



President's Report

**Insurance Information Institute
Board of Directors Meeting
January 12, 2016
New York, NY**

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

A Diverse Array of Issues Emerged in of 2015

- ◆ Technology, Disruptors & Insurance
- ◆ TRIA Reauthorization
- ◆ Terrorism (post-Paris, San Bernadino)
- ◆ Flood Insurance
 - Sandy Litigation; TX, SC, Midwest, CA events
- ◆ Workers Comp System—Attacks on WC System
- ◆ “Price Optimization”
- ◆ Auto Insurance: Attacks on Underwriting Criteria
- ◆ Auto Insurance and the Economic Recovery
 - Improving economy, low gas prices → Frequency Up
- ◆ Millennials: Attracting a New Generation to the Industry
- ◆ I.I.I. Initiatives

- **2015 Was Another Busy, Productive Year for the I.I.I.**
- **Successful Execution of Strategic Initiatives: Tech, Research, HR**
- **Several Dominant Issues; Not All Anticipated**
- **Diverse Array of Other Events Influencing I.I.I.'s Agenda**
 - ◆ **Flood Insurance** **Workers Comp** **“Price Optimization”**
 - ◆ Riots Aviation Insurance Auto Ins. Affordability
 - ◆ Emerging Technology Driverless Cars Sharing Economy
 - ◆ Winter Storms/Polar Vortex Climate Change Alternative Capital
 - ◆ International Cap. Stds. Economy/Int. Rates M&A Activity
 - ◆ Residual Market Depopulation (esp. Florida) Terrorism
- **Engaged in Several New Technology Partnerships**
- **Produced Several New Research Reports**
- **New Technology Initiatives**



2015: Video Overview



2015 Insurance Industry Media Trends

**Diverse Array of Issues Attracted
Media and Public Policymaker
Interest in 2015**

***Published Stories About Insurance
Were Roughly Flat***



I.I.I. MEDIA INDEX

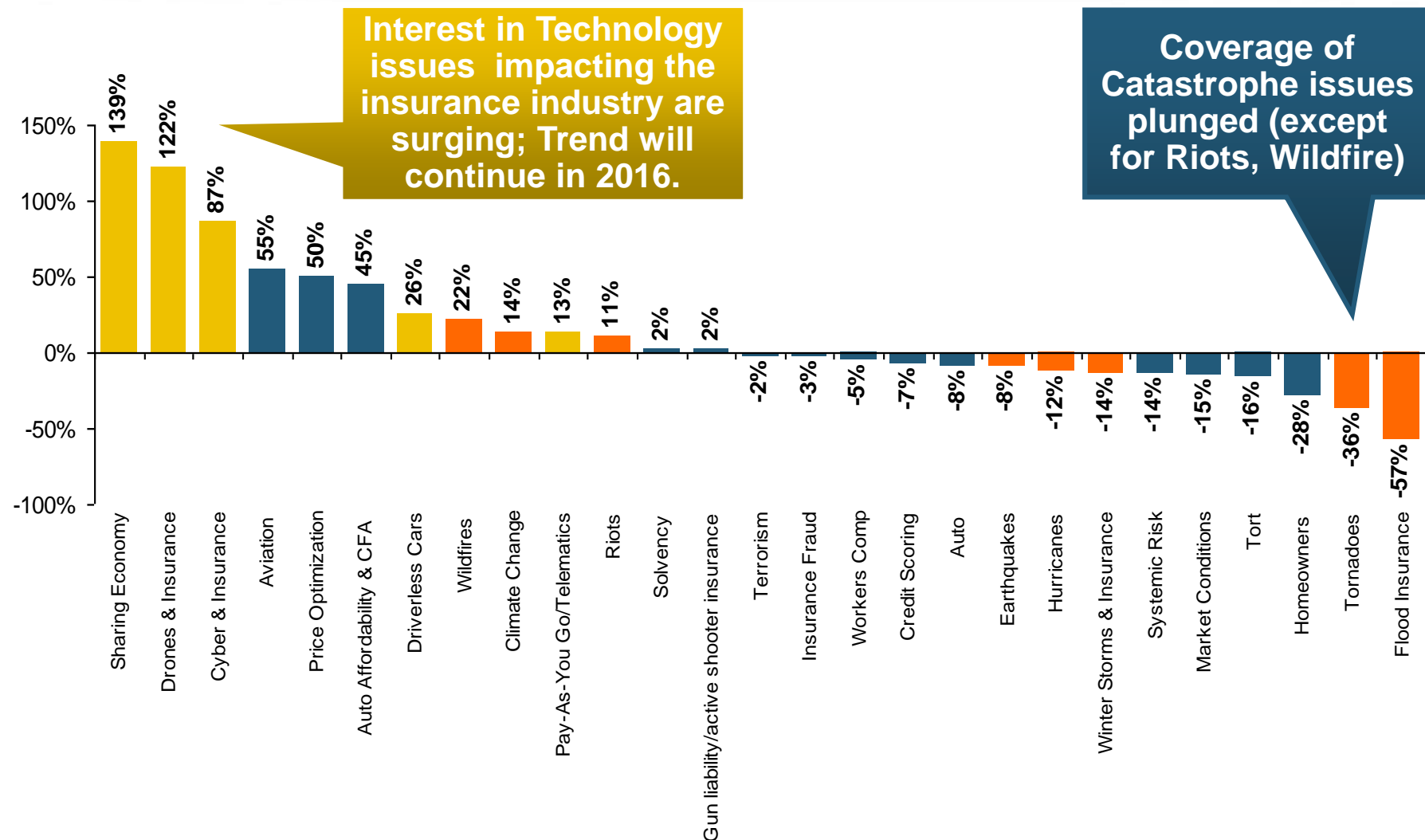
Top Issues, P/C, 2014 vs 2015*

	Top Issues	2014	2015	% increase/decrease
1	Market Conditions	26,904	22,894	-15%
2	Auto	12,718	11,718	-8%
3	Solvency	10,199	10,395	2%
4	Workers Comp	9,008	8,530	-5%
5	Insurance Fraud	8,617	8,393	-2.6%
6	Terrorism	7,109	6,942	-2%
7	Cyber & Insurance	3,327	6,229	87%
8	Aviation	3,384	5,243	55%
9	Homeowners	7,020	5,045	-28%
10	Climate Change	4,274	4,856	14%
11	Hurricanes	4,459	3,905	-12%
12	Earthquakes	3102	2840	-8%
13	Flood Insurance	6,307	2,735	-57%
14	Tornadoes	2,796	1,779	-36%
15	Drones & Insurance	698	1,553	122%
16	Driverless Cars	1,081	1,366	26%
17	Credit Scoring	1,410	1,315	-7%
18	Wildfires	944	1,155	22%
19	Tort	1,188	998	-16%
20	Sharing Economy	403	962	139%
21	Pay-As-You Go/Telematics	818	927	13%
22	Winter Storms & Insurance	804	695	-14%
23	Gun liability/active shooter insurance	659	671	2%
24	Riots	537	597	11%
25	Auto Affordability & CFA	346	502	45%
26	Systemic Risk	381	326	-14%
27	Price Optimization	152	228	50%
	TOTAL	118,112	112,245	-5%

* Based on a search of Lexis/Nexis (January 1- December 15)

I.I.I. Media Index, P/C, 2014 vs 2015*

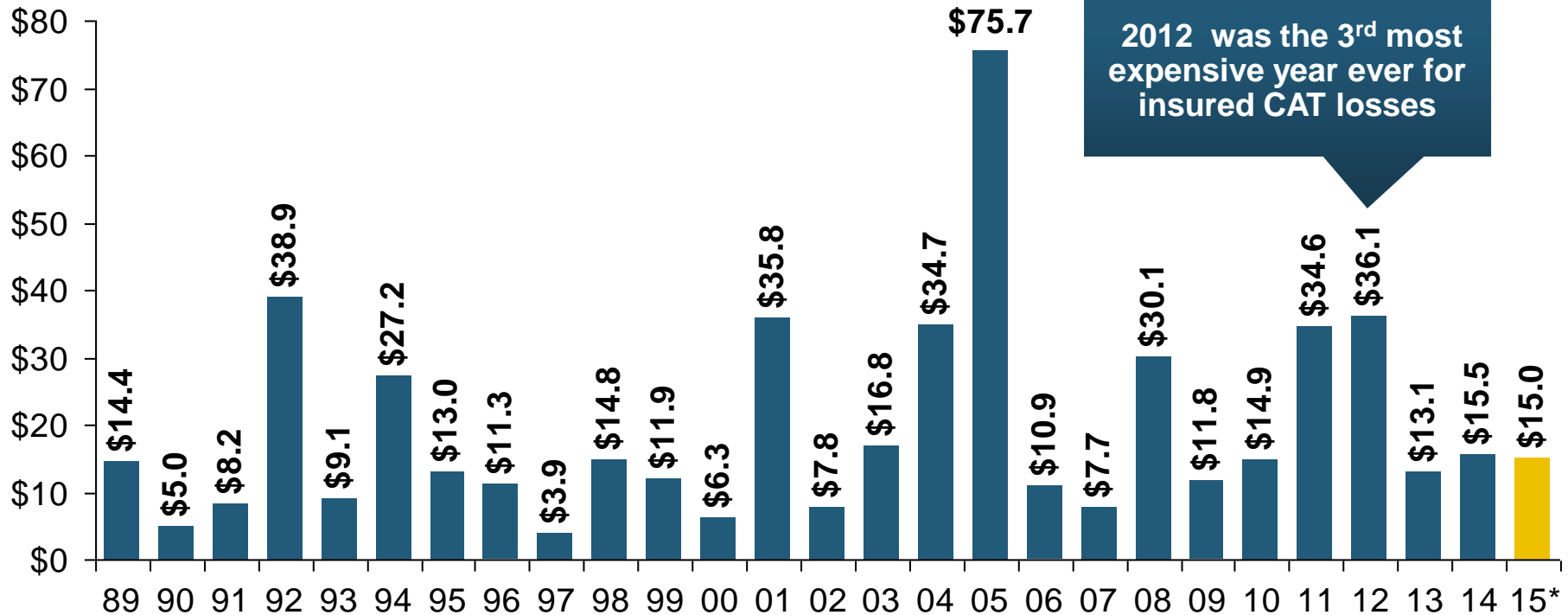
Percent increase/decrease from previous year



*Based on a search of Lexis/Nexis (January 1-December 15)

U.S. Insured Catastrophe Losses

(\$ Billions, \$ 2015)



2012 was the 3rd most expensive year ever for insured CAT losses

2013/14 Were Welcome Respite from 2011/12, among the Costliest Years for Insured Disaster Losses in US History. Longer-term Trend is for more—not fewer—Costly Events

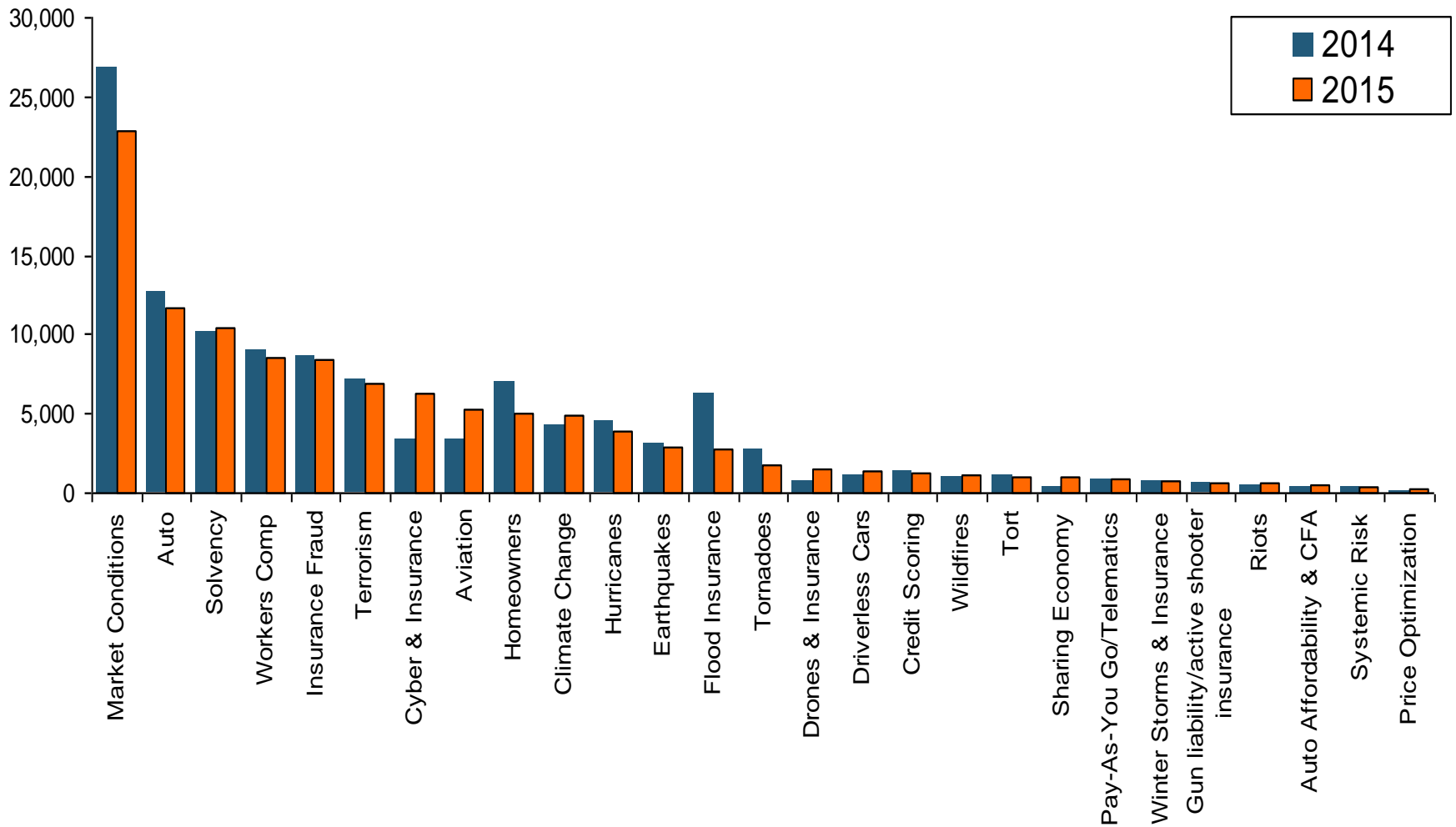
\$15B in insured CAT losses though 12/31/15 (est.)

*Estimate through 12/31/15 in 2015 dollars.

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.

I.I.I. Media Index, P/C, 2014 vs 2015*



*Based on a search of Lexis/Nexis (January 1- December 15)

Top Issues, L/H, 2014 vs 2015*

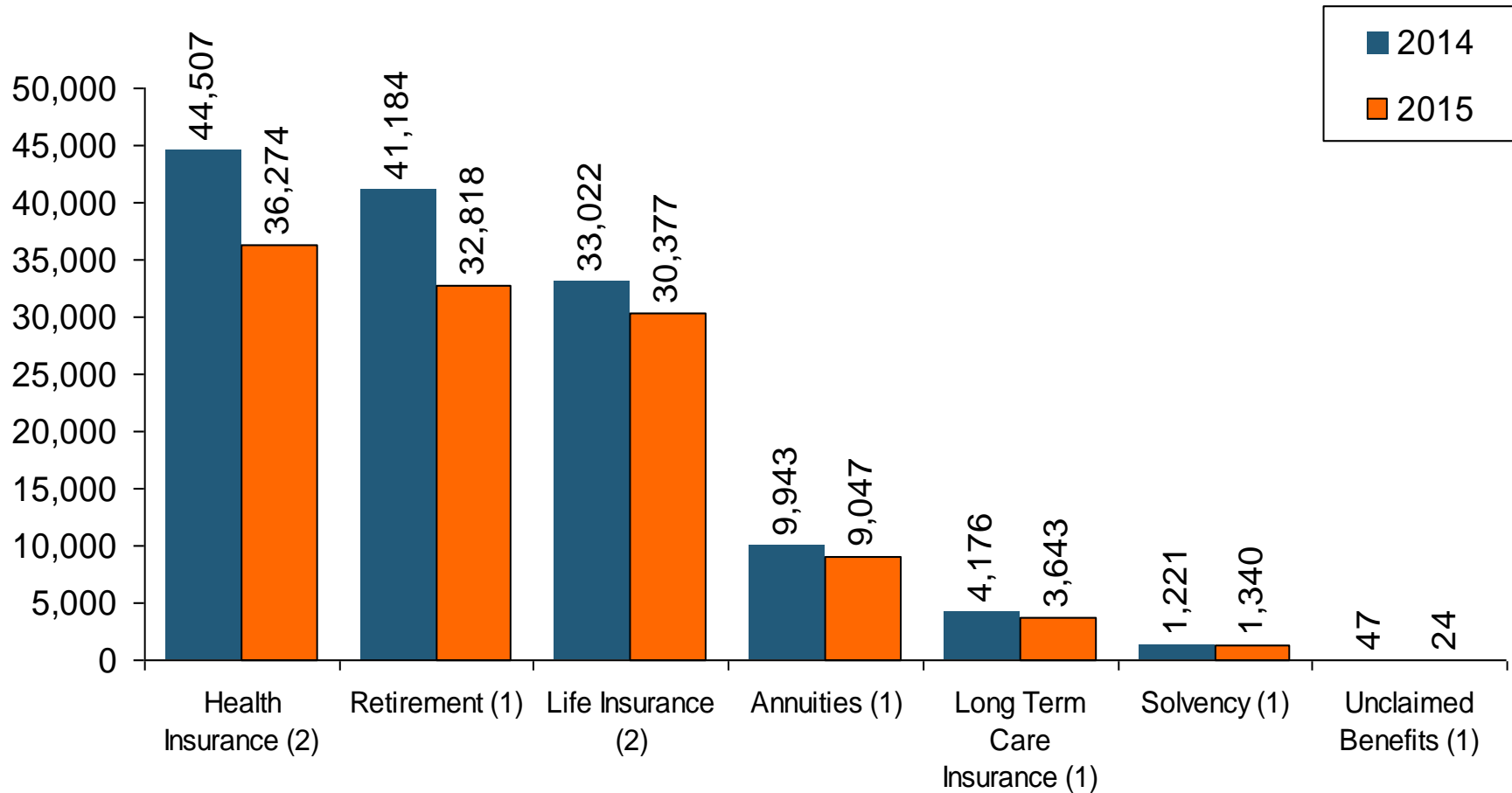
	Top Issues	2014	2015	% increase/decrease
1	Health Insurance (2)	44,507	36,274	-18%
2	Retirement (1)	41,184	32,818	-20%
3	Life Insurance (2)	33,022	30,377	-8%
4	Annuities (1)	9,943	9,047	-9%
5	Long Term Care Insurance (1)	4,176	3,643	-13%
6	Solvency (1)	1,221	1,340	10%
7	Unclaimed Benefits (1)	47	24	-49%
	TOTAL	134,100	113,523	-15%

(1) Based on a search of Lexis/Nexis.

(2) Based on a search of Factiva.

* Through December 15.

I.I.I. Media Index, L/H, 2014 vs 2015*



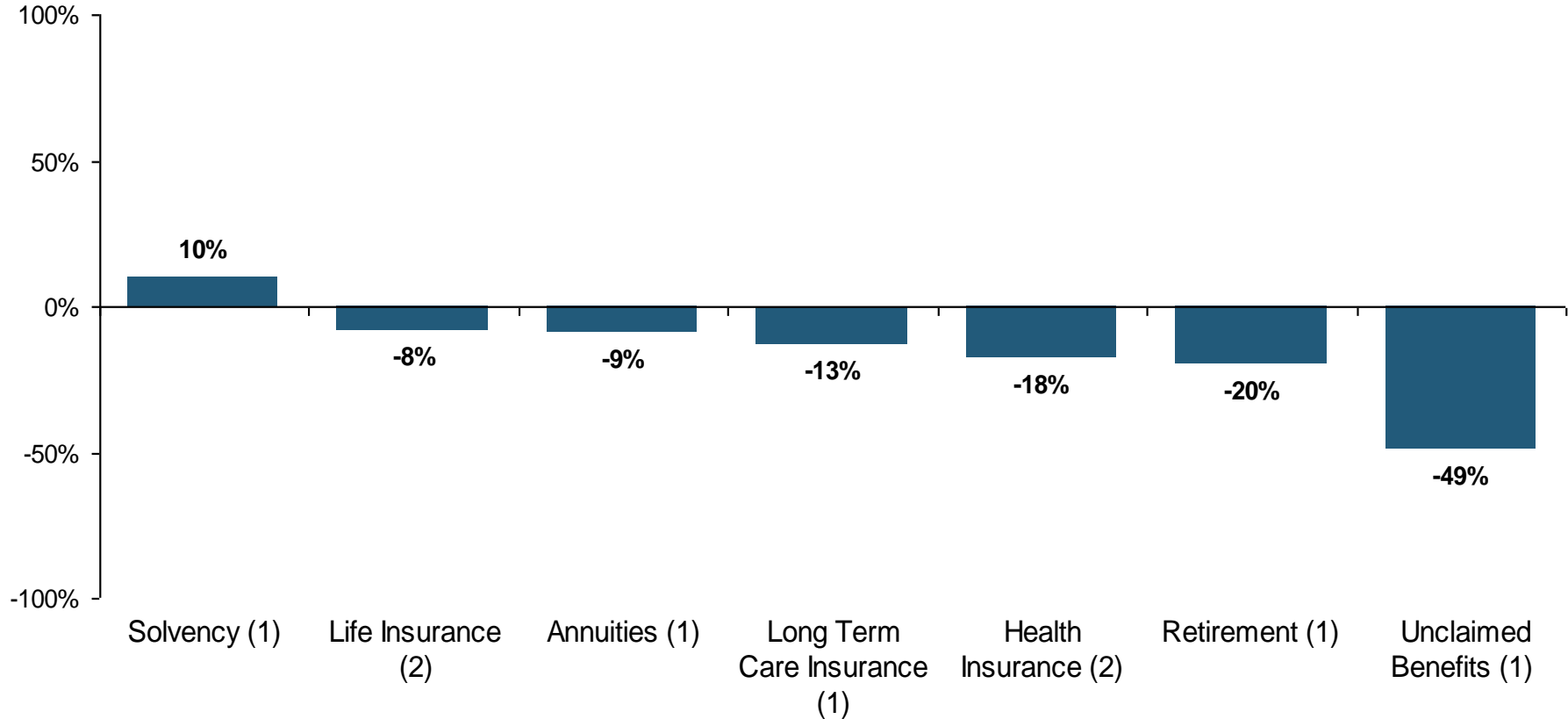
(1) Based on a search of Lexis/Nexis.

(2) Based on a search of Factiva.

* Through December 15.

I.I.I. Media Index, L/H, 2014 vs 2015*

Percent increase/decrease from previous year



(1) Based on a search of Lexis/Nexis.

(2) Based on a search of Factiva.

* Through December 15.

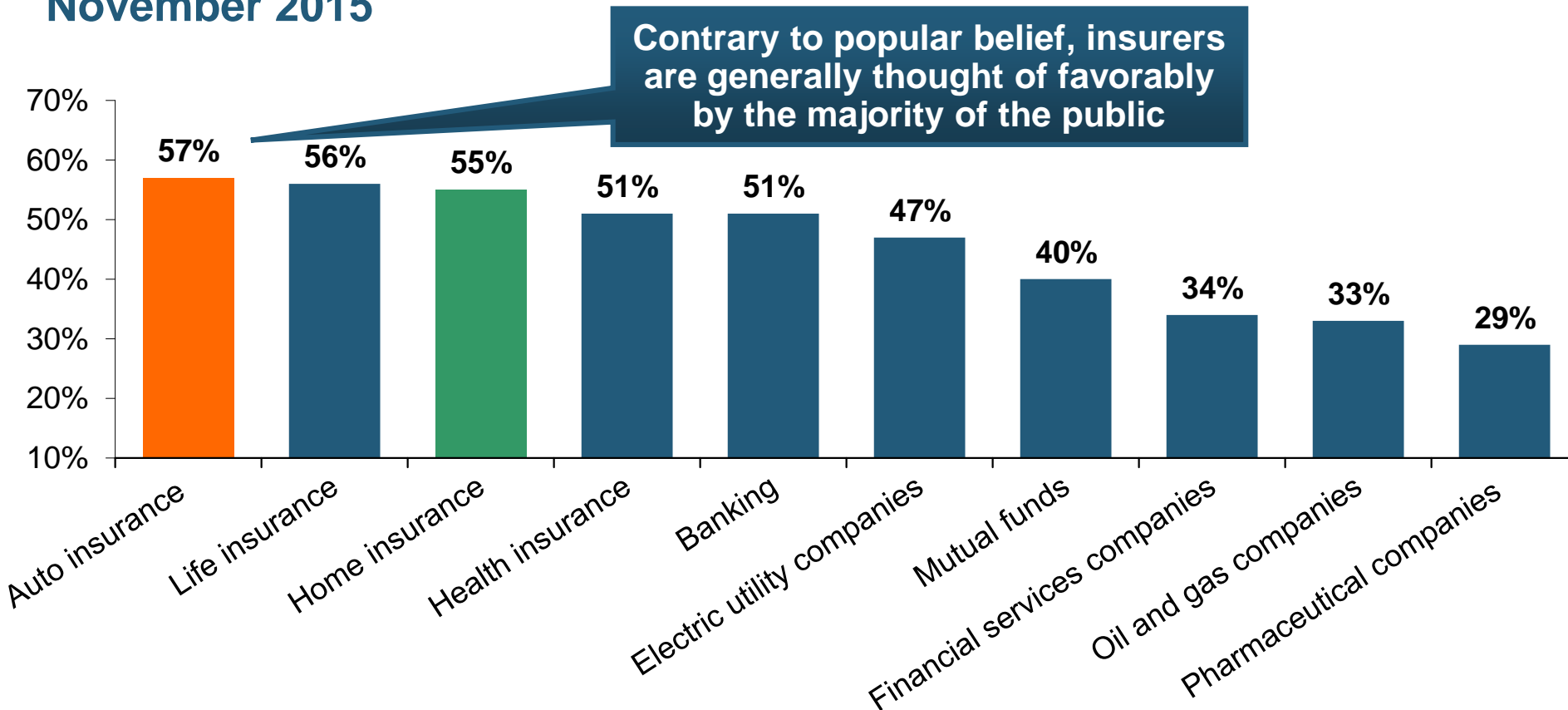


Industry Favorability Ratings

**I.I.I. Poll: Insurance Industry
Continues to Rank Well Compared to
Many Other Industries**

I.I.I. Poll: Favorability

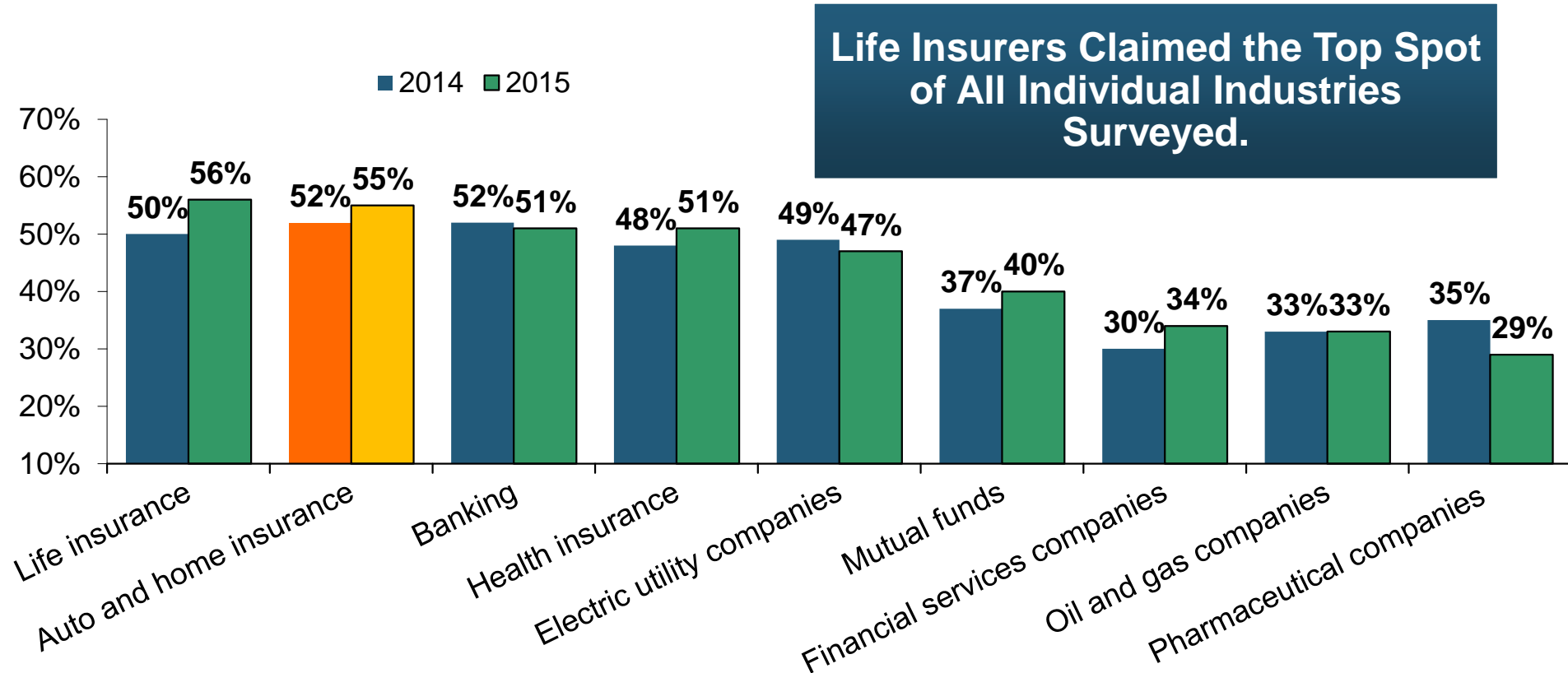
Percent of Public Rating Industry as Very or Mostly Favorable, November 2015



Viewed Separately, Auto Insurers Ranked Highest of All Industries. Home Insurers Were Third.

I.I.I. Poll: Favorability

Percent of Public Rating Industry as Very or Mostly Favorable, 2014-2015

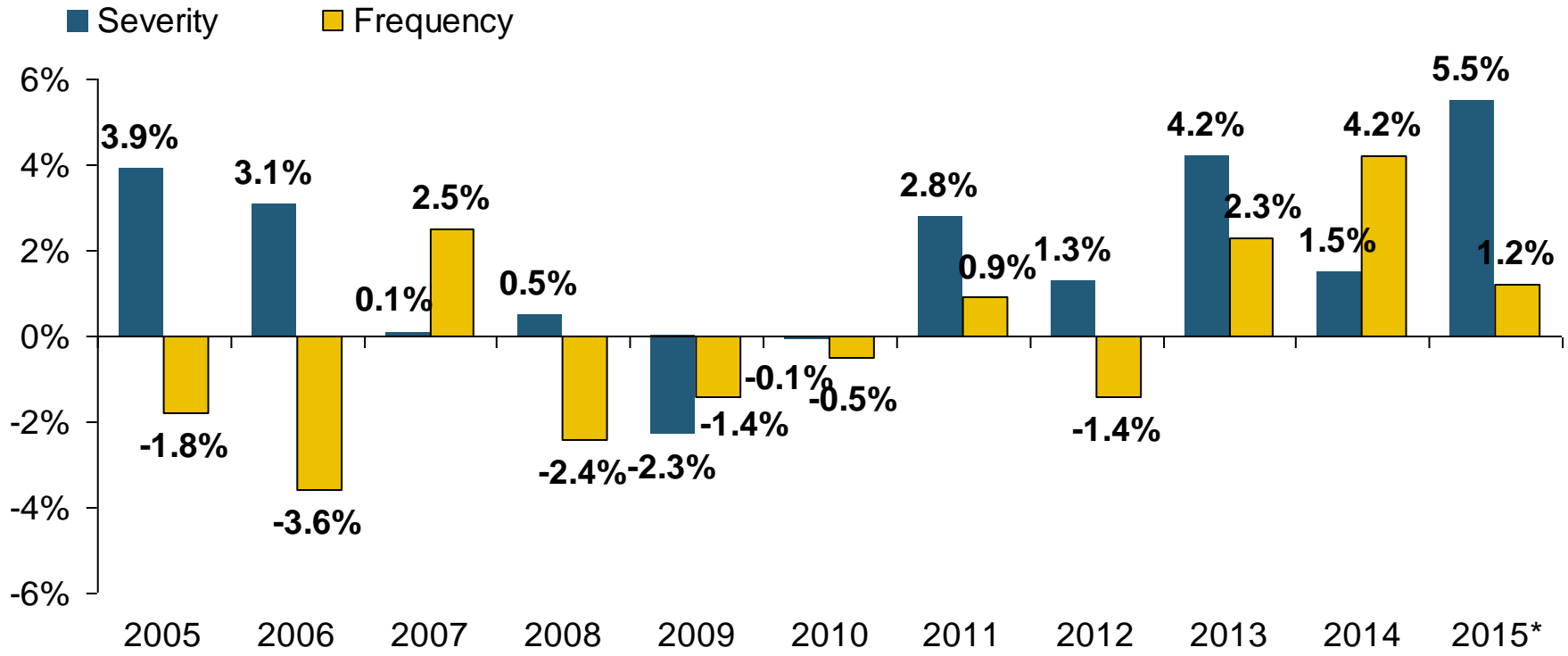


Auto and Home Insurers Rose 3 Points from a Year Ago; Life Insurance Rose Six Points From A Year Ago. Pharmaceutical Companies Dipped.

Collision Coverage: Severity & Frequency Trends Are Both Higher in 2015*



Annual Change, 2005 through 2015*



The Recession, High Fuel Prices Helped Temper Frequency and Severity, But this Trend Has Clearly Reversed, Consistent with Experience from Past Recoveries

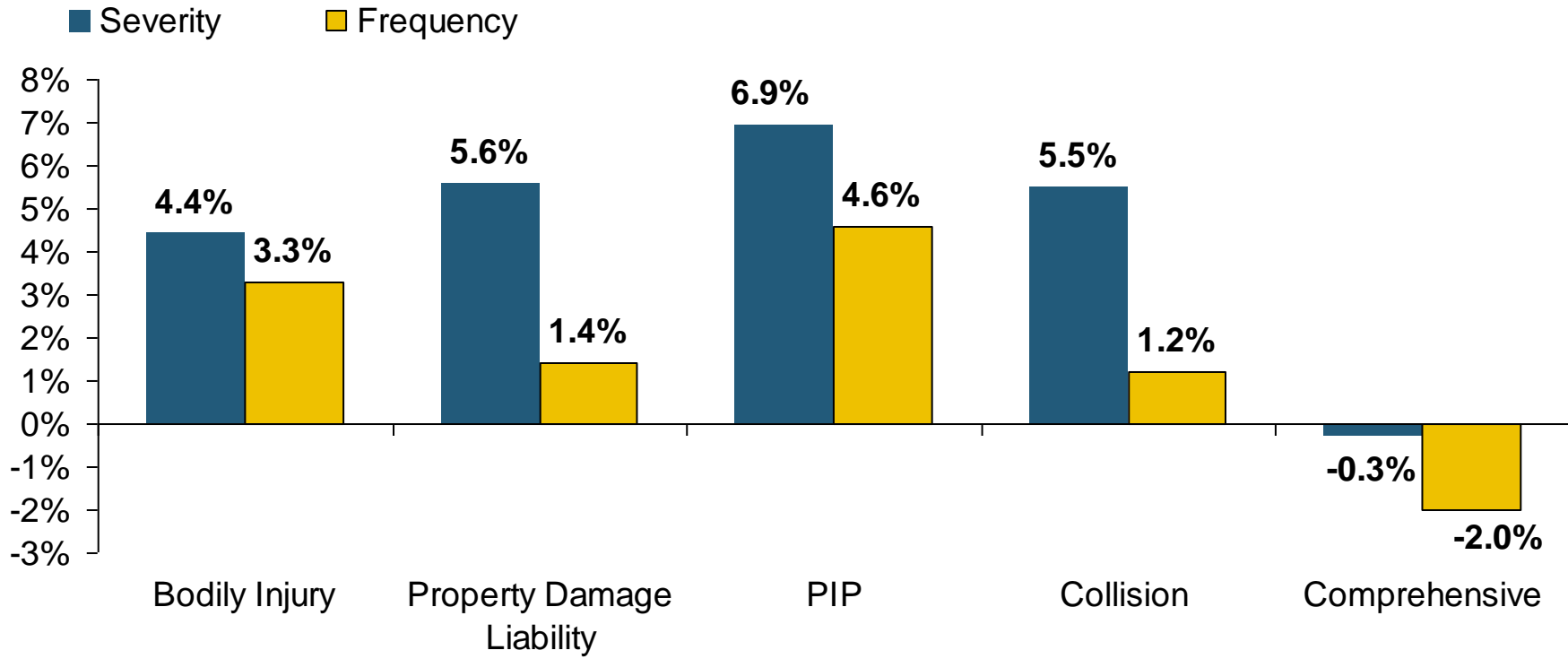
*2015 figure is for the 4 quarters ending with 2015:Q3.

Source: ISO/PCI *Fast Track* data; Insurance Information Institute

Auto Severity & Frequency by Coverage: Trending Up in 2015*



Annual Change, 2015* Over 2014



Frequency and Severity Were Up Across Most Coverage Types in 2015; A Trend Likely to Continue in 2016

*2015 figure is for the 4 quarters ending with 2015:Q3 (latest available).
Source: ISO/PCI *Fast Track* data; Insurance Information Institute



Issues in the News

- Technology and Insurance
- Flooding: Sandy Litigation; Houston, South Carolina and Midwest Floods; El Niño
- Attacks on the Insurance Industry: CFA; Consumer Reports; ProPublica
- Price Optimization

TECHNOLOGY AND INSURANCE

**Applications of Technology in P/C
Insurance Have Gripped the Media as
Have Industry Solutions**

Interest in Technology Issues and Insurance Is Surging: Presents Opportunity

- Insurers are at the intersection of many of the most important technological innovations of the early 21st century
 - ◆ Problem→Solution→Opportunity
- Industry is too often depicted as a technology laggard
- I.I.I. is highlighting the industry as being on the technological cutting edge—an innovative, nimble industry with solutions for managing countless new risks of the current era:
 - ◆ Sharing economy Cyber
 - ◆ Auto technology Climate change
 - ◆ Wearable devices The “Internet of Things”
- Positions industry well with customers, investors, current and prospective workers/Millennials, regulators/legislators and (tech) media

CYBER RISK AND INSURANCE

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

Data Breaches 2005-2015, by Number of Breaches and Records Exposed

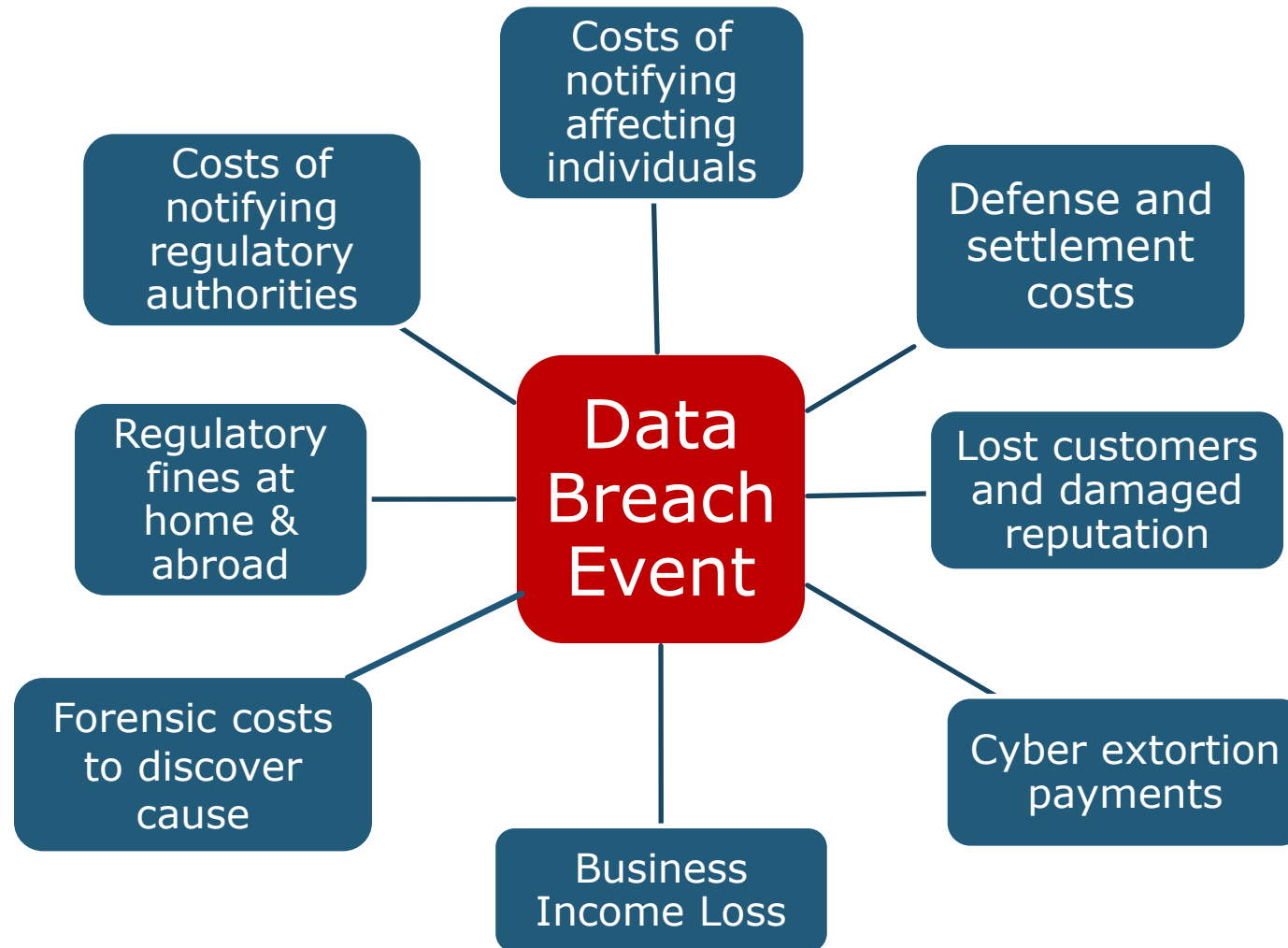
Data Breaches/Millions of Records Exposed



The 781 reported data breaches in 2015 was virtually unchanged from the record 783 reported in 2014. The number of exposed records soared to 169.1 million, and increase of 97.5%.

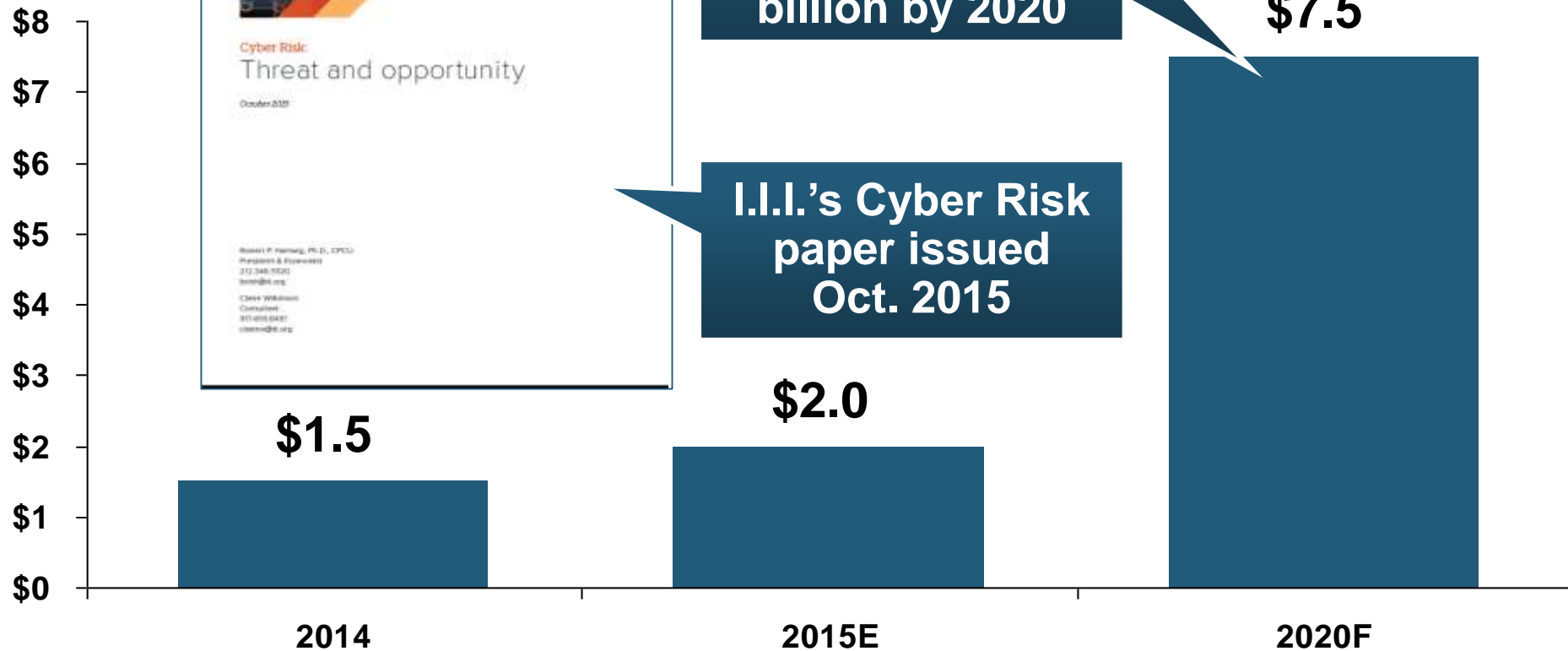
Source: Identity Theft Resource Center (updated as of Jan. 6, 2016); <http://www.idtheftcenter.org/images/breach/ITRCBreachReport2015.pdf>

Data/Privacy Breach: Many Potential Costs Can Be Insured



Estimated Cyber Insurance Premiums Written, 2014 – 2020F

\$ Billions





THE SHARING (ON-DEMAND) ECONOMY

**Area of Extreme Interest—And Insurers
Are Providing Solutions for this
Dynamic Economic Segment**

Sharing/On-Demand/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 insurance questions have arisen
- Insurance solutions are increasingly available to fill the many insurance gaps that arise



U B E R



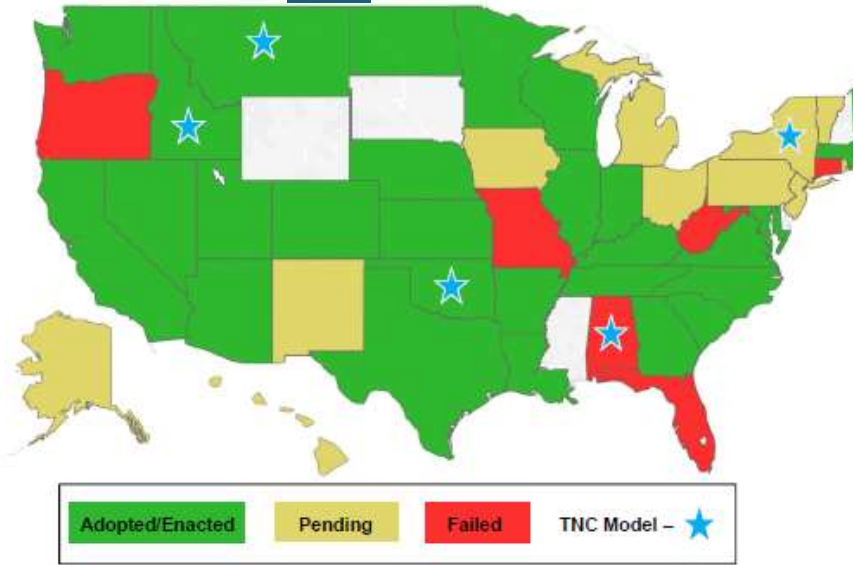
Labor on Demand: Huge Implications for the US Economy, Workers & Insurers

Will YOUR job be reduced to an app?

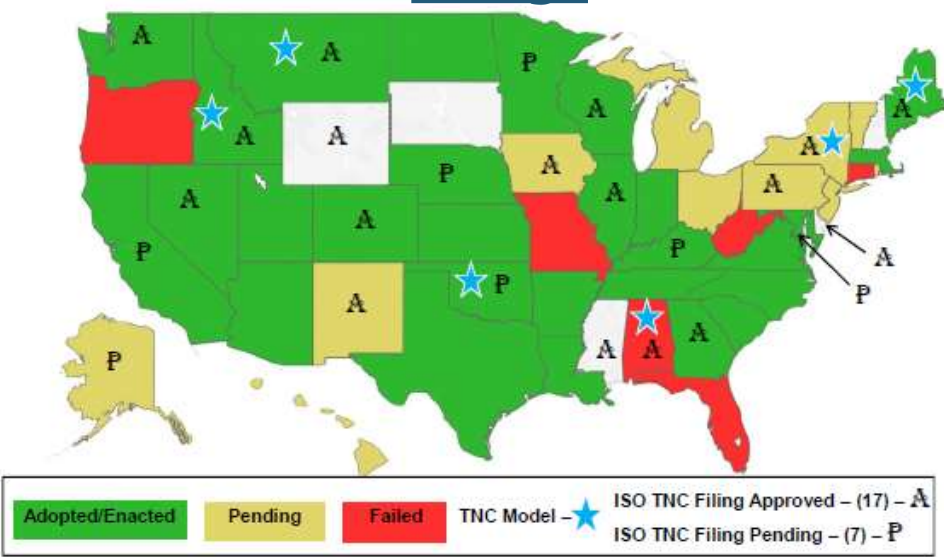


Ridesharing Regulation/Legislation and Status of ISO Filings as of 9/30/15

Status Ride Sharing Legislation/Regulation



Status of ISO Filings



Source: ISO.



AUTO TECHNOLOGY & THE FUTURE OF AUTO INSURANCE

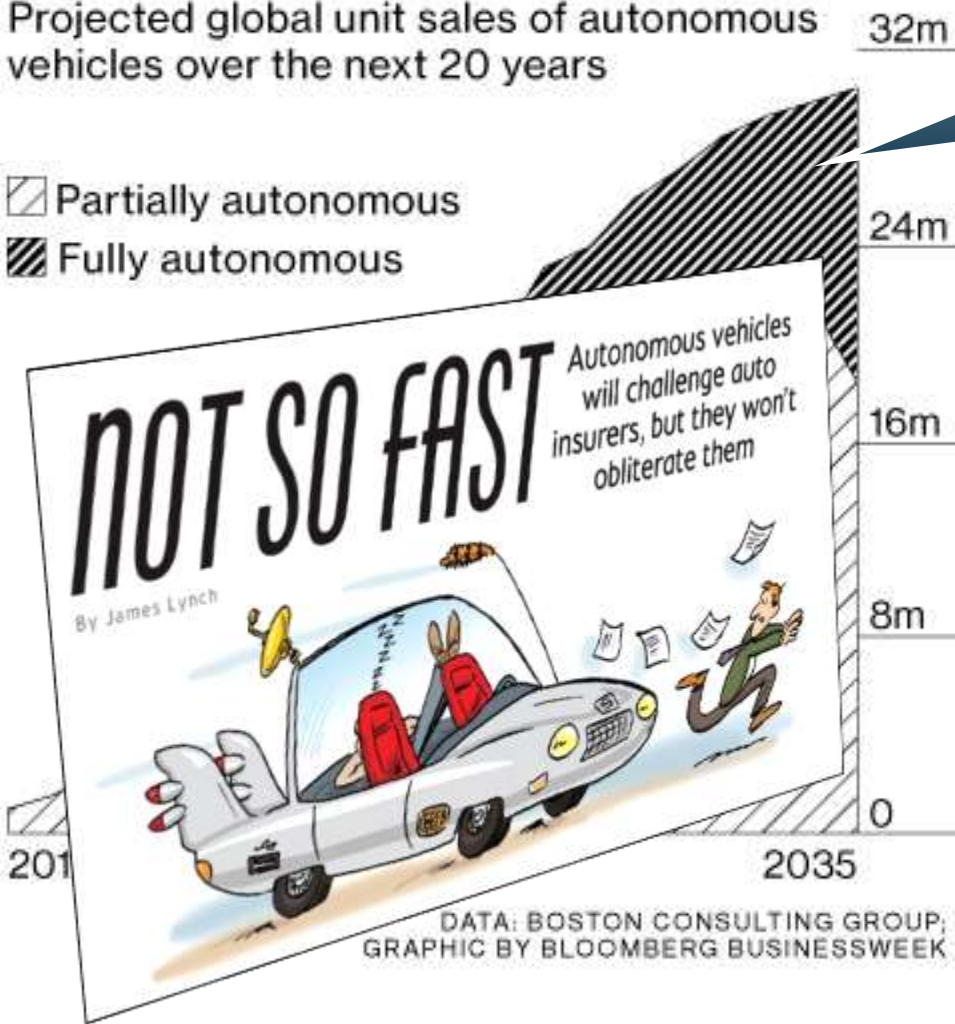
Technology Promises Safer Cars and Highways, *BUT* Some Analysts, Media and Many in Silicon Valley Are Predicting Doom for Auto Insurers

Media is Obsessed with Driverless Vehicles: Often Predicting the Demise of Auto Insurance

Hands-Free

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

- ▨ Partially autonomous
- ▩ Fully autonomous



By 2035, it is estimated that 25% of new vehicle sales could be fully autonomous models

Questions

- Are auto insurers monitoring these trends?
- How are they reacting?
- Will Google take over the industry? (cars/sales)
- Will the number of auto insurers shrink?
- How will liability shift?

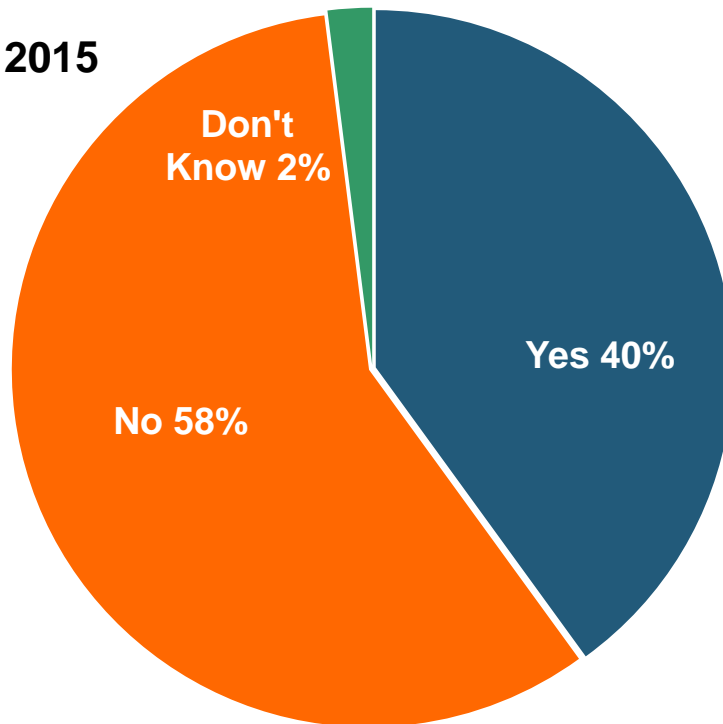
DATA: BOSTON CONSULTING GROUP; GRAPHIC BY BLOOMBERG BUSINESSWEEK

Source: Boston Consulting Group; Insurance Information Institute.

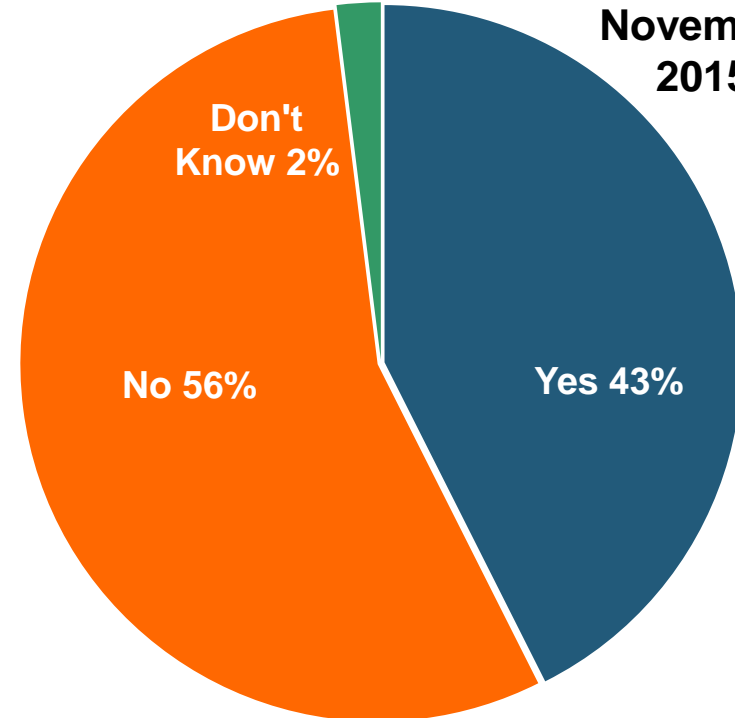
I.I.I. Poll: Auto Insurance

Q. Would you be willing to ride in a driverless car?

May 2015

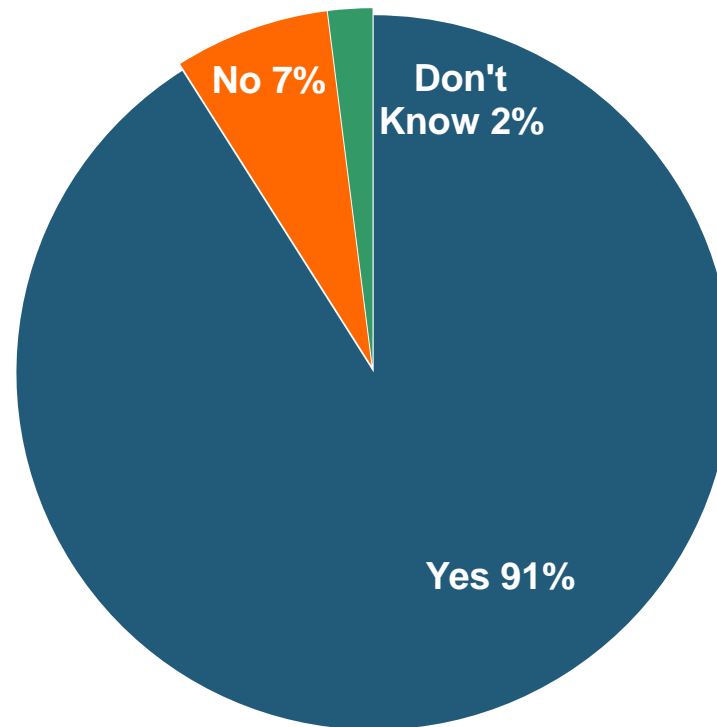


November
2015



The Percentage Willing to Ride in a Driverless Car Rose Slightly. 69 Percent of People Over 64 Were Unwilling to Ride.

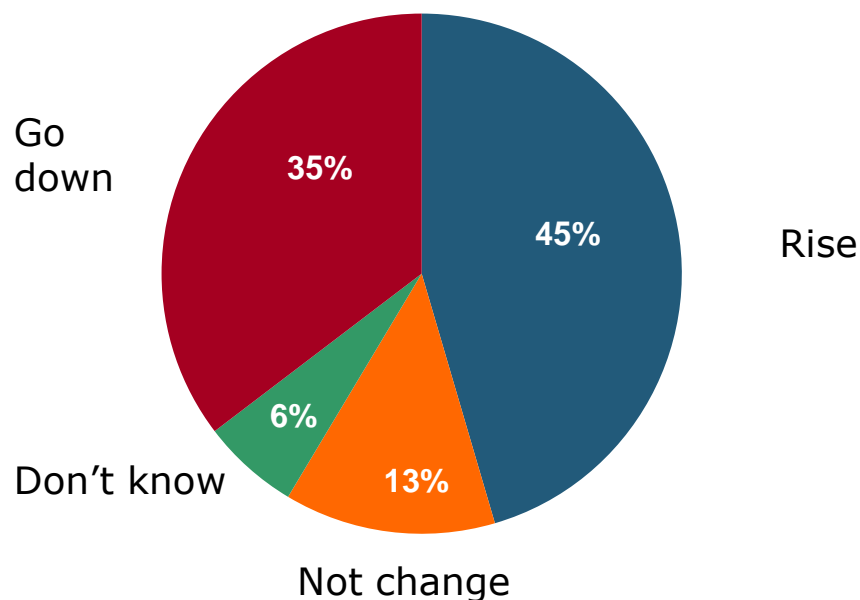
Q. If you owned a driverless car, would you need auto insurance?



The Vast Majority of Americans Know They Would Still Need Auto Insurance.

I.I.I. Poll: Driverless Cars

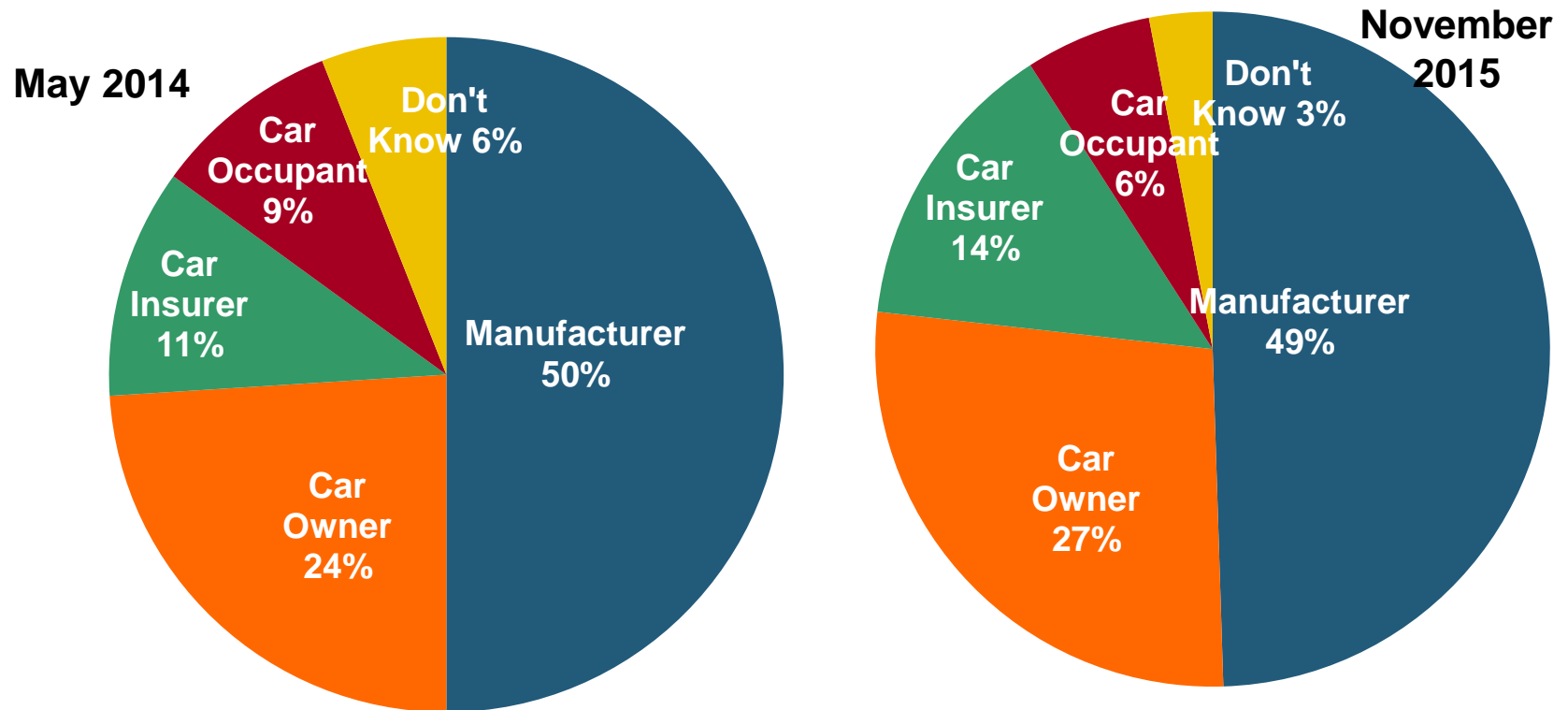
Q. If you owned a car that was completely self-driving, what do you think would happen to your insurance premiums?



Close to Half of Americans Think the Cost of Their Insurance Would Rise If They Owned a Driverless Car.

I.I.I. Poll: Auto Insurance

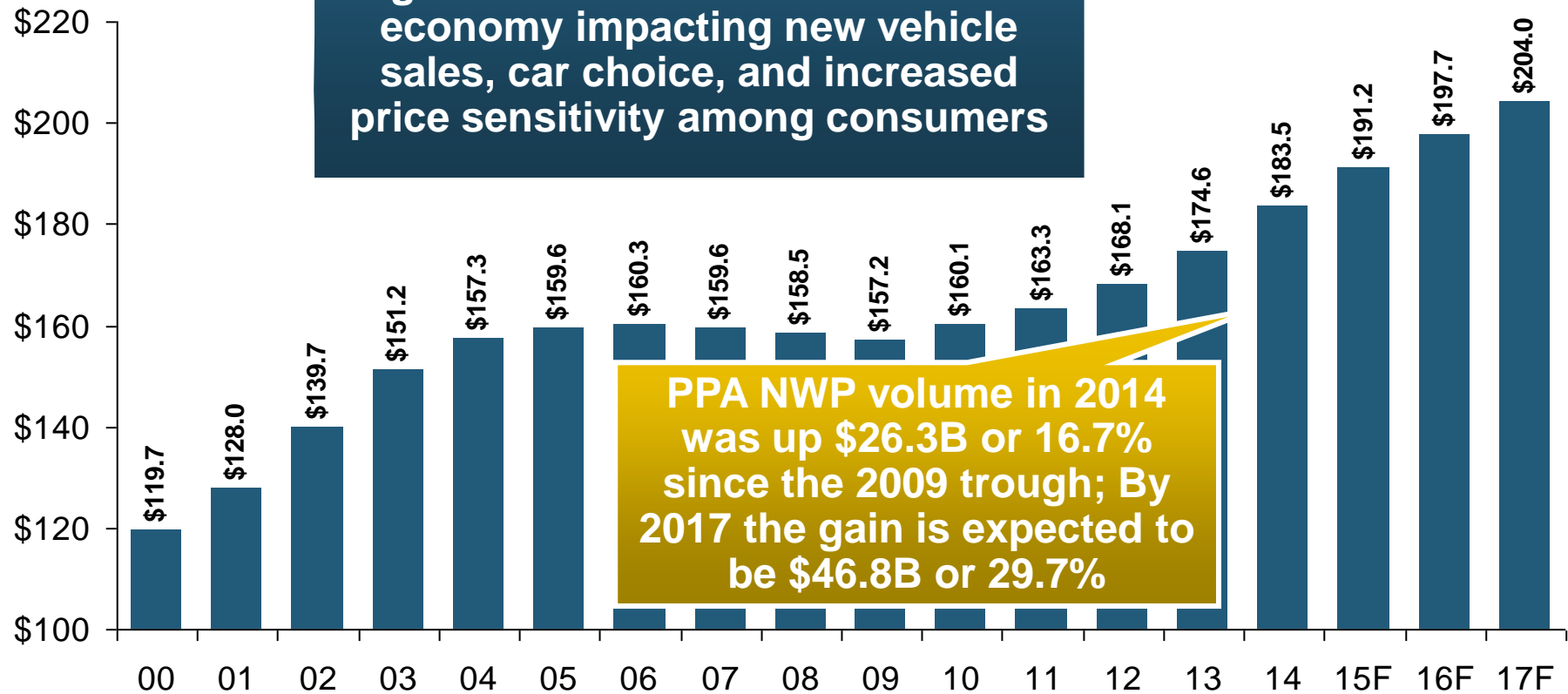
Q. Who should be responsible if a driverless car crashed?



About Half of Respondents Say Manufacturer of Driverless Car Should Be Responsible for Crashes.

Private Passenger Auto Insurance Net Written Premium, 2000–2017F

\$ Billion

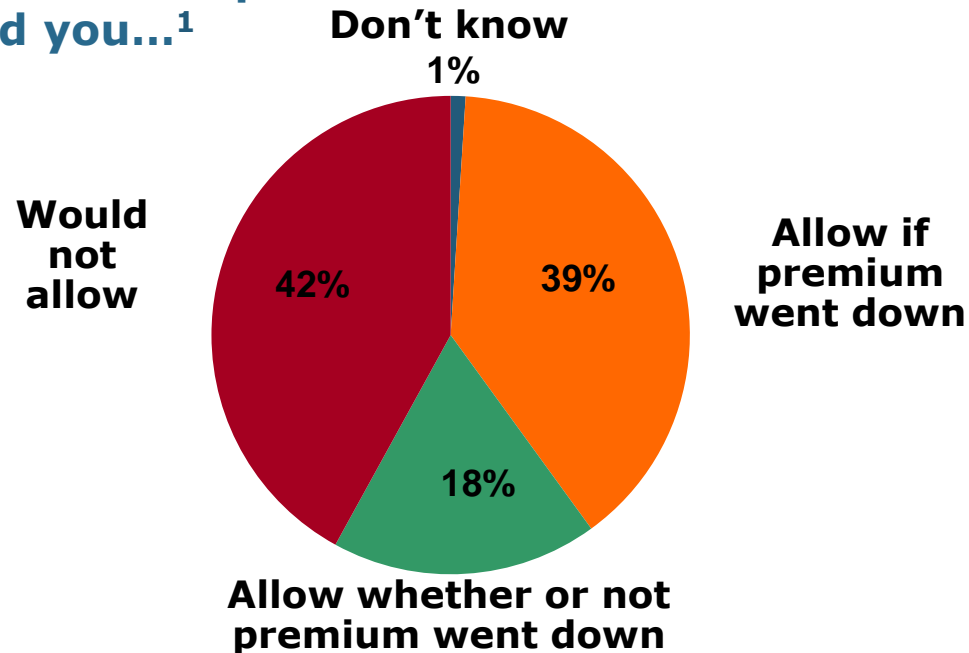


A Few Thoughts on the Future of Auto Insurance

- **Global auto insurance premiums written total about \$600B**
 - ◆ ~80% personal, 20% commercial
 - ◆ US accounts for more than 1/3 of this total (about \$210B in 2014)
- **Innovations in automobile safety will, over time, reduced claim frequency but severities could still rise as repair costs escalate**
 - ◆ Claim activity clearly not immune to economy
- **Frequency declines could lead price declines, aiding profitability**
- **More cars, not fewer will be on highways in the US, world**
 - ◆ Exposure (insured car years) grows even as frequency declines
- **Timeline for large numbers of mass produced autonomous vehicles on American highways is wildly optimistic**
 - ◆ Mid-2030s is more likely timeframe; Transition occurring through mid-century
 - ◆ Tech media is enamored with anything involving Google, Apple
- ***Auto insurance will be the largest, most important of all P/C lines for many years to come***

I.I.I. Poll: Telematics

Q. I'm going to ask you a question about your opinion of insurance companies collecting information about how and when you drive in order to set your auto insurance premium. Please tell me which statement you agree with. Would you...¹



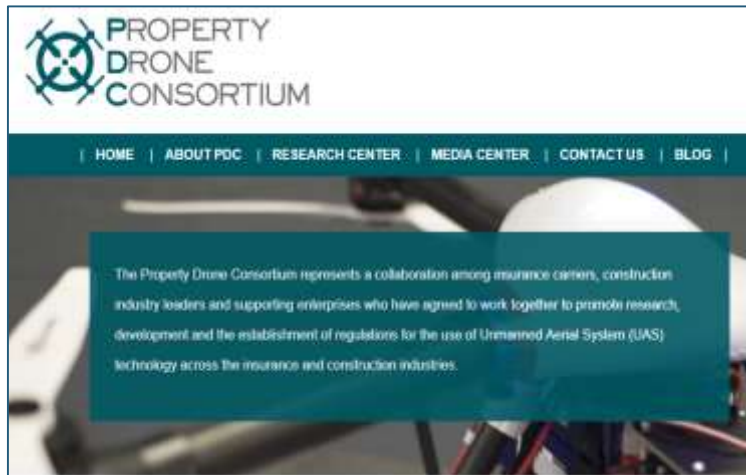
More Than Half of Auto Policyholders Would Allow Their Insurer to Collect Their Driving Information In Order to Set Premiums.

¹Asked of those who auto insurance.

Send in the Drones: Potential Rapid Adoption in Industry; Media Loves It



- Drones or Unmanned Aerial Vehicle (UAV) technology is seeing rapid adoption rate in many industries, including insurance
- FAA granting Section 333 exemptions for commercial use and testing of UAS
- At least 5 insurers have received permission to test
- Wide variety of applications: claims, pre-event property inspections...
- Insurers partnering with construction industry to guide R&D and regulation of UAV use via *Property Drone Consortium*: www.propertydrone.org

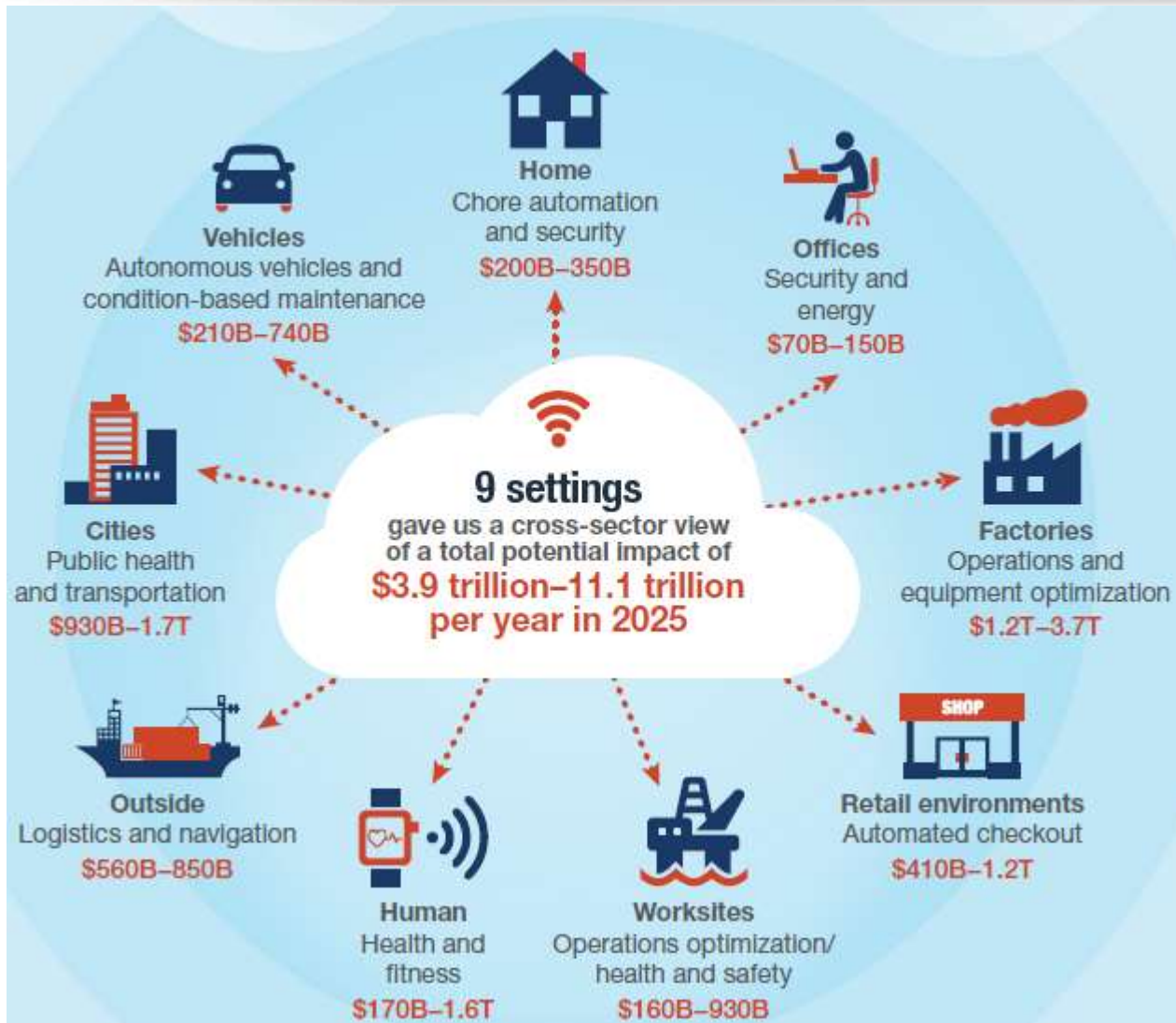




THE 'INTERNET OF THINGS'

Capturing Economic Value Amid a Shifting Insurer Value Chain

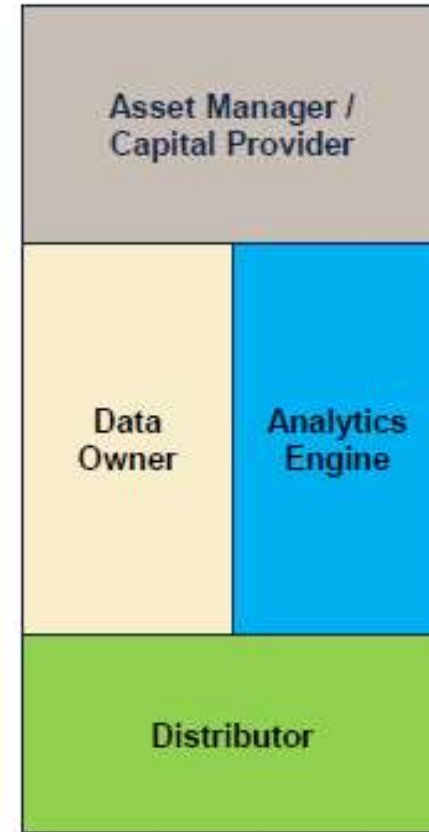
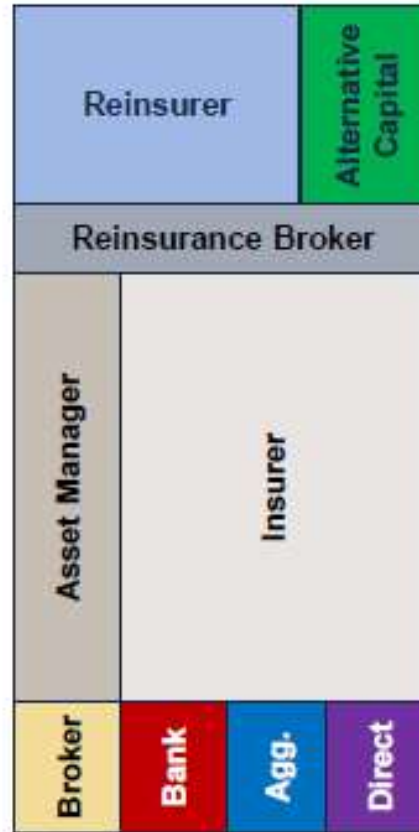
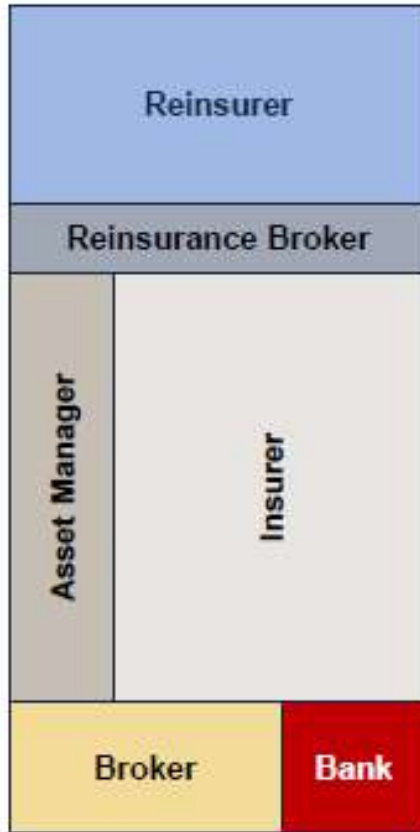
The Internet of Things and the Insurance Industry



Sources: McKinsey Global Institute, *The Internet of Things: Mapping the Value Beyond the Hype*, June 2015; Insurance Information Institute.

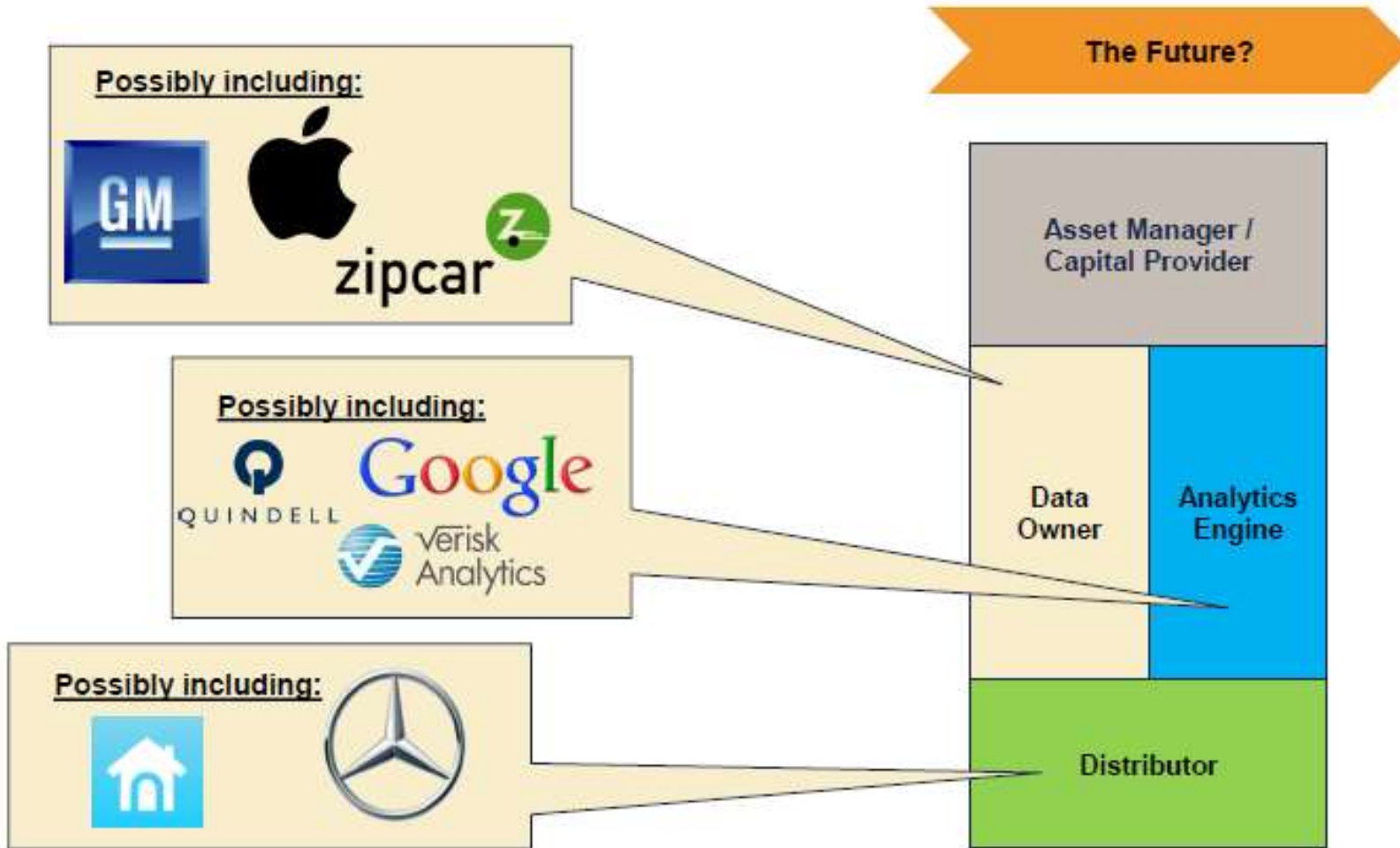
- The “Internet of Things” will create trillions in economic value throughout the global economy by 2025
- What opportunities, challenges will this create for insurers?
- What are the impact on the insurance industry “value chain”?

The Internet of Things and the Insurance Industry Value Chain



The Insurance Industry Value Chain Is Changing for Many Reasons

The Internet of Things and the Insurance Industry Value Chain



**Who owns the data? Where does it flow? Who does the analytics?
Who is the capital provider?**



A NEST Case Study

Nest: A Leader in the “Internet of Things”

Collision Course or Cooperation with the Insurance Industry?



Telematics for Your Home: The Internet of Things

- The home is the next frontier for telematics
- Rapidly becoming a crowded space
- How and with whom will insurers partner?
- Can control increasing array of household systems remotely



- ◆ Heat, A/C
- ◆ Fire, CO detection
- ◆ Security Systems
- ◆ Cameras/Monitors
- ◆ Appliances
- ◆ Lighting

- Technology is adaptive

- ◆ *Uses sensors and algorithms to learn about you*



Partnerships with Insurers: Selling Safety and Savings Simultaneously

Stay safe.
Save money.

Your insurance company knows Nest Protect helps keep you safe. They know it saves lives.

So we've partnered with leading insurance companies to help you get a Nest Protect at no cost. Your insurance provider could also lower your premiums up to 5% because Nest Protect is special - it can connect to Wi-Fi and tell them it's working.

It's their business to know what keeps families safe. And they believe in Nest Protect.

Find out when a Nest insurance partner is coming to your area.



nest



Nest is actively seeking to partner with insurers. As of Jan. 10, 2016, Nest listed 2 insurance partners offering discounts in a number of states



FLOOD INSURANCE IN 2015: A TUMULTUOUS YEAR

**Aggressive Law Firms Working on Old
Sandy Flood Claims Have Spread
Misinformation About How WYO Flood
Program Works—*And Filed Lawsuits***

Disarray at the NFIP

Sandy Flood Claim Dispute: Media Scrutiny Continues

- Sandy Litigation Issues Intensified in 2015
 - ◆ Issue of allegedly altered engineering reports
- Media Attention Peaked with *60 Minutes* Segment on March 1
- Disarray at NFIP and Senior Management Purged
 - ◆ New Director Roy Wright took office in June (speaking at III's Communications Committee meeting tomorrow)
- Call by Senator Schumer to Scrap the System
- NFIP is Examining all Claims Involving Engineering Reports
- Claim Resolution Activity Is Ongoing
- I.I.I. Has Been Involved from Beginning
 - ◆ High profile media presence storm struck in Oct. 2012
 - ◆ Taping PBS *Frontline* on Feb. 3 with early May air date

■ **New NFIP Director as of June 14: Roy Wright**

- ◆ Wants to “*turn down the volume*” on post-Sandy litigation, investigations
- ◆ 3rd Director in 6 months amid many other changes at the top

■ **“Rockiest six months in [NFIP] history”**

- ◆ “*Worse than Katrina*”

■ **WYO Program Safe**

- ◆ “*Under every conceivable scenario we will have contractors helping us deliver this program.*” --NFIP Director Roy Wright

■ **Investigations: “No smoking gun...Have not found fraud”**

- ◆ DHS Inspector General wants this “*off his desk*” (“bored” with it)

■ **Houston Law Firm Mostyn Involvement “Set bad precedent”**

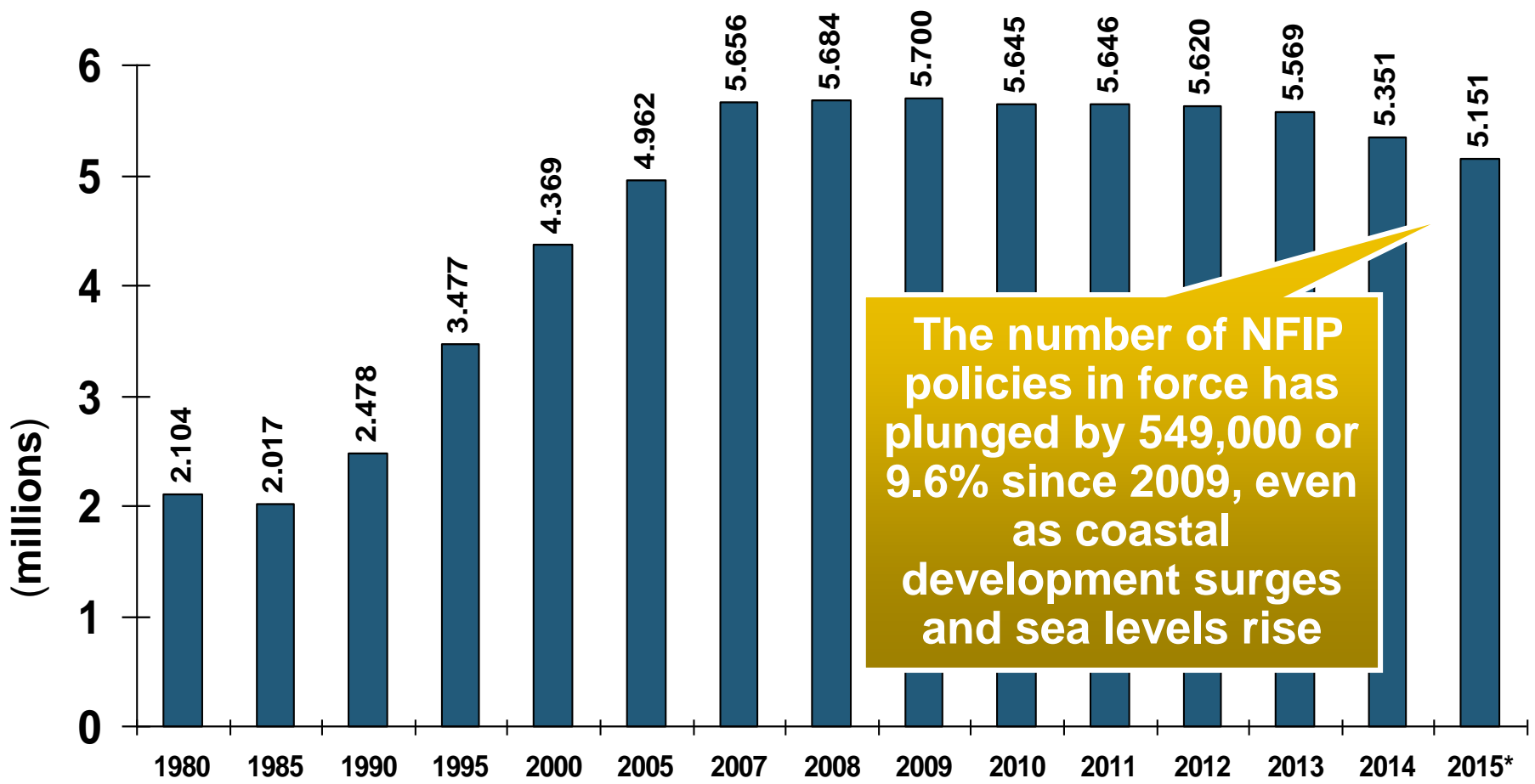
■ **Allegations, recriminations, investigations were “Political Theater of Washington” on which the curtain is now, hopefully falling**

Independent of Sandy: Flood Insurance Messaging Is Major Activity

- **April 1, 2015:** Separate from Sandy dispute, new federal flood reform law from 2014 takes effect, with increases of up to 18%
 - ◆ Levies a \$25 annual surcharge on NFIP policyholders who are insuring their primary residence; all others will now pay a \$250 surcharge (e.g., vacation homes, etc.)
 - ◆ Generates significant media interest as many (including media) appear to be caught off guard. I.I.I. conducts many interviews

- NFIP Policy Count Falling

Number of National Flood Insurance Program Policies in Force at Year-End, 1980-2015*



Source: National Flood Insurance Program.
* As of July, 2015

Recent Attacks on the Insurance Industry: Auto & WC

Why Are Critics Suddenly More Aggressive?

I.I.I. Strategy



ATTACKS ON AUTO INSURANCE INDUSTRY

Attacks on Underwriting Criteria
Price Optimization Debate

What's Driving Attacks on the Insurance Industry?

- **Recent Surge in Attacks is Associated with Income Inequality Debate in the United States**
 - ◆ Attacks not confined to auto insurance (e.g., Workers Comp, Health)
 - ◆ Not confined to insurance (banks, lending in general, student loans)
- **Politics, Economics, Regulation & Demographics Are Principal Drivers**
 - ◆ CFA/CR and others (ProPublica) emboldened in current environment
 - ◆ Dodd-Frank Act stuffed with income inequality mandates and studies
 - ◆ FIO now studying auto insurance affordability; Wants to create index.
 - ◆ Definition of “fairness” is shifting
- **CFA Has Been Able to Attack Certain Rating Factors Based on New Perception of Fairness (which is independent of actual risk)**

◆ Education	Occupation	Marital Status	Gender
◆ Age	Credit Profile	Location	<i>“Price Optimization”</i>
- **All of These Are Vulnerable to Attack in the Current Environment**
- **Infinite Number of Quotes Online→CFA Uses to Highlight Perceived Inequities**

I.I.I.'s Communications Response to CFA and CR

■ Worked closely with I.I.I. member companies

- ◆ Reached out directly to insurers who were singled out by either CFA or CR to help with their strategic response.
- ◆ Handled media calls on behalf of member companies.
- ◆ Made I.I.I. resources on credit-based insurance scores, price optimization and auto insurance underwriting available to communications, government affairs and senior leadership.

■ Coordinated with the national and state advocacy trades

- ◆ Organized conference calls with the trades to discuss messaging and tactics so the industry speaks with one voice.
- ◆ Made I.I.I. resources available, including our willingness to provide testimony if needed.

■ Participated in NAIC meetings

- ◆ Assisted industry representatives at the Chicago NAIC meeting on August 15-17, by creating a fact sheet. CFA and CR met with the NAIC at this meeting. CR also encouraged its readers to contact the NAIC to voice their complaints about how auto insurance is priced.
- ◆ Mike Barry attended the meeting, monitored the discussion and made I.I.I. resources available to reporters. The fact sheet was distributed to I.I.I. members prior to the meeting.

Handout for Government Affairs Staff Attending NAIC Meeting this Week



The Truth about Auto Insurance? Driving records alone offer an incomplete picture

Rating factors used by auto insurers to price policies have come under attack in recent months. Consumer Reports (CR) and the Consumer Federation of America (CFA) have made headlines by purporting to demonstrate U.S. auto insurers use certain rating factors unfairly, including a driver's credit-based insurance score, gender and marital status. They have also criticized the practice of "price optimization," a term defined

by the Casualty Actuarial Society (CAS) as "the supplementation of traditional actuarial loss cost models to include quantitative customer demand models for use in determining customer prices."

The CR and CFA analyses were misleading and overlooked the ways in which competition in auto insurance markets is enhanced and consumers benefit when a wide variety of rating factors beyond a person's driving record are used to determine risk.

Key factors include:



Credit

- Regulators in 47 U.S. states allow the use of credit-based insurance scores.
- "Credit scores are effective predictors of risk under automobile policies." (2007 Federal Trade Commission report)
- 76 percent of consumers exhibit good or fair credit management behavior. (FICO)



Gender

- Women drivers tend to get into fewer and less serious accidents than men.
- Men were behind the wheel in nearly three of every four fatal crashes nationwide (2003-2012). (U.S. Department of Transportation's National Highway Safety Administration)



Marital Status

- Married drivers tend to get into fewer and less serious accidents than unmarried drivers, based on the claims experience U.S. auto insurers have compiled over a period of decades.



Price Optimization

- Price Optimization allows insurers to rely on "more objective, quantitative information about the judgmental aspects of the rate-setting process instead of reliance primarily on anecdotal evidence."
- Consumers benefit because, "Price optimization may improve rate stability and lower an insurer's long-term cost for providing coverage and limit policyholder disruption. If consumers realize more stability through price optimization, policyholder discounts for longevity may increase over time."

(National Association of Insurance Commissioners' Casualty Actuarial and Statistical Task Force draft white paper).

Consumers who believe they are being overcharged or underserved by their insurance company can—and should—shop around for a better deal. The U.S. auto insurance industry is highly competitive, precisely because different insurers give different weights to a variety of underwriting criteria.

Resources

III. consumer education articles

- What Determines the Price of My Auto Insurance Policy?
www.iii.org/article/what-determines-price-my-auto-insurance-policy
- How Can I Save Money on Auto Insurance?
www.iii.org/article/how-can-i-save-money-auto-insurance

III. presentations and research

- Price Optimization in Auto Insurance Markets: Actuarial, Economic and Regulatory Considerations:
www.iii.org/presentation/price-optimization-in-auto-insurance-markets-actuarial-economic-and-regulatory-considerations-071715
- Facts & Statistics: Auto Insurance:
www.iii.org/fact-statistic/auto-insurance
- Issues Update: Credit Scoring and Insurance:
www.iii.org/issue-update/credit-scoring

III. video

The It's on Insurance—Auto Coverage: You're in the Driver's Seat
www.iii.org/Video/the-its-on-insurance-auto-coverage-youre-in-the-drivers-seat

III. subject matter experts

- Dr. Robert Hartwig, president & economist: bobh@iii.org
- James Lynch, FCAS MAAA, chief actuary and director of Information Services: jamesl@iii.org

III. media contact:

- Michael Barry, vice president, Media Relations: michaelb@iii.org

For more information about insurance: www.iii.org



WORKERS COMPENSATION ATTACKS

*ProPublica: View that Worker Protections
Are Being Eroded Away*

KEY ISSUES: Workers Compensation ProPublica/NPR Series

- **ProPublica/NPR Attack Series:** “*The Demolition of Workers Comp*” (Published in March 4, 2015, Michael Grabell and Howard Berkes)
- **Thesis:** “*Over the past decade, states have slashed workers’ compensation benefits, denying injured workers help when they need it most and shifting the costs of workplace accidents to taxpayers.*”
- **WC benefits have been hollowed out and workers were often no longer well served by the system**
 - ◆ Claims 33 states watered down benefits under the guise of reform
- **Series relied on a number of anecdotal cases of claimants who believed they were adversely impacted**
- **I.I.I. Rebuttal: Forceful, well-received, widely distributed. Focused on:**
 - ◆ Magnitude of insurer payouts to injured workers each year (\$40B+)
 - ◆ Material improvements in workplace safety, in part due to WC incentives
 - ◆ Benefits of cost controls without compromising outcomes
- **In-Person Meeting with ProPublica Author Michael Grabell**



KEY ISSUES: Challenges Raised in the Workers Comp Line

- **Opt-Out Legislation:** Coalition of large employers (Association of Responsible Alternatives to WC or ARAWC) 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
 - ◆ ProPublica published *“Inside Corporate America’s Campaign to Ditch Workers Comp”* on October 24

- **Medical Cost Containment:** On Dec. 29 ProPublica published *“All This Because Someone Got Hurt at Work”* criticizes the efficacy of medical cost containment service providers. Criticizes opulence at conferences.

PRICE OPTIMIZATION

Price Optimization Was the Sharpest Area of Attack the Industry Faced in 2015

Price Optimization: What Is It?

1.4 Cents
Per Ounce
(\$5.49 for
24 Bottles)



5.9 Cents
Per Ounce
(\$23.76 for
24 Bottles)



U.S. Insurers Don't Do This!!!

320% Price Difference! Does It Cost \$18.25 to Unpack the Bottles and Keep Them Cold?

■ Who Knows?

- ◆ No One Has Successfully Defined It
- ◆ At Least Seven Definitions From States, Vendors, NAIC, Others
- ◆ Some Have Talked About
 - Price Elasticity of Demand
 - ‘Loyalty Penalty’
- ◆ Use of ‘Sophisticated Tools and Models to Quantify Other Business Considerations’ (profitability/retention) (NAIC/I.I.I.)

Price Optimization: What Is The Objection?

- What Is the Objection? Detractors Say
 - ◆ ‘Systematic Component to Rate Setting Unrelated to Expected Losses or Expenses’ (It’s a Rating Variable, and It’s Not Based on Likelihood of Loss, So It’s Illegal.)
 - ◆ ‘Price Gouging’
 - Poor Get Overcharged
 - Most Loyal Customers Get Mistreated



FOUR FACTS ABOUT PRICE OPTIMIZATION

1. Insurers Have Always 'Optimized' – With Regulator Knowledge & Approval

Disposition
 Disposition Date: 03/11/2015
 Effective Date (New): 05/01/2015
 Effective Date (Renewal): 05/01/2015
 Status: Approved
 Comment:

Company Name:	Overall % Indicated Change:	Overall % Rate Impact:	Written Premium Change for this Program:	Number of Policy Holders Affected for this Program:	Written Premium for this Program:
REDACTED	5.700%	2.600%	\$169,000	632	\$6,483,000
REDACTED	17.400%	2.600%	\$898,000	3,649	\$34,492,000
REDACTED	-3.800%	3.400%	\$1,859,000	15,942	\$54,331,000
REDACTED	-6.300%	3.200%	\$170,000	1,071	\$5,284,000
REDACTED	7.500%	2.700%	\$955,000	5,793	\$35,290,000

Overall Rate Information for Multiple Company Filings
 Overall Percentage Rate Indicated For This Filing: 4.500%
 Overall Percentage Rate Impact For This Filing: 3.000%
 Effect of Rate Filing-Written Premium Change For This Program: \$4,051,000
 Effect of Rate Filing - Number of Policyholders Affected: 27,087

Companies Temper Increases Based on 'Market Judgment'

Regulators Have Approved of the Practice for Decades

Sources: System for Electronic Rate and Form Filing (SERFF) via SNL Financial; Insurance Information Institute.

Other Examples: Rate Capping, Teen Drivers

2. Optimization Is Not Price Gouging

■ Traditional Practice

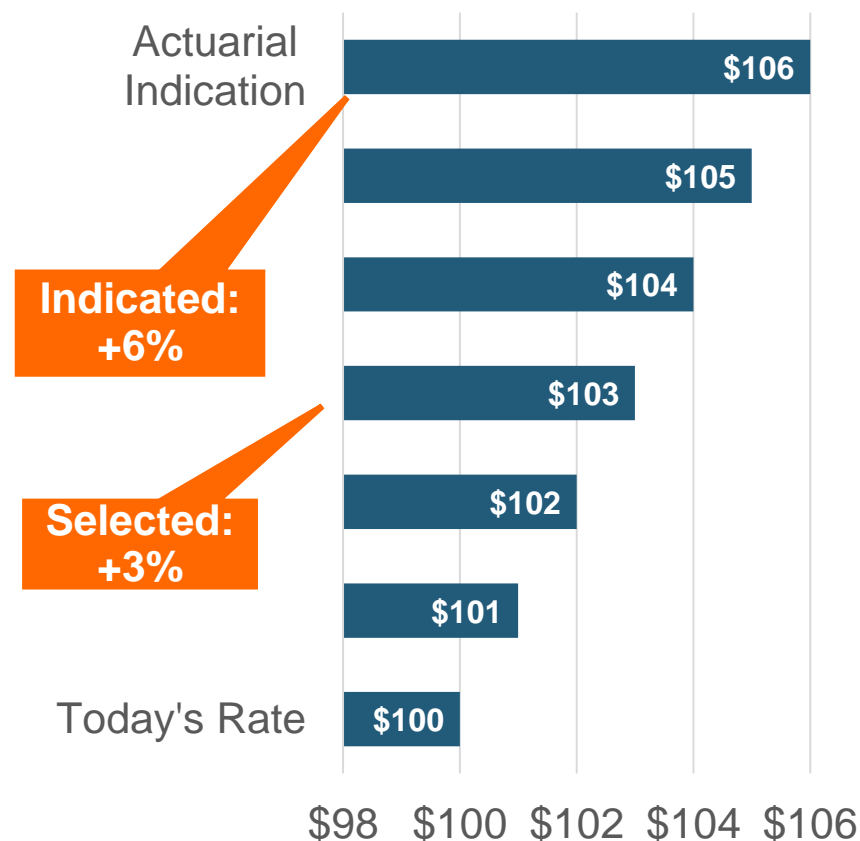
- ◆ Used 'Seat-of-the-Pants' Judgment to Discount Off Indication

■ What's New

- ◆ Software Informs the Judgment

■ Never Exceeds Actuarial Indication

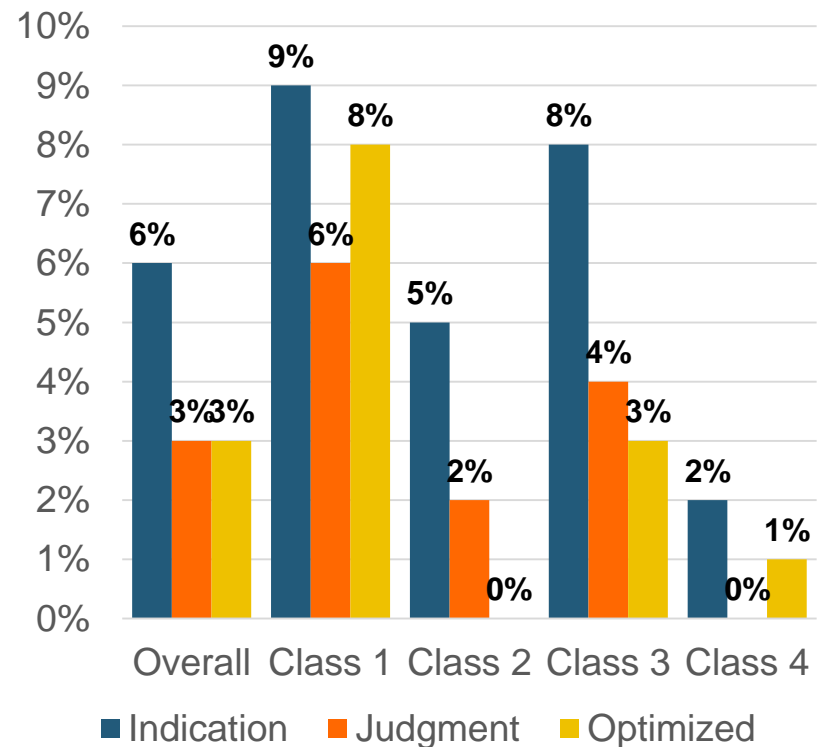
An Example



3. Optimization Doesn't Raise Rates; It Distributes the Rate Change

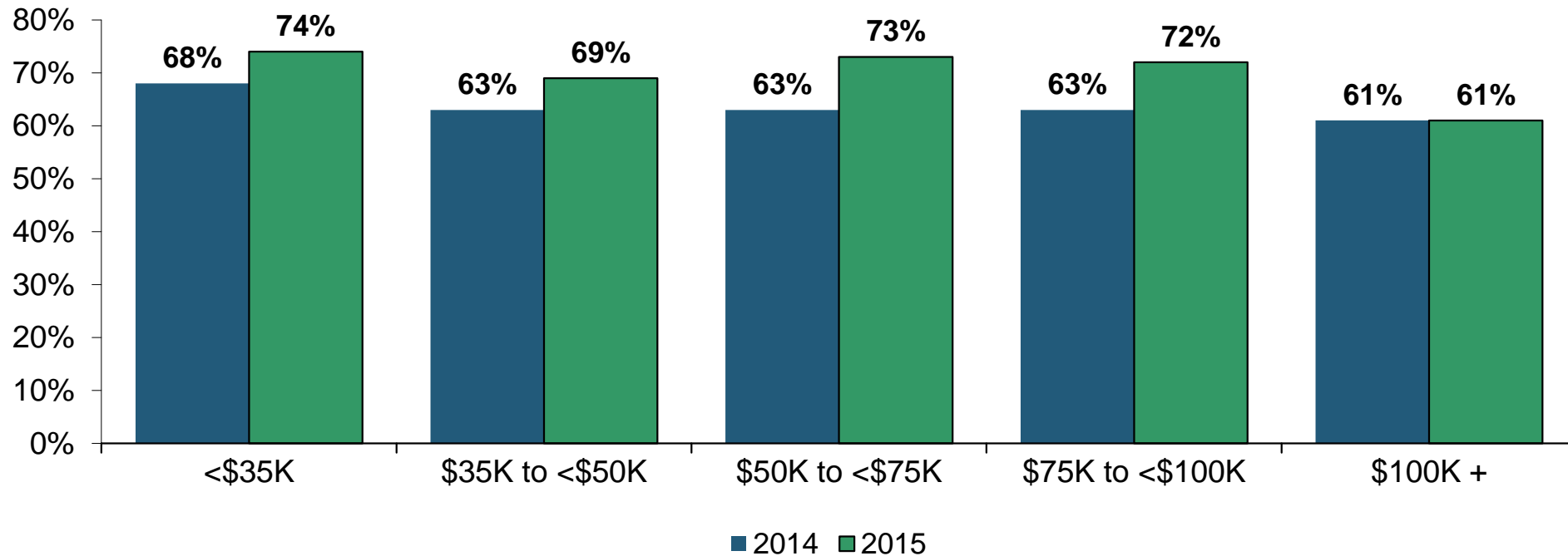
- As Practiced in U.S.
 - ◆ Remains True to Cost-Based Price
 - ◆ Applied to Classes, Not Individuals
- Rates Don't Exceed Actuarial Indication

Example (cont'd): There Are Many Reasonable Ways to Achieve Reasonable Rates.



4. Low Income Drivers Are Just as Likely to Shop As Anyone Else

Percent of Those With Auto Insurance Who Said They Compared Prices on Renewal, by Income, 2014-2015



Low- to Moderate-Income Respondents Were More Likely to Say They Compare Prices.

NAIC Task Force Concluded (November)

Force believes the following practices , at a minimum, are **inconsistent with statutory requirements** that “rates shall not be ... unfairly discriminatory:”

- a. Price elasticity of demand.
- b. Propensity to shop for insurance.
- c. Retention adjustment at an individual level.
- d. A policyholder’s propensity to ask questions or file complaints.

**Focus Appears
to Be On
Potential Use of
Tool on
Individuals**

■ Restrictions/bans in 16 States, D.C.

■ Illinois Declined to Issue Regulation

‘Illinois has a highly competitive auto and homeowners’ insurance market ... I would be delighted to host any members of ... consumer organizations to visit with me, in person, to share the data they cite as it is inconsistent with what I have reviewed.’

- Acting Insurance Director Anne Melissa Dowling
January 2016

What Has I.I.I. Done?

- Media
- Industry
- Policymakers
- The Message:
 - ◆ 'the optimal way ... is not through prohibitions but through observation, learning and studying the impacts on insurance markets and consumers and only then making recommendations as necessary.'
 - Robert Hartwig, NCOIL, July 17, 2015

THE WALL STREET JOURNAL. MARKETS & FINANCE

INSURANCE INFORMATION INSTITUTE

ce

038

best, most loyal

who say the den. They an advanced

**PRICE OPTIMIZATION IN
AUTO INSURANCE
MARKETS**

Actuarial, Economic and
Regulatory Considerations

Robert P. Hartwig, Ph.D., CPCU
President & Economist, Insurance Information Institute

Price Optimization: The Latest

- **Significant Discussion of Price Optimization Issue in Recent Months**
- **Several States Have Issued Bulletins Addressing Its Use**
 - ◆ Requests for information in several other states
- **Each State Defines Price Optimization Differently**
 - ◆ At least 7 definitions from states; NAIC, vendors and others
- **States' Concerns Come Despite Absence of Any Discernable or Detectable Market Disruptions**
 - ◆ Competition in auto insurance markets is intense, healthy and vigorous
 - ◆ More than 99% of drivers are insured through the voluntary market
 - ◆ Absence of consumer complaints
 - ◆ High degree of consumer satisfaction with auto insurers
 - ◆ Empowered Consumers: Have more tools available today than ever before to help them shop, collect and compare prices
 - ◆ *Rates are not inadequate, excessive or unfairly discriminatory*

Price Optimization and “Big Data” Are Two Different Things

- **Some Have Conflated Public’s Fears Over “Big Data” with Use of Price Optimization**
- **While More Information Is Available Everywhere, All the Time to Everyone—Insurers Continue to Collect, Analyze and Use Information in Accordance with State Rating Laws and Actuarial Principles**
- **Increased Volume of Data Has Not Impacted the Standard that Rates Are *Not Excessive, Inadequate or Unfairly Discriminatory***
- **Insurers Remain Responsive to Regulator Requests for More Detailed Information on Rating Plans and Pricing Models**



New I.I.I. Research Papers

2015: Published White Papers



Public Facing Report Based on I.I.I. Pulse Survey Results

- ◆ Consumer Outreach
- ◆ Build I.I.I. Brand

USA Today Snapshot: 12/14/15: Front Page

PulsePoints
What...
and...
to kn...
December 15, 2015

INSURANCE INFORMATION INSTITUTE
110 William Street
New York, NY 10038
212.346.5500
www.iii.org

II. How Well Do We Manage Our Own Risk?

What actions are homeowners willing or able to take to protect their homes and belongings? They will do some things, according to the I.I.I. Pulse Survey, but these were notable limits and exceptions.

1. Flood Insurance: Same Dwelling, Separate Coverage

Despite the fact that flooding is the most common and costly natural disaster in the United States, 83 percent of U.S. homeowners said they did not have a flood insurance policy. Only 14 percent of U.S. homeowners said they had such a policy—a statistic that has remained fairly consistent in recent years, in spite of major events affecting coastal and inland areas from New England to Texas (Fig. 5.1).

- The South had the highest proportion of homeowners with a flood policy, 21 percent (Fig. 5.2).
- In the Northeast, 11 percent had a policy, followed by 10 percent in the Midwest, and 9 percent in the West.

83% U.S. homeowners who say they did not purchase flood insurance coverage.

Flood insurance take-up

Fig. 5.1
Homeowners who have flood insurance, 2011–2015

Year	Percent (%)
2011	14%
2012	13%
2013	12%
2014	12%
2015	14%

Homeowners by region who have flood insurance

Fig. 5.2

Region	Percent (%)
Northeast	11%
Midwest	10%
South	21%
West	9%

Source: Insurance Information Institute
USA TODAY

Robot cars: No-go

While half of all Americans are reluctant to ride in a self-driving car, older drivers are most adamant:

70%

Source: Insurance Information Institute
USA TODAY

Being Edited

- Residual Markets
 - ◆ Annual Look at Residual Property Markets by State
- Cuba
 - ◆ Look at Insurance Potential in What Could Be an Emerging Market

Scheduled

- Three Consumer-Oriented PulsePoints Reports
- Cyber Insurance Update
- Emerging Auto Technology
- Internet of Things
- Medical Marijuana



Looking Forward to 2016

Select 2016 Initiatives

- National Security and Terrorism
- Attracting Millennials and the Younger Generation to Insurance Careers
- New Technology Partnerships and Initiatives

- The interplay of national security and terrorism are two topics of surging media interest
 - ◆ Terrorism Coverage: post-Paris, San Bernadino
 - ◆ Gun Liability/“Active Shooter” Coverage
 - ◆ Supply chain
 - ◆ Geopolitical risks
- 2016 Presidential politics guaranty this issue will persist
- I.I.I. since 9/11 has been a leading authority on terrorism and related coverages
 - ◆ Very detailed content on TRIA available on iii.org
 - ◆ Staff expertise

Based on input from our members, the I.I.I. has developed a strategic plan to address the following:

1. Issues Management

- Defend the Industry when it comes under attack from organizations such as the Consumer Federation of America (CFA)
- Advance understanding on issues ranging from new technology and insurance, cyber risks, to the sharing economy

2. New Initiatives for 2016

- Millennial Outreach
- Business Insurance Education
- Confront “Disaster” Amnesia (hurricanes and earthquakes, in particular)
- Enhance Consumer Content on Life Insurance, Annuities and Retirement Saving

3. Ongoing or “Core” Communications

- Catastrophe Communications and Consumer Education
- Communicating about Insurance Industry Financials
- Framing the Public Debate (Media and Policymaker Education)

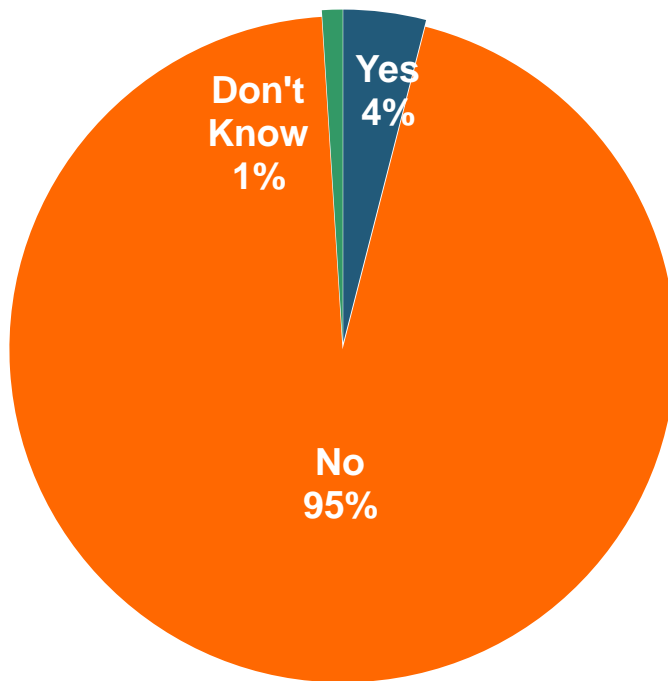
Attracting Millennials to Insurance Careers

- I.I.I. is a partner in the industry effort to attract Millennials to insurance careers
- Producing a video in first-half 2016
- New Academic Membership in I.I.I.; Guest lecturing at most schools in the US offering RMI coursework
- Polling: Perceptions of industry careers

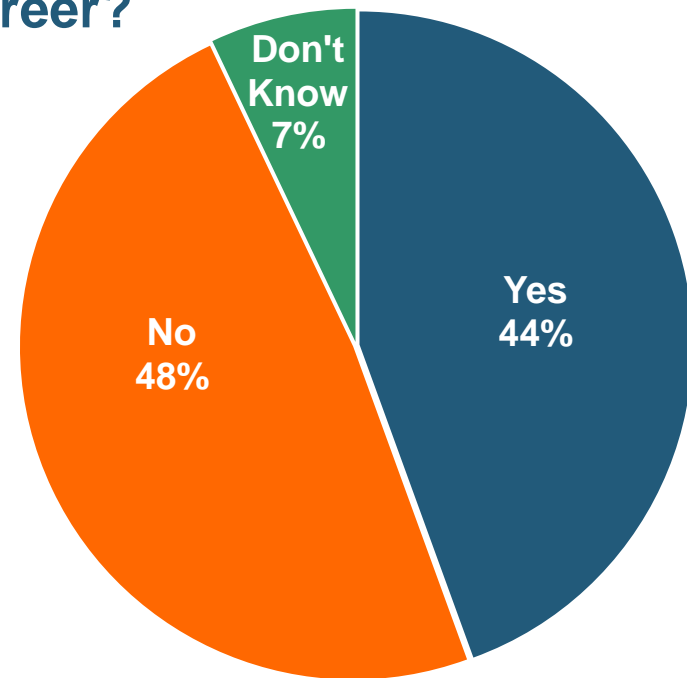


I.I.I. Poll: Insurance Careers

Q. Do you or anyone in your household work in insurance or a related field?



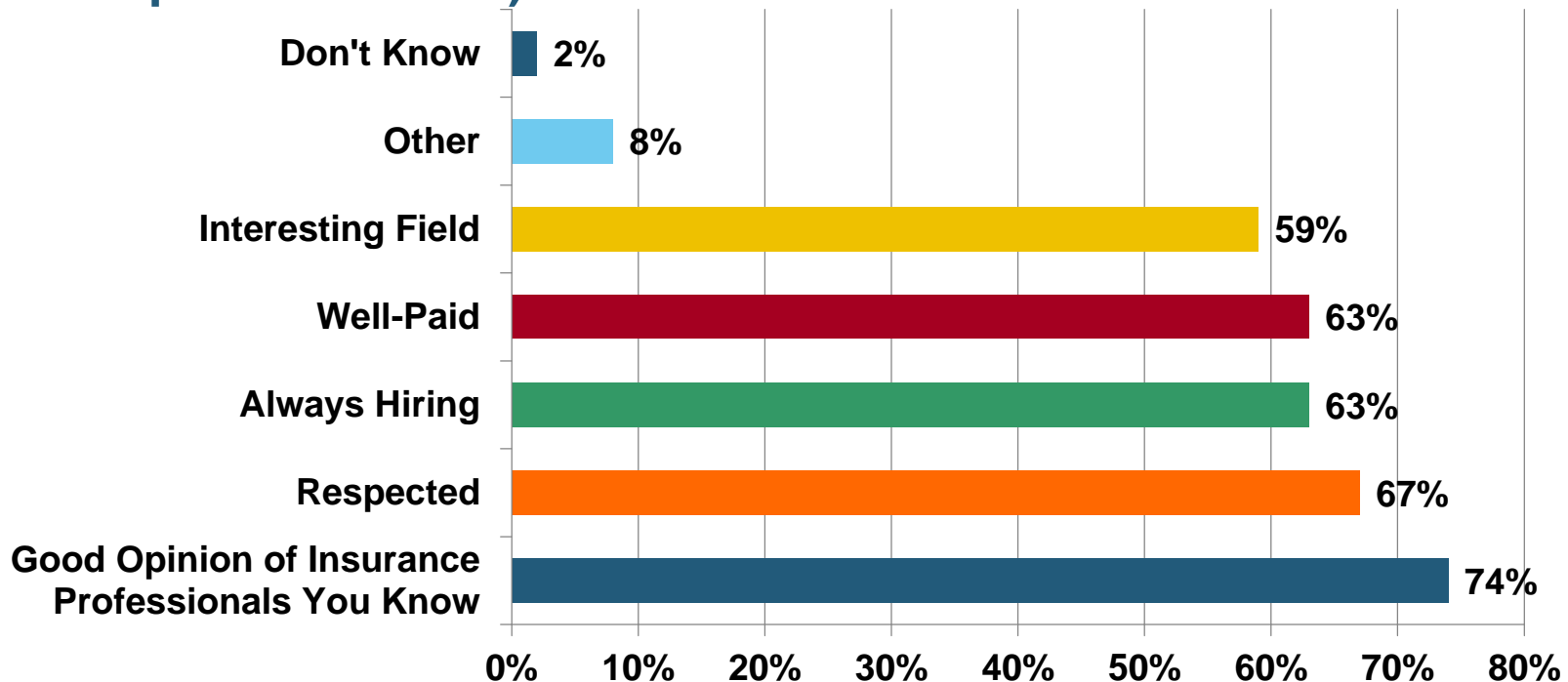
Q. Would you like to see [a friend or close relative] choose insurance as a career?



Few Households Have People Working in Insurance, But Many People Would Like to See a Friend or Relative Work in It.

I.I.I. Poll: Insurance Careers

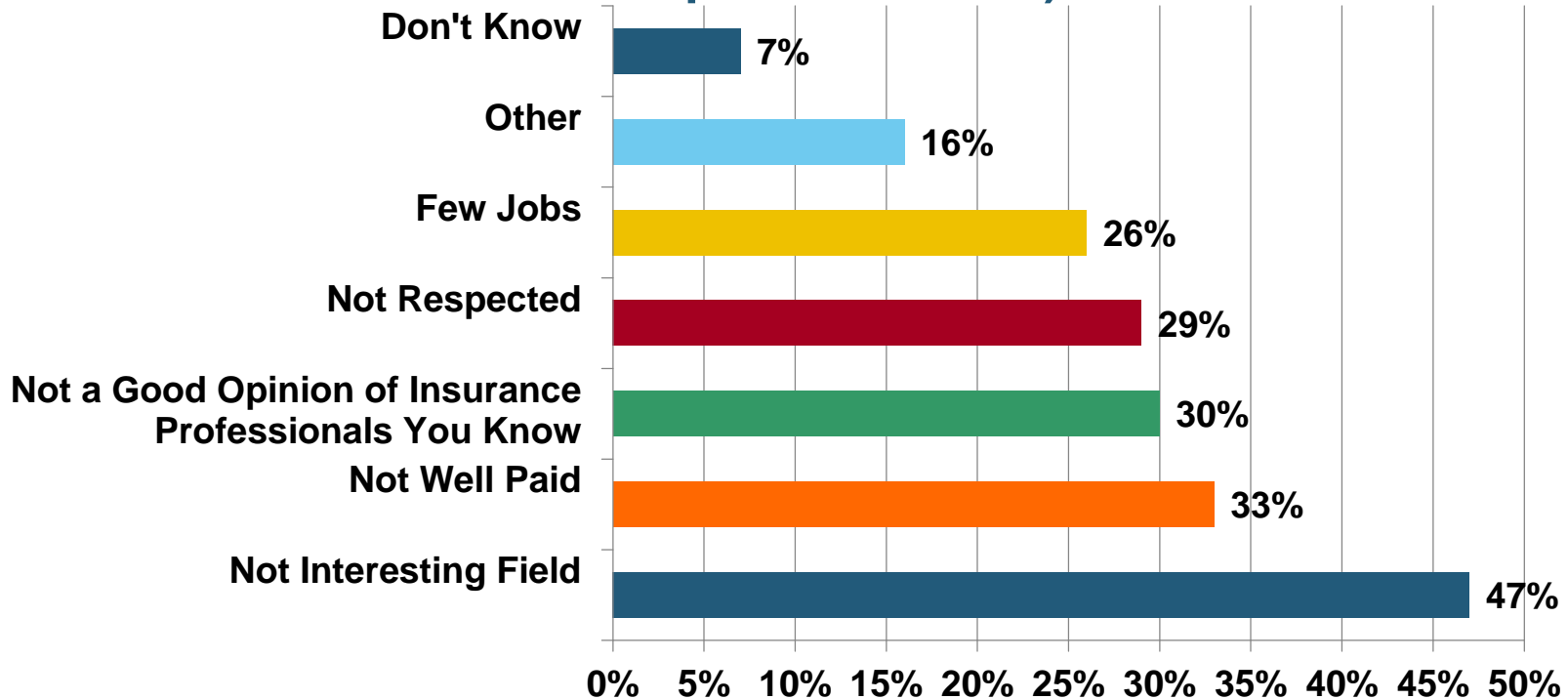
Q. Why would you like to see someone . . . choose insurance? (Asked of those who would like to see a person choose insurance. More than one response allowed)



Respondents Cited Issues of Respect and Esteem More Frequently Than Issues of Pay and Job Security.

I.I.I. Poll: Insurance Careers

**Q. Why would you NOT like to see someone . . . choose insurance?
(Asked of those who would NOT like to see a person choose insurance. More than one response allowed)**



Those Who Would Not Recommend Insurance Say It Is Not Interesting.

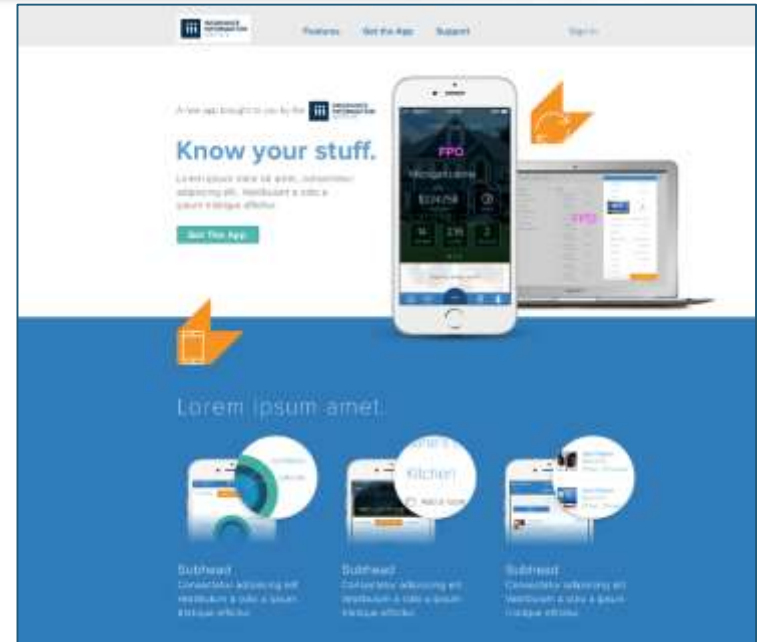
■ Know Your Stuff® - Home Inventory Tool



- ◆ Simplified, intuitive user experience
- ◆ Built in insurance tips
- ◆ Improved reporting
- ◆ Regional alerts

■ Responsive Website

- ◆ Will provide an optimal viewing and interaction experience across a wide range of devices: Desktop => tablet => smart phone



New Technology Partnerships

■ IBM Watson

- ◆ Insurance basics and glossary for use in cognitive technology applications

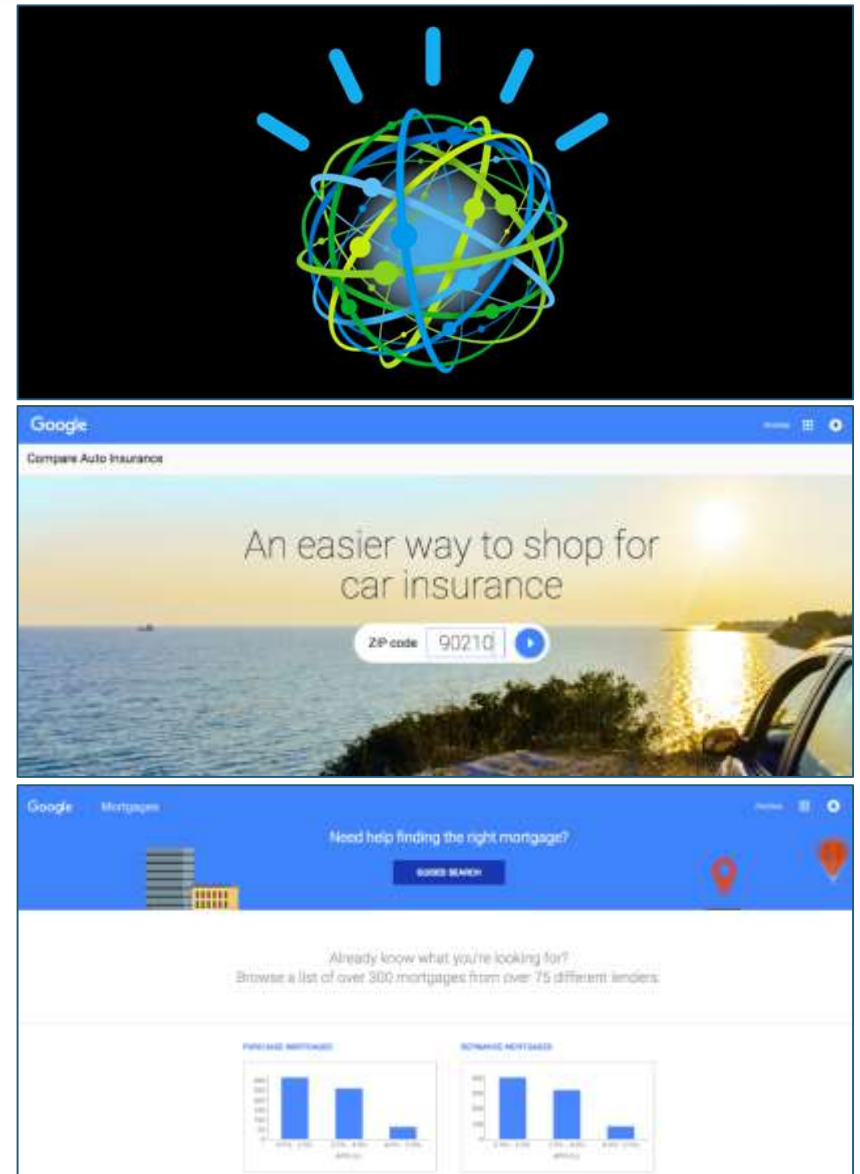
[Watson = a technology platform that uses natural language processing and machine learning to reveal insights from large amounts of unstructured data]

■ Google Compare

- ◆ Auto insurance guides to help users make smart, informed coverage choices

■ In discussions: Google's new mortgage quote tool

- ◆ Homeowners insurance guides



The image shows a screenshot of the Google Compare website. At the top, there is a blue header with the Google logo and navigation icons. Below the header, the main content area is divided into two sections. The top section is for 'Compare Auto Insurance' and features a large image of a sunset over the ocean. The text reads 'An easier way to shop for car insurance' and includes a search bar with the ZIP code '90210' and a play button icon. The bottom section is for 'Mortgages' and features a blue header with the text 'Need help finding the right mortgage?' and a 'BOOK SEARCH' button. Below this, there is a section titled 'Already know what you're looking for?' with the text 'Browse a list of over 300 mortgages from over 75 different lenders'. At the bottom, there are two bar charts: 'PURCHASE MORTGAGES' and 'REFINANCE MORTGAGES', each showing data for '2014-2015' and '2015-2016'.

SXSW INTERACTIVE 2016 PANEL

Moderator:

- ◆ Dr. Robert Hartwig

Panelists:

- ◆ Mikko Hypponen, Chief Research Officer, F-Secure Viruslab
- ◆ Jonathan Matus, CEO, Zendrive



The screenshot shows the SXSW SCHEDULE website. At the top, there is a navigation bar with the SXSW logo, the word "SCHEDULE", and buttons for "My Schedule" and "Search our events...". Below this, the event title "Hacking Your Ride: Transportation Safety and Risk" is displayed. A grey box indicates that "Date, Time, and Venue information will be available January 2016". To the right of this box are social media sharing options for Facebook (15 likes) and Twitter. The main content area contains a paragraph of text: "In April of 2015 a security researcher claimed in a tweet that he had been able to take control of an aircraft in mid-flight, setting off shockwaves in the industry. Cars too may be vulnerable to cyberattack, according to a congressional report citing 'a lack of appropriate security measures to protect drivers against hackers who may be able to take control of a vehicle.' As technology advances, so do system vulnerabilities in transportation. Cars, trucks, planes, trains, even ships are potentially hackable. What are the risks to public safety, who will be held liable and how can government and private business work together to prepare for and protect against those risks?". Below the text is a "Hashtags" section with the tags "#sxsxw" and "#RiskyRide".

Pulse Survey: January 2016

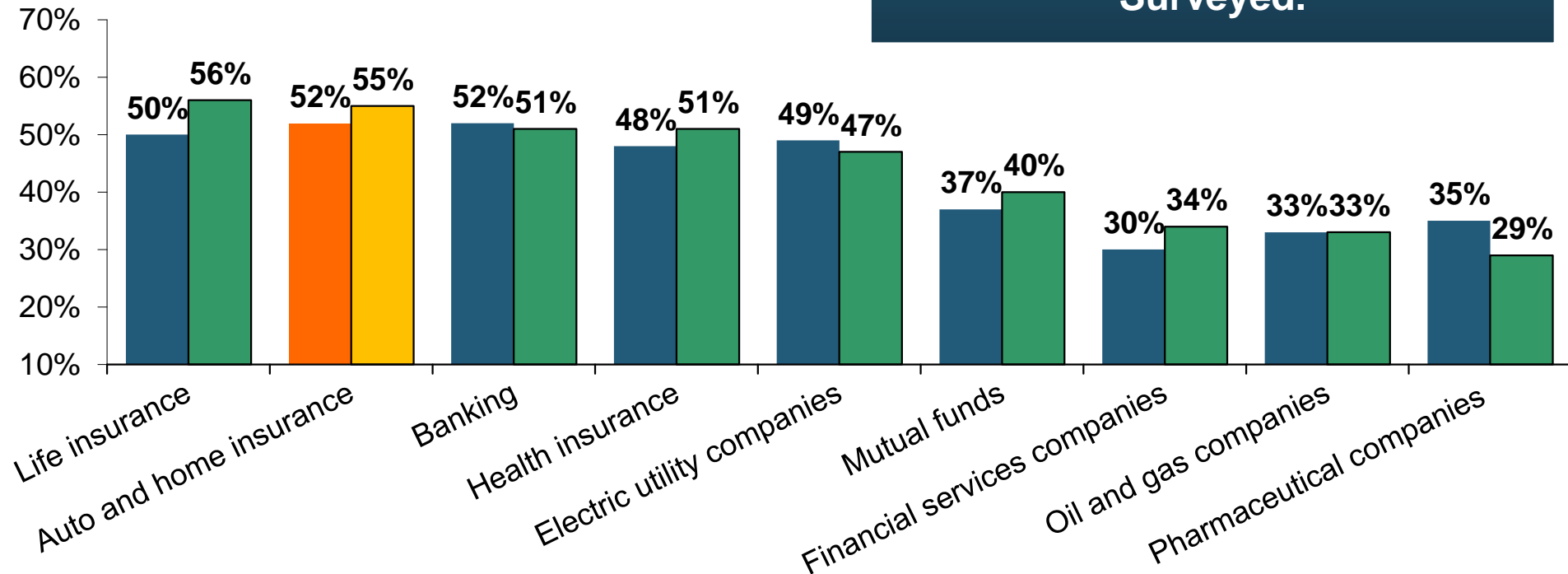
I.I.I. Survey: Insurance Favorability Remains Higher Than Other Industries

- *Most Americans Believe They Would Need Insurance If They Owned a Driverless Auto*
- *Nearly Seven out of 10 Policyholders Compared Auto Insurance Prices at Renewal*

I.I.I. Poll: Favorability

Percent of Public Rating Industry as Very or Mostly Favorable, 2014-2015

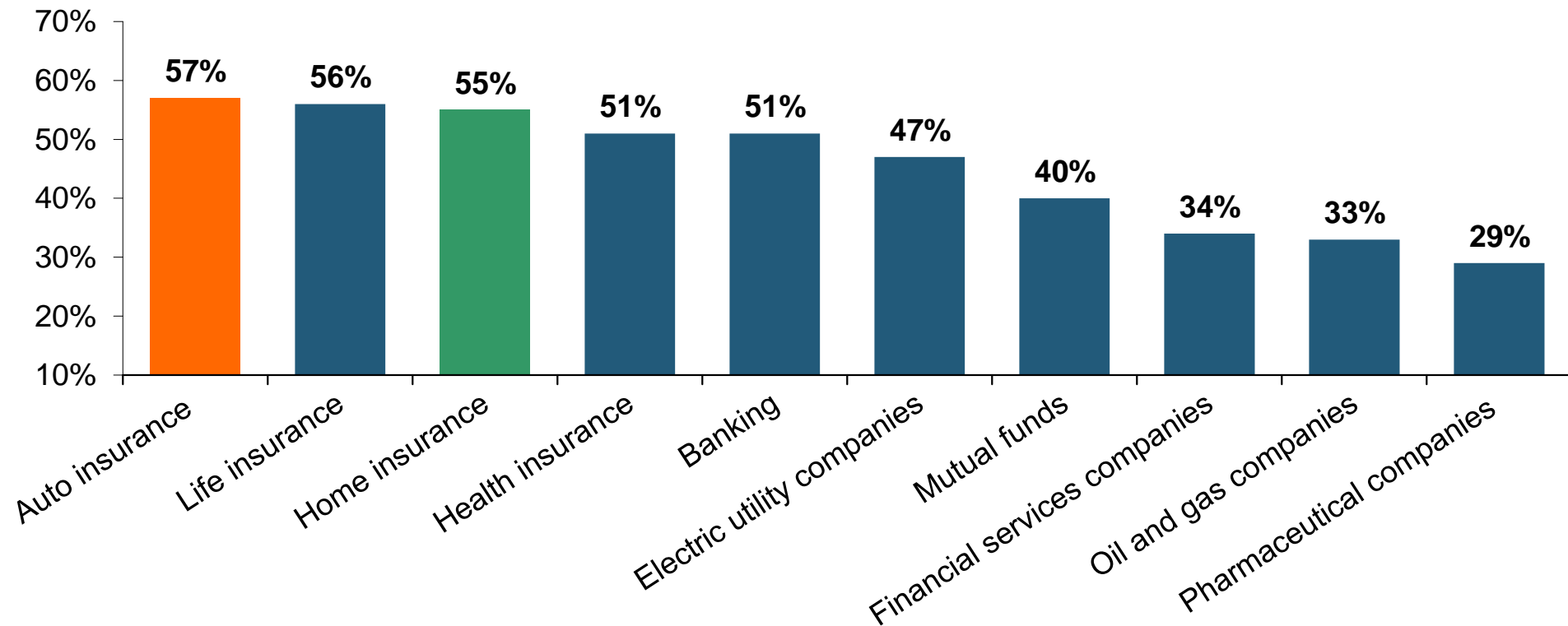
Life Insurers Claimed the Top Spot of All Individual Industries Surveyed.



Life Insurance Rose Six Points From A Year Ago. Pharmaceutical Companies Dipped.

I.I.I. Poll: Favorability

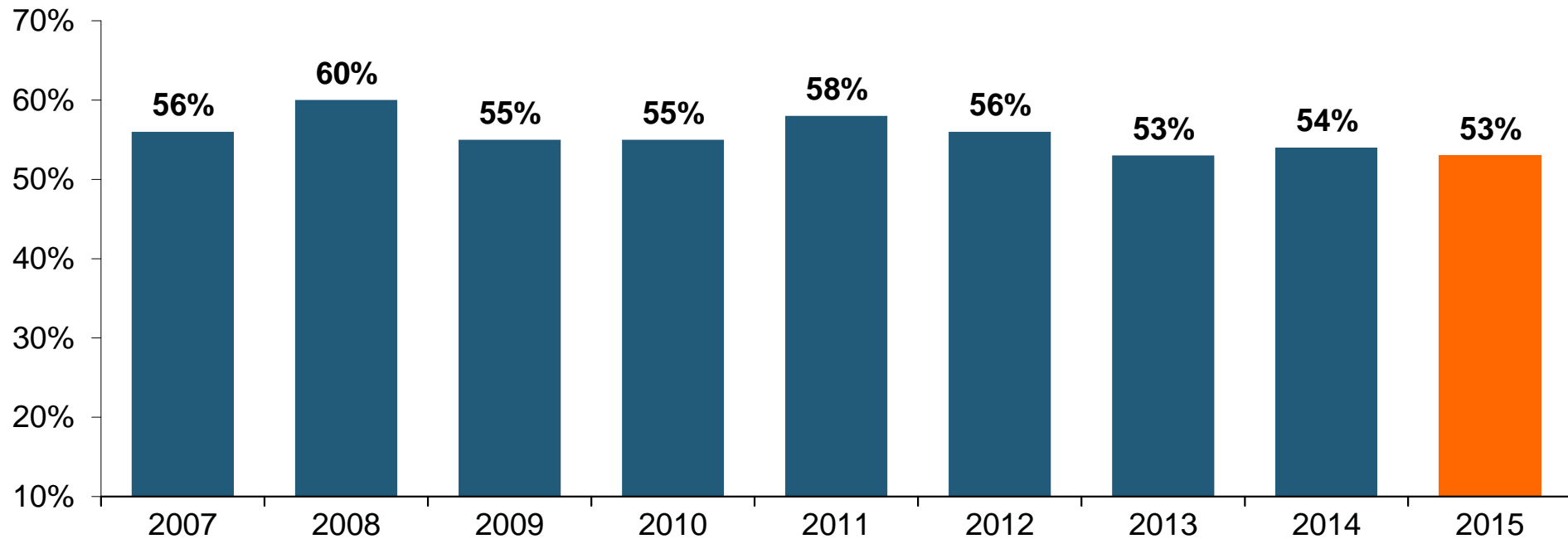
Percent of Public Rating Industry as Very or Mostly Favorable, November 2015



**Viewed Separately, Auto Insurers Ranked Highest of All Industries.
Home Insurers Were Third.**

I.I.I. Poll: Financial Burden

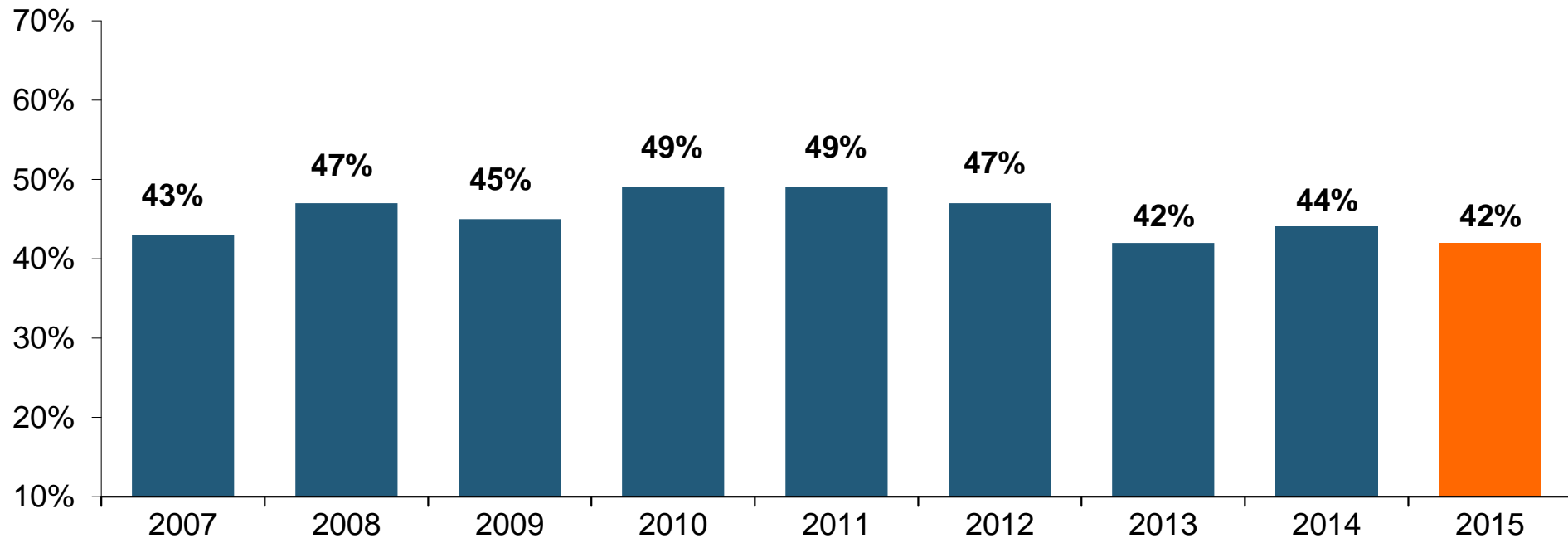
Auto Insurance As A Total Financial Burden, 2007-2015



Percentage of People Who Say Auto Insurance Is A Financial Burden Stayed Approximately the Same.

I.I.I. Poll: Financial Burden

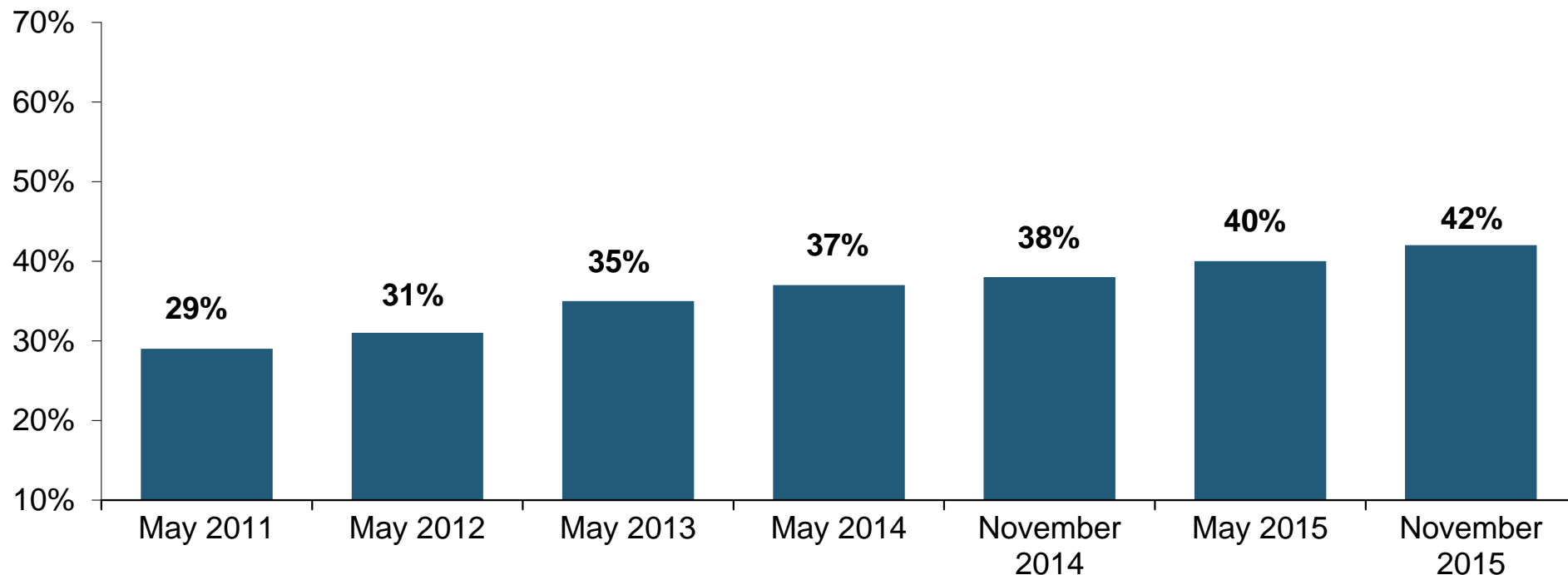
Homeowners Insurance As A Total Financial Burden, 2007-2015



Percentage Of People Who Say Homeowners Insurance Is A Financial Burden Fell Slightly.

I.I.I. Poll: Renters Insurance

Percentage of Renters Who Have Renters Insurance, 2011-2015

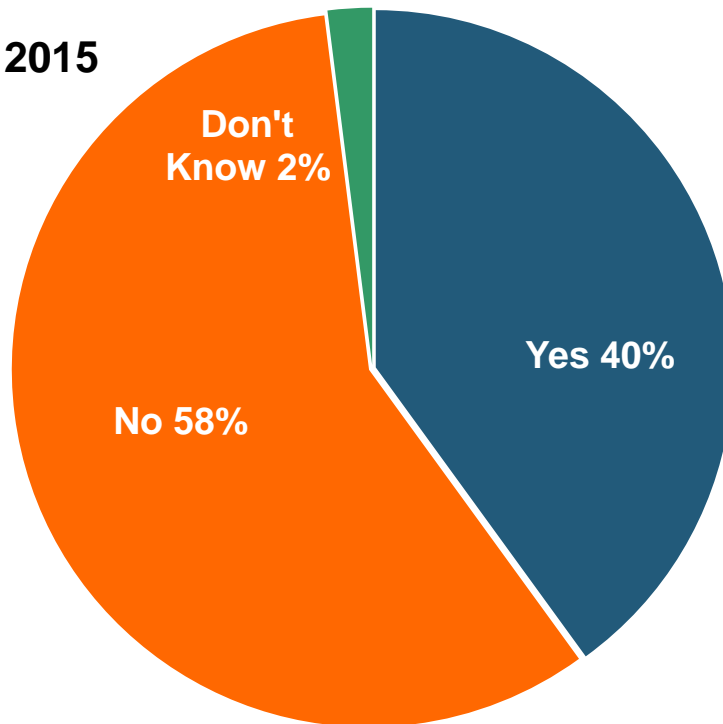


Percentage Of Renters With Renters Insurance Continues to Increase.

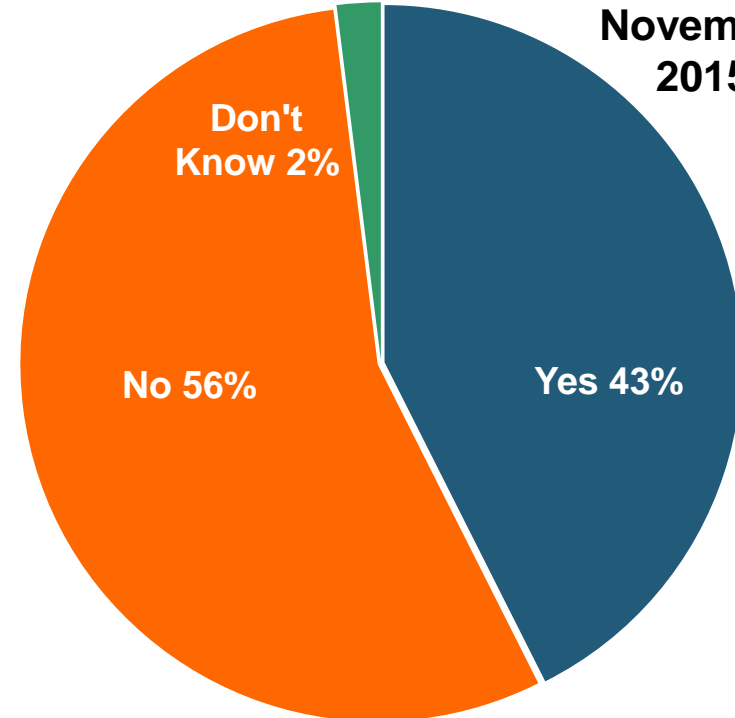
I.I.I. Poll: Auto Insurance

Q. Would you be willing to ride in a driverless car?

May 2015



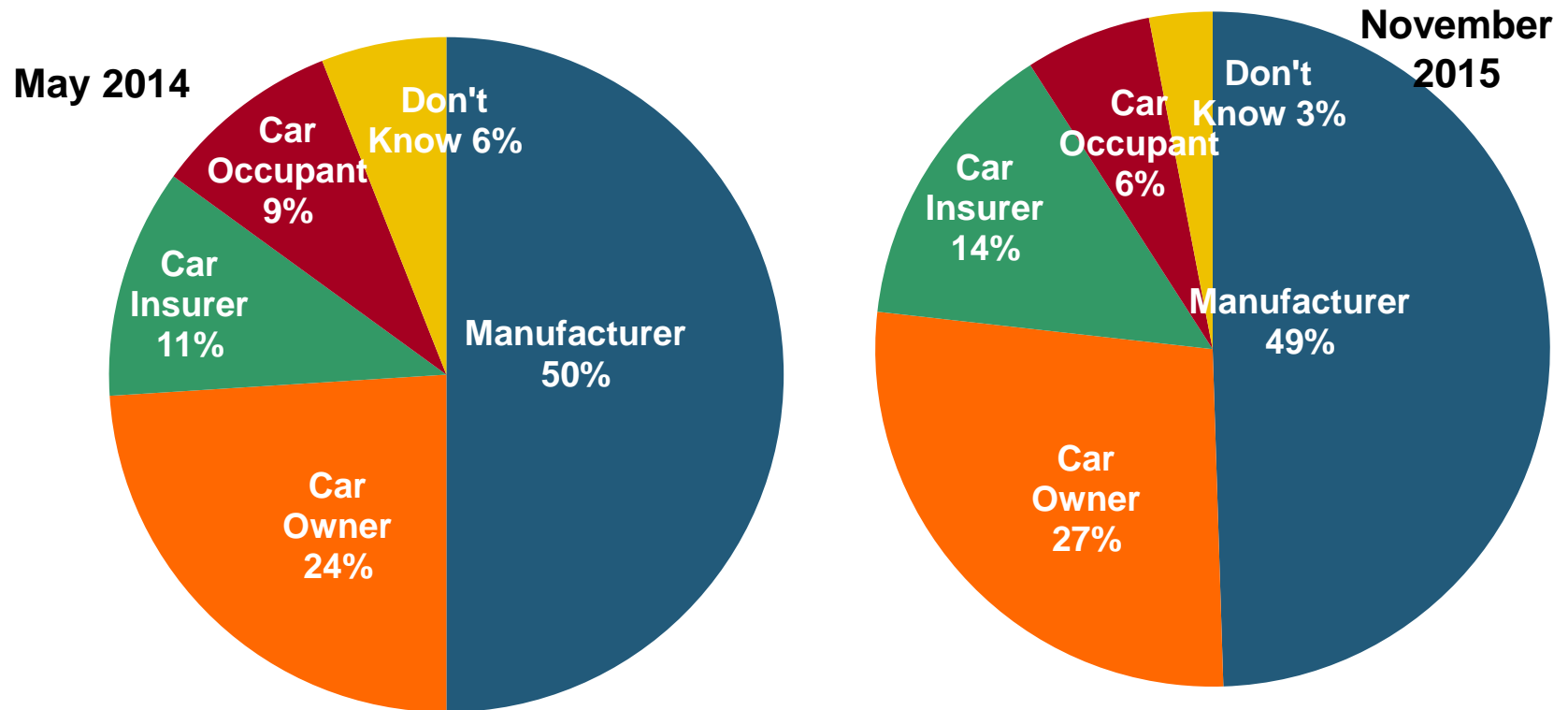
November
2015



The Percentage Willing to Ride in a Driverless Car Rose Slightly. 69 Percent of People Over 64 Were Unwilling to Ride.

I.I.I. Poll: Auto Insurance

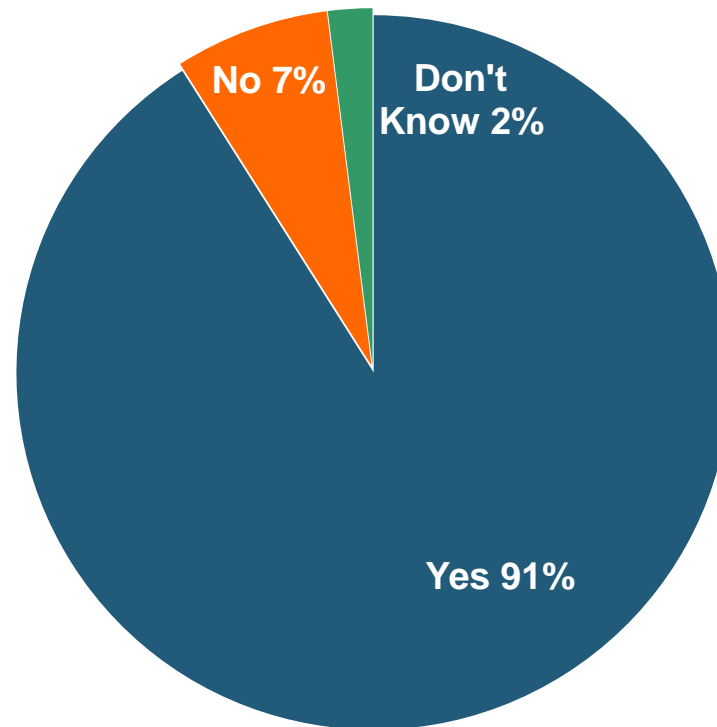
Q. Who should be responsible if a driverless car crashed?



About Half of Respondents Say Manufacturer of Driverless Car Should Be Responsible for Crashes.

I.I.I. Poll: Auto Insurance

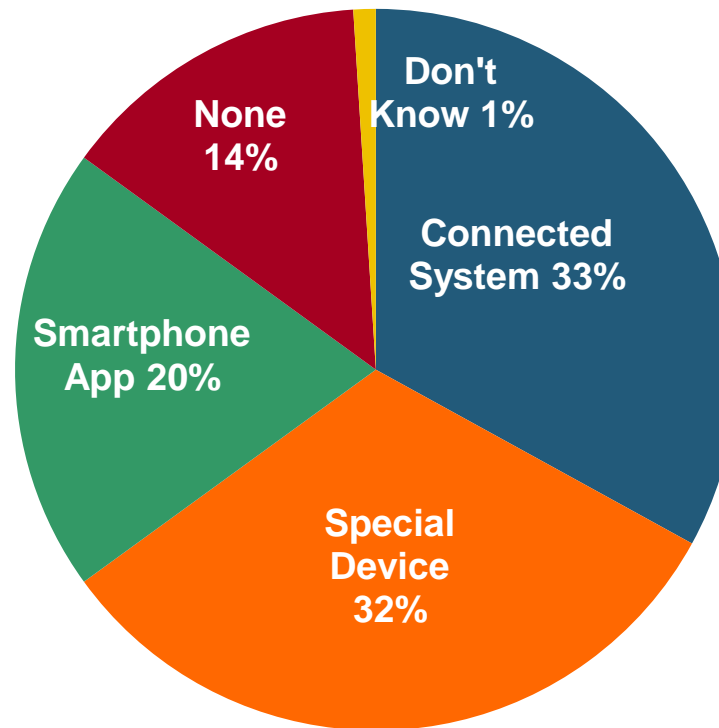
Q. If you owned a driverless car, would you need auto insurance?



The Vast Majority of Americans Know They Would Still Need Auto Insurance.

I.I.I. Poll: Auto Insurance

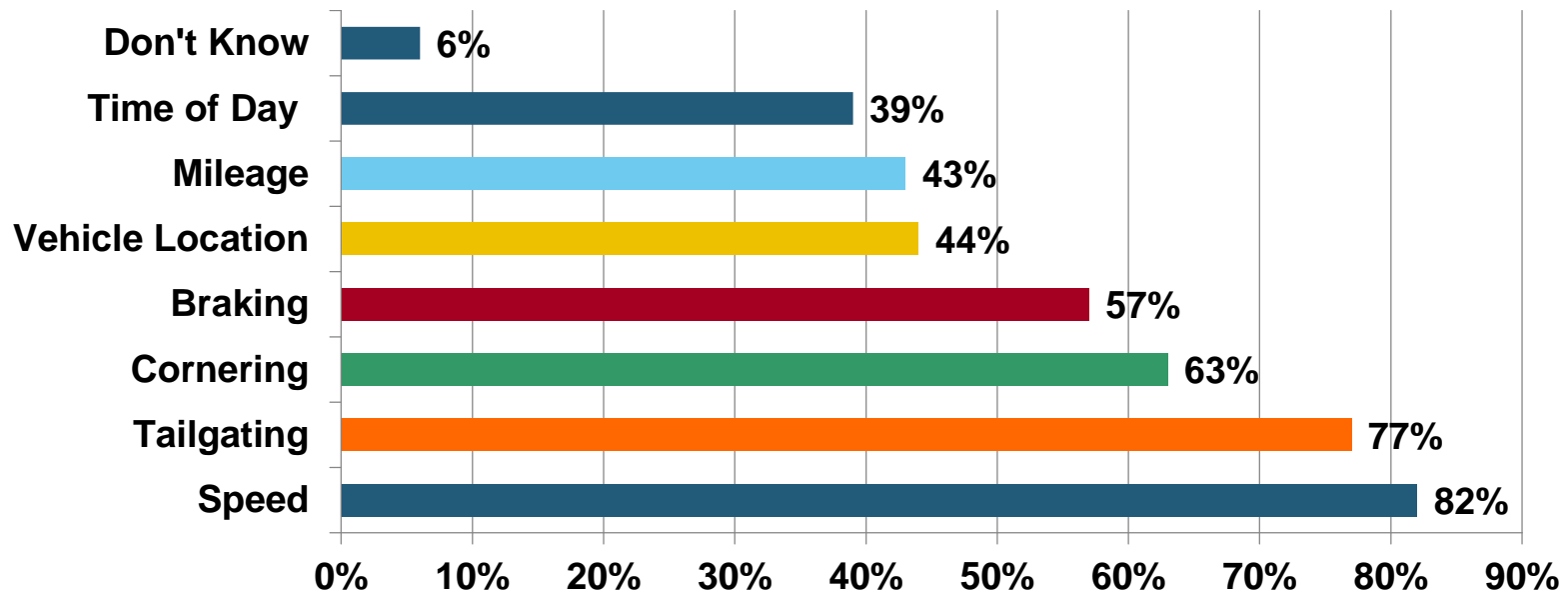
Q. Which method of monitoring would you prefer for usage based insurance? (asked of those who have auto insurance)



Respondents Were Divided Between Connected System (OnStar) and Special Device (Dongle). 34 Percent of 18- to 34-Year-Olds Preferred Smartphone App.

I.I.I. Poll: Auto Insurance

Q. What driving habits do you think usage based insurance should measure? (More than one response allowed, asked of those who have auto insurance)

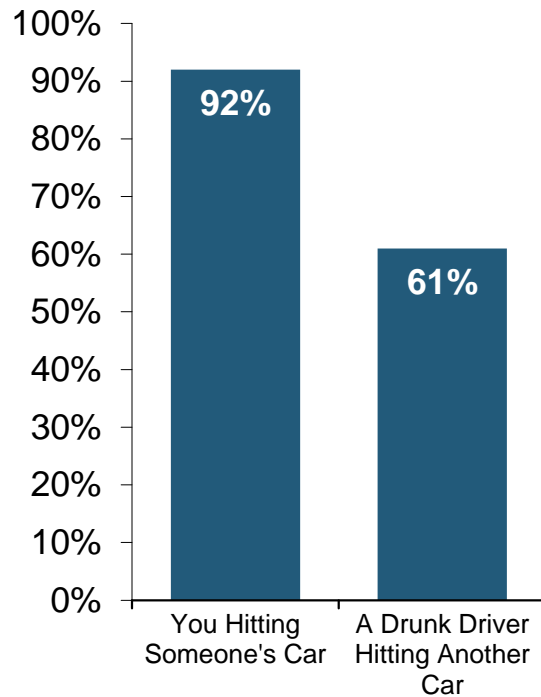


Respondents Were More Receptive to Monitoring Driving Behavior (e.g. Speeding) Than Non-Driving Data (Location, Time of Day).

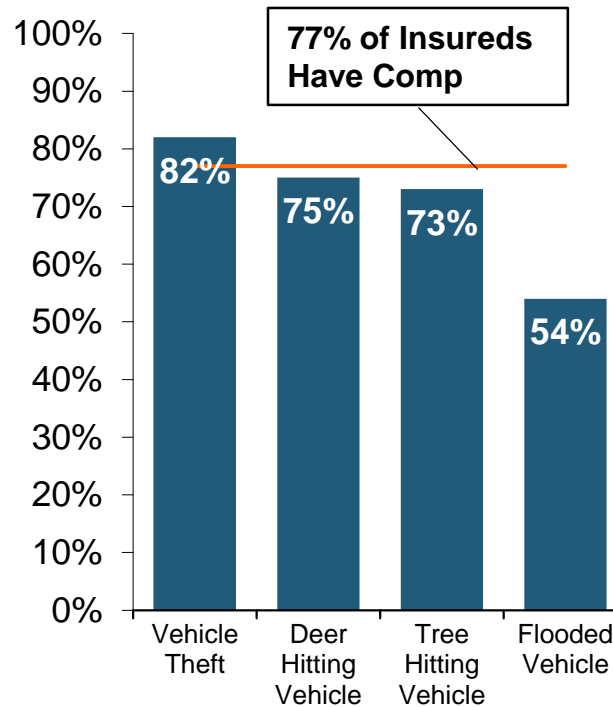
I.I.I. Poll: Auto Insurance

Q. Does your auto insurance cover ... ? (Asked of those with auto insurance)

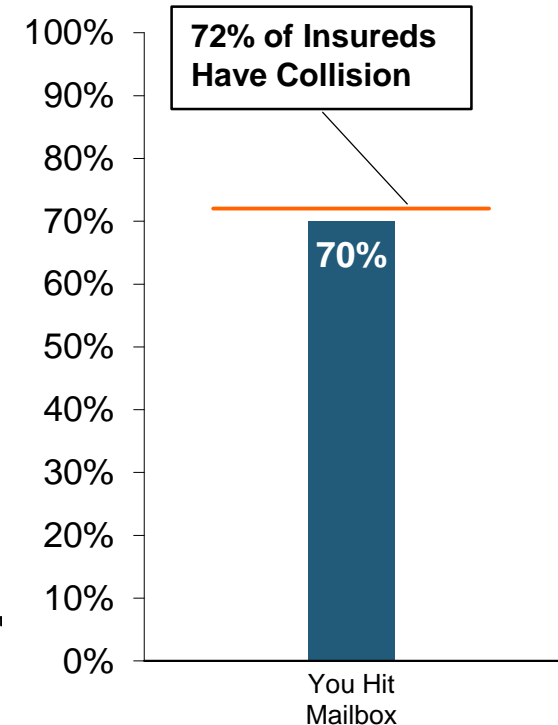
Liability Answers



Comp Answers



Collision Answer

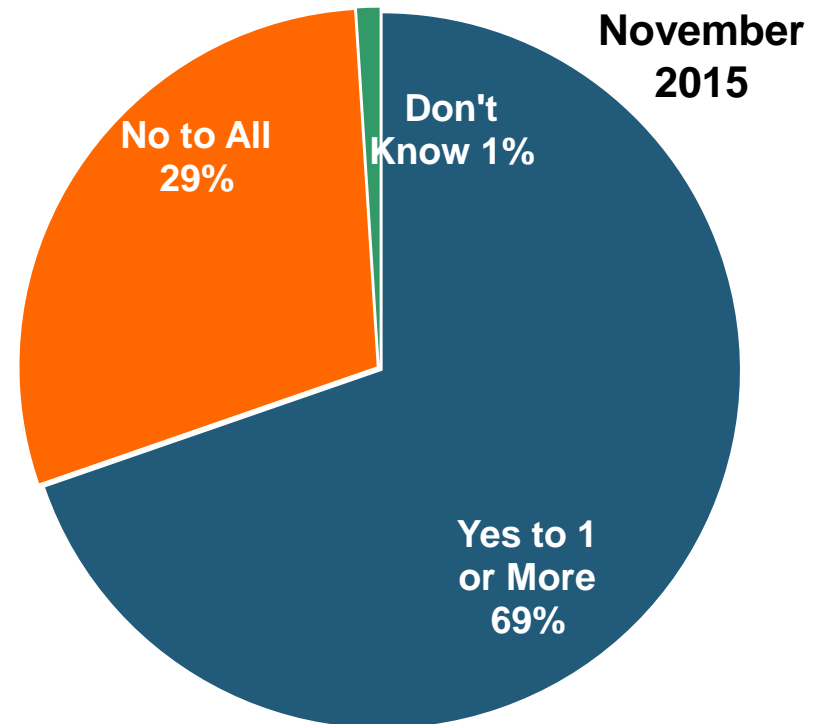
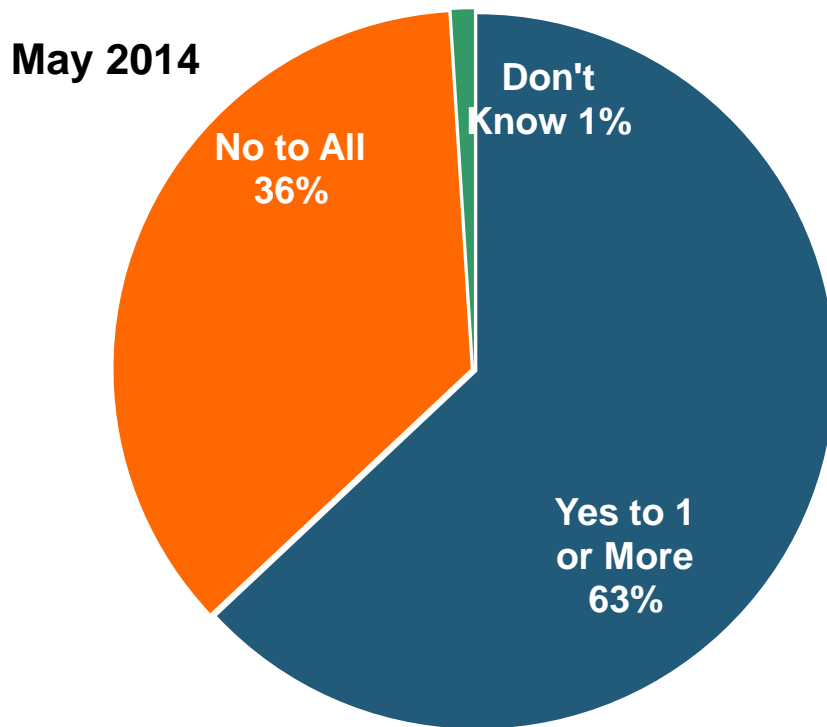


Consumers Appear Knowledgeable About Coverage Issues (Except Liability Coverage of Drunk Driver, Comp Coverage of Flooded Vehicle).

Source: Insurance Information Institute Annual *Pulse* Survey; Insurance Information Institute estimates of Comprehensive and Collision Takeup Rates Based on NAIC Data for 2012.

I.I.I. Poll: Shopping for Insurance

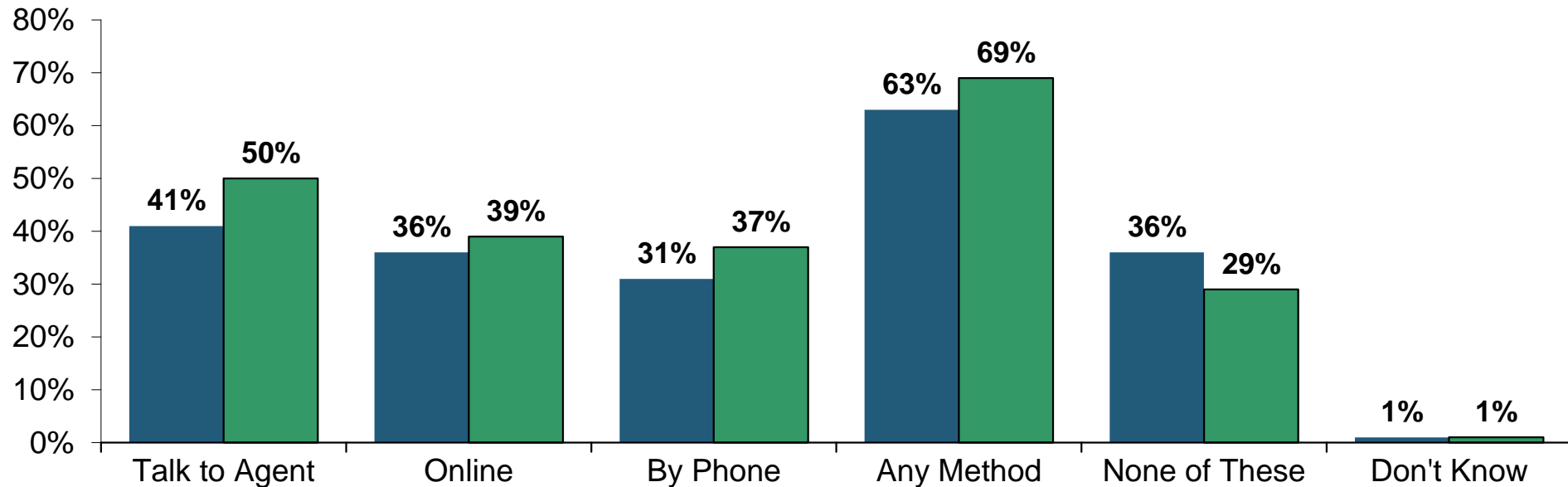
Q. Did you compare prices at renewal in any of the following ways (several listed)?



The Percentage That Compared Prices on Renewal Rose.

I.I.I. Poll: Shopping for Insurance

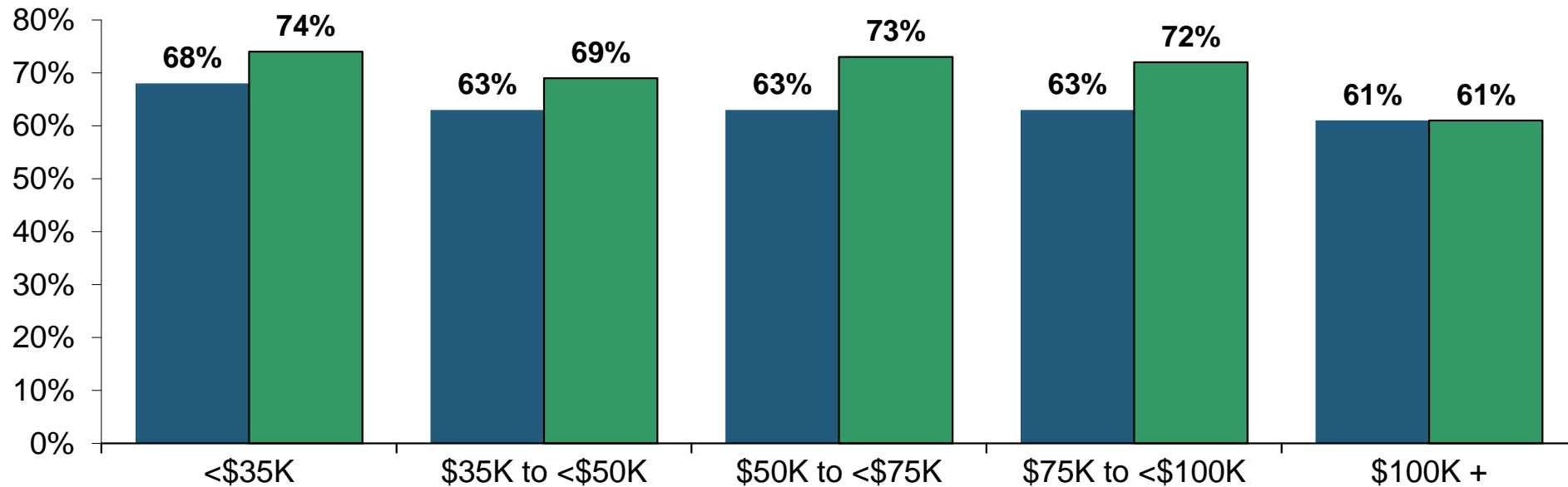
Percent of Those With Auto Insurance Who Said They Used Each Method to Compare Prices on Renewal, 2014-2015



Every Method of Shopping Was Cited More Often Than in Previous Survey.

I.I.I. Poll: Shopping for Insurance

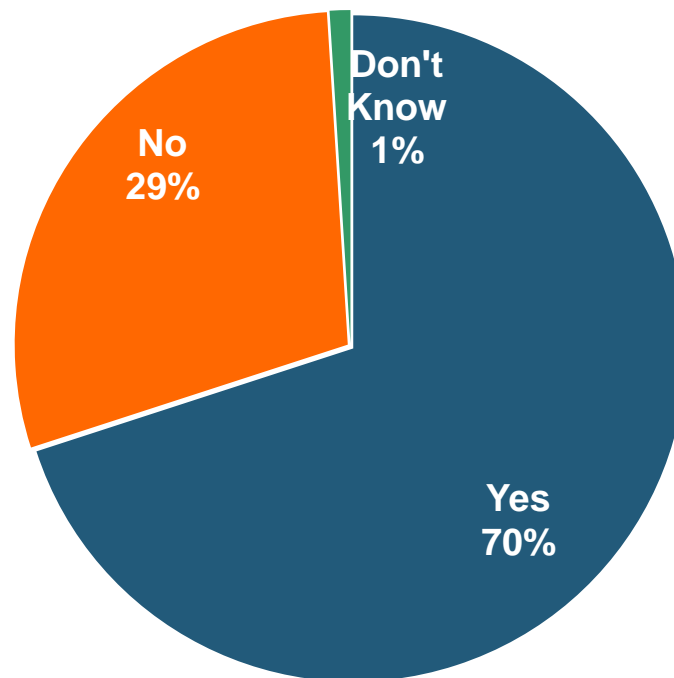
Percent of Those With Auto Insurance Who Said They Compared Prices on Renewal, by Income, 2014-2015



Low- to Moderate-Income Respondents Were More Likely to Say They Compare Prices.

I.I.I. Poll: Policies Online

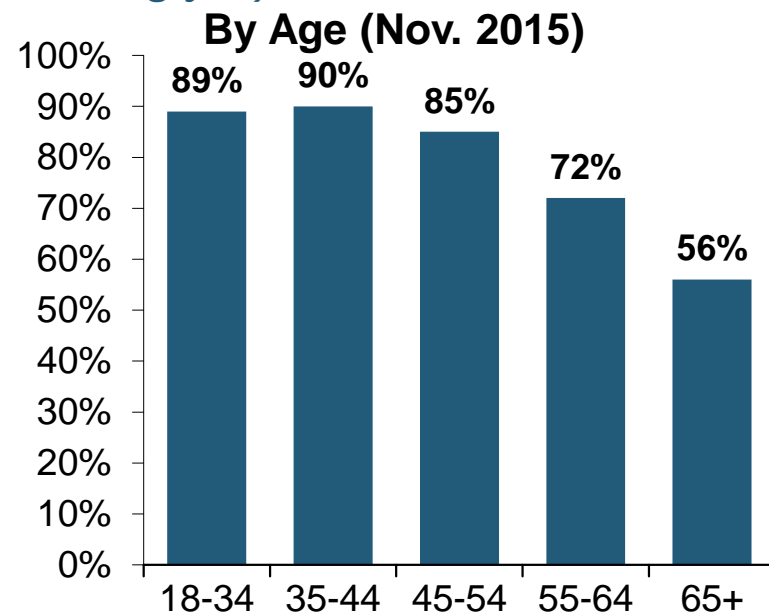
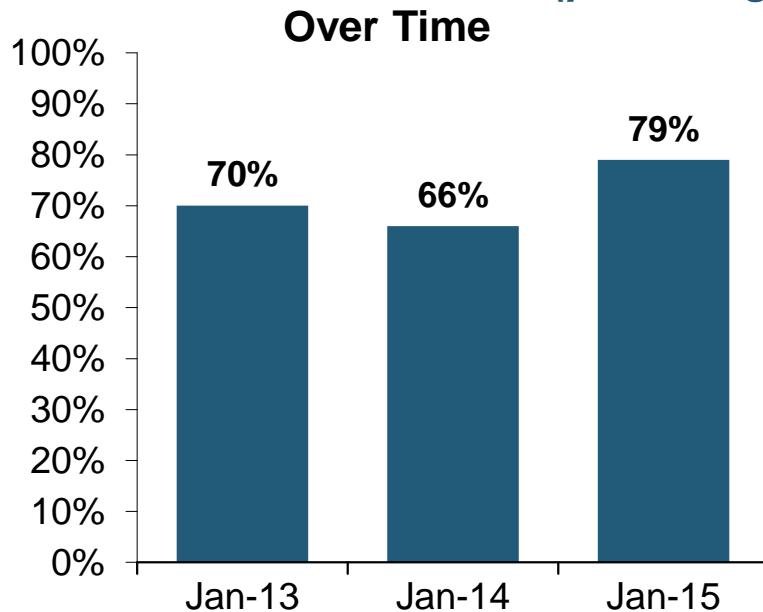
Q. Would you like to be able to view your auto, HO or renters policy online?



Most Insured Respondents Were Receptive to Viewing Policies Online, Including 89 Percent of Those 18 to 34 Years Old.

Q. When shopping for a policy, would you like to view all policies available to you on a single website?

(percentage answering yes)



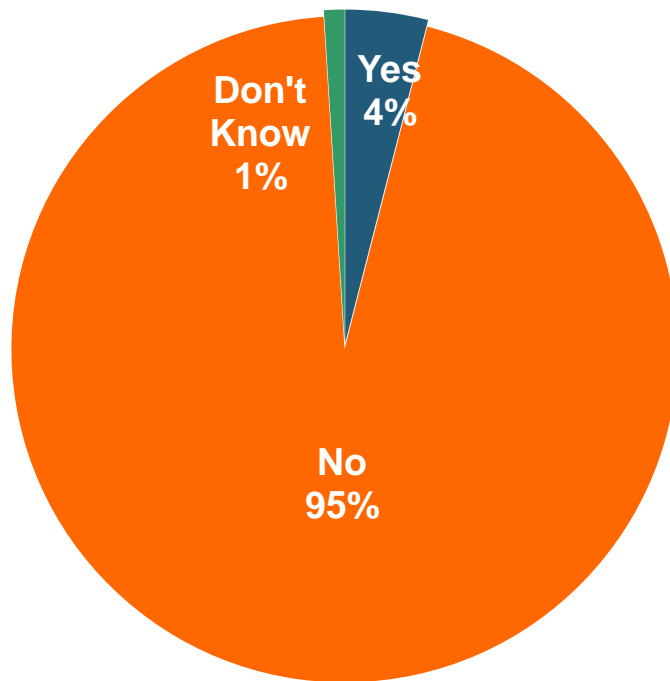
**Interest in Viewing Policies Online Has Increased Over Time,
Decreases With Age.**

Asked of those who had auto or homeowners insurance in 2013 and 2014. Asked of those who had auto, homeowners or renters insurance in 2015.

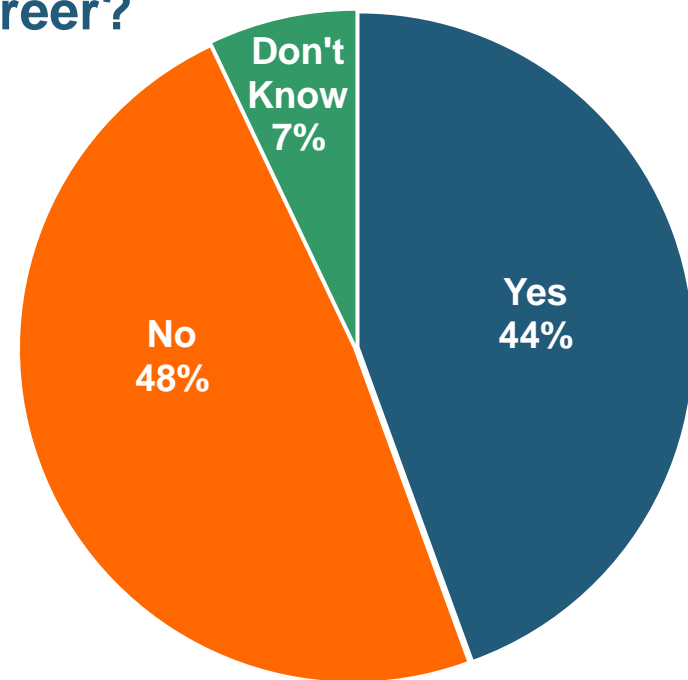
Source: Insurance Information Institute Annual *Pulse* Survey.

I.I.I. Poll: Insurance Careers

Q. Do you or anyone in your household work in insurance or a related field?



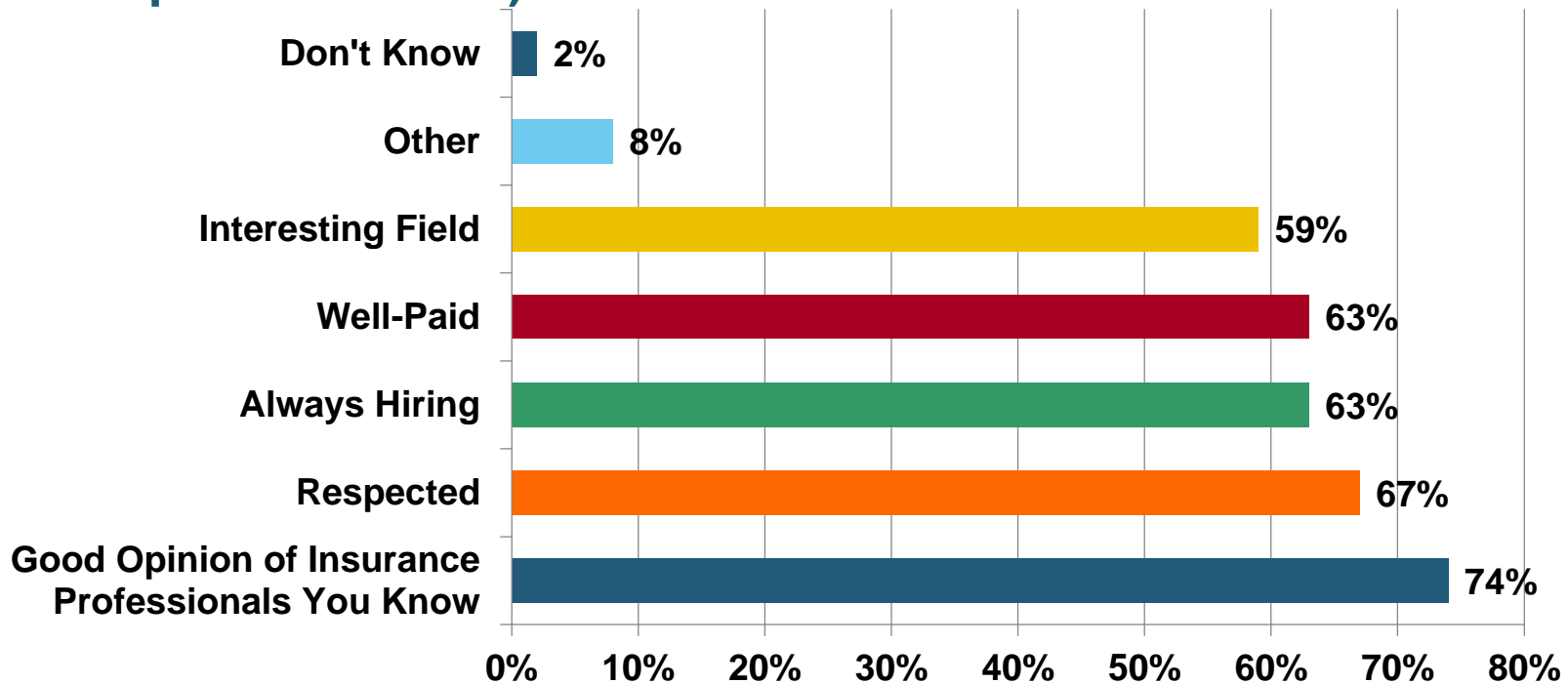
Q. Would you like to see [a friend or close relative] choose insurance as a career?



Few Households Have People Working in Insurance, But Many People Would Like to See a Friend or Relative Work in It.

I.I.I. Poll: Insurance Careers

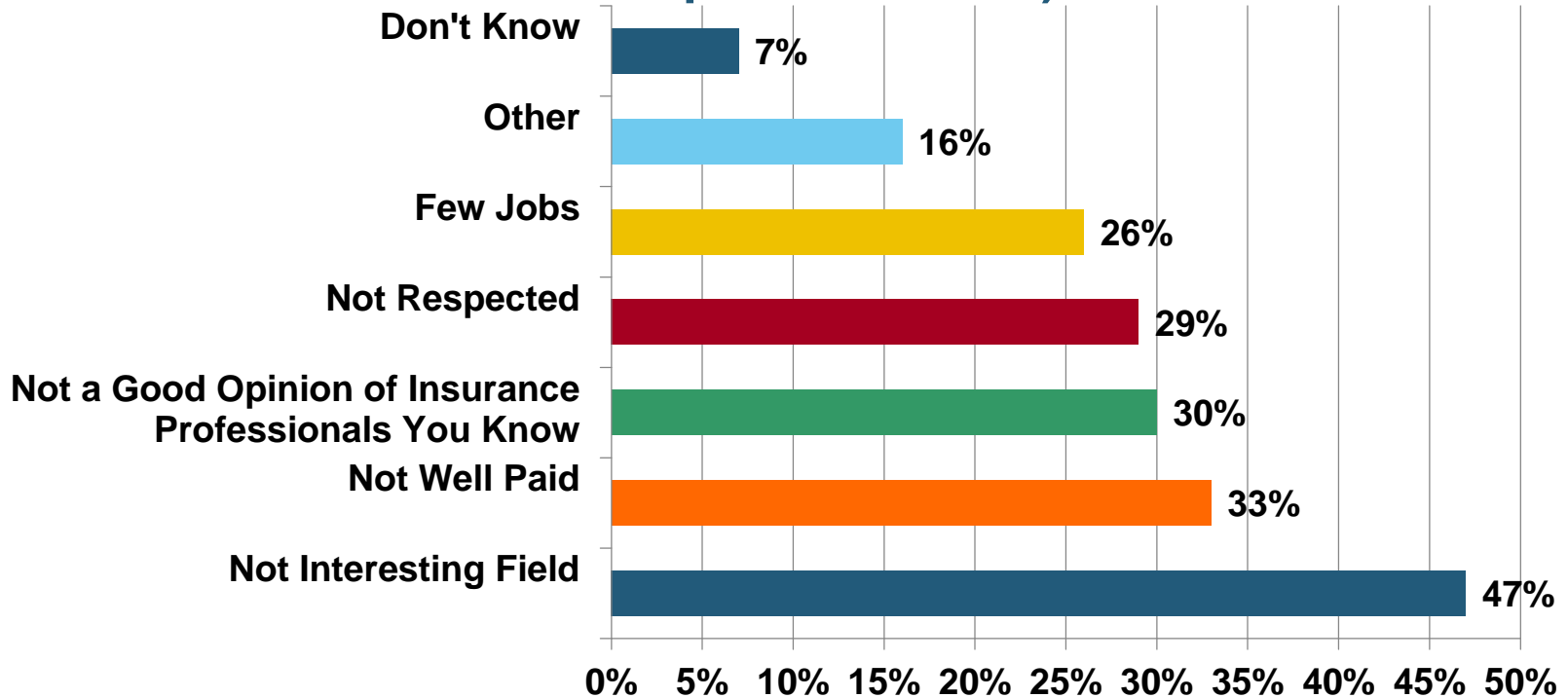
Q. Why would you like to see someone . . . choose insurance? (Asked of those who would like to see a person choose insurance. More than one response allowed)



Respondents Cited Issues of Respect and Esteem More Frequently Than Issues of Pay and Job Security.

I.I.I. Poll: Insurance Careers

**Q. Why would you NOT like to see someone . . . choose insurance?
(Asked of those who would NOT like to see a person choose insurance. More than one response allowed)**



Those Who Would Not Recommend Insurance Say It Is Not Interesting.

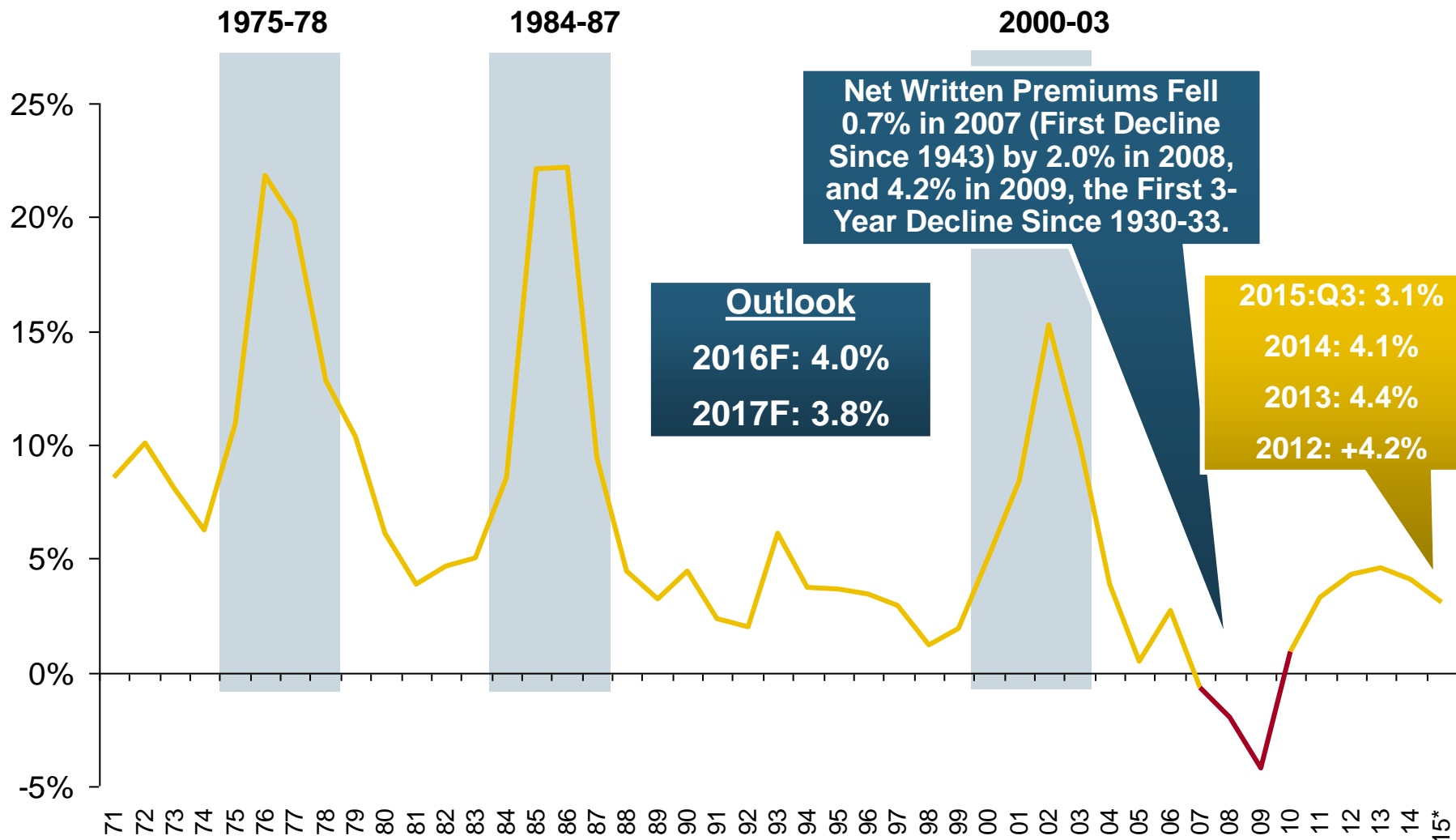


P/C Insurance Industry Financial Overview

Steven Weisbart, Ph.D., CLU, Chief Economist

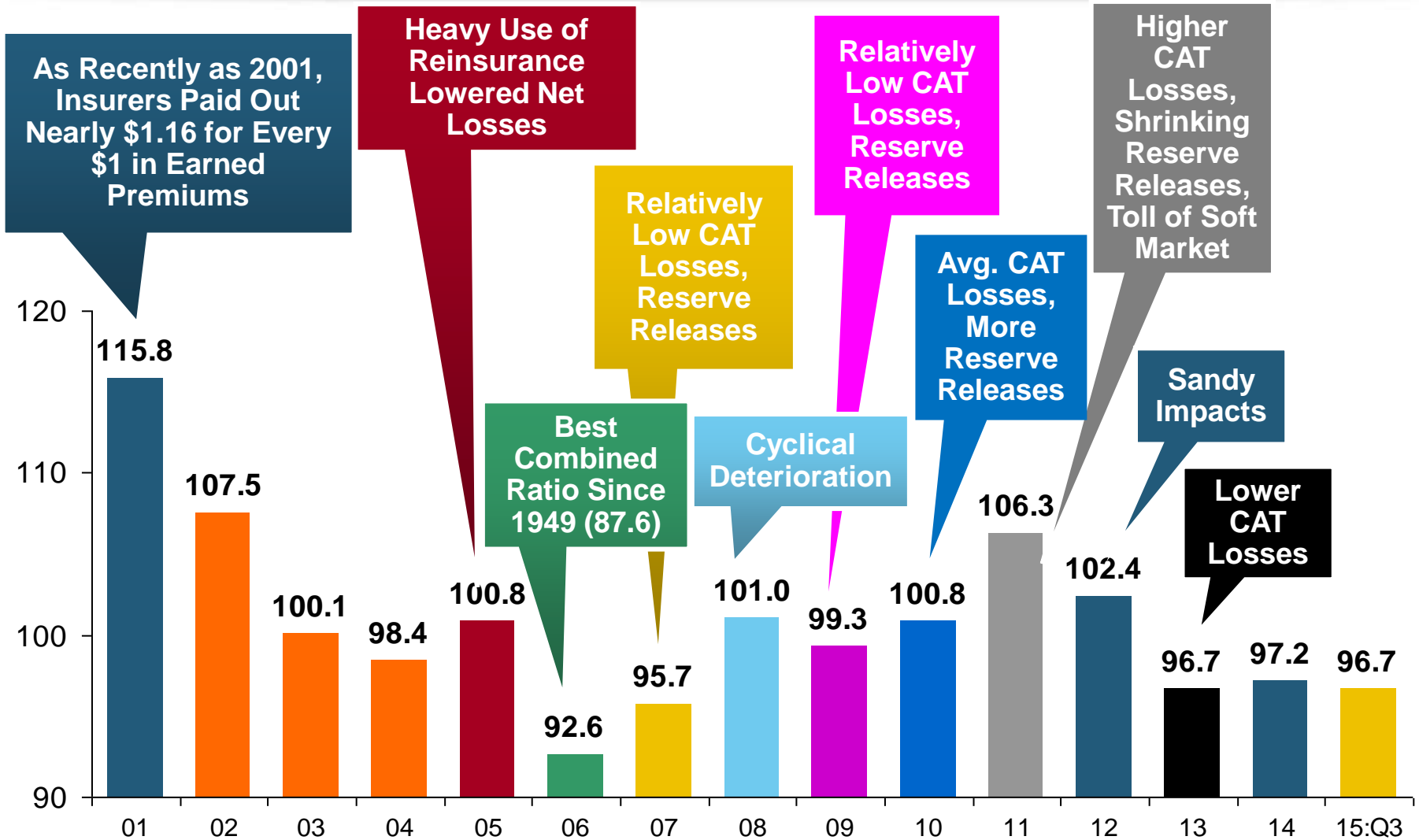
Net Premium Growth (All P/C Lines): Annual Change, 1971–2015:Q3P

(Percent)



Shaded areas denote "hard market" periods.
Sources: A.M. Best (1971-2013), ISO (2014-15).

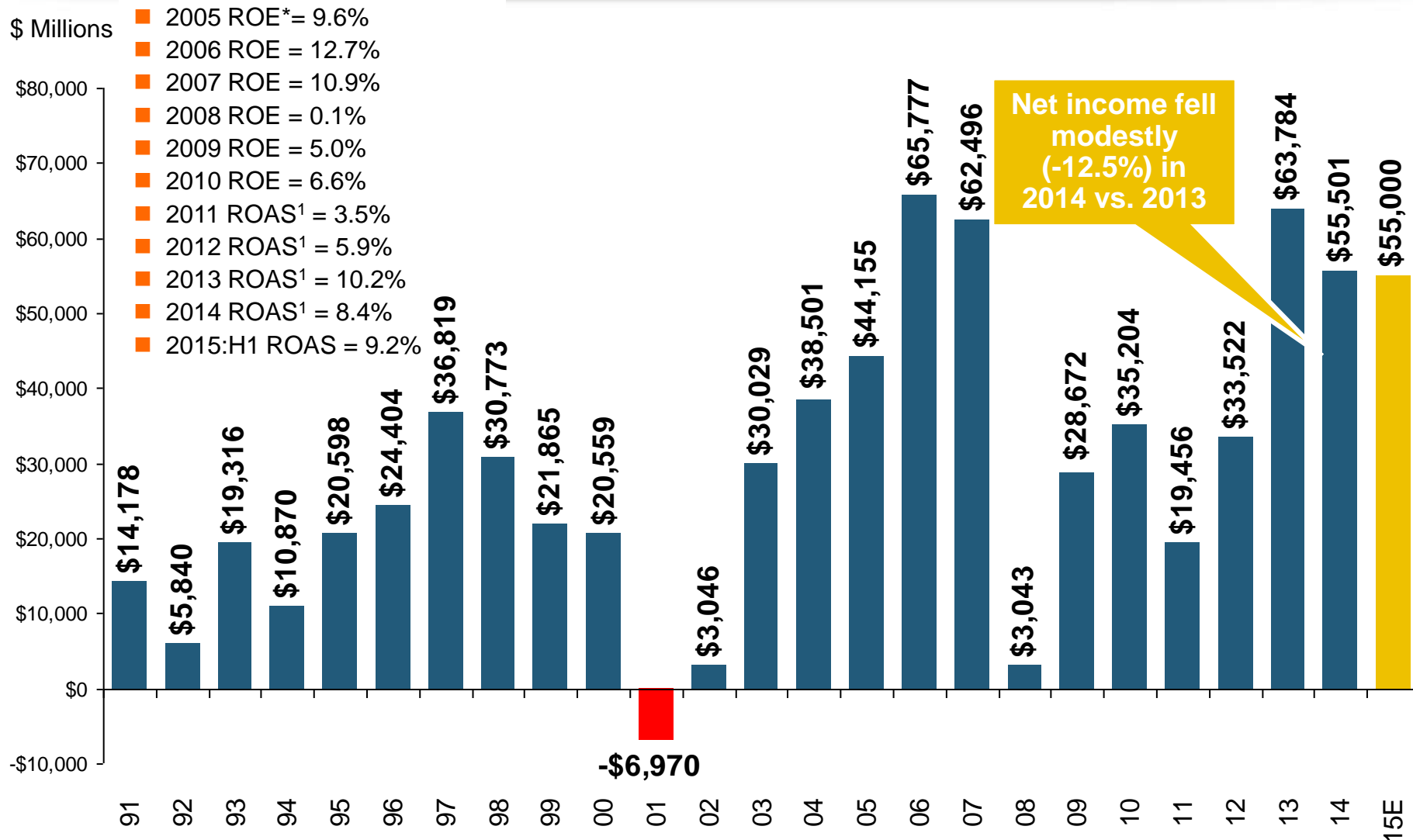
P/C Insurance Industry Combined Ratio, 2001–2015:Q3 (Est.)*



* 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.

P/C Industry Net Income After Taxes 1991–2015 (Est.)

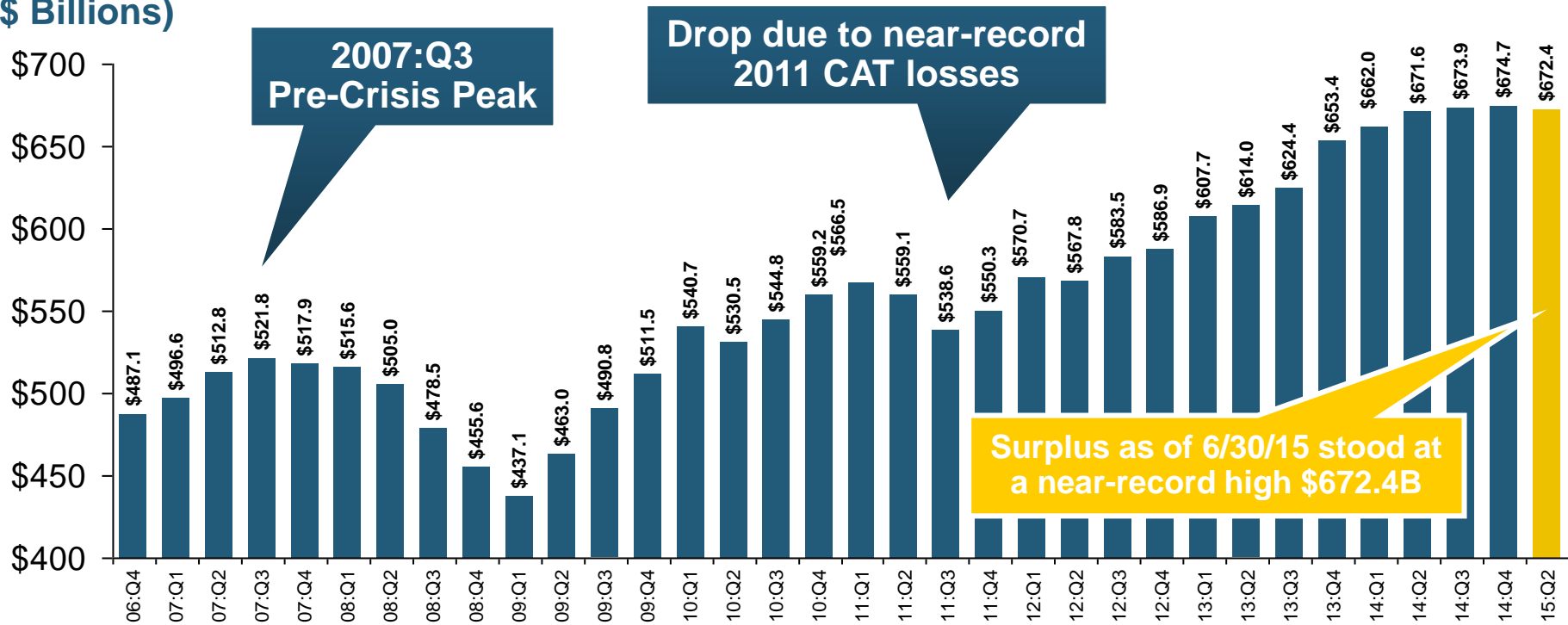


*ROE figures are GAAP; ¹Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 8.2% ROAS in 2014, 9.8% ROAS in 2013, 6.2% ROAS in 2012, 4.7% ROAS for 2011, 7.6% for 2010 and 7.4% for 2009.

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

Policyholder Surplus, 2006:Q4–2015:Q2

(\$ Billions)



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

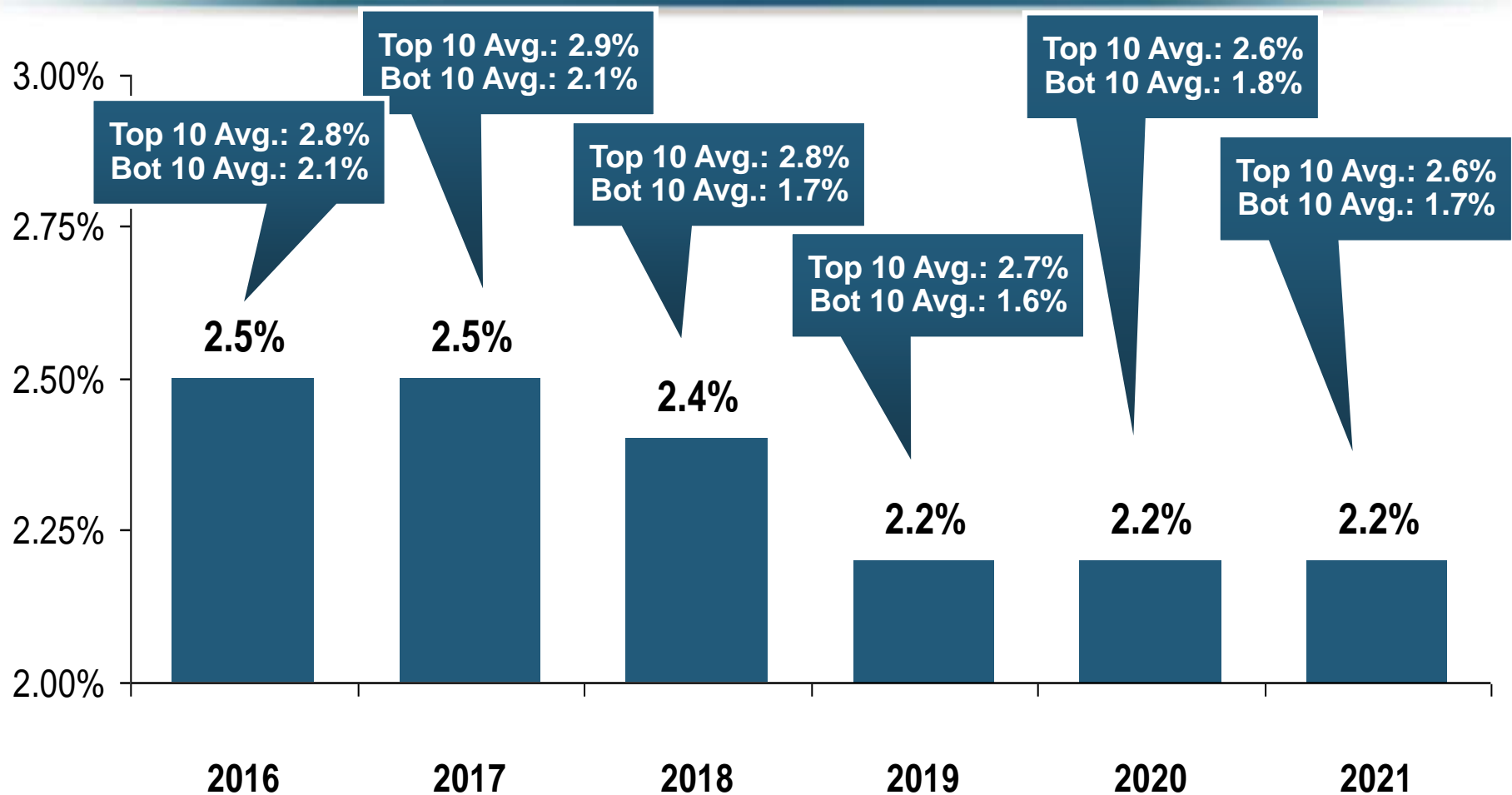
2010:Q1 data includes \$22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business.

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

**Continued Economic Growth
in 2016 Should Drive
Increased Exposures
and Premium Volume**

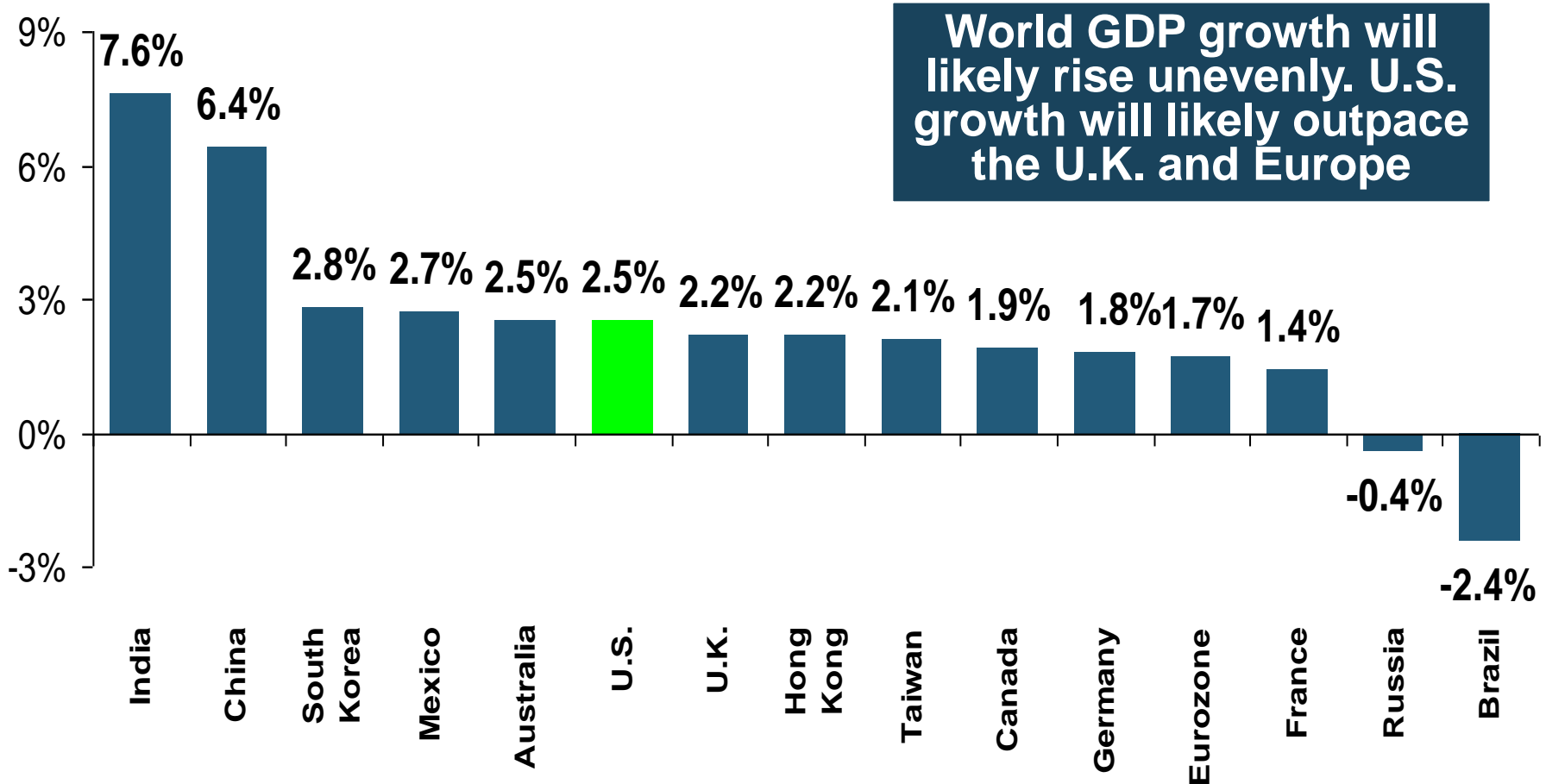
**Commercial and Personal Lines
Should Both Benefit**

2016-2021 Real GDP Growth: Median Forecast for the US



**All forecasts expect US growth to be moderate in 2016-18
and to slow in the last years of the decade,
perhaps expecting a recession in that time frame.**

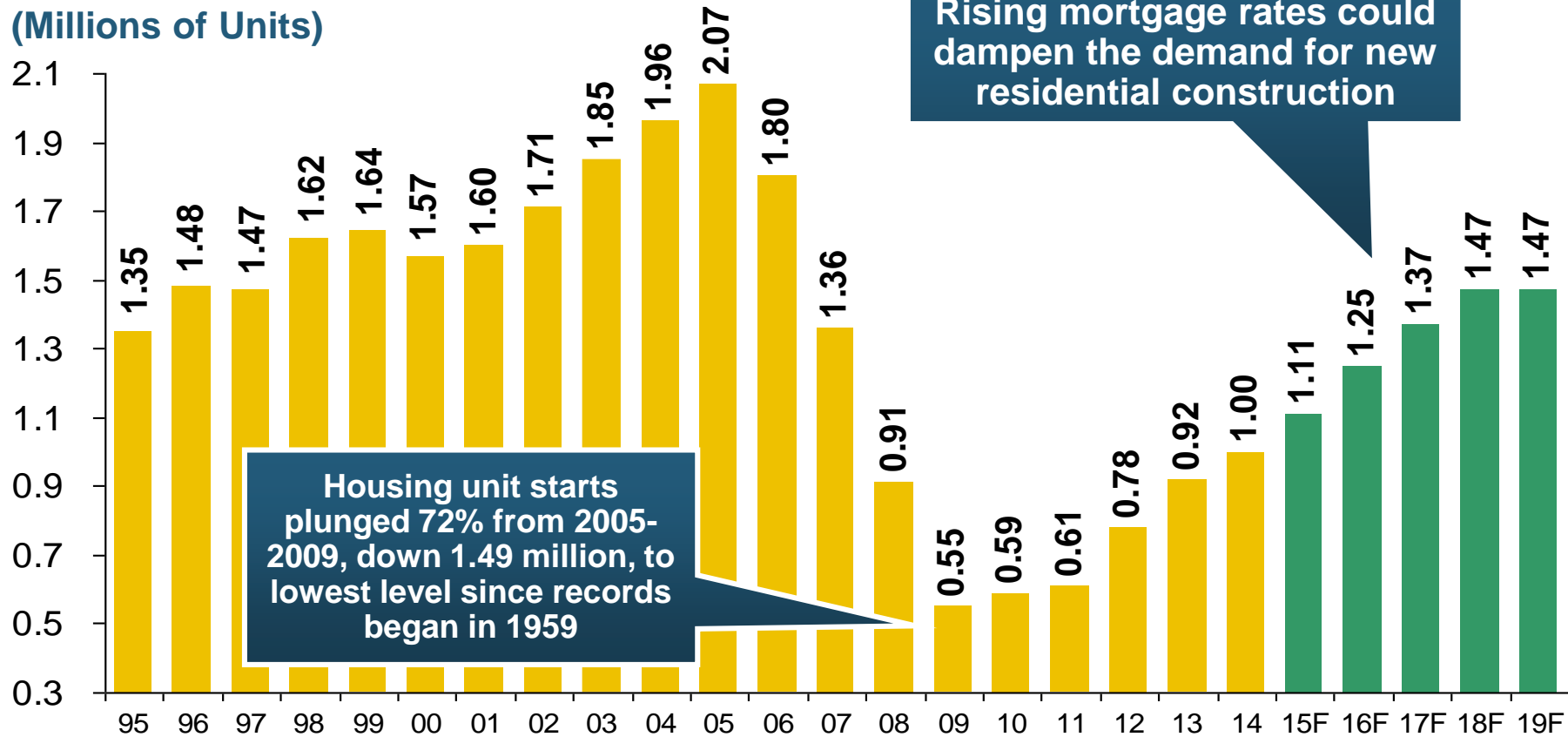
2016 Real GDP Growth: Median Forecast for Selected Global Economies



The strongest inflation-adjusted growth continues to be forecast for Asian economies but, except for China and India, it's likely to be modest.

Forecast Continued Growth in New Private Housing Unit Starts, 1995-2019F

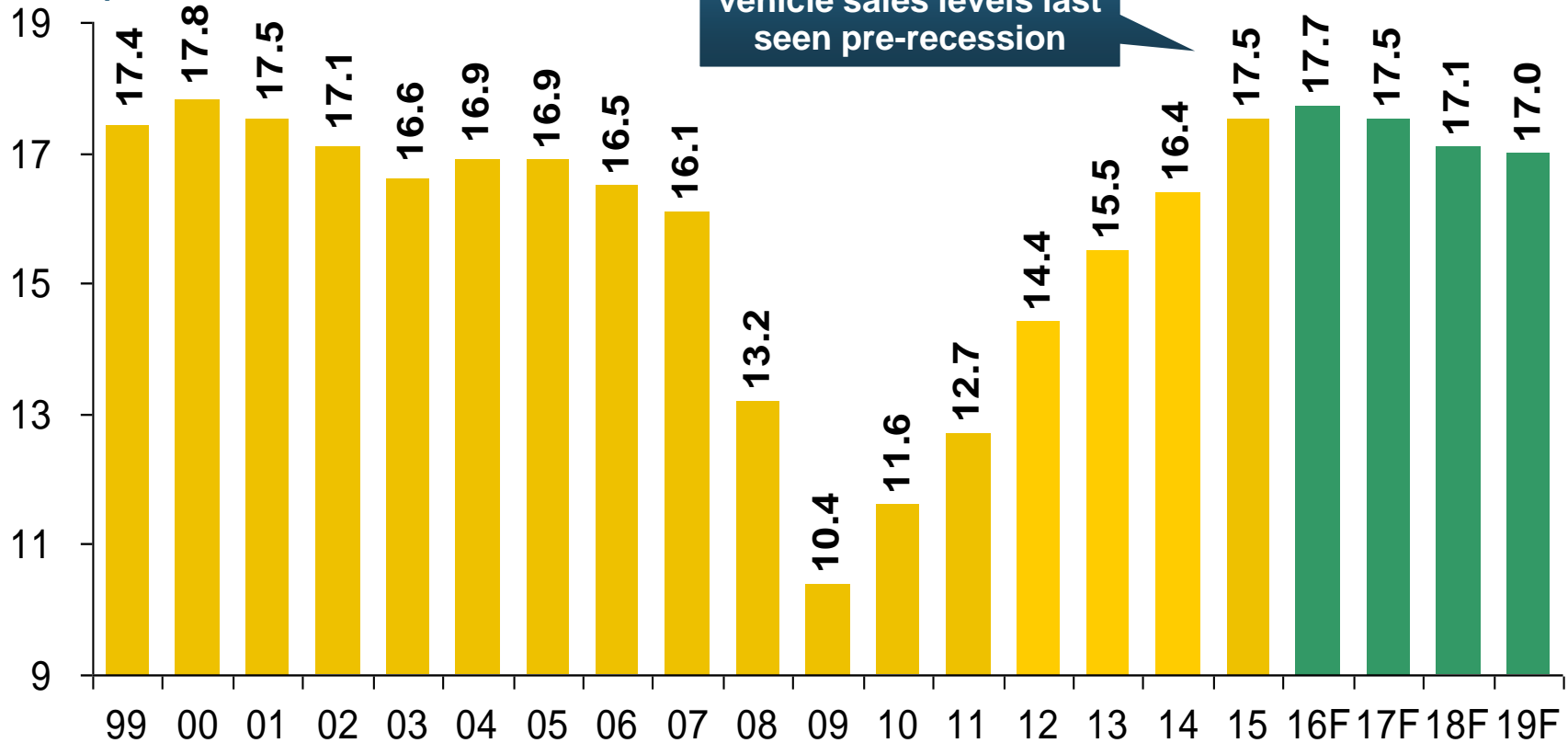
(Millions of Units)



Housing starts are climbing slowly. Recently, the fastest growth is in multi-unit residences. Personal lines exposure will grow, and commercial insurers with Workers Comp, Construction risk exposure and Surety also benefit.

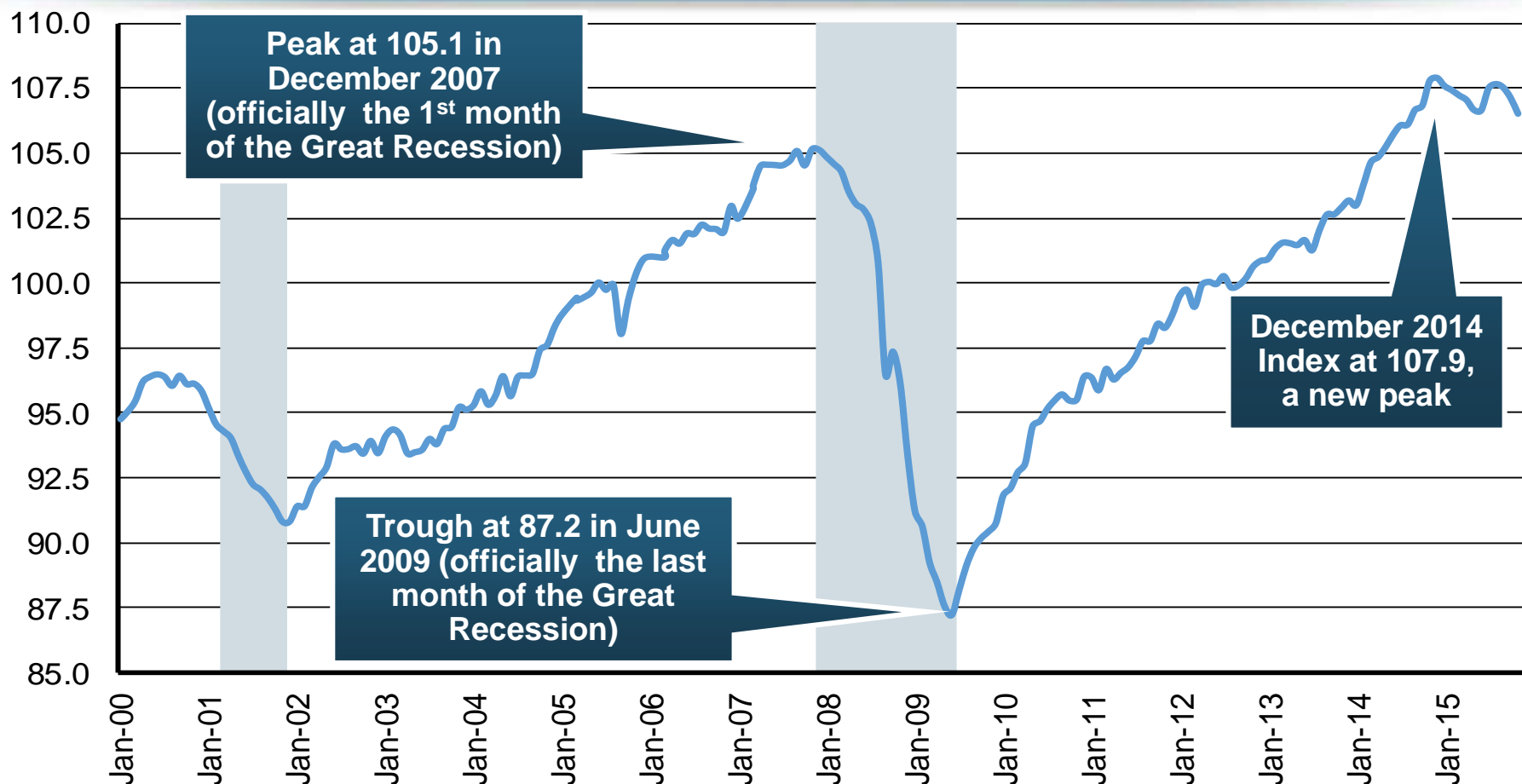
Auto/Light Truck Sales Will Likely Continue at Recent Levels

(Millions
of Units)



Yearly car/light truck sales will likely continue at current levels, in part replacing cars that were held onto in 2008-12. Falling gas prices, job gains help, though rising interest rates could eventually restrain demand for new vehicles.

Index of Total Industrial Production:* A New Peak in December 2014

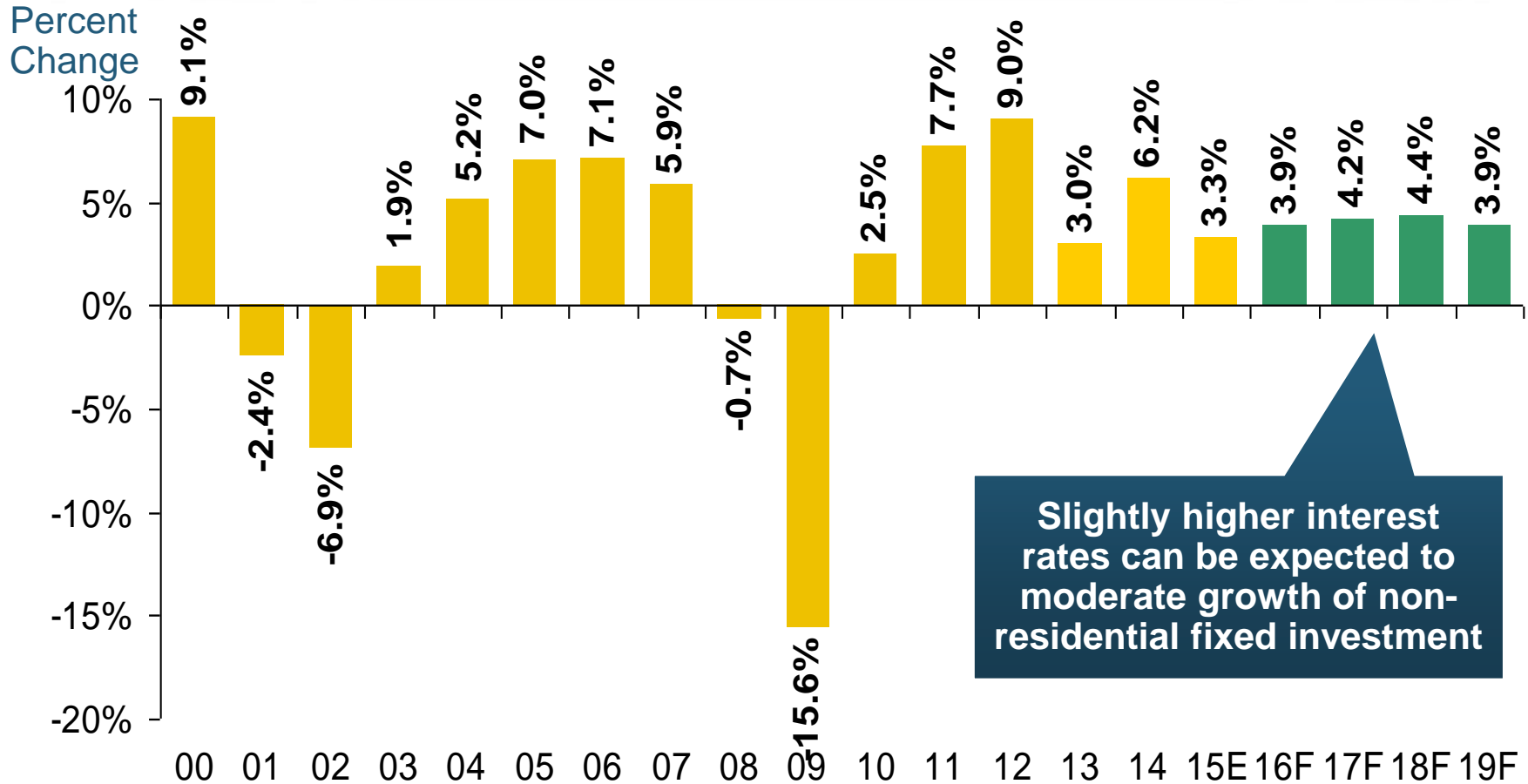


Insurance exposures for industrial production will resume growing in 2016, and commercial insurance premium volume with them.

*Monthly, seasonally adjusted, through November 2015 (which is preliminary).

Sources: Federal Reserve Board at http://www.federalreserve.gov/releases/g17/ipdisk/ip_sa.txt;
National Bureau of Economic Research (recession dates); Insurance Information Institute.

Percent Change in Non-Residential Fixed Investment, 2000-2019F



As interest rates for loans to finance major business projects rise, some projects will be pared down or not undertaken.

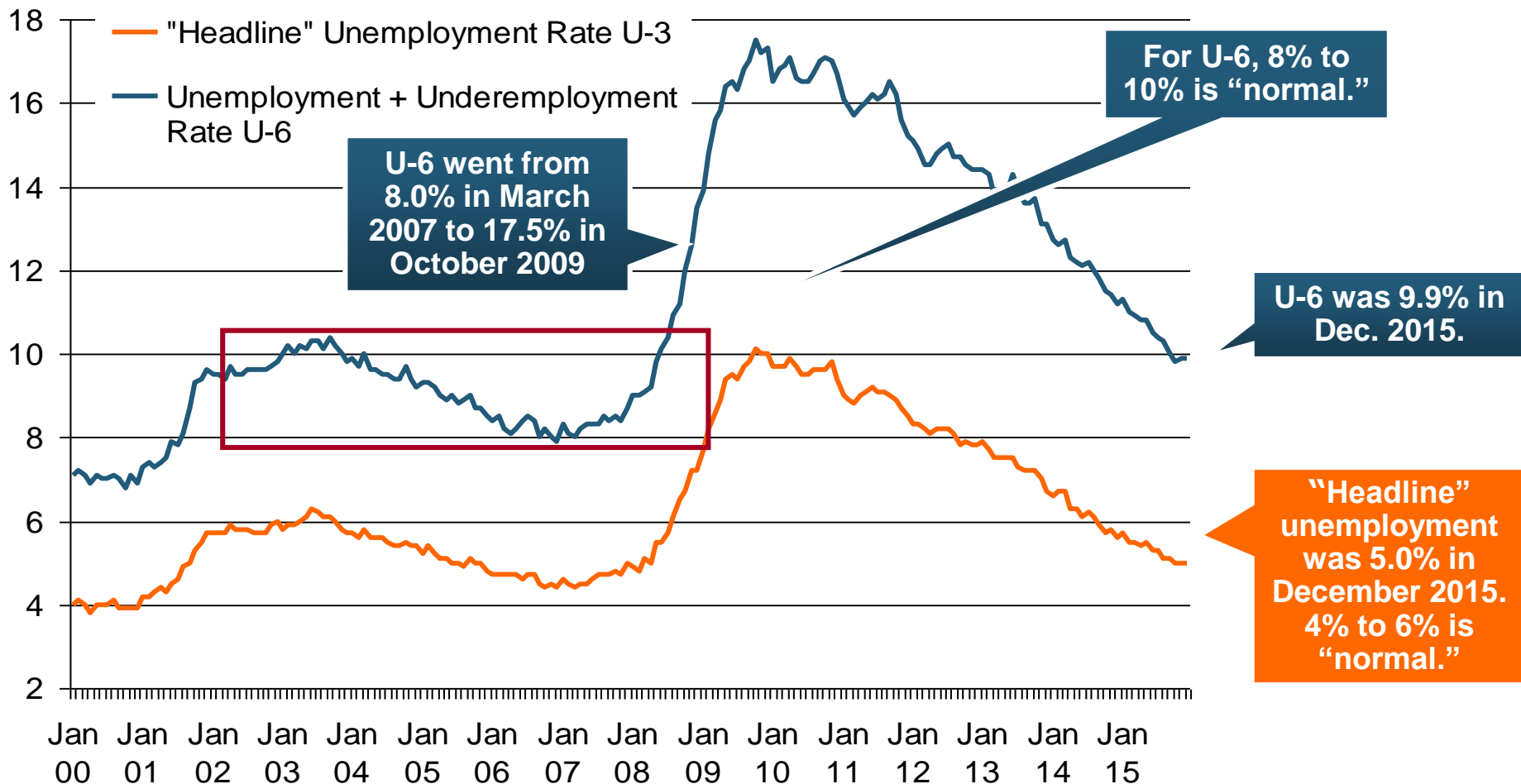


Labor Market Trends

**Job Gains Support
Growing Exposure Bases for
Commercial and Personal Lines**

Unemployment and Underemployment Rates: Still Falling

January 2000 through December 2015,
Seasonally Adjusted (%)



High unemployment and underemployment still constrain overall economic growth, but the job market is now clearly improving.

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

Payroll vs. Workers Comp Net Written Premiums, 1990-2015E

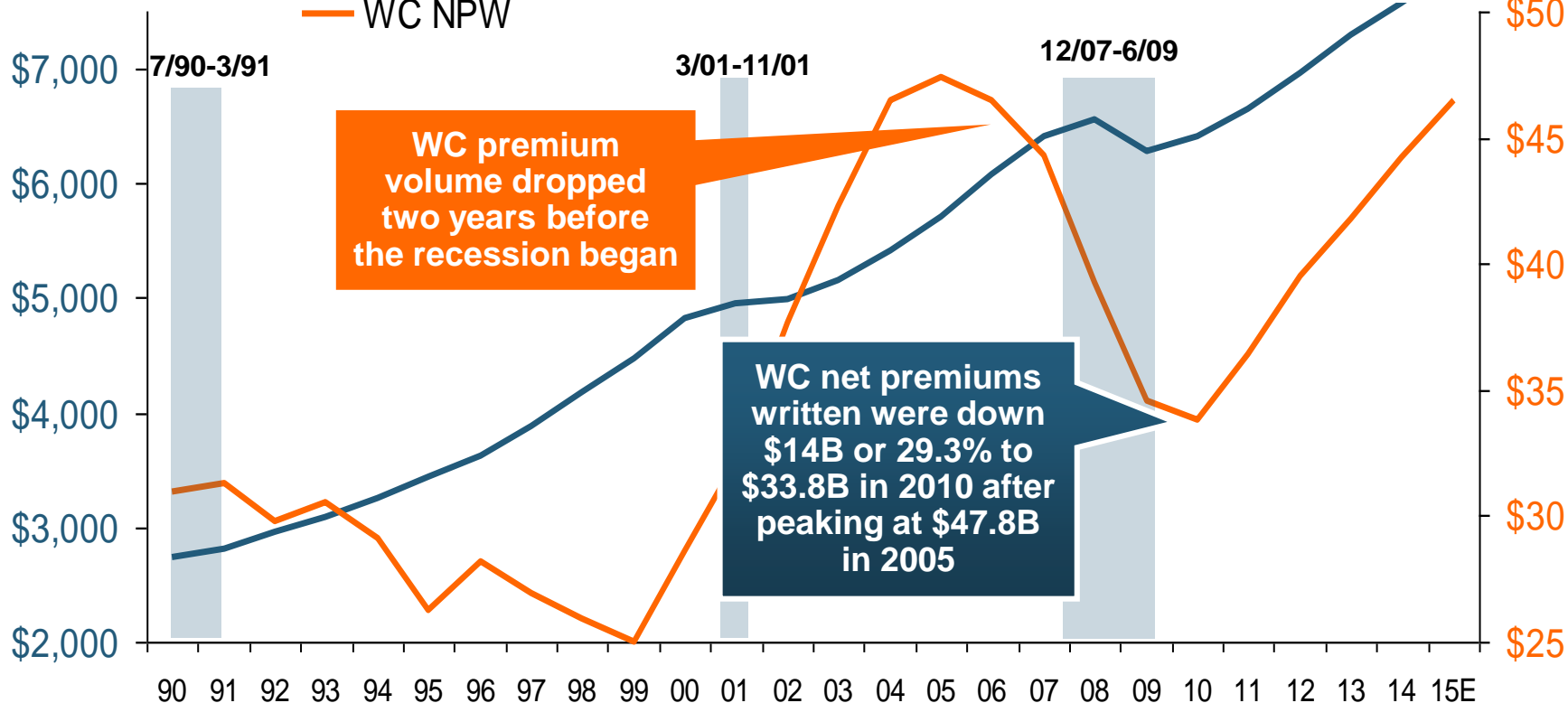
Payroll Base*

WC NWP

\$Billions

\$Billions

— Wage & Salary Disbursements
— WC NPW



Continued Payroll Growth and Rate Gains Suggest WC NWP Will Grow Again in 2016

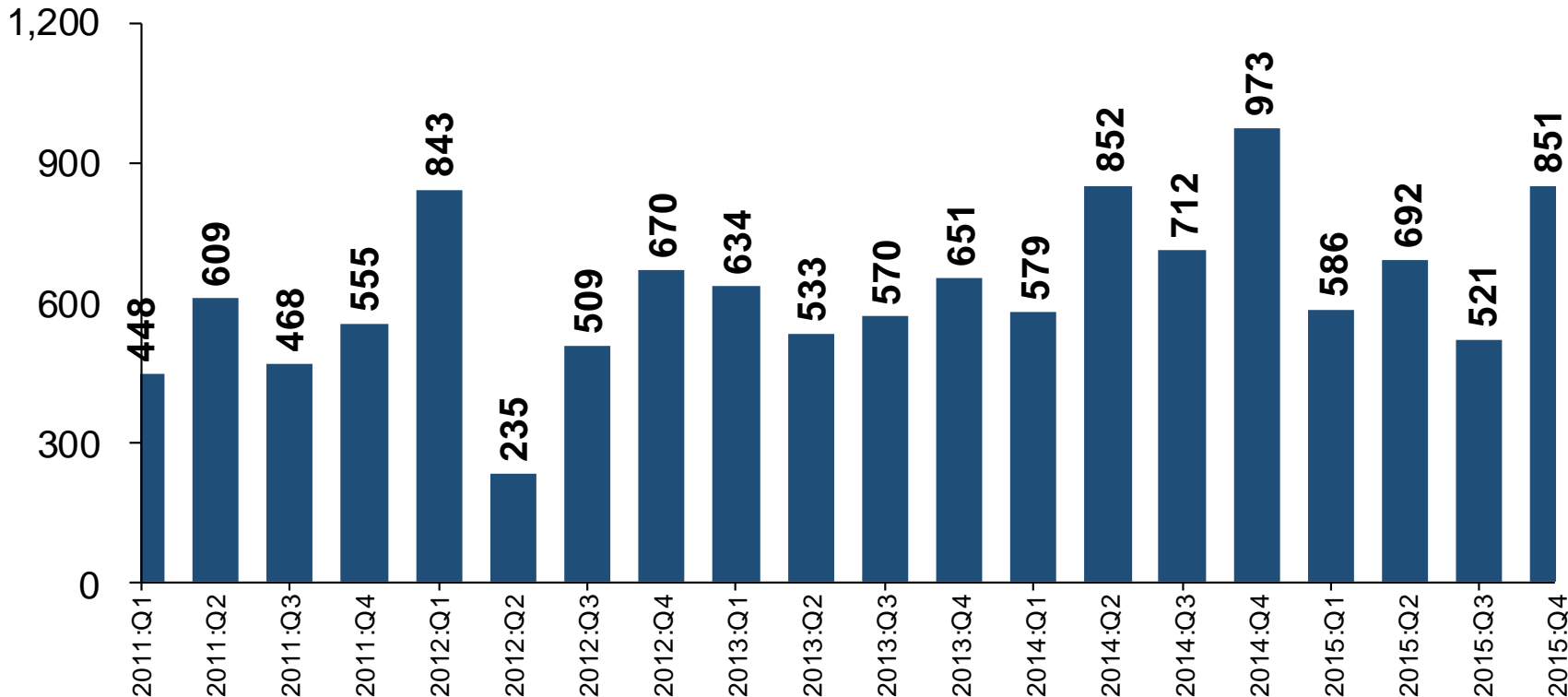
*Private employment; Shaded areas indicate recessions. WC premiums are from NCCI through 2014; I.I.I. estimate for 2015.

Sources: NBER (recessions); Federal Reserve Bank of St. Louis at <http://research.stlouisfed.org/fred2/series/WASCUR> (annualized as of Q3 2015); NCCI; I.I.I.

Quarterly Change in Nonfarm Employment, 2011 – 2015*

Average Quarterly Gain
 2011: 520,000 2012: 564,250 2013: 597,000 2014: 779,000 2015: 662,500

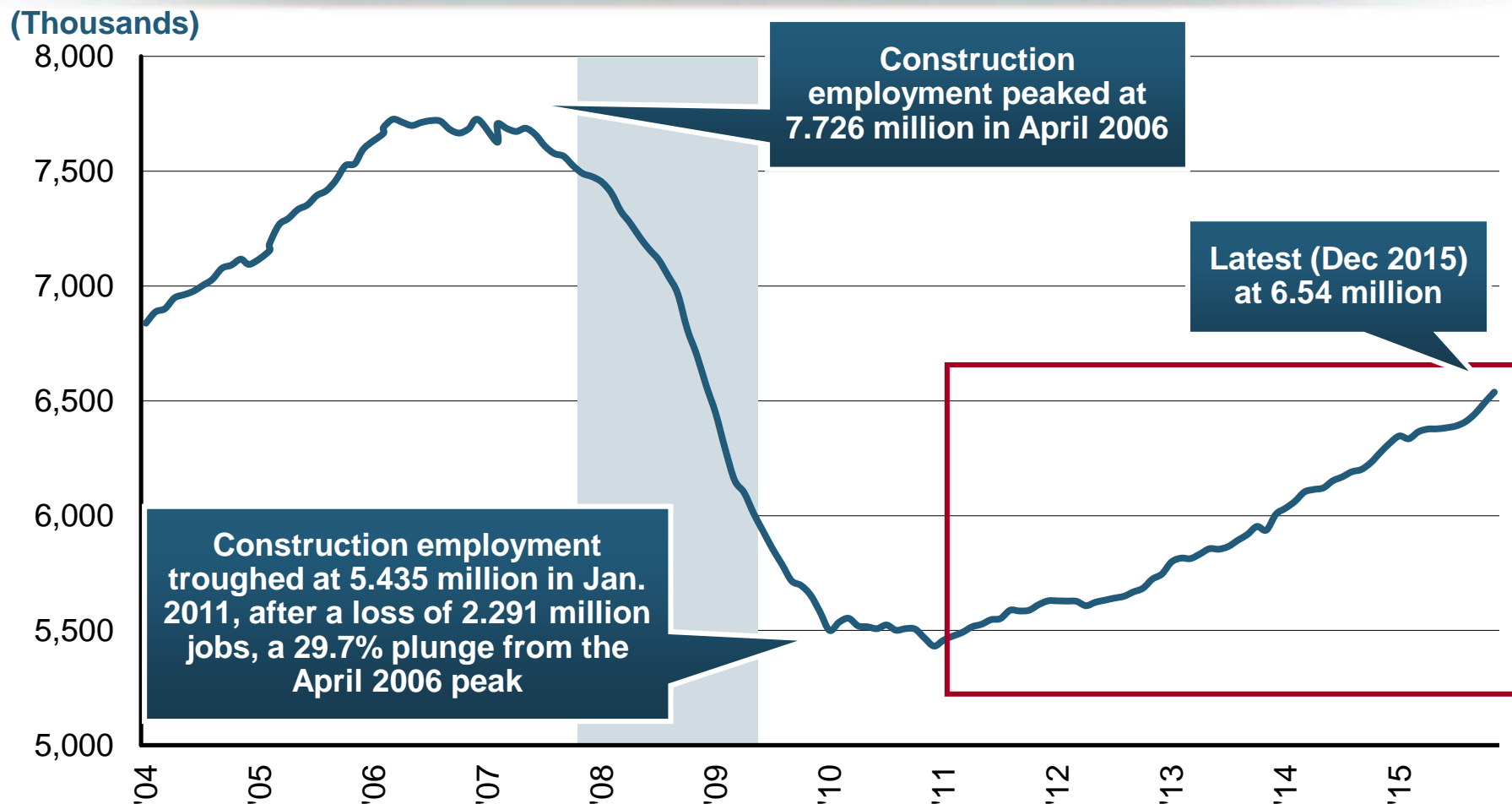
Thousands



**If job growth continues at the 2015 pace
 we will add nearly a million new workers every five months.**

*Seasonally adjusted. Dec 2015 and Nov 2015 are preliminary data.
 Sources: US Bureau of Labor Statistics; Insurance Information Institute

Construction Employment, Jan. 2004–December 2015

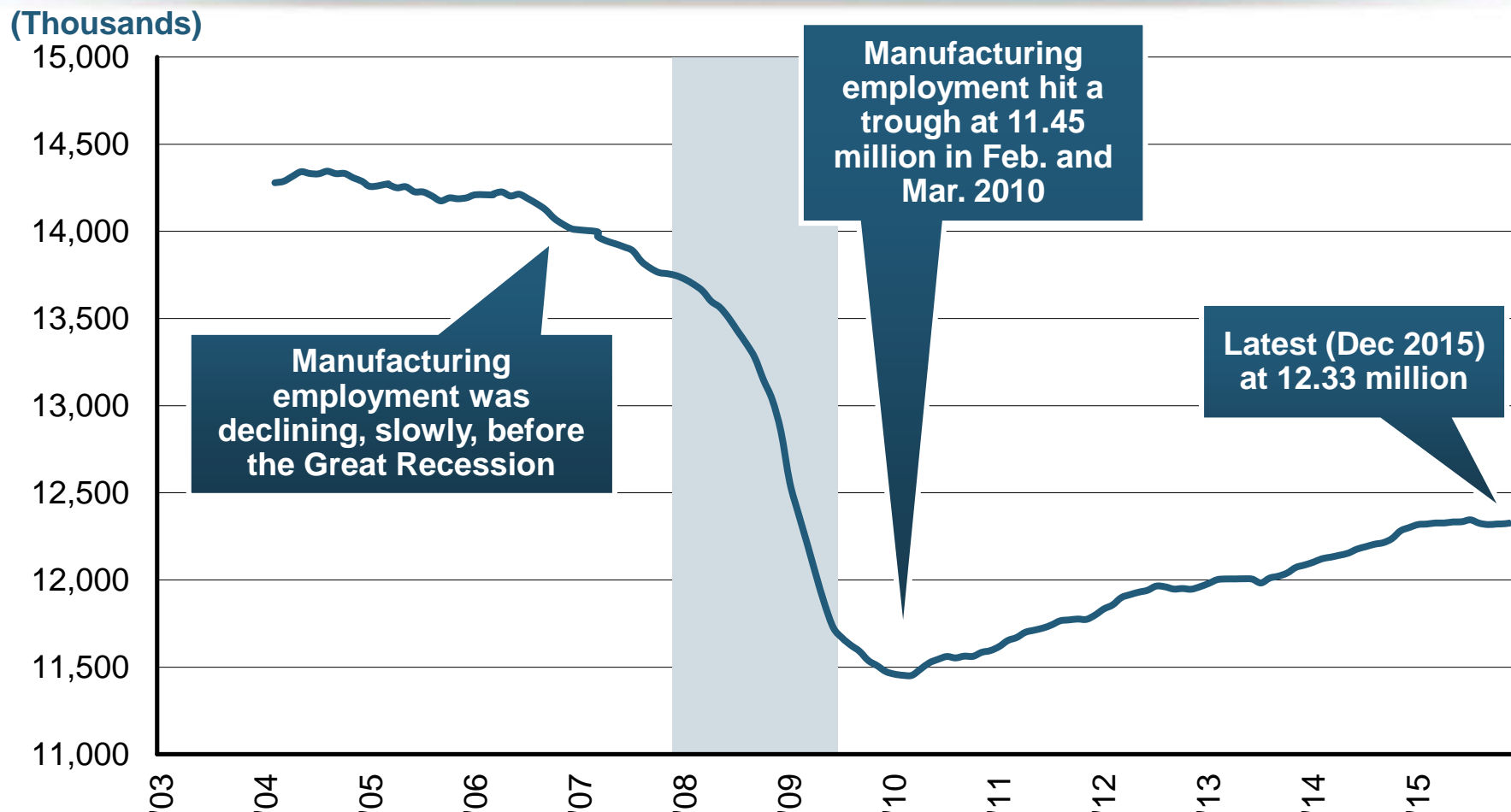


The construction sector could be a growth leader in 2016 as the housing market, private investment and govt. spending recover.

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

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

Manufacturing Employment, Jan. 2003–December 2015



Manufacturing employment was growing slowly but steadily from 2010 through 2014 but has been flat in 2015. Automation, a slowing world economy, and other factors have held the growth rate down.

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

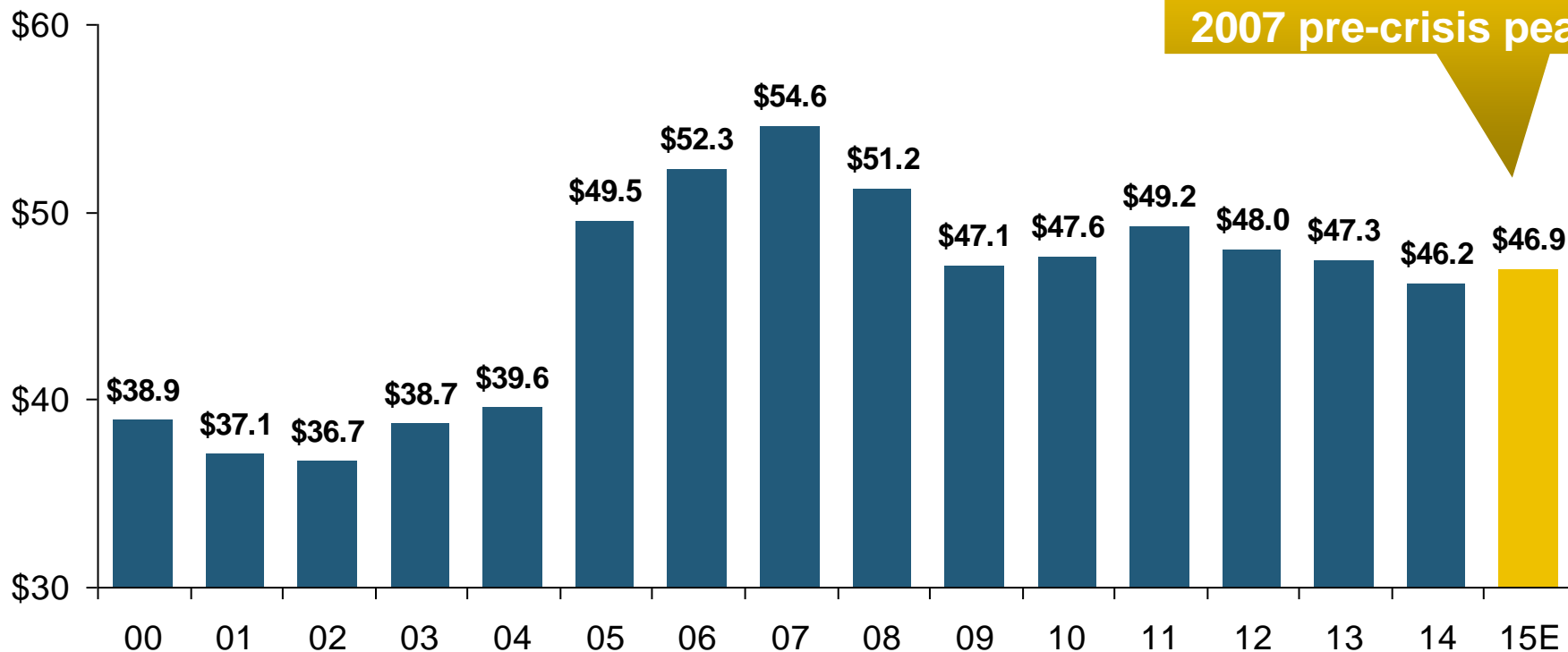
Sources: US Bureau of Labor Statistics; Insurance Information Institute.

Where Are Interest Rates Headed?

The Fed's Rate Normalization Will Benefit Investment Income, Albeit Slowly

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

(\$ Billions)

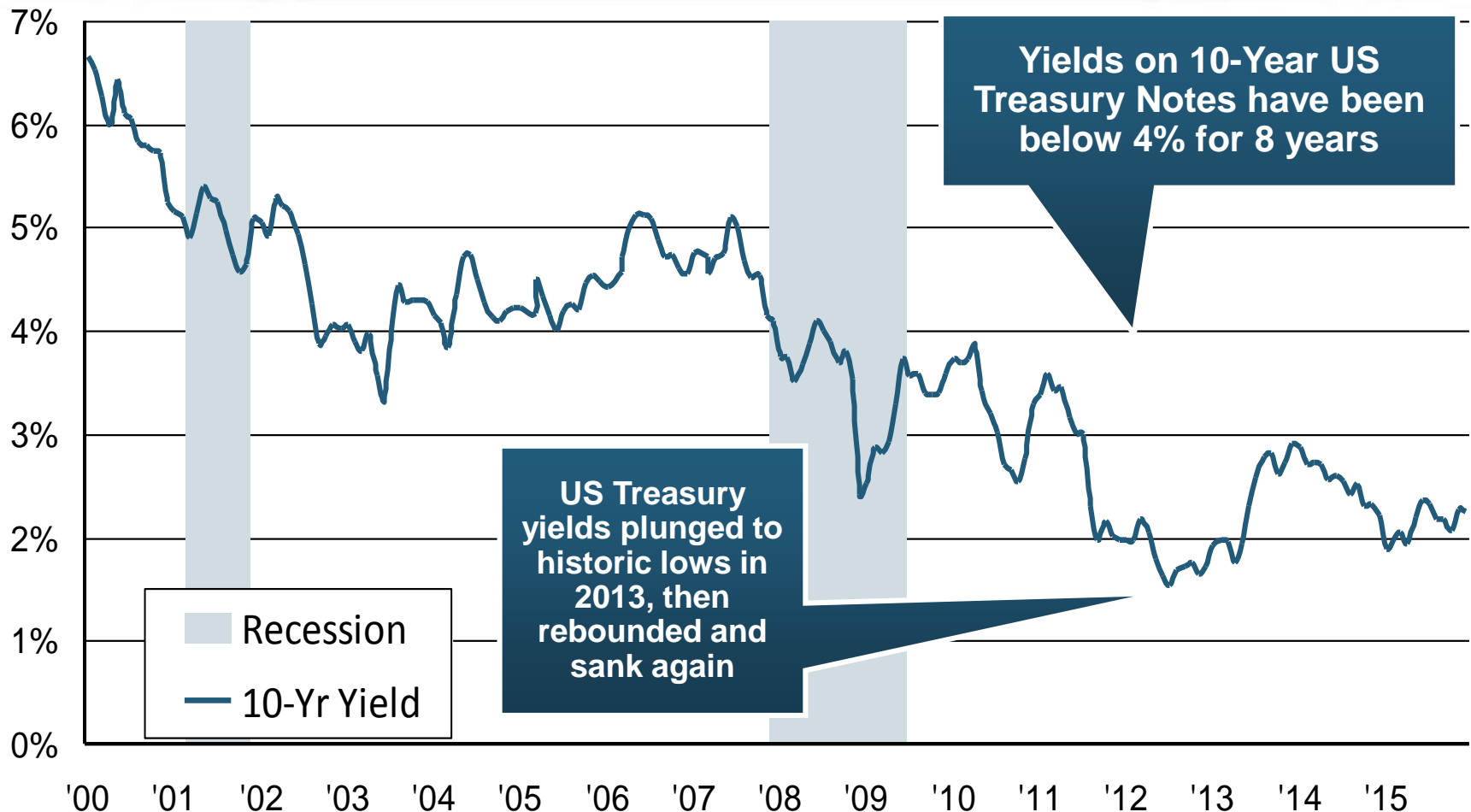


**Due to persistently low interest rates,
investment income fell in 2012, 2013 and 2014.**

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

*2015 figure is estimated based on annualized data through Q3.

US Treasury Note 10-Year Yields: A Long Downward Trend, 2000–2015*

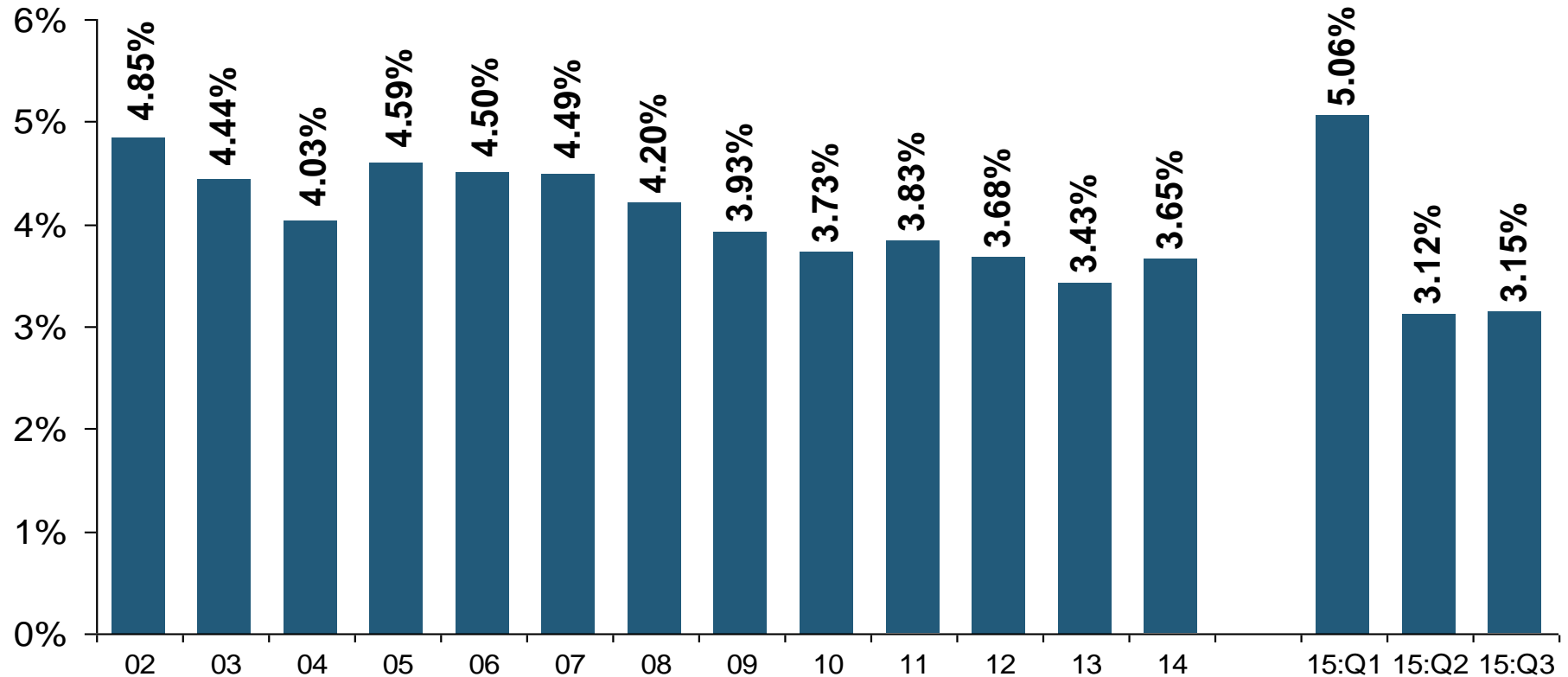


Since roughly 80% of P/C bond/cash investments are in 5-to-10-year durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, constant maturity, nominal rates.

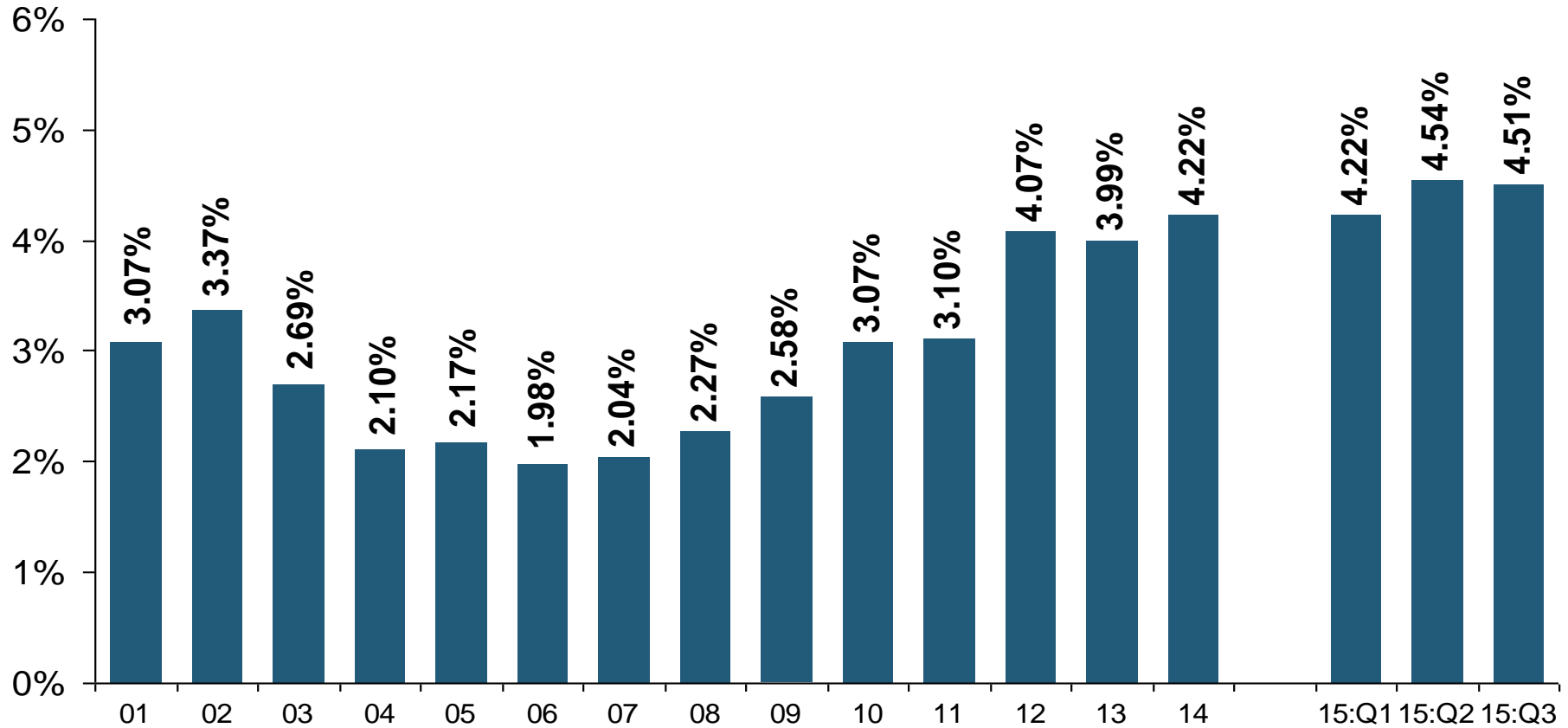
Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>; National Bureau of Economic Research (recession dates); Insurance Information Institute.

P/C Insurer Portfolio Yields, 2002-2015:Q3



P/C carrier yields have been falling for over a decade, reflecting the long downtrend in prevailing interest rates. Even as prevailing rates rise in the next few years, portfolio yields are unlikely to rise quickly, since low yields of recent years are “baked in” to future returns.

P/C Insurers Below-Investment-Grade (BIG) Bonds as a Percent of Total Bonds, 2001-2015:Q3

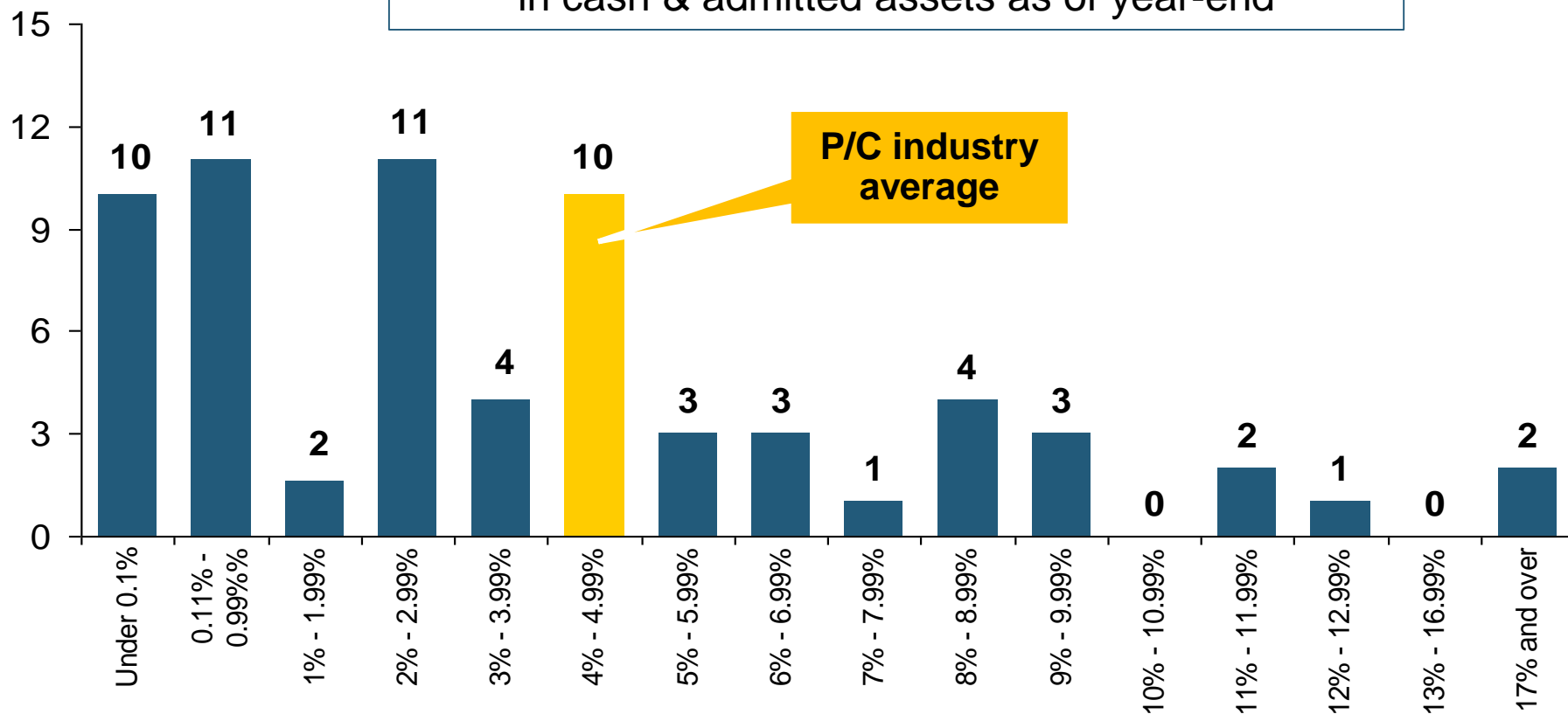


As a group, P/C carriers have increased the percentage of bond investments in riskier instruments. Since 2006-07, that percentage has risen over 200 basis points (double what it was). As interest rates rise, will this percentage return to pre-recession levels?

P/C Insurer Groups Holdings of BIG** Bonds as a Percent of Total Bonds, 2014

Number of Groups

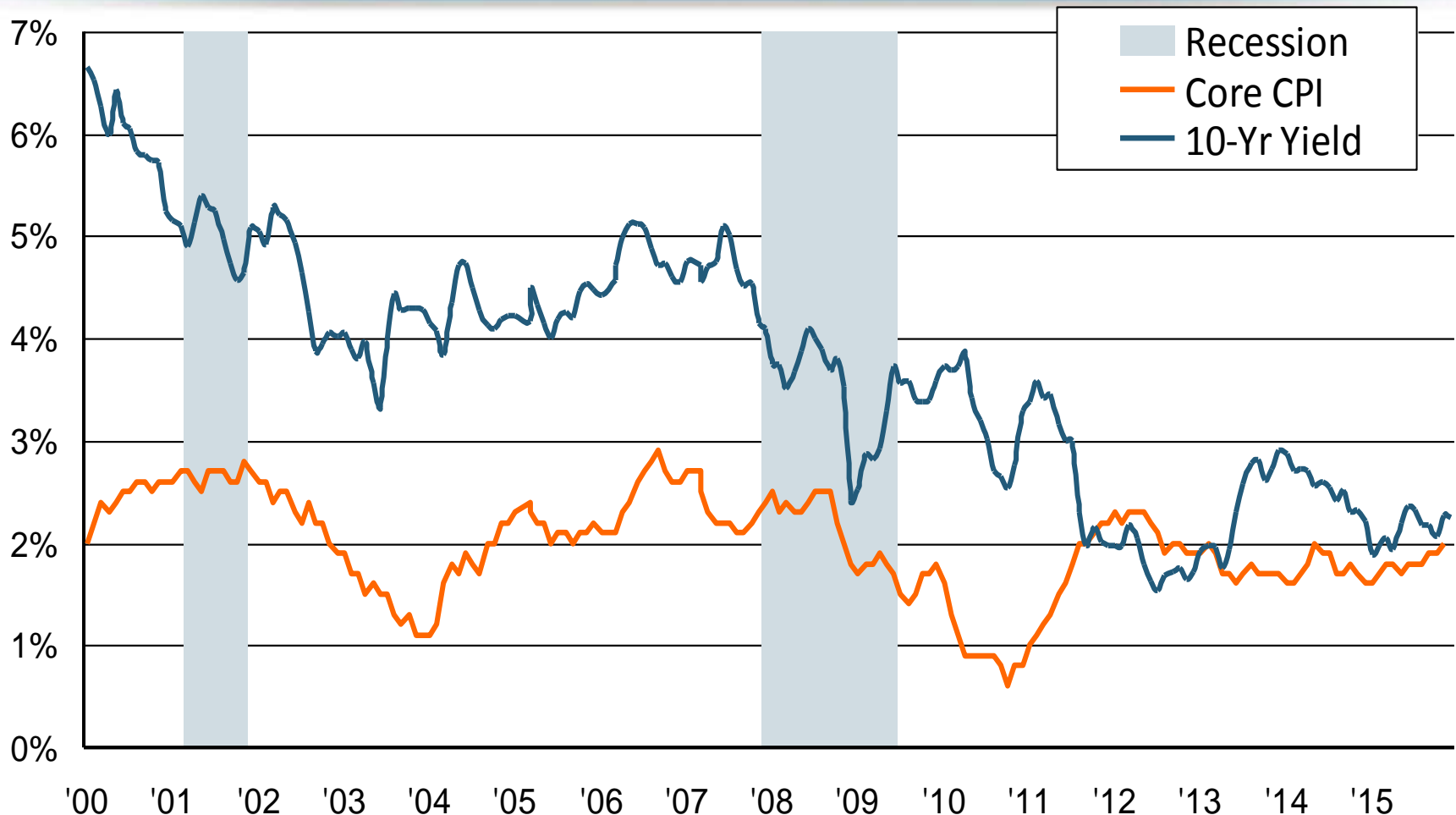
The 67 groups graphed are those with over \$3 billion in cash & admitted assets as of year-end



There is a wide disparity among insurance groups regarding holdings of below-investment-grade bonds. Some hold none (or almost none); a few have over 10% of their bond portfolio in BIGs.

*Below Investment Grade
Sources: NAIC, via SNL Financial; Insurance Information Institute.

Generally, Interest Rates* Are Driven by Inflation**

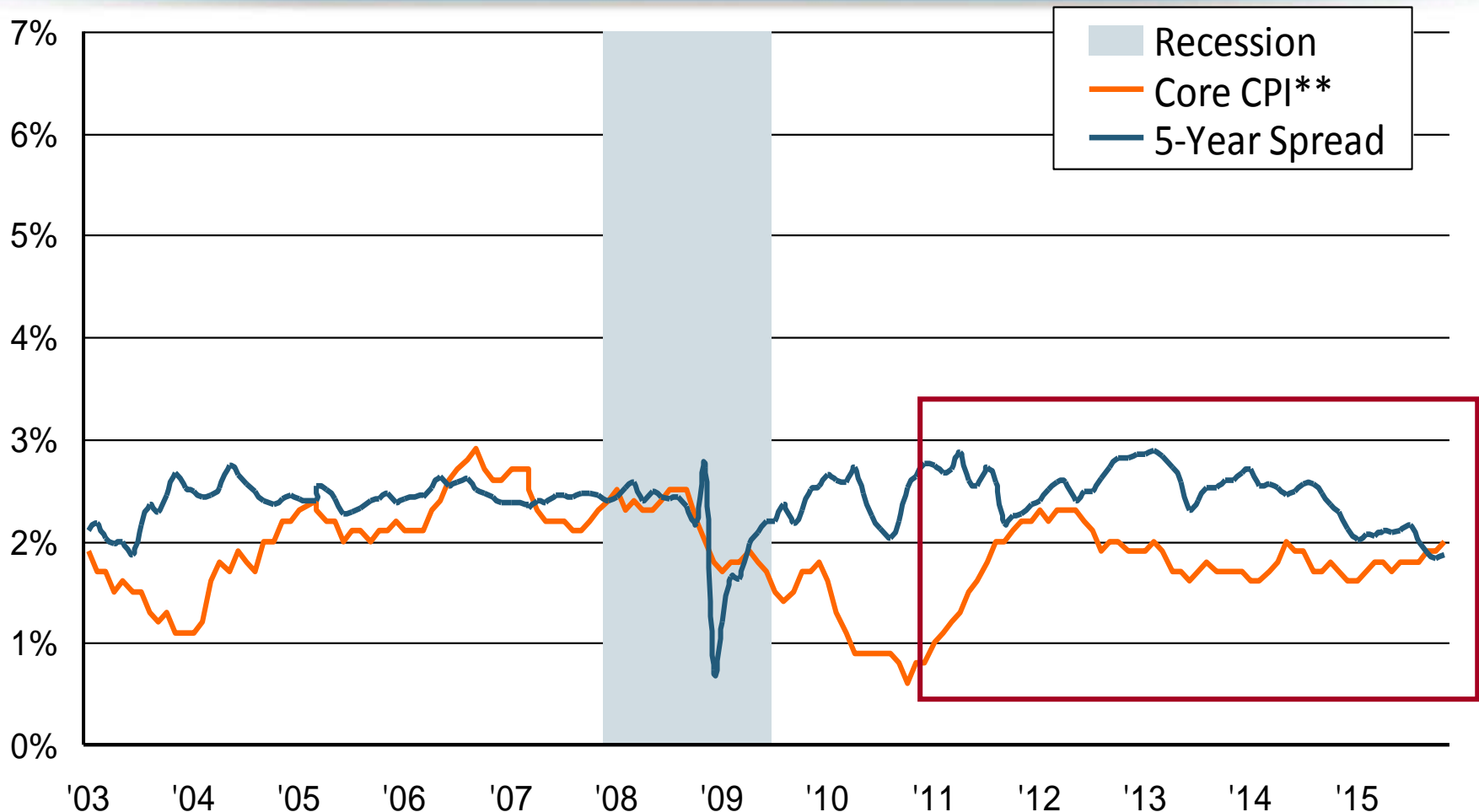


Since roughly 80% of P/C bond/cash investments are in 5-to-10-year durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, constant maturity, nominal rates, US Treasury 10-Year Notes. **CPI less food and energy.

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

Inflation Expectations, 5 Years Ahead* from the Bond Market

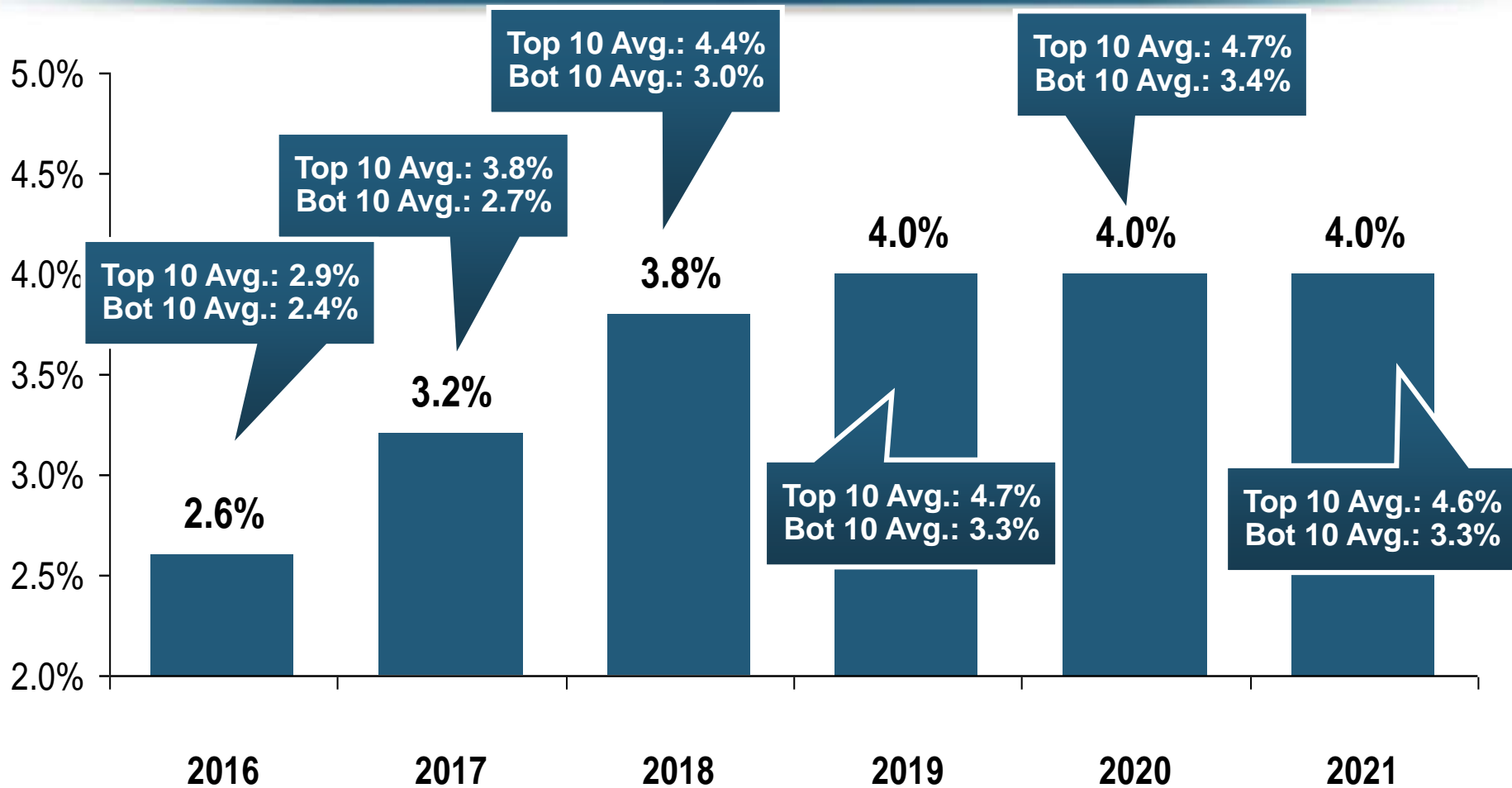


Since roughly 80% of P/C bond/cash investments are in 5-to-10-year durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, yields on US Treasury 5-Year Notes minus yields on 5-Year TIPS, through Nov. 2015. **CPI less food and energy.

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

Forecasts of Avg. Yield of 10-Year US Treasury Notes

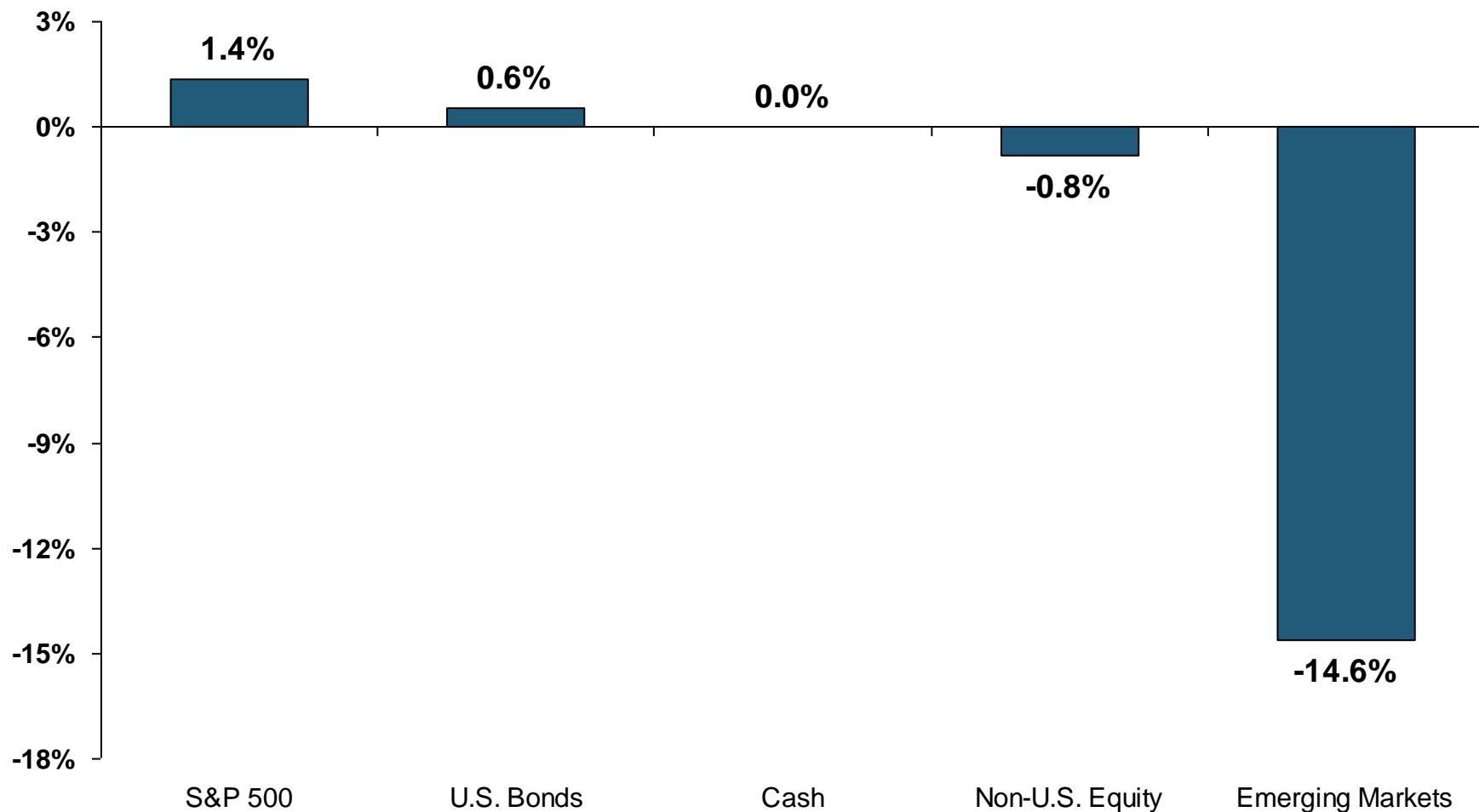


All forecasts expect US intermediate- and long-term interest rates to rise over the next three years to a “normal” level about 2019.

How Will the Stock Market Respond to the Rate Hikes?

Date of First Rate Hike	Ultimate Range of Rate Hikes	Time to Stock Market Peak (months)	S&P Total Return
6/30/2004	1% - 5.25%	40	37.2%
6/30/1999	4.75% - 6.5%	9	11.3%
3/29/1988	6.5% - 9.75%	28	41.9%
12/16/1986	6% - 7.25%	8	34.7%

2015 Total Return of Selected Asset Classes



No asset class did well in 2015, but the best place to be was US equities.







US Bonds = Barclays Aggregate Bond Index

Source: <https://www.callan.com/research/files/1192.pdf>.

Other Things That Could Affect the Course of Interest Rates

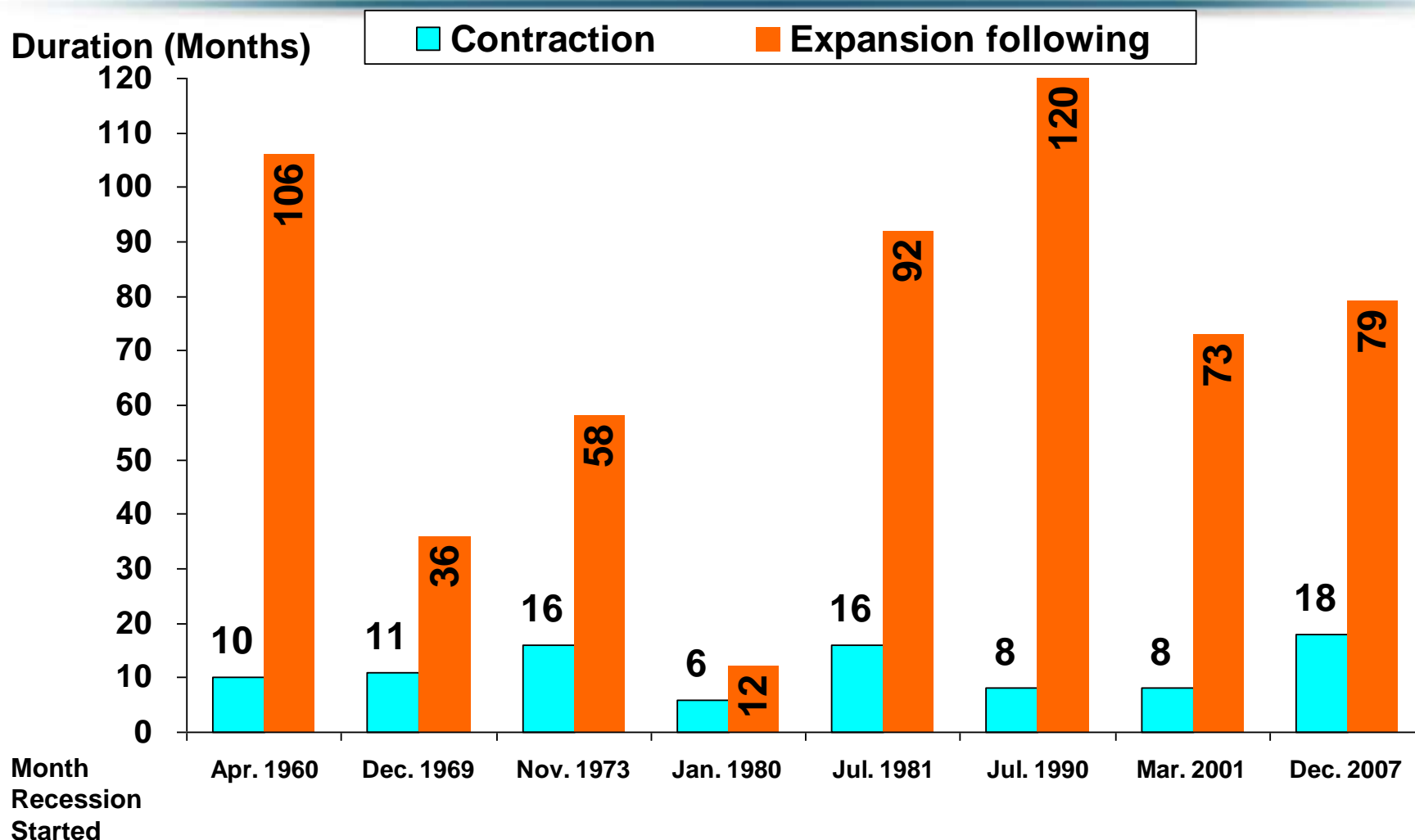
- Prices of world currencies (the value of the US Dollar vs. the Euro, the Yen, the Yuan and other major world currencies)
- Prices of a number of commodities (especially oil)
- Prevailing interest rates in other countries (determined, in part, by those countries' central banks)
- The demand for, and the supply of, loanable funds

Selected Central Bank Interest Rate Changes

Central Bank	Current Rate	Direction of Latest Change	Prev Rate	Date of Latest Change
US	0.25% - 0.50%		0.00% - 0.25%	12/16/2015
Europe	0.05%		0.15%	9/4/2014
China	4.35%		4.60%	10/23/2015
Japan	0.10%		0.10%	10/5/2010
Australia	2.00%		2.25%	5/5/2015
Canada	0.50%		0.75%	7/15/2015

Source: <http://www.global-rates.com/interest-rates/central-banks/central-banks.aspx>.

Lengths of US Business Cycles, 1960–Present*



The average length of the 3 most recent expansions is 95 months. Based on recent history, the current expansion is not likely to continue beyond June 2019.

* As of January 2016.

Sources: National Bureau of Economic Research; Insurance Information Institute.



Issues Discussion

Adam Hamm

Commissioner, North Dakota Insurance Department; Chairman, NAIC's Cybersecurity Task Force; and regulator representative, U.S. Financial Stability Oversight Council

Insurance Information Institute Online:

www.iii.org

*Thank you for your time, your attention
and your support of the I.I.I.!*

Twitter: twitter.com/bob_hartwig