

**INDIVIDUAL LIFE INSURANCE UNDERWRITING
PRINCIPLES AND PRACTICES:
A 1976 REVIEW**

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ABSTRACT

This paper is a review of the basic principles that underlie the sale and distribution of individual life insurance. In recent years our social and business environment has gone through a period of rapid changes that have had a profound impact on individual private life insurance. The effect to date on these underlying basic principles is examined, and there is some speculation regarding possible future impact. The conclusion is reached that the cumulative effect of these changes may well be so profound as to threaten the very survival of the institution of private life insurance as we know it today.

I. INTRODUCTION

THE basic assumption when measuring any risk is that past experience is a guide to likely future experience. It may not be a reasonable assumption at times, but it is all we have and better than nothing. We shall discuss the limitations of this assumption and the practical methods used in applying it.

Mortality statistics, which of necessity reflect past experience, have limitations that are somewhat self-evident, whether the statistics are derived from population or other noninsurance sources, from standard life insurance mortality data, or from special impairment studies based on clinical or industry data. Since the earliest days of life insurance, the basic principles of risk evaluation have been modified by practical compromises to some degree in order to permit the development of marketing practices and procedures acceptable to the public. Further compromises have been brought about by current conditions of acute and continuing inflation.

A marked impact on underwriting practices has been produced by public pressures for social and economic change, and especially by government legislation at various levels designed to achieve such change. The public's socioeconomic goals, as perceived by legislators and interpreted by various regulatory authorities, frequently have caused the concept of

underwriting fairness to be redefined in terms of its social effect. Laws and regulations, enacted largely in recent years, cover such matters, for example, as discrimination ("unfair" discrimination being that which may interfere with certain social goals or objectives, such as privacy or confidentiality) and special provisions concerning certain types of physically handicapped people or minority groups. Such laws also grant insurance applicants certain rights of disclosure and prescribe limitations on what may be asked or used for underwriting purposes.

Finally, we shall examine the impact of competition and draw attention to some effects, perhaps unintended, of certain laws and regulations. We shall note the enormously increased number of companies in the industry and shall examine some observable competitive excesses that produce certain side effects that may not be desirable but are understandable and perhaps are to be expected under conditions of intense competition. In any event, some departure from the principles of underwriting equity or fairness will be apparent.

Defining Underwriting

Life insurance underwriting is the process of risk classification. Its objective is to ensure that each person who buys life insurance pays a premium appropriate for his individual estimated risk. Without underwriting, anyone wanting insurance would postpone buying until his "need" for it became apparent through the onset of an obvious impediment to normal life style or expectancy. Underwriting, in fact, is what makes the institution of private life insurance possible; it is a means of permitting every person to buy as little or as much insurance as he personally chooses at a fair premium, subject only to reasonable constraints such as financial, business, and family circumstances. It is the safeguard needed to prevent the acceptance of applicants whose chances of dying represent an increased risk over that assumed in a published set of premium rates. It is the process of fitting each risk into a particular premium or underwriting classification appropriate for that risk.

Underwriting as a Pricing Function

Life insurance underwriting as a pricing function is influenced by the unique characteristics of the product being priced. In no other business can the price charged one individual affect the ultimate cost of the same product to other individuals. In life insurance, the ultimate cost to the buyer may be so affected. When, for example, an applicant is assigned too favorable a premium classification, at least a part of his claim will be paid by all other policyholders of the class; in other words, he will not be paying his appropriate share. Similarly, of course, someone placed in an unfairly high premium classification will subsidize the others in

that premium class. In short, the goal of all underwriting must be to apply classification methods that do not, as far as is known, provide advantage or disadvantage to any individual applicant for insurance. This unique characteristic of life insurance is so important, and yet so often lost sight of, that some further discussion of it is desirable.

The uniqueness of underwriting as a pricing function can be stated in another way. Any life insurance enterprise represents merely a pooling of risks, in which every risk (i.e., individual insured) is a guarantor of every other risk on the company books. This is especially obvious in a mutual company. On examination, it is seen as equally evident in stock companies, except for the existence of the comparatively small stockholders' capital fund that serves as an additional guarantee of policyholders' security. If a large number of policyholders is to be attracted, and stability and safety increased for all policyholders, everyone who joins must be treated fairly, being neither overcharged nor undercharged for the risk he represents to the pool.

Changing Underwriting Methods

Today's underwriting methods and procedures differ markedly from those used historically. In part, the changes reflect the development of more effective underwriting methods, including better medical diagnostic and examination procedures. They also are the result of strong economic and social pressures brought upon the industry, which have forced radical changes in the amount and kind of information usable for underwriting evaluations. Inflation in the cost of all medical services undoubtedly has been the most significant of these pressures. However, social pressures, especially those brought by privacy advocates, have required an intensive search for substitute sources of information that could be of practical use in underwriting evaluation.

Current Underwriting Methods

This paper reviews current underwriting practices and examines the emerging results. The examination is philosophical rather than statistical. Continuing pressures for change seem likely and may even increase in intensity. This paper discusses the effects these pressures have had on underwriting results, and the consequent impact on the public. This may provide a foundation from which we can estimate better the kind of results likely to emerge in the future.

Underwriting and Premium Charges

The term *underwriting* has little significance except in relation to a particular premium rate structure. A table of "expected" mortality rates remains the foundation for setting proposed premiums. These mortality

rates normally are derived from studies of insured risks underwritten under specific conditions and accepted on the basis of underwriting standards obtaining at some time in the past. Today's underwriting of new risks then proceeds on the presumably reasonable assumption that, if the same conditions and standards are maintained by appropriate underwriting practices, the premium charged will cover the future mortality of such risks and may also be sufficient to provide the anticipated margin for expenses, contingencies, and profits or dividends.

Thus, the purpose of underwriting is to develop and evaluate relevant information about each applicant in order to assign him to a premium classification. Applicants are accepted as standard risks if they are sufficiently similar in basic characteristics to those whose mortality experience formed the foundation of the table of standard premium rates. The applicants who do not qualify are required to pay extra premium charges that, in the underwriter's judgment, will cover the greater risk. The underwriter of course must determine that for some this extra risk is unmeasurable or that the total premium required would be impractical and unsalable. In those cases, he declines to classify the risk further and refuses the insurance.

Evaluation of Basic Assumptions

It can be argued persuasively that the basic underwriting assumptions, which have been developed from past experience, are almost certainly wrong—that indeed the future never has reproduced past experience, nor should it be expected to. Social and environmental changes are continuous and thus continually affect future mortality expectations. One certainty is that mortality experience in the future will *not* be the same as in the past.

In light of the foregoing, it may be appropriate to restate the goals of underwriting. It is a process of classifying life insurance applicants that is designed to ensure that similar risks having, as nearly as may be determined, the same expectation of life are categorized in the same underwriting and premium classification. All underwriting is subject to the very practical consideration that no two people can be said with certainty to have exactly the same expectation of life. Each person's life expectancy is influenced by those countless characteristics that are personal to him—heredity, bodily characteristics, illness record, diet, recreational and social habits, environmental influences, and other factors. All such characteristics are relevant to underwriting evaluation.

This leads directly to the question, What are the appropriate areas of inquiry? The answer of course depends on such practical limitations as

costs and society's current ideas as to acceptability and relevancy. These limitations are discussed in the following sections.

II. RELEVANCY CONCERNS

What Is Relevant to Underwriting?

The term *relevance* is currently the subject of continuing dialogue between spokesmen for the insurance industry on the one hand and governmental and private groups concerned with consumerist and privacy issues on the other. Among the questions debated is that of when investigation of a risk crosses into the area of "nonrelevancy," that is, a needless invasion of the applicant's privacy. Who is to be the judge of this line of demarcation?

Each applicant must recognize that his decision to attempt to buy life insurance is a consent to underwriting procedures, and thus an invasion of his privacy, to the extent necessary for a reasonable evaluation of his risk. The practical underwriter realizes that cost considerations do not justify obtaining all the information that could be helpful in any way in the evaluation of the risk. Also, acceptability and convenience to the applicant are important to him and his company, so he limits his request to the minimum information necessary for a reasonable and defensible classification of the applicant. The amount and type of information requested naturally are influenced by considerations such as the amount of insurance applied for, age, and any special underwriting problems.

Parameters for Underwriting

Very simple underwriting questionnaires can be used where young applicants and relatively nominal amounts of insurance are usual. Few independent verification procedures are needed for most of the representations made by these applicants. This type of practical course gives weight to the economics of underwriting and to applicant acceptance and convenience.

On the other hand, more extensive information is necessary where the applications are for large amounts of insurance and the applicants are at middle or higher ages. For such cases, simple prudence requires careful examination procedures and step-by-step independent verification of the applicant's history; often, additional evaluation through use of attending physician statements and perhaps special medical or laboratory procedures may be deemed essential. Inspection reports are indicated for evaluating the less tangible yet often highly important factors of life style and environment.

No Limits to Relevancy

The question of relevancy and its appropriate limitations answers itself. Much more information is relevant to the underwriting evaluation than is ever obtained. The amount and type of information to be obtained are determined by weighing the cost involved against the probable value of the information in the individual case. The use of practical judgment in ascertaining the optimum requirements increases the degree of acceptability of the underwriting process to the insurance-buying public. It also recognizes that usually the public is not seeking to buy life insurance but is being persuaded against a normal reluctance to buy.

III. LIMITATIONS ON PRACTICAL USEFULNESS OF AVAILABLE DATA

Only a few of the many factors influencing longevity can be identified and reliably measured, if one applies the criteria of cost and public acceptability. How, then, have the traditional factors used for underwriting the individual applicant been selected from the multitude of options? We recognize that historically some obviously significant and well-defined factors often have been wholly, or almost wholly, ignored. Others of less significance seem to have been given disproportionate underwriting weight. The limited usefulness of many of the available mortality statistics will be examined first.

Socioeconomic Mortality Variations

Published census data¹ indicate clearly the marked effect on population mortality of such social factors as education, occupation or profession, and income level. However, such data do not suggest practical underwriting classifications for dealing directly with such factors.

It is readily apparent that such demographic components are interconnected; that is, they relate to the same factors influencing mortality. For example, the data reflect a correlation between education, occupational or professional achievement, and income. Individuals who are in the higher categories with respect to these three population characteristics have a markedly more favorable mortality outlook than those in the lower categories. The reasons are self-evident; the people in the higher categories tend to have better amenities of life—better diets, shelter, medical care, and the like. Practical considerations, including a lack of methodology for quantifying such characteristics, permit little direct use of such information for underwriting classification.

¹ See, for example, Evelyn M. Kitagawa and Philip M. Hauser, *Differential Mortality in the United States: A Study in Socio-economic Epidemiology*, American Public Health Association Vital and Health Statistics Monograph (Cambridge, Mass.: Harvard University Press, 1974).

Mortality in Relation to Smoking Habits

The practical limitations to utilizing many other sources of mortality data are illustrated especially well in the case of data concerning cigarette smoking. The American Cancer Society and other research groups published several well-documented and authoritative studies in the early 1950's on mortality rates among smokers. These studies established the close correlation of mortality rates with the amount smoked, the duration of the habit, and the time elapsed following cessation of smoking for those who discontinued.

Almost no practical application of information concerning the effect of smoking habits on mortality has been made for underwriting classification. Why? Simply, the reason is that no company is prepared to tackle the formidable obstacles that would be encountered in obtaining such information about applicants and then attempting to establish *fair* and *defensible* underwriting distinctions between applicants. The high costs and the attendant negative public reactions from all applicants, both those who smoke and those who do not, have been deterrents. Furthermore, no practical process exists for validating stated smoking habits, nor are usable sanctions available to apply against an applicant or his beneficiary in the event of misrepresentation. Would any company be willing to face a widow in the courts in defense of its denial of her claim because her late husband had said falsely that he was a nonsmoker, even though subsequent evidence demonstrated the consumption of more than a pack of cigarettes a day?

We should note, however, the limited attempts that a few companies have employed to recognize nonsmoking as a favorable underwriting factor. As an example, such a company might offer a special "nonsmoker's" policy, available only above a minimum insured amount, say \$10,000. This amount limitation itself tends to attract a higher-than-average socioeconomic group, which, as brought out previously, exhibits better-than-average mortality. The more favorable mortality, if any, associated with nonsmoking is reflected in the resulting net costs. Such net costs are, of course, influenced also by the lower expenses per thousand of insurance and the better persistency that is characteristic of a high-minimum policy.

Life Insurance Mortality Data

Mortality statistics derived from life insurance experience *should* be valid for underwriting guidance and classification use. However, as has been pointed out, they too, at best, are rough underwriting guides for the future. Such data are a reflection of past experience and past underwriting

judgment; guidance is required for current underwriting that will, one hopes, be reflected in an acceptable level of future mortality.

Individual and pooled company mortality data are compiled regularly by many companies or groups of companies.² Thus, any company may compare its emerging mortality experience against its own past experience or the experience of its contemporaries. This furnishes a rough basis for testing the effectiveness of its recent underwriting, but such comparisons provide no absolute endorsement or measure of good underwriting. What if a company's mortality fails to improve over a five-year period, while that of other companies shows a 15 percent improvement? What if the industry as a whole shows no improvement, while population mortality improves by 10 or 20 percent?

Mortality Data for Special Medical Impairments and Hazardous Occupations

The mortality experience of insurance companies with individual impairment classes is usually measured against suitable contemporary standard mortality experience in order to test the adequacy and appropriateness of past extra premium charges for such classes.³

The limitations on the usefulness of such mortality data as a guide to future extra premium charges are at once apparent. Changes in socioeconomic factors that influence the mortality outlook for all insured risks often have considerably greater effect on special risk classes. For example, the newer public health measures, including pollution control and the pure food laws, as well as the broader availability and improving quality of medical care, are probably of greater significance to the special risk classes. The newer medical and surgical breakthroughs for most diseases or body impairments render past experience all but worthless as a guide to current underwriting. Mortality data on individual impairments are sometimes available from noninsurance sources such as clinics, hospitals, and medical literature.⁴ Such data are helpful supplementary sources in developing underwriting guides. However, consideration also must be given to many other practical factors—for example, the classification of individuals with an impairment that is greater or less than average in severity and the time elapsed since recovery or cure.

² See, for example, the pooled mortality data reflecting the experience of a limited number of mainly large companies that are compiled and published annually under the direction of a committee of the Society of Actuaries and included in the annual *Reports* numbers.

³ See, for example, the various special studies compiled and published at irregular intervals under the direction of joint committees of the Society of Actuaries and the Association of Life Insurance Medical Directors.

⁴ See, for example, *Medical Risks: Patterns of Mortality and Survival* (Lexington, Mass., and Toronto: Lexington Books [D. C. Heath & Co.], 1976).

Practical rating schedules for current and future use must, of necessity, be a reflection less of past experience than of the judgments of experienced medical, actuarial, and underwriting executives as to the likely future mortality results for each impairment class or subclass.

New recreational pursuits that capture the interest of the public from time to time also must be taken into account in developing practical rating schedules. Some of these activities obviously involve extra mortality risks that cannot be ignored by the underwriters. A few contemporary examples include glider flying, hot-air ballooning, scuba diving, and snowmobiling. There is an almost total lack of valid statistical data to help evaluate the risks involved, so again practical underwriting judgment is required.

Particular attention should be directed to some current legislative proposals or state insurance department rulings that are seeking to deny the right to make extra premium charges unless supported by "valid" or "relevant" statistical data.

IV. ECONOMICS OF UNDERWRITING

Prognosticating the effect of inflationary conditions on underwriting practices is of the greatest significance. We need to develop an understanding of the compromises already necessitated by increased costs relative to the kind and quality of information needed and relevant to fair underwriting practices.

Inflation of Medical Fees

The cost increases that have occurred already may be viewed first by looking at medical fees. Even the simplest medical underwriting procedures cost from five to twenty times as much as they did only a short decade ago. The trend to higher costs has accelerated particularly in the past year or two.

The \$5 doctor's fee for a normal insurance physical examination, which was once a standard requirement for every applicant, today (i.e., in 1976) runs usually from \$15 to \$50 and frequently higher, with each doctor billing for whatever amount he sees fit. Fees for brief statements from attending physicians, formerly available as a courtesy to the doctors' patients or at a nominal charge, now range between \$5 and \$50; generally the amount is in excess of \$10. Electrocardiograms, X-rays, and laboratory or other special procedures, which are essential for prudent underwriting of large amounts and in small-amount problem cases, may result in total medical fees of \$100 to \$400 in some situations.

Other underwriting costs, including inspection report fees, also have increased, although much less dramatically. The cost escalation already has caused companies to sacrifice as to the type and amount of under-

writing information to request. This has resulted in serious compromises in the equity and fairness of the overall underwriting process.

Alternative Underwriting Methods

There is a marked trend to eliminate or replace many of the usual medical underwriting requirements. Many years ago, when doctors' services were temporarily unavailable in some areas of the country, non-medical underwriting originated as a means of replacing medical examinations for underwriting evaluations. Today nonmedical underwriting has been extended to a much wider range of ages and amounts; \$50,000 is a limit used by many companies for younger adult ages. In nonmedical underwriting, the applicant's word is accepted as to his illness history and his physical and personal characteristics, often without any independent verification through the use of attending physician statements or inspection reports.

Paramedical examinations are a comparatively recent development, first introduced experimentally about ten years ago. Such procedures are used in situations where a regular examination would otherwise be required. Nurses or other medically trained technicians perform an abbreviated medical examination that is limited to recording illness histories given by the applicant and measuring a few basic physical characteristics such as build, pulse, and blood pressure. A urine specimen may be obtained and forwarded for laboratory analysis, and in some cases an electrocardiogram may be performed. Companies may complete underwriting evaluation for amounts as high as \$200,000 at some ages on the basis of these requirements.

The majority of companies are requiring a full examination by a medical doctor only when the application cannot be evaluated prudently by paramedical procedures because of the amount involved, or when the paramedical results indicate a special problem. Attending physicians' statements and special examination procedures are avoided if at all possible, even though the use of such ancillary information obviously would ensure a more accurate and equitable underwriting evaluation for many applicants.

Underwriting Costs versus Results

The various expedients described above are adopted to avoid as much of the increased medical underwriting costs as makes sense. The result, which is all too obvious, is a decrease in the equitable treatment of *all* risks. Higher mortality costs are a certainty; they are shared by all policyholders, although comparatively few individual risks contribute to them. The desired objective, however, is that the resulting increase in mortality costs be less than the underwriting expense savings.

Measuring the Impact of Underwriting Compromise

Using model-office methods, the expected increase in claim costs due to a specific underwriting rule change may be estimated and compared with the corresponding savings in underwriting costs. It may be most useful to make a considered estimate or range of estimates of the increase in mortality likely to result at the ages represented in the model office. Alternatively, estimates may be made of the number and age distribution of the various types of problem cases likely to be accepted at inadequate premiums because of the new underwriting rule(s). (For example, in connection with paramedical procedures an estimate would be made of the number and age distribution of cases with heart murmurs or other conditions that would be accepted because no examination of the chest or abdomen is required.) The amount and actuarial present value of the extra premiums that would be forgone on such cases can then be calculated.

A comparison can then be made with the estimated underwriting cost savings achieved by applying the new rules to the model-office business. For example, if underwriting cost savings are estimated as \$1,000,000 and extra claim costs as only \$900,000, the cost savings may be considered to justify the compromises in underwriting equity that will result from the overly generous treatment of a few individual policyholders. The cost of insurance to all will rise less than if the old rule is continued in the face of rising underwriting costs.

It should be noted that, in an era when the elimination of unfair discrimination affecting an individual applicant is considered an important goal by most consumerists, the pressures of higher costs resulting from inflation are yielding just the opposite results. Because of the expense savings that arise, company managements conclude that less fairness in underwriting has a favorable effect on the company's policyholders as a whole. It can be said truthfully that companies no longer underwrite as fairly as possible; they must underwrite only as fairly as they can afford to!

V. OTHER INFLUENCES ON UNDERWRITING EQUITY⁵*Social Pressures*

Social pressures also are causing increased discriminatory practices favoring individual applicants at the expense of all policyholders, although most consumerists and other social critics of life insurance profess

⁵ For a summary of more extended discussions of the various influences at work see *Record—Society of Actuaries*, I, No. 1, 11–20; II, No. 2, 366–82, and No. 3, 567–82. See also summary of an address by Robert N. Houser, "Risk Classification—Equity vs. Discrimination," appearing in the *National Underwriter*, March 12, 1977.

the precisely opposite aim of eliminating all sources of "unfair" discrimination.

Underwriting is discrimination; it is not unfair just because it results in some applicants being denied insurance or being charged more than others. The most basic principle of individual private life insurance is that underwriting is a *necessary* procedure. For best results, the most complete facts must be obtained about each individual applicant within cost constraints. These facts are interpreted using the best underwriting judgment that can be brought to bear in order that each applicant may be assigned a fair underwriting classification and thereby required to pay a premium proportionate to the risk. Yet we note an increasing trend at every level of government toward regulations or rulings that forbid specific company practices that are necessary to preserve or improve underwriting fairness. Illustrative of these regulations or rulings are those concerning people with certain physical or other handicaps that limit freedom in underwriting, policy language, and pricing.

A still more recent development is the issuance of regulations in a number of states that limit permissible new underwriting classifications or extra premium charges. Such regulations deny the right to exercise underwriting judgment in cases where the inadequacy or nonexistence of mortality statistics renders it impossible to prove the level of extra premium charges that the underwriter considers necessary for fairness. The regulations seem to contemplate that new extra-risk classes will be developed from risks accepted at standard rates, that is, at the expense of all policyholders, until "valid" insurance experience verifies the expected injustice. The effect obviously is to discourage innovation and experimentation in risk-taking; refusal to experiment under such conditions will preserve equity for all policyholders better.

Uncertainty is basic to the mortality outlook for the newer disease classifications and the newer surgical and treatment procedures. The outlook clearly is as uncertain for the newer avocations. We noted earlier that even the best available mortality data on well-established mortality classes is an uncertain guide to the future. The free use of underwriting judgment is basic to all risk classification and pricing. (See Sec. III for a more complete discussion of the limitations of all mortality data.) Freedom of underwriting judgment is most needed when experimenting with new risk classes, for it encourages innovation and the granting of insurance where it might normally be denied.

Restriction on Information Gathering

Laws and regulations exist that limit the amounts and kinds of information that may be secured about individual applicants for insurance.

They frequently impede the underwriter in making the fairest possible appraisal of life style or other environmental factors,⁶ especially of minority-group applicants. Such laws, developed without depth of understanding, apparently derive from a theory that more unfair discrimination will be eliminated than caused by the lack of information concerning such groups; they also are based on the premise that underwriters cannot set aside their personal prejudices and make a fair evaluation if given all the facts.

Impact of Publicity

Even more recently, newspaper and magazine articles and programs on television and radio have created additional pressures on underwriters. Many of these have been the source of comments reflecting little knowledge or understanding of the insurance business or the necessity of the underwriting process. Criticisms have been directed at the industry's failure to use effectively or fully mortality data and information concerning smoking, alcoholic habits, or other elements of applicants' life styles. Simultaneously, other articles or programs have suggested an already needlessly deep invasion of individual privacy used to obtain "unnecessary" information in the name of underwriting.

It is only proper to react to such unfair and ill-informed criticism, but first we must look at ourselves. Have we considered the possibility that our own industry's publicity is inadequate? Could we have presented information with the wrong emphasis? More must be done than has been in the past to explain our highly technical business in terms that are comprehensible to the public and the legislators. We must lead the latter to a better understanding of the requirements of our business

VI. PRIVACY AND CONFIDENTIALITY CONSIDERATIONS

The Fair Credit Reporting Act—Its Unintended Effects

Concerns about privacy and about the confidentiality of personal information and its uses for credit, employment, and insurance underwriting have led to the passage in recent years of many laws or regulations; additional such efforts are in the proposal stages at both federal and state levels. The continuing political popularity of privacy, confidentiality, and related consumerist issues seems almost certain to result in additional legislative action in the period immediately ahead.

Perhaps the most significant of such recent legislation is the federal Fair Credit Reporting Act (FCRA), which became law in 1971. It has had an important impact on the underwriting decision-making process. The stated objectives of this law are to control appropriately what is

⁶ See also Fair Credit Reporting Act discussion in Sec. VI.

reported or retained as a file record about any individual, and to provide for clearly defined rights of disclosure and correction if information reported appears to be incorrect.

The above objectives are unexceptionable. However, the observable effects go far beyond mere correction or prevention of abuses. The opportunities for abuse and for imposition by the minority upon the majority of applicants have been increased substantially. On balance, the impact on the public interest well may be negative.

The FCRA, together with numerous subsequent laws and regulations at both federal and state levels of government, has caused a marked decrease in the reporting of reasonable, substantial, and well-intentioned "hearsay" information about individuals. Such a commodity is of value in many kinds of commerce but is of unique value in the underwriting of life insurance applicants, where the element of good faith is of unique importance.

No one would deny the basic importance of good faith on the part of an applicant in the representations he makes when applying for life insurance. His answers form the foundation and are a part of the insurance contract, and the premium he pays is determined by them. An underwriter should be entitled to judge by all reasonable means the degree of reliance he may place on them. An observable effect of the FCRA has been that many logical informants have become afraid to talk. The inspectors of the reporting companies, and their employers too, understandably have been resorting more and more to reporting only provable information (based, for example, on court records or published news reports) or information that the applicant himself volunteers on interview. We can well agree that inspection reports are far less effective today as independent checks of the probable good faith of an applicant in answering the questions on his application.

We observe once more that a sincere attempt to legislate against one form of abuse may have widened the opportunities for other and perhaps more significant abuses. Unfair discrimination in underwriting classification has resulted, and premium charges now favor unjustly an ever growing number of individual applicants as they gradually become aware of the enlarged opportunities for profit from successful deception. The resulting cost is necessarily borne by all policyholders.

Other Laws and Regulations: Unintended Impact on Underwriting

There are other laws and regulations that, like the FCRA, have had an unintended negative impact on underwriting equity. It is clear from what has been mentioned earlier (see Sec. III) that the level of overall

mortality of an insurance company will reflect its mix of business by socioeconomic level. Laws and regulations whose effect is to limit the use of socioeconomic factors in underwriting will have a very unequal impact on individual companies. A practical denial of the right to reflect (or even to evaluate) the effect of lower socioeconomic levels has negligible effect on the companies that market largely among people at the higher levels. Few applicants present themselves whose mortality expectations based on socioeconomic factors are more favorable than is reflected in the companies' premium charges.

On the other hand, such laws and regulations bear much more heavily on the companies that market broadly at all income levels. Proportionately more of their applicants are at socioeconomic levels where higher mortality is to be expected, but the extra mortality cannot be reflected except in the level of premiums and net costs applicable to all policyholders. The volume of such business that must be written and accepted by the general marketing companies tends to be higher also because of pressures to meet the requirements of equal employment opportunity laws and regulations. Such underpriced business has an obvious impact on the cost of insurance to all policyholders of such companies. We should note, finally, the impact on these companies of those laws and regulations that exist for the admirable purpose of informing prospective buyers of the net cost of insurance in a particular company relative to that of other companies offering similar contracts. The effect is to require the exhibiting of a cost position that has been affected adversely by legally mandated extra mortality costs.

VII. COMPETITION

Competition has never been more of a factor in the life insurance industry. There are over 1,800 life insurance companies in the United States and Canada. Many operate nationally or internationally, while others limit themselves to a region or area within the United States or Canada. A few specialize by type of business; others offer extensive portfolios. These circumstances make for intensive competition among companies to attract and hold a reasonable share of the potential market for life insurance. If the effect is to strive for greater efficiency and lower costs—in selling, underwriting and issue, and service—the competition is in the public interest. However, there are some undesirable side effects from possible overcompetitiveness, effects that must be recognized as not so clearly in the public interest. Particularly noteworthy in this respect is the impact on the goal of underwriting fairness.

Competition and Underwriting Compromise

If two or more companies are in competition in selling an applicant life insurance, one of them obviously cannot promise the applicant a lower chance of dying than the others. However, one company can, and on occasion does, offer a more favorable underwriting classification than the others. The offer usually reflects honest differences in underwriting evaluation. This is fully defensible. If, on the other hand, the offer reflects a deliberate setting-aside of objective underwriting judgment in order to meet or beat competition, it is, at best, doubtfully defensible. If the decision arises from the company's unfavorable net cost position, it is least defensible of all, since the effect is to add identifiably to the unfavorable net cost picture—that is, it is done at the expense of all the company's policyholders.

Rationalizations, however, are readily available to attempt to excuse such departures from the goal of underwriting equity. The term "in the company's best interests" best summarizes these rationalizations, but it may be educational to examine a few specific examples.

Underwriting Manuals and Guides

Underwriting manuals of a particular company may reflect unjustifiably favorable classifications for some medical impairments or occupations. The reason may be a feeling of need to meet competition from a particular source, or a desire to encourage good public relations and business from a particular group(s).

For example, although impressive statistical evidence exists of the extra mortality associated with certain large occupational groups, such as those connected with law enforcement, few companies indicate extra premium charges for those groups in their underwriting manuals. Equally impressive evidence is available of an associated extra mortality risk for firemen. The decision by most companies to forgo extra premium charges appears to reflect a reluctance to risk disfavor among such groups by being alone in recognizing and pricing the extra risk correctly. (Who will go first?)

A major, frequently encountered medical impairment may seem to be priced too low by one or two companies. This could reflect merely the fact that these companies entertain a more optimistic view of the outlook for medical or other discoveries that may mitigate the future seriousness of that impairment. Soundly based optimism as to the future and the courage to act on it are to be commended, not condemned as inequitable. They are not against the policyholders' collective interest or the public interest just because they are out of line with prevailing prac-

tices. This remains true even if the practice is not eventually vindicated by the experience that actually develops. On the other hand, a decision to underprice the extra risk for a particular impairment as an "attention getter" or loss leader is to be condemned. That would be disruptive and and in the same category as the use of loss leaders in any other form of commerce—an unfair trade practice.

Individual Case Decisions

Individual case underwriting decisions, especially those involving larger amounts of insurance, are in a special category. Sometimes the pressures from competition, which may at times be reinforced by agency management, create an atmosphere in which it is difficult to make objective underwriting decisions. Some bowing to such pressures is at least understandable. It may be defensible within reasonable limits, since justification may be found in the lower unit overhead costs that will result from the large amount and premium involved.

However, can a deliberate setting-aside of an established extra premium charge ever be justified? Such a step, regardless of the attendant agency or other public relations problems, usually will create more problems than it solves. Can it fail to set a precedent? Will it not lead to a multiplication of pressures for additional concessions in the future? More importantly, what effect will it have on the reputation of the company's underwriting staff for fairness to all?

VIII. CONCLUSION

We need now to sit back and make some carefully considered judgment on the impact of the total forces and influences that today's conditions have brought to bear on the life insurance industry. Many of these influences are continuing and seem bound to continue for many years to come. What is the prognosis? Have these influences, collectively, already served to weaken private life insurance? With the passage of more time, will the cumulative effect perhaps be sufficient even to destroy it? How must our industry operate to serve the public best and so increase its own chances for survival?

Private versus Social Insurance

Private insurance must be recognized as differing in a number of basic respects from public social insurance programs. In private voluntary insurance each individual decides whether he will buy and how much. His decisions are based largely on whether he believes he is being asked to pay his share, or more or less than his share, of the costs of the risk he

represents to an insurance company—that is, whether he sees the premium charge as a fair one for his underwriting classification.

When applicants believe that the premiums quoted them may not be fair, their decisions always are a threat to the company with which they deal, since these decisions give rise to the phenomenon of antiselection.

Antiselection Effects on Private Insurance

Three types of effects or stages of the antiselective process may be noted. First, those buyers who sense that the premiums may be lower than appropriate for their particular risks are more likely to buy, and to buy in larger amounts. Second, those buyers or potential buyers who sense that the premiums may be higher than appropriate, and may therefore include a subsidy for underpriced risks, are less likely to buy or may buy in smaller amounts. (They may literally “stay away in large numbers” for this reason.) Third, the perception that something is wrong with the pricing mechanism is bound to grow as time passes. The antiselective effects will intensify. The company’s premium scale will approach inadequacy as more and more higher-risk and fewer and fewer lower-risk applicants are attracted. Nor would an increase in premium rates solve the problem, since that only would intensify further the antiselective effect.

Pricing of Social Insurance

In contrast to private insurance, social insurance plans generally are developed and administered under the direction of a public authority. They usually are financed in whole or in part out of general tax revenues. A plan must embrace all or a defined segment of the population, and uniform benefits must be provided for all.

A level of financing is chosen that it is estimated will cover the total expected claims and administrative costs. Thus, high- and low-risk individuals are covered without distinction, and individual underwriting evaluations are avoided. A hopefully adequate level of financing is set initially, but general tax revenues are available to cover any deficiencies that may arise.

Achieving Social Goals through Regulations or Laws

Affecting Private Insurance

It appears that the basic distinction just outlined between public and private insurance often has become blurred or forgotten by many people both within and outside the industry, especially in recent years. Our society increasingly regards the availability of insurance as a right of the individual citizen. This feeling is already well established for basic auto-

mobile liability coverage, and is becoming more established for several forms of liability and property insurance. It gradually is extending to health insurance, and is at least discernible in life insurance. However, our society has failed thus far to consider carefully the consequences if insurance is made available below true cost to certain individuals or groups of individuals. Who is to pay the implied subsidy? If not paid by society as a whole, which would be fair and nondiscriminatory, it becomes an unfairly discriminatory tax on other users of the insurance service. The carrier must reflect the impact of this subsidy in the premiums charged to all policyholders; this tends to discourage nonsubsidized risks from buying insurance.

Solvency must be a basic objective of the management of any insurance company. In the general interests of its policyholders, a company must avoid unprofitable markets, wherever these are identifiable. Neglect in this respect invites insolvency. Nevertheless, we see the current phenomenon of state insurance officials denying rate increases or a company's right to make surcharges for certain high-risk classes.⁷ Companies counter by threatening to withdraw from the markets chiefly concerned or even from an entire state. Therefore, attempts to achieve social goals through discriminatory measures affecting private insurance become self-defeating.

Potential Effects of Future Inflation

We look ahead to ominous possibilities that threaten the life insurance industry even in the relatively near future. How much farther can inflation go before private insurance becomes impractical except perhaps for very large amount policies? Underwriting shortcuts required at lower amount levels yield increasingly unfair and discriminatory results as they are applied at higher amount levels. In this connection, we cannot overlook the problems of increased costs and greater unfairness of underwriting results brought about by privacy and consumerist laws and regulations. Can we not see now a real possibility that companies will be able to justify the costs of fair and defensible underwriting only for large amounts affordable solely by people at the higher socioeconomic levels of our society? A few companies have already announced substantial increases in the minimum size of insurance application they are willing to consider. A reduced availability of life insurance to the lower socioeconomic groups and to minority groups obviously would be contrary to one of our major national social goals.

⁷ See various state insurance department rulings requiring "actuarially valid" data to justify extra premium charges.

Uniqueness of Life Insurance Companies among Financial Institutions

The foregoing has been intended to suggest reasons for believing that we may have compromised seriously our handling of the one unique feature—the underwriting function—that distinguishes private insurance companies from other types of financial institutions.

Current underwriting decisions increasingly may be perceived as unfair. Antiselection, both positive and negative, may grow in intensity as the public makes future choices between patronizing private life insurance institutions or trying to find other financial institutions where unfair risk classification and its cost implications are not concerns.

Planning for the Future

What is the best approach to a careful examination of where we have come from and where we may be headed as an industry? May not such an examination suggest that a return to closer adherence to proper underwriting principles is a fundamental need, perhaps the one most important goal we should seek to reestablish at this time?

A possible first step might be to establish a study group in close cooperation with fiscal and social planners, privacy advocates, consumerist groups, and the proper governmental authorities. Such a group might be charged with recommending changes that would enable, rather than stand in the way of, fair and defensible underwriting practices. Part of this examination should be an evaluation of the trends of recent years and of where they are likely to lead if continued indefinitely. Such evaluation and conscious planning for the future may be essential if we are to preserve private life insurance and continue to serve the public. Few indeed would say it is not worth preserving.

DISCUSSION OF PRECEDING PAPER

ANDREW C. WEBSTER:

Mr. Morton's review of current underwriting has covered the ground so thoroughly that it does not leave much room for discussion.

Recent mortality has been generally satisfactory, and this perhaps is why those concerned with corporate planning in the companies seem rarely to make any reference to underwriting goals. Underwriting is not done in a vacuum, and the underwriter should have a target at which to shoot, a target of which both management and the field force should be aware. The target must take into account the markets in which the company is operating or proposes to operate.

Mr. Morton defines life insurance underwriting as the process of risk classification. I suggest that it is a little more, that one purpose of selection is to avoid antiselection. The hazard of speculation, while not always present, is still something against which the underwriter has to guard. In any form of insurance, the public undoubtedly will take advantage of any chance it is given to select against the insurer. Antiselection can extend beyond the incontestable period, although it may not be of major financial consequence.

The paper divides itself, it seems to me, into two parts. In the first part the author brings us up to date on the changes that have occurred and are still occurring in underwriting practice. He then proceeds to analyze the problems coming from the market and social environment in which we now find ourselves.

In the first part perhaps the most interesting item concerns the changes that have been brought about by economic pressure. To date it seems that these changes have been successful from a total viewpoint—the liberalizations have offset the extra cost. I trust that management will appreciate that this can occur even when the mortality rate rises.

Some of the problems that are discussed in the second part are the result of market competition and changes in practice. Others arise from outside efforts to control the underwriting process.

Section V discusses the problem that perhaps is uppermost for the underwriter today, and I think that it deserves consideration by all actuaries and all members of the insurance industry. Outside pressures are trying to force the underwriter to concentrate on equality rather than upon equity. I consider that these pressures have to be resisted,

since they are striking at the very foundation of the insurance business and are not confined to life insurance. If we accede to all these requirements from the outside we will be in no position to resist antiselection, and the results for the companies could be disastrous. The record of the industry in extending coverage is one of which to be proud and of which our critics apparently are unaware. We must oppose with all the strength we have this trend toward equality in place of equity.

There is one item that to my surprise was not mentioned by the author, and that is the place of reinsurance in today's underwriting. Perhaps one of the representatives from a reinsurer will discuss this.

I should like to congratulate Mr. Morton on an excellent paper, and I suggest that it would be worthwhile supplementary reading on the topic of selection of risks.

COURTLAND C. SMITH:

Mr. Morton has provided us with a valuable review of the current United States and Canadian life insurance underwriting scene as it is perceived by a knowledgeable actuary. He emphasizes the economic, cultural, and legal pressures on the business. These are tending, in the name of social equality and personal privacy, to threaten historic values related to individual self-reliance and interpersonal equity. Evidently the latter are being compelled to make some accommodations to the former, and equity will have to concede something to equality.

Mr. Morton's paper touches also on the current competitive situation. The introduction notes "the basic assumption" of actuarial risk measurement—that past experience is the best guide we have to likely future experience. Interestingly, the discussion on "Mortality Data for Special Medical Impairments and Hazardous Occupations" in Section III states the following: "The newer medical and surgical breakthroughs for most diseases or body impairments render past experience all but worthless as a guide to current underwriting." Presumably the reference here is to insurance industry experience. Mr. Morton further notes (1) that experience data "from noninsurance sources such as clinics, hospitals, and medical literature" may be available and (2) that consideration must be given to "the classification of individuals with an impairment that is greater or less than average in severity and the time elapsed since recovery or cure." Mr. Morton continues: "Practical rating schedules for current and future use must, of necessity, be a reflection less of past experience than of the judgments of experienced medical, actuarial, and underwriting executives as to the likely future mortality results for each impairment class or subclass." Evidently the basic assumption of actu-

arial risk measurement in life insurance may need reformulation and broadening.

I would go further. I suspect that the numerical system may have to be relied on to a lesser extent in the future. The debits used by United States and Canadian underwriters no longer seem to reflect the actual long-term extra mortality of impaired risks. A variety of conditions may be subsumed under a particular impairment label, and the mortality associated with these conditions may vary markedly with the living habits and socioeconomic background of individual insureds. Debits are convenient index numbers to use in determining the extra premium class of individual substandard risks. However, in some experiences the actual level and course of the extra mortality by rating class have deviated greatly from the debits assigned at issue.

Hypertension is an example. The "natural" course of moderate-to-severe hypertension well may be to show roughly level percentage extra mortality following issue. However, certain companies recently have found a downtrend in percentage extra mortality among initially untreated cases. This may be due to an increasing utilization of antihypertensive medication among insured risks. If so, the availability and likely utilization of such medication could serve to alter the course of hypertensive extra mortality for some time. While our underwriters may continue to apply conventional debits to hypertensive risks, the actual experience probably will differ significantly according to the socioeconomic level of the insured and his or her potential for maintaining good control in the presence of treatment.

Shopping has done much to bring these issues into focus. With the growth in shopping by applicants, agents, and companies, competition has been sharpened and some accepted underwriting concepts have come into question. Consider the following apparent paradoxes:

1. Term insurance now may show better mortality than permanent business. Differences in average size of policy and socioeconomic level of the applicant may be marked and may favor term.
2. A controlled broadening of the standard class may improve a company's financial results in the standard and first substandard classes. Improvements in not-taken, lapse, and agent-turnover rates may offset any worsening in class mortality.
3. Companies underwriting by liberal, unconventional standards may show better mortality on shopped business than more conservative, conventional companies. In competition, most of the risks placed by the latter simply may be mistakes.

In the present circumstances, I would anticipate that accepted principles may have to yield somewhat to a studied perception of current realities.

EDWARD A. LEW:

I wish to pay tribute to Al Morton for his tactful and thoughtful observations on current principles and practices relating to the underwriting of individual life insurance. He has summarized skillfully the key issues stemming from inflation, growing government intervention, and changing attitudes toward life insurance companies.

His tact is manifest in his having stopped short of making specific suggestions on the courses we might take. In my judgment, higher limits for standard insurance, perhaps somewhat similar to those used in Great Britain and Sweden, and broader underwriting classifications might be helpful in countering rising expenses and in improving relations with the public. This line of action appears desirable for the following reasons:

1. The cost of the extra mortality can be estimated closely and balanced against savings in expenses.
2. Mortality among insured lives has been declining, as indicated by the experience on recent issues. It is likely to continue to do so as long as an increasing proportion of ordinary insurance is written on the better-to-do segments of the population, thus permitting some of the extra mortality to be absorbed in the downward trend.
3. The competitive edge in ordinary life insurance costs depends more and more on the differences in the amount of field and administrative expenses and in the persistency of the business than on mortality costs.

We need to bring home to the insurance-buying public that the mindless egalitarianism that sometimes passes for social policy merely makes Peter pay for Paul. I wonder whether enough Peters realize what is being done to them in the name of alleged social welfare. Equitable pricing long has been a fundamental characteristic of private life insurance. This essential principle is being compromised by attempts on the part of various pressure groups to mandate that special classes of persons be accepted at rates that ignore the magnitude of the risks involved. We must strive harder to furnish authoritative information on the magnitude of different life risks to the public, regulatory authorities, and the courts, so that elementary fairness will prevail.

RICHARD E. BAYLES:

Mr. Morton has presented an excellent and timely paper. The life insurance industry definitely is facing a critical time with mandated underwriting, statistical tests for ratings, counterpressures for lower

rates on preferred risks, and the privacy issue. Before I discuss these, we should acknowledge some facts.

Unintentionally, underwriting sometimes has been unfairly discriminatory, as when race and "environment" have been used as factors. Also, due to competition, many insureds have been taken at standard rates in spite of clear evidence of extra risk (e.g., aviation, borderline hypertension).

Most pressure groups seeking mandated underwriting standards honestly believe that their groups have no extra mortality and that life insurance companies have not been responsive. I do not say that their statistics are necessarily right, but it is their feelings that affect the legislators. As an example, let us look at retarded and learning-disabled children. (As a father of a learning-disabled child, I know this from both sides.)

Statistics on mentally retarded children are generally on institutionalized children, whereas most such children are now at home under much more favorable conditions. As for the learning-disabled, it is an axiom among parents of aphasic and autistic children that their normal children fall ill more often than the handicapped youngsters.

Aside from the question of insurable interest, I support more liberalized underwriting standards for handicapped children, but I flatly oppose these standards being imposed by legislative decree.

Now let me discuss the four points mentioned earlier:

Mandated underwriting.—Each pressure group that feels rebuffed by the life insurance industry decides that there ought to be a law, and often one is passed. The legislator who sponsors such a law cannot lose. It benefits a voting bloc, and it does not raise taxes.

Statistical tests.—Some states allow ratings only if supported by "statistically significant" data. There are a number of hurdles:

1. The commissioner, not the insurer, decides what is statistically significant.
2. If the impairment is severe but rare, it may take a long time to gather the data.
3. The commissioner may decide that the data base is not appropriate. For example, a hypertensive who does not smoke may claim better experience than shown, since the data included smokers. (How many smokers would demand *higher* ratings?)
4. The statistics, after years of accumulation, may be declared out of date.

Preferred rates.—It would appear that the public wants it both ways—low rates for the best risks and average rates for the rest. Actually most of the lower-rate pressure has come through competition, which is the price we pay for being in business. However, the question of preferred rates for certain

groups (e.g., nonsmokers) leads into the fourth problem: how can we obtain information about the applicant?

Privacy.—Mr. Morton points out how often television and the press have looked at the privacy issue. Any of us who have argued with retailers (or their computers) about incorrect charges to an account know how the other half lives on this issue. I have conducted four cost-benefit studies of inspection reports, both before and after passage of the Fair Credit Reporting Act. The proportion of cases that generate adverse information has dropped steadily.¹ One reason is that neighbors are more reluctant to inform on one another. In regard to the smoking question, the answer is easy to misrepresent and hard to verify.

All these problems relate to the *psychology of entitlement*—one has a right to what one needs, and it cannot be denied except through due process (statistical significance). What should we as actuaries do?

First, oppose actively all mandated underwriting legislation and commissioner-controlled statistical significance tests. This type of legislation is arising in all regions, in conservative as well as liberal states. These laws freeze inequities into permanence in the name of equality.

Second, meet with legislators, groups representing handicapped people, and the general public, possibly through panels at future Society meetings. One purpose should be to discuss a key point raised by Mr. Morton: What is *fair* and *unfair* discrimination? One agency, the Equal Employment Opportunities Commission, has ruled in one instance that it is unfair to have rates that differ by sex, and in a later instance that it is unfair *not* to!

Third, emphasize the competitive nature of underwriting to the public. The public thinks of life insurance as similar to automobile insurance, with rating bureaus, commissioner-set rates (at least in Massachusetts), and little real competition. They think the life insurance industry is a monolith with common medical records (Medical Information Bureau) and many linkages. We know that is a distortion, but the public does not—yet.

Last, remind our colleagues that one does not have to be involved with underwriting to see these trends as a threat to individual life insurance.

RICHARD P. PETERSON:

This is an interesting presentation, and the reasons for the paper are obvious. The institution of life insurance can survive, but perhaps not as we know it today.

¹ Richard E. Bayles, "Cost Effectiveness," *Proceedings of the Home Office Life Underwriters Association*, 1975, p. 33.

The following are personal comments and do not represent the viewpoint of any company.

1. The disclosure of the cost elements for an individual contract leads to the possibility that the basic mortality charges may become less significant to a consumer than some of the other elements. In this connection, it may be unfortunate that many companies continue to pay sales compensation on some or all of the additional premium associated with an extra risk classification (whether caused by medical reasons or otherwise), especially since the extra mortality generally is of a temporary nature.

2. It is doubtful whether regulations or laws actually threaten the life insurance industry. Many of us have lived for years under many regulations and laws, and I do not see anything incorrect about full and accurate disclosure of important elements to a consumer (policyholder, contract holder, shareholder, etc.). It is my personal opinion that this comes under the heading of ethical procedure, in which the Society of Actuaries should have a strong interest. A person has the right to know the important elements in any contract, especially when it involves concepts of savings or future security.

3. Cost considerations suggested the deletion of a large majority of inspection reports many years ago. These reports generally have little effect on underwriting actions. An applicant's signature should be a sufficient bond if all parties involved understand their appropriate responsibilities. Considerable recent experience in the securities area has confirmed my personal belief about the integrity of a signature.

4. I believe that a company has a right to underwrite any activity within its particular classifications and also a right to designate various classes, if this is done on an ethical basis looking to the future.

5. There is no standardization among companies in classifications, although competition through the years has tended to broaden the "standard" class. On the other hand, competitive forces also have tended to encourage companies to adopt special classifications based on assumptions of better-than-standard mortality; in some cases these are geared to the applicant's smoking habits. These better-than-standard classifications may cause considerable field pressure because of the more restrictive underwriting and more favorable net cost representations at the point of sale under these classifications.

6. It is doubtful whether any mutual company should devise a special classification designed to be competitive under current cost comparison methods with the premise that, if it does not work out satisfactorily in practice, other elements in the dividend formula can be adjusted, par-

ticularly the interest factor. The fact that mutual companies can do this illustrates why it may be difficult for these companies to disclose the various cost elements in a premium structure, as required of a registered individual product under federal regulations. A stock company willing to offer mortality and expense guarantees (with an appropriate risk charge for the hazards of doing so) can provide this type of disclosure more easily.

(AUTHOR'S REVIEW OF DISCUSSION)

ALTON P. MORTON:

Mr. Webster states very properly that every company should have a mortality goal or objective. This is just as important as any other form of budgeting or financial planning. To try to underwrite so as to meet competition in every instance is suicidal. His concept of a successful overall underwriting process is a practical one; there is no disagreement with my statement that the result is a decrease in underwriting equity. He also suggests that if at some future date the industry finds itself with a rising secular trend in mortality, more may have to be spent to offset the likely increase in antiselection.

Mr. Smith's conclusion that the basic assumptions used for practical actuarial risk-measuring may need reformulation and broadening is a very proper one. He suggests the existence of a widespread misbelief that all premium rates and underwriting classifications must be founded on "valid" past experience—a concept that is not justified by the facts of life and death. His remarks concerning the debit system and his example can be interpreted more as a warning that this useful tool for underwriters can be misused than as an attack on the system itself, which is a valuable tool for steadying underwriting judgment. I consider his list of paradoxes well worth noting.

Mr. Lew and Mr. Webster agree with me that successful underwriting must be done increasingly by such devices as fewer requirements and broader groupings within the standard range. Neither appears to disagree with my contention that this is achieved at the cost of a reduction in individual equity and ever increasing opportunities for successful antiselection. Indeed, Mr. Lew's fear as to finding enough Peters to pay the Pauls sums up the whole case as to why we must fear a growing loss of public confidence in our insurance companies.

Mr. Bayles draws attention to the fact that we have been unfairly discriminatory (though unintentionally so) in past underwriting practices. I would point out, however, that many such practices were adopted in an era when every company felt free to choose with whom it would

do business. Such policy decisions were both legal and acceptable under the societal conditions then existing. Examples were company policies not to insure people closely associated with betting or gambling or people with unusual life styles such as common-law relationships. Today these restrictive practices would be untenable as company policy. They would result in the exclusion of some of our national idols or heroes, and probably would be held illegal! Mr. Bayles's remaining remarks reflect his views as to the relative importance of many of the points in the paper.

Mr. Peterson's first point suggests the possibility that as time goes on the mortality factor in the total premium may become less and less important and so of less concern to consumers than other factors. I must agree with this, but retain the hope that insurance eventually will not resemble toothpaste, where the cost of the basic ingredient is of the order of 5 cents out of a total retail price of a dollar a tube. I hope my paper in no way implied opposition to the full and accurate disclosure to consumers that Mr. Peterson refers to in his second point.

Mr. Peterson seems to feel that today a viable alternative to inspection reports may be to accept the applicant's word without any independent verification process. In this respect he seems to part company with most businessmen, who follow the "prudent man" practice of considering it common sense to try to determine what degree of reliance may be placed on a person's word.

The five discussions have added some very worthwhile comments to the views and opinions expressed in the paper. Often they reiterate in clearer language than mine the views I tried to express. I am grateful for this kind of support and for so little disagreement with my main thesis—that the life insurance industry currently is faced with changes of basic and threatening importance.

