HEALTH ACTUARIAL (B) TASK FORCE

Draft: 3/27/24

Health Actuarial (B) Task Force
Phoenix, Arizona
March 15, 2024

The Health Actuarial (B) Task Force met in Phoenix, AZ, March 15, 2024. The following Task Force members participated: Anita G. Fox, Chair, represented by Kevin Dyke (MI); Jon Pike, Vice Chair, represented by Ryan Jubber (UT); Mark Fowler represented by Sanjeev Chaudhuri (AL); Ricardo Lara represented by Ahmad Kamil (CA); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Paul Lombardo (CT); Doug Ommen represented by Klete Geren (IA); Amy L. Beard represented by Scott Shover (IN); Vicki Schmidt represented by Nicole Boyd (KS); Kathleen A. Birrane represented by Brad Boban (MD); Robert L. Carey represented by Marti Hooper (ME); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Michael Muldoon (NE); D.J. Bettencourt represented by Jennifer Li (NH); Justin Zimmerman represented by Seong-min Eom (NJ); Judith L. French represented by Craig Kalman (OH); Glen Mulready represented by Andrew Schallhorn (OK); Cassie Brown represented by R. Michael Markham (TX); Scott A. White represented by David Shea (VA); and Mike Kreidler represented by Lichiou Lee (WA).

1. Adopted its Feb. 20 Minutes

Dyke said the Task Force met Feb. 20. During this meeting, the Task Force took the following action: 1) adopted its 2023 Fall National Meeting minutes; 2) adopted a proposal from the Long-Term Care Actuarial (B) Working Group to add language to *Actuarial Guideline LI—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves* (AG 51) that clarifies that regardless of which annual statement blank an insurer files, it must make an AG 51 filing if the AG 51 filing requirement criteria are met; 3) discussed an American Academy of Actuaries (Academy)/Society of Actuaries (SOA) 2013 Individual Disability Income Valuation Tables update proposal; and 4) exposed an SOA proposal to revise VM-26, Credit Life and Disability Reserve Requirements, Section 3.B. Contract Reserves for Credit Disability Insurance for a 45-day public comment period ending March 22.

Muldoon made a motion, seconded by Trexler, to adopt the Task Force's Feb. 20 minutes (Attachment One). The motion passed unanimously.

2. Adopted its Amended 2024 Charges

Dyke presented the Task Force's proposed amended 2024 charges (Attachment Two). He said the amendments reflect that the Long-Term Care Actuarial (B) Working Group now reports to the Long-Term Care Insurance (B) Task Force and no longer reports to the Health Actuarial (B) Task Force.

Leung made a motion, seconded by Lombardo, to adopt the Task Force's amended 2024 charges. The motion passed unanimously.

3. Heard an Update on SOA Research Institute Activities

Achilles Natsis (SOA) and Kate Eubank (SOA) gave a presentation (Attachment Three) on SOA Research Institute activities. Natsis said the study used Health Care Cost Institute (HCCI) data with an exposure of approximately 47 million member months.

Eubank said the SOA plans to do an updated long-term care insurance (LTCI) experience study. She said the previous study was published in 2020 and used experience through 2016. Eubank said that if the SOA can obtain

the needed level of company participation, it would like to begin data collection in early 2025. Dyke said that since LTCI actuarial issues are no longer under the Task Force's charges, the Long-Term Care Actuarial (B) Working Group will be able to assist in discussions with companies about participating in the study.

4.   Heard a Presentation from the SOA on its Education Redesign

Ann Weber (SOA) said the SOA provided presentations to the Health Actuarial (B) Task Force, the Life Actuarial (A) Task Force, and the Casualty Actuarial and Statistical (C) Task Force on its SOA fellow education redesign plans during the 2023 Summer National Meeting. It also provided an update to them during the 2023 Fall National Meeting. She said certain educational material will be moved to a certificate specific to Fellows who will sign NAIC annual statements. Weber said that since last spring, the SOA has been dialoguing with the three Task Forces' chairs and keeping them up to date on timing and other factors related to the project. She said the SOA clarified that it recognizes that all Fellows must have education that encompasses knowledge of certain topics essential for analyzing the adequacy of reserves. Weber said the SOA board will review the learning objectives for the new program soon, which will be implemented in 2026.

Weber said the SOA and Academy formed a joint work group in January that includes state insurance regulator representation. She said one of the goals of that group is to consider how it can best coordinate the new fellowship education program once it has been finalized. She said the SOA will keep the three Task Forces updated in the coming year.

5.   Heard an Update from the CCIIO

Rebecca Lund (federal Center for Consumer Information and Insurance Oversight—CCIIO) said CCIIO published a proposed 2025 plan year rate review timeline bulletin last year. She said if the bulletin is finalized as proposed, issuers in states with an effective rate review program would be required to submit proposed rate filings by July 17, and the deadline for issuers in states without an effective rate review program would be June 3. Lund said CCIIO will post proposed rate filings on www.ratereview.healthcare.gov. for consumer comment Aug. 1. She said all changes to proposed rate filings would need to be made in the Uniform Rate Review module of the Health Insurance Oversight System by July 17.

Lund said that for final rate determinations, CCIIO has proposed a deadline of Aug. 14 for all states with exchanges served by the healthcare.gov platform. She said the proposed deadline for states that do not use the healthcare.gov platform is Oct. 15. Lund said CCIIO intends to post final rate filings Nov. 1.

Lund said CCIIO is working to publish a revised version of the Unified Rate Review instructions that would be applicable to plan year 2024 and future years. She said proposed changes for the 2024 plan year are minimal, so issuers can and should continue to use the plan year 2023 instructions until the revised version is published.

Jeff Wu (CCIIO) said CCIIO has met with UnitedHealthcare and Change Healthcare concerning the recent cyberattack on Change Healthcare to determine the scope of services they provide to providers, payers, and clearinghouses. He said Change Healthcare is a large clearinghouse on both the provider and payer side and also provides ancillary services in connection with its clearinghouse functions. Wu said the federal Centers for Medicare & Medicaid Services (CMS) and CCIIO have been particularly concerned with cash flows to affected providers. He said CMS will make advance payments through its Medicare Part A and Part B programs to ease the impact of claim payment interruptions.

Wu said CMS has encouraged payers across the country to make advance payments to providers that have been affected. He said they have made states' Medicaid agencies aware of the flexibility they have or will be permitted in these circumstances to make payments quickly to providers. Wu said guidance documents and encouragement

have been given to states to apply for waivers that can be used to quickly facilitate payments. He said a question has arisen from providers recently about how the issues with Change Healthcare intersect with timelines in the federal No Surprises Act (NSA) and dispute resolution processes for claims payments. Wu said many of these timelines are contractual or state-specific and are not federal timelines, so CMS does not have the direct ability to affect these. He said there are some hard deadlines coded into the NSA, but these are triggered by receipt of payment or denial of payment for a service. Wu said the ability to eventually bring dispute resolution cases into arbitration and the resolution of those should not be affected.

Milan Shah (CCIIO) said CCIIO has been working closely with insurance companies Optum and Change Healthcare concerning their provision of External Data Gathering Environment (EDGE) server services. She said CCIIO published the interim risk adjustment report for benefit year 2023 yesterday, and the data used in the report is from January. Shah said the issues with the cyberattack on Change Healthcare did not affect the data used in the report. She said when CCIIO became aware of the cyberattack, it began to work with Optum to mitigate problems with 2023 data submissions to the EDGE server and with medical record review processes provided by Optum. Shah said Optum built new servers for insurers that were impacted, and CCIIO hopes to receive enrollment and claims data for affected insurers within the next few weeks.

Shah said medical record review has been affected because Change Healthcare provided this service for many insurers. She said CCIIO has been working with Optum to determine how affected companies can be assisted. Shah said another issue affecting insurers is the clearinghouse used for claims processing. She said CCIIO is working on the benefit year 2023 data submissions to the EDGE server, and a concern is run-off claims, which are usually much larger claims or institutional claims that have a higher risk associated with them.

6. Heard an Update from the Academy Health Practice Council on its Activities

Matthew Williams (Academy) gave an update (Attachment Four) on recent Academy Health Practice Council activities.

7. Heard an Academy Professionalism Update

Lisa Slotznick (Academy) said the Academy's Committee on Qualifications (COQ) issued an updated final amended U.S. Qualification Standards (USQS) in late 2021 and updated the frequently asked questions (FAQ) section of it in 2022. She said the USQS specifies the qualifications for issuing a statement of actuarial opinion (SAO), which is defined as an opinion expressed in the course of performing actuarial services, and the opinion is expected to be relied upon. Slotznick said this is not limited to required regulatory opinions and applies to any actuarial service. She said she has found that in presentations she has made concerning the updated USQS, someone always tells her afterward that they were not aware of the revisions to it.

Slotznick said to date this year, the COQ has received four questions on the USQS, covering primarily continuing education (CE) and qualifications of a casualty-appointed actuary. She said for each question received, a response is provided, and the COQ considers whether these questions merit additions to the FAQ section. Slotznick said the COQ welcomes additional questions, and some individual-specific questions may be referred to the Actuarial Board for Counseling and Discipline (ABCD) for a request for guidance. She said the amendments to the USQS include language stating that if an actuary was qualified under a prior USQS, the qualification remains in force, but for other actuaries, qualification is based on completion of the actuarial credential rather than on current memberships in an actuarial organization. Slotznick said an item in the amended USQS affecting all actuaries is the new CE requirement to have one hour of bias-related CE annually.

Dyke said he is the incoming chair of the Actuarial Standards Board (ASB) for 2024. He said specific to the health practice, three Actuarial Standards of Practice (ASOPs) are currently under development. He said ASOP No. 28,

Statements of Actuarial Opinion Regarding Health Insurance Assets and Liabilities, has been exposed for comment with a small revision to make its scope consistent with proposed changes to ASOP No. 36, Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves. Dyke said both are being reviewed at the ASB's meeting next week and will be finalized together to take effect on the same date to ensure consistency. He said ASOP No. 49, Medicaid Managed Care Capitation Rate Development and Certification, is currently under development. Dyke said ASOP No. 45, The Use of Health Status Based Risk Adjustment Methodologies, will undergo a revision process now that ASOP No. 12, Risk Classification (for All Practice Areas), has been exposed for comment.

Dyke said the ASB is working on several revisions to ASOPs in the general practice area. He said revisions to ASOP No. 12, Risk Classification (for All Practice Areas), were exposed for comment in January, with a comment deadline of May 1. He said revisions to ASOP No. 7, Analysis of Life, Health, or Property/Casualty Insurer Cash Flows, have been exposed for comment with a comment deadline of June 1. He said the ASB continues to review ASOP No. 41, Actuarial Communications, after having received 38 individual comment letters. Dyke said another draft exposure of ASOP No. 41 is expected after revisions resulting from comments received are made.

Dyke said the Academy will host a professionalism webinar, *Self-Regulation and the ASOPs: Your Professionalism Toolbox*, on April 18.

Shawna Ackerman (California Earthquake Authority—CEA) said the ABCD performs two primary functions: 1) it responds to actuaries for guidance on professionalism issues; and 2) it considers complaints about possible violations of the Academy's Code of Professional Conduct (CPC). She said the ABCD received more than 120 requests for guidance (RFGs) in 2023, with about 30% of those RFGs coming from the health practice area on a range of professionalism topics from advertising to qualification standards. She said the ABCD continues to encourage actuaries to use the RFG process.

Ackerman said that since the ABCD's last report to the Task Force, it hosted its annual webinar, *Tales from the Dark Side*, on Dec. 19, 2023. She said a recording of the webinar is available on the Academy's website. Ackerman said the ABCD has scheduled a webinar to be held June 3.

Ackerman said the ABCD has a standing column in *Contingencies* magazine called *Up to Code*, and the January/February column features a fictitious state insurance regulator as one of the characters.

8. Discussed Medicare Supplement Underwriting and Rating Issues

Dyke discussed a presentation (Attachment Five) from Muldoon on Medicare supplement underwriting and rating issues. He said the Task Force will schedule a future meeting where Muldoon will give the presentation and provide an opportunity for discussion.

Having no further business, the Health Actuarial (B) Task Force adjourned.

SharePoint/NAIC Support Staff Hub/Member Meetings/B CMTE/HATF/2024_Spring/HATF/3-15 HATF/HATF Minutes 03-15-24.docx

Draft: 2/28/24

<div align="center">
Health Actuarial (B) Task Force
Virtual Meeting
February 20, 2024
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The Health Actuarial (B) Task Force met Feb. 20, 2024. The following Task Force members participated: Anita G. Fox, Chair, represented by Kevin Dyke (MI); Jon Pike, Vice Chair, represented by Ryan Jubber (UT); Mark Fowler represented by Sanjeev Chaudhuri (AL); Michael Conway represented by Eric Unger (CO); Andrew N. Mais represented by Paul Lombardo (CT); Michael Yaworsky represented by Kyle Collins (FL); Gordon I. Ito represented by Max Tang (HI); Doug Ommen represented by Klete Geren (IA); Amy L. Beard represented by Scott Shover (IN); Vicki Schmidt represented by Nicole Boyd (KS); Kathleen A. Birrane represented by Brad Boban (MD); Timothy N. Schott represented by Marti Hooper (ME); Grace Arnold represented by Julia Lyng (MN); Chlora Lindley-Myers represented by William Leung (MO); Eric Dunning represented by Michael Muldoon (NE); D.J. Bettencourt represented by Jennifer Li (NH); Justin Zimmerman represented by Seong-Min Eom (NJ); Judith L. French represented by Craig Kalman (OH); Glen Mulready represented by Andrew Schallhorn (OK); Michael Humphreys represented by Dave Yanick (PA); Alexander S. Adams Vega represented by Carlos Valles (PR); Cassie Brown represented by Aaron Hodges (TX); and Mike Kreidler represented by Lichiou Lee (WA).

1. Adopted its 2023 Fall National Meeting Minutes

Muldoon made a motion, seconded by Lombardo, to adopt the Task Force's Nov. 30, 2023, minutes (*see NAIC Proceedings – Fall 2023, Health Actuarial (B) Task Force*). The motion passed unanimously.

2. Adopted an AG 51 Proposal

Dyke introduced a proposal received from the Long-Term Care Actuarial (B) Working Group (Attachment One-A) to add language to *Actuarial Guideline LI—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves* (AG 51) that clarifies that regardless of which annual statement blank an insurer files, it must make an AG 51 filing if the AG 51 filing requirement criteria are met.

Leung made a motion, seconded by Schallhorn, to adopt the proposal. The motion passed unanimously.

Dyke said the proposal will be forwarded to the Long-Term Care Actuarial (B) Task Force for its consideration.

3. Discussed an Academy/SOA 2013 IDIVT Update Proposal

Jay Barriss (Lincoln Financial) said the Society of Actuaries (SOA) Individual Disability Insurance Experience Committee (IDIEC) plans to put together an experience study that would involve both claim termination rates and claim incidence rates in order to update its current experience study that reflects experience only through 2007. He said the proposed study would be used to update the 2013 Individual Disability Income Valuation Tables (IDIVT) used as a reserving standard. He said recent experience indicates lower mortality rates and claim termination rates that are 40%–50% lower than those in the experience the 2013 IDIVT was based on. Barriss said lower claim termination rates imply that disabled life reserves calculated using the 2013 IDIVT may not be sufficient. He said the IDIEC hopes to implement a study in 2024 using experience data through 2023. He said active life reserves are also impacted by newer experiences, and incidence rates have improved in the industry over the last 15–20 years. Barriss said there is an expectation that the active life reserves are excessive compared to the 2013 IDIVT, and the current incidence experience is probably 30%–40% better than in those tables. He said most of the liability is on

the disabled life reserve side and thinks that, in the aggregate, once the study is completed, we will see an increase in the disabled life reserves and a decrease in the active life reserves, with an increase in the total reserves needed.

Barriss said the SOA is still in the funding stage of the project and has reached out to solicit carriers to participate in the study. He said that given the new SOA funding requirements, there would need to be enough carriers willing to buy the final report for approximately $25,000 each to begin the work on the report. He said the SOA has been unable to obtain sufficient companies interested in buying the report to fund the study. Dyke said if Barriss can provide a list of companies that have been identified as likely participants, the Task Force could perhaps reach out to them to discuss the opportunity. He said the Task Force can also discuss the issue with the SOA in the future.

4. Discussed an SOA VM-26 Credit Disability Update Proposal

Dyke presented an amendment proposal form (APF) (Attachment One-B) to revise VM-26, Credit Life and Disability Reserve Requirements, Section 3.B. Contract Reserves for Credit Disability Insurance, and supporting documents according to the changes (Attachment One-C) and (Attachment One-D). Christopher Hause (Hause Actuarial Solutions) gave an overview of the APF and supporting documents. He said the 2023 study shows a significant redundancy relative to the current valuation standards.

Dyke said the APF and supporting documents will be exposed for public comment until March 22.

Having no further business, the Health Actuarial (B) Task Force adjourned.

SharePoint/NAIC Support Staff Hub/Committees/B CMTE/HATF/2024_Spring/HATF/2-20 HATF/HATF Minutes 02-20-24.docx

Adopted by the Long-Term Care Actuarial (B) Working Group 11/30/23

To: Long-Term Care Actuarial (B) Working Group Members, Interested Regulators, and Interested Parties

The Health Risk-Based Capital (E) Working Group established the Health Test Ad Hoc Group in 2018 to review the health test language within the Annual Statement Instructions due to inconsistencies in reporting of health business across the different blanks, as well as a significant amount of health business reported on the life and fraternal blank. Through the evaluation and discussion of changes to the health test, there was a question brought up as to whether an entity would still be required to comply with Actuarial Guideline LI—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves (AG 51) requirements for long-term care insurance (LTCI) business if the entity moved from the life blank to the health blank. In consideration of the Health Risk-Based Capital (E) Working Group's request for a sentence to be added to AG 51 to clarify the applicability to insurers filing health blanks, the Long-term Care Actuarial (B) Working Group is considering the following wording that would indicate that regardless of the blank the entity files, AG 51 filing is required by the entity if the criteria stated in the Guideline are met.

Please review the proposed addition to Section 3 of AG 51below and provide comments to eking@naic.org by Wednesday,, October 18:

3.   Scope
This Guideline shall apply to a company with over 10,000 inforce lives covered by long-term care insurance contracts as of the valuation date, **regardless of which Annual Statement blank (Health, Life/Accident/Health & Fraternal, or Property/Casualty) the company files with its domiciliary state's insurance regulatory authority**. All long-term care insurance contracts, whether directly written or assumed through reinsurance are included. Accelerated death benefit products or other combination products where the substantial risk of the product is associated with life insurance or an annuity are not subject to this Guideline.

Life Actuarial (A) Task Force/ Health Actuarial (B) Task Force
Amendment Proposal Form*

1. Identify yourself, your affiliation and a very brief description (title) of the issue.

Christopher H. Hause, FSA, MAAA Principal at Hause Actuarial Solutions and Chair of the Society of Actuaries' Credit Insurance Experience Committee.

2. Identify the document, including the date if the document is "released for comment," and the location in the document where the amendment is proposed:

Valuation Manual, section VM-26, Section 3.B. Contract Reserves for Credit Disability Insurance.

3. Show what changes are needed by providing a red-line version of the original verbiage with deletions and identify the verbiage to be deleted, inserted or changed by providing a red-line (turn on "track changes" in Word®) version of the verbiage. (You may do this through an attachment.)

Please see attached redline and "clean" version of the proposed changes.

4. State the reason for the proposed amendment? (You may do this through an attachment.)

Credit Disability experience has gradually improved since the original (1997) credit disability study. The 2022 study indicates that the current valuation standard contains claim costs that are from 190% to 276% of actual claim cost experience, based on the SOA's "2023 Credit Disability Study Report." The variations in the range shown above occur by elimination period and occupation class distributions observed over the period studied (2014 through 2022). The proposed changes to VM-26 remove the 12% addition to the 1985 CIDA incidence rates for newly issued contracts, since the addition of the 12% constitutes a margin that is no longer needed or justified by experience.

* This form is not intended for minor corrections, such as formatting, grammar, cross–references or spelling. Those types of changes do not require action by the entire group and may be submitted via letter or email to the NAIC staff support person for the NAIC group where the document originated.

NAIC Staff Comments:

Dates: Received	Reviewed by Staff	Distributed	Considered
Notes:			

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Health Care
Cost Trends
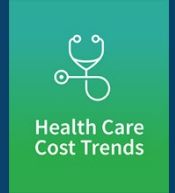
2023 Credit Disability Study Report – An Update of the 2014 SOA Study

JULY | 2023

SOA Research
INSTITUTE

2023 Credit Disability Study Report
An Update of the 2014 SOA Study

Author Christopher H. Hause, FSA, MAAA
President
Hause Actuarial Solutions

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SOA Research INSTITUTE

CONTENTS

2023 Credit Disability Study Report
An Update to the 2014 SOA Study

Section 1: Introduction

This study was undertaken to ensure the ongoing adequacy of the modified 1985 CIDA table as specified in Valuation Manual Section VM-26 for single premium credit disability insurance. In addition, the shift in the distribution of sales by term between contracts issued in previous study periods to 2017 and 2021 was analyzed.

In 1998, the Actuarial Committee of the Consumer Credit Insurance Association (CCIA) decided the industry needed a credit disability morbidity table that could be used for valuation and pricing. The result of the effort was the NAIC adoption of a modified version of the 1985 CIDA table as a valuation standard for single premium credit disability active life reserves. The NAIC adopted changes to SSAP 59, the Model A&H Valuation Regulation and Appendix A-010 in the Accounting Practices and Procedures Manual to implement the new standard.

As a part of the Principle-Based Reserve (PBR) effort by the NAIC, the section of the Valuation Manual dealing with credit insurance reserves (VM-26) contains a standard that single premium credit disability reserves will be based on a modified version of the 1985 CIDA table.

The evaluation of adequacy of the modified 1985 CIDA table within this report is in respect to morbidity experience only. VM-26 contains a requirement to hold an additional liability equal to the excess of the net refund liability for all credit life and credit disability contracts in aggregate over the recorded contract reserve. Actuarial opinions as to reserve adequacy consider both the contractual obligations and related expenses of the company. It is outside the scope of this study to ascertain or estimate whether the modified 1985 CIDA table provides adequate margins for the refund of unearned premium or ongoing expenses of an individual company.

Eight company groups representing over 90% of the single premium credit disability premium written in 2021 provided data for this study. Over $10 billion of initial insured indebtedness was included in this study.

Section 2: Executive Summary

The results of the current study indicate that:

- in aggregate, the valuation standards contained in the Valuation Manual continue to provide a very conservative basis for the valuation of single premium credit disability active life reserves. As shown in the current study (section 5.2), the expected claims represent approximately 38% of the modified 1985 CIDA that is currently the minimum standard required by Valuation Manual Section VM-26,

- the aggregate claim costs as a percentage of the minimum standard continue to decline from previous studies. The 2004 Credit Disability Study generated an aggregate ratio of 64.8%, the 2014 Study showed an aggregate ratio of 51.3% and the current study shows an aggregate ratio of 38.1% (table 7 in section 5.2),

- the average term of coverage in months fluctuated over the term of the study, from 49 in 2013, down to 43 in 2017 and then increased to 47 in 2021. There is also significant variation by plan of coverage (see tables 2 and 8 below). These shifts in terms of coverage were reflected in the study by distribution of term by coverage, which was used in developing the weighted average claim cost and weighted average prima facie rate, and

- the average age is relatively stable at approximately 44 (see table 9 below).

Section 3: Background

3.1 THE ORIGINAL 1998 STUDY

In 1998, the Actuarial Committee of the Consumer Credit Insurance Association (CCIA) sponsored the development of a credit disability morbidity table that could be used for valuation and pricing. A subcommittee of CCIA's Actuarial Committee consisting of Robert Butler (Chairman), Christopher Hause, Steve Ostlund and Craig Squier was formed to develop the new table.

The only existing tables at the time of credit disability experience were the NAIC's (National Association of Insurance Commissioners) 1968 and 1974 credit disability tables. Both the 1968 and the 1974 tables were created with all ages and genders combined.

Prior to the 1998 study, single premium credit disability active life reserves were nearly universally based on the unearned premium. The unearned premium methods in common use were the "Rule of 78" (sum of the digits) and the "Mean" (average of the Rule of 78 and Pro-rata) methods. While the Mean method was considered to represent a reserve that more closely matched the pattern of losses, both methods produced reserves that were heavily redundant and not sensitive to the underlying age distribution of the insured population.

The result of the 1998 effort was a recommendation to the NAIC to adopt a modified version of the 1985 CIDA table as a valuation standard for single premium credit disability active life reserves. The NAIC adopted changes to SSAP 59, the Model A&H Valuation Regulation and Appendix A-010 in the Accounting Practices and Procedures Manual (APPM) to implement the new standard. Subsequently, the sections of the APPM pertaining to credit insurance reserves were consolidated into VM-26 of the Valuation Manual.

The use of the modified 1985 CIDA table as a tool for pricing basic, full benefit, and prima facie equivalency demonstrations of alternative disability benefits has been adopted by the states on an ad hoc basis only, rather than as an accepted national standard.

3.2 UPDATED STUDY IN 2004

In 2004, the Credit Insurance Experience Committee of the Society of Actuaries, consisting of Jeanne Meeker Daharsh, Lawrence Fisher, Chris Hause (Chairperson), Jay Jaffe, Jonathan Jannarone, Gerard Lunemann, Steven Ostlund, Barry Owens, Elaine Pelletier, and Harvey Waite, released an updated study.

Some states had existing specific laws and regulations pertaining to credit disability that generally required a gross unearned premium reserve. As states began to adopt the new morbidity-based standard via law or regulation, concern was expressed whether the table remained adequate.

In addition, the enactment in 2001 of the Home Ownership and Equity Protection Act (HOEPA) curtailed the writing of single premium credit disability insurance on loans secured by real estate. The Committee took advantage of the opportunity to examine the shift in the distribution of sales by terms between contracts issued in 2000 and contracts issued in 2003. The 2004 study showed two items of note in the term distribution. First, the 72-month term showed increases in the percentage of initial insured indebtedness, at the apparent expense of the 36-month term, suggested by the lengthening term of automobile loans. Secondly, the 120-month percentage increased from 1997 to 2000, and decreased sharply with the 2003 data, presumably as a result of HOEPA and industry reaction to this and other restrictions on the sale of single premium credit disability on home equity secured loans.

3.3 UPDATED STUDY IN 2014

In 2014, the Credit Insurance Experience Committee of the Society of Actuaries, consisting of Mark A. Frie, Lester Garcia-Casariego, Chris Hause (Chairperson), Jay Jaffe, Gary S. Lange (Vice-chair), David McKay, Elaine Pelletier, and Candace Richter, released an updated study.

The results of the 2014 study showed a shift in the age and term distributions, and an increasing level of conservatism in the valuation standard contained in the Model A&H Valuation Regulation.

3.4 REASONS FOR AN UPDATED STUDY

As a part of the Principle-Based Reserve (PBR) effort by the NAIC, the section of the Valuation Manual dealing with credit insurance reserves (VM-26) contains a standard that single premium credit disability reserves will be based on a modified version of the 1985 CIDA table. It is important to ensure the VM-26 standard remains appropriate. The study results show a considerable amount of conservatism in the current NAIC standard as demonstrated by section 5.2 "Adequacy of the Valuation Table."

The Committee used the submitted data to examine the shift in the distribution of sales by term between contracts issued in previous studies to 2017 and 2021. A table comparing the various exposures by term is shown in table 8 "Comparison of Term Distribution."

Section 4: How the Study Was Carried Out

The basic approach to the study was the same as the previous studies. A data request was sent to all companies writing significant amounts of single premium credit disability insurance in the format shown in appendices A and B. Companies representing over 90% of the single premium credit disability premium written in 2021 submitted data. From this data, a distribution of exposure by elimination period was constructed. The 2017 distribution by elimination period, age, and term of coverage is shown in appendix C.

An actual-to-expected ratio was determined as follows:

The "actual" claim cost for each plan is derived by calculating a loss cost for each state based on the prima facie loss ratio, for each year 2013 - 2021. The prima facie loss ratio is reported annually on the Credit Insurance Experience Exhibit (CIEE). The CIEE data are reported by each company writing credit insurance for each state. For credit disability, the experience is separated by Single Premium, Closed-End Monthly Outstanding Balance, and Open-End Monthly Outstanding Balance. For each premium type, the data are further split by the waiting period for benefits. For this study, we are concerned only with the Single Premium experience.

Examples of the calculation of "actual" claim costs are shown in table 1 below. For instance, the total prima facie earned premium for the 7-day retroactive benefit for calendar years 2018-2021 was $349,721,848 and the Incurred Claims over the same period were $93,334,343, producing a 26.7% loss ratio. This 26.7% loss ratio was multiplied by the weighted average (across all states and terms of coverage) prima facie rate of $4.53 to produce an "actual" claim cost of $1.21 per $100 of initial insured indebtedness.

Table 1
WEIGHTED PRIMA FACIE RATE AND IMPLIED CLAIM COST FOR ALL TERMS COMBINED

	7-Day Retroactive			Per $100 of Initial Indebtedness	
Year	Earned Premium	Incurred Claims	Loss Ratio	Weighted Rate	Implied Claim Cost
2018	85,302,112	24,337,829	28.5%	4.57	1.30
2019	86,531,722	25,782,592	29.8%	4.53	1.35
2020	89,268,040	22,653,944	25.4%	4.53	1.15
2021	88,619,974	20,559,978	23.2%	4.50	1.04
2018-2021	349,721,848	93,334,343	26.7%	4.53	1.21

	14-Day Retroactive			Per $100 of Initial Indebtedness	
Year	Earned Premium	Incurred Claims	Loss Ratio	Weighted Rate	Implied Claim Cost
2018	192,011,022	67,492,140	35.2%	3.65	1.28
2019	203,549,359	62,050,370	30.5%	3.63	1.11
2020	192,726,712	60,904,468	31.6%	3.62	1.14
2021	193,749,403	56,532,057	29.2%	3.63	1.06
2018-2021	782,036,496	246,979,035	31.6%	3.63	1.15

14-Day Elimination			Per $100 of Initial Indebtedness	
Year	Earned Premium	Incurred Claims	Loss Ratio	Weighted Rate	Implied Claim Cost
2018	3,352,514	2,103,348	62.7%	2.93	1.84
2019	2,246,416	1,073,460	47.8%	3.00	1.43
2020	1,703,803	654,364	38.4%	2.97	1.14
2021	1,355,353	491,478	36.3%	2.99	1.08
2018-2021	8,658,086	4,322,650	49.9%	2.96	1.48

30-Day Retroactive			Per $100 of Initial Indebtedness	
Year	Earned Premium	Incurred Claims	Loss Ratio	Weighted Rate	Implied Claim Cost
2018	10,298,098	4,133,228	40.1%	3.63	1.46
2019	7,784,716	2,977,275	38.2%	3.71	1.42
2020	5,933,952	1,679,914	28.3%	3.76	1.06
2021	4,384,744	1,122,609	25.6%	3.87	0.99
2018-2021	28,401,510	9,913,026	34.9%	3.72	1.30

30-Day Elimination			Per $100 of Initial Indebtedness	
Year	Earned Premium	Incurred Claims	Loss Ratio	Weighted Rate	Implied Claim Cost
2018	4,210,112	2,871,517	68.2%	2.62	1.78
2019	3,608,715	1,844,638	51.1%	2.62	1.34
2020	3,137,071	1,428,899	45.5%	2.61	1.19
2021	2,688,041	1,310,066	48.7%	2.60	1.27
2018-2021	13,643,939	7,455,120	54.6%	2.61	1.43

Table 2 compares the calculated claim cost per $100 of initial insured indebtedness for each plan based on three separate grouped time periods. The decision was made to use the years 2018 – 2021 for the study period after carefully examining the loss costs from 2013 – 2021. Ultimately, the decision was made to use 2018 – 2021 because it was the most recent data available.

Table 2
AGGREGATE CLAIM COST PER $100 INITIAL INSURED INDEBTEDNESS BY EXPERIENCE YEARS

Plan	2013-2017	2018-2021	2013-2021
7-Day Retroactive	1.34	1.21	1.28
14-Day Retroactive	1.19	1.15	1.17
14-Day Elimination	1.76	1.48	1.68
30-Day Retroactive	1.46	1.30	1.42
30-Day Elimination	1.53	1.43	1.50
Total	**1.26**	**1.18**	**1.23**

The "expected" claim cost is based on the 1985 CIDA table, weighted by age and term for each plan. The age and term weightings came from the data submitted by the participating companies. We used the company data for age and term distribution from contracts issued during calendar year 2017 because this is the midpoint of the company data collected.

There is some evidence that experience during the COVID pandemic was lower than previous periods. It has been theorized that this is because of reduced worksite accidents and recreational activities during the pandemic. Similar reductions in incidence rates have been observed in other disability programs, including Social Security (see "The Long-Range Disability Assumptions for the 2022 Trustees Report" from the Office

of the Chief Actuary, Social Security Administration, dated June 2, 2022). Available credit insurance data from 2022 and through the date of this report indicate that this low loss experience is persisting.

As previously mentioned, the "expected" table was the 1985 CIDA. Since the 1985 table is separated by gender, a gender mix was sought. However, since the gender mix was demonstrated in the 1998 study to have limited effect on the Actual to Expected (A/E) ratio, we used the same gender mix from the 1998 study – which was also used in the 2004 and 2014 studies. Also, since the 1985 CIDA is separated by four occupation classes, as in the previous studies, the proportions were determined using Department of Labor statistics (BLS Current Populations Survey - Household Data – Annual Averages – Employed persons by occupation, sex, and age).

4.1 GATHERING THE PLAN/AGE/TERM COMPANY DATA

In 2022, the Credit Insurance Experience Committee (CIEC) asked companies to submit their new credit disability single premium business written in 2017 and 2021 gross of any refunds. The data were collected for each of the elimination periods, original term of coverage in months, age last birthday at issue (or date of birth and issue date) and, where available, gender.

Collected premiums and original amount of insurance (insured monthly indemnity times the number of months insured) were provided. Business that is summary processed was to be excluded. Copies of the survey form and instructions are provided in appendices A and B.

Companies representing approximately 90% of the single premium credit disability market contributed their data. A list of the names of companies or company groups that contributed data can be found in section 8. The data submitted for each company were reviewed by term, age, and plan.

Some companies use a default age when the certificate is received without age. Where the data were heaped at a particular age, it was smoothed out by comparing it to the exposure at surrounding ages. The data were then grouped by the original terms in months (6, 12, 18, 24, 30, 36, 48, 60, 72, 84, 96, 108, and 120). The resulting distribution of 2017 new business is presented in appendix C. A description of the process used to collect and compile data is contained in appendix D.

Table 3 shows the average weighted term and age by plan from the survey for issue year 2017.

Table 3
AVERAGE WEIGHTED AGE AND TERM BY PLAN

Plan	Average Term in Months	Average Age
7-Day Retroactive	41.0	44.6
14-Day Retroactive	44.0	44.3
14-Day Elimination	54.8	44.4
30-Day Retroactive	58.1	42.6
30-Day Elimination	57.8	44.9
Unknown	12.2	43.4
Total	**42.5**	**44.3**

As in previous studies, there does not appear to be a significant difference in the age distribution by plan. The 30-day retroactive plan, which comprises 1.6% of total exposure, exhibited the only notable deviation from the aggregate age distribution. Thus, only the total age distribution was used throughout the study. There are more pronounced differences in the distribution of original term in months by plan so each plan's unique distribution by term was used throughout the study.

4.2 GATHERING THE "ACTUAL" LOSS COSTS FROM THE CREDIT INSURANCE EXPERIENCE EXHIBIT

Each year, all companies writing credit insurance complete the Credit Insurance Experience Exhibit as part of their annual statement filing. This exhibit is prepared for each state's own experience. The data are provided for credit life, disability, unemployment, and property insurance. The experience is also separated between single premium and monthly business. The credit disability business experience is further split into six elimination periods; 7-day retroactive, 14-day retroactive, 14-day elimination, 30-day retroactive, 30-day elimination and "All Other." Earned premiums and incurred losses are reported. Actual earned premiums are reported, as well as what the earned premiums for the state would be if all business were written at the state's prima facie rates in force at the end of the year. The data for all states are submitted electronically to the NAIC.

The single premium data for years 2018 through 2021 were selected for development of the actual loss costs. The primary purpose of the study is the validation of the use of the 1985 CIDA as a valuation table for single premium credit disability active life reserves. For this reason, the experience of monthly business was not considered. Further complicating the potential for inclusion of monthly premium business is the fact that a large percentage of monthly outstanding balance business is "bulk processed" so no age or term information is available.

Prima facie rates in force at each year end by state, plan and for the selected original terms of coverage in months (6, 12, 18, 24, 30, 36, 48, 60, 72, 84, 96, 108, and 120) were gathered and recorded.

Most states' prima facie rates allow a company to exclude pre-existing condition during the first six months of coverage if the condition resulted in treatment or medical advice during the six months prior to the effective date of coverage (6/6 pre-existing condition exclusion). A few states also allow the coverage to be written at higher rates if there is no exclusion of pre-existing conditions. Where this alternative exists, the rates for the 6/6 pre-existing exclusion coverage were selected. It is generally assumed that the rate differential for the two forms of pre-existing coverages is appropriate. The study, therefore, represents the net single premiums for credit disability insurance written with a 6/6 pre-existing exclusion.

Weighted single premium rates per $100 of initial insured indebtedness were determined for the U.S. and Puerto Rico combined for each of the nine experience years in the study. This was done separately for each of the five elimination periods and 13 original terms in months. The total earned premium at prima facie rates for each plan by state was used for the weighting.

Concern has been expressed in the past that not all companies properly adjust their actual earned premium to what the earned premium would be if prima facie rates were charged. For credit disability, the prima facie rates have been very stable as can be seen in table 1 above. Thus, we believe that a few companies' failure to accurately adjust actual earned premium to prima facie earned premium is not a significant source of error in this or the previous studies. The following summarizes the experience for the five plans. Shown is the weighted prima facie rate for all terms combined and the implied weighted claim cost. The distribution of the companies' 2017 new business by term within plan was used to get the weighted single rate.

As in previous studies, there were anomalies in the actual experience. It was decided in these previous studies not to pursue analyzing these anomalies since this is the nature of the business. For additional information on the explanation for these anomalies, refer to the report from the 1998 study. However, the fact that the 30-day plans exhibit a higher-than-expected claim level prompted the NAIC to adopt the use of the 14-day table for use in valuing 30-day plans. While some of the higher A/E ratio is likely because of the higher average term (see table 3), it cannot be entirely explained by term alone.

4.3 DERIVATION OF THE "EXPECTED" CLAIM COSTS

The 1985 CIDA has separate tables (incidence and termination rates) for males and females and four occupation classes. These tables also vary based on the elimination period, which are either 7 days, 14 days, 30 days, or 90 days (plus 0-day accident).

Using an assumed gender mix and occupational class distribution, three aggregate disability tables were constructed for the 7-day elimination, 14-day elimination and 30-day elimination periods. Disabled lives per 100,000 lives exposed by claim duration were computed for ages 22, 27, 32, 37, 42, 47, 52, 57, 62 and 67. The 5-point LaGrange formula that was recommended in the 1985 Transactions of the Society of Actuaries was used to compute the values for these ages. The 7-day elimination table was used to compute rates for the 7-day retroactive period plans. The 14-day elimination table was used for 14-day elimination and 14-day retroactive period plans and, likewise, for the 30-day elimination table.

No company recorded occupation in the data provided. These data are not routinely kept by the credit insurance industry. To establish an assumed distribution of occupational classes, the study used the distribution of the U.S. workforce determined from the Bureau of Labor Statistics published by the U.S. Department of Labor (BLS Current Populations Survey - Household Data – Annual Averages – Employed persons by occupation, sex and age).

A few of the companies captured gender in their databases, but most did not. For those that reported gender in 1997, 65% of their new business was males by count and 69% was males by exposure. Many of those that do not capture gender in their databases did run samplings of their new business by name to determine gender. The results of these samplings were very similar to the other data. Sensitivity testing of the male-female mix that was performed and documented in the 1998 study report showed a less than 5% difference in the weighted net single premium between the 70% male assumption and a 50% male assumption. Based on the limited data received and sensitivity test, the aggregate 1985 CIDA table used in the study assumes the in-force credit disability business is 70% male.

The occupational distribution by gender for each of the three years examined in the study is as follows:

Table 4
OCCUPATION CLASS BY YEAR AND GENDER

2013 Occupation Class	Male	Female
Class 1	34.8%	41.6%
Class 2	16.6%	30.4%
Class 3	22.6%	25.1%
Class 4	26.0%	2.9%

2017 Occupation Class	Male	Female
Class 1	36.2%	43.7%
Class 2	15.9%	28.6%
Class 3	21.7%	24.4%
Class 4	26.2%	3.3%

2021 Occupation Class	Male	Female
Class 1	38.5%	46.9%
Class 2	14.4%	25.9%
Class 3	19.8%	22.7%
Class 4	27.3%	4.5%

It is expected that the credit insurance distribution by occupation mirrors the workforce. It has been argued that the lower occupation risks are more likely to purchase credit insurance. It can also be argued that the professional and white-collar occupation classes (1 and 2) take out larger loans than occupation classes involving some or heavy manual duties (3 and 4) and that when they purchase credit insurance, the larger loan offsets the lower acceptance rate.

Section 5: Study Results

5.1 COMPARISON TO THE BLENDED 1985 CIDA

For each elimination period, there are eight tables containing the number of disabled lives by age at disablement and duration of claim through 20 years (two sexes and four occupation classes). Using each distribution by occupation in table 4 above and assuming 70% males, a composite table was produced. From this composite table, net single premiums were computed for each of the five elimination period plans of insurance. Net single premiums were computed for each age at disablement. Under this calculation, the resulting net single premiums assume the insured remains the same age throughout the period of coverage (labeled "No Aging" in table 5 below). From these net single premiums, a second set of net single premiums was created where the insured age increases throughout the period of coverage ("Aging" in table 5 below). The cost for each yearly advance in age was linearly interpolated between the central ages in each five-year age bracket.

Using the net single premiums thus computed, a net single premium was determined by weighting all ages and all terms using the distribution of the 2017 data submissions. We then compared this to the weighted claim cost of the industry experience for calendar years 2018 through 2021 combined.

The CIDA Net Single Premiums were calculated based on two separate bases. The "No Aging" basis is calculated based on the attained age remaining the same throughout the term of coverage and is presented solely for comparison to prior studies and for comparison purposes. The "Aging" basis is consistent with the manner in which companies apply the table in calculating reserves and assumes that the attained age increases each year during the term of the coverage.

Table 5
COMPARISON BASED ON 2013 OCCUPATION CLASS DISTRIBUTION

Plan	Prima Facie Premium Distribution	1985 CIDA Net Single Premiums Assuming		2018-2021 Experience Claim Cost	Actual to Expected w/Aging
		No Aging	Aging		
7-Day Retroactive	29.6%	2.88	2.98	1.21	40.6%
14-Day Retroactive	66.1%	2.60	2.72	1.15	42.3%
14-Day Elimination	0.7%	2.56	2.73	1.48	54.3%
30-Day Retroactive	2.4%	2.13	2.30	1.30	56.5%
30-Day Elimination	1.2%	1.75	1.90	1.43	75.3%
Total	100.0%	2.66	2.78	1.18	42.3%

COMPARISON BASED ON 2017 OCCUPATION CLASS DISTRIBUTION

Plan	Prima Facie Premium Distribution	1985 CIDA Net Single Premiums Assuming		2018-2021 Experience Claim Cost	Actual to Expected w/Aging
		No Aging	Aging		
7-Day Retroactive	29.6%	2.86	2.96	1.21	40.8%
14-Day Retroactive	66.1%	2.58	2.70	1.15	42.6%
14-Day Elimination	0.7%	2.54	2.71	1.48	54.6%
30-Day Retroactive	2.4%	2.11	2.28	1.30	57.0%
30-Day Elimination	1.2%	1.74	1.88	1.43	75.9%
Total	100.0%	2.64	2.76	1.18	42.6%

COMPARISON BASED ON 2021 OCCUPATION CLASS DISTRIBUTION

Plan	Prima Facie Premium Distribution	1985 CIDA Net Single Premiums Assuming		2018-2021 Experience Claim Cost	Actual to Expected w/Aging
		No Aging	Aging		
7-Day Retroactive	29.6%	2.84	2.94	1.21	41.1%
14-Day Retroactive	66.1%	2.56	2.68	1.15	42.9%
14-Day Elimination	0.7%	2.52	2.69	1.48	55.1%
30-Day Retroactive	2.4%	2.09	2.26	1.30	57.6%
30-Day Elimination	1.2%	1.72	1.86	1.43	76.7%
Total	100.0%	2.62	2.74	1.18	43.0%

5.2 ADEQUACY OF THE VALUATION TABLE

The Valuation Table is defined in Valuation Manual Section VM-26 as the 1985 CIDA, using 112% of the incidence rates and using the 14-day table for 30-day elimination and retroactive plans. To confirm the appropriateness of the use of the Valuation Table, we compared the table 5 results with Aging to the VM-26 standard.

Table 6

COMPARISON BASED ON 2013 OCCUPATION CLASS DISTRIBUTION

Plan	Prima Facie Premium Distribution	Val Table Net Single Premiums Assuming		2018-2021 Experience Claim Cost	Actual to Expected w/Aging
		No Aging	Aging		
7-Day Retroactive	29.6%	3.22	3.34	1.21	36.2%
14-Day Retroactive	66.1%	2.91	3.04	1.15	37.8%
14-Day Elimination	0.7%	2.87	3.05	1.48	48.5%
30-Day Retroactive	2.4%	3.19	3.42	1.30	38.0%
30-Day Elimination	1.2%	2.56	2.77	1.43	51.6%
Total	100.0%	3.00	3.13	1.18	37.6%

COMPARISON BASED ON 2017 OCCUPATION CLASS DISTRIBUTION

Plan	Prima Facie Premium Distribution	Val Table Net Single Premiums Assuming		2018-2021 Experience Claim Cost	Actual to Expected w/Aging
		No Aging	Aging		
7-Day Retroactive	29.6%	3.21	3.32	1.21	36.4%
14-Day Retroactive	66.1%	2.89	3.03	1.15	38.0%
14-Day Elimination	0.7%	2.85	3.03	1.48	48.8%
30-Day Retroactive	2.4%	3.18	3.39	1.30	38.3%
30-Day Elimination	1.2%	2.54	2.74	1.43	52.2%
Total	100.0%	2.99	3.12	1.18	37.7%

COMPARISON BASED ON <u>2021</u> OCCUPATION CLASS DISTRIBUTION

Plan	Prima Facie Premium Distribution	Val Table Net Single Premiums Assuming		2018-2021 Experience Claim Cost	Actual to Expected w/Aging
		No Aging	Aging		
7-Day Retroactive	29.6%	3.18	3.29	1.21	36.8%
14-Day Retroactive	66.1%	2.87	3.00	1.15	38.3%
14-Day Elimination	0.7%	2.82	3.01	1.48	49.2%
30-Day Retroactive	2.4%	3.15	3.37	1.30	38.6%
30-Day Elimination	1.2%	2.52	2.72	1.43	52.6%
Total	100.0%	2.96	3.09	1.18	38.1%

The overall Actual to Expected ratios of 37.6%, 37.7% and 38.1% (lower right value in each table immediately above) infer that the reserves held under the current statutory standard are approximately 250% of the expected claims. This confirms the adequacy in aggregate – if not excessive redundancy – in the VM-26 minimum standard table, based on all the occupation class distributions studied. The fact that each individual plan's A/E ratio is less than 100% (the highest being 52.6%) reinforces the adequacy by plan, as well. The Committee recognizes that these A/E ratios currently include a significant amount of redundancy and will continue to monitor the redundancy in future analyses.

The Actual to Expected ratios by benefit type and in aggregate continue to decline, indicating an increase in the redundancy of the minimum reserve basis. The table below shows a steady decline in A/E ratios in aggregate and for all benefit types.

Table 7
COMPARISON TO PREVIOUS STUDIES' ACTUAL TO EXPECTED RATIOS

Plan	2004 Study Actual to Expected w/Aging	2014 Study Actual to Expected w/Aging	2023 Study Actual to Expected w/Aging
7-Day Retroactive	58.1%	50.8%	36.8%
14-Day Retroactive	63.7%	49.5%	38.3%
14-Day Elimination	98.8%	63.8%	49.2%
30-Day Retroactive	74.9%	58.3%	38.6%
30-Day Elimination	81.6%	71.1%	52.6%
Total	64.8%	51.3%	38.1%

5.3 TERM DISTRIBUTIONS AND AVERAGE AGE

Table 8 compares the term distribution of business over the period 2013 to 2021. The data are noteworthy for two reasons.

First, the high concentration at the 60-month term in 2013 moved downward in 2017 but increased markedly in 2021. Secondly, the 36-month term percentage was cut nearly in half by 2021, moving a high concentration of issues into the 48- to 60-month coverage. Whether the 2021 movement in terms of coverage represents a COVID-related distortion or a more permanent shift will be examined in later studies.

Table 8
COMPARISON OF TERM DISTRIBUTION – 2013 TO 2017 TO 2021

Term in Months	2013 Distribution	2017 Distribution	2021 Distribution
6	1.0	2.6	2.0
12	1.7	6.1	3.9
18	2.0	5.8	4.7
24	6.0	10.3	7.3
30	3.7	3.6	3.1
36	22.7	17.3	13.2
48	13.9	24.9	19.3
60	34.8	20.6	41.1
72	13.0	7.5	3.8
84	1.4	1.2	1.4
96	0.0	0.0	0.0
108	0.0	0.0	0.0
120	0.0	0.1	0.1
Total	100.0	100.0	100.0
Average	49.41	42.47	46.85

As shown in table 9 below, the overall average age increase has slowed and slightly reversed for the time periods contained in the current study.

Table 9
OVERALL AVERAGE AGE BY STUDY YEAR

Year	Average Age
1997	39.14
2000	40.73
2003	41.48
2008	43.01
2013	44.62
2017	44.29
2021	43.89

The data and trends in the two tables above are provided primarily for informational purposes, and do not affect the study results.

Section 6: Reliance and Limitations

No assessment has been made concerning the applicability of this experience to other purposes. In developing this report, the SOA Research Institute relied upon data and information supplied by the participating company contributors. For each contributing company, this information includes, but is not limited to, the data submission for certificates issued in the years requested and the responses to follow-up questions. The SOA Research Institute also relied on the NAIC for the data reported in the Credit Insurance Experience Exhibit.

The collection of data and the production of the claim costs and other results were performed by Hause Actuarial Solutions, Inc. under contract with the Society of Actuaries. All data and calculations comply with applicable professional standards and contributor confidentiality requirements.

The results in this report are technical in nature and are dependent on certain assumptions and methods. No party should rely upon these results without a thorough understanding of those assumptions and methods. Such an understanding may require consultation with qualified professionals. This report should be distributed and reviewed only in its entirety.

Section 7: Acknowledgments

The SOA Research Institute would like to extend its thanks to all participating companies for making this project a success. Without your support, such research projects would not be possible.
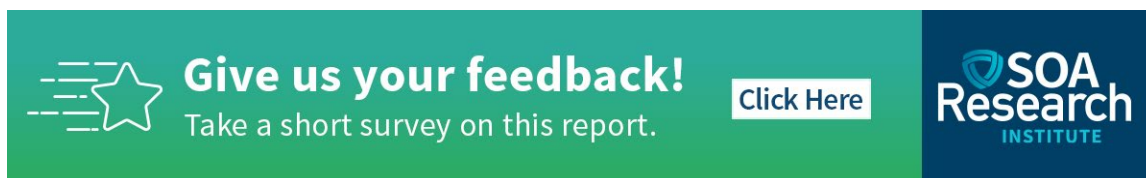
A list of the participating companies and company groups is included in section 8.

We would also like to thank the SOA Research Institute's Credit Insurance Experience Committee for its support, guidance, direction and feedback throughout the project.

The members of the Credit Insurance Experience Committee are:

- Christopher H. Hause, FSA, MAAA (Chair)
- Kent S. Barchers, FSA, MAAA
- Jay M. Jaffe, FSA, MAAA
- Donald (Zach) Kellar, FSA, MAAA
- Elaine N. Pelletier, FSA, MAAA
- Sally J. Smith, FSA, MAAA
- Jacob C. Wiederholt, ASA, MAAA

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Section 8: Participating Companies and Company Groups

American National Insurance Company
Central States Insurance Company of Omaha
CMFG Life Insurance Company (CUNA)
Fortegra Insurance Group
Kentucky Home and Mountain Life Insurance Companies
OneMain Financial Group
Pekin Life Insurance Company
Securian Financial Group

These contributing companies and company groups represent over 90% of the single premium credit disability premium written in 2021.

Appendix A: Credit Disability Data Request

New Business Writings Only (Refunds Excluded)

Company Name: _____

Company's 2017 Credit Disability Single Premium Direct Writings: _____

Company's 2021 Credit Disability Single Premium Direct Writings: _____

Amount and Percentage of Direct Business on Which Detail Data Provided: _____(2017)

_____(2021)

Period Covered by Detail Data:	2017 Data	2021 Data
Beginning Month and Year:	_____	_____
Ending Month and Year:	_____	_____

Contact: Name: _____

Address: _____

_____

Phone: _____

Email: _____

Appendix B: Data Request Layout

Description	Field Position	Comments
Company Name or ID (if confidential)*	1 to 20	
Age Last Birthday Low*	21 to 23	
Age Last Birthday High	24 to 26	Can be same as low
Original Term in Months*	27 to 29	Insert 000's if not available
Elimination Period:* 1 = 7 Retro 2 = 14 Retro 3 = 14 Elim 4 = 30 Retro 5 = 30 Elim 6 = Other 0 = Not Available	30	
Sex: 1 = Male 2 = Female 0 = Not Available	31	
Original Single Premium	32 to 43	Dollars and cents
Original Amount of Insurance Issued (Note: this equals monthly indemnity times term in months)	44 to 50	Dollars only
Monthly Indemnity*	51 to 57	Dollars and cents
Source of Business: 1 = Auto 2 = Financial Institution 3 = Finance Company 4 = Other 0 = Not Available	58	
Underwritten: 1 = Yes 2 = No 0 = Not Available	59	

Description	Field Position	Comments
Joint/Single: 1 = Single 2 = Joint 0 = Not Available	60	
Pre-ex Indicator: 1 = Pre-ex Applies 2 = No Pre-ex 0 = Not Available	61	
Critical Period Indicator 1 = Full Benefit 2 = Critical Period 0 = Not Available	62	
Real Estate Backed Loan 1 = Yes 2 = No 0 = Not Available	63	
Year of Issue* 17 = 2017 21 = 2021	64 to 65	

Appendix C: Distribution of Exposures by Age, Term and Plan

Distribution Of Credit Disability Exposure By Issue Age, Term in Months and Plan
Exposure Is Gross Insured Indebtedness Issued In 2017 (in '000)

I. 7 Day Retroactive Elimination Period

Term	Age 22	Age 27	Age 32	Age 37	Age 42	Age 47	Age 52	Age 57	Age 62	Age 67	Total	Distribution
6	2,836	2,920	2,922	2,889	2,439	2,341	2,210	1,798	1,100	252	21,707	0.7%
12	11,224	14,822	16,472	18,075	16,732	16,716	15,435	12,462	7,785	1,240	130,963	4.2%
18	11,912	18,745	22,397	24,932	24,587	26,165	24,554	19,832	11,688	1,561	186,373	6.0%
24	23,289	39,265	46,803	54,867	57,443	64,381	61,875	51,271	29,577	4,403	433,174	14.0%
30	6,542	10,949	14,466	17,911	19,347	22,964	22,049	19,964	11,237	1,204	146,633	4.7%
36	26,952	47,789	60,703	69,082	73,506	87,380	85,840	71,296	39,497	3,124	565,169	18.2%
48	26,261	62,001	83,368	101,805	117,220	142,178	143,286	121,323	71,452	3,555	872,449	28.2%
60	14,768	39,436	55,409	76,234	87,086	113,296	123,922	115,189	71,122	5,227	701,689	22.7%
72	3,088	3,391	3,533	3,731	4,007	3,205	4,787	4,483	2,533	194	32,952	1.1%
84	314	501	727	579	624	492	770	850	453	0	5,310	0.2%
96	0	0	0	0	109	0	0	0	27	0	136	0.0%
108	0	0	0	0	0	0	0	0	0	0	0	0.0%
120	0	76	76	32	299	68	46	0	0	0	597	0.0%
Total	127,186	239,895	306,876	370,137	403,399	479,186	484,774	418,468	246,471	20,760	3,097,152	100.0%
Distribution	4.1%	7.7%	9.9%	12.0%	13.0%	15.5%	15.7%	13.5%	8.0%	0.7%	100.0%	

Distribution Of Credit Disability Exposure By Issue Age, Term in Months and Plan
Exposure Is Gross Insured Indebtedness Issued In 2017 (in '000)

II. 14 Day Retroactive Elimination Period

Term	Age 22	Age 27	Age 32	Age 37	Age 42	Age 47	Age 52	Age 57	Age 62	Age 67	Total	Distribution
6	13,491	14,805	13,196	12,754	11,336	11,208	10,254	8,299	4,732	1,110	101,185	1.5%
12	29,454	42,380	45,381	50,225	49,233	51,442	47,120	37,211	22,161	2,992	377,599	5.5%
18	21,213	34,171	41,845	47,481	49,266	53,776	50,352	40,590	23,067	2,950	364,711	5.3%
24	38,305	60,118	68,776	79,603	86,633	95,047	92,051	76,584	42,332	5,441	644,890	9.3%
30	11,111	17,959	22,931	29,294	32,850	38,895	37,683	31,757	18,582	2,379	243,441	3.5%
36	66,294	106,436	129,448	151,604	172,058	193,769	186,235	161,730	87,680	8,587	1,263,841	18.3%
48	67,671	123,676	170,997	207,088	239,480	279,117	287,673	250,271	138,859	8,272	1,773,104	25.6%
60	53,939	89,096	119,377	148,724	176,497	221,038	235,259	228,490	123,620	8,704	1,404,744	20.3%
72	51,587	56,200	59,345	64,380	73,101	87,536	94,798	93,840	62,110	5,994	648,891	9.4%
84	4,672	6,974	9,285	8,250	10,010	13,545	15,608	14,828	9,854	820	93,846	1.4%
96	0	20	0	91	0	93	26	303	58	0	591	0.0%
108	17	0	0	0	0	100	0	91	0	0	208	0.0%
120	267	243	187	363	518	440	780	576	138	19	3,531	0.1%
Total	358,021	552,078	680,768	799,857	900,982	1,046,006	1,057,839	944,570	533,193	47,268	6,920,582	100.0%
Distribution	5.2%	8.0%	9.8%	11.6%	13.0%	15.1%	15.3%	13.6%	7.7%	0.7%	100.0%	

Distribution Of Credit Disability Exposure By Issue Age, Term in Months and Plan
Exposure Is Gross Insured Indebtedness Issued In 2017 (in '000)

III. 14 Day Elimination Period

Term	Age 22	Age 27	Age 32	Age 37	Age 42	Age 47	Age 52	Age 57	Age 62	Age 67	Total	Distribution
6	28	29	31	29	34	31	29	33	14	52	310	0.2%
12	158	187	256	298	368	294	326	218	167	69	2,341	1.8%
18	70	63	96	98	165	152	191	115	162	22	1,134	0.9%
24	304	373	345	407	436	709	654	593	379	27	4,227	3.3%
30	68	78	109	91	178	107	168	116	142	11	1,068	0.8%
36	992	1,172	1,384	1,402	1,833	1,946	2,346	1,916	1,150	107	14,248	11.0%
48	1,435	2,253	3,000	3,627	4,397	5,289	5,998	5,125	3,020	151	34,295	26.5%
60	2,623	3,715	3,980	4,600	4,447	6,512	7,527	6,435	2,986	405	43,230	33.4%
72	1,596	1,984	2,399	2,329	2,986	2,926	3,053	3,587	1,379	56	22,295	17.2%
84	310	562	641	553	875	953	936	671	274	32	5,807	4.5%
96	0	0	0	0	0	0	0	0	71	0	71	0.1%
108	0	0	0	0	0	0	14	0	0	0	14	0.0%
120	0	105	0	36	131	99	16	96	56	0	539	0.4%
Total	7,584	10,521	12,241	13,470	15,850	19,018	21,258	18,905	9,800	932	129,579	100.0%
Distribution	5.9%	8.1%	9.4%	10.4%	12.2%	14.7%	16.4%	14.6%	7.6%	0.7%	100.0%	

Distribution Of Credit Disability Exposure By Issue Age, Term in Months and Plan
Exposure Is Gross Insured Indebtedness Issued In 2017 (in '000)

IV. 30 Day Retroactive Elimination Period

Term	Age 22	Age 27	Age 32	Age 37	Age 42	Age 47	Age 52	Age 57	Age 62	Age 67	Total	Distribution
6	51	49	57	57	54	103	80	101	68	58	678	0.4%
12	231	313	322	425	418	544	637	549	370	66	3,875	2.2%
18	254	194	315	298	378	472	521	450	341	31	3,254	1.8%
24	860	724	691	810	641	885	1,105	982	828	127	7,653	4.3%
30	291	282	157	202	240	191	323	211	252	53	2,202	1.2%
36	2,039	1,922	1,217	1,733	1,864	2,172	1,978	2,195	1,327	143	16,590	9.4%
48	2,040	2,331	1,753	2,046	1,665	2,724	2,687	2,624	1,092	301	19,263	10.9%
60	6,638	4,998	7,196	6,293	4,750	6,291	6,541	6,401	4,101	370	53,579	30.2%
72	5,775	6,476	5,052	6,517	6,348	7,419	8,541	8,157	4,435	654	59,374	33.5%
84	519	651	840	1,500	1,075	1,078	1,988	1,435	973	0	10,059	5.7%
96	0	0	0	27	0	76	22	0	0	0	125	0.1%
108	68	7	22	15	22	43	0	79	0	0	256	0.1%
120	24	0	14	27	142	0	63	0	0	0	270	0.2%
Total	18,790	17,947	17,636	19,950	17,597	21,998	24,486	23,184	13,787	1,803	177,178	100.0%
Distribution	10.6%	10.1%	10.0%	11.3%	9.9%	12.4%	13.8%	13.1%	7.8%	1.0%	100.0%	

Distribution Of Credit Disability Exposure By Issue Age, Term in Months and Plan
Exposure Is Gross Insured Indebtedness Issued In 2017 (in '000)

V. 30 Day Elimination Period

Term	Age 22	Age 27	Age 32	Age 37	Age 42	Age 47	Age 52	Age 57	Age 62	Age 67	Total	Distribution
6	22	47	45	87	85	169	129	125	55	192	956	0.6%
12	114	225	433	639	596	860	784	1,016	426	62	5,155	3.2%
18	54	102	189	264	247	440	378	392	263	81	2,410	1.5%
24	244	383	607	630	760	1,017	1,065	973	666	51	6,396	4.0%
30	55	106	97	93	215	307	244	212	262	10	1,601	1.0%
36	753	1,355	1,431	1,980	2,114	2,947	3,159	2,964	1,489	94	18,286	11.4%
48	1,040	1,460	1,986	2,450	2,835	3,180	3,250	2,887	1,429	70	20,587	12.8%
60	1,945	2,666	3,516	3,693	4,858	6,628	6,238	5,834	3,720	336	39,434	24.6%
72	3,607	4,371	4,730	5,019	6,260	7,003	6,462	7,551	3,895	367	49,265	30.7%
84	771	1,334	1,454	1,128	1,521	2,512	2,881	2,139	1,324	137	15,201	9.5%
96	47	0	30	69	21	40	0	0	0	0	207	0.1%
108	0	0	0	0	0	0	0	0	0	0	0	0.0%
120	184	11	28	22	132	0	231	170	0	0	778	0.5%
Total	8,836	12,060	14,546	16,074	19,644	25,103	24,821	24,263	13,529	1,400	160,276	100.0%
Distribution	5.5%	7.5%	9.1%	10.0%	12.3%	15.7%	15.5%	15.1%	8.4%	0.9%	100.0%	

Distribution Of Credit Disability Exposure By Issue Age, Term in Months and Plan
Exposure Is Gross Insured Indebtedness Issued In 2017 (in '000)

VI. Plan is Unknown

Term	Age 22	Age 27	Age 32	Age 37	Age 42	Age 47	Age 52	Age 57	Age 62	Age 67	Total	Distribution
6	12,581	19,619	20,406	20,963	18,674	19,228	17,430	15,497	11,791	7,801	163,990	38.3%
12	8,148	14,211	15,994	18,041	18,390	20,261	20,220	16,703	10,563	4,462	146,993	34.3%
18	3,523	6,715	8,363	9,523	9,882	11,006	11,865	9,128	5,302	1,867	77,174	18.0%
24	1,076	2,289	3,018	3,749	4,263	4,789	4,738	4,208	2,171	695	30,996	7.2%
30	71	215	266	211	286	254	278	261	154	55	2,051	0.5%
36	383	660	785	790	681	837	804	642	256	16	5,854	1.4%
48	12	36	0	0	0	36	0	0	0	48	132	0.0%
60	0	0	80	40	17	30	0	0	0	0	167	0.0%
72	41	88	103	39	48	78	100	33	74	25	629	0.1%
84	0	0	0	0	84	0	0	0	0	0	84	0.0%
96	0	0	0	0	0	0	0	0	0	0	0	0.0%
108	0	0	0	0	0	0	0	0	0	0	0	0.0%
120	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total	25,835	43,833	49,015	53,356	52,325	56,519	55,435	46,472	30,311	14,969	428,070	100.0%
Distribution	6.0%	10.2%	11.5%	12.5%	12.2%	13.2%	12.9%	10.9%	7.1%	3.5%	100.0%	

Distribution Of Credit Disability Exposure By Issue Age, Term in Months and Plan
Exposure Is Gross Insured Indebtedness Issued In 2017 (in '000)

VII. Grand Total of All Plans Combined

Term	Age 22	Age 27	Age 32	Age 37	Age 42	Age 47	Age 52	Age 57	Age 62	Age 67	Total	Distribution
6	29,009	37,469	36,657	36,779	32,622	33,080	30,132	25,853	17,760	9,465	288,826	2.6%
12	49,329	72,138	78,858	87,703	85,737	90,117	84,522	68,159	41,472	8,891	666,926	6.1%
18	37,026	59,990	73,205	82,596	84,525	92,011	87,861	70,507	40,823	6,512	635,056	5.8%
24	64,078	103,152	120,240	140,066	150,176	166,828	161,488	134,611	75,953	10,744	1,127,336	10.3%
30	18,138	29,589	38,026	47,802	53,116	62,718	60,745	52,521	30,629	3,712	396,996	3.6%
36	97,413	159,334	194,968	226,591	252,056	289,051	280,362	240,743	131,399	12,071	1,883,988	17.3%
48	98,459	191,757	261,104	317,016	365,597	432,524	442,894	382,230	215,852	12,397	2,719,830	24.9%
60	79,913	139,911	189,558	239,584	277,655	353,795	379,487	362,349	205,549	15,042	2,242,843	20.6%
72	65,694	72,510	75,162	82,015	92,750	108,167	117,741	117,651	74,426	7,290	813,406	7.5%
84	6,586	10,022	12,947	12,010	14,189	18,580	22,183	19,923	12,878	989	130,307	1.2%
96	47	20	30	187	130	209	48	303	156	0	1,130	0.0%
108	85	7	22	15	22	143	14	170	0	0	478	0.0%
120	475	435	305	480	1,222	607	1,136	842	194	19	5,715	0.1%
Total	546,252	876,334	1,081,082	1,272,844	1,409,797	1,647,830	1,668,613	1,475,862	847,091	87,132	10,912,837	100.0%
Distribution	5.0%	8.0%	9.9%	11.7%	12.9%	15.1%	15.3%	13.5%	7.8%	0.8%	100.0%	

Appendix D: Data Collection and Manipulation Documentation

I) Gather data from companies and import into an Access Database Table.
II) Table Structure/Field Names as follows:
   a. CompanyName
   b. AgeLastBirthday_Low – Use this age for data manipulation
   c. AgeLastBirthday_High
   d. OriginalTerm_InMonths
   e. EliminationPeriod (This translates to the benefit type as follows)
      i. 1 = 7 Retro
      ii. 2 = 14 Retro
      iii. 3 = 14 Elim
      iv. 4 = 30 Retro
      v. 5 = 30 Elim
      vi. 6 = Other
      vii. 0 = Not Available
   f. Sex
      i. 1 = Male
      ii. 2 = Female
      iii. 0 = Not Available
   g. OriginalSinglePremium
   h. OriginalAmountOfInsuranceIssued (This is the field used for calculations)
   i. MonthlyIndemnity
   j. SourceOfBusiness
      i. 1 = Auto
      ii. 2 = Financial Institution
      iii. 3 = Finance Company
      iv. 4 = Other
      v. 0 = Not Available
   k. Underwritten
      i. 1 = Yes
      ii. 2 = No
      iii. 0 = Not Available
   l. Joint_Or_Single
      i. 1 = Single
      ii. 2 = Joint
      iii. 0 = Not Available
   m. PreExIndicator
      i. 1 = Pre-Existing applies
      ii. 2 = No Pre-Existing
      iii. 0 = Not Available
   n. CriticalPeriodIndicator
      i. 1 = Full Benefit
      ii. 2 = Critical Period
      iii. 0 = Not Available
III) Use VB utility to graph detail by Benefit to visually identify age bumps by Benefit.
   a. Line Graph is utilized to graphically identify spikes.
   b. Each line on the graph indicates an Elimination Period (7R, 14R, etc.).
   c. Total line sums all Elimination Periods.
   d. Age Bumps are defined as default ages. Unusual spikes indicate the use of a default age.

IV) Smooth Bumps
 a. For all Identified Bumps (example ages 34 and 45)
  For Each Benefit Type (14R, 7R, 30R, 14E, etc.)

   For Each Term (DB Field OriginalTermInMonths)

    Find terms on either side of bump. In this example ages 33 and 35, and ages 44 and 46

    Average amounts from age 33 and 35 and assign to age 34. Average amounts from age 44 and 46 and assign to age 45

 b. NOTE - If either side of age to be "smoothed" is zero, no smoothing occurs.

V) After data has been smoothed, create separate tables for each Elimination Period.
VI) Compress Months Data into the following categories:
 a. This is done by company, and by Elimination Period.
 b. DB Field -- Original Term In Months
  i. 6 Months = Months 1 – 9
  ii. 12 Months = Months 10 – 15
  iii. 18 Months = Months 16 – 21
  iv. 24 Months = Months 22 – 27
  v. 30 Months = Months 28 – 33
  vi. 36 Months = Months 34 – 42
  vii. 48 Months = Months 43 – 54
  viii. 60 Months = Months 55 – 66
  ix. 72 Months = Months 67 – 78
  x. 84 Months = Months 79 – 90
  xi. 96 Months = Months 91 – 102
  xii. 108 Months = Months 103 – 114
  xiii. 120 Months = Months 115 – 126
  xiv. Eliminate (or ignore) all terms >=127 Months
VII) Compress Age Data into following categories:
 a. This is done by company, and by Elimination Period.
 b. DB Field -- AgeLastBirthday_Low
  i. Eliminate (or ignore) all ages <=14
  ii. Age 22 = Ages 15 – 24
  iii. Age 27 = Ages 25 – 29
  iv. Age 32 = Ages 30 – 34
  v. Age 37 = Ages 35 – 39
  vi. Age 42 = Ages 40 – 44
  vii. Age 47 = Ages 45 – 49
  viii. Age 52 = Ages 50 – 54
  ix. Age 57 = Ages 55 – 59
  x. Age 62 = Ages 60 – 64
  xi. Age 67 = Ages 65 – 69
  xii. Eliminate (or ignore) all ages >=70
VIII) Combine totals of all the companies' data into a separate database containing totals tables for each elimination period. This combination process uses the "smooth" data before age and benefit month data are compressed at the single company level.
 a. 7 Day Retro Totals Table
 b. 14 Day Retro Totals Table
 c. 14 Day Elim Totals Table

         d.   30 Day Retro Totals Table

         e.   30 Day Elim Totals Table

         f.   Other Totals Table

         g.   Not Available Totals Table

IX)   Compress Totals for all companies' Months Data into the following categories. This combination process uses the "smooth" data before age and benefit month data are compressed at the single company level.

         a.   DB Field -- Original Term In Months

               i.   6 Months = Months 1 – 9

              ii.   12 Months = Months 10 – 15

             iii.   18 Months = Months 16 – 21

             iv.   24 Months = Months 22 – 27

               v.   30 Months = Months 28 – 33

             vi.   36 Months = Months 34 – 42

            vii.   48 Months = Months 43 – 54

          viii.   60 Months = Months 55 – 66

             ix.   72 Months = Months 67 – 78

               x.   84 Months = Months 79 – 90

             xi.   96 Months = Months 91 – 102

            xii.   108 Months = Months 103 – 114

           xiii.   120 Months = Months 115 – 126

           xiv.   Eliminate (or ignore) all terms >=127 Months

X)   Compress Totals for all companies' Age Data into following categories:

         a.   DB Field -- AgeLastBirthday_Low

               i.   Eliminate (or ignore) all ages <=14

              ii.   Age 22 = Ages 15 – 24

             iii.   Age 27 = Ages 25 – 29

             iv.   Age 32 = Ages 30 – 34

               v.   Age 37 = Ages 35 – 39

             vi.   Age 42 = Ages 40 – 44

            vii.   Age 47 = Ages 45 – 49

          viii.   Age 52 = Ages 50 – 54

             ix.   Age 57 = Ages 55 – 59

               x.   Age 62 = Ages 60 – 64

             xi.   Age 67 = Ages 65 – 69

            xii.   Eliminate (or ignore) all ages >=70

XI)   Copy grid from cross tab query created in Access into Excel for utilization in the final study documents.

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B. Contract Reserves

1. Contract reserves are required for all contractual obligations, which have not matured, of a company arising out of the provisions of a credit disability insurance contract consistent with claim reserves and unearned premium reserve, if any, held for their respective obligations.

2. The methods and procedures for determining contract reserves for credit disability insurance must be consistent with the methods and procedures for claim reserves for any contract, unless appropriate adjustment is made to assure provision for the aggregate liability. The date of incurral must be the same in both determinations.

3. The morbidity assumptions for use in determining the minimum standard for valuation of single premium credit disability insurance contract reserves are:

a.   aFor contracts issued to be effective prior to January 1, 2025:

i. For plans having less than a 15-day elimination period, the 1985 Commissioners Individual Disability Table A (85CIDA) with claim incidence rates increased by 12%.

bii. For plans having greater than a 14-day elimination period, the 85CIDA for a 14-day elimination period with claim incidence rates increased by 12%.

b.   For contracts issued to be effective January 1, 2025 and later:

i. For plans having less than a 15-day elimination period, the 1985 Commissioners Individual Disability Table A (85CIDA).

ii. For plans having greater than a 14-day elimination period, the 85CIDA for a 14-day elimination period.

4. The minimum contract reserve for credit disability insurance, other than single premium credit disability insurance, is the gross pro-rata unearned premium reserve.

5. The maximum interest rate for use in determining the minimum standard for valuation of single premium credit disability insurance contract reserves is the maximum rate allowed in Model #820 for the valuation of whole life insurance issued on the same date as the credit disability insurance contract.

6. A company shall not use a separate mortality assumption for valuation of single premium credit disability insurance contract reserves since premium is refunded upon death of the insured.

7. Use of approximations is permitted, such as those involving age groupings, average amounts of indemnity and grouping of similar contract forms; the computation of the reserve for one contract benefit as a percentage of, or by other relation to, the aggregate contract reserves exclusive of the benefit or benefits so valued; and the use of group methods and approximate averages for fractions of a year or otherwise.

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8. Annually, a company shall conduct a review of prospective contract liabilities on contracts valued by tabular reserves to determine the continuing adequacy and reasonableness of the tabular reserves. The company shall make appropriate increments to such tabular reserves if such tests indicate that the basis of such reserves is not adequate.

Draft: 3/15/24
Adopted by the Executive (EX) Committee and Plenary, MMDD2024
Adopted by the Health Insurance and Managed Care (B) Committee, MMDD2024
Adopted by the Health Actuarial (B) Task Force, 03/15/24

2024 Proposed Charges

HEALTH ACTUARIAL (B) TASK FORCE

The mission of the Health Actuarial (B) Task Force is to identify, investigate, and develop solutions to actuarial problems in the health insurance industry.

Ongoing Support of NAIC Programs, Products, or Services

1. The **Health Actuarial (B) Task Force** will:
   A. Provide support for issues related to implementation of, and/or changes to, the federal Affordable Care Act (ACA).
   B. Continue to develop health insurance reserving requirements (VM-25, Health Insurance Reserves Minimum Reserve Requirements) using a principle-based reserving (PBR) framework.
   C. Provide recommendations, as appropriate, to address issues and provide actuarial assistance and commentary to other NAIC groups relative to their work on health actuarial matters.
   D. Coordinate with the Long-Term Care Insurance (B) Task Force on LTCI recommendations of the Long-Term Care Actuarial (B) Working Group.

Staff Support: Eric King

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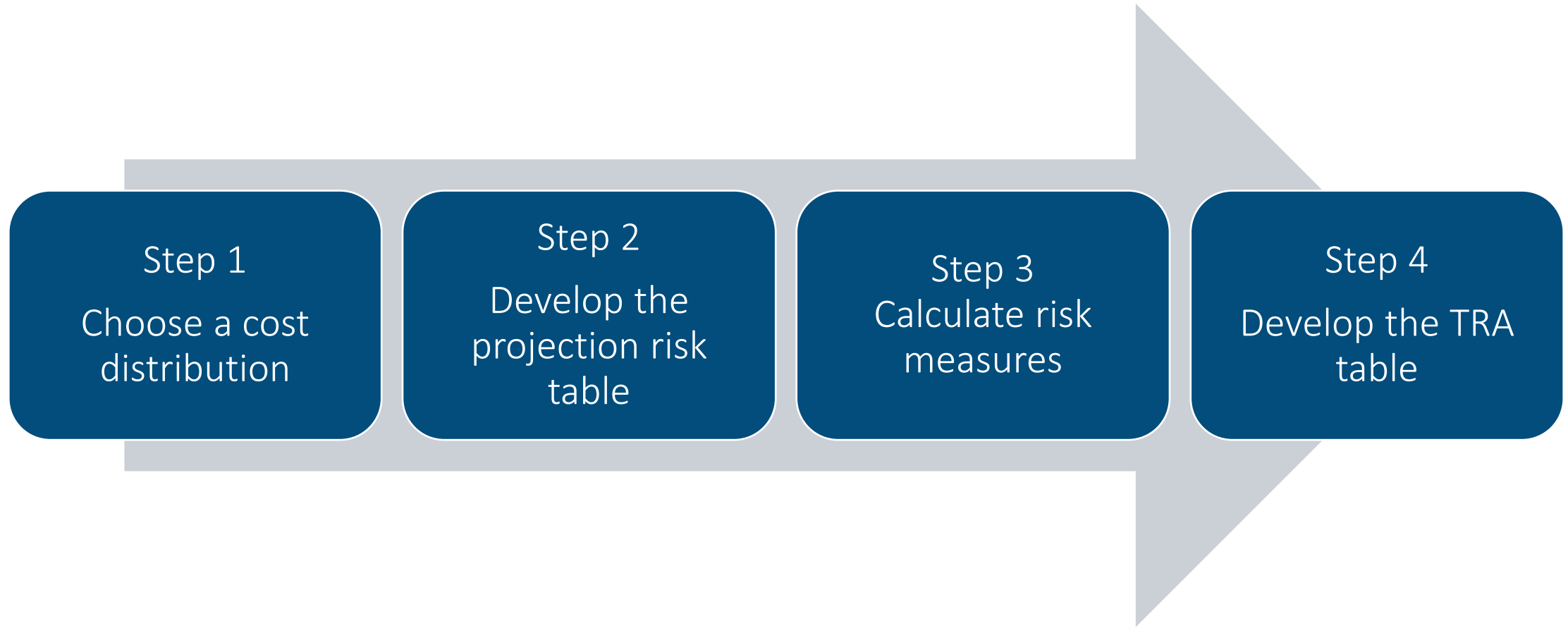# Calculated Risk: Driving Decisions Using the 5/50 Research

Can you answer these questions?

- *What is the probability you will lose more than $1 million?*

- *If you missed a projection by over $1 million, was it because the projection was wrong or because of random variation?*
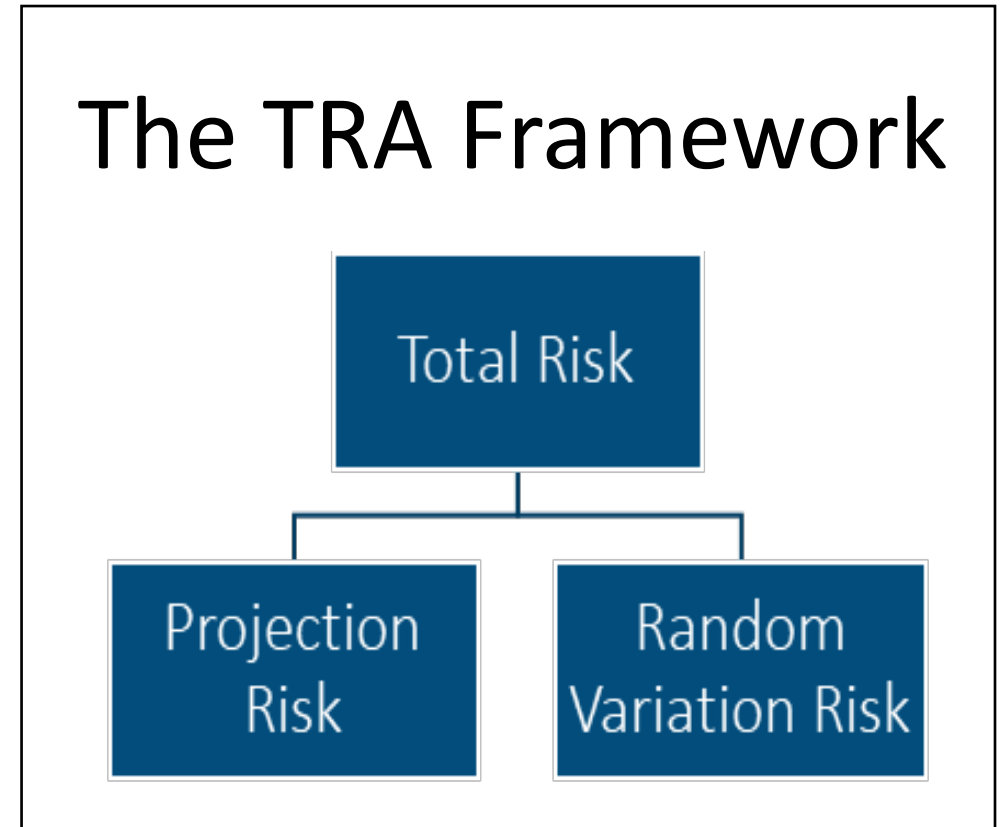
The TRA Framework

Total Risk Analysis (TRA) provides a framework for consistently answering questions like these.

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The Total Risk Analysis (TRA) Process

Step 1
Choose a cost distribution

Step 2
Develop the projection risk table

Step 3
Calculate risk measures

Step 4
Develop the TRA table

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What Is a Cost Distribution?

Cost Distribution

	Distribution of Member Months	Allowed Cost Distribution
Bottom 50%	44%	1%
Top 25% to 50%	27%	7%
Top 10% to 25%	17%	15%
Top 5% to 10%	6%	13%
Top 5%	6%	63%
Combined	100%	100%

Claims Probability Table

	Distribution of Member Months	Allowed Cost Distribution
Bottom 50%	44%	$ 15
Top 25% to 50%	27%	$ 125
Top 10% to 25%	17%	$ 446
Top 5% to 10%	6%	$ 1,162
Top 5%	6%	$ 5,335
Combined	100%	$ 500

- A cost distribution is a *type* of probability distribution function, like a binomial distribution

- A claims probability table is a specific probability distribution function where the defining parameter is the expected mean, in this case a candidate key value

5

How Can You Lose $1 Million?
- Your projection could be wrong or

Bracket	Population Distribution	Expected PMPY	Actual PMPY
Col. 1.	Col. 2.	Col. 3.	Col. 4.
$0	200	$ -	$ -
$1 - $5,000	700	$ 3,000	$ 3,600
$5,001 - $10,000	50	$ 7,000	$ 8,400
$10,001 - $100,000	40	$ 32,875	$ 39,450
$100,001 - $1,000,000	9	$ 15,000	$ 18,000
Over $1,000,000	1	$ 1,100,000	$ 1,320,000
Combined	1,000	$ 5,000	$ 6,000

Both the actual and expected numbers assume the same distribution of members

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Or…It Could Be Due to Random Variation!

Bracket	Population Distribution	Expected PMPY
Col. 1.	Col. 2.	Col. 3.
$0	199	$ -
$1 - $5,000	700	$ 3,000
$5,001 - $10,000	50	$ 7,000
$10,001 - $100,000	40	$ 32,875
$100,001 - $1,000,000	9	$ 15,000
Over $1,000,000	2	$ 1,100,000
Combined	1,000	$ 6,100

Bottom line: Risk is 2-dimensional and total risk must consider both dimensions
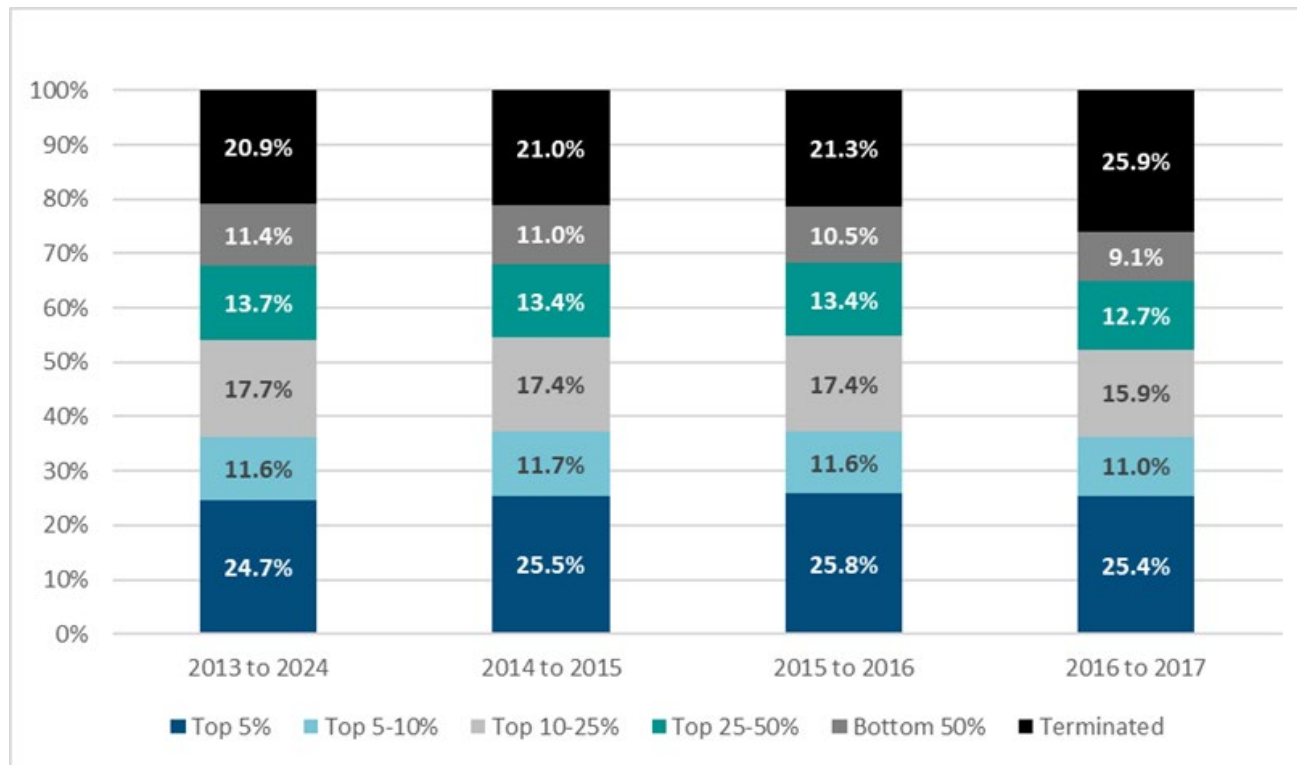
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Cost Per Member Trend Highest for Top Spenders
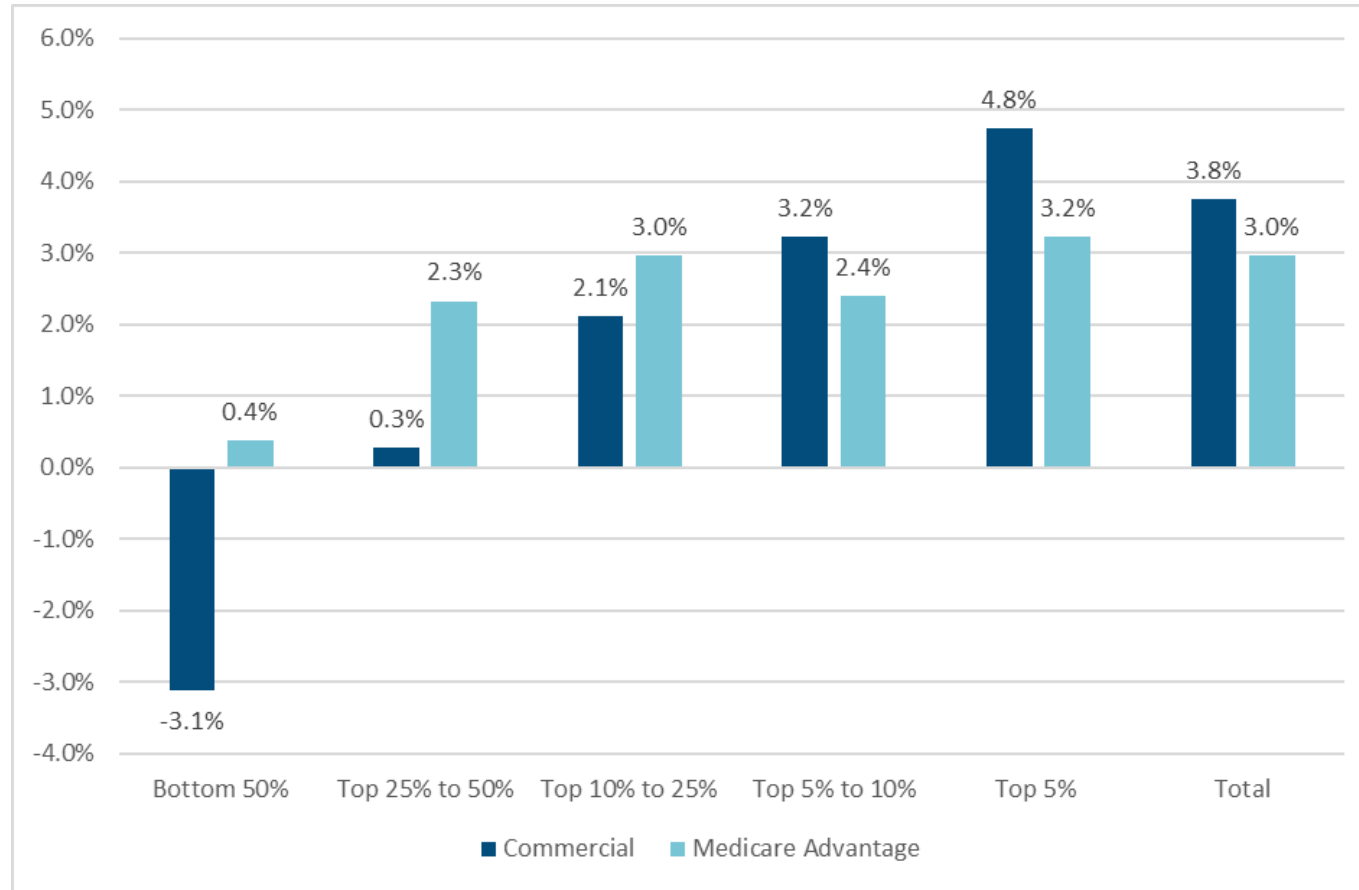
- **Top Spender Trend**
  - Specialty drugs
  - Long-haul COVID

- Adjustments
  - Some adjustment may be necessary, even for stable, credible populations

# Transition Probabilities Measure Movement by Spending Category

Commercial Transition Probabilities for Top 5%

- About 25% of top 5% of spenders in one year are also in the top 5% the next year
- Consistent with the theoretical basis
- Persistent top spenders
  - Multiple sclerosis
  - HIV
  - Cystic fibrosis
  - Cancer

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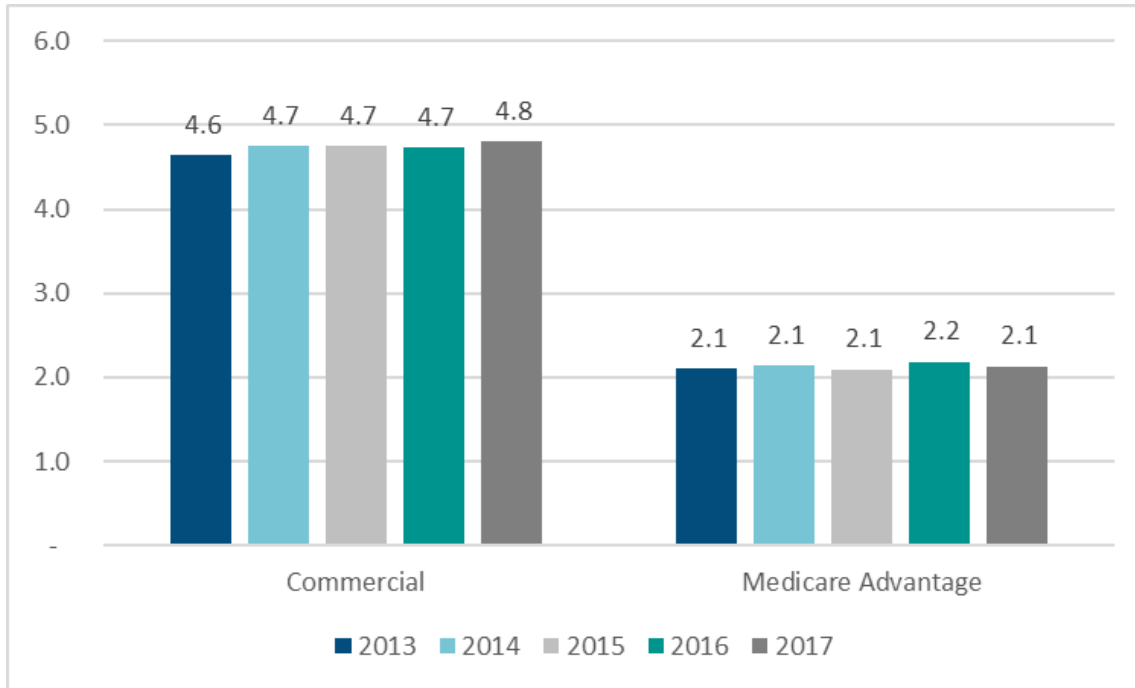# Source Distributions Track Where Top Spenders Come From

Source distributions for Top 5%, Commercial
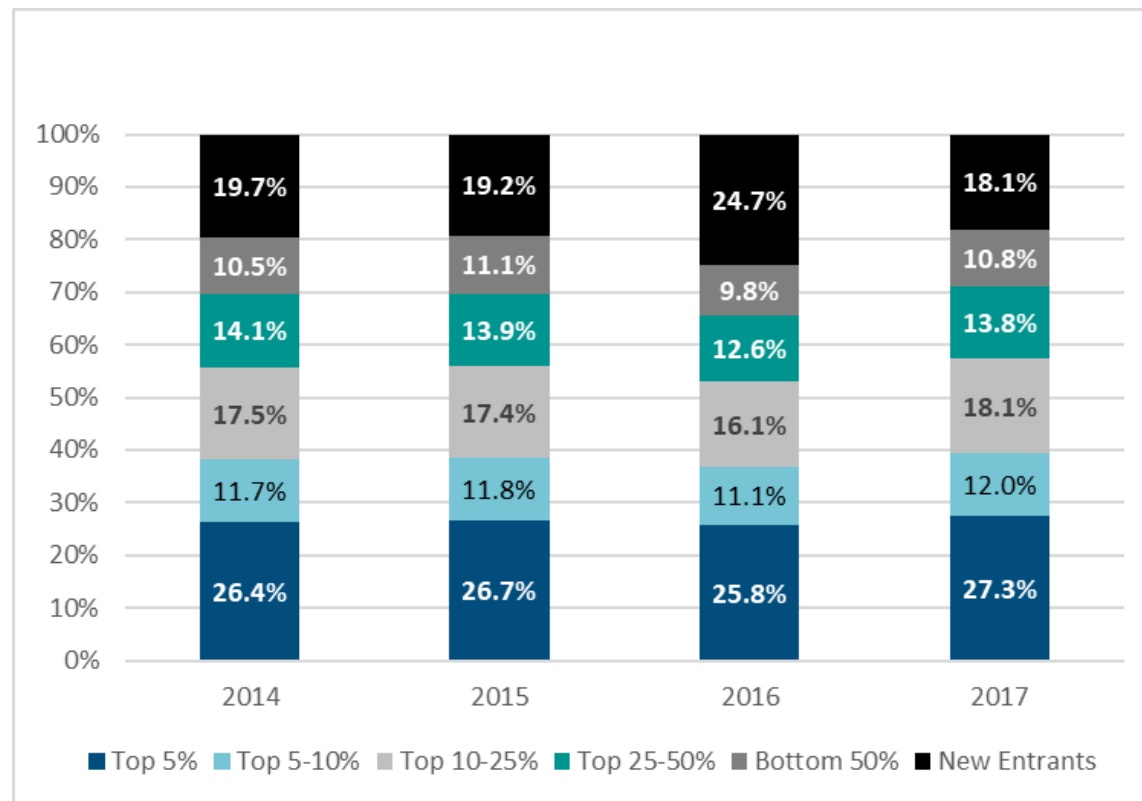
- About 26% of top 5% in any year were also top spenders in the prior year

- Many top spenders were not in the plan the previous year

Step 1: Choose a Cost Distribution

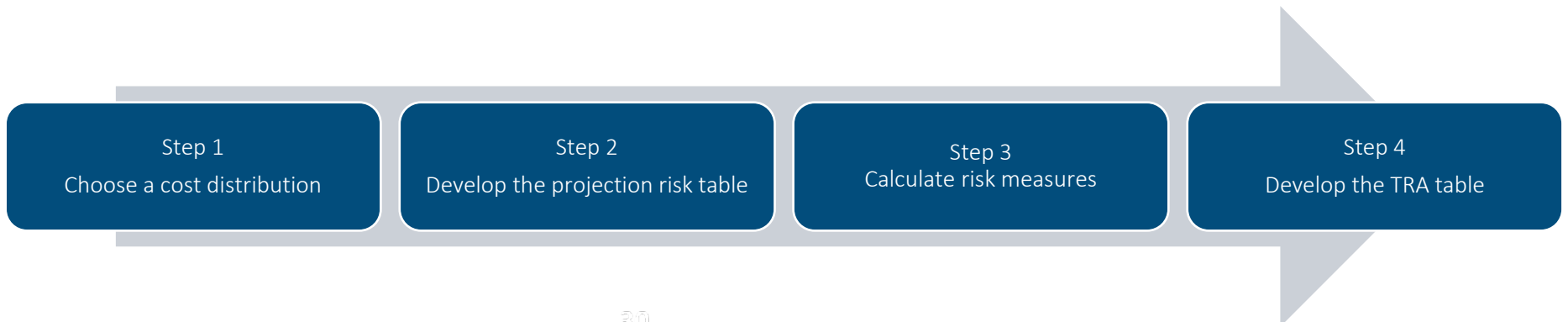Coefficient of Variation

Coefficient of Variation

=

Standard Deviation ÷ The Mean

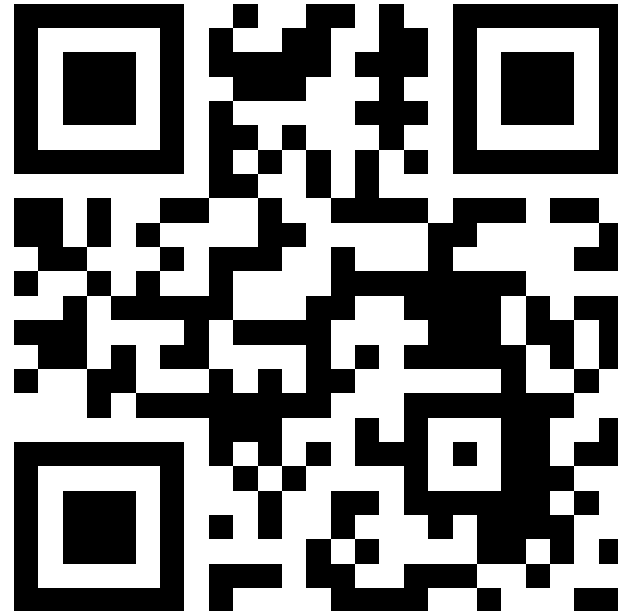*Our choice: 2017 Commercial trended to 5.0 coefficient of variation*

Step 4. Develop the TRA Table

Row			Scenario 1		Scenario 2		Scenario 3		Scenario 4		Scenario 5		Total
a.	Scenario Description		2+ Std Devs Below Mean		1 to 2 Std Devs Below Mean		+/- 1 Std Dev From Mean		1 to 2 Std Devs Above Mean		2+ Std Devs Above Mean		
b.	Scenario Probabilty		2.3%		13.6%		68.3%		13.6%		2.3%		100.0%
c.	Candidate Value	$	460	$	479	$	500	$	521	$	537	$	500
d.	Expected Gain/Loss	$	52.74	$	33.96	$	12.81	$	(8.34)	$	(24.13)	$	12.87
e.	Probability of Exceeding the Budget		0.0%		0.2%		15.3%		73.9%		96.4%		22.7%
f.	Probability of Losing > $6 Million		0.0%		0.0%		2.1%		37.5%		80.7%		8.4%

Step 1 Choose a cost distribution	Step 2 Develop the projection risk table	Step 3 Calculate risk measures	Step 4 Develop the TRA table

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Available on SOA website

https://www.soa.org/resources/research-reports/2023/calculatedrisk-using-550research/

Focus on Long-Term Care Experience Studies

- Discussions continue on ways to partner with industry and regulators on the next LTC Experience Study
  - Looking to do an updated comprehensive LTCI experience study on claim incidence, claim continuance, and claim utilization
  - Education program provided by SOA to NAIC and state regulatory staff on LTCI experience trends and impact of the COVID era on LTCI claims
  - Access to SOA staff and LTC Experience Committee on key LTCI experience trends

Additional Health Research

Experience Studies & Practice Research

Project Name	Objective	Expected Completion Date
Actuarial Weather Extremes - California Precipitation February 3 - 7, 2024	Highlight observations for extreme weather events across North America	https://www.soa.org/resources/research-reports/2019/weather-extremes/
Calculated Risk: Driving Decisions Using the 5/50 Research	Validate the 5/50 Premise through % of total costs and average allowed annual costs by percentile grouping. Analyze ability to predict the 5% based on prior claims and risk factors. Calculate Transition probabilities between different groups.	https://www.soa.org/resources/research-reports/2023/calculatedrisk-using-550research/
HCCT152 - Healthcare Provider Shortage Impact to Morbidity	This research will study the impacts on growing provider shortages on the cost and utilization of healthcare	https://www.soa.org/resources/research-reports/2023/provider-consolidation-shortage/
Reimagining Pharmacy Financing	A follow-up to the Reimagining Pharmacy gathering in the Spring, this research will look to define and measure the value of different drugs for the same drug class and then also suggest methodologies for rewarding value.	3/8/2024
Modeling of Reform Proposals for LTC System Improvements	Assesses the impact of reform proposals for LTC system changes on stakeholders including consumers.	5/15/2024

American Academy of Actuaries Health Practice Council Updates Spring 2024

March 15, 2024
Health Actuarial (B) Task Force (HATF) Meeting

Matthew Williams, JD, MA

Senior Health Policy Analyst, Health

American Academy of Actuaries

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About the American Academy of Actuaries

The American Academy of Actuaries is a 20,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues.

The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

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Policy Priorities for 2024

- Health equity
- Public health challenges
- Insurance coverage and benefit design
- Health care costs and quality
- Medicare sustainability
- Long-term services and supports
- Financial reporting and solvency
- Professionalism

American Academy *of* Actuaries

Activity Since Fall National Meeting

Public Comments

- HHS/CMS' proposed 2025 Notice of Benefit and Payment Parameters rule

- CMS/CCIIO's Draft 2025 Actuarial Value Calculator Methodology

- DOL/EBSA's proposed rescinding of Definition of Employer—Association Health Plans

- Senate HELP Committee access to gene therapies for patients with an ultra-rare disease RFI

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HRBC (E) Working Group Meeting (February 22)

- Verbal updates shared on the H2-Underwriting Review project

- Discussed comments received on the Nov. 8, 2023, H3—Health Care Receivables Presentation

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Questions?

Matthew Williams, JD, MA

Senior Health Policy Analyst, Health

American Academy of Actuaries

williams@actuary.org

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Nebraska
Medicare Supplement Market
New Business Rate Setting & UW Issues

February 28th, 2024

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Presenters

Michael Muldoon, FCA, MAAA, ASA – Chief Actuary

- ASA in 1994, have worked 30 years as a designated actuary.
- Masters Degree in Statistics, Ball State University, Indiana (1995).
- 3-years as Actuarial Director, McKesson Health Disease Management.
- Chief Actuary for the CO DOI (2016-2018).
- Chief Actuary at the NE DOI since January 2022.

Margaret Garrison – Life & Health Actuary (near ASA)

- 10 years in the Health Insurance Industry, actuarial experience with several Blue Cross Blue Shield Plans.
- Cost of Care analysis, Provider negotiations, Rate Filings, Reserving.
- Two years as Life and Health actuarial examiner at the NE DOI.

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NE DOI Actuarial Role
Review of Medicare Supplement Rate Filings

New Business

- Review Initial New Business rate filings after 5/1/2022.
- Detailed review of initial pricing development and assumptions.
- Obtain all rating model data, rate development spreadsheets.
- Request our Template + additional support and documentation.

Renewal Business

- For Blocks with Initial rate filings on or after 1/1/2020.
- Review NE and Nationwide experience, initial and current assumptions, and LT LR projection models.
- DOI requests trend rate increases for young blocks without credible experience, or credible experience rate adjustments.
- Original pricing models are not re-opened and challenged if block entered before 5/1/2022.

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Insurers in the Market
NE Medicare Supplement Rate Filings

Medium to Large Domestic Insurers
- Have large size blocks of stable NE Med Supp experience.
- Can be used for pricing new blocks of business.

Large Non-Domestic Insurers
- Several with moderate size blocks of stable Nationwide Med Supp experience.
- May have some NE Med Supp experience.

Other Insurers
- Mostly Non-Domestic insurers with small size blocks.
- Often do not have credible Nationwide or NE Med Supp experience to use for pricing new business.

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Setting Sustainable Rates

What are Sustainable Rates?

Rates that will be sufficient to cover all future benefits and expenses, with only future annual medical trend and aging increases needed.

Nebraska's large domestic companies have sufficient experience available, and generally set rates to be sustainable.

NAIC Medicare Supplement rating guidelines do not allow actuaries to price new blocks with the intent to "Ride the Selection Curve" and underprice blocks in early years.

Such underpricing will lead to rates that are not sustainable, requiring large rate increases greater than trend and aging in later years.

The Fundamental Problem in the Nebraska Market

Medicare Supplement 2010 Plan Business

- **Between 2017 and 2022 Several dozen insurers submitted new business rates that were grossly underpriced.**

- **Plans were priced 15-45% below our Large Domestic Insurers. These were priced considerably lower than what would have been needed to create a "sustainable" block.**

After UW selection wore off:

- **Lifetime Loss Ratios rapidly deteriorated, then annual rate increases of 12% to 25% were needed every year.**

- **Unhealthy policyholders are unable to leave these blocks and move to another carrier's plan, due to medical conditions preventing them from passing UW. They are trapped in blocks with escalating rate increases.**

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Review of New Business Pricing Models

- Smaller Non-Domestic carriers often do not have credible experience of their own to appropriately set initial rates.

- A few large actuarial consulting firms submitted most of these underpriced new business rate filings. They often utilized a Public Medicare Data based rating model to set initial rates.

- Prior to May 2022, NE DOI did not have rate review resources in place to review these new business rate filings in SERFF.

- Beginning in May 2022, NE DOI Actuarial was assigned to perform review of these models and found numerous issues regarding how the Medicare data was improperly and inconsistently used to set base costs, rating factors, and final rates for new Med Supp rate filings.

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Use of Public Medicare Data

Actuaries submitting New Business Rate Filing often submitted Actuarial Memorandums with insufficient support for their starting claim cost levels.

We found numerous problems with the rating models and support in filings:

- **Often using very old data, did not disclose date ranges of data used;**

- **Assumed % of members to be UW were unrealistically high, such as Assumed 60 to 70%, versus historical 15% to 30% UW levels;**

- **Used incorrect claims categories, membership categories;**

- **Incorrectly summarized data by benefits.**

- **Used incorrect geographic factors, population adjustments, and claim run-out completion factors.**

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Typical Rating Pattern of Underpriced Blocks

New Medicare Supplement 2010 Plan G:

Effective Date	Policyholders	Rate Increase
2020	0	NEW
2021	100	0%
2022	500	3%
2023	900	15%
2024	950	19%

Company requested to close this block to new sales for 2024.

Group will submit a new block for 2024 sales under a different entity.

New blocks today often deteriorate considerably within 4 years from issue.

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New Business Rate Review

Rate Filing actuaries are required to provide sufficient support in NE SERFF for initial and renewal rates for new blocks of Medicare Supplement business.

A New Business Template and a sample spreadsheet for Durational Lifetime Loss Ratio development are provided on the NE DOI website:

https://doi.nebraska.gov/insurers/life-and-health

Under the "Accident and Sickness Insurance" section, click "Medicare Supplement" for links to:
- NE Medicare Supplement New Business Template Jan 2nd 2024.pdf
- Durational Loss Ratio Exhibit for Medicare Supplement, Jan 2nd, 2024.xls

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NE DOI Rating Regulation Approach

- Control rates on New Business rate filings, prevent large underpricing from occurring on initial rates;

- Require rating trends be applied in early renewal years for blocks that do not yet have credible experience to use to revise rates.

- For blocks with sufficient experience at renewal, review the LT LR projections and utilize experience rated adjustments.
  Keep the LT LR on target each year to prevent large rate increases from being needed in later renewal years.

- Only Cap future rate increases when carriers have directly refused to take trend or rate increases in early years as directed by the NE DOI.
  In these cases, caps will allow no more than rating trend (plus aging) in later renewal years.

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Capping Large Rate Increases

Nebraska DOI has opted in general not to place caps on large rate increases, other than for the specific cases noted on the prior slide.

Potential issues with Applying Rate Caps:

- Large rate increases at renewal may actually be justified and needed based on an insurer's poor experience, and high Lifetime Loss Ratios.

- Applying artificial Rate Caps may trade a rating problem for a potential solvency problem with an Insurer.

- The DOI approved the rates filed in the early years of the Block, even if they did not have the resources to perform rigorous rate review.
  So the DOI has some responsibility to correct rates for blocks that are losing money in later years.

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Birthday or Anniversary Rule Issues I

Nebraska DOI and Industry have opted not to pursue a Birthday or Anniversary rule. Here were observations provided on these methods:

- **Undermines the integrity of UW in the Market.**

- **Overall Medicare Supplement Market average rates could increase.**

- **Market Anti-selection could occur if new rules will apply to any new applicant, as healthy seniors may delay enrollment.**

- **Carriers with blocks of business currently in large loss positions could take very large increases to expedite the migration of high-cost members to other carriers.**

- **Carriers that priced responsibly can then be hit with high-cost members migrating from companies that did not price responsibly.**

Birthday or Anniversary Rule Issues II

- **Incentive for Increased Churn of policies for agent commissions;
  Increase in consumers being "pestered" by agents on a more regular basis - something the NAIC says they are trying to alleviate.**

- **Medicare Supplement is different from MA and ACA.
  MA and ACA have no UW, but they also have risk funding and ACA RA transfers, so insurers receiving a large share of sick members can be protected. This protection does not exist in Medicare Supplement if you just eliminate UW.**

- **In the first year, sick members trapped in high rates on spiraling blocks would use the Birthday Rule as a chance to move down to the lowest priced insurer's plan in the market. Those plans did not price for that enrollment, would immediately need large rate hikes. The rate increase cycle accelerates.**

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NE DOI Actuarial & Policy Contacts

Michael Muldoon, FCA, MAAA, ASA – Chief Actuary

Michael.Muldoon@nebraska.gov

Margaret Garrison – Life & Health Actuary

Margaret.Garrison@nebraska.gov

Maggie Reinert – L&H Rates & Forms Administrator

Maggie.Reinert@nebraska.gov

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Resource Links

- **Department of Insurance General** - https://doi.nebraska.gov/

- **Department of Insurance Medicare Supplement NB Rate Template https://doi.nebraska.gov/insurers/life-and-health**

- **NAIC link** - https://content.naic.org/index_committees.htm

- **Public SERFF Filing Access** - https://www.serff.com/serff_filing_access.htm

- **Medicare -** https://www.medicare.gov/

- **CMS (Centers for Medicare & Medicaid Services)** - https://www.cms.gov/

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