SOCIAL SECURITY

Reform Proposals Could Have a Variety of Effects on Distribution of Benefits and Payroll Taxes

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Why GAO Did This Study
Under the current Social Security benefit formula, retired workers can receive benefits at age 65 that equal about 50 percent of pre-retirement earnings for an illustrative low-wage worker but only about 30 percent for an illustrative high-wage worker. Factors other than earnings also influence the distribution of benefits, including the program’s provisions for disabled workers, spouses, children, and survivors. Changes in the program over time also affect the distribution of benefits across generations.

Social Security faces a long-term structural financing shortfall. Program changes to address that shortfall could alter the way Social Security’s benefits and revenues are distributed across the population and affect the income security of millions of Americans.

The Chairman of the Senate Special Committee on Aging asked us to discuss how selected Social Security reform proposals might affect the distribution of benefits and taxes.

What GAO Found
Two distinct perspectives on Social Security’s goals suggest different approaches to measuring “progressivity,” or the distribution of benefits and taxes with respect to various earnings levels. Both perspectives provide valuable insights. An adequacy perspective focuses on benefit levels and how well they maintain pre-retirement living standards. An equity perspective focuses on rates of return and other measures relating lifetime benefits to contributions. Both perspectives examine how their measures are distributed across earnings levels. However, equity measures take all benefits and taxes into account, which is difficult to calculate for reform proposals that rely on general revenue transfers because it is unclear who will bear the relative burden for those general revenues.

The Social Security program’s distributional effects reflect both program features and demographic patterns among its recipients. In addition to the benefit formula, disability benefits favor lower earners because disabled workers are more likely to be lower lifetime earners. In contrast, certain household patterns reduce the system’s tilt toward lower earners, for example, when lower earners have high-earner spouses. The advantage for lower earners is also diminished by the fact that they may not live as long as higher earners and therefore would get benefits for fewer years on average.

Proposals to alter the Social Security program would have different distributional effects, depending on their design. Model 2 of the President’s Commission to Strengthen Social Security proposes new individual accounts, certain benefit reductions for all beneficiaries, and certain benefit enhancements for selected low earners and survivors. According to our simulations, the combined effect could result in lower earners receiving a greater relative share of all benefits than under the current system if all workers invest in the same portfolio.

Social Security Benefit Formula Provides Higher Replacement Rates for Lower Earners

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<td>Percentage replacement rate at age 65</td>
<td>49</td>
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Source: GAO analysis using SSA ANYPIA program.

Notes: Replacement rates are the annual retired worker benefits at age 65 for workers born in 1985 divided by the earnings in the previous year. For such workers, the full retirement age will be 67. Steady earners have earnings equal to various percentages of Social Security’s Average Wage Index in every year of their careers.
Mr. Chairman and Members of the Committee:

Thank you for inviting me here today to discuss the potential effects of selected Social Security reform proposals. Social Security not only represents the foundation of our retirement income system; it also provides millions of Americans with disability insurance and survivor’s benefits. As a result, Social Security provides benefits that are critical to the current and future well-being of virtually all Americans. However, as I have said in congressional testimonies over the past several years, the system faces both solvency and sustainability challenges in the longer term. The challenges of combating terrorism have come to the fore as urgent claims on the federal budget. At the same time, Social Security’s long-term pressures on the budget have not diminished. Indeed, our long-range challenges are greater than ever. Without substantive reforms, Social Security and Medicare are unsustainable, and their long-term impact on the federal budget and the economy will be dramatic.

Social Security faces a long-term structural financing shortfall largely because people are living longer and having fewer children. According to the 2004 intermediate—or best-estimate—assumptions of the Social Security trustees, Social Security’s annual benefit payments will exceed annual cash revenues beginning in 2018, and it will be necessary to draw on trust fund reserves to pay full benefits. To do this, the Treasury will need to obtain cash for those redeemed securities either through increased taxes and/or spending cuts and/or more borrowing from the public. In 2042, the trust funds will be exhausted, and annual revenues will only be sufficient to pay about 73 percent of benefits. As a result, some combination of benefit and/or revenue changes will be needed to restore the long-term solvency and sustainability of the program.

Last July, I testified before this committee on the need for early action to reform Social Security and specifically how failing to do so would place a burden on younger generations, lower earners, and the disabled. In point of fact, any reform proposal will have implications for how benefits and related taxes are distributed across the entire population. Today, we are issuing a report you requested to examine such distributional effects, specifically those effects relative to various earnings levels. I hope my

1Social Security refers here to the Old-Age, Survivors, and Disability Insurance (OASDI) program.

2See the list of related GAO products at the end of this statement.
testimony today will help illustrate the potential distributional effects of Social Security reforms and will place such effects in a broader context.

Before I summarize the findings from this analysis, let me first highlight a number of important points in connection with our Social Security challenge.

- **Social Security reform is part of a broader fiscal and economic challenge.** If you look ahead in the federal budget, the combined Social Security program (Old-Age and Survivors Insurance and Disability Insurance), together with the rapidly growing health programs (Medicare and Medicaid), will dominate the federal government’s future fiscal outlook. Absent reform, the nation will ultimately have to choose between persistent, escalating federal deficits and debt, huge tax increases and/or dramatic budget cuts.

- **Focusing on trust fund solvency alone is not sufficient. We need to put the program on a path toward sustainable solvency.** Trust fund solvency is an important concept, but focusing on trust fund solvency alone can lead to a false sense of security about the overall condition of the Social Security program. The size of the trust fund does not tell us whether the program is sustainable—that is, whether the government will have the capacity to pay future claims or what else will have to be squeezed to pay those claims. Aiming for sustainable solvency would increase the chance that future policy makers would not have to face these difficult questions on a recurring basis. Estimates of what it would take to achieve 75-year trust fund solvency understate the extent of the problem because the program’s financial imbalance gets worse in the 76th and each subsequent year.¹

- **Solving Social Security’s long-term financing problem is more important and complex than simply making the numbers add up.** Social Security is an important and successful social program that affects virtually every American family. It currently pays benefits to more than 46 million people, including retired workers, disabled workers, the spouses and children of retired and disabled workers, and the survivors of deceased workers. The number of individuals receiving benefits is expected to grow to over 68 million by 2020. The program has been highly

¹In addition to assessing a proposal’s likely effect on Social Security’s actuarial balance, a standard of sustainable solvency involves looking at (1) the balance between program income and cost beyond the 75th year and (2) the share of the budget and economy consumed by Social Security spending.
effective at reducing the incidence of poverty among the elderly, and the
disability and survivor benefits have been critical to the financial well
being of millions of others.

- **Acting sooner rather than later would help to ease the difficulty of change.** As I noted previously, the challenge of facing the imminent and daunting budget pressure from Medicare, Medicaid, and OASDI increases over time. Social Security will begin to constrain the budget long before the trust funds are exhausted in 2042. The program’s annual cash flow is projected to be negative beginning in 2018. Social Security’s annual cash deficit will place increasing pressure on the rest of the budget to raise the resources necessary to meet the program’s costs. Waiting until Social Security faces an immediate solvency crisis will limit the scope of feasible solutions and could reduce the options to only those choices that are the most difficult. Acting soon would allow changes to be phased in so the individuals who are most likely to be affected, namely younger and future workers, will have time to adjust their retirement planning while helping to avoid related “expectation gaps.” It would also help to ensure that the “miracle of compounding” works for us rather than against us. Finally, acting soon reduces the likelihood that the Congress will have to choose between imposing severe benefit cuts and unfairly burdening future generations with the program’s rising costs.

To assist the Congress in its deliberations, GAO has developed criteria for evaluating various Social Security reform proposals. These criteria aim to balance financial and economic considerations with benefit adequacy and equity issues and the administrative challenges associated with various proposals. The use of these criteria can help facilitate fair consideration and informed debate about Social Security reform proposals.

To help ensure adequate incomes, Social Security’s benefit provisions are designed to favor lower earners, disabled workers, and workers with dependents. Changes in the program over time also affect the distribution of benefits and taxes across generations. So, Social Security’s distributional effects can vary by eligibility, household type, and birth year, as well as by earnings level. Our focus today is the distribution of benefits and taxes relative to various earnings levels, or “progressivity.” Two distinct perspectives on Social Security’s goals suggest different approaches to measuring progressivity, and both provide valuable insights. One perspective focuses on measures of the adequacy of benefits while the other focuses on “equity” measures, such as internal rates of return. The measures themselves describe either adequacy or equity, but their distribution with respect to earnings level describes progressivity.
However, when proposals use general revenue transfers, estimating equity measures becomes difficult because such proposals do not generally specify what kind of future taxes or spending cuts will finance the transfers or who will bear the related burden.

The Social Security program’s distributional effects reflect both program features and demographic patterns among its recipients. While the benefit formula and disability provisions favor lower earners, household and mortality patterns serve to reduce the system’s tilt toward lower earners.

Alternative Social Security reform proposals would have different distributional effects, reflecting the variety of provisions in them. The various provisions include different ways, within the current program structure, of reducing certain benefits, enhancing selected benefits, and enhancing revenues. Certain reform provisions also include creating a new system of individual retirement savings accounts with different account contribution levels and different ways of adjusting Social Security defined benefits to reflect the diversion of Social Security contributions into the accounts. Individually and in combination, these provisions would affect the distribution of benefits and taxes relative to various earnings levels.

Social Security’s Long-Term Financing Problem Deserves Timely Action

Today the Social Security program faces a long-range and fundamental financing problem driven largely by known demographic trends. The lack of an immediate solvency crisis affects the nature of the challenge, but it does not eliminate the need for action. Acting soon reduces the likelihood that the Congress will have to choose between imposing severe benefit cuts and unfairly burdening future generations with the program’s rising costs. Acting soon would allow changes to be phased in so the individuals who are most likely to be affected, namely younger and future workers, will have time to adjust their retirement planning. Since there is a great deal of confusion about Social Security’s current financing arrangements and the nature of its long-term financing problem, I would like to spend some time describing the nature, timing, and extent of the financing problem.

Demographic Trends Drive Social Security’s Long-Term Financing Problem

As you all know, Social Security has always been largely a pay-as-you-go system. This means that current workers’ taxes generally pay current retirees’ benefits. As a result, the relative number of workers and beneficiaries has a major impact on the program’s financial condition. This ratio, however, is changing. In 1950, before the Social Security system was mature, the ratio was 16.5:1. In the 1960s, the ratio averaged 4.2:1. Today it
is 3.3:1, and it is expected to drop to around 2.2:1 by 2030. The retirement of the baby boom generation is not the only demographic challenge facing the system. People are retiring early and living longer. A falling fertility rate is the other principal factor underlying the growth in the elderly’s share of the population. In the 1960s, the fertility rate was an average of 3 children per woman. Today it is a little over 2, and by 2030 it is expected to fall to 1.95—a rate that is below the level necessary to replace the population. Taken together, these trends serve to threaten the financial solvency and sustainability of this important program. (See fig. 1.)

Figure 1: Social Security Workers per Beneficiary

The combination of these trends means that annual labor force growth will begin to slow after 2010 and by 2025 is expected to be less than a third of what it is today. (See fig. 2.) Relatively fewer workers will be available to produce the goods and services that all will consume. Without a major increase in productivity, low labor force growth will lead to slower growth in the economy and to slower growth of federal revenues. This in turn will only accentuate the overall pressure on the federal budget.
This slowing labor force growth is not always recognized as part of the Social Security debate. Social Security's retirement eligibility dates are often the subject of discussion and debate and can have a direct effect on both labor force growth and the condition of the Social Security retirement program. However, it is also appropriate to consider whether and how changes in pension and/or other government policies could encourage longer workforce participation. To the extent that people choose to work longer as they live longer, the increase in the share of life spent in retirement would be slowed. This could improve the finances of Social Security and mitigate the expected slowdown in labor force growth. It could also help to encourage additional economic growth.
Today, the Social Security Trust Funds take in more in taxes than they spend. Largely because of the known demographic trends I have described, this situation will change. Although the trustees’ 2004 intermediate estimates project that the combined Social Security Trust Funds will be solvent until 2042, program spending will constitute a rapidly growing share of the budget and the economy well before that date. In 2008, the first baby boomers will become eligible for Social Security benefits, and the future costs of serving them have already become a factor in the Congressional Budget Office’s (CBO) 10-year projections. Under the trustees’ 2004 intermediate estimates, Social Security’s cash surplus—the difference between program tax income and the costs of paying scheduled benefits—will begin a permanent decline in 2009. To finance the same level of federal spending as in the previous year, additional revenues and/or increased borrowing will be needed.

By 2018, Social Security’s tax income is projected to be insufficient to pay currently scheduled benefits. At that time, Social Security will join Medicare’s Hospital Insurance Trust Fund, whose outlays are projected to begin to exceed revenues this year, as a net claimant on the rest of the federal budget. The combined OASDI Trust Funds will begin drawing on the Treasury to cover the cash shortfall, first relying on interest income and eventually drawing down accumulated trust fund assets. The Treasury will need to obtain cash for those redeemed securities either through increased taxes, and/or spending cuts, and/or more borrowing from the public than would have been the case had Social Security’s cash flow remained positive. Neither the decline in the cash surpluses nor the cash deficit will affect the payment of benefits. The shift from positive to negative cash flow, however, will place increased pressure on the federal budget to raise the resources necessary to meet the program’s ongoing costs.

4 Separately, the Disability Insurance (DI) fund is projected to be exhausted in 2029 and the Old-Age and Survivors’ Insurance (OASI) fund in 2044.

5 If the unified budget is in surplus at this point, then financing the excess benefits will require less debt redemption rather than increased borrowing.
Ultimately, the critical question is not how much a trust fund has in assets, but whether the government as a whole can afford the benefits in the future and at what cost to other claims on scarce resources. As I have said before, the future sustainability of programs is the key issue policy makers should address—i.e., the capacity of the economy and budget to afford the commitment. Fund solvency can help, but only if promoting solvency improves the future sustainability of the program.

Decline in Budgetary Flexibility Absent Entitlement Reform

From the perspective of the federal budget and the economy, the challenge posed by the growth in Social Security spending becomes even more significant in combination with the more rapid expected growth in Medicare and Medicaid spending. This growth in spending on federal entitlements for retirees will become increasingly unsustainable over the longer term, compounding an ongoing decline in budgetary flexibility. Over the past few decades, spending on mandatory programs has consumed an ever-increasing share of the federal budget. In 1964, prior to
the creation of the Medicare and Medicaid programs, spending for mandatory programs plus net interest accounted for about 33 percent of total federal spending. By 2004, this share had almost doubled to approximately 61 percent of the budget. (See fig. 4.)

![Figure 4: Federal Spending for Mandatory and Discretionary Programs, Fiscal Years 1964, 1984, and 2004](source)

In much of the last decade, reductions in defense spending helped accommodate the growth in these entitlement programs. Even before the events of September 11, 2001, however, this ceased to be a viable option. Indeed, spending on defense and homeland security will likely grow as we seek to combat new threats to our nation’s security.

GAO prepares long-term budget simulations that seek to illustrate the likely fiscal consequences of the coming demographic tidal wave and rising health care costs. These simulations continue to show that to move into the future with no changes in federal retirement and health programs is to envision a very different role for the federal government. Assuming, for example, all expiring tax provisions are extended and discretionary spending keeps pace with the economy, by midcentury federal revenues may be adequate to pay no more than interest on the federal debt. To
obtain balance, massive spending cuts, tax increases, or some combination of the two would be necessary. (See fig. 5.) Neither slowing the growth of discretionary spending nor

Figure 5: Composition of Spending as a Share of Gross Domestic Product (GDP), Assuming Discretionary Spending Grows with GDP after 2004 and All Expiring Tax Provisions Are Extended

Note: Although expiring tax provisions are extended, revenue as a share of GDP increases through 2014 due to (1) real bracket creep, (2) more taxpayers becoming subject to the Alternative Minimum Tax, and (3) increased revenue from tax-deferred retirement accounts. After 2014, revenue as a share of GDP is held constant.

This testimony is not about the complexities of Medicare, but it is important to note that Medicare presents a much greater, more complex, and more urgent fiscal challenge than does Social Security. Medicare growth rates reflect not only a burgeoning beneficiary population, but also the escalation of health care costs at rates well exceeding general rates of inflation. Increases in the number and quality of health care services have
been fueled by the explosive growth of medical technology. Moreover, the actual costs of health care consumption are not transparent. Third-party payers generally insulate consumers from the cost of health care decisions. These factors and others contribute to making Medicare a much greater and more complex fiscal challenge than even Social Security. GAO has developed a health care framework to help focus additional attention on this important area and to help educate key policy makers and the public on the current system and related challenges.\textsuperscript{6}

Indeed, long-term budget flexibility is about more than Social Security and Medicare. While these programs dominate the long-term outlook, they are not the only federal programs or activities that bind the future. The federal government undertakes a wide range of programs, responsibilities, and activities that obligate it to future spending or create an expectation for spending. GAO has described the range and measurement of such fiscal exposures—from explicit liabilities such as environmental cleanup requirements to the more implicit obligations presented by life-cycle costs of capital acquisition or disaster assistance.\textsuperscript{7} Making government fit the challenges of the future will require not only dealing with the drivers—entitlements for the elderly—but also looking at the range of federal activities. A fundamental review of what the federal government does and how it does it will be needed.

At the same time it is important to look beyond the federal budget to the economy as a whole. Figure 6 shows the total future draw on the economy represented by Social Security, Medicare, and Medicaid. Under the 2004 Trustees’ intermediate estimates and CBO’s long-term Medicaid estimates, spending for these entitlement programs combined will grow to 15.6 percent of GDP in 2030 from today’s 8.5 percent. Taken together, Social Security, Medicare, and Medicaid represent an unsustainable burden on future generations.


When Social Security redeems assets to pay benefits, the program will constitute a claim on real resources at that time. As a result, taking action now to increase the future pool of resources is important. To echo Federal Reserve Chairman Greenspan, the crucial issue of saving in our economy relates to our ability to build an adequate capital stock to produce enough goods and services in the future to accommodate both retirees and workers in the future. The most direct way the federal government can raise national saving is by increasing government saving, i.e., as the economy returns to a higher growth path, a much more balanced and disciplined fiscal policy that recognizes our long-term challenges can help

Figure 6: Social Security, Medicare, and Medicaid Spending as a Percentage of GDP

Source: GAO analysis based on data from the Office of the Chief Actuary, Social Security Administration, Office of the Actuary, Centers for Medicare and Medicaid Services, and the Congressional Budget Office.

Note: Social Security and Medicare projections are based on the intermediate assumptions of the 2004 trustees’ reports. Medicaid projections are based on CBO’s January 2004 short-term Medicaid estimates and CBO’s December 2003 long-term Medicaid projections under midrange assumptions.

8Testimony before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, July 24, 2001.
provide a strong foundation for future economic growth and can enhance future budgetary flexibility. In the short term, we need to realize that we are already facing a huge fiscal hole. The first thing that we should do is stop digging.

Taking action soon on Social Security would not only promote increased budgetary flexibility in the future and stronger economic growth but would also make the necessary action less dramatic than if we wait. Some of the benefits of early action—and the costs of delay—can be seen in figure 7. This compares what it would take to achieve actuarial balance at different points in time by either raising payroll taxes or reducing benefits. If we did nothing until 2042—the year the Trust Funds are estimated to be exhausted—achieving actuarial balance would require changes in benefits of 30 percent or changes in taxes of 43 percent. As figure 7 shows, earlier action shrinks the size of the adjustment.

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Solvency could also be achieved through a combination of tax and benefit actions. This would reduce the magnitude of the required change in taxes or benefits compared with making changes exclusively to taxes or benefits as shown in figure 7.
Figure 7: Size of Action Needed to Achieve Social Security Solvency

Note: This is based on the intermediate assumptions of the 2004 Social Security trustees’ report. The benefit adjustments in this graph represent a one-time, permanent change to all existing and future benefits beginning in the first year indicated.

Thus both sustainability concerns and solvency considerations drive us to act sooner rather than later. Trust Fund exhaustion may be almost 40 years away, but the squeeze on the federal budget will begin as the baby boom generation starts to retire. Actions taken today can ease both these pressures and the pain of future actions. Acting sooner rather than later also provides a more reasonable planning horizon for future retirees.

Evaluating Social Security Reform Proposals

As important as financial stability may be for Social Security, it cannot be the only consideration. As a former public trustee of Social Security and Medicare, I am well aware of the central role these programs play in the lives of millions of Americans. Social Security remains the foundation of the nation’s retirement system. It is also much more than just a retirement program; it pays benefits to disabled workers and their dependents, spouses and children of retired workers, and survivors of deceased workers. Last year, Social Security paid almost $471 billion in benefits to
more than 47 million people. Since its inception, the program has successfully reduced poverty among the elderly. In 1959, 35 percent of the elderly were poor. In 2000, about 8 percent of beneficiaries aged 65 or older were poor, and 48 percent would have been poor without Social Security. It is precisely because the program is so deeply woven into the fabric of our nation that any proposed reform must consider the program in its entirety, rather than one aspect alone. Thus, GAO has developed a broad framework for evaluating reform proposals that considers not only solvency but other aspects of the program as well.

The analytic framework GAO has developed to assess proposals comprises three basic criteria:

- the extent to which a proposal achieves sustainable solvency and how it would affect the economy and the federal budget;
- the relative balance struck between the goals of individual equity and income adequacy; and
- how readily a proposal could be implemented, administered, and explained to the public.

The weight that different policy makers may place on different criteria will vary, depending on how they value different attributes. For example, if offering individual choice and control is less important than maintaining replacement rates for low-income workers, then a reform proposal emphasizing adequacy considerations might be preferred. As they fashion a comprehensive proposal, however, policy makers will ultimately have to balance the relative importance they place on each of these criteria.

Our sustainable solvency standard encompasses several different ways of looking at the Social Security program’s financing needs. While 75-year actuarial balance is generally used in evaluating the long-term financial outlook of the Social Security program and reform proposals, it is not sufficient in gauging the program’s solvency after the 75th year. For example, under the trustees’ intermediate assumptions, each year the 75-year actuarial period changes, and a year with a surplus is replaced by a new 75th year that has a significant deficit. As a result, changes made to restore trust fund solvency only for the 75-year period can result in future actuarial imbalances almost immediately. Reform plans that lead to sustainable solvency would be those that consider the broader issues of fiscal sustainability and affordability over the long term. Specifically, a
standard of sustainable solvency also involves looking at (1) the balance between program income and costs beyond the 75th year and (2) the share of the budget and economy consumed by Social Security spending.

As I have already discussed, reducing the relative future burdens of Social Security and health programs is essential to a sustainable budget policy for the longer term. It is also critical if we are to avoid putting unsupportable financial pressures on future workers. Reforming Social Security and health programs is essential to reclaiming our future fiscal flexibility to address other national priorities.

Balancing Adequacy and Equity

The current Social Security system’s benefit structure attempts to strike a balance between the goals of retirement income adequacy and individual equity. From the beginning, benefits were set in a way that focused especially on replacing some portion of workers’ pre-retirement earnings. Over time other changes were made that were intended to enhance the program’s role in helping ensure adequate incomes. Retirement income adequacy, therefore, is addressed in part through the program’s progressive benefit structure, providing proportionately larger benefits to lower earners and certain household types, such as those with dependents. Individual equity refers to the relationship between contributions made and benefits received. This can be thought of as the rate of return on individual contributions. Balancing these seemingly conflicting objectives through the political process has resulted in the design of the current Social Security program and should still be taken into account in any proposed reforms.

Policy makers could assess income adequacy, for example, by considering the extent to which proposals ensure benefit levels that are adequate to protect beneficiaries from poverty and ensure higher replacement rates for low-income workers. In addition, policy makers could consider the impact of proposed changes on various subpopulations, such as low-income workers, women, minorities, and people with disabilities. Policy makers could assess equity by considering the extent to which there are reasonable returns on contributions at a reasonable level of risk to the individual, improved intergenerational equity, and increased individual choice and control. Differences in how various proposals balance each of these goals will help determine which proposals will be acceptable to policy makers and the public.
Program complexity makes implementation and administration both more difficult and harder to explain to the public. Some degree of implementation and administrative complexity arises in virtually all proposed changes to Social Security, even those that make incremental changes in the already existing structure. However, the greatest potential implementation and administrative challenges are associated with proposals that would create individual accounts. These include, for example, issues concerning the management of the information and money flow needed to maintain such a system, the degree of choice and flexibility individuals would have over investment options and access to their accounts, investment education and transitional efforts, and the mechanisms that would be used to pay out benefits upon retirement. Harmonizing a system that includes individual accounts with the regulatory framework that governs our nation’s private pension system would also be a complicated endeavor. However, the complexity of meshing these systems should be weighed against the potential benefits of extending participation in individual accounts to millions of workers who currently lack private pension coverage.

Continued public acceptance of and confidence in the Social Security program require that any reforms and their implications for benefits be well understood. This means that the American people must understand why change is necessary, what the reforms are, why they are needed, how they are to be implemented and administered, and how they will affect their own retirement income. All reform proposals will require some additional outreach to the public so that future beneficiaries can adjust their retirement planning accordingly. The more transparent the implementation and administration of reform, and the more carefully such reform is phased in, the more likely it will be understood and accepted by the American people.

Under Social Security, retired workers can receive benefits at age 65 that equal about 50 percent of pre-retirement earnings for an illustrative worker with relatively lower earnings but only about 30 percent of earnings for one with relatively higher earnings. To help ensure that beneficiaries have adequate incomes, Social Security’s benefit formula is designed to be “progressive,” that is, to provide disproportionately larger benefits, as a percentage of earnings, to lower earners than to higher earners. However, the benefit formula is just one of several program features that influence the way benefits are distributed. Other such program features include provisions for disabled workers, spouses, children, and survivors. Changes in the program over time also affect the
distribution of benefits across generations. So the distribution of Social Security benefits can vary by eligibility, household type, and birth year as well as by earnings level.

Over the past few years, we have been developing an increasing capacity at GAO to estimate quantitatively the effects of Social Security reform on individuals. Such estimates speak directly to applying our second evaluation criterion to reform proposals. We have just issued a new report that, in part, uses such estimates to illustrate the varying effects of different policy scenarios on how Social Security benefits and taxes are distributed relative to earnings levels.10 Today, I would like to share our findings regarding how to define and describe “progressivity,” defining appropriate benchmarks for assessing the future outlook for individuals’ Social Security benefits, what factors influence the distributional effects of the current Social Security program, and how various reform proposals might vary in their distributional effects. Still, remember that progressivity is only one of several aspects of our criterion of balancing adequacy and equity, which in turn is only one of three criteria that each consist of several dimensions.

Two distinct perspectives on Social Security’s goals suggest different approaches to measuring progressivity. Both perspectives provide valuable insights. An adequacy perspective focuses on benefit levels and how well they help ensure a minimal subsistence or maintain pre-entitlement living standards. For example, replacement rates measure annual benefits as a percentage of annual earnings before receiving benefits. An equity perspective focuses on rates of return and other measures relating lifetime benefits to lifetime contributions. This perspective gauges whether the system gives all participants a “fair deal” on their contributions. The measures themselves describe either adequacy or equity, but their distribution with respect to earnings level describes progressivity. Note however that equity measures cannot accurately assess the distributional effects of reform proposals that rely on general revenue transfers. Such proposals do not generally specify what kind of future taxes or spending cuts will finance the transfers or who will bear the related burden; but evaluating progressivity from an equity perspective requires that all taxes and benefits be clearly allocated.

### Benchmark Policy Scenarios Illustrate a Range of Possible Outcomes

Estimating future effects on Social Security benefits should reflect the fact that the program faces a long-term actuarial deficit and benefit reductions and/or revenue increases will be necessary to restore solvency. To illustrate a full range of possible outcomes, we developed hypothetical benchmark policy scenarios that would restore solvency over the next 75 years either by only increasing payroll taxes or by only reducing benefits. Our tax-increase-only benchmark simulates “promised benefits,” or those benefits defined under current law, while our benefit-reduction-only benchmarks simulate “funded benefits,” or those benefits for which currently scheduled revenues are projected to be sufficient. The benefit reductions are phased in between 2005 and 2035 to strike a balance between the size of the incremental reductions each year and the size of the ultimate reduction. At our request, Social Security actuaries scored our benchmark policies and determined the parameters for each that would achieve 75-year solvency. For our benefit reduction scenarios, the actuaries determined these parameters assuming that disabled and survivor benefits would be reduced on the same basis as retired worker and dependent benefits. If disabled and survivor benefits were not reduced at all, reductions in other benefits would be deeper than shown in this analysis.\(^\text{11}\)

### Program’s Distributional Effects Reflect Various Program Features and Demographic Patterns

Social Security’s distributional effects reflect program features, such as its benefit formula, and demographic patterns among its recipients, such as marriage between lower and higher earners. The retired worker benefit formula favors lower earners by design, replacing about 50 percent of pre-retirement earnings at age 65 for an illustrative low earner but only about 30 percent of pre-retirement earnings for an illustrative high earner.\(^\text{12}\) (See fig. 8.) The disability benefit formula also favors lower earners, and disability recipients are disproportionately lower earners. Our simulations suggest that for individuals born in 1985, compared with a hypothetical program without disability insurance, Social Security’s disability


provisions increase lifetime Social Security benefits for the bottom fifth of earners by 43 percent, compared with 14 percent for the top fifth of earners. The extent to which the benefit formula and disability benefits favor lower earners may be offset to some degree by demographic patterns. Household formation tends to reduce the system’s tilt toward lower earners because some of the lower-earning individuals helped by the program live in high-income households. For example, many of the lower-earning individuals that the system favors through spouse and survivor benefits actually live at some point in higher-income households because of marriage. In our simulations, the ratio of benefits received to payroll taxes contributed is higher for lower earners than for higher earners, but this difference is reduced when we account for household formation. Also, differences in mortality rates may reduce rates of return for lower earners, as studies show they may not live as long as higher earners and therefore would receive benefits for fewer years.
Figure 8: Social Security Benefit Formula Provides Higher Replacement Rates for Lower Earners

Note: Replacement rates are the annual retired worker benefits at age 65 for workers born in 1985 divided by the earnings in the previous year. For such workers, the full retirement age will be 67. Steady earners have earnings equal to a constant percentage of Social Security’s Average Wage Index in every year of their careers. Those percentages are 45, 100, and 160, respectively, for low, average, and high earners. Taxable maximum earners have earnings equal to the maximum taxable earnings in each year. Replacement rates are simulated under the tax-increase benchmark (promised benefits); they would be lower under the proportional benefit-reduction benchmark by a constant proportion and would therefore show a similar pattern. See appendix I for more on the benchmark policy scenarios.

Alternative Social Security reform proposals would have different distributional effects, reflecting the variety of provisions in them. The various provisions include different ways, within the current program structure, of reducing certain benefits, enhancing selected benefits, and enhancing revenues. The various reform provisions also include creating a new system of individual retirement savings accounts with different account contribution levels and different ways of adjusting Social Security defined benefits to reflect the diversion of Social Security contributions into the accounts. Individually and in combination, these provisions would affect the distribution of benefits and taxes relative to earnings levels.
For example, Model 2 of the President’s Commission to Strengthen Social Security (CSSS) proposes a new system of voluntary individual accounts along with a combination of certain benefit reductions for all beneficiaries and selected benefit enhancements for selected low earners and survivors. One of its provisions would reduce Social Security defined benefits proportionally for all workers by modifying the benefit formula. At the same time, benefits would be enhanced for certain lower earners and surviving spouses, and 4 percentage points of individuals’ payroll taxes (up to a $1,000 annual limit\(^\text{13}\)) would be diverted into individual accounts.

In contrast, a proposal offered by Peter Diamond and Peter Orszag would also include a provision to reduce Social Security defined benefits proportionally for all workers by modifying the benefit formula. It also has provisions to enhance benefits for selected lower earners and surviving spouses. However, it does not contain a provision for individual accounts, and it does have a variety of provisions for enhancing revenues. The Diamond-Orszag proposal also has other benefit reduction and benefit enhancement provisions, such as modifying the benefit formula to reduce benefits for higher earners only. Another provision would maintain disability benefits and benefits for survivors of workers who die before retirement in spite of the other benefit reductions.

Also in contrast to CSSS Model 2, a proposal offered by Peter Ferrara provides for a new system of voluntary individual accounts but does not contain any provisions to make changes to Social Security defined benefits, except for individuals participating in the individual accounts. Moreover, it would provide for substantially larger contributions to the accounts than would the CSSS Model 2 proposal. Under this provision, individual account contributions would be a larger percentage of payroll for lower earners than for higher earners. Also, for those who participate in the accounts, Social Security defined benefits would be reduced to reflect the payroll taxes redirected into the accounts; this account offset uses a different formula than does CSSS Model 2.

To illustrate the distributional effects of CSSS Model 2, we used a microsimulation model to estimate benefits under it and under our benchmark policy scenarios. We did not examine the distribution of equity measures such as benefit-to-tax ratios or rates of return, because the

\(^{13}\)The limit on account contributions would grow over time at the same rate as wages.
proposition’s individual account feature requires general revenue transfers.\textsuperscript{14} Since account participation is voluntary, we used two simulations to examine the effects of the Model 2 provisions, one with universal account participation (Model 2-100 percent) and one with no account participation (Model 2-0 percent). We also assumed that all account participants would invest in the same portfolios; consequently we did not capture any distributional effect that might occur if lower earners were to make different account participation or investment decisions than higher earners.\textsuperscript{15}

According to our simulations, the distribution of benefits under Model 2 could favor lower earners more than the distribution of benefits under either currently promised or currently funded benefits. For example, assuming universal account participation, households in the lowest fifth of earnings may receive about 14 percent of all lifetime benefits under Model 2, compared with about 12.5 percent under the current program. (See fig. 9.)


\textsuperscript{15}Each participant has portfolio allocation of 50 percent in equities, 30 percent in corporate bonds, and 20 percent in U.S. Treasury long-term bonds. All portfolios earn a constant 4.6 percent real rate of return. For sensitivity analysis, we also simulated scenarios with rates of return varying stochastically across individuals and with higher and lower returns to equities. Shares of benefits by quintiles of lifetime earnings were very similar under all specifications.
Figure 9: CSSS Model 2 Might Favor Lower Earners More than Benchmarks for Individuals Born in 1985

Percentage share of all household lifetime benefits

<table>
<thead>
<tr>
<th></th>
<th>Bottom fifth of total earnings</th>
<th>Top fifth of total earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promised benefits (tax-increase benchmark)</td>
<td>12.3</td>
<td>27.4</td>
</tr>
<tr>
<td>Funded benefits (proportional benefit-reduction benchmark)</td>
<td>12.6</td>
<td>27.2</td>
</tr>
<tr>
<td>Model 2-100 percent</td>
<td>13.8</td>
<td>26.0</td>
</tr>
<tr>
<td>Model 2-0 percent</td>
<td>14.5</td>
<td>25.9</td>
</tr>
</tbody>
</table>

Source: GAO analysis using the GEMINI model.

Note: Earnings fifths are based on the present value of total household lifetime earnings. Household analysis is based on per capita benefits, taxes, and earnings. This includes all sample members who survive past age 24. It assumes all account participants choose the same portfolio—50 percent equities, 30 percent corporate bonds, and 20 percent Treasury bonds. Accounts earn a constant real return of 4.6 percent. For sensitivity analysis, we also simulated scenarios with rates of return varying stochastically across individuals and over time and scenarios with higher and lower returns to equities. Shares of benefits by earning fifths were similar under all specifications.

It should be noted that while the simulations suggest that the distribution of benefits under Model 2 is more progressive than under the benchmarks, this does not mean benefit levels are always higher for the bottom fifth under Model 2. Progressivity is about how the "pie" is divided up, not about how big the pie is. So, while Model 2 may improve the relative position of lower earners, it may not improve the adequacy of their benefits. (See fig. 10.) According to our simulation, median household lifetime benefits for the bottom fifth under Model 2-0 percent would be 3 percent higher than under the funded benefits scenario but 21 percent lower than under the promised benefits scenario. Median household
lifetime benefits for the bottom fifth under Model 2-100 percent would be 26 percent higher than under the funded benefits scenario but 4 percent lower than under the promised benefits scenario.

**Figure 10: Median Household Lifetime Benefits under Model 2 and the Benchmarks for Individuals Born in 1985**

Median household lifetime benefits in 2003 dollars (in thousands)

<table>
<thead>
<tr>
<th></th>
<th>Bottom fifth of total earnings</th>
<th>Top fifth of total earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promised benefits (tax-increase benchmark)</td>
<td>178</td>
<td>455</td>
</tr>
<tr>
<td>Funded benefits (benefit-reduction benchmark)</td>
<td>136</td>
<td>344</td>
</tr>
<tr>
<td>Model 2-100 percent</td>
<td>171</td>
<td>368</td>
</tr>
<tr>
<td>Model 2-0 percent</td>
<td>140</td>
<td>294</td>
</tr>
</tbody>
</table>

Source: GAO analysis using the GEMINI model.

Note: Earnings fifths are based on the present value of total household lifetime earnings. Household analysis is based on per capita benefits, taxes, and earnings. This includes all sample members who survive past age 24. It assumes all account participants choose the same portfolio—50 percent equities, 30 percent corporate bonds, and 20 percent Treasury bonds. Accounts earn a constant real return of 4.6 percent.

We also simulated each of Model 2’s core features, assuming 100 percent participation in the individual accounts, to illustrate the distributional effect of each feature. (See fig. 11.) First we simulated a version of Model 2-100 percent that included the individual accounts and the reductions in Social Security defined benefits, but not the $1,000 cap on account contributions or the enhanced benefits for low earners and survivors. Next we simulated a version that included the defined-benefit reductions and
Finally, we simulated the complete Model 2-100 percent scenario, which included the enhanced benefits to lower earners and survivors. While the proposal’s individual accounts and benefit reductions together may favor higher earners, this is more than offset by a limit on account contributions and the enhanced benefits for low earners and survivors. Again, this assumes that all account participants would invest in the same portfolios. However, if individuals’ investment decisions varied by earnings level, then the distribution of income from the accounts would differ from our simulations.
Figure 11: CSSS Model 2’s Contribution Cap and Enhanced Benefits for Lower Earners and Survivors Offset the Distributional Effect of the Accounts and Reductions in Social Security Defined Benefits

Percentage share of all household lifetime benefits

<table>
<thead>
<tr>
<th>Bottom fifth of total earnings</th>
<th>Top fifth of total earnings</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Funded benefits (proportional benefit-reduction benchmark)</td>
<td>12.6</td>
</tr>
<tr>
<td>Accounts and reductions in Social Security defined benefits</td>
<td>11.6</td>
</tr>
<tr>
<td>Accounts, reductions in Social Security defined benefits, and contribution cap</td>
<td>12.6</td>
</tr>
<tr>
<td>Full Model 2, including enhanced benefits for low earners and survivors</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Source: GAO analysis using the GEMINI model.

Note: Earnings fifths are based on the present value of total household lifetime earnings. Household analysis is based on per capita benefits, taxes, and earnings. This includes all sample members who survive past age 24 and assumes 100 percent account participation with all account participants choosing the same portfolios—50 percent equities, 30 percent corporate bonds, and 20 percent Treasury bonds. Accounts earn a constant real return of 4.6 percent.

It should be emphasized that these simulations are only for individuals born in 1985, and the distributional impact of Model 2 could be different for individuals born in later years. For example, under the proposal, initial...

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16In our modeling, we focused on workers born in 1985 because all prospective program changes under all alternative policy scenarios would be almost fully phased in for such workers.
Social Security defined benefits only grow with prices, while initial benefits from account balances grow with wages. Since wages generally grow faster than prices, Social Security defined benefits will decline as a proportion of total benefits, reducing the importance of the progressive benefit formula, disability benefits, and the enhanced benefits for low earners and survivors.

It should also be noted that the account feature of Model 2-100 percent likely exposes recipients to greater financial risk. Greater exposure to risk may not affect the shares of benefits received by the bottom and top fifths of earnings.\footnote{We simulated an alternative version of Model 2-100 percent where the return to equities varied stochastically across individuals and over time. Shares of benefits by earnings quintile were almost identical to the scenario that assumed constant returns to equities.} However, greater risk may be more problematic for lower earners, who likely have fewer resources to fall back on if their accounts perform poorly.\footnote{Lower earners may be more risk averse than higher earners and therefore suffer greater utility loss from increased risk.}

### Conclusion

By design, Social Security distributes benefits and contributions across workers and their families in a variety of ways. These distributional effects illustrate how the program balances the goal of helping ensure adequate incomes with the goal of giving all workers a fair deal on their contributions. Any changes to Social Security would potentially alter those distributional effects and the balance between those goals. Therefore, policy makers need to understand how to evaluate distributional effects of alternative policies.

Several key themes inform this understanding. First, it should be noted that greater benefit progressivity is not the same thing as greater benefit adequacy. Under some reform scenarios, Social Security could distribute benefits more progressively than under current law while providing lower, less adequate benefits. Secondly, our analysis illustrates that it that is possible for some reform provisions that may not favor lower earners to be counterbalanced by other, more favorable ones. Finally, benefit progressivity is only one of several aspects of balancing adequacy and equity. As our framework suggests, besides balancing adequacy and equity, a proposal’s effect on the economy and whether it achieves sustainable...
solvency should also be considered, as well as how readily it could be implemented and explained to the public.

As we have noted in the past before this committee and elsewhere, a comprehensive evaluation is needed that considers a range of effects together. Focusing on comprehensive packages of reforms will enable us to foster credibility and acceptance. This will help us avoid getting mired in the details and losing sight of important interactive effects. It will help build the bridges necessary to achieve consensus.

The fundamental nature of the program’s long-term financing challenge means that timely action is needed. I believe it is possible to craft a solution that will protect Social Security benefits for the nation’s current and near-term retirees, while ensuring that the system will be there for future generations. Stated differently, I believe that it is possible to reform Social Security in a way that will assure the program’s solvency and sustainability while exceeding the expectations of all generations of Americans. In this regard, the sooner we act, the greater the opportunity to achieve this desirable outcome. It is my hope that we will think about the unprecedented challenge facing future generations in our aging society. We need to act now before the approaching demographic tidal wave makes the imbalances more dramatic and meaningful reform less feasible. We at GAO look forward to continuing to work with this Committee and the Congress in addressing this and other important issues facing our nation. In doing so, we will be true to our core values of accountability, integrity, and reliability.

Mr. Chairman, and members of the Committee, that concludes my statement. I’d be happy to answer any questions you may have.

For information regarding this testimony, please contact Barbara D. Bovbjerg, Director, Education, Workforce, and Income Security Issues, at (202) 512-7215. Individuals making key contributions to this testimony include Ken Stockbridge, Charles Jeszeck, and Gordon Mermin.
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