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Technical Aspects of Rate Increase Work

Tony Proulx, Genworth
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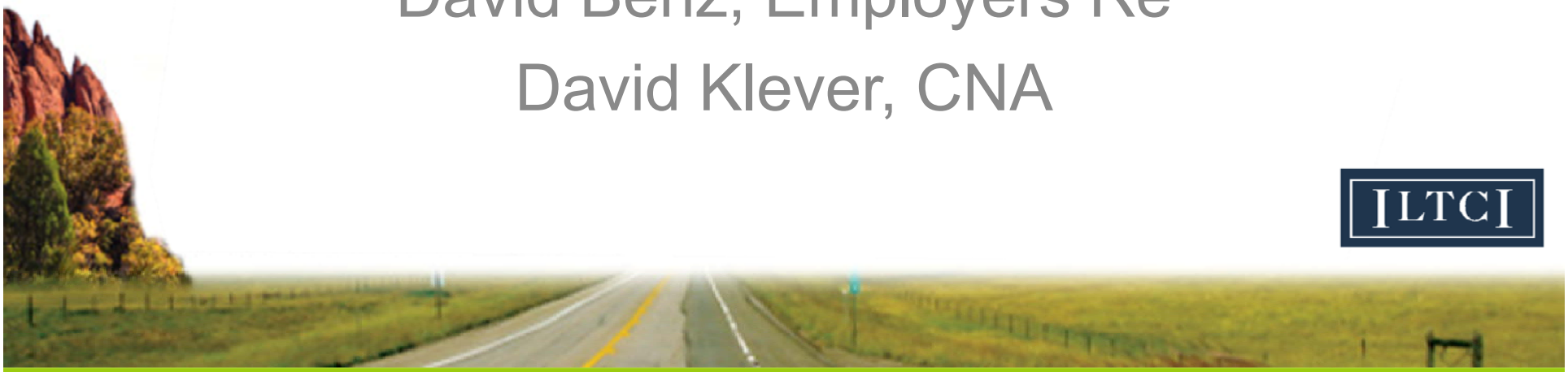

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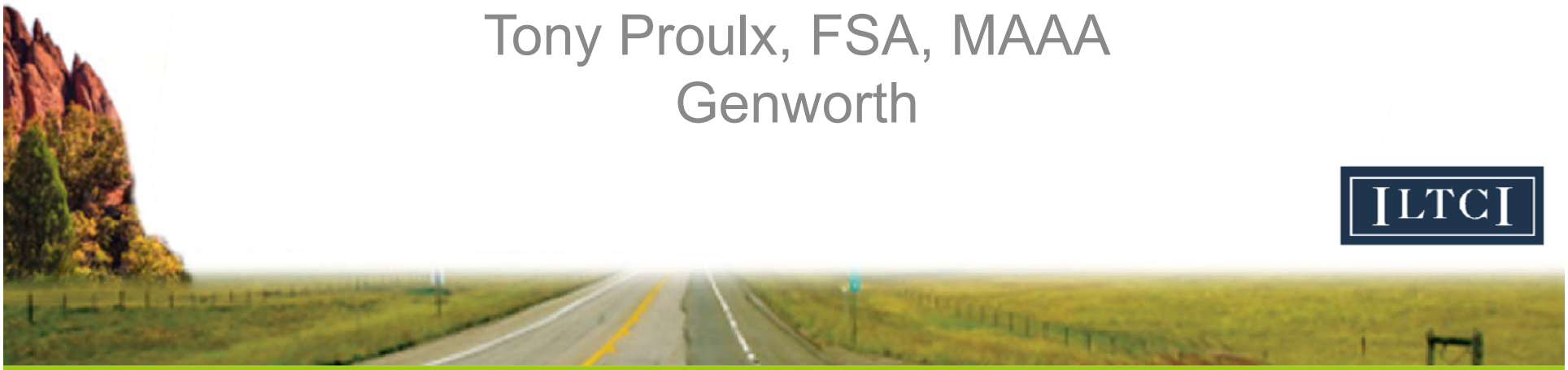
Long Term Care Increases Perspective of the Actuarial Reviewer

Tony Proulx, FSA, MAAA
Genworth



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Consulting Actuary's Role

- Primary role is to answer the question "Is the rate increase justified?"

- Secondary role is to offer opinion on new regulations/requirements considered by the Insurance Department

Reasons for the rate increase

- Decrements were lower than expected
  - Lapses were much lower
  - Deaths were somewhat lower
- Morbidity was not as expected
  - Sometimes higher; sometimes lower
  - Incidence vs Continuance
- Investment earnings

Present Value Calculations

- Premiums discounted to the year earned
- Paid claims and claim reserves discounted to the year of claim incurral
- And what is the appropriate interest rate?

Interest Rate Sensitivity

Loss Ratio Analysis								
		Company 1				Company 2		
Interest		Past	Future	Lifetime		Past	Future	Lifetime
2.50%		22.7%	205.0%	108.5%		62.1%	169.2%	99.6%
3.00%		22.5%	197.6%	101.7%		61.4%	167.2%	96.8%
3.50%		22.2%	190.7%	95.5%		60.8%	165.2%	94.1%
4.00%		21.9%	184.2%	89.7%		60.1%	163.4%	91.5%
4.50%		21.7%	178.1%	84.4%		59.5%	161.7%	89.0%
5.00%		21.4%	172.5%	79.4%		58.9%	160.1%	86.7%
5.50%		21.1%	167.1%	74.9%		58.3%	158.6%	84.5%
6.00%		20.9%	162.2%	70.7%		57.7%	157.1%	82.4%
6.50%		20.6%	157.5%	66.9%		57.1%	155.8%	80.3%
7.00%		20.4%	153.1%	63.3%		56.5%	154.6%	78.4%

Areas of Concentration

- Reasonableness of the revised assumptions
- Reasonableness of the projections
- Equity among policyholders

Revised Assumptions – Actual to Expected

- Document the source for the new assumptions
  - Industry, Company or both

- Describe how credibility was incorporated
  - Should be a melding of a “standard” and Company experience
  - What is the measure for full credibility

Revised Assumptions - continued

- Show results by multiple variables
  - Gender
  - Attained Age
  - Duration
- For lapses, what is the definition of the ultimate period
- How do you distinguish between lapses and deaths

Reasonableness checks

- Slope of the loss ratio
  - Within the projection period
  - Transitioning from the historical period to the projection period

- Model the premium persistency
  - The lifetime loss ratio is sensitive to how quickly the block runs off

Equity Issues

- Among the states
- Among the policyholders
  - Usually a flat % increase
  - Or may vary by issue/attained age
- Landing spot

Equity – Ideal Approach

- Re-calculate issue age premiums with perfect hindsight
- Determine the overall average increase
- Prorate the increase for each cell

Equity Issues

- Insureds need options other than accept or lapse
- Benefit buy-downs are a good solution
- Automatic Contingent Benefit Upon Lapse for everyone

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- Actuarial Assumptions
  - Present values use maximum valuation interest rate
  - Actual experience used “in as close a manner to that used in the original development”
  - Reasonable estimates for projections
    - Best estimate for pre-rate stabilizations
    - Moderately adverse margins for post-rate stabilization

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- Single increase
- Series of increases
  - Actuarially equivalent
  - Entire series approved at one time
- Contingent Benefit Upon Lapse
- Policyholder Notification

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- Loss Ratio Standards
  - Post rate stability – no change
  - Pre rate stabilization
    - Max (60%, original pricing LR) applied to current schedule
    - 80% (75% for group) applied to incremental premium

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Equity and Credibility

David Benz, FSA, MAAA

Employers Reassurance Corp.

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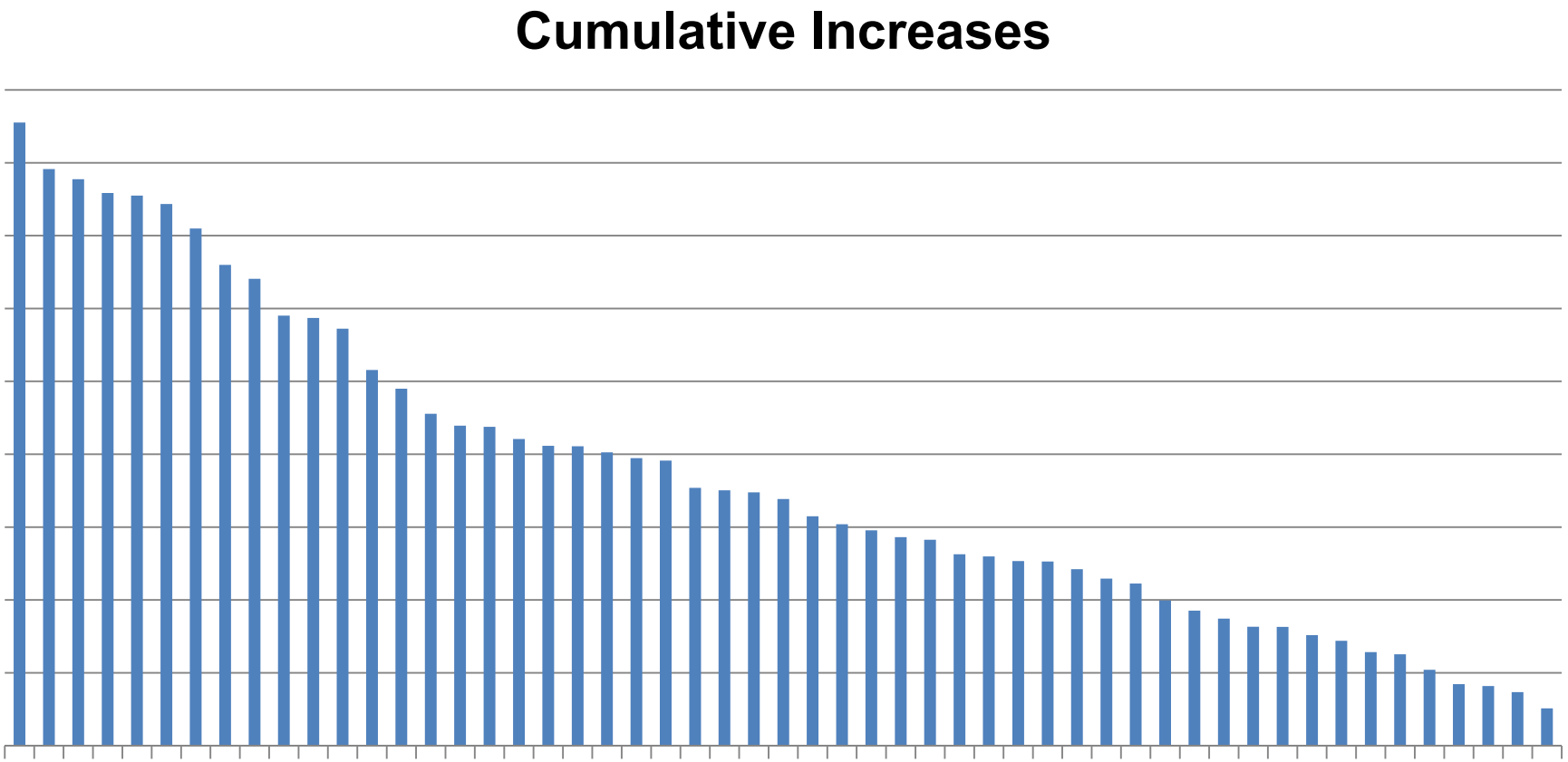
Over a series of increase efforts, the rates can vary by state quite a bit



Please create a spreadsheet which lists each state in which [company] has sold business, the past rate increases approved in that state, and the current number of policyholders in that state.

[State] will not participate in subsidizing other state in the union. Please provide a comparative exhibit demonstrating that has not occurred when 70% of state determinations for the current round of rate requests have been received (in the exhibit, please include all historical rate increase requests and approvals by state as well as an overall national average).

The department views the rate structure the calls for [State] policyholders to pay higher premiums than residents of other states, especially where the initial rates were uniform across all states and where nationwide experience is used to support the rate increase request, as inequitable and discriminatory.

States that have not granted the prior increase will have a proposed 40% increase. [State] policies have received a prior increase of 20%. A premium increase of 16.6% will put [State] polices at the proposed rate level for policies in states that have not granted any rate increases.

Considerations

- Is there a subsidy?
  - Are the highest premiums producing projected profits?
  - Are you targeting an overall loss ratio averaged across states?
    - Are premiums restated to the premium level for each individual state?
  - Are you using the lower overall average to justify even higher increases in the states with the largest past increases?

Considerations

- Filing Strategies – have one!!
  - Immediate catch-up: follow larger efforts with smaller aimed at states that did not approve full request
  - Longer-term catch-up: file larger requests in states that are behind
    - May be able to show current state that you are filing to achieve rate equality or equity
  - Actuarial equivalence questions
    - Are you targeting an equal rate level or an equal present value of premiums?

Simplified Report

State	Previously Approved	Current Request	Resulting Cumulative Increase
A	0%	100%	100%
B	25%	60%	100%
C	80%	11.1%	100%

Considerations

- Response Strategies
  - Show state current filing request differentials
  - Discuss your overall strategy
  - Explain why state is not subsidizing other states
  - Demonstrate empathy with lack of equity

Credibility

- Some states, like Florida, define it
- Some states reference it, may not understand it
  - "Given the low loss ratio history indicated in this filing (indicating healthy profits on this block of business since its inception) and the lack of credibility; we cannot approve this rate increase at this time."
- Annual rate certifications will require a description of the credibility of the experience data under the new Model Reg
- There is an Actuarial Standard of Practice (ASOP #25) about it
- AAA LTC Credibility Monograph Work Group

ASOP #25

- 2.2 - Credibility Procedure – a process that involves
  - Subject experience
  - Relevant experience
  - Method to blend the two
- 3.3 - No relevant experience may be available to the actuary
- 3.4 – Professional Judgment – "The use of credibility procedures is not always a precise mathematical process. For example, in some situations, an acceptable procedure for blending the subject experience with the relevant experience may be based on the actuary assigning full, partial, or zero credibility to the subject experience without using a rigorous mathematical model."

Example – lapse rates circa 2000

Duration	Current Product Assumed	Observed[1]	Industry[2]
1	8%	8.0%	15.0%
2	6%	5.5%	10.6%
3	5%	4.1%	9.2%
4	4%	2.9%	9.2%
5	3%	2.0%	11.9%

1 – based on past products issued by pricing company (1990-1999)
2 – 1984-93 SOA Study

Florida definition of credible data

- Defines credible data for state and nationwide claims experience
- Not statistically driven, may be loosely based on 1082 “rule of thumb”
- Complement of credible data (relevant experience) is “medical trend” => 0% for LTC
  - Leads to “credibility-weighted rate increases” equal to (credibility x needed rate increase)

Credibility and Rate Increase Work

- Credibility is a measure of relative "goodness" between two or more experience sets
- Concepts can be applied to lapse rates, mortality, morbidity, even interest
- Need to determine full credibility and how to handle situations where data is not fully credible (partial credibility)

Challenges

- Credibility really grew out of the P&C world
- Simple methods often assign full credibility based on arbitrary choice of desired accuracy and probability
- No guidance for cases where data is not fully credible – linear or square root are often defaults
- More complex approaches can be difficult to apply and companies may lack needed information

Challenges continued

- Projection of the future based on past
  - Changing homogeneity between product generations
  - Distribution changes year over year– age is particularly challenging for morbidity and mortality
    - Are we looking at claims in total, attained age rates?
    - Introducing more defined slices decreases credibility vs. an aggregated look
    - Higher credibility at some ages and durations but not others

Challenges continued

- Selection of relevant experience
  - Population
  - Industry
  - Similar blocks
  - Consultant

Where Credibility Works Best for LTC

- Adjusting rates between segments of the portfolio
  - Overall portfolio experience is a natural source of the relevant experience
  - Segment experience is the subject experience
  - Actuarial judgment still needed to consider whether the past predicts the future
- State vs. National
- Distribution method
- Underwriting rigor

Credibility Summary

- This is not easy stuff
  - Past projecting the future
  - Age, duration issues
  - Application may vary for the different assumptions
- Consider and reference relevant experience availability
- Does the state understand it?
- Use of credibility can give the impression of false precision

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Recouping of Past Losses

"Risk Sharing" concepts considered in rate filing reviews

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DISCLAIMER

- The examples shown in this presentation are hypothetical, and should not be taken to be recommendations for filing strategies or pricing decisions.
- Pricing decisions should be based on the specifics of the block of business being reviewed and the objectives of the business entity involved.

An Example…

- Product issued 10 years ago and priced to a 65% loss ratio
- Projected lifetime loss ratio = 85% => rate increase needed
- Rate increase needed to attain a 65% lifetime loss ratio = 85%

Recouping Past Losses - Concepts

- One definition: Using prospective premium increases to collect premium that you would have originally collected had original pricing been consistent with experience as it has actually developed to date and is expected to develop in the future

- The 85% increase that restores the target loss ratio is “recouping past losses” per the definition above

- Regulators employ various “cost sharing” methodologies, as specified by law or department position, to limit an insurer’s ability to recoup past losses

Cost Sharing Methodologies

Recast increased premium to original issue; solve for increase needed to attain:

– Original priced loss ratio (a proxy for what you might have charged had you known what you know now)
  - 31% allowable increase in the example

– Minimum statutory loss ratio (e.g. 60%)
  - 42% allowable increase in the example

Cost Sharing Methodologies

- Florida Rule 69O-149 (policies issued prior to March 1, 2003)
  - Future loss ratio ("anticipated loss ratio") must exceed future expected loss ratio based on filed durational loss ratios (69O-149.005, F.A.C)
  - Conceptually similar to the recast method just discussed, but more complex in the details

Maine Rule 420 Section 5. B. 2.

- Lifetime loss ratio with increase must meet:
  - 60% of base premiums; plus
  - 85% of rate increase premiums
  - All rate increases are recast to original issue

- See "Maine Bureau of Insurance Rate Filing Review Requirements Checklist Long Term Care Insurance Subject to Title 24-A M.R.S.A, Chapters 68 and 68A and Rule 420: Nursing Home and Long Term Care Insurance Policies Issued Prior to October 1, 2004"

Note: *"Past premiums are adjusted to the proposed rate level in order to ensure that the proposed increase does not recoup past losses."*

Maine Rule 420 Section 5. B. 2. - Example

	Premiums Before increase	Imputed Past / Projected Future Premiums After Increase	Rate Increase Premium
Past	636.7	823.9	187.3
Future	368.5	498.7	106.9
Lifetime	1,013.8	1,372.1	294.1

Rate Increase Percentage	29.4%

Incurred Claims - Lifetime Projected	850.0
Incurred Claims - Test	850.0

"Test" = 60% of Premiums Before Increase + 85% of Rate Increase Premium, where all rate increases are assumed to have been in effect since inception
Lifetime Projected Incurred Claims must be at least as great as "Test"

Projected Lifetime Loss Ratios	
Before Increase	85%
After Increase	77%

NAIC Model Bulletin 12/18/2013

Alternative Filing Requirements for Long-Term Care Premium Rate Increases

- Rate increase amount is limited such that resulting loss ratio meets the following
  - greater of 60% or the lifetime loss ratio used in the original pricing, applied to the current rate schedule on the effective date of these new requirements;
  - plus 80% applied to any premium increase that is filed after that date on an individual policy form; or 75% applied to any premium increase that is filed on a group policy form.
  - *69% allowable increase in the example*
- Applies to loss ratio policies only

NAIC Model Regulation Section 20.C.2.

Limits increase such that lifetime claims are at least the sum of the following

- 58% of initial accumulated past premium
- 85% of accumulated past rate increase premium
- 58% of present value of projected future initial premium
- 85% of present value of projected rate increase premiums
- *Does not affect allowable amount in the example*

NAIC Model Regulation Section 20.1 C.2.

Modified 58%/85% test (2014)

Limits increase such that

- min(accumulated past actual claims, accumulated past expected claims); plus
- Present value future expected claims

is at least the sum of the following

- max(58%, loss ratio consistent with initial filing, including moderately adverse margins) of initial accumulated past premium
- 85% of accumulated past rate increase premium
- max(58%, loss ratio consistent with initial filing, including moderately adverse margins) of present value of projected future initial premium
- 85% of present value of projected rate increase premiums

Other "Cost Sharing" Concepts

- Subtract current ALR from future premiums
  - resulting future loss ratio must exceed statutory minimum requirement
  - affected by discount rate used and reserve basis

- Prohibit increases based on lapse or interest miss (DC bulletin 03-PPI-005-11/24)

- New York "decision grid" minimizes contributions of lapse and investment miss

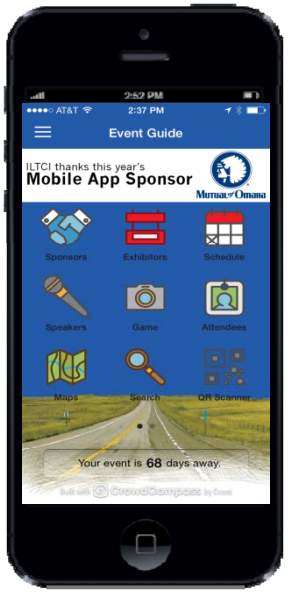
Other "Cost Sharing" Concepts

- Require all discounting in the loss ratio to be done at the original pricing earned assumption
- Allowing increase only for past claim A/E excess
- California Insurance Code Section 10236.1(b): Rate Increase Premiums Filed 1/1/2010 or After Meet or Exceed 70% Loss Ratio
- Wisconsin Admin Code Section 3.455(9)(b)
  - limits increases for policies issued from 1/1/1996-12/31/2001
  - 10% every 2 years at ages 75+ in force 10+ years

Recouping of Past Losses

Questions / Comments?

Don’t forget to fill out the survey



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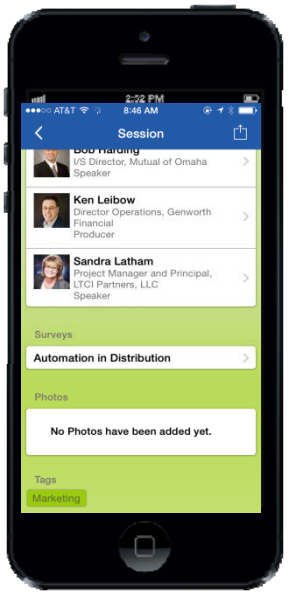

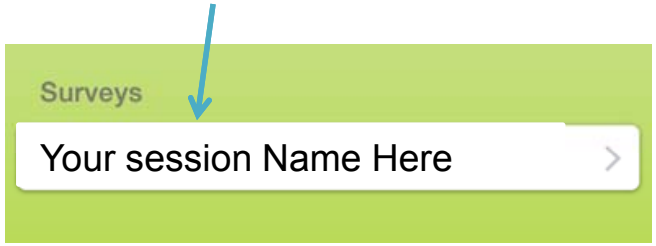

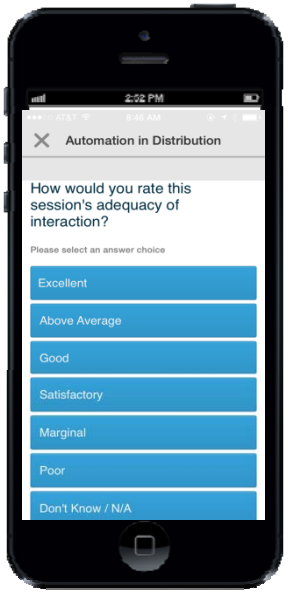

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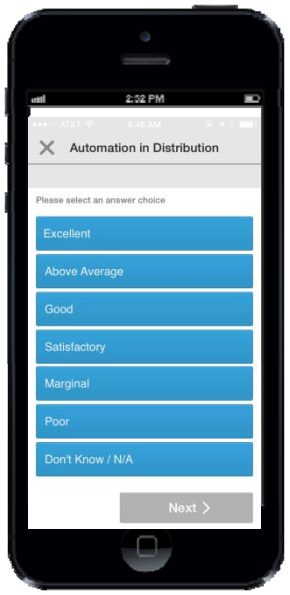

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