Tools to Evaluate Catastrophe Risk

Presentation to Casualty Actuarial Society

Annual Meeting

Lake Buena Vista, Florida

November 12, 2012

Locke Burt, Chairman and President

Security First Insurance Company

www.SecurityFirstFlorida.com

Security First Insurance Stakeholders

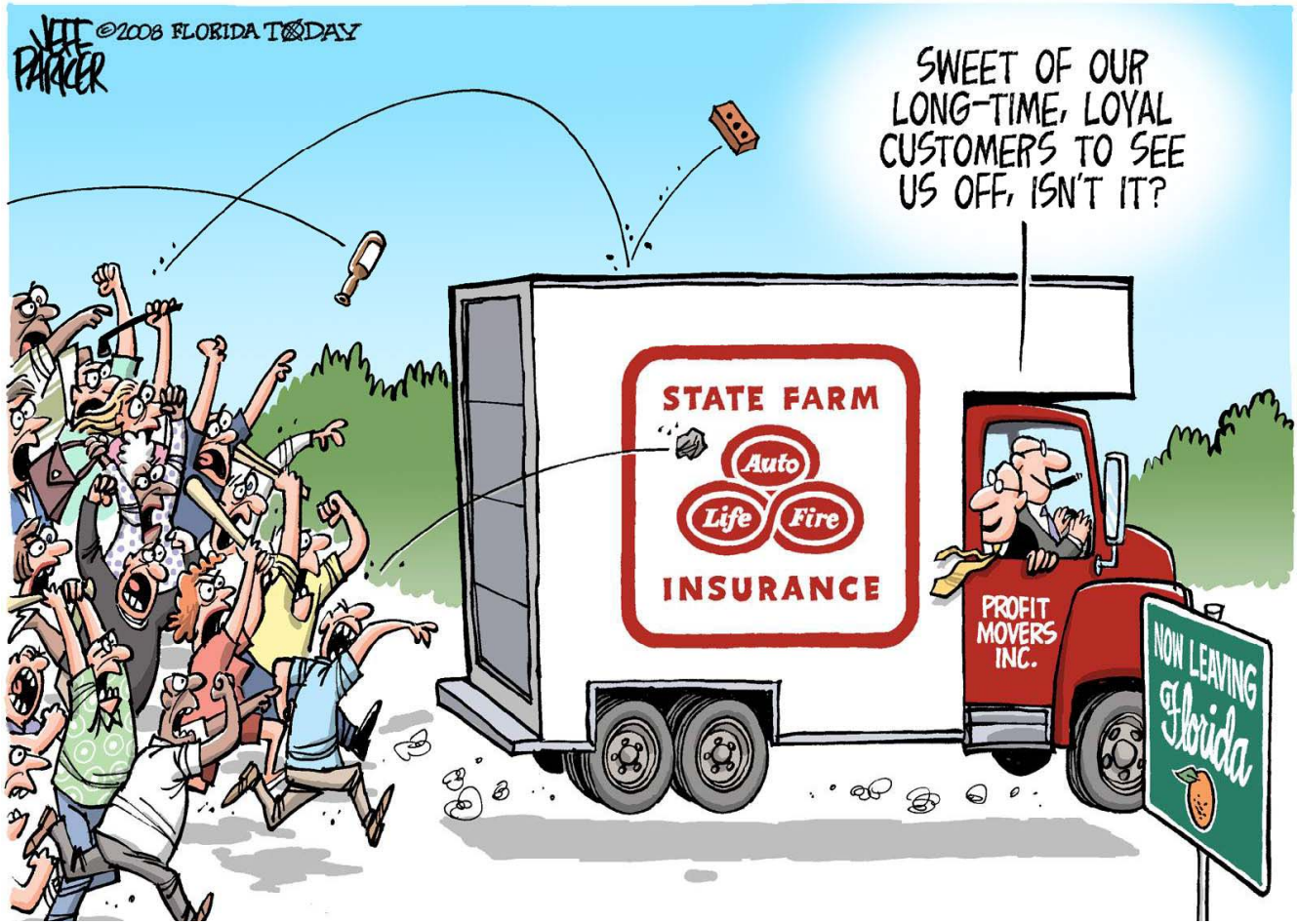
Constituents that we have to answer to:

- Customers
- Regulators
- Agents
- Rating agencies
- Reinsurers
- Shareholders

Each one of these constituents is going to have a **different view** of modeled catastrophe risk.

So, what are we going to do?

Recognize that you're in a tough state to do business.



In the last three years, the insurers that write 62% of the residential property insurance in the U.S. have reduced their business in Florida by more than 30%. This continues a long-term trend that began 20 years ago when Hurricane Andrew devastated south Florida.

Florida is a tough place to do business

Florida is a tough place to do business

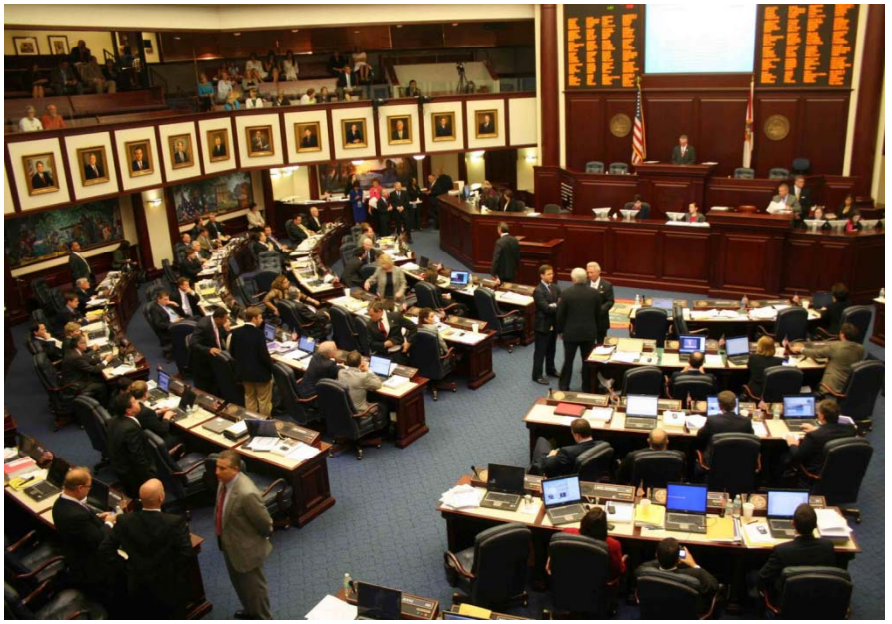
It's unpredictable and constantly changing

- Florida has the most property and people exposed to hurricanes than any other state in the U.S.
- Regulations change often
- Building codes change often

Florida is a tough place to do business

Legislature changes the rules annually

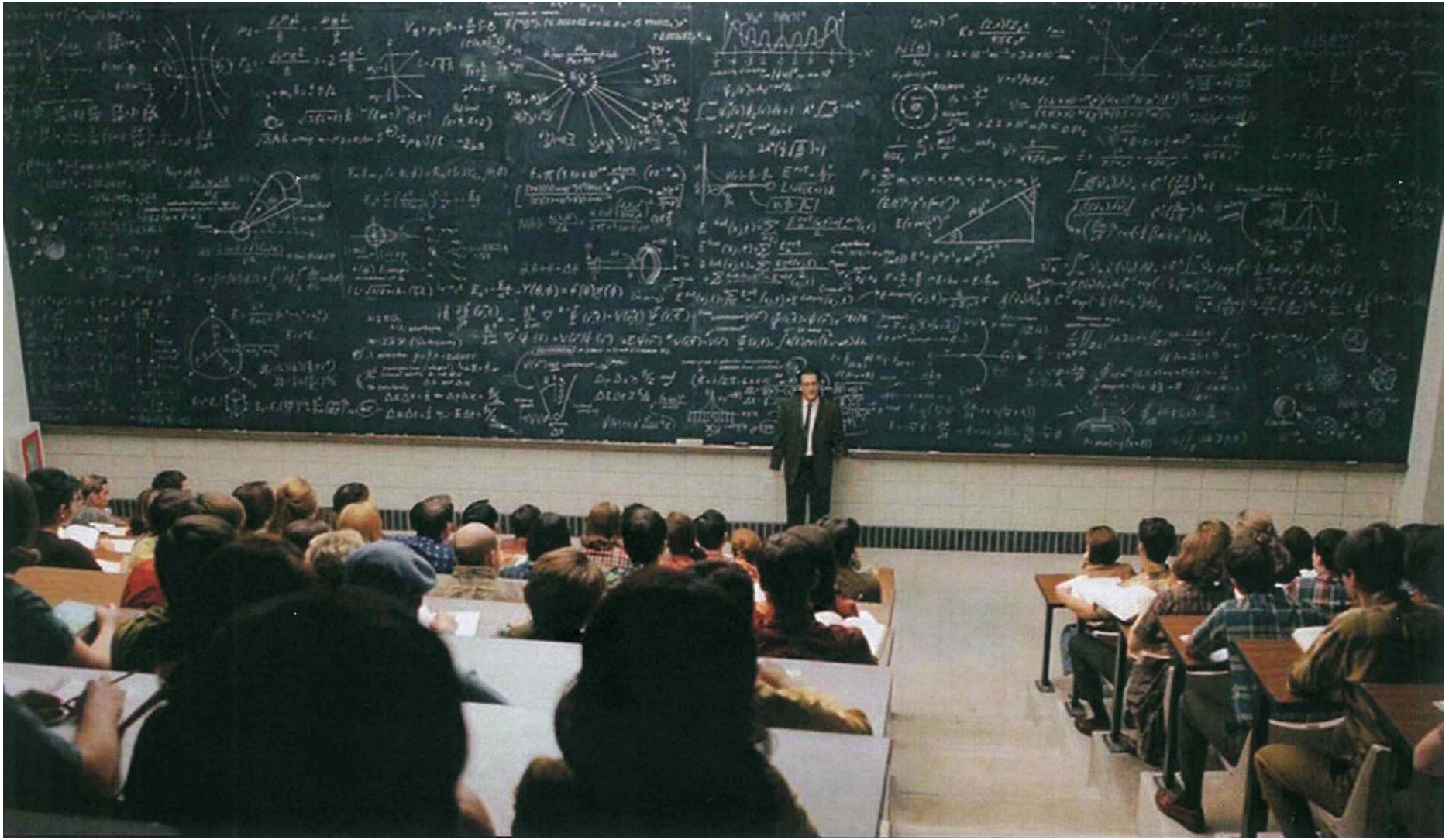
Florida Senate Chamber
28 Republicans/12 Democrats
www.FLSenate.gov



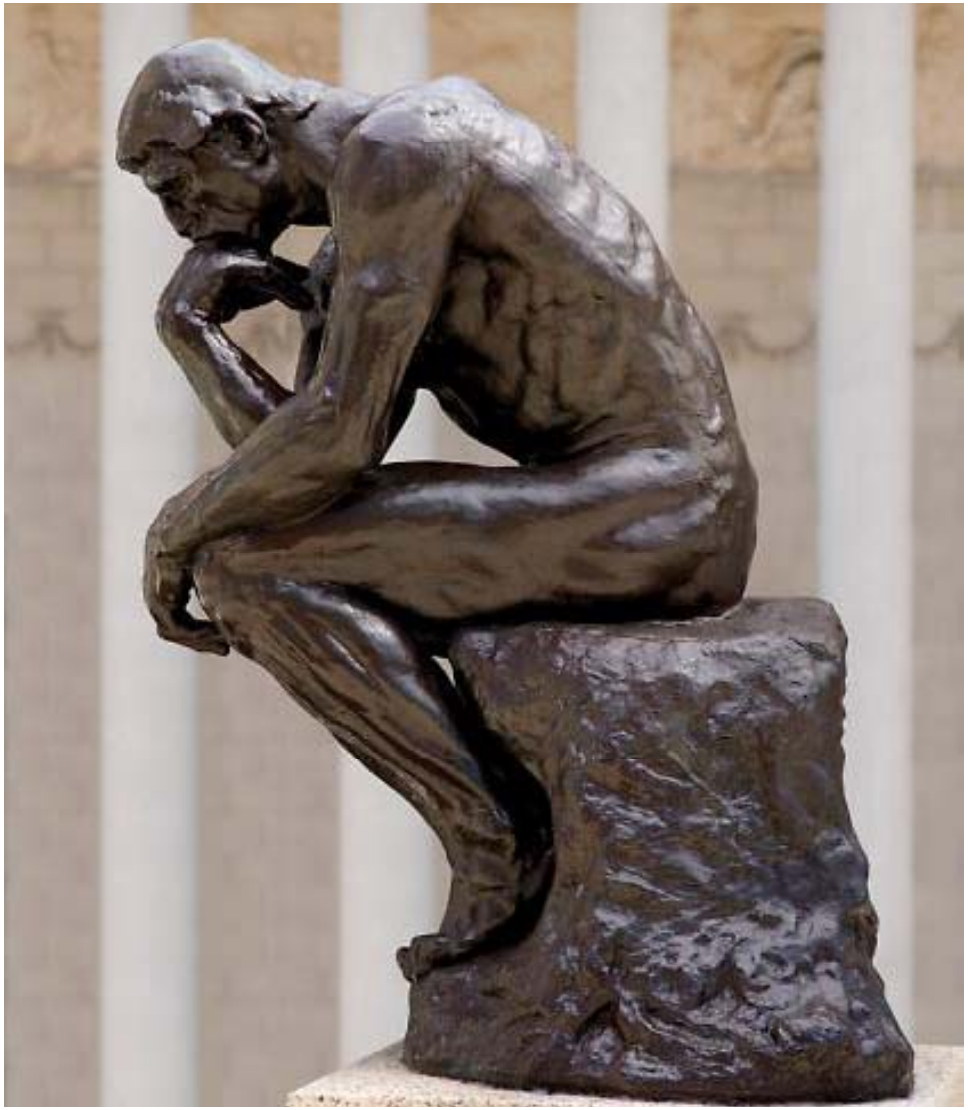
Florida House Chamber
81 Republicans/39 Democrats
www.myFloridaHouse.gov

How do you manage catastrophe exposure in a tough environment that's constantly changing?

Here's one approach:



We believe if you want to succeed in Florida, you need more than a computer model. **You need to use your head.**



What does using your head mean?

First, establish guiding principles

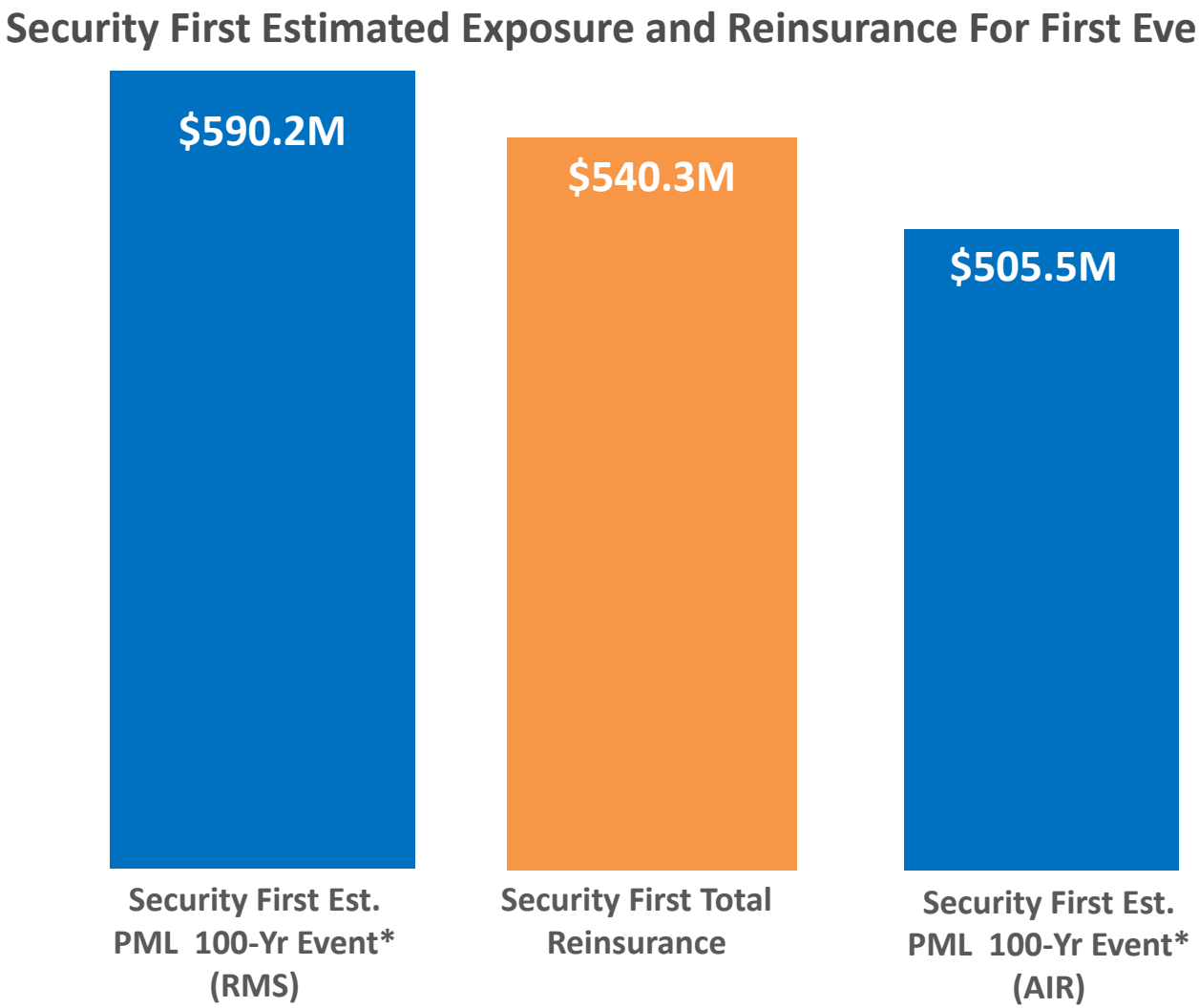
Live long and prosper.

Locke's Rules for Purchasing Reinsurance for Security First Insurance Company

1. Purchase a single event limit no less than the 100-year event based on the average modeled results of RMS, AIR, and the public hurricane model
2. If 2004 repeats itself, lose less than 30% of surplus on a pre-tax basis.
3. Spend less than 38% of Gross Written Premium on reinsurance.
4. Achieve Risk of Ruin of less than 9/10 of 1%.

What does using your head mean?

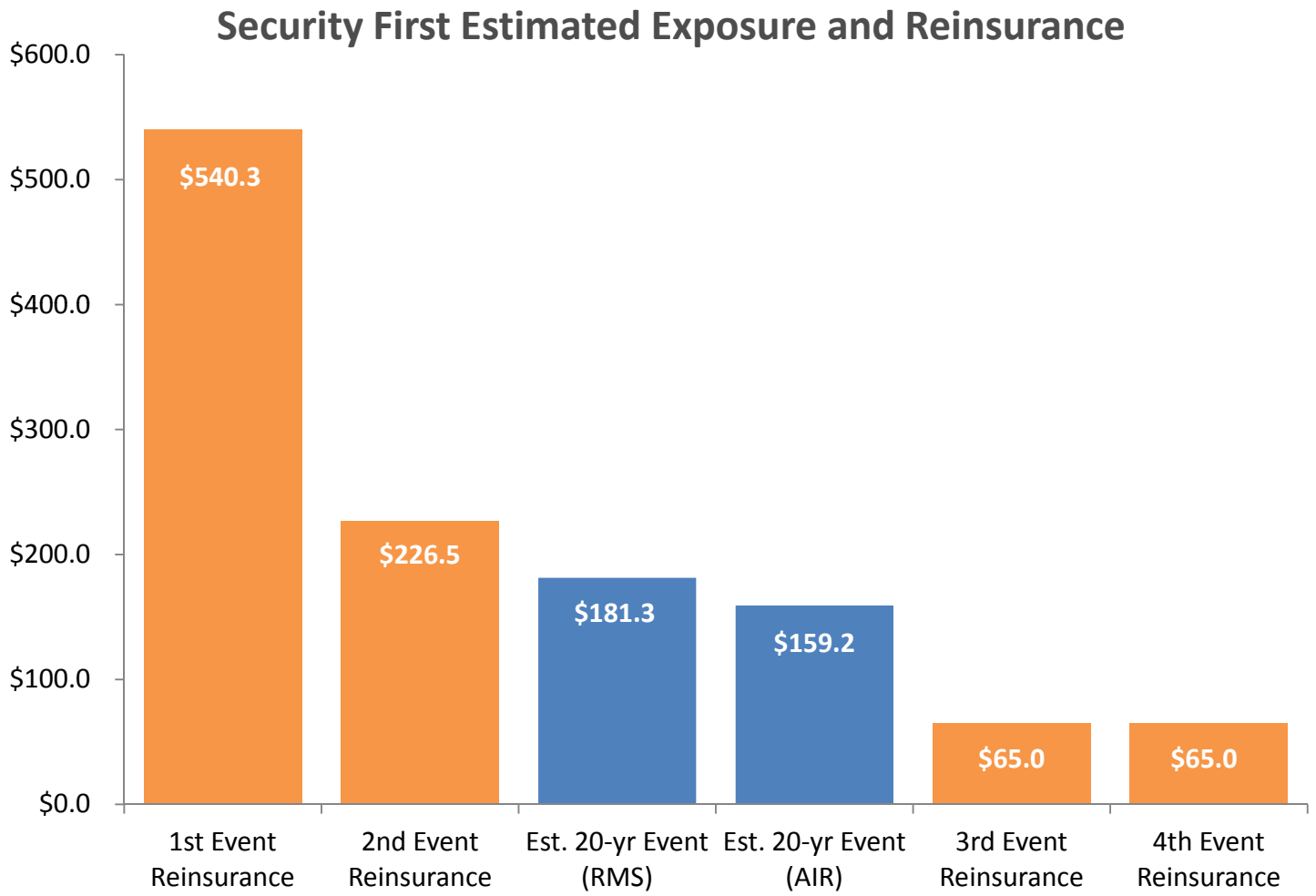
Second, use multiple models



*Modeled losses based on portfolio as of 9/30/12 with loss amplification

What does using your head mean?

Third, plan for multiple events



What does using your head mean?

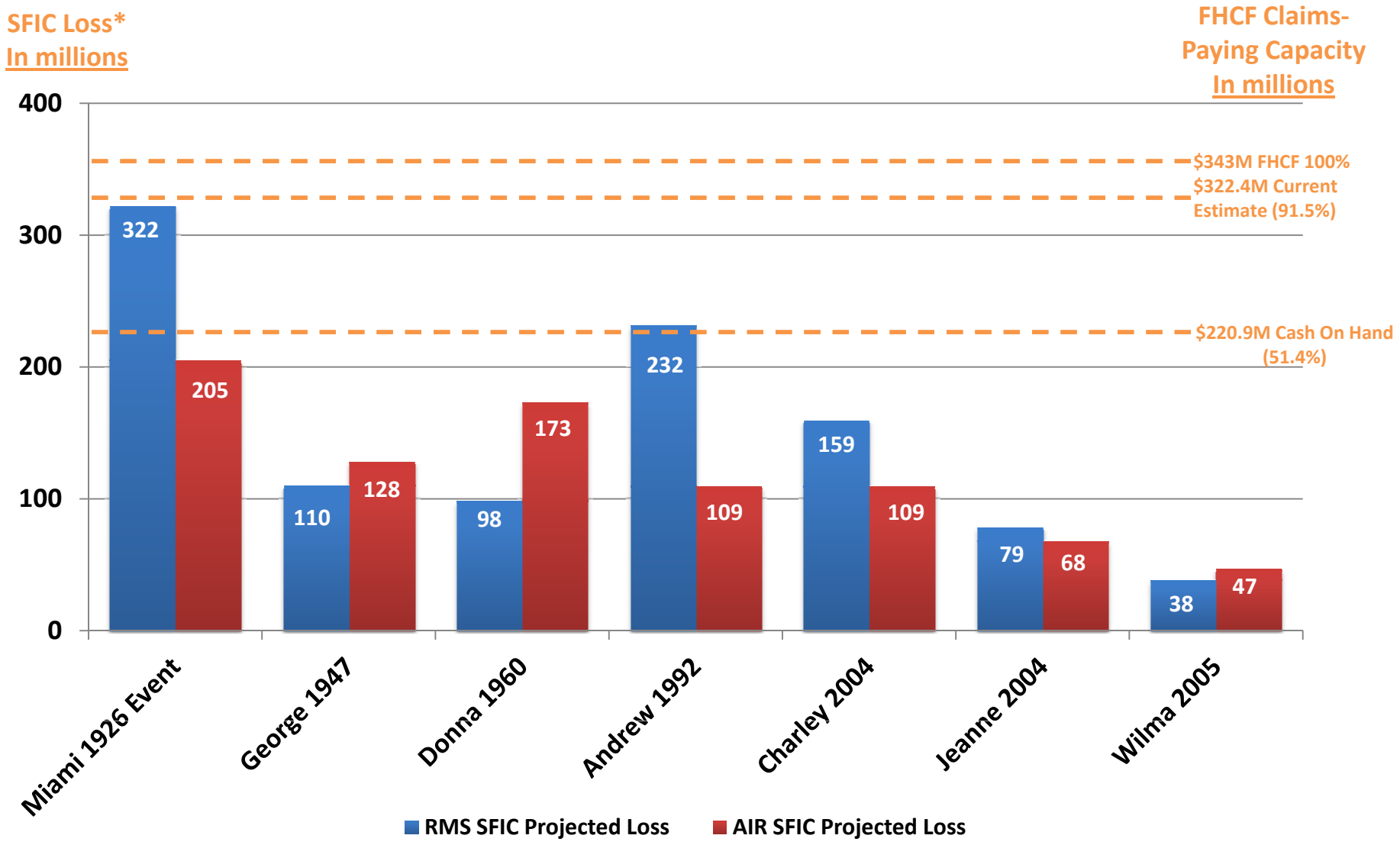
Fourth, understand past events

Historical Named Storm	Security First Insurance Est. Losses from historical events				Florida Industry Residential Losses (Summer 2011)	
	Sep 2012 Projected RMS v11		Sep 2012 Projected AIR v13			
	Gross Loss	Return Period*	Gross Loss	Return Period*	RMS V11 Return Period	AIR v12 Return Period
Andrew	$231,528,511	24	$109,124,412	13	63	47
Charley	$159,098,911	16	$108,589,919	13	8	8
Frances	$38,397,103	6	$85,013,766	10	5	7
Ivan	$8,759,560	4	$19,559,703	4	4	5
Jeanne	$79,322,406	9	$67,923,357	8	7	6
Katrina	$2,259,902	3	$3,146,399	2	3	3
Wilma	$37,887,804	6	$46,831,843	6	7	9
09/11/1926 Miami Event	$321,560,608	35	$204,788,798	25	166	95

With loss amplification and without storm surge.

Different models = different results

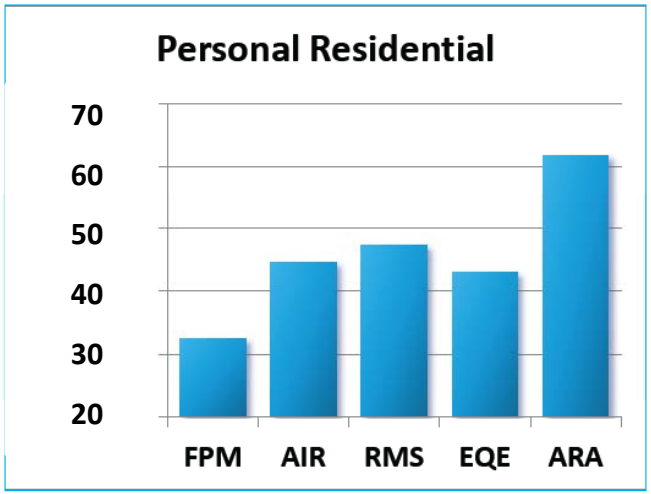
Projected Security First Insurance Reinsurance Recoveries From The Florida Hurricane Catastrophe Fund After Modeled Historical Events

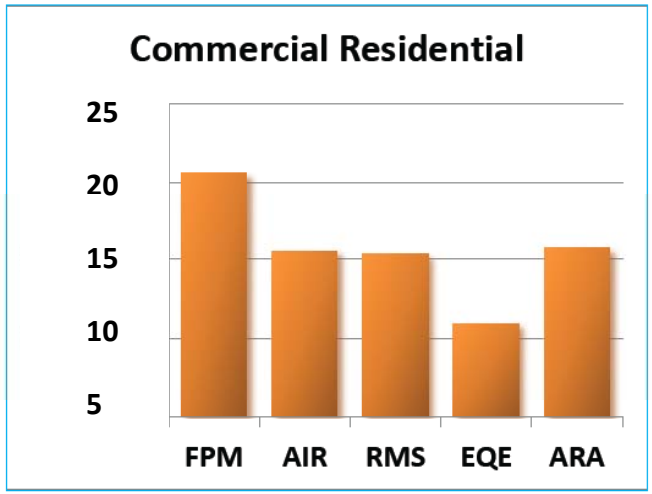


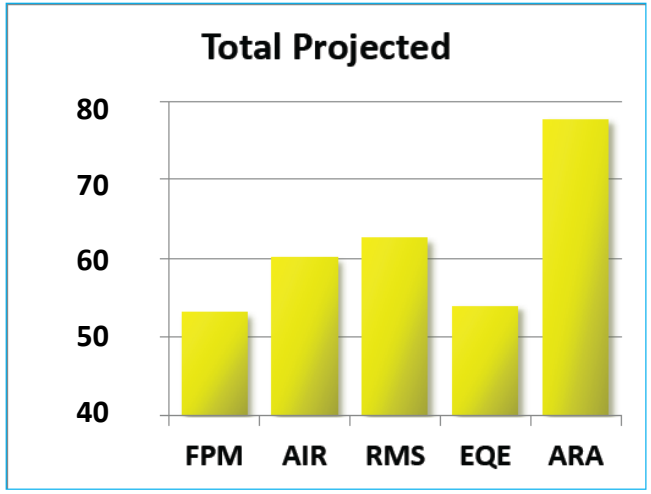
Understand past events

The Great Miami Hurricane of 1926

Projected Statewide Loss Costs *(in billions)*



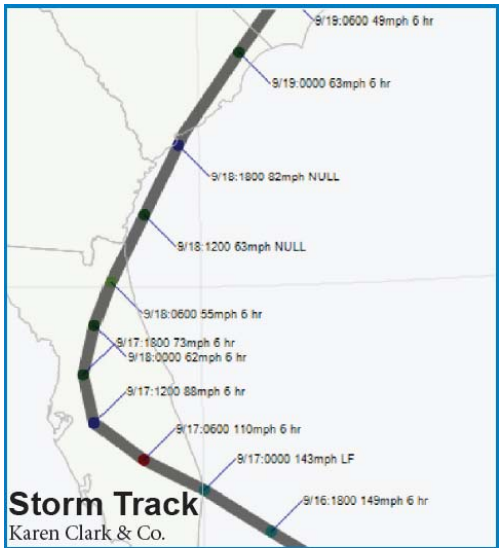




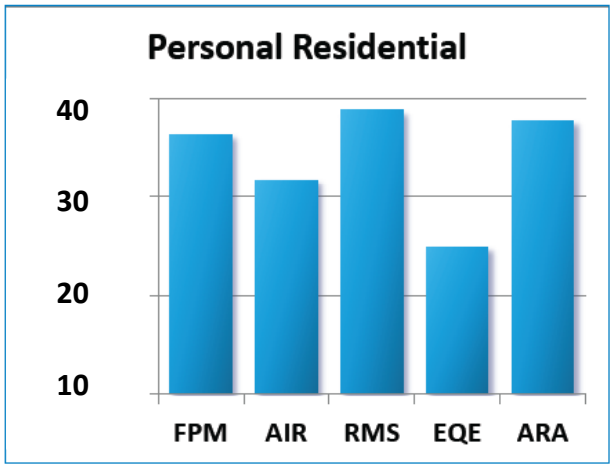
ARA's projected loss is $24.5 billion greater than the Florida Public Model. That's 46% higher.

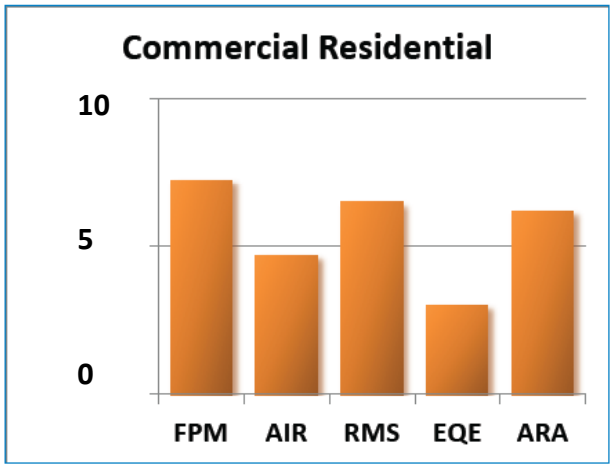
Understand past events

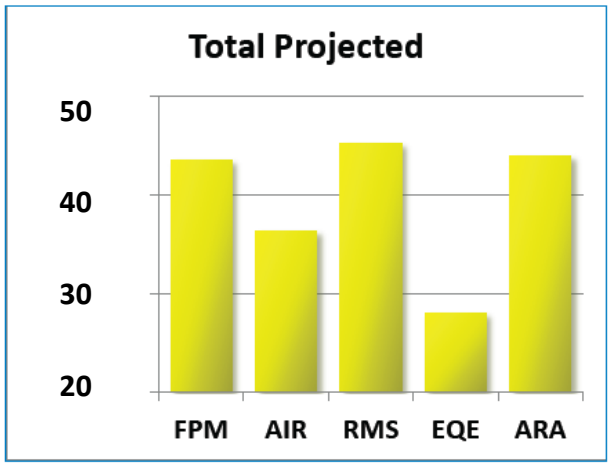
The Okeechobee Hurricane of 1928



Projected Statewide Loss Costs *(in billions)*



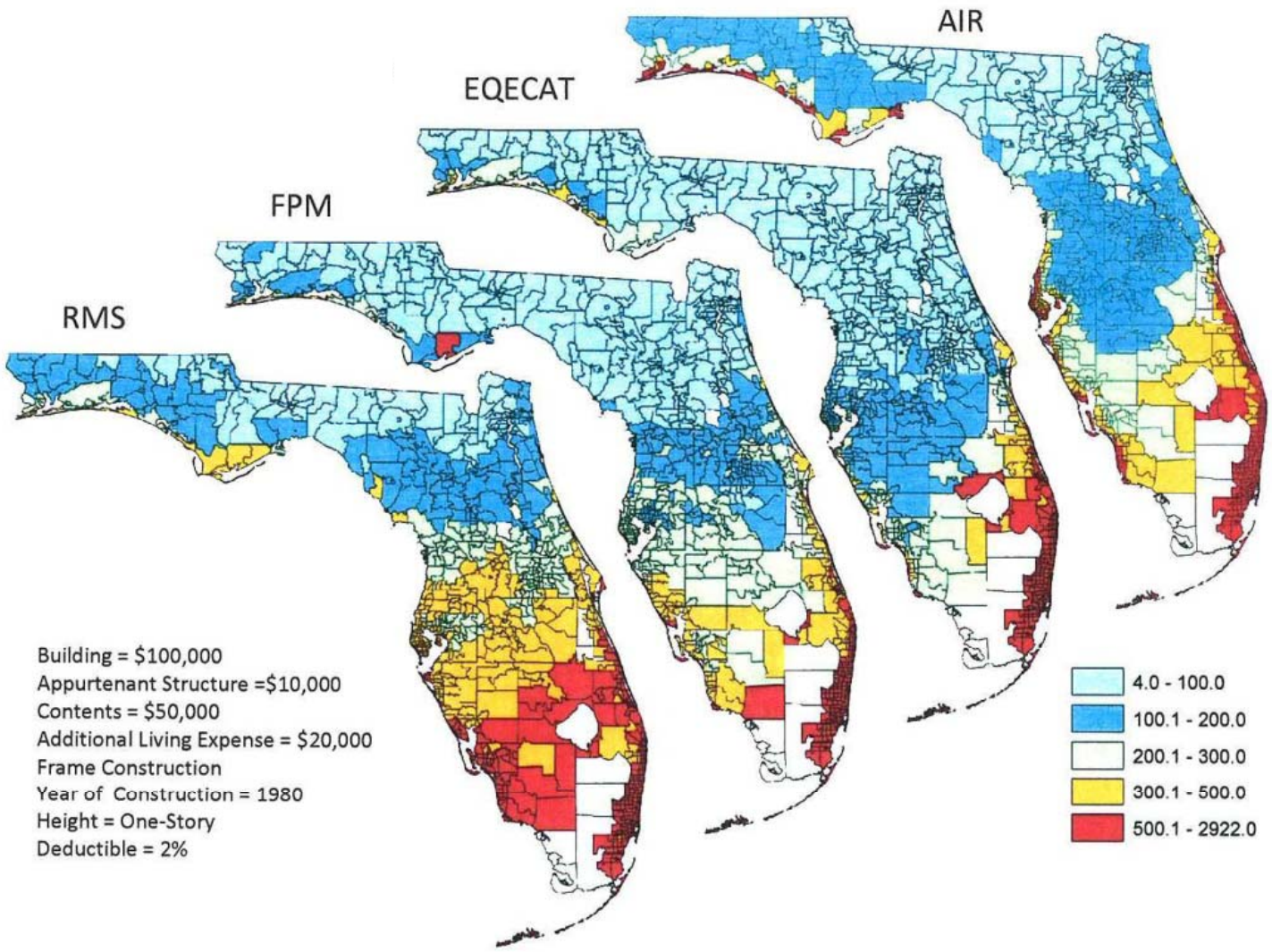




RMS estimated loss is $17.4 billion greater than EQE. That's 62% higher.

What does using your head mean?

Fifth, spend the time and effort to really understand the assumptions underlying each computer model



What does using your head mean?

Sixth, understand each computer model and what they don't consider

- Florida's regulatory environment or statutory changes
- Loss Adjustment Expenses
- Loss Assessments
- Law or Ordinance Coverage

What does using your head mean?

Seventh, consider the construction features of a Florida risk. These features might not be accurately reflected in computer models designed for use in all states

- Screened Enclosures
- Roofs
- Mixed Construction

The problem with screened enclosures

Unknown screened enclosure exposure: a true story

- Poe companies suffered more than $2.5 billion in wind damage claims from the storms of 2004-05.
- Nearly 1/3 of Poe's loss, $700 million, was due to damage to screened enclosures.

Naples Neighborhood

Screened Enclosures – different assumptions by different models

- **AIR**
  - Options are unknown, pool enclosure, or no pool enclosure
  - The indication that a pool enclosure is not present **decreases AAL 1% to 3%**
  - The presence of a pool enclosure increases Average Annual Loss (AAL) approximately 14% for pre-1994 structures, 20% for 1995-2001 and 21% for 2002 or newer.
- **RMS**
  - Options are unknown, none, screen enclosure/lanai (more than 15% of building value)
  - There is **no credit given** for indicating that a structure does not have a screened enclosure.
  - The presence of a pool enclosure that is over 15% of the building value increases AAL approximately 20% for pre-2002 homes, 10% for 2002 or newer.
  - The presence of a pool enclosure that is less than 15% of building value increases AAL approximately 10% for pre-2002 homes and 6% for 2002 or newer.

AIR penalizes new construction more than older construction whereas RMS does the opposite (in RMS, AAL increases are lower for 2002+ than for pre-2002).

Security First Insurance estimated losses went up when we quantified our screened enclosure exposure.

Note: The AAL changes mentioned here vary based upon geography, but show little difference based upon construction or occupancy. These AAL differences are based upon Near Term rates with Demand Surge and assume that the screened enclosure limit is contained within Coverage A.

The problem with roofs

Roofs – different assumptions by different models

- **Roof Tile**
  - AIR – Discount
  - RMS – Surcharge
  - No distinction between flat and barrel tile
- **Estimated roof age, in some cases, is older than the home**
  - RMS v11: Florida Structure modeled with Unknown Roof Age
    - 2007 and Newer: Structure 0 to 5 years old is assumed at 90% to have a roof 6-10 years old
    - 2002-2006: Structure 6 to 10 years old is assumed at 90% to have a roof 6-10 years old
    - 2001: Structure 11 years old is 60% weighted to roof > 11 years old
    - 1995 to 2000: Structure 12-17 years old is weighted at 35% to roof < 10 years old (and 60% to 11+ years)
    - 1994 and Earlier: Structure > 17 years old is 25% weighted to roof < 11 years old and 75% weighted to roof > 11 years

Roofs - Secondary Modifiers: Different models = different results

- **Roof Deck Attachment**
  Adopting secondary modifier increased RMS estimated loss by 30% and decreased AIR estimated loss by 20%
- **Roof to Wall Attachment**
  Adopting secondary modifier increased RMS estimated loss by 25%. AIR results were unchanged.

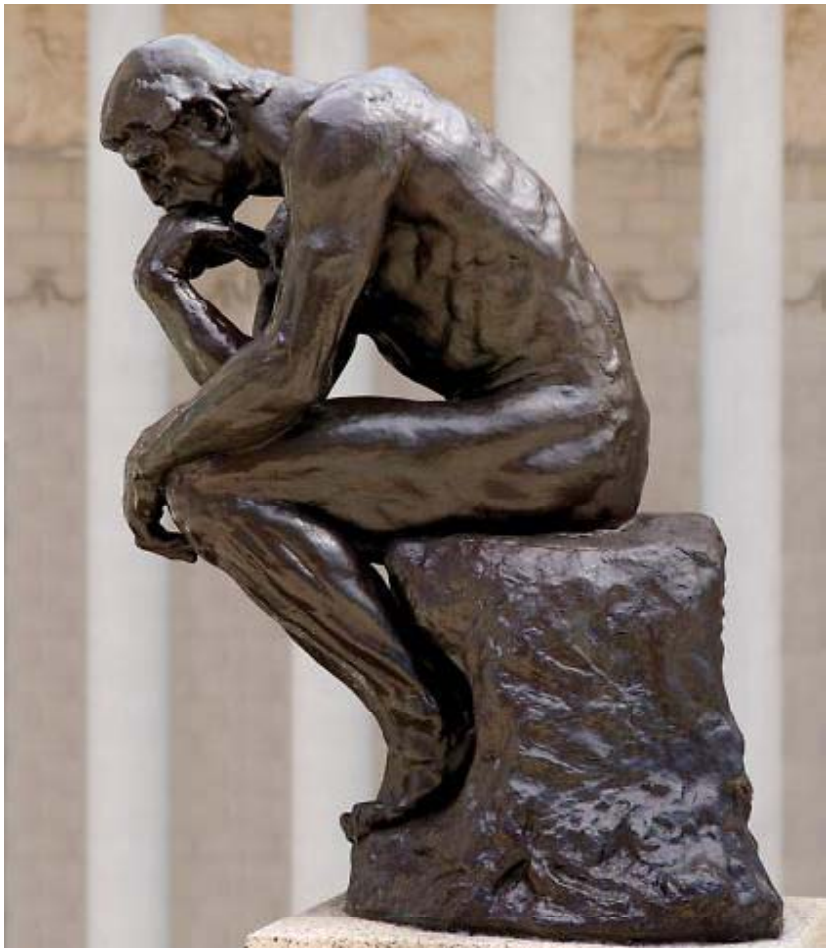
Mixed Construction – what do you do?

Frame or masonry? You decide because the models don't recognize mixed construction.

Modeled results for Florida don't accurately capture regional differences in laws or regulation

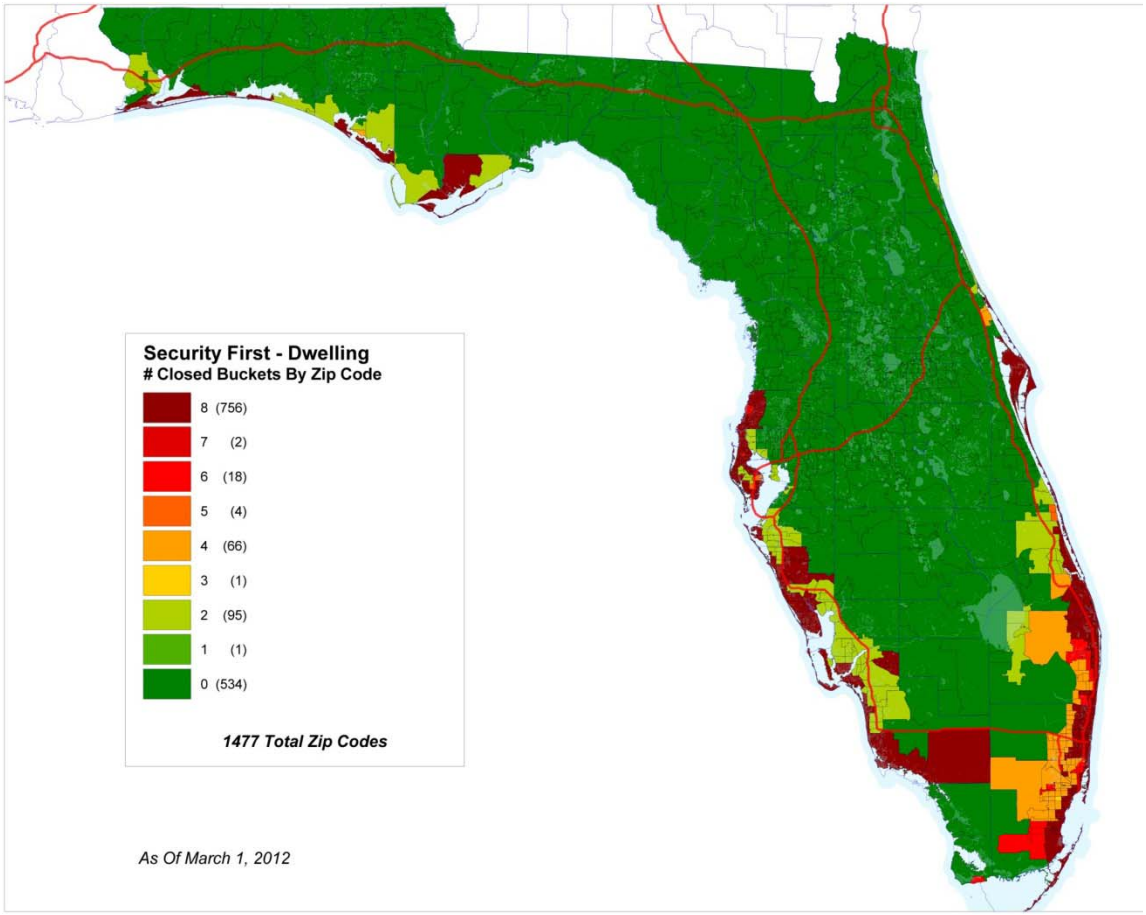
- **The definition of constructive total loss varies from county to county**
  - Some counties determine constructive total loss and require insurance companies to rebuild if the home's damage is 50% or more. Others at 75%.
- **The impact of law and ordinance coverage can vary from city to city**

Using your head also means using additional tools to manage catastrophic risk



Tool #1: Monitoring exposure

- Voluntary Template – 24,000 buckets
- Almost 1500 Zip Codes
- Condo vs. Dwelling
- Frame vs. Masonry
- Year Built Group
  - Pre-1994
  - 1995-2001
  - 2002-2007
  - 2008 +



Tool #2: Collect and verify info not typically captured

- **Collect detailed information of the construction features:**
  - Nine different roof types
  - Mixed construction percentages
- **Verify information electronically**
  - Third-party resources verify risk characteristics
  - Mapping software available to agents and underwriters
  - Inspection programs

Tool #3: Legislative change to reduce catastrophic risk

- **Educate legislators who can work for you to change the law**
  - Decreased statute of limitations
  - Reverted back to ACV
  - Separated Catastrophic Ground Cover Collapse Coverage from Sinkhole Coverage
  - Reduce Citizens Assessments
  - Reduce FIGA Assessments

Tool #4: Change your insurance contract

- Have a clear understanding of the language in your company's insurance policy and the coverage that's included and excluded

Security First Insurance Contract Changes Implemented

- **Schedule A: Screened Enclosures**
- **Schedule B:**
  - Fences and shrubs
  - Satellite dishes
  - Appurtenant Structures
- **Schedule C: Accurate estimation of contents coverage**
- **Schedule D: Limitation on additional living expense**

Tool #5: Conservative underwriting of each risk

Security First Insurance Underwriting Approach

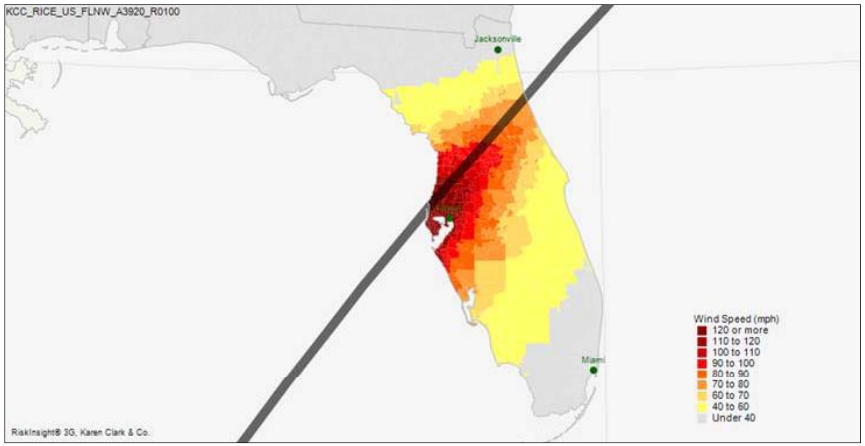
- Thorough underwriting questions are asked during the application process
- Review existing data, such as closed claims to identify trends to control costs
- ARA Hip Roof Study

Tool #6: Use RiskInsight

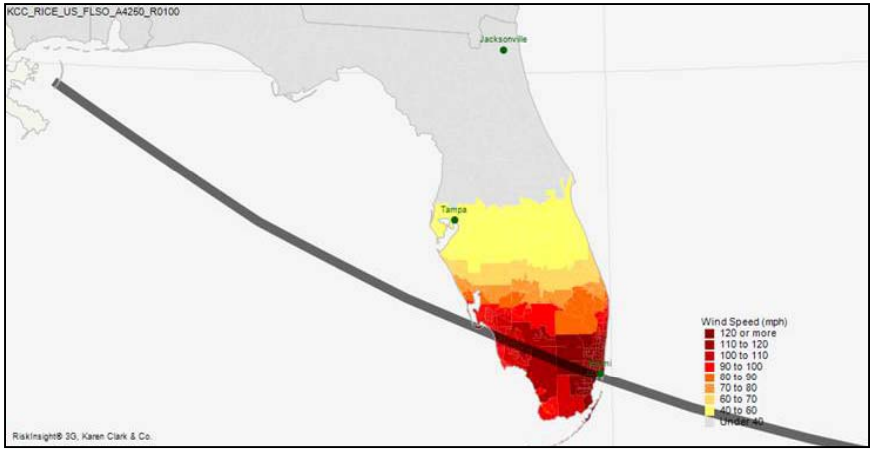
- **Another view of our exposure**
  - Hurricane models do not consider the density of a company's portfolio.
  - RiskInsight gives us a clear picture of our exposure based on concentration using defined probability events, rather than randomly generated historical events.
- **Improve data quality and quantity**

RiskInsight: Citizens' PLA Account peak exposure

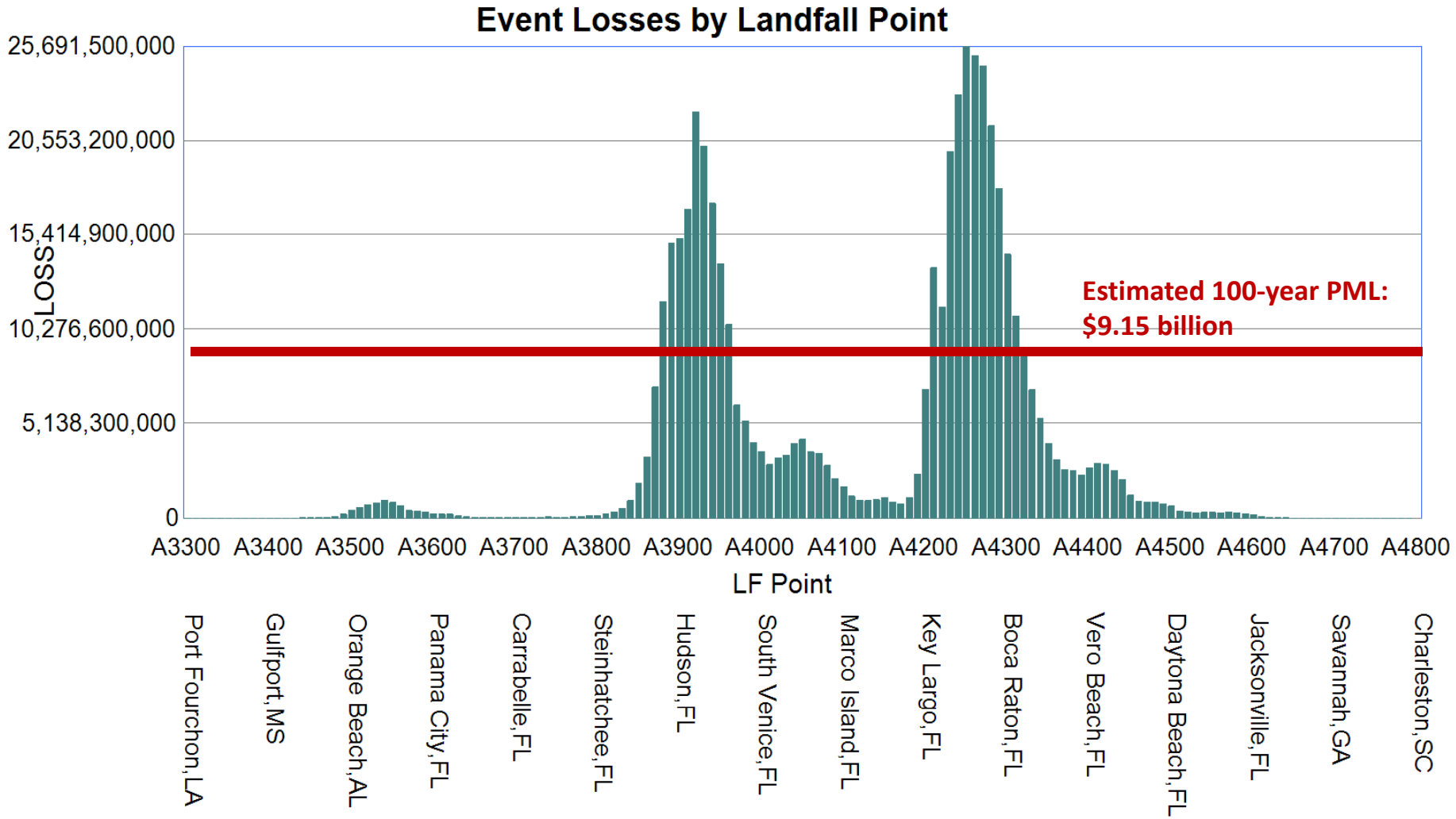
100-Yr Characteristic Event
Tampa landfall
Total Loss: $22 Billion



100-Yr Characteristic Event
Miami landfall
Total Loss: $26 Billion

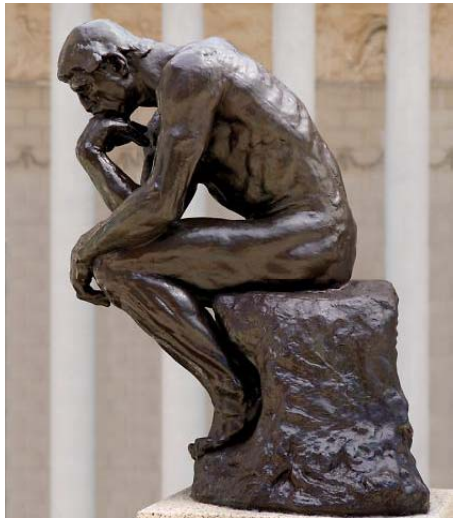


RiskInsight: Citizens' PLA personal residential multi-peril CE chart



Computer models are excellent tools for evaluating catastrophe risk, but they are not the only tools. The modeled results are just estimates of potential catastrophic losses.

Don't forget to use your head when thinking about your company's real exposure to catastrophic loss.



Q&A

Locke Burt
Chairman and President
Security First Insurance Company
(386) 523-2300
Lburt@SecurityFirstFlorida.com