

*Valuation*

What valuation techniques are best suited to Electronic Data Processing equipment? Have any basic changes resulted by the introduction of Electronic Data Processing? What has been the attitude of Insurance Departments? What, if anything, can the Society do in clarifying Company-Department attitudes in this area?

MR. VICTOR E. HENNINGSEN described the Northwestern Mutual's new E.D.P. system for preparing benefit checks under its settlement options and immediate annuities and for the maintenance of accounting, tax and valuation records on these contracts.

To avoid maintaining records in valuation order the Northwestern has decided to adopt a seriatim valuation method. The Wisconsin Department has agreed to permit such a valuation provided detailed lists of all pertinent data are supplied.

One advantage of the new system for preparing benefit checks is that excess interest on payments certain, instead of being an equivalent level amount during each settlement year, may easily be decreased during the year as the outstanding balance declines.

MR. PAUL E. SARNOFF described the Prudential's new electronics system for the valuation of its Ordinary policies. The new system provides for run-to-run controls from the introduction of transactions until the final printed output. The Policy Exhibit and Analysis of Increase in Reserve data, internally produced, provide additional checks.

For any valuation grouping (*e.g.*, year of issue) it is possible to select in advance the calculations which it is desired to check. The needed data can be extracted at the time of calculation and the results for the selected sample verified by hand. A specially maintained test set of cases is used to test changes to the program. The relatively small volume of cases makes it possible to concentrate on the formulas and procedures without the need to repeat large volumes of calculations.

Through its interest in the controls on accuracy, and its cooperation in adapting its requirements to the control features and high-speed calculation facilities of the new system, the New Jersey Department is making a significant contribution towards the joint goal of accuracy of results at a reasonable cost.

MR. LLOYD G. ROLLERSON stated that for the past 7 years the Crown Life has been using a seriatim valuation method. They are now in the process of installing an IBM 7070 system, but will retain the seriatim approach.

Under their consolidated functions plan their master rate tape includes not only reserve factors but also unit costs of insurance, cash values and

dividends. The detail file is updated daily and contains information with respect to both the current policy year and the succeeding policy year. On the anniversary the values are shifted so that the old values are replaced by those for the new policy year. At the end of the month following the anniversary each case is extracted from file and the rates for the next policy year are entered from the master rate tape.

An important by-product of the new system is that accurate monthly valuations can be produced for use in monthly statements for management.

MR. GEORGE E. WALLACE discussed the relative advantages of the seriatim and group methods of valuation under a computer operation. He thought that, while the seriatim method may be preferable from the standpoint of insurance reserves only, the limitations of present computers may make a seriatim valuation of supplementary benefits impractical.

When the John Hancock was considering a conversion to UNIVAC it reached the conclusion that, because of these supplementary benefits, the group method seemed to be the logical choice. One of the principal advantages of the group method is, of course, the availability of appropriate statistics for use in mortality and morbidity investigations, model office studies, etc.

MR. JOHN C. FRASER described the New York Life's balance control method of verifying the accuracy of its quarterly valuations on its IBM 705. The formula that is used follows the general pattern of the second page of the Gain and Loss Exhibit, except that each item is computed exactly and there is no balancing item. He stressed the importance of accurate valuations in view of the possible tax implications of valuation errors under the new Federal income tax law.