



SOCIETY OF ACTUARIES

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# Isn't it time we had some principles?

by R. Stephen Radcliffe

The Society Board has reaffirmed its desire to adopt actuarial principles as statements of opinion by forming a new Committee on Actuarial Principles, with Arnold Dicke as Chairperson. If the Casualty Actuarial Society Board agrees, this will be a Joint Committee.

The Committee will begin work immediately to identify and articulate principles to be recommended to the Boards for adoption in 1989. The Committee, which will be kept small to be most efficient, needs many consultants to review its findings and writings as the principles are developed. Anyone interested in serving as a consultant may call Steve Radcliffe or Arnold Dicke.

Writing principles is a very difficult task. There is always a great danger of wandering about the philosophical landscape without coming to a successful conclusion of defining a useful principle. The result is often either a controversial statement or a motherhood statement that nobody can disagree with.

A set of well-articulated principles would define the scope of our profession and provide an inventory of the problem-solving skills and tools available to actuaries. Consistent and well-organized principles will also provide a precise and common language, reducing the confusion created when actuaries from different backgrounds use different notation and terminology for the same basic ideas.

Principles will provide a good foundation for standards. The people who write standards would like to point to a higher authority so that the standards will be well grounded. Also, during the discussion stage of articulating the principles, many important issues are identified, debated and clarified. This often difficult and tortuous exercise helps focus on the true identity of the actuary and the actuarial profession. There are three different types of principles to be considered (examples are provided with respect to the time value of money principle).

## 1. Basic Principles

These fundamental, basic truths or axioms underlie the entire structure of actuarial science. They describe the organization of observed facts that represent the operation of general laws. (For example, the value of money changes over time and is a function of the force of interest.)

## 2. Methodology Principles (Techniques)

These describe the rules of calculation which implement the basic principles under a set of given conditions. They represent techniques that reflect the "state of the art" at a given time. (For example, the value of money at time 0 is defined by the equation,

$$S_0 = S_t \cdot e^{-\int_0^t \delta_s \cdot ds}$$

## 3. Behavioral Principles (Standards of Practice)

These moral and ethical codes for behavior are better defined as standards of practice and, from this point on, will be referred to as standards instead of principles. (For example, when making an actuarial calculation, one should consider the principle of the time value of money. If the time value is material to the calculation, an appropriate assumption for the force of interest should be used.)

Because the confusion between standards and principles has stymied past attempts to articulate principles, a distinction must be drawn between them. Then the learned bodies, the SOA and the CAS, should develop principles, and the Actuarial Standards Board should develop standards. The standards, when properly stated, will refer back to the principles. In other respects, a firm line should be drawn between principles and standards of practice. The principles, especially the methodology principles, define what the actuary is capable of doing. Standards define what the actuary should do in light of what he or she is capable of doing.

Perhaps the organization of principles and standards can be better understood by describing some of their characteristics:

1. The basic principles will hardly ever change over time. However, methodology principles and especially standards of practice will

change over time.

2. The basic and methodology principles are apersonal; they do not involve a person's judgment. Standards of practice, by definition, always involve a person. The choice of which methodologies to use is a matter of judgment, and these choices should be controlled by standards.

3. Discipline should apply only to standards. Principles should be isolated from any discipline procedures of the profession. Some worry that strict adherence to principles or otherwise accepted doctrine could inhibit research. On the contrary, well-structured principles should encourage research. If our actuarial knowledge is organized through a structure of principles, it will actually be easier to extend knowledge through research.

Developing and articulating principles is an important priority for the Society. It could define our very reason for being and serve as the foundation for strategic planning. It is difficult to determine an accurate course for the future of the actuary without first building a firm foundation for take-off. It is in this spirit that we should encourage this endeavor, no matter how difficult it may be. It may take a long time, but it is crucial to develop the backbone of our profession in these critical and changing times.

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## Thank you, Graham Deas

In the June *Actuary* we mistakenly implied that Charlie Groeschell, our Competition Editor, is the creator of both the Actucrosswords and the Actucrostics. While Charlie performs valuable services in his editorial capacity and as author of the Actucrostics, the Actucrosswords have been created by R. Graham Deas, ASA, FFA. More about Graham will appear in a future issue of *The Actuary*.

## In Memoriam

Harvey H. Conklin FSA 1958  
 Thomas K. Dodd FSA 1925  
 Maurice H. Farrant FSA 1952  
 David H. Miles ASA 1986  
 Harry D. Morgan FSA 1959  
 Thomas J. Norris FSA 1975