



SOCIETY OF ACTUARIES

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Committee on Ways and Means

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over \$1,000 for nearly half and over \$10,000 for nearly 20%."

This review, lengthy as it is, covers only the highlights of the 447-page staff report on DI (disability insurance under the OASDI system). The report, available from the Superintendent of Documents, Washington, D.C., 20402, at a cost of \$4.25, should be studied by everyone truly interested in disability and rehabilitation. The universal coverage now provided by the combined program, DI and SSI, and the administration of these programs, will exert an increasing influence and impact on private disability insurance, even on policies containing Social Security offset provisions. The insurance business cannot be unaffected by the laws and rulings under which entitlement to DI and SSI benefits are determined and by the administrative and judicial policies governing the applications thereof. Not only for the information relating to disability and rehabilitation in the United States but for the insight into the operation of a huge government program and the respective parts played by the executive, legislative, and judicial branches, the report is an important and useful document.

The writer is greatly indebted to Francisco Bayo, Deputy Chief Actuary of the Social Security Administration, for reviewing the manuscript, correcting some errors, and offering a number of helpful suggestions and to Robert J. Myers for additional information about some of the Acts referred to.

Interest Rates and Salary Scales

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in the past two years, in predicting changes in the rate of inflation.

Can actuaries do better than economists in forecasting a future rate of inflation?

For those who are about to investigate this question, it is well to review the relationships between interest rates and salary scales in pension valuations, since it appears that the rate of inflation is to be added to each of these rates. It is necessary to examine these relationships because much of the descriptions of the recent past have not been accurate.

It is tiresome to be told that only the difference between the assumed valuation interest rate and the salary scale rate is of importance. This bit of actuarial flimflam, based on a stability that does not exist, is of course untrue. Let's investigate this.

For ease of communication, consider $x\%/y\%$ to mean an assumed valuation interest rate of $x\%$ and a compound interest salary scale of $y\%$. (I believe "s" shaped salary scales are better, but this is not important.

The relationships can be summarized as follows:

(1) If the assumed valuation interest rate is equal to the assumed rate of salary increase, costs decrease as the choice of the basic rate increases. (Example:

Costs decrease steadily as you move upward from 5%/5% to 8%/8%.) There is no stability in a zero difference.

(2) A simultaneous addition to the interest rate and to the salary scale, of the same percentage, lowers costs. (Example: Costs decrease steadily as you move upward from 5%/2% to 8%/5%, in equal unit jumps, to a total increase of 3% in both rates). There is no stability in a non-zero difference.

Both (1) and (2) illustrate the fact that a change in the interest rate is far more important than the same change in the salary scale rate and that there is no stability in $(x-y)\%$. With interest rates uncertain, common stock prices depressed, salary increases little to none in certain major industries, it is possible to add inflation as an actuarial assumption and lower costs appreciably—assuming that the addition for inflation is not done with great care.

Anyone about to consider this problem further should read Paul Jackson's paper presented at the Conference of Actuaries in Public Practice, in October 1974: "Inflation, Interest Rates and Salary Increases."

Personally, I question the wisdom of introducing a rate of inflation just as I would question the similar introduction of a rate of recession by lowering both the assumed interest rate and the salary scale rate.

MINORITY RECRUITMENT

by James C. Harrison

The purpose of this article is twofold: first, to report briefly on the progress of the Minority Recruitment program for 1974, and secondly, to ask individual members and actuarial clubs to continue their financial support of the program.

In 1974 scholarships were awarded to two students — Miss Araba Quansah and Mr. Kwasi Osei—who are presently pursuing degrees in actuarial science at the University of Michigan. Both recipients are considered to be well-qualified, having completed several of the early examinations, and they were highly recommended by Professor Cecil J. Nesbitt. Scholarships will be available again in 1975 to a limited number of students who are pursuing or wish to pursue an actuarial program at any of the schools offering courses in actuarial science.

The results of the 1974 Summer Institute students were the most successful to date. Of the 14 students who sat for the exams in November, 5 passed Part I (one student passed Parts I and 2) and 7 received grades of 4 or 5. This success can be attributed in part to changes adopted last year, which led to more aggressive recruiting, and to pre-screening and pre-enrollment requirements. A Summer Institute at Lincoln University will be held again this year to assist minority students in preparing for Part I of the actuarial examinations.

The Minority Recruitment program is supported primarily by contributions received from employers of Society members. Personal contributions from individual members and actuarial clubs are desired as well. For those who wish to contribute, please make your check payable to Society of Actuaries—Minority Recruitment Program, and forward to James C. Harrison, North Carolina Mutual Life Insurance Co., Mutual Plaza, Durham, N. C. 27701.

I feel that the individual actuary should decide for himself how he wishes to proceed, have an appropriate informative discussion with his client and then test the emerging experience, each year, by means of the gain-and-loss analysis. I do feel that some recognition of economic conditions is justified in some of the actuarial assumptions but that a constant percentage added to the interest rate and to the salary scale is an inappropriate solution to a difficult problem.