



SOCIETY OF ACTUARIES

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## THE STATE OF STATE TAXES

by Marvin Weisbrod

*Editor's Note: The subject of State Taxation was discussed at the October meeting of the Actuarial Club of the Pacific States and we are pleased to present the discussion given by Mr. Weisbrod who is Second Vice President and Tax Officer with the Occidental Life of California.*

There are seven objectives to be sought by a tax structure:

- (1) Consistency with economic growth, avoiding dependence on taxes which deter or distort desirable economic activity or depress consumption of legitimate goods and services;
- (2) Uniformity (rather than selectivity) of application to portions of the tax base upon which it falls;
- (3) Equitable distribution between taxpayers;
- (4) Effective administration at a reasonable cost;
- (5) A minimum of compliance cost and inconvenience to taxpayer;
- (6) The capability to grow as the economy of the state grows;
- (7) Provision of an adequate source of revenue.

Four elements enter into premium tax:

- (1) The tax *rate*; it varies by state from 0% to 4% and even within a state may vary by line of business.
- (2) The taxable *base*; that is the definition of premiums and the deductions such as dividends which may be allowed in arriving at the base. The allowance or disallowance of dividends as a deduction can cause distortions as between stock and mutual companies.

(3) *Offsets*, credits or other reductions, e.g. the deduction for real estate

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## TIME MARCHES ON

A conference on Time Series Analysis and Actuarial Applications, sponsored jointly by the Department of Statistics of the University of Waterloo and the Committee on Research of the Society of Actuaries, will be held at the University of Waterloo, Waterloo, Ontario, on September 28-30, 1972.

The aims of the conference are (1) to provide an overview of Time Series Analysis; (2) to explore applications of time series analysis to actuarial problems; (3) to gain insight into research work on models of capital markets and stock price series. Applications of time series analysis to insurance operation data such as claim numbers, claim costs, policies issued, investment value changes, cash flow, policy loans, surrenders, etc. will be made.

The invited lecturers in each of the three areas indicated above are (1) George C. Tiao, University of Wisconsin; (2) Robert B. Miller, University of Wisconsin; (3) Eugene F. Fama, University of Chicago. These individuals are eminently qualified by their past and present work in the areas indicated, and the conference will provide a thorough indication of the use of time series analysis in actuarial work.

All members of the Society of Actuaries have received a registration form for this meeting with the mailing for the spring meetings. However, if this form has been mislaid, copies may be obtained from Dave Halmstad, Area 22-Z, Metropolitan Life, One Madison Ave., New York, N. Y. 10010. □

## PENSIONS AND FUTURE CHANGE

by E. Allen Arnold

*Editor's Note: We are pleased to publish this excerpt from a talk given at the New Orleans meeting.*

The economic forces which affect the development of pensions are those which affect nearly all economic activity. The principal factor which determines a nation's ability to support an adequate, comprehensive pension system is its productivity. The rates of inflation and the amplitude of the swings in the business cycle affect both the pace and the form of the system's development.

Rather than explore these economic factors affecting pensions separately, let us create in our minds a hypothetical situation—not a prediction, but more of a "for instance"—to see what our economic system might have to come up with to finance one kind of full-scale retirement system.

We have to start with some assumptions, and the assumptions selected are improbable enough to dispel the idea of prophecy. They do have the advantage of producing results which relate to present-day scales of magnitude. Let us assume:

- U.S. population stabilized at 1970 level
- No immigration
- Mortality according to the 1971 Group Annuity Table
- Investment earnings of 6% annually
- All employees hired at age 25 and retired at age 60
- 95% of the population (both male and female) working between these ages and obtaining benefits at age 60
- No inflation
- Social Security benefits of \$3,000 annually (at age 60)
- Social Security on a pay-as-you-go basis

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