Framing Medicare Reform

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Executive Summary

The Affordable Care Act (ACA) makes dramatic changes to the Medicare program in coming years. The provisions affecting Medicare are intended to slow the program's spending. Lower future Medicare expenditures allows for higher federal spending on Medicaid and new spending on subsidies for individuals who purchase health insurance through the new insurance exchanges.

The Medicare Trustees' first forecast following the passage of the ACA indicated that by 2050, total Medicare spending would be almost a third lower than the pre-ACA forecast. Over a 75-year horizon, the (estimated) unfunded obligation associated with the Hospital Insurance portion of the program, Part A, combined with the general revenue transfers associated with Parts B and D declined from about $38 trillion to $22 trillion.

These lower spending forecasts assume that the ACA's stringent new spending controls are actually realized. All of the Trustees Reports issued since the ACA became law have noted that the lower spending forecasts represent very favorable outcomes and that Medicare spending will likely exceed the baseline (current law) estimates. The lower spending presupposes that, in the future, providers will accept the lower payments prescribed by the ACA's total factor productivity adjustment, which primarily affects Part A payments. But the implied lower rates mean that Medicare's payments would drop considerably relative to private insurers' payments. Medicare beneficiaries would then face a dwindling set of providers willing to accept the lower payments. The sustainable growth rate mechanism (SGR) has seen limited success in constraining Part B spending, suggesting the same fate for the ACA's productivity adjustment as it pertains to constraining Part A spending growth.

Though the spending associated with the strict interpretation of the ACA is unlikely to be realized, both political parties appear to agree that the lower (baseline) forecast is the desired target. The most recent budget from the Office of Management and Budget (OMB) presents an even lower spending path than the Trustees' baseline. The fiscal year 2014 budget proposes that the Independent Payment Advisory Board's (IPAB) target per capita growth rate be lowered to GDP+0.5 from GDP+1 in the years beyond 2020. Recent suggestions from the House Budget Committee signal a similar target for Medicare's spending path. While both parties may agree on the concept of lower Medicare spending growth, they disagree on how to achieve it.

This paper highlights several reasons why reducing Medicare's growth is critical today. It then discusses a potential financing reform, and then explores integrating the financing reform with structural reforms to the program's insurance coverage.

Framing the case for Medicare reform begins by showing by how much Medicare and Social Security replace workers' average annual pre-retirement compensation. Individuals typically smooth their consumption over their lifetimes by borrowing when they are young, saving during their prime earnings years and then consuming from their savings during retirement. Social Security and Medicare provide for a large share of many retirees' consumption and thus reduce the amount of savings necessary for their retirement years. The degree to which the combined programs replace preretirement compensation has been rising for successive groups of new retirees, and consequently their required savings rate is lower.

This analysis contrasts the replacement rates under two forecasts: the baseline, or current law, forecast presented in the 2013 Medicare Trustees Report and the Trustees Report's alternative forecast. The alternative forecast assumes the effects of two main provisions intended to constrain spending are not fully realized in the long run. Specifically, it assumes that the

reductions in physician payments through the SGR mechanism are overridden by Congress and that the ACA's required productivity adjustment is reduced significantly relative to the current law estimates. The alternative forecast is slightly lower than the pre-ACA forecasts of Medicare spending, and it serves to illustrate how the higher spending produces ever-increasing replacement rates.

Should spending continue to grow at the rates underlying the alternative forecasts, Medicare's insurance value, once premiums are netted out, grows as a percent of retirees' pre-retirement average compensation. For example,

- Medicare's annual insurance value is equal to 23 percent of the average annual compensation of medium earning workers who turn 65 this year,

- by 2030 the value equals 29 percent of the annual compensation of new retirees in that year,

- and by 2065, Medicare's insurance value, base on the alternative forecast, rivals the Social Security replacement rate of 37 percent of average annual compensation.

When combined with Social Security's annual pension, Medicare's rising insurance value, based on the alternative forecasts produces increased replacement rates for future retirees. These rising rates are difficult to justify in light of consumption smoothing and when generational equity is considered. This is especially important given the expected fall in the number of workers per retiree, which will necessitate significant tax increases to fund Medicare and Social Security. Rising Medicare replacement rates suggest increased reliance on federal programs and diminished savings incentives for workers ultimate which reduces investment and hampers economic growth. In contrast, when Medicare's annual insurance value, or the annuitized value of the benefits new retirees can expect from Medicare, is derived from the

baseline forecasts and is combined with Social Security, the two programs produce a relatively stable replacement rate for future retirees. Such a replacement rate is more equitable across generations. So, while the baseline forecast may be difficult to achieve as currently formulated under the ACA's expenditure controls, it does stabilize the replacement rate offered by Medicare and Social Security.

Lifetime Medicare benefits and taxes are estimated across income classes and birth years below. When the lifetime estimates rely on the Trustees higher alternative forecasts, most current workers are expected receive more in lifetime Medicare benefits than they pay in lifetime taxes. These positive net benefits are due to both the general revenue financing of Medicare's Parts B and D and the fact that the alternative forecast anticipates that spending grows faster than per capita GDP and compensation. Further, federal taxes paid by higher income workers over their lifetimes result in within generation transfers to lower income retirees. But the program cannot continue to provide future workers returns in excess of the government borrowing rate.

Medicare's baseline forecast stabilizes the Social Security and Medicare programs' combined compensation replacement rate and reduces the benefits current workers will receive that are in excess of the lifetime taxes they will pay. But even if the lower spending trajectory is realized, current workers with average or lower lifetime earnings receive more in lifetime Medicare benefits than they will pay in lifetime taxes through transfers between and within generations. So, Medicare spending is stabilized as a share of the economy if the baseline is realized resulting in and a more equitable distribution of lifetime tax rates and a lower burden on future generations.

However, since the ACA's reliance on new price controls and the continuation of the SGR mechanism are not expected to deliver the desired lower spending growth, the question becomes: Can the lower spending path be realized in a more practical way?

Suppose the annual baseline spending projection from the 2013 Trustees Report is considered to be the target federal spending level each year and that the alternative spending forecast reflects the level of spending necessary to keep pace with payments from private insurers. The difference between the two projections then reflects the retirees' burden that will grow over time. The growing burden can be distributed across retirees uniformly as with the ACA through reduced quality and constrained access to care or differentially through some type of means-testing mechanism.

This paper identifies the effects of a reform that relies on two policy levers: raising the Medicare eligibility age (MEA) and means-testing the government's Medicare contribution. Raising the MEA harmonizes the age of eligibility for Medicare with proposed changes in Social Security's full retirement age. In particular the age of Medicare eligibility is increased until it reaches the Social Security full retirement age, at which time it would be indexed to maintain a constant ratio of expected retirement years to potential work years. This adjustment thus takes into account increasing longevity. In the long run, Medicare spending net of premiums based on the alternative forecast is about 50 percent higher than the baseline forecast. Increasing the MEA would by itself reduce federal Medicare spending to 91 percent of the alternative federal Medicare spending forecast in the long run, or an amount the is about 37 percent higher than the baseline. Raising the MEA alone is not enough to reduce Medicare spending to the same levels as in the baseline forecasts. Achieving the Trustees' baseline estimates while ensuring that low-income retirees do not face excessive health care costs in the future means that a declining

portion of higher-income retirees' health care spending will be financed by taxes collected from those in the workforce when these high income beneficiaries are retired.

An example of means-testing reform combined with the increased MEA is configured as follows: Lower income retirees and the disabled would remain in the current program with per capita spending that follows the Medicare Trustees' alternative estimates — referred to as "full" benefits. The contribution by the lower income retirees to the desired federal Medicare spending is thus limited to the first policy lever of raising the MEA. Means-testing that begins in 2023, combined with raising the MEA, can produce roughly the same spending as the Trustees baseline forecast.

Under this example reform the distribution of benefits changes.

- The specified means-testing would keep the lower earners at 100 percent of full benefits at ages above the new MEA, but would require that the highest income retirees receive only 62 percent of full benefits by 2060.
- Those at the 75th percentile would receive means-tested payments equal to only 73 percent of full benefits by 2060.
- In contrast, by 2060, benefits are reduced across the board to 78 percent of the full benefits if the baseline is realized.

Raising the MEA represents a change in the program's eligibility rules and means-testing is a change in the program's financing. In its simplest form, means-testing would require retirees with higher lifetime incomes to pay higher premiums to participate in the program. They would receive the same coverage as before, assuming no structural changes. They would also have the flexibility to choose a managed care option.

Raising the MEA and means-testing can be combined with more fundamental reforms to Medicare's insurance structure as well. A comprehensive reform would include components of both financing and structural reform. Structural reform would combine Medicare Parts A, B, and D, except that there will be only one premium payment and set of deductibles and co-pays. Importantly, the structural reform would include higher cost sharing than the current insurance so that some of Medicare spending growth can be contained through this reform alone. The cost-sharing mechanisms can be related to income, with higher income retirees facing higher deductibles, copays and maximum dollar expenditures. Ideally, all beneficiaries would have to consider the price of the health care they consume, with lower income retirees receiving government contributions to a Health Savings Account.

In principle, means-testing of Medicare or Social Security is functionally similar to past prepayment proposals. Means-testing requires higher earning workers to implicitly prepay or save to cover more of their retirement health care expenses. Formal prepayment proposals were explicit about contributions to personal retirement accounts and how the flows from the personal accounts would offset the benefits retirees would receive from the government. The end result was the same - higher income retirees would receive progressively lower Social Security or Medicare benefits from the government.

Constraining government spending relative to the current programs will produce higher national savings, due to higher savings for higher income workers induced by expected higher premium payments upon retirement. As a result, the welfare loss of taxation will decrease, because government spending is lower relative to the alternative, which relies on higher taxes to close the program's funding deficits.

Introduction

For decades, analysts have warned of the dramatic expansion in federal spending that is now occurring as the Baby Boomers retire and join the ranks of Social Security and Medicare beneficiaries. So it should surprise no one that the two programs' share of the economy is on track to grow by almost 60 percent over the next 30 years. Reforms to stem the programs' claims on taxpayers abound and yet the problem still grows.

Historically, Medicare has grown more rapidly than Social Security, given that per capita health care spending has outpaced per capita GDP growth. Prior to the passage of the Affordable Care Act (ACA), Medicare spending was expected to surpass Social Security spending by 2028. By mid-century Medicare was expected to comprise almost 9 percent of GDP, up from 3.6 percent in 2013.

On paper, the Affordable Care Act (ACA) will do much to constrain Medicare spending. The 2013 estimates of the Social Security and Medicare Trustees indicate that Medicare spending will not surpass Social Security spending until 2056, rather than the pre-ACA estimate of 2028. The 2013 Medicare Trustee Report also indicates that total Medicare spending by mid-century will be close to 6 percent of GDP. So, mid-century spending will be reduced by 33 percent compared to the pre-ACA estimates.

The four Medicare Trustees Reports issued since the ACA's passage concluded that if the Act's provisions are fully implemented, Medicare per capita spending would grow at the same rate as per capita GDP or slightly above that rate over the next 75 years.[1] However, these reports

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[1] Prior to the ACA, the growth rate in per enrollee spending over the next 75 years was assumed to be about equal to per capita GDP growth plus 1 percent (GDP+1). Faster growth was assumed in the early years of the forecast and lower growth was assumed in the latter years, but the overall per capita growth was about GDP+1. See the 2009 Medicare Trustees Report, Table II. C1. The per capita growth rate over the next 75 years from the 2013 Trustee report is per capita GDP growth plus 0.2 percent (GDP+0.2).

have all noted that the much lower current law forecasts based on the ACA's new provisions and the continuation of the sustainable growth rate (SGR) mechanism are unlikely to be realized.

The 2013 Trustees suggest that, "there is substantial uncertainty about the adequacy of future Medicare payment rates under current law," and that if "lawmakers allowed such payment differentials to occur, [between Medicare's payments and private insurance payments] Medicare beneficiaries would almost certainly face increasingly severe problems with access to physician services."[2] The ACA's productivity adjustment provision and the SGR essentially create price ceilings on provider payments and will not achieve their goals without severely restricting Medicare patients' access to care. Thus, while the Medicare actuaries' estimates of the current law provisions may achieve costs growing with per capita GDP, the lack of flexibility challenges the forecasts' viability.

Interestingly, the objective of constraining per capita spending growth to the rate of per capita GDP growth is shared by the current administration, is implicit in the ACA, and is consistent with recent estimates from the house budget committee. Though lower spending is a shared objective, the chief actuary notes at the end of the 2013 Medicare Trustees Report that, "Overriding the productivity adjustment, as Congress has done repeatedly the case of physician payment rates, would lead to substantially higher costs for Medicare in the long range than those projected under current law."[3]

Is it realistic to think that Medicare spending per capita can be constrained to grow at the same rate as per capita GDP? Recent history suggests otherwise. To illustrate how widely Medicare spending forecasts vary, Figure 1 presents base forecast and alternative forecasts generated by the Trustees as well as the Congressional Budget Office (CBO) and the Office of
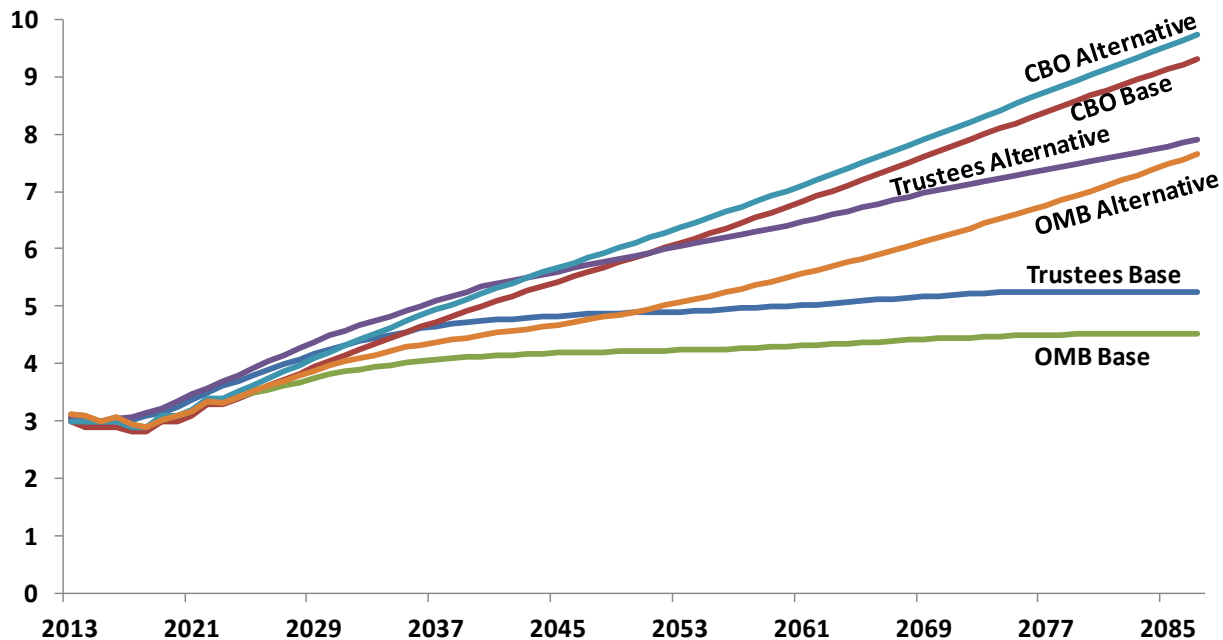
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[2] See 2013 Medicare Trustees Report, page 205.
[3] See page 274, 2013 Medicare Trustees Report.

Management and Budget (OMB). All forecasts are presented net of the premiums paid by beneficiaries.

Figure 1. CBO, Trustees, and OMB Estimates of Medicare Spending Net of Premiums

As the figure illustrates, wide variation in the baseline forecasts appears after the first 20 years. The alternative estimates assume that the stringent price ceiling provisions of the ACA are not binding after the first decade. All project that the future burden could rise significantly. The lowest estimates are based on the OMB's 2014 Budget baseline. The OMB's estimates begin with the 2012 Trustees Report baseline, but further assume that the Independent Payment Advisory Board (IPAB) constrains per capita spending growth to GDP+0.5 rather than GDP+1

during the first 30 years of the forecast. This results in a lower per capita growth rate than the Trustees' assume.

Both political parties appear to agree that lower spending growth is a reasonable target. Prior to the 2012 presidential election, the House Budget Committee's spending as specified by the committee's chairman, Paul Ryan, was forecast to achieve the same Medicare spending as the estimates based on the ACA. Fundamentally, the two political parties share the same fiscal goal, but their methods of achieving the goal vary widely. In truth, attaining the shared fiscal goal requires that seniors receive less government-provided health care than they would if Medicare remains on its old spending path. Both sides would agree that the old path is "unsustainable" and that spending growth must fall. The rhetoric lacks however, the fact that to achieve the lower "sustainable" path, seniors will either have to pay for an increasing portion of their health care through higher premiums, higher deductibles and copayments or face dramatic reductions in access to care and quality if payments to providers are restricted.

The Medicare and Social Security Replacement Rate

Medicare is an incredibly popular program. Its popularity is largely due to the fact that that the program has already paid out more in benefits than the average current and past retirees paid in taxes and premiums in support of the program. Consider how much Medicare and Social Security have come to replace pre-retirement compensation.

Figure 2 depicts the Social Security and Medicare compensation replacement rates for average workers who reach the age of 65 in the years between 1990 and 2070. Compensation (rather than earnings) is used as the denominator to account for the rising share of fringe benefits in workers' pay, mainly in the form of employer provided health insurance. Also, the Medicare

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spending forecasts are based on the alternative (net of premium) estimates from the 2013 Trustees Report. Throughout this study, the Trustees alternative estimates are considered to be more reflective of the program's anticipated costs.

Annual Social Security benefits are estimated for medium scaled workers.[4] For average new retirees, this year the Social Security compensation replacement rate is 40 percent. Each year, the Trustees Report summarizes the Social Security replacement rate of average wage-indexed earnings.[5] As a percentage of average wage-indexed earnings, the report projects that Social Security's replacement rate at the full retirement rate will remain stable in future years at about 41 percent. However, Figure 2 reflects benefits relative to workers' average price-indexed pre-retirement compensation. Thus, because compensation is projected to rise faster than wages, due to the increasing share of fringe benefits, Social Security's replacement rate will gradually decline in future years.

Medicare's replacement rates are estimated by first calculating the present value of expected lifetime Medicare benefits — net of premiums paid by retirees — for each birth year.[6] This present value represents an individual's total expected net benefit from the Medicare program. We convert this present value into an annual payment (essentially an annuity) and

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[4] The scaled earnings profiles are from "Scaled Factors for Hypothetical Earnings Examples Under the 2012 Trustees Report Assumptions," by Michael Clingman and Kyle Burkhalter, Actuarial Note, Number 2012.3, November 2012. The fringe benefits used in identifying the compensation for these workers and for other scaled profiles begin using estimate from Brooks Pierce, "Compensation Inequality," BLS Working Papers, Working Paper 323, June 1999, Figure 1 for 1995-1997, to distribute fringe percentages across income group. The shares are then indexed to aggregate earnings as percentage of total compensation derived from "Economic Projection and OASDHI Cost and Income Estimates: 1992," Social Security Administration, Office of the Actuary, Actuarial Study No. 108, December 1992, and the 2013 Social Security Trustees Report, Table V.B1. The average pre-retirement compensation is indexed by the CPI-W, the index used to calculate Social Security's COLA. Importantly, the compensation is not price-, not wage-indexed.

[5] See Table V.C7, 2013 Social Security Trustees Report. The table presents the replacement rate of the average wage-indexed earnings calculated over the 35 highest earnings years.

[6] Age-adjusted spending profiles are derived using the spending by age and sex reported in "Evaluation of the CMS-HCC Risk Adjustment Model," Final Report, RTI International, March 2011, Tables 3-1 and 3-20. The age spending profiles are combined with population estimates to identify spending profiles consistent with the aggregate net of premium Medicare spending from the 2013 Trustees Report.

express this payment as a share of one's pre-retirement compensation. For new beneficiaries, who retired between 1990 and today, these annuities grew from about 19 percent to 23 percent of average compensation. By 2030 the annuities will equal 29 percent of compensation. By 2065 they will rival the Social Security replacement rate of 37 percent of compensation, assuming the Trustees' alternative estimates are realized.

Figure 2. Social Security and Medicare Pre-Retirement Compensation Replacement Rate at Age 65
(Alternative Medicare Estimates Net of Premiums)
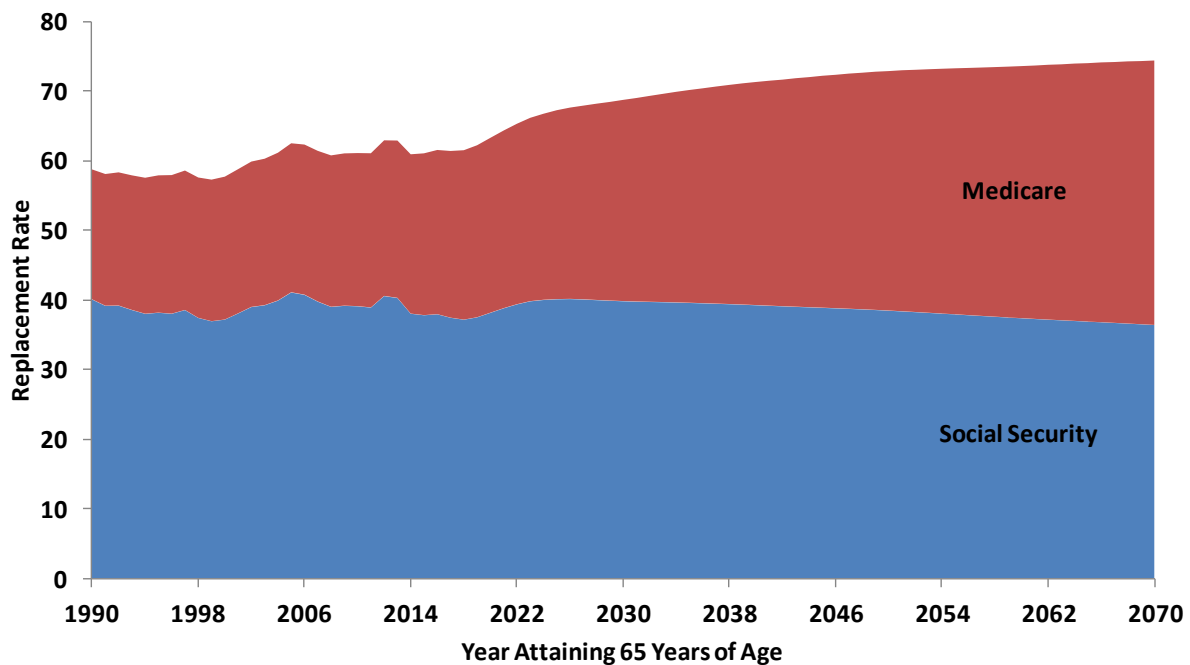
Source: 2013 Social Security and Medicare Trustees Reports and authors' estimates of compensation for medium scaled workers. Real annual compensation is indexed by the CPI-W. Medicare benefits are equal to the annuitized value of age-adjusted expected benefits (alternative estimates) net of premiums.

In 1990 the combined Social Security and Medicare programs replaced 59 percent of compensation for average workers. If the Trustees' alternative estimates are realized, the two programs will replace 63 percent of compensation for new retirees today. Further, under the alternative forecast, the replacement rate will grow to 70 percent of compensation for

beneficiaries who turn 65 in 2035 and to 75 percent for beneficiaries turning 65 in 2070. Rising replacement rates for average workers are difficult to justify when generational equity is considered. This is especially true given the anticipated fall in the number or workers per retiree, which will necessitate a significant increase in lifetime tax burdens.

Even with a stable ratio of workers to retirees, financing rising compensation replacement rates would require an increasing tax burden. As the baby boomers passed through their working years they provided tax revenues to fund replacement rates almost double those when Social Security began, and to finance a rapidly expanding Medicare program. But what will happen as the baby boom generation transitions to the "Grey Wave" generation?

The first consequence of this transition is a reduction in the number of workers available to support each beneficiary. For the thirty-five years from 1975 to 2008 the number of workers per beneficiary remained stable at about 3.2 workers. But this ratio is changing as baby boomers transition from benefactors to beneficiaries. Absent any change in the age of eligibility for Medicare, the next 25 years will see a 30 percent drop in the number of workers available to pay for the benefits of each retiree.

The combination of a drop in the number of workers available to pay for each retiree's consumption, and the projected increase in the replacement rate depicted in Figure 2, implies a growing tax burden on future workers. Medicare is clearly a growing problem if it continues to expand at the rates reflected in the alternative estimates.

Stabilizing the Medicare and Social Security Replacement Rate

Politicians across the spectrum agree that taxpayer spending on Medicare should stabilize, and most seem to agree that per capita spending growth in the range of per capita GDP

growth is a reasonable objective. At this point though, finding agreement on the structural reforms that could achieve that lower growth rate is elusive.

Figure 3 illustrates how constraining average Medicare growth to the Trustees' baseline estimates stabilizes the combined compensation replacement rate when Social Security remains as is. With Medicare spending following the Trustees baseline, the combined Social Security and Medicare replacement rate in the long run is about the same as in 1990. Further, the replacement rate would never surpass 65 percent for the average worker. In terms of aggregate federal spending, however, even if a constant replacement rate is achieved, the retirement of the baby boom generation will result in total Medicare and Social Security spending rising in the short run and then stabilizing in the long run.

Figure 3. Social Security and Medicare Pre-Retirement Compensation Replacement Rate at Age 65
(Base Medicare Estimates Net of Premiums)
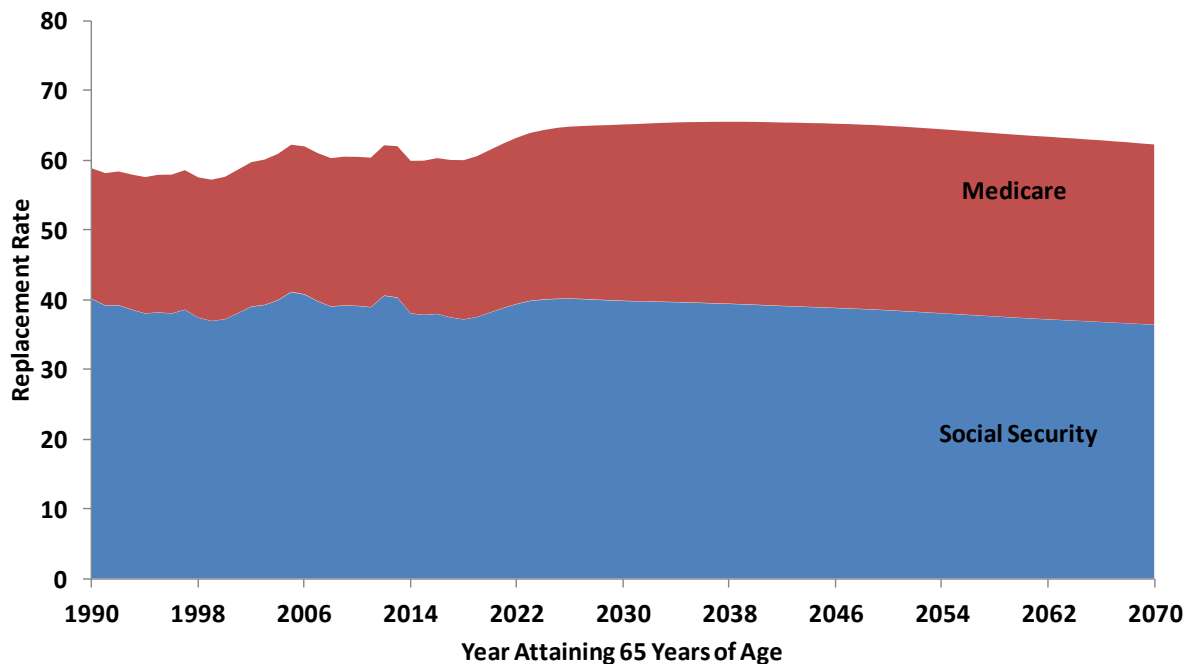
Source: 2013 Social Security and Medicare Trustees Reports and authors' estimates of compensation for medium scaled workers. Real annual compensation is indexed by the CPI-W. Medicare benefits are equal to the annuitized value of age-adjusted expected benefits (base estimates) net of premiums.

Lifetime Medicare Benefits and Taxes

Economists have extensively examined the distribution of Medicare benefits within a generation (beneficiaries born in the same year) and across generations.[7] The studies have concluded that Medicare has transferred significant resources between generations, particularly to the start-up generations. Even before Medicare was passed in 1964, Wilbur Mills noted, "I do not believe that it is generally understood that this unfunded liability would amount to at least $33 billion. It must be realized that the currently retired individuals under the Social Security Program have not paid any taxes as such for Hospital Insurance benefits. This is where the *prepayment* argument when applied to the King-Anderson proposal completely breaks down."[8] Mills was the chairman of the House Ways and Means Committee at the time and the bill under consideration was limited to Part A of the current program.

As is clear from Congressman Mills' comments, it was known at the time that the initial generations would receive benefits without having paid the taxes during their lifetimes. The tax payments are often referred to by current beneficiaries as evidence of their participation in the program. However, with the current financing arrangement and the program's projected growth, many current and future workers will continue to receive more in benefits than they pay in taxes and premiums.

Within birth years, the relative transfers have generally been higher to low-income rather than to high-income beneficiaries. Given the uncertainty about the future path of Medicare

[7] See "Does Medicare benefit the poor?" Jay Bhattacharya and Darius Lakdawalla, *Journal of Public Economics,* pages 277-292, January 2006, "The Incidence of Medicare," Mark McClellan and Jonathan Skinner, *Journal of Public Economics,* pages 257-276, January 2006, and "The distribution of lifetime Medicare benefits, taxes and premiums: Evidence from individual level data," Andrew J. Rettenmaier, *Journal of Public Economics,* pages 760-772, October 2012.

[8] Comments are from a speech by Wilbur D. Mills at an Arkansas-Missouri Kiwanis Luncheon Meeting on September 28, 1964. Mills, Wilbur D. (1964), Congressional Record, Volume 110, Proceedings and Debates, Parts 17 and 18, September 9, 1964 - October 3, 1964, P 24014- 24016.

spending, the distribution between and within generations will change. Tables 1 and 2 present estimated lifetime Medicare benefits and taxes for workers born in different years and who had different lifetime earnings.

The lifetime Medicare benefit estimates in Table 1 assume that the alternative spending forecast from the 2013 Trustees Report is realized. The five hypothetical scaled earnings profiles are derived from the scaled earnings factors from the Social Security Administration. Lifetime benefits net of premiums are estimated for each earnings class and sex assuming different life expectancies.[9]

The Hospital Insurance (HI) payroll taxes equal the statutory rate prior to 2013. For subsequent years the payroll taxes are set to cover the HI program's cost rate less benefit taxes. Supplementary Medical Insurance (SMI) income taxes for each earnings class are imputed using data from the Internal Revenue Service.[10] The historical incidence of income taxes by earnings class follows SMI spending net of premiums as a share of total federal spending from general revenues. Future spending accounts for Medicare's alternative forecast. All estimates in Table 1 are at the age of 65, are presented in 2013 dollars, and the Social Security and Medicare Trustees' long run real discount rate of 2.9 percent is used to calculate the present values.

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[9] See Michael Clingman and Kyle Burkhalter, Actuarial Note, Number 2012.3, November 2012 for the scaled earnings factors and the appendix for the details of the calculations.

[10] See the Appendix for details of estimating income tax rates to earnings profile at each age in each year and attributing federal income taxes paid in support of Medicare SMI spending net of premiums. This method underestimates income taxes during retirement, particularly for higher income retirees. The income taxes in the table are limited to the ages of 21 to 70 and are estimated based on wage earnings. Income taxes on Social Security benefits are also excluded from these estimates. The income taxes in support of SMI spending imputed based on the hypothetical earnings are intended to provide an approximation of the distribution of these taxes by wage earnings categories.

Table 1

Lifetime Medicare Benefits and Taxes
Based on the Alternative Estimates from the 2013 Medicare Trustees Report
Men and Women by Hypothetical Scaled Earnings Profiles
Estimates at Age 65, 2013 Dollars, 2.9 Percent Real Discount Rate

Birth Year	Men's Benefits	Women's Benefits	HI Payroll Taxes	SMI Income Taxes	Men's Net Benefits	Women's Net Benefits
			Very Low Earnings			
1925	83,976	103,289	6,109	326	77,541	96,854
1945	135,920	161,097	17,871	1,540	116,509	141,686
1965	230,916	269,469	27,103	4,576	199,237	237,789
1985	372,546	430,571	44,801	10,775	316,970	374,995
2005	556,547	638,238	79,587	18,799	458,161	539,852
			Low Earnings			
1925	85,360	103,727	10,996	750	73,615	91,982
1945	138,087	161,743	32,173	3,609	102,306	125,961
1965	234,552	270,535	48,793	10,674	175,085	211,068
1985	378,324	432,248	80,652	25,430	272,242	326,167
2005	565,031	640,681	143,276	44,464	377,291	452,941
			Medium Earnings			
1925	91,140	105,576	24,424	2,563	64,153	78,588
1945	151,917	165,967	71,471	12,111	68,335	82,385
1965	257,505	277,458	108,390	35,023	114,093	134,046
1985	414,649	443,116	179,159	83,697	151,794	180,260
2005	618,489	656,576	318,275	145,990	154,224	192,311
			High Earnings			
1925	96,217	108,196	35,958	5,154	55,104	67,083
1945	164,035	171,969	114,357	26,611	23,067	31,001
1965	277,548	287,300	173,428	81,587	22,533	32,285
1985	446,294	458,560	286,663	195,995	-36,364	-24,098
2005	664,900	679,114	509,257	341,403	-185,760	-171,546
			Taxable Maximum			
1925	98,457	109,352	58,666	11,610	28,181	39,076
1945	167,616	173,787	176,358	60,760	-69,502	-63,331
1965	283,496	290,299	322,680	203,275	-242,459	-235,657
1985	455,613	463,222	524,492	467,112	-535,991	-528,382
2005	678,521	685,928	917,775	835,504	-1,074,758	-1,067,351

Comparing lifetime net of premium benefits for men and women within each income group indicates that women's estimates are higher than men's due to their longer life expectancies. For example, lifetime benefits for medium earning women born in 1945 are expected to be 9 percent higher than men born in the same year with the same earnings. The average life expectancy at age 65 for women born in 1945 is about 12 percent higher than men, but because men spend more at each age, their benefit differential is smaller than their life expectancy differential.

Also, the benefit estimates indicate that the longevity differentials between income classes are higher for men than for women. Again, based on the results for individuals born in 1945, the lifetime benefits of men at the taxable maximum are estimated to be 23 percent higher than the benefits for men with very low earnings, while for women the lifetime benefits are only 8 percent higher.

HI payroll taxes and SMI income taxes are the same for men and women for each income class and birth year based on the assumption that they have the same earnings. The ratio of lifetime SMI taxes to lifetime HI taxes rises with income within birth years and rises across birth years, as Medicare SMI spending is anticipated to grow as a percent of federal spending.

The benefits net of taxes, when future benefits follow the alternative assumptions from the 2013 Medicare Trustees Report, are positive for all birth years for workers with medium earnings and below. Thus, with pay-as-you go financing and benefit payments consistent with the alternative estimates, Medicare produces lifetime benefits in excess of taxes for medium earning workers.[11] In contrast, high earning workers born in 1985 and later will pay more in

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[11] Using a higher discount rate of 3.5 percent would result in negative net benefits for medium earning male workers born in 1991 and later; for high earning male workers, negative net benefits would begin with the 1943 birth year.

taxes than they receive in benefits. Further, even workers born in 1945 who earn the taxable maximum in each year will have paid more in taxes than they will receive in benefits.

A final comparison of lifetime benefits to lifetime taxes indicates that the ratio declines as the birth year increases within each earnings classification. For example, for medium earning men born in 1925, the money's worth ratio was 3.4, i.e., lifetime benefits were 3.4 times the lifetime taxes paid. This ratio is expected to decline to 1.8 for workers born in 1985 and to 1.3 for workers born in 2005.[12]

Table 2 summarizes the results when the baseline estimates from the 2013 Medicare Trustees Report are used to forecast future spending and necessary taxes. As before, HI payroll taxes and SMI income taxes are assumed to rise to cover their respective costs. In general, lifetime benefits, taxes and net benefits with the baseline estimates are almost all lower than with the alternative estimates. The only exception is for workers who earn the taxable maximum whose net lifetime taxes are lower. Thus, the reduction in lifetime benefits exceeds the reduction in lifetime taxes in almost all cases.

The lower Medicare benefits from the baseline estimates shown in Figure 3 had the effect of stabilizing the compensation replacement rate for medium earners. However, the results in Table 2 indicate that lifetime benefits continue to exceed taxes for medium earners. The money's worth ratio does decline for medium-earning men to 1.1 for workers born in 2005, but net benefits remain positive. Benefits in excess of taxes can persist for these hypothetical

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[12] As a point of reference, a comparison was made between the present analysis and estimates by Eugene Steuerle and Caleb Quakenbush, in "Social Security and Medicare Taxes and Benefits over a Lifetime, 2012 Update," Urban Institute, October 2012. Using the same real discount rate of 2 percent indicates that lifetime Medicare benefits for average men born in 1945, 1955, and 1965 in the present analysis are about 94 percent of the amounts reported by Steuerle and Quakenbush, and when compared to women the lifetime benefits are about 90 percent of their estimates for the same birth years. Methodological issues associated with the age-by-sex spending profile adjustments employed in the present analysis and the respective Trustees Report estimates likely account for the differences.

medium workers because even under the baseline forecasts, real per capita Medicare benefits are projected to grow faster than real wages, on which the taxes are estimated. With the baseline forecast, net benefits for high-earning workers are now negative for workers born in 1965 as well as for workers earning the taxable maximum born as early as 1945.

Regardless of the Medicare forecast, the results based on stylized earnings profiles indicate that net benefits decline as income rises. Further, later generations receive lower net benefits, or in the case of higher income workers, pay higher lifetime taxes. Comparing the two forecasts, one might conclude that a policy that follows the alternative spending path will be more beneficial than the baseline path, given the higher net benefits under the former.

This conclusion however, points out the problem inherent in the program's pay-as-you-go financing. The alternative Trustees' projection produces an ever expanding compensation replacement rate, and even the baseline Medicare estimates grow faster than wages. Demographic changes necessitate higher taxes to cover the program's costs with either forecast. Even for the youngest group considered here, the tax rates they pay to cover the transfers to retirees while they are in the workforce do not rise to the rates necessary to fund the program indefinitely. For example, the HI tax rate alone necessary to fund the alternative spending path would be an immediate and permanent change to 8.3 percent up from the current 2.9 percent.[13]

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[13] The 2009 Medicare Trustees Report was the last report issued prior to the passage of the ACA. Based on the pre-ACA forecasts, the Hospital Insurance 75 year actuarial deficit was estimated to be 3.9 percent of and the infinite horizon estimate was 6.5 percent. This means that to make the HI program solvent over the next 75 years or over the indefinite horizon, the HI tax rate would have to 6.8 or 9.4 percent, respectively to pay forecast benefits. The baseline estimates from the 2013 Trustees Report indicate a 1.1 percent 75 year actuarial deficit and a 0.6 percent infinite horizon actuarial deficit.

Table 2

Lifetime Medicare Benefits and Taxes
Based on the Baseline Estimates from the 2013 Medicare Trustees Report
Men and Women by Hypothetical Scaled Earnings Profiles
Estimates at Age 65, 2013 Dollars, 2.9 Percent Real Discount Rate

Birth Year	Men's Benefits	Women's Benefits	HI Payroll Taxes	SMI Income Taxes	Men's Net Benefits	Women's Net Benefits
			Very Low Earnings			
1925	83,852	103,137	6,109	326	77,417	96,701
1945	131,413	155,756	17,871	1,539	112,003	136,345
1965	201,008	234,567	26,967	4,462	169,578	203,137
1985	284,929	329,307	42,071	9,865	232,993	277,371
2005	377,012	432,351	65,895	15,717	295,401	350,740
			Low Earnings			
1925	85,234	103,574	10,996	750	73,489	91,829
1945	133,509	156,380	32,173	3,608	97,728	120,599
1965	204,172	235,494	48,548	10,403	145,221	176,543
1985	289,348	330,590	75,738	23,284	190,326	231,568
2005	382,759	434,006	118,630	37,196	226,933	278,180
			Medium Earnings			
1925	91,006	105,420	24,424	2,563	64,018	78,432
1945	146,880	160,465	71,471	12,110	63,299	76,884
1965	224,152	241,521	107,846	34,133	82,174	99,542
1985	317,131	338,902	168,244	76,645	72,242	94,014
2005	418,972	444,773	263,526	122,102	33,344	59,145
			High Earnings			
1925	96,075	108,036	35,958	5,154	54,962	66,924
1945	158,597	166,267	114,357	26,608	17,632	25,303
1965	241,600	250,088	172,558	79,506	-10,464	-1,975
1985	341,333	350,714	269,199	179,479	-107,345	-97,964
2005	450,412	460,041	421,654	285,484	-256,726	-247,097
			Taxable Maximum			
1925	98,312	109,191	58,666	11,610	28,036	38,915
1945	162,059	168,025	176,358	60,654	-74,954	-68,988
1965	246,777	252,699	319,612	196,290	-269,125	-263,204
1985	348,460	354,280	487,024	424,521	-563,086	-557,266
2005	459,639	464,657	756,768	700,597	-997,726	-992,708

Additional caveats should be considered when interpreting the results in Tables 1 and 2. For instance, the results for medium earners in each birth year do not represent the results for the overall "average" member of the birth year. The "average" member of a birth year pays significantly higher taxes than those reflected for the medium earner. The average would include the HI and income taxes paid by workers above the taxable maximum.

The HI taxable payroll is 25 percent higher than the Social Security taxable payroll, meaning that a fourth of HI taxes collected are above the Social Security taxable maximum, the highest earnings series considered in the tables. Households reporting wages equal to two times the Social Security taxable maximum or above pay between 30 and 40 percent of income taxes. Further, the households reporting wages equal to the taxable maximum or above, pay between 55 and 63 percent of income taxes. When the HI and SMI taxes paid by high-income households are included in the average, taxes are considerably higher than those presented for the medium scaled worker. Thus, the crossover birth year for which lifetime taxes exceed lifetime benefits is likely in the late 1980s or early 1990s depending on the forecast of future spending.[14]

Wilbur Mills predicted Medicare's rising burden on taxpayers. In the same speech referenced earlier, he noted,

> "In practical terms, this meant that if the Hospital Insurance system which
> would be created by the bill [King-Anderson] was to remain sound, the taxable
> wage base would have to be increased at least $150 each year. Clearly, this would
> be a case of the *tail wagging the dog*. The Congress would be left completely
> hamstrung, with only two alternatives: (1) A total program which we know was

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[14] See "How Health Reform Affects Current and Future Retirees," Courtney Collins and Andrew J. Rettenmaier, NCPA Policy Report, No. 333, May 2011,for estimates of the crossover birth year under several sets of assumptions.

actuarily unsound, or (2) A commitment into the indefinite future to a steady but wholly uncontrolled increase, due to the Hospital Part of the program, in the amount of wages taxed for Social Security purposes. Clearly, we could not conscientiously be a party to such an abrogation of Congressional responsibility."[15]

The tail has been wagging the dog for years and will continue to do so without real reform. This paper examines alternative ways to limit the program's growth to the baseline path without resorting to the ACA's price controls.

Achieving the Trustees' Baseline Spending Path without Price Controls

The evidence above reveals just how generous the Medicare program has been and continues to be, even when considering the lower spending forecasts from the Trustees' baseline. Is there a way to achieve the lower spending reflected in the Trustees' baseline estimates without resorting to the ACA's price controls and continued reliance on the ineffective SGR mechanism? Can retirees spend less on health care without their health suffering? Can and should the financing burden be reshaped in such a way that further shifts the burden to higher income workers?

Health care spending is growing not only for the Medicare population. Thus, the question becomes: What can be done to stop the spiraling taxpayer cost of Medicare in light of the public's desire to spend more on health care? As Americans have become richer and longer-lived, health care consumption is substituting for other consumption. Therefore, solutions to the Medicare financing problem should not impede the development of new health care solutions to

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[15] Congressional Record, Volume 110, Proceedings and Debates, Parts 17 and 18, September 9, 1964, October 3, 1964, pages 24014- 24016.

problems arising from aging. If a transition to a lower level of federal subsidy is part of the solution, it must be done in a way that minimizes its effect on recipients, both those currently in the system and future retirees.

Agreement is growing across the political spectrum that taxpayer spending on Medicare should stabilize, and that per capita spending should increase within the range of per capita GDP growth. Agreement on the reforms that could actually achieve the substantially lower growth rate however, has yet to be realized.

Suppose the baseline spending projection from the 2013 Trustees Report represents the target federal spending constraint. While this goal controls the taxpayer burden of Medicare, it also implies that retirees will gradually bear a greater share of their health care consumption if the alternative spending forecast reflects actual total spending on services covered by Medicare. The difference between the two projections then reflects the retiree burden that will grow over time. How the growing retiree burden is distributed across retirees is specified and discussed below.

Medicare reforms can be broadly classified into two categories: financing and eligibility reforms that don't fundamentally change Medicare's benefit structure, and structural reforms that also address the fundamental benefit design issues. This section outlines the potential effects of two reforms that reduce Medicare spending from the annual levels in the alternative forecasts to annual spending similar to the current law or baseline estimates from the 2013 Trustees Report. This approach relies on two policy levers: raising the Medicare eligibility age (MEA) and means-testing the government's Medicare contribution for higher income retirees. The effects of raising the retirement age and progressive price indexing of Social Security benefits are outlined in a

companion study on Social Security reform.[16] Structural reforms to Medicare's insurance

benefits are considered in the next section.

Raising the MEA harmonizes the age of eligibility for Medicare with proposed changes

in Social Security's full retirement age. The Medicare eligibility age would increase by 2 months

each year, beginning in 2014, until it reaches the Social Security full retirement age in 2027, at

which time it would be indexed to maintain a constant ratio of expected retirement years to

potential work years.[17]

Figure 4 reflects the effects of the higher MEA on aggregate spending, with the 2013

alternative forecast serving as the reference forecast. Increasing the MEA would by itself reduce

federal Medicare spending to 91 percent of the alternative federal Medicare spending forecast by

2085. The estimates take into account many of the considerations raised in an updated estimate

by the CBO of the budgetary effect of raising the MEA to 67.[18] Importantly, increasing the MEA

does not affect Medicare spending on behalf of disabled workers.

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[16] See "Evaluating Social Security Reforms in the Age of Budget Deficits," Liqun Liu, Andrew J. Rettenmaier, and Thomas R. Saving, NCPA Special Report, February 2014.

[17] Gradually increasing the MEA to match the full retirement age for Social Security has been suggested as one way to solve federal deficit and debt problems. See Robert Berenson, John Holahan and Stephen Zuckerman, "Can Medicare Be Preserved While Reducing the Deficit?"Timely Analysis of Immediate Health Policy Issues, Robert Wood Johnson Foundation and Urban Institute, 2013. The CBO has estimated the effects of higher retirement ages in: "Raising the Ages of Eligibility for Medicare and Social Security," Issue Brief, CBO, 2012. See Katherine Baicker, Mark Shepard, and Jonathan Skinner, "Public Financing of the Medicare Program Will Make Its Uniform Structure Increasingly Costly to Sustain," *Health Affairs*, pages 882-890, May 2013, for a discussion of the issues associated with maintaining high uniform Medicare benefits and an alternative basic insurance plan that can be supplemented by higher income beneficiaries. In the same May 2013 issue of Health Affairs, p. 891-899, Christine Eibner, Dana P. Goldman, Jeffery Sullivan and Alan M. Garber estimate the effects of means-testing Part A, premium support credits, and raising the eligibility age relative to spending that assumes the ACA's provisions are realized.

[18] See "Raising the Age of Eligibility for Medicare to 67: An Updated Estimate of the Budgetary Effect," CBO, October 2013, for a discussion of the methodological considerations. Here, the MEA adjustment effects are restricted to estimates for the never disabled Medicare population and adjusted to reflect the age spending profiles for new enrollees from Table 3-30 in "Evaluation of the CMS-HCC Risk Adjustment Model," Final Report, RTI International, March 2011.

Figure 4. Trustees Baseline, Alternative, and Alternative with Medicare Eligibility Age Adjustment
(Medicare Spending Net of Premiums)
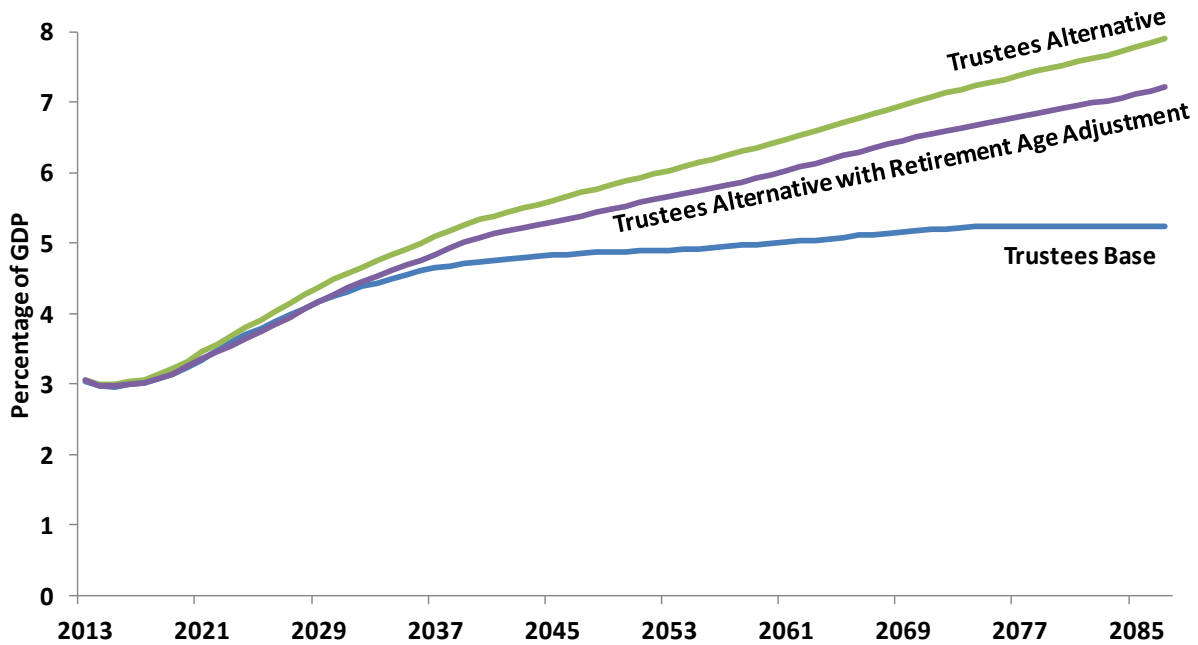
Source: 2013 Medicare Trustees Report and authors' estimates of the effects of higher retirement age for Medicare. Retirement age increases to 67 by 2027 and then by one month every two years thereafter.

As seen in the figure, raising the MEA alone does not reach the desired reduction in federal Medicare spending. Apart from spending constraints like the SGR or the ACA's productivity adjustment further federal spending reductions can only be achieved by making retirees pay for a greater share of their health care. Absent structural reforms to Medicare's insurance package, achieving the Trustees' baseline estimates without leaving low-income retirees with high health care spending in future years means that higher-income retirees will see

a smaller portion of their health care financed by taxpayers. How much means-testing is necessary?[19]

A stylized exercise illustrates the degree to which means-testing affects retirees with different lifetime income levels, but starts with the Trustees' alternative estimates combined with the retirement age adjustment as depicted in Figure 4. Suppose one of the policy objectives is to keep low-income retirees "whole" in terms of the amount Medicare spends on their behalf, and that the means-testing phases in over time.

This exercise designates about 30 percent of retirees as low-income, and includes retirees who convert from the disabled rolls upon reaching the new MEA. The disabled convert to retirees and receive full benefits, defined as the average Medicare spending by age net of premiums based on the alternative spending from the 2013 Trustees Report.[20] The non-disabled lower income retirees would, upon reaching the new MEA, would receive average benefits by age that follow the alternative estimates growth rate. The contribution by the non-disabled lower income retirees to achieving the desired aggregate federal Medicare spending is limited to the first policy lever, namely raising the MEA.

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[19] See Chapter 8 in Rettenmaier and Saving, *The Diagnosis and Treatment of Medicare*, AEI Press, 2007 for an analysis of an alternative form of means-tested Medicare. See Mark V. Pauly for a discussion of means-tested Medicare, how possible labor supply and savings effects can be addressed, and rationale for the financing of new technologies by higher income retirees in chapter 3 of *Medicare Reform, Issues and Answers*, University of Chicago, 1999, Rettenmaier and Saving, eds. Pauly discusses additional implications of means-tested Medicare and addresses the relative excess burdens of smaller verses a larger program in chapter 4 of *Medicare in the Twenty-first Century*, AEI Press, 1999, Robert B. Helms, editor. In "Medical Spending Reform and the Fiscal Future of the United States," in *Pathways to Fiscal Reform,* forthcoming, MIT Press, Pauly outlines the appropriate growth rate for taxpayer financed health care spending provided to lower income residents and the potential role of means-testing for higher income Medicare beneficiaries.

[20] For purposes of this exercise, estimated spending by the disabled population younger than 65 and the disabled population who convert to retirees is excluded from the average spending by age that is ultimately means-tested. The disability conversions are assumed fall below the 30th percentile in distribution of the lifetime earnings and comprise about half of this group. The lifetime earnings percentiles would be identified based on taxable Medicare earnings and assumes shared earnings by spouses.

A reform that begins in 2023 and follows the means-testing schedule presented in Table 3 will produce roughly the same spending as the Trustees' baseline forecast when both forecasts are restricted to beneficiaries 65 and above. Everyone in the lowest 30 percentiles receives full benefits once they reach the new MEA for their birth year. The reform is phased in over time such that everyone above the 30th percentile in the income distribution will see their share of the projected per capita spending by age scaled back progressively each year relative to the average benefits based on the alterative estimates for the 2013 Medicare Trustees Report.

The top panel of Table 3 contrasts the percentage of the average full benefits, based on the alternative forecast, received by retirees in the lowest 30 percentiles, and the retirees at the 50th, 75th and 95th percentiles in future years under the specified means-testing. These percentages apply to retirees' average benefits once they reach the reformed. Also presented is the percentage of full benefits all retirees would receive if the Trustees' uniform baseline spending is imposed. By 2060, the current law, or baseline, would result in benefits that are 78 percent of full benefits across the board. In contrast, the specified means-testing would keep the bottom 30 percent, but would require that the highest income retirees receive only 62 percent of full benefits. Further, those at the 75th percentile receive means-tested payments equal to only 73 percent of full benefits.

Importantly, all future retirees' lifetime benefits would be affected by the shorter retirement period, and above the 30th percentile they would also have lower annual benefits relative to the average under the alternative. Depending on where workers are in the distribution of lifetime income, their annual benefits received at ages above the reformed MEA may be lower than the average annual benefits from the baseline forecast. But as indicated in the table, the

baseline reductions are more dramatic than the means-tested reductions at the 50th percentile, and by the 75th percentile, the means-tested benefits are lower than the average baseline estimate.[21]

The lower panel of Table 3 presents the means-tested benefits as percentage of the average benefits based on the Trustees' baseline estimates.

Table 3

Illustrative Means-Testing Example

Means-Tested Medicare Payments as
Percentages of Average Annual Spending Based on the Alternative Forecast
(Averages for Beneficiaries above the Reformed MEA)

| Year | Mean-Tested Percentage by Percentile in the Lifetime Income Distribution | | | | Baseline Current Law Percentage |
	Lowest 30%	50th	75th	95th	All Retirees
2023	100	100	99	99	98
2030	100	97	94	92	95
2040	100	94	87	82	89
2050	100	90	80	72	83
2060	100	87	73	62	78

Means-Tested Medicare Payments and Average Annual Alternative Spending
as Percentages of Average Annual Spending Based on the Baseline Forecast
(Averages for Beneficiaries above the Reformed MEA)

| Year | Mean-Tested Percentage by Percentile in the Lifetime Income Distribution | | | | Alternative Percentage |
	Lowest 30%	50th	75th	95th	All Retirees
2023	102	102	101	101	102
2030	106	103	100	97	106
2040	113	106	98	92	113
2050	120	109	96	87	120
2060	128	111	94	79	128

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[21] In terms of lifetime benefits, the increase in the MEA reduces benefits across all income classes. The relative reduction in lifetime benefits due to the higher MEA is higher for the lower earners due to lower life expectancies. However, the disabled and the disabled conversions are not affected by the change in the MEA – their Medicare coverage is uninterrupted and follows the alternative forecast.

Figure 4 illustrates the effects of the specified means-testing arrangement combined with the increased MEA on the spending based on the 2013 Trustees' alternative estimates. The forecasts in this figure are limited to Medicare beneficiaries who are either 65 years old (those who convert from disability) or who are above the reformed MEA. The combined provisions produce forecast spending that is about the same as the Trustees' baseline for this group. Instead of reducing spending (relative to the alternative forecasted spending) across the board as the ACA does, raising the MEA would require delayed benefit claiming across all income classes and means-testing would require greater spending reductions for the higher income retirees to achieve the same spending targets.

Figure 5. Trustees Baseline, Alternative, and Alternative with Medicare Eligibility Age Adjustment and Means-Testing

(Restricted to Beneficiaries 65 and Above, Medicare Spending Net of Premiums)
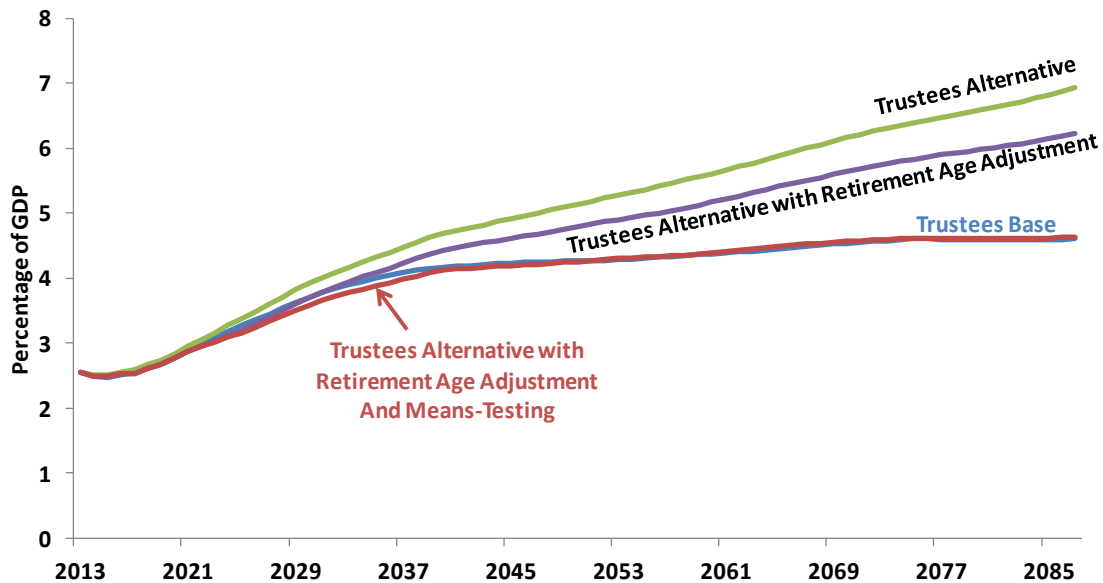
Source: 2013 Medicare Trustees Report and authors' estimates of the effects of higher retirement age for Medicare combined with means-tested premiums. See text for discussion of means-testing formulation.

This example illustrates how raising the MEA and means-testing could produce the same spending path as the ACA and the extension of the SGR mechanism for the set of beneficiaries

who are 65 years of age and above. The price controls in the ACA and the SGR assume that providers will continue to accept less than private insurance pays, will continue to accept new Medicare patients, and will provide them the same quality of care. Because this outcome is unlikely, policy makers must accept the fact that lowering taxpayer share of the Medicare bill will require retirees to contribute more. Identifying how increased beneficiary spending will be distributed in future years allows workers to plan their retirement.

Achieving the same spending path as the ACA for the group of beneficiaries above 65 by the MEA increases and means-testing could increase the likelihood that the savings are realized in the long run. Further, this approach is not subject to the multiple problems with the ACA's price ceiling approach. When faced with a necessary government spending reduction, all beneficiaries participate (through the MEA increase), and beneficiaries with higher lifetime income face a larger reduction than lower income beneficiaries (through means-testing).

The means-testing idea here is very similar to the means-testing idea in the discussion of transforming the current defined-benefit Medicare to a market-based defined-contribution Medicare where beneficiaries have the option to take an income- (and health-) adjusted premium support and opt out for a commercial medical insurance provider. The idea of means-tested premium support payments has enjoyed bipartisan support.[22] Not requiring low-income retirees to pay more than they are currently scheduled to is based on the ability-to-pay concern. All workers must consider the tradeoffs between accepting lower benefits in exchange for lower lifetime taxes particularly in light of the burden imposed on future generation if nothing is done.

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[22] See "Comparison of Medicare Premium Support Proposals," Kaiser Family Foundation, 2012; and "A Premium Support System for Medicare: Analysis of Illustrative Options," CBO, 2013.

Structural Reforms

Raising the MEA is a change in the program's eligibility rules and the means-testing is a change in the program's financing. In its simplest form the means-testing as specified would require that retirees who had higher lifetime incomes pay increasing premiums to participate in the program. This would allow them to buy into the program by paying the specified additional premium payments and have the same coverage as before, assuming no structural changes to the insurance. They would also then have the flexibility to choose a managed care option. Crucial to the implementation of these provisions is retiree's ability to use their government provided funds to supplement the purchase of their optimal health insurance.

Raising the MEA and means-testing can be combined with more fundamental reforms to Medicare's insurance structure. Some structural reforms suggest that the cost-sharing mechanisms in the current Medicare should be restructured so that Medicare spending growth can be contained.[23] Some have suggested that the cost-sharing mechanisms are related to income, with higher income retirees facing higher deductibles, copays and maximum dollar expenditures. Others suggest alternatives based on the premium support concept. Reformers on both sides of the aisle have advocated premium support proposals, with Medicare Advantage serving as an obvious example. Several structural reforms are outlined below that can be integrated with raising the MEA and means-testing.

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[23] For recent discussions on the issues involved in restructuring Medicare cost-sharing, see Joseph R. Antos, "Medicare Cost-Sharing Requirements Should Be Restructured – Statement before the House Committee on Ways and Means, Subcommittee on Health, on the President's and Other Bipartisan Proposals to Reform Medicare," American Enterprise Institute for Public Policy Research, 2013; and Jonathan Gruber, "Proposal 3: Restructuring Cost Sharing and Supplemental Insurance for Medicare," *15 Ways to Rethink the Federal Budget*, The Hamilton Project, Brookings Institution, 2013.

Medicare I

The higher MEA and means-tested premiums can be combined with a reformed traditional Medicare or Medicare I. This structural reform combines Medicare A, B and D, except that this option includes only one premium payment and set of deductibles and co-pays. Just as with current Medicare, recipients can choose traditional fee-for-service or Medicare Advantage. Its funding level will come from a combination of premiums paid by participants and Medicare I's share of the total federal Medicare budget.

Medicare I will mimic current Medicare, because CMS will manage the program and use its own price controls and allowable procedures that it already uses to control costs. That said, however, Medicare I initially appears to the newly retired it like the health insurance they experienced during their working life. For the currently retired since Medicare I will combine Parts A, B and D, and will be a simpler version of what they now have. Importantly, this new version of Medicare, Medicare I, will include catastrophic coverage, which current Medicare does not.

Relative to the current program, Medicare I participants will initially experience greater cost sharing through deductibles and copayment amounts. The addition of catastrophic insurance contributes to part of this increase. Initially the actuarial value of the reformed insurance package would equal current spending.

But the principal participant future cost increase is the result of the growth in federal total spending being based on the baseline estimates rather than on the alternative estimates. If, as expected, actual per capita health care expenditures grow faster than per capita GDP, Medicare I recipients will either face rising premiums or face rising deductibles and co-pays for the

indefinite future. The estimates in the preceding section identified the necessary differential premium payments across the income classes assuming that spending per capita grows at the rates underlying the Trustees' alternative estimates.

Further, a structural reform that relies on higher deductibles, copays, and maximum dollar expenditures could achieve some of the desired spending reductions as an alternative to higher premiums for higher income retirees. If these spending reductions remain uniform across retirees, then over time, Medicare's contributions to enrollees' health spending accounts (HSAs) will become unequal, with lower income retirees receiving the highest contributions. These differential contributions could be made consistent in dollar amounts with the example previously outlined. For incentive purposes, the deductibles, copays and maximum dollar expenditures will be standard across all beneficiaries and indexed. The indexation would be designed so that combining the restructured copayments and the government contributions with the lower income beneficiaries' health spending accounts, would satisfy the goal of constraining the program's total budget.

The advent of health savings account (HSA) reform has received considerable attention for subsidizing health care consumption. Can HSAs for low-income recipients be structured so that these recipients care about cost? For example, how much of the unspent federal contribution to their HSAs can the recipients retain at the end of the year and use for other consumption?

Consider a variant of the food stamp program. Like the SNAP (Supplemental Nutrition Assistance Program) cards used for food purchases, a health care card could be used for medical care consumption up to the specified maximum dollar expenditure. This program for lower income Medicare beneficiaries "SMAP" (Supplemental Medical Assistance Program) which

would operate much like SNAP but would be restricted to health care purchases. For this form of low-income aid to result in recipients taking into account the cost of care, the amount of their SMAP card must be less than they would spend out-of-pocket. Thus, on the margin each dollar used in the SMAP card means they are closer to using their own money.

Implications for Medigap

Some have argued that current Medicare, Medigap and other supplemental coverage have resulted in excess use of the health care system. Because Medicare I will have catastrophic coverage, one of the primary reasons for Medigap coverage will likely disappear. However, supplemental coverage may continue to exist. Importantly, for this more comprehensive structural reform, once the budget constraint is imposed, and Parts A, B and D combined, the constraint is achieved through ever-rising deductibles, copays, and maximum dollar expenditures combined with means tested HSA contributions.

Medicare II

Medicare II will offer a significant level of both individual choice and individual payment responsibility. The relative size of federal support for participants, or the premium support, will be determined using the methodology similar to that currently used for Medicare Advantage capitation payments.

While all participants in Medicare will have a choice of traditional Medicare, Medicare I, and private market Medicare II, the choice procedure will make Medicare I the default Medicare. All those reaching the age of Medicare eligibility will be automatically enrolled in Medicare I unless they opt for Medicare II.

Medicare II is envisioned as an entirely private market alternative to Medicare I. The only role of the federal government, and hence, CMS, is to determine the level of individual federal support to those choosing Medicare II. Importantly, CMS controls over prices, reimbursements to providers, and allowable procedures will be completely absent.

The absolute size of the federal support payments will be determined by Medicare II's share of the total federal commitment to Medicare. For convenience the total federal commitment is equal to the 2013 Medicare Trustee baseline estimate. Each Medicare II participant will receive a level of premium support that is based on current health status, cost risk, and the Medicare II cost budget. Further, no enrollee will be allowed to cash out their premium support payment.

Currently, only Medicare Advantage plans are similar to private markets for beneficiaries. In the relatively unregulated world envisioned for Medicare II, Medicare Advantage plans could still exist but would see much more competition. Importantly, all plans must include catastrophic coverage, even for healthier enrollees.

Thus, while a plan offering minimum benefits for a minimum premium may well attract healthier, and perhaps wealthier, enrollees, they must still pay for any significant change in their health status. Furthermore, Medicare II subsidies would be based on expected health care cost, adjusted so that less healthy individuals are not at a disadvantage vis-à-vis providers. Each beneficiary would know his or hers risk-adjusted stipend each year. These would be estimated based on value of the evolving insurance coverage in Medicare I with its growing deductibles, co-pays, and MDEs over time.

Conclusion

Market-oriented solutions for Medicare and Social Security must adapt to a changing public policy landscape. At the end of the Clinton administration and during the early years of the Bush administration, many policy analysts hoped to update and modify the elderly entitlement programs in advance of the baby boomers' retirement. Many proposals at the time included an integrated, and often mandatory, prepayment component with the end goal of reducing future federal spending. However, and market conditions and the political conditions favoring explicit prepayment have changed.

Reducing future federal entitlement spending continues to be as important today as it was in the past and current reforms can produce implicit prepayment of retirement health care and living expenses. This report has analyzed two policy levers that can potentially to bring down federal Medicare spending to the same annual spending levels as forecast assuming the ACA's provisions are realized, but without relying on the unlikely savings attributed to the ACA — provisions that require price ceilings and other restrictions that would impede seniors' access to care.

The first spending-reducing measure is to gradually raise the Medicare eligibility age (MEA) to equal the full retirement age for Social Security. This approach harmonizes the age requirements for both elderly programs and lowers federal Medicare expenditures at the same time. The second spending-reducing measure calls for high-income retirees to pay higher premiums than currently scheduled, explicitly introducing a means-testing component into Medicare. Indeed, these two measures have been regarded as the feasible options to shift

Medicare spending from taxpayers to beneficiaries without changing Medicare's benefit structure.[24]

Raising the MEA and introducing means-testing can achieve the same baseline spending path as forecast under the ACA's provisions. Admittedly these policy options come with their own concerns, but they must be weighed against the most likely alternatives. Further, the example here simply illustrates how much means-testing in necessary to reduce spending from the alternative forecast to the baseline forecasts when combined with the increase in the MEA.

Given that Medicare is a federal program voters must ultimately decide if constraining aggregate spending to the levels in the baseline forecast is politically feasible. If so, they can choose between the price and expenditure controls outlined in the ACA and their anticipated constraints on access to care or they can choose something similar to the two provisions discussed here which places the responsibility on workers as they plan their retirements. But the two provisions combined with the freedom to supplement their government provided stipend give them much greater flexibility to decide on their own optimal insurance coverage.

The means-testing of Medicare or Social Security are in both principle and in function similar to many those previously proposed that included prepayment with private accounts. The previous prepayment reforms typically specified contributions to personal accounts that were a fixed proportion of income. With most of these proposals, the resulting flows from the personal accounts would pay for a portion of Social Security or Medicare during the workers' retirement years. The flows from the accounts of workers with higher lifetime earnings would have paid for

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[24] See, for example, Michael E. Chernew (2013) "Additional Reductions in Medicare Spending Growth Will Likely Require Shifting Costs to Beneficiaries." Health Affairs 32 (5): 859-863.

a greater share of their future Social Security or Medicare benefits than would the flows from the accounts of lower income workers.[25]

Means-testing produces the same basic outcome – higher income workers pay for a greater share of Social Security or Medicare. The means-testing analyzed here would require higher earning workers to implicitly prepay some of their retirement health care and convert Medicare to a benefit that varies inversely with income. The benefit for low-income individuals (above the new MEA) would roughly equal the actuarial price of a reformed program's "full coverage." Per capita spending on behalf of lower income retirees above the new MEA would resemble the per capita spending from Trustees Alternative spending forecast — the projection that assumed the ACA's reforms are not achieved. The Medicare benefit for higher income retirees would decline in terms of its "replacement rate" of the "full-coverage" just as the Social Security replacement rate declines as income rises. Other implementations of means-tested Medicare benefits are possible.[26] But importantly, workers must know well in advance the amount Medicare will pay during their retirements. The implicit prepayment required of higher income workers could be encouraged by expanded tax incentives for retirement savings.

Constraining government spending relative to the current programs will produce higher national savings as higher earnings workers recognize that they must pay for a larger share of

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[25] For a estimates of the distributional properties of prepaying Medicare see Rettenmaier and Saving "A Medicare Reform Proposal Everyone Can Love: Finding Common Ground among Medicare Reformers," National Center for Policy Analysis, NCPA Policy Report No. 306, December 2007 and "The Elephant in the Room: Coping with the Long-Term Problem of Medicare Costs," *The Economists' Voice*, Vol. 6: Issue 5, pp. 1-5, March 2009.

[26] The primary reasons why the Trustees' annual baseline spending levels are not expected to be achieved are that spending constraints under the SGR and the productivity adjustment are unlikely to survive legislative overrides and the prospect that Medicare patients would be restricted to the level and access to care implied by the lower spending. A policy that allowed beneficiaries to supplement the ACA's constrained payments could result in lower federal spending. However, concerns about the lower spending levels on behalf of beneficiaries who do not or cannot supplement the ACA's capped spending would likely result in federal mean-tested supplements financed through higher income taxes. As with the explicit means-testing, this outcome would result in higher relative lifetime financing burdens on workers who had higher lifetime earnings.

their retirement health care. The net lifetime tax rates associated with the various financing and benefit structures for workers born in different years and who have different lifetime earnings are dependent on the specifics of the chosen policy option. Importantly, individuals must consider both the benefits and the taxes necessary to fund them to understand the impact of the Medicare program over their lifetimes. The contemporaneous welfare loss of taxation will be reduced if government spending follows the baseline spending path rather than the alternative, which relies on higher taxes to close the program's funding deficits.

This paper also points out that the financing reform could and should be followed by a more fundamental structural reform leading to a market-oriented program. The restructured insurance would combine all components of the current Medicare with a single set of copays and deductibles, and add a much needed catastrophic protection. The insurance would allow retires to take an income- and health-adjusted premium support to opt for commercial medical insurance.

Appendix

Earnings Profiles and Income Adjusted Life Expectancy at Age 65

The age-earnings profiles and the income adjusted life expectancies conditional upon reaching 65 years of age used in the present study, are the same as those used in a companion study, "Evaluating Social Security Reforms in the Age of Budget Deficit."[27] A condensed summary follows.

Earnings Profiles. The lifetime earnings estimates for different income groups are derived from scaled earnings factors developed by the Office of the Chief Actuary at the Social Security Administration.[28] The factors allow for the estimation of hypothetical earnings by age from 21 to 64 in each year for workers with very low, low, medium and high earnings. Here, earnings beyond age 64 to the age of 70 are also estimated to allow for estimation of HI and federal income taxes at higher ages.

Income-adjusted life expectancy at age 65. Conditional life expectancies at the age of 65 were estimated by combining the birth cohort life expectancies from the *2013 Social Security Trustees Report* with factors that adjust for different life expectancies by income. The birth cohort life expectancies at age 65 for men and women are from Table V. A4. *2013 Social Security Trustees Report.* The income adjustment factors are guided by the estimates reported in Waldron (2007).[29]

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[27] See the appendix in "Evaluating Social Security Reforms in the Age of Budget Deficit," Liqun Liu, Andrew J. Rettenmaier, and Thomas R. Saving, NCPA Special Report, February 2014.

[28] See Michael Clingman and Kyle Burkhalter, "Scaled Factors for Hypothetical Earnings Examples Under the 2012 Trustees Report Assumptions," Actuarial Note, Number 2012.3, November 2012.

[29] Hilary Waldron, "Trends in Mortality Differentials and Life Expectancy for Male Social Security – Covered Workers, by Socioeconomic Status," *Social Security Bulletin,* Vol. 67, No. 3, 2007. See the appendix in Liqun Liu, Andrew J. Rettenmaier, and Thomas R. Saving, NCPA special report, February , for details.

Expected Lifetime Medicare Benefits by Earnings and Sex

Medicare benefits throughout the study exclude premium payments from beneficiaries. Medicare spending by age is estimated using age spending factors derived from Table 3-1 in "Evaluation of the CMS-HCC Risk Adjustment Model," Final Report, RTI International, March 2011. The age-spending factors are combined with population estimates by age to identify spending profiles consistent with the aggregate net of premium Medicare spending forecast from the 2013 Trustees Report, both for the baseline and alternative estimates. For each birth year, a unisex present value of expected lifetime benefits is found by weighting the age spending profiles by the probability of survival to each year.[30] A unisex annuity payment is then estimated for each birth year, and this annuity payment is assumed to represent Medicare's annual value across all earnings classes within the birth year. The present value of this annuity payment adjusted by the differential life expectancies by birth year and sex identifies the values reported in Tables 2 and 3.

Federal Income Tax Estimates by Scaled Earnings Profiles

The estimate of annual average federal income tax rates by wage are derived from Internal Revenue Service Statistics of Income (SOI) tables. [31] To estimate annual average tax rates for the earning profiles from 1995 to 2010, a simple linear interpolation method was applied to SOI tables, which report wages and taxes by adjusted gross income cells. More specifically, average yearly income tax rates are derived for each available adjusted gross income

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[30] Social Security population and cohort level life tables by single year of age and sex that are consistent with the 2007 Trustees Reports are recalibrated to the 2013 Trustees Reports aggregate population and survival estimates. These revised files are used in estimating population-weighted age spending profiles and post 65 survival rates.
[31] From Internal Revenue Service's Statistics of Income, SOI Tax Stats – Individual Statistical Tables by Size of Adjusted Gross Income, Tables 1 and 2, 1995-2010 available at: http://www.irs.gov/uac/SOI-Tax-Stats---Individual-Statistical-Tables-by-Size-of-Adjusted-Gross-Income.

(AGI) range by dividing per filed-return income tax after credits by per filed-return AGI. Per filed-return wages/salaries are also computed for the corresponding AGI ranges. The tax rate for each hypothetical value of wages in the Social Security profiles is then formed by linear interpretation using the estimated tax rates of the two neighboring average wages from the IRS data. The average federal taxes associated with the base wage profiles are estimated for the very low, low, medium, high, and the taxable maximum series.

Only AGI and the income taxes are available from IRS for some income percentiles for the 1980-1994 period.[32] Limited by data, a more indirect procedure is used to estimate tax rates. Within each AGI range, the ratio of average AGI over wages/salaries remained fairly constant, especially during the first 5 years (1995-1999). The first-five yearly average ratios are used to estimate a wage series from the above AGI series, paired with the original average tax rates. As the AGI/wage ratio varies across AGI levels, linear interpolations are is used to estimate an AGI/wage ratio for a particular level of AGI from the ratios of two neighboring AGI percentiles. From these estimates of wages and average tax rates, estimated tax rates for the four Social Security wage profiles are calculated using the same linear interpolation method as above. Average tax rates for combinations of wage profiles are also calculated and used to estimate weighted tax rates for composites to represent the tax rates associated with the base wage profiles. For example, the average federal income tax rate associated with the medium earnings profile is a weighted composite of the tax rates for a single medium wage earner (0.1), and the tax rates for a medium earner paired with a low earner (0.225), another medium earner (0.45), and with a high earner (0.225). Composite tax rates by age and earnings profiles for the years 1967 to 1980 are assumed to be the same as the average rates between 1980 and 1990. Future

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[32]These data are from "Summary of Latest Federal Individual Income Tax Data, 1980-2009," Tax Foundation. Available at http://taxfoundation.org/article/summary-latest-federal-individual-income-tax-data-0#table8

average composite federal income tax rates beyond 2010 are estimated assuming that all rates

rise with estimated general revenues as a percent of GDP. Note that AGI is actually AGI minus

deficits for the period from 1995-2010. In all the above estimates, the category of "No adjusted

gross income" is simply dropped.