The Actuary

February 1994 – Volume 28, No. 2

How bad were the original actuarial estimates for Medicare's hospital insurance program?

by Robert J. Myers

One of the major responsibilities of actuaries who make cost projections should be to compare the actual experience as it unfolds with such estimates. This can be very helpful and educational for both the actuary and the users of the projections.

The estimate of the outgo for benefits and administrative expenses under the Hospital Insurance (HI) portion of the Medicare program in 1990 is a case in point. The estimate, made when the program began in 1965, is in "Actuarial Cost Estimates and Summary of Provisions of the Old-Age, Survivors, and Disability Insurance System as Modified by the Social Security Amendments of 1965 and Actuarial Cost Estimates and Summary of Provisions of the Hospital Insurance and Supplementary Medical Insurance Systems as Established by Such Act," July 30, 1965, Committee on Ways and Means, House of Representatives, by Robert J. Myers, Actuary to the Committee.

The estimated 1990 outgo from the Actuarial Report (page 33) was $9,061 million, while the actual-experience figure was $66,997 million (1993 HI Trustees Report, page 10), or 7.39 times as high. Thus, the actual HI experience was 639% above the estimate. At first glance, this seems to be a horrendous variation. It is not a proper comparison, however.

Erroneous statements

Erroneous points about the 1965 Medicare estimates for 1990 have been made in newspaper articles, by Ross Perot during his November 9, 1993, television debate with Vice President Gore, and even at the October 1993 Society of Actuaries annual meeting by keynote speaker Senator Warren Rudman. (In fact, even more improperly, some observers have compared the actual 1990 Medicare experience for HI and Supplementary Medical Insurance combined — $111,037 million — with the HI estimate of $9,061 million).

Comparison of figures for outgo in terms of dollars are not really valid, because contribution income also will increase under economic conditions that are more inflationary than assumed in the cost estimates. Accordingly, the best procedure is to compare costs as a percentage of taxable payroll.

Realistic comparison

The actual outgo in 1990 was 2.71% of taxable payroll (1993 HI Trustees Report, page 19). This should be adjusted downward by 11% to allow for the more extensive benefit protection now provided (notably, the extension of the benefit protection to disability beneficiaries on the cash-benefit rolls for at least 24 months and to end-stage renal disease cases at all ages). The adjusted actual outgo in 1990 is then 2.41% of taxable payroll.

The 1965 estimated outgo in 1990 was 1.61% of estimated taxable payroll (the estimated outgo of $9,061 million, divided by the estimated taxable payroll of $563 billion — the estimated total contributions of $9,015 million, divided by the 1.6% contribution rate, from page 33 of the Actuarial Report). Thus, the ratio of actual adjusted outgo in 1990 as a percentage of taxable payroll to 1965-estimated outgo in 1990, as a percentage of taxable payroll, is, up to this point, 150%.

However, still further adjustment is necessary to draw valid conclusions, because the taxable-payroll bases in the two figures are not consistent. The 1965 estimate was made under the assumption that the $6,600 maximum taxable earnings base to be in effect in 1966 would continue without change for all future years, despite the assumption that wages would increase each year by 3%. This procedure was followed at the direction of Rep. Wilbur D. Mills, chairman of the House Ways and Means Committee (with my full approval), to provide a margin of safety in the financing of HI. It seemed inevitable that, with steadily rising wages, the maximum taxable earnings base would be increased from time to time.

If the $6,600 base had been assumed to increase in line with wage rises (as is now done automatically, by law), the 1965-estimated outgo in 1990 would have been 1.11% of taxable payroll (the previously described 1.61%, times the ratio of the rate that would have applied if the earnings base had been kept up-to-date with wage increases, 1.1% — from page 32 of the Actuarial Report — to the actual scheduled employer-employee contribution rate in 1990, 1.6%).

Another adjustment must be made, this time to the actual 1990 cost as a percentage of taxable payroll, to reflect that the actual maximum taxable earnings base in 1990 was higher than what it would have been if the $6,600 base in 1966 had been only kept up-to-date with changes in the wage level. In 1966, the $6,600 base covered 71.3% of total payroll, while 1990, the $51,300 base covered 86.9% of total payroll (Annual Statistical Supplement, 1993, Social Security

Bulletin, page 160). Thus, the 1990 actual outgo relative to taxable payroll on the basis that the earnings base only kept up-to-date with what the $6,600 base had been in 1966 was 2.94% (2.41%, times the ratio of 86.9% to 71.3%).

The appropriately modified cost rates for 1990 were thus 2.94% of taxable payroll for the actual experience and 1.11% of taxable payroll for the estimate made in 1965, a ratio of 2.65 to 1. So, the actual experience was 165% higher than the estimate, after all necessary adjustments to achieve consistency were made.

A deviation such as this is nothing to be proud about; it is, however, much better than that based on the dollar values alone. Nonetheless, the only thing for me to do now is to commit hari-kari!

Robert J. Myers was chief actuary of the Social Security Administration from 1947-70 and the 1971-72 president of the Society of Actuaries.

Editor's Note: *Not so fast with the hari kari! Given the economic experience before 1965 (more than 25 years ago), who would have thought that Part A medical costs would increase at such a significantly higher rate than the rate of inflation reflected in wage increases? Long-range projections should be revised and publicized frequently, at least every five years, to show more realistic results. (Bob Myers alluded to this in his opening paragraph.) We might note that there has been no adverse criticism of the Myers 1965 figures by a practicing actuary.*

Section needs program committee members

If you have knowledge of financial reporting and would be willing to be part of a team to develop financial reporting topics for SOA meetings, Ken McFarquhar wants to hear from you.

This year, the SOA Program Committee includes representatives from each Section to ensure that meetings offer topics and speakers pertinent to all members' areas of expertise. The Financial Reporting Section's representatives are Cheryl Krueger and Ken McFarquhar.

The Life Insurance Company Financial Reporting Section is establishing a Section Program Committee to suggest topics and solicit speakers and moderators to participate in meeting sessions. In the past, the Section Council had the responsibility for working with representatives to the SOA Program Committee to develop program topics and speakers. Forming a separate program committee within the Financial Reporting Section will give the council members more time for other activities and will give more people a chance to be involved in Section responsibilities.

McFarquhar asks those who want to learn more about the Financial Reporting Section's work and who want to increase their professional knowledge and visibility within the Section to contact him at his *Directory* address.

Spring exam seminars

Exam preparation seminars for the May exam period will be held in April and May 1994 in Chicago, New York, and Toronto for Courses 120, 130, 135, 140, 141(EA1-A), 150, 151, and 160. For details, please contact Prof. S. Broverman of the University of Toronto at his *Directory* address, or call 416/978-4453.