

Actuarial Status of the Social Security and Medicare Programs

The Boards of Trustees for the Social Security and Medicare Trust Funds recently released their 1994 Annual Reports to Congress detailing the operations of the trust funds and their projected financial status. Based on the Trustees' best estimates, the reports show:

- The Federal Disability Insurance (DI) Trust Fund is projected to be exhausted in 1995. As a result, the Board urges that prompt legislative action be taken to improve the financial integrity of this trust fund by reallocating to the DI fund a larger share of the overall OASDI tax rate.
- The Federal Old-Age and Survivors Insurance (OASI) Trust Fund is projected to be able to pay benefits for about 42 years under current law and for about 36 years with the recommended reallocation to the DI Trust Fund. The long-range deficits of both the OASI and DI Trust Funds should be addressed. Accordingly, the Board recommends that the Advisory Council on Social Security conduct an extensive review of Social Security financing issues and develop recommendations for restoring the long-range actuarial balance of the OASDI program.
- The Federal Hospital Insurance (HI) Trust Fund is projected to be able to pay benefits for only about 7 years and is severely out of financial balance in the long range. The Trustees urge the Congress to take additional actions designed to control HI program costs through specific program legislation and as part of enacting comprehensive health care reform.
- The Federal Supplementary Medical Insurance (SMI) Trust Fund is financed on a year-by-year basis and, on this limited basis, is adequately financed. The Trustees urge the Congress to take additional actions designed to control SMI costs through specific program legislation and as part of enacting comprehensive health care reform.

The 1994 Annual Reports of the Boards of Trustees detail the operations of the two Social Security Trust Funds and the two Medicare Trust Funds. The Social Security Trust Funds are the Federal Old-Age and Survivors Insurance (OASI) Trust Fund, which pays retirement and survivors benefits, and the Federal Disability Insurance (DI) Trust Fund, which pays benefits after a worker become disabled. The Medicare Trust Funds are the Federal Hospital Insurance (HI) Trust Fund, which pays for hospital and related care (often called Part A) for persons aged 65 or older and workers who are disabled, and the Federal Supplementary Medical Insurance (SMI) Trust Fund, which pays for physician and outpatient services (Part B) for persons aged 65 or older and workers who are disabled. When both OASI and DI are considered together, they are called the OASDI program. Because OASI and DI are both financed by payroll taxes and income taxes on benefits, the OASI and DI Trust Funds are often combined for the purpose of evaluating the overall actuarial status of the OASDI program. The Medicare Trust Funds are not usually considered together because they are funded differently.

This article is adapted from a summary of the full reports of the Boards of Trustees of the Social Security and Medicare Trust Funds.¹

Trust Fund Operations

Assets of the OASI and HI Trust Funds increased during calendar year 1993, while the DI and SMI funds' assets declined. At the end of the year, 42.2 million persons were receiving OASDI benefits and about 36 million persons were covered under Medicare. Trust fund operations, in billion of dollars, are shown in table 1.

Administrative Expenses

The cost of administering the Social Security and Medicare programs in fiscal year 1993, shown as a percentage of benefit payments from each trust fund, is shown in the following tabulation.

Program	Percent
OASI	0.8
DI	2.8
OASDI	1.0
HI	1.0
SMI.....	3.7

Financing

Most OASDI and HI revenue consists of taxes on earnings that are paid by employees, their employers, and the self-employed. The tax rates are set by law and, for OASDI, apply to earnings that do not exceed a certain annual amount. This amount, called the earnings base, rises as average wages increase. In 1994, the earnings base for OASDI is \$60,600. Beginning in 1994, HI taxes are paid on total earnings. The rates employees and employers each are scheduled to pay under current law are:

Program	1990-99	2000 and later
OASI.....	5.60	5.49
DI.....	.60	.71
OASDI.....	6.20	6.20
HI.....	1.45	1.45
Total.....	7.65	7.65

Persons who are self-employed are charged the equivalent of the combined employer and employee shares, but only on 92.35 percent of net earnings, and may deduct one-half of the combined tax from their income that is subject to Federal income tax.

All the trust funds receive income from interest earnings on trust fund assets and from miscellaneous sources. The OASI, DI and, beginning in 1994, HI Trust Funds also receive revenue

from the taxation of Social Security benefits.

The SMI (or Part B) program is financed similarly to yearly renewable, term insurance. Participants pay a monthly premium in 1994 of \$41.10; the remainder of SMI costs is paid for by the Federal Government from general revenues.

In all trust funds, assets that are not needed to pay current benefits or administrative expenses (the only purposes for which trust funds may be used) are invested in special issue U.S. Government securities guaranteed as to both principal and interest and backed by the full faith and credit of the U.S. Government.

How Estimates of Trust Fund Balances are Made

Short-range (10-year) estimates are reported for all funds, and, for the OASI, DI, and HI Trust Funds, long-range (75-year) estimates are reported. Because the future cannot be predicted with certainty, three alternative sets of economic and demographic assumptions are used to show a range of possibilities. Assumptions are made about economic growth, wage growth, inflation, unemployment, fertility, immigration, and mortality, as well as specific factors relating to disability, hospital, and medical services cost.

The intermediate assumptions reflect the Trustees' best estimate of what the future experience will be. The low cost alternative is more optimistic; the high cost alternative is more pessimistic; they show how the trust funds would operate if economic and demographic conditions are better or worse than the best estimate.

Concepts Used to Describe the Trust Funds

The measures used to evaluate the financial status of the trust funds are based on several concepts. Some of the important concepts are:

- *Taxable payroll* is that portion of total wages and self-employment income that is covered and taxed under the OASDI and HI programs.
- The annual *income rate* is the income to the trust fund from taxes, expressed as a percentage of taxable payroll.
- The annual *cost rate* is the outgo from the trust fund, also expressed as a percentage of taxable payroll.
- The *percentage of taxable payroll* is used to measure income rates and cost rates for the OASDI and HI programs. Measuring the funds' income and outgo over long periods of time by describing what portion of taxable earnings they represent is more meaningful than using dollar amounts, because the value of a dollar changes over time.
- The annual *balance* is the difference between the income rate and the cost rate. If the balance is negative, the trust fund has a *deficit* for that year.
- Annual balances are summarized for periods up to 75 years and adjusted to include the beginning fund balance and the cost of ending the projection period with a trust fund ratio of 100 percent; the resulting figure is called the *actuarial balance*; if the balance is negative, the fund has an *actuarial deficit*.
- The *trust fund ratio* is the amount in the trust fund at the beginning of a year divided by the projected outgo for the year. It shows what percentage of the year's expenditures the trust fund has on hand. For example, a trust fund ratio of 50 percent would reflect an amount equal to 6 months' of projected expenditures.

Table 1.—Trust fund operations of the Social Security and Medicare programs

[In billions of dollars]

Item	OASI	DI	OASDI	HI	SMI
Assets (end of 1992).....	319.1	12.3	331.5	124.0	24.2
Income during 1993.....	323.3	32.3	355.6	98.2	57.7
Outgo during 1993.....	273.1	35.7	308.8	94.4	57.8
Net increase.....	50.2	-3.4	46.8	3.8	-.1
Assets (end of 1993).....	369.3	9.0	378.3	127.8	24.1

- The *year of exhaustion* is the first year a trust fund is projected to run out of funds and to be unable to pay benefits on time and in full.

How the Financial Status of the Trust Funds is Tested

Several tests, based on the intermediate assumptions, are used to review the financial status of the trust funds.

- The *short-range test* is met if, throughout the next 10 years, the trust fund ratio is at least 100 percent. Or, if the trust fund ratio is initially less, but reaches 100 percent within the first 5 years and stays at or above 100 percent, and there is enough income to pay benefits on time every month during the 10 years, the short-range test is met.
- The *long-range test* is met if a fund has an actuarial deficit of no more than 5 percent of the cost rate over the 75 years, and, the actuarial deficit for any period of the first 10 years or longer is less than a graduated amount of 5 percent. If the long-range test is met, the trust fund is in *close actuarial balance*.
- The test for SMI *actuarial soundness* is met for any time period if the trust fund assets and projected income are enough to cover the projected outgo and there are enough assets to cover costs incurred but not yet paid. The adequacy of the SMI Trust Fund is measured only for years for which both the beneficiary premiums and the general revenue contributions have been set.

Future Outlook for the Trust Funds

The charts in this section and the next illustrate the status of the OASI, DI, and HI Trust Funds together because they are financed the same way. The SMI Trust Fund is financed differently and so its status is described separately.

Short-Range Outlook (1994–2003)

Chart 1 shows the projected trust fund ratio under intermediate assumptions for OASI, DI, and HI separately. It also shows the ratio for the combined OASI and DI Trust Funds.

The trust fund ratio line for OASI is over the 100 percent level at the beginning of the 10-year period and stays over that level through the year 2003. Therefore, the OASI Trust Fund meets the short-range test of financial adequacy.

However, the trust fund ratio line for DI starts at 23 percent and does not reach the 100 percent level at any time in this period; it does not meet the short-range test. Moreover, the DI Trust Fund is expected to be exhausted in mid-1995 under the intermediate assumptions, and in early 1995 if economic and other conditions in the future turn out to be more pessimistic, as under the high cost alternative.

The trust fund ratio line for the combined OASI and DI Trust Funds

Chart 1.—Trust fund ratio and short-range test of financial adequacy

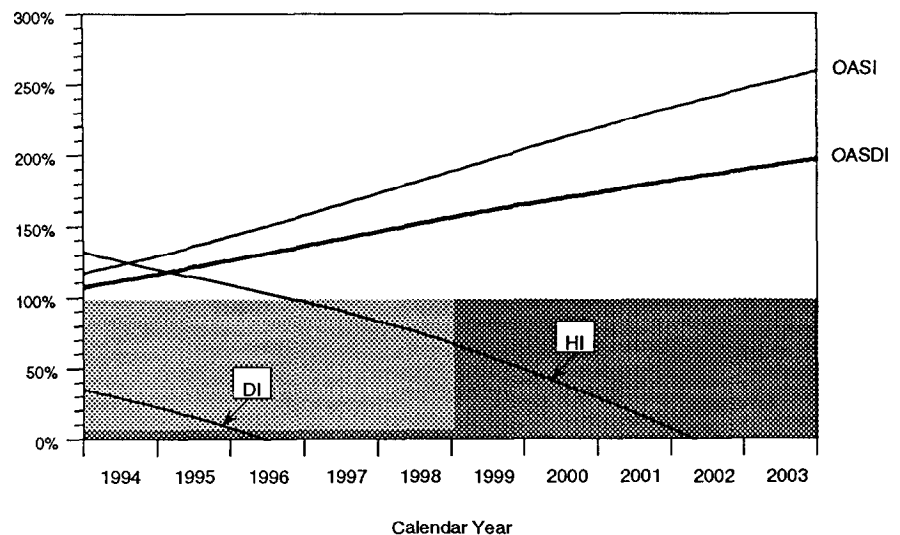
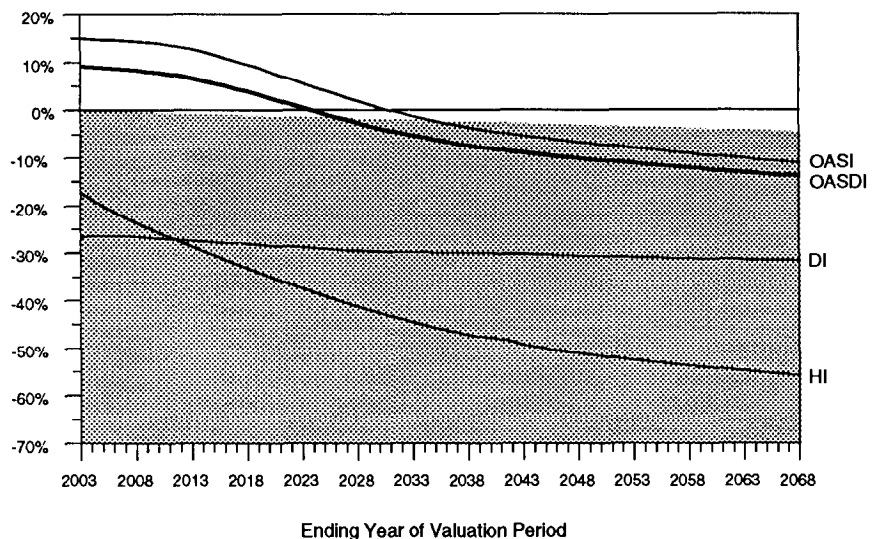


Chart 2.—Actuarial balance as a percentage of summarized cost rate and long-range test of close actuarial balance



begins above the 100 percent level and stays over that level throughout the 10-year period; thus, the OASDI program, as a whole, meets the short-range test of financial adequacy.

Although the trust fund ratio line for HI is over the 100 percent level at the beginning of the 10-year period, it falls below that level in 1995. As a result, it does not meet the short-range test. Under the intermediate assumptions, the projected year of exhaustion for the HI Trust Fund is 2001; under more adverse conditions, as in the high cost alternative, it could be as soon as 2000.

The financing for the SMI Trust

Fund has been set through 1994, and the projected operations of the trust fund meet the test of SMI actuarial soundness.

Long-Range Outlook (1994–2068)

Chart 2 shows the actuarial balance, as a percentage of the cost rate, for OASI, DI, and HI separately under the intermediate assumptions. It also shows the actuarial balance for the combined OASI and DI Trust Funds.

For a trust fund to meet the long-range test of close actuarial balance, the actuarial balance line for that trust fund must stay above the shaded area

throughout the 75-year period. The triangle above the shaded area but below the zero percent level shows the range of allowable deficits a fund can have and still be in close actuarial balance.

None of the three trust funds is in close actuarial balance over the next 75 years. However, the chart shows that the actuarial balance line for OASI, as well as for the OASDI program, as a whole, stays above the shaded area for many years to come.

The actuarial balance line for DI alone starts well into the shaded area and declines slightly over the 75-year period. The actuarial balance line for HI also starts well into the shaded area but then declines sharply over the long-range period.

The year of exhaustion for the OASI Trust Fund under intermediate assumptions does not occur until 2036—42 years from now. For the combined OASI and DI Trust Funds, the year of exhaustion is 2029—in 35 years. However, combined OASDI expenditures will exceed current tax income beginning in 2013. Thus, as chart 3 illustrates, current tax income plus a portion of annual interest income will be needed to meet expenditures for years 2013 through 2018, and current tax income, annual interest income, plus a portion of the principal balance in the trust funds will be needed for years 2019–2029.

Another useful way to view the outlook of the trust funds is to compare the income rate for each fund with its estimated cost rate. The income rates for OASI, DI, and HI remain relatively constant over the 75-year period, while the cost rates increase by widely differing amounts.

For OASI, the income rate is projected to remain significantly above the cost rate for a number of years. Starting in about 2010, however, the OASI cost rate will begin increasing rapidly as the baby boom generation begins to reach retirement age. In 2013 and later, the cost rate for OASI will exceed the income rate.

The cost rate for DI is slightly higher than the income rate initially, and the

Chart 3.—Estimated OASDI income and outcome in constant dollars

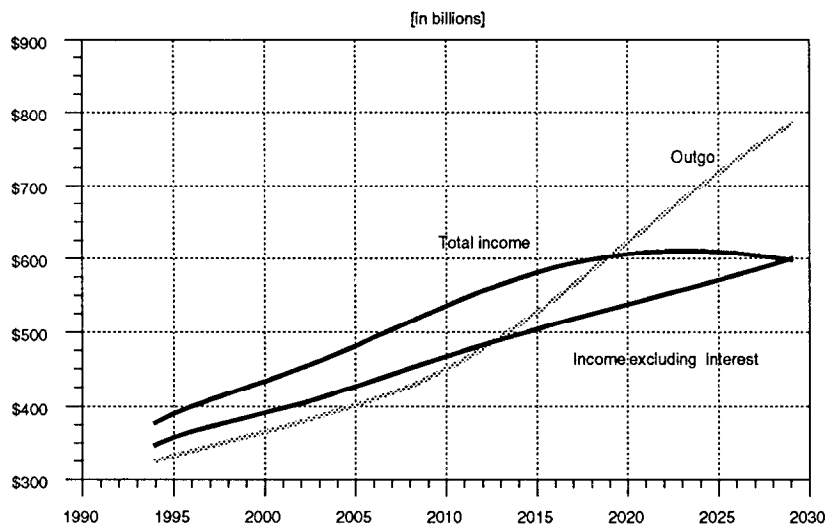
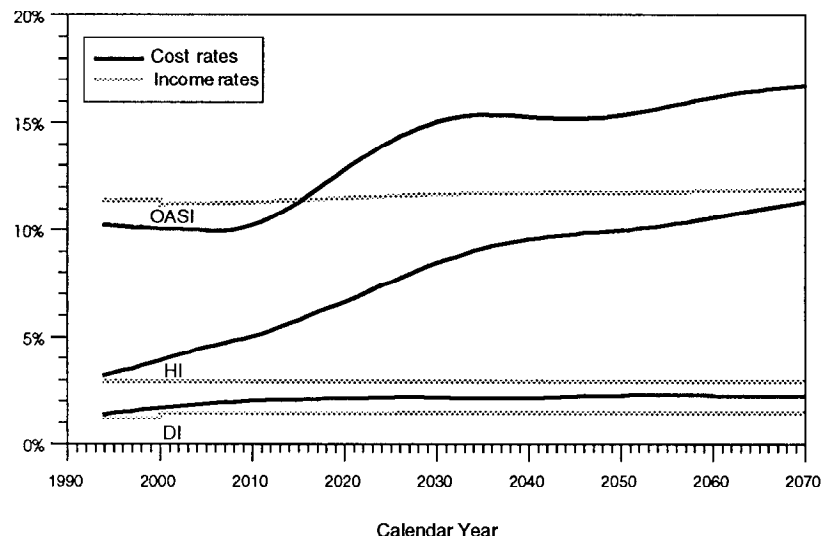


Chart 4.—Income rates and cost rates



shortfall is projected to increase slowly over the 75-year period.

The cost rate for HI also is higher than the income rate throughout the next 75 years but by rapidly growing amounts—by the end of the period, the HI cost rate is projected to be roughly four times greater than the HI income rate. Chart 4 shows the virtually level income rates and rising cost rates for OASI, DI, and HI.

An additional way to view the outlook for the trust funds as projected under current law is in relation to the economy as a whole. Table 2 shows the estimated outgo from each trust fund as a percentage of estimated gross domestic product (GDP) in selected years and the percentage increase in outgo in relation to GDP from 1994 to 2068. OASI and DI increase at about the same rate over this period, while the increases in HI, and particularly in SMI, are much greater.

Conclusions

The status of the Social Security and Medicare programs can be summarized by looking at the results of the tests used to evaluate the financial status of the trust funds and at the number of years before each trust fund is expected to be exhausted under the intermediate assumptions (table 3).

Table 2.—Trust funds as a percent of gross domestic product

Trust fund	1994	2020	2045	2068	Percent increase
OASI.....	4.25	5.09	5.75	6.03	42
DI.....	.58	.85	.85	.83	43
HI.....	1.60	3.22	4.55	4.98	211
SMI.....	.93	3.27	4.10	4.37	370

Table 3.—Financial status of the Social Security and Medicare programs

Trust Fund	Is the test met		Years until exhaustion
	Short-range 10 years	Long-range 75 years	
OASI.....	Yes	No	42
DI.....	No	No	1
OASDI (combined).....	Yes	No	35
HI.....	No	No	7
SMI meets test.			

Based on the Trustees' best estimates (intermediate assumptions):

- The OASI Trust Fund is expected to be able to pay benefits for about the next 42 years, but the fund is not in close actuarial balance for the 75-year long-range period.
- The DI Trust Fund is not adequately financed, and it will be able to continue paying benefits only until some time in 1995 without corrective legislation. The Board recommends prompt action by the Congress to allocate to the DI Trust Fund a larger portion of the combined OASDI tax rate in order to improve the financial integrity of the DI program.
- A reallocation of the OASDI tax rate is possible because the combined OASI and DI Trust Funds are estimated to continue growing for 25 years into the future and would not be exhausted until 2029. In view of the lack of close actuarial balance in the OASDI program over the next 75 years, the Board believes that the long-range deficits of both the OASI and DI Trust Funds should be addressed. Accordingly, the Board recommends that the Advisory Council on Social Security conduct an extensive review of Social Security financing issues

and develop recommendations for restoring the long-range actuarial balance of the OASDI program.

- The HI Trust Fund will be able to pay benefits for only about 7 years and is severely out of actuarial balance over the next 75 years. Because of the magnitude of the projected actuarial deficit in the HI program and the high probability that the HI Trust Fund will be exhausted before the turn of the century, the Trustees urge the Congress to take additional actions to control HI program costs through specific program legislation and as part of enacting comprehensive health care reform.
- The SMI program, though actuarially sound, has experienced rapid growth: program outlays have increased 59 percent in the last 5 years and grew 23 percent faster than the economy as a whole. Because this growth shows little sign of abating, the Trustees urge the Congress to take additional actions to control SMI costs through specific program legislation and as part of enacting comprehensive health care reform.

A Message from the Public Trustees

Five persons serve on the Social Security and Medicare Boards of Trustees. Three members are from the Federal Government (the Secretaries of Treasury, Labor, and Health and Human Services), and two members are appointed by the President and confirmed by the Senate to represent the public. For the 1994 annual reports, the Public Trustees were Stanford G. Ross and David M. Walker. In the 1994 summary, the Public Trustees included the following message.

Disability Insurance Reform

In 1992 the Board of Trustees reported, in compliance with section 709 of the Social Security Act, that the reserves of the Federal Disability

Insurance (DI) Trust Fund could be exhausted as early as 1995 and that legislative action would be necessary to resolve this problem.

We subsequently worked with the ex officio trustees of both the prior and current Administrations in recommending a plan to address the near-term disability fund shortfall. This plan would advance and increase the reallocation currently scheduled by law for the year 2000 of a portion of the total OASDI payroll tax rate from the Federal Old-Age and Survivors Insurance (OASI) Trust Fund to the DI fund.

The Board noted that the recommended reallocation would not increase the total OASDI payroll tax rate and, equally important, would not jeopardize the short-range financial status of the OASI fund. To date, the Congress has not acted to make the necessary legislative change.

The 1994 Report continues to project that the DI fund will be exhausted in 1995. Therefore, we again strongly urge that action be taken as soon as possible to ensure the short-range financial solvency of the DI trust fund. We also strongly urge the prompt completion of the research efforts undertaken by the Administration at the Board's request. This research may assist the Congress as it considers the causes of the rapid growth in disability costs and addresses, as necessary, any substantive changes needed in the program.

Disability Insurance under Social Security is nearly 40 years old. While some reforms have taken place over the years, the public is entitled to a thorough policy review of the program. The recent dramatic growth suggests the possibility of larger underlying issues related to the health and employment circumstances of workers and the need for responsive adjustments in the program.

Medicare Reform

We continue to believe, as we emphasized in our 1993 Public Trustees message, that the Medicare program is not sustainable in its present form. The Board of Trustees reported last year, in

compliance with section 709, that the Federal Hospital Insurance (HI) Trust Fund, which pays Medicare covered inpatient hospital expenses, was projected to face a rapidly deteriorating financial condition and to be exhausted within 10 years.

The Administration and the Congress did take some actions as part of the Omnibus Budget Reconciliation Act of 1993 (OBRA 93) both to raise additional revenue and reduce projected expenditures under HI. Even with those changes, this report projects, under the best estimates, that the HI trust fund will be exhausted in 2001. In addition, the HI program still is projected to experience a large and increasing financial imbalance in the long run due to escalating program costs.

The Federal Supplementary Medical Insurance (SMI) Trust Fund, which pays Medicare covered doctor bills and other outpatient expenses, is financed on a year-by-year basis and is not subject to any longer range test of financial solvency. Some steps to reduce SMI expenditures were included in OBRA 93. However, the cost of SMI is projected to continue to rise significantly.

Although reform of the nation's health care system is expected to eventually reduce the rate of growth in health care costs and thereby reduce the financing needs of HI and SMI, current national health reform proposals do not adequately address the serious long-range financial imbalance in the Medicare program. We strongly urge the Administration and the Congress to resolve the long range financial insolvency of Medicare as part of comprehensive national health reform. This will require a review of the substantive provisions of Medicare, including its financing provisions, and will necessitate much more than reliance on the effects of current national health reform proposals.

Old-Age and Survivor's Insurance Reform

The OASI trust fund, which pays retirement benefits, is well financed over the short run and, indeed, has

adequate reserves to allow the tax reallocation to the disability trust fund described earlier. However, the long-range best estimates in this report show that the OASI trust fund is expected to be exhausted in 2036, eight years earlier than was projected in last year's report. As a result, legislative action is needed to ensure the long-range financial integrity of the OASI program.

The nation's domestic social policy agenda is focused currently on two major objectives: reform of our health care and welfare systems. Important as these issues are, they must not overshadow the importance of beginning now to seriously consider how the nation should deal with the financing gap that the OASI program is projected to face after the large "baby boom" generation retires.

The changes that will be required can be relatively small and gradual if they are begun in the near future. However, the magnitude of those changes grows each year that action is delayed. We urge thoughtful debate to take place now about the type and degree of change required in Social Security to address the income security needs of the Nation in the decades ahead. We also urge both the Administration and the Congress to be mindful of the long range financial condition of the OASI program when considering other federal policy issues such as health care reform.

We note that Senator Daniel Patrick Moynihan has sponsored bills in recent years to eliminate the projected long-range financing deficit in Social Security and that Representative J. J. Pickle currently has proposed legislation specifically designed to address that problem. These valuable steps should be actively pursued and supplemented by involvement of experts in the private sector and the public as a whole in discussion of the changes that should be made to ensure the long-range financial integrity of Social Security.

In order to make informed decisions about what roles Social Security, private pensions, personal savings, and earnings from work should play in providing retirement income in the decades

ahead, better information is needed about needs of future retirees and the resources that will be available to meet those needs.

Further, when considering the issue of economic security in retirement, both income and health care must be considered together because resources that are required in one area will not be available in the other. Yet, the research and policy discussion on retirement income issues seldom reflects this inter-relationship.

More needs to be done to develop a comprehensive view of retirement income and health issues. In particular, the appropriate roles for government, employers, and individuals need to be considered fully when making legislative changes affecting retirement health and income programs in both the public and private sectors.

As a step in this direction, we commissioned research papers and sponsored a conference in October 1993 on the adequacy and limitations of current data and forecasting models for projecting future health and income needs and

resources of the aged. Based on that conference, it is clear that additional support is needed both to continue and extend survey and other data development efforts and to improve modeling capability regarding future income and health circumstances of retirees.

The Administration and the Congress should act promptly to ensure that adequate information is available to undertake the concerted legislative activity that will be required for public and private income and health programs in the years ahead. Successfully addressing these issues is critical to assuring the economic security of this Nation and the well-being of current and future generations of Americans in their retirement years.

Note

¹ Single copies of the summary (*Status of the Social Security and Medicare Programs: A Summary of the 1994 Annual Reports*) and the full reports are available from the Social Security Administration, Office of Public Inquiries, Room 4100 Annex Building, 6401 Security Boulevard, Baltimore, MD 21235.