AMERICAN ACADEMY of ACTUARIES

November 14, 2024

Rachel Hemphill, Chair
Craig Chupp, Vice Chair
Life Actuarial (A) Task Force
National Association of Insurance Commissioners (NAIC)
1100 Walnut Street, Ste 1000
Kansas City, MO 64106

Re: Draft Life Qualified Actuary Knowledge Statements

Dear Chair Hemphill and Vice Chair Chupp,

On behalf of the American Academy of Actuaries (Academy),[1] I appreciate the opportunity to share an update regarding the Life Actuarial (A) Task Force's (LATF) request following the Fall National Meeting in Orlando.

In your November 30, 2023, letter, you requested that the Academy develop knowledge statements that outline the knowledge necessary for life actuaries signing certain statements of actuarial opinion, including the roles of appointed actuary, illustration actuary, and qualified actuary for principles-based reserves. After meeting with you and several other members of LATF to better understand your expectations, the Academy has drafted the attached materials. This draft reflects our initial effort to develop such knowledge statements for qualified actuary roles for the blue blank filings (life). The draft knowledge statements for illustration actuaries are under development and we anticipate sharing them with you before year end.

The drafted knowledge statements are intended to reflect a baseline level of knowledge that the actuary should have for a designated role. Meeting this baseline level of knowledge does not imply that an actuary is qualified to issue the specified actuarial opinion. The *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* (USQS) has many components of qualification beyond the baseline level of knowledge. In addition, there

[1] 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.

may be certain situations where the specified actuarial opinion is so limited in scope that some components of the baseline level of knowledge are not necessary.

The knowledge statements were developed by a group of Academy volunteers and have not been subject to a formal exposure process. As such, they should not be interpreted to be prescriptive or to be an interpretation of the USQS.

The Academy is pleased to be able to assist LATF in this analysis. We appreciate your ongoing collaboration and feedback on this effort. If you have any further questions, please feel free to contact Geralyn Trujillo, senior director of public policy (trujillo@actuary.org, 202-785-7875).

Sincerely,

Darrell O Knapp

Darrell Knapp, President
American Academy of Actuaries

cc: Scott O'Neal, NAIC

Knowledge Statements for Qualified Actuaries Submitting a VM-31 PBR Actuarial Report

These knowledge statements would apply to Qualified Actuaries submitting the VM-31 PBR Actuarial Report and apply to the Life, Accident and Health (A&H) Annual Statement, also known as the Life Blank or Blue Blank for the Life A&H Annual Statement and Fraternal Annual Statement.

In the NAIC Valuation Manual (VM), Section VM-01 defines the term "qualified actuary." This definition explains that "[a]n individual qualified actuary must be qualified with respect to the area(s) that they are providing a certification and/or opinion. For example, if there are separate life and variable annuity qualified actuaries providing the relevant certifications for VM-20 and VM-21, they each need to be qualified in their own respective area."

The Qualified Actuary must submit a report, and specific certifications, including the following:

- The Life Report and/or the Variable Annuity (VA) Report, and any sub-reports thereto covering one or more groups of policies, as specified in VM-31 Section 2.A;
- "Qualified Actuary on Investments—A certification by a qualified actuary, not necessarily the same qualified actuary that has been assigned responsibility for the PBR Actuarial Report or this sub-report, that the modeling of any future hedging strategies supporting the policies is consistent with the company's actual future hedging strategies and was performed in accordance with VM-20 and in compliance with all applicable ASOPs, and the alternative investment strategy as defined in VM-20 Section 7.E.1.g reflects the prescribed mix of assets with the same WAL as the reinvestment assets in the company investment strategy."
- "Qualified Actuary on Interest Rate and Volatility Risks—Certification, by the qualified actuary assigned responsibility under VM-G for a group of policies that qualifies for exclusion from the requirement to calculate a SR under the provisions of VM-20, Section 6.A.1.a.iii, that this group of policies is not subject to material interest rate risk or asset return volatility risk." There is no parallel requirement for VA contracts.
- "Qualified Actuary on Accordance with VM-20 and Model #820—Certification by the qualified actuary, for the groups of policies for which responsibility was assigned, that the principle-based valuation was performed in accordance with the requirements outlined in VM-20 and the relevant sections of Model #820." For VA replace VM-20 with VM-21 and policies with contracts.
- "Qualified Actuary on Assumptions and Margins—Certification by the qualified actuary, for the groups of policies for which responsibility was assigned, that the assumptions used in the principle-based valuation under VM-20, other than assumptions used for risk factors that are prescribed or stochastically modeled, are prudent estimate assumptions and the margins applied therein are appropriate."
- "Qualified Actuary on Conservatism of Converted Policies—Certification by the qualified actuary assigned responsibility under VM-G for a group of policies that qualifies for exclusion from the requirement to calculate a DR under the provisions of VM-20 Section 6.B.2.b, that the total reserve for this group of policies includes a prudent provision for the additional mortality associated with the conversion and reasonably

exceed the value of a DR which otherwise would have been calculated for this group of policies."

The Academy qualification standards for rendering an opinion are in the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" (USQS), effective January 1, 2022. The standards were revised from prior editions of this qualification standard and therefore specifically apply to actuaries issuing Statements of Actuarial Opinion (SAO) starting on January 1, 2023. Furthermore, such actuaries need to meet the continuing education (CE) requirements before issuing any SAO.

Section 2.1 of the USQS specifies the Basic Education and Experience Requirements, stating that an actuary should have achieved the following:

- Through education or mutual recognition, received a Fellow or Associate designation from either the Society of Actuaries (SOA) or the Casualty Actuarial Society (CAS). It is important to note that this would most likely be the SOA for an actuary issuing an opinion related to the Life/Blue Blank.
- Membership in the Academy.
- Three years of responsible actuarial experience, which is defined as work that requires knowledge and skill in solving actuarial problems.
- Be knowledgeable, through education or documented professional development, of
    1. U.S. Law, including statues, regulations, judicial decisions, and other statements having legally binding authority, applicable to the SAO, and
    2. U.S. actuarial practices and principles.
- Have either
    1. Obtained Fellowship in the CAS or SOA. In addition to obtaining this fellowship, the actuary must:
        i. Have completed education relevant to the subject of the SAO. Such education may have been obtained in attaining the fellowship designation or highest possible designation of a non-U.S. actuarial organization, or by completing additional education relevant to the subject of the SAO; or
        ii. Have a minimum of one year of responsible actuarial experience in the particular subject relevant to the SAO, under the review of an actuary who was qualified to issue the SAO at the time the review took place under the USQS in effect at the time.

        OR

    2. Have a minimum of three years of responsible actuarial experience in the particular subject relevant to the SAO, under the review of an actuary who

was qualified to issue the SAO at the time the review took place under the USQS in effect at that time.

Section 3 of the USQS specifies the Specific Qualification Standards beyond those required to satisfy the General or Basic Education and Experience requirements. For issuing Life, A&H, and Fraternal SAO, this includes examinations administered by either the Academy or SOA covering

(a) policy forms and coverages,

(b) dividends and reinsurance,

(c) investments and valuations of assets and the relationship between cash flows form assets and related liabilities,

(d) statutory insurance accounting,

(e) valuation of liabilities, and

(f) valuation and nonforfeiture laws.

Alternatively, this education may be acquired through responsible work or self-study, if another qualified actuary familiar with the work is willing to attest to the knowledge of the opining actuary. To meet the experience requirement, an actuary is required to have at least three years of responsible experience relevant to the Opinion, under the review of another actuary who was qualified to issue the Opinion at the time the review took place.

Section 3, Specific Qualification Standards, of the USQS applies to appointed actuaries but does not apply to qualified actuaries, as the insurance products covered in the VM-31 report are generally less comprehensive. Appointed Actuaries must consider a broader perspective, including the adequacy of reserves for the entire company, often including multiple products. While the Valuation Manual methodologies are intended to provide adequate reserves, the Qualified Actuary does not provide an opinion on reserve adequacy; instead, the Qualified Actuary opines on whether the reserves are calculated following the rules set forth in the Valuation Manual.

A. Policy Forms and Coverages

The Qualified Actuary must be able to assess the effect of insurance coverages and changes on the reserves for which the Qualified Actuary is opining, along with the associated risks and uncertainties. The Qualified Actuary must understand the types of insurable exposures and related insurance products.

1. VM-20 Individual Life Insurance (issued since 2017 to 2020, depending on transition date)
    a. Whole Life, with annual or limited payment periods
    b. Universal Life, with or without secondary guarantees

        i) Fixed interest rate credits
        ii) Indexed interest rates credits
        iii) Variable amounts depending on investment fund values
        iv) Variable amounts depending on an index
    c. Term Insurance
        i) Annually renewable term
        ii) Term with certain period
    d. Single and joint policies
    e. Riders attached to the above policies
        i) Accidental death benefit
        ii) Waiver of Premium
        iii) Term insurance on the life of
            (1) The insured
            (2) Spouse
            (3) Child
        iv) Critical illness benefits
        v) Chronic illness benefits
        vi) Accelerated terminal illness benefits
        vii) Return of Premium
    f. Policies created due to nonforfeiture values
    g. Supplemental Benefits, as defined by law or the Valuation Manual

2. VM-21 Variable Annuity Contracts (issued since 1980)
    a. Guaranteed minimum death benefits
    b. Guaranteed living benefits, including but not limited to:
        i) Accumulation guarantees
        ii) Investment return guarantees
        iii) Lifetime withdrawal guarantees
        iv) Annuitization guarantees
    c. Riders attached to the contracts above
        i) Critical illness benefits
        ii) Chronic illness Benefits
    d. Nonforfeiture benefits
    e. Supplemental Benefits, as defined by law or the Valuation Manual

B. Law, Statutes and Regulations

The Qualified Actuary must be able to assess the effect of the legal environment on the reserves for which the Qualified Actuary is opining, along with the associated risks and uncertainties. The Qualified Actuary must understand relevant U.S. and state insurance law, regulatory authority, and regulations.

1. Insurance law with respect to its impact on Life, A&H insurance and Fraternal insurers.
2. U.S. federal and state laws and regulations that pertain to the SAO.
3. Relevant state specific laws, regulations, regulatory authority and rules regarding the preparation of annual statements.
4. Principles of statutory accounting and sources of guidance.
5. Familiarity with statutory accounting blanks, the NAIC's Accounting Practices and Procedures Manual, including all relevant SSAPs and Actuarial Guidelines related to the lines of business for which the Qualified Actuary is writing the opinion.
6. The particular VM section providing rules related to valuation of the products in the opinion and VM-31 reporting.
7. Treatment of reinsurance in statutory accounting, including transfer of risk issues (see Section G for more on reinsurance).
8. Elements of the risk-based capital (RBC) formula and the regulatory impact of RBC (only for VM-21).

C. Principles of insurance and underwriting

The Qualified Actuary must be able to assess the effect of underwriting and marketing, and changes therein on the reserves for which the Qualified Actuary is opining, along with the associated risks and uncertainties. The Qualified Actuary must understand how insurance companies assume risk through marketing and underwriting.

1. Various types of underwriting for each of the coverages and features described in Section A, Policy Forms and Coverages above, including differences between full underwriting, accelerated underwriting, simplified issue, and guaranteed issue.
2. Concept of insurable risk.
3. Product characteristics giving the insured optionality to select against the insurer.
4. Various types of marketing and distribution methods for each of these coverages, as well as the differences in underwriting and/or policyholder behavior that may be associated with each.
5. For products most commonly offered by health carriers and associated characteristics, behavioral choices involved as a form of underwriting, including:
   a. Impact of limited networks and limited coverages;
   b. Impact of healthy lifestyle benefits on individual choice;
   c. Individual choice relationship to funding sources.
6. Seasonal patterns of claim incurrals for various products.
7. Impact of management actions, possibly related to Non-Guaranteed Elements, which may impact Policyholder Behavior (PHB).
8. Effect of investment market changes, competition, and other economic factors on PHB.

D. <u>Reserves and Assets</u>

The Qualified Actuary must understand and apply reserving methods, analysis, and diagnostics to derive actuarial reserves. The derivation of reserves in the Valuation Manual requires assumptions about assets and knowledge of the investment strategy, therefore methods, analysis and diagnostics related to assets are also important. The Qualified Actuary must also understand the company's internal operations and data, external environment, and relevant changes therein. Furthermore, the Qualified Actuary must be able to produce an SAO, an Actuarial Opinion summary, and an Actuarial Report in accordance with the NAIC Annual Statement Instructions and understand and produce the statutory minimum reserve for each product. Also, the Qualified Actuary must be knowledgeable of the methods of analysis used, as referred to in VM-20 and VM-21. This section cites conformance with Actuarial Standards of Practice (ASOPs) and methods of analysis that are deemed appropriate for such purposes by the Actuarial Standards Board. The Qualified Actuary should have a strong understanding of modeling techniques, modeling options, and interpretation of results.

1. All non-modeled reserves, such as formulaic and PBR Net Premium Reserve, when applicable.
2. Modeled Reserve required by the Valuation Manual (as knows as Principle-Based Reserve).
   a. Knowledge of models:
      i) Impacts of model simplification
      ii) Interactions between models (such as liability models and asset models)
      iii) Stochastic modeling techniques and tail risk (conditional tail expectations)
      iv) Validation and controls
      v) Governance practices
   b. Knowledge of experience studies and assumption development:
      i) Credibility of data
      ii) Volatility of assumptions/impact on results
   c. Appropriate use of margins or assumption pads
      i) Margins and pads that are determined by the Qualified Actuary
      ii) Valuation Manual prescribed margins and/or assumptions
   d. The discount rate and net asset earned rate (NAER) assumptions for PBR reserve, understanding of assets, asset risks, asset returns, reinvestment assumptions
   e. Appropriate use of sensitivity testing
   f. Knowledge of exclusion tests
3. Expenses
   a. Policy/contract maintenance
   b. Investment
   c. Claims
   d. Commissions
   e. Overhead
   f. Premium Taxes

4. Other items, which may or may not be included in the modeled reserve, but not limited to the following:
   a. Unearned premium reserve
   b. For health products attached to modeled reserves: ALR/contract reserve, unearned premium reserve, DLR/claim reserve, and premium deficiency reserve
   c. Interest maintenance reserve
   d. Asset valuation reserve, if included in the model
5. Assets being held to support the reserves being modeled
   a. Types of assets may include, but also may not be limited to:
      i) Cash
      ii) Bonds
      iii) Asset backed securities
      iv) Equities
      v) Real estate
      vi) Mortgages
      vii) Policy loans
      viii) Derivative instruments and derivative features
      ix) Any other assets included in the PBR model
   b. Contract investment funds
   c. Asset Models and Assumptions related to the asset, risks present in individual assets or types of assets, and return assumptions related to assets
      i) Default costs
      ii) Spreads
      iii) Swap details and spreads
      iv) Call, put, prepayment, extension and other similar risks
      v) Volatility
      vi) Other assumptions, which may include, but not be limited to, structure, sector, market, payment in kind options, etc.
   d. Reinvestment and divestment assumptions, including the availability of assets in the future for purchase as reinvestment assets, as well as the risks related to the timing of future reinvestments and divestments
      i) Purchase and sale/borrowing options
      ii) Differences between company portfolio strategy and VM alternatives
   e. How the starting assets and reinvestment strategy impact NAER and discount rates
   f. Hedging processes and impact on interest credits, risk management, portfolio selection, etc.
6. Policyholder/contract holder behavior
   a. Premium Payments
   b. Withdrawals (full or partial)
   c. Lapses

   d. Policy Loans
   e. Changes to faces amount
   f. Fund transfers
   g. Annuitization/benefit payments
7. Reinsurance (see Section E for more specifics related to reinsurance)
   a. Impact on cash flows, including timing differences between entities
   b. Assets associated with these agreements
   c. Recapture
   d. Rate increase
   e. Collectability of Claims
8. Explanation of results
   a. Impact of margins
   b. Impact of assumption changes
   c. Impact of changes to starting assets, portfolio strategy and hedging procedures
   d. Impact of changes to inforce
   e. Impact of management actions during the year
   f. Impact of switching between the reported reserve (SPA/CTE70 or NPR/DR/SR)

E. Reinsurance

The Qualified Actuary must be able to assess the effect of reinsurance on the reserves for which the Qualified Actuary is opining, along with the associated risks and uncertainties. The Qualified Actuary must understand the functions and types of reinsurance, relevant contract features, risk transfer principles, and reinsurance accounting, recognition and collectability issues. The Qualified Actuary must understand basic reinsurance terminology (e.g., limits, retentions/attachment points, quota share, excess of loss, non-proportional, experience refund, allowances, clauses, reinstatements, co-insurance, commissions). The Qualified Actuary must also understand:

1. The function and types of reinsurance.
   a. YRT (guaranteed or not)
      i) Quota share
      ii) Attachment point
      iii) Excess
   b. Coinsurance.
      i) Indemnity coverage
      ii) Assumption
      iii) Mod-Co
      iv) Funds withheld
2. Reinsurance treaty provisions.
   a. Overall interpretation of how the treaty functions.

   b. Determination of the treatment of loss adjustment expenses (LAE) (e.g., within limits, in addition to limits, shared pro rata).
   c. Commutations and novations including definition, motivations of parties, accounting treatment, impact (or not) on policyholders.
3. Impact on financial statements from contract qualification criteria for prospective or retroactive reinsurance accounting treatment or deposit accounting treatment.
4. Reinsurance risk transfer testing.
5. Assessing collectability (e.g., sources, rating agencies, letters of credit, news items, amounts in dispute or overdue).
6. The impact of authorized, unauthorized, certified reinsurance on collateral and collectability.
7. Differences between reinsurance and primary reserving procedures (e.g., adapting methods for available data, type of reinsurance, terms).
8. Factors considered in the evaluation of the applicability of a reinsurance program to an unpaid claim estimate.
9. Possible parameter differences for direct, assumed, gross, ceded and net data (e.g., loss development factors and initial expected loss ratios).
10. Treatment of assets and reserves on the financial statements. For example, mod-co reserves and assets are held by the cedant; FWH assets, even in a trust, are owned by the cedant; plain-vanilla coinsurance agreements have both parties holding separately calculated assets and liabilities.
11. Consideration of the treatment of reinsurance by reinsurers outside of US jurisdiction.

F. Other Considerations

The Qualified Actuary must understand the treatment of reserve changes related to basis, method and assumption changes, and whether they flow through income or surplus, when and how.

G. Professionalism and Business Skills

The Qualified Actuary must have professional and business skills to enable the Qualified Actuary to perform the required actuarial services in an ethical manner that upholds the reputation of the actuarial profession. The Qualified Actuary must know and adhere to the Code of Professional Conduct, as well as relevant ASOPs and must meet the USQS. The Qualified Actuary must have the professional and business skills to manage the tasks, make informed decisions, communicate effectively with users of the actuary's work products, resolve disagreements, and seek guidance as necessary.

1. Code of Conduct: Familiarity with the Code of Conduct and its application in professional scenarios.
2. USQS: Profound understanding of the USQS.
3. ASOPs and Applicability: Mastery of applicable ASOPs and guidelines for their application. The actuary should refer to the Academy's Applicability Guidelines for help in determining applicable ASOPs.
4. The importance of documentation of work as discussed in many ASOPs and as required by the Laws and Regulations applicable to the SAO.

Familiarity with the relevant Practice Notes from the Academy is also a valuable component of professionalism.