Hurricane Season of 2005:

Impacts on US P/C Insurance Markets in 2006 & Beyond

Insurance Information Institute

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Download at:

http://www.disasterinformation.org/disaster2/facts/presentation/

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Presentation Outline

- **2006 Hurricane Season: Preview to Disaster?**
- **Katrina, Rita & Wilma: Their Place in History**
- **Catastrophe Review:**
  - **Loss estimate overview**
  - **Hurricanes Katrina & Rita's place in history**
  - **Loss distribution (geographic & by line)**
  - **Impact on financial & underwriting performance**
  - **Influence of legal environment on Katrina claims**
- **Energy Market Overview**
- **P/C Financial Overview & Impacts**
- **Industry Claims-Paying Resources**
- **Underwriting Performance pre-Katrina**
- **Pricing Impacts**
- **Q & A**

The 2006 Hurricane Season:

Preview to Disaster?

Outlook for 2006 Hurricane Season

	Average*	2005**	2006F
Named Storms	9.6	26	17
Named Storm Days	49.1	115.5	85
Hurricanes	5.9	14	9
Hurricane Days	24.5	47.5	45
Intense Hurricanes	2.3	7	5
Intense Hurricane Days	2.3	7	5
Net Tropical Cyclone Activity	100%	263%	195%

*Average over the period 1950-2000.

**As of December 4, 2005.

Source: Dr. William Gray, Colorado State University, December 6, 2005.

Probability of Major Hurricane Landfall (CAT 3, 4, 5) in 2006

	Average*	2006F
Entire US Coast	52%	81%
US East Coast Including Florida Peninsula	31%	64%
Gulf Coast from FL Panhandle to Brownsville, TX	30%	47%
ALSO…Above-Average Major Hurricane Landfall Risk in Caribbean for 2006		

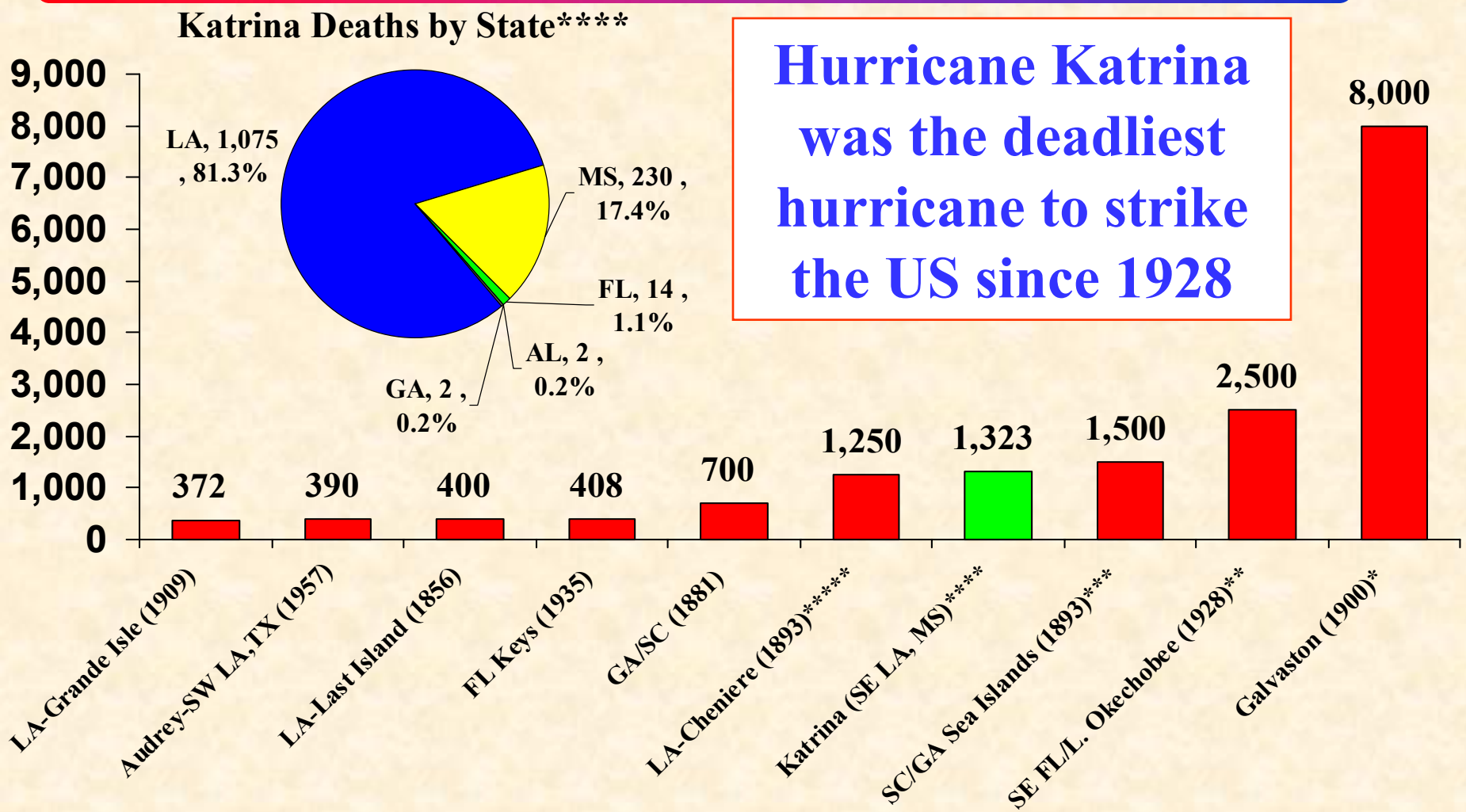
*Average over past century.

Source: Dr. William Gray, Colorado State University, December 6, 2005.

Hurricanes Katrina, Rita & Wilma:

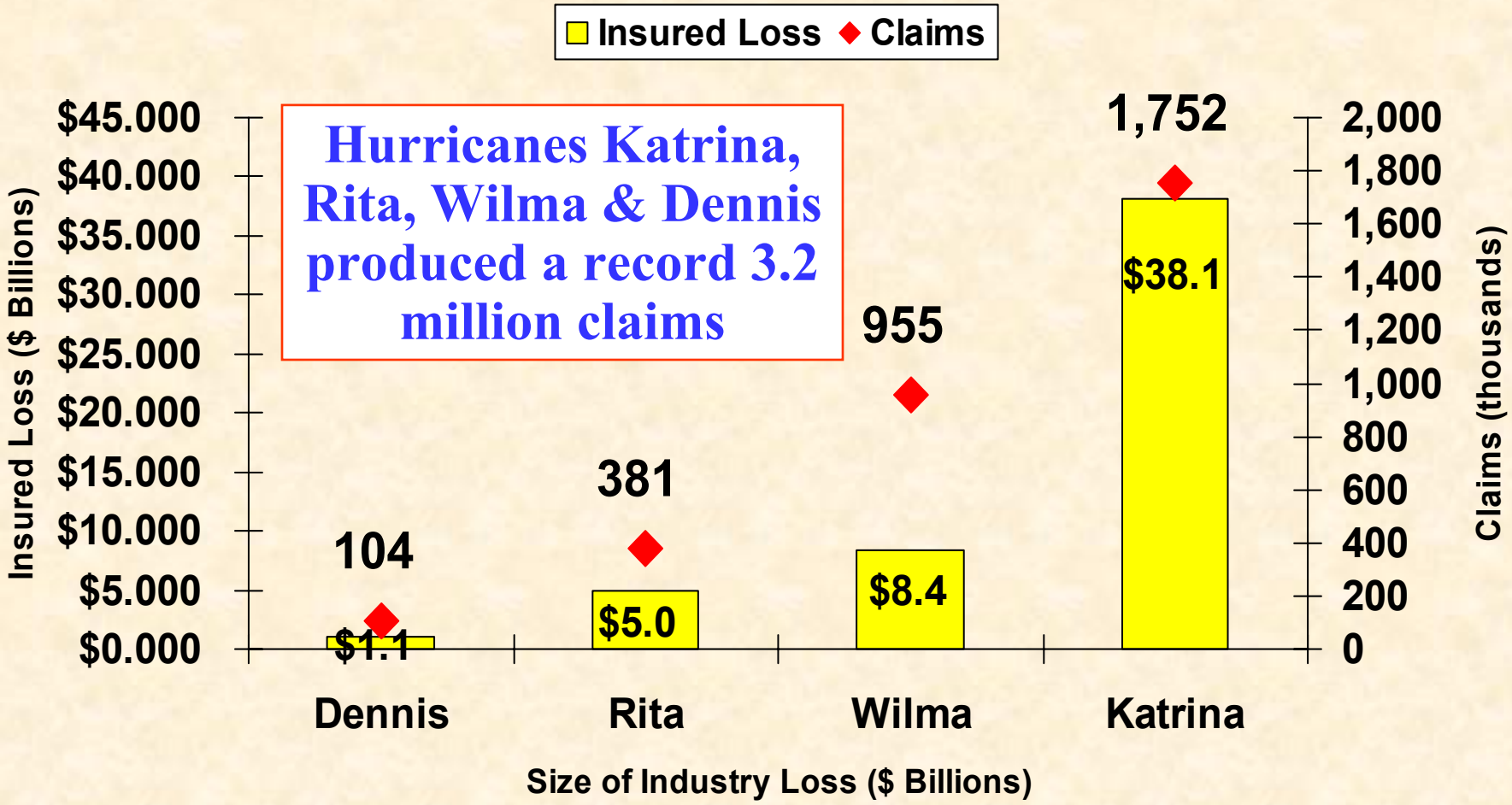
Their Place in History

Top 10 Deadliest Hurricanes to Strike the US: 1851-2005



*Could be as high as 12,000 **Could be as high as 3,000 ***Midpoint of 1,000 – 2,000 range
****Associated Press total as of Dec. 11, 2005. *****Midpoint of 1,100-1,400 range.
Sources: NOAA; Insurance Information Institute.

*Insured Loss & Claim Count for Major Storms of 2005**



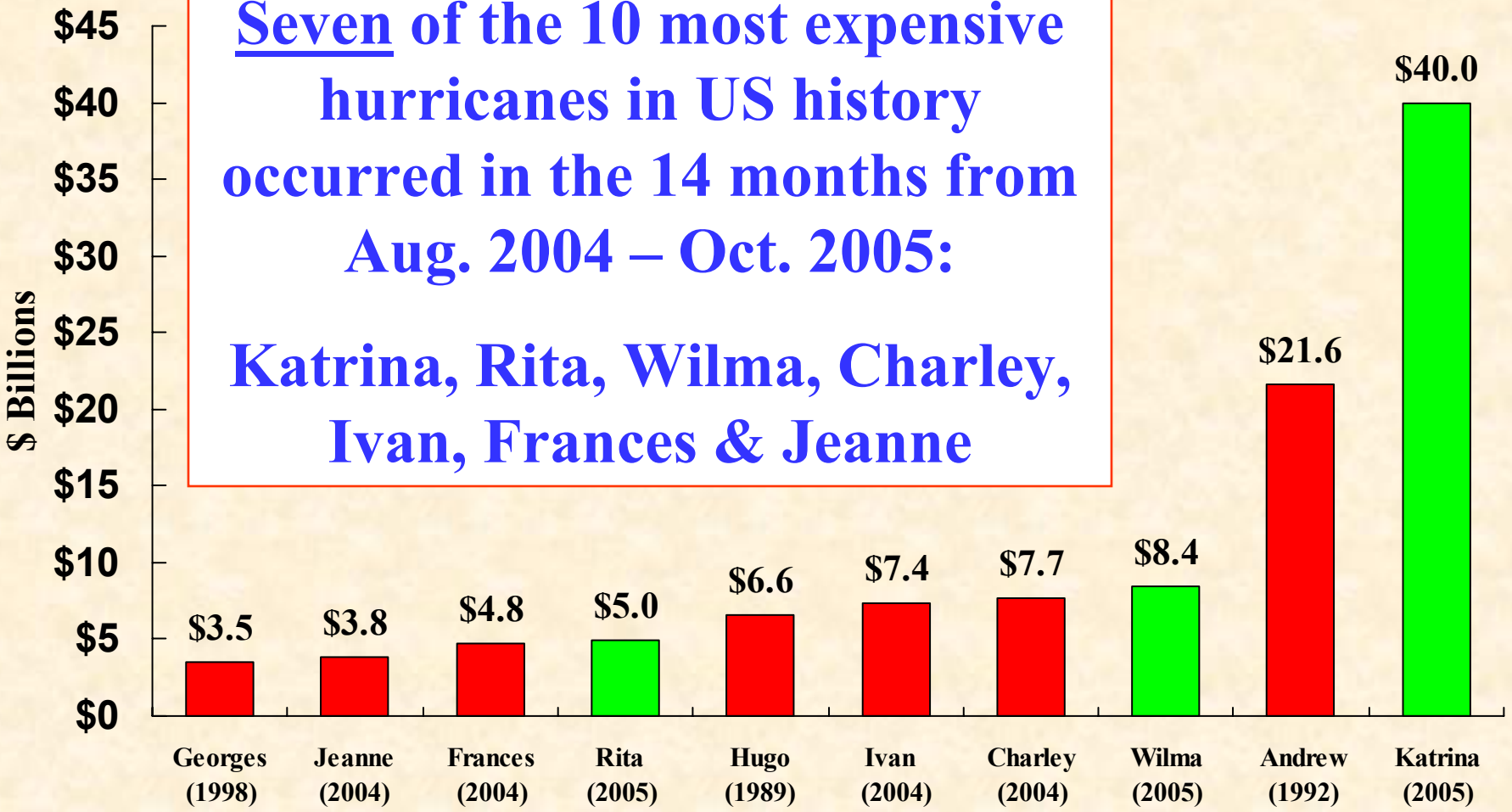
*Property and business interruption losses only. Excludes offshore energy & marine losses.

Source: ISO/PCS as of February 8, 2006; Insurance Information Institute.

Top 10 Most Costly Hurricanes in US History, (Insured Losses, $2005)

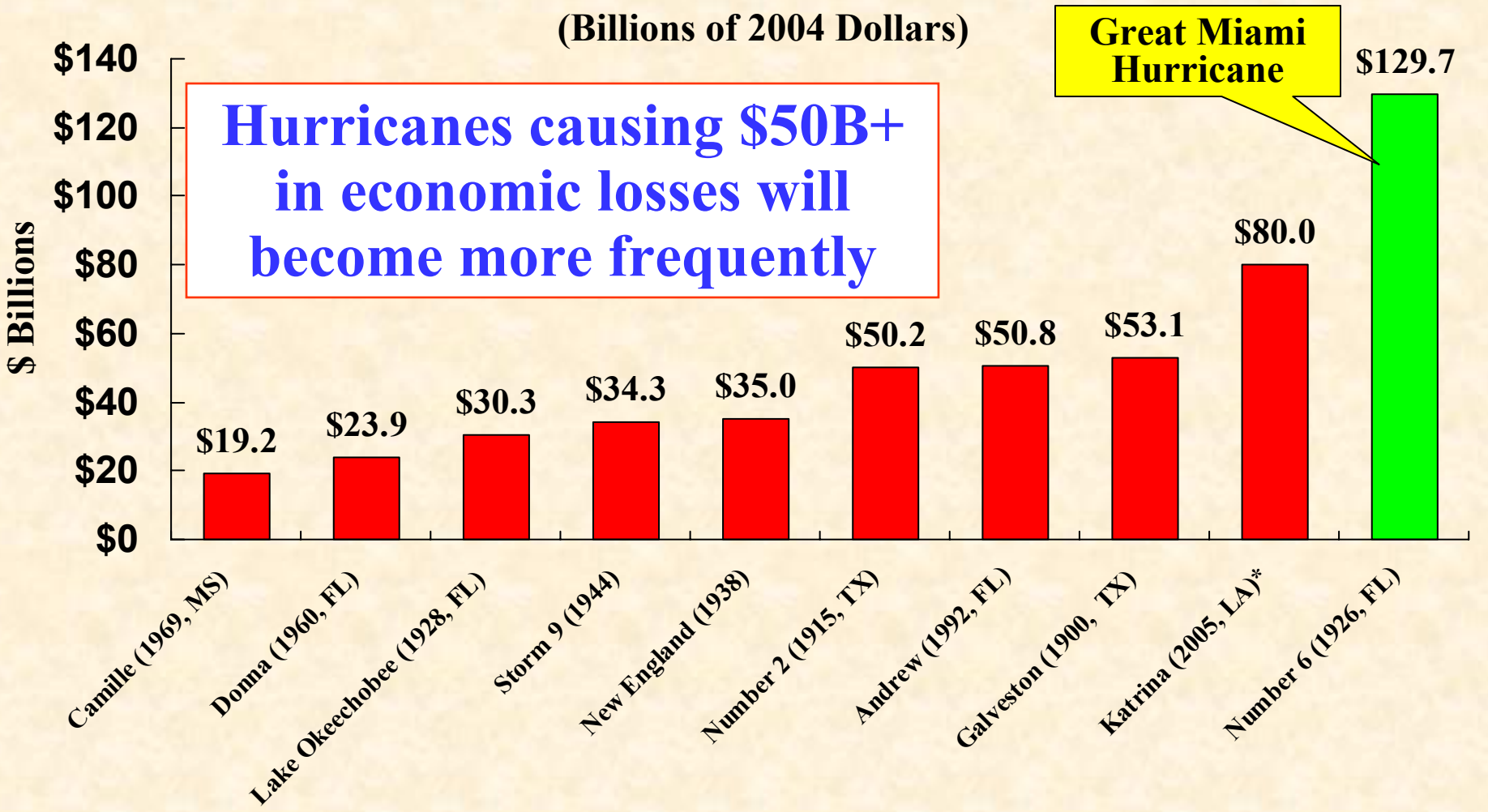
Seven of the 10 most expensive hurricanes in US history occurred in the 14 months from Aug. 2004 – Oct. 2005:

Katrina, Rita, Wilma, Charley, Ivan, Frances & Jeanne



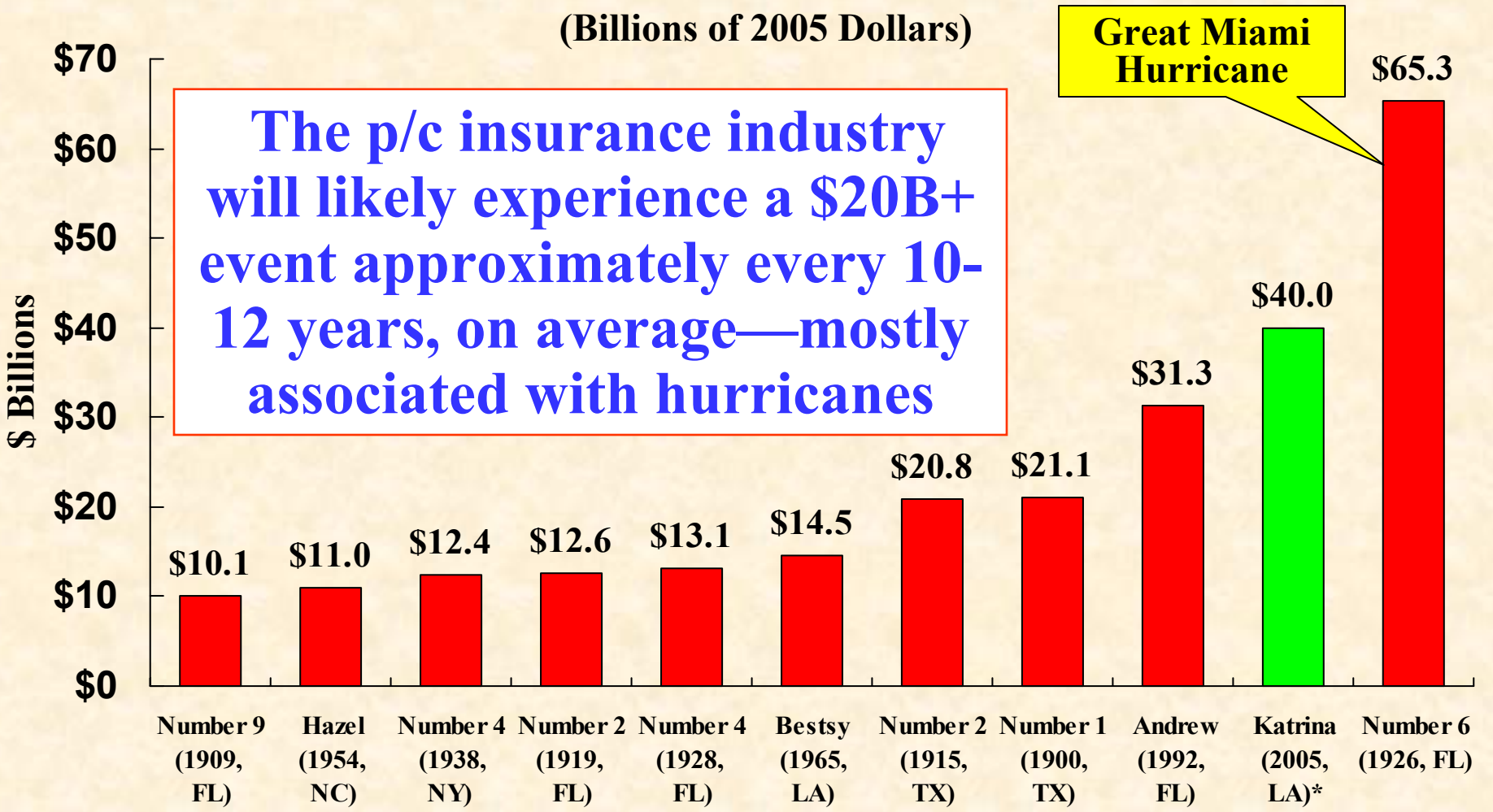
Sources: ISO/PCS; Insurance Information Institute.

*Hurricane Damage from Top 10 Hurricanes Since 1900 Adjusted for Inflation, Growth in Coastal Properties, Real Growth in Property Values**



*Includes damage form wind and storm surge but generally excludes inland flooding.
Source: Roger Pielke and Christopher Landsea, December 2005; Insurance Info. Institute.

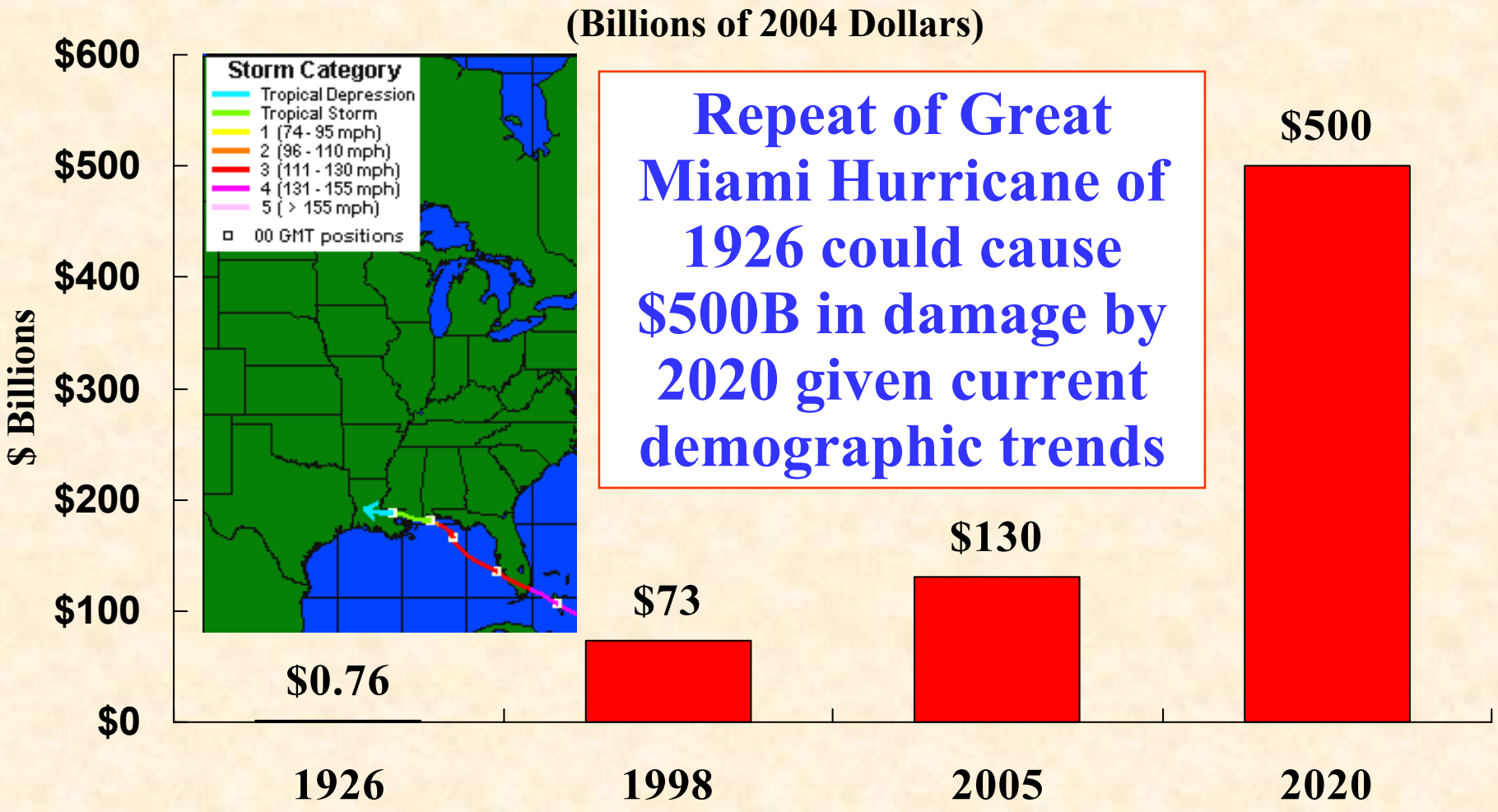
Insured Losses from Top 10 Hurricanes Since 1900 & Katrina Adjusted for Inflation, Growth in Coastal Properties, Real Growth in Property Values & Increased Property Insurance Coverage



*ISO/PCS estimate as of October 10, 2005.

Source: *Hurricane Katrina: Analysis of the Impact on the Insurance Industry,* Tillinghast, October 2005; Insurance Info. Institute.

*Great Miami Hurricane of 1926: Hurricane Damage Adjusted for Inflation, Growth in Coastal Properties, Real Growth in Property Values**



*Includes damage form wind and storm surge but generally excludes inland flooding.
Source: Roger Pielke and Christopher Landsea, December 2005; Insurance Info. Institute.

Top 11 Insured Property Losses in US ($2005)

Eight of the 11 most expensive disasters is US history occurred within the past 4 years

Note: 9/11 loss figure is for property claims only. Total insured losses ($2004) are approximately $34B.
Sources: ISO/PCS; Insurance Information Institute.

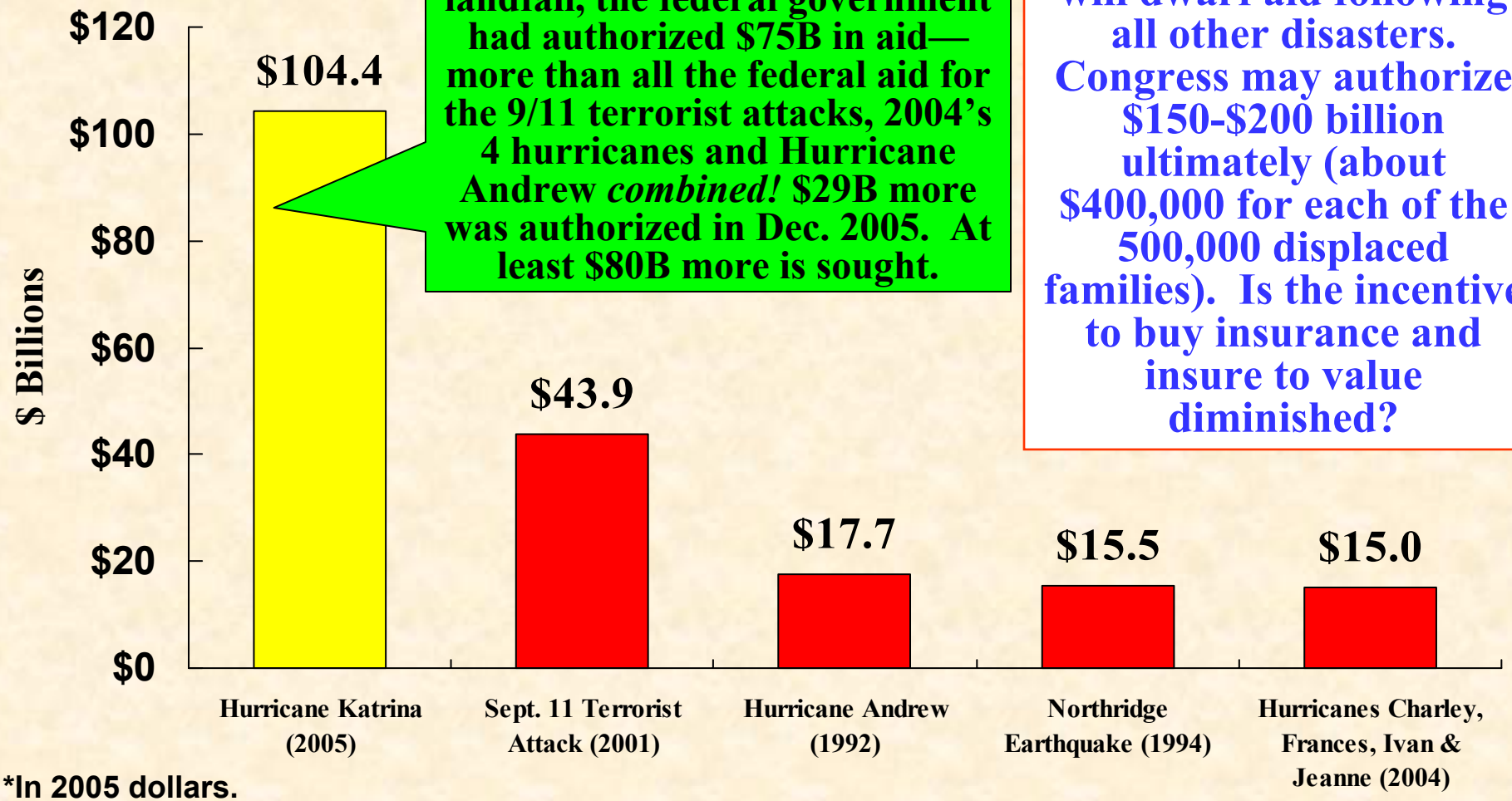
*Top 11 Insured Property Losses Worldwide, 1970-2005 ($2005)**

Five of the 11 most expensive disasters is world history affected the US within the past 4 years.

*All figures are for total losses across all locations, not just US. Katrina losses are a preliminary III estimate.

Sources: ISO/PCS; Swiss Re, "Natural Catastrophes and Man-Made Disasters in 2003," *Sigma*, no.1, 2004

Government Aid After Major Disasters (Billions)*



Within 3 weeks of Katrina's LA landfall, the federal government had authorized $75B in aid—more than all the federal aid for the 9/11 terrorist attacks, 2004's 4 hurricanes and Hurricane Andrew *combined!* $29B more was authorized in Dec. 2005. At least $80B more is sought.

Hurricane Katrina aid will dwarf aid following all other disasters. Congress may authorize $150-$200 billion ultimately (about $400,000 for each of the 500,000 displaced families). Is the incentive to buy insurance and insure to value diminished?

*In 2005 dollars.

Source: United States Senate Budget Committee, Insurance Information Institute as of 12/31/05.

Itemization of Federal Government Spending on Hurricane Relief

Legislation	5-Yr. Cost	Status
Emergency Spending Supplement #1, HR 3645	$10.500	Public Law 109-61
Emergency Spending Supplement #2, HR 3673	$51.8	Public Law 109-62
Flood Insurance Borrowing Authority	$2.000	Passed House & Senate
Pell Grant Relief, H.R. 3169	$0.002	Passed House & Senate
TANF Disaster Relief, H.R. 3672	$0.294	Passed House & Senate
Katrina Short-Term Tax Relief Bill, H.R. 3768	$6.500	Passed Senate
Sarbanes Housing Amend. To H.R. 2862	$3.500	Passed Senate
Harkin Legal Services Amend. To H.R. 2862	$0.008	Passed Senate
Snowe Small Business Amen. To H.R. 2862	$0.595	Passed Senate
Baucus Economic Develop. Amend to H.R. 2862	$0.210	Passed Senate
TOTAL	**$75.409**	
Emergency Health Care Relief Act, S. 1716	$5.0-$7.0B	Introduced in Senate
Additional Flood Insurance Borrowing Authority	$10.0-$30.0B	N/A

Records Set in 2005 Atlantic Hurricane Season

- **Most tropical storms: 27. Old record: 21 in 1933.**
- **Most hurricanes: 15. Old record: 12 in 1969.**
- **Most Category 5 hurricanes: 3 (Katrina, Rita, Wilma. Emily may be classified as a Category 5 upon re-analysis.) Old record: 2 in 1960 and 1961.**
- **Most hurricane names to be retired: 6 (Dennis, Emily, Katrina, Rita, Stan, Wilma, and possibly others). Previous record: 4 in 1955, 1995, and 2004.**
- **Most major hurricanes to hit the U.S.: 4 (Dennis, Katrina, Rita, Wilma). Previous record: 3 in 1893, 1909, 1933, and 1954.**
- **Most damage ever recorded in a hurricane season: $150 billion. Previous record: approximately $50 billion dollars (normalized to 2005 dollars) set in 1992 and 2004.**
- **Highest Accumulated Cyclone Energy (ACE) index: 245. Previous record: 243 (1950). Average for a season is 93.**
- **Latest end to a hurricane season: January 6 Previous record: January 5, for the 1954-55 hurricane season.**

Source: WeatherUnderground.com, accessed February 4, 2006: http://www.wunderground.com/hurricane/record2005.asp.

Single Storm Records Set During 2005 Atlantic Hurricane Season

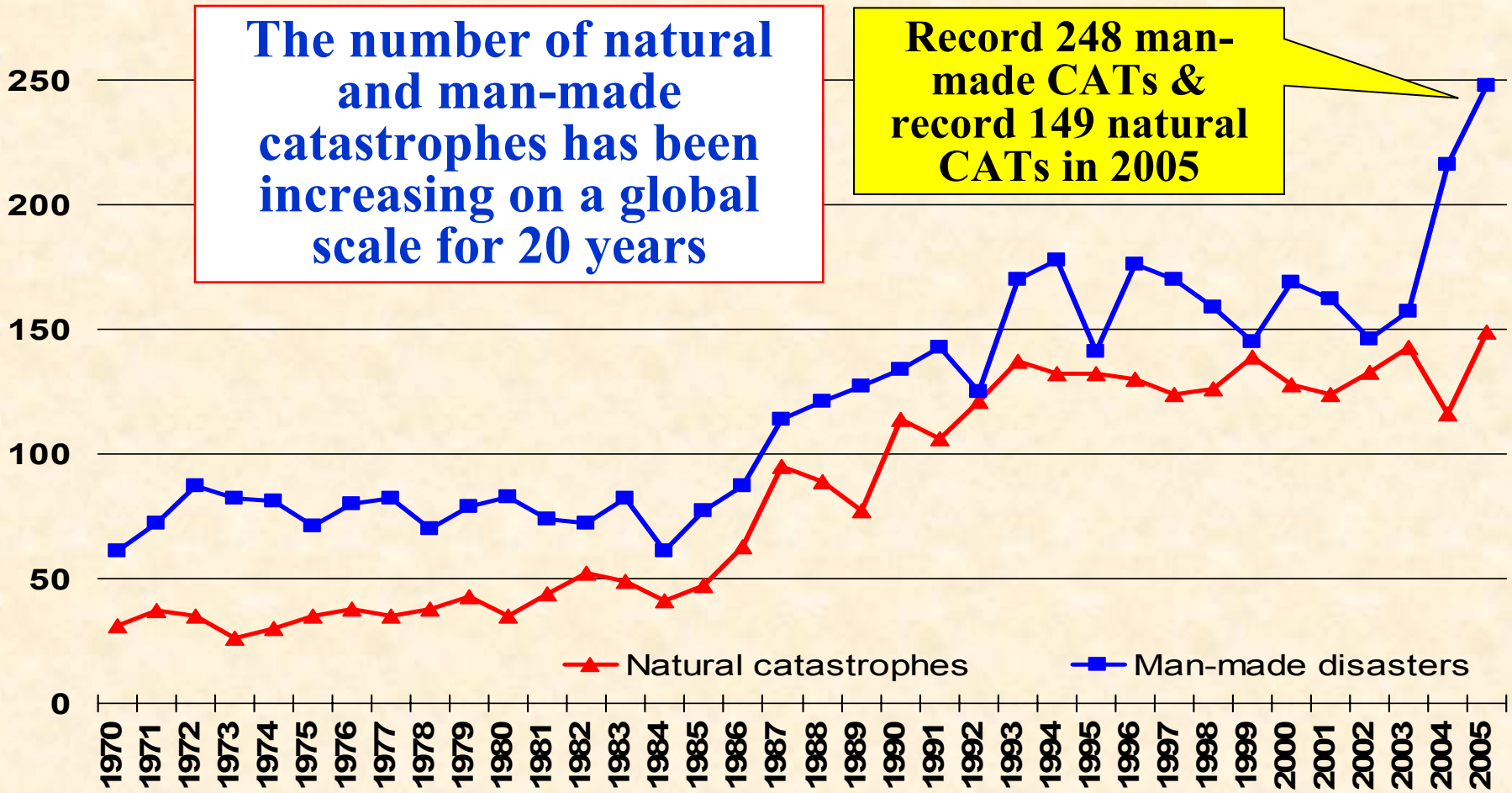
- Strongest Atlantic hurricane ever: Wilma, 882 mb central pressure. Old record: Hurricane Gilbert (1988), 888 mb.
- Fastest intensification ever by an Atlantic hurricane: Wilma. Wilma's pressure dropped 97 millibars in 24 hours Previous record: Gilbert (1988) dropped 72 mb in 24 hours. Wilma's pressure fell 54 mb over six hours, beating Hurricane Beulah's drop of 38 mb in six hours in 1967. Wilma's 12 hour pressure fall of 83 mb beat the old 12 hour pressure fall record of 48 mb set by Hurricane Allen in 1980.
- Most damaging hurricane ever: Katrina, $100 billion plus. Old record: Hurricane Andrew (1992), $50 billion in 2005 dollars.
- Greatest storm surge from an Atlantic hurricane: Katrina, 28-30 feet. Old record: Hurricane Camille (1969), 24.6 feet.
- Dennis became the most intense hurricane on record before August when a central pressure of 930 mb was recorded.
- Emily eclipsed the record previously set by Dennis for lowest pressure recorded for a hurricane before August when its central pressure reached 929 mb.
- Vince was the furthest north and east that a storm has ever developed in the Atlantic basin & was the first tropical cyclone in recorded history to strike the Iberian Peninsula.
- Delta became extratropical shortly before hit the Canary Islands, but was the first tropical cyclone on record to affect the islands.
- Wilma had the smallest eye diameter ever measured in a hurricane, two nautical miles

Source: WeatherUnderground.com, accessed February 4, 2006: http://www.wunderground.com/hurricane/record2005.asp.

CATASTROPHE LOSS MANAGEMENT

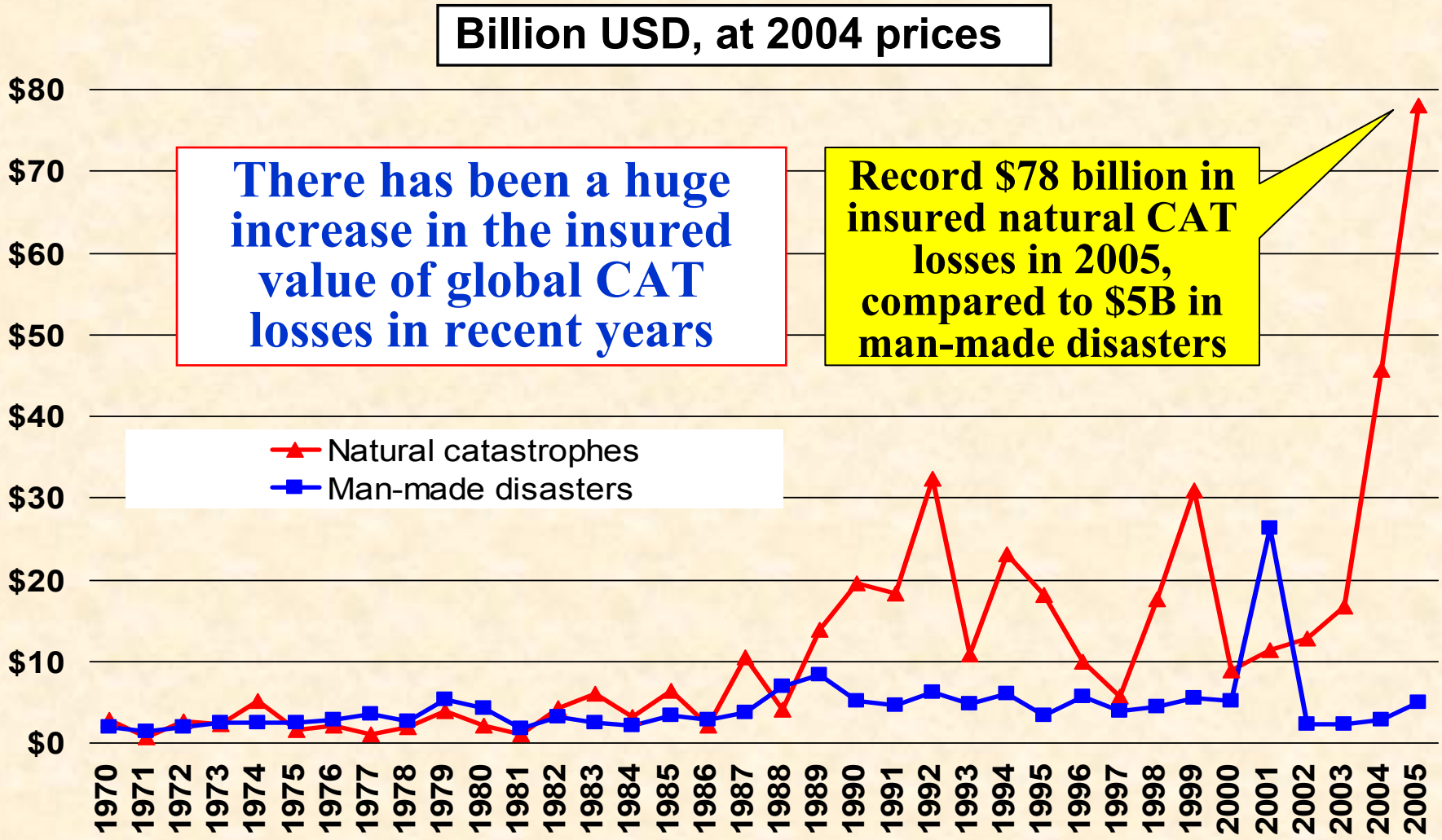
Focus on the Hurricane Season of 2005

Global Number of Catastrophic Events, 1970–2005



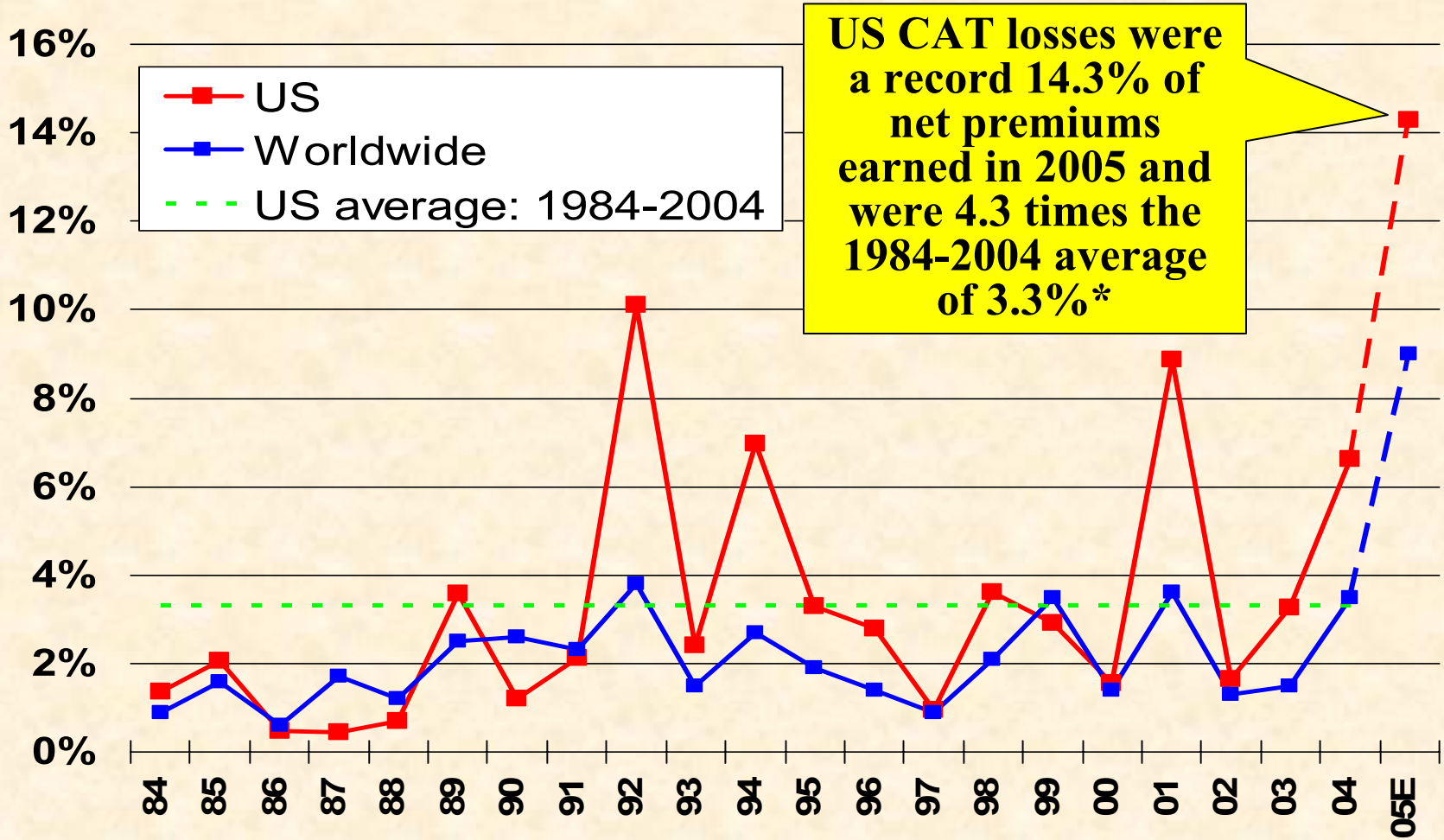
Man-made disasters: without road disasters. Source: Swiss Re, *sigma* No. 1/2005 and 2/2006.

Global Insured CAT Losses, 1970–2005 (Property and Business Interruption)



Source: Swiss Re, *sigma* No. 1/2005 & 2/2006.

Insured Property Catastrophe Losses as % Net Premiums Earned, 1983–2005E



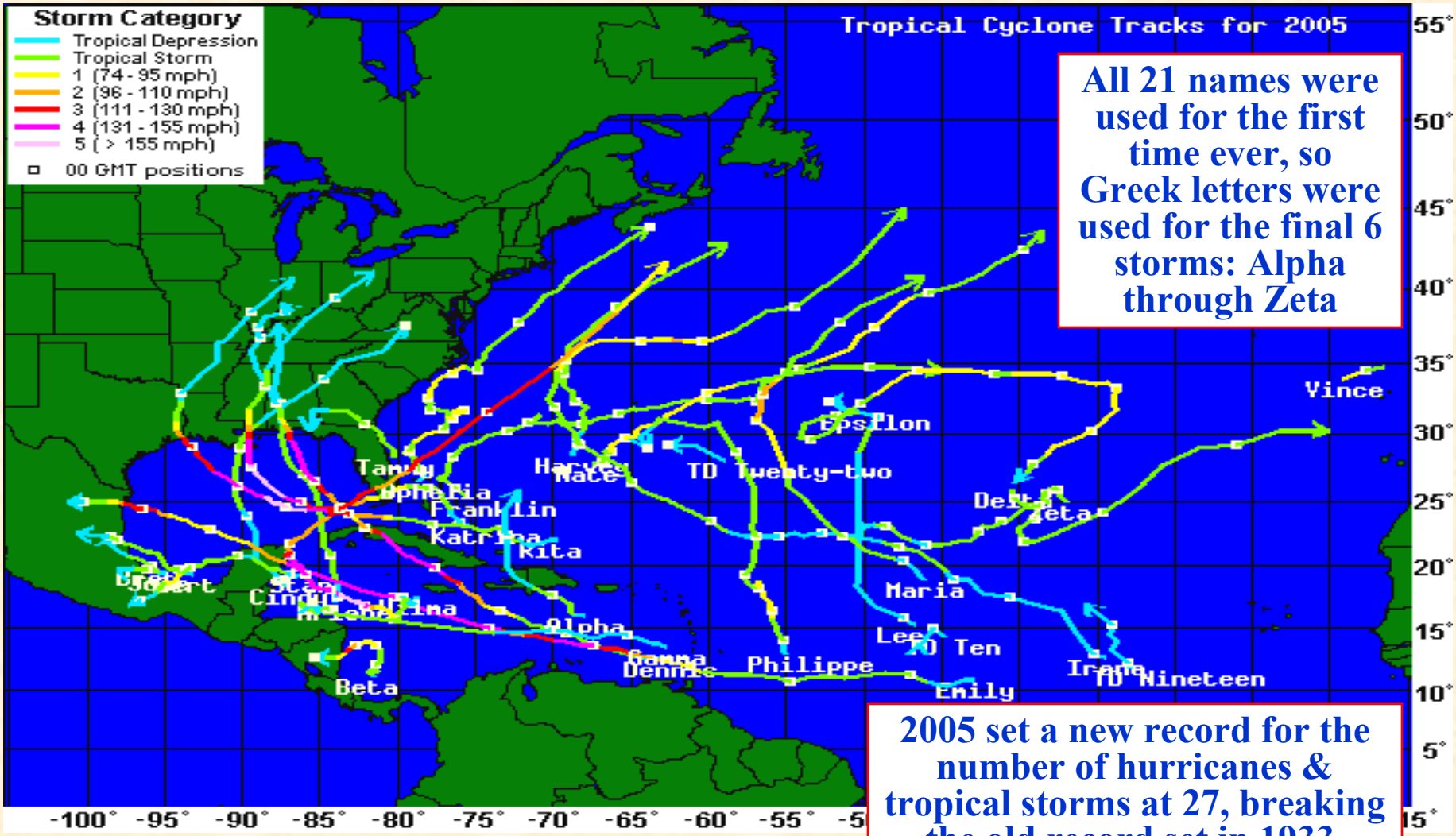
*Insurance Information Institute estimate of 14.3% for 2005 based estimated 2005 DPE of $418.8B and estimated insured CAT losses of $60B.

Sources: ISO, A.M. Best, Swiss Re Economic Research & Consulting; Insurance Information Institute.

U.S. Insured Catastrophe Losses ($ Billions)

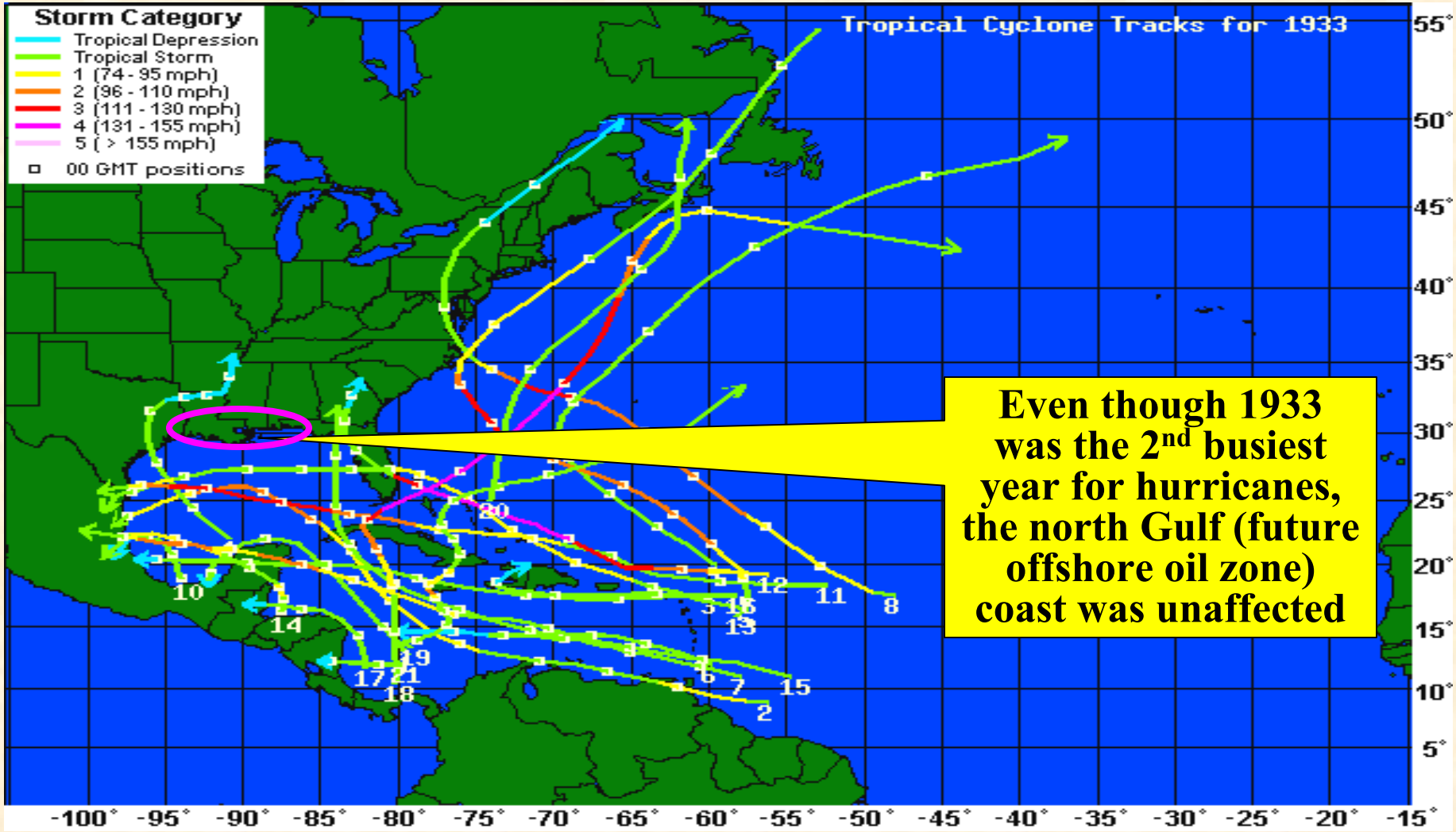
Excludes $4B-$6b offshore energy losses from Hurricanes Katrina & Rita.
Note: 2001 figure includes $20.3B for 9/11 losses reported through 12/31/01. Includes only business and personal property claims, business interruption and auto claims. Non-prop/BI losses = $12.2B.
Source: Property Claims Service/ISO; Insurance Information Institute

2005 Was a Busy, Destructive, Deadly & Expensive Hurricane Season



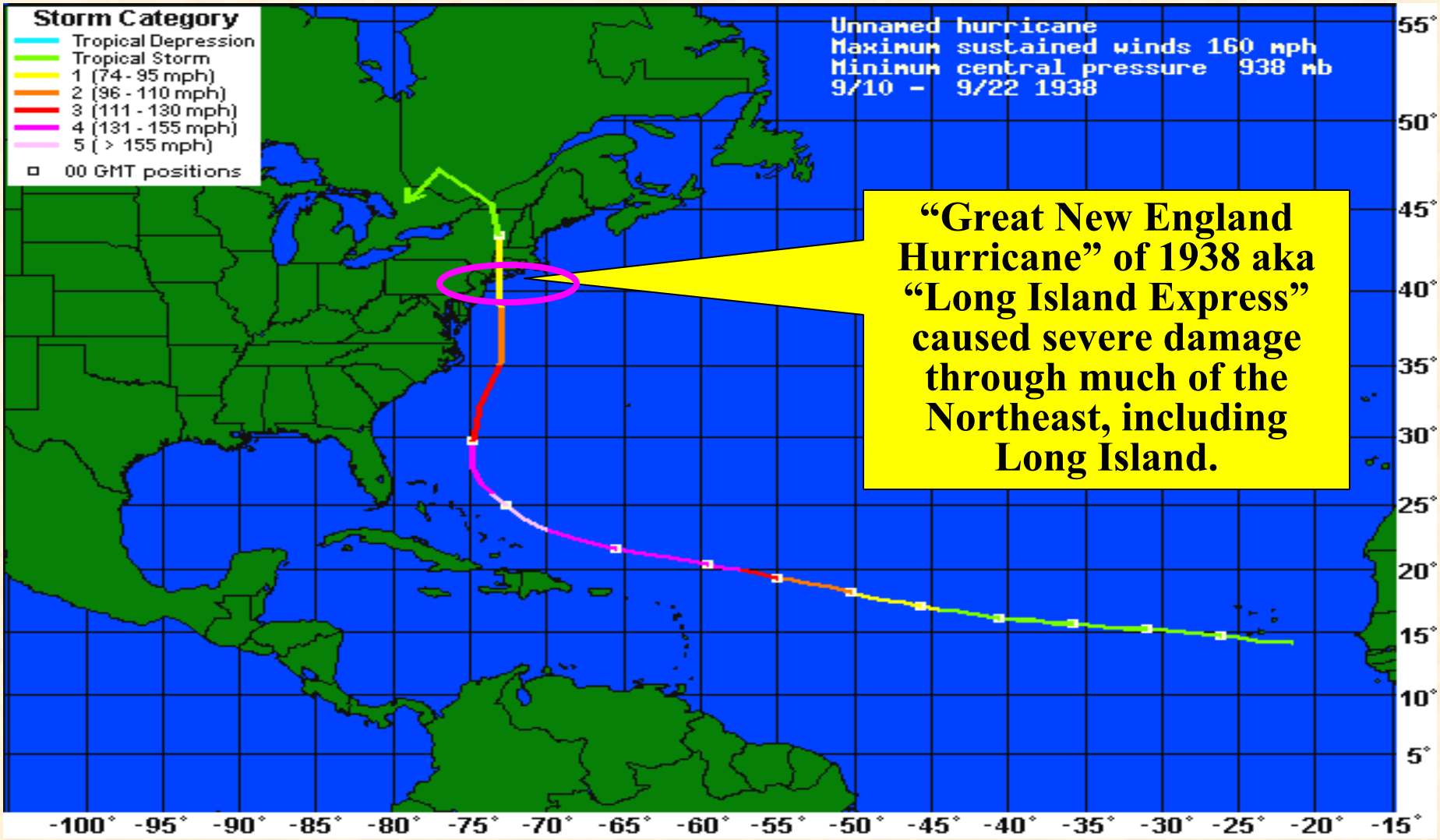
Source: WeatherUnderground.com, January 18, 2006.

Tropical Cyclone Activity in 1933 Held the Record Before 2005



Source: WeatherUnderground.com, accessed November 2, 2005.

Long Island Express of 1938



Source: WeatherUnderground.com, accessed February 4, 2006.

Damage Caused by "Long Island Express" Hurricane of 1938

- 700 deaths, 708 injured
- 4,500 homes, cottages, farms destroyed; 15,000 damaged
- 26,000 destroyed automobiles
- 20,000 miles of electrical power and telephone lines downed
- 1,700 livestock and up to 750,000 chickens killed
- $2,610,000 worth of fishing boats, equipment, docks, and shore plants damaged or destroyed
- Half the entire apple crop destroyed at a cost of $2 million

Source SUNY Suffolk: http://www2.sunysuffolk.edu/mandias/38hurricane/damage_caused.html

Number of Major (Category 3, 4, 5) Hurricanes Striking the US by Decade

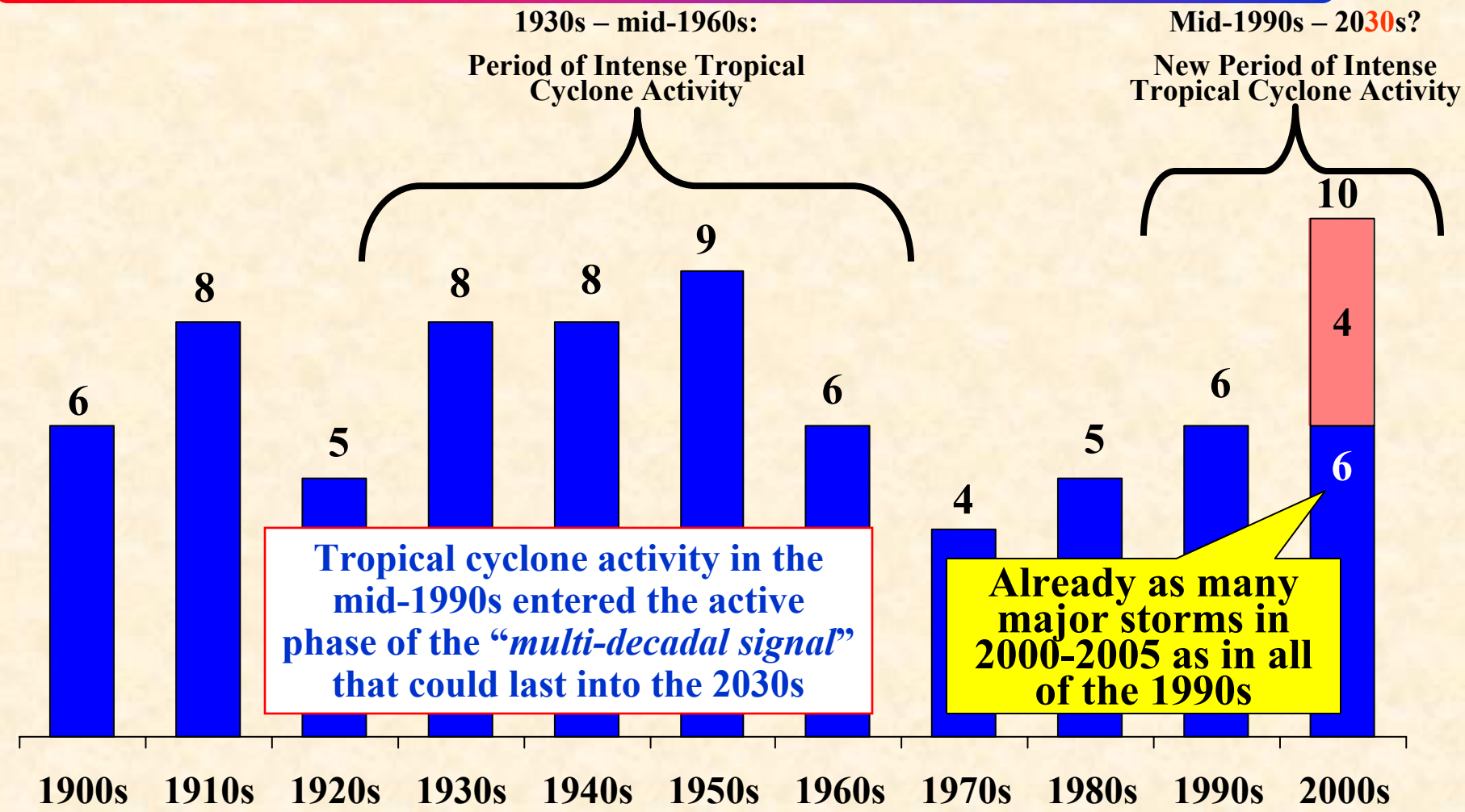


*Figure for 2000s is extrapolated based on data for 2000-2005 (6 major storms: Charley, Ivan, Jeanne (2004) & Katrina, Rita, Wilma (2005)).

Source: Tillinghast from National Hurricane Center: http://www.nhc.noaa.gov/pastint.shtm.

Breakdown of RMS $40-$60 Billion Katrina Loss Estimate

Type of Loss	Low	High
Windstorm & Surge	$20	$25
Flood, private (not incl. NFIP)*	$15	$25
Off Shore Energy, Marine	$2	$5
Misc., Possible Pollution	$2	$3
1st Landfall (FL)	$1	$2
TOTAL	**$40**	**$60**

***Primarily commercial flood and associated business interruption losses.**
Sources: RMS; Adapted from *Responding to Katrina*, Lane Financial LLC, Sept. 16, 2005.

Breakdown of Tillinghast $40-$55 Billion Katrina Loss Estimate

Type of Loss	Low	High
Personal Property Lines		
Residential Property	$14.0	$17.0
Personal Auto	$1.0	$2.0
Personal Watercraft	$0.2	$0.3
Total	**$15.2**	**$19.3**
Commercial Property Lines		
Commercial Property (excl. Off-Shore)	$13.5	$16.0
Business Interruption (excl. marine & energy)	$6.0	$9.0
Commercial Auto	$0.2	$0.3
Sub-Total Personal & Commercial	**$19.7**	**$25.3**
Marine & Energy	$4.0	$6.0
Liability	$1.0	$3.0
Other	$0.0	$1.0
Total All Lines	**$39.9**	**$54.6**

Comparison of Hurricanes Andrew & Katrina

Statistic	Andrew	Katrina
Duration as TS/Hurricane	Aug. 17-28, 1992	Aug. 24-31, 2005
Area Affected	South FL, LA	South FL, LA, MS, AL, TN, FL Panhandle
Saffir-Simpson Category at Major Landfall	5	4
Windspeed at Major Landfall	165mph sustained	145mph sustained
Width of Hurricane-Force Winds at Major Landfall	Approx. 120 miles	Approx. 250 miles
Central Pressure at Landfall	922 mbar (hPa)	918 mbar (hPa)
Storm Surge at Major Landfall	17 feet	15-29 feet
Fatalities	65 (26 direct, 39 indirect)	1,193 (as of Oct. 4) (972 in LA, 221 in MS)

Sources: ***Hurricane Katrina: Analysis of the Impact on the Insurance Industry,*** **Tillinghast, October 2005; Insurance Information Institute.**

*Top 50 Insurer & Reinsurer Losses from Hurricane Season of 2005 ($000)**

(As of January 16, 2006)

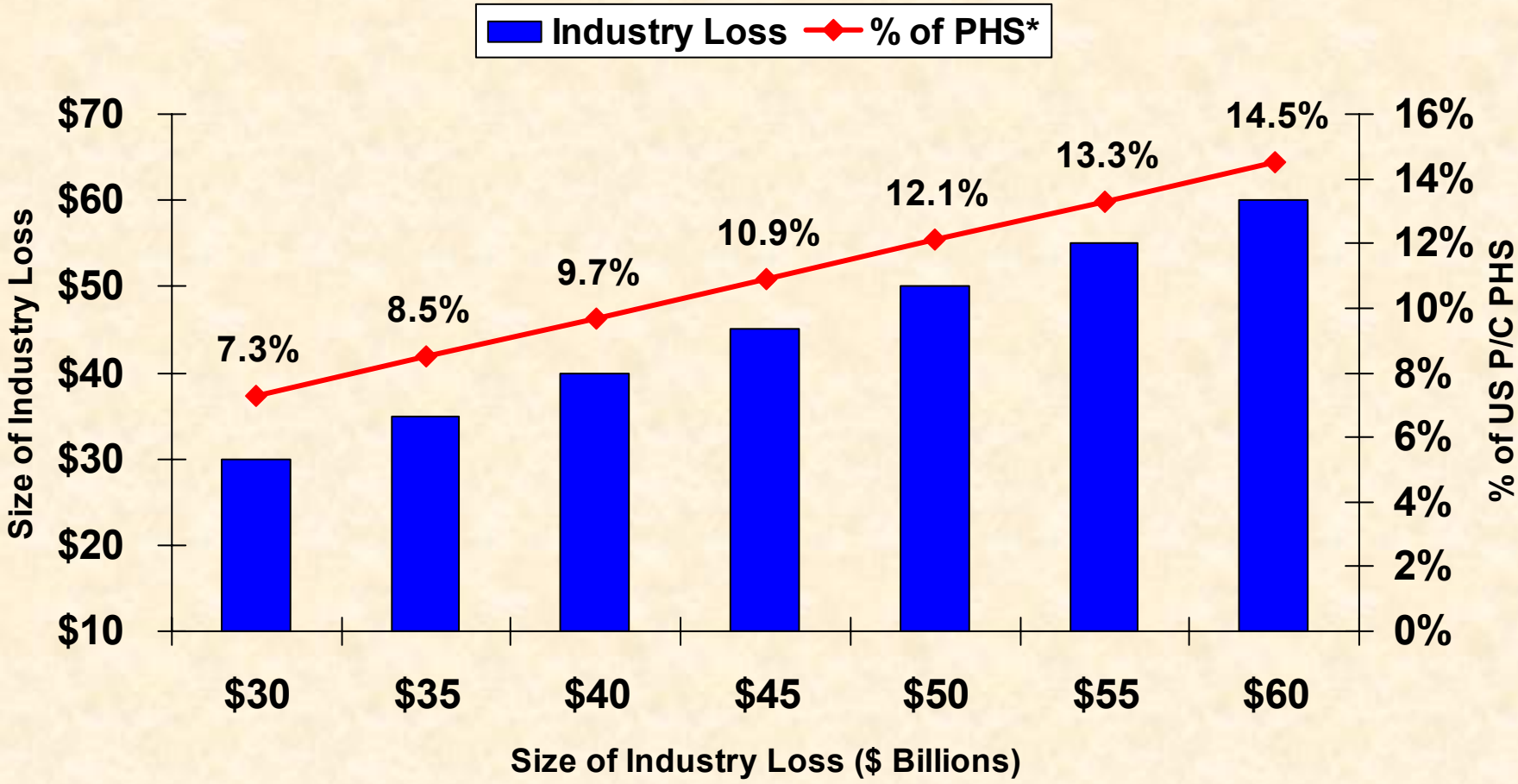
As of January 16, at least 108 companies had announced losses totaling about $41.3 billion, about 69% of an industry loss estimate of $60 billion

*Figures are generally after-tax and net of reinsurance with some exceptions

Note: If company gave range of estimates, upper end is used.

Sources: National Underwriter Insurance Data Services; Insurance Information Institute

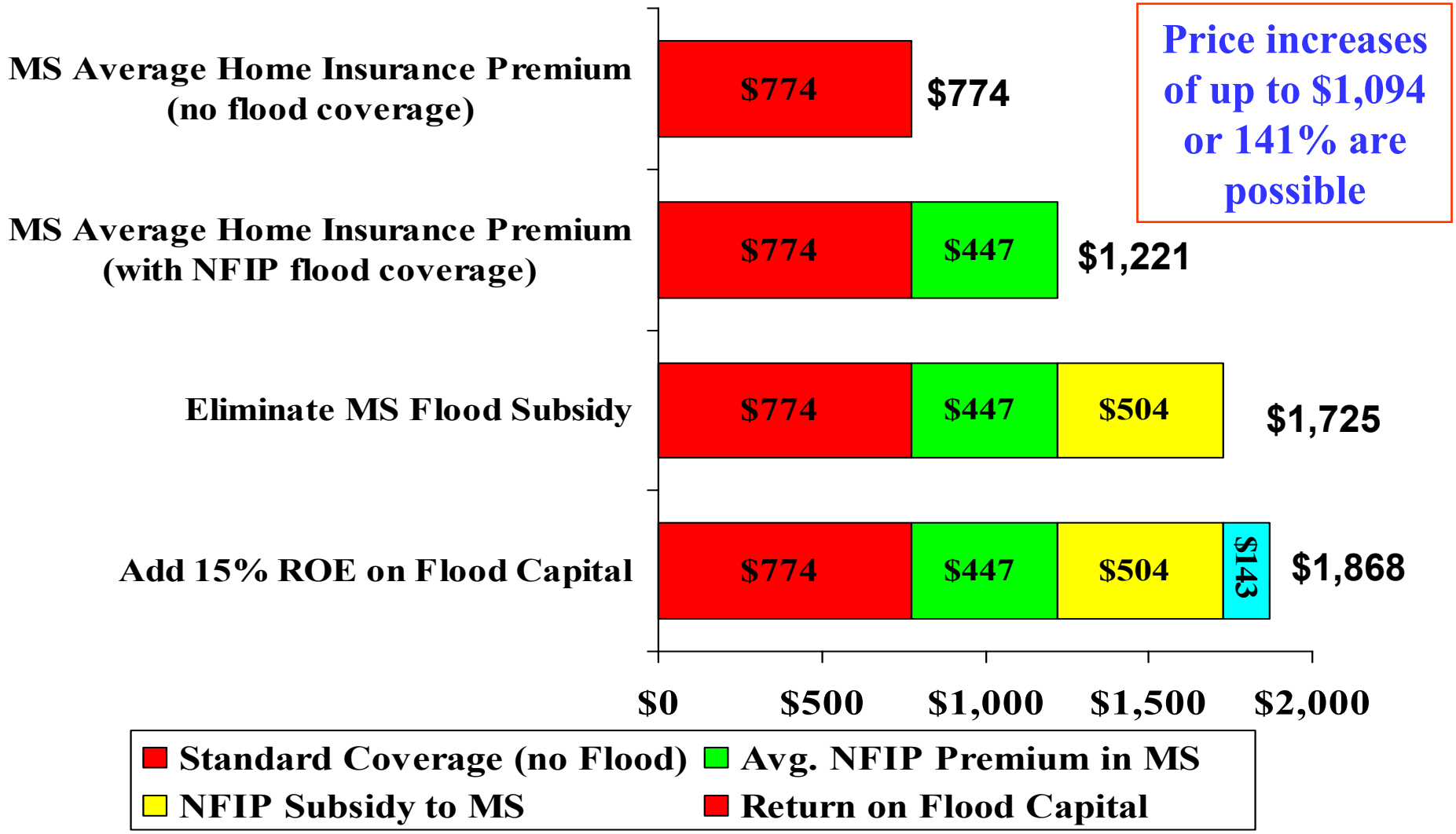
*Insured Loss Estimates as a % US Policyholder Surplus**



*Policyholder surplus as of 6/30/05 of $412.5 billion (ISO).

Source: Insurance Information Institute.

Price Impact of Including Flood Coverage in Standard Homeowners Insurance Policies

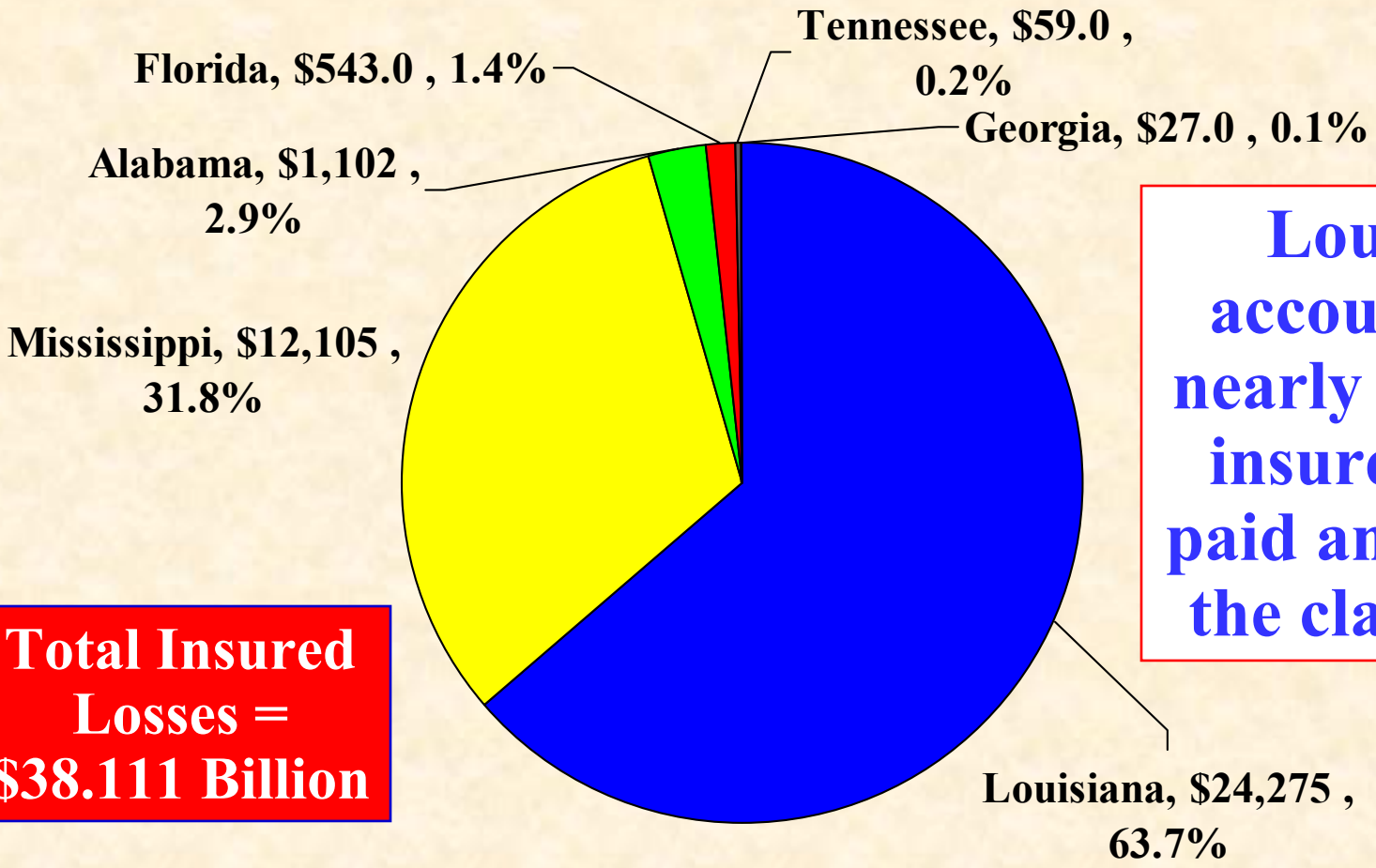


Source: Insurance Information Institute from NAIC, FEMA/NFIP data.

Hurricanes Katrina, Rita & Wilma:

Loss Distributions

*Hurricane Katrina Insured Loss Distribution by State ($ Millions)**

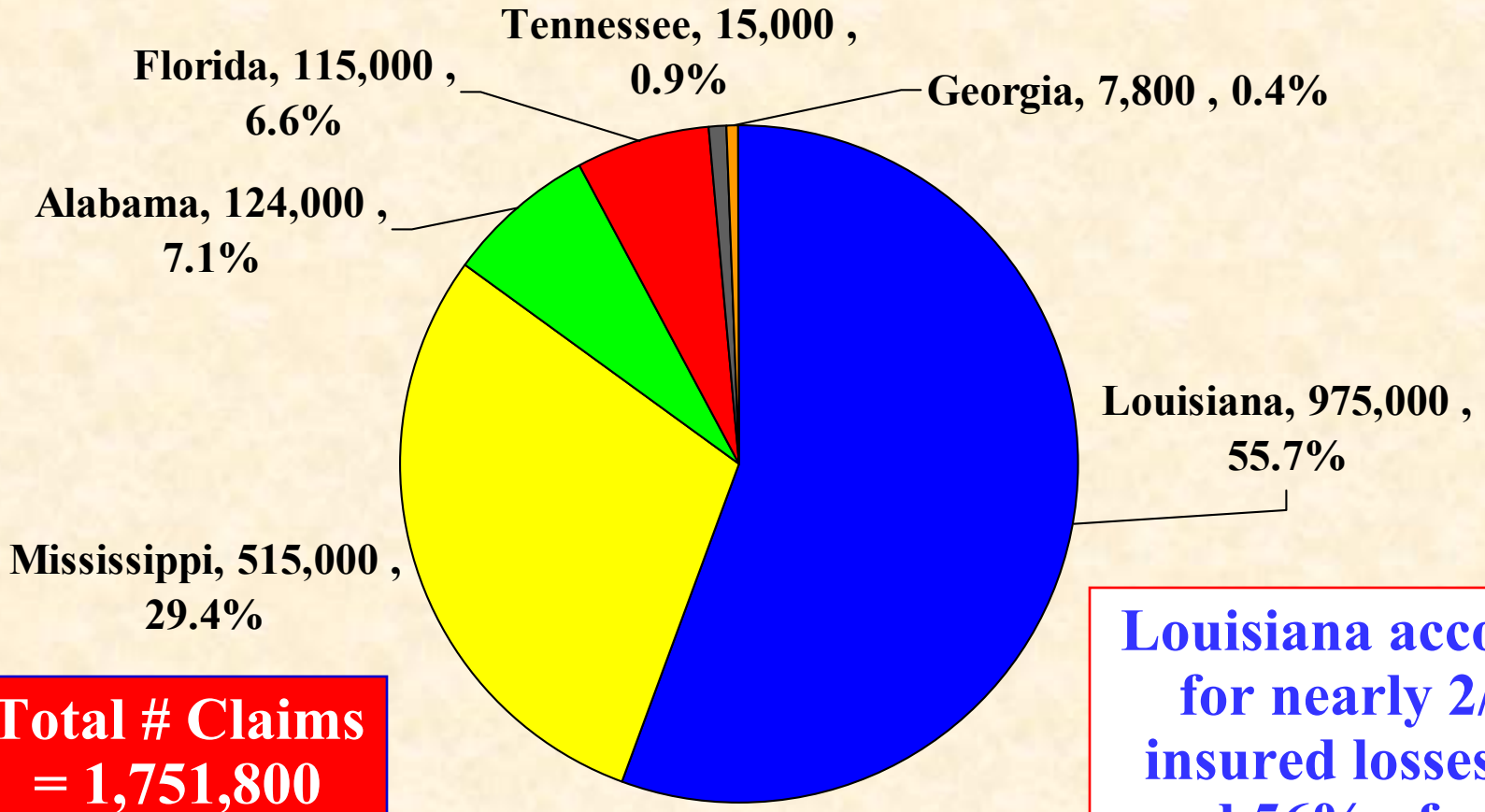


Louisiana accounted for nearly 2/3 of the insured losses paid and 56% of the claims filed

Total Insured Losses = $38.111 Billion

*As of February 8, 2006
Source: PCS division of ISO.

*Hurricane Katrina Claim Count Distribution by State**

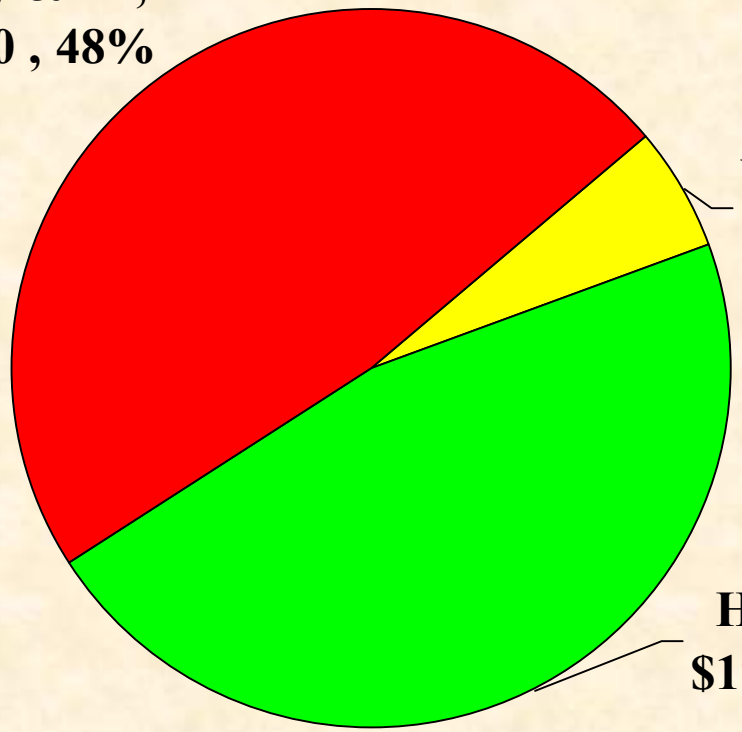


Total # Claims = 1,751,800

Louisiana accounted for nearly 2/3 of insured losses paid and 56% of claims filed

*As of February 8, 2006
Source: PCS division of ISO.

*Hurricane Katrina Loss Distribution by Line ($ Billions)**



Total insured losses are estimated at $38.1 billion from 1.7518 million claims. Excludes $2-$3B in offshore energy losses

*As of February 8, 2006
Source: PCS division of ISO.

*Hurricane Katrina Insured Loss and Claim Distribution by State**

State		Losses ($Mill)	# Claims	% Losses	% Claims
LA	$	24,275.0	975,000	63.7%	55.7%
MS	$	12,105.0	515,000	31.8%	29.4%
AL	$	1,102.0	124,000	2.9%	7.1%
FL	$	543.0	115,000	1.4%	6.6%
TN	$	59.0	15,000	0.2%	0.9%
GA	$	27.0	7,800	0.1%	0.4%
Totals	**$**	**38,111.0**	**1,751,800**	**100.0%**	**100.0%**

***As of February 8, 2006.**
Source: PCS division of ISO.

*Hurricane Rita Insured Loss and Claim Distribution by State**

State		Losses ($Mill)	# Claims	% Losses	% Claims
LA	$	2,912.5	185,000	58.5%	48.6%
TX	$	1,970.0	169,000	39.6%	44.4%
MS	$	34.0	7,000	0.7%	1.8%
FL	$	23.0	6,000	0.5%	1.6%
AR	$	13.7	5,500	0.3%	1.4%
AL	$	13.0	5,000	0.3%	1.3%
TN	$	10.0	3,500	0.2%	0.9%
Totals	**$**	**4,976.2**	**381,000**	**100.0%**	**100.0%**

***As of February 8, 2006.**
Source: PCS division of ISO.

Breakdown of Tillinghast $40-$55 Billion Katrina Loss Estimate

Type of Loss	Low	High
Personal Property Lines		
Residential Property	$14.0	$17.0
Personal Auto	$1.0	$2.0
Personal Watercraft	$0.2	$0.3
Total	**$15.2**	**$19.3**
Commercial Property Lines		
Commercial Property (excl. Off-Shore)	$13.5	$16.0
Business Interruption (excl. marine & energy)	$6.0	$9.0
Commercial Auto	$0.2	$0.3
Sub-Total Personal & Commercial	**$19.7**	**$25.3**
Marine & Energy	$4.0	$6.0
Liability	$1.0	$3.0
Other	$0.0	$1.0
Total All Lines	**$39.9**	**$54.6**

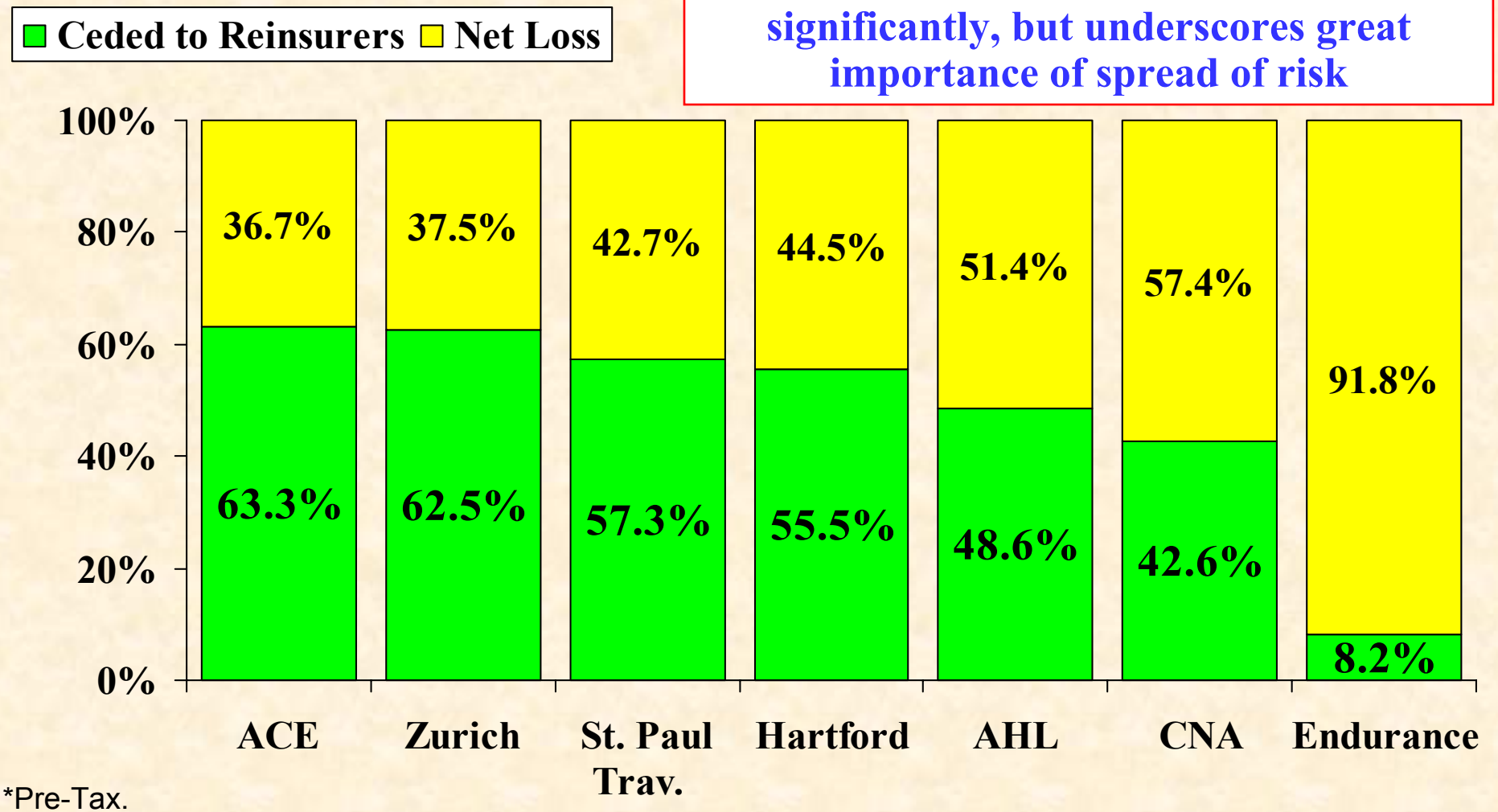
Distribution of Katrina Losses by Market ($Billions)

Market	Percentage	Amount
Insurers	47% - 53%	$18.8 - $28.9
Reinsurers	52% - 44%	$20.7 - $24.0
Capital Markets	1% - 3%	$0.4 - $1.6
TOTAL	**100%**	**$39.9 - $54.6**

Source: ***Hurricane Katrina: Analysis of the Impact on the Insurance Industry,*** **Tillinghast, October 2005.**

Percentage of Katrina Losses Ceded to Reinsurers for Select Insurers*

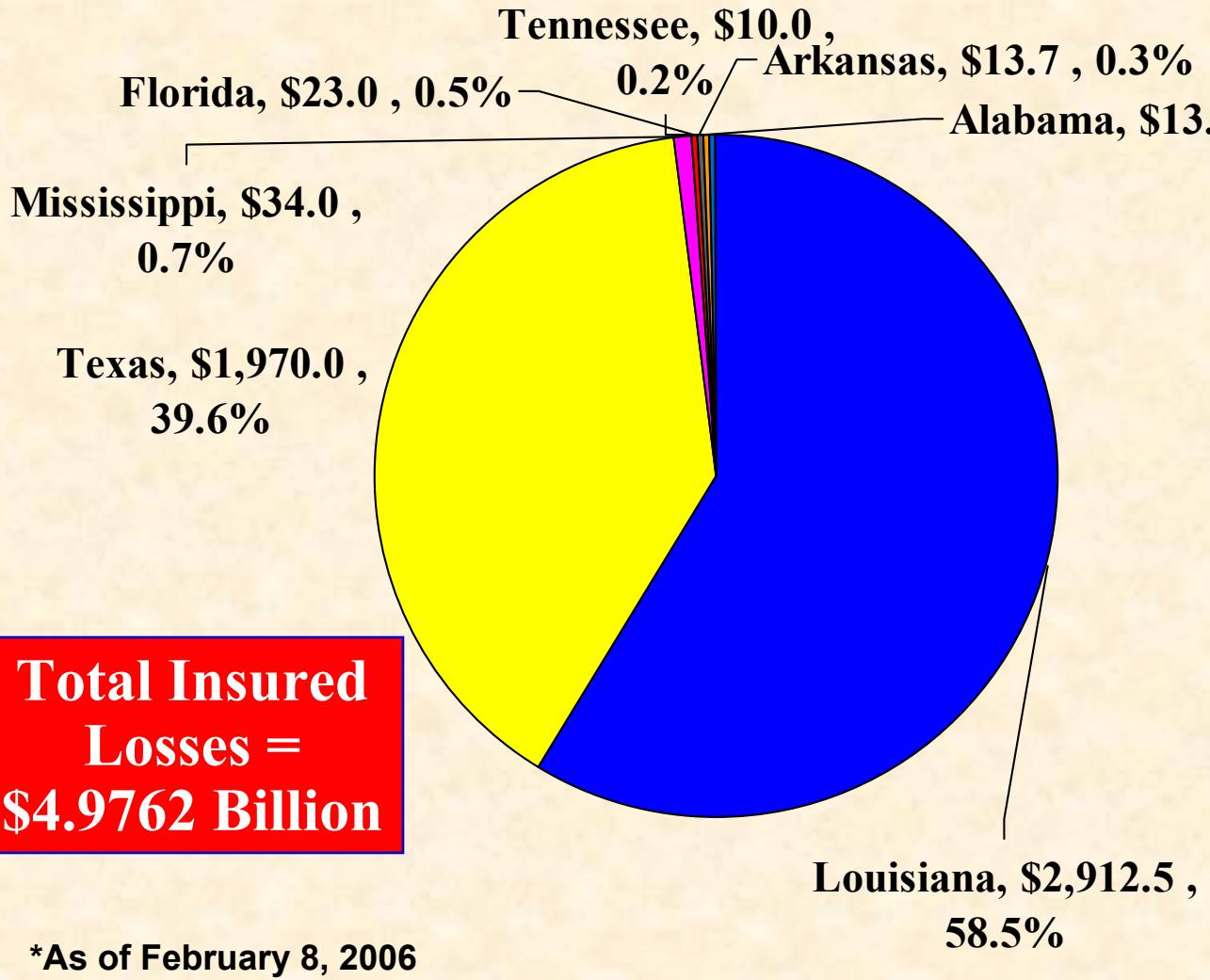
Share of loss ceded to reinsurers varies significantly, but underscores great importance of spread of risk



*Pre-Tax.

Source: Morgan Stanley from Company Reports as of October 13, 2005

*Hurricane Rita Insured Loss Distribution by State ($ Millions)**



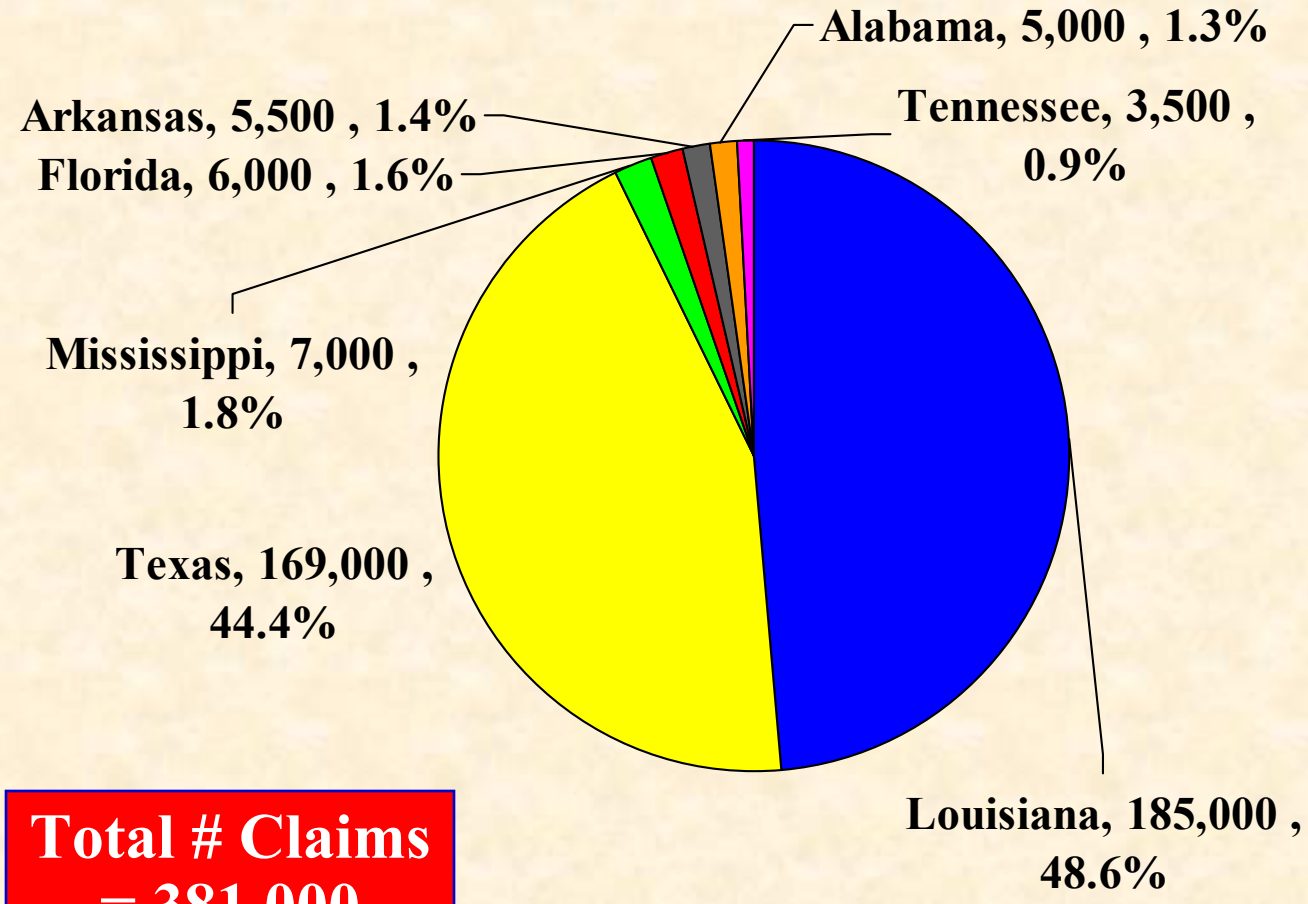
Total Insured Losses = $4.9762 Billion

Louisiana accounted for 59% of the insured losses, Texas 40%. Total claims = 381,000.

Excludes offshore energy losses of $2-3B

*As of February 8, 2006
Source: PCS division of ISO.

*Hurricane Rita Claim Count Distribution by State**



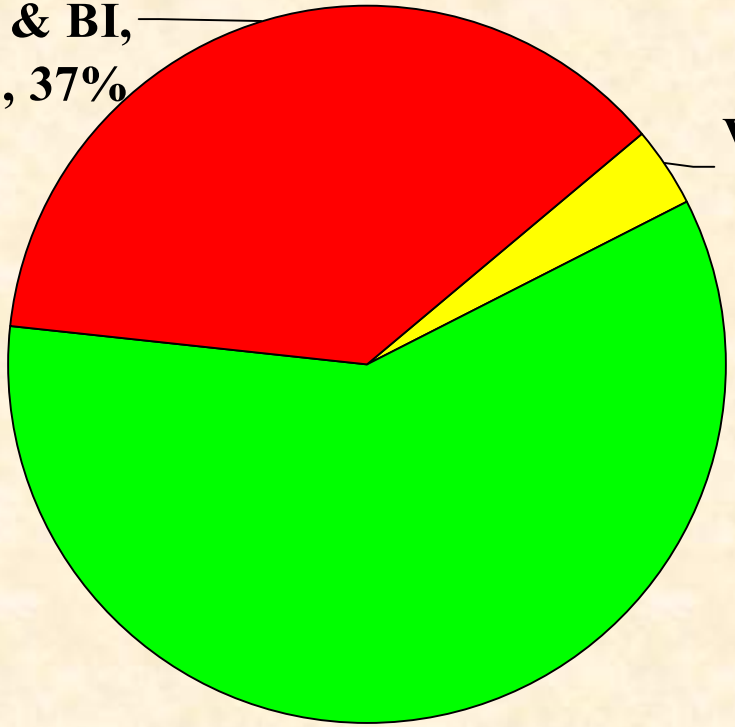
Louisiana accounted for 48.6% of the insured losses, Texas 44.4%.

Excludes offshore energy losses of $2-3B

Total # Claims = 381,000

*As of February 8, 2006
Source: PCS division of ISO.

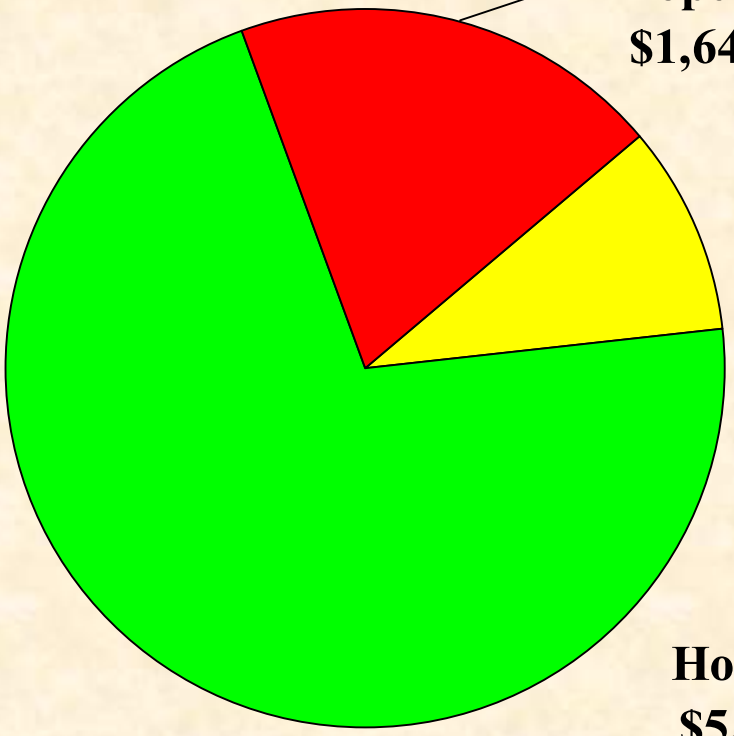
*Hurricane Rita Loss Distribution, by Line ($ Millions)**



Total insured losses are estimated at $5.0 billion (excl. offshore energy of $2-$3B) from 381,000 claims.

*As of February 8, 2006
Source: PCS division of ISO.

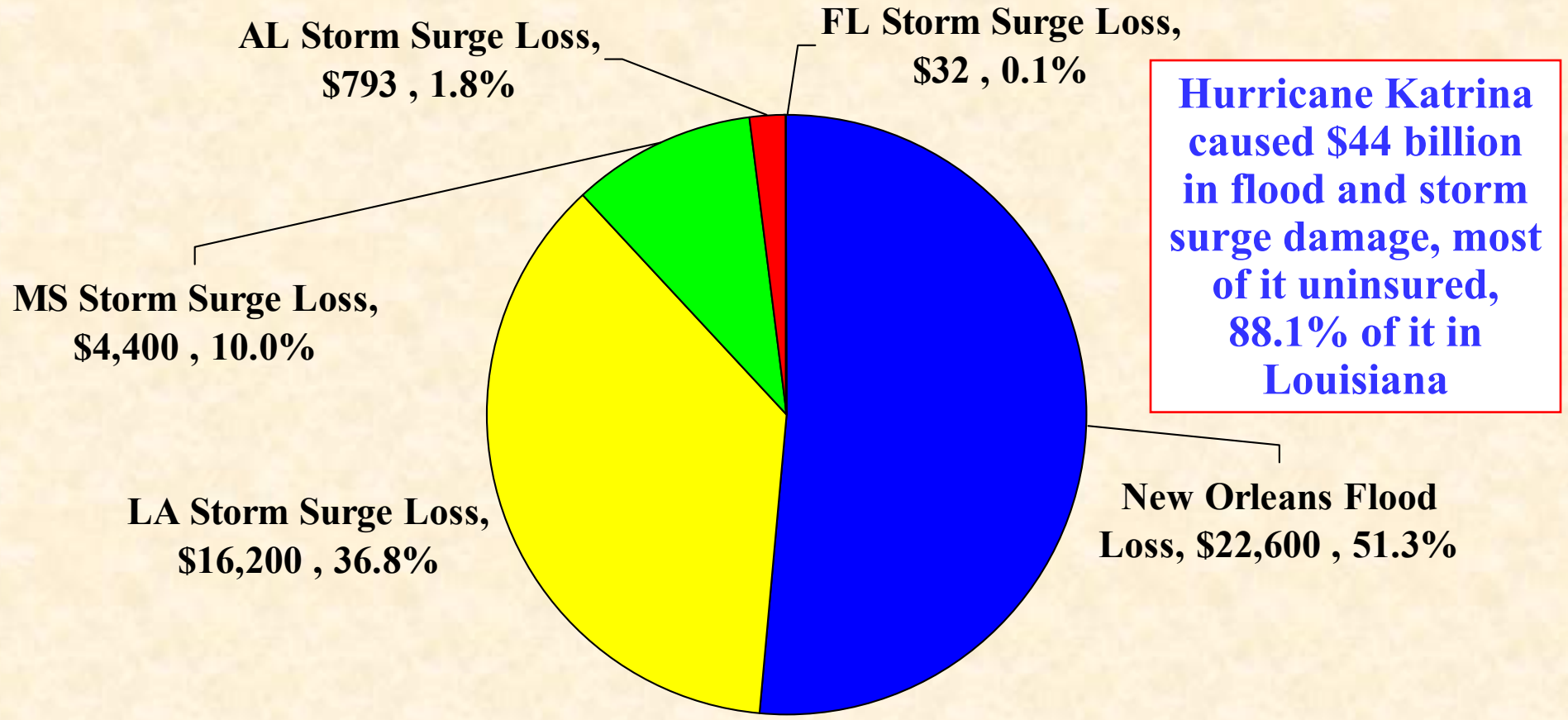
*Hurricane Wilma Loss Distribution by Line ($ Millions)**



Total insured losses are estimated at $8.4 billion from 955,000 claims

*As of February 8, 2006
Source: PCS division of ISO.

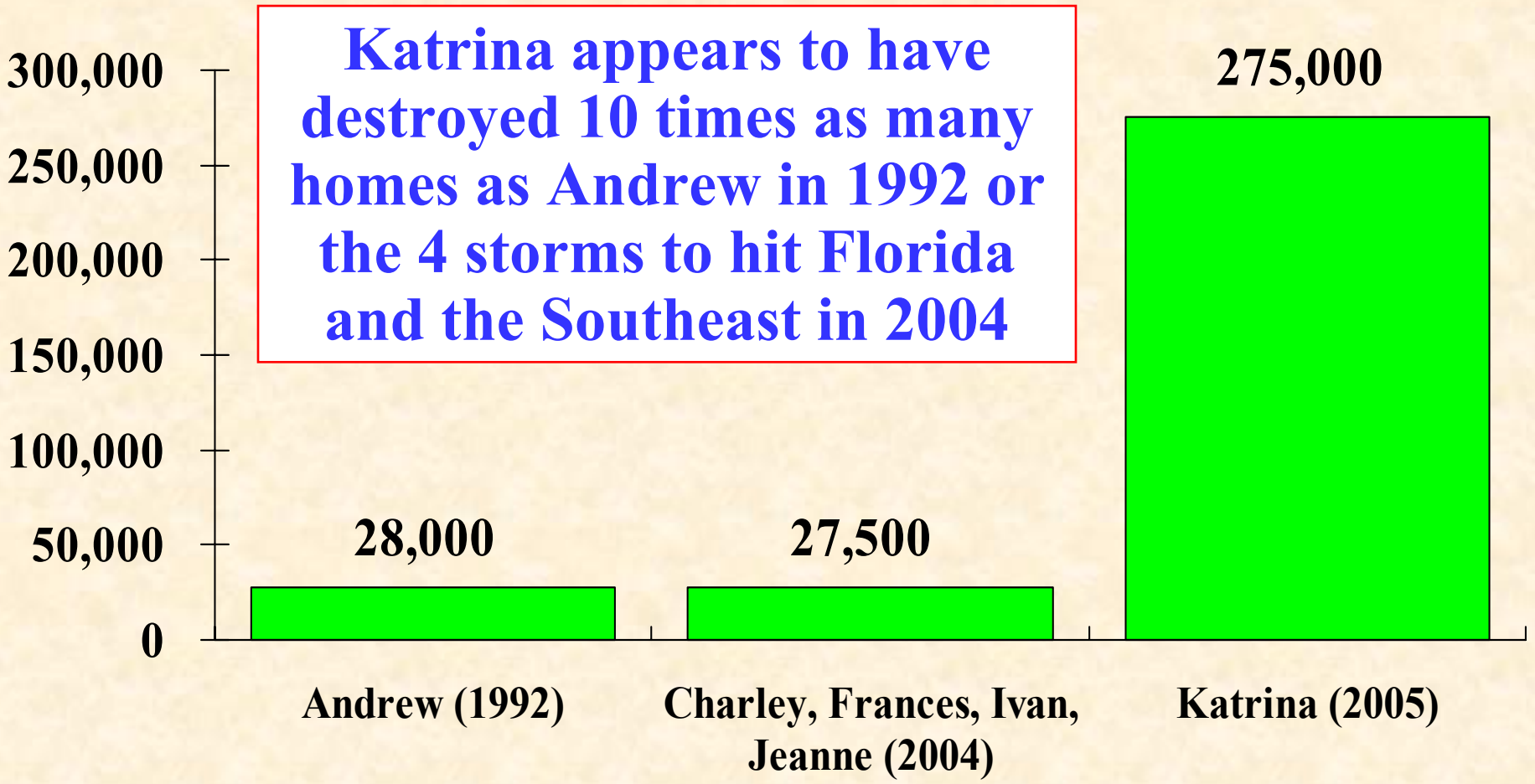
*Property Damage from Hurricane Katrina Flood & Storm Surge ($ Millions)**



Hurricane Katrina caused $44 billion in flood and storm surge damage, most of it uninsured, 88.1% of it in Louisiana

*Value of property damage by flood and storm surge *whether or not insured.*
Source: AIR Worldwide, September 29, 2005.

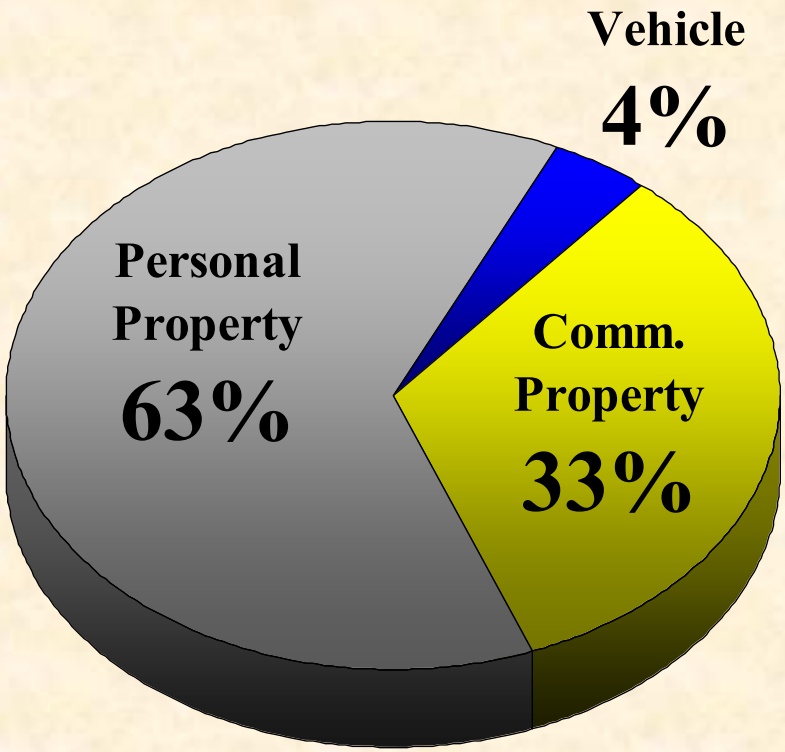
*Number of Homes Destroyed by Major Hurricanes**



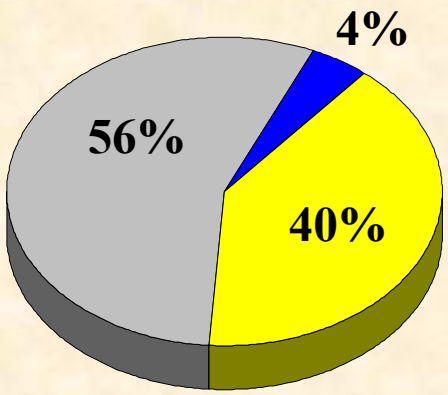
*Destruction is defined as a structure made uninhabitable or damaged beyond economic repair.
Source: National Association of Home Builders, National Red Cross (as of 9/15/05).

*Personal Property Losses Accounted for Largest Share Damage from 2004 Hurricanes**

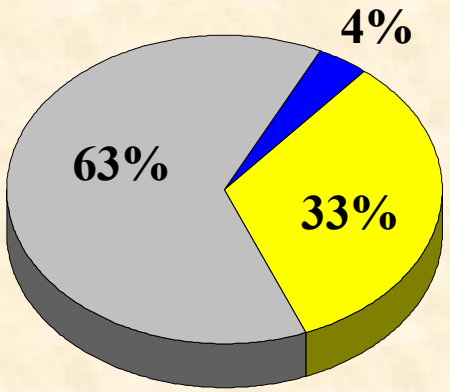
TOTAL



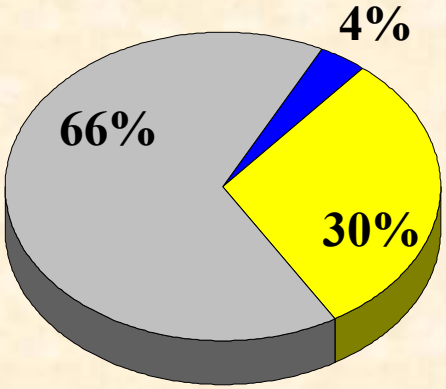
Charley



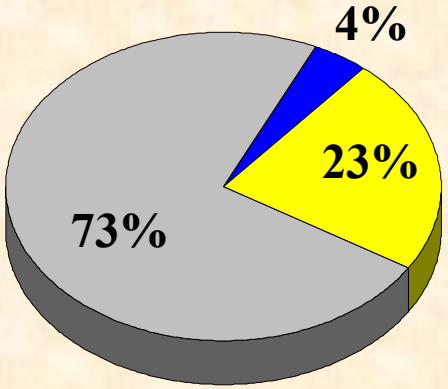
Ivan



Frances



Jeanne

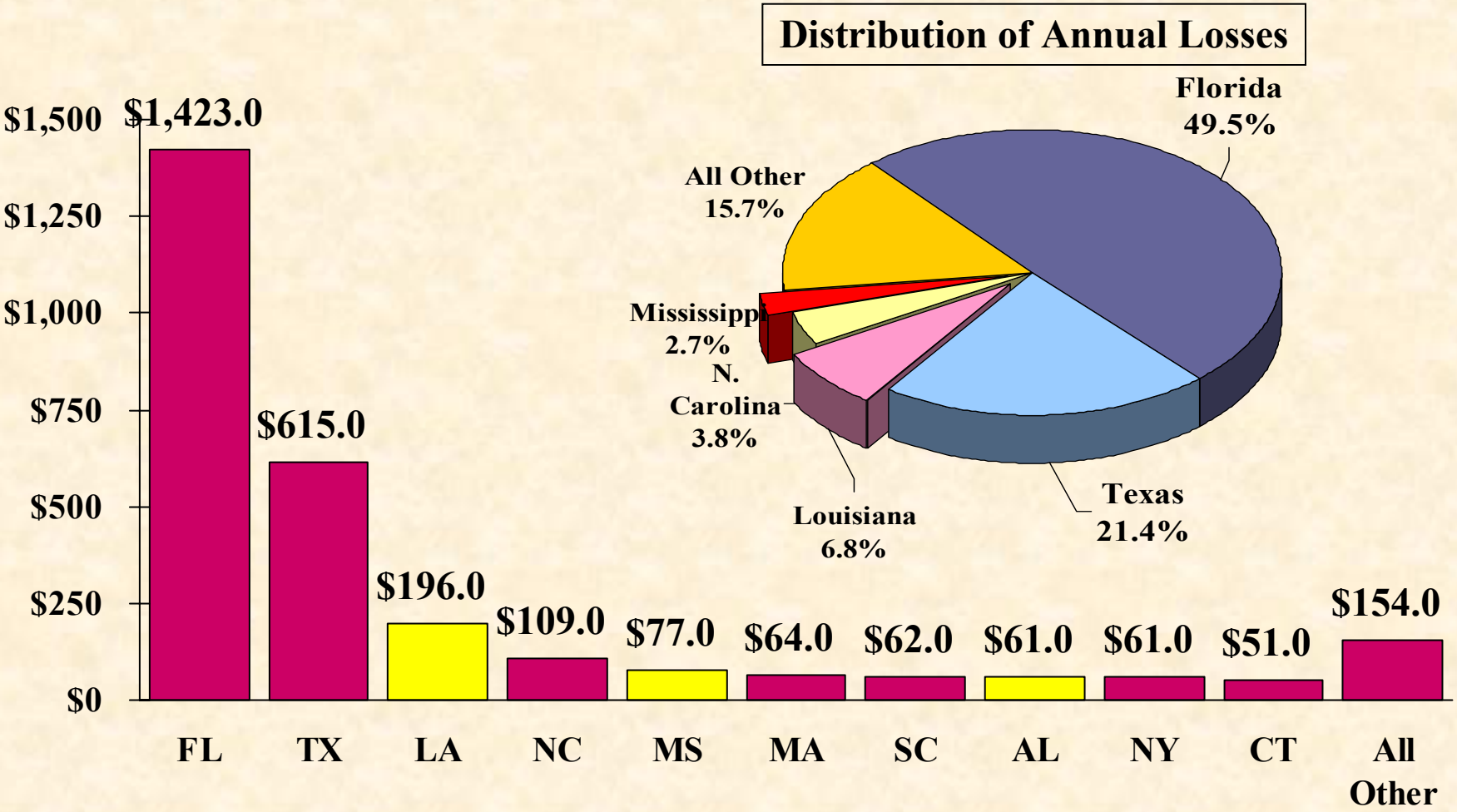


Source: ISO/PCS; Insurance Information Institute.

*Breakdowns based on FL losses, which accounted for 85% of losses for all affected states.

Average Annual Tropical Cyclone Insured Losses*

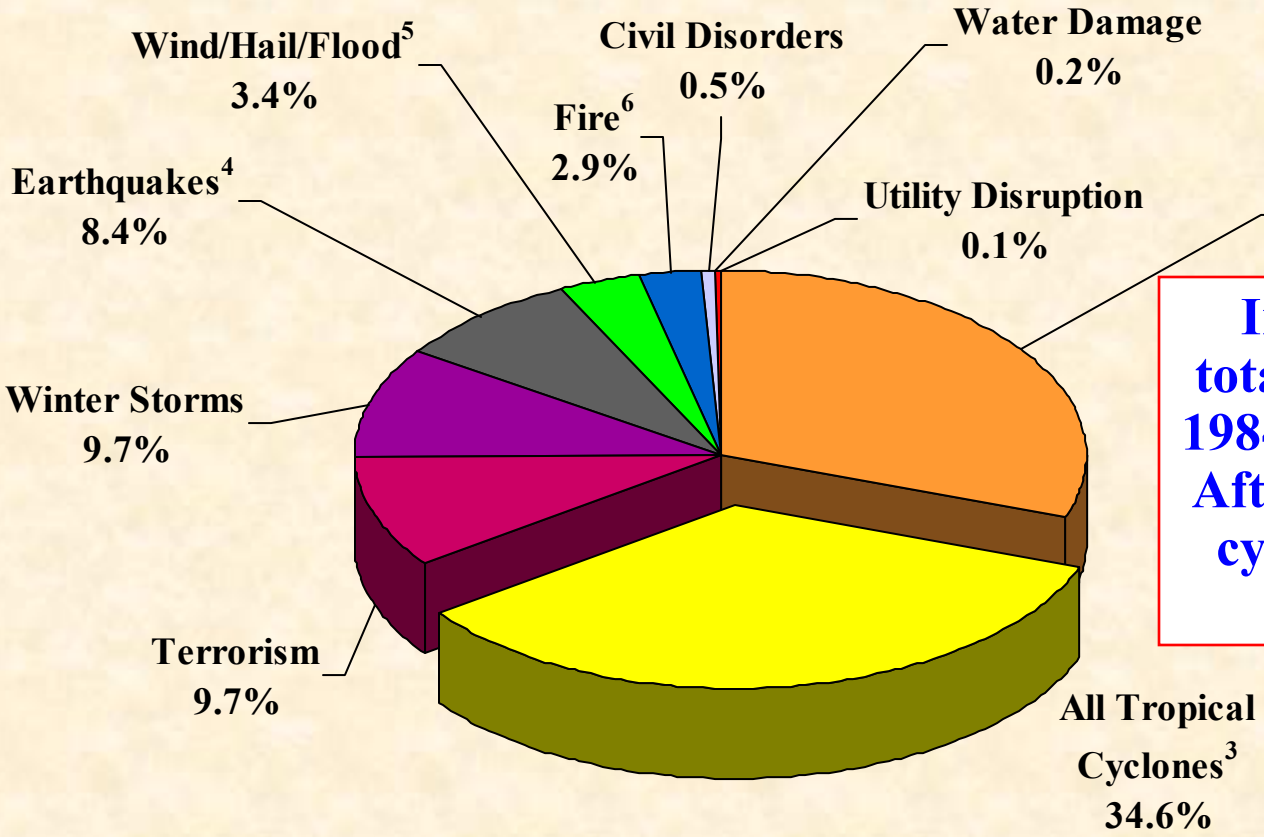
(Top 10 States, $ Millions)



*Normalized losses adjusted for inflation, housing density, wealth and wind insurance coverage, based on historical data for 100-year period 1900-1999.

Source: Tillinghast-Towers Perrin

Inflation-Adjusted U.S. Insured Catastrophe Losses By Cause of Loss, 1985-2004[1]

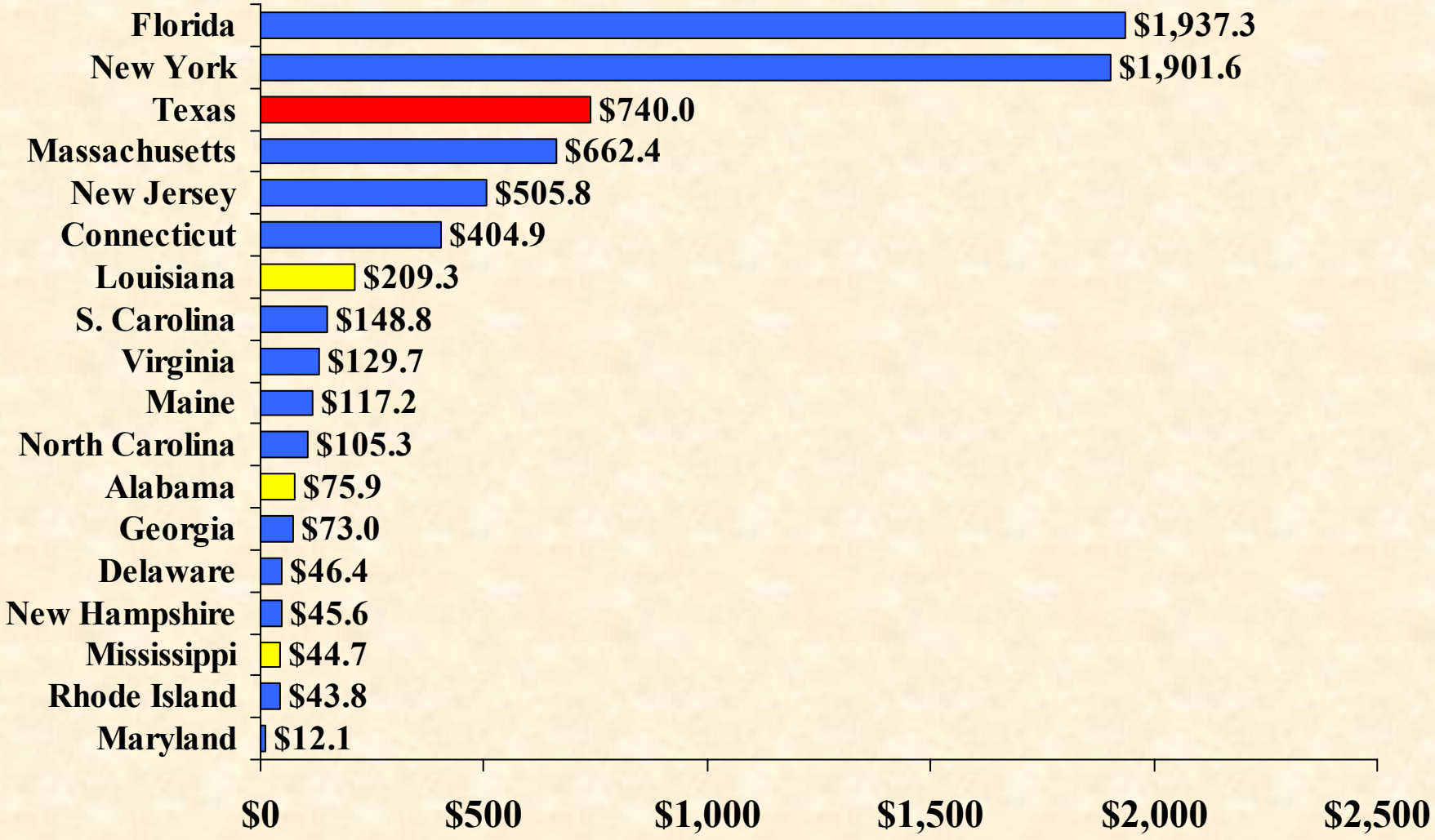


Insured disaster losses totaled $221.3 billion from 1984-2004 (in 2004 dollars). After 2005 season, tropical cyclones will account for 50%+ of the total.

[1] Catastrophes are all events causing direct insured losses to property of $25 million or more in 2004 dollars. Catastrophe threshold changed from $5 million to $25 million beginning in 1997. Adjusted for inflation by the III. [2] Excludes snow. [3] Includes hurricanes and tropical storms. [4] Includes other geologic events such as volcanic eruptions and other earth movement. [5] Does not include flood damage covered by the federally administered National Flood Insurance Program. [6] Includes wildland fires.

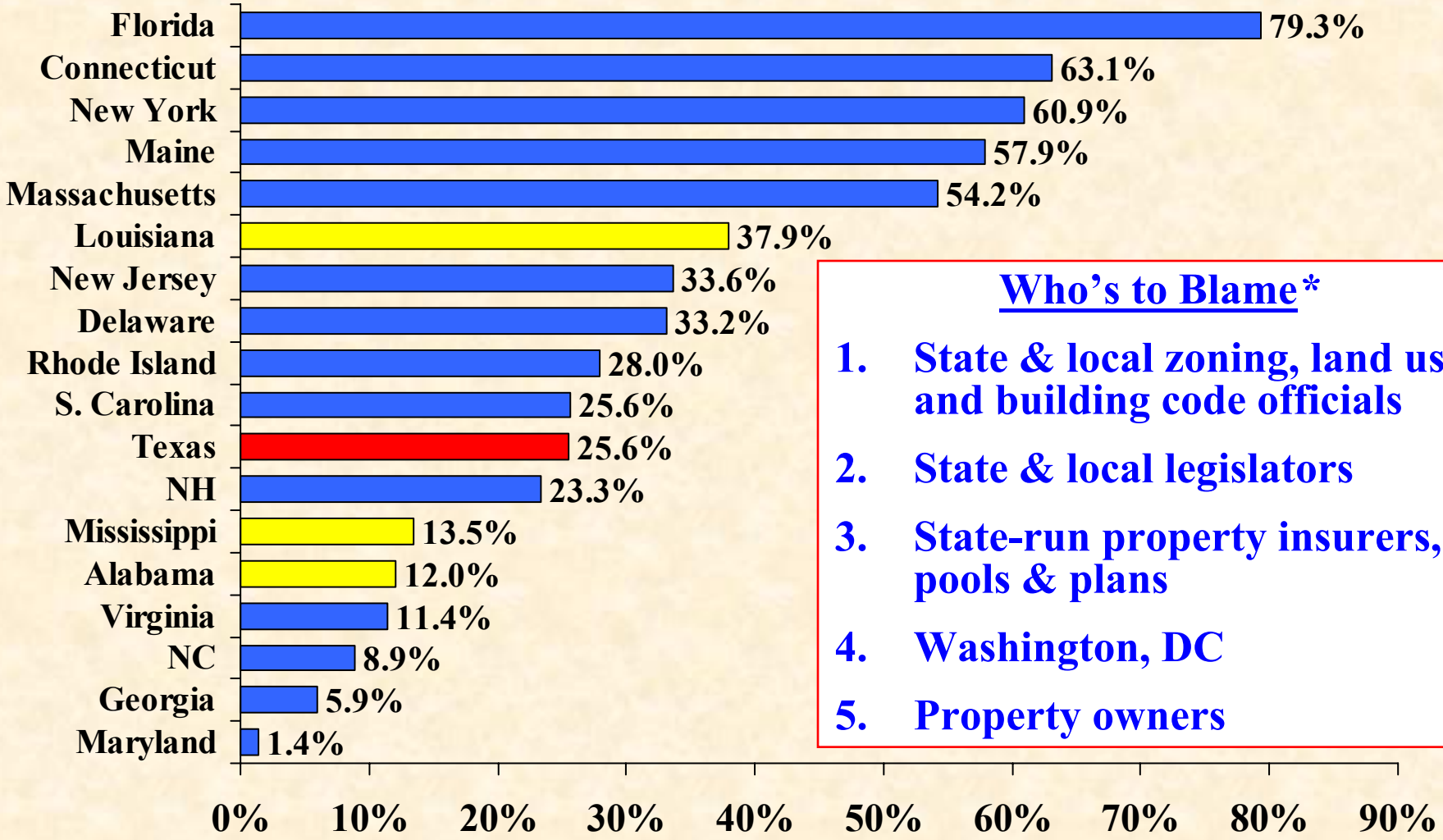
Source: Insurance Information Institute estimates based on ISO data.

Total Value of Insured Coastal Exposure (2004, $ Billions)



Source: AIR Worldwide

Insured Coastal Exposure as a % of Statewide Insured Exposure (2004, $ Billions)



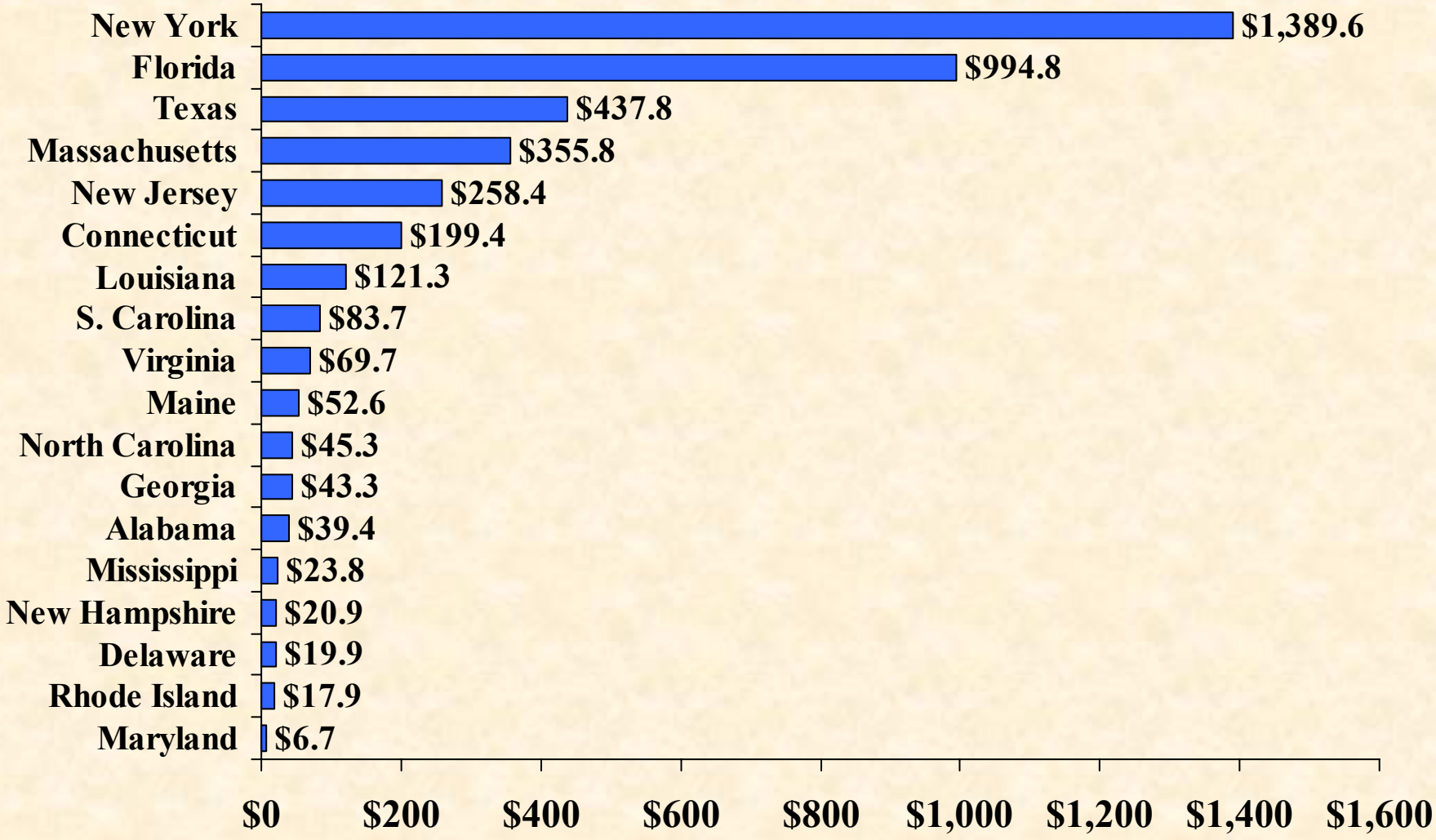
Who's to Blame*

1. State & local zoning, land use and building code officials
2. State & local legislators
3. State-run property insurers, pools & plans
4. Washington, DC
5. Property owners

*III list

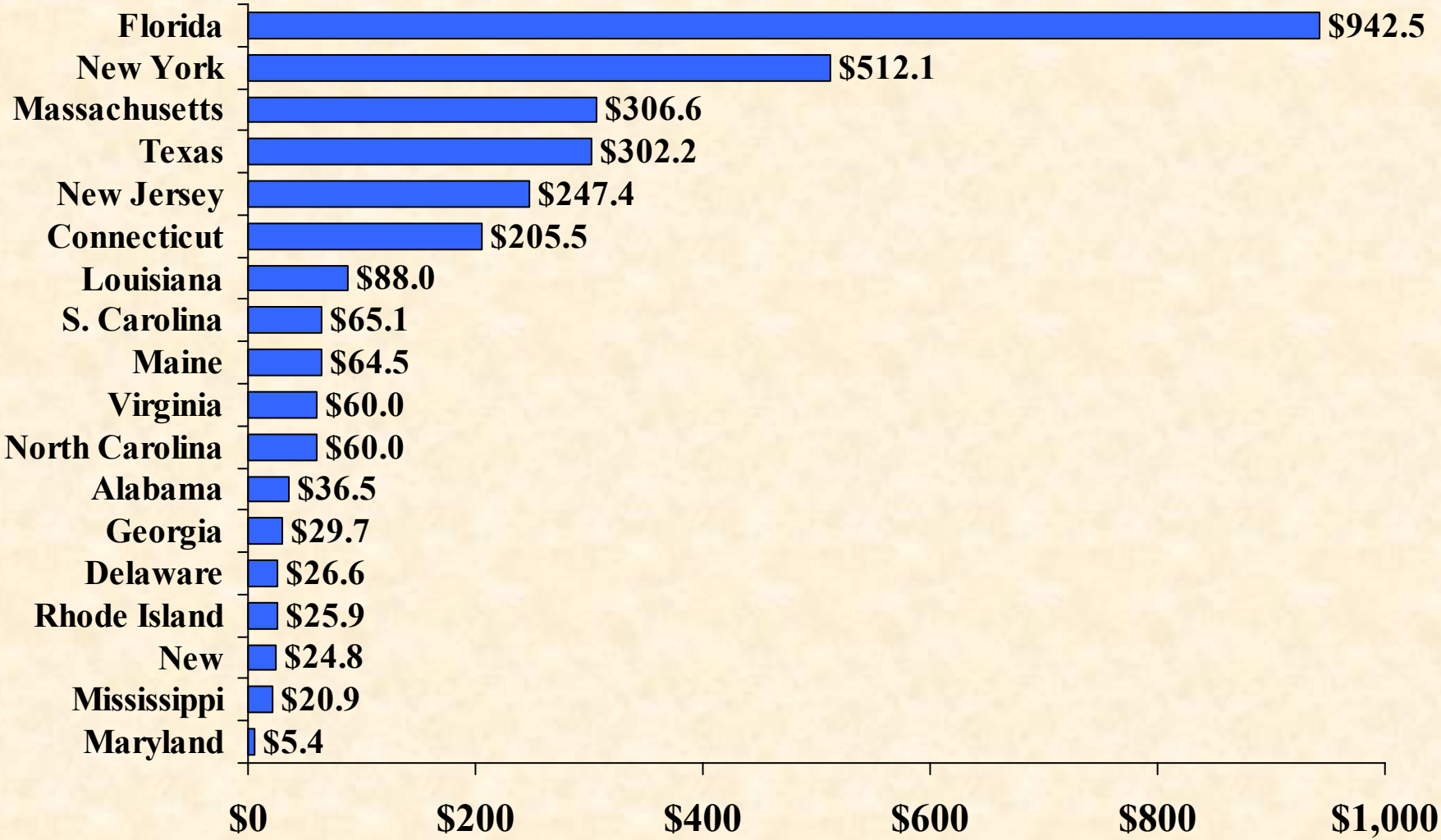
Source: AIR Worldwide

Value of Insured Commercial Coastal Exposure (2004, $ Billions)



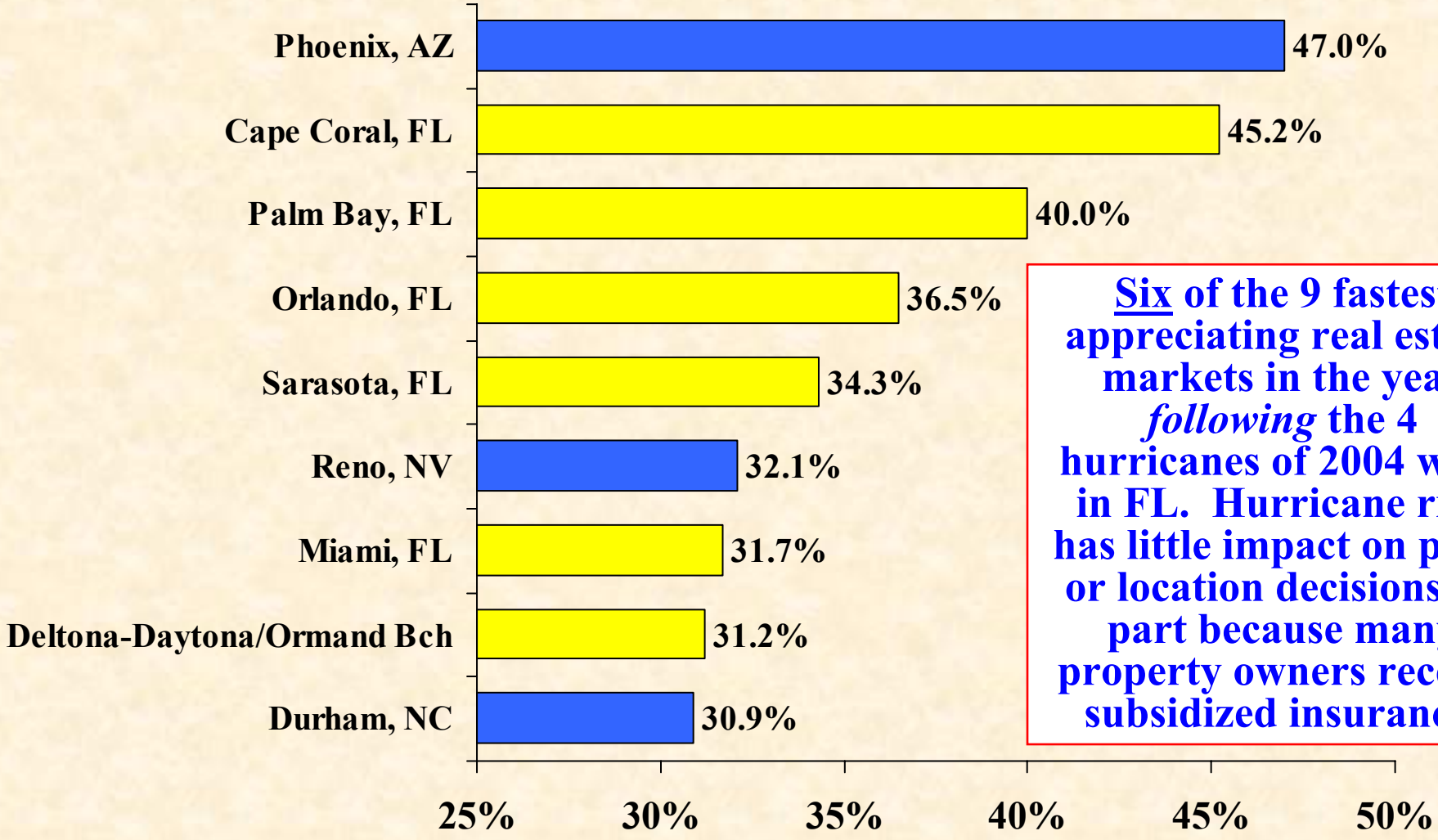
Source: AIR

Value of Insured Residential Coastal Exposure (2004, $ Billions)



Source: AIR

Metro Areas w/ Biggest Increase in Median Home Price Over Past Year (through Sept. 2005)



Six of the 9 fastest appreciating real estate markets in the year *following* the 4 hurricanes of 2004 were in FL. Hurricane risk has little impact on price or location decisions, in part because many property owners receive subsidized insurance.

Source: National Association of Realtors, US Dept. of Commerce.

P/C Financial Overview

Strong Pre-Katrina Results Help Industry Meet the Challenge

Highlights: Property/Casualty, 9-Mos. 2005 vs. 9-Mos. 2004

Growth rate barely 1/2 that of CY2004

	2005	2004	Change
Net Written Prem. (adj)	326,527	323,337	+1.3%
Loss & LAE	229,563	224,302	+2.3%
Ne	(2,828)	3,238	N/A
Net Inv. Income	36,445	28,956	+25.6%
Net Income (a.t.)	***28,787***	***27,567***	***+4.4%***
Surplus*	414,264	393,488	+5.2%
Combined Ratio*	100.0	98.1	+1.9 pts.

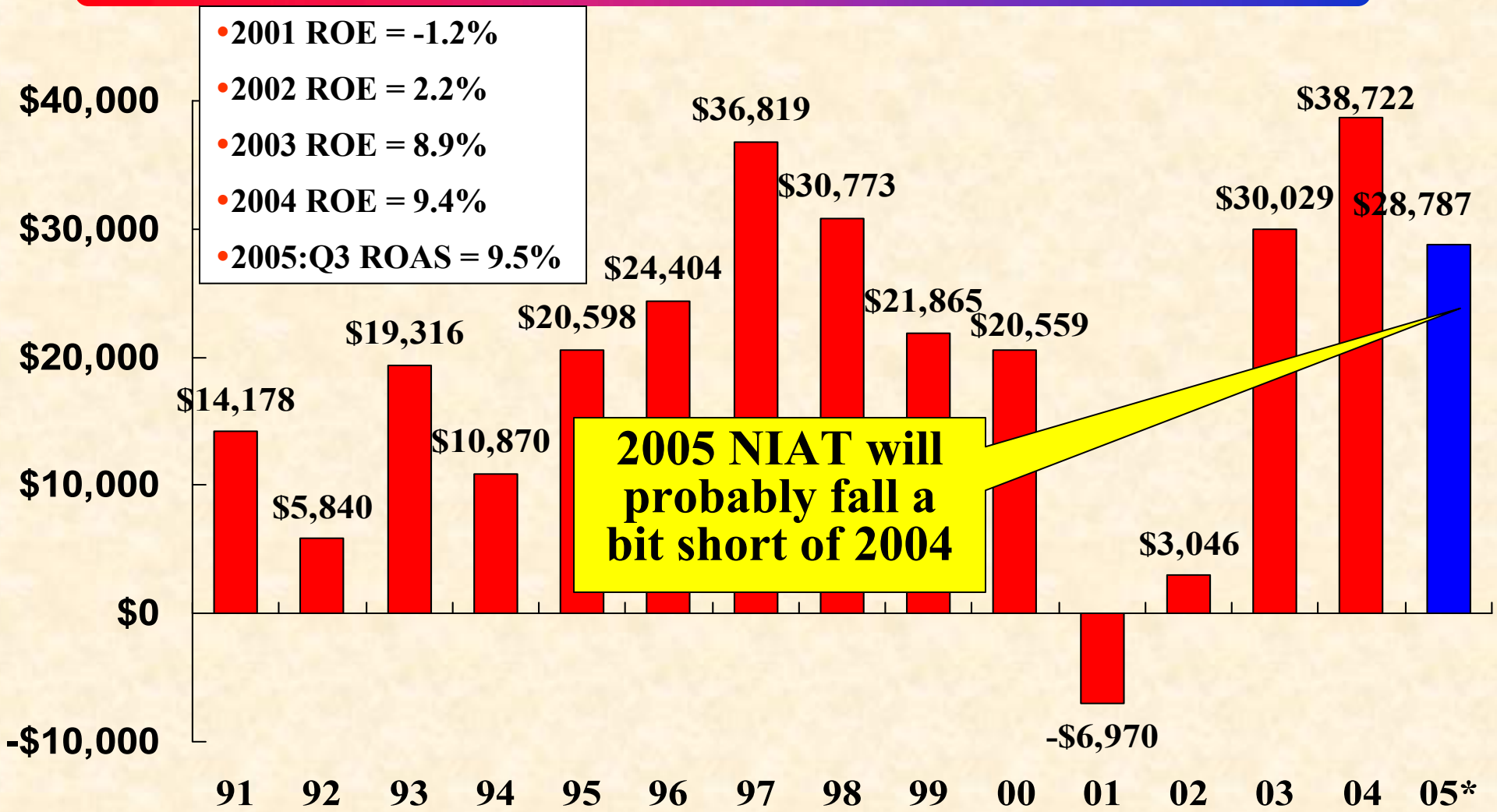
Investment Income Rebound?

Lowest in many years

Source: ISO, Insurance Information Institute

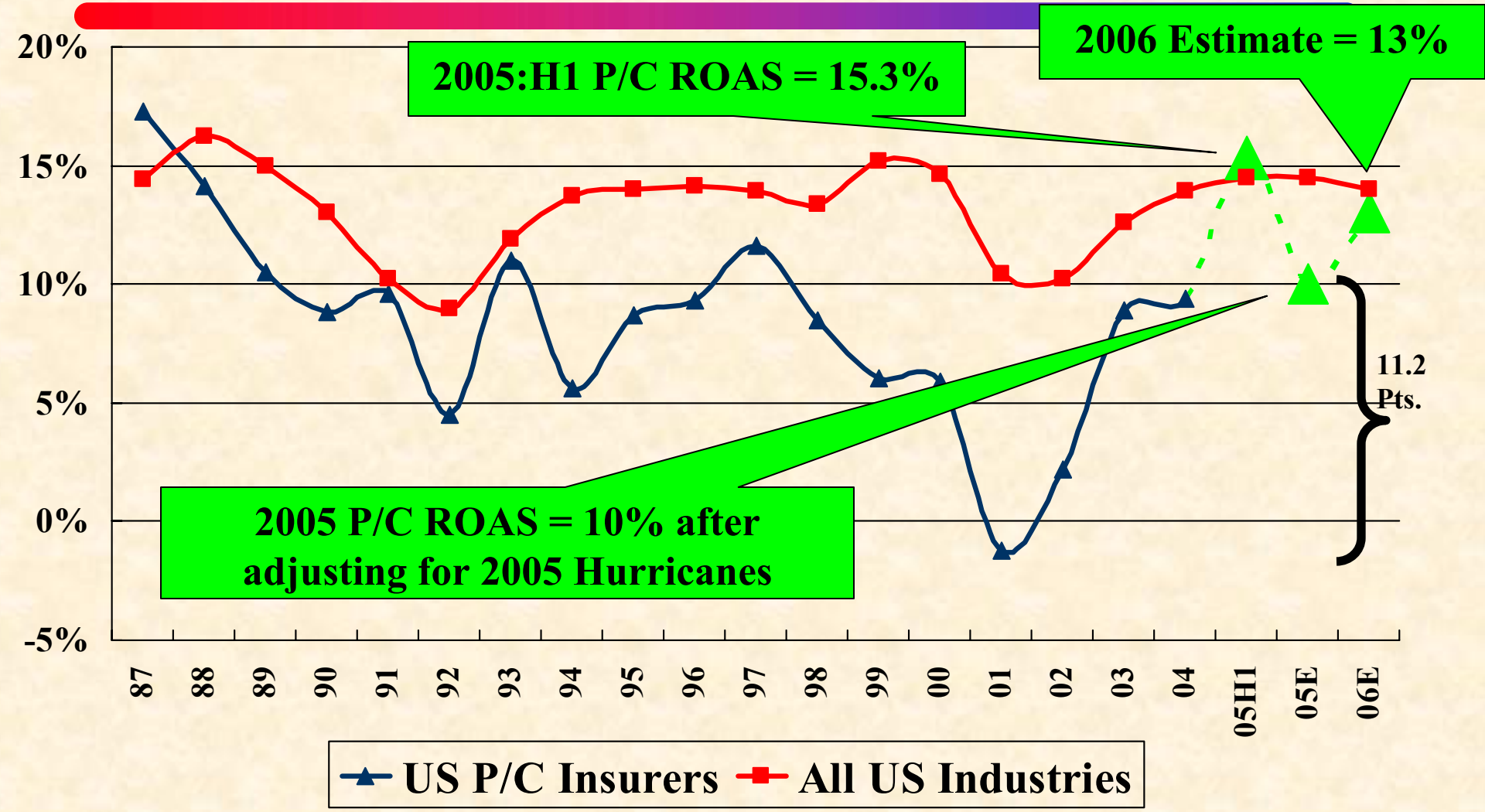
*Comparison

P/C Net Income After Taxes 1991-2005:Q3 ($ Millions)*



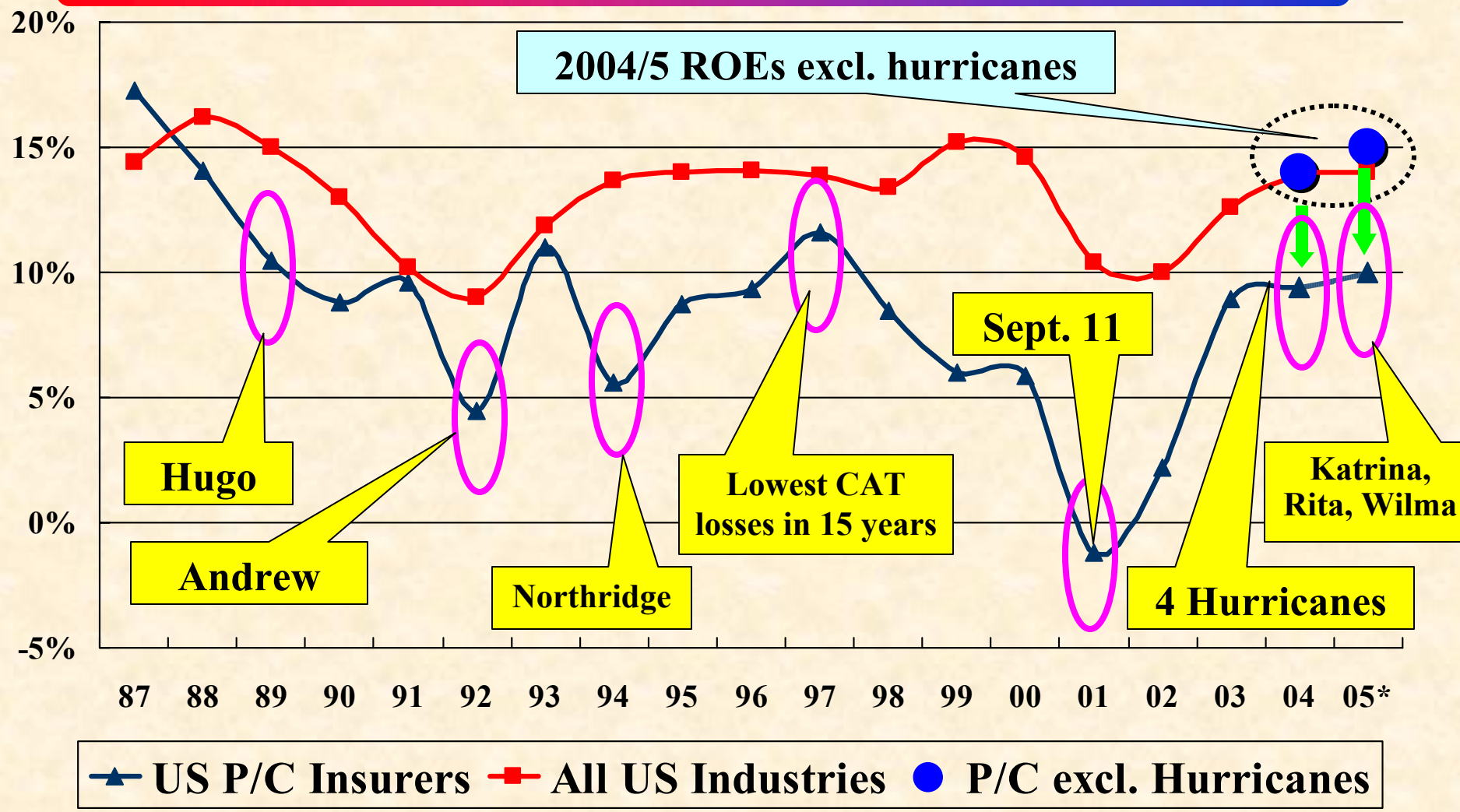
*ROE figures are GAAP; 2005 figure is 9-month return on average surplus.
Sources: A.M. Best, ISO, Insurance Information Institute.

ROE: P/C vs. All Industries 1987–2006F*



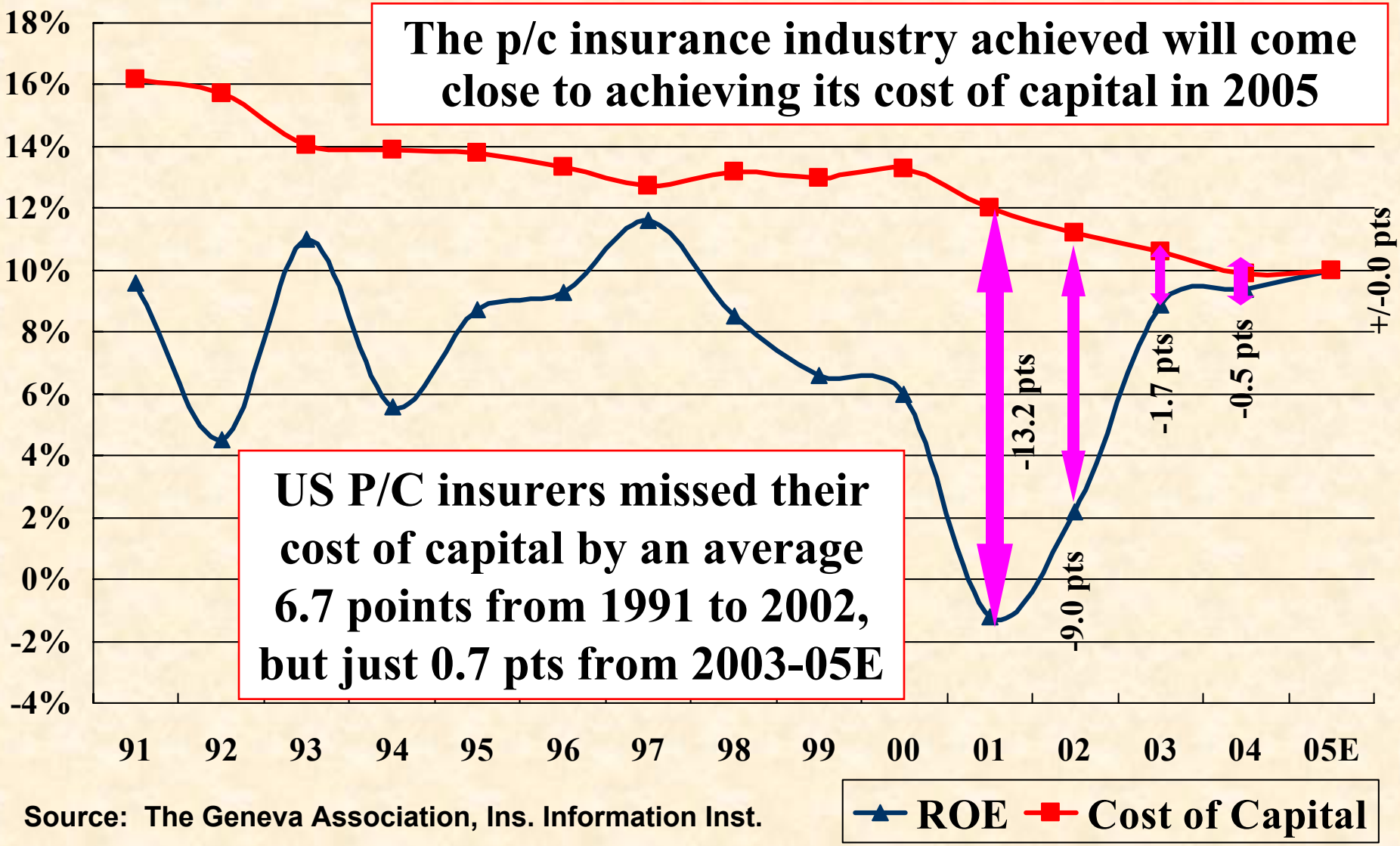
*GAAP ROEs except 2005 P/C figure = return on average surplus. 2005/6E figure is III full-year estimate.
Source: Insurance Information Institute; *Fortune* for all industry figures

ROE: P/C vs. All Industries 1987–2005E



Source: Insurance Information Institute; *Fortune*

ROE vs. Equity Cost of Capital: US P/C Insurance: 1991 – 2005E

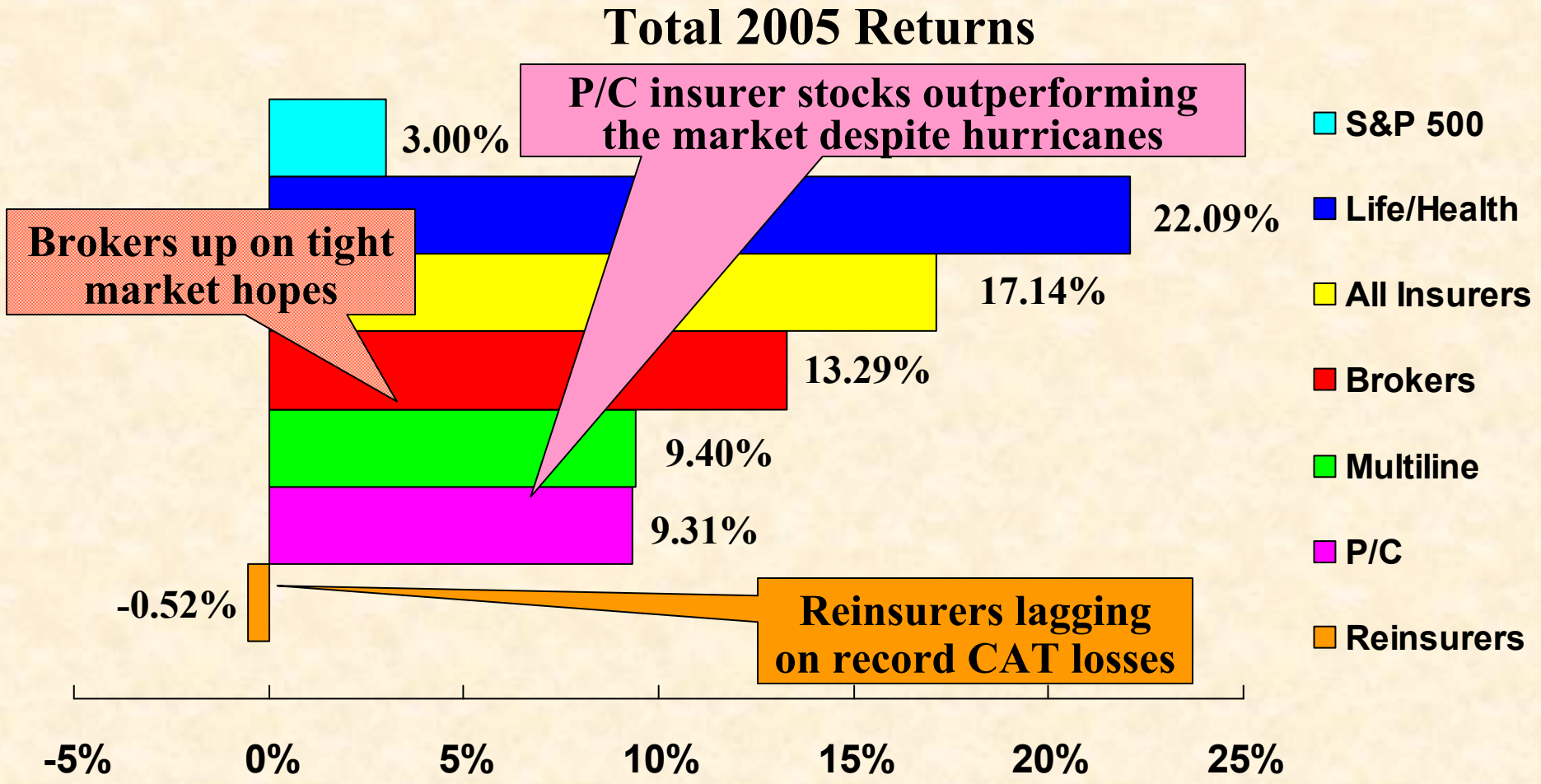


Source: The Geneva Association, Ins. Information Inst.

WALL STREET:

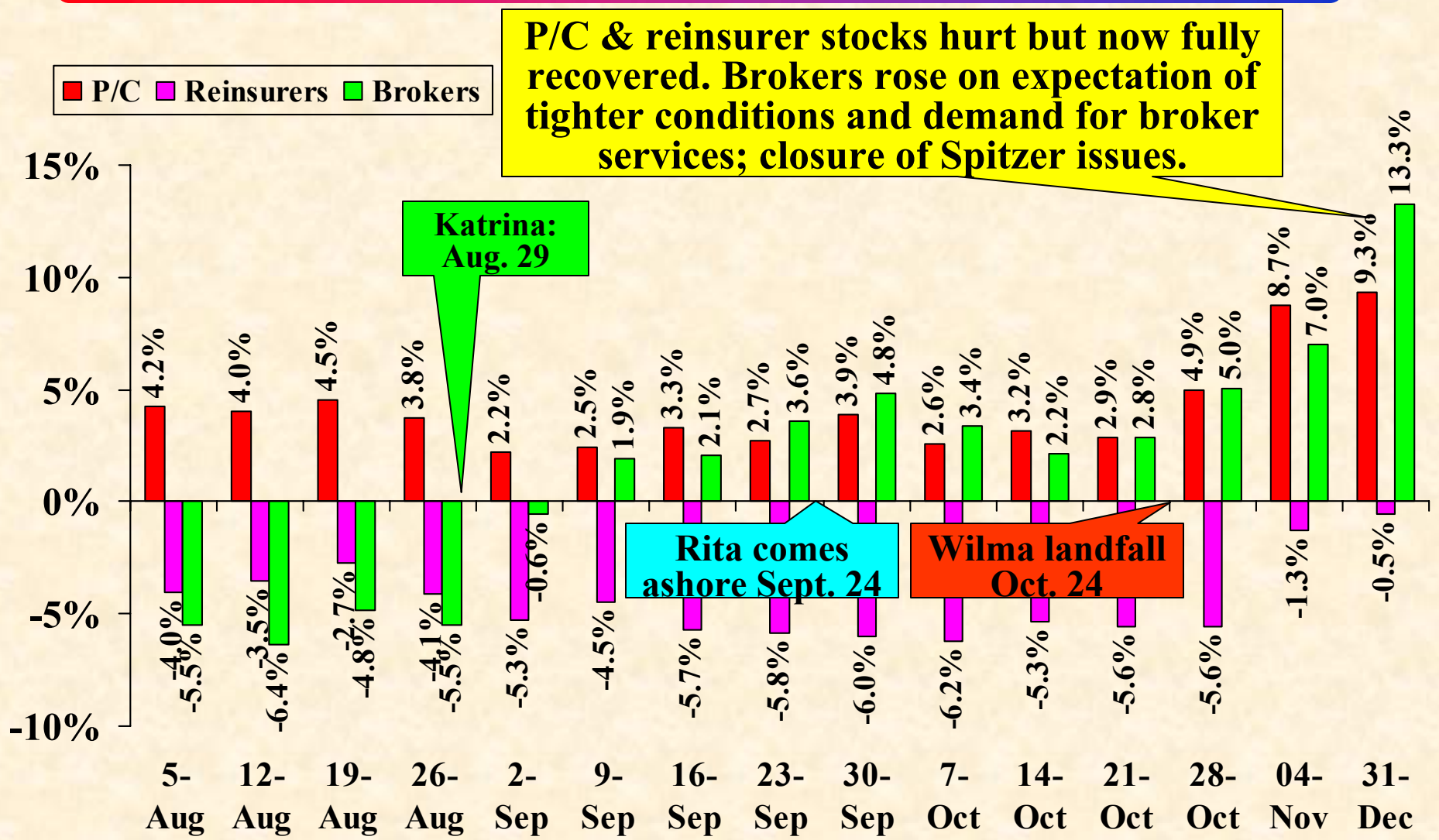
GENERALLY STRONG GAINS DESPITE RECORD CAT LOSSES

P/C Insurers Stocks Up in 2005, Brokers Up Too, Reinsurers Down



Source: SNL Securities, Standard & Poor's, Insurance Information Institute

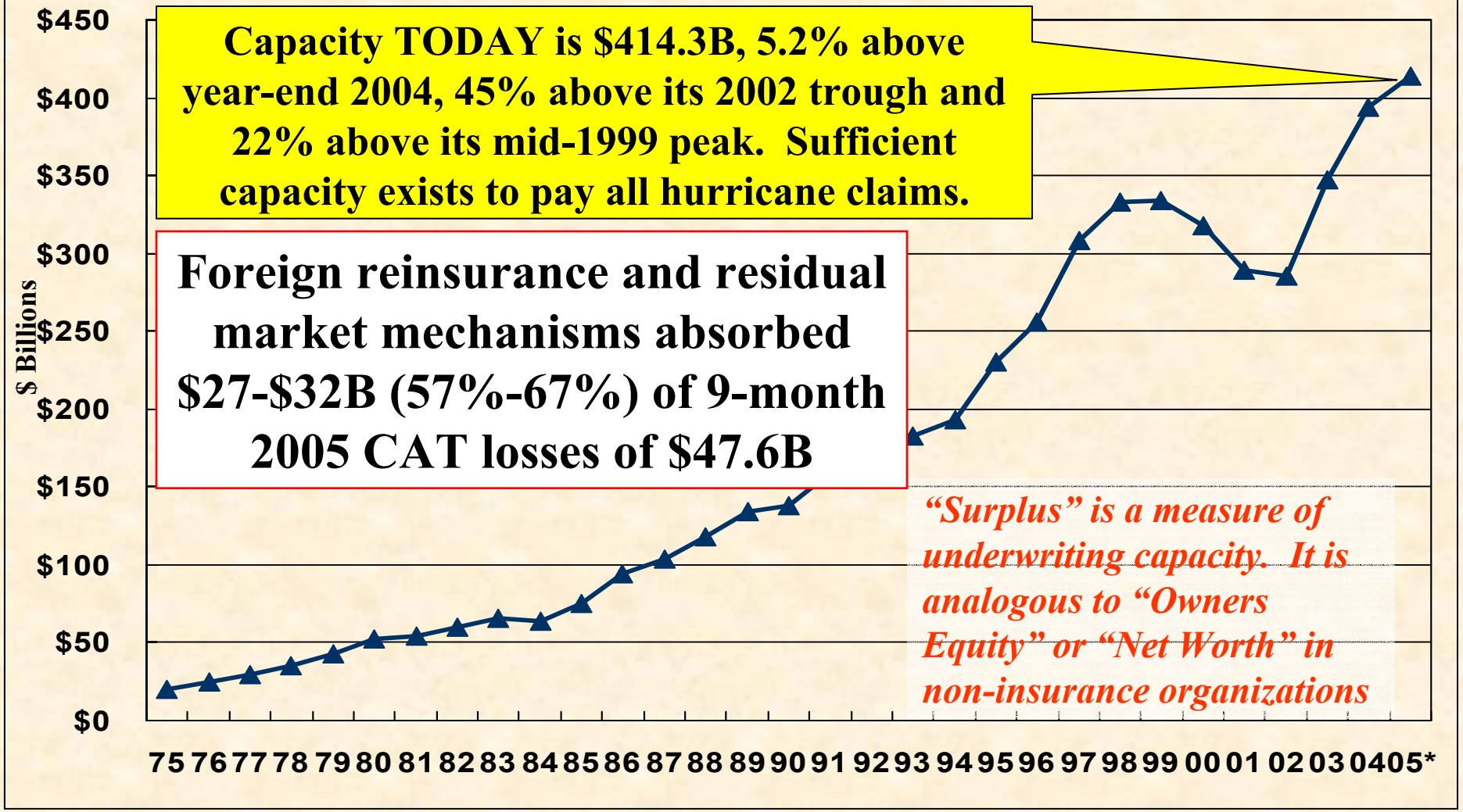
Change in YTD Stock Performance by Sector Pre- & Post-Katrina/Rita/Wilma



Source: SNL Securities; Insurance Information Institute

Insurer Claims Paying Resources

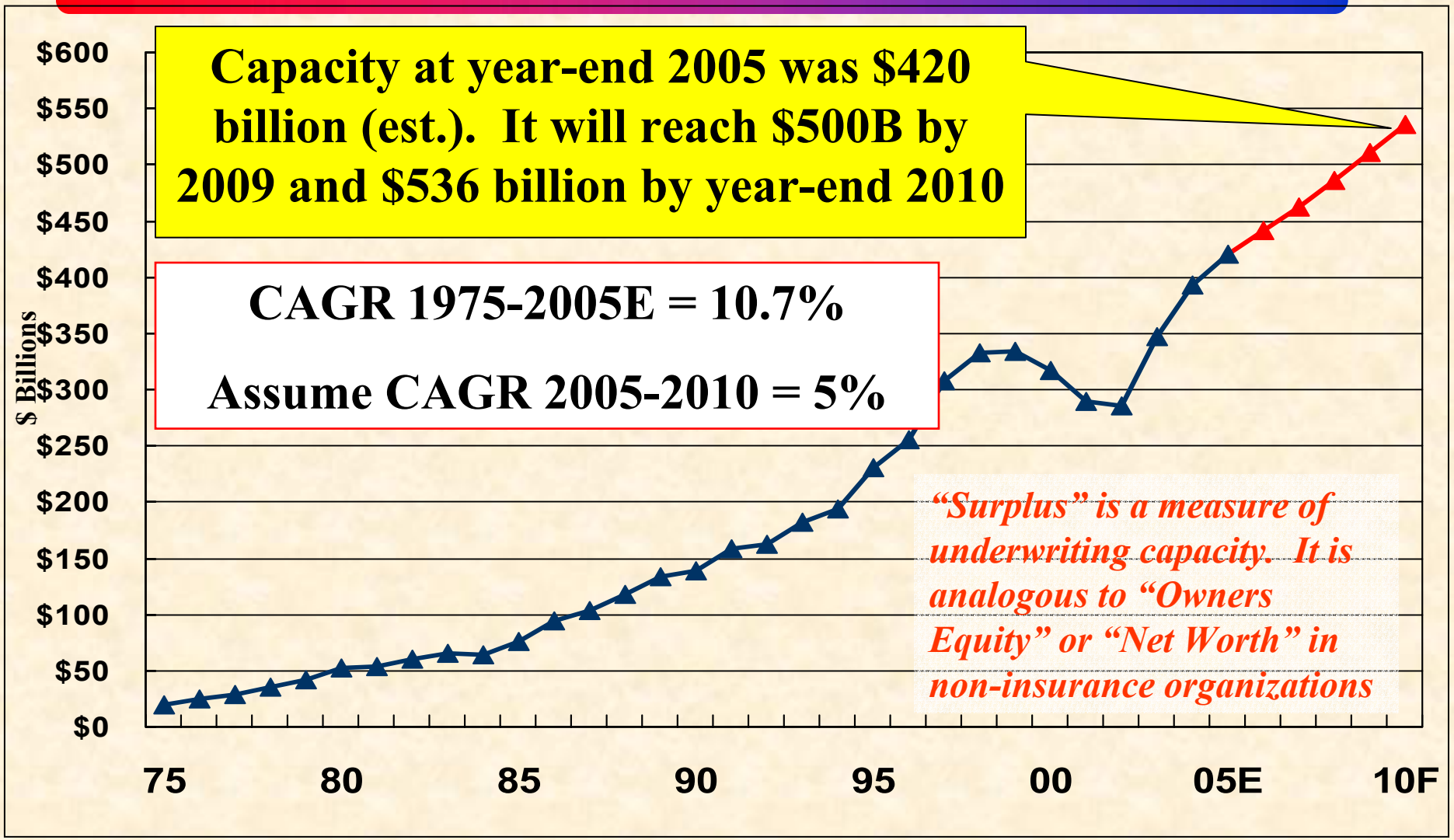
U.S. Policyholder Surplus: 1975-2005*



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

*As of 9/30/05.

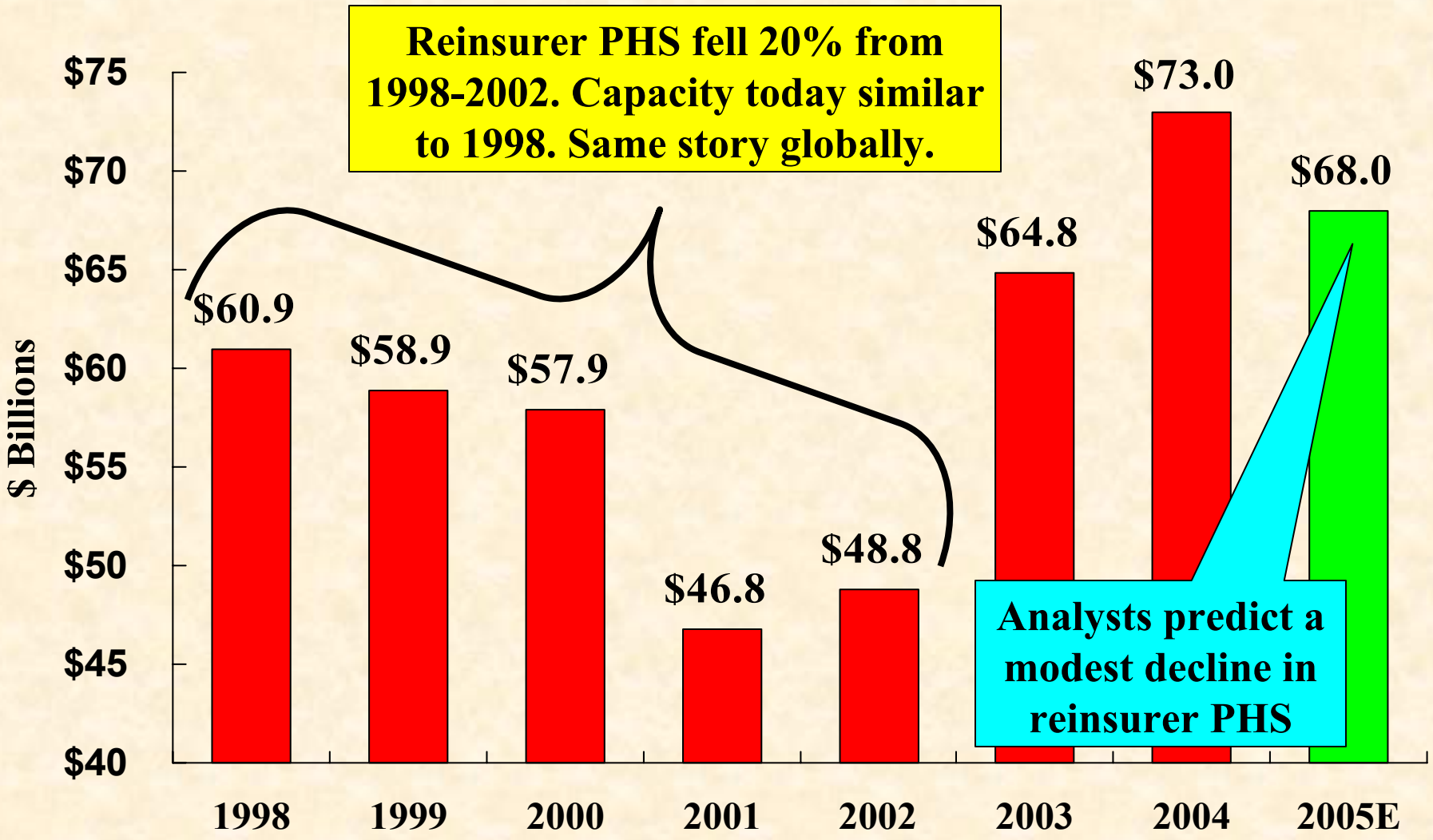
U.S. Policyholder Surplus: 1975-2010F*



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

*As of 9/30/05.

US Reinsurers: Change in Policyholder Surplus ($ Billions)



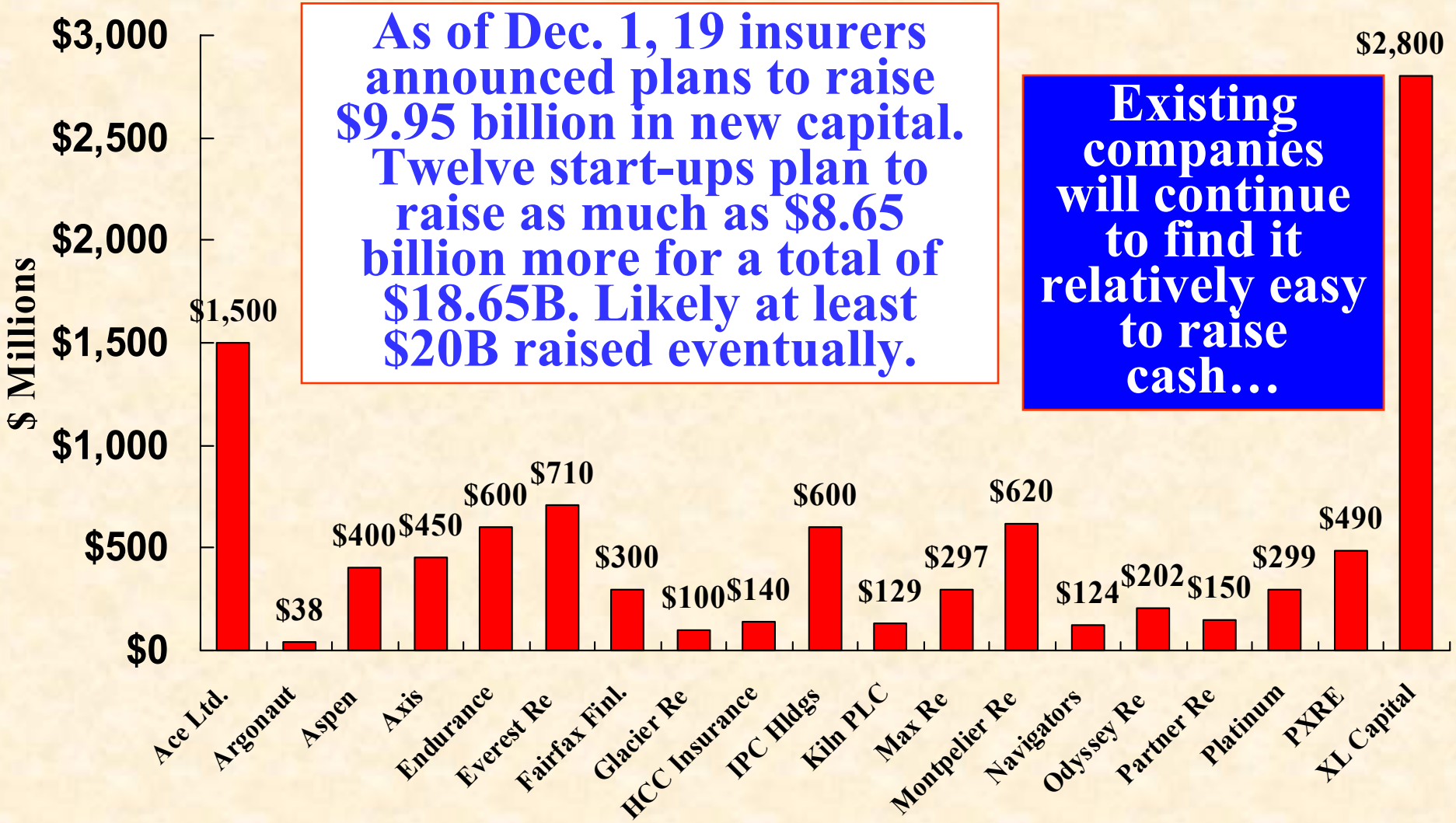
Source: A.M. Best; Insurance Information Institute

*Announced Insurer Capital Raising**

($ Millions, as of December 1, 2005)

As of Dec. 1, 19 insurers announced plans to raise $9.95 billion in new capital. Twelve start-ups plan to raise as much as $8.65 billion more for a total of $18.65B. Likely at least $20B raised eventually.

Existing companies will continue to find it relatively easy to raise cash…



*Existing (re) insurers. Announced amounts may differ from sums actually raised.

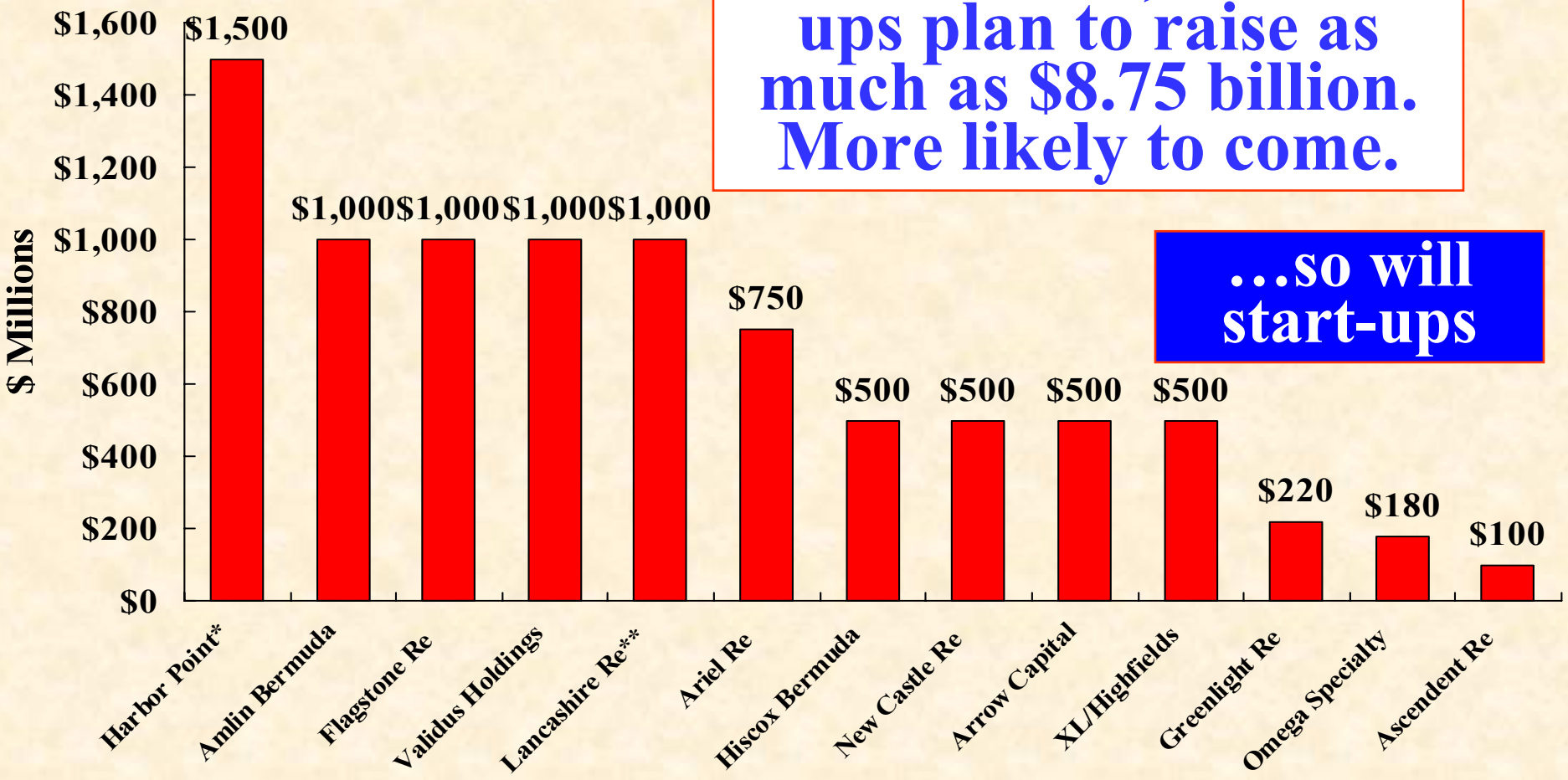
Sources: Morgan Stanley, Lehman Brothers, Company Reports; Insurance Information Institute.

Announced Capital Raising by Insurance Start-Ups

($ Millions, as of December 11, 2006)

As of Dec. 11, 13 start-ups plan to raise as much as $8.75 billion. More likely to come.

…so will start-ups



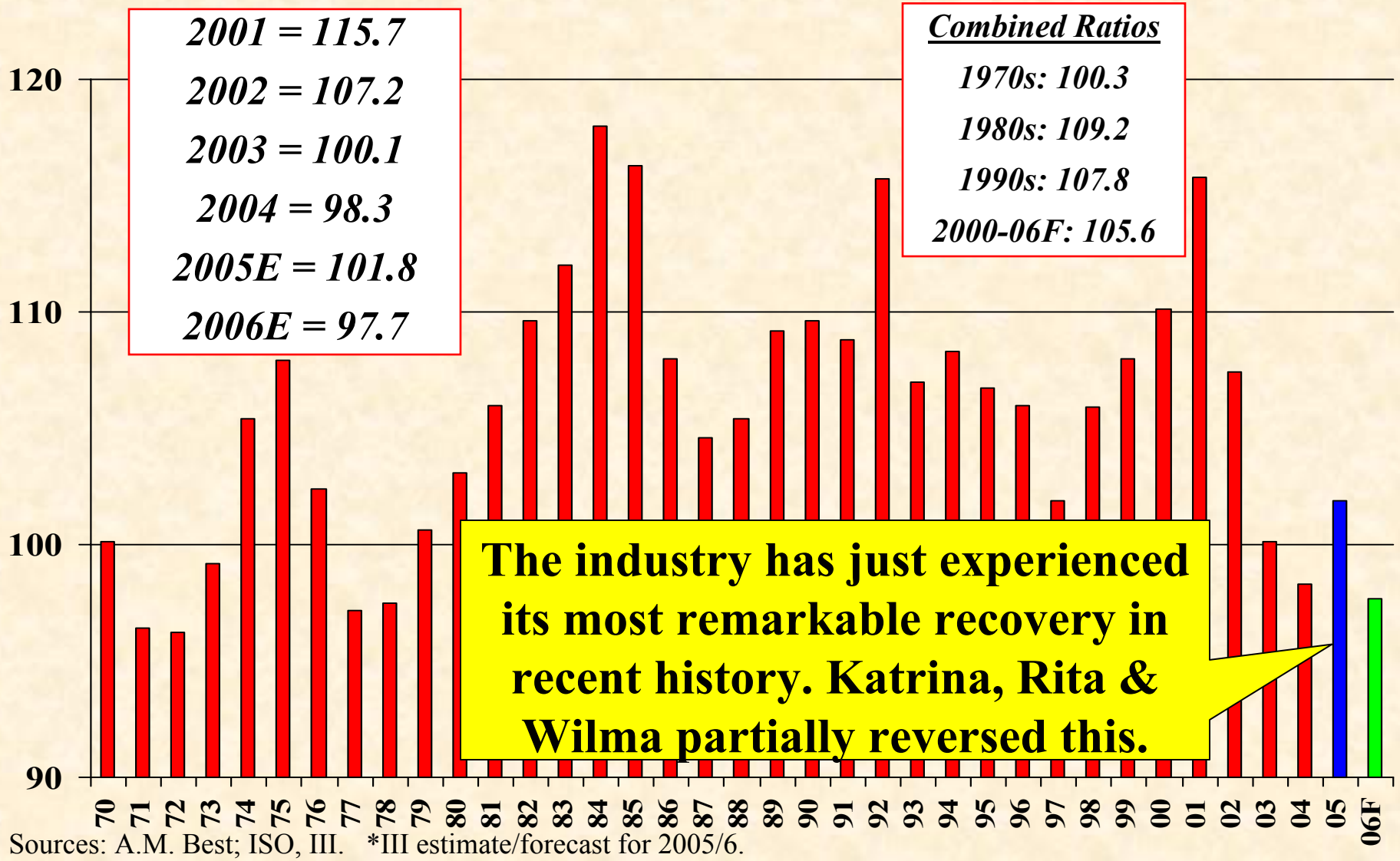
*Chubb, Trident are funding Harbor Point. Announced amounts may differ from sums actually raised. **Stated amount is $750 million to $1 billion. ***XL Capital/Hedge Fund venture. Arrow Capital formed by Goldman Sachs.

Sources: Morgan Stanley, Company Reports; Insurance Information Institute.

UNDERWRITING

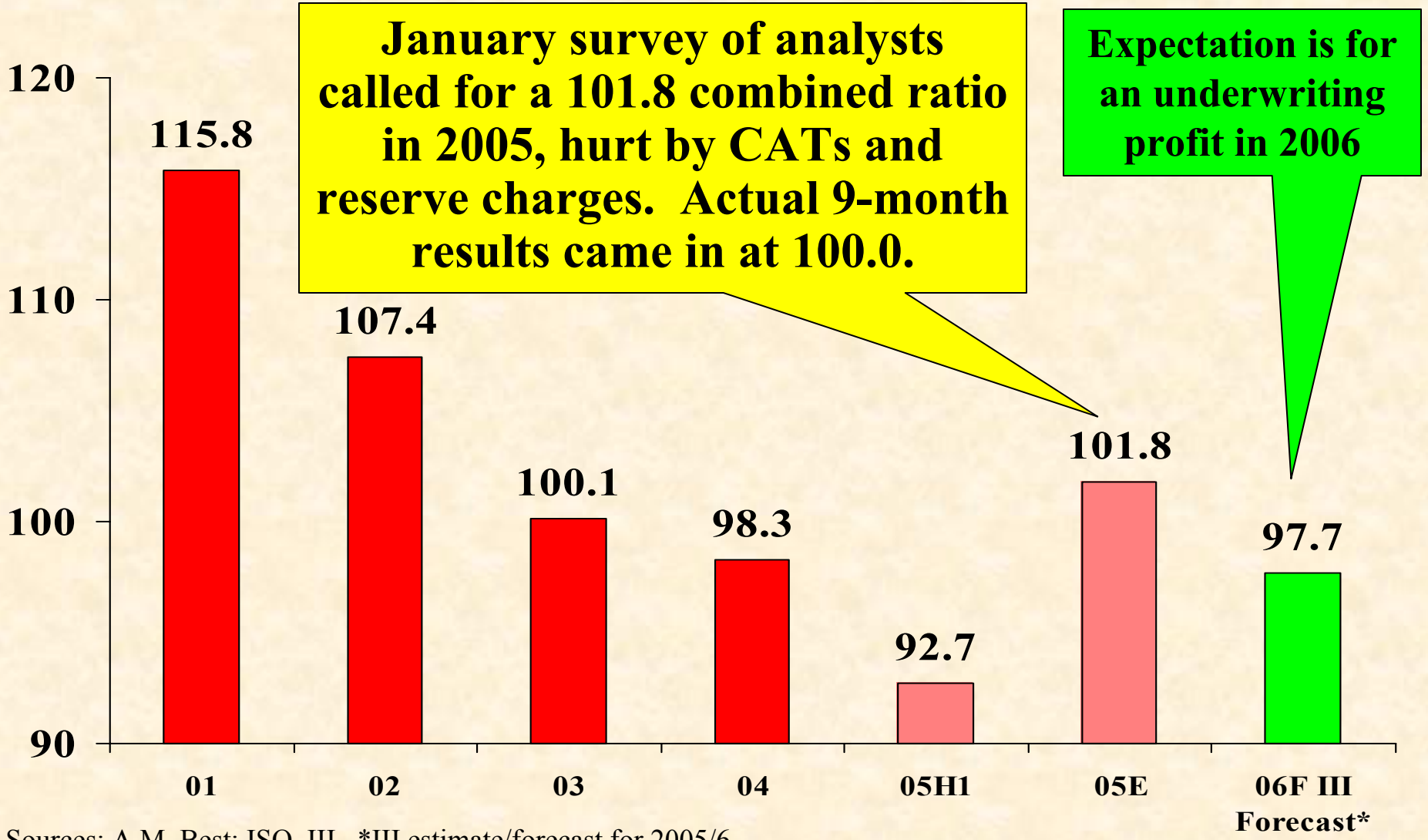
Strong Underwriting Results Pre-Katrina Will Help Industry Weather the Storm

P/C Industry Combined Ratio*



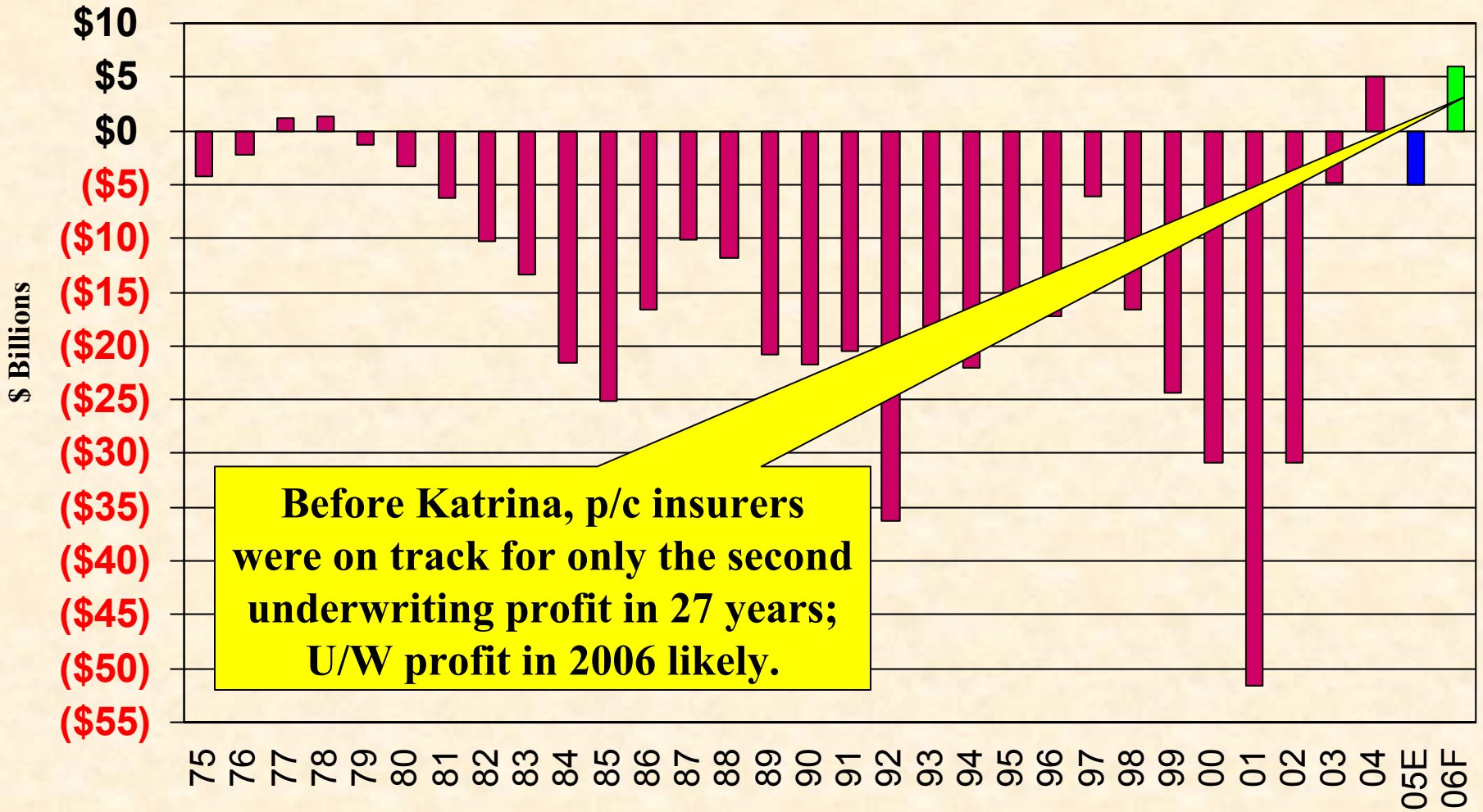
Sources: A.M. Best; ISO, III. *III estimate/forecast for 2005/6.

P/C Industry Combined Ratio



Sources: A.M. Best; ISO, III. *III estimate/forecast for 2005/6

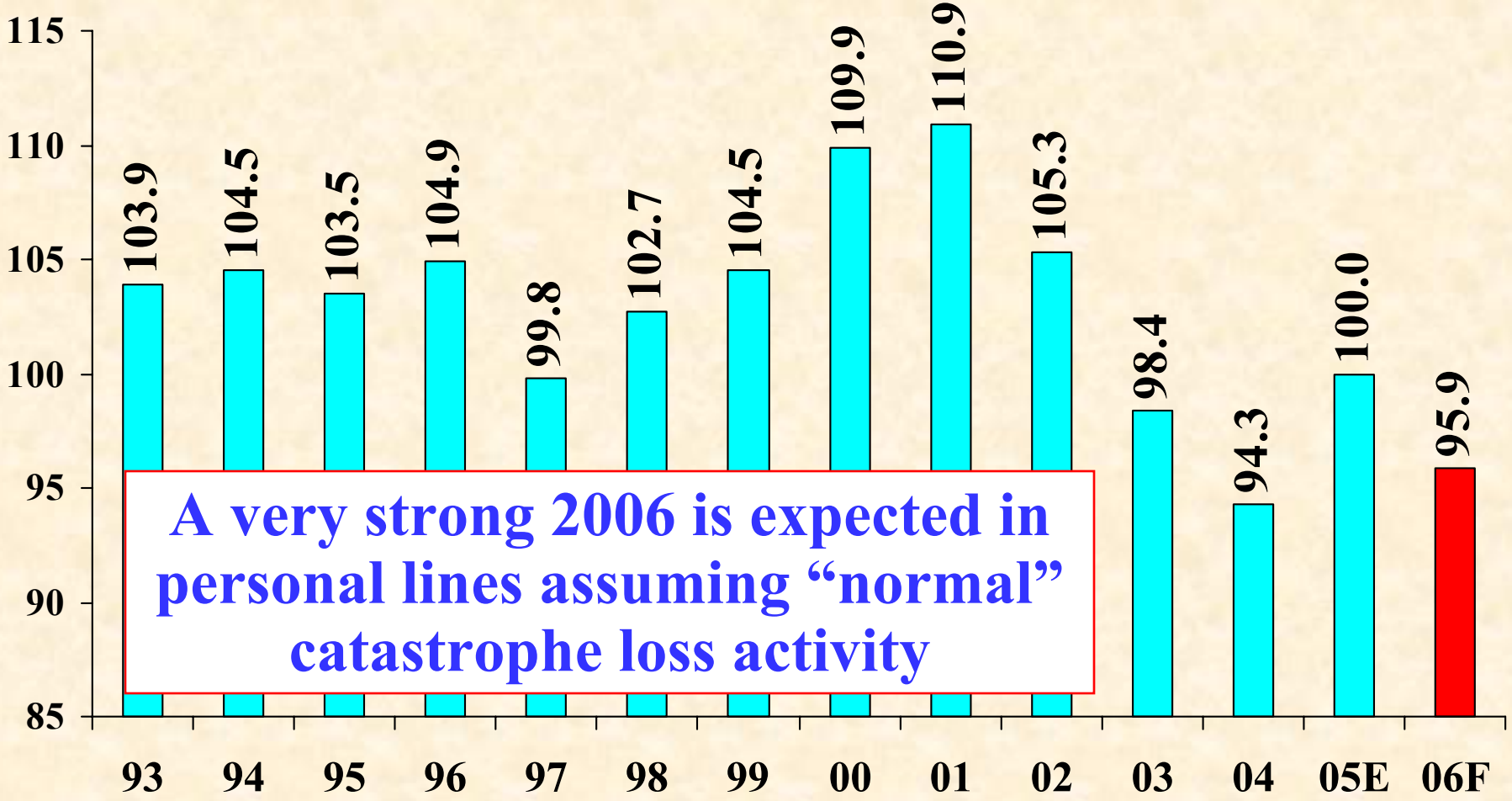
*Underwriting Gain (Loss) 1975-2006F**



*2005 estimate is III estimate.

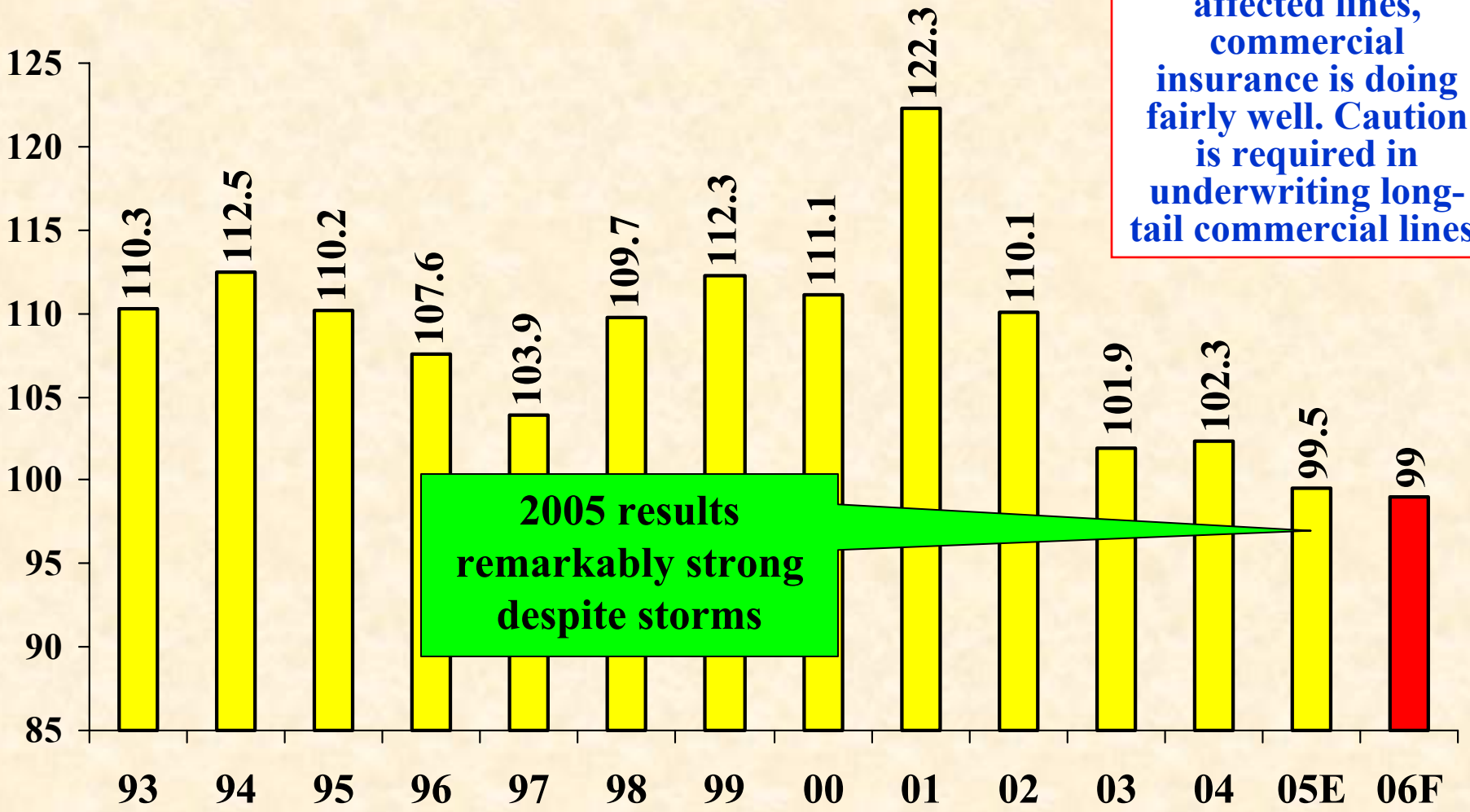
Source: A.M. Best, Insurance Information Institute

Personal Lines Combined Ratio, 1993-2006E



Source: A.M. Best; Insurance Information Institute. 2006 forecast from Fitch Ratings as of 12/7/05.

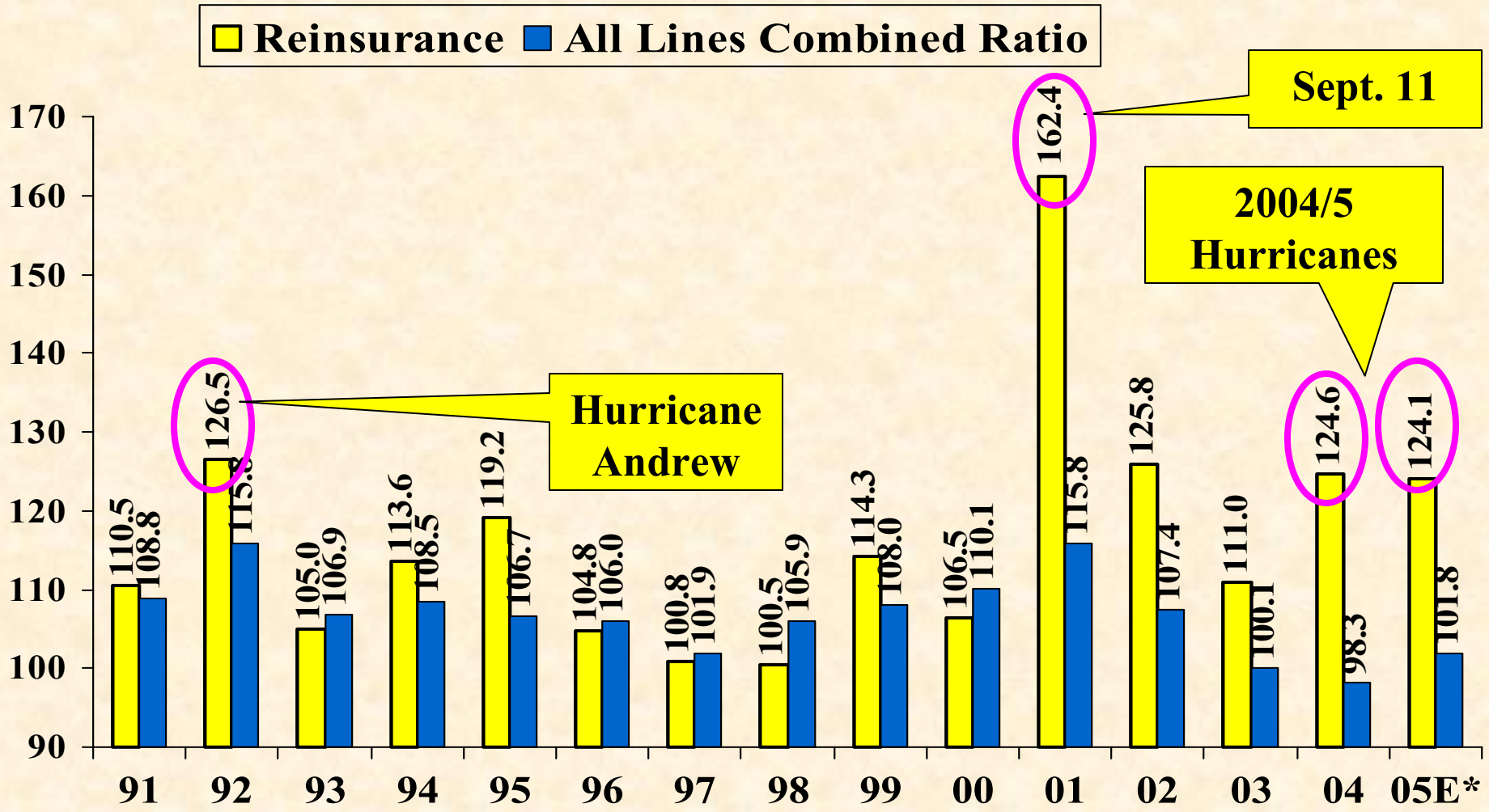
Commercial Lines Combined Ratio, 1993-2006F*



Source: A.M. Best; Insurance Information Institute

*Fitch estimate for 2005. III for 2006.

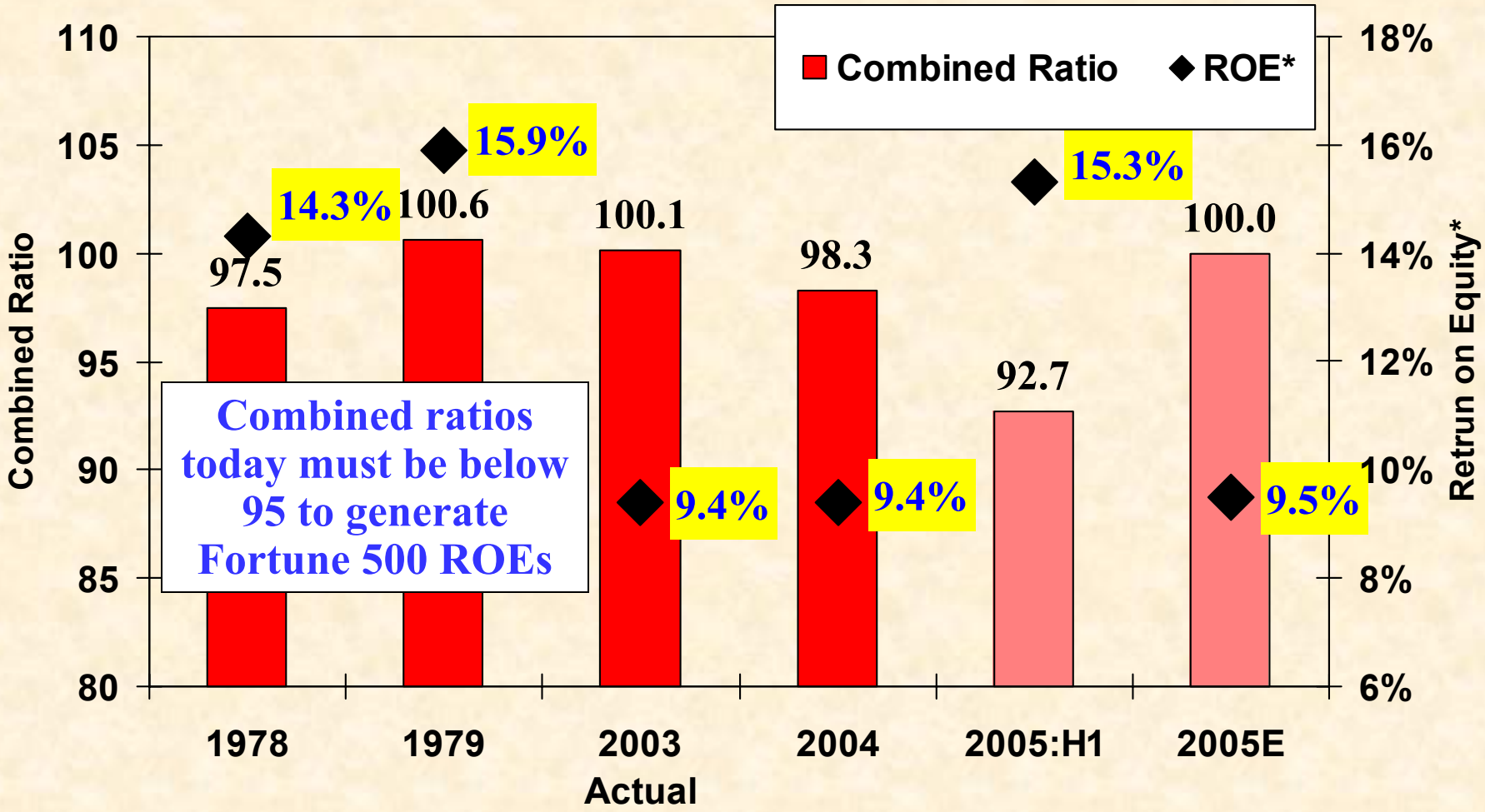
Combined Ratio: Reinsurance vs. P/C Industry



* All lines figure is full-year III estimate. RAA figure for 2005:9 mos.

Source: A.M. Best, ISO, Reinsurance Association of America, Insurance Information Institute

A 100 Combined Ratio Isn't What it Used to Be: 95 is Where It's At



* 2005 figure is return on average statutory surplus based in first 9 monhts data

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

TRIA EXTENSION

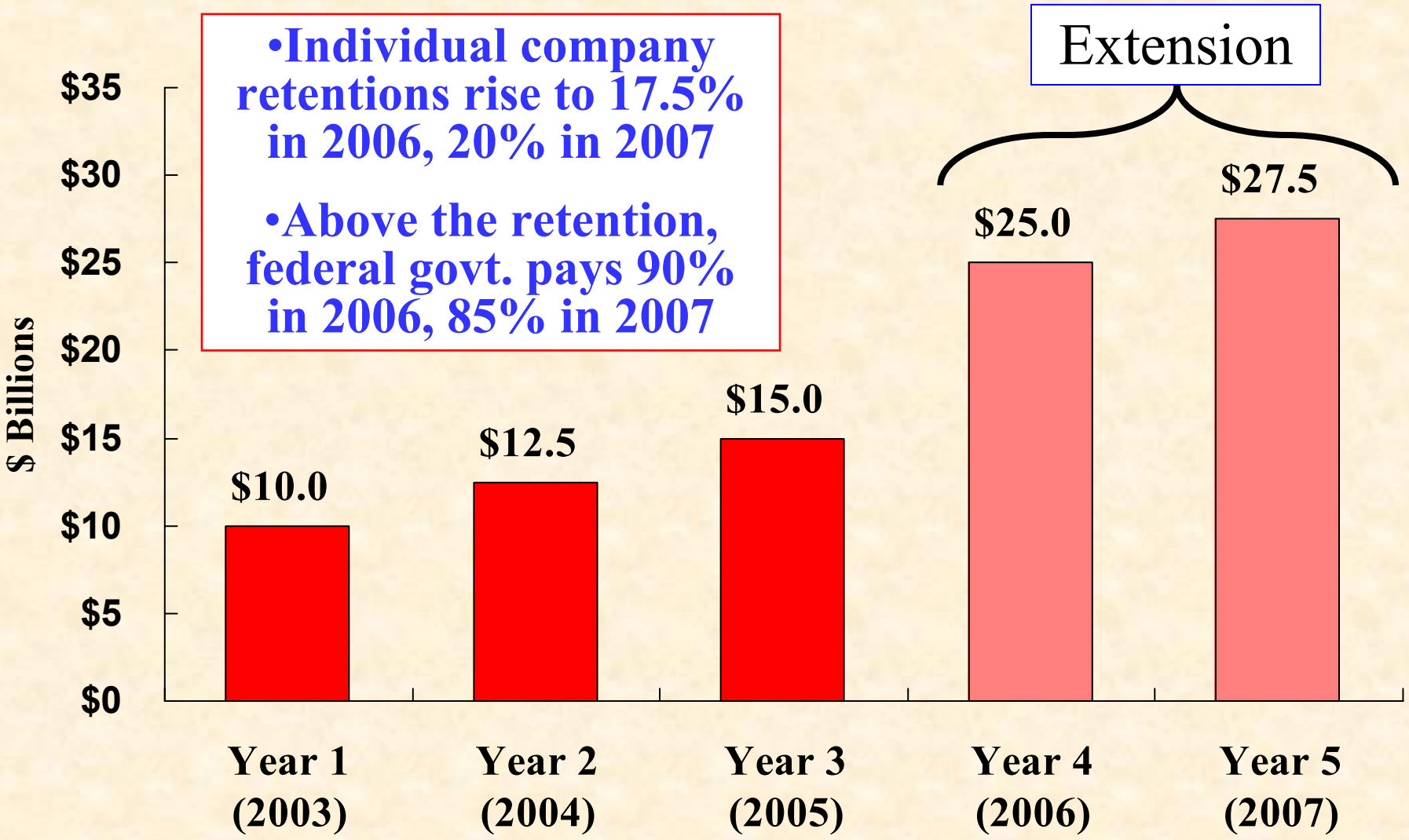
The Burden Grows & Compounds CAT Exposure

TRIA Extension: Major Features

- **Term: 2-Year Extension—Sunsets December 31, 2007**
  - **Extension for 3rd year possible if progress made toward long-term solution**
- **Trigger Increased:**
  - **Up from $5MM now to $50MM in 2006 and $100MM in 2007**
- **Lines Dropped**
  - **Commercial Auto, Prof. Liability, Surety, Burglary & Theft, FMP**
- **Deductibles Increase for Individual Companies:**
  - **15% Now →17.5% in 2006 → 20% in 2007 for all lines**
- **Retentions Increase for Industry Aggregate:**
  - **$15B Now → $25B in 2006 → $27.5B in 2007**
- **Co-Pays Increase for Amount Above Industry Aggregate**
  - **10% Now → 10% in 2006 → 15% in 2007**
- **Federal Recoupment**
  - **Remains conditional**
- **Study to Develop Long-Term Solutions**
  - **Must produce report to Congress by September 30**
- **Nuclear, Biological, Chemical & Radiological Risk**
  - **Maintains exclusion**

Insurance Industry Retention Under TRIA ($ Billions)

- **Individual company retentions rise to 17.5% in 2006, 20% in 2007**
- **Above the retention, federal govt. pays 90% in 2006, 85% in 2007**



Source: Insurance Information Institute

UNDERWRITING AFFECTS FINANCIAL STRENGTH

Is There Cause for Concern?

Rating Agency Actions Following Hurricane Katrina (as of Oct. 6, 2005)*

Companies Under Review w/ Negative Implications

	Company	A.M. Best Rating
1.	Allied World	A+
2.	Allmerica Financial P&C Cos .	A-
3.	American Re	A
4.	Balboa Insurance Grp.	A
5.	DaVinci Re	A
6.	Endurance Specialty	A
7.	Florists Mutual Grp.	A-
8.	Glencoe	A
9.	Imagine Insurance Co. Ltd.	A-
10.	IPCRe	A+
11.	Louisiana Farm Bureau Mutual	A-
12.	Mississippi Farm Bureau Mutual	A+
13.	Munich Re	A+
14.	Mutual Savings Fire Ins. Co.	B-
15.	Mutual Savings Life Ins. Co.	B-
16.	Odyssey Re	A
17.	PartnerRe Group	A+
18.	PXRE	A-
19.	Renaissance Re	A+
20.	Rosemont Reinsurance Ltd.	A-
21.	Transatlantic Re	A+
22.	XL Capital	A+
23.	XL Life Insurance & Annuity	A+
24.	XL Life Ltd.	A+

Companies on Credit Watch with Negative Implications

	Company	S&P Rating
1.	Allmerica	BBB+
2.	Allstate Corp.	AA
3.	Aspen Group	A
4.	Oil Casualty Insurance Ltd.	A-
5.	Society of Lloyd's	A
6.	State Farm	AA
7.	Swiss Re	AA
8.	United Fire Group	A

Downgrades

	Company	S&P Rating	A.M. Best
1.	Alea	A- to BBB+	A- to B++
2.	Olympus Re	not rated	A- to B+
3.	PXRE	A to A-	A to A-
4.	Advent Synd. 780	3pi to 2pi	not rated

"…the replenishment of capital alone may not be sufficient to sustain a company's rating." A.M. Best press release Sept. 15, 2005

*ACE and Montpelier Re were originally placed on watch/ review but have been removed.

Source: *Hurricane Katrina: Analysis of the Impact on the Insurance Industry,* Tillinghast, October 2005.

Ratings Agencies Tightening Requirements for CATs

2006 SRQ CAT Model Reqs.*

- All Property Exposure
- Auto Physical Damage
- Reinsurance Assumed
- Pools & Assessments
- All Flood Exposure
- WC Losses from Quake
- Fire Following
- Storm Surge
- Demand Surge
- Secondary Uncertainty

Best currently estimates PML for 100-yr. wind & 250-yr. quake to determine capital adequacy

ALSO "A.M. Best will perform additional "stress-tested" risk-adjusted capital analysis for a second event in order to determine the potential financial condition of an entity post a severe event."

IMPLICATION: Some insurers may be required to carry more capital to maintain the same rating.

***SRQ = Supplemental Rating Questionnaire**

Source: A.M. Best Review & Preview, January 2006.

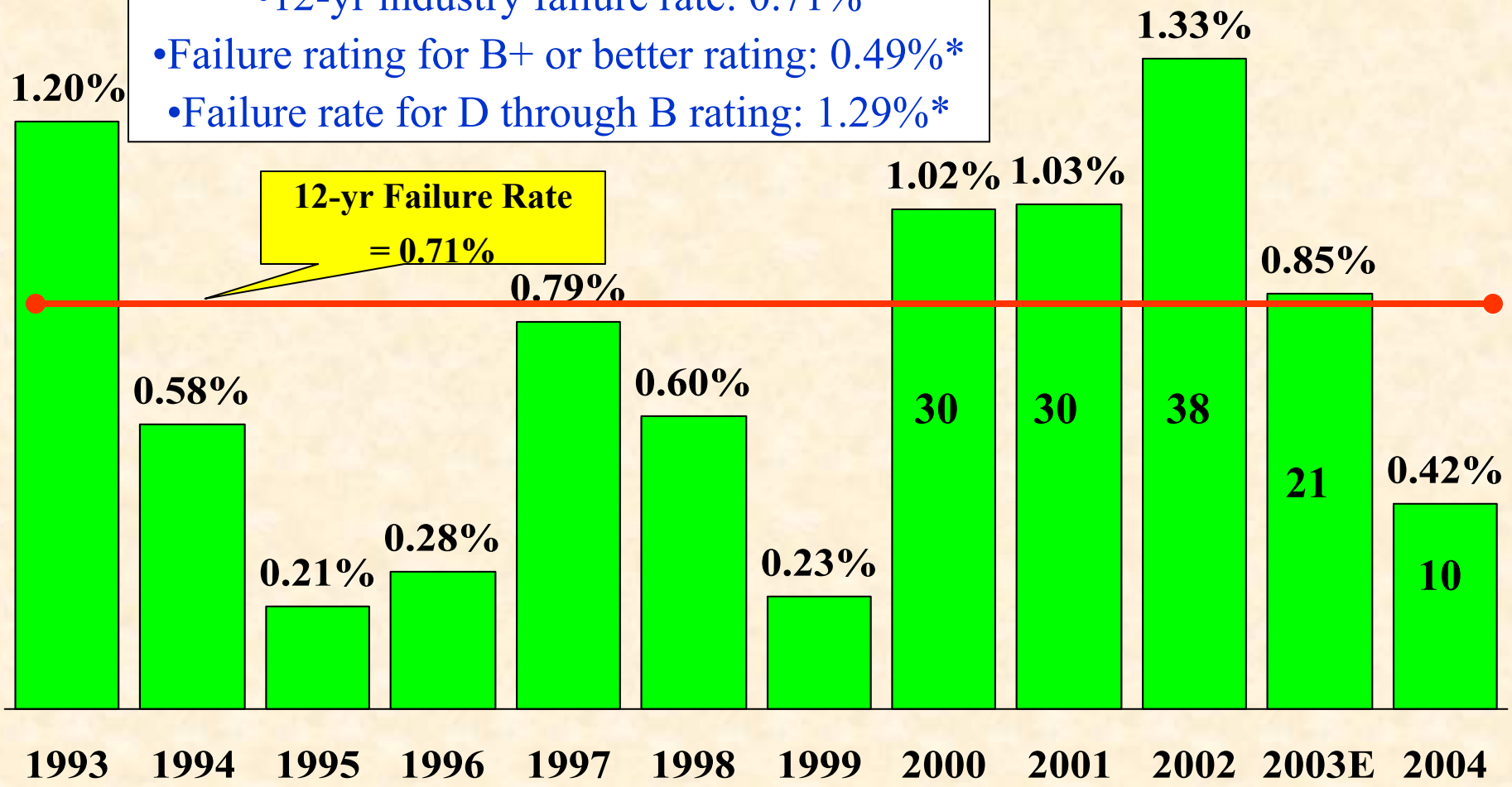
Downgrades Can Brutalize Share Price & Lead to Failures

Date	Holding company of affected entities	Old rating	New rating	One-day stock change	Subsequent stock change
02/16/06	PXRE Group Ltd.	A-	B++	-65.9%	-5.9%
02/24/99	Vesta Insurance Group Inc.	A-	B++	-63.2%	-82.5%
02/21/02	MIIX Group Inc.	A-	B-	-61.7%	Chapter 11
02/19/02	Mutual Risk Management Ltd.	A-/A-	B/B+	-48.7%	Insolvency
07/20/04	Converium Holding AG	A	A-	-44.4%	-60.5%
10/18/02	Trenwick Group Ltd.	A-/B++	B/B+	-37.3%	Insolvency
10/24/02	FPIC Insurance Group Inc.	A-	B++	-36.8%	821.3%
11/15/99	Frontier Insurance Group Inc.	A-	B++	-33.8%	Chapter 11
11/06/03	American Physicians Capital Inc.	A-	B++	-30.1%	180.6%
03/01/00	Fremont General Corp.	A-	B++	-26.7%	266.2%
07/29/99	ARM Financial Group Inc.	A	A-	-23.8%	Chapter 11
09/27/02	Allmerica Financial Corp.	A/A-	A-/B+	-18.0%	299.8%
11/04/03	PMA Capital Corp.	A-	B++	-17.9%	95.4%
04/25/03	UnumProvident Corp.	A	A-	-16.7%	130.9%
07/12/02	Conseco Inc.	A-	B++	-15.2%	Chapter 11
03/30/01	Penn Treaty American Corp.	B++	B-	-13.0%	-70.8%
06/08/00	Reliance Group Holdings Inc.	A-	B++	-10.3%	Chapter 11
				MEDIAN*:	-65.7%

"Subsequent" column is otherwise based on the price change between the day following the indicated ratings change and the market close as of 2/24/06
** Assumes an ending value of $0.00 for common shares of bankrupt/insolvent companies*
Sources: SNL Financial, A.M. Best Co.

P/C Company Insolvency Rates, 1993 to 2004

- Insurer insolvencies are increasing
- 12-yr industry failure rate: 0.71%
- Failure rating for B+ or better rating: 0.49%*
- Failure rate for D through B rating: 1.29%*

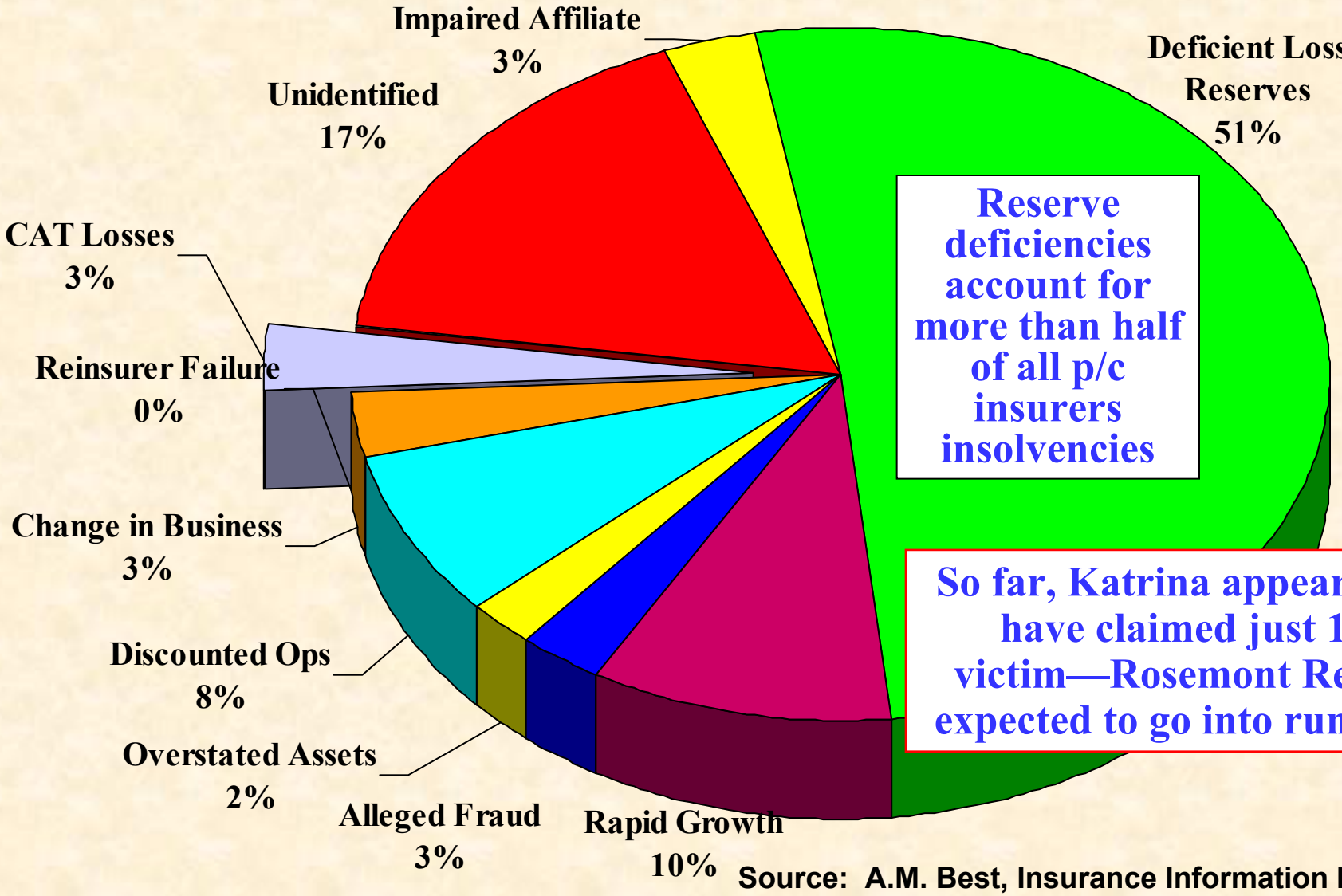


Source: A.M. Best; Insurance Information Institute

*1993-2003

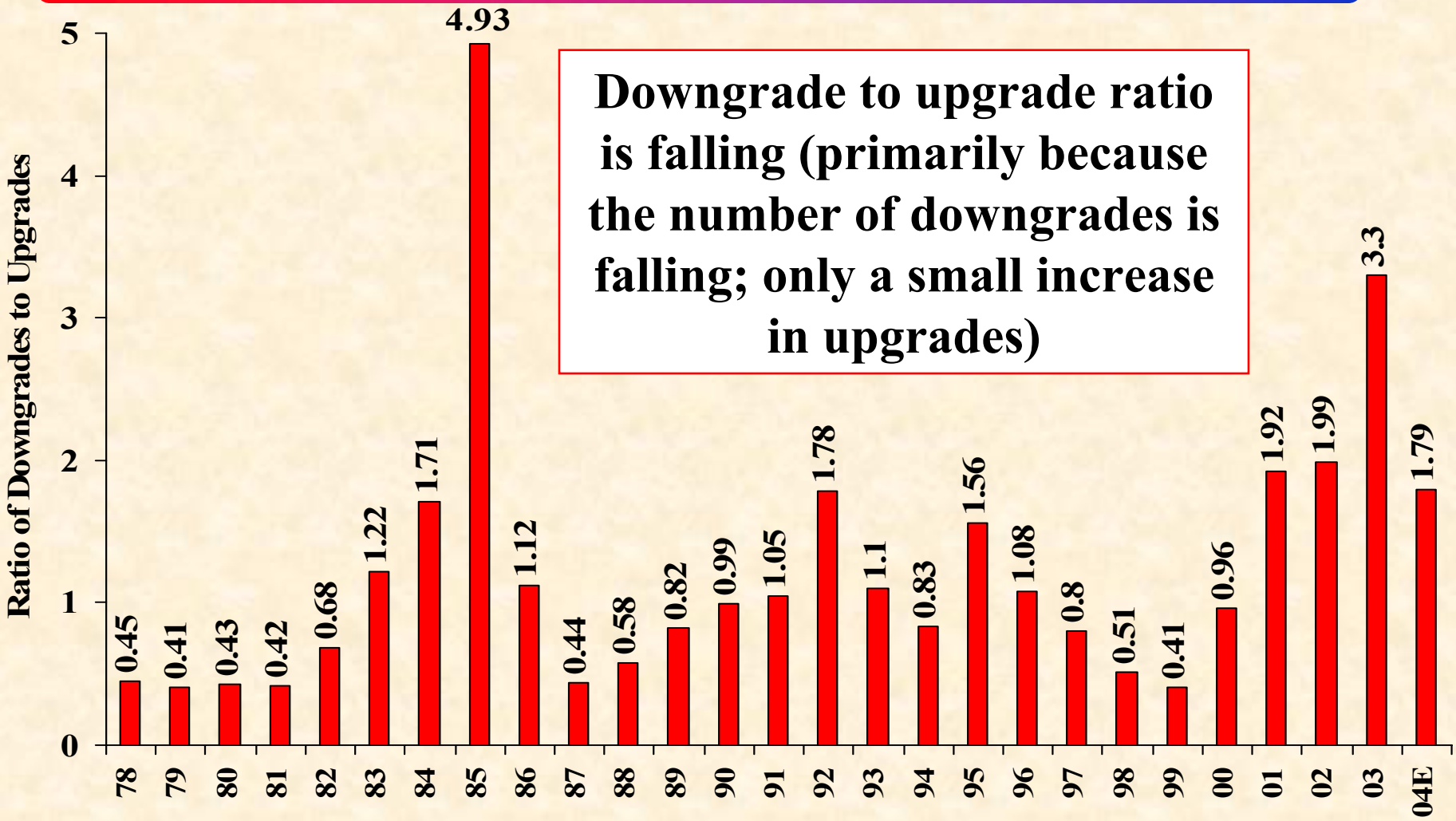
Reason for P/C Insolvencies

(218 Insolvencies, 1993-2002)



Source: A.M. Best, Insurance Information Institute

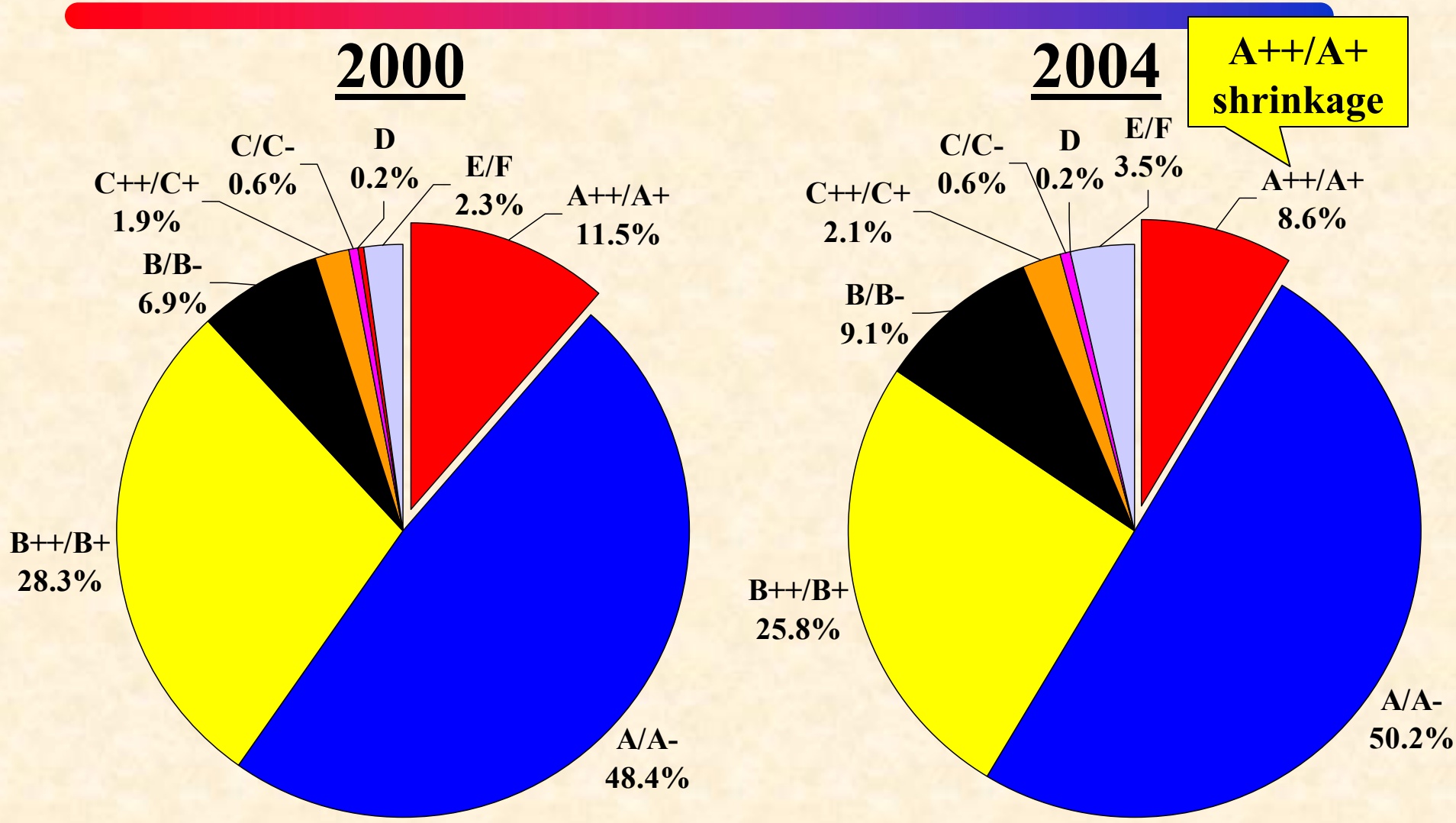
*Downgrade/Upgrade Ratio**



Sources: *Impairment Rate and Rating Transition Study—1977 to 2002*, A.M. Best & Co.

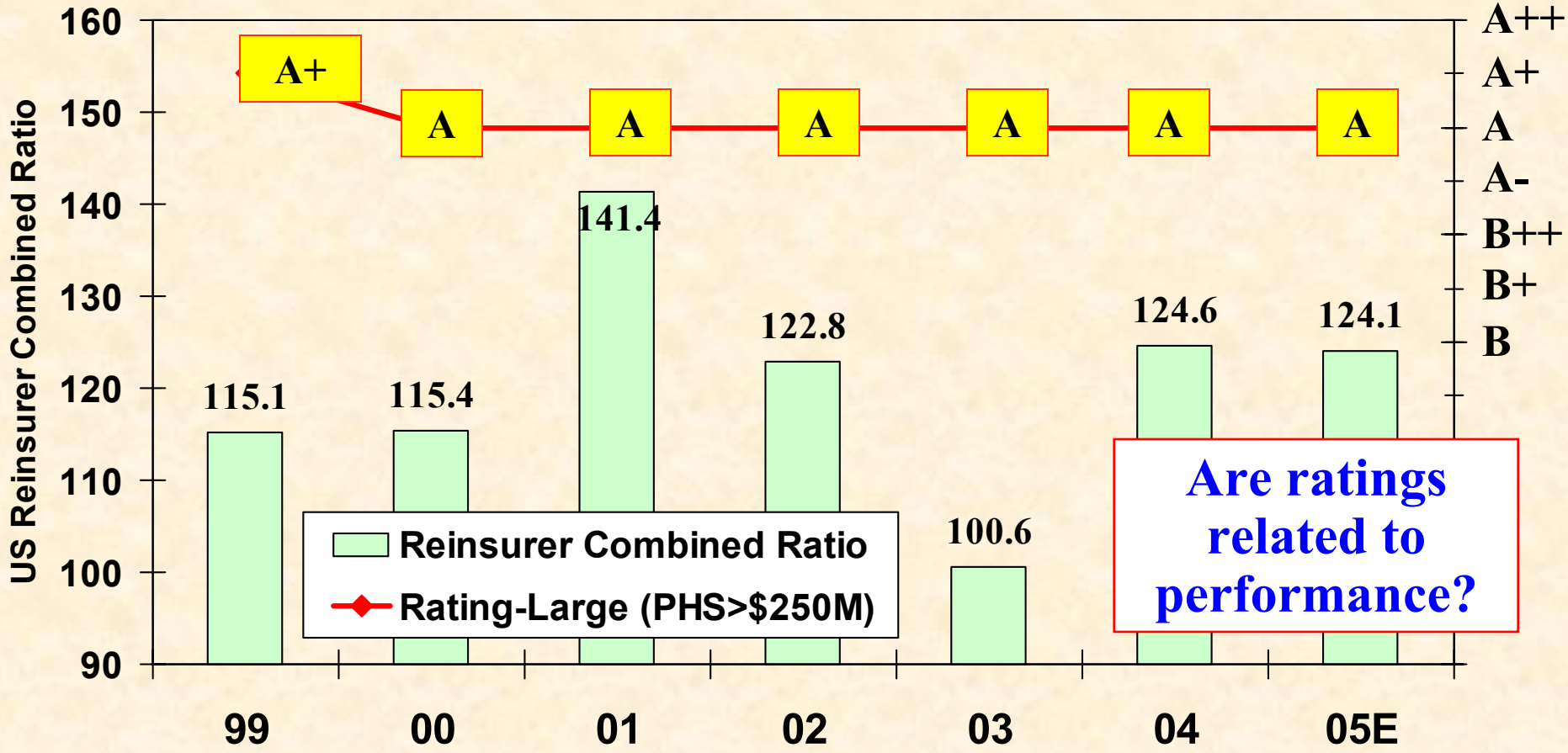
*U.S. property/casualty and life/health insurers before 2000; P/C only 2000-2004.

Historical Ratings Distribution,
US P/C Insurers, 2000 vs. 2004



Source: A.M. Best: *Rating Downgrades Slowed but Outpaced Upgrades for Fourth Consecutive Year,* Special Report, November 8, 2004.

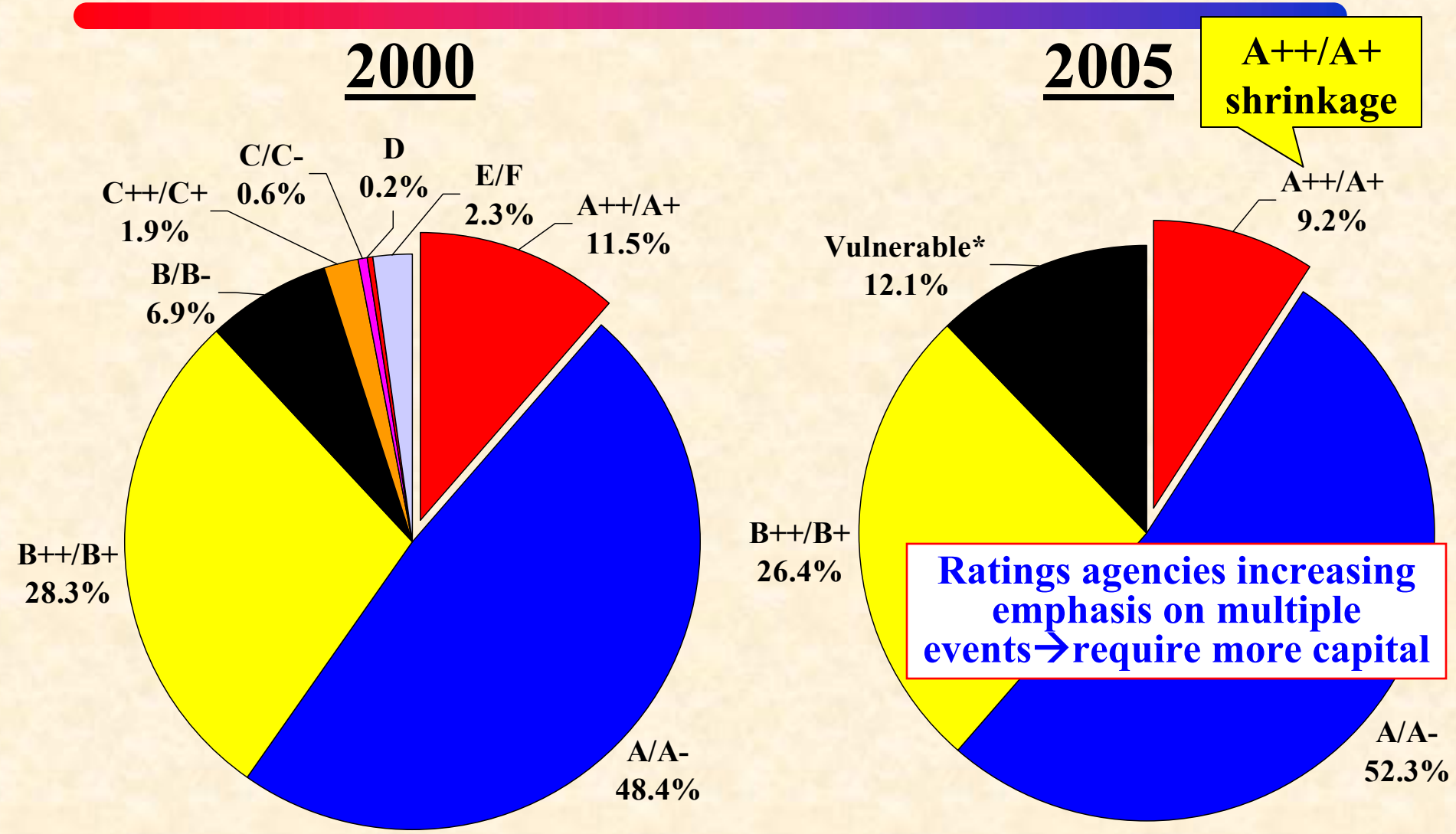
US Reinsurer Combined Ratio vs. Median Rating, 1999-2005E*



*Combined ratio is for all US reinsurers. Rating is for large reinsurers (policyholder surplus exceeding $250 million). The median rating for small reinsurers (PHS<$250M) was A- throughout the 1999-2003 period.

Source: A.M. Best: *Rating Downgrades Slowed but Outpaced Upgrades for Fourth Consecutive Year,* Special Report, November 8, 2004 and 2006 *Review & Preview.*

Historical Ratings Distribution,
US P/C Insurers, 2000 vs. 2005



Source: A.M. Best: *Rating Downgrades Slowed but Outpaced Upgrades for Fourth Consecutive Year,* Special Report, November 8, 2004 for 2000; 2006 *Review & Preview* for 2005 distribution. *Ratings 'B' and lower.

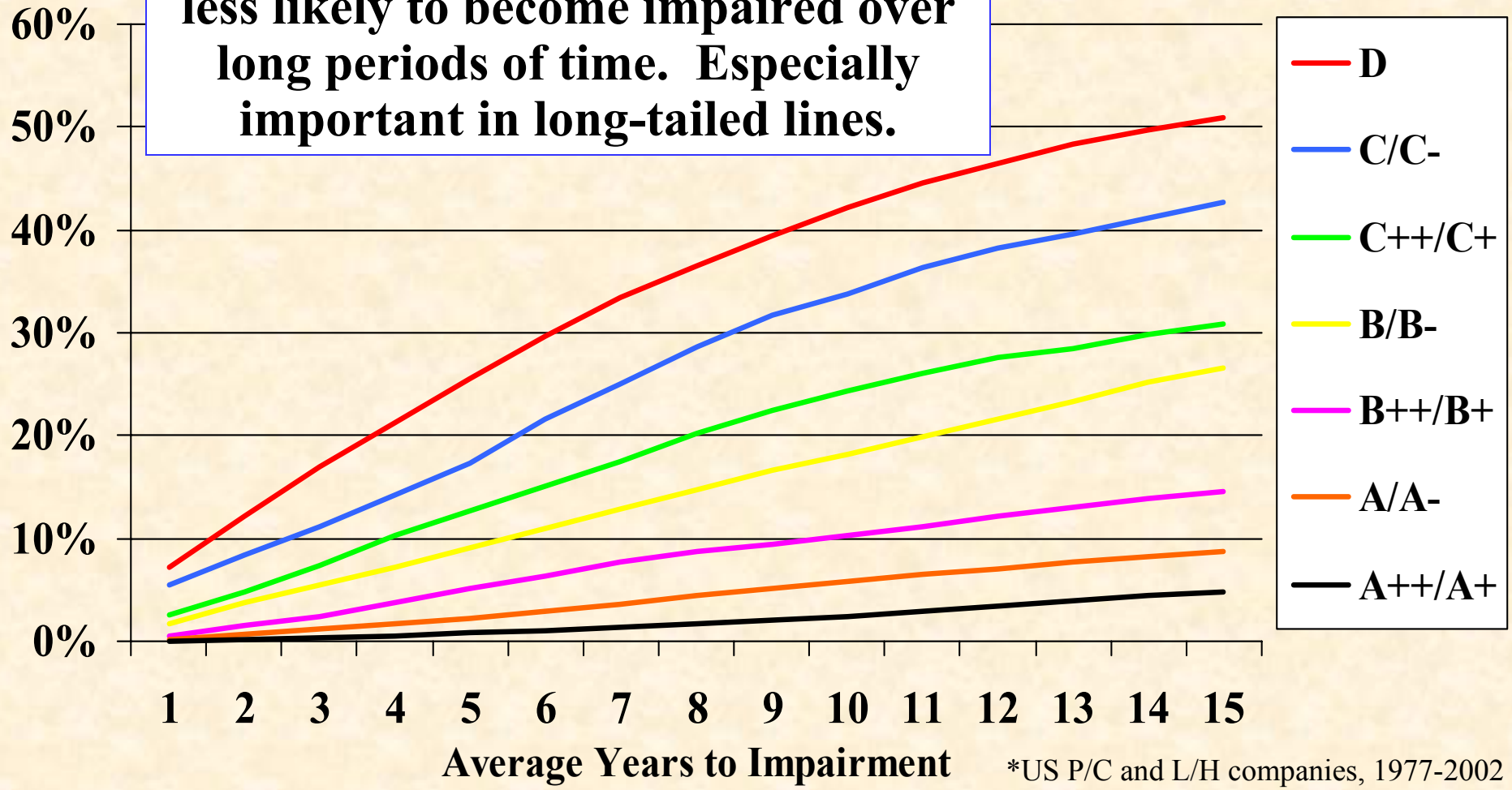
P/C Insurers Maintaining Rating of A+ or Better Rating for 50+ Years

P/C Company	Group Affiliation
1. AIU Insurance Co.	1. American International Group
2. Alfa Mutual Ins. Co.	2. Alfa Insurance Group
3. Amica Mutual Ins. Co.	3. Amica Mutual Group
4. Church Mutual Ins. Co.	4. None
5. Federal Insurance Co.	5. Chubb Group of Ins Cos.
6. General Reinsurance Corp.	6. Berkshire Hathaway Ins. Group
7. Great Northern Ins. Co.	7. Chubb Group of Ins Cos.
8. Lititz Mutual Ins. Co.	8. Lititz Mutual Group
9. Nationwide Mutual Fire Co.	9. Nationwide Mutual Group
10. Otsego Mutual Fire	10. None
11. Quincy Mutual Fire Ins. Co.	11. Quincy Mutual Group
12. State Automobile Mutual Ins. Co.	12. State Auto Ins. Group
13. State Farm Mutual Auto Ins. Co.	13. State Farm Group
14. Vigilant Insurance Co.	14. Chubb Group of Ins Cos.

Source: *Best's Review*, January 1, 2004.

*Cumulative Average Impairment Rates by Best Financial Strength Rating**

Insurers with strong ratings are far less likely to become impaired over long periods of time. Especially important in long-tailed lines.

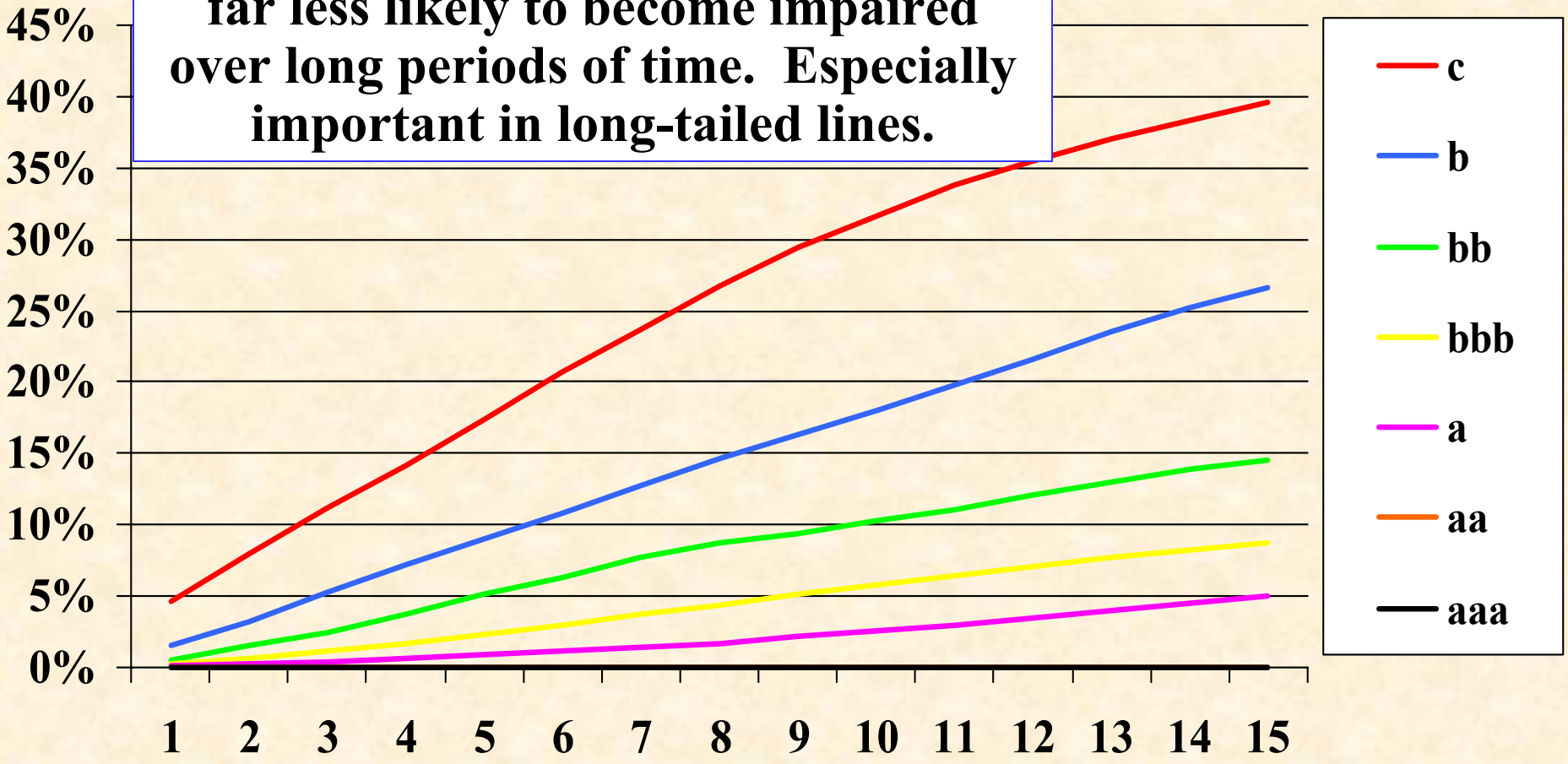


*US P/C and L/H companies, 1977-2002

Sources: A.M. Best: *Best's Impairment Rate and Rating Transition Study—1977-2002,* March 1, 2004.

Cumulative Avg. Implied Impairment Rates by Holding Co. Senior Unsecured Debt

Insurers with strong credit ratings are far less likely to become impaired over long periods of time. Especially important in long-tailed lines.



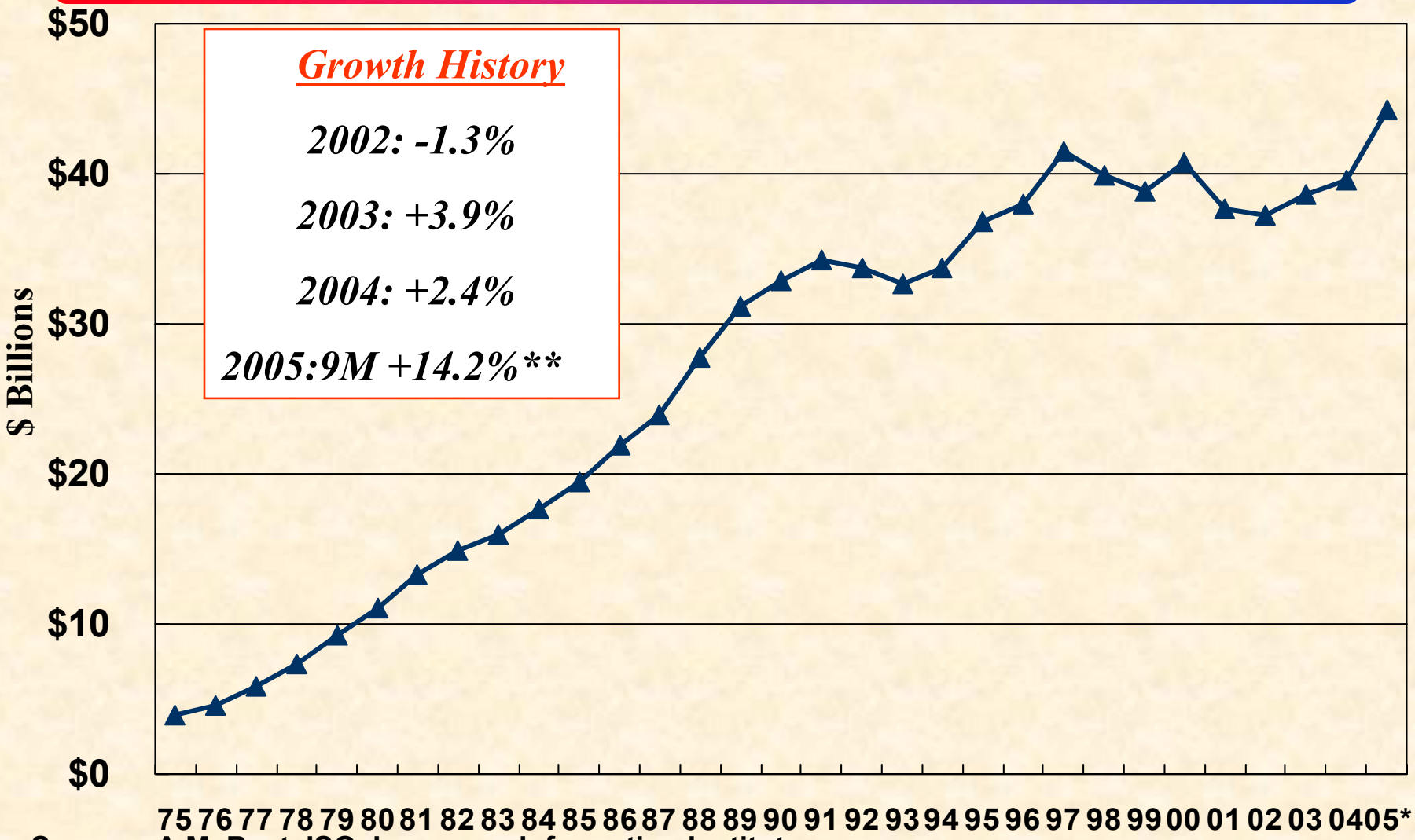
*US P/C and L/H companies, 1977-2002

Sources: A.M. Best: *Best's Impairment Rate and Rating Transition Study—1977-2002,* March 1, 2004.

INVESTMENTS

Improvements Still Support Cash Flow Underwriting

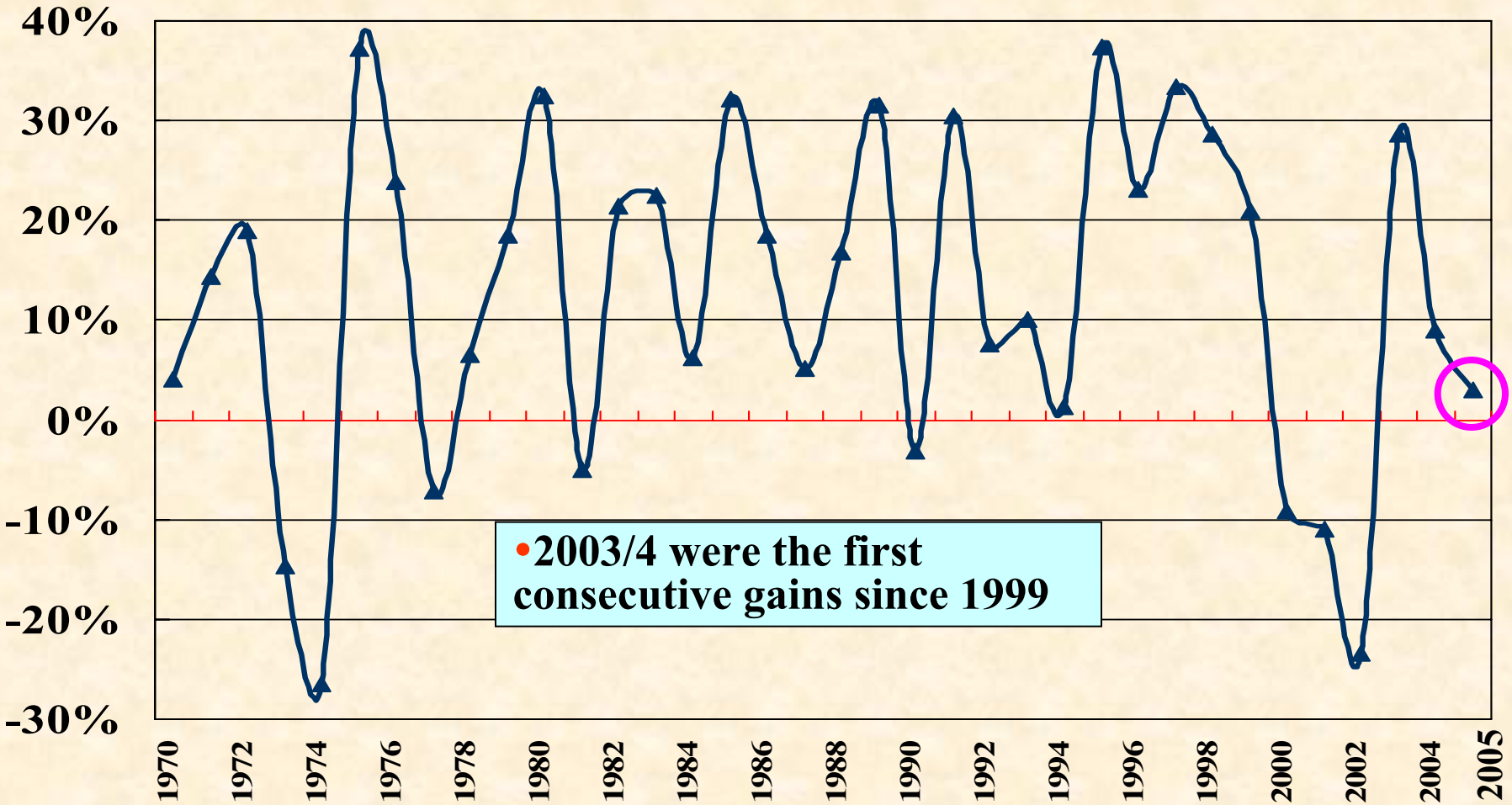
Net Investment Income



Source: A.M. Best, ISO, Insurance Information Institute;
*Annualized. **2005:Q3 over 2004:Q3, adjusted for special dividend of $3.1B.

Total Returns for Large Company Stocks: 1970-2005*

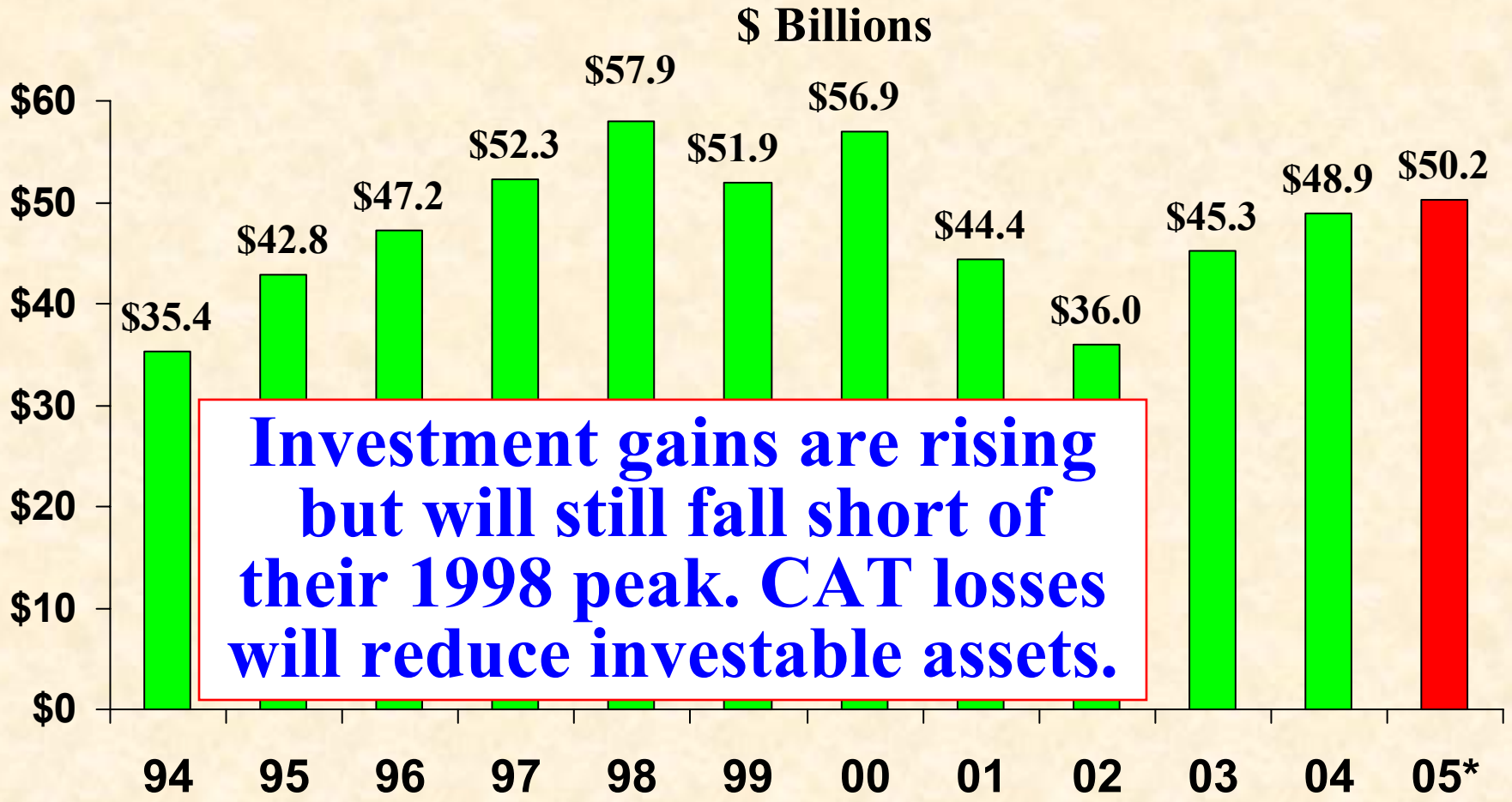
S&P 500 was up 3% in 2005, the third up year in a row.



Source: Ibbotson Associates, Insurance Information Institute.

*Through December 31, 2005.

*Property/Casualty Insurance Industry Investment Gain**

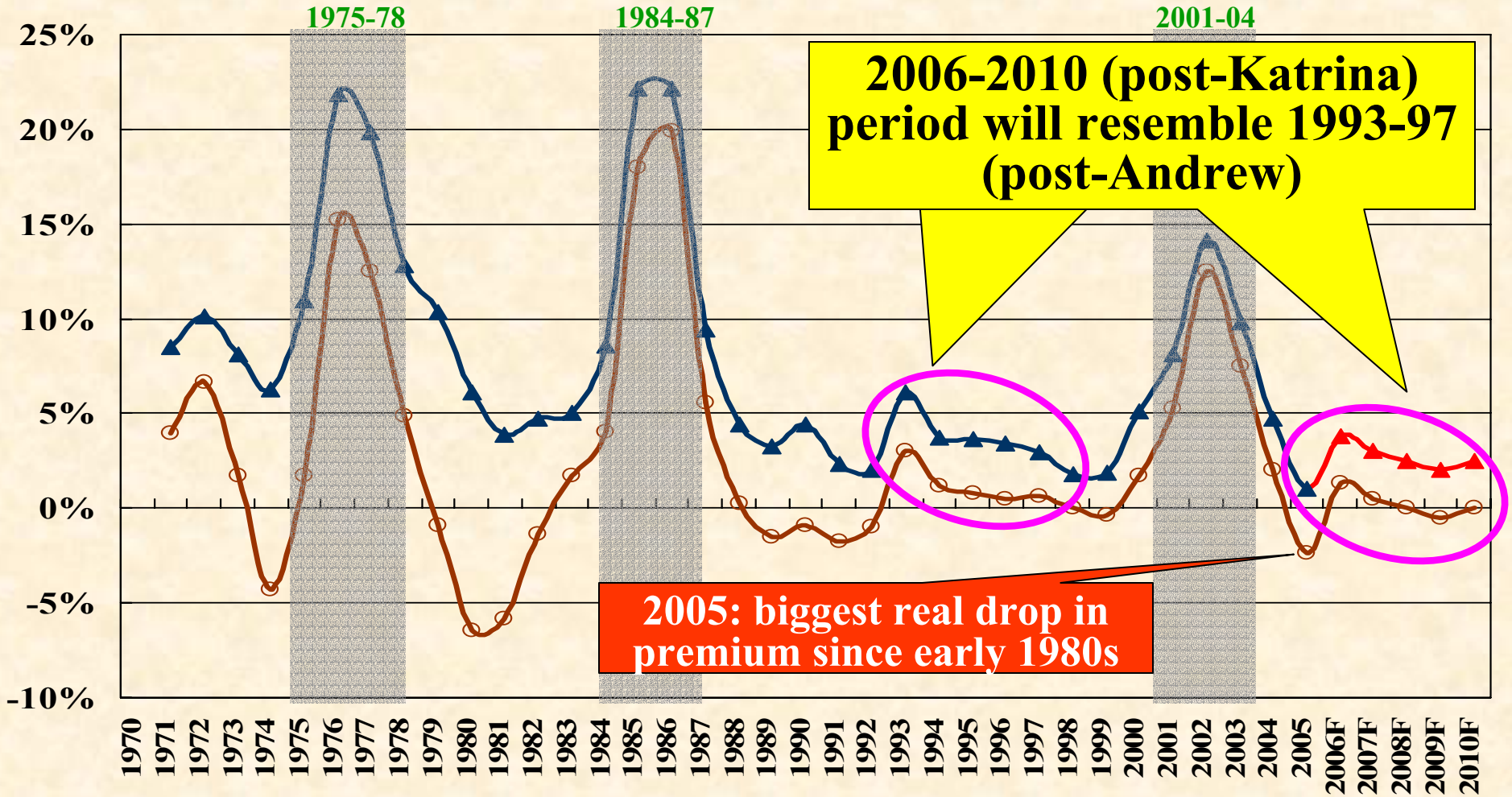


*Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.
Annualized 2005 figure based on data as of 9/30/05, adjusted for special dividend of $3.1B.
Source: Insurance Services Office; Insurance Information Institute.

PRICING TRENDS

The Hard Market of 2006: Fact or Fantasy?

Strength of Recent Hard Markets by NWP Growth*

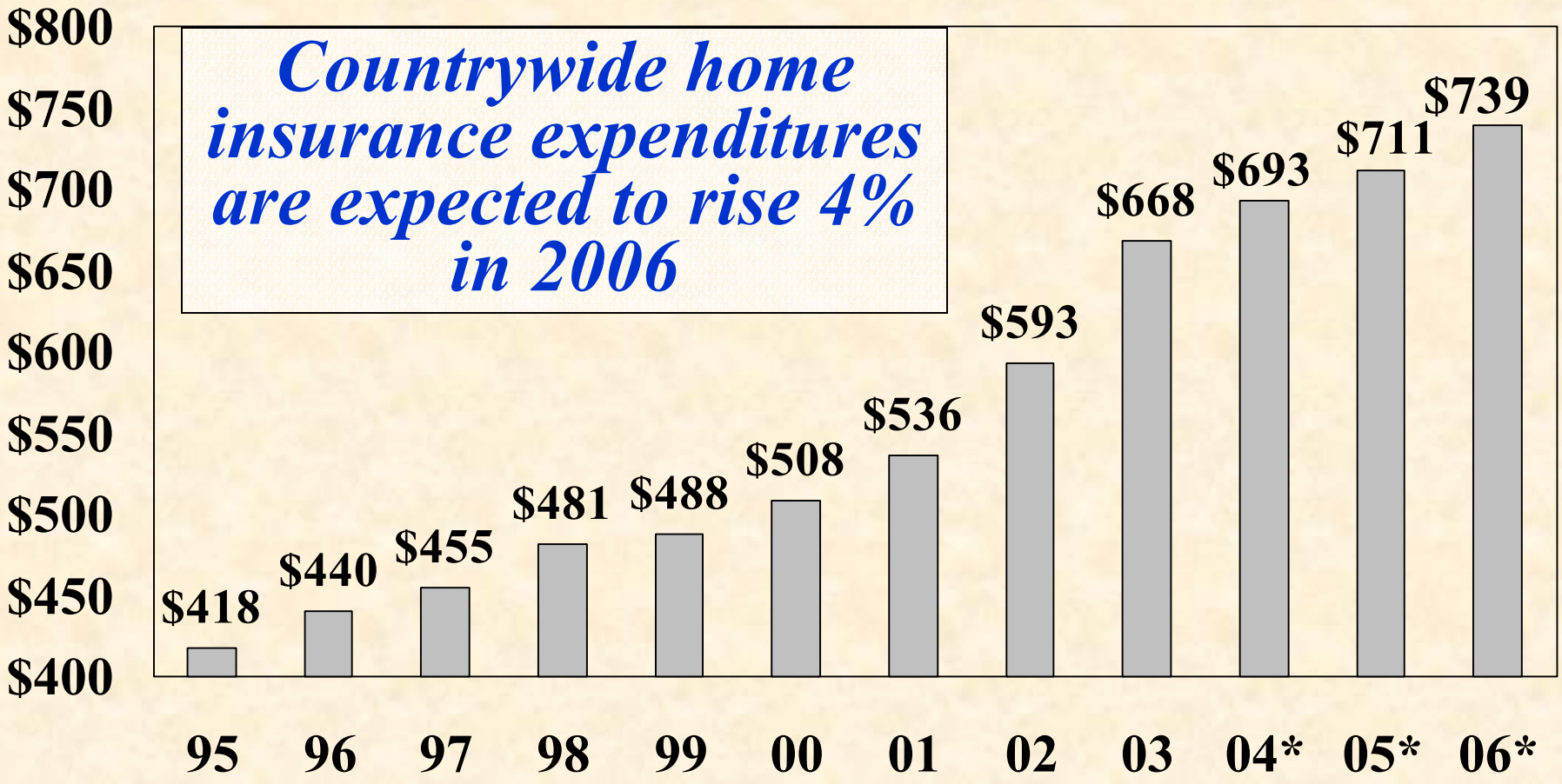


Note: Shaded areas denote hard market periods.

Source: A.M. Best, Insurance Information Institute

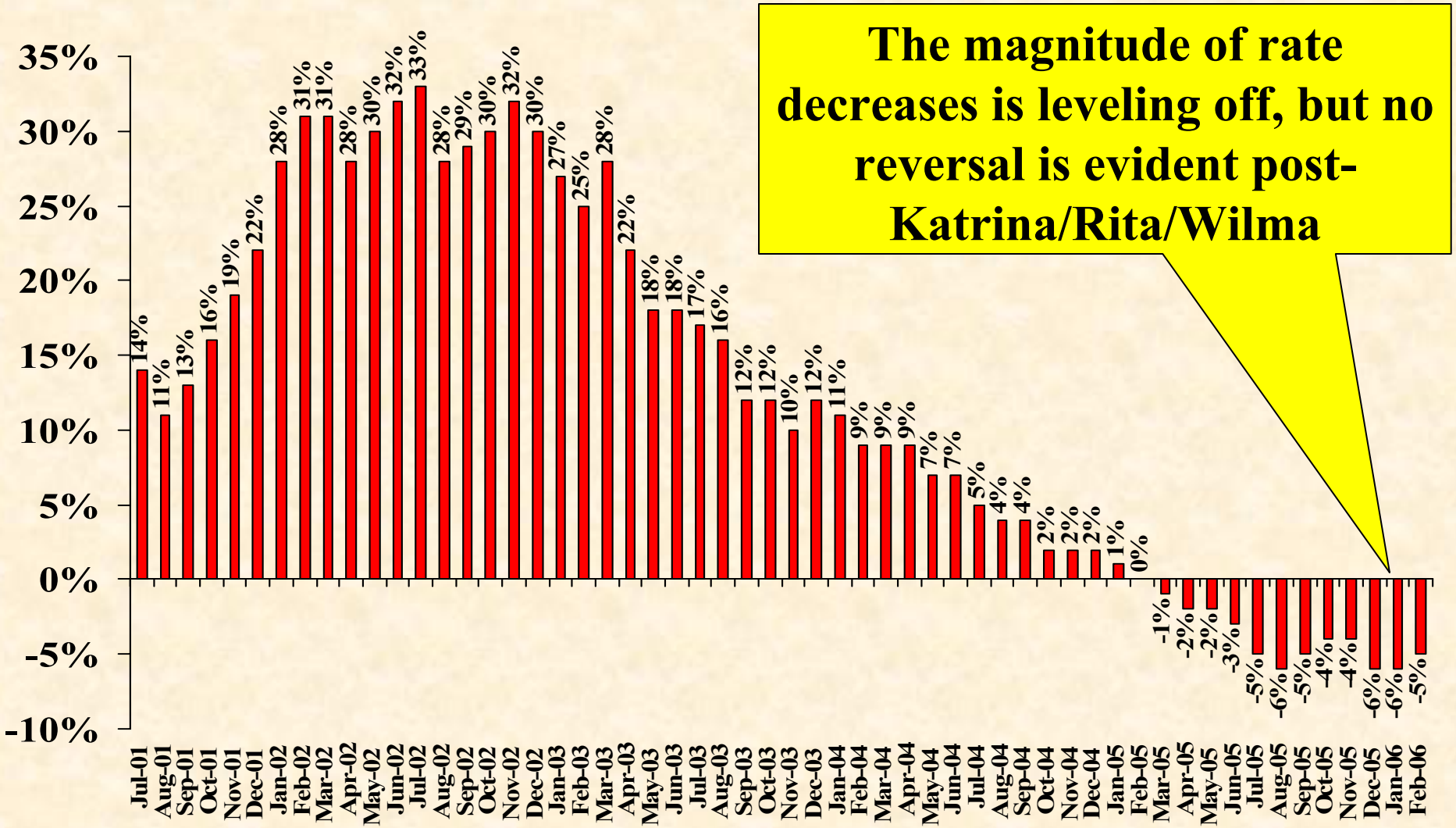
*2005-10 figures are III forecasts/estimates.

Average Expenditures on Homeowners Insurance



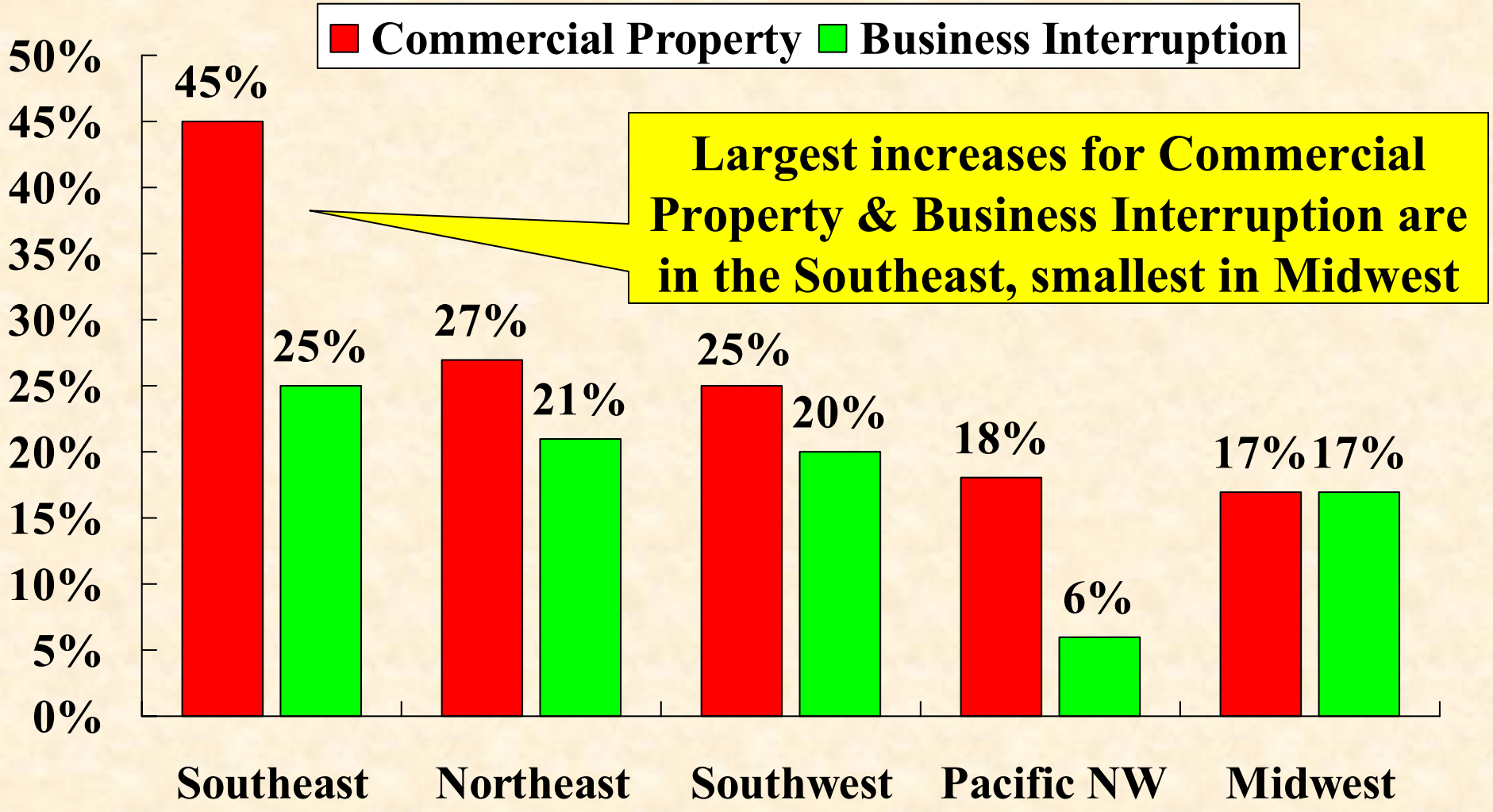
*Insurance Information Institute Estimates/Forecasts
Source: NAIC, Insurance Information Institute

Commercial Premium Rate Changes Are Sharply Lower



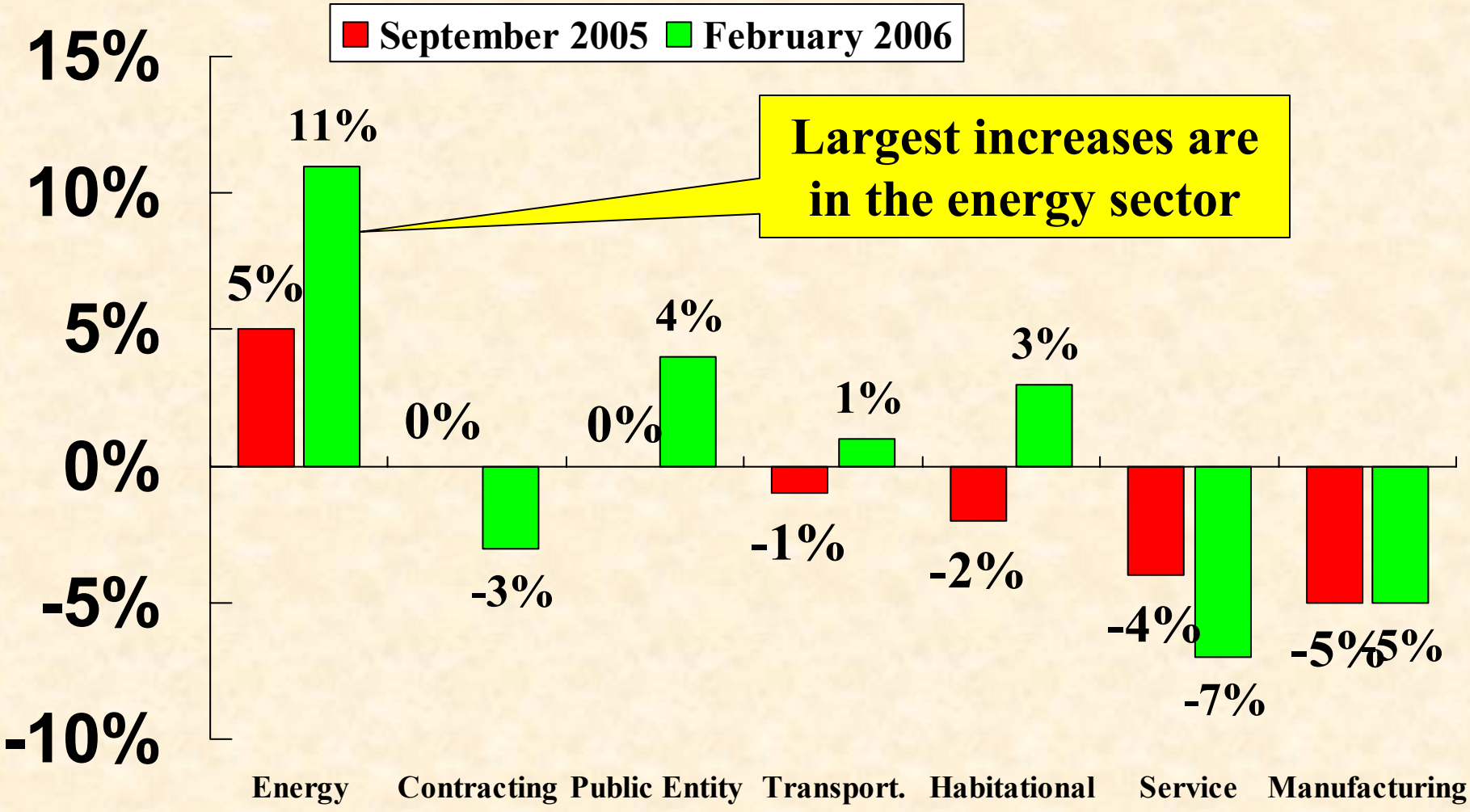
Source: MarketScout.com

Percent of Commercial Accounts Renewing w/Positive Rate Changes, 4th Qtr. 2005



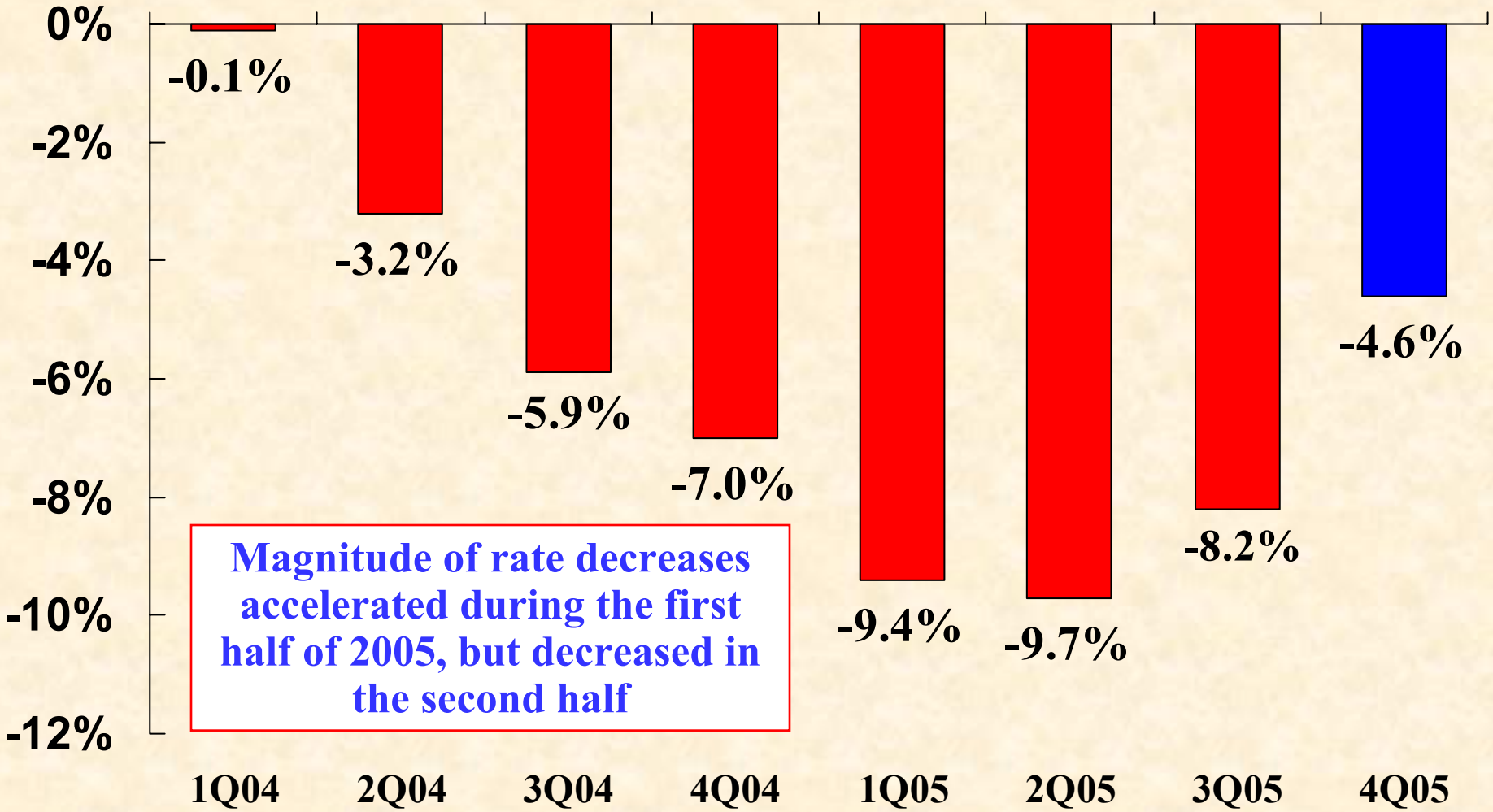
Source: Council of Insurance Agents and Brokers

Average Rate Increase/Decrease by Industry Class



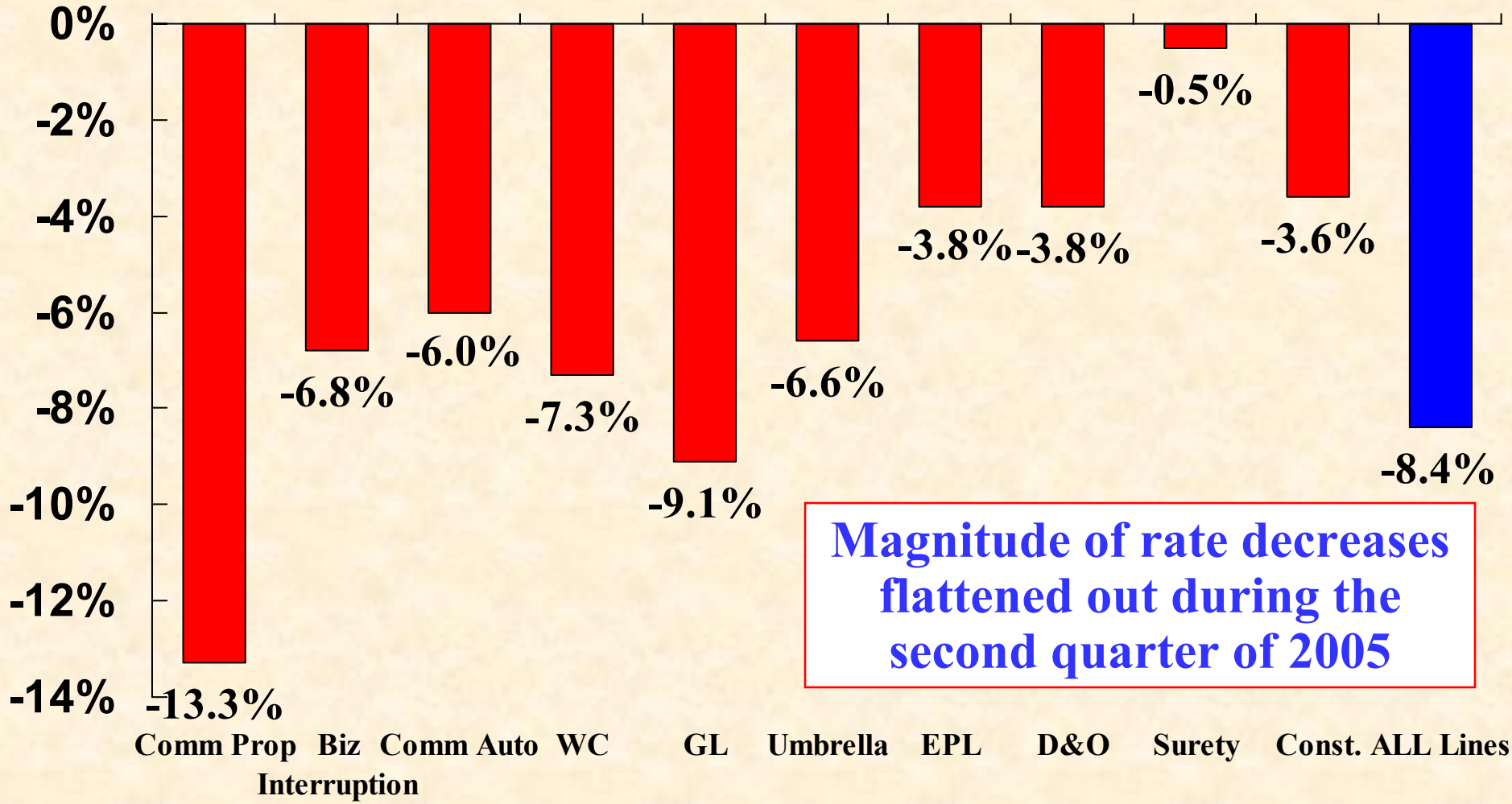
Source: MarketScout.com

Average Rate Change, All Lines, (1Q:2004 – 4Q:2005)



Source: Council of Insurance Agents & Brokers; Insurance Information Institute

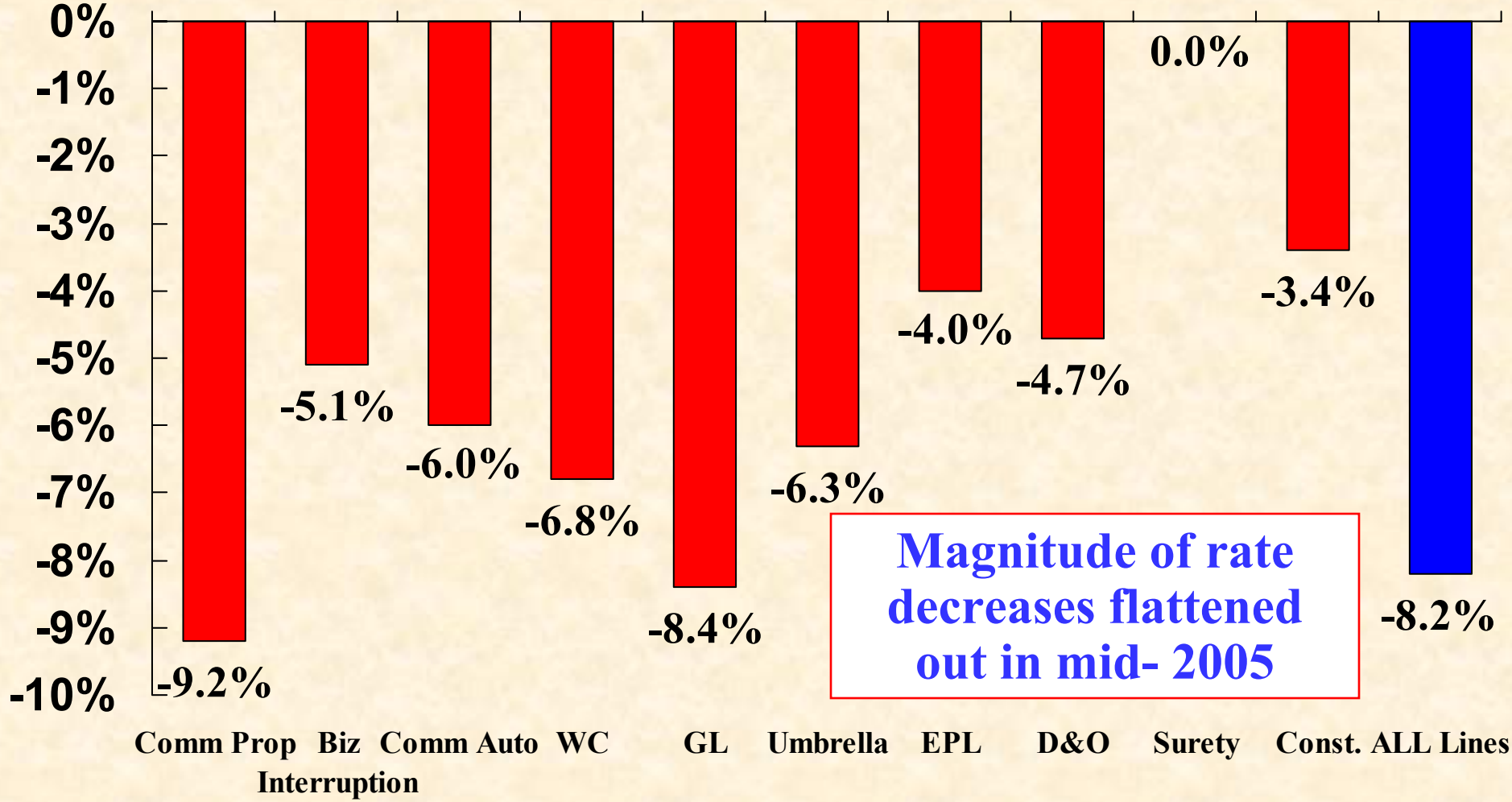
Rate Changes by Line, 2nd Qtr. 2005



Magnitude of rate decreases flattened out during the second quarter of 2005

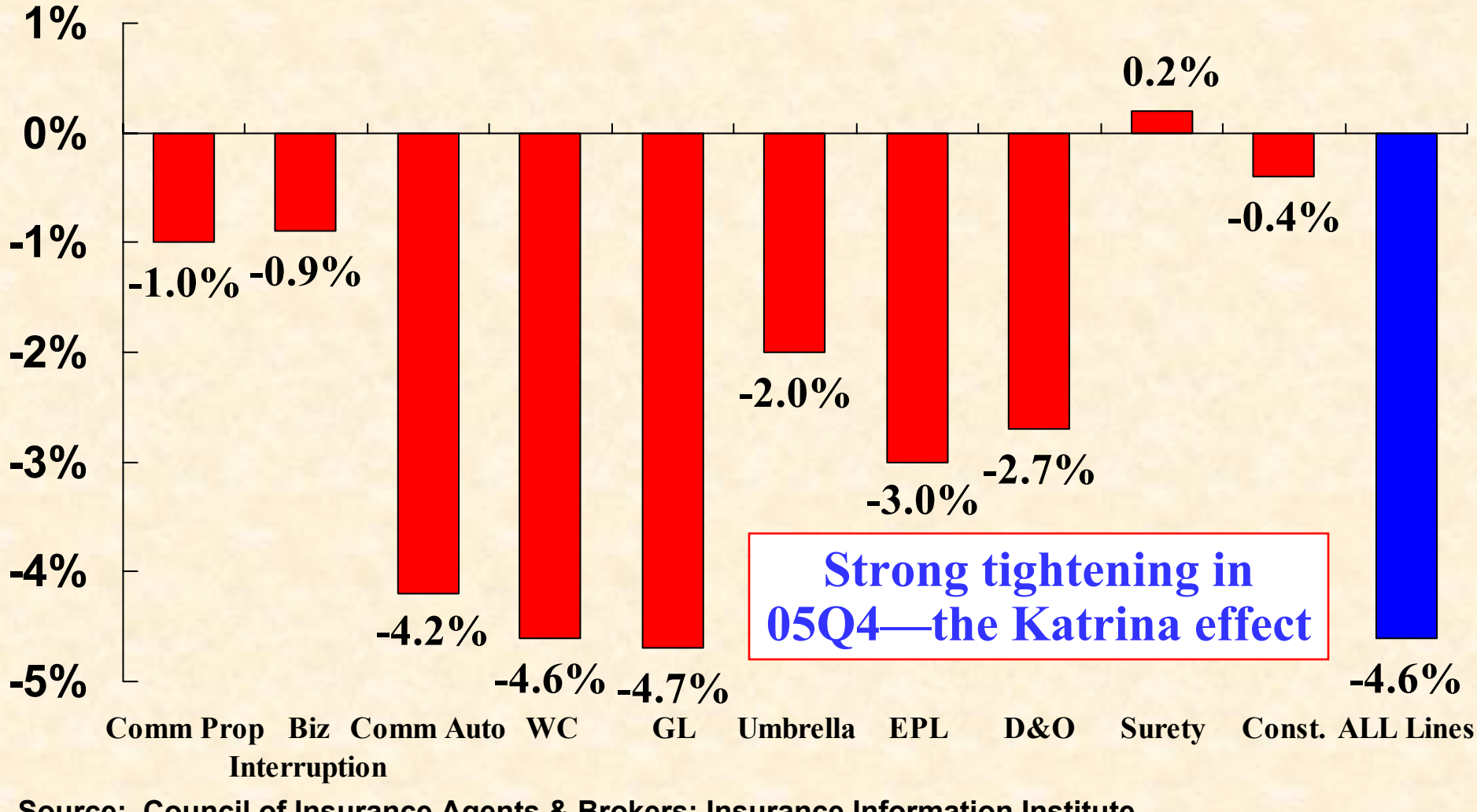
Source: Council of Insurance Agents & Brokers; Insurance Information Institute

Rate Changes by Line, 3nd Qtr. 2005



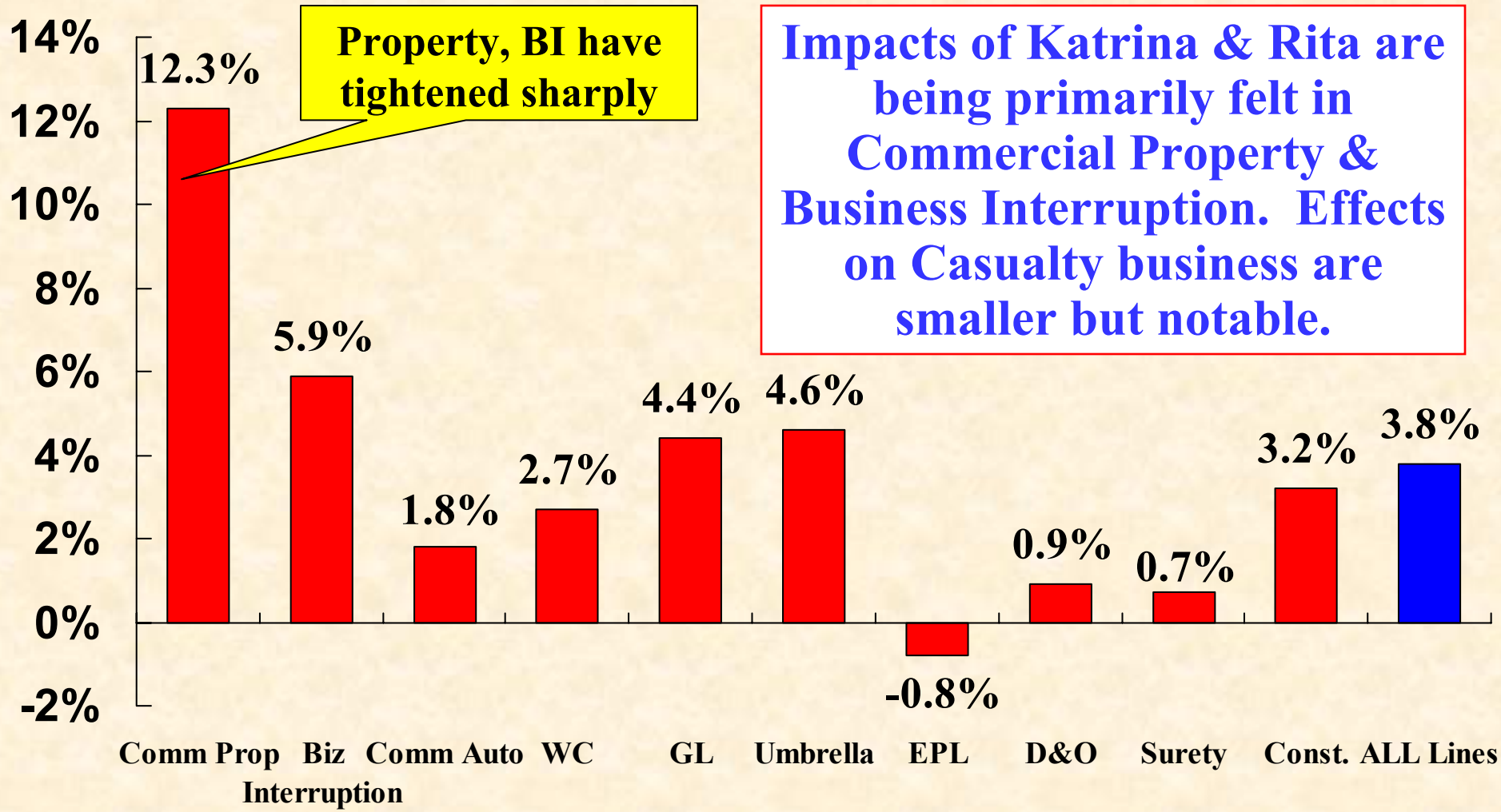
Source: Council of Insurance Agents & Brokers; Insurance Information Institute

Rate Changes by Line, 4th Qtr. 2005



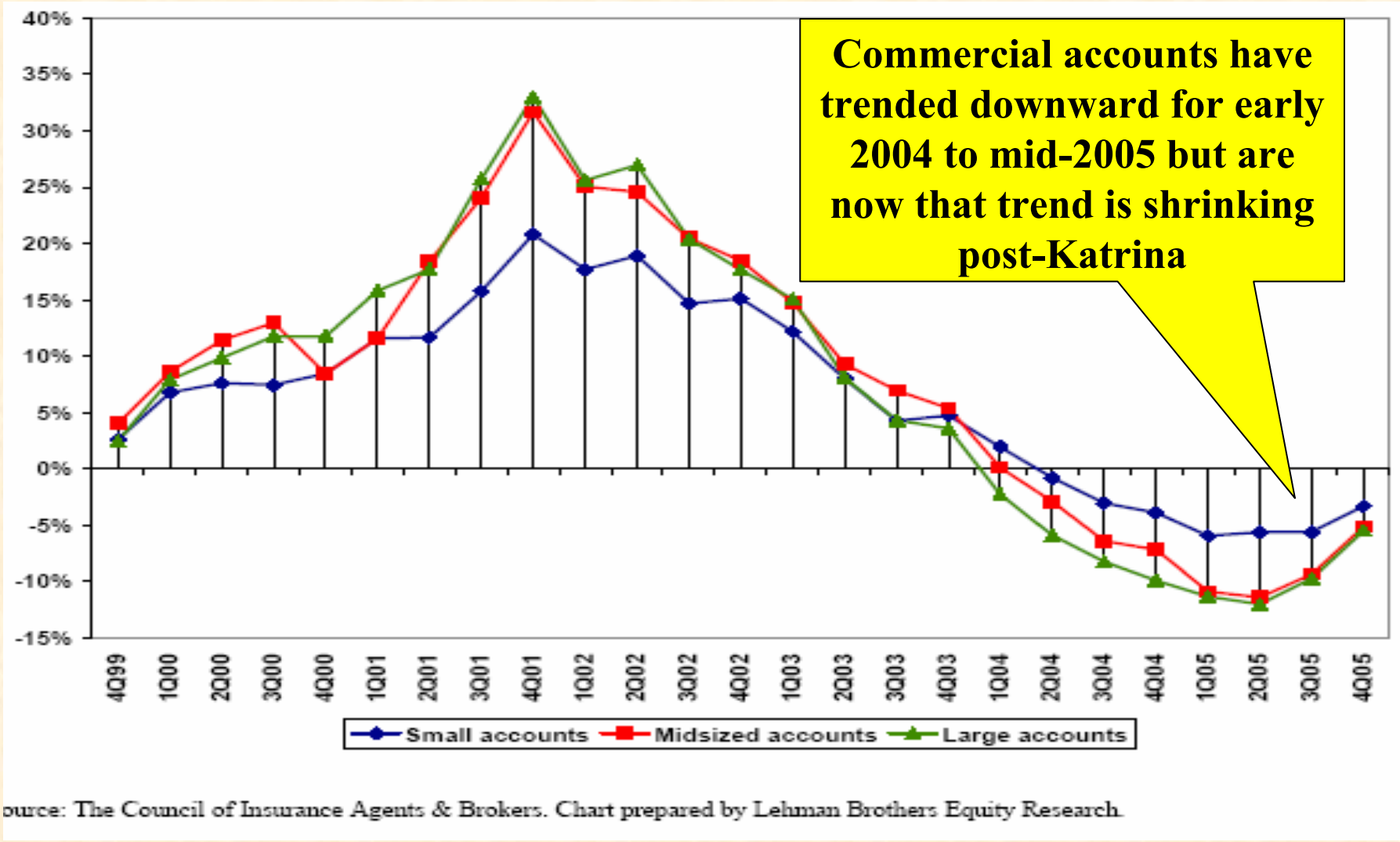
Source: Council of Insurance Agents & Brokers; Insurance Information Institute

Absolute Change in Price by Line, 4th Qtr. 2005 vs. 2nd Qtr. 2005



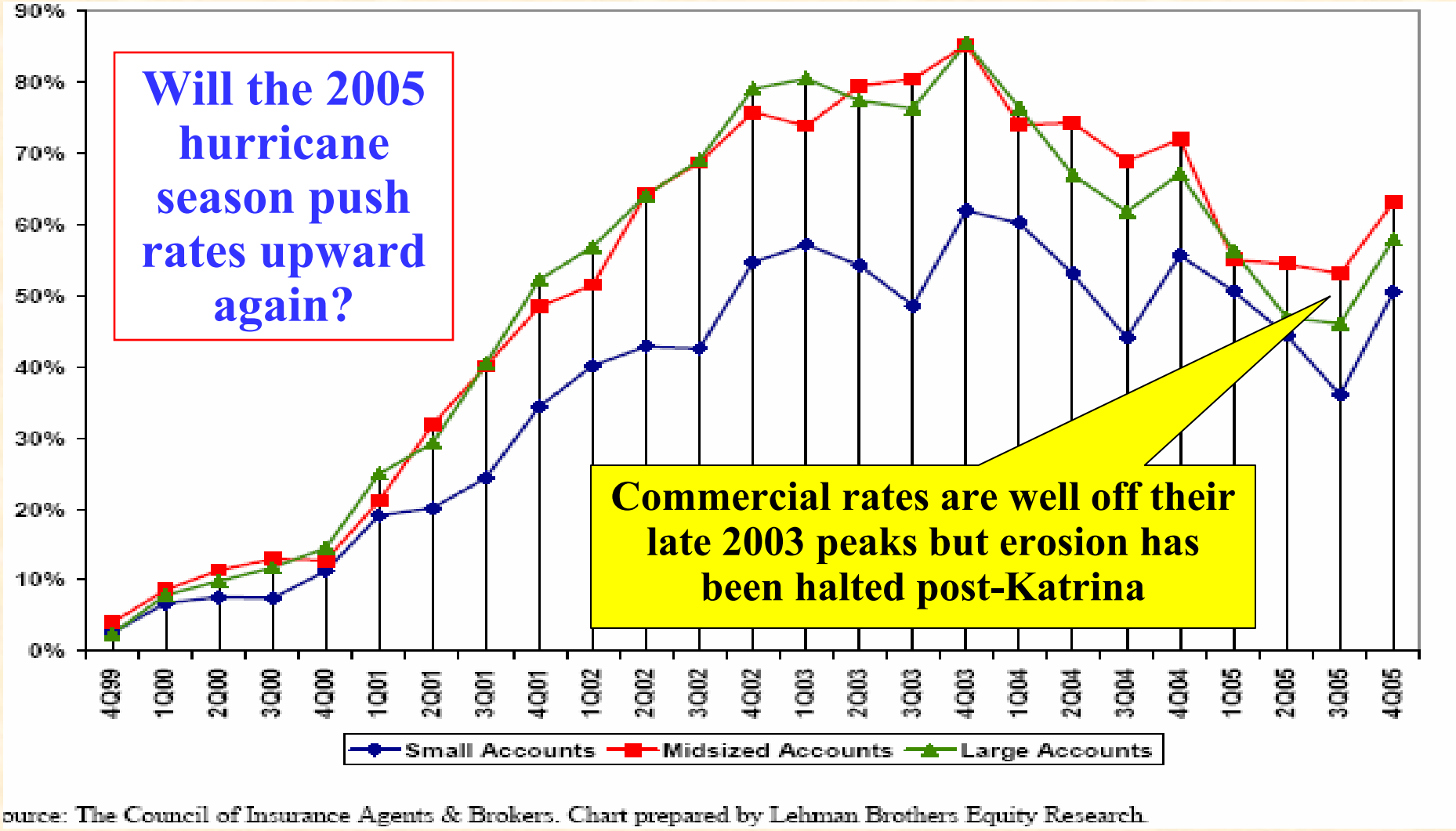
Source: Council of Insurance Agents & Brokers; Insurance Information Institute

Average Commercial Rate Change by Account Size



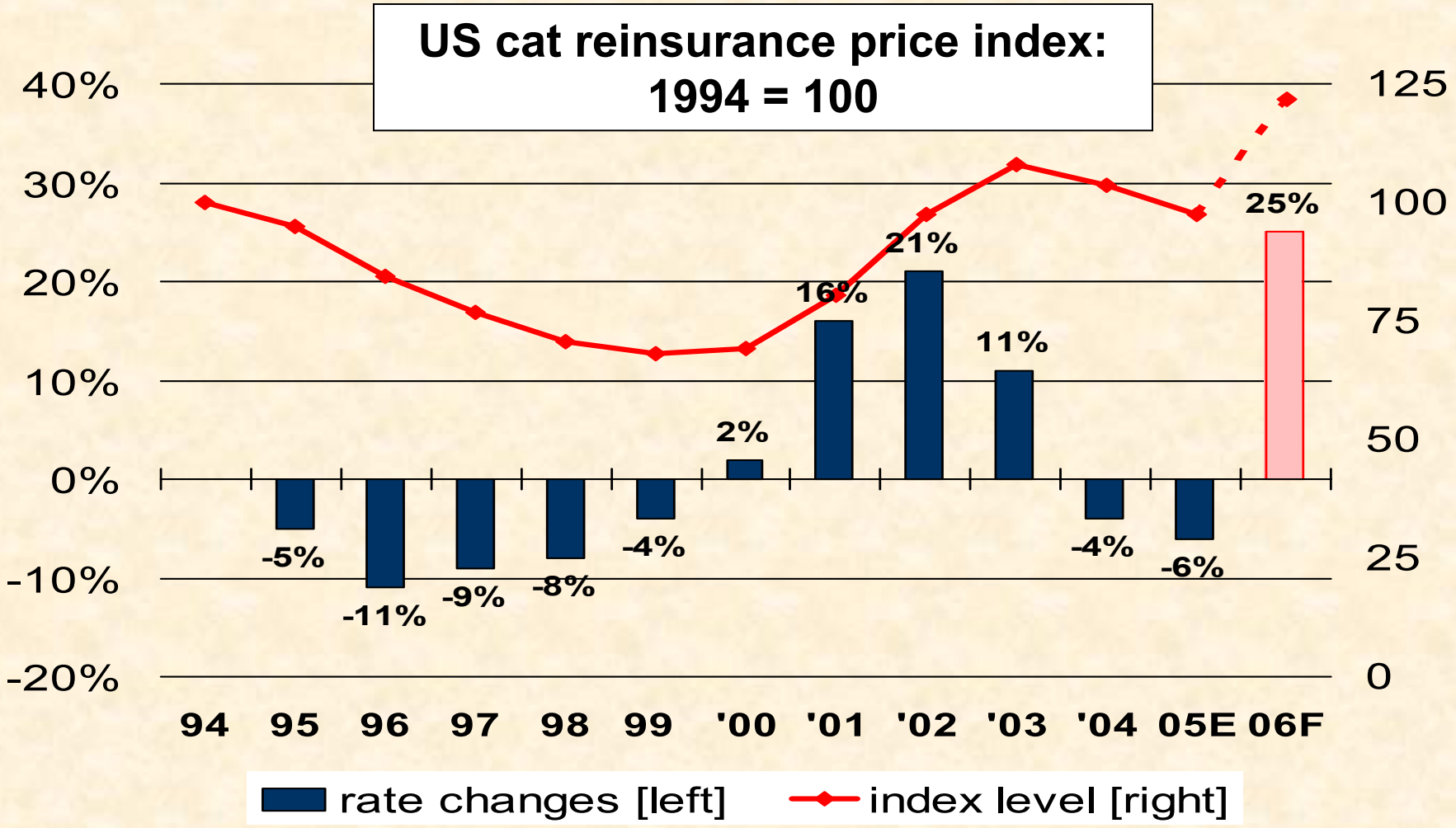
ource: The Council of Insurance Agents & Brokers. Chart prepared by Lehman Brothers Equity Research.

Cumulative Quarterly Rate Change by Account Size



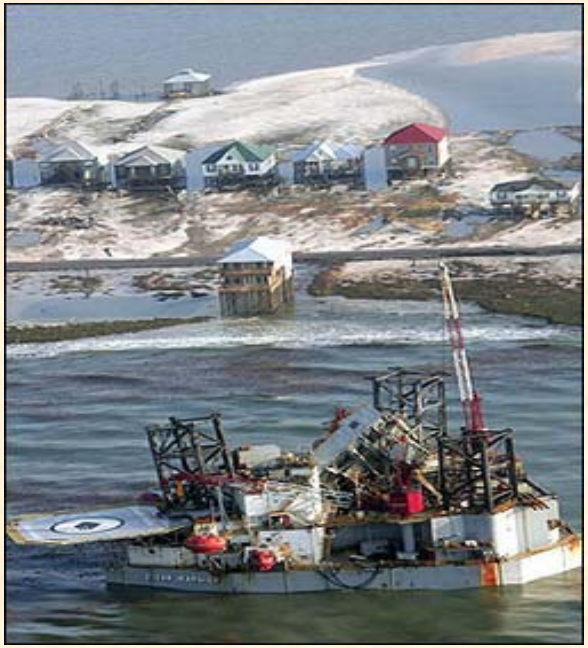
ource: The Council of Insurance Agents & Brokers. Chart prepared by Lehman Brothers Equity Research

Reinsurance Prices Surged in 2006 Following Record CATs in 2005



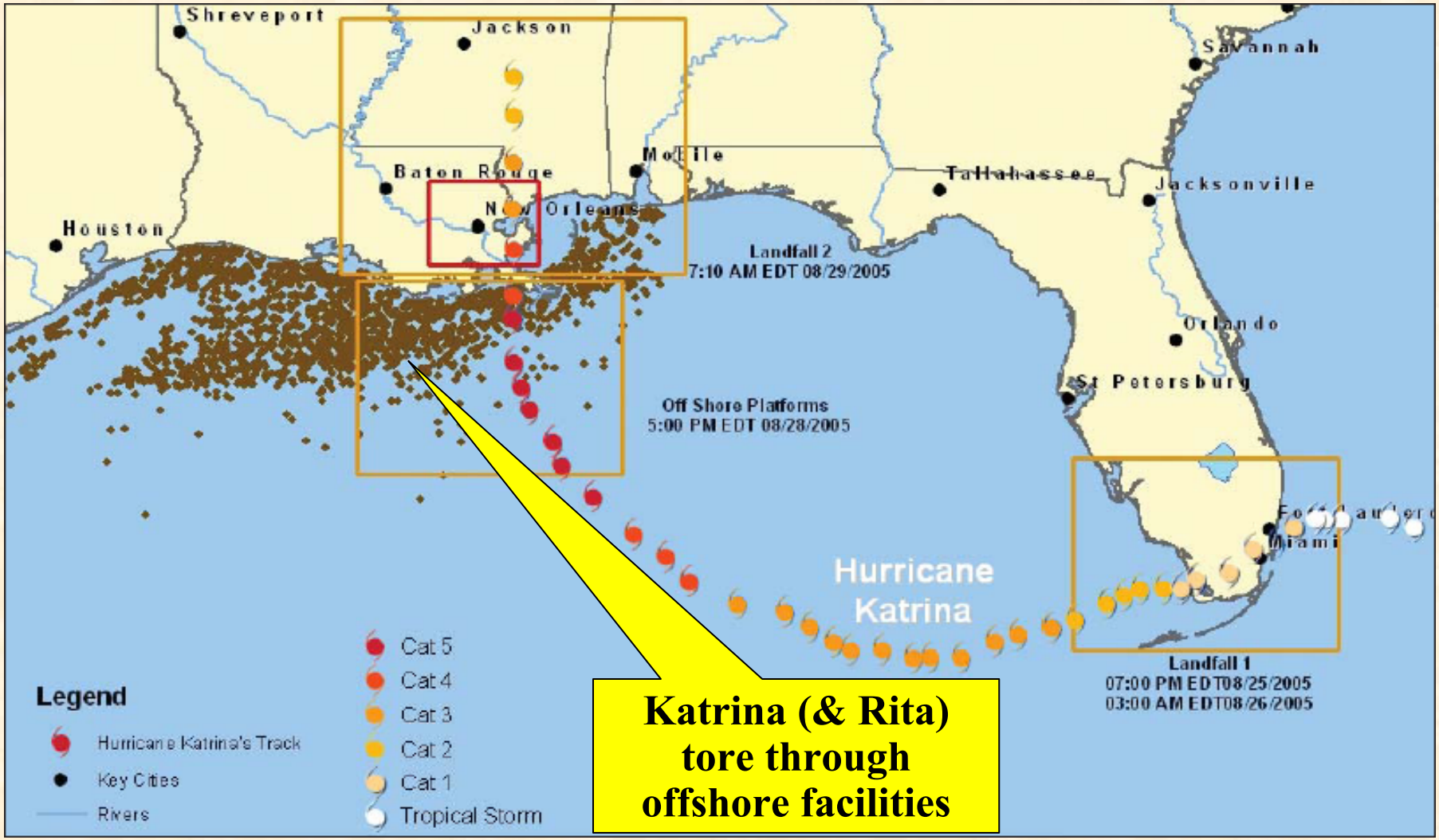
Sources: Swiss Re, Cat Market Research; Insurance Information Institute estimate for 2006.

Focus on the Energy Sector



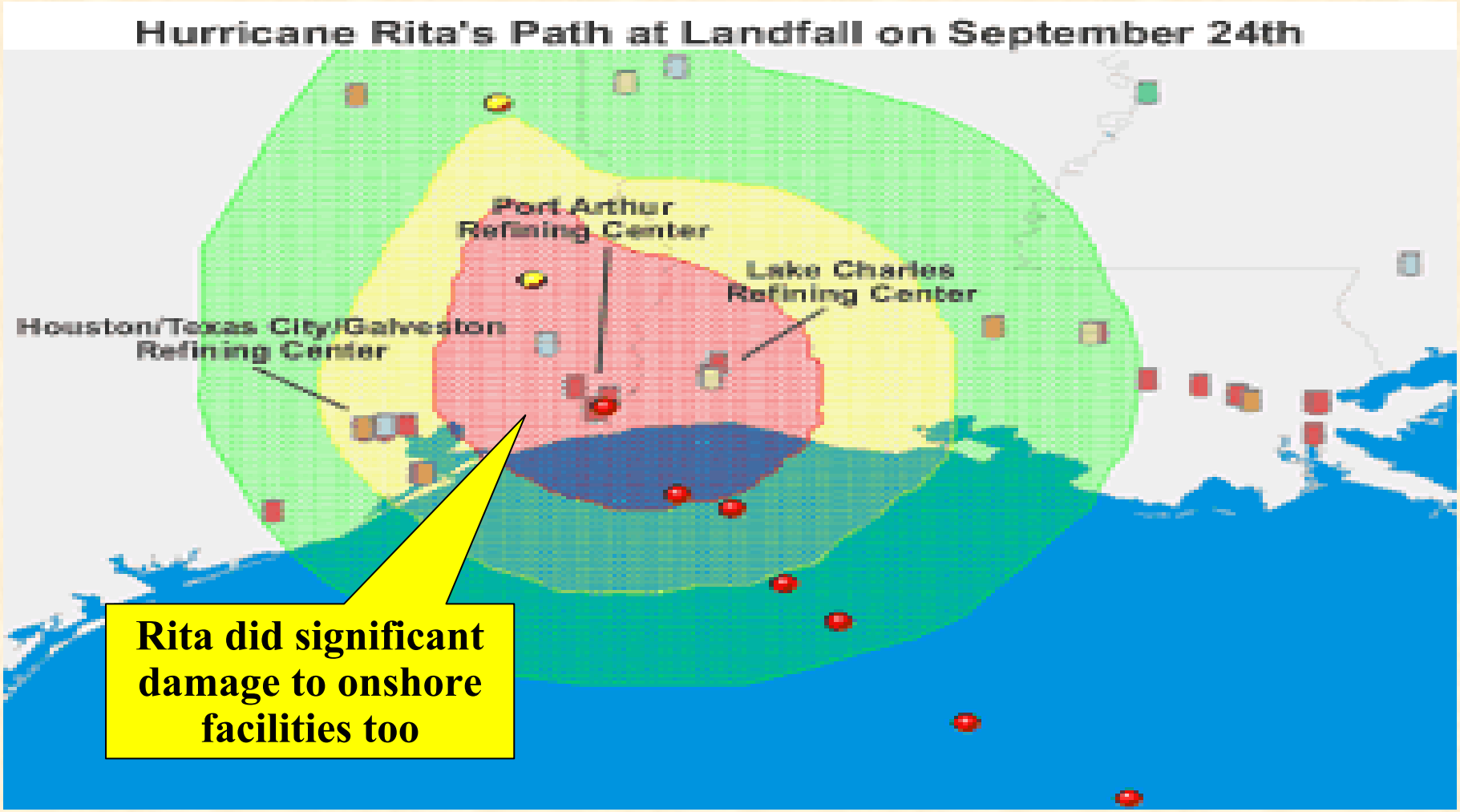
A wrecked oil platform washes ashore in Alabama in the wake of Hurricane Katrina.

Katrina's Path of Destruction Through the Offshore Energy Industry



Source: "*Hurricane Katrina: Profile of a Super Cat*," RMS, October 2005.

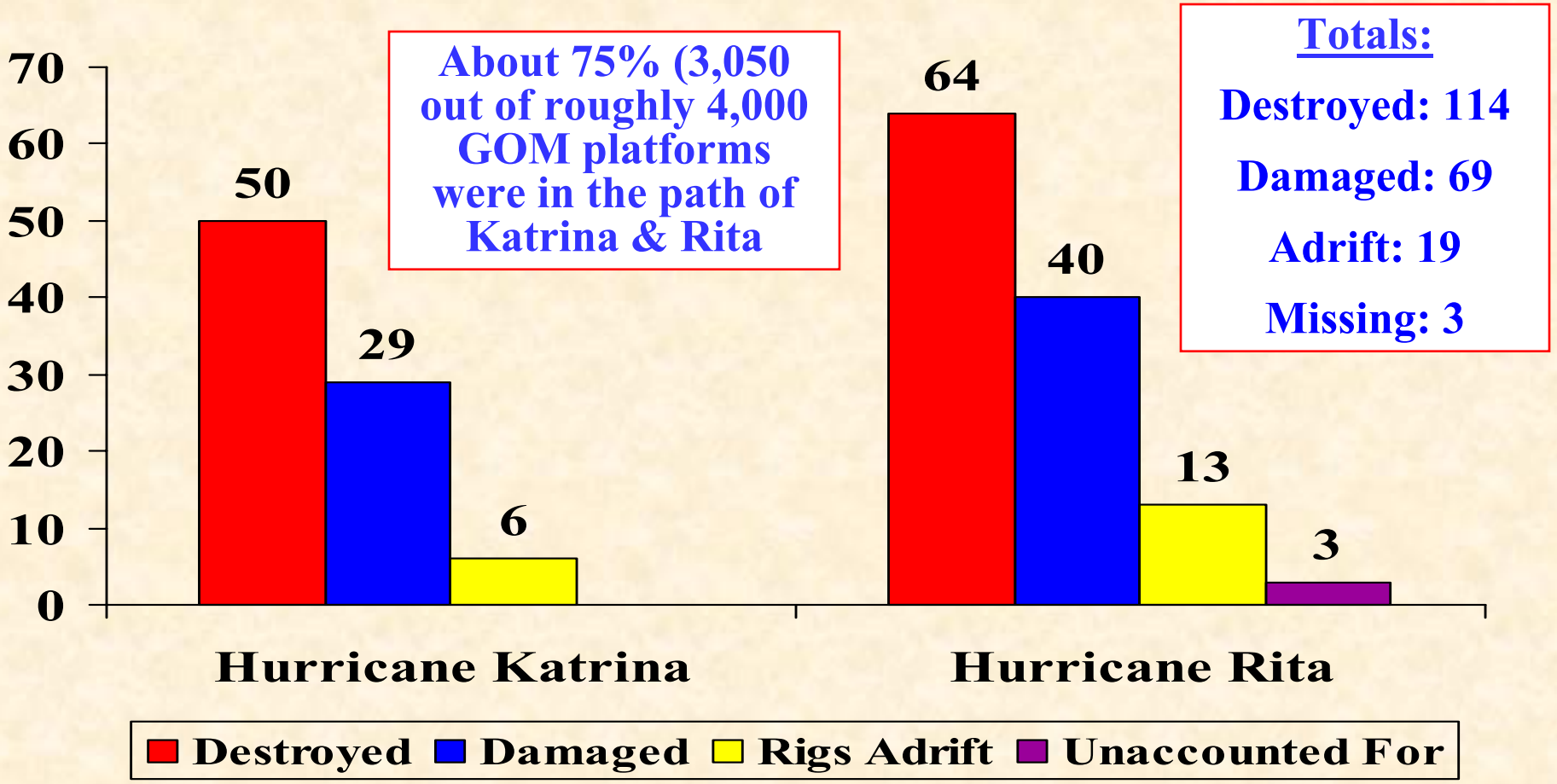
Hurricane Rita's Path Was at Least as Devastating for Energy Concerns



Source: Energy Information Administration; iMapData Inc.

Hurricanes Katrina/Rita: Damage to Oil Platforms and Rigs in Gulf of Mexico

No. of Platforms/Rigs Destroyed, Damaged or Adrift, as of October 4, 2005.



About 75% (3,050 out of roughly 4,000 GOM platforms were in the path of Katrina & Rita

Totals:

Destroyed: 114

Damaged: 69

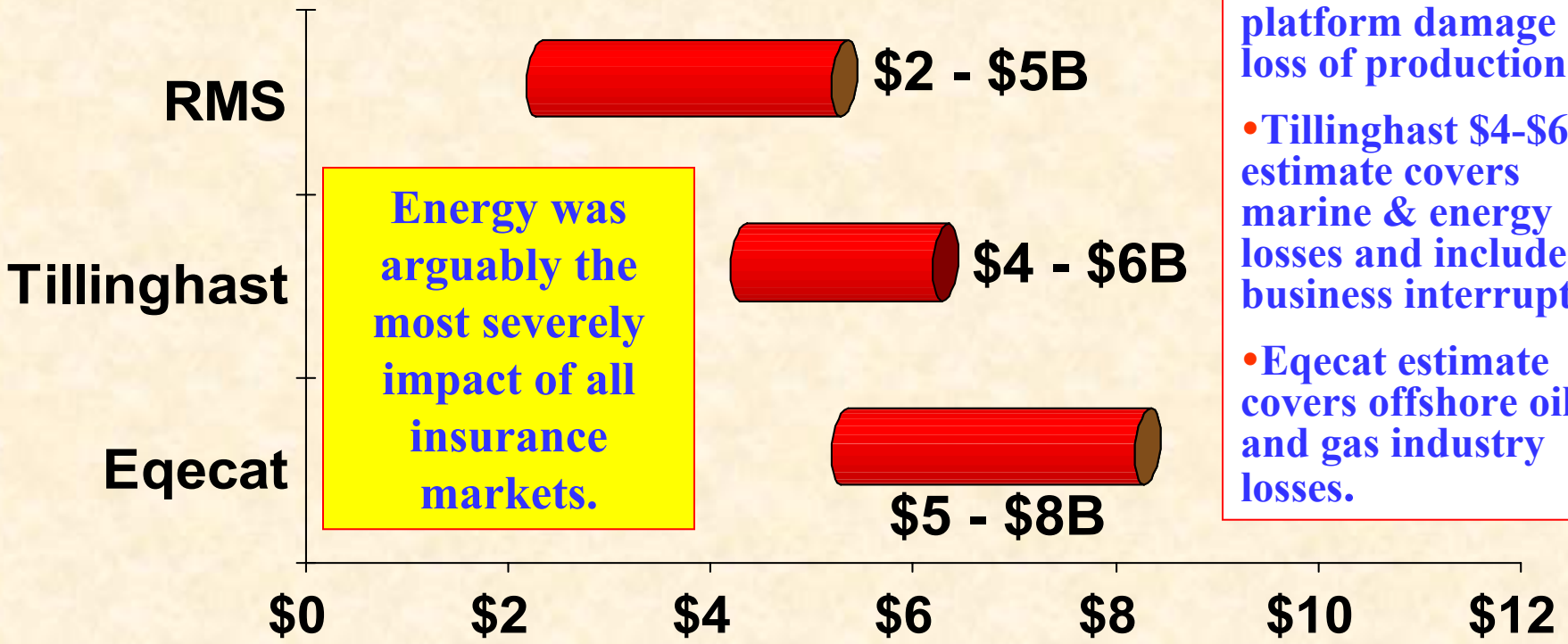
Adrift: 19

Missing: 3

Source: Minerals Management Service (MMS), US Department of the Interior.

Hurricane Katrina Energy Insured Loss Estimates

(Billions of $, As of October 10, 2005)



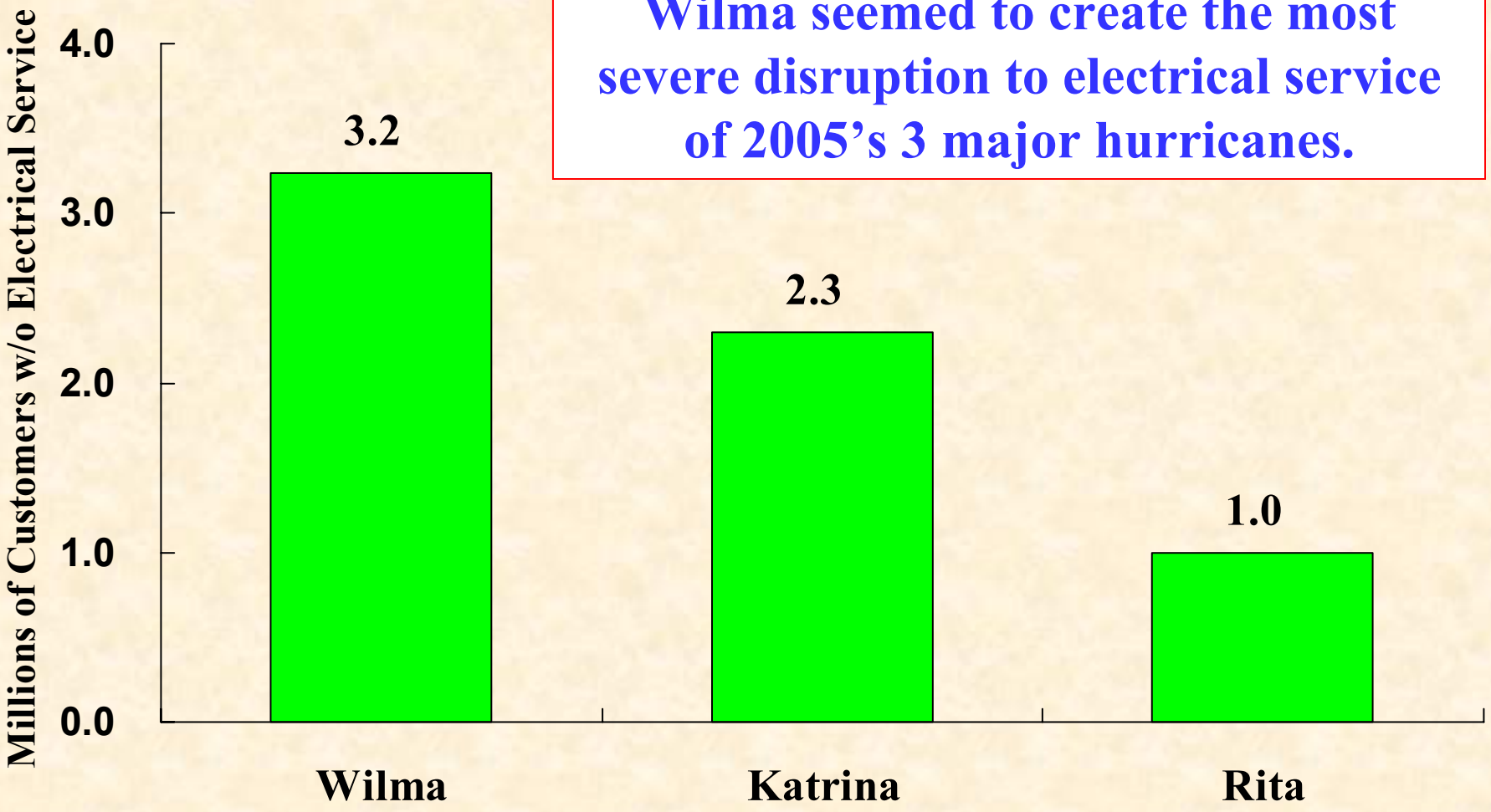
Energy was arguably the most severely impact of all insurance markets.

- **RMS estimate covers offshore platform damage and loss of production.**
- **Tillinghast $4-$6B estimate covers marine & energy losses and includes business interruption.**
- **Eqecat estimate covers offshore oil and gas industry losses.**

*Sources: RMS, Eqecat, Tillinghast; Compiled by the Insurance Information Institute.

Power Outages: Major Vulnerability in Hurricanes

Wilma seemed to create the most severe disruption to electrical service of 2005's 3 major hurricanes.



Sources: Rita: NOAA ("number of people"); Katrina: Energy Info. Agency (# customers); Wilma: FPL (# customers)

Gulf of Mexico Energy Status Following Katrina & Rita, (As of October 4, 2005)

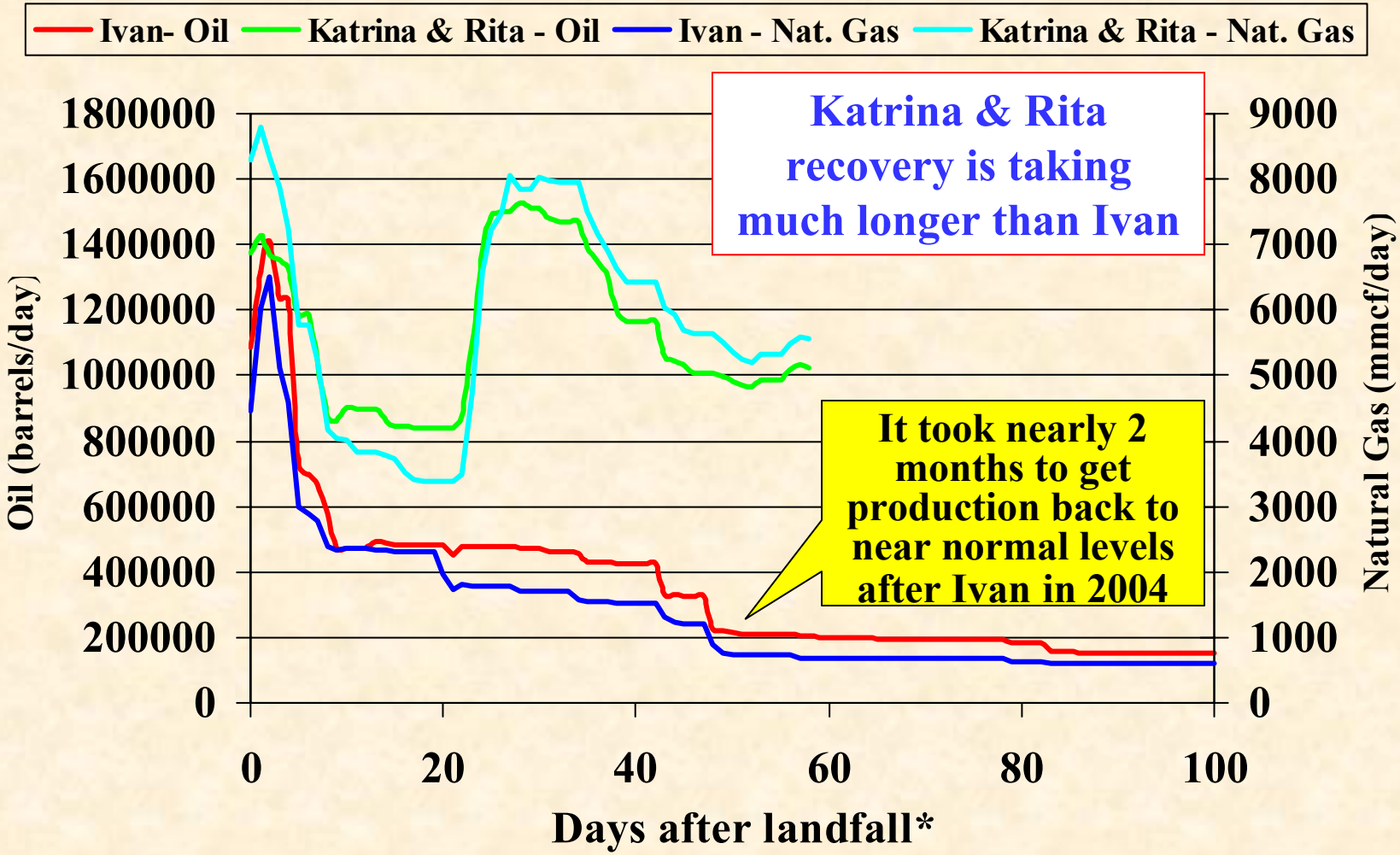
- **Of the 4,000 platforms administered by the Minerals Management Service (MMS), 3,050 platforms were in the path of Hurricanes Katrina and Rita.**
- **As of October 4, MMS announced Hurricane Katrina had destroyed 50 oil rigs and platforms and damaged 29 more. A further 6 rigs were adrift.**
- **Hurricane Rita destroyed 64 oil rigs and platforms and damaged 40 more. 13 rigs are adrift and a further 3 rigs unaccounted for.**
- **Of those destroyed, 108 were older "end of life" facilities not built to MMS' upgraded design standards. They account for only 1.7% of the Gulf's oil production and 0.9% of the Gulf's gas production.**
- **Major new facilities withstood the storms better, with only one major facility destroyed and four receiving significant damage.**

Source: Minerals Management Service (MMS).

Largest Vulnerabilities Exposed by This Year's Hurricane Season

- Offshore energy sector – significant exposure on the TX and LA. Gulf Coast
- Of the 4,000 platforms operating in the Gulf of Mexico, ~3000 were in the path of at least one of the two hurricanes
- Up to 108 oil & gas platforms were destroyed by Hurricanes Katrina and Rita, plus 53 platforms were significantly damaged
- BI losses difficult to estimate
  - Represented 2/3 of covered losses in Hurricane Ivan in 2004 for offshore energy
  - 91% of oil and 83% of gas production was initially shut down in the wake of Katrina
  - 3 weeks after Katrina, 55% oil and 34% gas still unavailable; half of halted oil production driven by onshore damage to refineries

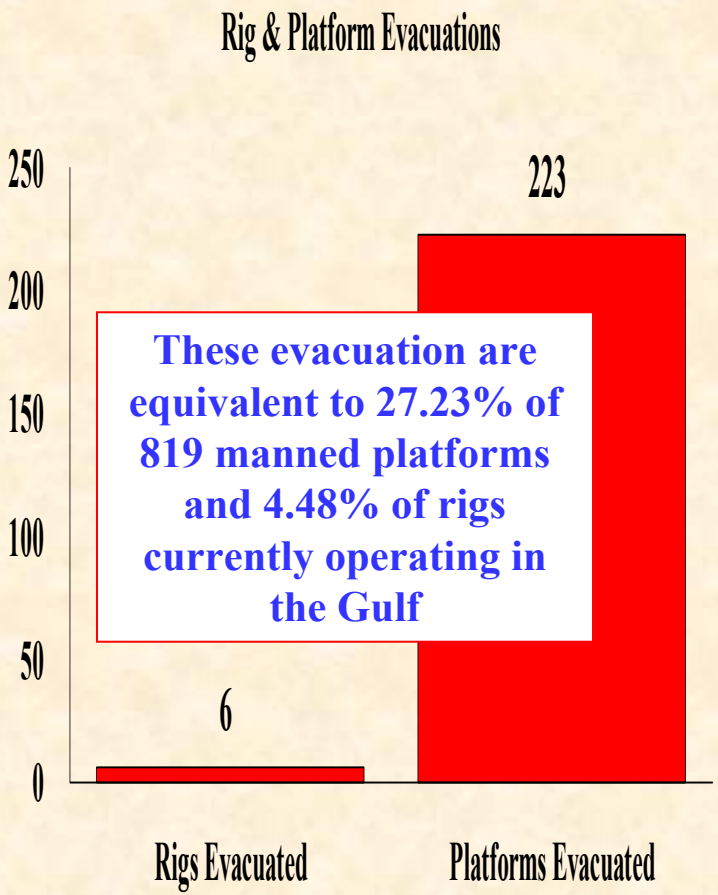
Shut-In Oil and Gas Production Comparison of Hurricanes Ivan and Katrina & Rita

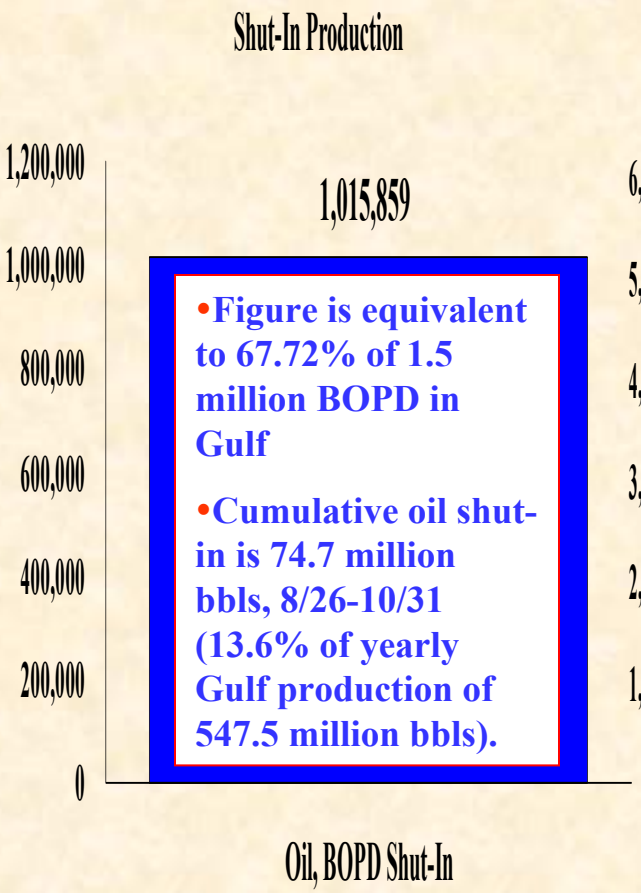


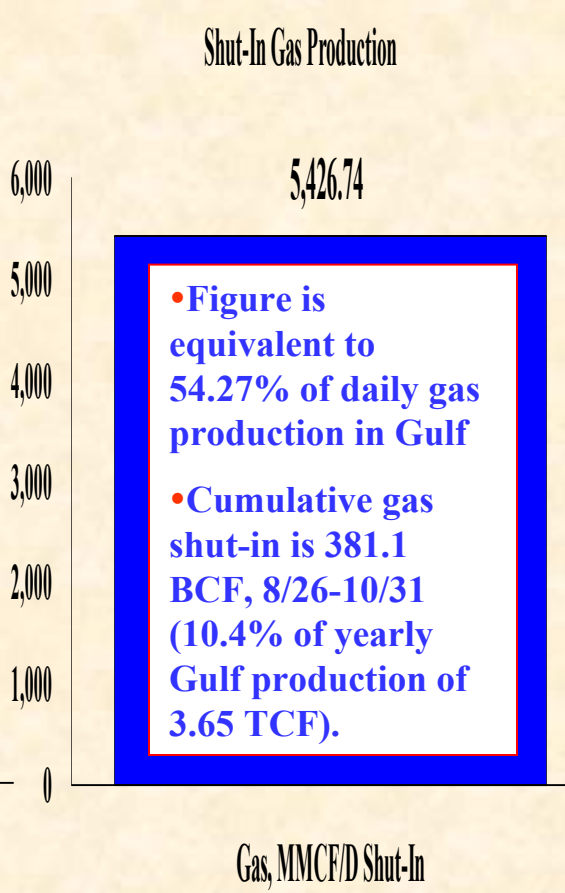
* Ivan shut in roughly 130,000 bbl/d of oil and 0.3 Bcf/d of natural gas from Jan-Mar 2005. The graph above shows only 3 months.

Source: Minerals Management Service; Energy Information Administration, as of October 24, 2005.

*Hurricane Katrina/Rita Evacuation & Shut-In Statistics (as of Oct. 31)**







*"Shut-in" is defined by the Energy Information Agency as wells capable of production but which are temporarily closed.
Source: Minerals Management Service, US Department of the Interior.

Oil Giants: Financial Fallout From The Storms?

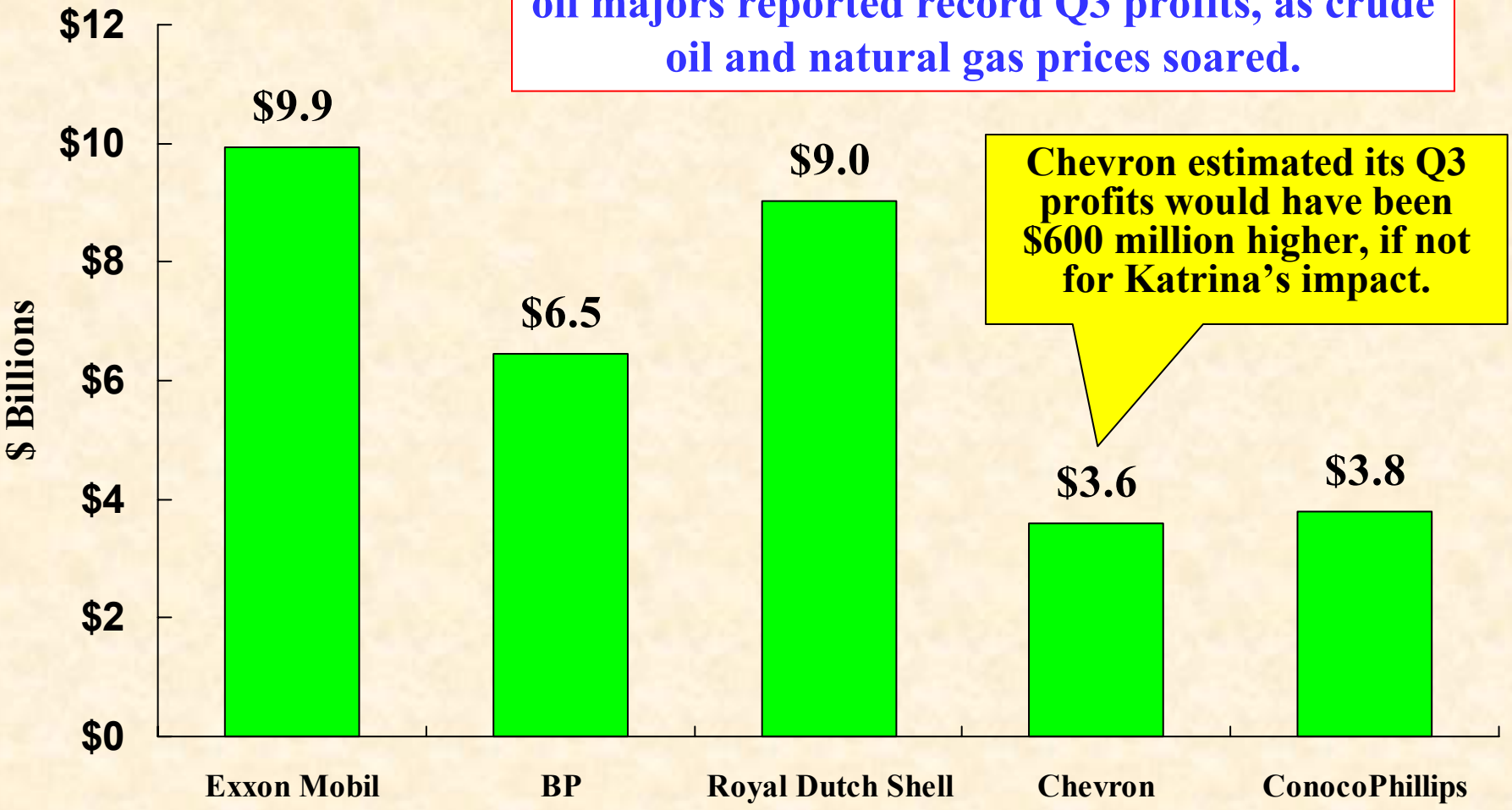
- **As of October 25, 2005, a number of energy giants had announced damage estimates. Insurance will cover much of the loss:**
  - **BP** warned the damage will cost the company $700 million. Of this, about $550 million is lost profit due to production-related damage, incl. lost output and repairs. Further $150 million due to disrupted refining operations.
  - **Chevron** announced Katrina fallout could cost the company $350 million or more.
  - **ConocoPhillips** initial estimate of its share of mutual insurance premium charges, affecting Q3 05, due to Hurricane Katrina is $30 million, after-tax. Total impact still being evaluated.
  - **Shell** puts its total costs after tax for hurricane related items at around $350 million over the period 2005 to 2006. Insurance will cover a significant portion.

Source: www.rigzone.com, 10/25/05. Wall Street Journal, 10/26/05.

Reputational Risk: Surge in Profits Draws Ire of Congress & Consumers

Q3 2005 Net Income

Despite the hurricanes, the majority of the top oil majors reported record Q3 profits, as crude oil and natural gas prices soared.



Source: Company reports.

Energy Industry Mutuals Take Stock of Hurricanes

- **OIL Insurance Ltd (OIL):**
  - Bermuda-based mutual insurer established in 1972 and dedicated to serving needs of energy industry.
  - OIL has 85 members, including Chevron Corp, Marathon Oil Co, Royal Dutch Shell, ConocoPhillips.
  - Provides property, well control and pollution liability coverage.
  - Offers insurance limits of up to $250 million per occurrence. No annual aggregate limit, but a $1 billion cap on claims from a single event.
  - OIL recorded gross premiums written of $606.8 million in H1 2005, a 62.4% increase on H1 2004. Incurred losses and loss expenses totaled $257.6 million for H1 2005.

Source: OIL

Energy Industry Mutuals Take Stock of Hurricanes

- **The OIL Group of Companies:**
  - OIL has two sister mutual companies – **OIL Casualty Insurance Ltd. (OCIL)** and **sEnergy**.
  - **OCIL** provides excess general liability to the energy industry. Policies attach in excess of $50 million for limits of up to $150 million.
  - As of Oct 1, 2005, **OCIL** insured over $2.2 trillion in gross assets and $1.9 trillion in gross revenues for its 78 members.
  - **sEnergy** provides excess business interruption and excess property insurance for the energy industry. 14 members.
  - Occurrence aggregate limit of $200 million for single event.
  - As of June 30, 2005, sEnergy had statutory capital of $667 million.

Source: OIL

Energy Industry Mutuals Take Stock of Hurricanes

- **It is too soon to estimate the impact of Hurricanes Katrina and Rita, but:**
  - **OIL -** At end Q3 2005, OIL increased its incurred loss reserve by $1 billion in respect of potential claims arising from Katrina. The adjustment represents OIL's maximum exposure to a single event as per its shareholder agreement.
  - **OCIL –** Katrina: As of Oct. 21, OCIL has received 13 notices of potential loss from members. Rita: As of Oct. 21, OCIL has received 5 notices of potential loss.
  - **sEnergy** – Exposure to loss from Katrina and Rita limited to $200 million for each hurricane due to occurrence aggregate for single event. Final overall exposure not yet known.

Source: OIL

Legal Environment Will Affect Katrina's Outcome

Business Leaders Ranking of Liability Systems for 2005

Best States

1. Delaware
2. Nebraska
3. North Dakota
4. Virginia
5. Iowa
6. Indiana
7. Minnesota
8. South Dakota
9. Wyoming
10. Idaho

New in 2005

ND, IN, SD, WY

Drop-Offs

ID, UT, NH, KS

Worst States

41. Hawaii
42. Florida
43. Arkansas
44. Texas
45. California
46. Illinois
47. **Louisiana**
48. **Alabama**
49. West Virginia
50. **Mississippi**

Newly Notorious

HI, FL

Rising Above

MO, MT

LA, AL and MS's liability systems are ranked among the worst in the country by the US Chamber of Commerce

Source: US Chamber of Commerce 2005 State Liability Systems Ranking Study; Insurance Info. Institute.

The Nation's Judicial Hellholes (2005)

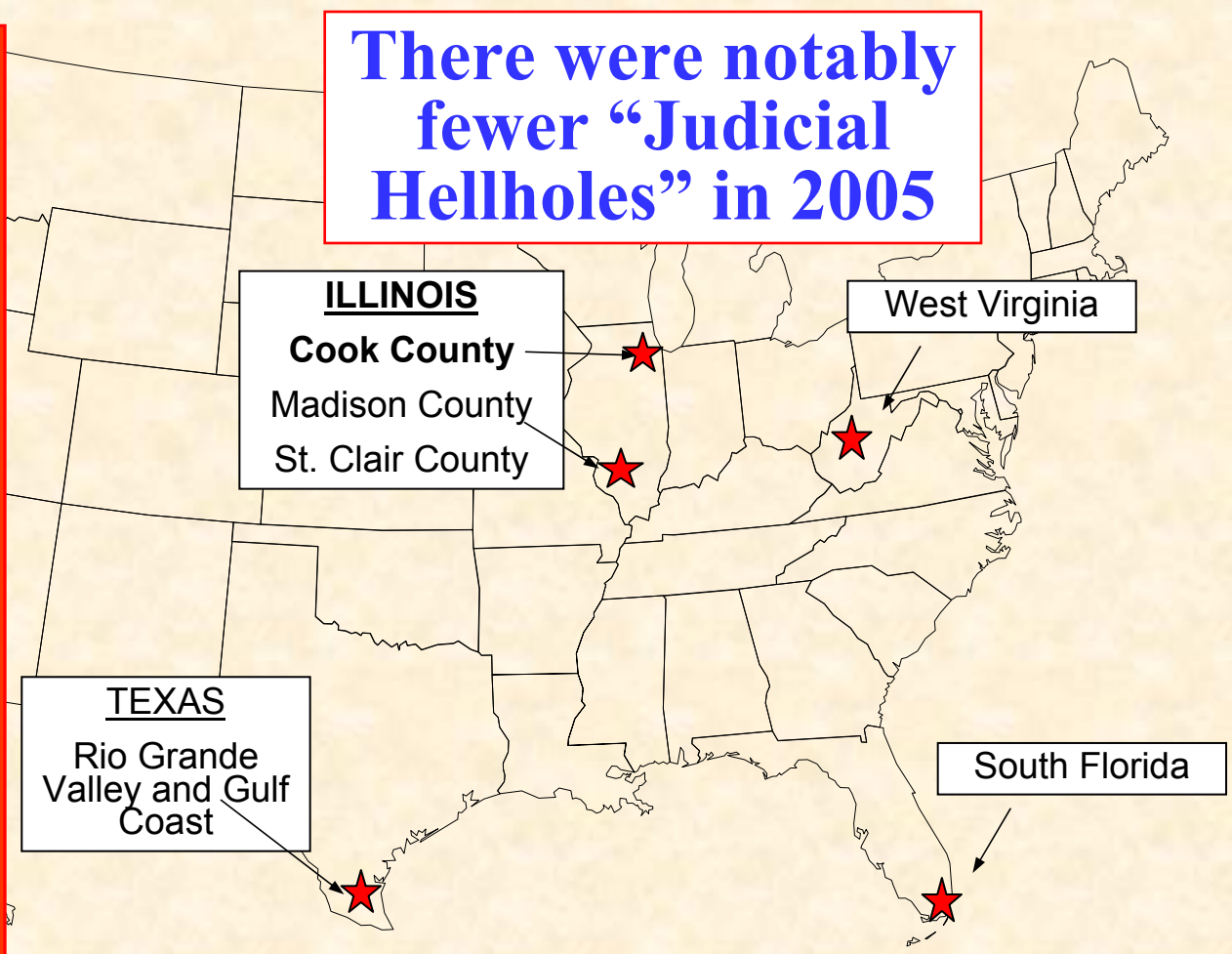
Dishonorable Mention

WI Supreme Ct.

Watch List

California
Eastern Kentucky
Eastern Alabama
Philadelphia
New Mexico
Delaware
Oklahoma
Orleans Parish, LA
Washington, DC

There were notably fewer "Judicial Hellholes" in 2005



Source: American Tort Reform Association; Insurance Information Institute

Accusations by MS Attorney General Jim Hood Against Insurers

- **<u>Count 1</u>: Violation of the Public Policy of the State of Mississippi**
  - Alleges flood exclusion is void since MS contract law does not allow exclusions that interfere with proximate cause
- **<u>Count 2</u>: Unconscionability**
  - Contracts (policies) are unreasonably complex
- **<u>Count 3</u>: "Water Damage" and/or "Flood" Exclusions are Ambiguous**
  - Alleges exclusions are ambiguous when read in conjunction with other policy provisions.
- **<u>Count 4</u>: Violation of MS Consumer Protection Act**
  - Alleges contracts (policies) are deceptive
- **<u>Count 5</u>: Irreparable Injury**
  - Alleges insurer enforcement contracts has and continues to harm MS policyholders

Source: *Hood vs. Mississippi et al* filed 9/15/05, Chancery Court of Hinds County, MS; Insurance Info Inst.

Accusations by MS Trial Lawyer Scruggs Against Insurer & Agent

- **<u>Count 1</u>: Declaration of Insurance Coverage**
  - Plaintiffs seeking declaration that policy provides full insurance coverage for all damage to residence & property including damage caused by storm surge.
- **<u>Count 2</u>: Injunction/Equitable Estoppel**
  - Alleges insurer/agent stated policyholder would have full insurance coverage for "all property damage proximately and efficiently caused by a hurricane, including "storm surge" proximately caused by hurricanes"; Requests that court prevent insurer from rejecting claim.
- **<u>Count 3</u>: Specific Performance of Insurance Contract**
  - Alleges insurer has failed to live up to terms of contract to pay hurricane claim
- **<u>Count 4</u>: Indemnity Against Defendant Nationwide**
  - States that plaintiffs are due money from insurer for all sums expended.
- **<u>Count 5</u>: Indemnity Against Defendant Fletcher**
  - Alleges defendant agency (Jay Fletcher Insurance) represented that policy provided full coverage that no flood insurance coverage was required and therefore agency should indemnify all sums expended by plaintiff.

Source: *Leonard vs. Nationwide Mutual Ins. Co. et al* filed 10/4/05, Chancery Court of Jackson County, MS; I.I.I.

Accusations by MS Trial Lawyer Scruggs Against Insurer & Agent (cont'd)

- **<u>Count 6</u>: Unjust Enrichment/Constructive Trust Against Defendant Nationwide**
  - Alleges insurers collected premiums for years and then withheld insurance proceeds and was thus "unjustly enriched" and that plaintiff is therefore owed damages. Requests all premiums paid be placed in "Constructive Trust."
- **<u>Count 7</u>: Unjust Enrichment/Constructive Trust Against Defendant Fletcher Insurance**
  - Analogous to Count 6 but for defendant agency. Requests Constructive Trust on commissions paid to agency.
- **<u>Count 8</u>: Reformation of Insurance Contract Based on Equitable Fraud Against Defendants Fletcher Insurance and Nationwide**
  - Alleges insurer and agent represented policy sold as providing full and comprehensive coverage against hurricanes including storm surge, but that contract entered into was different than represented. Plaintiffs request "reformation" of contract to alleged represented contract.

Source: *Leonard vs. Nationwide Mutual Ins. Co. et al* filed 10/4/05, Chancery Court of Jackson County, MS; I.I.I.

Accusations by MS Trial Lawyer Scruggs Against Insurer & Agent (cont'd)

- **Count 9: Fraud Against Defendant Nationwide**
  - Alleges insurer represented to Plaintiffs that policy would provide *"full and comprehensive coverage for any and all property damage that could be caused by a hurricane, including damage proximately caused by hurricane wind and storm surge damage proximately caused by hurricanes."* Alleges plaintiffs detrimentally relied on insurer's "misrepresentations" and that insurer intentionally failed to provide full and comprehensive coverage.

- **Count 10: Fraud Against Defendant Fletcher Insurance**
  - Analogous to Count 10 but for defendant agency. Adds allegation that Plaintiff did not purchase flood coverage because agency represented that such insurance was not necessary because the homeowners policy would provide "sufficient coverage for any and all hurricane damage."

Source: *Leonard vs. Nationwide Mutual Ins. Co. et al* filed 10/4/05, Chancery Court of Jackson County, MS; I.I.I.

Types of Lawsuits Being Filed in the Wake of Hurricane Katrina

- **Homeowners Insurance**
  - Lawyers (e.g., Dicky Scruggs) and Mississippi Attorney General Jim Hood are suing insurers over whether homeowners policies should cover flood.
  - TX judge ordered one company to stop denying claims to people claim for additional living expense who could not provide immediate documentation of damage.
  - Insurer being sued for not informing flood customer that excess flood coverage may have been available from a different private insurer
- **Oil Spills**
  - Lawyers have sued the energy industry over ruptured oil tanks and pipelines that have fouled Louisiana neighborhoods.
- **Fishing Grounds**
  - At least 2 cases filed on behalf of LA's fishermen over damage to estuaries, bays and oyster beds caused by the oil spills.
- **Wetlands**
  - One suit filed against the oil & gas industry for its alleged role in the disappearance of wetlands that protected Louisiana from storm surges.

Source: *Wall Street Journal,* 9/26/05, p. B1; Houston Chronicle, Oct. 12, 2005; Insurance Information Institute

Economic & Public Policy Consequences of Hood/Scruggs Suits if Successful

Concern	Consequences of Litigation
Price Hikes	•**Immediate price increases of 100% or more likely for most residents of Mississippi and many other states. Coverage will not be available at any price in many areas.** •Homeowners policies currently in force exclude most water damage (including flood and storm surge); Insurers collect no premium for flood risk/storm surge and have established no flood risk/storm surge reserves. Pricing policies to include such causes of loss would add hundreds of dollars to the typical policy. The average NFIP flood policy premium in 2004 was $438, a rate that is woefully inadequate given the technical bankruptcy of the NFIP and its not-for-profit status. The average homeowners policy in 2005 was $677, implying that home insurance costs for many homeowners would likely double or more. *In reality, Mississippi's willingness to retroactively rewrite well-established and regulator-approved contacts is an unpriceable risk. Consequently, comparable coverage may not be available at any price.*

Sources: Insurance Information Institute.

Economic & Public Policy Consequences of Hood/Scruggs Suits if Successful

Concern	Consequences of Litigation
Availability Crisis	•**No coverage will be available in most coastally-exposed areas of MS and the US generally. Gulf rebuilding and recovery efforts severely damaged.** •Insurers cannot offer insurance in states where contract terms, every word of which has been approved by regulators, are willfully ignored or retroactively rewritten. Pricing and underwriting are impossible in the absence of enforceable contracts (insurance policies are contracts).
Insolvency Risk	•**Forcing insurers to pay losses for which no premium has been collected and no reserves established will force many insurers into bankruptcy.** •The Mississippi AG has indicated that if insurers were to be required to pay flood losses the cost would be $4-$5 billion, exceeding the total amount paid in premium by all homeowners in MS ($472 million in 2003) by a factor of 10.
Guarantee Fund Deficits	•**Insurer insolvencies will quickly exhaust guarantee fund resources.** •Guarantee funds will run enormous deficits, be forced to cap payments and levy large assessments against all property owners in the state for years.

Economic & Public Policy Consequences of Hood/Scruggs Suits if Successful

Concern	Consequences of Litigation
Recovery Efforts Hampered	•**Lack of insurance in the Gulf coast region, especially MS, will severely impair recovery efforts. Little/no insurance will be available to allow hurricane victims to insure rebuilt homes.** •Insurers will pay an estimated $40 billion on 1.6 million Hurricane Katrina claims ($9.8 billion and 490,000 in MS alone). If property owners cannot secure insurance on rebuilt/new properties, the state's economic recovery will be jeopardized.
Flood Insurance Crisis	•**Forcing insurers to pay excluded flood losses for which no premium has been collected and no reserves established could lead to the destruction of the National Flood Insurance Program (NFIP).** •The Mississippi AG and Mr. Scruggs allege flood and storm surge from hurricanes is covered by standard homeowners policies despite unambiguous exclusionary language to the contrary. But the NFIP has provided exactly this protection since 1968 at subsidized prices. If successful, property owners will assume they no longer need to purchase flood coverage.

Source: Insurance Information Institute.

Economic & Public Policy Consequences of Hood/Scruggs Suits if Successful

Concern	Consequences of Litigation
Regulatory Authority Trampled	•**Authority of state insurance regulators is in jeopardy.** •AG Hood's action threatens to usurp the authority of insurance regulators in all 50 states. Every word of water damage exclusions in homeowners policies were approved by regulators in all states (including MS) many years ago. The AG suit is a trampling of regulatory authority. *Not a single insurance regulator in any of the 50 states (including MS and LA) has announced support for the Hood/Scruggs suits.*
Residual Market Explosion	•**Lack of insurance will force most policyholders to seek coverage through state-run markets of last resort, resulting in explosive growth.** •State run insurers will be overwhelmed. They are often subject to political interference and are deficit-plagued. Program losses are assessed closed by levying assessments (basically a tax) on all policyholders in the state.

Source: Insurance Information Institute.

Economic & Public Policy Consequences of Hood/Scruggs Suits if Successful

Concern	Consequences of Litigation
Negative Consequences for Other Lines of Insurance	•**Success Hood/Scruggs actions, which allow retroactively rewriting of contracts, makes sale of *any* type of insurance difficult/impossible** •Lack of contract certainty means MS and other states will see higher prices and reduced availability for other types of insurance.
Tort Reform Efforts Set Back	•**MS AG and Scruggs suits threaten to damage the integrity of recent Mississippi tort reform legislation.** •In 2005 the American Tort Reform Association dropped MS from its list of "judicial hellholes" because of recent tort reform legislation, which prevented class action suits. MS may rejoin list. MS's tort system, ranked 50th in the country by the US Chamber of Commerce, is solidified. This will make it more difficult for MS to attract businesses and jobs.
Spreading of False Hopes	•**Hood/Scruggs suits spread false hopes among desperate people that clever lawyering can produce coverage where none, in fact, exists.** •Suits damage notion of personal responsibility. People will be less likely to insure properly in the future if suits are successful.

Legal Theories Being Floating by Trial Bar to Get Insurers to Pay Excluded Flood Losses

- **Valued Policy Law**
  - Idea is that if property is a total loss the insurer cannot dispute the value of the property and must pay limits. Insurers will argue that flood is an excluded peril and VPL doesn't apply. Insurers lost Mierzwa case in FL, but FL provided a legislative "fix" for that wayward court decision. Could result in policyholders with flood coverage receiving 200% of limits. Applies only to insureds with flood cover. VPL for fire only in MS, none in AL.
- **Wind→ Efficient Proximate Cause of Surge**
  - Says that because surge was driven by wind and because wind is a covered cause of loss, it is the efficient proximate cause of the flood and should therefore should be triggered.
  - Also alleges storm surge is not specifically excluded by name
- **Barge Breach Levee**
  - A barge crashed into one levee, causing it to rupture. Theory is that this is a covered cause of loss because it's not excluded (even though damage produced a flood).

Relevant Homeowners Insurance Policy Language Governing Water Damage

- **Wind and Hail Coverage (*a named peril*)**
- **Flood Exclusion**
- **FEMA/NFIP Flood Definition**
- **Fungus & Mold Exclusion**
- **Earth Movement Exclusion**

Source: Insurance Information Institute

Wind Coverage in HO Policy: Limits and Boundaries of Coverage

- **Wind and Hail Coverage (Named Peril)**
  - **Windstorm or Hail**
  - "We do not pay for loss to the interior of a building or to personal property inside, caused by rain, snow, sleet, sand or dust *unless the wind or hail first damages the roof or walls and the wind forces rain, snow, sleet, sand or dust through the opening."*

Source: Insurance Information Institute

Typical Flood Exclusion in Homeowners Insurance Policy

- **Flood Exclusion**
  - **Water Damage, meaning any loss caused by, resulting from, contributed to or aggravated by:**

1. ***flood, surface water, waves, tidal water or overflow of any body of water***, or spray from any of these, ***whether or not driven by wind.***
2. Water or water-borne material which backs up through sewers or drains, or which overflows or is discharged from a sump pump, sump pump well or other system that is designed to remove subsurface water which is drained from the foundation area; or
3. Water or water-borne material below the surface of the ground, including water which exerts pressure on, or flows, seeps or leaks through any part of a building, sidewalk, foundation, driveway, swimming pool or other structure or water that causes earth movement.

This exclusion applies whether or not the water damage is caused by or results from human or animal forces or any act of nature.

Facts About the Flood Exclusion

- **Has existed in policies for decades**
- **Flood Exclusion is effectively absolute—excluding water under all circumstances**
- **It is the reason for the existence of FEMA's NFIP program since it was established in 1968**
- **Approved by regulators in all 50 states**

Source: Insurance Information Institute

NFIP Flood Definition: Covers Exactly What HO Policies Don't

- "A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is the policyholder's property) from:
  - ***Overflow of inland or tidal waters***; or
  - ***Unusual and rapid accumulation or runoff of surface waters from <u>any</u> source***; or
  - Mudflow; or
  - ***Collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water*** exceeding anticipated cyclical levels that result in a flood as defined above."

Source: FEMA/National Flood Insurance Program: http://www.floodsmart.gov/floodsmart/pages/whatflood.jsp.

Typical Fungus & Mold Exclusion in Homeowners Insurance Policy

- **Fungus and Mold Exclusion**

  - "***We do not cover loss or damage, no matter how caused, to the property which results directly or indirectly from fungus and mold.*** There is no coverage for loss which, in whole or in part, arises out of, is aggravated by, contributed to by acts or omissions of persons, or results from fungus and mold. This exclusion applies regardless of whether fungus and mold arises from any other cause of loss, including but not limited to a loss involving water, water damage or discharge, which may be otherwise covered by this policy, except as granted [by exception]."

Source: Insurance Information Institute

Relevant Homeowners Insurance Policy Language Governing Water Damage

- **Earth Movement Exclusion**
  - Applies to any loss caused by, resulting from, contributed to or aggravated by events that include, but are not limited to:

1. Earthquake and earthquake aftershocks;
2. Volcanic eruption and volcanic effusion;
3. Sinkhole;
4. Subsidence;
5. ***Mudslide including landslide, mudflow, debris flow, avalanche or sediment;***
6. ***Erosion*** or excavation collapse;
7. The sinking, rising, shifting, expanding, bulging, cracking, settling or contracting of the earth, soil or land; and
8. Volcanic explosion and lava flow except [by exception]

This exclusion applies whether or not the earth movement is combined with water or caused by or results from human or animal forces ***or any act of nature.***

Consequences of Mississippi AG's Actions

- **Sept. 15 suit by MS AG Hood constitutes and attempt to retroactively rewrite all HO insurance contracts in MS. *"Contract certainty" extinguished.***
- **Suit amounts to little more than an attempt to expropriate shareholder assets (and the equity of mostly non-MS policyholders of mutual insurers)**
- **The risk is fundamentally political, cannot be modeled or priced**
- **Insurers will necessarily be motivated to protect shareholder equity (and claims paying resources generally). Reinsurers will exert pressure too.**
- ***Also continues dangerous trend of AG assertion of authority over state insurance regulators***

Source: Insurance Information Institute

Consequences if Coverage Rulings Went Against Insurers

- **Creates dangerous precedent of contract abrogation**
- **Effectively renders flood exclusion *null and void* & usurps authority of state insurance regulator**
- **Creates enormous financial liability for explicitly excluded peril for which *no premium was collected***
- **HO insurance rates *countrywide* become instantaneously inadequate**
  - Would provoke largest homeowners insurance rate in history on a national basis
- **Insurers would likely pull back from many markets because of lack of contract certainty**
- **Renders NFIP program useless**
- **Unfair to NFIP policyholders and other insureds**

Source: Insurance Information Institute

MS AG and Scruggs Suits Not Supported by Governor, Regulator

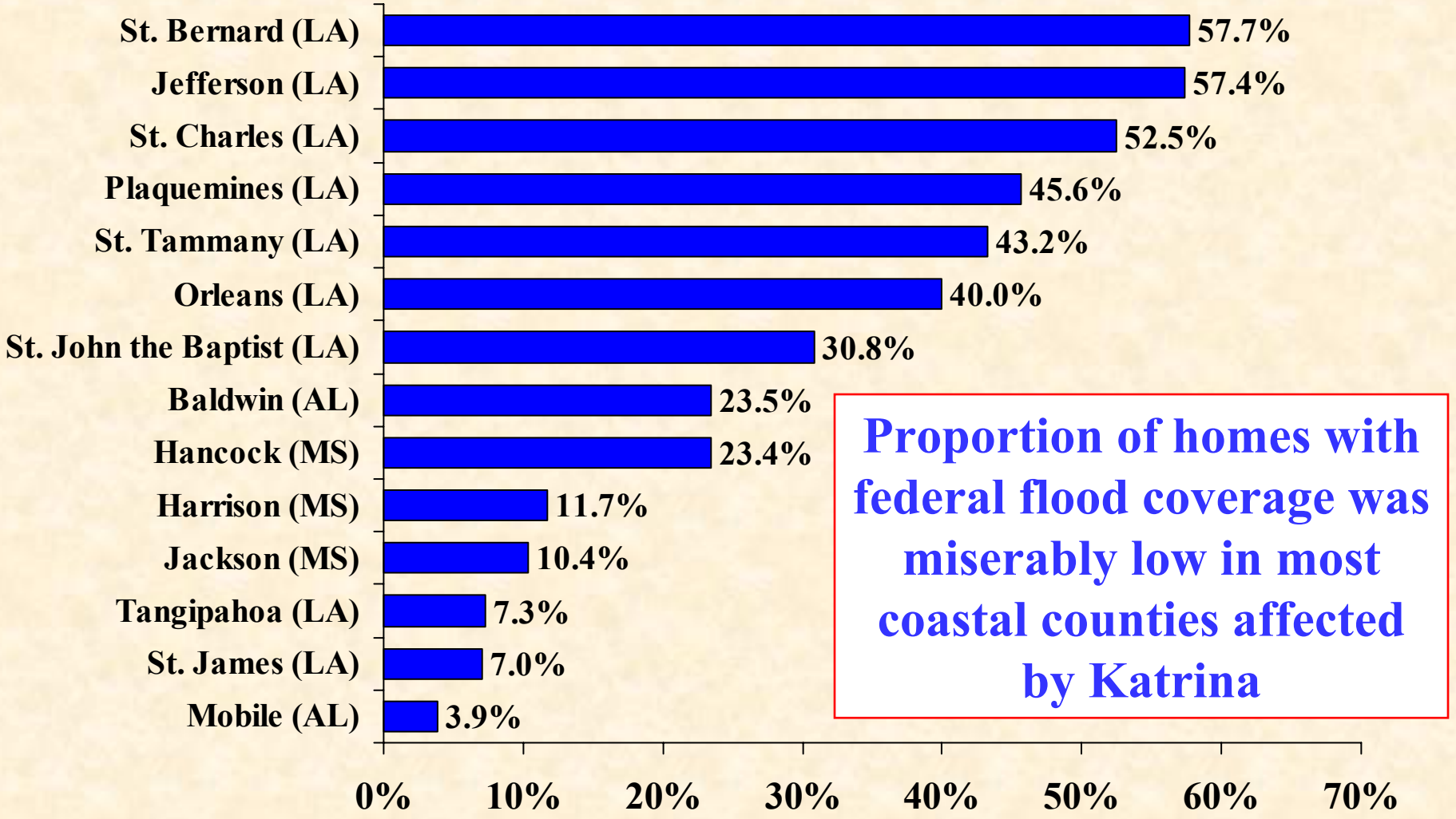
- **Recent Quotes:**
  - ***"It's crucial that people who enter contracts keep their contracts. And that's what an insurance policy is, a contract….For those people [who didn't buy flood coverage] we are working very hard that if they don't have insurance or don't have coverage, that we can up with a way to help them financially."***
    - Mississippi Governor Haley Barbour, *WSJ,* 9/19/05, p.C9.
  - ***"The insurance industry can take care of so many, the flood insurance program can take care of so many…but there are still others out there that do not fit under either of these."***
    - Mississippi Insurance Commissioner George Dale, *WSJ,* 9/19/05, p.C9.
  - ***For the government to make payments to people who didn't buy flood insurance "undermines the purpose of an insurance scheme…If the government becomes the insurer of last resort, even when people don't get insurance, then people won't buy any insurance."***
    - White House Budget Director Joshua Bolten as quoted in the *WSJ,* 9/26/05, p.A2.

Status of Litigation Against Insurers on Flood vs. Wind Issue

- **MS Atty. General Hood:**
  - Called actions of insurers "unconscionable." Filed an unsuccessful order for immediate injunctive relief against 5 insurers seeking to stop them from drawing wind/water distinction. Suit was remanded to a federal court because it makes reference to NFIP. Will likely die there soon.
- **Scruggs Case:**
  - Stated that will he bring suits against insurers in MS week of 9/19/05.
  - Because of recent tort reform changes in MS, Scruggs can't bring a class action, has to try cases individually.
  - Says he will take "drastically" reduced contingency fee
  - Failure of AG suit should kill Scruggs' case.
  - FYI: Scruggs' Pascagoula home was heavily damaged. He had flood coverage.
- **Louisiana Suit**
  - Suit is like MS. LA Supreme Court looking at it as contract law case
  - Likely to be resolved soon in insurers favor

FEMA's National Flood Insurance Program

Percentage of Homes With Flood Insurance Policies: Coastal Counties Affected by Katrina



Proportion of homes with federal flood coverage was miserably low in most coastal counties affected by Katrina

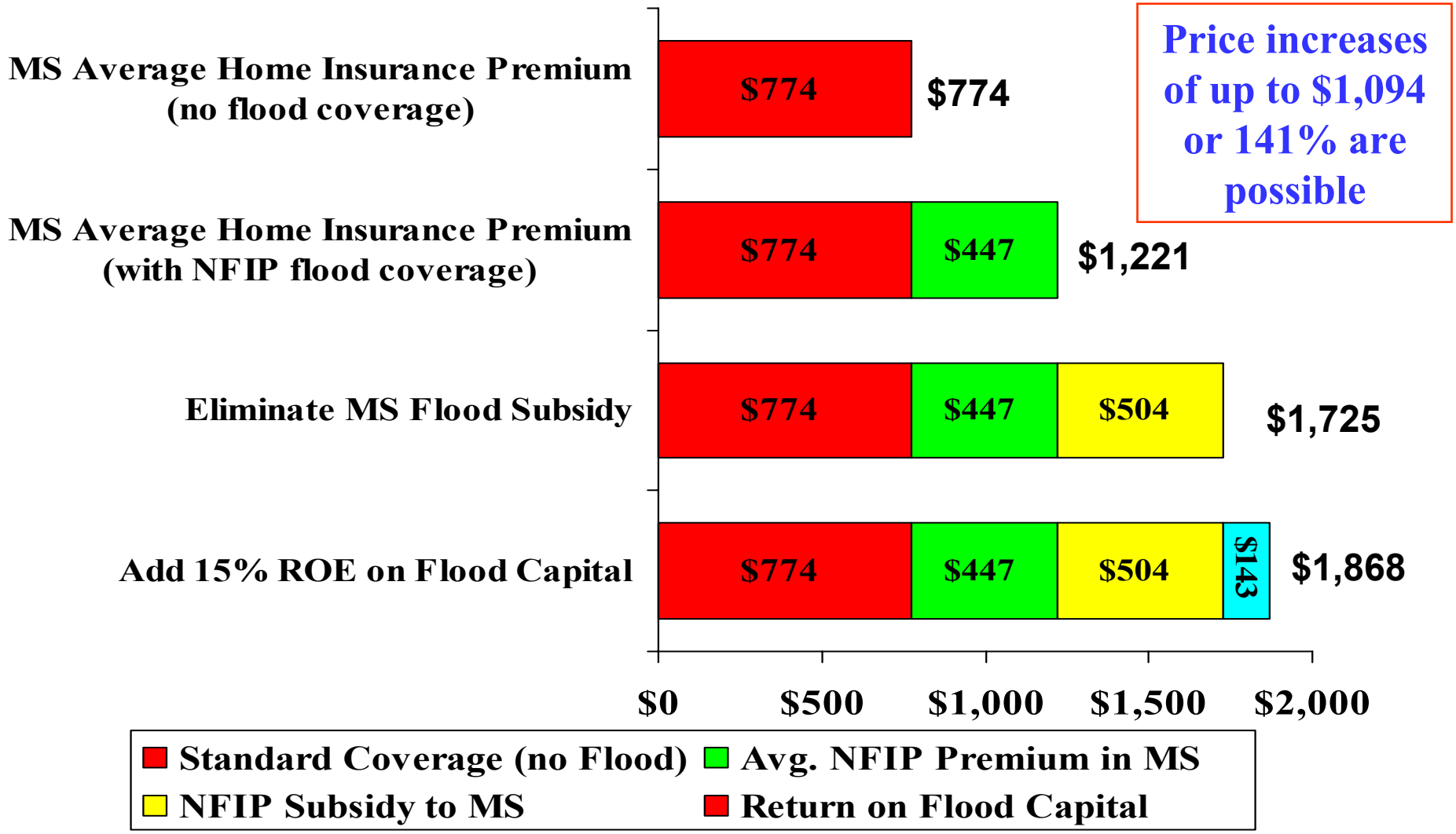
Source: Census Bureau, FEMA, New York Times.

What Needs to Happen for the NFIP To Be More Effective

- **Move to actuarially based rates**
  - **Include loading to build-up reserve fund**
  - **Expand refusals on irresponsible construction & repeats**
- **Expand mandatory purchase requirements beyond 1-in-100 year flood plain (250 or 500-year plain)**
- **Update & digitize flood maps**
  - **Need process for continuous updating**
  - **Coordinate inundation & flood maps**
- **Create/formalize central lender property tax-based authority for tracking properties subject to mandatory purchase requirement**

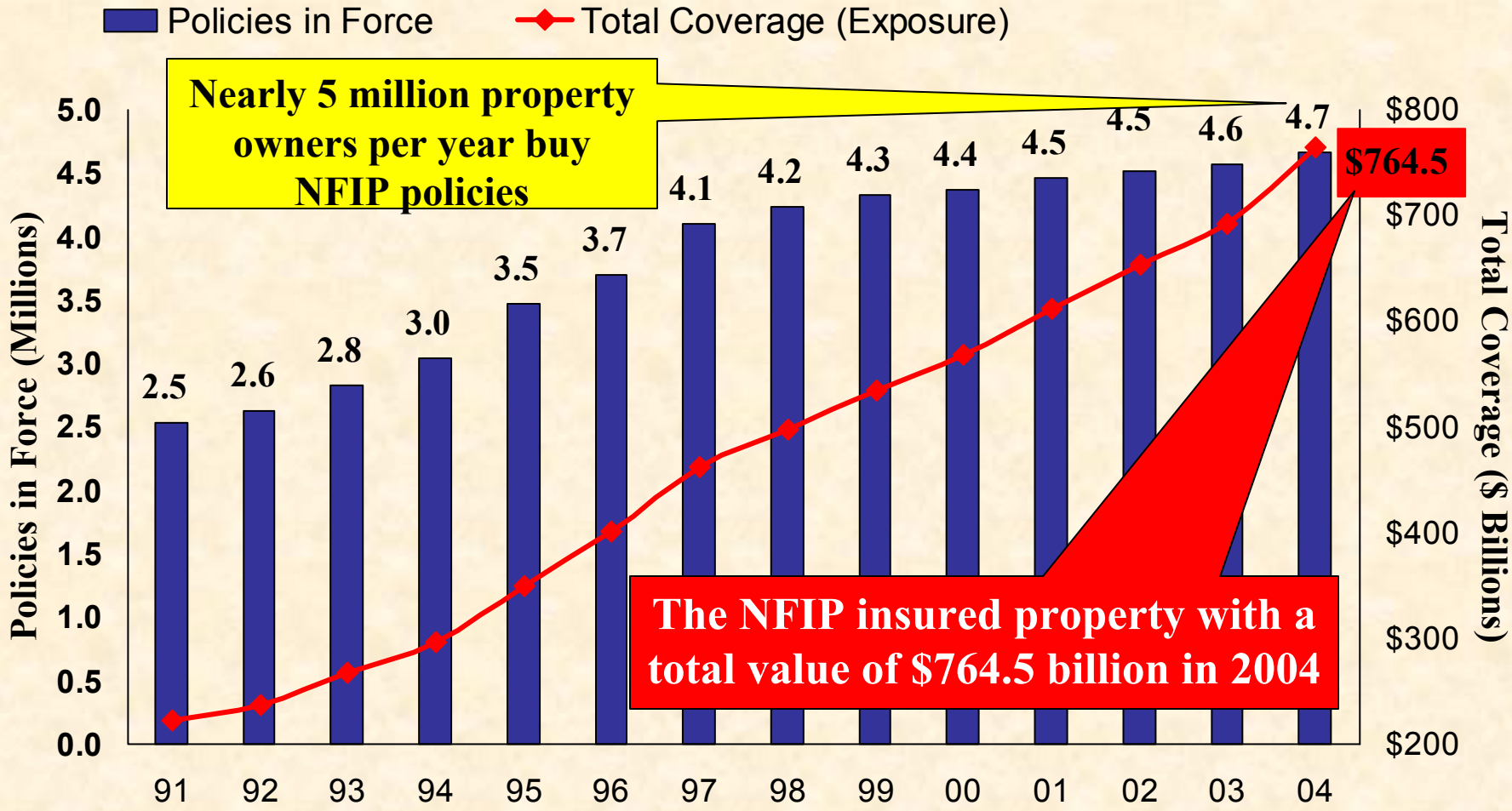
Source: Insurance Information Institute

Price Impact of Including Flood Coverage in Standard Homeowners Insurance Policies



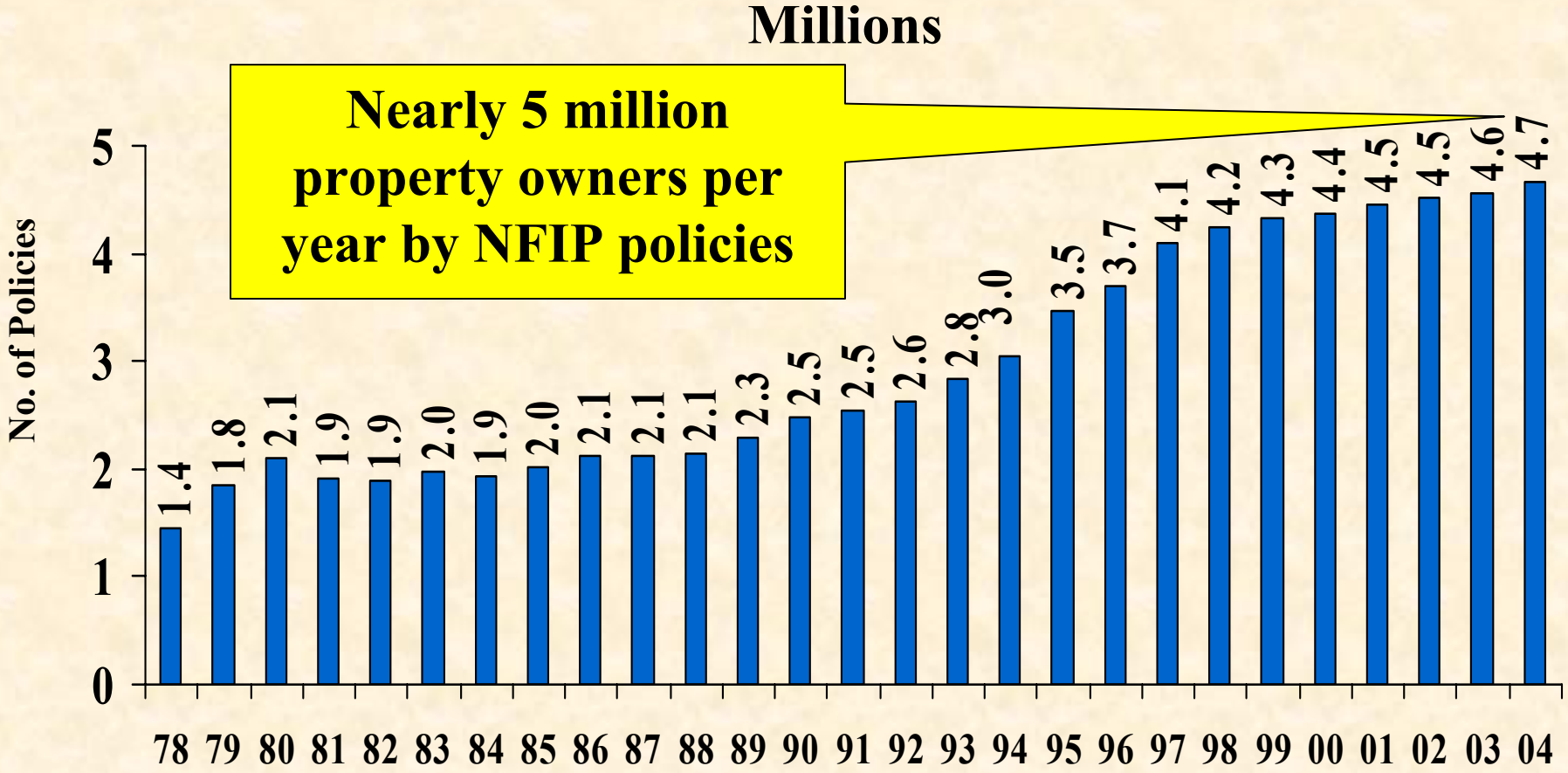
Source: Insurance Information Institute from NAIC, FEMA/NFIP data.

NFIP: Policies in Force and Total Coverage (Exposure)



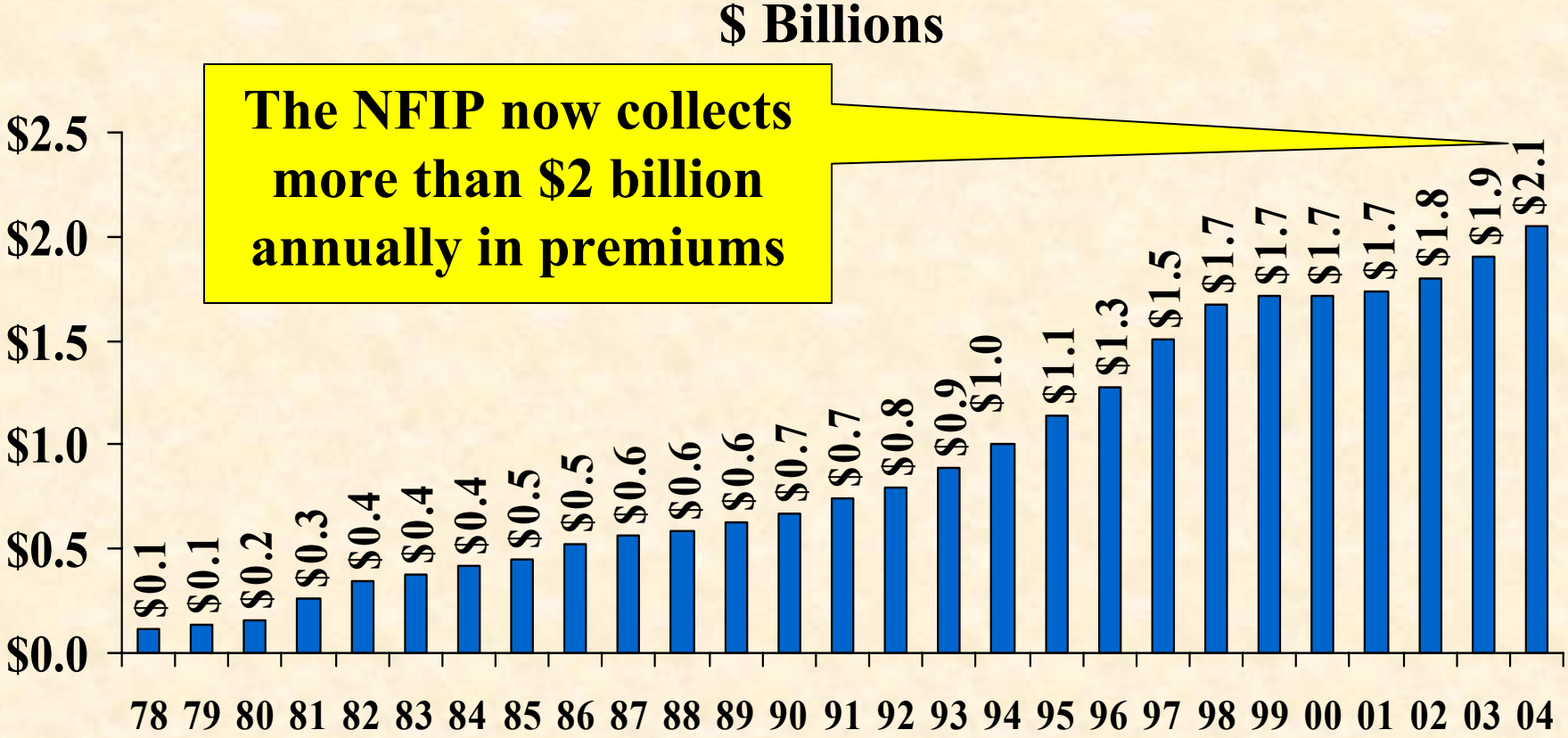
Sources: FEMA, National Flood Insurance Program (NFIP)

NFIP: Total Policies in Force by Calendar Year 1978-2004



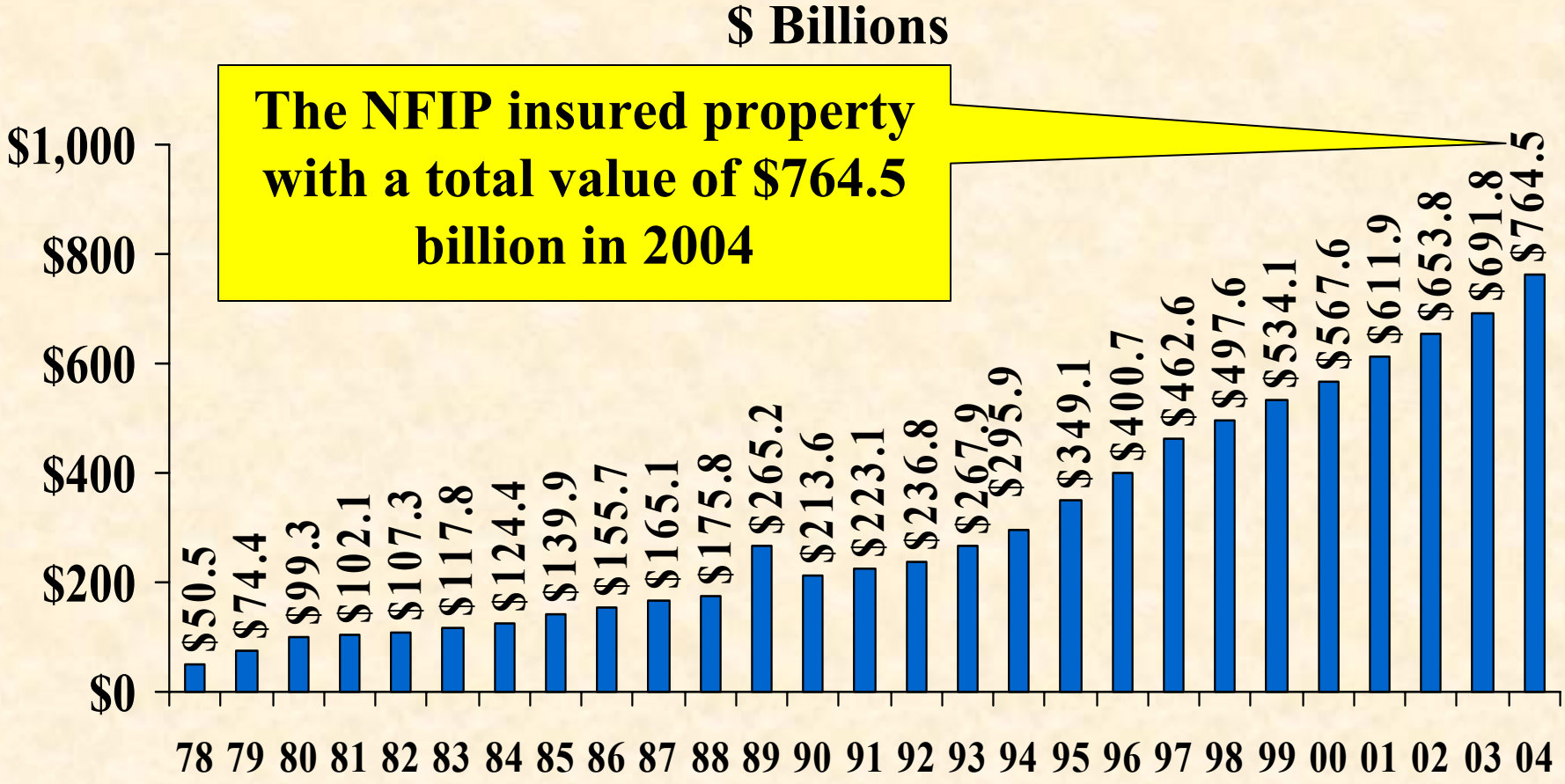
Source: FEMA, National Flood Insurance Program (NFIP)

NFIP: Total Premium by Calendar Year 1978-2004



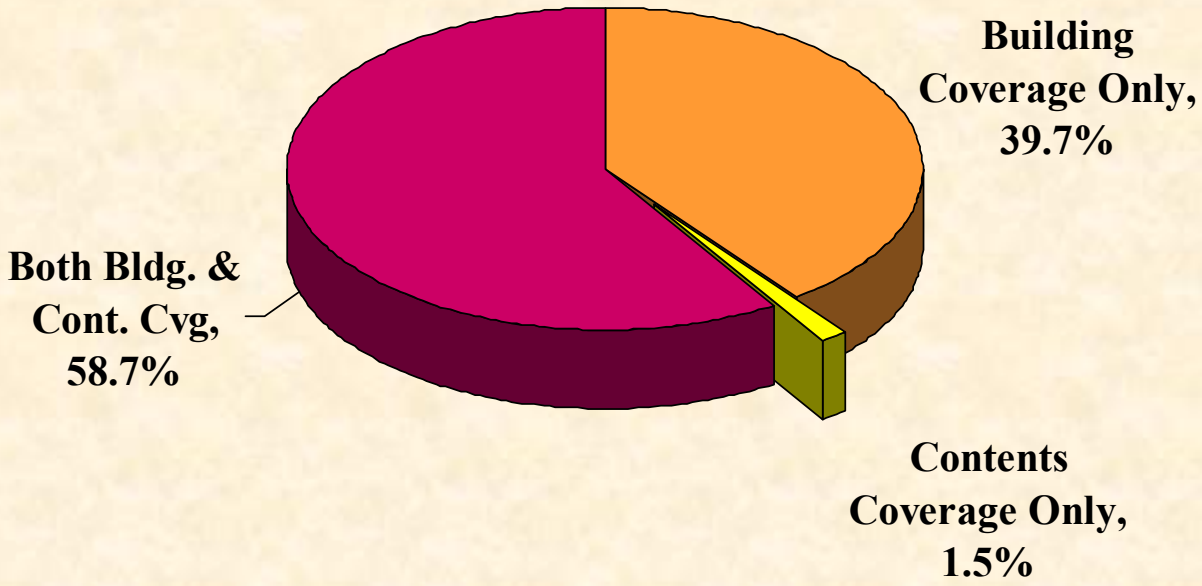
Source: FEMA, National Flood Insurance Program (NFIP)

NFIP: Total Coverage by Calendar Year 1978-2004



Source: FEMA, National Flood Insurance Program (NFIP)

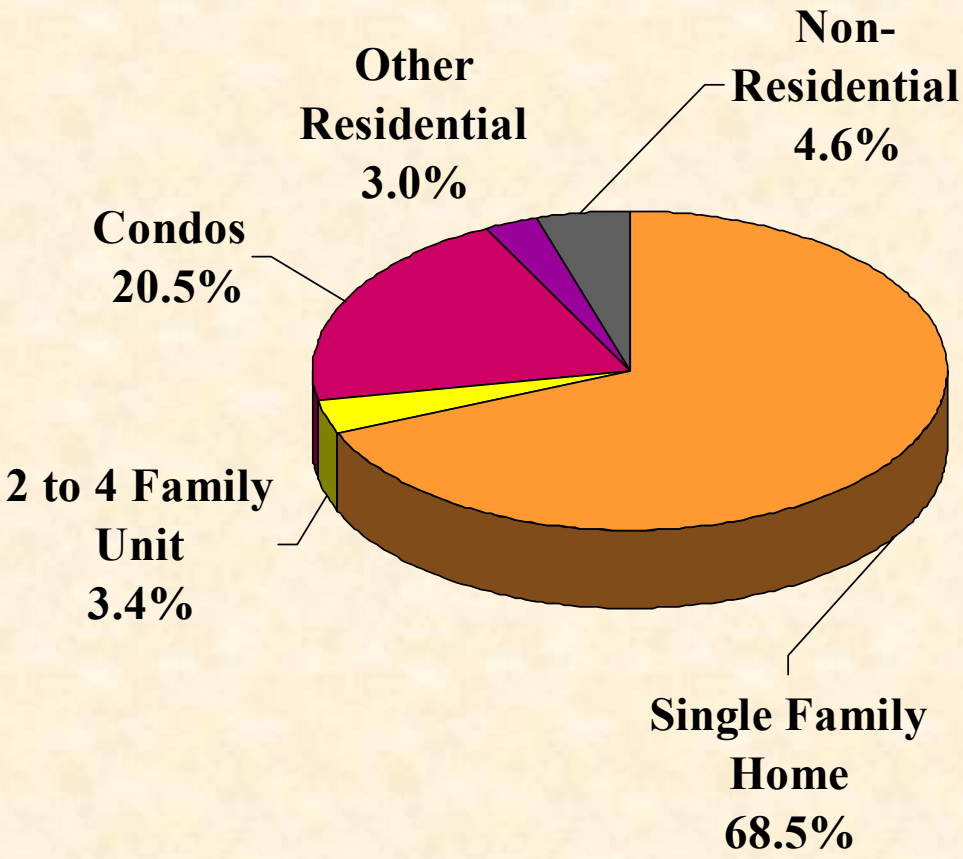
NFIP: Policies in Force By Coverage Type (As of July 31, 2005)



Coverage Type	Policies in Force
Building Coverage Only	1,845,481
Contents Coverage Only	72,008
Both Bldg & Cont Cvg	2,729,267
All Policies	**4,646,756**

Source: FEMA, National Flood Insurance Program (NFIP)

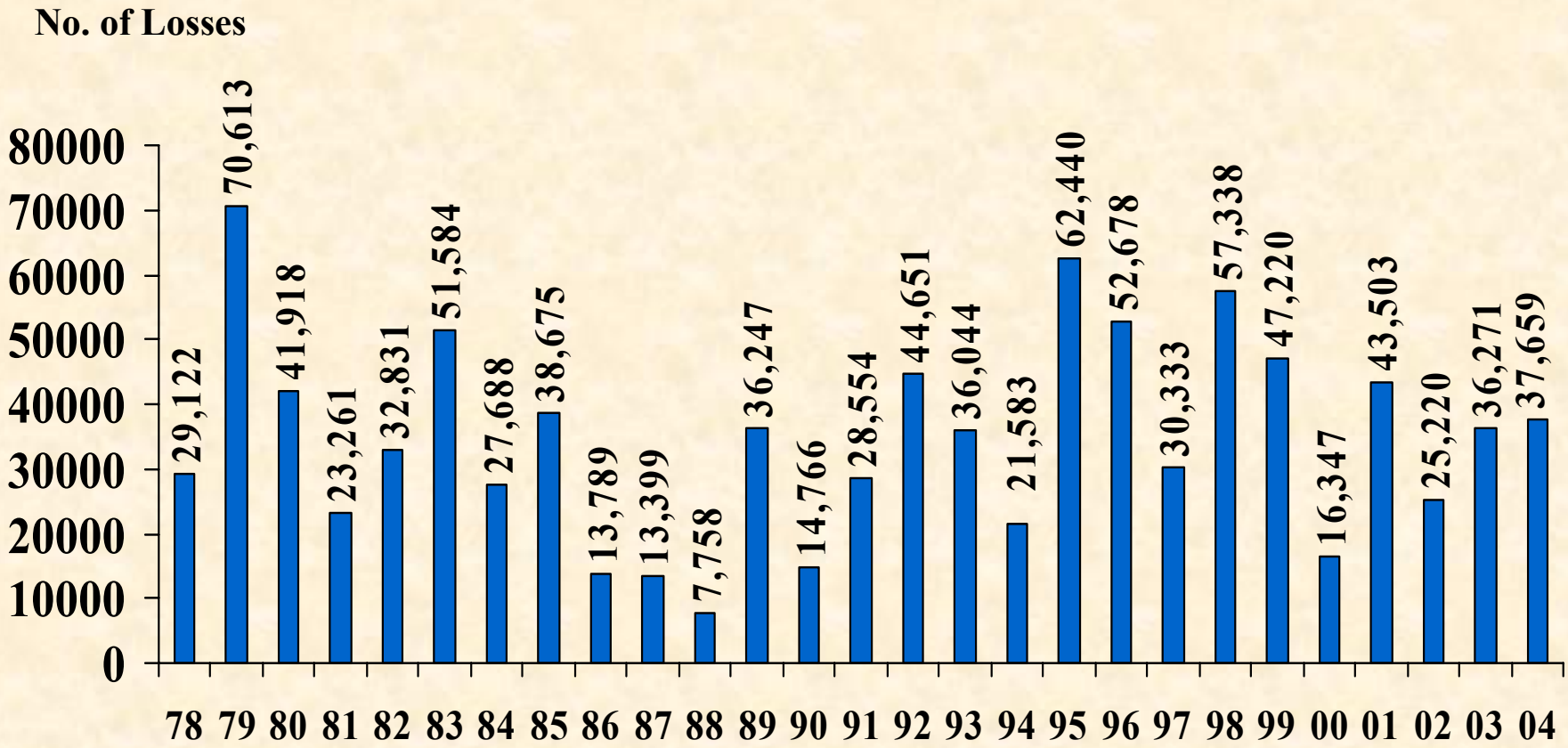
NFIP: Policies in Force By Occupancy Type (As of July 31, 2005)



Occupancy Type	Policies in Force
Single Family Home	3,184,010
2 to 4 Family Unit	158,124
Condominiums	951,240
Other Residential	138,583
Non-Residential	214,799
Unknown Occupancy	--
All Policies	**4,646,756**

Source: FEMA, National Flood Insurance Program (NFIP)

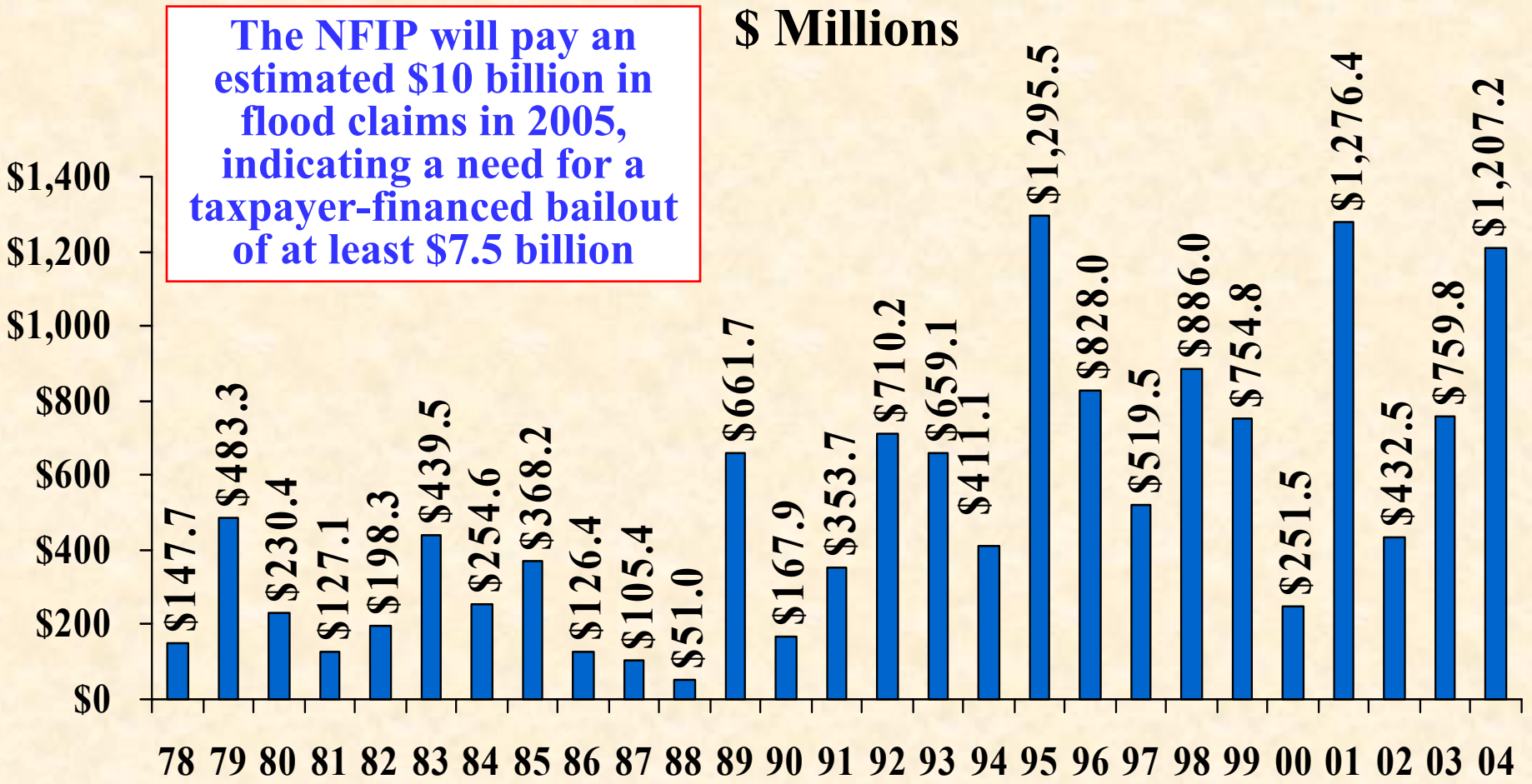
NFIP: No. of Losses Paid by Calendar Year 1978-2004



Source: FEMA, National Flood Insurance Program (NFIP)

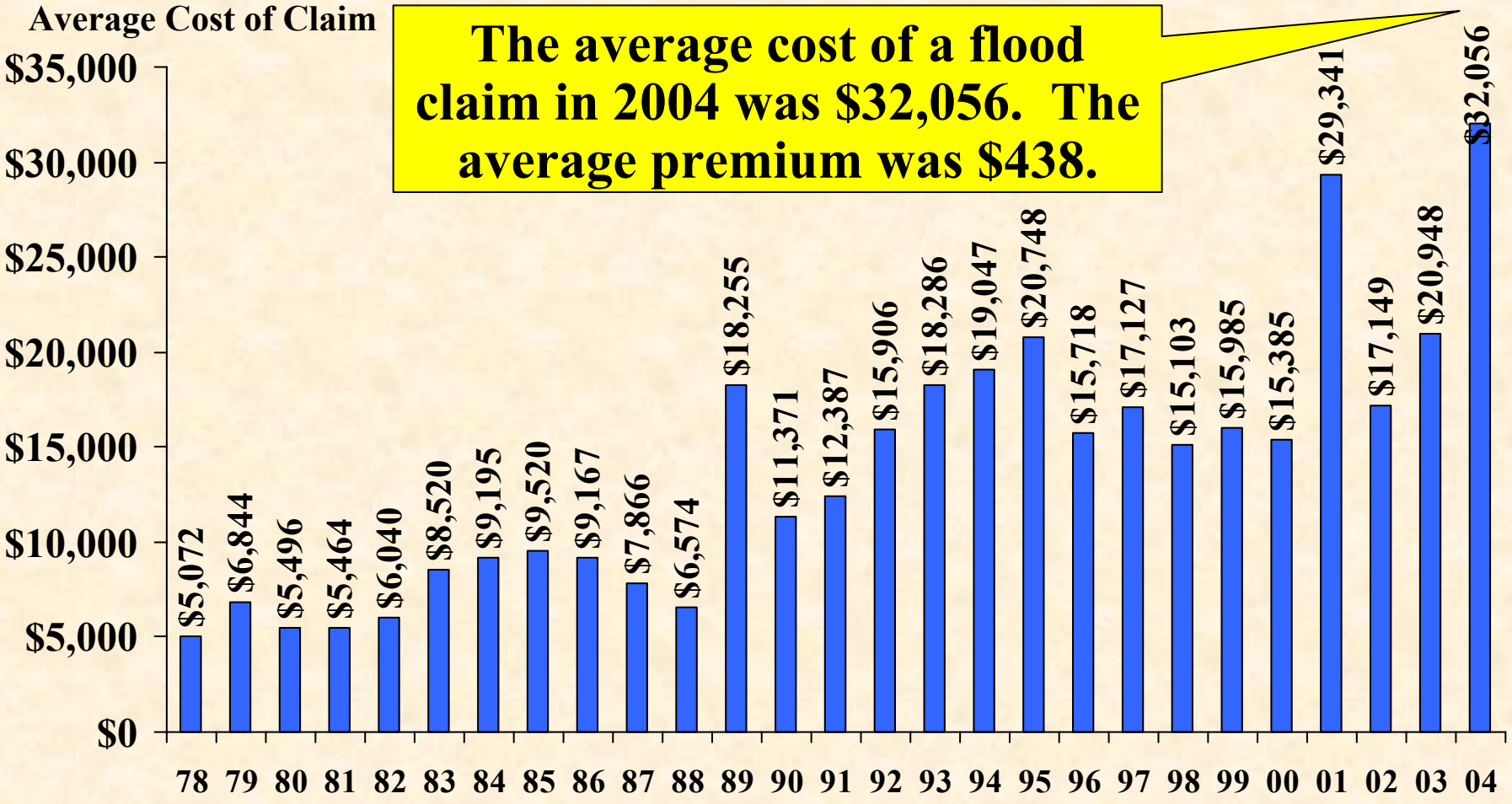
NFIP: Loss Dollars Paid by Calendar Year 1978-2004

The NFIP will pay an estimated $10 billion in flood claims in 2005, indicating a need for a taxpayer-financed bailout of at least $7.5 billion



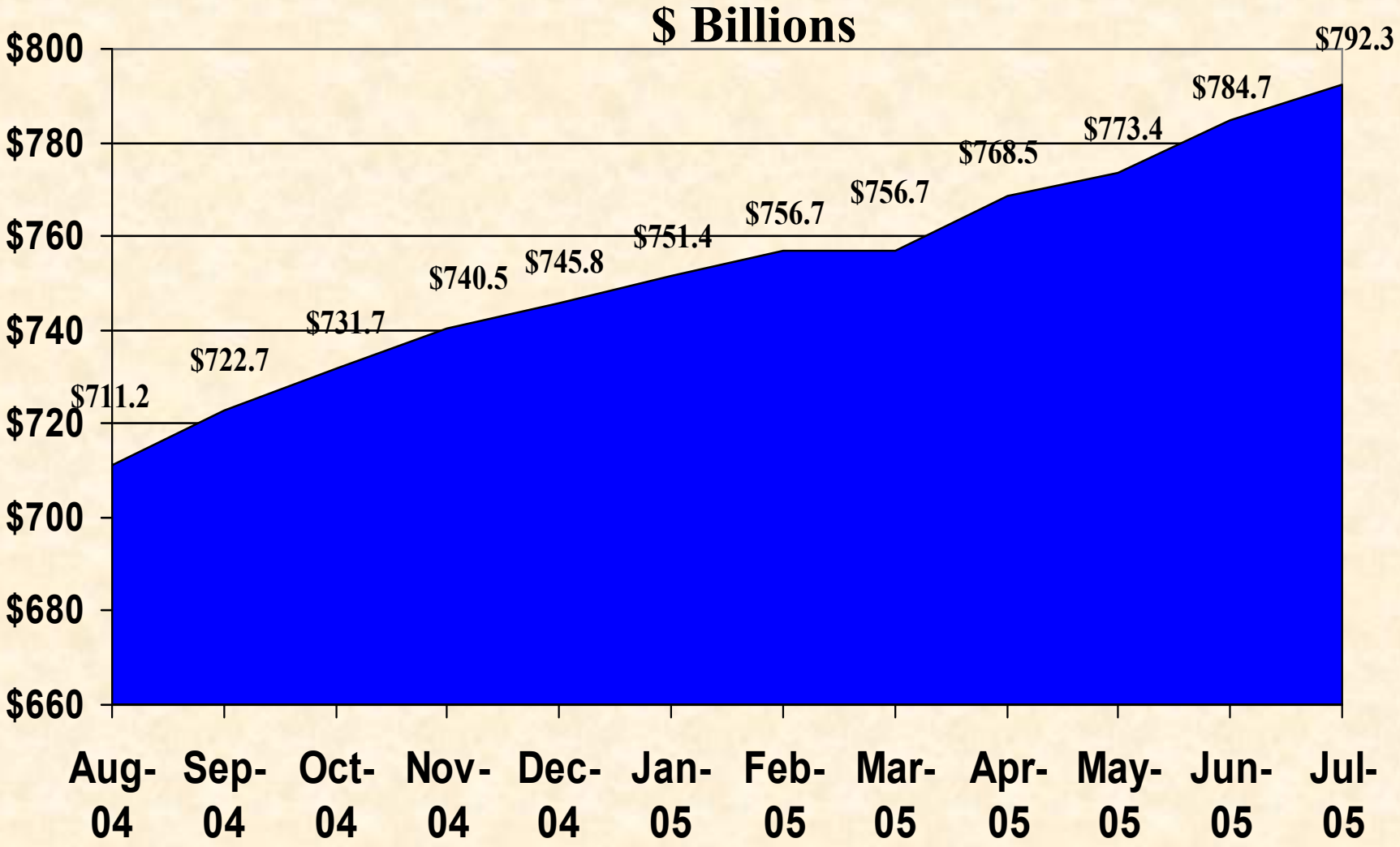
Source: FEMA, National Flood Insurance Program (NFIP)

NFIP: Average Cost of Claim By Calendar Year 1978-2004



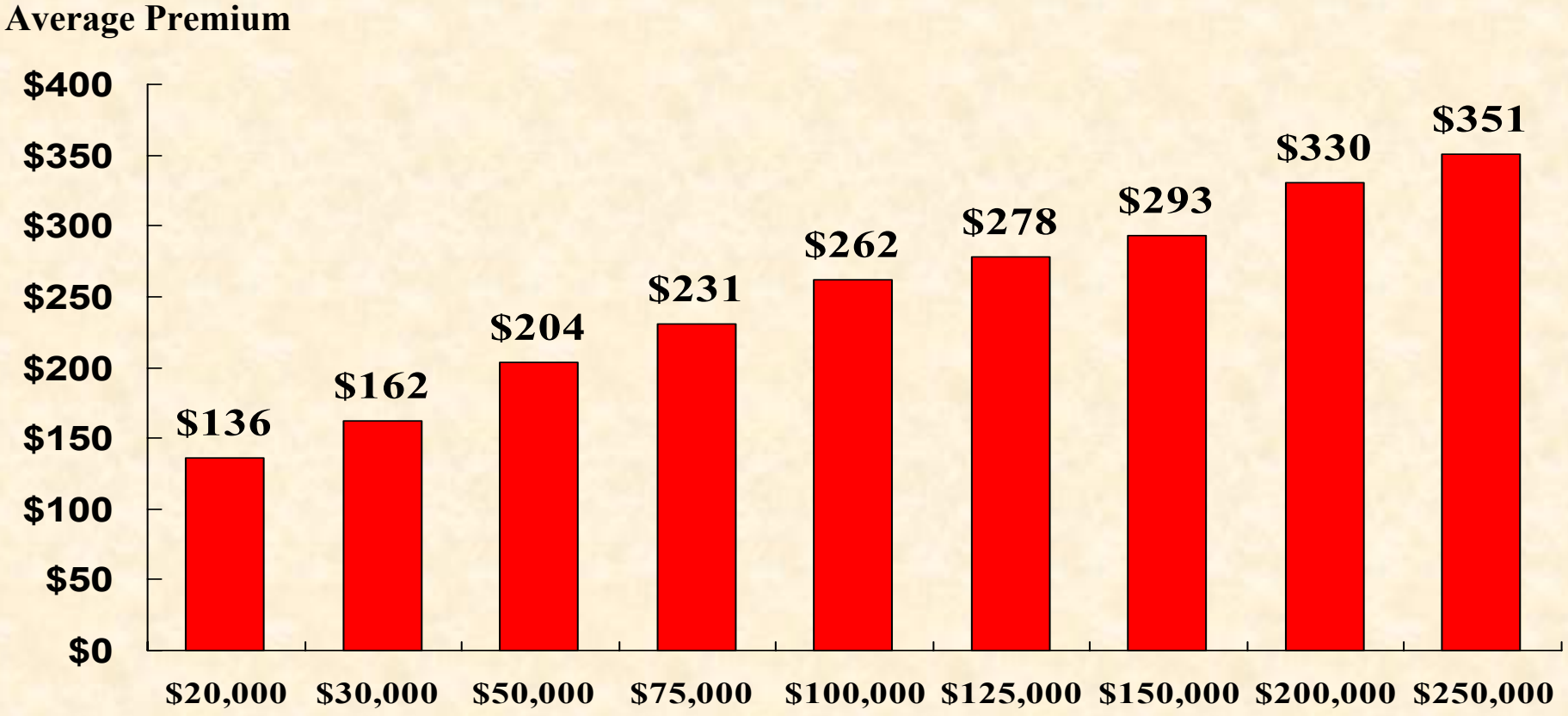
Source: FEMA, National Flood Insurance Program (NFIP)

NFIP: Insurance In Force By Month (As of July 31, 2005)



Source: FEMA, National Flood Insurance Program (NFIP)

Average Premium Preferred Risk Policy* For Buildings with Basement Under NFIP

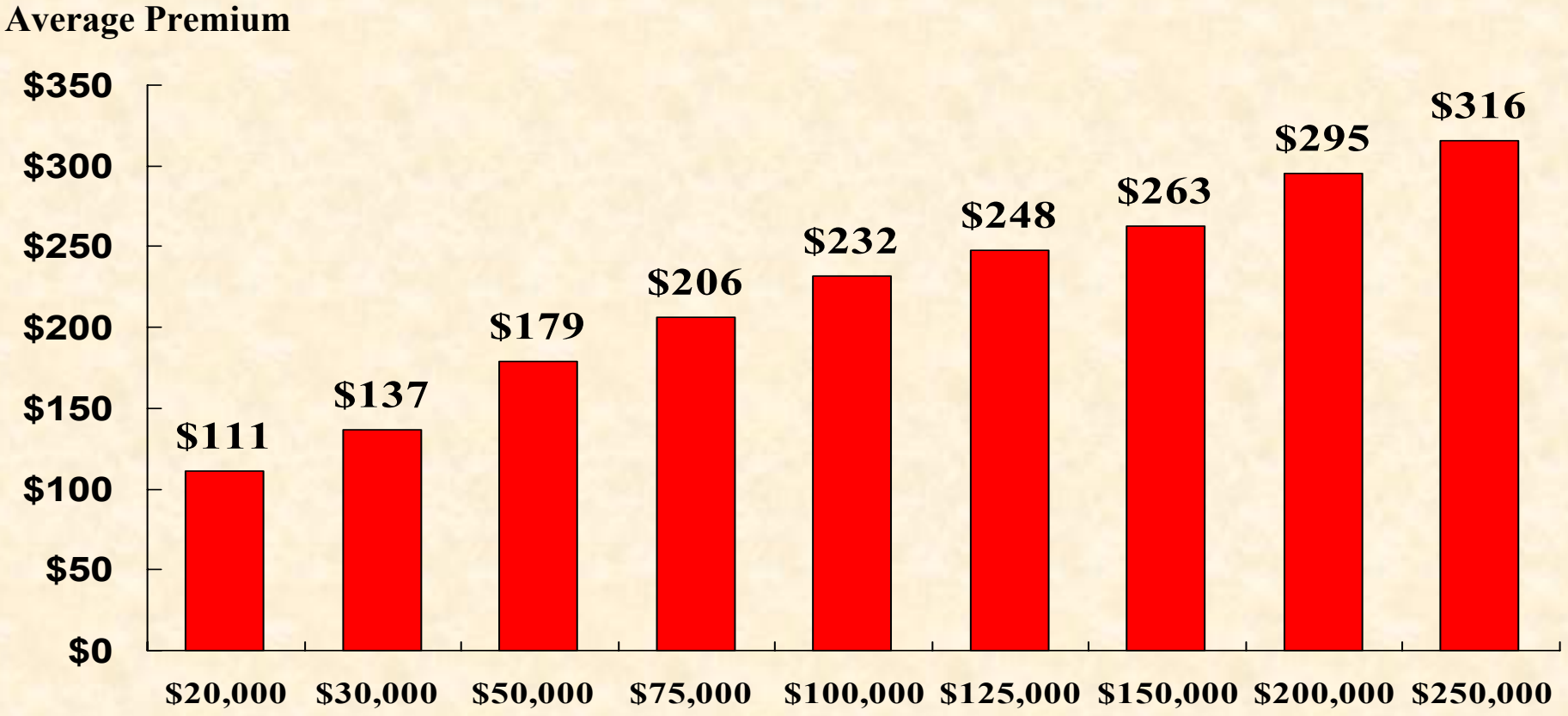


Building deductible: $500. Contents deductible: $500. Deductibles applied separately.

***Under the NFIP a low-cost Preferred Risk Policy is available to homeowners located in low- to moderate-risk areas.**

Sources: FEMA, National Flood Insurance Program (NFIP)

Average Premium Preferred Risk Policy For Buildings without Basement Under NFIP*



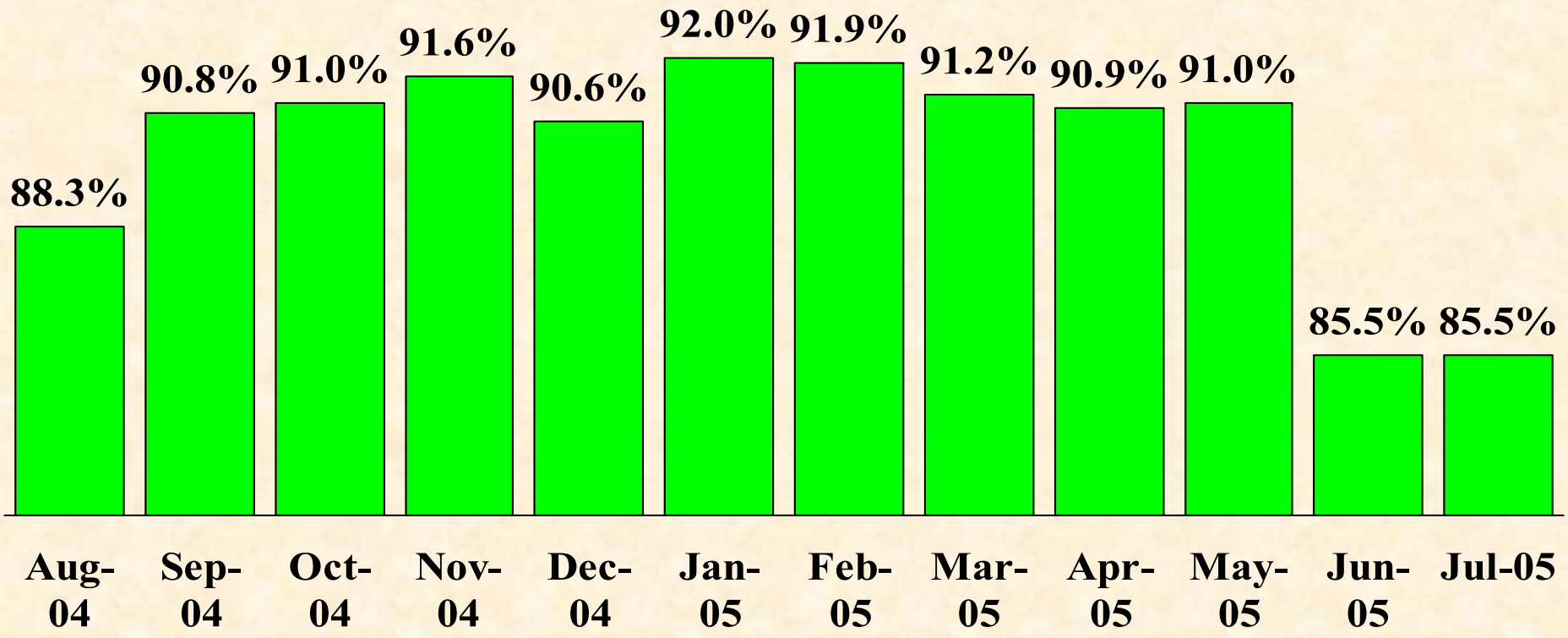
Building deductible: $500. Contents deductible: $500. Deductibles applied separately.

***Under the NFIP a low-cost Preferred Risk Policy is available to homeowners located in low- to moderate-risk areas.**

Sources: FEMA, National Flood Insurance Program (NFIP)

Policy Retention Rates, As Of July 31, 2005

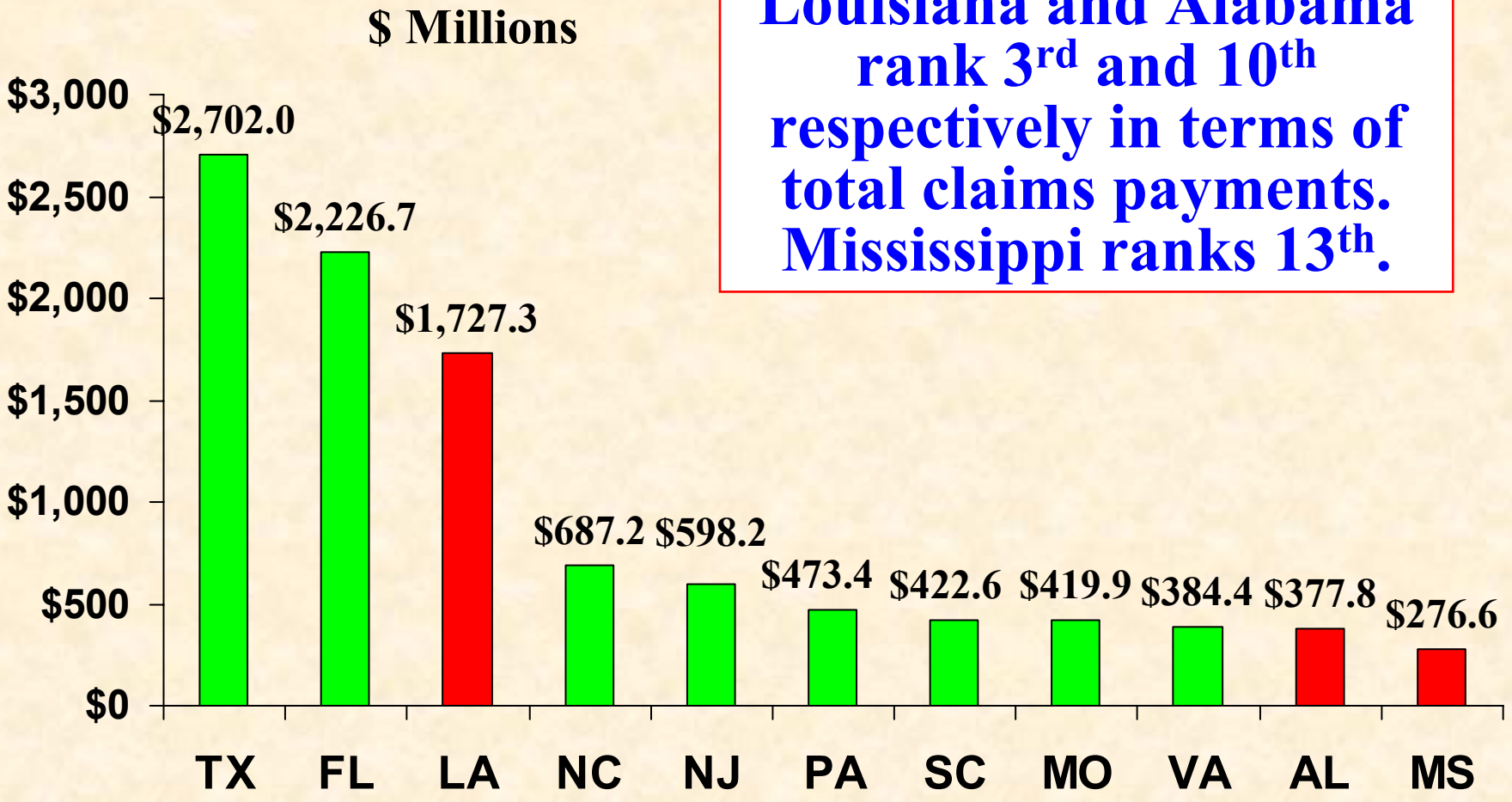
Retention rates in the NFIP are poor, with 10-15% of policyholders allowing policies to lapse annually.



Source: FEMA, National Flood Insurance Program (NFIP)

Total Claim Payments by State (Top 10) Jan 1, 1978 - Dec. 2004

Louisiana and Alabama rank 3rd and 10th respectively in terms of total claims payments. Mississippi ranks 13th.

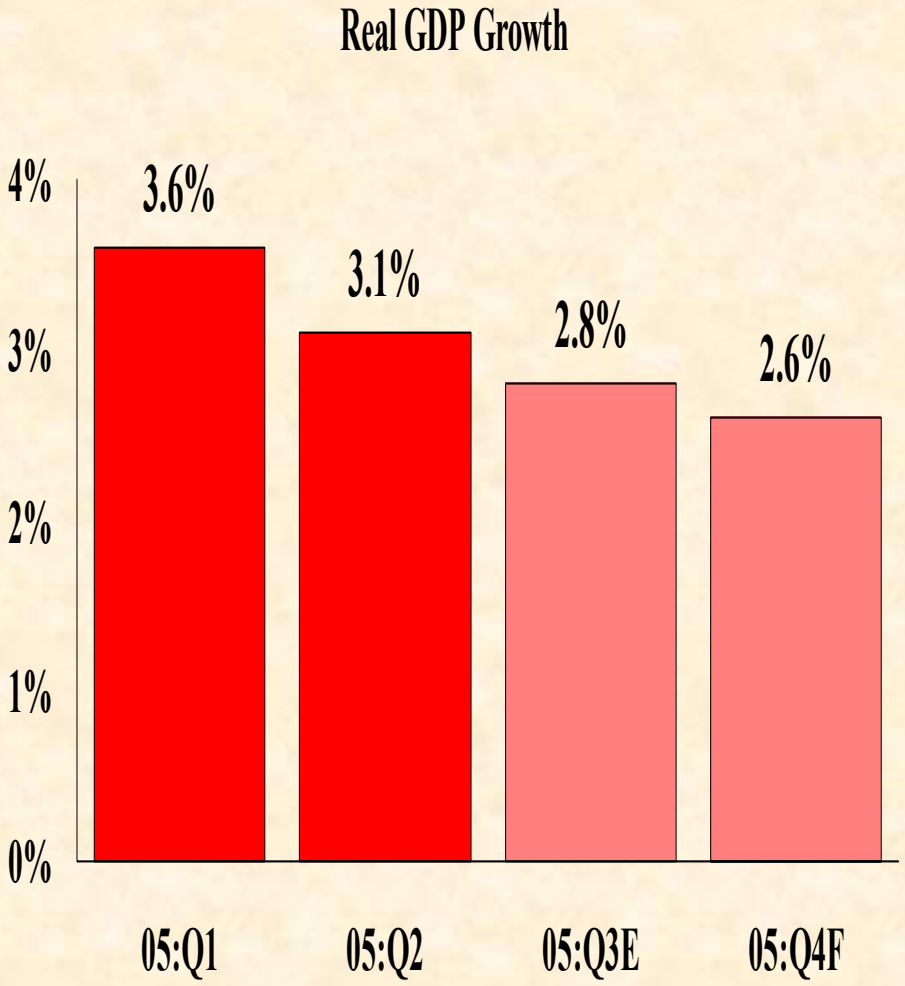


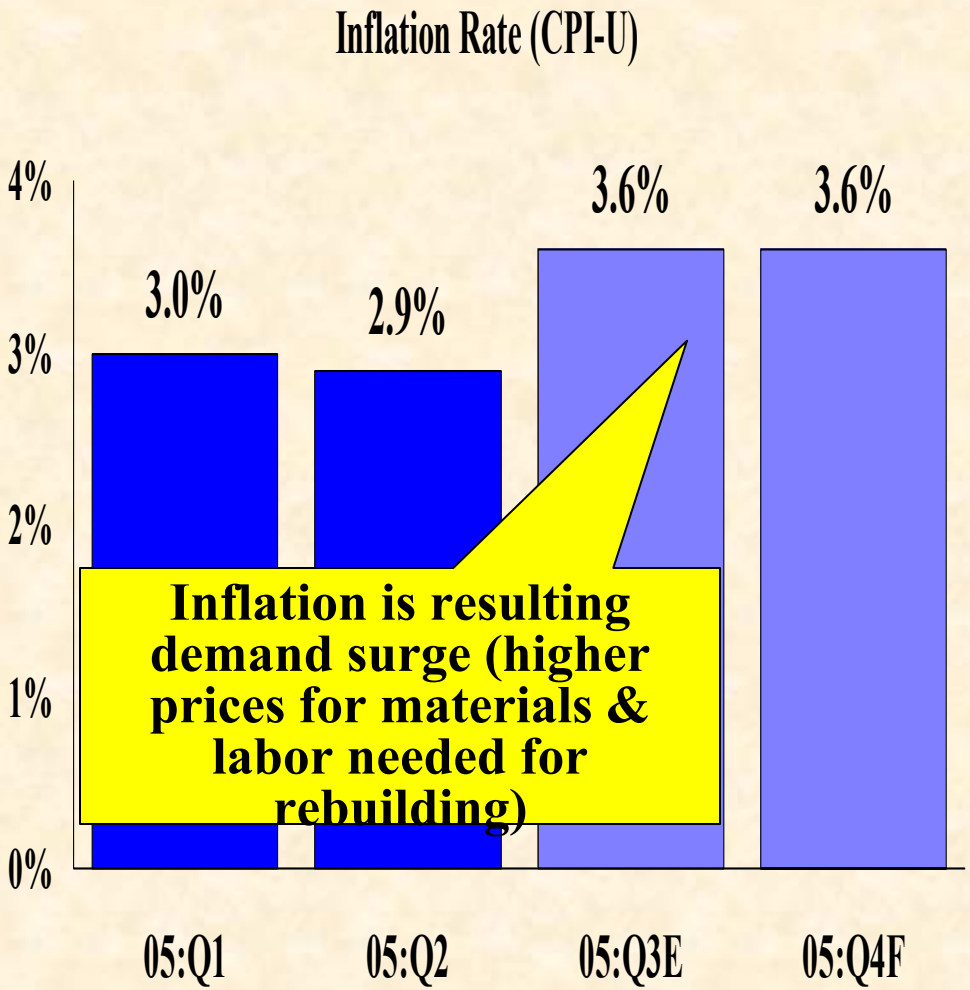
Source: FEMA, National Flood Insurance Program (NFIP)

Hurricanes Katrina & Rita:

Demand Surge is a Big Problem

Hurricanes Have Hurt Economic Growth and Sparked Inflation





Source: Blue Chip Economic Indicators, Oct. 10, 2005; Insurance Information Institute

The Simple Economics of "Demand Surge"

Dr. Marcellus Andrews, Economist, III

Storms Damage Economies as Well as Property

- Hurricanes Katrina and Rita destroyed property, businesses and therefore the economy of the Gulf region.
- The storms destroyed a substantial portion of the productive capital of the region while evacuation reduced the labor force.
- The economic recovery process will be hampered by the same housing shortages that are slowing down the claims adjustment process in Louisiana and Mississippi.

Economic Damage Inflicted by Katrina and Rita

- 1.5 million people were evacuated from the region, cutting the labor force by approximately 933,000 workers.*
- According to the Congressional Budget Office, 300,000 homes have been destroyed, so that the recovery process will take longer than normal because workers have no place to live.**
- Inventories of building materials and supplies as well as the distribution systems for these goods were also damaged or destroyed by the storms and flooding.

*Estimate based on a fact that the ratio of dependents – primarily the non-working elderly and those too young to legally work as well as those too sick to work – is six dependents for every ten workers

** "Macroeconomic and Budgetary Effects of Hurricanes Katrina and Rita", Statement of Douglas Holtz-Eakin, Director, Congressional Budget Office, before the Committee on the Budget. United States House of Representatives, October 6, 2005.

Definition of Demand Surge

- Insurance dollars will pour into the region, but rebuilding will be limited by material and worker shortages, leading to rising wages and materials prices.
- This rise in prices due to insurance dollars bumping up against labor and materials shortages is ***"demand surge".***
- The cost of rebuilding homes will rise substantially over the next three to six months because labor and materials are in short supply.
- However, over the course of the next year or more, wages and materials price increases will slow because residents will return to the region while immigrants from other regions (and countries) will be lured by high wages.

Details of "Demand Surge"

Number & Share of Labor Force Affected by Katrina/Rita by State

State	*Labor Force*	*Percentage*
Alabama	392,139	12%
Louisiana	1,564,302	48%
Mississippi	903,808	28%
Texas	396,080	12%

Source: US Department of Labor as of August 2005

Katrina/Rita Evacuation Create Major Labor Shortages in Some Areas

- Storm eliminated between 293,000 (best case) and 480,000 (worst case) jobs from Katrina/Rita region.*
- Labor force falls by 933,000, ***so that the number of workers falls by more than the number of jobs, leading to higher wages.***
- Acute labor shortages in Louisiana and Mississippi as a result of the evacuation.

* "Macroeconomic and Budgetary Effects of Hurricanes Katrina and Rita", Statement of Douglas Holtz-Eakin, Director, Congressional Budget Office, before the Committee on the Budget. United States House of Representatives, October 6, 2005

Temporary and Structural Unemployment in the Region

- New Orleans Times-Picayune (October 26, 2005) reports dramatic rise in unemployment in region from 6% in August to 14.8% in September at the same time the firms offer bonuses to counteract labor shortages.
- Measured unemployment is temporary and "structural", more due to a spatial mis-match between workers and jobs than to a drastic decline in the number of jobs.
- Warning signs: the return of workers cold boost measured unemployment industries where customer demand has to pick up – tourism.

Long Term Declines in Labor Scarcity and Labor Costs

- Bush Administration's suspension of Davis-Bacon Act would have permitted employers to pay below the minimum wage, though this move has since been rescinded.
- Bush Administration relaxation of immigration rules allows increase in labor supply due to immigration in region with weak unions.
- Rebuilding homes will increase the regions long term labor force by easing housing shortage.

Housing

- Of the 300,000 homes destroyed by the storms 110,000 were in New Orleans, with 30 to 50,000 requiring demolition.*
- Estimated rebuilding of 100,000 units in New Orleans assuming slight decline in population as a result of out-migration (principally to Texas).**
- Cost of housing construction per square foot may quadruple from $30 per square foot to $120 per square foot*** immediately, with costs falling back once workers return to the region.

* “Thousands of Demolitions Near, New Orleans Braces for New Pain”, The New York Times, October 23, 2005, page A1.

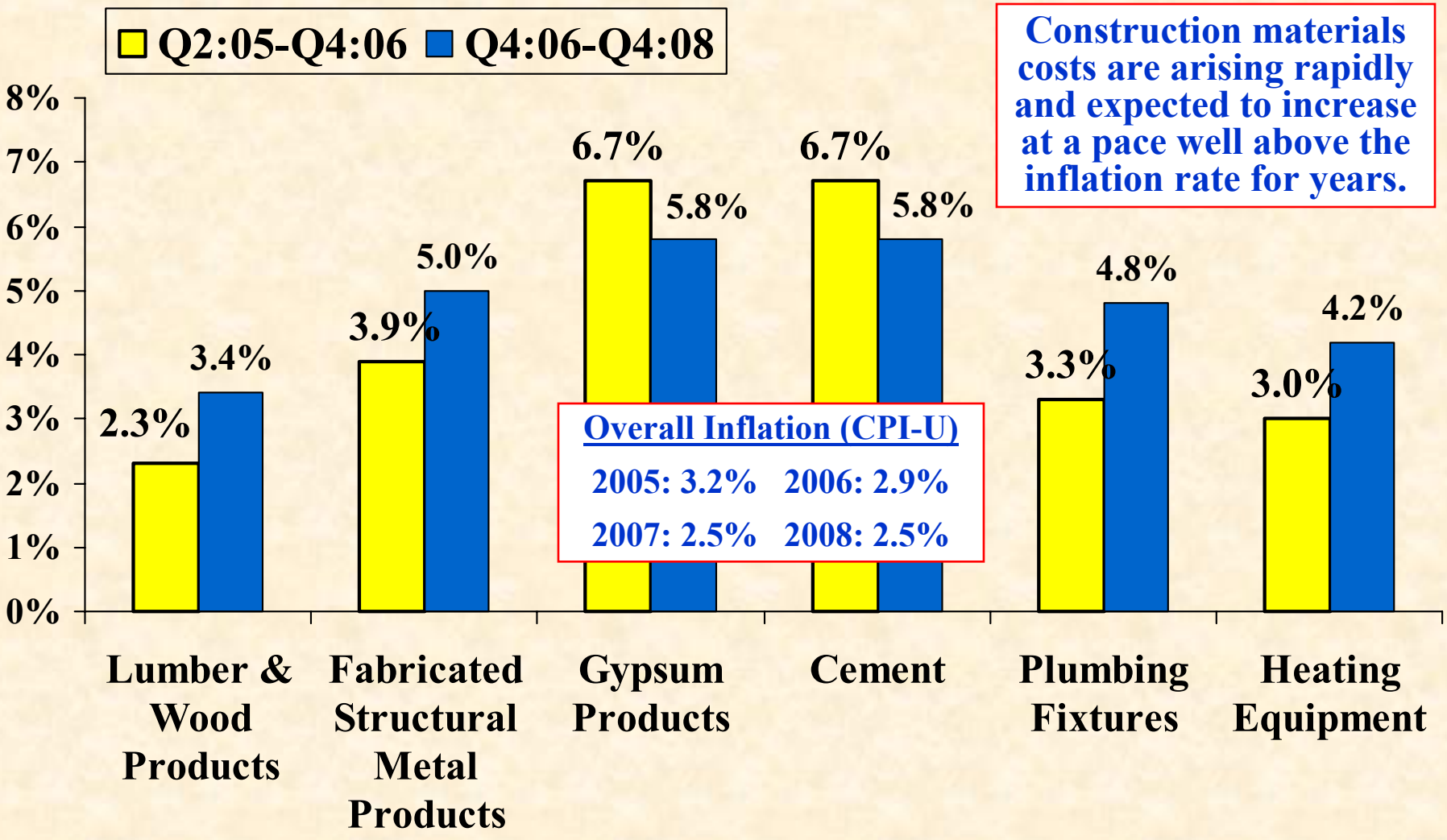
** *The Economic and Construction Outlook Gulf States After Hurricane Katrina*, The American Institute of Architects.

*** “Thousands of Demolitions Near, New Orleans Braces for New Pain”, The New York Times, October 23, 2005, page A1.

Materials

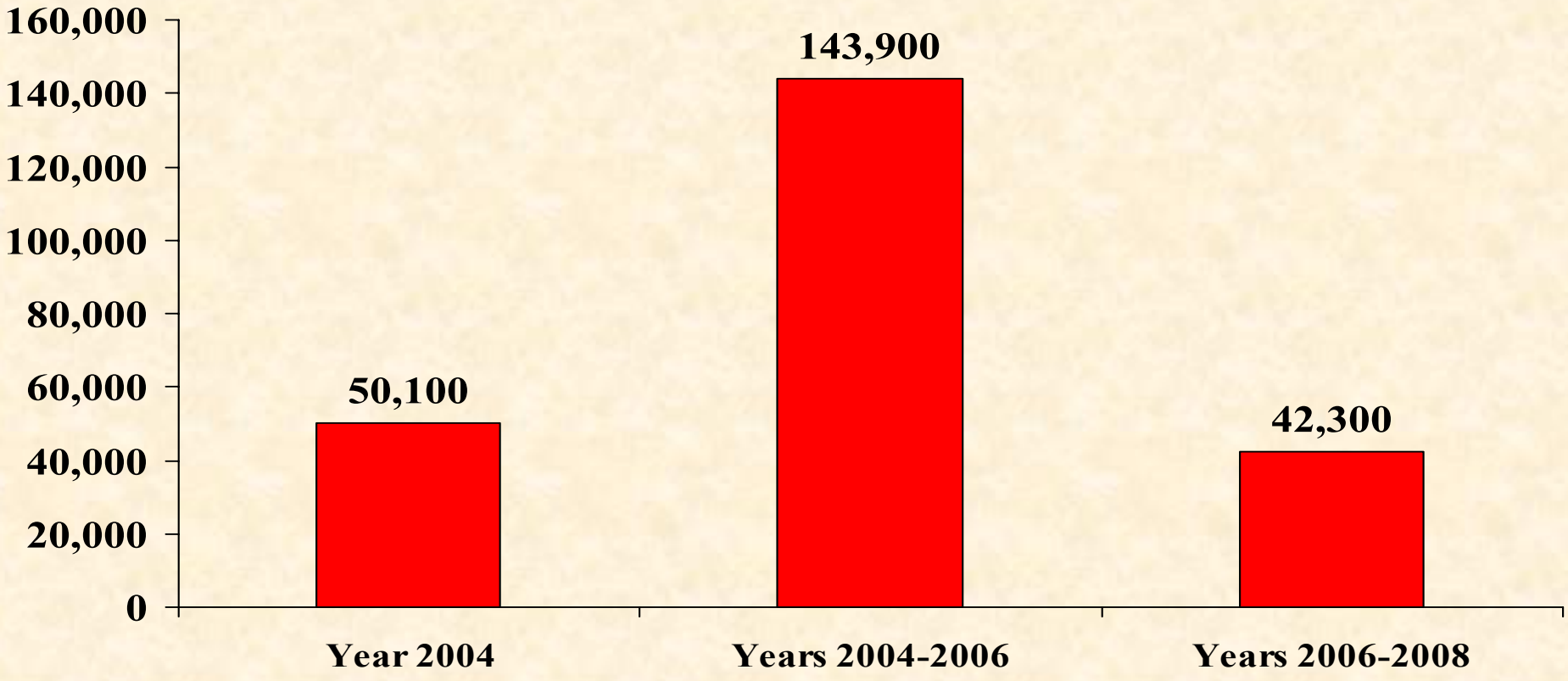
- Materials prices present a mixed picture. Some materials prices will rise sharply immediately – 2nd quarter 2005 through 4th quarter 2006 –, only to rise a lower rates later (after 4th quarter 2006) and vice versa.
- Materials like lumber, cement, gypsum and structural steel products will be in relatively scarce because of trade restrictions and high global demand.

Construction Materials Prices Expected to Surge, Raising Rebuilding Costs



Source: "The Economic and Construction Outlook in the Gulf States After Hurricane Katrina," American Institute of Architects, Oct. 2005, (from Economy.com); Insurance Information Institute.

Projected Housing Starts for AL, LA and MS, 2004 - 2008.



Source: *The Economic and Construction Outlook Gulf States After Hurricane Katrina*, The American Institute of Architects

Complicating Factors

- Materials prices have recently risen faster than the American Institute of Architects projections because of fuel price hikes resulting from the storms.
- Reduced oil production capacity raises transport costs as well as production costs for many building materials.
- Higher wood products and gypsum prices are driven by the disruption of the materials delivery system in the Gulf region, even though the destruction of forests in the region may increase the supply of useable lumber. Sawmills and plywoods plants have been damaged or closed by the storms the Gulf and Florida.*

* Purchasing.Com – The Magazine for Chief Procurement Officers and Purchasing Executives, October 6, 2005

Implications

- Labor costs will rise sharply through March of 2006, then grow more slowly as homes are repaired and more workers return to the region.
- Materials costs will rise due to short term shortages and longer term price pressures due to the global construction boom.
- Housing remains the primary barrier to rapid recovery.
- Cost and price pressure will abate over the long term as labor and material shortages ease.

What Role Should the Federal Government Play in Insuring Against Natural Disaster Risks?

Overview of Plans for a National Catastrophe Insurance Plan

NAIC's Comprehensive National Catastrophe Plan

- **Proposes Layered Approach to Risk**
- **Layer 1: Maximize resources of private insurance & reinsurance industry**
  - **Includes "All Perils" Residential Policy**
  - **Encourage Mitigation**
  - **Create Meaningful, Forward-Looking Reserves**
- **Layer 2: Establishes system of state catastrophe funds (like FHCF)**
- **Layer 3: Federal Catastrophe Reinsurance Mechanism**

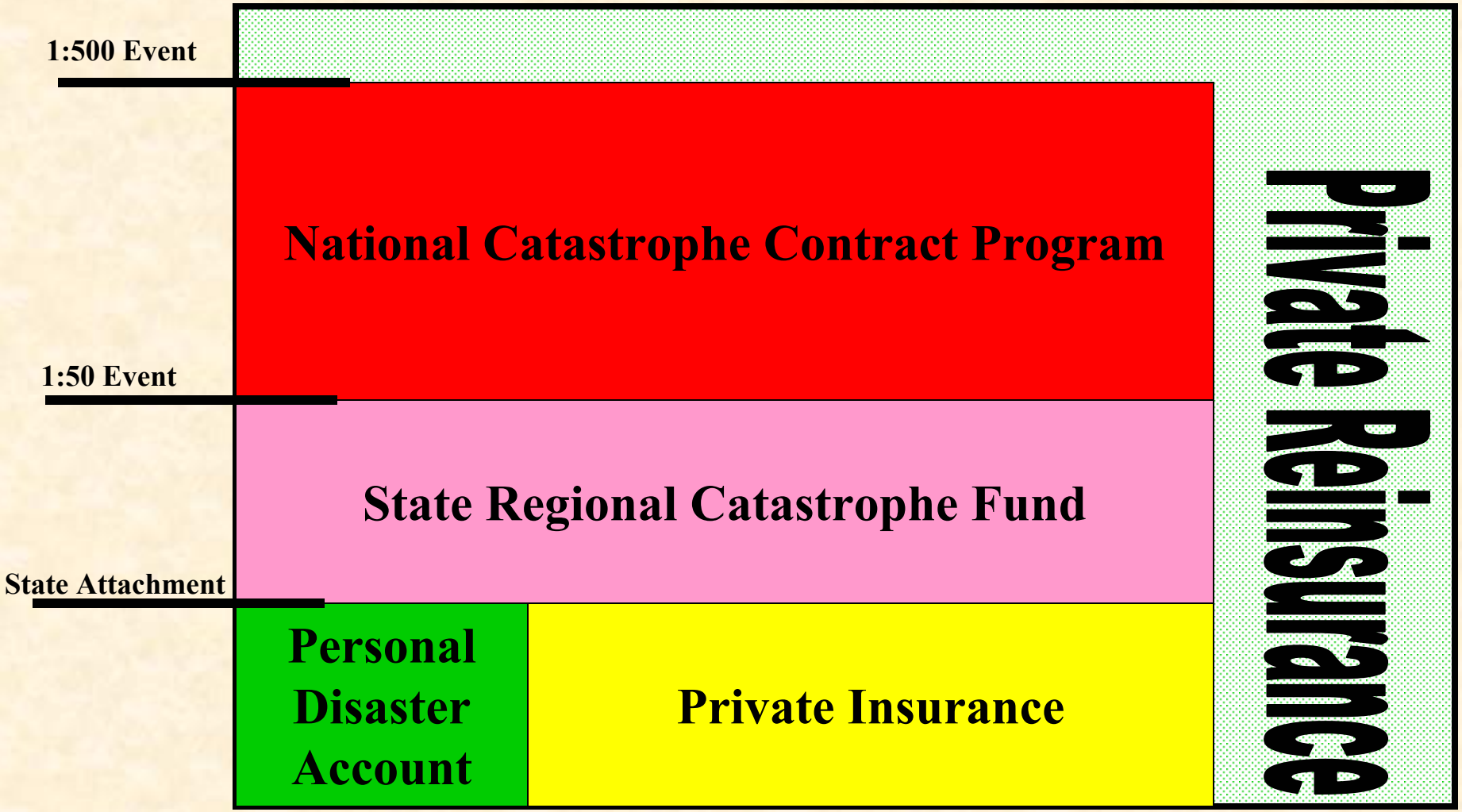
Source: Insurance Information Institute

Guiding Principles of NAIC's National Catastrophe Plan

- **National program should promote personal responsibility among policyholders**
- **National program should support reasonable building codes, development plans & mitigation tools**
- **National program should maximize risk-bearing capacity of private markets, and**
- **National plan should provide quantifiable risk management to the federal government**

Source: Insurance Information Institute from NAIC, *Natural Catastrophe Risk: Creating a Comprehensive National Plan*, Dec. 1, 2005.

Comprehensive National Catastrophe Plan Schematic



Source: NAIC, *Natural Catastrophe Risk: Creating a Comprehensive National Plan*, Dec. 1, 2005; Insurance Information. Inst.

Legislation: Comprehensive National Catastrophe Plan

- **H.R. 846: Homeowners Insurance Availability Act of 2005**
  - **Introduced by Representative Ginny Brown-Waite (R-FL)**
  - **Requires Treasury to implement a reinsurance program offering contracts sold at regional auctions**
- **H.R. 4366: Homeowners Insurance Protection Act of 2005**
  - **Also worked on by Rep. Brown-Waite**
  - **Establishes national commission on catastrophe preparation and protection**
  - **Authorizes sale of federally-backed reinsurance contracts to state catastrophe funds**
- **H.R. 2668: Policyholder Disaster Protection Act of 2005**
  - **Backed by Rep. Mark Foley (R-FL)**
  - **Amends IRS code to permit insurers to establish tax-deductible reserve funds for catastrophic events**
  - **20-year phase-in for maximum reserve**
  - **Use limited to declared disasters**

Source: NAIC, Insurance Information Institute

Layer 1: *The Insurance Contract, Enhancing Capacity & Shaping the Risk*

- **All Perils Policy**
  - **No exclusion except acts of war**
  - **Contains standard deductibles of $500 - $1000 *but requires* separate CAT deductible of 2% – 10% of insured value; Consumer could buy down the deductible to non-CAT fixed dollar amount**
- **Encouraging Mitigation**
  - **Policy will provide meaningful discounts for effective mitigation measures**
- **Creating Meaningful, Forward-Looking Reserves**
  - **Change tax law to allow insurers to set aside a share of premiums paid by policyholders as a reserve for future events**
  - **Amount set aside would be actuarially based**
  - **Phased-in to maximum reserve over 20 years**
  - **Use limited to declared disasters**

Source: NAIC, *Natural Catastrophe Risk: Creating a Comprehensive National Plan*, Dec. 1, 2005; Insurance Information. Inst.

Layer 2: *State Level Public/Private Partnership (State CAT Fund)*

- **Requirement to Create Fund**
  - **To participate in national fund, states must establish state CAT fund or participate in regional CAT fund**
  - **Funds responsible for managing capacity of their funds up to costs expected for combined 1-in-50 year CAT loss level**
- **Operation of State/Regional CAT Funds**
  - **Operating structures left to states' discretion, including**
    - **Financing mechanism (e.g., debt, pool etc.)**
    - **Trigger point for qualifying loss (if any)**
    - **Amount of retention between private insurers & state fund**
    - **Participation by surplus lines & residual markets**
  - **Requirement that rates are actuarially sound**
  - **Requirement that fund will finance a level of mitigation education and implementation**

Source: NAIC, *Natural Catastrophe Risk: Creating a Comprehensive National Plan*, Dec. 1, 2005; Insurance Information. Inst.

Layer 2: *State Level Public/Private Partnership (State CAT Fund) [Cont'd]*

- **Building Codes**
  - **Participating states expected to establish effective (enforced) building codes that properly reflect their CAT exposures as well as the latest in accepted science and engineering**
  - **States also required to develop high land use plans where appropriate**
- **Anti-Fraud Measures**
  - **State funds and DOIs maintain rigorous anti-fraud programs to ensure losses paid actaully due to insured CAT loss**
- **Mitigation**
  - **DOIs required to establish & implement effective mitigation plans**
  - **Review of mitigation plans will be considered as part of an NAIC certification process**

Source: NAIC, *Natural Catastrophe Risk: Creating a Comprehensive National Plan*, Dec. 1, 2005; Insurance Information. Inst.

Layer 3:
The Role of a National Mechanism

- **The National Catastrophe Plan Mechanism**
  - **Federal legislation is needed to create a National Catastrophe Insurance Commission (NCIC)**
    - **NCIC purpose is to serve as conduit between state funds and US Treasury for purpose of providing reinsurance to state funds for insured losses resulting from catastrophic events beyind the state-mandated 1-in-50 year exposure**
  - **States & NCIC will enter into National Catastrophe Financing Contracts**
    - **Reinsurance will attach at 1-in-50 year level and provide protection through the 1-in-500 year level event**

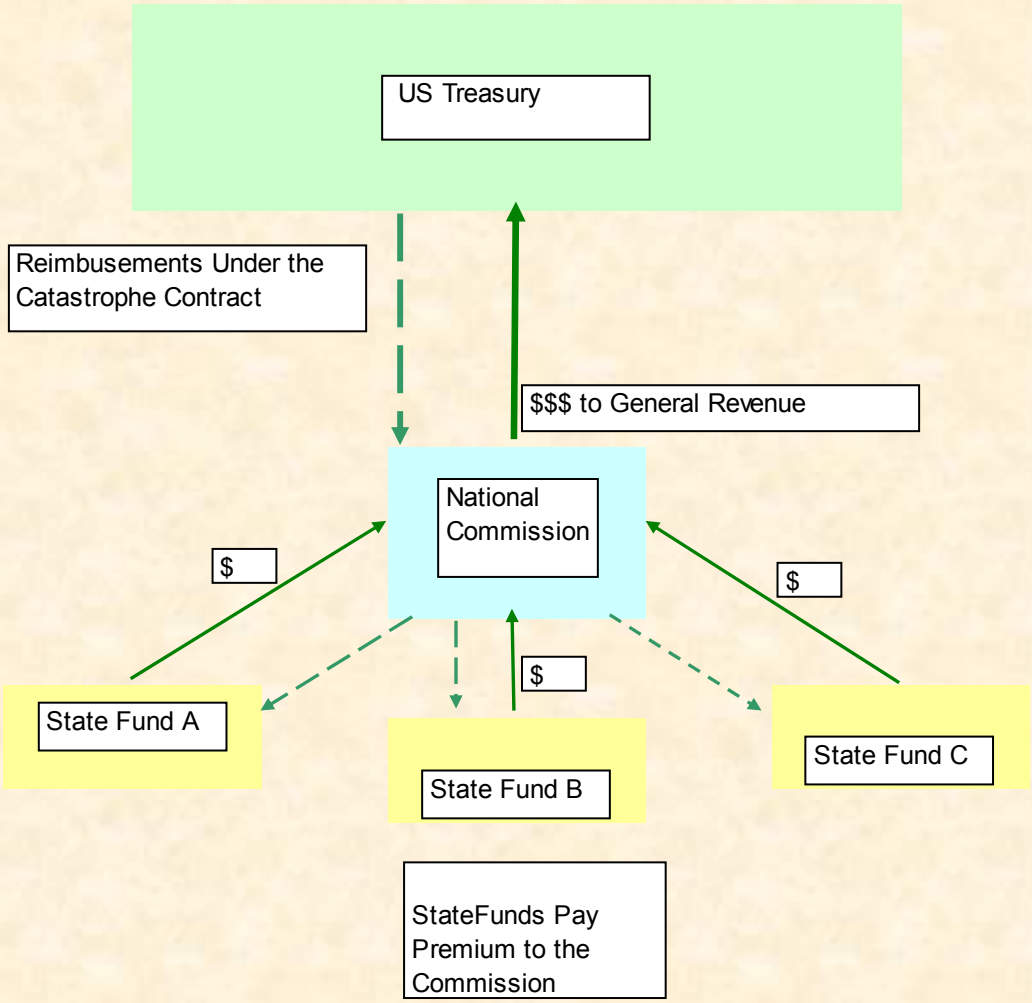
Source: NAIC, *Natural Catastrophe Risk: Creating a Comprehensive National Plan*, Dec. 1, 2005; Insurance Information. Inst.

Layer 3: *[Cont'd]*
The Role of a National Mechanism

- **The National Catastrophe Insurance Commission Structure & Duties**
  - **NCIC would annually establish actuarially sound rates, with no profit factor, for each state's aggregate catastrophic exposure**
  - **State fund responsible for collecting premium and remitting to NCIC.**
  - **NCIC remits premiums to US Treasury general revenues**
    - **No separate fund is created, nor are any funds accumulated**
    - **In the event of a loss, US Treasury provides funds pursuant to catastrophe financing contract**
  - **NCIC will consist of 11 members serving 6-year terms**
    - **1 member from each of 4 NAIC zones, 1 US Treasury rep., remainder are to be experts in actuarial science, engineering, meteorological/seismic science, consumer affairs & p/c insurance**
    - **Members are selected by the President & confirmed by the Senate with chair appointed by the President**

Source: NAIC, *Natural Catastrophe Risk: Creating a Comprehensive National Plan*, Dec. 1, 2005; Insurance Information. Inst.

Interaction of State Funds, National Commission & US Treasury



Source: NAIC, *Natural Catastrophe Risk: Creating a Comprehensive National Plan*, Dec. 1, 2005; Insurance Information. Inst.

Pros/Cons of Federal CAT (Re) Insurance Facility

- **Rationale *FOR* Federal Involvement**
  - **Insurance was not meant to handle mega-catastrophes**
  - **Such risks are fundamentally uninsurable**
  - **Federal government already heavily involved in insuring against weather-related mega-catastrophes (e.g., flood, crop)**
  - **Insurers are not allowed to charge risk appropriate rates (including rising reinsurance costs)**
  - **Price/availability of private reinsurance is volatile**
- **Rationale *AGAINST* Federal Involvement**
  - **Crowds-out pvt. insurance/reinsurance markets; stifles innovation**
  - **Relationship between price and risk assumed is diminished since fed insurance programs are seldom actuarially sound**
  - **Increases federal involvement and regulatory authority in p/c insurance *(not a negative for some market participants)***
  - **Cost to US Treasury (esp. taxpayers in less disaster prone states)**
  - **Diminishes incentives for mitigation, tougher building codes and wiser land use policies if Fed rate are politically influenced**

Proponents/Opponents of National Catastrophe Plan

- **Proponents of a National Catastrophe Plan**
  - **Some major personal lines insurers: Allstate, State Farm**
  - **Insurance regulators from some CAT-prone states: FL, CA, NY as well as NY (but not TX)**
  - **Some elected officials in state legislatures & Congress, esp. from disaster-prone states like FL**
  - **Coalition building on-going (ProtectingAmerica.org)**
- **Opponents of a National Catastrophe Plan**
  - **Reinsurers, American Insurance Association, numerous large insurers both domestic and foreign**
  - **Many smaller insurers concerned about federal intrusion into the p/c regulatory arena**
  - **Many insurers operating outside areas prone to major CAT risk**
  - **Some regulators in states not prone to major catastrophic risk**
  - **Likely opposition among legislators and policymakers in Washington opposed to deeper involvement of government in p/c insurance sector**

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r current system leaves too many people unprotected and unable to rebuild their lives lowing a catastrophe. We need to prepare for future catastrophes and protect ourselves.

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Information about the "Long Island Express"

one Internet

Regional Natural Disaster Pool(s)

- **KEY ELEMENTS**
  - **Share of property premiums in certain states (homeowners, commercial property) premiums collected would be ceded to pool and used to finance mega-catastrophes in participating states**
  - **Funds would earn investment income tax-free to speed accumulation**
  - **Federal government would provide a backstop to the pool as:**
    - **Reinsurance purchased by pool from the government**
    - **Line of credit offset by assessing authority**
- **KEY CHALLENGES**
  - **Is participation by insureds mandatory or optional?**
  - **If optional, significant adverse selection problem**
  - **Determination of "actuarially sound" rates**
  - **Maintaining role for private reinsurance**
  - **Keeping rates free of political influence and manipulation**
  - **Formula for assessing shortfalls in pool (including taxpayer share)**
  - **Attracting support of states not prone to mega-catastrophes**
  - **Appeasing deficit hawks, advocates of small government**

Federal Reinsurance Program

- **KEY ELEMENTS**
  - **Insurers purchase CAT reinsurance from federal government**

- **KEY CHALLENGES**
  - **Determination of "actuarially sound" rates**
  - **Maintaining significant role for private reinsurers**
  - **Maintaining significant role for ART and risk securitization**
  - **Keeping rates free of political influence and manipulation**
  - **Appeasing advocates of small government**
  - **Keeping natural disaster risk programs separate and distinct from terrorism risk**

Tax-Preferred Treatment of Pre-Event Catastrophe Reserving

- **KEY ELEMENTS**
  - **Insurers would be allowed to deduct from their taxable income amounts set aside in reserve for natural disaster risks *in advance of the occurrence of the actual event***
  - **Presently, US tax law does not allow for such treatment**
    - **Most other countries already permit pre-event reserving**

- **KEY CHALLENGES**
  - **Determination of appropriate reserve levels**
  - **Overcoming criticism of impact on US Treasury receipts**
    - **Note that impact on Treasury is limited to time value of tax receipts**

Managing Natural Catastrophes in a Post-9/11 World

L James Valverde, Ph.D., Director,
Economics & Risk Management

Presentation Outline

- Managing Natural Catastrophes
  - Emergency preparedness and response in the wake of 9/11
  - Emerging questions and lessons from Hurricane Katrina
  - The centrality of risk management, for both public and private stakeholders
- The U.S. Department of Homeland Security
  - The National Strategy for Homeland Security and the genesis of DHS
  - Historic moment for America or bureaucracy writ large?
- Emergency Preparedness and Response
  - The homeland security context
  - All-hazards vs. terrorist myopia?
- FEMA
  - Past, present, and future
  - What went wrong and why?
  - All-hazards context: The National Planning Scenarios
  - Challenges in the years ahead
- Implications for P/C Insurers
- Concluding Remarks and Discussion

The National Strategy for Homeland Security and the Genesis of DHS

- In the wake of 9/11, President Bush issued the *National Strategy for Homeland Security* in July 2002
- Legislation creating the U.S. Department of Homeland Security (DHS) was signed in November 2002
- The creation of DHS represents a fusion of numerous federal agencies, with the objective of *coordinating* and *centralizing* the leadership of the nation's homeland security activities under a single, cabinet-level department
  - Began operations in March 2003
  - 22 separate agencies
  - Approximately 180,000 employees

DHS: Historic Moment or Bureaucracy Writ Large?

- The creation of DHS represents a historic moment of almost unprecedented action by the federal government to transform how the nation protects itself from acts of terrorism
- Rarely in the nation's history has such a large and complex reorganization of government been attempted, with such a singular and urgent purpose
- DHS represents a unique opportunity to transform a disparate group of agencies with multiple missions, values, and cultures into an effective cabinet-level department
- A central aspect of DHS's mission involves coordinating efforts to protect critical infrastructure, prepare for possible attacks and other emergencies, and respond to catastrophic incidents and events
- Accountability and performance thus far?
  - Hurricane Katrina as a specific case in point – first real test of the system?
  - DHS Inspector General
  - U.S. GAO
  - Academics and Think Tanks

Homeland Security: The Essential Tension

- Any coordinated and sustained effort to effectively manage homeland security must contend with two competing tasks:
  - The *prevention* of terrorist acts
  - *Mitigation* of *consequences* arising from acts of terrorism
- In a decision context like this, resource allocation under uncertainty is one of the central challenges the federal government faces in its efforts to manage homeland security

The National Strategy for Homeland Security

- The *National Strategy for Homeland Security* describes six critical missions areas:
  - Intelligence and Warning
  - Border and Transportation Security
  - Domestic Counterterrorism
  - Protecting Critical Infrastructure and Key Assets
  - Defending Against Catastrophic Threats
  - Emergency Preparedness and Response
- The President has also issued several additional documents – so-called *Homeland Security Presidential Directives* (HSPD) – that provide more detailed guidance on various homeland-security-related mission areas and initiatives

Emergency Preparedness and Response: Key Elements of the National Strategy

For the Emergency Preparedness and Response mission area, the National Strategy identifies 12 separate initiatives:

1. Integrate separate federal response plans into a single all-discipline incident management plan
2. Create a national incident management system
3. Improve tactical counter terrorist capabilities
4. Enable seamless communication among all responders
5. Prepare health care providers for catastrophic terrorism
6. Augment America's pharmaceutical and vaccine stockpiles

Emergency Preparedness and Response: Key Elements of the National Strategy (cont.)

7. Prepare for chemical, biological, radiological, and nuclear decontamination

8. Plan for military support to civil authorities

9. Build the Citizen Corps

10. Implement the First Responder initiative of the FY03 budget

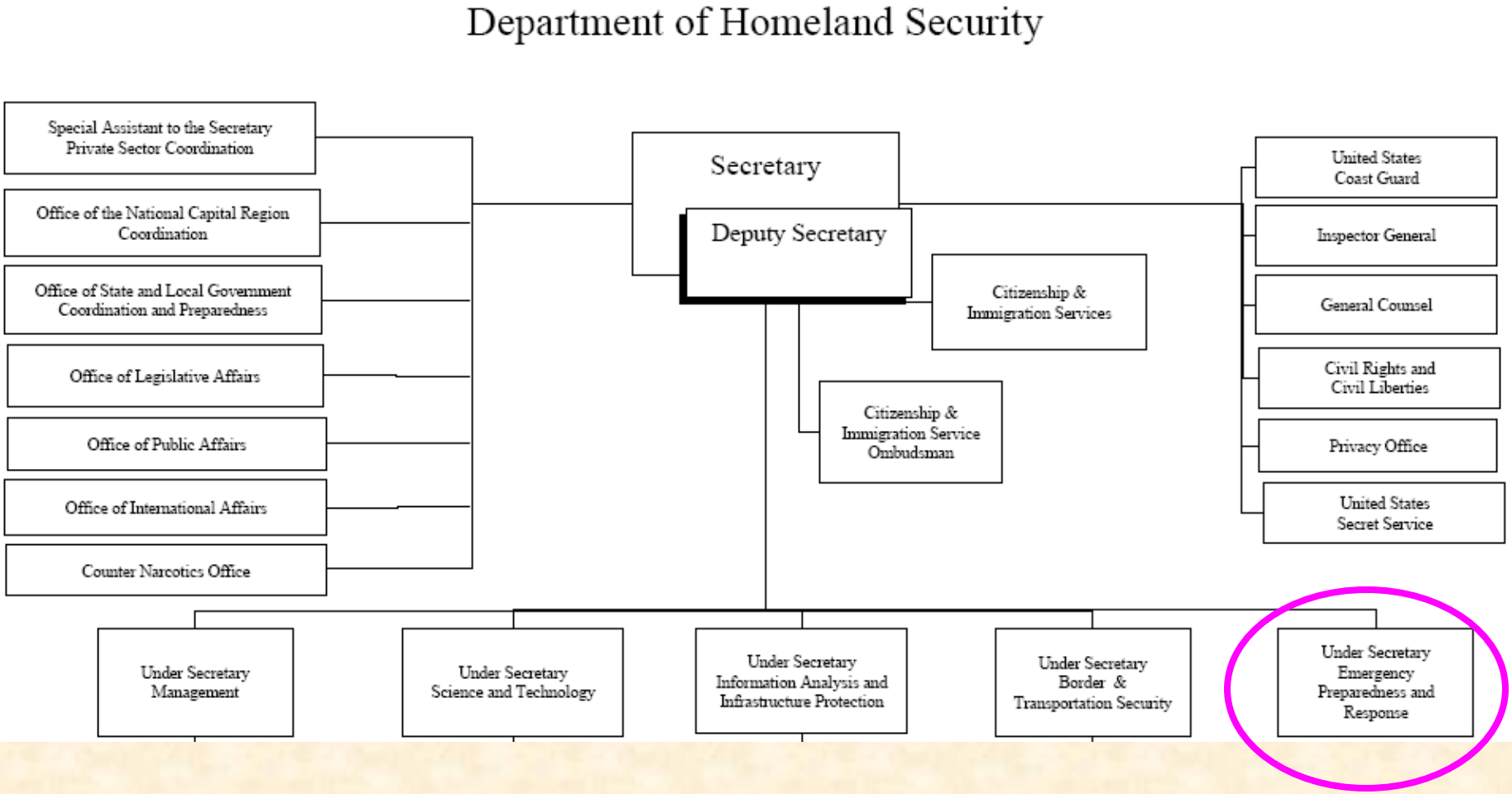
11. Build a national training and evaluation system

12. Enhance the victim support system

FEMA

Past, Present, and Future

DHS Organizational Structure: FEMA's Place in the Larger Context of Homeland Security



FEMA: Informed Opinion Prior to Hurricane Katrina

"…*consolidate* DHS response missions into FEMA and *strengthen that agency*. FEMA should be engaged squarely in *its traditional role* of planning for national (not just federal) response to emergencies… [emphasis added]."

DHS 2.0

Heritage Foundation

December 2004

FEMA in the Wake of Hurricane Katrina

- According to a recent WSJ article, FEMA has, in some circles, become synonymous with the government's bungled response to the hurricane
- To what extent is this a fair characterization of this agency and the difficult situation it now finds itself in?

FEMA: Past, Present, and Future

"Two years ago in a lecture at the Naval Postgraduate School … I told students that FEMA was not capable of adequately responding to a major hurricane, let alone a catastrophic terrorist attack. My comments were based on an assessment that *morale at FEMA was then the worst since the agency was created*. The very people the nation depended on to help out during our time of greatest need were being demoralized by *an indifferent, inexperienced leadership that neither understood emergency manage-ment nor had the skills to ensure the agency had the resources to meet its all-hazard mission*."

"Those who think we have overemphasized terrorism in the wake of September 11, should be concerned with a knee-jerk reaction to Katrina. *What we need is balance. We must be prepared to respond to both terrorism and natural disasters*. The FEMA I know is capable of rising to the occasion and accomplishing both missions.

Mike Walker
Former FEMA Deputy Director
The Washington Times, 13 Sept. 2005

FEMA: What Went Wrong and Why?

- Over the course of the next several months, many theories and explanations will be forthcoming
- Much of what will likely be said will contain the following core elements:
  - The agency is no longer cabinet-level, but rather a small cog within the organizational and bureaucratic behemoth that is DHS
  - FEMA's mission to help states prepare for "all hazards" – from terrorism to natural disasters – has become lost within DHS's myopic focus on terrorism
  - FEMA should perhaps revert to being an independent, cabinet-level agency

Importance of the All-Hazards Context

HSPD 8 – National Preparedness: The National Planning Scenarios

- Developed under the leadership of the Homeland Security Council
- Overarching goals are to
  - Create the *agility* and *flexibility* to meet a wide range of threats and hazards
  - Provide a structure for the development of national preparedness standards
- 15 planning scenarios provide parameters regarding the nature, scale, and complexity of incidents of national significance, which include both terrorism and natural disasters
- Each scenario provides a basis for defining *prevention*, *protection*, *response*, and *recovery* tasks that need to be performed, as well as required capabilities

National Planning Scenarios

The Homeland Security Council has developed 15 all-hazard planning scenarios for use in national, federal, state, and local homeland security preparedness activities:

1. **Nuclear Detonation – 10-Kiloton Improvised Nuclear Device**
2. **Biological Attack – Aerosol Attack**
3. **Biological Disease Outbreak – Pandemic Influenza**
4. **Biological Attack – Plague**
5. **Chemical Attack – Blister Agent**
6. **Chemical Attack – Toxic Industrial Chemicals**
7. **Chemical Attack – Nerve Agent**

National Planning Scenarios (cont.)

8. **Chemical Attack – Chlorine Tank Explosion**
9. ***Natural Disaster – Major Earthquake***
10. ***Natural Disaster – Major Hurricane***
11. **Radiological Attack – Radiological Dispersal Devices**
12. **Explosives Attack – Bombing Using Improvised Explosive Device**
13. **Biological Attack – Food Contamination**
14. **Biological Attack – Foreign Animal Disease (Foot and Mouth Disease)**
15. **Cyber Attack**

Scenario 10: Natural Disaster – A Major Hurricane

- In this scenario, a Category 5 hurricane hits a major metropolitan area
  - Sustained winds are at 160 mph, with a storm surge greater than 20 feet above normal
  - As the storm moves closer to land, massive evacuations are required
  - Some low-lying escape routes are inundated by water anywhere from 5 hours before the eye of the hurricane reaches land
- Consequences associated with Scenario 10:

Casualties	1,000 fatalities; 5,000 hospitalizations
Infrastructure Damage	Buildings destroyed; large debris
Evacuations/Displaced Persons	1 million evacuated; 100,000 homes seriously damaged
Contamination	From hazardous materials, in some areas
Economic Impact	Billions of dollars
Recovery Timeline	Months

Looking Towards the Future

Where Do We Go From Here?

Challenges in Emergency Preparedness

Adopting an All-Hazards Approach

- The *National Strategy* calls for the creation of

  > "a fully integrated national emergency response system that is adaptable enough to deal with any terrorist attach, no matter how unlikely or catastrophic, as well as *all manner of natural disasters*" [emphasis added]

- Challenges:
  - Identifying the types of emergencies for which they should be prepared and the requirements for responding effectively
  - Assessing current capabilities against those requirements
  - Developing and implementing effective, coordinated plans among multiple first responder disciplines and jurisdictions
  - Defining the roles and responsibilities of federal, state, and local governments and private entities

Challenges in Emergency Preparedness

Improving Intergovernmental Planning and Coordination

- The National Strategy emphasizes a shared national responsibility – involving all levels of government – in responding to a serious emergency

- In May 2004, GAO reported that a major challenge involves what they saw as lack of coordination within DHS in terms of the agency's ability to prepare for, respond to, and recover from terrorist and other emergency incidents:

  "…there has been a lack of regional planning and coordination for developing first responder preparedness, defining preparedness goals, identifying spending priorities, and expending funds" (GAO-04-433)

Challenges in Emergency Preparedness

Establishing Emergency Preparedness Standards

- The National Strategy makes mention of benchmarks, standards, and other performance measures for emergency preparedness

- However, in January 2005, GAO found that

> "…there is not yet a complete set of preparedness standards for assessing first responder capacities, identifying gaps in those capacities, and measuring progress in achieving performance goals" (GAO-05- 33)

Desirable Attributes for a Reconstrued and Revised FEMA

- Nimble
- Responsive
- Communicative
- Empowered
- Coordinating
- Flexible
- Accountable
- Resiliant

Implications for the P/C Insurance Industry

Mismanagement of Emergency Preparedness and Response Can Impact the Economic Losses Associated with Natural Disasters

- Clearly, there is a relationship between "recovery time" and the economic losses associated with a natural catastrophe such as Hurricane Katrina
  - Business interruption losses increase exponentially with response lag
  - Fires burn uncontrolled
  - Failed law enforcement, rioting and looting
  - Delayed flood drainage
  - Untimely mitigation of environmental release/contamination
  - etc.

- While precise estimates of this relationship will require future empirical study, a couple of points are worth considering in light of Katrina:
  - A key responsibility for P/C insurers is to play their important and substantial role in the risk mitigation process
  - It is important for federal, state, and local officials to understand and appreciate the role that insurance can play in both *minimizing loss* and *expediting recovery*
  - Both P/C insurers and property owners, alike, have a vested interested in seeing that the overall system works as best as possible

Prospective Challenges for P/C Insurers

Challenges for P/C Insurers: Uncertainty of Losses

- Natural disasters pose vexing challenges for insurers because they involve potentially high losses that are characterized by large degrees of uncertainty
- Moreover, natural disasters involve spatially correlated losses or the simultaneous occurrence of many losses from a single event
- Hurricane Katrina suggests a new "externality" for P/C insurers to consider:

Mismanagement of the government's response and recovery efforts in the affected region(s)

Rethinking Traditional Approaches to CAT Modeling and Risk Management in Light of Katrina

- Traditional approaches to risk assessment and CAT Modeling need to be revised to explicitly consider some of these new "externalities" (e.g., *political uncertainty*, etc.) into their overall analytical frameworks
- A clear need for increased geo-spatial sophistication and detail within CAT models, combined with the ability to perform "cascaded inference" (*broken levee* → · · · → *evacuation of affected area)*
- Seriously rethink the implications of changes in risk appetite/tolerance and ambiguity aversion for risk management strategies and corporate decision-making

Summary

- **2005:H1 was likely the p/c insurance industry's zenith in the current cycle for underwriting/earnings**
- **Industry was financially strong and well capitalized pre-Katrina**
- **2005 CATs unlikely to provoke widespread hard market conditions (only about 5% of global p/c capital)**
- **Effects mostly confined mostly to specific lines & regions: HO, Commercial Property, Property CAT Reinsurance & retrocessional markets, PPA Comprehensive; Energy/Marine**
  - **Areas most impacted are Gulf & Atlantic coasts**
- **Cyclical concerns will quickly return as dominant issue**
- **Rising investment returns insufficient to support deep soft market in terms of price, terms & conditions**
- **Clear need to remain more underwriting focused**
- **Major Challenges:**
  - **Maintaining price/underwriting discipline**
  - **Managing variability/volatility of results**
  - **New/emerging/re-emerging risks**

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