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# ISSUE BRIEF

AMERICAN ACADEMY *of* ACTUARIES

# What Is the Role of the Federal Medicare Actuary?[1]

*Medicare provides substantial support to older and disabled Americans in meeting their health care needs, and it is a key component of the U.S. health care system. Almost 98 percent of the population age 65 years or older in this country is covered by Medicare. This issue brief describes the key role played by the chief actuary of the Centers for Medicare and Medicaid Services (CMS; formerly known as the Health Care Financing Administration), and his staff, in assessing the financial viability of this important national program.*

- *The financial viability of the Medicare program involves two distinct issues:*
  - *The adequacy of the current system for financing Medicare (through payroll taxes, participant premiums, and general revenue financing).*
  - *The overall cost of the program, regardless of how it is financed, which is vital background information for political and economic discussions regarding the future of the program and its likely impact on the economy.*

  *The federal Medicare actuary provides financial reporting and cost projections to Medicare's board of trustees to help them assess the adequacy of Medicare's funding and the likely level of future spending.*

- *The Social Security Act requires the board of trustees to report to Congress on the financial status of the Medicare trust funds by April 1 of each year. These reports must include an actuarial opinion from the chief actuary of the CMS. Also included are projections of future income and expenditures, which are prepared by the actuarial staff of CMS using assumptions specified by the board of trustees.*
  - *The Hospital Insurance report includes 10-year and 75-year projections, as well as both short-range and long-range tests of financial adequacy.*
  - *Because contributions to the Supplementary Medical Insurance trust fund are adjusted annually to cover projected costs, the trustees' report only measures the financial adequacy of the program for the upcoming year. Ten and 75-year projections are included to help assess the program's financial viability.*



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## The Role of the Federal Medicare Actuary

The primary role of the federal Medicare actuary is to provide policy-makers with an accurate assessment of the financial condition of Medicare—information they must have if the financial viability of the program is to be assured. The formal statements of actuarial opinion that the CMS chief actuary makes on the annual Medicare trust fund reports place an important control on the process, helping to ensure that the reports' estimates and projections are realistic and appropriate.

Any discussion of the financial aspects of the Medicare program involves at least two distinct issues. The first issue is the adequacy of the current system for financing Medicare (through payroll taxes, participant premiums, and general revenue financing). The Office of the Actuary prepares formal short-range and long-range tests of the financial status of Medicare that address this issue. The second issue is the overall cost of the program, regardless of how it is financed, which has important economic and political implications. The Office of the Actuary prepares financial projections that can be used to assess the likely future economic impact of the Medicare program, but there are no explicit tests performed to address this issue.

The federal Medicare actuary is also responsible for preparing various other financial estimates for CMS and the executive branch of the federal government. For example, the federal Medicare actuaries estimate costs of most changes to the Medicare program proposed by Congress, the administration, and national advisory commissions. They also performed cost estimates for the Clinton health care reform proposals introduced in the early 1990s.

## Medicare Trust Funds

Medicare is financed in two parts: Hospital Insurance (HI, or Medicare Part A) and Supplementary Medical Insurance (SMI, or Medicare Part B). Under current law, the financing methods used for each part are very different. The measures used to assess the adequacy of the financing of each of the programs also differ. (A recent Academy issue brief, *How Is Medicare Financed?*, provides a more detailed explanation of Medicare's funding mechanisms.)

## Reporting Requirements of the Social Security Act

The Social Security Act requires the board of trustees to report to Congress on the financial status of the Medicare trust funds by April 1 of each year. The annual reports include projections of future income and expenditures. The projections are prepared by the actuarial staff of CMS, using methods and assumptions specified by the board of trustees. The CMS actuaries provide technical advice to the board of trustees on the selection of methods and assumptions.

The Social Security Act requires that the annual trustees' reports include an actuarial opinion from the chief actuary of CMS "certifying that the techniques and methodologies used are generally accepted within the actuarial profession and that the assumptions and cost estimates used are reasonable." Thus, while the chief actuary does not have final authority to select the methods and assumptions used in the trustees' reports, the actuarial opinion does require the chief actuary to comment on their appropriateness and disclose any significant deviations from generally accepted practice.

## Measures of Trust Fund Financial Status

***Hospital Insurance***

To assess the financial status of the HI trust fund, the trustees provide the following measures in their report to Congress each year:

- Short-range status — Projection of operations and financial status over the next 10 years
- Actuarial status — Projection of the operations and financial status over the next 75 years

Both sets of projections are based on the income into the HI trust fund and benefits provided by the HI program under current law. The projections are performed with recognition of both current and future participants in the program. The trustees set the methods and assumptions with input from the Office of the Actuary. The effects of any changes to the program that have been enacted into law are included in the report.

The projections are generally reported under three sets of assumptions: low-cost, intermediate-cost, and high-cost. The trustees always report the results of the tests using the intermediate set of assumptions, which are intended to reflect the best estimate of future economic and demographic trends. In addition, the trustees may report the results of the tests using low-cost and high-cost assumptions as additional information, to show the sensitivity of the results to changes in economic and demographic conditions.

## Supplementary Medical Insurance

Because beneficiary premiums and general tax revenue contributions to the SMI trust fund are adjusted annually to cover the projected costs of the SMI program in the following year, the trustees provide only a measure of financial adequacy during the upcoming year in the annual report to Congress. This measure includes a determination of whether projected income for the year is adequate to cover projected costs and whether the contingency reserve is adequate to cover any reasonable variation of actual costs from projected costs.

The report includes a short-range (10-year) and long-range (75-year) projection of both the income and costs of the SMI program. These measures assess the projected growth rate of the cost of the program, calculate those costs as a percentage of gross domestic product (GDP), and illustrate the percentage of total income potentially needed as taxes to cover the costs of the program over short-range and long-range periods.

Similar to the HI measures, all of the SMI projections are based on expected income into the SMI trust fund and benefits provided by the SMI program under current law. The projections take into account both current and future participants. The trustees set the methods and assumptions with input from the Office of the Actuary. The effects of recently enacted changes to the program are included in the report each year.

The SMI report also includes information on the sensitivity of the assumptions used for the short-range projections. The measures are generally done under the same three sets of assumptions as the HI program: low-cost, intermediate-cost, and high-cost. In addition, the SMI report provides a stochastic projection of SMI costs for the first 10 years to illustrate the potential range of results due to random variations in the health care cost trend rate based on historical experience.

The automatic nature of SMI financing has tended to divert attention from the rapid growth in the program's expenditures, since there are not periodic "financing crises" as with HI. Nevertheless, rapid growth in costs has serious implications for Medicare beneficiaries (as a result of rising premiums and cost-sharing liabilities) and for the federal budget (since three-fourths of SMI costs are paid from general revenues). The Office of the Actuary has prepared a discussion and illustration of these issues for the SMI annual report.

## Long-Range Projections

The legislative history of the Social Security Act requires that the long-range financial projections for the Social Security program shown in its annual trustees report cover a 75-year projection period beginning with the year of the report. While this requirement does not apply to Medicare, the trustees have chosen to project the financial status of Medicare over the same period. For the HI trust fund, estimates of future income and expenses are shown for all three sets of assumptions for 75 years into the future. The SMI trust fund report shows projections of the program's premium income and expenditures for 75 years relative to projected GDP, based on the intermediate set of assumptions.

Seventy-five-year projections based on a large number of demographic and economic variables should be regarded with caution. Consider for a moment the difficulty an actuary or any other analyst in the year 1926 would have had projecting the experience of any complex government program (Social Security and Medicare did not exist then) 75 years ahead to 2001.

Despite the inherent uncertainty of such long-range projections, they serve as a valuable assessment of the potential future cost and viability of these programs, as seen from today's vantage point. Because Social Security and Medicare make promises to today's workers that can span periods as long as the next 75 years, it is important to make every effort to ensure that these promises can reasonably be met, even in the distant future. The long-range projections represent the best ongoing assessment of these promises that can be made, even though the future will inevitably prove to be different than anticipated.

Therefore, despite their limitations, the 75-year projections are nevertheless useful. Combining the projected cost numbers for Social Security and Medicare and comparing the result to projected numbers for the GDP or other economic indicators can provide an important indicator of the likely future cost of the programs relative to the economy as a whole. Thus, they serve as a basis for judgments about the ultimate economic and political viability of the two programs.

The federal Medicare actuary makes these projections using sets of assumptions that are common to both the Medicare program and Social Security (primarily demographic and economic assumptions) and additional assumptions specific to the Medicare program. The Office of the Actuary provides guidance to the trustees regarding the Medicare-specific assumptions (e.g., health care cost trend rate, Medicare cost components).

## Actuarial Standards of Practice

In January 1998, the American Academy of Actuaries published Actuarial Standard of Practice No. 32, *Social Insurance*. The purpose of this standard is to provide "the actuary practicing in the field of social insurance with guidance concerning the nature of social insurance and a description of recommended practices." The scope of the standard explicitly states that it includes actuarial analyses of the HI and SMI programs. The standard goes on to describe issues that should be considered, recommended practices, actuarial methods and assumptions, and information that should be communicated to users of reports concerning social insurance.

The requirements of this standard suggest that an actuarial analysis of the HI and SMI Trust Funds should include or consider the following:

- The ongoing nature of the program based on current law and regulation
- All sources of income to the program, including payroll taxes, premiums, investment income, and general tax revenues allocated to it
- Whether a test of financial adequacy is warranted (both short-range and long-range), given the fact that the income and benefit levels are statutory, and whether any test that is selected is sufficient
- The sensitivity of the results of the analysis to alternative assumption scenarios that differ from the expected scenario
- The impact of recent and/or pending changes to the program.

## Conclusion

The Medicare program is a major provider of health care coverage to millions of elderly and disabled Americans, and the federal Medicare actuary performs a very important role in assuring its financial stability. Despite the increasing responsibilities of the Office of the Actuary, according to the 2000 Technical Review Panel on the Medicare Trustees' Reports, this work has been done with the same number of staff for the past 10 years. The panel's report also praised their work and stated that the staff is "to be commended for its technical expertise and dedication to providing professional services to the trustees."

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[1] This issue brief is intended to describe only the role that the chief actuary of the Centers for Medicare and Medicaid Services, and his staff in the Office of the Actuary, play in the ongoing financial management of the Medicare program. Other responsibilities, such as the projection of national health expenditures, are not discussed.