Article from:

The Actuary

June 1971 – volume 5 - Issue 6

Adjusted Earnings

(Continued from page 8)

full natural reserve approach.

The natural reserve concept should be applied not only to individual life insurance policies, but also to non-cancellable and guaranteed renewable health insurance policies. As a matter of fact, it should be used for any insurance benefit which requires a reserve in excess of the current year's unearned premium if the adjustment is material to the total company operations.

One technique for calculating adjusted earnings is through use of a sample, often referred to as a model office. This involves selecting major plans and central issue ages which, when enlarged to represent the total insurance in force, will simulate the financial results of the entire company. After the model is constructed, a validation procedure should be used to ascertain the accuracy of the model in reproducing the actual results of the company. The model may be considered validated if it can reproduce the company's aggregate reserve, premium income and increase in reserve.

There are many advantages to using the model technique for adjusting earnings. First, the model is a means by which to validate assumptions which will reproduce the company's aggregate experience and insure recoverability of acquisition costs. This is particularly useful for companies which have not performed mortality and persistency studies. Second, only a limited number of factors need to be calculated. This significantly reduces the time involved—both computer time and people time. Third, after the Audit Guide is published, it is expected to change through an evolutionary process as experience and new ideas dictate. Models lend themselves to change. Fourth, many companies show earnings for previous years; the model can be effectively used for historical data where detailed information may be lacking. Fifth, having constructed a model for adjusted earnings, a company can use it for financial projections, profit analyses, and cash flow investigations.

Another technique for calculating adjusted earnings is the detail approach. This method involves calculating natural reserve factors for each plan/age cell, so that the factors may be integrated into the regular valuation system.

The detail approach is practical only if two basic requirements are met: (1) the modified natural reserve method (benefit and expense portions separated) is used, with the natural *benefit* reserve calculated in detail and the natural *expense* reserve calculated in aggregate (based on total acquisition costs and aggregate amortization factors); (2) cash values are already available in computer input form, such as tape or disk. (If this data is not available in "machinable" form, most companies would find it an arduous task indeed to prepare cash values at individual ages on all business being adjusted!) For participating business, dividends also would be required to be in machinable form.

There are certain definite advantages inherent in the detail approach. For example, it limits data input to the initial setup of factors; it can be integrated into the normal statement routine; and it utilizes the entire valuation file, rather than a sample. Some companies may choose to use both approaches: the detail method for major blocks of business, and the model method for old blocks of business, miscellaneous lines (such as health), or for adjusting earnings of prior years for which master files are lacking.

In summary, the mystique surrounding adjusted earnings and natural reserves can be minimized by approaching the situation creatively and allowing sufficient time for proper planning and implementation. Fringe benefits will accrue, too; adjusted earnings give management a look at *realistic* earnings (which should be refreshingly informative when compared to statutory earnings); and a model, if used, provides a valuable tool for fiscal planning. □

SOCIAL SECURITY NOTES

Niessen, A. M. and Cowen, J. L. *Eleventh Actuarial Valuation of the Assets and Liabilities Under the Railroad Retirement Acts as of December* 31, 1969, *with Technical Supplement*, pp. 110, December, 1970: Railroad Retirement Board, Office of the Chief Actuary.

The latest triennial valuation of the Railroad Retirement System was conducted as of Dec. 31, 1968 and this report of the actuary sets forth the chief results. A statement of the Railroad Retirement Board and Actuarial Advisory Committee is also included. The Technical Supplement contains extensive tables of annuitants' mortality, disabled annuitants' mortality, totally disabled annuitants' mortality, termination tables for spouses and disabled children, re-marriage tables, withdrawal rates and retirement rates as used for the 11th valuation. The underlying interest assumption was 4¾%. Actuaries will find the various experience tables most useful, particularly in connection with the pension plans of railroad clients.

* * * *

Selected Current Reference Data on the Railroad Retirement and Social Security (OASDHI) Systems, Actuarial Note No., 3-71 issued by the Office of the Chief Actuary, Railroad Retirement Board, May 1971.

This short note (four pages) presents a great deal of interesting information on the railroad retirement and social security systems for calendar year 1970. Examples of the data appearing therein are: taxable payrolls, financial operations, benefit loads, funds on hand, latest actuarial cost estimates, maximum benefit amounts in 1970, and medicare operations. The note includes also some interesting analytical ratios for the two systems.

Free copies may be obtained from the Office of the Chief Actuary, Railroad Retirement Board, Chicago, Ill. 60611.

* * * *

Walter W. Kolodrubetz, *Trends in Employee-Benefit Plans in the Sixties*, in the Social Security Bulletin for April 1971.

This is one of a series of yearly articles devoted to discussions of recent developments in areas related to the social security program. The article presents among other things historical data (through 1969) on coverage under all types of employee-benefit plans, employer and employee contributions, and benefit payments. A major portion of the article is devoted to private pension plans.

* * * *

Virginia Reno, *Preliminary Findings From the Survey of New Beneficiaries*, Office of Research and Statistics, Social Security Administration, March 1971.

This study deals with men who were awarded non-disability benefits (at ages 62 and over) in the first six months of 1969. The stated purpose of the study is "to find out why people claim benefits when they do." Perhaps the most striking finding is that some 60% of all beneficiaries in this group were awarded reduced benefits at ages 62-64. One of the probable reasons for this was the trend toward liberal early retirement provisions in industrial pension plans.

Free copies are available from Office of Research and Statistics, Social Security Admin., Washington, D. C. 20201.