



# Social Security and Medicare Lifetime Benefits and Taxes

**2017 Update**

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Since 2003, we and our colleagues have been releasing periodic data on Social Security and Medicare lifetime benefits and taxes. These data allow us to visualize the impact of these retirement and health systems in many ways: separately and together, comprehensively rather than annually, based on benefits received and taxes paid, across people with different earnings histories, and across many different cohorts past, present, and future.

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 2017 Social Security and Medicare trustees' reports and supplemental data published by the Social Security Administration and Centers for Medicare & Medicaid Services (CMS). For Medicare lifetime benefits, we use an alternative cost scenario from CMS that assumes that measures in current law that result in declining reimbursement rates relative to private health insurance do not fully take effect. If Medicare's reimbursement of health providers falls too low, providers might stop accepting Medicare, which could threaten beneficiaries' health and financial security. It is therefore likely policymakers would act to prevent this from happening, as they have done in the past (see the discussion of the Medicare cost scenario on page 23). In calculating expected present values, we use sex-adjusted probabilities to account for chance of death after age 65 and a discount rate of 2 percent plus inflation.

Changes from our 2015 analysis are modest; the largest change derives from presenting results in 2017 versus 2015 dollars. Benefits grow more generous over time as wages and health costs increase. Many average-income single adults retiring between 2015 and 2020 will receive about \$500,000 in benefits, and couples will receive roughly \$1 million, partly because these systems now provide on

average many more years of benefits than when they first began. Under scheduled law, millennials, who will retire around 2050, are projected to receive twice as much as those retiring at the time of this report (that is, about \$1 million for an average-income single adult and \$2 million for a couple).

Lifetime taxes represent the amount of money a household would have if its Social Security and Medicare contributions had been saved in an account that earned a 2 percent real rate of return during the household's working years. When lifetime retirement and health benefits exceed lifetime Social Security and Medicare taxes, as is true for most households, the value of benefits from those programs is greater than an annuity that the household would have been able to purchase on the private market with their lifetime taxes.

It is important to remember, however, that Social Security and Medicare are primarily pay-as-you-go systems, meaning that taxes are not actually invested in accounts but are used to pay benefits for current beneficiaries. This is easiest to see in those years when the trust funds approach zero, as in the years right before the 1983 reform and, soon again, in the mid-2030s. But even in years when the baby boom generation was most fully employed and had not yet started retiring, the trust fund buildup was only a tiny fraction of liabilities.<sup>1</sup>

Thus, we discourage people from using these data to draw conclusions about whether individuals got their "moneys' worth" out of the system. Each generation's taxes go to support their parents' and grandparents' generations; that doesn't answer the question of what a new generation of retirees is owed by its children and grandchildren, particularly if fewer workers are around to support each retiree.

Comparing lifetime benefits to taxes, however, does offer a systematic way to compare across generations and inform judgments as to whether different cohorts and types of households are treated fairly and efficiently by America's old-age systems, as well as how each generation might share in any increased burden from the reduced benefits or increased taxes required to bring or keep those systems in balance.

In performing these calculations, Medicare premiums paid by individuals are subtracted from Medicare benefits. Higher income-adjusted Medicare premiums for high-income retirees are not included here since they generally do not apply to people with incomes at the levels shown, except those with substantial assets accumulated by time of retirement or with continued earnings above the maximum taxable earnings. Over time, more households will be subject to the income-based premium adjustments because the income thresholds are not indexed to inflation until 2020 and because real wages will rise over time, pushing more households above the thresholds (Cubanski and Neuman 2017).

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 income, health, and choices about marriage, divorce, children, and retirement. For example, the greater expected lifetime benefits of women compared with men with the same earnings profile stem from longer life expectancies for women.

These estimates assume people receive all benefits scheduled under current benefit formulas, regardless of the status of the Social Security or Medicare trust funds. Since both funds face shortfalls in the intermediate future, policies for both programs will inevitably change, and those changes will greatly influence the benefits and taxes of current and future cohorts. From that perspective, future benefits are likely overstated, or taxes understated, or both, for many typical households represented.

TABLE 1

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

Single man with low earnings (\$23,100 in 2017 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	6,400	80,000	15,000	95,000	8,000	0	8,000
1965	6,700	89,000	28,000	117,000	14,000	0	14,000
1970	7,900	103,000	40,000	143,000	21,000	1,000	22,000
1975	9,200	115,000	53,000	168,000	31,000	2,000	33,000
1980	10,100	135,000	68,000	203,000	42,000	4,000	46,000
1985	9,500	126,000	86,000	212,000	53,000	7,000	60,000
1990	9,400	132,000	104,000	236,000	65,000	10,000	75,000
1995	10,000	143,000	124,000	267,000	79,000	14,000	93,000
2000	10,200	152,000	143,000	295,000	93,000	18,000	111,000
2005	11,300	174,000	164,000	338,000	106,000	23,000	129,000
2010	11,700	178,000	179,000	357,000	117,000	29,000	146,000
2015	11,700	180,000	197,000	377,000	125,000	32,000	157,000
2020	11,800	190,000	224,000	414,000	132,000	36,000	168,000
2025	12,200	198,000	257,000	455,000	141,000	39,000	180,000
2030	13,000	214,000	293,000	507,000	150,000	41,000	191,000
2035	13,800	231,000	332,000	563,000	158,000	44,000	202,000
2040	14,700	248,000	372,000	620,000	167,000	46,000	213,000
2045	15,600	266,000	415,000	681,000	177,000	49,000	226,000
2050	16,600	286,000	460,000	746,000	187,000	52,000	239,000
2055	17,600	307,000	509,000	816,000	199,000	55,000	254,000
2060	18,700	329,000	564,000	893,000	214,000	59,000	273,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A low earner earns 45 percent of the average wage.

TABLE 2

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

Single man with average earnings (\$51,300 in 2017 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	9,700	120,000	15,000	135,000	19,000	0	19,000
1965	10,300	137,000	28,000	165,000	31,000	0	31,000
1970	12,300	162,000	40,000	202,000	47,000	2,000	49,000
1975	14,700	185,000	53,000	238,000	69,000	5,000	74,000
1980	16,700	224,000	68,000	292,000	93,000	9,000	102,000
1985	15,700	208,000	86,000	294,000	117,000	15,000	132,000
1990	15,500	217,000	104,000	321,000	145,000	22,000	167,000
1995	16,600	236,000	124,000	360,000	176,000	31,000	207,000
2000	16,800	251,000	143,000	394,000	206,000	40,000	246,000
2005	18,600	287,000	164,000	451,000	236,000	51,000	287,000
2010	19,400	294,000	179,000	473,000	260,000	63,000	323,000
2015	19,300	296,000	197,000	493,000	279,000	72,000	351,000
2020	19,600	313,000	224,000	537,000	294,000	79,000	373,000
2025	20,100	328,000	257,000	585,000	314,000	86,000	400,000
2030	21,500	353,000	293,000	646,000	334,000	92,000	426,000
2035	22,800	381,000	332,000	713,000	351,000	97,000	448,000
2040	24,300	410,000	372,000	782,000	372,000	103,000	475,000
2045	25,700	440,000	415,000	855,000	392,000	109,000	501,000
2050	27,300	472,000	460,000	932,000	415,000	115,000	530,000
2055	29,000	506,000	509,000	1,015,000	443,000	122,000	565,000
2060	30,800	543,000	564,000	1,107,000	476,000	131,000	607,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year.

TABLE 3

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

Single man with high earnings (\$82,100 in 2017 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	10,800	134,000	15,000	149,000	25,000	0	25,000
1965	11,200	150,000	28,000	178,000	39,000	0	39,000
1970	13,900	183,000	40,000	223,000	59,000	2,000	61,000
1975	17,300	216,000	53,000	269,000	88,000	6,000	94,000
1980	20,900	280,000	68,000	348,000	125,000	13,000	138,000
1985	19,700	261,000	86,000	347,000	161,000	22,000	183,000
1990	19,700	276,000	104,000	380,000	204,000	34,000	238,000
1995	21,200	302,000	124,000	426,000	253,000	47,000	300,000
2000	21,800	326,000	143,000	469,000	302,000	62,000	364,000
2005	24,500	377,000	164,000	541,000	354,000	80,000	434,000
2010	25,700	389,000	179,000	568,000	403,000	99,000	502,000
2015	25,500	392,000	197,000	589,000	442,000	114,000	556,000
2020	25,900	414,000	224,000	638,000	470,000	126,000	596,000
2025	26,600	433,000	257,000	690,000	503,000	138,000	641,000
2030	28,400	467,000	293,000	760,000	535,000	147,000	682,000
2035	30,200	503,000	332,000	835,000	561,000	155,000	716,000
2040	32,100	542,000	372,000	914,000	595,000	165,000	760,000
2045	34,000	581,000	415,000	996,000	628,000	174,000	802,000
2050	36,100	624,000	460,000	1,084,000	664,000	186,000	850,000
2055	38,400	669,000	509,000	1,178,000	709,000	200,000	909,000
2060	40,700	718,000	564,000	1,282,000	762,000	217,000	979,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A high earner earns 160 percent of the average wage.

TABLE 4

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

Single man with maximum taxable earnings (\$127,200 in 2017 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	10,800	134,000	15,000	149,000	28,000	0	28,000
1965	11,200	150,000	28,000	178,000	42,000	0	42,000
1970	13,900	183,000	40,000	223,000	63,000	2,000	65,000
1975	17,300	216,000	53,000	269,000	92,000	6,000	98,000
1980	21,200	284,000	68,000	352,000	132,000	14,000	146,000
1985	20,500	272,000	86,000	358,000	175,000	26,000	201,000
1990	21,000	294,000	104,000	398,000	236,000	43,000	279,000
1995	23,100	330,000	124,000	454,000	309,000	62,000	371,000
2000	24,500	365,000	143,000	508,000	383,000	84,000	467,000
2005	28,100	434,000	164,000	598,000	466,000	110,000	576,000
2010	30,300	459,000	179,000	638,000	549,000	138,000	687,000
2015	30,900	474,000	197,000	671,000	626,000	164,000	790,000
2020	31,400	504,000	224,000	728,000	695,000	188,000	883,000
2025	32,500	528,000	257,000	785,000	765,000	209,000	974,000
2030	34,600	570,000	293,000	863,000	818,000	224,000	1,042,000
2035	36,800	615,000	332,000	947,000	862,000	239,000	1,101,000
2040	39,200	661,000	372,000	1,033,000	913,000	256,000	1,169,000
2045	41,600	710,000	415,000	1,125,000	967,000	274,000	1,241,000
2050	44,100	761,000	460,000	1,221,000	1,020,000	294,000	1,314,000
2055	46,700	815,000	509,000	1,324,000	1,086,000	318,000	1,404,000
2060	49,500	873,000	564,000	1,437,000	1,165,000	347,000	1,512,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. A maximum-taxable earner earns the Social Security maximum taxable wage every year (\$127,200 in 2017).

TABLE 5

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

Single woman with low earnings (\$23,100 in 2017 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	6,500	103,000	25,000	128,000	8,000	0	8,000
1965	6,800	118,000	43,000	161,000	14,000	0	14,000
1970	8,100	136,000	59,000	195,000	21,000	1,000	22,000
1975	9,500	149,000	76,000	225,000	31,000	2,000	33,000
1980	10,100	166,000	93,000	259,000	42,000	4,000	46,000
1985	9,500	151,000	111,000	262,000	53,000	7,000	60,000
1990	9,400	155,000	131,000	286,000	65,000	10,000	75,000
1995	10,000	164,000	151,000	315,000	79,000	14,000	93,000
2000	10,200	171,000	170,000	341,000	93,000	18,000	111,000
2005	11,300	194,000	192,000	386,000	106,000	23,000	129,000
2010	11,700	198,000	209,000	407,000	117,000	29,000	146,000
2015	11,700	198,000	231,000	429,000	125,000	32,000	157,000
2020	11,800	209,000	262,000	471,000	132,000	36,000	168,000
2025	12,200	218,000	299,000	517,000	141,000	39,000	180,000
2030	13,000	234,000	339,000	573,000	150,000	41,000	191,000
2035	13,800	252,000	382,000	634,000	158,000	44,000	202,000
2040	14,700	270,000	426,000	696,000	167,000	46,000	213,000
2045	15,600	289,000	474,000	763,000	177,000	49,000	226,000
2050	16,600	310,000	524,000	834,000	187,000	52,000	239,000
2055	17,600	332,000	579,000	911,000	199,000	55,000	254,000
2060	18,700	355,000	639,000	994,000	214,000	59,000	273,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A low earner earns 45 percent of the average wage.

TABLE 6

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

Single woman with average earnings (\$51,300 in 2017 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	9,800	157,000	25,000	182,000	19,000	0	19,000
1965	10,600	183,000	43,000	226,000	31,000	0	31,000
1970	12,800	215,000	59,000	274,000	47,000	2,000	49,000
1975	15,300	241,000	76,000	317,000	69,000	5,000	74,000
1980	16,700	275,000	93,000	368,000	93,000	9,000	102,000
1985	15,700	249,000	111,000	360,000	117,000	15,000	132,000
1990	15,500	255,000	131,000	386,000	145,000	22,000	167,000
1995	16,600	271,000	151,000	422,000	176,000	31,000	207,000
2000	16,800	283,000	170,000	453,000	206,000	40,000	246,000
2005	18,600	320,000	192,000	512,000	236,000	51,000	287,000
2010	19,400	326,000	209,000	535,000	260,000	63,000	323,000
2015	19,300	327,000	231,000	558,000	279,000	72,000	351,000
2020	19,600	345,000	262,000	607,000	294,000	79,000	373,000
2025	20,100	360,000	299,000	659,000	314,000	86,000	400,000
2030	21,500	387,000	339,000	726,000	334,000	92,000	426,000
2035	22,800	415,000	382,000	797,000	351,000	97,000	448,000
2040	24,300	446,000	426,000	872,000	372,000	103,000	475,000
2045	25,700	477,000	474,000	951,000	392,000	109,000	501,000
2050	27,300	511,000	524,000	1,035,000	415,000	115,000	530,000
2055	29,000	547,000	579,000	1,126,000	443,000	122,000	565,000
2060	30,800	586,000	639,000	1,225,000	476,000	131,000	607,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year.

TABLE 7

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

Single woman with high earnings (\$82,100 in 2017 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	11,000	176,000	25,000	201,000	25,000	0	25,000
1965	11,600	200,000	43,000	243,000	39,000	0	39,000
1970	14,500	243,000	59,000	302,000	59,000	2,000	61,000
1975	18,200	286,000	76,000	362,000	88,000	6,000	94,000
1980	20,900	344,000	93,000	437,000	125,000	13,000	138,000
1985	19,700	312,000	111,000	423,000	161,000	22,000	183,000
1990	19,700	324,000	131,000	455,000	204,000	34,000	238,000
1995	21,200	347,000	151,000	498,000	253,000	47,000	300,000
2000	21,800	367,000	170,000	537,000	302,000	62,000	364,000
2005	24,500	421,000	192,000	613,000	354,000	80,000	434,000
2010	25,700	432,000	209,000	641,000	403,000	99,000	502,000
2015	25,500	433,000	231,000	664,000	442,000	114,000	556,000
2020	25,900	456,000	262,000	718,000	470,000	126,000	596,000
2025	26,600	475,000	299,000	774,000	503,000	138,000	641,000
2030	28,400	511,000	339,000	850,000	535,000	147,000	682,000
2035	30,200	549,000	382,000	931,000	561,000	155,000	716,000
2040	32,100	590,000	426,000	1,016,000	595,000	165,000	760,000
2045	34,000	631,000	474,000	1,105,000	628,000	174,000	802,000
2050	36,100	676,000	524,000	1,200,000	664,000	186,000	850,000
2055	38,400	724,000	579,000	1,303,000	709,000	200,000	909,000
2060	40,700	774,000	639,000	1,413,000	762,000	217,000	979,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A high earner earns 160 percent of the average wage.

TABLE 8

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

Single woman with maximum taxable earnings (\$127,200 in 2017 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	11,000	176,000	25,000	201,000	28,000	0	28,000
1965	11,600	200,000	43,000	243,000	42,000	0	42,000
1970	14,500	243,000	59,000	302,000	63,000	2,000	65,000
1975	18,200	287,000	76,000	363,000	92,000	6,000	98,000
1980	21,200	350,000	93,000	443,000	132,000	14,000	146,000
1985	20,500	326,000	111,000	437,000	175,000	26,000	201,000
1990	21,000	346,000	131,000	477,000	236,000	43,000	279,000
1995	23,100	379,000	151,000	530,000	309,000	62,000	371,000
2000	24,500	411,000	170,000	581,000	383,000	84,000	467,000
2005	28,100	484,000	192,000	676,000	466,000	110,000	576,000
2010	30,300	509,000	209,000	718,000	549,000	138,000	687,000
2015	30,900	523,000	231,000	754,000	626,000	164,000	790,000
2020	31,400	555,000	262,000	817,000	695,000	188,000	883,000
2025	32,500	579,000	299,000	878,000	765,000	209,000	974,000
2030	34,600	624,000	339,000	963,000	818,000	224,000	1,042,000
2035	36,800	671,000	382,000	1,053,000	862,000	239,000	1,101,000
2040	39,200	720,000	426,000	1,146,000	913,000	256,000	1,169,000
2045	41,600	771,000	474,000	1,245,000	967,000	274,000	1,241,000
2050	44,100	824,000	524,000	1,348,000	1,020,000	294,000	1,314,000
2055	46,700	881,000	579,000	1,460,000	1,086,000	318,000	1,404,000
2060	49,500	942,000	639,000	1,581,000	1,165,000	347,000	1,512,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. A maximum-taxable earner earns the Social Security maximum taxable wage every year (\$127,200 in 2017).

TABLE 9

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

Married one-earner couple with low earnings (\$23,100 in 2017 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	9,600	149,000	40,000	189,000	8,000	0	8,000
1965	10,000	169,000	70,000	239,000	14,000	0	14,000
1970	11,800	194,000	99,000	293,000	21,000	1,000	22,000
1975	13,800	213,000	129,000	342,000	31,000	2,000	33,000
1980	15,100	246,000	161,000	407,000	42,000	4,000	46,000
1985	14,200	226,000	197,000	423,000	53,000	7,000	60,000
1990	14,100	233,000	235,000	468,000	65,000	10,000	75,000
1995	15,100	250,000	275,000	525,000	79,000	14,000	93,000
2000	15,300	262,000	313,000	575,000	93,000	18,000	111,000
2005	16,900	297,000	355,000	652,000	106,000	23,000	129,000
2010	17,600	303,000	388,000	691,000	117,000	29,000	146,000
2015	17,500	304,000	429,000	733,000	125,000	32,000	157,000
2020	17,800	321,000	486,000	807,000	132,000	36,000	168,000
2025	18,300	334,000	556,000	890,000	141,000	39,000	180,000
2030	19,500	360,000	632,000	992,000	150,000	41,000	191,000
2035	20,700	386,000	713,000	1,099,000	158,000	44,000	202,000
2040	22,100	415,000	799,000	1,214,000	167,000	46,000	213,000
2045	23,400	444,000	888,000	1,332,000	177,000	49,000	226,000
2050	24,800	476,000	984,000	1,460,000	187,000	52,000	239,000
2055	26,400	510,000	1,088,000	1,598,000	199,000	55,000	254,000
2060	28,000	546,000	1,204,000	1,750,000	214,000	59,000	273,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A low earner earns 45 percent of the average wage.

TABLE 10

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

Married one-earner couple with average earnings (\$51,300 in 2017 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	14,500	225,000	40,000	265,000	19,000	0	19,000
1965	15,400	259,000	70,000	329,000	31,000	0	31,000
1970	18,500	304,000	99,000	403,000	47,000	2,000	49,000
1975	22,100	342,000	129,000	471,000	69,000	5,000	74,000
1980	25,100	408,000	161,000	569,000	93,000	9,000	102,000
1985	23,500	373,000	197,000	570,000	117,000	15,000	132,000
1990	23,300	385,000	235,000	620,000	145,000	22,000	167,000
1995	24,900	412,000	275,000	687,000	176,000	31,000	207,000
2000	25,300	433,000	313,000	746,000	206,000	40,000	246,000
2005	27,900	490,000	355,000	845,000	236,000	51,000	287,000
2010	29,100	500,000	388,000	888,000	260,000	63,000	323,000
2015	29,000	502,000	429,000	931,000	279,000	72,000	351,000
2020	29,300	529,000	486,000	1,015,000	294,000	79,000	373,000
2025	30,200	552,000	556,000	1,108,000	314,000	86,000	400,000
2030	32,200	594,000	632,000	1,226,000	334,000	92,000	426,000
2035	34,200	638,000	713,000	1,351,000	351,000	97,000	448,000
2040	36,400	685,000	799,000	1,484,000	372,000	103,000	475,000
2045	38,600	734,000	888,000	1,622,000	392,000	109,000	501,000
2050	41,000	785,000	984,000	1,769,000	415,000	115,000	530,000
2055	43,500	841,000	1,088,000	1,929,000	443,000	122,000	565,000
2060	46,200	901,000	1,204,000	2,105,000	476,000	131,000	607,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year.

TABLE 11

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

Married one-earner couple with high earnings (\$82,100 in 2017 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	16,200	250,000	40,000	290,000	25,000	0	25,000
1965	16,900	284,000	70,000	354,000	39,000	0	39,000
1970	20,900	343,000	99,000	442,000	59,000	2,000	61,000
1975	25,900	400,000	129,000	529,000	88,000	6,000	94,000
1980	31,300	510,000	161,000	671,000	125,000	13,000	138,000
1985	29,500	468,000	197,000	665,000	161,000	22,000	183,000
1990	29,500	488,000	235,000	723,000	204,000	34,000	238,000
1995	31,800	528,000	275,000	803,000	253,000	47,000	300,000
2000	32,700	562,000	313,000	875,000	302,000	62,000	364,000
2005	36,700	645,000	355,000	1,000,000	354,000	80,000	434,000
2010	38,500	662,000	388,000	1,050,000	403,000	99,000	502,000
2015	38,300	664,000	429,000	1,093,000	442,000	114,000	556,000
2020	38,800	700,000	486,000	1,186,000	470,000	126,000	596,000
2025	40,000	729,000	556,000	1,285,000	503,000	138,000	641,000
2030	42,500	785,000	632,000	1,417,000	535,000	147,000	682,000
2035	45,200	843,000	713,000	1,556,000	561,000	155,000	716,000
2040	48,100	906,000	799,000	1,705,000	595,000	165,000	760,000
2045	51,100	970,000	888,000	1,858,000	628,000	174,000	802,000
2050	54,200	1,038,000	984,000	2,022,000	664,000	184,000	848,000
2055	57,600	1,112,000	1,088,000	2,200,000	709,000	197,000	906,000
2060	61,100	1,190,000	1,204,000	2,394,000	762,000	213,000	975,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A high earner earns 160 percent of the average wage.

TABLE 12

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

Married one-earner couple with maximum taxable earnings (\$127,200 in 2017 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	16,200	250,000	40,000	290,000	28,000	0	28,000
1965	16,900	284,000	70,000	354,000	42,000	0	42,000
1970	20,900	343,000	99,000	442,000	63,000	2,000	65,000
1975	25,900	401,000	129,000	530,000	92,000	6,000	98,000
1980	31,800	519,000	161,000	680,000	132,000	14,000	146,000
1985	30,800	488,000	197,000	685,000	175,000	26,000	201,000
1990	31,500	522,000	235,000	757,000	236,000	43,000	279,000
1995	34,700	576,000	275,000	851,000	309,000	62,000	371,000
2000	36,700	629,000	313,000	942,000	383,000	84,000	467,000
2005	42,200	741,000	355,000	1,096,000	466,000	110,000	576,000
2010	45,400	781,000	388,000	1,169,000	549,000	138,000	687,000
2015	46,300	802,000	429,000	1,231,000	626,000	164,000	790,000
2020	47,200	851,000	486,000	1,337,000	695,000	188,000	883,000
2025	48,700	889,000	556,000	1,445,000	765,000	209,000	974,000
2030	51,900	958,000	632,000	1,590,000	818,000	224,000	1,042,000
2035	55,300	1,030,000	713,000	1,743,000	862,000	238,000	1,100,000
2040	58,800	1,106,000	799,000	1,905,000	913,000	253,000	1,166,000
2045	62,400	1,185,000	888,000	2,073,000	967,000	270,000	1,237,000
2050	66,100	1,267,000	984,000	2,251,000	1,020,000	289,000	1,309,000
2055	70,100	1,354,000	1,088,000	2,442,000	1,086,000	311,000	1,397,000
2060	74,300	1,448,000	1,204,000	2,652,000	1,165,000	338,000	1,503,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Worker works every year starting at age 22 and retires at age 65. A maximum-taxable earner earns the Social Security maximum taxable wage every year (\$127,200 in 2017).

TABLE 13

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

Married couple with two low earners (\$46,200 in 2017 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	12,900	180,000	40,000	220,000	17,000	0	17,000
1965	13,500	207,000	70,000	277,000	28,000	0	28,000
1970	15,900	239,000	99,000	338,000	42,000	1,000	43,000
1975	18,700	265,000	129,000	394,000	62,000	4,000	66,000
1980	20,100	300,000	161,000	461,000	84,000	8,000	92,000
1985	19,000	276,000	197,000	473,000	105,000	13,000	118,000
1990	18,800	286,000	235,000	521,000	131,000	20,000	151,000
1995	20,100	308,000	275,000	583,000	159,000	28,000	187,000
2000	20,400	324,000	313,000	637,000	186,000	36,000	222,000
2005	22,600	368,000	355,000	723,000	213,000	46,000	259,000
2010	23,500	376,000	388,000	764,000	234,000	57,000	291,000
2015	23,400	378,000	429,000	807,000	251,000	65,000	316,000
2020	23,700	399,000	486,000	885,000	264,000	71,000	335,000
2025	24,400	416,000	556,000	972,000	283,000	77,000	360,000
2030	26,000	449,000	632,000	1,081,000	301,000	82,000	383,000
2035	27,600	482,000	713,000	1,195,000	316,000	87,000	403,000
2040	29,400	518,000	799,000	1,317,000	335,000	93,000	428,000
2045	31,200	556,000	888,000	1,444,000	353,000	98,000	451,000
2050	33,100	596,000	984,000	1,580,000	373,000	103,000	476,000
2055	35,200	638,000	1,088,000	1,726,000	399,000	110,000	509,000
2060	37,300	684,000	1,204,000	1,888,000	429,000	118,000	547,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Workers work every year starting at age 22 and retire at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A low earner earns 45 percent of the average wage.

TABLE 14

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

Married couple with one average earner and one low earner (\$74,400 in 2017 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	16,200	239,000	40,000	279,000	27,000	0	27,000
1965	17,100	277,000	70,000	347,000	44,000	0	44,000
1970	20,400	324,000	99,000	423,000	68,000	2,000	70,000
1975	24,200	363,000	129,000	492,000	99,000	7,000	106,000
1980	26,800	427,000	161,000	588,000	135,000	13,000	148,000
1985	25,200	391,000	197,000	588,000	169,000	22,000	191,000
1990	24,900	403,000	235,000	638,000	211,000	32,000	243,000
1995	26,600	433,000	275,000	708,000	256,000	44,000	300,000
2000	27,000	455,000	313,000	768,000	299,000	58,000	357,000
2005	29,900	515,000	355,000	870,000	342,000	75,000	417,000
2010	31,100	526,000	388,000	914,000	377,000	92,000	469,000
2015	31,000	528,000	429,000	957,000	404,000	104,000	508,000
2020	31,400	557,000	486,000	1,043,000	426,000	114,000	540,000
2025	32,300	580,000	556,000	1,136,000	456,000	125,000	581,000
2030	34,500	625,000	632,000	1,257,000	485,000	133,000	618,000
2035	36,600	671,000	713,000	1,384,000	509,000	140,000	649,000
2040	39,000	721,000	799,000	1,520,000	539,000	149,000	688,000
2045	41,300	772,000	888,000	1,660,000	569,000	157,000	726,000
2050	43,900	827,000	984,000	1,811,000	601,000	167,000	768,000
2055	46,600	886,000	1,088,000	1,974,000	643,000	178,000	821,000
2060	49,500	949,000	1,204,000	2,153,000	690,000	193,000	883,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Workers work every year starting at age 22 and retire at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A low earner earns 45 percent of the average wage.

TABLE 15

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

Married couple with two average earners (\$102,600 in 2017 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	19,500	272,000	40,000	312,000	37,000	0	37,000
1965	20,900	319,000	70,000	389,000	61,000	0	61,000
1970	25,100	377,000	99,000	476,000	93,000	3,000	96,000
1975	30,000	427,000	129,000	556,000	137,000	9,000	146,000
1980	33,400	499,000	161,000	660,000	187,000	18,000	205,000
1985	31,400	457,000	197,000	654,000	234,000	30,000	264,000
1990	31,000	472,000	235,000	707,000	290,000	45,000	335,000
1995	33,100	507,000	275,000	782,000	353,000	61,000	414,000
2000	33,700	535,000	313,000	848,000	413,000	80,000	493,000
2005	37,200	607,000	355,000	962,000	472,000	103,000	575,000
2010	38,800	621,000	388,000	1,009,000	520,000	127,000	647,000
2015	38,600	624,000	429,000	1,053,000	557,000	144,000	701,000
2020	39,100	658,000	486,000	1,144,000	587,000	158,000	745,000
2025	40,300	687,000	556,000	1,243,000	628,000	172,000	800,000
2030	42,900	740,000	632,000	1,372,000	668,000	183,000	851,000
2035	45,600	796,000	713,000	1,509,000	702,000	193,000	895,000
2040	48,500	856,000	799,000	1,655,000	744,000	206,000	950,000
2045	51,500	917,000	888,000	1,805,000	784,000	218,000	1,002,000
2050	54,700	983,000	984,000	1,967,000	830,000	232,000	1,062,000
2055	58,100	1,054,000	1,088,000	2,142,000	886,000	250,000	1,136,000
2060	61,600	1,129,000	1,204,000	2,333,000	952,000	272,000	1,224,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Workers work every year starting at age 22 and retire at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year.

TABLE 16

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

Married couple with one high earner and one average earner (\$133,400 in 2017 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	20,600	291,000	40,000	331,000	43,000	0	43,000
1965	21,800	335,000	70,000	405,000	69,000	0	69,000
1970	26,700	404,000	99,000	503,000	106,000	4,000	110,000
1975	32,500	468,000	129,000	597,000	157,000	11,000	168,000
1980	37,600	578,000	161,000	739,000	219,000	22,000	241,000
1985	35,400	530,000	197,000	727,000	277,000	37,000	314,000
1990	35,200	552,000	235,000	787,000	349,000	56,000	405,000
1995	37,800	596,000	275,000	871,000	429,000	78,000	507,000
2000	38,700	633,000	313,000	946,000	509,000	103,000	612,000
2005	43,100	725,000	355,000	1,080,000	591,000	132,000	723,000
2010	45,000	743,000	388,000	1,131,000	663,000	163,000	826,000
2015	44,800	747,000	429,000	1,176,000	720,000	186,000	906,000
2020	45,400	787,000	486,000	1,273,000	763,000	205,000	968,000
2025	46,800	821,000	556,000	1,377,000	817,000	223,000	1,040,000
2030	49,800	884,000	632,000	1,516,000	869,000	238,000	1,107,000
2035	53,000	950,000	713,000	1,663,000	912,000	252,000	1,164,000
2040	56,300	1,021,000	799,000	1,820,000	967,000	269,000	1,236,000
2045	59,800	1,094,000	888,000	1,982,000	1,020,000	287,000	1,307,000
2050	63,400	1,172,000	984,000	2,156,000	1,078,000	309,000	1,387,000
2055	67,400	1,256,000	1,088,000	2,344,000	1,152,000	336,000	1,488,000
2060	71,600	1,345,000	1,204,000	2,549,000	1,238,000	370,000	1,608,000

Source: C. Eugene Steuerle and Caleb Quakenbush, Urban Institute. Based on earlier work with Stephanie Rennane and Adam Carasso.

Notes: 2017 dollars, adjusted to present value at age 65 using a 2 percent real interest rate. Adjusts for mortality after age 65. Assumes benefits scheduled in law will be paid.

Workers work every year starting at age 22 and retire at age 65. An average earner has earnings equal to the Social Security Administration's national average wage index each year. A high earner earns 160 percent of the average wage.

# Appendix

## Basic Data and Assumptions

### DATA

Program rules, economic projections, and mortality assumptions are taken from the 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. Except for Medicare benefits described below, we use the intermediate scenario provided in the trustees' reports.

### WORK AND EARNINGS HISTORIES

Individuals start working at age 22 and work continuously along a wage path until they retire on their 65th birthdays. The wage path is set with reference to the Social Security Administration's national average wage index: an average worker earns the national wage index in every year worked, 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. The national average wage index is estimated as \$51,314 in 2017.

We use the Social Security definition of average wage because of its common use as a standard; however, the average wage is that for people who have earnings that year. The average person, including those with zero earnings, would have lower lifetime earnings than the person who earned the average wage every year. Hence, workers earning the index every year would sit at about the 56th percentile of workers in their cohort (Board of Trustees 2017).

### MARRIAGE

Spouses in the calculations for couples are the same age and are assumed to marry at age 24. Couples are married continuously over their careers and retirement. Therefore, no divorce benefits are included in the calculation of lifetime benefits. Since spouses often differ by age, our projections of years of benefit for the same-aged couple will generally be lower than the years of benefits for couples of different ages. As a consequence, we project modestly lower-than-average survivor benefits.

### MORTALITY

All individuals are assumed to live to age 65. After age 65, sex-adjusted probabilities are applied to retirees receiving benefits to arrive at expected values. These values come from life tables provided by the Social Security Administration. 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 higher estimates of lifetime taxes and lower lifetime benefits, while a lower discount rate would lead to lower lifetime taxes and higher lifetime benefits. The Social Security Administration's historical and projected series for the consumer price index for urban wage earners and clerical workers is used to adjust all numbers for inflation.

## Calculating Lifetime Taxes

### INCLUDED TAXES

Workers pay payroll taxes (sometimes referred to as FICA 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, or Part A) portion of Medicare. 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. This will eventually affect relatively few workers at the levels of income in the cases we present.

We assume that workers pay both the employer and employee shares of the payroll tax. By statute, the payroll tax, except for the HI surtax, is split evenly between workers and employers, with each paying 6.75 percent for combined OASI and HI taxes. However, a standard economic assumption is that in the long run, employers can pass this tax onto workers by slowing wage growth or offering fewer fringe benefits.

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 such "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

Because our model includes no calculation of Disability Insurance benefits, Disability Insurance payroll taxes are excluded. 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 transfers from the general fund (financed through individual and corporate income and excise taxes or through higher debt levels) used to finance non-HI Medicare benefits and trust fund obligations.

## ERROR IN PREVIOUS CALCULATIONS

In the 2011, 2012, and 2013 versions of these tables, an error in the model caused HI taxes to be counted in lifetime OASI taxes, as well as presented separately in the totals for lifetime HI taxes. This double-counting led to an overstatement of lifetime taxes in those estimates. The 2015 model corrected this error, resulting in a higher net transfer or lower net tax for workers in each category. For instance, the transfers and taxes within OASI for an average worker in 2015 are still close to each other, but the net transfer has turned from negative to positive.

## 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 in later cohorts receive a slight reduction in benefits for retiring before the normal retirement age.

The choice of age 65 as the age of retirement has only modest effect on the calculation for each cohort. The annual penalty reduction for early retirement is designed to be roughly actuarially neutral, so this has only a small effect on lifetime benefits (e.g., 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.

### ERROR IN PREVIOUS SOCIAL SECURITY CALCULATIONS

The 2015 update corrected a programming error in previous models that meant the early retirement penalty was not applied for two-earner couples whose normal retirement age was greater than 65.

### 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 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 focused on a relatively small number of high-cost people. In addition, average expenditures normally increase with age, as those just turning 65 are on average healthier than those at more advanced ages.

In a 2012 brief, we showed the sensitivity of our estimates for lifetime Medicare benefits to several alternative assumptions (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 present benefits net of premiums. Our calculations do not

include income-related premium adjustments for high earners, as this would require additional assumptions about enrollees' incomes after age 65. These premiums reflect a relatively small number of enrollees, though the percentage affected is expected to grow over time because the thresholds at which they apply are frozen through 2019 and then indexed for price inflation, which tends to grow more slowly than wages. Still, few at the lifetime income levels shown would be subject to this surtax until the distant future.

#### MEDICARE COST SCENARIO

Lifetime Medicare benefits are estimated using an "illustrative alternative scenario" published by CMS actuaries.<sup>2</sup> 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 much of these cuts (which could have resulted in fewer service providers accepting Medicare). The CMS actuaries produced 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.<sup>3</sup> This alternative scenario formed the basis of our updates from 2012 forward (prior updates used current law).

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

- <sup>1</sup> "Are the Social Security Trust Funds Real?" Briefing Book, Urban-Brookings Tax Policy Center, accessed May 11, 2018, <http://www.taxpolicycenter.org/briefing-book/are-social-security-trust-funds-real>.
- <sup>2</sup> John D. Shatto (director, Medicare and Medicaid Cost Estimates Group) and M. Kent Clemens (actuary), "Projected Medicare Expenditures under an Illustrative Scenario with Alternative Payment Updates to Medicare Providers," July 13, 2017, Centers for Medicare & Medicaid Services, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/2017TRAlternativeScenario.pdf>.
- <sup>3</sup> One such cost-containment mechanism, the Independent Payment Advisory Board, was repealed by the Bipartisan Budget Act of 2018 (Pub. L. No. 115-123). While low Medicare cost growth in recent years means the board was never used, it was to make recommendations for containing Medicare spending when cost growth exceeded specified thresholds. The board's elimination is believed by many to lead to increased health costs since some of its cost-reducing recommendations would have been implemented absent positive congressional action to disapprove.

## References

Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. 2017. *The 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. Washington, DC: US Government Printing Office.

Cubanski, Juliette, and Tricia Neuman. 2017. "Medicare's Income-Related Premiums Under Current Law and Proposed Changes." Washington, DC: Kaiser Family Foundation.

Steuerle, C. Eugene, and Caleb Quakenbush. 2012. "Alternative Assumptions for Present Value Calculations of Lifetime Medicare Benefits." Washington, DC: Urban Institute.

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