



Economic Forces Shaping the Workers Compensation Insurance Industry of Today and Tomorrow

Workers Compensation Educational Conference
Orlando, FL
August 25, 2015

Download at www.iii.org/presentations

Robert P. Hartwig, Ph.D., CPCU, President & Economist
Insurance Information Institute ♦ 110 William Street ♦ New York, NY 10038

Tel: 212.346.5520 ♦ Cell: 917.453.1885 ♦ bobh@iii.org ♦ www.iii.org

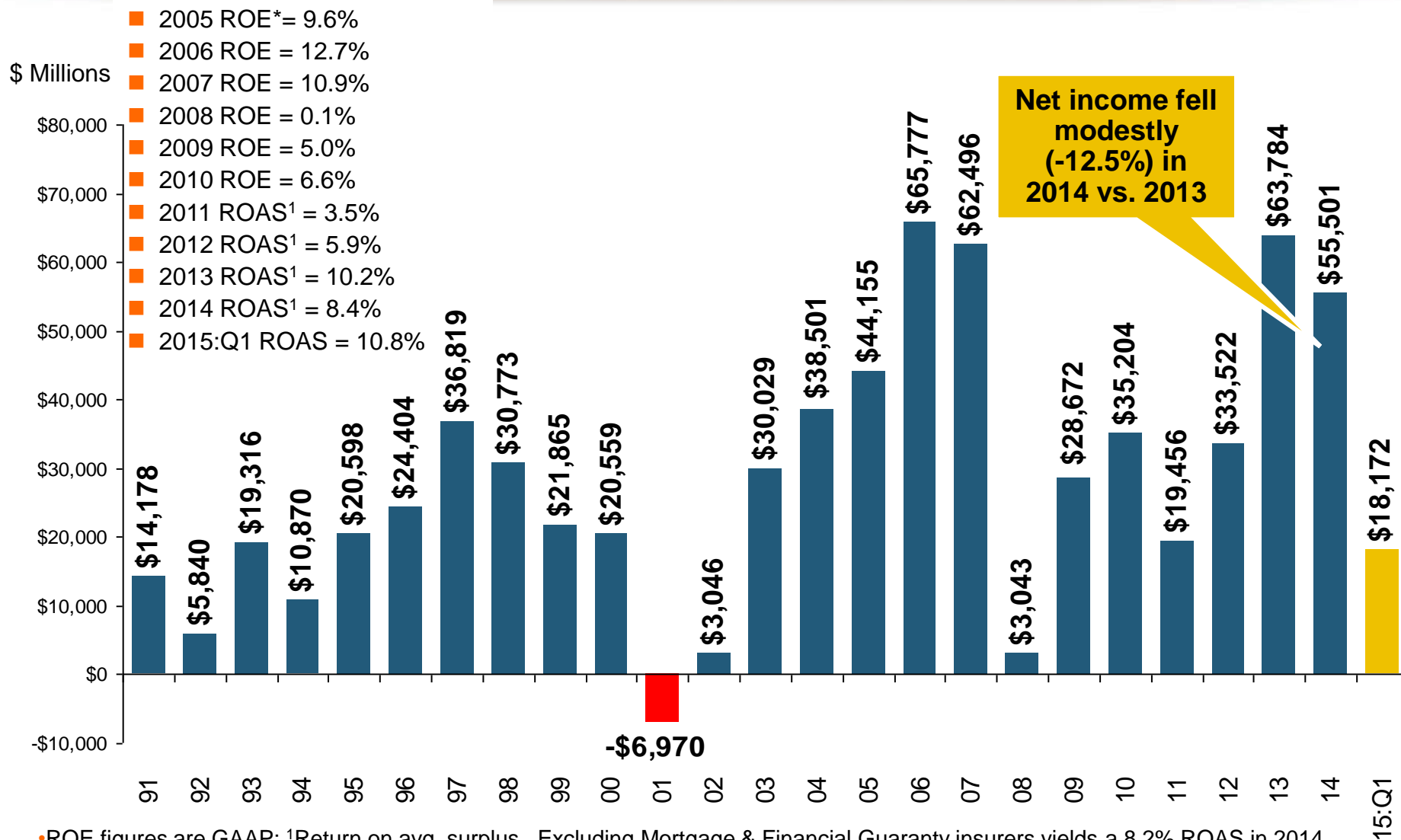


P/C Insurance Industry Financial Overview

Reasonably Strong Performance

***Workers Comp Improvement
Helped Too***

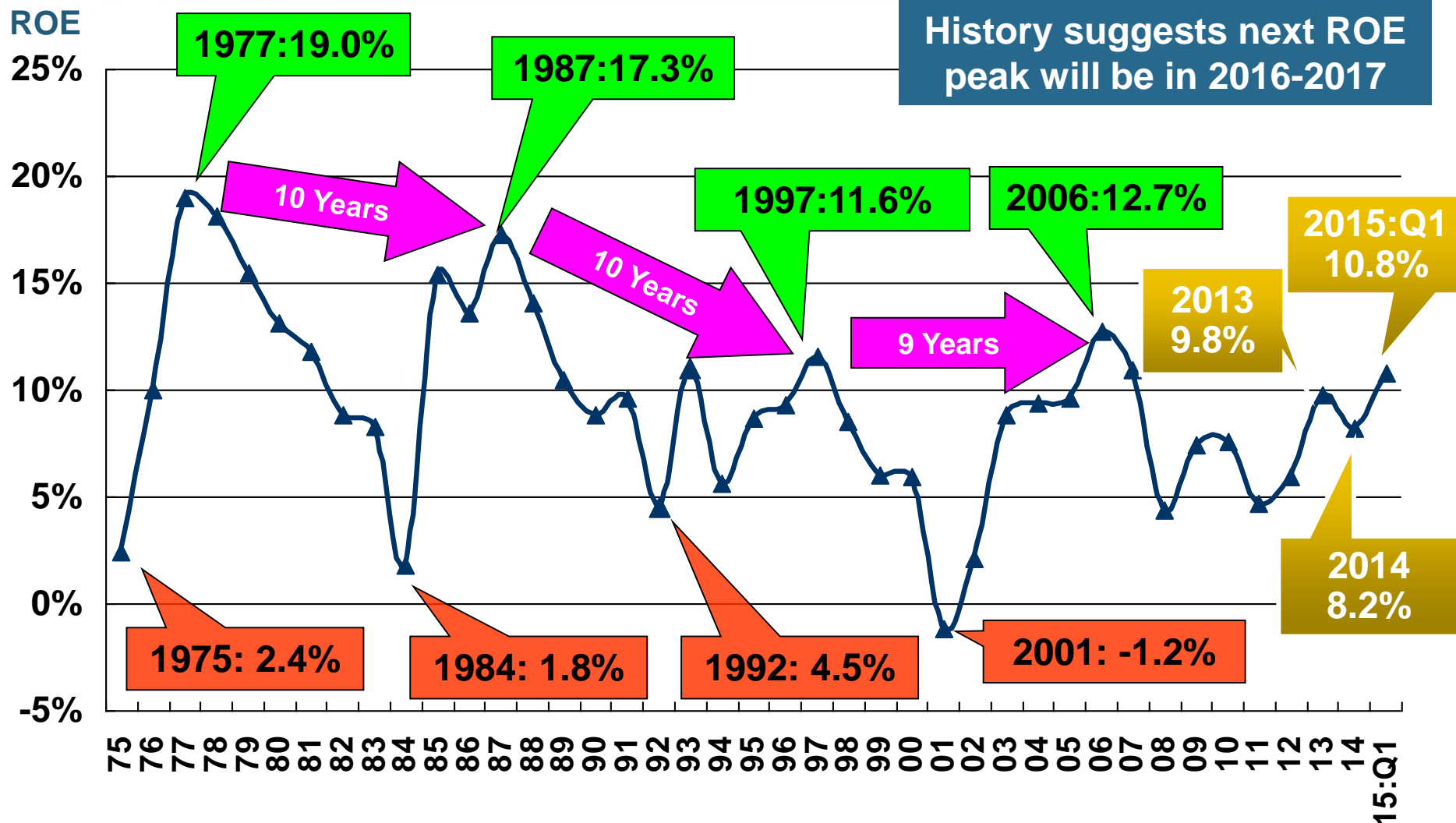
P/C Industry Net Income After Taxes 1991–2015:Q1



*ROE figures are GAAP; ¹Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.2% ROAS in 2014, 9.8% ROAS in 2013, 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

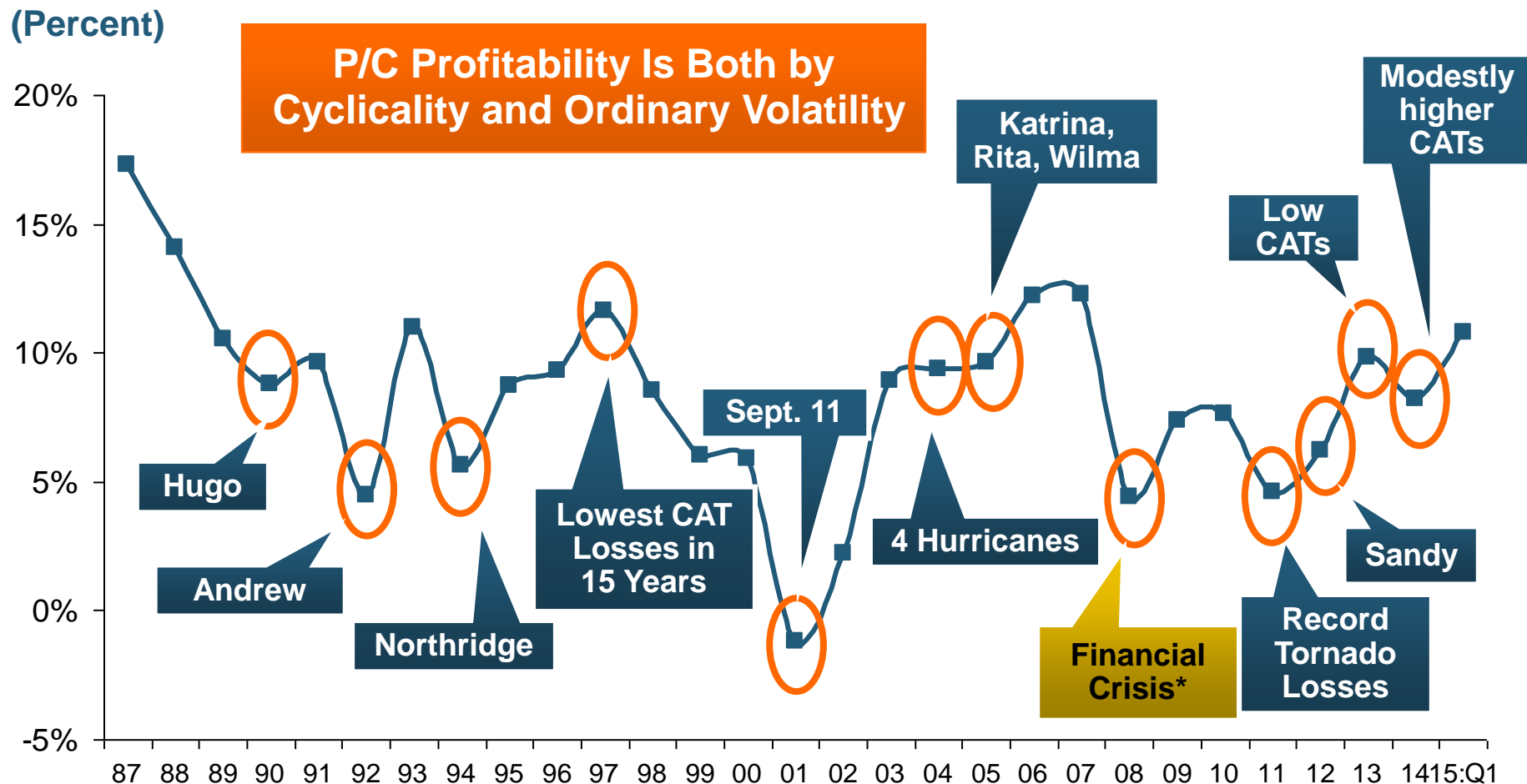
Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2015:Q1



*Profitability = P/C insurer ROEs. 2011-14 figures are estimates based on ROAS data. Note: Data for 2008-2014 exclude mortgage and financial guaranty insurers.

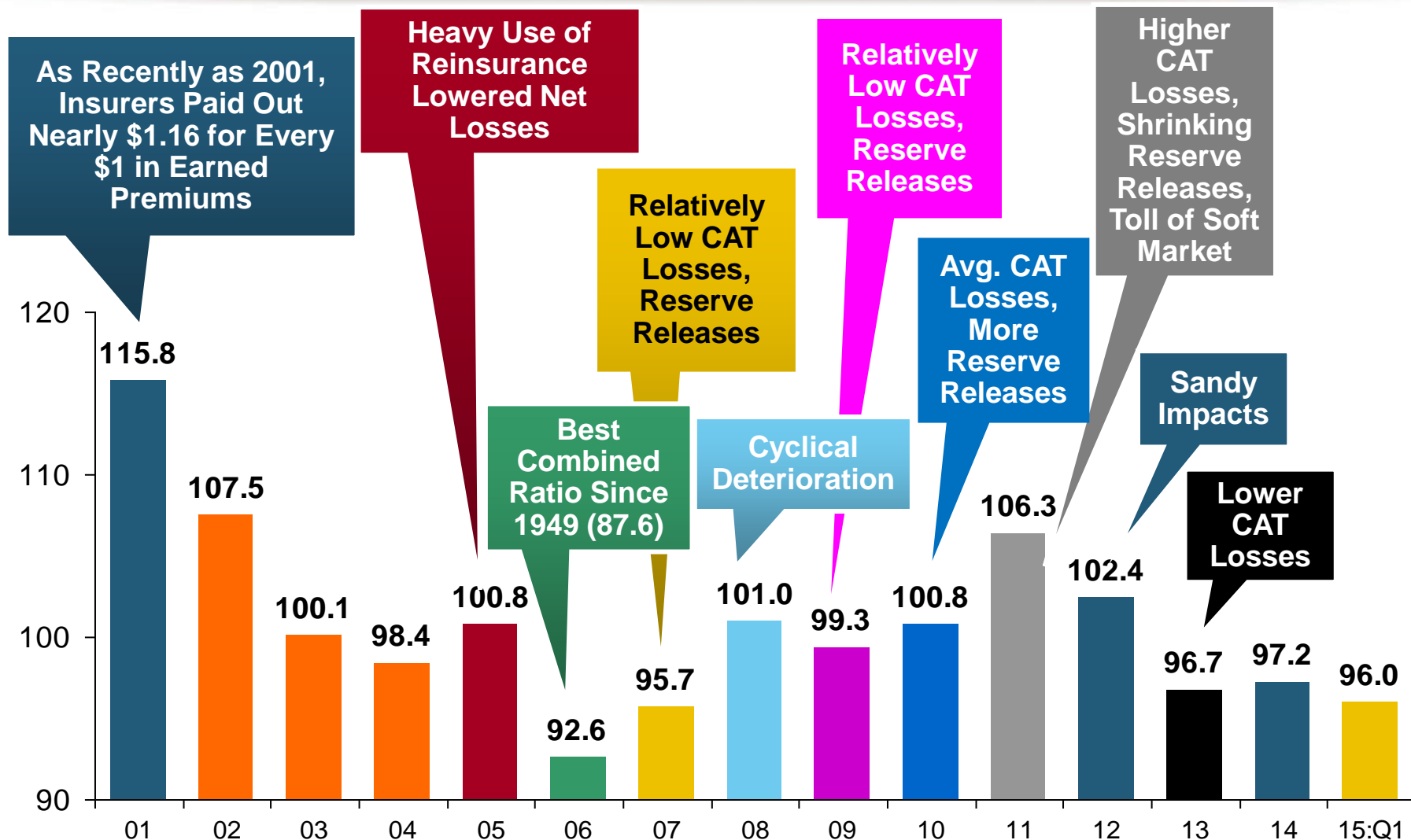
Source: Insurance Information Institute; NAIC, ISO, A.M. Best, Conning

ROE: Property/Casualty Insurance by Major Event, 1987–2015:Q1



* Excludes Mortgage & Financial Guarantee in 2008 – 2014.
Sources: ISO, *Fortune*; Insurance Information Institute.

P/C Insurance Industry Combined Ratio, 2001–2015:Q1*



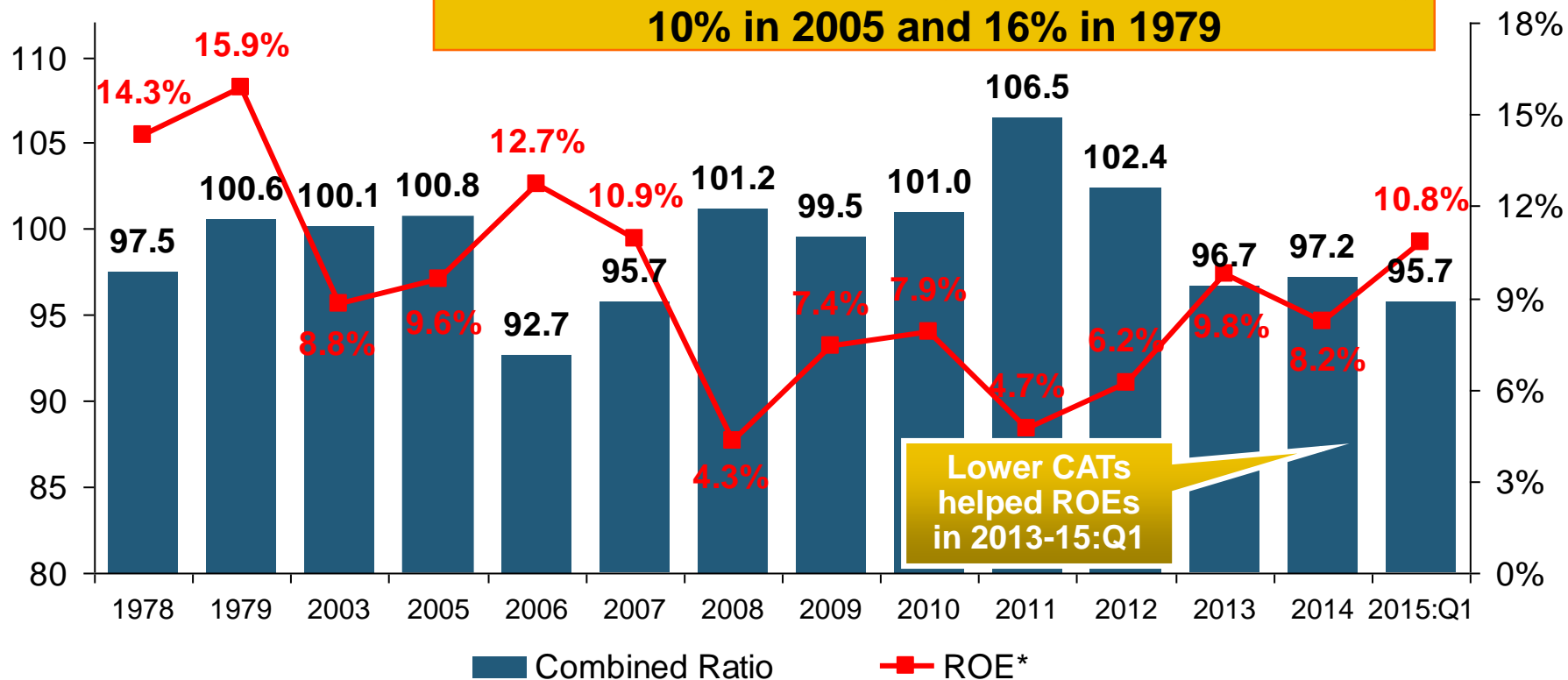
* Excludes Mortgage & Financial Guaranty insurers 2008--2014. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2; 2013: = 96.1; 2014: = 97.0.

Sources: A.M. Best, ISO.

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 2012/13, ~7.5% ROE in 2009/10, 10% in 2005 and 16% in 1979

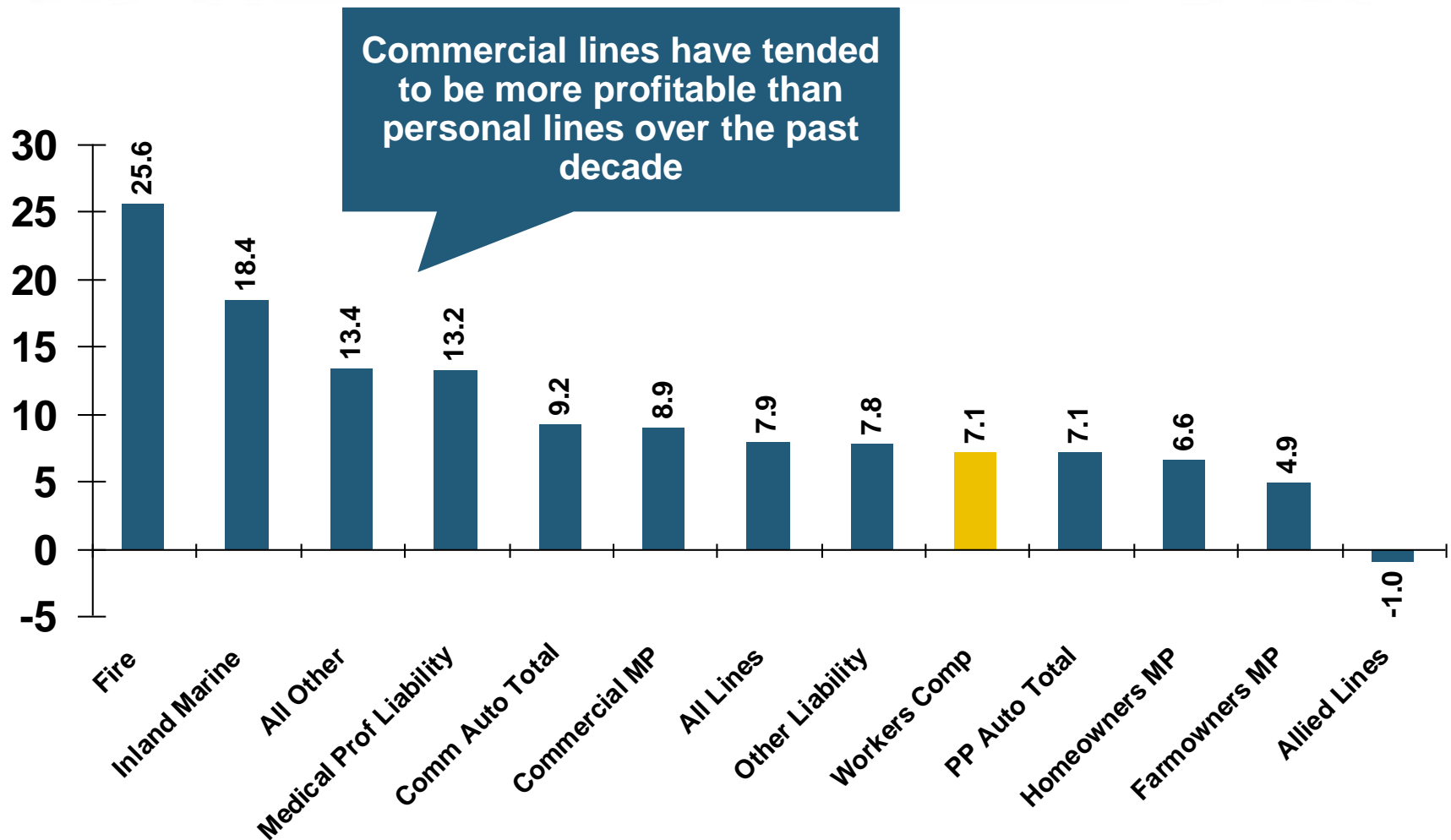


Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs

* 2008 -2014 figures are return on average surplus and exclude mortgage and financial guaranty insurers. 2014 combined ratio including M&FG insurers is 97.0; 2013 = 96.1; 2012 =103.2, 2011 = 108.1, ROAS = 3.5%.

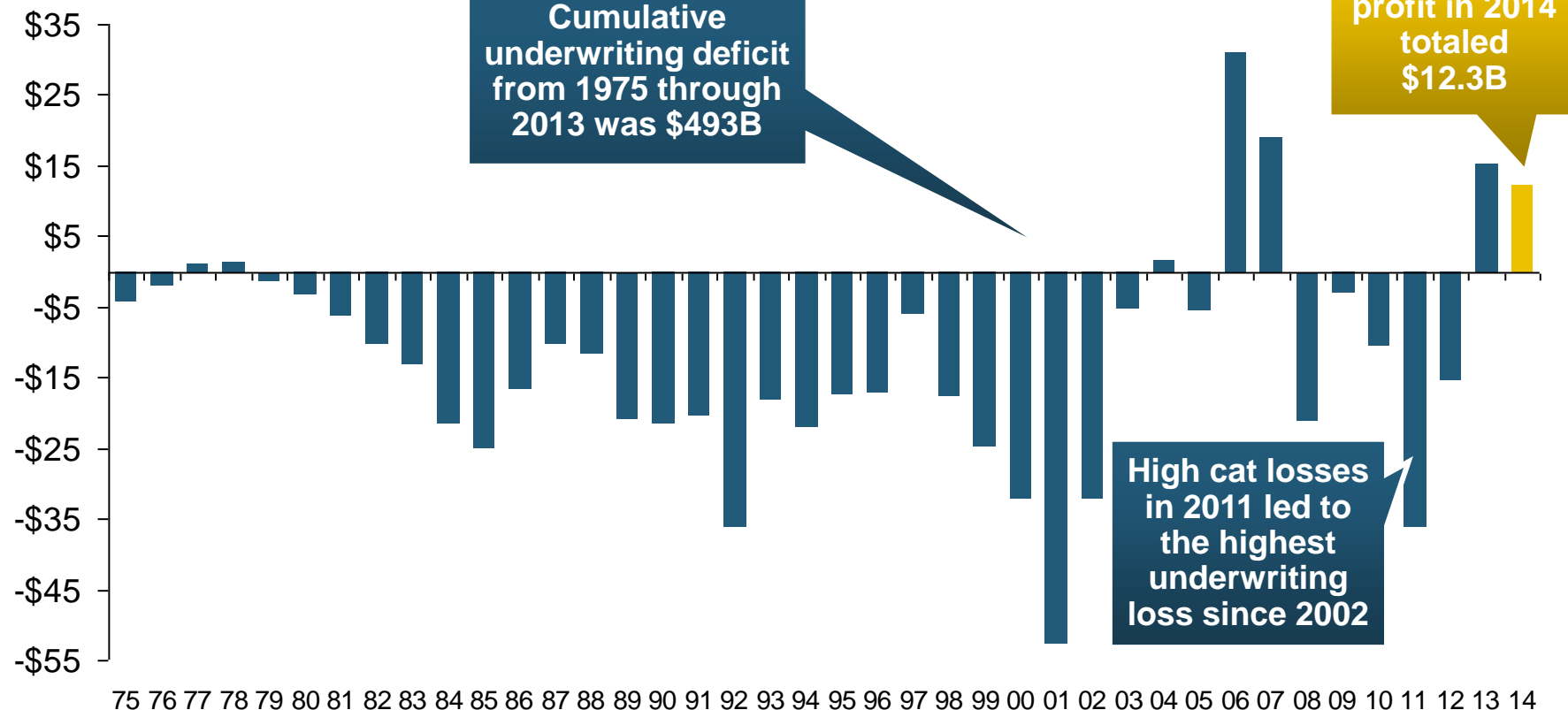
Source: Insurance Information Institute from A.M. Best and ISO Verisk Analytics data.

Return on Net Worth (RNW) All Lines: 2004-2013 Average



Underwriting Gain (Loss) 1975–2014*

(\$ Billions)



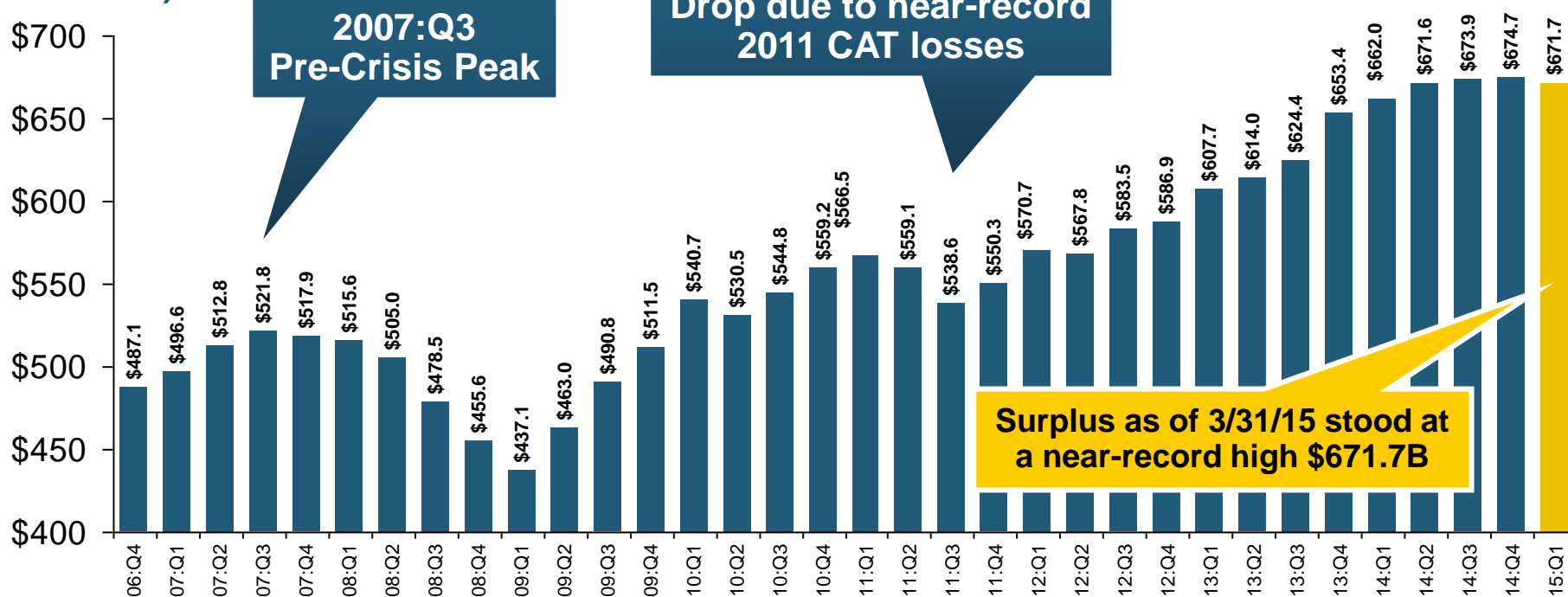
**Large Underwriting Losses Are *NOT* Sustainable
in Current Investment Environment**

* Includes mortgage and financial guaranty insurers in all years.

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

Policyholder Surplus, 2006:Q4–2015:Q1

(\$ Billions)



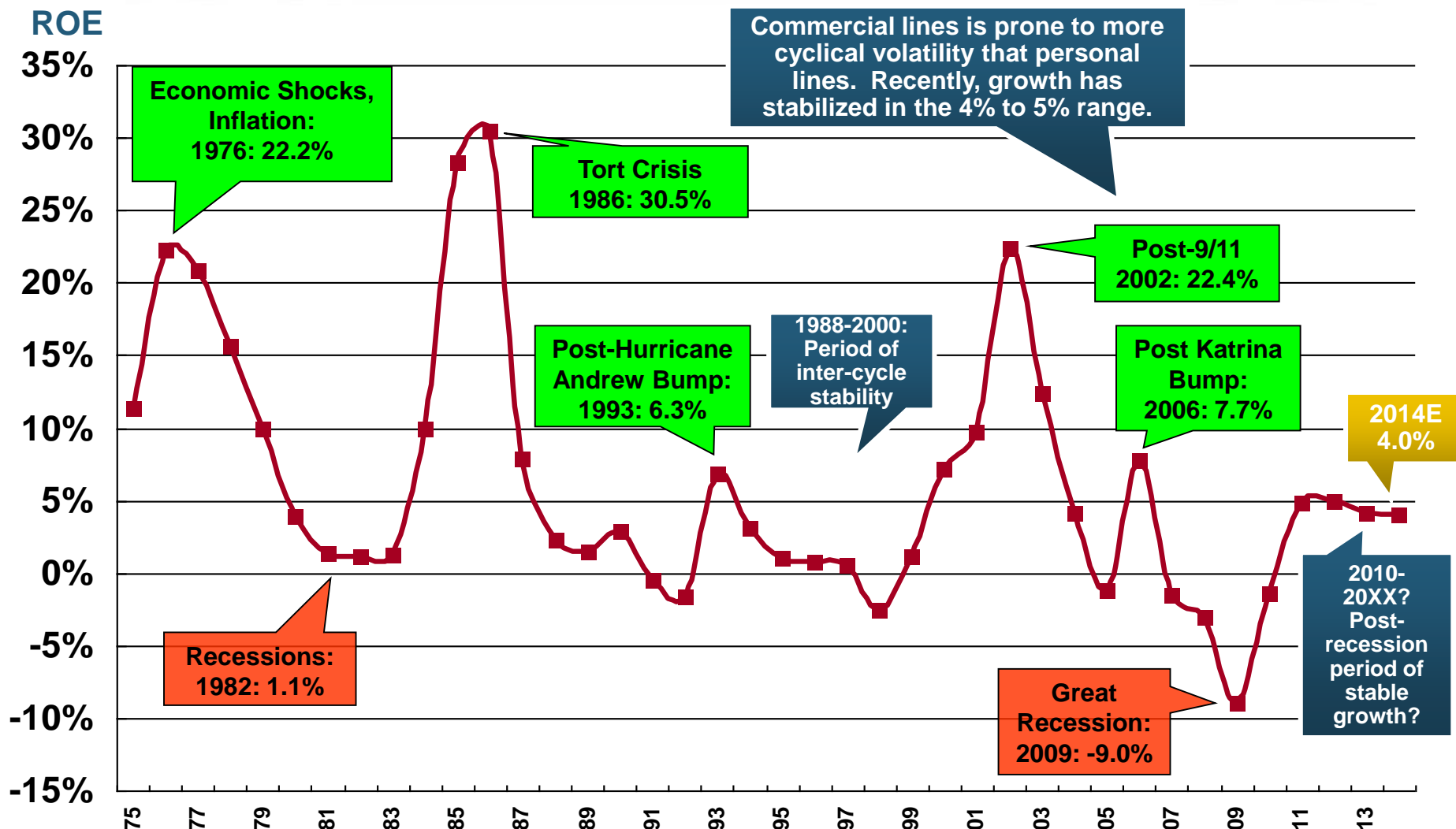
The industry now has \$1 of surplus for every \$0.73 of NPW, close to the strongest claims-paying status in its history.

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 .

Sources: ISO, A.M .Best.

The P/C insurance industry entered 2015 in very strong financial condition.

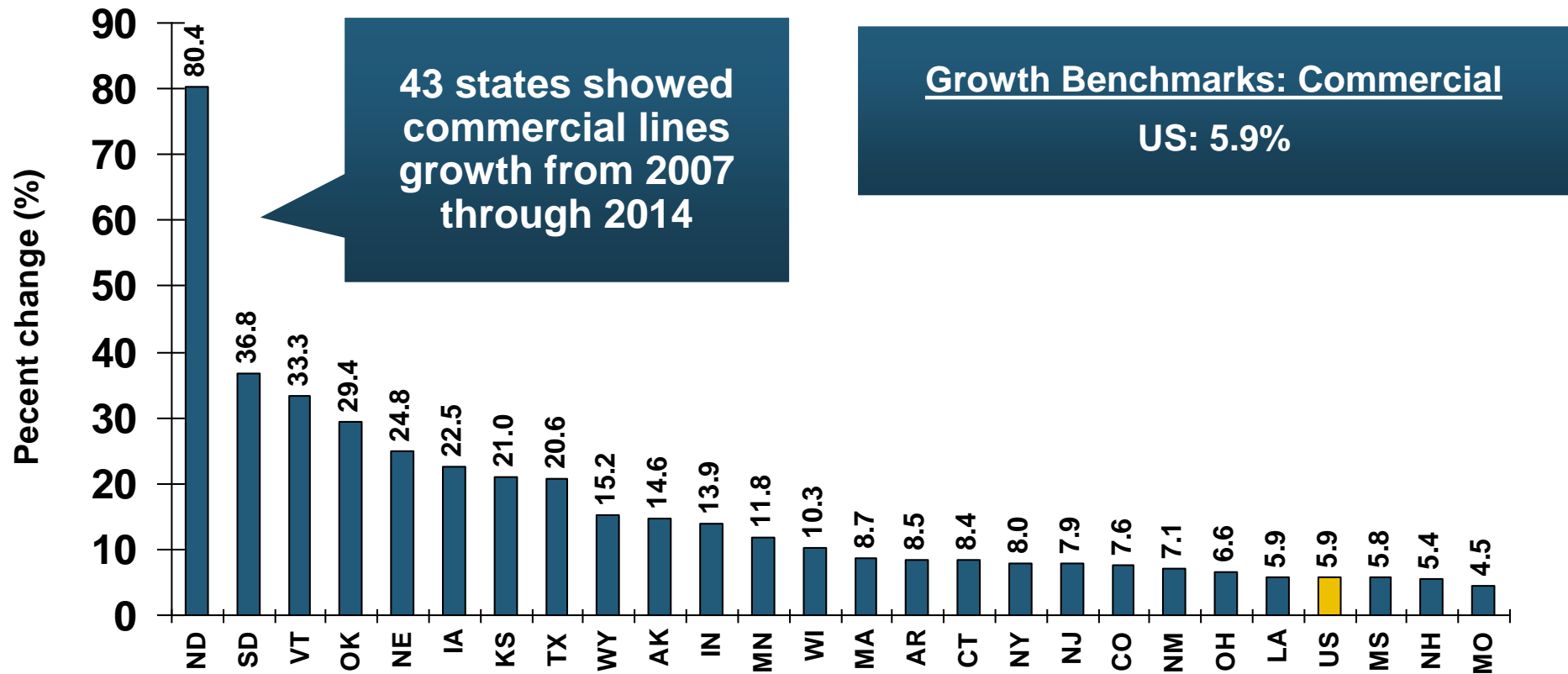
Commercial Lines NPW Premium Growth: 1975 – 2014E



Note: Data include state funds beginning in 1998.
Source: A.M. Best; Insurance Information Institute.

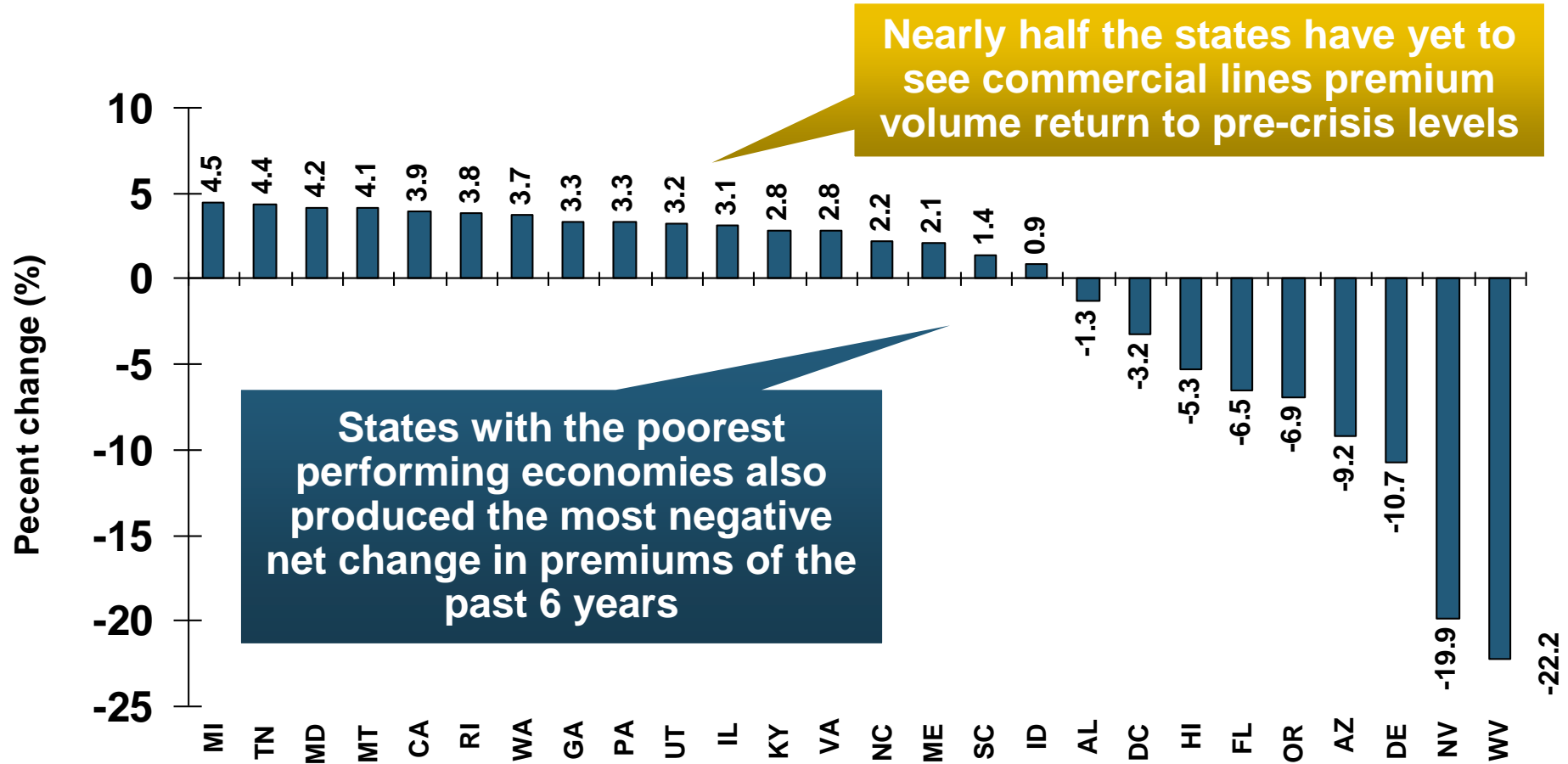
Direct Premiums Written: Comm. Lines Percent Change by State, 2007-2014

Top 25 States



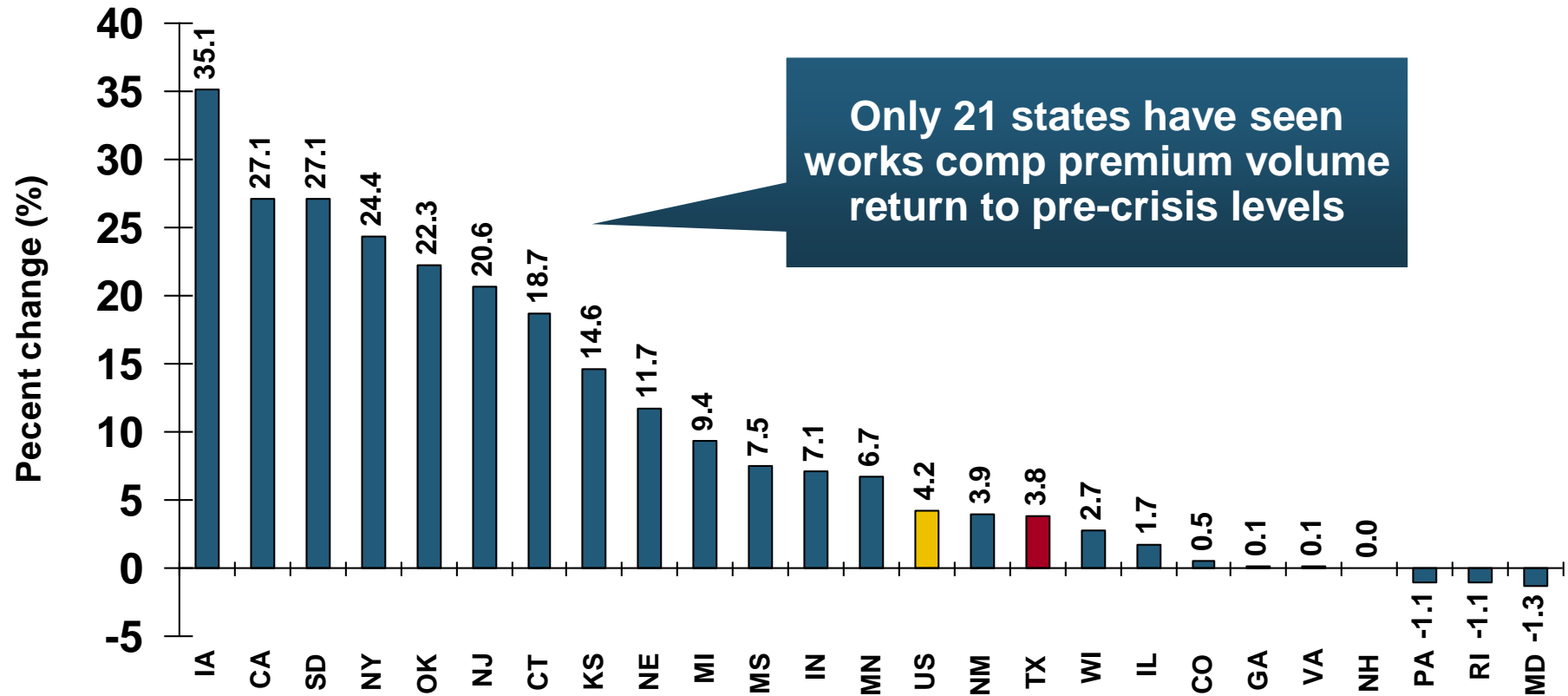
Direct Premiums Written: Comm. Lines Percent Change by State, 2007-2014

Bottom 25 States



Direct Premiums Written: Workers' Comp Percent Change by State, 2007-2014*

Top 25 States

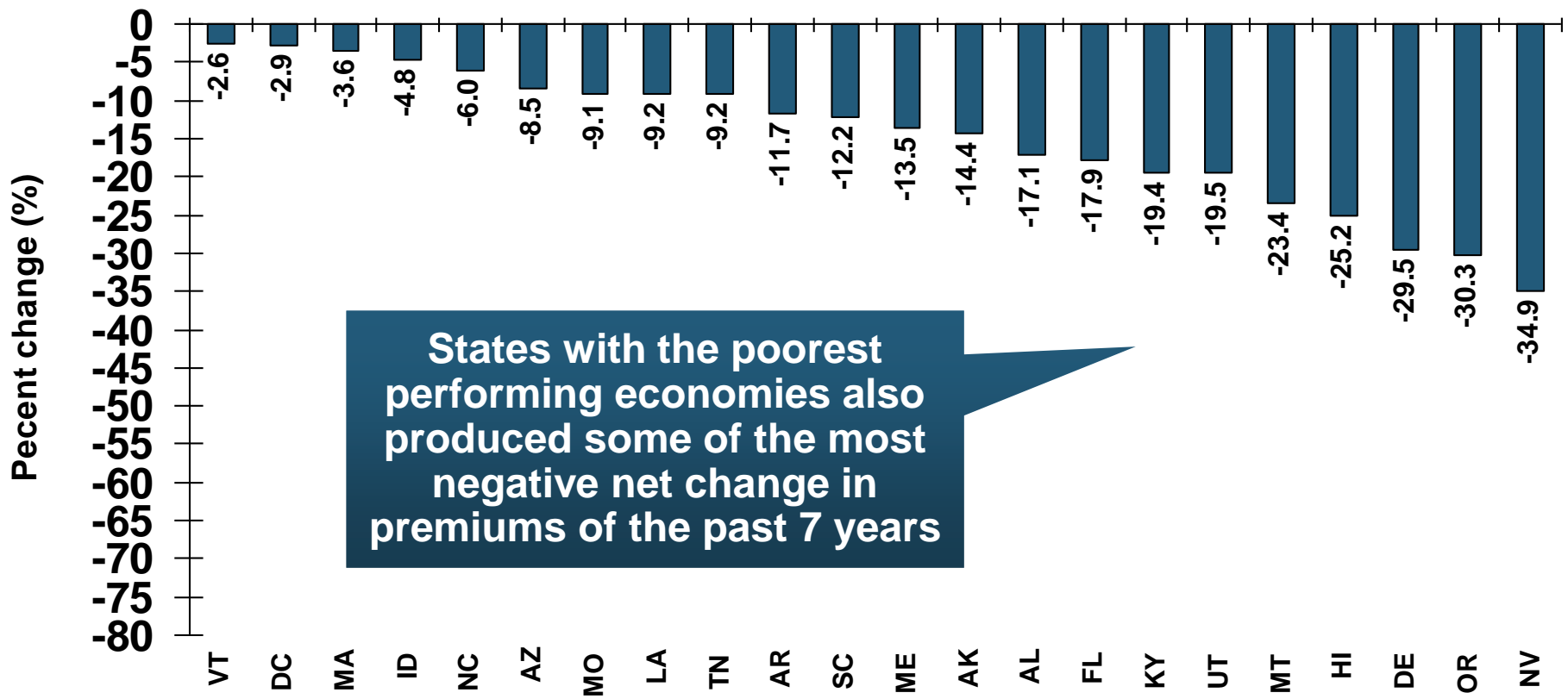


*Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period.

Sources: SNL Financial LC.; Insurance Information Institute.

Direct Premiums Written: Worker's Comp Percent Change by State, 2007-2014*

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.

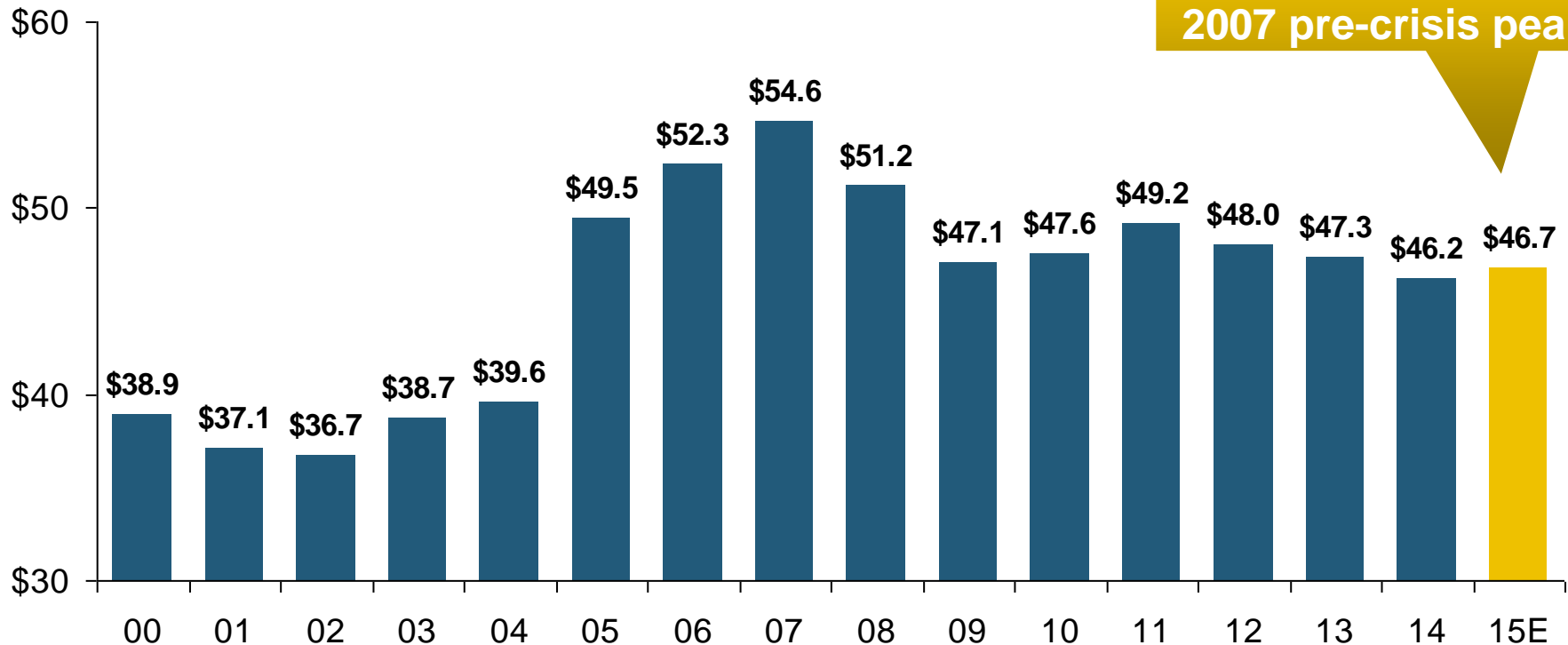
INVESTMENTS: THE NEW REALITY

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

***Low Yields Have an Especially
Large Influence on Profitability of
Long-Tailed Lines Like WC***

Property/Casualty Insurance Industry Investment Income: 2000–2015E¹

(\$ Billions)



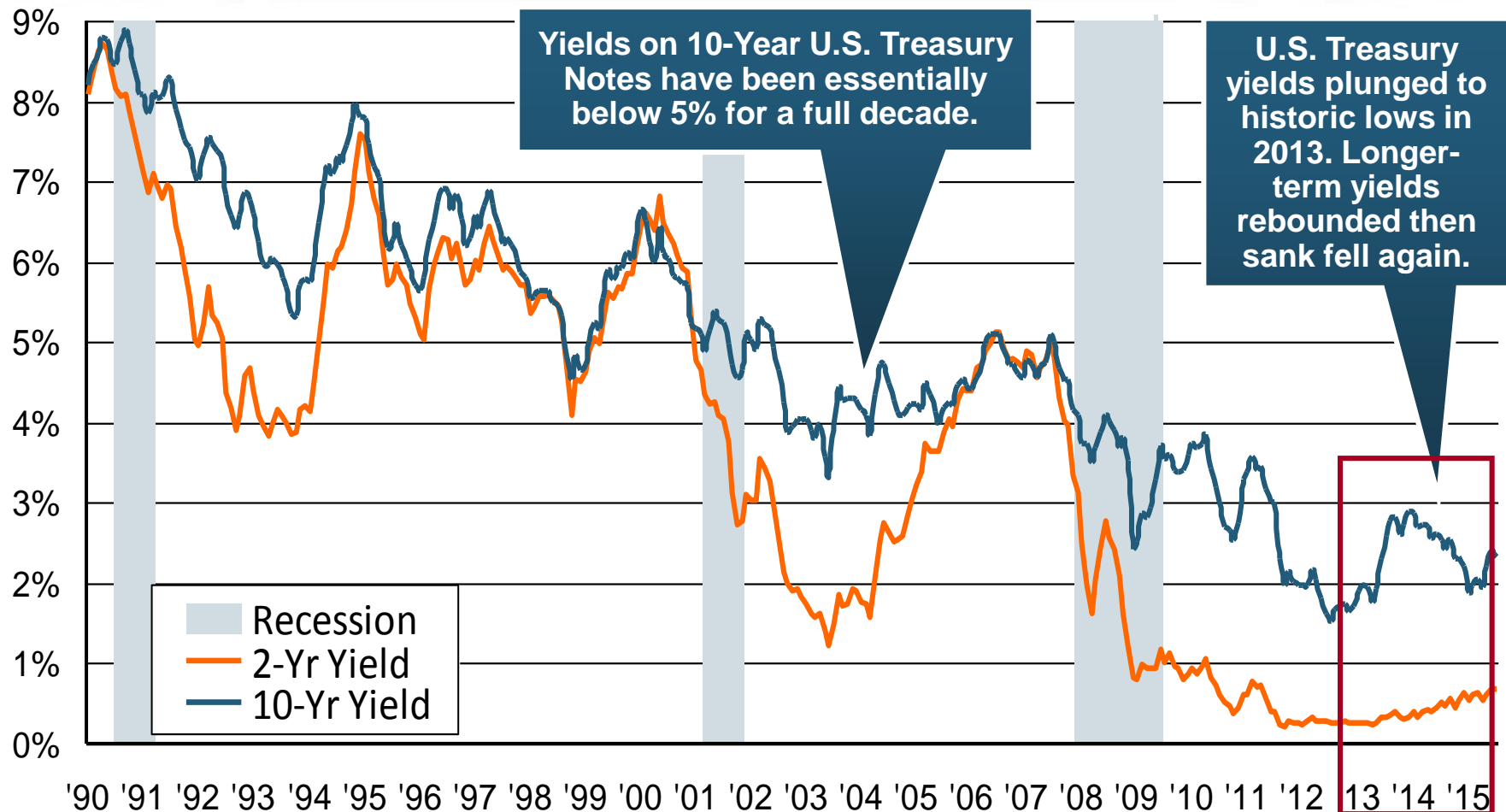
Investment earnings
are still below their
2007 pre-crisis peak

**Due to persistently low interest rates,
investment income fell in 2012, 2013 and 2014.**

¹ Investment gains consist primarily of interest and stock dividends.
Sources: ISO; Insurance Information Institute.

*2015 figure is estimated based on annualized data through Q1.

U.S. Treasury Security Yields: A Long Downward Trend, 1990–2015*



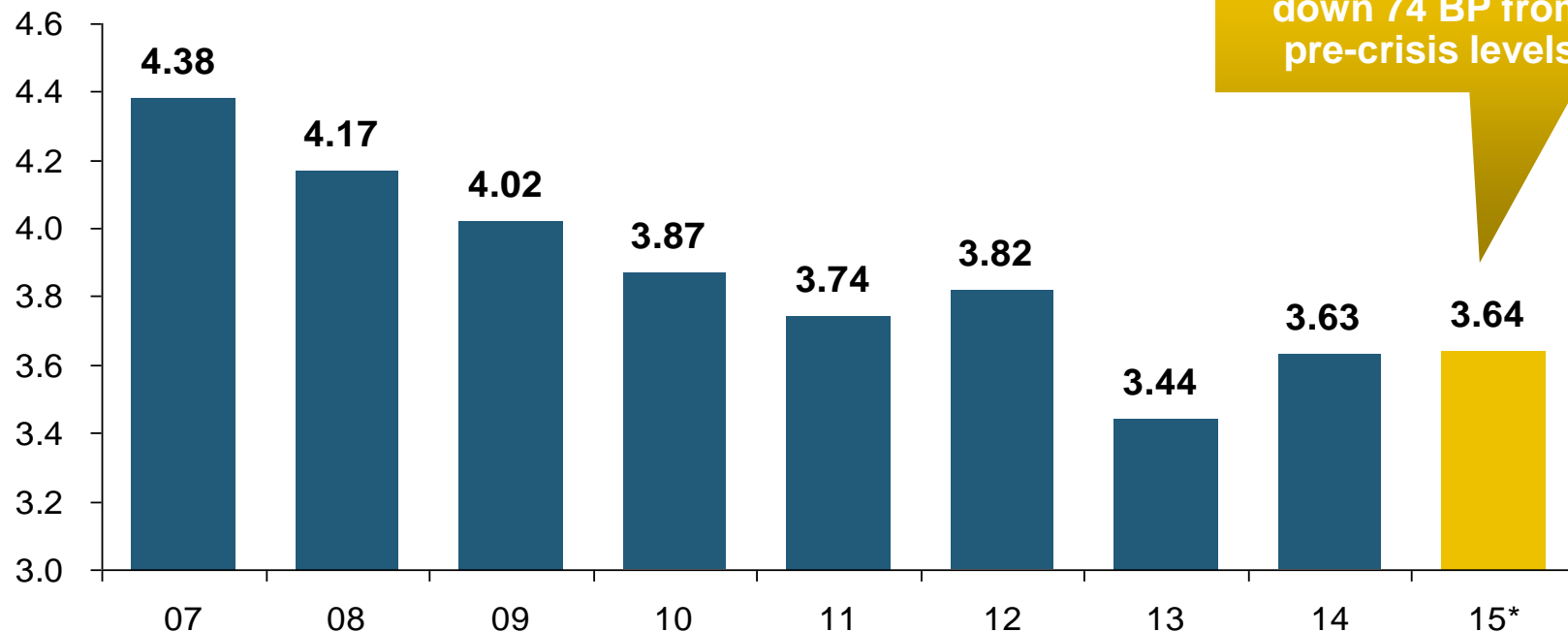
Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, constant maturity, nominal rates, through July 2015.

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

Book Yield on Property/Casualty Insurance Invested Assets, 2007–2015*

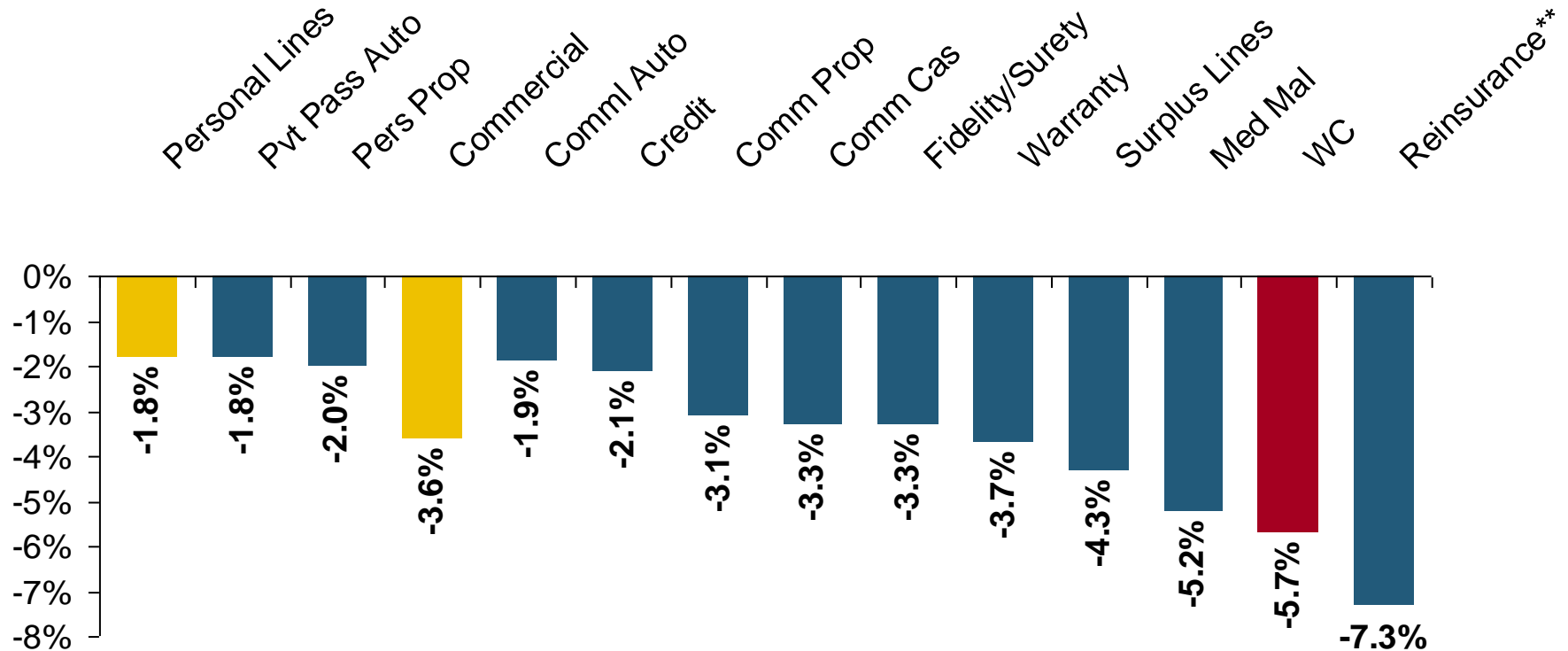
(Percent)



Book yield in 2015 is down 74 BP from pre-crisis levels

The yield on invested assets remains low relative to pre-crisis yields. The Fed's plan to raise interest rates in late 2015 has already pushed up some yields, albeit quite modestly.

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

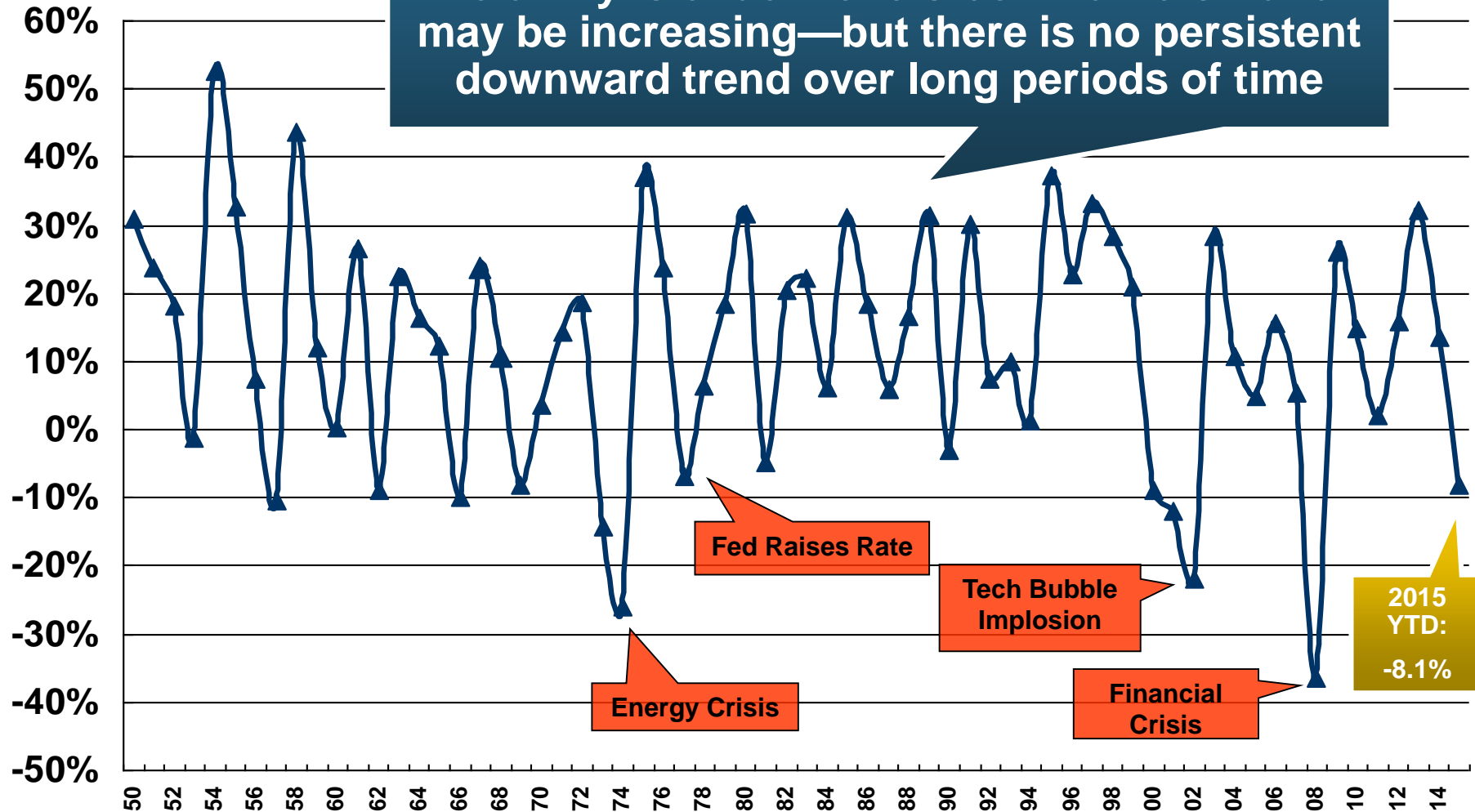
*Based on 2008 Invested Assets and Earned Premiums

**US domestic reinsurance only

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

S&P 500 Index Returns, 1950 – 2015*

Annual Return

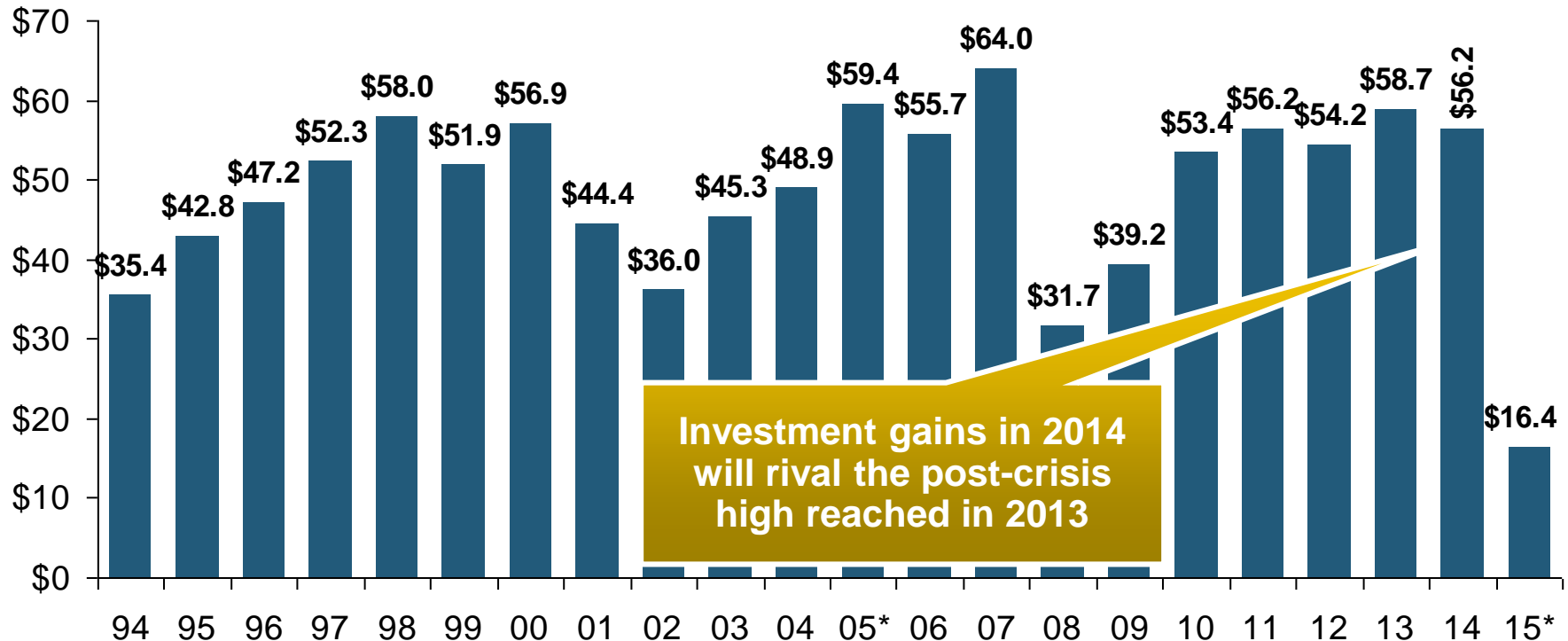


*Through August 24, 2015.

Source: NYU Stern School of Business: http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html Ins. Info. Inst.

Property/Casualty Insurance Industry Investment Gain: 1994–2015:Q1¹

(\$ Billions)



Total Investment Gains Were Down Slightly in 2014 as Low Interest Rates Pressured Investment Income but Realized Capital Gains Remained Robust

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; 2015 figure is through Q1 2015.

Sources: ISO; Insurance Information Institute.

2015

***Non-Financial Challenges and
Criticisms of Workers Comp***

**A Number of Issues Have Stirred
Interest in Workers
Compensation in 2015**

Challenges Raised in the Workers Comp Line

- **Opt Out Legislation:** Coalition of large employers is aggressively pushing for legislation that would allow them to forego purchasing WC coverage in favor of creating their own programs while also seeking to specify the criteria for claiming and the size of benefits
 - ◆ Allowed in TX for many years and passed in OK in 2014
 - ◆ Failed in TN in 2015; Lobbying in AL, FL, GA, NC, SC
- **Challenges to Exclusive Remedy:** Assertion that after reforms in several states the WC “Grand Bargain” has been breached and that benefits are now insufficient
 - ◆ Objective of trial lawyers is to tap into the tort system
- **ProPublica/NPR Attack Series:** “*The Demolition of Workers Comp*” (Published in March 2015)



Labor Markets Trends: ***Recovery Continues in 2015***

In 2014...

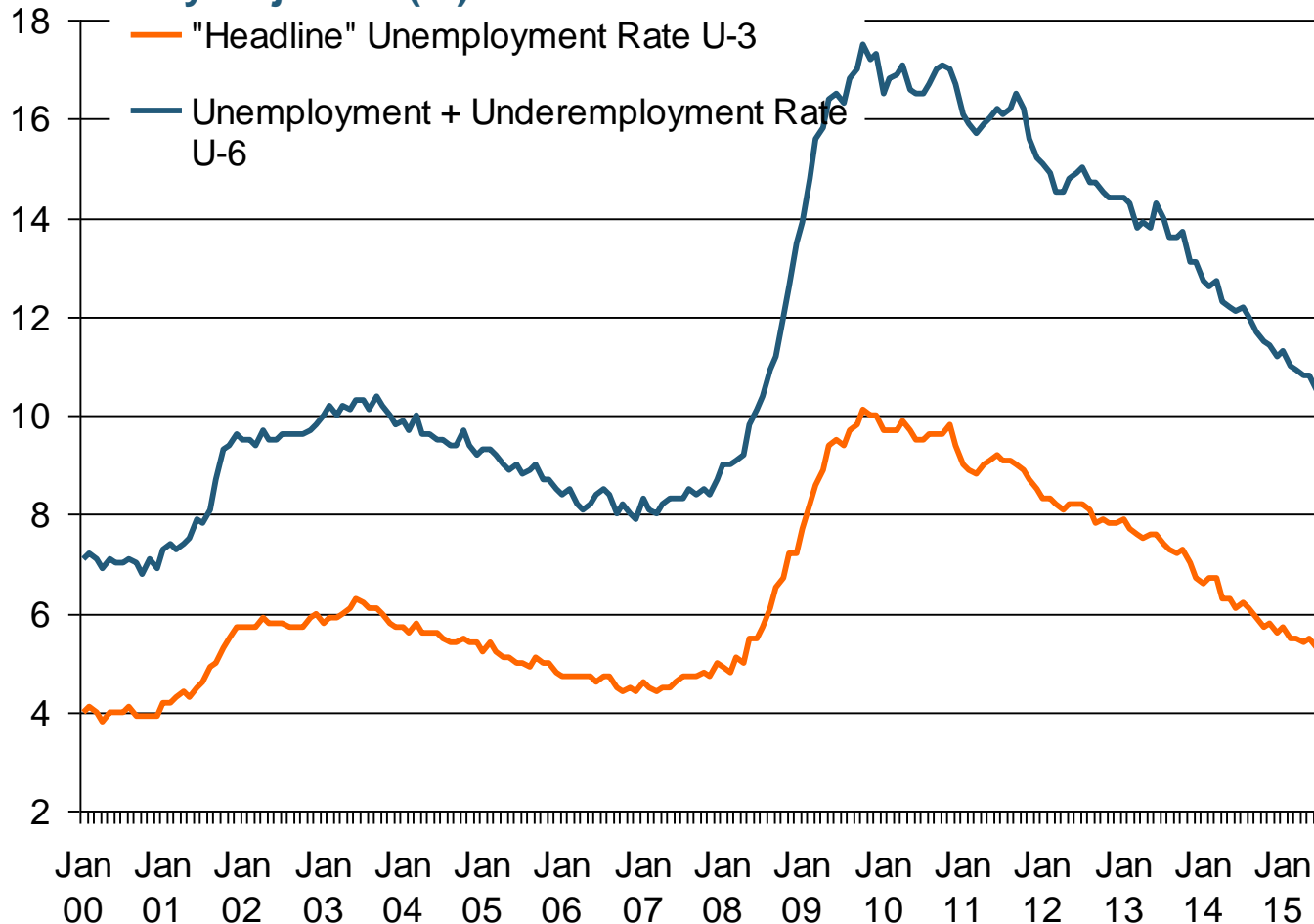
Largest Increase in Jobs Since 1997

**Unemployment Rate Fell to Lowest
Level Since 2008**

Payrolls Expanded to Record High

Unemployment and Underemployment Rates: Still Too High, But Falling

January 2000 through July 2015,
Seasonally Adjusted (%)



U-6 soared from 8.0% in March 2007 to 17.5% in October 2009; Stood at 10.4% in June 2015. 8% to 10% is “normal.”

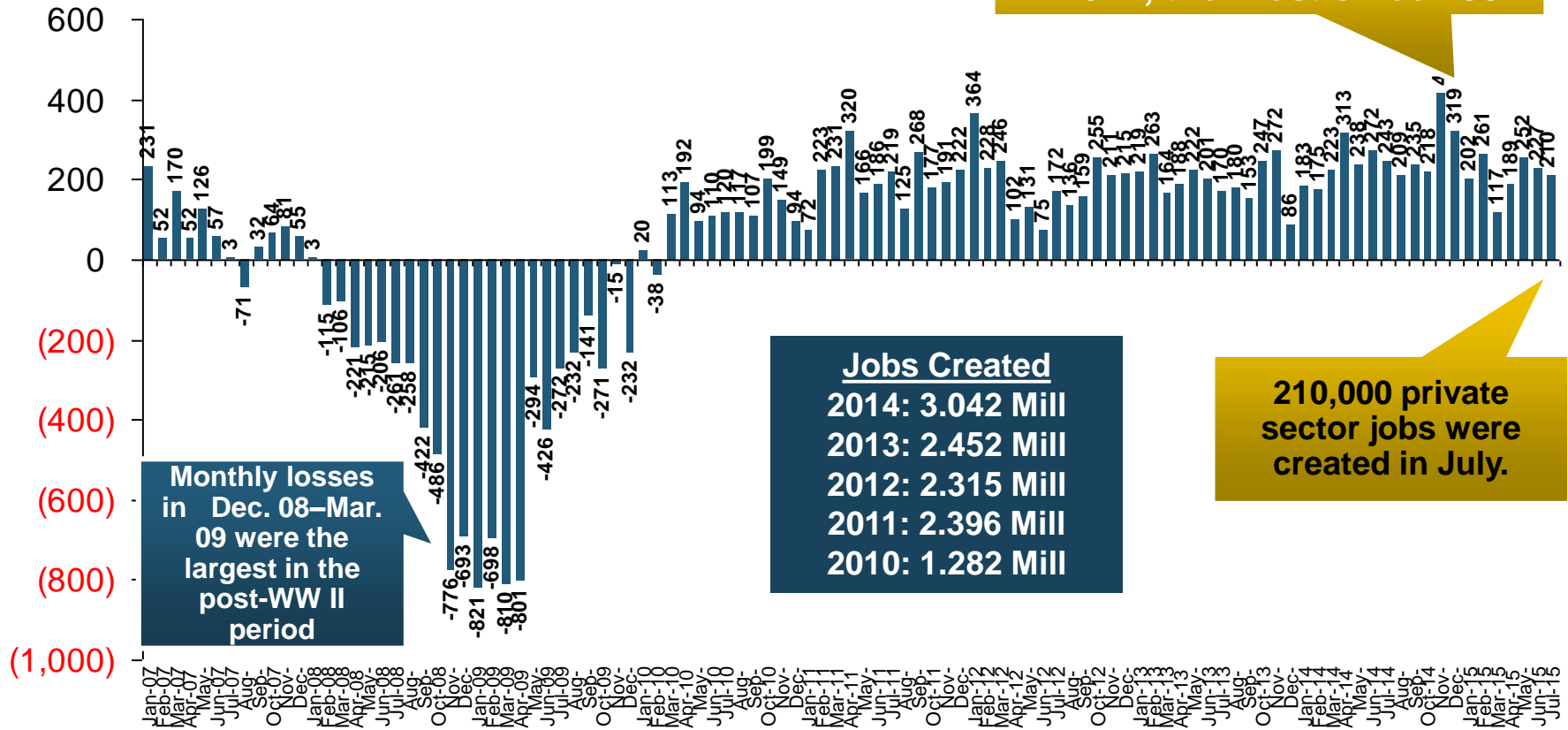
“Headline” unemployment was 5.3% in July 2015. 4.5% to 5.5% is “normal.”

Stubbornly high unemployment and underemployment constrain overall economic growth, but the job market is continuing to improve.

Monthly Change in Private Employment

January 2007 through July 2015 (000s, Seasonally Adj.)

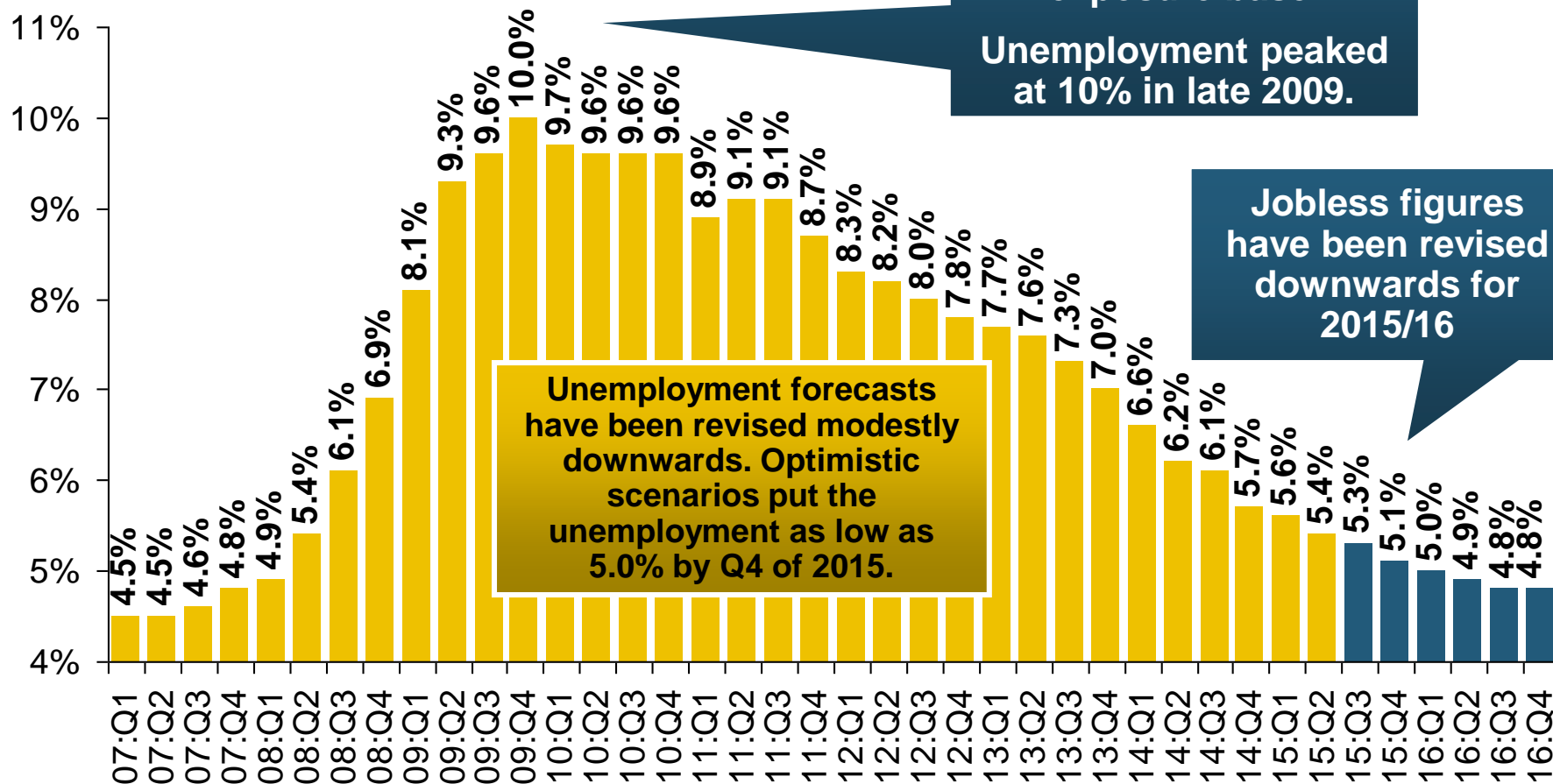
3,042,000 jobs were created in 2014, the most since 1997



Private Employers Added 12.84 Million Jobs Since Jan. 2010 After Having Shed 5.01 Million Jobs in 2009 and 3.76 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

US Unemployment Rate Forecast

2007:Q1 to 2016:Q4F*

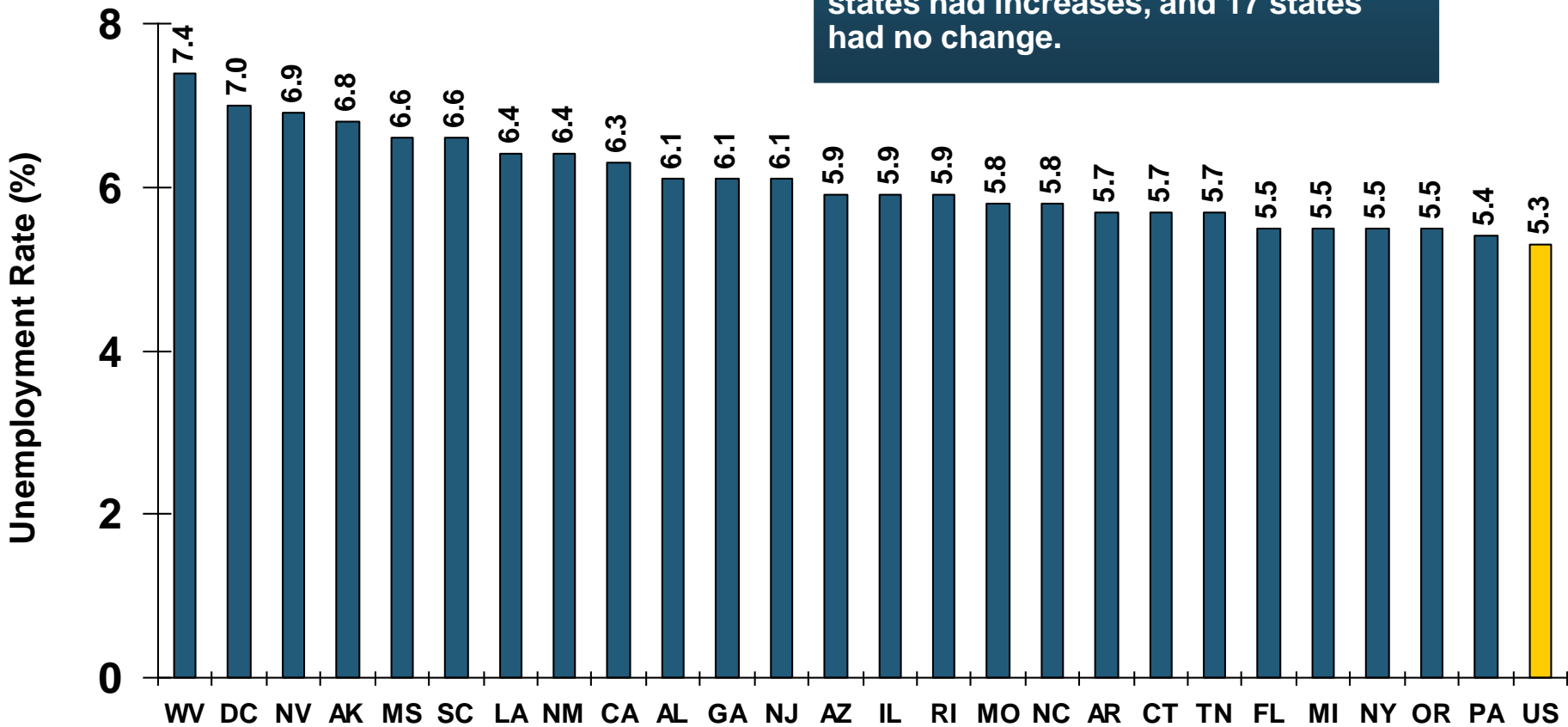


* ■ = actual; ■ = forecasts

Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (8/15 edition); Insurance Information Institute.

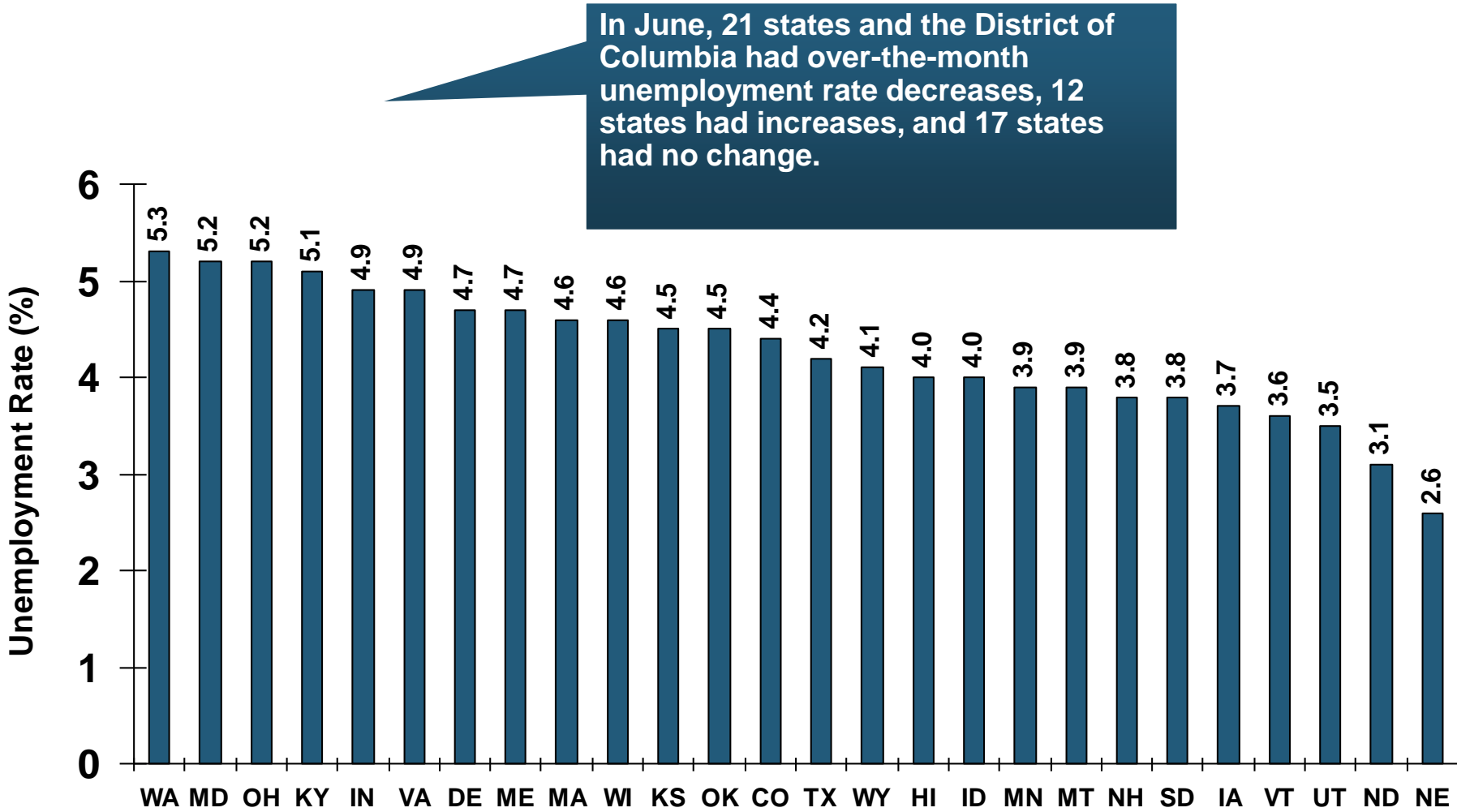
Unemployment Rates by State, June 2015: Highest 25 States*

In June, 21 states and the District of Columbia had over-the-month unemployment rate decreases, 12 states had increases, and 17 states had no change.



*Provisional figures for June 2015, seasonally adjusted.
Sources: US Bureau of Labor Statistics; Insurance Information Institute.

Unemployment Rates by State, June 2015: Lowest 25 States*



*Provisional figures for June 2015, seasonally adjusted.
Sources: US Bureau of Labor Statistics; Insurance Information Institute.

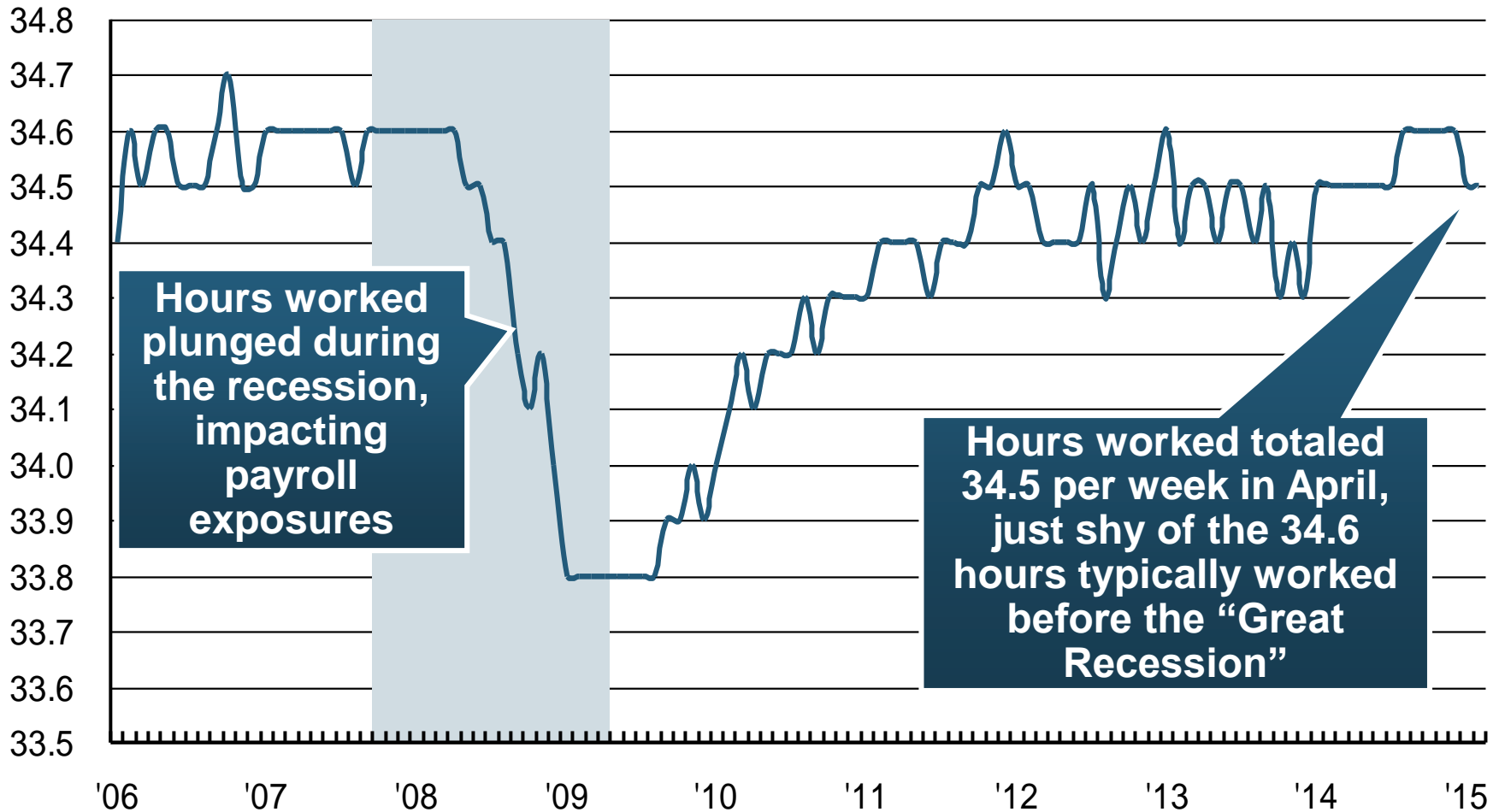


POSITIVE LABOR MARKET DEVELOPMENTS

Key Factors Driving Workers Compensation Exposure

Average Weekly Hours of All Private Workers, Mar. 2006—April 2015

(Hours Worked)



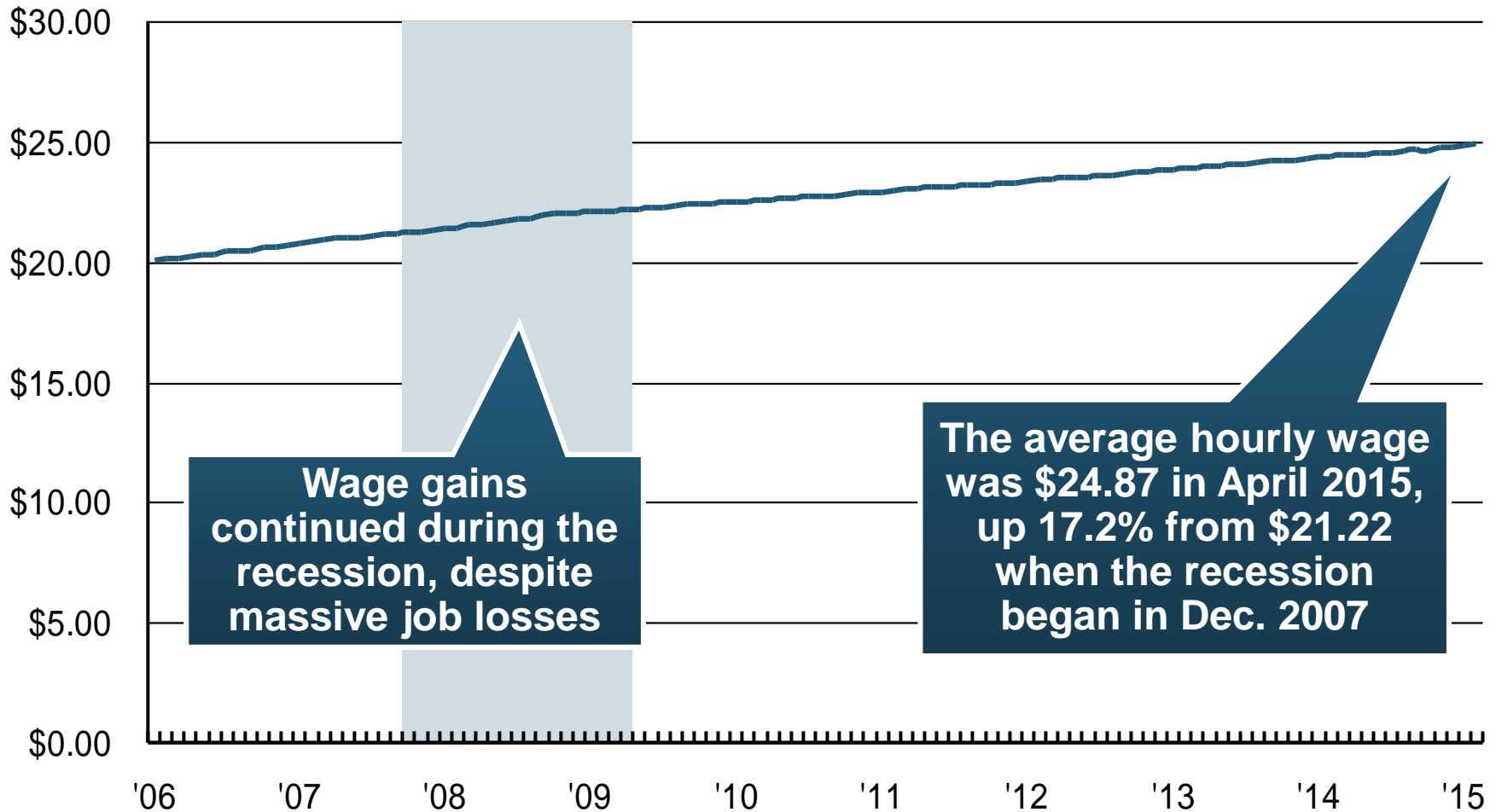
*Seasonally adjusted

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at <http://www.bls.gov/data/#employment>; National Bureau of Economic Research (recession dates); Insurance Information Institute.

Average Hourly Wage of All Private Workers, Mar. 2006—April 2015

(Hourly Wage)



*Seasonally adjusted

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at <http://www.bls.gov/data/#employment>; National Bureau of Economic Research (recession dates); Insurance Information Institute.

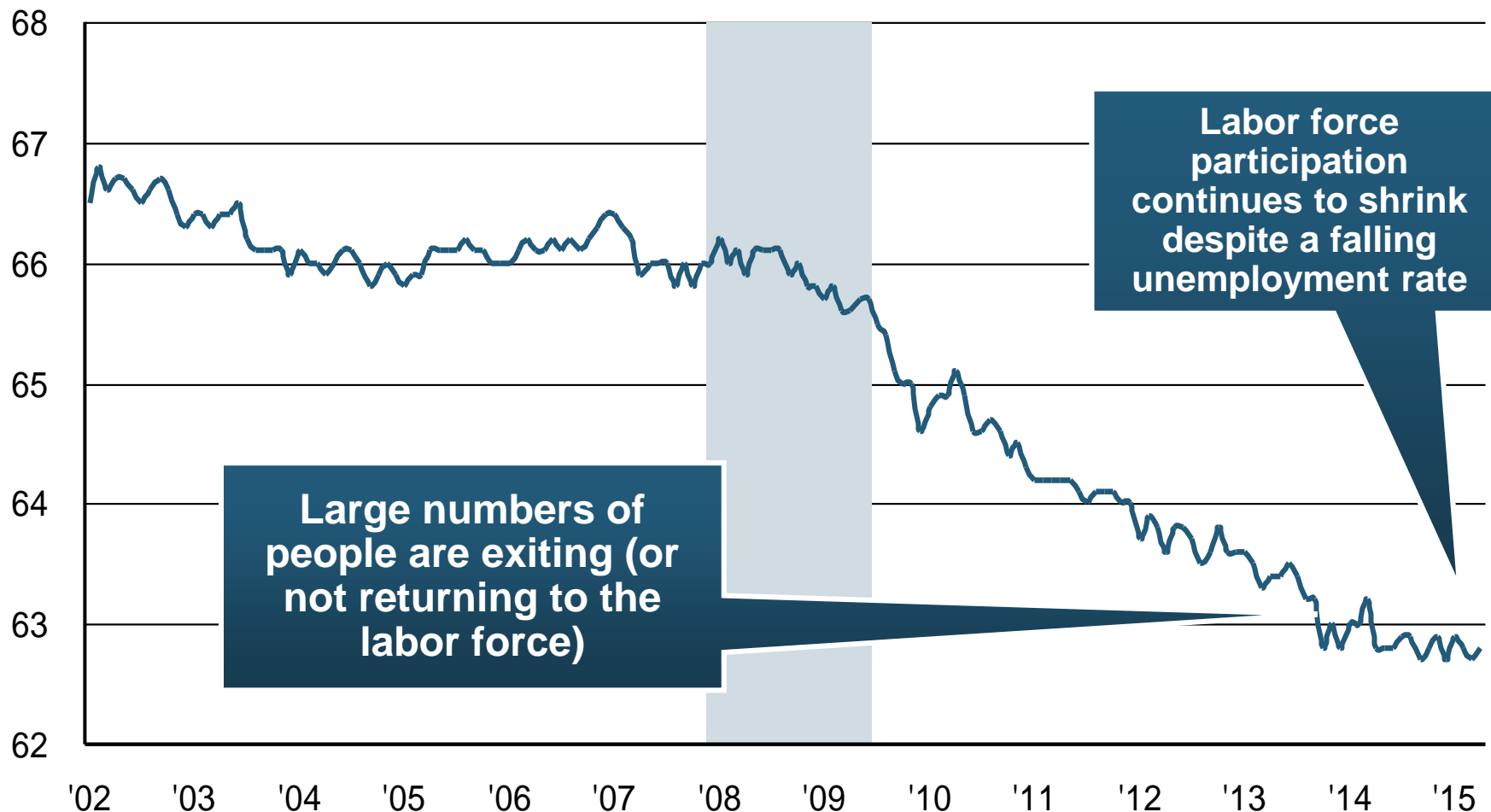


ADVERSE LONG-TERM LABOR MARKET DEVELOPMENTS

**Key Factors Harming Workers
Compensation Exposure and the
Overall Economy**

Labor Force Participation Rate, Jan. 2002—April 2015*

Labor Force Participation as a % of Population



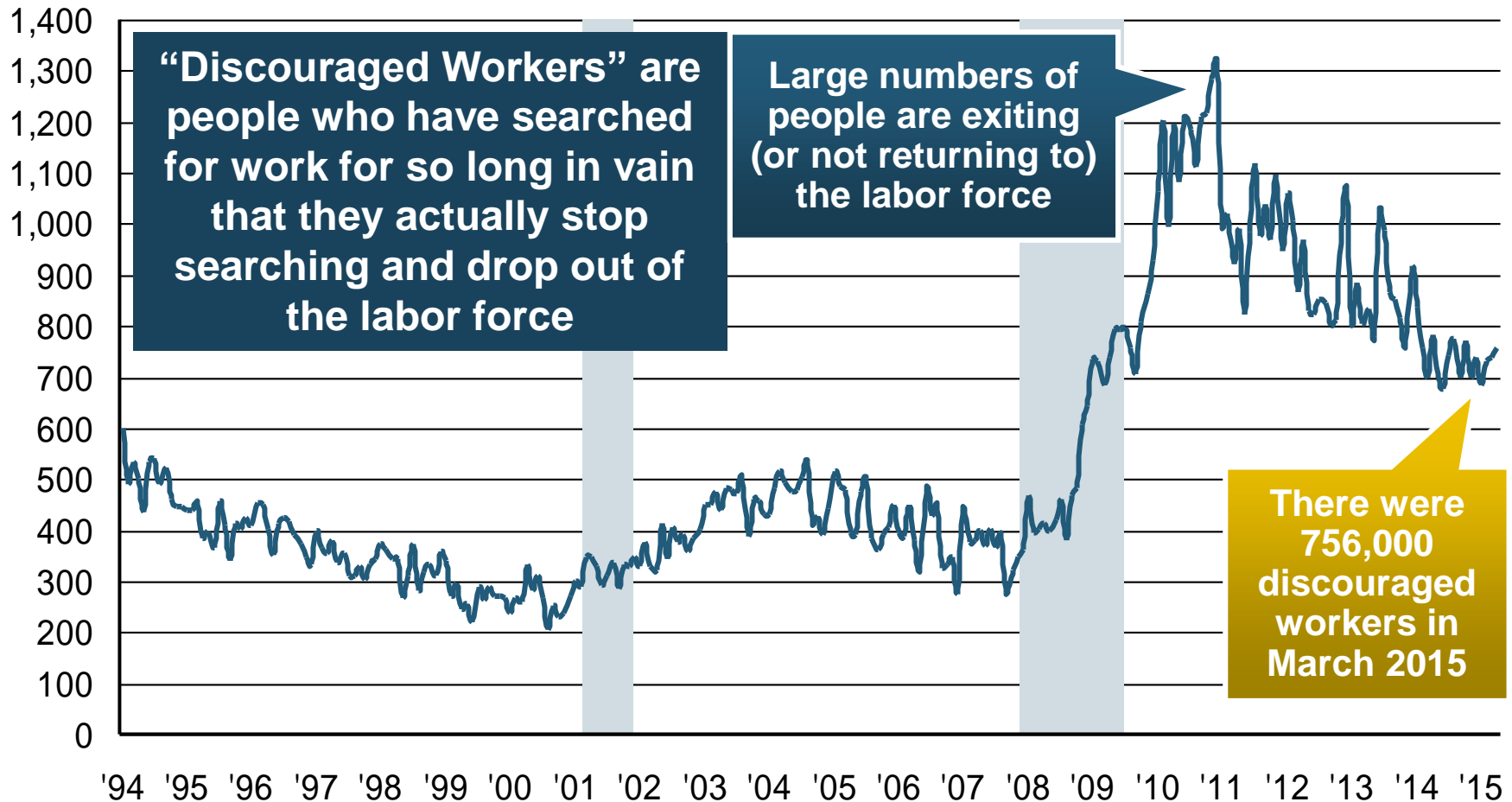
*Defined as the percentage of working age persons in the population who are employed or actively seeking work.

Note: Recessions indicated by gray shaded columns.

Sources: US Bureau of Labor Statistics at <http://www.bls.gov/data/>; National Bureau of Economic Research (recession dates); Insurance Information Institute.

Number of “Discouraged Workers,” Jan. 2002—April 2015

Thousands



In recent good times, the number of discouraged workers ranged from 200,000-400,000 (1995-2000) or from 300,000-500,000 (2002-2007).

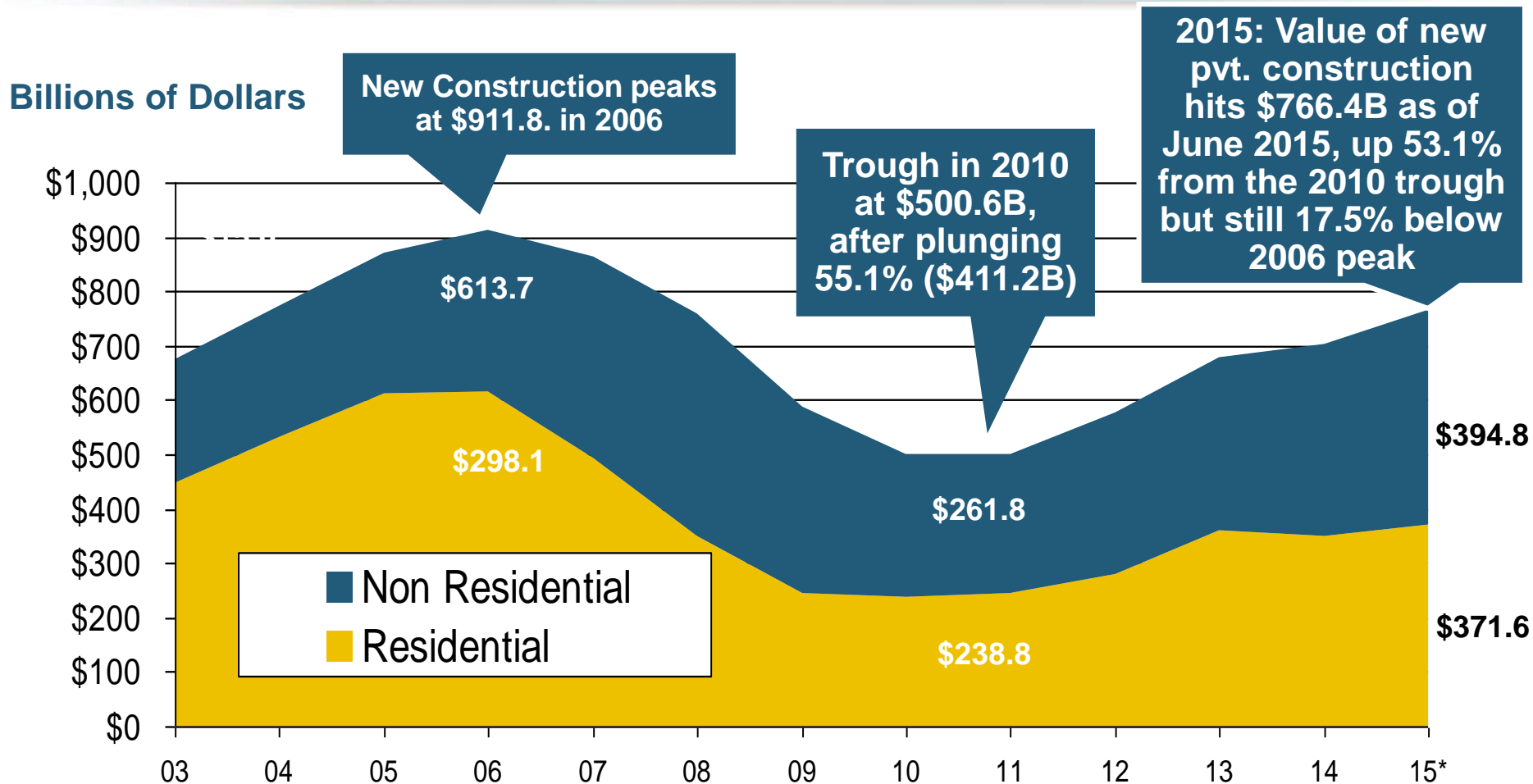
Notes: Recessions indicated by gray shaded columns. Data are seasonally adjusted.

Sources: Bureau of Labor Statistics <http://www.bls.gov/news.release/empsit.a.htm> ; NBER (recession dates); Ins. Info. Inst.

CONSTRUCTION INDUSTRY OVERVIEW & OUTLOOK

**The Construction Sector Is
Critical to the Economy and
the P/C Insurance Industry**

Value of New Private Construction: Residential & Nonresidential, 2003-2015*



Private Construction Activity Is Moving in a Positive Direction though Remains Well Below Pre-Crisis Peak; Residential Dominates

*2015 figure is a seasonally adjusted annual rate as of June.

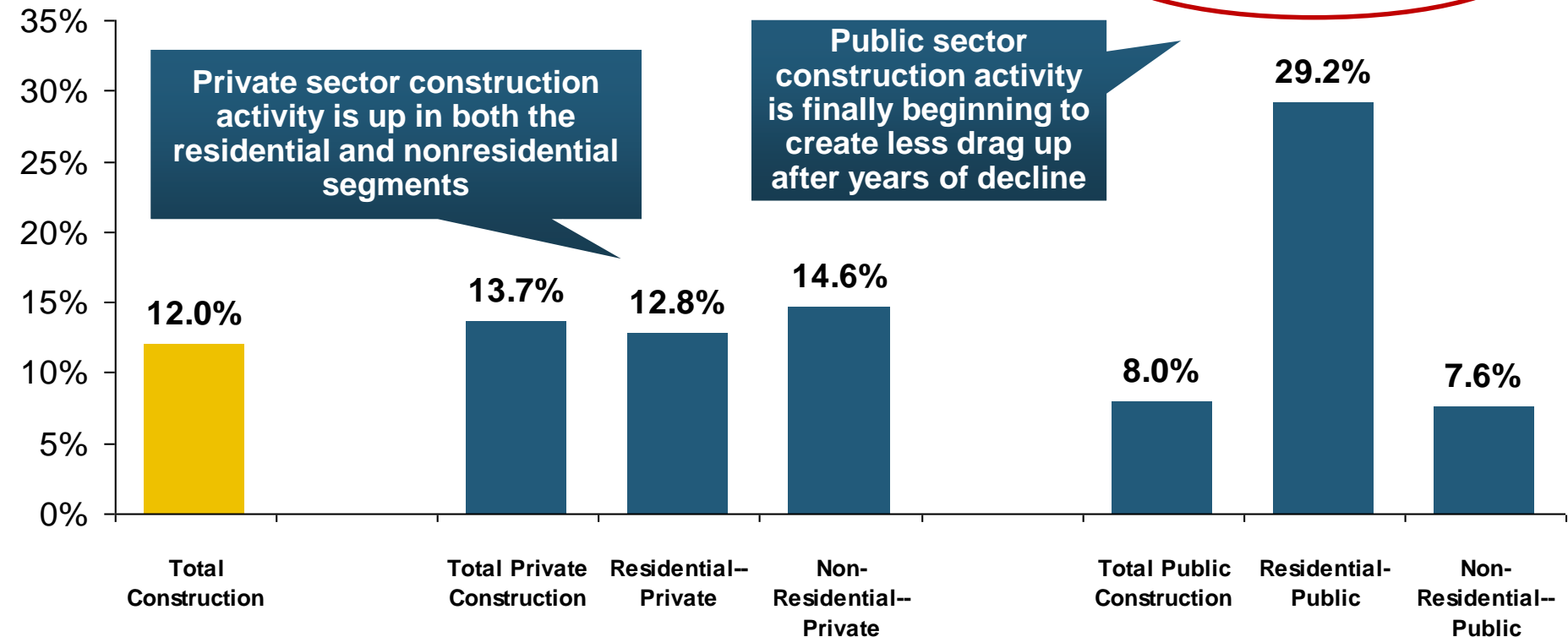
Sources: US Department of Commerce <http://www.census.gov/construction/c30/c30index.html> ; Insurance Information Institute.

Value of Construction Put in Place, June 2015 vs. June 2014*

Growth (%)

Private: +13.7%

Public: +8.0%



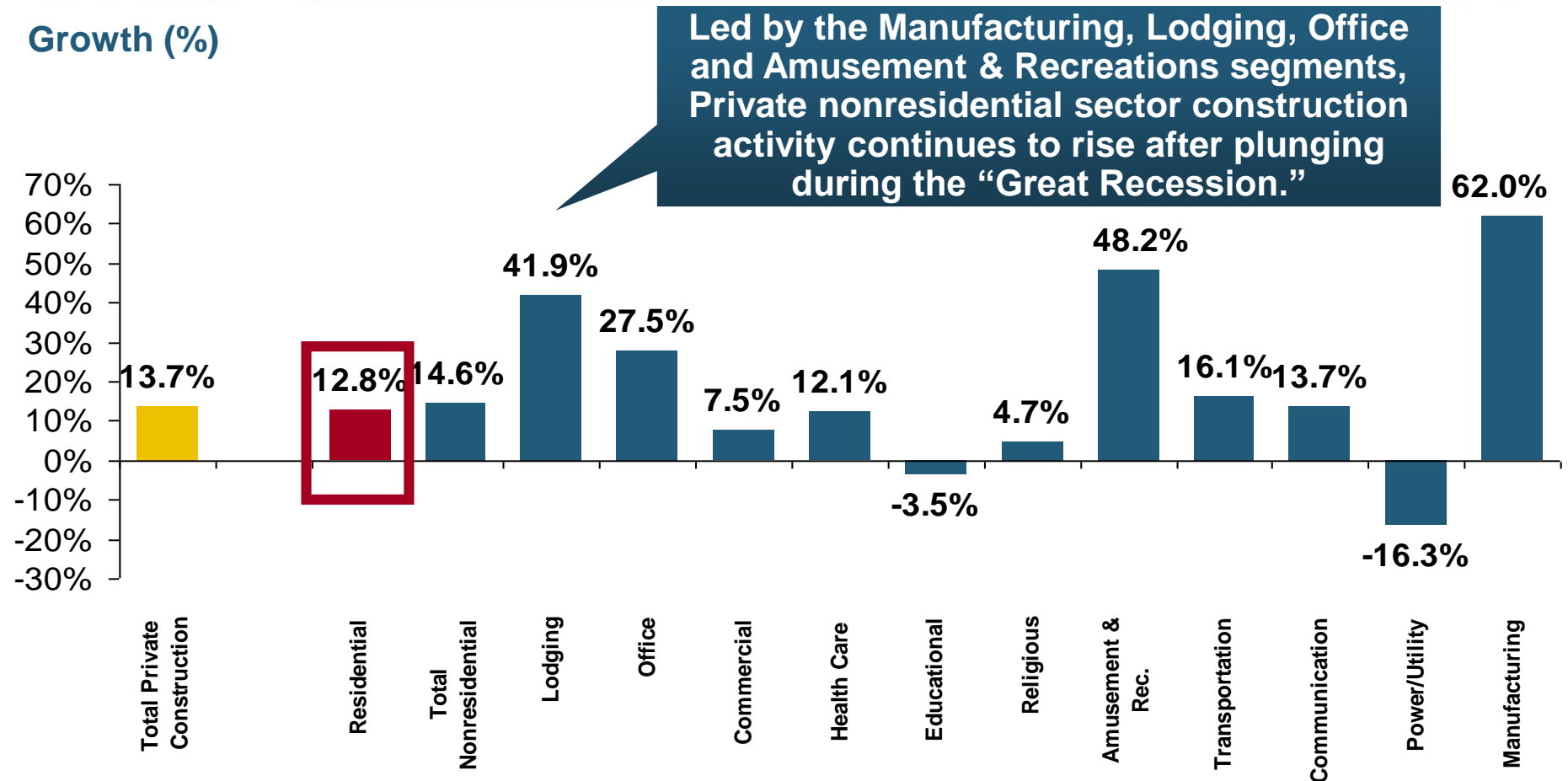
Overall Construction Activity is Up Again After Languishing in Early 2015; State/Local Sector Government Sector May Be Recovering as Budget Woes Ease in Some Jurisdictions

*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, June 2015 vs. June 2014*

Growth (%)



Private Construction Activity is Up in Most Segments, though the Key Residential Construction Sector Weakened in Late 2014/Early 2015; Mixed Outlook for 2015, though Expansion Should Continue

*seasonally adjusted

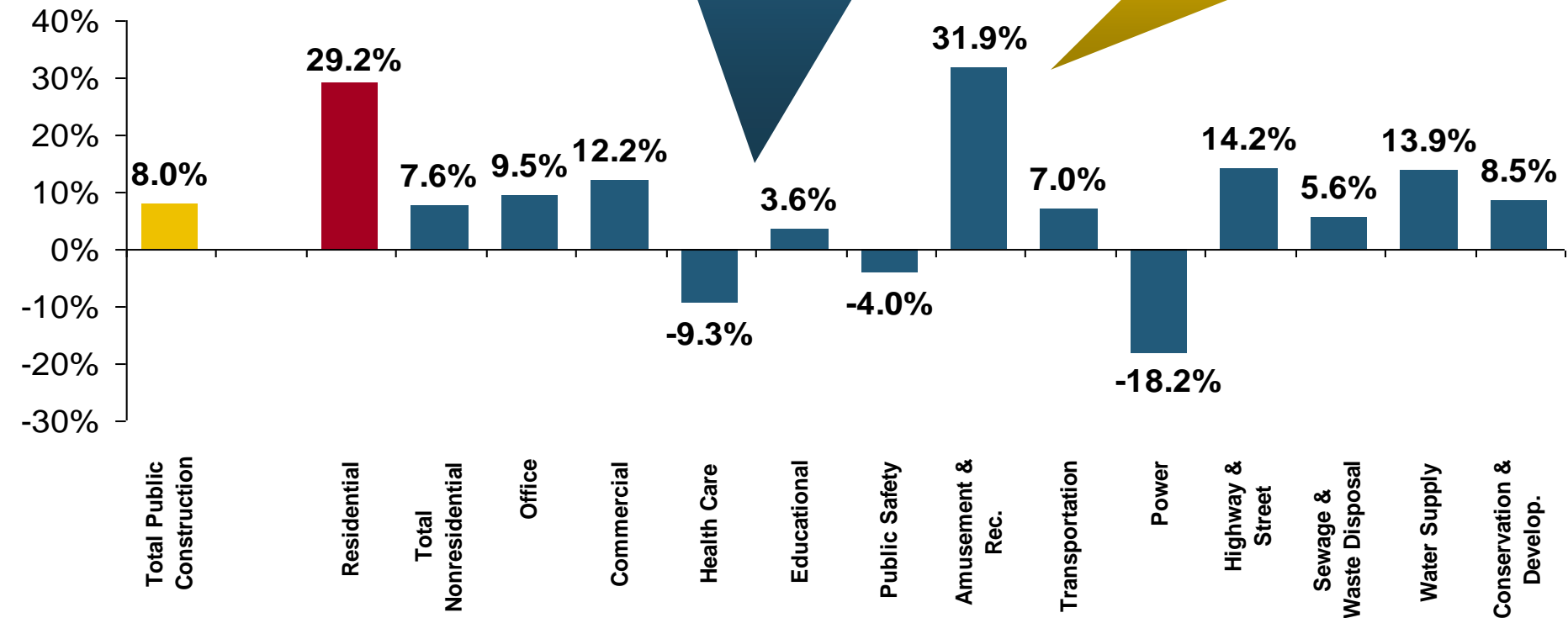
Source: U.S. Census Bureau, <http://www.census.gov/construction/c30/c30index.html> ; Insurance Information Institute.

Value of Public Construction Put in Place, by Segment, June 2015 vs. June 2014*

Growth (%)

Public sector construction activity finally up in most segments after many months of decline, pushing up public entity risk exposures

Residential, Amusement & Recreation and Highway & Street projects lead public sector construction

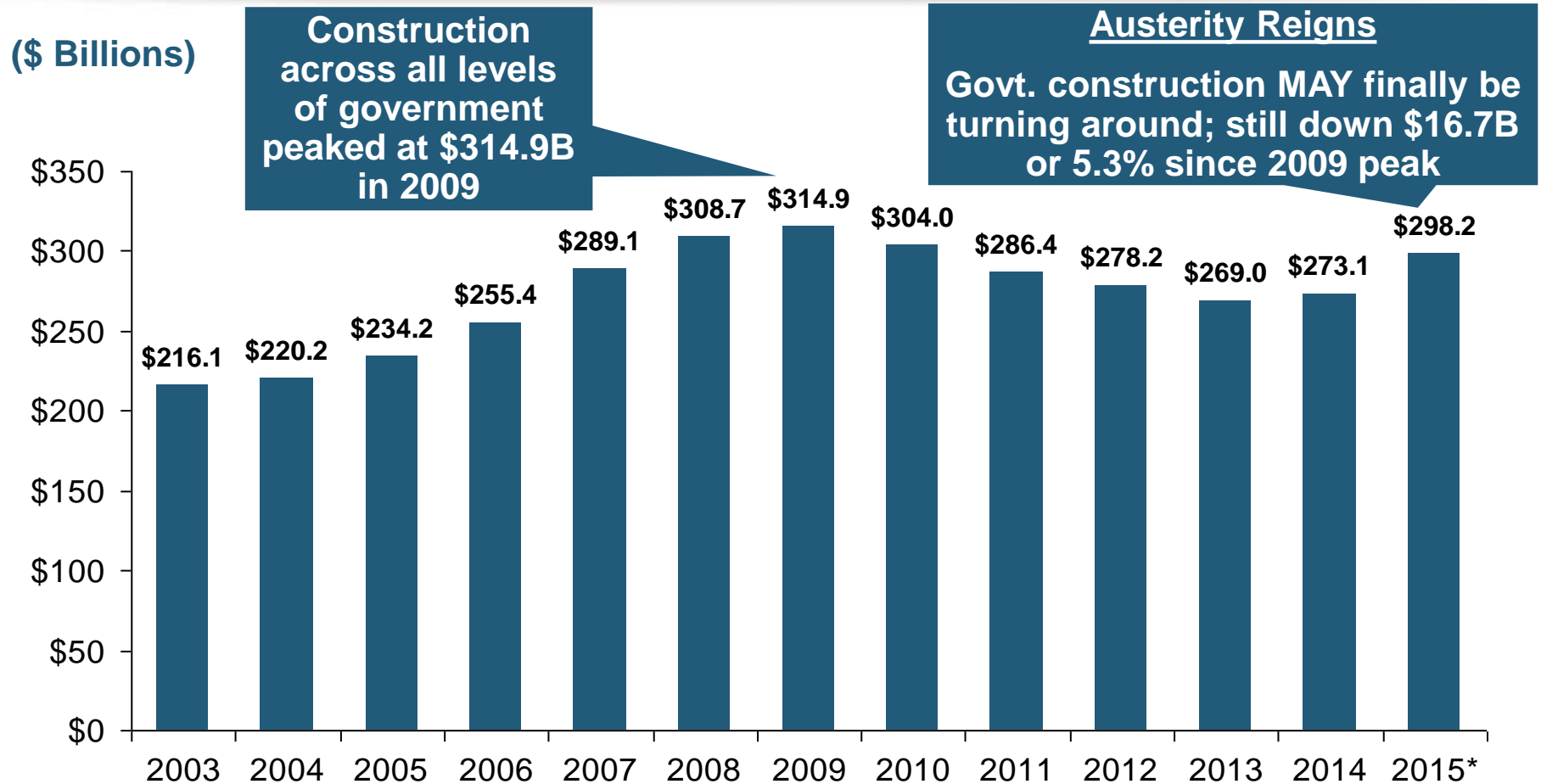


Public Construction Activity is Beginning to Recover from its Long Contraction which Will Drive Demand in Many Commercial Insurance Lines

*seasonally adjusted

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

Value of New Federal, State and Local Government Construction: 2003-2015*

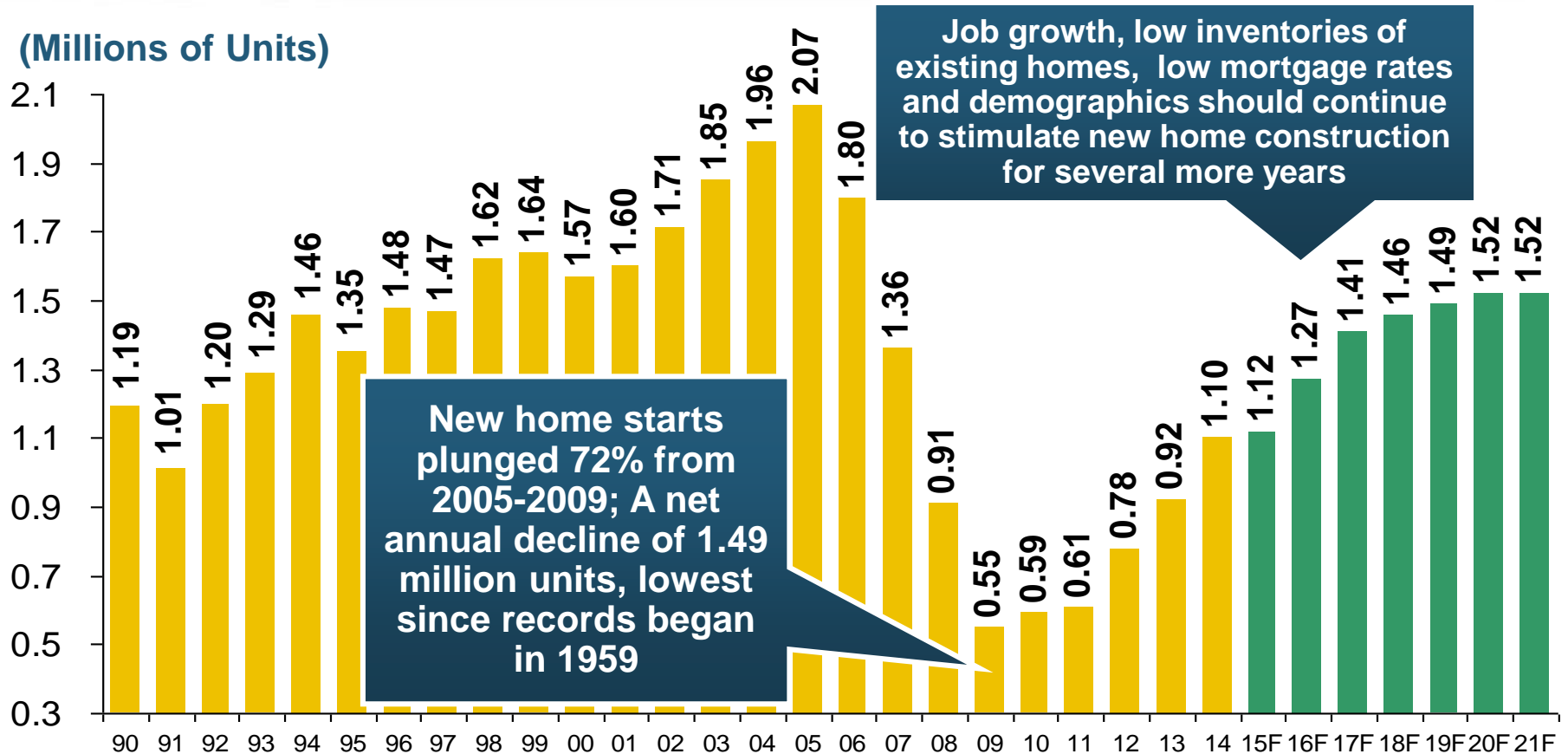


Government Construction Spending Peaked in 2009, Helped by Stimulus Spending, but Contracted As State/Local Governments Grappled with Deficits and Federal Sequestration; Only Now Recovering

*2015 figure is a seasonally adjusted annual rate as of June; http://www.census.gov/construction/c30/historical_data.html

Sources: US Department of Commerce; Insurance Information Institute.

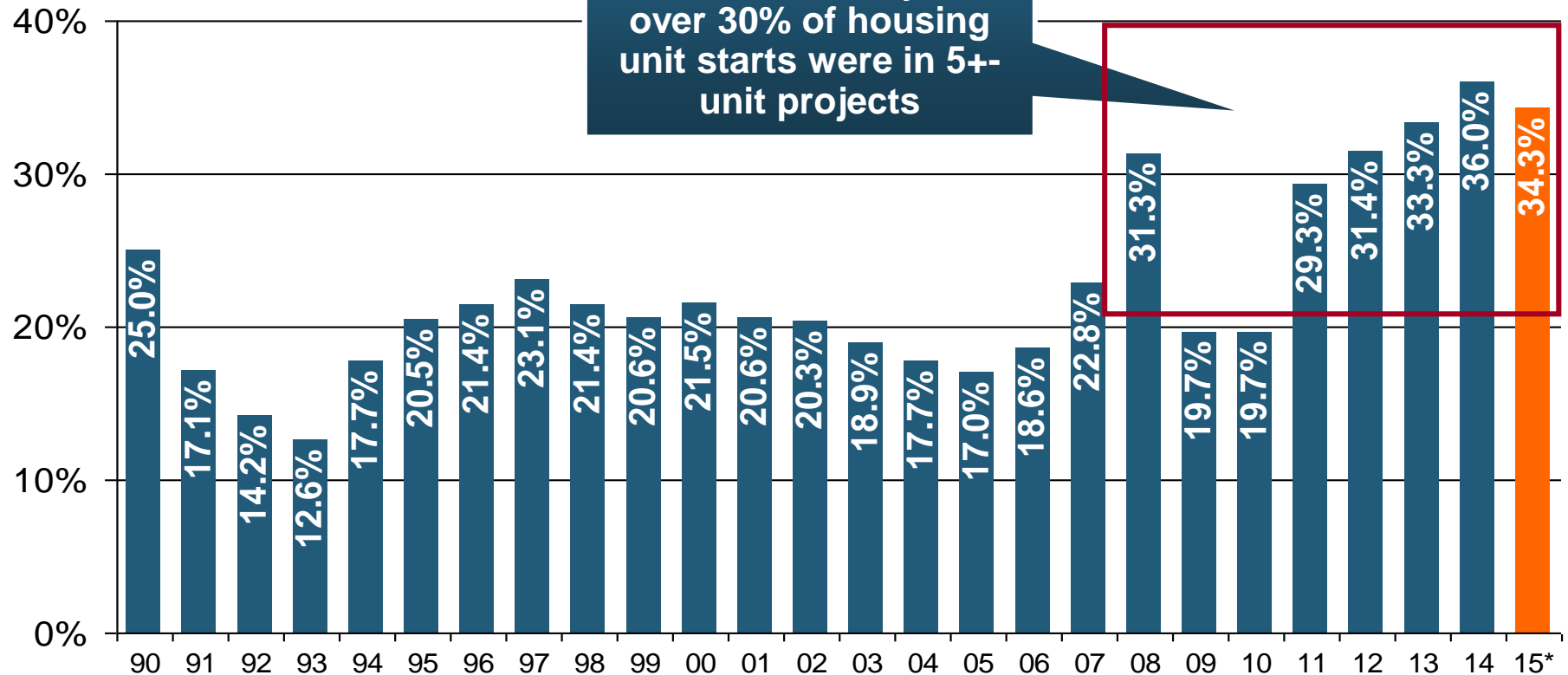
New Private Housing Starts, 1990-2021F



Insurers Are Continue to See Meaningful Exposure Growth in the Wake of the “Great Recession” Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of Workers Comp Exposure

U.S.: Pct. Of Private Housing Unit Starts In Multi-Unit Projects, 1990-2015

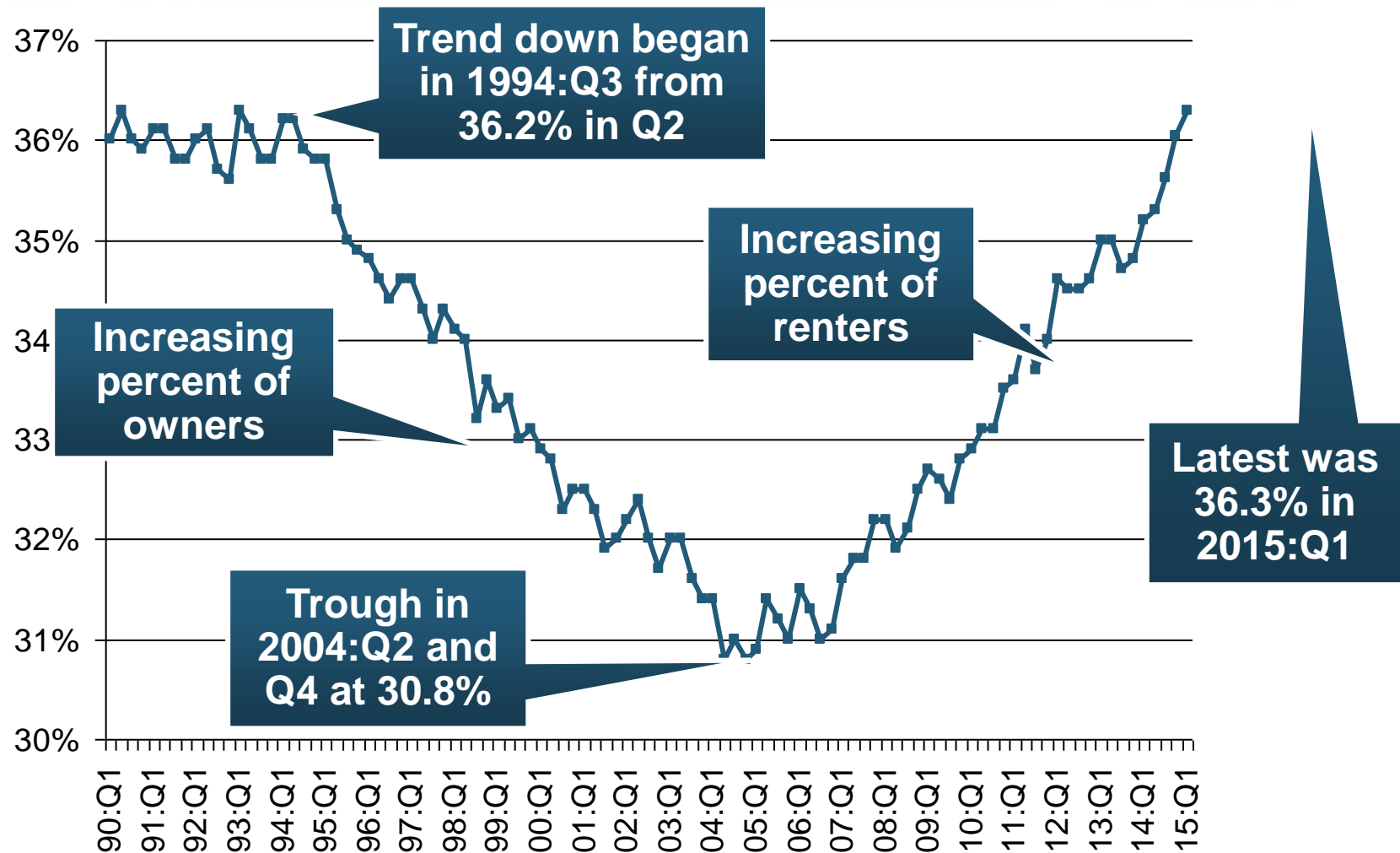
Units in Multiple-Unit Projects
as Percent of Total



For the U.S. as a whole, the trend toward multi-unit housing projects (vs. single-unit homes) is recent. Commercial insurers with Workers Comp, Construction risk exposure, and Surety benefit.

*January through April 2015; April is preliminary; calculations based on seasonally adjusted at annual rates
Sources: U.S. Census Bureau, New Residential Construction in April 2015 and earlier releases; next release June 16, 2015;
Insurance Information Institute calculations.

Rental-Occupied Housing Units as % of Total Occupied Units, Quarterly, 1990:Q1-2015:Q1

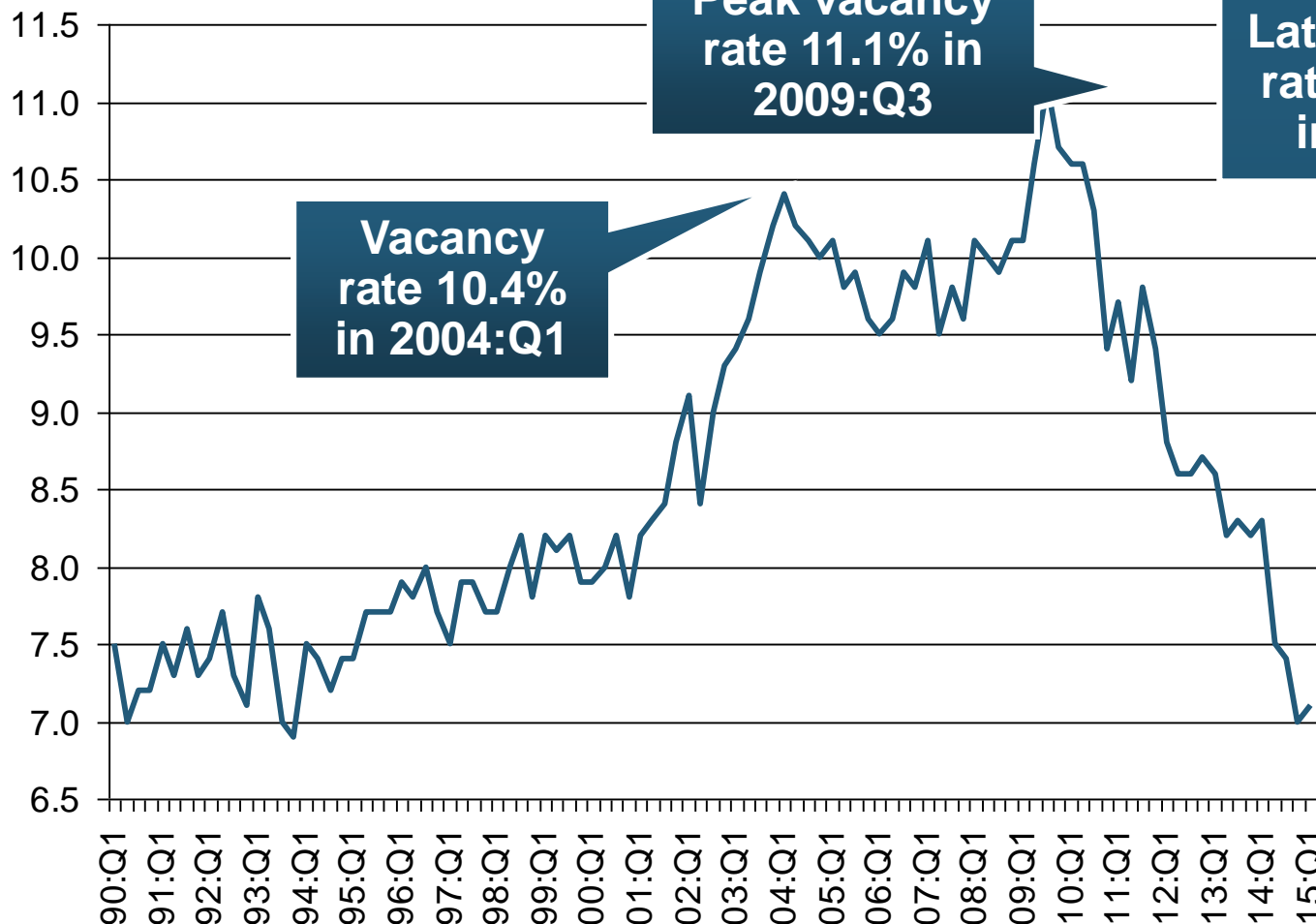


Since the Great Recession ended in June 2009, renters occupied 5.7 million more units (+15.6%).

Sources: US Census Bureau, *Residential Vacancies & Home Ownership in the First Quarter of 2015* (released April 28, 2015) and earlier issues; Insurance Information Institute. Next Census Bureau report to be released on July 28, 2015.

Rental Vacancy Rates, Quarterly, 1990:Q1-2015:Q1

Percent vacant



Before the 2001 recession, rental vacancy rates were 8% or less. We're below those levels now. => More multi-unit construction?

Sources: US Census Bureau, *Residential Vacancies & Home Ownership in the First Quarter of 2015* (released April 28, 2015) and earlier issues; Insurance Information Institute. Next Census Bureau report to be released on July 28, 2015.

Construction Employment, Jan. 2010—July 2015*

(Thousands)



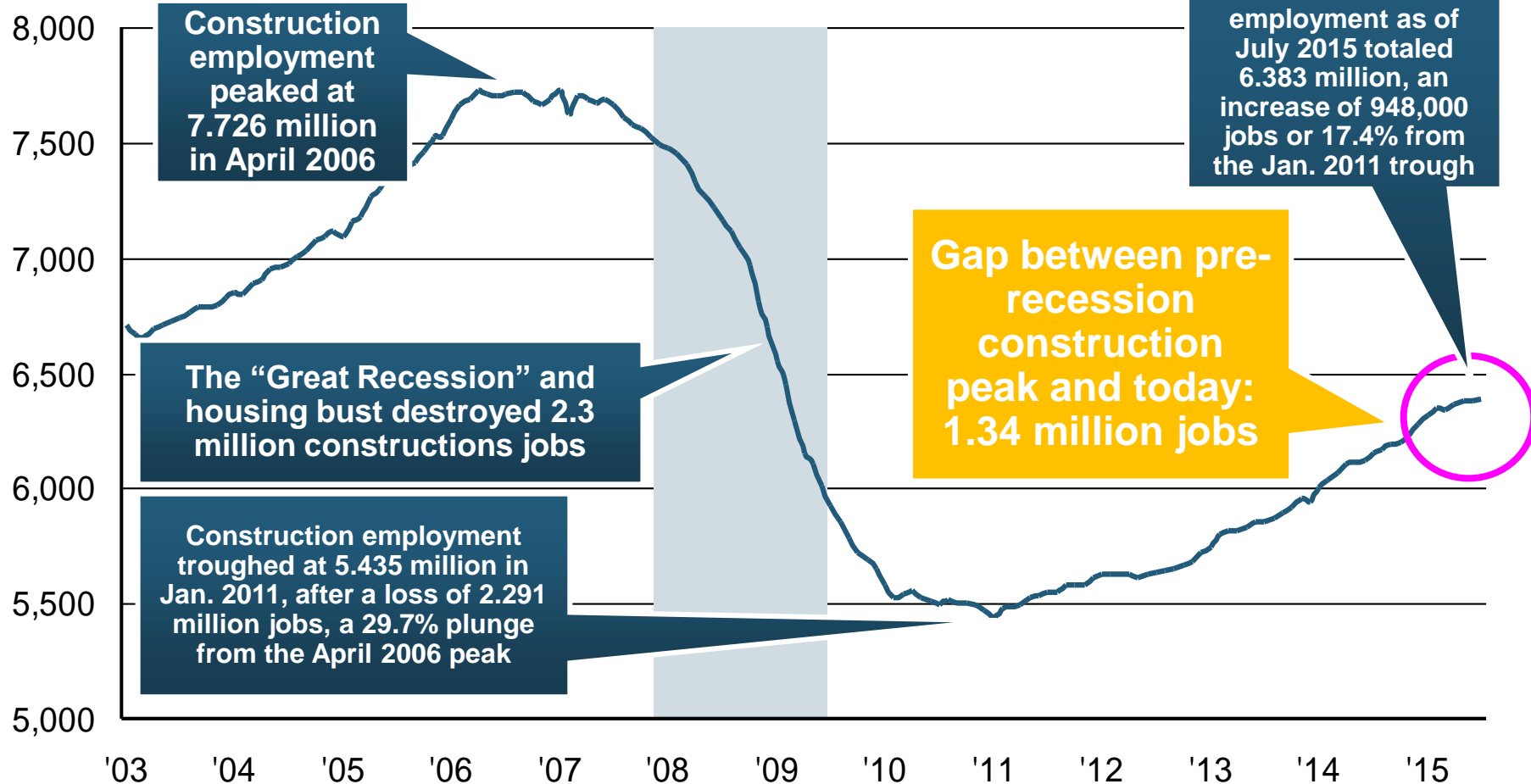
Construction and manufacturing employment constitute 1/3 of all WC payroll exposure.

*Seasonally adjusted.

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

Construction Employment, Jan. 2003–July 2015

(Thousands)



The Construction Sector Was a Growth Leader in 2014 as the Housing Market, Private Investment and Govt. Spending Recover. WC Insurers Will Benefit.

Note: Recession indicated by gray shaded column.

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

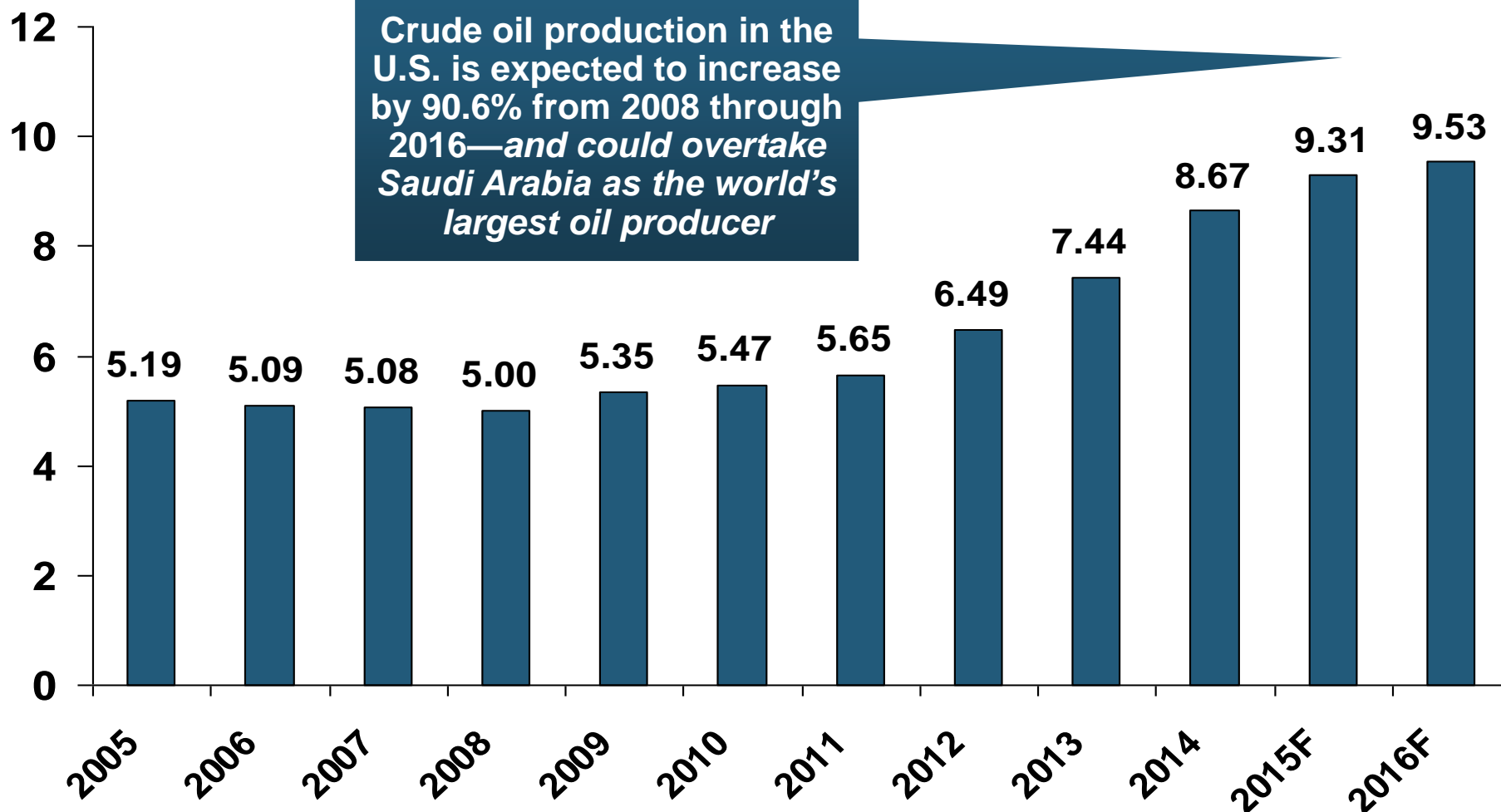
ENERGY SECTOR

**America's Energy Boom Has Been a
Strong Driver of the Economic Recovery,
but Prices Are Falling**

***Workers Comp Has Benefited from the
Energy Boom, But Exposures Will Suffer
as Energy Prices Swoon***

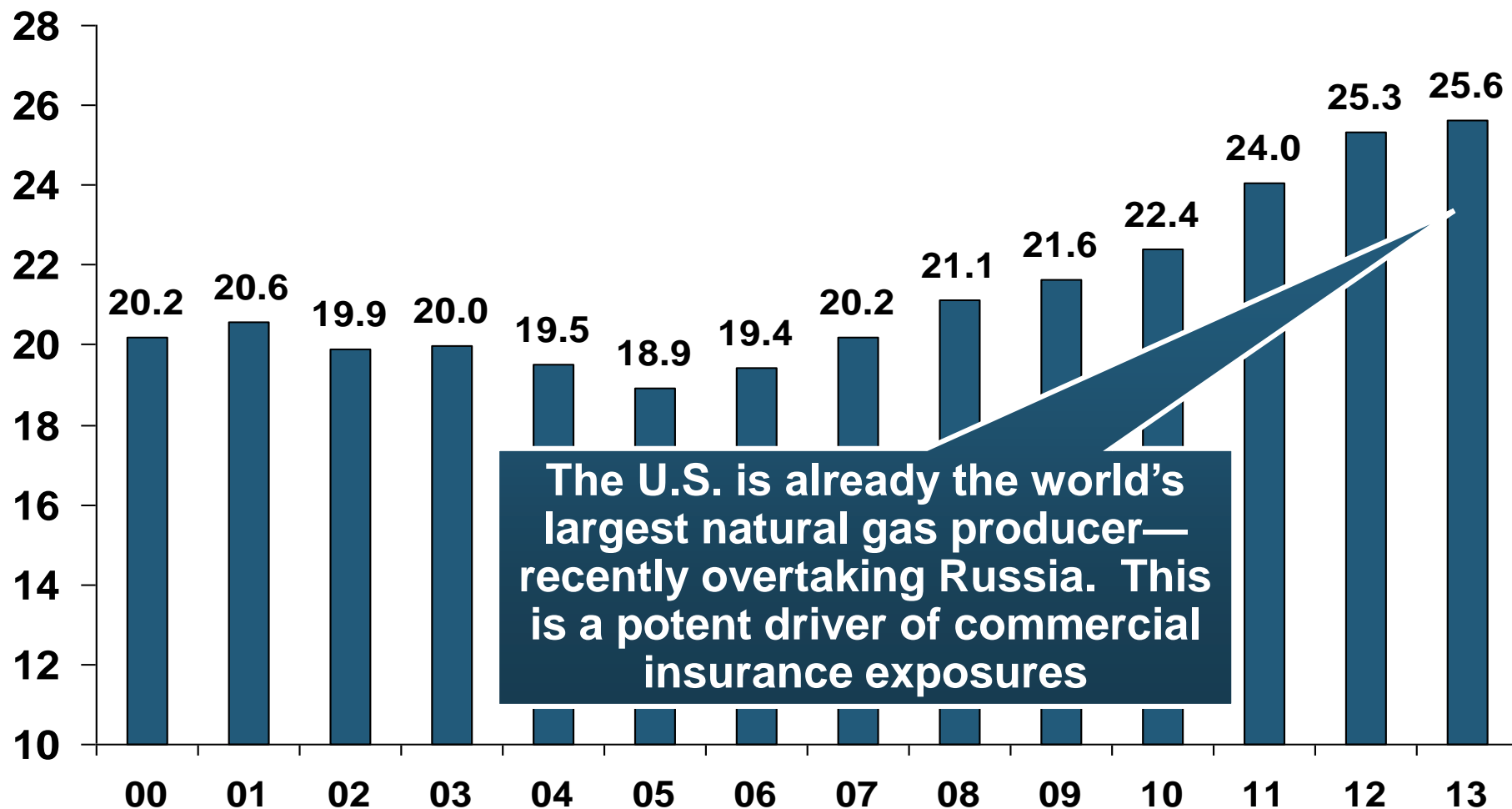
U.S. Crude Oil Production, 2005-2016P

Millions of Barrels per Day

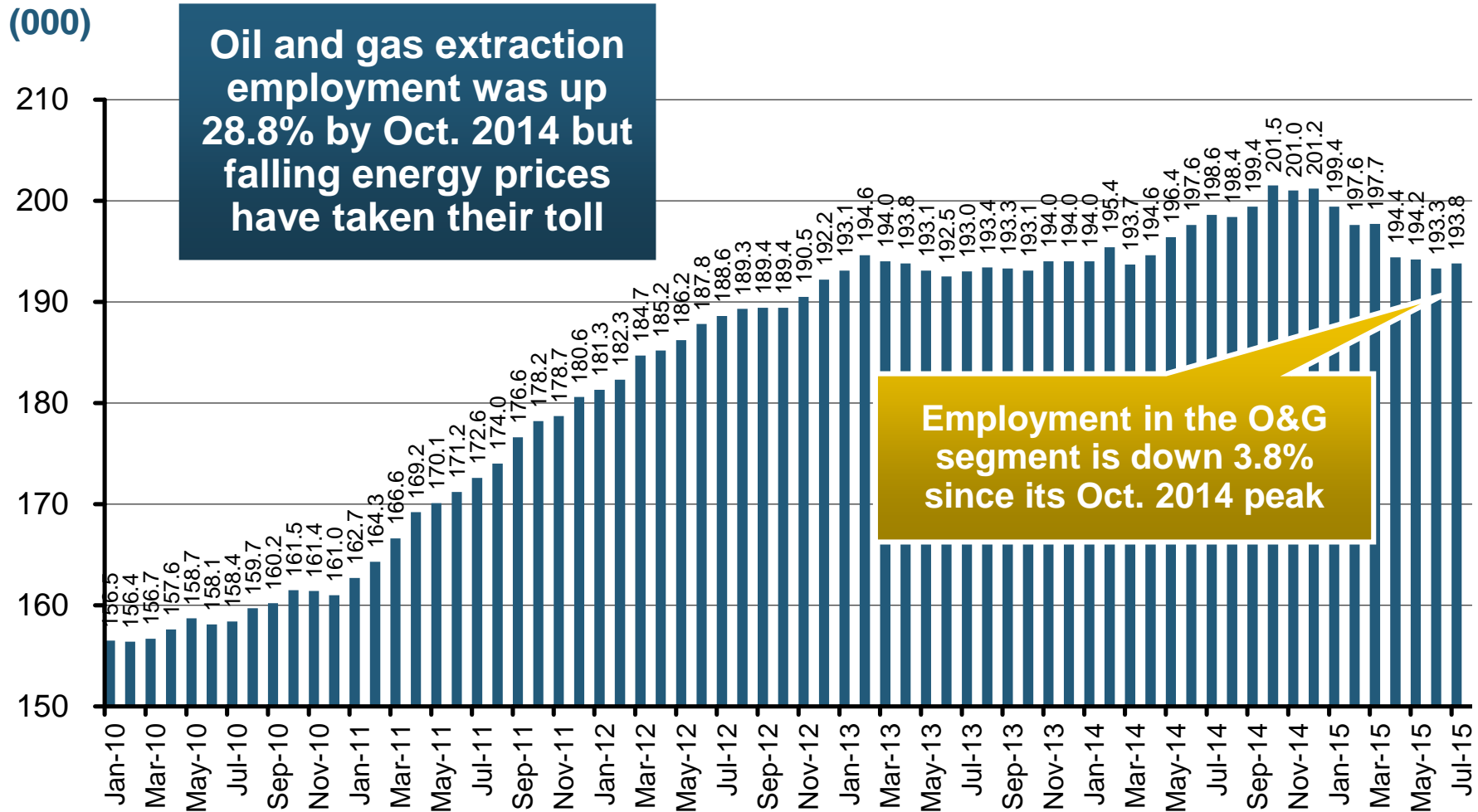


U.S. Natural Gas Production, 2000-2013

Trillions of Cubic Ft. per Year



Employment in Oil & Gas Extraction, Jan. 2010—July 2015*



*Seasonally adjusted

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

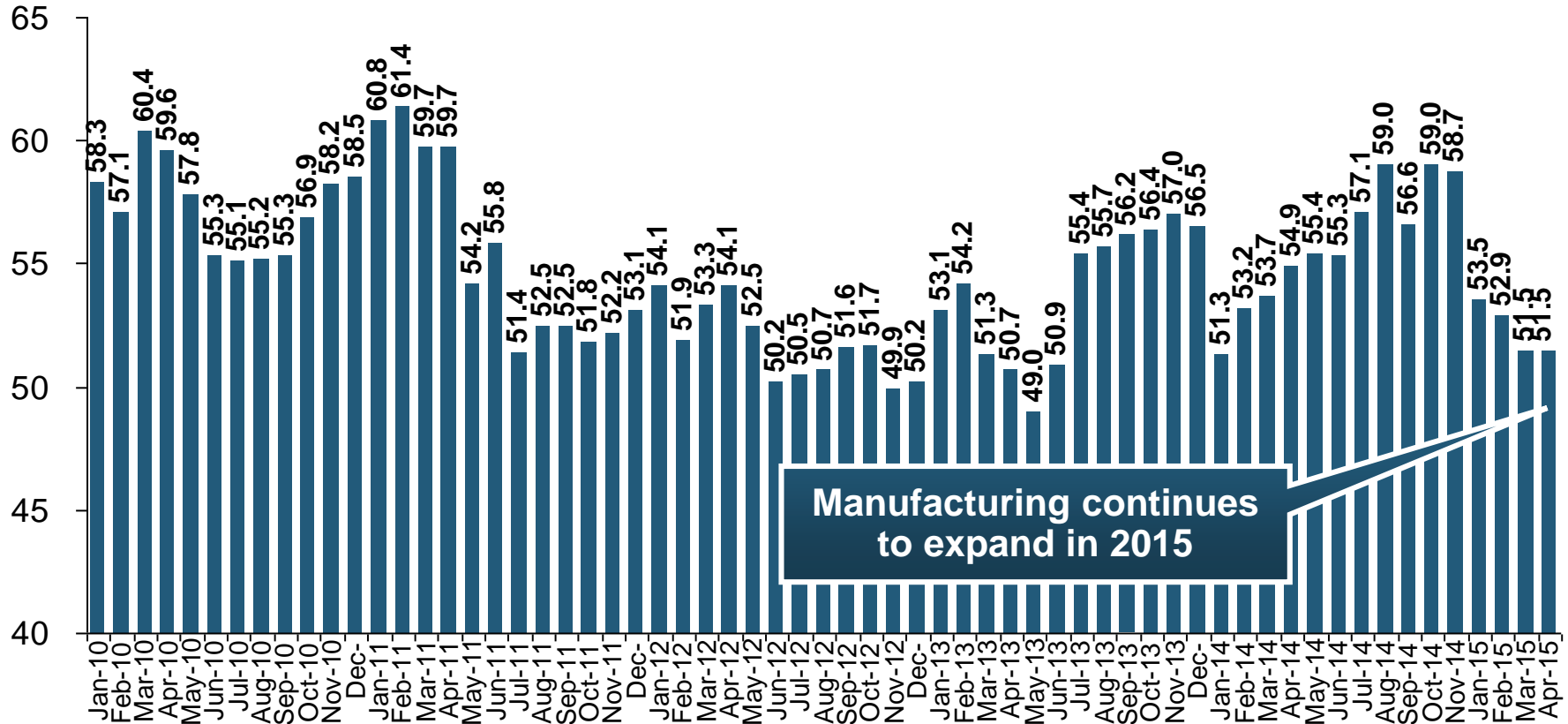
MANUFACTURING SECTOR

**A Potent Driver of Jobs, Workers Comp
Payroll Exposure**

***America's Manufacturing Renaissance
Has Hit a Rough Patch with the High
Dollar/Chinese Devaluation,
Weak Export Markets***

ISM Manufacturing Index (Values > 50 Indicate Expansion)

January 2010 through April 2015



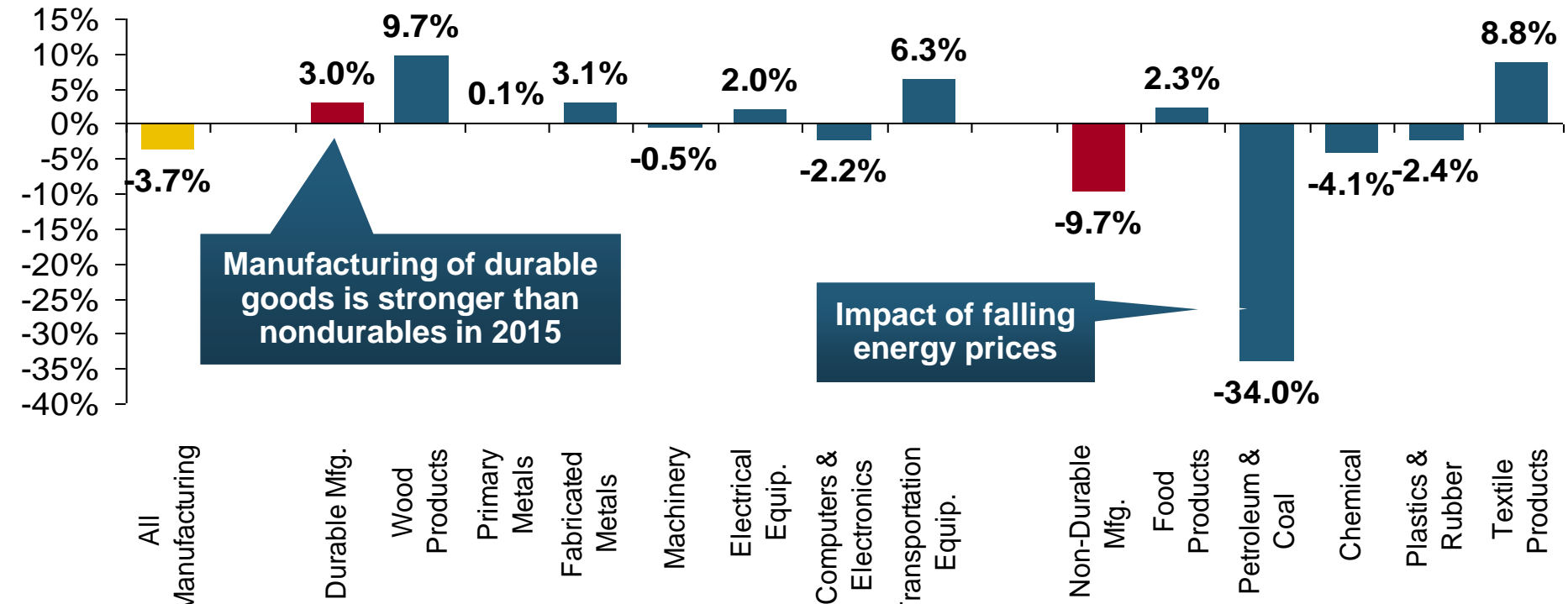
The manufacturing sector expanded for 62 of the 64 months from Jan. 2010 through Apr. 2015. Pace of recovery has been uneven due to economic turbulence in the U.S., Europe and China and the high dollar.

Manufacturing Growth for Selected Sectors, 2015 vs. 2014*

Growth (%)

Durables: +3.0%

Non-Durables: -9.7%

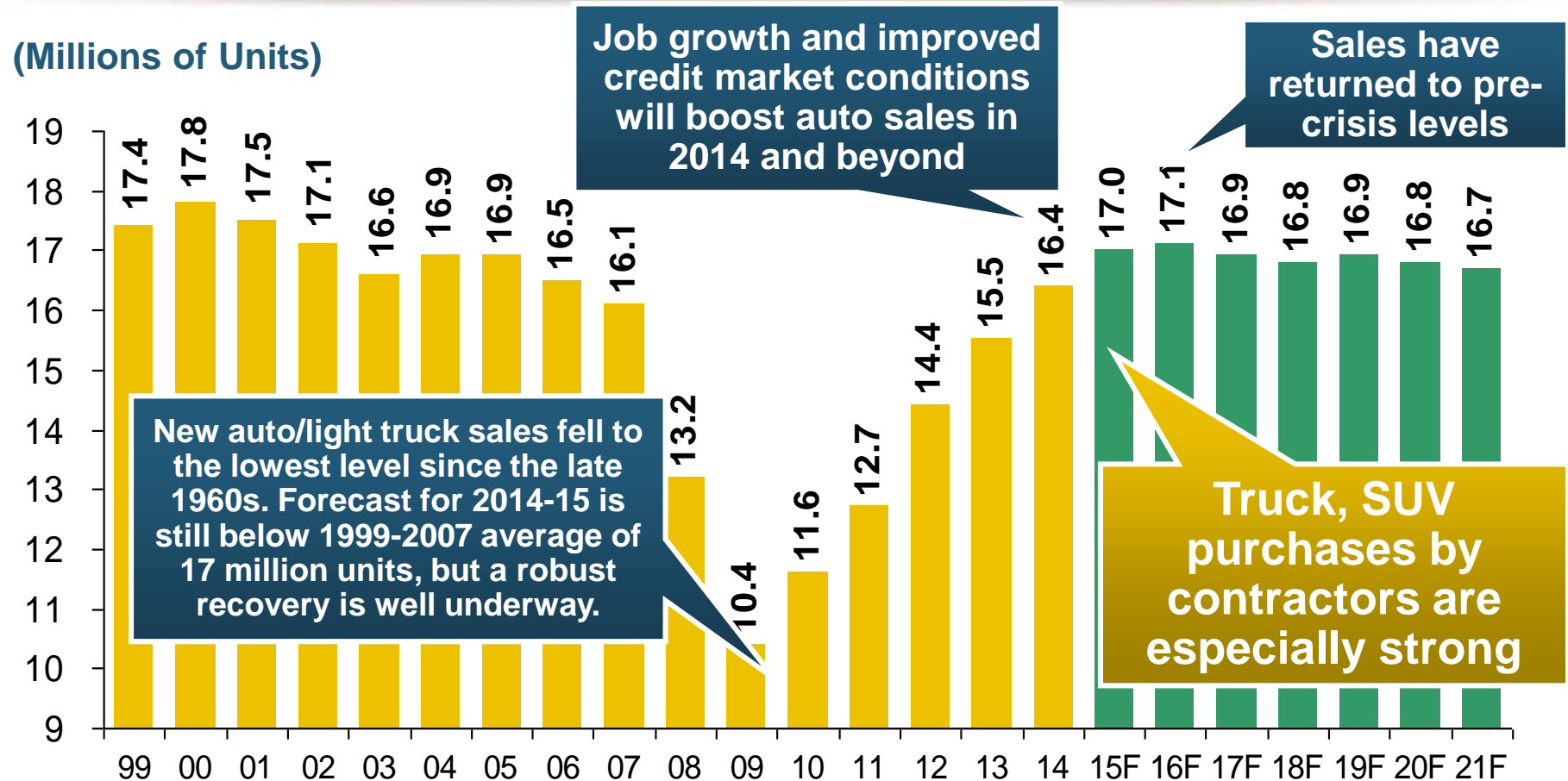


Manufacturing Is Expanding in Many Sectors But Declining Energy Prices Are Dragging Down Industry Figures. Continued Growth Across a Number of Sectors that Will Contribute to Growth in Insurable Exposures Including: WC, Commercial Property, Commercial Auto and Many Liability Coverages

*Seasonally adjusted; Data are YTD comparing data through February 2015 to the same period in 2014.

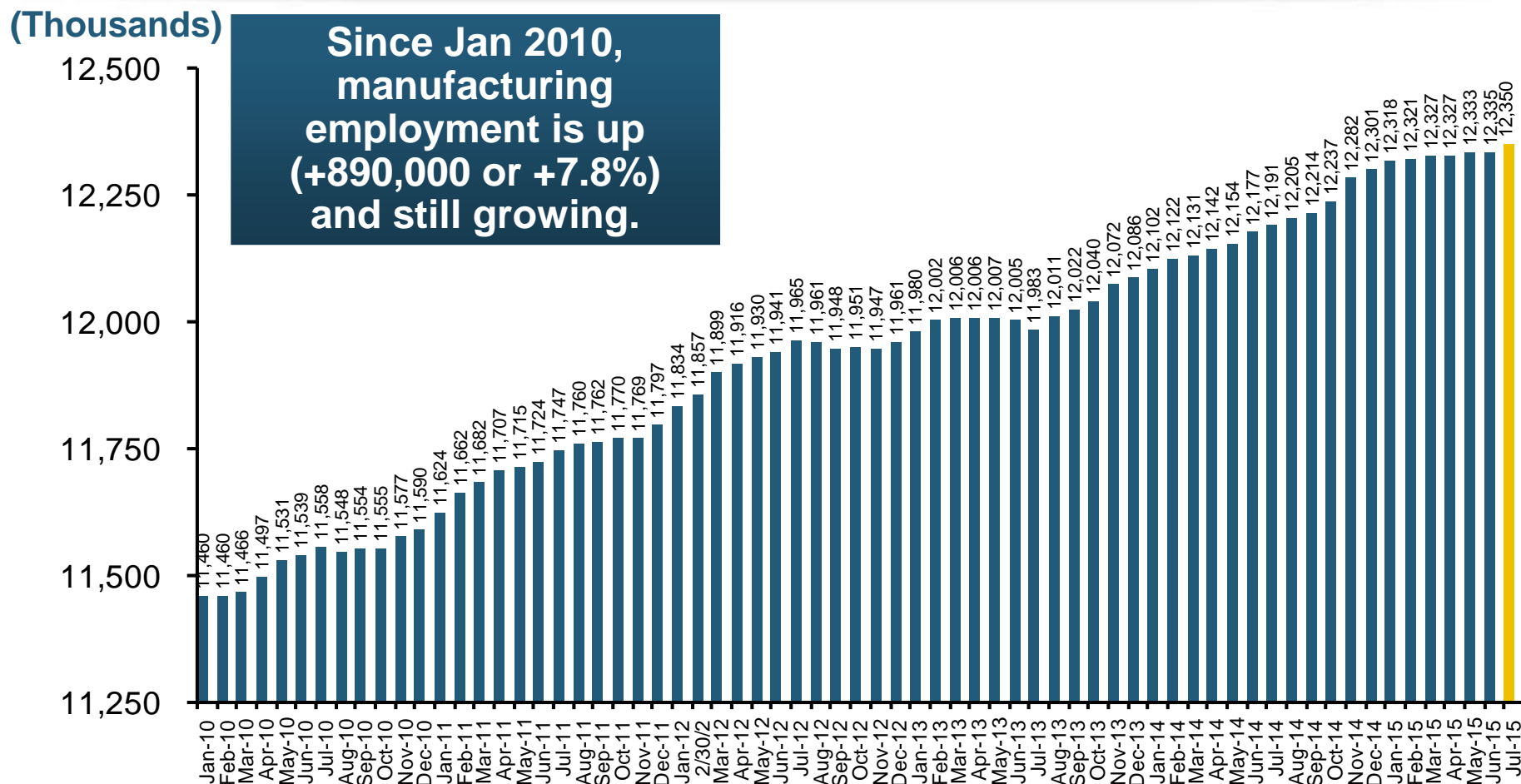
Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders*, <http://www.census.gov/manufacturing/m3/>

Auto/Light Truck Sales, 1999-2021F



Yearly car/light truck sales will likely continue at current levels, in part replacing cars that were held onto in 2008-12. New vehicles will generate more physical damage insurance coverage but will be more expensive to repair. PP Auto premium might grow by 5% - 6%.

Manufacturing Employment, Jan. 2010—July 2015*



Manufacturing employment is a surprising source of strength in the economy. Employment in the sector is at a multi-year high.

*Seasonally adjusted.

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

The “On-Demand” (Sharing) Economy

**The On-Demand Economy Will
Transform the American
Workforce and the
P/C Insurance Industry Too**

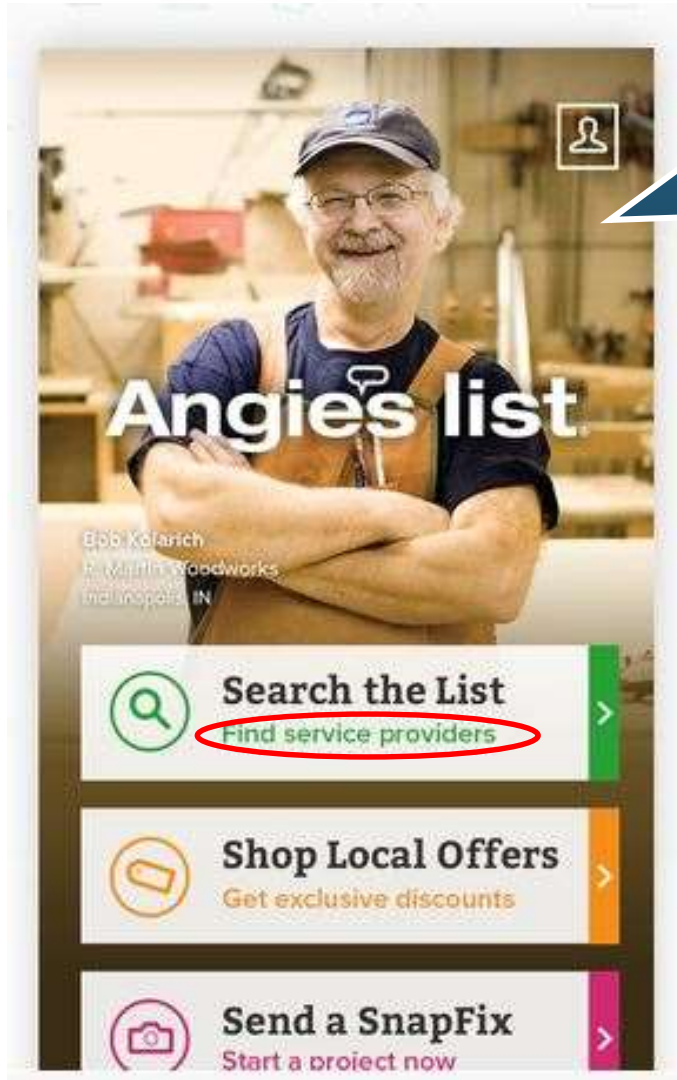
Labor on Demand: Huge Implications for the US Economy, Workers & Insurers

Will **YOUR** job
be reduced to
an app?

THE WALL STREET JOURNAL.
There's an Uber for Everything Now
Apps do your chores: shopping, parking, cooking, cleaning, packing, shipping and more



The “On-Demand” World is Not New...



Companies like
Angie's List
(established in
1995 and going
online in 1999)
have been
around for
decades

The Geek Squad
has been
around since
1994...



Peapod
sprouted way
back in 1989!



...But the “On-Demand” World is Exploding as Is the Demand for “On-Tap” Workers



Need something
done around the
house...Click on
Handy



Hate doing
laundry?
Washio will do it
for you...



Hate doing just
about everything?
Taskrabbit will
take on virtually
all your “tasks”...

You Can Live Your Life with the Swipe of a Finger...



Get married...



...Move



...And if it doesn't work
out...

Lawyers.com

Some Players in the On-Demand Economy Have Become Household Names



Rent a place...



...Need a Lyft?



U B E R

...This ride has taken
Wall Street to the
stratosphere

On-Demand/Sharing/Peer-to-Peer Economy Impacts Many Lines of Insurance

- The “On-Demand” Economy is or will impact many segments of the economy important to P/C insurers
 - ◆ Auto (personal and commercial)
 - ◆ Homeowners/Renters
 - ◆ Many Liability Coverages
 - ◆ Professional Liability
 - ◆ **Workers Comp**
- Many unanswered insurance questions
- Insurance solutions are increasingly available to fill the many insurance gaps that arise



U B E R



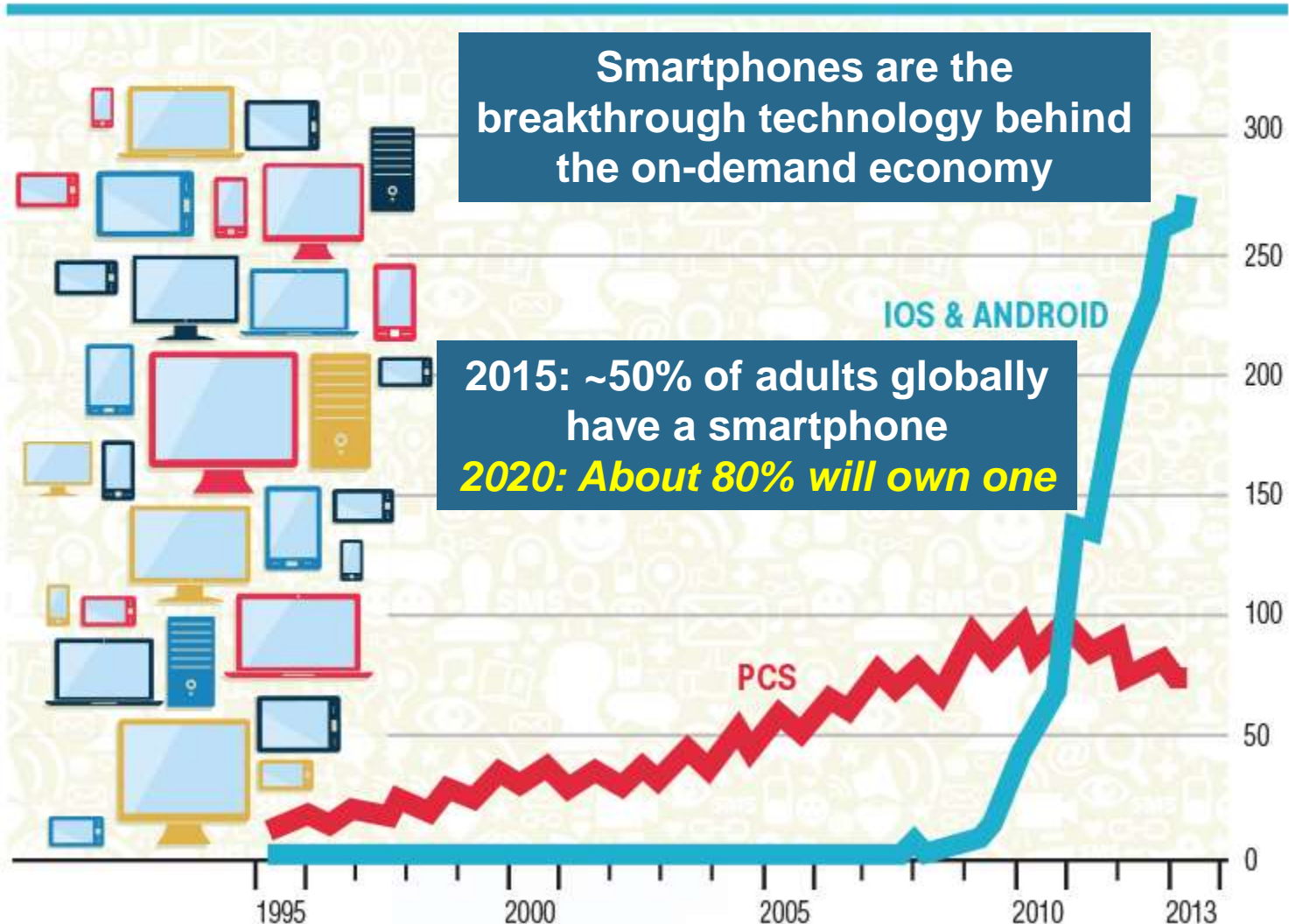
Technology and Employment

**What Makes the On-Demand
Economy Possible?**

Why Does It Matter for Insurers?

CHANGING PLATFORMS:

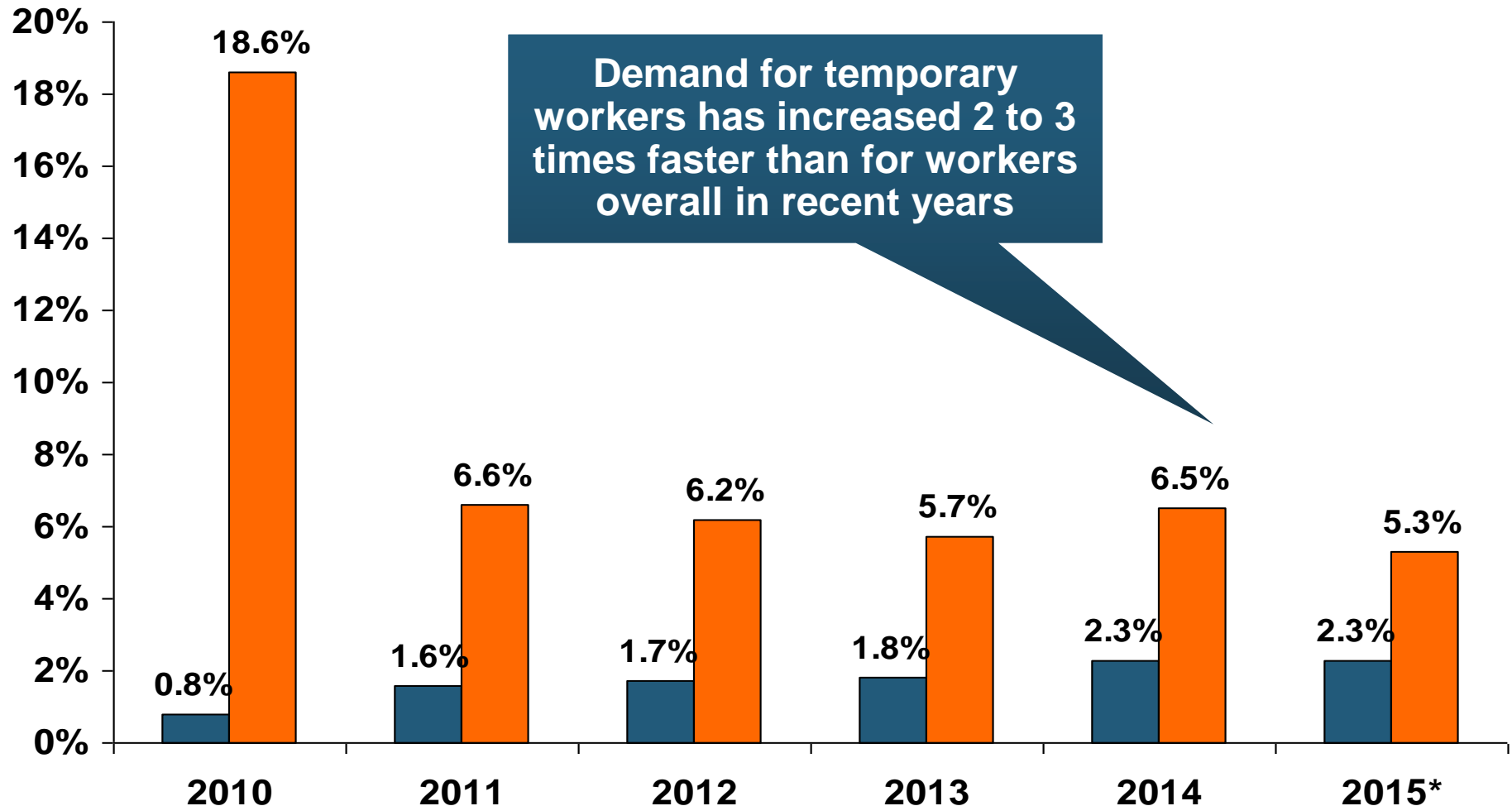
GLOBAL SHIPMENTS OF SMARTPHONES (MILLIONS)



Source: Benedict Evans, Andreessen Horowitz

Growth in Temporary Workers vs. All Nonfarm Employment, 2010-2015*

Annual Percent Change



*Through March 2015.

Source: US Bureau of Labor Statistics , Insurance Information Institute.

THE CASUAL LOOK

UNITED STATES, % OF EMPLOYED

PRIVATE-SECTOR UNION MEMBERSHIP

TEMPORARY WORKERS



Source: Bureau of Labor Statistics

The On-Demand Economy and American Workers: What Is Happening?

- **Technology is Fundamentally Transforming How Resources are Allocated and Used in the Economy**
- **Labor is No Exception to this Transformation**
- **Technology Offers New Opportunities to Match Labor to Jobs**
 - ◆ Owners of spare capacity (workers with time and skill) can be paired at low cost with those with a demand for that time and skill
 - ◆ Bringing together labor and those who employ labor is not new
 - ◆ BUT: Pairing occurs with a speed and breadth never before possible
- **Witnessing the Demise of the Traditional Understanding of What is Meant by a “Good” Job**
 - ◆ Concept born in the Industrial Age (1880-1980), is eroding
 - ◆ Disintermediation of the firm as the place where labor, jobs matched
- **Accelerating Trends that Started with Labor Strife, Globalization and Automation that Began in the 1970s and 1980s**

What's In Store for the American Worker, Labor Force and Workers Comp

THE NEW AMERICAN WORKER: Two Schools of Thought

■ OPTIMISTIC OUTLOOK

- ◆ Technology frees workers from the bonds of centralized, hierarchical institutions (the firm)
- ◆ Enhanced coordination of “haves” with “needs” that bypass firms as intermediaries

■ Who Benefits?

- ◆ **“Flexers”**: People who value or require flexibility in work arrangements (stay-at-home parents, retirees, students, disabled)
- ◆ **Professionals**: People with portable skills that can be offered through online platforms (semi and high-skilled trades, professional services)
- ◆ **Unemployed/Underemployed**: Offers at least some opportunity to offer and utilize skills and generate income

What's In Store for the American Worker, Labor Force and Workers Comp

■ PESSIMISTIC OUTLOOK

- ◆ On-Demand companies are software-driven marketplaces and position themselves as “*platforms*” rather than “*employers*”
- ◆ Enormous valuations (e.g., \$40B for Uber on \$2B in earnings) reflect the extraction of resources that otherwise would go to benefits, investments in safety, training, etc.
 - Uber’s valuation was greater than that of 72% of the S&P500 at YE 2014
 - Valued more than Delta Airlines, Kraft Foods, CBS, Macy’s, Hilton, Aflac...
- ◆ Jobs reduced to freelanced, temporary “gigs”
- ◆ Low skill workers and those who lack flexibility are left further behind
- ◆ Workers treated as independent contractors without intrinsic or basic economic rights

■ What Is Potentially Lost or Compromised?

- ◆ Stability, Retirement Benefits, Sick Pay, Maternity Leave, Overtime
- ◆ Health Insurance, Liability Coverage, Workers Comp Coverage

Potential Consequences for Insurers

- **On-Demand Platforms Have Struggled with Concepts of Liability**
- **There Has Been a General Resistance to Assuming Liability or Responsibility Unless Compelled to Do So**
- **Companies Have Sought to Keep as Much Liability as Possible on the Individual Offering their (Contracted) Labor or Resources**
- **Minding the Gap**
 - ◆ **Traditional insurance will often not cover a worker engaged in offering labor or resources through these platforms**
 - ◆ **E.g., Auto ins. generally won't cover you if you while driving for Uber**
 - ◆ **Home ins. won't cover for other than occasional rentals of property**
 - ◆ **Unless self-procured, on-demand worker (independent contractors) will generally have no workers comp recourse if injured on the job**
- **Long Legislative and Court Battles Lie Ahead**
- **Insurance Solutions Becoming More Common**

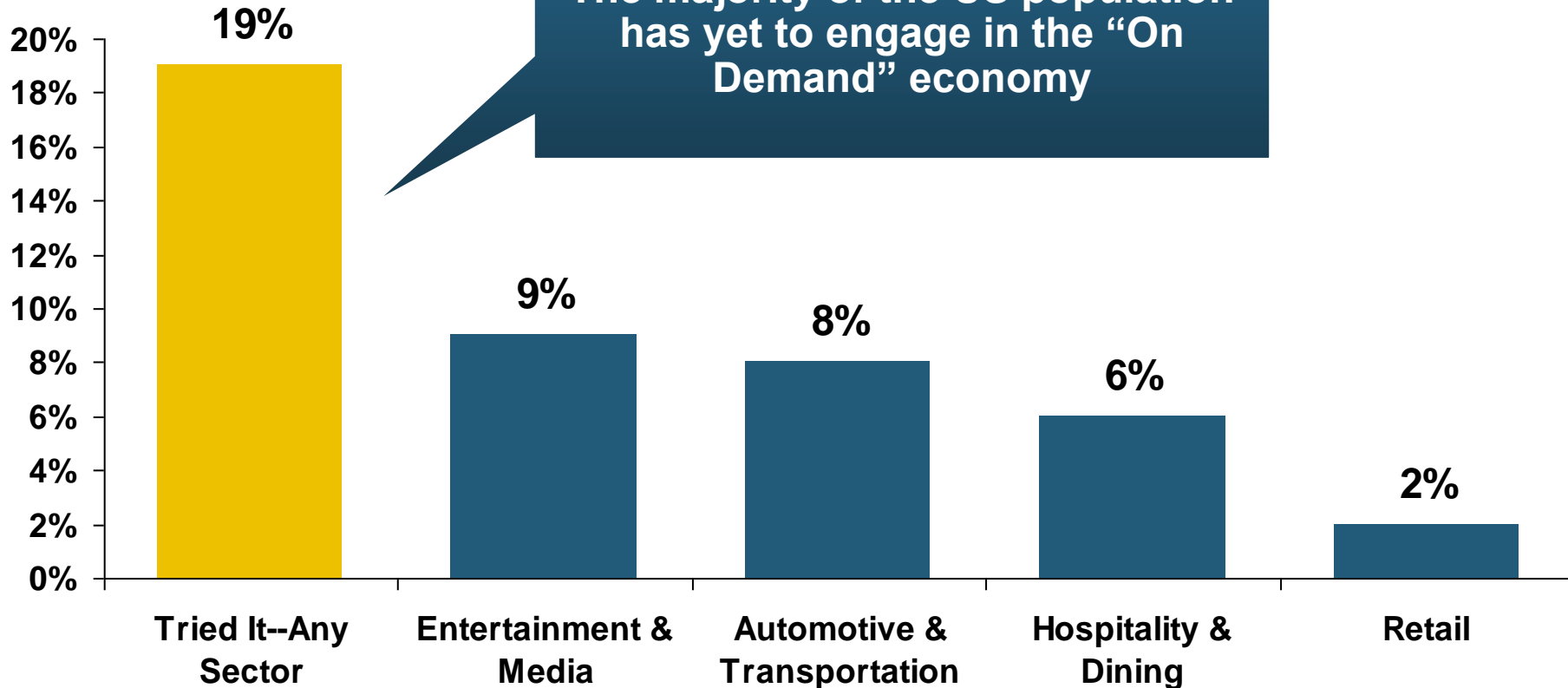
On-Demand Workers

Who Are They?

And Who's Driving Demand for Them?

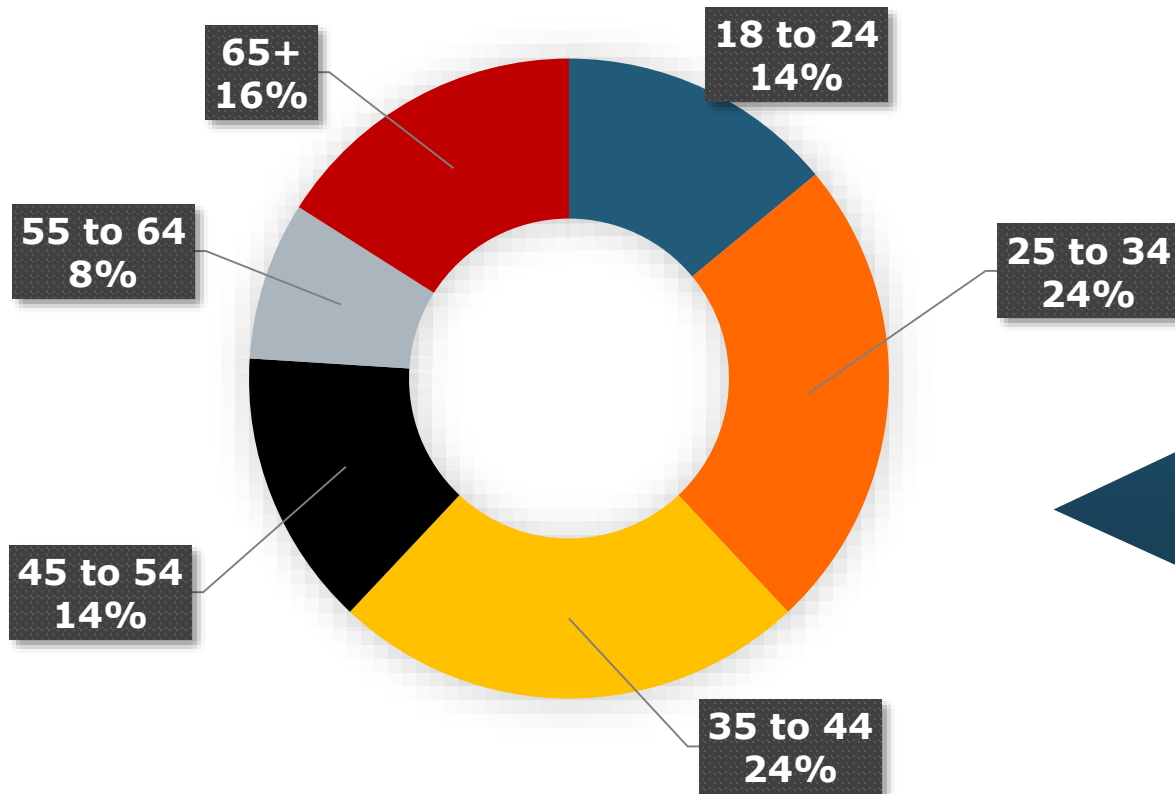
Percent of People Who Have Engaged in an “On Demand/Sharing Economy” Transaction

Percent



About 19% of the US population has engaged in an “On Demand/Sharing Economy” Transaction

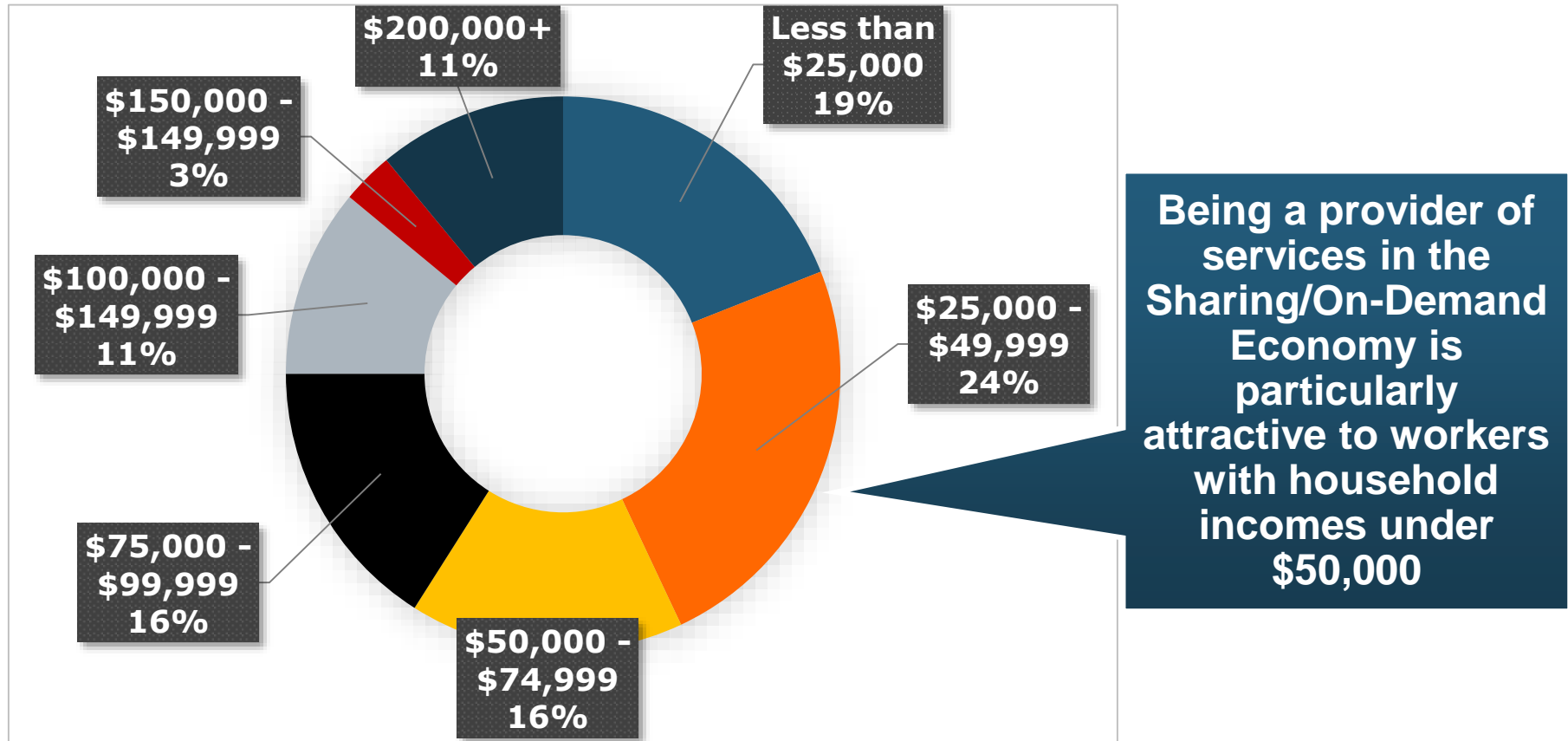
Age of People Who are Providing the Sharing/On-Demand Economy



Being a provider of services in the Sharing/On-Demand Economy is attractive to workers in the 25-44 age range (who want flexibility in raising families) as well as seniors age 65+ who see the offering their services on-demand as a way to augment retirement income

About 7% of US population are providers in the Sharing Economy, cutting across age and incomes; 51% of those familiar with the concept could see themselves as providers within the next two years.

Household Income: Providers of the Sharing/On-Demand Economy



**About 7% of US population are providers in the Sharing Economy, cutting across age and incomes;
51% of those familiar with the concept could see them selves as providers within the next two years.**

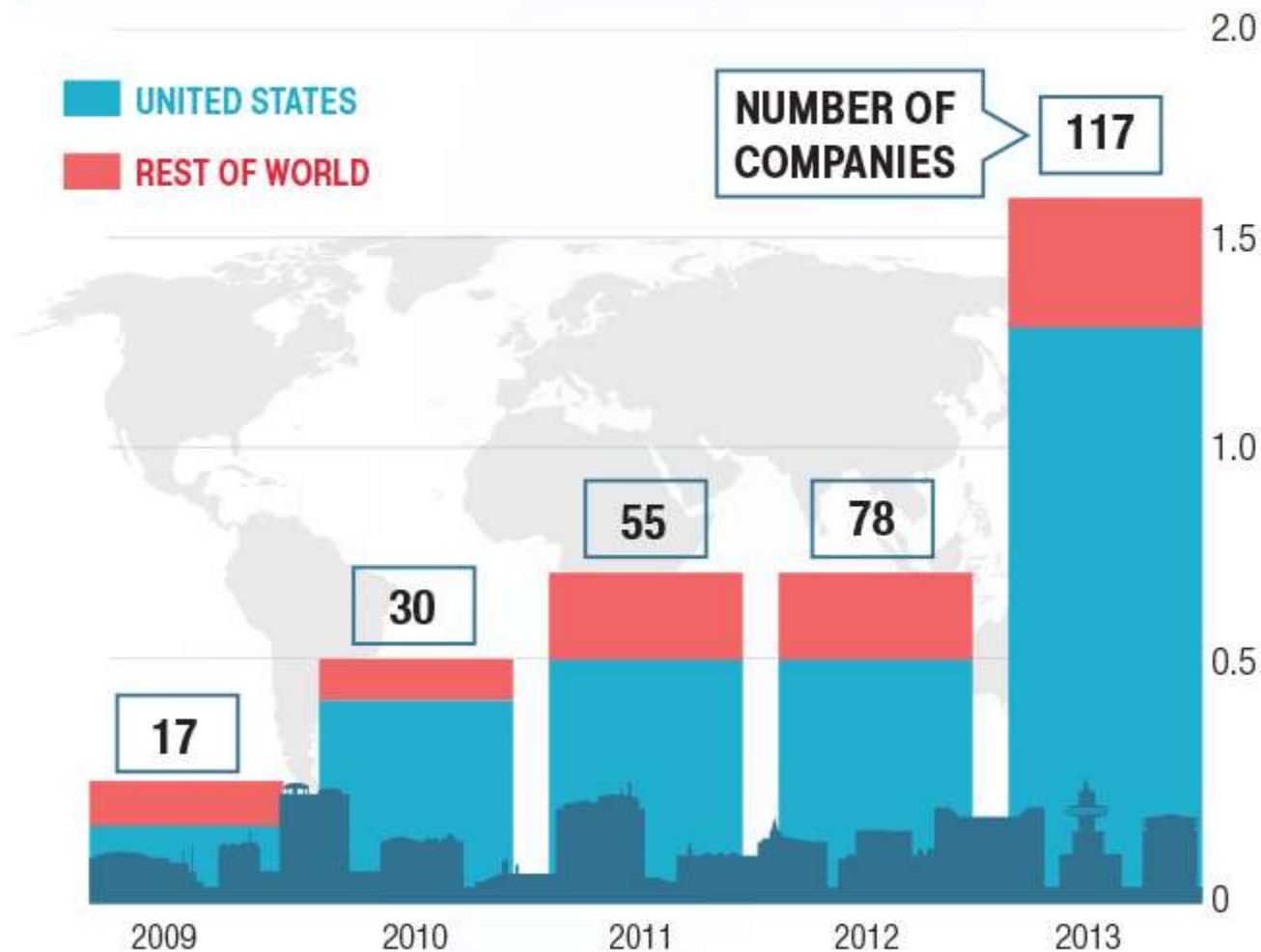
The On-Demand Economy and Wall Street

**Wall Street Loves the On-Demand
Economy**

***Labor Markets, Insurance Markets
Will Be Impacted***

HERE'S AN IDEA

VENTURE-CAPITAL INVESTMENT IN THE ON-DEMAND ECONOMY, \$BN



Source: Crunchbase

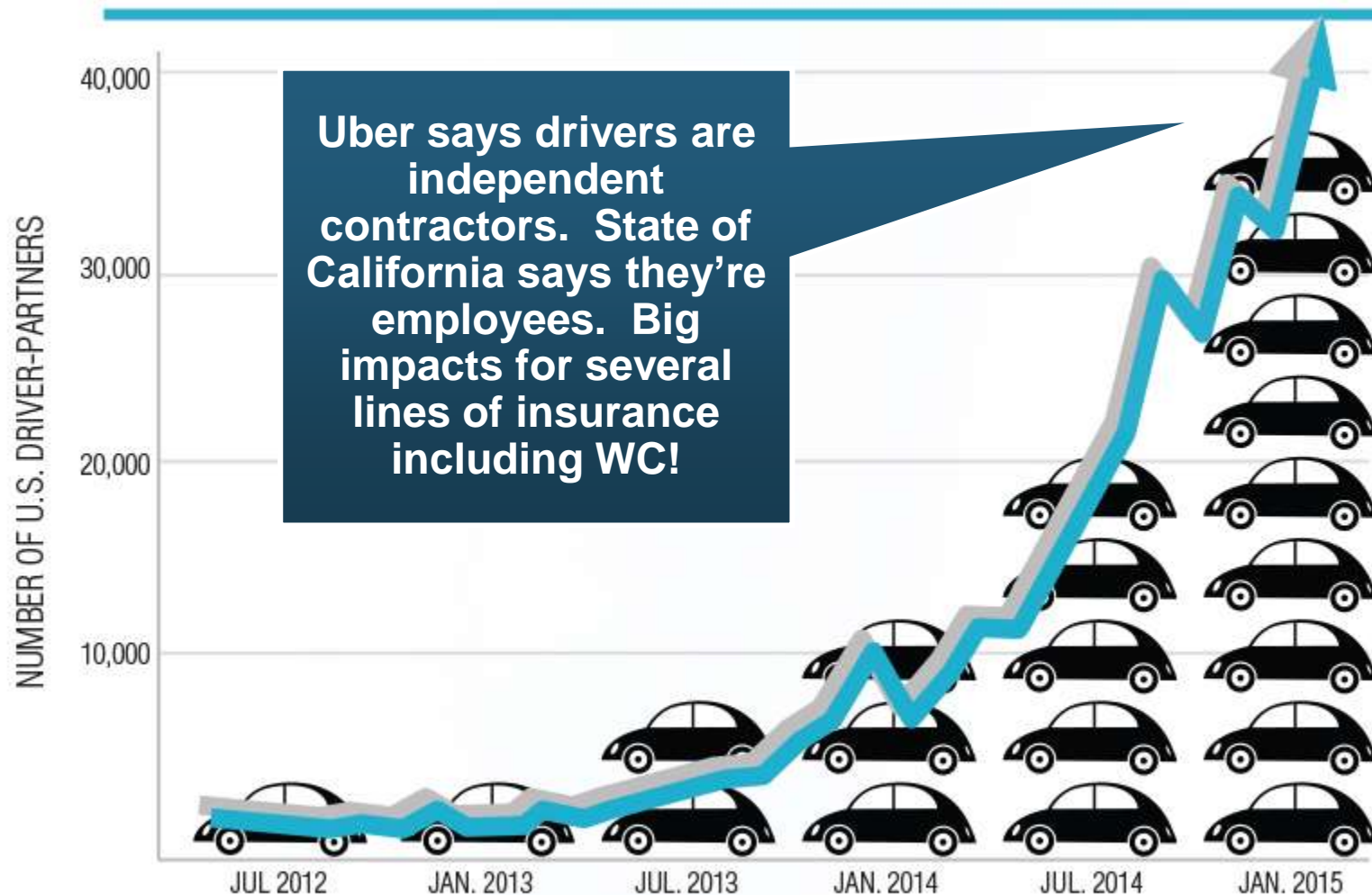
An UBER Case Study

**Uber is the Best Known of the
On-Demand Companies**

***Wall Street Loves Uber
Vested Interests Hate Uber***

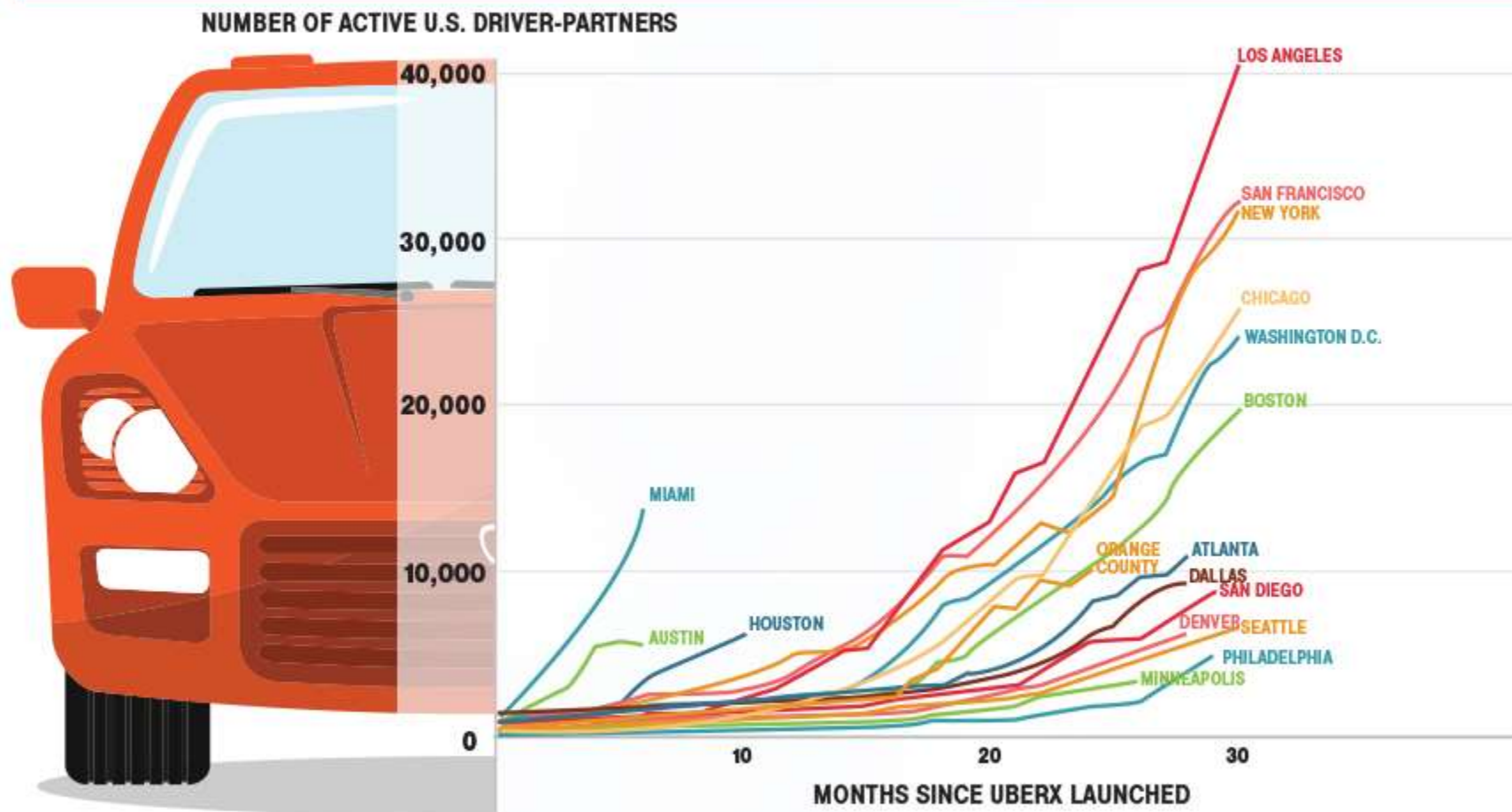


NUMBER OF NEW DRIVER-PARTNERS STARTING EACH MONTH IN THE UNITED STATES



Note: Figure based on U.S. UberBLACK and uberX driver-partners who have joined since June 2012 (303,985 individuals), based on Uber data.

ACTIVE U.S. DRIVER-PARTNERS OVER TIME, BY CITY

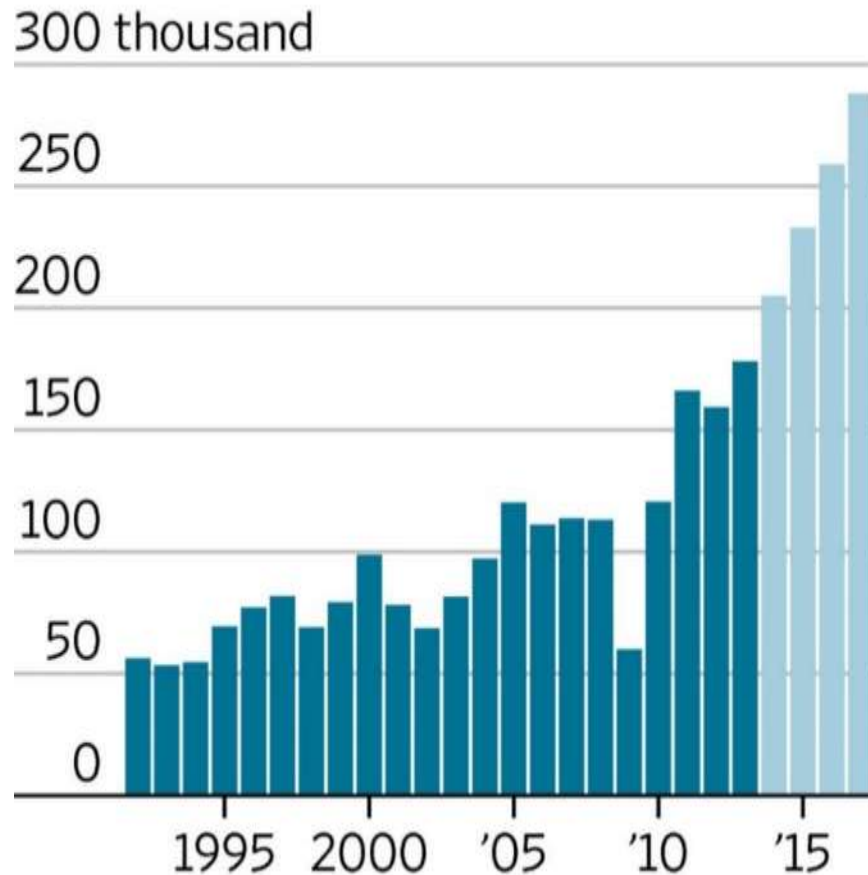


Note: Figure reports the number of U.S. UberBLACK and uberX driver-partners making at least one trip in the specified month, indexed to the number of months since Uber began in the city or June 2012, whichever came later.

Looking Ahead: *Disruptive Forces Rule*

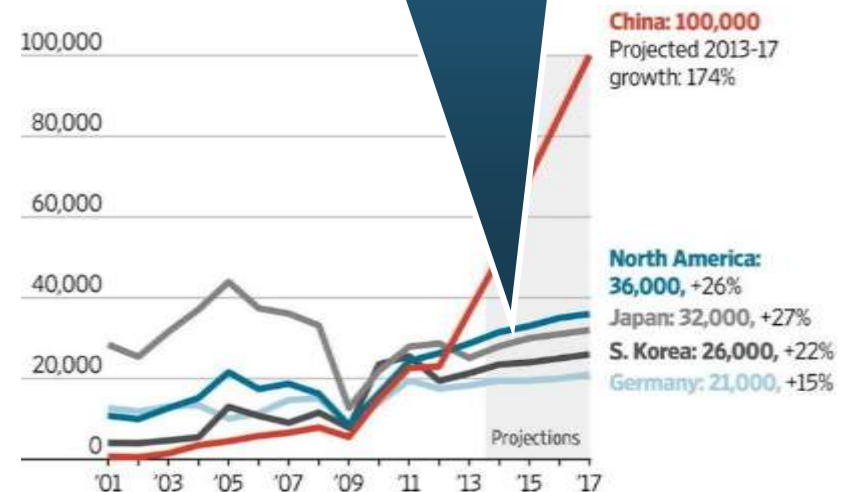
**Technology's Impacts on the
Economy, the Workforce and the
Insurance Industry Will Be
Significant**

Worldwide Industrial Robot Installations, 1992-2017F



Worldwide installations of industrial robots exceeded 200,000 in 2014—a new record and will approach 300,000 by 2017

36,000 installations are expected in North America by 2017





*Estimate.

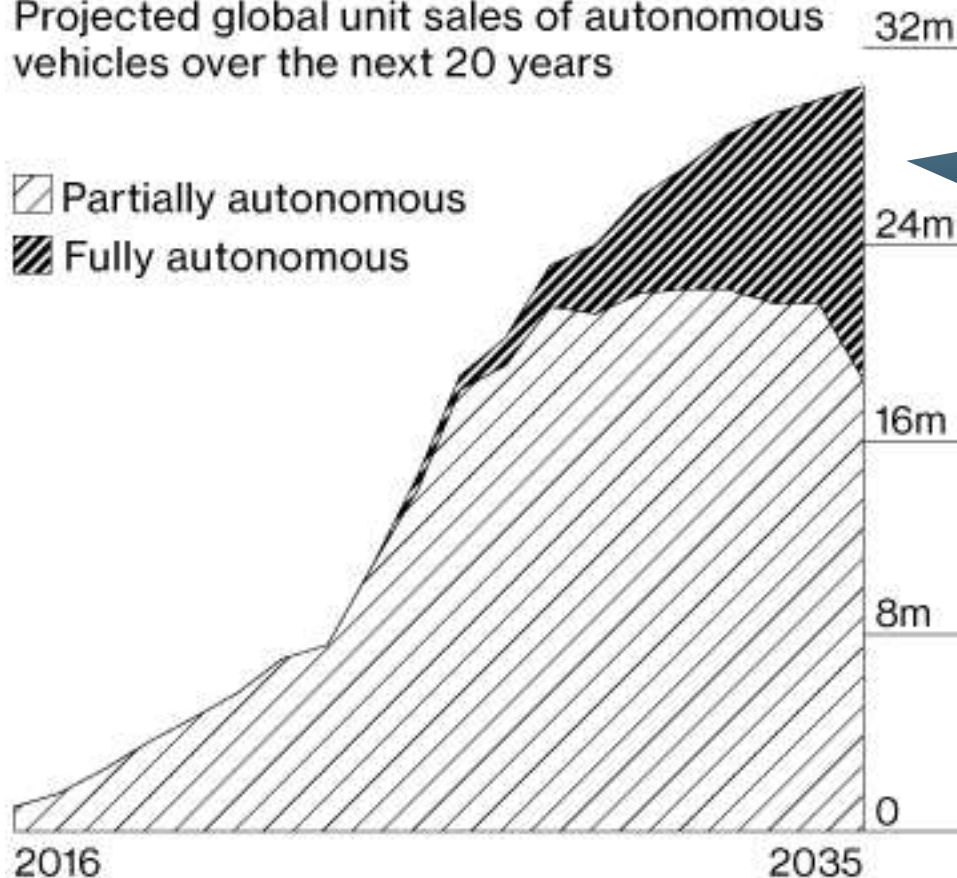
Sources: *Outlook on World Robotics 2014*, International Federation of Robotics; Insurance Information Institute.

Future Shock: Many More Transformative Technologies Are Around the Corner

Hands-Free

Projected global unit sales of autonomous vehicles over the next 20 years

 Partially autonomous
 Fully autonomous



DATA: BOSTON CONSULTING GROUP;
GRAPHIC BY BLOOMBERG BUSINESSWEEK

By 2035, it is estimated that 25% of new vehicle sales could be fully autonomous models (*more than 4 million people work in transportation occupations today*)

Up Next

- Driverless cars
- Driverless trucks, trains, planes and ships
- Wearable devices
- Implantable devices
- Artificial intelligence
- Advanced robotics

Insurance Information Institute Online:

www.iii.org

*Thank you for your time
and your attention!*

Twitter: twitter.com/bob_hartwig

Download at www.iii.org/presentations