Public Catastrophe Models
Catastrophe Insurance Working Group
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Value Proposition

✓ Public models shift the balance of power back to regulators from private modelers.
Problems with Private Catastrophe Models

There are several problems with private insurance industry hurricane and earthquake models:

- There is no transparency - the documentation and source software code is proprietary ("black box").
- Loss estimates between private models may differ by 300% or more for the same county.
- They may be manipulated to produce a desired result by changing innumerable input assumptions for such variables as mitigation features or storm set (long term versus near term).
Problems with Private Catastrophe Models

Additional problems with private insurance industry hurricane and earthquake models:

- Private modelers interests are aligned with their insurer and reinsurer clients - not with the interests of consumers and regulators.

- Private modelers keep developing new theories to increase estimated loss costs (near term models, increased inland estimated loss costs based on Hurricane Ike experience, etc.).

- Private hurricane models do not reduce estimated wind losses for storm surge.
Proposal

It is proposed that the NAIC develop public catastrophe models, which would have the following advantages:

- All documentation and source software code would be public information.

- The models would produce a range of reasonable estimated catastrophe losses rather than single point estimates.

- The models would not be aligned with the interests of the insurance industry.

- The models could serve as platforms for states to develop their own custom models.
NAIC’s Mission

✓ Protect the public interest;

✓ Promote competitive markets;

✓ Facilitate the fair and equitable treatment of insurance consumers;

✓ Promote the reliability, solvency and financial solidity of insurance institutions; and

✓ Support and improve state regulation of insurance.
Cost and Time Estimates

✓ Preliminary cost and time estimates from one provider were on the order of $700,000 and one year for initial development and $100,000 per year for maintenance.

✓ Project could be funded out of the NAIC’s current unallocated net assets and would not require any new assessments or increases in fees.
Benefits of Public Models

✓ Policyholders will be treated fairly and equitably.

✓ Puts regulators back in control.

✓ State actuaries need not review or challenge private insurance industry models.

✓ Can be used to establish rates for insurers of last resort.

✓ Can also be used to test the reasonableness of private model estimates.