Social Security & Medicare Lifetime Benefits and Taxes: 2021

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Contents

Acknowledgments

Executive Summary

This report presents updated figures in 2021 dollars for the lifetime benefits earned and the lifetime taxes paid by hypothetical workers participating in Social Security and Medicare. For a single male earning average wages every year and retiring in 2020 at age 65, lifetime Social Security and Medicare benefits would equal about $573,000 and, for a couple with one average earner and one low-wage earner, about $1,111,000. Those amounts rise and fall for other hypothetical households as their incomes rise and fall relative to average wages. They also are scheduled to increase significantly for future retirees, as benefits rise with real wages in the case of Social Security, and with higher health care costs and new health services in the case of Medicare. Lifetime Social Security and Medicare taxes are still scheduled to be significantly lower than lifetime Social Security and Medicare benefits for most workers in future decades. This is partly because the Medicare component of the payroll tax was designed to cover hospital costs but not doctor, outpatient, and other services costs (and even those hospital costs are starting to rise well above the revenues required to fund them).

Given the near-term depletion of Social Security (expected in 2034) and Medicare Hospital Insurance trust funds (expected in 2026), these data allow policy makers to visualize how much scheduled lifetime Social Security and health benefits will:

- Increase on a lifetime and annual basis;

- Vary among people with different earnings histories;

- Vary across many decades for different cohorts.

They also make clear that reforms could scale back the rate of growth of benefit increases and still allow lifetime benefits to increase significantly for each cohort of future retirees.

Social Security & Medicare Lifetime Benefits and Taxes: 2021

Social Security and Medicare are central to the federal government's numerous social safety initiatives. About 65 million people received $1.107 trillion in benefits from the Old Age, Survivors, and Disability Insurance program in 2020 (Board of Trustees, Federal Old-Age and Survivors Insurance Trust Funds 2021). In the same year, Medicare paid benefits totaling $916 billion on behalf of 63 million beneficiaries (Board of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds 2021). The two programs have an enormous social and economic impact, particularly in financing vital health care and keeping millions of people out of poverty during their years of retirement.

In this report, we focus on how much hypothetical workers with specific income profiles and belonging to different retirement cohorts receive in lifetime and annual benefits and how much they pay out in lifetime taxes. We discourage people from using our data to draw simplistic conclusions about whether individuals got their "moneys' worth" out of the current system. Social Security and Medicare, after all, operate primarily as pay-as-you-go systems, meaning that most taxes are not invested but simply used to pay benefits for current beneficiaries. In years when the trust funds approach zero, as right before the 1983 reform and now, almost all, all, or more than all current tax collections go out immediately to pay benefits. But, even in years when the baby boom generation was most fully employed and had not yet started retiring, the annual trust fund buildup was only a small percentage of current revenue collections and a tiny fraction of rising liabilities.

Though each generation's taxes go to support the benefits of their parents' and grandparents' generations, this doesn't answer the question of what a new generation of retirees is owed by its own children and grandchildren. If fewer workers are around to support each retiree, then the tax rate from Social Security or other sources on those children and grandchildren must rise relative to what current and past beneficiaries had to pay. Contrasting scheduled lifetime benefits to taxes, however, does offer a systematic way to compare how the system operates across generations and can inform judgments as to whether different cohorts and types of households are treated fairly and efficiently by America's old-age systems. It also reveals how each generation might share in any increased burden from the reduced benefits or increased taxes required to bring those systems into balance and keep them there.

Results and Discussion

The following tables show the expected present value at age 65 of benefits received in retirement and taxes paid over a career for households with different wage and marriage histories. The underlying data come from the 2021 Social Security and Medicare trustees' reports and supplemental data published by the Social Security Administration and Centers for Medicare & Medicaid Services (CMS). In calculating expected present values, we use gender-adjusted probabilities to account for chance of death after age 65 and a discount rate of 2 percent plus inflation. This discount rate is above what is paid by many private annuities today but is close to a long-term real rate of return on bonds. When lifetime Social Security and Medicare benefits exceed lifetime Social Security and Medicare taxes, as is true for most households, the value of benefits from those programs becomes greater than the value of an annuity that the household would have been able to purchase with their lifetime taxes

For Medicare lifetime benefits, we use an alternative 2021 cost scenario from CMS that overrides a "current law" scenario where CMS assumes that Medicare reimbursement rates would decline relative to what private health insurance pays. If Medicare's reimbursement of health providers falls too low, providers might stop accepting Medicare, which could threaten beneficiaries' health and financial security. The CMS alternative scenario that we use effectively assumes that policymakers would act to prevent this from happening, as they have done in the past.

Changes from the last analysis we performed in 2020 are modest; the largest adjustment derives from presenting results in 2021 versus 2018 dollars. Other changes derive from updated mortality figures and one more year of historic data on the growth in average earnings and inflation. As expected, we project that both lifetime benefits and taxes continue to increase for future workers and retirees, with differences in lifetime benefits and taxes among households at different levels of income identified in each table. Benefit growth rates have stagnated a bit recently because of modest earnings growth and because of the scheduled increase in the full retirement age that phases in for cohorts reaching age 62 between 2000 and 2022.

The numbers presented are averages for hypothetical workers with specific work histories and longevity characteristics. Lifetime benefits and taxes experienced by specific households in the economy will vary based on several factors, including earnings patterns, health, and choices about marriage, divorce, children, and retirement. The greater average expected lifetime benefits of women compared with men with the same earnings profile stem from longer life expectancies for women.

Real lifetime benefits grow more generous over time as real wages grow, people live longer, and real health costs increase. Many single adults with average earnings retiring in 2020 will receive well

over $500,000 in lifetime benefits (table 2). A couple with one earner at average wages and one at low wages will receive roughly $1.1 million in lifetime benefits (table 14). While Social Security annual benefits have grown over time as wages have risen, lifetime Social Security and Medicare benefits reach this level largely because an average individual retiring in 2020 is projected to live close to two decades at age 65 (over four years longer than an individual retiring in 1960. The longer-living spouse of a couple, both aged 65, will live close to three decades The growth in health benefits per household derives from both more years of benefits as individuals live longer and increases in the levels of services and goods provided over time and their related costs.

Under scheduled law, millennials who retire around 2060 are scheduled to receive nearly twice the benefits of baby boomers retiring in 2020: $1.1 million for an average income single male (table 2), $1.2 million for an average income single female (table 6), and $2.2 million for a two-earner couple where one spouse has average and one low earnings (table 14). While fiscal imbalances in Social Security, Medicare, and the rest of the federal budget may make this schedule of benefits hard to maintain, the numbers reveal substantial room for reformers to provide higher real levels of benefits over time even if they pare down the growth rate in benefits.

Lifetime benefits scheduled for some high-income couples by 2060 can exceed $2.6 million (table 16). In addition, those estimates in the tables are probably low given the simplifying assumptions of a similar mortality rate for all men, and, separately, for all women in given cohorts. After all, mortality rates tend to fall as income rises (Isaacs et al 2021; Waldron 2007, 2013). By the same token, the estimates for lower-income earners are probably too high. Unfortunately, we do not have enough data to adjust for mortality by income for the hundred years of cohorts in these tables. However, researchers at the Urban Institute did conduct a related study to try to get a sense of the effect of mortality on benefit levels (Steuerle, Cosic, and Quakenbush 2019). See the discussion in the Appendix.

As for lifetime Social Security taxes, they, too are rising in real terms; lifetime Social Security taxes recently have started to exceed benefits for some households at higher income levels. Lifetime Medicare benefits at all income levels, however, are still far in excess of anything that could be covered by the Medicare or Hospital (HI) tax component of the payroll tax for all the household examples in this study. At very high income levels, an extra 0.9 percent Medicare tax and a higher premium in retirement could lead a few to pay in more tax than they receive in benefits.

Because existing revenue shortfalls in Social Security and Medicare must be covered somehow, these tables allow reformers to compare the extent to which benefit and revenue changes within those programs might be allocated across generations and among different income groups.

Tables

TABLE 1

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Single male with low earnings ($26,600 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	7,400	90,000	17,000	107,000	10,000	0	10,000
1965	7,700	99,000	31,000	130,000	16,000	0	16,000
1970	8,500	112,000	43,000	155,000	24,000	1,000	25,000
1975	10,000	125,000	58,000	183,000	35,000	2,000	37,000
1980	10,900	146,000	74,000	220,000	47,000	5,000	52,000
1985	10,300	137,000	93,000	230,000	59,000	7,000	66,000
1990	10,200	143,000	113,000	256,000	73,000	11,000	84,000
1995	10,900	155,000	134,000	289,000	88,000	15,000	103,000
2000	11,100	164,000	154,000	318,000	102,000	20,000	122,000
2005	12,300	187,000	176,000	363,000	117,000	25,000	142,000
2010	12,800	191,000	191,000	382,000	128,000	31,000	159,000
2015	12,700	191,000	210,000	401,000	136,000	35,000	171,000
2020	13,100	203,000	238,000	441,000	143,000	39,000	182,000
2025	13,000	207,000	274,000	481,000	153,000	42,000	195,000
2030	14,100	227,000	311,000	538,000	163,000	45,000	208,000
2035	14,900	245,000	350,000	595,000	171,000	47,000	218,000
2040	15,900	263,000	390,000	653,000	181,000	50,000	231,000
2045	16,800	282,000	430,000	712,000	190,000	53,000	243,000
2050	17,800	302,000	473,000	775,000	201,000	56,000	257,000
2055	18,700	322,000	520,000	842,000	214,000	59,000	273,000
2060	19,800	343,000	573,000	916,000	229,000	63,000	292,000

Source: Authors' calculations.
Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 2

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Single male with average earnings ($59,100 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	11,200	136,000	17,000	153,000	21,000	0	21,000
1965	11,800	151,000	31,000	182,000	35,000	0	35,000
1970	13,400	175,000	43,000	218,000	54,000	2,000	56,000
1975	16,000	201,000	58,000	259,000	78,000	5,000	83,000
1980	18,100	243,000	74,000	317,000	105,000	10,000	115,000
1985	17,100	226,000	93,000	319,000	131,000	16,000	147,000
1990	16,900	236,000	113,000	349,000	162,000	24,000	186,000
1995	18,000	255,000	134,000	389,000	196,000	33,000	229,000
2000	18,300	271,000	154,000	425,000	228,000	44,000	272,000
2005	20,200	308,000	176,000	484,000	259,000	56,000	315,000
2010	21,100	315,000	191,000	506,000	284,000	69,000	353,000
2015	21,000	316,000	210,000	526,000	303,000	78,000	381,000
2020	21,700	335,000	238,000	573,000	319,000	86,000	405,000
2025	21,400	341,000	274,000	615,000	341,000	93,000	434,000
2030	23,200	375,000	311,000	686,000	362,000	99,000	461,000
2035	24,700	404,000	350,000	754,000	380,000	105,000	485,000
2040	26,200	434,000	390,000	824,000	402,000	111,000	513,000
2045	27,800	466,000	430,000	896,000	423,000	117,000	540,000
2050	29,300	498,000	473,000	971,000	446,000	124,000	570,000
2055	30,900	531,000	520,000	1,051,000	476,000	131,000	607,000
2060	32,700	567,000	573,000	1,140,000	509,000	140,000	649,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 3

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Single male with high earnings ($94,600 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	12,500	151,000	17,000	168,000	28,000	0	28,000
1965	13,000	166,000	31,000	197,000	44,000	0	44,000
1970	15,100	198,000	43,000	241,000	68,000	2,000	70,000
1975	18,800	235,000	58,000	293,000	100,000	7,000	107,000
1980	22,700	304,000	74,000	378,000	141,000	15,000	156,000
1985	21,400	283,000	93,000	376,000	179,000	25,000	204,000
1990	21,400	299,000	113,000	412,000	226,000	37,000	263,000
1995	23,100	327,000	134,000	461,000	280,000	52,000	332,000
2000	23,700	352,000	154,000	506,000	333,000	68,000	401,000
2005	26,600	405,000	176,000	581,000	389,000	87,000	476,000
2010	27,900	417,000	191,000	608,000	440,000	108,000	548,000
2015	27,800	418,000	210,000	628,000	480,000	124,000	604,000
2020	28,700	444,000	238,000	682,000	510,000	137,000	647,000
2025	28,300	451,000	274,000	725,000	545,000	149,000	694,000
2030	30,700	496,000	311,000	807,000	579,000	159,000	738,000
2035	32,600	533,000	350,000	883,000	607,000	167,000	774,000
2040	34,600	574,000	390,000	964,000	643,000	178,000	821,000
2045	36,700	616,000	430,000	1,046,000	677,000	188,000	865,000
2050	38,800	658,000	473,000	1,131,000	714,000	199,000	913,000
2055	40,900	702,000	520,000	1,222,000	761,000	213,000	974,000
2060	43,200	749,000	573,000	1,322,000	815,000	230,000	1,045,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 4
Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Single male with maximum taxable earnings ($142,800 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	12,500	151,000	17,000	168,000	32,000	0	32,000
1965	13,000	166,000	31,000	197,000	48,000	0	48,000
1970	15,100	198,000	43,000	241,000	72,000	2,000	74,000
1975	18,800	235,000	58,000	293,000	105,000	7,000	112,000
1980	23,100	309,000	74,000	383,000	149,000	15,000	164,000
1985	22,300	296,000	93,000	389,000	196,000	28,000	224,000
1990	22,900	319,000	113,000	432,000	262,000	47,000	309,000
1995	25,200	357,000	134,000	491,000	340,000	68,000	408,000
2000	26,600	394,000	154,000	548,000	421,000	91,000	512,000
2005	30,600	466,000	176,000	642,000	510,000	120,000	630,000
2010	32,900	492,000	191,000	683,000	599,000	151,000	750,000
2015	33,600	505,000	210,000	715,000	680,000	179,000	859,000
2020	34,900	540,000	238,000	778,000	756,000	204,000	960,000
2025	34,500	550,000	274,000	824,000	831,000	227,000	1,058,000
2030	37,500	606,000	311,000	917,000	888,000	244,000	1,132,000
2035	39,900	653,000	350,000	1,003,000	935,000	258,000	1,193,000
2040	42,400	702,000	390,000	1,092,000	989,000	276,000	1,265,000
2045	45,000	754,000	430,000	1,184,000	1,046,000	296,000	1,342,000
2050	47,400	805,000	473,000	1,278,000	1,103,000	316,000	1,419,000
2055	49,900	857,000	520,000	1,377,000	1,172,000	341,000	1,513,000
2060	52,700	914,000	573,000	1,487,000	1,254,000	370,000	1,624,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 5

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Single female with low earnings ($26,600 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	7,500	116,000	26,000	142,000	10,000	0	10,000
1965	7,900	131,000	45,000	176,000	16,000	0	16,000
1970	8,700	147,000	61,000	208,000	24,000	1,000	25,000
1975	10,300	162,000	79,000	241,000	35,000	2,000	37,000
1980	10,900	180,000	97,000	277,000	47,000	5,000	52,000
1985	10,300	164,000	116,000	280,000	59,000	7,000	66,000
1990	10,200	167,000	136,000	303,000	73,000	11,000	84,000
1995	10,900	178,000	157,000	335,000	88,000	15,000	103,000
2000	11,100	185,000	177,000	362,000	102,000	20,000	122,000
2005	12,300	209,000	199,000	408,000	117,000	25,000	142,000
2010	12,800	213,000	217,000	430,000	128,000	31,000	159,000
2015	12,700	213,000	240,000	453,000	136,000	35,000	171,000
2020	13,100	226,000	272,000	498,000	143,000	39,000	182,000
2025	13,000	229,000	310,000	539,000	153,000	42,000	195,000
2030	14,100	251,000	351,000	602,000	163,000	45,000	208,000
2035	14,900	270,000	392,000	662,000	171,000	47,000	218,000
2040	15,900	289,000	435,000	724,000	181,000	50,000	231,000
2045	16,800	310,000	478,000	788,000	190,000	53,000	243,000
2050	17,800	330,000	525,000	855,000	201,000	56,000	257,000
2055	18,700	351,000	576,000	927,000	214,000	59,000	273,000
2060	19,800	373,000	632,000	1,005,000	229,000	63,000	292,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 6

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Single female with average earnings ($59,100 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	11,400	176,000	26,000	202,000	21,000	0	21,000
1965	12,200	202,000	45,000	247,000	35,000	0	35,000
1970	13,800	233,000	61,000	294,000	54,000	2,000	56,000
1975	16,600	262,000	79,000	341,000	78,000	5,000	83,000
1980	18,100	299,000	97,000	396,000	105,000	10,000	115,000
1985	17,100	270,000	116,000	386,000	131,000	16,000	147,000
1990	16,900	276,000	136,000	412,000	162,000	24,000	186,000
1995	18,000	293,000	157,000	450,000	196,000	33,000	229,000
2000	18,300	305,000	177,000	482,000	228,000	44,000	272,000
2005	20,200	344,000	199,000	543,000	259,000	56,000	315,000
2010	21,100	351,000	217,000	568,000	284,000	69,000	353,000
2015	21,000	352,000	240,000	592,000	303,000	78,000	381,000
2020	21,700	374,000	272,000	646,000	319,000	86,000	405,000
2025	21,400	379,000	310,000	689,000	341,000	93,000	434,000
2030	23,200	414,000	351,000	765,000	362,000	99,000	461,000
2035	24,700	445,000	392,000	837,000	380,000	105,000	485,000
2040	26,200	477,000	435,000	912,000	402,000	111,000	513,000
2045	27,800	511,000	478,000	989,000	423,000	117,000	540,000
2050	29,300	544,000	525,000	1,069,000	446,000	124,000	570,000
2055	30,900	579,000	576,000	1,155,000	476,000	131,000	607,000
2060	32,700	616,000	632,000	1,248,000	509,000	140,000	649,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 7

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Single female with high earnings ($94,600 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	12,700	197,000	26,000	223,000	28,000	0	28,000
1965	13,400	221,000	45,000	266,000	44,000	0	44,000
1970	15,700	265,000	61,000	326,000	68,000	2,000	70,000
1975	19,700	312,000	79,000	391,000	100,000	7,000	107,000
1980	22,700	374,000	97,000	471,000	141,000	15,000	156,000
1985	21,400	339,000	116,000	455,000	179,000	25,000	204,000
1990	21,400	350,000	136,000	486,000	226,000	37,000	263,000
1995	23,100	375,000	157,000	532,000	280,000	52,000	332,000
2000	23,700	396,000	177,000	573,000	333,000	68,000	401,000
2005	26,600	453,000	199,000	652,000	389,000	87,000	476,000
2010	27,900	464,000	217,000	681,000	440,000	108,000	548,000
2015	27,800	466,000	240,000	706,000	480,000	124,000	604,000
2020	28,700	495,000	272,000	767,000	510,000	137,000	647,000
2025	28,300	500,000	310,000	810,000	545,000	149,000	694,000
2030	30,700	548,000	351,000	899,000	579,000	159,000	738,000
2035	32,600	588,000	392,000	980,000	607,000	167,000	774,000
2040	34,600	631,000	435,000	1,066,000	643,000	178,000	821,000
2045	36,700	675,000	478,000	1,153,000	677,000	188,000	865,000
2050	38,800	719,000	525,000	1,244,000	714,000	199,000	913,000
2055	40,900	765,000	576,000	1,341,000	761,000	213,000	974,000
2060	43,200	815,000	632,000	1,447,000	815,000	230,000	1,045,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 8

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Single female with maximum taxable earnings ($142,800 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	12,700	197,000	26,000	223,000	32,000	0	32,000
1965	13,400	221,000	45,000	266,000	48,000	0	48,000
1970	15,700	265,000	61,000	326,000	72,000	2,000	74,000
1975	19,800	312,000	79,000	391,000	105,000	7,000	112,000
1980	23,100	380,000	97,000	477,000	149,000	15,000	164,000
1985	22,300	354,000	116,000	470,000	196,000	28,000	224,000
1990	22,900	374,000	136,000	510,000	262,000	47,000	309,000
1995	25,200	410,000	157,000	567,000	340,000	68,000	408,000
2000	26,600	444,000	177,000	621,000	421,000	91,000	512,000
2005	30,600	521,000	199,000	720,000	510,000	120,000	630,000
2010	32,900	548,000	217,000	765,000	599,000	151,000	750,000
2015	33,600	563,000	240,000	803,000	680,000	179,000	859,000
2020	34,900	602,000	272,000	874,000	756,000	204,000	960,000
2025	34,500	610,000	310,000	920,000	831,000	227,000	1,058,000
2030	37,500	670,000	351,000	1,021,000	888,000	244,000	1,132,000
2035	39,900	720,000	392,000	1,112,000	935,000	258,000	1,193,000
2040	42,400	772,000	435,000	1,207,000	989,000	276,000	1,265,000
2045	45,000	827,000	478,000	1,305,000	1,046,000	296,000	1,342,000
2050	47,400	879,000	525,000	1,404,000	1,103,000	316,000	1,419,000
2055	49,900	934,000	576,000	1,510,000	1,172,000	341,000	1,513,000
2060	52,700	994,000	632,000	1,626,000	1,254,000	370,000	1,624,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 9

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Married one-earner couple with low earnings ($26,600 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	11,100	167,000	43,000	210,000	10,000	0	10,000
1965	11,600	187,000	75,000	262,000	16,000	0	16,000
1970	12,800	211,000	105,000	316,000	24,000	1,000	25,000
1975	15,000	231,000	137,000	368,000	35,000	2,000	37,000
1980	16,400	267,000	171,000	438,000	47,000	5,000	52,000
1985	15,500	245,000	209,000	454,000	59,000	7,000	66,000
1990	15,300	253,000	249,000	502,000	73,000	11,000	84,000
1995	16,400	270,000	291,000	561,000	88,000	15,000	103,000
2000	16,600	283,000	331,000	614,000	102,000	20,000	122,000
2005	18,400	320,000	375,000	695,000	117,000	25,000	142,000
2010	19,200	325,000	408,000	733,000	128,000	31,000	159,000
2015	19,100	326,000	450,000	776,000	136,000	35,000	171,000
2020	19,700	346,000	510,000	856,000	143,000	39,000	182,000
2025	19,500	351,000	583,000	934,000	153,000	42,000	195,000
2030	21,100	384,000	662,000	1,046,000	163,000	45,000	208,000
2035	22,400	413,000	742,000	1,155,000	171,000	47,000	218,000
2040	23,800	443,000	824,000	1,267,000	181,000	50,000	231,000
2045	25,300	474,000	908,000	1,382,000	190,000	53,000	243,000
2050	26,700	505,000	998,000	1,503,000	201,000	56,000	257,000
2055	28,100	538,000	1,096,000	1,634,000	214,000	59,000	273,000
2060	29,700	573,000	1,205,000	1,778,000	229,000	63,000	292,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 10

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Married one-earner couple with average earnings ($59,100 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	16,800	252,000	43,000	295,000	21,000	0	21,000
1965	17,800	286,000	75,000	361,000	35,000	0	35,000
1970	20,100	330,000	105,000	435,000	54,000	2,000	56,000
1975	24,000	372,000	137,000	509,000	78,000	5,000	83,000
1980	27,200	444,000	171,000	615,000	105,000	10,000	115,000
1985	25,600	405,000	209,000	614,000	131,000	16,000	147,000
1990	25,300	417,000	249,000	666,000	162,000	24,000	186,000
1995	27,000	446,000	291,000	737,000	196,000	33,000	229,000
2000	27,500	467,000	331,000	798,000	228,000	44,000	272,000
2005	30,300	527,000	375,000	902,000	259,000	56,000	315,000
2010	31,600	537,000	408,000	945,000	284,000	69,000	353,000
2015	31,500	539,000	450,000	989,000	303,000	78,000	381,000
2020	32,500	571,000	510,000	1,081,000	319,000	86,000	405,000
2025	32,100	579,000	583,000	1,162,000	341,000	93,000	434,000
2030	34,800	634,000	662,000	1,296,000	362,000	99,000	461,000
2035	37,000	681,000	742,000	1,423,000	380,000	105,000	485,000
2040	39,300	731,000	824,000	1,555,000	402,000	111,000	513,000
2045	41,700	783,000	908,000	1,691,000	423,000	117,000	540,000
2050	44,000	834,000	998,000	1,832,000	446,000	124,000	570,000
2055	46,400	888,000	1,096,000	1,984,000	476,000	131,000	607,000
2060	49,000	946,000	1,205,000	2,151,000	509,000	140,000	649,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 11

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Married one-earner couple with high earnings ($94,600 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	18,700	281,000	43,000	324,000	28,000	0	28,000
1965	19,500	314,000	75,000	389,000	44,000	0	44,000
1970	22,700	373,000	105,000	478,000	68,000	2,000	70,000
1975	28,100	435,000	137,000	572,000	100,000	7,000	107,000
1980	34,000	555,000	171,000	726,000	141,000	15,000	156,000
1985	32,100	508,000	209,000	717,000	179,000	25,000	204,000
1990	32,100	529,000	249,000	778,000	226,000	37,000	263,000
1995	34,600	570,000	291,000	861,000	280,000	52,000	332,000
2000	35,600	605,000	331,000	936,000	333,000	68,000	401,000
2005	39,900	694,000	375,000	1,069,000	389,000	87,000	476,000
2010	41,800	711,000	408,000	1,119,000	440,000	108,000	548,000
2015	41,700	713,000	450,000	1,163,000	480,000	124,000	604,000
2020	43,000	756,000	510,000	1,266,000	510,000	137,000	647,000
2025	42,400	765,000	583,000	1,348,000	545,000	149,000	694,000
2030	46,000	839,000	662,000	1,501,000	579,000	159,000	738,000
2035	48,900	900,000	742,000	1,642,000	607,000	167,000	774,000
2040	51,900	966,000	824,000	1,790,000	643,000	178,000	821,000
2045	55,100	1,035,000	908,000	1,943,000	677,000	187,000	864,000
2050	58,200	1,103,000	998,000	2,101,000	714,000	198,000	912,000
2055	61,300	1,174,000	1,096,000	2,270,000	761,000	211,000	972,000
2060	64,800	1,250,000	1,205,000	2,455,000	815,000	226,000	1,041,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 12
Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Married one-earner couple with maximum taxable earnings ($142,800 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	18,700	281,000	43,000	324,000	32,000	0	32,000
1965	19,500	314,000	75,000	389,000	48,000	0	48,000
1970	22,700	373,000	105,000	478,000	72,000	2,000	74,000
1975	28,200	436,000	137,000	573,000	105,000	7,000	112,000
1980	34,600	564,000	171,000	735,000	149,000	15,000	164,000
1985	33,500	530,000	209,000	739,000	196,000	28,000	224,000
1990	34,300	565,000	249,000	814,000	262,000	47,000	309,000
1995	37,800	623,000	291,000	914,000	340,000	68,000	408,000
2000	39,900	679,000	331,000	1,010,000	421,000	91,000	512,000
2005	45,900	797,000	375,000	1,172,000	510,000	120,000	630,000
2010	49,400	839,000	408,000	1,247,000	599,000	151,000	750,000
2015	50,300	861,000	450,000	1,311,000	680,000	179,000	859,000
2020	52,400	921,000	510,000	1,431,000	756,000	204,000	960,000
2025	51,800	933,000	583,000	1,516,000	831,000	227,000	1,058,000
2030	56,300	1,025,000	662,000	1,687,000	888,000	244,000	1,132,000
2035	59,800	1,102,000	742,000	1,844,000	935,000	258,000	1,193,000
2040	63,500	1,182,000	824,000	2,006,000	989,000	274,000	1,263,000
2045	67,400	1,267,000	908,000	2,175,000	1,046,000	292,000	1,338,000
2050	71,100	1,348,000	998,000	2,346,000	1,103,000	311,000	1,414,000
2055	74,900	1,433,000	1,096,000	2,529,000	1,172,000	333,000	1,505,000
2060	79,100	1,525,000	1,205,000	2,730,000	1,254,000	361,000	1,615,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 13

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Married couple with two low earners ($53,200 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	14,900	203,000	43,000	246,000	19,000	0	19,000
1965	15,600	228,000	75,000	303,000	32,000	0	32,000
1970	17,300	260,000	105,000	365,000	48,000	2,000	50,000
1975	20,300	287,000	137,000	424,000	70,000	5,000	75,000
1980	21,800	326,000	171,000	497,000	95,000	9,000	104,000
1985	20,700	300,000	209,000	509,000	118,000	15,000	133,000
1990	20,400	310,000	249,000	559,000	146,000	22,000	168,000
1995	21,800	333,000	291,000	624,000	176,000	30,000	206,000
2000	22,200	349,000	331,000	680,000	205,000	40,000	245,000
2005	24,500	396,000	375,000	771,000	233,000	50,000	283,000
2010	25,500	403,000	408,000	811,000	256,000	62,000	318,000
2015	25,400	405,000	450,000	855,000	273,000	70,000	343,000
2020	26,300	430,000	510,000	940,000	287,000	77,000	364,000
2025	25,900	436,000	583,000	1,019,000	307,000	84,000	391,000
2030	28,100	478,000	662,000	1,140,000	326,000	89,000	415,000
2035	29,900	514,000	742,000	1,256,000	342,000	94,000	436,000
2040	31,700	552,000	824,000	1,376,000	362,000	100,000	462,000
2045	33,700	592,000	908,000	1,500,000	381,000	105,000	486,000
2050	35,500	631,000	998,000	1,629,000	402,000	111,000	513,000
2055	37,500	672,000	1,096,000	1,768,000	428,000	118,000	546,000
2060	39,600	717,000	1,205,000	1,922,000	458,000	126,000	584,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 14

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Married couple with one average earner and one low earner ($85,700 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	18,700	269,000	43,000	312,000	31,000	0	31,000
1965	19,700	305,000	75,000	380,000	51,000	0	51,000
1970	22,100	351,000	105,000	456,000	78,000	3,000	81,000
1975	26,300	395,000	137,000	532,000	113,000	8,000	121,000
1980	29,100	464,000	171,000	635,000	152,000	15,000	167,000
1985	27,400	424,000	209,000	633,000	190,000	24,000	214,000
1990	27,100	437,000	249,000	686,000	234,000	35,000	269,000
1995	28,900	468,000	291,000	759,000	284,000	48,000	332,000
2000	29,400	490,000	331,000	821,000	330,000	64,000	394,000
2005	32,500	554,000	375,000	929,000	376,000	81,000	457,000
2010	33,900	565,000	408,000	973,000	412,000	100,000	512,000
2015	33,700	566,000	450,000	1,016,000	439,000	113,000	552,000
2020	34,800	601,000	510,000	1,111,000	462,000	124,000	586,000
2025	34,400	609,000	583,000	1,192,000	494,000	135,000	629,000
2030	37,300	667,000	662,000	1,329,000	525,000	144,000	669,000
2035	39,600	717,000	742,000	1,459,000	550,000	152,000	702,000
2040	42,100	769,000	824,000	1,593,000	583,000	161,000	744,000
2045	44,600	824,000	908,000	1,732,000	613,000	170,000	783,000
2050	47,100	878,000	998,000	1,876,000	647,000	179,000	826,000
2055	49,700	934,000	1,096,000	2,030,000	690,000	190,000	880,000
2060	52,500	996,000	1,205,000	2,201,000	739,000	204,000	943,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 15

Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Married couple with two average earners ($118,200 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	22,600	306,000	43,000	349,000	43,000	0	43,000
1965	24,000	352,000	75,000	427,000	71,000	0	71,000
1970	27,200	409,000	105,000	514,000	108,000	4,000	112,000
1975	32,600	464,000	137,000	601,000	156,000	11,000	167,000
1980	36,300	542,000	171,000	713,000	210,000	20,000	230,000
1985	34,100	496,000	209,000	705,000	262,000	33,000	295,000
1990	33,800	512,000	249,000	761,000	323,000	49,000	372,000
1995	36,000	549,000	291,000	840,000	391,000	67,000	458,000
2000	36,600	577,000	331,000	908,000	455,000	88,000	543,000
2005	40,400	652,000	375,000	1,027,000	519,000	112,000	631,000
2010	42,200	666,000	408,000	1,074,000	568,000	138,000	706,000
2015	42,000	668,000	450,000	1,118,000	606,000	156,000	762,000
2020	43,300	709,000	510,000	1,219,000	637,000	171,000	808,000
2025	42,800	720,000	583,000	1,303,000	681,000	186,000	867,000
2030	46,400	789,000	662,000	1,451,000	724,000	198,000	922,000
2035	49,300	848,000	742,000	1,590,000	759,000	209,000	968,000
2040	52,400	911,000	824,000	1,735,000	804,000	222,000	1,026,000
2045	55,600	977,000	908,000	1,885,000	846,000	234,000	1,080,000
2050	58,600	1,041,000	998,000	2,039,000	893,000	249,000	1,142,000
2055	61,900	1,109,000	1,096,000	2,205,000	951,000	266,000	1,217,000
2060	65,300	1,183,000	1,205,000	2,388,000	1,019,000	288,000	1,307,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

TABLE 16
Expected Present Value of Lifetime Social Security and Medicare Benefits and Taxes

Married couple with one high earner and one average earner ($153,700 in 2021 dollars)

Year cohort turns age 65	First year Social Security benefit	Lifetime Benefits			Lifetime Taxes		
		Social Security	Medicare net of premiums	Total	Social Security	Medicare	Total
1960	23,800	327,000	43,000	370,000	50,000	0	50,000
1965	25,200	371,000	75,000	446,000	80,000	0	80,000
1970	29,000	439,000	105,000	544,000	122,000	4,000	126,000
1975	35,300	509,000	137,000	646,000	178,000	12,000	190,000
1980	40,800	629,000	171,000	800,000	246,000	25,000	271,000
1985	38,500	576,000	209,000	785,000	310,000	41,000	351,000
1990	38,300	598,000	249,000	847,000	388,000	62,000	450,000
1995	41,100	644,000	291,000	935,000	475,000	85,000	560,000
2000	42,100	683,000	331,000	1,014,000	561,000	112,000	673,000
2005	46,800	779,000	375,000	1,154,000	648,000	144,000	792,000
2010	49,000	798,000	408,000	1,206,000	724,000	177,000	901,000
2015	48,800	800,000	450,000	1,250,000	783,000	203,000	986,000
2020	50,400	849,000	510,000	1,359,000	828,000	223,000	1,051,000
2025	49,700	861,000	583,000	1,444,000	886,000	242,000	1,128,000
2030	53,900	944,000	662,000	1,606,000	941,000	258,000	1,199,000
2035	57,300	1,014,000	742,000	1,756,000	987,000	272,000	1,259,000
2040	60,800	1,088,000	824,000	1,912,000	1,045,000	290,000	1,335,000
2045	64,500	1,166,000	908,000	2,074,000	1,100,000	308,000	1,408,000
2050	68,100	1,243,000	998,000	2,241,000	1,161,000	329,000	1,490,000
2055	71,800	1,324,000	1,096,000	2,420,000	1,236,000	357,000	1,593,000
2060	75,900	1,411,000	1,205,000	2,616,000	1,324,000	389,000	1,713,000

Source: Authors' calculations.

Notes: The calculations assume scheduled benefits are paid after trust fund assets are depleted.

Appendix

Basic Data and Assumptions

Data

Program rules, economic projections, and mortality assumptions are taken from the 2021 annual reports of the Social Security and Medicare trustees and from supplemental data provided in the Social Security Bulletin and the Centers for Medicare & Medicaid Services actuaries. Our assumptions come from the intermediate scenarios provided in the trustees' report, except for Medicare benefits as described below.

Work and Earnings Histories

Following Social Security's use of hypothetical workers, individuals start working at age 22 and work continuously until they retire on their 65th birthdays. Their wage levels are set according to the Social Security Administration's national average wage index.[1] An average worker earns the average wages of all workers as adjusted annually by the national wage index in every year of work, while low-earning workers earn 45 percent of the index and high-earning workers earn 160 percent of the index each year. A maximum taxable worker earns the maximum taxable wage for Social Security taxes every year.[2] The national average wage index was estimated as $59,100 in 2021. Each hypothetical worker stays at the same earnings level relative to the index in each year, except for the worker earning the maximum taxable wage, which, although indexed currently, has also changed with legislation.

We use the Social Security definition of average wage because of its common use as a standard in many Social Security publications. Many workers have varied labor force participation over their careers, and the average wage is calculated only for people who have earnings that year. Because many individuals have some years with zero earnings because of childcare, unemployment or other circumstances, they would have lower average lifetime earnings than the person who earned the average wage every year.

We examined this phenomenon in a recent report (Steuerle, Cosic, and Quakenbush, 2019) using the DYNASIM microsimulation model that allowed us to examine the distribution of taxes and benefits

for the population. Unfortunately, we have no reliable historical and projected data to perform that type of analysis over long periods such as the hundred years included in this report. Accordingly, hypothetical households remain most useful for making like-to-like and easy-to-understand comparisons of people in similar circumstances over a large part of history and scheduled future. A comparison of results from these two methods in that 2019 report showed that the largest impact of assuming a constant work history and retirement was to overstate lifetime taxes paid but only modestly overstate lifetime benefits. These differences reflect the fact that Social Security only counts 35 years of earnings in determining retired worker benefits. Furthermore, spousal and survivor benefits are add-ons that require no earnings or taxes by those spouses nor reduction in annual benefit by the worker on whose earnings those additional benefits are determined. For presentational purposes, therefore, we often suggest that users of this report use the couple with one average earner and one low earner as roughly representing lifetime benefits for some typical average couple.

Marriage

Spouses in the calculations for couples are assumed to be the same age and marry at age 24. Couples are married continuously throughout their careers and retirement. Therefore, no divorce benefits are included in the calculation of lifetime benefits. Since real-life spouses often differ by age, our projections of total years of benefit for the same-aged couple will generally be lower than the total years of benefits for couples of different ages. For the same reason, we also modestly understate the years of survivorship and availability of survivor benefits. We also include no child benefits in these calculations.

Mortality

All individuals are assumed to live to age 65. After age 65, we apply sex-adjusted mortality probabilities to retirees receiving benefits to arrive at expected values of benefits received. These values come from cohort life tables provided by the Social Security Administration to the Urban Institute and used in the 2021 trustees report. They do not include adjustments for income or other factors (e.g., a female worker with high lifetime earnings is assumed to have the same life expectancy as a female worker with low lifetime earnings). Because women on average have longer life expectancies than men, expected lifetime benefits for women are higher than for men with identical earnings histories.

Discount Rates

The model applies a 2 percent real (inflation-adjusted) discount rate for both benefits and taxes. Assuming a higher discount rate would lead to estimates of higher lifetime taxes and lower lifetime benefits, while a lower discount rate would lead to lower lifetime taxes and higher lifetime benefits. We use the Social Security Administration's historical and projected series for the consumer price index for urban wage earners and clerical workers to adjust all numbers for inflation.

Calculating Lifetime Taxes

Included Taxes

Workers pay payroll taxes every year they earn wages. Calculated lifetime taxes include contributions for the retirement portion of Social Security (OASI) and for the Hospital Insurance (HI) portion of Medicare, also known as Part A. Medicare taxes also include the 0.9 percent "surtax" paid by individual workers earning $200,000 or more and married couples earning more than $250,000 combined that took effect in 2013. Those minimum earnings levels are not adjusted for inflation and only a few high earners in the distant future pay the surtax at the earnings levels examined in our study.

By statute, the payroll tax, except for the HI surtax, is split evenly between workers and employers, with each paying 5.3 percent for the OASI tax and 1.45 percent for the HI tax (tax rates varied before 2019).[3] These two taxes comprise most of the 7.65 percent OASDHI tax usually referred to as the Social Security tax, but exclude the 0.9 percent disability (DI) portion. However, a standard economic assumption is that in the long run, employers pass the employer portion of this payroll tax onto workers by slowing wage growth or offering fewer fringe benefits. Therefore, we assume that workers pay both the employer and employee shares of the payroll tax.

We do not adjust for the temporary provision in the Tax Cuts and Jobs Act of 2017 for a 20 percent deduction for the income of individuals arising from income from "pass-through" arrangements as partnerships, self-employment, and Subchapter S corporations, since it was designed as a deduction only against income, not Social Security taxes.

Excluded Taxes

We exclude Disability Insurance payroll taxes because our model includes no calculation of Disability Insurance benefits. We also exclude the partial income taxation of Social Security benefits, as this would require additional assumptions about people's non–Social Security income after age 65. Also, this income mingles with other income subject to tax. While the Treasury formally makes transfers to the Social Security trust fund on the liberal assumption that this income gets stacked last at the marginal (not average) tax rate, such an assumption for all government programs would lead to a substantial overstatement of the total tax paid by individuals for all government services and benefits received.

For related reasons, such as how to determine who eventually pays for Social Security and non–Social Security debt, we exclude both transfers from the general fund used to finance non-HI Medicare benefits and any shortfalls in trust fund obligations. Our examples only extend to the maximum per-worker Social Security taxable earnings level ($142,800 in 2021); workers with earnings above that level pay additional HI tax with no corresponding increase in benefits.

Calculating Expected Lifetime Benefits

Social Security Benefits

The model calculates a first-year Social Security benefit based on rules in effect for a cohort at the time of retirement. Since all workers are assumed to retire at age 65, retirees born after 1937 and turning 65 in 2002 receive a phased-in reduction in annual benefits for retiring before the full retirement age. The choice of age 65 as the age of retirement has only a modest effect on the calculation of lifetime benefits for each cohort. That is, the annual penalty reduction for early retirement is designed to be roughly actuarially neutral, so this has only a small effect on lifetime benefits (i.e., the reduction for early retirement roughly offsets the gain from collecting benefits for additional years). In years after age 65, benefits are increased by the cost-of-living adjustment assumed in the Social Security trustees' reports and discounted back to age 65 using the 2 percent real discount rate.

Medicare Benefits

To calculate annual Medicare benefits, the model uses average Medicare expenditures per Medicare enrollee for both HI and Supplemental Medical Insurance (Parts A, B, and D). As with Social Security

lifetime benefits, the stream of Medicare benefits is adjusted for probability of dying each year after age 65 and discounted using the 2 percent real rate back to age 65.

In reality, the distribution of both annual and lifetime Medicare expenditures is highly uneven, though less so in the latter case, with most expenditures in any given year focused on a relatively small number of high-cost people. However, the estimates here should be considered as rough estimates of the insurance cost of Medicare, calculated as the average cost of providing those benefits across the beneficiary population. In addition, average expenditures normally increase with age, as those just turning 65 are on average healthier than those at more advanced ages. The lifetime value of health benefits would thus be higher if we had provided an age-adjusted measure of insurance value (Steuerle and Quakenbush 2012).

Medicare Premiums

To account for premiums paid for enrollees in Medicare Parts B and D, we subtract average premiums from average Medicare expenditures to calculate benefits net of premiums. Higher premiums for high-income beneficiaries—formally labeled an "Income Related Monthly Adjustment Amount (IRMAA)"—are not included here since they generally do not apply to people with incomes at the levels shown. A couple who pays IRMAA in 2021 would have received substantial income from continued work, required minimum distributions from their retirement accounts, or other sources that raise modified adjusted gross income on their 2021 income tax returns above $176,000. Over time, more households become subject to the income-based premium adjustments because the income thresholds were not indexed to inflation until 2020 and because real wages will rise over time, pushing more households above the thresholds (Cubanski and Neuman 2017).

Medicare Cost Scenario

Lifetime Medicare benefits are estimated using an "illustrative alternative scenario" published by CMS actuaries (Shatto and Clemens 2021). Before the 2015 trustees' reports, the intermediate current law scenario assumed that deep cuts in physician payment rates scheduled in law would take effect, resulting in lower projected Medicare expenditures. In reality, Congress prevented most of these cuts, which could have resulted in fewer service providers accepting Medicare. The CMS actuaries produce a supplemental analysis with the Medicare trustees' report each year to illustrate cost effects, assuming

that physician payment rates would not be cut and that several other cost-reducing measures, many introduced in the Affordable Care Act, would not be fully implemented. This alternative scenario formed the basis of our updates from 2012 forward.

The Medicare Access and CHIP Reauthorization Act of 2015 introduced a permanent adjustment to the formulas used to calculate physician reimbursement rates so these periodic "doc fixes" would no longer be required. However, the CMS actuaries report that under the new formulas, reimbursement rates for physicians accepting Medicare will continue to fall over time relative to the reimbursement rate of private insurance, and this decline may not be sustainable over the long run. The actuaries' illustrative scenario, used here, assumes these provisions are scaled back over time, resulting in higher projected Medicare expenditures and therefore higher estimated lifetime benefits.

Notes

[1] Social Security average wage index is available on the Social Security Administration website: https://www.ssa.gov/oact/cola/AWI.html and https://www.ssa.gov/OACT/TR/2021/index.html (table VI.G6).

[2] Social Security contribution and benefit base (taxable maximum) is available on the Social Security Administration website: https://www.ssa.gov/oact/cola/cbb.html and https://www.ssa.gov/OACT/TR/2021/V_C_prog.html#1047210.

[3] Historic OASDI tax rates are available on the Social Security Administration website: https://www.ssa.gov/oact/progdata/oasdiRates.html.

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