Social Security: Who Gains? Who Loses?

Staff Report

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EXECUTIVE SUMMARY

Social Security has been a bonanza for elderly citizens now drawing benefits. On the average,

- Elderly citizens are receiving Social Security retirement pensions four to five times greater than the taxes they paid to support those pensions.

- Medicare benefits are from 12 to 14 times greater than the taxes paid to support these benefits.

A far different future is in store for today's young workers, however. When the entire package of Social Security benefits (retirement pensions, Medicare, disability benefits and survivors benefits) is compared with expected Social Security taxes, almost all young people are promised a bad deal under Social Security — even if all of the promises being made are actually kept. The losses these young people will incur are huge. For example,

- A 20 year-old male worker earning the median wage can expect to pay $32,767 more in Social Security taxes than he and his family will receive in Social Security benefits.

- A 20 year-old working couple, earning the median wage paid to male and female workers, can expect to pay $82,814 more in taxes than they will receive in benefits.

- For young professional couples, each earning the incomes in excess of $42,000, the lifetime losses from Social Security will be more than $200,000.

If Social Security reneges on its future promises, these losses will be much greater. The personal consequences for families counting on these benefits could be tragic. According to the Social Security Administration's own projections,

- When today's young workers retire, the payroll tax needed to pay promised benefits may be as high as 33 percent of worker's incomes.

- The payroll tax may have to exceed 40 percent of workers' incomes in order to pay retirement benefits to children born today.

When the baby boom generation retires and looks to a much smaller working population to pay its benefits, Social Security will face a financial crisis of alarming magnitude. This will occur sometime in the next century. Yet, if we wait until then to deal with the problem there will be few options available.

The future financial crisis of Social Security can be averted only if we act today. This will require moving to a system of private pensions. It will require replacing the "chain letter" approach of Social Security with a system in which each generation is committed to paying its own way.

INTRODUCTION[1]

Ida Fuller was a former legal secretary who became Social Security's first retiree in January, 1941. At the time she retired, Ida Fuller and her employer had contributed exactly $45.08 in Social Security taxes. Yet by the time she died, she had collected about $21,000 in Social Security benefits.

The experience of Ida Fuller has been repeated again and again by millions of retiring workers over the last 45 years. It is an experience that accounts for the enormous political popularity of the Social Security system. People who have reached the retirement age invariably have found that they could expect to collect Social Security benefits far in excess of the taxes they paid. Moreover, since 1965, Social Security retirees have enjoyed an additional bonanza: benefits from Medicare far in excess of any Medicare taxes they paid. Even today, the Social Security system continues to be a "good deal" for our nation's retirees:

- On the average, people over 65 years of age are collecting retirement pensions four to five times greater than the value of the taxes they paid into the system to support these pensions.[2]

- Medicare benefits for the average senior citizen are from 12 to 14 times greater than the Medicare taxes they paid.[3]

A much different picture emerges for most young people entering the labor market today, however. Indeed, by almost any realistic projection, today's young workers can expect to pay far more in Social Security taxes than they ever will receive in Social Security benefits. By our calculations,[4]

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[1]This report was prepared by Peter Ferrara, John Goodman, and the NCPA staff. We would like to thank William T. Rule III for technical assistance on this study.

[2]See, for example, Michael Boskin, Too Many Promises: The Uncertain Future of Social Security, A Twentieth Century Fund Report, (Homewood, Illinois: Dow Jones - Irwin, 1986), p. 8.

[3]See, for example, Peter Ferrara, John Goodman, Gerald Musgrave and Richard Rahn, Solving the Problem of Medicare, National Center for Policy Analysis, NCPA Policy Report #109, January, 1984.

[4]In these and in all following calculations, Social Security benefits include the expected value of Social Security retirement pensions, survivors and disability benefits and Medicare benefits. Social Security taxes include the full payroll tax needed to fund these programs -- both the "employee's share" and the "employer's share."

- A worker earning the median wage paid to male workers in 1986 can expect to pay $32,767 more in Social Security taxes than he and his family will receive in benefits.

- If the man's wife also works and earns the median wage paid to female workers, the couple's total loss from Social Security will be $82,814.

In order for today's young workers to receive any benefits during their retirement years, taxes to pay for these promised benefits must be collected from future workers. And, by almost any realistic projection, the tax burden that will be needed to pay these benefits will be huge.

- In order to pay promised Social Security benefits to today's young people, between 23 and 38 percent of workers' incomes will have to be collected in the form of payroll taxes in the next century.

- That means that future workers will have to pay as much as 38 percent of their incomes just to support the Social Security system -- in addition to taxes needed to pay for education, defense and other services government provides.

A tax burden of this magnitude is greater than any burden ever experienced or imagined in U.S. history. It also is a burden that future taxpayers are unlikely to be willing to bear.

In order to understand why the future looks so bleak, we must first take a closer look at how the Social Security system works.

HOW SOCIAL SECURITY WORKS[5]

From its beginning, the Social Security system has been surrounded by a steady, continuing stream of misleading advertising -- funded and promoted mainly by the Social Security Administration itself. Even today, booklets published by the Social Security Administration encourage workers to believe that "their money" is being held secure in "trust funds" from which their future benefits will be paid. In this way, people have been encouraged to think of Social Security as analogous to a private pension plan or even a private savings account. In fact, nothing could be further from the truth.

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[5]For a general overview of the Social Security system and its problems see A. Haeworth Robertson, The Coming Revolution in Social Security (McLean, Virginia: Security Press, 1981); and Peter J. Ferrara, Social Security: The Inherent Contradiction, (Washington, D.C.: Cato Institute, 1980).

Pay-As-You-Go Finance

In contrast to its public image, Social Security bears scant resemblance to a private pension fund or a personal savings account. In general, no money is being stored away in bank vaults to pay future benefits. Instead, all dollars paid into the Social Security system are spent quickly -- to finance benefits for today's retirees. According to the Social Security Administration's own accounting,

- The trust fund earmarked to pay retirement pensions has enough money to pay only three months of benefits.

- This means that if we stopped collecting Social Security taxes, the system would survive only three months.

A system that operates in this way is called a "pay-as-you-go" system. It is a system in which each generation's benefits are paid for by taxes imposed on the next generation. As such, Social Security often has been compared to a chain letter or a Ponzi scheme.[6] This comparison is apt, with one important exception. Whereas chain letters and Ponzi schemes require voluntary participation by gullible, new investors, participation in Social Security is mandatory and future investments in the system are assured by the coercive power of taxation.

The Myth of the Trust Funds

One way in which the false analogy to private pensions has been perpetrated is by the creation of Social Security "trust funds." Currently one fund is maintained for pension and survivors benefits, one for disability benefits, and one for Medicare.

These funds are "trust funds" in name only. The only assets they hold are U.S. government debt. Thus, the assets of these funds are simply I.O.U.s that the federal government writes to itself. When Social Security taxes exceed Social Security expenditures the surplus is used by the federal government to fund other spending programs. When Social Security expenditures exceed Social Security taxes, revenues collected from general taxation must be used to cover the deficit.

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[6]The term "Ponzi scheme" is named after a turn-of-the-century Boston con artist. Under the scheme, funds contributed by new participants are not invested in income-earning assets. Instead, they are used to pay handsome returns to other, earlier investors. Such schemes are illegal because no real investments are made, and by design they eventually must go bankrupt.

The upshot is that all money collected in taxes -- whether Social Security taxes, income taxes, or any other type of federal taxes -- is spent by the government as it is collected. There is no money being invested for use by future generations. As a consequence, the benefits paid to any future generation of retirees can be funded only by taxes imposed on a future generation of workers.

Gains and Loses

Because of its similarity to a chain letter, the Social Security system generates a predictable pattern of rewards for those who participate in it. People like Ida Fuller, who retired in the early years, made out like bandits. Those who came later did less well. In general, the younger you are the worse you fare under the system.

In part this is true because of the changing ratio between the number of workers paying taxes into the system and the number of beneficiaries drawing benefits:[7]

- In 1950 there were 48 million workers and only three million beneficiaries -- a ratio of 16 to one.
- By 1979, there were 114 million workers and 35 million beneficiaries -- a ratio of about three to one.
- Sometime in the next century the ratio of workers to beneficiaries will fall to two to one, or lower.

Thus, considering nothing other than the demographics of Social Security, it is inevitable that as we move into the future it will be increasingly difficult to pay retirees the Social Security benefits that have been promised them, and impossible to provide them with the bonanza enjoyed by their parents and grandparents.

Welfare for the Rich

When Social Security was enacted, it was thought of as a program that would address the problem of poverty among the elderly. Today, however, that problem is relatively minor. The elderly now have a lower poverty rate than any other income group. In fact, when the value of in-kind benefits (such as government-provided medical care and housing) is included in family income, the poverty rate among elderly families is only 3.5 percent.

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[7] Robertson, The Coming Revolution in Social Security, page 54.

Not only has the problem of poverty among the elderly virtually vanished, the average elderly family today enjoys a higher standard of living than it did prior to retirement.[8]

- On the average, elderly couples receive the same amount of before-tax income in retirement as their average lifetime earnings (adjusted for inflation).

- When adjustments are made for other factors (such as tax advantages, no children, etc.) elderly couples enjoy about 57 percent more income than they received during their working years.

The elderly not only are living better in retirement than they lived during their working years, they also have higher incomes and more assets than the workers who pay taxes to support them.

- In 1970, the per capita, after-tax income of the elderly was greater than that of the non-elderly, and the difference has been growing since then.[9]

- Between 1980 and 1984, the real income of elderly families grew three times as faster than the average real income of all U.S. families.[10]

Social Security, then, is a program which transfers income from those who have less to those who have more. And, among the elderly, unearned benefits from Social Security are highest for those retirees with the highest pre-retirement income.[11] Far from being a poverty program, Social Security is making the distribution of income more unequal than it otherwise would be.

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[8]Boskin, Too Many Promises, p. 32. Income replacement is greatest for those families with the lowest incomes. For example, low-income elderly families enjoy twice as much income than they received prior to retirement, after adjustments are made.

[9]Michael Hurd and John Shoven, "Real Income and Wealth of the Elderly," American Economic Review, May, 1982.

[10]David Henderson, "Analyzing the Reagan Record," National Center for Policy Analysis, NCPA Policy Report No. 114, November, 1984.

[11]Although benefits as a percent of pre-retirement earnings are higher for low-income families than for high-income families, more actual dollars go to high income families. Put another way, if 80 percent of Social Security benefits are "unearned," more "unearned" dollars go to wealthy retirees than to poor retirees.

PREDICTING THE FUTURE

Projections of the future of Social Security are vitally important in making policy decisions today. A 20 year-old worker expects to draw Social Security benefits 50 years from now. A child at birth can be expected to draw Social Security benefits 75 years from now. Thus, projections which extend as far as 75 years into the future have important bearing on the lifetime decisions of today's children, who are forced to plan for the future.

For this reason, an enormous amount of time and effort has been expended -- both inside and outside of the Social Security Administration -- in an attempt to make intelligent guesses about what the future holds in store.

Projections Made By The Social Security Administration

Of the large number of projections made by the Social Security Administration, three have received considerable attention. These are popularly known as the "optimistic," "intermediate," and "pessimistic" projections.[12]

These projections are based on assumptions about the economy, about the choices people will make, and about advances in life-saving and life-prolonging health care technology. The differences in these assumptions generally are quite modest. As Table I shows, there is no more than one percentage point difference in the assumptions used for the "intermediate" and "pessimistic" projections. Yet these small differences in assumptions lead to huge differences in projections of what life will be like 60 to 70 years from now. For example,

- On the basis of the "optimistic" projection, 65 years from now there will be five workers for every two retirees.
- According to the "intermediate" projection, there will be four workers for every two retirees; and according to the "pessimistic" projection there will be only three workers for every two retirees.
- Depending on which projection is right, the payroll tax needed to pay Social Security benefits in the future will be only slightly greater than it is today, or it will consume as much as 38 percent of workers' incomes.

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[12]Technically, they are known as Social Security financing alternatives IA, IIB, and III.

TABLE I

ASSUMPTIONS BEHIND THE PROJECTIONS [a]

Key Variables	Intermediate Projection [b]	Pessimistic Projection [c]
Rate of Inflation	4 %	5 %
Rate of Unemployment	6 %	7 %
Rate of Growth of Real Wages	1.5 %	1 %
Fertility Rate [d]	Substantial Increase	Historic Trend Maintained
Change in Life Expectancy	Rate of Growth Will Slow	Historic Trend Maintained

a. The numbers in the Table below are long-term rates, assumed to prevail over a 75 year period. These rates are assumed to differ somewhat in the short-term.

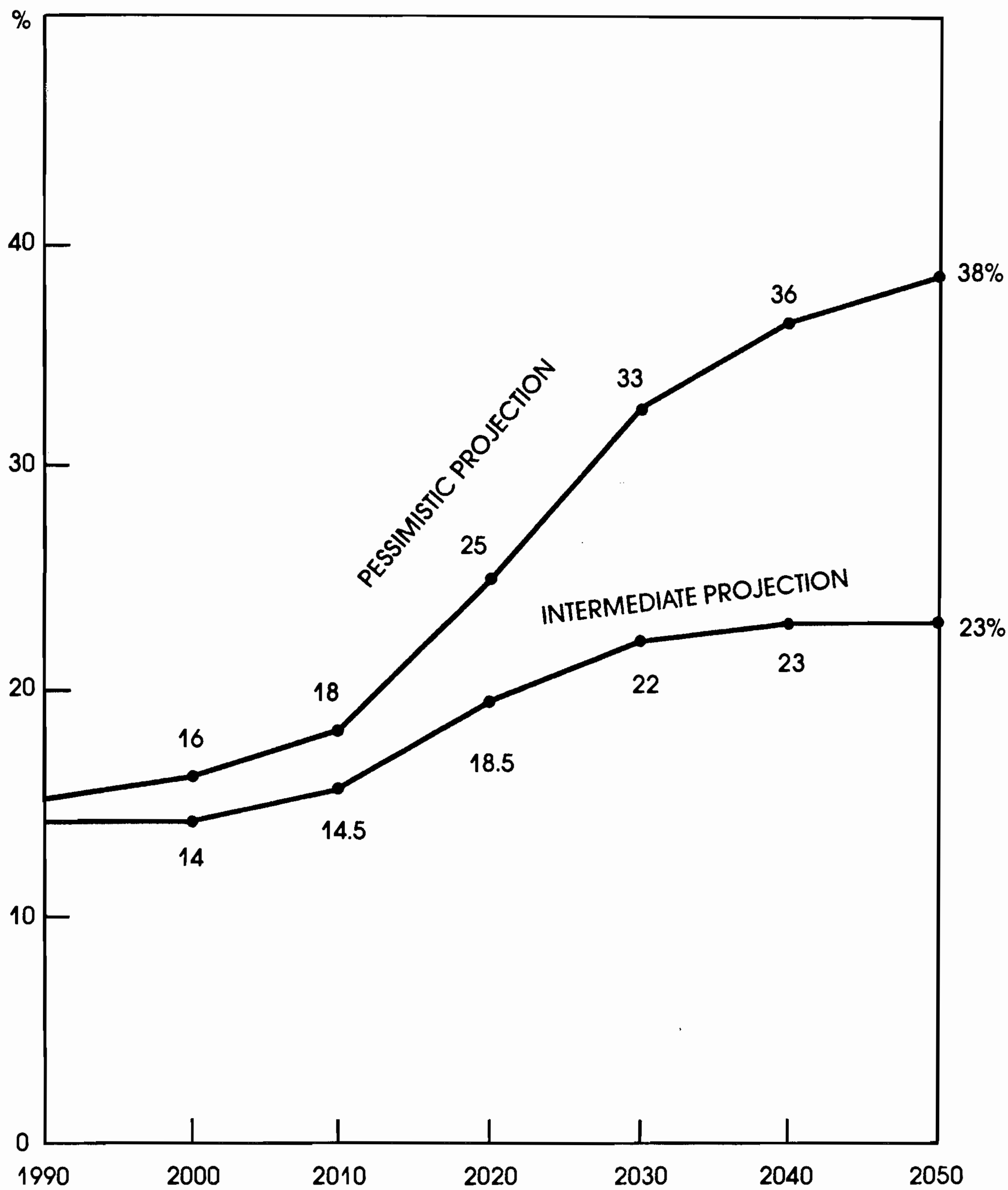
b. Social Security Financing Alternative IIB Assumptions.

c. Social Security Financing Alternative III Assumptions.

d. The fertility rate is the average lifetime births per woman that could be expected, given births experienced by women at each age in that year.

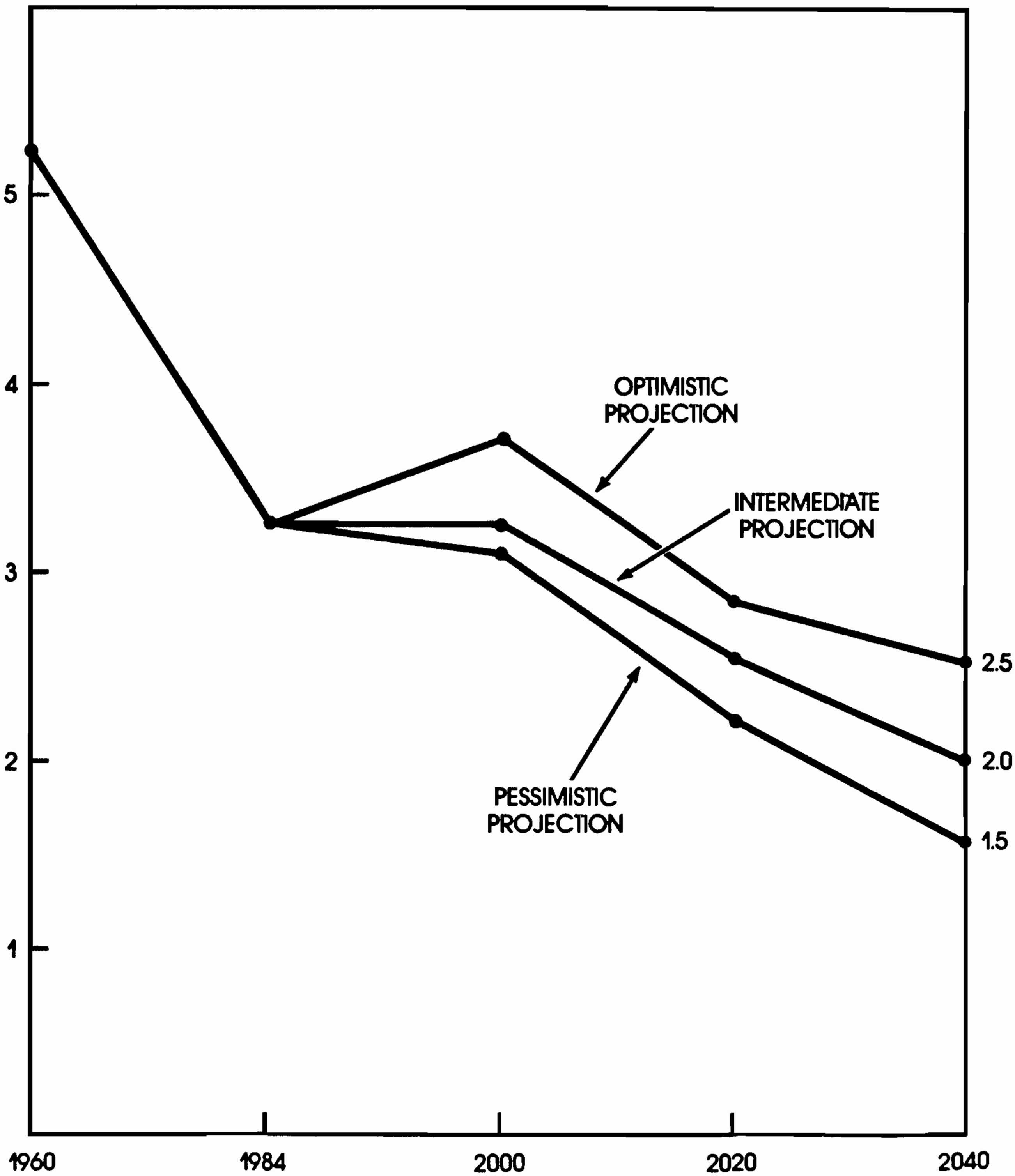
Source: 1985 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Trust Funds, March 28, 1985.

SOCIAL SECURITY EXPENDITURES AS A PERCENT OF THE NATION'S TOTAL TAXABLE PAYROLL



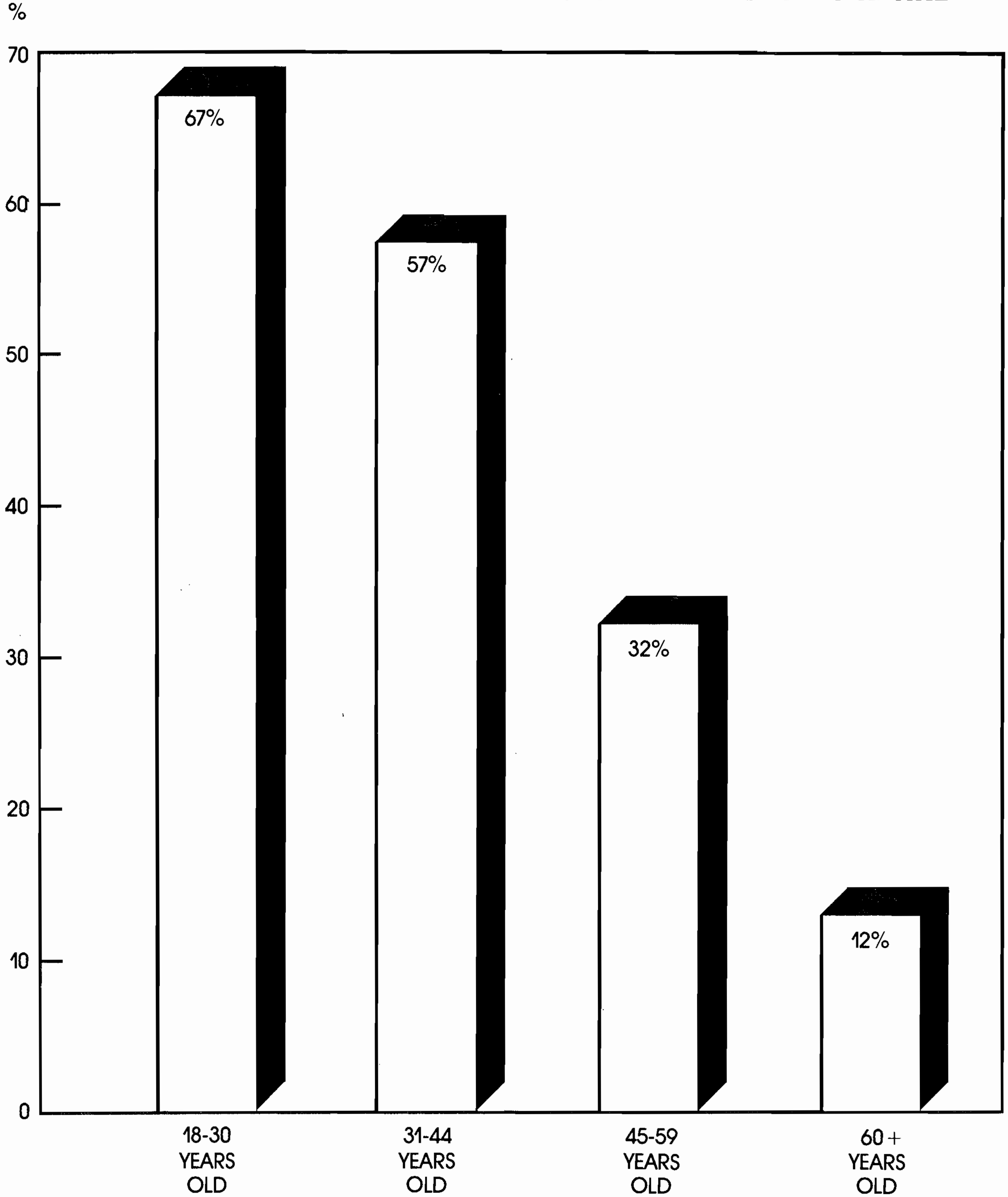
SOURCE: SOCIAL SECURITY ADMINISTRATION

NUMBER OF WORKERS FOR EACH SOCIAL SECURITY BENEFICIARY



SOURCE: SOCIAL SECURITY ADMINISTRATION

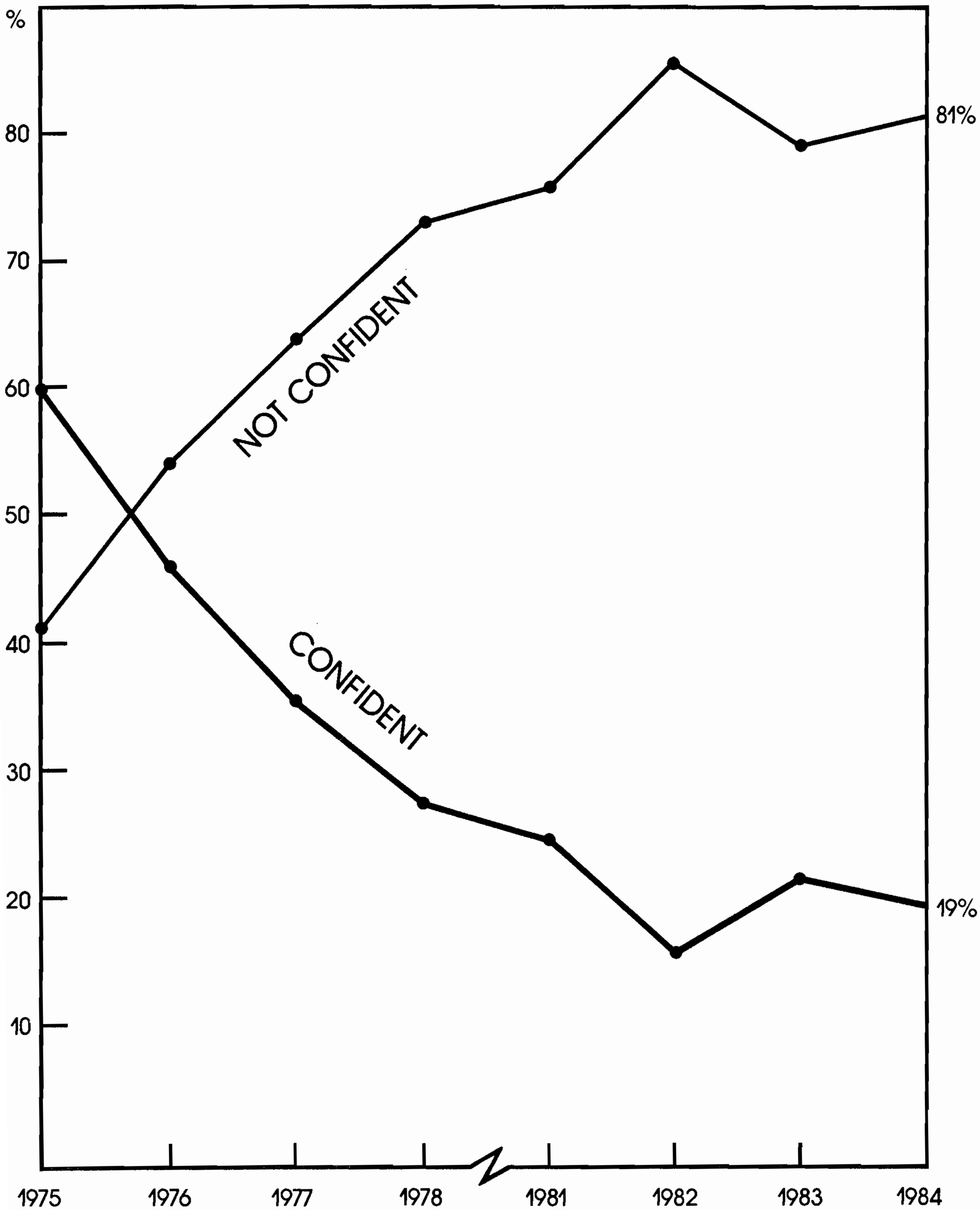
PERCENTAGE OF PEOPLE WHO BELIEVE SOCIAL SECURITY WILL NOT EXIST AT THE TIME THEY RETIRE



SOURCE: ABC/WASHINGTON POST POLL, JANUARY 11-16, 1985. REPRINTED IN PUBLIC OPINION, AMERICAN ENTERPRISE INSTITUTE, APRIL/MAY, 1985, P.22.

CONFIDENCE IN THE FUTURE OF SOCIAL SECURITY

(PEOPLE AGE 25-29)



SOURCE: SURVEYS BY YANKELOVICH, SKELLY AND WHITE. REPRINTED in PUBLIC OPINION, AMERICAN ENTERPRISE INSTITUTE, APRIL/MAY, 1985, P.22.

Which Projections Are Right?

Because the Social Security Administration is part of the federal government and because its published reports have obvious political ramifications, many observers believe that the official projections tend to be biased toward the hopeful rather than the realistic. The so-called "intermediate" assumptions, they say, would be more properly designated "optimistic." The so-called "pessimistic" assumptions are more properly labeled "realistic" and are far from the worst results that could happen.[13] For example, under the "pessimistic" assumptions the future rate of growth of real wages will be one percent. This assumption seems quite reasonable considering that real wages have grown at an average annual rate of one percent over the last 30 years; and over the last 15 years, real wage growth have actually been negative.

Furthermore, not even the "pessimistic" projection allows for any radical breakthrough in medical science. Given the enormous progress that has been made in our lifetime, one can only imagine what will happen over the next 50 to 70 years. If medical science finds a cure for any leading cause of death, the ratio of dependent elderly to workers could increase dramatically. For example,[14]

- A cure for all forms of cancer would automatically add three years to the life expectancy of the average person.
- Cures for all cardiovascular and renal diseases would add 11 years to life expectancy.

While most of us would consider these achievements positive and beneficial developments, they would have to be classified as "disastrous" by the forecasters at the Social Security Administration.

Both for reasons of scholarly integrity and for reasons of prudence, then, the "pessimistic" projections have garnered considerable interest and caused grave concern on the part of Social Security scholars. If they turn out to be even remotely accurate, our future could be a nightmare.

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[13] See for example, Rita Richardo-Campbell, "Social Security Reform: A Mature System in an Aging Society" in John H. Moore, ed., To Promote Prosperity: U.S. Domestic Policy in the Mid-1980s (Stanford, California: Hoover Institution, 1984); Peter J. Peterson, "The Coming Crash of Social Security," The New York Review of Books, December 2, 1982; A. Haeworth Robertson, "The National Commission's Failure to Achieve Real Reform" and Paul Craig Roberts, "Social Security: Myths and Realities," in Peter J. Ferrara, ed., Social Security: Prospects for Real Reform (Washington, D.C.: Cato Institute, 1985); James R. Capra, Peter D. Skepardas, and Roger B. Kubarych, "Social Security: An Analysis of its Problems,": Federal Reserve Bank of New York Quarterly Review, Autumn 1982.

[14] See Boskin, Too Many Promises, Table 2.13-2, p. 41.

Short-Term Surpluses and Long-Term Deficits

One of the difficulties in talking about the future of Social Security is that the future looks bright or bleak, depending upon how far into the future you look. This is because of important demographic changes that have already occurred. The "baby boom" generation, born during the high fertility years after World War II, is now working and paying Social Security taxes. The small generation born during the low-fertility years of the Great Depression and World War II are now in retirement and drawing Social Security benefits. This has created a favorable ratio of workers to retirees that will continue for some decades to come. Coupled with the substantial Social Security tax increases of the 1970s, this development promises to generate a substantial surplus in the combined Social Security trust funds, beginning in the mid 1990s.

This prospect has led a number of scholars to present an overly sanguine view of the future of Social Security.[15] Yet, beginning about 2015, this pattern will change dramatically as the baby boom generation begins to retire and looks for support to the small generation of workers born during the relatively low fertility years since the mid-1960s.[16]

- According to the "intermediate" projection, the combined Social Security trust funds will be exhausted by the year 2028, and by 2035 the payroll tax rate will have to be increased to 23 percent in order to pay promised benefits.

- According to the "pessimistic" projection, the trust funds will be exhausted by the year 2008, and by 2035 the payroll tax will have to be increased to 35 percent to pay promised benefits.

Another way of expressing the problem is in terms of Social Security's actuarial deficit -- the present value of projected expenditures minus projected revenues, given currently legislated payroll tax rates:[17]

- According to the "intermediate" projection, the current actuarial deficit in Social Security is between $3 and $4 trillion -- measured in current dollars.

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[15] See, for example Michael Boskin, "The Coming Social Security Surplus," Fortune, March 30, 1987, pp. 111-114; and Stuart Sweet, "America's Great Opportunity: The Incredible Social Security Surplus," A. B. Laffer Associates, Lomita, California, July 15, 1985.

[16] See 1987 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, March 28, 1987, and 1987 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund, March 28, 1987.

[17] See the discussion in Boskin, Too Many Promises, pp. 15-18.

- According to the "pessimistic" projection, the current actuarial deficit in Social Security is between $14, and $15 trillion -- measured in current dollars.

EVALUATING THE FUTURE

Social Security confronts workers entering the labor market with a stream of potential costs and a stream of potential benefits. The potential costs are the payroll taxes imposed on their incomes during the years they work. The potential benefits are disability benefits, survivors benefits, retirement pensions and Medicare benefits. Each of these categories of benefits depends upon a contingency -- death, disability, old age, illness, etc.

To evaluate the value of participating in this system to an individual worker, we have constructed a new computer program.[18] Based on an individual's probability of living to all possible ages (up to 105 years of age) the program calculates the costs and benefits to an individual for each possible life span. The program also calculates the probability that an individual will become disabled and begin receiving disability benefits in any given year, as well as the probability that a disabled individual will re-enter the labor force in some future year. The program then evaluates the expected value of participating in a system with all of these possible outcomes.

In calculating the expected value of Social Security in this way, a central question is: What interest rate should be used to value the net costs and benefits of participating in the system?

Rates of Return on Alternative Investments

One way to evaluate the stream of costs and benefits promised by Social Security is to use the rate of return one would expect to earn by investing in the private capital market. Although this rate of return will vary from year to year, over longer periods of time an investor could expect to earn a real rate of return between three and seven percent by holding a conservative portfolio of stocks and bonds. Specifically,

- Over the 60-year period from 1926 through 1985, the annual real rate of return on all stocks in Standard & Poor's Index of 500 leading companies was 6.6 percent.[19]

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[18] The program was developed by William T. Rule III of Peat, Marwick, Main & Co.

[19] Stocks, Bonds, Bills and Inflation, 1986 Yearbook (Chicago, Illinois: Ibbotson Associates, Inc., 1986). The compiled data on the stock market only go back as far as 1926.

- From 1945 to 1985, the Standard & Poor's real return was 7.0 percent.[20]

- Over the period 1919 to 1985, the annual real rate of interest paid on corporate bonds was 2.9 percent.[21]

- If we exclude the period 1941 to 1951 (when price and interest rate controls were in effect) the real rate of interest for corporate bonds was 4.0 percent.[22]

It is important to note that these rates of return are calculated prior to the payment of any income taxes. It is appropriate to compare them to the rate of return individuals can expect to earn under Social Security because Social Security benefits are not subject to the federal income tax (up to certain income levels). However, under current law, individuals cannot avoid the payment of income taxes on investment income unless their savings are sheltered in an IRA account, a Keogh plan, or some other IRS-qualified private pension plan. Even in these plans, income taxes are only deferred. That is, investment income is not subject to income taxes until the time of retirement.

In addition, an investment in the private capital market requires the investor to assume some risks. But, so does an "investment" in Social Security.

How Risky Is An Investment In Social Security?

In previous studies evaluating the present value of Social Security, scholars traditionally have calculated the benefits and costs of participating by using the same real rate of interest as that paid on government debt.[23] For most of the post World War II period, that rate of interest has been approximately two percent.

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[20] Ibid.

[21] Calculated from Moody's Investor Service, Moody's Industrial Manual, Vol. 1, 1985, pp. 29-30; and Moody's Bond Survey, Vol. 77, No. 22, June 3, 1985, through Vol. 78, No. 1, January 6, 1986.

[22] Ibid. See the discussion in Peter Ferrara, Social Security Rates of Return For Today's Young Workers, National Chamber Foundation, Washington, D.C.: 1986, pp. 14-16.

[23] See, for example, Martin Feldstein and Anthony Pellechio, "Social Security Wealth: The Impact of Alternative Inflation Adjustments," in Colin Campbell, ed., Financing Social Security (Washington, D.C.: American Enterprise Institute, 1979), pp. 91-117; Anthony Pellechio and Gordon Goodfellow, "Individual Gains and Losses From Social Security Before and After the 1983 Amendments," Cato Journal 3 (Fall 1983): pp. 417-42 and Boskin, Too Many Promises.

The implicit assumption has been that government's promises to pay Social Security benefits are as equally certain and secure as the federal government's promise to pay off the notes and bonds that it issues. Clearly this assumption is wrong. In the first place, the federal government's promise to pay its debt is totally independent of whether the holders of that debt live or die (and leave the debt instruments to their heirs). Social Security is quite different. How much we pay in taxes and how much we receive in benefits is determined by how long we live more than any other contingency. As a consequence, both the costs and the benefits of Social Security to any particular individual are highly uncertain. For example,

- A white male born today has a 18 percent probability of dying before he reaches the age of 65.

- As a consequence, he has a 18 percent probability that he will never receive any retirement or Medicare benefits from the system.

In the second place, the Supreme Court has ruled that promises of Social Security benefits do not have the same constitutionally-guaranteed, or government-guaranteed legal status as government bonds and contracts. Participants in Social Security have no contractual right to promised benefits, and Social Security benefits can be reduced at any time by Congressional action.[24]

Whether the government actually will keep its promises when they come due is problematic. Within the last decade, promises made to Social Security beneficiaries have been broken on several occasions. If broken promises can occur within a payroll tax of 14.1 percent, how much more likely are they to occur as the payroll tax rate approaches 38 percent?

Recent opinion polls have shown that a majority of the American people, and a large majority of young people, have serious doubts about the future of Social Security. For example, in one recent poll:[25]

- Sixty seven percent of people between the ages of 18 and 30 expressed the opinion that the Social Security system will not exist at the time they retire.

- Among people age 31 to 44, 57 percent were of the opinion that Social Security would not exist at the time of their retirement.

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[24] See Flemming v. Nestor, 363 U.S. 610, 1960.

[25] Survey by ABC News/Washington Post, January 11-16, 1985. Reprinted in Public Opinion, American Enterprise Institute, April/May, 1985. p. 22.

Furthermore, opinion polls taken show that there has been a steady, almost unbroken increase in the lack of confidence in Social Security on the part of young people over the last decade.[26]

- Between 1975 and 1984, the percentage of people age 18 to 24 who expressed a lack of confidence in Social Security has grown from 55 percent to 69 percent.

- Among people age 25 to 29, the percent expressing a lack of confidence in the system has grown from 41 percent to 81 percent.

These considerations lead us to believe that the riskiness of an "investment" in Social Security depends on both the age and income level of various individuals. For low-income individuals currently receiving Social Security benefits, participation in Social Security is probably a relatively secure investment -- one approaching the security of an investment in U.S. government securities. For higher income retirees, Social Security is a riskier proposition, however -- particularly in view of 1983 legislation that for the first time subjected some Social Security benefits to the federal income tax.

In general, the younger you are the riskier participation in Social Security becomes. The perception of this risk is reflected not only in public opinion polls, it also is reflected in the official projections of the Social Security Administration itself. In what follows, we have based our evaluation of the costs and benefits of Social Security to young people on a relatively conservative assumption: a real interest rate of four percent. This is a lower rate of interest than the rate of return that could be expected on a conservative portfolio of stocks and bonds-- a portfolio that most young people would undoubtedly consider far less risky than participation in Social Security.[27]

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[26] Survey by Yankelovich, Skelly and White for the American Council of Life Insurance. Reprinted in Public Opinion, American Enterprise Institute, April/May, 1985, p. 22.

[27] For calculations of the present value of retirement and survivors benefits (for spouses) using a real interest rate as high as four percent, see Michael Boskin, Lawrence J. Kotlikoff, Douglas J. Puffert, and John B. Shoven, "Social Security: A Financial Appraisal Across and Within Generations," National Tax Journal, Vol. 40, No. 1, March, 1987, pp. 19-34. For an argument that the appropriate rate of interest is six percent, see E.K. Browning, "The Marginal Social Security Tax on Labor," Public Finance Quarterly, Vol. 13, No. 3, July, 1985.

ESTIMATES OF THE VALUE OF PARTICIPATING IN SOCIAL SECURITY

Table II shows the present value of participating in Social Security for 20 year-olds in 1986. In all cases, the table shows results based on the intermediate projection, the pessimistic projection, and an average of the two projections. A complete explanation of the assumptions used in making these calculations is contained in Appendix A.

Single Male Workers. At virtually every income level, a male worker entering the labor market in 1986 could expect to pay more in Social Security taxes than he and his family will receive in Social Security benefits. In general, the higher the income earned, the greater the loss. For example,

- A single, male worker whose income is equal to or greater than the maximum income that is subject to the Social Security payroll tax can expect to lose $101,610 as a result of participating in Social Security.

- A man earning the median wage paid to male workers in 1986 can expect to lose $57,669.

- The loss to a worker earning 150 percent of the minimum wage is $19,138.

The payroll tax needed to pay promised benefits at the age of retirement may be as high as 33 percent of taxable income, and will increase further during the worker's years of retirement. If Social Security benefits are lowered because of an unwillingness on the part of future workers to bear such a tax burden, the losses, of course, will be much greater.

Male Workers With Dependent Wives and Children. The mere act of marriage and the having of children increases expected Social Security benefits without any increase in Social Security taxes. As a result, the expected losses from Social Security are reduced. In this way, single workers subsidize married couples, and couples without children subsidize couples with children. As Table II shows,

- The mere act of marriage reduces the loss from Social Security by about $15,000 for a low-income couple; by about $19,000 for a median-income couple; and by about $22,000 for a high-income couple.

- Having two children reduces the loss from Social Security by another $3,500 for a low-income couple and by about $6,000 for median and high-income couples.

Interestingly, the higher the husband's income, the greater the subsidies Social Security confers.

Even with these subsidies, however, the losses most families can expect from Social Security are substantial. For example,

- A male (with a dependent spouse) earning the median income paid to adult male workers can expect to lose $38,775 as a result of participation in Social Security.

- If the couple has two children, the family's expected loss from Social Security is $32,767.

Working Couples. Social Security clearly penalizes families in which both spouses work. In all cases, working couples fare worse than families in which the wife does not work. This is because a dependent spouse is entitled to 50 percent of her husband's benefit even if she does not work. Thus, a woman who works and is entitled to draw Social Security benefits in her own right forfeits the spouse's benefit to which she would have been entitled anyway. In general,

- If both spouses earn high incomes the total loss from Social Security climbs to $200,609.

- If the husband and the wife earn the median incomes for male and female workers the total loss is $82,814.

- If both spouses earn 150 percent of the minimum wage the loss is $36,982.

The implications of this for working women are considered below.

TABLE II

PRESENT VALUE OF SOCIAL SECURITY FOR WORKERS ENTERING THE LABOR FORCE IN 1986

High-Income Workers

Case	Intermediate Estimate	Pessimistic Estimate	Average Estimate
1. Single male worker earning the maximum wage subject to the Social Security payroll tax.	- $98,876.	- $104,344.	- $101,610.
2. Male worker earning the maximum wage subject to the Social Security payroll tax. Dependent spouse, two children.	- 68,201.	- 77,161.	- 77,681.
3. Male worker earning the maximum wage subject to the Social Security tax. Dependent spouse. No children.	- 75,527.	- 83,612.	- 79,570.
4. Working couple. Both earning the maximum wage subject to the Social Security payroll tax. Two children.	- 192,060.	- 209,158.	- 200,609.

Assumptions:

1. Workers' average lifetime earnings are equal to, or greater than, the maximum taxable Social Security wage ($42,000 in 1986).

2. Workers enter the labor market at age 24.

3. At every age, workers are assumed to have worked continuously since entering the labor market.

4. The real rate of interest is four percent.

Average-Income Workers

	Case	Intermediate Estimate	Pessimistic Estimate	Average Estimate
1.	Single male worker earning the median income for male workers.	- $56,407.	- $58,903.	- $57,669.
2.	Male worker earning the median income for male workers. Dependent spouse. Two children.	- 30,092.	- 35,441.	- 32,767.
3.	Male worker earning the median income for male workers. Dependent spouse. No children.	- 36,491.	- 41,059.	- 38,775.
4.	Working couple. Male earns the median income for male workers. Female earns the median income for female workers. Two children.	- 78,514.	- 87,113.	- 82,814.

Assumptions:

1. Male's average lifetime earnings equal the median income paid to adult male workers ($26,605 in 1986). Female's average lifetime earnings equal the median income paid to adult female workers ($16,472 in 1986).

2. Both workers enter the labor market at age 22.

3. At every age, workers are assumed to have worked continuously after entering the labor market.

4. The real rate of interest is four percent.

Low-Income Workers

Case	Intermediate Estimate	Pessimistic Estimate	Average Estimate
1. Single male worker earning 150 percent of the minimum wage.	- $19,416.	- $18,860.	- $19,138.
2. Male worker earning 150 percent of the minimum wage. Dependent spouse. Two children	- 277.	-1,094.	- 686.
3. Male worker earning 150 percent of the minimum wage. Dependent spouse. No children.	- 4,183.	- 4,530.	- 4,357.
4. Working couple. Both earn 150 percent of the minimum wage. Two children. minimum wage.	- 35,438.	- 38,526.	-36,982.

Assumptions:

1. Workers' average lifetime earnings equal 150 percent of the minimum wage ($10,050 per year in 1986).

2. Workers enter the labor market at age 18.

3. At every age, workers are assumed to have worked continuously since entering the labor market.

4. The real rate of interest is four percent.

Source: Authors' calculations.

SOCIAL SECURITY AND THE DISTRIBUTION OF INCOME

One of the frequent criticisms of Social Security system, as we have seen, is that wealthy retirees receive greater "unearned" benefits than low-income retirees receive. In this way Social Security payments make the distribution of income among the elderly more unequal than it would otherwise be.

A possible implication of Table II is that the reverse phenomenon occurs among young people. That is, it appears that the system imposes a greater loss on high-income families than on low-income families. That need not be the case, however.

Effects on Low-Income Families. Our computer program does not take account of other, alternative federal benefits that are available to low-income families independent of the existence of Social Security. For example, a low-income family that reaches retirement with no assets qualifies for Medicaid -- the best and most complete health insurance policy to be found any where in the world. Although such a family has paid Medicare taxes, the Medicare benefits that it has "earned" essentially are valueless because the family qualifies for better health insurance coverage under Medicaid.

In addition, our program does not take account of the fact that low and moderate-income workers generally face a greater probability of disability or death than a high-income worker during the working years. The probability of disability or death increases the odds that the low-to-moderate-income worker's family will receive disability and survivors' benefits. But it decreases the probability of receiving retirement and Medicare benefits.

Finally, the probability that a wife will become a full-time member of the labor force diminishes as family income rises. Yet, as Table II shows,

- A two-earner couple earning the median income for males and females loses more from Social Security than a wealthy family in which the wife does not work.

- A two-earner couple in which both spouses earn 150 percent of the minimum wage loses more from Social Security than a median-income family in which the wife does not work.

Effects on Blacks and Other Minorities. Our program also does not distinguish between different life expectancies for different racial groups.[28] In general, blacks and Hispanics have lower life expectancies and, as a result, can expect to receive fewer years of retirement benefits. For example,

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[28]This inequity was addressed in The Effect of the Social Security Reforms on Black Americans, National Center for Policy Analysis Policy Report #104, July, 1983; and will be the subject of a future NCPA report.

- A black male at birth currently has a life expectancy of 65.6 years. By contrast, a white male has a life expectancy of 71.8 years[29].

- Thus, if there is no change in life expectancy in the future, a black male can expect to pay Social Security taxes for 45.6 years and die before receiving any retirement benefits.[30]

- By contrast, a white male can expect to receive 4.8 years of retirement benefits.

SOCIAL SECURITY'S BUILT-IN BIAS AGAINST WORK

One of the most startling facts revealed in Table II is the heavy penalties Social Security imposes on working spouses. The system also discourages productive work in other ways: through penalties on work by "retirees," through early-retirement incentives, and through its system of disability payments.

Penalties Imposed on Working Wives. As noted above, a dependent spouse is entitled to a spouse's benefit equal to 50 percent of her husband's benefit. Roughly speaking, if she enters the labor market and earns the same income as her husband, the family's payroll taxes will double. But because of the loss of the spouse's benefit, the family's net retirement benefits increase by only 50 percent. In this way, the Social Security system imposes heavy penalties on working wives. As Table II shows, among two-children families,

- If the wife of a high-income worker also becomes a high-income worker, the family's total loss from Social Security increases by $127,928.

- Among median-income workers, a wife's decision to work costs the family $50,047.

- Among low-income workers, a wife's decision to work costs the family $36,296.

- In all three cases, the family sacrifices about three years of the wife's gross income if she becomes a full-time participant in the labor market.

- For high-income families, the net loss from Social Security increases 167 percent. For median-income families, the loss increases 152 percent. For low-income families, the loss increases 529 percent.

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[29] National Center for Health Statistics, Vital Statistics of the United States: 1984 Life Tables, Vol. II Section VI, p. 15.

[30] At the time of his death, the Social Security retirement age will be 67 rather than the current age of 65.

Penalties Imposed on Working "Retirees." Today's elderly citizens are in better health and have longer life expectancies than at any time in history. Despite this fact there has been a steady decrease in the percentage of elderly workers in the labor market since World War II.

- Shortly after World War II, almost 50 percent of all men 65 years of age and older were in the labor market.
- Today, that figure is less than 18 percent.
- Among women age 65 and older, less than eight percent are in the labor market.

What accounts for this decline? Many economists believe that the reason is the sharp rise in Social Security retirement pensions coupled with stiff penalties for working.[31] For example, under current law, a worker between age 65 and 72 loses 50 cents in Social Security benefits for each dollar of earnings above $7,000. As Table III shows, the combination of this benefit loss and the Social Security payroll tax means that elderly workers face the highest marginal tax rates in the nation.

- Above the level of $7,000 of earnings, workers between age 65 and 72 face a marginal tax rate of 64.1 percent.
- This tax rate is higher than the marginal tax rate faced by any other group of workers, other than welfare recipients.

TABLE III

MARGINAL TAX RATES
FOR SOCIAL SECURITY RETIREES
(Age 65 - 72)

Type of Loss	Rate
Loss of benefits per dollar earned	50.0 %
Social Security tax rate	14.1 %
Total tax rate	64.1 %

[31] See Michael Hurd and Michael J. Boskin, "The Effect of Social Security on Retirement in the Early 1970s," The Quarterly Journal of Economics, November, 1984, pp. 767-790; and the Brookdale Foundation of New York City and the Community Council of Greater New York, Task Force on Employment and the Aging. Cited in the Socioeconomic Newsletter, Vol. XI, No. 2, March/April, 1986, p. 1 ff.

The decision to retire, rather than work, incidentally, has a huge impact on Social Security's financial crisis. According to one estimate, if people on the average extended the length of their retirement by as much as one year, Social Security's actuarial deficit would increase by $500 billion.[32]

Encouraging Early Retirement. Since 1961, all eligible participants in the Social Security system have had the option of early retirement, beginning at age 62. In return for early retirement, workers must accept a reduction in their monthly Social Security retirement benefits. As a result of this option, millions of near-elderly workers have dropped out of the work force. Currently,[33]

- About 70 percent of all Social Security retirees have taken advantage of the early retirement option.

- By one estimate, the creation of this option will have cost the Social Security system between $110 and $140 billion by 1990.

Liberal Disability Insurance Rules. Over the last decade there has been continuing controversy over whether Social Security's rules and procedures granting benefits to disabled workers are too liberal. One thing is for certain. The easier it is for workers to become classified as "disabled" and receive disability payments, the larger the number of "disabled" workers there will be. According to one estimate, the tightening of the rules on qualifying for disability in the early 1980s caused as many as 400,000 "disabled" individuals to re-enter the labor market.[34]

EFFECTS ON SAVING AND ECONOMIC GROWTH

The central feature of our Social Security system is that it provides income and medical benefits during the retirement years. If Social Security did not exist, people would have to save more during their working years in order to enjoy the same standard of living in retirement. For example, currently Social Security provides the elderly with about 37 percent of their money income. Were the elderly to receive the same money income they now enjoy without Social Security, it would have been necessary for them to save more than they actually saved during their working years.

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[32]See Boskin, Too Many Promises, p. 47.

[33]See Lowell B. Gallaway, "The Effect of Early Retirement on the Social Security System," Ohio University, unpublished paper.

[34]See David Henderson, Analyzing the Reagan Record, National Center for Policy Analysis, NCPA Policy Report #114, November, 1984, p. 11.

Because Social Security exists, however, individuals have less incentive to save. Put another way, since Social Security achieves the same result as private savings (providing a source of income during retirement), Social Security serves as a substitute for private savings. Because of the existence of Social Security, people save less than they would have saved.

If millions of people reduce the amount they save during their working years, however, there is a major impact on the economy as a whole. Without savings, there can be no investment, and without investment there can be no economic growth. Less private saving, therefore, means a lower rate of economic growth, and a lower standard of living for everyone.

To what extent does Social Security discourage private savings and reduce economic growth? One of the early answers to this question was provided by Harvard economist Martin Feldstein, former Chairman of the Council of Economic Advisors. According to Feldstein,[35]

- Each dollar of Social Security wealth reduces private savings by one dollar.[36]

- As a result, private savings is 38 percent lower, and our gross national product is 20 percent lower than would have been the case in the absence of Social Security.

Feldstein's original study led to numerous follow-up studies and a major debate amount Social Security economists. Currently, that debate is largely unresolved. One thing is certain, however, the current rate of private savings among people of working age is well below what it needs to be in order to provide people with an income from private sources during their retirement years that is comparable to the income they received prior to retirement.

SOCIAL SECURITY AND ALTERNATIVE INVESTMENTS

Although Social Security has proved to be a bonanza for people who are currently retired, the expected rate of return promised to workers at virtually every age level today is abysmal when compared to the alternatives offered by the private capital market. As the tables in Appendix B show,

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[35]Martin Feldstein, "Social Security, Induced Retirement, and Aggregate Capital Accumulation," Journal of Political Economy, 1974. See also Alicia Munnell, The Effect of Social Security; on Personal Saving, (Cambridge, Massachusetts: Ballinger, 1974).

[36]Social Security wealth is the present value of promised Social Security benefits.

- The great majority of all young people are promised a real rate of return of less than three percent by the Social Security system-- regardless of their family circumstances.

- Virtually all workers under the age of 50 would have fared better by investing in the private capital market than they can expect to fare under Social Security, provided that their private investment incomes were given the same treatment as Social Security benefits.

Social Security vs. Stocks and Bonds. Table IV shows how individuals at various age levels would have fared if they had been permitted to invest their Social Security taxes in the private capital market, earning real rates of return of four percent and six percent. It is sobering to realize that even low-income families at age 50 would be relatively wealthy today if they had been permitted to invest their Social Security taxes in the nation's capital stock. For example,

- If a working couple age 50 -- each earning only 50 percent more than the minimum wage -- had invested their Social Security taxes in private securities at a six percent real rate of return, today they would have private savings in excess of $184,000.

- If this couple engaged in no additional savings, their net wealth would exceed $368,000 (in 1986 dollars) by the time they reached age 62.

TABLE IV

HOW MUCH WOULD FAMILIES HAVE ACCUMULATED TODAY IF PAST TAXES PAID TO SOCIAL SECURITY HAD BEEN INVESTED IN OTHER ASSETS?

Low-Income Families

Worker's Age	Working Husband 4 %	Working Husband 6 %	Working Couple 4 %	Working Couple 6 %
35	$37,129.	$44,857.	$74,258.	$89,713.
40	$49,497.	$62,933.	$98,994.	$125,865.
45	$59,416.	$78,862.	$118,832.	$157,723.
50	$66,869.	$92,034.	$133,739.	$184,068.

Median-Income Families

Workers' Age	Working Husband 4%	Working Husband 6%	Working Couple 4%	Working Couple 6%
35	$54,591.	$63,025.	$89,831.	$103,724.
40	$75,372.	$91,238.	$125,936.	$152,718.
45	$92,134.	$116,167.	$156,402.	$198,072.
50	$105,362.	$138,835.	$180,326.	$237,251.

High-Income Families

Workers' Age	Working Husband 4%	Working Husband 6%	Working Couple 4%	Working Couple 6%
35	$60,136.	$67,285.	$120,272.	$134,569.
40	$82,849.	$96,843.	$165,697.	$193,686.
45	$102,352.	$124,766	$204,704.	$249,531.
50	$116,807.	$147,602.	$233,615.	$295,205.

THE POLITICAL STABILITY OF SOCIAL SECURITY

One of the difficulties in assessing the future of Social Security is the difficulty of predicting how much political support there will be to impose the taxes necessary to pay promised benefits in the future. In the past, Social Security has been politically popular because of a desire on the part of young workers to do something about the problem of poverty among the elderly, and because most young people viewed the system as being in their financial self interest.

Those perceptions may be rapidly changing, however. In the first place, the improving financial position of the elderly, relative to the rest of the population, means that Social Security is less likely to be viewed as a poverty program. In the second place, we have reached a point where a large majority of workers would gain financially if Social Security were simply abolished. That is, even if we ignore past taxes paid into the system, a majority of today's workers would be better off if they had the opportunity to opt out of the system and invest their expected future Social Security taxes in the private capital market.

As Tables V and VI show,

- Even at age 40, a male worker earning the median income would be better off if he could opt out of Social Security and invest his future Social Security taxes in a conservative portfolio of stocks and bonds.

- Among two-earner, median-income couples, families would gain from the abolition of Social Security even if they are in their late 40s.

Since, by definition, half of all workers earn more than the median wage, since workers in their forties tend to be above their lifetime average earnings, since in most families women spend considerable time in the labor market, and since most families in their forties are likely to view a conservative portfolio of stocks and bonds as more secure than the promises of Social Security, it seems likely that at every age level under age 50, a majority of families would gain financially if Social Security were abolished.

As a result, we may discover in the near future that political support for Social Security will deteriorate considerably.

TABLE V

GAIN/LOSS FROM ABOLISHING SOCIAL SECURITY: FUTURE TAXES MINUS FUTURE BENEFITS [a]

(Median-Income Male With a Dependent Spouse and Two Children)

Workers' Age	4 % Real Rate of Interest	6 % Real Rate of Interest
20	$32,767	$41,416
25	24,611	39,787
30	11,458	32,417
35	- 3,524	23,040
40	- 21,088	10,768
45	- 42,009	- 5,474
50	- 66,527	- 26,546

a. The table depicts an average of intermediate and pessimistic projections.

Source: Authors' calculations.

TABLE VI

GAIN/LOSS FROM ABOLISHING SOCIAL SECURITY; FUTURE TAXES MINUS FUTURE BENEFITS [a]

(Median-Income Working Couple With Two Children)

Workers' Age	4 % Real Rate of Interest	6 % Real Rate of Interest
20	$82,814	$77,698
25	73,677	77,510
30	56,904	68,553
35	37,818	57,074
40	15,412	41,995
45	- 11,399	21,861
50	- 43,080	- 4,519

a. The table depicts an average of intermediate and pessimistic projections.

Source: Authors' calculations.

PRIVATIZING SOCIAL SECURITY

Is there a way to provide genuine security for all our citizens without, at the same time, imposing huge and unfair burdens on young people, discouraging productive work and savings, and thwarting economic growth?[37]

Several years ago Peter Ferrara proposed such an alternative. It is called the "Super IRA."[38] Under the plan, workers would receive 100 percent income tax credits for contributions to an expanded IRA account. For each dollar contributed to the account, a worker would give up a dollar of promised Social Security benefits. As more contributions are made, over time, workers would build up private capital to fund their own retirement needs and would rely less and less on Social Security.

In the short run, the Social Security payroll tax would remain in place, as a necessary source of revenue to fund current Social Security obligations. But with the passage of time, workers' claims against Social Security would diminish. And with fewer Social Security promises to keep, Social Security payroll taxes gradually could be reduced.

Such a plan would move us away from the chain-letter program we now have -- in which each generation must depend upon the next generation to pay for its retirement benefits. It would substitute a program under which each generation pays its own way.

Note: Nothing written here should be construed as necessarily reflecting the views of the National Center for Policy Analysis or as an attempt to aid or hinder the passage of any bill before Congress.

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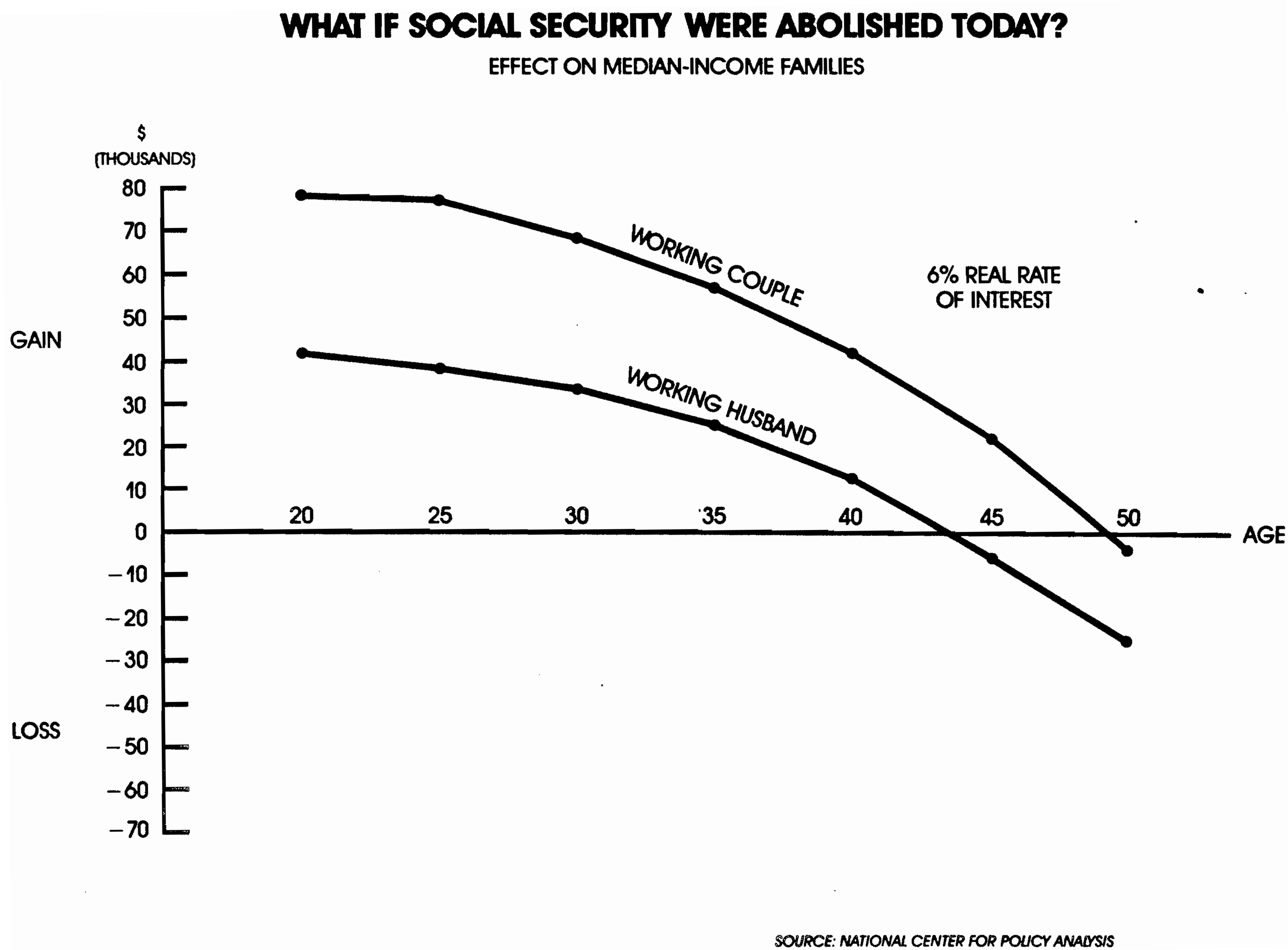
[37]Until recently it was commonly believed that mere discussion of radical reform of Social Security was political suicide for aspiring politicians. Times have apparently changed. Pete DuPont, Newt Gingrich and Bruce Babbitt have all made proposals for fairly sweeping reforms. See "Addressing the Unassailable in U.S. Politics," Wall Street Journal, December 15, 1986.

[38]See Peter J. Ferrara, ed., Social Security: Prospects for Real Returns (Washington, D.C.: Cato Institute, 1985); Ferrara, "The Social Security System" in Stuart Butler, Michael Sanera and W. Bruce Weinrod, eds., Mandate for Leadership II: Continuing the Conservative Revolution (Washington, D.C.: The Heritage Foundation, 1984); and Ferrara, "Rebuilding Social Security, Part 2," Heritage Foundation Backgrounder No. 346, April 1984.


WHAT IF SOCIAL SECURITY WERE ABOLISHED TODAY?
EFFECT ON MEDIAN-INCOME FAMILIES
$
(THOUSANDS)
80
70
60
50
40
30
20
10
0
–10
–20
–30
–40
–50
–60
–70
GAIN
LOSS
20
25
30
35
40
45
50
AGE
WORKING COUPLE
WORKING HUSBAND
6% REAL RATE
OF INTEREST
SOURCE: NATIONAL CENTER FOR POLICY ANALYSIS

APPENDIX A

ASSUMPTIONS BEHIND THE PROJECTIONS

Labor Market Participation. Workers are assumed to enter the labor market at age 18 (for low-income workers), age 22 (for median-income workers), and age 24 (for high-income workers). They are assumed to work continuously until they reach age 65, unless disabled. The computer program calculates the probability that a worker will become disabled, at some time in the future, and also calculates the probability that a worker once disabled will later re-enter the labor market.

Expected future taxes and benefits are calculated for workers at different ages. In each calculation, it is assumed that the worker has worked continuously from the time of entry into the labor market until the time the calculation is made. However, the calculation includes the probability of future disability.

Future Wages. Workers enter the labor market at certain wage. From that point forward, the worker's real income is expected to grow at the same rate as the rate of growth of real wages in the economy as a whole. This rate is 1.5 percent (intermediate assumption) or 1.0 percent (pessimistic assumptions).

Future Taxes. All projections are based on the assumption that promises made under Social Security will be kept and will be financed by increases in the payroll tax, whenever necessary, in order to pay promised benefits. These tax rates differ under the intermediate and pessimistic projections.

Future Benefits. The amount of future benefits varies according to assumptions about life expectancy, the rate of inflation, the rate of growth of real wages, etc. The assumptions used are those of the Social Security Administration's intermediate and pessimistic projections. For retirement, disability and survivors benefits, it assumed that the benefit formulas currently written into law will remain in effect indefinitely into the future. For Medicare, no particular assumption is made about benefit formulas. Instead, it is assumed that the future amount spent per beneficiary will vary according to the intermediate and pessimistic assumptions.

Since Social Security benefits now are partly subject to federal income taxes, expected benefits are calculated net of these taxes. In general, one-half of Social Security income is subject to federal income taxes to the extent that total income exceeds $25,000 for an individual and $32,000 for a couple. Future marginal tax rates for families at different income levels were estimated, using the assumptions of the Social Security Administration.

Expected Values. The computer program calculates the probability that an individual will live to all possibile ages up to 105. For each possible lifespan, it calculates the costs and benefits associated with that lifespan. Expected value is the sum of all possible outcomes, each weighted by its probability of occurring. These calculations include the probability of disability, as well as the probability of death, at each age.

APPENDIX B

REAL RATES OF RETURN UNDER SOCIAL SECURITY AT DIFFERENT AGE LEVELS

High-Income Workers

Case/Age	20	25	30	35	40	45	50
Single male worker earning the maximum wage subject to the Social Security payroll tax.	- 0.2 %	- 0.2 %	- 0.2 %	- 0.2 %	- 0.1 %	- 0.1 %	0.1 %
	- 0.2 %	0.1 %	0.2 %	0.3 %	0.4 %	0.5 %	0.6 %
Male worker earning the maximum wage subject to the Social Security payroll tax. Dependent spouse. Two children.	1.8 %	1.8 %	1.8 %	1.8 %	1.9 %	2.1 %	2.4 %
	1.5 %	1.7 %	1.8 %	2.0 %	2.1 %	2.4 %	2.7 %
Male worker earning the maximum wage subject to the Social Security tax. Dependent spouse. No children.	1.6 %	1.6 %	1.6 %	1.7 %	1.9 %	2.1 %	2.4 %
	1.4 %	1.6 %	1.8 %	1.9 %	2.1 %	2.4 %	2.7 %
Working couple. Both earning the maximum wage subject to the Social Security payroll tax. Two children.	0.0 %	0.0 %	0.0 %	0.0 %	0.1 %	0.2 %	0.4 %
	- 0.3 %	- 0.1 %	0.1 %	0.2 %	0.3 %	0.5 %	0.8 %

Assumptions:

1. Worker's average lifetime earnings are equal to, or greater than, the maximum taxable Social Security wage ($42,000 in 1986).
2. Workers enter the labor market at age 24.
3. At every age, workers are assumed to have worked continuously since entering the labor market.

First estimate is based on "intermediate" assumptions. Second estimate is based on "pessimistic" assumptions.

REAL RATES OF RETURN UNDER SOCIAL SECURITY AT DIFFERENT AGE LEVELS

Median-Income Workers

Case/Age	20	25	30	35	40	45	50
Single male worker earning the median income for male workers.	0.9 %	0.9 %	0.9 %	0.8 %	0.8 %	0.9 %	1.0 %
	1.0 %	1.2 %	1.2 %	1.2 %	1.3 %	1.3 %	1.5 %
Male worker earning the median wage for male workers. Dependent spouse. Two children.	2.7 %	2.7 %	2.6 %	2.5 %	2.5 %	2.7 %	3.0 %
	2.5 %	2.7 %	2.7 %	2.7 %	2.7 %	3.0 %	3.3 %
Male worker earning the median wage for male workers. Dependent spouse. No children.	2.5 %	2.5 %	2.5 %	2.5 %	2.5 %	2.7 %	3.0 %
	2.3 %	2.5 %	2.6 %	2.7 %	2.8 %	3.0 %	3.3 %
Working couple. Male earns the median income for male workers. Female earns the median income for female workers. Two children.	1.5 %	1.5 %	1.4 %	1.3 %	1.3 %	1.4 %	1.6 %
	1.2 %	1.4 %	1.5 %	1.5 %	1.5 %	1.7 %	1.9 %

Assumptions:

1. Male's average lifetime earnings equal the median income paid to adult male workers ($26,605 in 1986). Female's average lifetime earnings equal the median income paid to adult female workers ($16,472 in 1986).
2. Both workers enter the labor market at age 22.
3. At every age, workers are assumed to have worked continuously since entering the labor market.

First estimate is based on "intermediate" assumptions. Second estimate is based on "pessimistic" assumptions.

REAL RATES OF RETURN UNDER SOCIAL SECURITY AT DIFFERENT AGE LEVELS

Low-Income Workers

Case/Age	20	25	30	35	40	45	50
Single male worker	2.4 %	2.3 %	2.2 %	2.1 %	2.1 %	2.1 %	2.3 %
Male worker earning 150 percent of the minimum wage. Dependent spouse. Two children.	2.5 %	2.6 %	2.6 %	2.6 %	2.6 %	2.6 %	2.7 %
Male worker earning 150 percent of the minimum wage. Dependent spouse. No children.	4.0 %	3.9 %	3.7 %	3.6 %	3.6 %	3.7 %	4.0 %
	3.9 %	4.0 %	4.0 %	3.8 %	3.9 %	4.0 %	4.3 %
Male worker earning 150 percent of the minimum wage. Dependent spouse. No children.	3.7 %	3.7 %	3.6 %	3.5 %	3.5 %	3.7 %	4.0 %
	3.7 %	3.8 %	3.8 %	3.8 %	3.9 %	4.0 %	4.3 %
Working couple. Both earn 150 percent of the minimum wage. Two children.	2.4 %	2.3 %	2.2 %	2.1 %	2.0 %	2.1 %	2.4 %
	2.3 %	2.4 %	2.4 %	2.3 %	2.4 %	2.5 %	2.7 %

Assumptions:

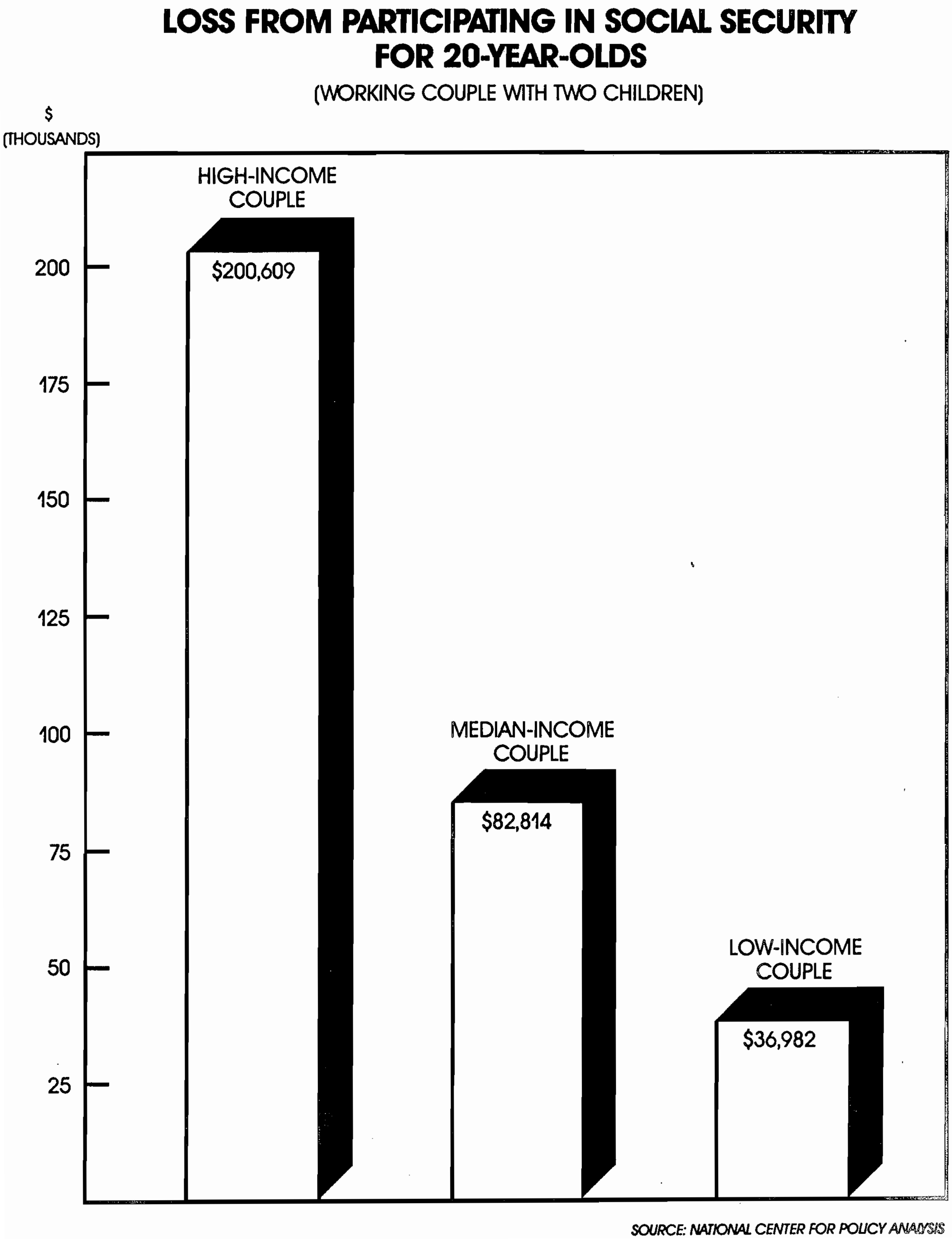
1. Workers' average lifetime earnings equal 150 percent of the minimum wage ($10,050 per year in 1986).
2. Workers enter the labor market at age 18.
3. At every age, workers are assumed to have worked continuously since entering the labor market.

First estimate is based on "intermediate" assumptions. Second estimate is based on "pessimistic" assumptions.

Note 1. It should be noted that rate of return estimates for workers at different age levels are not exactly comparable. This is because at every age level workers are assumed to have worked continuously since entering the labor market. Thus, a worker age 50 has paid taxes to support disability and survivors insurance, but has never received any benefits from these programs. On the other hand, the calculation of expected benefits for a worker age 20 includes the probability of death or disability prior to age 50, in which cases the worker would cease paying Social Security taxes and his family would begin receiving survivors or disability benefits.

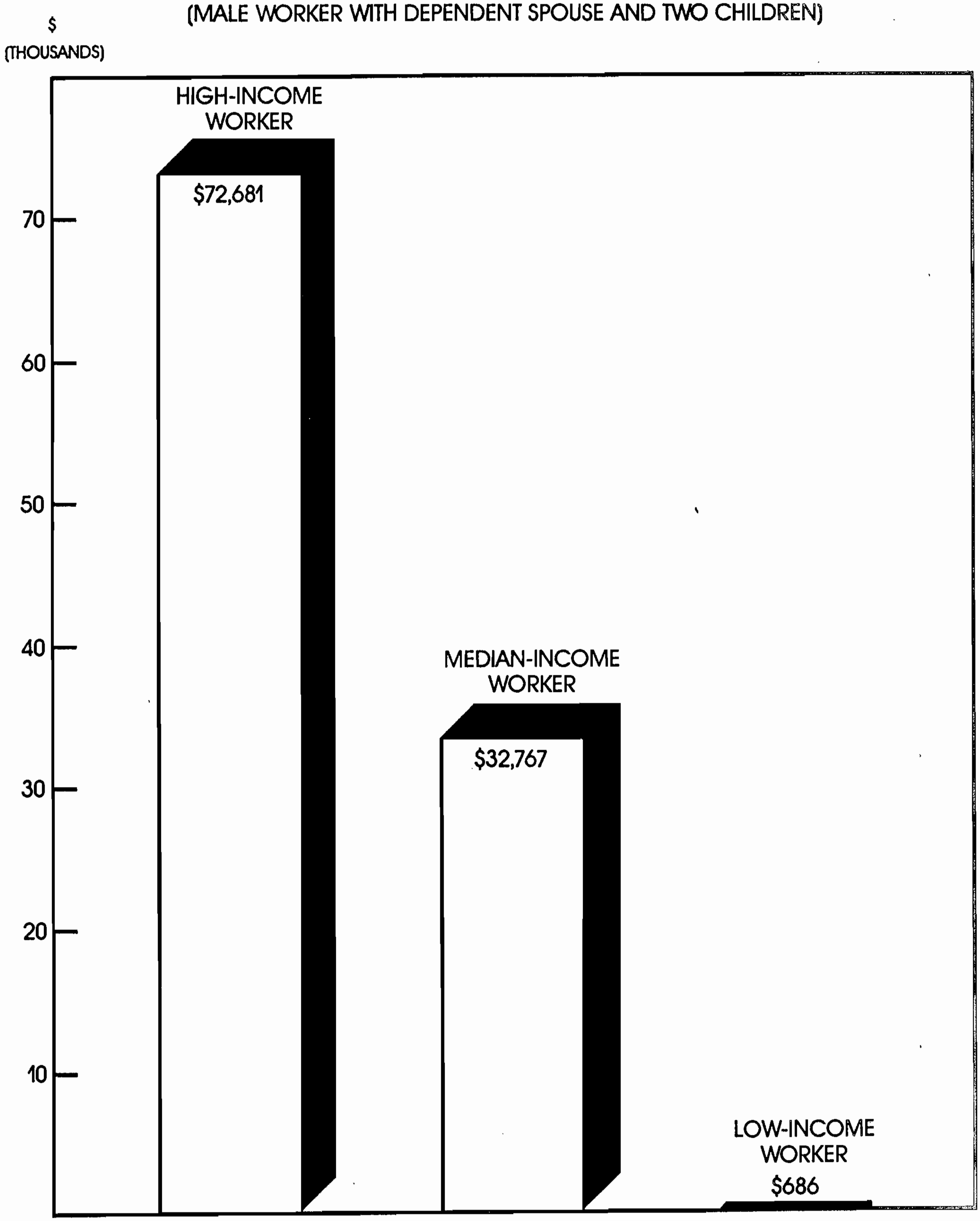
Note 2. These rates of return differ somewhat from the numbers presented in Ferrara, Social Security Rates of Return for Today's Young Workers because in that study it was assumed that benefits would be cut when the trust funds ran out of money. In the current study we assume taxes will be raised to pay promised benefits.

Note 3. For a calculation of rates of return based solely on the retirement and survivors benefits (for spouses) portion alone, see Boskin, et. al., "Social Security: A Financial Appraisal Across and Within Generations."


LOSS FROM PARTICIPATING IN SOCIAL SECURITY
FOR 20-YEAR-OLDS
(WORKING COUPLE WITH TWO CHILDREN)
$
(THOUSANDS)
200
175
150
125
100
75
50
25
HIGH-INCOME COUPLE
$200,609
MEDIAN-INCOME COUPLE
$82,814
LOW-INCOME COUPLE
$36,982
SOURCE: NATIONAL CENTER FOR POLICY ANALYSIS

LOSS FROM PARTICIPATING IN SOCIAL SECURITY FOR 20-YEAR-OLDS

(MALE WORKER WITH DEPENDENT SPOUSE AND TWO CHILDREN)



SOURCE: NATIONAL CENTER FOR POLICY ANALYSIS