

# Will health care costs erode retirement security?

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# WILL HEALTH CARE COSTS ERODE RETIREMENT SECURITY?

By Richard W. Johnson and Rudolph G. Penner\*

## Introduction

Retirement security depends on both the income of the aged and their consumption needs. Several recent studies project that the Baby Boomers, who were born between 1946 and 1964 and are now approaching traditional retirement ages, will on average receive more income in later life than earlier generations of older Americans.<sup>1</sup> But increases over time in consumption needs might offset these income gains. In particular, rising health care costs may threaten the Baby Boomers' retirement security. This brief projects future income and out-of-pocket health care spending at older ages. If current policies continue, income after taxes and health care spending for the typical older married couple will be no higher in 2030 than it was in 2000 — despite 30 years of productivity growth. The increased health care burden will be particularly painful for those at the lower end of the income distribution who do not qualify for Medicaid.

## Health Spending at Older Ages

Despite near universal Medicare coverage, many older Americans pay large out-of-pocket health care costs.<sup>2</sup> They face three types of expenses. First, most pay Medicare premiums for optional Part B coverage, which helps pay for outpatient services. Beginning in 2006, beneficiaries will be able to obtain prescription drug coverage through Medicare Part D, which will also require monthly premium payments.<sup>3</sup> Second, many older adults make premium payments to private insurance companies for supplemental Medigap insurance to cover Medicare deductibles and co-payments and to provide protection against catastrophic expenses. These policies are expensive, averaging about \$175 per month in 2001 for a comprehensive policy with drug coverage.<sup>4</sup> Other retirees receive supplemental retiree health insurance benefits from their former employers, but they generally must make contributions to their employers to defray part of the cost of coverage. Third, many older Americans make direct payments to health care providers, in the form of Medicare deductibles and co-payments and for services that are not covered by Medicare. These costs

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are especially high among those without supplemental coverage, but even those with additional benefits generally share in some of the cost of services.

Health care costs have been rising steadily over time, and the growth rate is unlikely to slow in the next few decades. Health care spending increased at an average rate of 5.1 percent per year in real terms over the past 15 years.<sup>5</sup> The Medicare trustees predict that program costs will grow rapidly over the next 75 years, reaching 7 percent of the nation's gross domestic product (GDP) in 2030 and 14 percent of GDP in 2080.<sup>6</sup> In 2000, by comparison, Medicare consumed only 2 percent of GDP. Health spending tends to rise with income, as people choose to earmark part of their additional resources for better health care.<sup>7</sup> Advances in medical technology, which generally lead to better but more expensive treatments, also contribute to rising spending levels.<sup>8</sup> Other explanations for high health care expenditures include increases in the prevalence of expensive medical conditions, the high administrative costs associated with a fragmented health care delivery and financing system, and the presence of a large number of highly paid medical specialists.<sup>9</sup>

Soaring health care costs threaten household budgets for older Americans, forcing many to spend more on medical expenses. Premiums for Medicare Parts B and D will rise with total Medicare spending, because premiums are set to cover 25 percent of program costs. In fact, the Medicare trustees predict that by 2030 monthly Part B premiums will increase to about \$150 in today's dollars, up from \$66.60 in 2004.<sup>10</sup> Private insurance premiums and direct payments to providers will also increase with overall health care costs. For example, average Medigap premiums increased by more than 10 percent per year between 1999 and 2001, after adjusting for overall inflation.<sup>11</sup> In addition, many employers are responding to cost pressures by dropping retiree health benefits or demanding larger contributions from plan participants.<sup>12</sup>

The new Medicare drug benefit will provide some additional protection for the aged, but most older Americans will continue to experience substantial out-of-pocket drug costs. Under the standard plan, beneficiaries will face a deductible of \$250 before the program pays any of their costs. Then they will face 25 percent co-payments on the next \$2,000 of total drug spending. Beneficiaries will pay all of their drug costs themselves on spending between \$2,250 and \$5,100, but only 5 percent of total drug spending in excess of \$5,100. A beneficiary with a \$4,000 drug bill, then, would pay \$2,500 out of pocket.<sup>13</sup>

## Future Income and Health Costs

To assess the potential impact of rising health care costs on the economic well-being of older Americans, we project income and out-of-pocket spending to 2030, when the youngest Baby Boomers will be 66 years old. We examine outcomes for unmarried adults ages 65 or older and married couples in which one or both spouses are at least 65 years old. The simulations are based on an Urban Institute model that forecasts future demographic, social, and economic characteristics of the population by simulating births, deaths, marriages, divorces, work decisions, and earnings.<sup>14</sup>

The projection of health costs is based on the intermediate assumptions used by the Medicare trustees, which imply that real per beneficiary health costs will grow at an average annual rate of 3.2 percent between 2000 and 2030.<sup>15</sup> We assume that per capita out-of-pocket payments to providers and private premiums grow at this rate. It roughly equals the actual growth rate in real per beneficiary Medicare costs from 1990 to 2003, when costs grew relatively slowly, but falls nearly 1 percentage point below the actual rate from 1980 to 2003. Our projections account for the introduction of Medicare prescription drug benefits, which will likely reduce beneficiaries' out-of-pocket drug costs and Medigap premium payments. Future Medicare premiums are also based on the trustees' intermediate cost assumptions, which imply an average annual real growth rate of 3.2 percent for Part B premiums and 4.5 percent for Part D premiums.

Some low-income aged adults enroll in Medicaid, which provides free health care for those who qualify. Eligibility rules vary by state, but the average income cut-off across all states was about \$8,000 in 2000, below the federal poverty threshold.<sup>16</sup> Most state programs also include medically needy provisions that grant Medicaid benefits to older adults with high out-of-pocket health care spending. In addition, Medicaid covers Medicare premiums for those with incomes at or below 120 percent of the poverty threshold but too high to qualify for full Medicaid benefits. Only about three-quarters of eligible older Americans enroll in Medicaid, which covered 12 percent of all non-institutionalized Medicare beneficiaries in 2001.<sup>17</sup> Under current rules, eligibility will fall in the future as real income growth reduces the share of the older population with incomes below the poverty threshold. The model assumes, however, that virtually everyone who qualifies for Medicaid in

the future will enroll, as rising health costs increase the value of obtaining coverage, outweighing any perceived stigma attached to Medicaid enrollment.

## Future Tax Burdens

Our projections assume that Social Security, Medicare, and Medicaid continue to pay the benefits defined by current law. Because the budget deficit would soar to intolerable levels without significant tax increases, we assume that effective tax rates will increase substantially. We examine what future outcomes would be if Congress raises taxes by doing nothing. In this hypothetical scenario, taxes would rise as the tax cuts of 2001, 2002, and 2003 automatically expire by the end of the decade, and taxpayers move into higher tax brackets as real income grows and more taxpayers are exposed to the Alternative Minimum Tax, which is not indexed for either inflation or real growth. The Congressional Budget Office (CBO) estimates that this strategy raises the total tax burden to 22.6 percent of GDP in 2030.<sup>18</sup> Individual tax burdens would rise even more rapidly, because personal income taxes are most afflicted by automatic tax increases. By 2030, personal income taxes would rise to 13.3 percent of GDP, a 60-percent increase over the 30-year average of 8.3 percent.<sup>19</sup> These tax increases are not sufficient to prevent a debt explosion in the very long run, if health costs grow at historical rates. They are probably sufficient, however, to keep the fiscal situation stable through 2030.

Assuming Congress does not intervene, future average federal income tax rates will rise rapidly for older married couples, who tend to receive more income than older unmarried individuals, primarily because Social Security beneficiaries are subject to their own special kind of bracket creep. Up to 85 percent of Social Security benefits are taxable, but only when income exceeds certain thresholds, which are not indexed either for inflation or real growth. By 2030, each additional dollar of before-tax income received by the typical older married couple brings another 50 cents worth of Social Security benefits into taxable income. In 2000, by contrast, the typical older couple did not pay taxes on any Social Security benefits. Our estimates show that average federal income and payroll taxes for older married couples will rise from 1.9 percent in 2000 to 7.7 percent in 2030. Average tax rates will not rise much for older unmarried adults, however, because they generally do not receive much income beyond Social Security benefits.<sup>20</sup>

## Future Income and Costs for Typical Older Americans

Median before-tax income will grow steadily over time for older married couples, even after adjusting for inflation (see Table 1). We project that typical older married couples will receive 38 percent more income in real terms in 2030 than in 2000. Income will increase in each decade, although growth rates will slow over time.

If current entitlement policies continue, however, typical older married couples will devote almost all of these income gains to taxes and health care. Between 2000 and 2030, federal tax liabilities will more than quintuple, and total out-of-pocket health care spending will nearly triple, primarily because of rising Medicare premiums and payments to health care providers. As a result, the share of after-tax income that the typical older married couple devotes to health care will increase from 16 percent in 2000 to 35 percent in 2030. Real after-tax income net of health spending will rise slowly between 2000 and 2020, and then decline between 2020 and 2030. Median income net of out-of-pocket health spending and taxes for older married couples in 2030 will not significantly exceed what it was in 2000.

Older unmarried adults will better maintain their economic position than married couples, but rising health care costs will erode some income gains for single people over the next quarter century. Before accounting for taxes or health care spending, median real income for older unmarried adults will increase by 50 percent between 2000 and 2030 (see Table 2). Federal taxes will rise by only \$70 (in 2004 dollars) over the period, because even in 2030 typical older single adults will not receive enough income to make their Social Security benefits subject to federal income taxes. But health care costs will rise rapidly, consuming nearly 30 percent of after-tax income in 2030, up from 17 percent in 2000. Almost one-half of the income gains experienced by typical older unmarried adults over the next quarter century will pay for higher health care costs. Median real income net of taxes and health care spending will increase by only 26 percent between 2000 and 2030.

Health care spending, of course, can make people better off. Increases in out-of-pocket costs, combined with higher government subsidies of medical services, will finance an ever greater quantity and quality of health care. Individual welfare can even rise as income net of health care falls, because the improvement in health care that

**Table 1. Median Income and Health Care Spending for Older Married Couples, 2000-2030**

	2000	2010	2020	2030
Before-Tax Family Income (\$)	36,800	42,380	47,400	50,690
Federal Taxes (\$)	710	1,190	2,990	3,910
After-Tax Income (\$)	36,090	41,180	44,410	46,780
Out-of-Pocket Health Care Spending (\$)	5,760	9,810	12,950	16,400
After-Tax Income Net of Health Spending (\$)	30,330	31,370	31,450	30,380
Health Spending as Share of After-Tax Income (%)	16.0	23.8	29.2	35.1

**Table 2. Median Income and Health Care Spending for Older Unmarried Adults 2000-2030**

	2000	2010	2020	2030
Before-Tax Family Income (\$)	15,380	17,690	20,320	23,130
Federal Taxes (\$)	20	40	40	90
After-Tax Income (\$)	15,360	17,650	20,270	23,040
Out-of-Pocket Health Care Spending (\$)	2,660	4,180	5,300	6,970
After-Tax Income Net of Health Spending (\$)	12,700	13,480	14,970	16,070
Health Spending as Share of After-Tax Income (%)	17.3	23.7	26.2	30.3

Source: Authors' estimates.

Note: All amounts are computed as the mean value between the 45<sup>th</sup> and 55<sup>th</sup> percentiles of the before-tax income distribution, approximately equal to the median value. Values are expressed in constant 2004 dollars. Estimates for married couples are restricted to couples in which at least one spouse is age 65 or older. Income projections come from the Urban Institute's DYNASIM3 model. Health care cost projections are based on the intermediate assumptions used by the Medicare trustees. Components do not always sum to the total because of rounding.

results from an increase in spending can compensate for the reduction in consumption of other goods. Otherwise, people would change their behavior and break with past trends. For example, older adults might drop Medigap coverage and otherwise economize on out-of-pocket costs by consuming fewer health care services. But they would probably continue to enroll in Medicare Parts B and D, because the government subsidizes 75 percent of the cost of these programs.

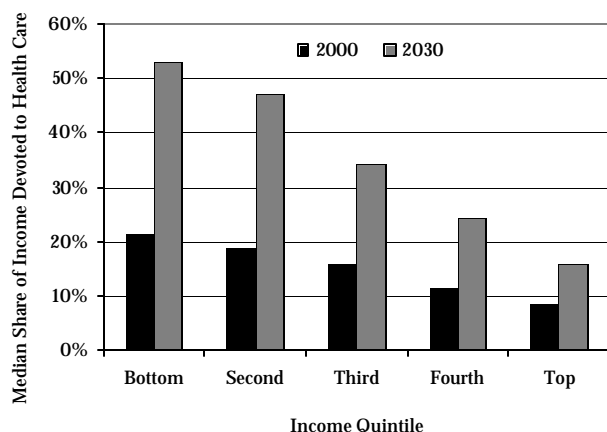
## Distributional Considerations

The financial burden of rising health care costs will be particularly painful at the lower end of the income distribution. In 2000, health care spending as a share of after-tax income for older married

couples declined steadily with income (see Figure 1). The share devoted to health spending will rise over the next 30 years for all income groups, but especially for those with limited incomes. For example, if current policies continue, those in the bottom income quintile (whose before-tax income falls in the bottom 20 percent of the distribution) would spend more than one-half of their after-tax incomes on insurance premiums and medical expenses, up 30 percentage points from the share in 2000. For those in the top income quintile, by contrast, the share would increase by only 8 percentage points. Median real after-tax income net of health spending for older married couples would fall between 2000 and 2030 for those in the bottom two income quintiles and remain essentially unchanged for those in the middle quintile (see

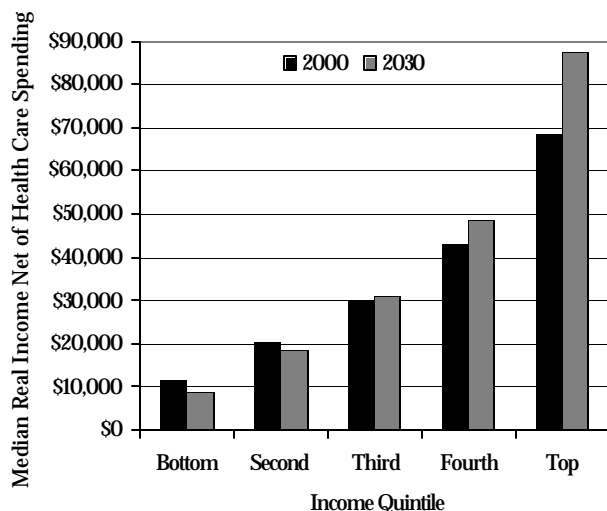
Figure 2). Among older married couples, only those in the top income quintile would experience large gains in income over the next quarter century after accounting for taxes and health care spending.

**Figure 1.** Health Care Spending as Share of After-Tax Income for Older Married Couples, 2000 and 2030



Source: Authors' estimates.<sup>21</sup>

**Figure 2.** Real After-Tax Income Net of Health Spending for Older Married Couples, 2000 and 2030

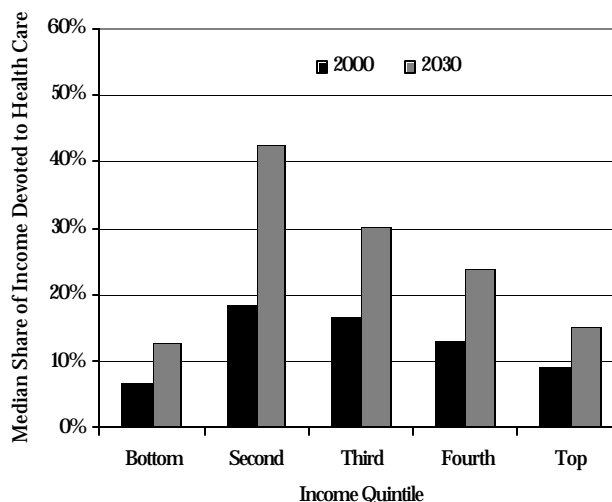


Source: Authors' estimates.<sup>21</sup>

Older married couples with limited incomes often face catastrophic health care costs because they lack Medicaid coverage. The median married couple in the bottom income quintile received too much income in 2000 to qualify for full Medicaid benefits. Some couples with high health care costs qualify for benefits through Medicaid's medically needy provisions, but only after they have spent much of their incomes on medical expenses. The holes in Medicaid coverage become even more obvious in 2030, as the growth in real incomes further shrinks the ranks of those eligible for Medicaid.

Medicaid better protects older unmarried adults with limited incomes, but rising health costs impose a severe burden on those with moderate incomes. In 2000, the typical older unmarried adult in the bottom income quintile spent only 7 percent of after-tax income on health care, compared with 18 percent for the median unmarried adult in the second-from-the-bottom quintile, who did not qualify for Medicaid benefits (see Figure 3). In 2030, the typical single person in the bottom income quintile will continue to receive Medicaid benefits through the medically needy provisions, but will have to spend down more income to qualify, as income grows faster than the Medicaid eligibility thresholds. Between 2000 and 2030, median real after-tax income net of health spending will remain essentially flat for older unmarried adults in the bottom two income quintiles, will grow modestly for those in the next two quintiles, and will grow strongly for those in the top quintile (see Figure 4).

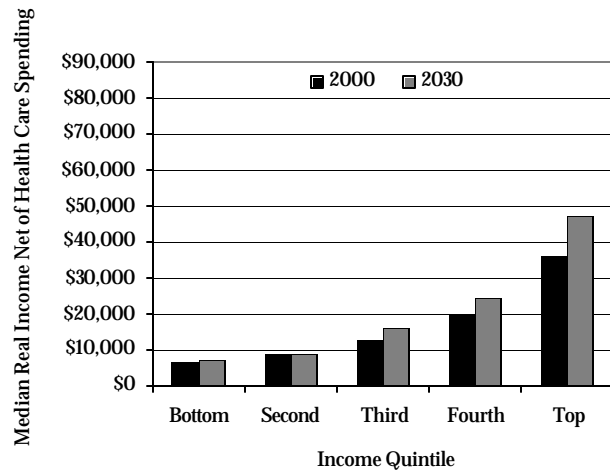
**Figure 3.** Health Care Spending as Share of After-Tax Income for Older Unmarried Adults, 2000 and 2030



Source: Authors' estimates.<sup>22</sup>



**Figure 4. Real After-Tax Income Net of Health Spending for Older Unmarried Adults, 2000 and 2030**



Source: Authors' estimates.<sup>22</sup>

Scenarios in which lower-income groups spend nearly half of their after-tax income on health care seem implausible. Despite the large subsidies provided by Medicare Parts B and D, many of those not supported by Medicaid may opt out of the system. Almost certainly, Medigap insurance coverage and the consumption of any health care services involving significant out-of-pocket spending would plummet. It is doubtful that society would tolerate this result. Instead, the government would likely provide additional assistance with out-of-pocket costs to those near the bottom of the income distribution. But improving the safety net would mean even higher tax increases, which seem unrealistic. The current system does not appear to be politically sustainable, since it would take a radical shift in American voters' attitude toward tax burdens to allow tax increases anywhere close to the required levels.

## Alternative Health Cost Projections

Even if health care costs grow more slowly than the Medicare trustees expect, out-of-pocket medical expenses will strain household budgets for older Americans over the next quarter century. For example, under our low-cost assumption, in which health care costs per beneficiary grow at an annual rate that is 1 percentage point less than the baseline intermediate case, median out-of-pocket payments will consume one-quarter of after-tax income for

older married couples in 2030 (see Table 3). The typical older unmarried adult will devote a similar share of after-tax income to health care (see Table 4). Under the high-cost assumption, in which annual health care costs grow 1 percentage point faster than in the baseline case, health care costs in 2030 will consume nearly half of after-tax income for the typical older married couple if current policies continue.

## Conclusion

Our projections imply that by 2030, when the youngest Baby Boomers are old enough to qualify for Medicare, older adults will devote implausibly large shares of income to health care. Future out-of-pocket spending will soar despite the introduction of costly new drug coverage for Medicare beneficiaries in 2006. As a result, many boomers may not be as well prepared for retirement as some studies suggest. The increased financial burden of health care costs will be particularly painful for low-income adults who do not qualify for Medicaid. State governments may need to expand Medicaid coverage in the future to better protect vulnerable older adults, further increasing budgetary pressures.

How reliable are these long-run projections? Some of the largest errors in forecasting the spending side of the budget over the medium term stem from misjudgments about the growth of Medicare and Medicaid costs. Given the unreliability of health cost projections within a 10-year horizon, it is natural to be skeptical of 30-year forecasts. But these uncertainties are no excuse for ignoring the projections of the Medicare trustees and what they might mean for different groups of older Americans. Our estimates would have to turn out to be extremely pessimistic in order to make current policy sustainable. If anything, our high-cost assumption is more consistent with the historical growth in health care spending than the intermediate-cost projections that we emphasize in this analysis.

In the absence of reform, an economic or political crisis is likely before 2030, regardless of the financial health of the Social Security and Medicare trust funds, which has dominated the policy debate. The crisis will result from pressures on overall spending in both public and private budgets, not simply because some trust fund empties.

**Table 3.** Real Median Income and Health Care Spending for Older Married Couples 2000-2030, Alternative Cost Assumptions

	2000	2010	2020	2030
<b>Low-Cost Assumptions</b>				
Payments as a Share of After-Tax Income (%)	16.0	21.5	23.5	25.0
After-Tax Income Net of Health Spending (\$)	30,330	32,310	33,960	35,080
<b>Baseline Intermediate Assumptions</b>				
Payments as a Share of After-Tax Income (%)	16.0	23.8	29.2	35.1
After-Tax Income Net of Health Spending (\$)	30,330	31,370	31,450	30,380
<b>High-Cost Assumptions</b>				
Payments as a Share of After-Tax Income (%)	16.0	26.2	35.5	49.1
After-Tax Income Net of Health Spending (\$)	30,330	30,380	28,630	23,820

**Table 4.** Real Median Income and Health Care Spending for Older Unmarried Adults, 2000-2030, Alternative Cost Assumptions

	2000	2010	2020	2030
<b>Low-Cost Assumptions</b>				
Payments as a Share of After-Tax Income (%)	17.3	21.4	21.6	23.4
After-Tax Income Net of Health Spending (\$)	12,700	13,870	15,890	17,640
<b>Baseline Intermediate Assumptions</b>				
Payments as a Share of After-Tax Income (%)	17.3	23.7	26.2	30.3
After-Tax Income Net of Health Spending (\$)	12,700	13,480	14,970	16,070
<b>High-Cost Assumptions</b>				
Payments as a Share of After-Tax Income (%)	17.3	26.2	32.7	39.7
After-Tax Income Net of Health Spending (\$)	12,700	13,030	13,640	13,900

Source: Authors' estimates.

Note: All amounts are computed as the mean value between the 45<sup>th</sup> and 55<sup>th</sup> percentiles of the before-tax income distribution, approximately equal to the median value. Values are expressed in constant 2004 dollars. Estimates are restricted to married couples in which at least one spouse is age 65 or older. Income projections come from the Urban Institute's DYNASIM3 model. Intermediate health care cost projections are based on the intermediate assumptions used by the Medicare trustees, low-cost projections use annual growth rates in per beneficiary spending that are 1 percentage point below the baseline intermediate case, and the high-cost projections use annual growth rates 1 percentage point above the baseline case.



## Endnotes

- <sup>1</sup> Butrica, Iams, and Smith (2003); Butrica and Uccello (2004); and Uccello (2001).
- <sup>2</sup> Crystal et al. (2000); Goldman and Zissimopoulos (2003); and Maxwell, Moon, and Segal (2001).
- <sup>3</sup> Medicare also includes two other parts. Part A, the Hospital Insurance program, provides coverage for hospital and skilled nursing facility stays and home health care services. It is financed by a 1.45 percent payroll tax on workers and their employers. Part C includes managed care plans that currently provide Part A and Part B benefits to enrollees.
- <sup>4</sup> Chollet (2003).
- <sup>5</sup> Centers for Medicare and Medicaid Services (2004).
- <sup>6</sup> Medicare Board of Trustees (2004).
- <sup>7</sup> Chernew, Hirth, and Cutler (2003); and Reinhardt, Hussey, and Anderson (2004).
- <sup>8</sup> Newhouse (1993).
- <sup>9</sup> Davis and Cooper (2003); and Thorpe, Florence, and Joski (2004).
- <sup>10</sup> Medicare Board of Trustees (2004).
- <sup>11</sup> Chollet (2003).
- <sup>12</sup> Kaiser Family Foundation and Health Research and Educational Trust (2004).
- <sup>13</sup> These thresholds will be in place in 2006 when the program begins. They will rise in later years with increases in average drug spending.
- <sup>14</sup> The model used in the analysis is called DYNASIM3; it is a dynamic microsimulation model. For more information about DYNASIM3, see Favreault and Smith (2004).
- <sup>15</sup> Medicare Board of Trustees (2004).
- <sup>16</sup> Authors' calculations from Kaiser Family Foundation (2004b).
- <sup>17</sup> Moon, Brennan, and Segal (1998); and Kaiser Family Foundation (2004a).
- <sup>18</sup> CBO (2003). This CBO scenario would raise the tax burden 23 percent over historical levels.
- <sup>19</sup> It may be unrealistic to assume that Congress would ever allow tax rates to rise this high. Political pressures would likely prevent too many taxpayers from drifting into the Alternative Minimum Tax, and neither political party wants all the temporary tax cuts to expire. Instead, a broad Congressional consensus exists to retain cuts focused on the middle and lower income classes.
- <sup>20</sup> We set the payroll tax equal to 7.65 percent of earnings, the current tax rate for Social Security and Medicare Part A. Income tax liabilities come from the Urban-Brookings' Tax Policy Center microsimulation model of the U.S. federal tax system. The estimates assume that the only itemized deductions available to the median older taxpayer are from medical expenses, charitable deductions, and real estate taxes. Medical expenses come from our projection model, and we set charitable deductions and real estate taxes equal to the average levels among all taxpayers with the same approximate level of adjusted gross income, based on Internal Revenue Service data. Our estimated tax liabilities do not include state and local taxes, which vary by locality. State taxes are also likely to increase over time, because of the growing fiscal burden of Medicaid.
- <sup>21</sup> Income quintiles are based on before-tax income. Shares are computed as the mean value between the 45<sup>th</sup> and 55<sup>th</sup> percentiles of the distribution within each quintile. Estimates are restricted to married couples in which at least one spouse is age 65 or older. Income projections come from the Urban Institute's DYNASIM3 model. Health care cost projections are based on the intermediate assumptions used by the Medicare trustees.
- <sup>22</sup> Income quintiles are based on before-tax income. Net income amounts are expressed in constant 2004 dollars and computed as the mean value between the 45<sup>th</sup> and 55<sup>th</sup> percentiles of the distribution within each quintile. Estimates are restricted to married adults ages 65 and older. Income projections come from the Urban Institute's DYNASIM3 model. Health care cost projections are based on the intermediate assumptions used by the Medicare trustees.

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## About the Center

The Center for Retirement Research at Boston College, part of a consortium that includes parallel centers at the University of Michigan and the National Bureau of Economic Research, was established in 1998 through a grant from the Social Security Administration. The goals of the Center are to promote research on retirement issues, to transmit new findings to the policy community and the public, to help train new scholars, and to broaden access to valuable data sources. Through these initiatives, the Center hopes to forge a strong link between the academic and policy communities around an issue of critical importance to the nation's future.

## Affiliated Institutions

American Enterprise Institute  
The Brookings Institution  
Center for Strategic and International Studies  
Massachusetts Institute of Technology  
Syracuse University  
Urban Institute

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