The Right to Underwrite? An Actuarial Perspective With a Difference

Thomas A. Moultrie* and R. Guy Thomas†

Abstract

For a long time underwriting has been a part of the actuarial canon. With increasing frequency, however, challenges are being issued against the right of insurance companies to underwrite applications for new business, arguing that certain aspects of the practice are undesirably discriminatory.

We explore the role of the actuary in the underwriting process and the challenges that are being set for the profession (as opposed to the life insurance industry) as a result of this role. As the distinction between the interests of the actuarial profession and the interests of the life insurance companies has become increasingly blurred, we consider how the profession can maintain this distinction and so retain its identity as a profession worthy of public trust and respect.

Key words and phrases: *merit goods, fairness, social legitimacy, risk classification, independence, professional status*

1 Introduction

In recent years there have been several papers by actuaries commenting on the broad social debate about what the authors call the

*Thomas A. Moultrie is a lecturer in actuarial science at the University of Cape Town, South Africa. He previously worked for a life insurance company in Johannesburg.

Mr. Moultrie's address is: Actuarial Science Section, School of Management Studies University of Cape Town, Private Bag, Rondebosch 7700, SOUTH AFRICA. Internet address: *tomtom@infosys.uct.ac.za*

†Guy Thomas is head of actuarial science at the University of Kent at Canterbury, England. He previously worked for a firm of consulting actuaries in England.

Mr. Thomas' address is: Actuarial Science Group, Institute of Mathematics and Statistics, University of Kent at Canterbury, Canterbury CT2 7NF, ENGLAND. Internet address: *R.G.Thomas@ukc.ac.uk*

"right to underwrite" or the "freedom to underwrite."[1] [For example, see Leigh (1996) in the U.K. and de Ravin and Rump (1996) in Australia.] These authors see the role of actuaries as defending the insurance industry against criticism from other interest groups which Leigh (for example) disparages as "the medics, the moralists, and those who are genetically unfit" (Leigh, 1996, p. 19). In this paper we intend to address some of the same issues as these authors, but from a more independent perspective.

We do not mean to imply that life insurance companies should not seek to influence public debate on underwriting practice to protect their commercial interests. The response of life insurance companies as an industry is theirs to make. Such response may include lobbying, public relations, and sponsorship of research that the industry thinks likely to support its case. In this regard, the life insurance industry is no different from any other business group pursuing its own agenda. The issue with which we are concerned, however, is the role of the actuarial profession in the debate on underwriting practice and the need to articulate a separate, professional, actuarial perspective on the matter.

In our view the right to underwrite is not an issue that should be examined solely within our discipline or only from the perspectives of the life insurance industry. It is necessary to look at the nature of insurance and the role that it plays in society. The right to underwrite can be examined accurately only within this broad context.

This paper examines the broad issues first to establish a framework in which insurance practice can be located. We start by outlining the special features of insurance business that may lead public policy makers to impose restrictions on underwriting practices. We then examine alternative concepts of distributive justice and discuss criteria by which a risk classification scheme may be judged. After noting the limitations of the actuarial perspective on these issues, we consider the proper role of the actuarial profession in underwriting and the broader proper role of the actuarial profession in society.

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[1] An earlier group of authors, Cummins et al., (1983), produced a study of risk classification in life insurance. Their study concentrated mainly on the economic, statistical, and practical aspects risk classification, and, as such, may not be germane to our discussion.

2 The Nature of Insurance

2.1 Special Features of the Insurance Industry

Insurance companies, like all businesses, operate in a social context. Within this context, however, insurance (particularly insurance of life, health, and disability risks) has a number of special features that distinguish it from other consumer services. Some of these features may lead to a perceived need for special regulation of insurance.

First, the seller of insurance insists on selecting the customers to whom it will sell and on setting different terms for different individual customers; this is not a familiar phenomenon in mass consumer markets.

Second, the cost of providing the service is not known in advance on an individual level. This leads to a fundamental tension in all insurance programs between pooling on the one hand and actuarial rating on the other. This tension between pooling and pricing means that insurance has a dual nature. Insurance is like private savings accounts in its actuarial rating features, but it is like public assistance in that payouts are made selectively to those who suffer loss.

Third, insurance is a collective, communal enterprise; it is redistributive in nature. It redirects resources toward those who suffer loss and away from those who do not. This feature distinguishes insurance both from personal savings for adverse contingencies and from other consumer services. Insurance can be made more or less redistributive, but it is fundamentally different from other products that do not involve pooling and subsequent redistribution according to need.

Fourth, insurance against certain contingencies may be an example of a *merit good* (that is, a good that society considers should be available in certain quantities to all, even to those who do not have the resources to purchase it in a market transaction).

Fifth, insurance may be a *social good* (that is, the supply of such a good generates positive externalities, so that society has an interest in ensuring that the good is supplied as widely as possible). The notion of a positive externality refers to the benefits arising from the supply of the service that accrue to persons other than those to whom the service is supplied. For example, the satisfaction and sense of well-being of the present authors may be increased by the knowledge that we live in a society in which insurance is made available to certain disadvantaged groups. (In this example, the positive externality is relatively intangible in nature, but this need not necessarily be the case.)

Sixth, insurance is unusual because in addition to competing in the usual ways for service industries—price, level of service, product differentiation, recruitment of employees and agents—the insurers also compete in risk selection. An insurer that introduces a new underwriting procedure that facilitates the exclusion of higher risks from its insurance pool gains a competitive advantage over other insurers. This selection competition does not contribute to the aggregate welfare of consumers as obviously as do other types of competition, e.g., competition to reduce expenses. It therefore can be argued that public policy should be directed toward discouraging this bad competition and promoting the good type of competition, e.g. on expense costs and level of service.

2.2 Insurance as a Merit Good

Certain types of insurance are merit goods that society considers should be available in certain quantities to all irrespective of ability to pay. The extent to which particular types of insurance are merit goods depends on the availability of alternatives to the particular insurance in meeting social needs. For example, in a jurisdiction such as the United States where access to adequate medical care is largely dependent on the purchase of private insurance, insurance disabilities may lead to broader social disabilities. In other jurisdictions such as the United Kingdom where a high standard of medical care is guaranteed by the state, it is less clear that insurance disabilities lead to social disabilities. In such a society insurance may not be a merit good; one mainstream political party in the U.K. remains ambivalent about whether it wishes to encourage or discourage private medical insurance.

Medical insurance is not the only form of insurance for which the status of the coverage as a merit good is influenced by state benefits. The existence and level of state-provided death benefit, disability cover, old age pensions, and other welfare benefits also have implications for the extent to which the state expects individuals to be able to find private insurance to meet various contingencies.

Another example where private sector insurance disabilities can create broader social disabilities is the provision of mortgage coverage or home loan business. If lenders generally require such insurance, then uninsurable members of society are effectively precluded from home ownership and its associated benefits. Some governments have recognized the need to remedy this social disability. For example, in France an agreement has been reached between the FFSA (Federation of French Insurers) and the Ministries of Trade and Health to provide loan security policies to HIV-infected individuals to reduce and limit these social disabilities.

The relevance of the above examples and the extent to which insurance can be viewed as a merit good differ from country to country. The trend in recent years in many countries away from state protection and toward private insurance, however, has tended to increase the extent to which insurance is viewed as a merit good. If private insurance continues to play an increasing role in meeting social needs, it seems likely that society's interest in the social legitimacy of risk classification variables will continue to increase.

Insurance has a number of special features that give it the characteristics of a merit good. Increasingly, this characterization has called into question the fairness and social legitimacy of insurance practices. In insurance, however, the concepts of fairness and social legitimacy are not straightforward.

3 Fairness and Social Legitimacy in Insurance

3.1 Notions of Fairness

Actuaries traditionally have argued that underwriting is justifiably unequal. This defense assumes that all forms of cross-subsidization are inherently wrong: "[I]t represents an unfair charge to one individual or group to subsidize another individual or group" (Paddon, 1990, p. 1363).

Many non-actuarial commentators take the opposite stand. They argue that, in reality, society may prefer equality to equity (or, more accurately, society may prefer equality of outcome rather than equality of assessment). Actuarial fairness may be seen as seeking to place the costs of misfortune on the unfortunate, a notion of fairness that non-actuarial commentators may regard as rather eccentric (O'Neill, 1997).

How do we decide between these views? The choice between alternative views of fairness is essentially a question of social philosophy. It is not an actuarial question, and actuarial science is of little assistance in answering the question.

Probably the most influential concept of fairness over the last 25 years has been that proposed by the Canadian philosopher John Rawls (1972). Rawls' seminal book runs more than 600 pages and has spawned an extensive literature; here we can do no more than sketch the central concepts.

There are two aspects to the Rawlsian notion of fairness: the principle of greatest equal freedom and the principle of difference. (There is also a principle of equality of opportunity, but that does not pertain to the issues that we consider here.) The first principle, the principle of greatest equal freedom, says that each person or organization should have the widest possible freedom, but only to the extent that is compatible with the possession of equal freedom by other persons. The second principle, the principle of difference, says that inequalities may be justified, provided that they make even the poorest members of a society better off than they would otherwise have been. Rawls argues that these principles will be acceptable to all if they place themselves behind a veil of ignorance; that is, they assume that when choosing the principles by which society should operate, they do not know what position in society they occupy.

It is not obvious from the Rawlsian perspective that fairness in insurance must mean equal treatment for equal risks. Nor is it obvious that the life insurers' unfettered freedom to underwrite as advocated by Leigh (1996) is consistent with Rawlsian justice. Such freedom for insurance companies may have adverse effects on the freedom of individuals—for example, if this freedom for insurers prevents individuals from obtaining adequate health care. In most societies the sick and disabled include some of the poorest individuals. It is difficult to see how their exclusion from insurance risk pools can make these individuals better off than they otherwise would have been. The freedom-to-underwrite principle may fail to satisfy either facet of Rawlsian justice.

The Rawlsian perspective is only one view of justice, albeit an influential one; there are a number of alternatives. Some views place a higher emphasis on merit or reward consequent upon individual choice, and could be employed in defense of underwriting variables that society perceives are linked to individual choices (e.g., smoking status).

Other ethical theories may offer more support for the paradigm of conventional risk classification—although these theories, unlike many apologists for the insurance industry, generally do not claim to be concerned with fairness.

For example, the principle of utilitarianism—"the greatest good for the greatest number"—can be seen as supporting the exclusion of a minority of persons from insurance pools. Any utilitarian calculus, however, requires weighting the benefit enjoyed by those able to purchase insurance marginally more cheaply against the harm suffered by those excluded from insurance. In jurisdictions where buying insurance is the means for obtaining adequate health care or other merit goods, exclusion from insurance can cause great harm to the individual. It is not obvious that great and fundamental harm to a few is outweighed by a marginal price benefit for many.

It would be easier to defend current practice if the insurance industry took steps to ameliorate the worst harms caused by risk classification; for example, the industry could establish industry-wide pools to cover otherwise uninsurable risks. This approach has been followed in a number of countries, sometimes at the insistence of government and sometimes on a voluntary basis.

3.2 Social Consent to Insurance Practices

Another feature of a merit good is that it is widely perceived as a good thing. This is true of life insurance, and the industry's sales depend on this perception. But what happens if life insurance comes to be seen as undesirable because it is discriminatory? Experience in other markets suggests that consumer perceptions on ethical issues can have a major impact on business. For example, certain U.K. banks suffered considerable loss of business in the 1980s because of consumer boycotts motivated by the banks' perceived continuing involvement in, and implicit support of, the apartheid regime in South Africa. Consumer activism also has had an increasing impact on environmental issues. For example, in 1995 the Shell Oil Company was forced to abandon its plans for sinking its Brent Spar oil rig at sea because of a consumer boycott in several European countries, despite the scientific evidence on the merits of deep sea disposal as opposed to other decommissioning options (such as on-shore dismantling).

In both cases the companies initially disparaged criticism as the work of pressure groups, rather as some underwriters today disparage criticism of their unfettered right to underwrite. Yet in both cases the companies were eventually made to look foolish, being forced to reverse positions in which they had invested financial and political capital because of an increasing flood of public comment.

While these examples do not necessarily imply that the insurance industry will be forced to follow a similar course, they do represent a warning of the possible consequences for any business that fails to respond to changes in social opinion.

3.3 Social Legitimacy of Risk Classification Variables

The fairness of insurance classification procedures is a question extending beyond actuarial science. It is not surprising that many non-actuarial authors have considered the question of what determines the legitimacy of a risk classification variable.

For example, Abraham (1985, p. 442) argues that classification variables may be suspect for any of the following reasons.

- A particular characteristic may be used improperly in other fields and is therefore objectionable on symbolic grounds. For example, women often are discriminated against in an economic context, and, therefore, gender is suspect as a classification variable. Insurers ideally would like to disassociate risk classification from the use of the same variables to stigmatize particular groups, but this can be difficult to achieve—particularly because insurers play many roles (e.g., as employers) outside the context of an insurance contract.

- There may not be enough data to justify the classification.

- Some variables may be used only to the disadvantage of certain groups and never to their advantage. An example in insurance is the underwriting of medically impaired lives for life insurance without a corresponding allowance in annuity prices offered.

Wortham (1986, p. 417) proposes seven criteria for assessing rating factors (with translation into statistical terminology where appropriate):

- Statistical power. The probability of accepting a life on terms that would not be used if all relevant facts were known should be as small as possible.

- Statistical size. The probability of rejecting a life that would be accepted on the terms proposed if all relevant facts were known should be as small as possible.

- Causality. Classification factors for which a causal explanation can be given are preferred to factors for which the link is purely a statistical correlation and there is no apparent causal explanation.

- Incentives to loss reduction. Classification factors that provide incentives for the policyholder to reduce the risk of losses are socially beneficial. For example, if cigarette smoking is viewed as a matter of free choice rather than an addiction, then classification by smoker or nonsmoker status provides such an incentive.

- Controllability. This criterion is a pre-condition for the previous criterion. A classification variable cannot provide an incentive to loss reduction unless it is to some extent controlled by the insured.

- Compatibility with social values. This criterion relates to the use or abuse of the classification variable in other contexts. If a variable is misused or has been misused to disadvantage particular groups, the use of the variable in insurance may be tainted by association. This situation prevails in many countries with regard to racial discrimination in insurance.

- Are alternatives to private insurance available? The existence of such alternatives may result in insurance classifications being of lesser concern for public policy.

Probably only the first two of these criteria (the statistical criteria) normally would be considered in any actuarial analysis to determine an appropriate rating structure. This does not mean that the actuarial approach is wrong, but it does mean that it is incomplete.

3.4 Limitations of the Actuarial Perspective

To illustrate our view that the actuarial perspective on underwriting is incomplete, it is instructive to review how actuaries have defined underwriting.

One such definition of underwriting or risk classification is that it is "the process of grouping risks with similar risk characteristics so as to appropriately recognize differences in cost" (Paddon, 1990, p. 1362).

Implicit in this definition is a concept of how we should *appropriately* recognize differences in cost. What is appropriate depends on the relative merits of equity and equality. The definition implies that—in the market for life insurance, at least—equity is a more desirable outcome than equality. Unlike some other actuaries writing about underwriting, however, Paddon does acknowledge this choice: "As actuaries we do not oppose equality in and of itself. However the means by which [equality] is increased can have unanticipated consequences, and in some cases results quite opposite of those intended" (1990, p. 1365).

But actuaries are not the only persons who have access to determining what is fair and what is not. Lawyers, medical practitioners, underwriters, and policy makers all have their own different interpretations about fairness in insurance.

Another reason why the actuarial perspective on fairness in insurance is incomplete is that actuaries tend to consider fairness only from the point of view of existing policyholders. But the issue of distributive justice can be viewed (Stone, 1990, p. 393) from inside the circle of policyholders or from the vantage point of people who are already ill who are not policyholders. From a societal perspective, the persons who need life insurance most (i.e., those who are already ill) are precisely the individuals whom, from within the circle of policyholders, it is economically necessary and fair to exclude. This conflict between views of fairness from alternative vantage points is the crux of disagreements over fairness in insurance.

4 The Actuarial Profession's Role in Underwriting

Underwriting is not a scientific discipline; underwriters frequently use intuition and experience in making decisions. In principle, the contribution made by actuaries in establishing the statistical justifications for particular underwriting processes can be seen as scientific. In some cases, however, the scientific basis of actuaries' underwriting recommendations is difficult to discern.

The demands of practical work necessitate the use of some approximations. But in South Africa, for example, there has been an alarming trend for risk classification schemes dependent on factors that have not been properly investigated. Truyens (1993, p. 9), referring to the post-April 27, 1994 changes in South Africa, asked whether income-based and education-based rate differentiation would be outlawed as irrational discrimination. He feared that unless the South African insurance industry could produce actuarial statistics to justify such differentiation, that it would be deemed irrational discrimination. Many antidiscrimination laws (for example, in New Zealand, the EU, and the United States) make specific provision for waiver on the grounds of actuarially justifiable statistics. But if actuaries term particular conclusions "actuarially justifiable" when they are based on suspect foundations as alluded to by Truyens, their credibility with public policy makers will be eroded.

The credibility of the profession also depends on our acknowledging legitimate non-actuarial concerns pertaining to underwriting procedures. The policy statements of other actuarial bodies recognize some of the issues associated with the social acceptability of underwriting. For example, the Institute of Actuaries of Australia (1994) has stated that where chosen risk classification factors have been found to be no longer significant or to be socially unacceptable, they have been removed. They also acknowledge that actuaries need to review continually the factors that they choose in order to "reflect the effect of emerging statistics and changing social attitudes."

But the actuarial profession needs to recognize that although actuaries establish the statistical justification for particular underwriting processes, the decision to implement them is a commercial decision taken by life offices in view of other social forces. This distinction between the role of the actuary as a professional and that of the industry is crucial if national actuarial associations wish to be regarded as professions (as opposed to trade unions of life insurance company employees or technicians).

Although our focus has been classification factors that society finds unacceptable, societal preferences also can have the opposite effect. For example, if insurers had chosen not to recognize smoking as an underwriting variable, this position might have been difficult to sustain in light of increasing public recognition (and disapproval) of the effects of smoking on mortality.

5 The Actuarial Profession's Role in Society

The previous section concerns the role of the actuarial profession in underwriting. In this section we broaden the discussion to consider the proper role of the profession in society and the requirements that actuaries must meet if society is to regard the actuarial profession as one worthy of public trust and respect.

Two over-arching requirements for the ongoing social acceptance of professions are those of independence and social beneficiation.

5.1 Independence

It is necessary to distinguish the role of the actuary as a scientist and professional and her (or his) role as a life insurance company employee. As a scientist and as a professional the actuary is constrained by responsibilities more stringent than those that affect life insurance companies. Life insurance companies can be assumed to act in a way that preserves their interests and position in society. If an association of individual actuaries aligns itself too closely with such vested interests, however, the association risks compromising its professional identity and integrity.

One of the key roles of a profession is to be able to articulate both sides of a debate—to observe the pros and cons of any given course of action. According to Paddon (1990, p. 1365): "... we have a responsibility to encourage those who make public policy to understand the impact of a proposal or decision." In recent years the actuarial profession has not played this role well, at least not with respect to underwriting. The contribution of actuaries generally has been to act as partisan defenders of the life insurance industry.

While actuaries may side with life insurers on particular issues, the maintenance of professional status depends on actuaries being perceived as capable of distinguishing a professional viewpoint from the commercial viewpoint of the life insurance industry.

In a number of countries actuaries' status as professionals is questionable because of actuaries' inability or unwillingness to maintain this distinction. In South Africa, for example, the problem is exacerbated by the fact that in recent years the profession has had no input in important social and legal processes, instead choosing to subsume its responses to those of the Life Offices' Association (LOA). In effect, the message is that the views of the South African actuarial profession are identical to those held by the LOA.

This apparent lack of independence is potentially damaging not only to professional status, but also to the profession's prospects for expansion. If actuaries are seen as being uniquely identified with the life insurance industry, in the longer term this perceived lack of independence can only hinder the growth and expansion of the profession.

5.2 Social Beneficiation

Independence is a necessary, but not sufficient, condition for the maintenance of professional status. A second requirement for the long-term survival of a profession is that of social beneficiation. By this we mean that the work that we do as professionals should add value to society.

Some actuaries would argue that performing traditional actuarial roles in life insurance companies and pension funds is sufficient for this purpose. If society decides to reevaluate the way in which the insurance business operates, however, the actuarial profession may come under scrutiny too. If actuaries are seen to be capable only of defending the rights of the life insurance industry and its current policyholders, it is possible that actuaries will be seen as life insurance technicians with no other role than performing prescribed calculations and lobbying for those institutions.

An alternative is to view the social responsibility of the actuary as extending beyond these institutions. Such an approach would not be merely altruistic. By demonstrating its ability to look beyond the short-term interests of its principal employers, the profession could increase the possibility of expanding and developing its professional influence into other areas.

6 Summary and Conclusion

Insurance underwriting, like all business practices, operates in a social context. Insurance has a number of distinguishing features that give it some of the features of a merit good (that is, a good that society considers should be available in certain quantities even to those who do not have the resources to purchase it in a private market transaction) and some of the features of a social good (that is, a good the supply of which generates positive externalities).

The importance of these features depends on the extent to which social needs are met by private insurance. If the insurance industry wants an increasing social role for private insurance and the associated opportunities for profit, it must accept that society will take a greater interest in the social legitimacy of risk classification procedures. The alternative is for the industry to decline this increased social role and retreat into a more limited position in which its risk classification procedures will be of less concern to society.

Actuaries should recognize that the actuarial perspective on fairness in insurance classification has its limitations and that actuaries are not the only arbiters of fairness. The acceptability of underwriting procedures is societally determined, and a profession that fails to recognize and make allowances for this may find itself ostracized and increasingly ignored.

It should be possible for actuaries to take a different position from that of their principal employers in the debate on underwriting and in other debates where corporate and professional views are not necessarily congruent. Unless actuaries are perceived as being capable of holding a different view—whether they do so in practice or not—the professional status of the actuarial profession could come under threat.

If actuaries are to survive as a profession—one that actively engages in debate and the expansion of knowledge and that is aware of its responsibilities to society—actuaries must challenge themselves about what it means to be an actuary, as opposed to an employee of a life insurance company.

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Discussion of T.A. Moultrie and R.G. Thomas's "The Right to Underwrite? An Actuarial Perspective With a Difference"

Charles L. Trowbridge*

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.

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*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.