



SOCIETY OF ACTUARIES

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THE TOP WEALTHHOLDERS — AN I. R. S. ESTIMATE

By a simple actuarial computation, the Internal Revenue Service arrived at estimates, in considerable detail, of the demographic and financial characteristics of the top wealthholders of the United States.

Basic to the computation is the information on the estate tax return required on behalf of decedents who left a gross estate of \$60,000 or more. The estimates were obtained, from the returns for a calendar year, "by weighting estate tax data by the inverse of the mortality rate characteristic of the demographic category to which the decedent belonged."

The essential problem was to select the suitable mortality rates for the purpose. Left open is the question of the accuracy of the implicit assumption that "death draws a random sample of the living population."

"Estate Multipliers"

The reciprocals of mortality, which are termed "estate multipliers," are assumed to be independent of the size of the estate or any other financial characteristics except for age and sex, even though the assumption is not taken for granted.

However, the report by the I. R. S. (cited later) recognizes that the mortality of the top wealthholders is not typified by that of the general population. This viewpoint is based upon: the gradation of the mortality in the study of men according to occupational groupings in 1950, a study of mortality according to rental level in the city of Chicago in 1940, the census-death certificate matching study at the University of Chicago, and the experience of the preferred risk Whole Life policyholders of Metropolitan Life insured for \$5,000 or more.

Metropolitan Experience

The Metropolitan experience was assumed to approximate the mortality of male top wealthholders. The authors of the report are aware that a higher cutoff than \$5,000 would be more appropriate and cite the large amounts study in *TSA* and data from the Institute of Life Insurance by way of reference.

They also note that by increasing the basic mortality of the 1958 CSO Table by 5%, the result corresponds closely

with the Metropolitan Whole Life mortality for 1962, excluding the first five policy years, after age 40. Also mentioned in favor of use of the Metropolitan experience is the concentration of its policyholders in the northeastern section of the country, as is likely for the top wealthholders.

No special significance was attached to the facts that the Metropolitan experience was based upon amounts of insurance rather than lives and that it contained some females. The mortality of female top wealthholders was estimated by assuming its relative differential from that of white females in the general population was equal to the like observed differential between Metropolitan Whole Life policyholders and white males in the general population.

Other Data Used

Although Metropolitan Life mortality data were available at ages under 40, excluding the first five policy years, they were not used because of the likelihood that these ultimate rates would still be influenced by the effects of selection and also because the sample of deaths was rather thin.

In their place, the appropriate mortality of top wealthholders was estimated by assuming that the average relative differential at ages 40-54 years between Metropolitan Life and general population experience was applicable to white population mortality at ages 20-39 years. Top wealthholders of unknown age were assigned the average estate multiplier of the decedents of known age, treating each sex separately.

The technique was applied to data compiled from estate tax returns filed during 1963 which relate, for the most part, to decedents of 1962. The results are a classification of those in the 1962 population with assets of \$60,000 or more according to age, sex, marital status, and several measures of gross and net wealth.

Altogether, a total of 4,132,000 was classed as such top wealthholders, but 878,000 of them had a net worth under \$60,000. On the other hand, 177,000 had a net worth of \$500,000 or more.

Over three-fifths of all top wealthholders were men. More than 90% of the men, but less than 50% of the women, were insured.

(Continued on page 7)

THE GOOD OLD DAYS

(Continued from page 1)

torical aspirations of the younger men.

Earlier, of course, the domination of the meetings by the senior actuaries of the large eastern companies led to the establishment of the American Institute of Actuaries. The actuaries of the smaller and younger companies, particularly those in the mid-west, felt that the Society did not give sufficient attention to their problems.

How different is the situation today. Now the presiding officer sometimes has difficulty in getting the front rows filled and the senior actuaries find it difficult to reach the microphone in the rush of younger men anxious to air their views.

Just as Capable

Many of today's senior actuaries are, as a consequence, heard much less frequently but are every bit as capable as the "greats" of my early days. The latter were held in greater awe simply because we were brought up to hold the older generations in greater respect than is the case today. Also, with less opportunity for research and fewer statistics available for papers, there were not the same possibilities for participation in meetings.

The Spring meeting was the annual meeting at which the Council was elected. At first we had an informal mail ballot to give some guidance and to try to counteract the weight of the New York membership. However, this was dropped when it appeared that various local groups were getting together in advance and concentrating on one or two favourite sons.

Fall Meetings

The next step was to move the annual meeting to the Fall and hold it at some distance from New York; we gradually worked up to the present Society procedure. Perhaps the next step will be to equip an electronic centre with particulars of all members and let the machines conduct the election!

In those days we had more or less formal dinners as well as luncheons and, at the Fall meetings, these were usually arranged in some style by the local com-

(Continued on page 7)

THE GOOD OLD DAYS

(Continued from page 6)

panies. For example, I recall one in Toronto where we ate in the Great Dining Hall at Hart House of the University of Toronto. As Hart House was a "men only" dining and recreation centre, any ladies in attendance were fed elsewhere and treated to a concert by violinist Mischa Elman. Such light fare was not for the serious Society.

In New York, the dinners were held at the meeting place, then the old Astor Hotel. Eventually these dinners cramped the style of those out-of-town members who preferred non-actuarial entertainment in the evenings and so in the late twenties it was arranged that the dinners should wind up by 8 o'clock.

The complaints leading to this change may have called the attention of the Council to the fact that the lobby of the Astor was becoming more and more populated with lovely ladies of a class on which our selection committees would not look with favour because, after this, the meetings were transferred to the Roosevelt. Along in the thirties, the formal dinners were dropped.

Lighter Moments

But the "good old days" had their lighter moments. There was a memorable occasion at one of the dinners when the senior group was brilliantly lampooned in a skit written by a New England actuary and performed by some of his New England confreres. The skit purported to be a replica of a Council meeting and many current actuarial topics were touched upon lightly.

The Examination Committee gave its passing percentages on the then eight examinations as 1%, 2%, 3%, 5%, 3%, 2%, 1%, and 0% respectively. One member suggested the road to knowledge was full of toil, labor and "catch" questions. The students then struggling with Robert Henderson's book on graduation were delighted to hear the Council recommend that the book be written backwards in order to make it more intelligible, a suggestion which Mr. Henderson enjoyed as much as any of the students.

Even as now, not all of the wit and wisdom of the meetings was reported in *The Transactions*.

CANADIAN COLUMN

J. Ross Gray

The new Canadian Assured Lives Table 1958-1964 (see *The Actuary* October, 1967) shows a definite hump in mortality in the early twenties, and while a hump was present in earlier Canadian tables, this time it is more noticeable.

The graduated rates of mortality for the years after the fifth rise from .000320 at age 11, through .000855 at age 17, to a peak of .001129 at age 22. They then drop to .000880 at age 29 before they start rising again.

At the October meeting of the Canadian Institute of Actuaries there was a discussion about the extent to which careless driving hazards might have contributed to this rise in the mortality rates at these young ages. This is an underwriting problem because of the difficulty in getting accurate information and in establishing any satisfactory standard classification.

Question on App

One major company has inserted a question in the application form with respect to driving a motorcycle, and this company also asks for special handling in inspection reports when there is any criticism of careless driving, violations, etc.

While there was general agreement that outright criticism of an applicant's driving should not be disregarded, there was also a feeling that the companies should attempt to offer standard insurance to as wide a group of persons as possible, not searching for minor underwriting considerations.

It was mentioned that the ultimate mortality rates could be affected by policies issued at juvenile ages before driving habits became established.

TOP WEALTHHOLDERS

(Continued from page 6)

The report, *Personal Wealth Estimated from Estate Tax Returns*, was issued by the I. R. S. as Publication No. 482 (7-67) and is available at the Government Printing Office, Washington, D. C., 20402 (price, 65 cents).

INSURANCE DEPT. RULING

(Continued from page 5)

which line it was included in the previous year.

On line 17 the adjustments would be to add to lines 17 (a) and 17 (b) the gross annual whole life premiums corresponding to the gross annual premiums for the policies which had been added to 16 (a) and 16 (b) respectively, and to deduct from 17 (a) and 17 (b) the gross annual whole life premiums corresponding to the gross annual premiums for the policies which had been deducted from 16(a) and 16(b) respectively.

The adjustments for policies with graded premiums are not mandatory. The company can make them each year or only in the year that the ultimate premium for the policy is first payable. If the company does not make the adjustment each year it will not get the benefit of the first year expense limit which would be generated by the increase in the premium each year. If the company makes the adjustment only in the year the ultimate premium is first payable, it will not get the benefit during the years the policies were in force, of the first year expense limit which would have been generated by the policies which lapse before the premium has increased to the ultimate level.

SAVINGS IN THE ECONOMY

(Continued from page 1)

that a major depression can be avoided. His optimism is founded on the improvement in the depth of our understanding of the economic processes and the reflection of that understanding in political decisions and public opinion.

Tilford C. Gaines, Vice-President and Economist, Manufacturers Hanover Trust Company, believed that the increase in savings which began in the fourth quarter of last year gave hope that it may be possible to avoid inflation in the months ahead. Mr. Gaines stated that "the pattern of 1967 has been one not only of a higher savings rate but also of return to the customary pattern of savings flow through financial intermediaries."

Mr. Gaines believed that interest rates would move up in 1968 at some point which is still difficult to predict, because it will depend on Federal Reserve policy.