Medical Professional Liability Outlook and Economic Impacts of the Changing Healthcare Environment

Willis Re Annual Healthcare Reinsurance Forum

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Presentation Outline

- **The US Healthcare System & the Economy**
- **Employment/Professional Trends in Healthcare**
- **Medical Professional Liability: Performance Overview & Outlook**
- **The Affordable Care Act: Potential Impacts on MPL**
- **Overall P/C Insurance Industry Performance**
- **Investment Overview & Outlook**
- **Tort Trends**
- **Cyber Risk and the Healthcare Industry**
- ***Q&A***

U.S. Health Care Expenditures, 1965–2022F

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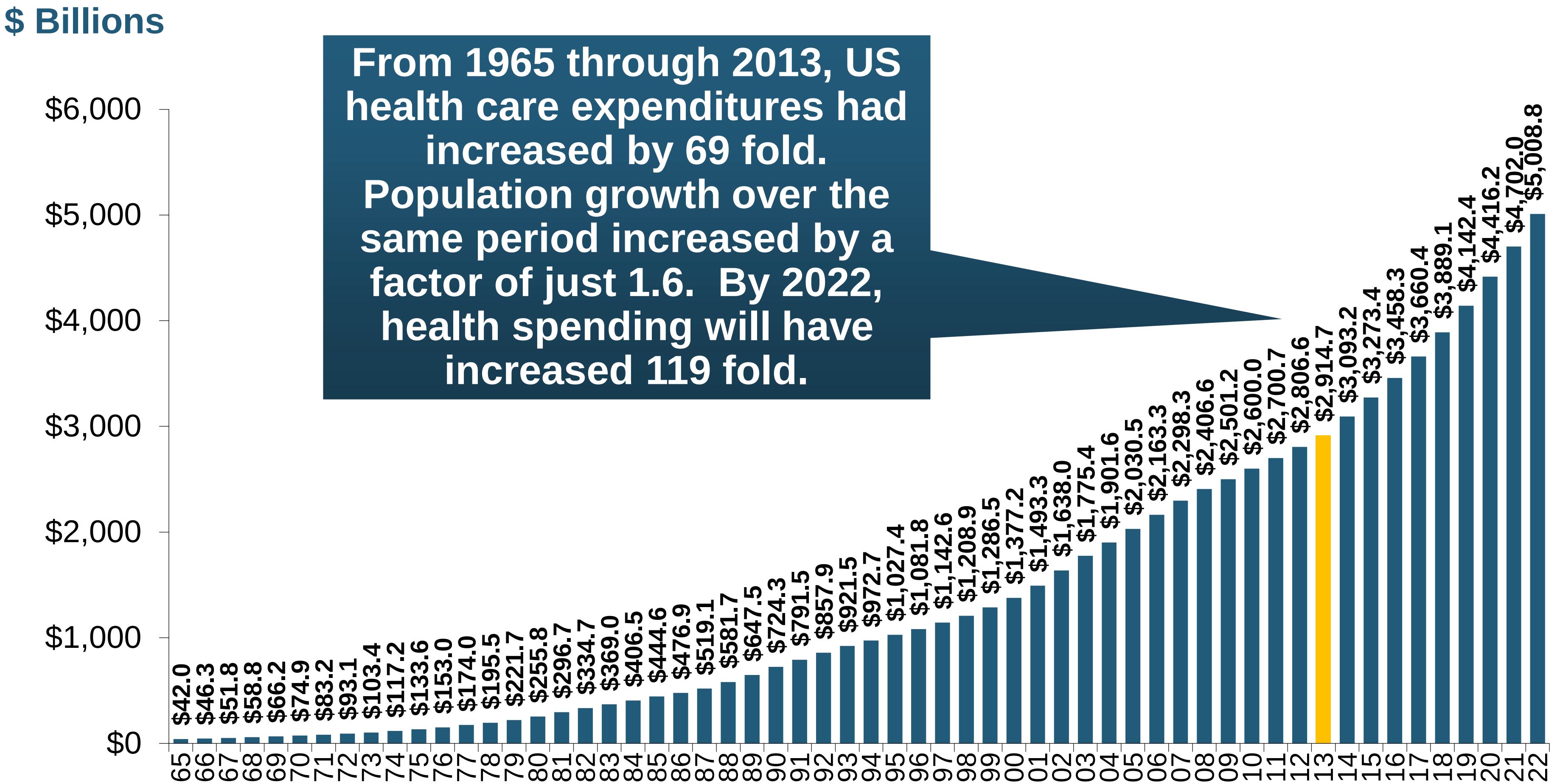

U.S. health care expenditures have been on a relentless climb for most of the past half century, far outstripping population growth, inflation of GDP growth

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html accessed 3/14/14; Insurance Information Institute.

National Health Care Expenditures as a Share of GDP, 1965 – 2022F*

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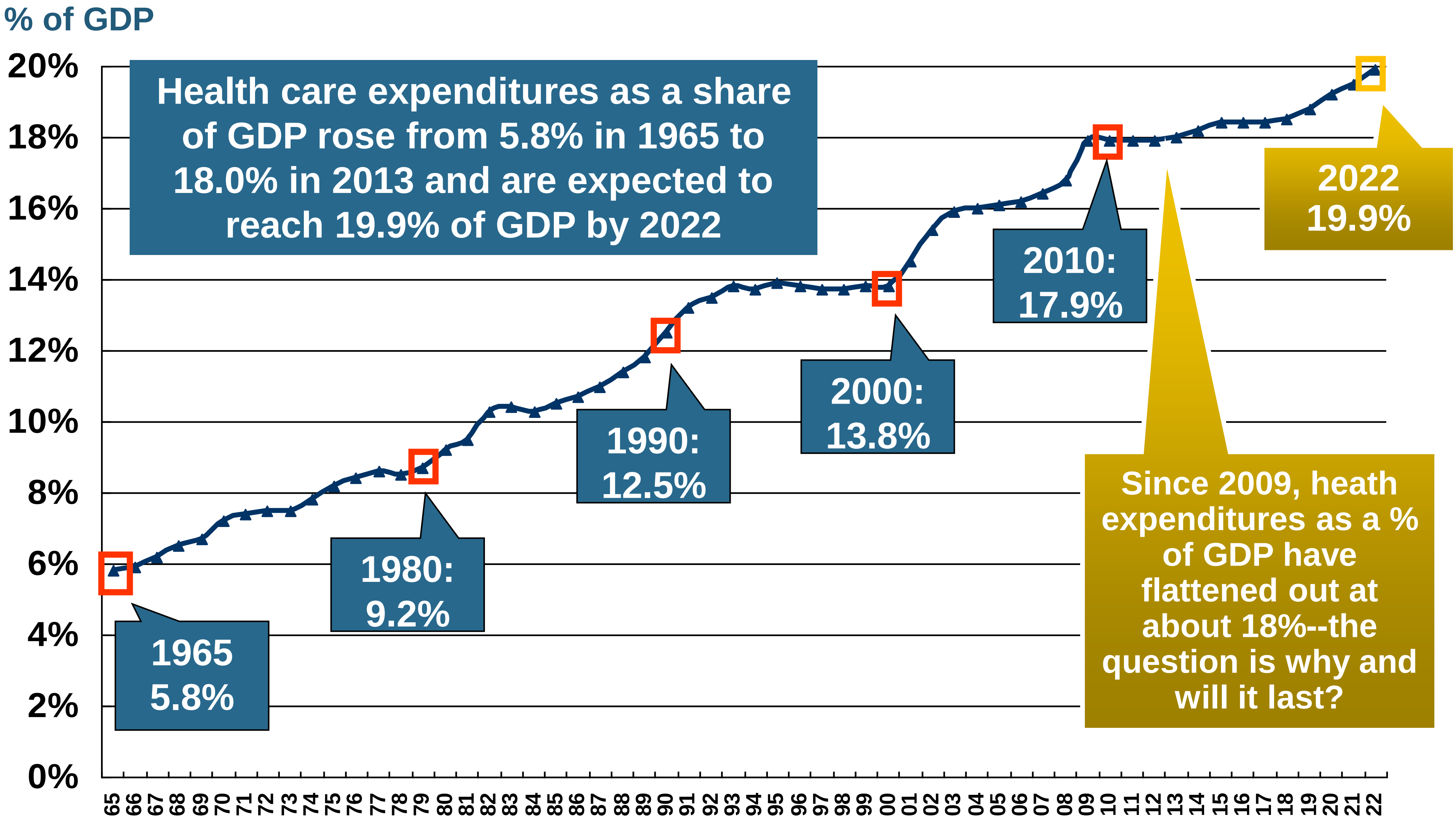

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html accessed 3/14/14; Insurance Information Institute.

Medical Cost Inflation vs. Overall CPI, 1995 - 2013

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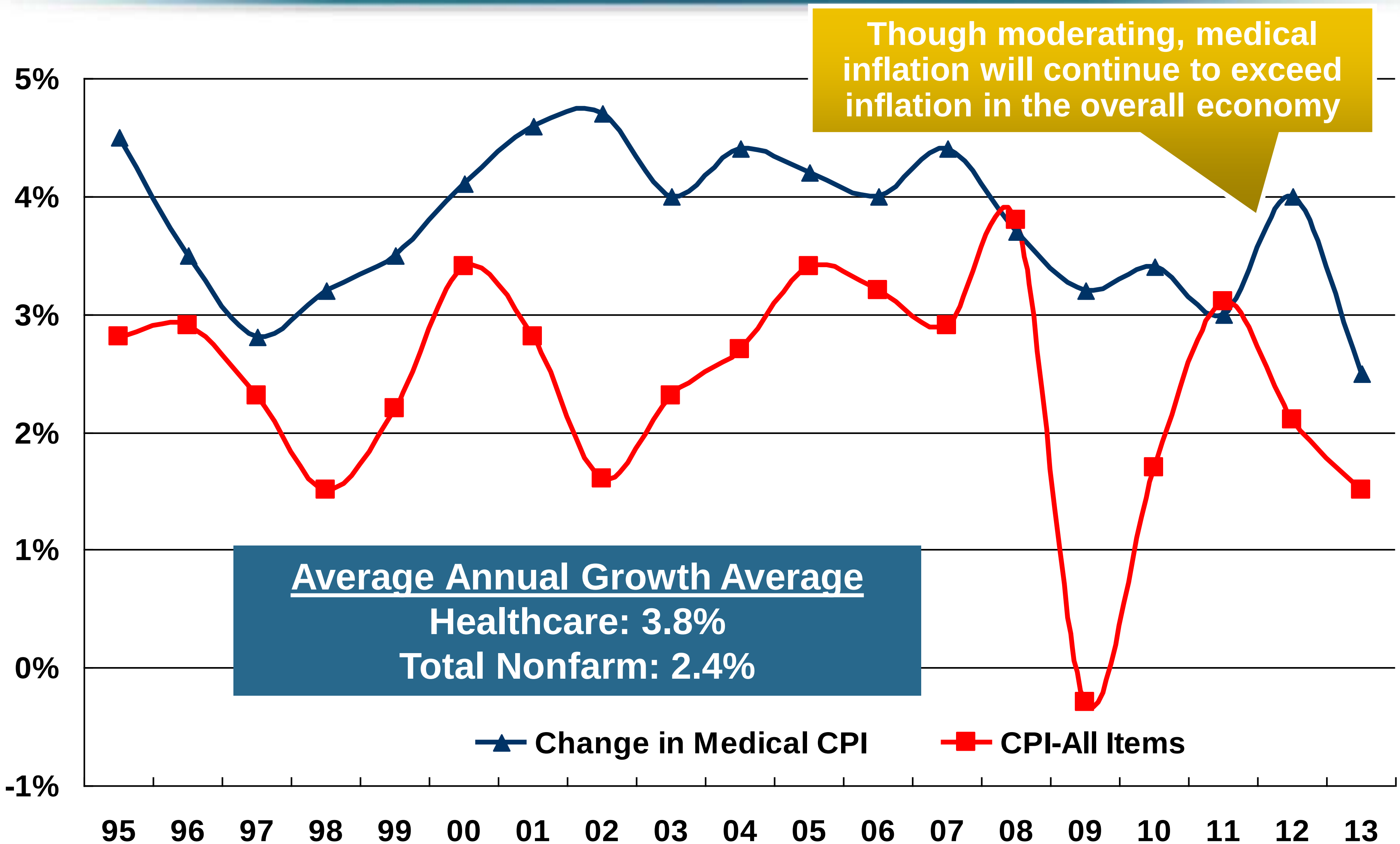
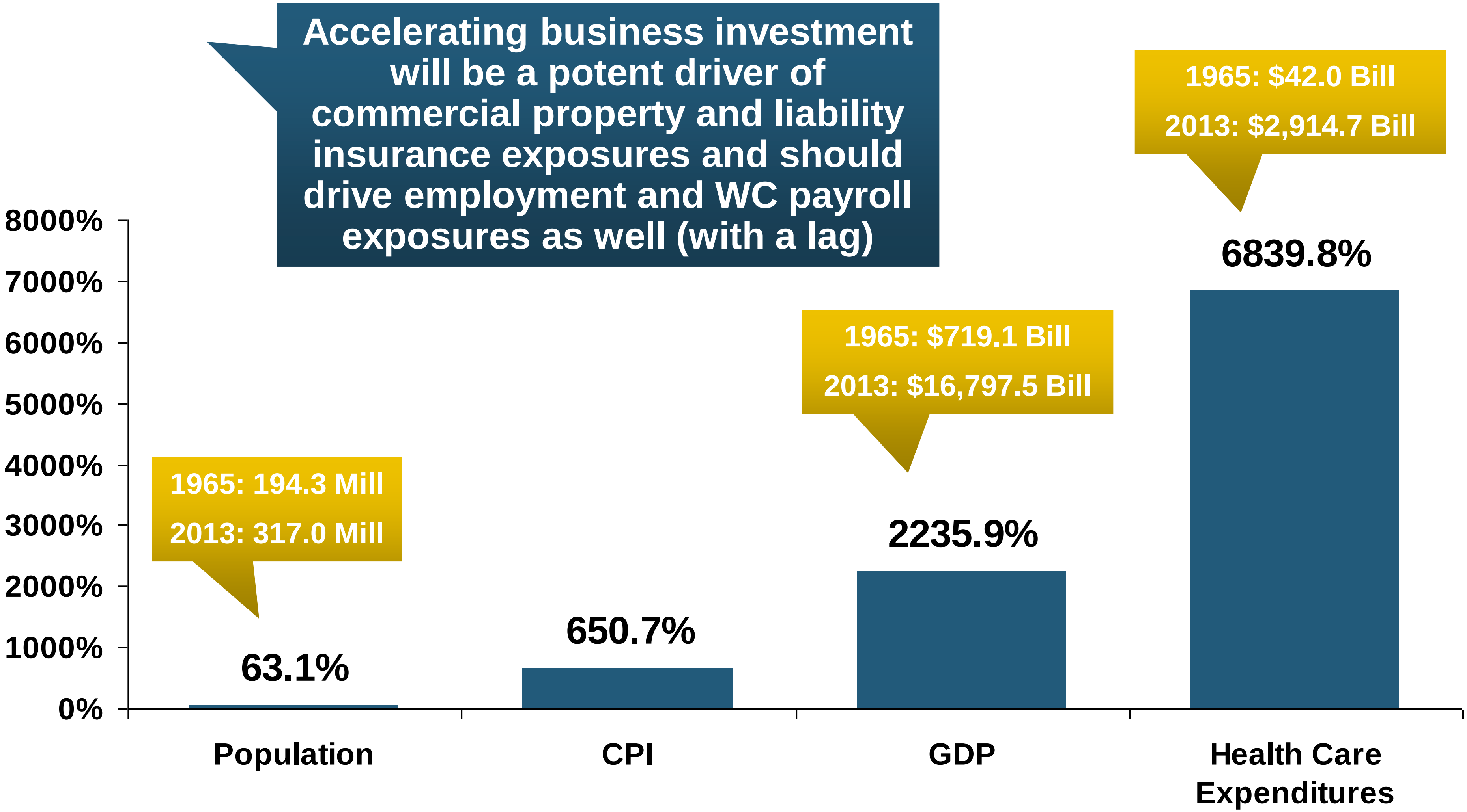


Sources: Med CPI from US Bureau of Labor Statistics, WC med severity from NCCI based on NCCI states.

Rate of Health Care Expenditure Increase Compared to Population, CPI and GDP



Source: Insurance Information Institute research.

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Employment Trends in the Healthcare Industry

Employment Will Grow but Skills, Responsibilities and Risks Will Evolve

Growth in Health Professions, 1991-2013

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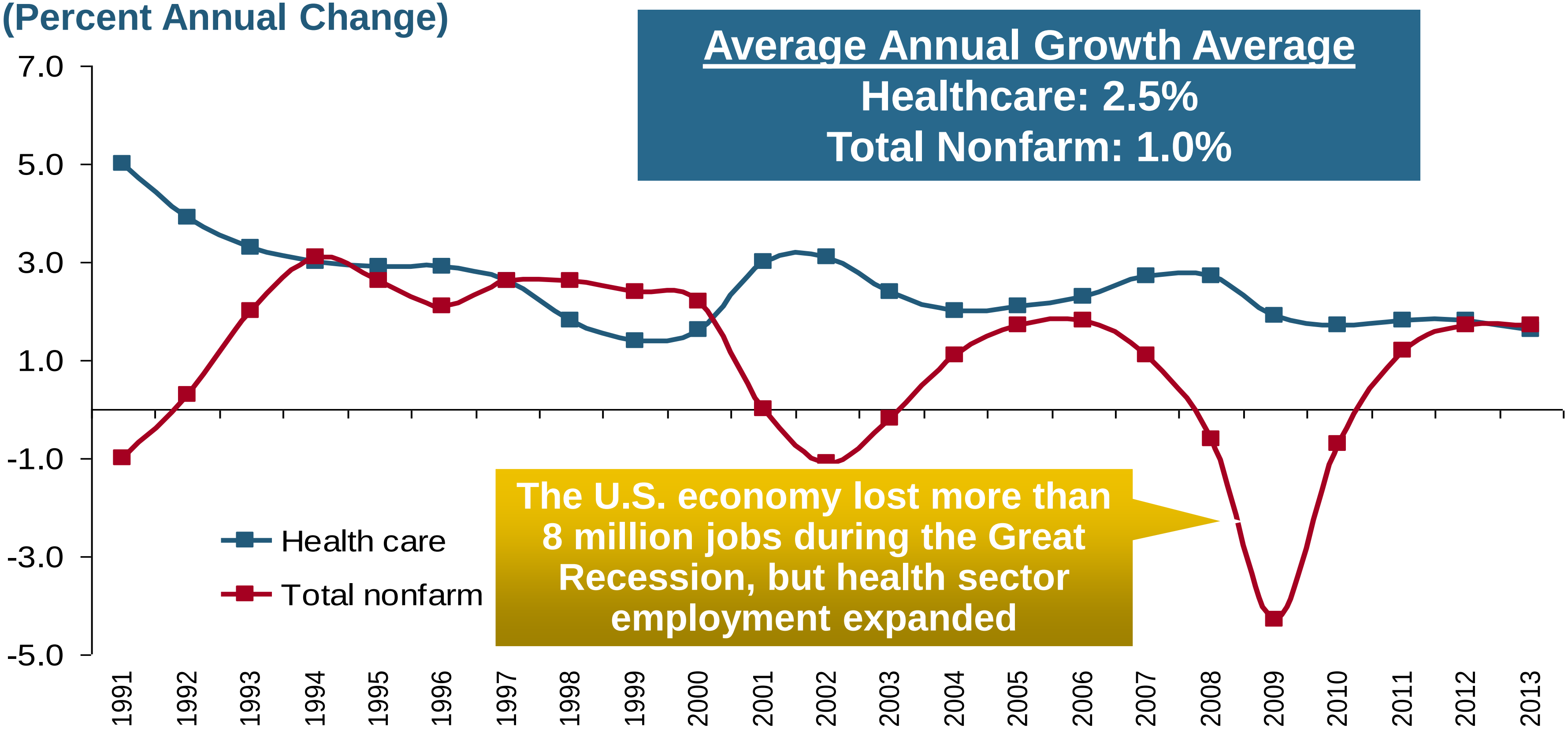
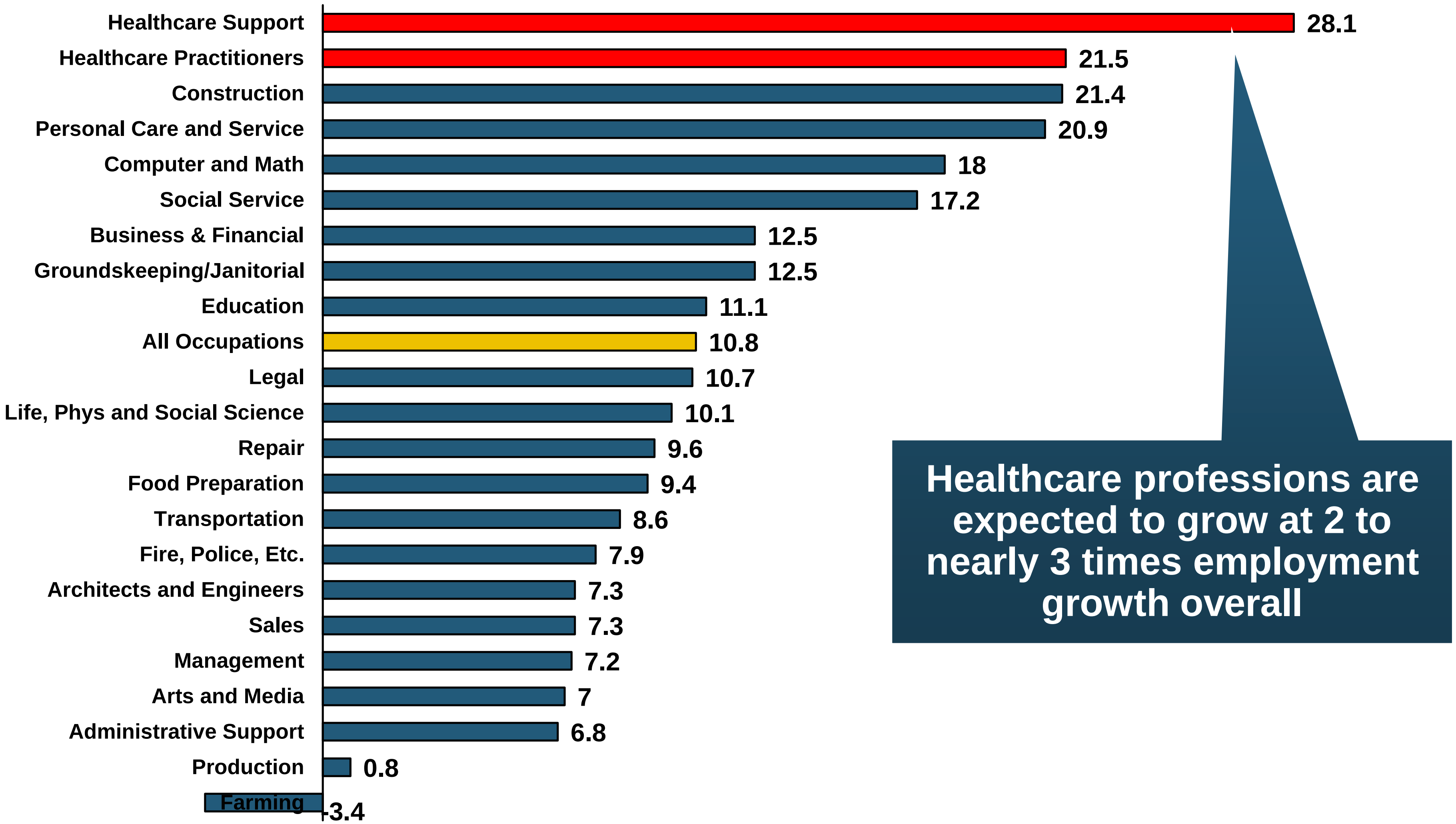
(Percent Annual Change)



Healthcare employment has continued to grow in good times and bad - including the Great Recession.

Sources: Bureau of Labor Statistics, Insurance Information Institute.

Occupations Ranked by Projected Percentage Growth, 2012-2022F



Source: Bureau of Labor Statistics, Insurance Information Institute.

Growth in Healthcare Profession by Skill Level, 2012 – 2022F

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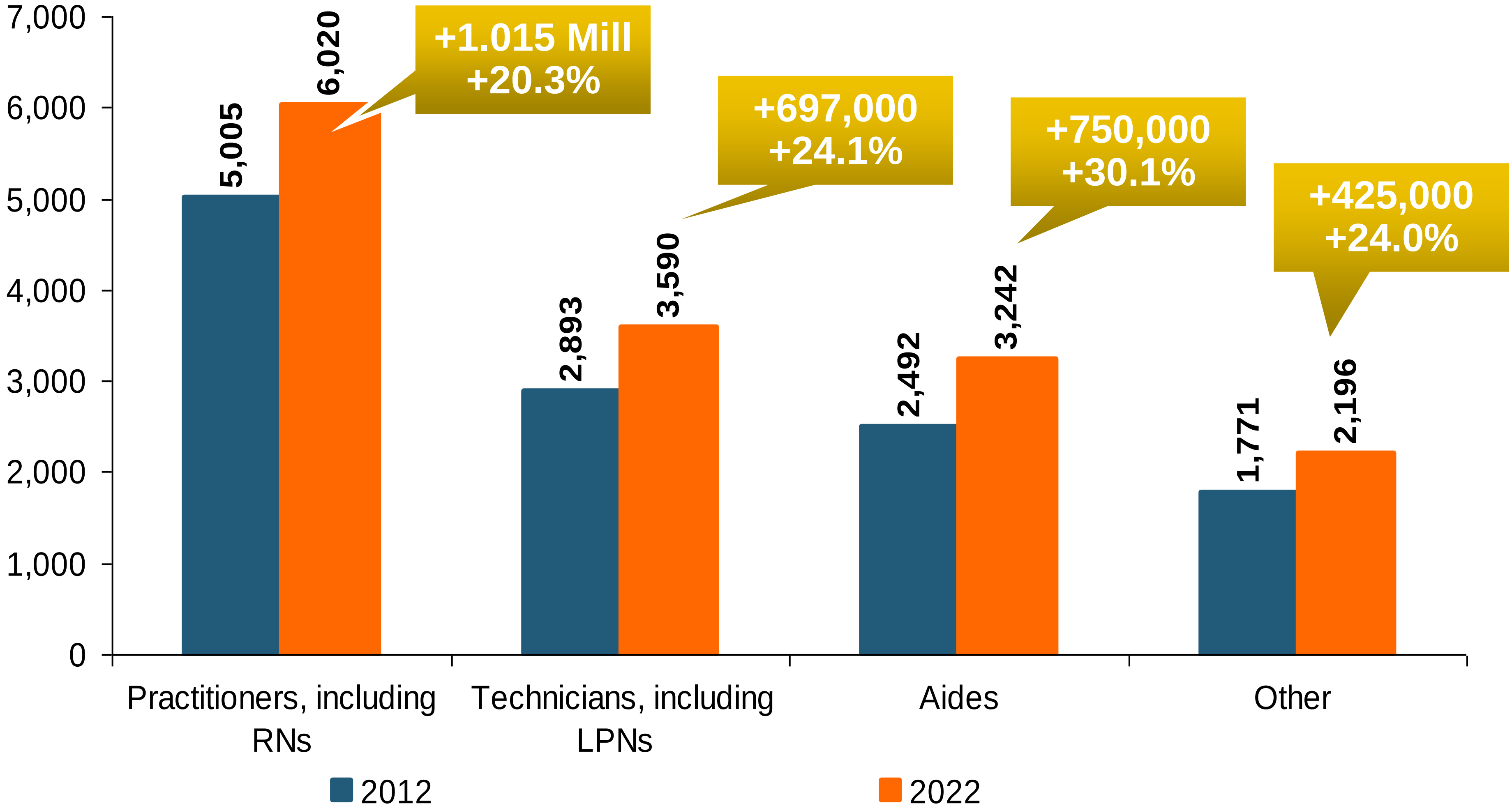
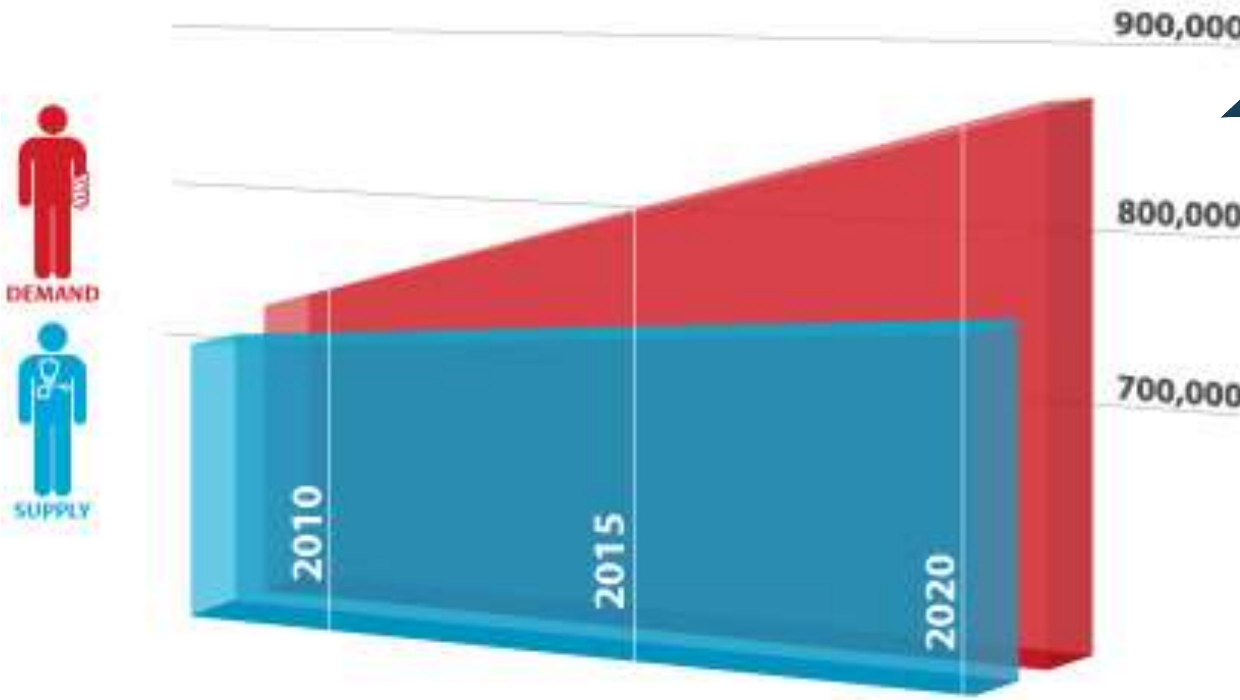
(Thousands of Jobs)



Source: Bureau of Labor Statistics, Insurance Information Institute.

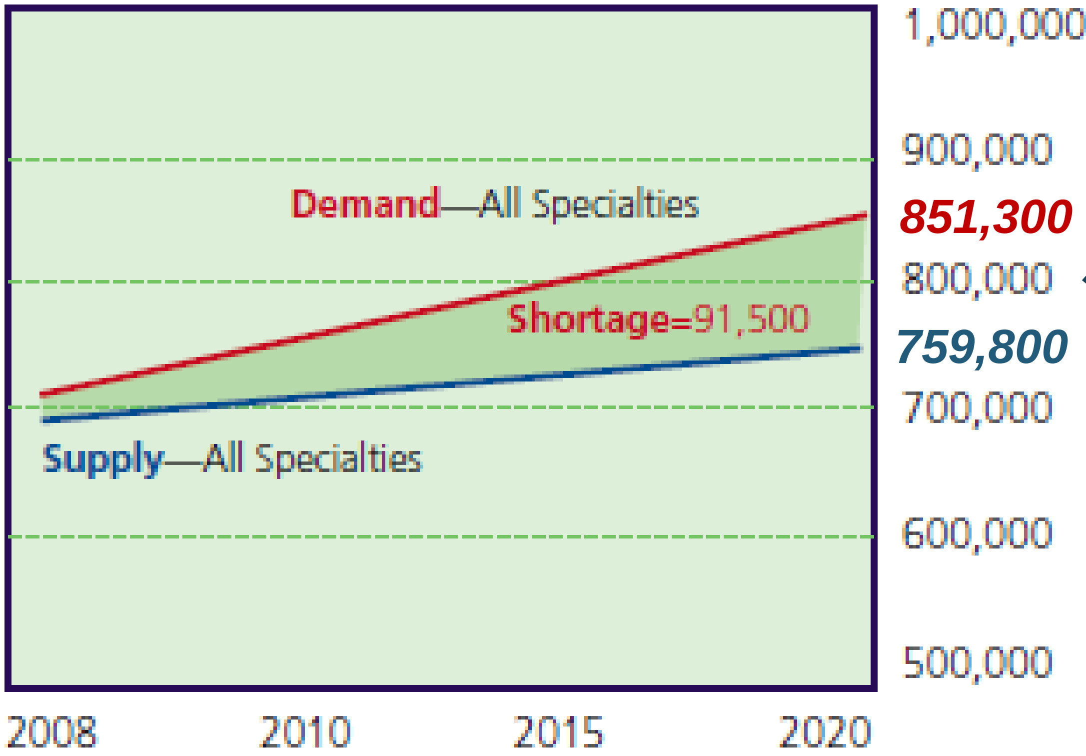
Physician Supply and Demand, 2008–2020



Demand for physicians is expected to outstrip supply through 2020 by a wide margin

Source: American Association of Medical Colleges https://www.aamc.org/advocacy/campaigns_and_coalitions/fixdocshortage/; Insurance Information Institute.

Projected Physician Supply and Demand, 2008–2020



A potential large and growing shortage of physicians looms. Estimates suggest a shortage of 91,500 physicians by 2020—a gap 12% gap.

Will this be a negative for MPL?

Source: American Association of Medical Colleges https://www.aamc.org/advocacy/campaigns_and_coalitions/fixdocshortage/; Insurance Information Institute.

Physician Supply and Demand, 2008–2020

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Year	Physician Supply (All Specialties)	Physician Demand (All Specialties)	Physician Shortage (All Specialties*)	Physician Shortage (Non-Primary Care Specialties)
2008	699,100	706,500	7,400	None
2010	709,700	723,400	13,700	4,700
2015	735,600	798,500	62,900	33,100
2020	759,800	851,300	91,500	46,100
2025	785,400	916,000	130,600	64,800

A potential large and growing physician gap looms over the next decade, with potential negative impacts on MPL

Source: American Association of Medical Colleges https://www.aamc.org/advocacy/campaigns_and_coalitions/fixdocshortage/; Insurance Information Institute.

12 Industries for the Next 10 Years: Insurance Solutions Needed

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- Health Care
- Health Sciences
- Energy (Traditional)
- Alternative Energy
- Petrochemical
- Agriculture
- Natural Resources
- Technology (incl. Biotechnology)
- Light Manufacturing
- Insourced 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

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Medical Professional Liability

Performance Overview

Medical Professional Liability: 4 Major Challenges

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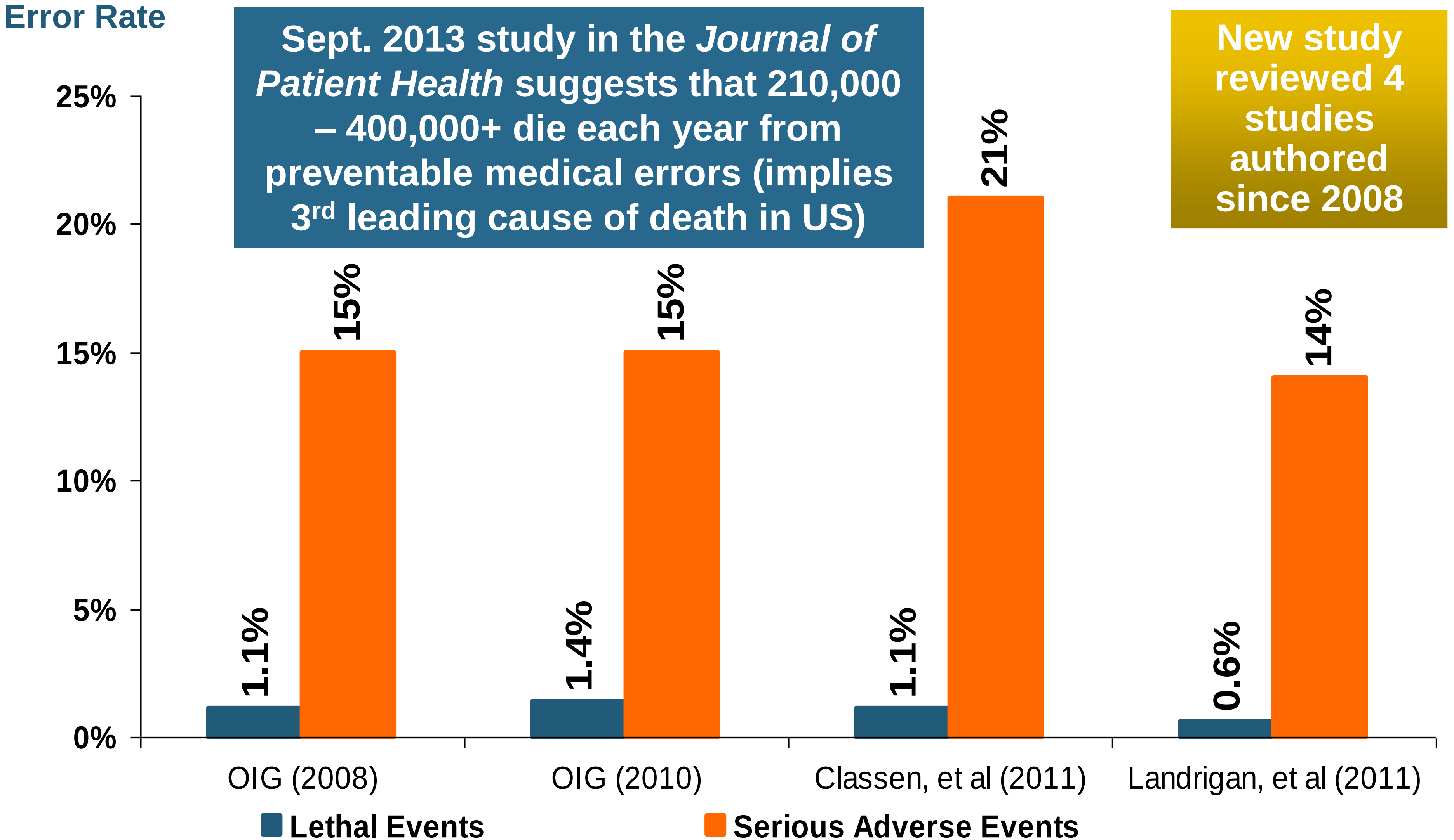
- **Increasing Competition**
  - Price (rate) competition is intensifying
  - Physicians: More employed by hospitals, large inst. hurts exposure
  - Self-insurance by hospitals adds to downward pressure
- **Falling Investment Income**
  - Despite Fed "tapering," rates remain low
  - More complete "normalization" will not occur until 2015
- **Rising Number of Self-Insured Exposures**
  - Hospitals increasingly self-insure
  - More use of captives
- **Legal & Legislative Reform**
  - Tort reform law changes (caps)
  - Affordable Care Act ("ObamaCare")
  - Impacts on practice of defensive medicine
- **Other: Reserves, Loss Frequency & Severity Trends**

Medical Errors: Rate of Lethal and Serious Adverse Events



Source: "A New, Evidence-Based Estimate of Patient Harms Associated with Hospital Care, *Journal of Patient Safety, Volume 9, Issue 3 (Sept. 2013)* by John T. James, Ph.D. accessed at: http://journals.lww.com/journalpatientsafety/Fulltext/2013/09000/A_New,_Evidence_based_Estimate_of_Patient_Harms.2.aspx

Distribution of MPL Premium by Segment, 2001 vs. 2012

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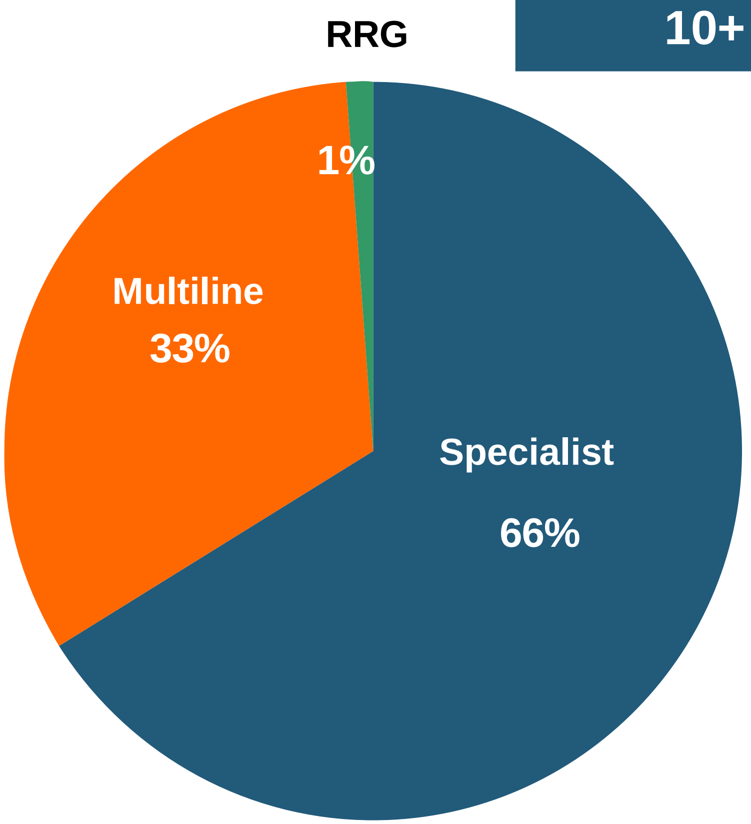
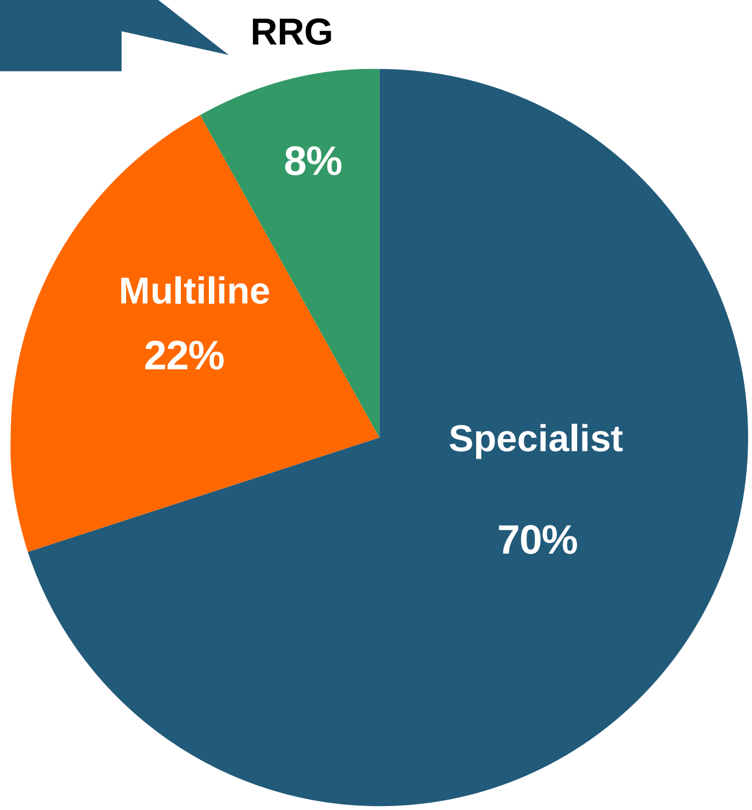
RRG and Specialist market shares have risen over the past 10+ years

2001



2012



Source: Conning.

MPL Statutory Net Income After Tax, 2006 – 2015F

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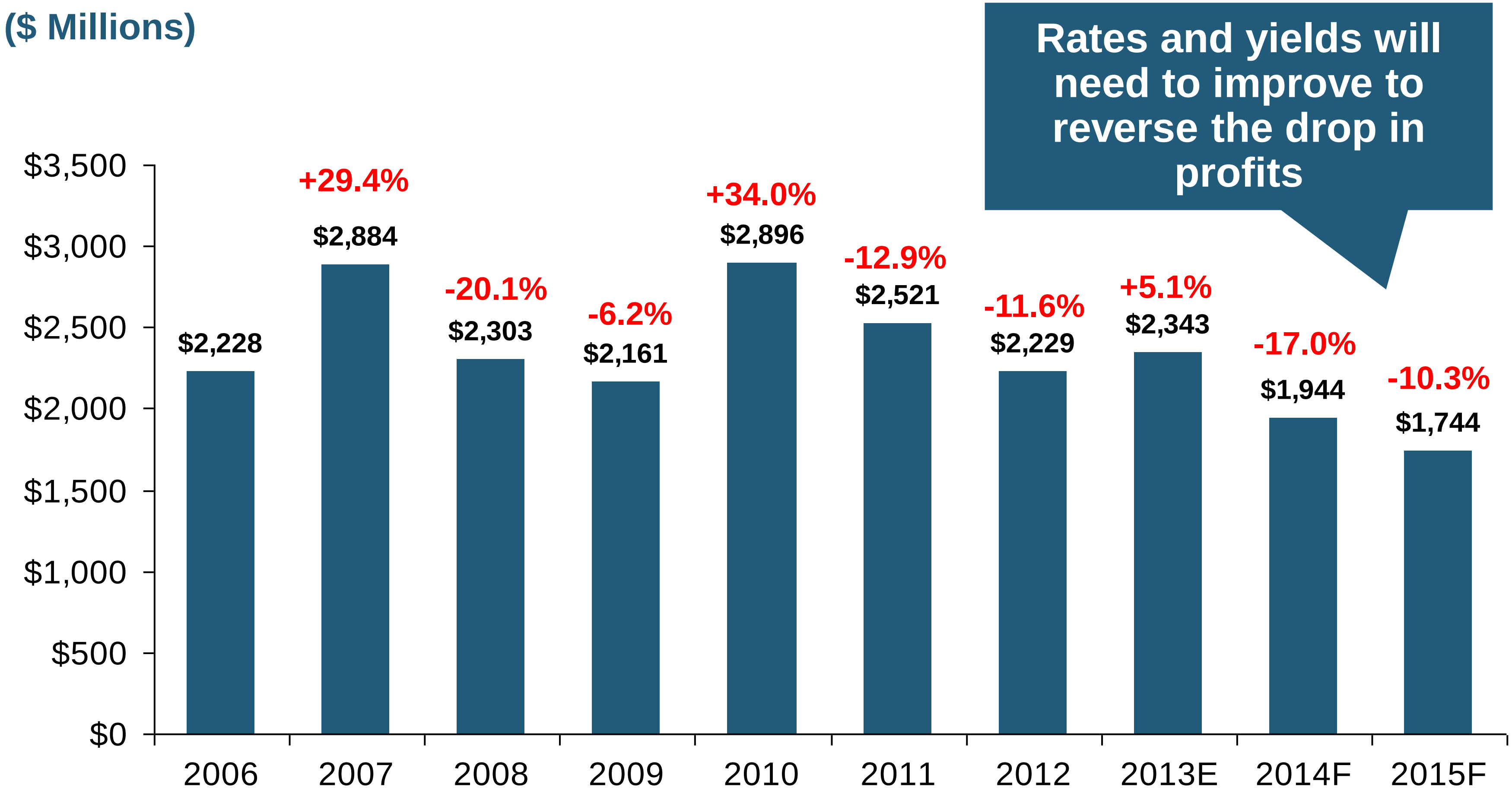

MPL profits peaked in 2010. Falling rates and exposures and lower investment earnings are impacting the bottom line.

Source: Conning.

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

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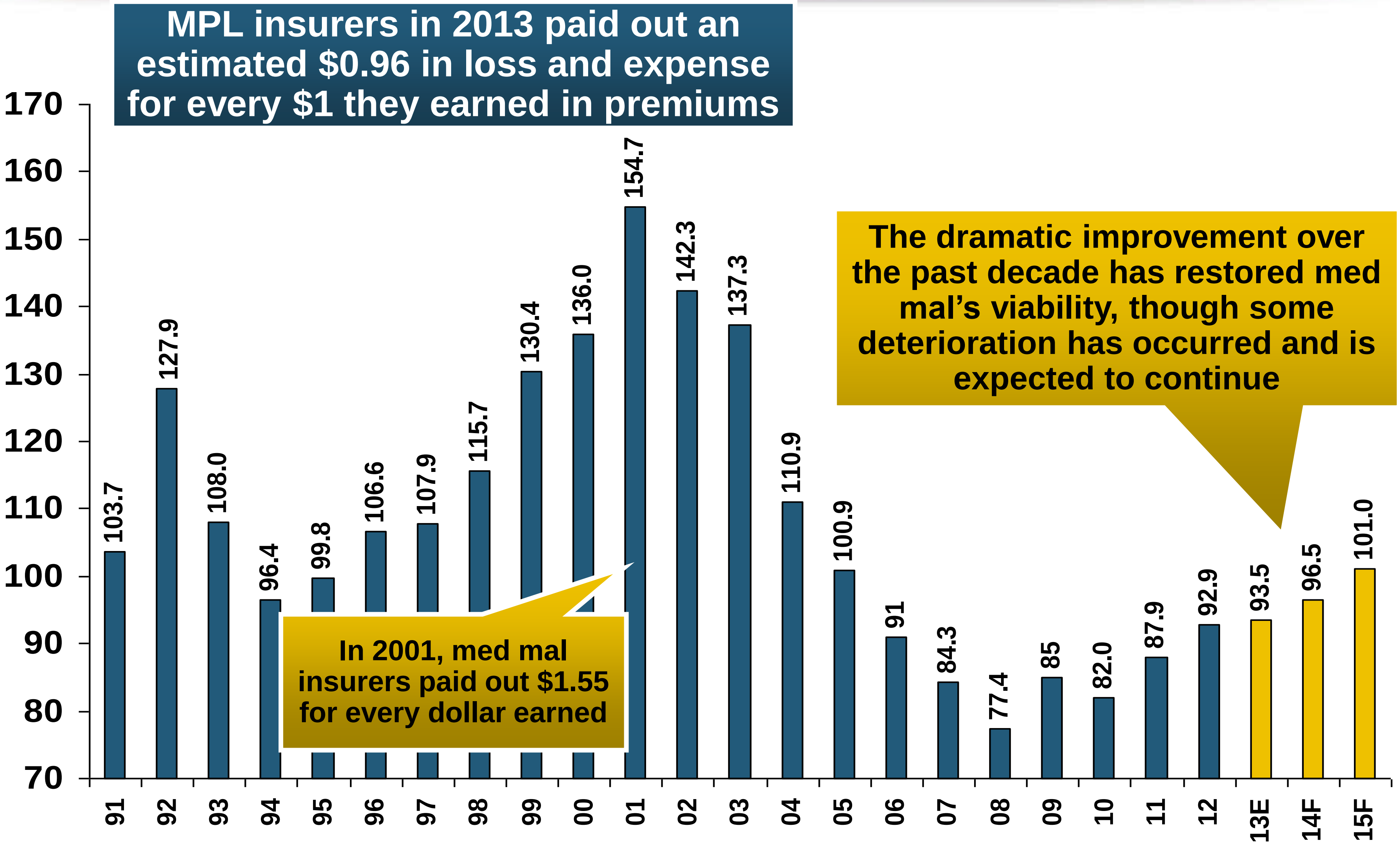
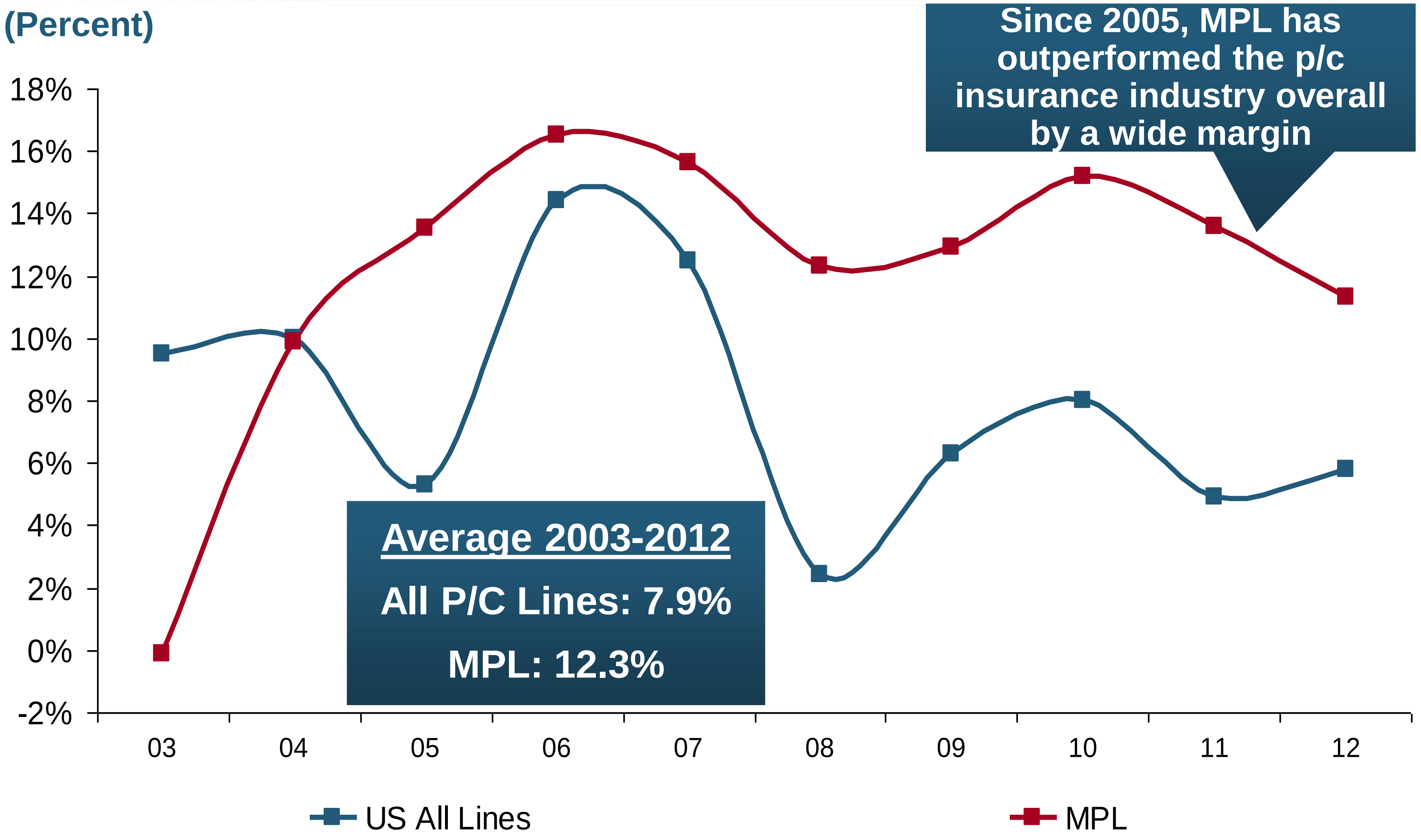


Source: AM Best (1991-2014F); Conning (2015F) Insurance Information Institute.

RNW: MPL vs. All P/C Lines, 2003-2012



Sources: NAIC.

MPL Combined Ratio and ROE, 2006 - 2015F

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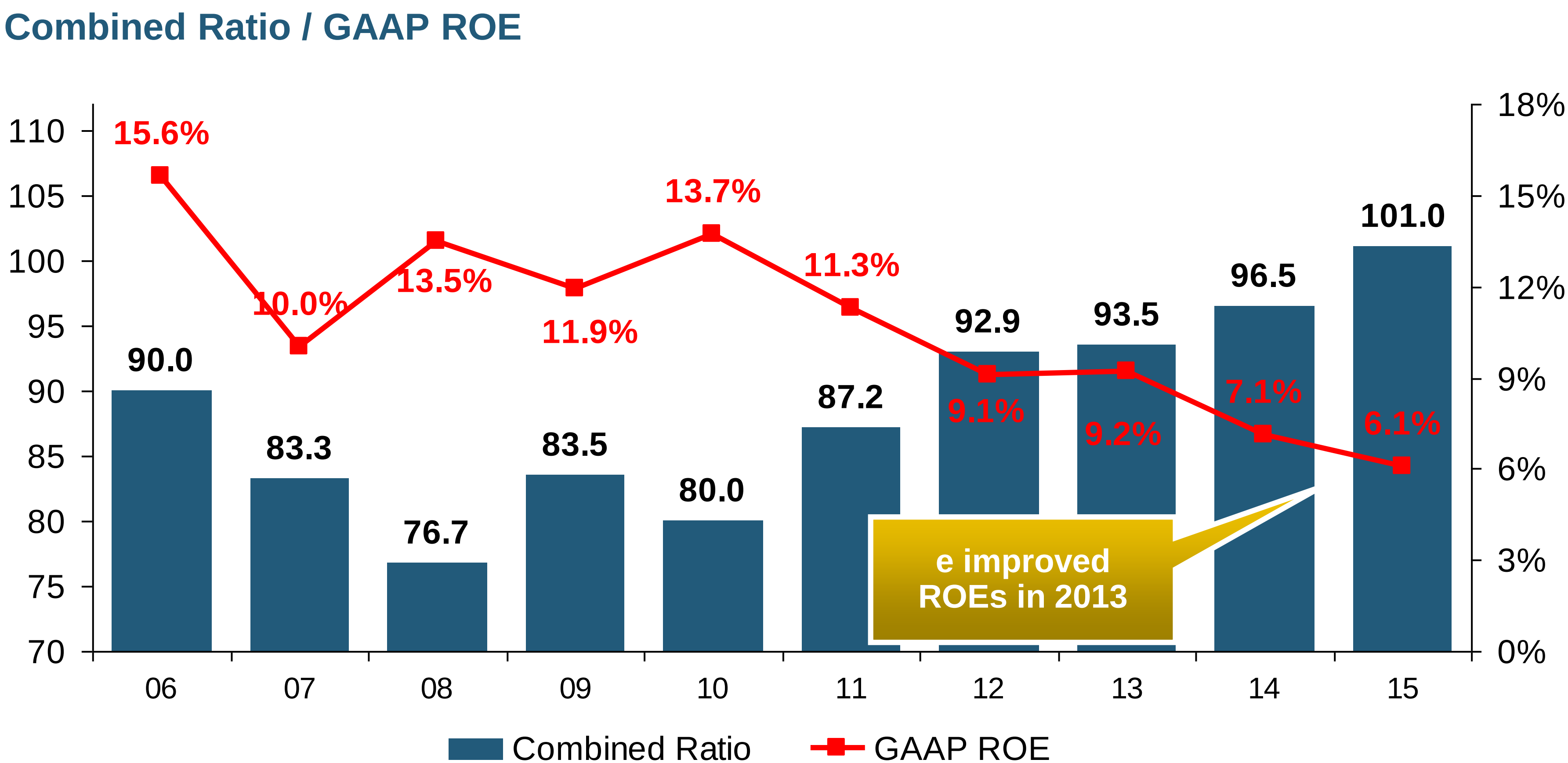


As underwriting results deteriorate, ROEs are have begib to decline

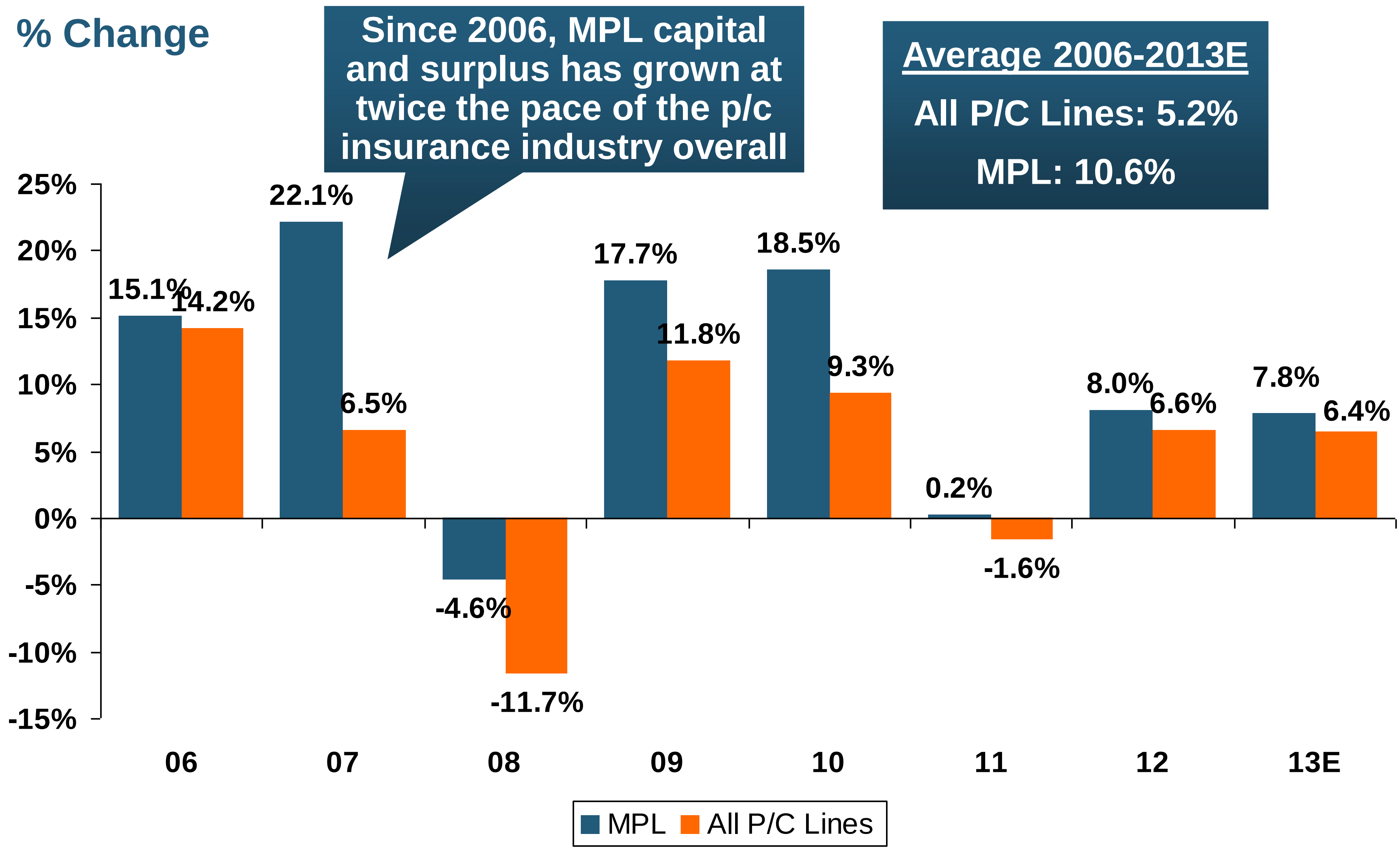
Source: Conning; Insurance Information Institute.

MPL Statutory Capital & Surplus, 2006 – 2015F

Capital and surplus growth in the MPL shows steady growth growth mirroring the overall P/C insurance industry

Source: Conning.

Change in MPL vs. All Lines P/C Capital & Surplus, 2006-2013E



Source: Insurance Information Institute from A.M. Best and Conning data.

P/C Estimated Loss Reserve Deficiency/ (Redundancy), Excl. Statutory Discount

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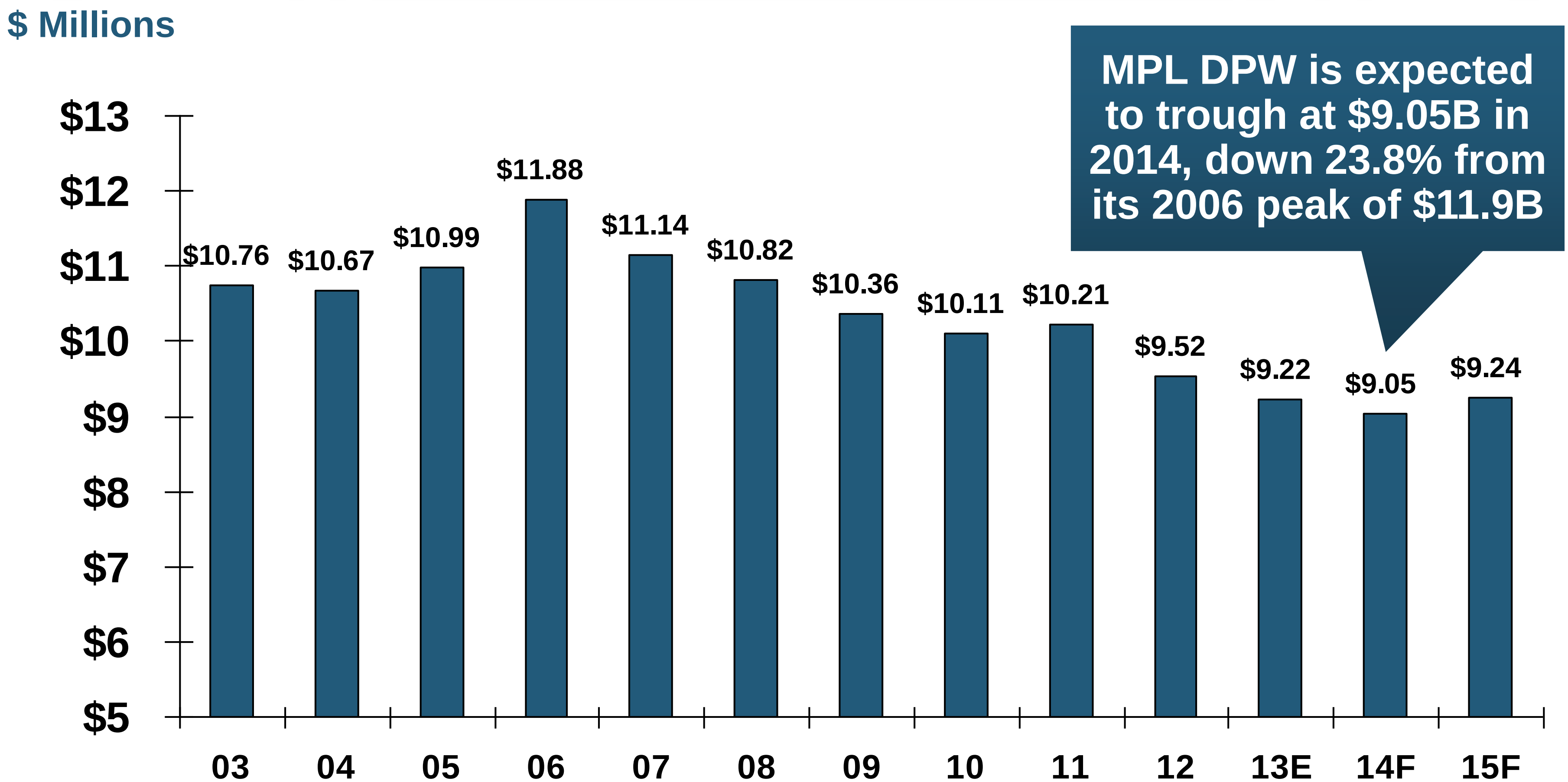
Line of Business	2012
Personal Auto Liability	-$3.9B
Homeowners	-$0.4
Other Liab (incl. Prod Liab)	$7.5
Workers Compensation	$11.1
Commercial Multi Peril	$1.9
Commercial Auto Liability	$0.7
Medical Malpractice	-$3.5
Reinsurance—Nonprop Assumed	$1.0
All Other Lines*	-$4.6
Total Core Reserves	**$9.8**
Asbestos & Environmental	$11.2
Total P/C Industry	**$21.0B**

Source: A.M. Best, *P/C Review/Preview 2014;* Insurance Information Institute. *Excluding mortgage and financial guaranty segments.

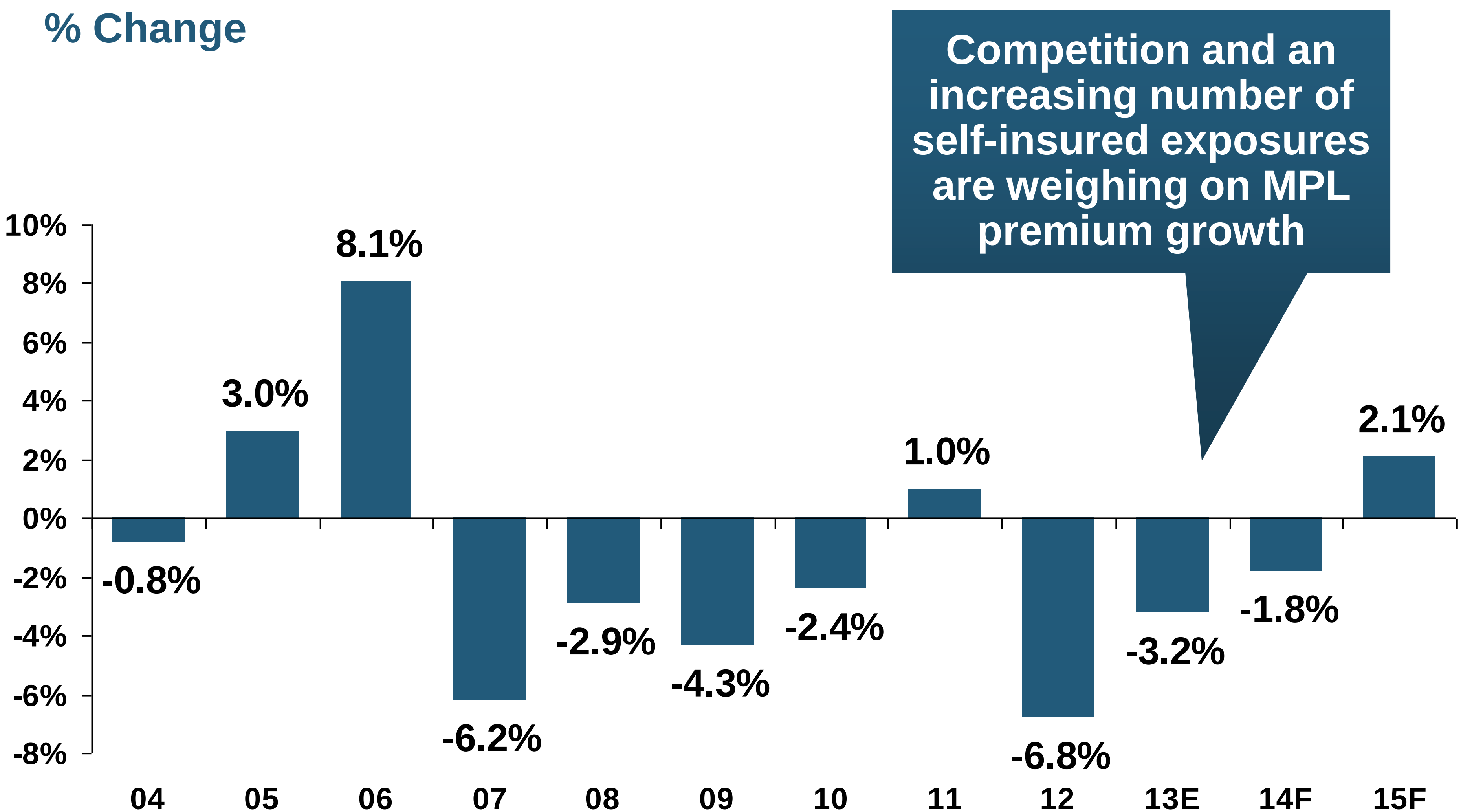
MPL Direct Premiums Written: 2004-2015F



MPL direct premiums written have been declining steadily since 2006

Source: A.M. Best (2003-2012); Conning (2013-2015F); Insurance Information Institute.

Annual Change in Medical Professional Liability DPW, 2004-2015F



Source: Conning.

Annual Change in Medical Professional Liability Incurred Losses, 2004-2015F

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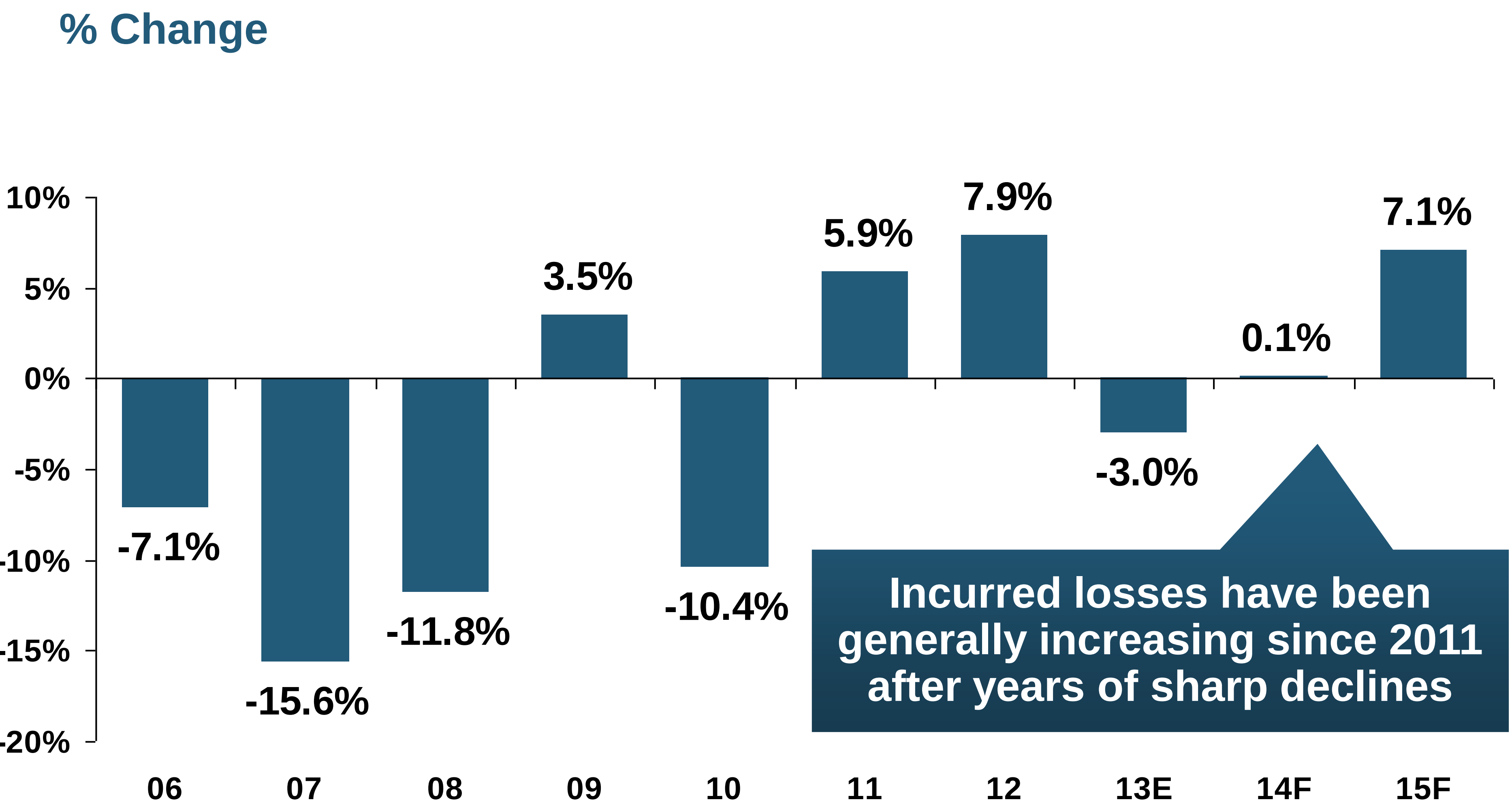

Source: Conning.

Medical Professional Liability: Change in Premium and Incurred Losses, 2006-2015F

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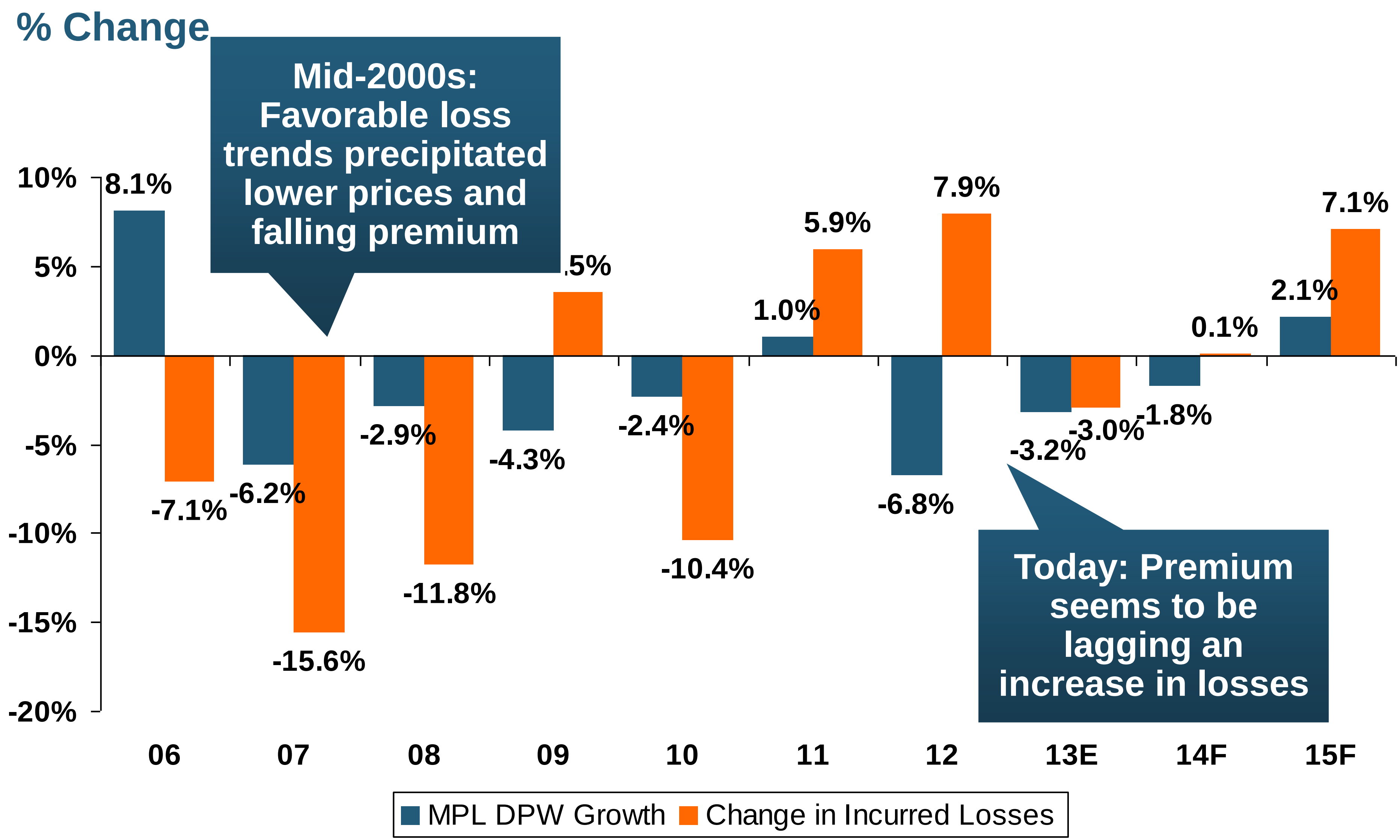
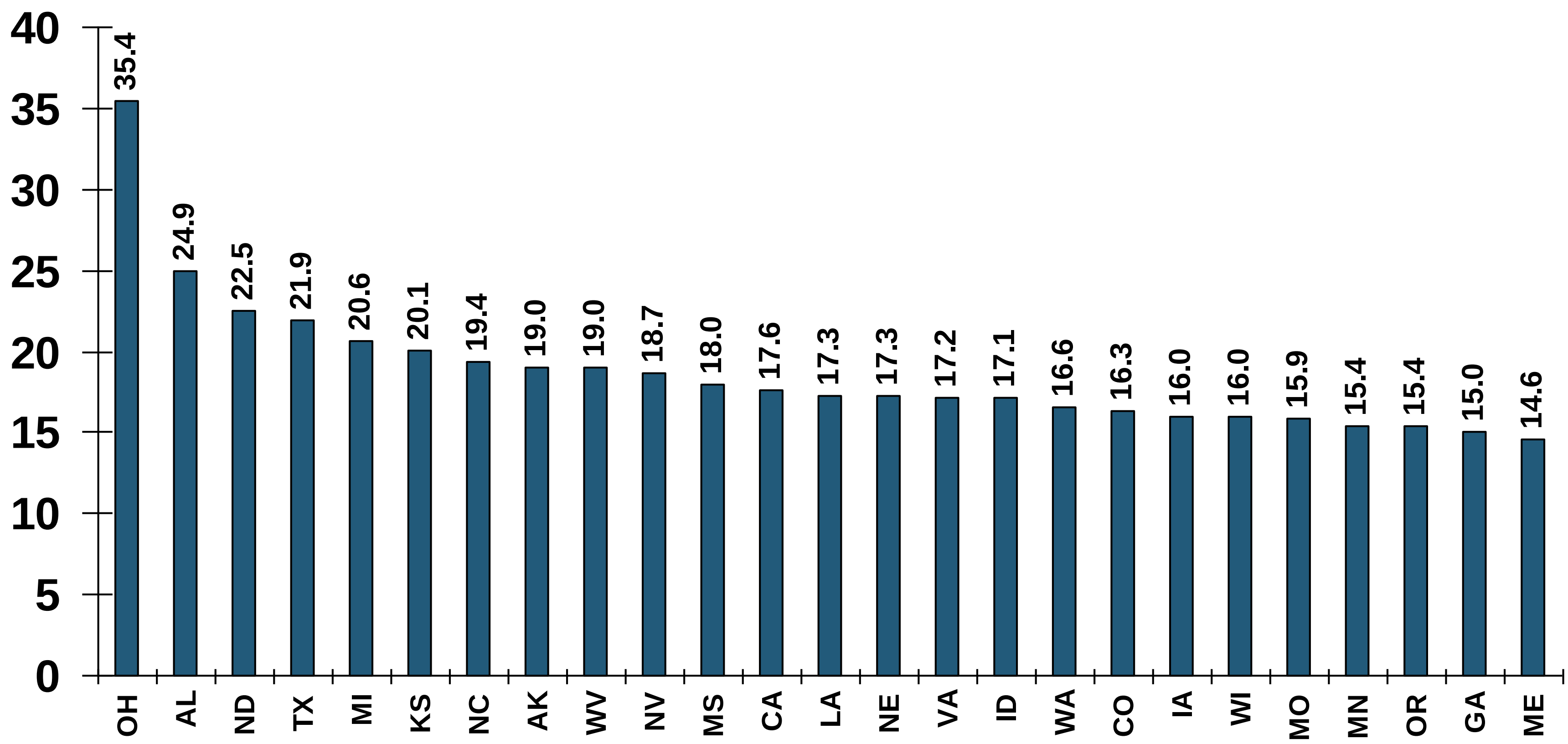


Source: Insurance Information Institute from A.M. Best and Conning data.

Medical Professional Liability, RNW By State, Average 2003-2012

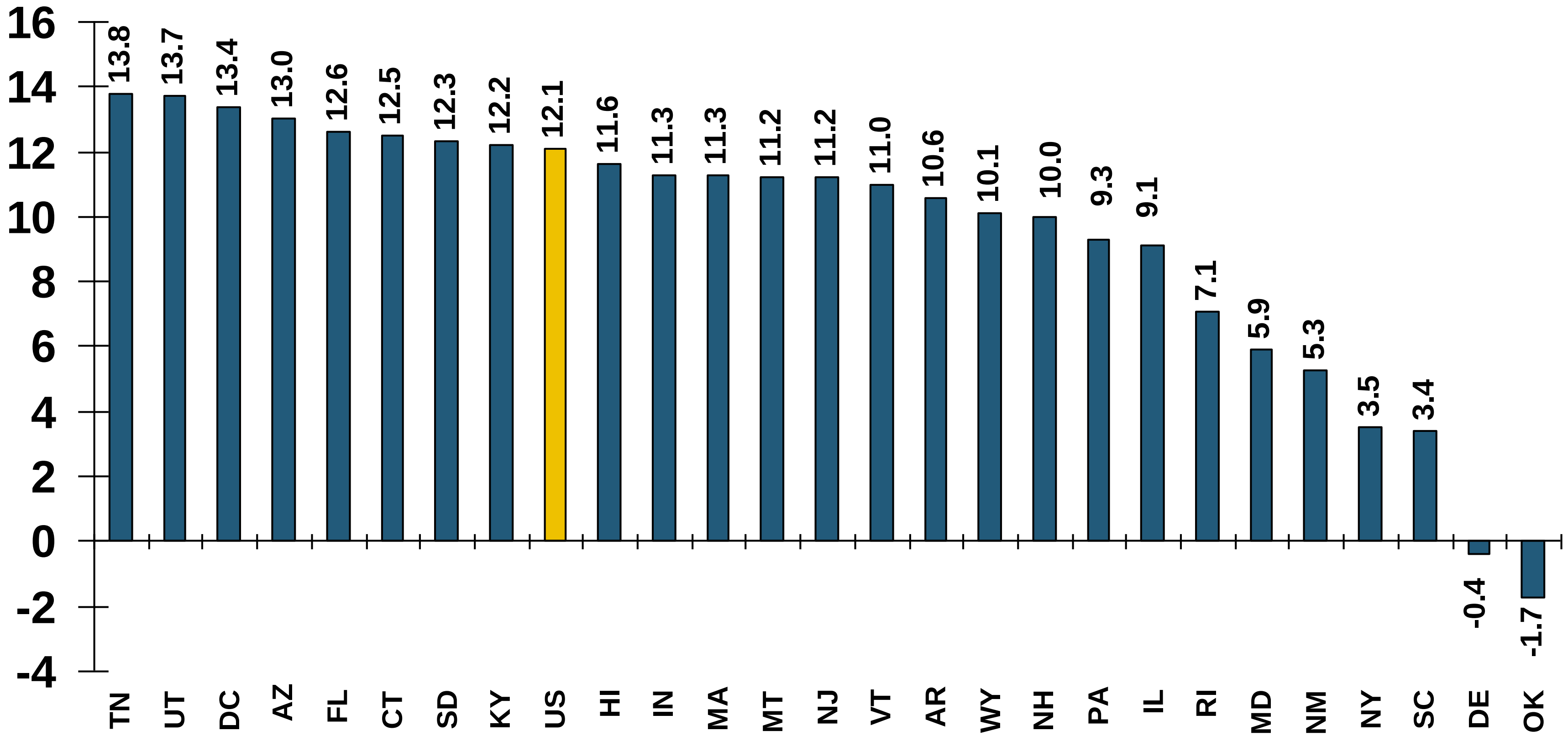
Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, Average 2003-2012

Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2012

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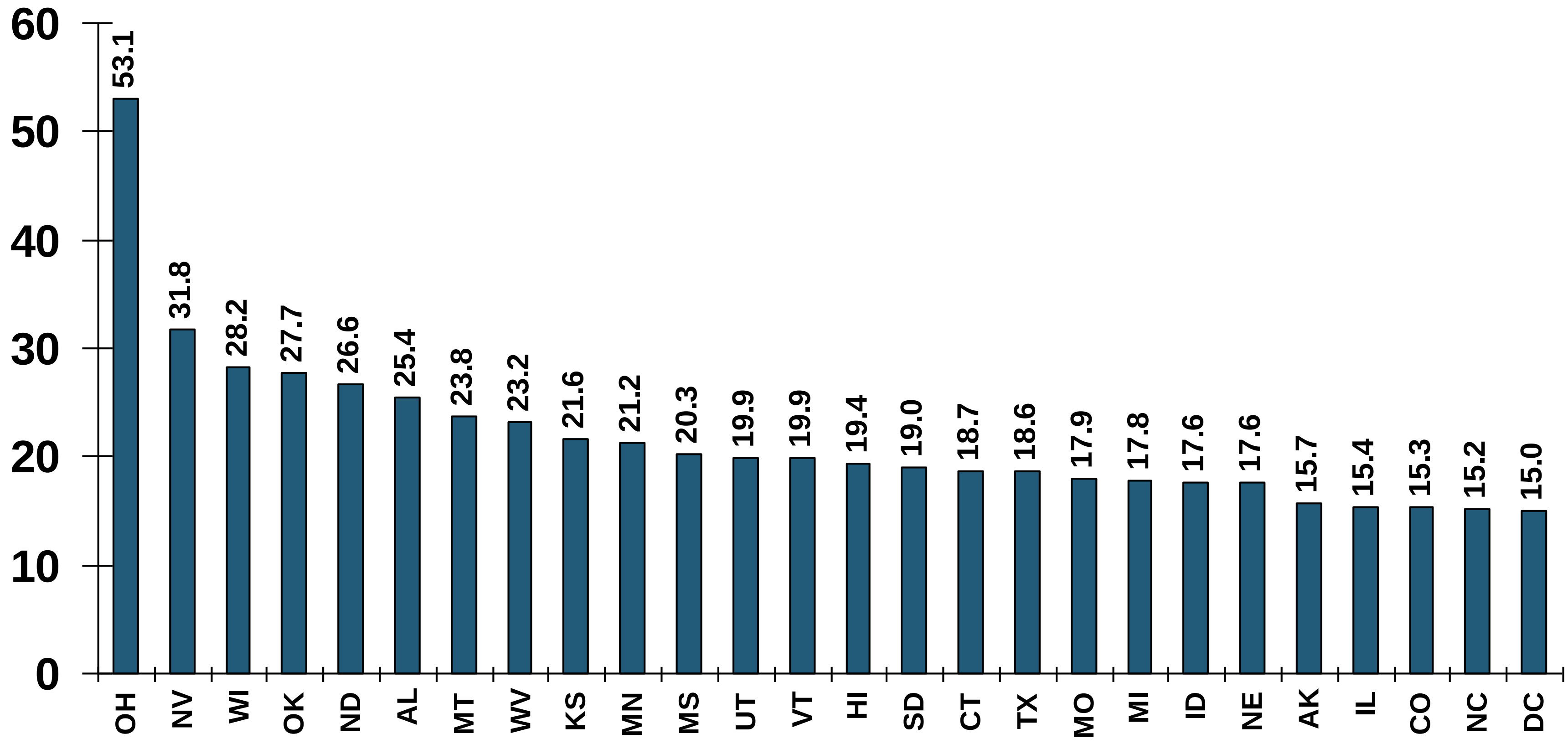
Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2012

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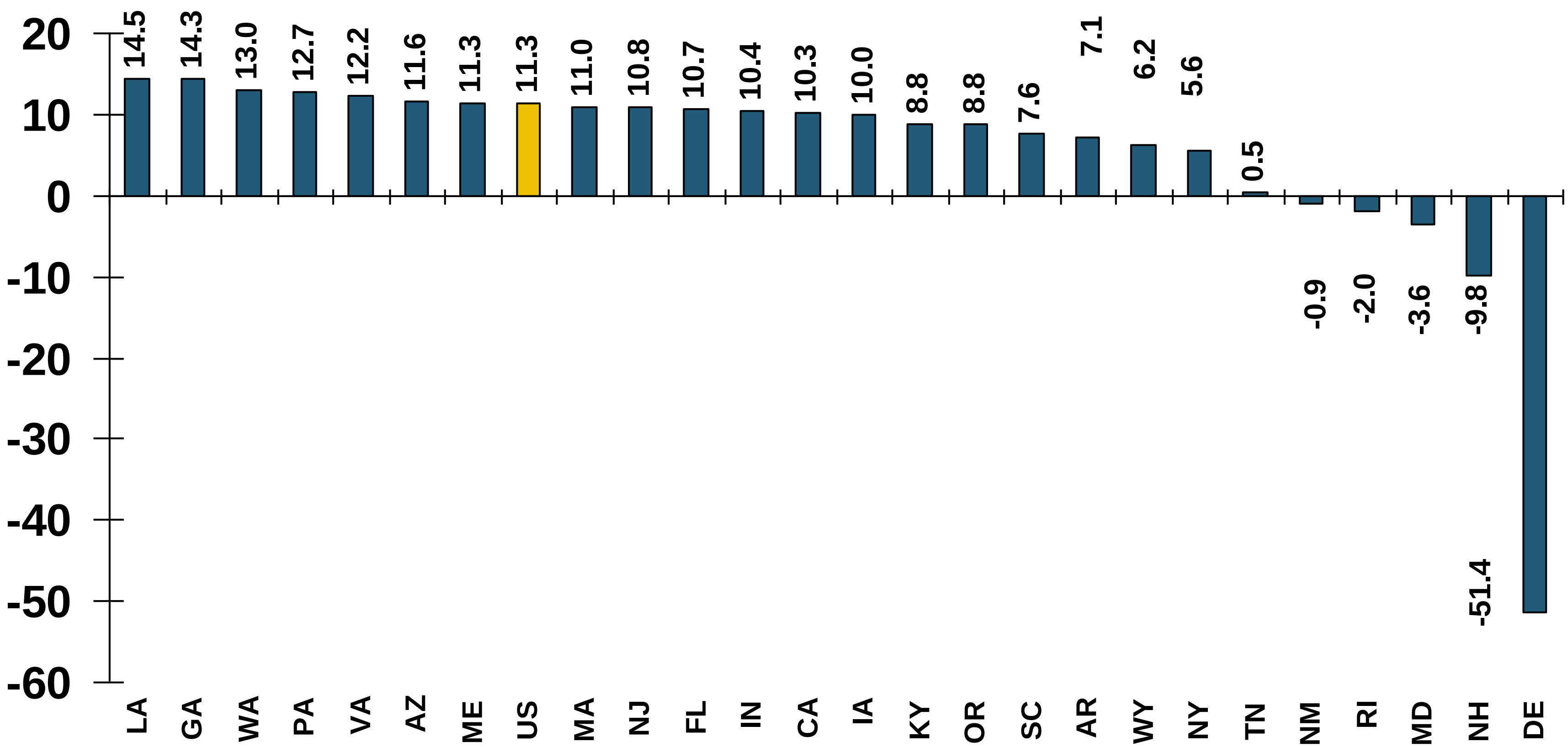
Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2003

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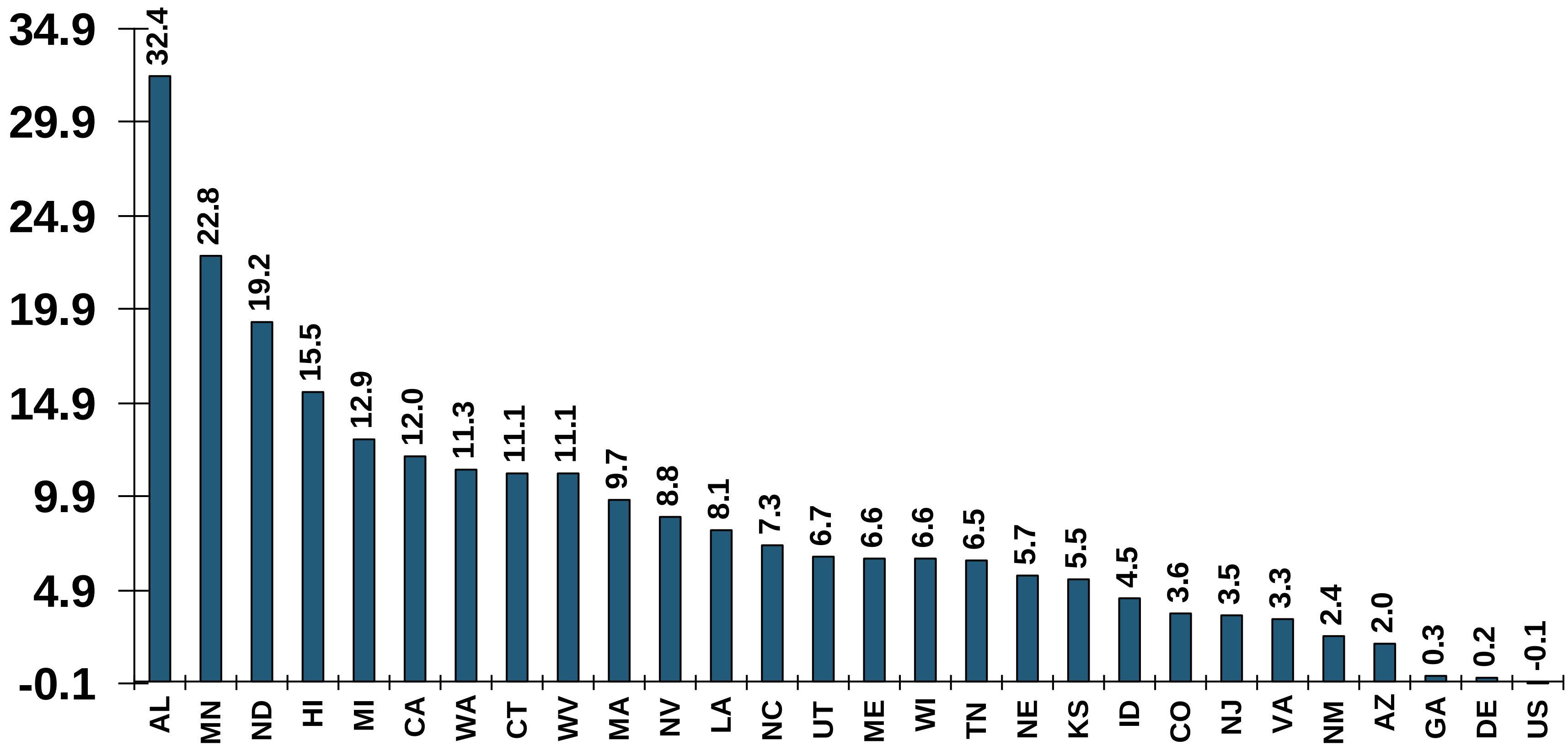
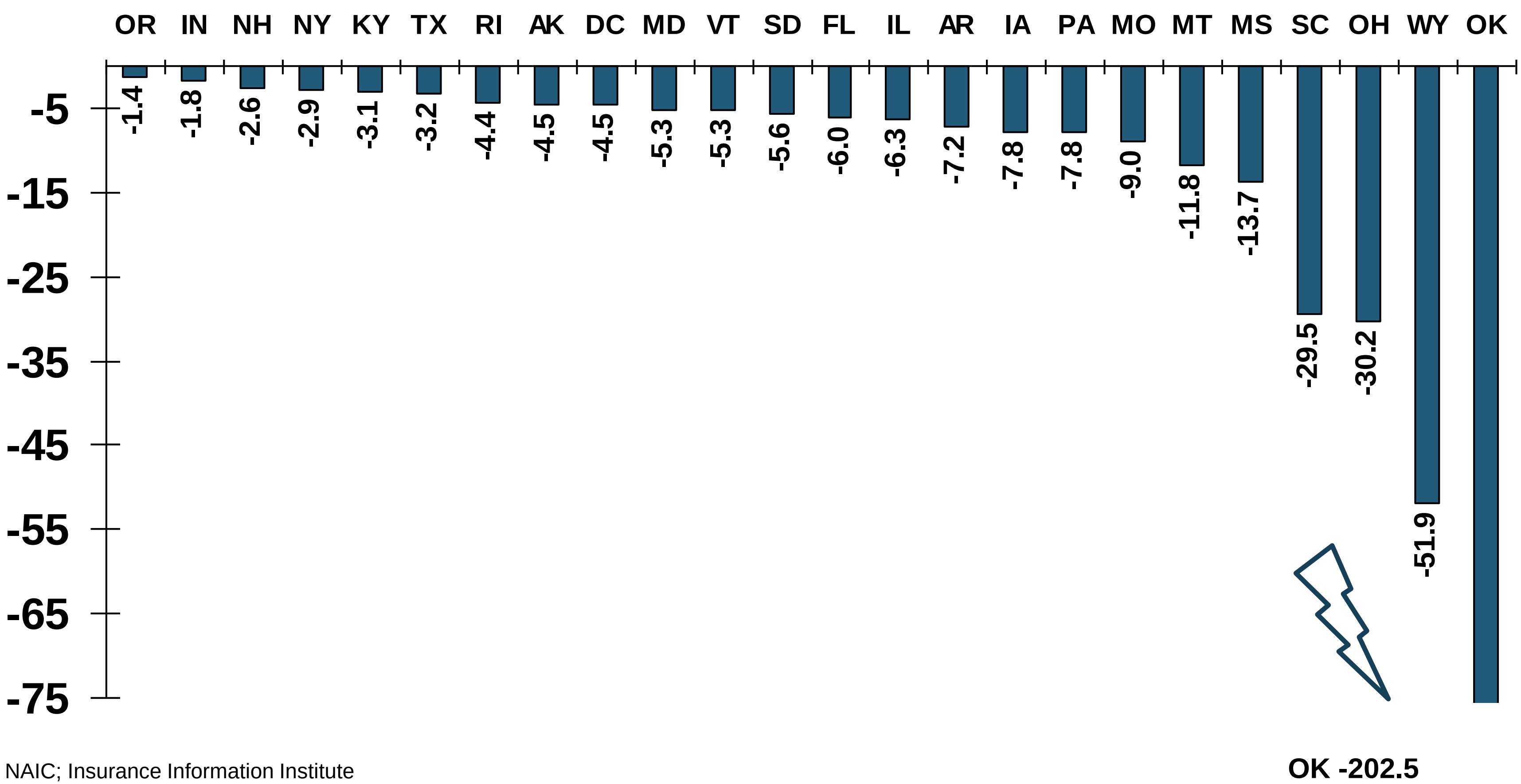
Top 27 States and US



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2003

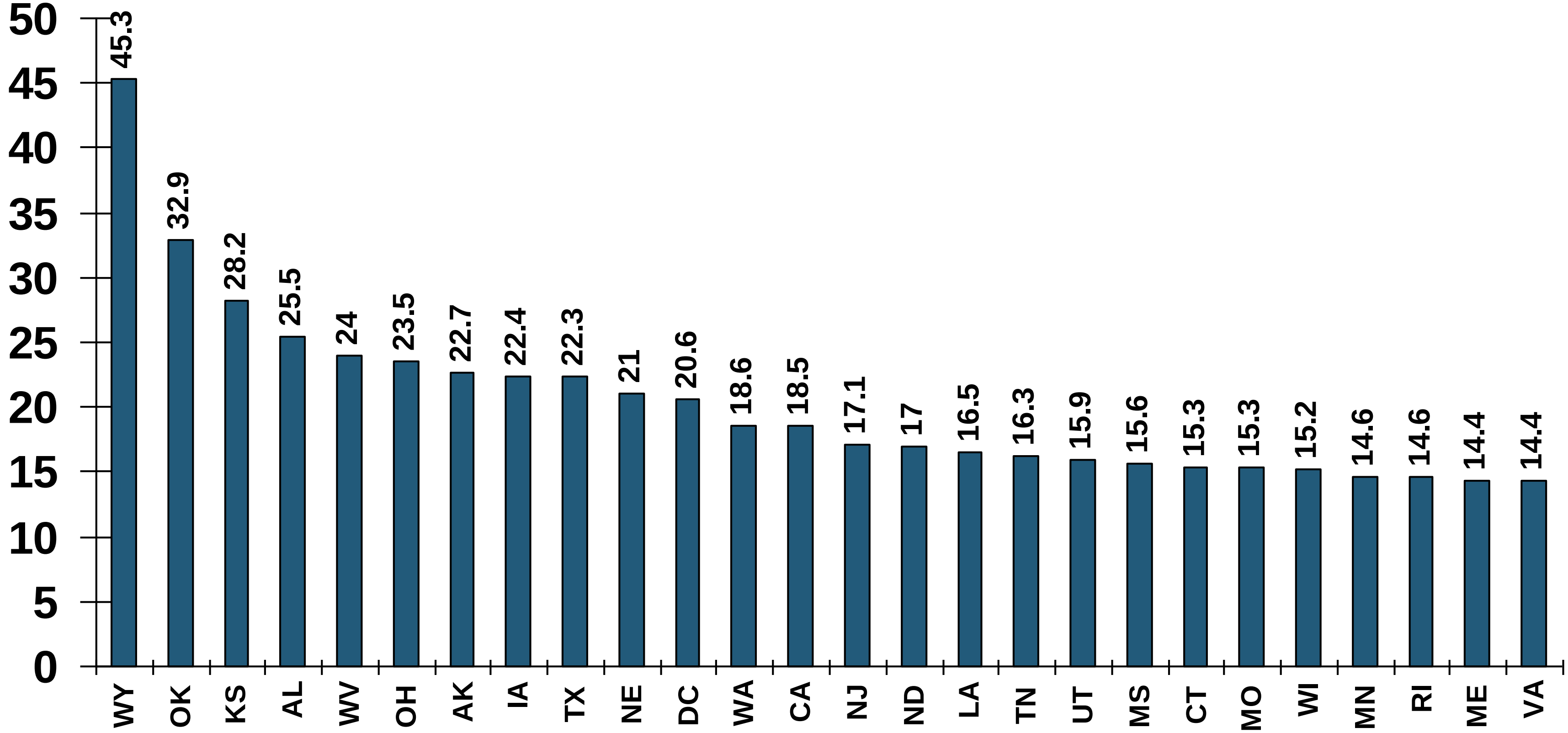
Bottom 24 States and DC



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2004

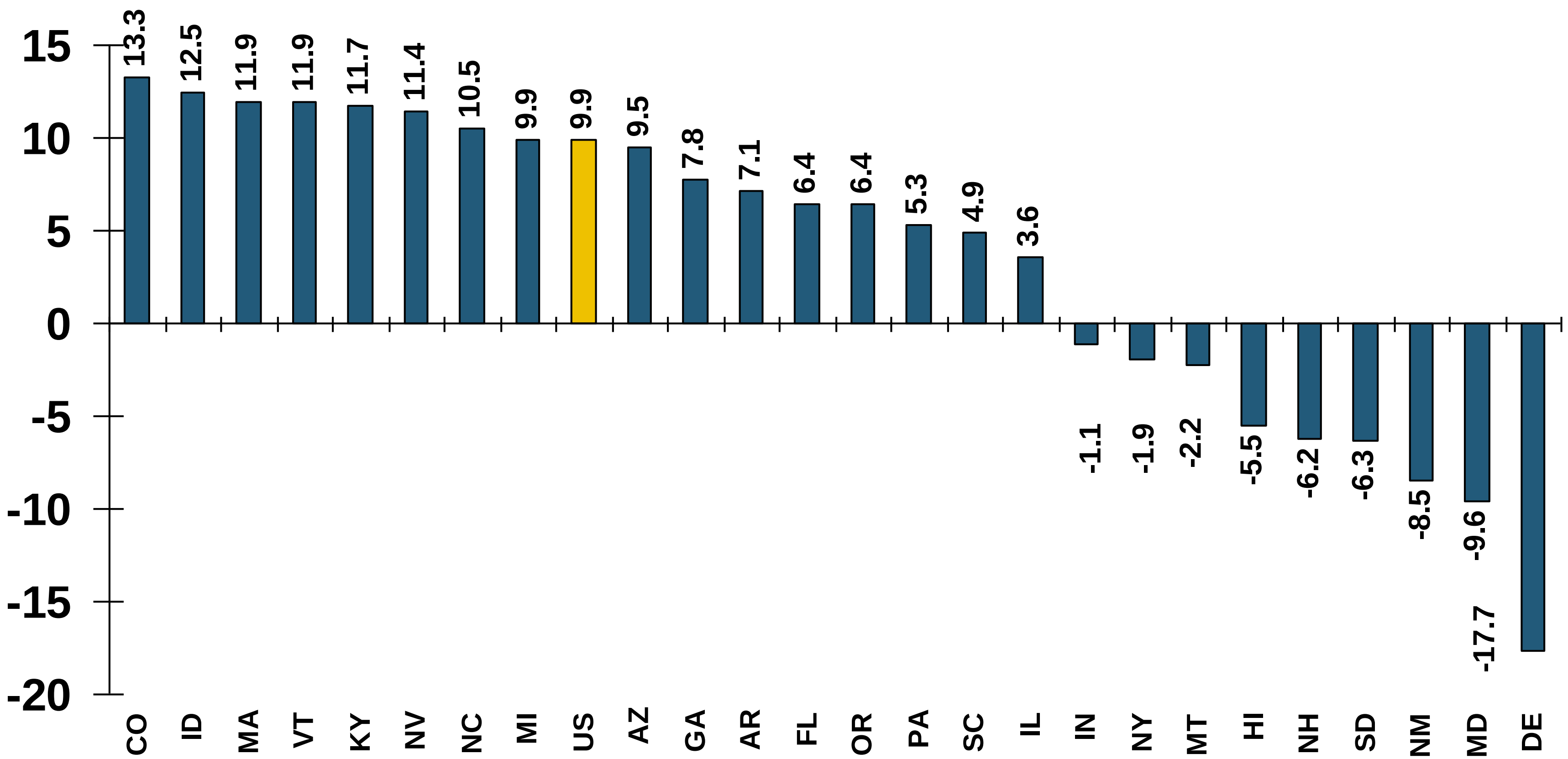
Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2004

Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2005

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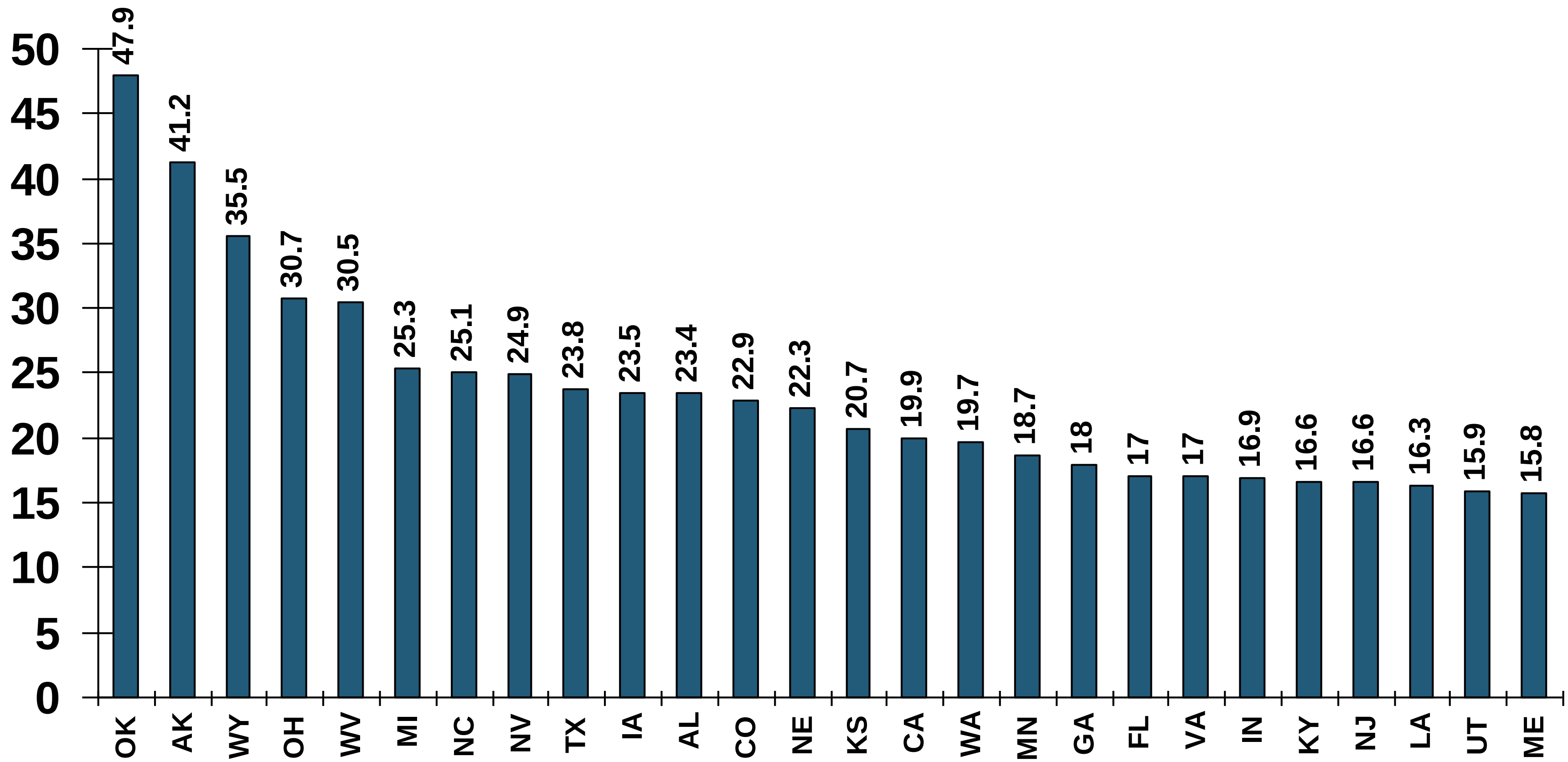
Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2005

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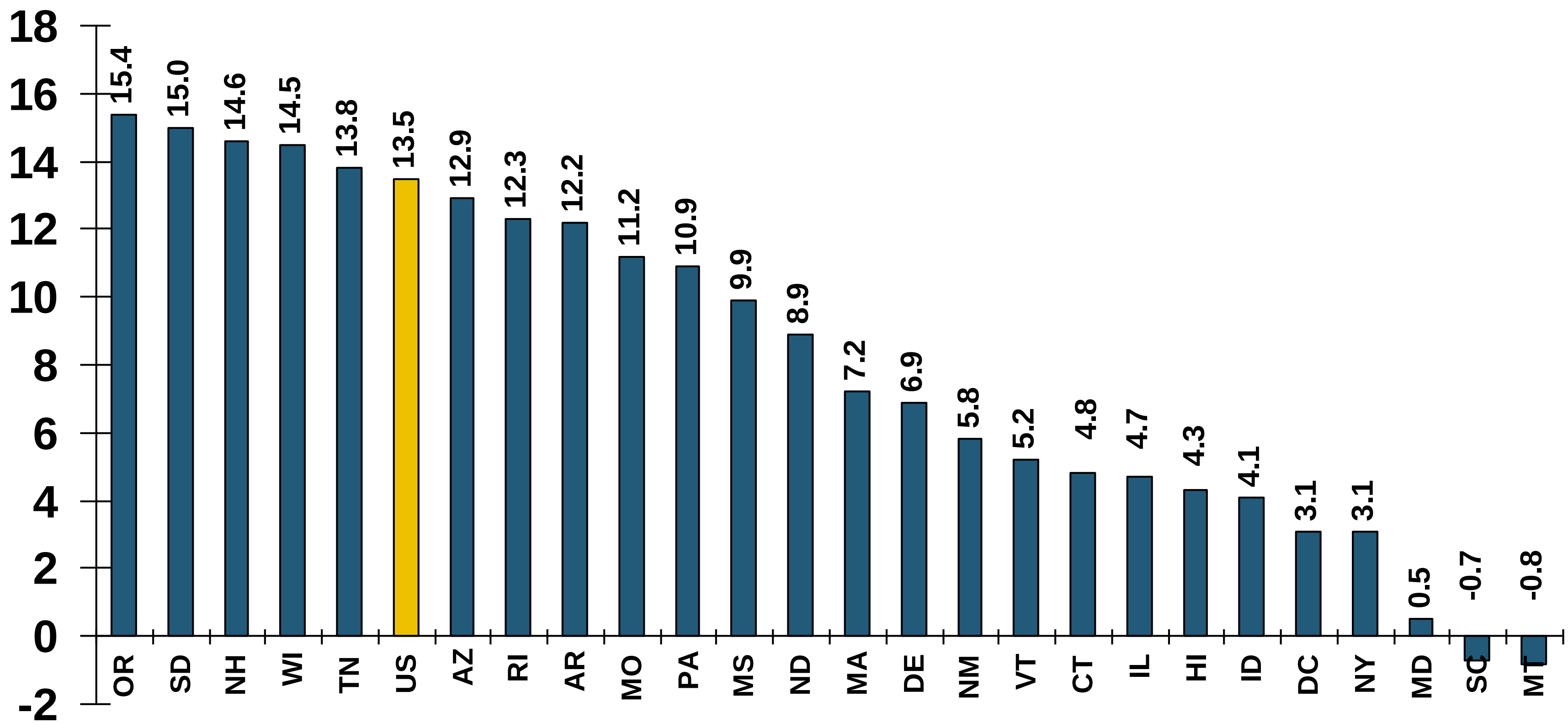
Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2006

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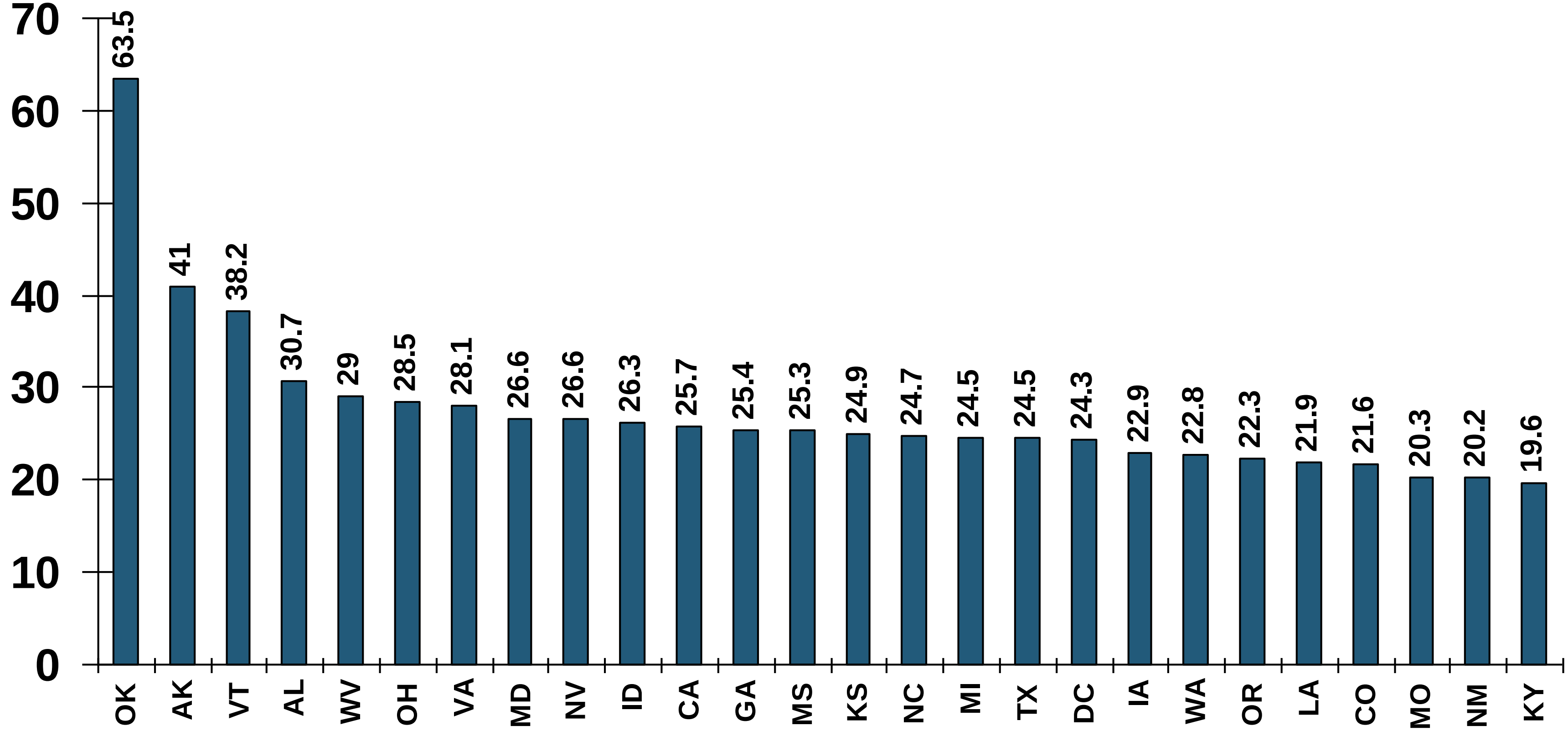
Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2006

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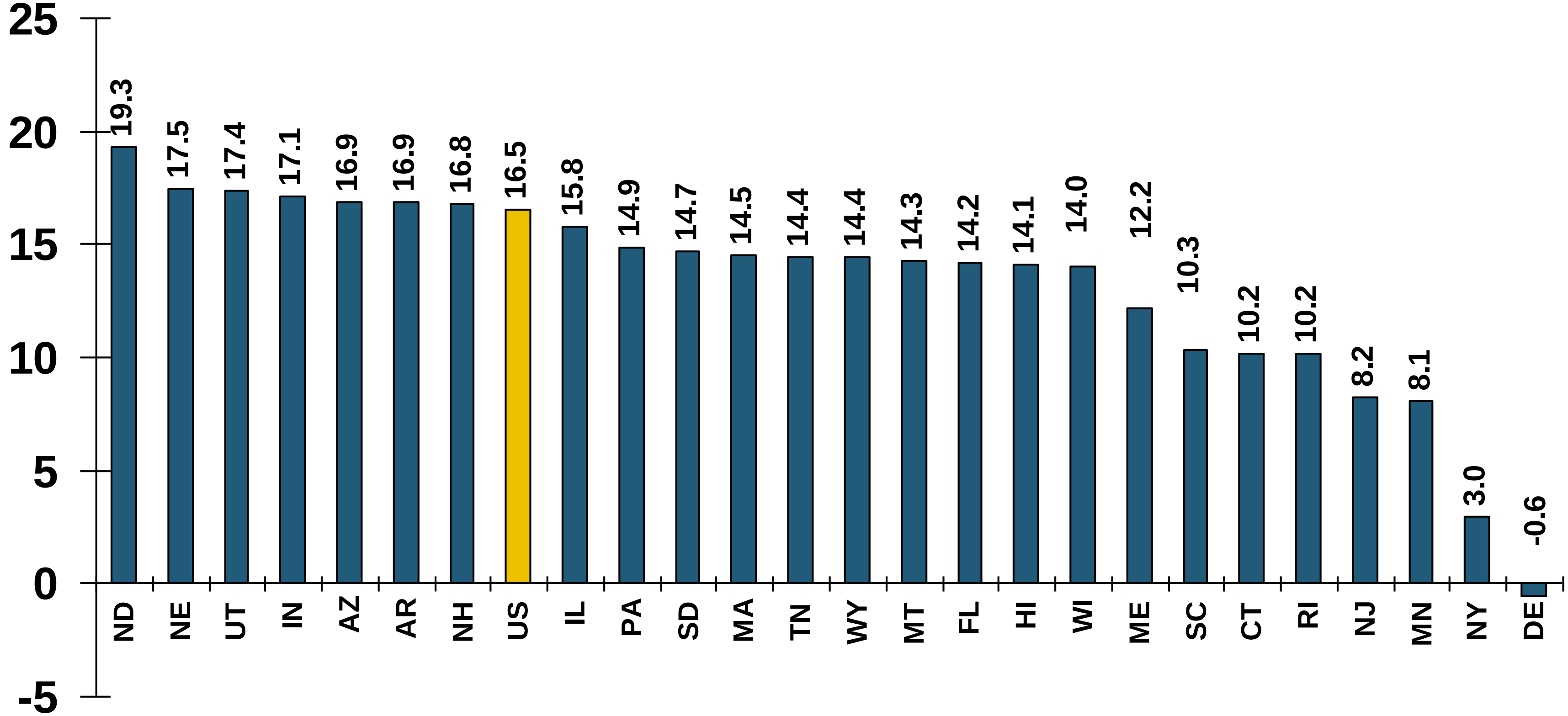
Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2007

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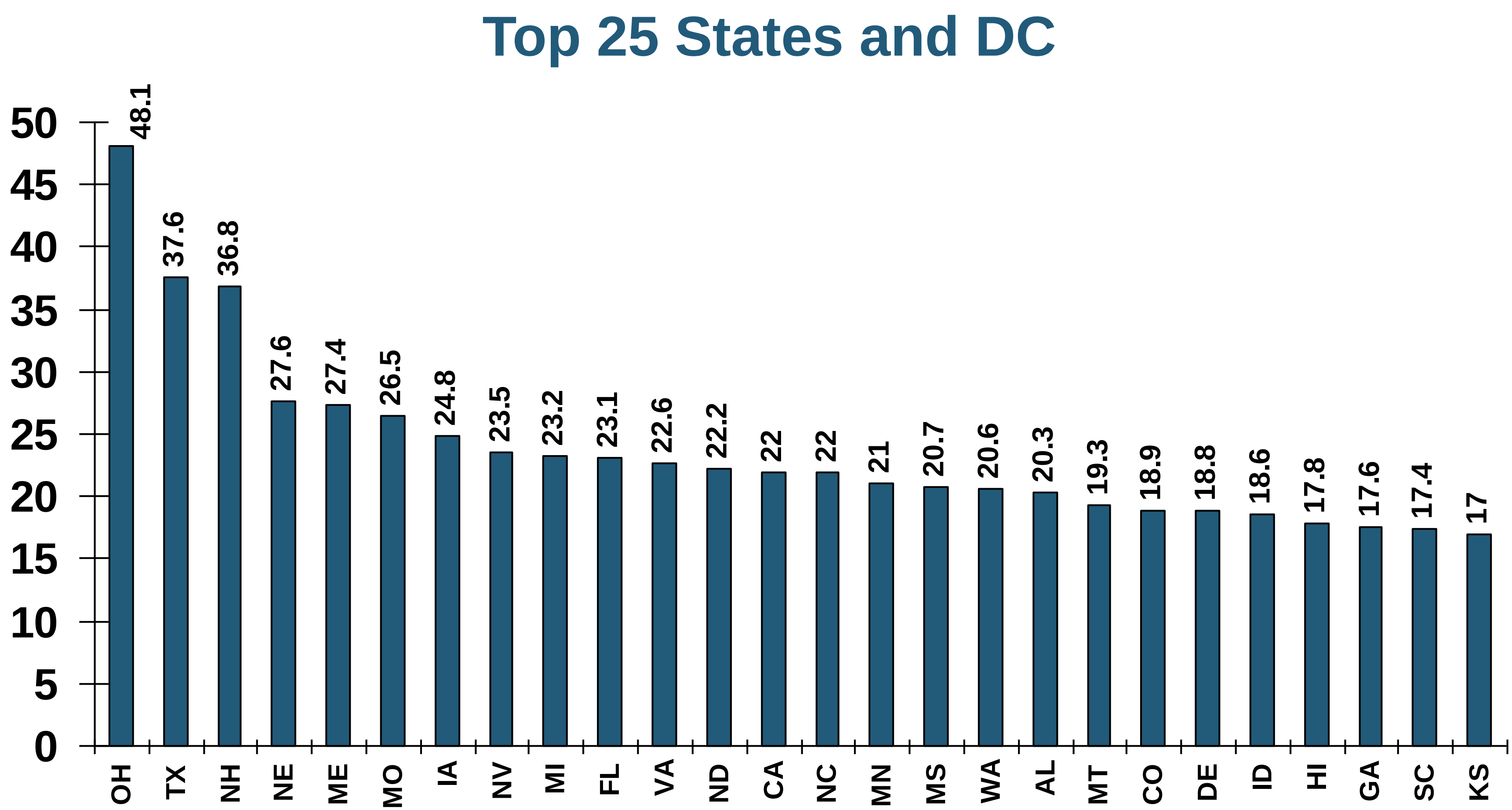
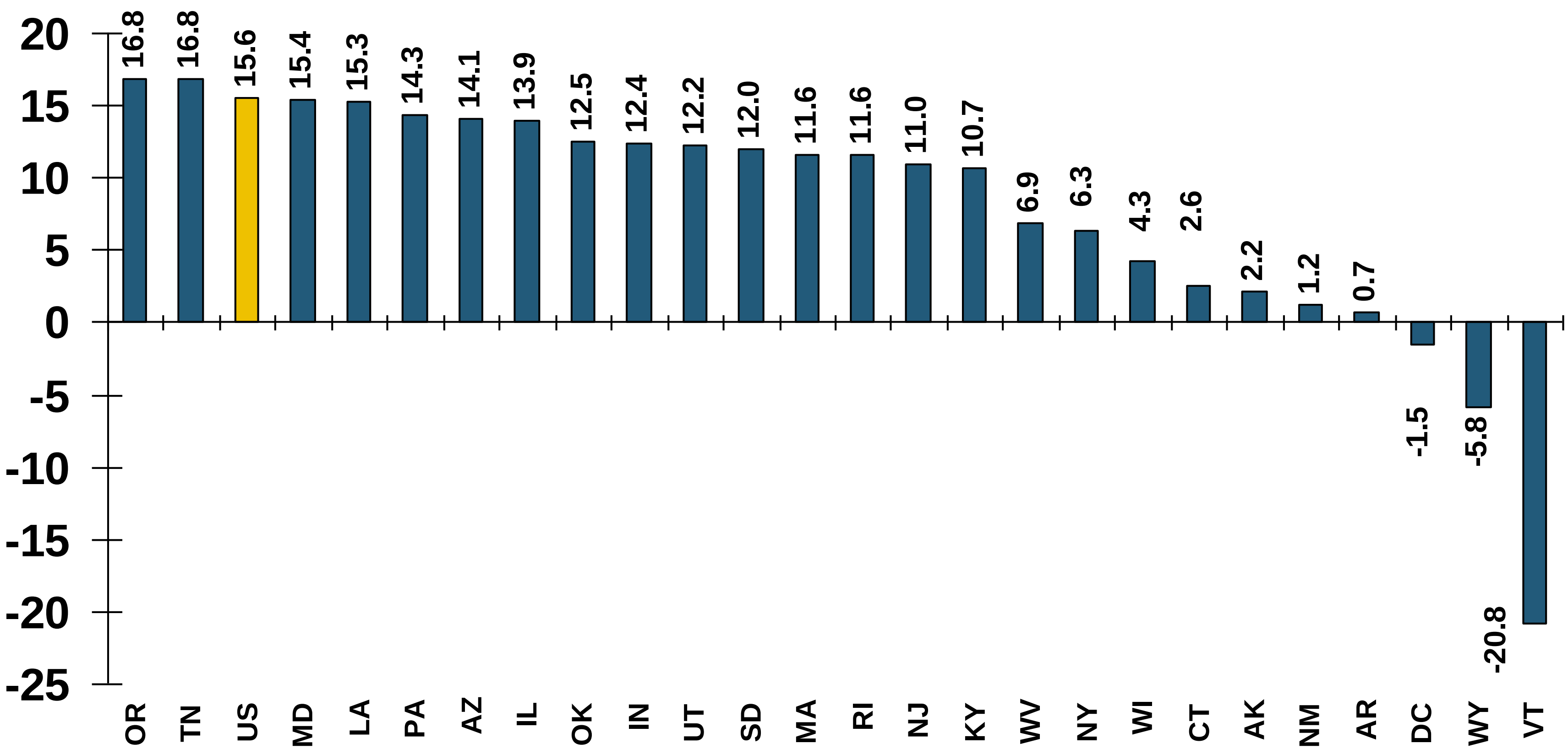


Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2007

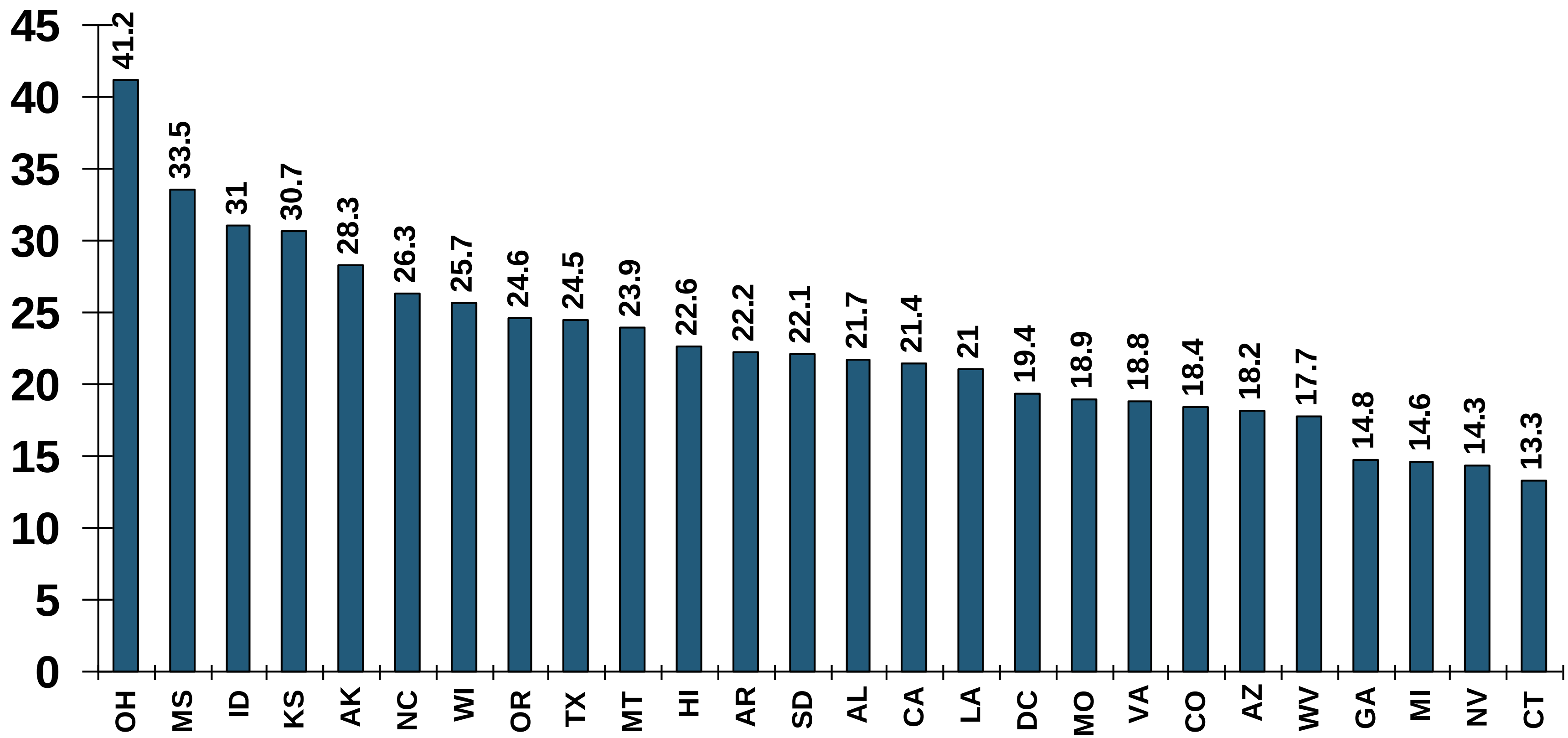
Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2008

Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2008

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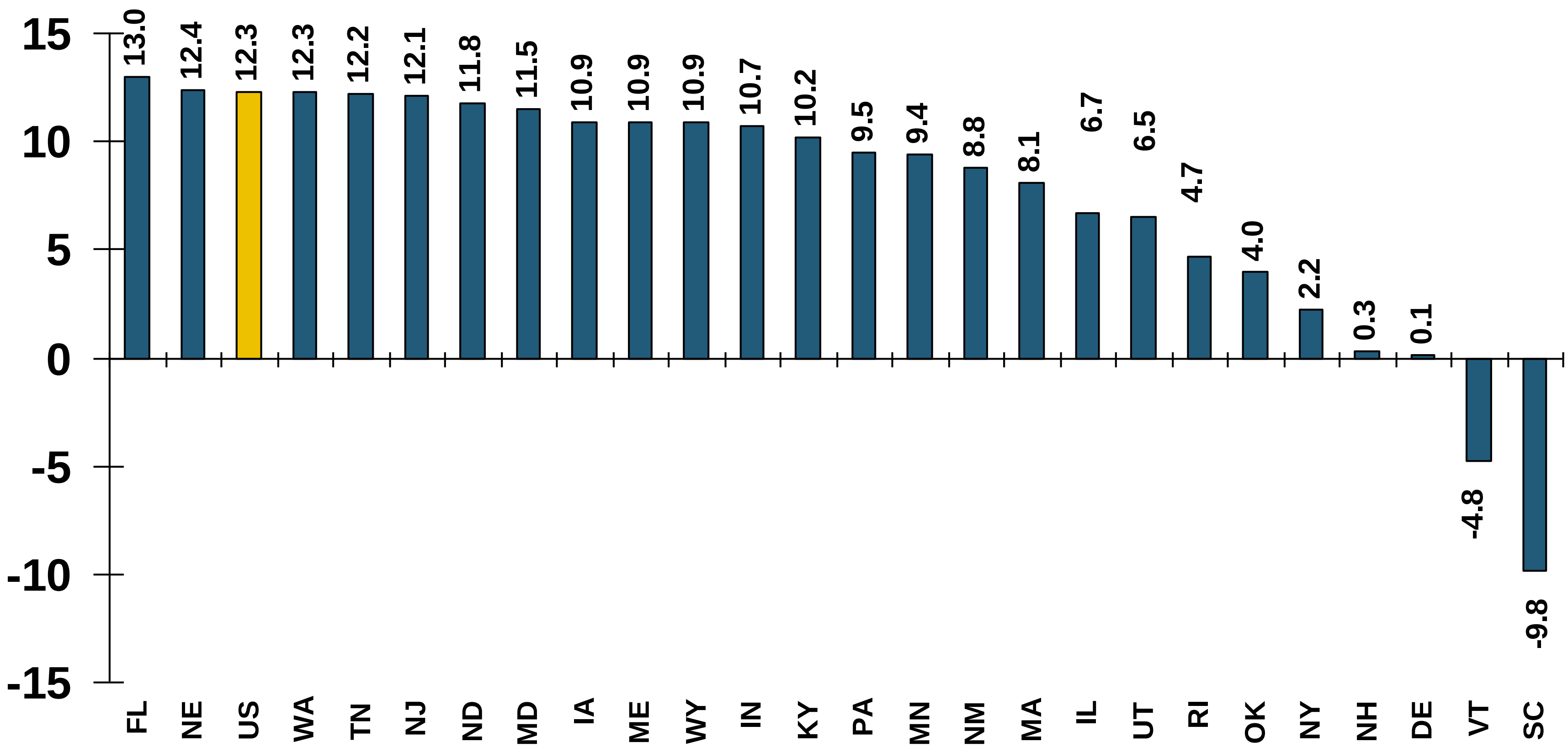
Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2009

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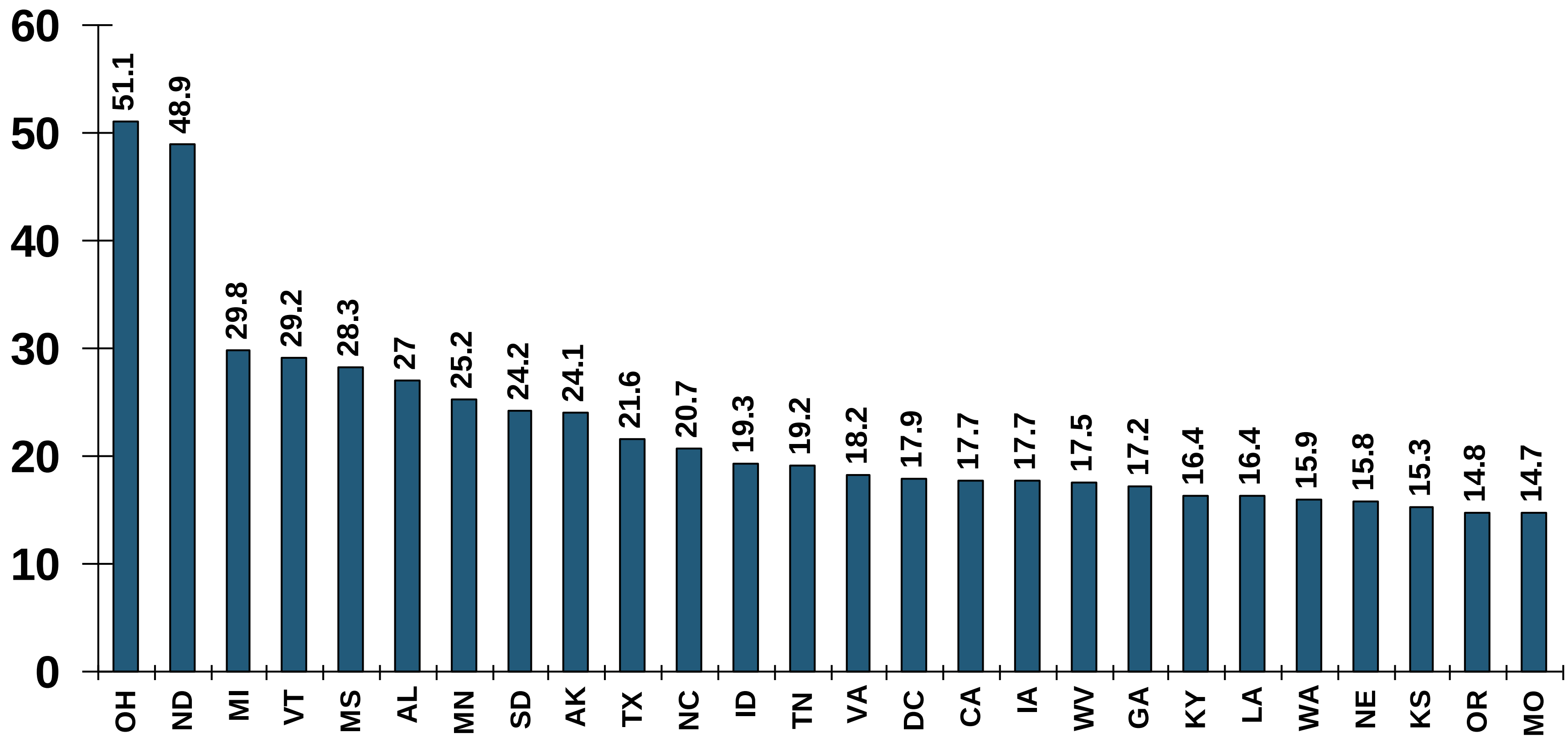
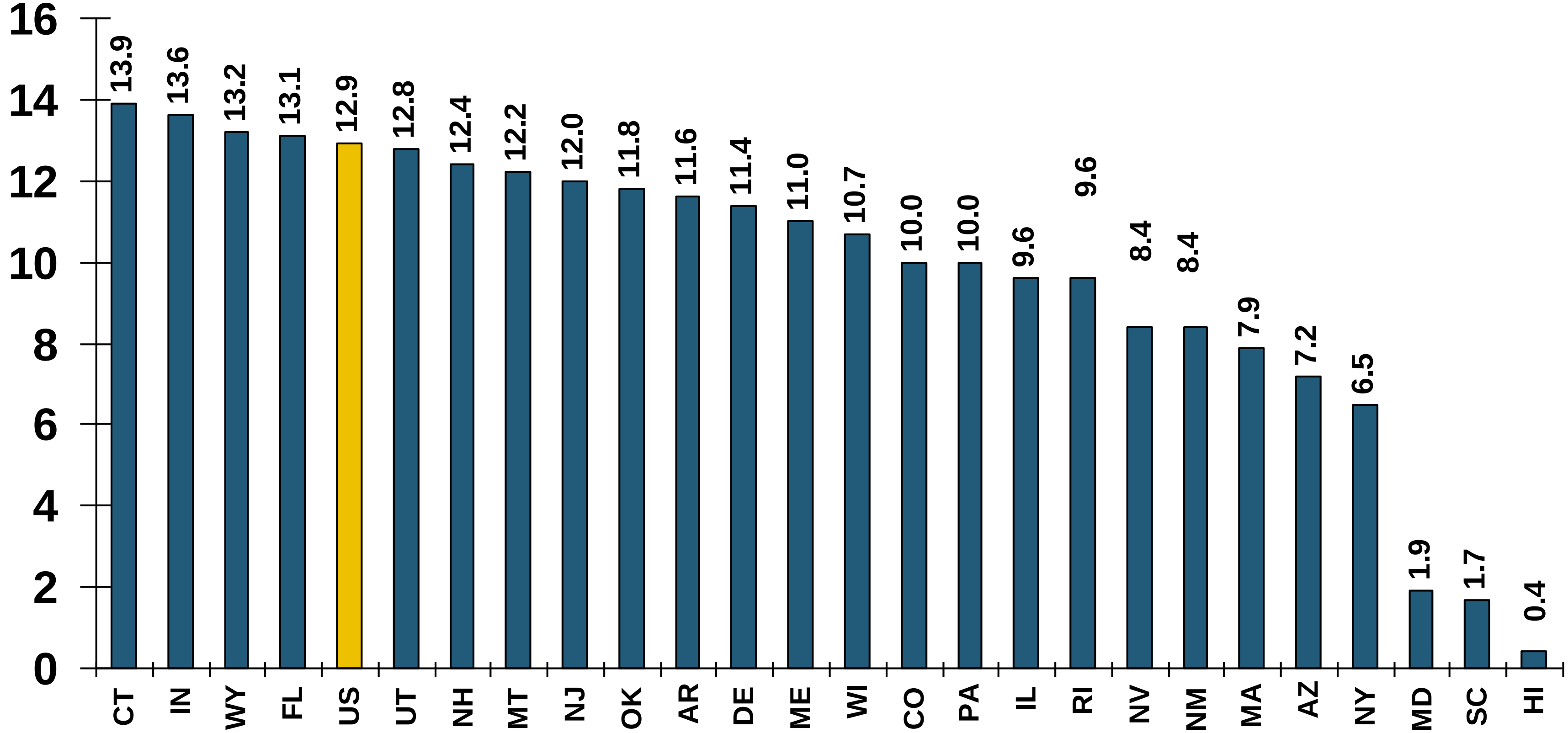
Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2009

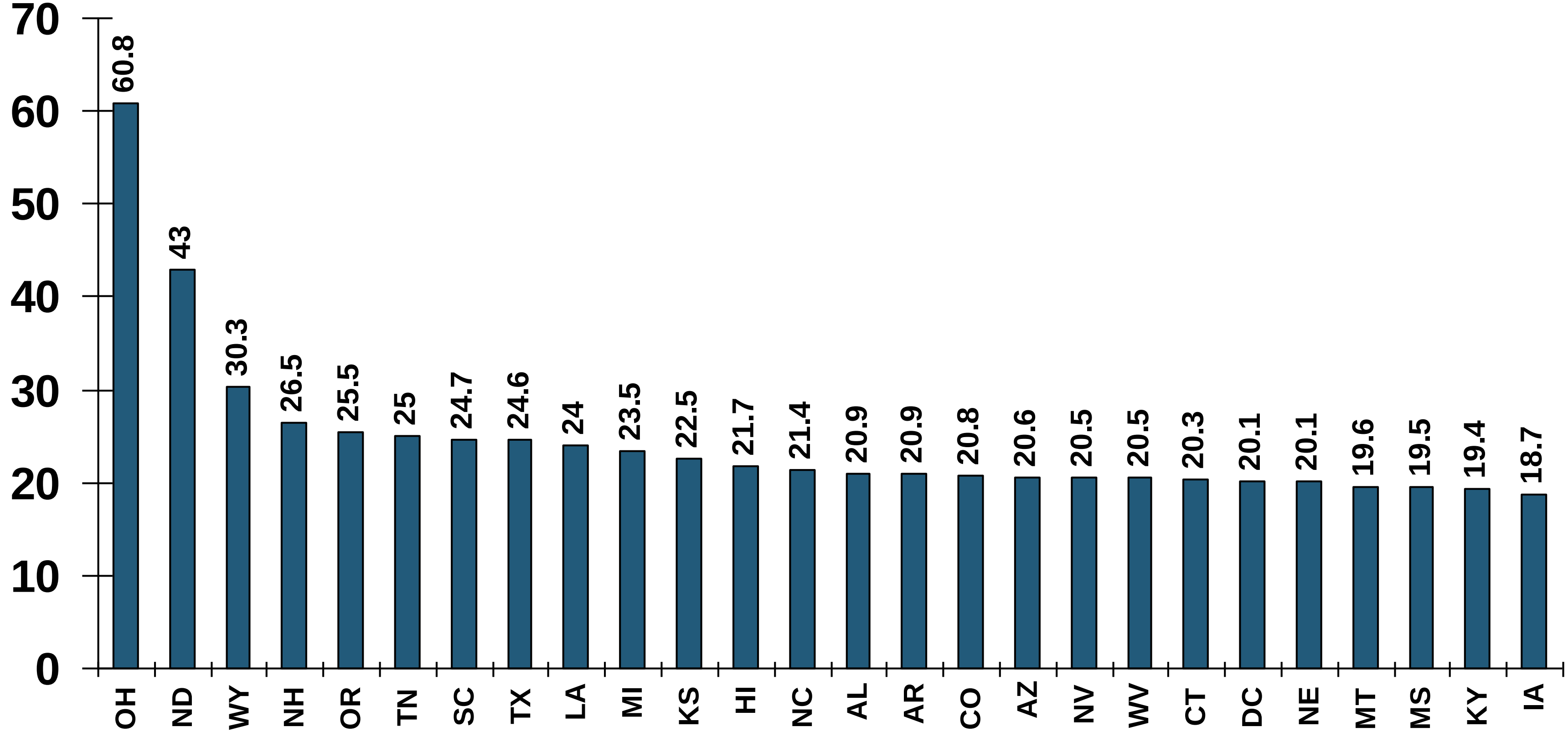
Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2010

Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2010

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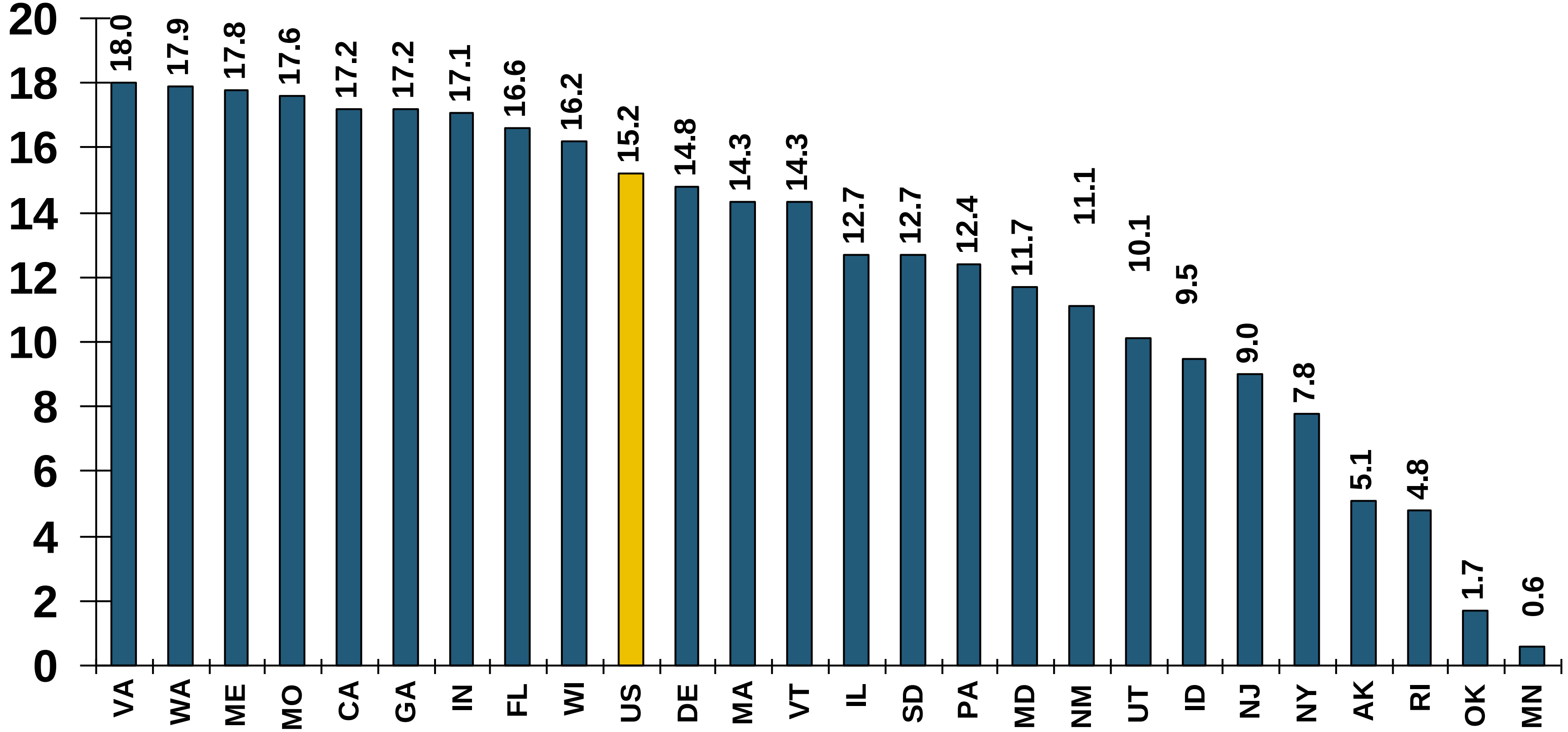
Bottom 25 States



Source: NAIC; Insurance Information Institute

Medical Professional Liability, RNW By State, 2011

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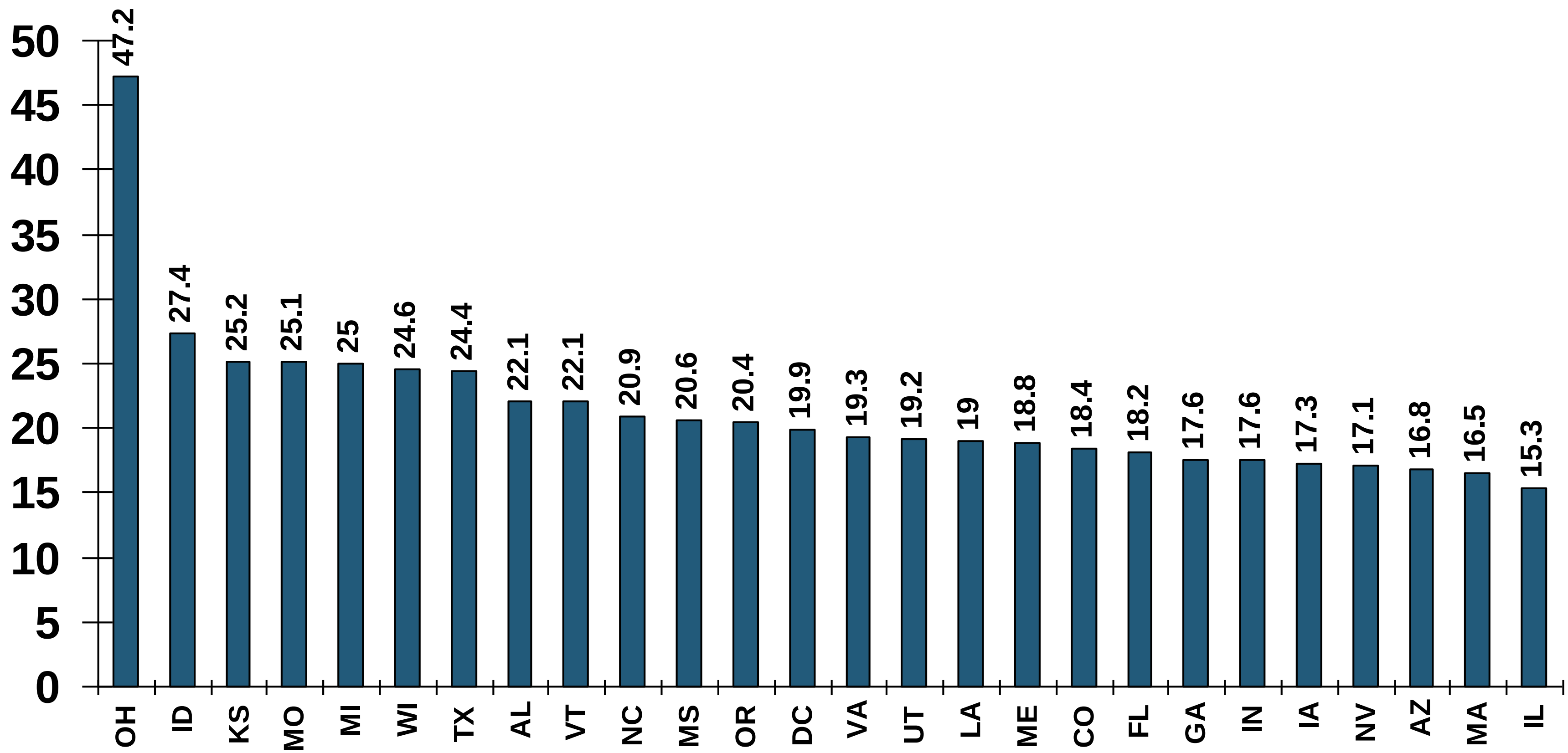
Top 25 States and DC



Source: NAIC; Insurance Information Institute.

Medical Professional Liability RNW By State, 2011

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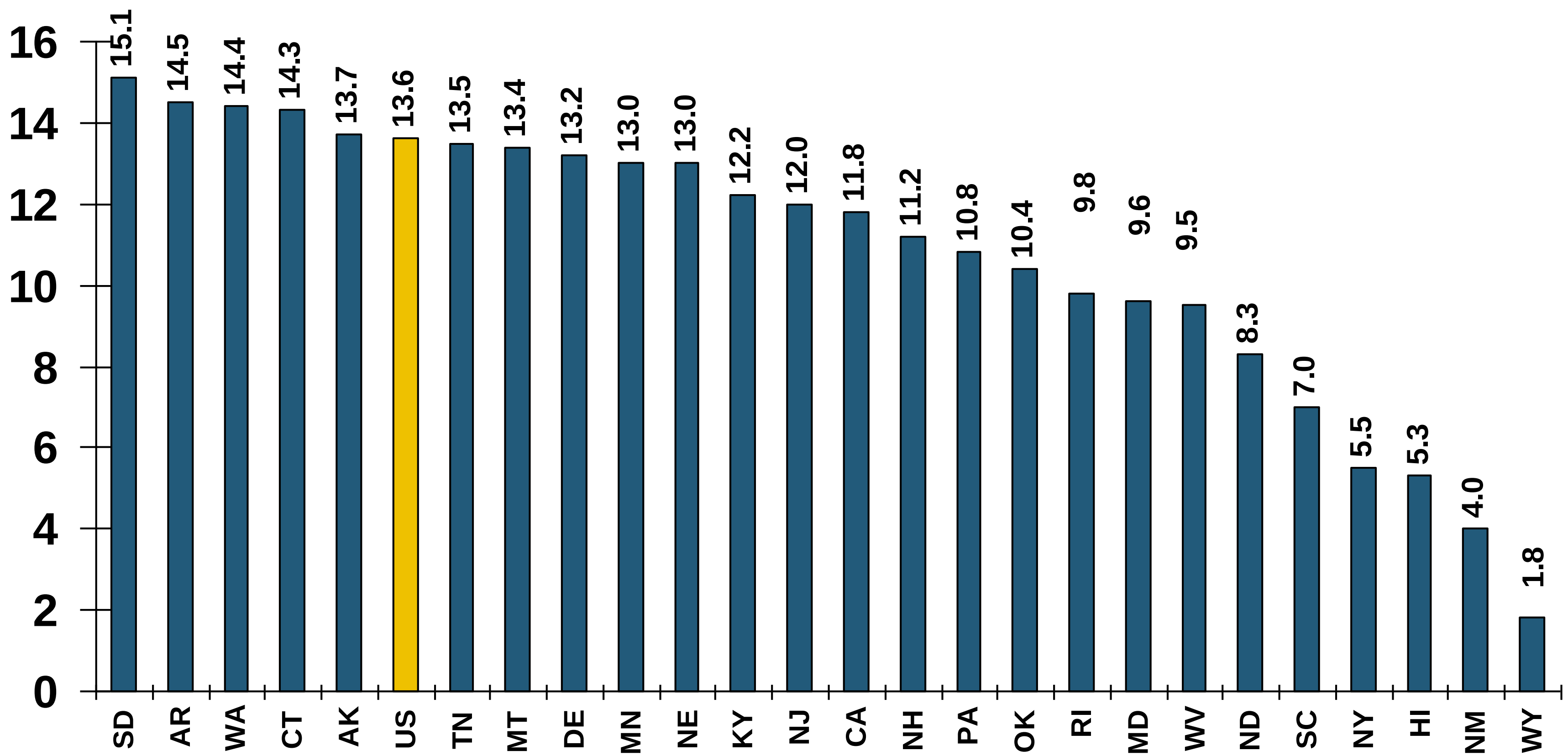

Source: NAIC; Insurance Information Institute

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The Affordable Care Act and Medical Professional Liability

A Summary of Potential Impacts

Potential Impacts of the ACA on Medical Professional Liability

Issue	Concern	Contravening Argument
Surge in People Covered by Health Insurance	• System is overwhelmed • Doctors spend less time on patients • Patient care adversely impacted	• Over time, people will have access to preventative care, improving the general health of the population • People are receiving care already via suboptimal channels • Less use of ERs
Electronic Health Records	• Digitization could create a treasure trove of data for plaintiff attorneys	• Computerization of patient data could help flag issues and improve risk management and improve patient outcomes
MPL Claim Severity	• More large verdicts will	• ACA will help contain system costs

Source: Insurance Information Institute research.

Number of People Signed Up for Health Care Under the ACA, Oct. 1 – March 1

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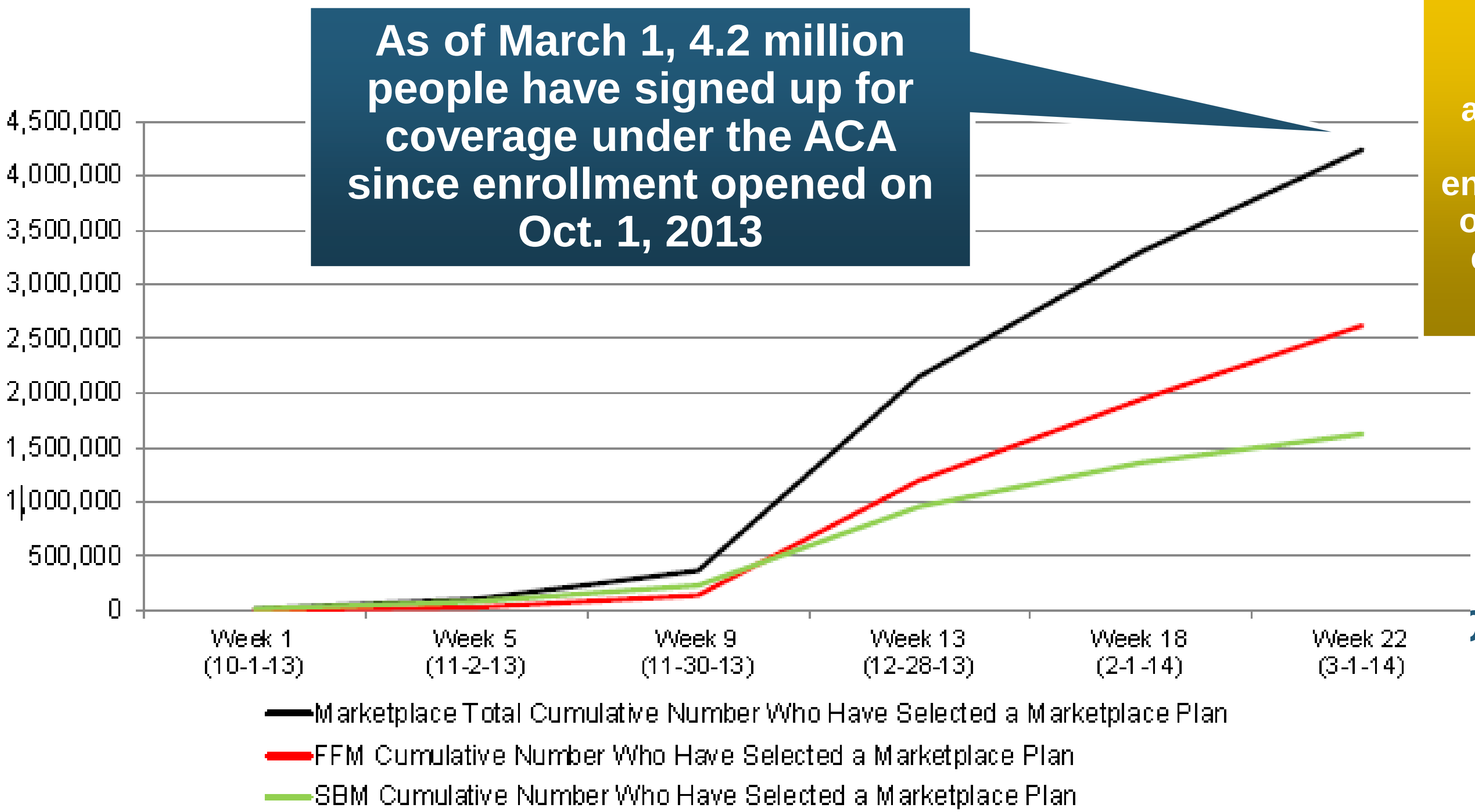


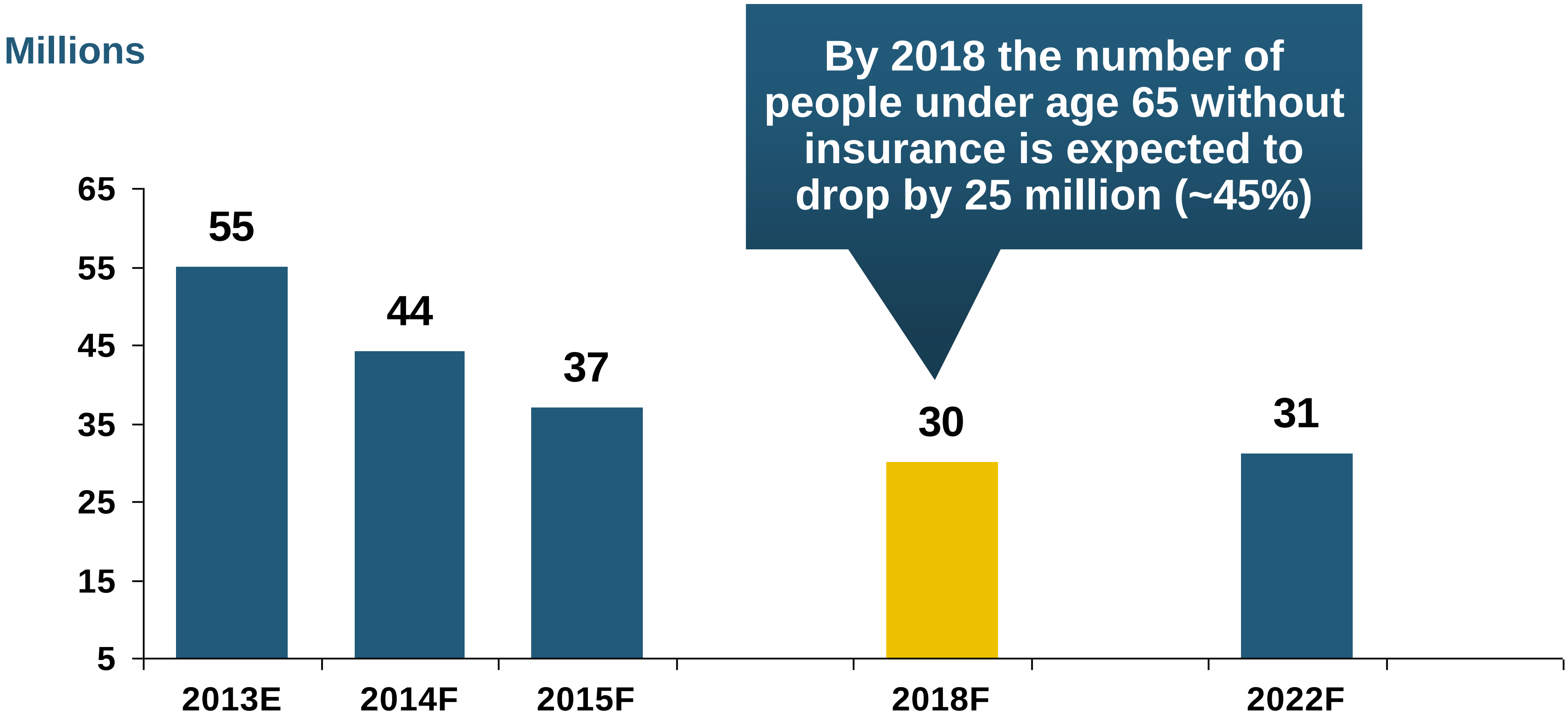
UPDATE

HHS announced that enrollment as of 3/16 now exceeds 5 million

Notes: Represents cumulative monthly sums of data on the number of unique individuals who have been determined eligible to enroll in a plan through the FFM, and have selected a plan (with or without the first premium payment having been received by the issuer).

Source: Centers for Medicare and Medicaid as of March 7, 2014: http://aspe.hhs.gov/health/reports/2014/MarketPlaceEnrollment/Mar2014/ib_2014mar_enrollment.pdf

Projected Number of People with No Health Insurance, 2013—2022*



The projected decline in the uninsured population is very sensitive to the enrollment rate under the Affordable Care Act

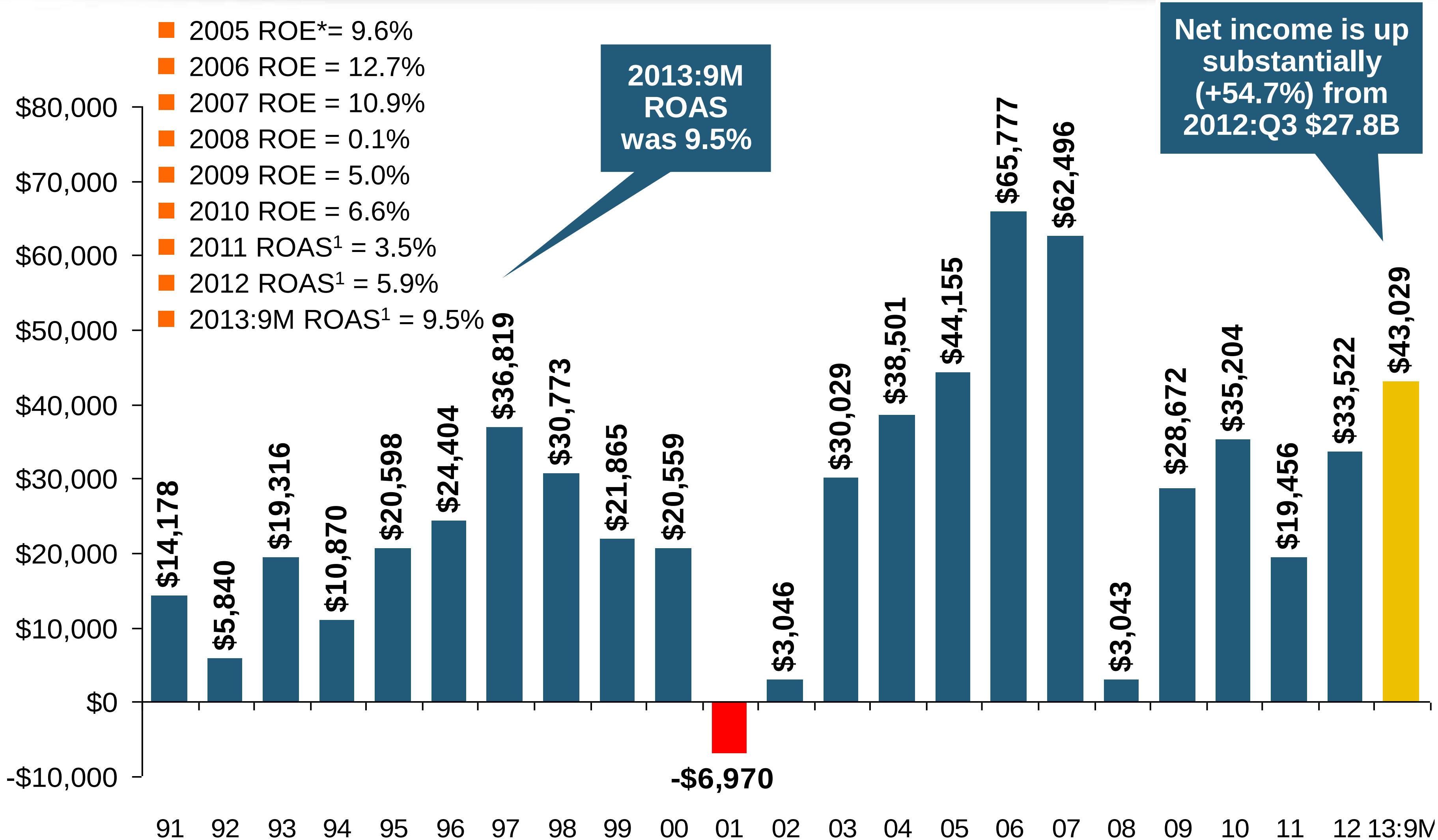
*Under age 65.

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html accessed 3/14/14; Insurance Information Institute.

P/C Insurance Industry Financial Overview

2013: Best Year in the Post-Crisis Era

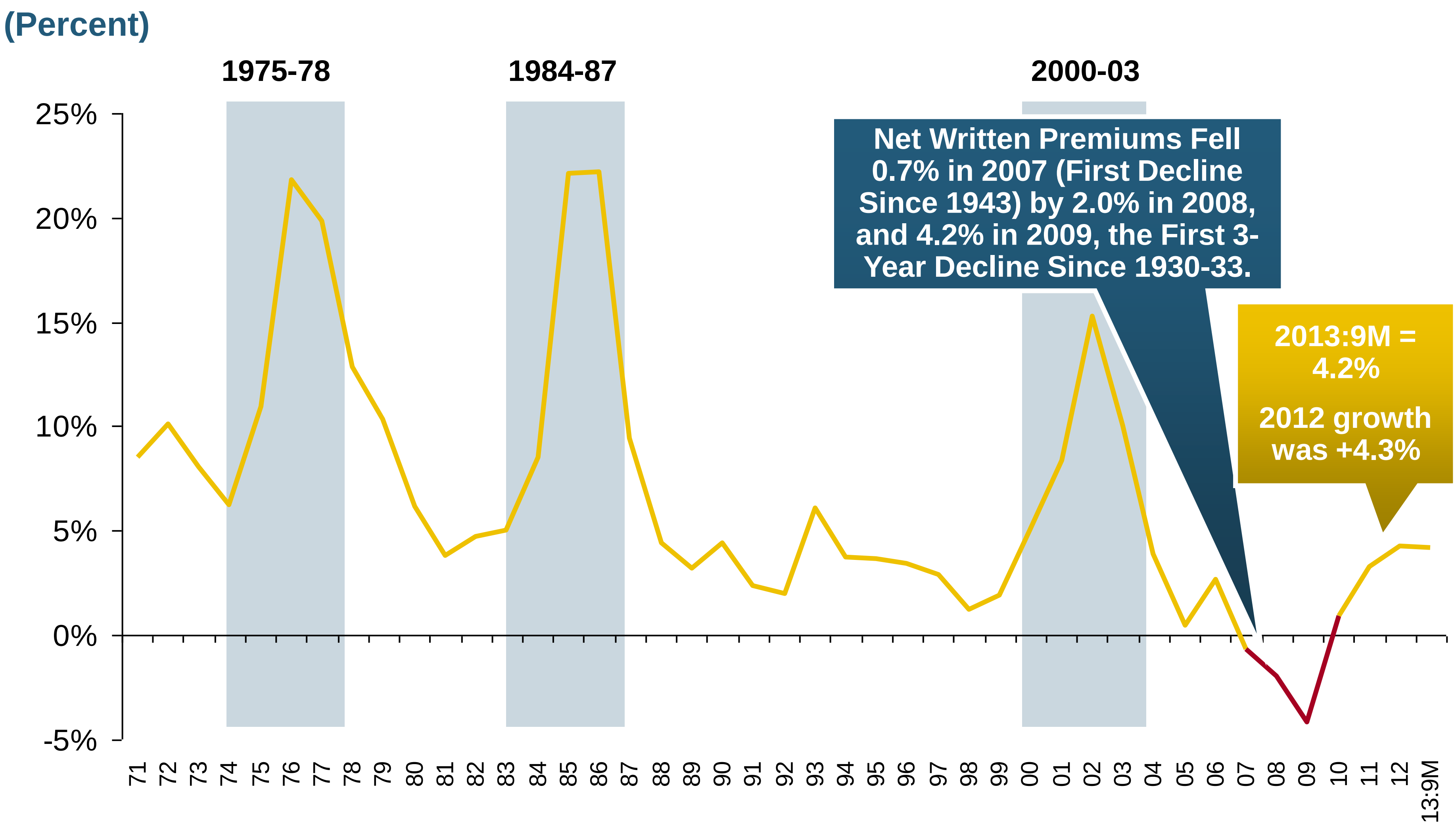
P/C Net Income After Taxes 1991–2013:Q3 ($ Millions)



•ROE figures are GAAP; [1]Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.9% ROAS through 2013:Q3, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

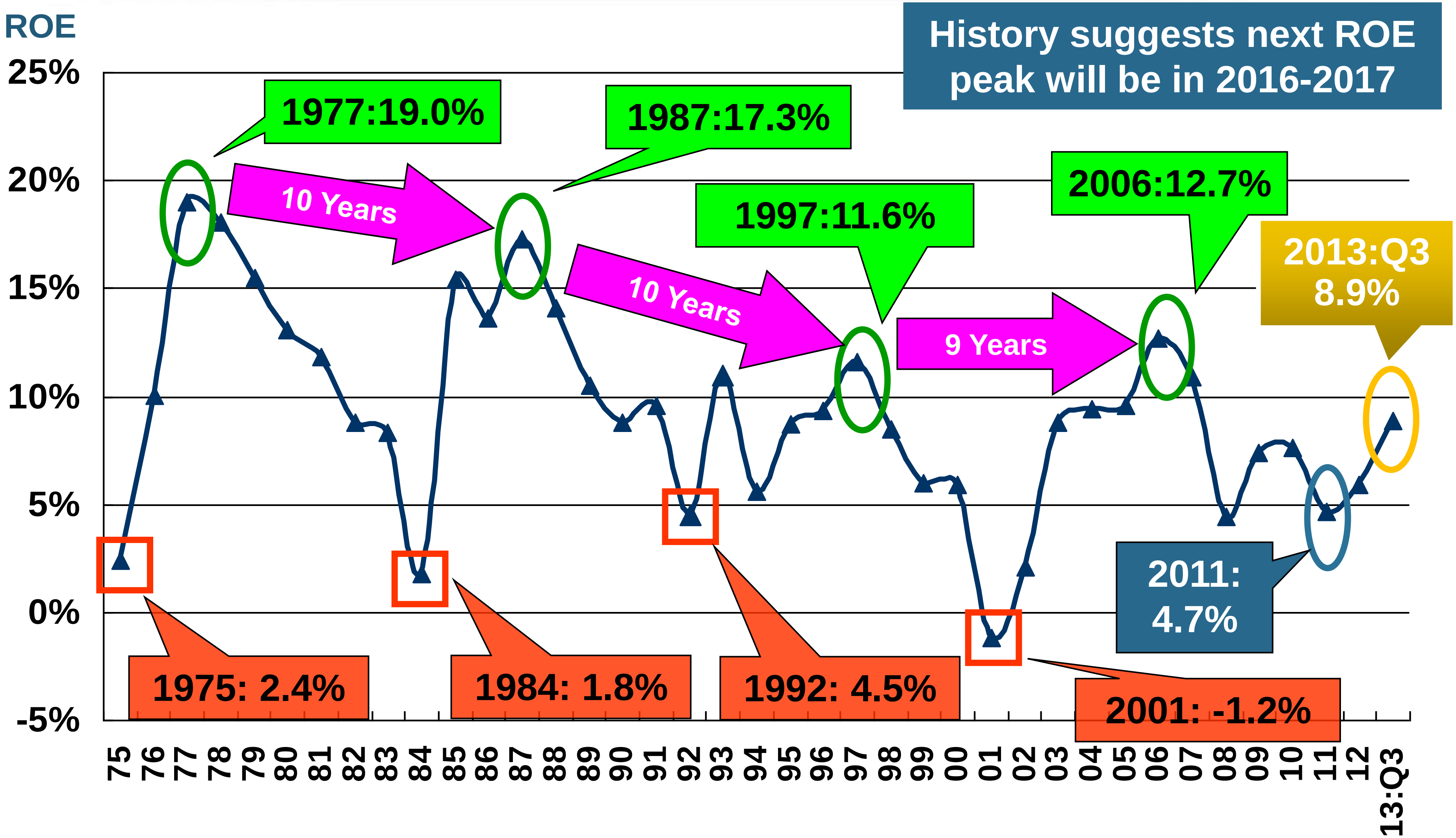
Sources: A.M. Best, ISO, Insurance Information Institute

Net Premium Growth: Annual Change, 1971—2013:Q3



Shaded areas denote "hard market" periods
Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.

Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2013:Q3*



*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

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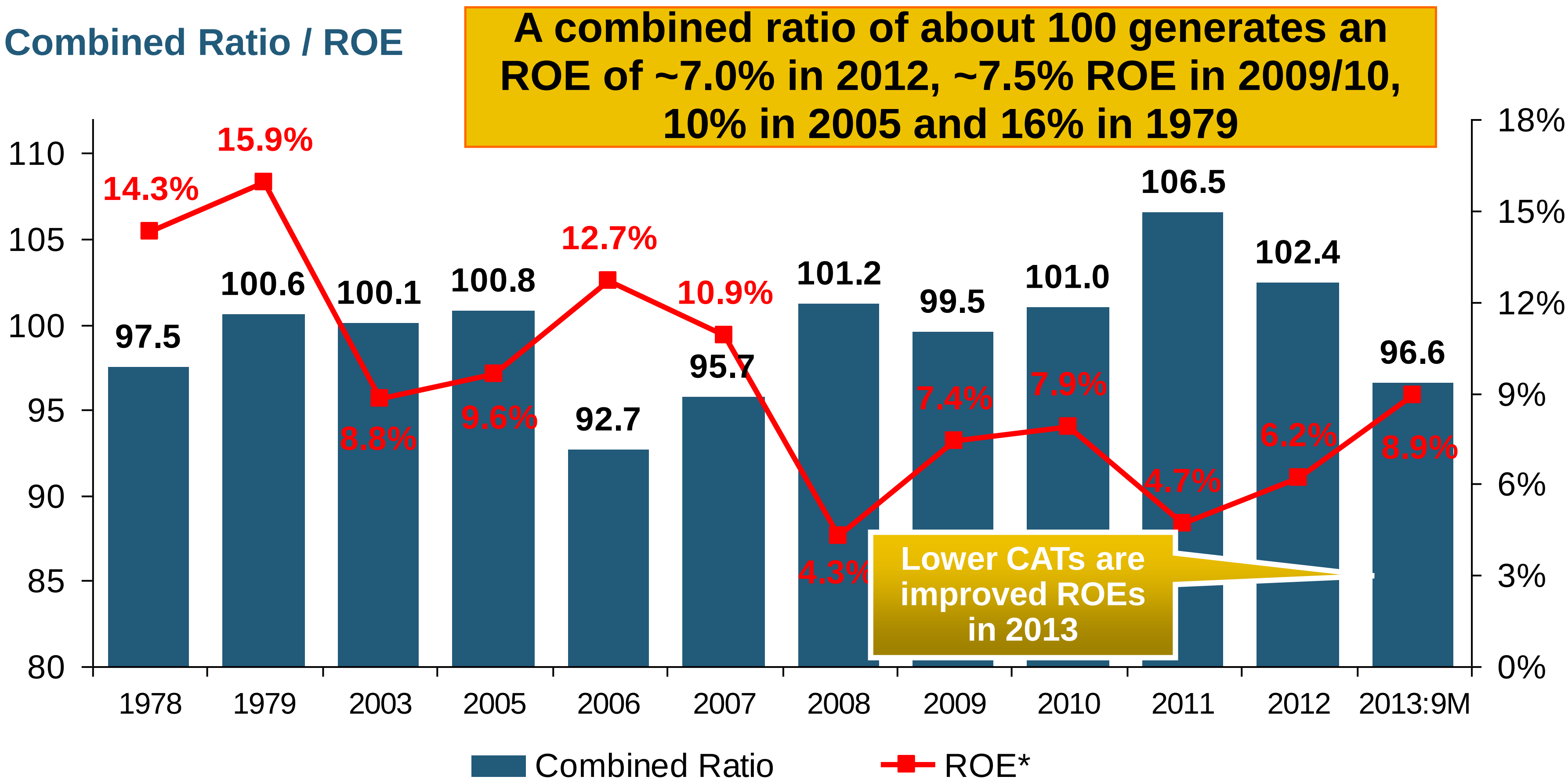
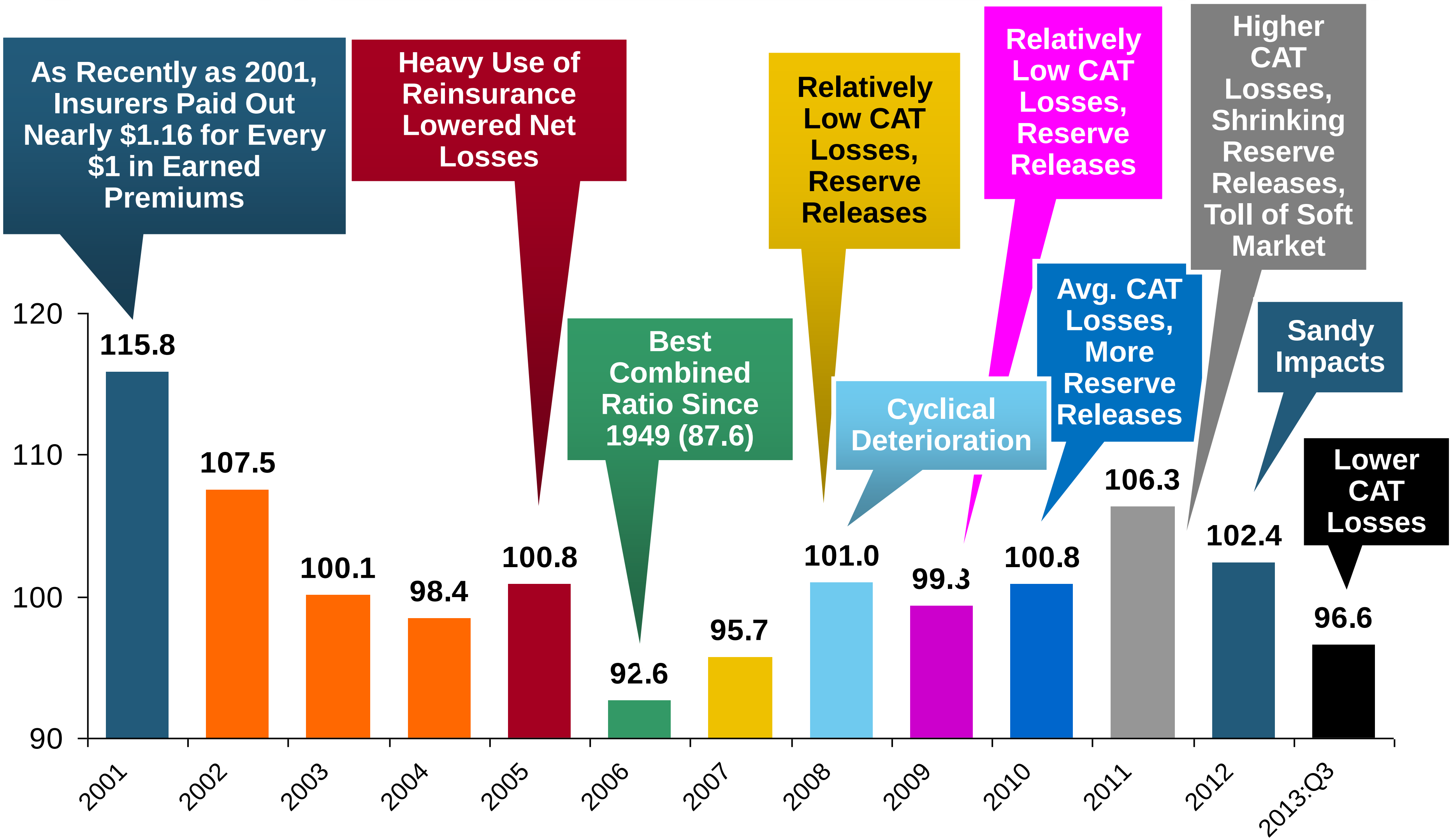


Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs

* 2008 -2013 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2013:9M combined ratio including M&FG insurers is 95.8; 2012 =103.2, 2011 = 108.1, ROAS = 3.5%.

Source: Insurance Information Institute from A.M. Best and ISO Verisk Analytics data.

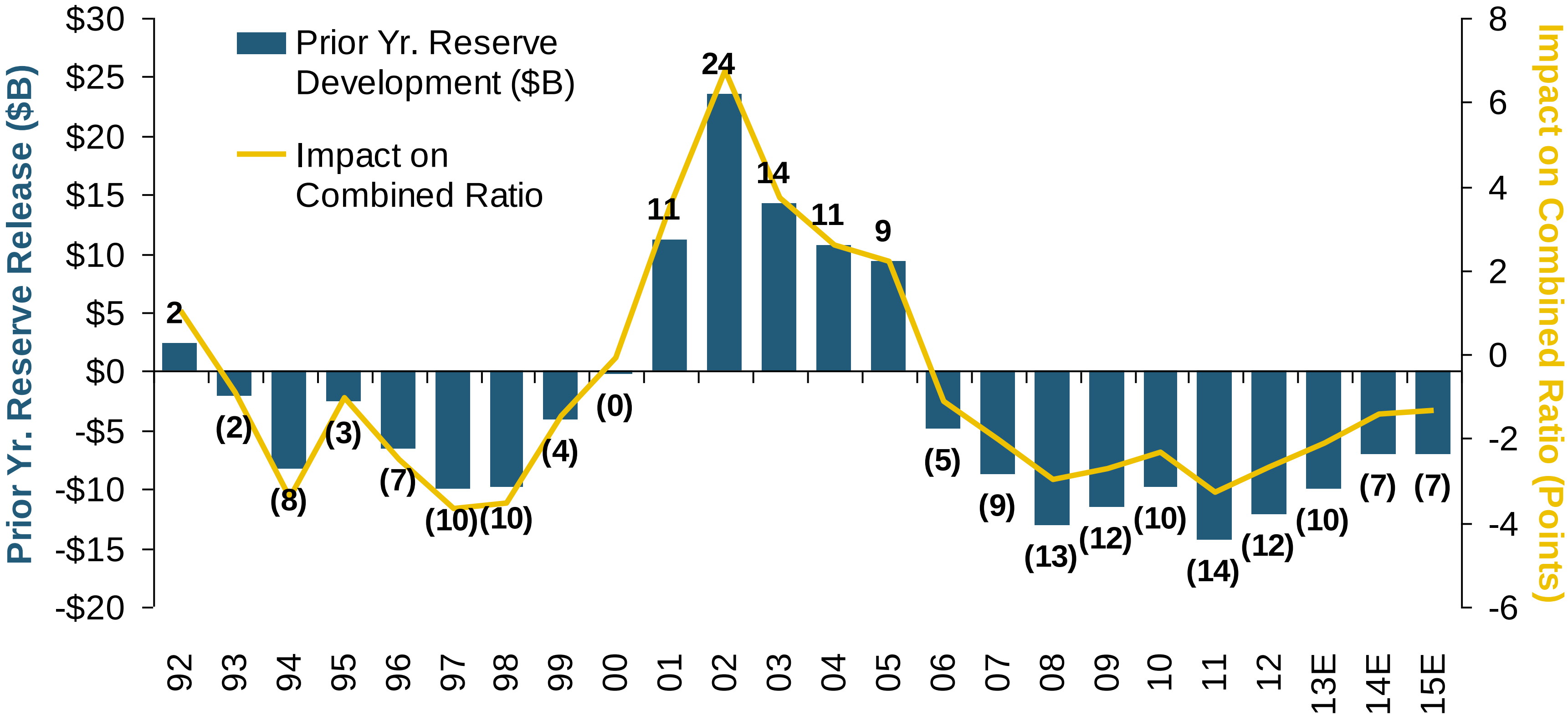
P/C Insurance Industry Combined Ratio, 2001–2013:Q3*



* Excludes Mortgage & Financial Guaranty insurers 2008--2012. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2; 2013:Q3 = 95.8.

Sources: A.M. Best, ISO.

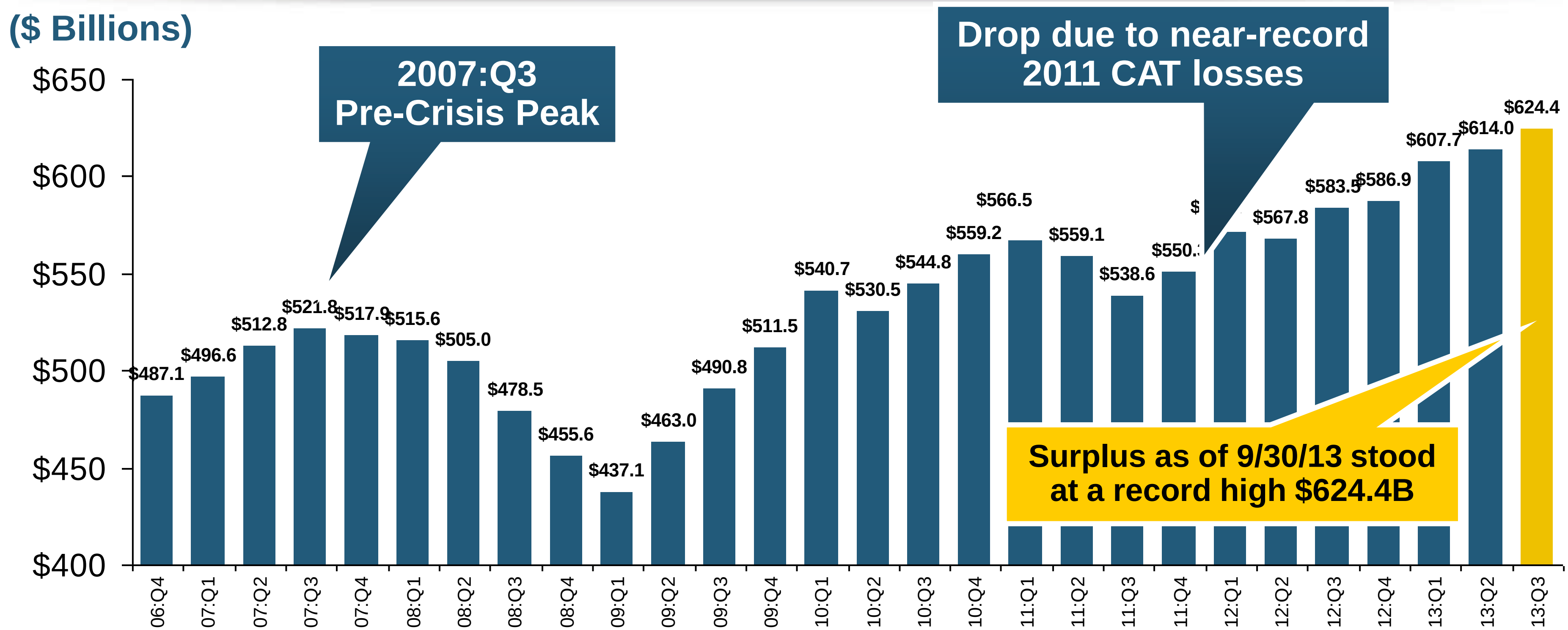
P/C Reserve Development, 1992–2015E



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).

Policyholder Surplus, 2006:Q4–2013:Q3



The industry now has $1 of surplus for every $0.78 of NPW, close to the strongest claims-paying status in its history.

2010:Q1 data includes $22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business .

The P/C insurance industry entered 2014 in very strong financial condition.

Sources: ISO, A.M .Best.

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Financial Strength & Underwriting

History Suggests that MPL, Like Other Long-Tailed Lines Is Much More Difficult to Underwrite

P/C Insurer Impairments, 1969–2012

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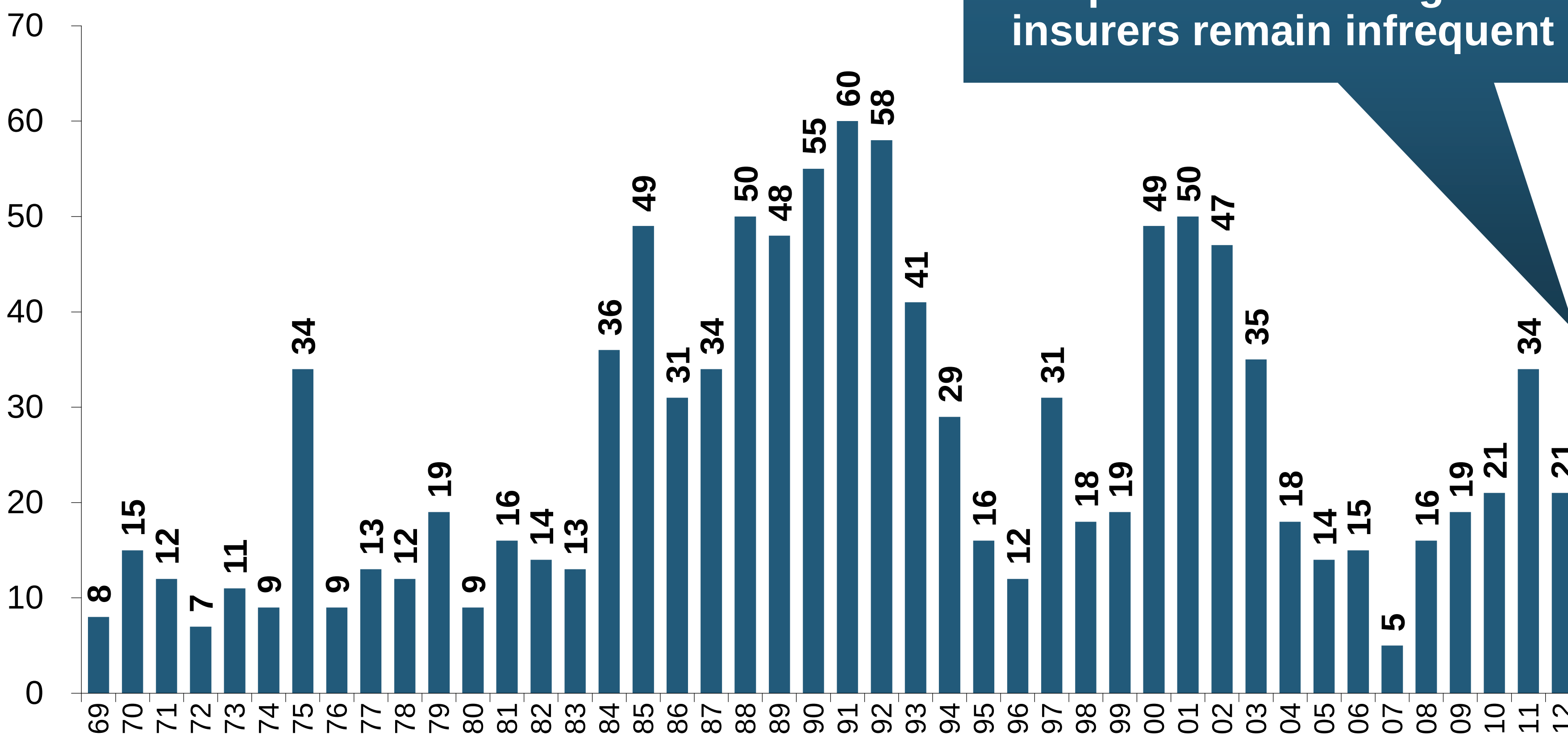
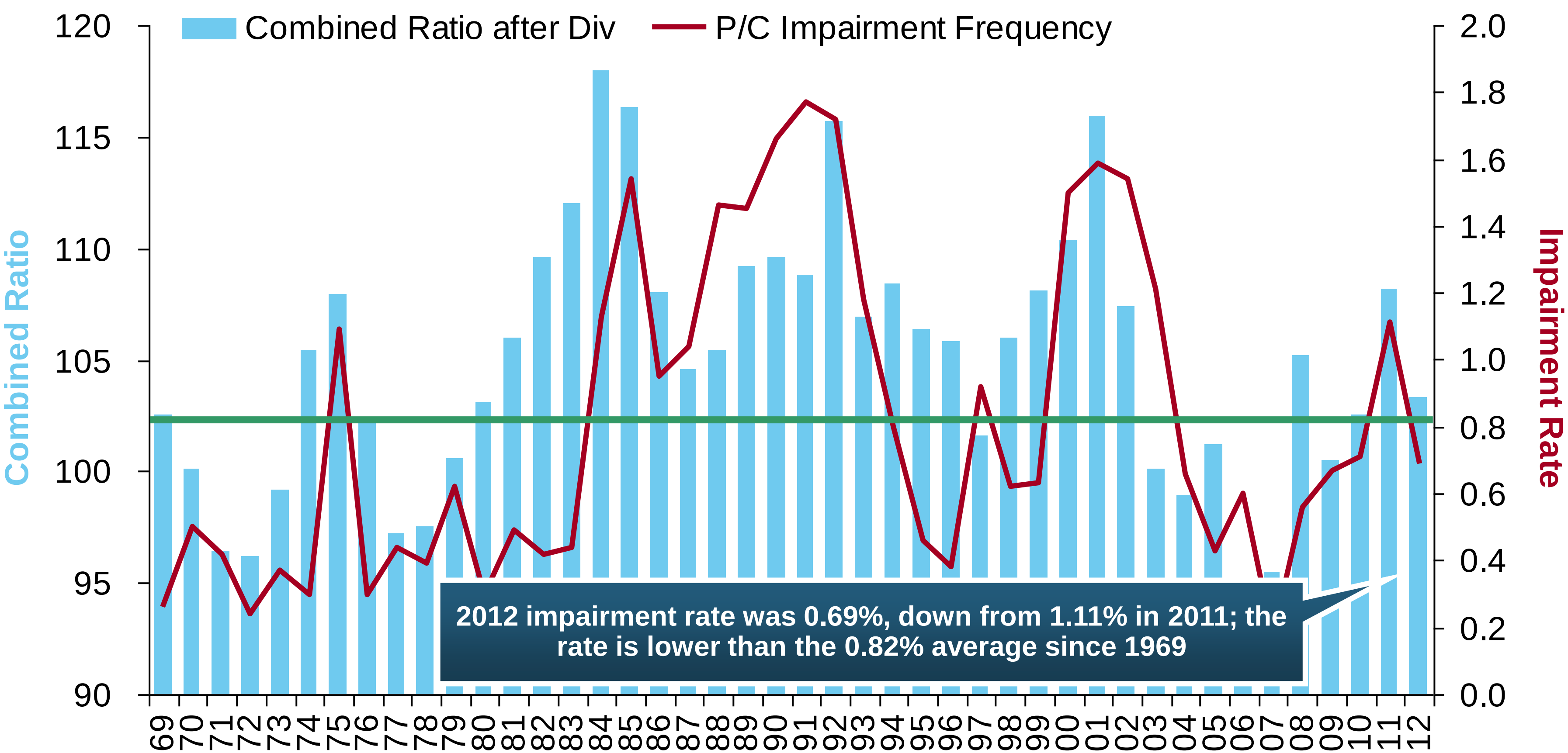


Impairments among P/C insurers remain infrequent

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

Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

P/C Insurer Impairment Frequency vs. Combined Ratio, 1969-2012

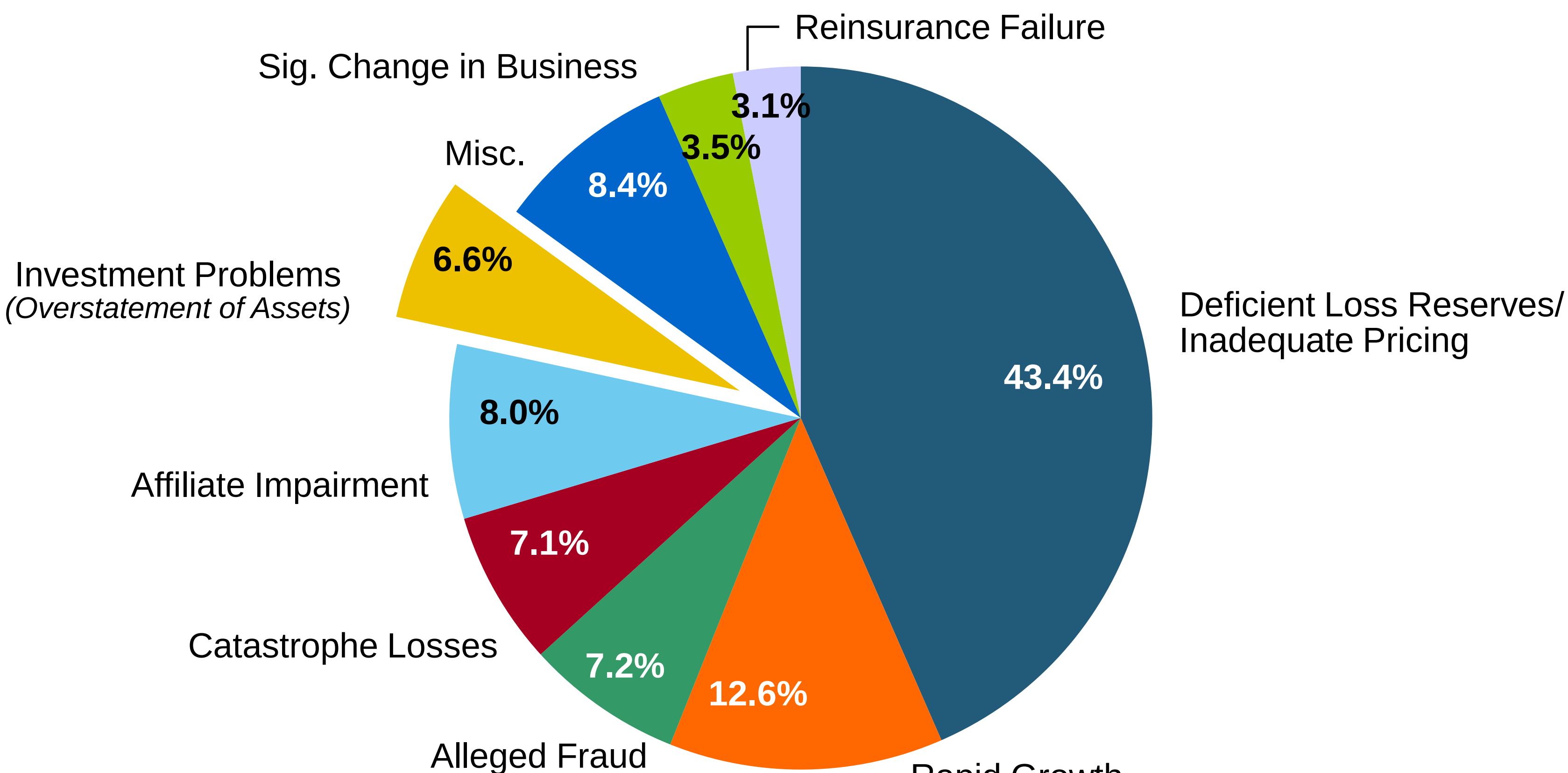


Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007; Recent Increase Was Associated Primarily With Mortgage and Financial Guaranty Insurers and Not Representative of the Industry Overall

Source: A.M. Best; Insurance Information Institute

Reasons for US P/C Insurer Impairments, 1969–2012

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



Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

Top 10 Lines of Business for US P/C Impaired Insurers, 2000–2012

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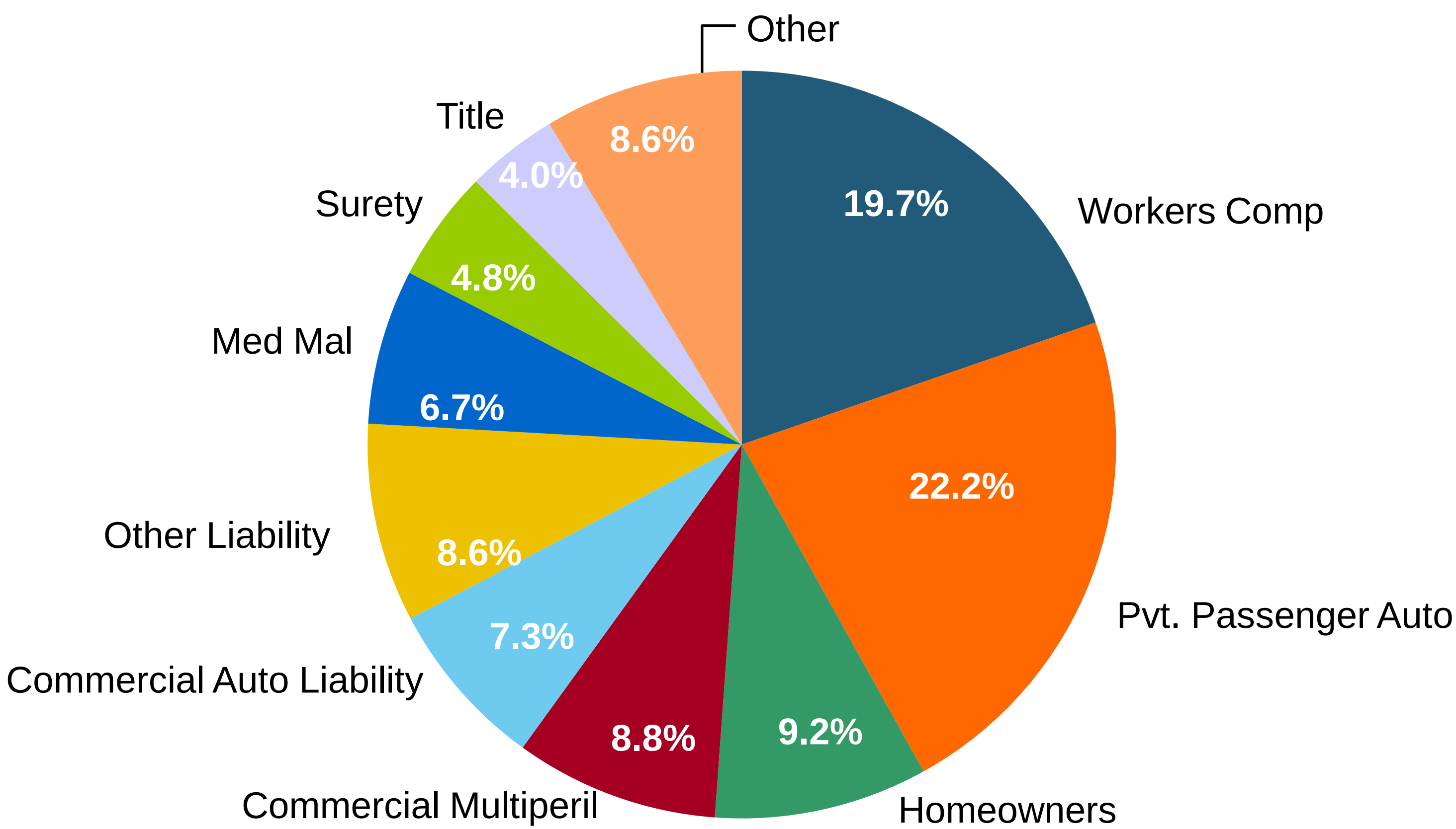
Medical Professional Liability Accounts for Only About 2% of Industry DPW but 6.7% of Insurer Impairments



Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

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INVESTMENTS:
THE NEW REALITY

The Challenge of Low Investment Yields Is a Critical Issue for MPL Insurers

Is Relief in Sight?

Property/Casualty Insurance Industry Investment Income: 2000–2013*[1]

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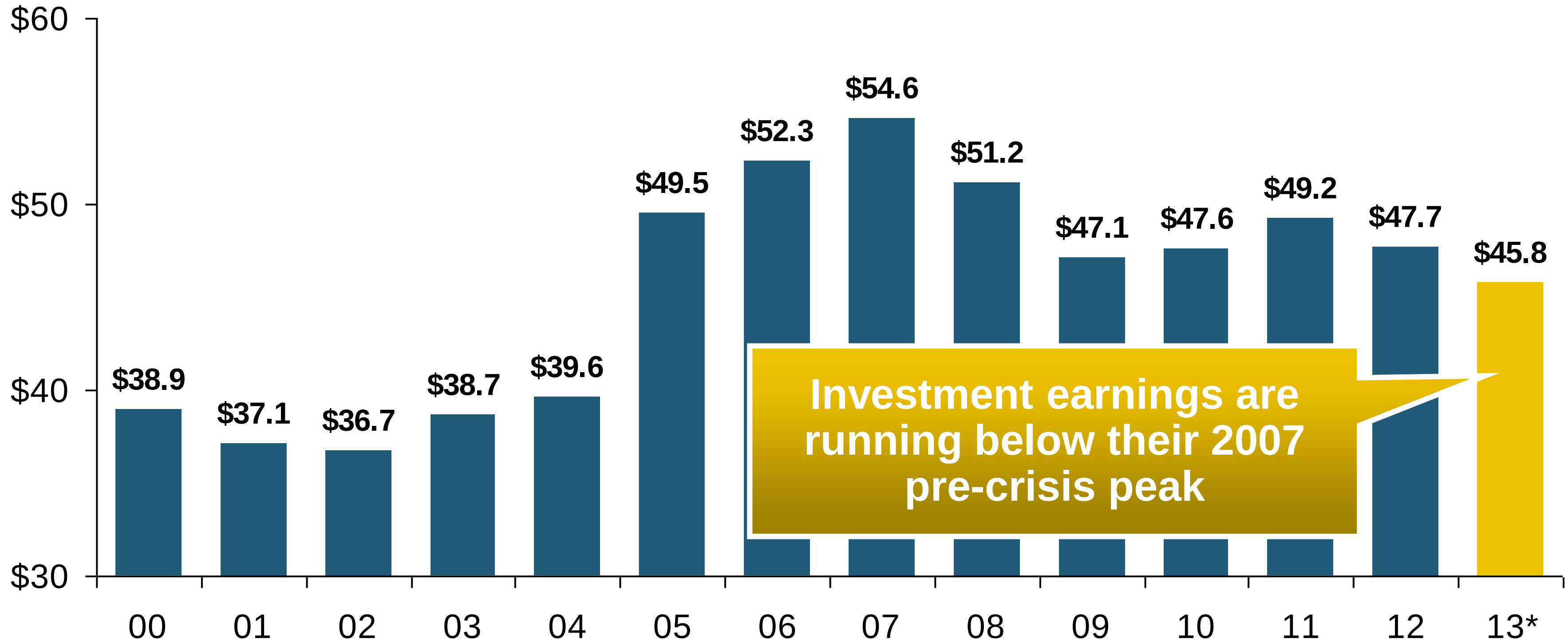
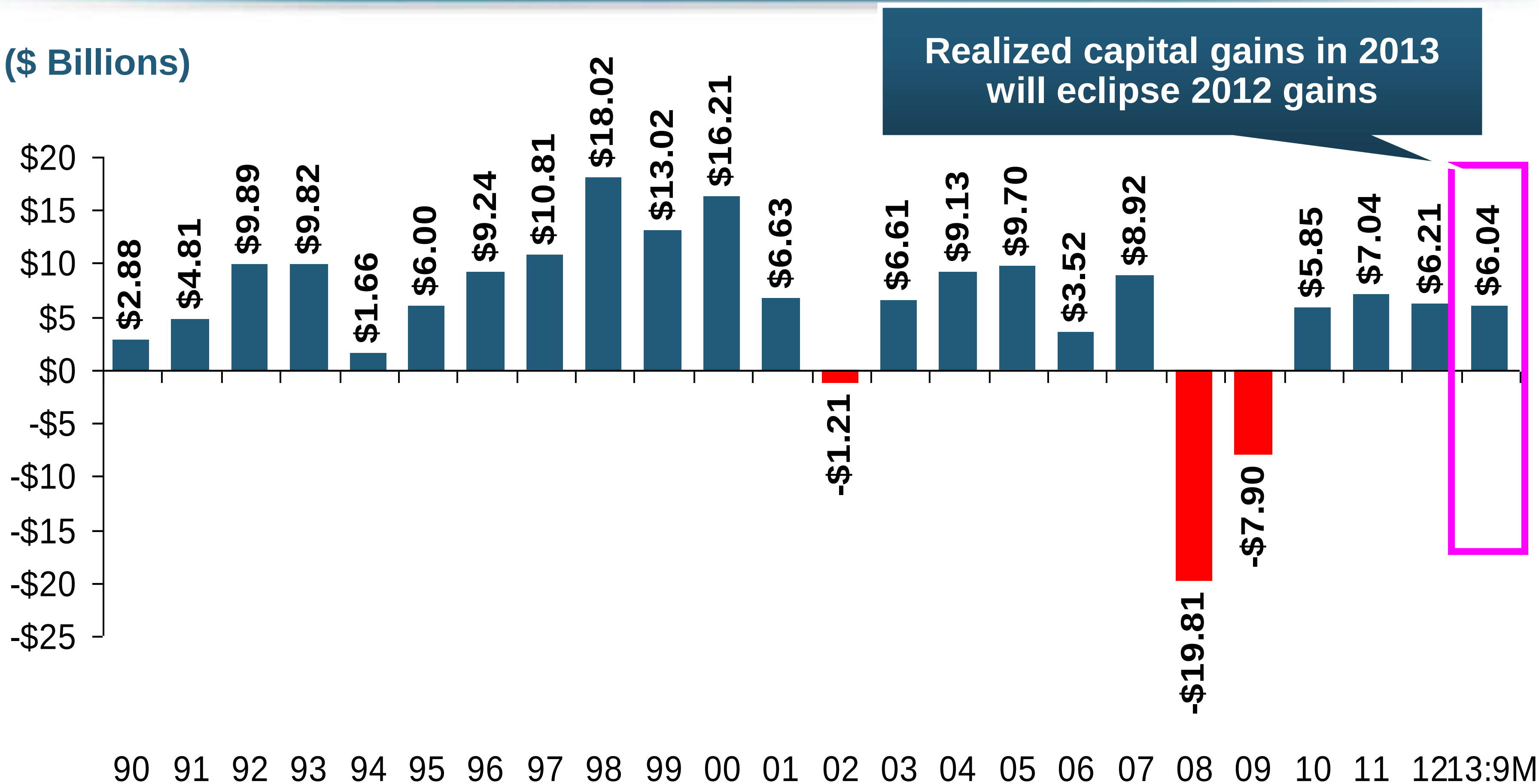
($ Billions)



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

[1] Investment gains consist primarily of interest and stock dividends..
*Estimate based on annualized actual 9M:2013 investment income of $34.338B.
Sources: ISO; Insurance Information Institute.

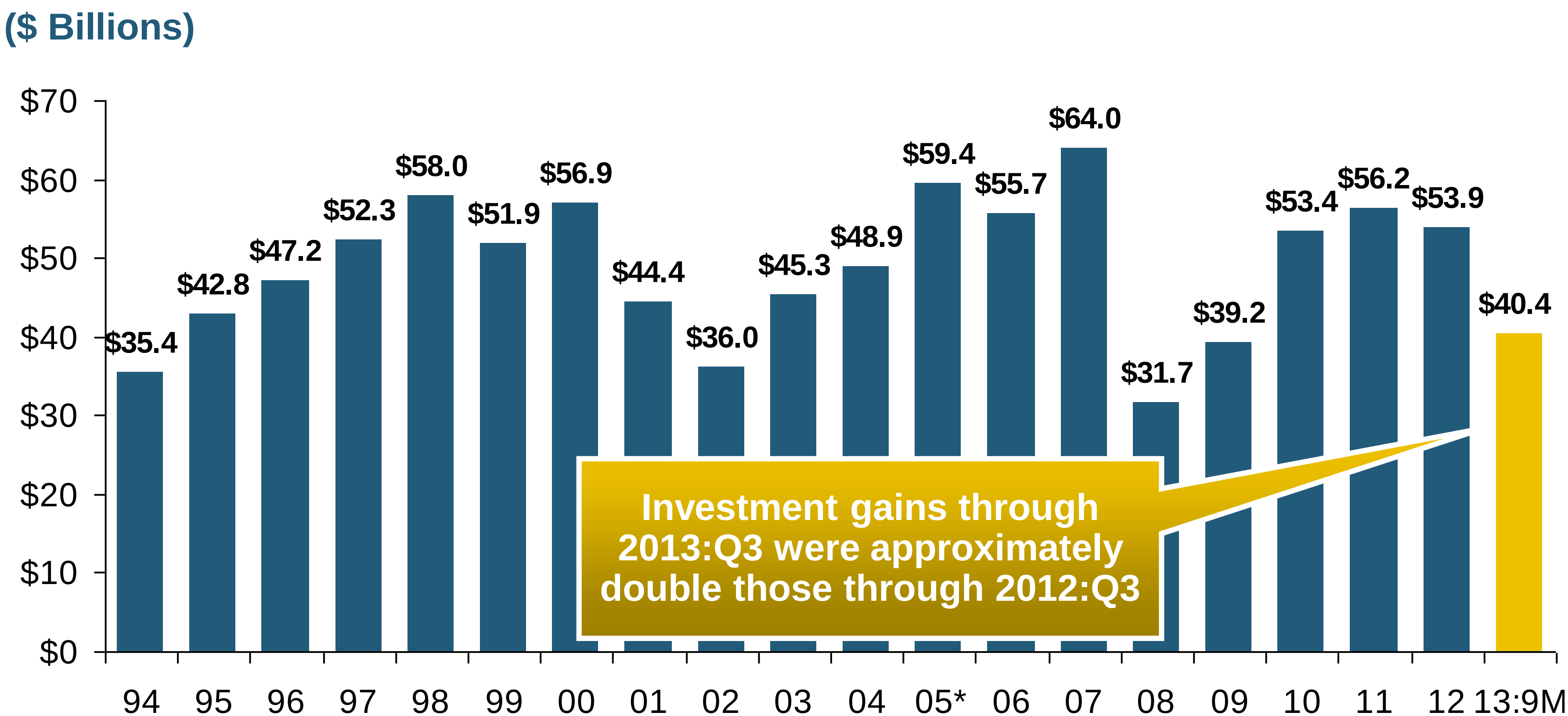
P/C Insurer Net Realized Capital Gains/Losses, 1990-2013:Q3



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

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

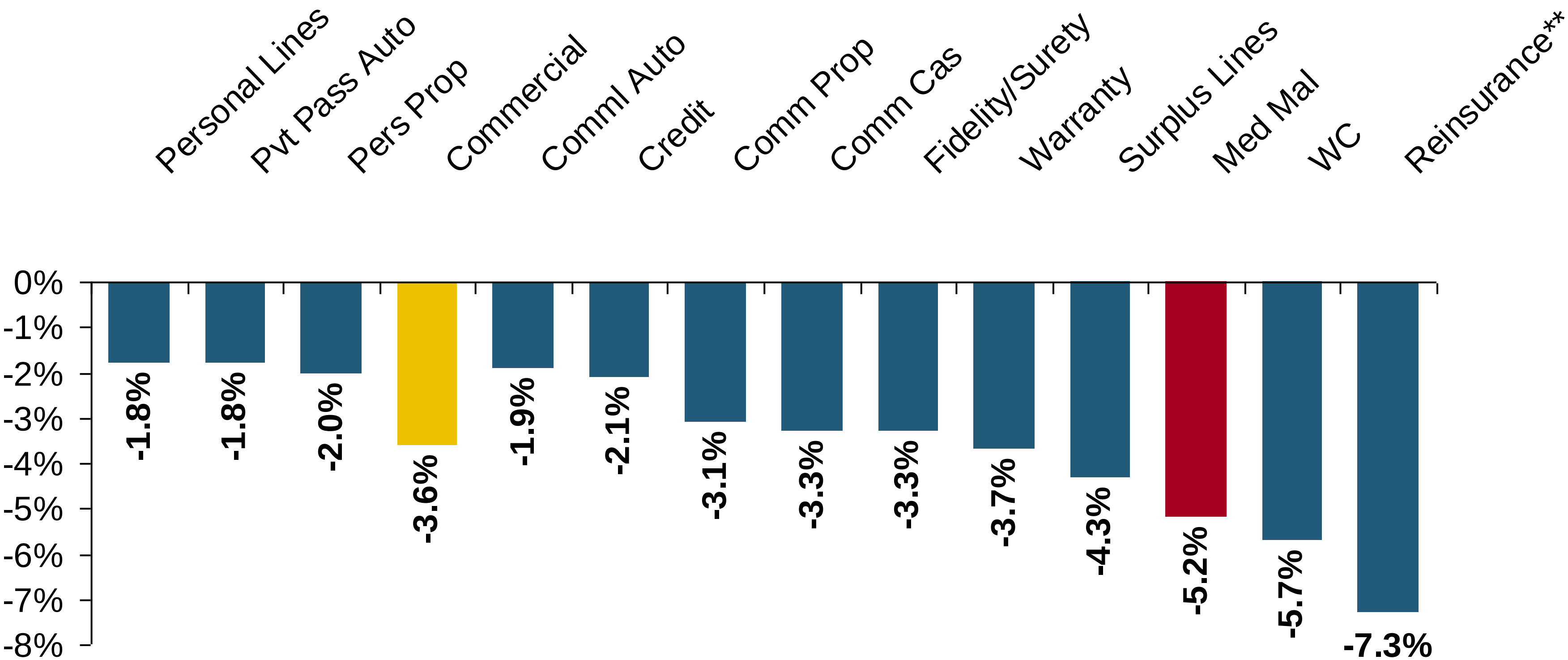
Property/Casualty Insurance Industry Investment Gain: 1994–2013:Q3[1]



Investment Income Continued to Fall in 2013 Due to Low Interest Rates but Realized Investment Gains Were Up Sharply; The Financial Crisis Caused Investment Gains to Fall by 50% in 2008

[1] 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.

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



In order to offset a 1% decline in investment yield, an MPL insurer needs to reduce its combined ratio by about 5.2 points to maintain the same ROE

*Based on 2008 Invested Assets and Earned Premiums

**US domestic reinsurance only

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

MPL Cash and Invested Assets, 2006 – 2015F

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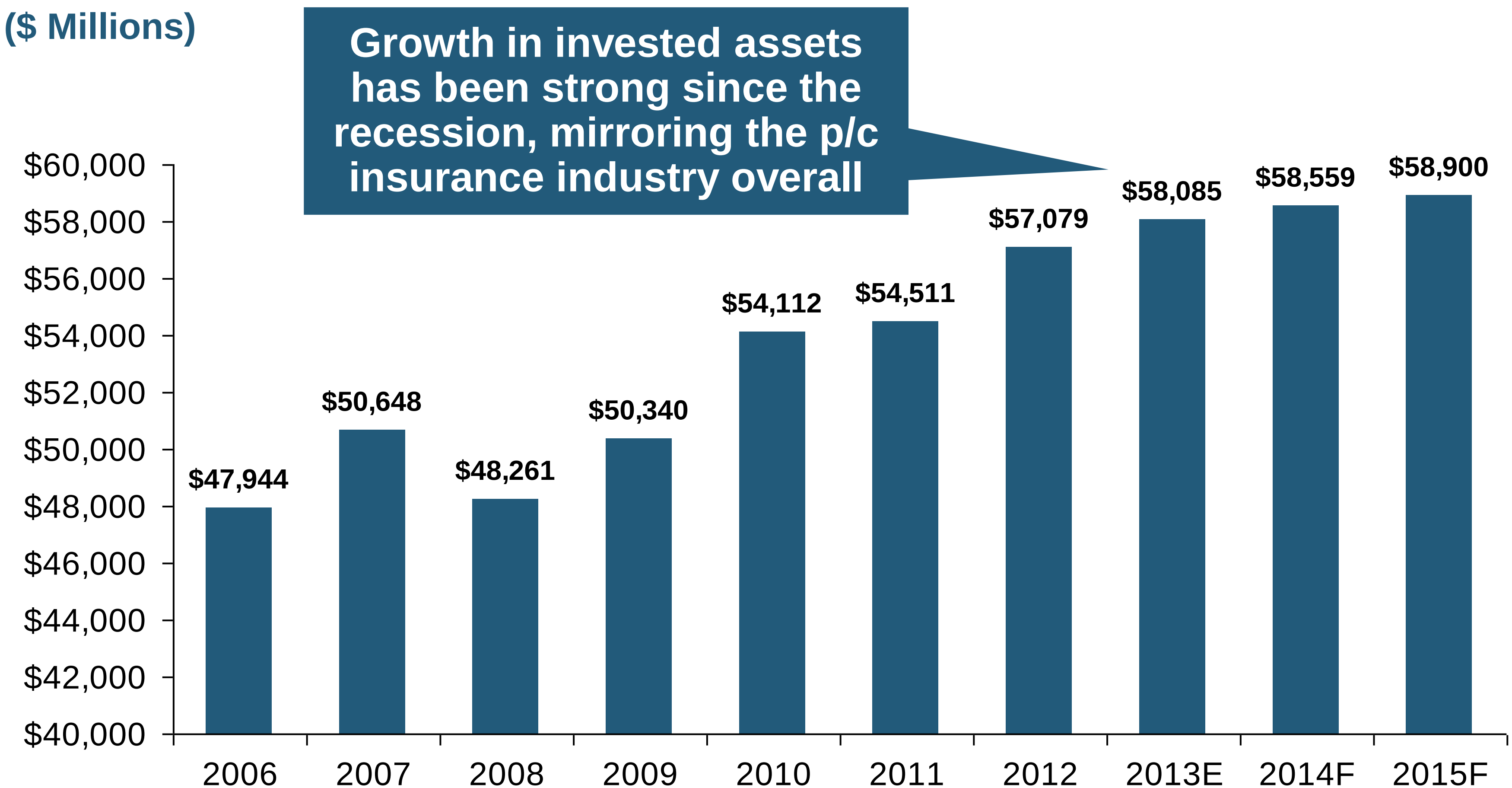
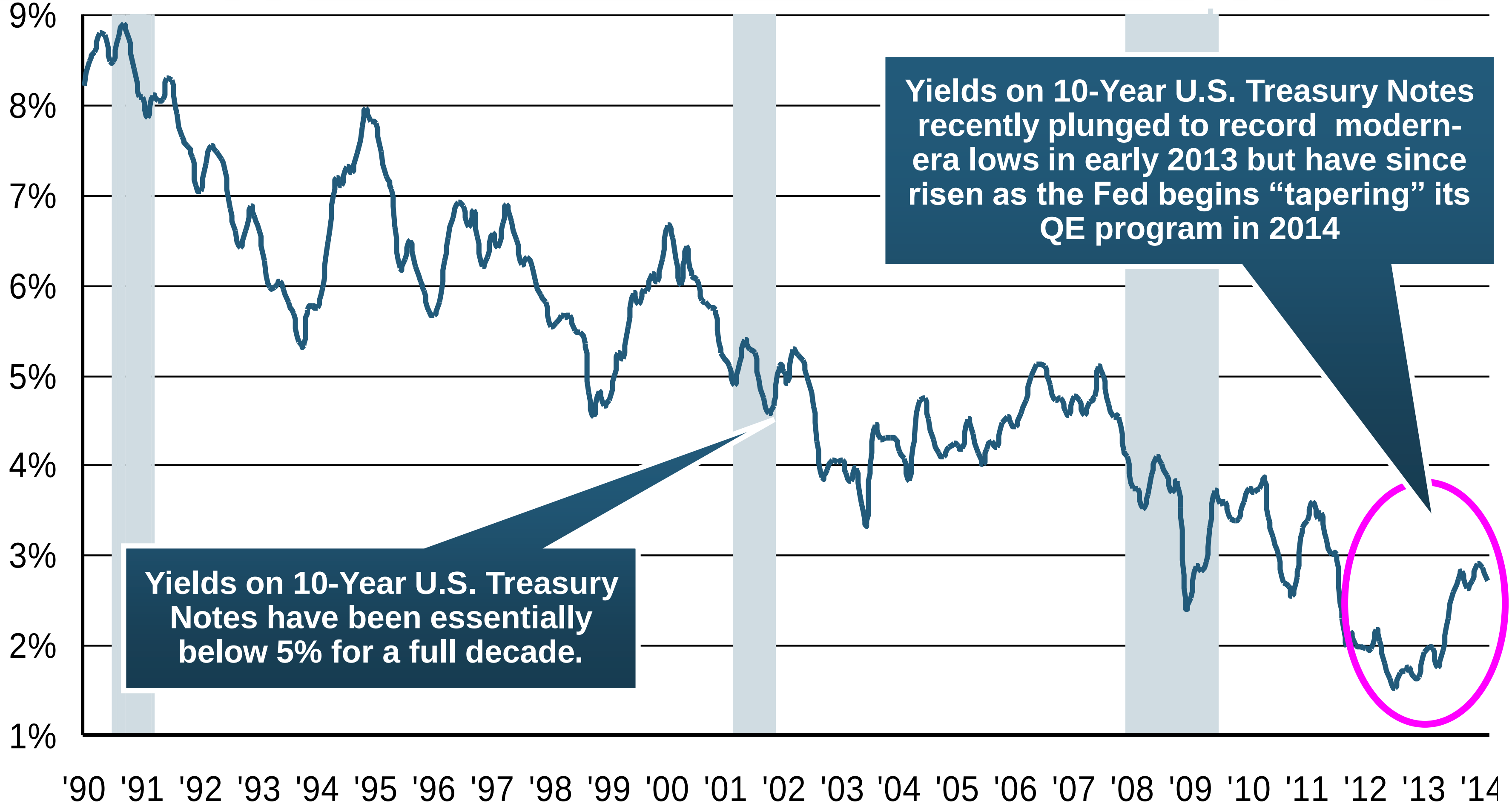


MPL invested assets continue to grow despite declining profits

Source: Conning.

U.S. 10-Year Treasury Note Yields: A Long Downward Trend, 1990–2014*

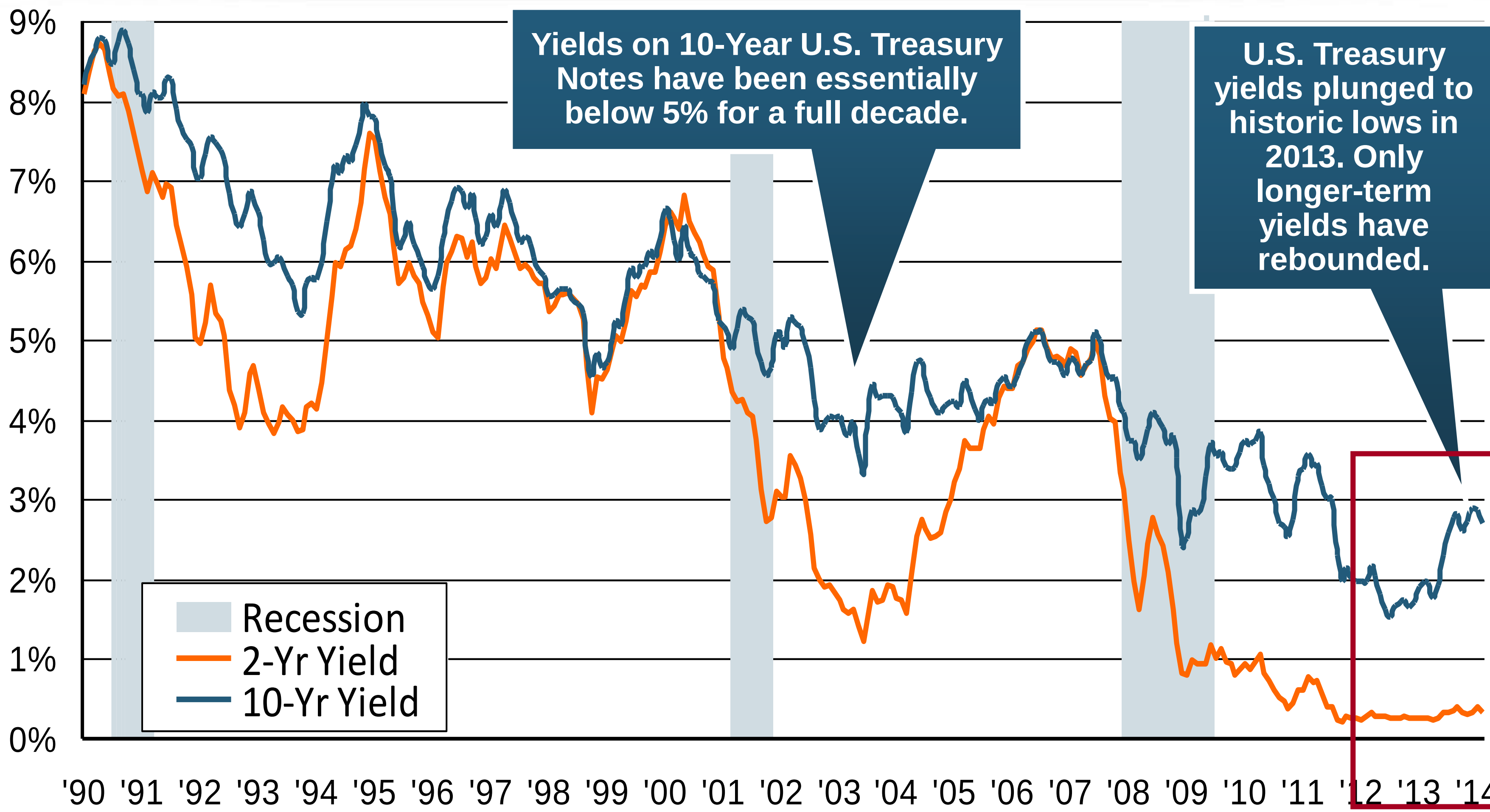


Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, through February 2014. 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, 1990–2014*

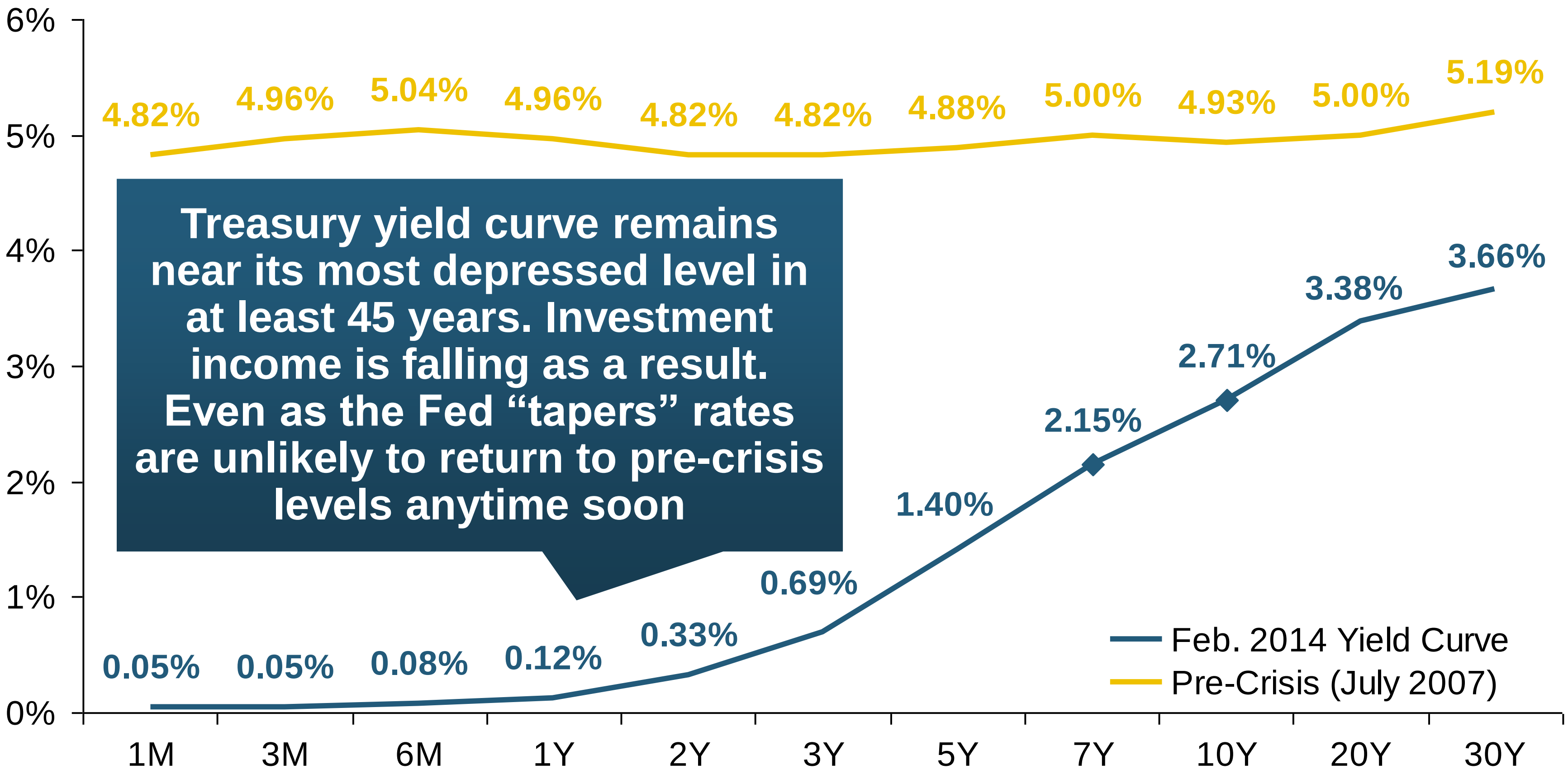


Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, constant maturity, nominal rates, through February 2014.

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

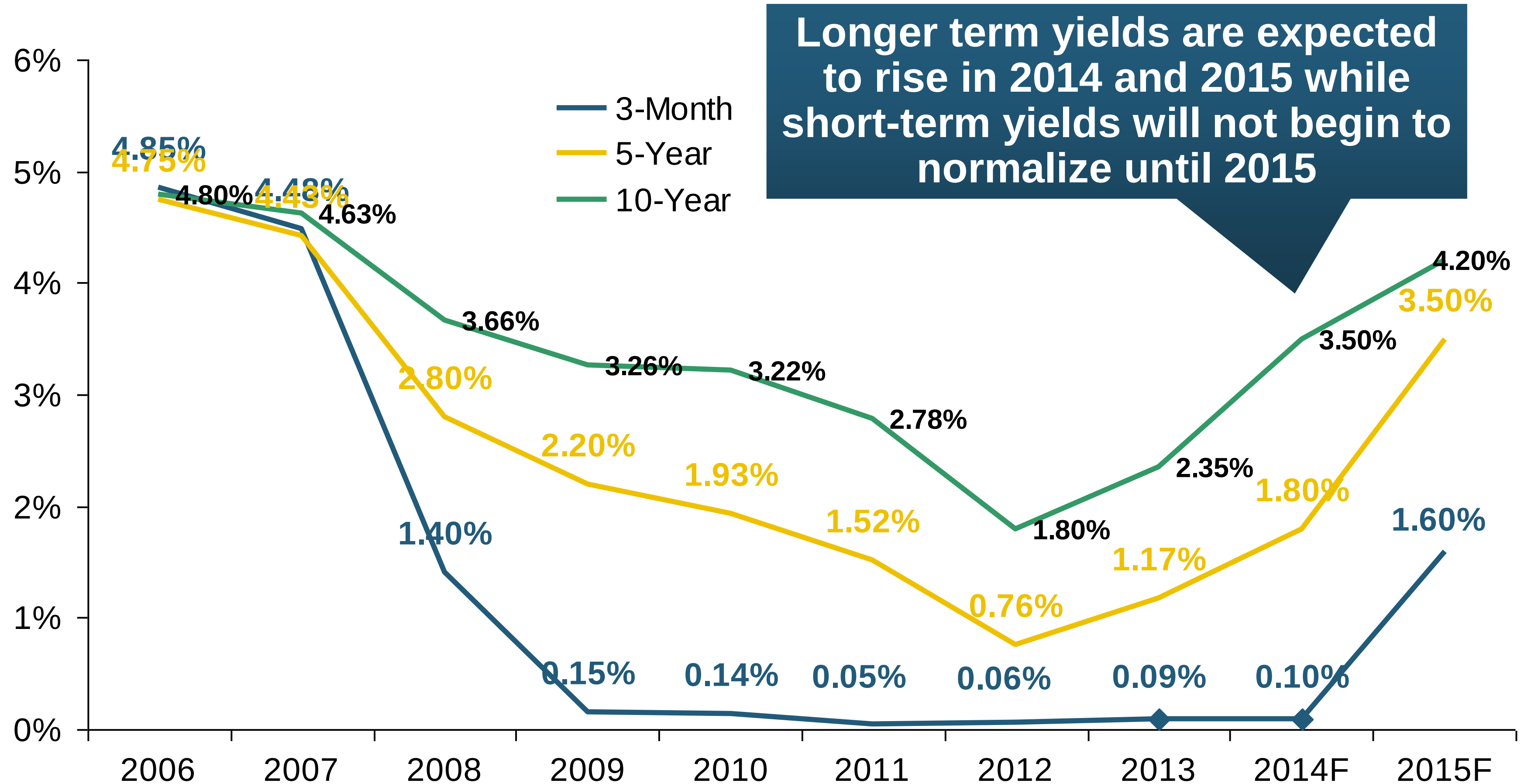
Treasury Yield Curves: Pre-Crisis (July 2007) vs. Feb. 2014



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.

Source: Federal Reserve Board of Governors; Insurance Information Institute.

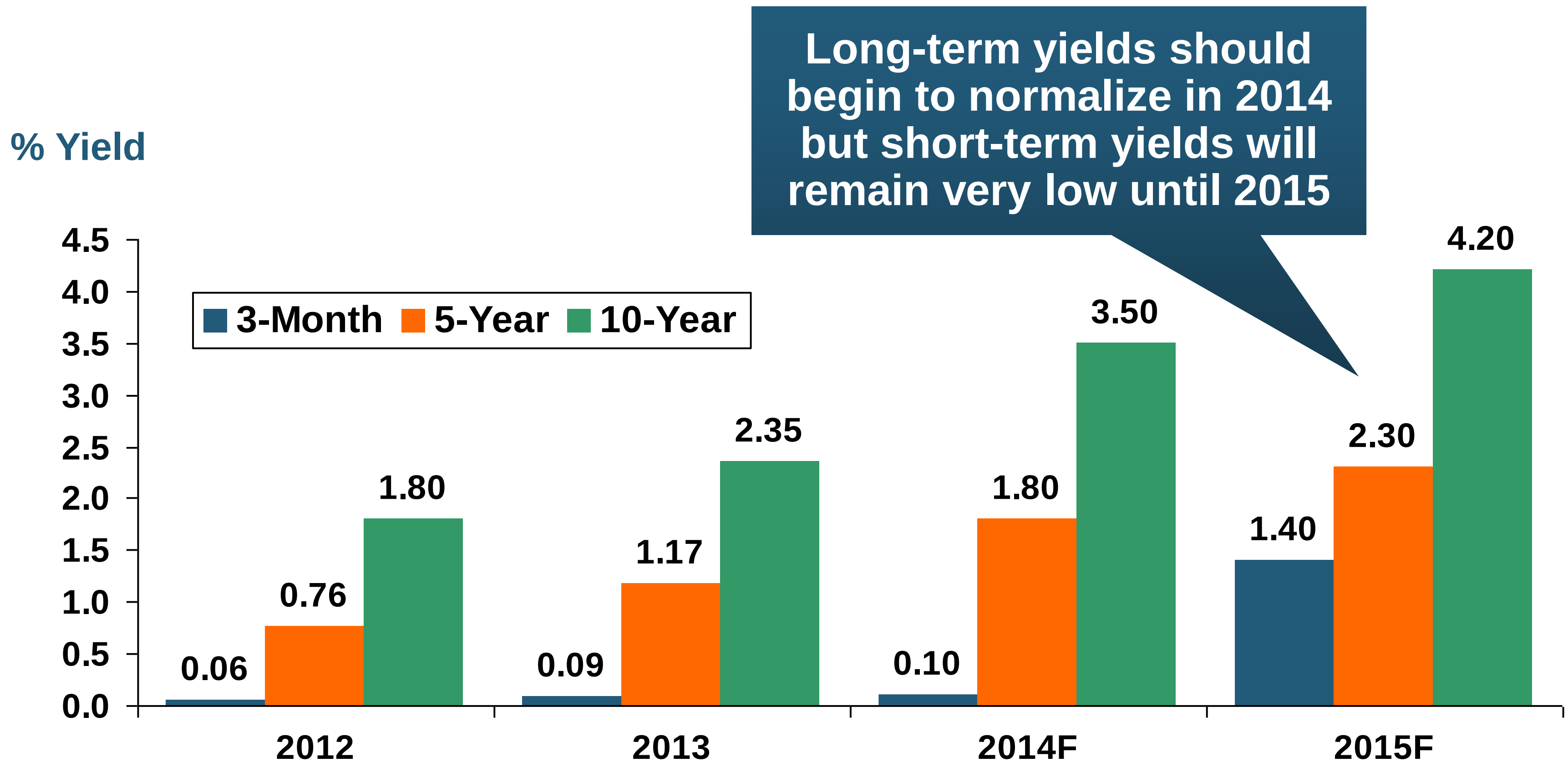
Treasury Yield Curves: Pre-Crisis (July 2007) vs. Feb. 2014



Higher longer-term yields will help insurers but short term yields are expected to lag behind

Source: Federal Reserve Board of Governors (2006-2013), Swiss Re (2014-2015); Insurance Information Institute.

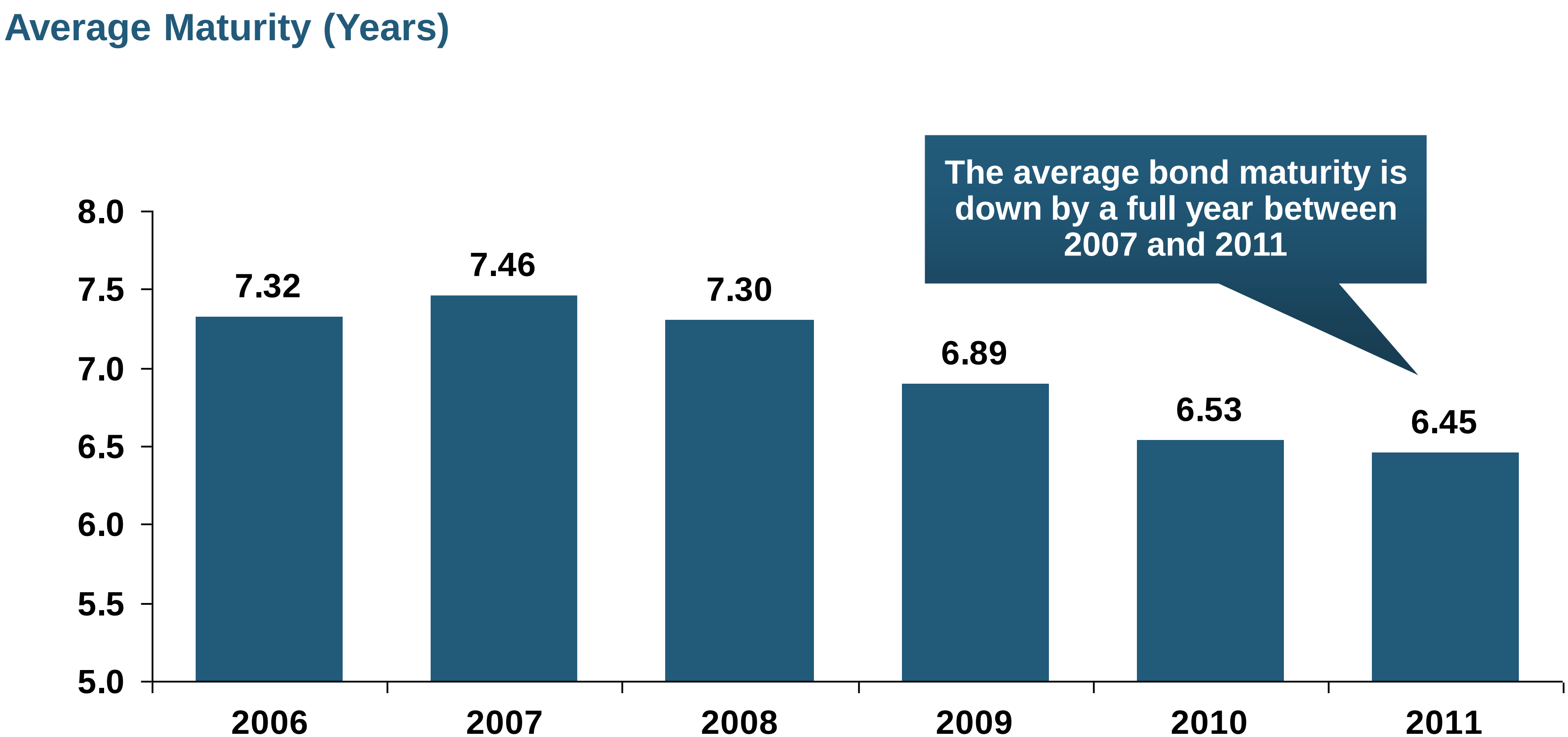
Outlook for U.S. Treasury Bond Yields Through 2015



Longer-tail lines like MPL and workers comp will benefit the most from the normalization of yields

Source: Federal Reserve Board of Governors (2012-2013), Swiss Re (2014-2015); Insurance Information Institute.

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

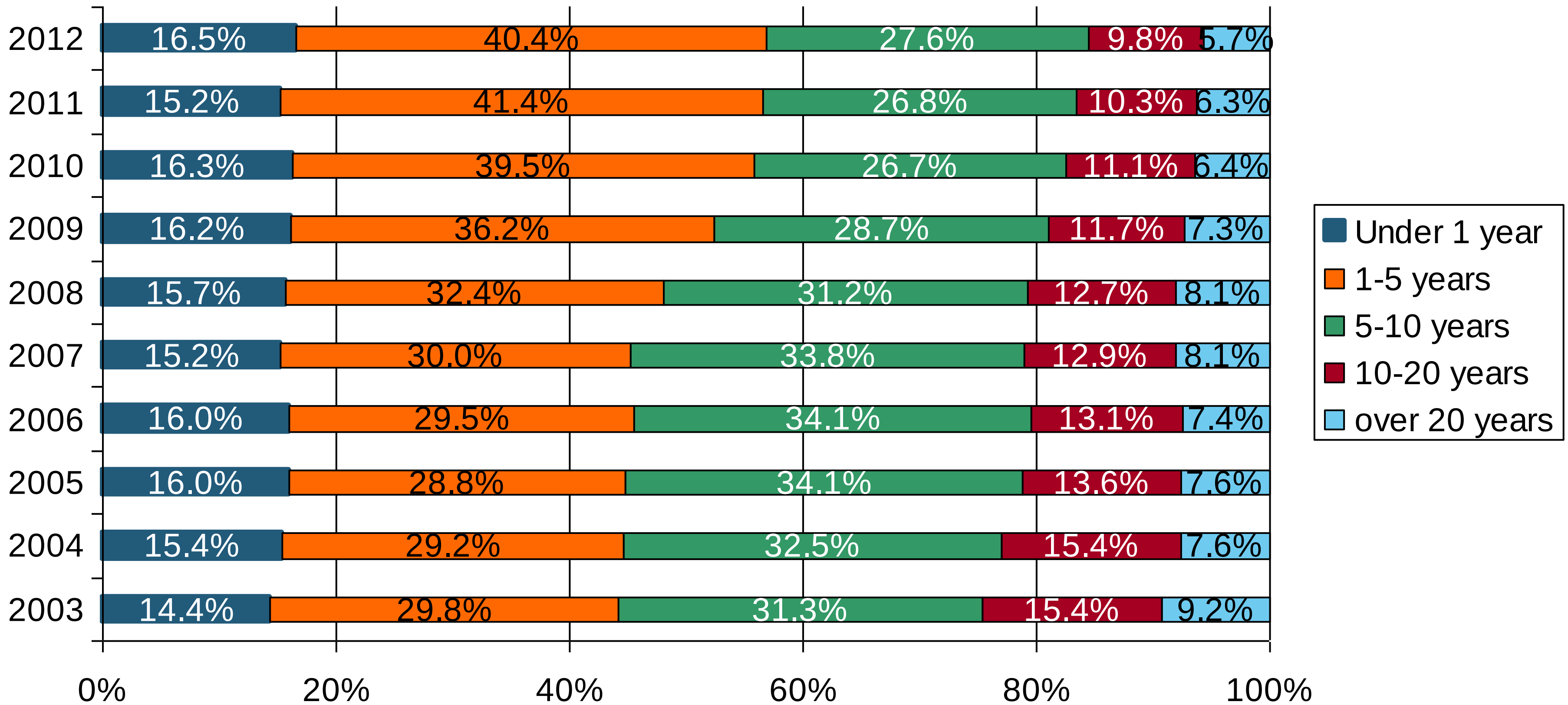


Falling Average Maturity (and Duration) of the P/C Industry's Bond Portfolio is Contributing to the Drop in Investment Income Along With Lower Yields

*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.

Sources: SNL Financial; Insurance Information Institute.

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

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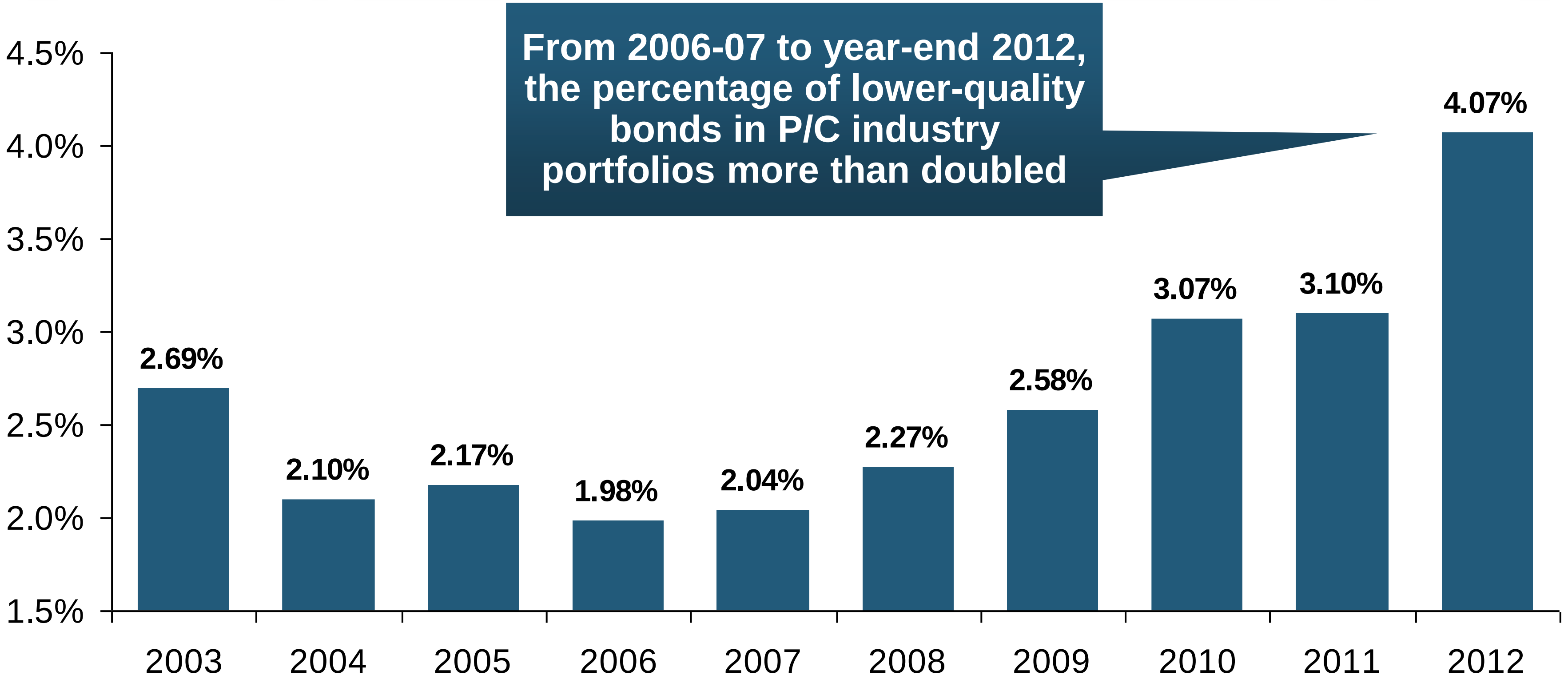

There are many ways to capture higher yields on bond portfolios. One is to accept greater risk, as measured by NAIC bond ratings. The ratings range from 1 to 6, with the highest quality rated 1. Even in 2012, over 95% of the industry's bonds were rated 1 or 2.

Sources: SNL Financial; Insurance Information Institute.

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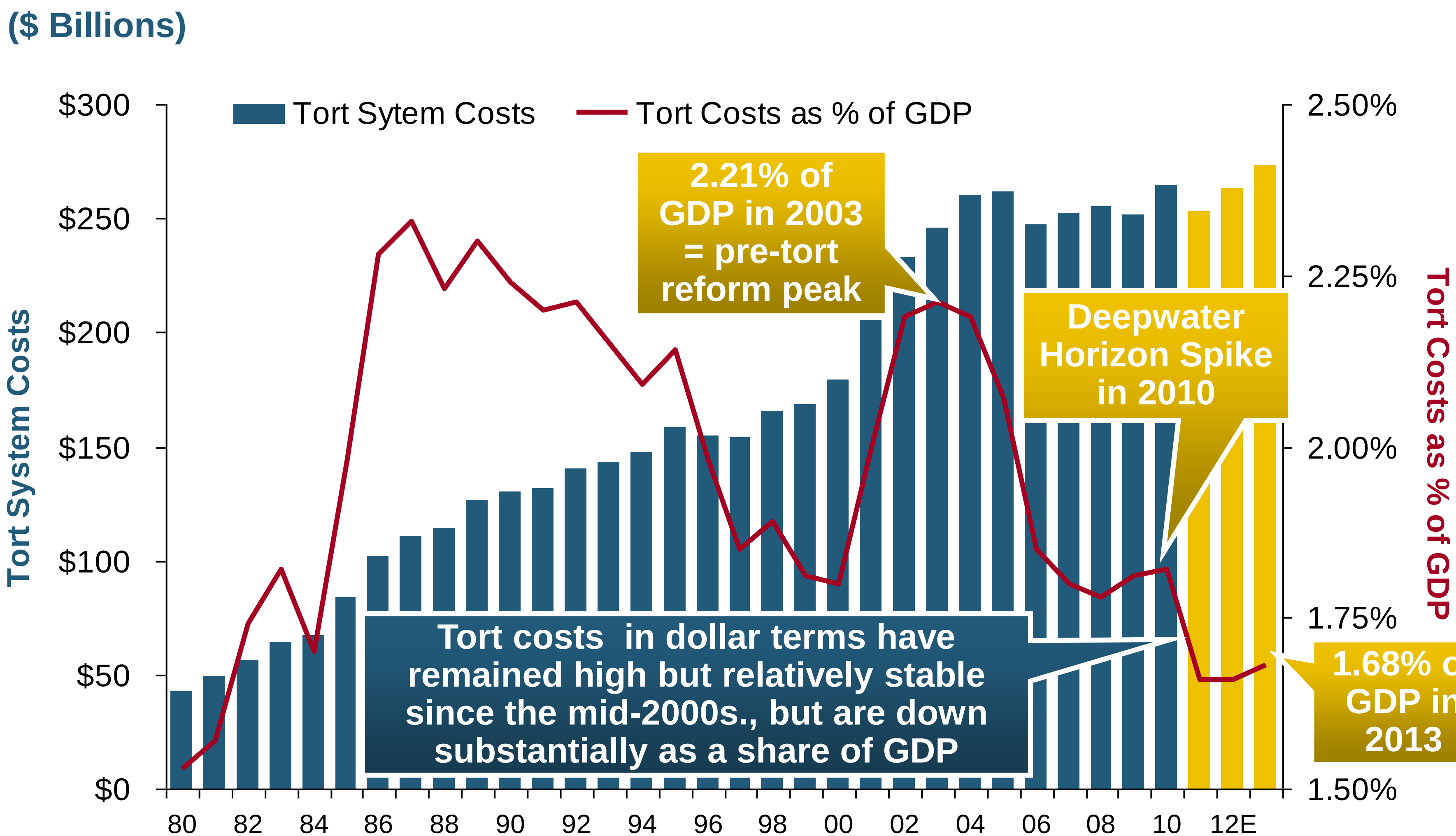
Shifting Legal Liability & Tort Environment

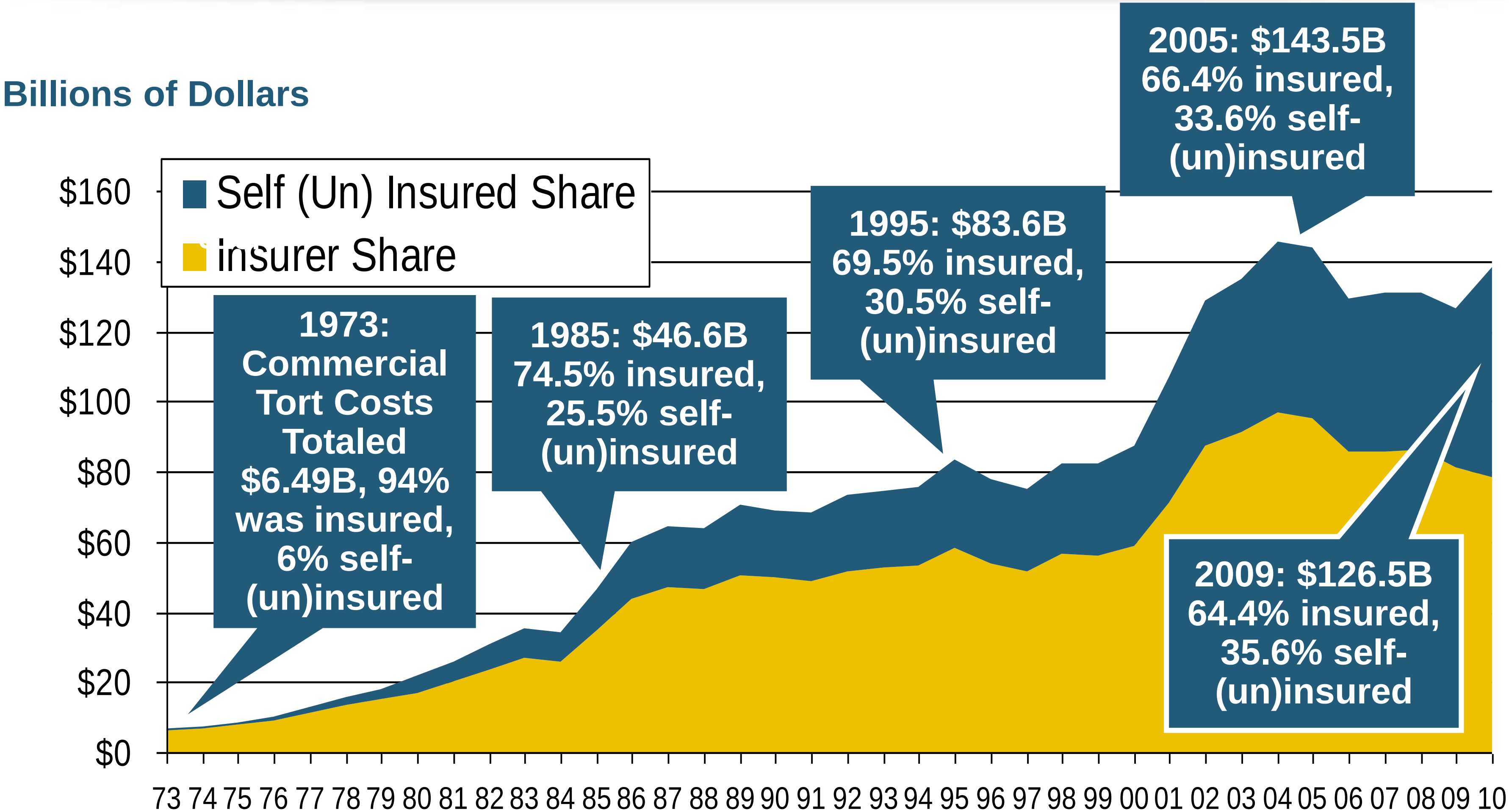
Is the Tort Pendulum Swinging Against Insurers?

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



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

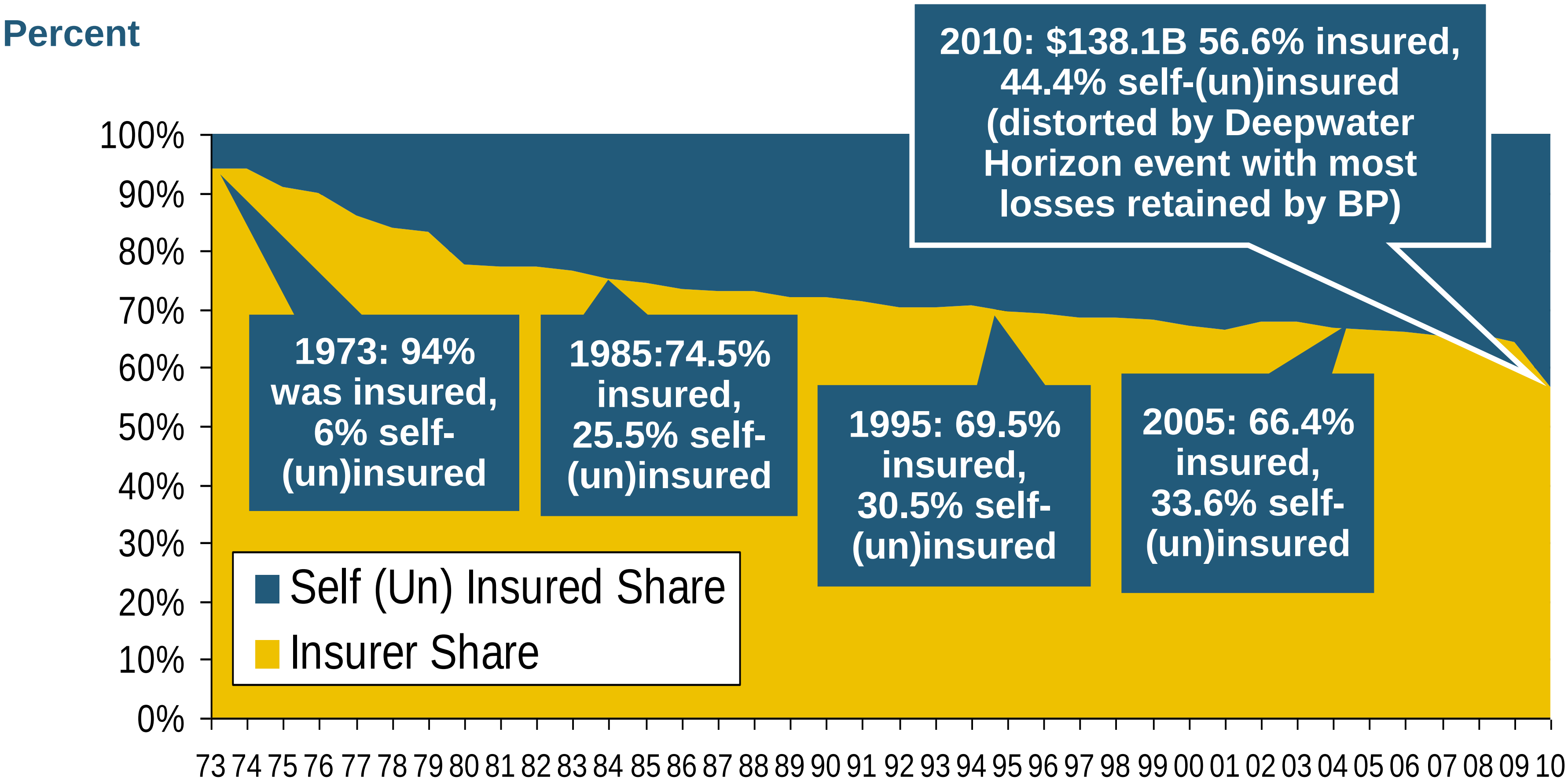
Commercial Lines Tort Costs: Insured vs. Self-(Un)Insured Shares, 1973-2010



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

Sources: Towers Watson, *2011 Update on US Tort Cost Trends*, III Calculations based on data from Appendix 4.

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



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.

Sources: Towers Watson, *2011 Update on US Tort Cost Trends*, III Calculations based on data from Appendix 4.

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

Source: US Chamber of Commerce 2012 State Liability Systems Ranking Study; Insurance Info. Institute.

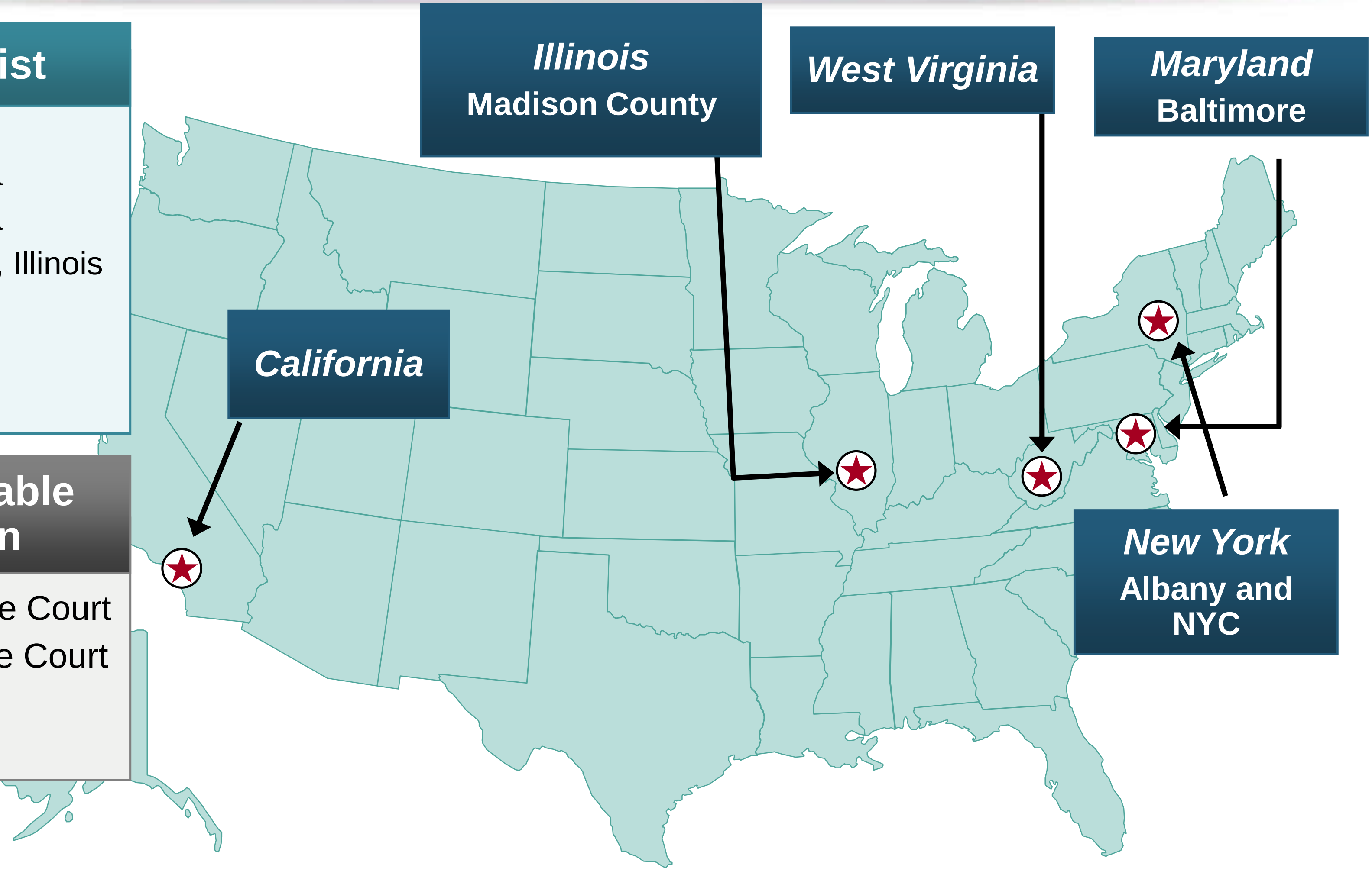
The Nation's Judicial Hellholes: 2012/2013

Watch List

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

Dishonorable Mention

- MO Supreme Court
- WA Supreme Court



Source: American Tort Reform Association; Insurance Information Institute

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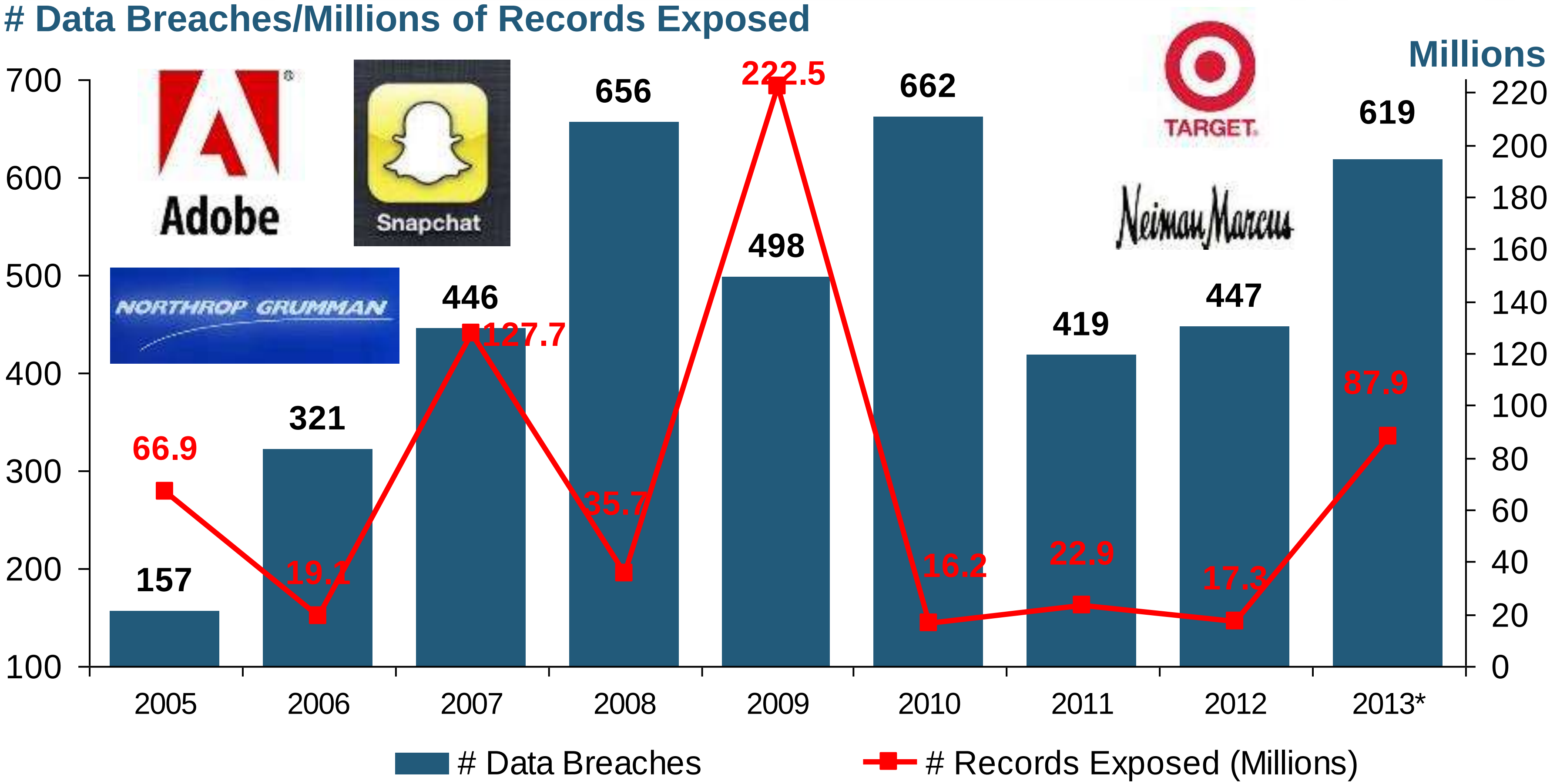
CYBER RISK

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

Data Breaches 2005-2013, by Number of Breaches and Records Exposed



The Total Number of Data Breaches (+38%) and Number of Records Exposed (+408%) in 2013 Soared

* 2013 figures as of Jan. 1, 2014 from the ITRC updated to an additional 30 million records breached (Target) as disclosed in Jan. 2014.
Source: Identity Theft Resource Center.

2012 Data Breaches By Business Category, By Number of Breaches

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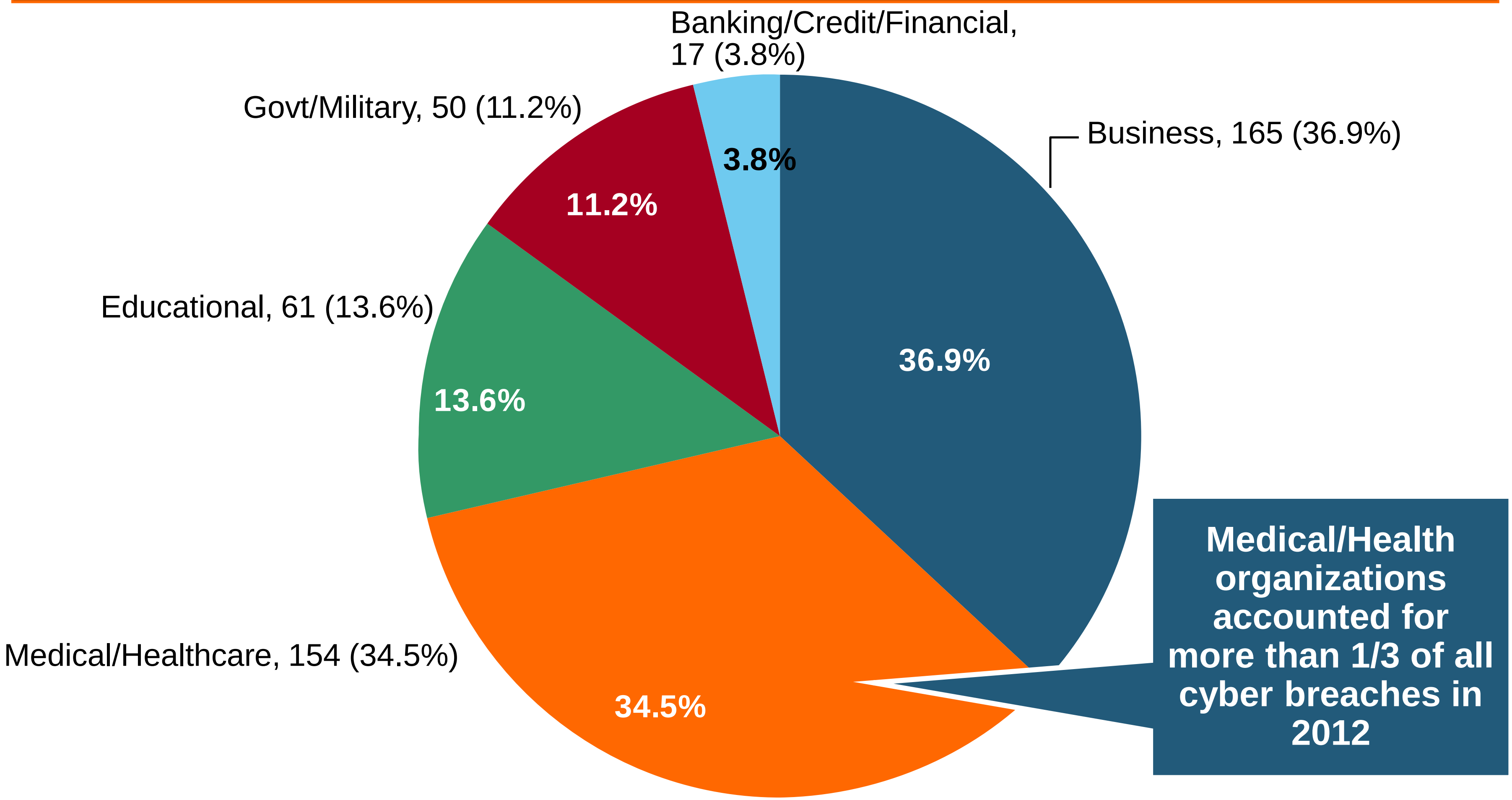
The majority of the 447 data breaches in 2012 affected business and medical/healthcare organizations, according to the Identity Theft Resource Center.



Source: Identity Theft Resource Center, http://www.idtheftcenter.org/ITRC%20Breach%20Report%202012.pdf.

2012 Data Breaches By Category, By Number of Records Exposed

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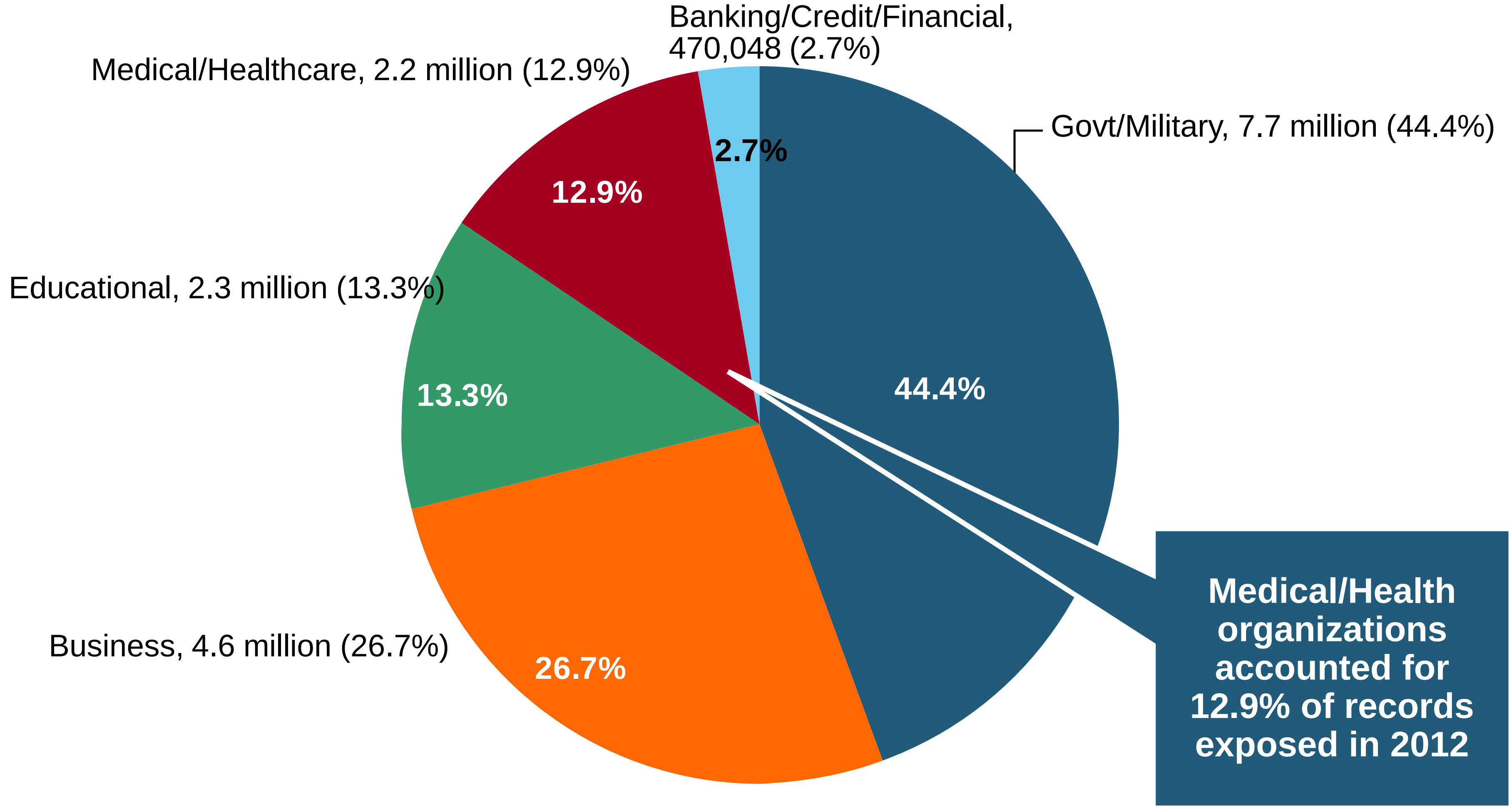
Government/Military and Business organizations accounted for the majority of records exposed by data breaches during 2012.



Source: Identity Theft Resource Center, http://www.idtheftcenter.org/ITRC%20Breach%20Report%202012.pdf.

AIG Survey: Cyber Attacks Top Concern Among Execs

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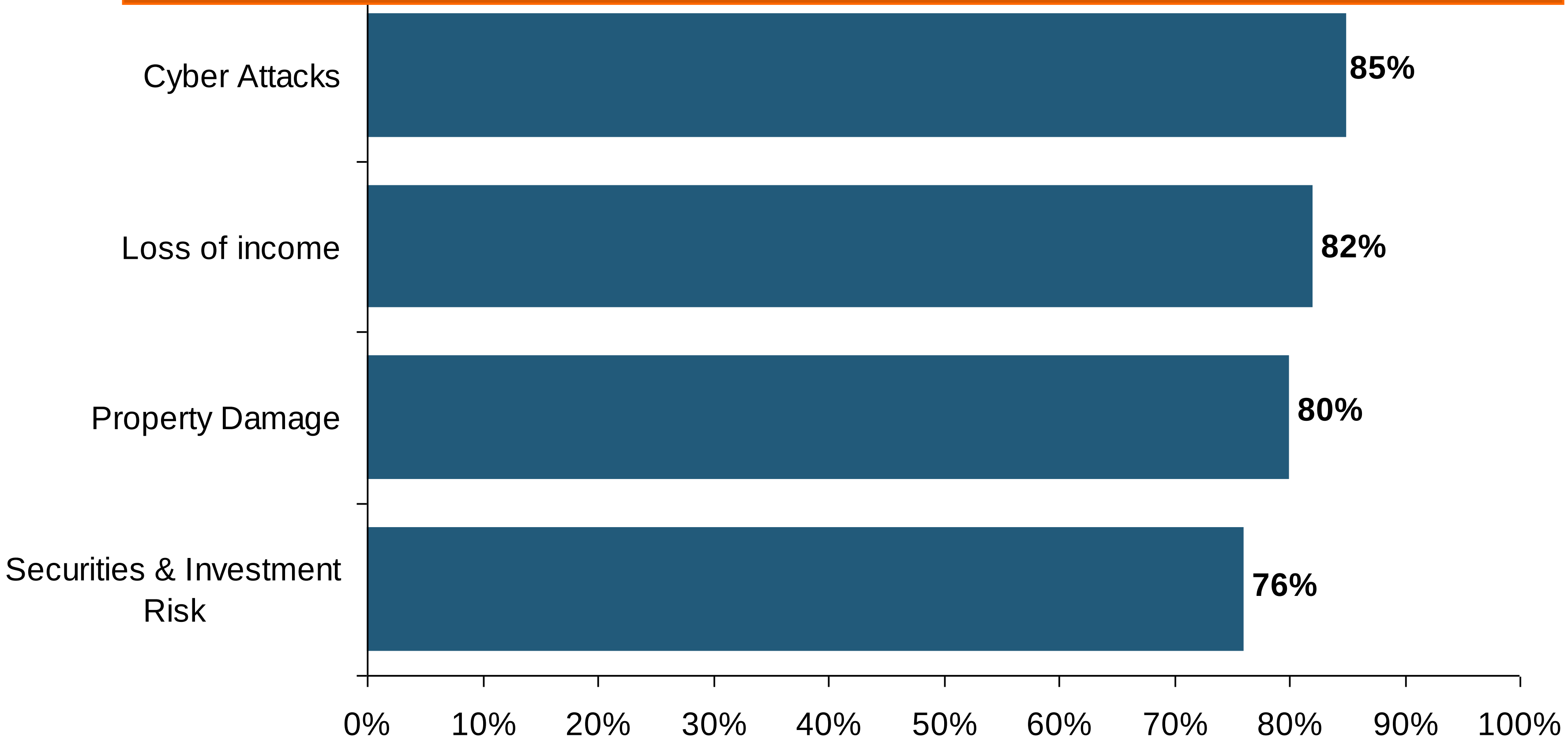
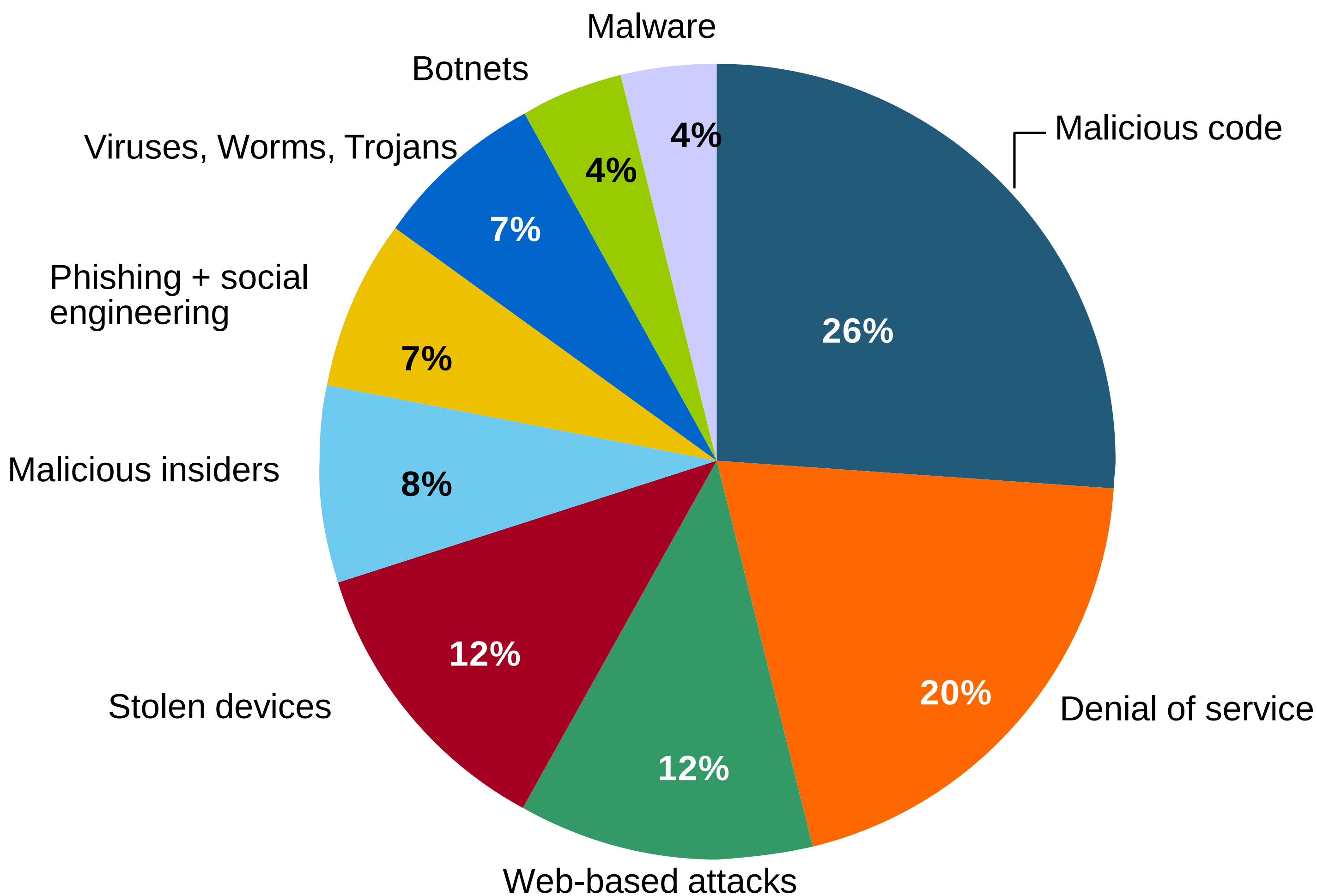
While companies are focused on managing a variety of business risks, cyber attacks are a top concern. Some 85% of 258 executives surveyed said they were very or somewhat concerned about cyber attacks on their businesses.



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

The Most Costly Cyber Crimes, Fiscal Year 2012

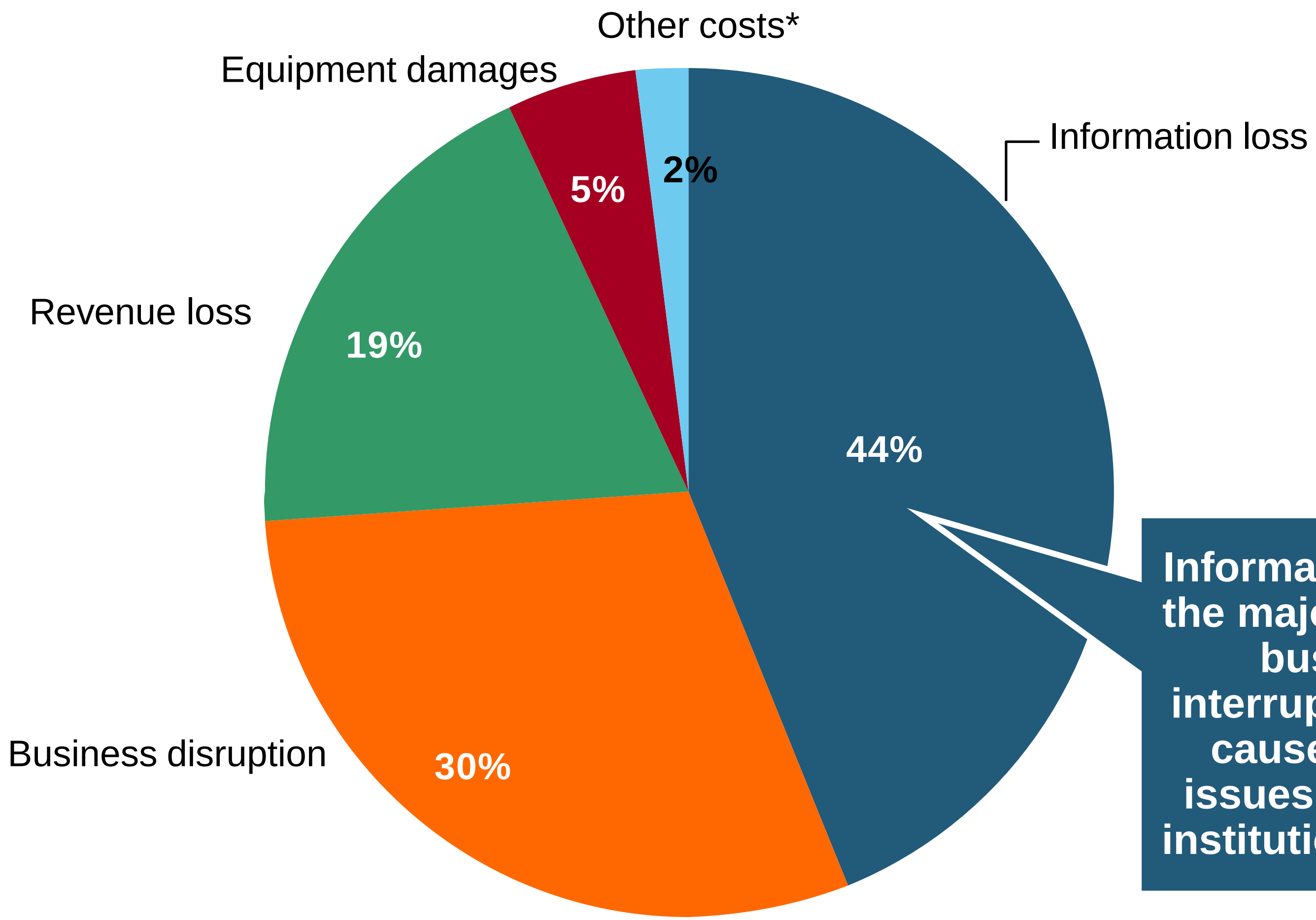
Malicious code, denial of service and web-based attacks account for more than 58 percent of the total annualized cost of cyber crime experienced by 56 companies.



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

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.



Information loss is the major concern, business interruption could cause serious issues for health institutions as well

* 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

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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.

Sources: Identity Theft Resource Center, http://www.idtheftcenter.org/ITRC%20Breach%20Report%202012.pdf; Insurance Information Institute (I.I.I.) research.

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

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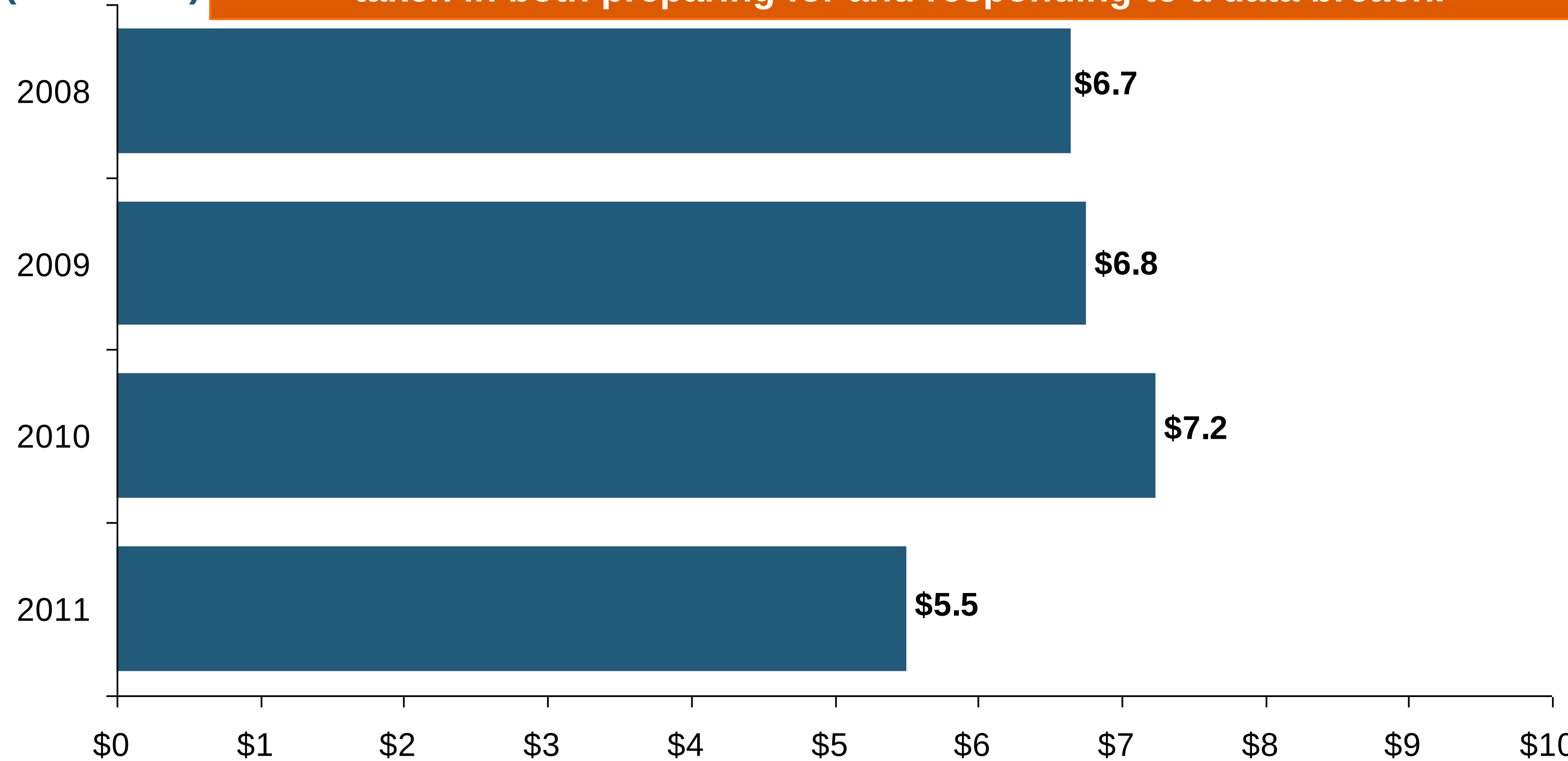
The average organizational cost of a data breach in 2011 was $5.5 million, down 24% from $7.2 million in 2010. Companies have improved steps taken in both preparing for and responding to a data breach.

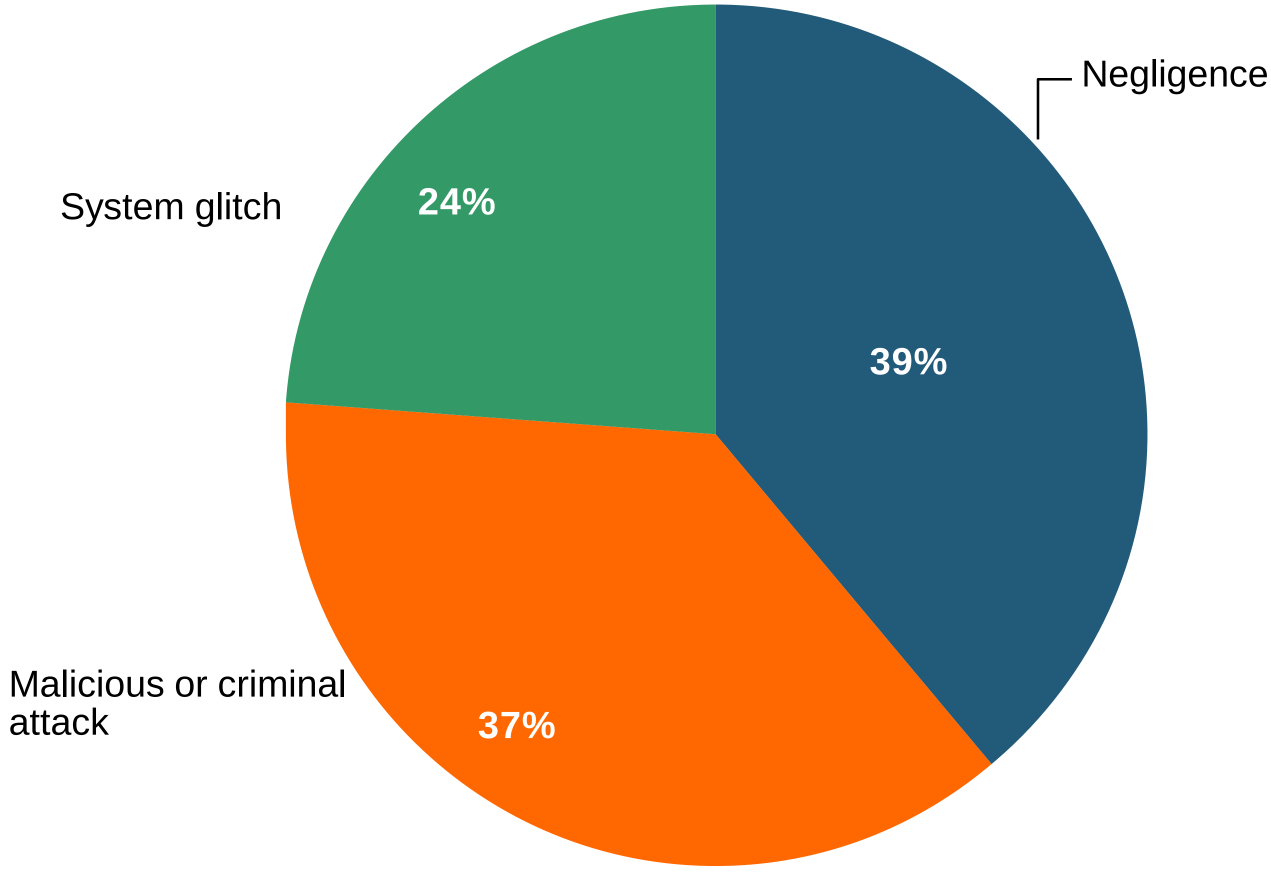


*Findings of this benchmark study pertain to the actual data breach experiences of 49 U.S. companies from 14 different industry sectors, all of which participated in the 2011 study. Total breach costs include: lost business resulting from diminished trust or confidence of customers ;costs related to 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

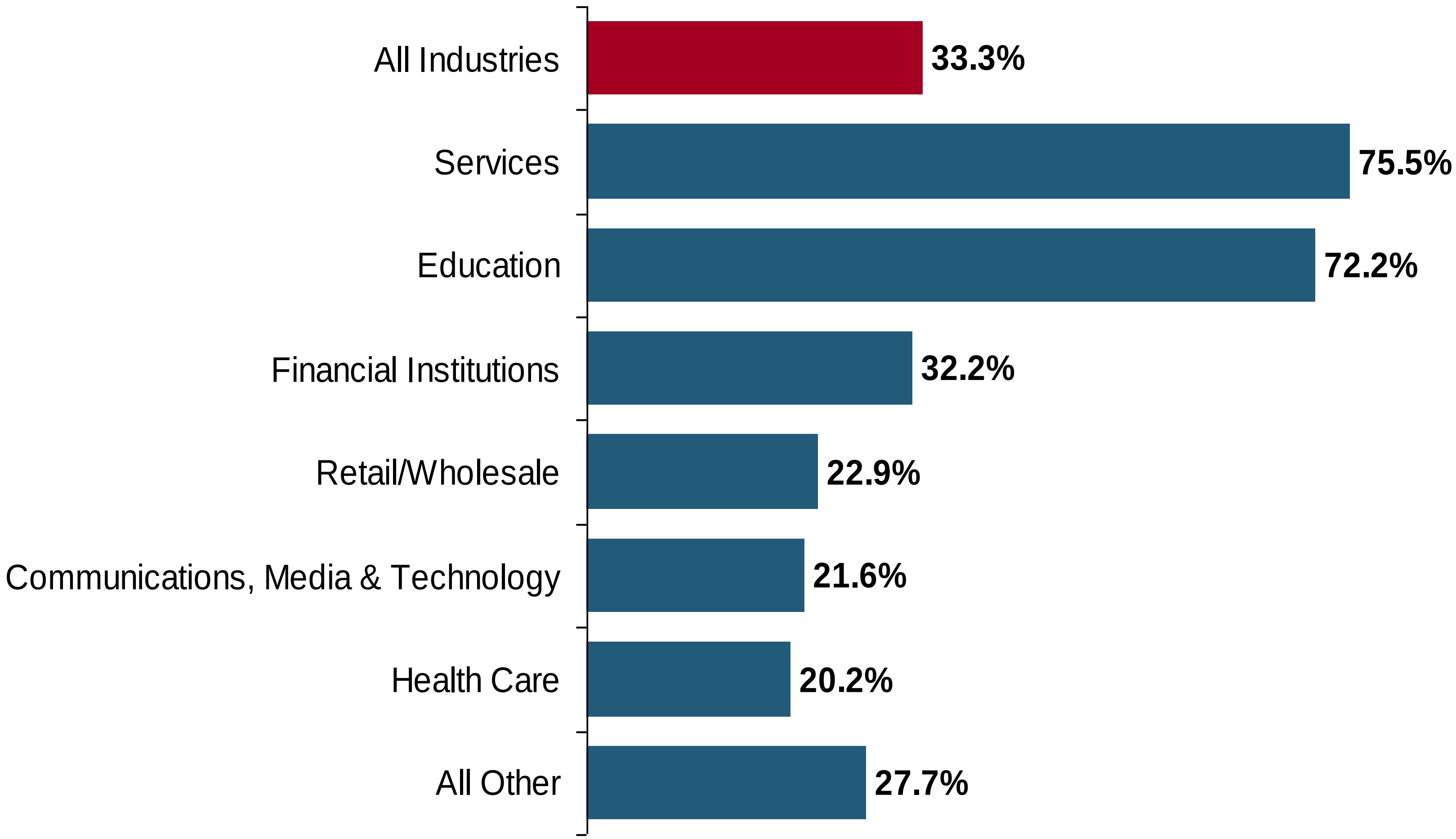
Negligent employees and malicious attacks are most often the cause of the data breach. Some 39 percent of incidents involve a negligent employee or contractor, while 37 percent concern a malicious or criminal attack.



Source: *2011 Cost of Data Breach Study: United States*, Ponemon Institute, March 2012

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

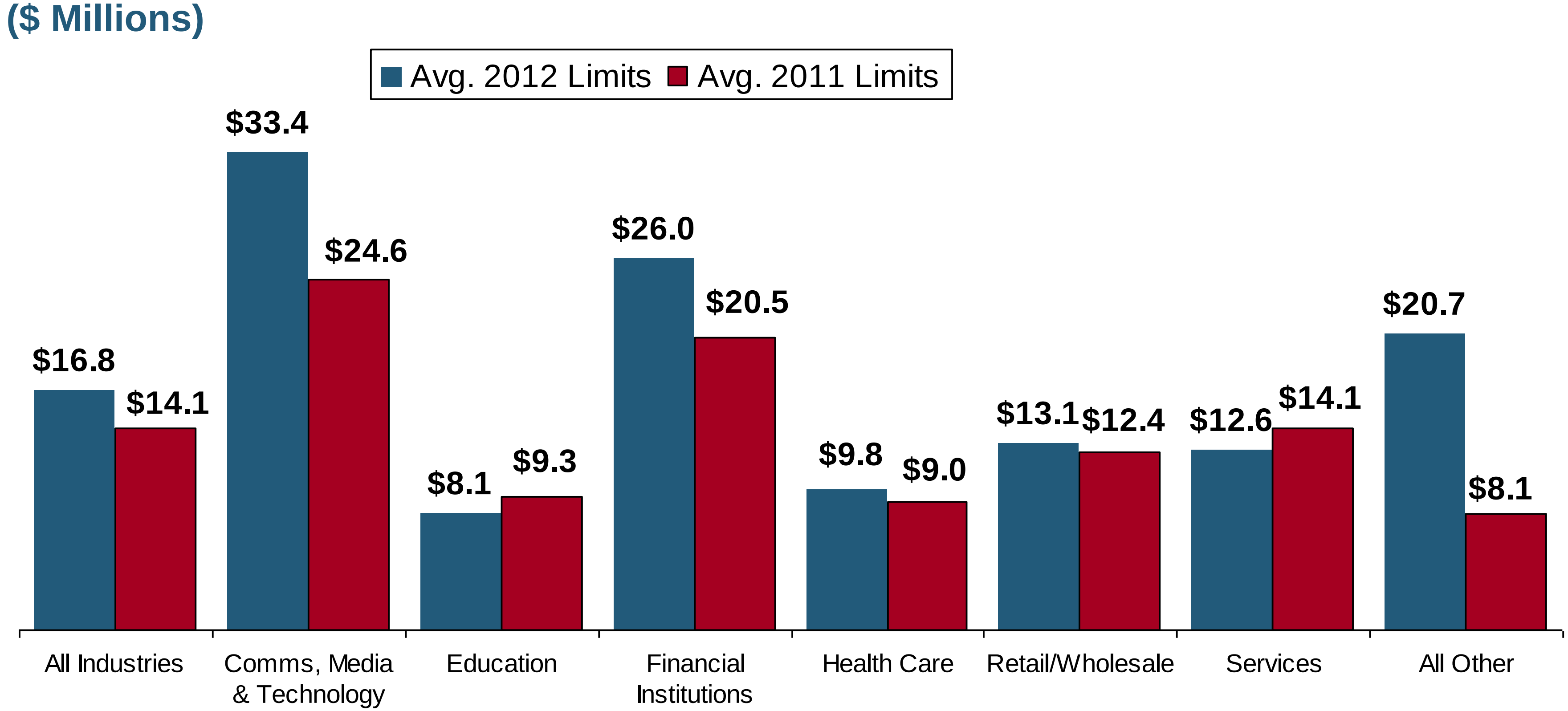
Interest in cyber insurance continues to climb. The number of companies purchasing cyber insurance increased 33 percent from 2011 to 2012.



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.



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

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

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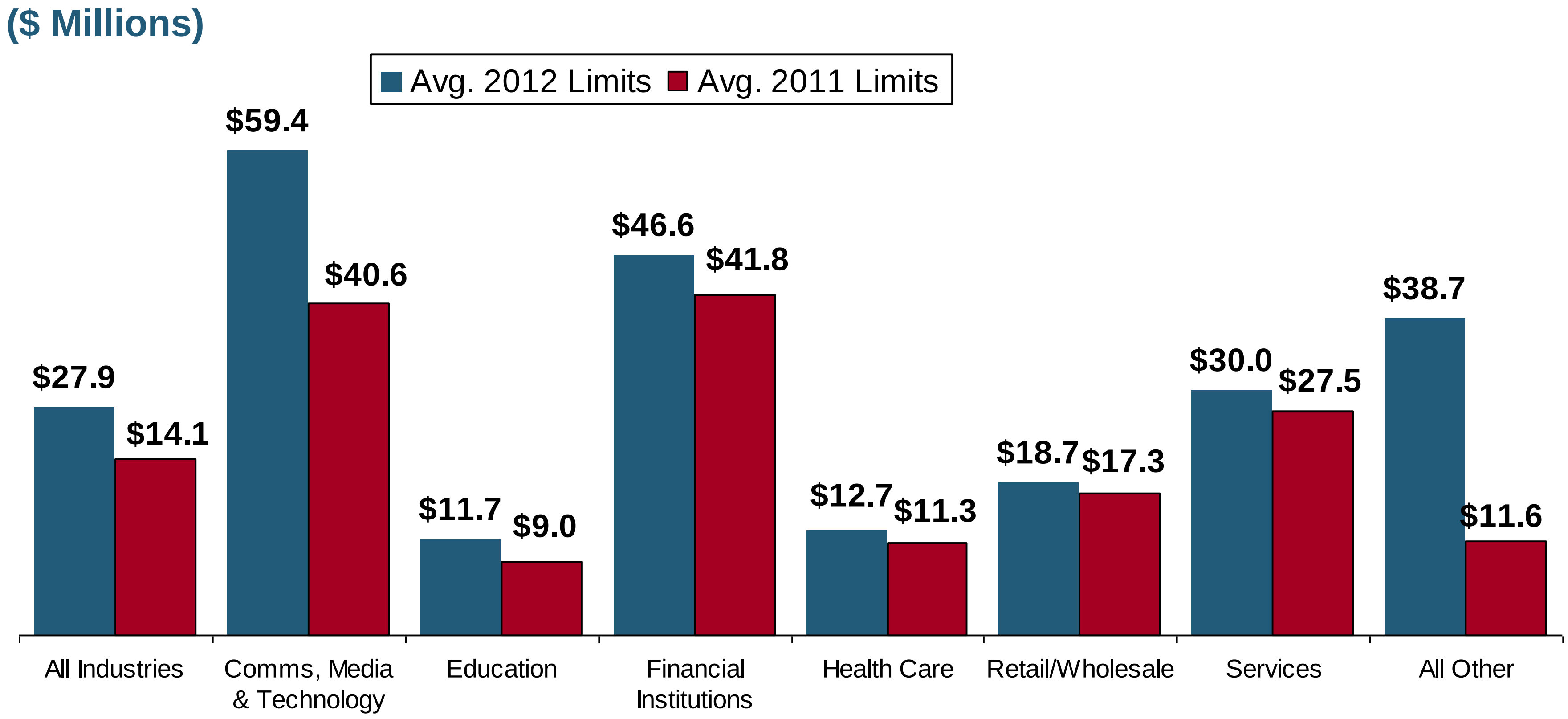
Among larger companies, average cyber insurance limits purchased in 2012 increased nearly 30% over 2011.



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

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Thank you for your time and your attention!

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