

# The Availability and Affordability of Homeowners Insurance in New York's Coastal Areas

**New York State Senate Insurance Committee  
Suffolk County Community College  
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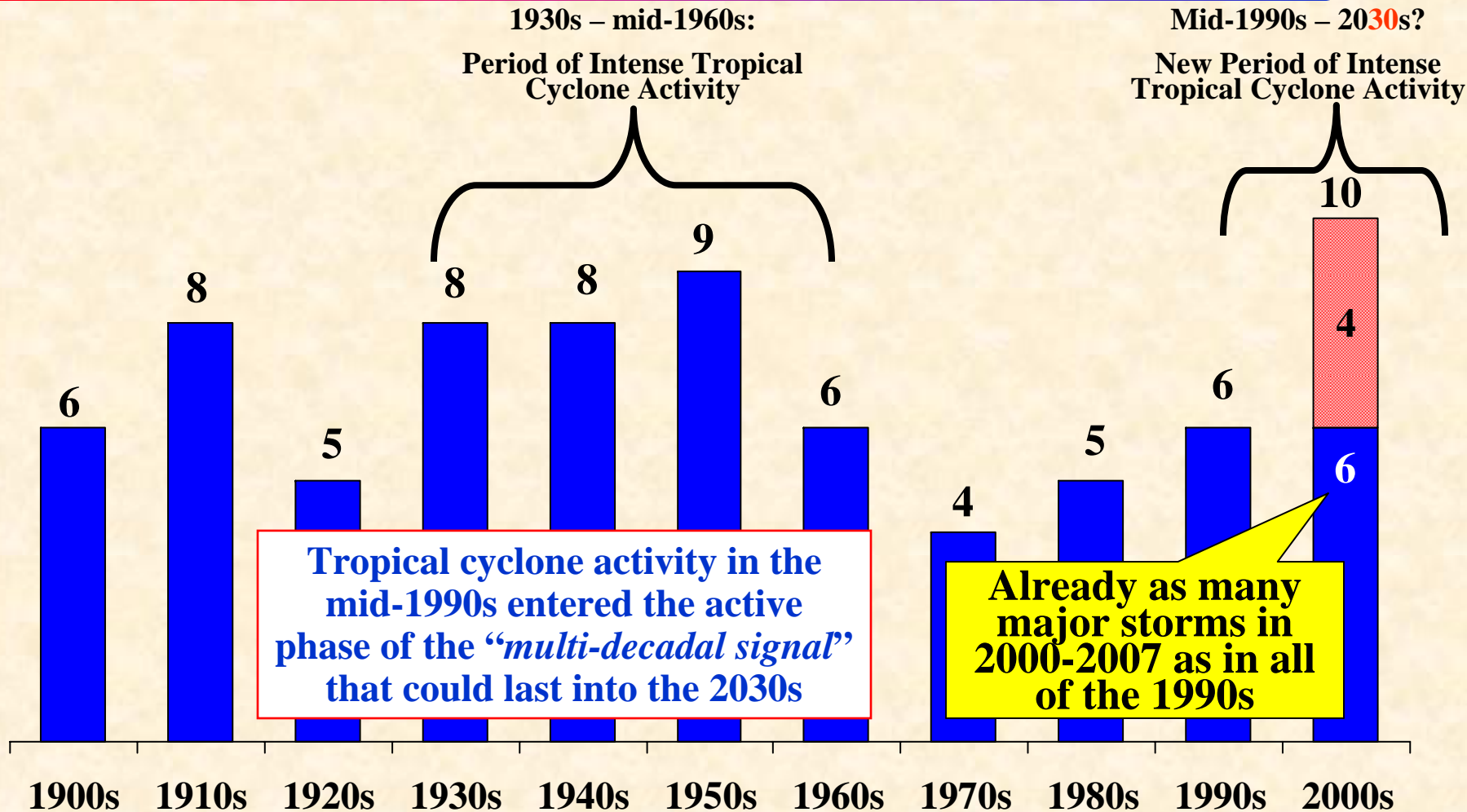


# *Presentation Outline*

- The history of hurricane damage in the Northeast
- The potential losses in New York State if a major hurricane were to strike
- Population growth and coastal exposure in New York
- Why insurance buyers may misperceive the risk
- The role of flood insurance in the homeowners' insurance issue
- The role of profits for the homeowners insurance industry



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

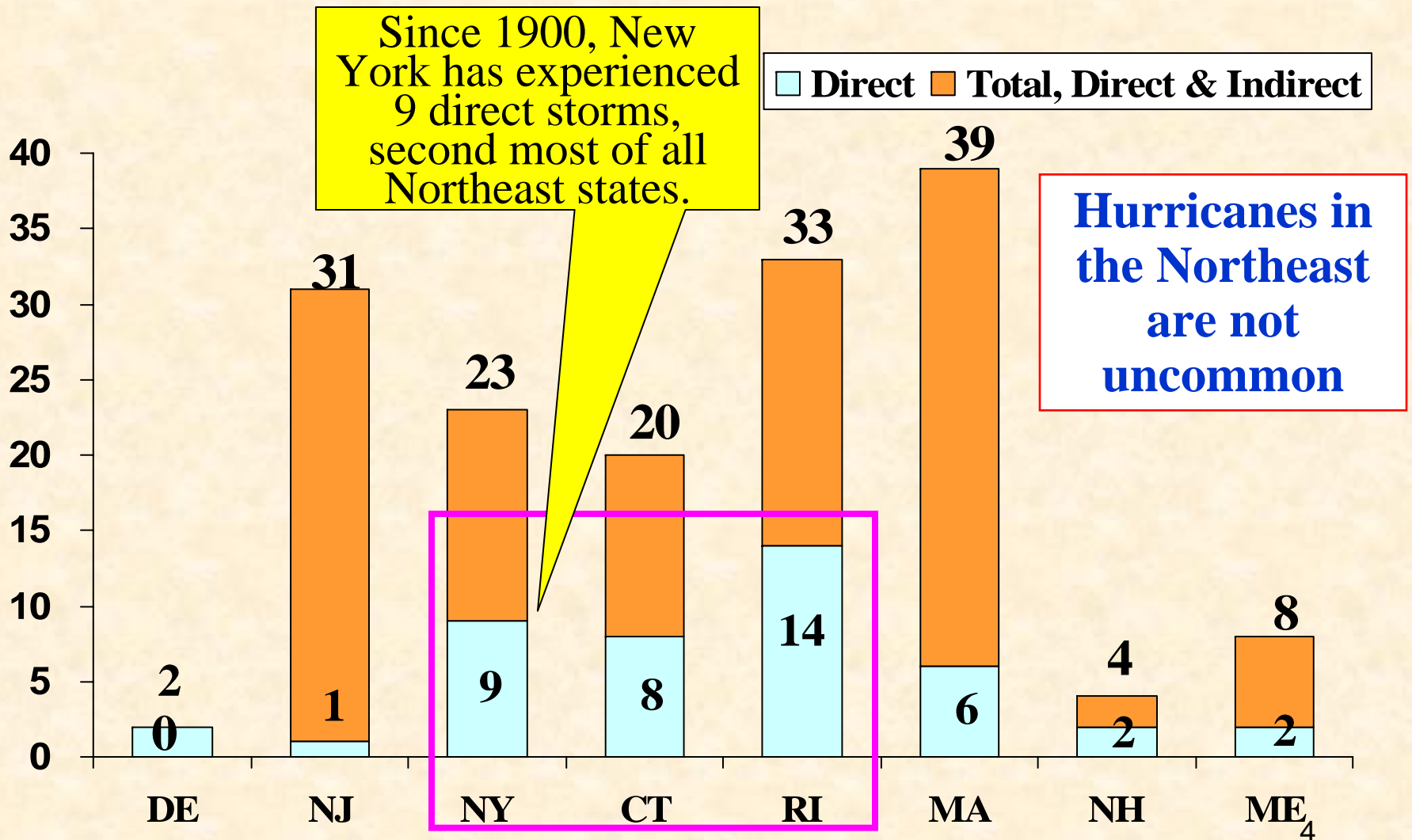


\*Figure for 2000s is extrapolated based on data for 2000-2005 (6 major storms: Charley, Ivan, Jeanne (2004) & Katrina, Rita, Wilma (2005)).

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

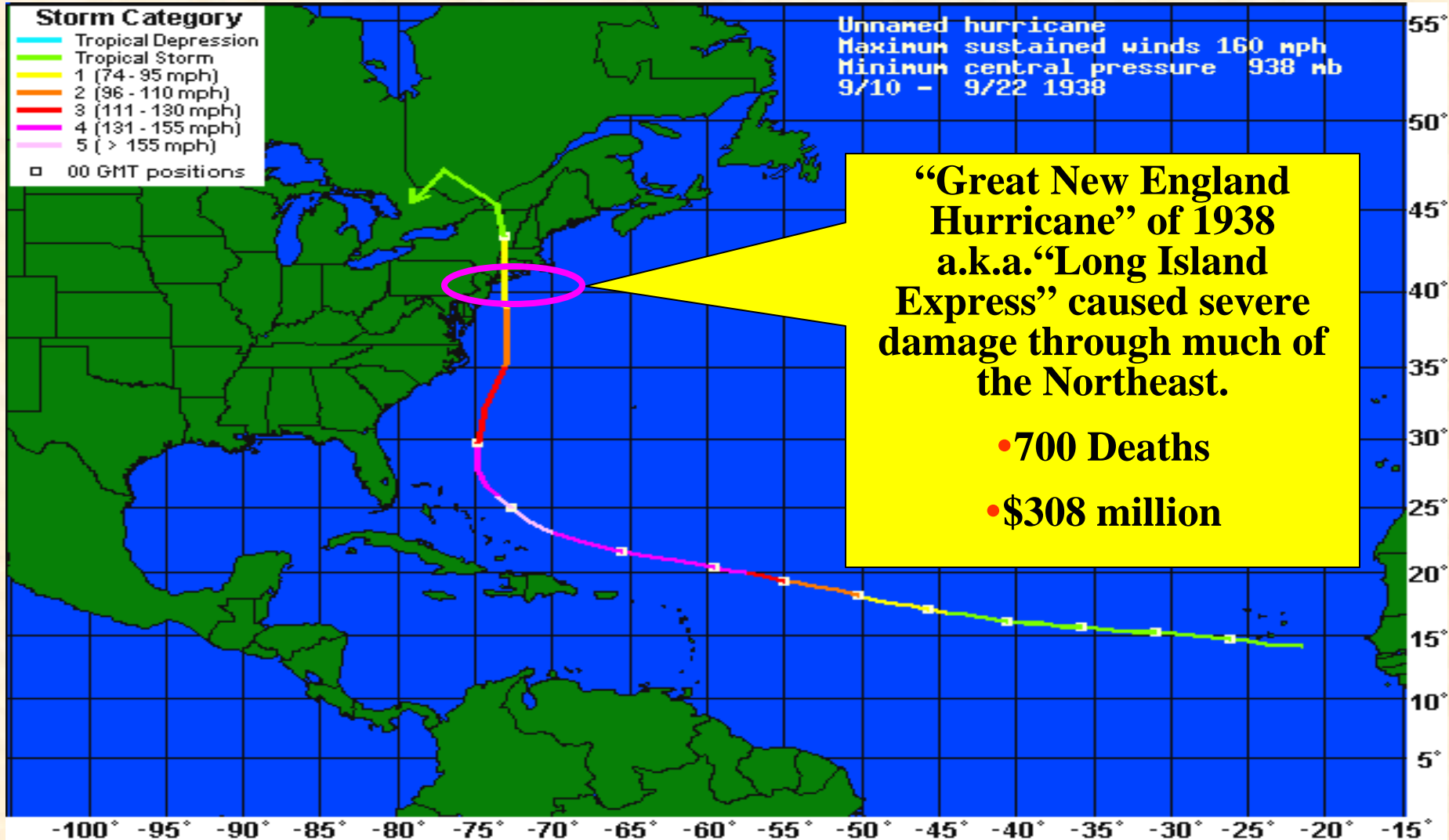


# Number of Hurricanes Directly & Indirectly Affecting the Northeast Since 1900



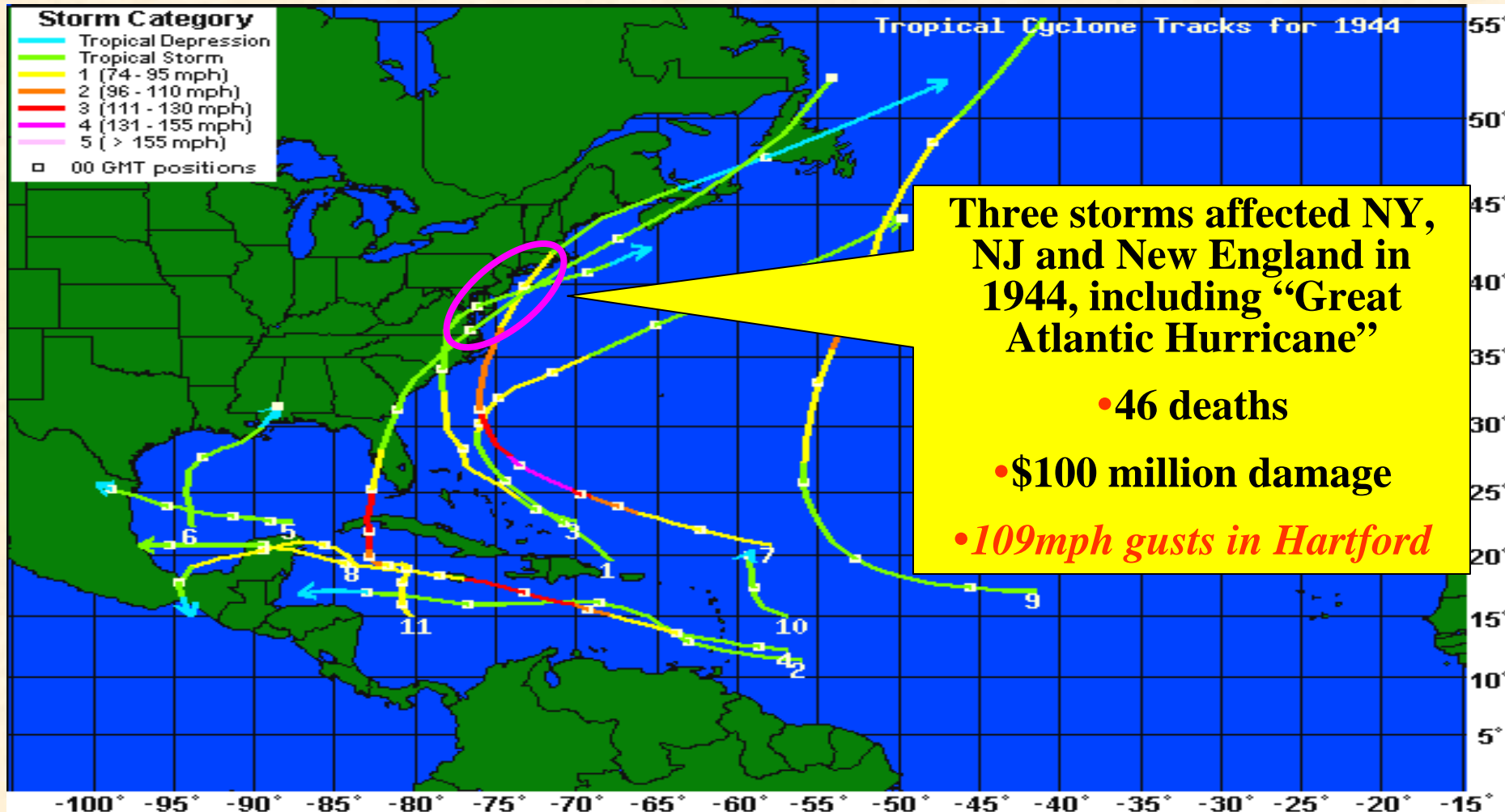


# Track of “Great New England Hurricane” of 1938



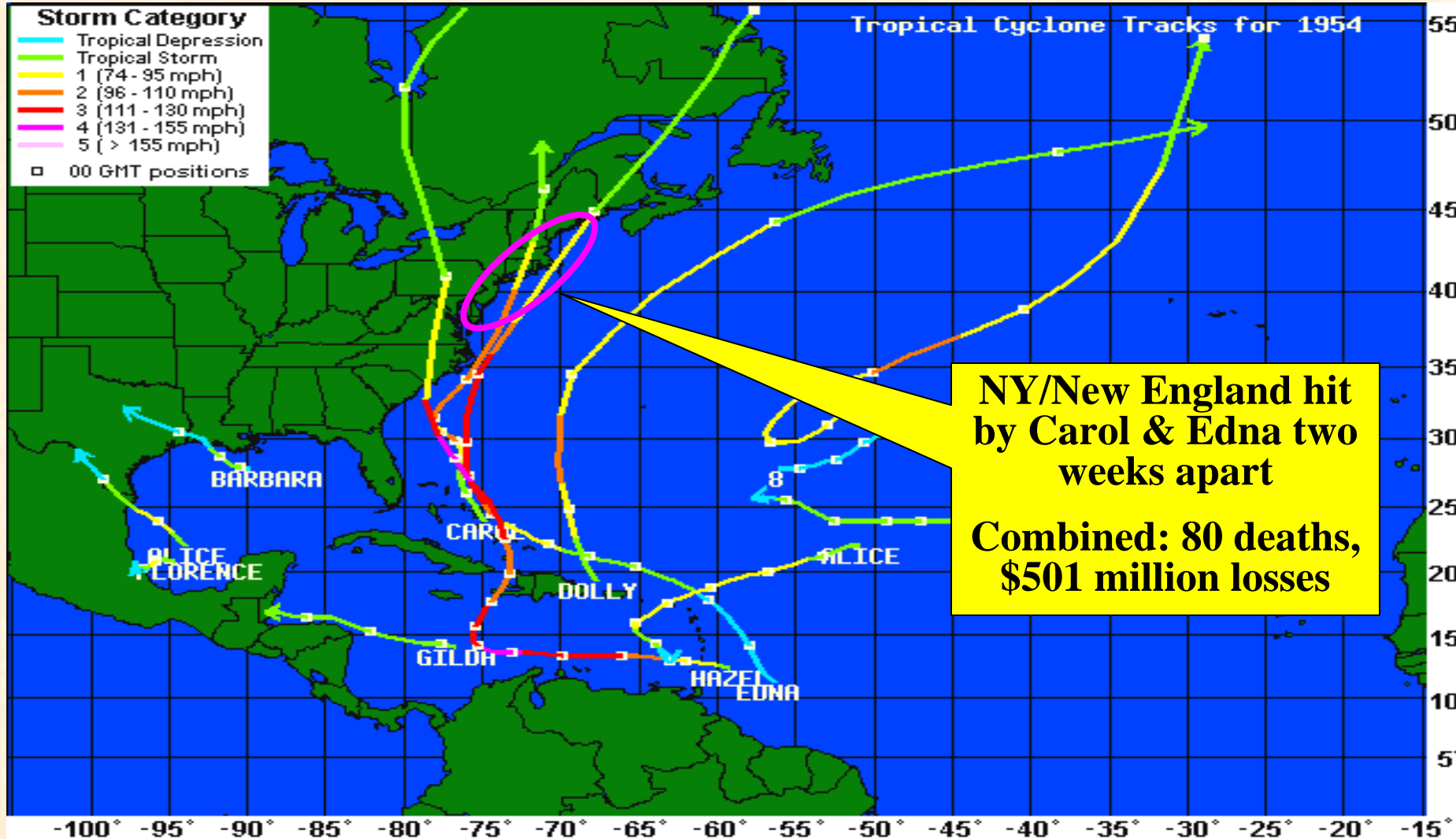


# Storm Season of 1944: A Busy one for the Northeast





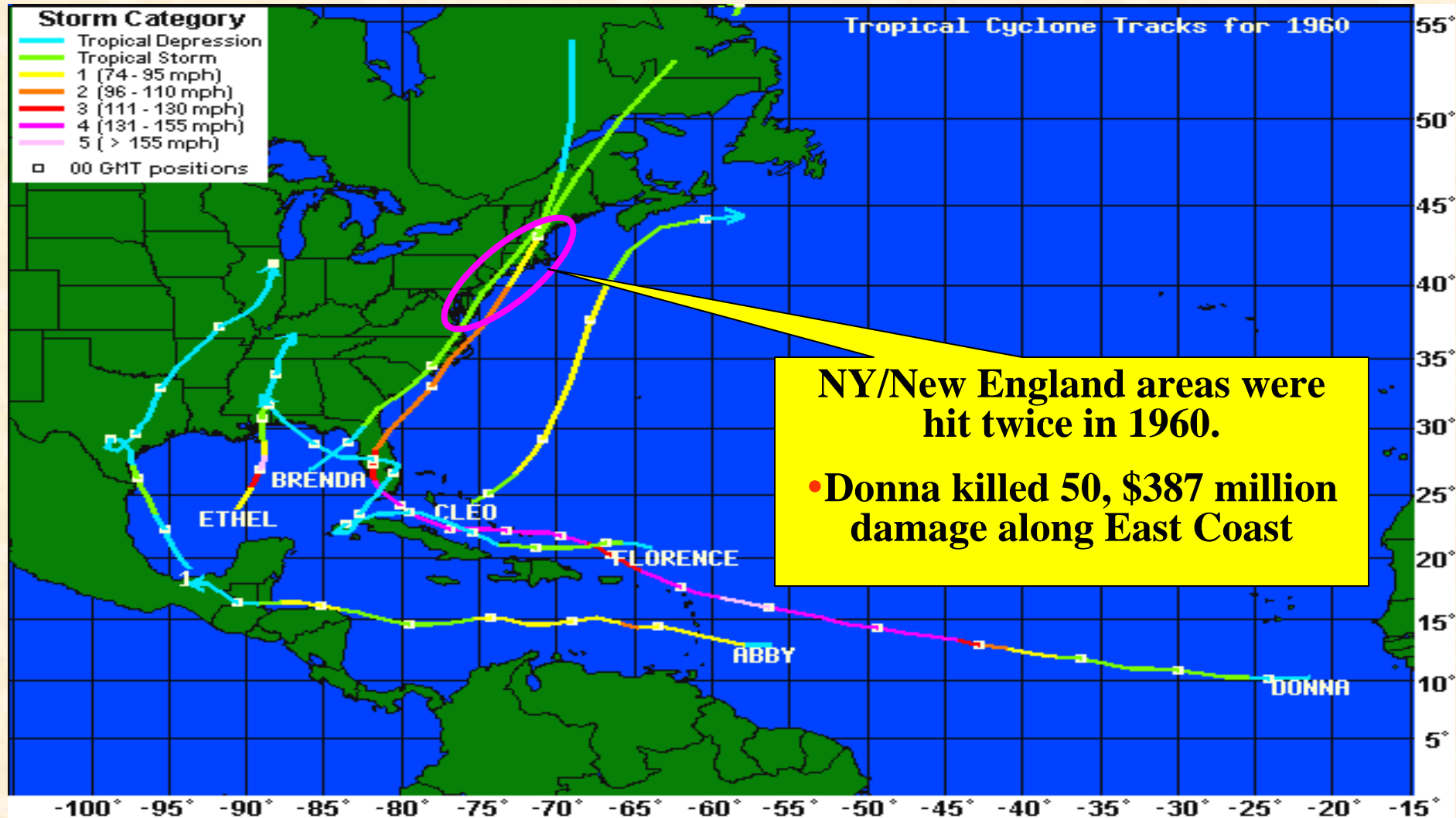
# Storm Season of 1954: The Northeast Hit Again





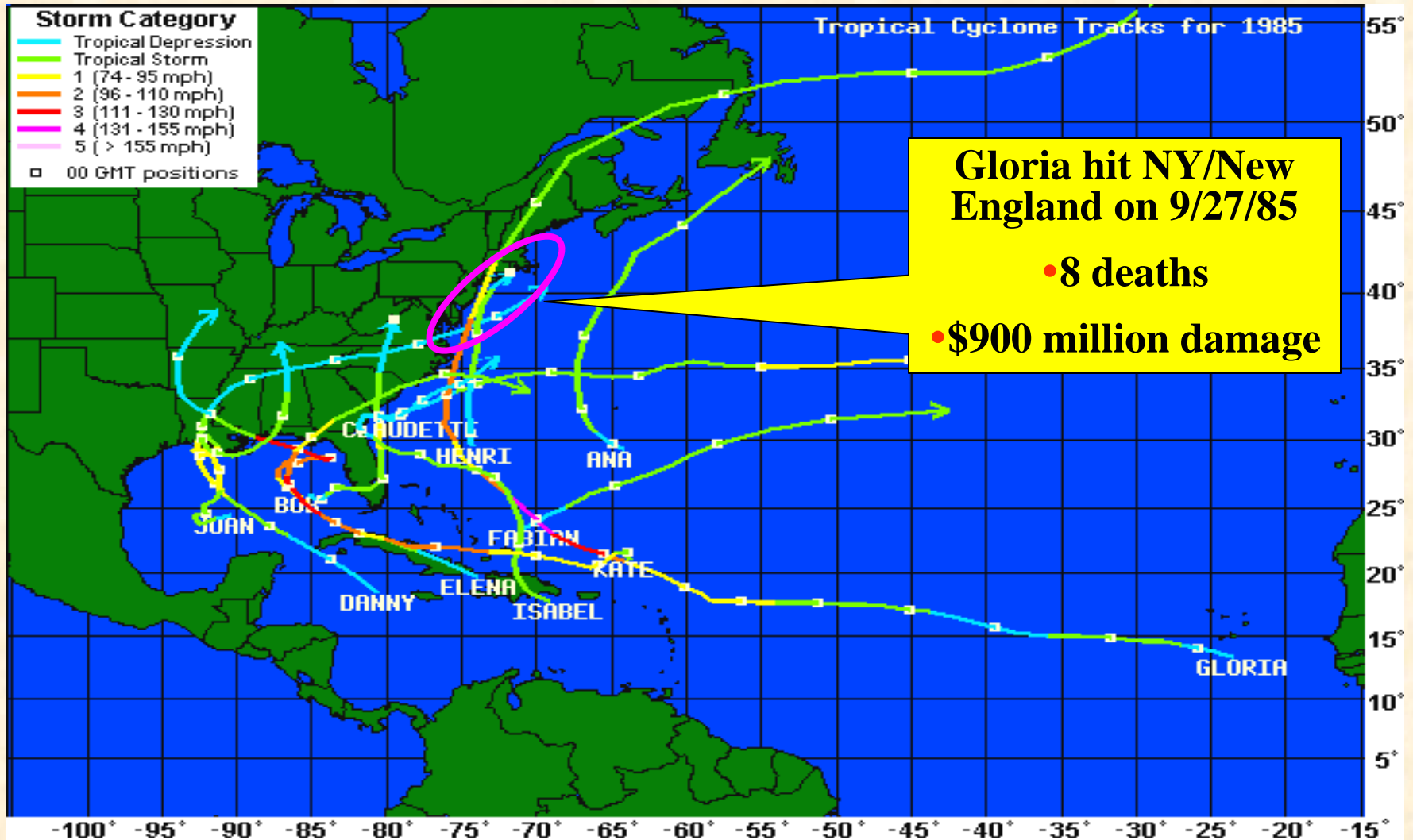
# Storm Season of 1960:

## Brenda & Donna Came to Visit



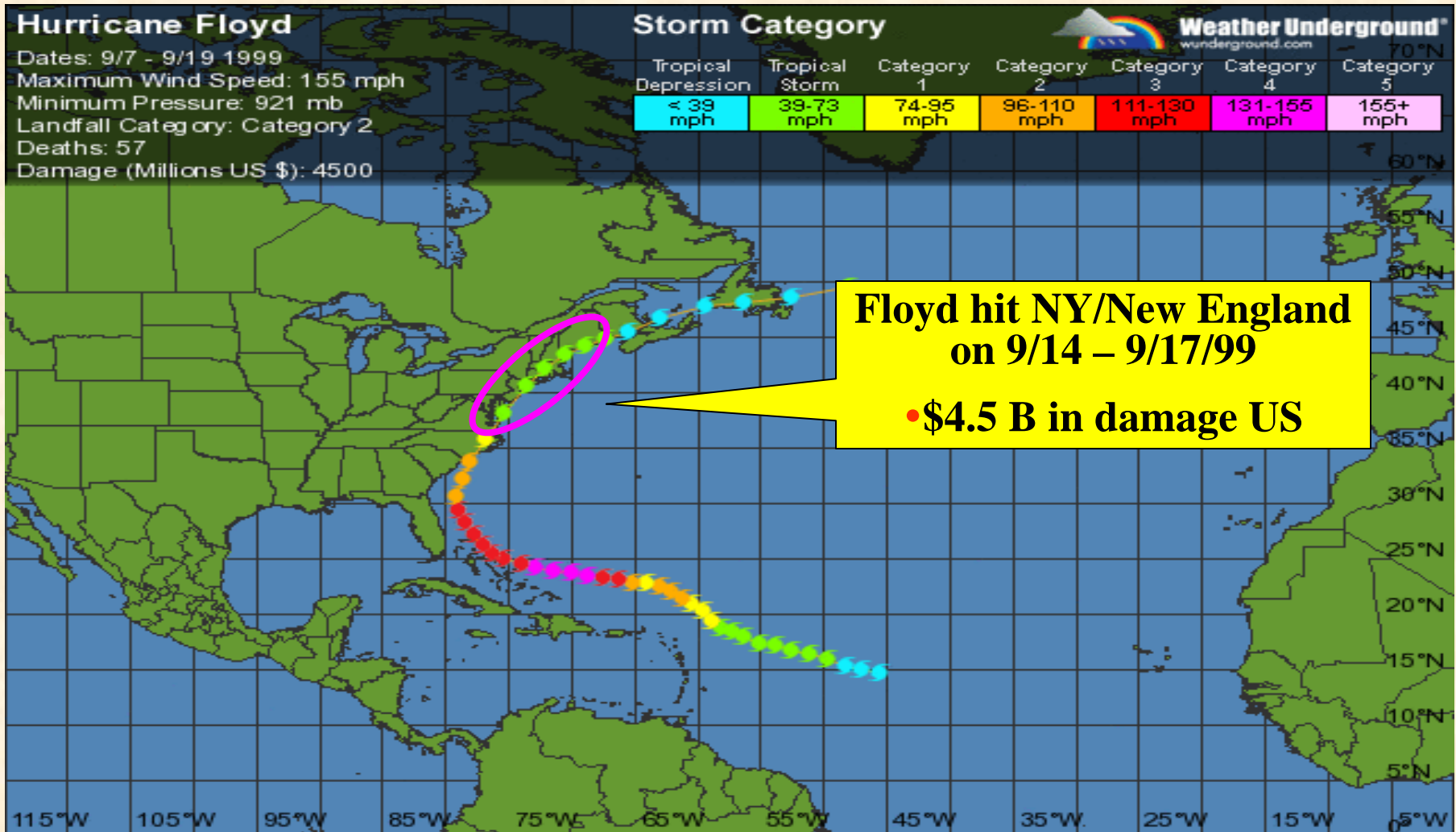


# After a 25 Year Hiatus, Hurricane Gloria Hit in 1985



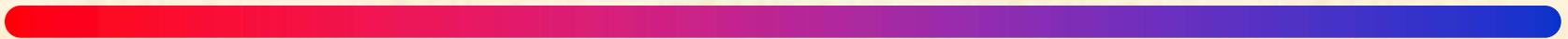


# *Floyd Visited in 1999, Causing \$4.5 Billion in Losses*



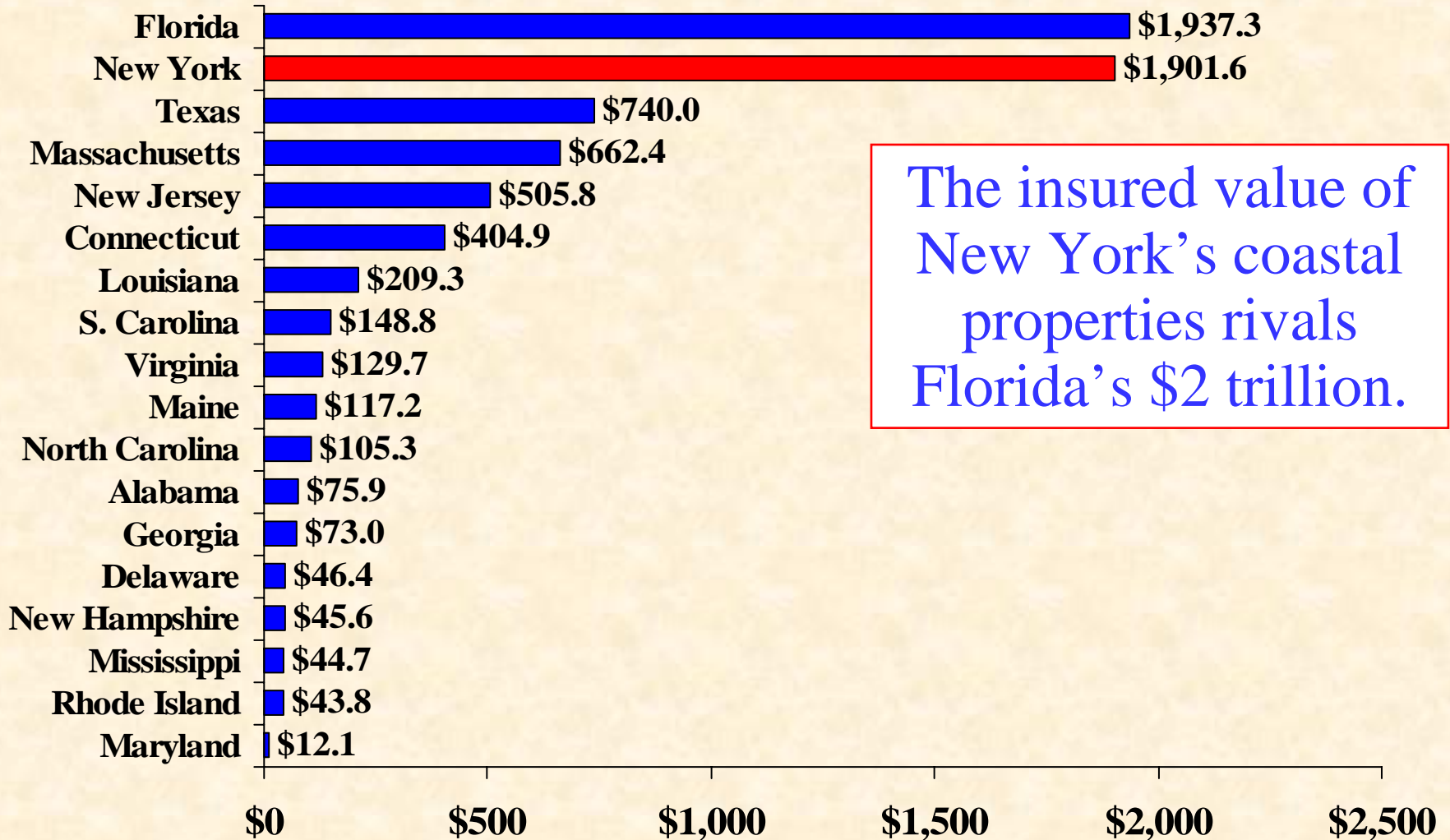
# Coastal Exposure in New York

*Commercial Exposure  
is Three Times as Much  
as Residential Exposure*



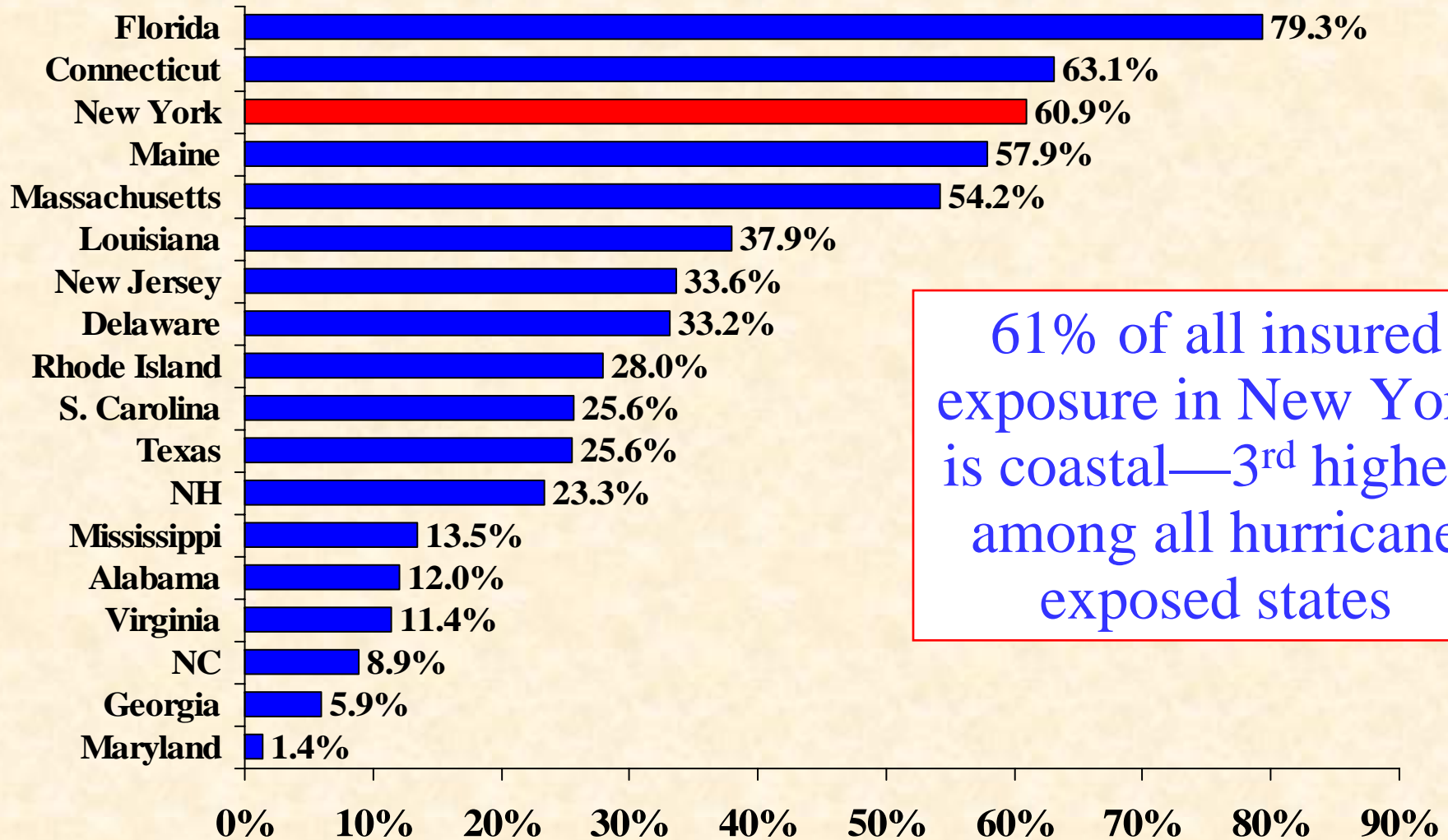


# Total Value of Insured Coastal Exposure (2004, \$ Billions)





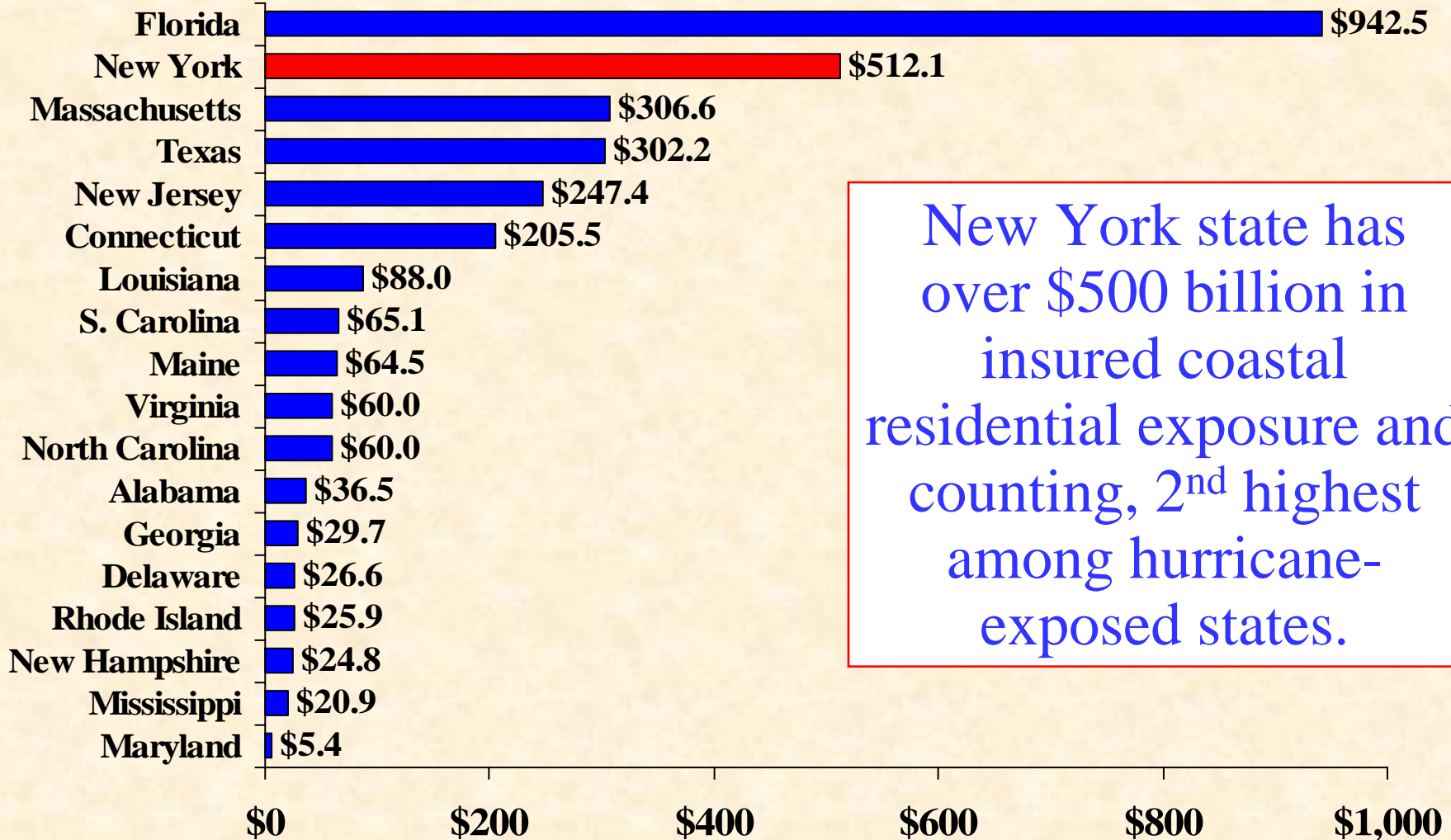
# *Insured Coastal Exposure as a % of Statewide Insured Exposure (2004, \$ Billions)*



61% of all insured exposure in New York is coastal—3<sup>rd</sup> highest among all hurricane exposed states

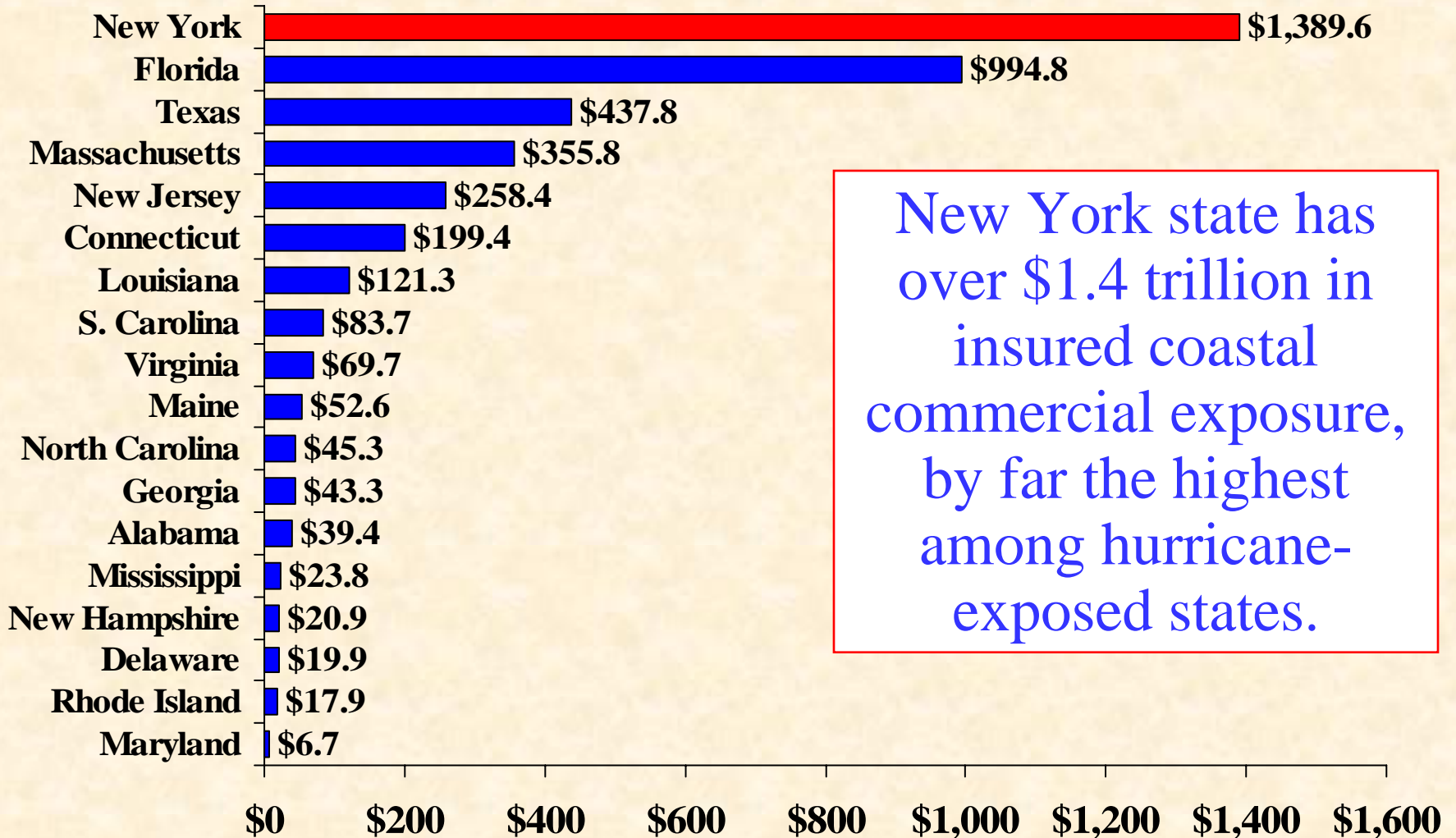


# *Value of Insured Residential Coastal Exposure (2004, \$ Billions)*





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

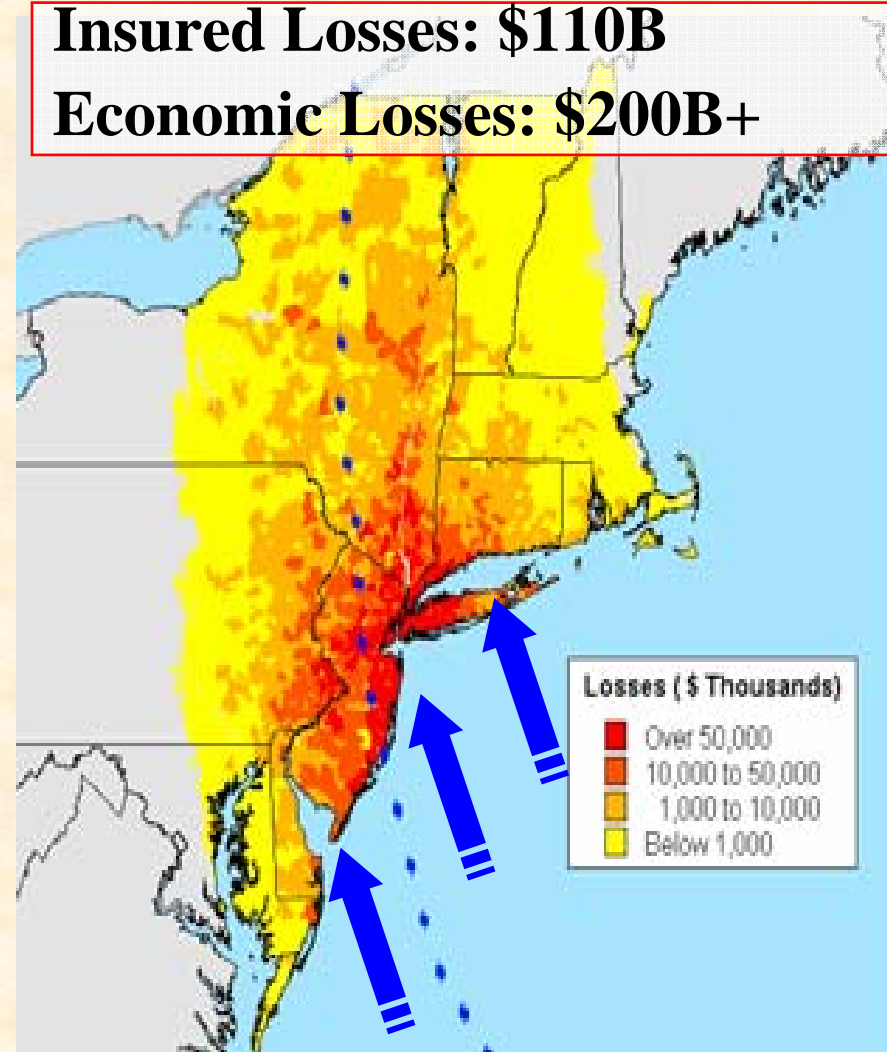




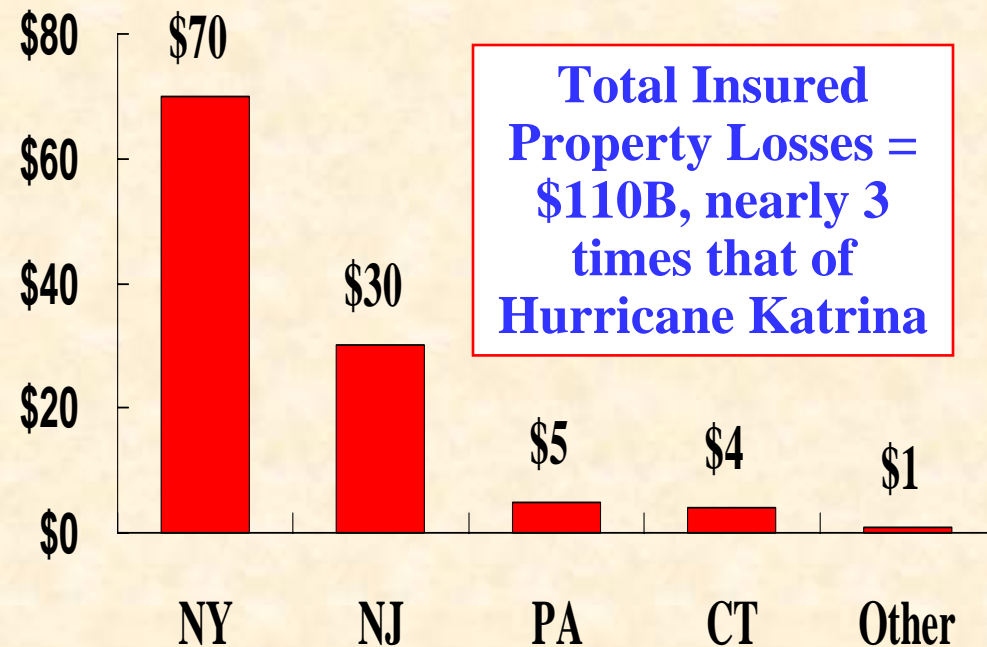
# Nightmare Scenario: Insured Property Losses for NJ/NY CAT 3/4 Storm

**Insured Losses: \$110B**

**Economic Losses: \$200B+**

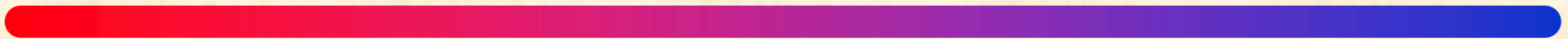


**Distribution of Insured Property Losses, by State, (\$ Billions)**



# Population Trends in New York

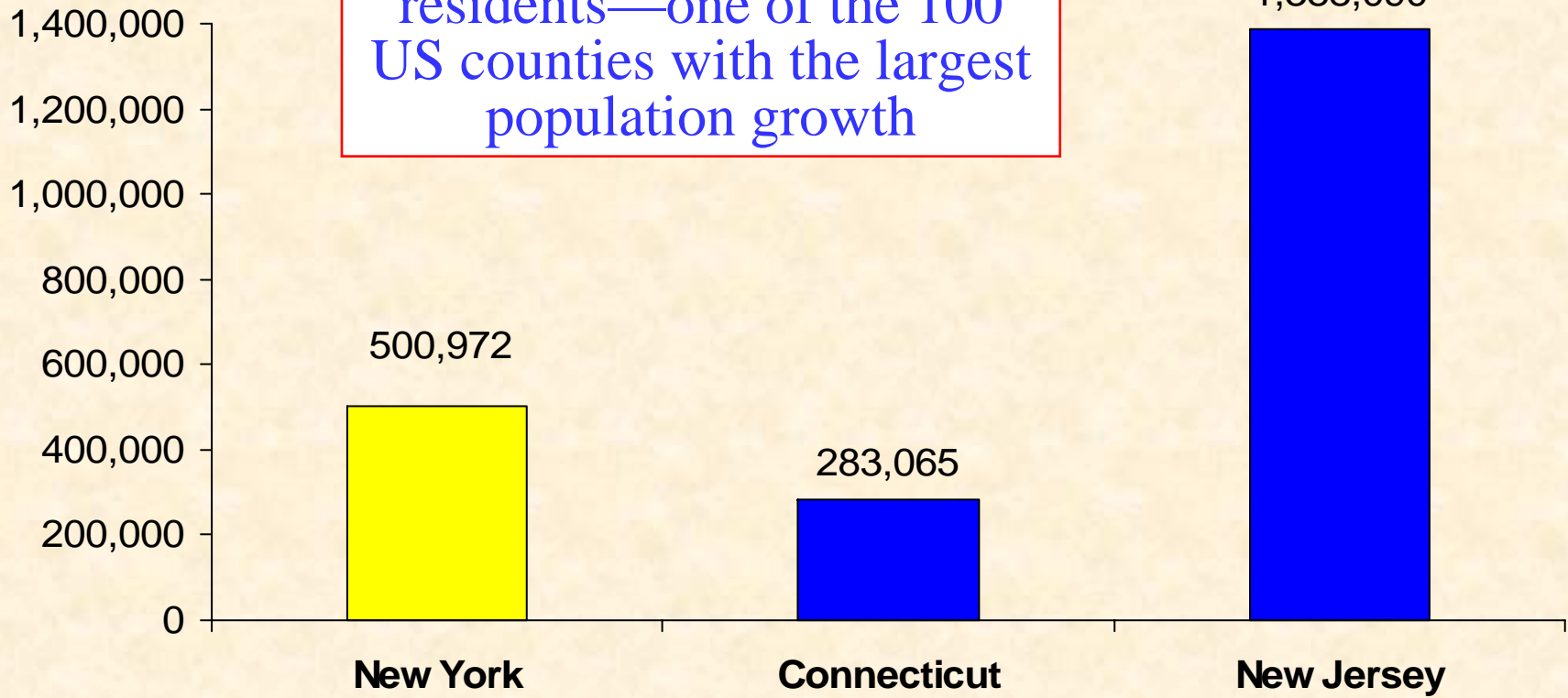
*Population Growth in Vulnerable  
Area Fuels Increase in Exposure*



# Population Growth Projections for NE Hurricane Exposed States, by Number: 2000-2030



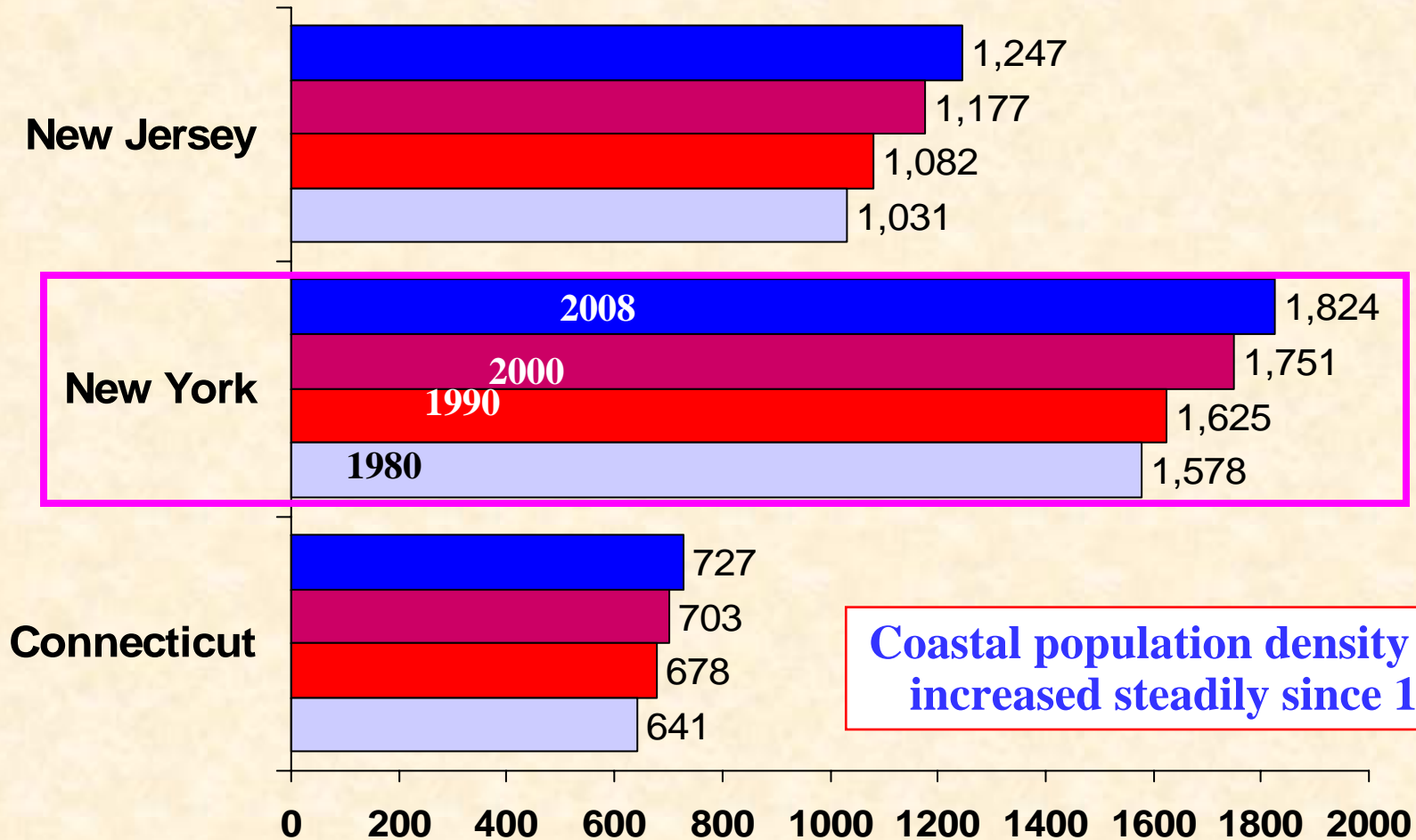
## Population Gain



Source: U.S. Census Bureau, "Population Estimates for the 100 U.S. counties with the largest numerical increase from April 1, 2000 to July 1, 2006," released March 22, 2007.



# Coastal Population Density for Mid-Atlantic States, 1980 vs. 2008\*



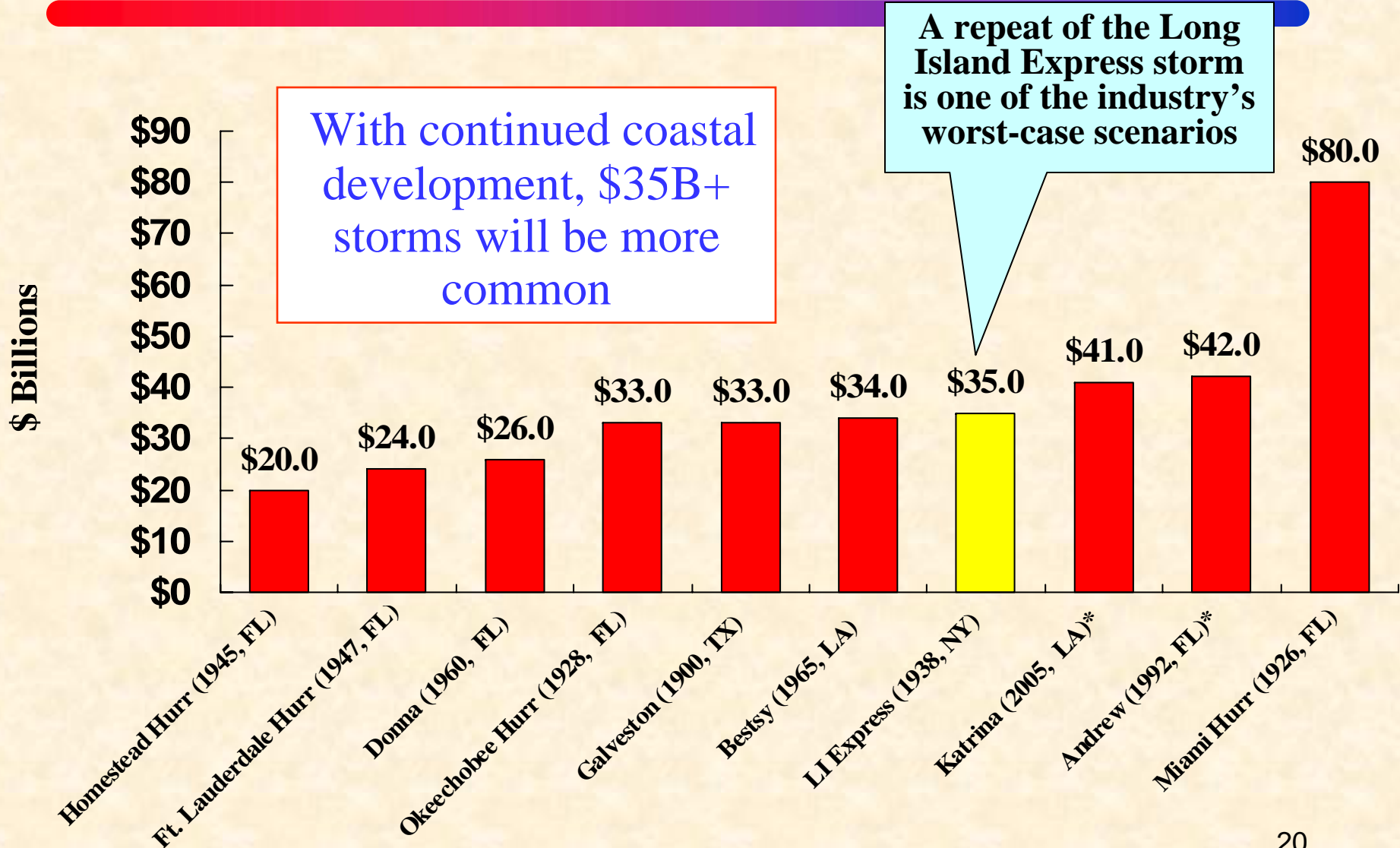
Coastal population density in NY increased steadily since 1980.

\*Density = number of persons per square mile

Source: "Population Trends Along the Coastal United States: 1980-2008," NOAA, September 2004.

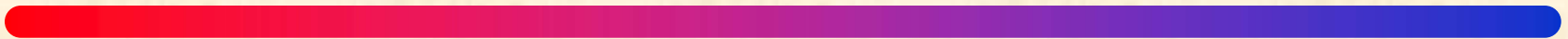


# Insured Losses from Top 10 Hurricanes Adjusted to 2005 Exposure Levels



# Overconfidence?

*Mis-perceiving the Threat of  
Hurricane Damage*





# *Misleading Hurricane Terminology*

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Knowing that the most violent and destructive hurricanes are rated 5 on the Saffir-Simpson scale, many people think of a hurricane rated 2 or 3 as comparatively mild.

**But a hurricane rated 2 has winds of 96 to 110 miles per hour, and**

**a hurricane rated 3 has winds of 111 to 130 miles per hour!**



# *Misleading Flood Terminology*

Flood size is commonly described in terms of how often such a flood might occur—such as a “100-year flood.”

This description is easily misunderstood. A 100-year flood

- though less likely to occur than a 10-year flood, is *deeper and more destructive*
- has a 1 percent probability of occurring *in any given year*. While unlikely, **it is possible to have two 100-year floods or even worse within years or months of each other!**

Also, the flood potential of a region can change over time, as a result of development, changes in infrastructure, or for other reasons, making a 100-year flood more (or less) likely than before.



# *Misleading Flood Terminology*

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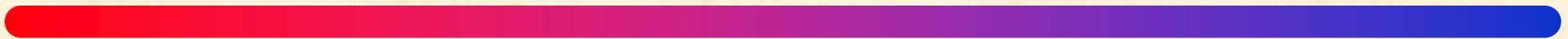
People also misunderstand cumulative odds of a flood of a given size occurring. A 100-year flood has

- a 1 percent probability of occurring *in any given year*,
- a 10% probability of occurring *in any given 10-year span*,
- an 18% probability of occurring *in any given 20-year span*
- a 26% probability of occurring *in any given 30-year span*.

This means that, if your home is in an area vulnerable to a 100-year flood, and if you live there for 20 years, the chances are 1 in 5 that you will experience “a 100-year flood.”

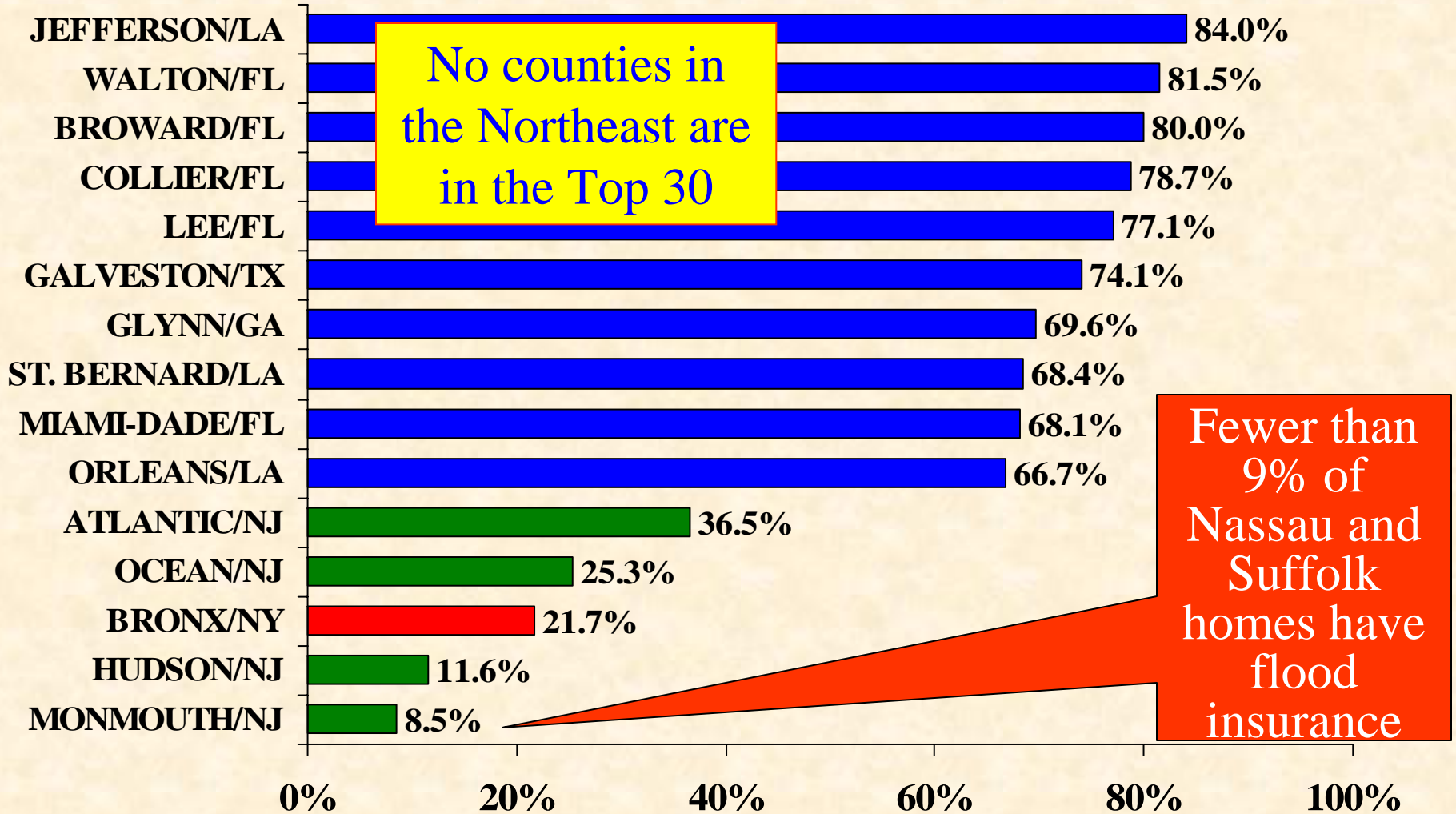
# National Flood Insurance Program

*Nassau/Suffolk Residents' Exposure to Flood is Significant but Few Have Flood Insurance*





# Flood Insurance Penetration Rates: Selected US Counties/Parishes\*

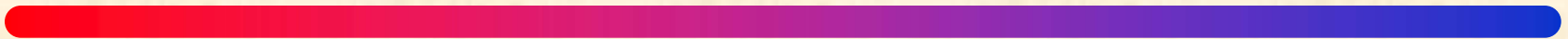


\*As of 12/31/05.

Source: New Orleans Times-Picayune, 3/19/06, from NFIP and US Census Bureau data.

# Property/Casualty Insurance Rates, Capital, and Profits

*Profitability is Highly Volatile*





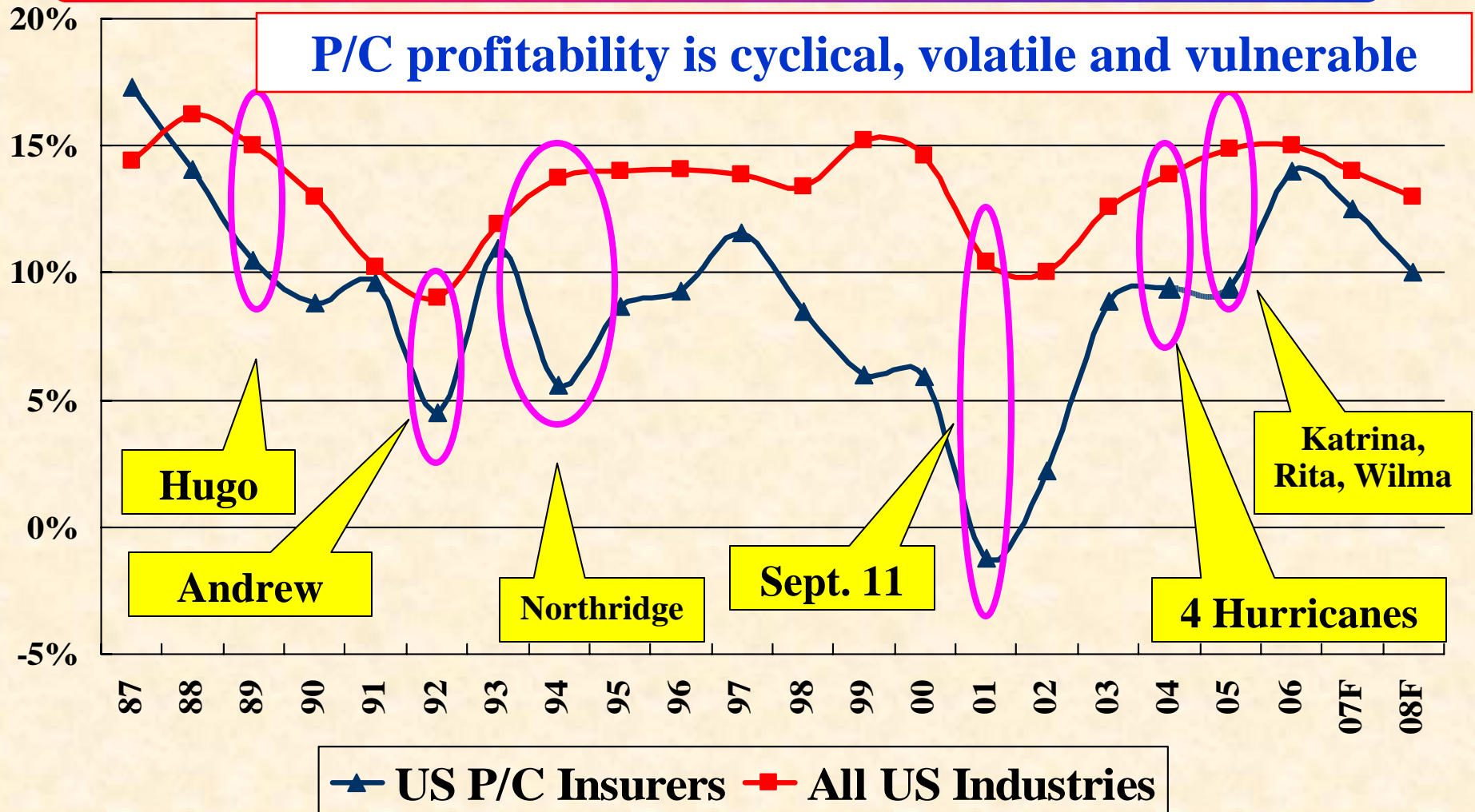
## *Key Points: Rates and Capital*

- By law, the rates charged for homeowners insurance in New York are based on expected losses in New York and not in any other state.
  - Profits from homeowners insurance operations in other states are irrelevant to NY homeowners rates
  - Expected losses reflect both past experience and forecasts to adjust for changing conditions (e.g., climate change, infrastructure, rebuilding/property replacement cost inflation, etc.)
- In view of the increased level of expected catastrophe risk, independent rating agencies are requiring insurers to hold more capital *just to write the same amount of risk.*



# ROE: P/C vs. All Industries

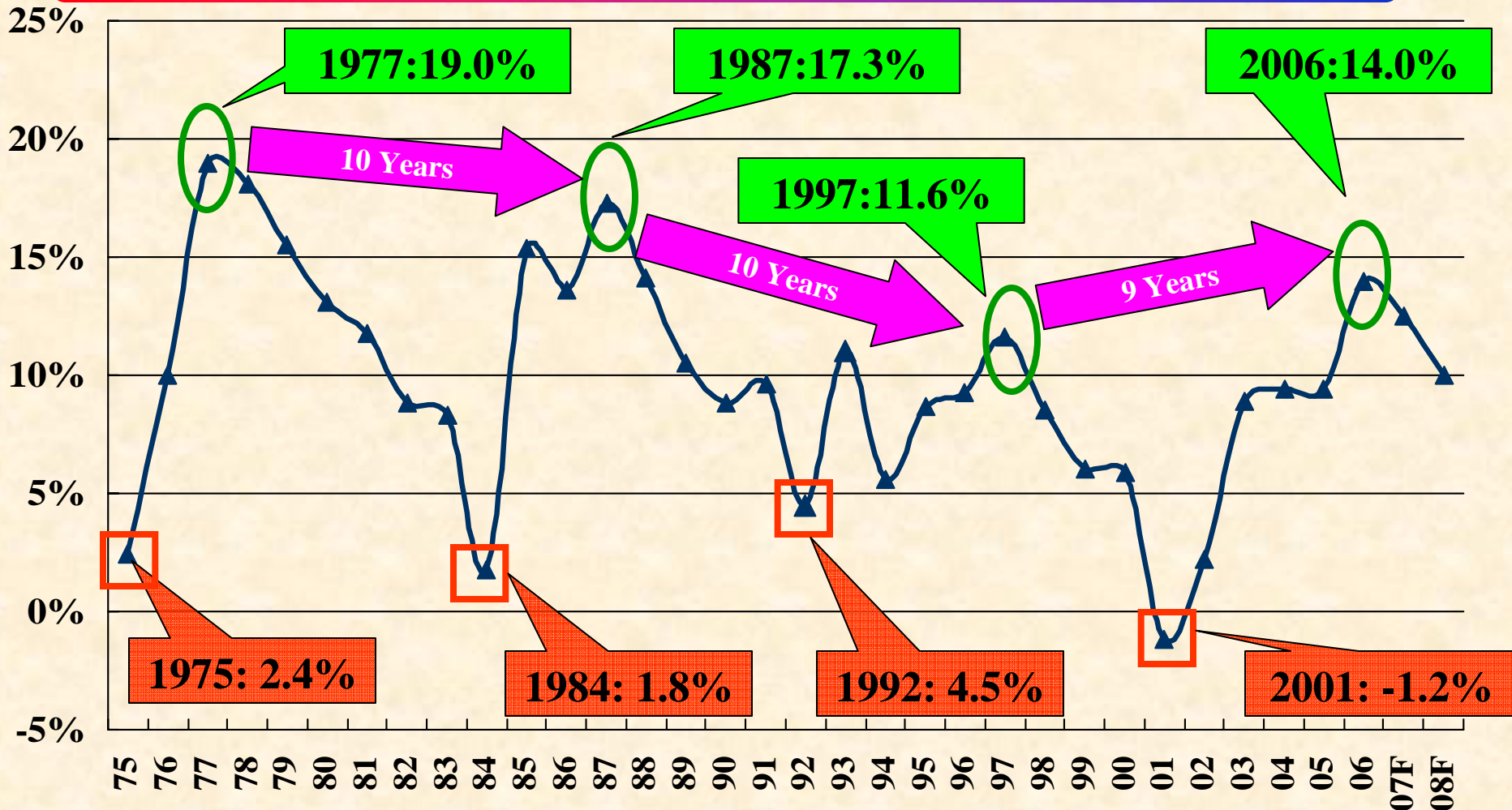
## 1987-2008E



\*2007-08 P/C insurer ROEs are I.I.I. estimates.  
Source: Insurance Information Institute; *Fortune*



# Profitability Peaks & Troughs in the P/C Insurance Industry, 1975 – 2008F

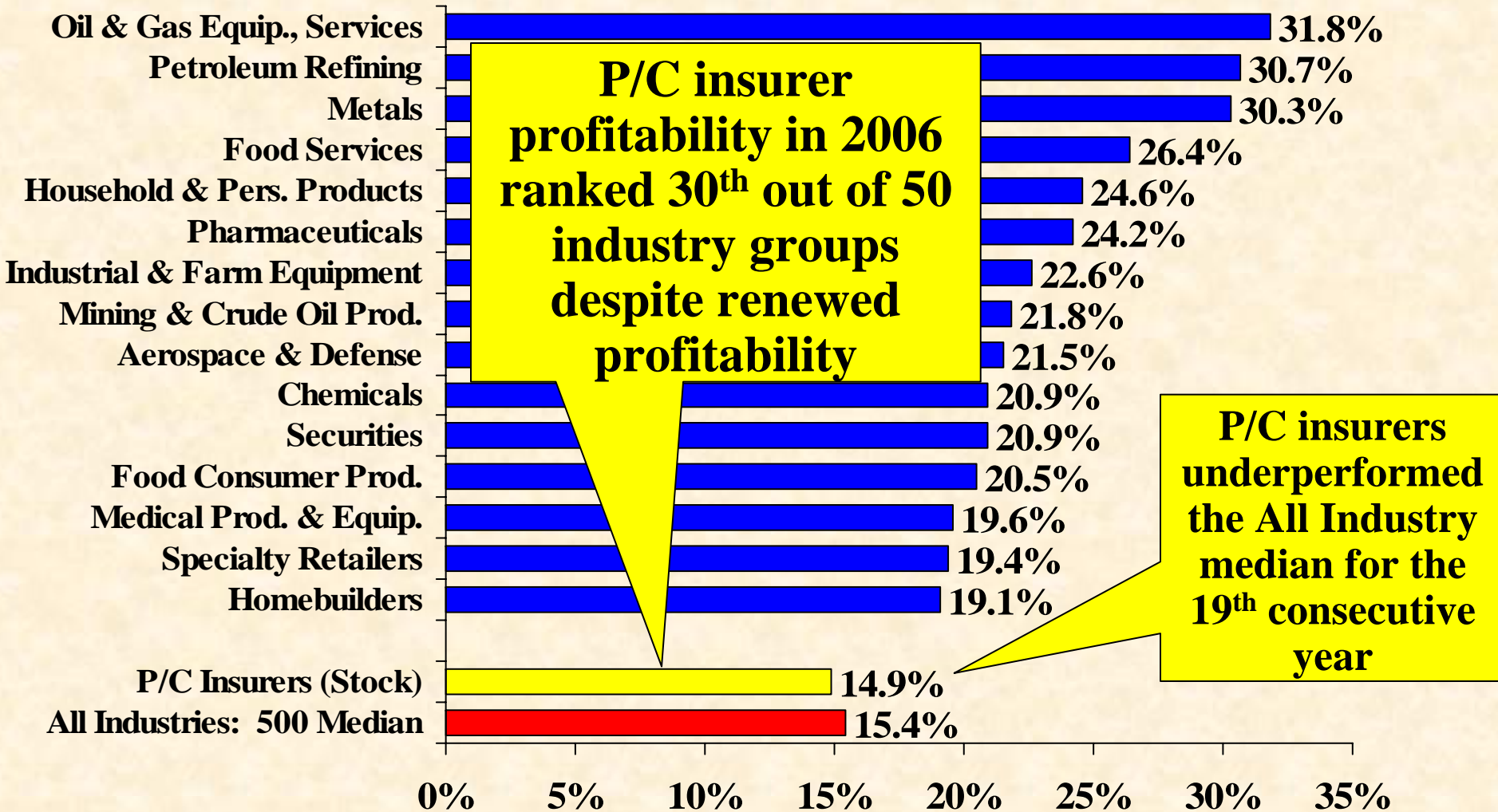


\*2007-08 P/C insurer ROEs are I.I.I. estimates.

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



# Top Industries by ROE: P/C Insurers Still Underperformed in 2006\*



\*Excludes #1 ranked Airline category at 65.1% due to special one-time bankruptcy-related factors.

Source: Fortune, April 30, 2007 edition; Insurance Information Institute



# *The Importance of Profits*

- All of the profits the industry earned in 2004 and 2005 and most of the profits in 2006 were earned in states and from types of insurance unaffected by the hurricanes (e.g., auto, workers comp, etc.)
- Profitable companies
  - Have higher financial strength and credit ratings
    - Consumers can be more confident that claims will be paid
  - Get preferred treatment by reinsurers
  - Put profits into “policyholders surplus,” which is assets available to pay mega-catastrophe claims



# *The Importance of Profits*

- Profits compensate shareholders for the assets they put at risk and allow mutual insurers to achieve their objective of growing surplus
- Profitable companies can access capital markets under favorable terms after mega-CATs or if market conditions are poor (e.g., post-9/11)
  - Less profitable and unprofitable companies will fail, be dissolved or acquired
- Profits enable investments in the future of the enterprise (tech, people, etc.) and to seize upon new opportunities (new states, M&A, etc.)



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