

REPLACEMENT RATES FOR HYPOTHETICAL RETIRED WORKERS

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Introduction

Adequacy and equity of Social Security benefits are major policy considerations for the program. One measure of adequacy is the percentage of pre-retirement earnings that Social Security benefits replace, or the “replacement rate”. The numerator of this replacement rate is well established as the Social Security benefit. One indicator of equity is the degree of variation in replacement rates across different career-average earnings levels and birth cohorts.

In this note, we use the average of the highest 35 years of earnings, wage-indexed to the year before retirement, as the replacement rate denominator. Because Social Security serves a large population of workers with career earnings patterns that vary greatly, we believe the denominator used in this note is the most appropriate choice for measuring the adequacy of Social Security retirement benefits. For a full analysis of this and other possible concepts of replacement rates, see Actuarial Note Number 155 at:

www.ssa.gov/OACT/NOTES/pdf_notes/note155.pdf.

We base all calculations on the intermediate assumptions of the 2023 Trustees Report.

Social Security Benefits

The Social Security benefit formula¹ uses wage-indexed earnings in computing the primary insurance amount (PIA). For a retired worker starting benefits at any age, the PIA formula:

- Indexes annual earnings for those years when the worker is younger than age 60 using changes in the national average wage index (AWI) between each year of younger age and age 60;
- Averages the highest 35 years of these indexed earnings and unindexed earnings at age 60 and over, and converts this average to a monthly

amount, called average indexed monthly earnings (AIME);

- Applies factors of 90 percent, 32 percent, and 15 percent to specified portions of the AIME in a progressive manner, resulting in higher portions of earnings replaced for those with lower AIMEs; and
- Applies cost-of-living increases for each year after age 62.

The retired-worker benefit payable at any age is the PIA adjusted for early or delayed retirement.

The AIME calculation reflects a worker’s career-average earnings level adjusted for changes in the standard of living over the worker’s career, which is consistent with a wage-indexed denominator for the replacement rate measure.

Earnings Patterns for Hypothetical Workers

Our analysis includes five hypothetical workers with different pre-retirement career-average earnings levels. Four of the hypothetical workers in the tables assume the earnings history of workers following scaled-earnings patterns² and reflect very low, low, medium, and high career-average levels of pre-retirement earnings starting at age 21. The fifth hypothetical worker assumes the earnings history of a steady maximum earner starting at age 22. The scaled-earnings patterns are derived from earnings experienced by insured workers in years 2000 through 2019. The earnings levels differ by age, reflecting both the likelihood of having earnings at each age, and the average earnings levels for those who have earnings. The career-average level of earnings for each scaled earner case targets a specific percent of the AWI. For the scaled very low, low, medium, and high earners, the career-average earnings level is about 25 percent, 45 percent, 100 percent, and 160 percent of the AWI, respectively (\$16,537, \$29,766, \$66,147, and \$105,835, respectively, for 2023). The steady maximum earner has earnings at or above the contribution and benefit base (\$160,200 for 2023) for

¹ Prior to the 1977 Amendments to the Social Security Act, the benefit formula differed. Historical benefit levels reflect the benefit formula in effect at the time.

² Actuarial Note Number 2023.3 has more details on scaled-earnings patterns. See www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf.

each year starting at age 22 through the year prior to retirement.

Results

Tables A through D show benefit and replacement rate information for the five different pre-retirement earnings levels. Each table shows the Social Security benefit in wage-indexed 2023 dollars and as a percent of career average earnings (the replacement rate measure in this note). The denominator of this replacement rate is the average of the highest 35 years of earnings for these hypothetical workers, wage-indexed to the year before retirement.³ This calculation is very similar to the current-law AIME calculation, except that the AIME calculation wage-indexes earnings to age 60 rather than to the year before retirement. The calculations in these tables are wage-indexed to the year before retirement to provide a closer comparison of pre-retirement earnings and post-retirement benefit levels.

Tables A through C show benefit amounts and replacement rates for retirement at 62, at 65, and at normal retirement age (NRA) for the hypothetical workers born in 1957 and selected subsequent years. In comparing across tables, benefit levels and replacement rates are lowest at age 62 and highest at NRA. This occurs because an actuarial reduction applies to the monthly benefit for those retiring before NRA. For example, for an NRA of 67 (applicable to workers born in 1960 or later), individuals retiring at exact age 62 would have a 30 percent reduction in benefits, and those retiring at age 65 would have a $13\frac{1}{3}$ percent reduction. Table D

³ In table D, in order to calculate the career-average earnings for birth cohorts where individuals attain age 21 before 1951, we use national average earnings from 1937 to 1950 in SSA's employee operations manual, available at <https://secure.ssa.gov/apps10/poms.nsf/lnx/0201701200>. For years prior to 1937, we use the 1937 national average earnings level.

shows benefit amounts and replacement rates for retirement at 62,⁴ at 65, and at normal retirement age (NRA) for selected hypothetical workers born between 1875 and 1955.

Tables A through C show current-law scheduled benefits and payable benefits in separate panels. Current-law scheduled benefits are those specified in the law. However, when the trust fund reserves become depleted, current law prescribes that expenditures cannot exceed current income. Because the projected date that the combined OASI and DI Trust Fund reserves become depleted is 2034 and projected income will not fully finance scheduled benefits after that date, the tables include "payable benefits", where scheduled benefits are reduced such that current-law income is sufficient to pay benefits for that year.⁵

Tables A through C also include current-law scheduled and payable benefits in CPI-indexed 2023 dollars.⁶ The current-law scheduled benefits column shows a general increase over time in the purchasing power of Social Security benefits, which would be necessary for retirees across generations to maintain a similar standard of living.

⁴ The Social Security Act extended retirement benefits beginning at age 62 to female workers effective November 1956 and to male workers effective August 1961.

⁵ The payable benefits replacement rates in Tables A through C for retired workers retiring in the OASDI reserve depletion year (2034) are computed by summing the monthly benefits for that year before and after trust fund reserve depletion and dividing that sum by the worker's career average earnings.

⁶ A CPI-indexed 2023 dollar adjustment uses the adjusted CPI indexing series in table VI.G6 of the 2023 Trustees Report. See: www.ssa.gov/OACT/TR/2023/lr6g6.html.

Table A—Scheduled and Payable Benefits and Replacement Rates for Hypothetical Retired Workers^a in their First Year of Benefit Receipt at Age 62
(based on intermediate assumptions of the 2023 OASDI Trustees Report)

Year of birth ^c	Year attain age 62	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2023 dollars ^b	
		Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
Scaled very low earnings: (Career-average earnings for 2022 equal \$15,788^f)							
1957	2019	\$9,270	58.4	\$9,270	58.4	\$9,116	\$9,116
1958	2020	9,228	57.7	9,228	57.7	9,219	9,219
1959	2021	8,730	57.8	8,730	57.8	9,023	9,023
1960	2022	8,491	54.1	8,491	54.1	8,473	8,473
1961	2023	8,832	55.9	8,832	55.9	8,832	8,832
1965	2027	8,889	56.2	8,889	56.2	9,447	9,447
1970	2032	8,927	56.3	8,927	56.3	10,234	10,234
1975	2037	8,968	56.5	7,056	44.4	10,933	8,601
1980	2042	8,981	56.5	6,993	44.0	11,624	9,051
1985	2047	8,988	56.6	6,966	43.9	12,303	9,535
1990	2052	8,992	56.6	6,908	43.5	13,003	9,989
1995	2057	8,992	56.6	6,784	42.7	13,737	10,365
2000	2062	8,987	56.6	6,639	41.8	14,520	10,726
2005	2067	8,984	56.6	6,530	41.1	15,362	11,165
2010	2072	8,985	56.6	6,435	40.5	16,259	11,644
2015	2077	8,986	56.6	6,379	40.2	17,207	12,214
2020	2082	8,988	56.6	6,419	40.4	18,208	13,003
2025	2087	8,987	56.6	6,526	41.1	19,262	13,987
2030	2092	8,990	56.6	6,633	41.8	20,374	15,034
Scaled low earnings: (Career-average earnings for 2022 equal \$28,418^f)							
1957	2019	12,120	42.5	12,120	42.5	11,918	11,918
1958	2020	12,070	41.9	12,070	41.9	12,058	12,058
1959	2021	11,417	42.0	11,417	42.0	11,799	11,799
1960	2022	11,099	39.3	11,099	39.3	11,075	11,075
1961	2023	11,539	40.6	11,539	40.6	11,539	11,539
1965	2027	11,613	40.8	11,613	40.8	12,342	12,342
1970	2032	11,669	40.9	11,669	40.9	13,377	13,377
1975	2037	11,718	41.0	9,219	32.3	14,285	11,238
1980	2042	11,731	41.0	9,135	31.9	15,183	11,822
1985	2047	11,749	41.1	9,106	31.9	16,081	12,463
1990	2052	11,751	41.1	9,028	31.6	16,993	13,054
1995	2057	11,750	41.1	8,866	31.0	17,951	13,544
2000	2062	11,743	41.1	8,674	30.4	18,973	14,016
2005	2067	11,742	41.1	8,534	29.9	20,078	14,592
2010	2072	11,742	41.1	8,409	29.4	21,248	15,217
2015	2077	11,743	41.1	8,336	29.2	22,486	15,962
2020	2082	11,745	41.1	8,388	29.4	23,794	16,993
2025	2087	11,746	41.1	8,529	29.8	25,174	18,280
2030	2092	11,748	41.1	8,668	30.3	26,625	19,646
Scaled medium earnings: (Career-average earnings for 2022 equal \$63,152^f)							
1957	2019	19,951	31.4	19,951	31.4	19,618	19,618
1958	2020	19,870	31.0	19,870	31.0	19,849	19,849
1959	2021	18,778	31.1	18,778	31.1	19,406	19,406
1960	2022	18,278	29.1	18,278	29.1	18,240	18,240
1961	2023	18,989	30.1	18,989	30.1	18,989	18,989
1965	2027	19,124	30.2	19,124	30.2	20,325	20,325
1970	2032	19,208	30.3	19,208	30.3	22,020	22,020
1975	2037	19,287	30.4	15,173	23.9	23,513	18,498
1980	2042	19,311	30.4	15,037	23.7	24,993	19,461
1985	2047	19,336	30.4	14,986	23.6	26,466	20,512
1990	2052	19,336	30.4	14,855	23.4	27,962	21,481
1995	2057	19,338	30.4	14,591	22.9	29,543	22,291
2000	2062	19,326	30.4	14,276	22.5	31,225	23,067
2005	2067	19,324	30.4	14,044	22.1	33,042	24,014
2010	2072	19,326	30.4	13,841	21.8	34,971	25,045
2015	2077	19,325	30.4	13,718	21.6	37,003	26,267

Table A—Scheduled and Payable Benefits and Replacement Rates for Hypothetical Retired Workers^a in their First Year of Benefit Receipt at Age 62 (Cont.)

(based on intermediate assumptions of the 2023 OASDI Trustees Report)

Year of birth ^c	Year attain age 62	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2023 dollars ^b	
		Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
2020	2082	\$19,327	30.4	\$13,802	21.7	\$39,154	\$27,962
2025	2087	19,328	30.4	14,035	22.1	41,424	30,079
2030	2092	19,332	30.4	14,265	22.4	43,815	32,331
Scaled high earnings: (Career-average earnings for 2022 equal \$101,043^f)							
1957	2019	26,503	26.1	26,503	26.1	26,061	26,061
1958	2020	26,398	25.8	26,398	25.8	26,371	26,371
1959	2021	24,953	25.8	24,953	25.8	25,788	25,788
1960	2022	24,263	24.1	24,263	24.1	24,211	24,211
1961	2023	25,233	25.0	25,233	25.0	25,233	25,233
1965	2027	25,394	25.1	25,394	25.1	26,989	26,989
1970	2032	25,512	25.1	25,512	25.1	29,247	29,247
1975	2037	25,620	25.2	20,155	19.8	31,233	24,571
1980	2042	25,650	25.2	19,972	19.6	33,197	25,849
1985	2047	25,682	25.2	19,904	19.5	35,153	27,245
1990	2052	25,686	25.3	19,733	19.4	37,144	28,535
1995	2057	25,686	25.3	19,381	19.1	39,243	29,610
2000	2062	25,672	25.2	18,964	18.6	41,479	30,641
2005	2067	25,667	25.2	18,654	18.3	43,887	31,896
2010	2072	25,669	25.2	18,383	18.0	46,448	33,265
2015	2077	25,668	25.2	18,221	17.9	49,148	34,888
2020	2082	25,672	25.2	18,333	18.0	52,007	37,141
2025	2087	25,673	25.2	18,642	18.3	55,022	39,953
2030	2092	25,678	25.2	18,947	18.6	58,197	42,943
Steady maximum earnings: (Career-average earnings for 2022 equal \$156,123^f)							
1957	2019	32,278	20.6	32,278	20.6	31,739	31,739
1958	2020	32,168	20.4	32,168	20.4	32,135	32,135
1959	2021	30,431	20.4	30,431	20.4	31,450	31,450
1960	2022	29,603	19.1	29,603	19.1	29,540	29,540
1961	2023	30,768	19.7	30,768	19.7	30,768	30,768
1965	2027	31,025	19.8	31,025	19.8	32,973	32,973
1970	2032	31,189	19.8	31,189	19.8	35,756	35,756
1975	2037	31,309	19.9	24,631	15.7	38,169	30,028
1980	2042	31,379	19.9	24,433	15.5	40,612	31,623
1985	2047	31,397	19.9	24,334	15.4	42,976	33,308
1990	2052	31,355	19.9	24,088	15.3	45,342	34,833
1995	2057	31,333	19.9	23,642	15.0	47,870	36,119
2000	2062	31,307	19.9	23,127	14.7	50,584	37,367
2005	2067	31,321	19.9	22,764	14.5	53,556	38,923
2010	2072	31,332	19.9	22,439	14.3	56,696	40,604
2015	2077	31,333	19.9	22,242	14.1	59,996	42,588
2020	2082	31,338	19.9	22,380	14.2	63,487	45,339
2025	2087	31,339	19.9	22,756	14.5	67,167	48,772
2030	2092	31,345	19.9	23,129	14.7	71,041	52,420

^a The table uses four hypothetical “scaled” earnings levels and a hypothetical worker who earns the taxable maximum each year. See Actuarial Note Number 2023.3 at www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf for more information.

^b CPI-indexed dollar adjustment uses the adjusted CPI indexing series shown in table VI.G6 of the 2023 OASDI Trustees Report.

^c Born on January 2nd of year.

^d Wage-indexed dollar adjustment uses the national average wage indexing series shown in table VI.G6 of the 2023 OASDI Trustees Report.

^e Computed using nominal dollars.

^f Average of highest 35 years of wage-indexed earnings through the year prior to retirement. The value is for retirement in 2023. Thus, the annual earnings used for this average are wage-indexed to 2022.

Table B—Scheduled and Payable Benefits and Replacement Rates for Hypothetical Retired Workers^a in their First Year of Benefit Receipt at Age 65
(based on intermediate assumptions of the 2023 OASDI Trustees Report)

Year of birth ^c	Year attain age 65	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2023 dollars ^b	
		Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
Scaled very low earnings: (Career-average earnings for 2022 equal \$15,867^f)							
1957	2022	\$10,809	68.5	\$10,809	68.5	\$10,786	\$10,786
1958	2023	11,311	71.3	11,311	71.3	11,311	11,311
1959	2024	11,393	71.5	11,393	71.5	11,528	11,528
1960	2025	10,759	67.7	10,759	67.7	11,063	11,063
1961	2026	10,580	66.6	10,580	66.6	11,061	11,061
1965	2030	10,555	66.4	10,555	66.4	11,758	11,758
1970	2035	10,701	67.1	8,496	53.3	12,730	10,107
1975	2040	10,758	67.4	8,393	52.6	13,601	10,611
1980	2045	10,795	67.6	8,385	52.5	14,454	11,228
1985	2050	10,819	67.7	8,346	52.2	15,306	11,807
1990	2055	10,819	67.7	8,231	51.5	16,169	12,301
1995	2060	10,817	67.7	8,054	50.4	17,088	12,722
2000	2065	10,804	67.7	7,901	49.5	18,060	13,207
2005	2070	10,802	67.7	7,778	48.8	19,109	13,761
2010	2075	10,805	67.7	7,685	48.2	20,226	14,386
2015	2080	10,805	67.7	7,685	48.2	21,401	15,223
2020	2085	10,807	67.7	7,788	48.8	22,646	16,321
2025	2090	10,810	67.7	7,935	49.7	23,959	17,588
2030	2095	10,813	67.7	8,004	50.1	25,341	18,758
Scaled low earnings: (Career-average earnings for 2022 equal \$28,561^f)							
1957	2022	14,158	49.8	14,158	49.8	14,128	14,128
1958	2023	14,824	51.9	14,824	51.9	14,824	14,824
1959	2024	14,927	52.0	14,927	52.0	15,105	15,105
1960	2025	14,100	49.3	14,100	49.3	14,499	14,499
1961	2026	13,853	48.5	13,853	48.5	14,483	14,483
1965	2030	13,815	48.3	13,815	48.3	15,390	15,390
1970	2035	14,019	48.8	11,130	38.7	16,677	13,240
1975	2040	14,084	49.0	10,988	38.2	17,806	13,892
1980	2045	14,132	49.2	10,977	38.2	18,922	14,698
1985	2050	14,162	49.3	10,924	38.0	20,035	15,454
1990	2055	14,167	49.3	10,778	37.5	21,173	16,108
1995	2060	14,158	49.3	10,541	36.7	22,366	16,652
2000	2065	14,142	49.2	10,342	36.0	23,639	17,287
2005	2070	14,140	49.2	10,182	35.4	25,014	18,013
2010	2075	14,144	49.2	10,060	35.0	26,475	18,831
2015	2080	14,145	49.2	10,061	35.0	28,017	19,929
2020	2085	14,147	49.2	10,196	35.5	29,645	21,365
2025	2090	14,150	49.2	10,387	36.1	31,363	23,023
2030	2095	14,155	49.2	10,478	36.4	33,173	24,556
Scaled medium earnings: (Career-average earnings for 2022 equal \$63,469^f)							
1957	2022	23,356	37.0	23,356	37.0	23,306	23,306
1958	2023	24,463	38.5	24,463	38.5	24,463	24,463
1959	2024	24,639	38.6	24,639	38.6	24,933	24,933
1960	2025	23,288	36.6	23,288	36.6	23,947	23,947
1961	2026	22,871	36.0	22,871	36.0	23,911	23,911
1965	2030	22,800	35.8	22,800	35.8	25,399	25,399
1970	2035	23,118	36.2	18,354	28.7	27,501	21,834
1975	2040	23,224	36.4	18,119	28.4	29,361	22,907
1980	2045	23,309	36.5	18,106	28.4	31,209	24,242
1985	2050	23,357	36.6	18,017	28.2	33,043	25,488
1990	2055	23,360	36.6	17,772	27.8	34,914	26,562
1995	2060	23,351	36.6	17,385	27.2	36,887	27,463
2000	2065	23,325	36.5	17,058	26.7	38,989	28,512
2005	2070	23,323	36.5	16,795	26.3	41,259	29,711
2010	2075	23,327	36.5	16,591	26.0	43,664	31,056
2015	2080	23,327	36.5	16,593	26.0	46,205	32,866

Table B—Scheduled and Payable Benefits and Replacement Rates for Hypothetical Retired Workers^a in their First Year of Benefit Receipt at Age 65 (Cont.)

(based on intermediate assumptions of the 2023 OASDI Trustees Report)

Year of birth ^c	Year attain age 65	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2023 dollars ^b	
		Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
2020	2085	\$23,331	36.5	\$16,814	26.3	\$48,890	\$35,234
2025	2090	23,338	36.5	17,132	26.8	51,726	37,971
2030	2095	23,344	36.5	17,280	27.0	54,708	40,497
Scaled high earnings: (Career-average earnings for 2022 equal \$101,550^f)							
1957	2022	30,902	30.6	30,902	30.6	30,836	30,836
1958	2023	32,345	31.9	32,345	31.9	32,345	32,345
1959	2024	32,566	31.9	32,566	31.9	32,954	32,954
1960	2025	30,751	30.2	30,751	30.2	31,621	31,621
1961	2026	30,242	29.7	30,242	29.7	31,618	31,618
1965	2030	30,159	29.6	30,159	29.6	33,598	33,598
1970	2035	30,591	30.0	24,287	23.8	36,391	28,892
1975	2040	30,738	30.1	23,982	23.5	38,861	30,319
1980	2045	30,846	30.2	23,960	23.5	41,301	32,082
1985	2050	30,914	30.2	23,846	23.3	43,734	33,735
1990	2055	30,918	30.2	23,522	23.0	46,209	35,155
1995	2060	30,905	30.2	23,010	22.5	48,821	36,349
2000	2065	30,869	30.2	22,574	22.1	51,598	37,733
2005	2070	30,864	30.2	22,226	21.7	54,601	39,319
2010	2075	30,870	30.2	21,957	21.5	57,785	41,100
2015	2080	30,870	30.2	21,958	21.5	61,146	43,494
2020	2085	30,877	30.2	22,252	21.8	64,702	46,630
2025	2090	30,884	30.2	22,671	22.2	68,452	50,249
2030	2095	30,894	30.2	22,869	22.4	72,400	53,593
Steady maximum earnings: (Career-average earnings for 2022 equal \$156,123^f)							
1957	2022	37,703	24.3	37,703	24.3	37,623	37,623
1958	2023	39,456	25.3	39,456	25.3	39,456	39,456
1959	2024	39,751	25.3	39,751	25.3	40,225	40,225
1960	2025	37,577	24.0	37,577	24.0	38,640	38,640
1961	2026	36,939	23.6	36,939	23.6	38,619	38,619
1965	2030	36,879	23.5	36,879	23.5	41,085	41,085
1970	2035	37,441	23.7	29,726	18.8	44,540	35,361
1975	2040	37,599	23.8	29,335	18.6	47,536	37,088
1980	2045	37,755	23.9	29,327	18.6	50,551	39,267
1985	2050	37,810	23.9	29,166	18.4	53,489	41,260
1990	2055	37,757	24.0	28,725	18.3	56,430	42,931
1995	2060	37,715	24.0	28,080	17.9	59,578	44,357
2000	2065	37,664	24.0	27,543	17.6	62,957	46,040
2005	2070	37,672	23.9	27,128	17.2	66,643	47,990
2010	2075	37,685	23.9	26,804	17.0	70,541	50,173
2015	2080	37,686	23.9	26,806	17.0	74,644	53,095
2020	2085	37,694	23.9	27,166	17.2	78,988	56,925
2025	2090	37,703	24.0	27,677	17.6	83,564	61,343
2030	2095	37,714	24.0	27,917	17.8	88,383	65,424

^a The table uses four hypothetical “scaled” earnings levels and a hypothetical worker who earns the taxable maximum each year. See Actuarial Note Number 2023.3 at www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf for more information.

^b CPI-indexed dollar adjustment uses the adjusted CPI indexing series shown in table VI.G6 of the 2023 OASDI Trustees Report.

^c Born on January 2nd of year.

^d Wage-indexed dollar adjustment uses the national average wage indexing series shown in table VI.G6 of the 2023 OASDI Trustees Report.

^e Computed using nominal dollars.

^f Average of highest 35 years of wage-indexed earnings through the year prior to retirement. The value is for retirement in 2023. Thus, the annual earnings used for this average are wage-indexed to 2022.

Table C—Scheduled and Payable Benefits and Replacement Rates for Hypothetical Retired Workers^a in their First Year of Benefit Receipt at Normal Retirement Age (NRA)

(based on intermediate assumptions of the 2023 OASDI Trustees Report)

Year of birth ^c	Year attain NRA	Age at retirement	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2023 dollars ^b	
			Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
Scaled very low earnings: (Career-average earnings for 2022 equal \$15,867^f)								
1957	2023	66:6	\$12,689	78.3	\$12,689	78.3	\$12,689	\$12,689
1958	2024	66:8	12,888	78.9	12,888	78.9	13,041	13,041
1959	2025	66:10	13,046	79.4	13,046	79.4	13,415	13,415
1960	2027	67:0	12,034	75.8	12,034	75.8	12,790	12,790
1961	2028	67:0	11,844	74.5	11,844	74.5	12,788	12,788
1965	2032	67:0	11,847	74.3	11,847	74.3	13,581	13,581
1970	2037	67:0	12,064	75.6	9,491	59.5	14,707	11,570
1975	2042	67:0	12,133	76.0	9,448	59.2	15,703	12,227
1980	2047	67:0	12,191	76.3	9,448	59.1	16,686	12,932
1985	2052	67:0	12,223	76.5	9,390	58.8	17,676	13,579
1990	2057	67:0	12,224	76.5	9,223	57.7	18,675	14,091
1995	2062	67:0	12,211	76.5	9,021	56.5	19,730	14,575
2000	2067	67:0	12,195	76.4	8,863	55.5	20,852	15,155
2005	2072	67:0	12,195	76.4	8,734	54.7	22,067	15,804
2010	2077	67:0	12,198	76.4	8,659	54.2	23,356	16,579
2015	2082	67:0	12,199	76.4	8,712	54.6	24,713	17,649
2020	2087	67:0	12,201	76.4	8,860	55.5	26,150	18,988
2025	2092	67:0	12,208	76.4	9,008	56.4	27,668	20,416
2030	2097	67:0	12,211	76.5	9,035	56.6	29,262	21,650
Scaled low earnings: (Career-average earnings for 2022 equal \$28,561^f)								
1957	2023	66:6	16,623	57.0	16,623	57.0	16,623	16,623
1958	2024	66:8	16,881	57.4	16,881	57.4	17,082	17,082
1959	2025	66:10	17,095	57.8	17,095	57.8	17,579	17,579
1960	2027	67:0	15,795	55.2	15,795	55.2	16,787	16,787
1961	2028	67:0	15,510	54.2	15,510	54.2	16,746	16,746
1965	2032	67:0	15,519	54.1	15,519	54.1	17,791	17,791
1970	2037	67:0	15,802	55.0	12,432	43.3	19,265	15,156
1975	2042	67:0	15,893	55.3	12,375	43.1	20,570	16,017
1980	2047	67:0	15,969	55.5	12,377	43.0	21,858	16,941
1985	2052	67:0	16,001	55.7	12,292	42.8	23,139	17,776
1990	2057	67:0	16,007	55.7	12,077	42.0	24,455	18,452
1995	2062	67:0	15,990	55.6	11,812	41.1	25,835	19,085
2000	2067	67:0	15,970	55.6	11,607	40.4	27,307	19,846
2005	2072	67:0	15,969	55.6	11,437	39.8	28,896	20,694
2010	2077	67:0	15,972	55.6	11,338	39.5	30,583	21,709
2015	2082	67:0	15,974	55.6	11,408	39.7	32,362	23,111
2020	2087	67:0	15,978	55.6	11,602	40.4	34,244	24,866
2025	2092	67:0	15,985	55.6	11,795	41.0	36,229	26,733
2030	2097	67:0	15,990	55.6	11,831	41.1	38,318	28,351
Scaled medium earnings: (Career-average earnings for 2022 equal \$63,469^f)								
1957	2023	66:6	27,446	42.3	27,446	42.3	27,446	27,446
1958	2024	66:8	27,872	42.6	27,872	42.6	28,204	28,204
1959	2025	66:10	28,233	43.0	28,233	43.0	29,032	29,032
1960	2027	67:0	26,113	41.1	26,113	41.1	27,753	27,753
1961	2028	67:0	25,616	40.3	25,616	40.3	27,657	27,657
1965	2032	67:0	25,622	40.2	25,622	40.2	29,374	29,374
1970	2037	67:0	26,079	40.9	20,517	32.2	31,793	25,012
1975	2042	67:0	26,223	41.1	20,419	32.0	33,939	26,427
1980	2047	67:0	26,347	41.2	20,420	31.9	36,064	27,951
1985	2052	67:0	26,404	41.3	20,284	31.7	38,183	29,333
1990	2057	67:0	26,406	41.3	19,924	31.2	40,342	30,439
1995	2062	67:0	26,382	41.3	19,489	30.5	42,626	31,489
2000	2067	67:0	26,349	41.3	19,150	30.0	45,054	32,744
2005	2072	67:0	26,347	41.2	18,869	29.5	47,676	34,144
2010	2077	67:0	26,353	41.3	18,707	29.3	50,459	35,818
2015	2082	67:0	26,355	41.3	18,821	29.5	53,390	38,129

Table C—Scheduled and Payable Benefits and Replacement Rates for Hypothetical Retired Workers^a in their First Year of Benefit Receipt at Normal Retirement Age (NRA) (Cont.)
(based on intermediate assumptions of the 2023 OASDI Trustees Report)

Year of birth ^c	Year attain NRA	Age at retirement	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2023 dollars ^b	
			Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2023 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
2020	2087	67:0	\$26,360	41.3	\$19,141	30.0	\$56,496	\$41,024
2025	2092	67:0	26,372	41.3	19,460	30.5	59,770	44,104
2030	2097	67:0	26,380	41.3	19,518	30.6	63,215	46,771
Scaled high earnings: (Career-average earnings for 2022 equal \$101,550^f)								
1957	2023	66:6	36,283	35.0	36,283	35.0	36,283	36,283
1958	2024	66:8	36,830	35.2	36,830	35.2	37,269	37,269
1959	2025	66:10	37,285	35.5	37,285	35.5	38,340	38,340
1960	2027	67:0	34,417	33.9	34,417	33.9	36,579	36,579
1961	2028	67:0	33,845	33.3	33,845	33.3	36,542	36,542
1965	2032	67:0	33,863	33.2	33,863	33.2	38,822	38,822
1970	2037	67:0	34,482	33.8	27,128	26.6	42,037	33,071
1975	2042	67:0	34,679	33.9	27,003	26.4	44,882	34,948
1980	2047	67:0	34,843	34.1	27,005	26.4	47,693	36,964
1985	2052	67:0	34,924	34.2	26,829	26.3	50,503	38,798
1990	2057	67:0	34,927	34.2	26,353	25.8	53,360	40,261
1995	2062	67:0	34,891	34.1	25,775	25.2	56,375	41,645
2000	2067	67:0	34,849	34.1	25,327	24.8	59,587	43,306
2005	2072	67:0	34,845	34.1	24,955	24.4	63,052	45,156
2010	2077	67:0	34,851	34.1	24,739	24.2	66,732	47,370
2015	2082	67:0	34,855	34.1	24,892	24.4	70,612	50,428
2020	2087	67:0	34,863	34.1	25,315	24.8	74,718	54,255
2025	2092	67:0	34,878	34.1	25,736	25.2	79,048	58,328
2030	2097	67:0	34,889	34.1	25,814	25.2	83,607	61,859
Steady maximum earnings: (Career-average earnings for 2022 equal \$156,274^f)								
1957	2023	66:6	44,357	27.8	44,357	27.8	44,357	44,357
1958	2024	66:8	45,051	28.0	45,051	28.0	45,587	45,587
1959	2025	66:10	45,639	28.2	45,639	28.2	46,930	46,930
1960	2027	67:0	42,350	27.0	42,350	27.0	45,010	45,010
1961	2028	67:0	41,600	26.5	41,600	26.5	44,915	44,915
1965	2032	67:0	41,665	26.4	41,665	26.4	47,766	47,766
1970	2037	67:0	42,447	26.8	33,394	21.1	51,747	40,710
1975	2042	67:0	42,655	27.0	33,213	21.0	55,205	42,986
1980	2047	67:0	42,888	27.1	33,239	21.0	58,704	45,498
1985	2052	67:0	42,952	27.2	32,997	20.9	62,112	47,716
1990	2057	67:0	42,894	27.2	32,364	20.5	65,531	49,444
1995	2062	67:0	42,820	27.2	31,632	20.1	69,185	51,108
2000	2067	67:0	42,755	27.2	31,073	19.8	73,106	53,132
2005	2072	67:0	42,759	27.2	30,623	19.5	77,373	55,412
2010	2077	67:0	42,771	27.2	30,361	19.3	81,897	58,135
2015	2082	67:0	42,777	27.2	30,549	19.4	86,659	61,888
2020	2087	67:0	42,787	27.2	31,069	19.8	91,701	66,587
2025	2092	67:0	42,805	27.2	31,585	20.1	97,014	71,585
2030	2097	67:0	42,818	27.2	31,680	20.1	102,606	75,916

^a The table uses four hypothetical “scaled” earnings levels and a hypothetical worker who earns the taxable maximum each year. See Actuarial Note Number 2023.3 at www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf for more information.

^b CPI-indexed dollar adjustment uses the adjusted CPI indexing series shown in table VI.G6 of the 2023 OASDI Trustees Report.

^c Born on January 2nd of year.

^d Wage-indexed dollar adjustment uses the national average wage indexing series shown in table VI.G6 of the 2023 OASDI Trustees Report.

^e Computed using nominal dollars.

^f Average of highest 35 years of wage-indexed earnings through the year prior to retirement. The value is for retirement in 2023. Thus, the annual earnings used for this average are wage-indexed to 2022.

**Table D—Historical Benefits and Replacement Rates for Hypothetical Retired Workers^a
in their First Year of Benefit Receipt**
(based on intermediate assumptions of the 2023 OASDI Trustees Report)

Year of birth ^b	Year attain age 65	Benefit Amounts for Workers Retiring at 62		Benefit Amounts for Workers Retiring at 65		NRA	Benefit Amounts for Workers Retiring at NRA	
		Wage-indexed 2023 dollars ^c	Percent of career-average earnings ^d	Wage-indexed 2023 dollars ^c	Percent of career-average earnings ^d		Wage-indexed 2023 dollars ^c	Percent of career-average earnings ^d
Scaled very low earnings:								
1875	1940	e	e	\$6,642	42.0	65:0	\$6,642	42.0
1880	1945	e	e	4,058	25.7	65:0	4,058	25.7
1885	1950	e	e	6,032	37.3	65:0	6,032	37.3
1890	1955	e	e	11,501	72.7	65:0	11,501	72.7
1895	1960	e	e	11,291	71.0	65:0	11,291	71.0
1900	1965	\$8,586	54.7	10,763	66.3	65:0	10,763	66.3
1905	1970	7,828	50.2	11,270	71.5	65:0	11,270	71.5
1910	1975	9,031	60.3	12,799	83.2	65:0	12,799	83.2
1915	1980	10,579	68.1	13,828	91.1	65:0	13,828	91.1
1920	1985	10,065	64.5	11,969	75.5	65:0	11,969	75.5
1925	1990	10,159	65.7	12,664	80.1	65:0	12,664	80.1
1930	1995	10,094	64.5	12,753	80.2	65:0	12,753	80.2
1935	2000	9,915	63.8	11,290	72.0	65:0	11,290	72.0
1940	2005	10,300	63.2	12,351	77.4	65:6	13,039	80.3
1945	2010	9,428	59.9	12,343	76.4	66:0	12,874	80.3
1950	2015	9,686	60.7	11,701	73.2	66:0	12,405	75.9
1955	2020	9,748	61.3	11,714	72.8	66:2	11,983	77.8
Scaled low earnings:								
1875	1940	e	e	9,023	31.7	65:0	9,023	31.7
1880	1945	e	e	7,461	26.2	65:0	7,461	26.2
1885	1950	e	e	9,413	32.4	65:0	9,413	32.4
1890	1955	e	e	14,506	51.0	65:0	14,506	51.0
1895	1960	e	e	13,470	47.0	65:0	13,470	47.0
1900	1965	10,358	36.7	12,949	44.3	65:0	12,949	44.3
1905	1970	9,655	34.4	13,409	47.3	65:0	13,409	47.3
1910	1975	11,349	42.1	16,554	59.8	65:0	16,554	59.8
1915	1980	13,704	49.0	18,433	67.5	65:0	18,433	67.5
1920	1985	14,648	52.2	17,454	61.1	65:0	17,454	61.1
1925	1990	13,358	48.0	16,644	58.5	65:0	16,644	58.5
1930	1995	13,255	47.1	16,712	58.4	65:0	16,712	58.4
1935	2000	12,959	46.3	14,781	52.4	65:0	14,781	52.4
1940	2005	13,455	45.9	16,186	56.4	65:6	17,070	58.4
1945	2010	12,340	43.6	16,171	55.6	66:0	16,857	58.4
1950	2015	12,680	44.1	15,315	53.2	66:0	16,241	55.2
1955	2020	12,735	44.5	15,342	53.0	66:2	15,689	56.6
Scaled medium earnings:								
1875	1940	e	e	15,333	24.2	65:0	15,333	24.2
1880	1945	e	e	10,570	16.7	65:0	10,570	16.7
1885	1950	e	e	12,403	19.2	65:0	12,403	19.2
1890	1955	e	e	19,254	30.5	65:0	19,254	30.5
1895	1960	e	e	19,017	29.9	65:0	19,017	29.9
1900	1965	15,537	24.8	19,338	29.8	65:0	19,338	29.8
1905	1970	14,743	23.6	20,893	33.1	65:0	20,893	33.1
1910	1975	17,896	29.9	25,498	41.5	65:0	25,498	41.5
1915	1980	22,246	35.9	30,416	50.3	65:0	30,416	50.3
1920	1985	21,968	35.3	26,254	41.5	65:0	26,254	41.5
1925	1990	22,088	35.7	27,528	43.6	65:0	27,528	43.6
1930	1995	21,717	34.7	27,593	43.4	65:0	27,593	43.4
1935	2000	21,338	34.3	24,410	38.9	65:0	24,410	38.9
1940	2005	22,154	34.0	26,663	41.8	65:6	28,147	43.3
1945	2010	20,293	32.2	26,685	41.3	66:0	27,804	43.4
1950	2015	20,858	32.7	25,249	39.5	66:0	26,785	41.0
1955	2020	20,966	33.0	25,284	39.3	66:2	25,877	42.0
Scaled high earnings:								
1875	1940	e	e	18,377	18.2	65:0	18,377	18.2
1880	1945	e	e	13,089	12.9	65:0	13,089	12.9
1885	1950	e	e	15,081	14.6	65:0	15,081	14.6
1890	1955	e	e	23,682	24.2	65:0	23,682	24.2

**Table D—Historical Benefits and Replacement Rates for Hypothetical Retired Workers^a
in their First Year of Benefit Receipt (Cont.)**

(based on intermediate assumptions of the 2023 OASDI Trustees Report)

Year of birth ^b	Year attain age 65	Benefit Amounts for Workers Retiring at 62		Benefit Amounts for Workers Retiring at 65		NRA	Benefit Amounts for Workers Retiring at NRA		
		Wage-indexed 2023 dollars ^c	Percent of career-average earnings ^d	Wage-indexed 2023 dollars ^c	Percent of career-average earnings ^d		Wage-indexed 2023 dollars ^c	Percent of career-average earnings ^d	
1895	1960		^e	\$23,573	25.2	65:0	\$23,573	25.2	
1900	1965	\$17,310	19.8	22,434	24.9	65:0	22,434	24.9	
1905	1970	16,050	19.6	24,037	28.8	65:0	24,037	28.8	
1910	1975	19,834	26.1	29,713	37.7	65:0	29,713	37.7	
1915	1980	26,021	33.4	37,230	48.4	65:0	37,230	48.4	
1920	1985	26,475	32.7	31,979	38.5	65:0	31,979	38.5	
1925	1990	27,318	32.4	34,278	39.4	65:0	34,278	39.4	
1930	1995	27,722	30.7	35,224	38.0	65:0	35,224	38.0	
1935	2000	27,804	29.3	31,764	33.0	65:0	31,764	33.0	
1940	2005	29,324	28.4	35,219	34.8	65:6	37,179	36.1	
1945	2010	26,966	26.8	35,313	34.2	66:0	36,806	35.9	
1950	2015	27,709	27.1	33,451	32.7	66:0	35,453	33.9	
1955	2020	27,855	27.4	33,497	32.5	66:2	34,267	34.7	
Steady maximum earnings:									
1875	1940		^e	27,345	16.4	65:0	27,345	16.4	
1880	1945		^e	16,951	10.1	65:0	16,951	10.1	
1885	1950		^e	16,537	9.7	65:0	16,537	9.7	
1890	1955		^e	23,682	15.0	65:0	23,682	15.0	
1895	1960		^e	23,573	16.1	65:0	23,573	16.1	
1900	1965	17,310	13.1	22,434	16.5	65:0	22,434	16.5	
1905	1970	16,050	13.5	24,358	20.3	65:0	24,358	20.3	
1910	1975	19,834	19.4	30,449	28.7	65:0	30,449	28.7	
1915	1980	26,819	27.9	39,313	40.6	65:0	39,313	40.6	
1920	1985	27,053	29.9	33,918	34.7	65:0	33,918	34.7	
1925	1990	28,614	30.0	36,968	35.7	65:0	36,968	35.7	
1930	1995	29,628	27.8	38,606	33.5	65:0	38,606	33.5	
1935	2000	30,413	25.9	35,527	28.6	65:0	35,527	28.6	
1940	2005	32,861	24.5	40,392	29.3	65:6	42,640	30.2	
1945	2010	31,275	22.2	41,732	28.0	66:0	43,827	29.3	
1950	2015	33,089	21.9	40,465	26.1	66:0	43,075	27.1	
1955	2020	33,828	21.7	40,811	25.8	66:2	41,857	27.6	

^a The table uses four hypothetical “scaled” earnings levels and a hypothetical worker who earns the taxable maximum each year. See Actuarial Note Number 2023.3 at www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf for more information.

^b Born on January 2nd of year.

^c Wage-indexed dollar adjustment uses the national average wage indexing series shown in table VI.G6 of the 2023 OASDI Trustees Report.

^d Computed using nominal dollars.

^e Benefit at age 62 not available for these years of birth.

Actuarial Note No. 2023.9
Social Security Administration
Office of the Chief Actuary
March 2023