

Specific Applications

- A. What progress has been made in electronic data processing machine application
- (1) in underwriting of individual policies,
 - (2) in the issue of policies, and
 - (3) in the establishment of policy records?
- B. What use has been made of electronic data processing machinery in determining or auditing claim payments in Accident and Health insurance, Group or Individual?
- C. Have companies been successful in adapting EDPM equipment to Group operations? If so, what phases of the operation and what types of equipment have been used?

MR. DAVID H. HARRIS said that the Equitable has recently put into operation newly extended IBM 705 programs for policy issue and the preparation of policy records.

Their new policy forms place all fill-in data on one page. This page has only a few preprinted captions, such as "Insured," "Age," and "Policy Number," which are suitable for every plan of insurance. All other necessary captions and headings are supplied by the 705 as needed, as is all of the fill-in detail. The 705 prepares a magnetic tape which can complete the fill-in page on either the high speed or low speed printer.

The fill-in page is placed in front of the inside text pages and the application copy and they are all enclosed in a cover-and-back page and bound at the top so that the policy opens vertically. The front cover, which contains the plan description, is of three-quarter length. This exposes the identifying data such as the policy number, name, and beneficiary designation which is on the lower quarter of the fill-in page, but covers the part of the fill-in which deals with premium amounts and due dates, policy options, and miscellaneous data.

A permanent home office record in the form of a carbon copy of the fill-in page is extended in width and contains data beyond that required for the policy. The extra strip also contains form numbers, etc., to guide the policy assemblers.

The same 705 program produces various magnetic tape and punched card records and a printed policy index card, and will eventually produce all records for both the home office and the field.

The program works from an input of basic data punched after the entire underwriting action is completed.

Concerning section B, no one present could present information as to the determination or auditing of the actual amount of payment for claims.

MR. DAVID M. IRWIN therefore presented information about the Aetna Life's system for handling Group claims. He specifically avoided the term "auditing" because their check determines that the coverage exists, that it exists under this policy, and that it exists for this class of employee. There is no audit that this individual was specifically insured nor is there any audit of the amount of benefit paid. They would like to have such checks but do not foresee that they can justify the cost in the near future. He suggested that a substantial programming effort might be worth while for a company which pays claims from the home office, which the Aetna does not do.

Their complete system involves some 9,000 program steps and processes about 400,000 claim payments a month, occupying about 7 hours a month on the computer. It consists of five main frame runs, including a file maintenance run on the master record against which detail claims are matched, and a Summary and Report run which does the matching and produces all the necessary summaries and reports.

Mr. Irwin concluded with comments on the ratio of 1,300 program steps to each computer hour per month. He felt that this was high for 705 programming generally but might be characteristic for programs in this particular area.

Mr. Irwin, in regard to section C, discussed the Aetna Life's use of the IBM 705 on Group operations. He broke these operations into four sections although they are mutually interdependent and parts of an integrated approach.

1. Premium Accounting. A punch card is pulled from a due file for every premium paid. This punch card is the input to the 705 where all premium accounting is done, including tax state analysis, earned and unearned premiums, policy year figures and overdue premium records.
2. Commission Accounting. The information on paid premiums used in the accounting run is the basis for commission runs which calculate and check the commissions due and prepare detailed statements for the brokers as well as the necessary accounting entries for the agency and company books.
3. Claim Accounting. Some 400,000 Group Casualty drafts are drawn by field claim offices each month. Records of drafts drawn are not kept, but after the paid drafts have cleared through their Hartford bank a card is punched for each draft. This card is used in input into the 705 accounting procedure which develops all claim records for the individual case and much of the information for the actuarial department. Mr. Irwin had previously discussed the checking of claims in section B of this discussion.
4. A completely new billing procedure has been established for home office administered cases. Under this system a card is punched for each addition, in-

crease, decrease or cancellation, and used as input to the 705 procedure. The entire record with regard to the individual as well as the case is maintained on tape and no manual record or procedures are in use. All renewal statistics, life average premiums, etc., are automatically handled.

Steps 1, 2 and 3 are in full operation. Step 4, however, is still in the process of conversion and they estimate that it will be sometime early in 1960 when the last case is converted.

The procedures outlined above represent approximately 150,000 program steps and will use about 60 hours of main frame time each month.

They are currently engaged in the programming work necessary to do their experience rating. The principal job involved is the maintenance of the necessary historical records of premiums (billing and manual), claims, commissions and expenses. In their opinion this will be by far the most complex series of programs.

Mr. Irwin reported that their 705 procedures produce better information for themselves and their policyholders at substantial savings and usually appreciably faster than previously. Papers were presented on all of these areas at the LOMA Automation Forum in April of this year and much more detailed information is therefore available in the "Proceedings—Life Office Automation Forum (1959)."

MR. HENRY C. UNRUH described applications of an IBM card 650 to Group procedures at the Provident Life and Accident. They first attacked premium, commission and claim accounting areas, leaving billing on conventional IBM equipment for the time being. Exceptions requiring manual intervention are run into the system so that as many subsequent figures as possible are developed in the regular 650 runs. The systems update coding and accumulate year-to-date figures for reinsertion in later cycles.

Memory space limitations require that the interdependent processing of premium, commission and other accounting be split into two 650 passes called "Premium Breakdown" and "Commission and Accounting Run."

The first of these daily passes, "Premium Breakdown," takes input partially punched as output from a previous cycle and partially key-punched with reported premiums and changes in numbers of employees. It produces as output:

- 1) premiums for each coverage and life insurance in force figures for a premium accounting voucher and subsequent experience listings;
- 2) premiums to be credited to the retroactive rate adjustment accounts;
- 3) premiums having commissions payable, rate adjustments, and premium totals for the "Commission and Accounting Run."

The second pass, "Commission and Accounting," combines as input a part of the output of the first pass with masters containing commission rates and accumulations. It produces:

- 1) commission and accounting details to complete group vouchers by reporting unit including a portion for the experience folder;
- 2) premium totals for the monthly report of unearned and outstanding premiums;
- 3) daily accounting totals for the comptroller's department.

The following are end of each month routines:

- A. The "Claim Run" processes the individual claim payment cards combined with a master deck which includes calendar-year-to-date and policy-year-to-date claims. The output is listed to complete the experience statement, giving premiums and claims for the current month and for the policy year to date. Additional output gives A & S claims by state, total of maternity claims, and claims for deduction from the retroactive rate adjustment reserve.
- B. The "Premiums Due and Uncollected" cards are processed in the 650 to update a master deck and provide cards for the reports of premiums due and uncollected, unearned premiums, and cases two or more months in arrears.
- C. Master retroactive rate adjustment cards are combined with output from several of the above runs and produce on the 650 up-to-date statements of condition for all cases on an earned-incurred basis.
- D. Several additional runs update life insurance in force figures, produce agents' statements and an agents' ledger and produce agency premium and claim statistics.

Their commission calculation programs are quite versatile and can handle flat and rated commissions with different percentages applicable to premium under different coverages. They can handle up to 8 agents receiving graded commissions on any one case and can at the same time split the case into as many as 3 separate premium accumulations. Up to 3 agents may receive graded commissions on groups of cases combined for commission purposes. Commission scales can involve up to 11 premium breaks and percentages expressed to 5 decimal places.

They are planning to install an IBM 7070 in 1960.

MR. RALPH E. TRABER reported that the Equitable's IBM 705 programs for statistical and record-keeping functions have been producing premium and claim information by group, coverage, and branch, for underwriting, dividend, and statistical purposes for some time now. Much of their recent effort has been directed toward improvements of these programs and their basic records.

Their dividend computation program has now operated through a change in dividend scale including fundamental changes in the formula. They are in the process of developing a premium accounting program and have almost completed another for fractionating premiums for commission computation. They are also planning a program to summarize detail claim cards by month and expect to improve both the speed and accuracy of claim processing and enable precise cut-off of claims as of the anniversary.