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Charles L. Trowbridge
Principal Mutual Life, trow@nwrain.com

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This interesting but controversial paper studies a subject I too have seriously considered. Nearly a decade ago I was commissioned to prepare a monograph that appeared in 1989 under the auspices of the Actuarial Education and Research Fund under the title Fundamental Concepts of Actuarial Science.[1] Chapter VII of this work, "Classification, Selection, and Antiselection," claims that the cluster of ideas surrounding these three words form a fundamental actuarial concept.

I have recently reviewed this monograph (hereinafter FCAS) and am struck by the dissimilarities between the two treatments. The authors of "The Right to Underwrite?" (RTU) were unaware of my work, and I mean this in no derogatory sense. FCAS does not appear in the usual literature search, particularly one undertaken from overseas.

This discussion will be an outline of the points at which FCAS and RTU differ. I will paraphrase, avoiding detail and concentrating on the essentials. I highlight the important differences by considering only the three questions stated below.

*Charles L. Trowbridge, F.S.A., was employed by Bankers Life Company (now the Principal Mutual Life) immediately after receiving his M.A. degree in 1938 and has remained with the company until his retirement in 1979. For thirty months in the early 1970's he was chief actuary of Social Security Administration of the U.S. For four years in the early 1980's he was professor of actuarial science at the University of Michigan.

Mr. Trowbridge has served on the Society of Actuaries (SOA) Board of Governors for nine years, including a term as President (1975). He has written extensively for the *Transactions of the Society of Actuaries* and for other actuarial, insurance, and business publications, and has served as the editor of the SOA's publication *The Actuary.*

Mr. Trowbridge's address is: 8115A 58th Ave. SE, Olympia WA 98503, USA. Internet address: *trow@nwrain.com*

[1] Trowbridge, C.L. *Fundamental Concepts of Actuarial Science.* Schaumburg, Ill.: Society of Actuaries, 1989.

Why Do Insurance Companies Underwrite?

Chapter VII of FCAS states that insurance companies underwrite not because of any specific concept of fairness and not because they have a right or freedom to do so, but because they must. If insurance prospects have choices about whether to buy, in what amount, and from whom, they can be expected to act in their perceived self interest and antiselect against the collective. Underwriting has no other purpose than self-protection. (To emphasize this point, FCAS notes that the predominant forms of life insurance protection, at least in North America, are those where such choices are not given, where antiselection is minimal, and where underwriting disappears).

RTU, on the other hand, does not mention antiselection. RTU has no clear answer to the question, though at one point RTU suggests that the purpose of underwriting is the creation of a competitive advantage for the insurer. I am troubled by the antiselection omission. Do the authors of RTU believe that antiselection does not exist or that it can be disregarded?

What Is the Relationship Between Underwriting and the Actuarial Profession?

FCAS treats the cluster of ideas surrounding classification, selection, and antiselection as one of a handful of fundamental actuarial concepts. Sound classification systems have a statistical component, but FCAS recognizes that socially oriented considerations also can be important. While actuaries have no monopoly in the design of classification systems, they do have expertise. This expertise may lie in the ability to examine all aspects of a difficult problem. Classification systems in use today are products of actuarial thinking tempered by actuarial experience.

RTU, on the other hand, views the relationship differently. The actuarial approach is defined only statistically. After defining the term so narrowly, however, RTU says that the actuarial approach is incomplete.

Do Life Company Actuaries Have a Professional Obligation to Speak Out When They Disagree With the Company's Classification System?

RTU seems to answer this question with a resounding yes. The authors of RTU clearly and honestly speak and suggest that others should do the same.

FCAS is silent on this question. If forced, the author of FCAS might reply as follows. The views of the insurance industry and of the actuarial profession on classification are similar. Both realize there are no perfect solutions to this difficult matter, and both are searching for better answers, especially in areas where statistical and social considerations conflict. If any person, actuary or otherwise, has constructive ideas on how classification methods for any financial security system can be improved, these ideas should be well received. These ideas, however, must recognize the world as it is, not as we wish it were.

William R. Lane*

The authors raise a number of issues that are legitimate societal concerns today. Several points, however, are worth noting.

Two Types of Insurance

The authors rightly determine that the distinction between insurance as a merit good and insurance as a social good is important. But they do not differentiate forms of insurance.

Certain types of insurance are largely all-or-none propositions. A person either has or doesn't have medical insurance. While a huge spectrum of provisions to medical insurance (such as deductibles, coinsurance, and restrictions applicable to managed care provider networks) exists, a central question remains: Does the level of benefits available to insureds allow them access to medical care services for all types of injuries and illnesses? Under these circumstances, the issue of whether insurance is a merit good becomes a critical question. If society deems access to medical care services to be a merit good (in other words, available without regard to ability to pay), then medical insurance also must be considered as a merit good. It is important to note that the cost of

*William R. Lane, F.S.A., M.A.A.A., is principal for Heartland Actuarial Consulting, LLC. He spent eleven years with Mutual of Omaha in various positions starting as a second vice president and ending as a senior vice president. From 1986 to 1993, he was Mutual of Omaha's group actuary responsible for a block of medical insurance of over a billion dollars in premium. He has been Group Actuary for several other companies including Guarantee Life, Protective Life, and Time Insurance.

Mr. Lane is vice chairman of the Health Benefits Research Committee for the Society of Actuaries (SOA) and has chaired the SOA's Task Force on Risk Adjustors. He actively participated in the lobbying efforts when health care reform was being discussed in the U.S. Congress.

Mr. Lane's address is: Heartland Actuarial Consulting, LLC, 2615 South 159 Plaza, Omaha NE 68130, USA. Internet address: *WmRLane@aol.com*

medical insurance with a $100,000 maximum benefit and the cost of medical insurance with a $10 million maximum benefit is not significantly different. The preponderance of the cost of medical insurance is determined by the benefits that most persons consider to be basic to the insurance (such as covering most of the cost of hospital and physician services).

Other types of insurance are incremental. For example, a person may have $10,000 of life insurance, or $25,000 of insurance, or $10 million of life insurance. While it may be argued that a minimum level of life insurance is a merit good (at least as long as the individual has dependents who rely on the individual for income), it would be difficult to argue the same point for $10 million of insurance. In this case the cost for $10 million of insurance is essentially 1,000 times the cost of a $10,000 policy. Thus, for life insurance, if one is to argue that it constitutes a merit good, then one also must determine how much coverage is required as a social necessity.

The two concepts, all-or-none and incremental, are not mutually exclusive. For example, disability income replacement is largely an all-or-none proposition with regard to the types of disabilities covered, but the benefit amount is incremental. Life insurance, if offered, rarely excludes specific conditions after the contestable period. Thus, the issue of what causes of death are covered is usually not significant. Given the trend to ever increasing deductibles for medical insurance, it also has an element of incremental benefit levels.

Incremental benefits can be considered a merit good only to the extent that the level of benefits is appropriate. Hence, the debate for such benefits must begin with a question of what level of benefit is under discussion. All-or-none benefits, however, beg the issue of their social necessity; the question of whether the coverage constitutes a merit good is critical. Hence, any discussion of whether society should require insurance products to be available should begin by limiting the discussion to those products that are merit goods, and that will require for some forms of insurance a discussion of how much coverage is a social requirement and how much is a personal decision.

An Actuarial Issue

The authors claim that "the choice between alternative views of fairness ... is not an actuarial question." I strongly disagree. Offering a good as a merit good requires redistribution of revenue. When the good is purchased on a voluntary basis, knowledgeable persons resist the purchase to the extent they perceive the price of the good has been

increased by such redistribution to the point that the value of the good to the individual is no longer worth the cost. All forms of insurance require redistribution. That is the chief purpose of insurance. But individuals, when viewing such a voluntary transaction, make a personal determination if the cost of redistribution is worth the value of the benefit obtained by the insurance.

The question then arises: At what point does offering insurance on a voluntary basis become financially impossible (in other words, the product is incapable of statistically providing a profit that at least equals the cost of capital) when legislation or social expectations have required the insurer to consider the product as a merit good?

While the understanding and financial modeling of individual selection of insurance is not an exact science, it is within the province of the actuary. No other profession is as well equipped to understand and evaluate these financial mechanics as the actuary. This issue has been explored in the context of various insurance coverages within the United States. It is professionally challenging, but cannot be considered as strictly a question of social philosophy.

For many years medical insurance in the United States was relatively inexpensive and was offered by many Blue Cross and Blue Shield organizations as essentially a merit good. Individuals and employers were largely not underwritten, and prices were rarely, if ever, related to the individual risk. As the cost of medical coverage rose, however, the willingness of individuals and employers to financially support this redistribution of revenue declined. Providers of medical insurance, including Blue Cross and Blue Shield, were faced with the issue of accepting prospects for coverage and basing the price of coverage on the expected cost of coverage or going out of business due to bankruptcy.

This change in underwriting culminated in a national debate over health care reform. At the crux of that debate was the issue of whether medical insurance was a merit good. (Albeit the term was rarely if ever used by the popular press.) I participated in this debate in several ways. In the United States actuaries vigorously discussed all sides of the question. Those actuaries who strongly favored considering medical insurance as a merit good were forced to bring actuaries into the debate because a merit good loses it value if it can't be financially supported. In other words, the actuarial question of how to financially support a voluntarily purchased merit good had to be answered; public policy resisted legislation that restricted the insurance providers in their ability to underwrite and differentiate in price based on risk.

Simply because society wishes for something to be available at a given price doesn't make it possible. A law requiring luxury cars to be sold for $100 each would not make them more available. It simply would mean that no luxury cars would be sold to anyone. Though insurance is more complex than a luxury car, the result of outlawing underwriting would produce the same result: no insurance, as we know it today, would be sold.

Actuaries have an important role in helping the general public understand the ramifications that such decisions produce. Actuaries also have a critical role in the financial modeling of such restrictions and the development of alternate approaches that balance the financial needs of the insurers with society's desire to make insurance available to all. It has been my experience in this country that many actuaries have contributed to this debate and have reflected all sides of the questions at hand.

Authors' Reply to Discussion

We thank the discussants for their comments and suggestions. We are grateful to Mr. Trowbridge for drawing our attention to his monograph, which contains a broader treatment than is typical in actuarial accounts of underwriting.

Mr. Trowbridge asked if we believed that anti-selection does not exist. That anti-selection can and does occur in voluntary insurance is not in dispute. The extent to which it occurs, and whether its occurrence significantly impairs the viability of private insurance, however, are strictly empirical questions for which the answers will differ according to the class of insurance, the rating factors concerned, and over time. For many classes of insurance, some degree of anti-selection may be regarded as socially optimal according to Rawlsian or other public choice criteria. More prosaically, the occurrence of some degree of anti-selection may maximize public acceptance of the insurance mechanism (as noted by Mr. Lane in the context of medical insurance).

In the light of our brief excursions into social philosophy, both discussants were concerned to reclaim risk classification as a largely if not exclusively actuarial matter. According to Mr. Trowbridge, actuaries' expertise may lie in their ability to examine all aspects of a difficult problem. Actuaries have a statistical and financial training, but they typically have little knowledge of social philosophy or ethics and no professional interest in, or concern for, persons who are harmed by underwriting practice. Even if actuaries might be capable of examining

all aspects of the problem, there are other constraints that make them reluctant to do so; as Mr. Trowbridge notes, the views of actuaries on underwriting are usually conveniently aligned to those of their principal employers.

Finally, we were exhorted to recognize the world as it is, not as we wish it were. The world as it is to whom? To actuaries ensconced comfortably in the insurance industry, or to those whom actuaries would exclude from medical insurance in the name of the principle of actuarial fairness? The acceptability of the world as it is depends on from where it is viewed.