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Editor's Note

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Here in Portland, Maine, there are few decisions as important at this time of year as the choice of reading material for the beach. We are happy to be able to help you solve that conundrum with this month's issue of *The Disability Newsletter*!

If your tastes run to crossword puzzles and sudoku, then Tasha Khan's article on the use of runout studies to analyze disability insurance reserves should be a good option for you. The question of disability reserve adequacy is a challenging one that requires analysis of multiple assumptions over several time periods and claim durations. She points out that claim termination rate studies, while important, are just one piece of the puzzle—and runout studies can provide a more complete picture.

If you enjoy a good comeback story, where the downtrodden hero makes another push for glory, then Robert Eaton has an excellent story for you. He describes how recent changes in the long-term care insurance (LTCI) marketplace, including legislative efforts in several states to require long-term care benefits, are reenergizing the private LTCI market. If this trend continues in other states, and if insurers are able to develop innovative product offerings to take advantage of increased interest, then this challenging market may be on the verge of significant future growth.

And, finally, if you are one to pick up the latest political thrillers, then Paul Correia's article on the Paid Family Leave Insurance Model Act will have you on the edge of your beach chair. Many states have recently introduced mandatory Paid Family and Medical Leave (PFML) plans for employers, but this model act is an effort to allow states to expand access to paid family leave through private insurance options. The increasing prevalence of PFML plans is one of the most significant developments in the disability insurance world in many years, and there is no shortage of political and legal maneuvering as each state settles on the approach that best fits its own needs.

As you can tell, this issue should have something for everyone. We wish you a happy summer whatever you choose to read!

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The runout study: Disability reserving's unsung hero

Tasha S. Khan, FSA, MAAA

If you are at all concerned with the valuation of disability business, you have almost certainly performed, or at least reviewed, a claim termination rate (CTR) study. For group long-term disability (LTD), the prescribed statutory CTR table is the 2012 Group Long-Term Disability Valuation Table (2012 GLTD). Companies are required to adjust this table for recent company experience, as measured by a CTR study. Actual-to-expected claim terminations are calculated based on the number of lives. The factors to be applied to the 2012 GLTD for calculating statutory minimum reserves are calculated as a credibility-weighted average of company experience and 100% of the unadjusted table. In the individual disability insurance (IDI) world, there is a similar requirement to use company experience to adjust the valuation table. In that case the table is the 2013 IDI Valuation Table (2013 IDIVT).

While CTR studies are informative in setting preliminary CTR assumptions, they do not provide sufficient information to validate the adequacy of the resulting reserves. For this task, reserve runout studies are more appropriate. Runout studies compare reserves at the beginning of a period to the present value of payments made during the period, plus the present value of reserves at the end of the period for any claims still open. The starting reserves, less the present value of payments and the present value of ending reserves, is equal to the amount of margin that was present in the starting reserves and released over the study period. This margin will vary based on the length of the study period, so for ease of comparison we can use several one-year periods and then calculate the average annual margin over the full study period. A positive margin indicates that the starting reserves were sufficient to cover emerging plan costs, while a negative margin indicates a shortfall.

The runout study inherently captures essentially all assumptions affecting claim reserves, including benefit amounts, cost-of-living increases, actual and estimated benefit offsets, overpayment recoveries, the remaining claim duration, and other items. This is especially helpful in situations where one or more assumptions are not consistent with recent plan experience. For example, if a company's estimated Social Security Disability Insurance (SSDI) benefit offsets are too aggressive relative to recent experience, this would not be uncovered by a CTR study. It would, however, affect the runout study results, likely producing negative margins in early claim durations. Even if the estimated SSDI offset assumptions are not changed, adjusting the CTRs such that the runout study produces break-even or small positive margins would effectively correct for this issue in the valuation basis. In this scenario, estimated SSDI offsets would be too high, and CTRs would be too low, but in combination the reserves produced by these assumptions would be adequate. It is of course better to match each assumption as closely as possible to plan experience but, when we have done everything we can on that front, the runout study is the hero that accounts for all the additional details. As actuaries we often attest that the assumptions are reasonable both individually and in aggregate. The runout study is the ultimate test of the combination of all assumptions, both explicit and implicit.

We can use runout studies to develop new valuation assumptions. This involves a somewhat circular process of setting assumptions, calculating reserves at each valuation date using these assumptions, and recalculating the reserve margins. One consideration when using runout studies is that the reserve basis being tested affects the starting reserve as well as the ending reserve, so any reserve strengthening would serve to increase both the reserves being tested and the emerging benefit costs. A basis that has increasing inadequacy by duration (i.e., understates the ending reserve more than it understates the starting reserve) may appear more favorable in a runout study than is actually the case. It is therefore important to review results separately by claim duration, and to first solve for the target margins in later claim durations, and then move on to earlier durations. It is also helpful to use several one-year study periods, in order to isolate the margins for each duration group.

As an illustration, we have calculated actual-to-expected (A/E) CTR study on a set of de-identified individual disability claim data. The data set is relatively small, with roughly 200 actual terminations captured during the study period. To calculate the expected number of terminations, we have used the 2013 Individual Disability Valuation Table (2013 IDIVT). The study results are shown in the table in Figure 1.

FIGURE 1: A/E CTR STUDY, IDI SAMPLE DATA SET | EXPECTED = 2013 IDIVT

CLAIM DURATION	A/E RATIO
1	0.97
2	1.30
3	0.87
4	0.67
5	1.35
6-10	0.64
11+	0.75
TOTAL	**0.93**

Our next step was to calculate claim reserves for several year-ends using the 2013 IDIVT, adjusted using the A/E ratios in Figure 1. We then calculated the average annual margin present in the reserves as of the beginning of each year. The margin for a given study year is equal to the reserve at the start of the year for all open claims, minus the present value of benefits paid on these claims, minus the present value of the ending reserve for any claims still open at the end of the year. These margins are then averaged over the full study period to obtain the average annual reserve margin. A positive number indicates adequate reserves during this time period, while a negative number indicates a deficiency. The calculated average annual margins based on the A/E factors in Figure 1 are shown in the table in Figure 2.

FIGURE 2: RUNOUT STUDY RESULTS | BASIS = 2013 IDIVT, ADJUSTED BY A/E RATIOS

CLAIM DURATION	MARGIN - %
1	-8.4%
2	-4.1%
3	-5.2%
4	-8.5%
5	1.4%
6-10	-1.2%
11+	-0.1%
TOTAL	**-0.9%**

While the claim termination rate assumptions are pulled directly from the study of plan experience, the resulting basis produces inadequate reserves, as reflected in the average annual margin of -0.9%. The A/E CTR study can be a good starting point for developing valuation assumptions, but the valuation basis should be tested with a reserve runout study to determine reserve adequacy and evaluate the appropriateness of the reserve assumptions. If the resulting reserve margin is outside the target range, new adjustment factors are developed and tested using the runout study. Developing adjustment factors that produce annual margins within the target range overall, with a relatively smooth pattern by duration, is an iterative process. For this test data set, we developed revised CTR adjustment factors that produced the average annual margins shown in the table in Figure 3.

FIGURE 3: RUNOUT STUDY RESULTS | BASIS = 2013 IDIVT, ADJUSTED FOR TARGET MARGINS

CLAIM DURATION	MARGIN - %
1	-0.6%
2	1.9%
3	-1.5%
4	-4.8%
5	4.1%
6-10	-0.1%
11+	0.6%
TOTAL	**0.3%**

In Figure 3 we still see negative margins in some claim duration groups. It is not always possible to eliminate negative margins in all claim durations, in which case we would attempt to strike a balance between the margins produced by the study, the reasonableness of the adjustment factors, and the credibility of the data. The CTR adjustment factors that produced the margins in Figure 3 are shown in the table in Figure 4.

FIGURE 4: CTR ADJUSTMENT FACTORS | BASE CTRS = 2013 IDIVT

CLAIM DURATION	A/E	REVISED FACTORS
1	0.97	0.70
2	1.30	0.70
3	0.87	0.25
4	0.67	0.25
5	1.35	0.25
6-10	0.64	0.20
11+	0.75	IDIET*

* IDIET – Individual Disability Experience Table.

The revised factors in Figure 4 deviate significantly from the A/E ratios seen in the CTR study. In this case, the revised A/E factors in Figure 4 are very low. This consideration, combined with the relatively low credibility of the data given 200 actual terminations, caused us to determine that additional adjustment would not be reasonable. For example, in claim year 4 we are assuming that only 25% of the expected claim terminations under the industry table are actually terminating. While the margin is still negative (-4.8%) under this assumption, additional adjustment would not be reasonable.

While we now know that reserve runout studies provide a better basis for determining reserve adequacy, statutory minimum valuation assumptions for several industry tables require companies to adjust the CTRs in the industry tables for their own experience using A/E CTR studies. These adjustments are credibility-weighted and include additional margin, but these A/E CTR studies capture limited information on termination patterns and don't directly test reserve adequacy. Statutory guidance does, however, require the actuary to confirm the adequacy of these reserves. For this purpose, actuaries should be using the best available tool in our actuarial tool kits: the reserve runout study.

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The impact of legislation on the LTCI market

Robert Eaton, FSA, MAAA

Introduction

The long-term care insurance (LTCI) market has stagnated over the past decade: many insurers exited the market and raised rates on existing policyholders to help ensure they can pay future claims. Insurers selling hybrid life and LTCI products have seen greater growth in the standalone market's ebb, but new LTCI sales are still far from their peak in the mid-2000s.

The need for such a product—pre-funding the risk of an unlikely but catastrophic need for long-term care later in life—seems clear: the United States is aging, and the Baby Boomers are rapidly hitting retirement age. Moreover, we are living longer in our old age, and at older ages the likelihood of needing long-term care is greater.

To reflect this reality, and the lack of an effective product-market fit for most Americans, some states are contemplating legislation that would require their residents to pre-fund some level of future long-term care through taxes or other incentives. This has meaningfully affected the private LTCI market today and it is poised to impact market dynamics for the foreseeable future.

Washington Cares Fund

Washington was the first state to require residents to pay a new tax for funding future LTCI benefits[1] through the establishment of its Washington Cares Fund. Most workers in Washington are required to pay an additional 0.58% payroll tax to fund a modest long-term care benefit ($36,500 at inception, indexed with inflation). Residents with existing private LTCI coverage as of November 2021 were eligible to be exempt from paying the tax, which would preclude them from receiving the benefits as well. As you might imagine, this date—which was announced prior to the effective date of the program—was a key selling point for many insurers providing LTCI: purchase a modest LTCI plan and avoid the pain of paying the ongoing tax.

This legislation ushered in the recent surge of attention to LTCI. In Washington, many employers offered their employees new options for LTCI coverage, both standalone and traditional coverage as well as hybrid life plus LTCI coverage. This in turn generated worksite LTCI sales for out-of-state employees as well. In total the worksite market saw a surge of over 30% nationwide in life sales driven by hybrid product sales in 2021.[2] Insurers in the individual market also witnessed greater 2021 sales.

This model is serving as the basis for speculation in the worksite and individual LTCI markets as to what may come next.

The next states

Many states have already introduced similar LTCI funding legislation, or have signaled they may do so soon. The California Department of Insurance, on the passing of AB567, began a task force "to explore the feasibility of developing and implementing a culturally competent statewide insurance program for long-term care services and supports."[3] The task force is recommending five options that will be included in a January 1, 2024, actuarial report. The program options will likely include opt-out provisions similar to Washington.[4]

1 Giese, C. et al. (October 20, 2022). 2022 WA Cares Fund Actuarial Study. Milliman Report. Retrieved June 27, 2023, from https://leg.wa.gov/osa/additionalservices/Documents/Report01-2022WACaresFundActuarialStudy.pdf.

2 Milliman 2022 Worksite Life Survey.

3 California Department of Insurance. Long-Term Care Insurance Task Force. Retrieved June 27, 2023, from https://www.insurance.ca.gov/0500-about-us/03-appointments/ltcitf.cfm.

4 California Department of Insurance. AB 567 Oliver Wyman Feasibility Report: Frequently Asked Questions. Retrieved June 27, 2023, from https://www.insurance.ca.gov/0500-about-us/03-appointments/upload/AB567FeasibilityReportFAQs01032023.pdf.

Minnesota is considering offering a financial incentive for residents to purchase private LTCI. Colorado, Illinois, Massachusetts, Michigan, Missouri, New Mexico, New York, North Carolina, Oregon, Pennsylvania, and Utah are also considering legislation that may fund long-term care. In California alone, as the most populous state in the United States, passing legislation would prompt a massive private market movement, particularly if opting out via private LTCI is feasible.

What should insurers consider when contemplating new product LTCI benefit designs, given this emerging landscape?

Actuarial risks

Historically, LTCI insurers have struggled to accurately forecast future claims, mortality, and policyholder behavior such as voluntary lapses. Today insurers have far more historical experience on which to base their estimates—the 2020 Milliman LTC Guidelines, for instance, contains over 900,000 claims in its database, including credible levels of claims at the oldest age ranges 90 and over. Current pricing, unlike policies priced in the 1990s, also assume realistic and low voluntary lapse levels.

New policies priced today—say, those designed to meet the needs of residents looking to opt out of state mandates—accrue the benefit of learning from past mistakes in the LTCI industry. Hybrid life and LTCI products enjoy the natural hedging of actuarial risks that reduces the volatility of future earnings. For example, higher mortality rates increase the cost of life coverage but decrease the cost of LTCI coverage.

Most companies that sold products to Washington residents and employees have found that lapses have been relatively low, likely because consumers want to ensure they still qualify for the state tax opt-out. This will help companies recoup their large acquisition costs. Moreover, most new policyholders were not purchasing LTCI coverage with an eye toward anti-selection, i.e., anticipating future chronic illnesses. Rather, most residents purchased a policy in Washington after doing a cost-benefit analysis and seeing that over their working lifetimes the tax was likely more punitive than purchasing a modest LTCI policy. These new customers, who are primarily interested in avoiding the pain of the tax, don't look much like the historical buyers of most LTCI products, giving companies a somewhat more optimistic view of the future.

With new droves of decent risks poised to pull out their pocketbooks, what should most insurers be considering when designing products for the next waves of customers?

Product and market implications

This market is now competitive. In the worksite, there are a half dozen large insurers that sell a variety of styles of life insurance policies with LTCI riders. If they aren't already, these companies will position the LTCI benefits in a way that targets acceptance among state regulators and legislators to satisfy any opt-out provisions.

New entrants have also emerged in the worksite, anticipating the substantial opportunities that will come in the next three to five years. There are a number of product designs that may be appealing to new entrants in this situation:

- Traditional LTCI. Lower maximum benefits (say $100 per day and two years of coverage) coupled with inflation protection and other ancillary benefits like couples' shared care and return of premium. This policy looks like "vanilla" or classic LTCI.
- Hybrid life with acceleration of benefits (AOB) for LTCI. This policy has the features of a traditional life insurance product, such as whole life or universal life, with the ability for the policyholder to receive their death benefit earlier if they need long-term care.
- Hybrid life with AOB and extended LTCI benefits. This product also includes additional LTCI benefits after the death benefit (or account value) has been depleted. In some cases, a "restoration of death benefits" rider maintains the death benefit after the acceleration period, resulting in a more substantial product offering.

Contracts written today can be created to complement public programs, for instance through coordination of benefits provisions. Given the general uncertainty around passing and enforcing new LTCI legislation, private contracts can emphasize that they provide coverage in-state and out-of-state, offering the policyholder nationwide flexibility regardless of where they reside when they are eligible for benefits.

Moreover, private LTCI policies carry with them the actuary's certification that the premiums are intended to be sufficient for the life of the contract, with a margin for adverse deviation required in LTCI premium rates.

Conclusion

The current market for LTCI is flourishing, though for reasons insurers didn't anticipate only a few years ago. Private LTCI policies may see a modest resurgence thanks to the passing of certain states' legislation, but the LTCI industry should be hesitant to declare victory. More ideally, insurers want to provide a product that all stakeholders find attractive without the punitive stick of a tax for failing to purchase coverage, or even the carrot of more tax relief or handouts for purchasing.

Until the emergence of a stable product that satisfies the needs of the middle market without the added impetus of avoiding the financial pain of taxes, the LTCI market will continue to search for solutions. These solutions will likely look different from our products today, perhaps combining the traditional features of long-term care expense payments, but coupled with other value-based offerings that encourage health, well-being, caregiving, and family assistance during the life of the customer. Until then, we can hope that the "sugar buzz" of legislative-induced LTCI purchases prompts others to see the value that carriers bring every day to their customers.

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Paid Family Leave Insurance Model Act

Paul Correia, FSA, MAAA

The Paid Family Leave (PFL) Insurance Model Act was adopted by the National Council of Insurance Legislators (NCOIL) in December 2022. This Act provides an insurance model for states that are looking to expand access to PFL through private insurance options without having to mandate benefits for all employees. Employers are not required to provide PFL benefits under the Model Act, which simply establishes a regulatory framework for insuring PFL, thus enabling growth in PFL insurance offerings for employers to choose from.

Virginia was the first state to adopt a similar model in July 2022, several months before NCOIL adopted the PFL Model Act. Under the Virginia Voluntary Paid Family Leave model, PFL can be included as a rider to a short-term disability (STD) policy, included in the STD policy, or offered as standalone coverage. Some carriers, however, have reported challenges in filing PFL products in Virginia because the state has required special licenses for PFL regardless of existing licenses for STD insurance. The Model Act is silent about licensing, and insurance departments in other states may also require special licenses for PFL upon adopting the Model Act.

There are initiatives for adopting the PFL Model Act in several states, including Alabama, Arkansas, Florida, Tennessee, and Texas. Unlike the PFL mandates in states like California, New York, etc.[1]—where private plans must be at least equivalent to the statutory plan and often include generous benefits—the Model Act gives employers and insurers greater flexibility in designing PFL insurance products. For example, these products could feature shorter benefit periods or longer elimination periods than those required in states with mandated benefits, to better align with program objectives (for employers) and risk tolerance (for insurers).

1 As of the writing of this article, PFL mandates have been approved in California, Colorado, Connecticut, Delaware, the District of Columbia, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island, and Washington state.

In addition to the PFL elimination period and benefit period, other important considerations include the following:

- **Wage replacement:** STD benefits typically provide 60% wage replacement. Coordination between PFL and STD benefits is important due to the interactions between maternity and bonding claims.
- **Maximum benefit amount:** Similarly, it is important to coordinate maximum benefit amounts between PFL and STD due to maternity and bonding claims.
- **Qualifying events:** The qualifying events typically include bonding with newborn, adopted, or fostered children and caring for a family member with a serious health condition. Other qualifying events may include military exigencies and domestic violence.
- **Intermittent leave:** Many states with mandated benefits allow family leave to be taken on an intermittent basis, meaning absence days do not need to be consecutive. Expected claim costs for allowing intermittent leave are higher because employees have more options for taking leave.
- **Definition of family member:** The PFL definition of family member typically resembles the Family and Medical Leave Act of 1993 (FMLA) definition, although it may include other relations such as relations by affinity.
- **Coordination with other benefits:** Aside from coordinating STD and PFL wage replacement and maximum benefit amounts, the STD and PFL benefit periods should be coordinated in a manner that considers the combined benefit period for maternity and bonding claims.
- **Job protection:** Employers with 50 or more employees must offer job protection if PFL is concurrent with FMLA. Expected claim costs may be lower for smaller employers that are not required to provide job protection, or if PFL is not concurrent with FMLA and does not include job protection.
- **Participation requirements:** Adverse selection risk can be significant on voluntary PFL coverage due to the bonding/family care nature of benefits. Minimum participation levels can help mitigate this risk.
- **Employee choice:** If offered as a rider or included in the STD policy, selection could be limited to the employer—i.e., the coverage is chosen by the employer and applies to all employees eligible for STD, thereby eliminating employee selection risk.

Although the PFL landscape is evolving quickly in the United States, some insurers are still waiting to see how things will play out before investing in PFL. Other insurers see opportunities to fill coverage gaps and provide much needed benefits through PFL insurance options. The incentives to develop PFL products may be elevated if the PFL Model Act gains traction.

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