Article from:

The Actuary

April 1974 – Volume 8, No. 4

The Actuary
The Newsletter of the Society of Actuaries
VOLUME 8, NO. 4 APRIL, 1974

HARVARD CONFERENCE ON DEMOGRAPHIC PROJECTIONS

by Cecil J. Nesbitt

Under the aeges of the Harvard University Center for Population Studies and the Society's Committee on Research, 70 actuaries and demograhers met at Harvard University Nov. 29-Dec. 1 to discuss demographic projections and related actuarial topics.

Four sessions of the conference dealt with projections. Dr. Conrad Taeuber reviewed United States Census Bureau Demographic Projections. Professor Nathan Keyfitz, of Harvard, examined the question, "Can Population Changes be Predicted?" He stated that such turning points as the rise in fertility in the late 1940's cannot be predicted but we should recognize that the projections of the Bureau of the Census and other agencies have some of the qualities of forecasts with confidence intervals, "implicitly challenging us to assign probabilities to intervals and to develop our own loss functions."

Drs. A. Romaniuc and K. S. Gnanasekaran of Statistics Canada spoke on "Population Projections in Canada" and "Mortality Trends and Projections by Cause of Death in Canada, 1950-1990." They discussed the problems of making population projections for Canada, and presented solutions.

Professor Samuel Preston, of the University of Washington, presented a paper on "Illustrations of Social and Demographic Consequences of Eliminating Various Causes of Death in the United States." By the application of the mathematics of population and extensive computer calculations, he speculated that with complete elimination of cardiovascular disease, age at retirement would have to increase by approximately 10 years in order to retain the current ratio between retired and economically active

(Continued on page 7)

REPORT FROM THE BOARD OF GOVERNORS

Many actuaries are aware of newspaper reports that the City of Sacramento has been involved in a controversy about its retirement system because of an apparent conflict in the recommendations of two actuarial firms. This matter was brought to the attention of the Society and of the Academy by letters from the City of Sacramento to the Presidents of the two bodies.

Before deciding what action to take, the Society and the Academy sent Mr. E. J. Moorhead on a fact finding visit to California where he interviewed the city management and also the several actuaries familiar with the case. Subsequently, the Board of Governors (and later the Board of Directors of the Academy) decided to refer the questions involved to the appropriate Committees of the Society and the Academy. The Board of Governors and the Board of Directors realize that it is essential for the profession to give a clear response to an appeal from a public body such as the City of Sacramento. Further, in this instance an analysis of several features in the case can be of substantial future value to practicing actuaries. One feature relates to the manner in which a cost of living escalation provision in a pension plan may be provided for in the current contributions of both employees and employer.

William A. Spare,

Secretary

* * * *

THE HEALTH MAINTENANCE ORGANIZATION ACT OF 1973

by John G. Turner

On Dec. 29, 1973 President Nixon signed into law the Health Maintenance Organization Act of 1973, which authorizes $375-million to be used by the DHEW to stimulate the establishment and development of HMO's over the next five years.

The Act provides for $25-million in 1974, $55-million in 1975 and $85-million in 1976 and 1977, in addition to a $75-million revolving loan fund to provide grants and contracts for feasibility surveys; grants, contracts and loan guarantees for planning and for initial developments; and loans and loan guarantees for initial operating deficits—all to HMO's which qualify for such aid under the law. An additional $50-million is set aside for research and evaluation of quality assurance programs for health care in an HMO environment. Except for programs in under-served areas, federal support is available only through non-profit organizations.

While the law has occasioned a dramatic increase in interest among many groups to develop HMO's, it remains to be seen whether many currently operating HMO's will care to attempt to qualify under the law. The advantages of such qualification are money (if non-profit) and the requirement that employers of 25 or more employees must offer at least one qualified HMO as an option to conventional indemnity health insurance for employees.

Existing HMO's may find it difficult to accommodate such requirements as community rating, restrictions on medical provider groups, requirements for open enrollment, and the basic health services required. The basic health services described in the Act go beyond the usual medical, hospital, and diag-

(Continued on page 2)

Letters

(Continued from page 6)

Sir:

In "Where Have All the Earnings Gone?" (*The Actuary,* February), George L. Hogeman makes a valid point, that when a company first changes from statutory accounting to GAAP, the difference in surplus under the two systems will never be reported in the company's earnings. However, I have difficulty becoming concerned over this aspect of GAAP accounting. Under statutory accounting, we are accustomed to a number of similar items. When a company strengthens reserves, the amount of the strengthening is effectively reported in gain from operations twice during the life of the company. Capital gains and losses are never reported in statutory gain from operations at all.

I am concerned about the suggested solution to this problem: that old business be valued on a statutory basis and new business on a GAAP basis. For most companies, this would substantially inflate current income beyond any reasonable measure of the true current earnings of the company, because the peak earning years under both accounting systems would coincide. In the future, as a progressively smaller portion of the company's old business would be on a statutory basis, there would be a decreasing trend to the company's earnings unrelated to any factors affecting the true financial condition of the company. Consistent treatment of both old and new business is very important if the resulting earnings are to be a reasonable measure of current activity.

Any individual concerned about the total stream of earnings over the life of the company, can ascertain that information from the earned surplus in the GAAP balance sheet. I fail to appreciate the significance of such a number.

The observation that, if a mutual company adopted GAAP accounting, it might find itself paying policyholder dividends out of surplus rather than earnings, is significant and represents another illustration of the inappropriateness of GAAP accounting for mutual companies, at least in its present form. It should be noted that, for most companies, this would not happen in the years immediately following the change in accounting, but rather at some future time when aggregate GAAP income would be less than aggregate statutory net income.

Richard S. Robertson

* * * *

Opinion A-5

Sir:

Like some other readers I am somewhat puzzled about Opinion A-5. What does an actuary do in a completely new field in which there has been no previous actuarial work or in which there are no actuaries who have done such work in his geographic area?

For example, we are currently working on pre-paid health plans and prepaid legal plans. With our first clients we had no experience in the field and yet we felt we could be of service to these clients. If a prospective client had to wait until he could find an experienced actuary, he would never find one.

Another question. Am I correct in assuming that, if the actuary sufficiently qualifies his expertise, he can render an opinion in an area in which he is not a specialist? That is, if the actuary tells a client that he has not had specific experience in the field but that he can apply his actuarial techniques and training to the situation, this will satisfy all parties?

Lawrence Mitchell

* * * *

La Différence

Sir:

I am commenting on the Editorial in the February issue of *The Actuary* and particularly your observation that you think that Actuaries "might properly claim to have some expert knowledge of the sexual differences in rates of mortality and morbidity and their impact upon the various forms of insurance being issued."

I recently had the occasion to testify before a Task Force which was appointed by the Ontario Minister of Labour to investigate the implications of a recent piece of Canadian legislation called the Ontario Human Rights Code; there was an actuary on this Task Force.

At one stage during a most cordial discussion, the actuaries present were dispensing some of their expert knowledge of sexual differences, only to be rebuffed by the contention that the very existence of different mortality tables for males and females was in itself discriminatory and should therefore be prohibited.

There is no doubt that we are going to run into difficulties!

J. W. Roberts

Harvard Conference

(Continued from page 1)

males.

Actuaries, who outnumbered the demographers, took the lead in the three sessions on Life Tables. In the first session, Dr. T. N. E. Greville reported on the 1969-71 U. S. Life Tables under the headings "Coverage and Methodology." He indicated a number of important modifications in each of these areas.

The second session featured a presentation by John J. Gianino and Thomas R. Huber on "Mortality Studies of Insured Lives." They reviewed the organization of the Mortality and Morbidity Committees of the Society and of the Association of Life Insurance Medical Directors and of their liaison; major studies completed and planned in 1960-80; and mortality trends under Standard Ordinary insurance. Gianino and Huber referred to a Mortality Monograph Committee that has been surveying the medical literature to prepare a compendium of mortality study abstracts on various medical impairments.

The principal speaker for the third session, John J. McCutcheon, of Heriot-Watt University, Edinburgh, presented "Some Problems Relating to the Construction of Life Tables." These papers substantiated the fact that actuaries remain the major contributors to mortality studies.

Actuaries also held the floor in the session on Social Security. Francisco Bayo's presentation of an outline of the demographic aspects of projections for U. S. Social Security clearly reflected his seasoned experience in this work. President-Elect Charles Trowbridge discussed the non-demographic aspects and gave an illuminating analysis of the pay-

(Continued on page 8)

PROFESSIONAL ETHICS

by Thomas C. Copeland III

The Columbus Actuarial Club held a discussion on Professional Ethics at its March meeting. A summary of twenty responses from members of the Club to a questionnaire concerning Professional Ethics was presented at the meeting by Program Chairman Tom Mitchell.

To the question:

"How do you compare your responsibility to the public with that of a non-actuary business executive in your firm?" — 8 members responded "the same," 8 said "significantly greater," 3 said "much greater," and 1 said "a little more."

To the question:

"Do you feel that the Academy's proposed Opinion A-5 is aimed at (a) *disclosure* by declaration of incompetence, or (b) *control* by requiring disqualification?" The responses were: Disclosure — 5
Control — 12
Neither — 3

Other questions dealt with:

a. Reaction to the recently circulated recommendations and interpretations on professional conduct with regard to GAAP,

b. The actuaries relationship to CPA's, and

c. The extent to which an actuary can delegate his efforts when certifying statutory reserves.

There was a wide range of response to the questionnaire and no real agreement on the answers among the 28 persons who attended the meeting.

There was very active discussion especially with regard to Opinion A-5. In particular, one member pointed out that a similar provision for doctors or lawyers would prevent many of them from practicing. Some members felt that Opinion A-5 did not allow an actuary to disclose his lack of competence and continue with the task of performing in an area in which he had no experience. Other members felt that A-5 allows room for an actuary to research a given subject to gain confidence and then continue with the task. One response was that A-5 requires the actuary to have confidence in his answer rather than have experience in the field to accept a task.

One member felt that an actuary working for an insurance company was really a mixture of both a manager and a professional actuary. During the time the actuary is performing as a professional actuary, he must abide by Opinion A-5 and disclose his lack of competence whenever the situation warrants. On the other hand, when this individual is in his role as manager, Opinion A-5 will presumably not apply.

A number of members felt that Opinion A-5 will have a different effect on consultants as compared to actuaries working for insurance companies. It was felt that situations arise in a company atmosphere where an actuary is asked to perform a task and, even though he may disclose his incompetence with regard to that task, he will still be given the assignment. The question asked was, "Should he then quit?". On the other hand, a consultant would have no choice but to refuse the assignment unless he found another member of his firm with the appropriate expertise.

There was much discussion on the question of whether an actuary working for an insurance company has greater responsibility to the public than other members of the management team. Some members felt an actuary does have greater responsibility because he has greater knowledge and awareness with regard to the effect of differing courses of action on policyholder and shareholders. Other members felt that the actuary's responsibility is the same as any other member of the management team; however, all agreed that the actuary's responsibility was significantly greater on matters purely actuarial in nature. It is significant that no one felt an actuary's responsibility was less to the public than any other member of management.

There was discussion about the relationship between actuaries and accountants. It was pointed out that some accounting firms have staff actuaries and those firms require their own staff actuaries do the actuarial phases of GAAP audits. Other accounting firms have no staff actuaries, but have set their own standards for employment of qualified actuaries. One firm has decided that only FSA's with experience in life insurance shall be qualified, leaving out any reference to Academy membership. Some of the members felt that actuaries should be setting the standards for actuarial qualification rather than the accountants.

There was considerable agreement with the fact that the actuarial profession h[illegible] been much slower than the accounti[illegible] profession to get involved with GAAP. Most felt that the output from the Academy on GAAP matters was reactionary and defensive in nature. □

Death

Herbert H. Blakeman

Harvard Conference

(Continued from page 7)

as-you-go tax rate into a product of two economic and two demographic factors. Past President Robert Myers performed service both as a discussant for the previous two speakers and as deliverer of his own, "Variables in Cost Projections for Social Security Systems." This session was a major actuarial contribution to the Conference and produced a fine atmosphere for a productive discussion of Social Security.

The foregoing recalls only the principal papers. Shorter presentations were given by Dr. Campbell Gibson, Hans Gerber and the writer, Jess Mast and Frank Reynolds. James Hickman developed the theme "Science and the Actuarial Profession" following the Conference dinner. John Beekman and David Halmstad summarized the Conference.

At least one third of the conferees were formal participants in the program as moderators, discussants, or speakers. The Conference was an unusual assembly of demographic and actuarial thought, expertise, and experience. F[illegible] the strong representation of demogr[illegible]phers and for his various contributions to the Conference, we are much in debt to Professor Keyfitz. Certainly, fruitful interchanges and growth of ideas will result from the Conference.

Most of the papers of the Conference will appear in a special issue of Actuarial Research Clearing House (ARCH). Inquiries about this issue should be addressed to Professor Donald A. Jones, Department of Mathematics, University of Michigan, Ann Arbor, Mich. 48104. □