

What's New in Homeowners Insurance Ratemaking?

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Survey background



Survey responses were collected online from 99 insurance professionals representing companies that sell Homeowners coverage in the United States (91%) and Canada (9%).

77% of the survey respondents come from companies with up to \$500M of Homeowners insurance Gross Written Premium (GWP), while 23% are from companies writing over \$500M in premiums (2013 figures).

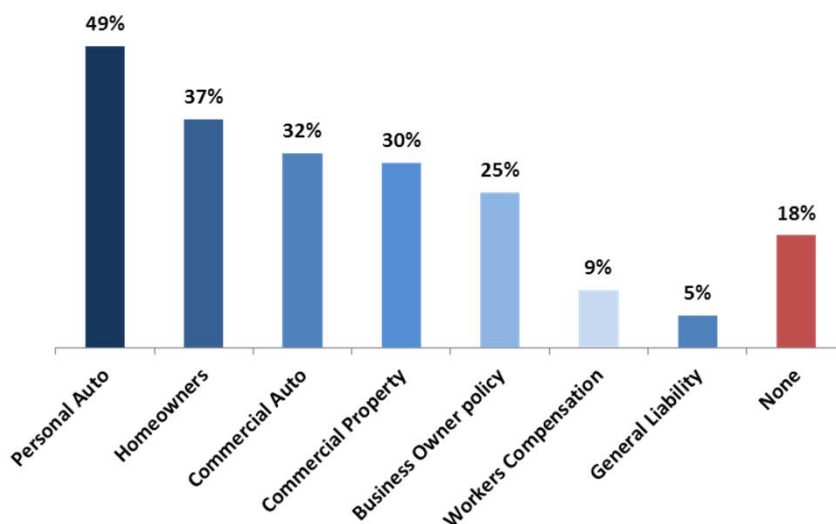
- Predictive modeling
- By peril rating
- Catastrophe modeling
- Risk selection
- Pricing / segmentation
- Pricing challenges
- Emerging trends

Use of predictive analytics by line of business



82% of the survey respondents use predictive analytics in one or more lines of business.

The most common use of predictive analytics is found in Personal Auto (49%), followed by Homeowners (37%), Commercial Auto (32%) and Commercial Property (30%).



Source: 2013 Insurance Predictive Modeling Survey

Predictive Modeling for Homeowners Loss Cost Development

Over half (57%) of the survey respondents use predictive modeling for Homeowners loss cost development.

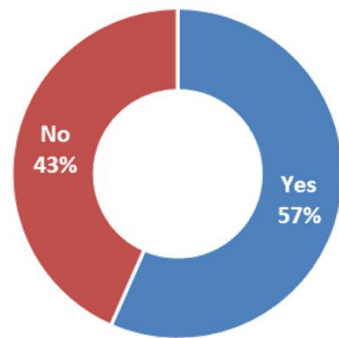


Figure 1: Use predictive modeling for Homeowners loss cost development

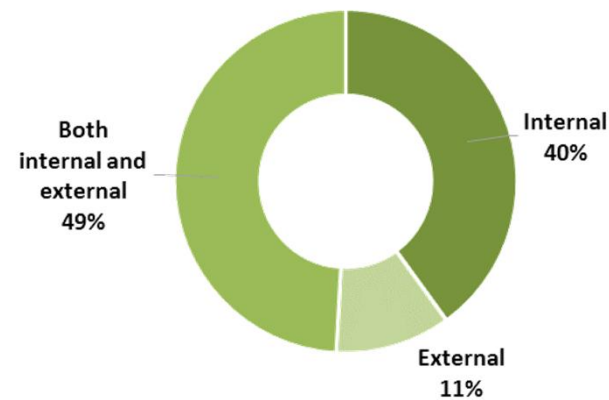


Figure 2: Use internal or external resources for predictive modeling projects

Of the survey respondents that incorporate predictive modeling in projects, 49% use both internal and external resources, 40% use only internal resources, and 11% use only external resources.

Live Poll #1 – By Peril Rating

Do you currently use by peril rating?

- Yes
- No

If yes, on average how many unique perils groupings do you have?

- 4 or less
- 5-6
- 7-8
- 9 -10
- More than 10



Rating Structure

Rating structure for Homeowners insurance varies by the company size.

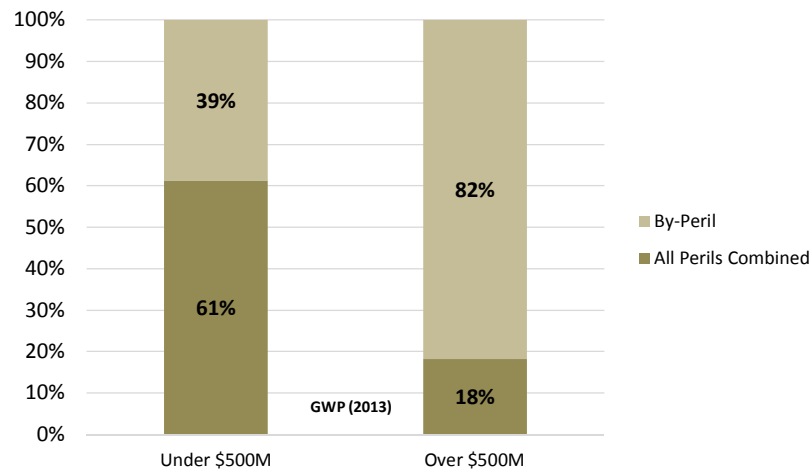


Figure 3: Rating structure by company size

The majority (82%) of the survey respondents representing companies with over \$500M GWP use a by-peril rating structure, while most (61%) of the survey respondents from smaller companies combine all perils.

Incorporating By-Peril Rating

Over a quarter (26%) of the survey respondents that use all perils combined intend to incorporate by- peril rating into their rating structure within the next year, and another 40% plan on doing it in 2-3 years

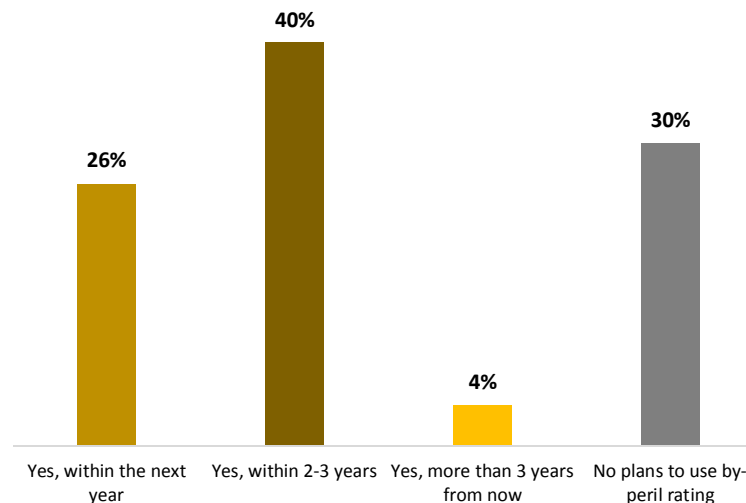
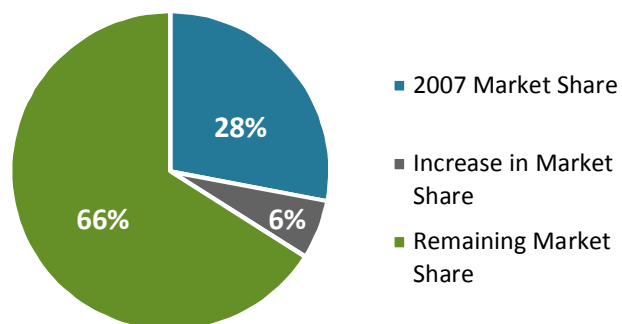


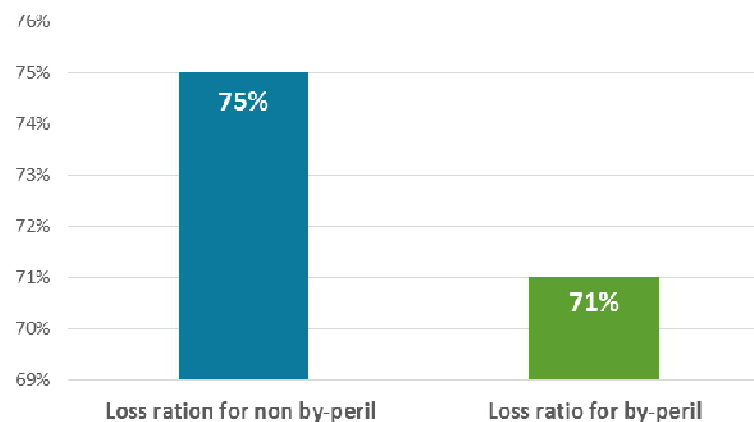
Figure 4: Plans to incorporate by-peril rating into the rating structure

Winning with By-Peril Rating

25 insurers using by-peril plans have increased market share from 28% to 34% in 5 years



Companies rating by-peril have loss ratios 6.6 points lower than their competition 70.8% vs. 75.1%



Source: ISO research using Perr & Knight filings and 2007-2012 AM Best Financials

Using Catastrophe Model Output in Ratemaking



The most common way for using cat models in ratemaking is at the overall rate level (62-71% for the various catastrophes).

Allocation to territory is used by 38-71% of the respondents, while excess/smoothing is used by 3-21%.

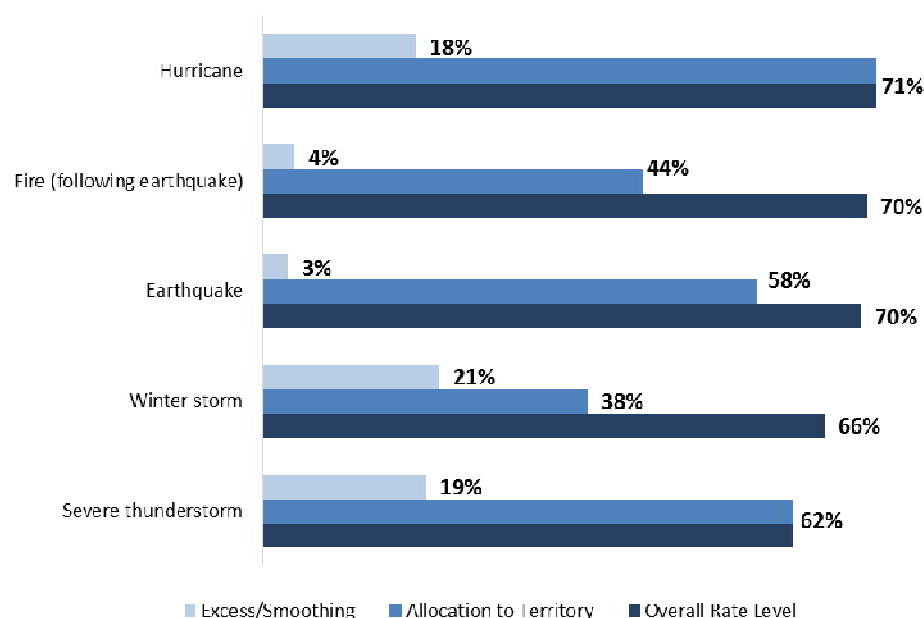


Figure 9: Ways of using catastrophe model output in ratemaking (Respondents could select more than one option)

Future Use of Catastrophe Model Output in Ratemaking

Most survey respondents that do not currently incorporate catastrophe model output in their ratemaking have no plans for using it in the future.

The most common models that insurers plan to incorporate in the future are for severe thunderstorms (45%), followed by winter storms (32%) and fire (26%).

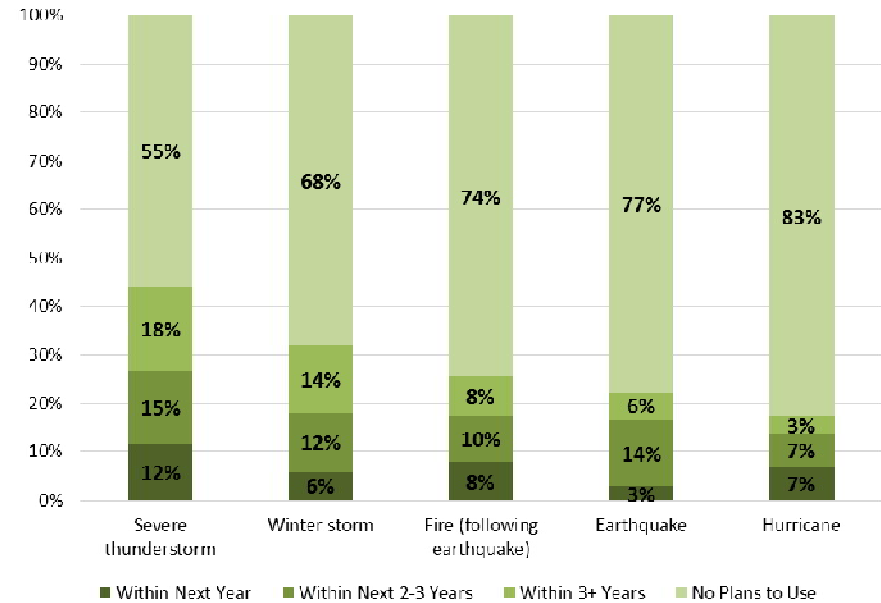


Figure 10: Future use of catastrophe model output in ratemaking

Hurricane Models – Multiple Models

Over half (55%) of the survey respondents from larger companies use more than one hurricane model in ratemaking compared to 28% of the respondents from smaller companies.

Of the respondents from companies who use more than one hurricane model for ratemaking, 55% weigh the models equally, while 29% use weighted average to blend the models.

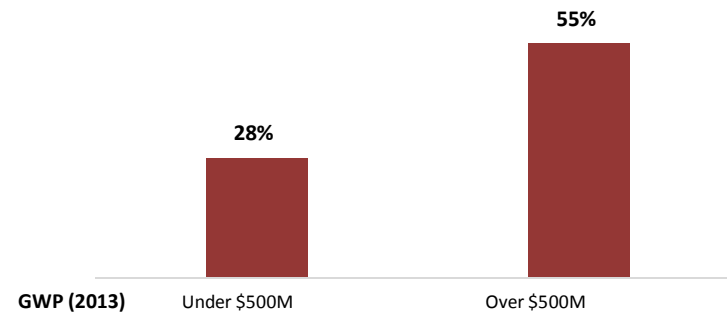


Figure 11: Using more than one hurricane model for ratemaking

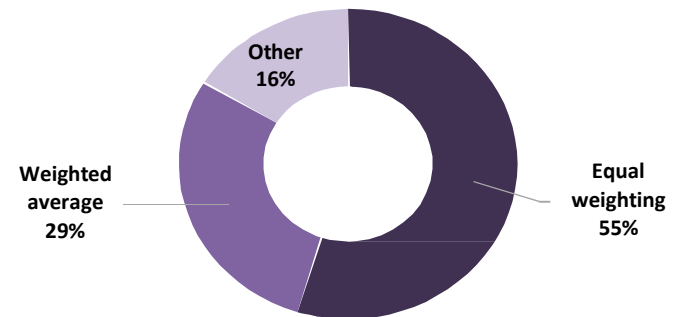


Figure 12: Blending the results of the hurricane models

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New Homes: Inspection

While 28% of the respondents surveyed inspect less than a quarter of new homes, 27% inspect all new homes.

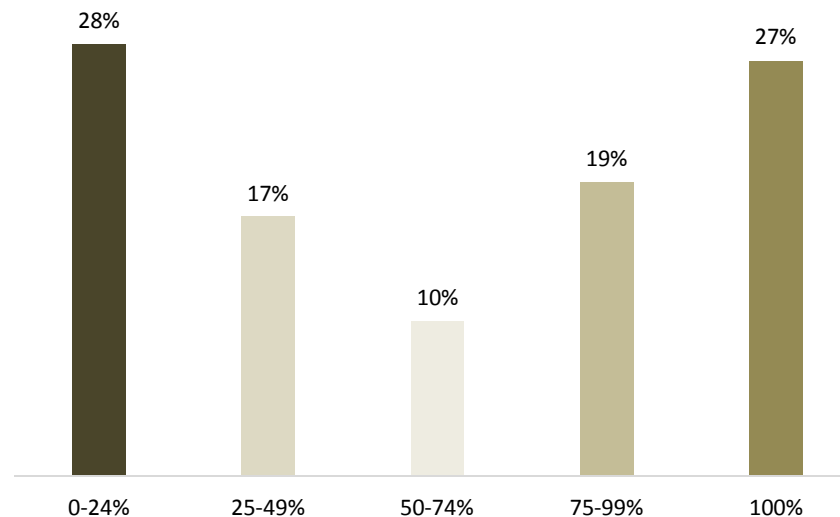
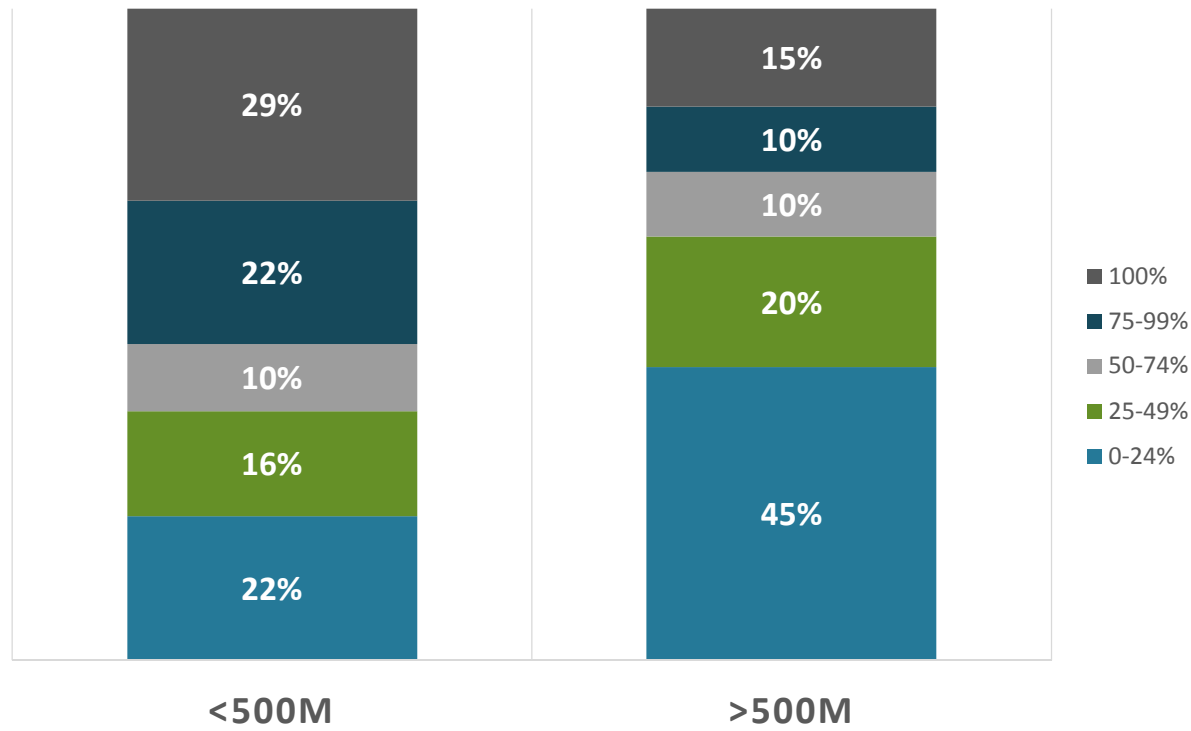


Figure 14: Percent of new homes inspection*

Inspection Persistency by Company Size





Property Inspection Model and Real Time Decisions

Jenny Zhang
Allstate Insurance Company
November, 2014

Model based inspections help answer:

- How likely is a new business policy not issued?
- How likely will there be an AOI adjustment?
- How large is the expected AOI adjustment?

When predictive models and realized costs are combined, companies can optimize their inspection strategy:

- Understand the expense of an inspection
- Understand the cost of missing an inspection

Focus on Machine Learning

- Applications in underwriting
- Limited applications for pricing

“No predictive model is right,
but some are useful”

New Homes: Inspection

Of those that inspect new homes, close to two-thirds (64%) use only external physical inspections and 57% use both internal and external inspections.

52% rely on agent photos and 27% use aerial imagery for new home inspections.

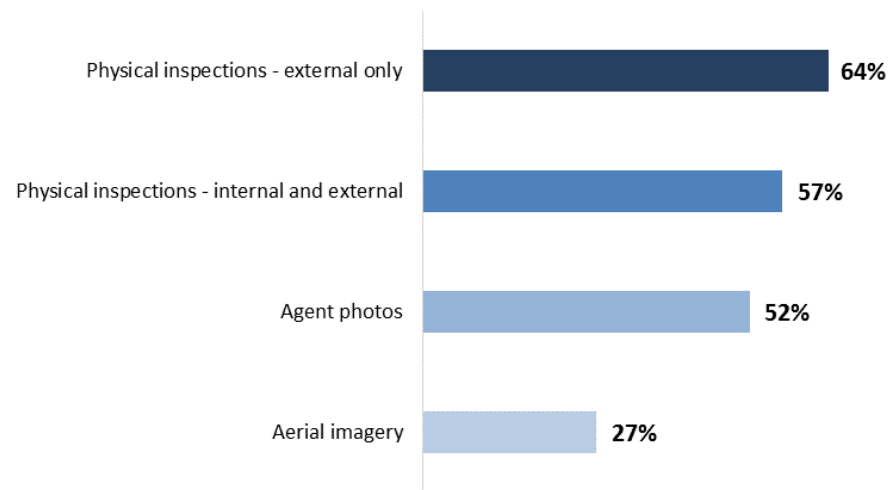


Figure 15: Inspecting new homes
(Respondents could select more than one option)

Live Poll #2

Do you use aerial imagery for risk selection?

- Yes, currently
- No, but planning to in next 12 months
- No, no plans within the next 12 months



Other Price Setting Considerations

The vast majority (83%) of insurers that participated in the survey consider competitors' prices in their rate setting process.

Other considerations include estimates of retention and business conversion (55%), value of other policies in the customer's portfolio (37%), and policy lifetime value (27%).

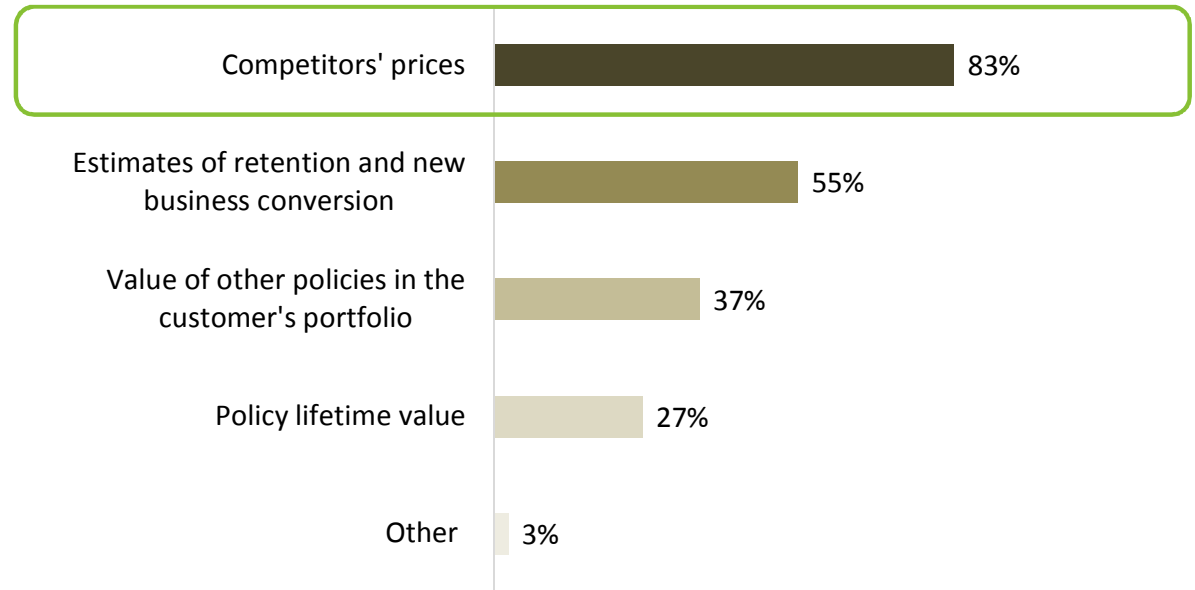


Figure 18: Include Figure 31: Considerations included in price calculation (Respondents could select more than one option)advance quote discount*

Live Poll #3

How, if at all, does competitive information inform your rate setting processes? (check all that apply)

- Inform product design (i.e. rollout new discount because others have)
- Inform factor selection for low credibility segments (besides territory)
- Territory factor adjustments
- Determine overall rate level
- Input for customer demand models
- Other considerations (not listed above)
- It does not



Other Price Setting Considerations

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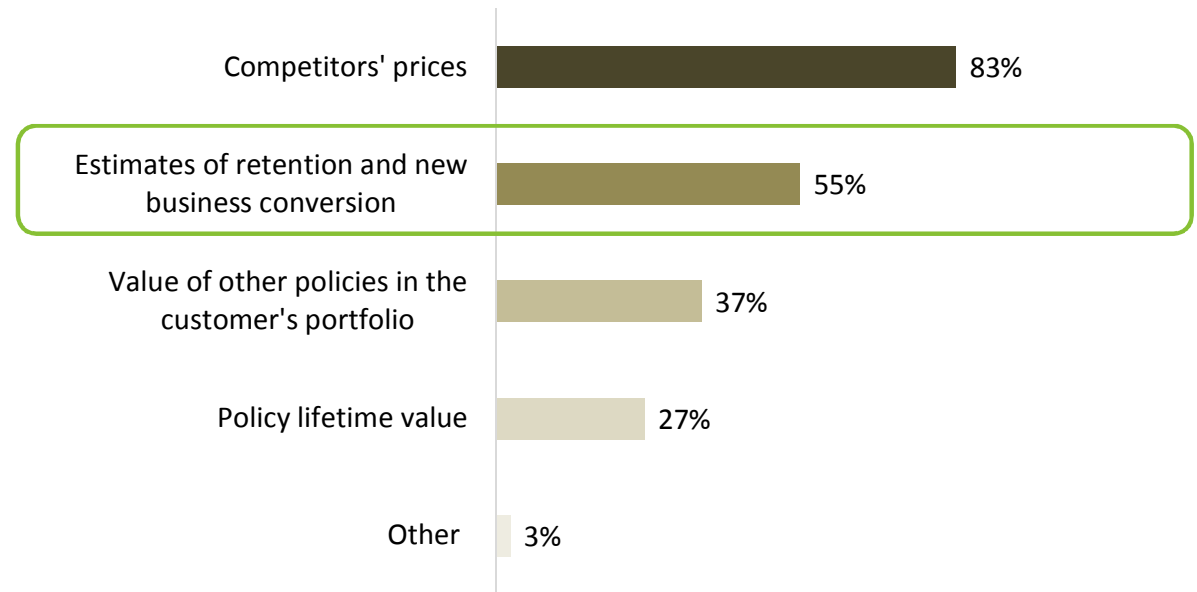
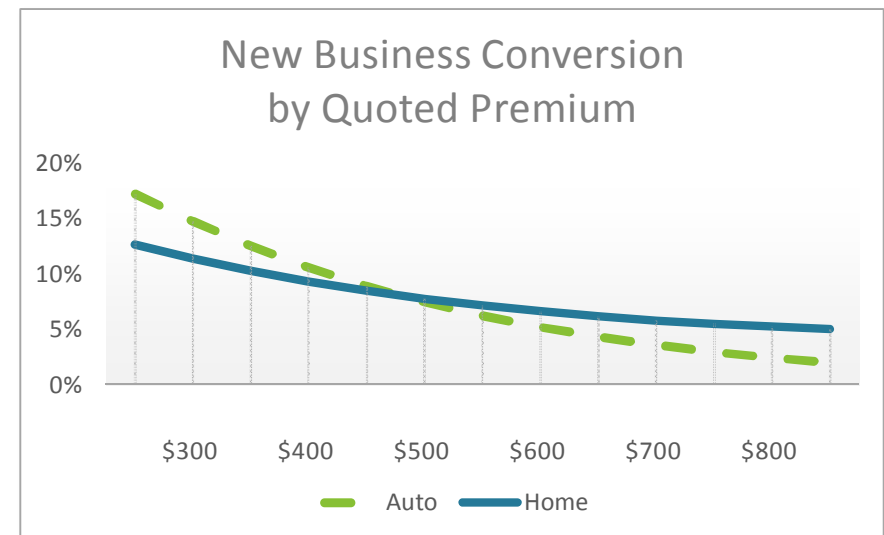


Figure 18: Include Figure 31: Considerations included in price calculation (Respondents could select more than one option)advance quote discount*

Other Price Setting Considerations

- Companies are trying to better understand customer shopping behavior.
- Auto shopping customers are more price sensitive than home customers.
- Companies want to understand the cross-product price effect:
 - How do rate increases on the auto product impact homeowners policy retention?
 - How will the homeowners conversion rate change if the multi-policy discount changes for the auto product?



Advance Quote Discount

Only 18% of the respondents surveyed include an advance quote discount for purchasing insurance within a short period of time after the initial quote is given.

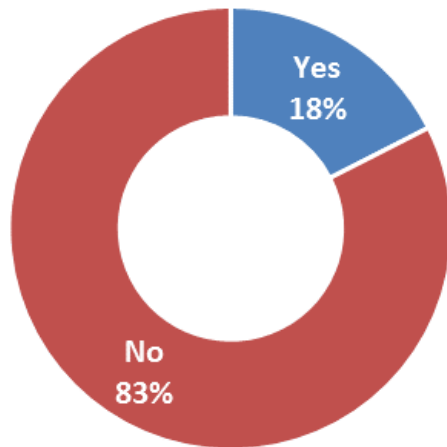
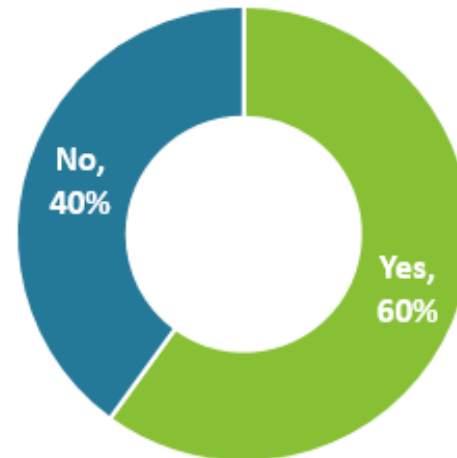


Figure 18: Include an advance quote discount*



Auto Advanced Quote Discount
*Estimate

Ratemaking Process Challenges

When asked to rate the top challenges in their ratemaking processes, respondents pointed to the following as the top challenges (in order of rating):

1. Time lag for implementing new rates or product versions in IT systems
2. Effectively utilizing new data sources in the rate setting and underwriting processes
3. Managing rate dislocation

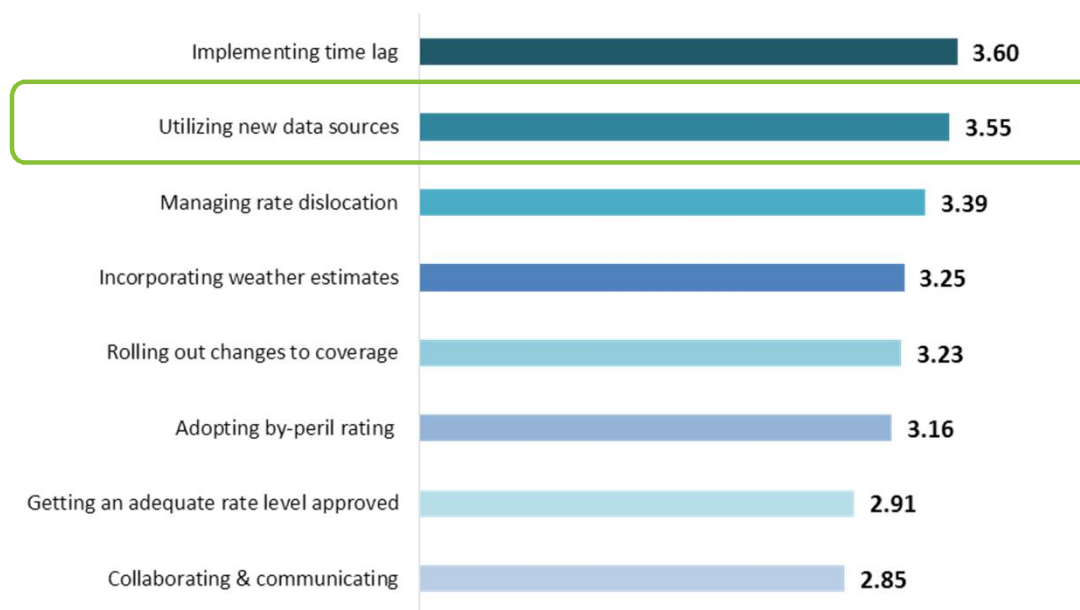


Figure 32: Ratemaking process challenges (1-5 scale)

Live Poll #4

Utilizing new data sources: barriers to leveraging new data

(mark all that apply)

- Limited analytics resources within the company
- Cost associated with evaluating new data
- Cost associated with licensing new data
- Difficulties merging 3rd party data
- Not aware when new data resources become available
- Difficult to assess value of new data

Utilizing new data sources: how long does the typical evaluation take?

- 1-2 months
- 3-4 months
- 5-6 months
- 7+ months
- Rarely evaluate new data sources



Incorporating Information Typically Used in Auto Insurance



Information typically used in pricing Auto insurance may also be useful in rating Homeowners insurance.

The two most useful items are age of all individuals in the household and number of individuals in the household, each mentioned by 46% of the respondents.

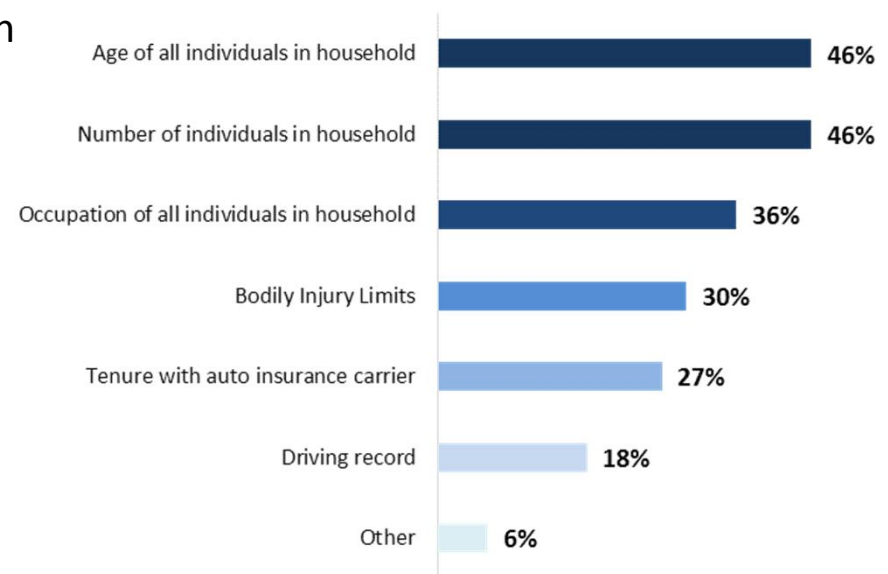
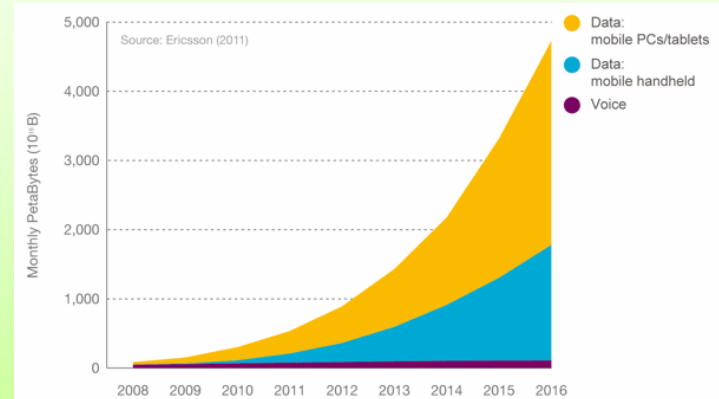


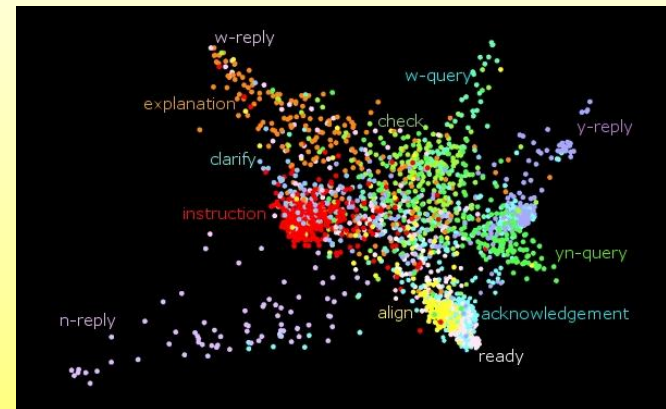
Figure 17: Incorporating information typically used to price Auto insurance (Respondents could select more than one option)

Emerging Data Sources

- Data generated via “the internet of things”
- Unstructured social media data
- High volume web history data



- Image data



Live Poll #5 – Emerging Issues

Identify your TOP TWO concerns

- Roof Losses
- Increase in non-weather water losses
- Homeowners policies encouraging deferred maintenance
- Expansion of coverage in homeowners form
- Regulatory pushback on price optimization
- Millennials less likely to purchase homes



Emerging Issues in Homeowners Insurance: Concerns



The top concern for Homeowners insurers is roof losses.

Other concerns include (in order of rating):

- 1. Increase in non-weather water losses
- 2. Homeowners policy encouraging deferred maintenance
- 3. Expansion of coverage in the Homeowners form

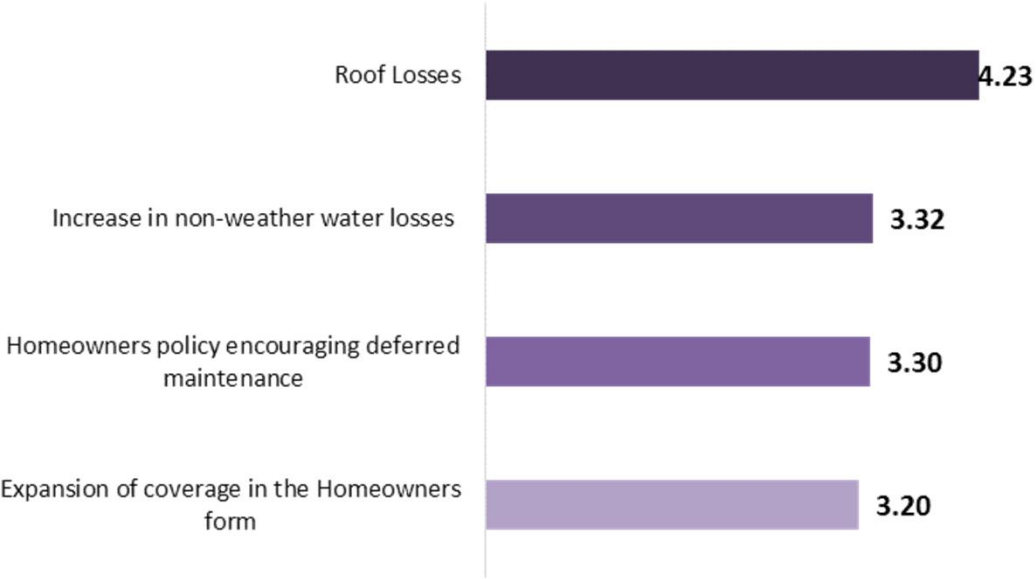


Figure 34: Concerns about emerging issues in Homeowners insurance (1-5 scale)

Live Poll #6 – Optional Flood Insurance

Is there an appetite in voluntary market for providing optional flood insurance?

- Yes
- No
- Maybe



Optional Flood Insurance Programs

Survey respondents are almost equally divided on whether there is an appetite in the voluntary insurance market for an optional flood insurance program:

36% believe there is, 33% think there isn't and 32% aren't sure.

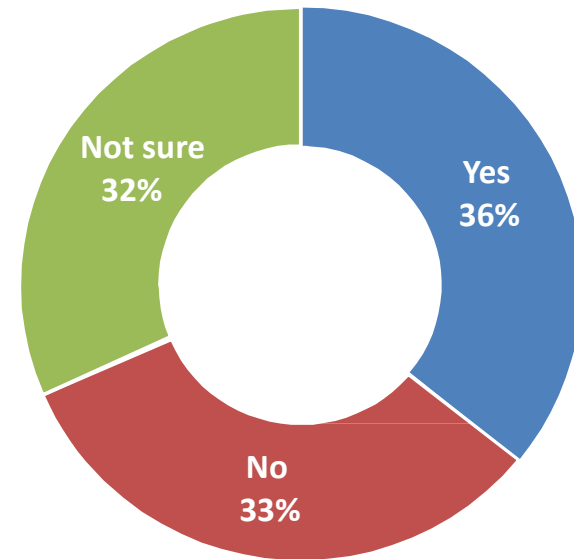


Figure 37: Appetite for an optional flood insurance program*

Appetite for an Optional Flood Insurance Program: Large vs. Small Companies

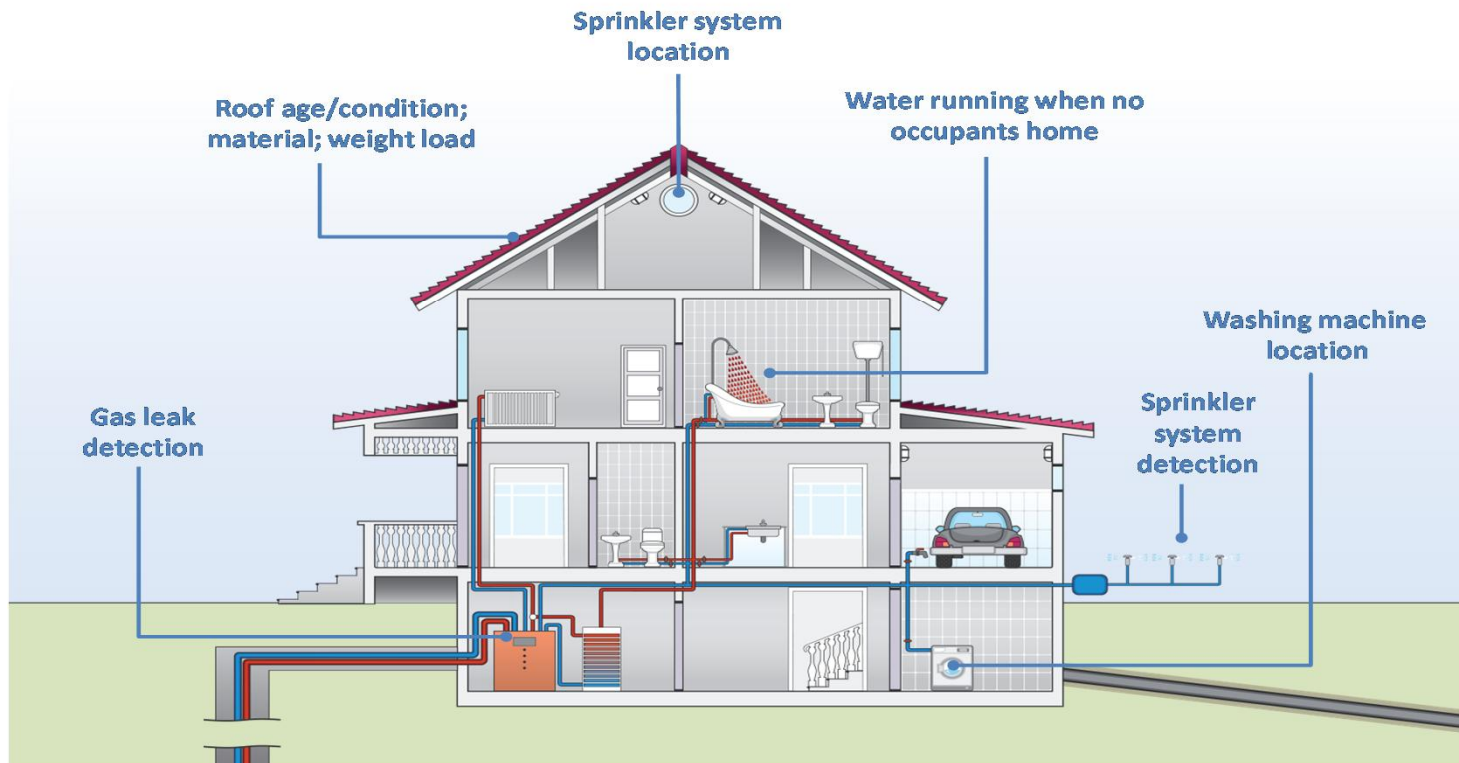
Respondents from larger companies believe there is an appetite for an optional flood insurance program more than the respondents from smaller companies.

While 56% of respondents from companies with over \$500M GWP think there is a desire in the Homeowners voluntary insurance market for an optional flood insurance program, only 30% of respondents from the companies with under \$500M think the same.



Figure 38: Appetite for an optional flood insurance program by company size*

Homeowners Usage-Based Insurance



Live Poll #7 – HO Usage-Based Insurance

Do you think HO usage based insurance will be widely used in

- Up to 3 years?
- More than 3 years?
- Will never be widely used?



Emerging Issues in Homeowners Insurance: Usage-Based Rating

According to survey respondents, usage-based rating will not be widely used for Homeowners rating in the near future.

Only 10% think it will be widely used within the next three years. 52% think it will take more than three years to be widely used, and 38% think it will never be widely used.

Accordingly, only 5% are currently working on a usage-based rating plan for Homeowners insurance.

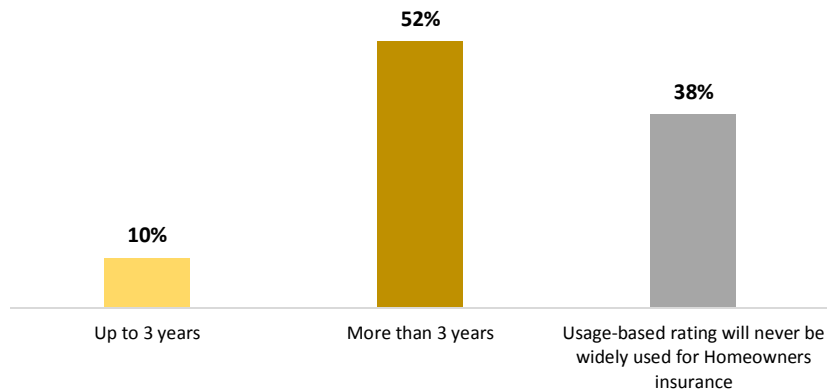


Figure 35: Use of usage-based rating in Homeowners insurance

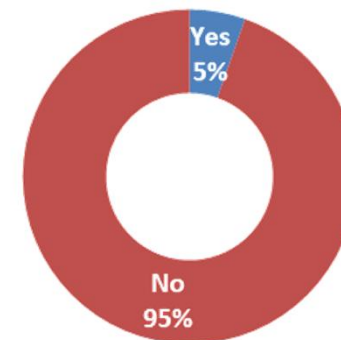


Figure 36: Working on a usage-based rating plan for Homeowners insurance

Questions?

