

nated plans was drawn from Department of Labor files on plans registered under the Welfare and Pension Plans Disclosure Act. Of 100 plans examined, data adequate to determine coverage was available in only 26 plans. Benefits were fully covered or almost fully covered in 10 plans covering 2,300 employees. Six plans with 2,400 members were less than fully funded but incurred no losses because members were transferred to other plans. Of the remaining 10 plans (with 10,000 members—8,500 of them from Studebaker), losses were a little less than 50 percent.

B. ANALYSES POSSIBLE WITH TERMINATION DATA

In concluding his report, Mr. Beier observed: "Reasonably accurate estimates of the magnitude of benefit losses cannot be obtained from any government reporting system now in operation." By applying minimum contribution-to-benefit ratios and other minimum cost factors that result from IRS rules, however, it is possible to estimate the maximum benefit loss that could have occurred under the reported termination conditions. Furthermore, by determining the benefit loss under employer practices more liberal than IRS minimum requirements, it is possible to create a range within which actual losses are likely to fall. Since any such estimate would relate to possible benefit losses throughout the total private pension system, the exact point at which true losses fall within this range is not significant in attempting to measure such range. The loss range can be used to—

- estimate the amount of benefit losses at representative benefit levels,
- project the loss rate for future years, and
- estimate the approximate cost of insuring expected losses.

C. ESTIMATES OF MAXIMUM LOSS UNDER INTERNAL REVENUE SERVICE RULES

1. *Maximum loss range.*—The minimum rate at which employers must contribute to maintain a qualified pension plan is one which will keep the unfunded past service cost from exceeding its initial level. The annual payment on this basis is—

Normal cost: the annual cost assigned, under the actuarial cost method used, to years subsequent to the inception of a pension plan.

Plus

Interest on *past service cost* (at the valuation rate) the pension cost assigned to the years prior to the inception of the plan.

By applying these minimum requirements to a representative plan and distribution of employees as reported by Mr. C. L. Trowbridge in volume IV of the transactions published by the Society of Actuaries, it is possible to estimate the minimum benefit funding that would result at the end of each year of plan life. Funding percentages for different plan years are shown in table III, expressed as the benefit value for total employees and for active employees if retired lives are granted full benefits under the minimum contribution rate and under a 20-year-funding rate. Funding is illustrated under both the "Entry age normal cost method" and the "Unit credit cost method." The two cost methods illustrated are those most commonly in use.