

2019 OASDI Trustees Report

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2. Estimates as a Percentage of Gross Domestic Product

This section presents long-range projections of the operations of the combined Old-Age and Survivors Insurance and Disability Insurance (OASI and DI) Trust Funds and of the Hospital Insurance (HI) Trust Fund, expressed as a percentage of gross domestic product (GDP). While expressing fund operations as a percentage of taxable payroll is a very useful approach for assessing the financial status of the programs (see section [IV.B.1](#)), expressing them as a percentage of the total value of goods and services produced in the United States provides an additional perspective.

Table [VI.G4](#) shows non-interest income, total cost, and the resulting balance of the combined OASI and DI Trust Funds, of the HI Trust Fund, and of the combined OASI, DI, and HI Trust Funds, expressed as percentages of GDP on the basis of each of the three alternative sets of assumptions. Table [VI.G4](#) also contains estimates of GDP. For OASDI, non-interest income consists of [payroll tax contributions](#), proceeds from [taxation of scheduled OASDI benefits](#), and any [reimbursements from the General Fund of the Treasury](#). Cost consists of [scheduled benefits](#), [administrative expenses](#), financial interchange with the Railroad Retirement program, and payments for [vocational rehabilitation services](#) for disabled beneficiaries. For HI, non-interest income consists of payroll tax contributions (including contributions from railroad employment), up to an additional 0.9 percent tax on earned income for relatively high earners, proceeds from taxation of scheduled OASDI benefits, premium revenues, monies from fraud and abuse control activities, and any reimbursements from the General Fund of the Treasury. Cost consists of outlays (benefits and administrative expenses) for beneficiaries. The Trustees show income and cost estimates generally on a cash basis for the OASDI program¹ and on an incurred basis for the HI program.

The Trustees project the OASDI annual balance (non-interest income less cost) as a percentage of GDP to be negative throughout the projection period under the intermediate and high-cost assumptions. Under the low-cost assumptions, the OASDI annual deficit as a percentage of GDP generally decreases through 2026. After 2026, deficits increase to a peak in 2034 and then decrease through 2049. The deficit decreases in 2026 in part because of a one-time upward shift in taxation of benefits income due to the expiration of the personal income tax provisions in Public Law 115-97, the Tax Cuts and Jobs Act. The annual balances are then positive for 2050 through the remainder of the projection period. The positive annual balances increase through 2056, decline through 2071, and then generally increase through 2093. Under the intermediate assumptions, the annual deficits increase through 2040, decrease through 2051, and then generally increase thereafter. Under the high-cost assumptions, annual deficits increase throughout the projection period.

The Trustees project that the HI annual balance as a percentage of GDP will be negative in 2019, and then positive throughout the rest of the projection period, under the low-cost assumptions. Under the intermediate and the high-cost assumptions, the HI annual balance is negative for all years of the projection period. Under the intermediate assumptions, annual deficits generally increase through 2046, and then generally decline thereafter. Under the high-cost assumptions, annual deficits reach a peak in 2076 and decline slowly thereafter.

The combined OASDI and HI annual balance as a percentage of GDP is negative throughout the projection period under both the intermediate and high-cost assumptions. Under the low-cost assumptions, the combined OASDI and HI annual balance is negative through 2038, and then positive and mostly rising thereafter. Under the intermediate assumptions, the combined OASDI and HI annual deficits increase from 2019 through 2041, decrease through 2054, increase through 2078, and then generally decline thereafter, reaching 1.82 percent of GDP by 2093. Under the high-cost

assumptions, combined annual deficits rise to a peak of 6.31 percent in 2082 and mostly decrease thereafter.

By 2093, the combined OASDI and HI annual balances as percentages of GDP range from a positive annual balance of 1.03 percent for the low-cost assumptions to an annual deficit of 6.27 percent for the high-cost assumptions. Annual balances differ by a much smaller amount for the tenth projection year, 2028, ranging from an annual deficit of 0.12 percent for the low-cost assumptions to an annual deficit of 2.24 percent for the high-cost assumptions.

The summarized long-range (75-year) actuarial balance as a percentage of GDP for the combined OASDI and HI programs varies among the three alternatives by a relatively large amount, from a positive actuarial balance of 0.59 percent under the low-cost assumptions to an actuarial deficit of 4.23 percent under the high-cost assumptions. The 25-year [summarized actuarial balance](#) varies by a smaller amount, from a positive actuarial balance of 0.16 percent to an actuarial deficit of 2.40 percent. Summarized rates are calculated on a present-value basis. They include the trust fund reserve balances on January 1, 2019 and the cost of reaching a target trust fund level equal to 100 percent of the following year's annual cost at the end of the period. (See section [IV.B.4](#) for further explanation.)

Table VI.G4.—OASDI and HI Annual and Summarized Income, Cost, and Balance as a Percentage of GDP, Calendar Years 2019-2095

Calendar year	Percentage of GDP									GDP in dollars (billions)
	OASDI			HI			Combined			
	Income ^a	Cost ^b	Balance ^b	Income ^a	Cost ^b	Balance ^b	Income ^a	Cost ^b	Balance ^b	
Intermediate:										
2019	4.56	4.93	-0.38	1.49	1.54	-0.05	6.04	6.47	-0.43	\$21,485
2020	4.57	4.94	-.38	1.50	1.57	-.07	6.07	6.51	-.45	22,523
2021	4.59	5.01	-.42	1.52	1.60	-.09	6.10	6.61	-.51	23,558
2022	4.62	5.09	-.47	1.53	1.65	-.12	6.15	6.73	-.58	24,616
2023	4.64	5.16	-.52	1.54	1.69	-.15	6.18	6.85	-.67	25,735
2024	4.66	5.25	-.58	1.55	1.73	-.17	6.22	6.97	-.75	26,907
2025	4.68	5.33	-.65	1.57	1.76	-.20	6.25	7.10	-.85	28,109
2026	4.74	5.42	-.68	1.61	1.80	-.19	6.35	7.22	-.87	29,349
2027	4.76	5.50	-.75	1.62	1.83	-.21	6.38	7.34	-.95	30,637
2028	4.78	5.59	-.82	1.64	1.92	-.28	6.41	7.51	-1.10	31,972
2030	4.78	5.72	-.94	1.65	1.98	-.33	6.43	7.70	-1.27	34,800
2035	4.76	5.89	-1.13	1.68	2.12	-.43	6.44	8.01	-1.56	42,963
2040	4.74	5.93	-1.19	1.71	2.19	-.49	6.44	8.12	-1.68	52,965
2045	4.72	5.86	-1.14	1.72	2.23	-.50	6.44	8.09	-1.65	65,548
2050	4.71	5.81	-1.10	1.75	2.24	-.49	6.45	8.04	-1.59	81,297
2055	4.71	5.82	-1.11	1.77	2.23	-.46	6.48	8.05	-1.57	100,694
2060	4.71	5.89	-1.18	1.81	2.23	-.43	6.51	8.12	-1.61	124,381
2065	4.70	5.97	-1.26	1.83	2.26	-.42	6.54	8.22	-1.69	153,328
2070	4.70	6.05	-1.36	1.86	2.29	-.43	6.56	8.35	-1.79	189,023
2075	4.69	6.12	-1.43	1.88	2.33	-.45	6.57	8.44	-1.88	233,480
2080	4.67	6.10	-1.43	1.89	2.34	-.44	6.56	8.44	-1.88	289,008
2085	4.65	6.04	-1.39	1.90	2.33	-.43	6.55	8.37	-1.82	357,936
2090	4.63	6.02	-1.39	1.91	2.32	-.41	6.54	8.34	-1.79	442,655
2095	4.62	6.07	-1.45	1.92	2.31	-.39	6.54	8.38	-1.84	546,331
Summarized rates: ^c										
25-year:										
2019-	5.22	5.84	-.62	1.67	2.03	-.36	6.89	7.87	-.98	

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50-year:											
2019-68	4.99	5.84	-0.85	1.72	2.12	-0.40	6.71	7.96	-1.25		
75-year:											
2019-93	4.90	5.89	-0.99	1.77	2.17	-0.40	6.67	8.06	-1.39		
Low-cost:											
2019	4.53	4.85	-0.32	1.49	1.49	-0.01	6.01	6.34	-0.33	21,807	
2020	4.56	4.80	-0.24	1.50	1.48	.02	6.06	6.28	-0.22	23,282	
2021	4.59	4.80	-0.21	1.51	1.48	.03	6.10	6.28	-0.17	24,774	
2022	4.63	4.82	-0.19	1.53	1.49	.03	6.16	6.31	-0.16	26,239	
2023	4.66	4.85	-0.18	1.54	1.50	.04	6.20	6.35	-0.15	27,796	
2024	4.70	4.88	-0.18	1.55	1.50	.04	6.25	6.39	-0.14	29,448	
2025	4.73	4.91	-0.19	1.56	1.51	.05	6.28	6.42	-0.14	31,188	
2026	4.79	4.95	-0.16	1.60	1.51	.09	6.38	6.46	-0.08	32,986	
2027	4.82	5.00	-0.18	1.61	1.51	.10	6.43	6.50	-0.08	34,852	
2028	4.85	5.05	-0.20	1.62	1.55	.08	6.47	6.59	-0.12	36,806	
2030	4.85	5.10	-0.25	1.64	1.54	.10	6.49	6.64	-0.15	41,032	
2035	4.84	5.14	-0.29	1.68	1.50	.18	6.52	6.64	-0.11	53,775	
2040	4.83	5.07	-0.24	1.71	1.41	.30	6.54	6.49	.06	70,485	
2045	4.83	4.92	-0.10	1.74	1.30	.44	6.57	6.23	.34	93,041	
2050	4.83	4.82	.02	1.78	1.21	.57	6.61	6.03	.59	123,297	
2055	4.85	4.79	.06	1.82	1.14	.68	6.67	5.92	.74	163,160	
2060	4.87	4.82	.05	1.86	1.10	.76	6.73	5.92	.81	215,224	
2065	4.89	4.86	.03	1.89	1.09	.80	6.78	5.95	.83	283,386	
2070	4.90	4.89	.01	1.92	1.11	.81	6.82	6.00	.82	373,605	
2075	4.92	4.90	.02	1.95	1.13	.81	6.86	6.03	.83	494,275	
2080	4.92	4.83	.09	1.97	1.14	.82	6.88	5.97	.91	655,836	
2085	4.92	4.74	.18	1.98	1.15	.83	6.90	5.88	1.02	870,185	
2090	4.93	4.72	.20	2.00	1.15	.85	6.92	5.87	1.05	1,151,359	
2095	4.94	4.82	.12	2.02	1.16	.86	6.96	5.98	.98	1,518,880	
Summarized rates: c											
25-year:											
2019-43	5.25	5.22	0.03	1.67	1.53	0.13	6.91	6.75	0.16		
50-year:											
2019-68	5.07	5.02	.04	1.74	1.35	.39	6.81	6.37	.43		
75-year:											
2019-93	5.02	4.95	.07	1.81	1.29	.52	6.83	6.24	.59		
High-cost:											
2019	4.59	5.03	-0.44	1.49	1.59	-0.10	6.08	6.61	-0.54	21,152	
2020	4.59	5.20	-0.61	1.50	1.66	-0.17	6.08	6.86	-0.78	21,450	
2021	4.58	5.36	-0.78	1.51	1.73	-0.22	6.09	7.09	-1.00	21,982	
2022	4.59	5.48	-0.89	1.53	1.81	-0.28	6.11	7.29	-1.17	22,731	
2023	4.60	5.60	-1.00	1.54	1.89	-0.35	6.14	7.49	-1.35	23,507	
2024	4.62	5.74	-1.12	1.56	1.97	-0.41	6.18	7.71	-1.53	24,300	
2025	4.63	5.86	-1.23	1.58	2.06	-0.48	6.21	7.92	-1.71	25,146	
2026	4.69	5.98	-1.29	1.62	2.15	-0.52	6.31	8.13	-1.82	26,027	

2027	4.70	6.11	-1.41	1.64	2.23	-.58	6.35	8.34	-1.99	26,919
2028	4.71	6.24	-1.53	1.66	2.37	-.71	6.37	8.61	-2.24	27,813
2030	4.71	6.43	-1.72	1.67	2.55	-.88	6.38	8.98	-2.60	29,560
2035	4.69	6.75	-2.06	1.70	2.99	-1.29	6.39	9.74	-3.35	34,391
2040	4.66	6.93	-2.27	1.72	3.40	-1.68	6.37	10.33	-3.95	39,884
2045	4.63	7.00	-2.37	1.73	3.79	-2.06	6.36	10.79	-4.43	46,244
2050	4.60	7.06	-2.45	1.75	4.12	-2.37	6.35	11.17	-4.82	53,611
2055	4.59	7.15	-2.57	1.76	4.35	-2.59	6.35	11.51	-5.16	62,053
2060	4.57	7.30	-2.73	1.78	4.53	-2.74	6.36	11.83	-5.47	71,647
2065	4.55	7.46	-2.90	1.80	4.65	-2.85	6.35	12.10	-5.75	82,537
2070	4.53	7.63	-3.10	1.82	4.71	-2.89	6.35	12.34	-5.99	94,955
2075	4.51	7.79	-3.29	1.84	4.75	-2.92	6.34	12.55	-6.20	109,251
2080	4.47	7.87	-3.40	1.85	4.75	-2.91	6.32	12.63	-6.31	125,836
2085	4.44	7.87	-3.44	1.85	4.71	-2.86	6.29	12.58	-6.30	145,048
2090	4.40	7.86	-3.46	1.85	4.66	-2.81	6.25	12.52	-6.27	167,148
2095	4.37	7.87	-3.50	1.86	4.62	-2.76	6.22	12.49	-6.27	192,458

Summarized rates: ^c

25-year:										
2019-43	5.21	6.58	-1.36	1.68	2.71	-1.03	6.90	9.29	-2.40	
50-year:										
2019-68	4.93	6.83	-1.90	1.72	3.42	-1.70	6.65	10.25	-3.60	
75-year:										
2019-93	4.82	7.06	-2.25	1.75	3.73	-1.98	6.57	10.80	-4.23	

^a Income for individual years excludes interest on the trust funds. Interest is implicit in all summarized values.

^b OASDI benefit payments which were scheduled to be paid on January 3 for some past and future years were actually paid on December 31 as required by the statutory provision for early delivery of benefit payments when the normal payment delivery date is a Saturday, Sunday, or legal public holiday. For comparability with the values for historical years and the projections in this report, all trust fund operations and asset reserves reflect the 12 months of benefits scheduled for payment each year.

^c Summarized rates are calculated on a present-value basis. They include the value of the trust funds on January 1, 2019 and the cost of reaching a target trust fund level equal to 100 percent of annual cost at the end of the period.

Notes:

1. The Trustees show income and cost estimates generally on a cash basis for the OASDI program and on an incurred basis for the HI program.
2. Totals do not necessarily equal the sums of rounded components.

Table [VI.G5](#) displays annual ratios of OASDI taxable payroll to GDP. These ratios facilitate comparisons of trust fund operations expressed as percentages of taxable payroll and those expressed as percentages of GDP. HI taxable payroll is about 25 percent larger than the OASDI taxable payroll throughout the long-range period; see section 1 of this appendix for a detailed description of the difference. For each year, the cost as a percentage of GDP is equal to the cost as a percentage of taxable payroll multiplied by the ratio of taxable payroll to GDP.

Table VI.G5.—Ratio of OASDI Taxable Payroll to GDP, Calendar Years 2019-2095

Calendar year	Intermediate	Low-cost	High-cost
2019	0.355	0.355	0.355
2020	.355	.355	.355
2021	.356	.357	.354
2022	.357	.360	.353
2023	.359	.362	.354
2024	.360	.364	.354
2025	.361	.366	.355
2026	.361	.367	.355
2027	.362	.369	.355
2028	.363	.371	.355
2030	.362	.370	.353
2035	.359	.369	.350
2040	.357	.368	.346
2045	.355	.368	.343
2050	.355	.369	.341
2055	.354	.371	.339
2060	.354	.372	.337
2065	.353	.373	.335
2070	.352	.374	.332
2075	.351	.375	.329
2080	.350	.375	.326
2085	.348	.376	.323
2090	.347	.377	.320
2095	.346	.377	.317

Projections of GDP reflect projected increases in U.S. employment, labor productivity, average hours worked, and the GDP price index (GDP deflator). Projections of taxable payroll reflect the components of growth in GDP along with assumed changes in the ratio of total labor compensation to GDP, the ratio of [earnings](#) to total labor compensation, the ratio of OASDI [covered earnings](#) to total earnings, and the ratio of taxable to total covered earnings.

Over the long-range period, the ratio of OASDI taxable payroll to GDP is projected to decline mostly due to a projected decline in the ratio of wages and salaries to employee compensation. Over the last five complete economic cycles, the ratio of wages and salaries to employee compensation declined at an average annual rate of 0.23 percent. Over the 65-year period ending in 2093, the ratio of wages and salaries to employee compensation is projected to decline at an average annual rate of 0.06 and 0.16 percent for the intermediate and high-cost assumptions, respectively, and to increase at an average annual rate of 0.04 percent for the low-cost assumptions.

¹ OASDI benefits paid for entitlement for a particular month are generally paid in the succeeding month. There are two primary exceptions to this general rule. First, payments can occur with a greater delay when a benefit award is made after the month of initial benefit entitlement. At the time of benefit award, benefits owed for months of prior entitlement are then also paid to the beneficiary. For the projections in this report, such retroactive payments are included in the period where they are paid (at time of award). Second, when benefit payments scheduled for January 3 are paid on the prior December 31, because January 3 falls on a Sunday, such payments are shown in this report for the period they were scheduled to be paid.

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