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# A Response to Recent Lapse Research

By Claude Thau

The Boston College Center of Retirement Research (BC CRR) has published articles relating to long-term care insurance (LTCI), including a November 2014 study, “Long-Term Care: How Big a Risk?”<sup>1</sup> and an October 2015 study, “Why Do People Lapse Their Long-Term Care Insurance?”<sup>2</sup>

Copyright for these studies belongs to the Trustees of Boston College, Center for Retirement Research. The researchers for the 2014 study were Leora Friedberg, Wenliang Hou, Wei Sun, and Anthony Webb.<sup>3</sup> Hou, Sun, and Webb were again the researchers for the 2015 study. The research was supported by the National Institute on Aging.<sup>4</sup>

These studies make some nice contributions and I present my comments below.

The 2014 study:	Observations
Includes valuable information about nursing home usage	
Observes that there are many very short needs for LTC.	Nearly 90 percent of LTCI policies issued currently have a 90-day elimination period (EP). For policies with a 90-day or longer EP, needs of less than 90 days are irrelevant unless the policy’s EP was satisfied by a previous need. Statistics indicating that 70 percent of 65-year-olds are likely to need LTC overstate the need for LTCI. The appropriate question is “what percentage need significantly more than 90 days of care?”
Correctly indicates that the reason to buy LTCI is the risk of not being average.	People often ask about the “average length of stay.” As noted above, short stays are largely irrelevant to LTCI because of the EP. Approximately 50 percent of 65-year-olds will need care for one year or longer. Based on my past analysis of SOA data, such people average between 4 and 4.5 years of needing LTC.
Seems to support buying small monthly maximums	Small monthly maximums can provide valuable home care and asset disregard for middle class people who might rely on Medicaid for eventual NH care.

The 2015 study highlights that even a low annual lapse rate results in many people lapsing their policies over time. It also raises meaningful questions about why people lapse their LTCI policies.

Unfortunately, these studies published conclusions that I and other LTCI professionals consider unjustifiable. When asked by several people to comment on these studies, I engaged the researchers to try to assure my comments are fair and intelligent. I contacted the researchers in May 2015 regarding the 2014 study and in November 2015 regarding the 2015 study and I can report the following progress:

1. The researchers intend to update their 2014 study to address its reliance on rehabilitation data. It is not clear whether the revised paper will clarify or modify other information which concerned LTCI professionals.
2. On May 13, 2016, after considering my concerns and speaking with Marianne Purushotham and Cindy MacDonald (experts on the SOA lapse studies), the researchers published a brief revising their 2015 study. The researchers’ brief has bridged our differences as to lapses, but their comments about cognitive lapses still seem to be unjustified.
3. The researchers have stated that their future papers regarding LTCI will be vetted with LTCI industry experts prior to publication.
4. New related research is being contemplated by the SOA LTCI Section Council.

## BC CRR’S CUMULATIVE LAPSE RATE FINDING

1. The October 2015 study stated that 33 percent of men and 38 percent of women who have LTCI policies at age 65 lapse them. The new brief states that more than 27 percent of men and more than 29 percent of women who *buy* LTCI policies at age 65 lapse them. Thus, the researchers have concluded that their 2015 study overstated lapse rates in the following meaningful ways:
    - a. The researchers were unaware that the SOA published new, more accurate data after their initial analysis but before the 2015 paper was published.
    - b. Although their original statement related to everyone who purchased a policy before age 65 and still had it at age 65, they had applied new business lapse rates for everyone in their projection. I believe their study would have been better served had they adjusted to apply lapse rates consistent with an inforce block, but they chose to restate the population to be consistent with their new business lapse assumption.
- As a result of the above changes, I estimate that the researchers’ original paper overstated the lapse rates for 65-year-olds by nearly 50 percent.
- c. The researchers now assume a first year lapse rate of 4.7 percent. The level annualized equivalent of their lapse



assumptions for years 1–5 is 2.5 percent and the level annualized equivalent to their lapse assumptions for policy years 6+ is 1.3 percent. From purchase at age 65 to end-of-life, the equivalent annual lapse rate is 1.7 percent.

2. I applaud the researchers for adding the following acknowledgment in the body of their new brief: “The Society of Actuaries, which publishes the data used to produce these estimates, cautions that actual lapse rates are likely to be lower because some individuals who have died may be incorrectly coded as having lapsed.”

The caveat indicates that the researchers’ new conclusions may still be overstated due to misreported deaths. On the other hand, they may be overstating mortality and the SOA data does not reflect partial lapses. Readers may wish to do more analysis to judge whether my “50 percent” estimate is accurate or whether the researchers’ current 27 percent and 29 percent figures are correct, as applied.

3. I fully agree with the researchers’ statement “Even so, lapses are an important issue.”
4. For readers who may be unfamiliar with the issue of misreported deaths in lapse studies, consider a couple who buy LTCI policies. When the first spouse dies, the survivor may contact the insurer to explain that their spouse died, hence premiums will be paid prospectively only for the survivor’s policy. When the survivor dies, most likely premiums cease with no explanation. When premiums stop with no explanation, past practice has been to code the termination as a “lapse.” Recent SOA studies report lower lapse rates than prior studies because participating insurers are increasingly doing additional research to correct records which were misclassified as “lapses.” Despite these efforts, the SOA, as pointed out by the researchers, still has good reason to believe that

its ultimate 1.3 percent lapse rate is overstated with regard to policies terminated by lapse. (Note: technically-inclined readers might like to consider that the miscoding of deaths indicates that more than 47 percent of the lapses occur in the first five years.)

5. Not surprisingly, the researchers identify that many lapses occur because the “policy has become unaffordable.” Because people purchasing LTC products today have less exposure to premium increase risk, the cumulative lapse percentage of 65-year-olds purchasing today is likely to be lower than the 27 percent and 29 percent figures from these studies. A recent LTC Pricing study, sponsored by the SOA’s LTCI Section, to be published in 2016, indicates that, in 2014 pricing, the actuaries’ average ultimate lapse assumption was 0.7 percent (as opposed to the 1.3 percent used by the researchers).
6. The researchers continue to provide inconsistent definitions of “retention rates” on page 1 of the new brief and continue to base their Table 1 on the earlier SOA data. The first definition is “the percentage of policyholders who *do not* lapse,” whereas the second (correct) definition is “the percentage of policies still in force.” The researchers conclude that “retention rates remain relatively low, which means lapse rates are relatively high.” However, the vast majority of policies terminate due to death not lapses (and terminations also occur because of benefit exhaustion and exchanges). Hence, the retention rate would trend toward zero even if no one lapsed!

#### BC CRR’S FINDING THAT COGNITIVE IMPAIRMENT STIMULATES LAPSES

1. The researchers’ introduction continues to state “people who subsequently use care are more likely to lapse” and “two types of individuals are more likely to lapse: 1) those with low cognitive ability, who may lose the capacity to manage their finances; and 2) those with lower incomes and less wealth, who may find that their policy has become unaffordable.”

On page 4, the researchers continue to state “Cognitive impairments both precipitate lapsing and are predictive of subsequent care use.”

In its conclusion, the researchers state, “Third, and importantly, the study finds that lapses are common among the cognitively impaired, perhaps reflecting poor financial decision-making. The consequences of lapsing are significant, as those who lapse are also more likely to subsequently use long-term care.”

2. The researchers acknowledged in a foot-note that some critics believe the Health and Retirement Study (HRS) data on which it relied is inaccurate. Unfortunately, the researchers did not address the fundamental weaknesses of a thesis that lacks credibility, is based on unreliable data and does not consider the possible impact of erroneous HRS responses.

3. The researchers inferred that a person lapsed LTCI if, in 2002, they responded positively to a question asking if they have LTCI, but responded negatively in either 2004 or 2006. The researchers found that people who had cognitive impairment between 2006 and 2012 were more likely to be in their “inferred lapse” group. So they made a second inference — that the people had been cognitively impaired when they “lapsed” their policy. The researchers concluded “that lapses are common among the cognitively impaired.”
4. While that theory has some superficial appeal, it does not stand up when carefully considered. First, I’ll clarify the researchers’ thesis, then provide what I believe to be a more realistic explanation of their data.
5. The researchers posit that people who had cognitive issues in 2006–2012 already had cognitive deficits in the 2002–2006 period, which:
  - were not bad enough to justify being on claim status;
  - did not interfere with their ability to answer the comprehensive HRS survey in either 2002 or later;
  - in particular, did not lead to any false positives to the HRS LTCI question in 2002 nor any false negatives in 2004 or 2006;
  - yet were severe enough to cause them to lapse valuable LTCI, and
  - that they lapsed their policies despite the Third Party Notification and Unintended Lapse safeguards.

Is it reasonable that the cognitive conditions were so mild that they did not interfere in their accuracy answering HRS questions (and did not qualify for benefits under the policy), yet were sufficient to cause them to not pay a critical premium and that their third party (most often a child) took no action?

6. My personal theory is that inaccurate HRS responses could invalidate the researchers’ conclusions.
  - a. The researchers report “23 percent of those using care in 2006–2012 lapsed their policy in the preceding four-year period, while only 16 percent of non-care-users lapsed.”
    - i. As noted above, the first half of their paper, using SOA data, is built on assumptions that people who buy at age 65 average 1.7 percent lapses per year for the rest of their lives and after five years, the annualized equivalent lapse rate is 1.3 percent.
    - ii. The effective annual prospective lapse rate of *existing* policyholders age 65 will be lower than 1.7 percent because nearly all of them are past the high first year lapse rates.

- iii. From the HRS data, the researchers infer an annual lapse rate about 3 times the lapse rate from the most reliable source that exists (SOA). Is that not a major red flag?

- b. As I understand it, the HRS study involved about 10,000 individuals age 65+ in 2002. The researchers pared that down to 824 people with fully usable data who they believed had LTCI in 2002. So they intuited fewer than 150 lapses over the four-year period.

If 1 percent of the people in the HRS study erroneously said they had LTCI in 2002 but correctly reported in either 2004 or 2006, BC CRR’s lapse data would have included about 100 false lapses. Removing those false positives would have dropped their “observed” lapses to 50, causing their “observed” lapse rate to fall in line with the SOA data. (It would really take noticeably less than 1 percent to have such effect because people could have responded inaccurately in either 2004 or 2006 as well as in 2002.)

Does it seem reasonable to put credence into lapses when two-thirds of them might easily be misstated and, indeed, probably are misstated because they result in an unbelievably high reported lapse rate?

- c. The researchers posit that errors balance out because some people may have falsely stated that they had no LTCI policy in 2002, then lapsed later. Such errors are possible, but I estimate that their impact is minor. I believe that it is unlikely that a recent buyer would misstate. Hence most people who erroneously denied having coverage should have only a 1.3 percent annual lapse likelihood (the researchers’ effective annual lapse assumption for policy years 6+), which produces only a 5 percent chance that false negatives in 2002 would have lapsed by 2006 (calculated as  $1 - .987^4$ ).

If 1 percent erroneously reported a false negative in 2002, the researchers would have missed about five real lapses, whereas an equal number of false positives in 2002 produces 100 imaginary lapses. An error of five does not balance an error of 100.

- d. It seems ironic that in footnote 7, the researchers brush off two earlier studies (at least one of which concluded that lapsers are *less likely* to enter a nursing home) because their conclusions were based on “misreporting of insurance coverage in earlier HRS waves.”

7. An important new footnote (10) explains “One caveat is that the analysis assumes that all respondents answered the question about lapsing correctly. Misreporting by respondents is always a possibility for self-reported data, and some critics have argued that individuals may be more likely to misreport

a long-term care insurance lapse than other information such as their income, wealth, or family characteristics.”

However, the HRS survey does *not* ask the respondent if he/she has lapsed a LTCI policy. The researchers infer a lapse based on the following question:

“Do you have any type of health insurance coverage, Medigap or other supplemental coverage, or long-term care insurance that is purchased directly from an insurance company or through a membership organization such as AARP (the American Association of Retired Persons)?”

It then asks “What kind of coverage do you have?” The HRS offers the following five alternatives: basic health insurance; Medigap; other supplemental health insurance; long-term care insurance; other (specify). The HRS asks the respondent to check all that are appropriate.

Later in the survey, the respondents are asked the same questions about their partner. I don’t know if the researchers analyzed consistency between responses regarding self and those about a partner as a clue to accuracy. Obviously, either the responder or partner might have LTCI without the other having LTCI, but often either both spouses have LTCI or neither spouse has LTCI.

The researchers’ caveat acknowledges potential false negatives in 2004 or 2006. My bigger concern is that many people probably answered incorrectly in 2002 (a false positive).

## PROPOSED RELATED RESEARCH

As noted above, the researchers raised a good question regarding cause of lapses. Although their conclusions seem unjustified, the question is worth consideration.

Eileen Tell and I are mapping out potential research to determine the efficacy of Third Party Notification and Unintended Lapse provisions in avoiding lapses due to cognitive impairment. We also intend to ask about methods which make or could make such provisions more effective.

At the request of a regulator, we also intend to ask about carrier communications with paid-up policyholders to minimize the risk that the paid-up policy is forgotten.

The SOA LTCI Experience Committee is intending to improve cause of claim data in the next release. We could then consider if the cause of claim data provides insight as to whether cognitive claims are “missing” from the SOA data in a way that would indicate that some cognitive lapses are occurring.

## CALL TO ACTION

BC CRR’s 2015 report was widely reported. People who read that report think that LTCI policyholders are 50 percent more likely to lapse than data suggests (and as noted above, today’s buyers are even less likely to lapse).

They also are likely to think people lapse because of being cognitively impaired. They may falsely conclude that insurers take advantage of these policyholders and that regulators do nothing about it.

I urged the researchers to mention the safeguards against cognitive lapses. They responded, “We are aware of these provisions but are unable to incorporate their effects in our analysis.” Although I told them I was not asking that they “incorporate their effects” but rather that they simply acknowledge the efforts, they chose, once again, not to mention those provisions in the revised brief.

The researchers’ November 2014 paper, “Long-Term Care: How Big a Risk?” essentially concludes that many more people need LTC than was previously thought, but that the need lasts a short time, so LTCI is not valuable. My primary concerns are that the researchers’ analysis is based primarily on rehab, which of course is common and short, but has nothing to do with LTC. Moreover, it is not clear that they have included home care and assisted living facility care in their analysis.

My interaction with BC CRR highlights the value of actuaries fostering dialogue with professionals performing related work. Timely discussion can contribute to clearer conclusions and more accurate consensus. ■



Claude Thau is president of Thau, Inc. He is a consultant and wholesaler, and he can be reached at [ClaudeT@targetins.com](mailto:ClaudeT@targetins.com).

<sup>1</sup> Long-Term Care: How Big a Risk?, Friedberg, Hou, Sun, and Webb. [http://crr.bc.edu/wp-content/uploads/2014/11/IB\\_14-18\\_508\\_rev.pdf](http://crr.bc.edu/wp-content/uploads/2014/11/IB_14-18_508_rev.pdf)

<sup>2</sup> Why Do People Lapse Their Long-Term Care Insurance? Hou, Sun, Webb. [http://crr.bc.edu/wp-content/uploads/2015/10/IB\\_15-17.pdf](http://crr.bc.edu/wp-content/uploads/2015/10/IB_15-17.pdf)

<sup>3</sup> Leora Friedberg is an associate professor of economics at the University of Virginia and an affiliated researcher of the Center for Retirement Research at Boston College (CRR). Wenliang Hou is a research associate at the CRR. Wei Sun is assistant professor of economics at Renmin University of China and an affiliated researcher of the CRR. Anthony Webb was a senior research economist at the CRR.

<sup>4</sup> Why Do People Lapse Their Long-Term Care Insurance? Hou, Sun, Webb. [http://crr.bc.edu/wp-content/uploads/2015/10/IB\\_15-17.pdf](http://crr.bc.edu/wp-content/uploads/2015/10/IB_15-17.pdf)