

REPLACEMENT RATES FOR HYPOTHETICAL RETIRED WORKERS

by Michael Clingman, ASA, Kyle Burkhalter, FSA, and Chris Chaplain, ASA

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:

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

We base all calculations on the intermediate assumptions of the 2022 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 1999 through 2018. 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 (\$15,646, \$28,162, \$62,583, and \$100,133, respectively, for 2022). The steady maximum earner has earnings at or above the contribution and benefit base (\$147,000 for 2022) 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 2022.3 has more details on scaled-earnings patterns. See www.ssa.gov/OACT/NOTES/ran3/an2022-3.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 2022 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 1954 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 2035 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 2022 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 (2035) 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 2022 dollar adjustment uses the adjusted CPI indexing series in table VI.G6 of the 2022 Trustees Report. See: www.ssa.gov/OACT/TR/2022/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 2022 OASDI Trustees Report)

Year of birth ^c	Year attain age 62	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2022 dollars ^b		
		Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits	
Scaled very low earnings: (Career-average earnings for 2021 equal \$14,620^f)								
1956	2018	\$8,906	59.2	\$8,906	59.2	\$8,402	\$8,402	
1957	2019	8,771	58.4	8,771	58.4	8,444	8,444	
1958	2020	8,744	57.7	8,744	57.7	8,552	8,552	
1959	2021	8,518	57.7	8,518	57.7	8,358	8,358	
1960	2022	8,114	55.5	8,114	55.5	8,114	8,114	
1965	2027	8,440	56.3	8,440	56.3	9,212	9,212	
1970	2032	8,491	56.5	8,491	56.5	9,862	9,862	
1975	2037	8,488	56.5	6,705	44.6	10,471	8,272	
1980	2042	8,502	56.5	6,644	44.1	11,105	8,677	
1985	2047	8,514	56.6	6,616	44.0	11,732	9,116	
1990	2052	8,508	56.6	6,555	43.6	12,375	9,534	
1995	2057	8,506	56.5	6,461	42.9	13,074	9,931	
2000	2062	8,503	56.5	6,348	42.2	13,830	10,325	
2005	2067	8,503	56.5	6,257	41.6	14,634	10,767	
2010	2072	8,505	56.5	6,165	41.0	15,486	11,224	
2015	2077	8,508	56.6	6,101	40.6	16,376	11,743	
2020	2082	8,511	56.6	6,126	40.7	17,308	12,457	
2025	2087	8,510	56.6	6,214	41.3	18,278	13,348	
2030	2092	8,507	56.6	6,309	42.0	19,316	14,326	
Scaled low earnings: (Career-average earnings for 2021 equal \$26,317^f)								
1956	2018	11,649	43.1	11,649	43.1	10,990	10,990	
1957	2019	11,467	42.4	11,467	42.4	11,040	11,040	
1958	2020	11,420	41.9	11,420	41.9	11,170	11,170	
1959	2021	11,138	42.0	11,138	42.0	10,930	10,930	
1960	2022	10,605	40.3	10,605	40.3	10,605	10,605	
1965	2027	11,034	40.9	11,034	40.9	12,044	12,044	
1970	2032	11,090	41.0	11,090	41.0	12,881	12,881	
1975	2037	11,098	41.0	8,767	32.4	13,691	10,816	
1980	2042	11,116	41.1	8,686	32.1	14,519	11,345	
1985	2047	11,130	41.1	8,648	31.9	15,336	11,916	
1990	2052	11,120	41.1	8,567	31.7	16,173	12,460	
1995	2057	11,116	41.1	8,444	31.2	17,087	12,979	
2000	2062	11,113	41.1	8,297	30.7	18,075	13,494	
2005	2067	11,115	41.1	8,178	30.2	19,129	14,075	
2010	2072	11,114	41.1	8,056	29.8	20,236	14,667	
2015	2077	11,119	41.1	7,973	29.5	21,404	15,348	
2020	2082	11,122	41.1	8,005	29.6	22,618	16,279	
2025	2087	11,121	41.1	8,121	30.0	23,888	17,445	
2030	2092	11,118	41.1	8,246	30.5	25,245	18,723	
Scaled medium earnings: (Career-average earnings for 2021 equal \$58,482^f)								
1956	2018	19,170	31.9	19,170	31.9	18,085	18,085	
1957	2019	18,877	31.4	18,877	31.4	18,174	18,174	
1958	2020	18,813	31.0	18,813	31.0	18,400	18,400	
1959	2021	18,333	31.1	18,333	31.1	17,989	17,989	
1960	2022	17,455	29.8	17,455	29.8	17,455	17,455	
1965	2027	18,162	30.3	18,162	30.3	19,824	19,824	
1970	2032	18,257	30.4	18,257	30.4	21,205	21,205	
1975	2037	18,267	30.4	14,430	24.0	22,535	17,802	
1980	2042	18,294	30.4	14,295	23.8	23,894	18,671	
1985	2047	18,316	30.4	14,232	23.6	25,239	19,611	
1990	2052	18,304	30.4	14,102	23.4	26,622	20,510	
1995	2057	18,297	30.4	13,898	23.1	28,125	21,363	
2000	2062	18,290	30.4	13,655	22.7	29,747	22,208	
2005	2067	18,291	30.4	13,458	22.4	31,479	23,162	
2010	2072	18,293	30.4	13,259	22.0	33,307	24,141	
2015	2077	18,301	30.4	13,123	21.8	35,227	25,260	

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 2022 OASDI Trustees Report)

Year of birth ^c	Year attain age 62	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2022 dollars ^b	
		Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
2020	2082	\$18,304	30.4	\$13,174	21.9	\$37,224	\$26,792
2025	2087	18,302	30.4	13,366	22.2	39,312	28,708
2030	2092	18,296	30.4	13,570	22.5	41,545	30,812
Scaled high earnings: (Career-average earnings for 2021 equal \$93,571^f)							
1956	2018	25,464	26.5	25,464	26.5	24,023	24,023
1957	2019	25,076	26.1	25,076	26.1	24,142	24,142
1958	2020	24,975	25.8	24,975	25.8	24,428	24,428
1959	2021	24,346	25.8	24,346	25.8	23,890	23,890
1960	2022	23,185	24.8	23,185	24.8	23,185	23,185
1965	2027	24,115	25.1	24,115	25.1	26,322	26,322
1970	2032	24,248	25.2	24,248	25.2	28,163	28,163
1975	2037	24,260	25.2	19,165	19.9	29,928	23,643
1980	2042	24,297	25.2	18,985	19.7	31,734	24,797
1985	2047	24,325	25.3	18,901	19.7	33,519	26,045
1990	2052	24,311	25.2	18,729	19.4	35,358	27,240
1995	2057	24,301	25.2	18,459	19.1	37,354	28,373
2000	2062	24,290	25.2	18,134	18.8	39,505	29,494
2005	2067	24,293	25.2	17,874	18.5	41,808	30,762
2010	2072	24,295	25.2	17,609	18.3	44,235	32,062
2015	2077	24,303	25.2	17,427	18.1	46,781	33,545
2020	2082	24,310	25.2	17,497	18.1	49,437	35,582
2025	2087	24,307	25.2	17,751	18.4	52,210	38,127
2030	2092	24,299	25.2	18,021	18.7	55,174	40,920
Steady maximum earnings: (Career-average earnings for 2021 equal \$144,623^f)							
1956	2018	30,978	20.9	30,978	20.9	29,226	29,226
1957	2019	30,539	20.6	30,539	20.6	29,401	29,401
1958	2020	30,435	20.4	30,435	20.4	29,768	29,768
1959	2021	29,690	20.4	29,690	20.4	29,133	29,133
1960	2022	28,289	19.6	28,289	19.6	28,289	28,289
1965	2027	29,442	19.8	29,442	19.8	32,136	32,136
1970	2032	29,649	19.9	29,649	19.9	34,437	34,437
1975	2037	29,645	19.9	23,419	15.7	36,572	28,891
1980	2042	29,732	19.9	23,232	15.5	38,832	30,343
1985	2047	29,750	19.9	23,116	15.5	40,994	31,853
1990	2052	29,684	19.9	22,869	15.3	43,173	33,261
1995	2057	29,653	19.9	22,524	15.1	45,580	34,622
2000	2062	29,633	19.9	22,123	14.9	48,195	35,981
2005	2067	29,646	19.9	21,813	14.6	51,021	37,540
2010	2072	29,651	19.9	21,491	14.4	53,987	39,130
2015	2077	29,663	19.9	21,270	14.3	57,098	40,943
2020	2082	29,673	19.9	21,357	14.3	60,343	43,431
2025	2087	29,669	19.9	21,666	14.5	63,728	46,538
2030	2092	29,658	19.9	21,996	14.8	67,343	49,946

^a The table uses four hypothetical “scaled” earnings levels and a hypothetical worker who earns the taxable maximum each year. See Actuarial Note Number 2022.3 at www.ssa.gov/OACT/NOTES/ran3/an2022-3.pdf for more information.

^b CPI-indexed dollar adjustment uses the adjusted CPI indexing series shown in table VI.G6 of the 2022 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 2022 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 2022. Thus, the annual earnings used for this average are wage-indexed to 2021.

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 2022 OASDI Trustees Report)

Year of birth ^c	Year attain age 65	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2022 dollars ^b		
		Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits	
Scaled very low earnings: (Career-average earnings for 2021 equal \$14,686^f)								
1956	2021	\$10,458	70.6	\$10,458	70.6	\$10,262	\$10,262	
1957	2022	10,328	70.3	10,328	70.3	10,328	10,328	
1958	2023	10,306	69.0	10,306	69.0	10,552	10,552	
1959	2024	10,246	68.3	10,246	68.3	10,683	10,683	
1960	2025	9,677	64.4	9,677	64.4	10,253	10,253	
1965	2030	10,105	66.9	10,105	66.9	11,456	11,456	
1970	2035	10,179	67.4	8,455	56.0	12,261	10,183	
1975	2040	10,197	67.5	7,990	52.9	13,025	10,205	
1980	2045	10,235	67.7	7,971	52.7	13,808	10,755	
1985	2050	10,254	67.8	7,929	52.4	14,592	11,283	
1990	2055	10,235	67.7	7,825	51.8	15,387	11,763	
1995	2060	10,227	67.7	7,686	50.9	16,260	12,220	
2000	2065	10,218	67.6	7,562	50.0	17,194	12,724	
2005	2070	10,222	67.7	7,452	49.4	18,197	13,267	
2010	2075	10,226	67.7	7,355	48.7	19,253	13,847	
2015	2080	10,235	67.7	7,344	48.6	20,363	14,611	
2020	2085	10,241	67.8	7,427	49.2	21,518	15,606	
2025	2090	10,235	67.7	7,553	50.0	22,727	16,771	
2030	2095	10,225	67.7	7,609	50.4	24,018	17,874	
Scaled low earnings: (Career-average earnings for 2021 equal \$26,435^f)								
1956	2021	13,695	51.4	13,695	51.4	13,439	13,439	
1957	2022	13,519	51.1	13,519	51.1	13,519	13,519	
1958	2023	13,485	50.2	13,485	50.2	13,808	13,808	
1959	2024	13,416	49.7	13,416	49.7	13,988	13,988	
1960	2025	12,671	46.8	12,671	46.8	13,425	13,425	
1965	2030	13,231	48.7	13,231	48.7	15,000	15,000	
1970	2035	13,328	49.0	11,069	40.7	16,053	13,333	
1975	2040	13,346	49.1	10,456	38.5	17,046	13,356	
1980	2045	13,398	49.2	10,435	38.3	18,076	14,079	
1985	2050	13,419	49.3	10,376	38.1	19,095	14,765	
1990	2055	13,400	49.3	10,244	37.7	20,145	15,400	
1995	2060	13,383	49.2	10,058	37.0	21,279	15,993	
2000	2065	13,378	49.2	9,900	36.4	22,510	16,658	
2005	2070	13,381	49.2	9,755	35.9	23,820	17,366	
2010	2075	13,386	49.2	9,628	35.4	25,203	18,127	
2015	2080	13,397	49.2	9,612	35.3	26,654	19,125	
2020	2085	13,405	49.3	9,722	35.8	28,167	20,428	
2025	2090	13,397	49.3	9,886	36.4	29,748	21,953	
2030	2095	13,384	49.2	9,960	36.6	31,438	23,396	
Scaled medium earnings: (Career-average earnings for 2021 equal \$58,744^f)								
1956	2021	22,599	38.1	22,599	38.1	22,175	22,175	
1957	2022	22,306	38.0	22,306	38.0	22,306	22,306	
1958	2023	22,253	37.3	22,253	37.3	22,786	22,786	
1959	2024	22,144	36.9	22,144	36.9	23,088	23,088	
1960	2025	20,921	34.8	20,921	34.8	22,166	22,166	
1965	2030	21,826	36.1	21,826	36.1	24,743	24,743	
1970	2035	21,974	36.4	18,250	30.2	26,467	21,982	
1975	2040	22,013	36.4	17,247	28.5	28,116	22,029	
1980	2045	22,102	36.6	17,214	28.5	29,819	23,225	
1985	2050	22,133	36.6	17,114	28.3	31,495	24,353	
1990	2055	22,099	36.6	16,894	28.0	33,222	25,397	
1995	2060	22,074	36.5	16,590	27.4	35,097	26,378	
2000	2065	22,062	36.5	16,326	27.0	37,121	27,470	
2005	2070	22,067	36.5	16,088	26.6	39,284	28,640	
2010	2075	22,076	36.5	15,878	26.3	41,563	29,894	
2015	2080	22,094	36.5	15,853	26.2	43,958	31,540	

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 2022 OASDI Trustees Report)

Year of birth ^c	Year attain age 65	Current-Law Scheduled Benefits		Payable Benefits		Purchasing Power of Benefits in CPI-Indexed 2022 dollars ^b	
		Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
2020	2085	\$22,106	36.6	\$16,033	26.5	\$46,450	\$33,688
2025	2090	22,093	36.6	16,303	27.0	49,056	36,201
2030	2095	22,071	36.5	16,425	27.2	51,845	38,583
Scaled high earnings: (Career-average earnings for 2021 equal \$93,991^f)							
1956	2021	29,921	31.6	29,921	31.6	29,360	29,360
1957	2022	29,517	31.4	29,517	31.4	29,517	29,517
1958	2023	29,438	30.8	29,438	30.8	30,142	30,142
1959	2024	29,276	30.5	29,276	30.5	30,524	30,524
1960	2025	27,647	28.7	27,647	28.7	29,293	29,293
1965	2030	28,884	29.9	28,884	29.9	32,745	32,745
1970	2035	29,085	30.1	24,157	25.0	35,033	29,097
1975	2040	29,137	30.1	22,829	23.6	37,217	29,160
1980	2045	29,251	30.2	22,782	23.5	39,464	30,737
1985	2050	29,293	30.3	22,650	23.4	41,684	32,232
1990	2055	29,249	30.2	22,360	23.1	43,971	33,615
1995	2060	29,215	30.2	21,957	22.7	46,451	34,911
2000	2065	29,198	30.2	21,607	22.3	49,130	36,357
2005	2070	29,208	30.2	21,294	22.0	51,996	37,908
2010	2075	29,218	30.2	21,015	21.7	55,011	39,566
2015	2080	29,242	30.2	20,981	21.7	58,179	41,744
2020	2085	29,259	30.2	21,220	21.9	61,479	44,587
2025	2090	29,241	30.2	21,578	22.3	64,928	47,914
2030	2095	29,211	30.2	21,739	22.5	68,615	51,063
Steady maximum earnings: (Career-average earnings for 2021 equal \$144,623^f)							
1956	2021	36,499	25.0	36,499	25.0	35,815	35,815
1957	2022	36,030	24.9	36,030	24.9	36,030	36,030
1958	2023	35,934	24.4	35,934	24.4	36,793	36,793
1959	2024	35,748	24.2	35,748	24.2	37,271	37,271
1960	2025	33,781	22.8	33,781	22.8	35,792	35,792
1965	2030	35,328	23.7	35,328	23.7	40,051	40,051
1970	2035	35,610	23.8	29,576	19.8	42,892	35,624
1975	2040	35,659	23.8	27,939	18.6	45,547	35,686
1980	2045	35,826	23.9	27,903	18.6	48,334	37,646
1985	2050	35,852	23.9	27,722	18.5	51,018	39,449
1990	2055	35,745	24.0	27,326	18.3	53,735	41,079
1995	2060	35,678	24.0	26,814	18.0	56,727	42,634
2000	2065	35,643	23.9	26,376	17.7	59,974	44,381
2005	2070	35,658	23.9	25,996	17.4	63,478	46,279
2010	2075	35,675	24.0	25,659	17.3	67,167	48,309
2015	2080	35,705	24.0	25,618	17.2	71,037	50,970
2020	2085	35,727	24.0	25,911	17.4	75,071	54,445
2025	2090	35,706	24.0	26,349	17.7	79,283	58,507
2030	2095	35,667	23.9	26,544	17.8	83,782	62,350

^a The table uses four hypothetical “scaled” earnings levels and a hypothetical worker who earns the taxable maximum each year. See Actuarial Note Number 2022.3 at www.ssa.gov/OACT/NOTES/ran3/an2022-3.pdf for more information.

^b CPI-indexed dollar adjustment uses the adjusted CPI indexing series shown in table VI.G6 of the 2022 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 2022 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 2022. Thus, the annual earnings used for this average are wage-indexed to 2021.

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 2022 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 2022 dollars ^b	
			Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
Scaled very low earnings: (Career-average earnings for 2021 equal \$15,006^f)								
1956	2022	66:4	\$11,544	76.9	\$11,544	76.9	\$11,544	\$11,544
1957	2023	66:6	11,506	75.3	11,506	75.3	11,781	11,781
1958	2024	66:8	11,585	75.1	11,585	75.1	12,079	12,079
1959	2025	66:10	11,725	75.4	11,725	75.4	12,423	12,423
1960	2027	67:0	10,858	72.1	10,858	72.1	11,851	11,851
1965	2032	67:0	11,392	75.5	11,392	75.5	13,231	13,231
1970	2037	67:0	11,474	76.0	9,064	60.0	14,155	11,182
1975	2042	67:0	11,512	76.2	8,995	59.5	15,035	11,748
1980	2047	67:0	11,574	76.6	8,993	59.5	15,948	12,392
1985	2052	67:0	11,579	76.6	8,921	59.0	16,841	12,974
1990	2057	67:0	11,557	76.5	8,778	58.1	17,764	13,493
1995	2062	67:0	11,540	76.4	8,616	57.0	18,769	14,013
2000	2067	67:0	11,536	76.4	8,488	56.2	19,853	14,607
2005	2072	67:0	11,540	76.4	8,364	55.4	21,011	15,229
2010	2077	67:0	11,549	76.4	8,281	54.8	22,230	15,940
2015	2082	67:0	11,560	76.5	8,320	55.1	23,508	16,920
2020	2087	67:0	11,566	76.5	8,446	55.9	24,843	18,142
2025	2092	67:0	11,555	76.5	8,570	56.7	26,237	19,459
2030	2097	67:0	11,540	76.4	8,585	56.8	27,729	20,630
Scaled low earnings: (Career-average earnings for 2021 equal \$27,011^f)								
1956	2022	66:4	15,127	56.0	15,127	56.0	15,127	15,127
1957	2023	66:6	15,068	54.8	15,068	54.8	15,429	15,429
1958	2024	66:8	15,177	54.6	15,177	54.6	15,824	15,824
1959	2025	66:10	15,360	54.9	15,360	54.9	16,274	16,274
1960	2027	67:0	14,236	52.5	14,236	52.5	15,539	15,539
1965	2032	67:0	14,923	54.9	14,923	54.9	17,332	17,332
1970	2037	67:0	15,027	55.3	11,871	43.7	18,538	14,645
1975	2042	67:0	15,072	55.4	11,777	43.3	19,685	15,382
1980	2047	67:0	15,150	55.7	11,772	43.3	20,876	16,221
1985	2052	67:0	15,161	55.7	11,680	42.9	22,050	16,987
1990	2057	67:0	15,134	55.6	11,495	42.2	23,262	17,669
1995	2062	67:0	15,110	55.6	11,281	41.5	24,575	18,347
2000	2067	67:0	15,104	55.5	11,114	40.8	25,995	19,127
2005	2072	67:0	15,107	55.6	10,950	40.3	27,506	19,937
2010	2077	67:0	15,121	55.6	10,843	39.9	29,106	20,871
2015	2082	67:0	15,136	55.6	10,894	40.0	30,780	22,154
2020	2087	67:0	15,143	55.7	11,058	40.7	32,526	23,753
2025	2092	67:0	15,128	55.6	11,220	41.2	34,351	25,477
2030	2097	67:0	15,108	55.6	11,240	41.4	36,304	27,009
Scaled medium earnings: (Career-average earnings for 2021 equal \$60,024^f)								
1956	2022	66:4	24,954	41.6	24,954	41.6	24,954	24,954
1957	2023	66:6	24,870	40.7	24,870	40.7	25,465	25,465
1958	2024	66:8	25,049	40.6	25,049	40.6	26,117	26,117
1959	2025	66:10	25,368	40.8	25,368	40.8	26,878	26,878
1960	2027	67:0	23,527	39.1	23,527	39.1	25,680	25,680
1965	2032	67:0	24,623	40.8	24,623	40.8	28,599	28,599
1970	2037	67:0	24,786	41.0	19,581	32.4	30,578	24,156
1975	2042	67:0	24,875	41.2	19,438	32.2	32,490	25,388
1980	2047	67:0	24,996	41.3	19,422	32.1	34,443	26,763
1985	2052	67:0	25,010	41.4	19,268	31.9	36,375	28,023
1990	2057	67:0	24,963	41.3	18,962	31.4	38,372	29,147
1995	2062	67:0	24,928	41.3	18,611	30.8	40,544	30,269
2000	2067	67:0	24,916	41.2	18,333	30.3	42,881	31,551
2005	2072	67:0	24,923	41.2	18,064	29.9	45,378	32,890
2010	2077	67:0	24,943	41.3	17,886	29.6	48,012	34,428
2015	2082	67:0	24,967	41.3	17,970	29.7	50,774	36,544

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 2022 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 2022 dollars ^b	
			Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Wage-indexed 2022 dollars ^d	Percent of career-average earnings ^e	Current-Law Scheduled Benefits	Payable Benefits
2020	2087	67:0	\$24,979	41.3	\$18,241	30.2	\$53,652	\$39,180
2025	2092	67:0	24,955	41.3	18,508	30.6	56,666	42,027
2030	2097	67:0	24,922	41.2	18,541	30.7	59,886	44,554
Scaled high earnings: (Career-average earnings for 2021 equal \$96,039^f)								
1956	2022	66:4	33,023	34.4	33,023	34.4	33,023	33,023
1957	2023	66:6	32,898	33.6	32,898	33.6	33,685	33,685
1958	2024	66:8	33,109	33.5	33,109	33.5	34,520	34,520
1959	2025	66:10	33,522	33.7	33,522	33.7	35,518	35,518
1960	2027	67:0	31,037	32.2	31,037	32.2	33,878	33,878
1965	2032	67:0	32,559	33.7	32,559	33.7	37,816	37,816
1970	2037	67:0	32,789	33.9	25,903	26.8	40,450	31,955
1975	2042	67:0	32,902	34.0	25,710	26.6	42,973	33,579
1980	2047	67:0	33,066	34.2	25,693	26.6	45,563	35,403
1985	2052	67:0	33,092	34.2	25,494	26.3	48,129	37,079
1990	2057	67:0	33,025	34.2	25,085	26.0	50,764	38,559
1995	2062	67:0	32,976	34.1	24,619	25.5	53,633	40,041
2000	2067	67:0	32,960	34.1	24,251	25.1	56,724	41,737
2005	2072	67:0	32,970	34.1	23,897	24.7	60,030	43,510
2010	2077	67:0	32,996	34.1	23,660	24.5	63,514	45,544
2015	2082	67:0	33,029	34.1	23,773	24.5	67,169	48,344
2020	2087	67:0	33,046	34.2	24,132	25.0	70,980	51,834
2025	2092	67:0	33,014	34.1	24,485	25.3	74,963	55,597
2030	2097	67:0	32,970	34.1	24,529	25.4	79,224	58,941
Steady maximum earnings: (Career-average earnings for 2021 equal \$147,775^f)								
1956	2022	66:4	40,386	27.3	40,386	27.3	40,386	40,386
1957	2023	66:6	40,243	26.7	40,243	26.7	41,206	41,206
1958	2024	66:8	40,512	26.6	40,512	26.6	42,238	42,238
1959	2025	66:10	41,034	26.8	41,034	26.8	43,476	43,476
1960	2027	67:0	38,184	25.7	38,184	25.7	41,680	41,680
1965	2032	67:0	40,077	26.8	40,077	26.8	46,549	46,549
1970	2037	67:0	40,388	27.0	31,906	21.3	49,825	39,361
1975	2042	67:0	40,504	27.1	31,650	21.2	52,902	41,338
1980	2047	67:0	40,735	27.2	31,652	21.1	56,131	43,614
1985	2052	67:0	40,727	27.2	31,376	21.0	59,234	45,634
1990	2057	67:0	40,585	27.2	30,828	20.7	62,385	47,386
1995	2062	67:0	40,494	27.2	30,232	20.3	65,860	49,170
2000	2067	67:0	40,460	27.2	29,770	20.0	69,633	51,235
2005	2072	67:0	40,478	27.2	29,339	19.7	73,701	53,419
2010	2077	67:0	40,511	27.2	29,049	19.5	77,980	55,917
2015	2082	67:0	40,554	27.2	29,188	19.6	82,471	59,358
2020	2087	67:0	40,575	27.2	29,630	19.9	87,152	63,644
2025	2092	67:0	40,535	27.2	30,063	20.2	92,042	68,264
2030	2097	67:0	40,478	27.2	30,114	20.2	97,265	72,363

^a The table uses four hypothetical “scaled” earnings levels and a hypothetical worker who earns the taxable maximum each year. See Actuarial Note Number 2022.3 at www.ssa.gov/OACT/NOTES/ran3/an2022-3.pdf for more information.

^b CPI-indexed dollar adjustment uses the adjusted CPI indexing series shown in table VI.G6 of the 2022 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 2022 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 2022. Thus, the annual earnings used for this average are wage-indexed to 2021.

**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 2022 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 2022 dollars ^c	Percent of career-average earnings ^d	Wage-indexed 2022 dollars ^c	Percent of career-average earnings ^d		Wage-indexed 2022 dollars ^c	Percent of career-average earnings ^d
Scaled very low earnings:								
1875	1940	e	e	\$6,285	42.0	65:0	\$6,285	42.0
1880	1945	e	e	3,839	25.7	65:0	3,839	25.7
1885	1950	e	e	5,707	37.3	65:0	5,707	37.3
1890	1955	e	e	10,881	72.7	65:0	10,881	72.7
1895	1960	e	e	10,683	71.0	65:0	10,683	71.0
1900	1965	\$8,123	54.7	10,183	66.3	65:0	10,183	66.3
1905	1970	7,407	50.2	10,663	71.5	65:0	10,663	71.5
1910	1975	8,545	60.3	12,109	83.2	65:0	12,109	83.2
1915	1980	10,009	68.1	13,083	91.1	65:0	13,083	91.1
1920	1985	9,522	64.5	11,324	75.5	65:0	11,324	75.5
1925	1990	9,612	65.6	11,982	80.1	65:0	11,982	80.1
1930	1995	9,550	64.5	12,065	80.2	65:0	12,065	80.2
1935	2000	9,381	63.7	10,681	72.0	65:0	10,681	72.0
1940	2005	9,745	63.2	11,686	77.4	65:6	12,336	80.3
1945	2010	8,920	59.9	11,678	76.4	66:0	12,180	80.3
1950	2015	9,180	60.8	11,070	73.2	66:0	11,736	75.9
1955	2020	9,223	61.3	11,083	72.8	66:2	11,688	78.2
Scaled low earnings:								
1875	1940	e	e	8,536	31.7	65:0	8,536	31.7
1880	1945	e	e	7,059	26.2	65:0	7,059	26.2
1885	1950	e	e	8,905	32.4	65:0	8,905	32.4
1890	1955	e	e	13,724	51.0	65:0	13,724	51.0
1895	1960	e	e	12,744	47.0	65:0	12,744	47.0
1900	1965	9,800	36.7	12,251	44.3	65:0	12,251	44.3
1905	1970	9,135	34.4	12,686	47.3	65:0	12,686	47.3
1910	1975	10,738	42.0	15,662	59.8	65:0	15,662	59.8
1915	1980	12,965	49.0	17,439	67.5	65:0	17,439	67.5
1920	1985	13,859	52.2	16,514	61.1	65:0	16,514	61.1
1925	1990	12,638	48.0	15,714	58.4	65:0	15,714	58.4
1930	1995	12,541	47.0	15,812	58.4	65:0	15,812	58.4
1935	2000	12,261	46.3	13,984	52.4	65:0	13,984	52.4
1940	2005	12,730	45.9	15,295	56.3	65:6	16,150	58.4
1945	2010	11,675	43.5	15,300	55.6	66:0	15,931	58.3
1950	2015	11,997	44.1	14,490	53.2	66:0	15,365	55.2
1955	2020	12,050	44.5	14,501	52.9	66:2	15,297	56.8
Scaled medium earnings:								
1875	1940	e	e	14,454	24.1	65:0	14,454	24.1
1880	1945	e	e	10,000	16.7	65:0	10,000	16.7
1885	1950	e	e	11,685	19.1	65:0	11,685	19.1
1890	1955	e	e	18,122	30.3	65:0	18,122	30.3
1895	1960	e	e	17,805	29.6	65:0	17,805	29.6
1900	1965	14,700	24.8	18,122	29.5	65:0	18,122	29.5
1905	1970	13,949	23.6	19,768	33.1	65:0	19,768	33.1
1910	1975	16,931	29.9	24,124	41.5	65:0	24,124	41.5
1915	1980	21,048	35.9	28,612	50.0	65:0	28,612	50.0
1920	1985	20,784	35.3	24,840	41.5	65:0	24,840	41.5
1925	1990	20,898	35.7	26,009	43.5	65:0	26,009	43.5
1930	1995	20,550	34.7	26,107	43.4	65:0	26,107	43.4
1935	2000	20,188	34.3	23,095	38.9	65:0	23,095	38.9
1940	2005	20,961	34.0	25,226	41.8	65:6	26,630	43.3
1945	2010	19,218	32.2	25,247	41.3	66:0	26,306	43.3
1950	2015	19,750	32.7	23,889	39.5	66:0	25,327	40.9
1955	2020	19,838	32.9	23,921	39.3	66:2	25,233	42.2
Scaled high earnings:								
1875	1940	e	e	17,335	18.1	65:0	17,335	18.1
1880	1945	e	e	12,353	12.9	65:0	12,353	12.9
1885	1950	e	e	14,268	14.6	65:0	14,268	14.6
1890	1955	e	e	22,406	24.2	65:0	22,406	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 2022 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 2022 dollars ^c	Percent of career-average earnings ^d	Wage-indexed 2022 dollars ^c	Percent of career-average earnings ^d		Wage-indexed 2022 dollars ^c	Percent of career-average earnings ^d	
1895	1960	e	e	\$22,115	25.0	65:0	\$22,115	25.0	
1900	1965	\$16,377	19.8	21,225	24.9	65:0	21,225	24.9	
1905	1970	15,185	19.6	22,742	28.8	65:0	22,742	28.8	
1910	1975	18,765	26.1	28,112	37.7	65:0	28,112	37.7	
1915	1980	24,619	33.4	35,224	48.4	65:0	35,224	48.4	
1920	1985	25,035	32.7	30,256	38.5	65:0	30,256	38.5	
1925	1990	25,846	32.4	32,396	39.4	65:0	32,396	39.4	
1930	1995	26,228	30.7	33,298	38.0	65:0	33,298	38.0	
1935	2000	26,306	29.3	30,051	33.0	65:0	30,051	33.0	
1940	2005	27,744	28.4	33,321	34.8	65:6	35,164	36.1	
1945	2010	25,513	26.8	33,411	34.2	66:0	34,807	35.8	
1950	2015	26,217	27.1	31,649	32.7	66:0	33,542	33.9	
1955	2020	26,356	27.4	31,692	32.5	66:2	33,419	34.9	
Steady maximum earnings:									
1875	1940	e	e	25,871	16.4	65:0	25,871	16.4	
1880	1945	e	e	16,037	10.1	65:0	16,037	10.1	
1885	1950	e	e	15,646	9.7	65:0	15,646	9.7	
1890	1955	e	e	22,406	15.0	65:0	22,406	15.0	
1895	1960	e	e	22,302	16.1	65:0	22,302	16.1	
1900	1965	16,377	13.1	21,225	16.5	65:0	21,225	16.5	
1905	1970	15,185	13.5	23,045	20.3	65:0	23,045	20.3	
1910	1975	18,765	19.4	28,808	28.7	65:0	28,808	28.7	
1915	1980	25,374	27.9	37,194	40.6	65:0	37,194	40.6	
1920	1985	25,595	29.9	32,090	34.7	65:0	32,090	34.7	
1925	1990	27,072	30.0	34,976	35.7	65:0	34,976	35.7	
1930	1995	28,032	27.8	36,525	33.5	65:0	36,525	33.5	
1935	2000	28,775	25.9	33,613	28.6	65:0	33,613	28.6	
1940	2005	31,090	24.5	38,216	29.3	65:6	40,343	30.2	
1945	2010	29,590	22.2	39,484	28.0	66:0	41,466	29.3	
1950	2015	31,306	21.9	38,285	26.1	66:0	40,754	27.1	
1955	2020	32,006	21.7	38,612	25.8	66:2	40,837	27.7	

^a The table uses four hypothetical “scaled” earnings levels and a hypothetical worker who earns the taxable maximum each year. See Actuarial Note Number 2022.3 at www.ssa.gov/OACT/NOTES/ran3/an2022-3.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 2022 OASDI Trustees Report.

^d Computed using nominal dollars.

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

Actuarial Note No. 2022.9
Social Security Administration
Office of the Chief Actuary
June 2022