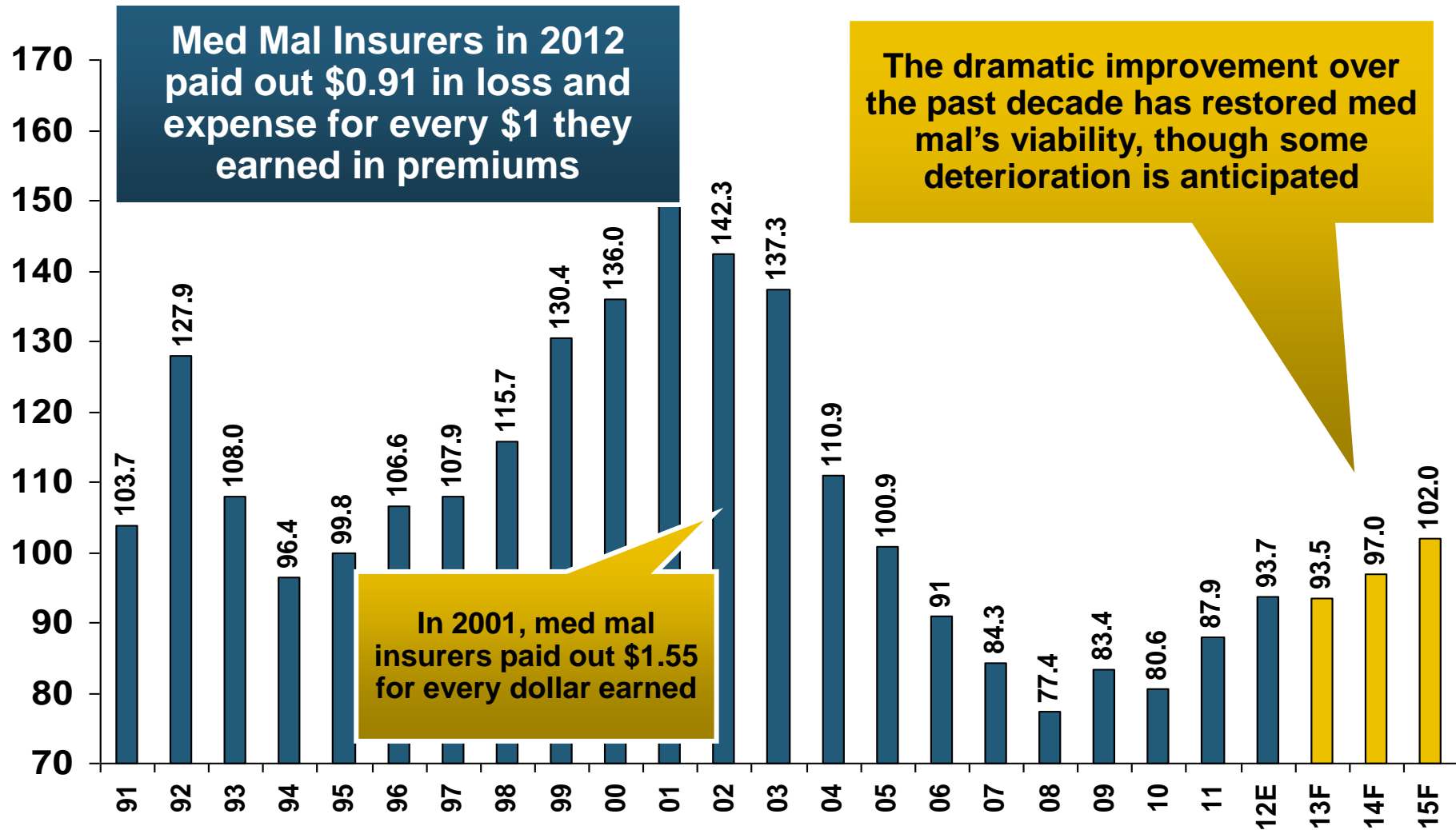
**Inland Marine is Expected to Remain Among the Most Profitable of All Lines**

# Other & Products Liability Combined Ratio: 1991–2013F



**Liability Lines Have Performed Better in the Post-Tort Reform Era (~2005), but There Has Been Some Deterioration in Recent Years**

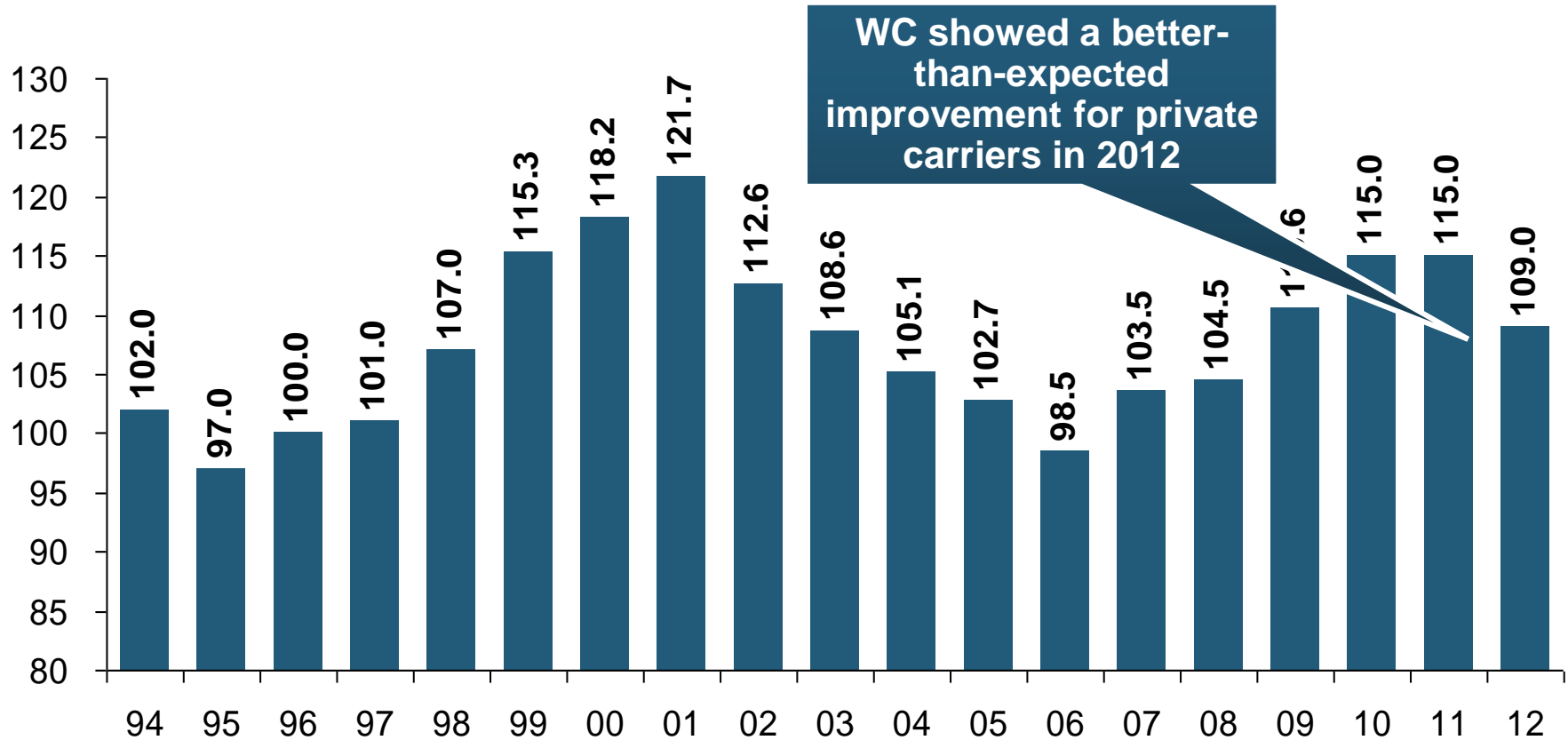
# Medical Malpractice Combined Ratio vs. All Lines Combined Ratio, 1991-2015F



# **Workers Compensation Operating Environment**

**The Weak Economy and Soft Market Have  
Made the Workers Comp Operating  
Increasingly Challenging**

# Workers Compensation Combined Ratio: 1994–2012P



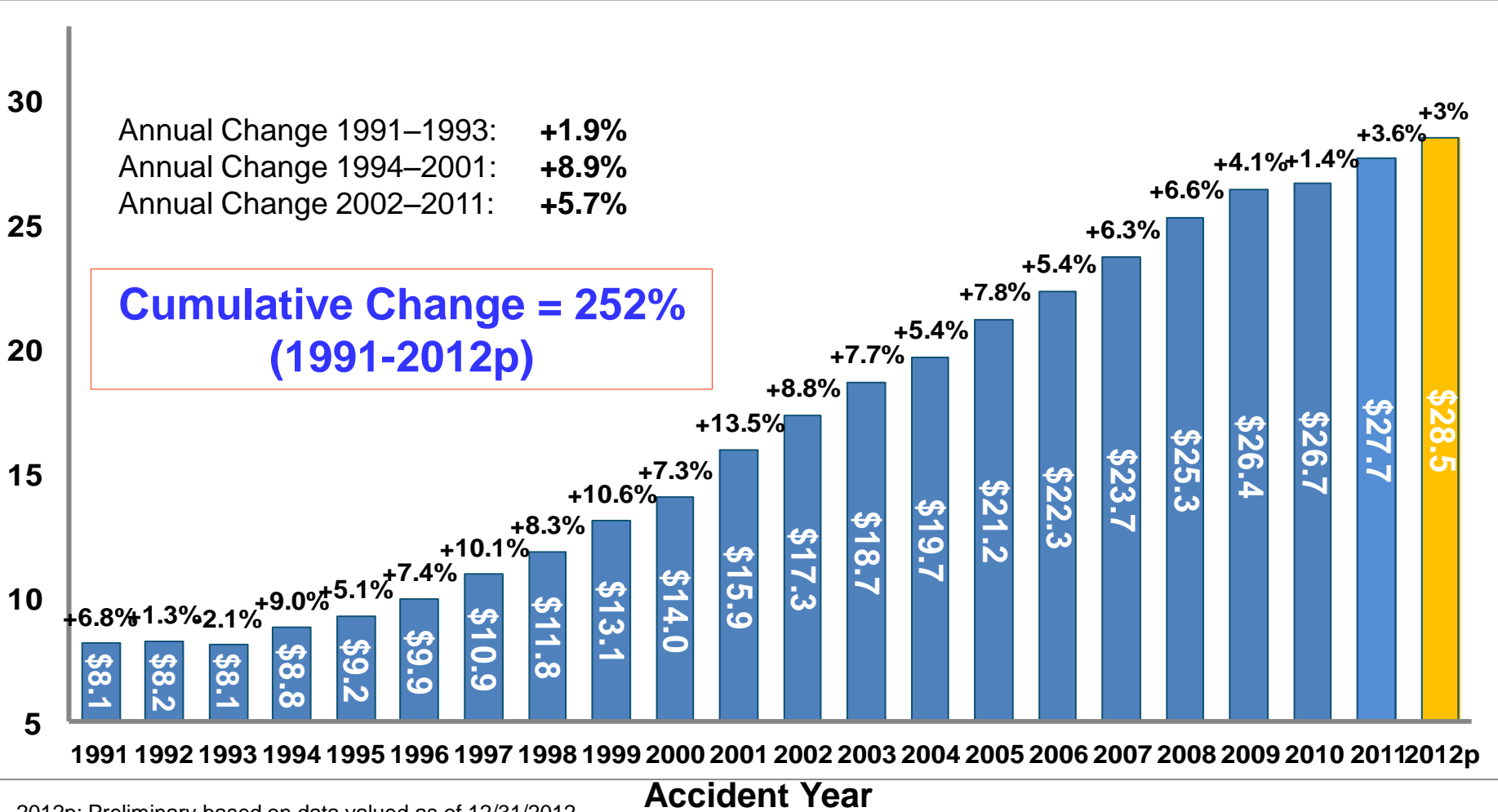
**Workers Comp Results Began to Improve in 2012. Underwriting Results Deteriorated Markedly from 2007-2010/11 and Were the Worst They Had Been in a Decade.**

# Workers Compensation Medical Severity Moderate Increase in 2012



Medical Claim Cost (\$000s)

## Average Medical Cost per Lost-Time Claim

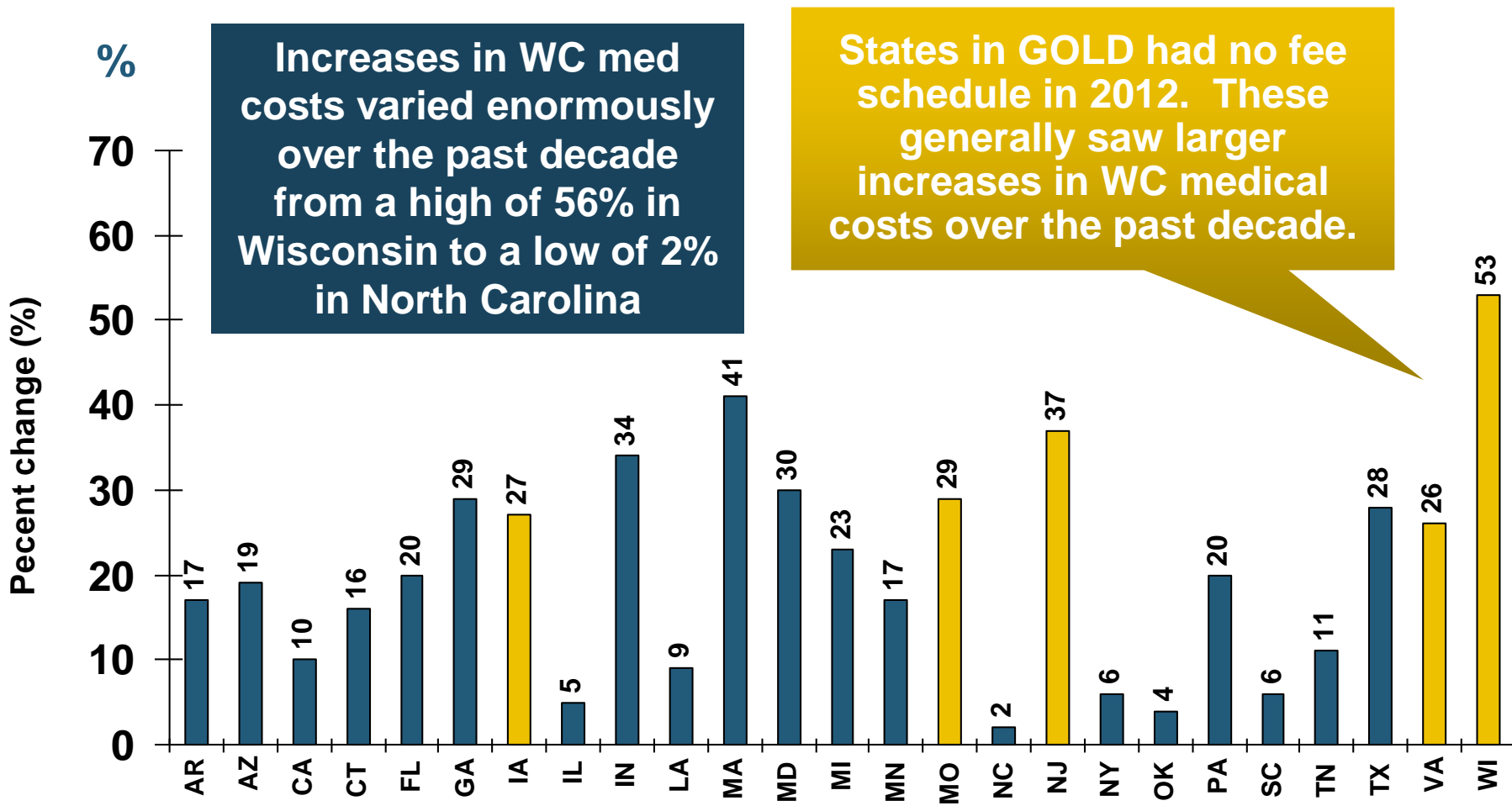


2012p: Preliminary based on data valued as of 12/31/2012.

1991-2011: Based on data through 12/31/2011, developed to ultimate

Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

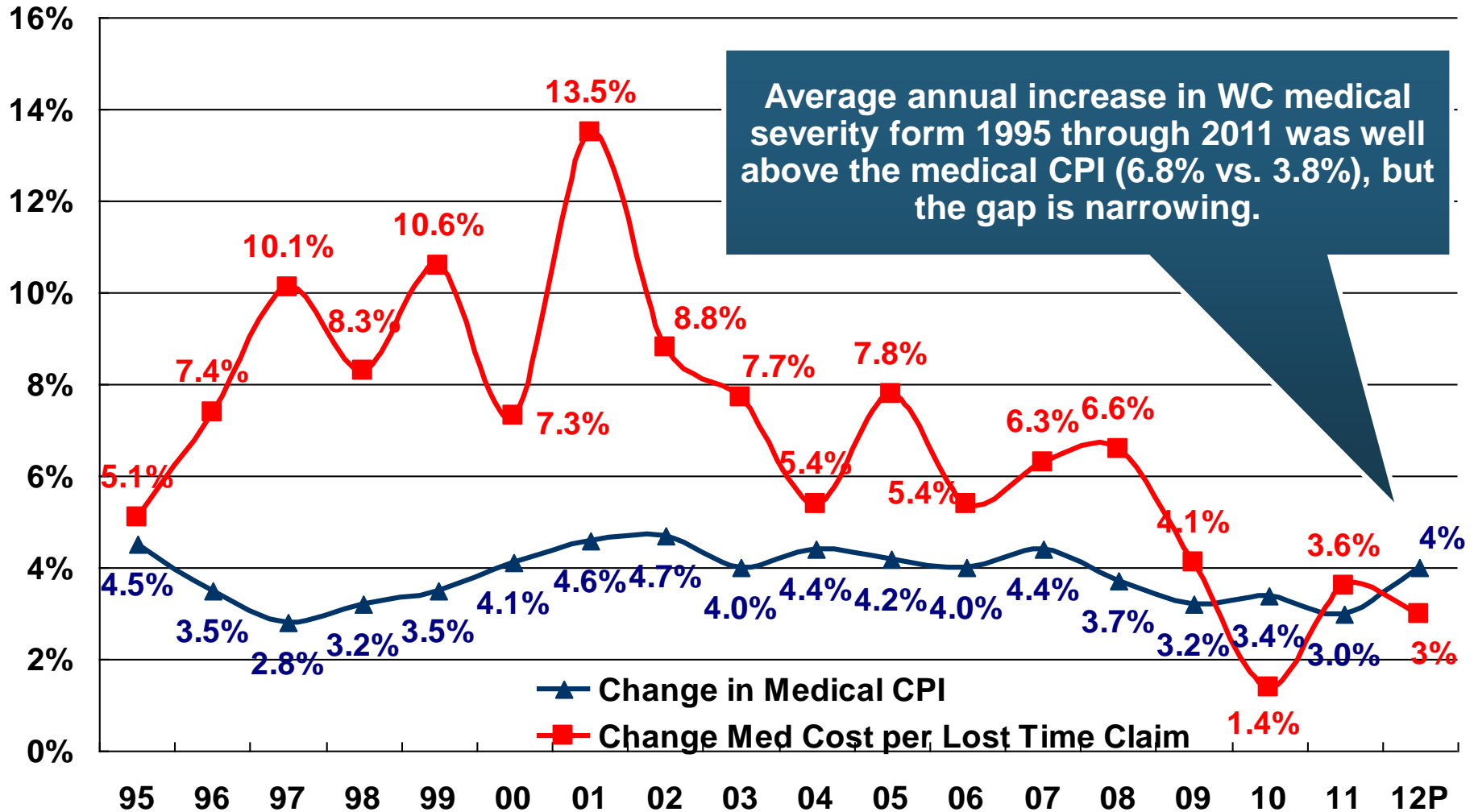
# Change in Price Paid for Medical Professional Services in WC, 2002-2012\*



\*Data are preliminary as of 6/30/12.



# WC Medical Severity Generally Outpaces the Medical CPI Rate

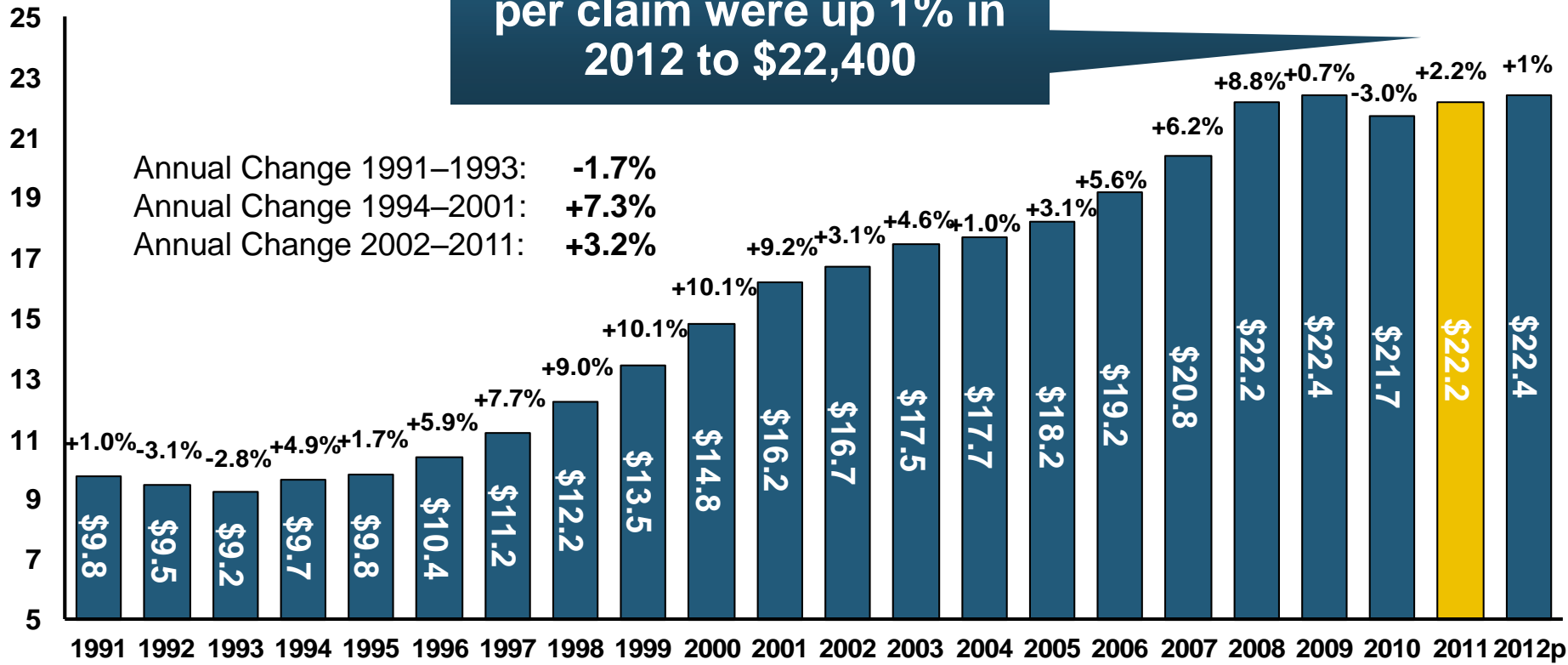


# Workers Comp Indemnity Claim Costs: Small Increase in 2012

## Average Indemnity Cost per Lost-Time Claim

**Average indemnity costs per claim were up 1% in 2012 to \$22,400**

Indemnity Claim Cost (\$ 000s)



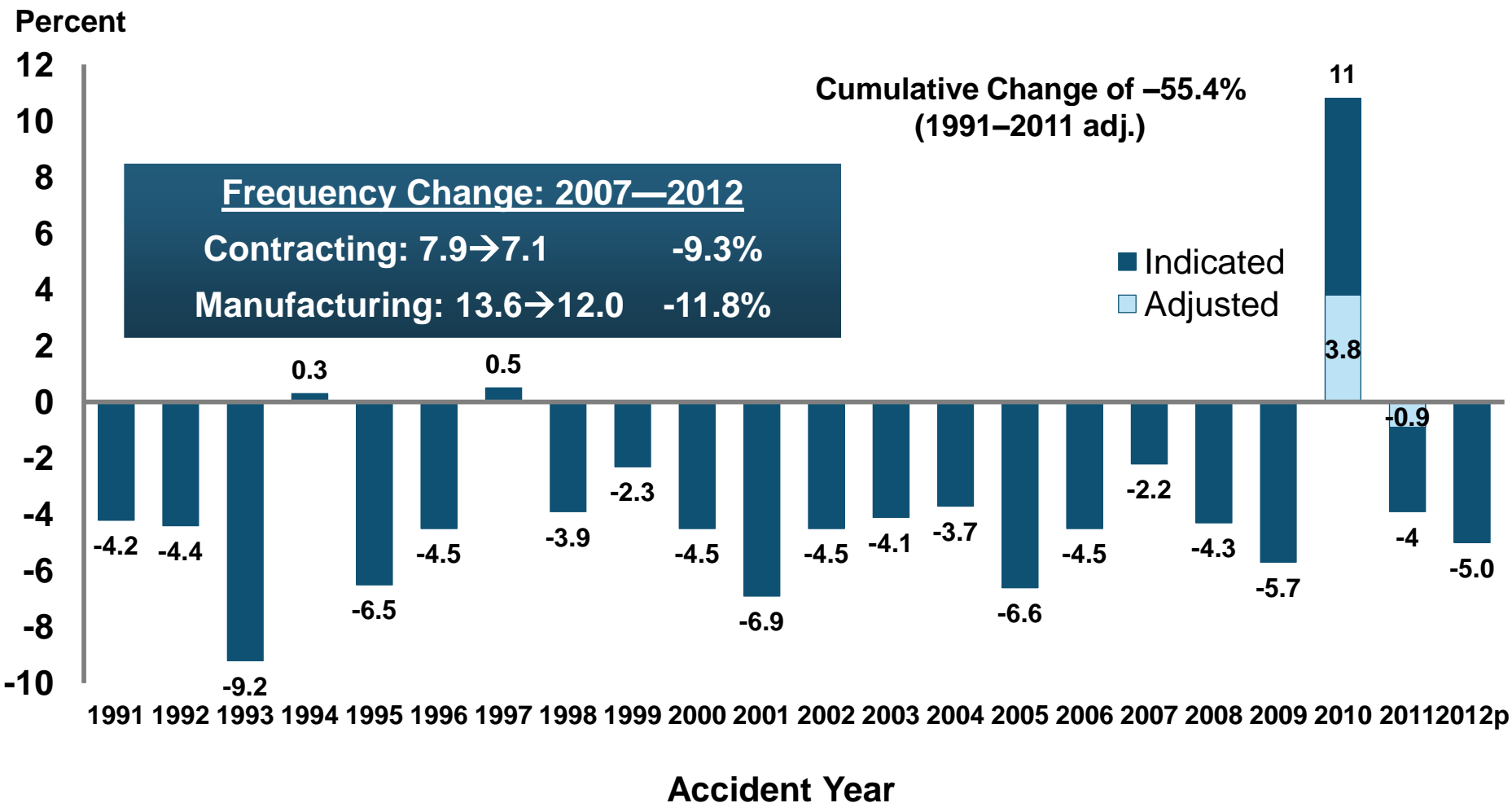
Annual Change 1991–1993: -1.7%  
 Annual Change 1994–2001: +7.3%  
 Annual Change 2002–2011: +3.2%

### Accident Year

2012p: Preliminary based on data valued as of 12/31/2012.  
 1991-2011: Based on data through 12/31/2011, developed to ultimate  
 Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

# Workers Compensation Lost-Time Claim Frequency Declined in 2012

## Lost-Time Claims



\*Adjustments primarily due to significant audit activity.

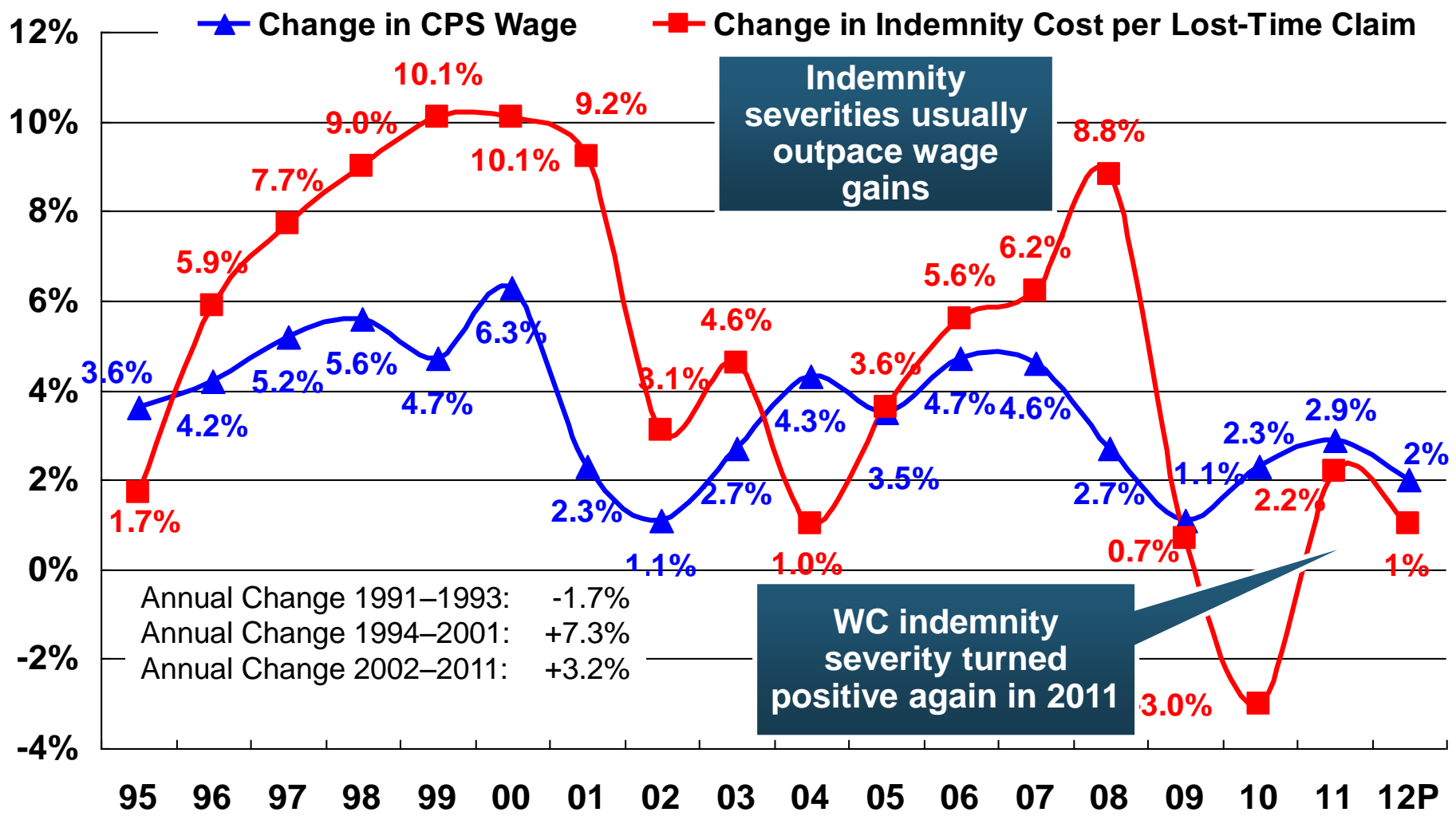
2012p: Preliminary based on data valued as of 12/31/2012

1991–2011: Based on data through 12/31/2011, developed to ultimate

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

Frequency is the number of lost-time claims per \$1M pure premium at current wage and voluntary loss cost level

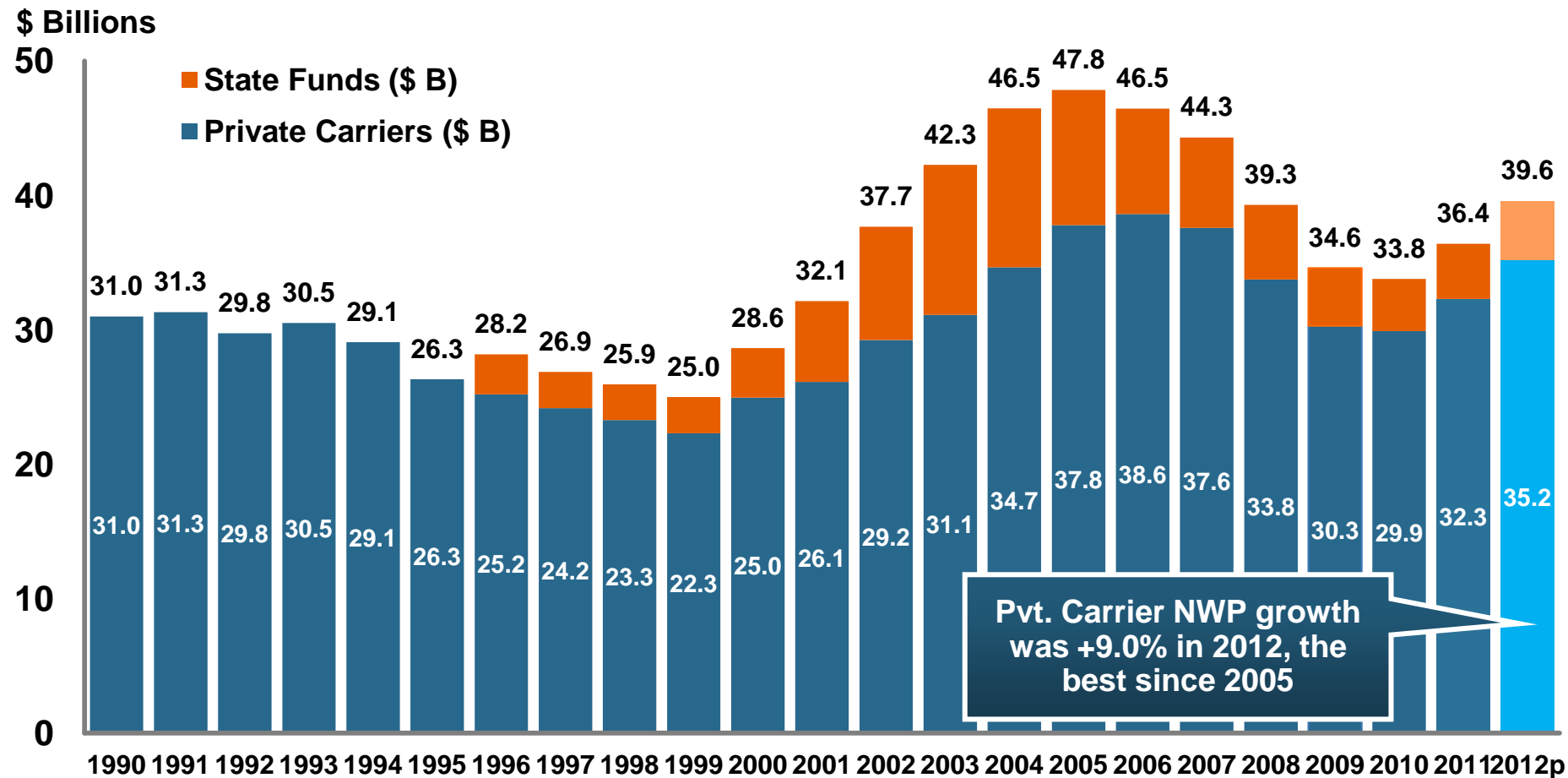
# WC Indemnity Severity vs. Wage Inflation, 1995 -2012p



2011p: Preliminary based on data valued as of 12/31/2011; 1991-2010: Based on data through 12/31/2010, developed to ultimate. Based on the states where NCCI provides ratemaking services. Excludes the effects of deductible policies. CPS = Current Population Survey. Source: NCCI

# Workers Compensation Premium: Second Consecutive Year of Increase

## Net Written Premium



p Preliminary

Source: 1990–20102p Private Carriers, Annual Statement Data, NCCI.

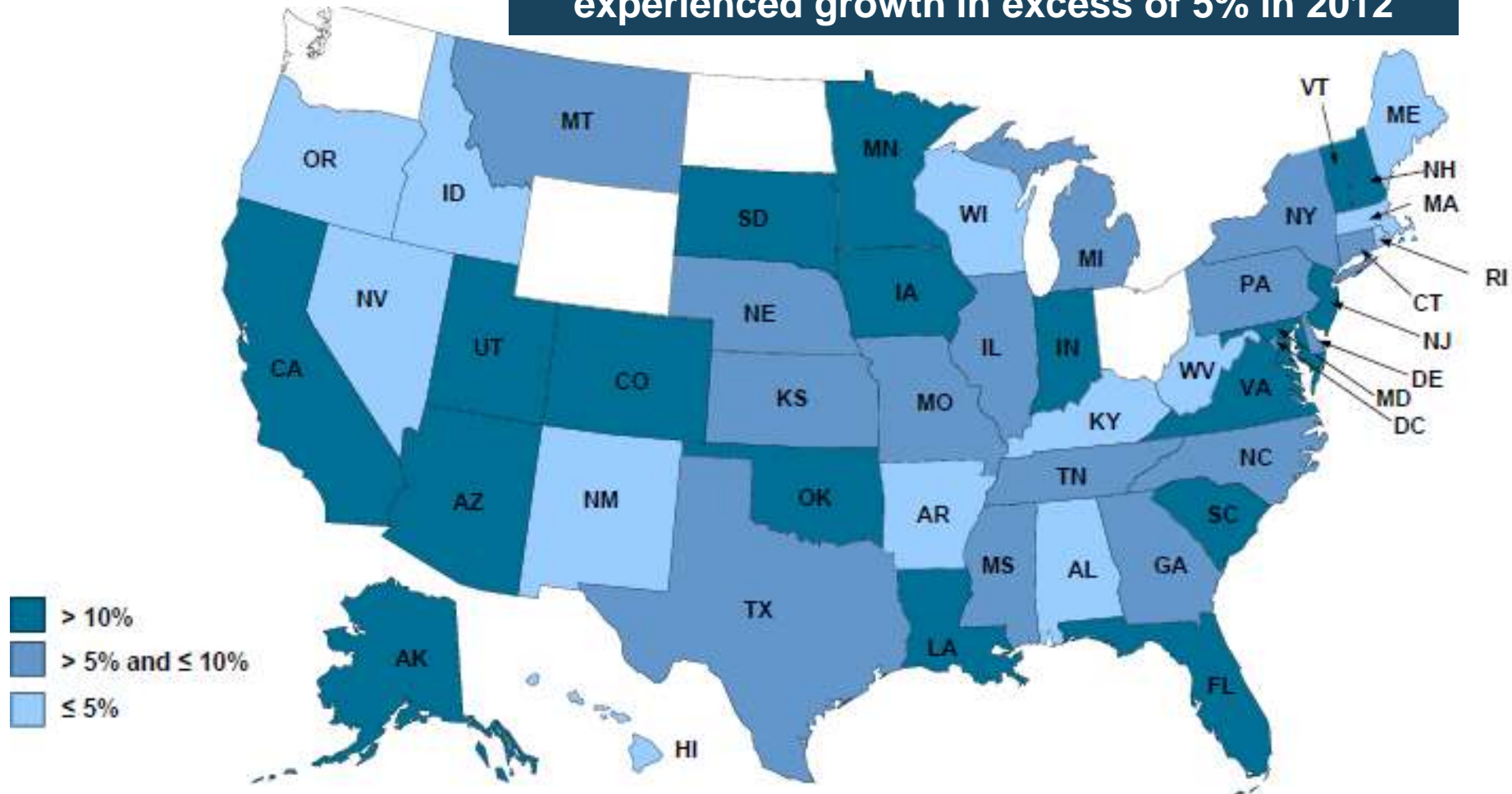
1996–2012p State Funds: AZ, CA, CO, HI, ID, KY, LA, MD, MO, MT, NM, OK, OR, RI, TX, UT Annual Statements

State Funds available for 1996 and subsequent

# 2012 Workers Compensation Direct Written Premium Growth, by State\*

PRIVATE CARRIERS: Overall 2012 Growth = +9%

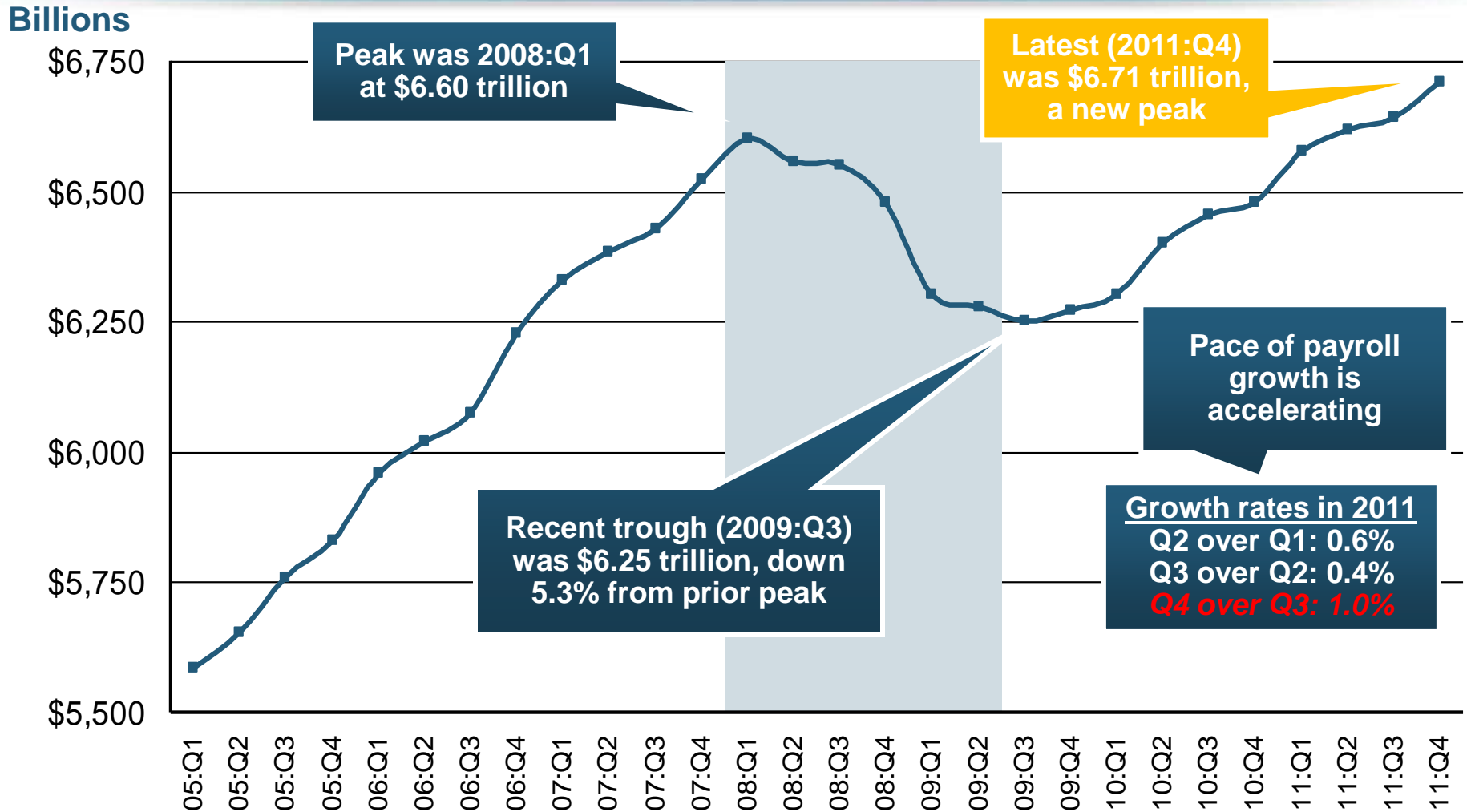
While growth rates varied widely, all states experienced growth in excess of 5% in 2012



\*Excludes monopolistic fund states (in white): OH, ND, WA and WY.

Source: NCCI.

# Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2011:Q4



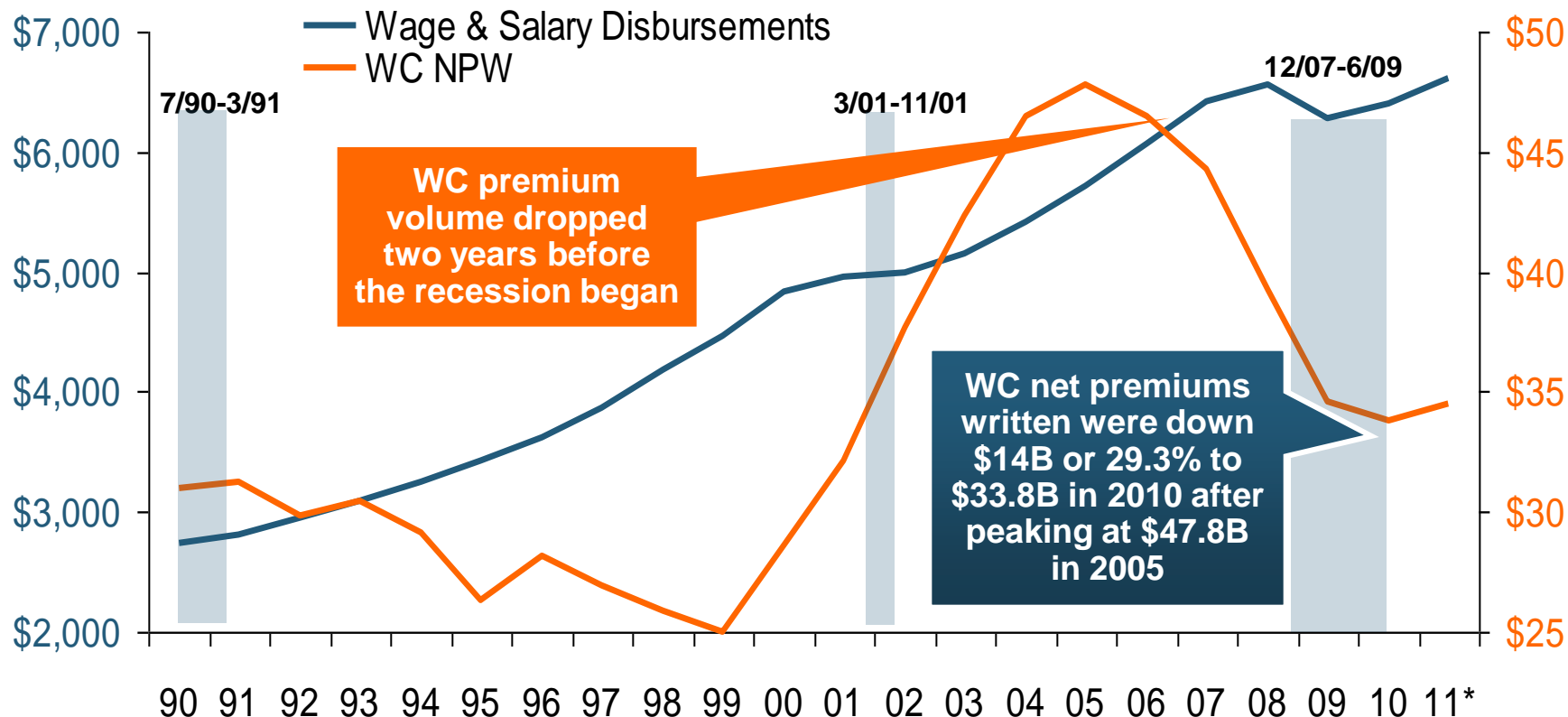
Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

Sources: <http://research.stlouisfed.org/fred2/series/WASCUR>; National Bureau of Economic Research (recession dates); Insurance Information Institute.

# Payroll vs. Workers Comp Net Written Premiums, 1990-2011

Payroll Base\*  
\$Billions

WC NWP  
\$Billions



**Resumption of payroll growth and rate increases suggests WC NWP will grow again in 2012**

\*Private employment; Shaded areas indicate recessions. Payroll and WC premiums for 2011 is I.I.I. estimate

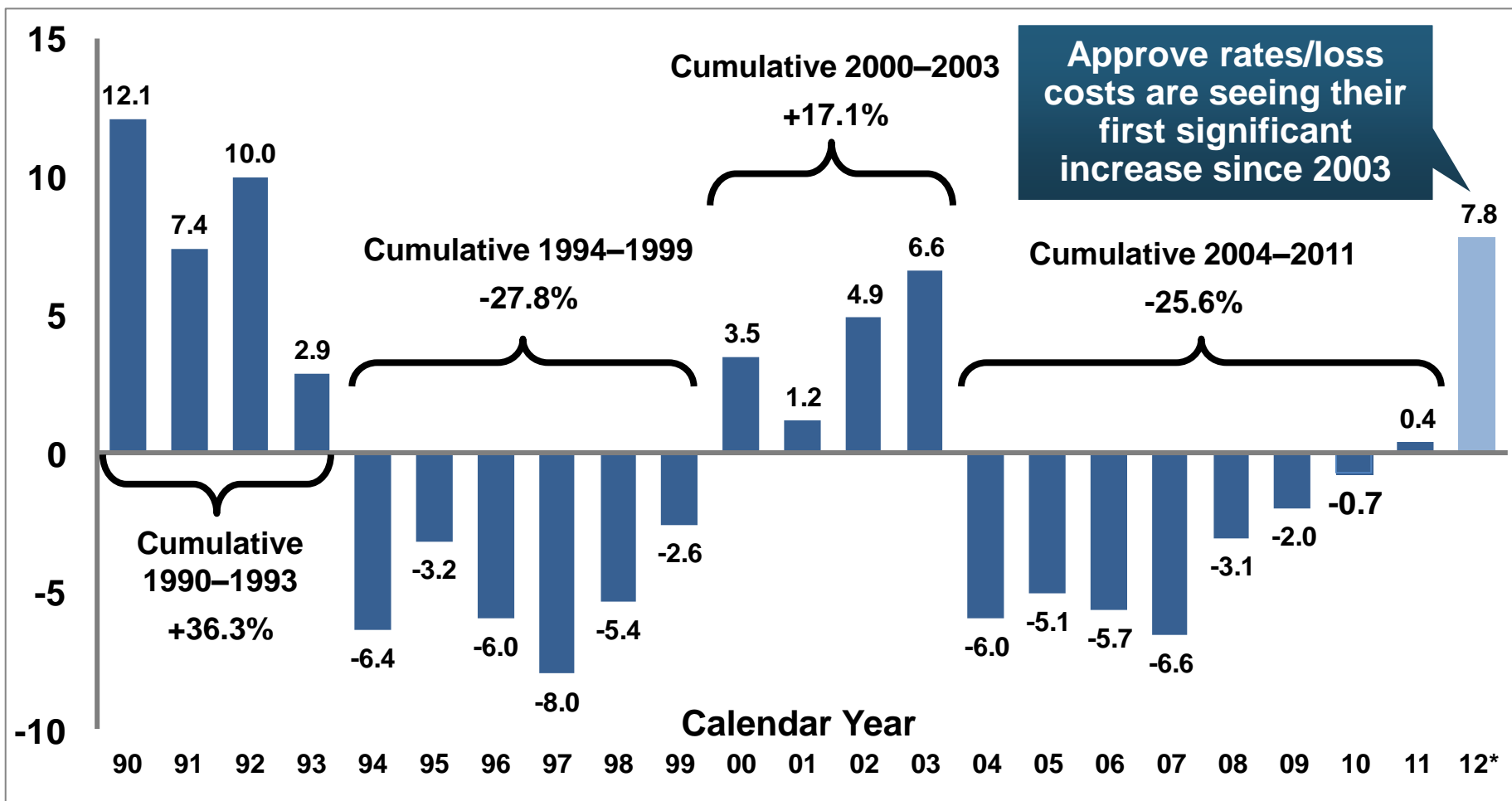
Sources: NBER (recessions); Federal Reserve Bank of St. Louis at <http://research.stlouisfed.org/fred2/series/WASCUR> ; NCCI; I.I.I.



# Average Approved Bureau Rates/Loss Costs

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

Percent



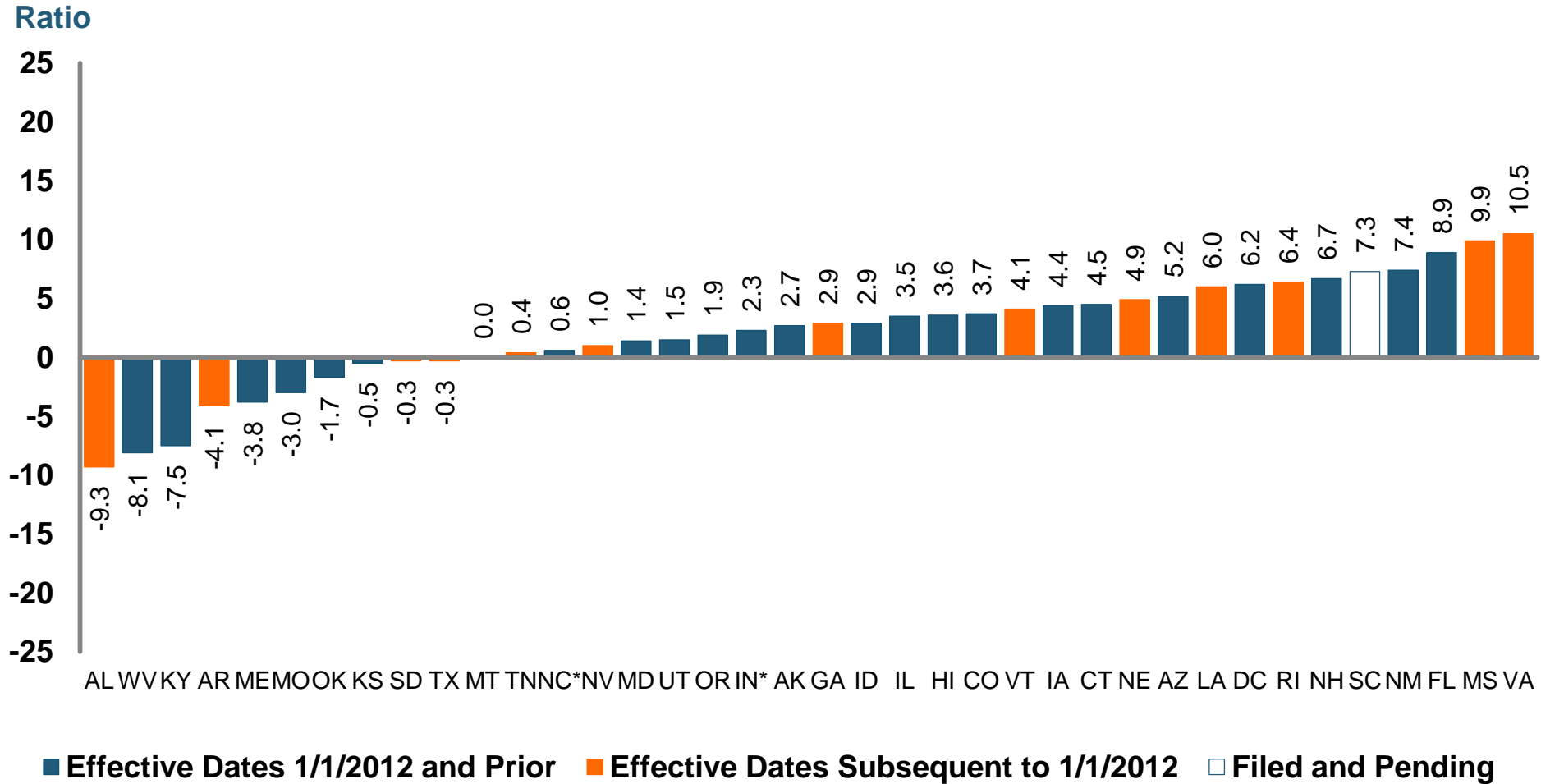
\*States approved through 7/31/12.

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

Source: NCCI.

# Current NCCI Voluntary Market Filed Rate/Loss Cost Changes

(Excludes Law-Only Filings)

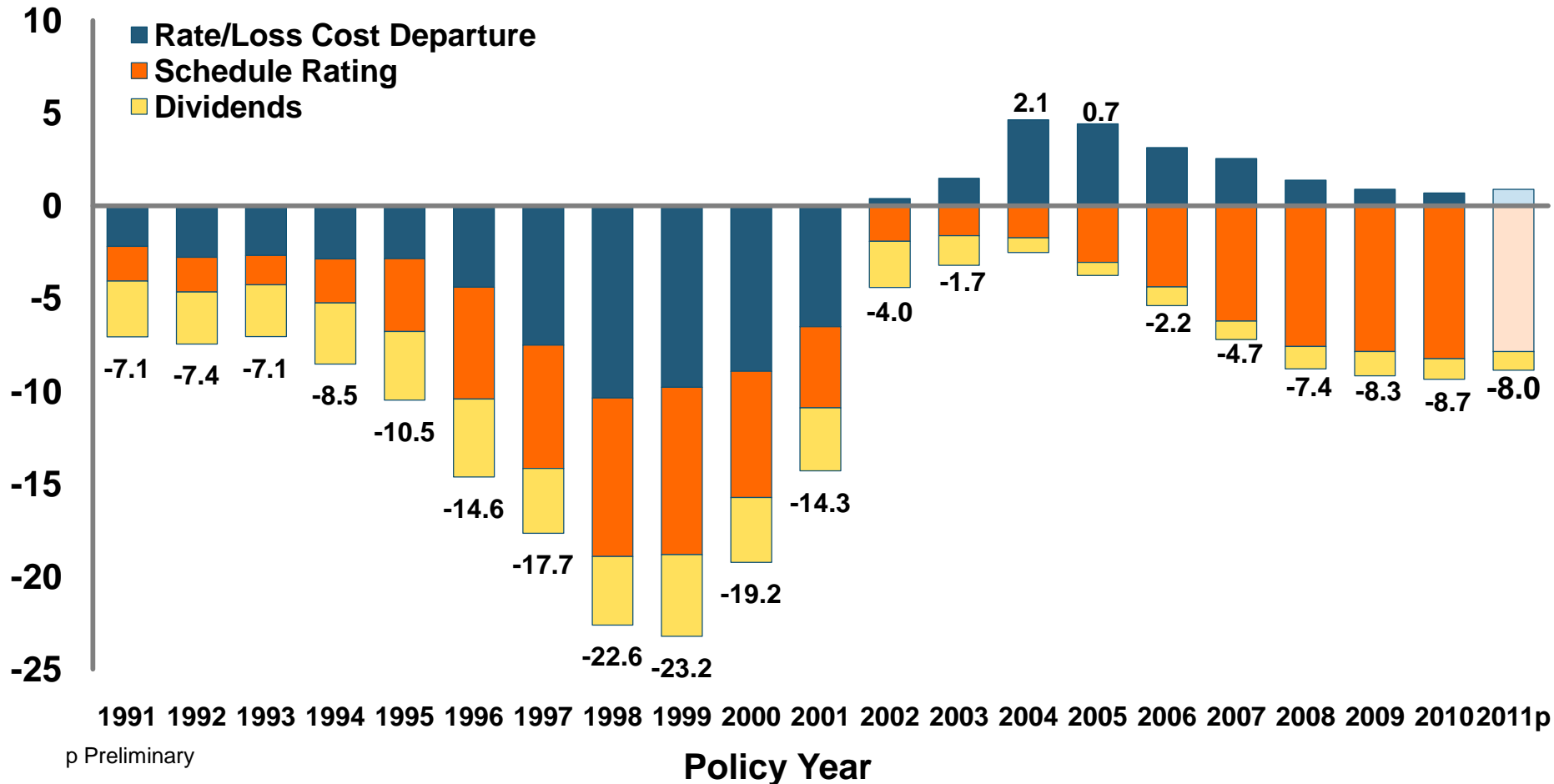


\*IN and NC filed in cooperation with state rating bureau  
Source: NCCI

# Impact of Discounting on Workers Compensation Premium

## NCCI States—Private Carriers

Percent



p Preliminary

Dividend ratios are based on calendar year statistics

NCCI benchmark level does not include an underwriting contingency provision

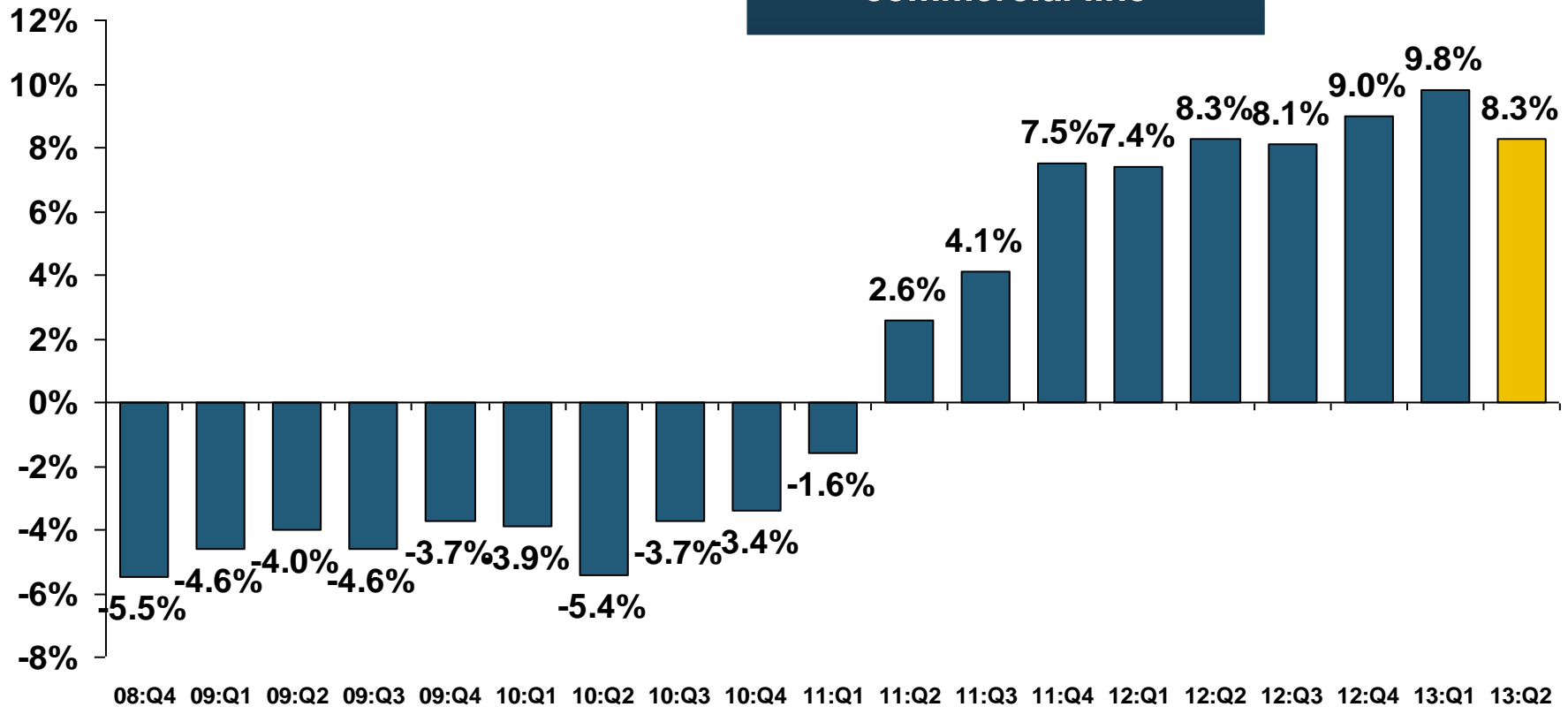
Based on data through 12/31/2011 for the states where NCCI provides ratemaking services

Source: NCCI.

# Workers Comp Rate Changes, 2008:Q4 – 2013:Q2

(Percent Change)

WC rate changes have been positive for 9 consecutive quarters, longer than any other commercial line



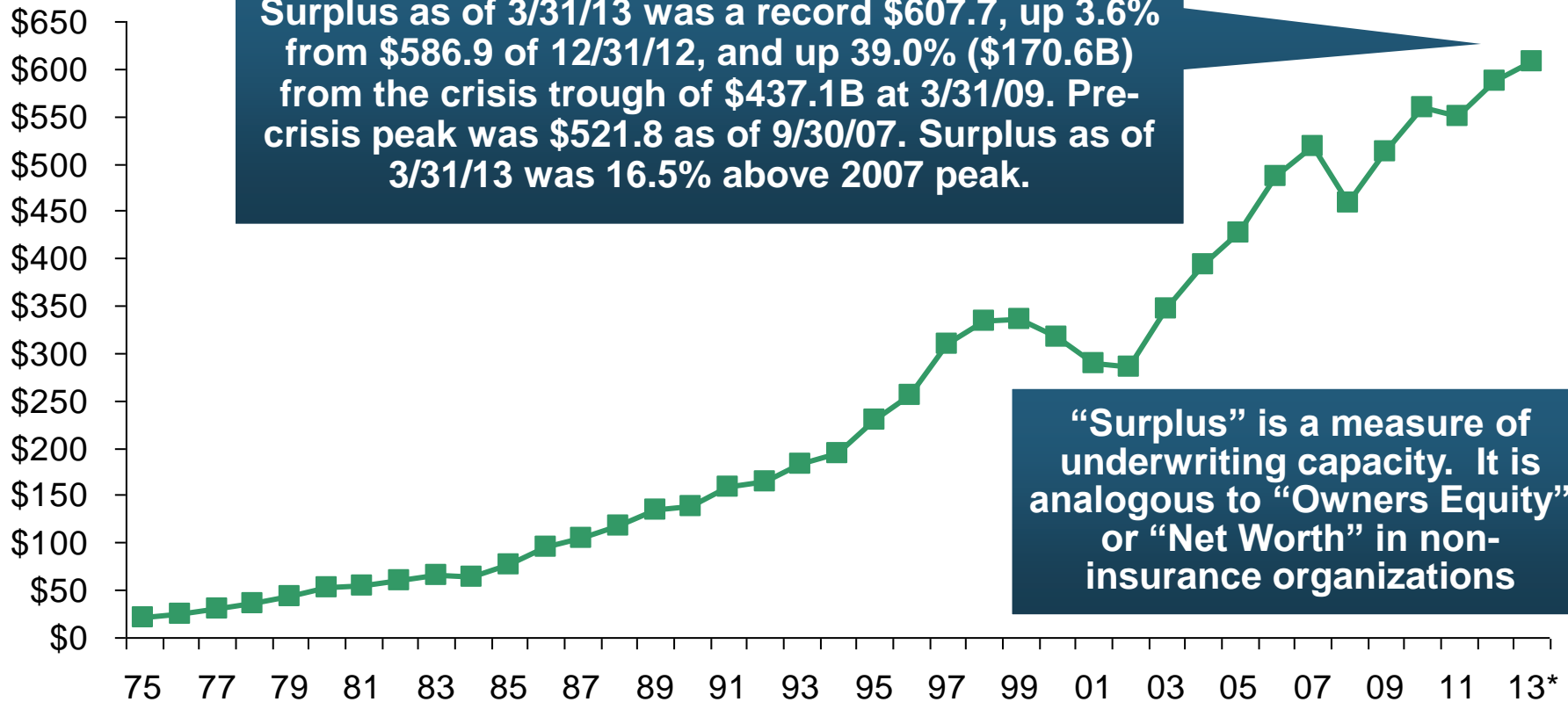
Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.  
 Source: Council of Insurance Agents and Brokers; Information Institute.

## **2. SURPLUS/CAPITAL/CAPACITY**

**How Will Large Catastrophe Losses  
Impact Capacity?**

# US Policyholder Surplus: 1975–2013\*

(\$ Billions)



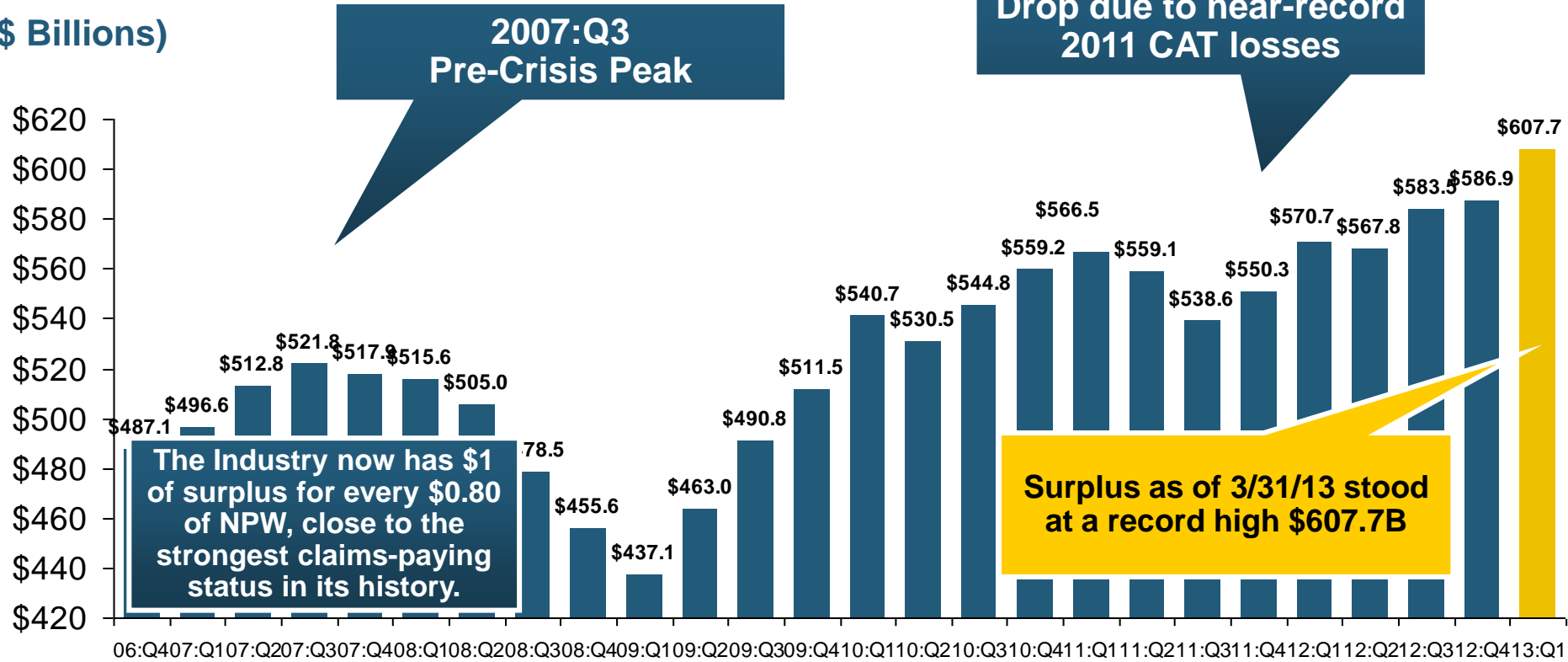
**The Premium-to-Surplus Ratio Stood at \$0.77:\$1 as of 3/31/13, A Near Record Low (at Least in Recent History)\***

\* As of 3/31/13.

Source: A.M. Best, ISO, Insurance Information Institute.

# Policyholder Surplus, 2006:Q4–2013:Q1

(\$ Billions)

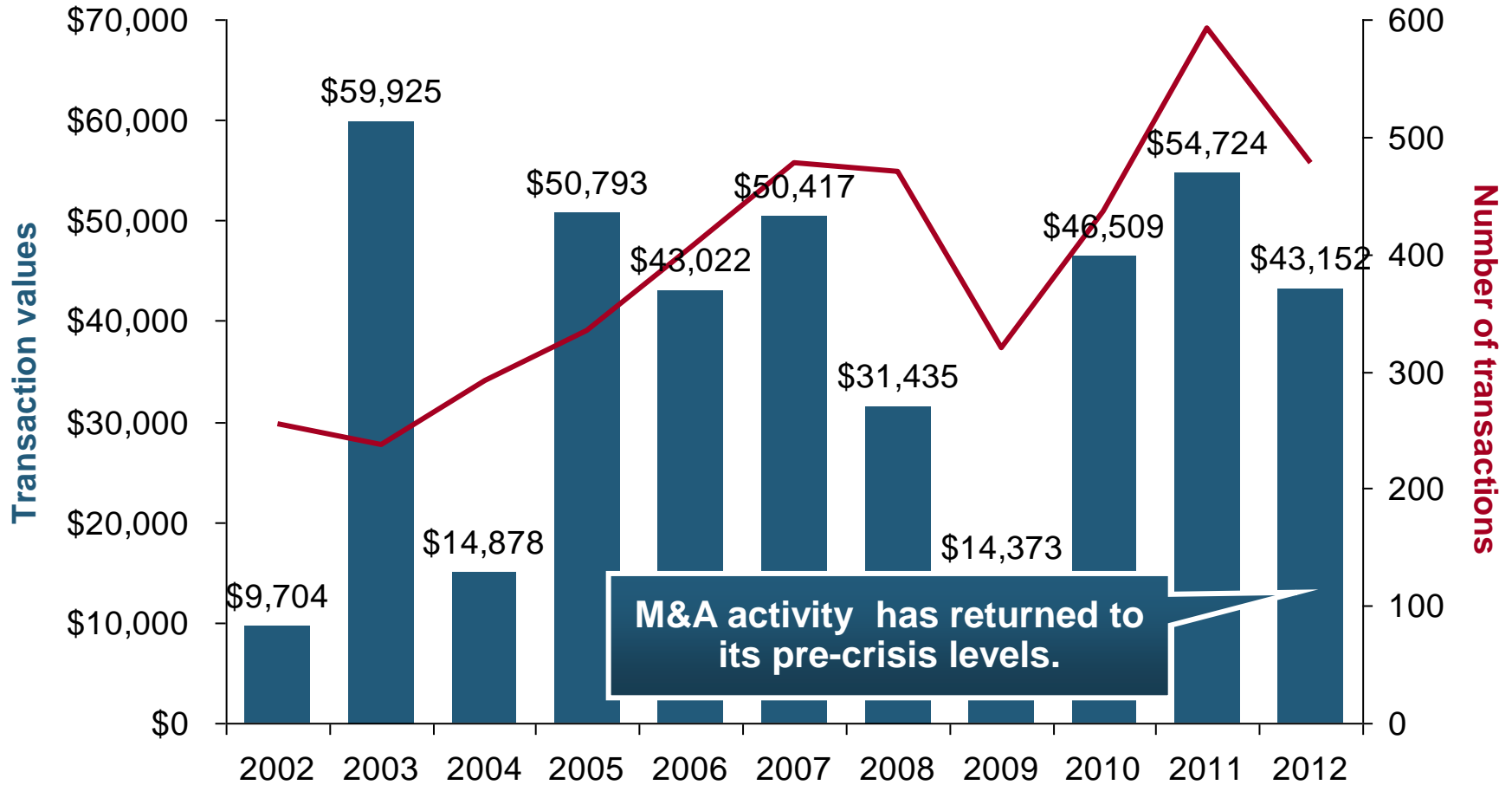


\*Includes \$22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business in early 2010.

**The P/C Insurance Industry Both Entered and Emerged from the 2012 Hurricane Season Very Strong Financially.**

# U.S. INSURANCE MERGERS AND ACQUISITIONS, 2002-2012 (1)

(\$ Millions)



(1) Includes transactions where a U.S. company was the acquirer and/or the target.

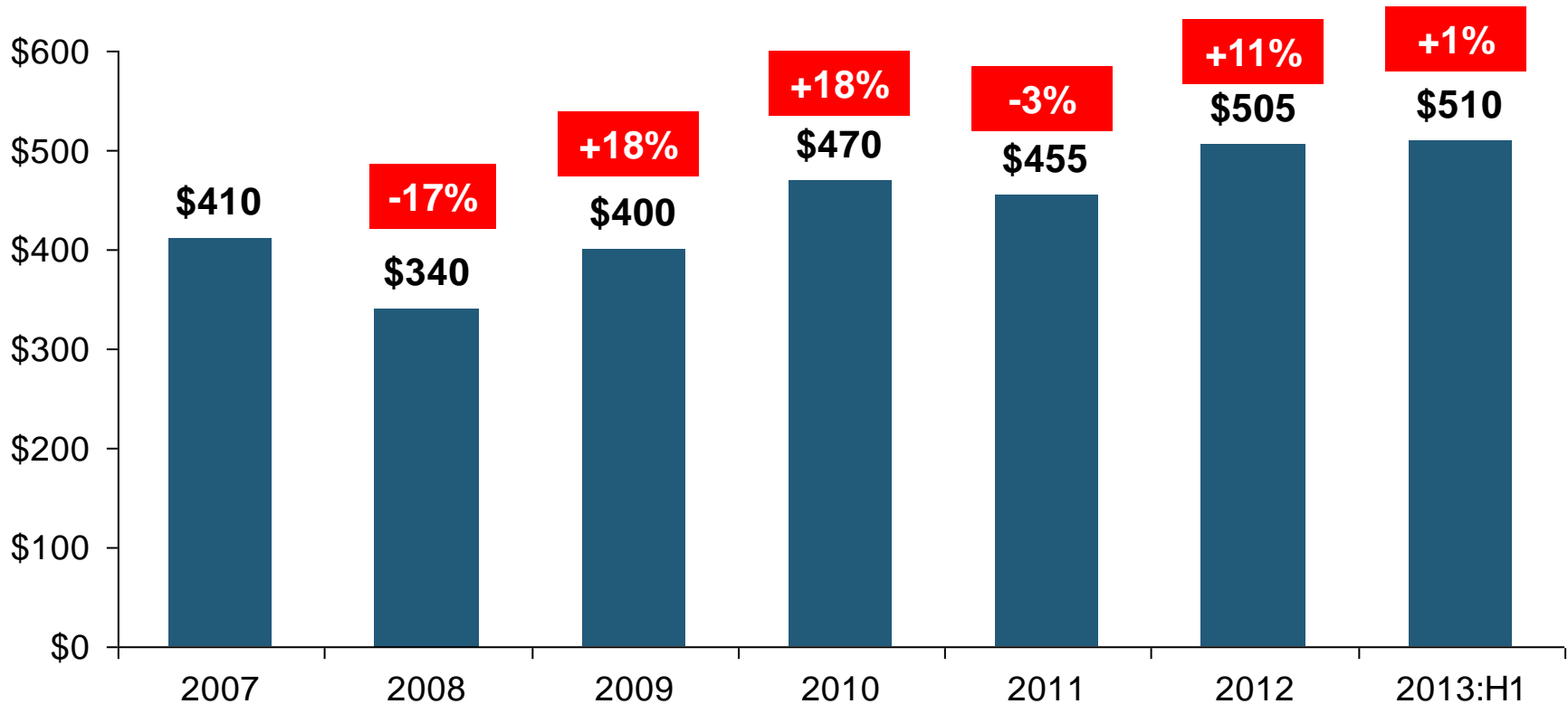


## **3. REINSURANCE MARKET CONDITIONS**

**Ample Capacity as  
Alternative Capital is  
Transforming the Market**

# Global Reinsurer Capital, 2007-2013:H1\*

(\$ Billions)

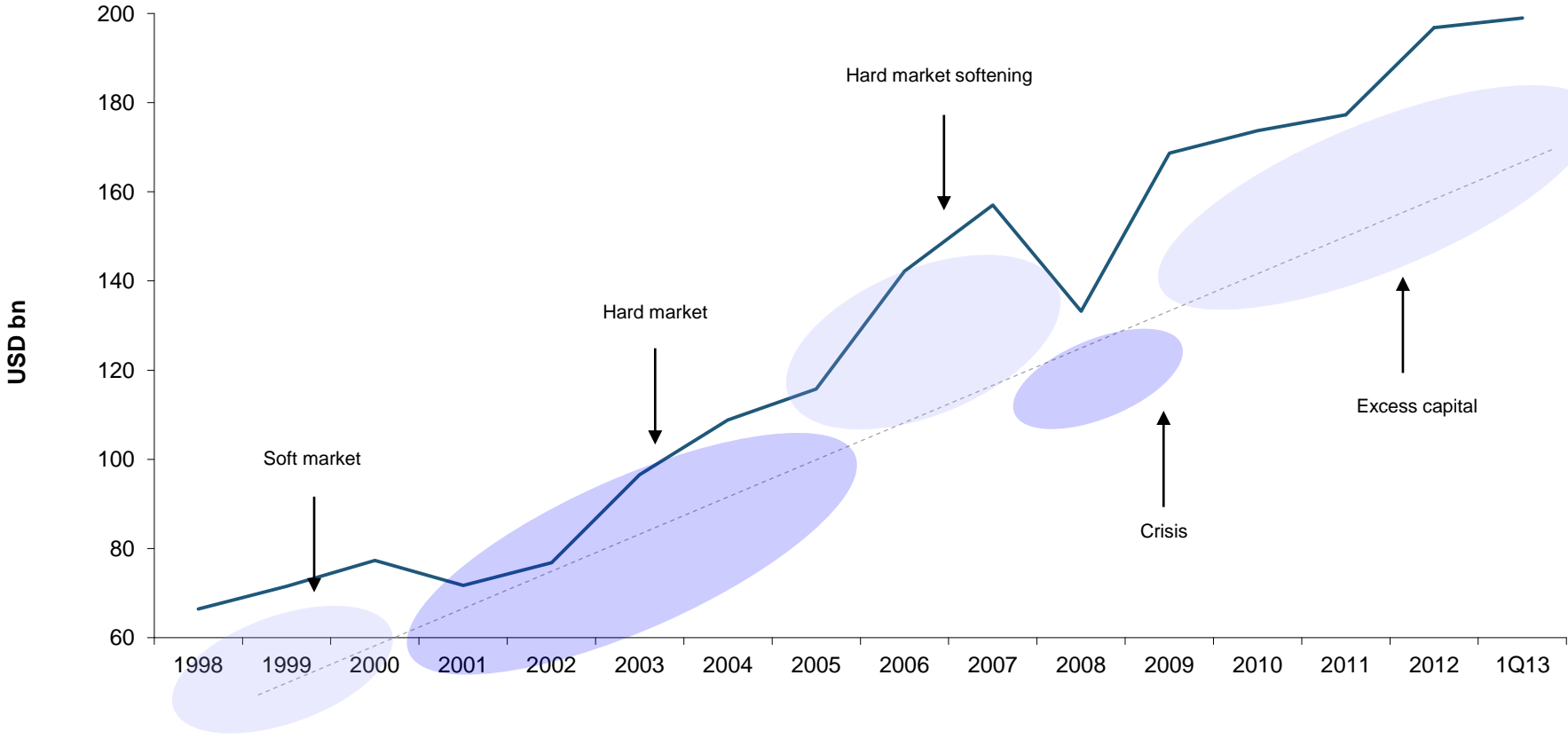


**Global Reinsurance Capital Has Been Trending Generally Upward Since the Global Financial Crisis, a Trend that Seems Likely to Continue**

\*Includes both traditional and non-traditional forms of reinsurance capital.

Source: Aon Benfield Aggregate study for the 6 months ending June 2013; Insurance Information Institute.

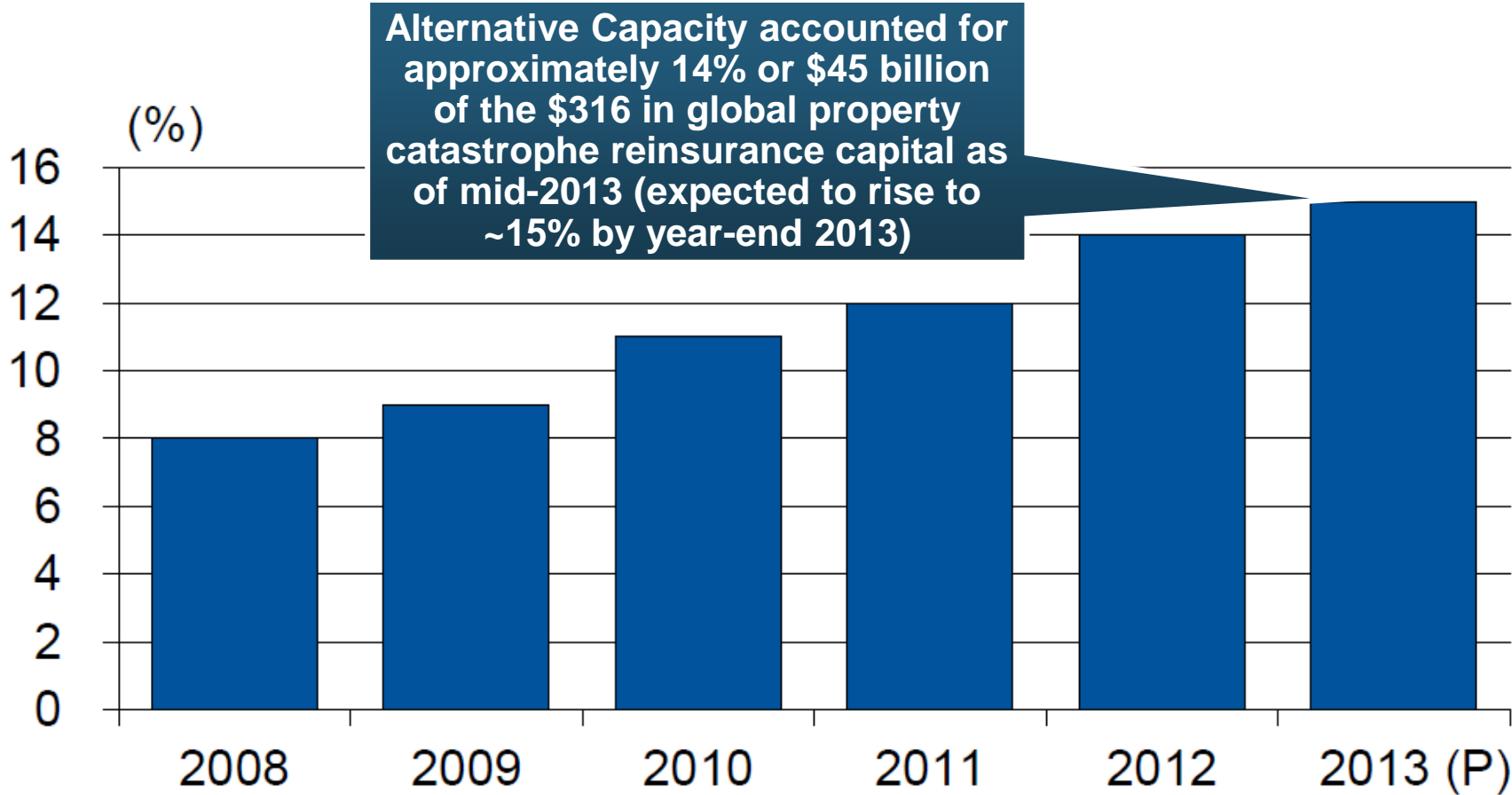
# Long-Term Evolution of Shareholders' Funds for the Guy Carpenter Global Reinsurance Composite



Source: Guy Carpenter

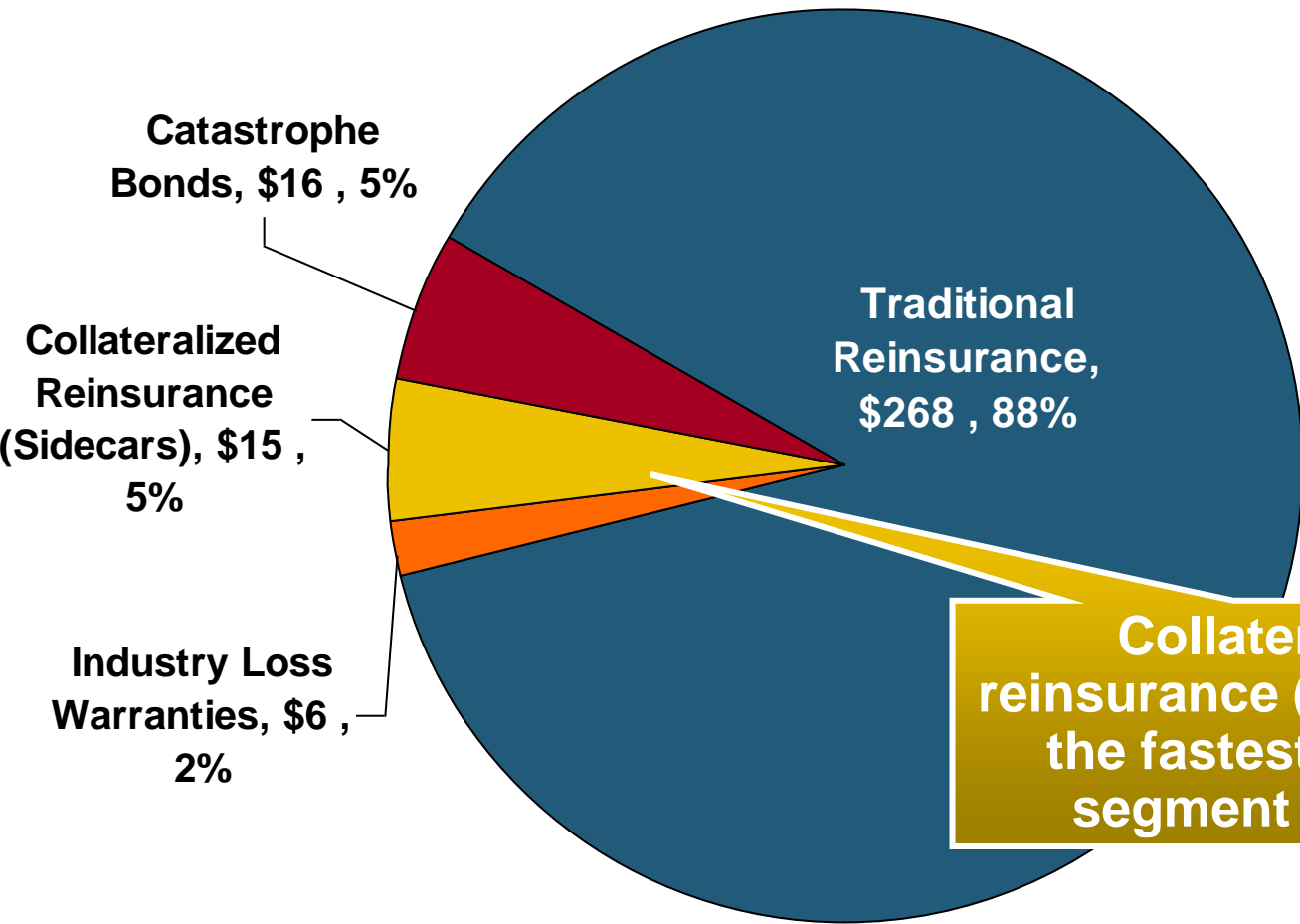
# Alternative Capacity as a Percentage of Global Property Catastrophe Reinsurance Limit

(As of Year End)



# Property Catastrophe Reinsurance Capacity by Source as of Mid-2013 (\$ Bill)

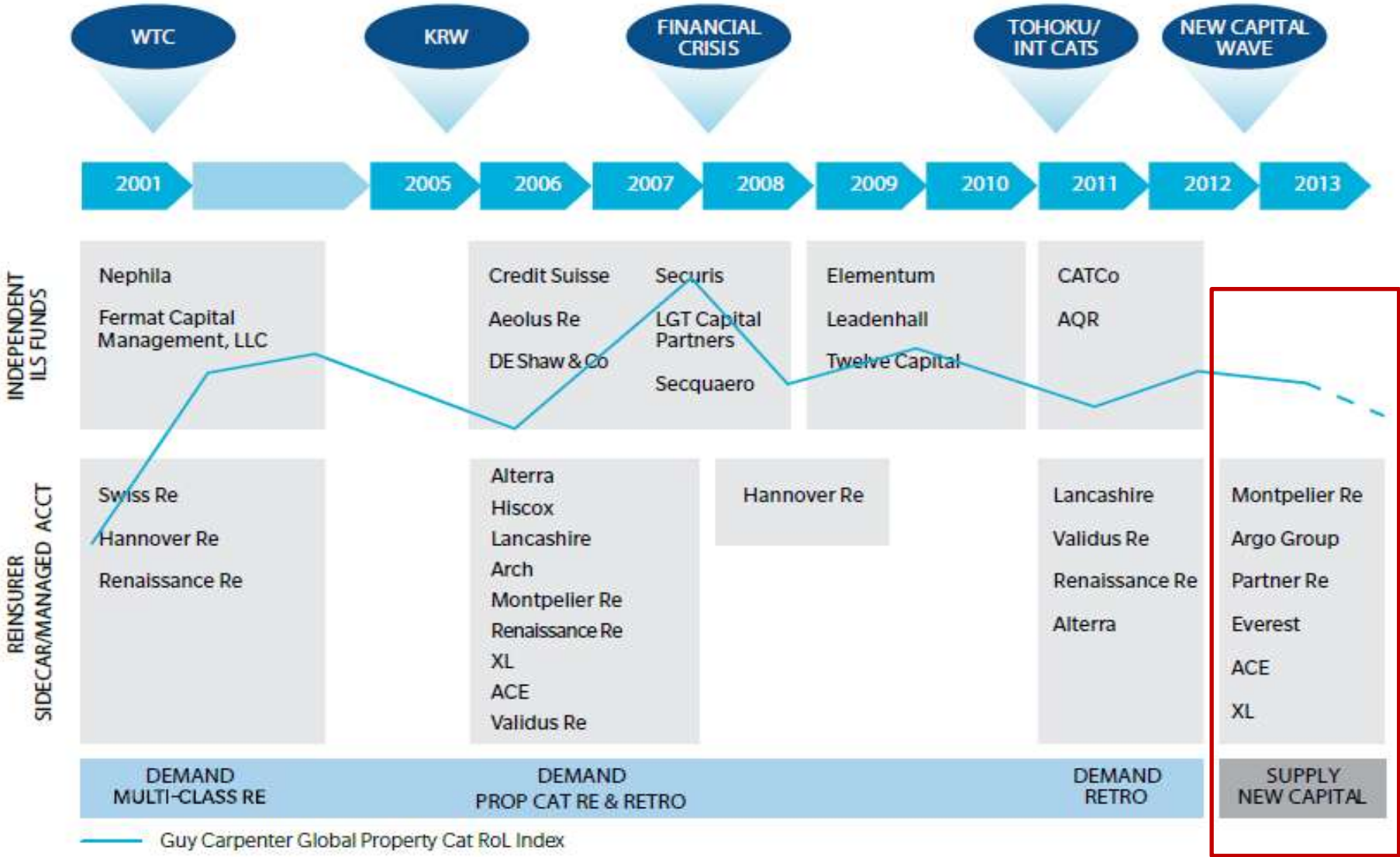
Total = \$316 Billion\*



“Convergence Capital” accounted for an estimated \$45B or 14% or total property catastrophe reinsurance capacity as of mid-2013, up \$10B over the past 18 months (since 1/1/12). Penetration of this type of capacity is growing

Collateralized reinsurance (sidecars) is the fastest growing segment recently

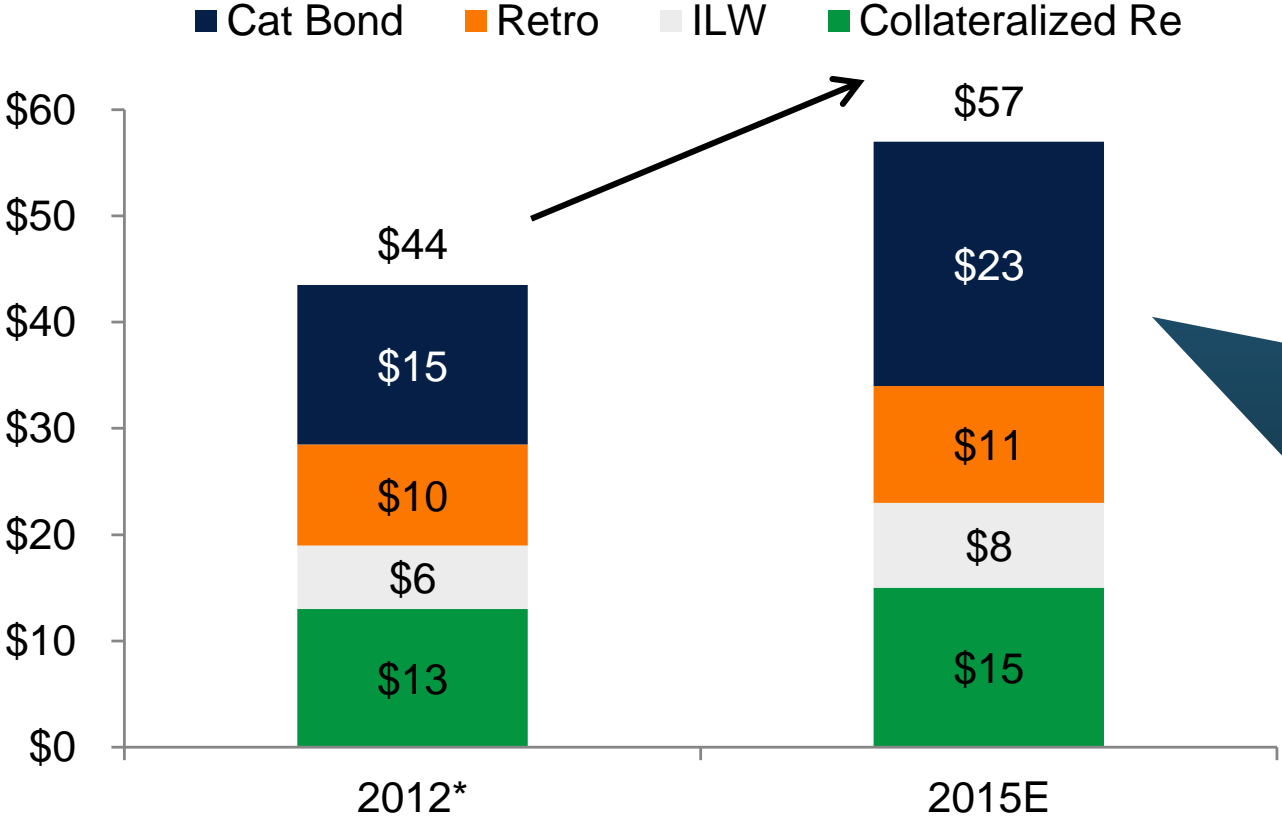
# Alternative Capacity Development, 2001—2013:H1



Source: Guy Carpenter; *Mid-Year Market Report*, September 2013; Insurance Information Institute.

# Non-Traditional Property Catastrophe Limits by Type, YE 2012 vs. YE 2015E

## NON-TRADITIONAL P/CAT LIMITS BY TYPE

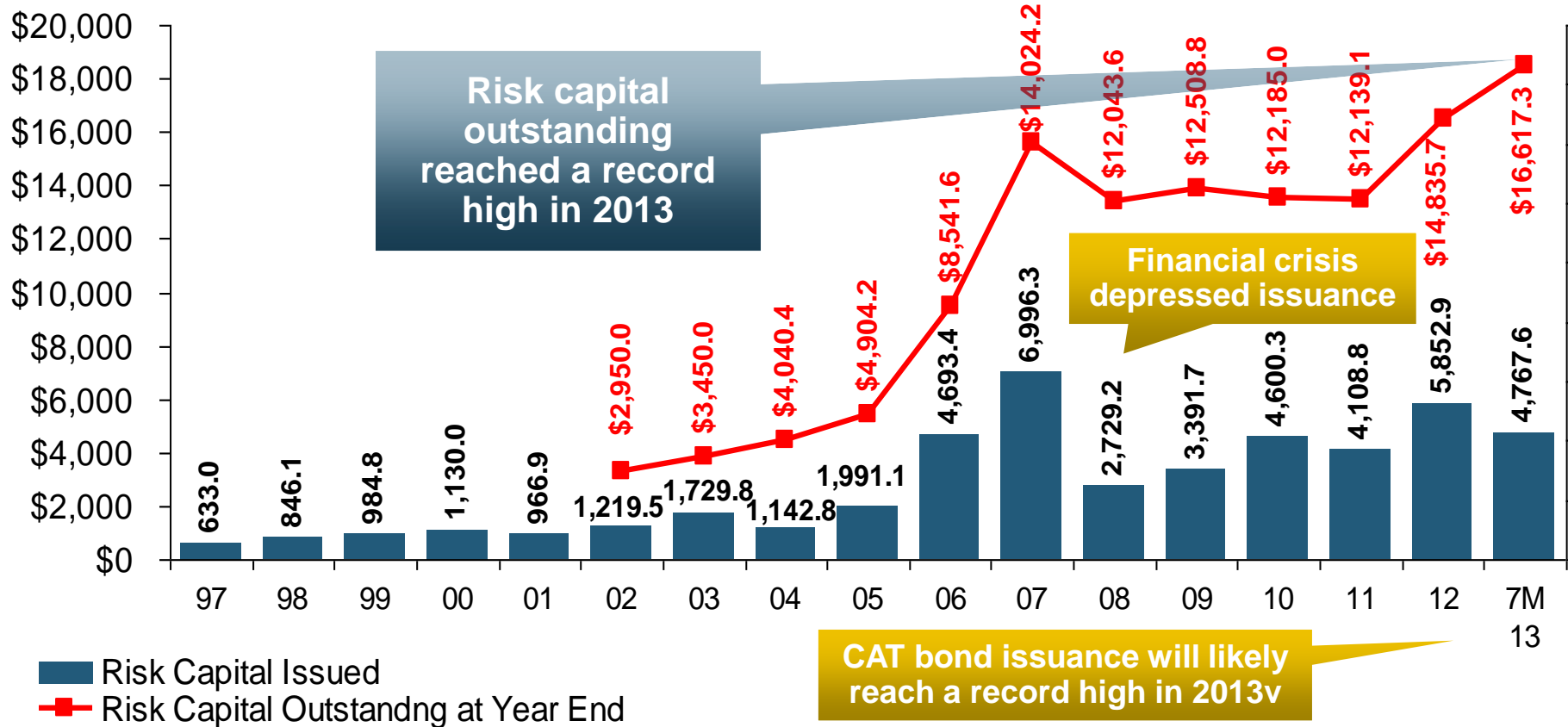


Alternative capital is expected to rise by 30% by YE 2015 and will ultimately account for 20-30% of total reinsurance spend, according to Guy Carpenter

Source: Guy Carpenter; \*As Of Mar-2013

# Catastrophe Bonds: Issuance and Outstanding, 1997- 2013\*

Risk Capital Amount (\$ Millions)



**Catastrophe Bond Issuance Is Approaching Pre-Crisis Levels While Risk Capital Outstanding Stands at an All-Time Record**

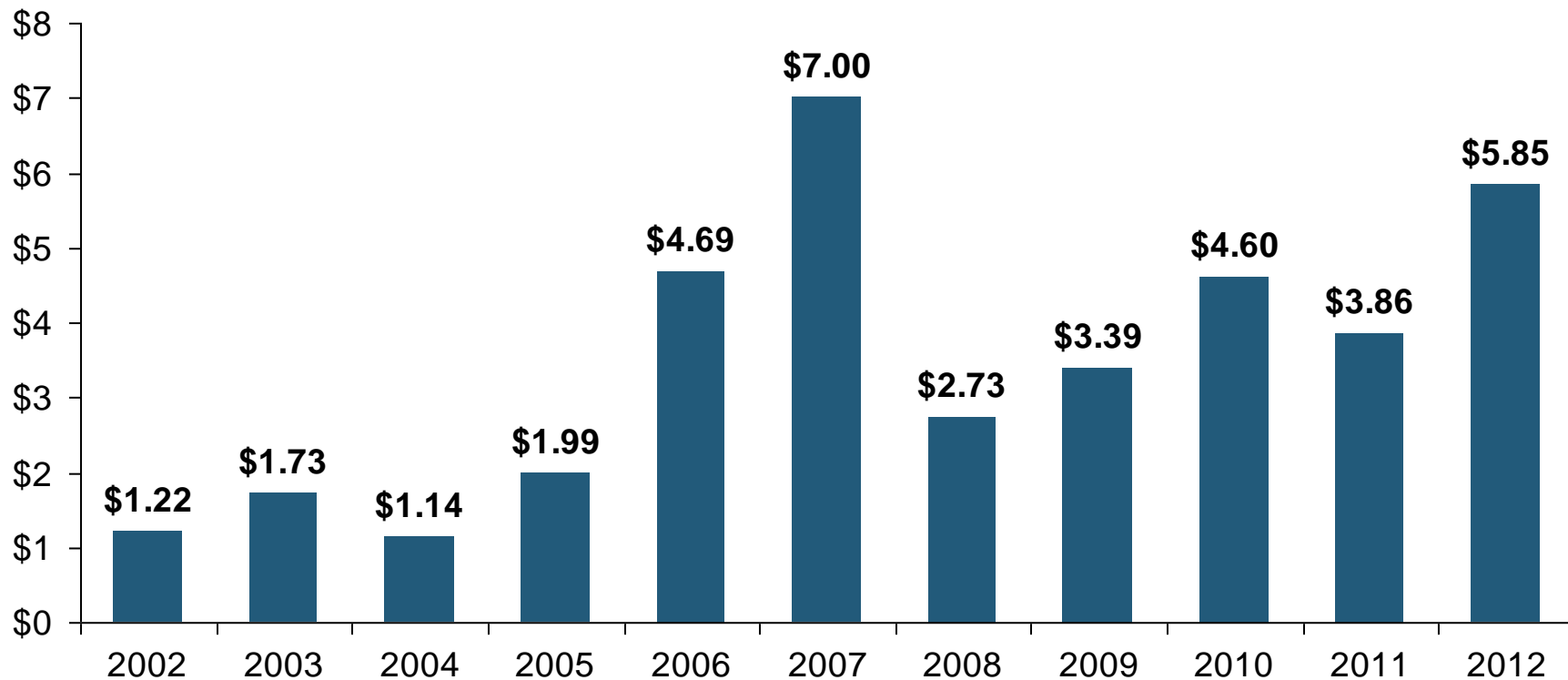
\*Through July 2013.

Source: Guy Carpenter; Insurance Information Institute.



# CATASTROPHE BONDS, ANNUAL RISK CAPITAL ISSUED, 2002-2012

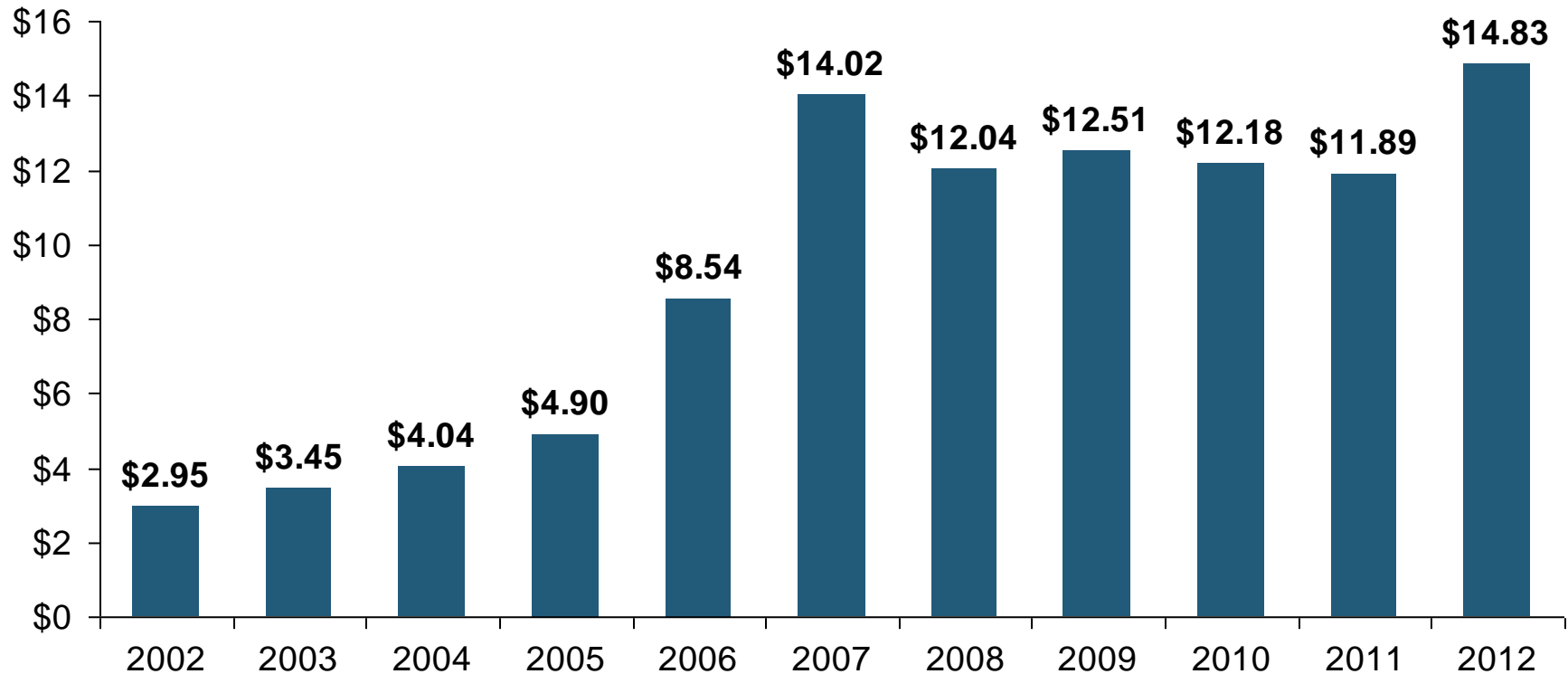
(\$ Billions)



Note

# CATASTROPHE BONDS, RISK CAPITAL OUTSTANDING, 2002-2012

(\$ Billions)



Note

# Catastrophe Bond Issuances, First Half 2013

Sponsor	Transaction	Amount (\$ Mil.)	2013 Issue Date	Peril
Cincinnati Insurance Group	Skyline Re Ltd.	61.2	January	U.S. Earthquake and Thunderstorm
Nationwide Mutual	Caelus Re 2013	270	March	U.S. Hurricane and Earthquake
Citizens Property Insurance	Everglades Re	250	March	Florida Hurricane
State Farm	Merna Re IV	300	April	U.S. Earthquake
Nationwide Mutual	Caelus Re 2013	320	April	U.S. Hurricane and Earthquake
North Carolina JUA/IUA	Tar Heel Re	500	April	North Carolina Hurricane
Turkish Catastrophe Insurance Pool	Bosphorus 1 Re	400	April	Turkey Earthquake
Louisiana Citizens	Pelican Re	140	May	Louisiana Hurricane
American Coastal Insurance Company	Armor Re	183	May	Florida Hurricane
Travelers	Long Point Re III	300	May	Northeast U.S. Hurricane
Florida Municipal Insurance Trust	Sunshine Re	20	May	Florida Hurricane
Allianz	Blue Danube II	175	May	Earthquake
USAA	Residential Re	300	May	U.S. Hurricane, Earthquake, Thunderstorm
Southern Oak	Oak Leaf Re	30	May	Florida Hurricane
Allstate	Sanders Re	350	May	U.S. Hurricane and Earthquake
Amlin AG	Tramline Re II	75	June	U.S. Hurricane/Canada Earthquake
Munich Re	Queen Street VIII Re	75	June	U.S. Hurricane/Australia Cyclone
Assurant	Ibis Re II	185	June	U.S. Hurricane

# Sidecar Transactions (Post-Sandy) and Hedge Fund-Backed Reinsurers

## Sidecar Transactions — Post Hurricane Sandy

Sponsor	Transaction	Capital (\$ Mil.)	Date
Lancashire	Saltire Re I	250	November 2012
Alterra	New Point V	247	December 2012
RenRe	Upsilon Re II	185	January 2013
Argo	Harambee Re	N.A.	January 2013
Validus	AlphaCat Re 2013	230	January 2013
Everest Re	Mt. Logan Re	250	January 2013
PartnerRe	Lorenz Re	75	March 2013
ACE	Altair Re	95	April 2013

N.A. – Not available.

Source: Company press releases and filings.

Sidecars (collateralized reinsurance) are the fastest growing alternative capital segment, account for about 15% or \$5 bill of total property catastrophe reinsurance capital

More hedge fund money is coming into the business

## Hedge Fund-Backed Reinsurers

Company	Initial Capital (\$ Mil.)	Operations Date	Major Investors
AQR Re Ltd.	260	Jan. 2012	AQR Capital Management, LLC
Greenlight Capital Re, Ltd.	212	April 2006	Greenlight Capital
PaCRe, Ltd.	500	April 2012	Paulson & Co., Validus
S.A.C. Re Holdings Ltd.	500	July 2012	S.A.C. Capital Advisors, Capital Z Partners III LP
Third Point Reinsurance Co. Ltd.	750	Jan. 2012	Third Point LLC, Kelso & Co, Pine Brook Road Partners

Source: Company press releases and filings.

# (Re) Insurers Investing in Insurance Linked Securities (ILS) Fund Managers

(Re)insurer	Asset Manager/Fund
Alleghany	Ares Management
Allied World	Aeolus Capital Management
Amlin	Leadenhall Capital Partners
Aspen Re	Cartesian Iris Re
Hannover Re	Leine Investment
Lancashire	Saltire Management
Montpelier Re	Blue Capital Management
Munich Re	MEAG Munich Ergo
RenaissanceRe	RenaissanceRe Ventures
SCOR	Atropos
Transatlantic	Pillar Capital Holdings
Validus	AlphaCat Fund
XL	Stone Point Capital

Several (re)insurers have formed asset managers or invested in independent asset managers that are focused on managing catastrophe/ILS funds for outside investors. These asset managers invest third party capital in instruments with returns linked to property catastrophe reinsurance retrocession and ILS contracts.

- **Alternative Reinsurance Here to Stay**

- Capital markets have effectively discovered reinsurance another “asset class,” in part due to Federal Reserve’s unprecedented actions since the financial crisis to keep interest rates low across the entire yield curve.

- A convergence of the reinsurance and capital markets persists with many companies both providing and using alternative forms of risk transfer to supplement the traditional balance sheet, transforming several reinsurers into risk asset managers. These structures include catastrophe bonds (cat bonds), collateralized quota-share reinsurance vehicles (sidecars), industry loss warranties (ILWs), hedge fund-supported reinsurers and asset managers investing in insurance-linked securities (ILS).

- **Property Catastrophe Drives Market:**

- The nature of property catastrophe risk as being highly modeled and commoditized serves as an important economic force driving its transfer into the capital markets. Casualty (re)insurance lines have had limited movement into the alternative reinsurance market thus far, as the less standardized and more specialized nature of these longer term risks makes them better suited for more permanent traditional capacity providers.

# Alternative Reinsurance Capital Summary (continued)

- **Strong Investor Demand**

- Comparatively high potential returns of catastrophe risk through cat bonds and sidecar investments are particularly attractive to investors, although this spread has been shrinking due to increased investor demand. However, the lack of correlation between catastrophe losses and returns on other major asset classes should continue to contribute to strong demand from investors, which include hedge funds, private equity and institutional investors.

- **Shock (i.e., Large Loss) Event Could Alter Market**

- One area of uncertainty is how investors would react to an environment of *less favorable catastrophe risk spreads* or a *large unexpected catastrophe loss*, either of which could cause capital to retreat. This risk is likely higher for hedge fund capital, as pension fund capital tends to be more permanent, given their long-term investment outlook and more diversified risk exposure.

- **Mixed Impact to Reinsurers' Ratings:**

- Fitch views the growth and acceptance of alternative reinsurance as a mixed impact for the credit quality of reinsurers' ratings. Favorably, these products can be used to manage reinsurers' exposure and capital and serve as a source of fee income. Negatively, alternative coverage represents competition for traditional reinsurers that, in conjunction with the strong overall capitalization of the reinsurance industry, have worked to notably dampen reinsurance pricing

# Alternative Reinsurance Capital Summary (continued)



- **Sponsors Benefit From New Issuance:**

- As investor demand has continued to grow for catastrophe bonds, sponsors have been able to offer deals at considerably lower coupon rates and with increasingly favorable structures that suit individual company needs. These market conditions are likely to drive further issuance of cat bonds in the near term if (re)insurers believe they can produce a cost-effective alternative to supplement their reinsurance program. As of midyear, 2013 is on track to produce a record amount of catastrophe bond issuance.

- **Sidecars Continue to Provide Capacity:**

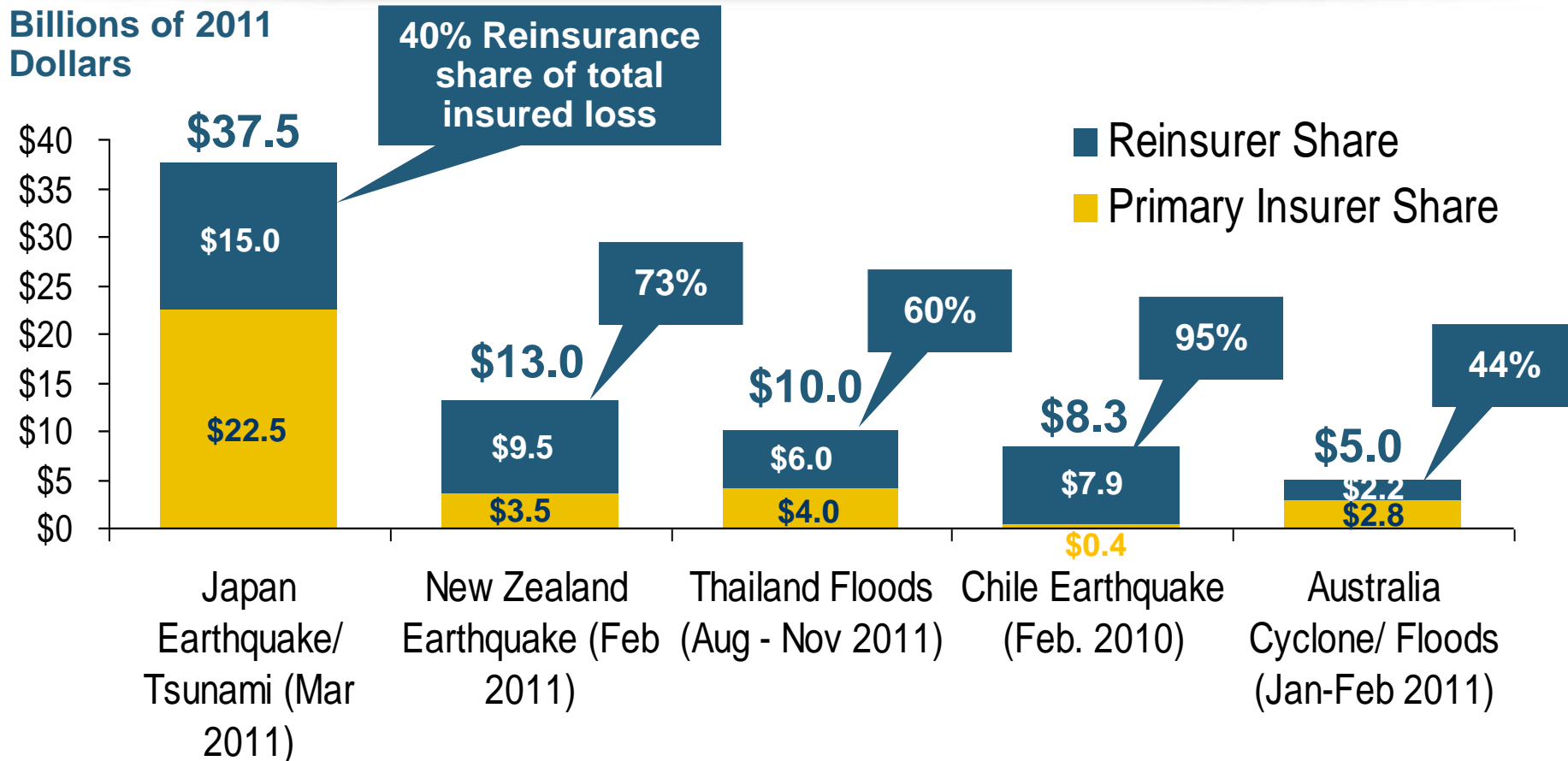
- Several sidecars emerged late in 2012 and early into 2013 following Hurricane Sandy. These vehicles were opportunistically seeking to capitalize on any potential improvements in property catastrophe pricing. However, they also represented several newer entrants into the alternative reinsurance space looking to participate in what continues to be an important and growing segment of the reinsurance market.



# Questions Arising from Influence of Alternative Capital

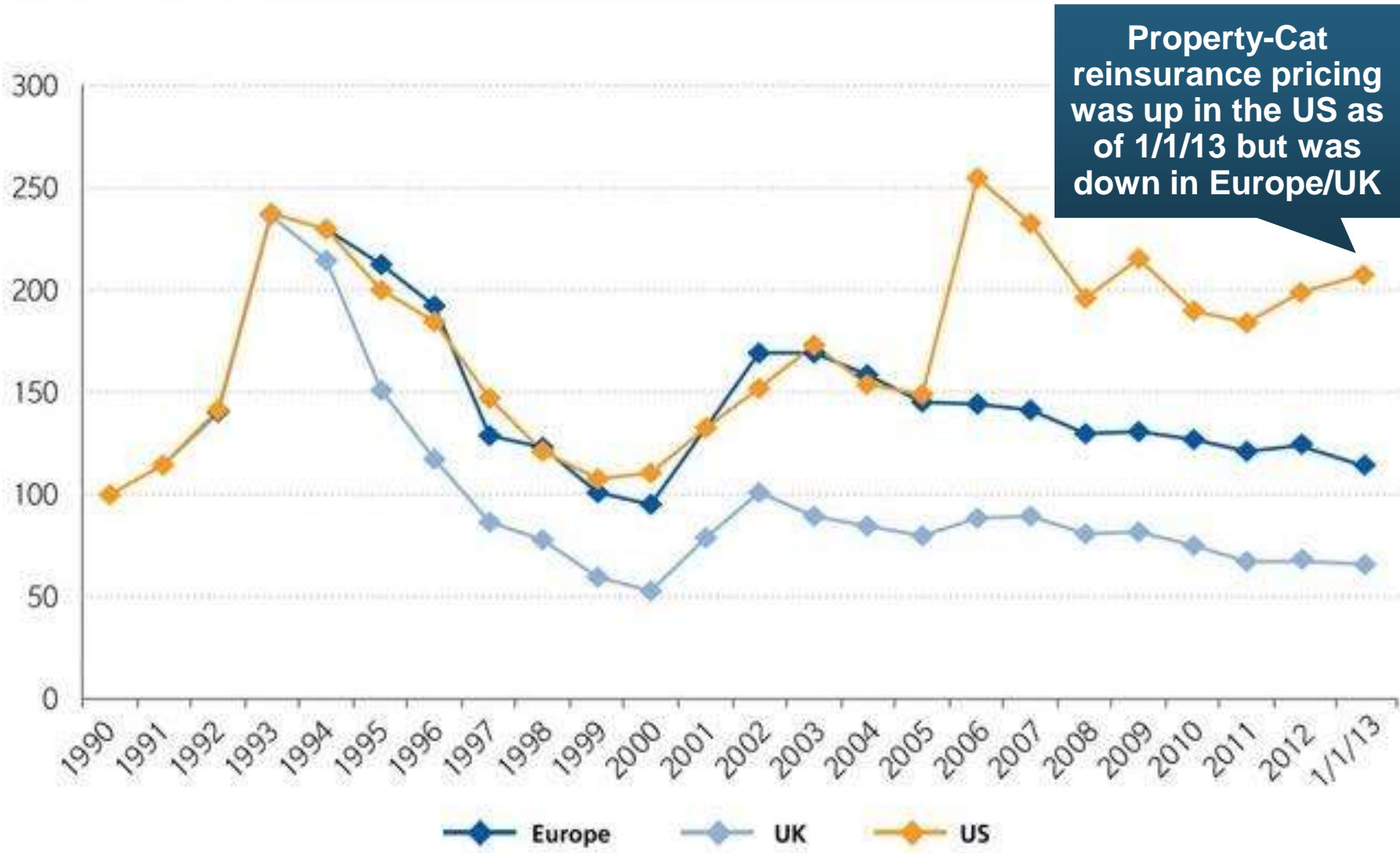
- **Could Pension Fund Money Swap Traditional Capacity?**
  - ◆ US private pension funds hold ~\$7 trillion in assets
  - ◆ 2% allocation = \$140 billion
  - ◆ Global property cat capital = ~\$316 bill as of mid-2013
  
- **Do New Investors Have a Lower Cost of Capital?**
  - ◆ New capacity expects 6-8% rate of return compared to 8-10% for traditional reinsurance, according to Dowling & Partners
  
- **Will Reinsurance Pricing Become More Closely Linked to Interest Rates?**
  
- **Terms and Conditions Could Weaken**
  - ◆ Multi-year deals

# Reinsurer Share of Recent Significant Market Losses



**Reinsurers Paid a High Proportion of Insured Losses Arising from Major Catastrophic Events Around the World in Recent Years**

# Regional Property Catastrophe Rate on Line Index, 1990—2013 (as of January 1)



Sources: Guy Carpenter; Insurance Information Institute.

# Alternative Capital: Important Definitions

## **Alternative Reinsurance Market**

Alternative reinsurance is effectively any form of managing and transferring (re)insurance risk through the use of the capital markets rather than the traditional reinsurance market. These nontraditional structures commonly include catastrophe bonds (cat bonds), collateralized quota-share reinsurance vehicles (sidecars) and industry loss warranties (ILWs).

Alternatives to traditional reinsurance essentially began following Hurricane Andrew, with the introduction of exchange traded insurance options in 1992, the first cat bond in 1994, and later sidecars in 2001, following the events of Sept. 11, 2001. However, the market began to grow significantly following Hurricane Katrina in 2005, as (re)insurers were essentially forced to increase issuances of catastrophe bonds and expand the use of sidecars in order to absorb underwriting capacity as retrocession availability became more scarce and expensive.

## **Catastrophe Bonds**

Cat bonds are bonds issued by an insurer with a condition that if the issuer suffers a catastrophe loss greater than a specified amount, the obligation to pay interest/principal is deferred or forgiven, thus effectively prompting a default on the bond. Cat bonds allow sponsors (most often a (re)insurer) to transfer a portion of its catastrophe risk to the capital markets through securities purchased by investors and actively traded in the secondary market.

Favorably for the sponsor, cat bonds offer collateralized (most often invested in U.S. Treasury Money Market Funds) protection that is locked in at a fixed cost over multiple years (typically two to four years). This allows the (re)insurer to be less subject to changing reinsurance market conditions. For the investor, cat bonds offer a comparatively high yield and an opportunity to diversify their portfolios. This is due to the lack of correlation between catastrophe losses and returns on other major asset classes that are tied to more macroeconomic and financial market conditions.

## **Sidecars**

Sidecars are special-purpose reinsurers that provide dedicated collateralized quota-share reinsurance, often for a single ceding company that transfers a portion of its underwriting risk (and related capital investment), and in turn receives a ceding commission. They also can be a source of fee income for the reinsurers that underwrite or provide management services to such third-party risk vehicles.

Sidecar vehicles are often established by traditional reinsurers as a means to tap into the external capacity offered by the capital markets from hedge funds, investment banks, private equity and other opportunistic investors and increase the efficiency and diversification of the company's reinsurance program. They typically have a limited life expectancy and are often wound up when market conditions deteriorate, after which any remaining capital funds are returned to investors and the sponsor.

## **Industry Loss Warranties**

ILWs are a type of private reinsurance or derivative contract through which one party (often an insurer) will purchase protection based on the total loss arising from an event to the entire insurance industry rather than their own losses. The buyer pays a premium to the company that writes the ILW cover (often a reinsurer or hedge fund) and in return receives coverage for a specified limit if industry losses exceed the predefined amount under the ILW trigger.

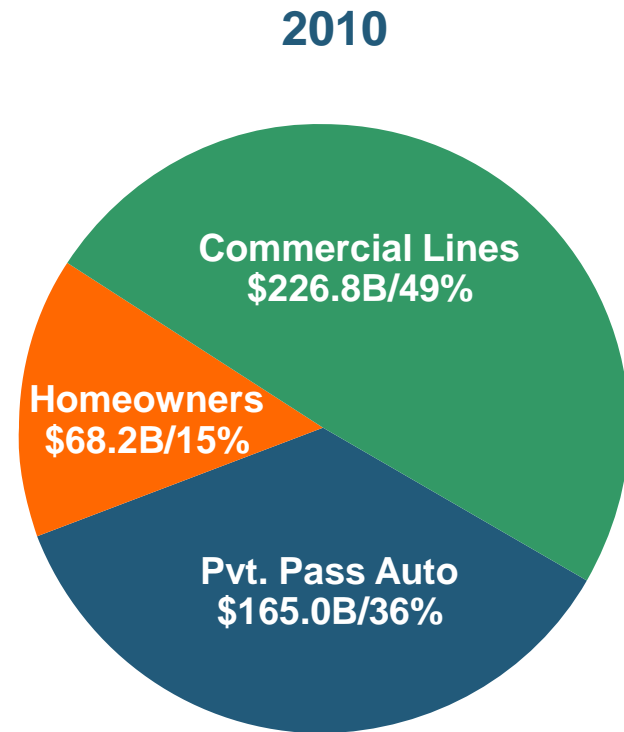
## **4. RENEWED PRICING DISCIPLINE**

**Evidence of a Broad and  
Sustained Shift in Pricing**

# Distribution of Direct Premiums Written by Segment/Line, 2010

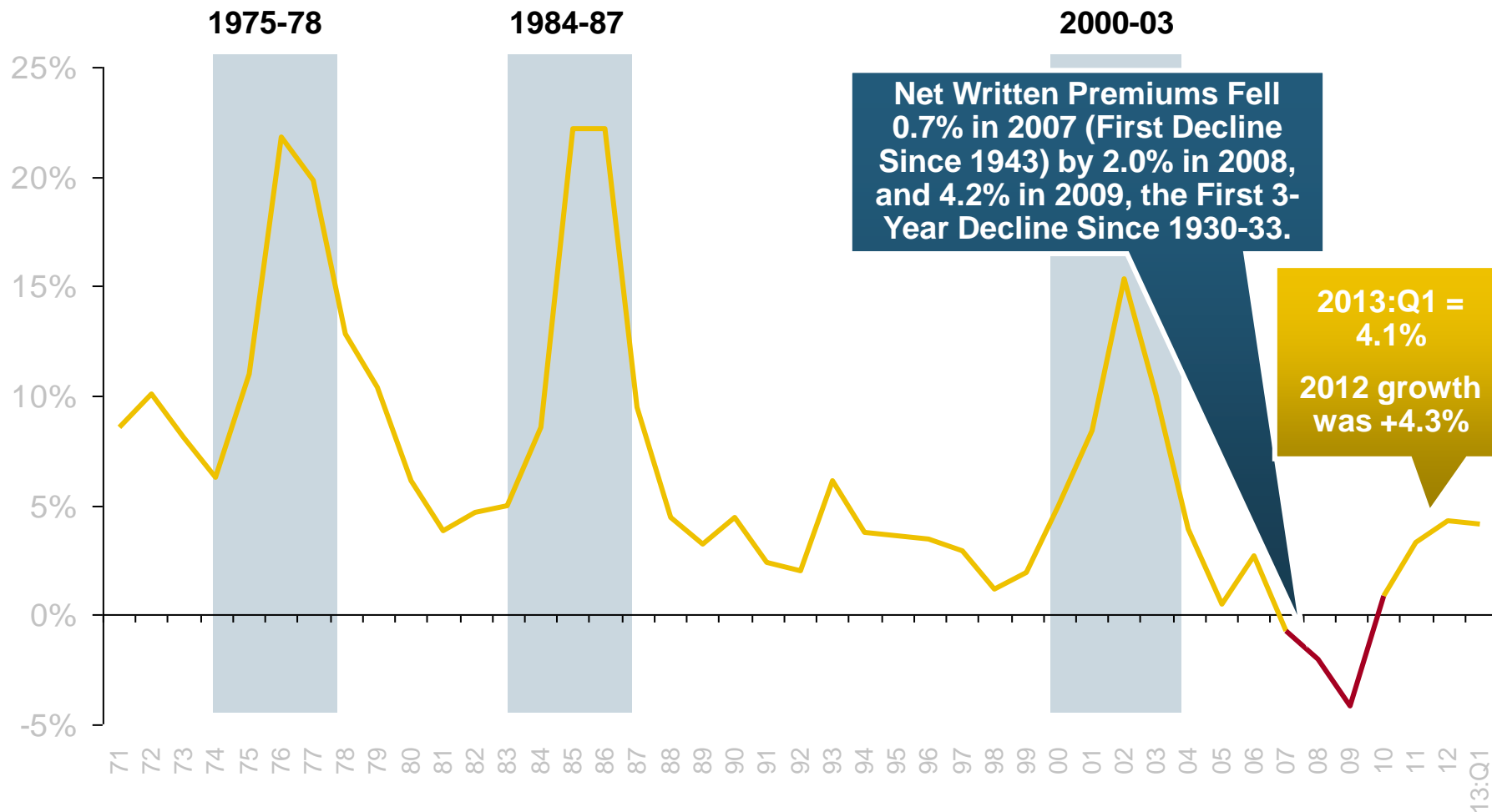
## Distribution Facts

- Personal/Commercial lines split has been about 50/50 for many years; Personal Lines overtook Commercial Lines in 2010
- Pvt. Passenger Auto is by far the largest line of insurance and is currently the most important source of industry profits
- Billions of additional dollars in homeowners insurance premiums are written by state-run residual market plans



# Net Premium Growth: Annual Change, 1971—2013:Q1

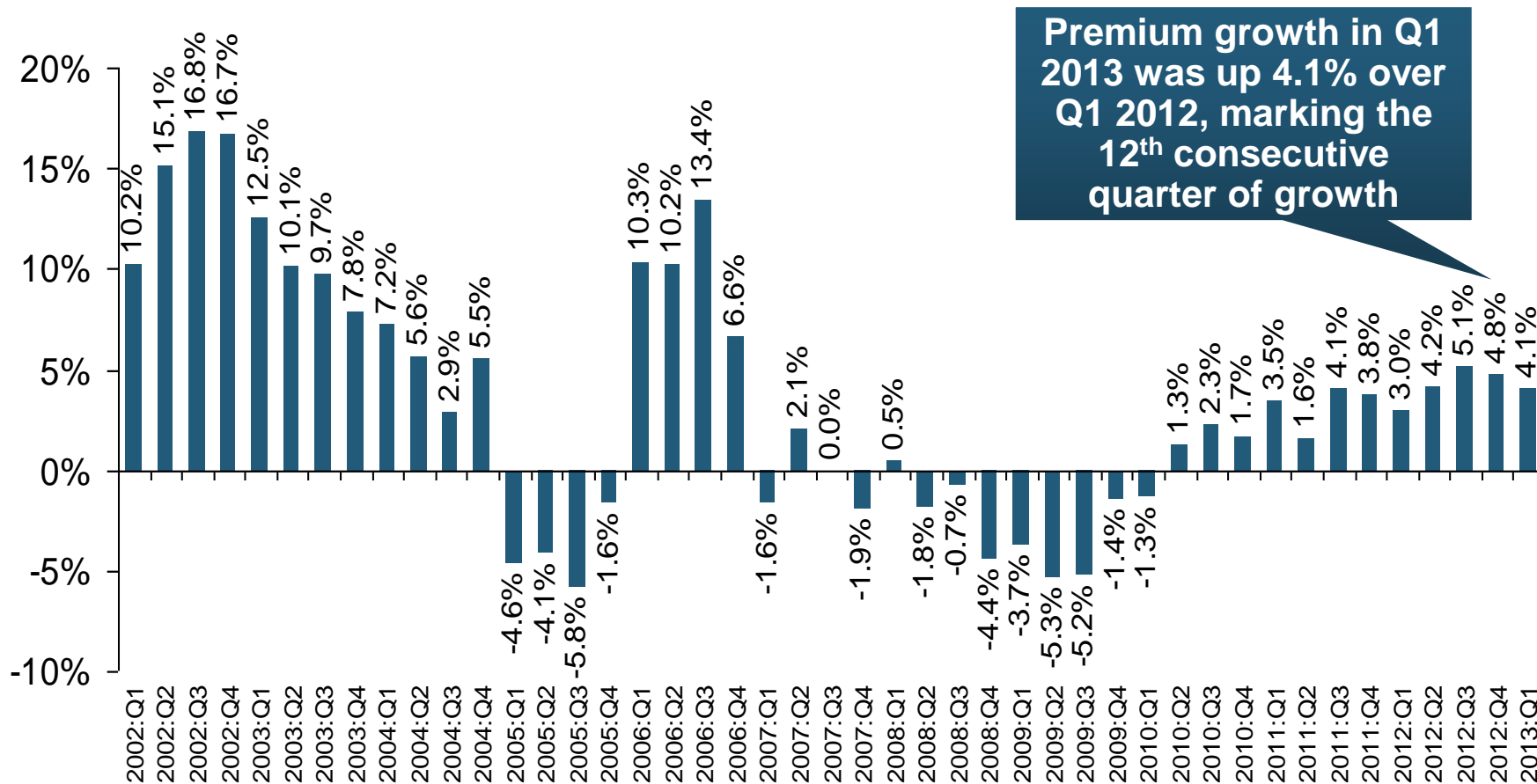
(Percent)



Shaded areas denote "hard market" periods

Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.

# P/C Net Premiums Written: % Change, Quarter vs. Year-Prior Quarter

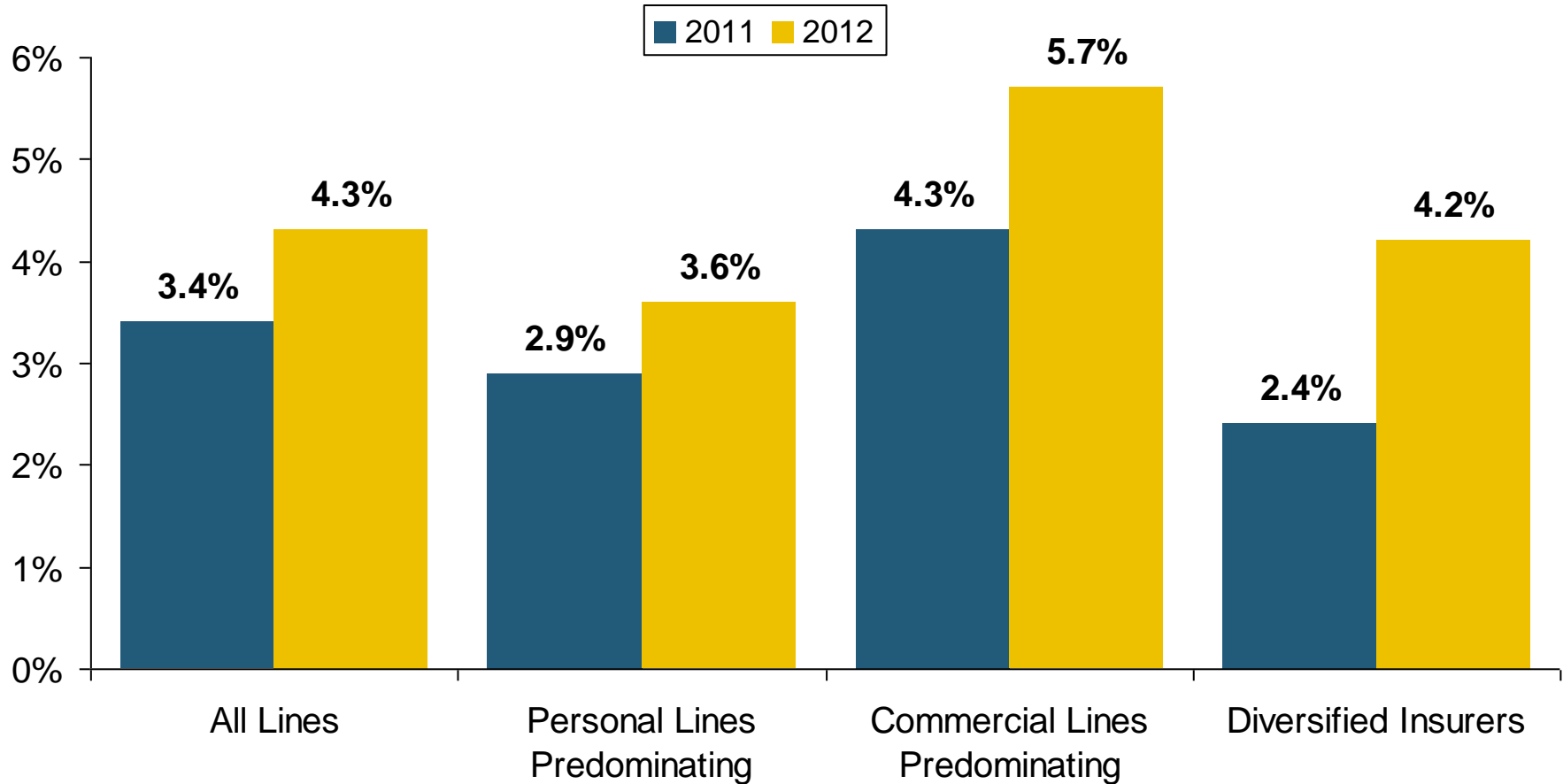


**Sustained Growth in Written Premiums  
(vs. the same quarter, prior year) Will Continue through 2013**



# Growth in Net Written Premium by Segment, 2012 vs. 2011\*

(Percent)

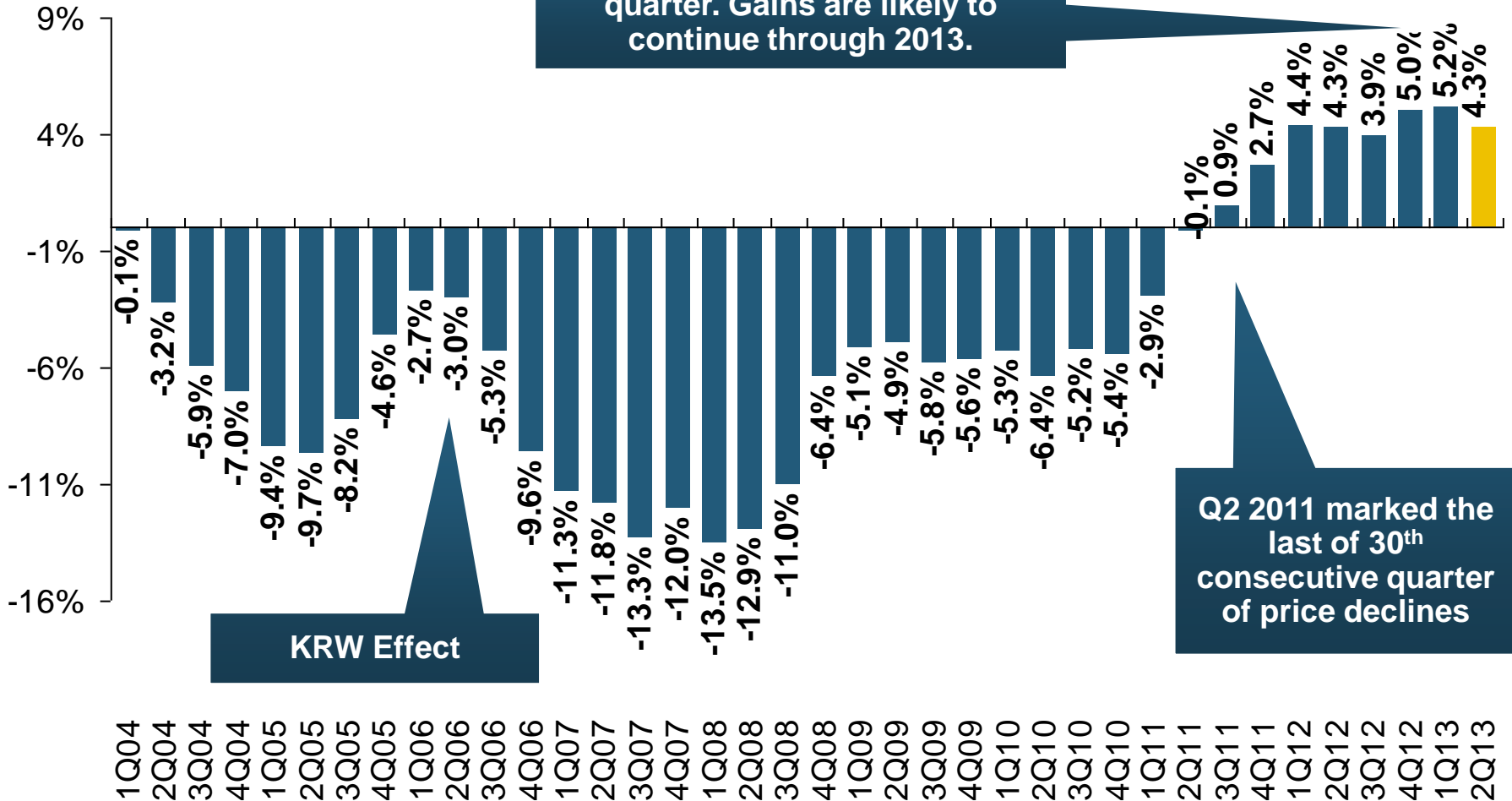


\*Excludes mortgage and financial guaranty insurers.

Source: ISO/PCI; Insurance Information Institute

# Average Commercial Rate Change, All Lines, (1Q:2004–2Q:2013)

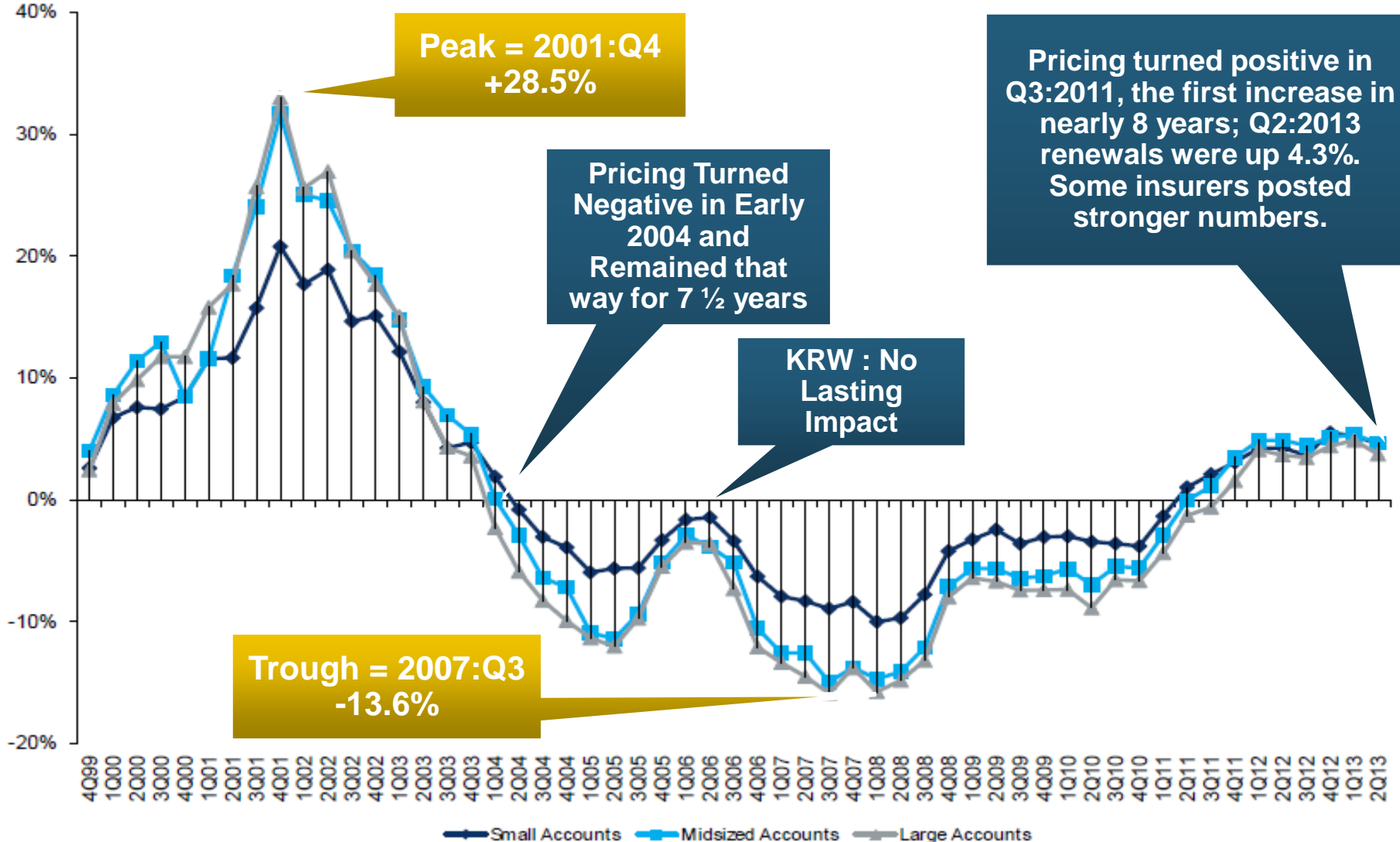
(Percent)



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 & Brokers; Insurance Information Institute

# Change in Commercial Rate Renewals, by Account Size: 1999:Q4 to 2013:Q2

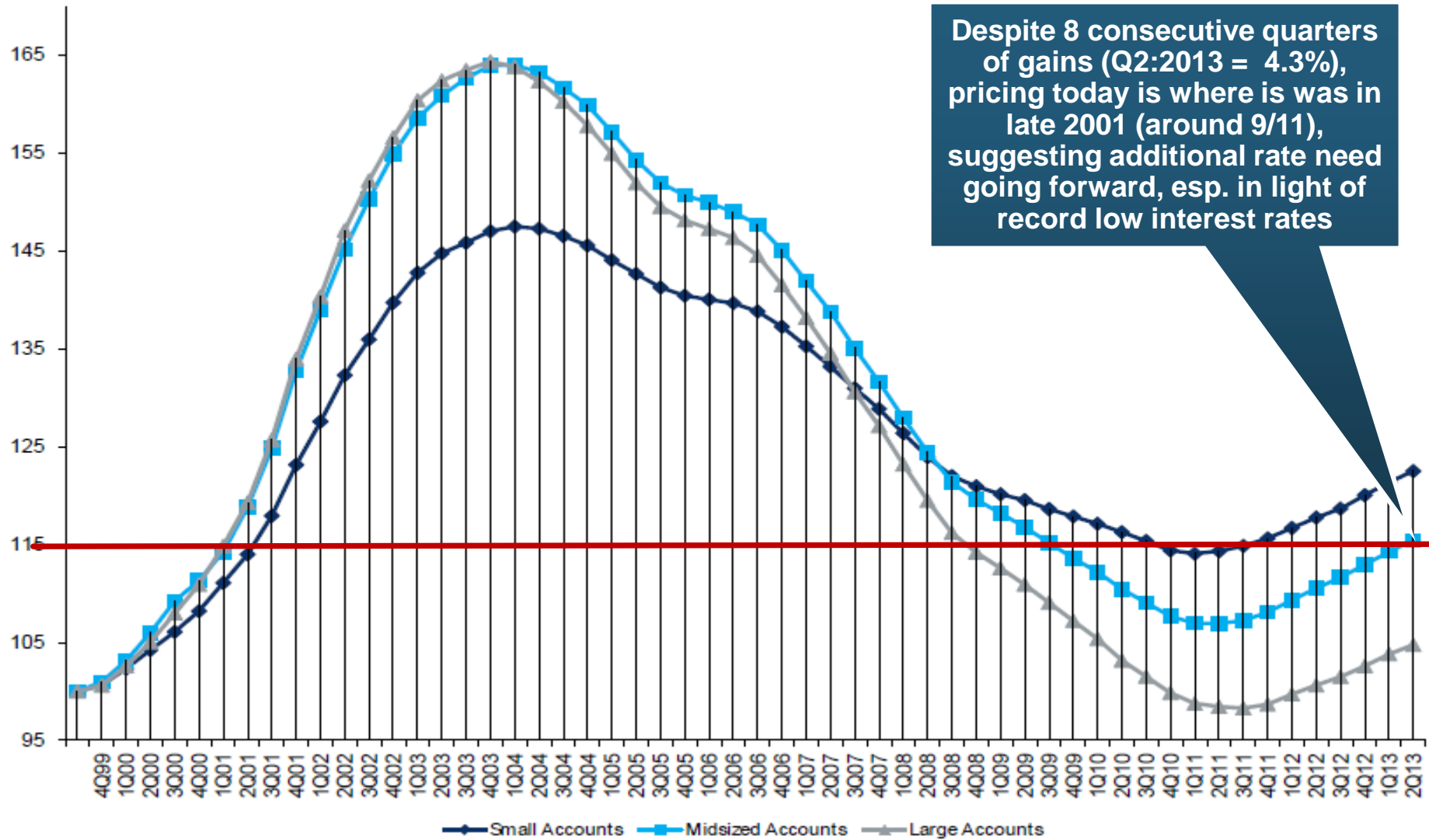
Percentage Change (%)



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; Barclay's Capital; Insurance Information Institute.

# Cumulative Qtrly. Commercial Rate Changes, by Account Size: 1999:Q4 to 2013:Q2

1999:Q4 = 100



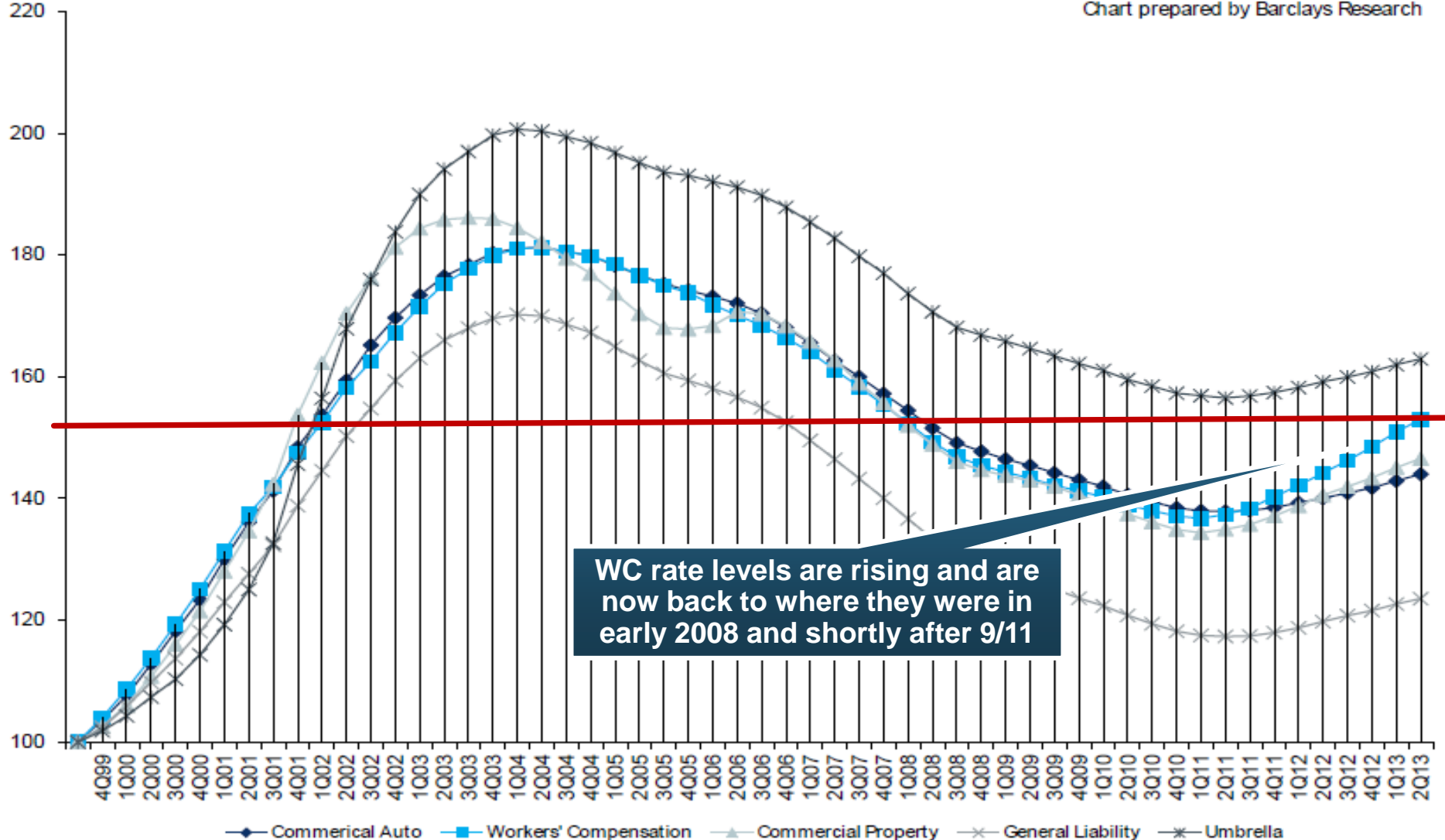
Despite 8 consecutive quarters of gains (Q2:2013 = 4.3%), pricing today is where it was in late 2001 (around 9/11), suggesting additional rate need going forward, esp. in light of record low interest rates

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; Barclay's Capital; Insurance Information Institute.

# Cumulative Qtrly. Commercial Rate Changes, by Line: 1999:Q4 to 2013:Q2

1999:Q4 = 100

Chart prepared by Barclays Research

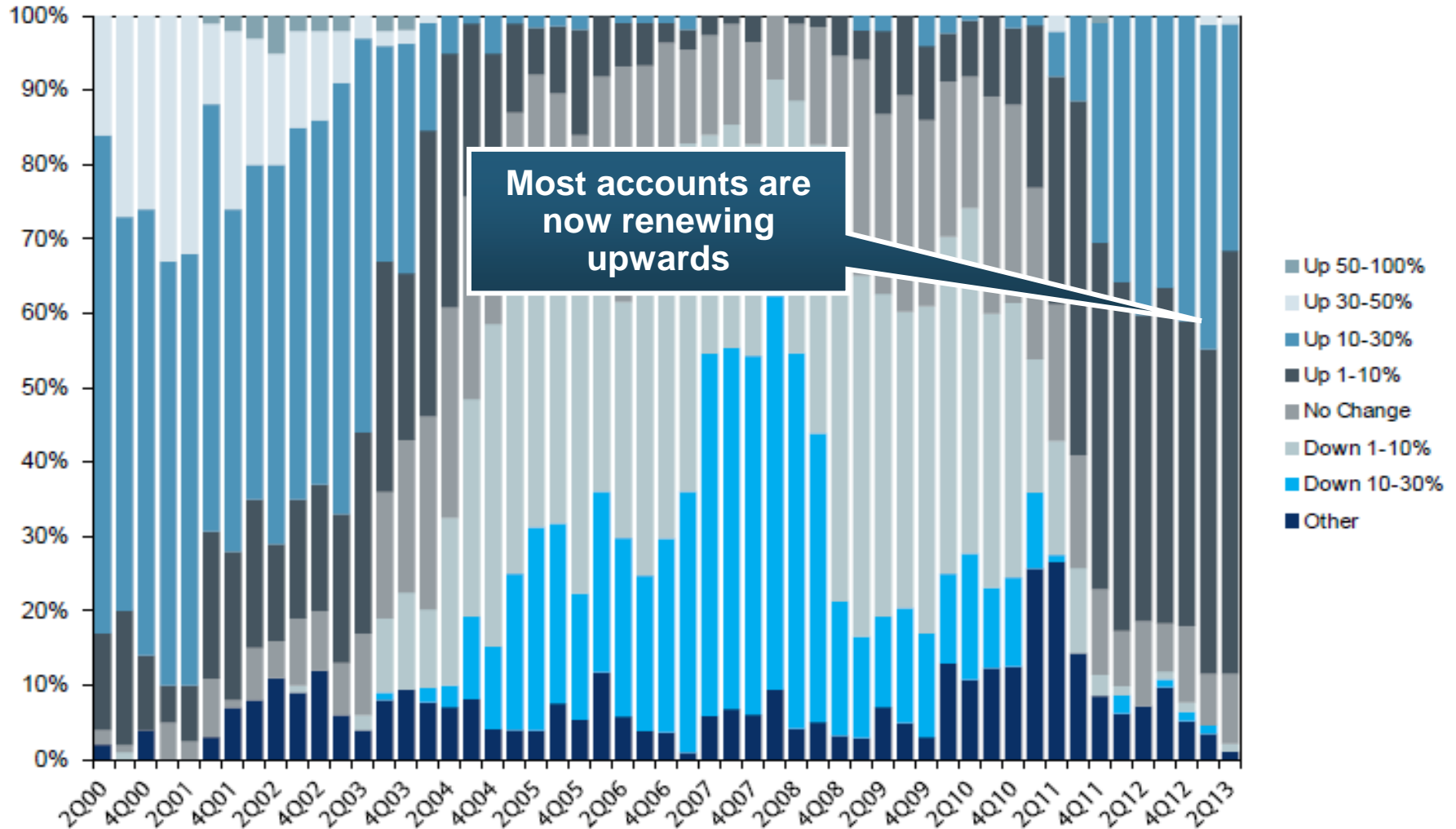


WC rate levels are rising and are now back to where they were in early 2008 and shortly after 9/11

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; Barclay's Capital; Insurance Information Institute.

# Workers Comp. Quarterly Rate Changes, by Line: 2000:Q1 to 2013:Q2

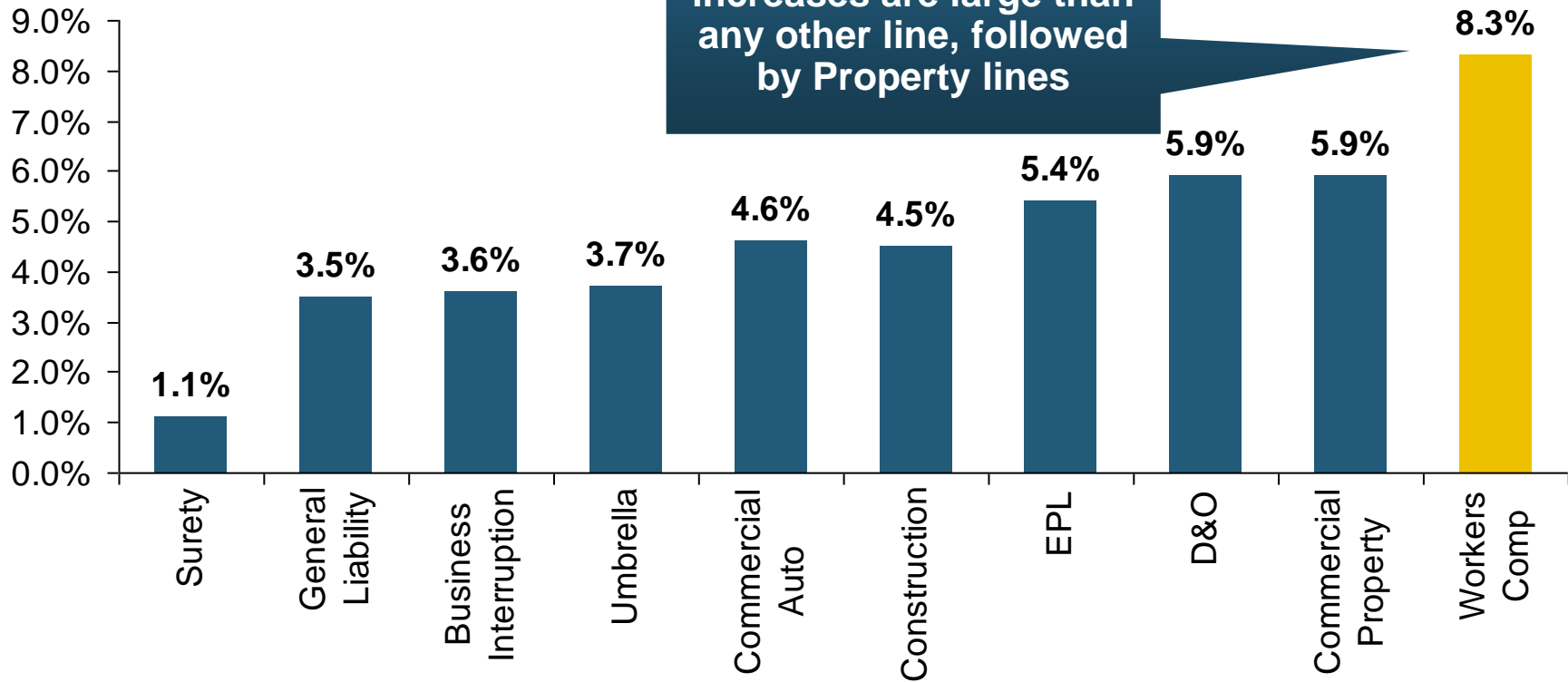
1999:Q4 = 100



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; Barclay's Capital; Insurance Information Institute.

# Change in Commercial Rate Renewals, by Line: 2013:Q2

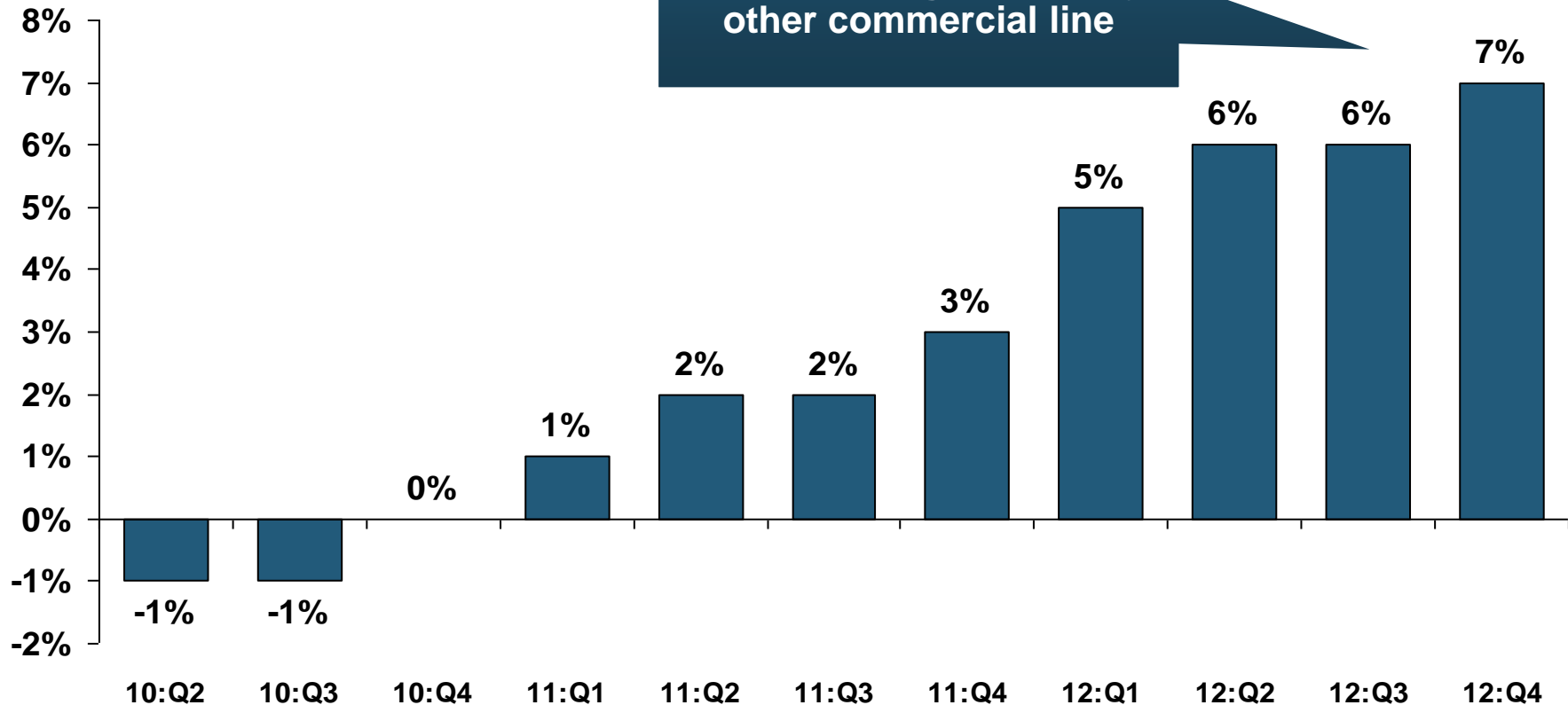
## Percentage Change (%)



**Major Commercial Lines Renewed Uniformly Upward in Q2:2013 for the 8th Consecutive Quarter; Property Lines & Workers Comp Leading the Way; Cat Losses and Low Interest Rates Provide Momentum Going Forward**

# CLIPS: Change in Written Price Level: All Lines, 2010:Q2 – 2012:Q4

(Percent  
Change)



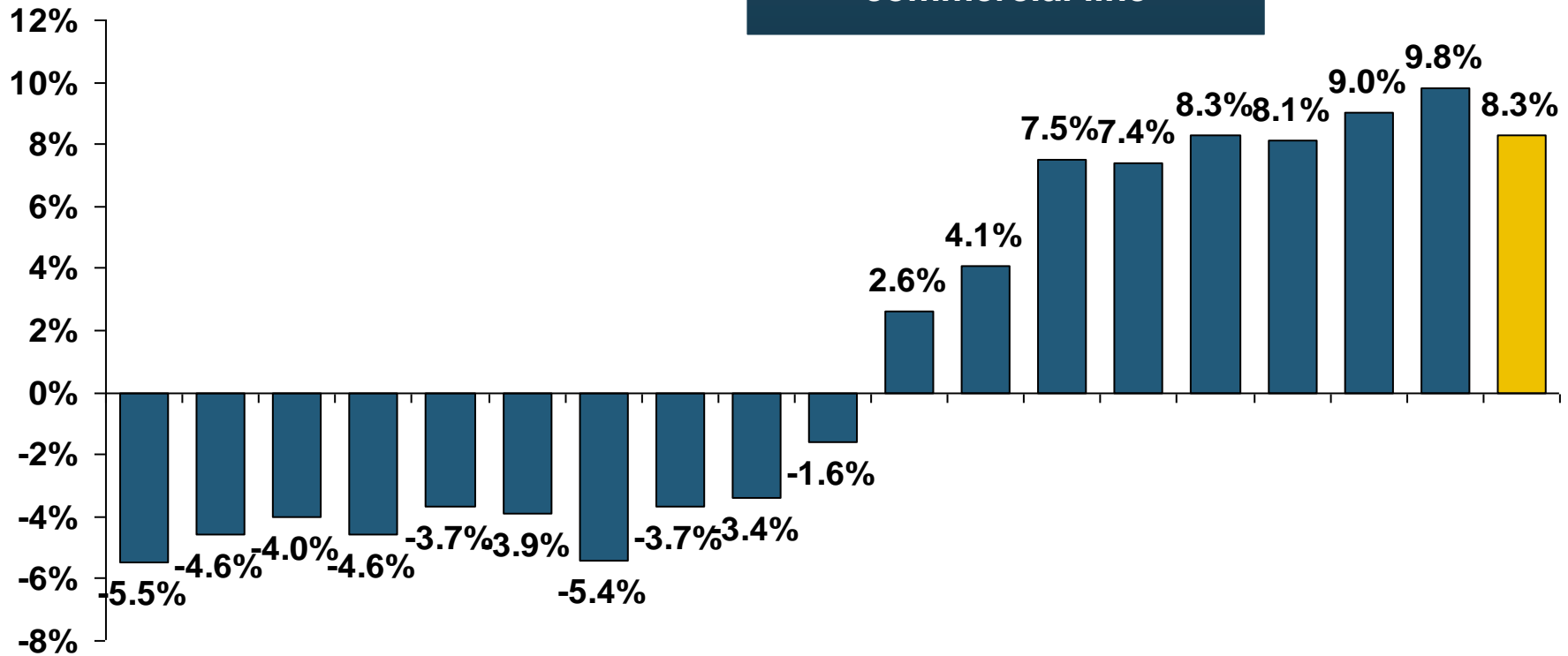
Note: Towers Watson data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.



# Workers Comp Rate Changes, 2008:Q4 – 2013:Q2

(Percent Change)

WC rate changes have been positive for 9 consecutive quarters, longer than any other commercial line



08:Q4 09:Q1 09:Q2 09:Q3 09:Q4 10:Q1 10:Q2 10:Q3 10:Q4 11:Q1 11:Q2 11:Q3 11:Q4 12:Q1 12:Q2 12:Q3 12:Q4 13:Q1 13:Q2

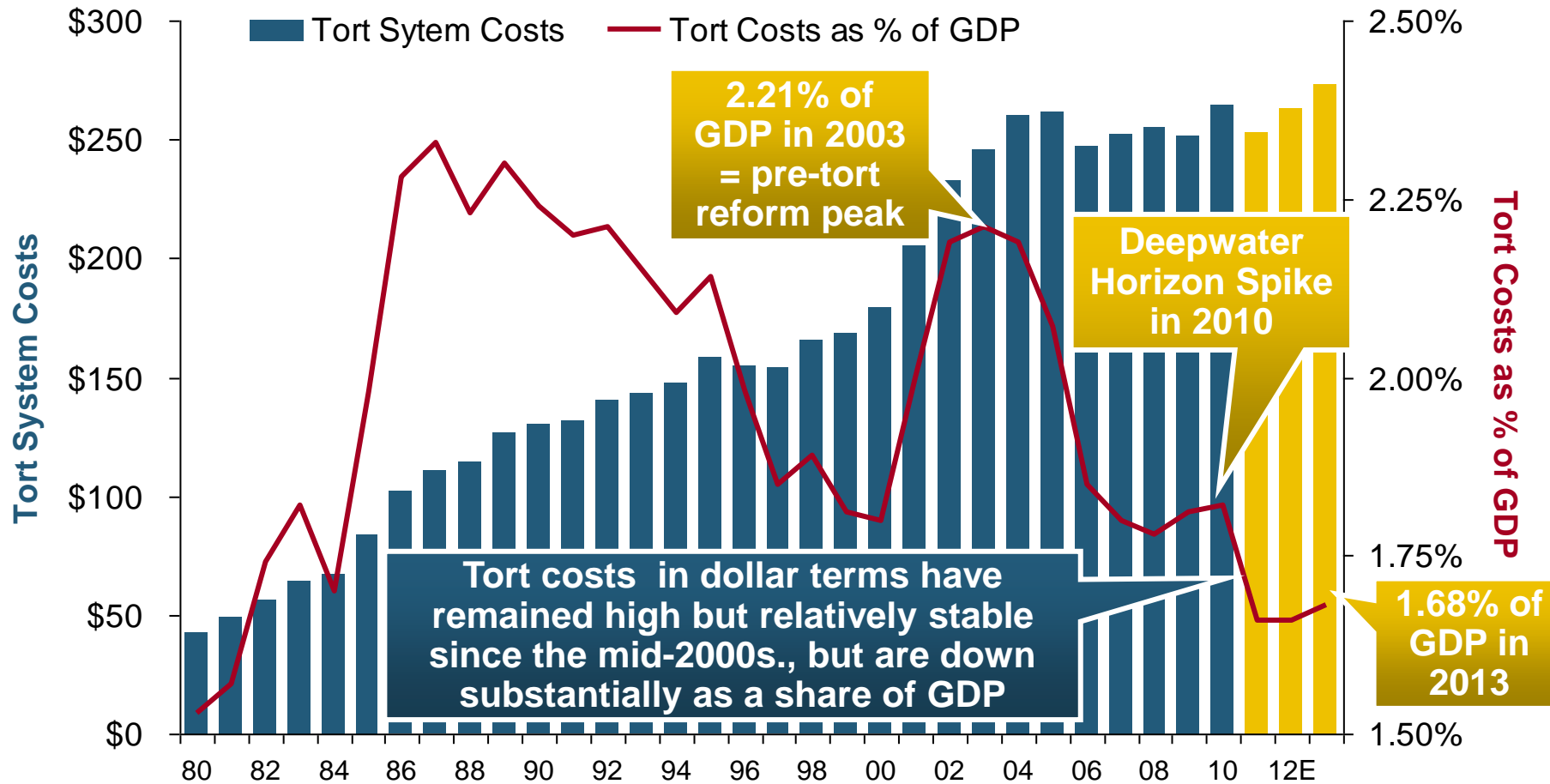
Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially.  
 Source: Council of Insurance Agents and Brokers; Information Institute.

# Shifting Legal Liability & Tort Environment

## Is the Tort Pendulum Swinging Against Insurers?

# Over the Last Three Decades, Total Tort Costs as a % of GDP Appear Somewhat Cyclical, 1980-2013E

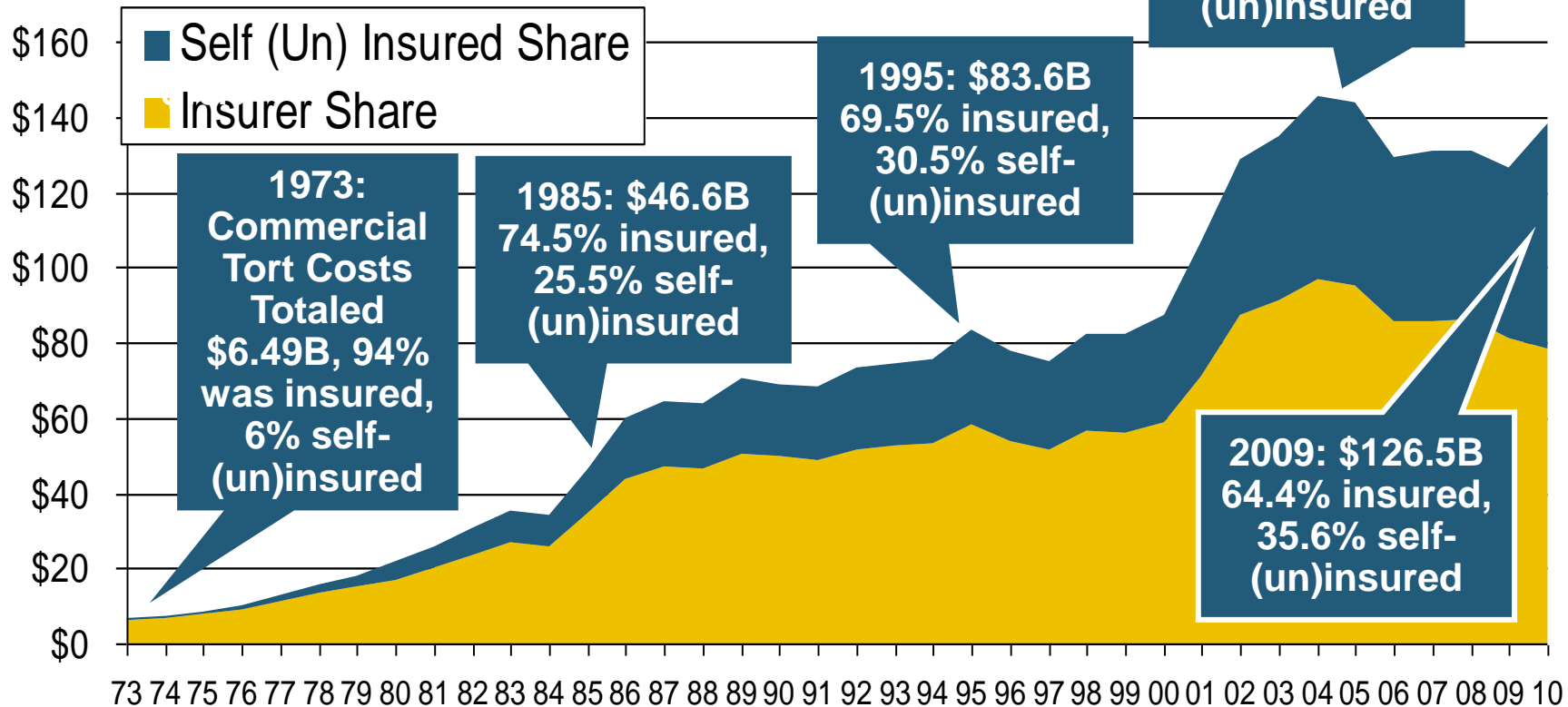
(\$ Billions)



Sources: Towers Watson, 2011 Update on US Tort Cost Trends, Appendix 1A

# Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010

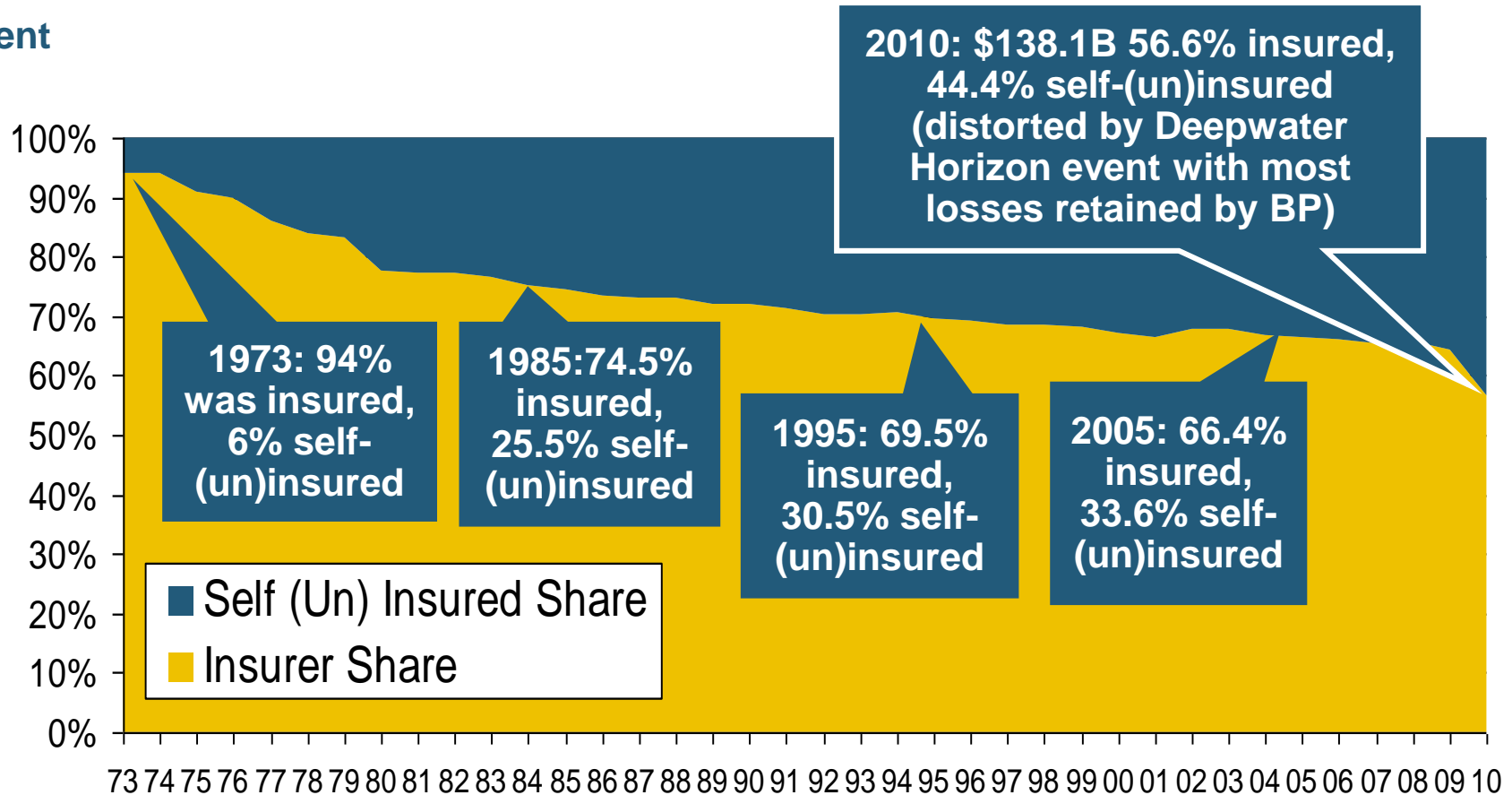
Billions of Dollars



**Tort Costs and the Share Retained by Risks Both Grew Rapidly from the mid-1970s to mid-2000s, When Tort Costs Began to Fall But Self-Insurance Shares Continued to Rise**

# Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010

Percent



**The Share of Tort Costs Retained by Risks Has Been Steadily Increasing for Nearly 40 Years. This Trend Contributes Has Left Insurers With Less Control Over Pricing.**

# Business Leaders Ranking of Liability Systems in 2012

## Best States

1. Delaware
2. Nebraska
3. Wyoming
4. Minnesota
5. Kansas
6. Idaho
7. Virginia
8. North Dakota
9. Utah
10. Iowa

### New in 2012

- Wyoming
- Minnesota
- Kansas
- Idaho

### Drop-offs

- Indiana
- Colorado
- Massachusetts
- South Dakota

## Worst States

41. Florida
42. Oklahoma
43. Alabama
44. New Mexico
45. Montana
46. Illinois
47. California
48. Mississippi
49. Louisiana
50. West Virginia

### Newly Notorious

- Oklahoma

### Rising Above

- Arkansas

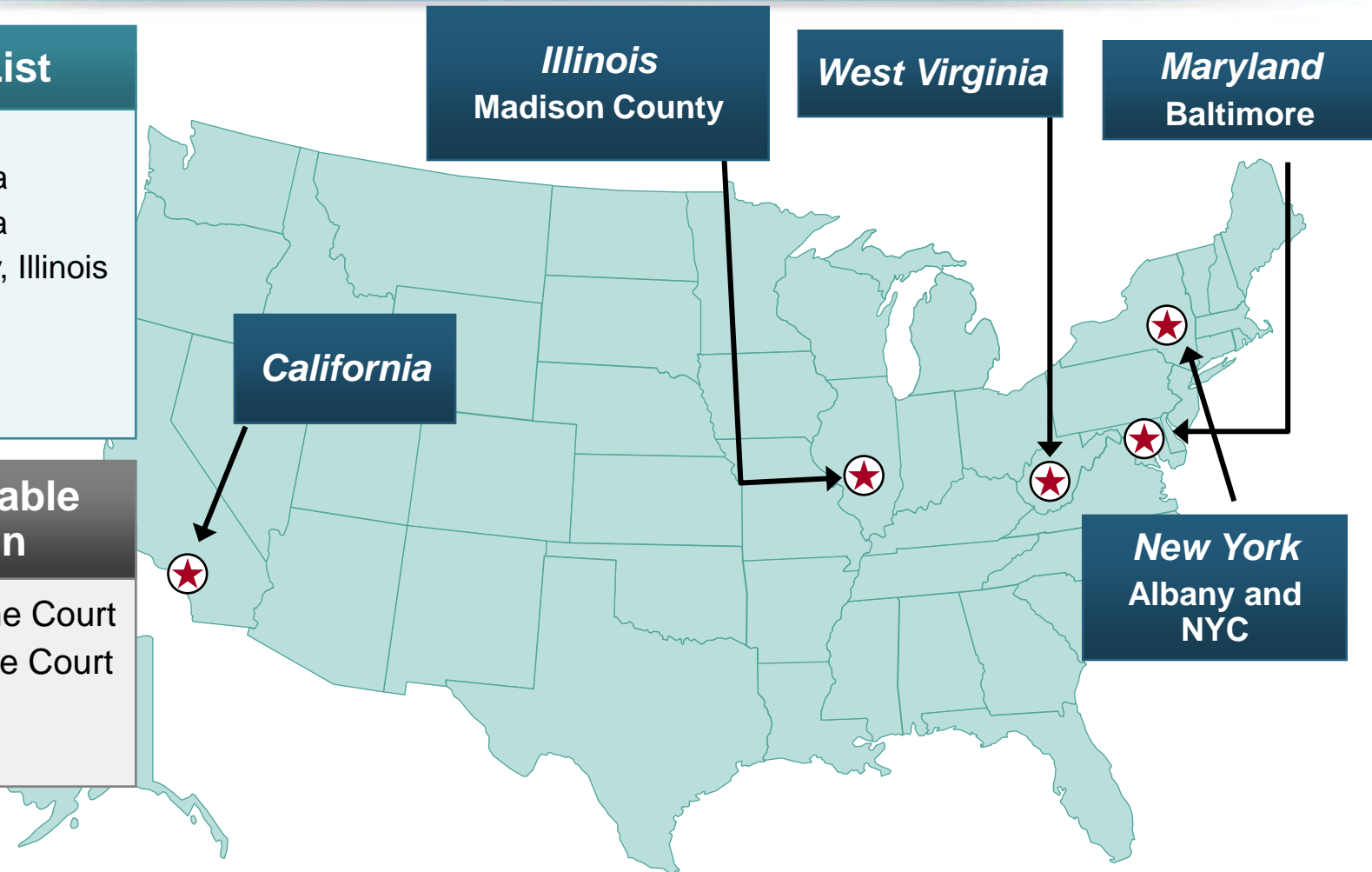
# The Nation's Judicial Hellholes: 2012/2013

## Watch List

- Philadelphia, Pennsylvania
- South Florida
- Cook County, Illinois
- New Jersey
- Nevada
- Louisiana

## Dishonorable Mention

- MO Supreme Court
- WA Supreme Court



# CYBER RISK

**Cyber Risk is a Rapidly Emerging  
Exposure for Businesses Large  
and Small in Every Industry**

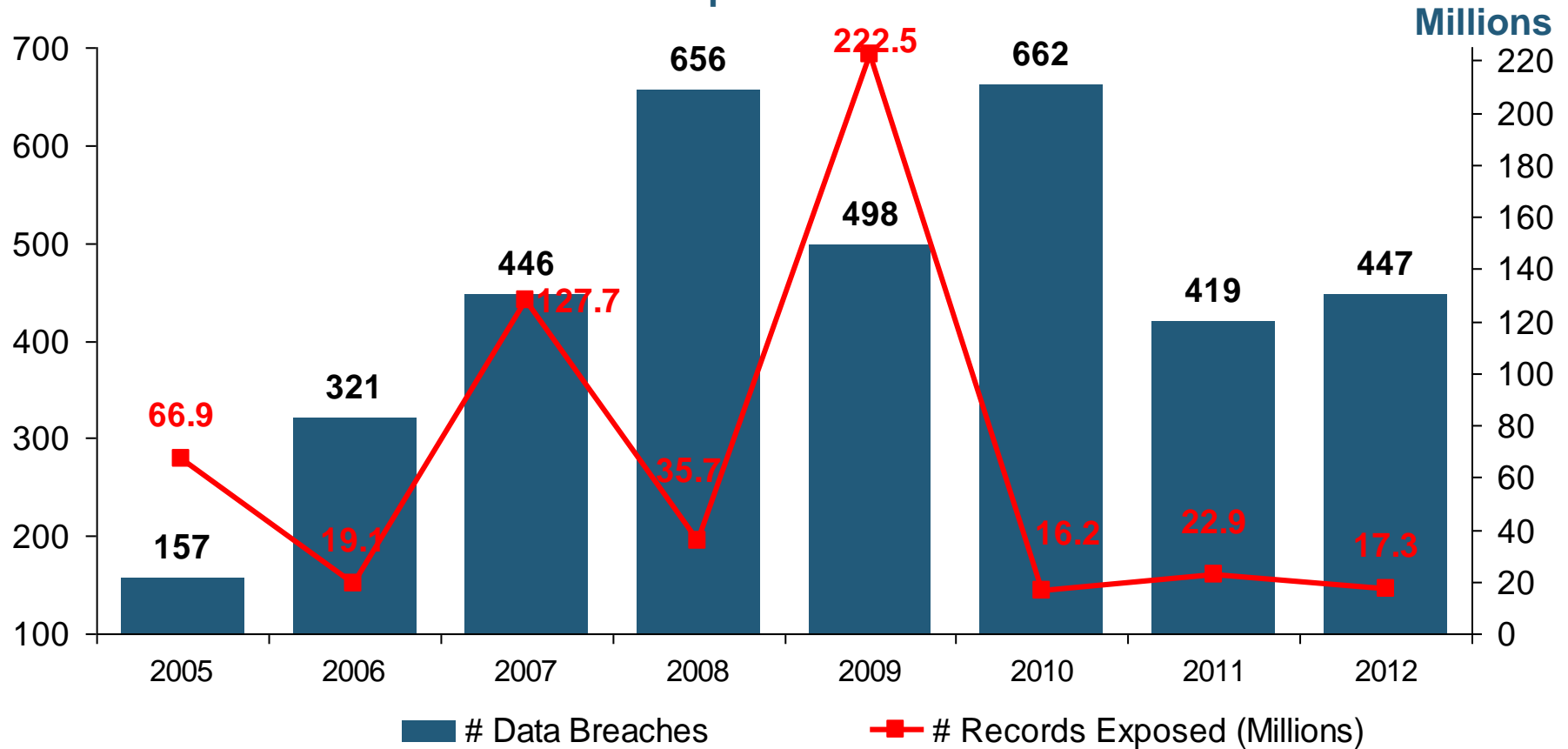
**NEW III White Paper:**

**[http://www.iii.org/assets/docs/pdf/paper\\_CyberRisk\\_2013.pdf](http://www.iii.org/assets/docs/pdf/paper_CyberRisk_2013.pdf)**



# Data Breaches 2005-2013, By Number of Breaches and Records Exposed

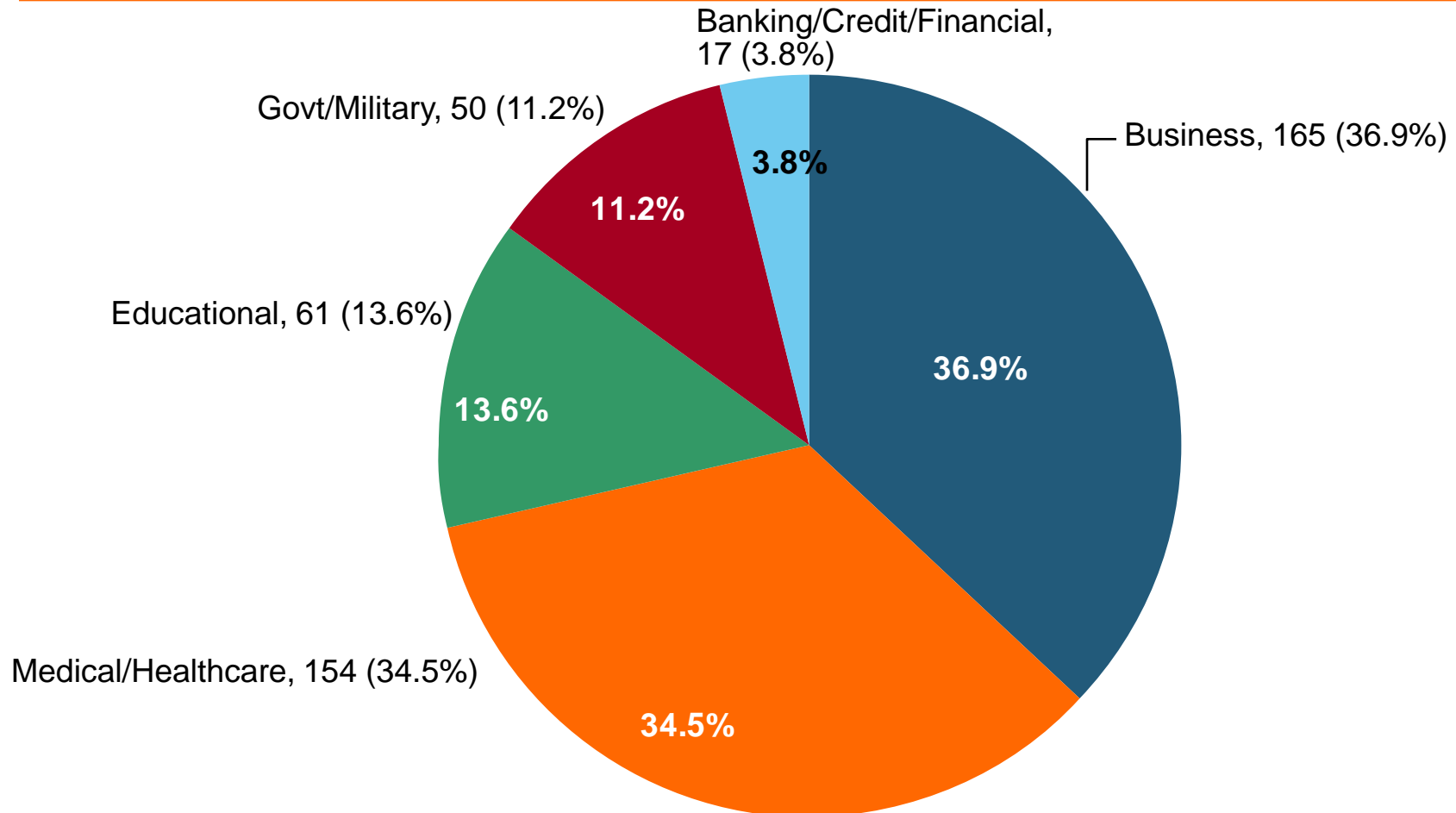
# Data Breaches/Millions of Records Exposed



The total number of data breaches and number of records exposed fluctuates from year to year and over time.

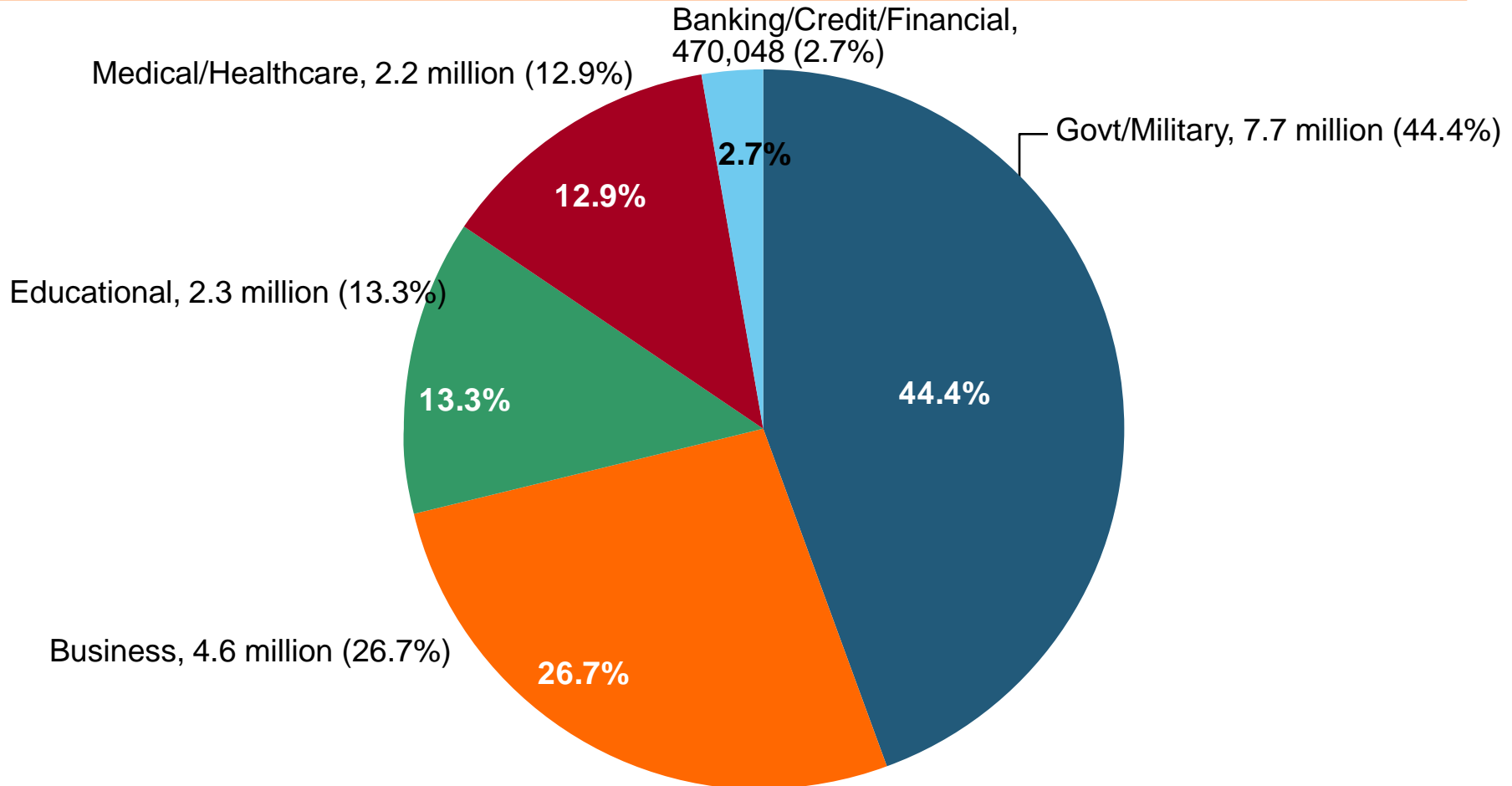
# 2012 Data Breaches By Business Category, By Number of Breaches

The majority of the 447 data breaches in 2012 affected business and medical/healthcare organizations, according to the Identity Theft Resource Center.



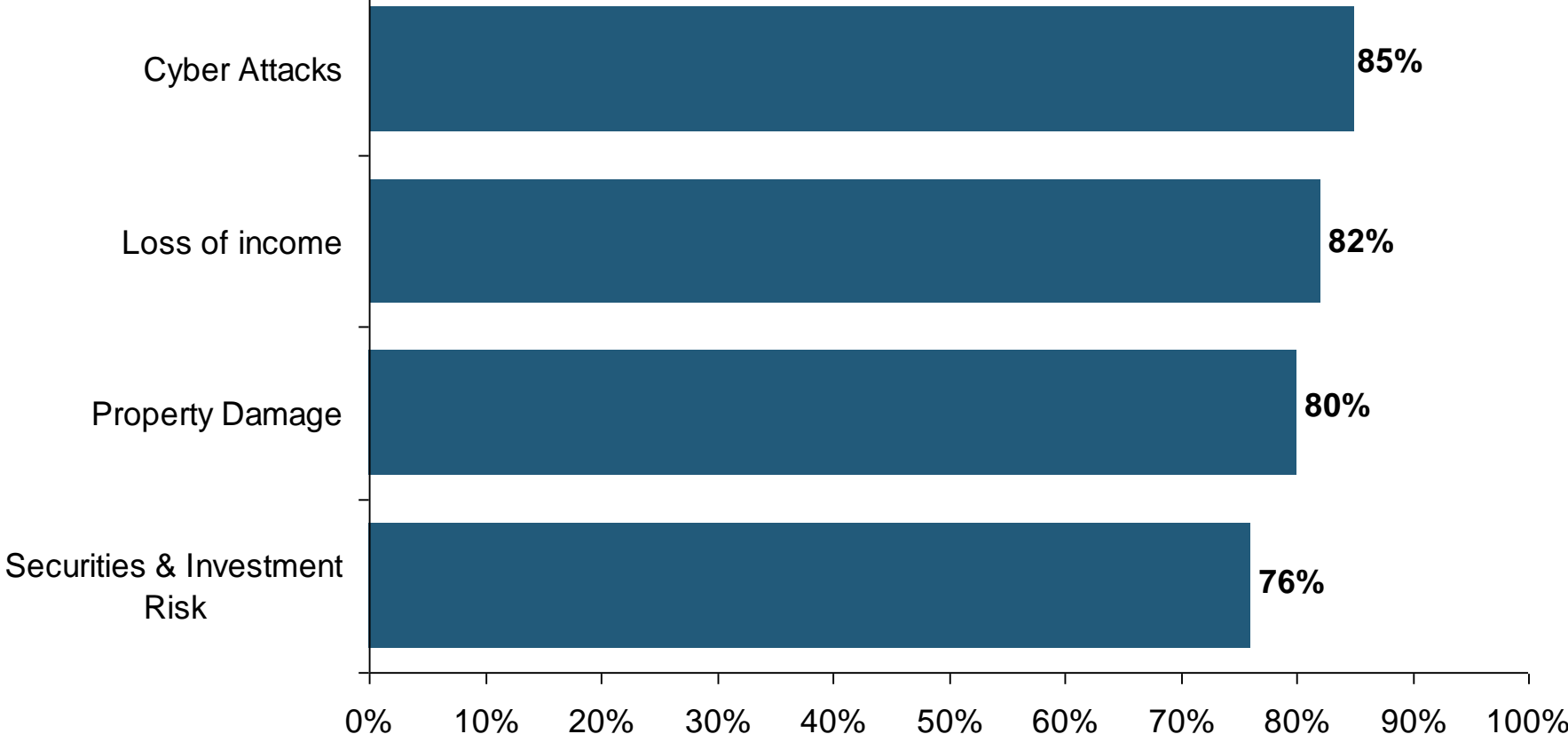
# 2012 Data Breaches By Category, By Number of Records Exposed

Government/Military and Business organizations accounted for the majority of records exposed by data breaches during 2012.



# AIG Survey: Cyber Attacks Top Concern Among Execs

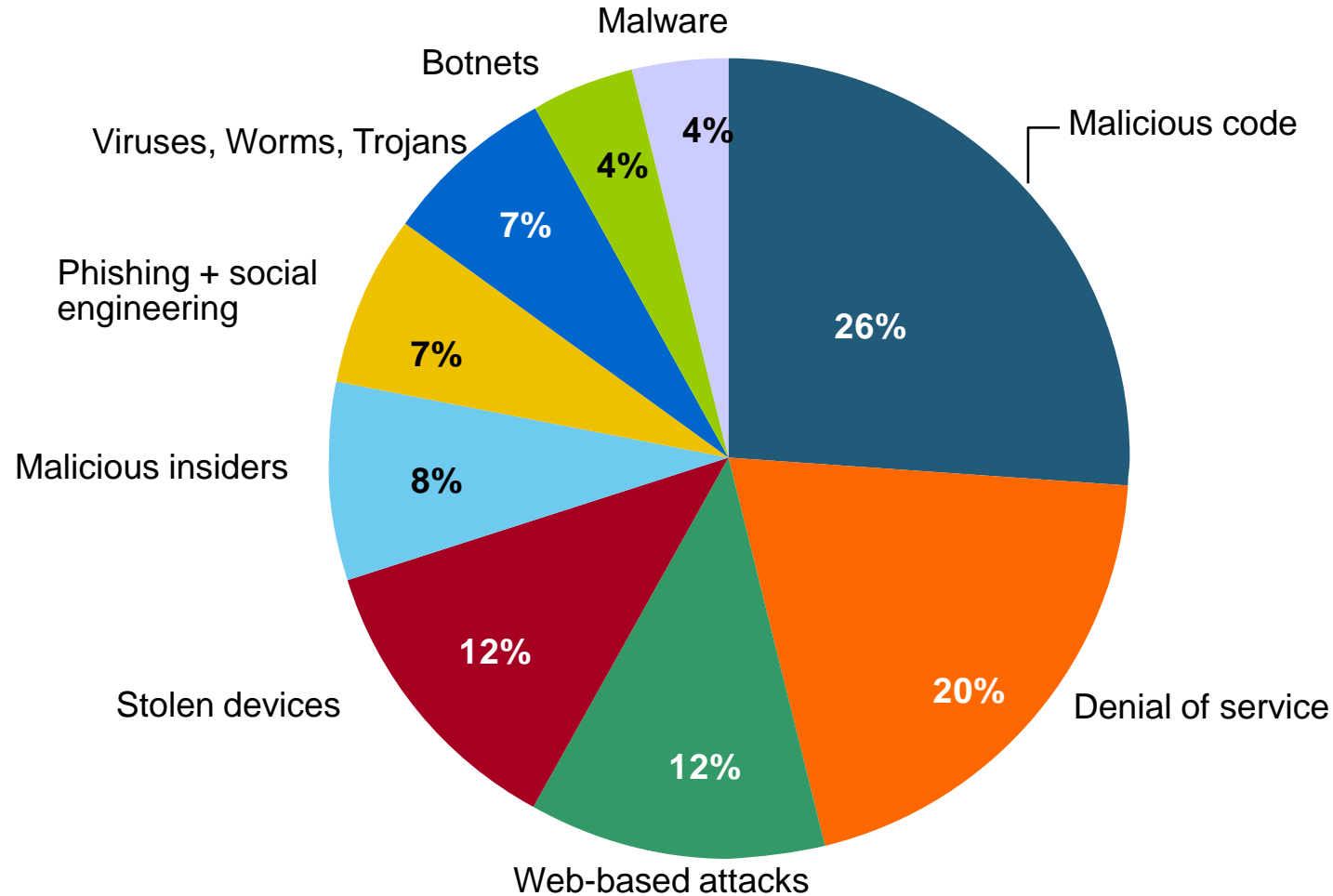
**While companies are focused on managing a variety of business risks, cyber attacks are a top concern. Some 85% of 258 executives surveyed said they were very or somewhat concerned about cyber attacks on their businesses.**



Source: Penn Schoen Berland on behalf of American International Group.

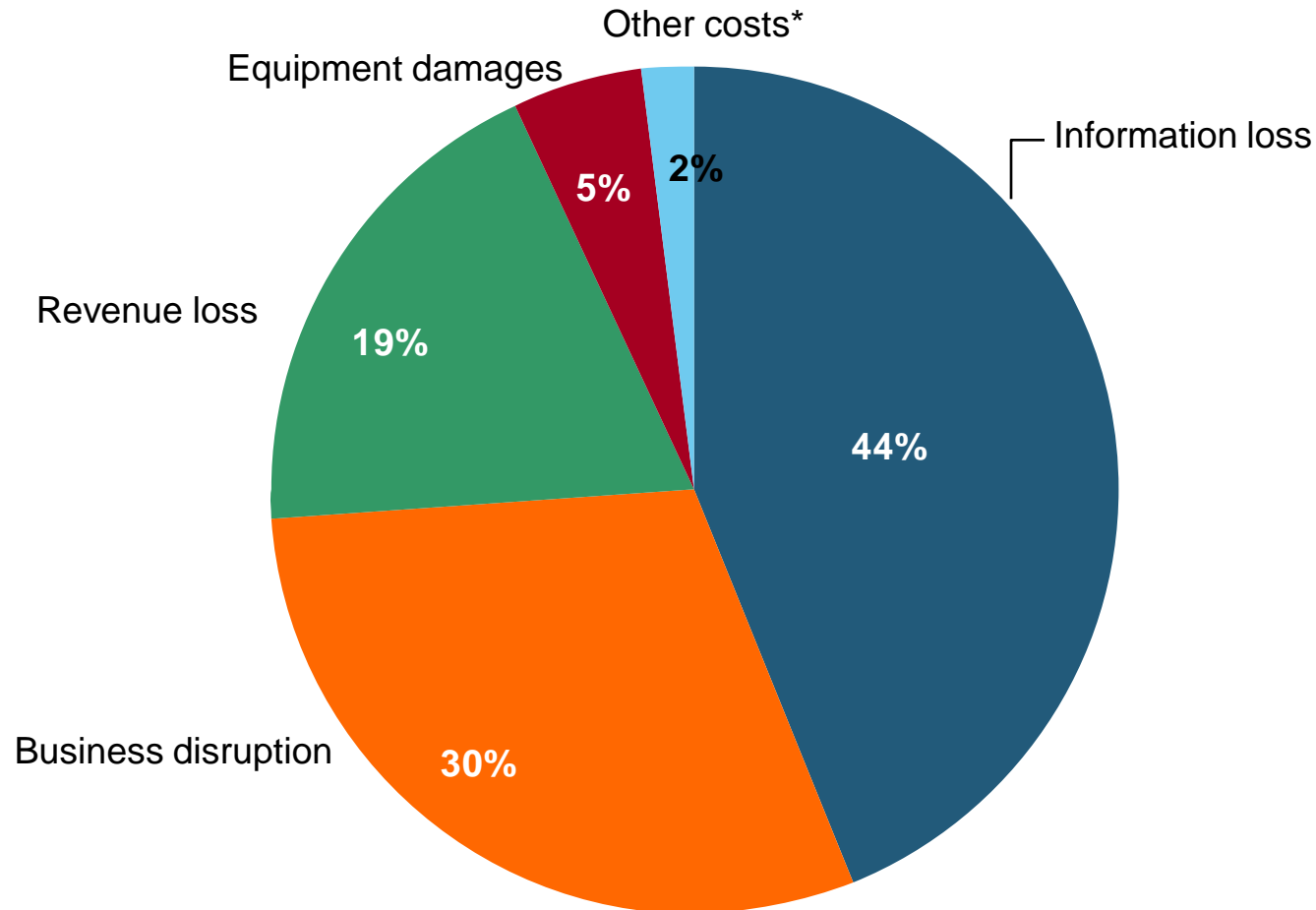
# The Most Costly Cyber Crimes, Fiscal Year 2012

Malicious code, denial of service and web-based attacks account for more than 58 percent of the total annualized cost of cyber crime experienced by 56 companies.



# External Cyber Crime Costs: Fiscal Year 2012

Information loss (44%) and business disruption or lost productivity (30%) account for the majority of external costs due to cyber crime.



\* Other costs include direct and indirect costs that could not be allocated to a main external cost category

Source: 2012 Cost of Cyber Crime: United States, Ponemon Institute.

# High Profile Data Breaches, 2012-2013

Date	Company	Description of Breach
Mar 2013*	South Korean banks, media cos	Cyber attack causes computers to crash at South Korean banks and media companies, paralyzing bank machines across the country. No immediate reports of records compromised.
July 2012	Yahoo	Security breach at Yahoo in which some 450,000 passwords lifted and posted to the Internet.
July 2012	eHarmony	Online dating site eHarmony confirms security breach in which some 1.5 million user names and passwords compromised.
July 2012	LinkedIn	Social networking site LinkedIn reportedly targeted in hacker attack that saw 6.5 million hashed passwords posted to the Internet.
April 2012	Utah Dept of Technology Services	Utah Department of Technology notifies of a March 30 breach of a server containing personal data including social security numbers for about 780,000 Medicaid patient claims. Breach traced to Eastern Europe hackers.
Mar 2012	Global Payments	Credit card processor Global Payments confirms hacker attack has compromised the payment card numbers of around 1.5 million cardholders.
Mar 2012	CA Dept of Child Support Services	Officials announce that four computer storage devices containing personal information for about 800,000 adults and children in California's child support system were lost by IBM and Iron Mountain Inc.
Jan 2012	Zappos	Online shoe retailer Zappos announces that information, such as names, addresses and passwords on as many as 24 million customers illegally accessed.
Jan 2012	NY State Electric + Gas Co	Security breach at NYSEG that allowed unauthorized access to NYSEG customer data, containing social security numbers, dates of birth and bank account numbers, exposing 1.8 million records.

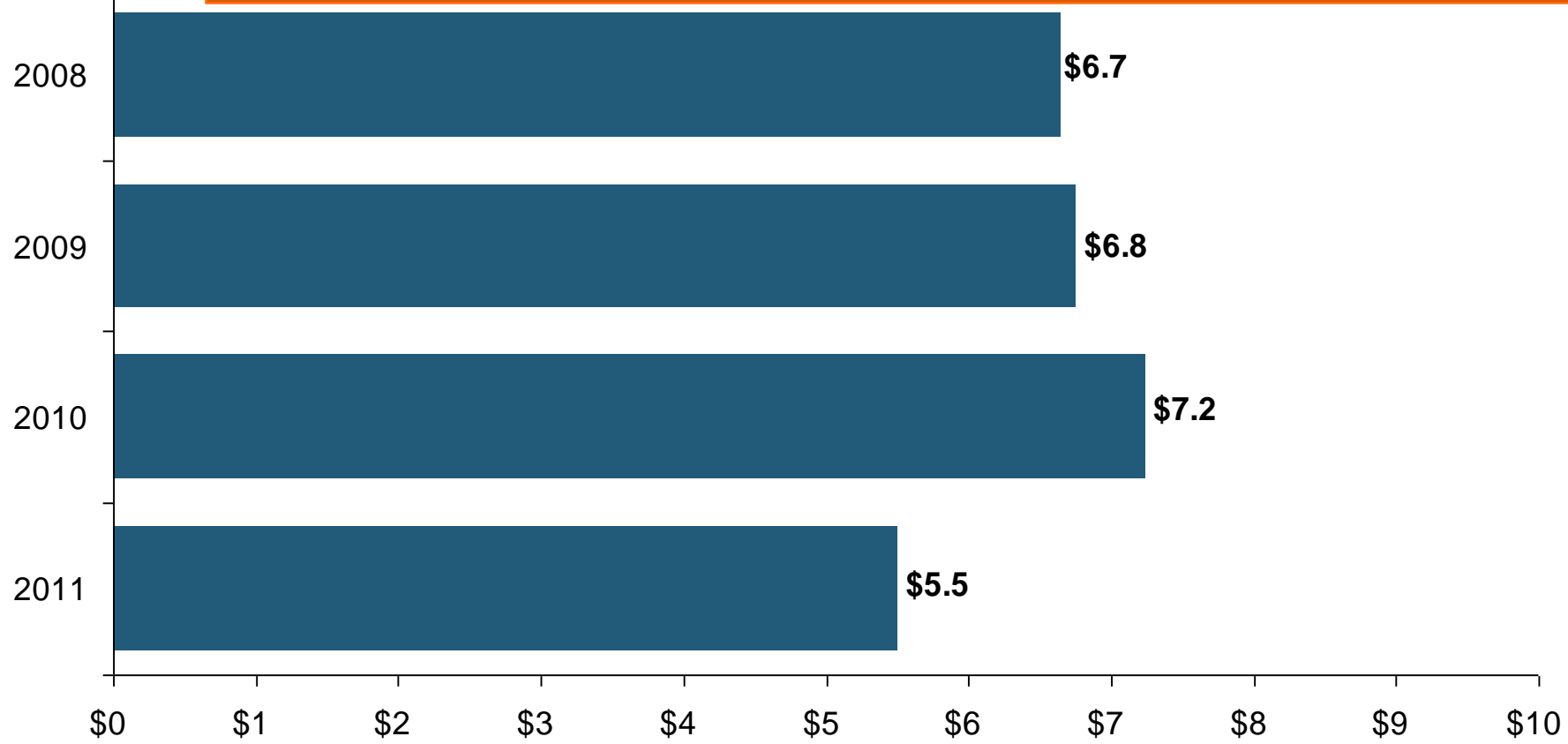
\*March 2013 attack is not part of ITRC research.

# Average Organizational Cost of a Data Breach, 2008-2011\* (\$ Millions)



The average organizational cost of a data breach in 2011 was \$5.5 million, down 24% from \$7.2 million in 2010. Companies have improved steps taken in both preparing for and responding to a data breach.

(\$ Millions)



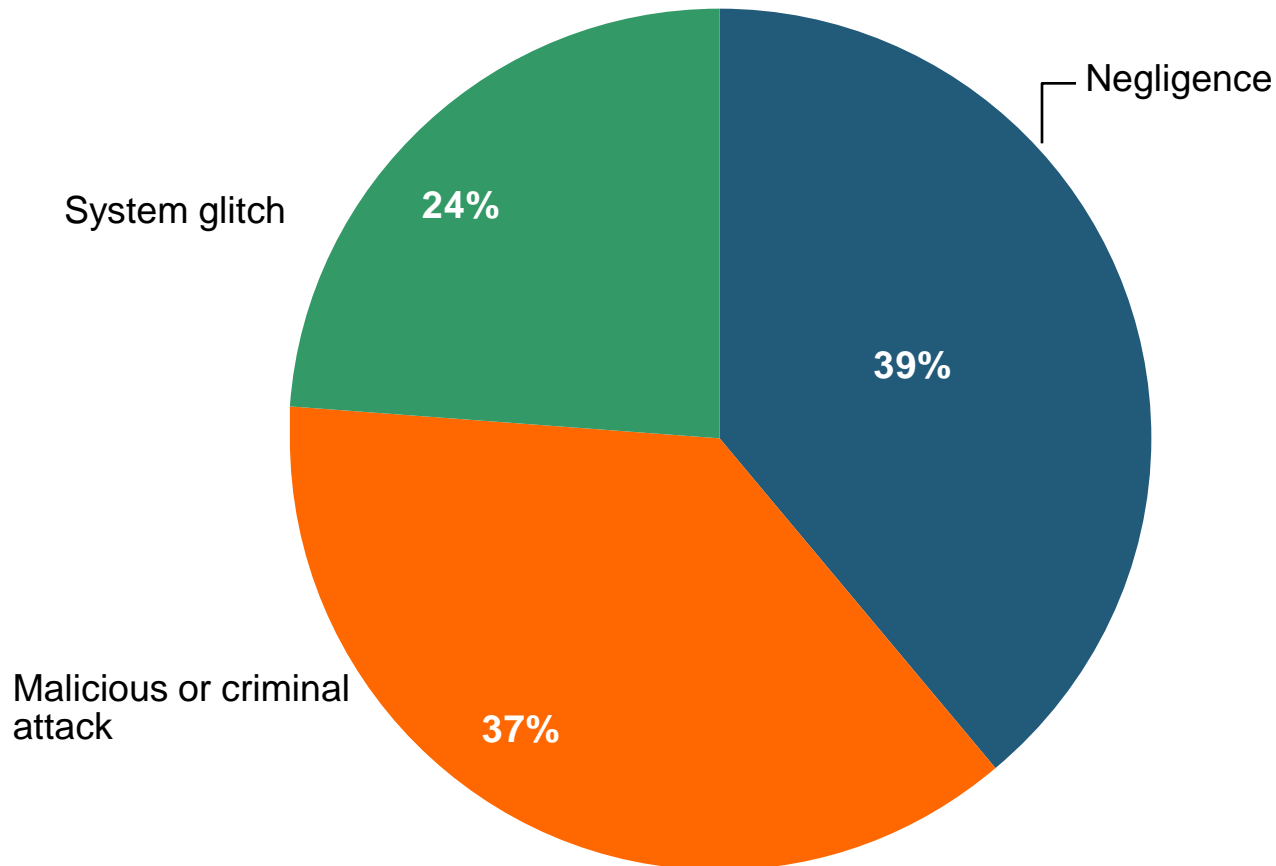
\*Findings of this benchmark study pertain to the actual data breach experiences of 49 U.S. companies from 14 different industry sectors, all of which participated in the 2011 study. Total breach costs include: lost business resulting from diminished trust or confidence of customers ;costs related to detection, escalation, and notification of the breach; and ex-post response activities, such as credit report monitoring.

Source: 2011 Annual Study: U.S. Cost of a Data Breach, the Ponemon Institute.



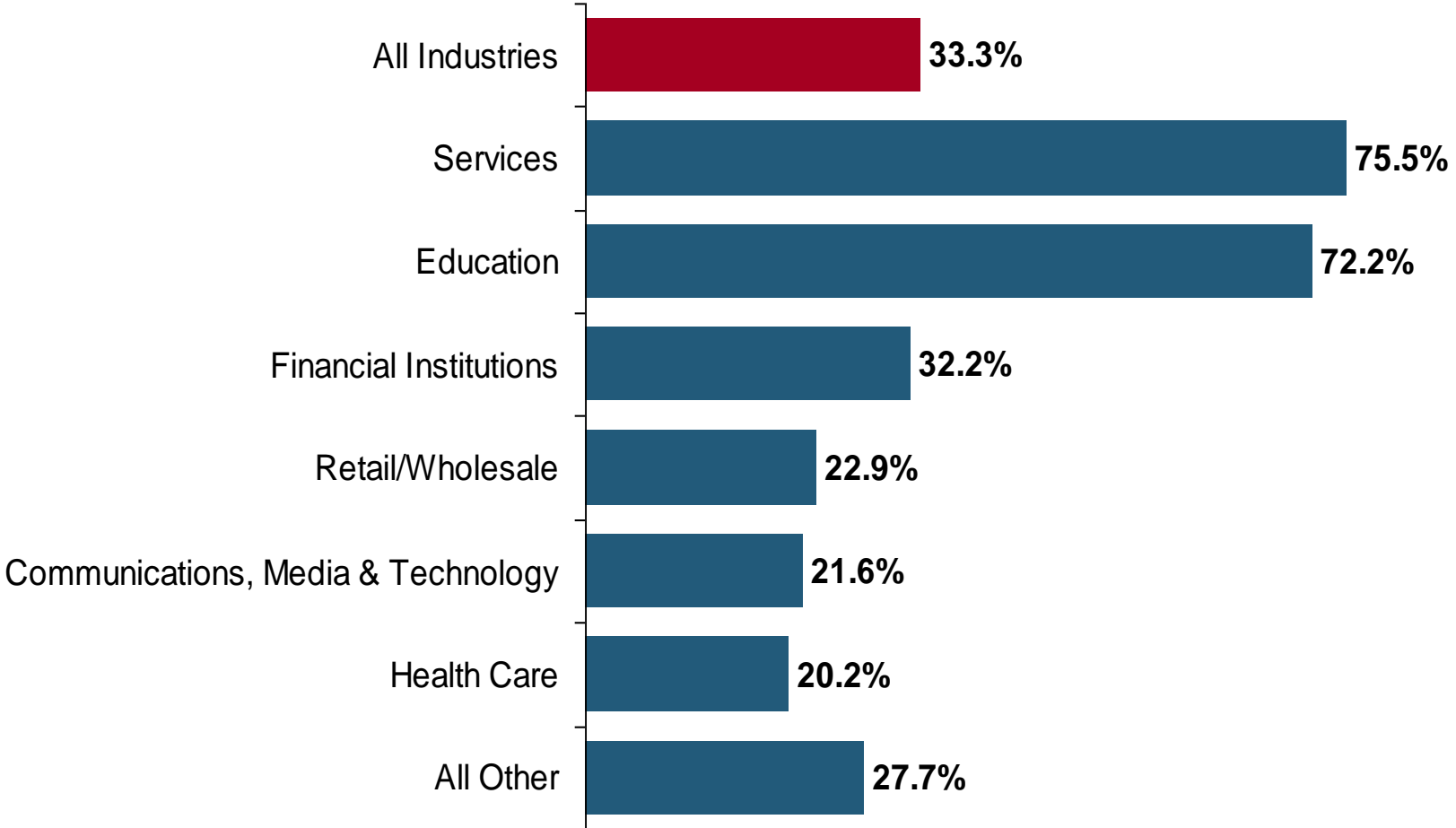
# Main Causes of Data Breach

Negligent employees and malicious attacks are most often the cause of the data breach. Some 39 percent of incidents involve a negligent employee or contractor, while 37 percent concern a malicious or criminal attack.



# Marsh: Increase in Purchase of Cyber Insurance Among U.S. Companies, 2012

Interest in cyber insurance continues to climb. The number of companies purchasing cyber insurance increased 33 percent from 2011 to 2012.

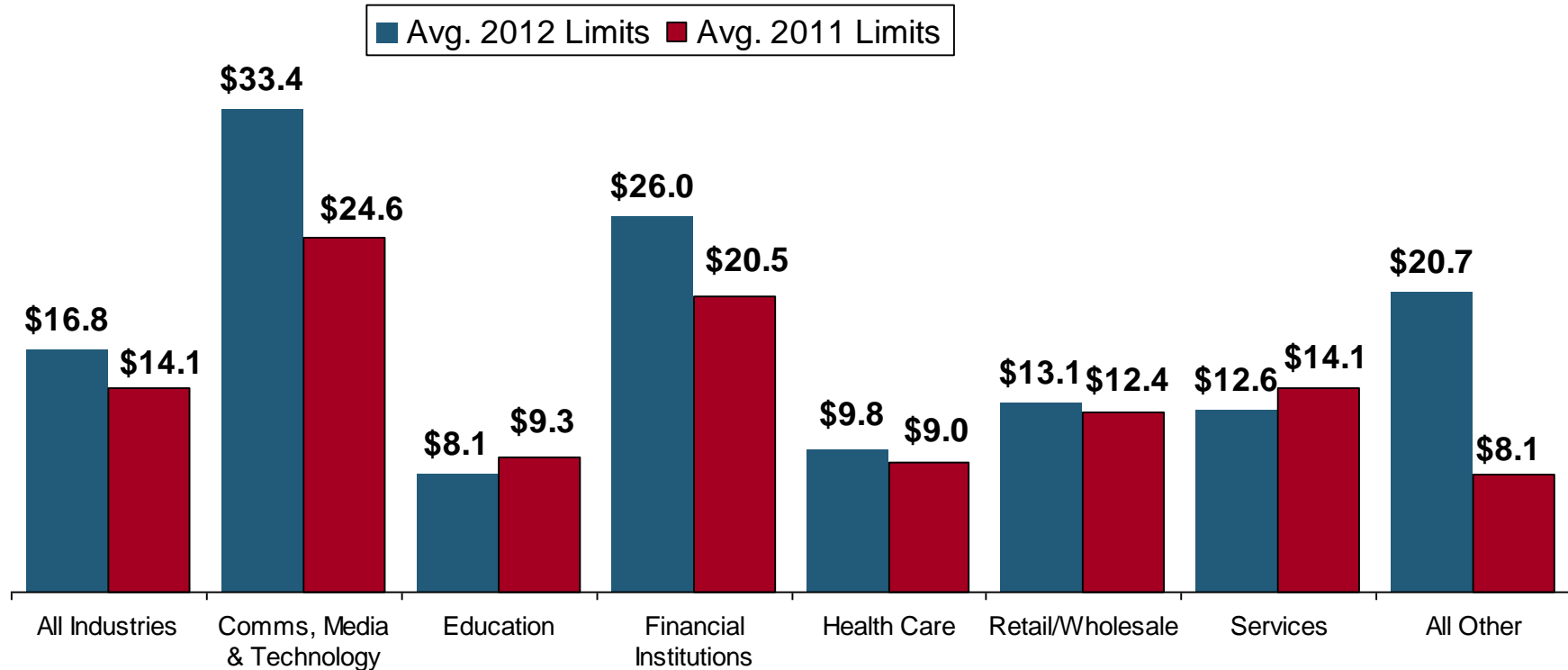


Source: Marsh Global Analytics, Marsh Risk Management Research Briefing, March 2013

# Marsh: Total Limits Purchased, By Industry – Cyber Liability, All Revenue Size

Cyber insurance limits purchased in 2012 averaged \$16.8 million across all industries, an increase of nearly 20% over 2011.

(\$ Millions)

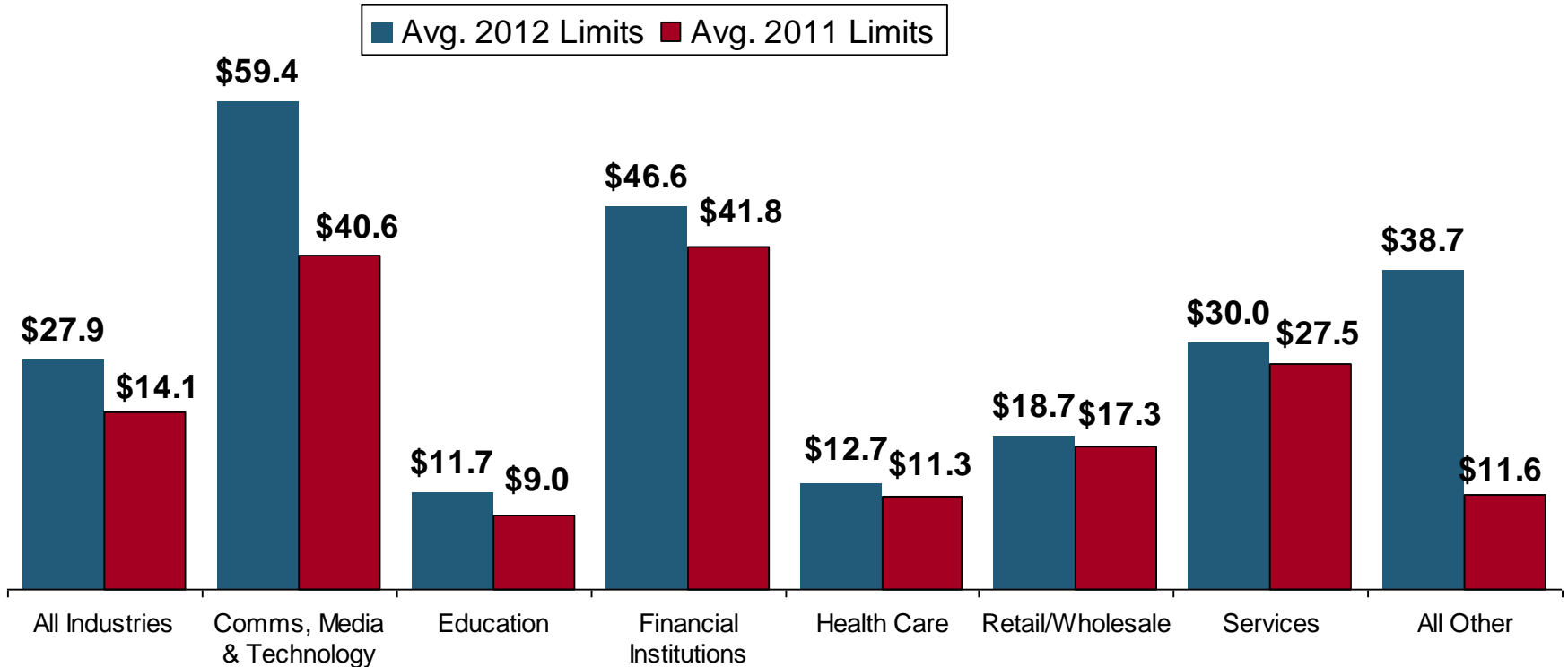


Source: Marsh Global Analytics, Marsh Risk Management Research Briefing, March 2013

# Marsh: Total Limits Purchased, By Industry – Cyber Liability, Revenue \$1 Billion+

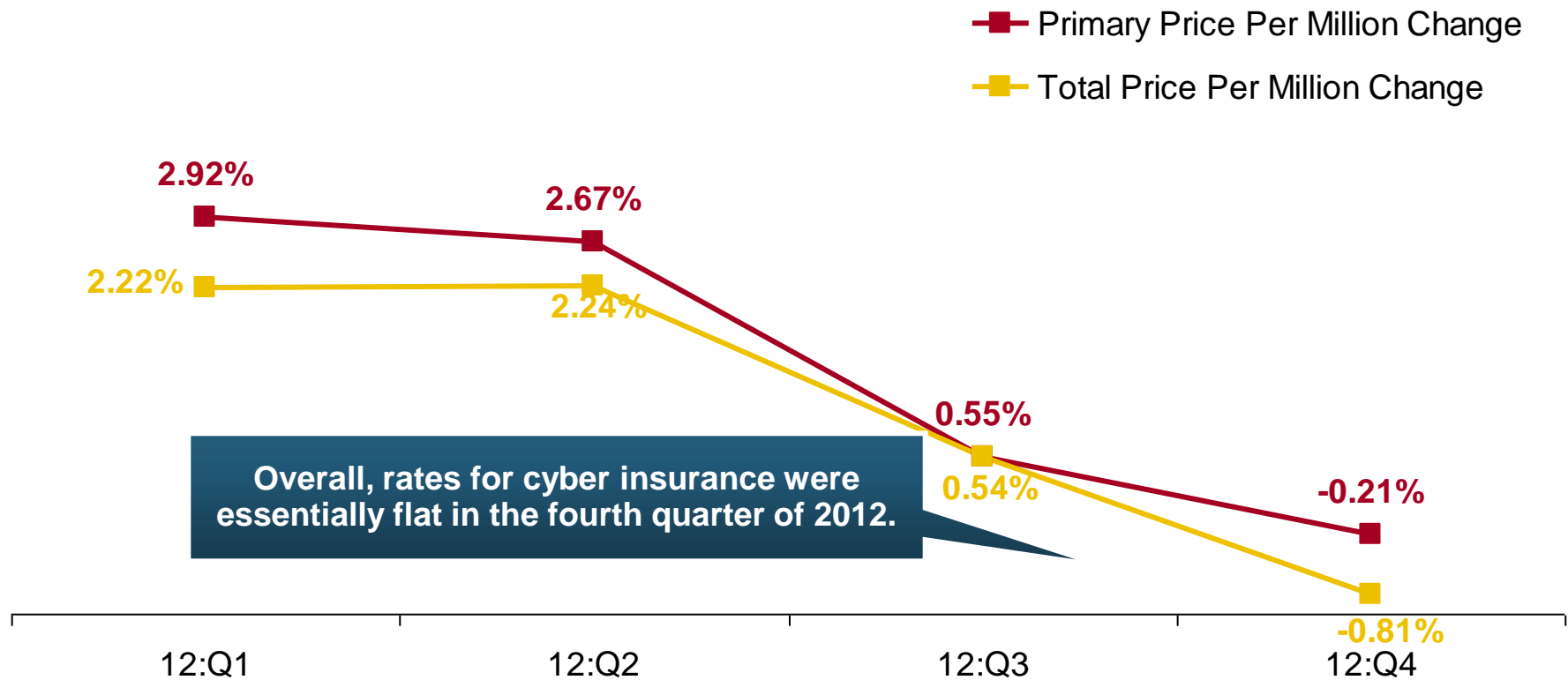
Among larger companies, average cyber insurance limits purchased in 2012 increased nearly 30% over 2011.

(\$ Millions)



Source: Marsh Global Analytics, Marsh Risk Management Research Briefing, March 2013

# Cyber Liability: Historical Rate (price per million) Changes



Insurance Information Institute Online:

[www.iii.org](http://www.iii.org)

*Thank you for your time  
and your attention!*

*Twitter: [twitter.com/bob\\_hartwig](https://twitter.com/bob_hartwig)*

*Download at [www.iii.org/presentations](http://www.iii.org/presentations)*

# Losses Due to Natural Disasters in the US, 1980–2012 (Overall & Insured Losses)

## (Overall and Insured Losses)

(2012 Dollars, \$ Billions)

