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DECISIONS UNDER UNCERTAINTY

by E. A. Lew

The fourth actuarial research conference, centering on the "Analysis of Decisions Under Uncertainty," was held in Boston Nov. 20-22, under the sponsorship of the Society's Committee on Research and the corresponding group in the Casualty Actuarial Society.

The field of inquiry for the conference combined a number of related topics such as decision theory, utility theory, subjective probabilities, and Bayesian inference, leading to a formal approach for making business decisions. There is little doubt in the minds of those who took part that this type of approach can be highly serviceable in tackling a variety of problems in life and casualty insurance.

The 92 persons who attended were fortunate to have the key notions in the "Analysis of Decisions Under Uncertainty" expounded by Professors Howard Raiffa and Robert Schlaifer of the Graduate School of Public Administration at Harvard. These two distinguished scholars have collaborated for a number of years to establish rigorous foundations for an analytical procedure to produce decisions consistent with a businessman's basic judgments and preferences. Professor Raiffa's book *Decision Analysis: Introductory Lectures on Choices Under Uncertainty*, published by Addison Wesley in 1968, was the sole prescribed reading for the conference.

During the first two sessions, Professors Raiffa and Schlaifer reviewed the subject in broad terms; their incisive comment on the construction of decision trees, assessment of preferences and probabilities, and evaluation of different strategies provided valuable insights for

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TWENTY YEARS AFTER

Editor's Note: At the Boston meeting (November 1969) the first 20 years of the Society's history were recognized by a dinner honoring the Past Presidents. E. J. Moorhead, now the President, to the delight of the audience if not to the discomfiture of the guests, briefly delineated the history of each President. E. M. McConney, who was the first President of the Society (and whose two Presidential addresses are well worth reading), replied on behalf of the guests. We are privileged and delighted to print his reply.

by E. M. McConney

On behalf of the Past Presidents I thank you for your generous and witty remarks about us. It brought to mind the little girl who was strolling with her father through a cemetery and as she read the epitaphs said: "Daddy where are the bad ones?"

On an anniversary one is supposed to look backwards and then forward at the risk of a crick in the neck. I will be brief but not quite as brief as the Chinese poet who, on awakening, wrote an ode to his mistress in two words:

Dawn
Gone.

Almost 50 years ago I attended my first meeting of the old Actuarial Society at the Astor in New York. It would now seem very strange if we could show it on film. There was an "establishment," of course—Hunter, Henderson, Hutcheson, both Craigs, Rhodes—and they always sat in the front row—rather frightening for the speaker. Some things have not changed—the students complained that the examiners were groovy on graduation and the examiners complained that

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THE GRADUATE

by Julie C. Stenlund*

Guest speaker at the December, 1969, meeting of the Actuaries Club of Des Moines was James J. Chastain, Alumni Professor of Insurance, Drake University College of Business Administration. His address was titled "On the Care and Feeding of the College Graduate."

Professor Chastain began by proposing that college recruiting for the insurance as well as for other industries is a game people play, a collegiate "Let's Make a Deal." In meeting today's graduates, the college recruiter must present his case with particular emphasis on those aspects of the business world of primary concern to the graduate. He must anticipate the graduate's demands and be prepared to meet them.

When the recruiter has been successful in selling his "product," and his company has the new graduate firmly in tow, the second stage of the game begins. Now, the employer must chart a course for the graduate that will be simultaneously stimulating, interesting, and challenging, or run the risk of losing him to another employer promising all this and more.

Professor Chastain immediately involved his listeners by some "audience participation." He distributed copies of two lists of phrases entitled: "The College Graduate:" "How to Turn Him On" and "How to Turn Him off." These phrases had been prepared by a researcher and college professor closely connected with the phenomena of college recruiting, and they reflect the views of recruiters from many industries as well as those of present students and recent graduates.

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More Adjustment

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are together related to business in force to determine a lapse rate, although one would assume that cash values paid on surrender would take appropriate account of unamortized first-year costs.

It is at this stage that the author becomes overwhelmed by technicalities remote from practical reality. Variations in mortality rates are exemplified as creating a need for different amortization periods for first-year costs, apparently without appreciation of the negligible absolute effect of such variations.

Now apparently creating an impression as confusing as possible, the difference in the ratio expenses-to-total-income is indicated for various companies between 1963 and 1969, after which the author apparently considers his purpose achieved.

Nothing further is added in the Summary, except this surprising comment—"the lapse rate, mortality rate and level of expense of a particular policy cannot be forecast with absolute accuracy. Thus, the task of amortizing first-year costs becomes more difficult than generally realized"—so much for those two disciplines, statistics and probability!

And finally — "the use of reported earnings as a measure of profitability and earnings growth is more meaningful than the use of adjusted earnings derived from calculations based on arbitrary rules-of-thumb!" This reviewer's verdict, after reading Mr. La Macchia's report—"Not proven," as the Scots have it!

The Graduate

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Our group was asked to rank these phrases as we thought today's college graduate would. After some lively discussion, revealing a suggestion of a generation gap, Professor Chastain compared our results with those of an actual survey of undergraduate general insurance and actuarial science students currently enrolled at Drake University.

These students ranked the assignment of the newly employed college graduate to a competent, experienced supervisor as the best way to turn the graduate on. They expressed a desire for a supervisor who could be a resource to the graduate

RETIREMENT INCOME

Committee on Employee Benefits, *Retirement Income in the United States—A Case for the Composite System*, pp. 47, Financial Executives Institute, New York, N. Y., 1969.

by Charles A. Peirce

This brief pamphlet was prepared by a Project Group of the Committee on Employee Benefits of the Financial Executives Institute. Two members of the Society—Wendel J. Drobynyk and Davis H. Roenisch—were members of the Project Group.

This study, which is admirably brief, is well worth reading since it gives the broad review of Retirement Income. It covers, among other items, the relationship of the three major sources of retirement income in the United States—individual savings, group retirement plans, and Social Security.

The conclusions reached are not surprising, coming as they do from a group of business men. What is important is that their viewpoint should have wider publicity. On the subject of Retirement Income most of the current literature, probably by number of articles and certainly by number of words, is produced by professors and legislators.

This reviewer would question whether the study devotes enough space to the subject of inflation. Despite this comment, it deserves a wide readership. Hopefully this will extend to the proponents of legislation restricting the operation of private pension plans, a group which currently includes a "filibuster" (collective term!) of legislators.

Copies of the booklet may be had on request from the Financial Executives Institute, 50 West 44 Street, New York, N. Y. 10036.

without exerting authoritarian pressure or oversupervision.

The three areas considered by the students polled to be next in importance to the graduate all maintain the graduate's identity as an individual and establish him as a worthwhile contributor in his new position. The graduate wants a real job to do as soon as possible, not a make-believe trainee position. He wants training interlaced with on-the-job learning, so he can begin to pull together his recently acquired education with his job experiences. He needs to be focused on as an individual—where he is and where he wants to go must be

considered in his assignments, his education, and his opportunities.

Ranked last on the continuum of what turns college graduates on was letting the graduate earn his salary by making his job difficult enough and important enough for him to be worth the salary he can command as a college graduate. It was suggested in discussion that what to do with the graduate after a company has "overpaid" him to get him is a very real problem in industry today.

Student responses on those things that turn the college graduate off seemed highly correlated with the classifications of things that turn graduates on. Widely chosen as the number one offense was the practice of sitting the new graduate in a classroom and talking at him, keeping him a student, and crowding all you want him to know into an initial orientation program. Students clearly objected to the "learn first—work later" philosophy, whereby the new employee first learns the business and then starts to work for real.

Also guaranteed to turn off the graduate appeared to be treatment based on the assumption that it really doesn't matter what kind of supervision he gets—the graduate can just be put anywhere, since managers will prove equally capable of helping him with career plans and objectives. Here Professor Chastain stressed that the guidance of a college graduate in his career takes special abilities, and that industry and the graduate would mutually profit from careful selection of those who will guide the new employee.

Students generally ranked as last on the list of things that turn the graduate off the emphasis put on the size of the company and the security of the graduate's job. The students appeared almost indifferent to a focus on the strength of a massive company.

Professor Chastain concluded his talk by commenting that perhaps insurance companies hiring actuarial students would avoid some of these problems, since by the very nature of the students' highly specialized technical training they could be put right to work in the area for which they had been trained. However, he stressed the importance of careful guidance in career plans and objectives for the college graduate, no matter in what area of the insurance industry he finds himself.