

**Social Security,  
Long-Term Financing and Reform**

by  
L. Randall Wray\*

**Working Paper No. 11**

August 2000

\* Senior Research Associate, Center for Full Employment and Price Stability, University of Missouri-Kansas City, and Senior Scholar, Jerome Levy Economics Institute

## **The Social Security Act and its Transformation to an Advance-Funding Model**

The provisions of the Social Security Act (signed into law by President Roosevelt on 14 August 1935) were tailored to model a private insurance system and avoid any hint of *socialism*. Some degree of *individual equity* would be maintained, with those who paid-in more receiving greater benefits upon retirement. OASI would not be means-tested, reflecting American preferences against *welfare*. These provisions helped to make the Social Security Act the most successful and enduring of the New Deal programs, indeed, many analysts claim that Social Security is the most popular federal government program ever adopted. In truth, however, Social Security has never closely approximated a private insurance plan, and changes to the Social Security Act over the years have moved it ever further from that model. Thus, while Americans still tend to think of Social Security as a system of “retirement insurance”, in fact almost 28% of the beneficiaries of OASI (which excludes medical and disability benefits covered OASDHI) in 1997 were spouses or survivors of covered workers. In the discussion that follows, we will focus on the aspects of Social Security that relate most closely to issues surrounding aging and retirement, however, it must be kept in mind that Social Security is a much bigger program with broader coverage, and any reforms must take account of the large percent of beneficiaries without *normal* work histories.

U.S. workers began to pay payroll taxes for Social Security in 1937 and the first benefits were paid in 1940. Over the years, tax rates were increased, percent of the workforce covered grew, and benefits were expanded. A substantial change was made in 1972, when automatic cost-of-living adjustments to benefits were added. The next few years experienced high inflation and slower real economic growth—together these raised program benefit payments and lowered tax receipts, generating the first *crisis* for Social Security when it was feared that receipts might fall below expenditures. This led to the first significant cut-backs in the program’s history, with inflation-adjustments delayed, tax rates increased, and some benefit cuts for civil servants. By the early 1980s, it was realized that these changes had not been sufficient so that a commission was appointed (with future Fed Chairman Alan Greenspan at its head) to study the long-term financial situation of Social Security. One significant issue that had arisen was the *aging* of the

U.S. population. This was compounded by the *baby boom bulge* created in the early post-war period when fertility rates (number of children per woman) rose and remained high until the *baby boom boost* of the 1970s. Combined with rising longevity, this ensures that the baby boomers will create a relatively large number of elderly Social Security beneficiaries between 2015 and 2035. While the problems created by the baby boom bulge receive most of the press, falling fertility rates and rising life expectancy are common experiences in all the major developed nations, leading to various social challenges that result from an aging population. Indeed, on current projections, Social Security will experience its greatest financial problems *after* all the baby-boomers will have died.

The *Greenspan Commission* published findings that resulted in the most significant changes made to Social Security since addition of Medicare in 1965. These included higher tax rates, imposition of taxes on Social Security benefits, and phased increases to the normal retirement age. Most importantly, the 1983 revisions changed Social Security from *pay-as-you-go* to *advance funding*. In a pay-as-you-go (or, *paygo*) system, current-year revenues are balanced against current-year expenditures. However, as the Greenspan Commission recognized, the aging of America creates a special financing problem. During the late 20<sup>th</sup> and early 21<sup>st</sup> centuries, OASDI was projected to run large annual surpluses, but sometime during the second decade of the 21<sup>st</sup> century, the program would begin to run annual deficits. Indeed, it was feared that the deficits would eventually become so large that it might be politically infeasible to raise taxes or cut benefits by the amount required to return the program to balance. For this reason, the paygo system was abandoned in favor of advance funding. In an advance funded system, near-term annual surpluses are accumulated in a Trust Fund, which purchases special U.S. Treasury securities to earn interest. When program spending falls below tax revenues, interest earnings supplement revenues. At some point in the future, taxes plus interest earnings would fall below annual benefit payments, however, the Trust Fund could sell its treasury securities to make up the difference. In this way, surpluses over the first three or four decades could be used to offset annual deficits during the final decades, ensuring long-term financial solvency.

## Long-term Prospects

The changes made in 1983, including the move to an advance funded system, were believed at the time to have resolved the challenges created for Social Security by the aging of its population. Over subsequent years, the Board of Trustees developed a rigorous method of financial accounting for the program that reported detailed projections for the next 10 years (its *short-range* forecast) and a projection for the next 75 years (its *long-range* forecast) to capture the effects of demographic shifts, as well as alternative assumptions regarding economic factors such as economic growth. By the end of the 1990s, they had settled on use of three alternative scenarios for the long-term forecasts: *high cost* (pessimistic), *intermediate cost*, and *low cost* (optimistic). The long-term financial status of the program is summarized in a calculation of the *actuarial balance* for the 75-year period. This is the difference between the *summarized income ratio* (the ratio of the present value of payroll taxes to the present value of taxable payroll) and the *summarized cost rate* (the ratio of the present value of expenditures to the present value of the taxable payroll) over the valuation period. This is essentially similar to any comparison that discounts future revenues and costs to determine long-term net revenues. When the summarized income rate equals or exceeds the summarized cost rate, the program is said to be in actuarial balance. If the difference is negative, the program is in actuarial imbalance with an *actuarial gap*, measured as a percent of taxable payroll. For example, if discounted revenues fell short of discounted benefit payments by an amount equal to one percent of taxable payroll, this is said to represent an actuarial gap of one percent. An immediate increase of payroll taxes by a total of one percent (half on employers and half on employees) would close the gap.

Unfortunately, OASDI began to show a large actuarial imbalance by the late 1990s, equal to more than two percent of taxable payroll. As an alternative to tax increases, the gap could be closed either through benefit cuts or by increasing the rate of return earned on Trust Fund assets. In fact, many proposals for reforming Social Security include provisions that would simultaneously pursue all three alternatives: tax increases, benefit cuts, and higher earnings. In addition, some proposals would move Social Security operations closer to a private insurance fund model, or, indeed, replace Social Security with a privately-operated (and even purely

voluntary) retirement system. Before turning to such proposals, let us examine the underlying causes of the gap.

According to the Social Security Administration's 1999 projections, on intermediate-cost assumptions, the program achieved actuarial balance only for the first 25 years; over the fifty year period, the actuarial gap was -1.26, while it reached -2.07 for the entire 75 long-range forecast. Note, however, that on low-cost assumptions, the program maintained actuarial balance for the whole period, while on high-cost assumptions the program had an actuarial gap even for the first 25 year period. This shows how critical are the assumptions used in the forecasts. Note also that any *crises* are relatively far into the future; indeed, even on high-cost assumptions, the actuarial imbalance is quite small for the first quarter of the 21<sup>st</sup> century. According to the 1999 projections, the Social Security Trust Funds would reach \$2.3 trillion by 2008 on intermediate-cost assumptions, peaking at more than \$4.4 trillion in 2020 before declining to zero by 2035. Using low cost assumptions, the Trust Fund would continue to grow over the entire 75 year period, reaching more than \$45 trillion by 2075. On the other hand, the Trust Fund would reach only \$2.6 trillion in 2015 according to high-cost assumptions, and would then be depleted quickly, falling to zero by 2025. In other words, if Social Security is analyzed as if it were a private pension plan, it will apparently experience a crisis in 2025 or 2035 using high cost or intermediate cost assumptions. Most analysts focus on the intermediate-cost projections, according to which Social Security revenues would be sufficient to cover only three-fourths of expected expenditures after the mid-2030s.

Let us quickly summarize the main demographic and economic assumptions that underlie the projections: fertility rates, immigration, labor force participation rates, longevity, growth of real wages, and taxable base. Together, fertility rates, immigration rates, longevity, and labor force participation rates determine the size of the pools of workers and retirees. The number of Social Security beneficiaries *supported* by workers will rise sharply in coming years. For example, the number of OASDI beneficiaries per 100 covered workers was 31 in 1975, but this will rise steadily between 2010 and 2075 when it reaches 56 on intermediate-cost projections. To put it

another way, while the U.S. had just over 3.3 workers per beneficiary in 2000, it may have fewer than 1.8 by 2075. Thus, the *burden* required of future workers to provide for OASDI beneficiaries could increase by almost a factor of two. On the other hand, workers in 2075 are projected to support fewer young people. If we add the under age 20 population to the age 65 and over population to obtain a *dependent* population (most of whom would not be expected to be working), we find that the *dependency ratio* (the ratio of dependents to workers) actually peaked at 0.95 in 1965, fell to 0.71 by 1995, and will rise only slightly to 0.83 by 2075. In other words, the parents of the baby-boomers supported more dependents in the mid 1960s than any generation is likely to support in the future.

In any case, as the number of beneficiaries rises relative to the number of workers paying Social Security taxes, this negatively impacts the actuarial balance. This results in part from falling fertility rates, which reduces the size of the younger population from which workers can be drawn. Fertility rates (children born per woman) stood at just over 2 at the end of the 1990s and was projected to fall to 1.9 under the intermediate assumptions. If the fertility rate were to rise back to 3.7 (where it stood in 1957), over 90 percent of the actuarial gap would be eliminated. On the other hand, falling fertility rates can be offset by rising net immigration (since immigrants can add to the worker pool, paying payroll taxes) and by rising labor force participation rates (the number working or seeking work per 100 population). In the late 1990s, net (legal and illegal) immigration reached about 960,000 per year. In their projections, however, the Trustees assumed that annual net immigration would fall to 900,000 and remain there throughout the 75 year period. Each additional 100,000 net immigrants above that level would reduce the actuarial gap by about 0.07 percent of taxable payroll. The Trustees also project that labor force participation rates for men will fall (from 75.5% in 1997 to 74% by 2075). In recent years, labor force participation rates for women rose sharply (reaching 60% in 1997). The Trustees project that this will nearly level-off (reaching only 60.6% by 2075). If male labor force participation rates did not fall, and if female rates rose, some of the actuarial gap would be eliminated. Finally, the Trustees project that death rates will fall by 34 percent over the 75 year period, and each ten percentage point decrease in the death rate increases the long-range actuarial gap by about 0.34

percent of taxable payroll.

While most of the debate over the program's solvency focuses on these unfavorable demographic trends, they were mostly known to the Greenspan Commission and the 1983 adjustments should have taken care of them. In fact, the reason for the *looming Social Security crisis* lays not in the demographics, but rather in the increasingly pessimistic economic assumptions adopted by the Trustees in their reports in the 1980s and 1990s. The main economic assumptions that lead to the financing gap are low growth of real wages and a falling taxable base. In 1999, the Trustees projected that real wages would grow at only 0.9% per year. Real wage growth, in turn, is related to productivity gains. The Trustees assume that productivity will grow at just 1.3% annually over the long-range period—well below long-term U.S. averages. If real wages were to grow at 2 percent per year more than half of the actuarial gap would be eliminated. Finally, the Trustees have projected that the taxable base will fall from 41 percent of GDP in 1999 to only 35 percent in 2075. This is for two reasons. First, Social Security taxes wages and certain kinds of self-employment income. Other types of income, for example interest income, are exempt. If these rise as a share of national income, the percent of income subject to the Social Security tax will fall. Second, payroll taxes are levied only on a portion of one's wage income—determined by the contribution and benefit base. In 1999, OASDI taxes were applied only to the first \$72,600 of employment income (the contribution and benefit base for that year; this base is increased each year with rising nominal average wages). The Trustees have assumed that the taxable base will fall both because a smaller portion of income will be received in the form of wages and because a higher percent of wages will accrue to those with earnings above the contribution and benefit base. Therefore, by 2075 little over a third of national income will be taxed to support OASDI beneficiaries.

Some analysts have questioned the usefulness of calculating actuarial balance over a 75 year period. Projections of demographic trends, and, more importantly, economic variables over such long periods is inherently difficult, and relatively small changes to assumptions can change the projections significantly. Some analysts have argued that projections are based on rather

pessimistic economic assumptions. For example, according to intermediate cost projections, real GDP and labor productivity will grow at only 1.3% per year. In fact, labor productivity has grown at a rate of approximately 2% per year since 1870, and at 2.7% per year between WWII and 1973, while real GDP grew at an annual rate of 3.7% from 1870 to 1973. Even if productivity and GDP grew at only two-thirds of long-term trends, Social Security's financial problems would be eliminated. A counter-argument is that U.S. economic performance after 1973 has generally been worse than long-term averages, and it is more prudent to project weak performance into the future than to presume that high growth might return. On the other hand, it has been noted that these pessimistic assumptions were incongruously adopted in the Trustee forecasts during the "Goldilocks" 1990s expansion, when U.S. economic performance did return toward historical averages. Furthermore, the assumptions adopted may not be internally consistent. For example, if labor force growth rates are as low as the Trustees have assumed, one might expect that real wage growth should be higher than the assumed 0.9 percent as excess demand for labor pushes up its relative return, and labor productivity growth should be higher as firms substitute capital for scarce labor.

More importantly, it is not clear that a national, public, retirement system ought to operate as if it were a private pension fund, building reserves today that earn interest and can be depleted in future years. In, say, 2035 when the Trust Fund needs to sell securities to the Treasury, the Treasury will have to raise taxes, cut other spending, or sell securities to cover retirement of debt held by Social Security. Surprisingly, this is exactly what the government would have to do even if Social Security had no Trust Fund at all! Suppose Social Security were operated as a paygo system, with each year's receipts equal to spending. When revenues begin to fall below benefit expenditures, the government would have to either increase taxes, reduce other spending, or borrow to cover the difference. Some, including Milton Friedman, have concluded that the Trust Fund is nothing more than an "accounting gimmick" because when Social Security begins to run deficits, existence of a Trust Fund cannot really provide for financing of its spending. Further, unlike a private firm, the U.S. government's revenues are not *market-determined*. If necessary, the government can raise tax rates or can deficit-spend to ensure that it meets its Social Security

obligations—things that private firms cannot do. Hence, while government cannot really build up a trust fund, it also does not need to do so.

What really matters is whether the economy will be able to produce a sufficient quantity of real goods and services to provide for both workers and dependents in, say, the year 2035. If it cannot, then regardless of Social Security's finances, the real living standards of Americans in 2035 will have to be lower than they are today. Those who take this approach argue that any reforms to Social Security made today should focus on increasing the economy's capacity to produce real goods and services, rather than on ensuring positive actuarial balances. For example, policies that might encourage public and private infrastructure investment will ease the future burden of providing for growing numbers of retirees. In a sense, this would be a *real* reform rather than a financial reform, although it is possible that financial reforms might encourage greater investment. Indeed, some advocates of privatization argue this will encourage more investment by entrepreneurs. Note, however, that even with the Trustee's rather pessimistic economic and demographic assumptions, real living standards are projected to rise substantially for both workers and retirees throughout the 75 year long-range period. Accordingly, Social Security does not face a real crisis even though it may face a financial crisis. Still, this may not be sufficiently comforting to future workers because although they will enjoy a growing real *economic pie*, the share of the pie going to retirees will grow. In fact, the share of GDP going to OASDI will grow from about 5 percent in 2000 to 7 percent for the period between 2030 and 2075. On one hand, this is a significant increase, but on the other, similar shifts have occurred in the past without generating economic crisis.

### **Reform Proposals**

Let us turn to some of the most important reform proposals. Perhaps the most extreme would be to abolish Social Security altogether, leaving it up to individuals to decide how to provide for their retirement. (However, it should be recalled that Social Security is not simply an old age security program; privatization could leave widows, dependents, and disabled persons to their own devices.) Some reformers recognize that individuals generally underestimate the future costs

of retirement, thus, some sort of mandatory minimum contribution levels should be maintained even if the program were privatized. Another variation would maintain basic coverage in a mandatory, government-run program, but would allow individual control over supplemental investments in privately-run pension funds. Finally, some proposals would retain most features of the current system, but would direct the Trustees to invest a specified portion of the Trust Funds in private equities.

Some reformers advocate privatization simply as a matter of principle—for example, Milton Friedman has long argued that there is no justification for mandatory participation in a public system. Others emphasize that as currently designed, Social Security has a strong redistributive element—both within and across generations. They typically use a *money's worth* estimate to calculate a return to one's contributions. Those with high earnings and thus high contributions receive low returns when they eventually collect benefits, while those with low earnings receive higher returns. Many beneficiaries never actually contribute, thus, contributions of others are *redistributed* to them. Returns also vary greatly by generation—early participants in Social Security received very good returns on their contributions, but returns for later generations are much lower. Thus, some reformers emphasize that reform should be geared toward ensuring better *money's worth* outcomes for contributors, both within generations and across generations. It should be noted, however, that while some attention was paid to such equity concerns in the original Social Security Act, *money's worth* was not a high priority in the beginning and most amendments since have moved the program ever further from this consideration.

Still, most reformers in recent years have pushed privatization to resolve the long-range financial imbalance of Social Security, with *money's worth* calculations playing a smaller role. It is argued that under current arrangements, the Trustees can hold only government bonds with relatively low interest rates. Allowing investments in the stock market and other private assets could increase returns on the Trust Fund. Such arguments were given a tremendous boost by the spectacular performance of U.S. stock markets from the mid 1980s through 2000. Many proponents argue that equity markets should earn real returns of about seven and a half percent

per year—as they have averaged since the 1920s—probably more than double the real return on government debt. Over the long-range 75 year period, these higher returns could resolve Social Security’s financial problems.

However, opponents have raised several objections. First, there will be a costly transition period as the system becomes privatized, during which current workers must finance the cost of the existing Social Security system (paying taxes to finance the benefits going to current retirees), plus the costs of building up their own retirement funds. Thus, a fairly large, immediate, tax increase will be required, and must remain in place for several decades until all those covered under the old system have died. Second, it is probably inconsistent to argue that real GDP growth will slow (to 1.3% per year, little over one-third its long-term average) without affecting growth of equity prices. Critics have shown that this implies either that the share of distribution of national income going to profits must grow to implausibly high levels (indeed, Dean Baker has calculated that wages must be *negative* by 2070), or that price-earnings ratios (already at all-time highs in 2000) must rise to truly astronomical levels (on Baker’s calculation, to 485-to-1 by 2070). On the other hand, privatizers believe that the influx of money into stocks would generate more investment and thus higher economic growth. Third, privatization might place unacceptable levels of risk on workers. Even if the stock market were to grow at an average rate of over 7% per year, there could be relatively long periods of below-normal growth. In the past, equity prices have been fairly flat for decades at a time. Unlucky workers whose retirement happened to come after such a period could face deprivation during retirement. Furthermore, if workers are given individual control over their retirement accounts, they might do poorly even if the markets as a whole are doing well. Fourth, numerous small retirement accounts can be very costly to administer and supervise. Current costs of administering Social Security are exceedingly small—well under one percent of revenues. Privatizers often point to the Chilean example as evidence that a private system can produce high returns for contributors, however, overhead costs in Chile are above ten percent. While private fund managers were initially supportive of the move to privatize, they have become less enthusiastic as they have come to realize the logistics of managing many small accounts for lower income workers. Fifth, some

critics have argued that because women typically have lower incomes, spend more time out of the labor force, and more often work part-time, most privatization reforms would adversely affect benefits paid to women. Others have noted that because blacks and Hispanics typically have lower income and lower life expectancies, privatization reforms as well as raising normal retirement age would have a disproportionately negative impact on them. Finally, critics note that privatization schemes do not, and probably cannot, offer the same kinds of coverage currently offered by Social Security. For example, private pension plans do not offer inflation indexing, as Social Security does. As discussed, Social Security also offers coverage for many individuals without significant work histories. If the program is privatized, a new social safety net would have to be created to cover individuals who would not be able to purchase private insurance.

With the large turn-around of the federal government budget in the U.S. in the late 1990s (from chronic deficits to record surpluses), President Clinton and many others proposed that budget surpluses could be set aside to resolve Social Security's financial problems. Essentially, President Clinton would have increased the size of the Trust Fund by an amount equal to just under two-thirds of annual budget surpluses. The larger Trust Fund would then earn more interest and would have more treasury securities to sell when program revenues fall below expenditures. However, as noted above, when the Trust Fund sells securities, the Treasury will have to cut other spending, raise taxes, or sell securities to the general public to cover the payments made to the Trust Fund. Furthermore, like most financial fixes, this reform will not necessarily increase future productive capacity. Indeed, it is not necessary for the federal government to run surpluses for it to credit the Trust Fund with more securities—the Treasury can add securities worth any amount to the Trust Fund at any time (in principle, it can add an amount equal to the entire Social Security shortfall today, thereby resolving any financial difficulties). Alternatively, the Treasury could simply agree to pay a higher interest rate on Trust Fund assets—paying whatever interest rate that would eliminate the actuarial gap. While somewhat ludicrous, these alternatives emphasize that accumulating a Trust Fund of Treasury securities really cannot resolve future annual deficits in the Social Security program.

Furthermore, as emphasized above, what really matters is the economy's capacity to produce real goods and services in the future. Hence, if the amount that can be produced will not be sufficient to provide the level of consumption desired by all generations in the future, it will be necessary to either boost production or to ration consumption. Extending the normal retirement age (which is essentially a benefit cut) will keep workers in the labor force longer, and will reduce the number of years they must be supported during retirement. Increasing taxes on future workers will leave them with lower purchasing power, ensuring more of the nation's output can go to retirees. Cutting future OASDI benefits will do the opposite—allocating more output toward workers and others with incomes that are not dependent on Social Security. Fortunately, given increases to worker productivity that reasonably can be expected to occur, plus increases to production facilities that are likely to take place as a result of public and private investment, it appears quite likely that future workers and future retirees will enjoy higher living standards than do their counterparts today—in spite of the aging of America.

4542 words

## **BIBLIOGRAPHY**

Advisory Council on Social Security. 1997a. Report of the 1994\_1996 Advisory Council.

Vol. I: Findings and Recommendations. Washington, D.C.: Government Printing Office.

\_\_\_\_. 1997b. Report of the 1994\_1996 Advisory Council. Vol. II: Report of the Technical Panel on Trends and Issues in Retirement Savings, Technical Panel on Assumptions and Methods and Presentations to the Council. Washington, D.C.: Government Printing Office.

Arnold, R. Douglas, Michael J. Graetz, and Alice h. Munnell, editors, 1998. Framing the Social Security Debate: Values, politics, and economics, Washington: National Academy of Social Insurance.

Baker, Dean. 1998. "Saving Social Security in Three Steps." Briefing Paper. Washington, D.C.: Economic Policy Institute.

----- . 1997. "Saving Social Security with Stocks: the promises don't add up", The Century Foundation, [www.tcf.org/publications/social\\_security/saving\\_ss/](http://www.tcf.org/publications/social_security/saving_ss/)

Ball, Robert M. with Thomas N. Bethell. 1998. Straight Talk about Social Security: An analysis of the issues in the current debate, New York: The Century Foundation Press.

Cadette, Walter M. 1997. Safeguarding Social Security. Public Policy Brief No. 34. Annandale\_on\_Hudson, N.Y.: The Jerome Levy Economics Institute.

Darby, Rose and Michelle Celarier, 1999. "Where's the Payoff?", Investment Dealer's Digest, August 1999, pp. 2-8.

Easterlin, Richard A. 1987. Birth and Fortune: The Impact of Numbers on Personal Welfare. 2d ed. Chicago: University of Chicago Press.

Eisner, Robert. 1998. Social Security: more, not less, New York: Century Foundation Press.

Fagnoni, Cynthia. 1999. "Social Security and Minorities: Current benefits and implications of reform." United States General Accounting Office, Testimony before the Subcommittee on Social Security, Committee on Ways and Means, house of Representatives, GAO/T-HEHS-99-60, February 10.

Feldstein, Martin S., editor, 1999. Privatizing Social Security. Chicago : University of Chicago Press.

Friedman, Milton, 1999. "Social Security Chimeras", New York Times, January 11, p. A-17.

Greenstein, Robert, Wendell Primus, and Kilolo Kijakazi. 1998. "The Feldstein Social Security Plan", Center on Budget and Policy Priorities, [www.cbpp.org/12-16-98socsec.htm](http://www.cbpp.org/12-16-98socsec.htm), December 15.

Langer, David. 2000. "Cooking Social Security's Deficit", The Christian Science Monitor, January 4

Mueller, John. 1998. "The Stock Market Won't Beat Social Security", Challenge, vol 41, no. 2, March/April pp. 95-117.

Papadimitriou, Dimitri B., and L. Randall Wray. 1999. Does Social Security Need Saving? Public Policy Brief No. 55. Annandale\_on\_Hudson, N.Y.: The Jerome Levy Economics Institute.

Peterson, Peter G. 1996. Will America Grow Up Before It Grows Old? New York: Random House.

Skidmore, Max J. 1999. Social Security and its Enemies: the case for America's most efficient insurance program, Westview Press: Boulder, Co.

Social Security Administration. 1999. Annual Report of the Board of Trustees of the Federal Old\_Age and Survivors Insurance and Disability Insurance Trust Funds. Washington, D.C.: Government Printing Office.

Summers, Lawrence, and Janet Yellen. 1999. "Saving the Surplus will Protect Retirees", Wall Street Journal, February 18.

Williamson, John. 1997. "Should Women Support the Privatization of Social Security?" Challenge, vol 40, no. 4, July/August, pp. 97-108.