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Catastrophic Risk & Insurability:
Can the Insurance Industry Cope?

Los Angeles RIMS and the Center for Insurance Studies at California State University

Fullerton, CA

October 15, 2012

Download at www.iii.org/presentations

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Global Catastrophe Loss Developments and Trends

Recent Catastrophe Losses Rewrote Insurance History, but Global (Re)Insurance Markets Proved their Strength and Resilience

Global Catastrophe Loss Summary: 2011—Several Major Earthquakes

- **2011 Was the *Highest* Loss Year on Record for Economic Losses Globally**
  - Extraordinary accumulation of severe natural catastrophe: Earthquakes, tsunami, floods and tornadoes are the primary causes of loss
- **$380 Billion in *Economic* Losses Globally (New Record)**
  - New record, exceeding the previous record of $270B in 2005
- **$105 Billion in *Insured* Losses Globally**
  - 2011 losses were 2.5 times 2010 insured losses of $42B
  - Second only to 2005 on an inflation adjusted basis (new record on a unadjusted basis)
  - Over 5 times the 30-year average of $19B
- **$72.8 Billion in *Economic* Losses in the US**
  - Represents a 129% increase over the $11.8 billion amount through the first half of 2010
- **$35.9 Billion in *Insured* Losses in the US Arising from 171 CAT Events**
  - Fifth highest year on record
  - Represents 51% increase over the $23.8 billion total in 2010

Source: Munich Re; Insurance Information Institute.

Natural Loss Events, 2011

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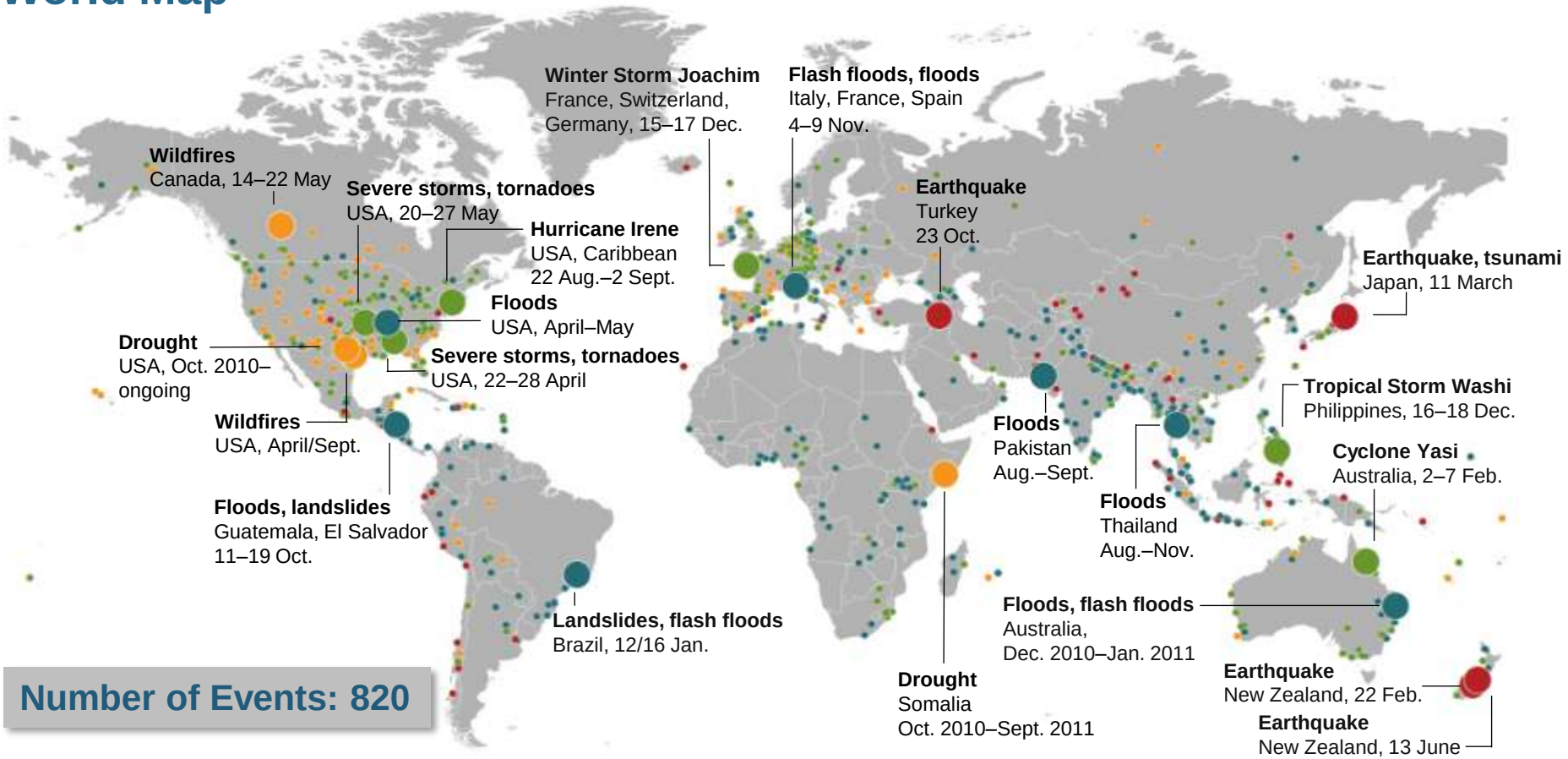
World Map



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

Source: MR NatCat*SERVICE*

Natural Catastrophes Worldwide, 2011

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Overview and Comparison with Previous Years

	2011	2010	Average of the last 10 years 2001-2010	Average of the last 30 years 1981-2010	Top Year 1981-2010
Number of events	**820**	970	790	630	**2007 (1,025)**
Overall losses in US$ m (original values)	**380,000**	152,000	113,000	75,000	**2005 (227,000)**
Insured losses in US$ m (original values)	**105,000**	42,000	35,000	19,000	**2005 (101,000)**
Fatalities	**27,000**	296,000	106,000	69,000	**2010 (296,000)**

Source: MR NatCat*SERVICE*

5 Costliest Natural Catastrophes Worldwide in Terms of Insured Losses, 2011 ($Mill)

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Date	Region	Event	Fatalities	Overall losses US$ m	Insured losses US$ m
March 11	Japan	Earthquake, tsunami	15,840	210,000	**35,000-40,000**
Feb. 22	New Zealand	Earthquake	181	16,000	**13,000**
Aug. 1 – Nov. 15	Thailand	Floods, landslides	813	40,000	**10,000**
Apr. 22-28	USA	Severe storms/ tornadoes	350	15,000	**7,300**
Aug. 22 - Sep. 2	USA, Caribbean	Hurricane Irene	55	15,000	**7,000**

Source: MR NatCat*SERVICE*

Natural Catastrophes Worldwide 2011

Insured losses US$ 105bn - Percentage distribution per continent

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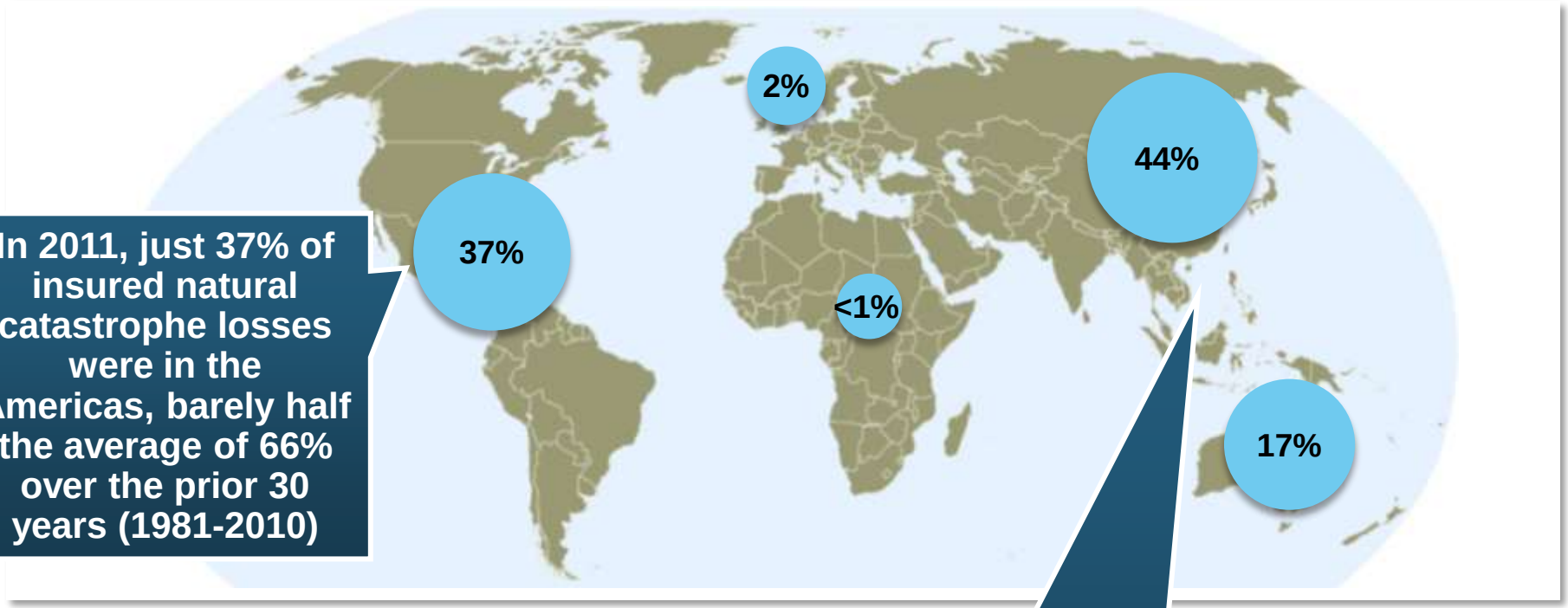

In 2011, just 37% of insured natural catastrophe losses were in the Americas, barely half the average of 66% over the prior 30 years (1981-2010)

Continent	Insured losses US$ m
America (North and South America)	40,000
Europe	2,000
Africa	Minor damages
Asia	45,000
Australia/Oceania	18,000

In 2011, 61% of insured natural catastrophe losses were in the Asia/Pacific region, nearly 3.5 times the average of 13% over the prior 30 years (1981-2010)

Source: MR NatCat*SERVICE*

Natural Catastrophes Worldwide 1980 – 2011
Insured losses US$ 870bn - Percentage distribution per continent

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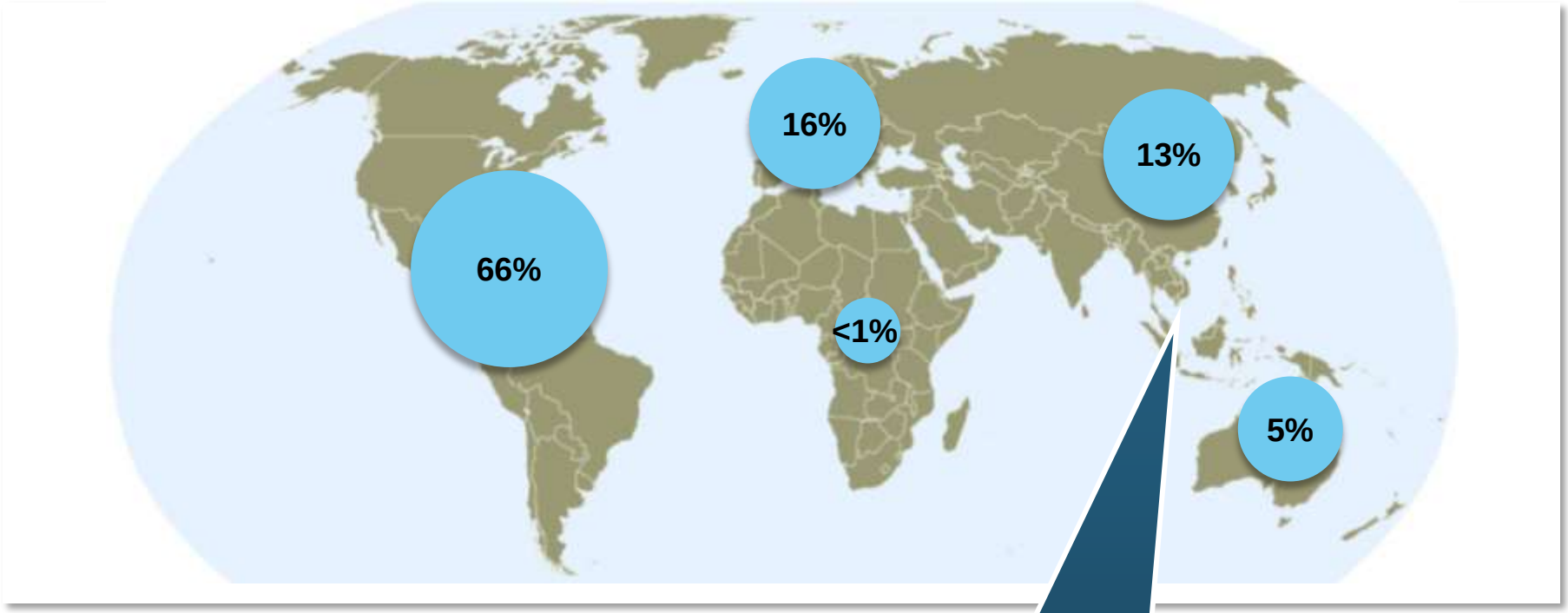

Continent	Insured losses US$ m
America (North and South America)	566,000
Europe	146,000
Africa	2,000
Asia	115,000
Australia/Oceania	41,000

In 2011, 61% of natural catastrophe losses were in the Asia/Pacific region, nearly 3.5 times the average of 13% over the prior 30 years (1981-2010)

Source: MR NatCat*SERVICE*

Top 16 Most Costly World Insurance Losses, 1970-2011**

(Insured Losses, 2011 Dollars, $ Billions)

Taken as a single event, the Spring 2011 tornado and thunderstorm season would likely become the 5th costliest event in global insurance history

5 of the top 14 most expensive catastrophes in world history have occurred within the past 2 years

*Average of range estimates of $35B - $40B as of 1/4/12; Privately insured losses only.

**Figures do not include federally insured flood losses.

Sources: Swiss Re *sigma 1/2011*; Munich Re; Insurance Information Institute research.

Global Catastrophe Loss Summary: First Half 2012

- **$12B in *Insured* Losses Globally (Down from 85% from $81.7B in 2011:H1)**
  - Few extraordinarily severe natural catastrophe events experienced in 2011: Earthquakes, tsunami, floods and tornadoes
  - Despite drop from 2011, total is still 18% above 30-yr. average (in 2011 $) of $10.2B
  - There were 450 nat cat events globally and 3,500 fatalities
- **$26B in *Economic* Losses Globally (Down from Record $302B in 2011:H1)**
  - Represents a 91% decline; Also 40% below 30-yr. average (in 2011 $) of $43.3B
- **$9.3 Billion in *Insured* Losses in the US Arising from 90 CAT Events**
  - Down 62% from $24.4B in 2011:H1; Loss is close to long-term average
  - Represents 80%+ of global total
  - Mild winter helped keep first half losses down
  - Thunderstorm (includes tornado, hail and wind damage) accounted for $8.8B or 95% of first half insured losses and represent the third most expensive spring thunderstorm ever
- **$14.6 Billion in *Economic* Losses in the US**
  - Down from approximately $75B in 2011:H1

Source: Munich Re; Insurance Information Institute.

Natural Loss Events: First Half 2012

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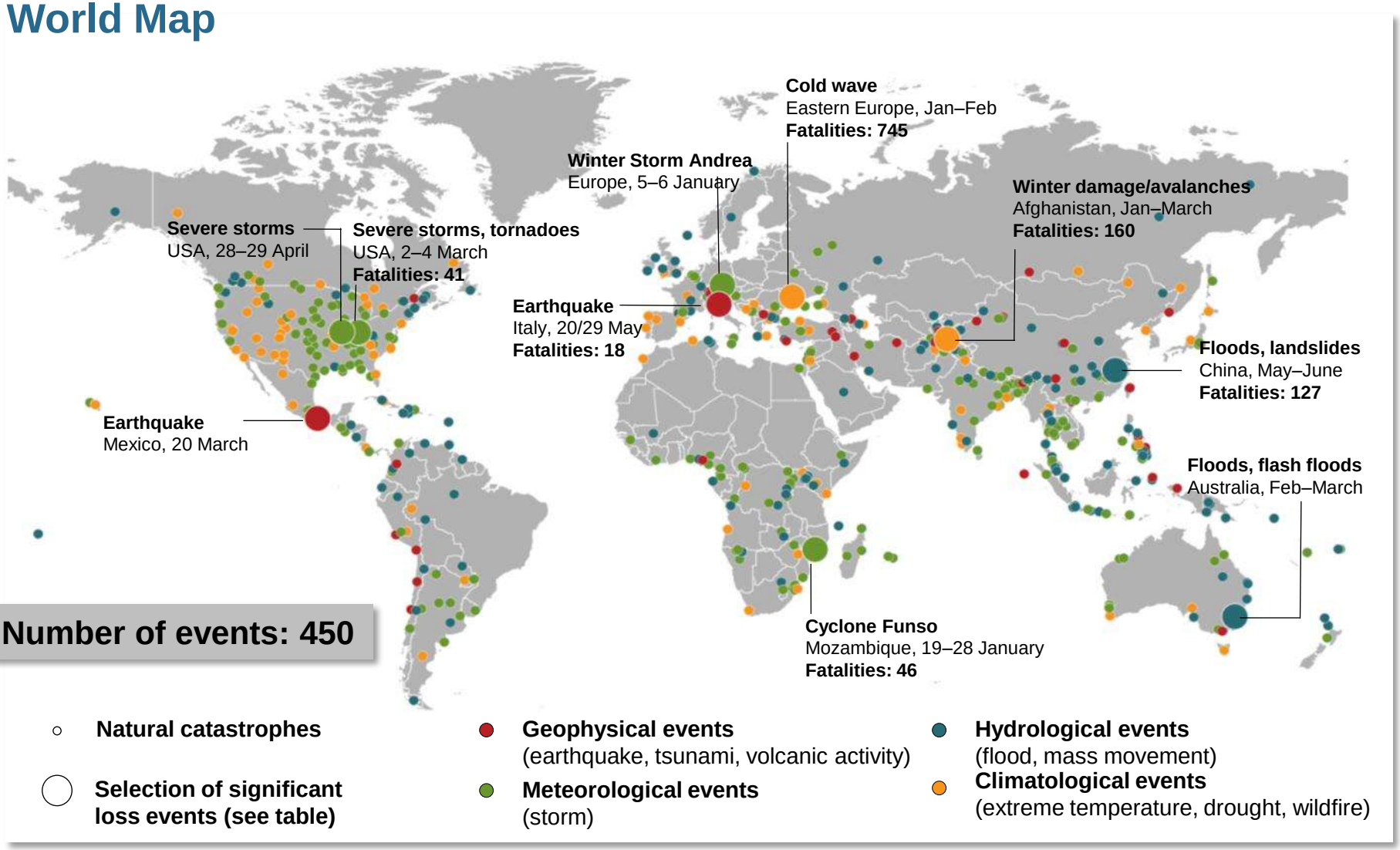
World Map



Source: MR NatCat*SERVICE*

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U.S. Insured Catastrophe Loss Update

2012 Catastrophe Losses Were Close to "Average" in the First Half of 2012

2011 Was the 5th Most Expensive Year on Record

US Catastrophe Loss Summary: First Half 2012

- **$13.8 Billion in *Insured* Losses in the US Arising from ~90 CAT Events**
  - Down 51% from $25.7B in 2011:H1; But loss is still 44% above average over past 10 yrs.
  - Represents 80%+ of global total
  - Mild winter helped keep first half losses down
  - T-storm (includes tornado, hail and wind damage) accounted for est. $11.9B or 95% of first half insured losses and represent the 3rd most expensive spring t-storm season ever
- **~$19.6 Billion in *Economic* Losses in the US**
  - Down from approximately $75B in 2011:H1
- **Mild Winter Helped Keep First Half Insured Losses Down**
  - Lack of heavy precipitation limited spring flood but exacerbated drought conditions
- **Severe Droughts Now Impacting Central and Southwest Parts of US**
  - Two major wildfires in Colorado in June caused record $500 mill damage in the state
  - Largest wildfire in New Mexico history occurred in May
  - Insured crop losses could be high in 2012
- **Mild Hurricane Season**
  - Season got off to an early start, but insured losses are not large by historical standards

Isaac likely in the lower end of modeled loss range of $600M to $2B

Source: Munich Re; PCS; Insurance Information Institute.

Natural Disaster Losses in the United States: First Half 2012

As of July 1, 2012	Number of Events	Fatalities	Estimated Overall Losses (US $m)	Estimated Insured Losses (US $m)
Severe Thunderstorm	56	69	13,550	**8,760**
Winter Storm	3	3	80	**38**
Flood	6	0	12	**Minor**
Earthquake	1	0	0	**0**
Tropical Cyclone	2	1	100	**50**
Wildfire	22	6	875	**500**
Totals	**90**	**79**	**14,617**	**9,348**

Source: MR NatCat*SERVICE*

US Insured Catastrophe Losses

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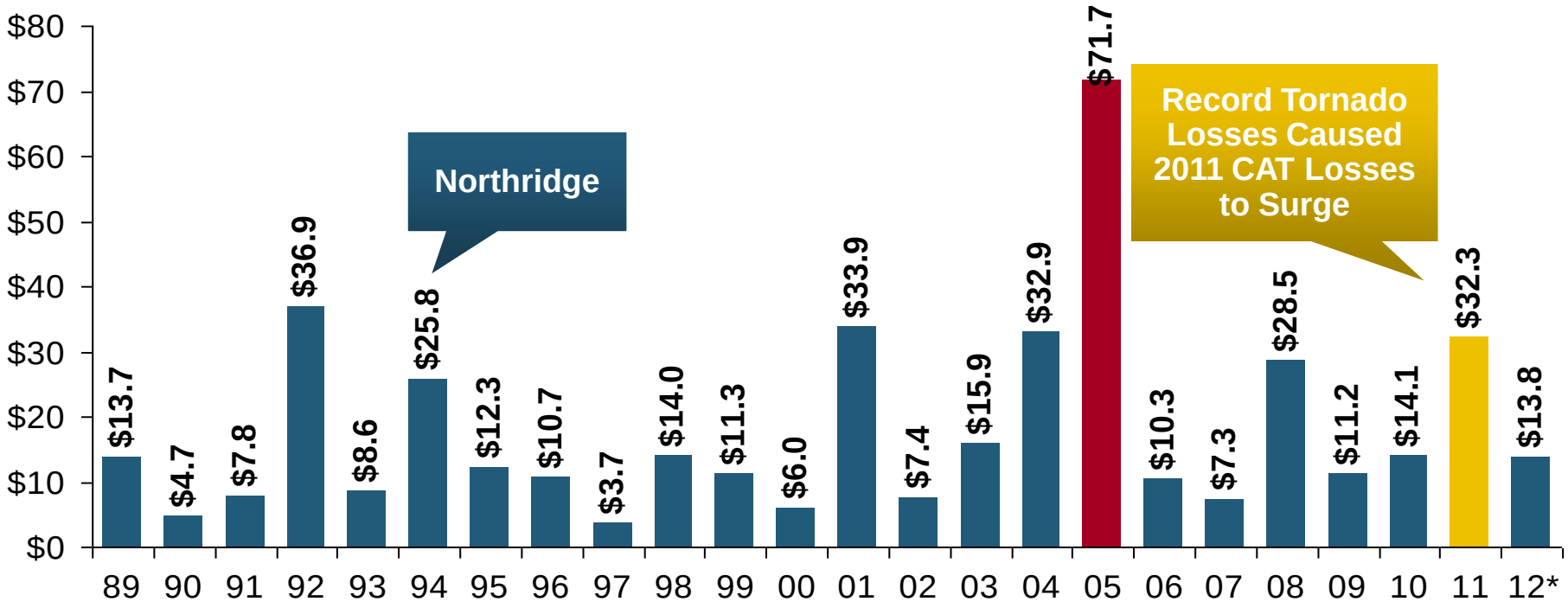
($ Billions, 2011 Dollars)



US CAT Losses in 2011 Were the 5th Highest in US History on An Inflation-Adjusted Basis

H1 2012 CAT losses were down $11.9B or 49% from $24.4B in H1 2011

*PCS figure for H1 2012 (stated in 2012 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.

Top 14 Most Costly Disasters in U.S. History

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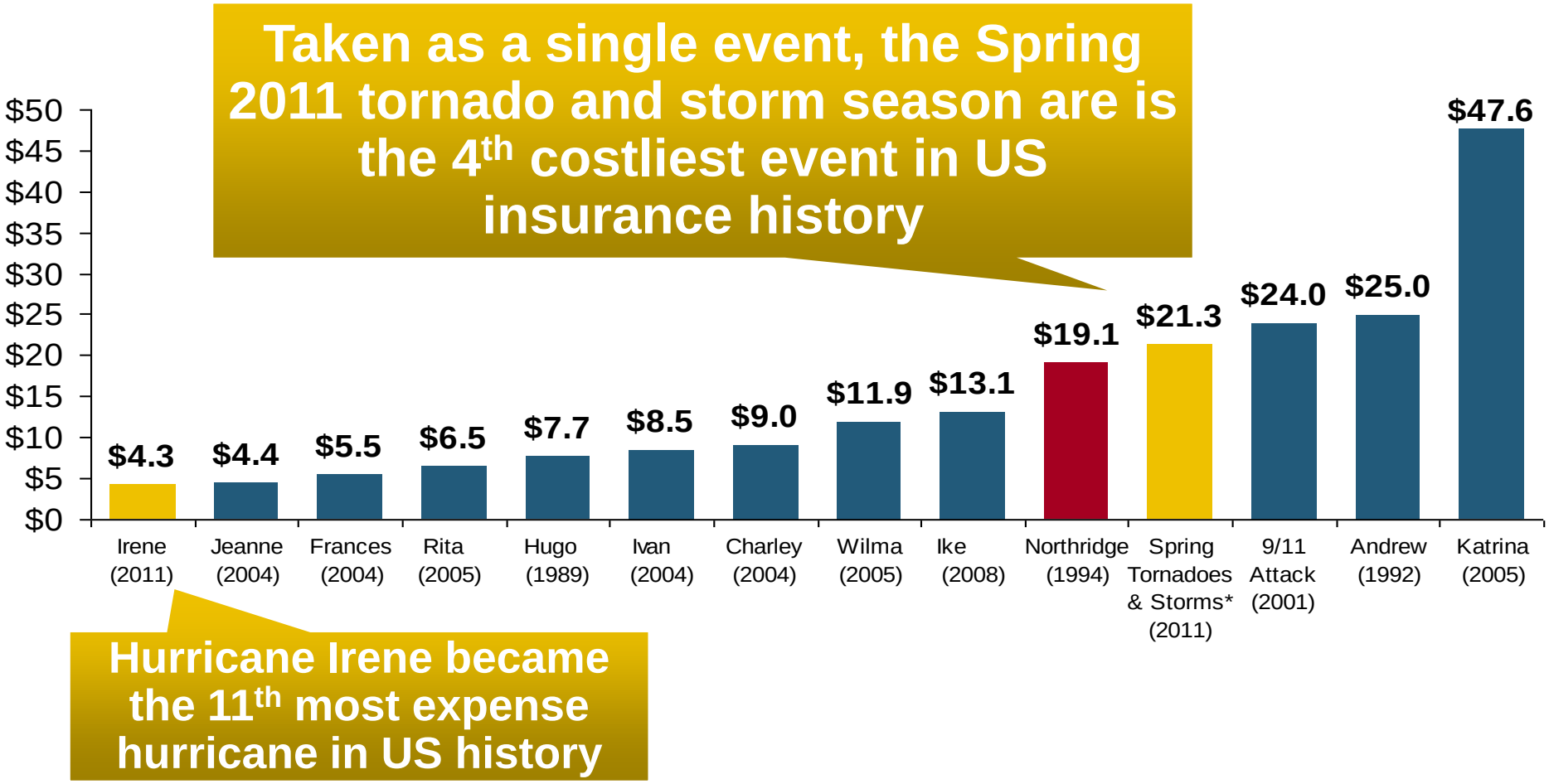
(Insured Losses, 2011 Dollars, $ Billions)

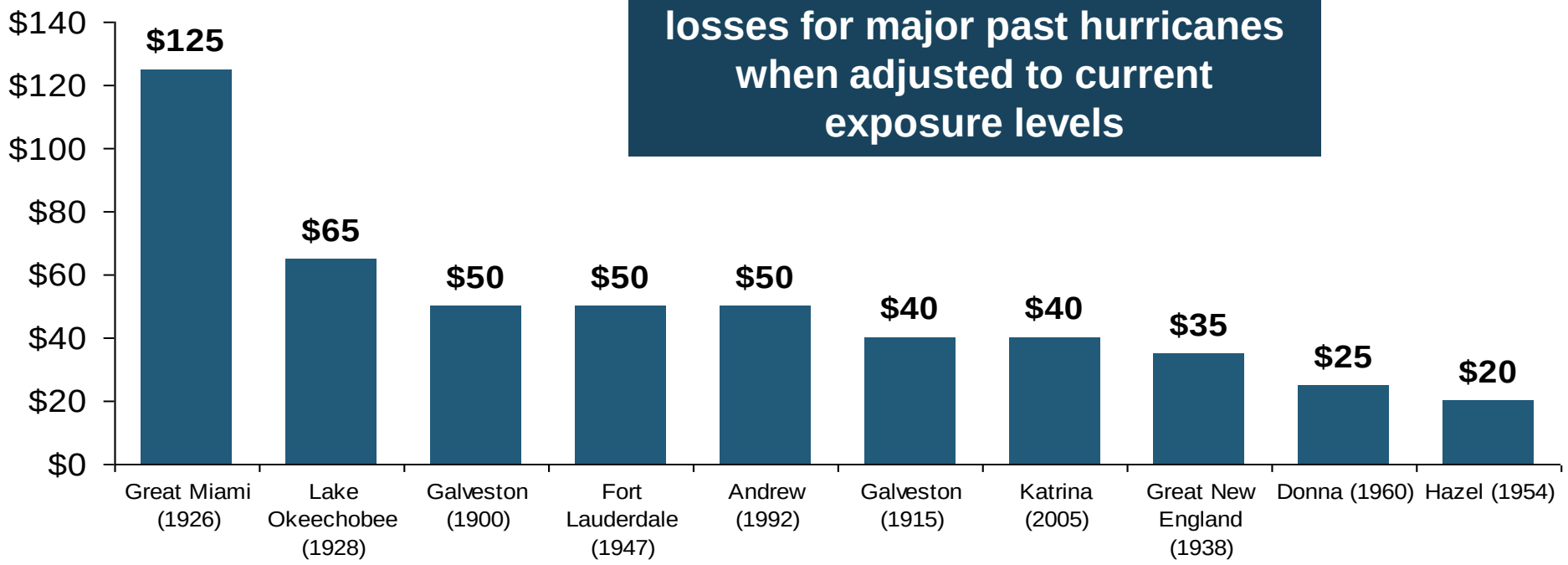


*Losses will actually be broken down into several "events" as determined by PCS. Includes losses for the period April 1 – June 30.
Sources: PCS; Insurance Information Institute inflation adjustments.

Estimated Insured Losses For The Top Ten Historical Hurricanes Based On Current Exposures (1)

(Insured Losses, $ billions)

Residential and commercial development and rising property values imply significant insured losses for major past hurricanes when adjusted to current exposure levels



(1) Based on 2012 exposures, as calculated by Karen Clark & Company.

Source: Karen Clark & Company, August, 2012.

The Ten Most Costly U.S. Earthquakes, by Insured Losses (1)

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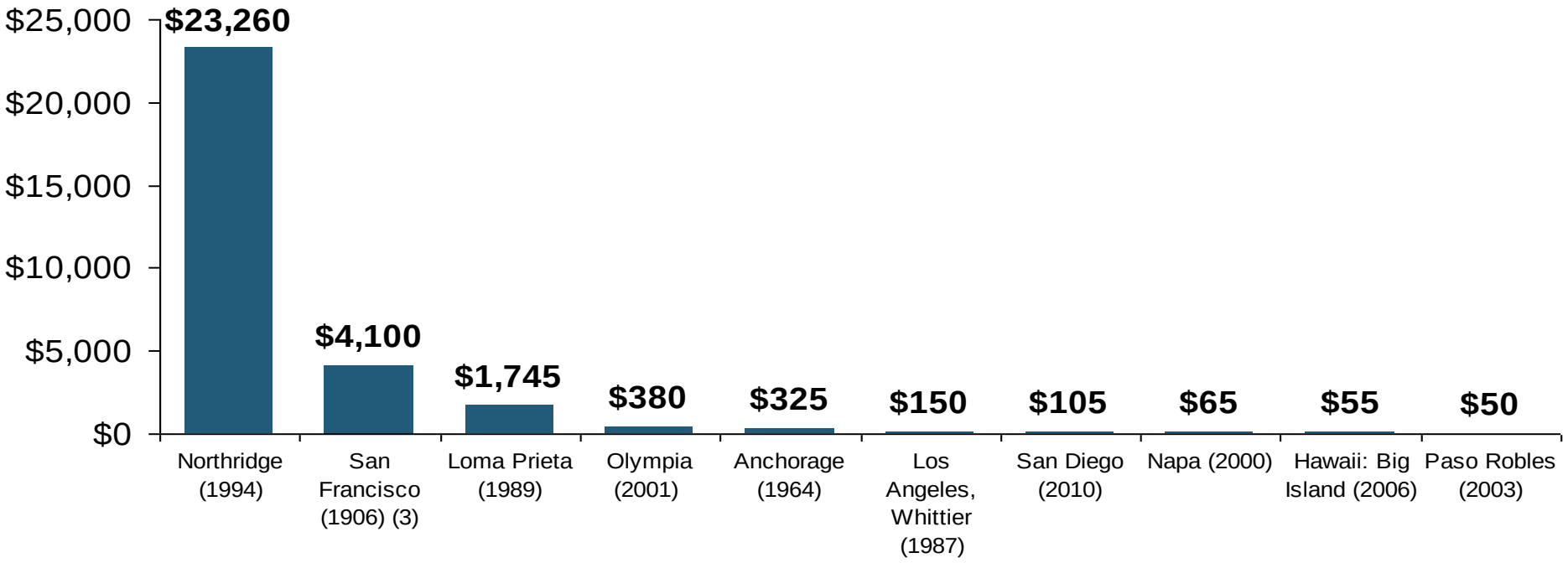
(Insured Losses, 2011 dollars, $ millions (2))



(1) Costliest U.S. earthquakes occurring from 1900 to 2011, based on insured losses when occurred.
(2) Based on property losses including, if applicable, agricultural, offshore, marine, aviation and National Flood Insurance Program losses in the United States and may differ from data shown elsewhere. Adjusted to 2011 dollars by Munich Re.
(3) Adjusted to 2011 dollars based on 1913 Bureau of Labor Statistics data (earliest year available).

Source: © 2012 Munich Re, Geo Risks Research, NatCatSERVICE.

Estimated Insured Losses For The Top Ten Historical Earthquakes Based On Current Exposures (1)

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(Insured Losses, $ billions)

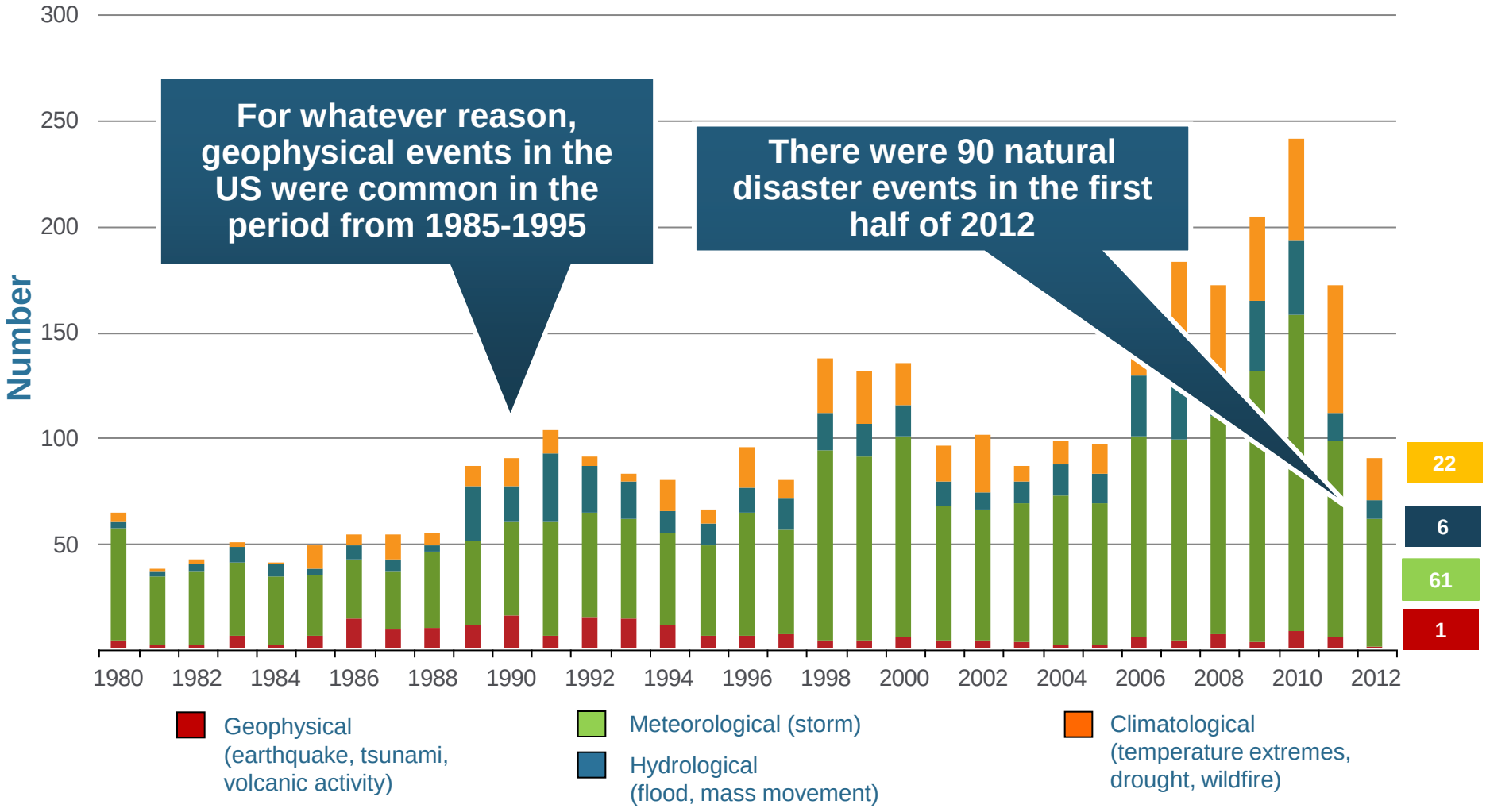
Residential and commercial development and rising property values imply significant insured losses for major past earthquakes when adjusted to current exposure levels

(1) Modeled loss to property, contents, and business interruption and additional living expenses for residential, mobile home, commercial and auto exposures as of December 31, 2008. Losses include demand surge and fire following earthquake. Policy conditions and earthquake insurance take up rates are based on estimates by state insurance departments and client claims data.

Source: AIR Worldwide Corporation.

Natural Disasters in the United States, 1980 – 2012:H1

Number of Events (Annual Totals 1980 – 2011 and First Half 2012)



Source: MR NatCat*SERVICE*

Losses Due to Natural Disasters in the US, 1980–2011 (Overall & Insured Losses)

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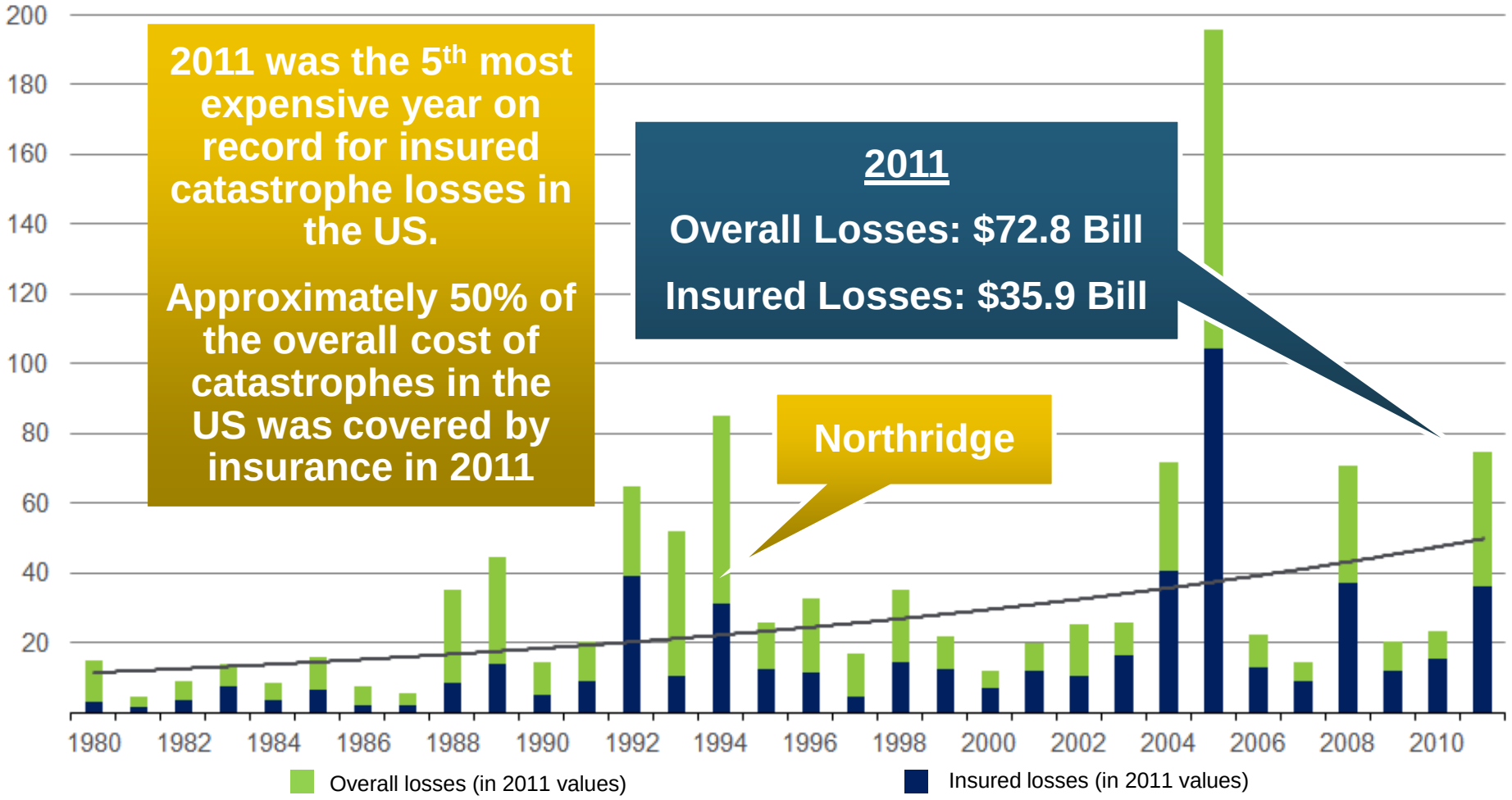
(Overall and Insured Losses)

(2011 Dollars, $ Billions)



Source: MR NatCat*SERVICE*

The Ten Most Significant Flood Events, Ranked By National Flood Insurance Program Payouts (1)

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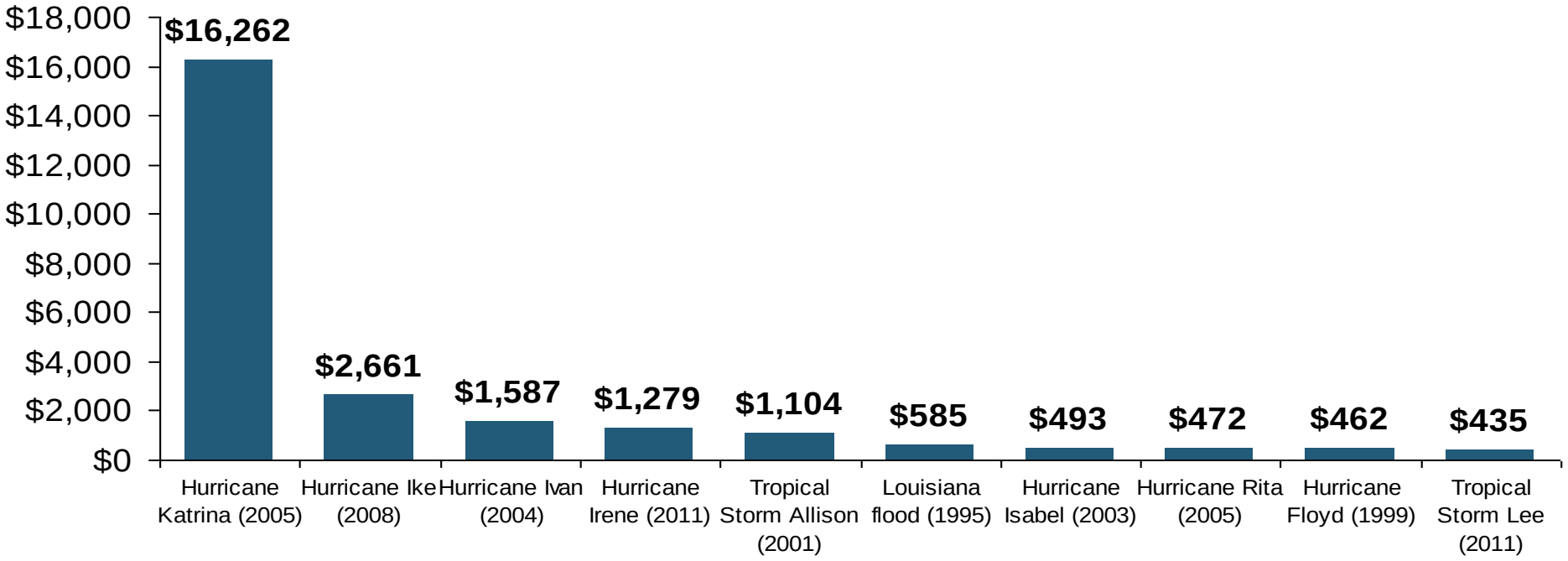
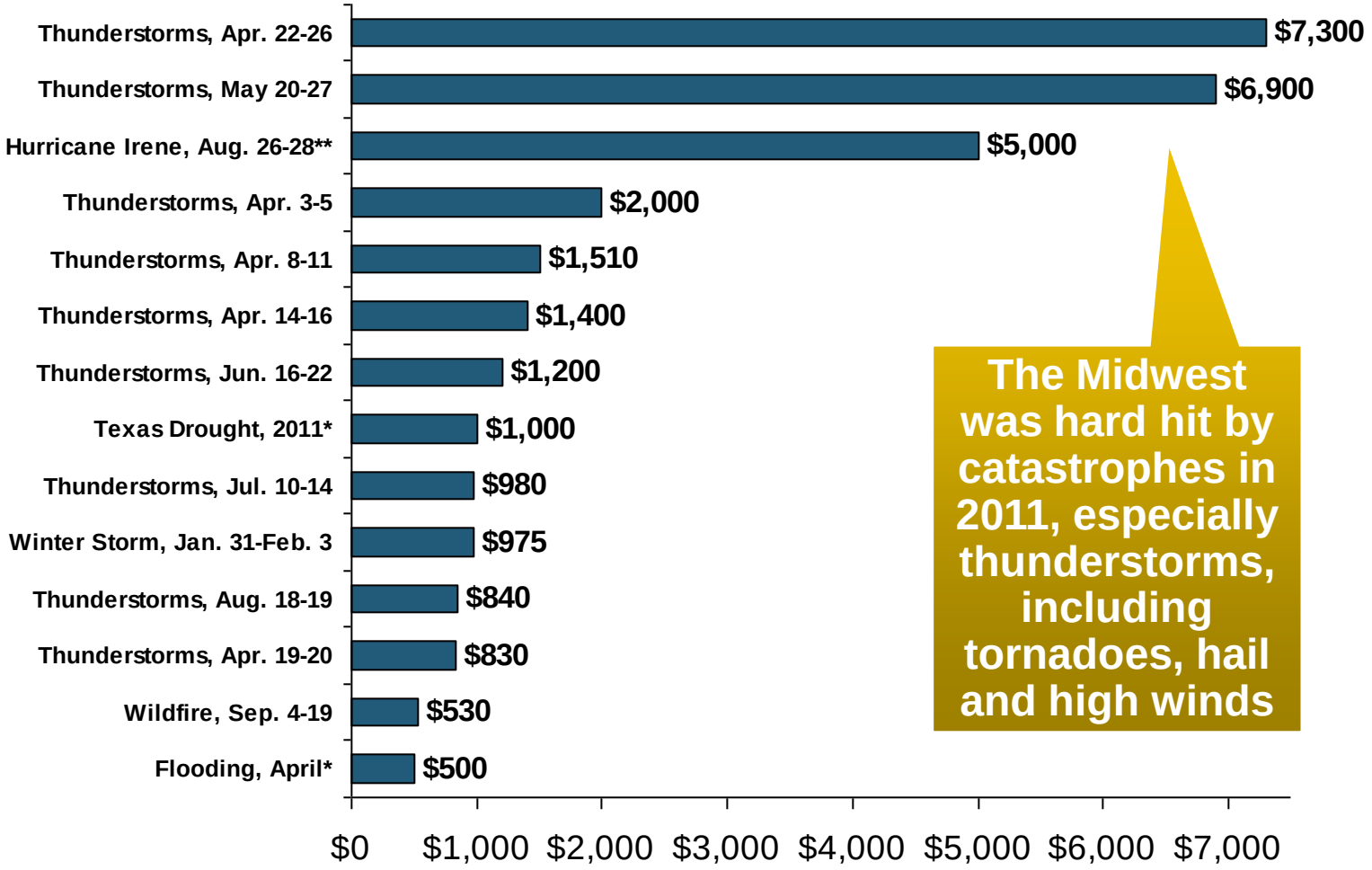
(Amount paid, $millions)



(1) Includes events from 1978 to July 31, 2012. Defined by the National Flood Insurance Program as an event that produces at least 1,500 paid losses. Stated in dollars when occurred.

Source: U.S. Department of Homeland Security, Federal Emergency Management Agency.

2011's Most Expensive Catastrophes, Insured Losses



**Includes $700 million in flood losses insured through the National Flood Insurance Program.
Source: PCS except as noted by "*" which are sourced to Munich Re; Insurance Information Institute.

U.S. Thunderstorm Loss Trends, 1980 – 2012:H1

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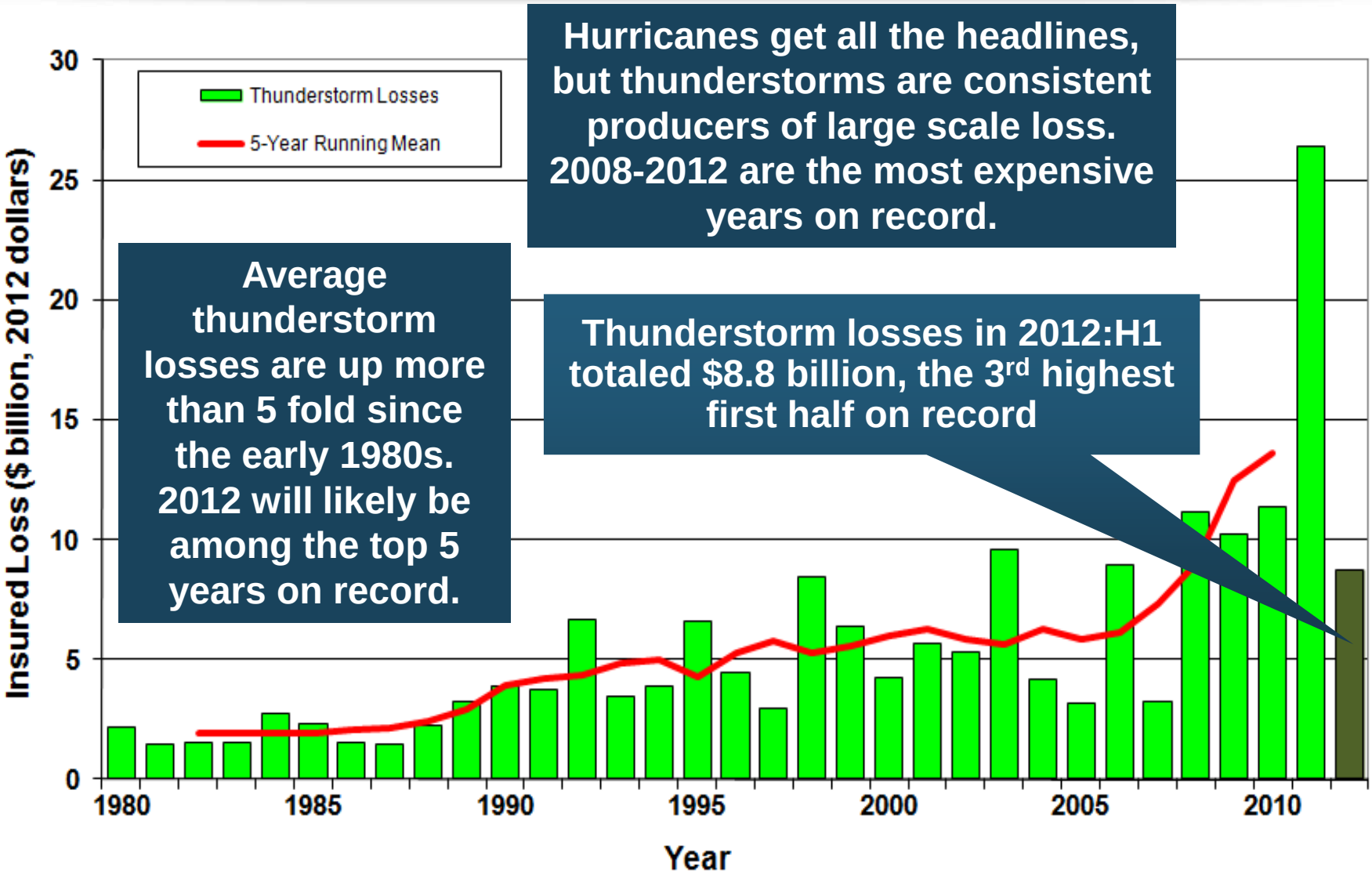
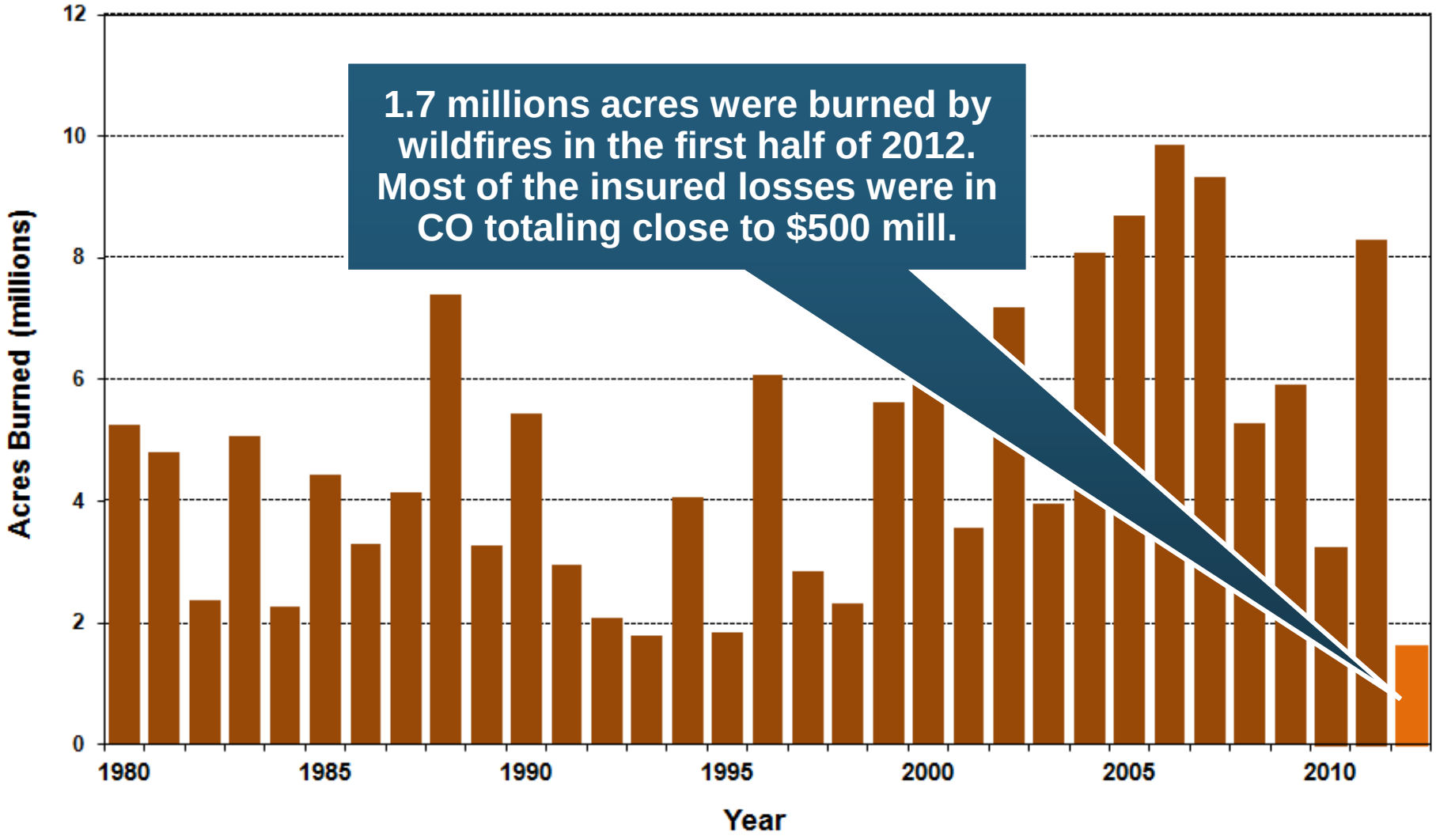


Source: Property Claims Service, MR NatCat*SERVICE*

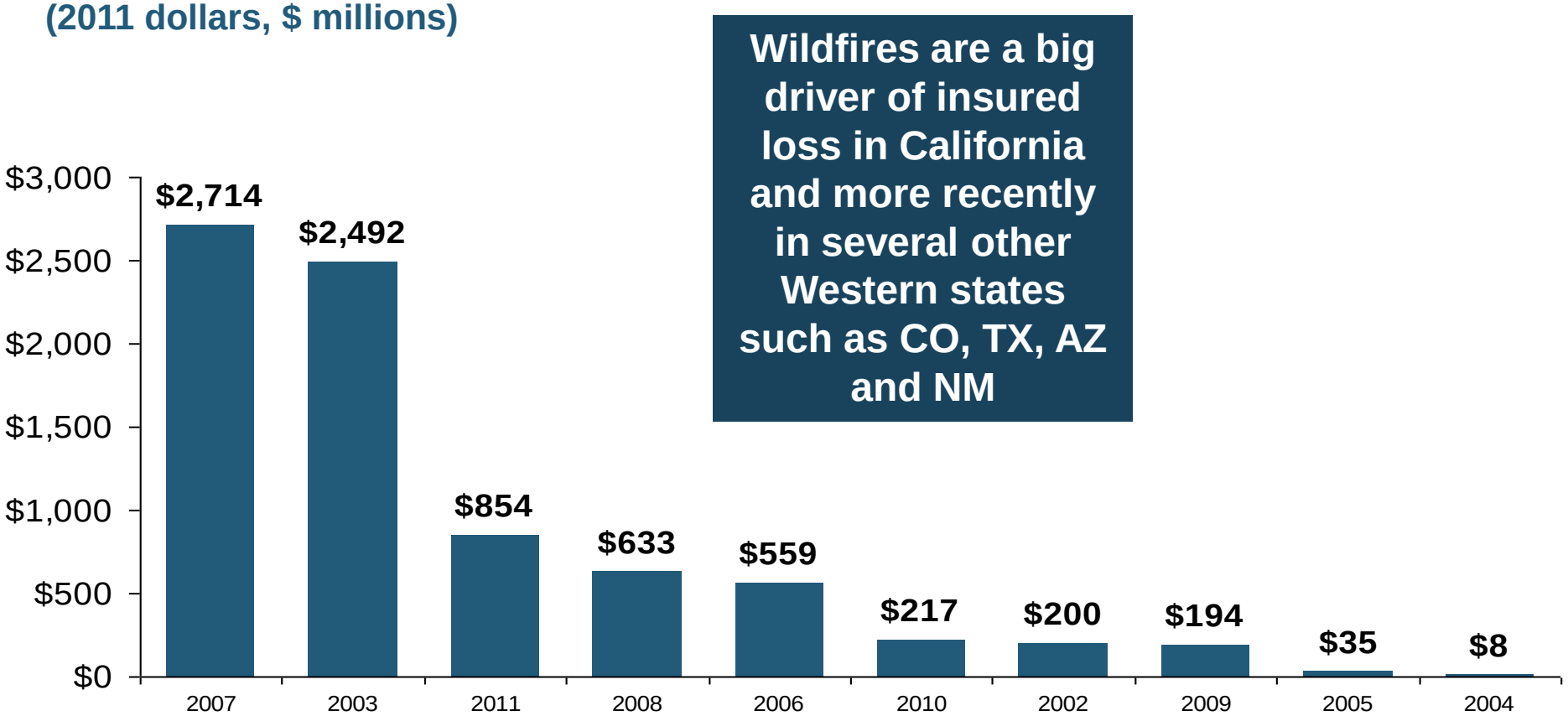
U.S. Acreage Burned by Wildfires, 1980 – 2012*



*Through June 30.
Source: National Forest Service, MR NatCat*SERVICE*

Top Wildfire Years by Losses in The United States, 2002-2011 (1)

(2011 dollars, $ millions)



(1) Adjusted for inflation. Ranked by losses.

Source: Munich Re NatCatSERVICE.

Wildfire Losses In The United States, 2002-2011 (1)

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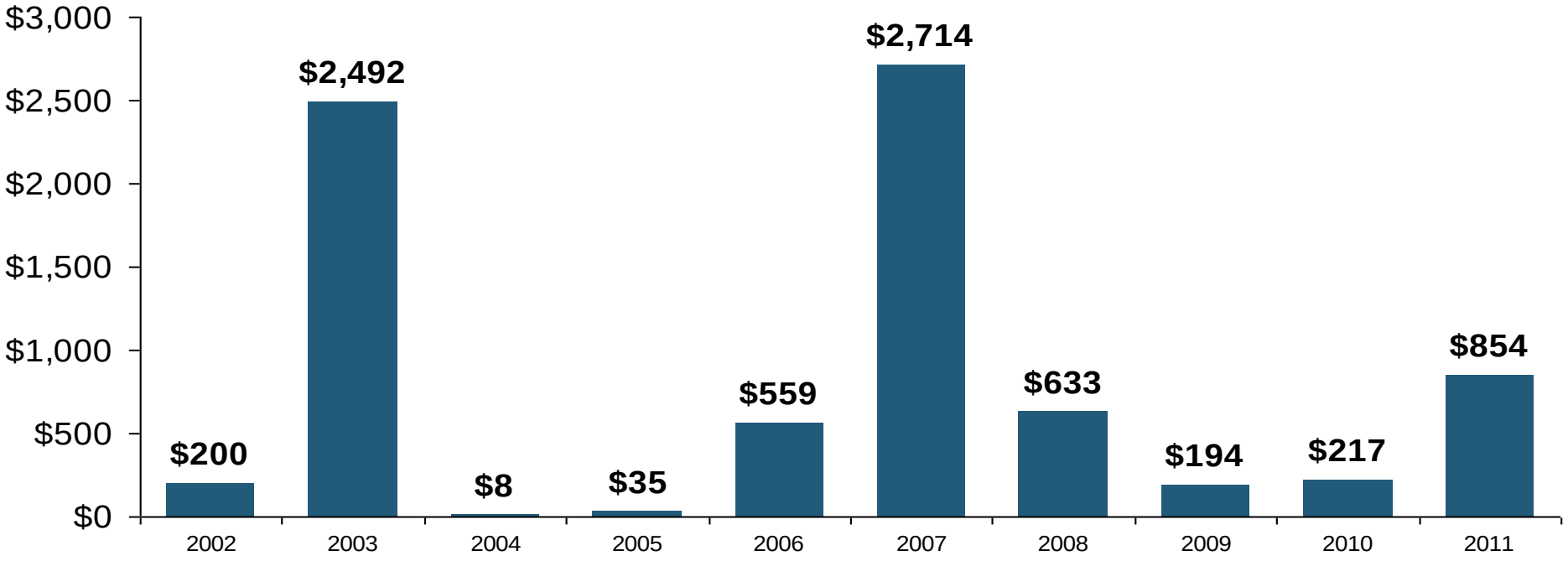
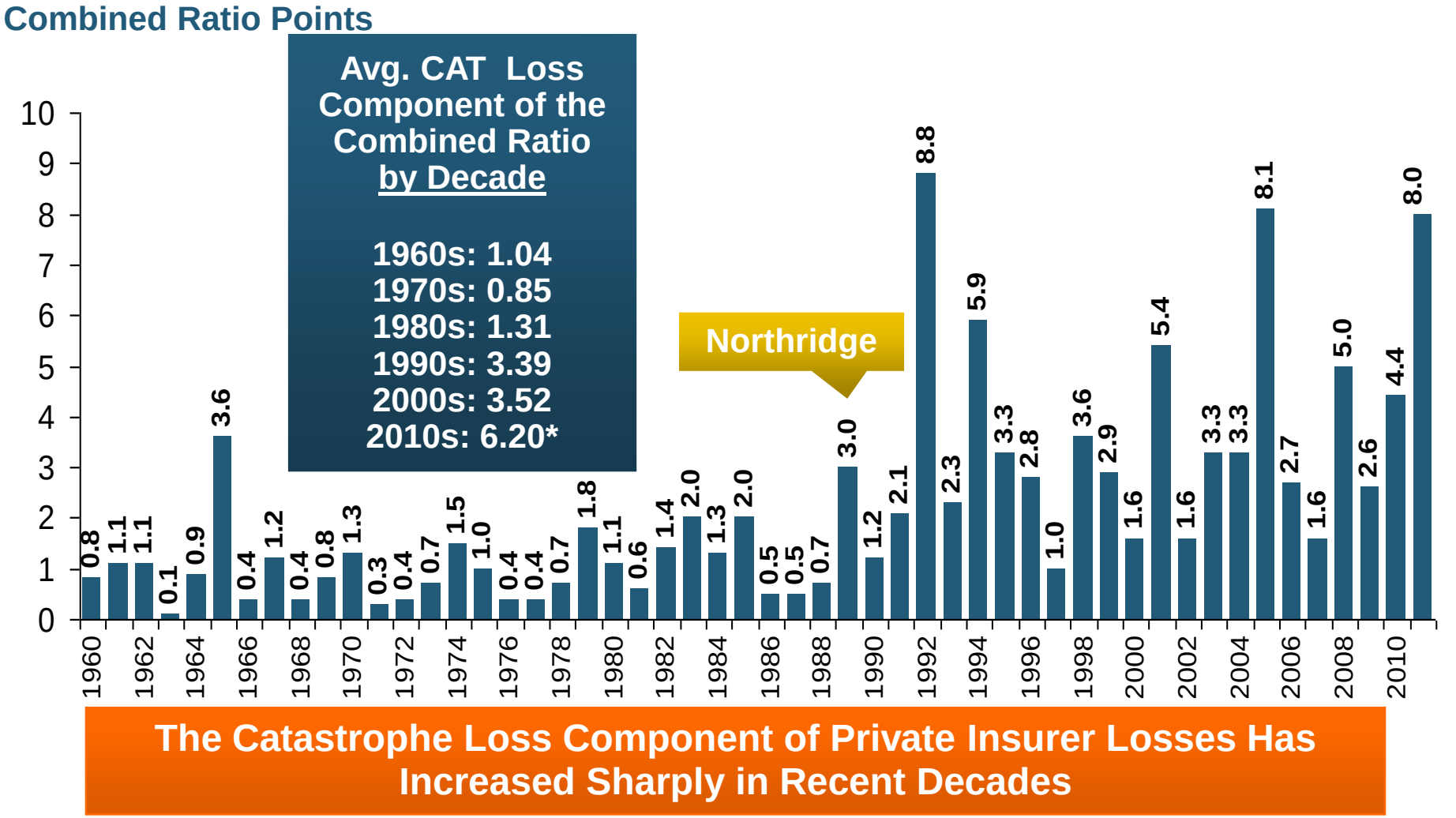
(2011 dollars, $ millions)



(1) Adjusted for inflation.

Source: Munich Re NatCatSERVICE.

Combined Ratio Points Associated with Catastrophe Losses: 1960 – 2011*



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

*Insurance Information Institute estimates for 2010 and 2011 based on A.M. Best data.

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; Insurance Information Institute.

U.S. Winter Storm Loss Trends, 1980 – 2011

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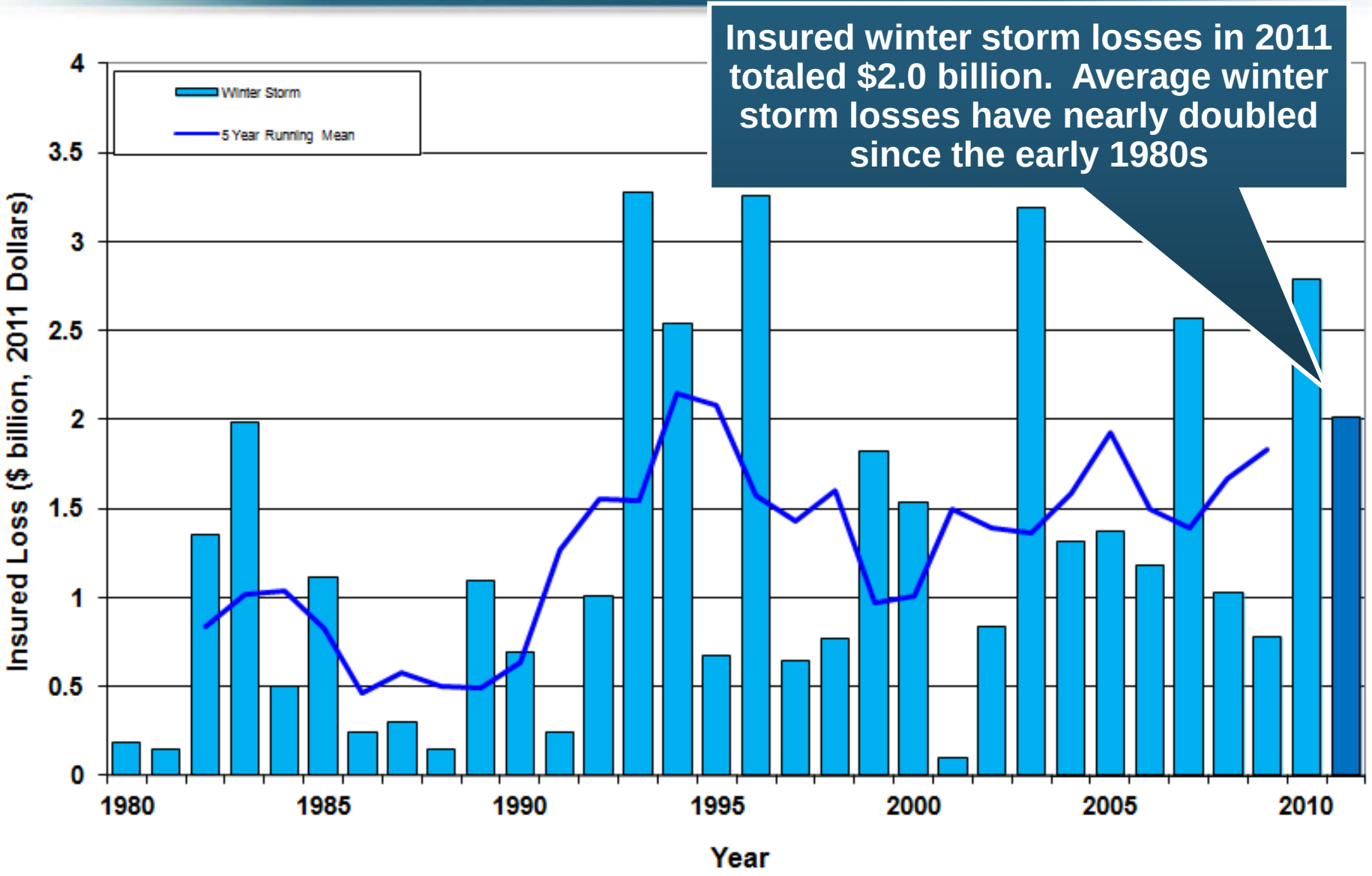
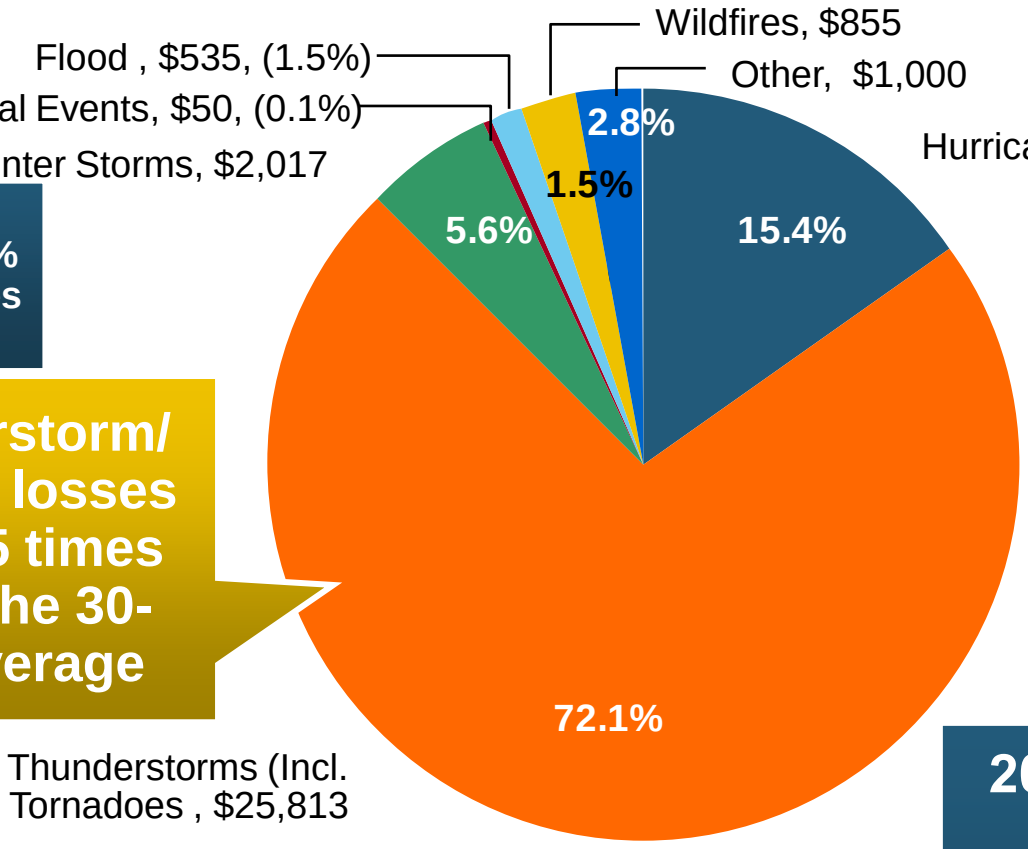


Source: Property Claims Service, MR NatCat*SERVICE*

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



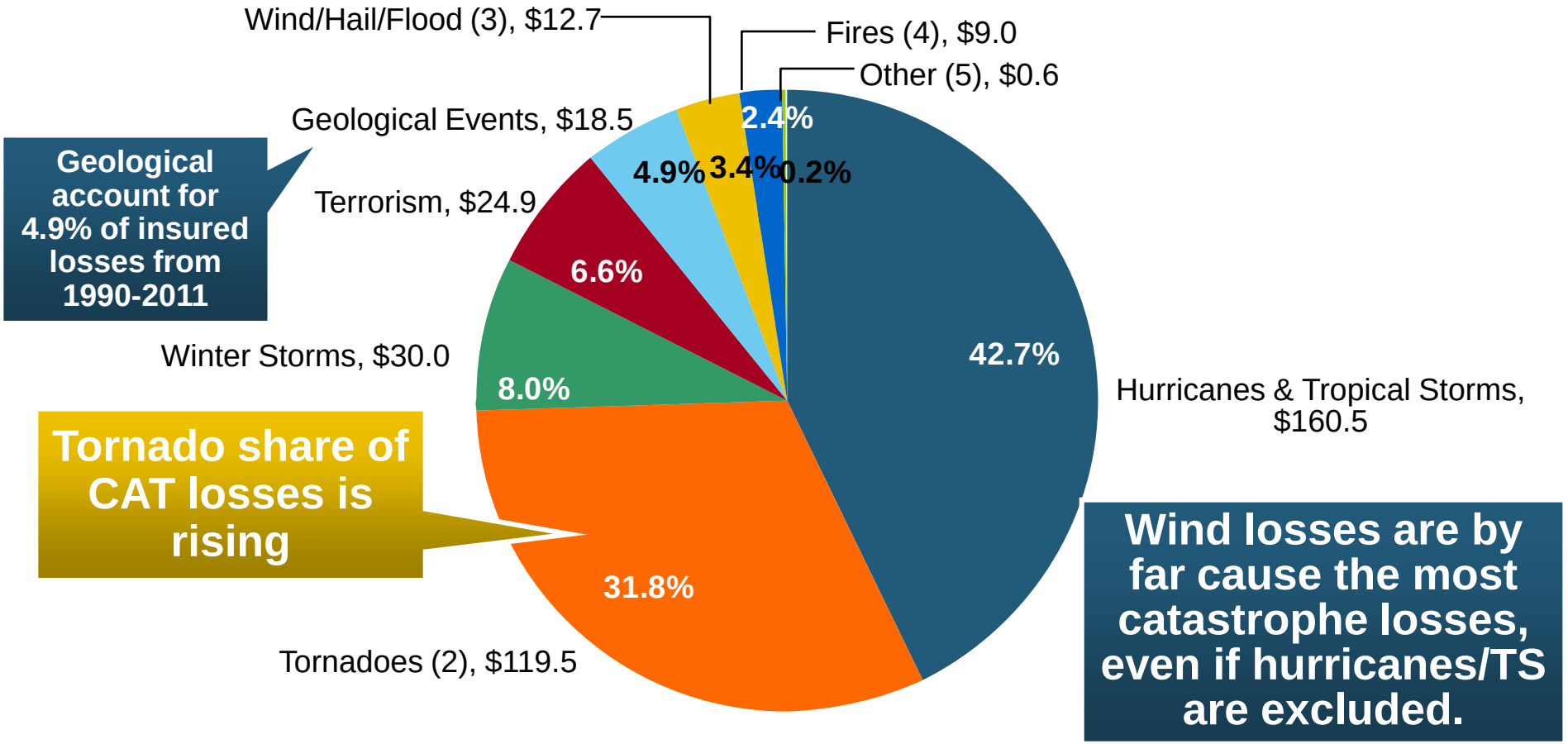
Geological account for 0.1% of insured losses for 2011

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

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

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

Inflation Adjusted U.S. Catastrophe Losses by Cause of Loss, 1990–2011:H1[1]



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

Source: ISO's Property Claim Services Unit.

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

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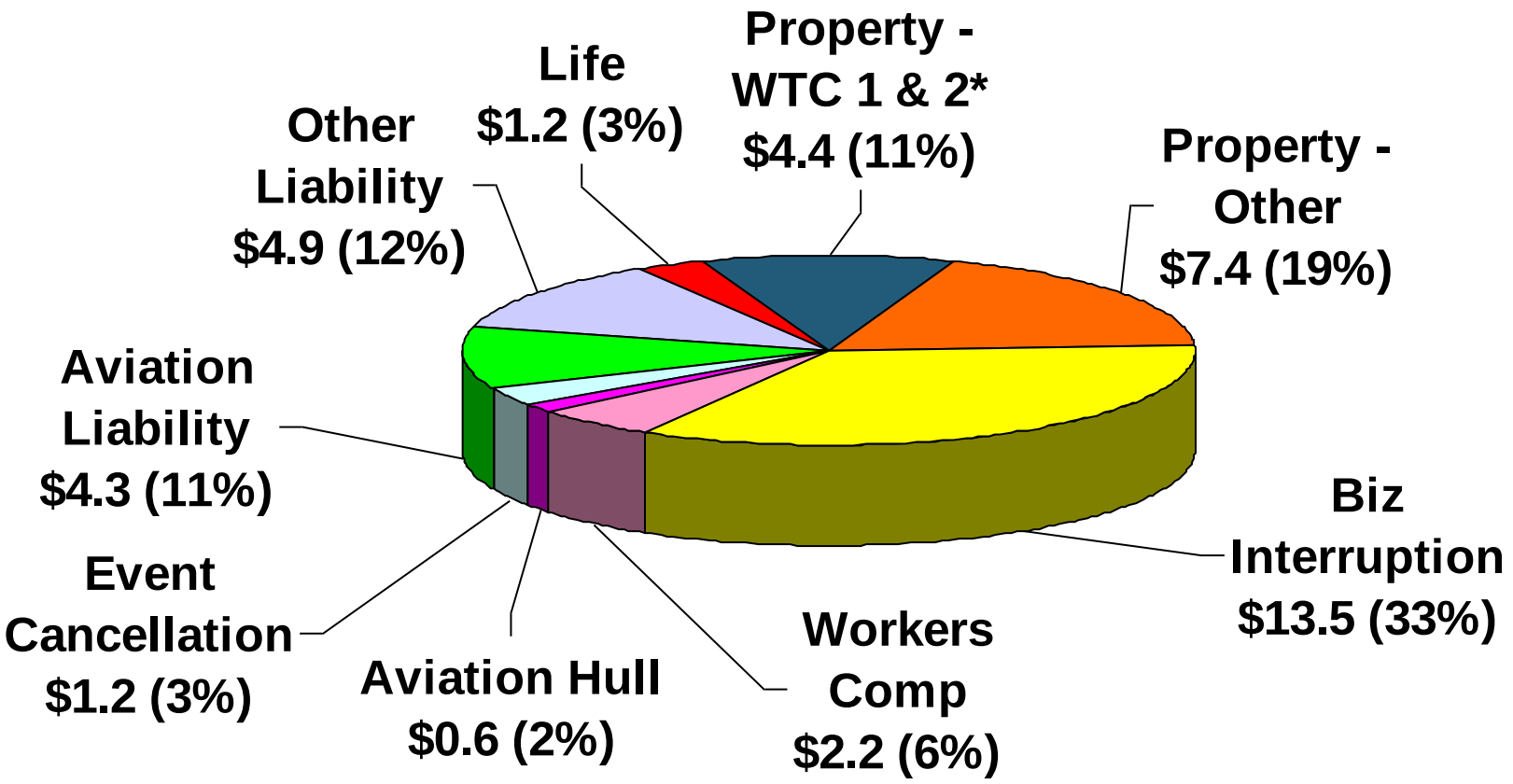
($ Billions)



Total Insured Losses Estimate: $40.0B**

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

**$32.5 billion in 2001 dollars.

Source: Insurance Information Institute.

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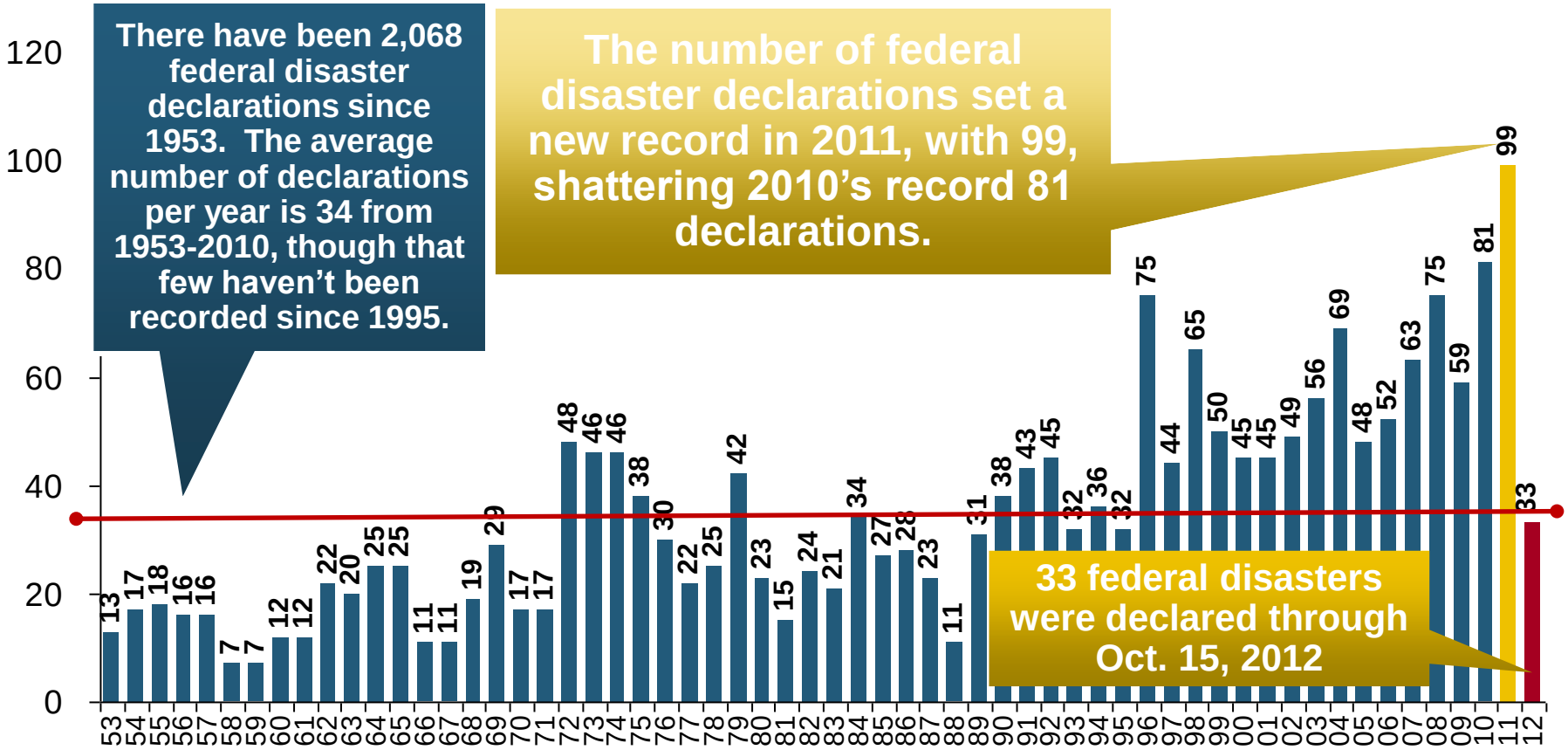
Federal Disaster Declarations Patterns: 1953-2012

Records Were Set for Federal Disaster Declarations in 2010 and 2011—Most Declarations Were Unrelated to Tropical Activity

Number of Federal Disaster Declarations, 1953-2012*

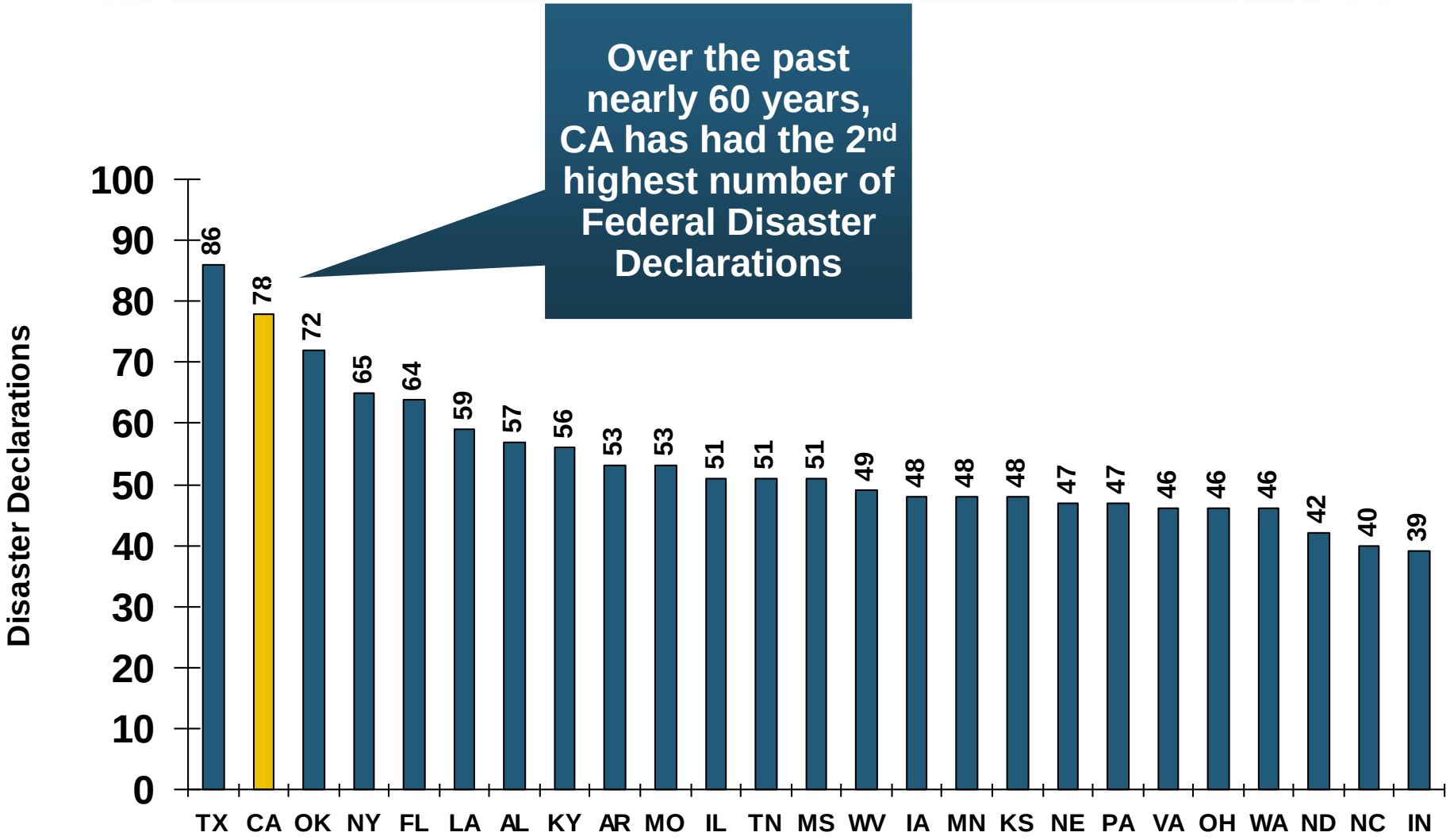


The Number of Federal Disaster Declarations Is Rising and Set New Records in 2010 *and* 2011

*Through Oct. 15, 2012.

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

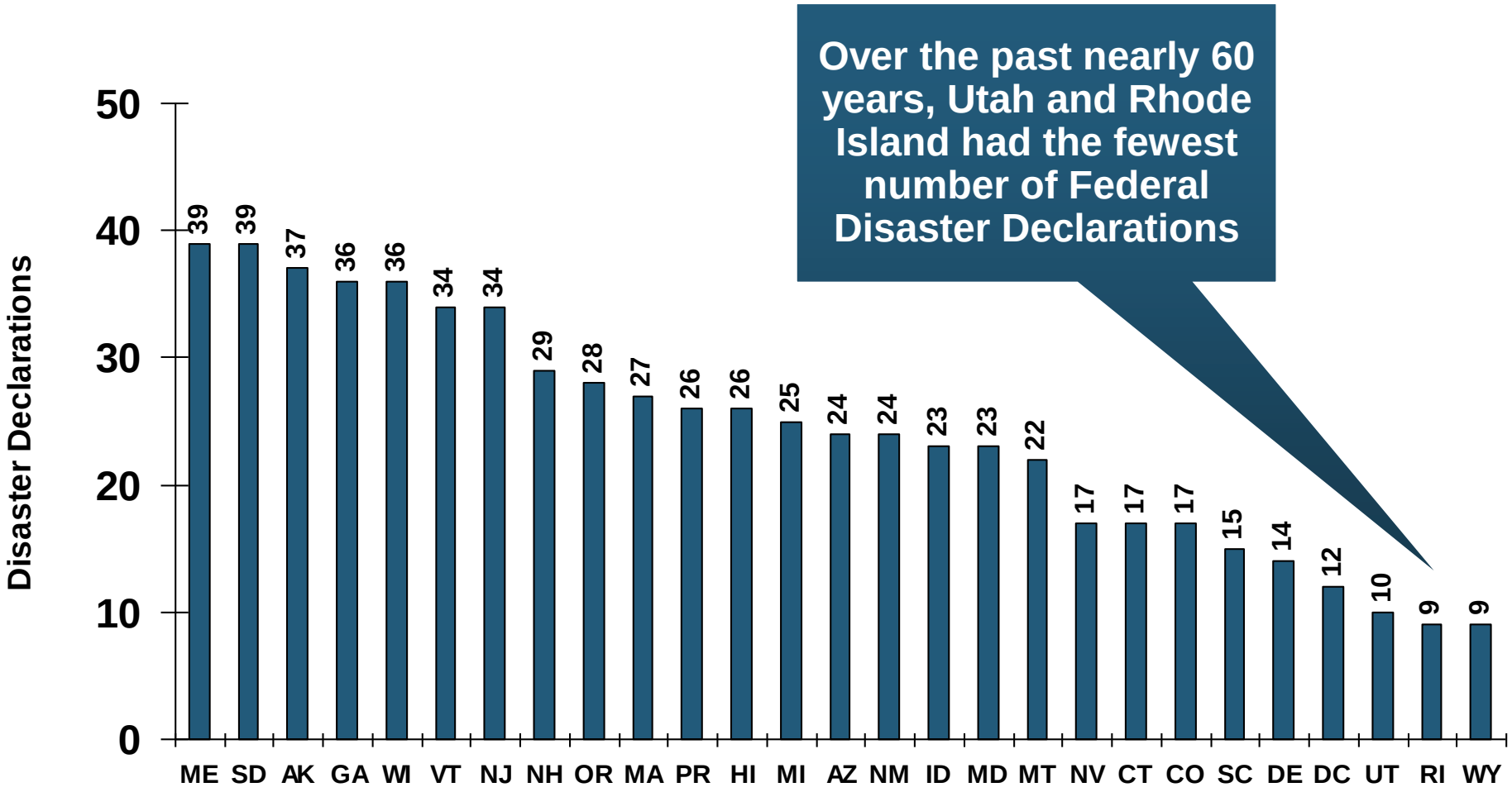
Federal Disasters Declarations by State, 1953 – 2012: Highest 25 States*



*Through Sept. 28, 2012. Includes Puerto Rico and the District of Columbia.

Source: FEMA: http://www.fema.gov/news/disaster_totals_annual.fema; Insurance Information Institute.

Federal Disasters Declarations by State, 1953 – 2012: Lowest 25 States*



*Through Sept. 28, 2012. Includes Puerto Rico and the District of Columbia.

Source: FEMA: http://www.fema.gov/news/disaster_totals_annual.fema; Insurance Information Institute.

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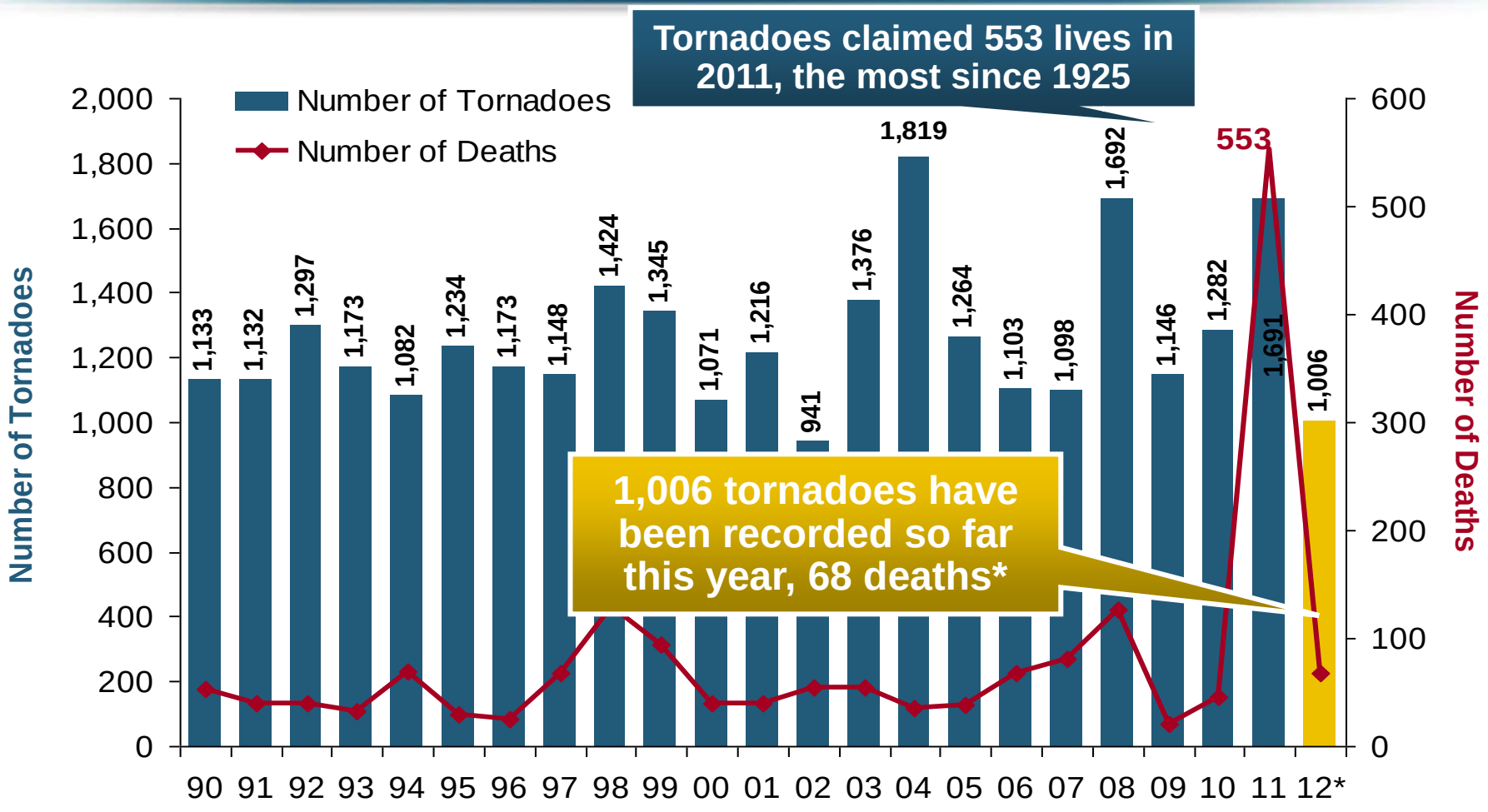
2012 TORNADO & SEVERE STORM SUMMARY

2012 Got Off to a Worrisome Start, But Is No Repeat of 2011

Number of Tornadoes and Related Deaths, 1990 – 2012*

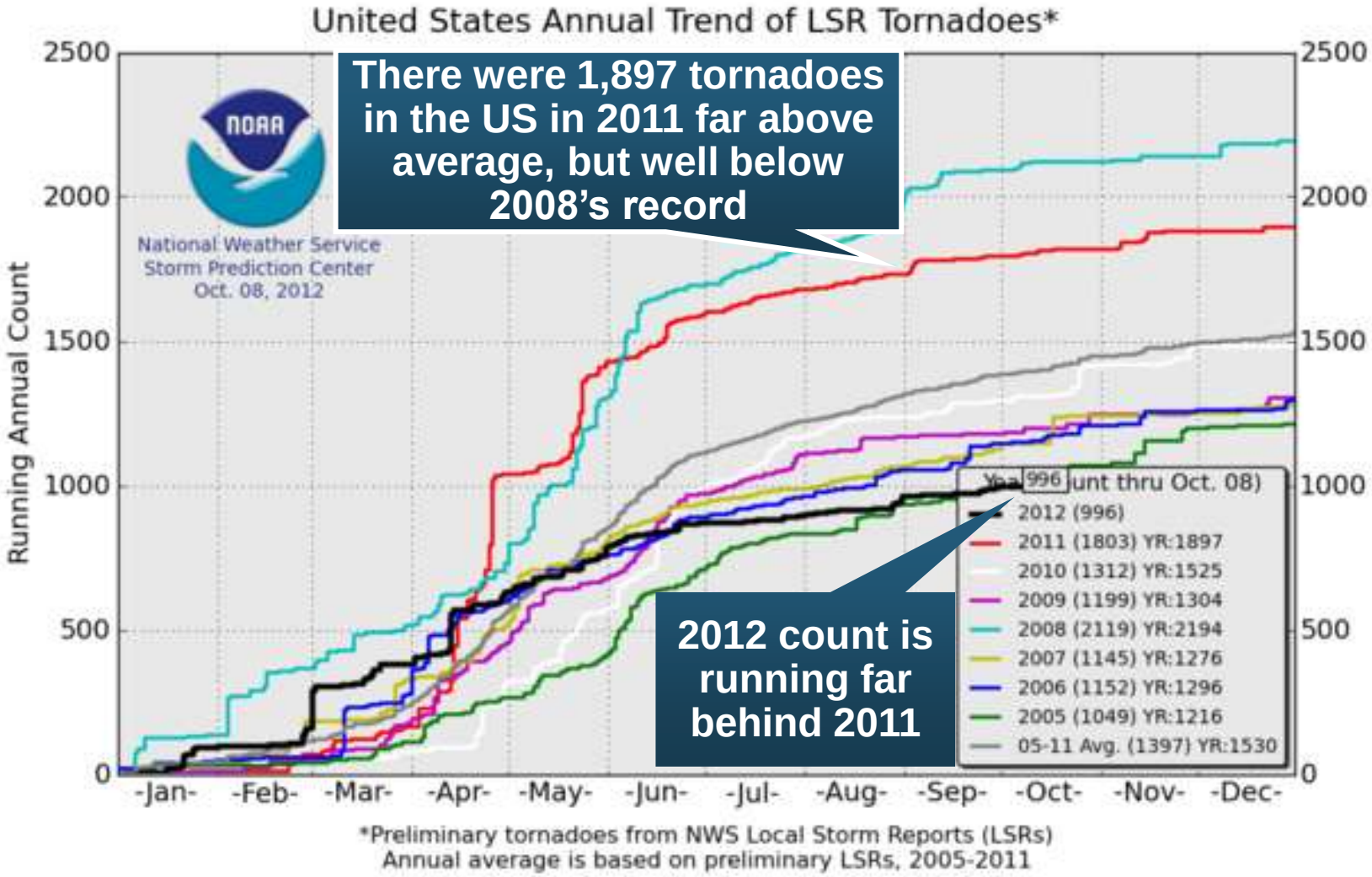


2012 Tornado Losses Got Off to an Ominous Beginning, but Slowed. First Half 2012 Insured Losses from Tornadoes and Thunderstorms Totaled $8.8B.

*Through Oct. 15, 2012.

Source: U.S. Department of Commerce, Storm Prediction Center, National Weather Service at http://www.spc.noaa.gov/climo/online/monthly/newm.html

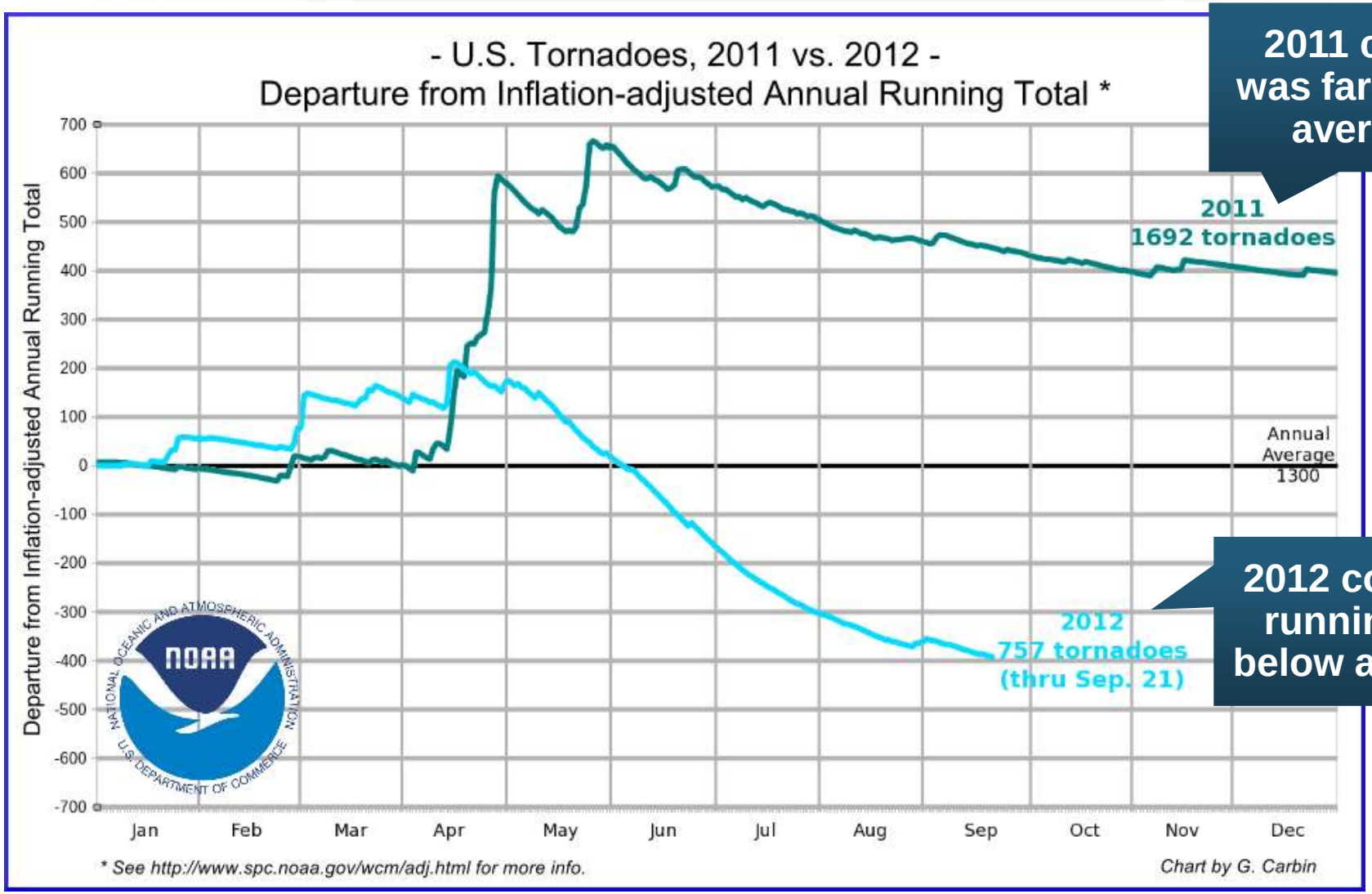
U.S. Tornado Count, 2005-2012*



*Through Oct. 8, 2012.

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

U.S. Tornado Count, Departure from Inflation-Adjusted Running Total, 2011 vs. 2012*

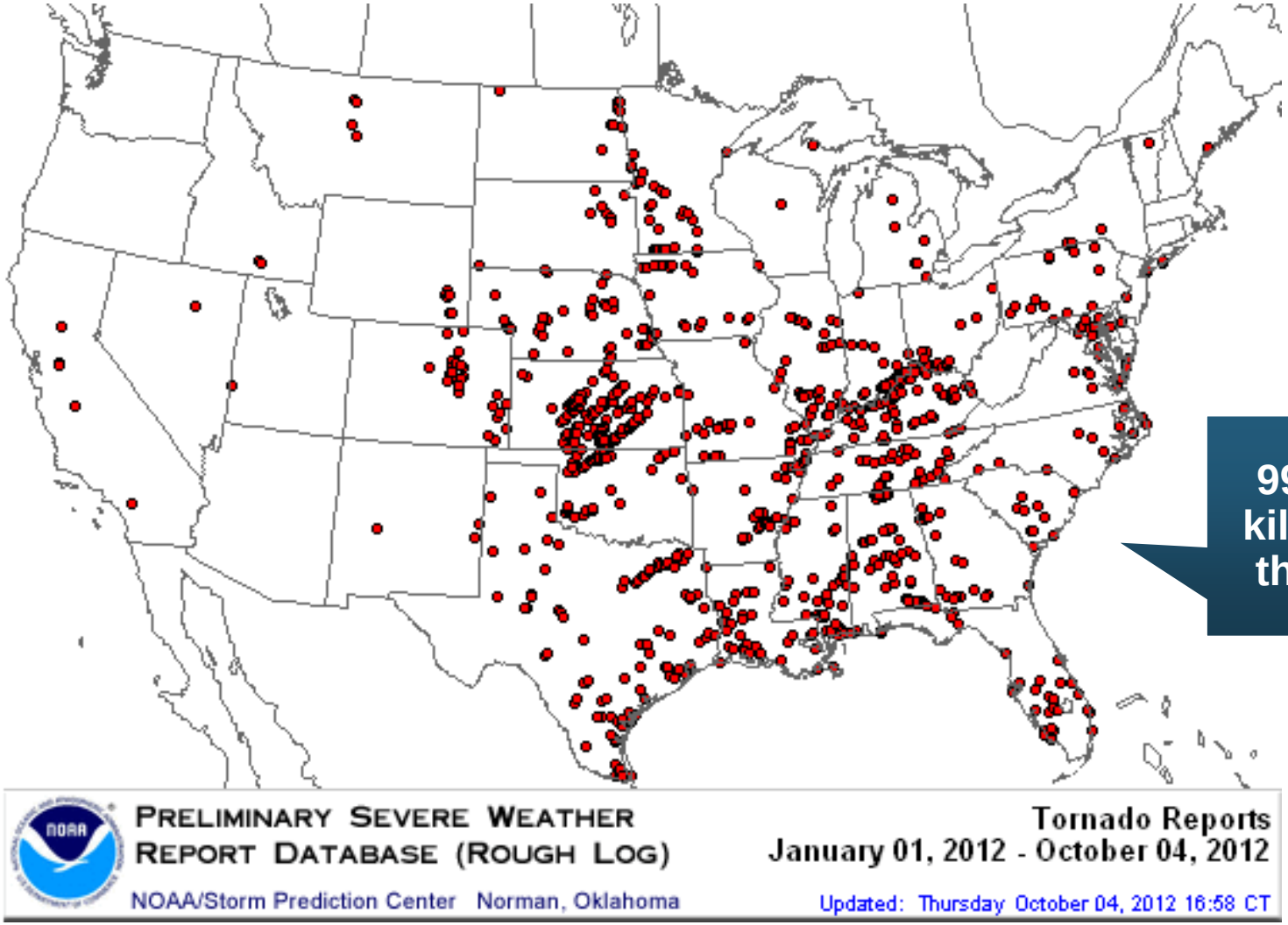


2011 count was far above average

2012 count is running far below average

*Through Sept. 21, 2012.
Source: http://www.spc.noaa.gov/wcm/

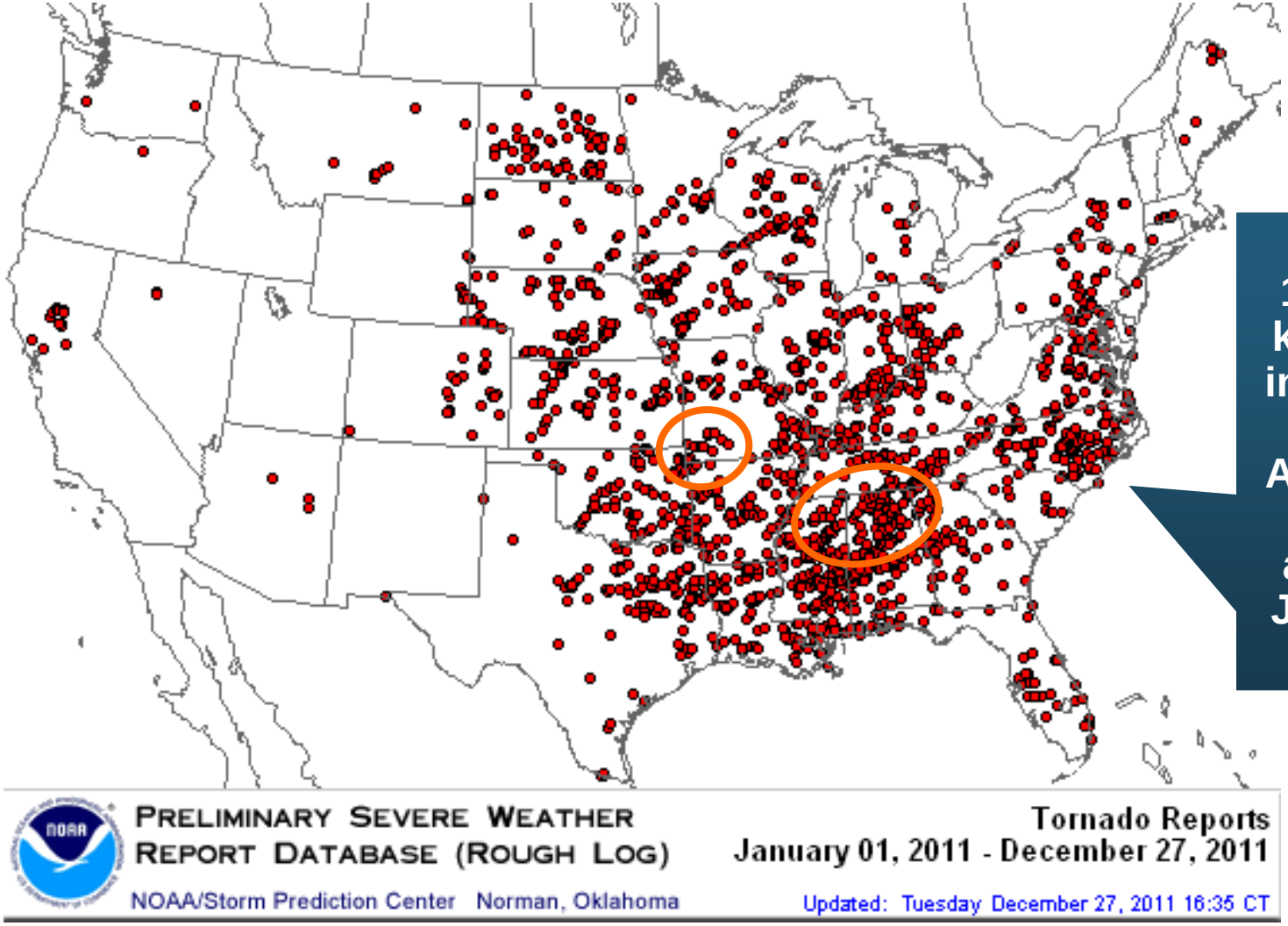
Location of Tornadoes in the US, 2012*



998 tornadoes killed 68 people through Oct. 4

*Through Oct. 4, 2012.
Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2012_annual_summary.html#

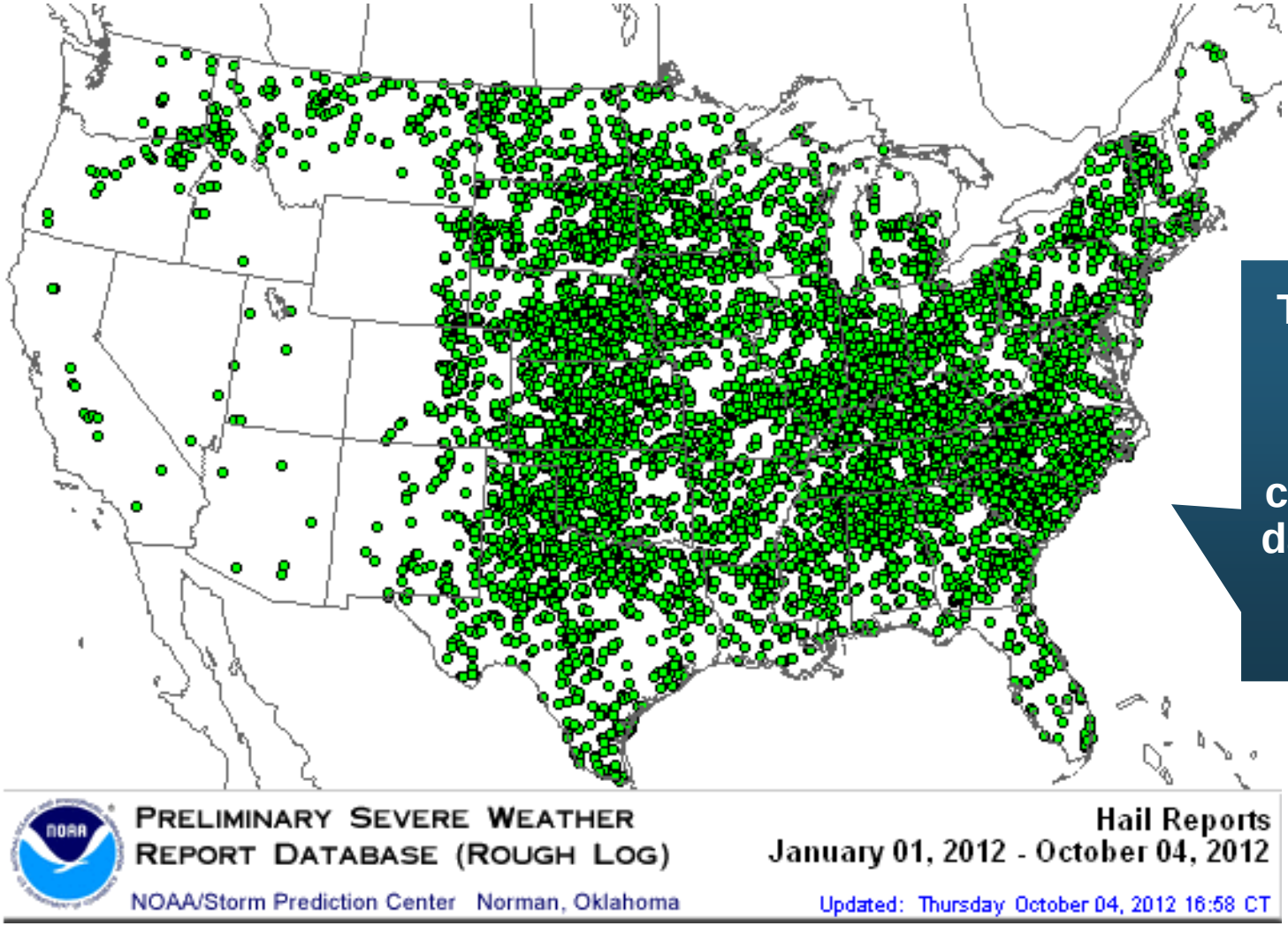
Location of Tornadoes in the US, 2011



1,894 tornadoes killed 553 people in 2011, including at least 340 on April 26 mostly in the Tuscaloosa area, and 130 in Joplin on May 22

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#

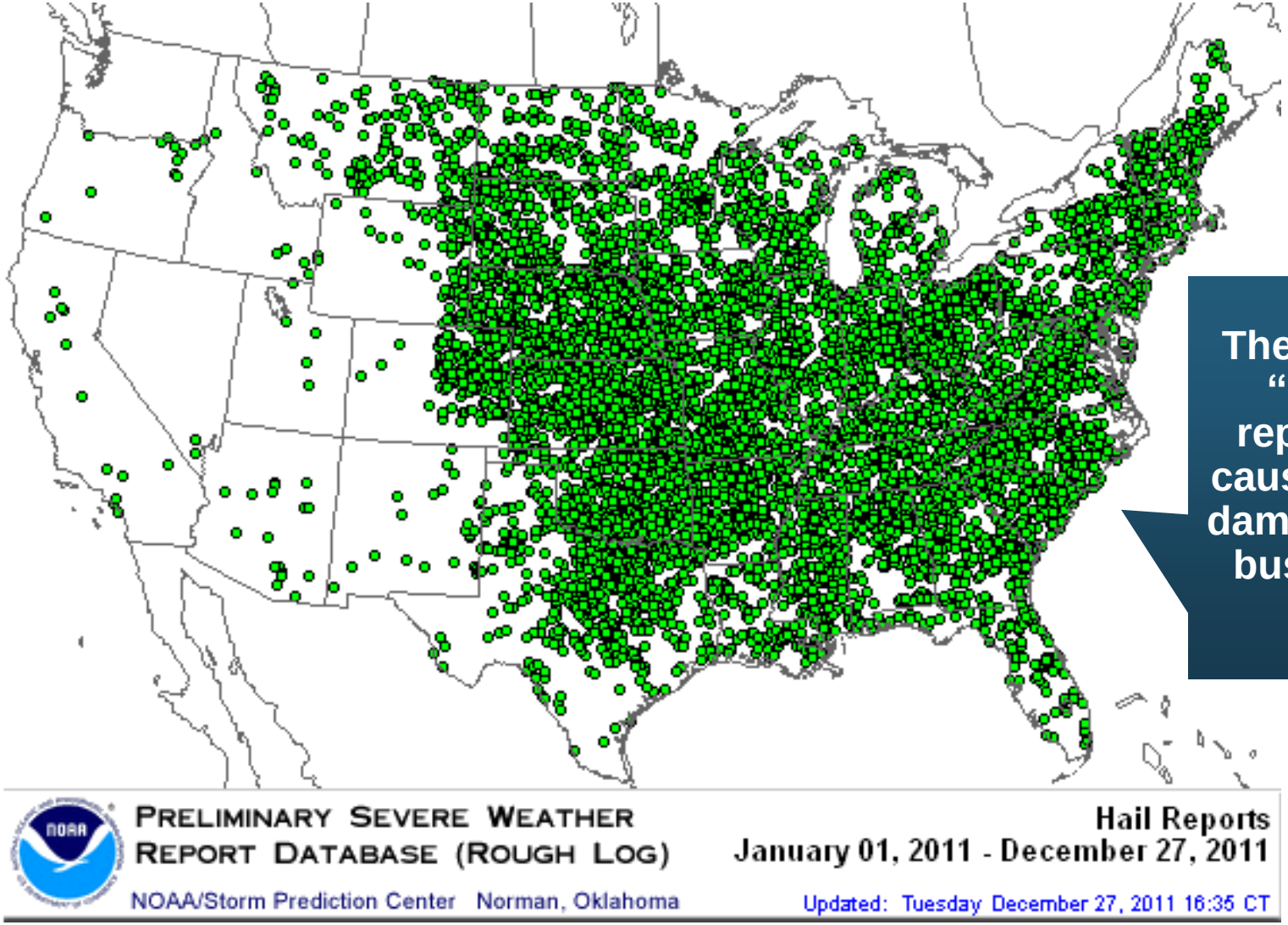
Location of Large Hail Reports in the US, 2012*



There were 6,886 "Large Hail" reports through Oct. 4, 2012, causing extensive damage to homes, businesses and vehicles

*Through Oct. 4, 2012.
Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2012_annual_summary.html#

Location of Large Hail Reports in the US, 2011



There were 9,417 "Large Hail" reports in 2011, causing extensive damage to homes, businesses and vehicles

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#

Location of Wind Damage Reports in the US, 2012*

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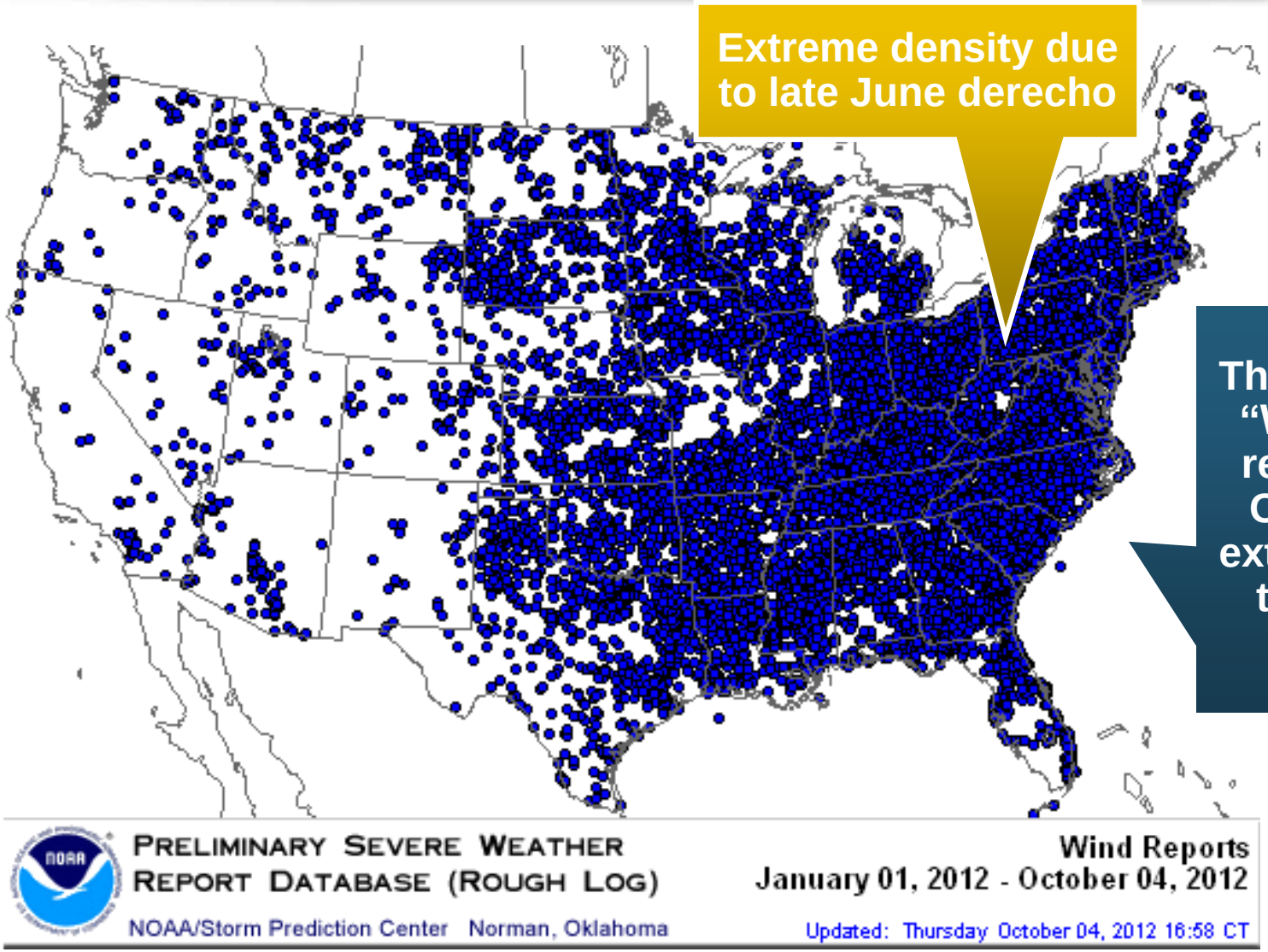
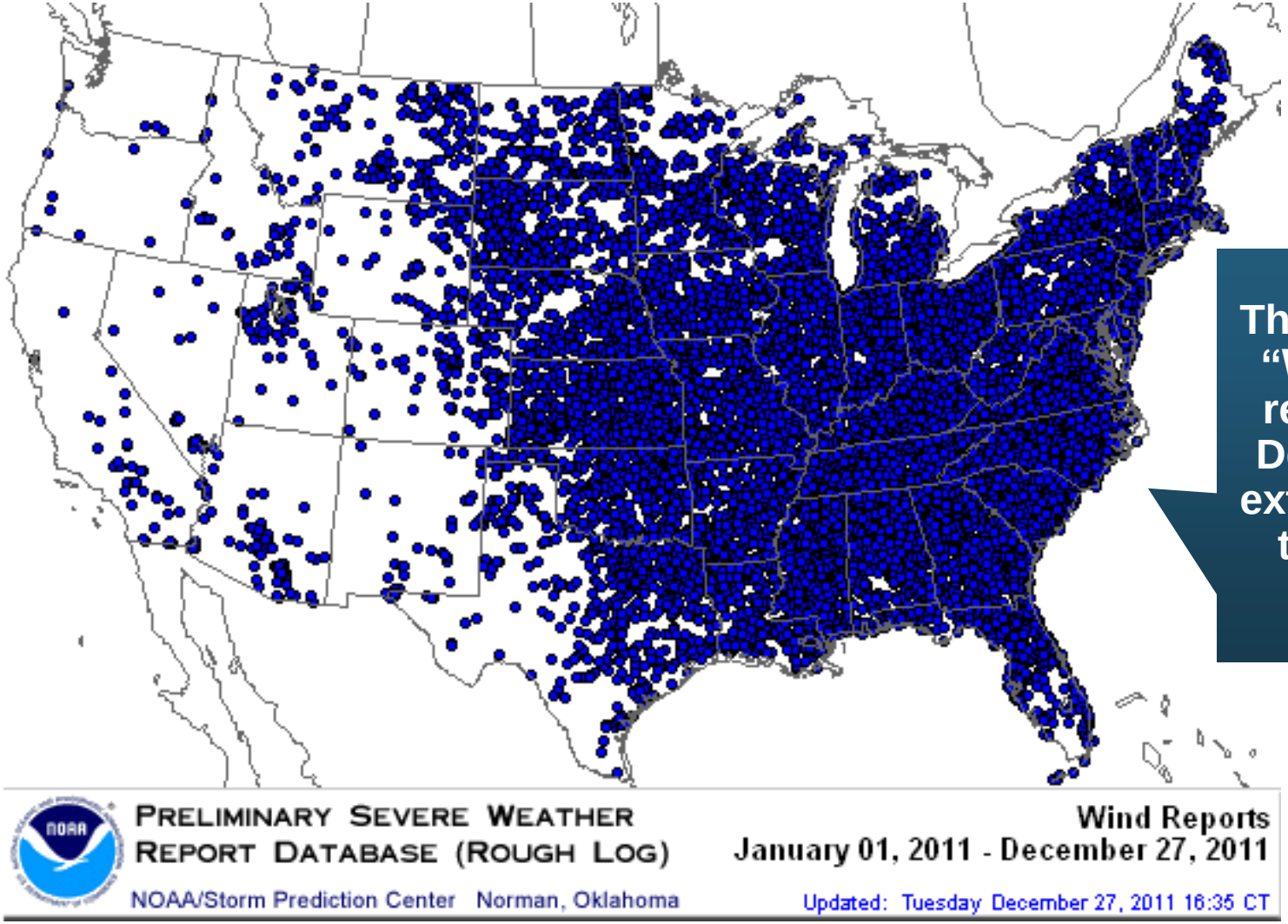


There were 13,643 "Wind Damage" reports through Oct. 4, causing extensive damage to homes and, businesses

*Through Oct. 4, 2012.
Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2012_annual_summary.html#

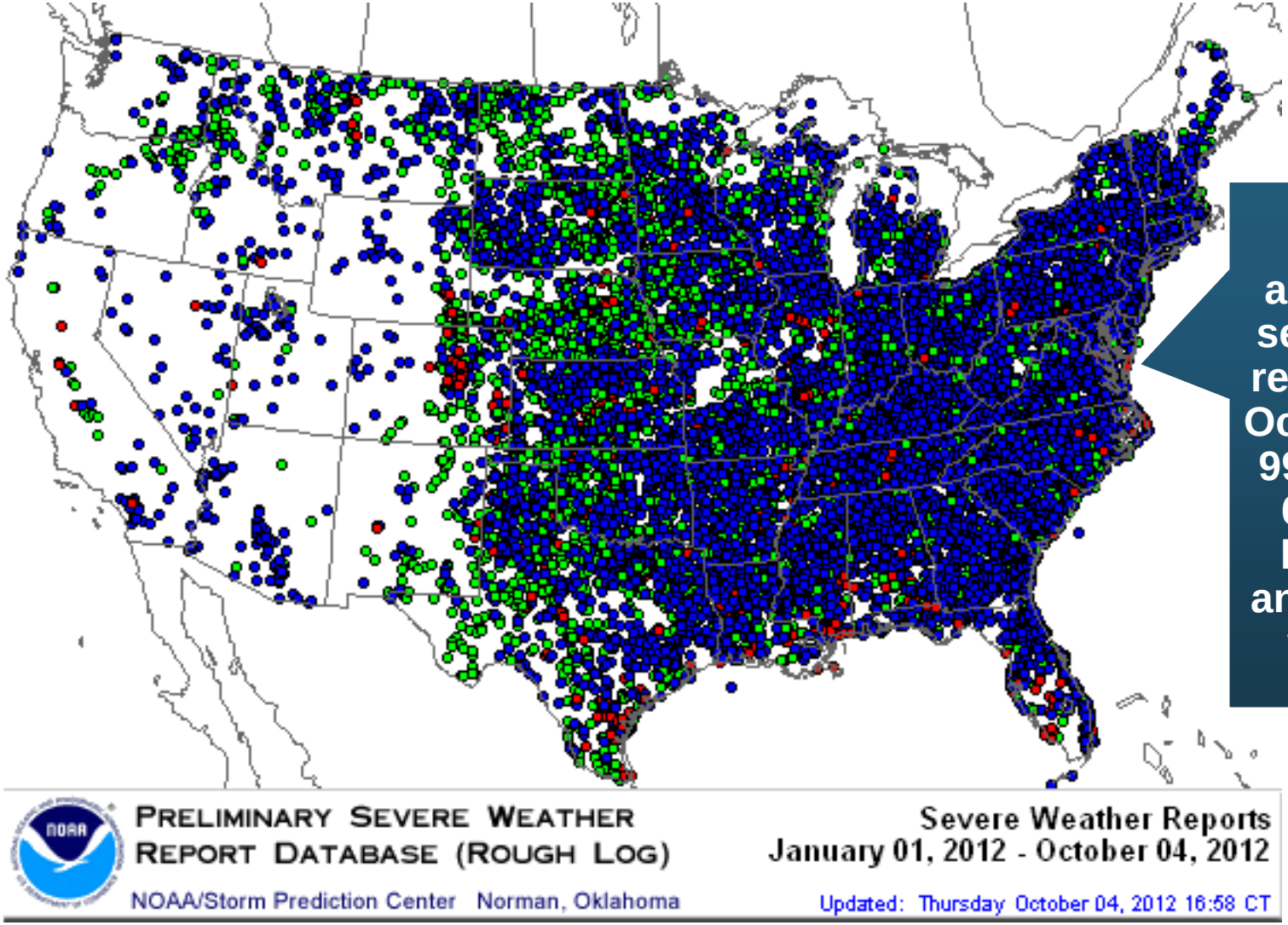
Location of Wind Damage Reports in the US, 2011



There were 18,685 "Wind Damage" reports through Dec. 27, causing extensive damage to homes and, businesses

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#

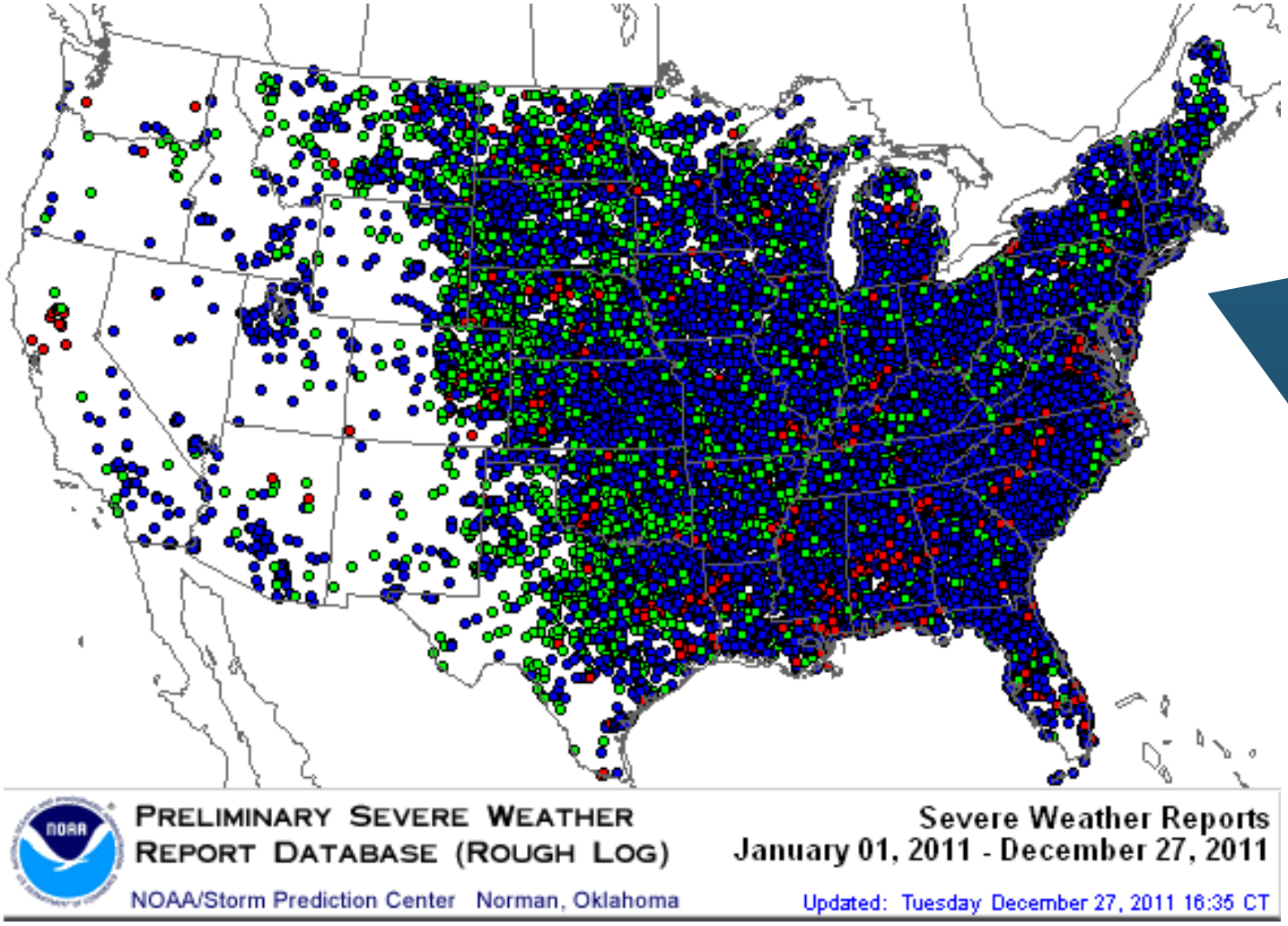
Severe Weather Reports, 2012*



There were already 21,529 severe weather reports through Oct. 4; including 998 tornadoes; 6,886 "Large Hail" reports and 13,643 high wind events

*Through Oct. 4, 2012.
Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2012_annual_summary.html#

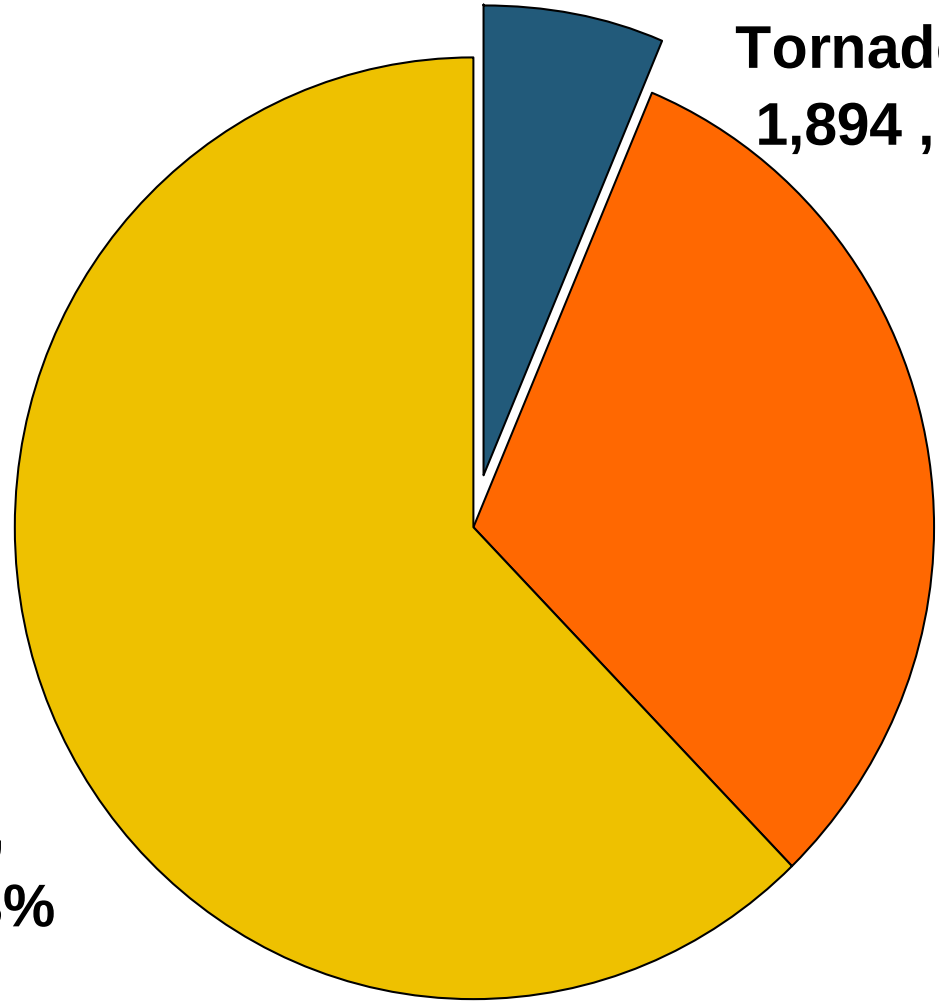
Severe Weather Reports, 2011



There were 29,996 severe weather reports in 2011; including 1,894 tornadoes; 9,417 "Large Hail" reports and 18,685 high wind events

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#

Number of Severe Weather Reports in US, by Type, 2011



Tornadoes accounted for just 6% of all Severe Weather Reports but more than 550 deaths in 2011, the most in 75 years

Source: NOAA Storm Prediction Center; http://www.spc.noaa.gov/climo/online/monthly/2011_annual_summary.html#

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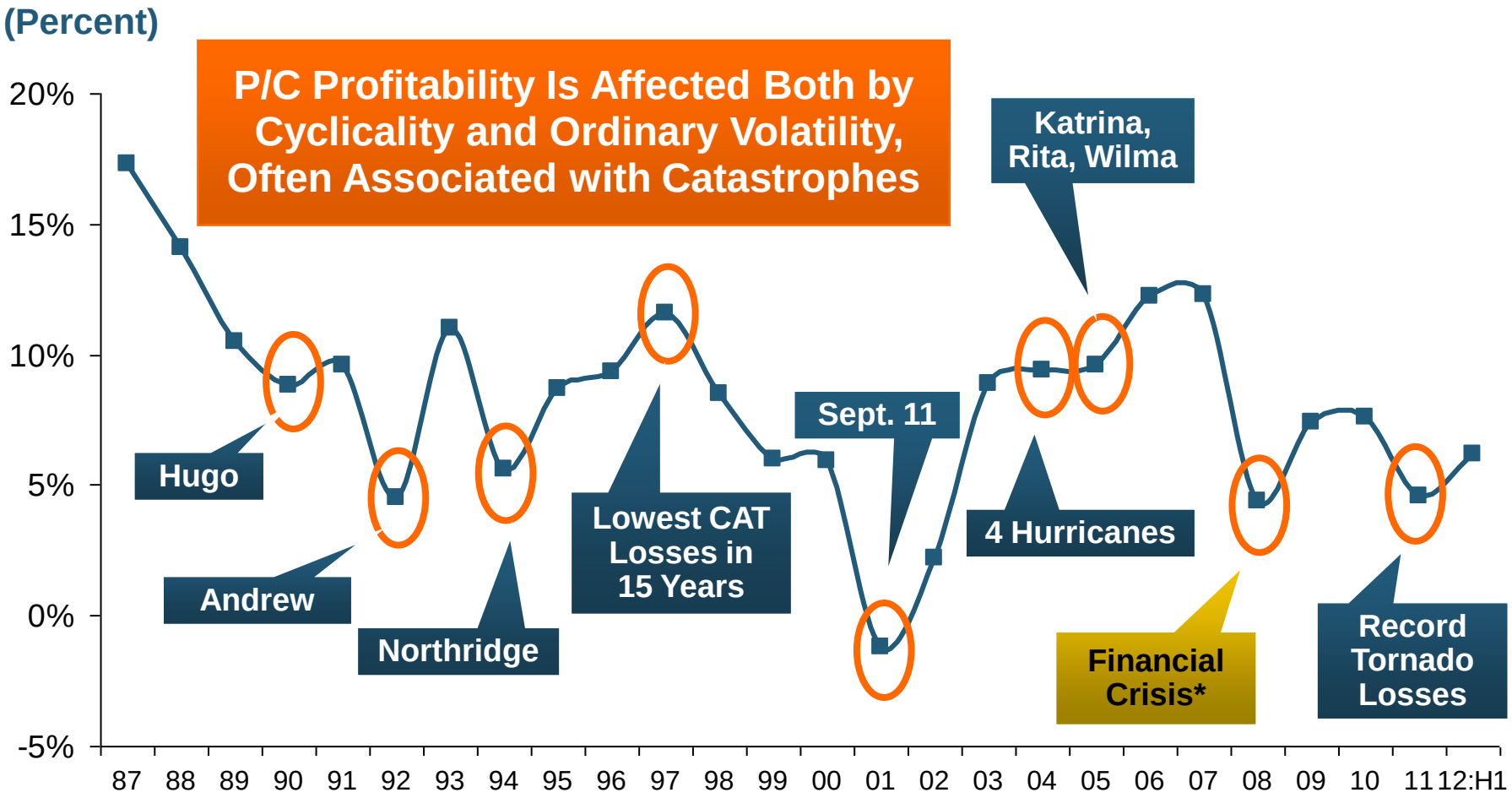
Financial Impacts of Catastrophes

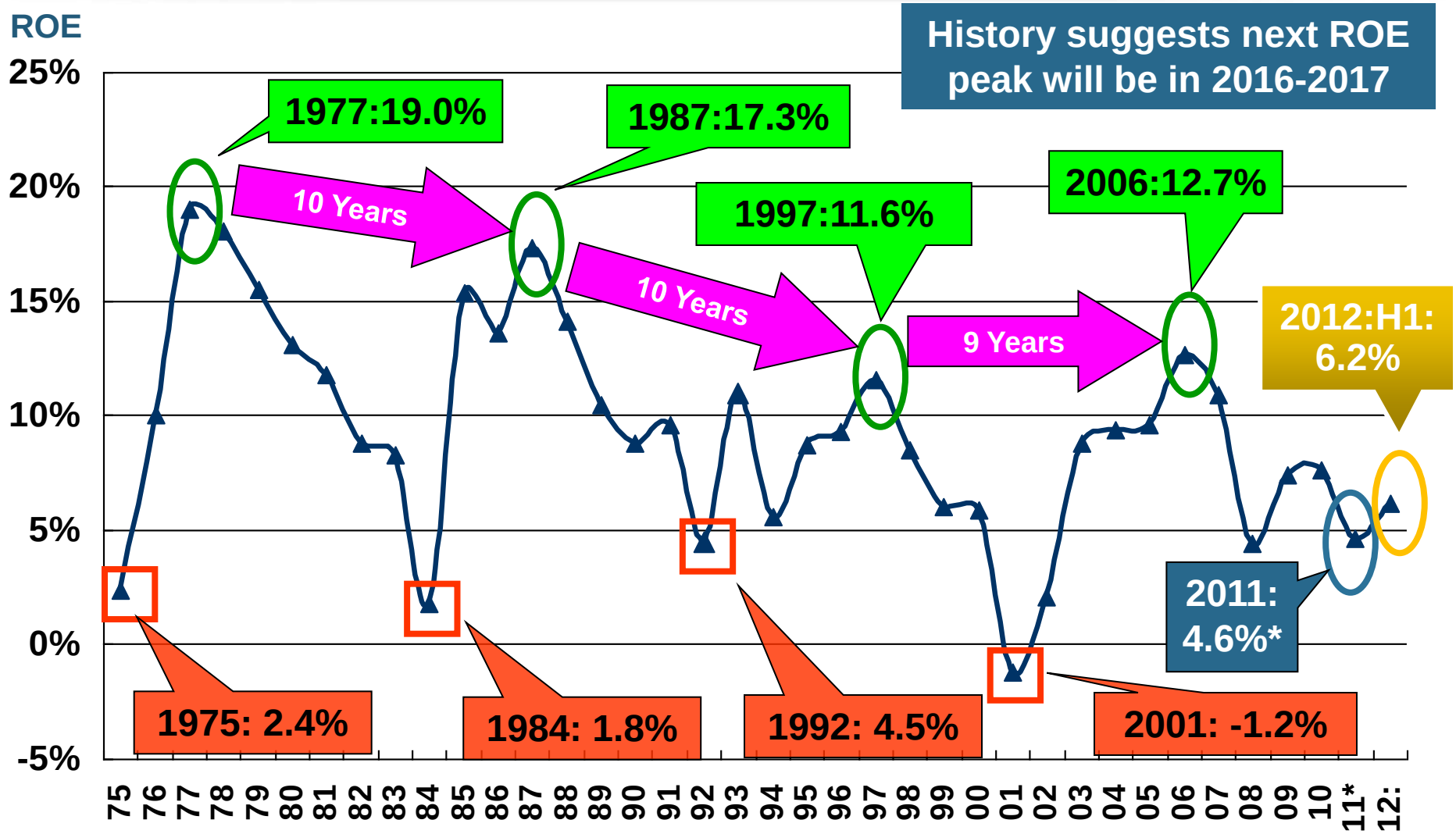
High Catastrophe Losses Do Impact Industry Financial Performance, but Generally Without Impairments or Significant Market Dislocations

ROE: Property/Casualty Insurance Industry, 1987–2012:H1*



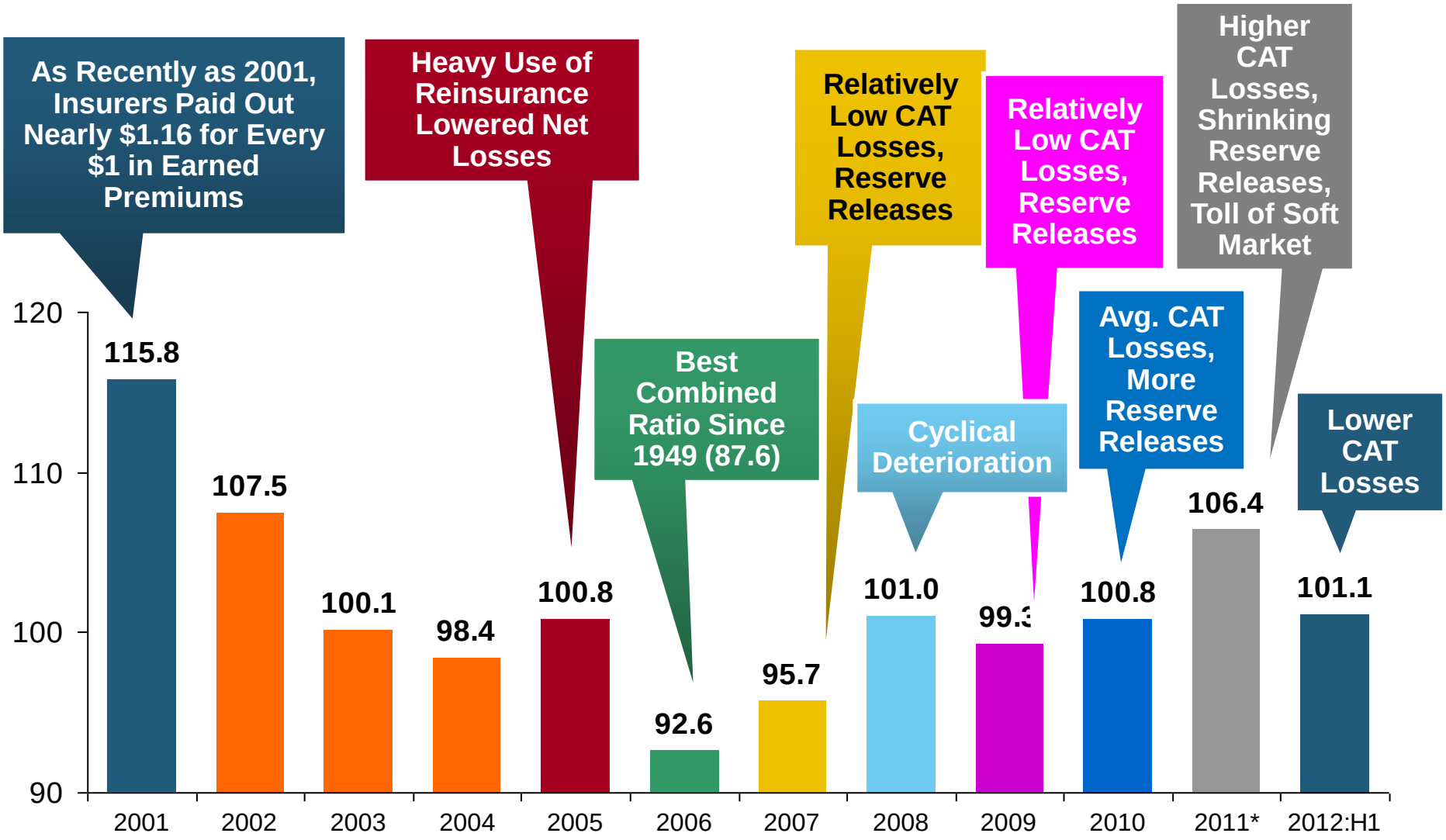
* Excludes Mortgage & Financial Guarantee in 2008 – 2012.
Sources: ISO; Insurance Information Institute.

Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2012:H1*



*Profitability = P/C insurer ROEs. 2011 figure is an estimate based on ROAS data. Note: Data for 2008-2012 exclude mortgage and financial guaranty insurers. 2012:H1 ROAS = 5.9% including M&FG.
Source: Insurance Information Institute; NAIC, ISO, A.M. Best.

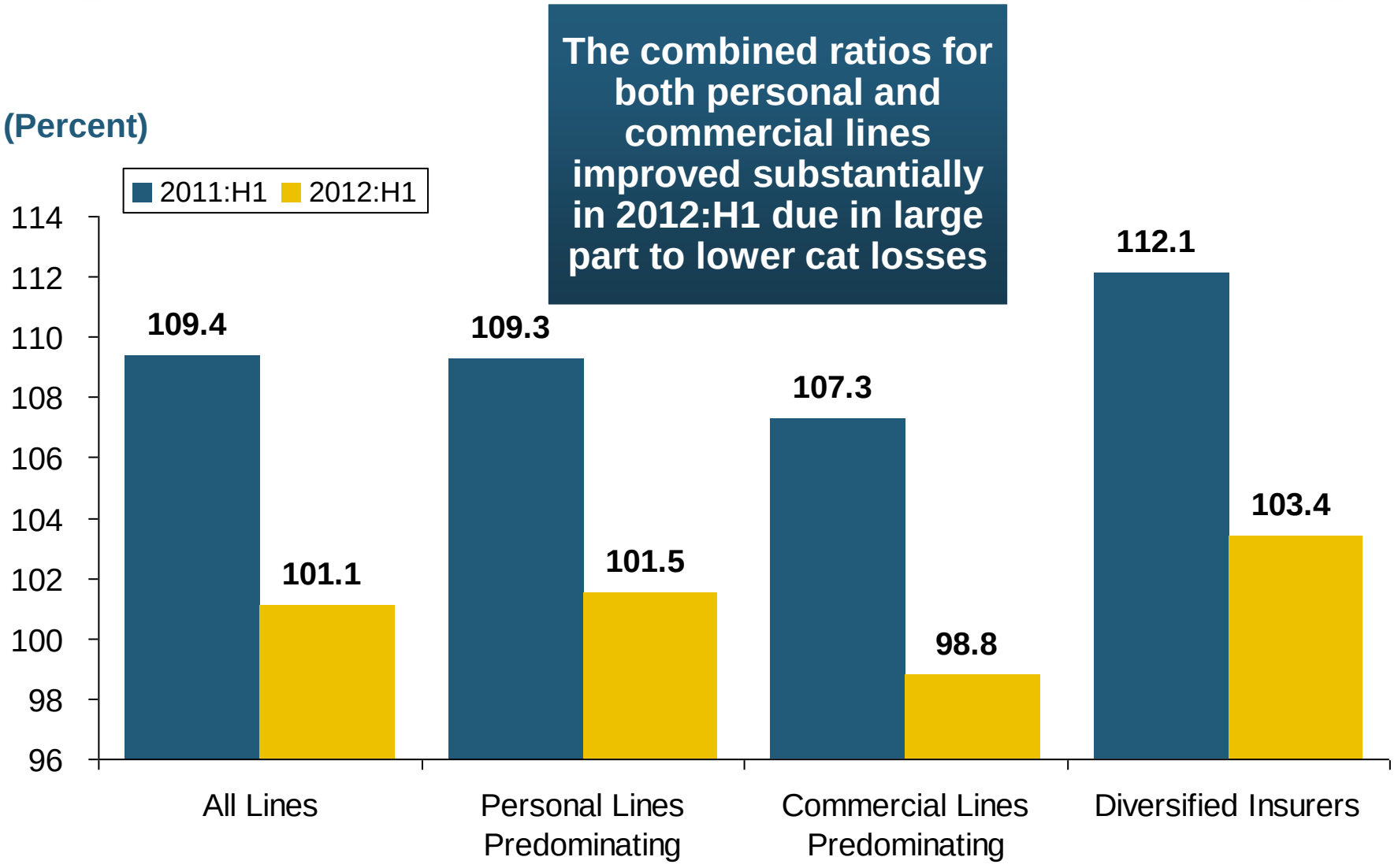
P/C Insurance Industry Combined Ratio, 2001–2012:H1*



* Excludes Mortgage & Financial Guaranty insurers 2008--2012. Including M&FG, 2008=105.1, 2009=100.7, 2010=102.4, 2011=108.2; 2012:H1=102.2.

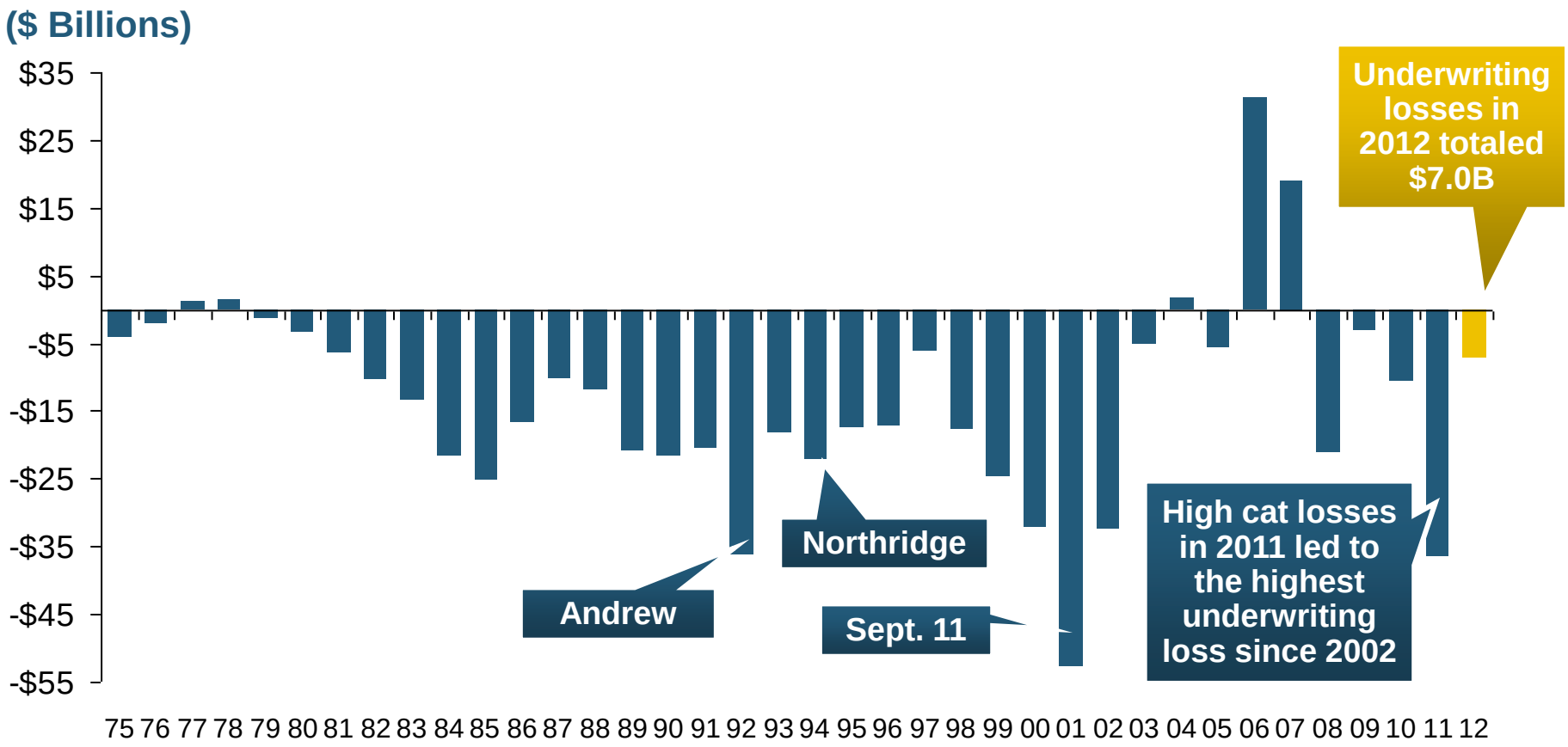
Sources: A.M. Best, ISO.

Combined Ratios by Predominant Business Segment, 2012:H1 vs. 2011:H1



Source: ISO/PCI; Insurance Information Institute

Underwriting Gain (Loss) 1975–2012:H1*



Large Scale Catastrophes Generally Produce Elevated Underwriting Losses

* Includes mortgage and financial guaranty insurers in all years.

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

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INVESTMENTS: THE NEW REALITY

Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

U.S. 10-Year Treasury Note Yields: A Long Downward Trend, 1990–2012*

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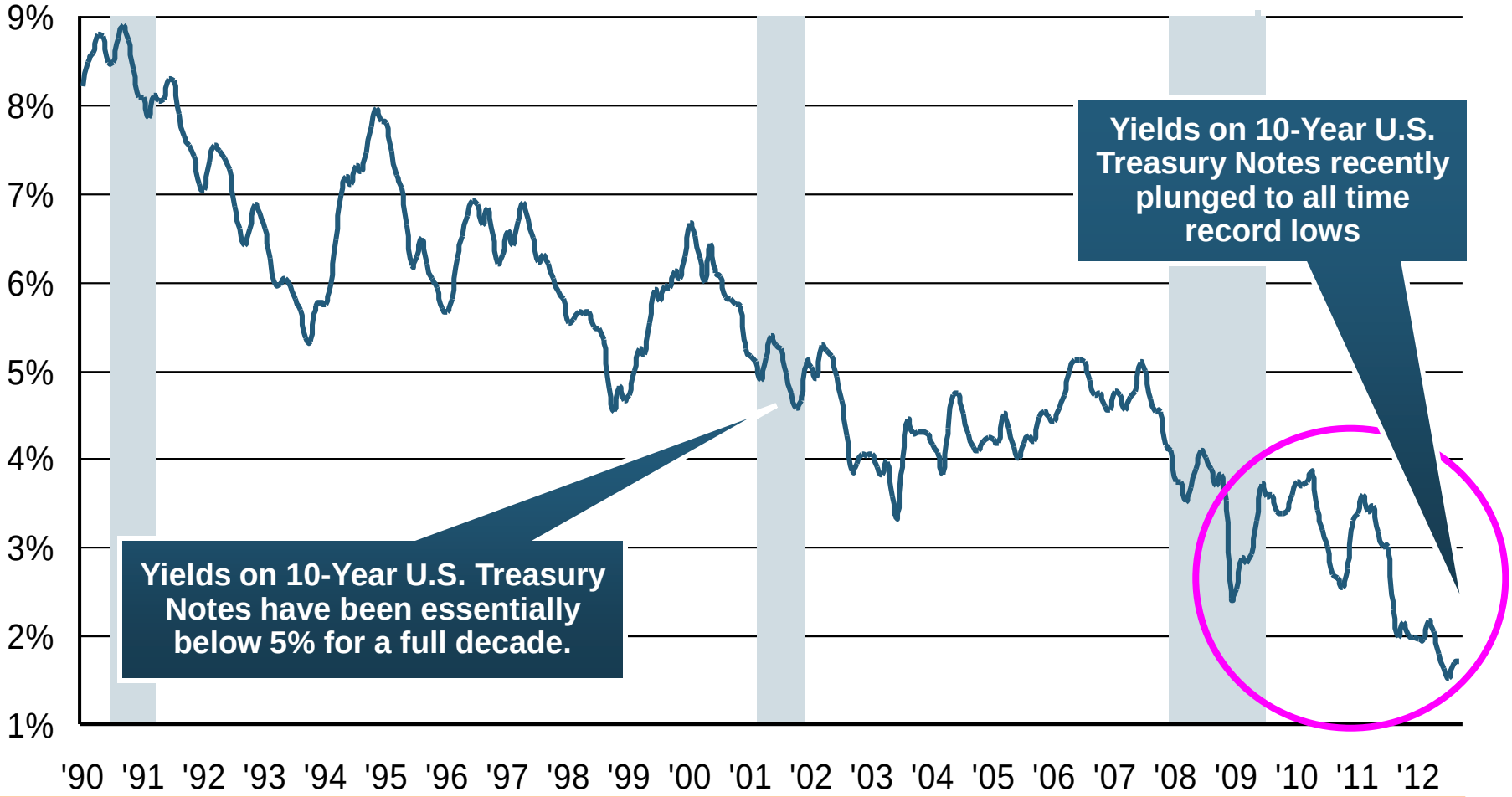

Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

*Monthly, through Sept. 2012. Note: Recessions indicated by gray shaded columns.

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

Property/Casualty Insurance Industry Investment Gain: 1994–2012F[1]

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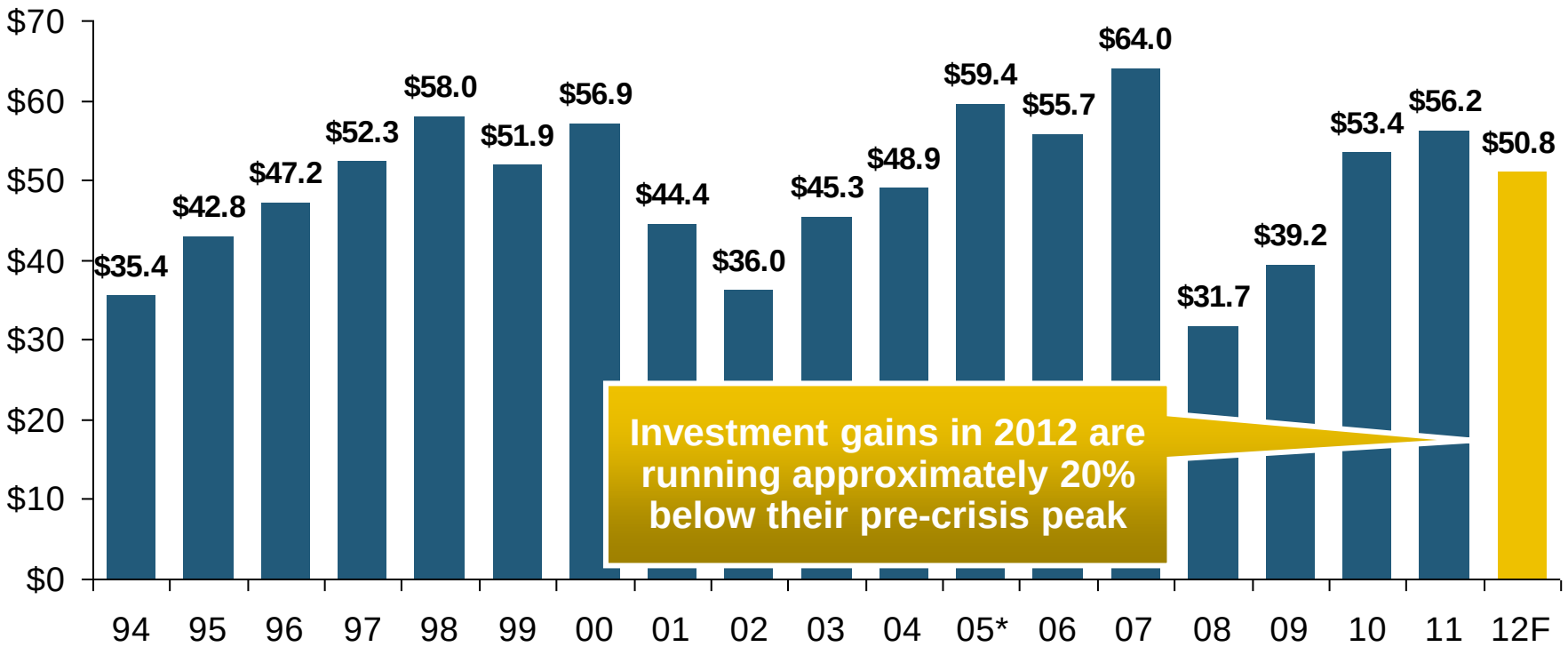
($ Billions)



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

[1] Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.
* 2005 figure includes special one-time dividend of $3.2B; 2012F figure is III estimate based on annualized actual H1:2012 result of $25.424B.
Sources: ISO; Insurance Information Institute.

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Financial Strength & Underwriting

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

P/C Insurer Impairments, 1969–2011

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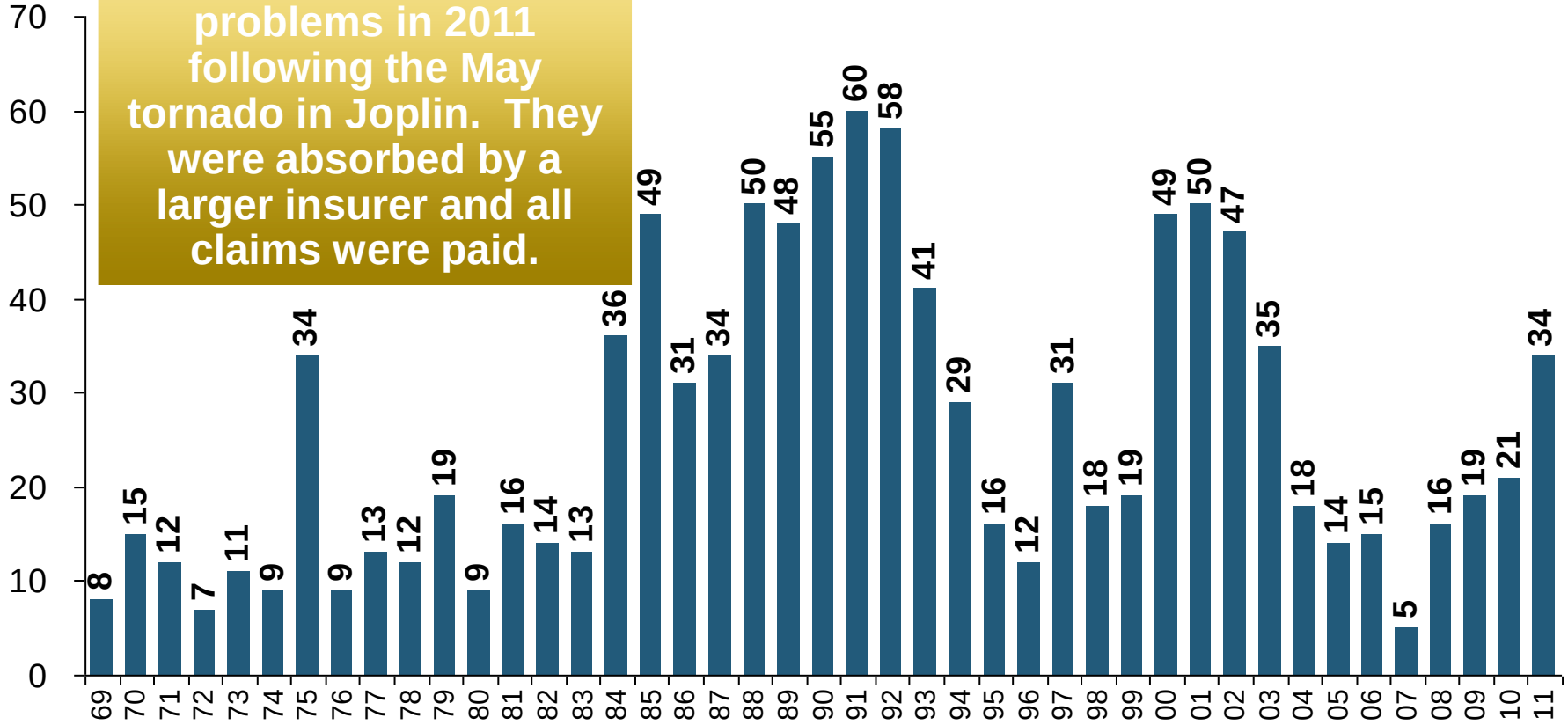
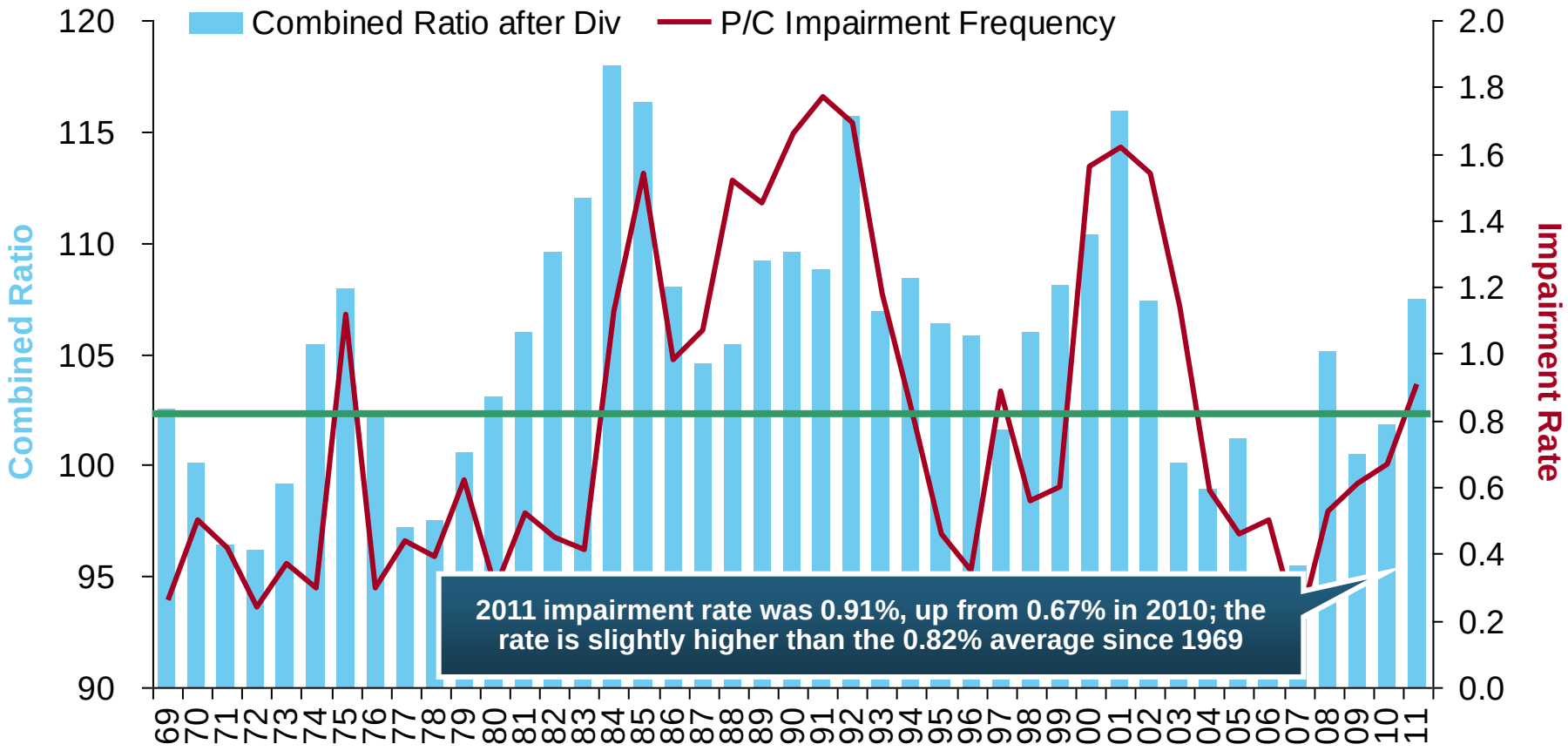
3 small insurers in Missouri did encounter problems in 2011 following the May tornado in Joplin. They were absorbed by a larger insurer and all claims were paid.



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

Source: A.M. Best Special Report "1969-2011 Impairment Review," June 2012; Insurance Information Institute.

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

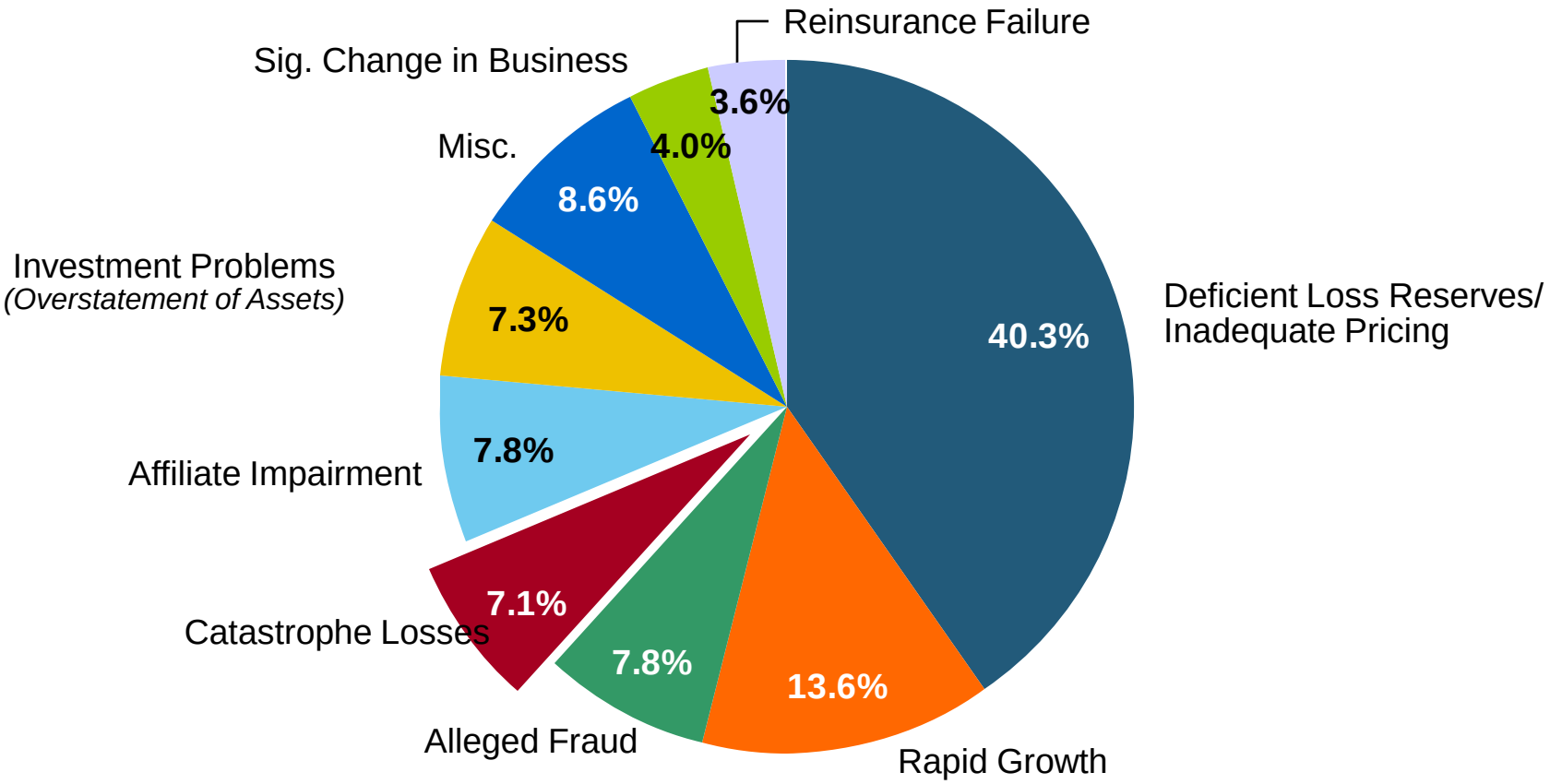


Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007; Recent Increase Was Associated Primarily With Mortgage and Financial Guaranty Insurers and Not Representative of the Industry Overall

Source: A.M. Best; Insurance Information Institute

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

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



Source: A.M. Best: *1969-2010 Impairment Review*, Special Report, April 2011.

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SURPLUS/CAPITAL/CAPACITY

The P/C Insurance Industry Is Well Capitalized and Capable of Absorbing Large CAT Losses— But Pricing Must Reflect Risk

US Policyholder Surplus: 1975–2012*

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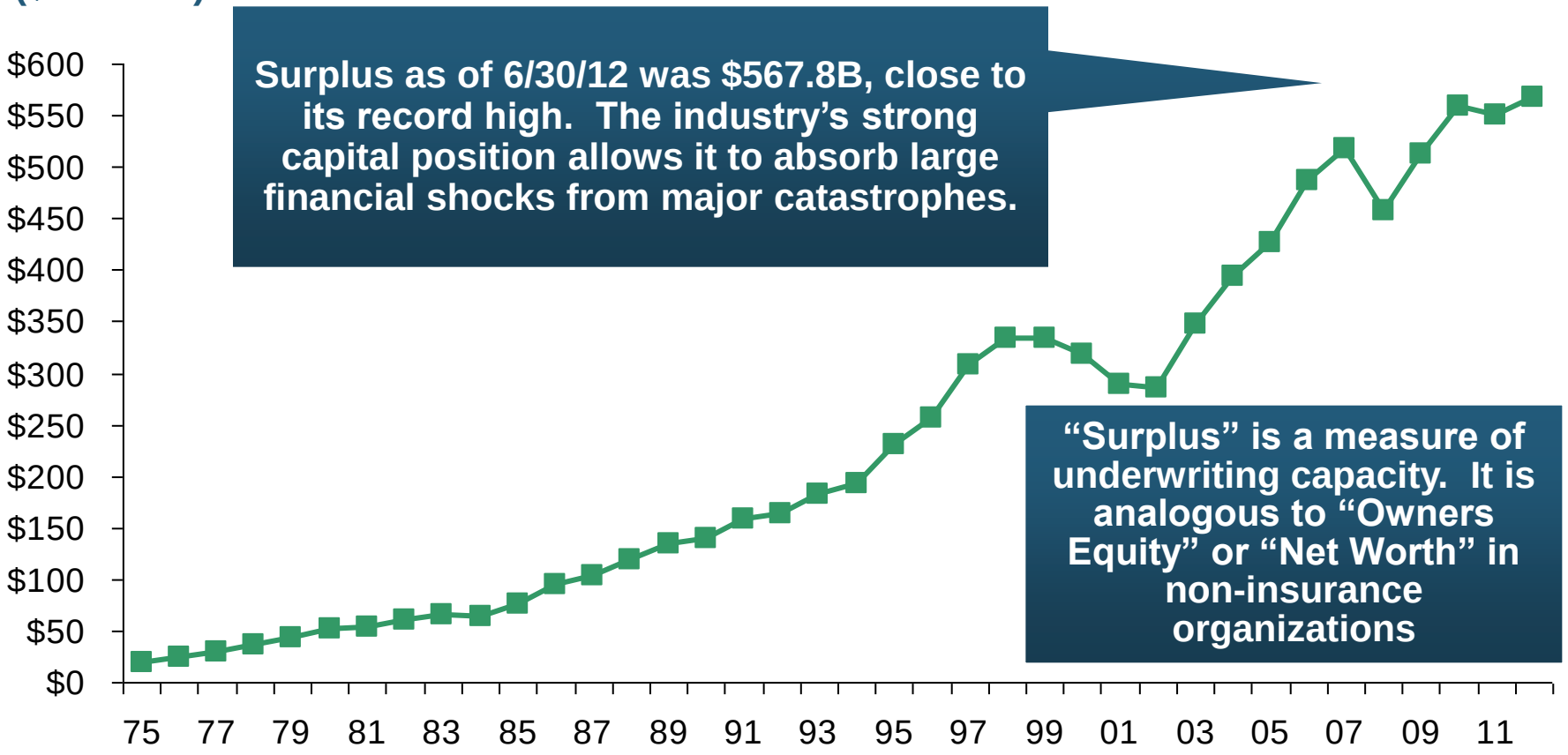
($ Billions)



* As of 6/30/12.

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

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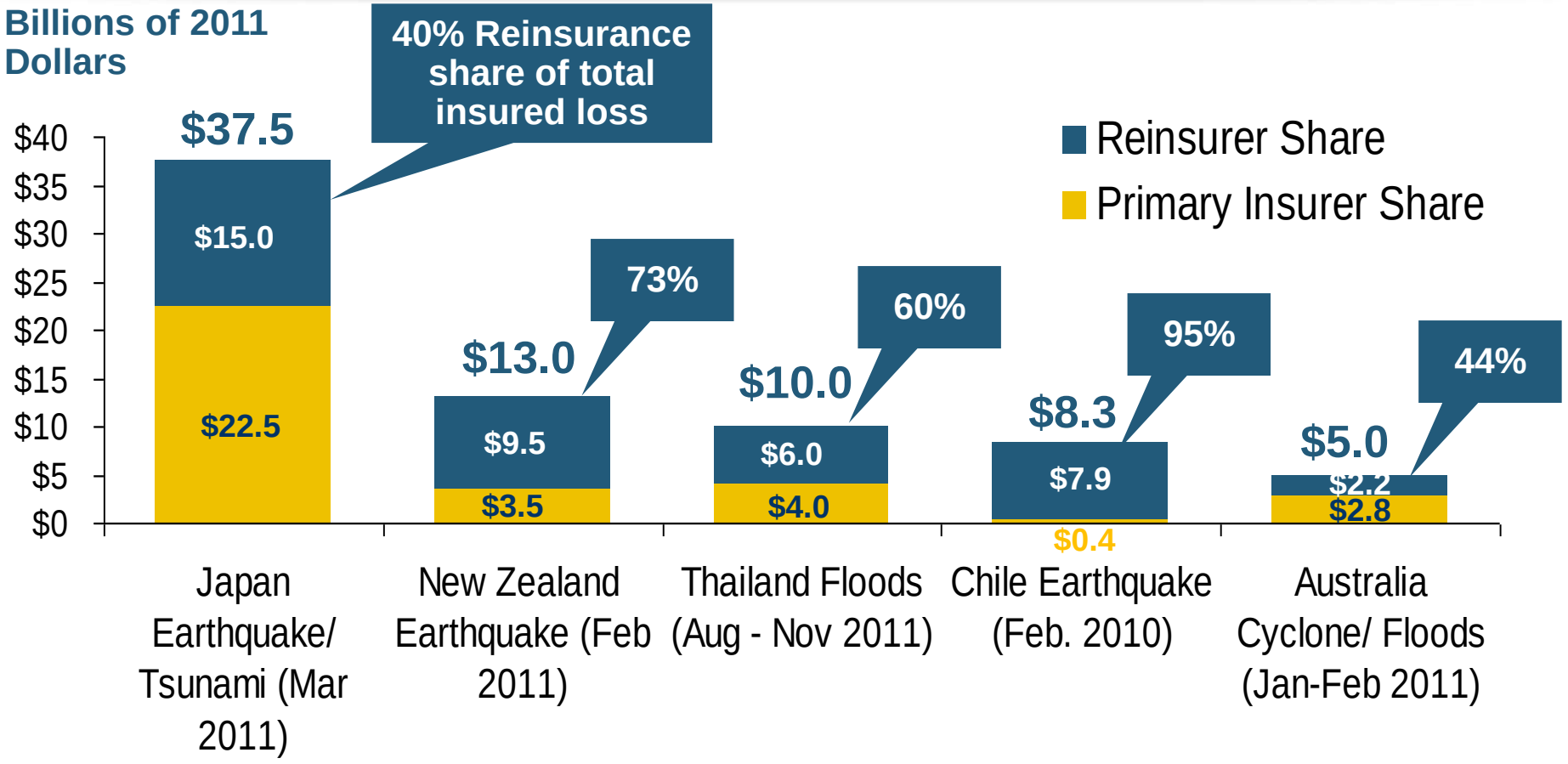
REINSURANCE MARKET CONDITIONS

Reinsurance Industry Was Able to Absorb Record Global Losses in 2011 and Restore Most Capacity by Late 2012

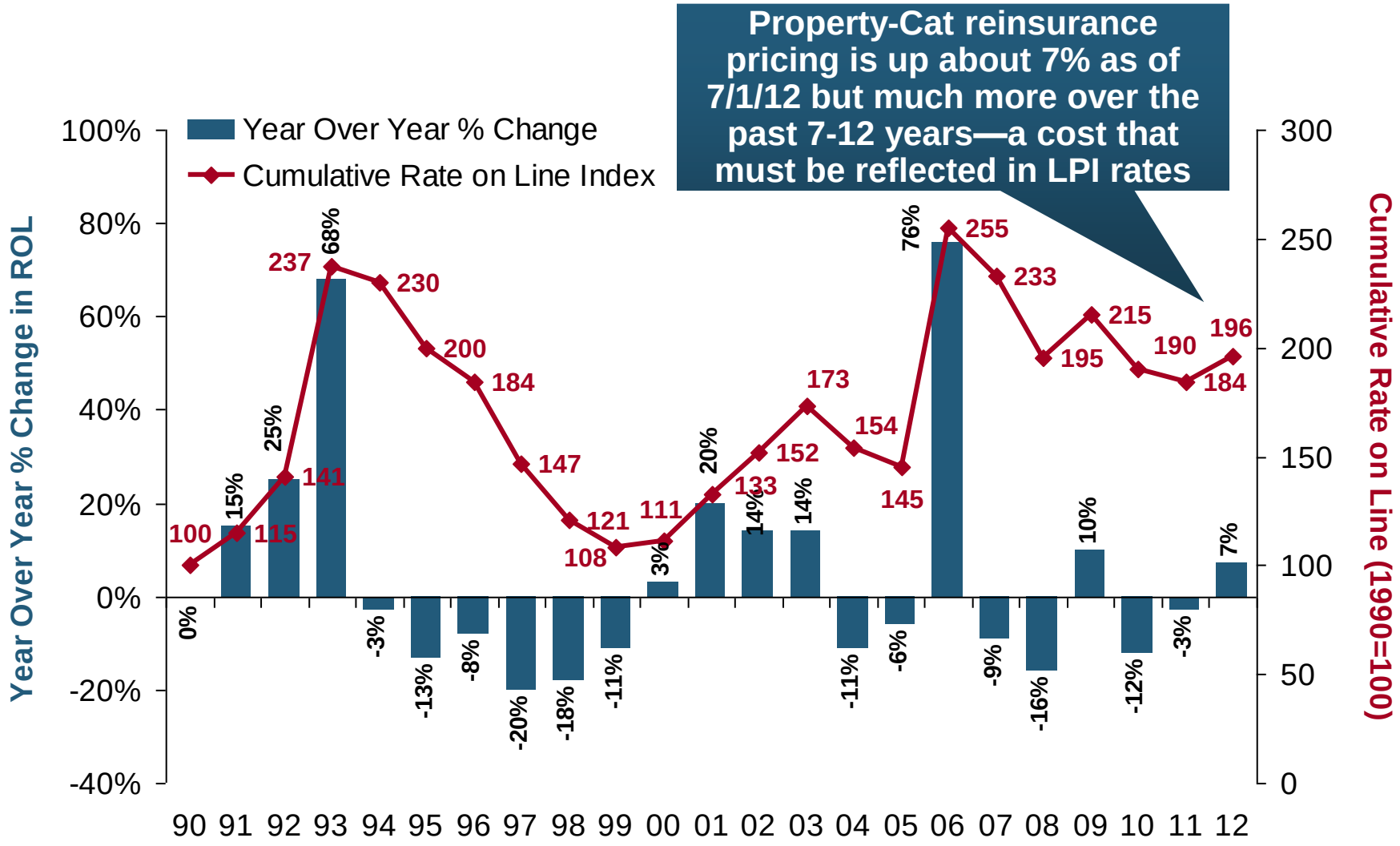
Reinsurer Share of Recent Significant Market Losses



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

Source: Insurance Information Institute from reinsurance share percentages provided in RAA, ABIR and CEA press release, Jan. 13, 2011.

Global Property Catastrophe Rate on Line Index, 1990—2012 (as of July 1)



Sources: Guy Carpenter; Insurance Information Institute.

Historical Capital Levels of Guy Carpenter Reinsurance Composite, 1998—3Q11

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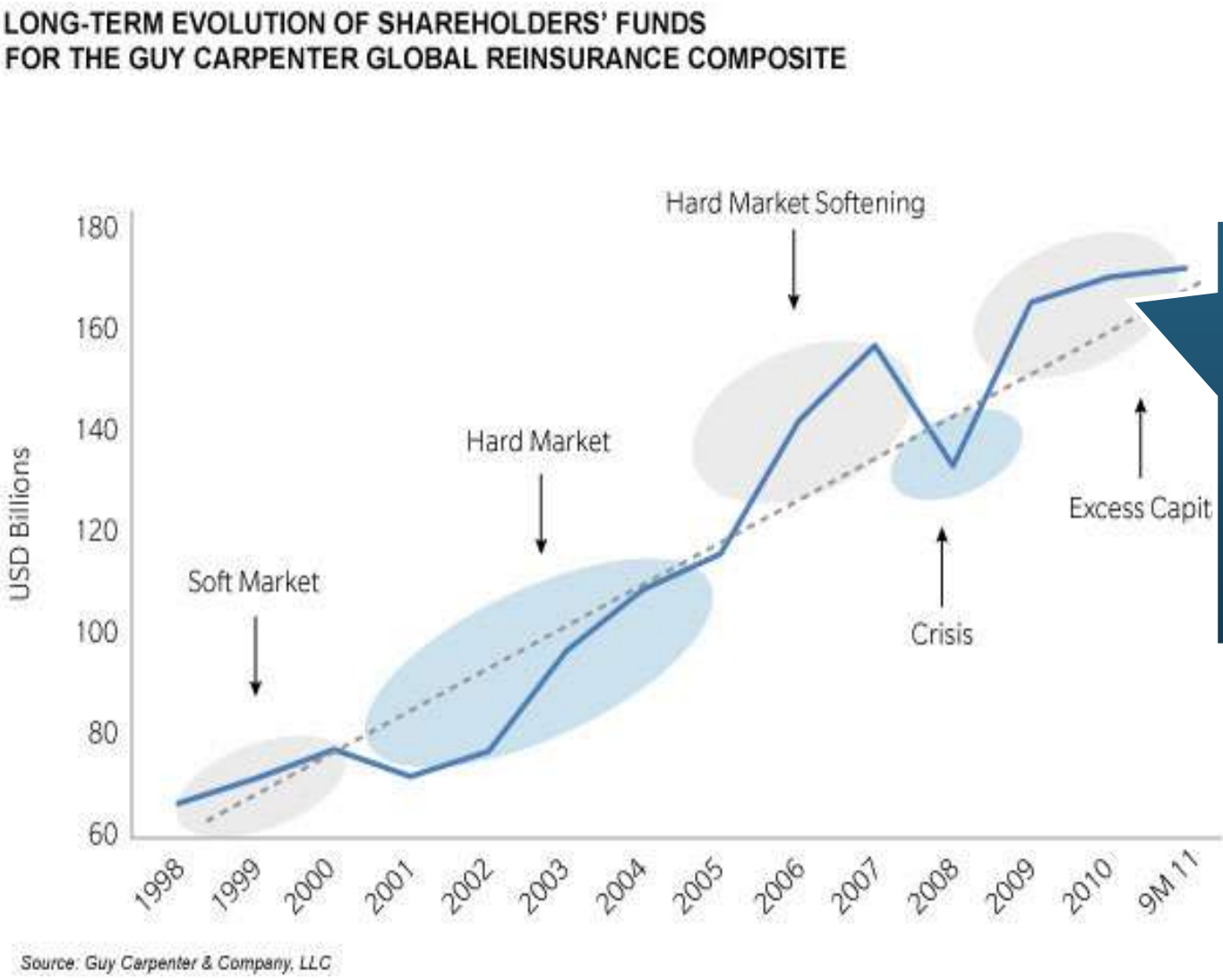

Most excess reinsurance capacity was removed from the market in 2011, but capacity bounced back in 2012

Source: Guy Carpenter, *GC Capital Ideas.com,* February 28, 2012.

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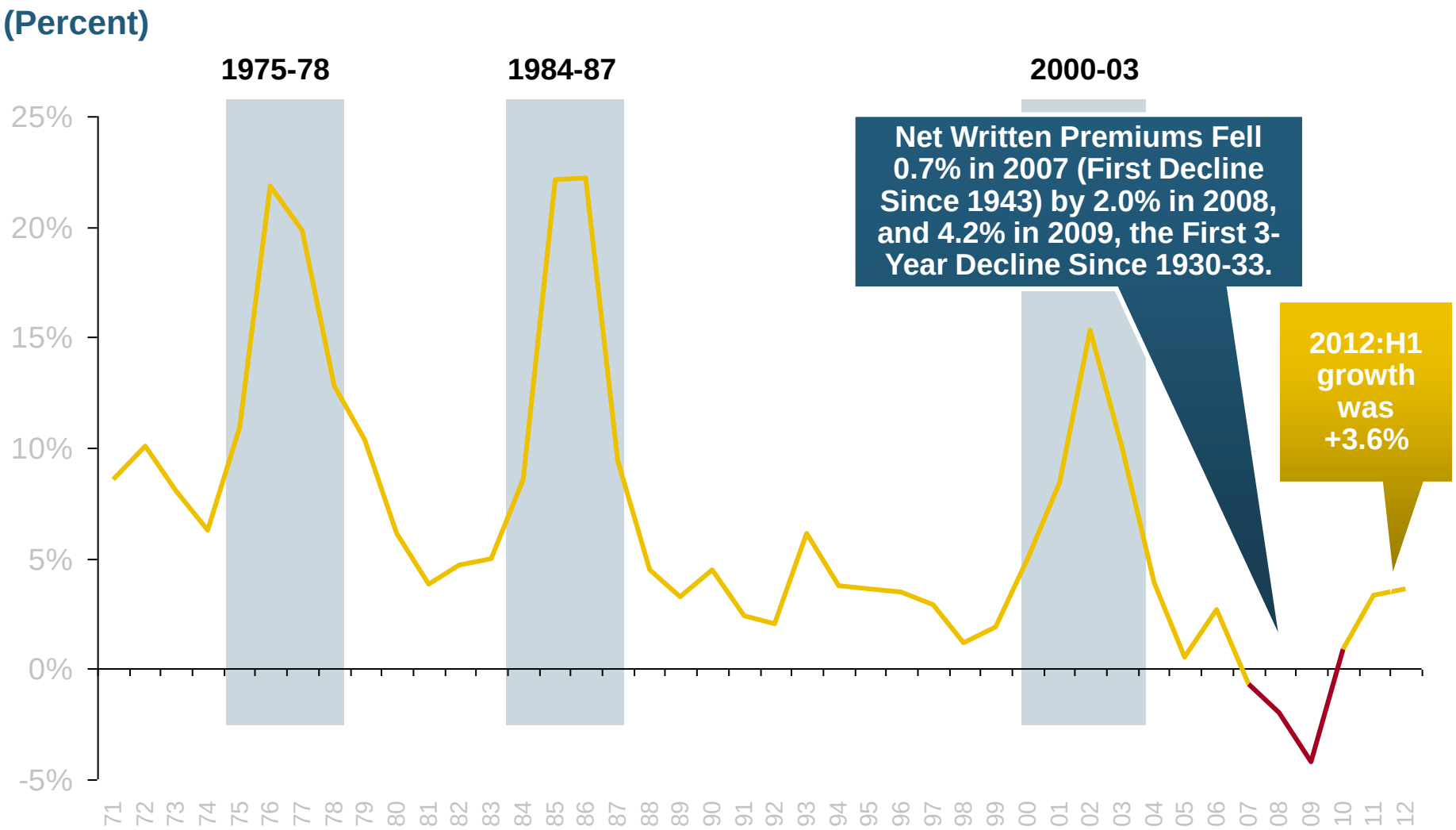
PRICE IMPACTS

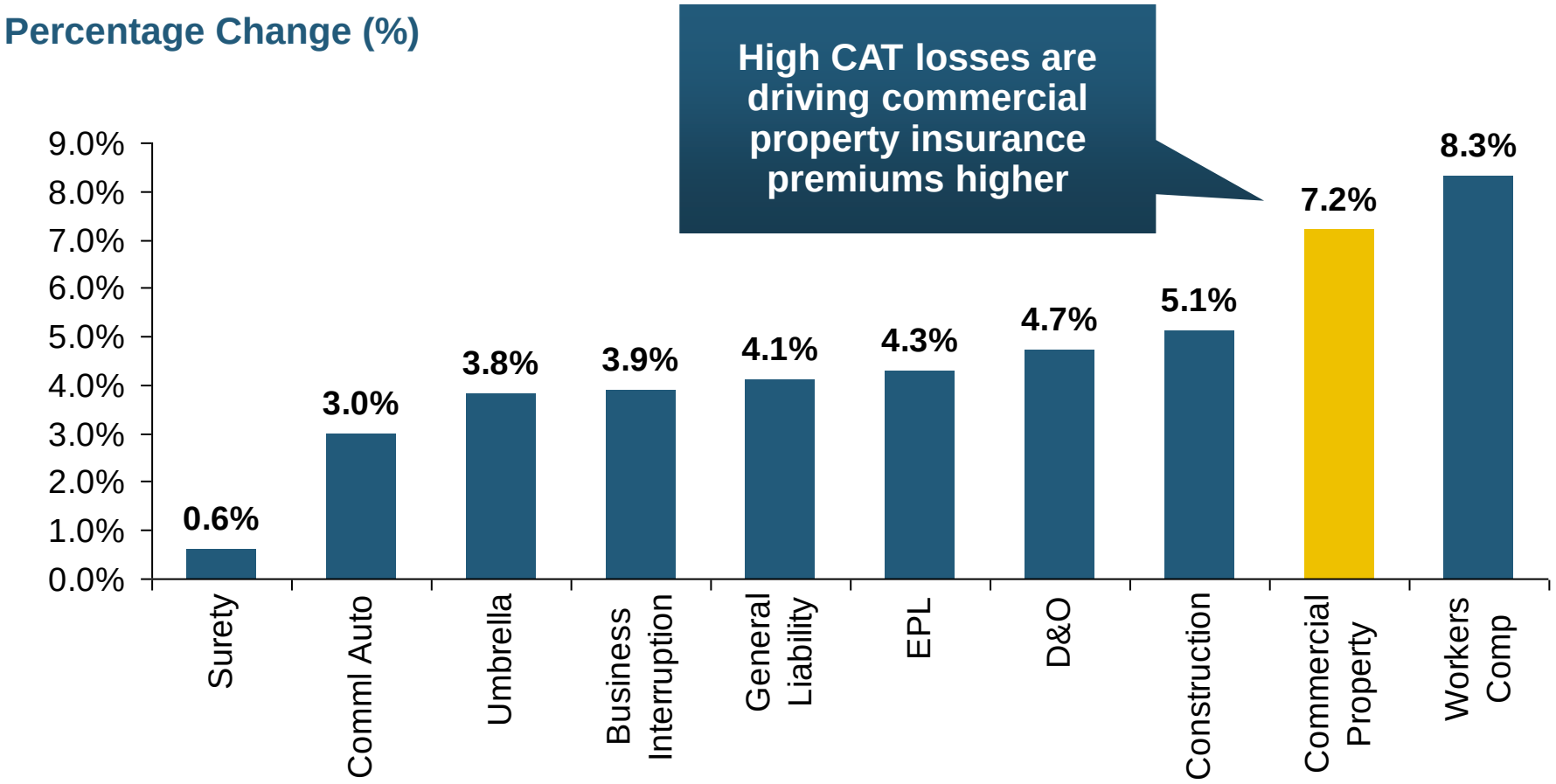
Escalating CAT Losses Must Be Reflected in the Rate

Net Premium Growth: Annual Change, 1971—2012:H1



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

Change in Commercial Rate Renewals, by Line: 2012:Q2



Source: Council of Insurance Agents and Brokers; Insurance Information Institute.

Insurance Information Institute Online:

www.iii.org

Thank you for your time and your attention!

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