

# Professionalism Considerations for Working in Developing Areas of Actuarial Practice

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**PROFESSIONALISM DISCUSSION PAPER**

## CONCEPTS ON PROFESSIONALISM

*Prepared by*  
Committee on Professional Responsibility  
Professionalism Series



AMERICAN ACADEMY  
*of* ACTUARIES

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This discussion paper was developed by the Committee on Professional Responsibility of the American Academy of Actuaries for discretionary use by actuaries. Its purpose is to generate discussion among actuaries about practicing in developing areas of actuarial practice. This paper was not promulgated by the Actuarial Standards Board and is not binding upon any actuary. No affirmative obligations are intended to be imposed on any actuary by this paper, nor should such an obligation be inferred from any of the ideas expressed or suggestions made herein. This discussion paper is intended to stand on its own and be freely interpreted.

In weighing their ability to practice in a developing area, actuaries should be guided by the Code of Professional Conduct, *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* (USQS), and the actuarial standards of practice (ASOPs) promulgated by the Actuarial Standards Board. To the extent any conflict exists or could be implied between this paper and the Code, USQS, or ASOPs, the professional standard prevails. Actuaries, reflecting upon the professional standards that apply to them, are free to accept or reject any part or the whole of this discussion paper.

The Committee on Professional Responsibility presents these ideas with the expectation that they will be both useful and thought-provoking and will enhance the actuarial profession's consideration of the standards that apply when working in a developing area of actuarial practice. Ultimately, it is the Code, USQS, and ASOPs that govern the responsibilities of actuaries working in a developing area. However, the ideas and suggestions offered in this paper are intended to assist actuaries in applying the professionalism standards to their individual situations. The committee believes that expanded discussion of the concepts and suggestions offered in this paper will benefit the profession.

Members are encouraged to share their comments on this paper with the Committee on Professional Responsibility to facilitate improvements in any future releases on this topic. Comments can be submitted to [professionalism@actuary.org](mailto:professionalism@actuary.org).

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# Introduction

Actuarial practice is continually developing. Sometimes these developments are updates to existing work, but many times developments represent completely new areas of actuarial practice for which there is not yet a body of work, such as actuarial literature or actuarial standards of practice (ASOPs). This paper is intended to raise awareness of the requirements of the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States (USQS)* with respect to work in emerging areas and to help actuaries determine whether they are qualified to practice in a developing area.

This paper will not address situations where an actuary is beginning to practice in an existing area different from one in which the actuary had previously been qualified. Such situations are covered in section 4.1 of the USQS, which requires an actuary changing areas of practice to meet the basic education and experience requirements, and the continuing education requirements, for the new area. An actuary in this situation should review section 4.1 of the USQS for detailed requirements.

The paper will distinguish between emerging areas within an existing area of practice, such as principle-based reserving (PBR) in 2012, and entirely new areas of practice, such as the emergence of enterprise risk management (ERM) in the early 2000s.

The paper will also address the definition of actuarial services and the implications of the Code of Professional Conduct (Code) for actuaries providing actuarial services in emerging areas.

## Qualification

Precept 2 of the Code states that “the Actuary shall perform Actuarial Services only when the Actuary is qualified to do so on the basis of basic and continuing education and experience, and only when the Actuary satisfies applicable qualification standards.” Annotation 2-2 goes on to say that “the absence of applicable standards for a particular type of assignment ... does not relieve the Actuary of the responsibility to perform such Actuarial Services only when qualified to do so.”

Actuaries determining whether they have satisfied the applicable qualification standards should carefully review the requirements of section 2.1 of the USQS with respect to the new area of practice. When considering what is needed to become qualified in the new area of practice, actuaries should keep in mind that some of their existing education and experience may help to qualify them for the new area.

The Code treats actuaries as professionals capable of making an honest assessment of their competence. Actuaries must often exercise judgment in determining whether they are qualified for a particular assignment—this element is often called the “look in the mirror test.” To satisfy the “look in the mirror” test under Precept 2 of the Code, actuaries need to gain as much education and experience as necessary to be able to honestly say that they have the ability and skill to competently complete the assignment. In many cases, the number of hours necessary to achieve this level of knowledge may exceed the 30 hours of continuing education required by the USQS each year. It is a good idea to document such education and experience as evidence that the actuary has met the requirements of the USQS.

### **Emerging Area Within an Existing Area of Actuarial Practice**

When there is a new development within an existing area of actuarial practice in which an actuary is currently qualified, such as principle-based reserves (PBR), additional qualifications may be needed. In such cases actuaries might review the emerging literature and any proposed or enacted regulations and law. Meeting directly with others developing expertise in the emerging area or participating in industry meetings regarding the new development may also be useful. Actuaries in these situations should undertake sufficient activities to be comfortable stating that they have obtained the knowledge and experience necessary to be qualified in this new area.

### **Entirely New Area of Actuarial Practice**

Actuaries desiring to work in an emerging or nontraditional practice area would do well to determine what is needed to become qualified in the new area of practice, keeping in mind that some of their existing education and experience may help to qualify them in the new area of practice. The basic education requirement of the USQS may not require an actuary to take additional examinations in the new area of practice, and, in fact, it is unlikely that such exams would be available in an emerging practice area.

Actuaries determining how to become qualified might consider the following:

a. **Related areas**

Actuaries determining whether they are qualified to work in an emerging area may begin by considering the extent to which they are already qualified in areas closely related to the emerging area. If they are not qualified in closely related areas, a first step might be to do the work necessary to become qualified in these related areas in terms of basic education, continuing education, and experience, as detailed in section 2.1(d) of the USQS.

As an example, consider when data analytics emerged as a new specialty within actuarial science. Data scientists use analytical, statistical, and programming skills to collect, analyze, and interpret large data sets. An actuary may have developed expertise in data analytics and programming by means of basic education and through experience working with, say, health claims data in prior assignments. This knowledge base, skills, and experience could provide a good foundation for moving into the emerging field, if supplemented with appropriate continuing education and specific data-science experience.

b. **Educational material from groups working in the emerging area**

Often actuarial, industry, or company work groups will be convened to discuss the emerging area. By participating in such discussions and/or reading information published by such work groups, actuaries may become comfortable they are satisfying the continuing education requirements for the emerging area. By definition, the emerging area will generally have existed for a short period of time, so the experience requirement may be met by having experience in a closely related area.

# Performing the Work

## Professional Judgment

Professional judgment, based on the knowledge and understanding gained from an actuary's specialized training and experience, relates to the decisions made by an actuary while providing actuarial services. Professional judgment is reflected in the recommendations, advice, findings, or opinions that are expressed when providing the actuarial service. Professional judgment is a part of decisions the actuary makes, whether in a developing area or a more traditional actuarial practice area.

Actuaries typically consider the following important elements as they make the judgments or decisions incorporated into the actuarial services they provide:

- The Code of Professional Conduct
- Actuarial standards of practice (ASOPs) that may apply
- Other sources, including investigative research, practice notes, or professional articles
- Prior experience

## Code of Professional Conduct

All work completed by an actuary in the course of rendering actuarial services is subject to the Code of Professional Conduct. The precepts state that work must be completed with integrity and competence, in accordance with actuarial standards of practice, and in a manner that fulfills the profession's responsibility to the public.

## Applicable ASOPs

ASOPs provide actuaries with a basis for believing that their work product conforms to principles and practices generally accepted by the actuarial profession. ASOPs have this status as a result of the professional judgment exercised by the qualified actuaries whose practice contributed to the ASOP. By virtue of being models of accepted principles and practices, ASOPs can also provide guidance in related practice areas that are still developing.

However, the Code anticipates, in Annotation 3-2, that the actuary may be involved in an area for which no applicable standard of practice exists. In this situation, the Code advises the actuary "to utilize professional judgment." Thus, an actuary's professional judgment can rely on the other listed elements above, which may be available when standards are not.

In a developing area of actuarial practice, directly applicable standards may not exist. This may be because actuaries have not worked in the practice area long enough for appropriate standards to have been determined. In addition, the number of actuaries working in the area may not have reached sufficient critical mass to create a working group to develop an ASOP. In this situation, the application of professional judgment by any actuary providing service in this area will add to a collective base of experience from which generally accepted practices might emerge and, ultimately, ASOPs could very well be developed in the future.

As an example, actuaries started working in enterprise risk management (ERM) in the early 2000s. However, basic education in ERM as a specific discipline did not begin until 2006 and became more fully developed over the next five years. The first ASOPs directly related to ERM took effect in 2013. Actuaries increasingly practiced in ERM during that period and developed knowledge and techniques that ultimately formed the basis for the ERM ASOPs.

ERM in its early days was considered an emerging area of practice, but one that was clearly related to other existing areas of actuarial practice. The early ERM actuaries drew from experience in disciplines such as asset/liability management, which required looking at both sides of the balance sheet. Some ERM actuaries also benefited from having worked as consultants or company actuaries in multiple lines of business during their careers, which helped them to develop a holistic view of corporate-level risk.

It is important to note that certain ASOPs apply to almost all areas of actuarial practice, prominent examples being ASOP No. 1, *Introductory Actuarial Standard of Practice*, which defines terms used across the ASOPs, ASOP No. 23, *Data Quality*, ASOP No. 41, *Actuarial Communications*, and ASOP No. 56, *Modeling*. Meeting the requirements of the generally applicable ASOPs should set the actuary on an appropriate pathway in the developing area of practice. Beyond these generally applicable ASOPs, actuaries may identify ASOPs that are related to the developing area and gain insights from the approaches found in those ASOPs.

## Other Sources

When exercising professional judgment to make decisions, actuaries may find the following sources helpful:

- Applicable ASOPs or practices and principles generally accepted by other actuarial organizations (e.g., in a different practice area or foreign country);
- Information contained in articles published in actuarial journals;
- Information contained in actuarial textbooks;
- Relevant study materials produced by actuarial organizations; or
- Practice notes published by the Academy.

In the application of professional judgment, actuaries use their knowledge with integrity, informed judgment, and perspective with respect to the circumstances of the specific situation and the intended purpose of the results of the actuary's work product.

It is always prudent to consider that professional judgment is a part of an actuary's decisions whether made while following an ASOP or not.

When doing work in an area for which no subject-specific standards exist, actuaries are expected to apply some combination of the following:

- principles and practices generally accepted by the actuarial profession;
- parts of existing standards that might relate to the work being done;
- standards from other professions; or
- other rules, methods, or processes adopted specifically for the project.

## Communication and Disclosure

Whenever an actuary provides professional services, the obligation to adhere to the Code of Professional Conduct applies. In particular, Precepts 4 through 6 of the Code, which deal with communications and disclosures, address a general requirement that applies to all actuarial services regardless of whether more specific ASOPs exist.

As has been noted earlier, all actuarial communications must adhere to the guidance of ASOP No. 41, *Actuarial Communications*. ASOP No. 41 requires the actuary to “identify the data, assumptions, and methods used by the actuary with sufficient clarity that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the actuary's work as presented in the actuary's report.”

All ASOPs contain a section that requires the actuary to disclose any deviation from the stated standard and provide a statement with respect to the nature, rationale, and effect of the deviation. When providing an actuarial report or other communication with respect to work not covered by a subject-specific ASOP, the actuary may find it helpful to explicitly state that no ASOP addresses the substance of the work performed. Such a statement makes it clear that the actuary's work did not deviate from the requirements of an ASOP.

It is usually helpful for the actuary to state in any report which of these sources were relied upon and any material deviations from them that might have been made.

## Non-Actuarial Work

An actuary working in a developing area may face the question of whether the work being done constitutes actuarial services that are subject to the Code of Professional Conduct. As defined in the Code, Actuarial Services are “professional services provided to a principal by an individual acting in the capacity of an actuary. Such services include the rendering of advice, recommendations, findings, or opinions based upon actuarial considerations.”

As actuaries expand into certain developing areas, it may be clear that actuarial techniques are being applied in those new areas, and work in such areas would be considered to fall under the requirements of the Code. Examples of such expansion are numerous, from the movement of actuaries into investment management roles in the 1970s to the more recent data science and predictive analytics assignments actuaries began taking on in the 2010s.

However, in other areas it may not be so clear that a particular service constitutes actuarial services even though it is being performed by an actuary. While each situation would need to be evaluated based on the specific work being performed, roles in disciplines such as sales, marketing, and general management may fall under the heading of non-actuarial work. It is hoped that the Code would still serve as a guide to appropriate practice in non-actuarial areas.



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