

Public Policy Monograph

April 2003

Role of the Actuary
Under Federal
Insurance Regulation



AMERICAN ACADEMY *of* ACTUARIES

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The American Academy of Actuaries is the public policy organization for actuaries practicing in all specialties within the United States. A major purpose of the Academy is to act as the public information organization for the actuarial profession. The Academy is non-partisan and assists the public policy process through the presentation of clear and objective actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, comments on proposed federal regulations, and works closely with state officials on issues related to insurance. The Academy also develops and upholds actuarial standards of conduct, qualification and practice and the Code of Professional Conduct for all actuaries practicing in the United States.

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Section I. Executive Summary

For over 100 years, the American insurance industry has been regulated by the states. However, as a result of the 1999 Financial Services Modernization Act and other changes in the financial services industry, various proposals have been submitted that would allow insurance companies the option to be federally regulated. The role of the American Academy of Actuaries (the Academy) in the proposed federal charter debate is not one of advocacy or opposition. Instead, we believe our role is to fully participate in the discussions to provide actuarial assistance in the design of any altered insurance system.

The primary purpose of government regulation is to protect consumers, particularly to protect the solvency of companies so they can fulfill their promises to policyholders. Within the insurance industry, actuaries have been the professionals most actively involved in helping state regulators protect solvency. Actuaries analyze and shape insurance regulations that preserve the financial integrity of the insurance system through sound programs and strong companies, by assuring that companies comply with these requirements in a regulatory capacity, and by overseeing the fulfillment of these requirements within companies. Membership in the Academy is the primary credential qualifying actuaries to make this contribution.

This monograph has been prepared by the Academy's Federal Charter Work Group in response to our review and analysis of the current proposals for federal insurance regulation. The Academy's interest in the optional federal charter proposals is to ensure that the customers and other stakeholders in a federally regulated insurance system have the appropriate protections. We are convinced that this protection can best be accomplished if any legislation enables actuaries to perform their vital role in the analysis and management of company insolvency.

Based upon our analysis of the current proposals for an optional federal insurance charter, it is our view that any legislation must clearly address the role of the actuary. We therefore recommend that the following essential components be incorporated into any laws that implement a federal insurance regulatory system:

Component 1: Establish an Office of the Chief Actuary to regulate and supervise the actuarial and solvency requirements of federally regulated insurance companies.

Component 2: Require that the Office of the Chief Actuary be involved in actuarial aspects of the federal insurance department's development of regulations and pronouncements related to solvency protection.

Component 3: Define the responsibilities of the Office of the Chief Actuary regarding the review of federally regulated insurance companies.

Component 4: Define the minimum actuarial requirements that federally regulated insurance companies must meet and submit to the Office of the Chief Actuary.

It is our belief that including these components in any potential federally regulated insurance structure is fundamental to the objective of protecting insurance consumers and preserving the financial integrity of the insurance industry.

Section IV of this monograph provides more detailed information regarding each of these components. Sections II and III, provide background information regarding financial security programs, insurance, the actuarial profession, and the role of the actuary in helping shape insurance regulations.

Section II. Financial Security, Insurance, and Regulation

Financial Security and Insurance

Individuals and businesses are exposed to many risks that can have devastating consequences to financial security. These risks include:

- Property damage and loss from accidents, fire, and storms
- Loss of income from poor health, disability, or premature death
- Insufficient assets to fund retirement or long-term care needs
- Unanticipated hospital, medical, and dental health care expenses
- Liability arising from operating a business, performing a service, driving a vehicle, or personal actions

The financial consequences of these risks can be avoided, reduced, or transferred. For any particular individual or business, it is extremely difficult to predict the likelihood or impact of a specific peril. To address this situation, financial security programs are established to manage the risk and mitigate adverse financial effects on individuals and businesses.

Insurance, including reinsurance, is one of the most common components of a sound financial security program. By utilizing risk-sharing and risk classification techniques, insurance transfers the potentially large financial consequences that an individual or entity might incur to all the insured members of a group or cohort for a smaller known cost or premium.

Insurance companies are in the business of providing products that will facilitate the management of financial risks associated with these perils. By utilizing probability theory, statistical data, and mathematical models, actuaries determine prices (premiums) for insurers' products. For many insurance products, the costs change significantly with characteristics such as attained age, policy duration, medical or driving history, and so on.

The insurance laws and regulations require insurance companies to establish appropriate reserves for anticipated future claims as well as for known claims and to maintain adequate solvency in order to provide the financial security expected by the policyholders.

In the process of providing insurance and other financial services, insurers are also major providers of funds to the capital markets.

Role of the Actuary in Insurance Regulation

The current state-based structure of insurance regulation has been in place since 1869. Many actuaries play a vital role in the design and operation of this structure as employees of insurance regulators. Many more serve as advisors to the regulators —either individually as interested persons or as members of the Academy committees that make recommendations to the regulatory authority.

The primary responsibilities of the regulatory actuary are:

- Monitoring the solvency and financial condition of domestic insurers by reviewing companies' reserves and risk-based capital calculations, and the Statements of Actuarial Opinion provided by each company's Appointed Actuary
- Reviewing product-related Actuarial Certifications for compliance with prescribed laws and regulations
- Evaluating the reasonableness of premiums for certain insurance plans
- Advising the Commissioner on the impact to the public and others of acquisitions, demutualizations, and mergers
- Assisting the Commissioner in managing the rehabilitation or liquidation process for troubled insurance companies
- Developing and implementing changes to insurance laws and regulations concerning proper reserve levels, premium rates, accounting and solvency requirements

Actuaries who work for organizations in or serving the insurance industry are actively involved in helping analyze the impact of new or proposed insurance regulations. By working collaboratively with industry trade groups, public policy-makers, and regulators, actuaries help to shape new regulations. The American Academy of Actuaries is the principal professional organization through which actuaries make this contribution.

Section III. The Actuarial Profession

What is an Actuary?

The Academy has over 14,000 members uniquely qualified for measuring and managing the risk in financial security programs. Actuaries share an expertise in assessing risk, designing insurance programs, establishing prices for these programs, and ensuring that these programs are maintained on a sound financial basis. Actuaries also employ a broad knowledge of business, economics, finance, mathematics, and statistics to evaluate the financial implications of uncertain future events such as death, sickness, injury, disability, extreme medical costs, or property loss. In addition, many actuaries are involved in setting company policies and are often called on to explain complex technical matters to company executives, government officials, shareholders, policyholders, or the public.

Most actuaries are employed in the insurance industry by consulting firms, insurance companies, or regulatory agencies. In addition, many non-insurance financial service institutions such as banks and securities firms also employ actuaries. Due to the complexity of financial security programs, actuaries, much like other professions, choose a specialty. Actuaries will generally specialize in a particular practice area emphasizing annuities, health insurance, life insurance, property and casualty insurance, or pensions.

Actuaries need a strong background in topics such as mathematics, economics, statistics, and finance. An undergraduate degree in one of these areas is typically the start of the academic training for an actuary. In addition, a rigorous examination process is required to obtain professional designation in the actuarial profession. The successful completion of this examination process has often been compared to obtaining a doctorate or PhD in mathematics or finance.

Additional information about the actuarial profession, the Academy, and related organizations can be found in the Appendix.

Section IV. Role of the Actuary in Insurance Regulation

A financially sound insurance industry could not exist without actuaries. The actuarial profession is essential to the sound operation and structure of insurance regulation in two crucial ways.

First, as experts in assessing and managing the financial security risks that Americans face, actuaries have vital knowledge and experience in how to assess and manage these risks. By working collaboratively with industry trade groups, regulators, and public policy-makers, actuaries have helped to shape the modern regulatory system. The American Academy of Actuaries has been the principal professional organization through which the actuarial profession has educated public policy-makers in insurance and financial security risk. Our goal has been to produce reasonable and fair regulations that protect the solvency of financial security systems and the interests of all policyholders.

Second, many regulatory agencies employ actuaries. The fundamental role of state insurance regulation has been solvency protection and the actuarial profession has been very involved in this process. Regulatory actuaries ensure that companies within their jurisdiction have complied with the specific actuarial requirements included in the insurance regulations. Most important, the regulatory actuary protects insurance consumers by analyzing and monitoring insurance companies to help prevent insolvencies.

To ensure that the regulatory system protects stakeholders, such as the individual insureds, it is essential that the actuarial role and related reporting requirements continue under any federal insurance regulatory structure. **However, based upon our analysis of the various proposals for a federal insurance option, the role of the actuary is not apparent.** We therefore recommend that the actuarial role and requirements be clearly defined by incorporating the following essential actuarial components into any laws that implement a federal insurance regulatory system.

Component 1: Office of the Chief Actuary

Law should establish the Office of the Chief Actuary. The Chief Actuary would report directly to the head of the federal insurance department (the “Commissioner”). The Chief Actuary and senior supervising actuaries must be members of the Academy to assure their qualification and adherence to the Code of Professional Conduct and the Actuarial Standards of Practice.

The Chief Actuary will be responsible for staffing the actuarial division with actuarial specialists to facilitate effective regulation and supervision of all federally chartered life, health, and property and casualty insurance companies. The Office of the Chief Actuary should include separate actuarial functions headed by actuaries who meet the American Academy of Actuaries qualification standards for the type of company they are regulating.

Component 2: Involvement in federal insurance regulations

The Office of the Chief Actuary will advise the Commissioner on actuarial aspects of all regulations or other pronouncements of the federal insurance department.

Component 3: Actuarial review of federally chartered companies

The Office of the Chief Actuary will be responsible for advising the Commissioner on all actuarial matters. The key areas of actuarial involvement are intended to support the consumer protection objectives of the federal insurance department. The following list includes many of the most important actuarial functions.

- Inform and advise the Commissioner regarding companies that have solvency or financial problems based upon the analysis and review of reserve opinions, risk-based capital calculations and other monitoring tools.

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- Develop and implement changes to insurance laws and regulations concerning proper reserve levels, premium rates, accounting issues that involve actuarial and solvency requirements.
- Advise the Commissioner on actuarial aspects of rehabilitations, liquidations, acquisitions, mergers, and demutualizations.
- Review and evaluate all required product related actuarial certifications for compliance with regulatory requirements.

Component 4: Actuarial requirements for federally chartered insurance companies

Insurance companies that are subject to federal regulation must meet certain minimum actuarial requirements. All actuarial requirements must be submitted by a qualified actuary who holds the MAAA (Member of the American Academy of Actuaries) designation and meets the applicable professional standards of the Academy. The qualified actuary must certify that actuarial items submitted comply with applicable regulations and Actuarial Standards of Practice in effect at the time of submission. The items to be submitted by the qualified actuary include but are not limited to the following:

- An annual statement of opinion on the adequacy of reserves
- An annual calculation of risk-based capital
- All product-related filings that require an actuarial certification
- Documentation requested by the Federal Insurance Regulator to demonstrate compliance with Actuarial Standards of Practice

It is our belief that including these components in any federally regulated insurance structure is essential to protecting insurance consumers and preserving the financial health of insurance companies.

APPENDIX A – The American Academy of Actuaries

The American Academy of Actuaries

The American Academy of Actuaries is the public policy and professionalism organization for actuaries practicing in all specialties within the United States.

A major purpose of the Academy is to act as the public information organization for the actuarial profession. The Academy is non-partisan and assists the public policy process through the presentation of clear and objective actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, comments on proposed federal regulations, and works closely with state officials on issues related to insurance.

The Academy also develops and upholds actuarial standards of conduct, qualification and practice, and the Code of Professional Conduct for all actuaries practicing in the United States.

Academy Membership Requirements

The requirements for admission to membership in the Academy are set forth in Article I of the Bylaws and in these procedures.

The Academy Board of Directors, in accordance with Article I, Section 2(B) of the Bylaws, prescribes the following educational requirements for prospective members. An applicant who has attained the indicated status in one of the organizations listed below shall be deemed to have met the education requirements for admission to membership:

1. Associateship in the Casualty Actuarial Society or the Society of Actuaries.
2. M.S.P.A. or F.S.P.A. in the American Society of Pension Actuaries.
3. Membership in the Conference of Consulting Actuaries.
4. Fellowship in the Canadian Institute of Actuaries, the Faculty of Actuaries in Scotland, the Institute of Actuaries of Australia, and the Institute of Actuaries in Great Britain.
5. Enrolled Actuary status under Subtitle C of Title III of the Employee Retirement Income Security Act of 1974.
6. Membership in the Colegio Nacional de Actuarios. In those cases where familiarity with actuarial practices and principles in the United States cannot be assumed, the Executive Committee is empowered to call for evidence of such familiarity.

An applicant who has attained actuarial educational credentials other than those enumerated above may submit those credentials to the Academy for review and approval by the Membership Committee and the Executive Committee.

- A. Applicants to the Academy must be of good moral character and have professional integrity. Evidence of the lack of good moral character or professional integrity shall be grounds for rejection of an application to membership in the Academy.

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- B. In those cases where good moral character and professional integrity cannot be assumed, the Membership Committee and Executive Committee are empowered to call for evidence of such good moral character and professional integrity.

An applicant must, at the date of application, have had at least three years of fulltime equivalent experience in responsible actuarial work. “Responsible actuarial work” is defined as work that has required knowledge and skill in solving practical actuarial problems in any of the fields identified in the Academy Bylaws. The following guidelines apply to experience:

- A. At least one of the three years of responsible actuarial experience must fall within the five years preceding the date of application.
- B. Teaching experience in actuarial courses may be considered for the three-year requirement. Non-actuarial-specific courses, such as probability and statistics, do not count as actuarial courses for this purpose.
- C. Summer, part-time, and other intermittent experience may be considered for the three years of full-time equivalent experience.
- D. Experience obtained outside the United States may be considered for the three-year requirement. An applicant who has practiced in any other field that is actuarially related may submit information about his or her field to the Academy for review and approval by the Membership Committee and the Executive Committee.

APPENDIX B – The Actuarial Standards Board

The Actuarial Standards Board (ASB) was established on July 1, 1988, as an independent entity managed with Academy staff support. The ASB has the authority to prescribe its own operating procedures; to establish committees, subcommittees, and task forces it may deem necessary in carrying out its assigned functions; and to appoint individuals to positions on such committees, subcommittees, and task forces. The operating committees report to the ASB and function under its direction. The ASB also has the authority to approve exposure of proposed standards and hold public hearings on them, and to adopt recommended standards of practice.

The ASB is charged with the following: (1) to direct and manage the development of actuarial standards of practice by its operating committees in all areas of actuarial practice; (2) to expose, promulgate or adopt, and publish actuarial standards of practice, within its sole discretion and pursuant to such procedures as it deems appropriate, in all areas of actuarial practice; and (3) to provide continuous review of existing standards of practice and determine whether they are in need of amendment, alteration, expansion, or elimination.

APPENDIX C – The Actuarial Board for Counseling and Discipline

The Actuarial Board for Counseling and Discipline (ABCD) was formed to serve the five U.S.-based organizations representing actuaries. The ABCD considers complaints and questions concerning possible violations of the Code of Professional Conduct.

Organizations served by the ABCD include the Academy, the American Society of Pension Actuaries, the Casualty Actuarial Society, the Conference of Consulting Actuaries, and the Society of Actuaries. The ABCD also serves the Canadian Institute of Actuaries relative to practice by its members in the United States.

In addition, the ABCD responds to inquiries by actuaries concerning their professional conduct and, when requested to do so, provides guidance in professional matters.

The ABCD's members represent all main areas of actuarial practice and all U.S. organizations representing actuaries. A selection committee composed of the presidents and presidents-elect of the U.S. organizations appoints ABCD members.

The ABCD was established effective Jan. 1, 1992, as an independent entity administered with Academy staff support.

Upon delegation of appropriate authority from a participating actuarial organization and acceptance of that delegation by the ABCD, the ABCD is authorized:

1. to consider all complaints or information suggesting possible violations of the applicable Code(s) of Professional Conduct and all questions that may arise as to the conduct of a member of a participating actuarial organization in the member's relationship to the organization or its members, or in the member's professional practice, or affecting the interests of the actuarial profession;
2. to counsel actuaries concerning their professional activities related to the applicable Code(s) of Professional Conduct in situations where the ABCD deems counseling appropriate;
3. to recommend a disciplinary action with respect to an actuary to any participating organization of which that actuary is a member;
4. to respond to requests for guidance regarding professionalism from members of the participating organizations; and
5. to mediate issues between members of participating actuarial organizations, or between such members and the public, for the purpose of informally resolving issues concerning the professional conduct of such members.

APPENDIX D – Other U. S. –Based Actuarial Organizations

There are four other U.S.-based actuarial organizations that provide services to actuaries. These organizations address specific areas of interest or need to actuaries in their area of specialization. These organizations are The American Society of Pension Actuaries (ASPAs), The Casualty Actuarial Society (CAS), the Conference of Consulting Actuaries (CCA), and the Society of Actuaries (SOA). The primary purpose of each of these organizations is described below.

The American Society of Pension Actuaries (ASPAs)

ASPAs is a national organization of retirement benefits professionals. The purpose of ASPAs is to educate pension actuaries, consultants, administrators and other benefits professionals, and to preserve and enhance the private pension system as part of the development of a cohesive and coherent national retirement income policy. Although ASPAs was founded in 1966 as an actuarial organization, the growing needs of the pension community led to the expansion of our membership to include pension professionals of all types: consultants, administrators, accountants, attorneys, chartered life underwriters, and more.

The Casualty Actuarial Society (CAS)

The Casualty Actuarial Society is a professional organization whose purpose is the advancement of the body of knowledge of actuarial science applied to property, casualty, and similar risk exposures. This is accomplished through communicating with the public affected by insurance as well as presenting and discussing papers, attending seminars and workshops, conducting research, and maintaining a comprehensive library collection. Other important objectives for the Society are establishing and maintaining high standards of conduct and competence for its membership through study and a course of rigorous examinations, developing industry standards and a code of professional conduct, and increasing the awareness of actuarial science.

The Conference of Consulting Actuaries (CCA)

The Conference of Consulting Actuaries advances the practice of actuarial consulting by serving the needs of consulting actuaries and by promoting members' views within the actuarial profession. This is accomplished by providing educational forums for consulting actuaries to enhance their skills, ensuring members are represented in issues affecting their practices and clients, and promoting and enforcing professional standards. The Conference of Consulting Actuaries strengthens both the practice of actuarial consulting and the ability of its members to better serve their clients and the public.

The Society of Actuaries (SOA)

The Society of Actuaries is an educational, research, and professional organization for actuaries in the United States and Canada. The Society's mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business, and societal problems involving uncertain future events. The vision of the Society of Actuaries is for actuaries to be recognized as the leading professionals in the modeling and management of financial risk and contingent events.

APPENDIX E – Actuarial Training

The actuarial profession employs over 14,000 individuals. Actuaries are essential to the measurement and management of risk in financial security programs. Actuaries are involved in assessing risk, designing insurance programs, establishing prices for these programs, and ensuring that these plans are maintained on a sound financial basis. Actuaries make use of a broad knowledge of business, economics, finance, mathematics, and statistics to analyze the risks related to various contingencies and perils.

Most actuaries are employed in the insurance industry, for insurance companies, health care organizations, consulting firms, or regulatory agencies. Actuaries are also employed in other non-insurance financial services institutions such as banks and securities firms as well as for the federal government (e.g. the Centers for Medicare and Medicaid Services, General Accounting Office, Pension Benefit Guaranty Corporation, Railroad Retirement Board, and Social Security Administration). Actuaries will generally specialize in a particular insurance segment such as property/casualty or life or health insurance, or pension benefits.

Regardless of specialty, actuaries assemble and analyze data to estimate probabilities of an event taking place, such as death, sickness, injury, disability, or property loss. They also address financial questions, including those involving the level of pension contributions required to produce a certain retirement income level or how a company should invest resources to maximize return on investment in light of potential risk. In addition, actuaries are involved in setting company policy and insurance regulations and are called upon to explain complex technical matters to company executives, government officials, shareholders, policyholders, or the public in general. Using this broad experience and knowledge base, actuaries are often heavily involved in the development of plans to enter into new lines of business or new geographic markets with existing lines of business by forecasting the financial impact under various scenarios.

Actuaries need a strong background in topics such as mathematics, economics, statistics, and finance. An undergraduate degree in one of these areas is typically the start of the academic training for an actuary. In addition, a rigorous examination process is required to obtain professional designation in the actuarial profession. The successful completion of this examination process has often been compared to obtaining a doctorate or PhD in mathematics or finance. The Society of Actuaries (SOA) and the Casualty Actuarial Society (CAS) sponsor the examinations. Completion of the examination process through the SOA would result in a Fellow, Society of Actuaries (FSA) designation and completion of the examinations through the CAS would result in the Fellow, Casualty Actuarial Society (FCAS) designation. Generally, individuals who achieve an FSA designation work with life, health or pension product lines and an individual with an FCAS would generally work with property and casualty and health coverages.

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