

Marketing



Price Sensitivity in Long Term Care Insurance

Original Research Shedding Light
on a Critical Issue

ILTCI

14th Annual Intercompany Long Term Care Insurance Conference

Marketing



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Price Sensitivity of Long-Term Care Insurance Through the Lens of Prospect Theory

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Why don't more people buy LTCi?



RATIONAL

- Costs too much?
- Medicaid crowd-out?
- Misunderstanding of Medicare?
- Concerns about rate stability, value?

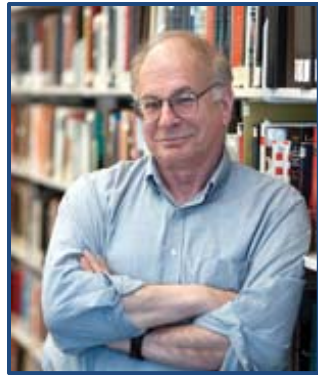
EMOTIONAL

- Denial?
- “Things will just work out” (*external locus of control*)?
- De-valuation of future (disabled) self?

What about the role of systematic biases in judgment and decision-making?



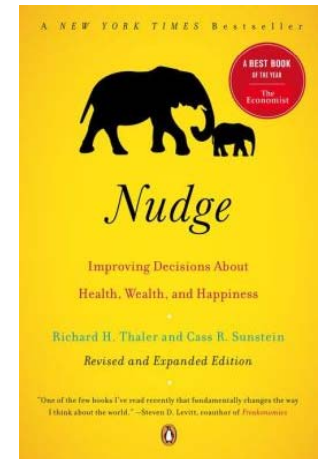
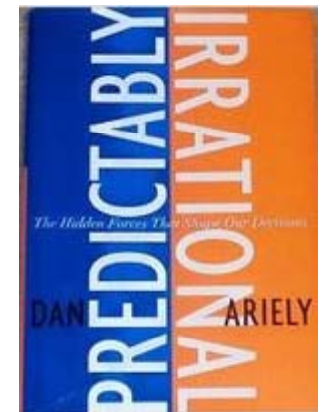
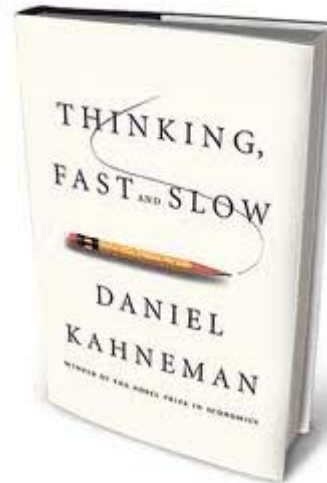
PROSPECT THEORY: An Analysis of Decision Under Risk



DANIEL
KAHNEMAN

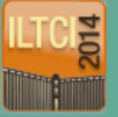


AMOS
TVERSKY



- Awarded Nobel Prize in Economics
- Created the field of Behavioral Economics (with Thaler)

“An unusual Asian disease is expected to kill 600 people and two programs are developed to combat it”



- If Program A is adopted, 200 people will be saved
- If Program B is adopted, there is a:
 - 1/3 probability that 600 people will be saved
 - 2/3 probability that no one will be saved

Which program will you choose?

“An unusual Asian disease is expected to kill 600 people and two programs are developed to combat it”



- If Program C is adopted, 400 people will die
- If Program D is adopted, there is a:
 - 1/3 probability that no one will die
 - 2/3 probability that 600 people will die

Which program will you choose?

Built on three psychological mechanisms

1.

People are sensitive to changes from the status quo reference point (gains and losses), not states

2.

People show diminishing sensitivity (the Δ of \$900 and \$1,000 appears smaller than the Δ of \$100 and \$200)

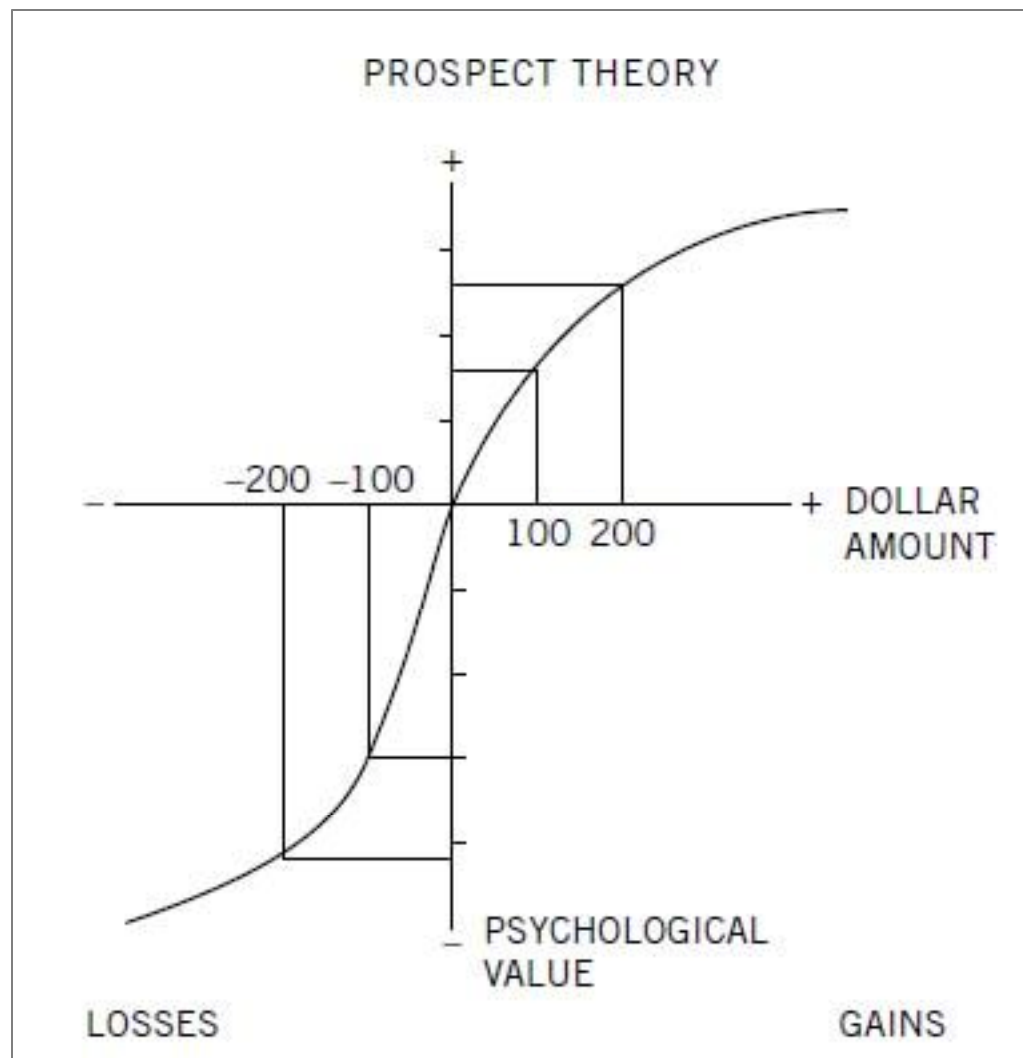
3.

People are naturally “loss averse”:
Losses are more painful than gains are pleasurable

Gains and losses have “irrational” psychological meanings



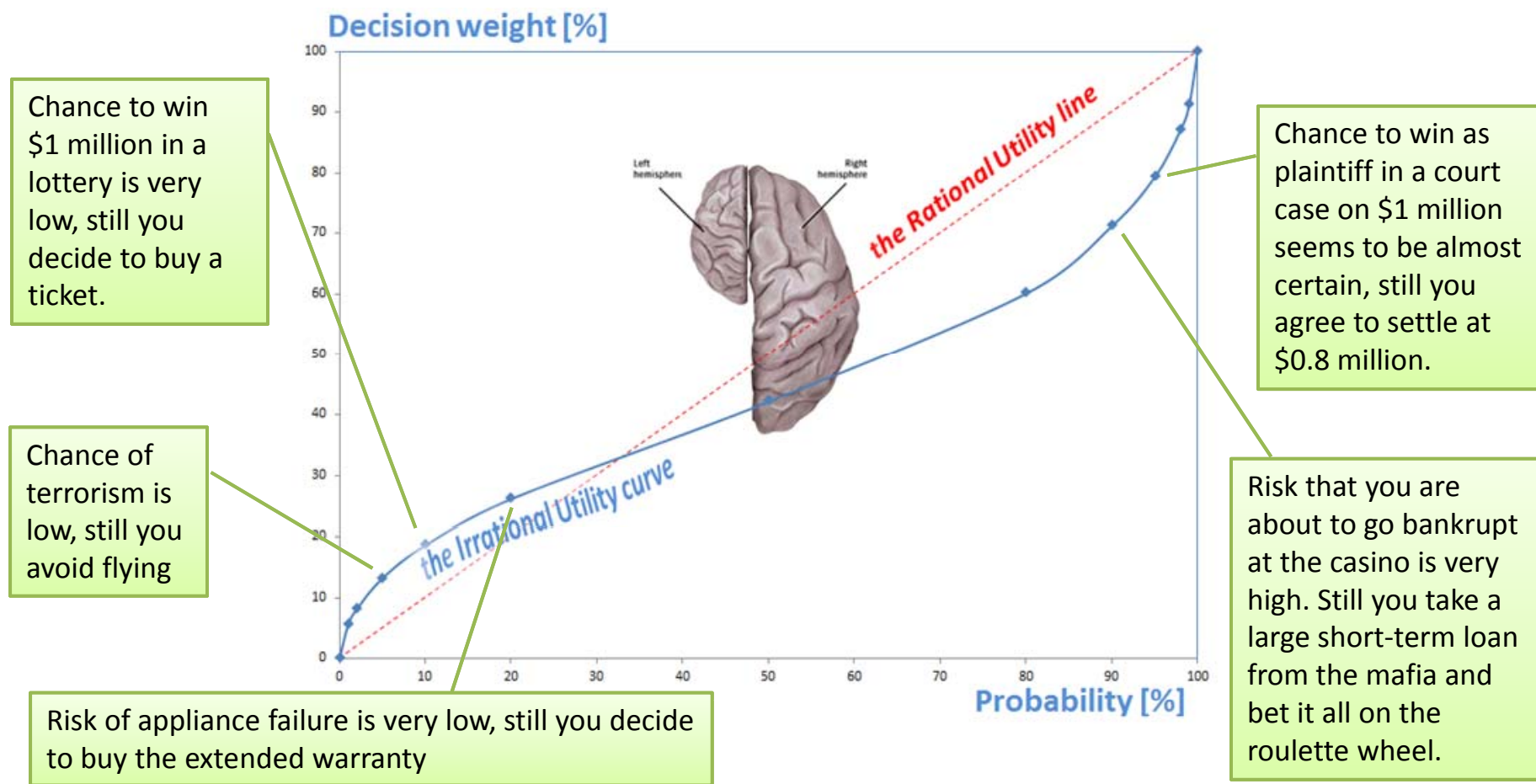
- The loss of \$200 has a much larger psychological impact than a \$200 gain



High and low probabilities have “irrational” psychological meanings







- People over-weight small probabilities and under-weight large probabilities
 - Increases the attractiveness of the lottery & insurance, and the impact of terrorism
 - Motivates “last ditch” behavior







Fourfold Pattern



| | GAINS | LOSSES |
|------------------|--|---|
| HIGH PROBABILITY | <p>C. </p> <p>Big chance to win a lot Fear of getting disappointed RISK AVERSE Accepting unfavorable settlement Example: Court case</p> | <p>D. </p> <p>Big risk to lose a lot Hoping to avoid loss RISK SEEKING Rejecting favorable settlement Example: Casino evening</p> |
| LOW PROBABILITY | <p>A. </p> <p>Small chance to win a lot Hoping for a great gain RISK SEEKING Rejecting favorable settlement Example: Lottery</p> | <p>B. </p> <p>Small risk to lose a lot Fear of large loss RISK AVERSE Accepting unfavorable settlement Example: Insurance</p> |

Framing LTCi via the Fourfold Pattern



| | GAINS | LOSSES |
|----------------------|---|--|
| RATIONAL - HIGH RISK | <p>This policy pays you \$4,500 each month, or \$150 every day, that you require personal assistance. Seven in ten (71%) older Americans will use some form of long-term care during their lifetimes, so there's a high probability that these benefits will be paid out.</p> <p> Big chance to “win” a lot</p> | <p>Long term care expenses represent the single biggest risk to retirement income security. LTC insurance helps protect you against the average lifetime loss of \$63,000 in nursing home costs alone. Nursing homes cost an average of \$75,000 per year in the US. Seven in ten (71%) older Americans will use some form of long-term care during their lifetimes, so you face a high risk of experiencing a substantial loss.</p> <p> Big chance to lose a lot</p> |
| RATIONAL - LOW RISK | <p>This policy pays you \$4,500 each month, or \$150 every day, that you require personal assistance. One in six (17%) older Americans will experience a long-term stay in a nursing home, so there's a chance of very large payout of benefits.</p> <p> Small chance to “win” a lot</p> | <p>Long term care expenses represent the single biggest risk to retirement income security. LTC insurance helps protect you against the average lifetime loss of \$63,000 in nursing home costs alone. Nursing homes cost an average of \$75,000 per year in the US. One in six (17%) older Americans will experience a long-term stay in a nursing home, so you face some risk of experiencing a substantial loss.</p> <p> Small chance to lose a lot</p> |

Predictions



GAINS

LOSSES

RATIONAL - HIGH RISK

This policy **pays you** \$4,500 each month, or \$150 every day, that you require personal assistance. **Seven in ten (71%)** older Americans will use some form of long-term care during their lifetimes, so there's a **high probability** that these benefits will be **paid out**.



RISK AVERSE: willing to pay higher premium

Long term care expenses represent the single **biggest risk** to retirement income security. LTC insurance helps protect you against the average lifetime **loss** of \$63,000 in nursing home costs alone. Nursing homes cost an average of \$75,000 per year in the US. **Seven in ten (71%)** older Americans will use some form of long-term care during their lifetimes, so you face a **high risk** of experiencing a **substantial loss**.



RISK SEEKING: less willing to pay full premium

RATIONAL - LOW RISK

This policy **pays you** \$4,500 each month, or \$150 every day, that you require personal assistance. **One in six (17%)** older Americans will experience a long-term stay in a nursing home, so there's a **chance** of very large **payout of benefits**.



RISK SEEKING: less willing to pay full premium

Long term care expenses represent the single **biggest risk** to retirement income security. LTC insurance helps protect you against the average lifetime loss of \$63,000 in nursing home costs alone. Nursing homes cost an average of \$75,000 per year in the US. **One in six (17%)** older Americans will experience a long-term stay in a nursing home, so you face **some risk** of experiencing a **substantial loss**.



RISK AVERSE: willing to pay higher premium

Results—Predictions Confirmed Overall



| | GAINS | LOSSES |
|----------------------|---|---|
| RATIONAL - HIGH RISK | <p> #2 Ranking RISK AVERSE</p> <p>Willing to pay higher premium</p> | <p># 3 Ranking  RISK SEEKING</p> <p>Less willing to pay full premium</p> |
| RATIONAL - LOW RISK | <p> # 4 Ranking RISK SEEKING</p> <p>Less willing to pay full premium</p> | <p>#1 Ranking  RISK AVERSE</p> <p>Willing to pay higher premium</p> |

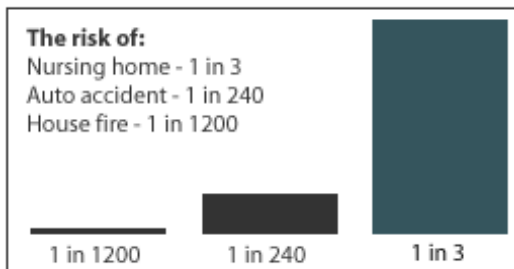
Results—By Age Group



| | GAINS | | LOSSES | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|--|---|-----|------------|-----|------------|-----|------------|-----|------------|-----|----------------------------------|--|------------|-----|------------|-----|------------|-----|------------|-----|------------|
| RATIONAL - HIGH RISK | #2 Ranking: RISK AVERSE Willing to pay higher premium | | #3 Ranking: RISK SEEKING Less willing to pay full premium | | | | | | | | | | | | | | | | | | | | |
| | RANK (among age group) | <table border="1"> <tr><td>Ages 30-39</td><td>1st</td></tr> <tr><td>Ages 40-49</td><td>2nd</td></tr> <tr><td>Ages 50-59</td><td>1st</td></tr> <tr><td>Ages 60-69</td><td>4th</td></tr> <tr><td>Ages 70-79</td><td>3rd</td></tr> </table> | Ages 30-39 | 1st | Ages 40-49 | 2nd | Ages 50-59 | 1st | Ages 60-69 | 4th | Ages 70-79 | 3rd | RANK (among age group) | <table border="1"> <tr><td>Ages 30-39</td><td>2nd</td></tr> <tr><td>Ages 40-49</td><td>4th</td></tr> <tr><td>Ages 50-59</td><td>4th</td></tr> <tr><td>Ages 60-69</td><td>2nd</td></tr> <tr><td>Ages 70-79</td><td>4th</td></tr> </table> | Ages 30-39 | 2nd | Ages 40-49 | 4th | Ages 50-59 | 4th | Ages 60-69 | 2nd | Ages 70-79 |
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| Ages 70-79 | 4th | | | | | | | | | | | | | | | | | | | | | | |
| RATIONAL - LOW RISK | #4 Ranking: RISK SEEKING Less willing to pay full premium | | #1 Ranking: RISK AVERSE Willing to pay higher premium | | | | | | | | | | | | | | | | | | | | |
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Implications: Part I

- LTCi industry ♥ high risk loss!



DEEPLY FLAWED

Are you willing to take the risk?

60%

7%

0.5%

Chance you will have a house fire

Chance you will have an auto accident

Chance you will need Long Term Care in your lifetime

Average loss: \$3,428

Average loss: \$3,000

Average Cost: \$50k - \$90k / year

Source: House Fire & Auto Accident/Society of Actuaries, 2000; Long Term Care/HIAA, 2001.

- Emotional response underlies this pattern:
 - Fear of losing a sure thing (UL)
 - Hoping for an unlikely large gain (LL)
 - Fear of suffering any chance of a large loss (LR)
 - Anxiety of being trapped in a desperate situation (UR)

Will a strongly emotional framing of gains vs. losses be more effective?

Emotional framing of gain and loss



EMOTIONAL (STORY-BASED)

No probability information: Event described has already happened

GAINS

Mary C.'s husband John experienced a debilitating stroke at age 63, which prompted the couple to move into a one-floor condo closer to their children. Even though John was confined to his bed or wheelchair, it was very important to Mary that John be cared for at home. "Fortunately, we had purchased this LTC insurance policy several years earlier. The extra \$4,500 each month meant that I could hire a lovely home care aide to help take care of John. John passed away after 12 months, but he was able to stay in our home the whole time, surrounded by family. It was reassuring to know that the payments would have kept coming if he had been with us for another two years."

LOSSES

Mary C.'s husband John experienced a debilitating stroke at age 63, which prompted the couple to move into a one-floor condo closer to their children. Even though John was confined to his bed or wheelchair, it was very important to Mary that John be cared for at home. "Unfortunately, we had passed on buying LTC insurance several years earlier. Medicare provided some home visits at first but they ended when they deemed John was not improving, leaving us with the stress of trying to provide his care ourselves. And so we were forced to put him in a nursing home, costing us more than \$5,000 each month. A large part of our retirement savings was wiped out within a year. In addition to the financial stress, this also was never what John, or I, would have wanted. We wanted him to be able to spend his last months at home."

Results—Predictions Confirmed Overall



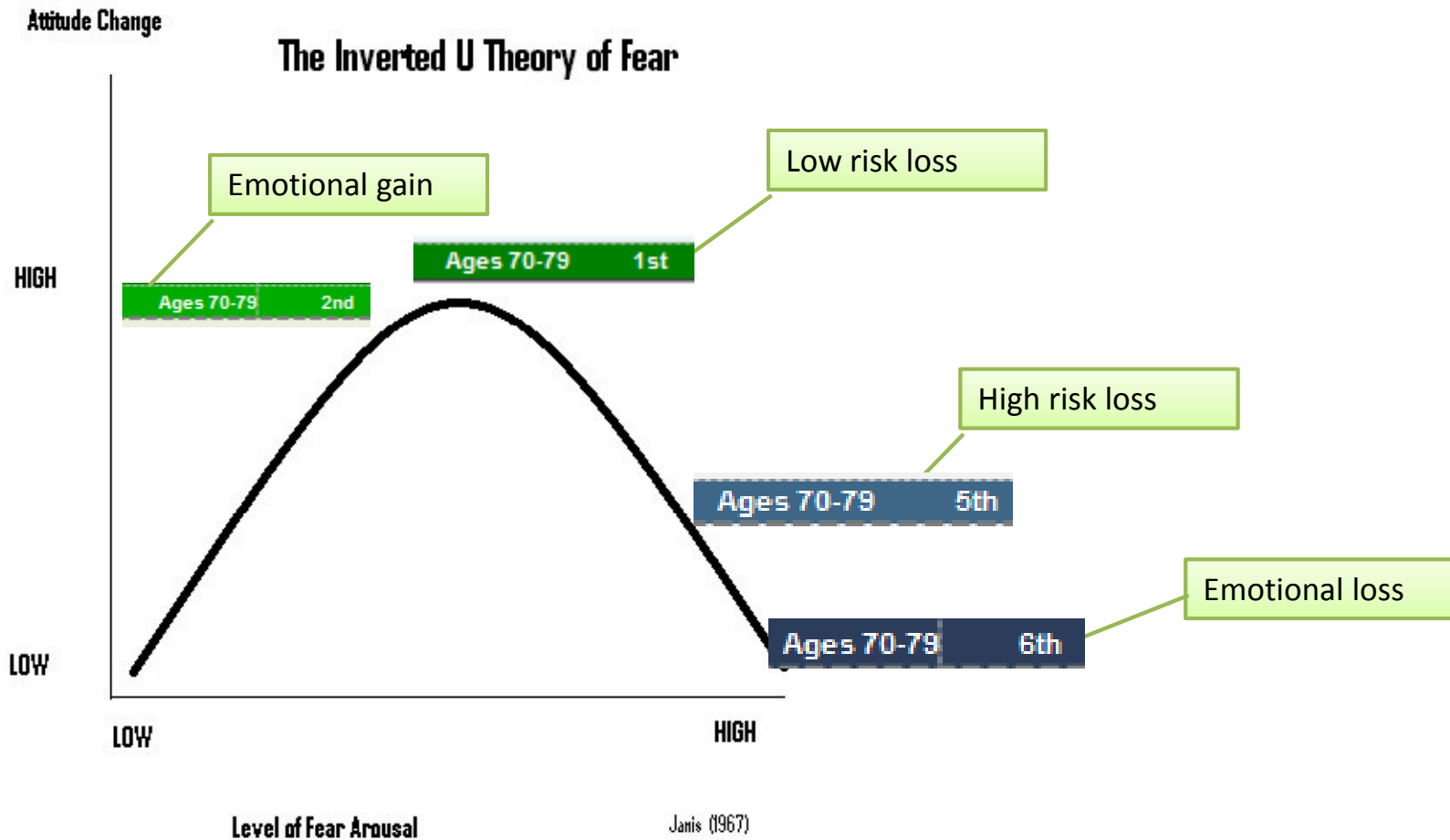
| | GAINS | LOSSES |
|----------------------------|--|--|
| EMOTIONAL (story-based) | <p>#2 Ranking RISK AVERSE</p> <p>Willing to pay <u>highest</u> premium</p> | <p>#1 Ranking RISK AVERSE</p> <p>Willing to pay <u>highest</u> premium</p> |
| RATIONAL – HIGH RISK | <p>#4 Ranking RISK AVERSE</p> <p>Willing to pay higher premium</p> | <p>#5 Ranking RISK SEEKING</p> <p>Less willing to pay full premium</p> |
| RATIONAL – LOW RISK | <p>#6 Ranking RISK SEEKING</p> <p>Less willing to pay full premium</p> | <p>#3 Ranking RISK AVERSE</p> <p>Willing to pay higher premium</p> |

Results—By Age Group



| | GAINS | | LOSSES | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--|---|-----|------------|-----|------------|-----|------------|-----|------------|-----|----------------------------------|--|------------|-----|------------|-----|------------|-----|------------|-----|------------|
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| Ages 70-79 | 1st | | | | | | | | | | | | | | | | | | | | | | |

The closer you get to needing LTC, the more fear arousal backfires



Janis, I.L. (1967). Effects of fear arousal on attitude change: Recent developments in theory and experimental research. *Advances in Experimental Social Psychology*, 4, 166-224

- Stop emphasizing high risk loss scenarios
- Do use emotion, particularly emotional loss story for middle age prospects (40-69)
- For the oldest group (70+), be mindful not to scare them – use emotional gain stories or low risk loss scenarios
- Use an analytic approach with younger groups (under 40)?
 - 30-somethings didn't respond as well to emotional story and did respond to the high risk scenario (gain or loss)
 - Is that because the story wasn't tailored to them?
 - How would they respond to emotional stories of accidents?

Marketing



Coverage Trade-offs

Clark Heitkamp, FSA, MAAA, LTCP

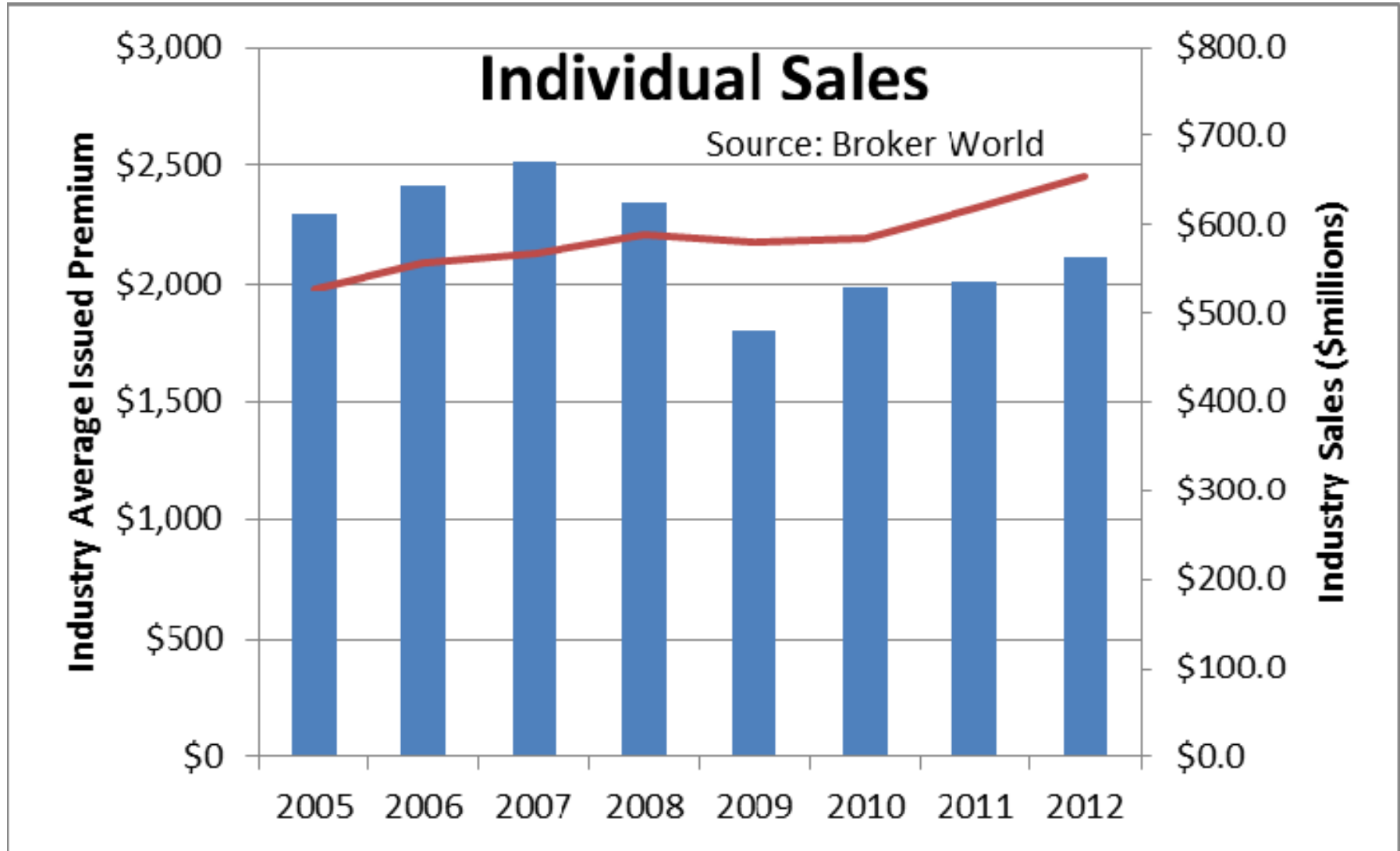
Consulting Actuary



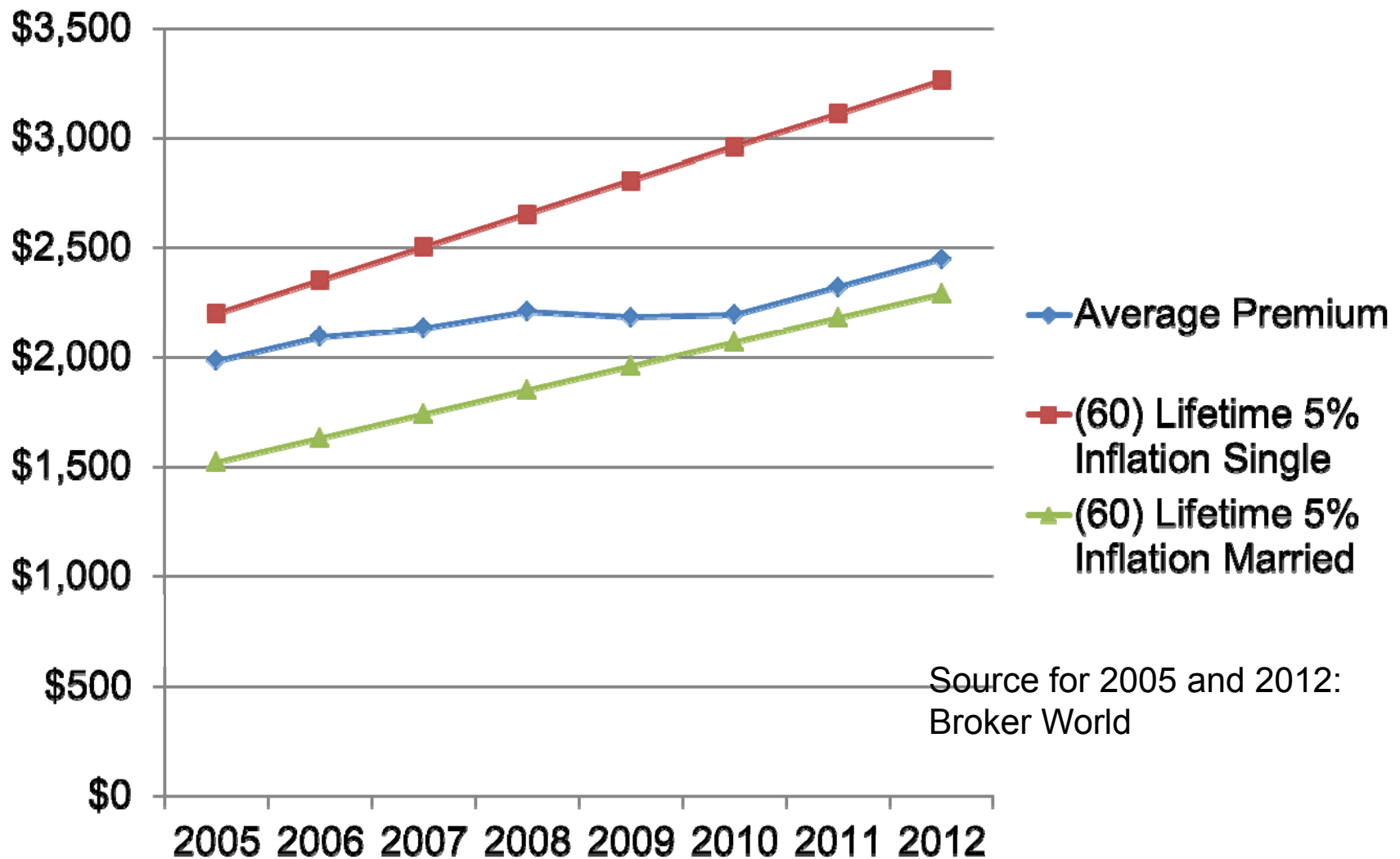
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- Past Price Points
- Coverage Trade-offs
- Keeping LTC Insurance Affordable
- Additional Sources of Coverage Trade-offs
- Pricing Examples
- Options for Coverage Trade-offs
- Other Ideas

Past Price Points



Past Coverage Trade-offs



Common Approaches Used:

- Shorter Benefit Periods
- Longer Elimination Periods
- Lower Inflation Levels
- Selling to Younger Applicants
- Tighter Underwriting

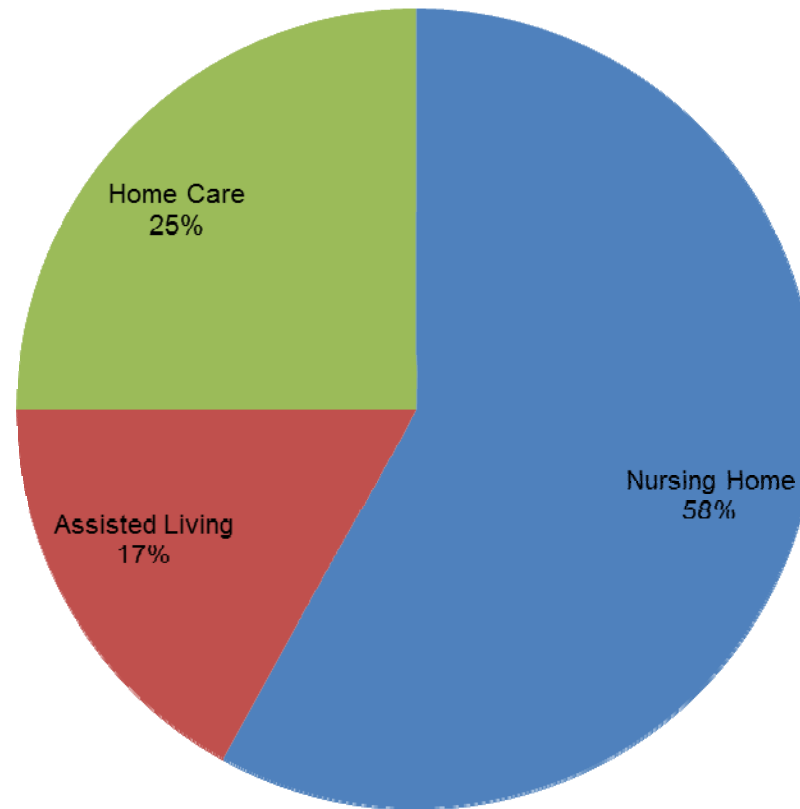
Additional Approaches Used:

- Unique Inflation Options
 - Increasing premiums
 - CPI Index
- Provider Discounts
- Preferred Health Discounts

Examples

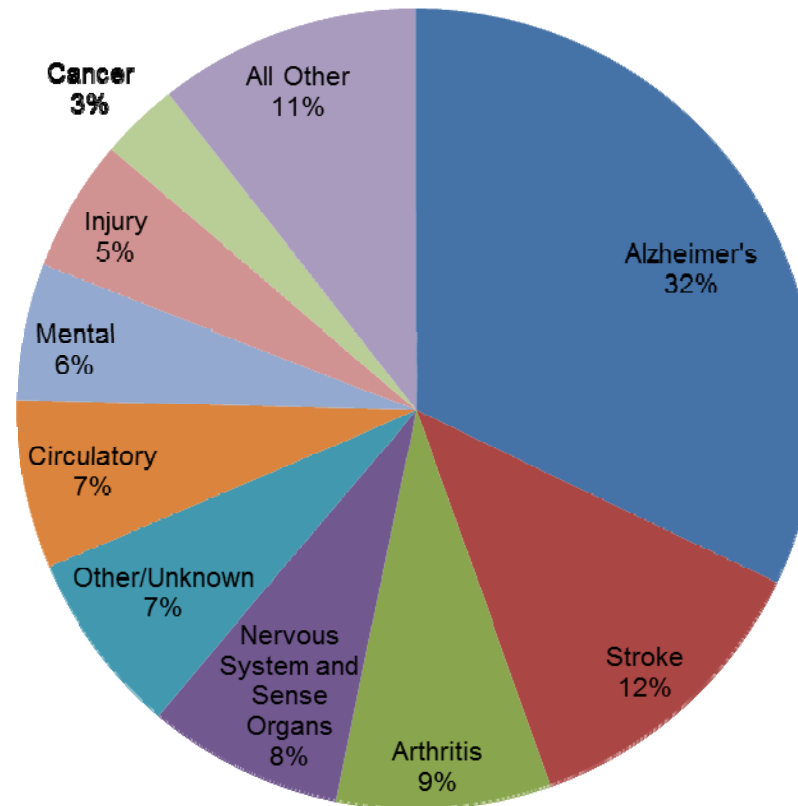
- Restricted Care Locations
- Specified Disease
- Longer Elimination Periods
- Limitations by Age
- Co-Pays
- Pass Interest Rate Risk to Insured

Location of Care



Source: 84-07 SOA LTC Experience Study

Initial Diagnosis

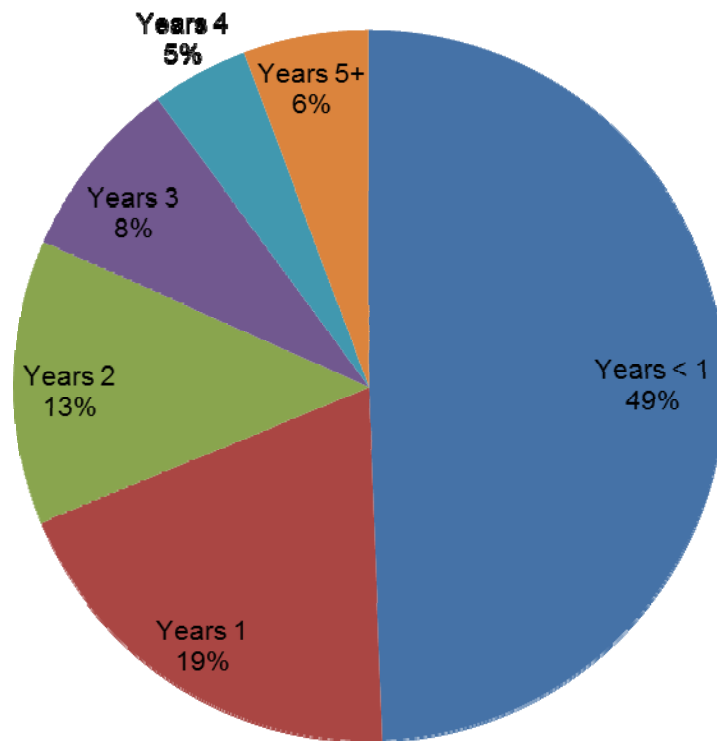


Source: 84-07 SOA LTC Experience Study

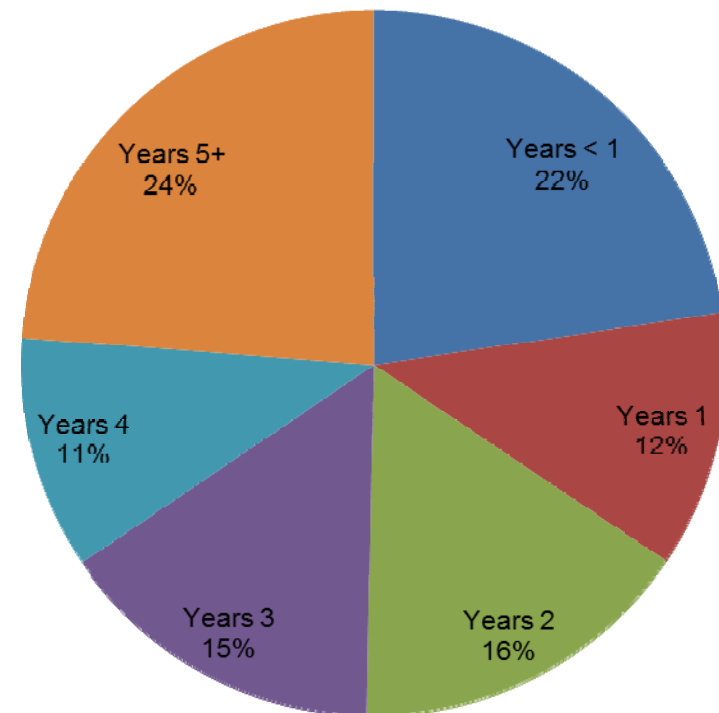
Longer Elimination Periods



Length of Claim by Incurred Claim Count

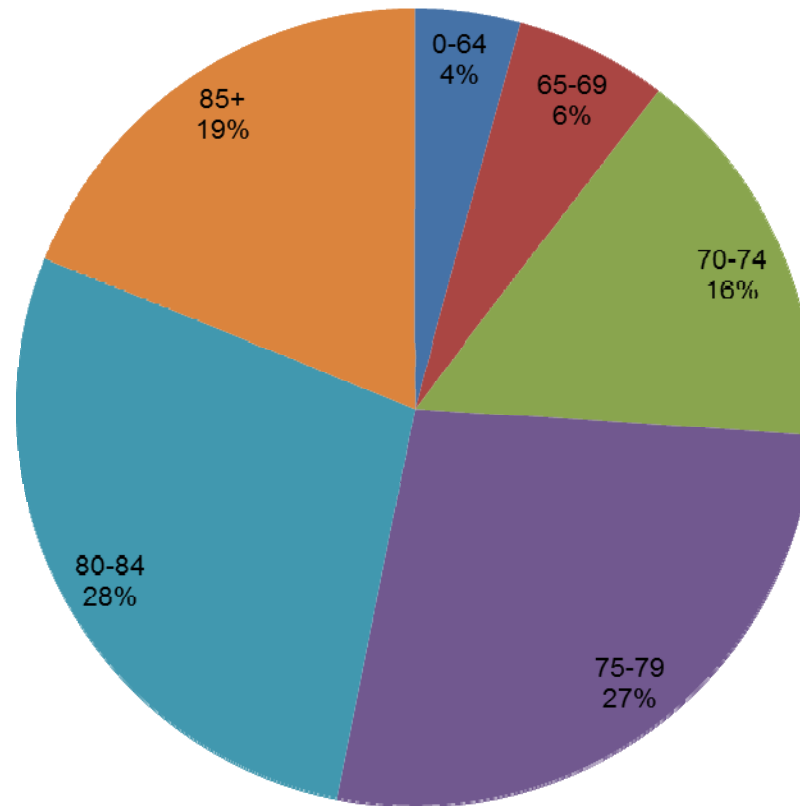


Length of Claim by Estimated Claim Payments



Source: 84-07 SOA LTC
Experience Study

Age of Incurral by Amount



Source: 84-07 SOA LTC
Experience Study

Individual Comprehensive LTC Policy

- Issue age 60
- 5-year benefit period
- 90 day elimination period
- \$160 daily benefit amount
- 3% inflation
- Single
- Level annual premium \$2,000

(Unrealistic) Approaches to Lowering Premiums:

- Nursing home only (no ALF coverage) results in a premium of about \$1160
- Exclude mental nervous/Alzheimer's results in a premium of about \$1200
- Two-year elimination period results in a premium of about \$1320
- Only pay claims for attained ages 75+ results in a premium of about \$1480.

(Reasonable) Approach to Lowering Premiums by Combining all of the Following:

- Include a co-pay on ALF for “rent”;
- Have a two-year elimination period on cognitive impairment; and,
- Coverage starts at ages 70 and over.

What is the estimated revised premium for a policy with these revisions?

Mix and match insurance plans to cover risk

- Critical Illness Insurance
- Disability Insurance
- Combo Products
- Long-term Care Insurance

Other Ideas and Questions?