



Insurance Industry Overview and Outlook: *Trends, Challenges and Opportunities*

2016 Coastal Risk Retreat
East Carolina University
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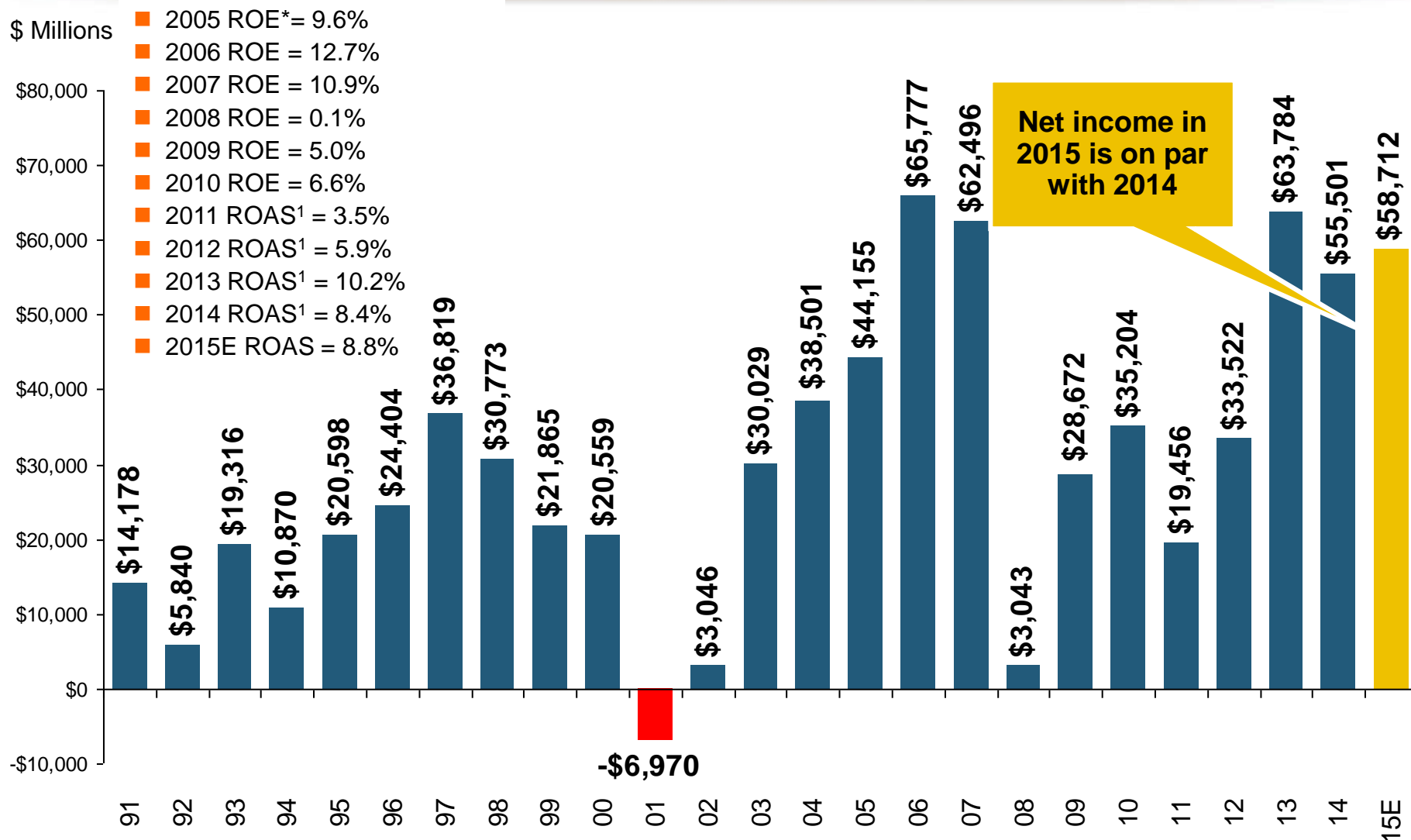


Insurance Industry: ***Financial Update & Outlook***

***2015 Was a Reasonably Good Year
and Similar to 2014***

2016: Could Be Similar to 2015

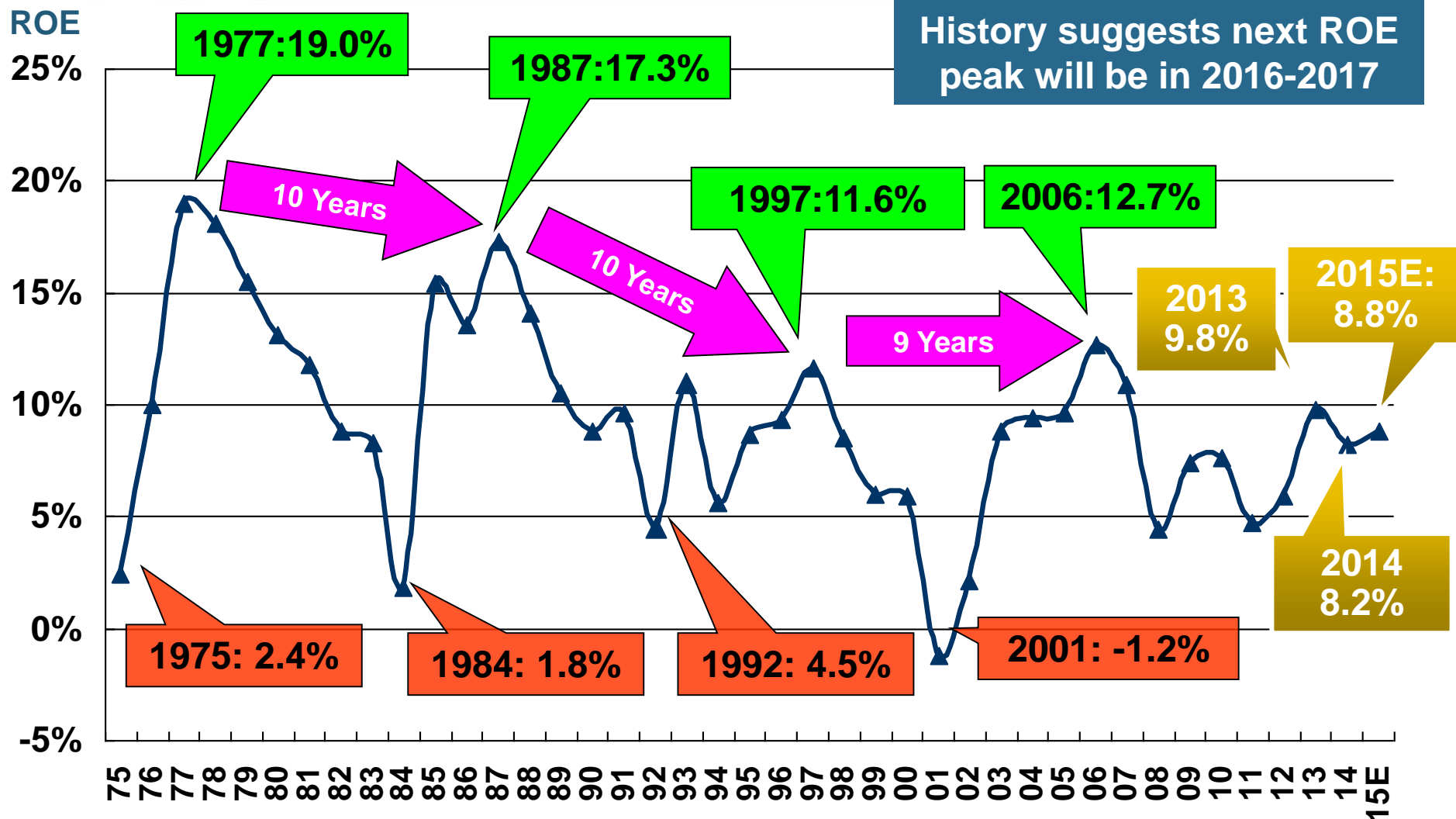
P/C Industry Net Income After Taxes 1991–2015E



*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; 2015E is annualized figure based actual figure through Q3 of \$44.0

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

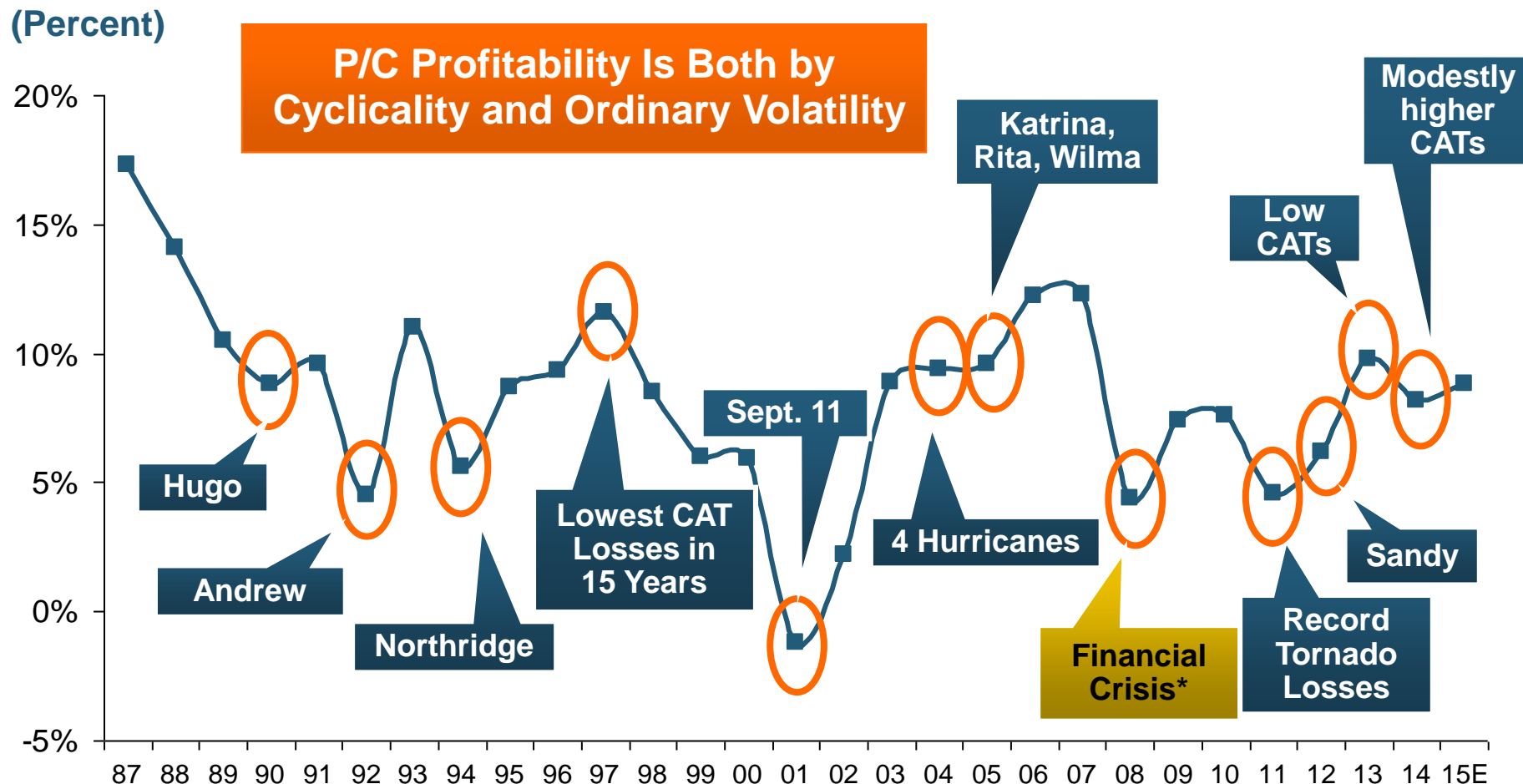
Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2015E



*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, 1987–2015E



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



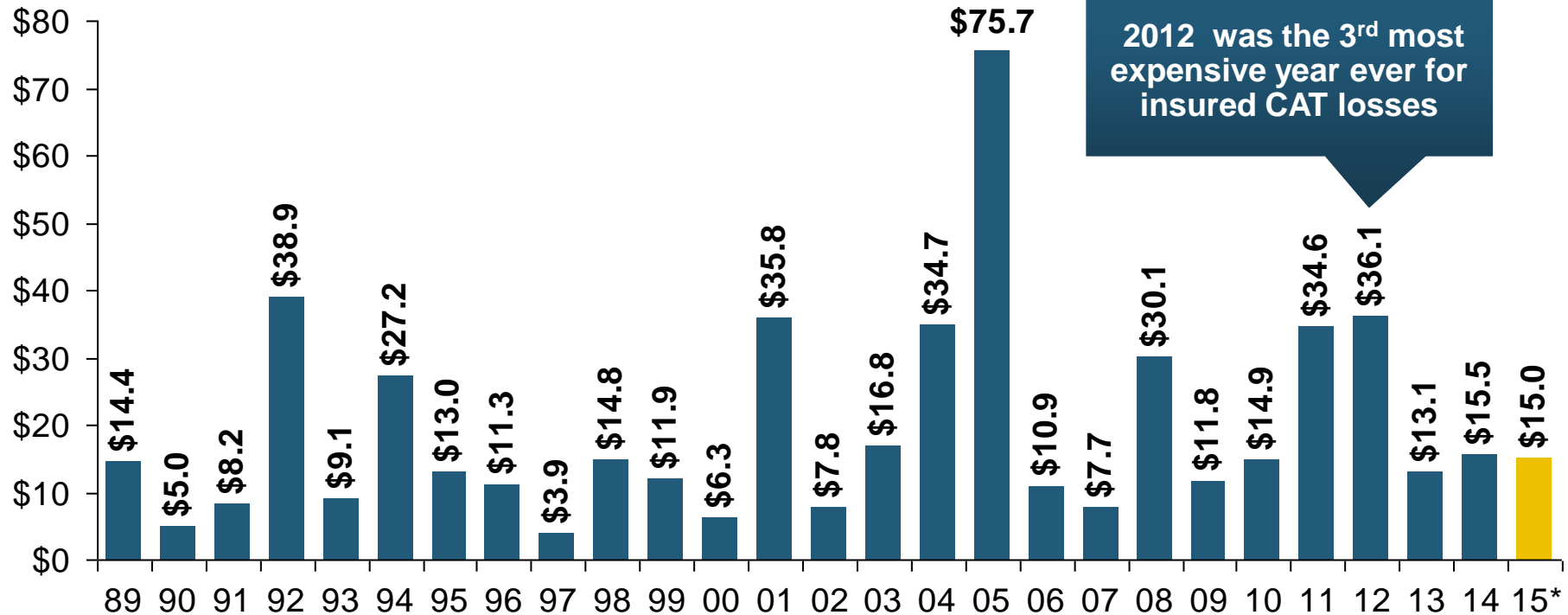
Insured Catastrophe Losses

**2013/14 and 2015 Experienced Below
Average CAT Activity After Very High CAT
Losses in 2011/12**

***Winter Storm Losses Far Above Average in
2014 and 2015***

U.S. Insured Catastrophe Losses

(\$ Billions, \$ 2015)



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

2013/14/15 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.

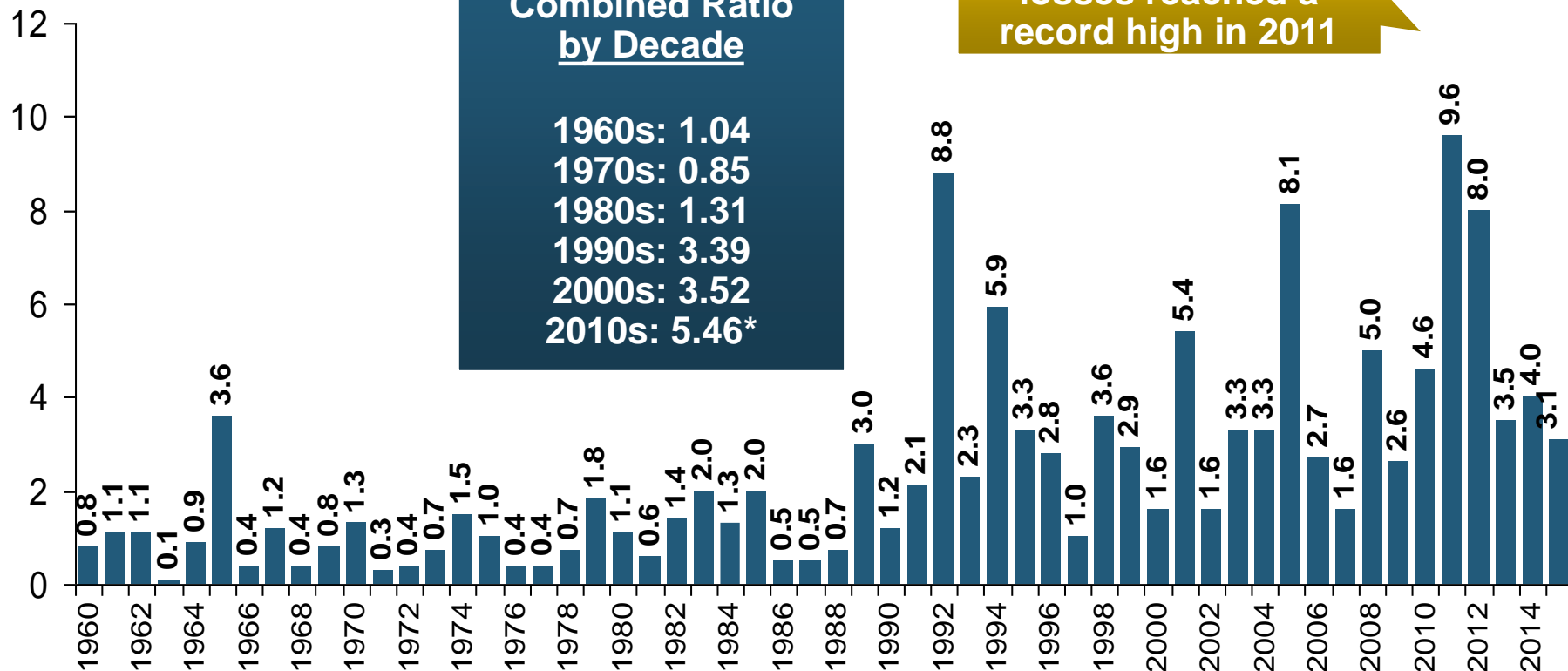
Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2015E*

Combined Ratio Points

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

1960s: 1.04
1970s: 0.85
1980s: 1.31
1990s: 3.39
2000s: 3.52
2010s: 5.46*

**Catastrophe losses
as a share of all
losses reached a
record high in 2011**



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

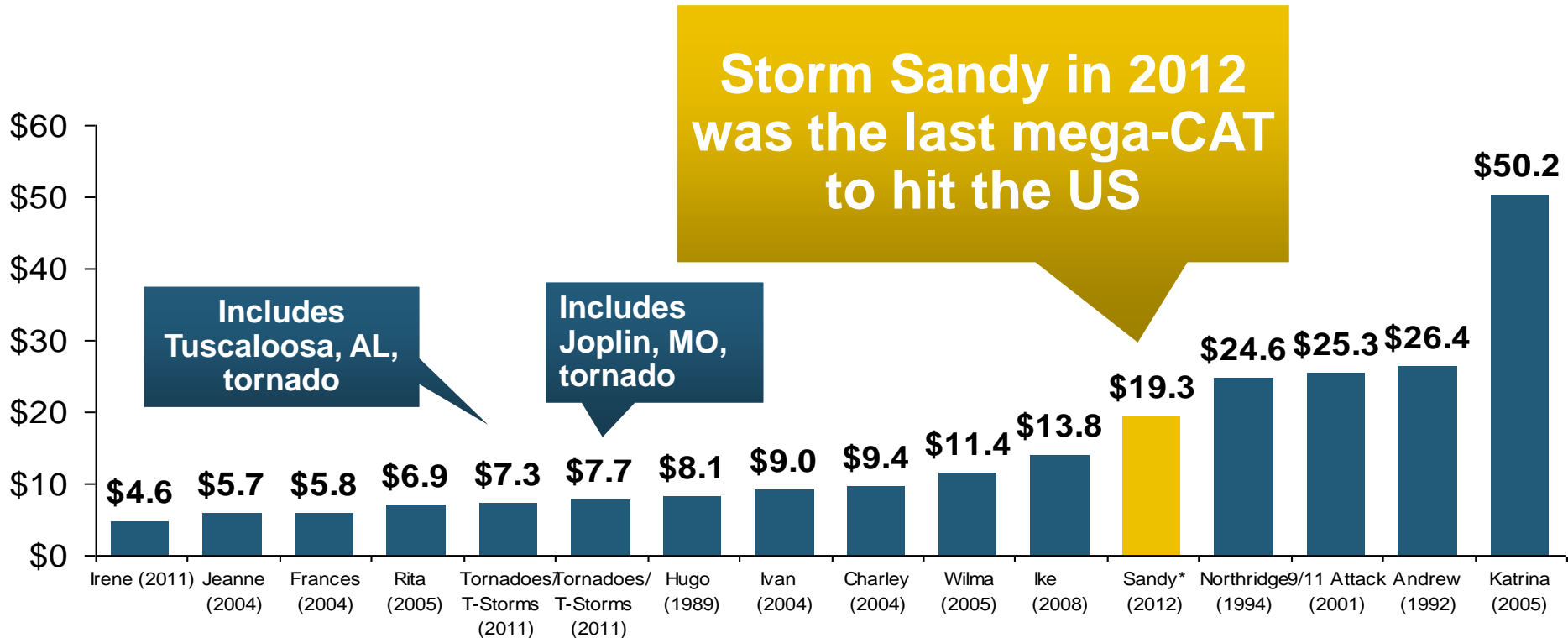
*2010s represent 2010-2015E.

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

Source: ISO (1960-2009); A.M. Best (2010-15E) Insurance Information Institute.

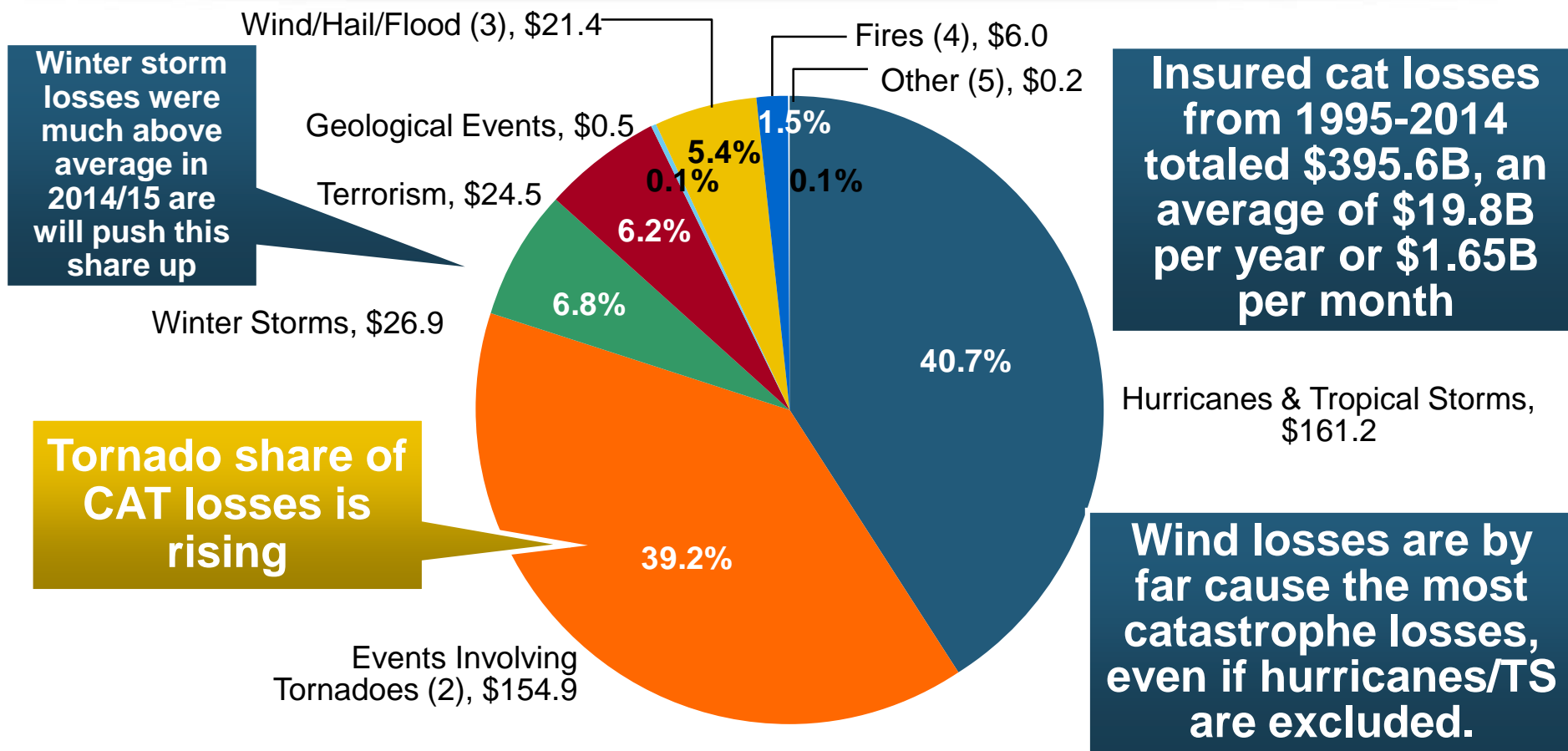
Top 16 Most Costly Disasters in U.S. History—Katrina Still Ranks #1

(Insured Losses, 2014 Dollars, \$ Billions)



12 of the 16 Most Expensive Events in US History Have Occurred Since 2004

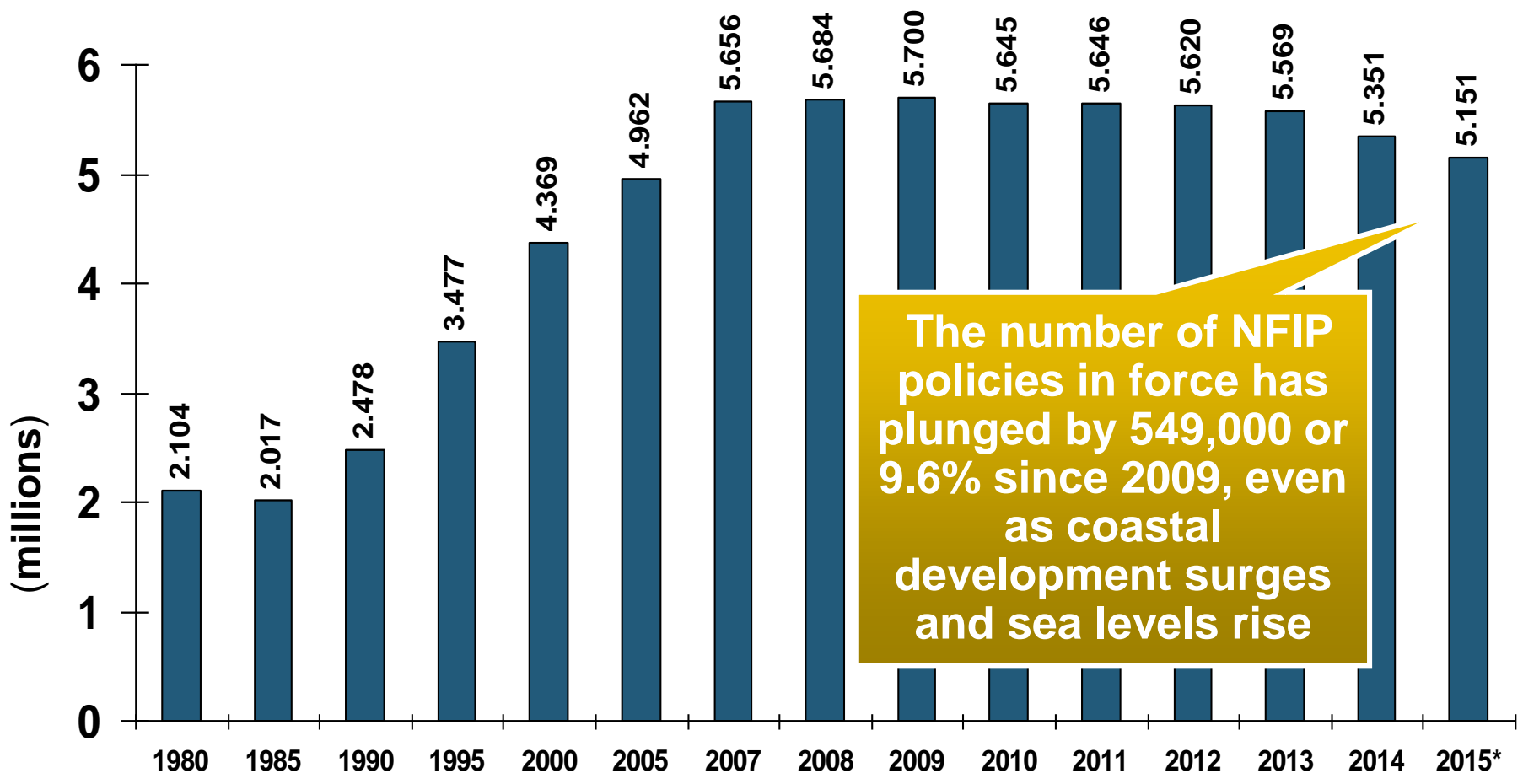
Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1995–2014¹



1. Catastrophes are defined as events causing direct insured losses to property of \$25 million or more in 2014 dollars.
2. Excludes snow.
3. Does not include NFIP flood losses
4. Includes wildland fires
5. Includes civil disorders, water damage, utility disruptions and non-property losses such as those covered by workers compensation.

Source: ISO's Property Claim Services Unit.

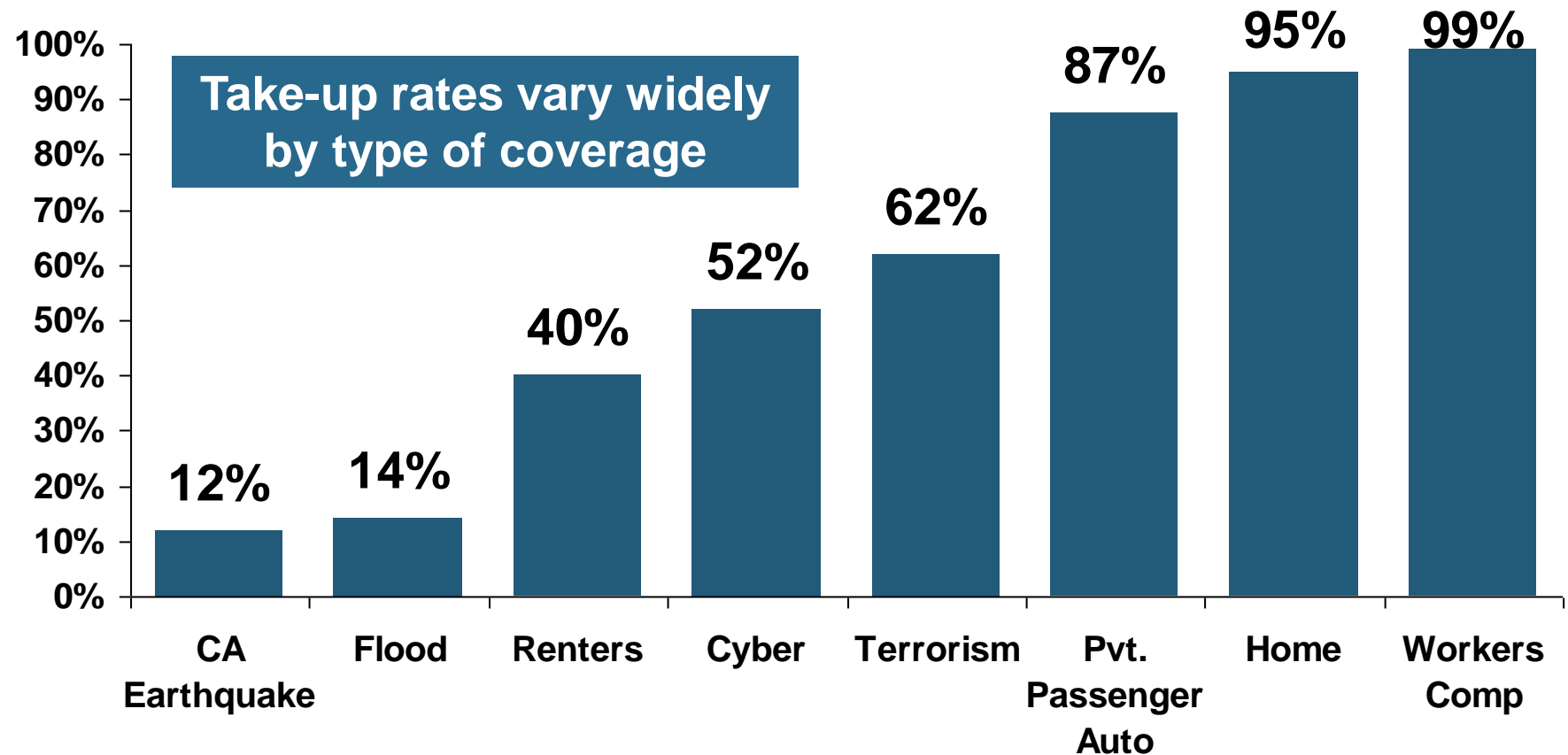
Number of National Flood Insurance Program Policies in Force at Year-End, 1980-2015*



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

Take-Up Rates for Various Types of Insurance in the U.S.

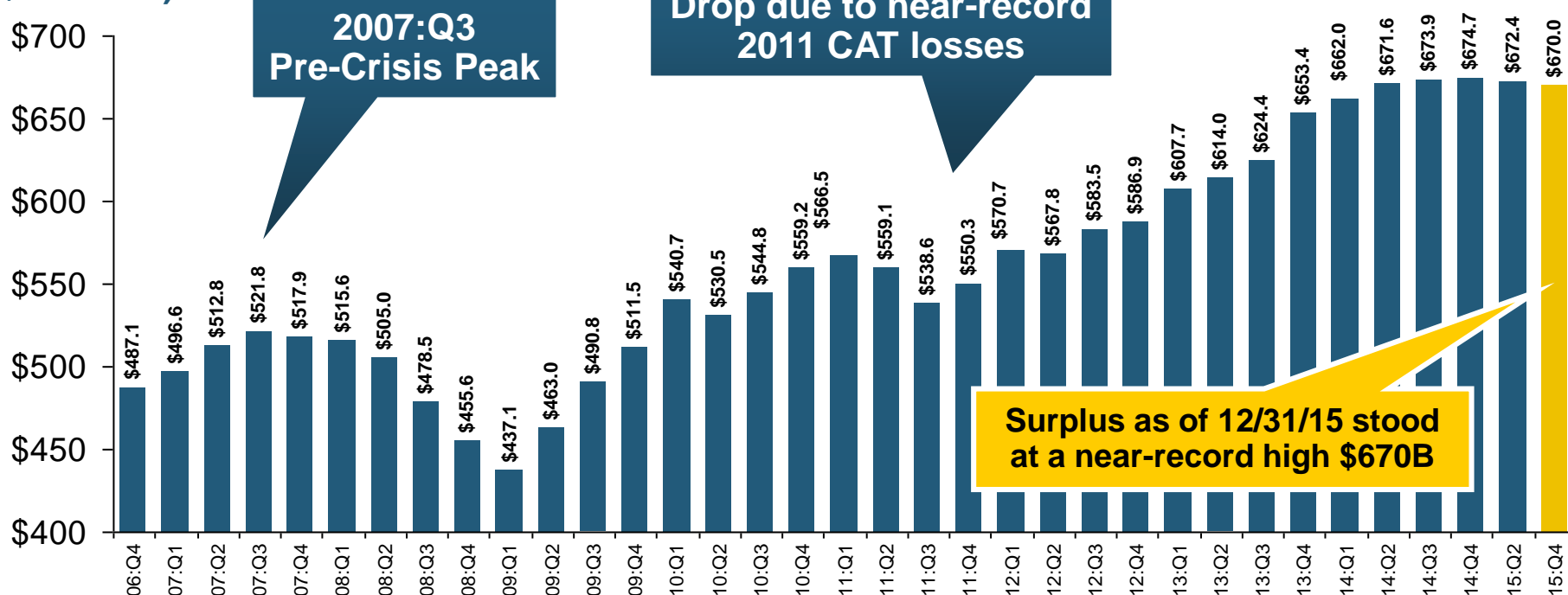
Take-Up Rate



Sources: CA Earthquake (WSJ, <http://www.wsj.com/articles/california-pushes-homeowners-to-insure-against-earthquakes-1440980138>); Flood and Renters (I.I.I. June 2015 Pulse Survey); Cyber (Advisen, 2015); Terrorism (Marsh Global Analytics, 2014 *Terrorism Risk Insurance Report*, April 2014; data for 2013); Pvt. Passenger Auto (Insurance Research Council, *Uninsured Motorists*, 2014 Edition, data for 2012); Home and Workers Comp (I.I.I. estimates); Insurance Information Institute research.

Policyholder Surplus, 2006:Q4–2015:Q4E

(\$ Billions)



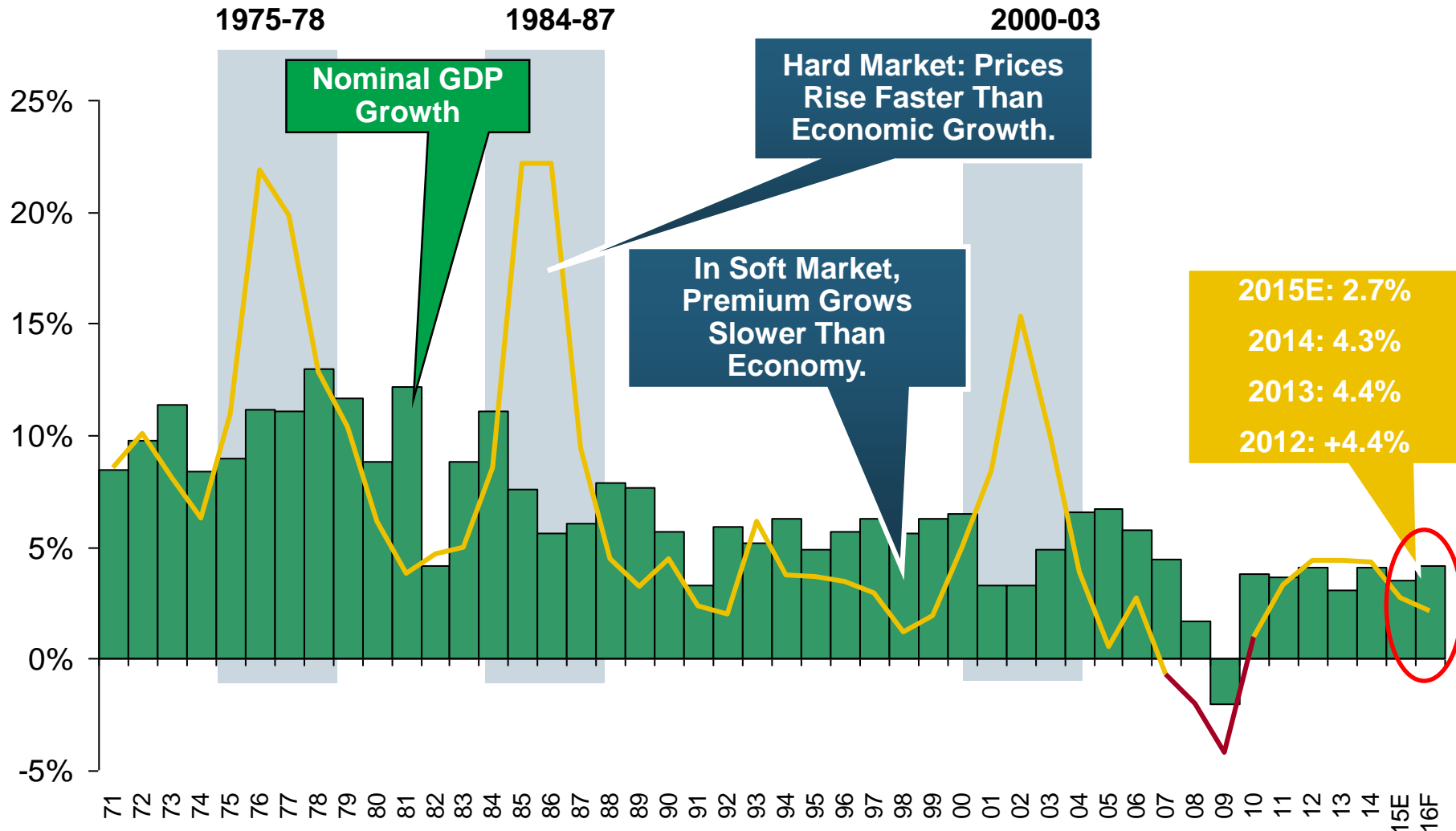
The industry now has \$1 of surplus for every \$0.73 of NPW, close to the strongest claims-paying status in its history.

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 2016 in very strong financial condition.

Net Premium Growth (All P/C Lines): Annual Change, 1971-2016

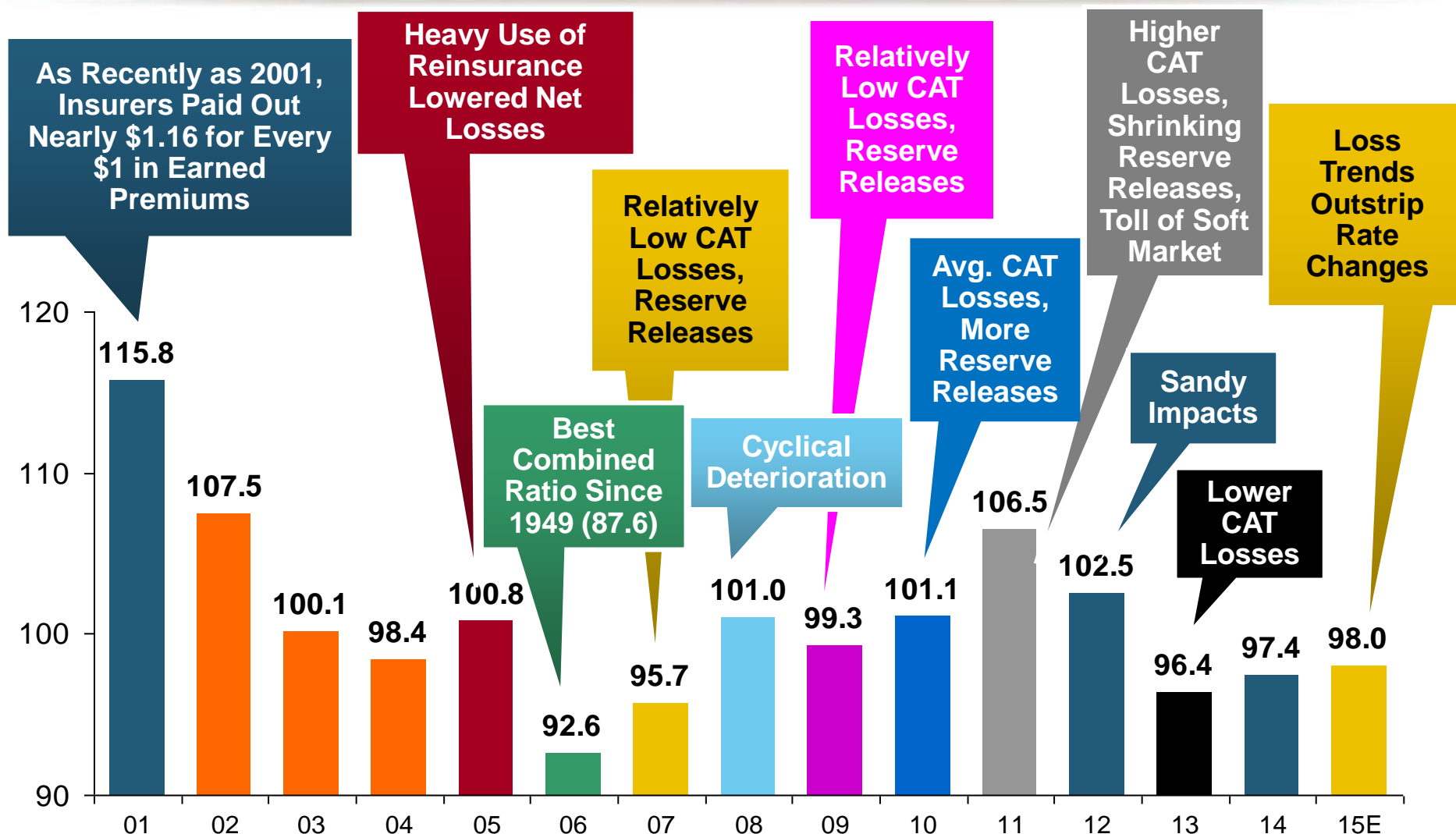
(Percent)



2015E: Estimate; 2015F: Forecast. Shaded areas denote "hard market" periods

Sources: A.M. Best, St. Louis Federal Reserve (Fred), Blue Chip Economic Indicators (January 2016).

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



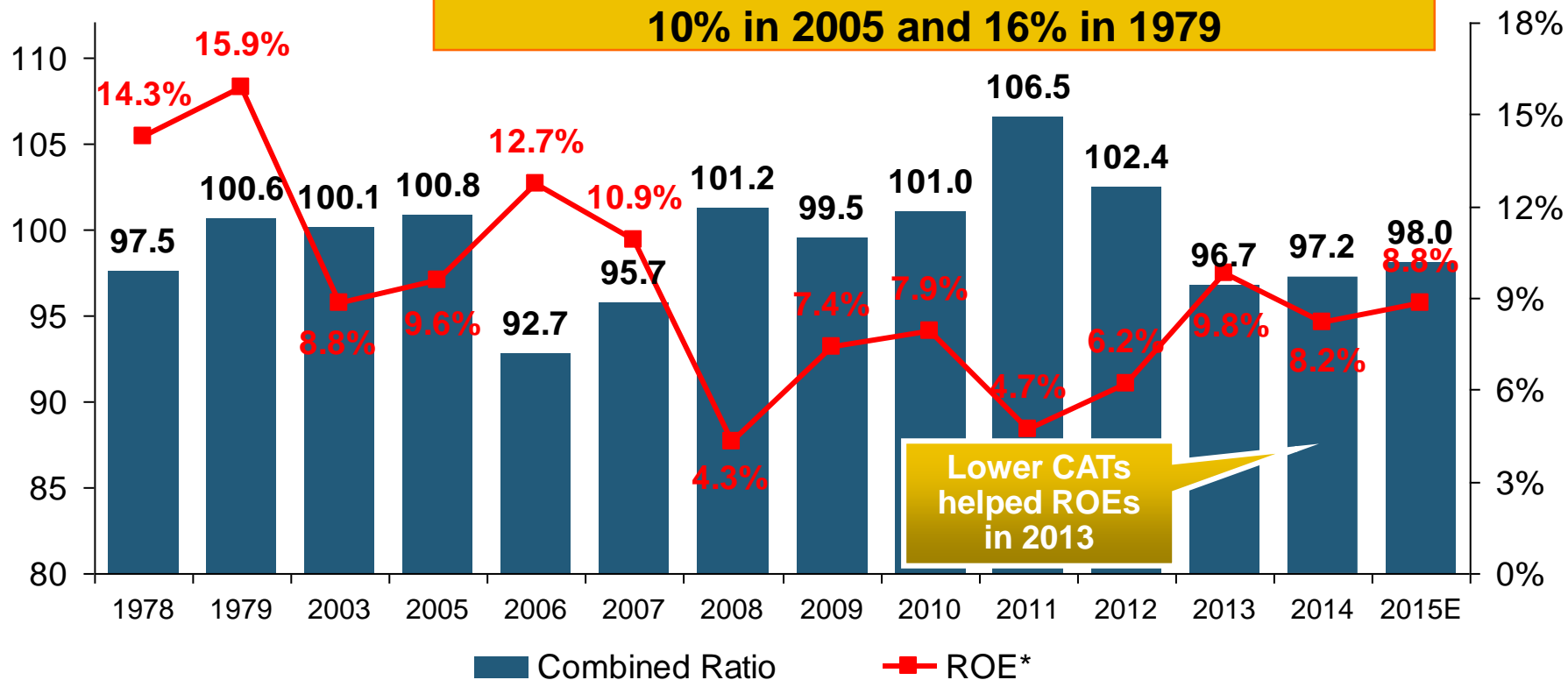
* Excludes Mortgage & Financial Guaranty insurers 2008--2014. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.1; 2012:=103.2; 2013: = 96.1; 2014: = 97.0.

Sources: A.M. Best, ISO; Figure for 2010-2015E is from A.M. Best P&C Review and Preview, Feb. 16, 2016.

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



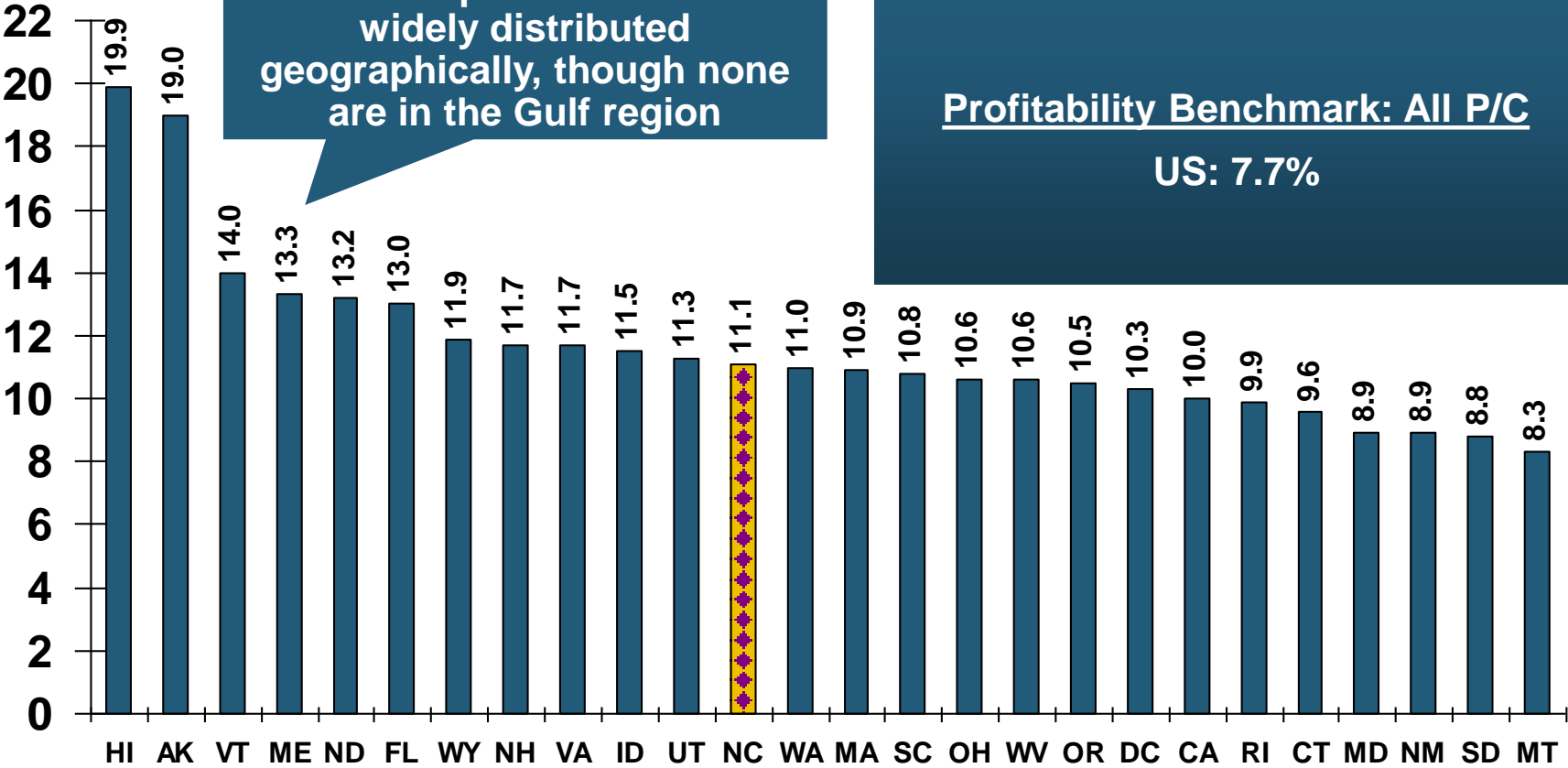
Combined Ratios Must Be Lower in Today's Depressed Investment Environment to Generate Risk Appropriate ROEs

* 2008 -2015 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.

RNW All Lines, 2005-2014 Average: Highest 25 States

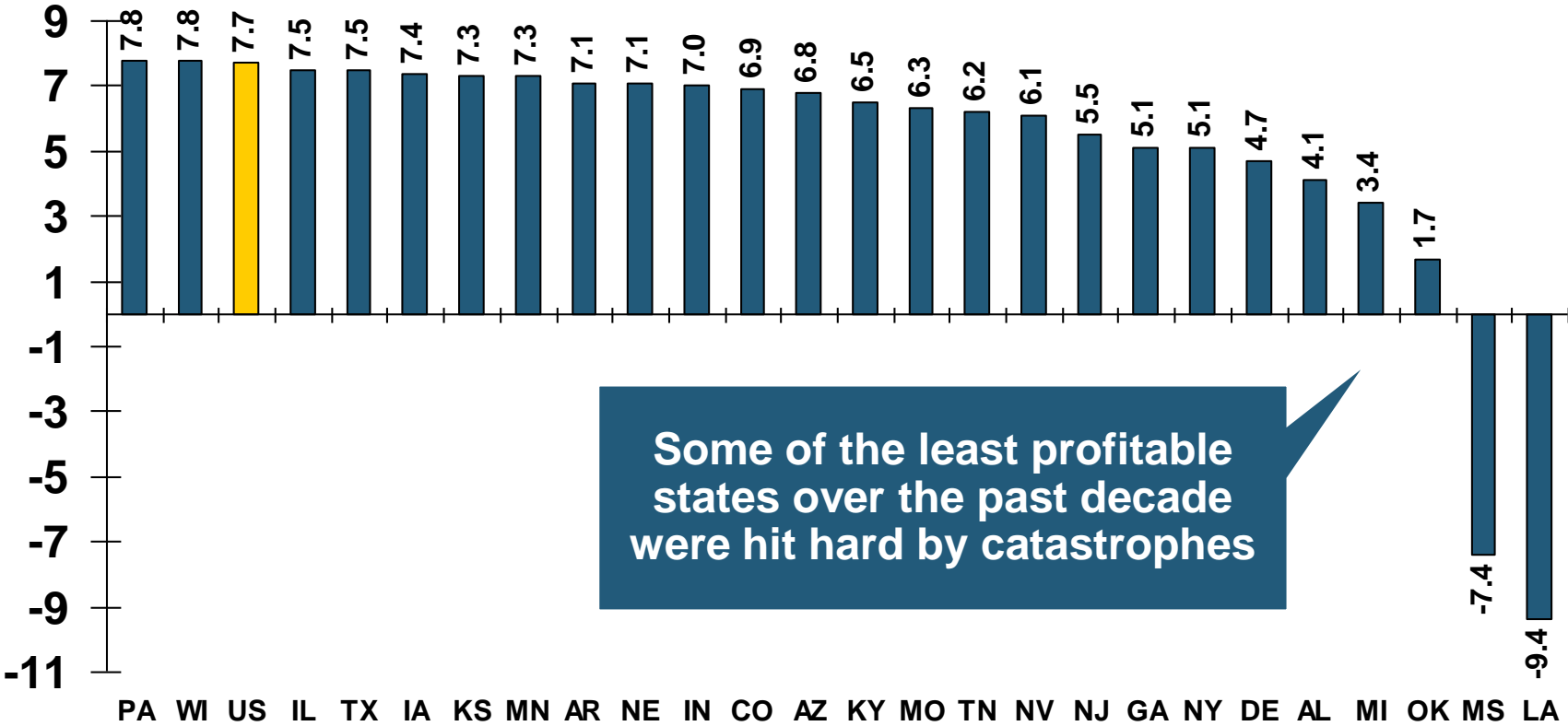
(Percent)



Source: NAIC; Insurance Information Institute.

RNW All Lines, 2005-2014 Average: Lowest 25 States

(Percent)



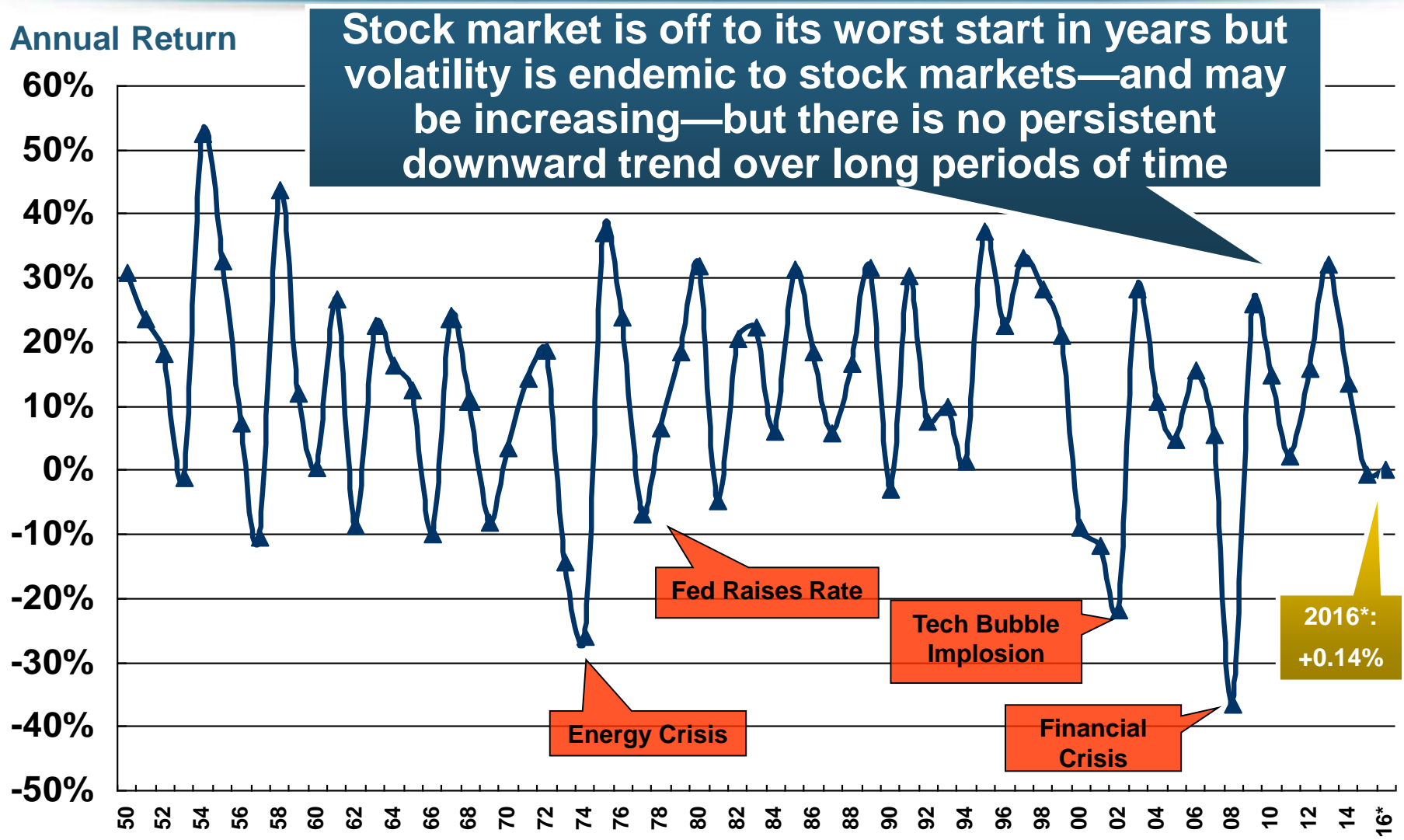
Source: NAIC; Insurance Information Institute.

INVESTMENTS: THE NEW REALITY

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

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

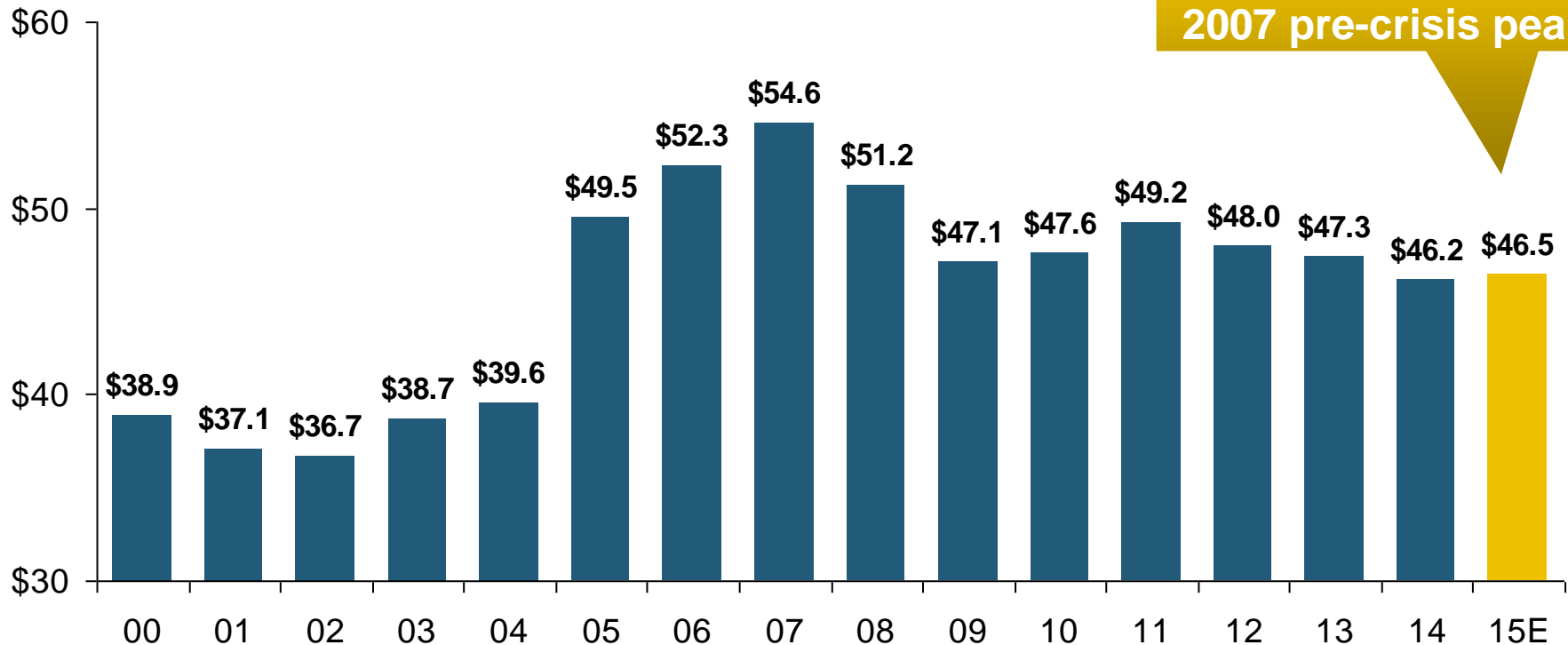
S&P 500 Index Returns, 1950 – 2016*



*Through March 28, 2016.
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 Income: 2000-2015E¹

(\$ Billions)



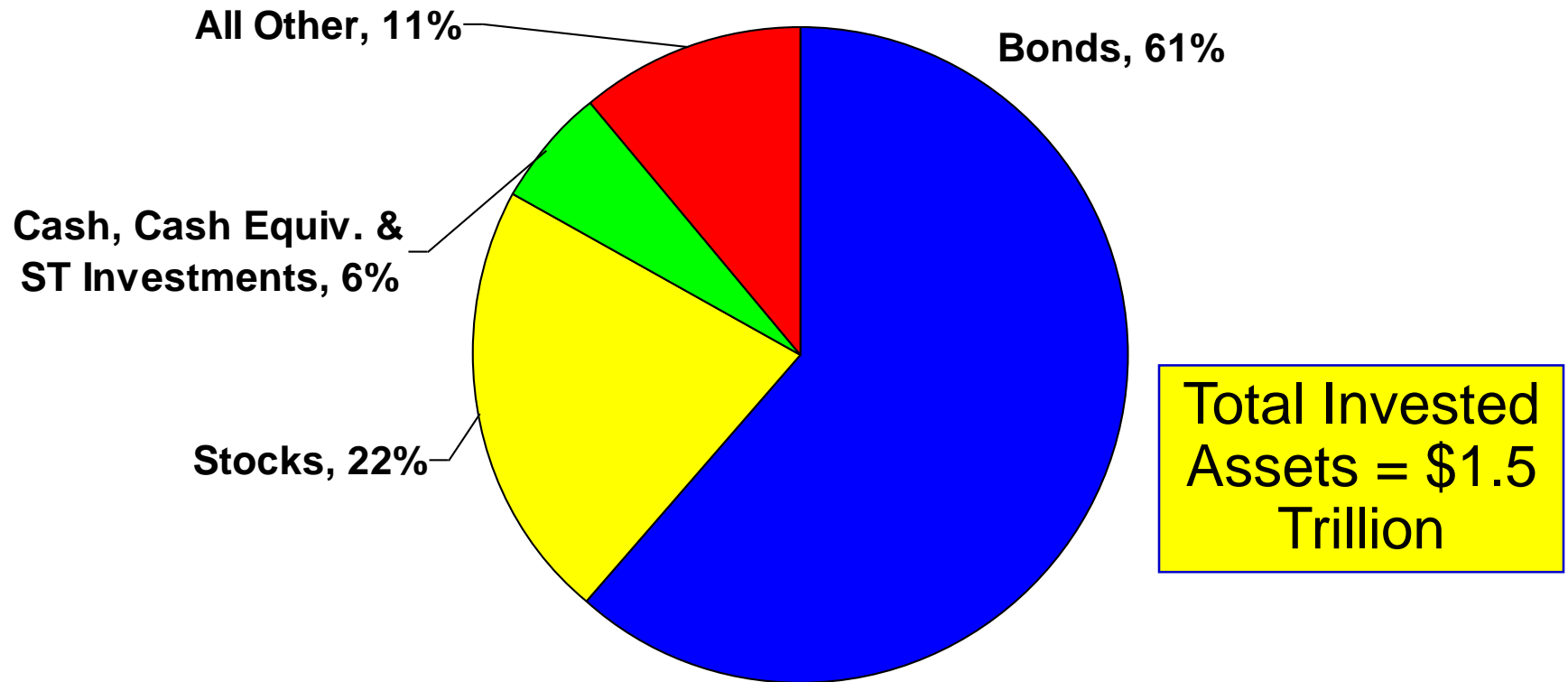
Investment earnings
are still below their
2007 pre-crisis peak

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

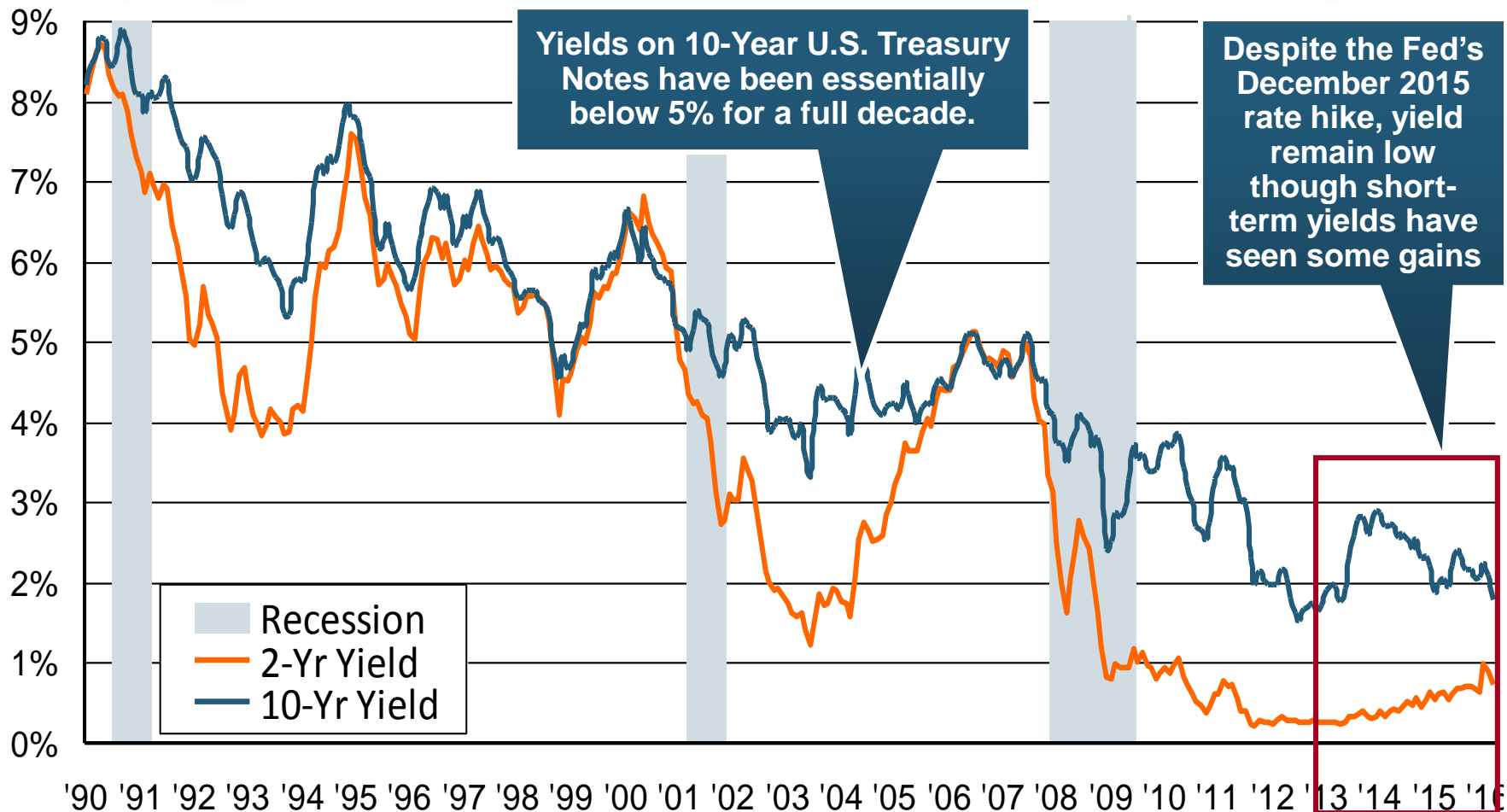
¹ Investment gains consist primarily of interest and stock dividends.
Sources: ISO; Insurance Information Institute.

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

Distribution of Invested Assets: P/C Insurance Industry, 2014



U.S. Treasury Security Yields: A Long Downward Trend, 1990-2016*



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

*Monthly, constant maturity, nominal rates, through February 2016.

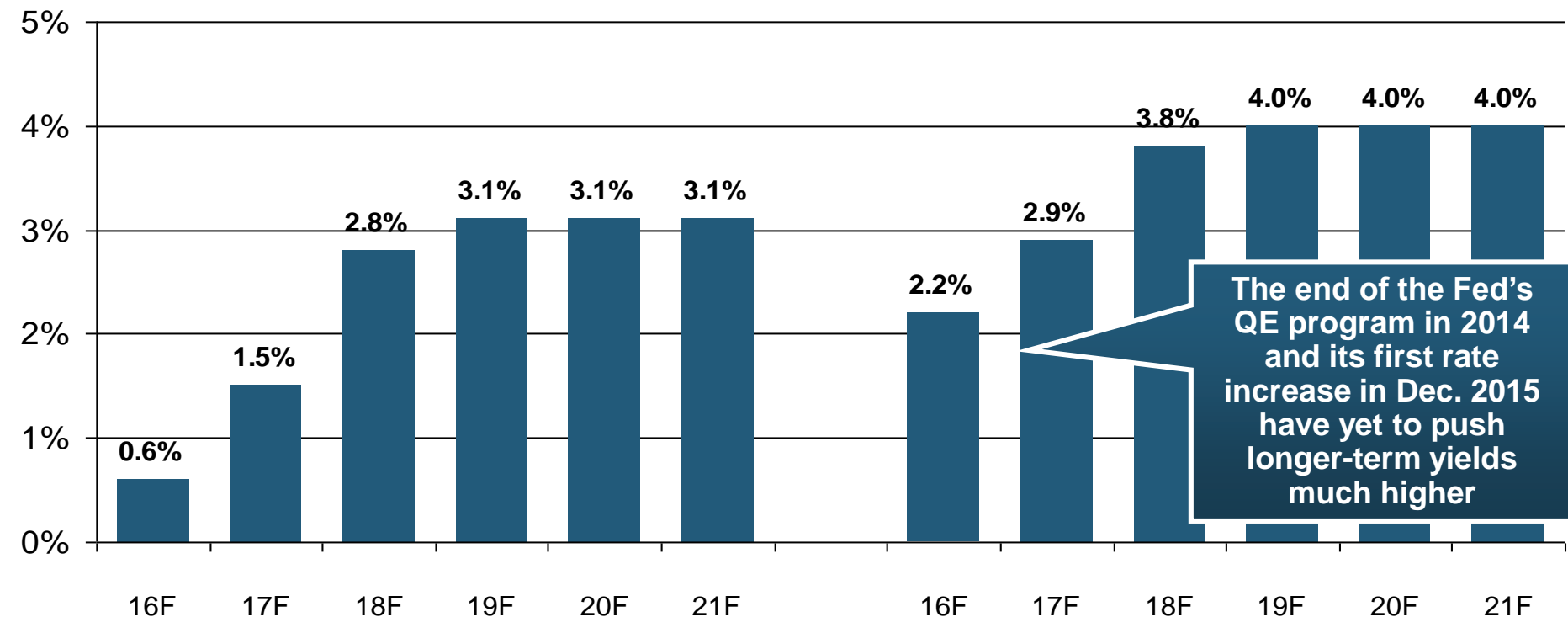
Sources: Federal Reserve Bank at <http://www.federalreserve.gov/releases/h15/data.htm>. National Bureau of Economic Research (recession dates); Insurance Information Institute.

Interest Rate Forecasts: 2015-2021

Yield (%)

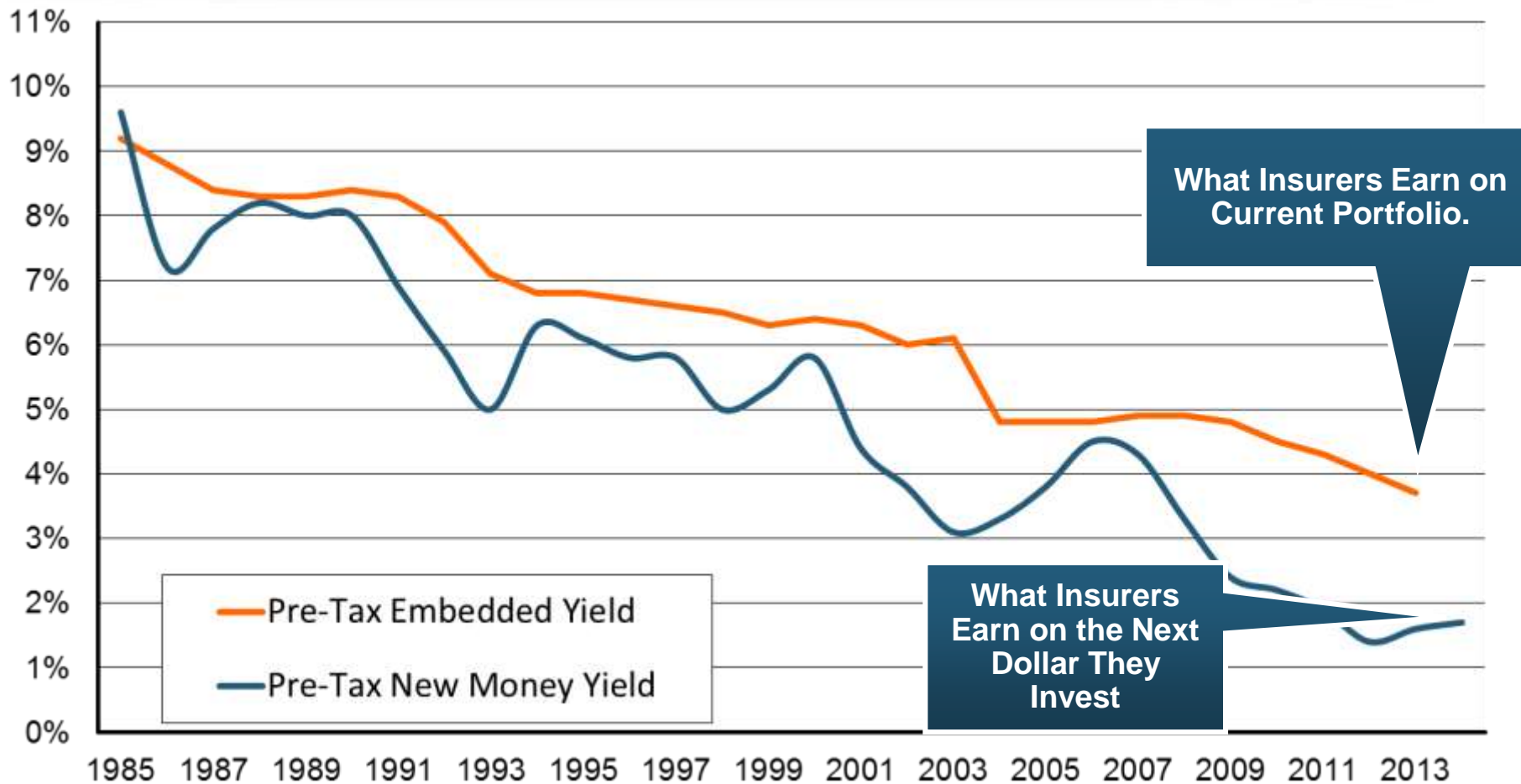
3-Month Treasury

10-Year Treasury



A full normalization of interest rates is unlikely until 2019, more than a decade after the onset of the financial crisis.

The Falling Investment Curve



The Long, Slow Decline In Rates Will Continue to Drag on Investment Portfolios Even After Rates Start Rising.



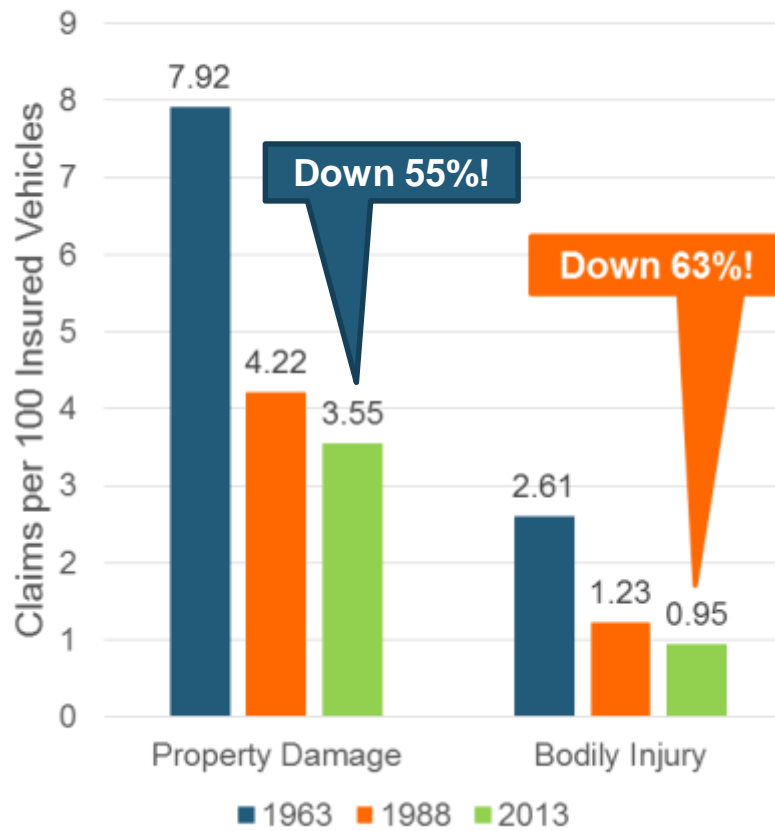
Loss and Inflation Trends

**Frequency/Severity, Long
Dormant, May Be Returning**

The Norm in Auto Insurance: Frequency Falls, Severity Rises

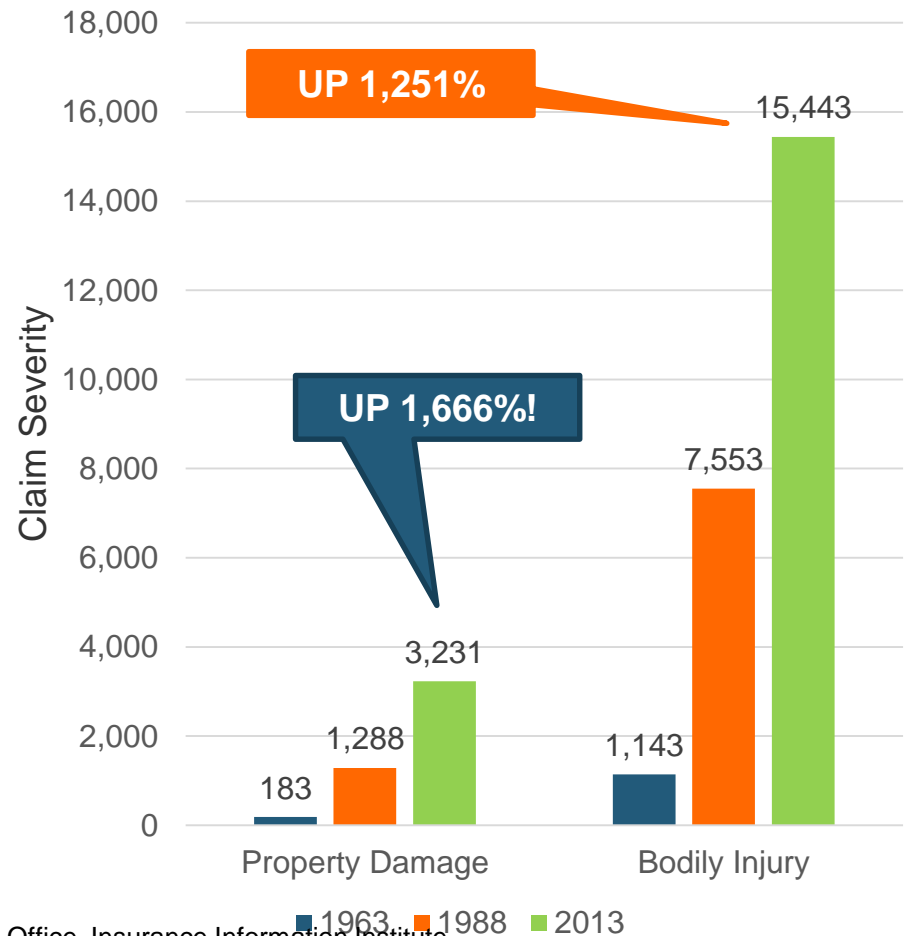
Safer Cars

Frequency



. . . That Cost More to Repair.

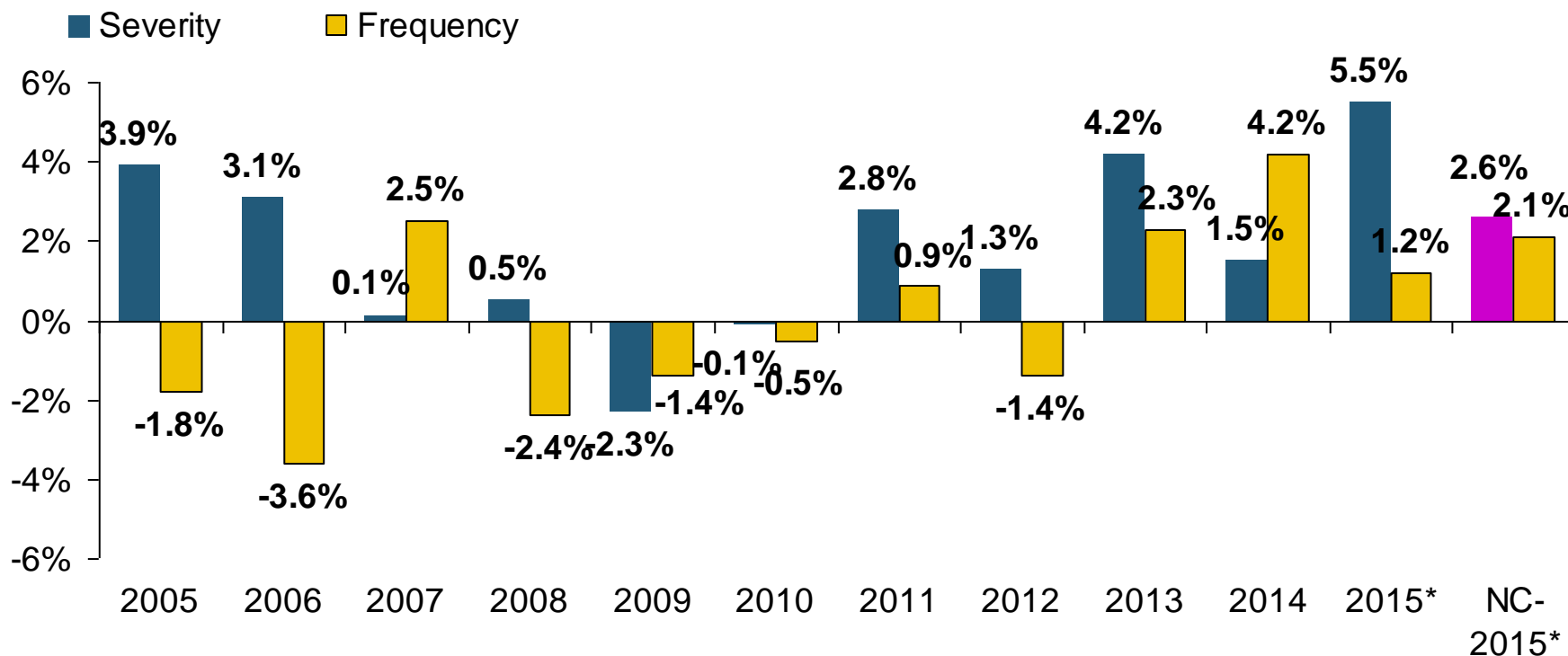
Severity



Sources: Insurance Institute for Highway Safety, Insurance Services Office, Insurance Information Institute.

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

Annual Change, 2005 through 2015*



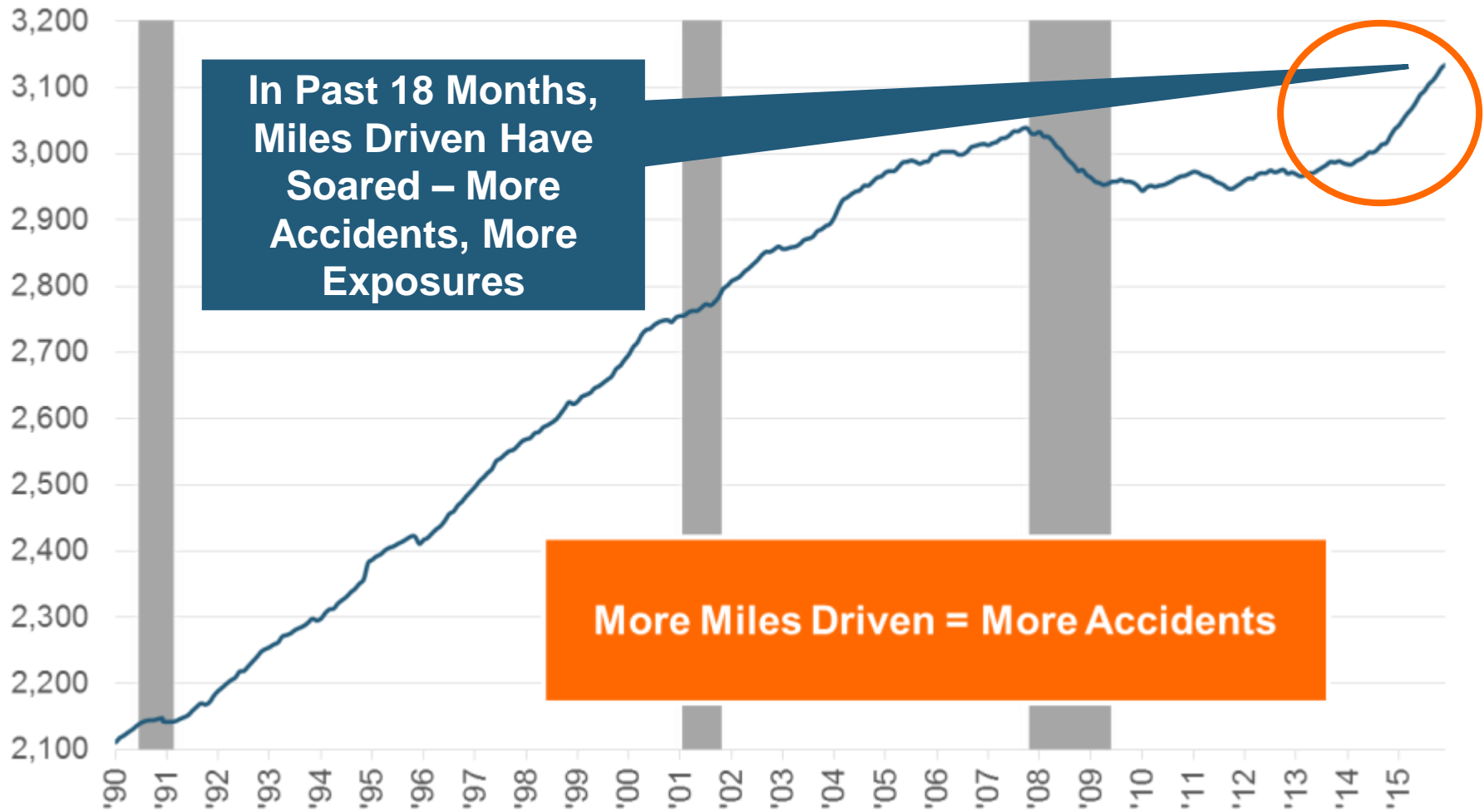
The Recession, High Fuel Prices Helped Temper Frequency and Severity, But this Trend Has Clearly Reversed, Consistent with Experience from Past Recoveries

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

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

Frequency: Miles Driven is Climbing

Billions of Miles



*Moving 12-month total. Data through July 2015.

Note: Recessions indicated by gray shaded columns.

Sources: Federal Highway Administration (http://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm);

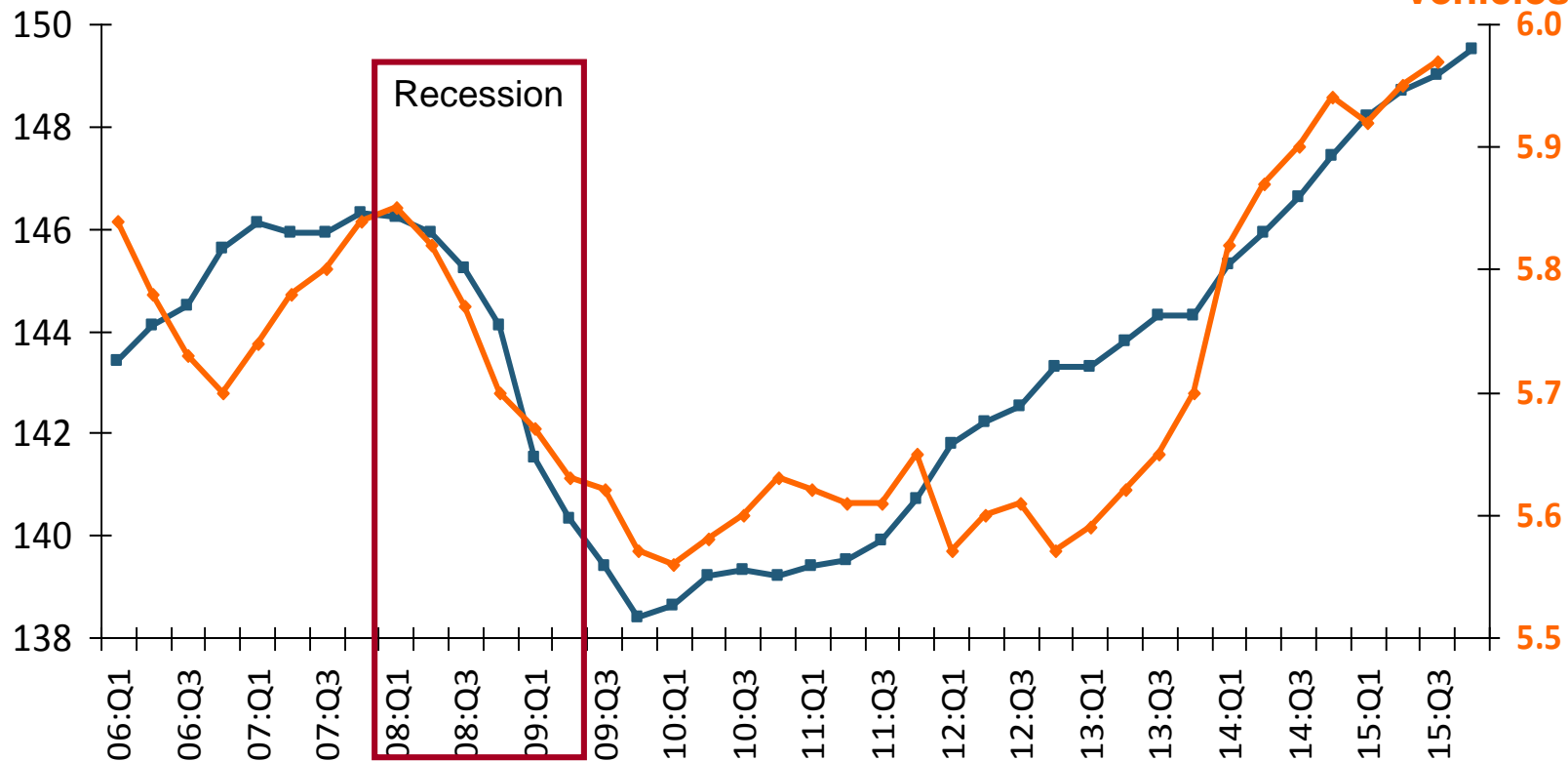
National Bureau of Economic Research (recession dates); Insurance Information Institute.

Frequency: As More People Work, They Get in More Accidents

Number
Employed,
Millions

Number Employed (left scale) Collision Claim Frequency (right scale)

Overall
Collision Claims
Per 100 Insured
Vehicles

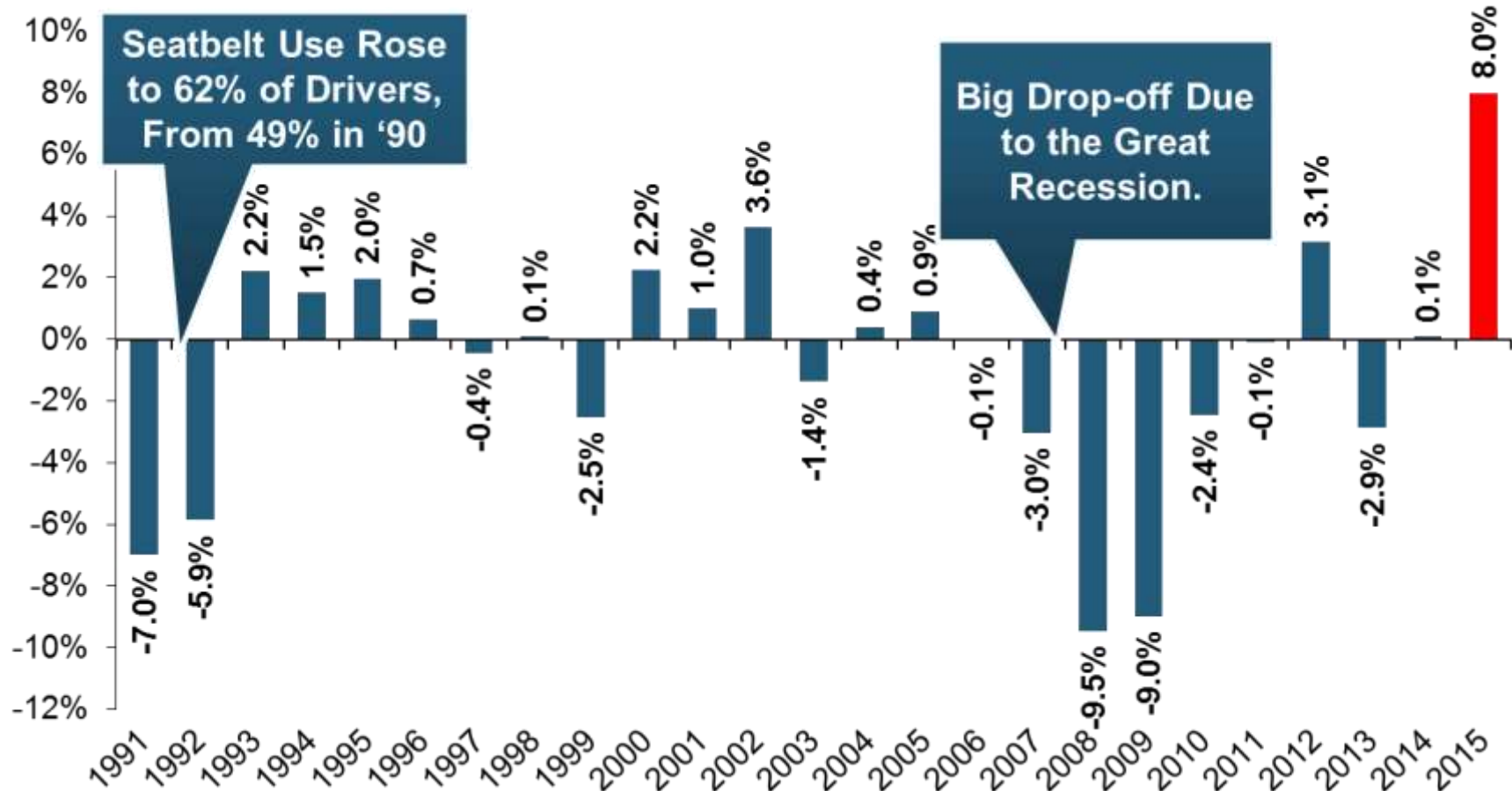


When people are out of work, they drive less. When they get jobs, they drive to work, helping drive claim frequency higher.

Sources: Seasonally Adjusted Employed from Bureau of Labor Statistics; Rolling Four-Qtr Avg. Frequency from Insurance Services Office; Insurance Institute for Highway Safety; Insurance Information Institute.

Severity: Driving Fatalities Are Rising

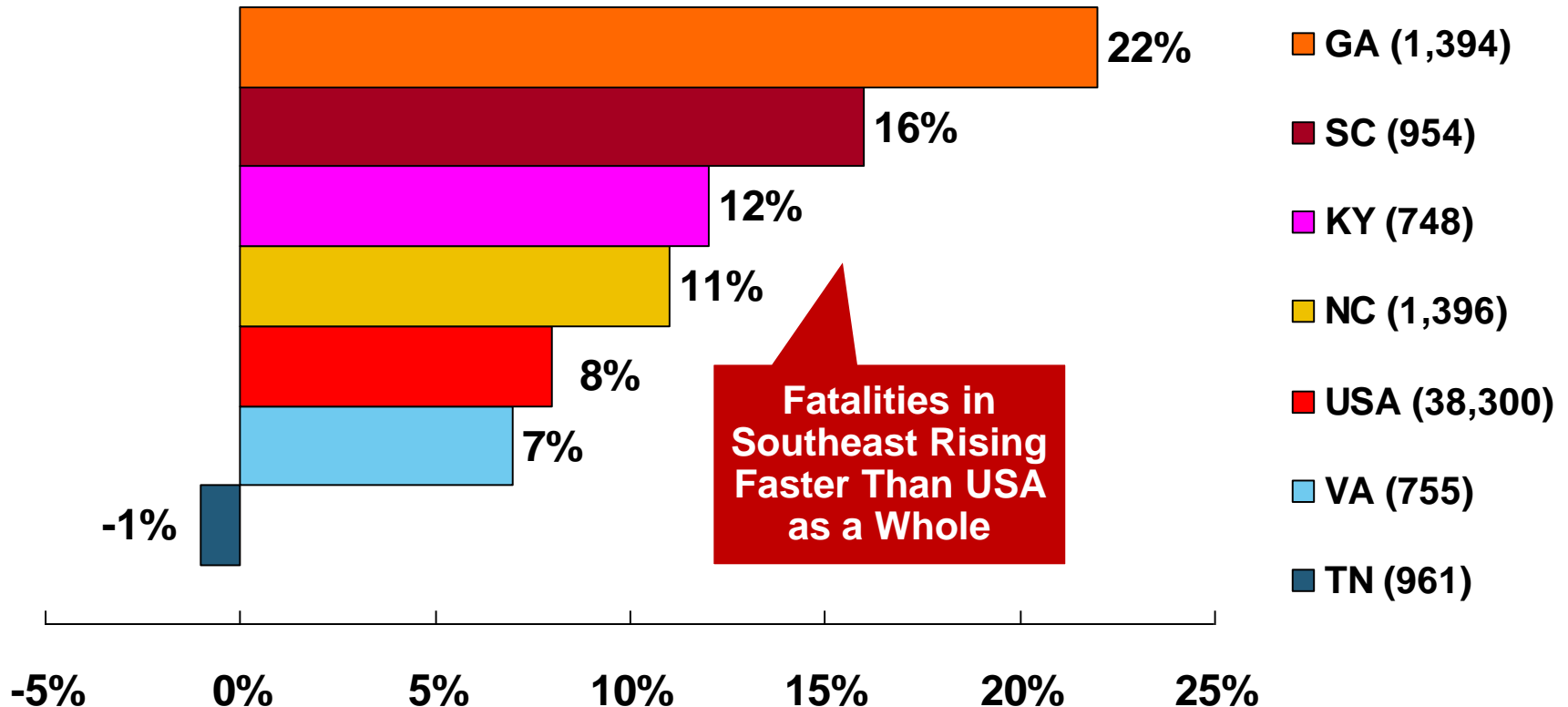
Annual Change in Motor Vehicle Deaths



Driving Has Been Getting Safer For Decades, But Recent Trend Is Discouraging—38,300 Deaths in 2015

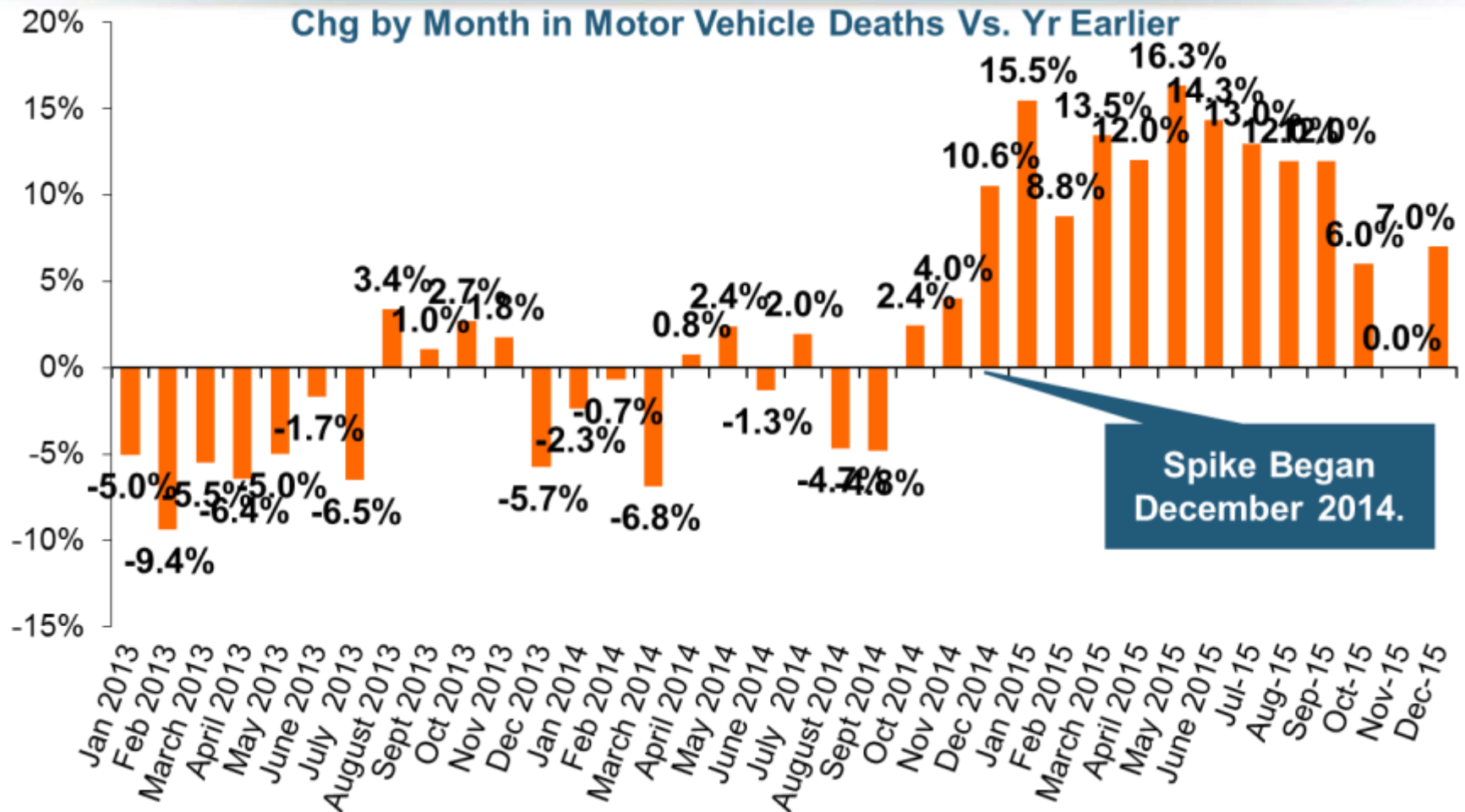
Severity: Chg in Auto Fatalities by State

2015 vs. 2014



SOURCE: Estimates from National Safety Council.

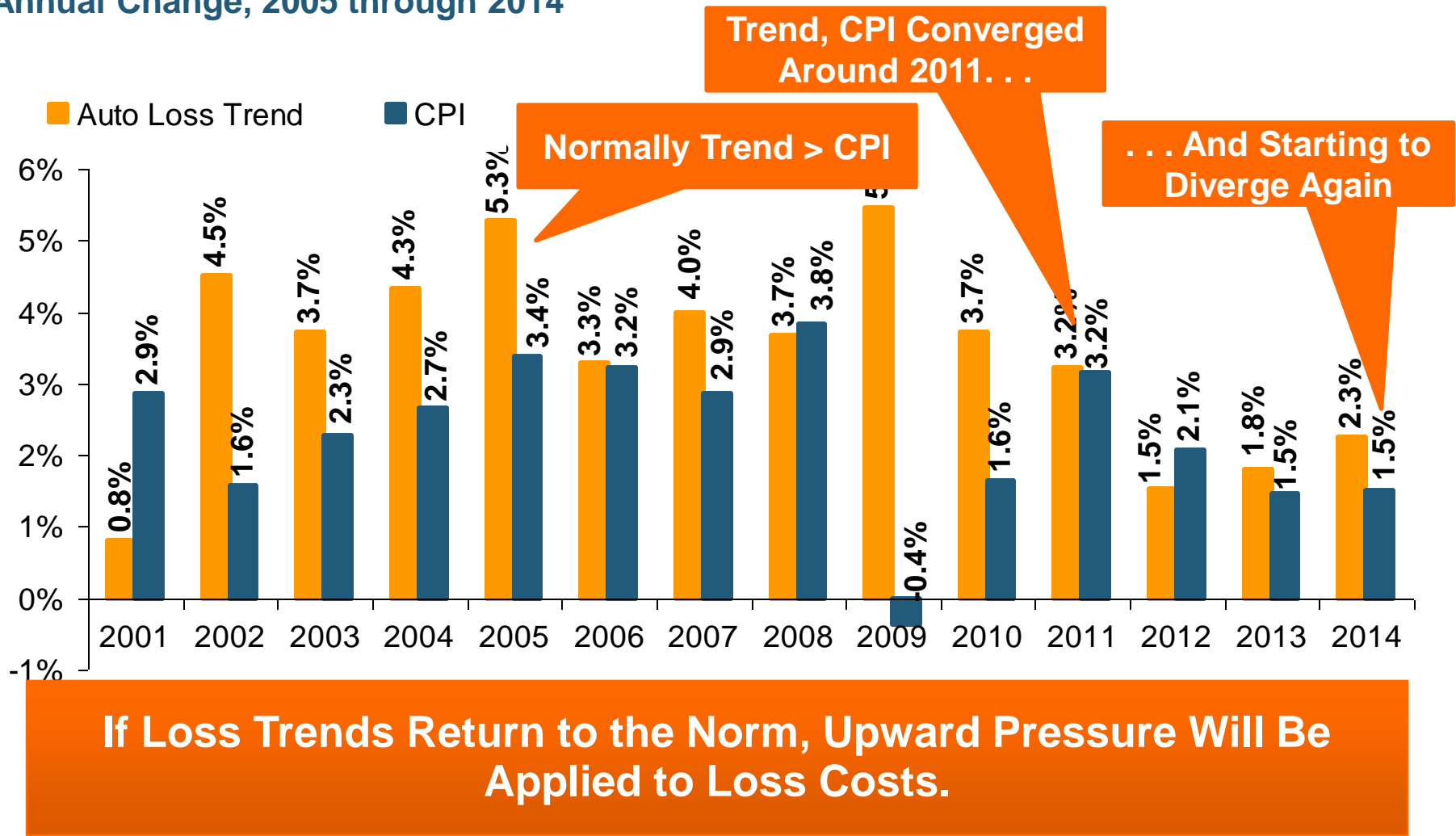
Severity: Driving Fatalities Are Rising



On Track for Most Auto Fatalities Since 2007.

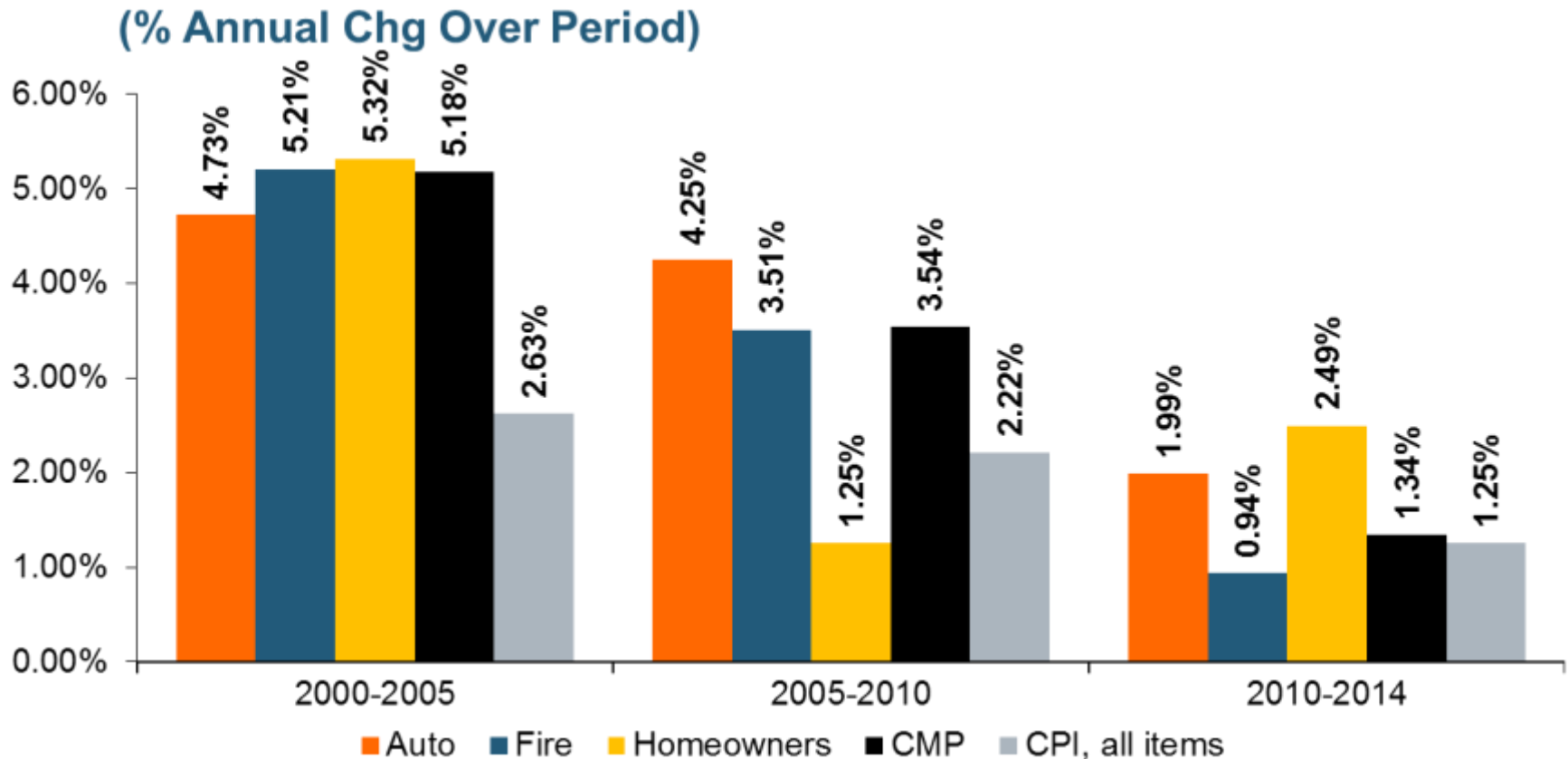
Severity: Loss Trend vs. Inflation

Annual Change, 2005 through 2014



Source: Towers Watson Claim Cost Index, Insurance Information Institute.

Loss Trends vs. CPI: Not Just Auto

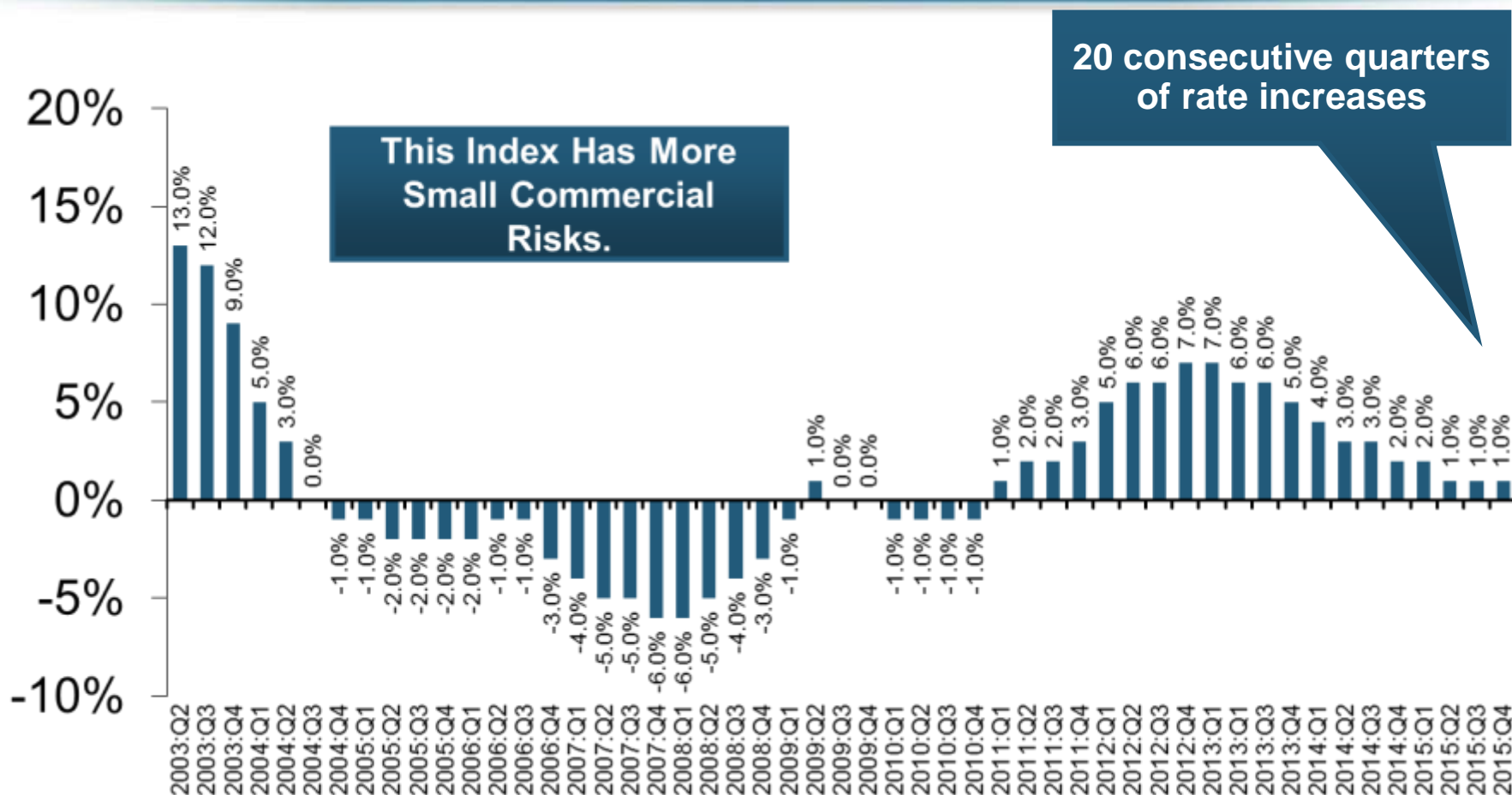


In Recent Years, Claim Costs Have Risen at About the Inflation Rate. If We Return to the Norm, Claim Costs Will Rise.

RATES & LOSS TRENDS

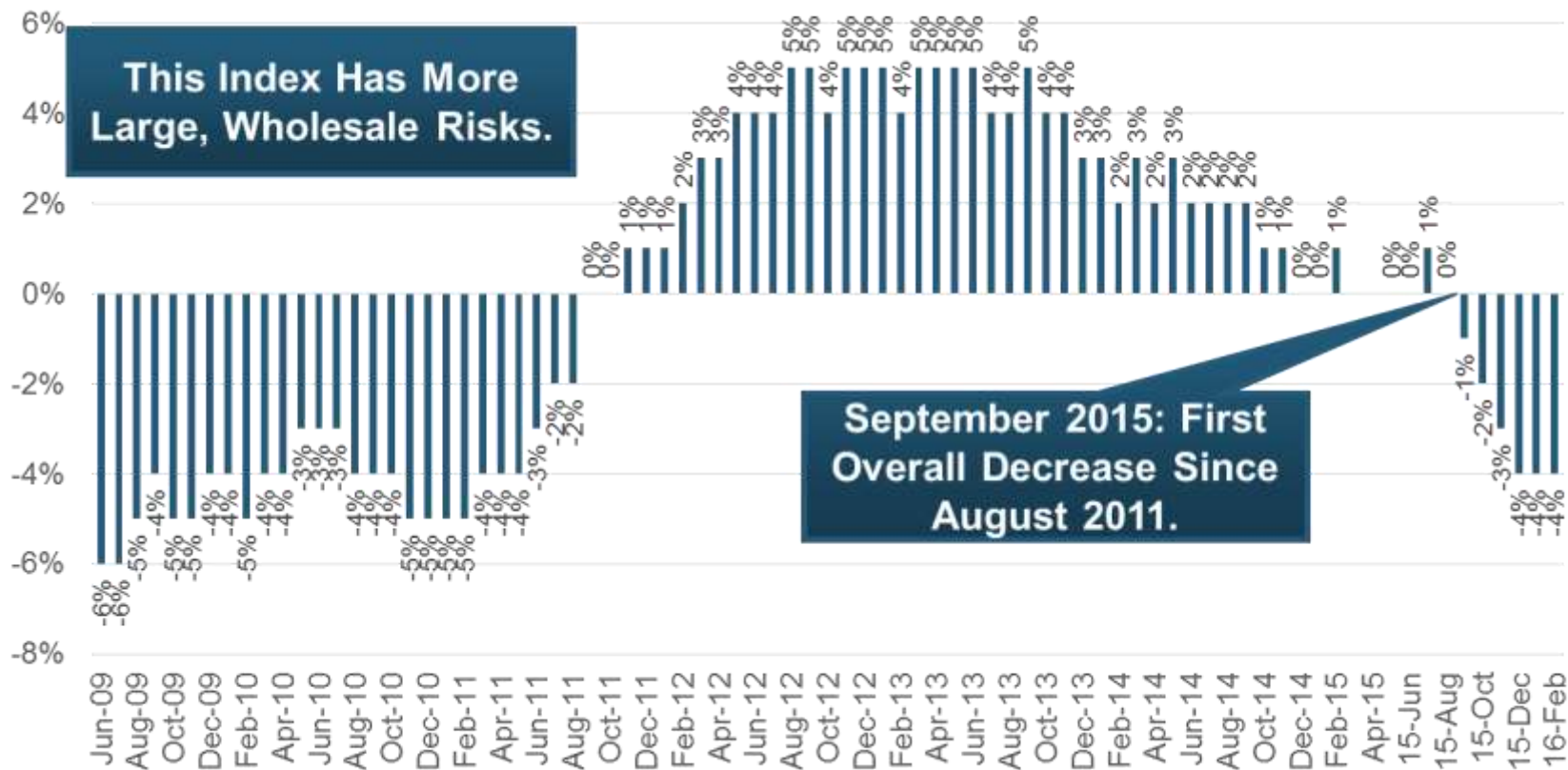
**Commercial Lines Roughly Flat;
Personal Auto Rates Feeling
Upward Pressure**

Commercial Lines Rate Change by Qtr (vs. Year Earlier)



Decreases: WC, Property, D&O. 'Meaningful' Increases: Commercial Auto.

Commercial Lines Rate Change by Month (vs. Year Earlier) Since 6/09



Rate Decline Has Levelled Off a Bit. Decreases in All Lines But EPLI (Flat) – Even Commercial Auto.

Rates in The Southeast, Q4 2015*

By Account Size

	Down > 10%	Down 1-10%	No Change	Up 1-10%	Up > 10%	N/A
Small (<25K)	0.00%	43.75%	43.75%	6.25%	0.00%	6.25%
Medium (25-100K)	0.00%	62.50%	18.75%	12.50%	0.00%	6.25%
Large (100K+)	0.00%	75.00%	6.25%	12.50%	0.00%	6.25%

This Survey is
Based on
Agent
Estimates.

By Line of Business

	Down > 10%	Down 1-10%	No Change	Up 1-10%	Up > 10%	N/A
Commercial Auto	0.00%	0.00%	25.00%	68.75%	6.25%	0.00%
Commercial Property	12.50%	68.75%	18.75%	0.00%	0.00%	0.00%
D&O	0.00%	12.50%	81.25%	6.25%	0.00%	0.00%
Flood Insurance	0.00%	12.50%	75.00%	6.25%	6.25%	0.00%
General Liability	6.25%	68.75%	25.00%	0.00%	0.00%	0.00%
Terrorism	0.00%	12.50%	75.00%	0.00%	0.00%	12.50%
Umbrella	0.00%	62.50%	25.00%	12.50%	0.00%	0.00%
Workers Compensation	6.25%	62.50%	25.00%	6.25%	0.00%	0.00%

Rates Can Vary *Significantly* Within States, Lines of Business or Individual Markets.

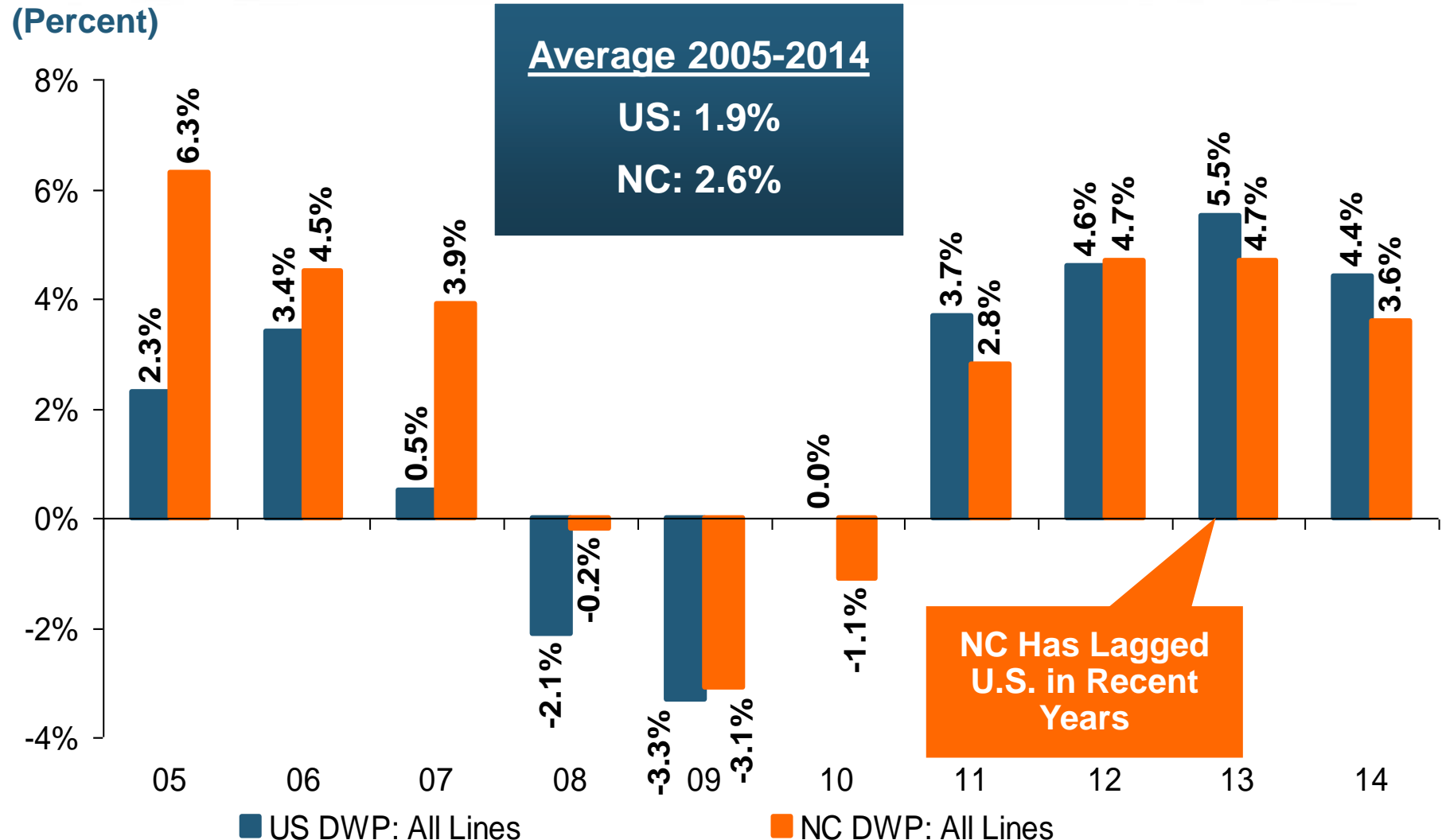
* AL, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV.
SOURCE: Council of Insurance Agents & Brokers.



Profitability and Growth in North Carolina P/C Insurance Markets

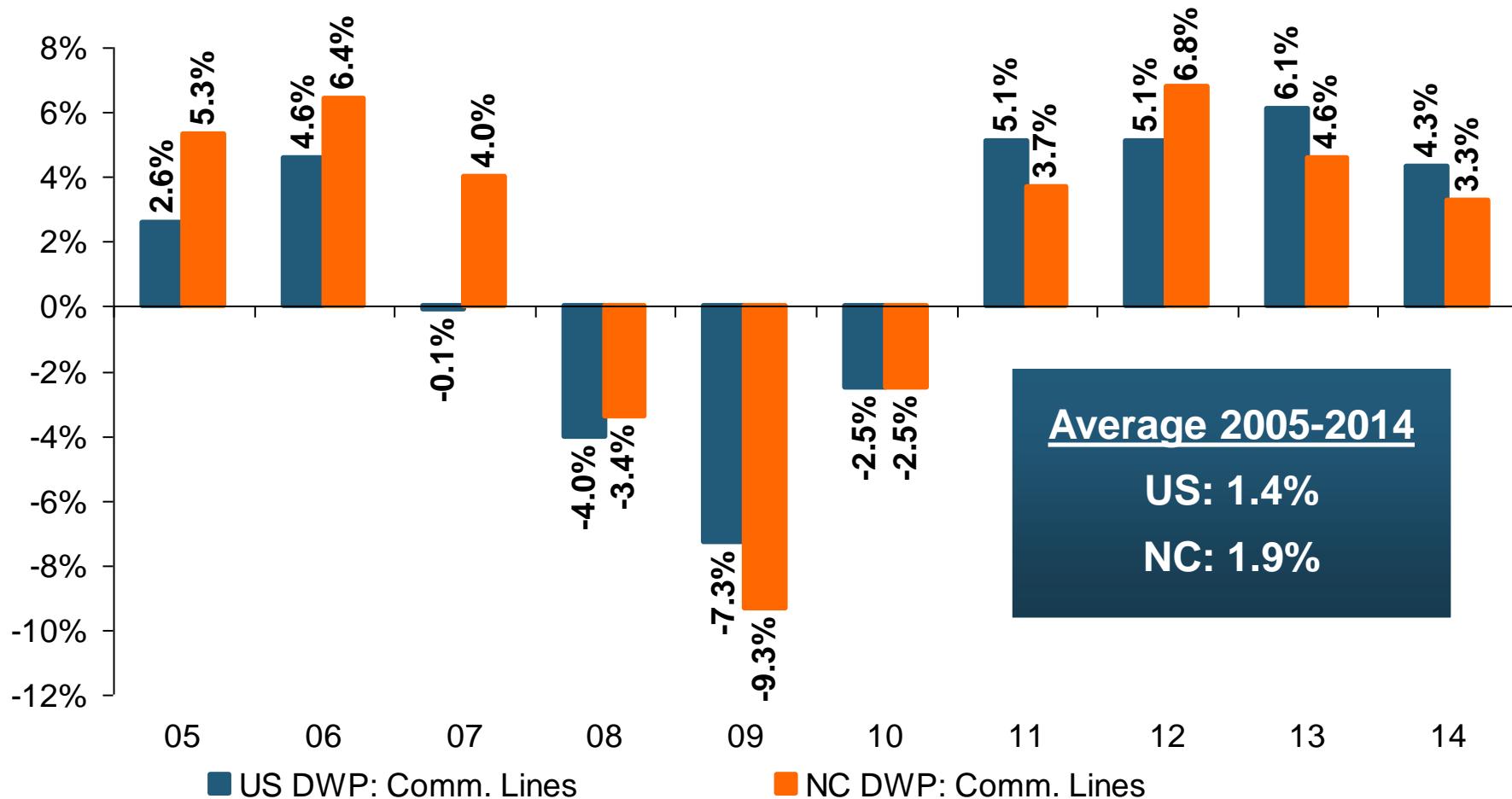
Analysis by Line and Nearby State Comparisons

All Lines DWP Growth: NC vs. U.S., 2005-2014

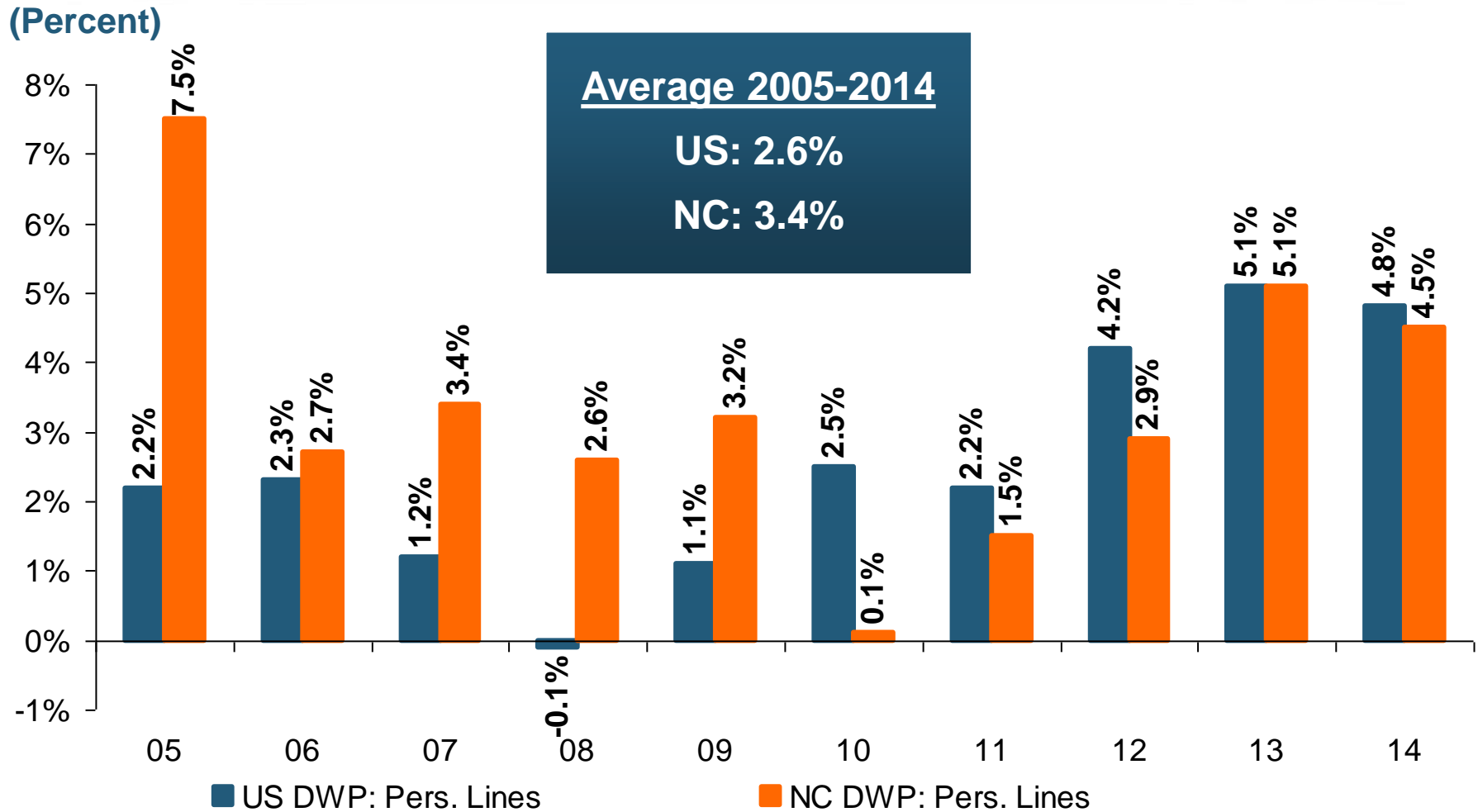


Comm. Lines DWP Growth: NC vs. U.S., 2005-2014

(Percent)

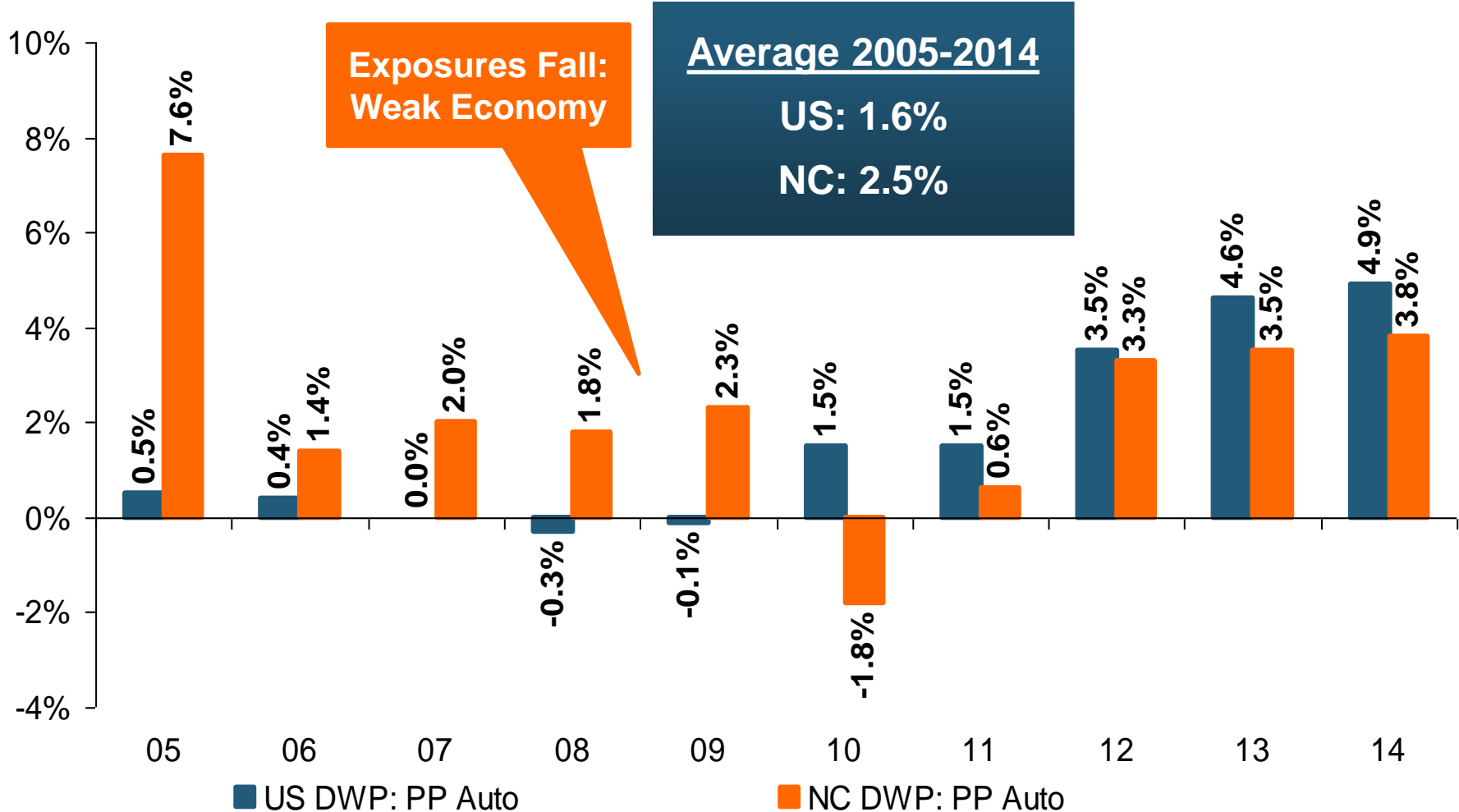


Personal Lines DWP Growth: NC vs. U.S., 2005-2014



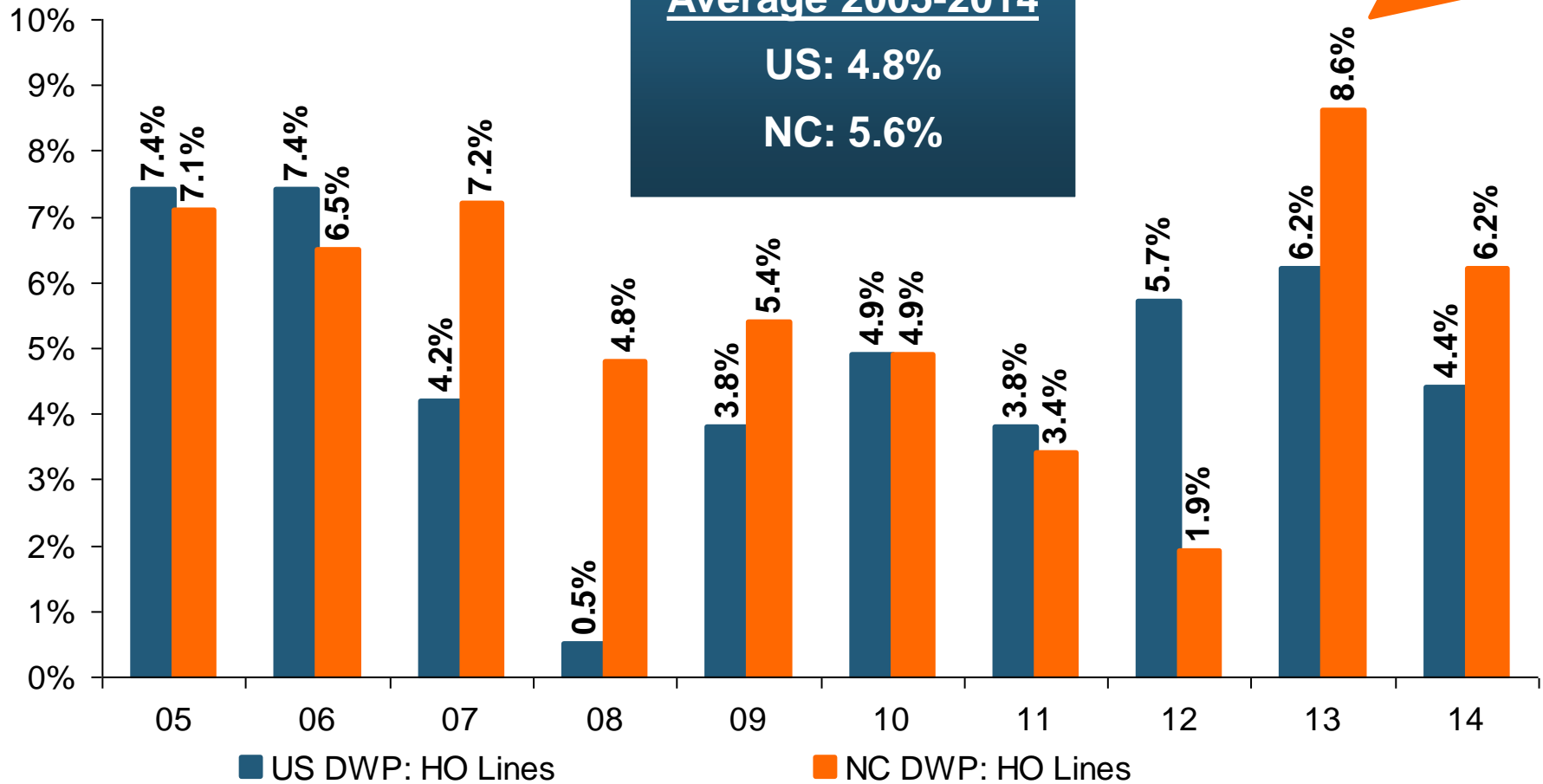
Private Passenger Auto DWP Growth: NC vs. U.S., 2005-2014

(Percent)



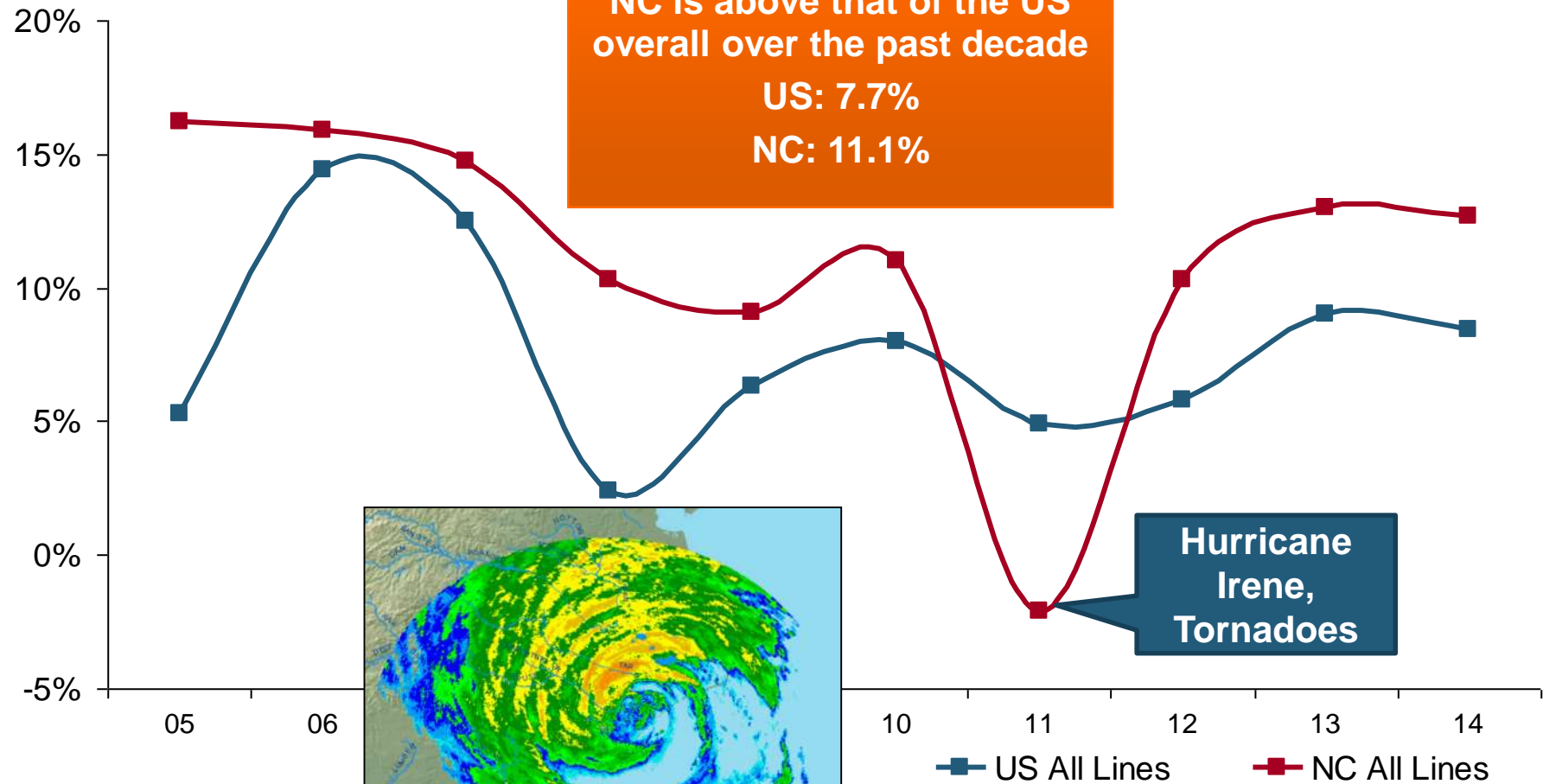
Homeowner's MP DWP Growth: NC vs. U.S., 2005-2014

(Percent)



RNW All Lines: NC vs. U.S., 2005-2014

(Percent)

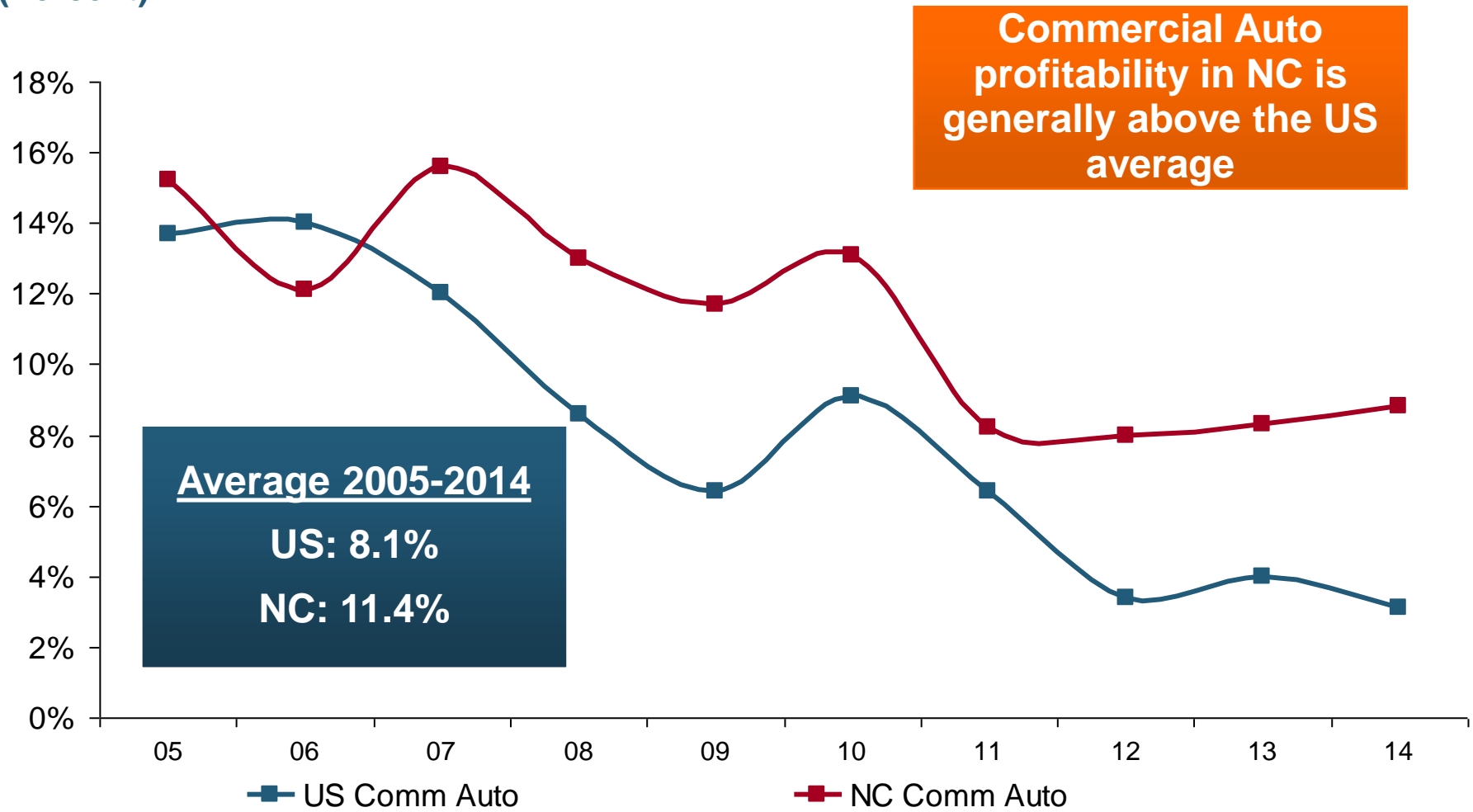


Sources: NAIC.

Hurricane Irene Over NC.

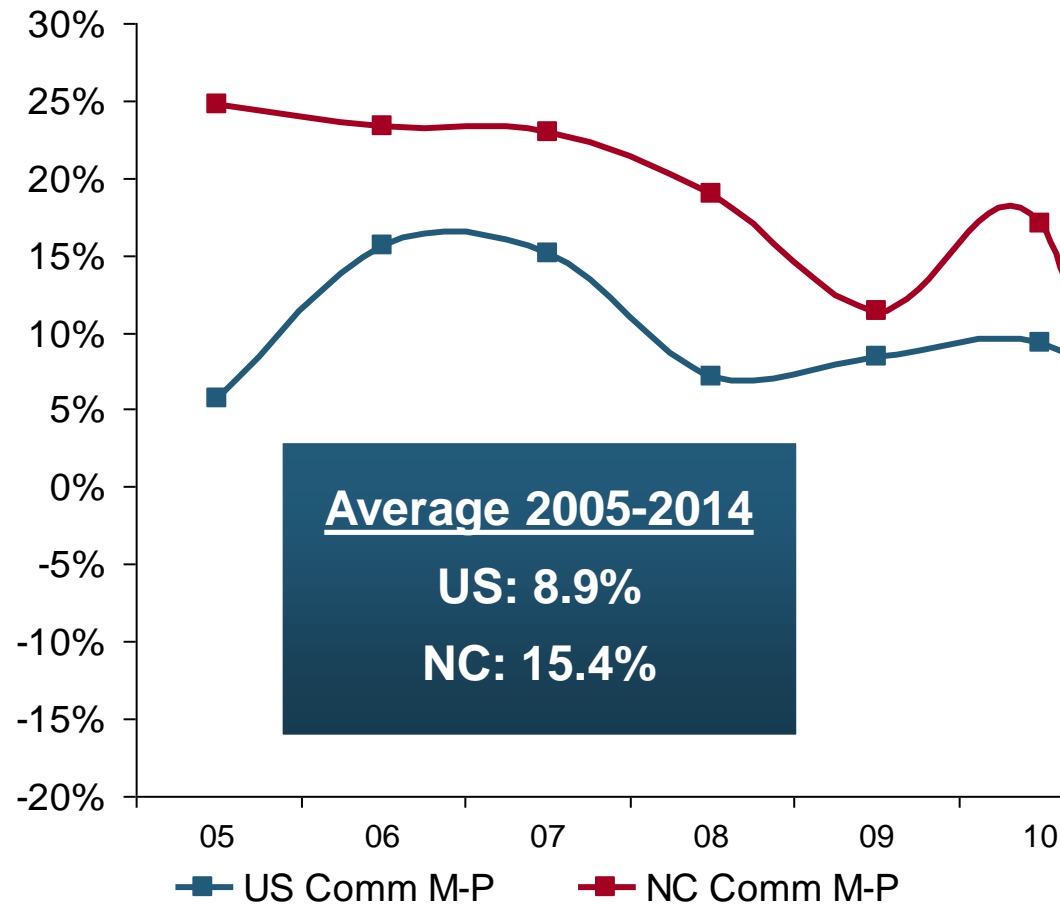
RNW Comm. Auto: NC vs. U.S., 2005-2014

(Percent)

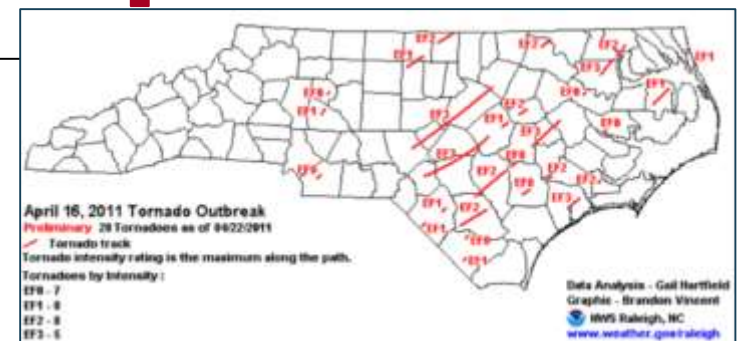


RNW Comm. Multi-Peril: NC vs. U.S., 2005-2014

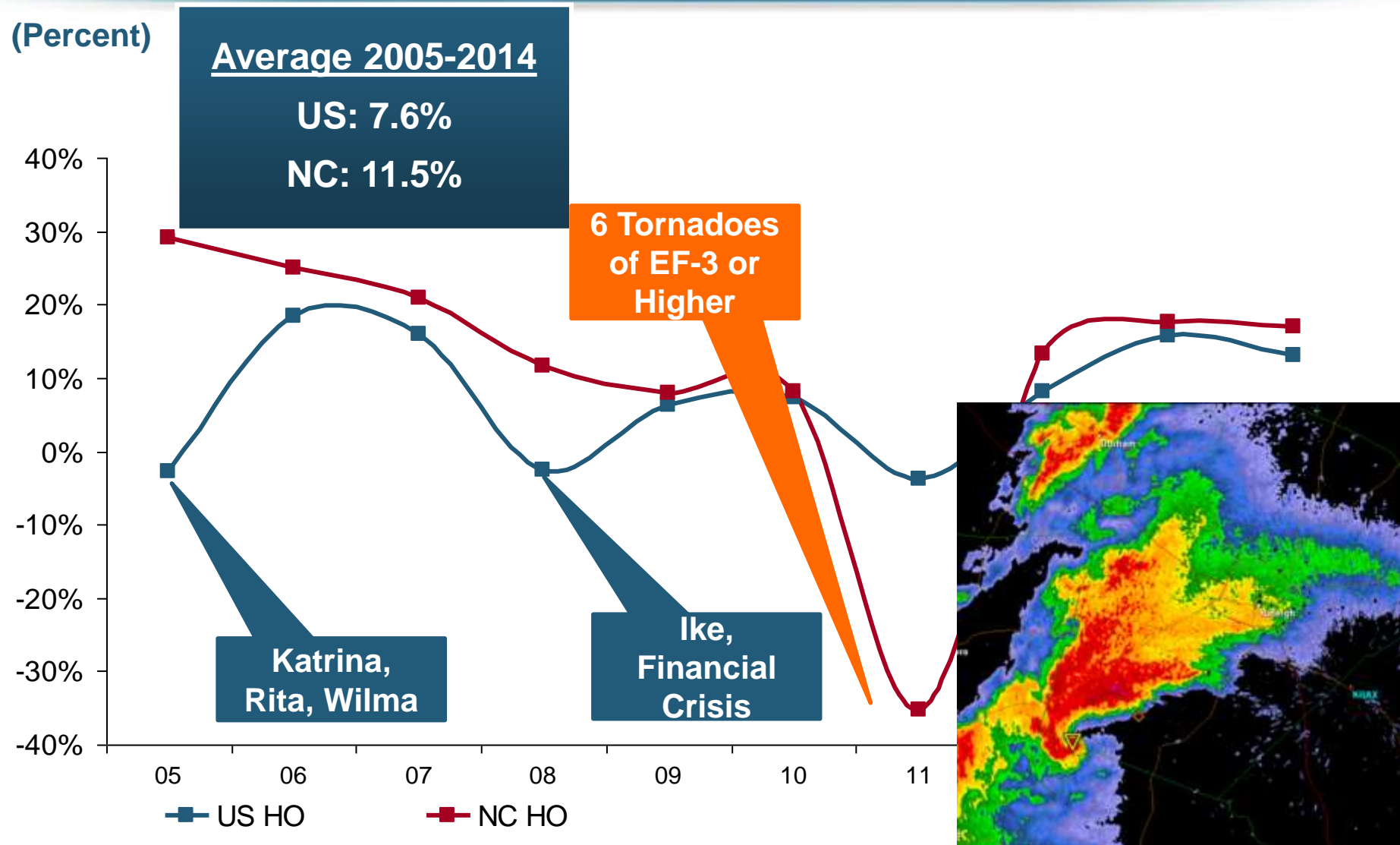
(Percent)



Irene, 6
Tornadoes of
EF-3 or Higher

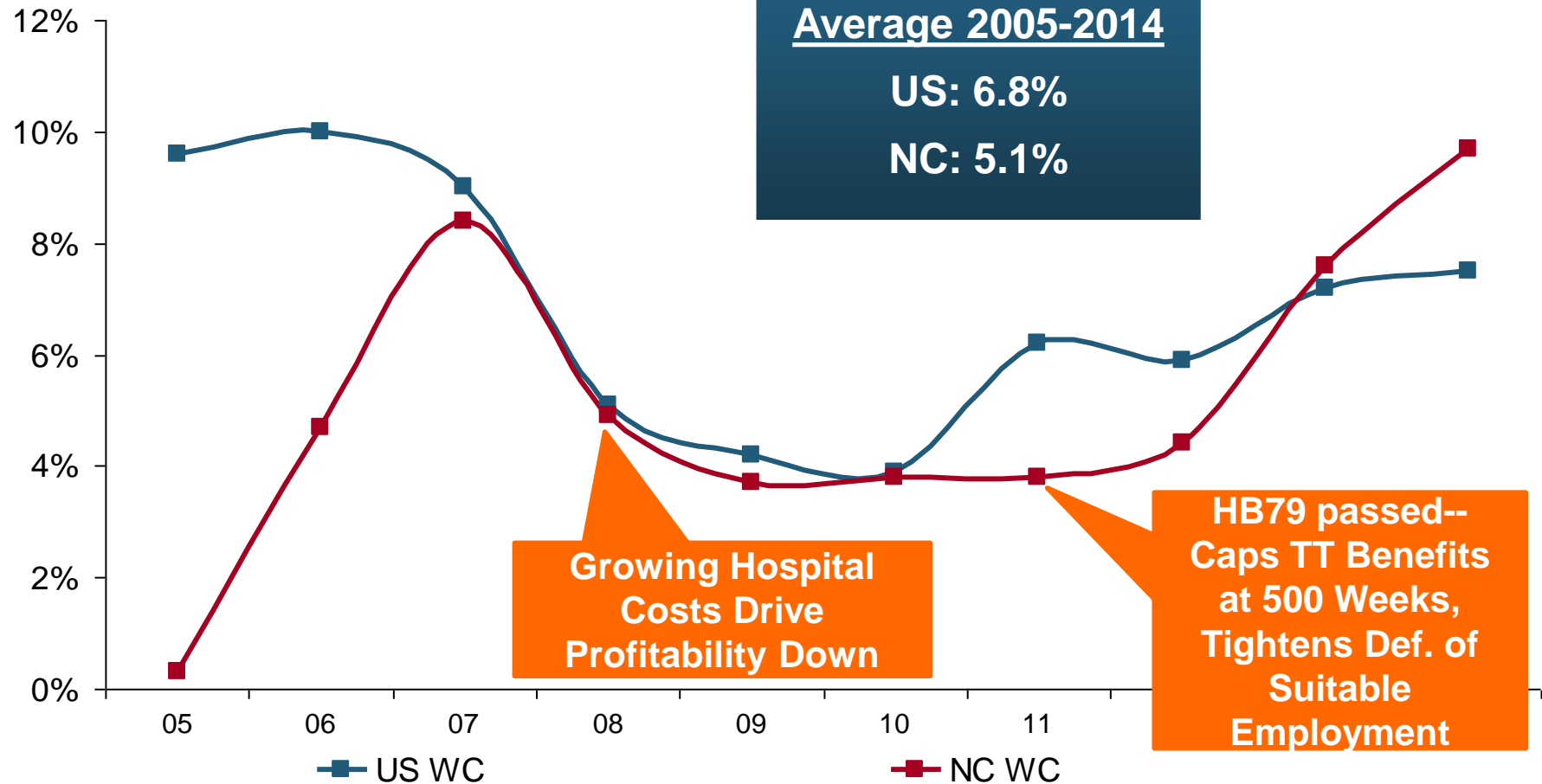


RNW Homeowners: NC vs. U.S., 2005-2014



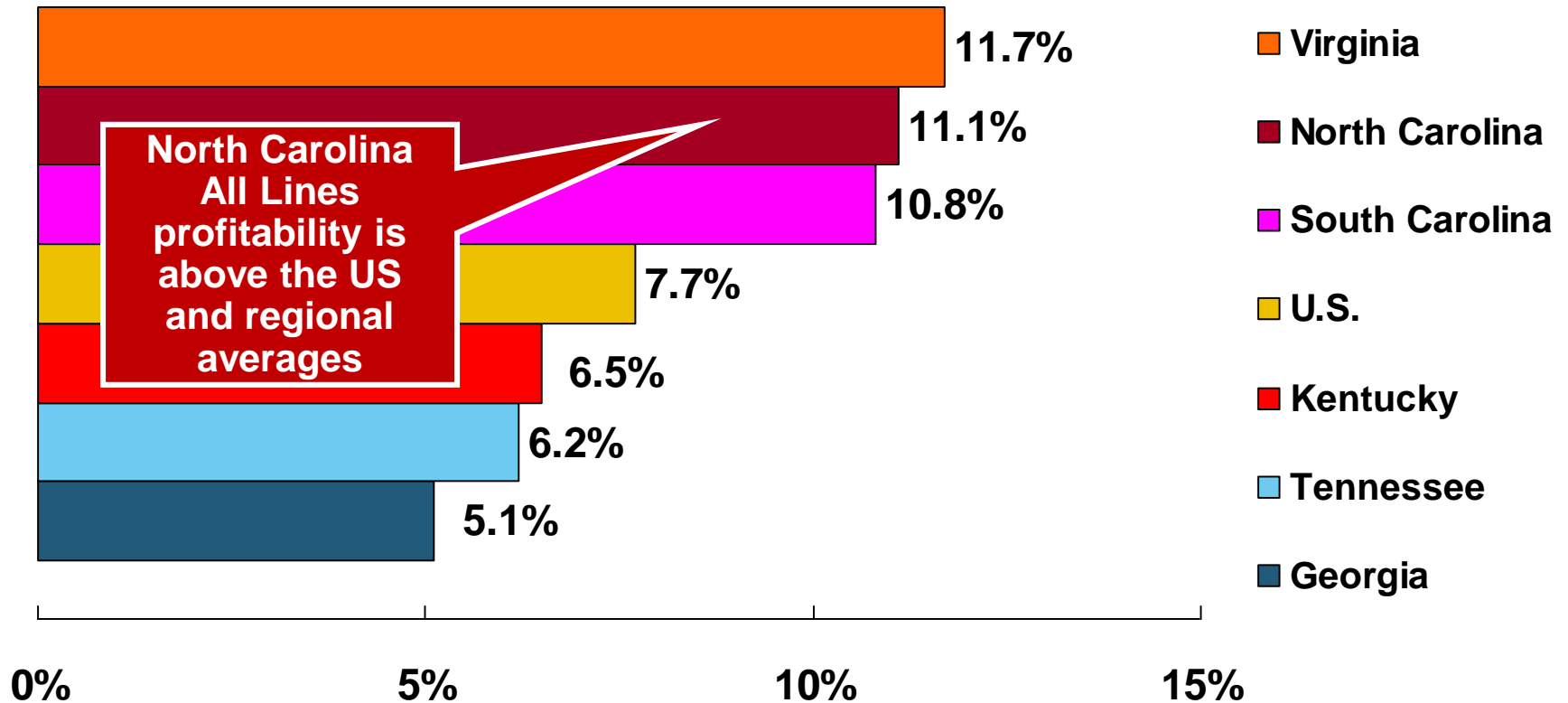
RNW Workers Comp: NC vs. U.S., 2005-2014

(Percent)



All Lines: 10-Year Average RNW NC & Nearby States

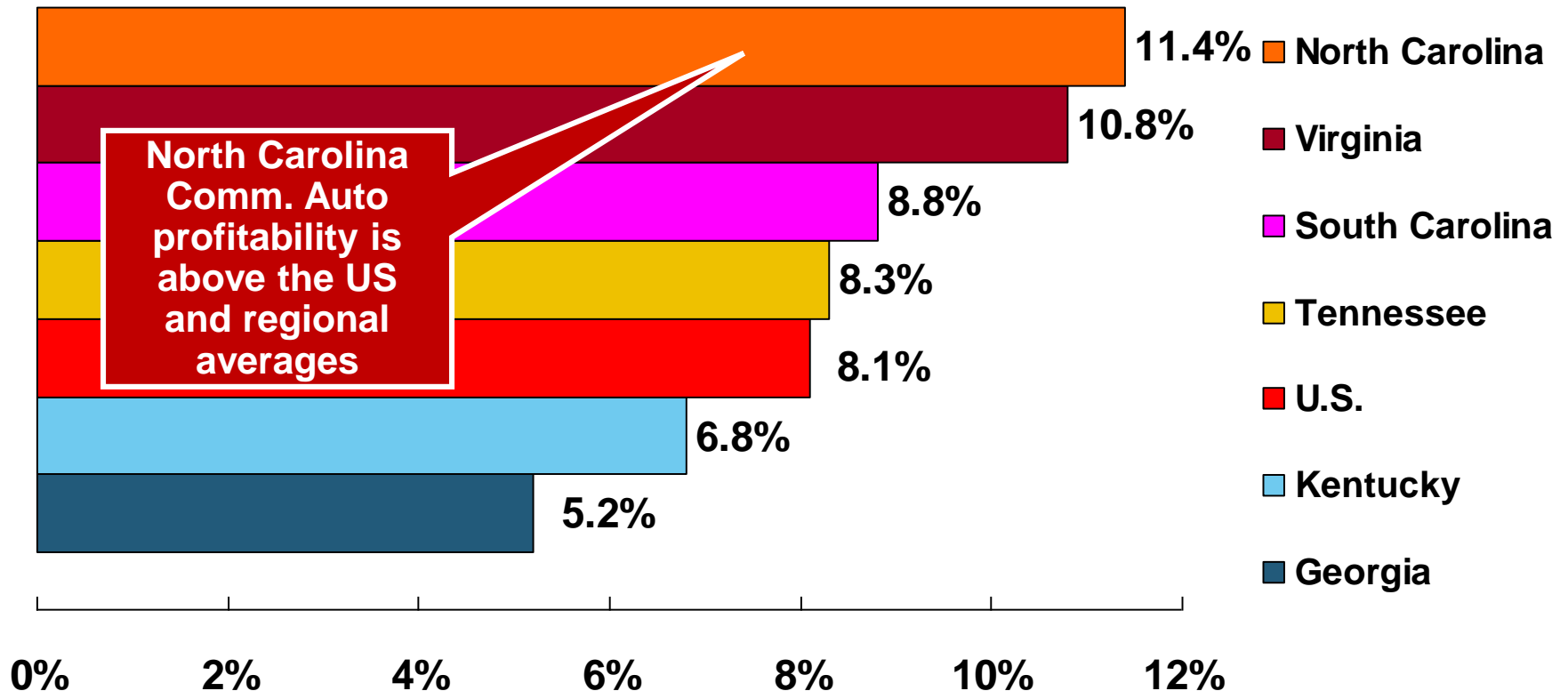
2005-2014



Source: NAIC, Insurance Information Institute

Comm. Auto: 10-Year Average RNW NC & Nearby States

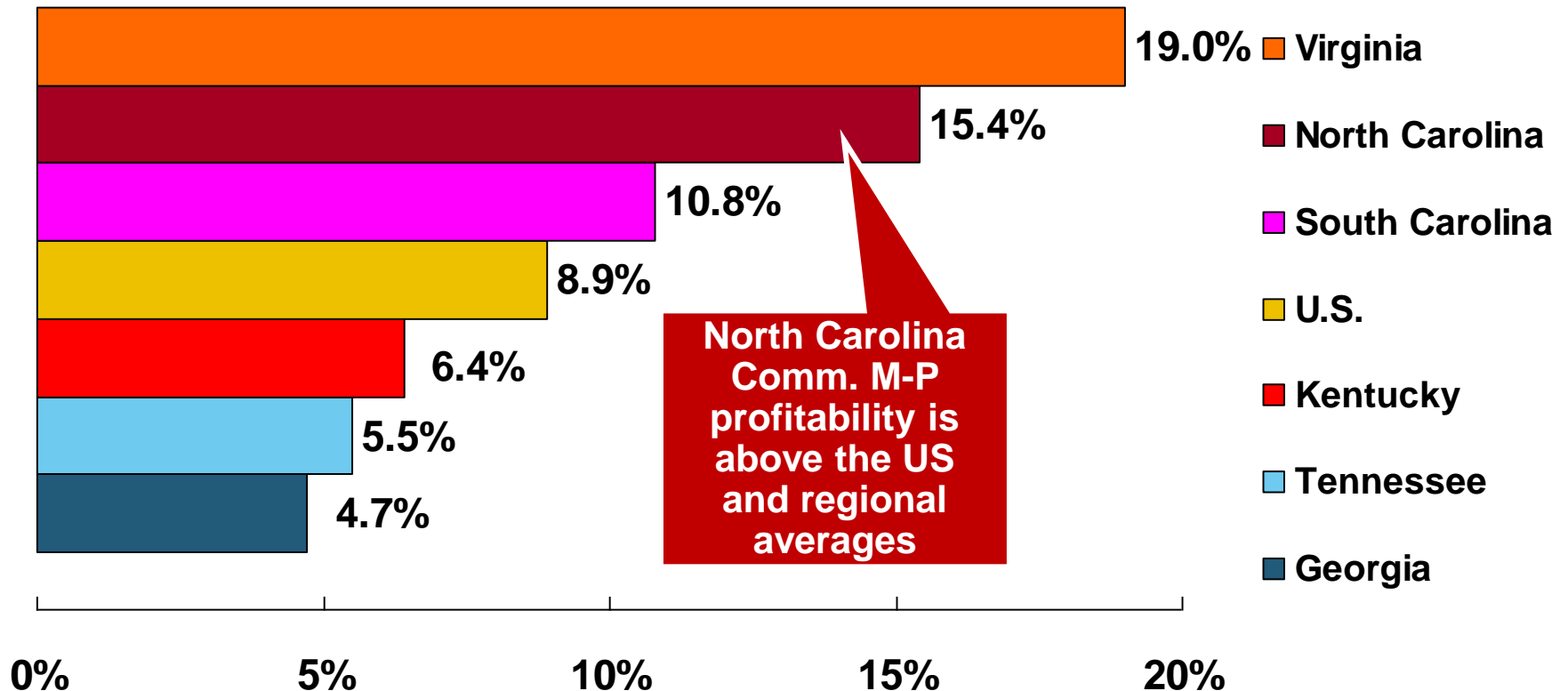
2005-2014



Source: NAIC, Insurance Information Institute

Comm. M-P: 10-Year Average RNW NC & Nearby States

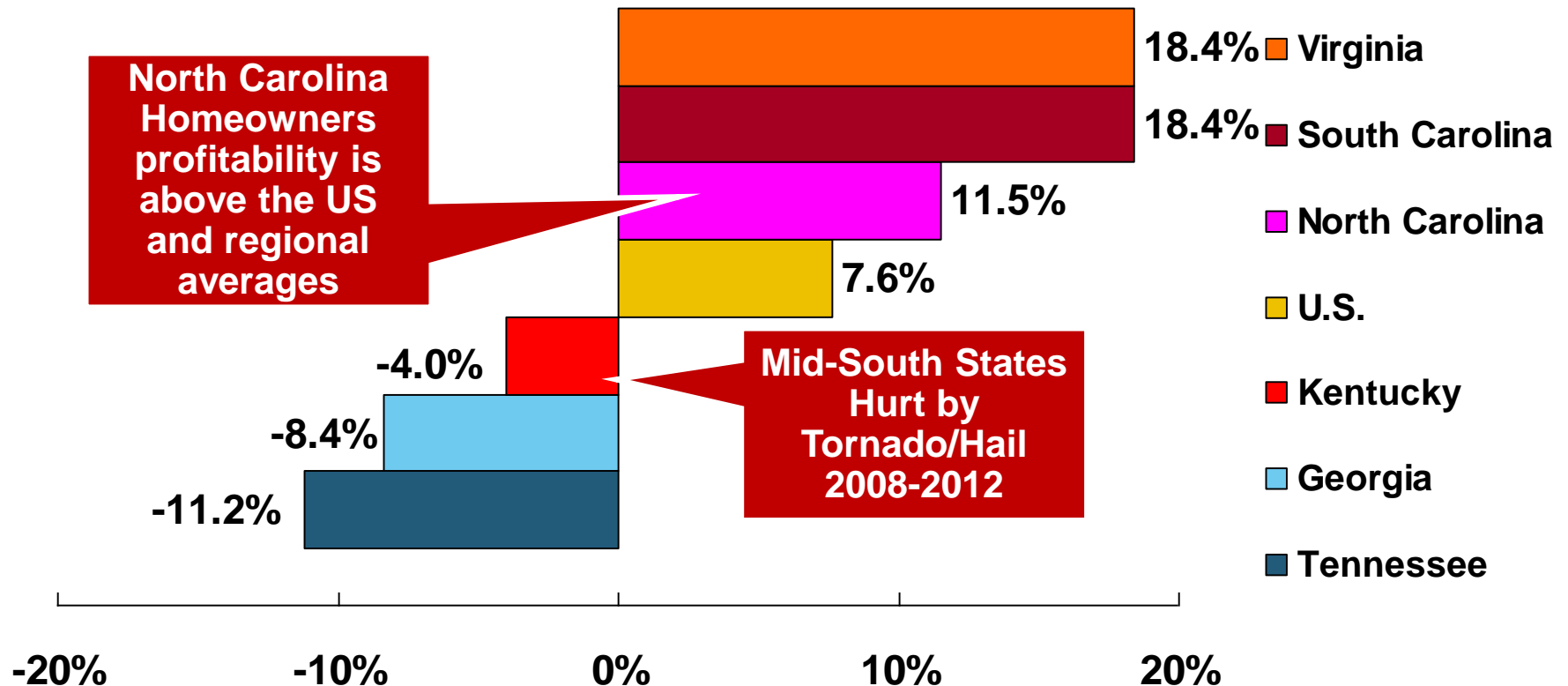
2005-2014



Source: NAIC, Insurance Information Institute

Homeowners: 10-Year Average RNW NC & Nearby States

2005-2014



Top Ten Most Expensive And Least Expensive States For Homeowners Insurance, 2013 (1)

North Carolina ranked as the 23rd most expensive state for homeowners insurance in 2013, with an average expenditure of \$1,008.

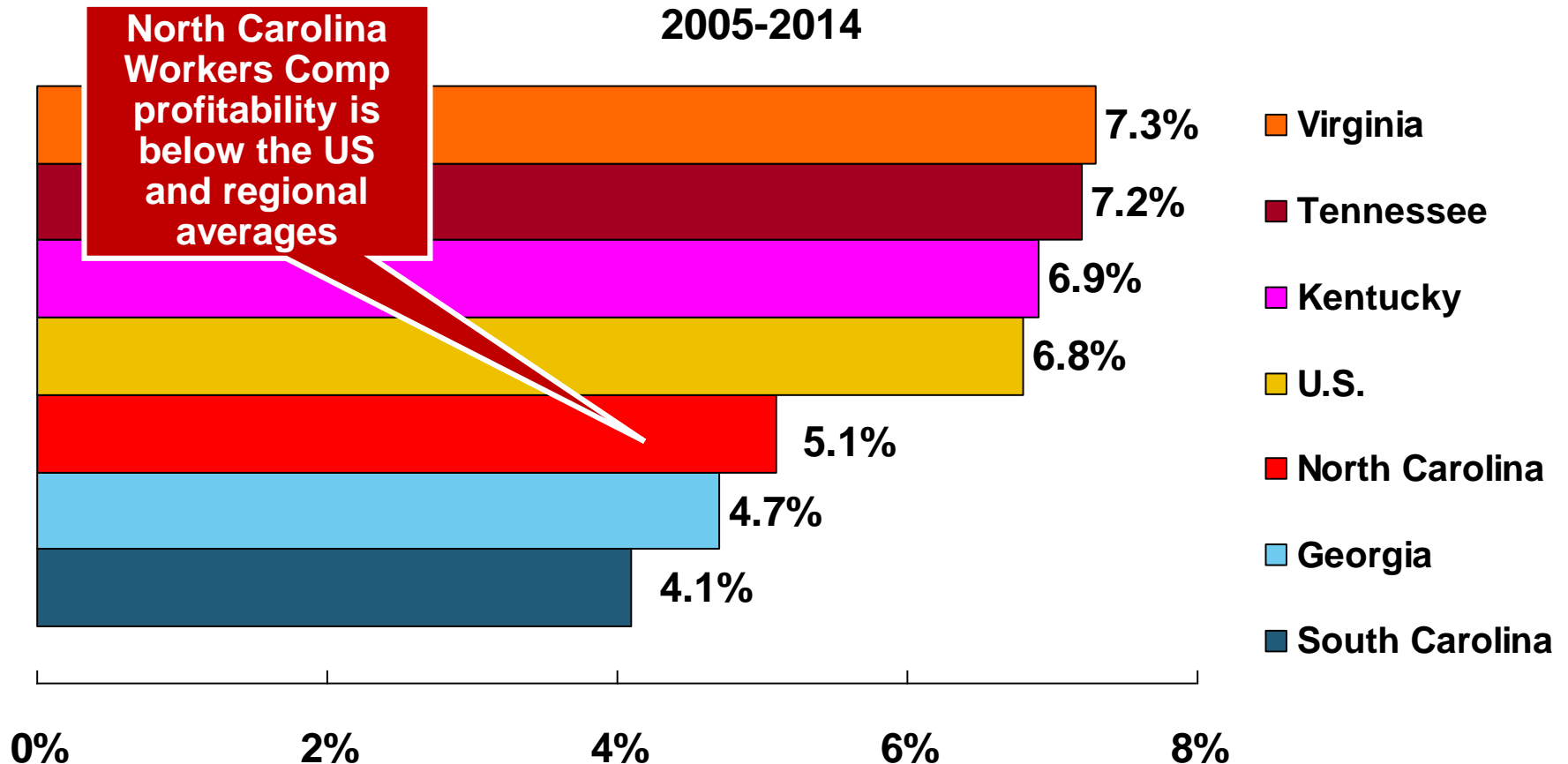
Rank	Most expensive states	HO average premium	Rank	Least expensive states	HO average premium
1	Florida	\$2,115	1	Idaho	561
2	Texas (2)	1,837	2	Oregon	568
3	Louisiana	1,822	3	Utah	609
4	Oklahoma	1,654	4	Wisconsin	665
5	Mississippi	1,395	5	Washington	676
6	Kansas	1,343	6	Nevada	687
7	Rhode Island	1,334	7	Delaware	709
8	Alabama	1,323	8	Arizona	724
9	Connecticut	1,274	9	Ohio	763
10	Massachusetts	1,263	10	Maine	776

- (1) Includes policies written by Citizens Property Insurance Corp. (Florida) and Citizens Property Insurance Corp. (Louisiana), Alabama Insurance Underwriting Association, Mississippi Windstorm Underwriting Association, North Carolina Joint Underwriting Association and South Carolina Wind and Hail Underwriting Association. Other southeastern states have wind pools in operation and their data may not be included in this chart. Based on the HO-3 homeowner package policy for owner-occupied dwellings, 1 to 4 family units. Provides "all risks" coverage (except those specifically excluded in the policy) on buildings and broad named-peril coverage on personal property, and is the most common package written.
- (2) The Texas Department of Insurance developed home insurance policy forms that are similar but not identical to the standard forms. In addition, due to the Texas Windstorm Association (which writes wind-only policies) classifying HO-1, 2 and 5 premiums as HO-3, the average premium for homeowners insurance is artificially high.

Note: Average premium=Premiums/exposure per house years. A house year is equal to 365 days of insured coverage for a single dwelling. The NAIC does not rank state average expenditures and does not endorse any conclusions drawn from this data.

Source: ©2016 National Association of Insurance Commissioners (NAIC). Reprinted with permission. Further reprint or distribution strictly prohibited without written permission of NAIC.

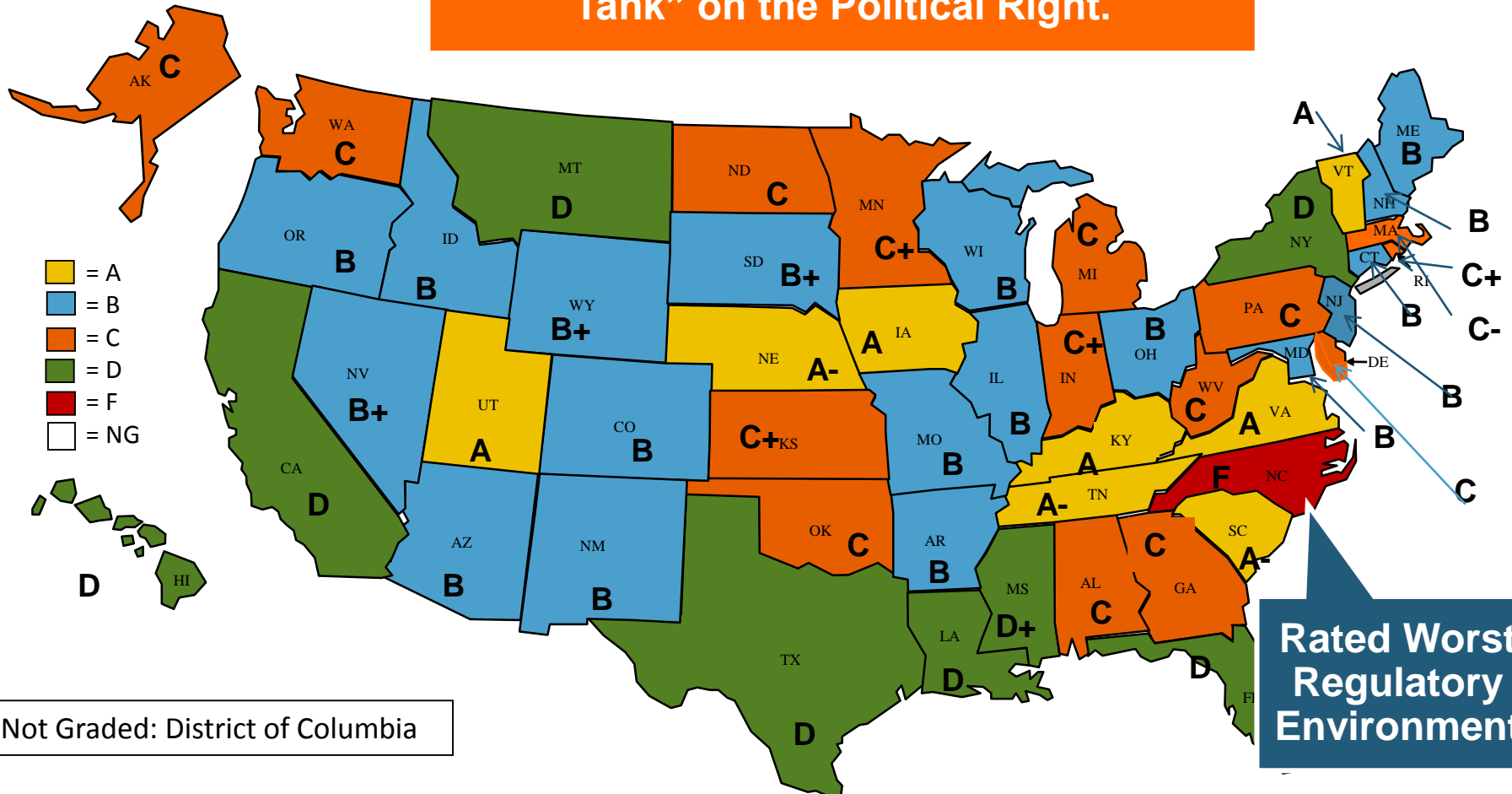
Workers Comp.: 10-Year Average RNW NC & Nearby States



Source: NAIC, Insurance Information Institute


2015 Property and Casualty Insurance Regulatory Report Card

R Street Institute is “A Free-Market Think Tank” on the Political Right.



Source: R Street Insurance Regulation Report Card, December 2015

About North Carolina's Regulatory Grade

NORTH CAROLINA 	2014 Grade	2015 Grade
	F	F
	Score	Rank
	45.6	50
Strengths:	Workers' comp market	
Weaknesses:	Politicization, auto insurance market competitiveness, excessive rate regulation, underwriting restrictions	

■ Cons

- ◆ Elected Insurance Commissioner
- ◆ Huge Auto Residual Market
- ◆ Growing Property Residual Market
- ◆ Lack of Flexibility
 - Regulatory
 - Ratemaking
 - Product Design

■ Pros

- ◆ Competitive Workers Comp Market
- ◆ Transparent Rule-Making Process

Source: R Street Insurance Regulation Report Card, December 2015

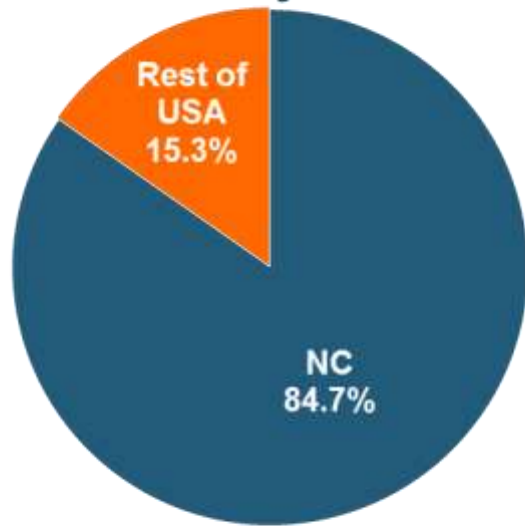


NORTH CAROLINA AUTO INSURANCE

**A Look at the State and Its
Reinsurance Facility, the
Nation's Largest Residual Market**

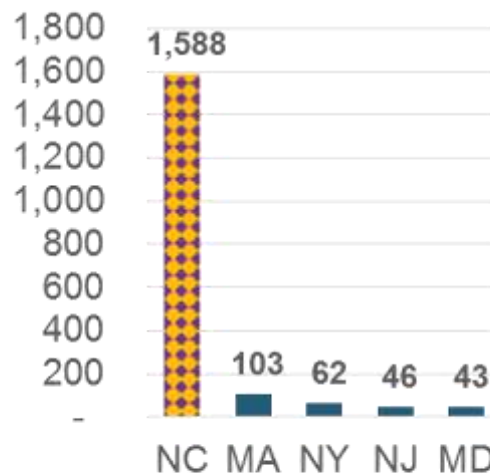
How Big Is NC Personal Auto Residual Market?

**Residual Market
Share by State**



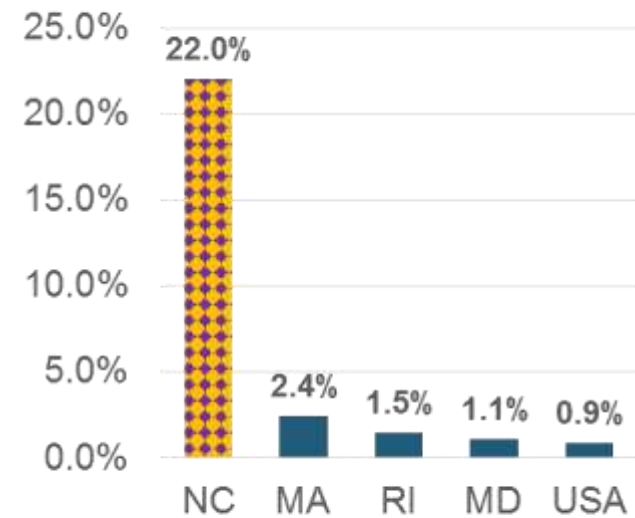
By Written Premium

**Thousands of
Autos in Residual
Market**



Liability only

**% of Autos in Residual
Market**



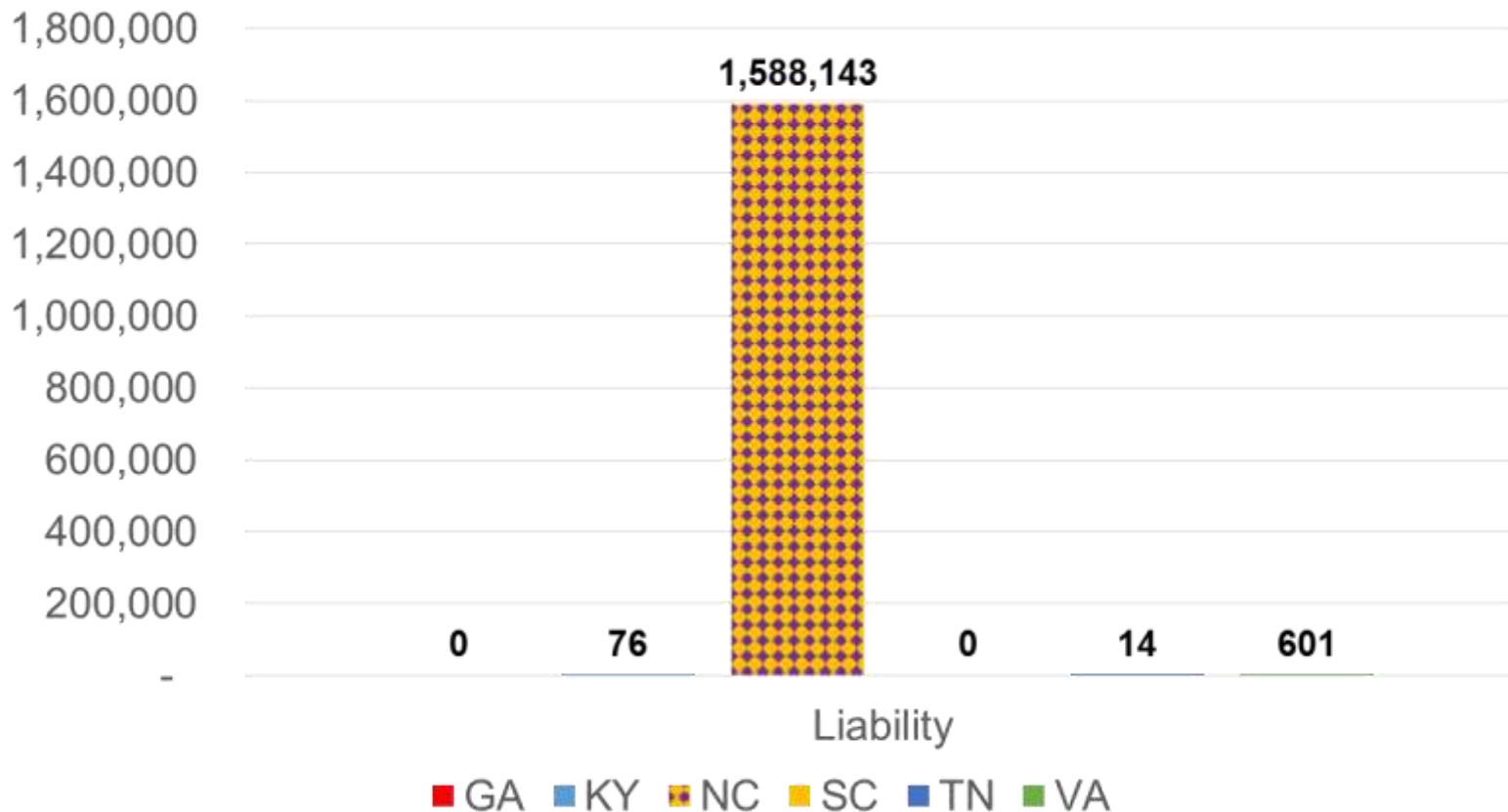
Liability only

North Carolina Has More Autos and A Greater Percentage of Autos in Residual Market Than Any Other State.

All data as of 2012, excludes commercial exposures.
Source: AIPSO.

Personal Auto: Size of Residual Market

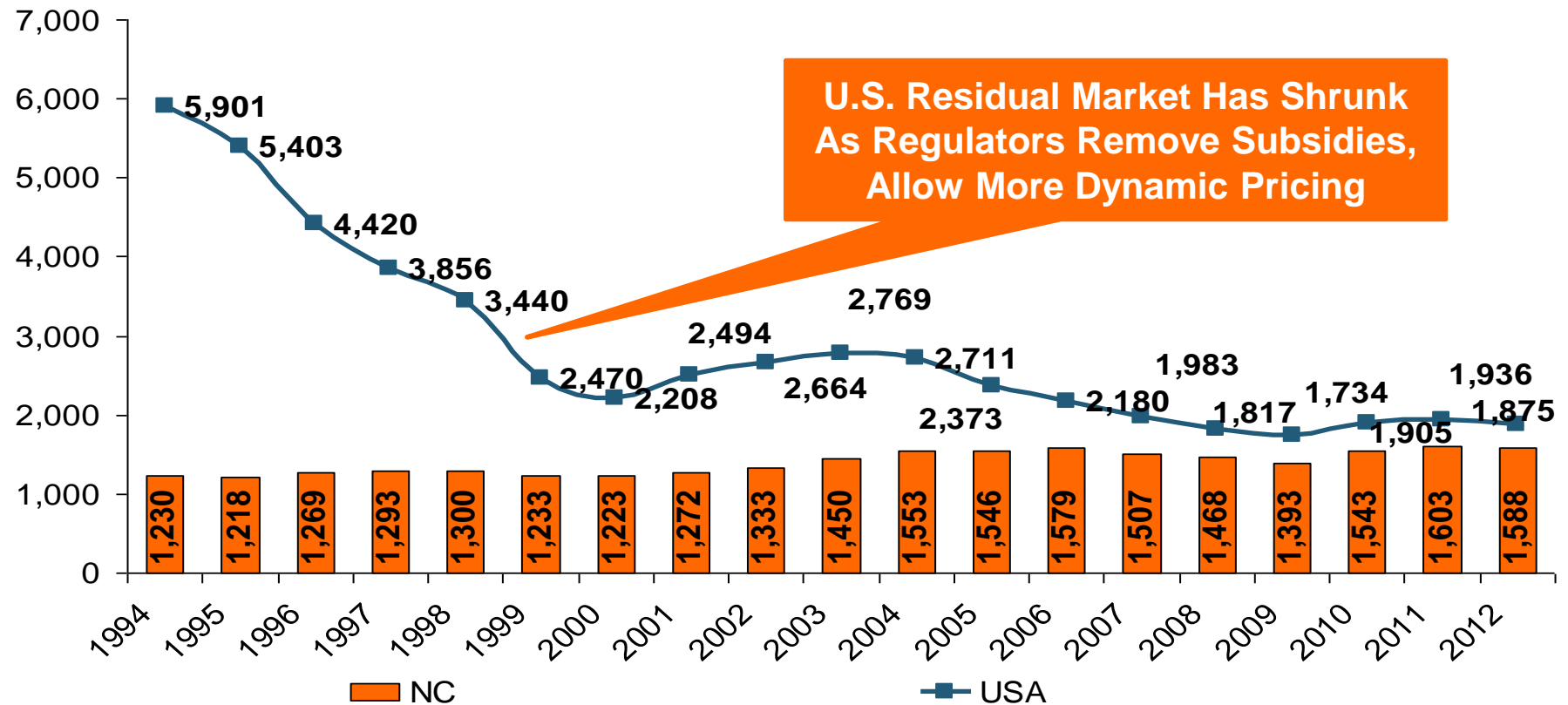
(Written Car Years)



North Carolina's Residual Market is 2,000 Times Larger Than All Surrounding States *Combined*.

Number of Autos in Residual Market, 1994-2012

(Thousands of Written Car-Years)



Rest of Nation is Shrinking Their Residual Markets. NC Market is Slowly Growing.

Source: AIPSO.

Top Ten Most Expensive And Least Expensive States For Automobile Insurance, 2013 (1)

Rank	Most expensive states	Average expenditure	Rank	Least expensive states	Average expenditure
1	New Jersey	\$1,254.10	1	Idaho	\$553.38
2	D.C.	1,187.49	2	Iowa	572.14
3	New York	1,181.86	3	South Dakota	580.99
4	Louisiana	1,146.29	4	Maine	592.82
5	Florida	1,143.83	5	North Dakota	604.58
6	Michigan	1,131.40	6	Wisconsin	621.05
7	Delaware	1,101.12	7	Indiana	621.71
8	Rhode Island	1,066.25	8	North Carolina	624.76
9	Connecticut	1,011.27	9	Nebraska	638.74
10	Massachusetts	1,007.98	10	Wyoming	639.71

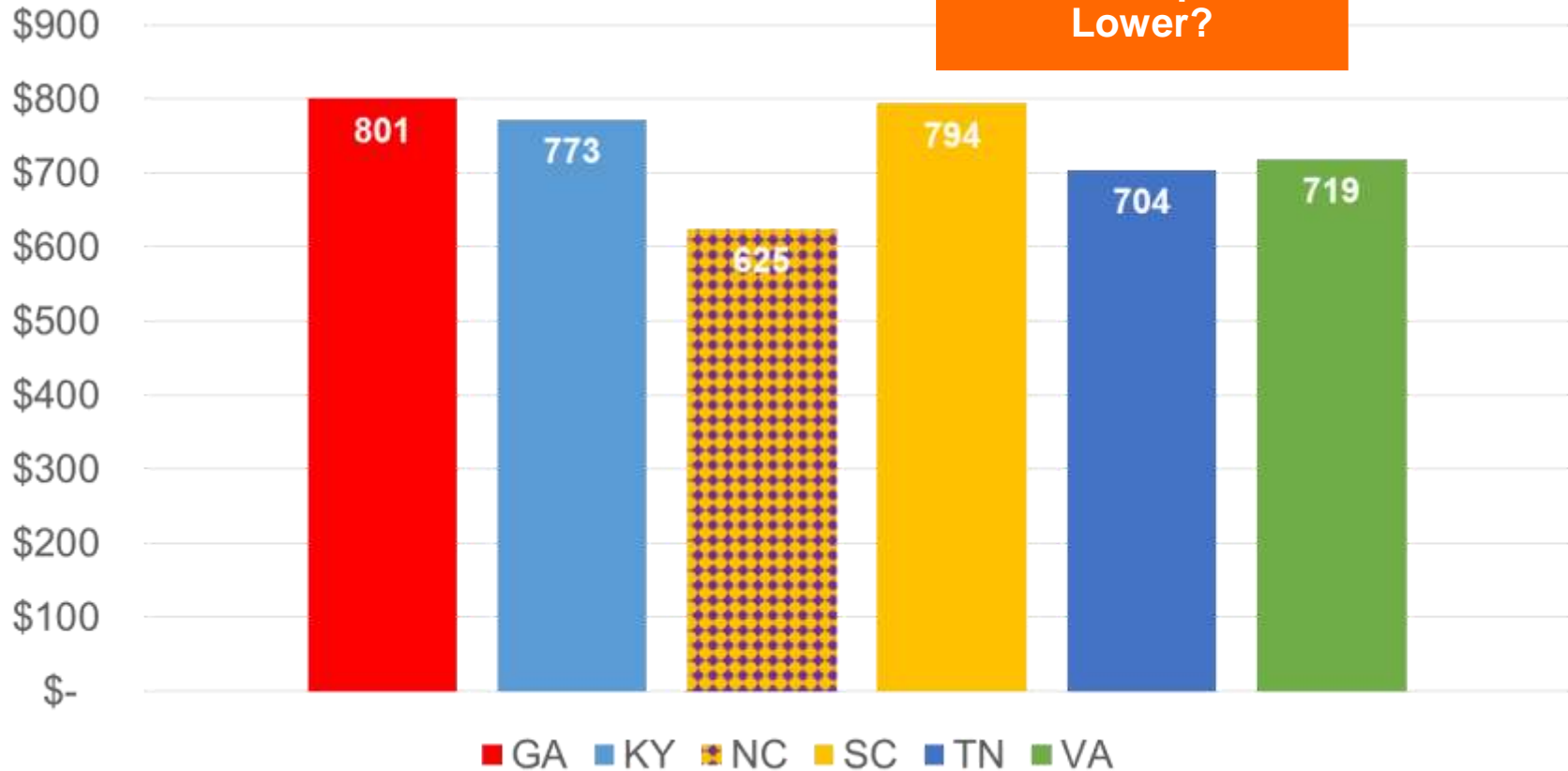
North Carolina ranked 8th as the least expensive state in 2013, with an average expenditure for auto insurance of \$624.76.

(1) Based on average automobile insurance expenditures.

Source: © 2016 National Association of Insurance Commissioners.

Personal Auto Premiums, 2013

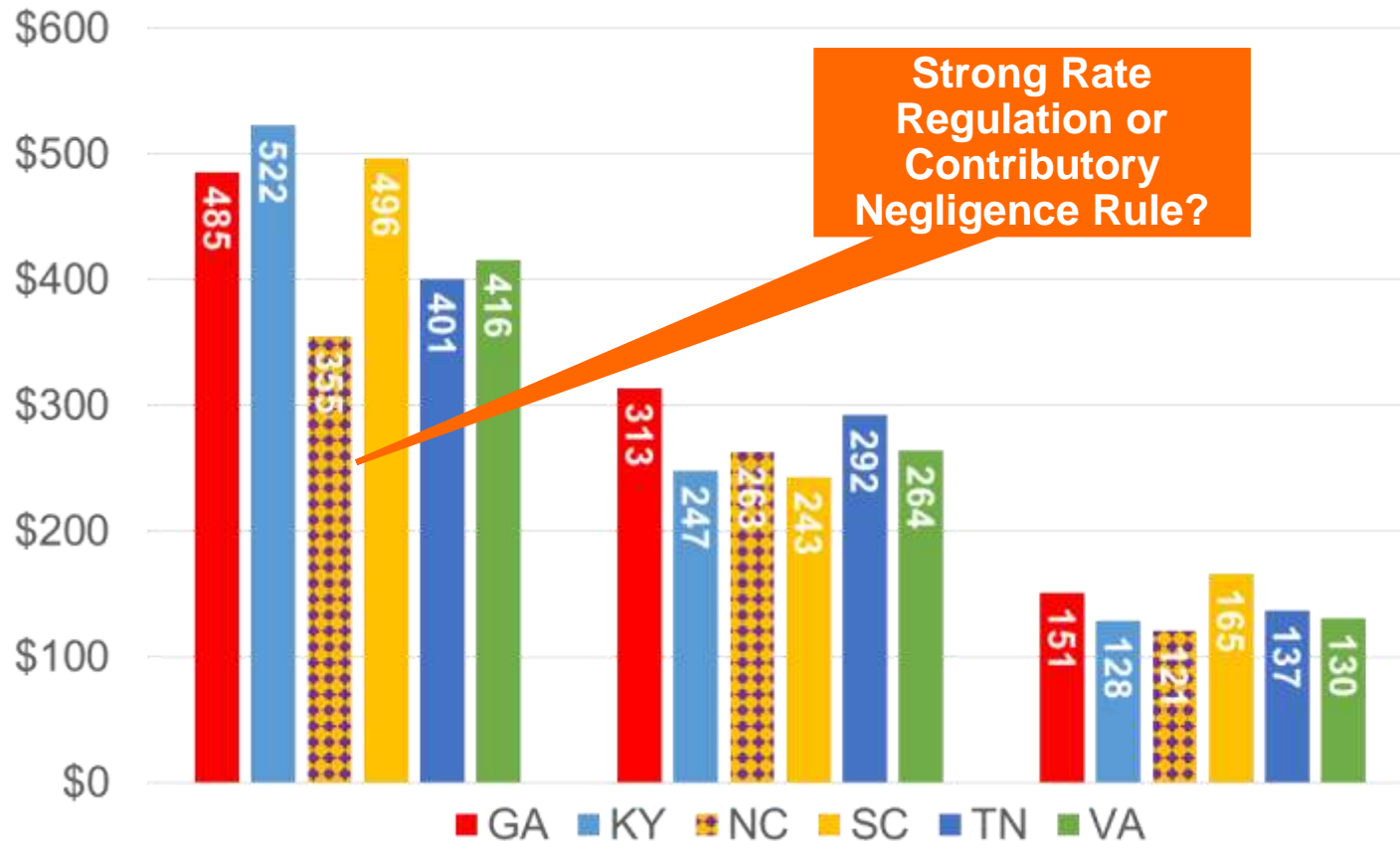
(Average Expenditure)



North Carolina's Has Lowest Expenditure of Surrounding States, About 11 Percent Lower Than Any Other.

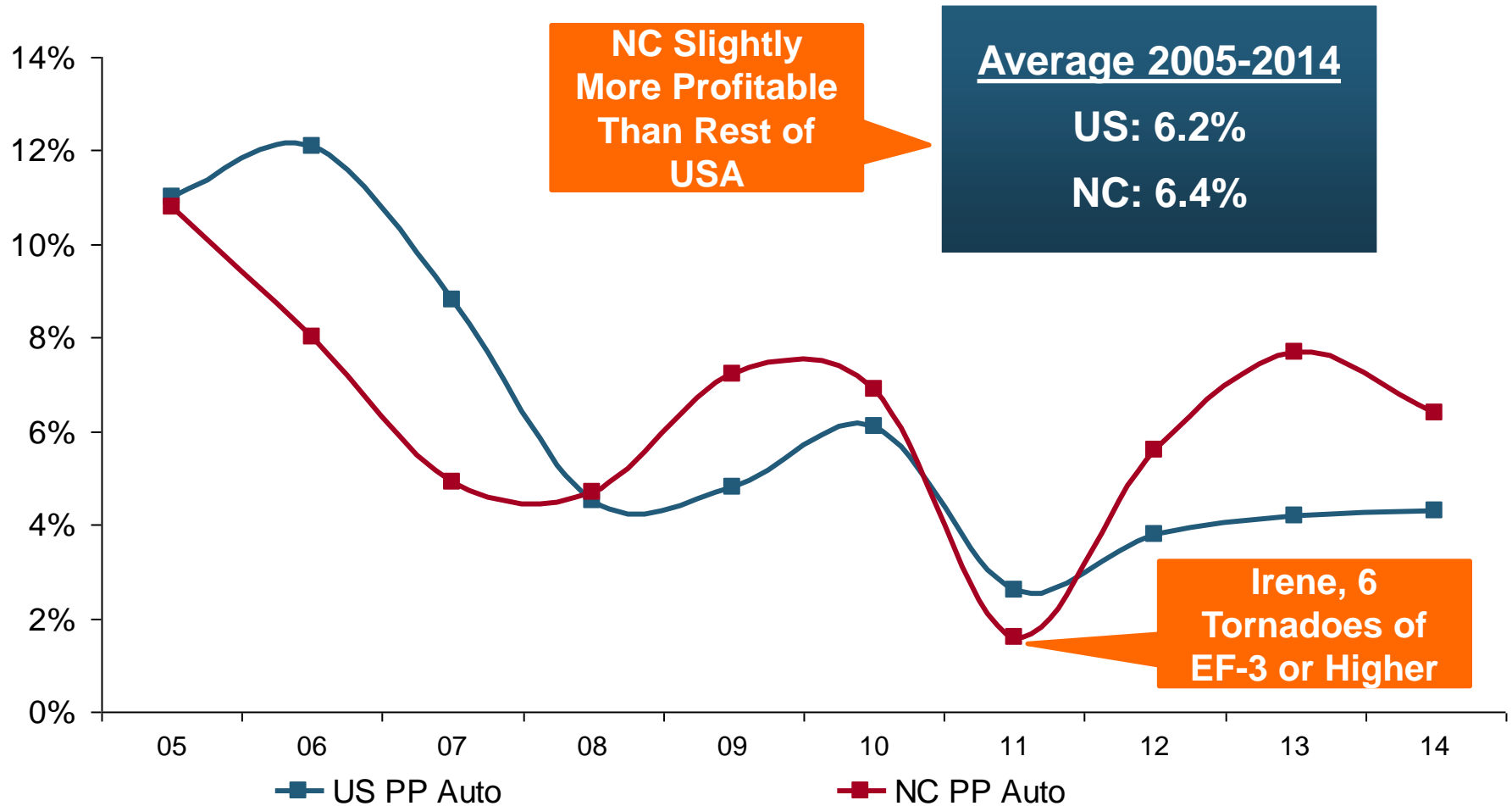
Personal Auto: Average Premium by Coverage, 2013

(Average Premium)



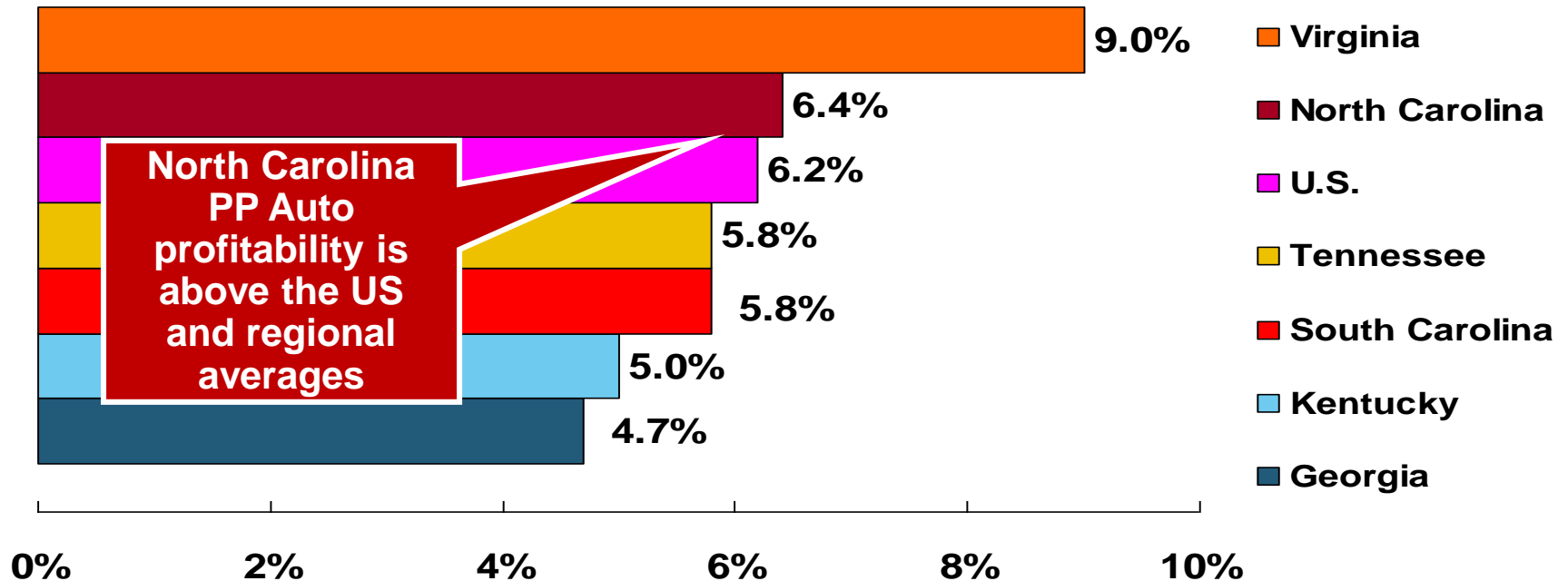
North Carolina's Liability Rates, Based on State's Rates, Are Much Lower Than Neighboring States. (NCRF Only Covers Liability.)

RNW PP Auto: NC vs. U.S., 2005-2014



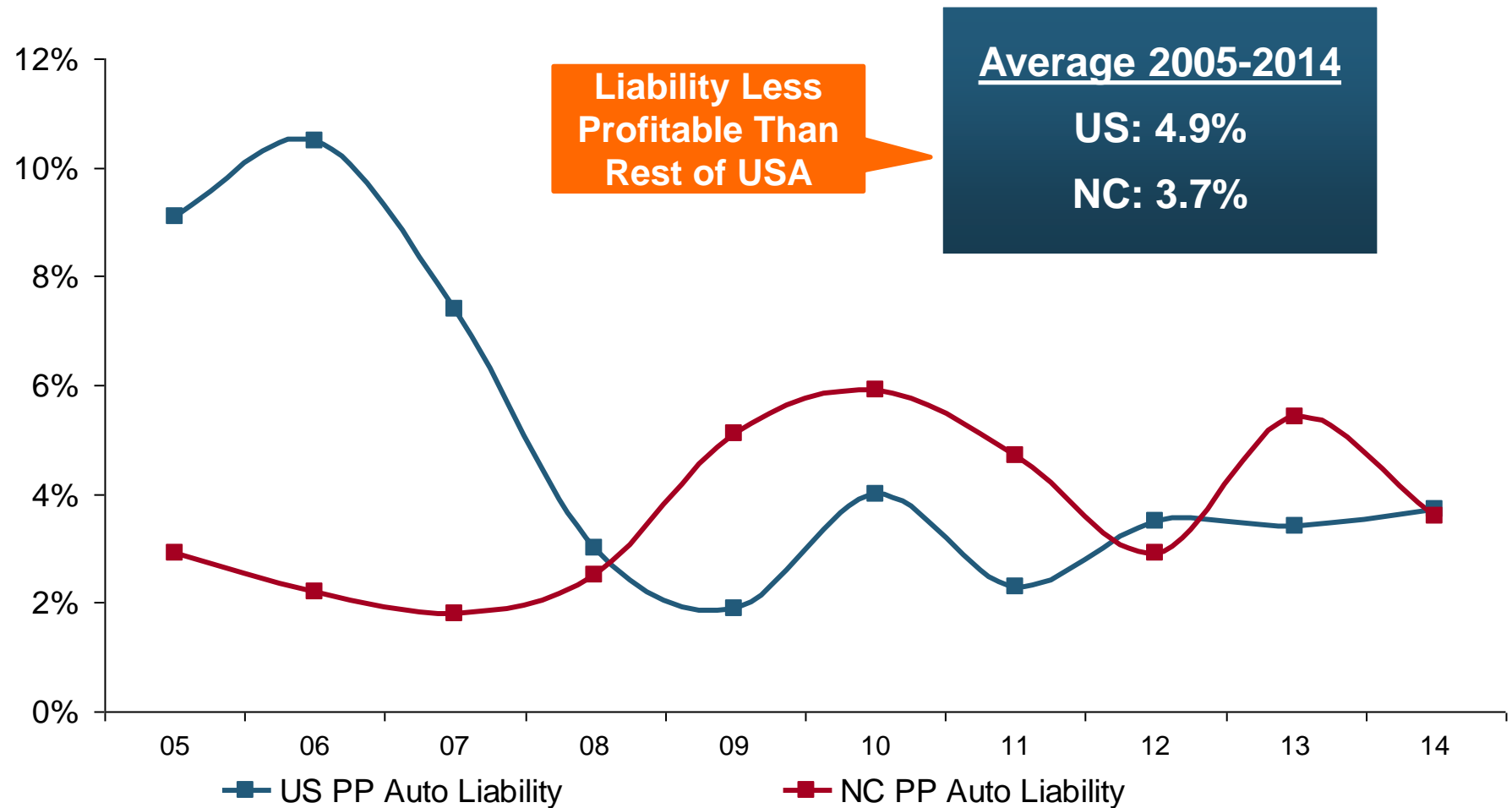
PP Auto: 10-Year Average RNW NC & Nearby States

2005-2014

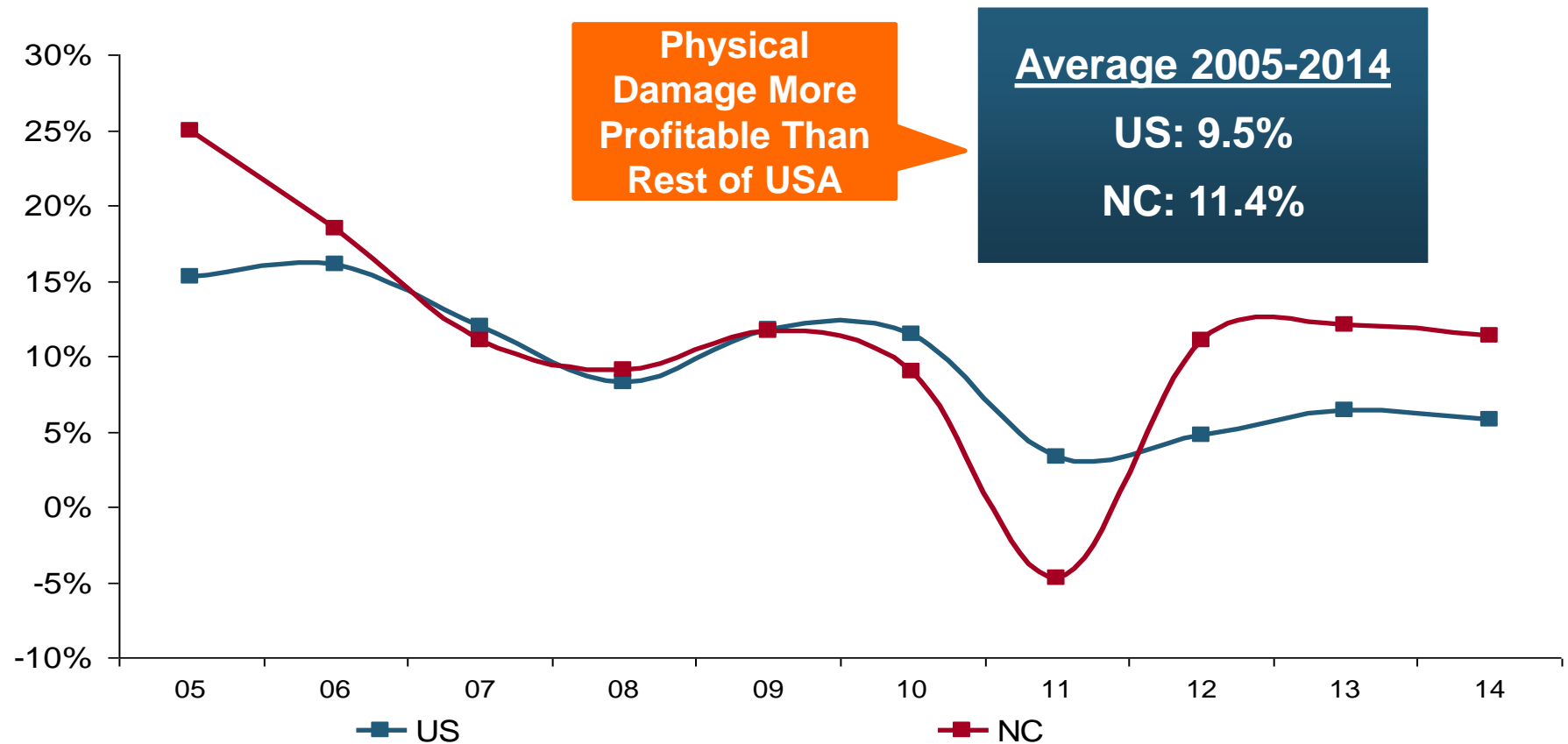


Reinsurance Facility Doesn't Appear to Reduce Profitability.

RNW PP Auto Liability: NC vs. U.S., 2005-2014



RNW PP Auto PhysDam: NC vs. U.S., 2005-2014

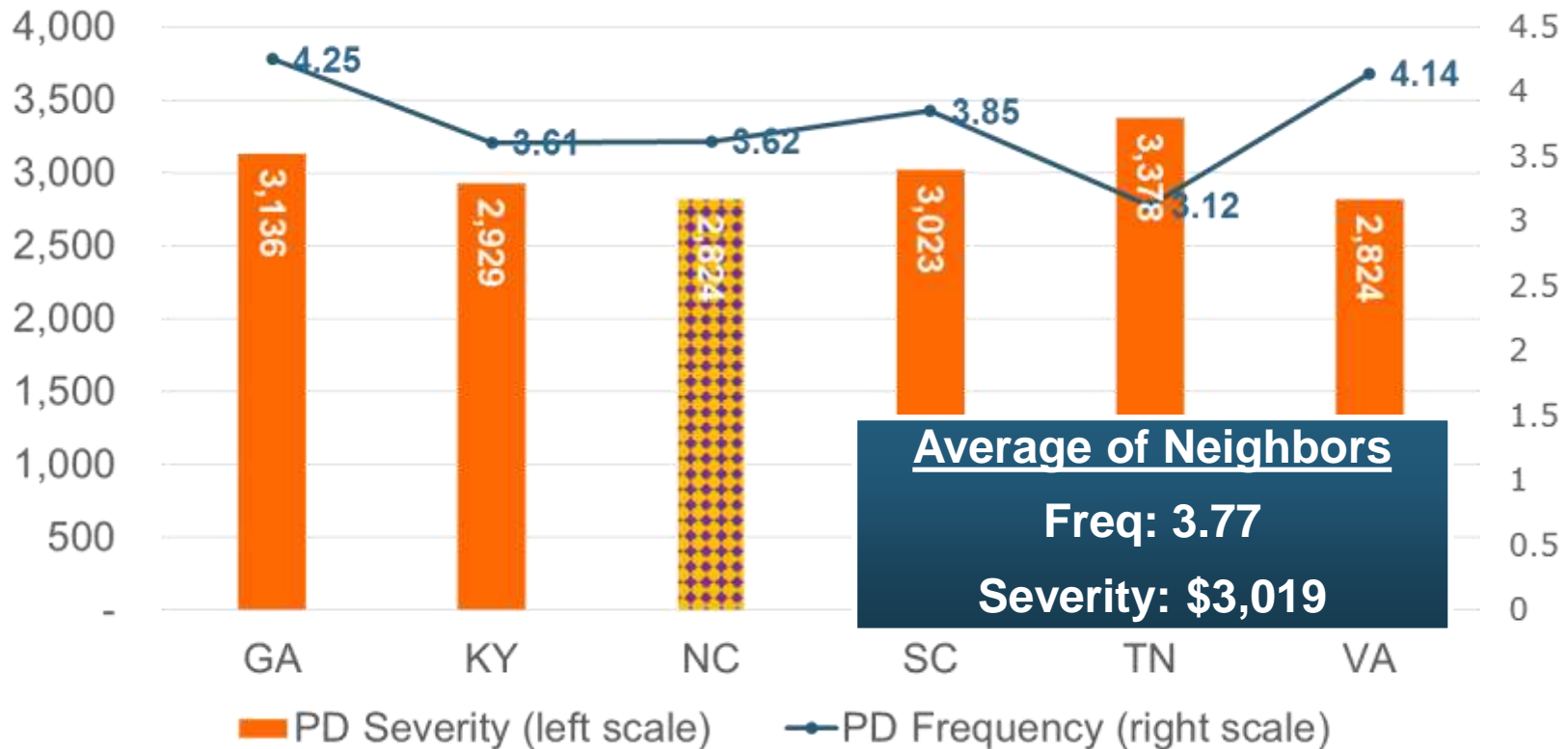


Physical Damage Tends to Be More Profitable Everywhere Because of Catastrophe Risk. More Risk→Greater Return.

Personal Auto: Property Damage, 2012

(Severity [Claim Size] \$\$\$)

(Frequency [Claim/100 Car-Yr])

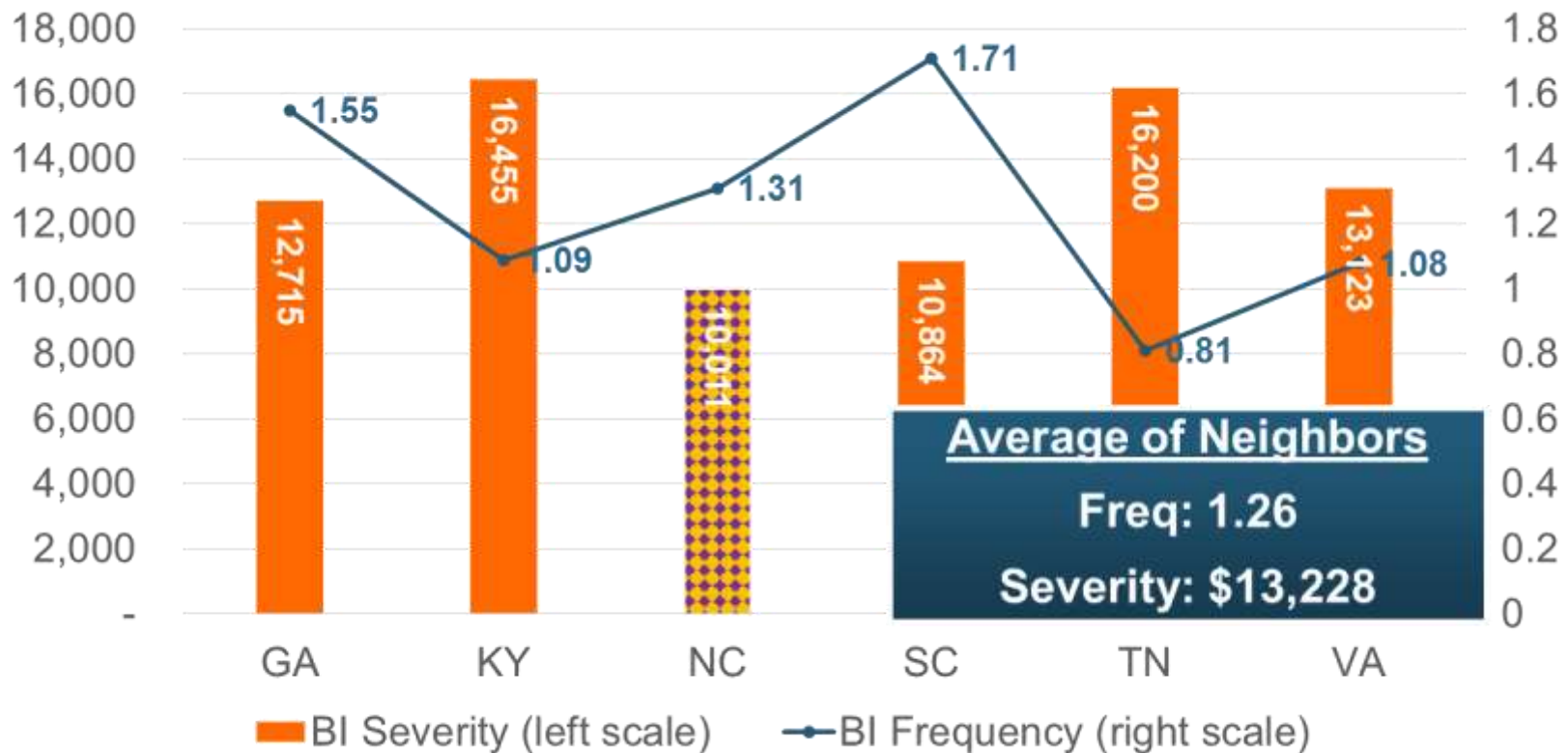


NC Property Damage Liability Is Similar to Nearby States in Claim Size and Claim Frequency. System Doesn't Prevent Accidents or Make Them Less Severe.

Personal Auto: Bodily Injury, 2012

(Severity [Claim Size] \$\$\$)

(Frequency [Claim/100 Car-Yr])

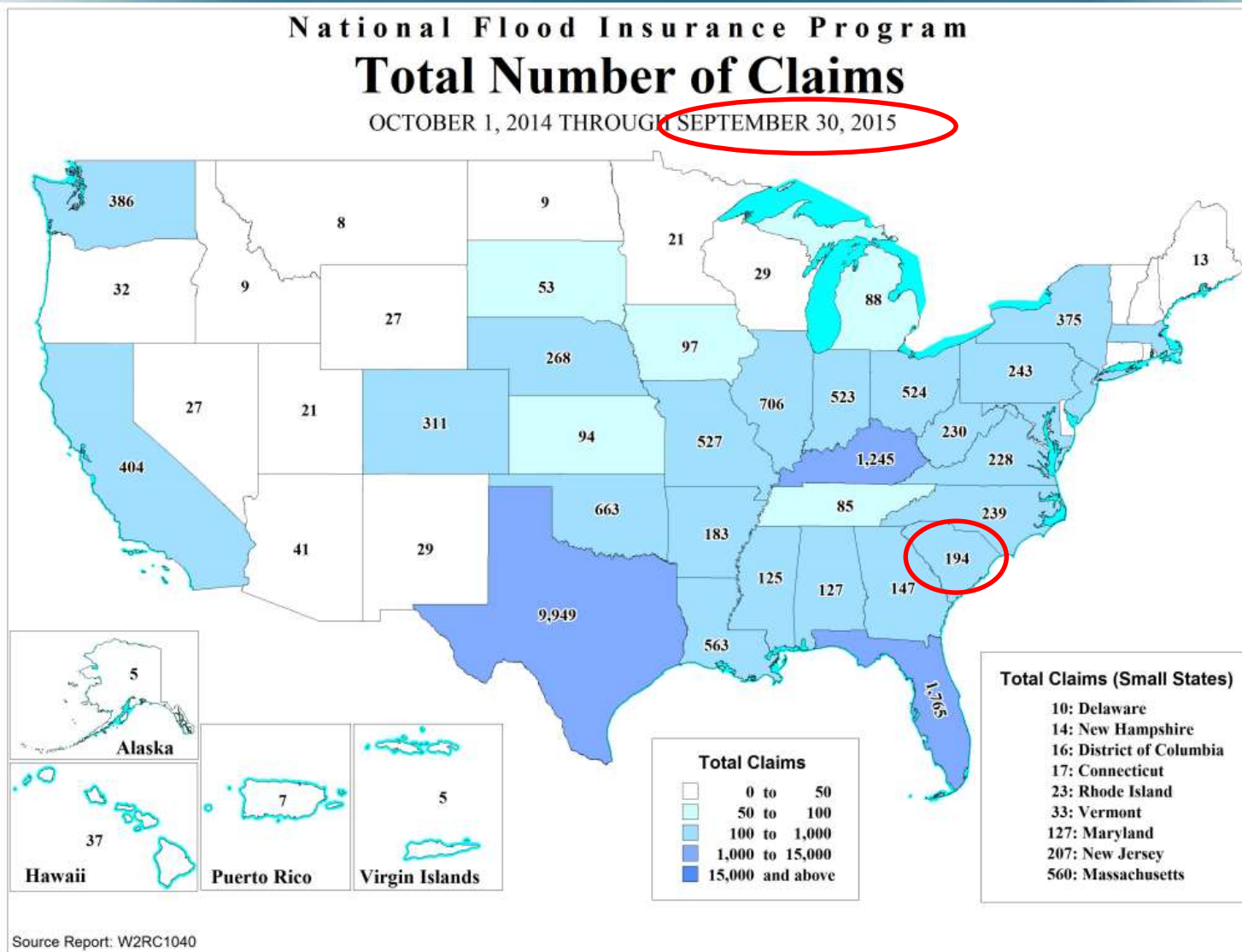


NC Bodily Injury Frequency is Close to That of Neighbors, But It Has Lowest Claim Size.

FLOOD INSURANCE

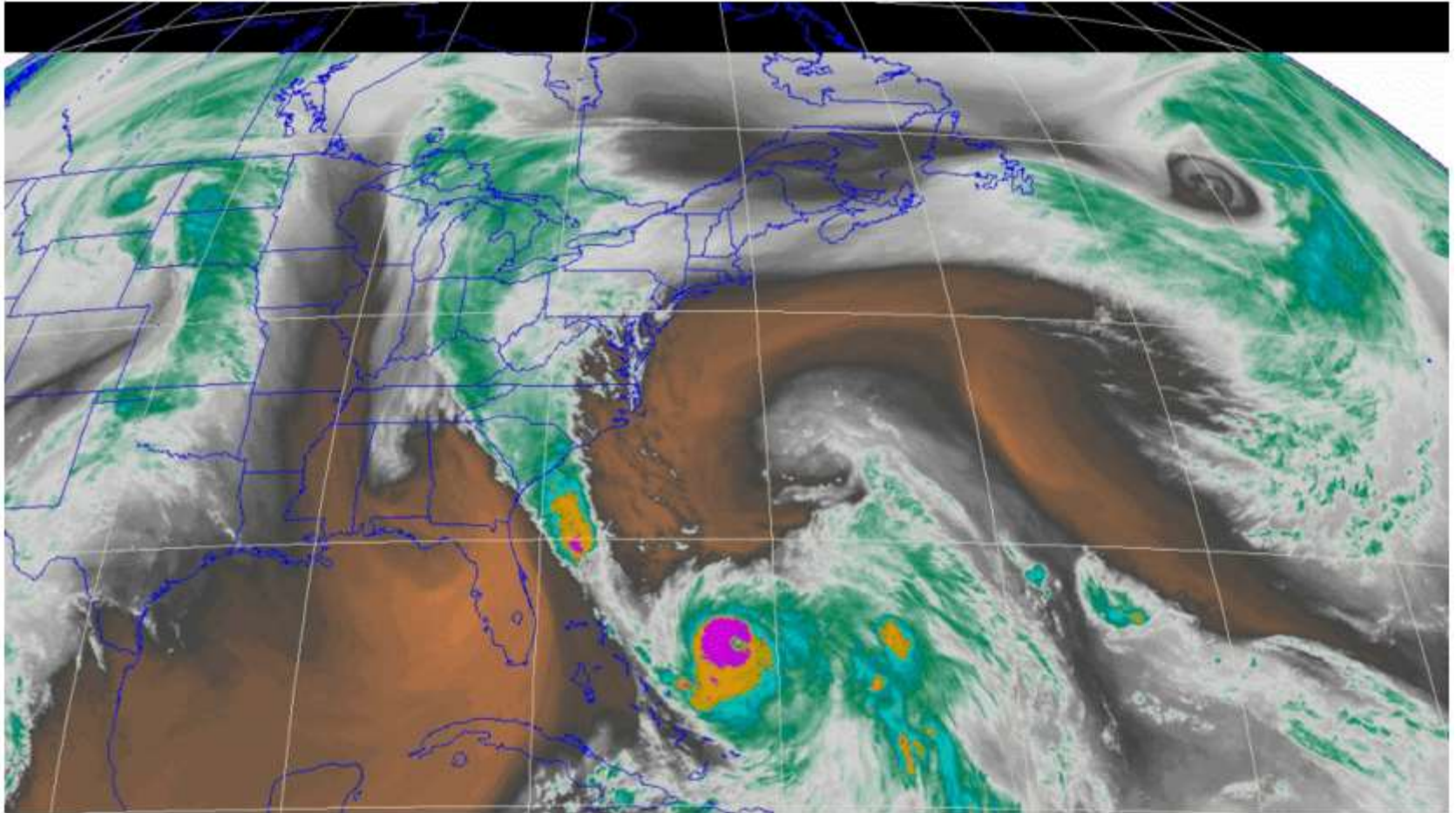
**The South Carolina Deluge; Is
Anyone Buying?**

Flood Insurance Claims by State, FY2015



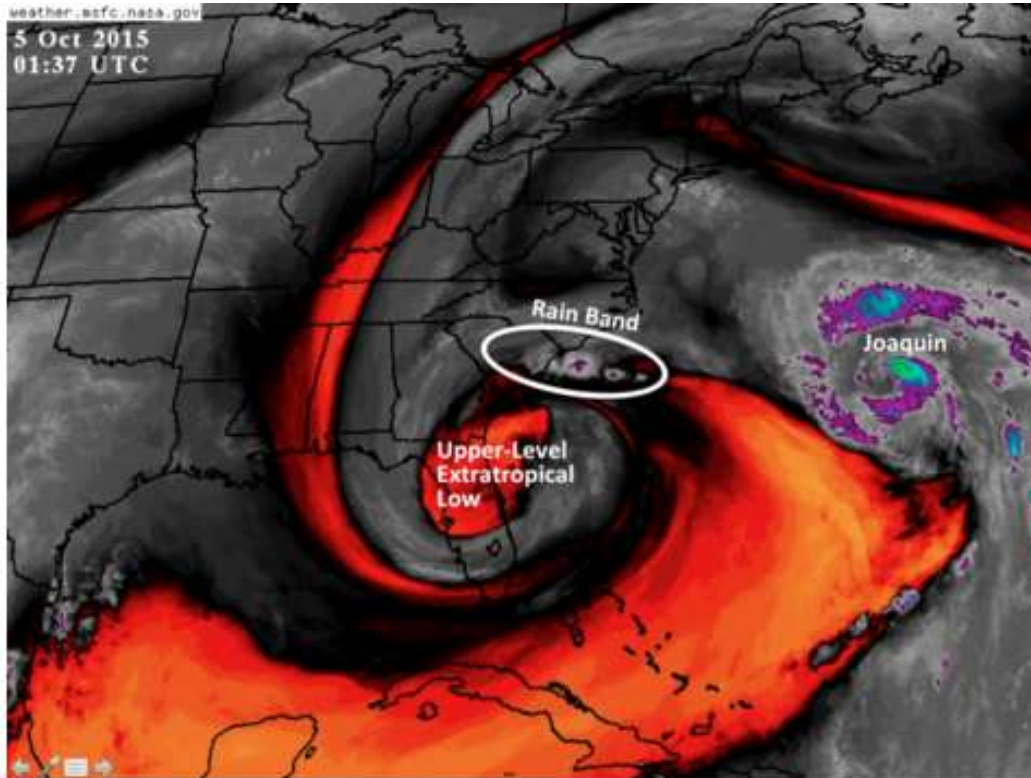
SOURCE: National Flood Insurance Program.

‘An Atmospheric River’



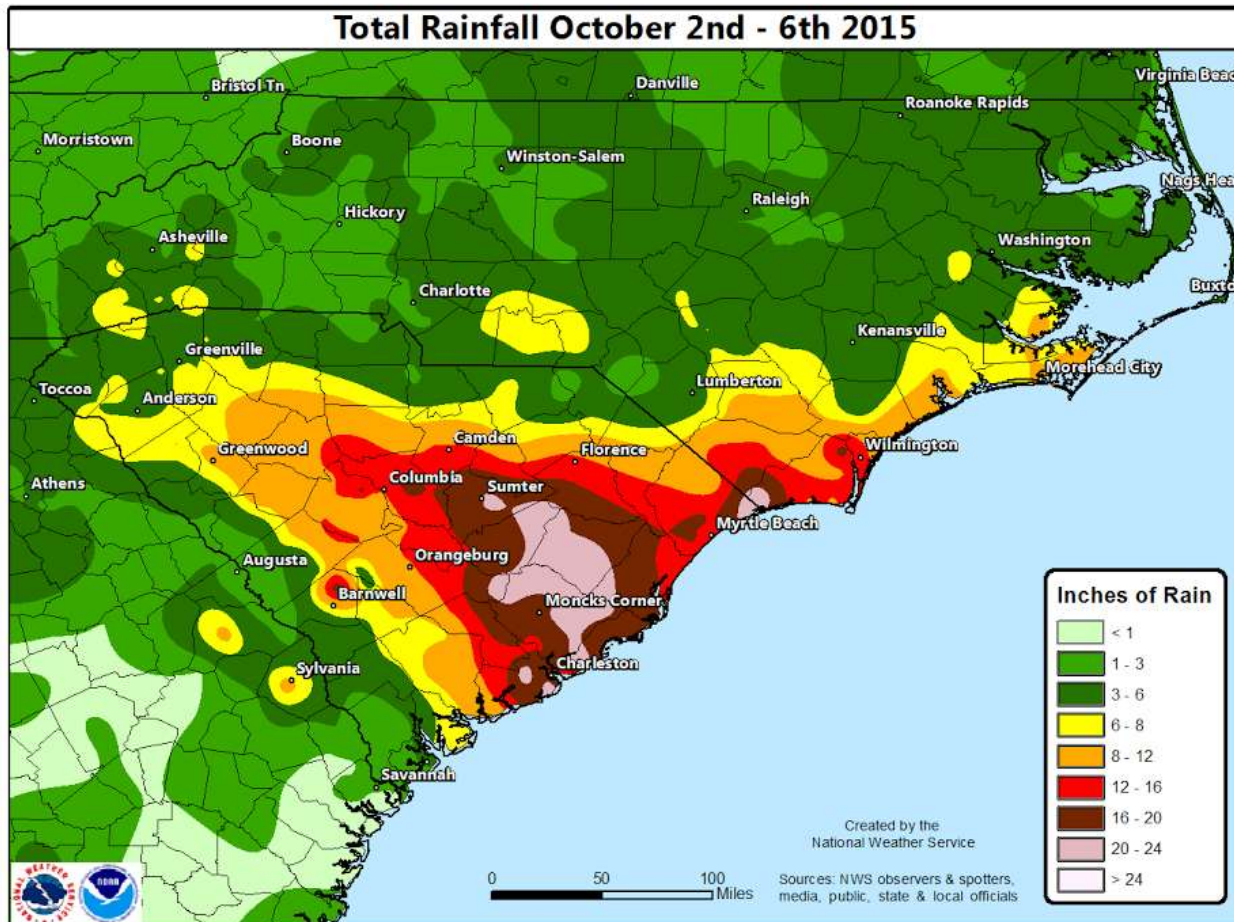
Low Pressure Over Florida Got Stuck, Funneling Incredibly Moist Air Over South Carolina—Again and Again.

Epic Rains Cause Epic Floods



SOURCE: NASA, via The Washington Post.

Epic Rains Cause Epic Floods

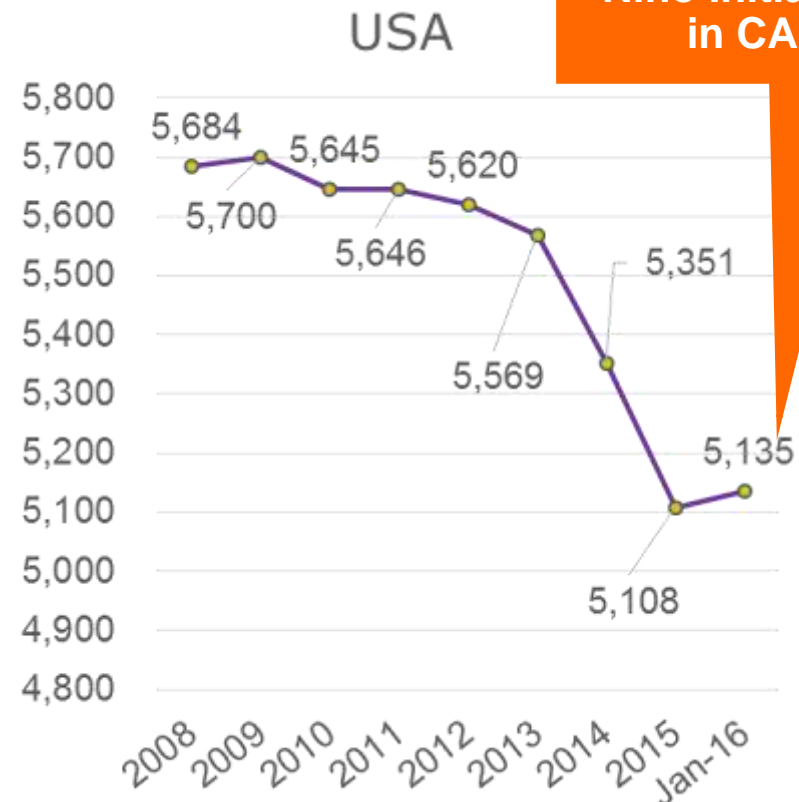
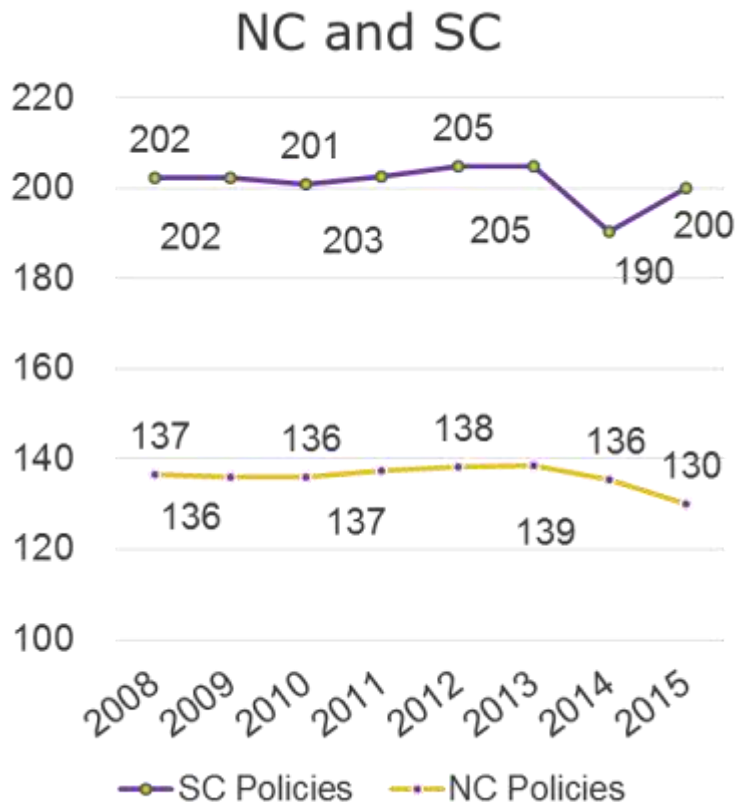


- A 1,000-Year Event
 - ◆ (Katrina was a 500-Year Event)
- \$1.5 billion total damages
- \$300 million insured loss, including
 - ◆ 3,521 Flood Claims
 - ◆ \$115.0 Million in Paid Flood Losses
 - ◆ \$32,676 per Claim

SOURCES: Image--National Weather Service, via blog.weatherflow.com. Likelihood of event from NWS and nola.com. Flood loss statistics from National Flood Insurance Program. Other data from Swiss Re sigma 1/2016.

Flood Insurance Exposures, by Year

(Thousands of Policies in Force)

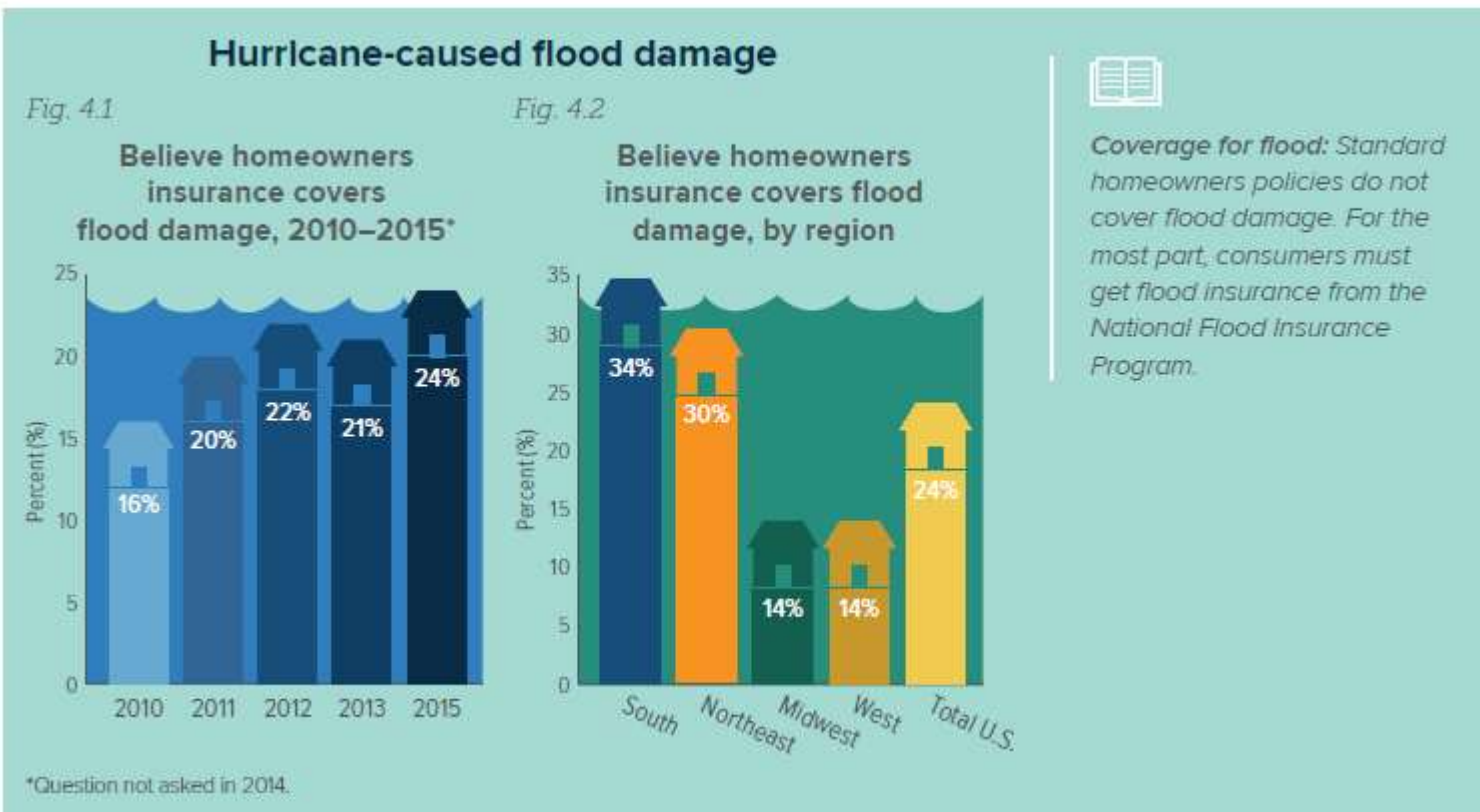


Slight Spike: El Niño Initiative in CA

Changes to Flood Insurance Program Have Driven Policy Counts Down, Both in Carolinas and Rest of USA.

Public Understanding of Flood Insurance

Nearly One Quarter of Homeowners Incorrectly Thought Homeowners Policy Covers Flood Damage.



SOURCE: Insurance Information Institute.

Flood Insurance Take-up Rates

The percentage of homeowners purchasing Flood insurance has remained consistent

The South Has the Highest Proportion of Homeowners with Flood Insurance

Flood insurance take-up

Fig. 5.1

**Homeowners who have
flood insurance, 2011–2015**

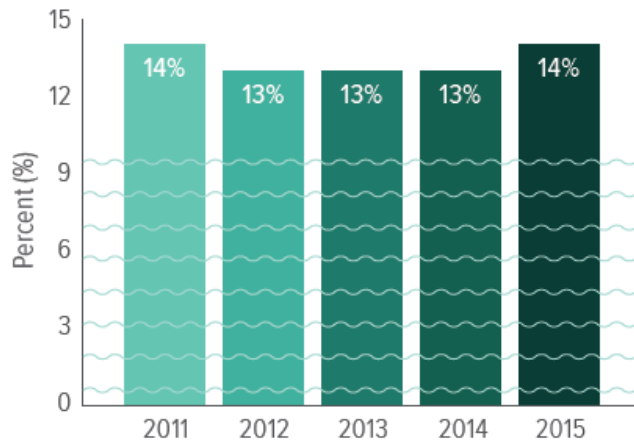
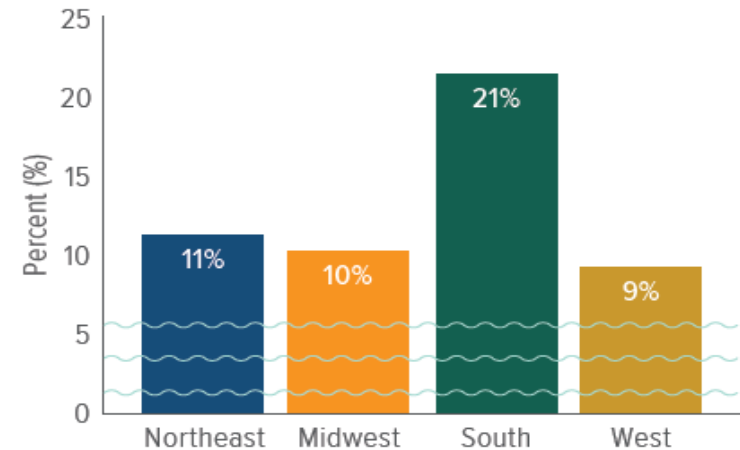


Fig. 5.2

**Homeowners by region
who have flood insurance**



SOURCE: Insurance Information Institute.

- 2012: Biggert-Waters Flood Insurance Reform Act:
 - ◆ Eliminated Many Rate Subsidies (Discounts) that Many Property-Owners in High-Risk Areas Receive
 - ◆ Attempted to Make Program Self-Sufficient

- 2014: Biggert-Waters Recalibrated:
 - ◆ Many Rate Increases Rescinded.
 - ◆ Annual Increases Capped: 25% (subsidized) 18% (other).
 - ◆ Surcharges Policyholders to Help Pay for Subsidies
 - \$25 Primary homeowners
 - \$250 Vacation homes and nonresidential property

- Updated Premium Rates (Year 2 of Increases) – 9% on Average (excluding surcharges)
- 25% Increase for subsidized non-residential businesses in many high-risk areas
- Eliminate subsidy for certain policies that lapsed and are reinstated in many high-risk areas
- Details at: <http://nfipiservice.com/Stakeholder/FEMA7/W-15046.html>

■ Current Authorization Expires in 2017

- ◆ Last Time: 17 Extensions, 4 Lapses, Took 4 Years
- ◆ This Time: Smoother Sailing?

■ Proposals

- ◆ Flood Insurance Market Parity and Modernization Act (HR 2901)
 - Encourages Private Market (Lets Lenders Recognize Private Insurance for Mortgages)
 - Passed Financial Services Committee
- ◆ Are Private Insurers Entering the Market

TECHNOLOGY, DISRUPTORS 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

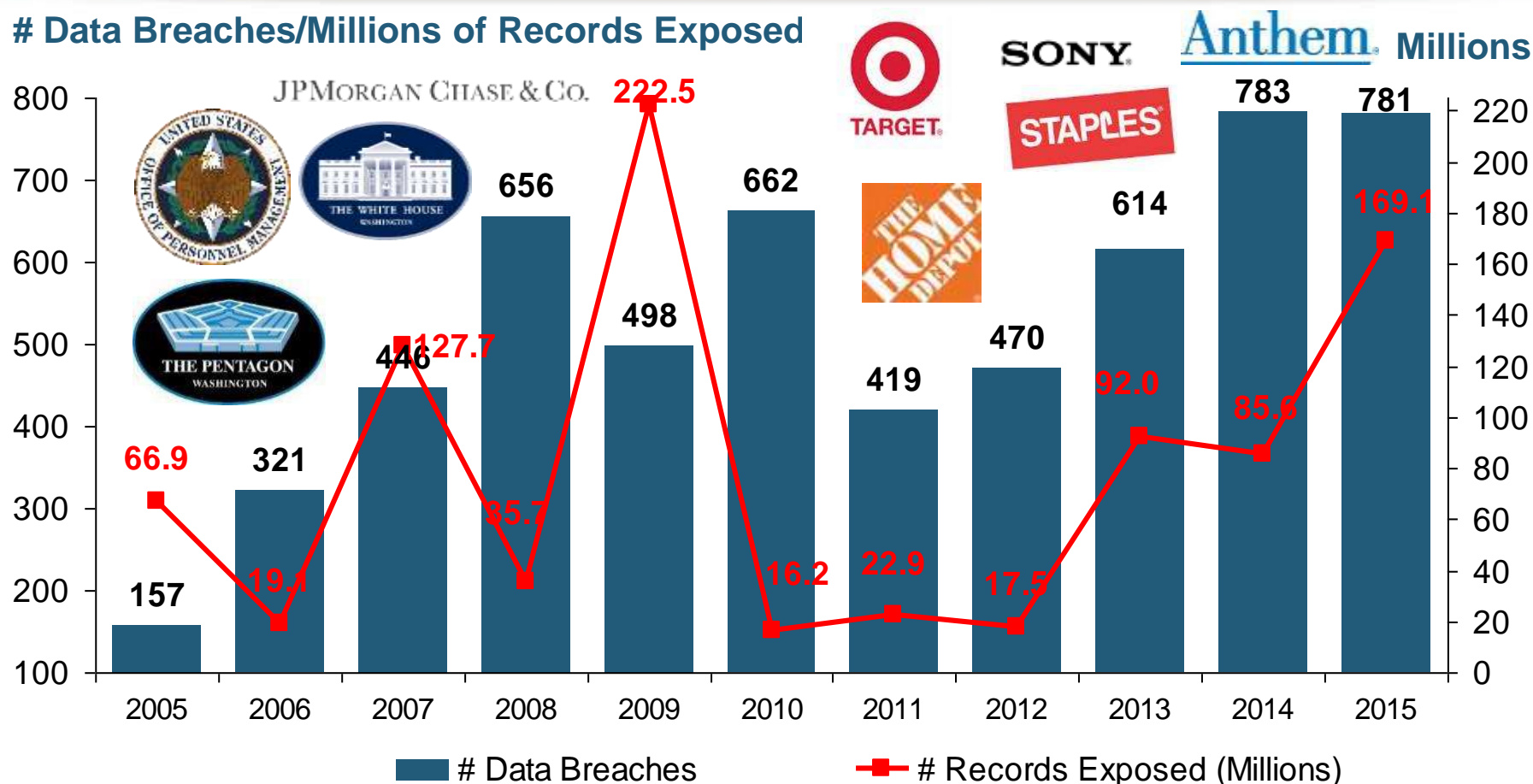
- Insurers are at the intersection of many of the most important technological innovations of the early 21st century
 - ◆ Problem→Solution→Opportunity
- Industry is too often depicted as a technology laggard
- I.I.I. is highlighting the industry as being on the technological cutting edge—an innovative, nimble industry with solutions for managing countless new risks of the current era:
 - ◆ Sharing economy Cyber Auto Technology
 - ◆ Supply Chain Climate Risk Drones
 - ◆ Wearable devices The “Internet of Things”

CYBER RISK AND INSURANCE

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

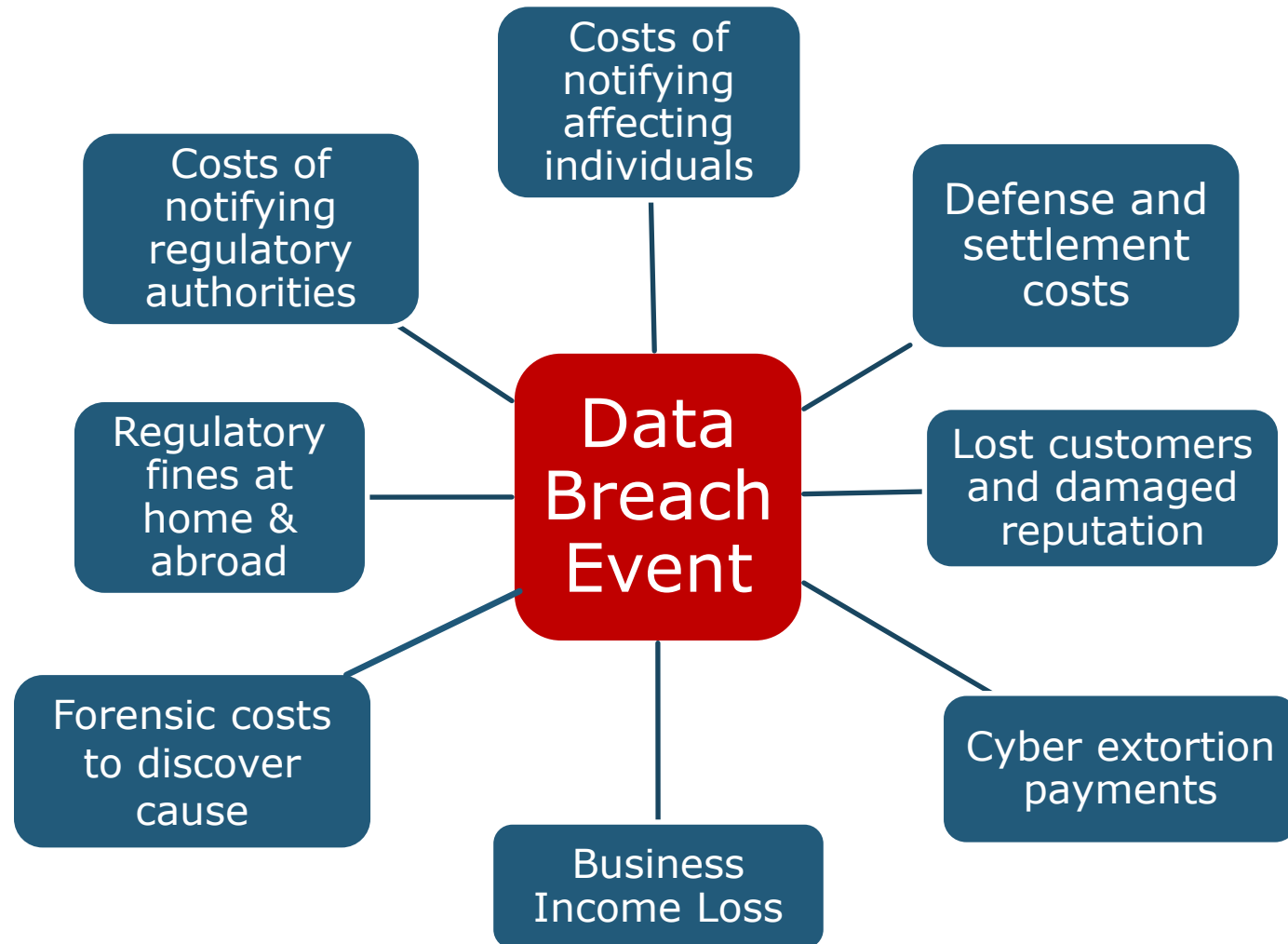
Data Breaches 2005-2015, by Number of Breaches and Records Exposed

Data Breaches/Millions of Records Exposed



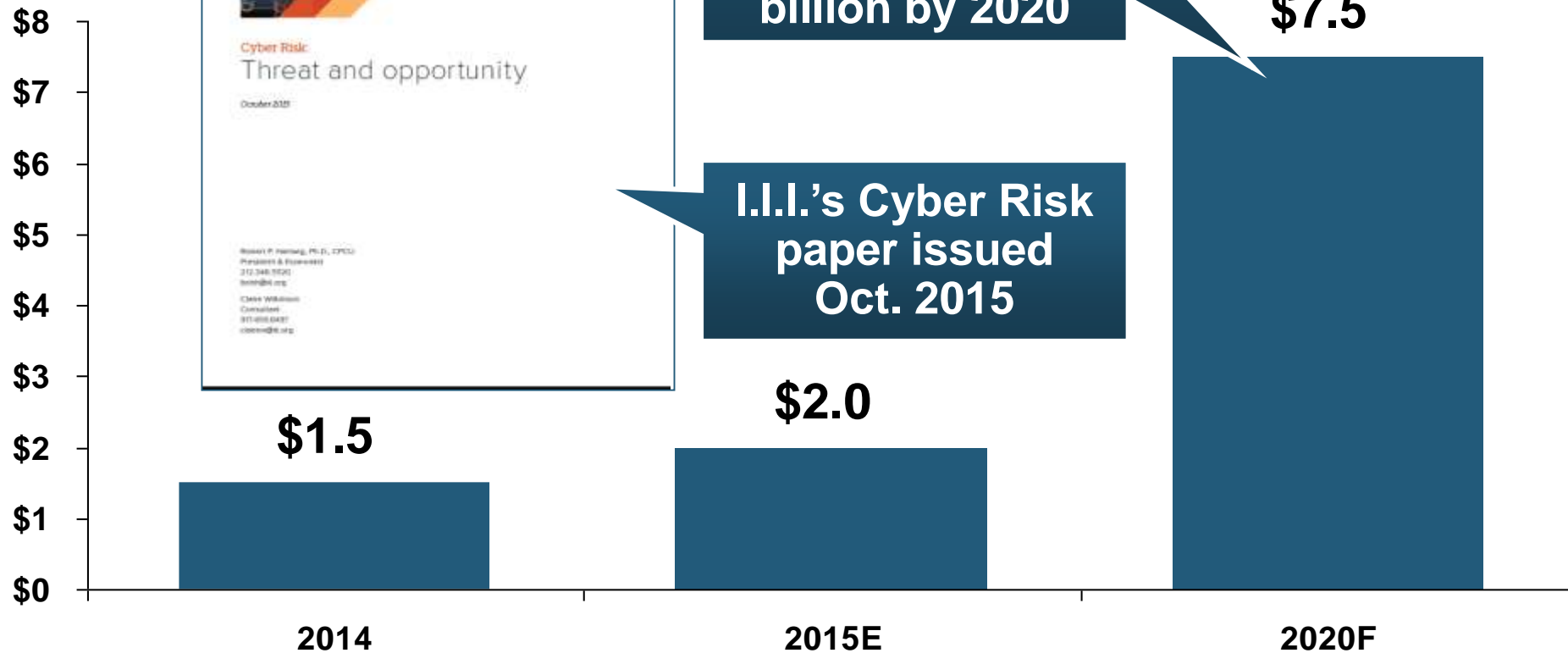
The 781 reported data breaches in 2015 was virtually unchanged from the record 783 reported in 2014. The number of exposed records soared to 169.1 million, and increase of 97.5%.

Data/Privacy Breach: Many Potential Costs Can Be Insured



Estimated Cyber Insurance Premiums Written, 2014 – 2020F

\$ Billions





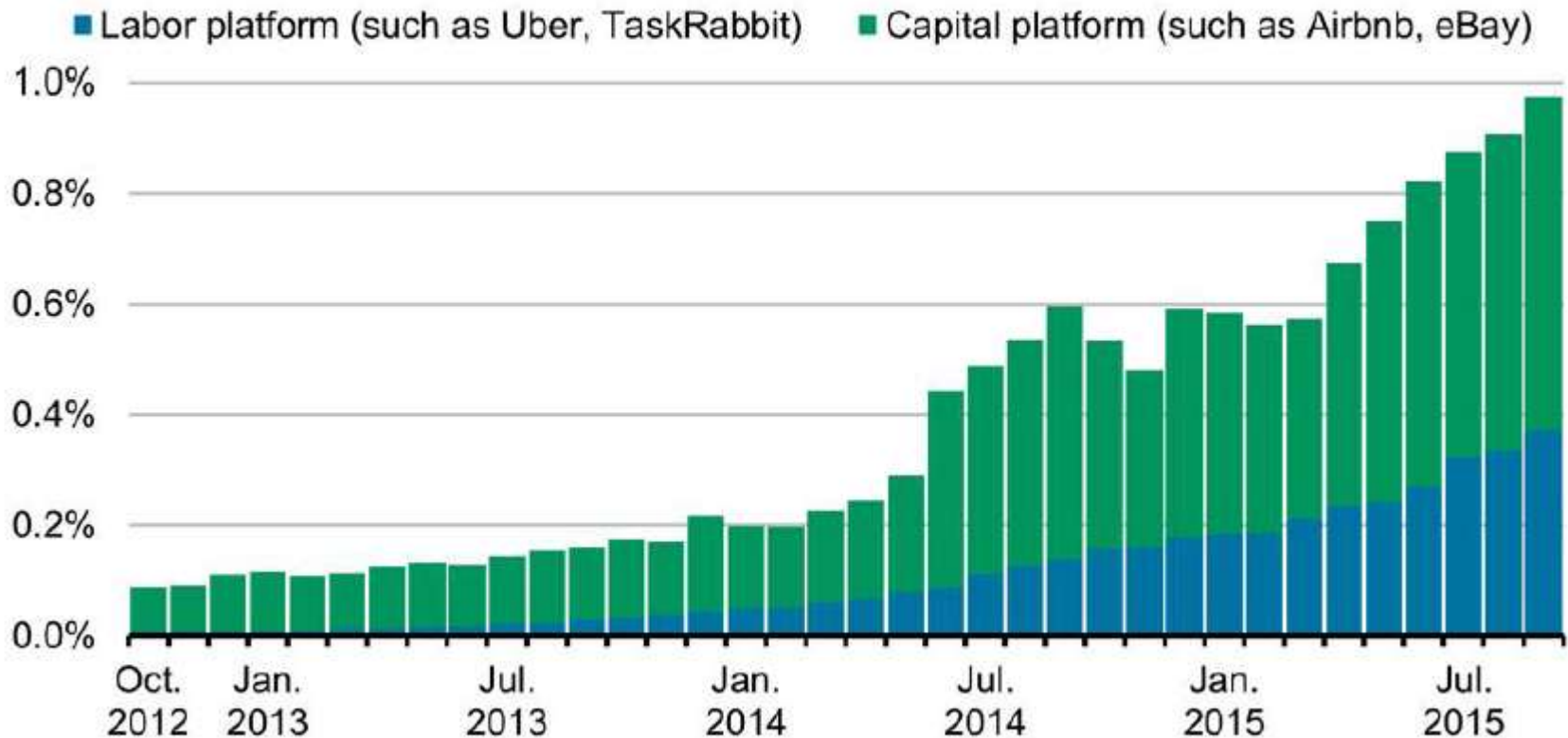
THE SHARING (ON-DEMAND) ECONOMY

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

Tiny, but Growing

Gig Growth

Share of U.S. adults earning income in a given month via online platforms, often referred to as the gig or sharing economy.



Source: JPMorgan Chase Institute | WSJ.com

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

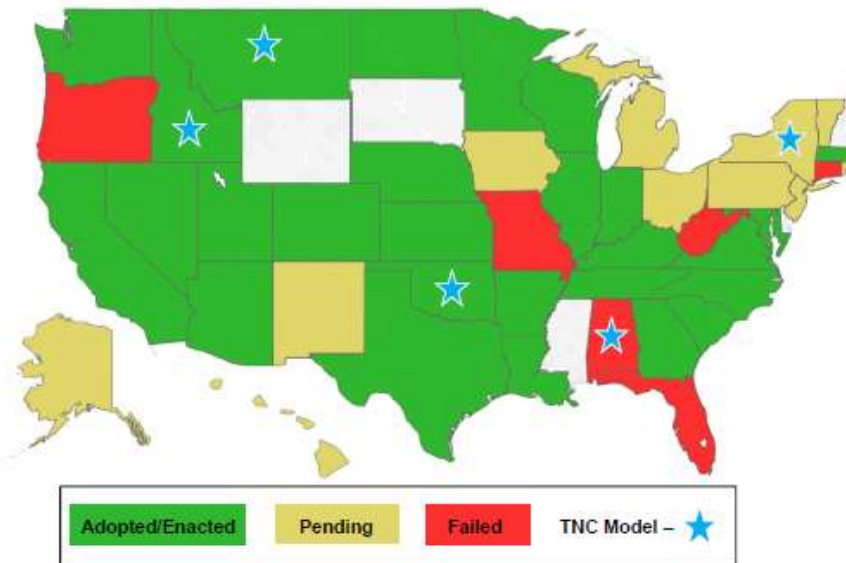
Will **YOUR** job
be reduced to
an app?

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

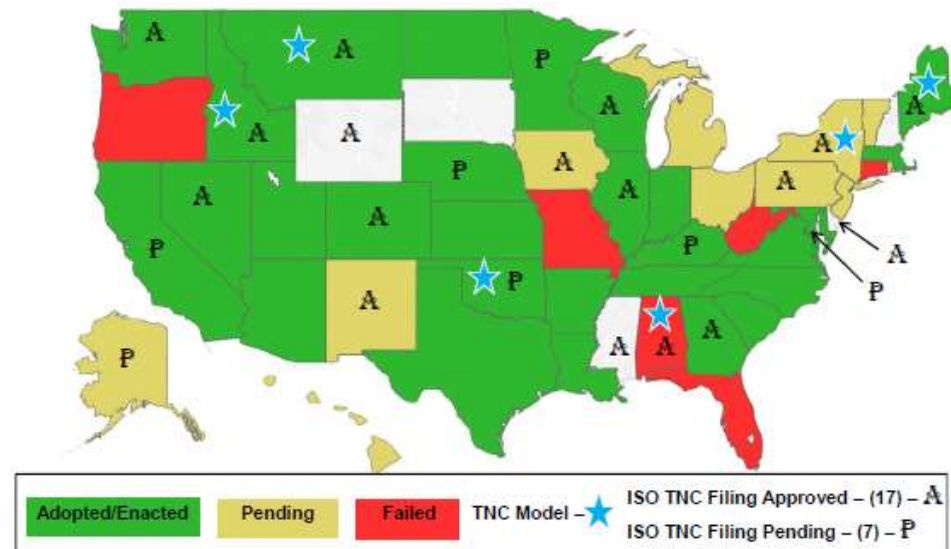


Ridesharing Regulation/Legislation and Status of ISO Filings as of 9/30/15

Status Ride Sharing Legislation/Regulation



Status of ISO Filings



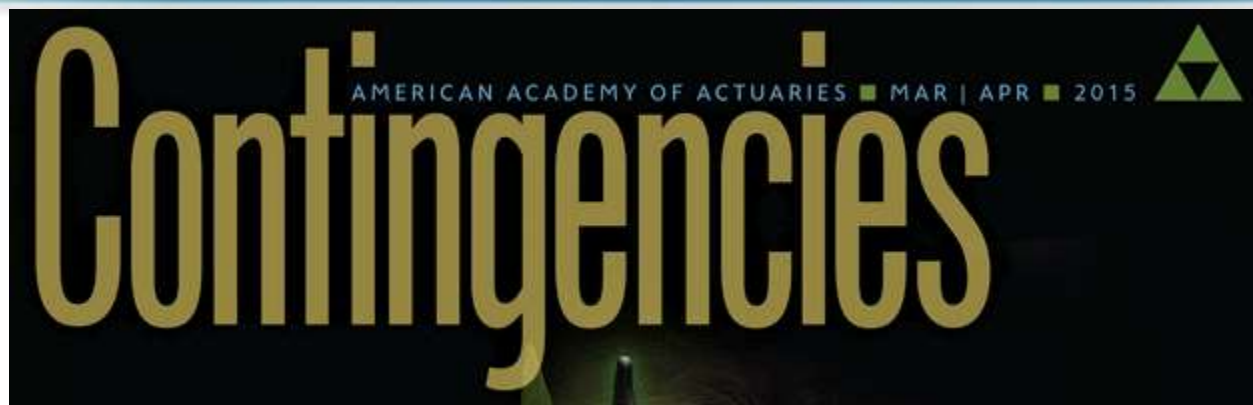
TNC: Transportation Network Companies.



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

When Computers Take the Wheel . . .



NOT SO FAST Autonomous vehicles will challenge auto insurers, but they won't obliterate them

By James Lynch



This is a Test . . . On the Street



**Delphi prototype
“Road-runner”**

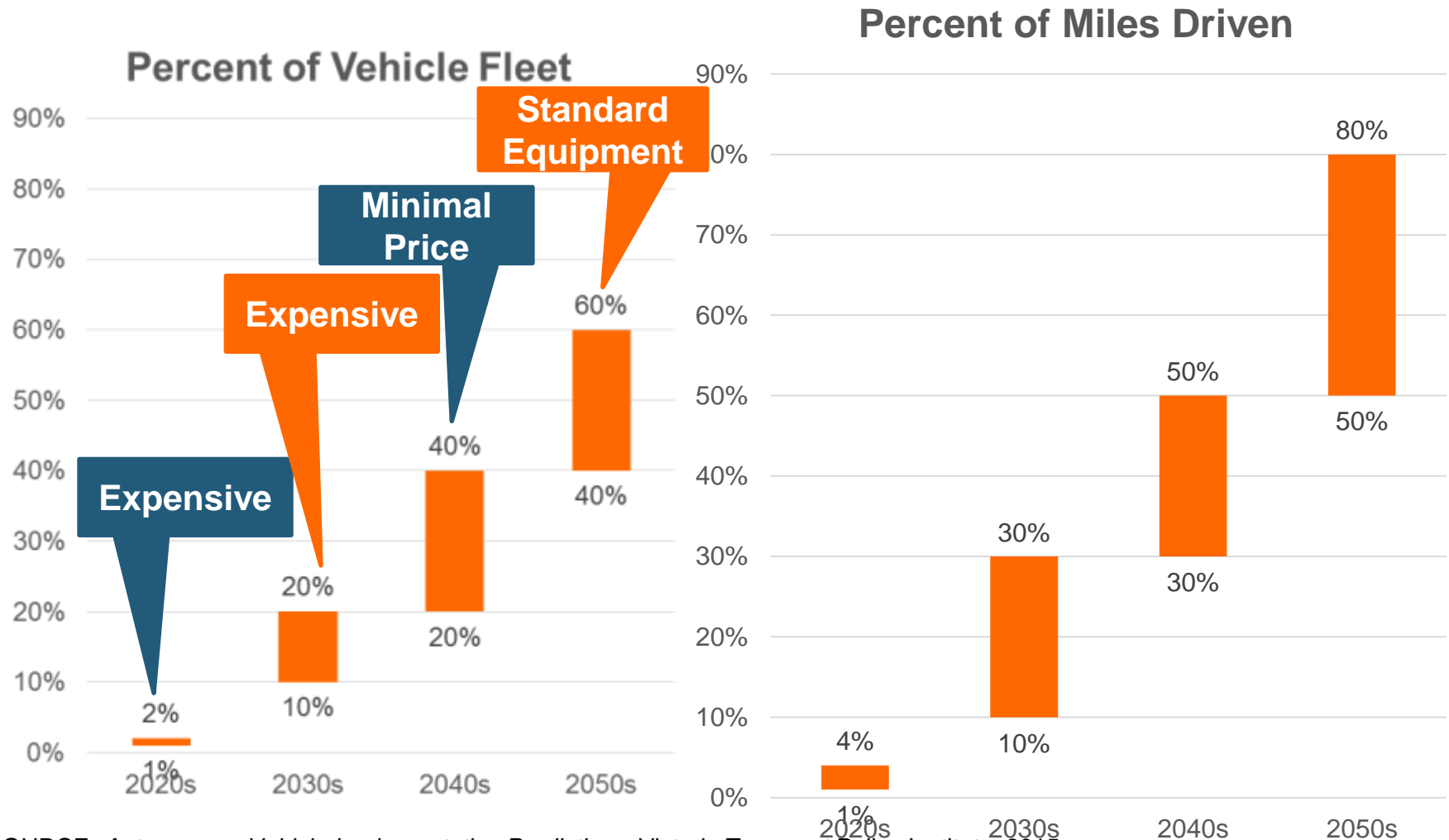
**SF to NYC in Nine
Days (4/2015)**

**3,400 Miles – All
but 50
Autonomous**

**Issues:
‘Unmarked Lanes,
Heavy
Roadworks,’
When Sun Was
Low in Sky**

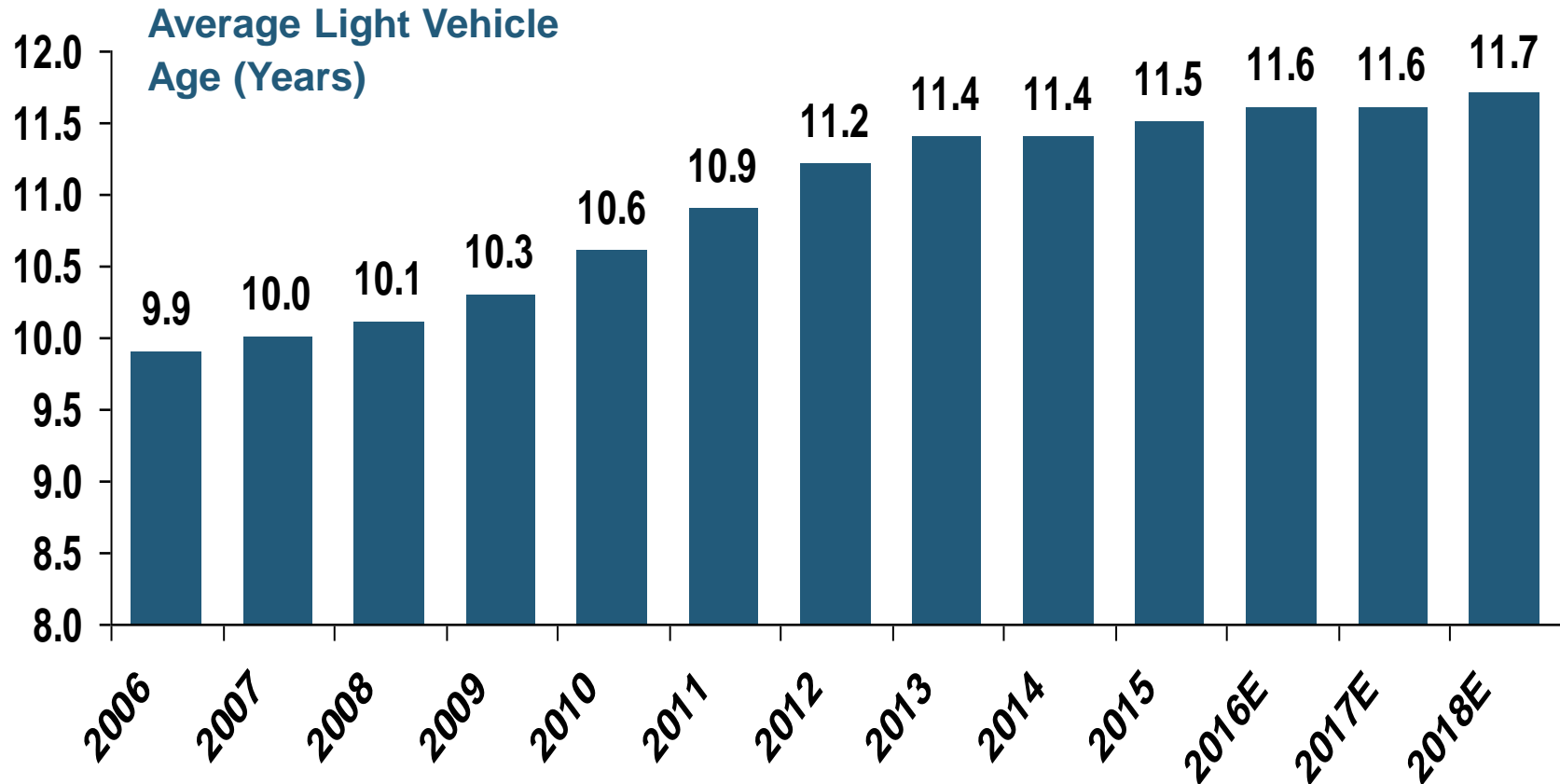
**All Major Manufacturers Are Developing These Safety
Devices. Autopilot Features Are Imminent.**

When Will This Happen?



SOURCE: *Autonomous Vehicle Implementation Predictions*, Victoria Transport Policy Institute, 2015.

Why Will It Take So Long?

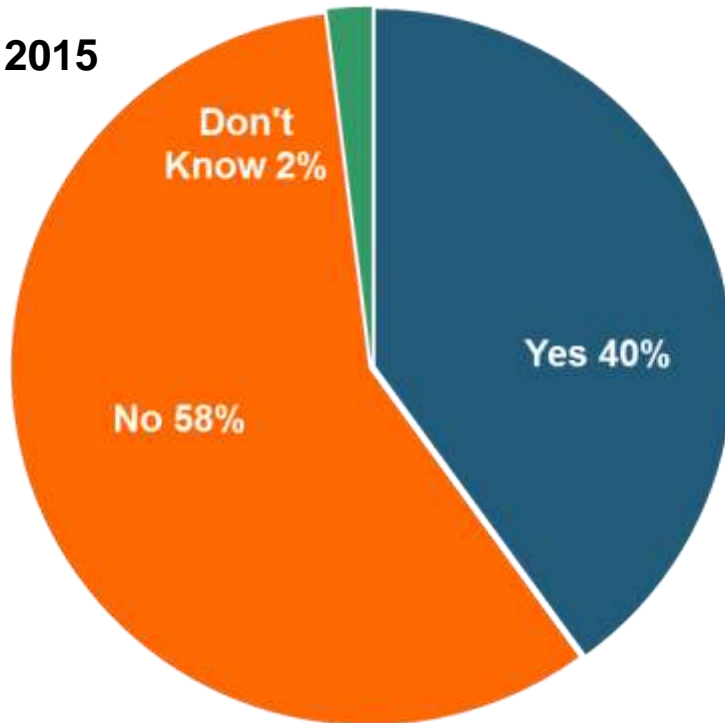


Recession Hangover – People Struggling to Afford Major Purchase; Cars Are Built Better, Last Longer.

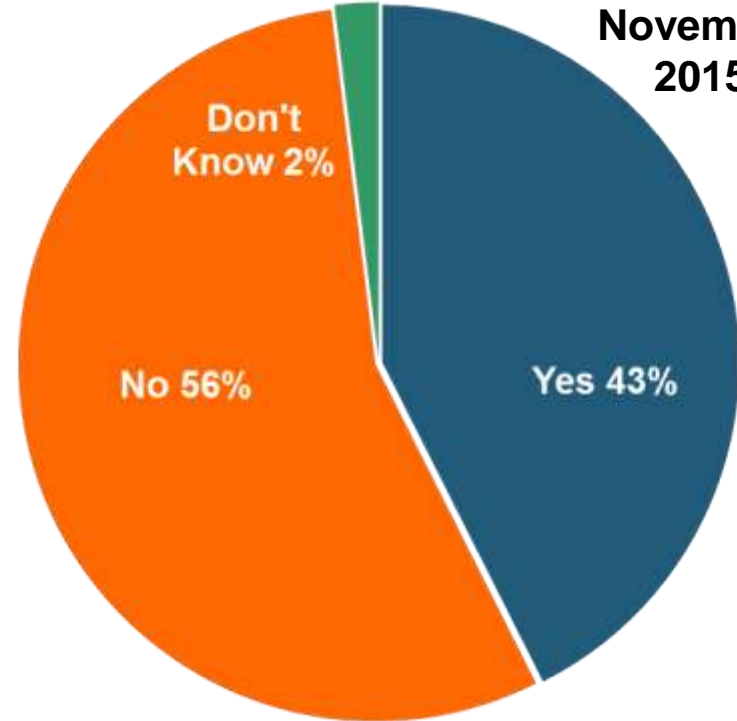
Why Will It Take So Long?

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

May 2015



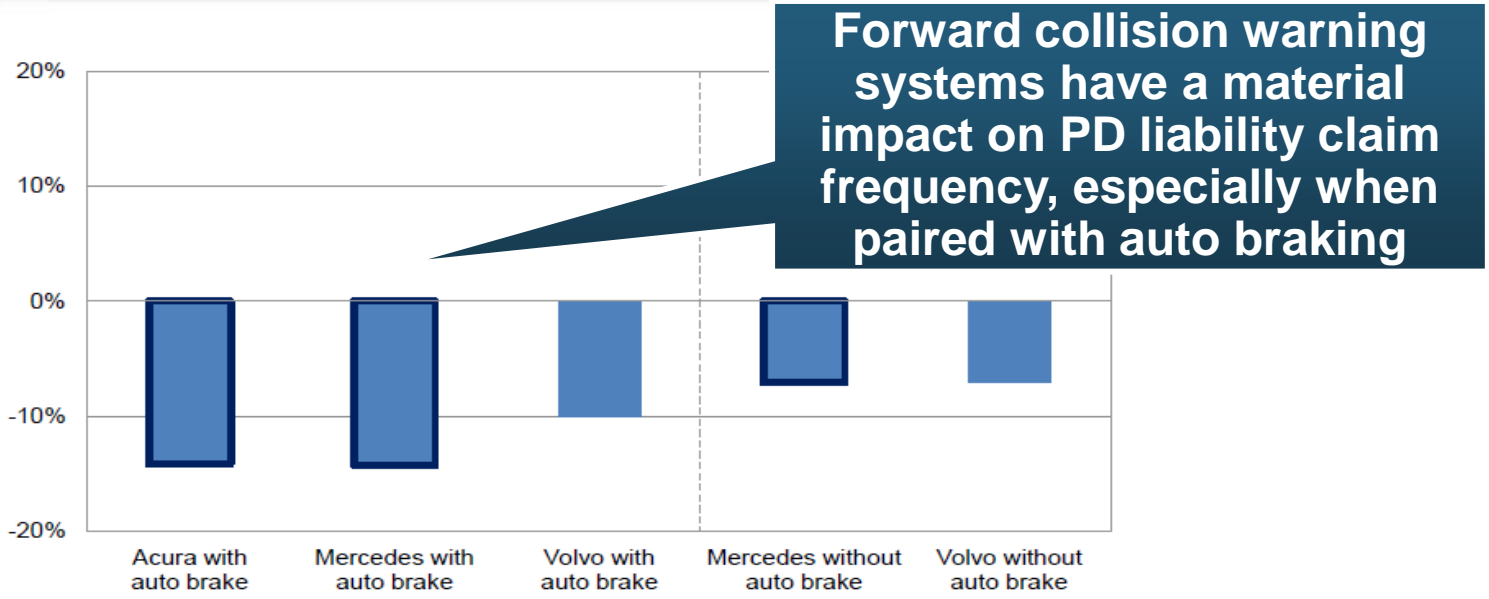
**November
2015**



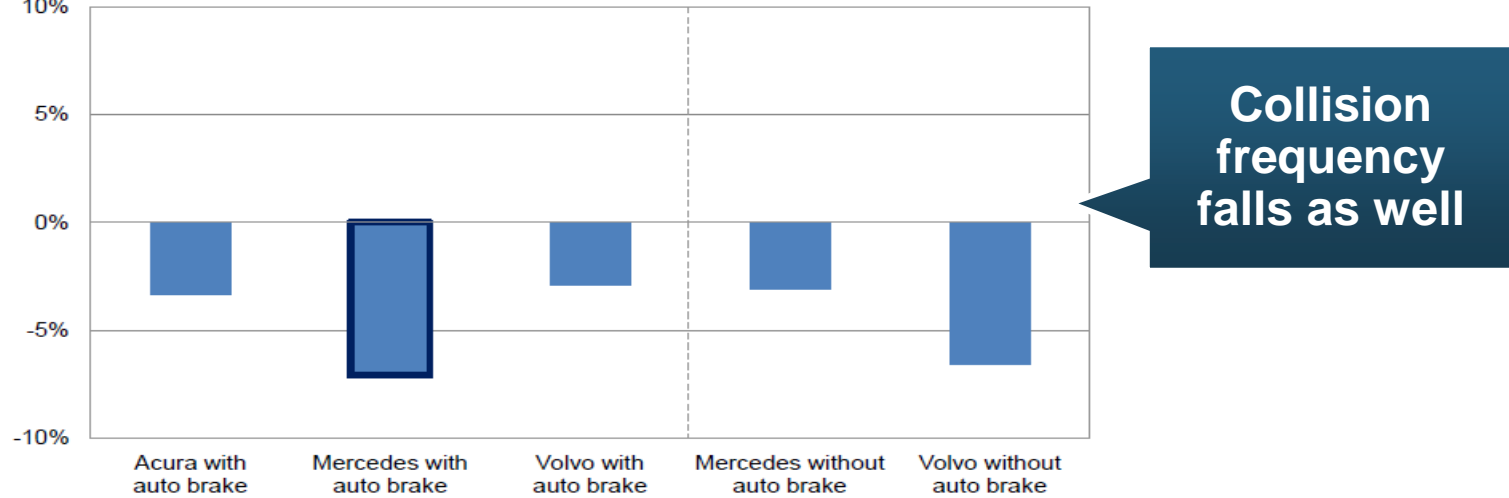
The Percentage Willing to Ride in a Driverless Car Rose Slightly. 69 Percent of People Over 64 Were Unwilling to Ride.

Meanwhile, Other Important Tech Improvements Are Coming to Autos

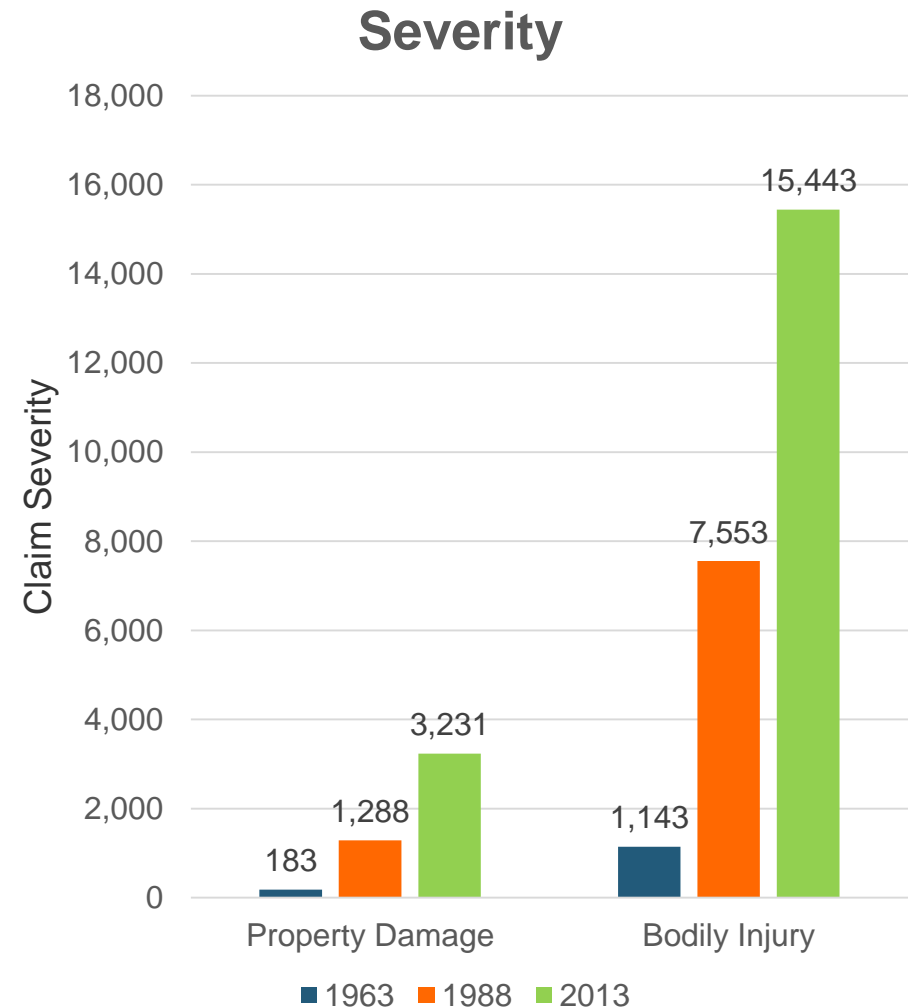
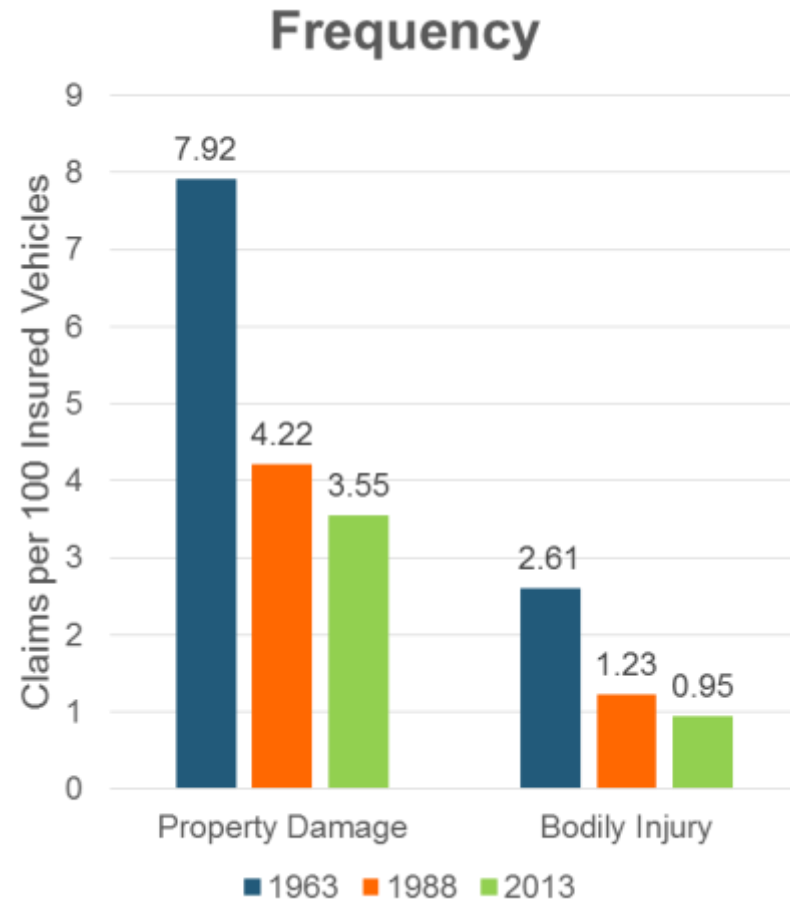
**Property
Damage
Liability Claim
Frequency by
Manufacturer**



**Collision
Claim
Frequency by
Manufacturer**



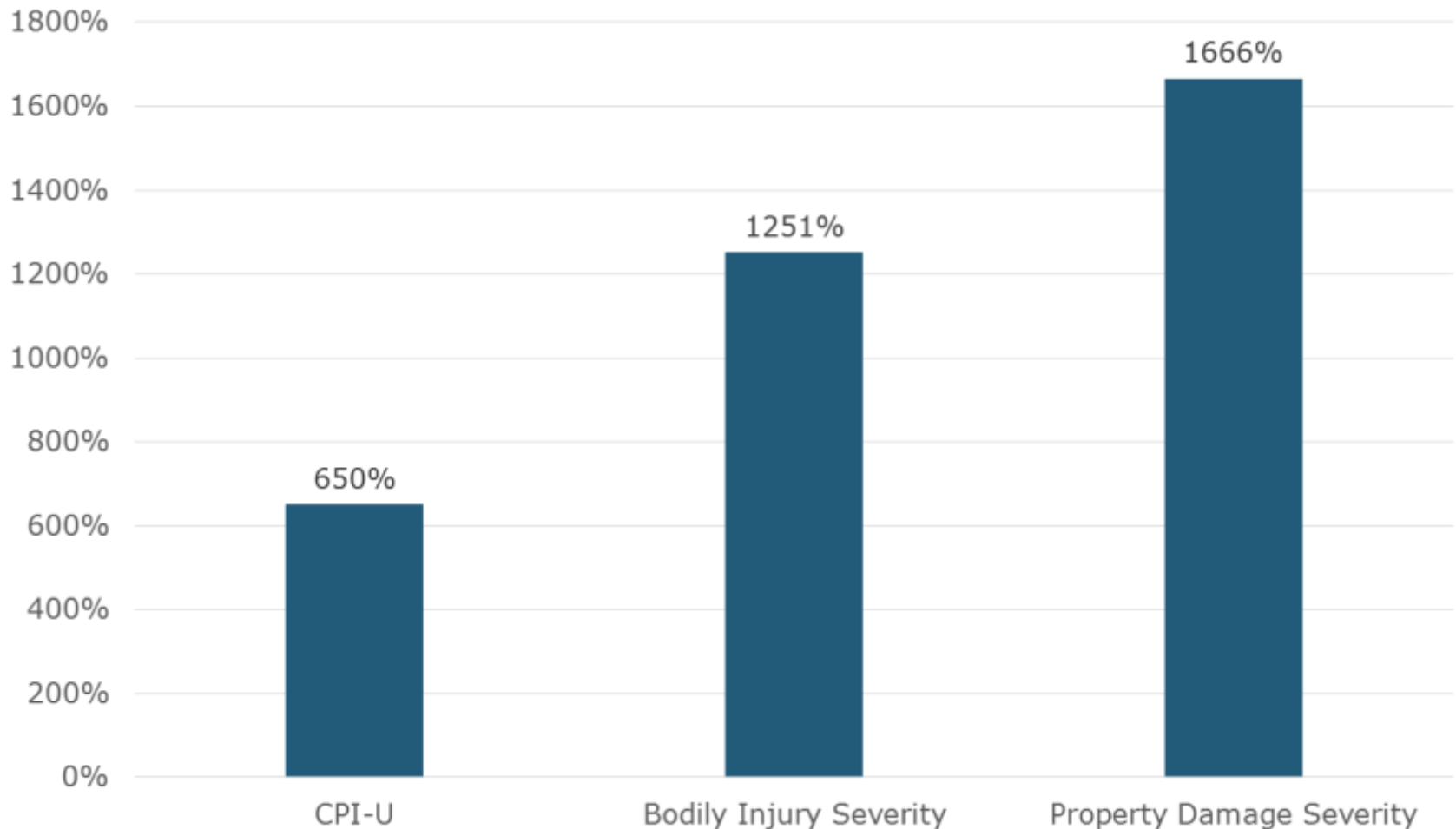
Auto Insurance: Frequency vs. Severity



Sources: Insurance Institute for Highway Safety, Insurance Services Office, Insurance Information Institute.

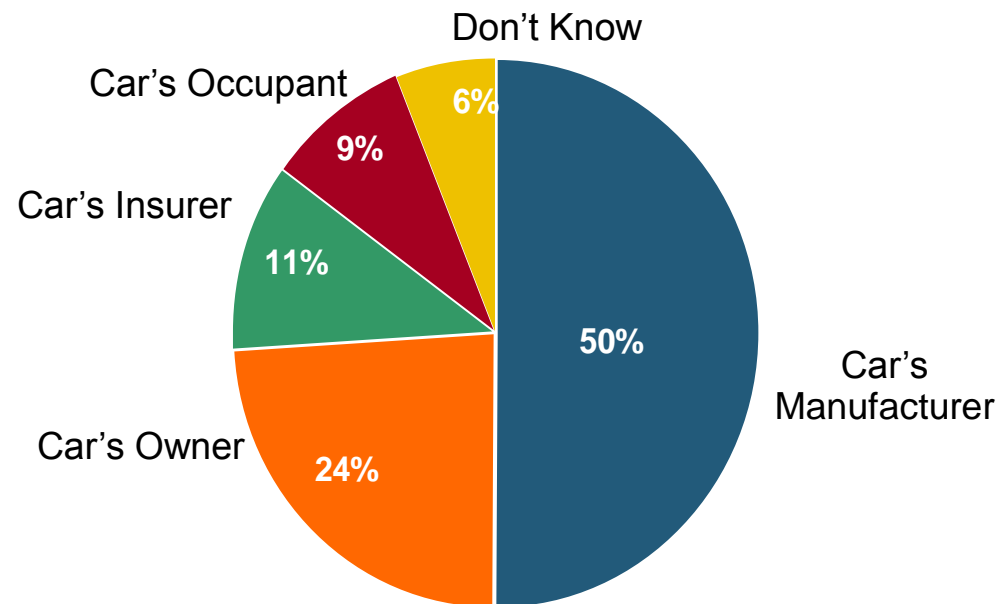
Auto Claims Have Grown Faster Than Inflation for 50 Years

Percentage Change, 1963-2013



Who Is Responsible?

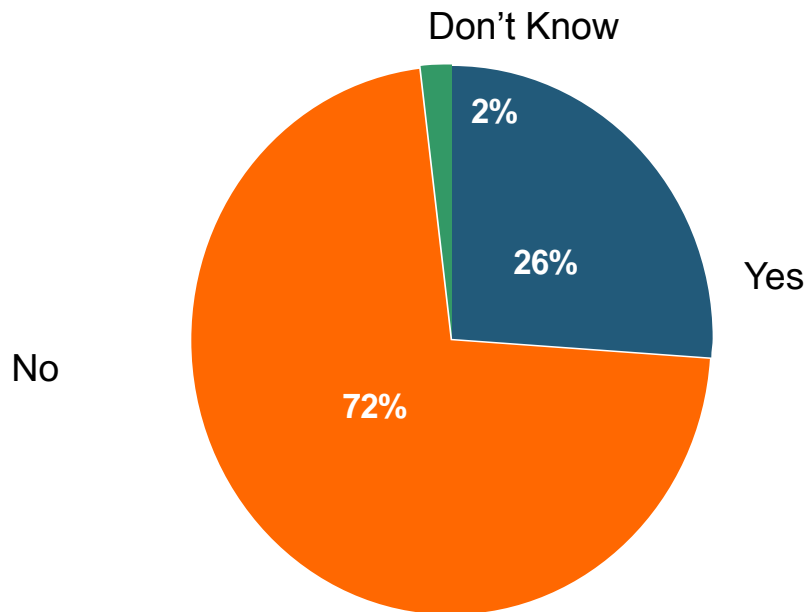
Q. Who should be responsible if an accident occurred involving a driverless car?



Half of Respondents Think a Driverless Car's Manufacturer Should Bear Responsibility in Case of an Accident.

Who Is Responsible?

Q. Would you be willing to pay more for your car to cover the manufacturer's liability in case of an accident?





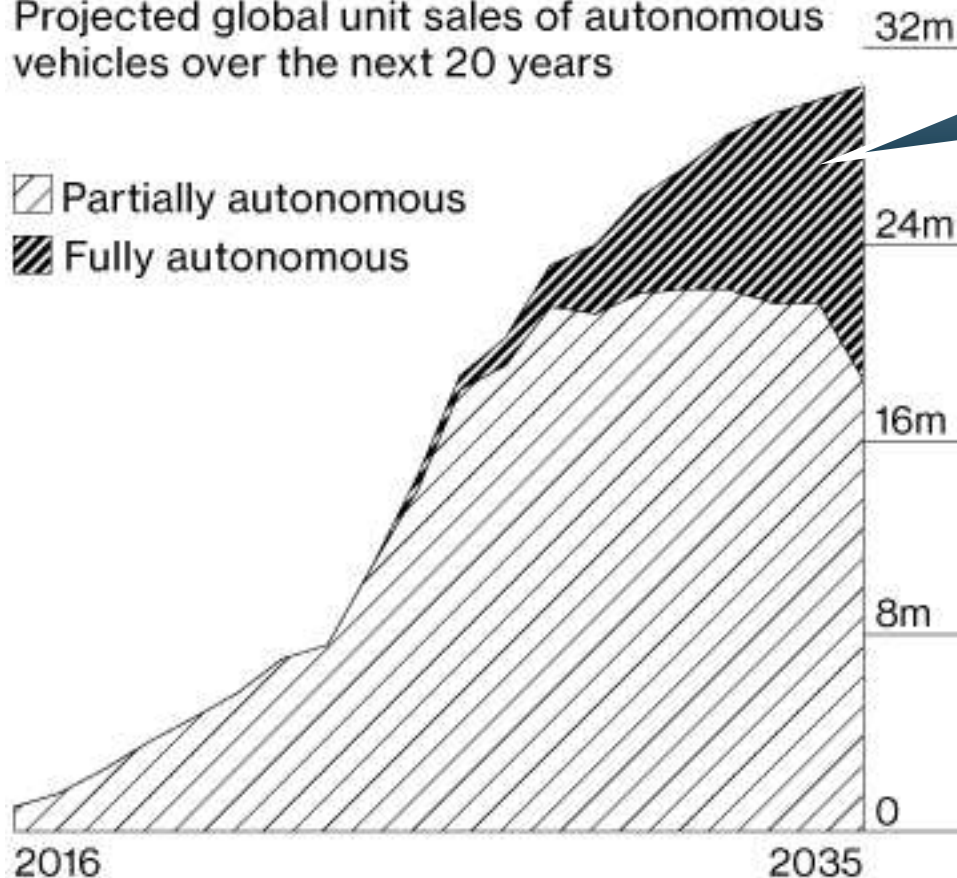
Only a Quarter of Americans Would Be Willing to Pay More for a Driverless Car to Cover the Manufacturer's Liability in Case of an Accident.

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



DATA: BOSTON CONSULTING GROUP;
GRAPHIC BY BLOOMBERG BUSINESSWEEK

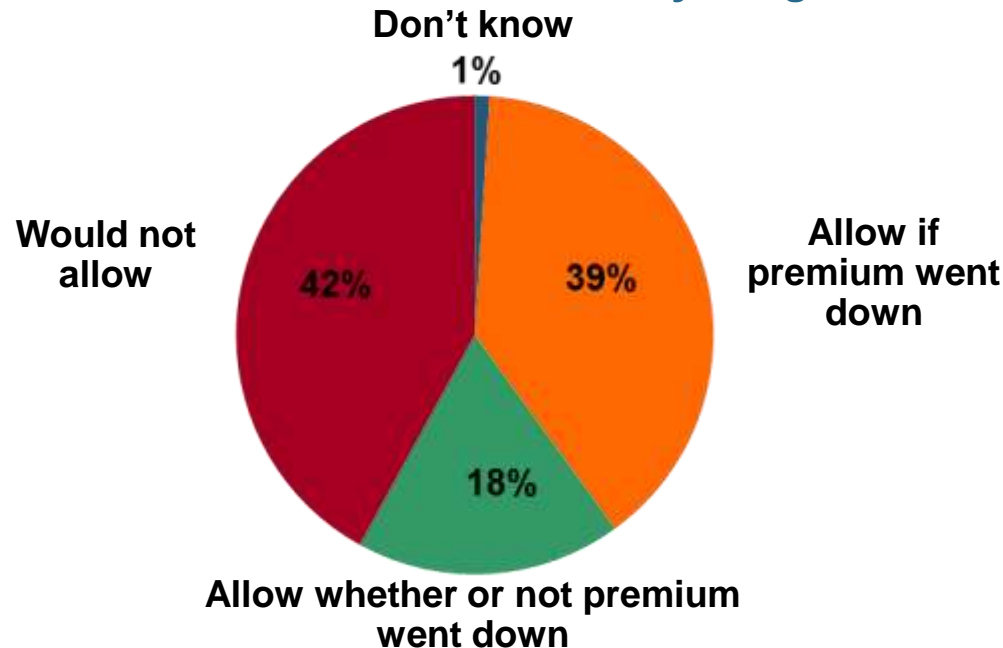
By 2035, it is estimated that 25% of new vehicle sales could be fully autonomous models

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?

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



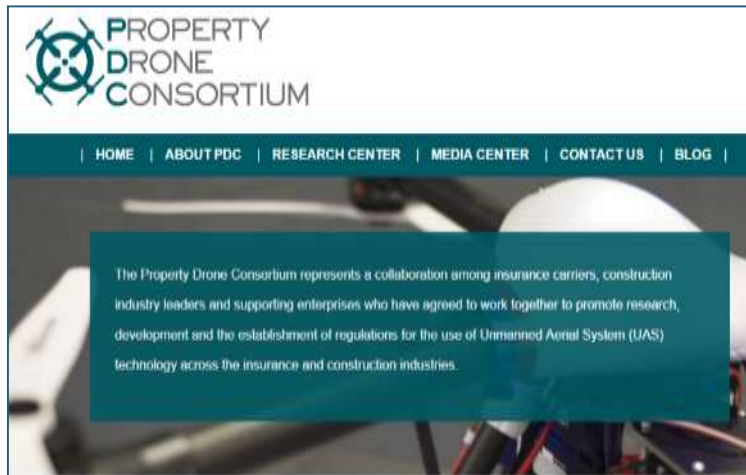
More Than Half of Auto Policyholders Would Allow Their Insurer to Collect Their Driving Information In Order to Set Premiums.

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



- 2015 Was Profitable for the P/C Industry
- Low Interest Rates Present a Challenge
- Rate Changes Flat, Perhaps Lower
- Loss Trends Accelerating, Especially in Auto
- NC Mirrors Most U.S. Trends (except Residual Market)
- Flood Insurance: Is Anyone Buying?
- Disruptors Loom, but Industry Appears Ready

Insurance Information Institute Online:

www.iii.org

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and your attention!*

Twitter: twitter.com/III_Research

Download at www.iii.org/presentations