The Immigration Solution

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Executive Summary

Before the end of this decade, Social Security and Medicare will begin paying out more in benefits than the payroll tax (FICA) collects in revenues. As a result, taxes will have to rise. According to realistic projections, the taxes needed to fund these two programs will continue rising as far into the future as anyone cares to look.

- According to the Social Security Administration's "intermediate" forecast, by the year 2070, Social Security and Medicare benefits will equal 31 percent of the nation's total taxable wages.

- According to the "pessimistic" forecast, benefits from these two programs will equal 53 percent of payroll.

- This means that workers will pay between one-third and one-half of their incomes for benefits already promised under current law.

- Moreover, the pessimistic forecast is more realistic because it is based on assumptions that more closely resemble our recent economic and demographic experience.

The Social Security Administration's forecasts omit federal subsidies for the Medicare Part B program. They also omit health care benefits funded through programs such as Medicaid and the Veterans Administration system. When these additional benefits are considered, the burden for future workers will be much higher.

- Based on the Social Security Administration's intermediate assumptions, Social Security plus all government health care programs for the elderly will equal more than one-third of taxable payroll by the year 2025 and 46 percent of payroll by the year 2070.

- Based on the pessimistic assumptions, these programs will consume more than half of payroll by 2025 and 83 percent by 2070.

- Even with these huge income transfers, the forecasts assume that the elderly will be able to continue paying one-third of their medical expenses from their own resources.

These forecasts are "static." They assume that collecting higher taxes does not change taxpayer behavior. Experience proves otherwise. Higher tax rates on wages inevitably cause less labor income and lower growth. For this reason, a tax rate of 56 percent is probably necessary to collect a projected 46 percent of wages. And it is probably impossible for government to collect a projected 83 percent of wages, regardless of the tax rate.

The projections of future tax burdens in this study have been made without reference to the

Social Security and Medicare trust funds. That is because these trust funds reflect accounting entries rather than a real store of value. Every dollar of payroll tax revenue received by the federal government is spent — the very hour and day that it arrives. Most of what is received is spent on elderly entitlement benefits. After those payments are made, any extra revenue is "lent" to other parts of government and spent on other programs. As a consequence, the trust funds consist of nothing more than IOUs that the government has written to itself. To pay future benefits, the government will have to levy additional taxes at the time the payments are due.

One reason for the nightmare in our future is our low birthrate. Because our fertility rate is below the "replacement" rate, the U.S. population will peak sometime in the next century and decline thereafter. Along the way, there will be a growing number of elderly beneficiaries for each taxpaying worker:

- Whereas today there are about three workers for every Social Security beneficiary, by the year 2070 there will be less than two workers per beneficiary under the intermediate projection.

- Based on the pessimistic projection, there will be almost one worker for each beneficiary — which implies that each worker will have to earn enough to pay for the Social Security income and medical benefits of one elderly retiree, in addition to supporting himself and his family.

Another reason for the nightmare in our future is that a growing elderly population implies growing health care spending.

- The elderly, who represent only 12 percent of the U.S. population today, consume almost one-third of all U.S. health care services.

- By the middle of the next century, the elderly will represent more than 20 percent of the population and consume as much as two-thirds of our health care resources.

If we allow our pay-as-you-go elderly entitlements system to continue on its current path, there will be very few options left open to us. One option may be the *immigration solution.* This option envisions that immigrant "guest" workers will come to the United States to work and pay taxes, but will not permanently remain here and collect retirement benefits. *While we do not advocate this solution,* we have investigated its implications.

How many immigrants would we need? Even assuming that immigrants are just as productive as nonimmigrants, the number of new workers needed would be huge:

- To keep the payroll tax at its current level (15.3 percent), immigrant workers will have to outnumber nonimmigrant workers in less than three decades (by the year 2018) under the pessimistic forecast.

- By the year 2070, there will be three times as many immigrant as nonimmigrant workers.

- If the average immigrant worker is only half as productive as other workers, six times as many immigrants as nonimmigrants will be needed in the year 2070.

- Of course, if immigrant workers are not merely "guests," but are allowed to bring family members, have children, become citizens and vote, they will very quickly come to dominate the American political system.

Could the immigration solution actually work? Although we could easily increase the number of immigrants to the United States, it is by no means clear that we could attract the number of new workers that we would need. Remembering that Canada (and all other developed countries) will face the same problems as the United States, consider the possibilities in the Western Hemisphere:

- In order to double the size of today's labor force of the United States and Canada, we would need 138.5 million workers from Latin America.

- That is equal to about one out of every two Latin Americans of working age (15 to 64).

- Since these numbers refer to women as well as men, and since parents are unlikely to emigrate without their children, this would require the emigration of about one-half the nonelderly population of Latin America (approximately 214 million people).

Moreover, if substantial numbers did emigrate from Latin America to North America, the economic consequences would be severe. Many people mistakenly assume that less-developed countries have no social security problems because they have growing populations and a high ratio of workers to retirees. In fact, the social security systems of most Latin American countries have been so badly mismanaged that they already have a serious funding problem — a problem that would grow much worse if a large portion of the most highly skilled employees emigrated.

Even if we could attract a sufficient number of workers, they could not produce enough to solve the financial crisis caused by our elderly entitlements programs unless they integrated into the U.S. economy at the same capital/labor ratio as the existing workforce. To get the needed capital, we would have to have investment equal to one-third of our gross domestic product. Put another way, we would need to add enough additional capital and labor to double our rate of economic growth.

If we conclude that the immigration solution cannot work, or should not even be tried, then the only other realistic solution is privatization. Already in place in Singapore and Chile, and partially in place in Britain and in other countries, this solution requires that each generation set aside private savings to pay for its own retirement benefits.

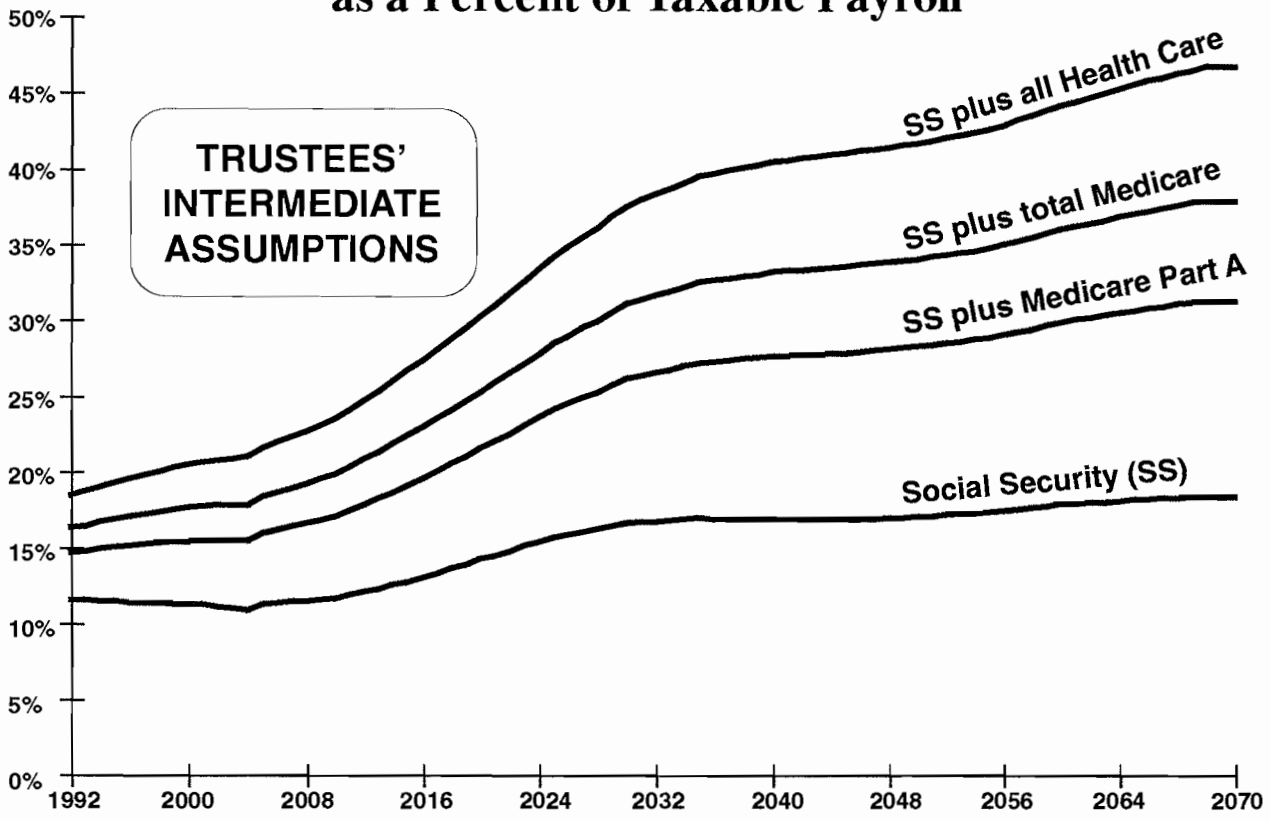
The Nightmare in Our Future

For the foreseeable future, the United States and other developed countries will have a growing number of elderly citizens relative to the working-age population. The cost of income maintenance and health care for the elderly, whether paid through public or private programs, will be staggering. During the latter half of the 21st century, the annual cost of Social Security plus health care for the elderly in the United States could exceed 80 percent of all workers' wages. [See Figures I and II.]

Under our current system of financing, each generation of retirees depends on the government to pay its Social Security benefits and most of its health care bills by taxing the next generation. If we continue this practice, the burden we create for tomorrow's workers will be impossible for them to bear. The year 2050 seems like the distant future—so distant that it is easy to ignore. But almost everyone who will be 65 or older in that year already has

FIGURE I

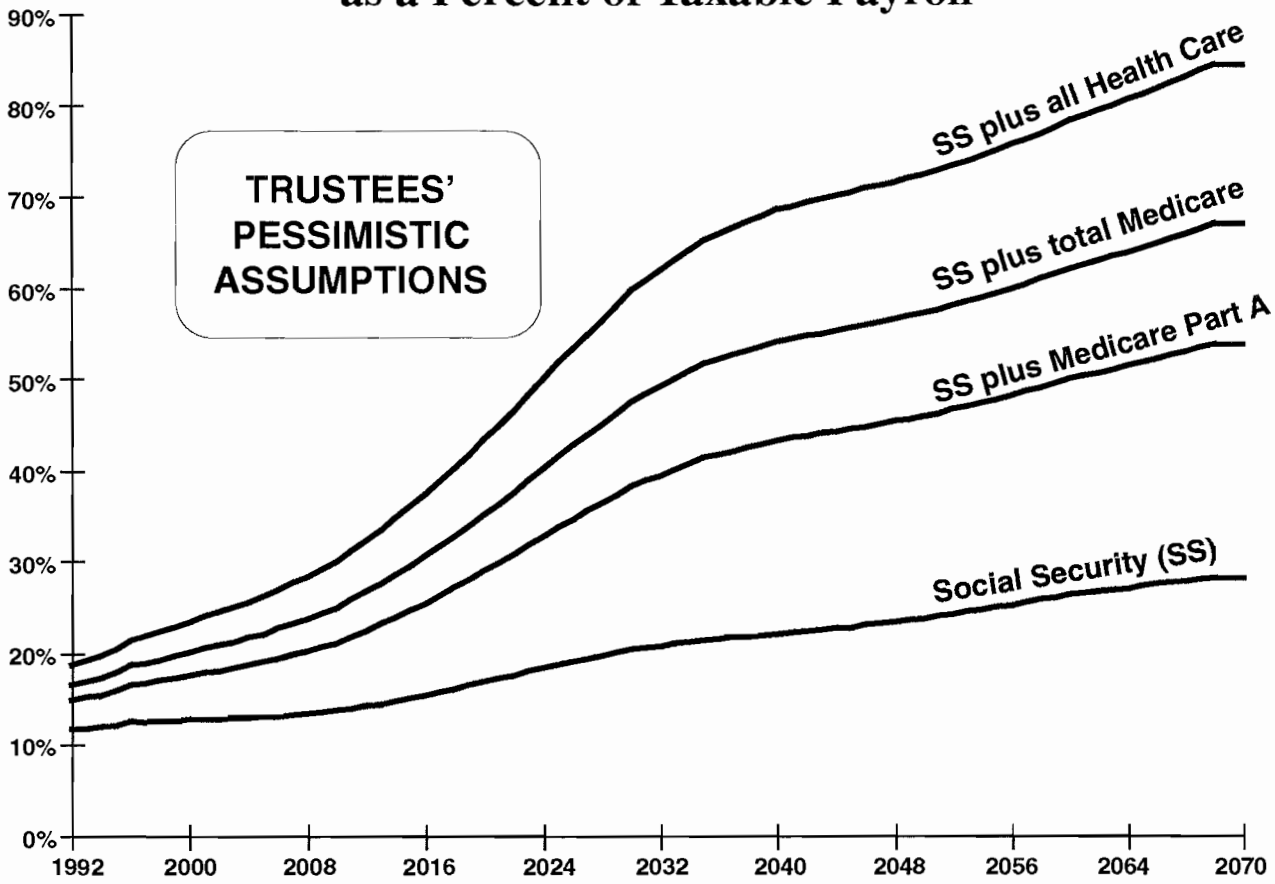
Spending on Elderly Entitlements as a Percent of Taxable Payroll



Source: Table I.

FIGURE II

Spending on Elderly Entitlements as a Percent of Taxable Payroll



Source: Table II.

been born. Generations of workers not yet born will be expected to honor promises that are being made to today's young children—about their Social Security and health care retirement benefits.

What follows is a discussion of the nightmare in America's future, based on official forecasts made by the Social Security Administration and the Health Care Financing Administration (which administers Medicare).

Social Security. Projections about the future of Social Security[1] are made annually by Social Security Administration actuaries.[2] These projections are labeled "optimistic," "intermediate" and "pessimistic," and people are encouraged to believe that the intermediate forecast is the most likely.[3] But many students of Social Security believe that the pessimistic projection more closely reflects our recent experience.[4] Currently, spending on Social Security is equal to about 11.5 percent of the nation's total taxable payroll. For as far as we care to look into the future, however, this burden will rise — almost continuously — under any set of reasonable assumptions.

- Under the Social Security Administration's intermediate forecast, workers will have to pay 17.5 percent of their income just to support Social Security benefits in the year 2070. [See Table I.]

- Under the pessimistic forecast, the burden of Social Security will consume more than a fourth of worker incomes (27 percent) that year. [See Table II.]

"Social Security and Medicare Part A could claim more than half of workers' wages by the year 2070."

Social Security Plus Medicare Hospital Insurance. Social Security is not the fastest growing entitlement program for the elderly. Medicare is. Currently, spending on Social Security and Medicare Hospital Insurance (Medicare Part A) combined is about 14 percent of the nation's taxable payroll. In the future, that burden will rise:

- According to the Social Security Administration's pessimistic forecast, during the retirement years of the baby boom generation we will have to either double the tax burden for workers or cut promised benefits in half.

- As Table II shows, by the year 2030 the payroll tax rate will have to rise from its current level of 15.3 percent to 37 percent just to pay the benefits promised under current law.

As we move further into the 21st century, the outlook gets much worse. As Tables I and II show:

- According to the Social Security Administration's intermediate forecast, the burden of Social Security and Medicare Part A will reach 30 percent of payroll by the year 2070.

- According to the pessimistic forecast, the burden will rise to 52 percent that year, consuming more than half of worker incomes.

Social Security Plus Total Medicare. Part B Medicare insurance covers physician fees and other nonhospital expenses. Currently, premiums collected from the elderly pay about 25 percent of the cost of the Part B program. The remainder is funded from general tax revenues. The Health Care Financing Administration does not make a formal forecast of the future burden of Medicare Part B. However, Tables I and II make such a forecast on the assumption that Part B expenses will continue to grow at the same rate as Part A expenses.[5] As the tables show:

- Under the intermediate forecast, Social Security and total Medicare spending will equal 37 percent of payroll by the year 2070.

- Under the pessimistic forecast, they will consume more than half of workers' wages by 2034 and 66 percent by 2070.

Social Security Plus Total Health Care Expenses. The Social Security Administration's practice of combining future Social Security payments with Medicare Part A payments is based on a hidden assumption. The assumption is that society is contractually obligated to pay only those future medical costs that are funded by the Social Security (FICA) tax. Accordingly, anything the federal government does to shift costs from Medicare Part A to Medicare Part B, the Department of Veterans Affairs, Medicaid or private employers is viewed as reducing future obligations. That assumption is probably wrong. The political marketplace clearly communicates an implicit contract with the elderly that includes the obligation to ensure health care access to all elderly citizens.

"Social Security plus all elderly health programs could claim more than 80 percent of workers' wages by the year 2070."

Like Social Security and Medicare, virtually all other government programs that fund health care expenses for the elderly are financed on a pay-as-you-go basis. Currently, health care spending on the elderly by government programs other than Medicare is equal to 40.4 percent of Medicare spending.[6] The projections in Tables I and II assume that spending under these other programs will grow at the same rate as Medicare spending. As the tables show:

- Under the intermediate forecast, Social Security plus all government-funded health care for the elderly will consume about one-third of payroll by the year 2025.

- By 2070, these programs will require 46 percent of payroll — more than the total of all taxes collected for all purposes today.

- Under the pessimistic forecast, Social Security plus all government health care for the elderly will consume half of workers' wages by 2025.

- By 2070, these programs will consume more than four-fifths of employee wages (83 percent).

These forecasts are staggering. They imply that if all tax rates remain as they now are, all federal, state and local tax revenues combined will not be

enough to support the elderly. We will need from 50 to 80 percent of payroll just to pay the benefits currently being paid, ignoring all other government programs.

More Realistic Projections

The pessimistic projections shown in Figure II and Table II are by no means the worst that can happen. As we shall see below, the assumptions behind the pessimistic forecast are actually not so pessimistic. Instead, they are fairly close to what we have recently experienced.

But even if all of the assumptions behind the pessimistic forecast are valid, there are three reasons why our future may be much bleaker: (1) There will be political pressure to expand Medicare benefits; (2) as the elderly live longer they will be less able to pay their share of medical bills; and (3) in order to collect additional revenue, tax rates will have to be much higher than those shown in Tables I and II.

"If every elderly person spent one year in a nursing home, the cost would be $627 billion."

Political Pressure to Expand Medicare Coverage. One way in which the future burden of elderly entitlement programs could grow much larger is through an expansion of benefits. For example, Medicare currently pays less than 2 percent of nursing home costs for the elderly,[7] and 81 percent of the elderly's out-of-pocket medical costs in excess of $2,000 goes for nursing home care.[8] In addition, for every elderly patient in a nursing home, two equally disabled persons are not in nursing homes.[9] For these reasons, political pressure is mounting to expand Medicare to cover nursing home costs. But the costs of such coverage would be huge. If every elderly person in America spent just one year in a nursing home, the total cost would be about $627 billion, or roughly half of the entire federal budget.[10]

One of the prime forces keeping the elderly out of nursing homes today is the high cost. If price were no object (that is, if Medicare coverage were extended), the number of elderly people in nursing homes would increase sharply.

Obstacles to Cost Sharing by Beneficiaries. The forecasts made in Tables I and II assume that the elderly will continue to pay about one-third of their own medical expenses.[11] As our society ages, however, an increasing number of people will be age 85 or older — the "old elderly" with fewer assets and less income than the "young elderly." This demographic change, in conjunction with the government's policy of discouraging private savings for

TABLE I

Elderly Entitlement Spending As a Percent of Taxable Payroll[1]

Intermediate Assumptions

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare[2]	SS plus All Government Health Care for the Elderly[3]
1992	11.25%	14.41%	16.04%	18.19%
1993	11.27%	14.53%	16.21%	18.43%
1994	11.23%	14.66%	16.43%	18.76%
1995	11.20%	14.77%	16.60%	19.03%
1996	11.15%	14.88%	16.80%	19.34%
1997	11.10%	14.94%	16.91%	19.53%
1998	11.07%	15.04%	17.08%	19.79%
1999	11.02%	15.12%	17.23%	20.02%
2000	11.00%	15.20%	17.36%	20.22%
2005	10.92%	15.63%	18.05%	21.26%
2010	11.24%	16.62%	19.39%	23.05%
2015	12.24%	18.59%	21.86%	26.18%
2020	13.67%	20.95%	24.69%	29.65%
2025	14.98%	23.43%	27.76%	33.51%
2030	15.86%	25.40%	30.30%	36.80%
2035	16.17%	26.45%	31.73%	38.73%
2040	16.11%	26.86%	32.39%	39.70%
2045	16.07%	27.09%	32.74%	40.24%
2050	16.25%	27.47%	33.23%	40.86%
2055	16.56%	28.03%	33.93%	41.74%
2060	17.03%	29.02%	35.17%	43.33%
2065	17.31%	29.78%	36.19%	44.69%
2070	17.51%	30.42%	37.05%	45.84%

TABLE II

Elderly Entitlement Spending As a Percent of Taxable Payroll[1]

Pessimistic Assumptions

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare[2]	SS plus All Government Health Care for the Elderly[3]
1992	11.37%	14.56%	16.19%	18.36%
1993	11.45%	14.83%	16.57%	18.87%
1994	11.49%	15.06%	16.89%	19.32%
1995	11.67%	15.46%	17.42%	20.00%
1996	12.16%	16.21%	18.30%	21.06%
1997	12.13%	16.38%	18.56%	21.45%
1998	12.18%	16.63%	18.91%	21.94%
1999	12.23%	16.89%	19.29%	22.46%
2000	12.31%	17.20%	19.71%	23.04%
2005	12.57%	18.54%	21.61%	25.67%
2010	13.08%	20.51%	24.33%	29.39%
2015	14.31%	23.90%	28.83%	35.37%
2020	16.09%	28.15%	34.35%	42.56%
2025	17.90%	32.95%	40.68%	50.92%
2030	19.35%	37.30%	46.52%	58.74%
2035	20.33%	40.36%	50.64%	64.27%
2040	20.96%	42.18%	53.07%	67.51%
2045	21.64%	43.36%	54.52%	69.31%
2050	22.57%	44.73%	56.11%	71.20%
2055	23.77%	46.53%	58.23%	73.72%
2060	24.98%	48.66%	60.83%	76.96%
2065	25.90%	50.49%	63.12%	79.86%
2070	26.78%	52.42%	65.60%	83.05%

future medical costs, will probably make it impossible for the elderly to continue paying one-third of their health care costs.

Economic Effects of Higher Taxes. The forecasts made above are "static" forecasts that assume higher payroll tax rates will generate increased government revenues with no change in economic behavior. For example, these forecasts assume that taxable payroll in the future will be the same, whether the tax rate is 15 percent or 80 percent. Experience shows otherwise. In the face of higher tax rates, people work less and avoid or evade taxes more.

"The government probably cannot collect a projected 83 percent of payroll at any tax rate."

In general, payroll tax increases tend to produce only three-fourths of the expected revenue gain because of such behavioral changes. Put another way, at current tax rates a 1.33 percentage point increase in the payroll tax rate is needed in order to collect a projected 1 percent of payroll over and above the current payroll tax of 15.3 percent.[12] As Table III shows:

- In order to collect a needed 46 percent of payroll (required in 2070 under the intermediate forecast), we would need a payroll tax rate of 56 percent.
- In order to collect 83 percent (required by the pessimistic forecast), we would need a tax rate of 105 percent!

Since people cannot pay in taxes more than they earn and since they are unlikely to work at all if government takes the bulk of what they earn, it is probably impossible for us to follow the pessimistic forecast very far into the future — government would simply not be able to pay promised benefits.

Tables I & II Footnotes

[1] Taxable payroll used to compute all the tax rates in this table is the tax base for the Old-Age, Survivors and Disability Insurance program (referred to in this study as Social Security). It consists of wages and salaries of workers in employment covered by Social Security up to a maximumof $55,500 in 1992 for any worker. Actual taxable payroll for Medicare Part A is larger than that for Social Security due to a higher wage base ($130,200 in 1992) and more covered workers. See *Board of Trustees Report*, Table III.B.1. Spending is net of the income tax revenues collected on Social Security benefits. Taxation of benefits is projected to amount to 0.24 percent of taxable payroll in 1992, increasing to 0.84 percent of taxable payroll under intermediate assumptions and 1.5 percent of taxable payroll under the pessimistic assumptions by the year 2070. See *Board of Trustees Report*, Table II.F.6.

[2] The Social Security Trustees do not make 75-year projections for Medicare Part B. The Part B projections in this study assume that Part B will continue to equal the same proportion of Part A (68.5 percent) as in 1992 and that Part B participants will continue to pay 25 percent of this amount through premiums.

[3] In 1987, per capita spending by people age 65 and over from Medicaid and other government health programs was 40.4 percent of Medicare spending. This study assumes the same relationship over the 75-year projection period. See Daniel R. Waldo, Sally T. Sonnefeld, David R. McKusick, and Ross H. Arnett, III, "Health Expenditures by Age, Group, 1977 and 1987," *Health Care Financing Review*, Vol. 10, No. 4, Summer 1989, Table 4.

We have had little experience with tax rates in excess of 35 percent to 45 percent for middle-income taxpayers. But we have had a lot of experience with tax rates above that range for the highest income earners. In general, whenever we have increased the rate for the highest income earners, their total tax payments have gone down, not up. In other words, beyond a certain point, higher tax rates do not collect additional revenue.[13] Although the highest income earners have the greatest discretion over how they receive income and the greatest skill at avoiding taxes in the face of high marginal rates, this is a skill that most taxpayers can learn.

TABLE III

Tax Rates Needed to Fund Elderly Entitlement Programs[1]

	Intermediate Forecast		Pessimistic Forecast	
Year	Percent of Payroll Needed[2]	Required Tax Rate[4]	Percent of Payroll Needed[3]	Required Tax Rate[4]
2000	20.22%	21.84%	23.04%	25.59%
2010	23.05%	25.61%	29.39%	34.04%
2020	29.65%	34.39%	42.56%	51.56%
2030	36.80%	43.89%	58.74%	73.07%
2040	39.70%	47.75%	67.51%	84.74%
2050	40.86%	49.29%	71.20%	89.65%
2060	43.33%	52.58%	76.96%	97.31%
2070	45.84%	55.92%	83.05%	105.41%

[1]Social Security plus all government health care programs.

[2]Source: Table I.

[3]Source: Table II.

[4]Assumes that in order to collect an additional 1 percent of payroll (over and above the current 15.3 percent FICA tax), government must increase the payroll tax by 1.33 percentage points.

A Closer Look at the Assumptions Behind the Projections

As we have seen, the Social Security Administration has published different projections for the future. Which one should we believe? That depends on which projection is based on the most realistic assumptions. One way of evaluating the assumptions is to compare them with our recent experience. Table IV summarizes the key assumptions used in each of the Social Security Administration's projections. The differences in the assumptions, which appear small, lead to huge differences in future taxpayer burdens — differences that are magnified over time. What follows is a brief analysis.

"As the elderly grow older, they will find it harder to pay one-third of their medical bills from their own resources."

Aging and the U.S. Fertility Rate. A nation's fertility rate is the average number of children that women of childbearing age will have over their lifetime. In developed countries, 2.1 is the replacement rate. That is, to keep the total population at its current size, each adult man and woman must be replaced by approximately two children.[14] In 1960, virtually all developed countries had fertility rates in excess of 2.1, and most had substantially higher rates. Since then, as Table V shows, fertility rates have dropped.

- The United States, Canada, Iceland and the Netherlands have experienced a drop of more than 50 percent over 25 years.
- In Belgium, Austria, Denmark, Australia, Germany and New Zealand, the decrease was 40 percent or greater.

Consequently, most of developed countries today have fertility rates substantially below replacement. Overall, out of 22 industrial democracies, only three—New Zealand, Ireland and Israel—have fertility rates above the replacement level.[15]

These facts about the fertility rates have generally gone unreported.[16] Yet, as Figure III shows, a fertility rate below the replacement rate means that a country's total population will peak sometime in the 21st century and decline continuously thereafter. Declining fertility rates are devastating for social security systems. As Figure IV shows, there will be a declining number of workers to support each elderly beneficiary in the United States.

- Whereas today there are about three workers for every Social Security beneficiary, by the year 2070 there will be less than two workers per beneficiary under the intermediate projection.

- Based on the pessimistic projection, there will be just one worker for each beneficiary.

Unless there are major economic and social changes, we will experience growing payroll tax burdens for Social Security and other retirement benefits.

TABLE IV

Key Economic and Demographic Assumptions for the Period Following the Year 2015

Assumption	Recent Experience	Optimistic Projection[1]	Intermediate Projection[2]	Pessimistic Projection[3]
Total fertility rate	**1.85**[4]	**2.2**	**1.9**	**1.6**
Annual increase in real wages (%)	**0.5**[5]	**1.7**	**1.1**	**0.6**
Annual increase in consumer price index (%)	**6.2**[6]	**3.0**	**4.0**	**5.0**
Annual decrease in mortality rate (%)	**0.9**[7]	**0.2**	**0.5**	**0.9**
Annual increase in hospital costs (%)[8]	**12.8**	**6.5**	**9.2**	**11.4**

[1]Based on the Social Security Administration's Alternative I assumptions.

[2]Based on the Social Security Administration's Alternative II assumptions.

[3]Based on the Social Security Administration's Alternative III assumptions.

[4]Average number of children per woman of childbearing age for years 1975 to 1990.

[5]Average annual real wage rate for the years 1975 to 1990.

[6]Average annual increase for the period 1975 to 1990.

[7]Average annual decrease in the age/sex-adjusted death rate for the years 1975 to 1990.

[8]Measured as the annual rate of increase in Medicare inpatient hospital insurance payments for the years 1975 to 1990.

Source: *The 1992 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and the Federal Disability Trust Funds* (April 3, 1992), Tables 11.D.1 and 11.D.2 and *The 1992 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund* (April 3, 1992), Tables 13,15, A-3.

Aging and Health Care Costs. As a country's population ages, its health care costs rise. And the more it ages, the faster those costs rise.

- At the turn of this century, only 4 percent of the population was 65 or older.
- Today that figure is 12 percent, and it is projected to be 20 percent by 2030.[17]

Thus the elderly constitute the fastest growing segment of the population, and among them the old elderly are the fastest growing group. [See Table VI.]

- By the year 2050, the percentage of elderly will have doubled, and the percentage of old elderly will have almost quadrupled.
- Although the old elderly represented only 9 percent of the elderly population in 1980, they will represent 20 percent by 2050.

The aging of the population will continue. Among 65-year-old retirees, a male today can expect to live to the age of 80 and a female to age 84. By the year 2065, as Figure V shows, about one-half of all 65-year-old men will live to age 85 and about one-half of all 65-year-old women to age 87.

It is inevitable that larger numbers of elderly people will increase the demand for health care resources. The elderly see physicians 20 percent more often than the nonelderly do, and they are admitted to hospitals at twice the rate.[18] The cost of their hospital care is higher, too. On the average, people today can expect to incur more than half of their lifetime health care costs after the age of 65.[19] Average health care spending is about four times higher for the elderly than for the nonelderly.[20] Moreover, health care expenses for the elderly are growing at 2.6 times the rate for the nonelderly.[21] Among the old elderly, health care utilization and costs are even higher. On the average, hospital costs for people ages 85 and older are about 67 percent more than for those ages 65 to 75.[22] Long-term care for the old elderly is about ten times more costly than for the young elderly.[23] And although only 2 percent of senior citizens in their mid-60s and early 70s enter nursing homes, about 23 percent of the old elderly do so.[24]

"The elderly consume one-third of health care services; by the middle of the next century they will consume two-thirds."

Even without costly medical breakthroughs, the aging population will create extremely burdensome costs:[25]

TABLE V

Drop in Fertility Rates, 1960 to 1985

Country	Change
Australia	-43%
Austria	-42%
Belgium	-40%
Canada	-55%
Denmark	-44%
Finland	-37%
France	-33%
Germany	-44%
Iceland	-56%
Ireland	-34%
Israel*	-23%
Italy	-39%
Japan	-10%
Luxembourg	-39%
Netherlands	-52%
New Zealand	-44%
Norway	-39%
Spain	-39%
Sweden	-23%
Switzerland	-35%
United Kingdom	-33%
United States	-51%

*Jewish population only.

Source: Ben J. Wattenberg, *The Birth Dearth* (New York: Pharos Books, 1987), Chart 2A, p. 173.

"All but three industrialized countries have fertility rates below the replacement rate."

- The elderly, who represent only 12 percent of the U.S. population today, consume almost one-third of all U.S. health care services.
- By the middle of the next century, when the elderly will represent more than 20 percent of the population, they will consume as much as two-thirds of our health care resources.

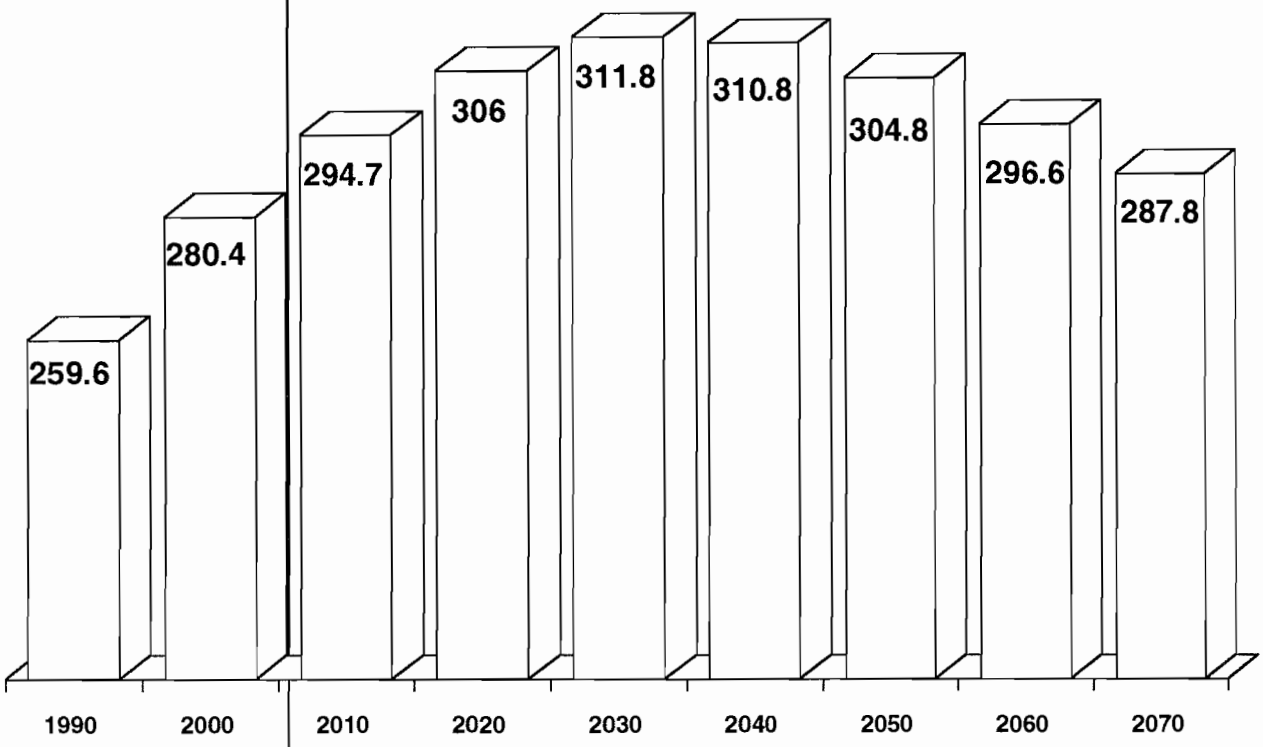
Future Health Care Costs and the Achievements of Medical Science. All Social Security Administration forecasts are based on the premise that no radical breakthroughs will occur in medical science to eliminate life-threatening diseases or significantly increase life expectancy. But such developments, over a 70-year time span, are almost inevitable.

Seventy years ago, no one could have imagined the medical procedures that are commonplace today. Similarly, we cannot predict what medical science will achieve over the next 70 years. However, we do have two advantages over forecasters in the past. First, we know that modern society has given medical researchers a blank check. Invent it, we have told them, show us that it improves health care, and we will buy it. As a result, we have virtually guaranteed that the medical research and development industry will work hard at making new discoveries that will cost us more money. Second,

FIGURE III

Projected U.S. Population[1]

(millions)



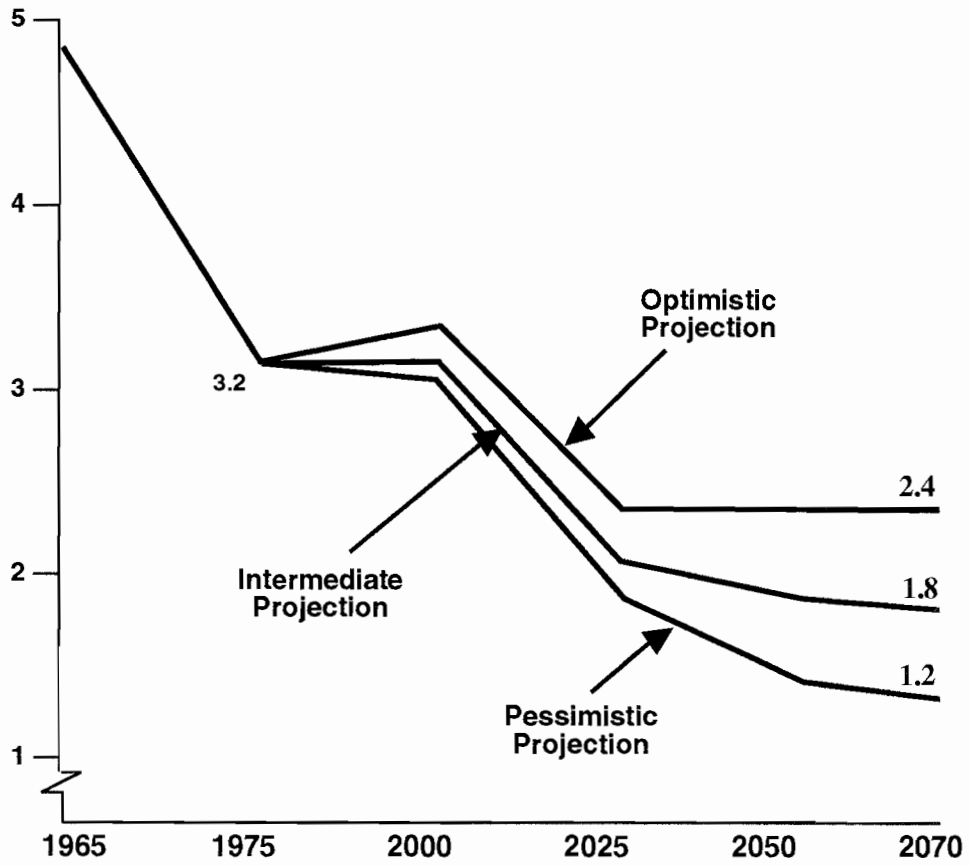
[1]Pessimistic projection, based on the Social Security Administration's Alternative III assumptions, *Board of Trustees Report,* Table II.H.1.

we have a fairly good idea of the direction in which medical science will progress. For example, it is virtually inevitable that scientists will produce a complete mapping of the genetic code. The only question is, when. Because many life-threatening diseases are related to our genetic resistance to them, an understanding of individual genetic makeup opens the door to the prevention of disease by artificial intervention. For example, Americans are constantly exposed to carcinogens. They occur naturally in the food we eat, the water we drink and the air we breathe. But some people, partly because of their genetic endowment, resist exposure better than others.[26] Once we understand the mechanism of susceptibility or resistance (which probably will not require a complete understanding of the genetic code), we will be able to sharply reduce and perhaps eliminate death from cancer.

"By the year 2070, there may be only one worker for every retiree."

FIGURE IV

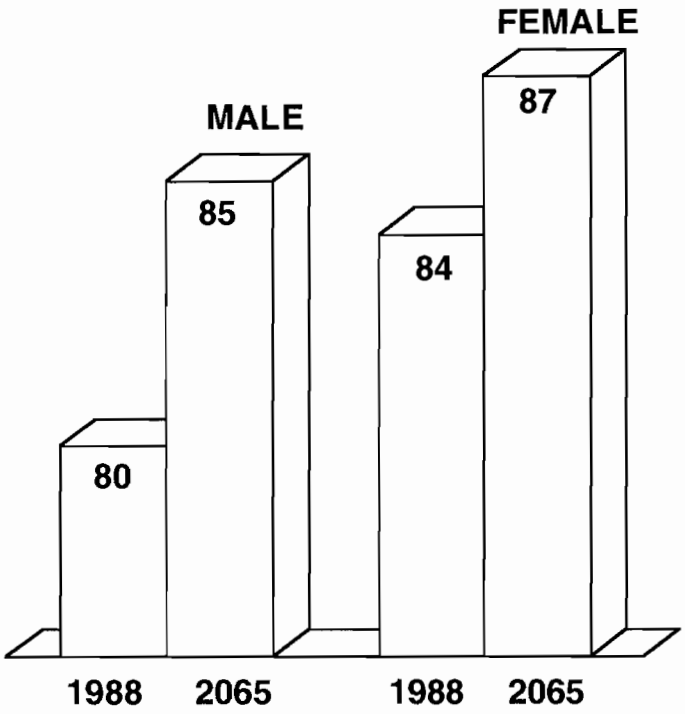
Number of Workers for Each Social Security Beneficiary



Source: Social Security Administration

FIGURE V

Expected Age of Death for 65-Year-Olds



Source: *Board of Trustees Report*, Table II.D.2, pp. 62-63.

"Life expectancy will continue to increase."

TABLE VI

Projected U.S. Population Growth, 1990-2050

Population Group	Percent Change
Total population	**- 6%**
Age 65-74	**+ 51%**
Age 75-84	**+ 78%**
Age 85+	**+246%**

Source: Based on U.S. Bureau of the Census lowest series projection. U.S. Bureau of the Census, *Projections of the Population of the United States by Age, Sex and Race: 1983 to 2080,* Current Population Reports, Series P-25, No. 952 (Washington: U.S. Government Printing Office, 1984), Table 6.

"The fastest growing part of the population will be the 'old' elderly."

"The future burden of elderly health care costs could be much greater than even the pessimistic forecast predicts."

The greatest uncertainty is what the achievements of modern science will do to the future financial burden of income maintenance and health care for the elderly. For example, heart disease, cancer and strokes currently account for 75 percent of all deaths among the elderly. Moreover, these three diseases are responsible for 20 percent of all physician visits, 40 percent of all hospital days and 50 percent of all days spent in bed.[27] If we could costlessly eliminate all three diseases, we would also eliminate three major categories of health care spending. But it is not clear that our total financial burden would go down, for the elderly would live longer and collect more Social Security checks. They would then eventually die of some other — possibly expensive-to-treat — disease.

Virtually all new government health care programs have been accompanied by a forecast of their future expenses and those forecasts invariably underestimate program costs. Assuming that the past is a guide to the future, the burden of health care costs for the elderly will be much greater than even the pessimistic forecast.

Our Chain-Letter Approach to Funding Retirement Needs

America is in love with chain letters. At the federal level, we have Social Security, Medicare, federal civil service retirement and Department of Veterans Affairs retirement chain letters. Many state and local government retirement programs also are run like chain letters. In the private sector, many company pensions and virtually all health care promises have chain-letter characteristics.

Under this approach, each generation avoids making the sacrifices necessary to pay its own way and expects the next generation to pay. Using this approach, there are only three sources of funds available to pay retirement benefits: (1) the income and assets of the elderly themselves, (2) the income and assets of private companies that have promised to pay and (3) federal government taxes on the income and assets of the general public.

Table VII shows the current sources of health care funding for elderly expenses incurred outside of nursing homes. Throughout the 1980s, attempts were made — in both the public and private sectors — to shift costs among these various sources of payment. For example, state governments paid Medicare Part B premiums for elderly Medicaid patients in an attempt to shift

medical costs to the federal government. State governments also stepped up their efforts to make Medicaid the payer of last resort by collecting whenever possible from Medicare and private insurance. Although almost all employer-provided insurance is integrated with Medicare and designed to pay for expenses not paid by Medicare,[28] Congress recently made employers the payer of first resort for employees who continue to work after they qualify for Medicare at the age of 65.[29] Many people believe that Medicare's cost-containment efforts are partly designed to shift costs from Medicare patients to other patients, and increases in Medicare copayments and deductibles clearly are an attempt to shift costs from Medicare to the elderly themselves. However, about 23 percent of elderly males outside of nursing homes could

"The burden of elderly entitlements cannot be reduced by shifting costs to other programs."

"Excluding nursing homes, the elderly pay a little more than one-fifth of their medical expenses."

TABLE VII

Sources of Payment for Noninstitutional Health Care Expenses for the Elderly[1]

Source	Share of Payment
Medicare[2]	**60.4%**
Out-of-pocket expenses and Medigap insurance purchased by the elderly	**22.1%**
Employer- or union-provided health insurance[3]	**7.4%**
Medicaid	**6.0%**
Veterans medical care	**4.0%**

[1] Excludes payments for nursing home care.

[2] Includes supplemental medical insurance (SMI) premiums paid by elderly for coverage under Medicare Part B.

[3] Includes premiums paid by the elderly.

Source: Timothy M. Smeedling and Lavonne Straub, "Health Care Financing Among the Elderly: Who Really Pays the Bills?" *Journal of Health Politics, Policy and Law* Vol. 12, No. 1, Spring 1987, Table 1 (p. 39), Table 3 (p. 43).

escape many of these costs by turning to the free care made available by the Department of Veterans Affairs.[30] The net result of these activities was simply to shift costs among funding sources. None of these came to grips with the reality that postretirement health care is not being prefunded by any current program.

What follows is a brief description of the pay-as-you-go nature of the three major sources of funding: the Social Security and Medicare trust funds, out-of-pocket funds of the elderly and employer-provided postretirement health insurance.

"The trust funds consist of nothing more than IOUs the government writes to itself."

The Myth of the Social Security Trust Funds. Partly in response to growing public concern over the program's future, a Reagan-era Commissioner of Social Security sent a letter to all Social Security recipients assuring them that the trust fund was accumulating assets and would remain solvent indefinitely. The announcement was accompanied by talk of a Social Security surplus that would grow to $12 to $14 trillion. Today, we hear less about Social Security trust fund surpluses. Figure VI shows one reason why:[31]

- Whereas in 1988, the trustees forecast a Social Security surplus of close to $12 trillion in the year 2030, in the 1992 *Trustees Report* that figure had shrunk to just over $4 trillion.

- In other words, the 40-year cumulative surplus shrank by almost $8 trillion in just a few years.

Another reason why less is heard about Social Security surpluses is the growing realization that focusing on Social Security while ignoring Medicare is pointless and misleading. According to the *Board of Trustees Report*, the Medicare (HI) Trust Fund will be exhausted by 2002-03, and soon thereafter the growing deficits in Medicare will swamp any surpluses accumulating in Social Security — leaving the federal government with an overall deficit that will continue to grow throughout the 21st century. [See Figure VII.]

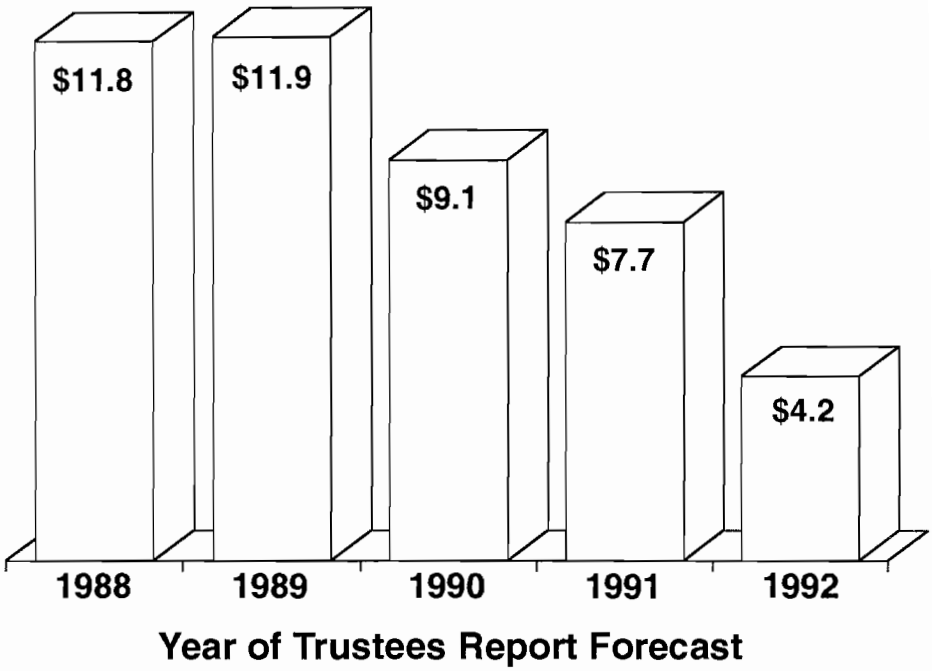
A third reason why is that the trust funds reflect accounting entries rather than a real store of value. Contrary to popular myth, the Social Security Administration is not stashing money away in bank vaults. When revenues exceed expenditures, the Social Security Administration lends the surplus to the U.S. Treasury and the government uses the money to finance current spending. In other words, because the federal government lends the money to itself, the trust funds consist of nothing more than IOUs that the government writes to itself. To pay future benefits, the government will have to levy additional taxes at the time the payments

"The mythical 'surplus' in the year 2030 has fallen by almost $8 trillion in the last four years."

FIGURE VI

Deterioration in Social Security Trust Fund Balance Projected for 2030[1]

($ trillions)



[1]End-of-year assets in nominal dollars

are due. For example, according to the *Board of Trustees Report* [see Figure VIII]:

- The Social Security trust fund is currently able to pay Social Security benefits for only 13 1/2 months.
- The Medicare (HI) trust fund is currently able to pay Medicare benefits for only 19 1/2 months.

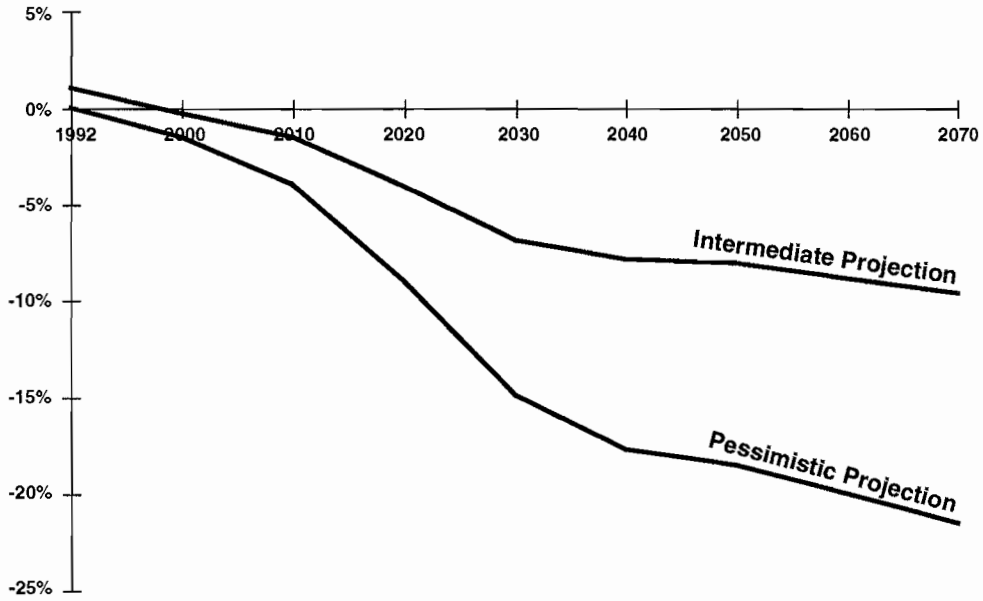
But in order to make even these payments, the trust funds must trade bonds for cash — generated by other tax revenues. Like the unemployment insurance fund, the highway fund and other federal trust funds, these accounting balances reflect IOUs, not real surpluses.

Every dollar of payroll tax revenue received by the federal government is spent — the very hour and day that it arrives. Most of what is received is spent on elderly entitlement benefits. After those payments are

"When Medicare is added to Social Security, the trustees project a deficit, not a surplus."

FIGURE VII

Annual Surplus/Deficit in Elderly Entitlement Trust Funds as a Percentage of Gross National Product[1]

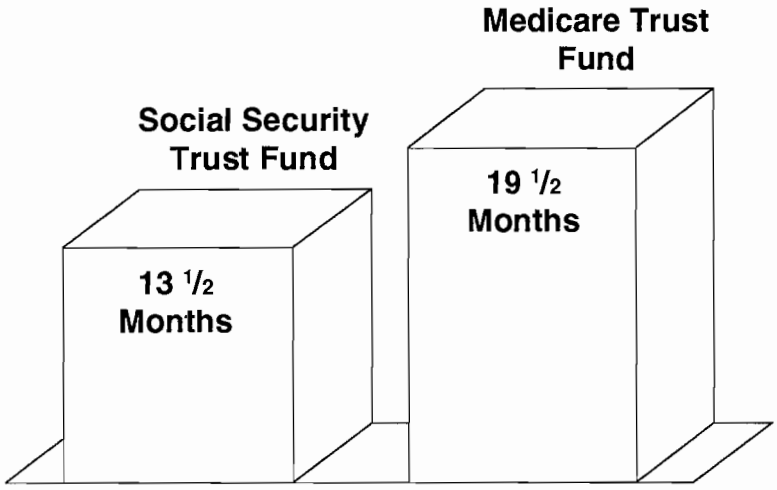


[1]Based on the Social Security Administration's intermediate and pessimistic assumptions.

"The trust funds currently 'hold' less than two years worth of benefits."

FIGURE VIII

How Many Months of Benefits Can the Trust Funds Currently Pay?



Source: Computed from the *Board of Trustees Report*

made, any extra revenue is "lent" to other parts of government and spent on other programs. As a consequence, the real test of financial health of elderly entitlement programs is not paper accounting entries, but inflow and outflow. When entitlement payments exceed FICA tax revenues, taxes will have to be raised. And the amount they will have to be raised is the best measure of future deficits. For example:

- Far from having a surplus in the year 2030, the federal government will have to pay out between $2 trillion and $4.8 trillion more in Social Security and Medicare Part A benefits than it will collect in FICA taxes.

- As a result of this deficit, the federal government will have to take as much as 37 percent of the income of workers in order to pay promised benefits that year.

Out-of-Pocket Expenses of the Elderly. At the time Medicare and Medicaid were initiated in 1965, there was considerable pressure on Congress to relieve the elderly of the financial responsibilities of health care. But the elderly now spend a larger share of their income out-of-pocket on health care than they did before the programs existed. In 1962, for example, they spent less than 8 percent of their own income for health care; today they spend 15 percent.[32]

"The elderly spend a larger share of their income on health care than before Medicare began."

What is true of Medicare is also true of other forms of health insurance. For example, elderly individuals with Medigap insurance generate 67 percent more health care spending than those without, and they spend 15 percent more out-of-pocket.[33] In general, health insurance does not replace money the elderly would otherwise have spent on health care; it adds to the total spent. Nonetheless, there clearly is a limit to the amount that they can pay for health care. In addition, out-of-pocket expenditures are highest among those who can least afford it—the old elderly. Among families ages 65 to 69, out-of-pocket expenses for health equal only 4 percent of income.[34] Among those 85 and older, out-of-pocket expenses equal 38 percent of income.[35] But the old elderly have only two-thirds as much income as the young elderly.[36]

Because the old elderly are the fastest growing segment of our population, and because people are not being encouraged to save for their own retirement, our ability to extract greater out-of-pocket payments from retirees will surely decrease.

Commitments of Private Employers. Just as almost all large companies provide private pensions, most now pay certain postretirement health care

"Like the federal government, most private companies fund postretirement health care on a pay-as-you-go basis."

expenses. Currently, about 95 percent of all large firms and a significant number of smaller ones provide postretirement health care benefits.[37] Among retirees, about one in four is now covered by employer- or union-provided health insurance.[38] About one-third of all workers[39] and two-thirds of workers with employer-provided insurance[40] work for an employer who provides coverage for postretirement health care. The cost of this commitment is soaring.[41] In 1974, when many companies began covering postretirement medical expenses, Fortune 500 companies averaged twelve employees for every retiree. Today, there are only three workers for every retiree. For many companies, retiree health plans already are more costly than retiree pension benefits.

What is the magnitude of postretirement health care commitments for U.S. companies? Because companies have not been required to report their postretirement health care liabilities on their balance sheets, no one knows for sure. The estimates vary, ranging from a Department of Labor estimate of $98 billion to an American Enterprise Institute estimate of $332 billion. [See Table VIII.] Almost all of this liability is unfunded because federal tax law severely limits the ability of the private sector to save for postretirement health care. Coopers & Lybrand and Hewitt Associates reported that only 9 out of 4,000 companies they surveyed were setting aside funds for retiree

TABLE VIII

Estimates of Accrued Liabilities for Retiree Health Benefits: All Private Corporations

($ billions)

Estimator	Current Retirees	Active Workers	Total
Department of Labor (1983)	**$40.7**	**$57.4**	**$ 98.1**
General Accounting Office (1988)	**93.0**	**128.0**	**221.0**
Employee Benefit Research Institute (1988)	**98.0**	**149.0**	**247.0**
American Enterprise Institute (1988)	**145.0**	**187.1**	**332.1**

Source: Mark Warshawsky, *The Uncertain Promise of Retiree Health Benefits: An Evaluation of Corporate Obligations* (Washington: American Enterprise Institute, forthcoming).

health benefits.[42] Other studies placed the number of companies that prefund these obligations at less than 2 percent.[43]

Under an accounting rule set to take effect in 1993, employers will be required to estimate and report their unfunded liabilities.[44] The results are expected to be shocking. According to one estimate, if the entire corporate sector had accrued liabilities for postretirement health care in 1989, corporate profits would have been reduced by 20 percent and net worth by 14 percent.[45] Among companies that have already calculated the effect of the accounting rule change, the cost will be $2.7 billion at General Electric Corporation, $2.26 billion at International Business Machines Corporation and $1 billion each at Aluminum Company of America and American Airlines.[46] Chrysler Corporation's 1990 retiree health care costs were $298 million, but the company calculates that its future liability is as much as $6 billion.

"Employers could turn to the federal government to bail them out."

At one time, employers thought that if they faced financial problems they could simply cease providing the postretirement health care benefits. A series of court rulings has altered that assumption. In many cases, the courts have ruled that such promises are legally binding. That is one reason why Joseph Califano, former secretary of the Department of Health, Education and Welfare, described the problem as "one of the world's greatest time bombs." Note also that the funding of postretirement health care by employers is not strictly a problem of paying for health care for the elderly. Among Fortune 500 companies, the average retirement age is 58.3 years.[47]

This mounting liability not only threatens the financial health of corporate America but could cause employers to turn to the federal government—and therefore to taxpayers—to pick up an ever-larger share of postretirement health care costs. For example, several companies (including Chrysler) and unions support a proposal to reduce the Medicare eligibility age from 65 to 60. Such a change would reduce total retiree health care liabilities by more than two-thirds and shift the burden to taxpayers.[48]

Searching for Other Sources of Income

Before turning to radical solutions to the problem of elderly entitlement programs, it is worth asking whether other funding sources are available. For example, Figure IX shows that taxable payroll is only 54 percent of national income. Could we tax the remaining, nontaxed portion? Let's take a closer look.

Untaxed Wages Income. Currently, only about three-fourths of wage income is subject to the Social Security (FICA) tax. Could we gain substantial revenue by taxing the remaining one-fourth? Consider first that 6.4 percent of national income is untaxed labor compensation because it goes for fringe benefits — primarily health insurance and retirement pensions. While we could tax these fringe benefits, it is not clear that any desirable social goal is served by reducing health and pension benefits for the young in order to pay those benefits for the elderly.

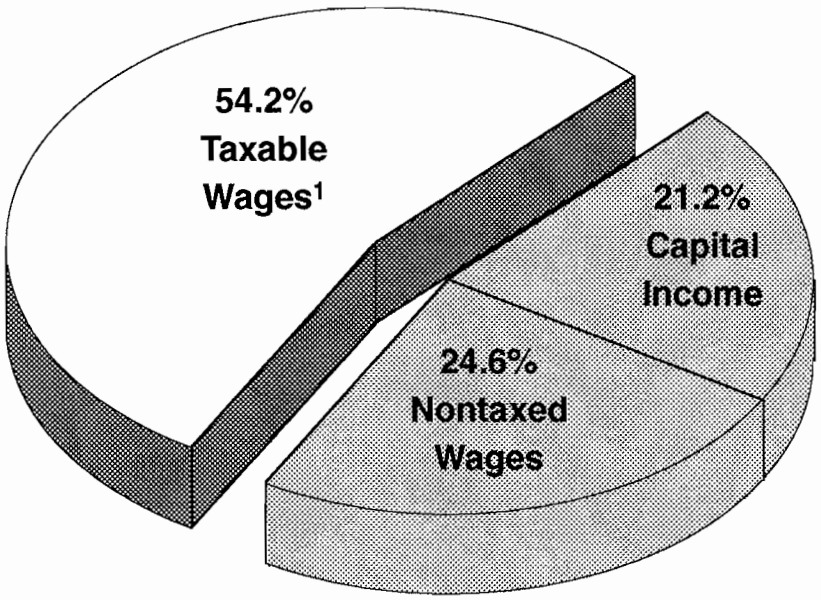
Consider also that about 6.4 percent of national income is untaxed labor compensation because it is the employer's "share" of FICA taxes. While we could tax the employer's share as we currently tax the employee's, the extra revenue would have to come from some other part of labor compensation (e.g., reduced take-home pay or lower fringe benefits), since FICA taxes are already going to government.

Another 4.4 percent of national income is untaxed because it is labor compensation for federal and state employees who are not part of the Social Security system. In the future, an increasing proportion of government employees will pay Social Security taxes. But they will also draw benefits. These changes are reflected in the forecasts depicted in this study.

"We are unlikely to be able to get significant revenue by extending the tax base."

FIGURE IX

Distribution of National Income



[1]Subject to the Social Security (FICA) payroll tax.

That leaves 7.4 percent of national income, or 12 percent of wages, that are untaxed because they are above the wage ceiling ($55,500 in 1992). While it is possible to raise the ceiling (income up to $130,200 is currently subject to the Medicare portion of the payroll tax), it is not clear that we would gain a great deal of additional revenue. As noted above, high-income earners have the greatest discretion over how they receive income and the greatest skill at avoiding high marginal income tax rates. But even if we were able to tax all income above the current ceiling with no loss of revenue due to tax avoidance, the additional income would put only a small dent in our future burden.

Untaxed Capital Income. The remaining 21.2 percent of national income that is not subject to FICA taxes is investment income received in the form of interest, rent, dividends and profit. Although we could increase taxes on this income, there is no reason to believe we would be better off by doing so. The average tax rate on capital income is already 30 percent higher than that on labor. And higher taxes on investment income invariably reduce investment, lower wages and eliminate jobs. Usually, such taxes also cause a net loss of revenue rather than a gain. Under the current tax structure:[49]

- For every dollar of aftertax income to investors, workers receive $12 in aftertax wages and government receives another $12 in tax revenue.
- Thus every extra dollar taken from investors ultimately means $12 less in revenue for government.

Searching for Less Radical Options

"Even if we abolished Social Security, we would need more than half of workers' income to pay elderly medical bills."

If we want to keep the basic structure (including the pay-as-you-go nature) of elderly entitlement programs, and we want to keep tax rates reasonably close to their current levels, are there any options other than massive immigration? A number of modifications to the present system have been proposed. These generally fall into the category of reducing benefits or increasing nonimmigrant work and pay.

Reducing Benefits. A number of proposals have been made to reduce the magnitude of entitlement benefits without changing the structure of the programs. These include: (1) raising the eligibility age,[50] (2) taxing all of Social Security benefits, (3) using price indexing rather than wage indexing to determine Social Security benefits and (4) reducing cost-of-living adjustments (COLAs) for benefits after retirement. Could these, or any other pro-

posal to reduce benefits solve the problem? That's not likely. To see why, consider that:

- Even if we arbitrarily reduced all Social Security benefits by one-third in the year 2070, we would still need 40 percent of taxable payroll to pay the remaining benefits according to the intermediate forecast.

- Under the pessimistic forecast, we would still need 72 percent of payroll to fund the remaining entitlements.

- Indeed, even if we abolished Social Security altogether, we would still need more than half of workers' incomes just to pay elderly health care bills!

Increasing Nonimmigrant Labor. If we cannot substantially cut entitlement benefits, are there opportunities to keep tax rates down by expanding our domestic labor supply? Consider that:[51]

- Among males age 25 to 54, 93 percent are already in the labor force and of those working, 95 percent are working full time.

- Among females age 25 to 54, 75 percent are in the labor force and almost 80 percent of those working are working full time.

What about people between the ages of 16 and 25 and between the ages of 54 and 70? It's possible to change public policy and induce more people in these age groups into the labor market. But it's not clear that there is any net gain for the entitlements system from doing so. For example, one study showed that if we abolished the Social Security retirement earnings test and paid full Social Security benefits to 65-year-olds who continue to work, there would be substantially more output. But the additional payroll and income taxes just offset the higher benefit payments — with no net relief for the entitlements system.[52] Similarly, we could cut back on educational subsidies and encourage more young people to choose the labor market over college. But less education means less productivity — which means less income and less payroll tax revenue in the long run.

"Higher payroll taxes will result in fewer workers and fewer hours of work."

Finally, what about getting people who are already working to work more hours? Currently:[53]

- The average work week for everyone in the labor market (men and women, part-time and full-time) is 38.2 hours.

- If we could extend the work week to 76.4 hours, we would have doubled the work force.

What seems reasonable on paper, however, is less reasonable in practice. Among those who can most easily extend their work week (full-time employees), about one-third are already working 40 hours or more each week.[54] A more basic problem is that people make decisions about how much to work based on aftertax income. In order to get more labor, there must be a greater inducement. Yet Tables I and II show that in the future we will be moving in the opposite direction. Higher predicted payroll tax rates will undoubtedly lead to fewer workers and fewer hours of work for our domestic population.

Increasing the Birth Rate. The idea of using public policy to increase a country's birth rate is not new. For example, in 1966, Romania outlawed abortions for most women, outlawed the manufacture or importation of contraceptives, instituted an $85 maternity grant for each child beyond the second child and imposed a "childlessness" tax on men and women over 25 years of age who did not have children. These measures provoked a temporary increase in the birth rate, but by the 1980s it had returned to its previous level.[55]

"The evidence that fertility rates can be increased by public policy is very weak."

In response, President Ceaucescu announced in 1984 that "it is every healthy Romanian woman's patriotic duty to have four children." To enforce this duty, the Romanian government required married women to submit to monthly pregnancy tests and to explain persistent nonpregnancies. Women workers who did not fill reproductive quotas were threatened with lack of promotions and loss of their jobs.[56]

In contrast to the largely command-and-control approach of Romania, other Eastern European countries have relied on economic incentives. For example:[57]

- In 1980 and 1981, a Czechoslovakian family with three children received family allowances equal to 53 percent of the average manufacturing wage (vs. 18 percent for a two-child family).
- A similar subsidy was 34 percent vs. 12 percent in Bulgaria and 33 percent vs. 21 percent in Hungary.
- Economic incentives to have children were also adopted in East Germany.

Although some Eastern European countries have maintained fertility rates above the replacement rate, and therefore higher than Western European countries, the evidence that fertility rates are responsive to public policy is very weak.

In theory, government should be able to increase a country's fertility rate by simply paying women to have children. In practice, the price may be higher than the goal is worth. The demographer Joseph Spengler reported that in 1938 France was spending 2 percent of its national income on family allowances and other pronatalist policies and achieving very little in return.[58] For the United States, the results of academic studies are mixed. One reports that the increase in the personal exemption from $1,080 to $2,000 brought about by the Tax Reform Act of 1986 should be enough to raise the U.S. fertility rate to the replacement level.[59] Another reports that:[60]

"Under the immigration solution, guest workers agree to work and pay taxes, but do not claim any retirement benefits."

- Increasing the U.S. fertility rate to the population replacement level (2.1 births per woman of child bearing age) would require annual subsidies of $380 billion.

- To fund subsidies of that size, we would have to more than double the current (15.3 percent) FICA payroll tax.

The Immigration Solution

If we are to avoid the nightmare in our future, we have only two options. One is to privatize Social Security and Medicare and move to a system under which each generation saves to pay for its own retirement needs. This option, which has been successfully adopted in Singapore and Chile and partially adopted in Britain, will be discussed more fully below. The second option is to increase the number of taxpaying workers by significantly increasing immigration. The privatization solution requires that we act today. If we wait and ignore the problem for another decade or so, the immigration solution will be the only option we have left.

We are not *advocating* the immigration solution, but merely exploring its implications. Thus, this section envisions importing immigrant workers who agree to work and pay taxes but do not claim any entitlement benefits when they reach the retirement age. Presumably these workers would be permanent "guest workers"— permanent because they would be in the United States for the remainder of their work life and guests because they would not be citizens. Were they allowed to become citizens, it would be in their economic self-interest to vote to abolish elderly entitlement programs — an outcome that would defeat the whole purpose of increased immigration.

"To keep payroll tax rates at their current level, the number of immigrant workers must be from two to six times the number of nonimmigrant workers."

The Number of Immigrants. How many immigrants would we need? That depends on how high we are willing to allow payroll tax rates to rise and how productive the immigrant workers are. The calculations in this study show the number of immigrant workers we would need each year in order to keep the payroll tax at its current level. The tables are constructed on the *very conservative assumption* that immigrant workers possess the skills to be just as productive as the average nonimmigrant worker.[61] Even under this assumption, the number of immigrant workers would be quite large. As Figures X and XI show:[62]

- In order to keep payroll tax rates from rising under the intermediate assumptions, we would need 57 million new immigrant workers over the next 78 years to pay Social Security benefits and 188 million to pay Social Security plus health care benefits.

- Under the pessimistic assumptions, we would need 120 million new workers to pay Social Security benefits and 339 million to pay all elderly entitlements.

The large number of immigrant workers means that an increasing percent of the U.S. labor force would consist of immigrant labor. As Table IX shows:

- Under the intermediate forecast, by the year 2035 we would need to double our labor force with immigrant workers.[63]

- If immigrants were allowed to bring family members and if they had children, immigrants would outnumber nonimmigrants by the middle of the next century.

- If immigrants were allowed to become citizens and vote, in four to five decades they would dominate the American political system.

Under the pessimistic forecast, the change would be even more dramatic. As Table X shows:

- Under the pessimistic forecast, immigrant workers would outnumber nonimmigrant workers in 26 years.

- By the year 2070, there would be more than three times as many immigrant as nonimmigrant workers.

Remember these forecasts assume that immigrants are just as productive as the average worker in our economy at the time they immigrate. But suppose they are only half as productive. In that case, under the pessimistic assumption we would need about 700 million immigrant workers by the year 2070 — about six immigrants for every nonimmigrant in the labor force.

Required Economic Growth. In order for increased immigrant labor to increase payroll tax revenues, total payroll must grow faster than it otherwise would. This implies that the economy as a whole must grow faster. Specifically:[64]

- In order to maintain the payroll tax rate at its current level, the economy must grow 73 percent faster over the next 78 years than it is projected to grow under the intermediate assumptions (2.66 percent rather than 1.54 percent).

- The economy must grow 2 1/2 times faster than it is projected to grow under the pessimistic assumptions (2.64 percent rather than 0.75 percent).

"We will need to more than double our rate of economic growth."

Required Investment. As we have seen, to keep payroll tax rates at their current levels requires a massive infusion of immigrant labor. But in order for a much larger labor force to produce proportionately more output (and therefore income), we would need an equally massive infusion of capital.[65] And in order for the capital stock to increase, investment must increase. How much more investment would be needed? Over the past ten years, investment in this country has averaged almost 19 percent of our gross domestic product. Yet as Table XI shows, over the next 78 years we would need an investment rate equal to between one-fourth and one-third of GDP:[66]

- Under the intermediate assumptions, the required rate of investment would be 40 percent higher than it has been.

- Under the pessimistic assumptions, the required rate of investment would be 77 percent higher.

Where Would the New Workers Come From?

Is immigration really a possible solution? Remembering that the problems of other developed countries are similar, if not worse, than our own, we cannot look to other industrialized countries for extra workers. Instead, all of the developed countries would have to look to the less-developed countries. Yet it is not clear whether there actually would be enough potential immigrants to solve the problem and whether any significant immigration

could take place without devastating the economies of third-world countries. Let's look first at the Western Hemisphere, then at other parts of the world.

Sources of New Labor in the Western Hemisphere. Currently, there are about 126 million workers in the United States labor force in the and another 12.5 million in Canada. Suppose we wanted to double the labor force of both countries today, using immigrants from Latin America. Could that be done? What would the consequences be? Consider that:[67]

- In order to double the labor force of the United States and Canada today, we would need 138.5 million workers from Latin America.
- That is equal to about one out of every two Latin Americans of working age (15 to 64).

FIGURE X

Immigrant Workers Needed to Fund Elderly Entitlement Programs

(millions)

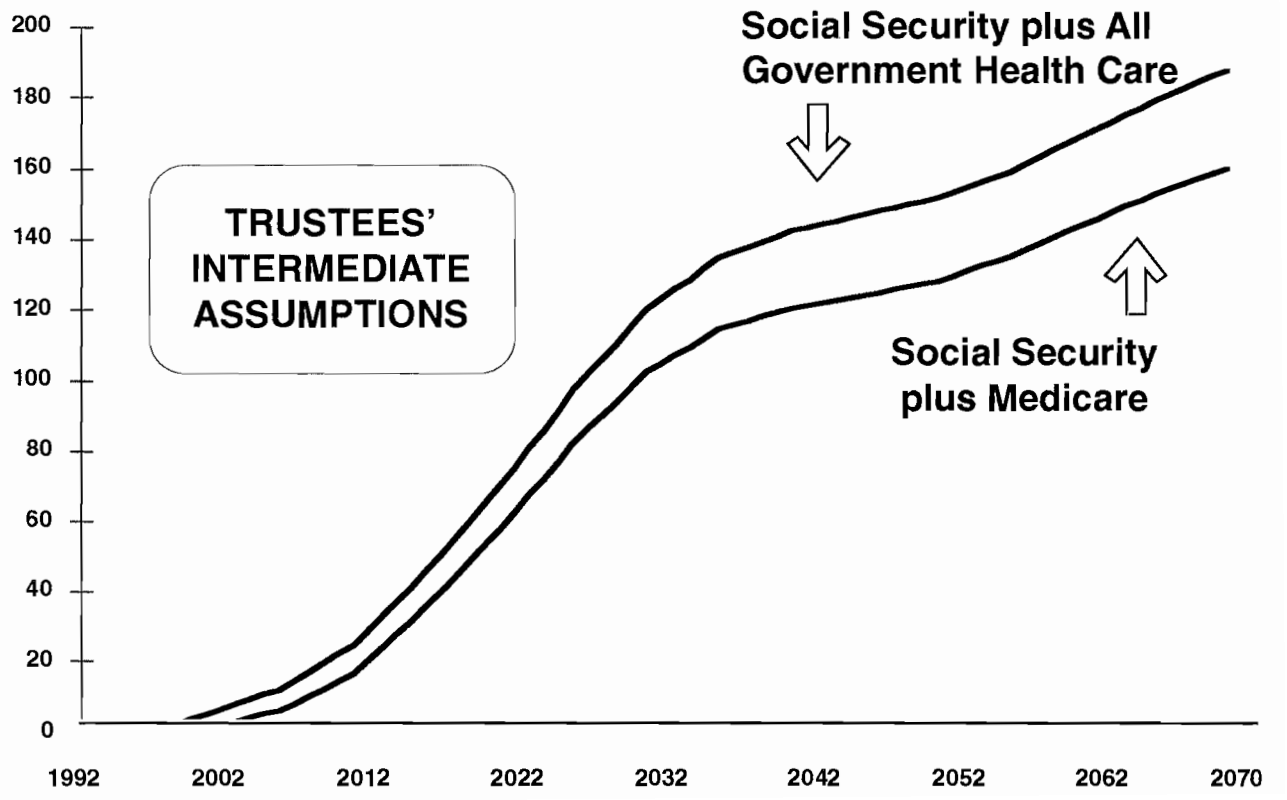
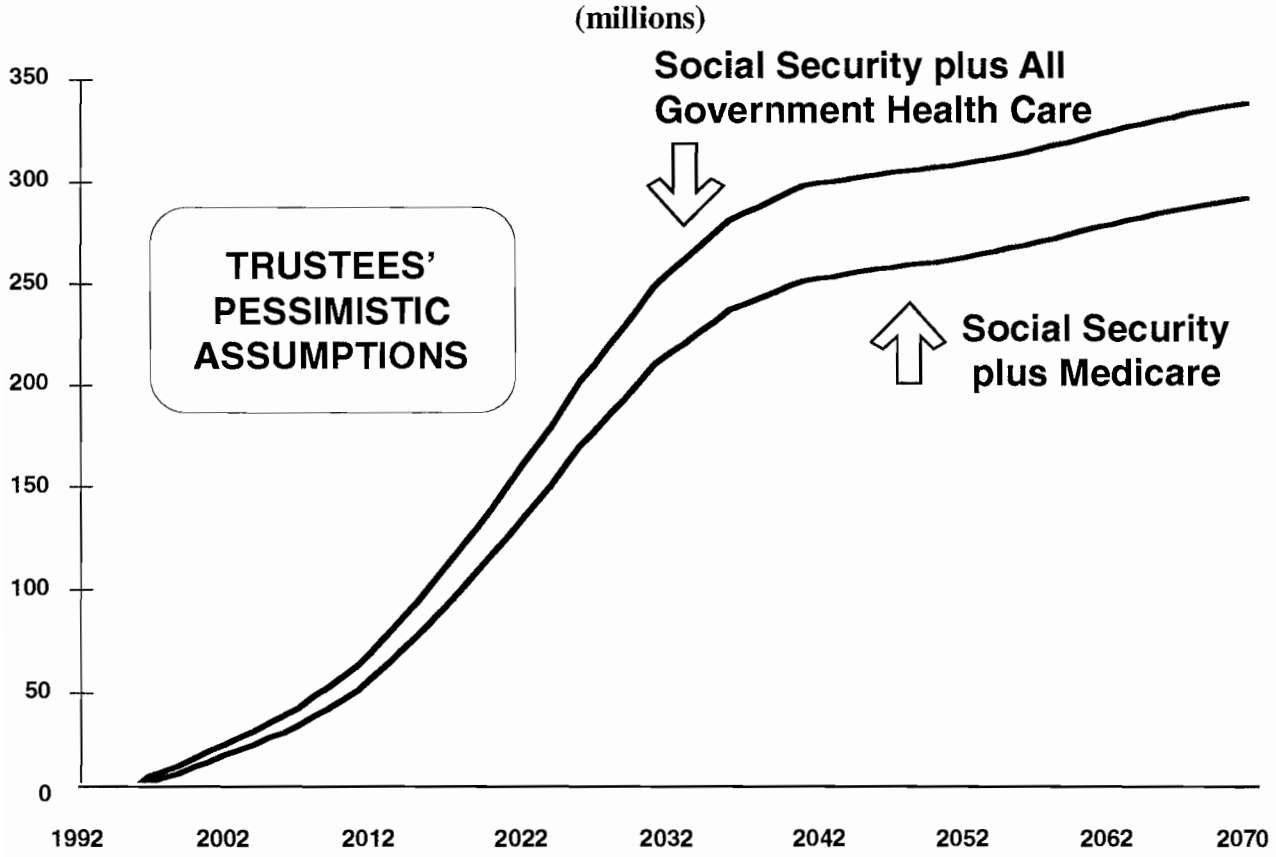


FIGURE XI

Immigrant Workers Needed to Fund Elderly Entitlement Programs



- Since these numbers refer to women as well as men, and since parents are unlikely to emigrate without their children, this would require the emigration of about one-half the nonelderly population of Latin America (approximately 214 million people).

Of course, the population in Latin America is expected to grow faster than the U.S. population in the future. But even if current projections about population growth are correct, in order to double the number of workers in North America in, say, the year 2020, we would need 42 percent of the working-age population of Central and South America.

While it is at least physically possible to transport half the population of Latin America to the United States and Canada, the economic reality may be much different. Even if we shed our immigration barriers and gave foreign workers the opportunity to earn higher wages, it is doubtful that the wage differential would be enough to attract that many.

TABLE IX

Immigrant Workers (As a Percent of all U. S. Workers) Needed to Keep Tax Rates at Current Levels

Intermediate Assumptions[1]

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare	SS plus All Government Health Care for the Elderly
1993	0.0%	0.0%	0.0%	0.0%
1994	0.0%	0.0%	0.0%	0.0%
1995	0.0%	0.0%	0.0%	0.0%
1996	0.0%	0.0%	0.0%	0.0%
1997	0.0%	0.0%	0.0%	0.4%
1998	0.0%	0.0%	0.0%	1.7%
1999	0.0%	0.0%	0.0%	3.1%
2000	0.0%	0.0%	0.6%	3.9%
2005	0.0%	0.4%	4.6%	8.8%
2010	0.0%	6.4%	11.2%	15.8%
2015	0.0%	16.5%	21.4%	26.0%
2020	9.5%	26.0%	30.5%	34.7%
2025	17.4%	33.9%	38.2%	42.2%
2030	21.9%	39.1%	43.4%	47.4%
2035	23.4%	41.5%	46.0%	50.0%
2040	23.2%	42.4%	47.0%	51.2%
2045	23.0%	42.9%	47.6%	51.8%
2050	23.8%	43.7%	48.4%	52.5%
2055	25.5%	45.0%	49.5%	53.6%
2060	27.3%	46.7%	51.2%	55.2%
2065	28.5%	48.1%	52.6%	56.5%
2070	29.3%	49.3%	53.7%	57.6%

[1]Same assumptions as in Table I.

TABLE X

Immigrant Workers as a Percent of all U. S. Workers Needed to Keep Tax Rates at Current Levels

Pessimistic Assumptions[1]

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare	SS plus All Government Health Care for the Elderly
1993	0.0%	0.0%	0.0%	0.0%
1994	0.0%	0.0%	0.0%	0.0%
1995	0.0%	0.0%	0.7%	2.5%
1996	0.0%	3.6%	5.5%	7.4%
1997	0.0%	4.9%	7.1%	9.3%
1998	0.0%	6.1%	8.6%	11.1%
1999	0.0%	7.8%	10.6%	13.4%
2000	0.0%	9.3%	12.4%	15.5%
2005	1.6%	16.2%	20.3%	24.3%
2010	5.4%	24.3%	29.3%	33.9%
2015	13.5%	35.2%	40.4%	45.1%
2020	23.1%	45.1%	50.1%	54.5%
2025	30.8%	53.1%	57.9%	62.0%
2030	36.0%	58.7%	63.2%	67.1%
2035	39.1%	61.8%	66.2%	69.9%
2040	40.9%	63.5%	67.8%	71.3%
2045	42.8%	64.5%	68.6%	72.1%
2050	45.1%	65.6%	69.5%	72.8%
2055	47.9%	66.9%	70.6%	73.7%
2060	50.4%	68.4%	71.9%	74.8%
2065	52.2%	69.5%	72.9%	75.7%
2070	53.7%	70.7%	73.9%	76.6%

[1]Same assumptions as in Table II.

"In order to double the labor force of the United States and Canada today, we would need half the workers in Latin America."

Moreover, if substantial numbers did emigrate from Latin America to North America, the economic consequences would be severe. Many people mistakenly assume that less-developed countries have no social security problems because they have growing populations and a high ratio of workers to retirees. In fact, the social security systems of most Latin American countries have been so mismanaged that they already have a serious funding problem — a problem that would grow much worse if a large portion of the most highly skilled employees emigrated.[68] For example:[69]

- In about half of the countries in Latin America, less than 25 percent of the economically active population is paying payroll taxes.
- In some countries, retirees are promised a pension that exceeds 100 percent of preretirement earnings, and some workers can begin drawing retirement pension benefits at age 45.

As a result, some less-developed countries face a financial crisis of a magnitude that is not expected in the United States until well into the next century. Specifically, in some Latin American countries:[70]

TABLE XI

Investment as a Percent of GDP Needed with Increased Immigration to Maintain Current Tax Rates[1]

Entitlement Programs	Intermediate Assumptions	Pessimistic Assumptions
Social Security (SS)	**21.73%**	**26.10%**
SS Plus Medicare Part A	**24.68%**	**31.03%**
SS Plus Total Medicare	**25.56%**	**32.31%**
SS Plus All Govt. Health Care	**26.45%**	**33.53%**
Recent Experience[2]	**18.96%**	**18.96%**

[1]Simulated required investment is the average over the period 1993-2070.

[2]Average over last 10 years.

- The total payroll tax already exceeds 26 percent of earnings;
- There are fewer than two taxpayers for every beneficiary; and
- Social insurance expenditures exceed 10 percent of gross domestic product and are more than one-third of all government expenditures.

Sources of New Labor Worldwide. If we consider the entire less-developed world as a source of labor, we must also consider the European countries as competitors for new workers. Currently, the labor force of North America plus Europe is roughly 390 million and the people of working age total 1,733 million in Latin America, Africa and southern Asia combined.[71] Overall:[72]

- To double the labor force of North America and Europe today would require the immigration of one out of every five people of working age from Latin America, Africa and southern Asia.
- To accomplish that feat in the year 2010 would require one out of every six people of working age.

While these numbers appear considerably more within the realm of possibility than those in the Western Hemisphere alone, they still imply large population movements — well beyond what most people would consider economically or politically practicable. Moreover, as we increase our projected need for employees, the constraints become more evident. For example, if we wanted to increase the labor force of the developed world by sixfold in the year 2010, we would require the immigration of everyone of working age in the entire third world.

"The social security systems of most Latin American countries already have serious funding problems."

The Privatization Solution

The alternative to funding retirement benefits by income transfer is to fund benefits by saving. The alternative to creating escalating burdens for each successive generation of workers is for each generation to save for its own retirement benefits and pay its own way. While these ideas may appear radical, they are not without international precedent. Although the vast majority of countries have pay-as-you-go retirement benefits, a number of countries have avoided, or at least limited, the chain-letter approach to retirement income that characterizes pay-as-you-go Social Security. [See Figure XII.] For example:[73]

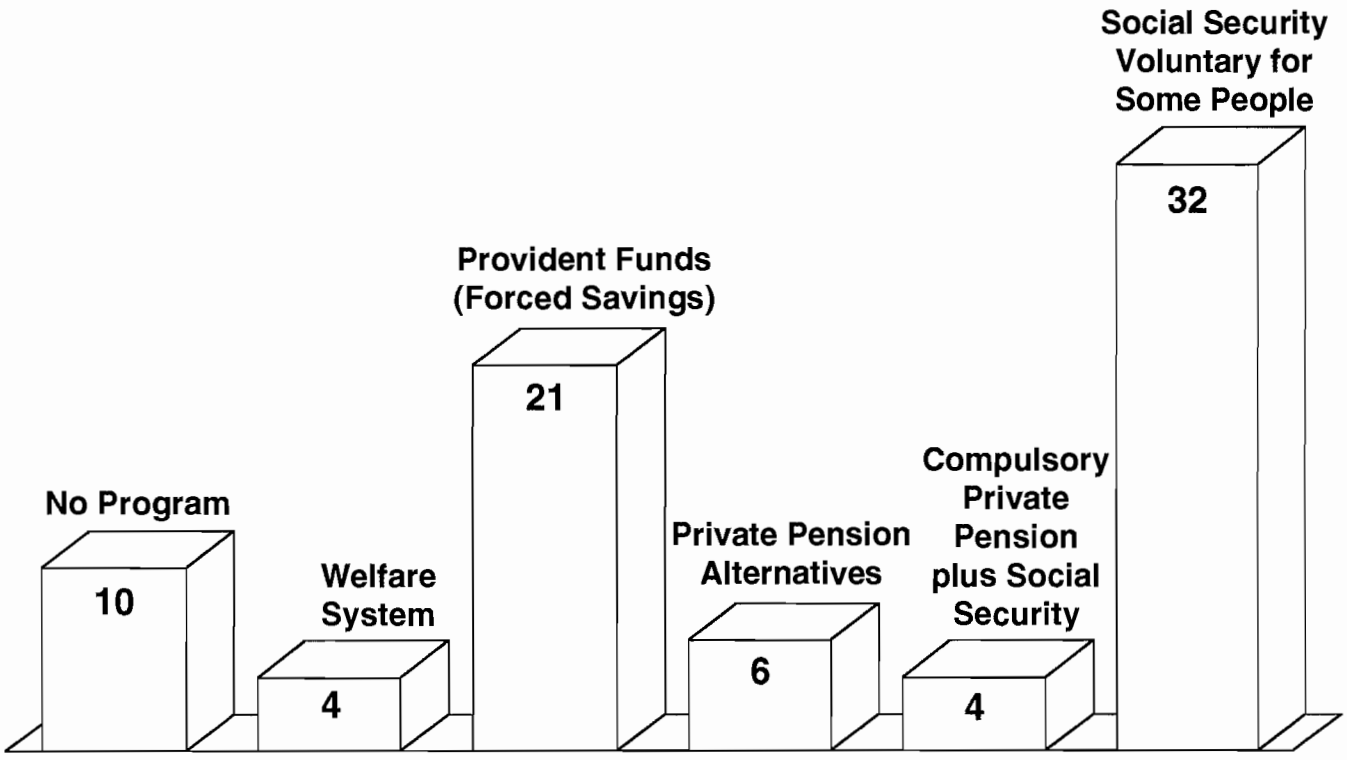
- At least 21 countries have programs in which workers are required by law to save for their own retirement.
- At least six countries allow some private pensions to substitute for social security.
- At least four countries mandate private pensions to supplement a minimum income provided by social security.

Moreover, three countries have adopted particularly innovative alternatives to traditional social security:[74]

- In Singapore's provident fund system, all employees are forced to save for their own retirement and to save for hospital expenses through a system of medical savings accounts.

FIGURE XII

Alternatives to Social Security in Other Countries[1]



[1]Based on a survey of 133 countries.

Source: John C. Goodman and Peter J. Ferrara, "Private Alternatives to Social Security in Other Countries," National Center for Policy Analysis, NCPA Policy Report No. 132, May 1988.

- In Chile, 90 percent of all workers have opted out of the public social security system by contributing to the Chilean equivalent of Individual Retirement Accounts (IRAs) and about one-quarter contract with private companies for health, life and disability insurance.

- In Britain, employers have contracted about half of all workers out of the second tier of British social security by providing equivalent private pensions, and Britain is now implementing an IRA alternative to social security for individuals.

If the United States is to move from a pay-as-you-go Social Security system to a fully funded private system, we must find a way to make the transition. All serious proposals made to date have involved giving individuals tax deductions or tax credits for deposits to IRA accounts.[75] In return for the right to make such deposits, individuals (roughly speaking) would give up the right to draw a dollar in Social Security benefits for each dollar deposited in their private accounts. After a number of years, the special IRA account balances would grow to a point at which the account holders' claims against Social Security would be zero. Through a similar mechanism, individuals could opt out of Medicare,[76] and out of the survivors and disability system as well.

"At least 21 countries require workers to save for their own retirement."

In this way, the U.S. could move quickly toward a private savings alternative to pay-as-you-go social insurance and avoid the financial crisis that looms in our future. The experience of other countries demonstrates that this is an option well worth considering.

Conclusion

Throughout the next century, the burden of entitlement programs will continue to grow. By the year 2070, funding for programs already established under current law will require from one-half to four-fifths of workers' wages. Collecting that amount of money from future taxpayers will require extremely high tax rates, and it is unlikely that government will be able to collect enough revenue at any tax rate.

What we have called the immigration solution envisions importing guest workers from other countries who agree to work and pay taxes to support our elderly entitlement programs — and also agree not to collect benefits under those programs. We have discovered that in order to keep tax rates at their current levels, immigrant workers would have to number from two to four times the number of nonimmigrant workers — even assuming that immigrants are just as productive as nonimmigrants.

The immigration solution probably would not work. It would require huge migrations of people from less developed to more developed countries, and it is doubtful that we could attract that many people with economic incentives alone. It would also require from two to four times as much capital as we would otherwise have, and it is not clear where that capital would come from.

"Because the immigration solution probably would not work, privatization is the only answer."

Our only real alternative is the privatization solution — an arrangement under which each generation saves to fund its own retirement benefits. This solution requires that we act quickly, however, to encourage or require additional savings on the part of young workers.

Failure to take responsible actions today will cause us to face an unavoidable nightmare in the next century.

Footnotes

[1] Social Security refers to the Old-Age, Survivors and Disability Insurance (OASDI) programs that pay cash benefits to retired and disabled workers, their dependents and survivors. Currently, 12.4 percentage points of the 15.3 percent FICA payroll tax rate goes to fund OASDI. A minor source of revenue is the income tax applied to OASDI benefits (the "Social Security benefits tax").

[2] See *The 1992 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and the Federal Disability Insurance Trust Funds,* Washington, DC, April 1992. (Hereinafter referred to as *Board of Trustees Report*).

[3] Intermediate, or "best guess," assumptions are those used for the Alternative II projection in the *Board of Trustees Report.* Pessimistic assumptions are those used for the Alternative III projection. See *Board of Trustees Report*, Table III.B.

[4] In fact, the "pessimistic" assumptions often are more favorable than our recent experience. See John C. Goodman and Peter Ferrara, "Social Security: Who Gains? Who Loses?" National Center for Policy Analysis, NCPA Policy Report No. 127, May 1987, pp. 6-8. The assumptions behind all three projections are discussed in greater detail below.

[5] In 1992, Part B costs will amount to 0.7 percent of GDP and 1.6 percent of taxable payroll. The Part B projections in this study assume that Part B will continue to equal the same proportion of Part A (68.5 percent) as in 1992.

[6] See Daniel R. Waldo, Sally T. Sonnefeld, David R. McKusick and Ross H. Arnett, III, "Health Expenditures by Age Group, 1977 and 1987," *Health Care Financing Review*, Vol. 10, No. 4, Summer 1989, Table 4.

[7] Task Force on Long-Term Care Policies, *Report to the Congress and the Secretary* (Washington: U.S. Department of Health and Human Services, 1987), p. 69.

[8] Thomas Rice and Jon Gabel, "Protecting the Elderly against High Health Care Costs," *Health Affairs*, Fall 1986, p. 16.

[9] Task Force on Long-Term Care Policies, *Report to the Congress and the Secretary.*

[10] John C. Goodman and Gerald L. Musgrave, "Health Care for the Elderly: The Nightmare in Our Future," National Center for Policy Analysis, NCPA Policy Report No. 130, October 1987, p. 5.

[11] The technical issues involved in making this estimate are discussed in John C. Goodman and Gerald L. Musgrave, "Health Care After Retirement: Who Will Pay the Cost?" National Center for Policy Analysis, NCPA Policy Report No. 139, May 1989, Appendix A.

[12] See Aldona and Gary Robbins, "Reducing Social Security Taxes: Sound Policy for Today and Tomorrow?" Institute for Policy Innovation, IPI Policy Report No. 110, March 1991.

[13] See John C. Goodman, "Should Income Tax Rates for Wealthy Taxpayers be Increased?" National Center for Policy Analysis, NCPA Policy Backgrounder 102, July 20, 1990; and Lawrence Lindsey, *The Growth Experiment* (New York: Basic Books, 1990).

[14] The additional 0.1 accounts for childhood mortality that occurs before females reach childbearing age.

[15] Ben J. Wattenberg, *The Birth Dearth* (New York: Pharos Books, 1987), Chart 2A, p. 173.

[16] For example, the Bureau of the Census "middle-level" projections assumed a fertility rate of 2.1 until 1984 (when it was reduced to 1.9), despite the fact that the average fertility rate for the ten previous years was 1.796. See Wattenberg, pp. 26-27, n. 3. The intermediate projection of the Social Security Administration—the one most widely quoted in and out of government—did not use a fertility rate of less than 2.0 until 1988. See the *Board of Trustees Report.* In addition, two former administrators in the U.S. Department of Health and Human Services published a book in the mid-1980s on Medicare policy in which all of the forecasts assumed a fertility rate of 2.1 without giving any justification. See Karen Davis and Diane Rowland, *Medicare Policy: New Directions for Health and Long-Term Care* (Baltimore: Johns Hopkins University Press, 1986), pp. 121-123. The fertility rate for 1988 was 1.93 and the average for the past 15 years (1975 to 1990) was 1.85. See *Board of Trustees Report*, Table II.D.2.

[17] *Board of Trustees Report*, Table II.H.1. Under the pessimistic assumptions, it will be 22.3 percent.

[18] George W. Bush et al., "Prefunding of Postemployment Health Care: The Pension Analogy, the Insurance Need," in Robert D. Paul and Diane M. Disney, eds., *The Sourcebook on Postretirement Health Care Benefits* (Greenvale, NY: Panel, 1986), p. 296.

[19] Estimates of the Health Care Financing Administration.

[20] Daniel R. Waldo et al., "Health Expenditures by Age Group, 1977 and 1987," pp. 111-20.

[21] Deborah J. Chollet and Robert B. Friedman, "Employer-Paid Retiree Health Insurance: History and Prospects for Growth," in Frank B. McArdle, ed., *The Changing Health Care Market* (Washington: Employee Benefit Research Institute, 1987), p. 206.

[22] Estimates of the Health Care Financing Administration. For a recent discussion of these projections and related issues, see Peter G. Peterson, "The Morning After," *Atlantic Monthly*, October 1987, pp. 62-64.

[23] Ibid.

[24] Phillip Longman, *Born to Pay: The New Politics of Aging in America* (Boston: Houghton Mifflin Co., 1987), p. 88.

[25] Frederic D. Wolinsky, Ray R. Mosely II and Rodney M. Coe, "A Cohort Analysis of the Use of Health Services by Elderly Americans," in *Journal of Health and Social Behavior,* Vol. 27, No. 3, 1986, p. 209.

[26] For example, researchers now believe that more than half of all cases of colon and rectal cancer are directly related to a genetic predisposition to such cancers. See Lisa A. Cannon-Albright et al., "Common Inheritance of Susceptibility to Colonic Adenomatus Polyps and Associated Colorectal Cancers," *New England Journal of Medicine* 319, No. 9 (September 1, 1988), pp. 533-37.

[27] Bush et al., pp. 303-4.

[28] For a description of the types of employer plans, see Jonathan C. Dopkeen, "Postretirement Health Benefits," Pew Memorial Trust Policy Synthesis, 2, *Health Services Research* 21, No. 6, February 1987, pp. 803-4.

[29] Ibid., p. 583.

[30] Timothy M. Smeedling and Lavonne Straub, "Health Care Financing among the Elderly: Who Really Pays the Bills?" *Journal of Health Politics, Policy and Law* 12, No. 1, Spring 1987, p. 37.

[31] *Board of Trustees Report*, Table III.B.3, pp. 182. An $11.8 trillion surplus equals $2.7 trillion in 1992 dollars, and a $4.2 trillion surplus equals $0.9 trillion.

[32] Smeedling and Straub, p. 36.

[33] Davis and Rowland, p. 36.

[34] Anne M. Rappaport and Robert W. Kalman, "Financing Postretirement Medical Benefits: Assuring Economic Security for Retirees," in Paul and Disney, p. 271.

[35] Ibid.

[36] Bush et al., p. 321.

[37] Dopkeen, pp. 809-10.

[38] Ibid., p. 831.

[39] Ibid., p. 810.

[40] Chollet and Friedman, "Employer-Paid Retiree Health Insurance," p. 210.

[41] See *America's Health Care Challenge: New Directions for Business, Government and Individuals* (Minneapolis: Northwestern Life Insurance Co., 1986); and *Measuring and Funding Corporate Liabilities for Retiree Health Benefits* (Washington: Employee Benefit Research Institute, 1988).

[42] Coopers & Lybrand and Hewitt Associates, *Non-Pension Benefits for Retired Employees — Study of Benefits and Accounting Practices* (1985).

[43] Dopkeen, p. 832.

[44] The Financial Accounting Standards Board (FASB) has issued the new rule in FASB *Statement 106*.

[45] Mark J. Warshawsky, "Retiree Benefits: Promises Uncertain?" *The American Enterprise,* July/August 1991, p. 63.

[46] Ibid.

[47] Dopkeen, "Postretirement Health Benefits," p. 802. Note that individuals become eligible for Medicare at age 65.

[48] Milt Freudenheim, "A Plan to Cover Early Retirees," *New York Times,* December 10, 1991.

[49] Robbins and Robbins, "Capital Taxes and Growth," National Center for Policy Analysis, NCPA Policy Report No. 105, January 1992.

[50] Congress has already legislated a gradual increase in the Social Security retirement age, which will rise from 65 to 67 over the years 2003 to 2021.

[51] U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings, Vol.* 39, No. 5, May 1992, Tables A-4 and A-9.

[52] Aldona Robbins and Gary Robbins, "Paying People Not to Work: The Economic Cost of the Social Security Retirement Earnings Limit," National Center For Policy Analysis, NCPA Policy Report No. 142, September 1989.

[53] *Employment and Earnings,* Table A-29

[54] Ibid.

[55] Jerome S. Legge, Jr. and John R. Alford, "Can Government Regulate Fertility? An Assessment of Pronatalist Policy in Eastern Europe," *Western Political Quarterly,* Vol. 39, 1986, pp. 709-28.

[56] Ibid.

[57] Michael S. Teitelbaum and Jay M. Winter, *The Fear of Population Decline* (London: Academic Press, 1985), p. 103.

[58] Joseph J. Spengler, *France Faces Depopulation Postluck Edition, 1936-1976.* Cited in Richard A. Posner, *Sex and Reason* (Cambridge: Harvard University Press, 1992), p. 194.

[59] Leslie A. Whittington, James Alm and H. Elizabeth Peters, "Fertility and the Personal Exemption: Implicit Pronatalist Policy in the United States," *American Economic Review,* Vol. 80, No. 3, June 1990, pp. 545-55.

[60] Thomas J. Espenshade and Joseph J. Minarik, "Demographic Implications of the 1986 US Tax Tax Reform," *Population and Development Review,* Vol. 13, March 1987, pp. 115-27. Cited in Posner, *Sex and Reason,* p. 194.

[61] See "SSA Average Wage Index" in the *Board of Trustees Report,* Table III.B.1. The 1992 average wage is $22,761 for the intermediate case and $22,602 for the pessimistic case.

[62] Actual year-by-year required immigration numbers are shown in Tables A-III and A-IV in the appendix.

[63] During the 1980s, annual immigration into the United States averaged roughly 600,000, or about 2.5 immigrants per 1,000 U.S. residents. Immigration in 1989, however, jumped to over one million and the rate to 4.4. See U.S. Bureau of the Census, *Statistical Abstract of the United States: 1991* (111th edition), Washington, DC, 1991, No. 5, p. 9. To satisfy the need for extra workers, these rates would have to increase considerably. The average immigration rate would have to be 11.4 under the intermediate scenario and 18.6 under the pessimistic scenario — assuming all the extra immigrants were workers. The *Board of Trustees Report* assumes net annual immigration of 750,000 under intermediate assumptions and 650,000 under pessimistic assumptions. These projections assume an immigration rate of 3.5 per 1,000 U.S. population under intermediate assumptions and 2.8 under pessimistic assumptions. One-half of the baseline immigrants are assumed to be workers — the same ratio as workers in Social Security employment to U.S. population in 1990.

[64] The baseline is the average of the annual rate of change of gross domestic product (GDP) deflated by the consumer price index (CPI). GDP and the CPI are from the *Board of Trustees Report,* Table B.III.1 under Alternative II (Intermediate Assumptions) and Alternative III (Pessimistic Assumptions). GDP for the other scenarios is computed using the relationship between taxable payroll and GDP implied in the *Board of Trustees Report,* Table B.III.1. For example, in 1992 taxable payroll divided by GDP is 0.429 in Alternative II. By 2070, that ratio drops to 0.372.

[65] For a discussion of the relationship between capital and wages, see Aldona Robbins and Gary Robbins, "Capital, Taxes and Growth," National Center for Policy Analysis, NCPA Policy Report No. 105, January 1992.

[66] We first projected a proxy capital stock that would be needed to keep capital-to-labor ratios constant in the baseline and the four policy simulations. The proxy is defined as: $K(t) = K(t-1)*[L(t)/L(t-1)$, where K is the capital stock and L is employment. The capital stock in the starting year, 1992, is $19.5 trillion. Required investment for each policy simulation was calculated as $I(t) = K(t) - (1-d)*K(t-1)$ where d is depreciation. Based on the Fiscal Associates econometric model, annual depreciation for the entire U.S. capital stock is 2.54 percent. The 75-year average ratios of investment-to-GDP were computed relative to that of the baseline and applied to the average ratio for the 1980s. The ratios of the averages for baseline investment and its simulated changes measure the extent to which investment must grow.

[67] Based on U.S. Bureau of the Census, *Statistical Abstract of the United States: 1991* (111th edition), Washington, DC, 1991, Tables 1434 and 1435, pp. 830, 833.

[68] John C. Goodman and Peter J. Ferrara, "Private Alternatives to Social Security in Other Countries," National Center for Policy Analysis, NCPA Policy Report No. 132, April 1988.

[69] Ibid.

[70] Ibid., p. 132. Note: About half of social insurance spending in these countries is for retirement benefits.

[71] This total excludes the former Soviet Union, China and northern Asia.

[72] *Statistical Abstract,* Tables 1434 and 1435, pp. 830, 833.

[73] Goodman and Ferrara, "Private Alternatives to Social Security in Other Countries."

[74] Ibid.

[75] For example, see the discussion in Peter J. Ferrara, *Social Security: The Contradiction* (Washington: Cato Institute, 1980), p. 311ff.

[76] See John C. Goodman, Peter A. Ferrara, Gerald L. Musgrave and Richard Rahn, "Solving the Problem of Medicare," National Center for Policy Analysis, NCPA Policy Report No. 109, January 1984; see also Peter A. Ferrara, "Averting the Medicare Crisis: Health IRAs," Cato Institute, Cato Institute Policy Analysis No. 62, October 31, 1985.

About the Authors

John C. Goodman is president of the National Center for Policy Analysis. Dr. Goodman earned his Ph.D. in economics at Columbia University and has engaged in teaching and research at six colleges and universities, including Columbia University, Stanford University, Dartmouth College, Sarah Lawrence College and Southern Methodist University. Dr. Goodman has written widely on health care, Social Security, privatization, the welfare state and other public policy issues. He is the author of six books and numerous scholarly articles. His published works include *National Health Care in Great Britain, Regulation of Medical Care: Is the Price Too High?, Economics of Public Policy, Social Security in the United Kingdom* and *Patient Power: Solving America's Health Care Crisis.*

Aldona Robbins, Vice President of Fiscal Associates and Senior Fellow of the NCPA, has extensive experience with public and private retirement programs. She served as senior economist in the Office of Economic Policy, U.S. Department of the Treasury, from 1979 to 1985 and has developed a model to project Social Security benefits and tax revenues. Recent publications include NCPA Reports entitled "What a Canadian-Style Health Care System Would Cost U.S. Employers and Employees" and "Taxing the Savings of Elderly Americans," an NCPA and Institute for Policy Innovation Report entitled "Paying People Not To Work: The Economic Cost of the Social Security Retirement Earnings Limit," a book entitled *The ABCs of Social Security* published by the Institute for Research on the Economics of Taxation Economic Report, and an article entitled "Encouraging Private Provision for Long-Term Care" in *Compensation and Benefits Management.* Articles on Individual Retirement Accounts and Medicare have appeared in the*Wall Street Journal.* She received a master's and a doctorate in economics from the University of Pittsburgh.

The National Center for Policy Analysis

The National Center for Policy Analysis is a nonprofit, nonpartisan research institute, funded exclusively by private contributions. The NCPA originated the concept of the Medical IRA (which has bipartisan support in Congress) and merit pay for school districts (adopted in South Carolina and Texas). Many credit NCPA studies of the Medicare surtax as the main factor leading to the 1989 repeal of the Medicare Catastrophic Coverage Act.

NCPA forecasts show that repeal of the Social Security earnings test would cause no loss of federal revenue, that a capital gains tax cut would increase federal revenue and that the federal government gets virtually all the money back from the current child care tax credit. These forecasts are an alternative to the forecasts of the Congressional Budget Office and the Joint Committee on Taxation and are frequently used by Republicans and Democrats in Congress. The NCPA also has produced a first-of-its-kind, pro-free-enterprise health care task force report, written by 40 representatives of think tanks and research institutes, and a first-of-its-kind, pro-free enterprise environmental task force report, written by 76 representatives of think tanks and research institutes.

The NCPA is the source of numerous discoveries that have been reported in the national news. According to NCPA reports:

- Blacks and other minorities are severely disadvantaged under Social Security, Medicare and other age-based entitlement programs;
- Special taxes on the elderly have destroyed the value of tax-deferred savings (IRAs, employee pensions, etc.) for a large portion of young workers; and
- Man-made food additives, pesticides and airborne pollutants are much less of a health risk than carcinogens that exist naturally in our environment.

What Others Say About the NCPA

"...influencing the national debate with studies, reports and seminars."

— TIME

"...steadily thrusting such ideas as 'privatization' of social services into the intellectual marketplace."

— CHRISTIAN SCIENCE MONITOR

"Increasingly influential."

— EVANS AND NOVAK

Appendix A

TABLE A-I

Elderly Entitlement Spending as a Percent of Gross Domestic Product[1]

Intermediate Assumptions

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare[2]	SS plus All Government Health Care for the Elderly[3]
1992	4.93%	6.28%	6.98%	7.90%
1993	4.91%	6.30%	7.01%	7.96%
1994	4.88%	6.34%	7.09%	8.08%
1995	4.85%	6.37%	7.14%	8.18%
1996	4.83%	6.41%	7.22%	8.30%
1997	4.80%	6.42%	7.26%	8.36%
1998	4.78%	6.46%	7.32%	8.47%
1999	4.76%	6.49%	7.38%	8.56%
2000	4.74%	6.52%	7.43%	8.64%
2005	4.71%	6.69%	7.71%	9.06%
2010	4.85%	7.09%	8.24%	9.76%
2015	5.26%	7.88%	9.22%	11.01%
2020	5.83%	8.81%	10.34%	12.36%
2025	6.34%	9.76%	11.51%	13.84%
2030	6.65%	10.48%	12.44%	15.05%
2035	6.72%	10.81%	12.90%	15.69%
2040	6.64%	10.87%	13.04%	15.92%
2045	6.56%	10.85%	13.06%	15.98%
2050	6.57%	10.90%	13.12%	16.07%
2055	6.66%	11.07%	13.33%	16.33%
2060	6.76%	11.30%	13.63%	16.72%
2065	6.81%	11.48%	13.89%	17.07%
2070	6.82%	11.62%	14.08%	17.35%

[1]Gross domestic product is taken from the *1992 Social Security Trustees Report,* Table III.B.1.

[2]The Social Security trustees do not make 75-year projections for Medicare Part B. The Part B projections in this study assume that Part B will continue to equal the same proportion of Part A — 68.5 percent — as in 1992 and that Part B participants will continue to pay 25 percent of the amount through premium.

TABLE A-II

Elderly Entitlement Spending as a Percent of Gross Domestic Product[1]

Pessimistic Assumptions

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare[2]	SS plus All Government Health Care for the Elderly[3]
1992	4.98%	6.34%	7.04%	7.97%
1993	4.95%	6.38%	7.12%	8.10%
1994	4.93%	6.43%	7.19%	8.21%
1995	5.02%	6.61%	7.43%	8.52%
1996	5.22%	6.92%	7.80%	8.96%
1997	5.16%	6.93%	7.84%	9.04%
1998	5.18%	7.03%	7.98%	9.24%
1999	5.20%	7.14%	8.14%	9.46%
2000	5.23%	7.26%	8.30%	9.68%
2005	5.32%	7.77%	9.03%	10.70%
2010	5.50%	8.52%	10.07%	12.12%
2015	5.96%	9.81%	11.78%	14.40%
2020	6.62%	11.39%	13.84%	17.08%
2025	7.27%	13.13%	16.14%	20.13%
2030	7.76%	14.65%	18.19%	22.88%
2035	8.05%	15.62%	19.51%	24.67%
2040	8.18%	16.09%	20.15%	25.54%
2045	8.33%	16.31%	20.41%	25.85%
2050	8.56%	16.59%	20.72%	26.18%
2055	8.89%	17.02%	21.20%	26.74%
2060	9.21%	17.55%	21.84%	27.52%
2065	9.45%	18.00%	22.40%	28.22%
2070	9.61%	18.38%	22.89%	28.86%

[3]In 1987, per capita spending by people ages 65 and over from Medicaid and other government health programs was 40.4 percent of Medicare spending. This study assumes the same relationship over the 75-year projection period. See Daniel R. Waldo, Sally T. Sonnefeld, David R. McKusick and Ross H. Arnett, III, "Health Expenditures by Age Group, 1977 and 1987," *Health Care Financing Review*, Vol. 10, No. 4, Summer 1989, Table 4.

TABLE A-III

Jobs Needed in Addition to Those of Previous Year to Cover Deficits in Government Programs for the Elderly[1]

(In Thousands)

Intermediate Assumptions

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare	SS plus All Government Health Care for the Elderly
1992	0	0	0	0
1993	0	0	0	0
1994	0	0	0	0
1995	0	0	0	0
1996	0	0	0	0
1997	0	0	0	518
1998	0	0	0	1,570
1999	0	0	0	1,686
2000	0	0	669	1,113
2001	0	0	1,049	1,400
2002	0	0	1,168	1,486
2003	0	0	1,211	1,541
2004	0	123	1,255	1,597
2005	0	330	725	1,144
2006	0	1,570	1,916	2,285
2007	0	1,621	1,982	2,365
2008	0	1,674	2,049	2,447
2009	0	1,729	2,119	2,533
2010	0	1,786	2,190	2,621
2011	0	3,210	3,625	4,065
2012	0	3,317	3,751	4,212
2013	0	3,428	3,882	4,364
2014	0	3,543	4,017	4,521
2015	0	3,661	4,156	4,683
2016	1,528	3,887	4,213	4,558
2017	2,965	3,997	4,333	4,690
2018	3,045	4,109	4,457	4,826
2019	3,126	4,225	4,584	4,965
2020	3,210	4,343	4,714	5,109
2021	2,719	4,113	4,582	5,079
2022	2,776	4,218	4,703	5,219
2023	2,833	4,325	4,828	5,363
2024	2,892	4,435	4,956	5,511
2025	2,952	4,548	5,088	5,663
2026	1,830	3,337	3,852	4,400
2027	1,856	3,405	3,937	4,502
2028	1,881	3,476	4,023	4,605

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare	SS plus All Government Health Care for the Elderly
2029	1,907	3,548	4,112	4,711
2030	1,934	3,621	4,202	4,820
2031	745	1,961	2,376	2,816
2032	750	1,989	2,412	2,861
2033	756	2,018	2,449	2,907
2034	761	2,047	2,486	2,954
2035	767	2,076	2,525	3,001
2036	(57)	867	1,182	1,516
2037	(58)	877	1,196	1,534
2038	(58)	887	1,209	1,552
2039	(58)	898	1,223	1,569
2040	(58)	908	1,237	1,588
2041	(19)	533	706	891
2042	(19)	536	711	897
2043	(19)	540	716	903
2044	(20)	543	720	909
2045	(20)	547	725	915
2046	400	733	825	922
2047	401	736	828	926
2048	403	739	831	930
2049	404	742	835	934
2050	406	745	838	938
2051	849	1,256	1,370	1,492
2052	853	1,263	1,378	1,501
2053	858	1,270	1,386	1,510
2054	863	1,277	1,394	1,518
2055	868	1,284	1,402	1,527
2056	891	1,558	1,768	1,992
2057	896	1,569	1,781	2,007
2058	901	1,580	1,794	2,022
2059	906	1,591	1,808	2,038
2060	911	1,602	1,821	2,053
2061	642	1,430	1,685	1,957
2062	645	1,440	1,698	1,973
2063	648	1,450	1,711	1,988
2064	651	1,460	1,724	2,004
2065	654	1,471	1,737	2,020
2066	464	1,250	1,481	1,727
2067	466	1,258	1,491	1,739
2068	467	1,265	1,500	1,750
2069	469	1,272	1,510	1,762
2070	470	1,280	1,520	1,774
Total (1992-2070)	57,232	134,323	160,338	187,990

[1]Assumes that each immigrant worker is paid the average Social Security wage projected in the *Board of Trustees Report,* Table III.B.1, and that these workers do not receive entitlement benefits.

TABLE A-IV

Jobs Needed in Addition to Those of Previous Year to Cover Deficits in Government Programs for the Elderly[1]

(In Thousands)

Pessimistic Assumptions

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare	SS plus All Government Health Care for the Elderly
1992	0	0	0	0
1993	0	0	0	0
1994	0	0	0	0
1995	0	0	802	2,943
1996	0	4,205	5,799	6,199
1997	0	1,711	2,124	2,563
1998	0	1,551	2,131	2,746
1999	0	2,340	2,905	3,505
2000	0	2,230	2,821	3,448
2001	216	2,311	2,830	3,380
2002	412	2,077	2,629	3,213
2003	420	2,168	2,749	3,365
2004	427	2,262	2,874	3,524
2005	435	2,361	3,006	3,690
2006	977	3,026	3,733	4,484
2007	998	3,161	3,909	4,703
2008	1,019	3,301	4,092	4,932
2009	1,041	3,448	4,284	5,172
2010	1,062	3,601	4,486	5,425
2011	2,381	5,174	6,146	7,179
2012	2,442	5,405	6,440	7,538
2013	2,504	5,648	6,749	7,917
2014	2,567	5,903	7,073	8,315
2015	2,632	6,170	7,414	8,734
2016	3,404	6,414	7,455	8,560
2017	3,489	6,651	7,748	8,911
2018	3,575	6,898	8,053	9,278
2019	3,663	7,154	8,370	9,661
2020	3,753	7,421	8,702	10,060
2021	3,395	7,035	8,311	9,665
2022	3,460	7,270	8,608	10,028
2023	3,527	7,514	8,917	10,405
2024	3,596	7,768	9,237	10,797
2025	3,665	8,031	9,571	11,206
2026	2,691	6,318	7,597	8,953
2027	2,727	6,484	7,810	9,218
2028	2,762	6,655	8,030	9,490

Year	Social Security	Social Security plus Part A Medicare	Social Security plus Total Medicare	SS plus All Government Health Care for the Elderly
2029	2,799	6,831	8,258	9,772
2030	2,835	7,012	8,492	10,062
2031	1,748	4,356	5,263	6,227
2032	1,760	4,424	5,352	6,337
2033	1,773	4,494	5,443	6,449
2034	1,787	4,565	5,535	6,564
2035	1,800	4,637	5,629	6,681
2036	1,021	2,325	2,762	3,226
2037	1,024	2,340	2,781	3,250
2038	1,026	2,355	2,801	3,275
2039	1,029	2,370	2,821	3,300
2040	1,031	2,385	2,841	3,325
2041	990	1,108	1,109	1,110
2042	991	1,109	1,110	1,111
2043	992	1,109	1,110	1,112
2044	992	1,110	1,111	1,113
2045	993	1,110	1,112	1,113
2046	1,311	1,078	951	816
2047	1,312	1,079	952	817
2048	1,313	1,079	952	817
2049	1,315	1,080	953	818
2050	1,316	1,081	953	818
2051	1,671	1,489	1,381	1,267
2052	1,675	1,492	1,383	1,268
2053	1,678	1,494	1,385	1,270
2054	1,682	1,496	1,387	1,272
2055	1,685	1,498	1,389	1,273
2056	1,550	1,787	1,835	1,885
2057	1,552	1,789	1,837	1,887
2058	1,554	1,791	1,839	1,890
2059	1,556	1,792	1,841	1,892
2060	1,558	1,794	1,843	1,894
2061	1,112	1,466	1,562	1,664
2062	1,111	1,466	1,562	1,665
2063	1,110	1,466	1,563	1,666
2064	1,109	1,465	1,563	1,666
2065	1,108	1,465	1,563	1,667
2066	757	1,179	1,303	1,435
2067	755	1,178	1,302	1,435
2068	753	1,176	1,302	1,435
2069	751	1,175	1,301	1,435
2070	748	1,174	1,300	1,435
Total (1992-2070)	119,871	248,337	292,136	338,623

[1]Assumes that each immigrant worker is paid the average Social Security wage projected in the *Board of Trustees Report*, Table III.B.1 and that these workers do not receive entitlement benefits.