Railroad Retirement System

Annual Report Required by Railroad Retirement Act of 1974 and Railroad Retirement Solvency Act of 1983

U.S. Railroad Retirement Board
Bureau of the Actuary and Research
June 2023

The ANNUAL ACTUARIAL REPORT REQUIRED BY RAILROAD RETIREMENT ACT OF 1974 AND RAILROAD RETIREMENT SOLVENCY ACT OF 1983

I. INTRODUCTION

This report is intended to meet the requirements of Section 22 of the Railroad Retirement Act of 1974 and Section 502 of the Railroad Retirement Solvency Act of 1983.

Section 22 of the Railroad Retirement Act of 1974 requires the Railroad Retirement Board to prepare an annual report containing a five-year projection of revenues to and payments from the Railroad Retirement Account and to submit the report to the President and the Congress by July 1. The report must also contain a five-year projection of the account benefits ratio and average account benefits ratio. If the five-year projection indicates that funds in the Railroad Retirement Account will be insufficient to pay full benefits, (1) representatives of railroad employees, railroad carriers and the President must submit proposals to the Congress to preserve the financial solvency of the Railroad Retirement Account, and (2) the Railroad Retirement Board must issue regulations to reduce annuity levels during any fiscal year in which there would be insufficient funds to make full payments.

Section 502 of the Railroad Retirement Solvency Act of 1983 requires the Railroad Retirement Board to prepare an annual report on the actuarial status of the railroad retirement system and to submit the report to the Congress by July 1. The report must contain recommendations for any financing changes which might be advisable, including (1) changes in the tax rates, and (2) whether any part of the taxes on employers should be diverted to the Railroad Unemployment Insurance Account to aid in the repayment of its debt to the Railroad Retirement Account.

II. RAILROAD EMPLOYMENT

Over the years, the main source of income to the railroad retirement system has been a payroll tax on railroad employment. The amount of income that the tax produces is directly dependent on the number of railroad employees covered under the system.

A condensed history of 5-year average railroad employment from 1945 through 2019 is shown in the following table:

5-Year Period	Average employment for the period	Average annual rate of decline from the prior period
1945-1949	1,572,000	
1950-1954	1,396,000	2.3%
1955-1959	1,108,000	4.5%
1960-1964	825,000	5.7%
1965-1969	710,000	3.0%

5-Year Period	Average employment for the period	Average annual rate of decline from the prior period
1970-1974	603,000	3.2%
1975-1979	546,000	2.0%
1980-1984	453,000	3.7%
1985-1989	331,000	6.1%
1990-1994	279,000	3.4%
1995-1999	257,000	1.6%
2000-2004	233,000	1.9%
2005-2009	233,000	0.0%
2010-2014	233,000	0.0%
2015-2019	229,000	0.3%

This history shows that railroad employment has generally declined over a long period of years but less quickly since the early 2000s. Railroad employment may vary more dramatically year to year and was particularly affected by the COVID-19 pandemic in 2020 and 2021. Until this last year, average employment has continued to decline with rates of decline as shown below:

Year	Average employment for the year	Annual rate of decline from the prior year
2015	247,000	
2016	231,000	6.5%
2017	225,000	2.6%
2018	224,000	0.4%
2019	217,000	3.1%
2020	195,000	10.1%
2021	186,000	4.6%
2022	190,000	(2.2)%

Railroad employment started 2020 at about 205,000 for the first quarter. Because of the COVID-19 pandemic, railroad employment dropped to about 189,000 for the fourth quarter of 2020. Although railroad employment has varied since that time, it did not start to recover until 2022. Railroad employment increased to 195,000 in the first quarter of 2023.

Three employment assumptions were used in the 28th Actuarial Valuation, which served as the 2021 annual report required by Section 502. Employment assumptions I and II were based on a model developed by the Association of American Railroads, and assumed that (1) passenger employment would remain at the level of 46,000, and (2) the employment base, excluding passenger employment, would decline at a constant annual rate (0.2 percent for assumption I and 1.5 percent for assumption II) for 25 years, at a reducing rate over the next 25 years, and remain level thereafter. Employment assumption III differed from employment assumptions I and II by assuming that (1) passenger employment would decline by 500 per year until a level of 40,000 was reached and then remain level, and (2) the employment base, excluding passenger employment, would decline at a constant annual rate of 2.8 percent for 25 years, at a reducing rate over the next 25 years, and remain level thereafter. These projected rates of decline are lower than in the prior 27th Actuarial Valuation, reflecting recent experience and future expectations.

Instead of projecting future employment levels for the 28th Actuarial Valuation based on the 2020 average employment that had been reduced by the COVID-19 pandemic, we started with the 205,000 average employment from the first quarter of 2020 and applied the three employment assumptions for future periods. The projections phased into this pre-pandemic employment level over the next three years, reflecting an expectation that employment levels will gradually recover as the pandemic is mitigated. The remainder of the projections for the 28th Actuarial Valuation reflected this pre-pandemic level of employment.

The 2022 report used a similar approach to what was done in the 28th Actuarial Valuation but was updated to reflect actual 2021 average employment levels of 188,100, which consisted of average passenger employment of 45,000 and freight employment of 143,100. We then phased into a higher initial employment level of 195,400 (the average for 2020) over the next three years. This approach projected relatively flat employment levels for the first few years.

Description of updated employment assumptions for this 2023 report
These projections are updated to reflect the actual 2022 average employment levels. The projected average employment for 2022, based on the three employment assumptions used in last year's report, ranged from 185,900 to 190,200. The actual average employment for 2022 was 189,700 (subject to later adjustment), which was near the top of the range of projected amounts. Average passenger employment for calendar year 2022 was estimated to be lower at about 44,000.

The rates of decline in freight employment from the 28th Actuarial Valuation were then applied in all years except for 2023. To recognize the increasing employment trend to 195,000 in the first quarter of 2023, we added a 4 percent increase in freight employment across all scenarios between 2022 and 2023. The assumed increases in freight employment for 2023 are thus 3.8 percent, 2.4 percent, and 1.1 percent under employment assumptions I, II and III, respectively.

In this year's report, for employment assumptions I and II, passenger employment is assumed to remain level at 44,000. For employment assumption III, passenger employment is assumed to decline by 500 per year until a level of 36,000 is reached and then remain level.

These three employment assumption scenarios are shown in Table 1.

III. OTHER ASSUMPTIONS AND METHODS

The ultimate economic assumptions used in the 28th Actuarial Valuation will continue to be used in this year's report, but we are updating the economic assumptions used in the near-term projection years to reflect recent actual experience and expectations. These economic assumptions are shown in Table 1.

These projections are also updated to reflect census data as of December 31, 2021, and actual account balances as of December 31, 2022.

To account for increased mortality during 2021 and 2022, presumably due to the COVID-19 pandemic, loading factors for excess deaths were applied to the mortality rates as part of the population projections. Loading factors are only applied to beneficiaries currently in payment. For the 28th Actuarial Valuation, loading factors were applied for projection years 2020, 2021, and 2022. For the 2022 report, loading factors were updated for actual experience and extended through 2023. For the 2023 report, loading factors were updated for actual experience and extended through 2024. We are assuming there will be no particular positive or negative impact due to COVID-19 in later years.

The loading factors applied to all beneficiaries are 1.11, 1.06, and 1.01 for projection years 2022, 2023, and 2024, respectively. There are no loads in later years.

With the exception of the employment and economic assumptions shown in Table 1, as well as the mortality load for excess deaths, the assumptions and methods used in this report correspond to those published in the Twenty-Eighth Actuarial Valuation of the Assets and Liabilities Under the Railroad Retirement Acts as of December 31, 2019 with Technical Supplement, which may be found at www.rrb.gov. Please see that document for a summary of the census data information, actuarial assumptions and methods, benefit provisions and financial operations reflected in this report.

IV. RESULTS

Projections were made for the various components of income and outgo under each employment assumption for the 25 calendar years 2023 through 2047. The projections of these components were combined and the investment income calculated to produce the projected balances in the accounts at the end of each projection year. The results for the three employment scenarios are summarized in Table 2, Figure 1, and Figure 2.

Table 2 consists of three tables, one for each of employment assumptions: I (optimistic), II (moderate), and III (pessimistic). The tables show, for the Social Security Equivalent Benefit Account (SSEBA) and the combined National Railroad Retirement Investment Trust (NRRIT) and Railroad Retirement Account (RRA), for each projection year, (1) the various elements of income and outgo, (2) the account balance on December 31, and (3) the account benefits ratio (ABR) and average account benefits ratio (AABR). [1]

Table 2 indicates that cash flow problems do not arise during the projection period under any of the three employment assumptions. The results shown in Table 2 will be discussed separately for the SSEBA and the combined NRRIT and RRA.

Figure 1 shows the total account balances on December 31 under each employment assumption. Figure 2 shows the account benefits ratios under each employment assumption.

A. Social Security Equivalent Benefit Account

The SSEBA pays the social security level of benefits and administrative expenses allocable to those benefits, and it receives as income the social security level of taxes. The SSEBA also receives or pays the financial interchange transfers between the railroad retirement and social security systems. The financial interchange transfer, subject to the qualification in the next paragraph, should be enough to offset any surplus or deficit for the year. The SSEBA can thus be regarded as automatically funded, the financial interchange being the mechanism for correcting any surplus or deficiency.

The qualification mentioned in the preceding paragraph arises because, in a relatively small number of cases, the railroad retirement system does not pay benefits when the social security system would. In these cases, mainly dependent children of retired railroad employees, the SSEBA collects an amount through the financial interchange but does not pay a corresponding benefit. This imbalance between outgo and income is small in any particular year.

The SSEBA must from time to time transfer to the NRRIT or RRA amounts not needed to pay current benefits and administrative expenses in such a manner as to maximize investment return to the Railroad Retirement system.

The SSEBA is assumed to maintain a target balance of approximately 1.5 months of benefit payments in order to meet benefit obligations and contingencies, and transfer any excess to the NRRIT/RRA. However, if the NRRIT/RRA runs into cash flow problems, the SSEBA is assumed to transfer enough of its accumulated funds to the NRRIT/RRA to provide for benefit payments until the SSEBA is exhausted. Thereafter, the SSEBA is assumed to transfer to the NRRIT/RRA any excess of income over outgo, maintaining a zero balance.

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[1] At the end of each fiscal year (September 30), the Account Benefits Ratio (ABR) is calculated by dividing the fair market value of the assets in the RRA and the NRRIT as of the close of such fiscal year by the total benefits and administrative expenses paid from the RRA and the NRRIT during such fiscal year. The Average Account Benefits Ratio (AABR), with respect to any calendar year, is the average of the account benefits ratios for the 10 most recent fiscal years ending before such calendar year. If the AABR is not a multiple of 0.1, it is increased to the next highest multiple of 0.1. The tier 2 tax rate is determined from a tax rate table based on the AABR.

B. Railroad Retirement Account and National Railroad Retirement Investment Trust

The RRA receives tier 2 payroll taxes and income taxes on tier 2 and excess tier 1 benefits. Tier 2 benefits, excess tier 1 benefits, supplemental annuity benefits and administrative expenses are paid from the RRA. The NRRIT receives funds from the RRA and SSEBA for investment, pays investment expenses, and transfers funds to the RRA to meet benefit obligations.

The tier 2 payroll tax rate is determined from a tax rate table based on the AABR. The combined employer and employee tier 2 tax rate is 18% for values of the AABR between 4.0 and 6.0, inclusive. A maximum rate of 27% is reached when the AABR falls below 2.5, and a minimum rate of 8.2% is reached when the AABR reaches 9.0. Since the AABR is a 10-year average of the ABRs, whether the AABR in a given year increases or decreases from the prior year depends solely on whether the ABR in the prior year is greater or less than the ABR 10 years earlier.

Under all three employment assumptions, the combined employer and employee tier 2 tax rate remains at the current 18% level for at least the next 8 years.

Under employment assumption I (Table 2-I), the combined NRRIT and RRA balance declines through 2031 but then increases through the remainder of the projection period. The combined employer and employee tier 2 tax rate remains level at 18% for the first 9 years, increases to 19% in 2032-2044, and then returns to 18% in 2045.

Under employment assumption II (Table 2-II), the combined NRRIT and RRA balance declines through 2035 and then remains relatively stable between 2036-2042 until starting to increase in 2043 through the end of the projection period. The combined employer and employee tier 2 tax rate increases to 19% in 2032-2035, increases to 20% in 2036-2042, and further increases to 23% in 2043-2047.

Under employment assumption III (Table 2-III), the combined NRRIT and RRA balance declines throughout the entire projection period. The combined employer and employee tier 2 tax rate increases in steps, starting at 18% in 2023, until reaching 27% in 2041. Despite the 27% tax rate, expenditures continue to exceed income at the end of the projection period, and the ABR falls to 0.86 at the end of the projection period.

C. Analysis of Results

Under each employment assumption, no cash flow problems occur throughout the 25-year projection period and the ABR remains above 0.5 in every year.

The overall conclusion is that, barring a sudden, unanticipated, large decrease in railroad employment or substantial investment losses, the railroad retirement system will experience no cash flow problems during the next 25 years. The long-term stability of the system, however, is still uncertain. Under the current financing structure, actual levels of railroad employment and investment return over the coming years will largely determine whether corrective action is necessary.

D. Comparison of Results with 2022 Report

The actual investment return in 2022 was much lower than expected, but actual and projected railroad employment was higher than expected under all three assumptions. Wage increases for 2022 and expected for 2023 are also higher than expected. Higher projected employment and higher taxable wages result in generally higher projected payroll tax income, which is partially offset by higher projected benefit payments for future annuitants.

The first year combined account balance begins about $4.5 billion lower than last year's report because of lower than expected investment return during 2022. The projected combined account balances gradually improve over the projection period because of higher projected payroll tax income.

- Under employment assumption I (optimistic), the projected combined account balances remain lower over the entire 25-year projection period.
- Under employment assumption II (moderate), the projected combined account balances remain lower for the first 20 years.
- Under employment assumption IIII (pessimistic), the projected combined account balances remain lower for the first 16 years.

The projected tier 2 tax rates increase sooner and are generally higher when compared to last year's report.

- Under employment assumption I (optimistic), the tier 2 tax rates increase to 19% in 2032-2044, which is 1 percent higher that last year's report, but then return to 18% in 2045-2047, which matches last year's report.
- Under employment assumption II (moderate), the projected tier 2 tax rates are almost all higher starting with 2032: plus 1 percent in 2032-2035, plus 2 percent in 2036-2037, plus 1 percent in 2038-2041, and plus 3 percent in 2043-2046.
- Under employment assumption III (pessimistic), the projected tier 2 tax rates are higher starting with 2031: plus 1 percent in 2031-2033, plus 2 percent in 2034, plus 1 percent in 2035-2037, plus 3 percent in 2038-2039, and plus 4 percent in 2041.

V. RECOMMENDATIONS

As stated in the introduction, this report must contain recommendations with regard to (1) tax rates and (2) whether any part of the taxes on employers should be diverted to the Railroad Unemployment Insurance Account to aid in the repayment of any debt to the Railroad Retirement Account.

Based on the analysis presented in this report, the Chief Actuary makes the following recommendations:

A. Tax Rates

No change in the rate of tax imposed on employers and employees is recommended. The tax adjustment mechanism will automatically increase or decrease tax rates in response to changes in fund balance. Even under a pessimistic employment assumption, this mechanism is expected to prevent cash flow problems for at least 25 years.

B. Diversion of Taxes to Railroad Unemployment Insurance Account

No diversion of taxes from the Railroad Retirement Account to the Railroad Unemployment Insurance Account is recommended at this time. Due to the pandemic and its impact on unemployment and sickness claims, the Railroad Retirement Account extended $120 million in loans to the Railroad Unemployment Insurance Account during 2020 and early 2021, as provided for by Section 10(d) of the Railroad Unemployment Insurance Act. These outstanding loans were fully repaid by the end of 2022.

Table 1. Employment and economic assumptions

Calendar year	Average employment (thousands) I	II	III	Percentage increase over prior year: Earnings	Cost of living [a]	Investment return
2022	189.7	189.7	189.7	6.1% [b]	5.9% [b]	-10.8% [b]
2023	195.2	193.3	190.8	10.0	8.7 [b]	6.5
2024	194.9	191.0	186.2	2.0	3.3	6.5
2025	194.6	188.8	181.7	3.4	2.9	6.5
2026	194.3	186.6	177.3	3.4	2.4	6.5
2027	194.0	184.5	173.0	3.4	2.4	6.5
2028	193.7	182.4	168.8	3.4	2.4	6.5
2029	193.4	180.3	164.7	3.4	2.4	6.5
2030	193.1	178.3	160.7	3.4	2.4	6.5
2031	192.8	176.3	156.9	3.4	2.4	6.5
2032	192.5	174.3	153.1	3.4	2.4	6.5
2033	192.2	172.3	149.4	3.4	2.4	6.5
2034	191.9	170.4	145.8	3.4	2.4	6.5
2035	191.6	168.5	142.3	3.4	2.4	6.5
2036	191.3	166.6	138.8	3.4	2.4	6.5
2037	191.0	164.8	135.5	3.4	2.4	6.5
2038	190.8	163.0	132.2	3.4	2.4	6.5
2039	190.5	161.2	129.5	3.4	2.4	6.5
2040	190.2	159.4	126.9	3.4	2.4	6.5
2041	189.9	157.7	124.3	3.4	2.4	6.5
2042	189.6	156.0	121.9	3.4	2.4	6.5
2043	189.3	154.3	119.5	3.4	2.4	6.5
2044	189.0	152.7	117.1	3.4	2.4	6.5
2045	188.7	151.0	114.9	3.4	2.4	6.5
2046	188.4	149.4	112.6	3.4	2.4	6.5
2047	188.1	147.8	110.5	3.4	2.4	6.5

[a] Cost-of-living adjustments are effective January 1 of each year. Actual Tier 1 COLA is the same as the actual social security increase. Tier 2 COLA is 32.5% of the Tier 1 COLA.

[b] Actual.

Table 2-I. Progress of the Combined National Railroad Retirement Investment Trust (NRRIT) and Railroad Retirement Account (RRA), and Social Security Equivalent Benefit Account (SSEBA) under Employment Assumption I
(Dollar amounts in millions)

				Combined NRRIT and RRA				SSEBA				
Calendar year	Account benefits ratio[a]	Average account benefits ratio[b]	Tier 2 tax rate	Benefits and administration	Tax income[c]	Other income[d]	Balance, end year	Benefits and administration	Tax income[c]	Other income and expense[e]	Balance, end year	Combined balance, end year
2023	4.17	4.80	18.0%	$5,938	$3,893	$1,845	$24,280	$8,592	$3,534	$4,627	$1,071	$25,351
2024	4.05	4.70	18.0%	5,994	3,987	1,607	23,881	8,829	3,647	5,212	1,101	24,982
2025	3.94	4.60	18.0%	6,054	4,120	1,497	23,444	9,028	3,796	5,257	1,126	24,570
2026	3.86	4.50	18.0%	6,108	4,321	1,577	23,234	9,191	3,990	5,222	1,146	24,380
2027	3.80	4.40	18.0%	6,166	4,453	1,567	23,088	9,360	4,136	5,244	1,167	24,255
2028	3.74	4.30	18.0%	6,239	4,586	1,562	22,997	9,529	4,284	5,265	1,188	24,185
2029	3.68	4.20	18.0%	6,327	4,721	1,560	22,951	9,697	4,432	5,287	1,209	24,160
2030	3.63	4.10	18.0%	6,424	4,858	1,561	22,946	9,870	4,582	5,309	1,230	24,176
2031	3.57	4.10	18.0%	6,525	4,998	1,514	22,934	10,049	4,735	5,337	1,252	24,186
2032	3.56	3.90	19.0%	6,618	5,395	1,574	23,285	10,241	4,894	5,371	1,276	24,561
2033	3.59	3.90	19.0%	6,695	5,551	1,601	23,742	10,446	5,061	5,410	1,302	25,044
2034	3.62	3.80	19.0%	6,788	5,714	1,637	24,304	10,648	5,216	5,458	1,327	25,631
2035	3.65	3.70	19.0%	6,914	5,883	1,678	24,952	10,845	5,372	5,497	1,351	26,303
2036	3.68	3.70	19.0%	7,046	6,057	1,715	25,678	11,050	5,533	5,542	1,377	27,055
2037	3.73	3.70	19.0%	7,182	6,236	1,774	26,505	11,264	5,700	5,590	1,403	27,908
2038	3.78	3.70	19.0%	7,332	6,422	1,832	27,427	11,477	5,872	5,631	1,430	28,857
2039	3.84	3.70	19.0%	7,480	6,615	1,896	28,457	11,691	6,051	5,666	1,456	29,913
2040	3.91	3.70	19.0%	7,629	6,816	1,967	29,611	11,909	6,238	5,698	1,484	31,095
2041	3.99	3.70	19.0%	7,796	7,026	2,043	30,884	12,136	6,433	5,731	1,512	32,396
2042	4.07	3.80	19.0%	7,988	7,240	2,130	32,265	12,383	6,632	5,782	1,542	33,807
2043	4.15	3.80	19.0%	8,199	7,463	2,221	33,750	12,649	6,838	5,844	1,575	35,325
2044	4.22	3.90	19.0%	8,429	7,694	2,320	35,336	12,926	7,051	5,910	1,610	36,946
2045	4.26	4.00	18.0%	8,680	7,556	2,411	36,624	13,220	7,270	5,987	1,646	38,270
2046	4.29	4.00	18.0%	8,933	7,794	2,495	37,980	13,536	7,501	6,074	1,686	39,666
2047	4.33	4.10	18.0%	9,179	8,038	2,585	39,425	13,878	7,742	6,179	1,728	41,153

[a] The fair market value of the assets in the RRA and NRRIT as of the close of the fiscal year (September 30) divided by the total benefits and administrative expenses paid from the RRA and NRRIT during the fiscal year.

[b] The average of the account benefits ratios for the 10 most recent fiscal years ending before the calendar year.

[c] Includes payroll taxes net of any refunds and income taxes on benefits.

[d] Includes investment income and transfers from the SSEBA.

[e] Other income includes financial interchange income, advances from general revenue, and interest income. Other expense includes repayment of advances from general revenue and transfers to the NRRIT or RRA. It also includes credits from and repayments to general funds related to pandemic legislation: $154 million credit in 2022 and repayments of $270 million in 2022 and $347 million in 2023.

Table 2-II. Progress of the Combined National Railroad Retirement Investment Trust (NRRIT) and Railroad Retirement Account (RRA), and Social Security Equivalent Benefit Account (SSEBA) under Employment Assumption II
(Dollar amounts in millions)

				Combined NRRIT and RRA				SSEBA				
Calendar year	Account benefits ratio[a]	Average account benefits ratio[b]	Tier 2 tax rate	Benefits and administration	Tax income[c]	Other income[d]	Balance, end year	Benefits and administration	Tax income[c]	Other income and expense[e]	Balance, end year	Combined balance, end year
2023	4.17	4.80	18.0%	$5,938	$3,875	$1,844	$24,262	$8,592	$3,518	$4,642	$1,071	$25,333
2024	4.04	4.70	18.0%	5,994	3,937	1,605	23,810	8,829	3,604	5,255	1,101	24,911
2025	3.91	4.60	18.0%	6,054	4,037	1,490	23,283	9,028	3,723	5,331	1,126	24,409
2026	3.82	4.50	18.0%	6,107	4,202	1,562	22,941	9,191	3,884	5,327	1,146	24,087
2027	3.73	4.40	18.0%	6,165	4,295	1,543	22,614	9,360	3,996	5,384	1,167	23,781
2028	3.64	4.30	18.0%	6,237	4,388	1,525	22,289	9,528	4,107	5,442	1,188	23,477
2029	3.54	4.20	18.0%	6,325	4,479	1,507	21,950	9,697	4,215	5,503	1,209	23,159
2030	3.43	4.10	18.0%	6,421	4,570	1,487	21,586	9,869	4,323	5,567	1,230	22,816
2031	3.31	4.00	18.0%	6,521	4,661	1,416	21,142	10,047	4,432	5,638	1,252	22,394
2032	3.23	3.80	19.0%	6,612	4,985	1,445	20,960	10,238	4,544	5,718	1,276	22,236
2033	3.17	3.70	19.0%	6,687	5,085	1,436	20,793	10,440	4,661	5,804	1,301	22,094
2034	3.10	3.60	19.0%	6,778	5,189	1,429	20,632	10,639	4,763	5,901	1,326	21,958
2035	3.03	3.50	19.0%	6,901	5,295	1,422	20,448	10,831	4,864	5,991	1,350	21,798
2036	2.97	3.40	20.0%	7,029	5,654	1,412	20,485	11,030	4,967	6,088	1,374	21,859
2037	2.92	3.40	20.0%	7,162	5,770	1,424	20,515	11,237	5,073	6,190	1,400	21,915
2038	2.87	3.30	20.0%	7,307	5,889	1,428	20,525	11,441	5,180	6,286	1,425	21,950
2039	2.81	3.20	20.0%	7,451	6,012	1,431	20,518	11,645	5,291	6,378	1,451	21,969
2040	2.76	3.10	20.0%	7,594	6,141	1,433	20,498	11,851	5,407	6,469	1,476	21,974
2041	2.70	3.10	20.0%	7,754	6,274	1,430	20,449	12,062	5,527	6,561	1,503	21,952
2042	2.63	3.00	20.0%	7,937	6,409	1,429	20,349	12,293	5,648	6,674	1,531	21,880
2043	2.64	2.90	23.0%	8,138	7,419	1,453	21,083	12,538	5,772	6,797	1,562	22,645
2044	2.66	2.90	23.0%	8,358	7,582	1,501	21,809	12,791	5,899	6,924	1,593	23,402
2045	2.67	2.80	23.0%	8,598	7,748	1,548	22,507	13,058	6,029	7,062	1,626	24,133
2046	2.67	2.80	23.0%	8,838	7,922	1,592	23,183	13,342	6,166	7,212	1,661	24,844
2047	2.68	2.80	23.0%	9,068	8,101	1,637	23,852	13,648	6,308	7,378	1,700	25,552

[a] The fair market value of the assets in the RRA and NRRIT as of the close of the fiscal year (September 30) divided by the total benefits and administrative expenses paid from the RRA and NRRIT during the fiscal year.

[b] The average of the account benefits ratios for the 10 most recent fiscal years ending before the calendar year.

[c] Includes payroll taxes net of any refunds and income taxes on benefits.

[d] Includes investment income and transfers from the SSEBA.

[e] Other income includes financial interchange income, advances from general revenue, and interest income. Other expense includes repayment of advances from general revenue and transfers to the NRRIT or RRA. It also includes credits from and repayments to general funds related to pandemic legislation: $154 million credit in 2022 and repayments of $270 million in 2022 and $347 million in 2023.

Table 2-III. Progress of the Combined National Railroad Retirement Investment Trust (NRRIT) and Railroad Retirement Account (RRA), and Social Security Equivalent Benefit Account (SSEBA) under Employment Assumption III
(Dollar amounts in millions)

				Combined NRRIT and RRA				SSEBA				
Calendar year	Account benefits ratio[a]	Average account benefits ratio[b]	Tier 2 tax rate	Benefits and administration	Tax income[c]	Other income[d]	Balance, end year	Benefits and administration	Tax income[c]	Other income and expense[e]	Balance, end year	Combined balance, end year
2023	4.16	4.80	18.0%	$5,938	$3,853	$1,843	$24,239	$8,592	$3,499	$4,661	$1,071	$25,310
2024	4.03	4.70	18.0%	5,994	3,876	1,601	23,722	8,829	3,550	5,309	1,101	24,823
2025	3.88	4.60	18.0%	6,054	3,935	1,481	23,085	9,028	3,633	5,420	1,126	24,211
2026	3.76	4.50	18.0%	6,107	4,057	1,545	22,581	9,191	3,756	5,456	1,146	23,727
2027	3.64	4.40	18.0%	6,164	4,104	1,514	22,035	9,360	3,827	5,554	1,167	23,202
2028	3.51	4.30	18.0%	6,236	4,149	1,480	21,428	9,528	3,895	5,655	1,188	22,616
2029	3.36	4.20	18.0%	6,322	4,190	1,442	20,738	9,696	3,957	5,761	1,209	21,947
2030	3.19	4.00	18.0%	6,417	4,228	1,397	19,947	9,867	4,017	5,872	1,230	21,177
2031	3.03	3.90	19.0%	6,516	4,470	1,304	19,205	10,045	4,075	5,991	1,252	20,457
2032	2.87	3.70	19.0%	6,606	4,507	1,305	18,411	10,234	4,135	6,122	1,275	19,686
2033	2.70	3.60	19.0%	6,679	4,545	1,254	17,531	10,433	4,197	6,260	1,300	18,831
2034	2.55	3.40	20.0%	6,767	4,794	1,206	16,764	10,628	4,242	6,410	1,324	18,088
2035	2.39	3.30	20.0%	6,887	4,835	1,157	15,870	10,814	4,284	6,553	1,347	17,217
2036	2.20	3.20	20.0%	7,011	4,876	1,091	14,825	11,007	4,326	6,705	1,371	16,196
2037	2.00	3.00	20.0%	7,140	4,916	1,030	13,631	11,205	4,367	6,863	1,396	15,027
2038	1.85	2.80	23.0%	7,279	5,607	976	12,935	11,399	4,411	7,012	1,420	14,355
2039	1.71	2.70	23.0%	7,417	5,666	931	12,114	11,590	4,460	7,153	1,444	13,558
2040	1.56	2.50	23.0%	7,554	5,730	878	11,168	11,781	4,514	7,290	1,468	12,636
2041	1.49	2.30	27.0%	7,707	6,687	845	10,992	11,976	4,572	7,428	1,492	12,484
2042	1.42	2.20	27.0%	7,886	6,766	834	10,706	12,187	4,629	7,584	1,518	12,224
2043	1.34	2.00	27.0%	8,079	6,848	813	10,288	12,409	4,687	7,749	1,545	11,833
2044	1.25	1.90	27.0%	8,287	6,936	785	9,722	12,634	4,748	7,914	1,573	11,295
2045	1.13	1.80	27.0%	8,512	7,024	746	8,980	12,869	4,809	8,090	1,603	10,583
2046	1.00	1.60	27.0%	8,736	7,120	694	8,058	13,118	4,875	8,273	1,633	9,691
2047	0.86	1.50	27.0%	8,946	7,219	633	6,964	13,384	4,946	8,471	1,666	8,630

[a] The fair market value of the assets in the RRA and NRRIT as of the close of the fiscal year (September 30) divided by the total benefits and administrative expenses paid from the RRA and NRRIT during the fiscal year.

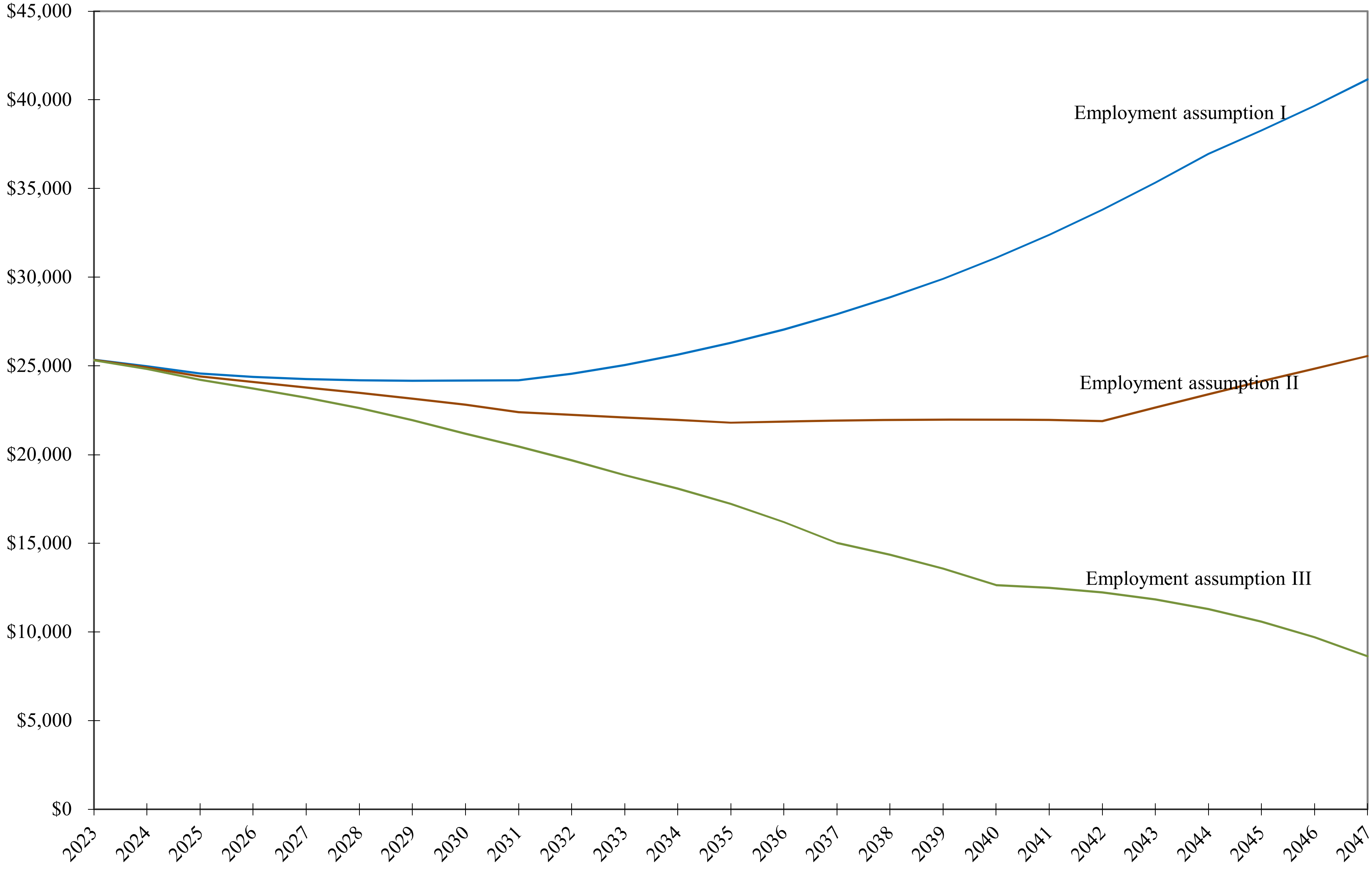
[b] The average of the account benefits ratios for the 10 most recent fiscal years ending before the calendar year.

[c] Includes payroll taxes net of any refunds and income taxes on benefits.

[d] Includes investment income and transfers from the SSEBA.

[e] Other income includes financial interchange income, advances from general revenue, and interest income. Other expense includes repayment of advances from general revenue and transfers to the NRRIT or RRA. It also includes credits from and repayments to general funds related to pandemic legislation: $154 million credit in 2022 and repayments of $270 million in 2022 and $347 million in 2023.

Figure 1. Combined NRRIT, RRA and SSEBA Balance
(In millions)



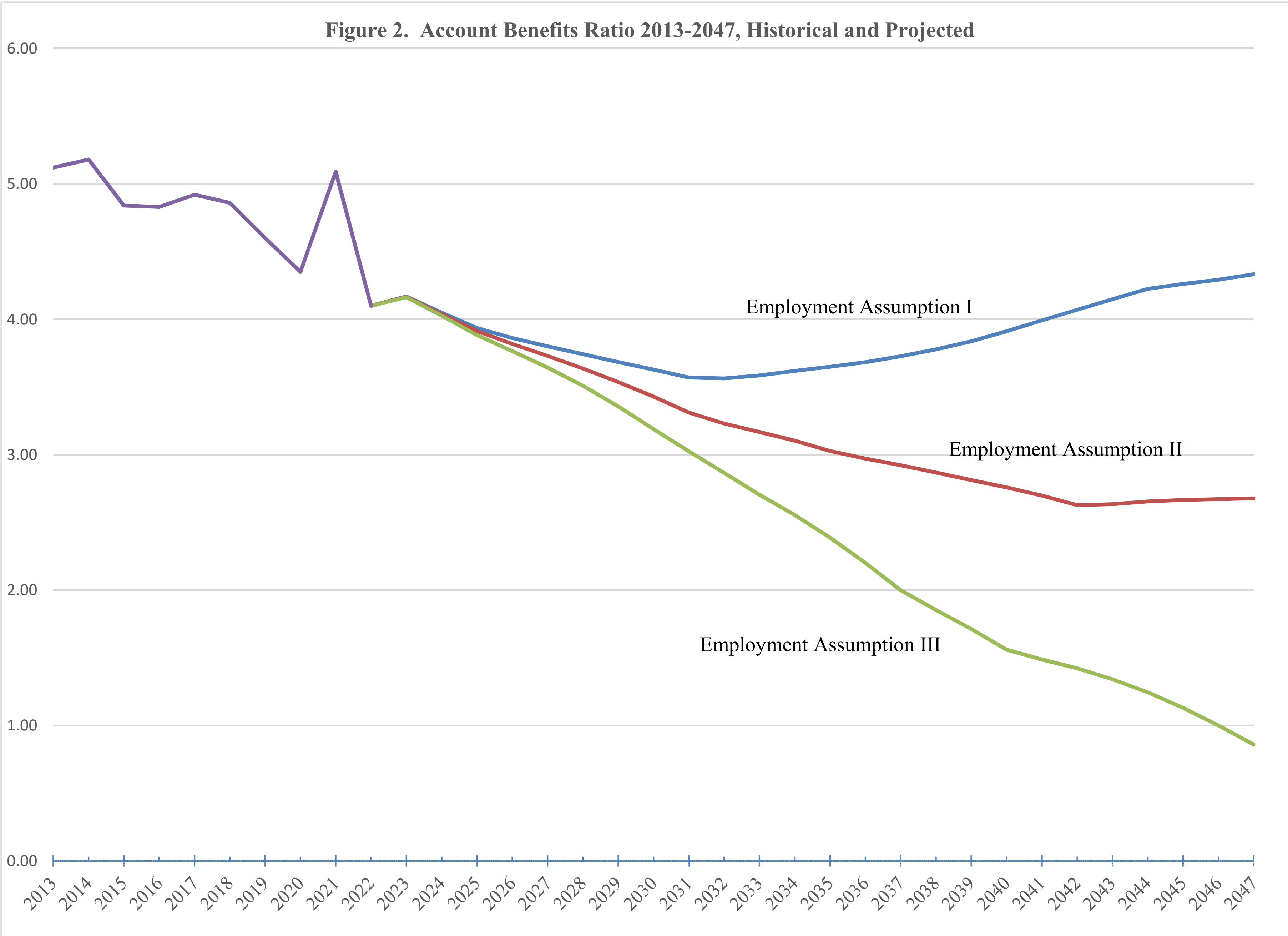


Figure 2. Account Benefits Ratio 2013-2047, Historical and Projected
6.00
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3.00
2.00
1.00
0.00
Employment Assumption I
Employment Assumption II
Employment Assumption III
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