**Knowledge Statements for Illustration Actuaries Certifying Illustrated Scales in Conformance with Model 582**

These knowledge statements would apply to Illustration Actuaries submitting a certification that the illustrated scales of non-guaranteed elements (NGEs) meet the requirements of the [Life Insurance Illustrations Model Regulation](https://content.naic.org/sites/default/files/inline-files/MDL-582.pdf) (Model 582).

As a best practice, the Illustration Actuary is encouraged to keep records of the relevant knowledge statements and how they have met these knowledge statements.

This is intended to be a living document, that may be updated as new products and features are introduced.

Model 582 requires the Board of Directors of each insurance company to appoint at least one Illustration Actuary, sets forth basic qualifications, and requires certain certifications and disclosures be provided to state regulators. These include requirements that the Illustration Actuary shall:

* Certify that the disciplined current scale used in illustrations is in conformity with the Actuarial Standard of Practice (ASOP) for [Compliance with the NAIC Model Regulation on Life Insurance Illustrations](https://www.actuarialstandardsboard.org/asops/compliance-naic-life-insurance-illustrations-model-regulation/) promulgated by the Actuarial Standards Board (ASB), and that the illustrated scales used in insurer-authorized illustrations meet the requirements of this regulation.
* Disclose in the annual certification whether, since the last certification, a currently payable scale applicable for business issued within the previous five (5) years and within the scope of the certification has been reduced for reasons other than changes in the experience factors underlying the disciplined current scale. If NGEs illustrated for new policies are not consistent with those illustrated for similar in-force policies, this must be disclosed in the annual certification. If NGEs illustrated for both new and in-force policies are not consistent with the NGEs actually being paid, charged, or credited to the same or similar forms, this must be disclosed in the annual certification.
* Disclose in the annual certification the method used to allocate overhead expenses for all illustrations.
* File a certification with the company’s Board and with the Commissioner: (a) annually for all policy forms for which illustrations are used; and (b) before a new policy form is illustrated.

The Academy’s qualification standards for rendering an opinion are in the “[Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States](https://www.actuary.org/sites/default/files/2021-11/USQS_2021.pdf)” (USQS), effective Jan. 1, 2022. Actuaries need to meet the continuing education (CE) requirements before issuing any SAO.

Section 2.1 of the [USQS](https://www.actuary.org/sites/default/files/2021-11/USQS_2021.pdf) 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 a certification relating to illustrated scales of NGEs for life insurance policies.
* Membership in the American Academy of Actuaries (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 statutes, 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:
		1. 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
		2. 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

* 1. 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](https://www.actuary.org/sites/default/files/2021-11/USQS_2021.pdf) specifies the Specific Qualification Standards beyond those required to satisfy the General or Basic Education and Experience requirements. For an actuary issuing Life, A&H, and Fraternal SAO, this includes examinations administered by either the Academy or SOA covering:

1. policy forms and coverages,
2. dividends and reinsurance,
3. investments and valuations of assets and the relationship between cash flows form assets and related liabilities,
4. statutory insurance accounting,
5. valuation of liabilities, and
6. 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 Illustration Actuaries. Appointed Actuaries would typically consider a broader perspective, including the adequacy of reserves for the entire company, often including multiple products. Illustration Actuaries are required to understand the life insurance products for which illustrated scales are being certified and would not necessarily have the broad knowledge of statutory reserves and assets that the Appointed Actuary would.

1. **Policy Forms, Coverages, and Features**

The Illustration Actuary must be able to assess the effect of insurance coverages and changes to experience factors and NGEs on the scales being used and certified. The Illustration Actuary must understand the types of insurable exposures and related insurance products covered by Model 582 for which the Illustration Actuary is certifying.

Examples of individual and certain Group Life Insurance and features with potential NGEs include:

1. Whole Life, with annual or limited payment periods
2. Universal Life, with or without secondary guarantees
	1. Fixed interest rate credits
	2. Indexed interest rate credits
3. Term Insurance
	1. Annually renewable term
	2. Term with certain level period
4. Single and joint life policies
5. Riders attached to the above policies, including
	1. Accidental death benefit
	2. Waiver of Premium
	3. Term insurance on the life of
		1. The insured
		2. Spouse
		3. Child
	4. Critical illness benefits
	5. Chronic illness benefits
	6. Accelerated terminal illness benefits
	7. Long-term care
	8. Return of Premium
6. Policies created due to nonforfeiture values
7. Supplemental Benefits, as defined by law
8. Participating dividend calculations
9. **Law, Statutes, Regulations, and Actuarial Guidelines**

The Illustration Actuary must be able to assess the effect of the legal environment on the scales of illustrated NGEs for which the Illustration Actuary is certifying, along with the associated risks and uncertainties. The Illustration Actuary must understand relevant U.S. and state insurance law, regulatory authority, and regulations, including:

1. Insurance law with respect to its impact on Life and Fraternal insurers.
2. U.S. federal and state laws and regulations that pertain to the Illustration Actuary’s actuarial services.
3. Relevant state-specific laws, regulations, regulatory authority and rules regarding the illustration of life insurance NGEs.
4. Familiarity with all applicable statutory Actuarial Guidelines related to the illustrations which are being certified, and
5. Federal tax law, as it applies to both companies and life insurance policies.

1. **Principles of Insurance and Risk Selection**

The Illustration Actuary must be able to assess the effect of marketing, risk selection, and changes therein on the illustrated scales for which the Illustration Actuary is certifying, along with the associated risks and uncertainties. The Illustration Actuary must also be familiar with insurance company management of any NGEs or participating dividends.

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 allowing for insured antiselection.
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. Impact of management actions, possibly related to NGEs, which may impact Policyholder Behavior (PHB).
6. Effect of investment market changes, competition, and other economic factors on PHB.
7. **Development and Use of Experience Factors**

The Illustration Actuary must understand and apply financial models that utilize mortality, expense, investment income, persistency, tax and other experience factors in evaluating whether the disciplined current scale is in conformity with Actuarial Standard of Practice (ASOP) No. 24, [NAIC Life Insurance Illustrations Model Regulation](https://www.actuarialstandardsboard.org/asops/asop-24-naic-life-insurance-illustrations-model-regulation-024-217/), and that the illustrated scales meet the requirements of the Model. The Illustration Actuary must also understand the company’s products, taxes, assets, internal operations, external environment, and relevant changes therein that impact the illustrated scales to which the Illustration Actuary is certifying. The Illustration Actuary must be knowledgeable of the methods of analysis used and should have a strong understanding of modeling techniques, modeling options, experience studies, and interpretation of results.

The actuary must be familiar with the following:

1. The insurer’s NGE framework for crediting rates, index parameters, cost of insurance charges, expense and rider charges, etc.
2. Sources of actual experience, such as company experience, industry experience, population mortality/morbidity, etc. used in setting experience factors that reasonably reflect recent actual experience for a policy form.
3. The insurer’s investment income experience, asset portfolio, allocation of investment income to policies, default costs, investment expenses, costs of hedging index parameters, characteristics of underlying indices, and business and economic cycles.
4. The insurer’s experience for mortality, morbidity and policyholder behaviors, such as
	1. Premium payments
	2. Surrenders (full or partial)
	3. Lapses
	4. Policy loans
	5. Face amount changes
	6. Fund transfers
5. The insurer’s expense experience, allocation of overhead practices, marginal vs. fully allocated expenses, average policy size and sales volume assumptions for policy forms, any significant nonrecurring costs
6. The insurer’s method of allocating taxes, impact of taxes by duration, investment taxes, premium taxes, employment taxes, and income taxes
7. Consistency between and any interdependencies between different types of experience factors
8. Applicable actuarial guidelines.
9. **Other Considerations**

The Illustration Actuary should understand how management actions could impact policyholder behavior related to the illustrated scales to which the Illustration Actuary is certifying.

1. **Professionalism and Business Skills**

The Illustration Actuary must have professional and business skills to enable the Illustration Actuary to perform the required actuarial services in an ethical and professional manner that upholds the reputation of the actuarial profession.**2**The Illustration Actuary must know and adhere to the [Code of Professional Conduct](https://www.actuary.org/content/code-professional-conduct), as well as applicable [ASOP](https://www.actuarialstandardsboard.org/)s and must meet the [USQS](https://www.actuary.org/sites/default/files/2021-11/USQS_2021.pdf). The Illustration 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, as well as ASOP No. 24 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.

The Illustration Actuary should also have familiarity with the relevant Practice Notes from the Academy.