## TRANSACTIONS OF SOCIETY OF ACTUARIES 1959 VOL. 11 NO. 30AB

## ELECTRONICS (ATLANTA REGIONAL MEETING)

## General

- A. How can effective studies of computer feasibility be made? Have actual results of computer use validated feasibility studies? How can the improved management information provided by computers be evaluated?
- B. What has been the experience in revising a company's whole plan of operation for data processing?
- C. What organizational changes are desirable when computers are to be used on a consolidated functions approach?
- D. What personnel problems have arisen, since the introduction of electronic data processing, among the clerical force? Among supervisory employees? Have there been any special personnel developments in the actuarial department?

MR. A. DOUGLAS MURCH stated that Prudential had found that functions could be adapted to computers as they had originally estimated. Estimates of installation costs and computer hours, however, were too optimistic. Mr. Murch described a feasibility study as comprising three parts. First, under selection and training a small select group is more effective. Next, the computer system should be outlined in detail. The third part consists of estimating costs and savings. Mr. Murch stated that a healthy allowance for external processing should be made. After conservatively estimating computer times, an additional allowance such as 50% for unforeseen programs is advisable. Estimates of time and work of installation should be conservatively made.

In covering other features expected from computer systems, Mr. Murch mentioned improved accuracy, research studies impractical before computer systems, in many cases obtaining results more quickly, obtaining additional results at little extra cost, and the needed potential for handling an increasing volume of work.

MR. JOHN C. DAVIDSON reported that the most important factors in reorganization are communications with and direction from top management. During the organization period a committee was formed to provide proper representation from all areas affected.

Mr. Davidson stated that the Confederation Life conducted a feasibility study which was not in great detail for staffing and training for the new areas of operation. They found cost estimates were about half the resulting costs, but have found actual results and savings greater than those anticipated. They have a consolidated functions approach now in operation. Staffing and training have been effected without too much internal

dislocation by use of a temporary staff and gradual integration of experienced people released from old procedures. The amount of parallel operation has been fairly small.

They made their file conversion by consolidating the files with fixed information in July 1958 and had considerably reduced the errors by October. The variable information was then merged and the files updated, and at the end of the year they were within six weeks of their objective.

Mr. Davidson emphasized the importance of the question of parallel operation. In early 1959 the new system was deemed sufficiently accurate for billing and accounting and the old system was discontinued. Other phases of a more extensive nature have been continued in parallel although not necessarily cross-checking. New policies were handled in parallel until they felt that there was sufficient accuracy to abandon the old system.

Mr. Davidson reported that this system of semiparallel operation, although causing some problems, has not substantially increased the problems which would have arisen under any method of conversion.

MR. DAVID H. HARRIS stated that the Equitable's objective has been maximum integration of related functions and that this has been facilitated by combining into two new administrative departments, one for Ordinary and one for Group insurance, various administrative units of existing departments. The actual electronic equipment is under the control of the Ordinary administrative department, which operates it as a service facility for the entire company. This permits concentration of skills, scheduling flexibility and simplification of future equipment changes. Systems planning is accomplished in a separate department to permit concentration on development work.

MR. DAVIDSON mentioned the following factors as affecting the nature of organizational changes:

- a) company size,
- b) various lines of insurance,
- c) present organizational structure of company,
- d) status of methods and procedure departments, and
- e) extent of computer use contemplated.

Confederation Life has established a new entity with the 705 system as a core, surrounded by a newly organized group to handle preparatory work and subsequent processing of information. This newly created area is basically divided into three main divisions:

- a) machine.
- b) clerical work associated with input and output, and
- c) programming, research, scheduling and development.

MR. ROLAND R. STRICKERT stated that one collateral purpose of introducing an IBM 705 in the National Life and Accident was to relieve home office personnel of much monotonous work and to lighten the job load on home office and field personnel, thereby permitting greater concentration on selling and servicing business. He felt that important personnel problems arise primarily from a fear by employees of the effect which electronic computers will have upon their positions. This has been minimized by repeated promises of job security and by insuring that employees are well informed through orientation and training.

In the actuarial department, personnel have been sent to programming school to adapt the equipment to actuarial use. This has virtually eliminated their mathematics division and speeded up production of a new policy series.