

Catastrophe Loss Development

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CARE Seminar 2011

Catastrophe Loss Development

- Background
 - ISO Ratemaking Data
 - ISO's Loss Reserve Studies
- “Outsized” catastrophes disrupted the patterns
- Event-specific, quarterly, statistical data
- Comparisons to non-catastrophe development
- Data selection and limitations
- Variations based on catastrophe size, circumstances

Catastrophe Loss Development ISO Ratemaking Data

- Statistical data, using 15, 27, 39 (etc.) month evaluations of full accident years
- Usually very little development, even in accident years with catastrophes

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ISO Loss Reserve Study

- Industry Schedule P Paid and Case Incurred Data
- Full calendar-accident years, evaluated at 12, 24, 36 (etc.) months
- Development patterns showed little variation prior to late 1980's
- 12 to 24 month development was HIGH for 1989 (Hurricane Hugo)
- 12 to 24 month development was LOW for 1992 (Hurricanes Andrew, Iniki) and 1994 (Northridge Earthquake)

Catastrophe Loss Development

ISO Loss Reserve Study

Inferences

- A given year's loss development pattern is affected by (among other things):
 - Specific date(s) of catastrophes in the year
 - Magnitude of catastrophes
- Over time, companies modified their catastrophe claim adjusting procedures to be more responsive
- Patterns were difficult to adjust for or predict

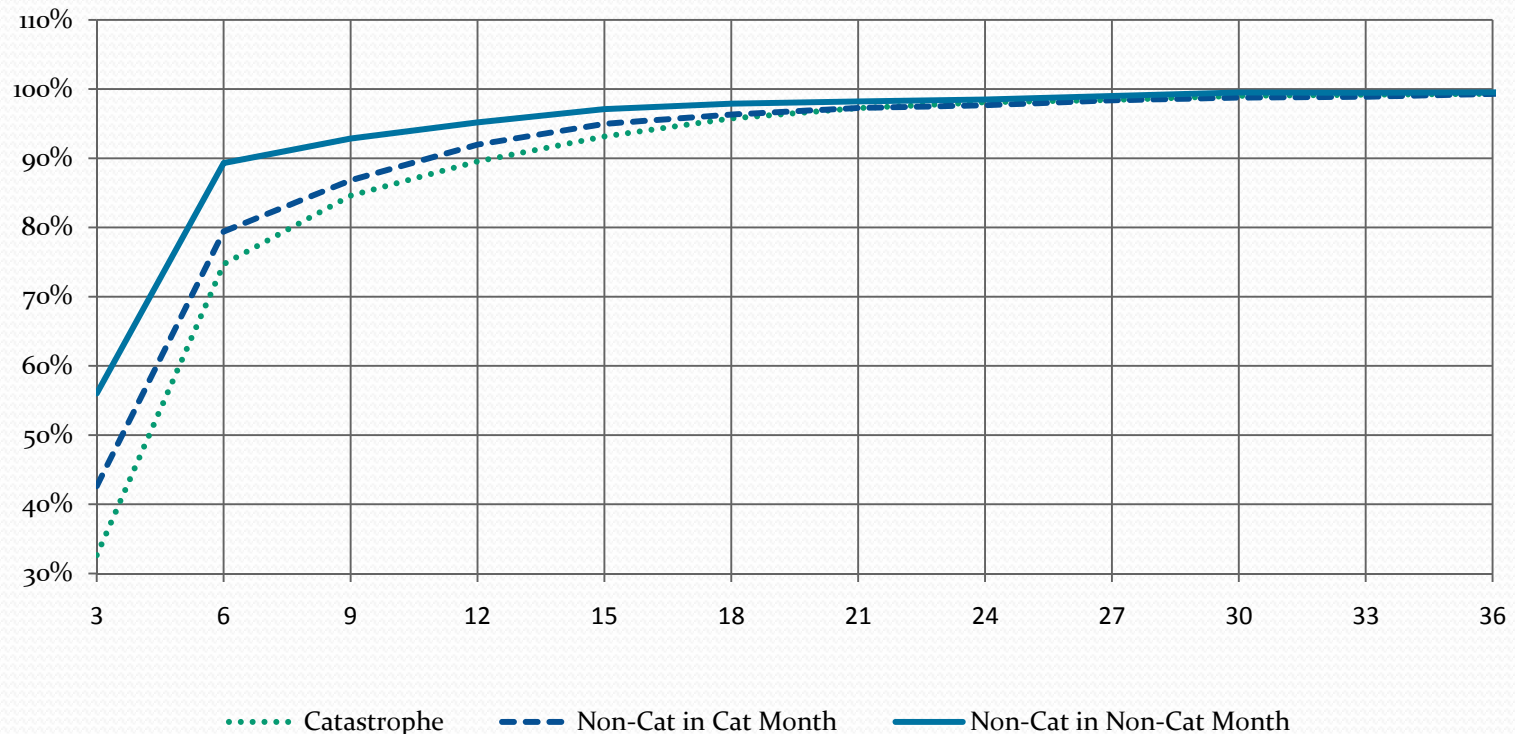
Catastrophe Loss Development

Accident Period Statistical Data

- Data Selection
 - Started with PCS-defined catastrophes, including specific dates and states
 - Fine-tuned affected locations using data from the National Climatic Data Center and ISO's statistical data
 - County, ZIP Code detail
 - Filtered reported statistical data based on those dates and locations, as well as cause of loss
 - Quarterly valuations

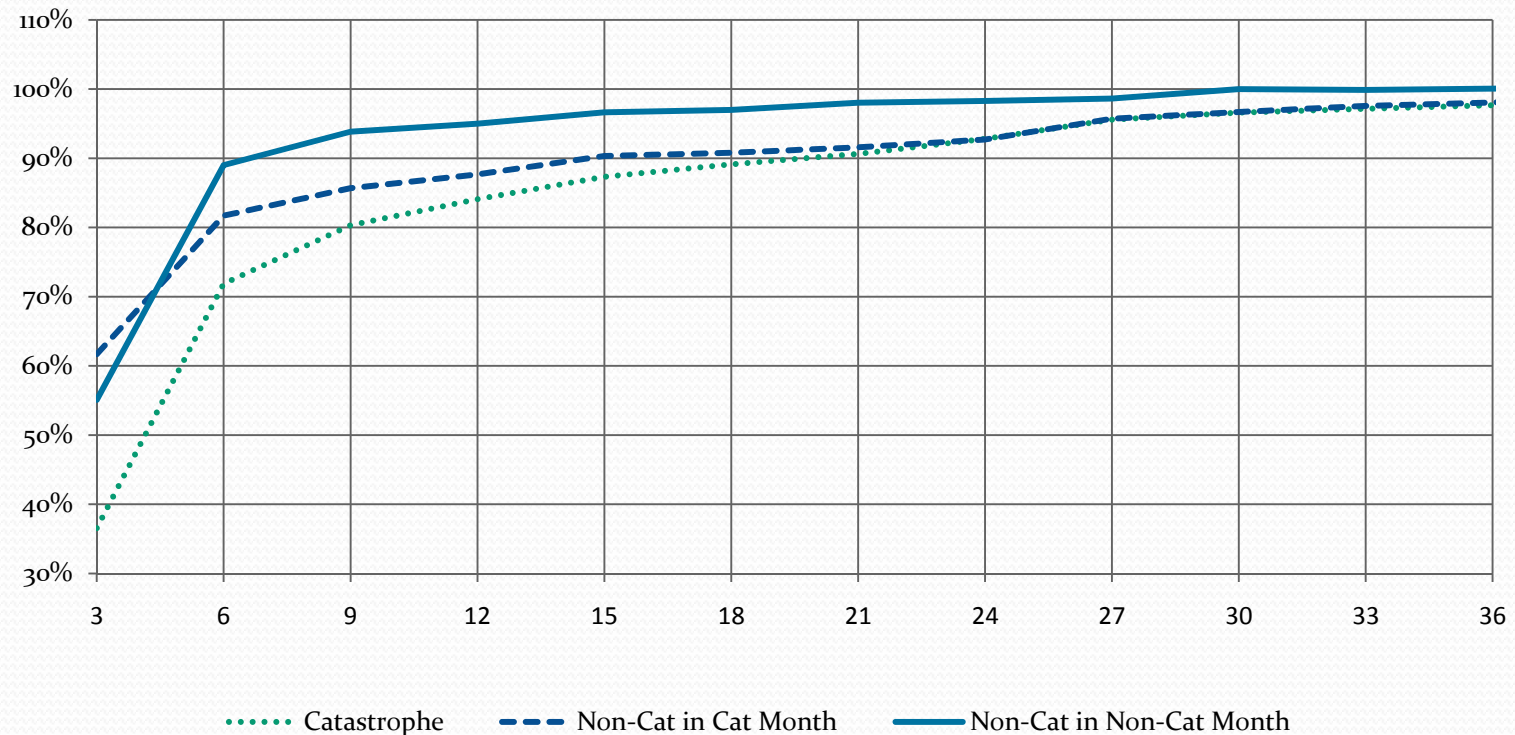
Homeowners Property Losses Ivan — September 15-21, 2004

Incurred Loss Development -- to 36 Months



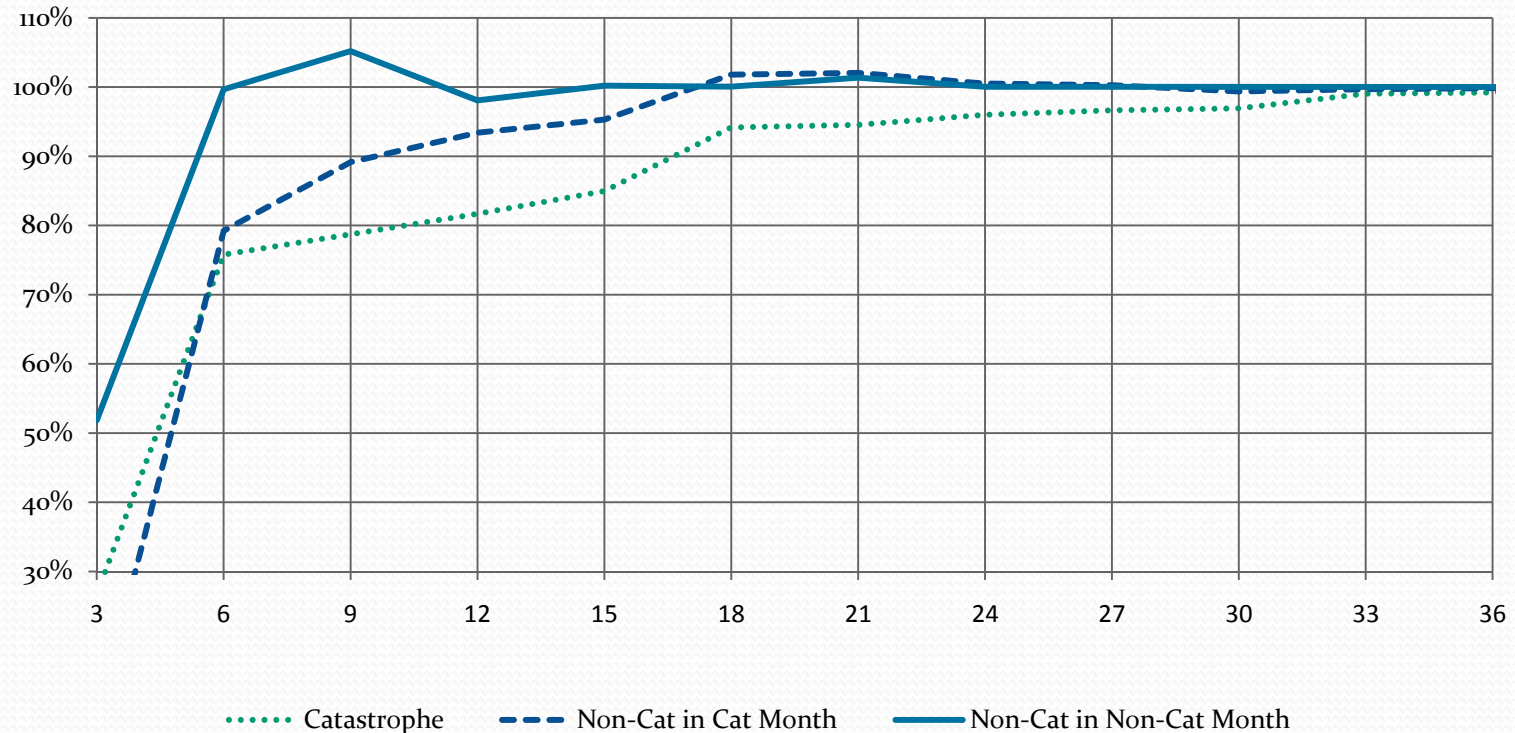
Homeowners Property Losses Katrina — August 25-30, 2005

Incurred Loss Development -- to 36 Months



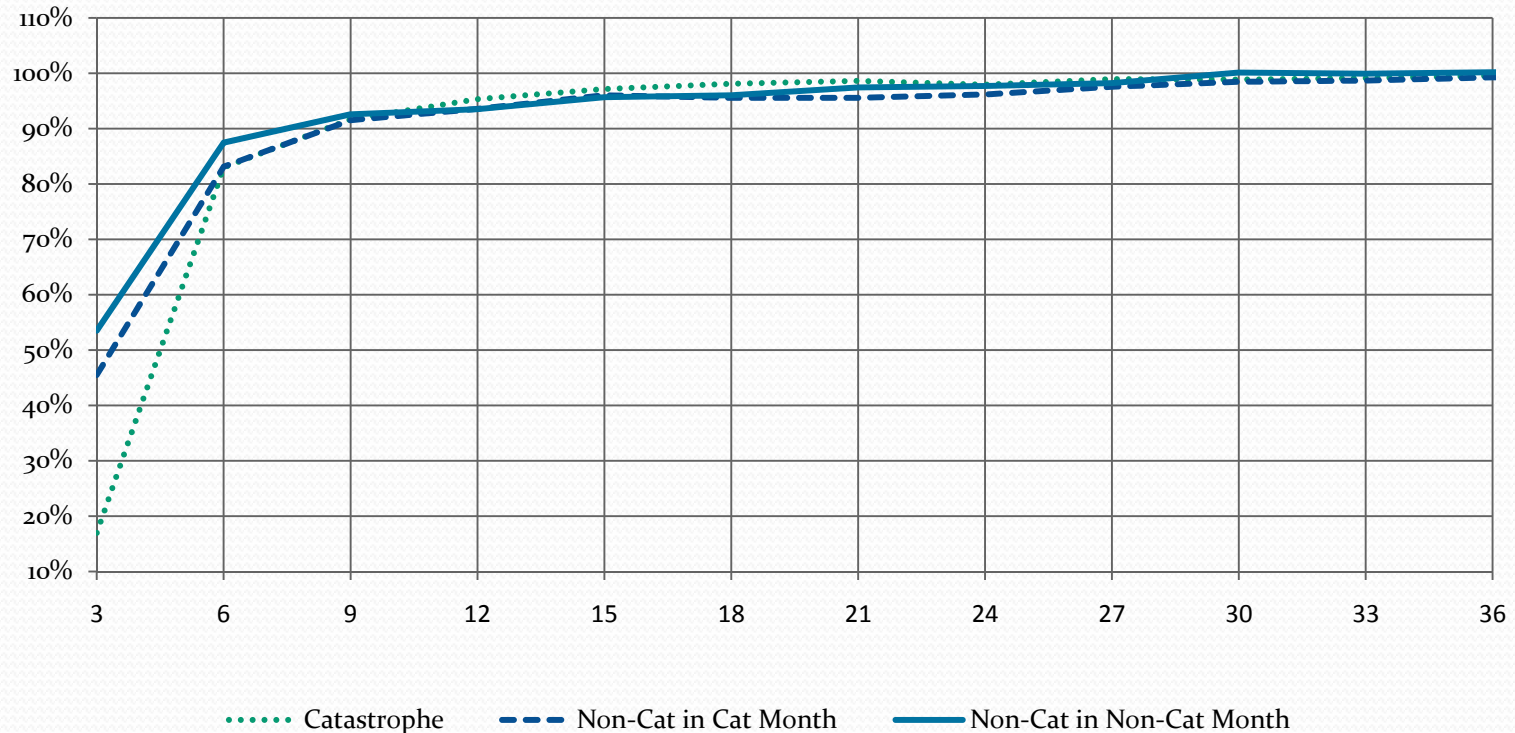
Commercial Property Losses Katrina — August 25-30, 2005

Incurred Loss Development -- to 36 Months



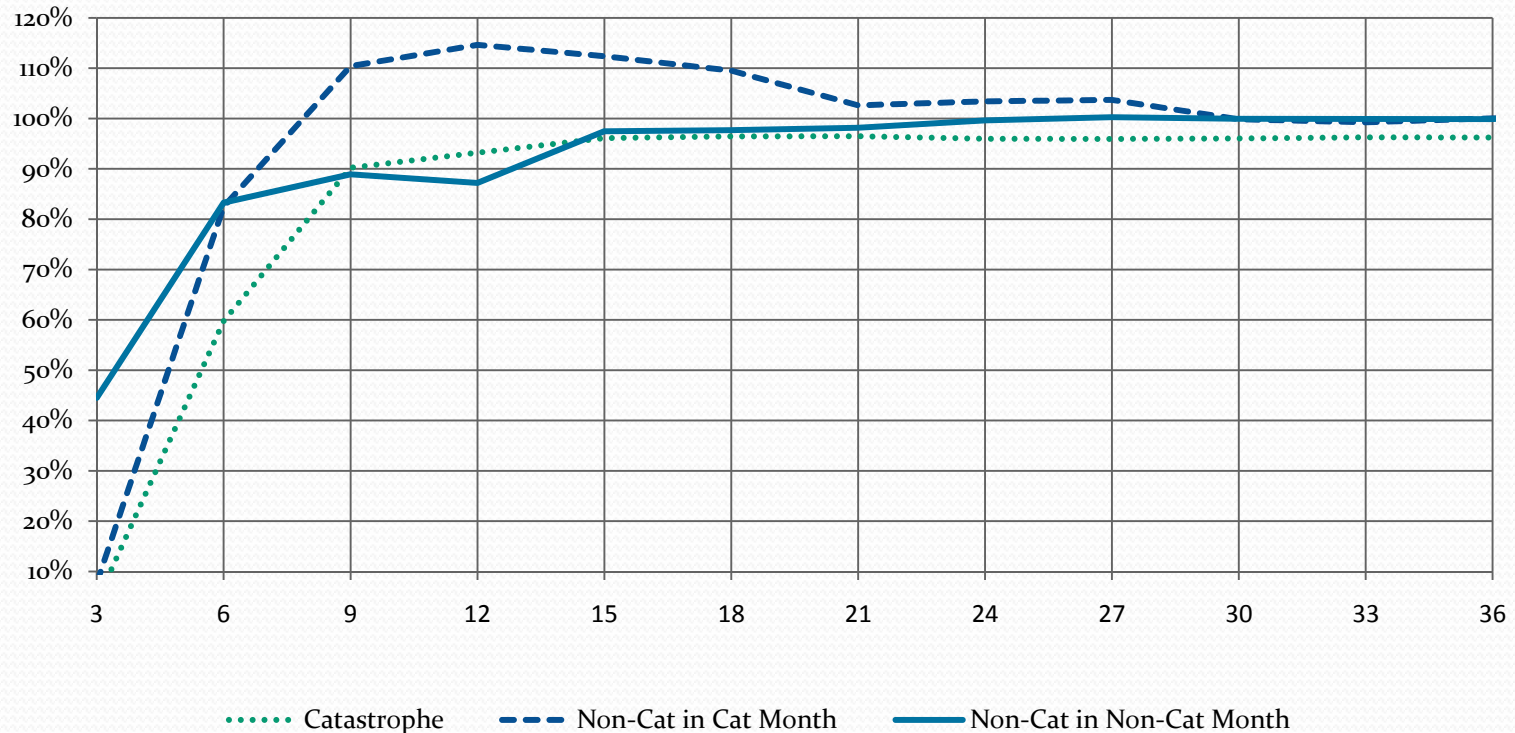
Homeowners Property Losses Rita — September 20-26, 2005

Incurred Loss Development -- to 36 Months



Commercial Property Losses Rita — September 20-26, 2005

Incurred Loss Development -- to 36 Months



Catastrophe Loss Development

Data Limitations

- Based on statistical data reported to ISO
 - Dependent on quality of cause of loss reporting
- About 35% of industry for Homeowners, 60% for COMFAL
- No IBNR or bulk — paid losses and case reserves only

Catastrophe Loss Development – Homeowners

Name	Percentage of Ultimate Incurred Loss as of 3 Months	Date(s)	State(s) Affected	PCS Est. Ins. Personal Property Damage (Billions)
Hurricane Charley	59.7%	8/13/04 – 8/14/04	FL, NC, SC	\$4.4
Hurricane Frances	40.7%	9/3/04 - 9/9/04	FL, GA, NY, NC, SC	\$3.1
Hurricane Jeanne	30.1%	9/15/04 – 9/29/04	DE, FL, GA, MD, NJ, NY, NC, PA, PR, SC, VA	\$2.4
Hurricane Ivan	32.6%	9/15/04 – 9/21/04	AL, DE, FL, GA, LA, MD, MS, NJ, NY, NC, OH, PA, TN, VA, WV	\$5.1
Hurricane Katrina	36.6%	8/25/05 – 8/30/05	AL, FL, GA, LA, MS, TN	\$17.9
Hurricane Rita	17.0%	9/20/05 – 9/26/05	AL, AR, FL, LA, MS, TN, TX*	\$3.0
Hurricane Wilma	56.4%	10/24/05	FL	\$7.4
Hurricane Ike	52.3%	9/12/08 – 9/14/08	AR, IL, IN, KY, LA, MO, OH, PA, TX*	\$7.4

Catastrophe Loss Development

Analyses

- Lines of Business: Homeowners, Dwelling, COMFAL (BGI, BGII), Businessowners
- Paid vs. Case Incurred
- By catastrophe (as defined by PCS)
- Updates