Updated Long-Term Projections for Social Security

The Congressional Budget Office (CBO) most recently released long-term (100-year) Social Security projections in *The Outlook for Social Security* (June 2004). As a result of both economic and technical revisions, those projections have changed slightly. The attached tables and figures present the updated projections. *The Outlook for Social Security* presented ranges of uncertainty around the market-value outcomes (previously labeled expected); the attached tables and figures include a complete update of those projections. (In late January, a partial update was posted that included only an update to the market-value projections. All of that material appears in this new update.)

CBO presents future Social Security benefits under two scenarios. In one scenario, outlays include only those benefits that the Social Security Administration has legal authority to pay under current law. That scenario assumes that all benefits are reduced annually once the trust funds are exhausted so that total outlays equal available revenues. (In the June report, this current-law scenario was described as the "trust-fund-financed" scenario.) In the second analysis, outlays include the full benefits as currently calculated. That is the "scheduled benefits" scenario.

CBO projects that under current law Social Security outlays will first exceed revenues from payroll taxes and taxation of benefits in 2020 and that the program will exhaust the trust funds in 2052. After the trust funds are exhausted, Social Security spending cannot exceed annual revenues. As a consequence, because dedicated revenues are projected to equal 78 percent of scheduled outlays in 2053, CBO projects that the benefits paid will be 22 percent lower than the scheduled benefits. After 2053, the imbalance will widen, CBO projects.

Since the last estimates were released, CBO has updated its economic and budget forecast for the next 10 years (see *The Budget and Economic Outlook: Fiscal Years 2006 to 2015*), incorporated updated Social Security earnings records, and refined the method used to estimate retroactive disability payments. In addition, the modeling of uncertainty has been updated to reflect additional historical data, and uncertainty about another key variable—the share of compensation that will be paid as nontaxable benefits (such as health insurance)—was incorporated. While the major long-term economic assumptions did not change, there were small revisions in the estimated historical values and projected values of hours worked in the economy, as well as the projected differential growth in two measures of prices: the price index for gross domestic product (GDP) and the consumer price index.

CBO projects that, over the next 10 years, Social Security outlays will average about 0.2 percentage points lower relative to GDP than was projected last summer, primarily because of an increase in projected GDP. The difference diminishes over the following decade, and CBO projects that, for 2030 to 2050, outlays will average 0.1 percentage points higher as a percentage of GDP than projected last summer. Projected outlays for later years are essentially unchanged.

CBO revised its projection of Social Security revenues relative to GDP down slightly. CBO projects that by the end of the 100-year projection period, revenues will be 4.7 percent of GDP, 0.1 percentage point lower than projected last summer.

The range of uncertainty about the projections of Social Security revenues has increased since the June 2004 report, reflecting the inclusion of uncertainty about the share of compensation that will be paid as nontaxable benefits in the future. By 2105, the range in projected revenues as a share of GDP has increased three-fold relative to the results presented in June. That increase in uncertainty about revenues does not, however, change the conclusions stated in *The Outlook for Social Security* about the future of Social Security.

Figures 2-4 and 2-5 in *The Outlook for Social Security* included an inconsistency between the numbers and the footnotes, which said the numbers were discounted to age 60 dollars. They were instead discounted to age 16 dollars. In this update, the numbers have been adjusted to remove the inconsistency.

Supplemental data, including numbers that underlie the various figures, are available in Excel in a file accompanying this document on this Web site.

Table 1-1.

Social Security Outlays and Revenues as a Share of GDP in Selected Years Under the Scheduled Benefits Scenario, 2003 to 2100

	Actual 2003	2025	2050	2075	2100
			Market-Value Outcome		
Revenues	4.97	5.07	4.98	4.86	4.72
Outlays	4.35	5.64	6.37	6.65	6.82
Balance	0.62	-0.57	-1.39	-1.78	-2.11
			80 Percent Range of Uncertainty /a		
Revenues	4.97	4.88 to 5.27	4.61 to 5.27	4.44 to 5.27	4.17 to 5.26
Outlays	4.35	4.93 to 6.60	5.13 to 8.16	5.35 to 9.08	5.26 to 9.82
Balance	0.62	-1.52 to 0.00	-3.25 to -0.34	-4.25 to -0.71	-5.02 to -0.75

Source: Congressional Budget Office.

Notes: Based on simulations using the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions.

Revenues equal payroll taxes and income taxes on benefits as a share of gross domestic product (GDP) in the specified year.

Outlays equal scheduled Social Security benefits and administrative costs as a share of GDP in the specified year.

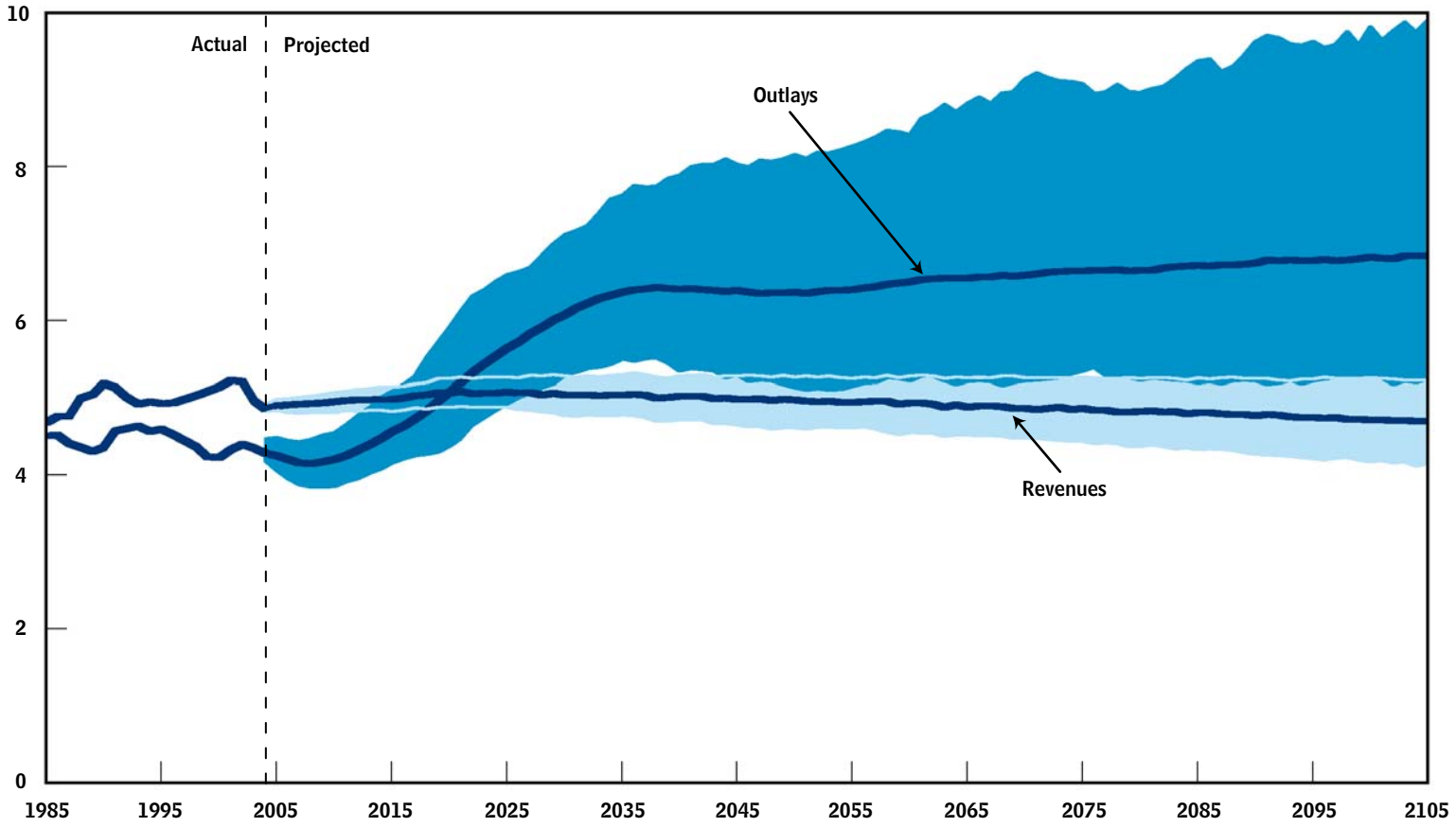
The balance is the difference between revenues and outlays as a share of GDP in the specified year and may not equal the difference of the previous two rows because of rounding.

a. The range within which there is an 80 percent probability that the actual value will fall (that is, the range between the 10th and 90th percentiles for each measure based on a distribution of 500 simulations from CBO's long-term model). The balances shown do not equal the difference between the outlays and revenues shown because each value is obtained from a different simulation.

Figure 1-1.

Potential Range of Social Security Outlays and Revenues Under the Scheduled Benefits Scenario

(Percentage of GDP)



Source: Congressional Budget Office.

Notes: Based on 500 simulations centered on the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions.

Revenues include payroll taxes and income taxes on benefits but exclude interest credited to the Social Security trust funds; outlays include scheduled Social Security benefits and administrative costs.

Under current law, outlays begin to exceed revenues starting in 2020; starting in 2053, scheduled benefits cannot be paid.

Table 1-2.

Summarized Social Security Outlays, Revenues, and Balances Under the Scheduled Benefits Scenario

	Revenues	Outlays	Balance
	As a Percentage of GDP		
Market-Value Outcome			
50 years (2004-2053)	5.35	5.45	-0.10
100 years (2004-2103)	5.20	5.77	-0.57
80 Percent Range of Uncertainty /a			
50 years (2004-2053)	5.17 to 5.51	5.01 to 6.03	-0.67 to 0.26
100 years (2004-2103)	4.99 to 5.40	5.31 to 6.40	-1.18 to -0.22
	As a Percentage of Taxable Payroll		
Market-Value Outcome			
50 years (2004-2053)	13.97	14.23	-0.26
100 years (2004-2103)	13.82	15.32	-1.50
80 Percent Range of Uncertainty			
50 years (2004-2053)	13.78 to 14.15	13.14 to 15.64	-1.73 to 0.69
100 years (2004-2103)	13.64 to 14.02	14.16 to 16.93	-3.13 to -0.58

Source: Congressional Budget Office.

Note: Based on simulations using the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions

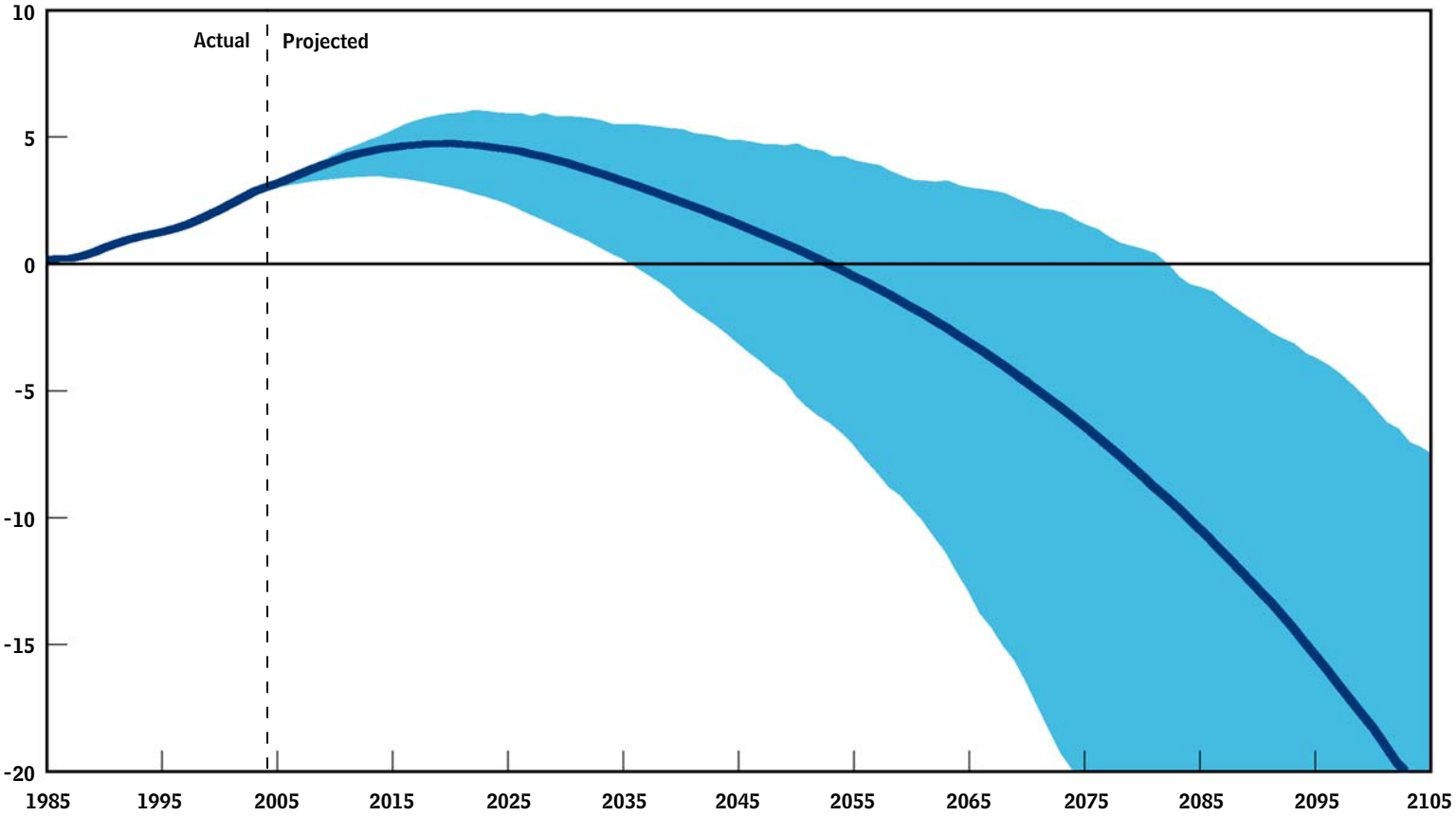
Summarized outlays and revenues are the present values of annual outlays and revenues over the relevant time period divided by the present value of GDP or taxable payroll over that period.

The balance is the present value of revenues minus the present value of outlays, divided by the present value of GDP or taxable payroll over that period.

a. The range within which there is an 80 percent probability that the actual value will fall (that is, the range between the 10th and 90th percentiles for each measure based on a distribution of 500 simulations from CBO's long-term model). The balances shown do not equal the difference between the outlays and revenues shown because each value is obtained from a different simulation.

Figure 1-2.

Potential Range of the OASDI Trust Fund Ratio Under the Scheduled Benefits Scenario, 1985 to 2105



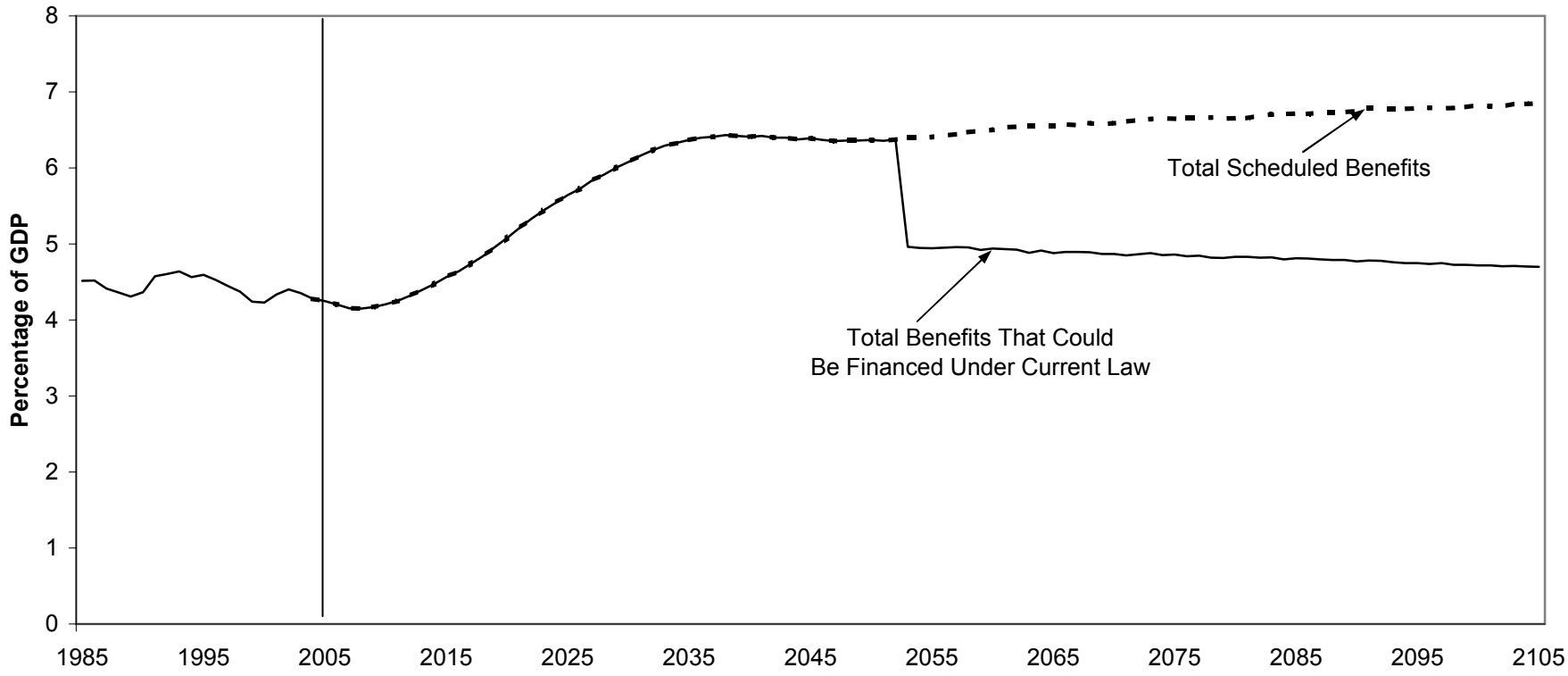
Source: Congressional Budget Office.

Notes: OASDI = Old-Age, Survivors, and Disability Insurance.

Based on 500 simulations centered on the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions. The trust fund ratio is the ratio of the total trust fund balance at the beginning of a calendar year to total Social Security outlays in that year.

Figure 1-3.

Outlays Under Current Law and Under the Scheduled Benefit Scenario, 1985 to 2105



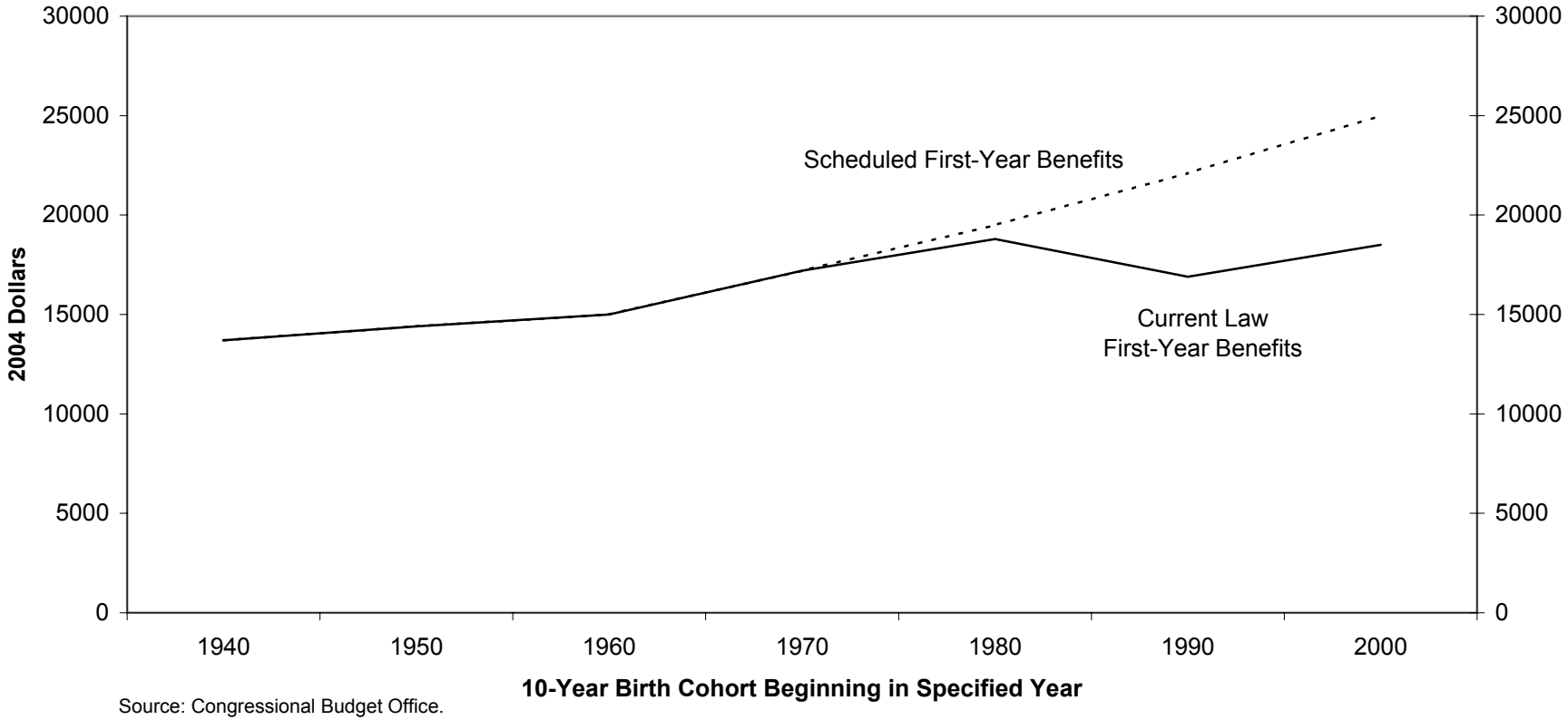
Source: Congressional Budget Office.

Notes: Based on a simulation using the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions.

Current law benefits (those financed by legal spending authority) are projected to fall below scheduled benefits in 2053, when the trust funds have been exhausted. Thereafter benefits equal annual Social Security revenues.

Figure 2-1.

Median First-Year Retirement Benefits, by Birth Cohort



Source: Congressional Budget Office.

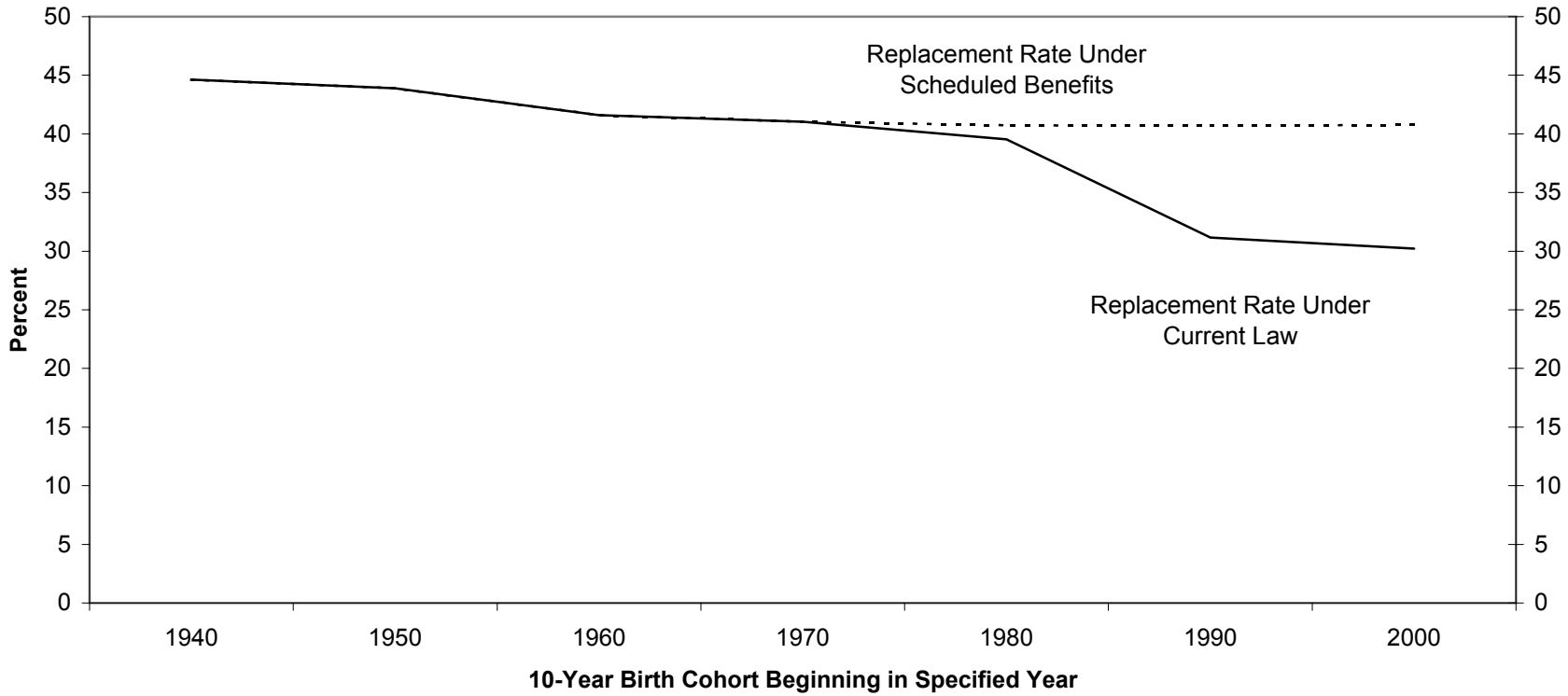
Notes: Based on a simulation using the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions.

First-year benefits are projected assuming that all workers claim benefits at age 65. Values are net of income taxes paid on benefits and credited to the Social Security trust funds.

Current law benefits fall below scheduled benefits beginning in 2053, when the trust funds are exhausted. Thereafter benefits are projected by assuming an across-the-board cut in benefits each year such that total annual benefits are limited to total annual revenues.

Figure 2-2.

Median Replacement Rates, by Birth Cohort



Source: Congressional Budget Office.

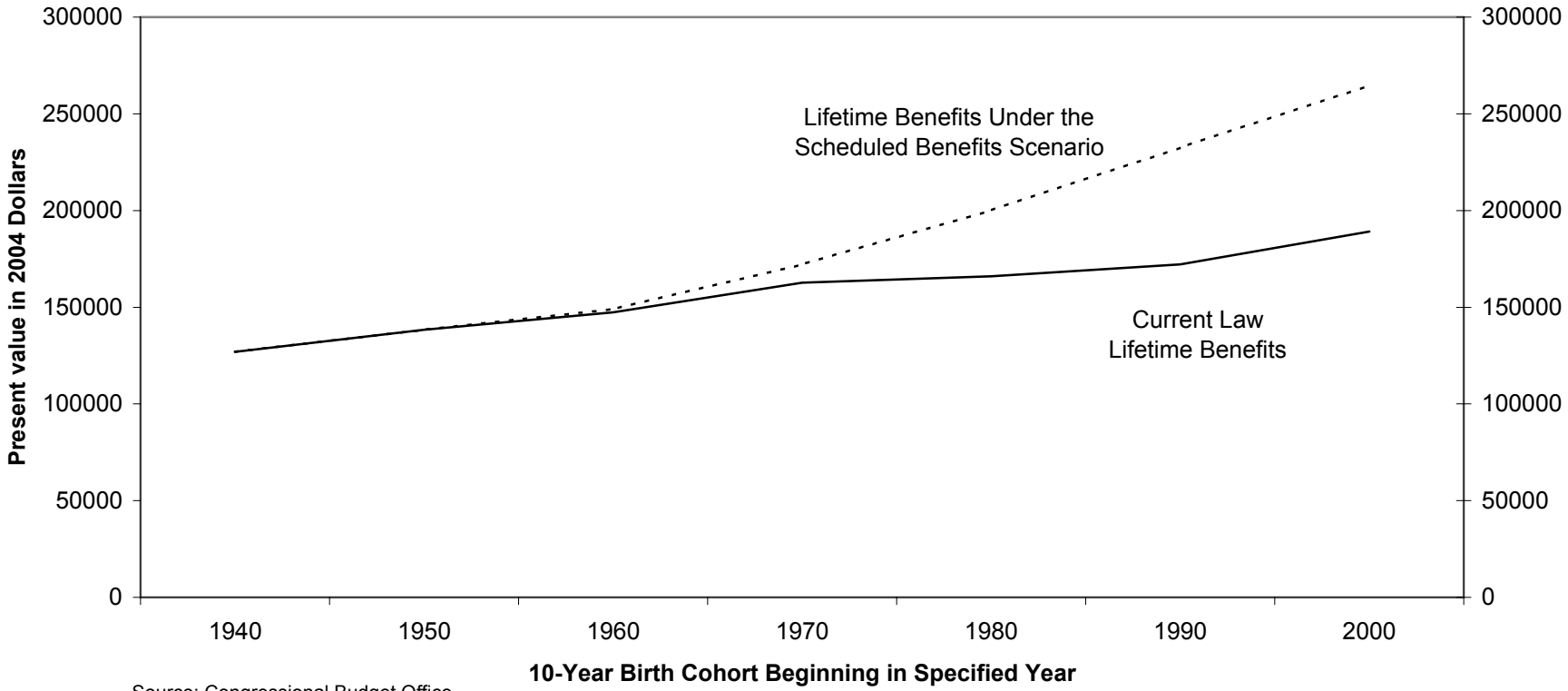
Notes: Based on a simulation using the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions.

Replacement rates are first-year benefits (net of income taxes paid on benefits and credited to the Social Security trust funds) as a percentage of average career earnings.

Current law benefits fall below scheduled benefits beginning in 2053, when the trust funds are exhausted. Thereafter benefits are projected by assuming an across-the-board cut in benefits each year such that total annual benefits are limited to total annual revenues.

Figure 2-3.

Median Lifetime Retirement Benefits, by Birth Cohort



Source: Congressional Budget Office.

Notes: Based on a simulation using the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions.

Lifetime retirement benefits have been adjusted for inflation (to put them in constant dollars) and discounted to age 60. Values are net of income taxes paid on benefits and credited to the Social Security trust funds.

Current law benefits fall below scheduled benefits beginning in 2053, when the trust funds are exhausted. Thereafter benefits are projected by assuming an across-the-board cut in benefits each year such that total annual benefits are limited to total annual revenues.

Table 2-1.

Measures of the Benefits Received by the Median Retired Worker, by Birth Cohort and Lifetime Earnings Level

10-Year Birth Cohort Starting in Year	First-Year Benefits (2004 Dollars)		First-Year Replacement Rate (Percent) /a		Present Value of Lifetime Benefits (2004 Dollars) /b	
	Scheduled	Current Law	Scheduled	Current Law	Scheduled	Current Law
	Median for All Retired Workers					
1940	13,700	13,700	44.6	44.6	127,000	127,000
1950	14,400	14,400	43.9	43.9	138,300	138,300
1960	15,000	15,000	41.6	41.6	149,000	147,400
1970	17,200	17,200	41.0	41.0	172,200	162,700
1980	19,500	18,800	40.7	39.5	200,100	166,000
1990	22,100	16,900	40.7	31.2	232,600	172,200
2000	25,000	18,500	40.8	30.2	264,700	189,200
	Median in Lowest Household Earnings Quintile					
1940	7,500	7,500	72.4	72.4	60,900	60,900
1950	8,300	8,300	69.6	69.6	69,600	69,600
1960	9,000	9,000	62.8	62.8	76,900	76,600
1970	9,800	9,800	64.5	64.5	85,500	83,000
1980	10,600	10,200	68.5	64.7	90,000	76,900
1990	12,100	9,300	67.5	51.5	109,100	80,000
2000	13,500	10,000	69.3	50.9	122,000	87,000
	Median in Middle Household Earnings Quintile					
1940	15,500	15,500	43.1	43.1	144,300	144,300
1950	15,800	15,800	42.7	42.7	157,300	157,200
1960	16,200	16,200	40.9	40.9	168,300	166,600
1970	18,500	18,500	40.3	40.3	196,700	186,300
1980	21,300	20,500	39.8	38.8	231,400	192,100
1990	24,000	18,400	39.8	30.4	267,700	199,900
2000	27,100	20,100	39.7	29.5	306,300	217,900
	Median in Highest Household Earnings Quintile					
1940	20,200	20,200	28.6	28.6	216,800	216,800
1950	22,300	22,300	28.0	28.0	243,000	242,800
1960	23,300	23,300	25.6	25.6	257,100	254,800
1970	26,200	26,200	25.2	25.1	296,000	277,600
1980	30,300	29,200	23.5	22.6	355,300	289,500
1990	34,300	26,300	23.5	18.0	408,000	305,300
2000	38,800	28,900	23.1	17.1	467,600	337,700

Source: Congressional Budget Office.

Notes: Based on a simulation using the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions.

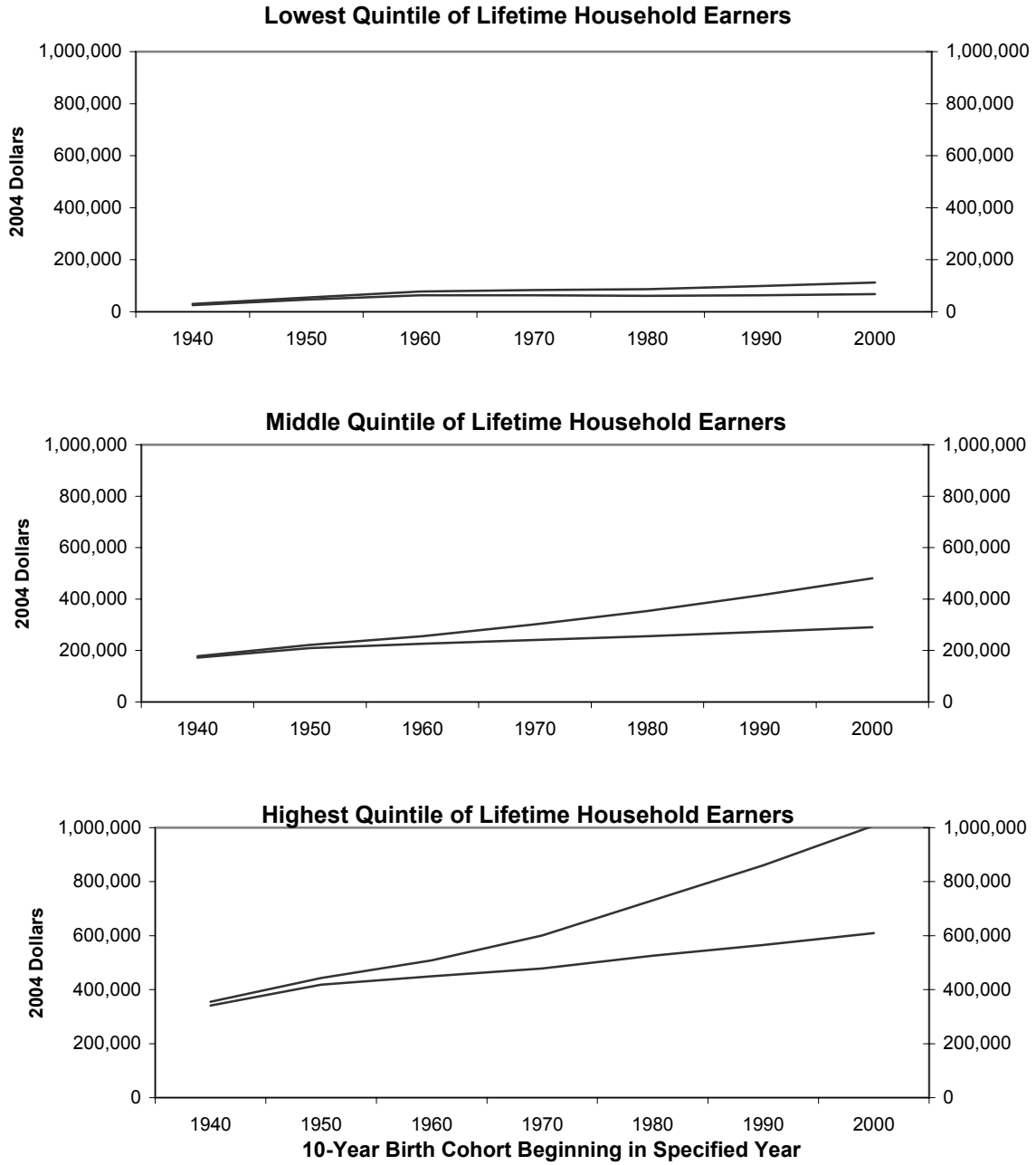
First-year annual benefits and replacement rates are computed for all individuals eligible to claim Old-Age Insurance benefits at age 62 and have not yet claimed any other benefit. All workers are assumed to have claimed benefits at age 65. All values are net of income taxes paid on benefits and credited to the Social Security trust funds. The current law scenario subjects all beneficiaries to an across-the-board cut in benefits each year such that total projected benefits equal projected revenues once the Social Security trust funds have been exhausted.

The overall median values differ from the median values in the middle quintile because individuals are sorted into quintiles on the basis of household earnings, not benefit levels.

a. First-year benefits as a percentage of average career earnings.
b. The present value of all retired-worker benefits received.

Figure 2-4.

Potential Range of Lifetime Payroll Taxes Under Current Law, by Birth Cohort and Lifetime Earnings Level

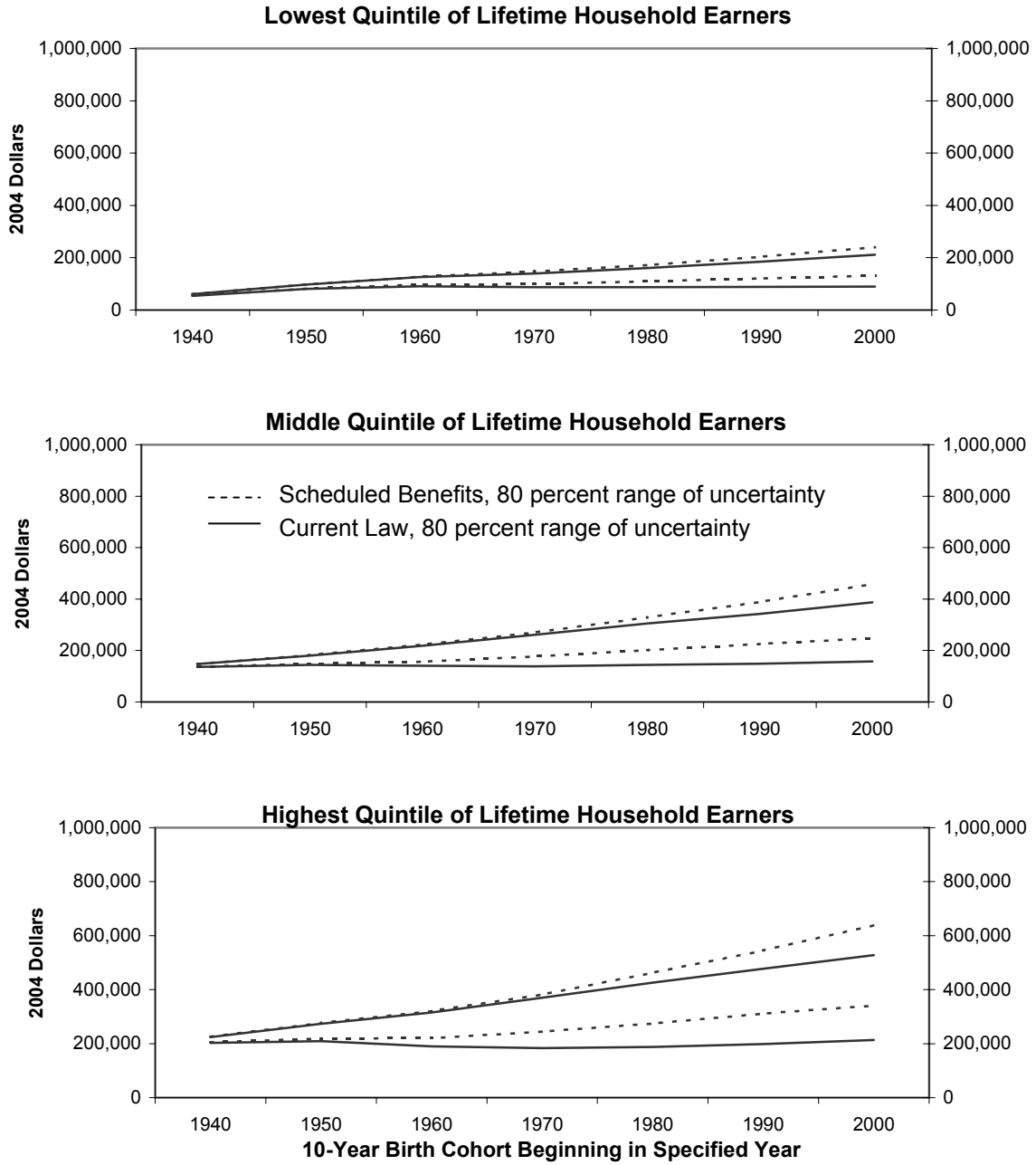


Source: Congressional Budget Office.

Notes: Based on 500 stochastic simulations centered on the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions, including only individuals who live to at least age 45. The 80 percent range of uncertainty reflects the range in which the actual outcomes have an 80 percent chance of falling. Taxes include OASDI employer and employee payroll taxes. Values are adjusted for inflation and discounted to age 60.

Figure 2-5.

Potential Range of Lifetime Social Security Benefits to Under Current Law and Under the Scheduled Benefits Scenario, by Birth Cohort and Lifetime Earnings Level

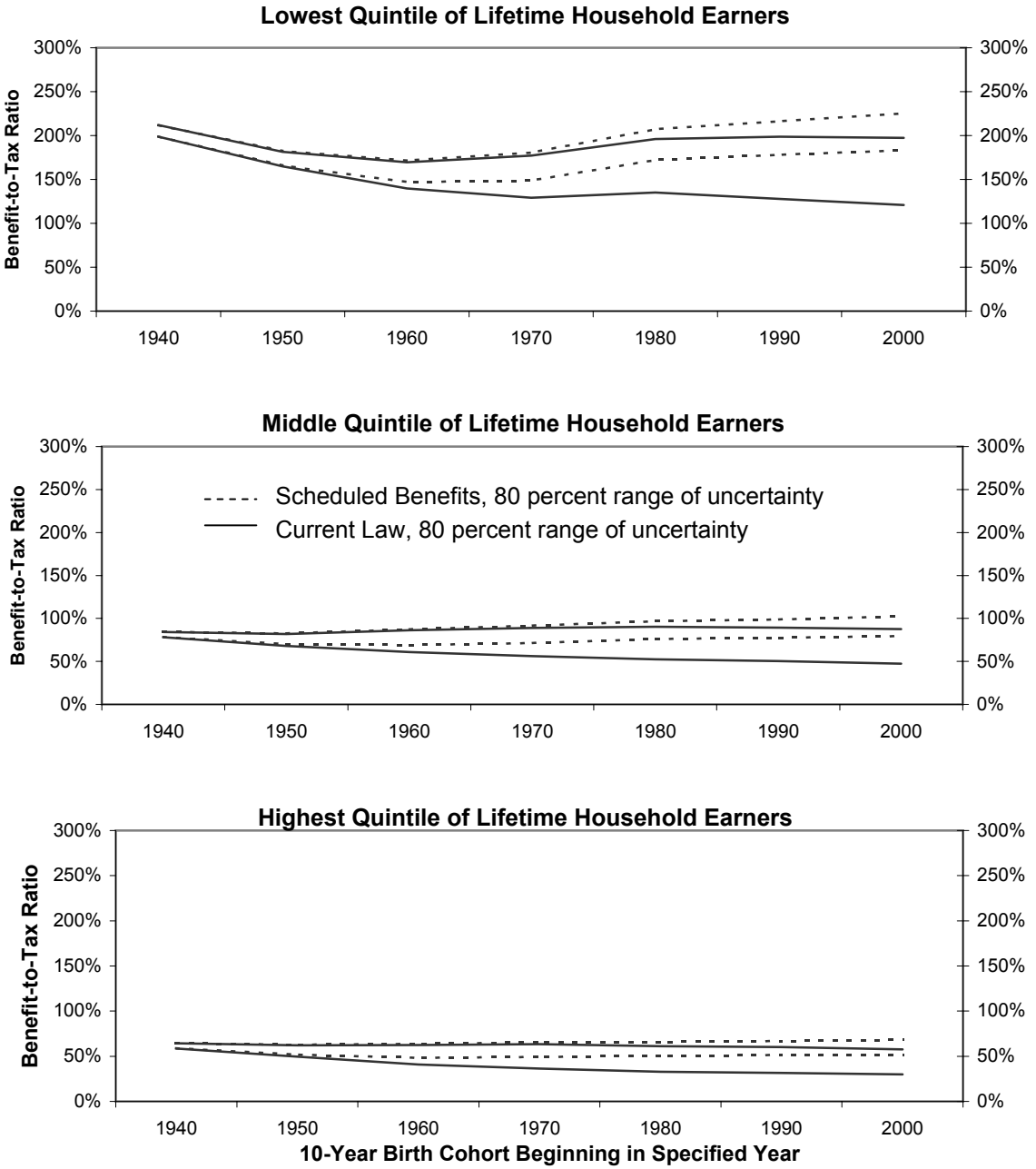


Source: Congressional Budget Office.

Notes: Based on 500 stochastic simulations centered on the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions, including only individuals who live to at least age 45. The 80 percent range of uncertainty reflects the range in which the actual outcomes have an 80 percent chance of falling. Benefits include Social Security benefits (including retired-worker, disabled-worker, spousal, and survivor benefits) net of income taxes paid on benefits and credited to the Social Security trust funds. Values are adjusted for inflation and discounted to age 60.

Figure 2-6.

Potential Range of the Ratio of Lifetime Social Security Benefits to Lifetime Taxes Under Current Law and Under the Scheduled Benefits Scenario, by Birth Cohort and Lifetime Earnings Level



Source: Congressional Budget Office.

Notes: Based on 500 stochastic simulations centered on the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions, including only individuals who live to at least age 45. The 80 percent range of uncertainty reflects the range in which the actual outcomes have an 80 percent chance of falling. Benefits include Social Security benefits net of income taxes (as shown in Figure 2-4); taxes include employer and employee payroll taxes (as shown in Figure 2-5).

Table B-1.

Measures of the Benefits Received by the Median Retired Worker, by Birth Cohort and Lifetime Earnings Level

10-Year Birth Cohort Starting in Year	First-Year Benefits (2004 Dollars)		First-Year Replacement Rate (Percent) /a		Present Value of Lifetime Benefits (2004 Dollars) /b	
	Scheduled	Current Law	Scheduled	Current Law	Scheduled	Current Law
			Males			
			Median for All Retired Workers			
1940	17,600	17,600	38.4	38.4	153,900	153,900
1950	17,800	17,800	39.3	39.3	157,000	157,000
1960	18,000	18,000	37.8	37.8	165,200	164,100
1970	20,800	20,800	37.2	37.2	192,200	182,900
1980	23,900	22,900	36.6	35.3	225,100	186,600
1990	26,600	20,400	36.9	28.3	256,600	189,500
2000	30,200	22,400	37.0	27.5	294,900	210,000
			Median in Lowest Household Earnings Quintile			
1940	9,100	9,100	58.5	58.5	76,500	76,500
1950	9,400	9,400	60.4	60.4	79,100	79,100
1960	9,900	9,900	57.1	57.1	82,600	82,200
1970	10,700	10,700	59.3	59.3	90,400	88,000
1980	11,500	11,100	62.2	60.1	100,000	84,800
1990	12,900	9,900	62.4	47.7	118,300	87,700
2000	14,400	10,800	64.1	47.3	130,600	92,500
			Median in Middle Household Earnings Quintile			
1940	18,100	18,100	37.4	37.4	170,700	170,700
1950	18,400	18,400	38.9	38.9	176,900	176,900
1960	18,600	18,600	37.7	37.7	190,700	190,300
1970	21,400	21,400	36.9	36.9	223,100	212,100
1980	24,700	23,700	36.2	35.1	262,200	218,400
1990	27,500	21,000	36.7	28.1	300,200	221,500
2000	31,000	23,100	36.6	27.4	343,800	243,700
			Median in Highest Household Earnings Quintile			
1940	21,300	21,300	21.8	21.8	243,100	243,100
1950	23,600	23,600	22.3	22.3	264,200	264,100
1960	24,700	24,700	20.4	20.4	278,600	278,300
1970	27,800	27,800	20.1	20.1	323,100	303,200
1980	32,100	31,000	18.6	17.9	384,400	310,600
1990	36,300	27,800	18.4	14.1	439,300	325,700
2000	41,000	30,600	18.2	13.6	507,500	362,800

10-Year Birth Cohort Starting in Year	First-Year Benefits (2004 Dollars)		First-Year Replacement Rate (Percent) /a		Present Value of Lifetime Benefits (2004 Dollars) /b	
	Scheduled	Current Law	Scheduled	Current Law	Scheduled	Current Law
			Females			
			Median for All Retired Workers			
1940	10,400	10,400	52.4	52.4	106,200	106,200
1950	11,900	11,900	49.3	49.3	124,600	124,500
1960	12,700	12,700	45.8	45.8	136,600	134,900
1970	14,600	14,600	45.1	45.1	158,500	148,800
1980	16,400	15,800	44.8	43.6	182,300	151,100
1990	18,900	14,400	44.4	34.0	214,400	159,300
2000	21,200	15,700	44.6	32.9	243,000	173,600
			Median in Lowest Household Earnings Quintile			
1940	6,800	6,800	79.0	79.0	52,800	52,800
1950	7,700	7,700	75.8	75.8	63,600	63,600
1960	8,500	8,500	67.3	67.3	72,200	72,000
1970	9,300	9,300	68.5	68.5	81,800	78,900
1980	9,900	9,500	72.2	67.6	82,800	70,800
1990	11,500	8,700	71.6	54.5	101,000	73,600
2000	12,800	9,500	72.1	52.6	115,500	82,500
			Median in Middle Household Earnings Quintile			
1940	11,600	11,600	50.2	50.2	116,100	116,100
1950	13,000	13,000	47.7	47.7	138,400	138,300
1960	13,900	13,900	44.5	44.5	151,000	149,400
1970	16,000	16,000	43.9	43.9	176,700	167,600
1980	18,200	17,700	43.5	42.4	206,100	171,800
1990	21,000	16,000	42.9	32.8	245,500	181,700
2000	23,900	17,600	43.1	31.7	280,100	199,900
			Median in Highest Household Earnings Quintile			
1940	15,300	15,300	41.2	41.2	182,800	182,800
1950	18,500	18,500	37.5	37.5	213,400	213,300
1960	19,500	19,400	34.9	34.9	227,300	223,400
1970	21,900	21,900	34.5	34.5	259,300	242,100
1980	25,900	24,900	33.0	31.9	315,100	256,100
1990	29,000	22,200	32.9	25.2	359,200	270,300
2000	33,400	24,600	32.8	24.3	406,700	295,000

Source: Congressional Budget Office.

Notes: Based on a simulation using the Social Security trustees' 2004 intermediate demographic assumptions and CBO's January 2005 economic assumptions.

First-year annual benefits and replacement rates are computed for all individuals eligible to claim Old-Age Insurance benefits at age 62 and have not yet claimed any other benefit. All workers are assumed to have claimed benefits at age 65. All values are net of income taxes paid on benefits and credited to the Social Security trust funds. The current law scenario subjects all beneficiaries to an across-the-board cut in benefits each year such that total projected benefits equal projected revenues once the Social Security trust funds have been exhausted.

The overall median values differ from the median values in the middle quintile because individuals are sorted into quintiles on the basis of household earnings, not benefit levels.

a. First-year benefits as a percentage of average career earnings.
b. The present value of all retired-worker benefits received.