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 2022

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. Since 2015, 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	188,000	3.6%

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 recover during 2021.

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.

Description of updated employment assumptions for this 2022 report
These projections are updated to reflect the actual 2021 average employment levels. The projected average employment for 2021, based on the three employment assumptions used in the 28th Actuarial Valuation, ranged from 195,200 to 199,700. The actual average employment for 2021 was 188,100 (subject to later adjustment), which was lower than the range of projected amounts. Average passenger employment for calendar year 2021 was estimated to be lower at 45,000.

We expect railroad employment will increase over the next few years as the pandemic restrictions continue to be lifted, manufacturing fully recovers, and railroads add employees to meet demand. We are phasing into a higher target employment level over the next three years, similar to what was done for the 28th Actuarial Valuation. However, we are dropping the initial employment level about 5% from 205,000 (taken from the first quarter of 2020) to 195,400 (the average for 2020). Consistent with actual employment levels over the last year and future expectations, we are projecting relatively flat railroad employment over the next few years.

In this year's report, for employment assumptions I and II, passenger employment is assumed to remain level at 45,000. 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 last year's 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, 2020, and actual account balances as of December 31, 2021.

To account for increased mortality during 2020 and 2021, 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 this year's report, loading factors were updated for actual experience and extended through 2023. We are assuming there will be no particular positive or negative impact due to COVID-19 in later years.

The loading factors applied to disability retirements and disabled widows are 1.14, 1.14, and 1.04 for projection years 2021, 2022, and 2023, respectively. The loading factors applied to all other beneficiaries are 1.11, 1.11, and 1.03 for projection years 2021, 2022, and 2023, 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, 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 2022 through 2046. 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 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.

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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.

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.

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 10 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 all 25 years.

Under employment assumption II (Table 2-II), the combined NRRIT and RRA balance declines throughout the projection period. The combined employer and employee tier 2 tax rate increases to 19% in 2038-2041, with further increases to 20% in 2042-2046.

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 2022, until reaching 27% in 2042. Despite the 27% tax rate, expenditures continue to exceed income at the end of the projection period, and the ABR falls to a level of 0.70 in 2046.

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 each 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 2021 Report

The actual investment return in 2021 was much higher than expected, but actual and projected employment was lower than expected under all three assumptions. Lower projected employment results in generally lower projected payroll tax income, which is partially offset by lower projected benefit payments.

The first year combined account balances begin higher than last year’s report because of strong investment performance in 2021. The projected combined account balances remain higher over the first 8-12 years using the three employment assumptions. Subsequent years show lower projected combined account balances because of the lower levels of expected railroad employment.

The projected tier 2 tax rates are the same in each calendar year as in last year's report under employment assumption I (optimistic). In each calendar year under employment assumption II (moderate), the projected tier 2 tax rates are 1 percent higher starting in 2038 except for being the same in 2041. Under employment assumption III (pessimistic), the tier 2 tax rates are the same in each calendar year through 2039, but then step up to 23% in 2040, which is one year sooner than last year's projection, and step up to 27% in 2042, which is two years sooner than in last year's projection.

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 recommend. 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 are expected to be 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
2021	188.1	188.1	188.1	2.5%	1.3% b	19.3% b
2022	190.2	188.3	185.9	3.4	5.9 b	6.5
2023	192.4	188.5	183.8	3.4	7.8	6.5
2024	194.5	188.7	181.6	3.4	5.2	6.5
2025	194.2	186.6	177.2	3.4	2.4	6.5
2026	193.9	184.5	173.0	3.4	2.4	6.5
2027	193.6	182.4	168.8	3.4	2.4	6.5
2028	193.3	180.3	164.8	3.4	2.4	6.5
2029	193.0	178.3	160.8	3.4	2.4	6.5
2030	192.7	176.3	157.0	3.4	2.4	6.5
2031	192.4	174.3	153.2	3.4	2.4	6.5
2032	192.1	172.4	149.5	3.4	2.4	6.5
2033	191.8	170.5	146.0	3.4	2.4	6.5
2034	191.5	168.6	142.5	3.4	2.4	6.5
2035	191.2	166.7	139.1	3.4	2.4	6.5
2036	191.0	164.9	135.7	3.4	2.4	6.5
2037	190.7	163.1	132.5	3.4	2.4	6.5
2038	190.4	161.3	129.3	3.4	2.4	6.5
2039	190.1	159.6	126.2	3.4	2.4	6.5
2040	189.8	157.9	123.7	3.4	2.4	6.5
2041	189.5	156.2	121.2	3.4	2.4	6.5
2042	189.2	154.5	118.8	3.4	2.4	6.5
2043	188.9	152.9	116.5	3.4	2.4	6.5
2044	188.6	151.2	114.3	3.4	2.4	6.5
2045	188.3	149.6	112.1	3.4	2.4	6.5
2046	188.1	148.1	109.9	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 admin-istration	Tax income[c]	Other income[d]	Balance, end year	Benefits and admin-istration	Tax income[c]	Other income and expense[e]	Balance, end year	Combined balance, end year
2022	5.12	4.90	18.0%	$5,831	$3,399	$1,868	$29,441	$8,007	$3,365	$4,672	$1,169	$30,610
2023	4.93	4.90	18.0%	5,955	3,558	1,832	28,876	8,594	3,278	5,169	1,022	29,898
2024	4.76	4.90	18.0%	6,056	3,699	1,824	28,343	8,986	3,439	5,645	1,120	29,463
2025	4.63	4.90	18.0%	6,096	3,824	1,784	27,855	9,139	3,580	5,578	1,139	28,994
2026	4.55	4.90	18.0%	6,139	4,041	1,856	27,613	9,293	3,769	5,543	1,158	28,771
2027	4.49	4.80	18.0%	6,186	4,163	1,846	27,436	9,442	3,908	5,552	1,177	28,613
2028	4.43	4.80	18.0%	6,243	4,287	1,840	27,320	9,586	4,048	5,556	1,195	28,515
2029	4.37	4.70	18.0%	6,312	4,413	1,836	27,258	9,728	4,188	5,558	1,212	28,470
2030	4.32	4.70	18.0%	6,388	4,542	1,836	27,248	9,868	4,330	5,556	1,230	28,478
2031	4.27	4.70	18.0%	6,467	4,673	1,790	27,243	10,014	4,475	5,557	1,248	28,491
2032	4.23	4.60	18.0%	6,539	4,808	1,842	27,355	10,166	4,625	5,560	1,267	28,622
2033	4.22	4.50	18.0%	6,595	4,947	1,853	27,560	10,327	4,764	5,583	1,287	28,847
2034	4.22	4.50	18.0%	6,667	5,092	1,872	27,857	10,484	4,907	5,596	1,306	29,163
2035	4.22	4.40	18.0%	6,767	5,243	1,896	28,228	10,635	5,053	5,601	1,325	29,553
2036	4.22	4.40	18.0%	6,873	5,398	1,915	28,668	10,791	5,203	5,607	1,344	30,012
2037	4.22	4.30	18.0%	6,984	5,558	1,954	29,196	10,952	5,358	5,614	1,364	30,560
2038	4.24	4.30	18.0%	7,108	5,725	1,993	29,805	11,110	5,518	5,611	1,383	31,188
2039	4.26	4.30	18.0%	7,229	5,898	2,036	30,510	11,268	5,685	5,603	1,403	31,913
2040	4.30	4.30	18.0%	7,351	6,078	2,086	31,322	11,429	5,859	5,590	1,423	32,745
2041	4.34	4.30	18.0%	7,492	6,267	2,139	32,237	11,594	6,041	5,573	1,443	33,680
2042	4.38	4.30	18.0%	7,654	6,460	2,203	33,245	11,770	6,227	5,566	1,465	34,710
2043	4.42	4.30	18.0%	7,833	6,660	2,270	34,342	11,957	6,419	5,562	1,488	35,830
2044	4.46	4.30	18.0%	8,032	6,869	2,343	35,522	12,153	6,618	5,560	1,513	37,035
2045	4.50	4.40	18.0%	8,253	7,085	2,421	36,775	12,364	6,823	5,567	1,539	38,314
2046	4.54	4.40	18.0%	8,474	7,310	2,502	38,113	12,593	7,038	5,583	1,567	39,680

[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. For the SSEBA during 2022, we anticipate employer repayments for CARES Act deferrals equal to $269 million.

[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 COVID-19 legislation general funds reimbursements ($39 million due in 2022) and sending CARES Act deferral repayments to general revenue ($269 million in 2022 and 2023), pending further guidance.

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 admin-istration	Tax income[c]	Other income[d]	Balance, end year	Benefits and admin-istration	Tax income[c]	Other income and expense[e]	Balance, end year	Combined balance, end year
2022	5.12	4.90	18.0%	$5,831	$3,383	$1,867	$29,424	$8,007	$3,351	$4,686	$1,169	$30,593
2023	4.92	4.90	18.0%	5,955	3,513	1,830	28,812	8,594	3,238	5,209	1,022	29,834
2024	4.73	4.90	18.0%	6,056	3,624	1,818	28,198	8,986	3,373	5,711	1,120	29,318
2025	4.59	4.90	18.0%	6,096	3,716	1,772	27,590	9,139	3,484	5,673	1,139	28,729
2026	4.49	4.90	18.0%	6,139	3,898	1,835	27,184	9,293	3,642	5,670	1,158	28,342
2027	4.39	4.80	18.0%	6,184	3,983	1,813	26,795	9,442	3,748	5,713	1,177	27,972
2028	4.30	4.80	18.0%	6,241	4,068	1,791	26,413	9,586	3,852	5,752	1,195	27,608
2029	4.19	4.70	18.0%	6,310	4,152	1,769	26,024	9,727	3,953	5,792	1,212	27,236
2030	4.08	4.70	18.0%	6,384	4,236	1,747	25,624	9,867	4,055	5,829	1,229	26,853
2031	3.96	4.60	18.0%	6,462	4,321	1,673	25,156	10,011	4,157	5,872	1,247	26,403
2032	3.85	4.50	18.0%	6,532	4,407	1,694	24,725	10,161	4,262	5,918	1,266	25,991
2033	3.75	4.40	18.0%	6,586	4,495	1,669	24,303	10,319	4,353	5,986	1,285	25,588
2034	3.65	4.30	18.0%	6,655	4,587	1,645	23,879	10,472	4,446	6,045	1,304	25,183
2035	3.54	4.20	18.0%	6,752	4,681	1,620	23,428	10,618	4,539	6,097	1,322	24,750
2036	3.42	4.10	18.0%	6,854	4,777	1,584	22,935	10,768	4,633	6,153	1,341	24,276
2037	3.29	4.00	18.0%	6,961	4,876	1,562	22,410	10,921	4,730	6,210	1,360	23,770
2038	3.19	3.90	19.0%	7,080	5,219	1,538	22,088	11,069	4,828	6,259	1,378	23,466
2039	3.09	3.70	19.0%	7,196	5,329	1,519	21,741	11,217	4,931	6,305	1,397	23,138
2040	2.99	3.60	19.0%	7,311	5,445	1,499	21,374	11,365	5,037	6,346	1,415	22,789
2041	2.89	3.50	19.0%	7,444	5,565	1,474	20,969	11,515	5,148	6,386	1,434	22,403
2042	2.80	3.40	20.0%	7,598	5,951	1,459	20,780	11,674	5,259	6,434	1,453	22,233
2043	2.71	3.30	20.0%	7,767	6,082	1,447	20,543	11,840	5,373	6,487	1,474	22,017
2044	2.61	3.20	20.0%	7,953	6,219	1,431	20,240	12,012	5,491	6,543	1,495	21,735
2045	2.50	3.10	20.0%	8,160	6,359	1,411	19,850	12,195	5,611	6,607	1,518	21,368
2046	2.39	3.00	20.0%	8,365	6,506	1,383	19,375	12,393	5,738	6,680	1,542	20,917

[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. For the SSEBA during 2022, we anticipate employer repayments for CARES Act deferrals equal to $269 million.

[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 COVID-19 legislation general funds reimbursements ($39 million due in 2022) and sending CARES Act deferral repayments to general revenue ($269 million in 2022 and 2023), pending further guidance.

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 admin-istration	Tax income[c]	Other income[d]	Balance, end year	Benefits and admin-istration	Tax income[c]	Other income and expense[e]	Balance, end year	Combined balance, end year
2022	5.11	4.90	18.0%	$5,831	$3,363	$1,866	$29,404	$8,007	$3,334	$4,703	$1,169	$30,573
2023	4.91	4.90	18.0%	5,955	3,457	1,826	28,733	8,594	3,190	5,258	1,022	29,755
2024	4.71	4.90	18.0%	6,056	3,531	1,810	28,019	8,986	3,291	5,792	1,120	29,139
2025	4.54	4.90	18.0%	6,095	3,585	1,756	27,265	9,139	3,367	5,790	1,139	28,404
2026	4.41	4.80	18.0%	6,138	3,725	1,808	26,659	9,293	3,488	5,824	1,158	27,817
2027	4.28	4.80	18.0%	6,183	3,766	1,772	26,015	9,442	3,554	5,906	1,177	27,192
2028	4.13	4.70	18.0%	6,238	3,805	1,732	25,314	9,585	3,617	5,986	1,195	26,509
2029	3.97	4.70	18.0%	6,306	3,842	1,688	24,537	9,726	3,675	6,069	1,212	25,749
2030	3.79	4.60	18.0%	6,379	3,876	1,639	23,674	9,864	3,731	6,151	1,229	24,903
2031	3.59	4.50	18.0%	6,456	3,910	1,534	22,662	10,007	3,785	6,240	1,247	23,909
2032	3.40	4.40	18.0%	6,523	3,942	1,518	21,599	10,155	3,840	6,333	1,265	22,864
2033	3.20	4.20	18.0%	6,575	3,975	1,450	20,448	10,309	3,880	6,449	1,284	21,732
2034	2.98	4.10	18.0%	6,641	4,009	1,377	19,193	10,457	3,919	6,557	1,303	20,496
2035	2.76	3.90	19.0%	6,735	4,235	1,303	17,997	10,597	3,955	6,659	1,320	19,317
2036	2.53	3.70	19.0%	6,833	4,271	1,217	16,653	10,740	3,991	6,766	1,338	17,991
2037	2.29	3.50	19.0%	6,935	4,308	1,138	15,162	10,884	4,027	6,875	1,355	16,517
2038	2.04	3.30	20.0%	7,048	4,540	1,048	13,702	11,021	4,063	6,976	1,372	15,074
2039	1.79	3.10	20.0%	7,158	4,584	953	12,082	11,156	4,102	7,071	1,389	13,471
2040	1.59	2.90	23.0%	7,265	5,233	869	10,920	11,290	4,148	7,158	1,406	12,326
2041	1.39	2.70	23.0%	7,392	5,297	791	9,617	11,423	4,198	7,241	1,422	11,039
2042	1.27	2.40	27.0%	7,537	6,178	736	8,994	11,561	4,248	7,330	1,439	10,433
2043	1.15	2.20	27.0%	7,696	6,256	695	8,249	11,703	4,300	7,421	1,457	9,706
2044	1.01	2.00	27.0%	7,872	6,339	645	7,360	11,848	4,353	7,513	1,475	8,835
2045	0.86	1.80	27.0%	8,065	6,424	585	6,304	12,000	4,408	7,611	1,493	7,797
2046	0.70	1.60	27.0%	8,255	6,516	513	5,079	12,163	4,467	7,715	1,513	6,592

[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. For the SSEBA during 2022, we anticipate employer repayments for CARES Act deferrals equal to $269 million.

[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 COVID-19 legislation general funds reimbursements ($39 million due in 2022) and sending CARES Act deferral repayments to general revenue ($269 million in 2022 and 2023), pending further guidance.

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

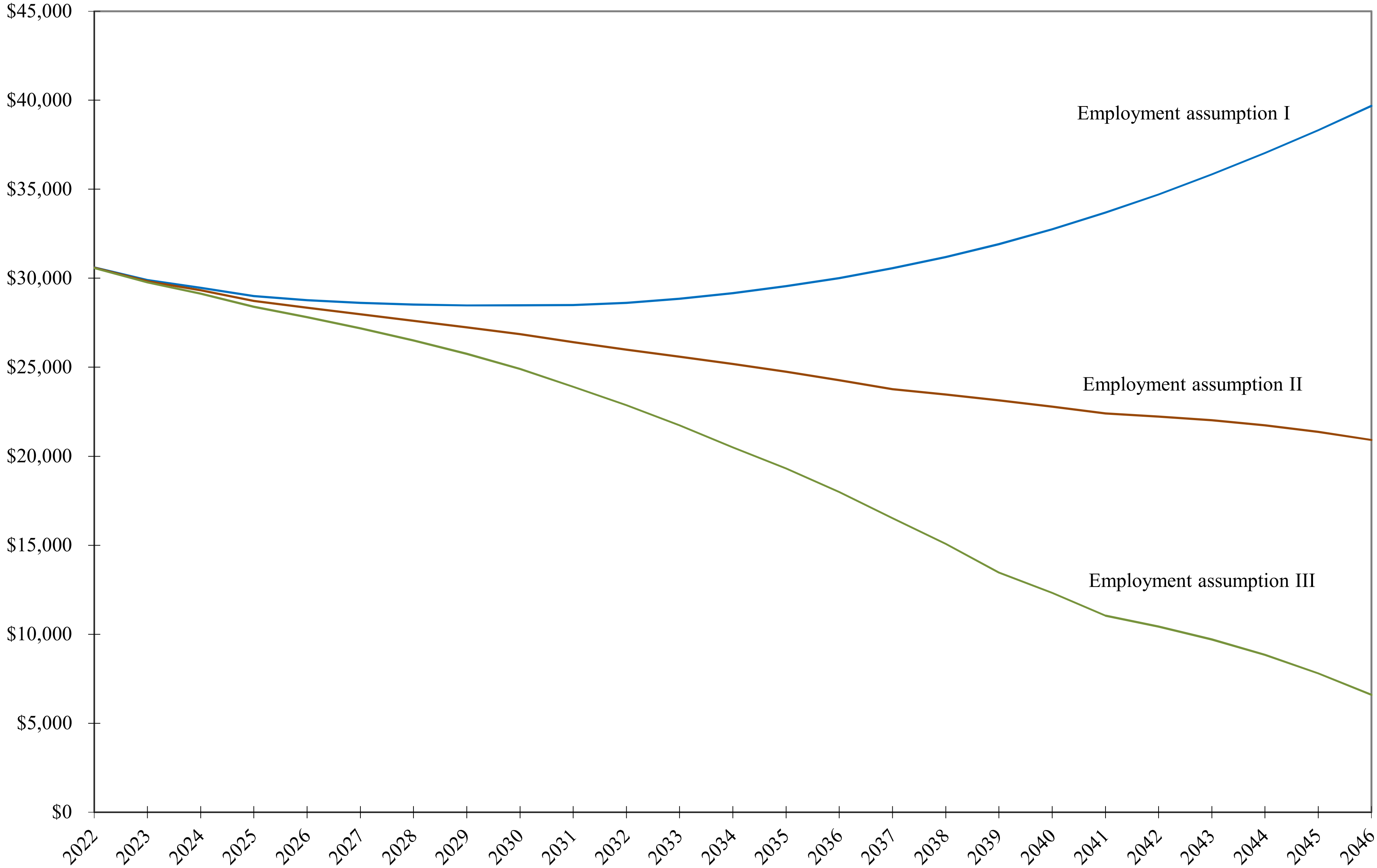

Figure 2. Account Benefits Ratio 2012-2046, Historical and Projected
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Employment Assumption I
Employment Assumption II
Employment Assumption III
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046