

Reserving for Catastrophes in Commercial Insurance

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September 16, 2013



Agenda

Complexities of Commercial Property Insurance

Commercial Insurance Catastrophe Estimation

Super Storm Sandy

Commercial Exposure Bases

When a catastrophe occurs

Commercial property claims are not based on individual cars or homes...



They're based on...

ACCOUNT SIZES

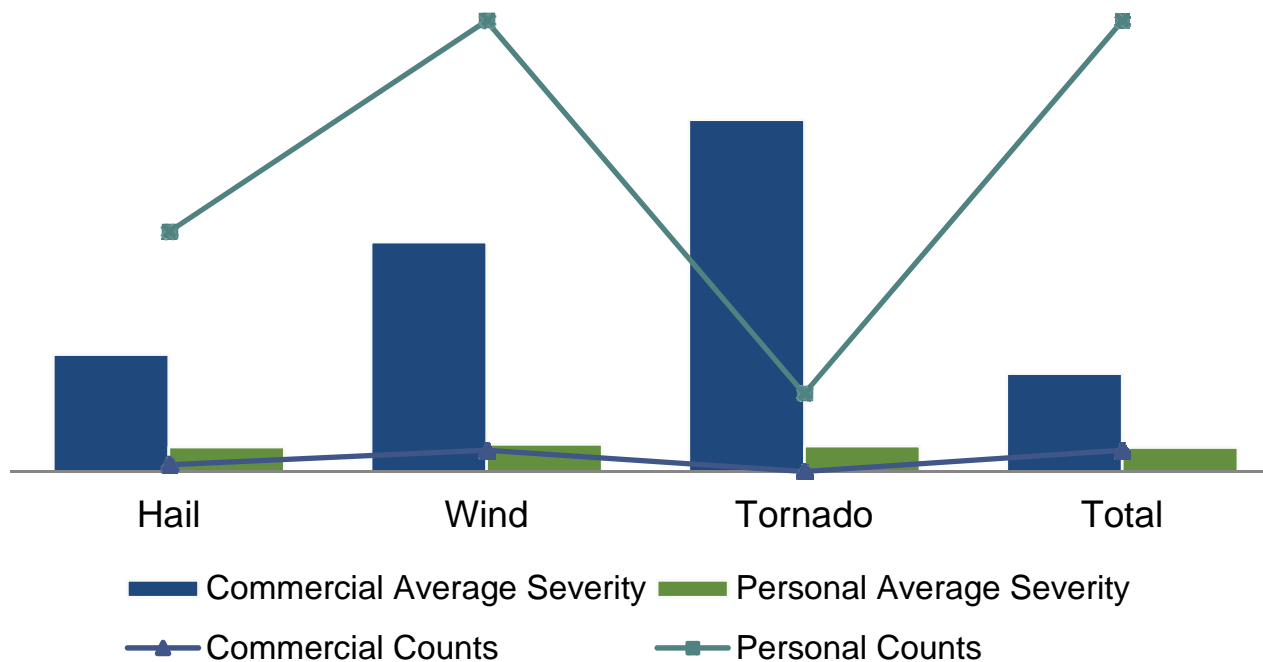
PLAN TYPE

COVERAGES

Commercial Account Size

LARGE LIMITS = LARGE LOSS POTENTIAL

Driven by... ▼ FREQUENCY ▲ SEVERITY



Commercial Plan Types and Coverages

PLAN TYPES AND COVERAGES

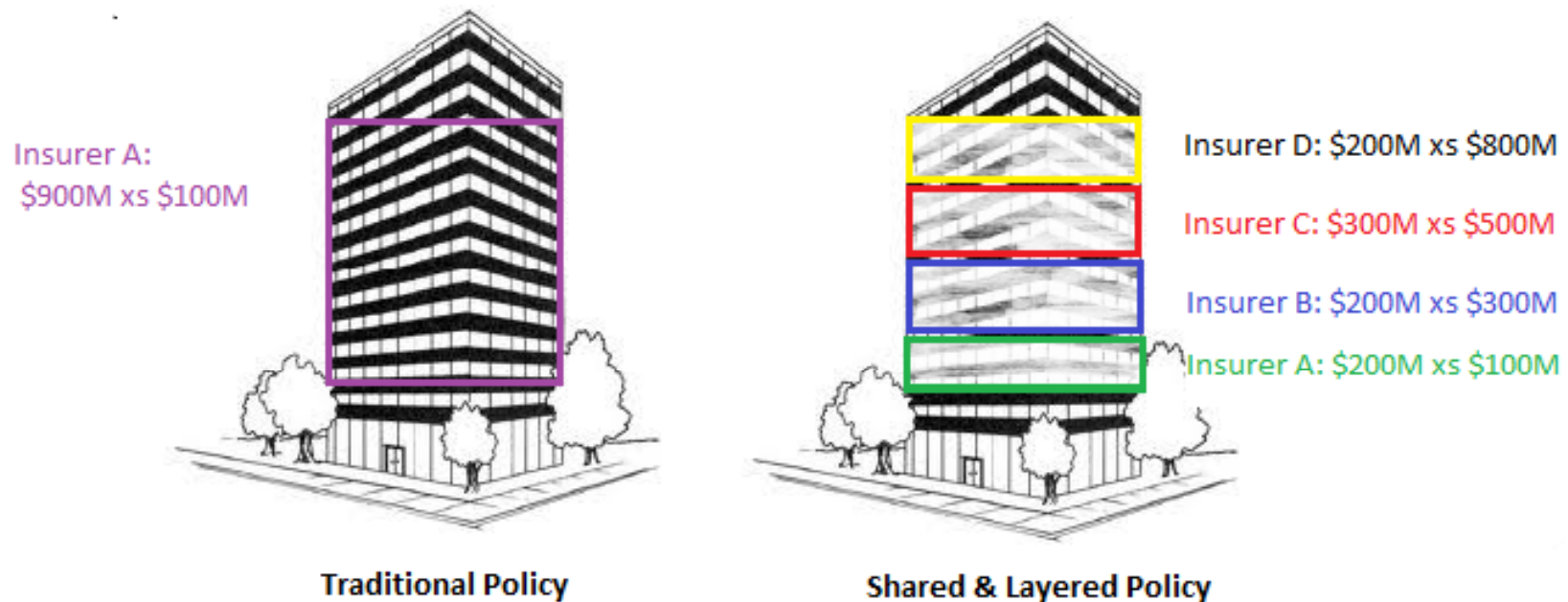
...play a major role in the financial impact to Commercial insurers after a catastrophe



Commercial Plan Types

SHARED & LAYERED

- Reduces insurers exposure on large policies
- Spreads large risks across multiple carriers



Commercial-Specific Coverages

BUSINESS INTERRUPTION

Provides coverage for loss of anticipated profits and necessary continuing expenses during a shutdown



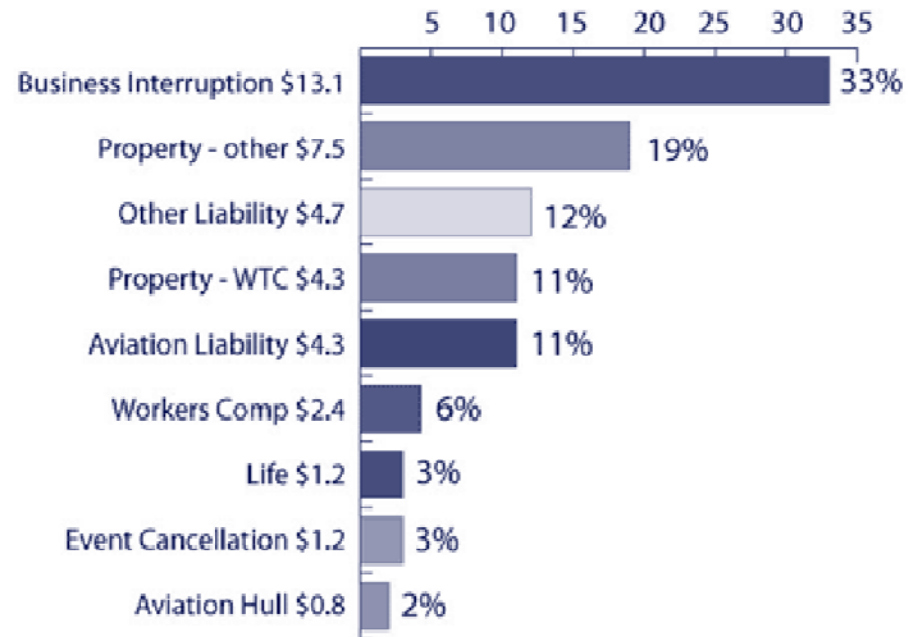
Commercial-Specific Coverages

BUSINESS INTERRUPTION

...may be a significant part of ultimate losses

Sept. 11 Industry Loss Estimates

(\$B, Adjusted to 2008 Price Level)



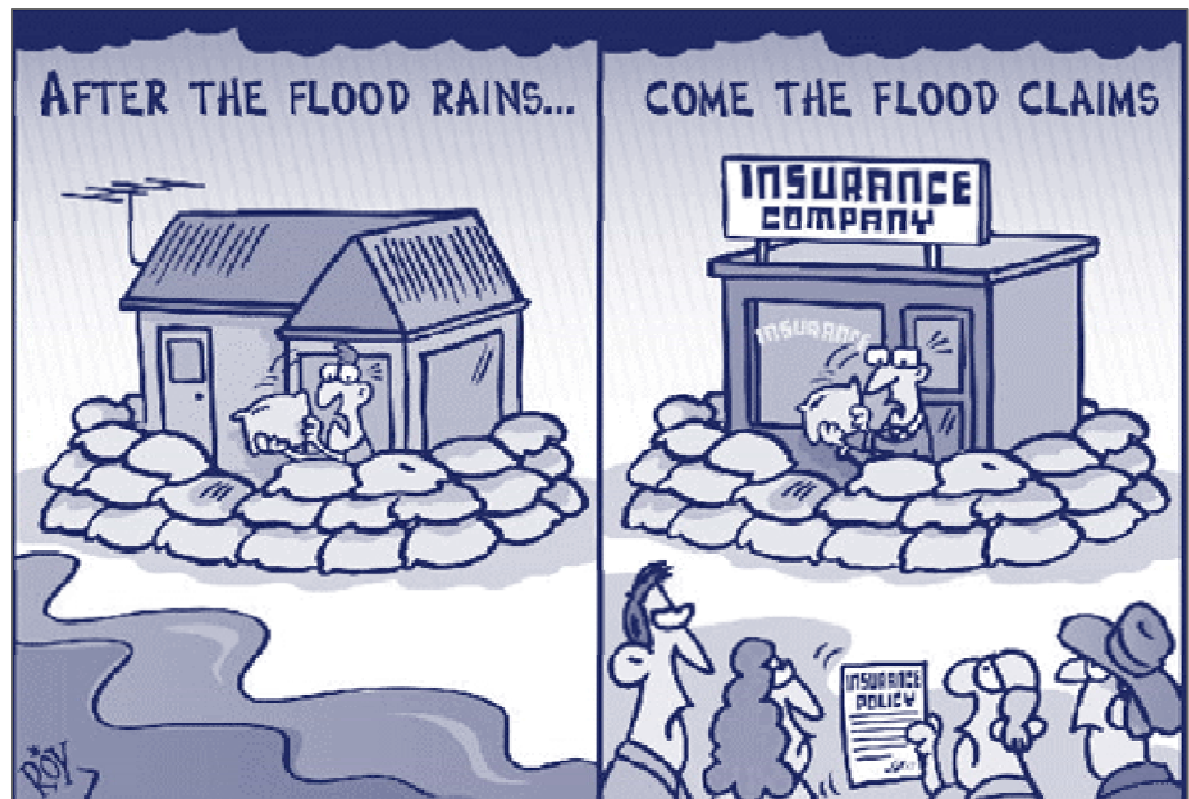
Total Insured Losses Estimate: \$39.5 B

Source: Insurance Information Institute

Commercial-Specific Coverages

FLOOD COVERAGE & RESTRICTIONS

- Offered as an endorsement to property policies
- Account must satisfy certain criteria to be eligible
- Deductibles and set limits apply



Commercial-Specific Coverages

SUPER STORM SANDY ...A TALE OF TWO STORAGE UNITS

CUSTOMER 1
Flood Coverage Endorsement



CUSTOMER 2
No Flood Coverage



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Catastrophe Estimation

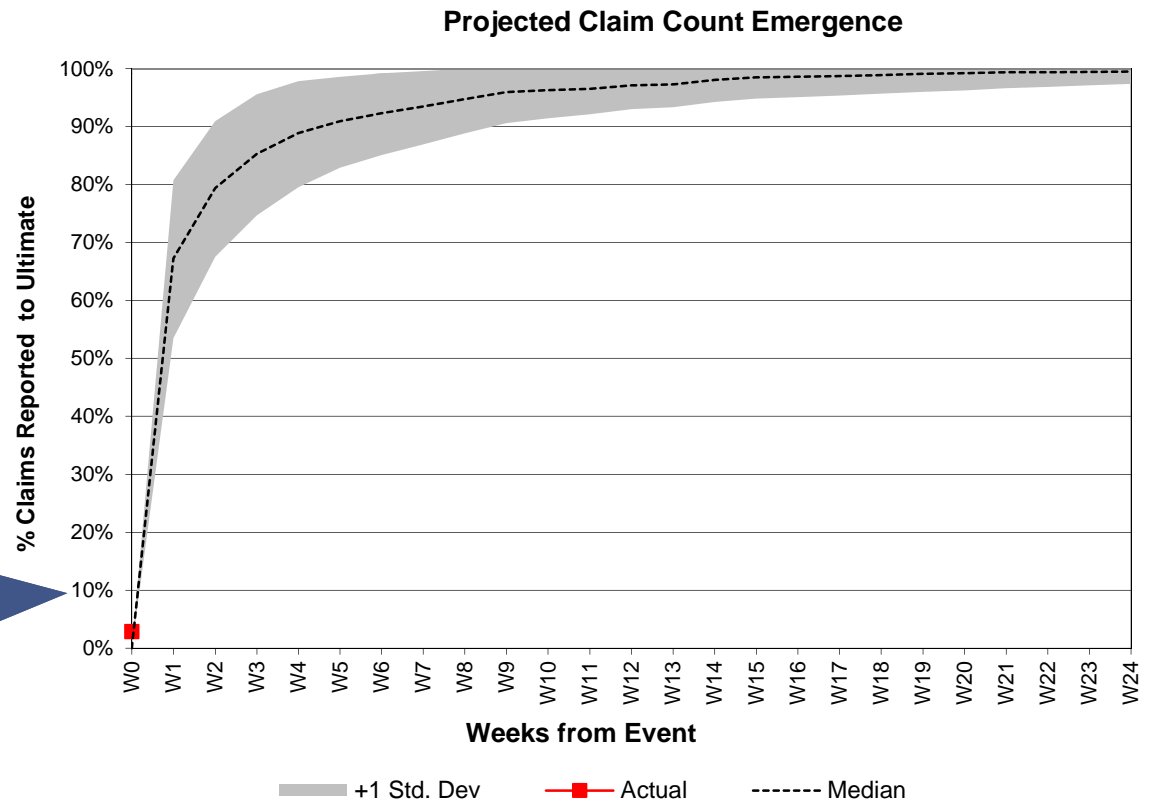
ACTUARIAL METHODS

- Analyze Claim, Severity, and Case Emergence Patterns as data reported
- Project ultimate loss & ALAE by storm

Early After Storm /
Limited Data

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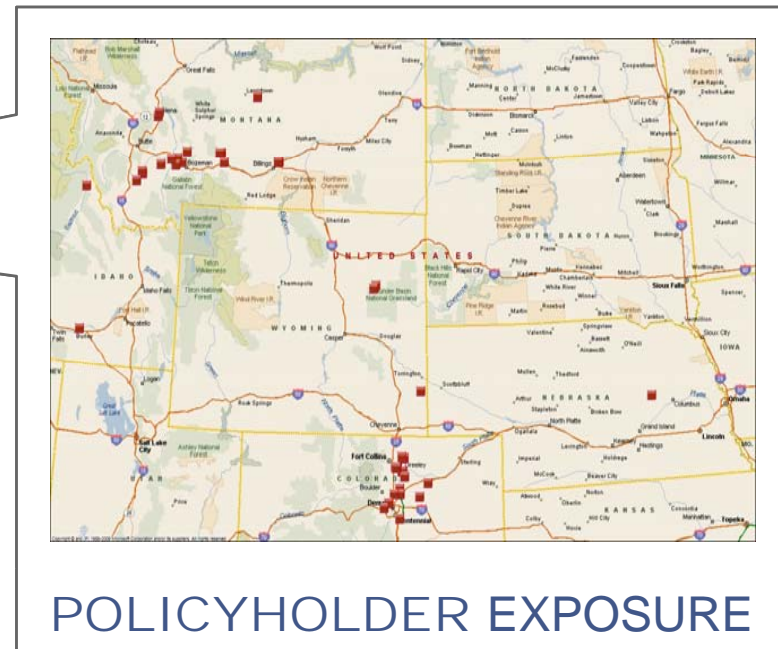
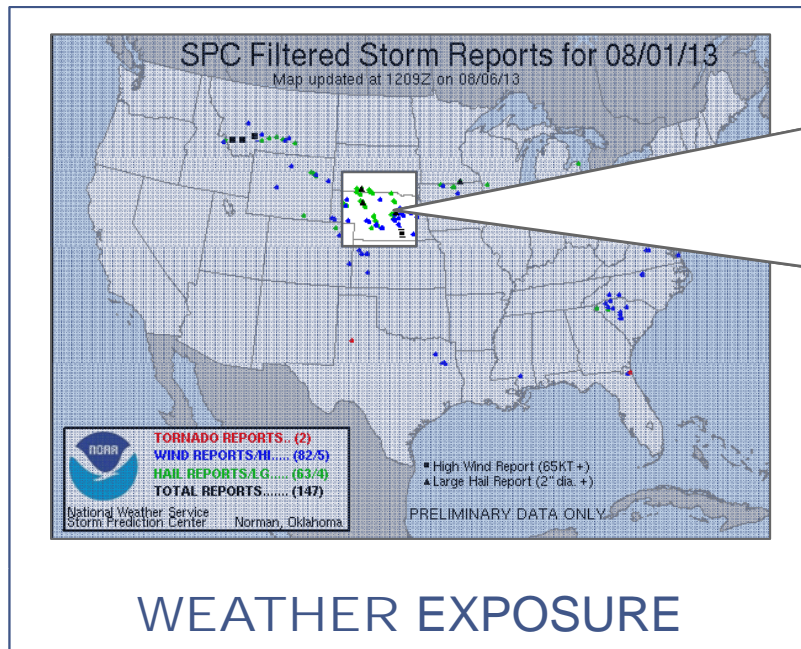
Difficult to Predict
Losses



Exposure-Based Alternatives

EXPOSURE METHODS

- Can project early estimates for major catastrophes
- Critical when reserving for smaller severe storms after the event has occurred



Exposure Data

Small Event Footprint /
Small Location Count



Can establish boundaries on
Potential Loss

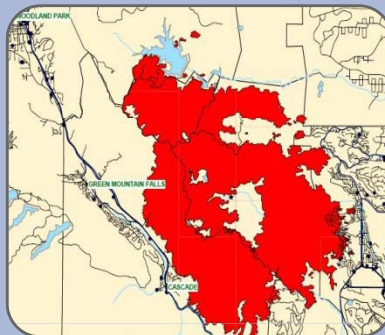
Without a sophisticated, fully developed simulation, it is difficult to make an estimate when exposure is in billions of dollars.

USEFUL

Texas
Fertilizer
Explosion

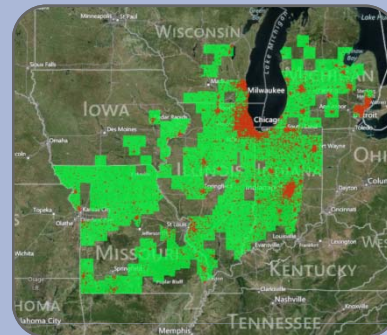


Wildfire
Footprint,
Minimal
Exposure



NOT USEFUL

Widespread
Midwest
Floods



Widespread
Storm / Many
Wind or Hail
Reports



Catastrophe Estimation – Claims Input

CLAIMS INPUT

Early after a cat event, claims department has detailed knowledge of the claim severity and type of claims being reported....

STORM SEVERITY

- Size of hail, location of storm (urban/rural), large policyholders affected
- Minimal damage, or widespread destruction?



LARGE LOSSES

- Claims department will provide information on large loss expectations
- Losses not always immediately reported or recognizable within Actuarial datasets



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Complexities of Commercial Property Insurance

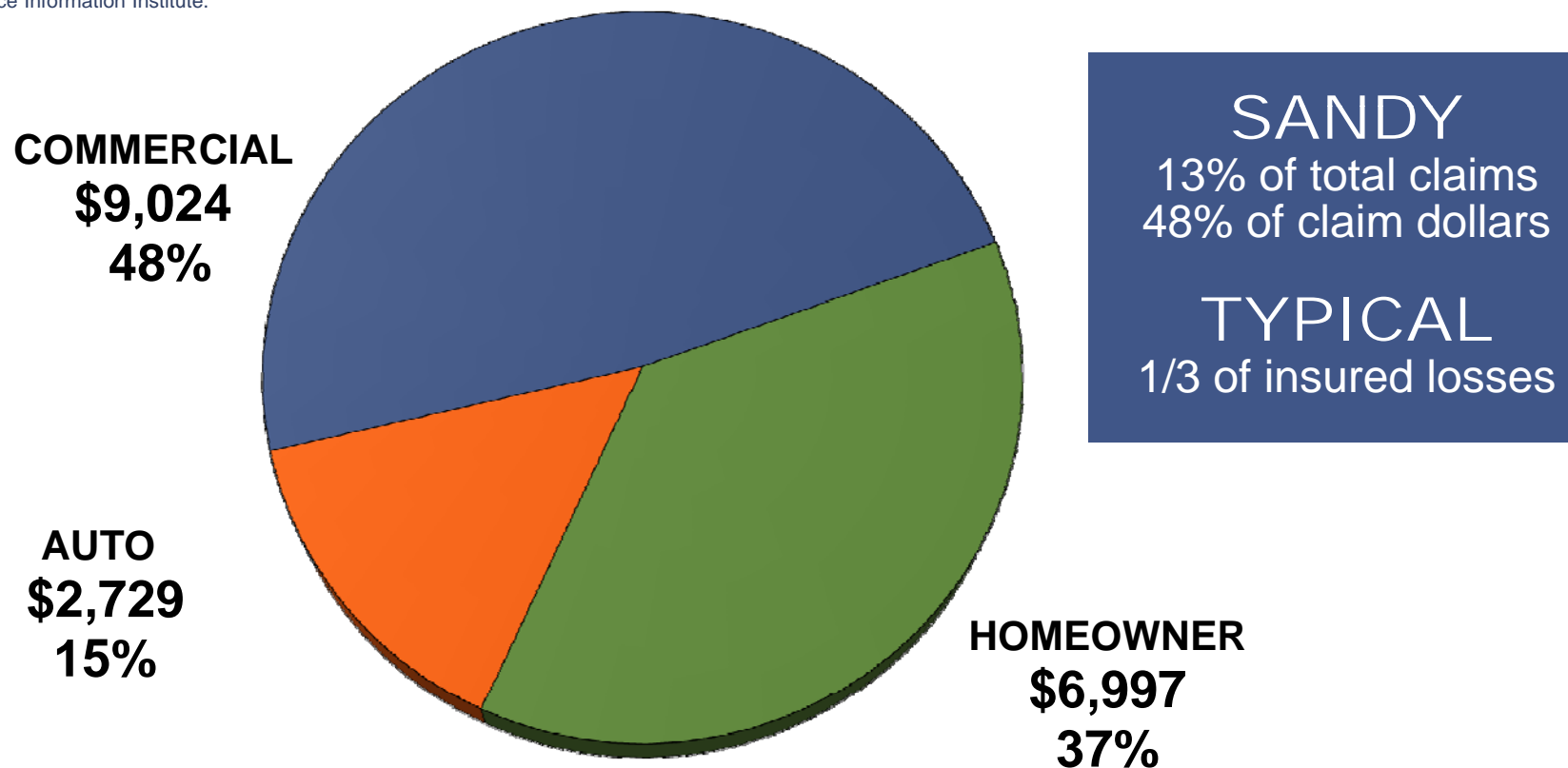
Commercial Insurance Catastrophe Estimation

Super Storm Sandy

Sandy – Paid Losses by Claim Type (\$M)

TOTAL CLAIM VALUE
\$18.75B*

*PCS insured loss estimates as of 1/18/13. Catastrophe modeler estimates range up to \$25 billion. All figures exclude losses paid by the NFIP.
Source: PCS; Insurance Information Institute.



Sandy: Average Values by Claim Type

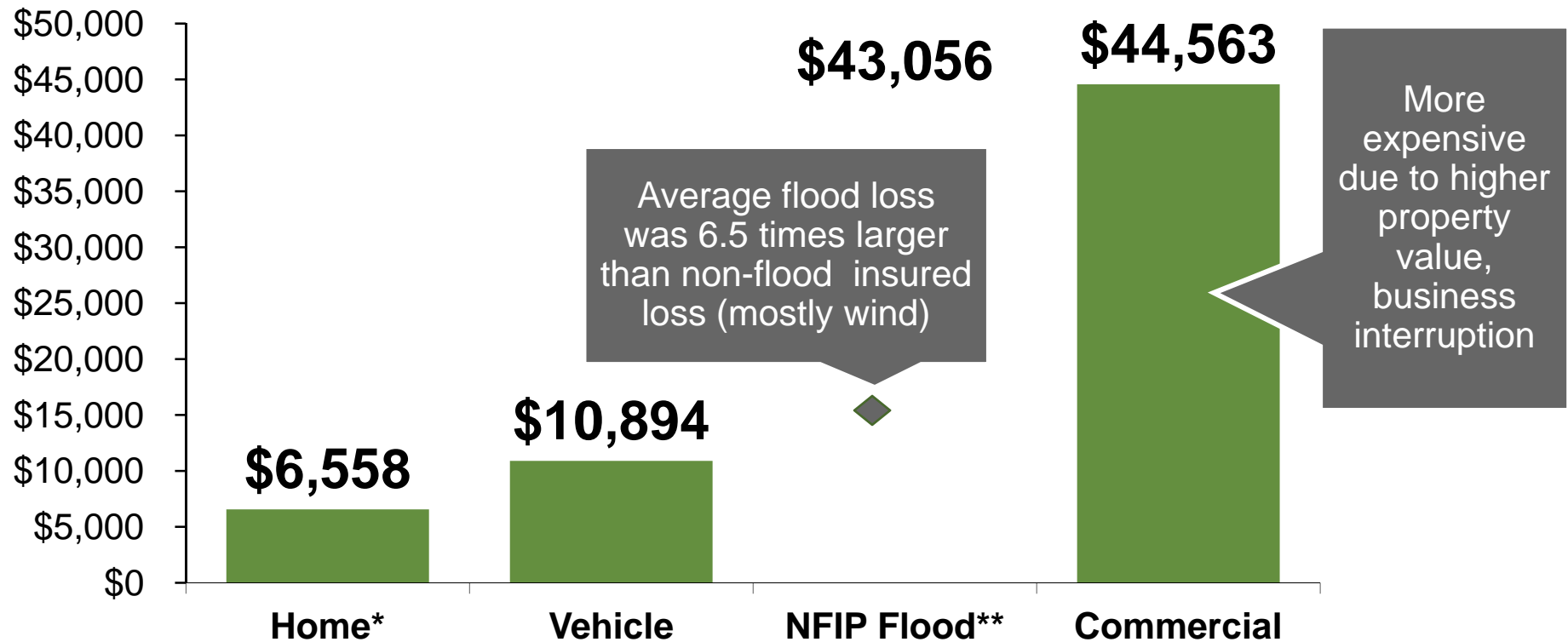
COMMERCIAL
CLAIMS



7x

More Expensive than
Homeowners Claims

Vehicle Claims Were Unusually Expensive Due to Flooding



*Includes rental and condo policies (excludes NFIP flood). **As of Feb. 20, 2013.

Sources: Catastrophe loss data is for Catastrophe Serial No. 90 (Oct. 28 – 31, 2012) from PCS as of Jan. 18, 2013; Insurance Information Institute .

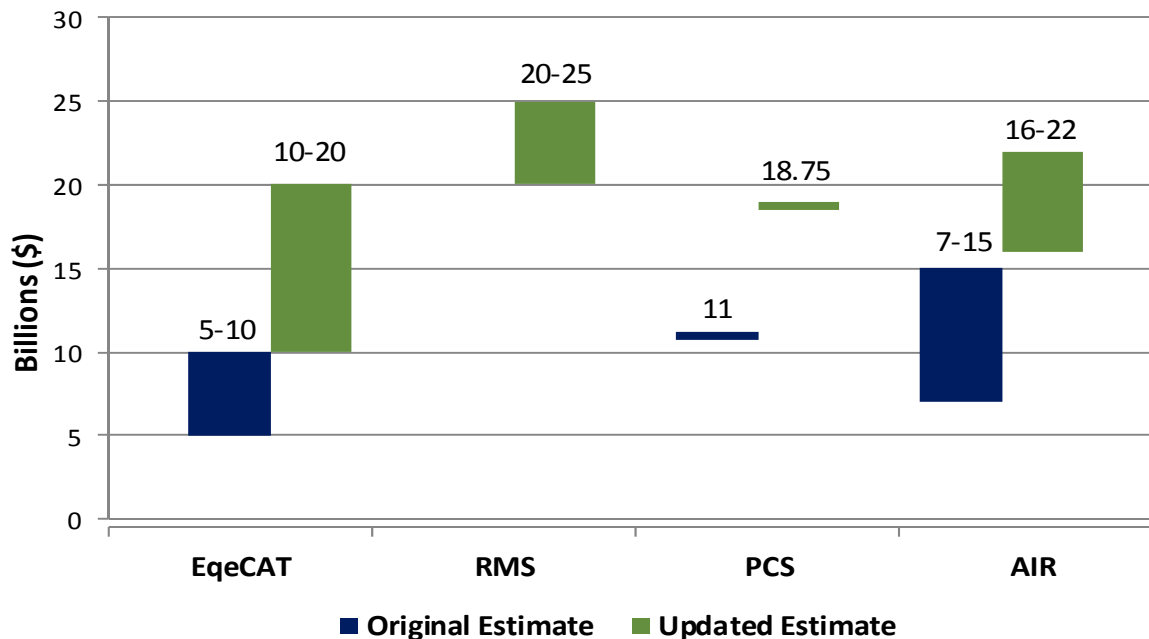
Sandy – Reserving Challenges

INITIAL EXPOSURE-BASED
ESTIMATES



UNDERSTATED

- Electrical outages and utility losses created significantly greater volume of Business Interruption claims than expected
- Storm Surge was worse than anticipated
- Unanticipated outages to infrastructure (i.e. subways)



Sandy gives actuaries a new benchmark to use in estimating how to incorporate these storm-impacts into initial loss estimates

Sandy – Actuarial Loss Estimates

TRACKING
Emergence and
ultimates over time...



INTERNAL BENCHMARKS
for reserving future storms of
similar magnitudes

