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A "Lifetime" Measure of Medicare's Value

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Although Medicare was established as a "pay as you go" program –with current taxpayers contributing to pay for the costs of current beneficiaries—many observers of Medicare question what individuals pay over their lifetimes compared to what they receive in benefits. Some have gone so far as to equate program "affordability" with having each cohort of individuals pay for itself through its tax contributions.

Two major problems make this line of reasoning faulty. First, this notion runs contrary to the program's design and implementation. Second, the most commonly cited measures of lifetime benefits and contributions are seriously flawed.

Given these caveats, this currently popular approach needs further scrutiny. Here we consider both how it is calculated and how it is presented. We then offer an alternative view and discuss what the currently favored measure misses.

Lifetime Contribution vs. Benefit Measures

Measuring what various birth cohorts—and, within each, what people with different levels of income— have contributed to Medicare compared to what they will draw out of it in benefits over time has become part of the debate over Medicare's future. In the last three years, this lifetime contribution measure has been widely reported in the media, and many commentators have pointed to it in discussions of Medicare's future.[1]

Actually, this is not a new measure. The 1998 Bipartisan Commission on the Future of Medicare presented these statistics in its information on financing sources, and it was discussed by various commissioners as influential in their policy proposal development.[2] The 1998 estimates for the commission found that, if calculated for those retiring in 1998, expected benefits were substantially higher for nearly all the groups examined, in no small measure because these people would not have contributed anything for about a third of their working lives (because collection of tax revenue to fund the program began in 1966 and tax rates were very low for many years after that).

The more recent presentations of lifetime contribution measures that have received a lot of attention come from a series by Gene Steuerle and his Urban Institute colleagues.[3] The most attention-getting statistic from this report is that benefits for the average worker retiring in 2010 will be nearly triple their adjusted contributions.[4]

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[1] For example, most recently see NICHM, 2015, "The Budget Deficit and Health Entitlements," www.nihcm.org/topics/medicare-medicaid/the-budget-deficit-and-health-entitlements.

[2] National Bipartisan Commission on Future of Medicare, "Medicare Financing Sources," Thomas.gov, 1999.

[3] Most recently, see Eugene Steuerle and Caleb Quakenbush, "Social Security and Medicare Taxes and Benefits over a Lifetime: 2015 Update," The Urban Institute.

[4] The numbers are actually lower than the 1998 Commission estimates, reflecting the much lower projections for Medicare costs into the future nearly 15 years later after considerable efforts to lower spending. For example, the impact of the 1997 legislation on Medicare reduced spending by much more than contemporaneous estimates had suggested.

This dramatic statement implies a substantial imbalance between contributions and benefits. But this study overestimates the value of Medicare benefits, which biases the results and makes it appear that people don't pay reasonable amounts toward the costs of their care.

Our measure differs in several ways from this and similar approaches to what Medicare beneficiaries pay versus what they get. Two changes to the benefit side in particular are crucial—and result in substantially lower benefit estimates. First, on the revenue side, because lifetime measures are limited to payroll taxes, we limit benefits to those that the payroll tax funds: Part A of Medicare. Today, Part A accounts for only about 44 percent of total Medicare benefits and covers inpatient hospital care and other institutional services.

The second adjustment on the benefit side is to use an inflation measure that reflects the prices of medical services but does not suggest that benefits are increasing over time when, in fact, they have remained relatively constant. These two adjustments result in quite different findings than are reported elsewhere. The methodology, described briefly below, and assumptions behind the analysis are spelled out in greater detail in a longer paper that recalculates the measure for both the Social Security and Medicare programs.[5]

Re-Estimating the Measure

Our approach to generating the lifetime measure of contributions and benefits uses a number of the same assumptions as others have used. We choose a particular earnings level for workers (and hold it constant through time), use a discount rate of 2 percent above the assumed level of inflation, allow for gender differences in life expectancy, and assume that Medicare benefits reflect an equal insurance value received by each beneficiary in each year. But our analysis differs in four key ways from most other studies:

First, we exclude Parts B and D benefits (that include ambulatory services and prescription drugs) from this calculation since payroll taxes don't fund them. It is simply unfair to consider whether taxes are sufficient to cover a part of the program that other sources fund.[6] This is by far the most important difference, reducing the basic benefit in 2015 by 60 percent—a percentage that will grow over time since Parts B and D are growing faster than Part A.

Second, we make a critical distinction in the price index used for Medicare benefits over time. Using the overall CPI (CPI-u) to track medical costs is misleading, we argue, since the medical CPI is much higher than the overall CPI measure. Using the CPI-u to adjust benefits over time will make them appear to be rising when they have actually changed very little. (The addition of Part D, the drug benefit, has been the major expansion of benefits over time but that is outside this analysis.)

If rising prices are implicitly included in "benefits," future beneficiaries would appear to be better off than their current counterparts with no increase in what they actually receive. In fact, they will have to pay more out of pocket to receive the same level of care over time. Here, we use the CPI-u to adjust wages, but use the CPI for medical care to adjust benefits. This also has a large impact on our findings—particularly in comparing earlier to later cohorts of individuals. Although individuals can't control the rising price of health care, they still get "blamed" for getting the higher benefits that using the CPI-u rather than the medical care CPI yields.[7]

Third, we include an additional category of higher income contributors beyond what earlier Steuerle analyses use (though Steuerle's most recent update

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5 Jing Guo and Marilyn Moon, "Lifetime Values of Medicate and Social Security, " forthcoming.

6 And while we could produce an estimate to include these benefits, estimating the lifetime contribution made from income taxes by workers across their full lifetimes would be difficult. And, in practice, it is hard to argue that Parts B and D were designed to be considered in such a lifetime context.

7 But it also means that more dollars will be spent unless we rein in health care spending—a crucial activity that is important for consumers of all ages. As a society, our choice is either lowering the rate of growth of health care spending—or devoting more resources to health care. This choice will affect everyone—not just Medicare and seniors.

does include a higher wage group). Adding this group is particularly important because we *should* expect to see higher benefits relative to contributions for lower wage workers since this is the *intent* of the program.

Last, unlike the authors of the other studies, we adjust for workers entering the labor force later. Instead of assuming that contributions begin at age 22, we estimate what would happen if they began at age 30. Assuming fewer years of wage contributions before an individual receives benefits tends to move the findings in the opposite direction than the other assumptions, leading to a more conservative estimate of likely wage contributions but reflecting what may be a more realistic stream of contributions.

Starting with these different assumptions leads to a very different picture than that presented by many who point to lifetime calculations as "proof" that the Medicare program is too generous.

The Findings

Our estimated lifetime Part A benefit for a male turning 65 in 2030 is $82,000 in 2015 dollars. The amount would be $87,000 for women because they have longer life expectancies. Since wage contributions (also expressed in 2015 dollars) ranged from $51,000 for low wage workers to $186,000 for those at the Social Security taxable maximum, the net impact would be split with low-wage workers receiving positive net benefits relative to wage contributions, and with the net impacts turning negative as wages rise. (See Table 1.) In short, our findings indicate that many beneficiaries will have contributed substantially toward their benefits and the Medicare program is much more in balance than many claims about the program's affordability suggest.[8] If policymakers' concern is about Medicare's future, then it is important to note that the program is not overly generous. Indeed, most beneficiaries will have paid more than the *value* of the care they will receive.

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[8] Robert Moffit, 2015, "Most Senior Citizens Haven't Paid for their Medicare and Social Security Benefits," Daily Signal, Heritage Foundation, December 22.

Table 1. Lifetime Taxes and Benefits of Cohort Reaching 65 in 2030

Wage	Single Male		
	Medicare benefits	Medicare taxes	Net Medicare benefits
Low (45% AWI)	$82,000	$51,000	$31,000
Average (100% AWI)	$82,000	$77,000	$5,000
High (160% AWI)	$82,000	$104,000	($22,000)
Maximum taxable wage	$82,000	$186,000	($104,000)

Figure 1 reinforces this point. Note that the present value of expected benefits are less than the estimated contributions for those turning age 65 in 2030 in the top two wage categories. This relationship between contributions and benefits is less pronounced for earlier cohorts because those groups had fewer years of high wage contributions.

Figure 1. Net Lifetime Medicare Benefits for Single Male, by Cohort and Wage Level
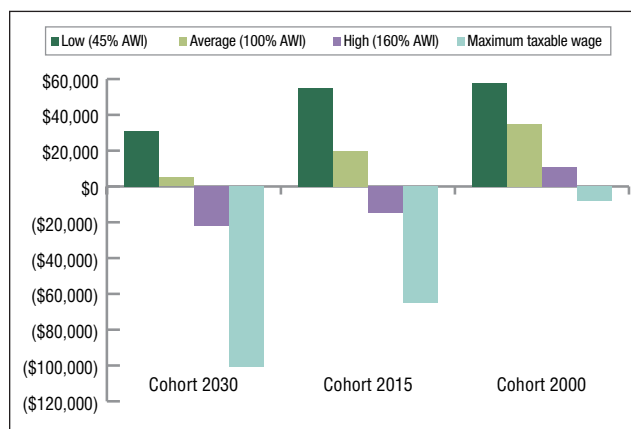
These results indicate that Medicare functions well, fulfilling its intended purpose of subsidizing the benefits of low- and average-wage workers while requiring higher wage workers to pay more into the system than they will draw out. To focus on whether average workers are contributing enough relative to what they get is to distort what Medicare is supposed to do and how it is supposed to work. Average taxpayers don't fully pay for *any* government benefits, which is true in all types of public programs. That said, we can't say whether this

cohort as a whole will pay for itself since we would need to weight the number of people at each wage level and the amount of taxes relative to benefits associated with people at each level. That calculation is something nobody has yet attempted.[9]

Putting the Measure into Context

How much do our results differ from those of others? If we used their assumptions (which we find faulty), our estimates of benefits would be over three times higher. Instead of $82,000 in benefits, the amount would be $300,000, as Table 2 shows. Why? Just taking out benefits from B and D drops the estimated level to $120,000. And the different inflation adjuster accounts for much of the rest of the difference.

More generally, though the measure presented here of lifetime contributions and benefits improves the simulation techniques used, we still question whether this measure is useful as an indicator of whether benefits are appropriate or affordable. The danger is that people will grab one particular finding and use it to "prove" that entitlement reform is necessary. Here again, some policy history sheds light:

1. Medicare programs were never designed to achieve the goal of having each generation pay for itself. Medicare was established as a "pay as you go system" from the start. Widely cited "lifetime contribution vs. benefit calculations" add a new dimension for judging the program.

2. When Medicare was implemented, it was explicitly assumed that rising levels of well-being allowed for some cross-generational redistribution. This was a way for each younger generation to help support earlier ones as the nation's economic well-being increased over time.

3. When Medicare started, it was known that for a long period the system would not be funded well by early generations. For example, people began paying taxes for Medicare in 1965 and in 1966, full benefits were allowed for any eligible person aged 65 and older. Tax rates were initially much lower as well, so those early beneficiaries obviously couldn't fully pay for themselves.

Table 2. Net Medicare Lifetime Benefits by Assumptions, Single Male 2030 Cohort

Assumptions*				Benefits	Net Medicare Benefits (Benefits-Taxes) by Wage			
CPI Medical	CPI Overall	Part A Only	Part A+B+D		Low	Average	High	Max-Taxable
X		X		$82,000	$31,000	$5,000	$(22,000)	$(104,000)
	X	X		$120,000	$69,000	$ 43,000	$16,000	$(66,000)
	X		X	$300,000	$249,000	$223,000	$196,000	$114,000

*Note: Last row of table is comparable to assumptions by Steuerle et al.

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[9] It would be misleading, for example, to assume that using the average worker would serve as a proxy for this statistic since all of the contributions must be weighted appropriately.

4. The program's early stewards explicitly noted that higher tax rates would be needed over time to sustain Part A though tax rates were intentionally kept low in the first few years so the program would not become a drag on the economy. There is nothing magic about the current tax rate of 1.45 percent on both employers and workers that suggests that lifetime contributions should be balanced with lifetime benefits.

5. Medicare was designed to be progressive within each cohort, providing greater than proportional benefits to those with lower incomes and those with periods of time out of the labor force—due, say, to illness or job layoffs. The imbalance between contributions and benefits for these individuals is an *intended* part of the program.

6. Medical inflation higher than the general level of inflation seriously distorts how we view the "generosity" of Medicare and makes it appear that future cohorts are better off than they actually are. Using the standard CPI overstates what the lifetime benefits will be— a distortion that gets worse over time.

In sum, though it may well be useful to weigh and compare lifetime contributions and lifetime benefits, the lessons to be drawn are much less straightforward than often portrayed. Just as Medicare is a large and complex program, no single measure is sufficient to answer the complex questions of whether benefits are "too large" or whether Medicare benefits need to be reduced over time.

ABOUT THE AUTHORS

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