Social Security Actuarial Status

The 2023 Annual Report of the Board of Trustees of the OASI and DI Trust Funds

Key Changes and Results Under Intermediate Assumptions

PREPARED BY THE OFFICE OF THE CHIEF ACTUARY, SSA

MARCH 31, 2023

What is the Legislative Mandate for the Annual Report?

1. Trust Fund operations of the past year and the next five years
2. Actuarial status of the trust funds
   - This means the ability to meet the cost of scheduled benefits with scheduled revenue and trust fund reserves
   - And the extent to which scheduled revenue would fall short under current law, indicating the size of legislative changes that will be needed

Primary Change This Year

1. “Since the assumptions for last year’s report were set, the Trustees have reassessed their expectations for the economy in light of recent developments, including updated data on inflation and output, and have revised down the levels of gross domestic product (GDP) and labor productivity by about 3 percent over the projection period.”
2. These assumptions were set in December 2022 and include a period of slow growth in 2023
3. Assumptions for GDP and productivity were essentially the same in the 2020 and 2022 Trustees Reports
4. This reassessment therefore reflects the experience since the 2020 report, where neither the pandemic nor the brief 2020 recession were reflected

Changes in Timing of Trust Fund Reserve Depletion in 2023 Report

1. OASDI reserve depletion is 2034 - one year earlier than last year's report
   a) Actuarial deficit *increased* by 0.19 percent of payroll versus expected *increase* of 0.05 percent from change in valuation period alone
   b) The change in the level of GDP and productivity alone increases the actuarial deficit by 0.13 percent of payroll
   c) Annual deficits are larger through 2097
2. OASI reserve depletion is 2033 - one year earlier than last year's report
3. DI reserves do not become depleted over the 75-year long-range projection period - same as last year
   a) Applications and benefit awards remained at historically low levels in 2022
   b) Gradual increase in initial applications and incidence rates to their ultimate levels start 1 year later
   c) DI actuarial deficit of 0.01 percent of payroll is replaced by a positive actuarial balance of 0.01 percent

Reasons for Change in Actuarial Balance in 2023 Trustees Report

Actuarial Balance: Net Change of -0.19 percent of payroll

Valuation Period - Changes the actuarial balance by **-0.05 percent of payroll**

Legislation etc. – Changes the actuarial balance by **0.00 percent of payroll**
- One-year delay in resuming approval of new DACA applications

Demographic Data/Assumptions – Changes the actuarial balance by **-0.03 percent of payroll**
- Recent birth data and slightly lower assumed near-term total fertility rates (-0.01 percent)
- Higher near-term mortality rates due to ongoing effects of COVID-19 (+0.02 percent)
- New data for fertility, immigration, marriage/divorce, and population (-0.04 percent)

Economic Data/Assumptions – Changes the actuarial balance by **-0.04 percent of payroll**
- Lower levels of GDP and labor productivity (-0.13 percent)
- Slightly faster growth in OASDI covered wages (+0.03 percent)
- Slightly higher near-term interest rates (+0.02 percent)
- New data and other near-term economic assumptions (+0.03 percent)

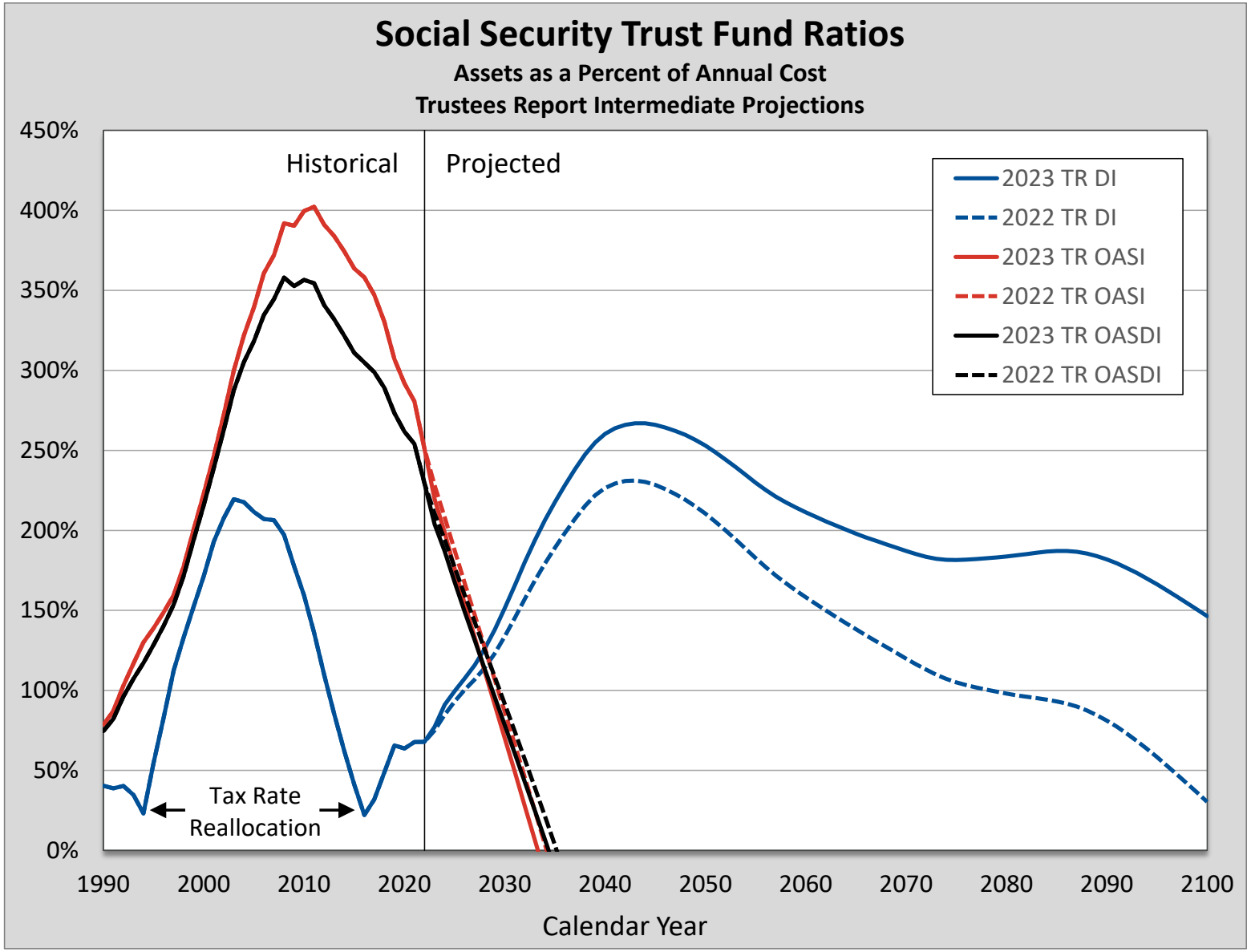
Disability Data/Assumptions – Changes the actuarial balance by **+0.01 percent of payroll**
- New disability data and slightly lower near-term disability incidence rates (+0.01 percent)

Methods and Programmatic Assumptions **-0.06 percent of payroll**
- Methodological improvements, programmatic data and other improvements and updates

Solvency: OASI+DI Trust Fund Reserve Depletion in 2034
(one year earlier than last year)

Reserve depletion date varied from 2029 to 2042 in reports over the past 30 years (1994-2023).

DI Trust Fund: reserves do not deplete, due largely to continued low recent and near-term disability applications and awards.

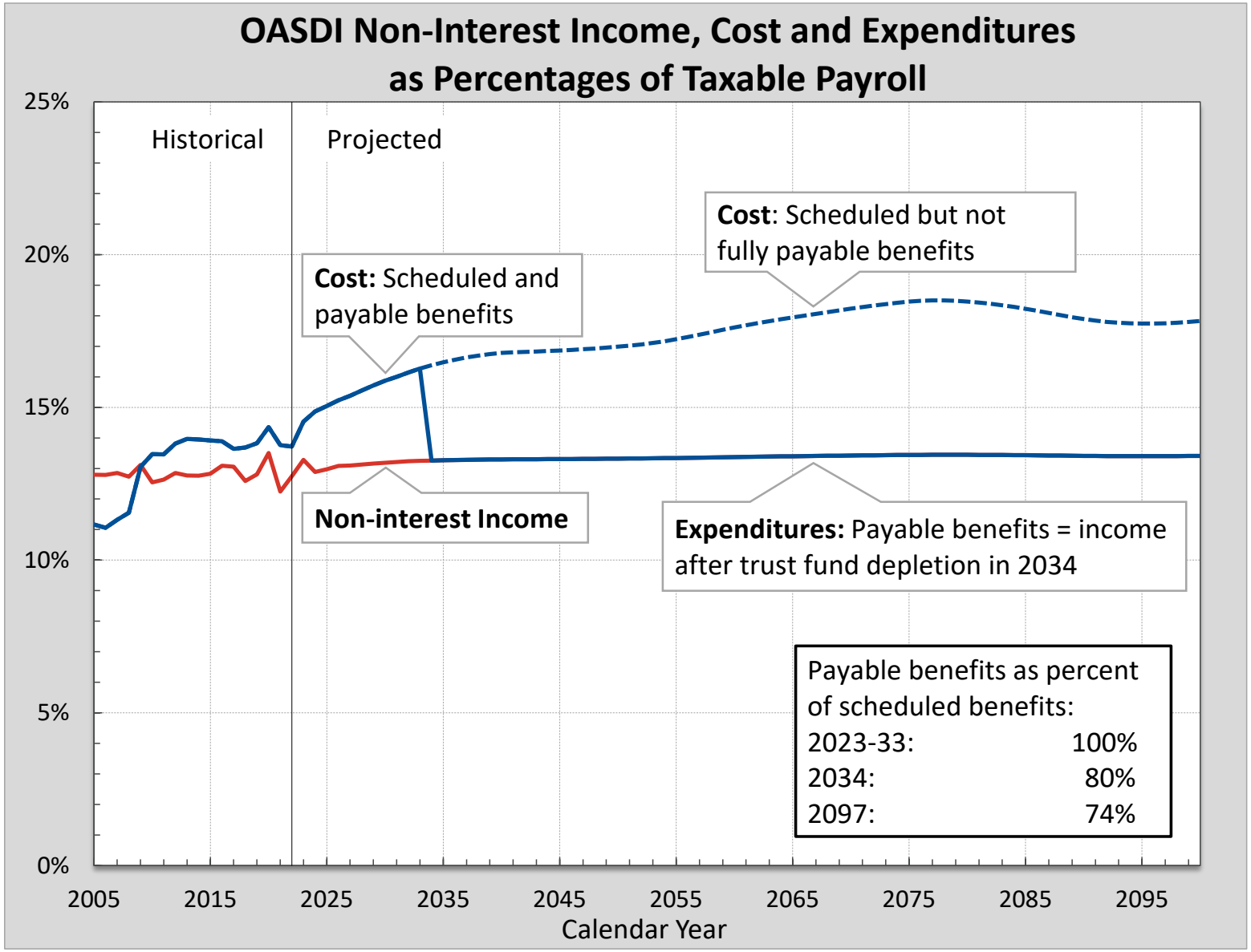


OASDI Annual Cost and Non-Interest Income as Percent of Taxable Payroll

Persistent negative annual cash-flow balance starting in 2010.

80 percent of scheduled benefits still payable at trust fund reserve depletion.

Annual deficit in 2097: 4.35 percent of payroll: 0.09 percent larger than last year.

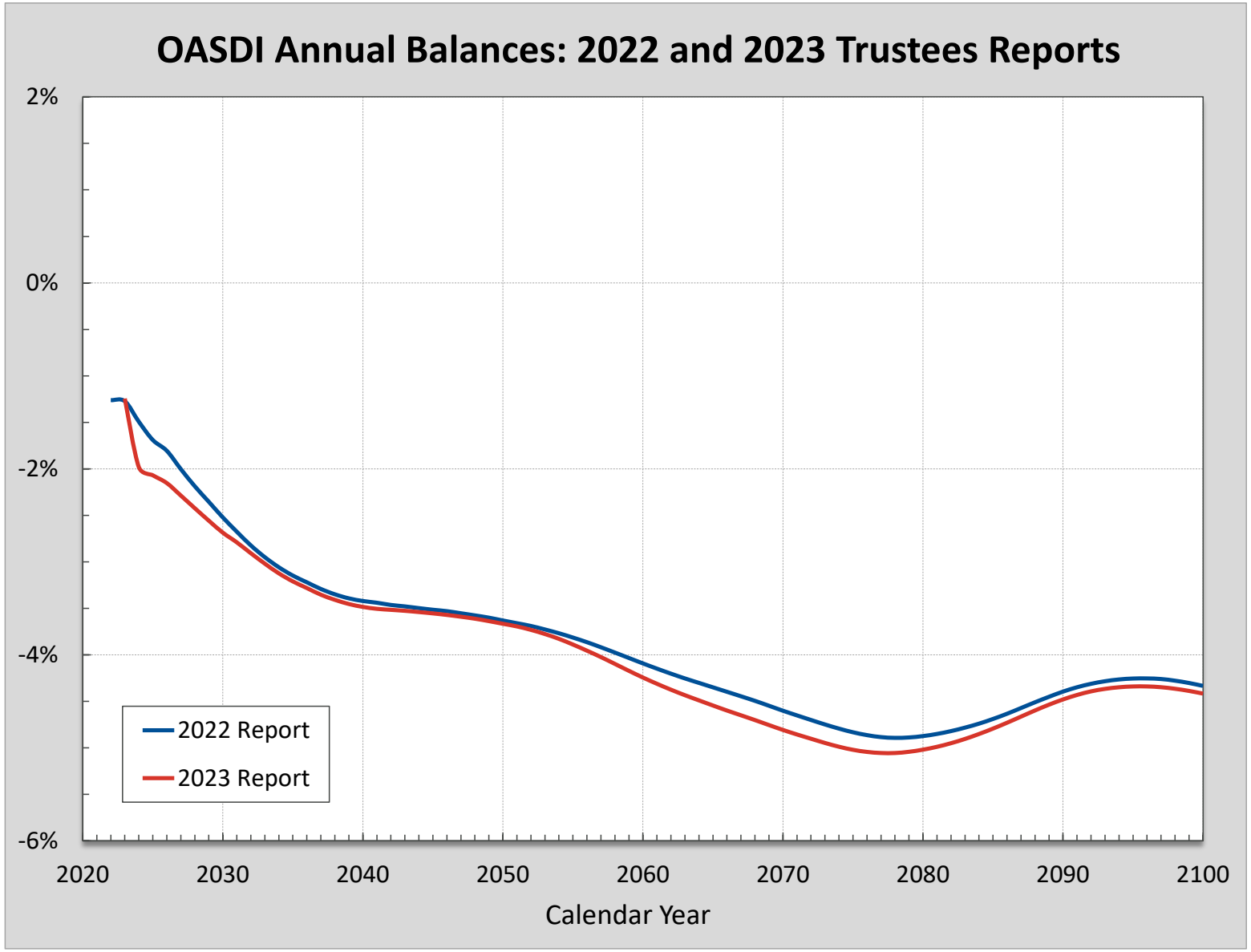


Changes in OASDI Annual Balance

Annual income rate minus annual cost rate.

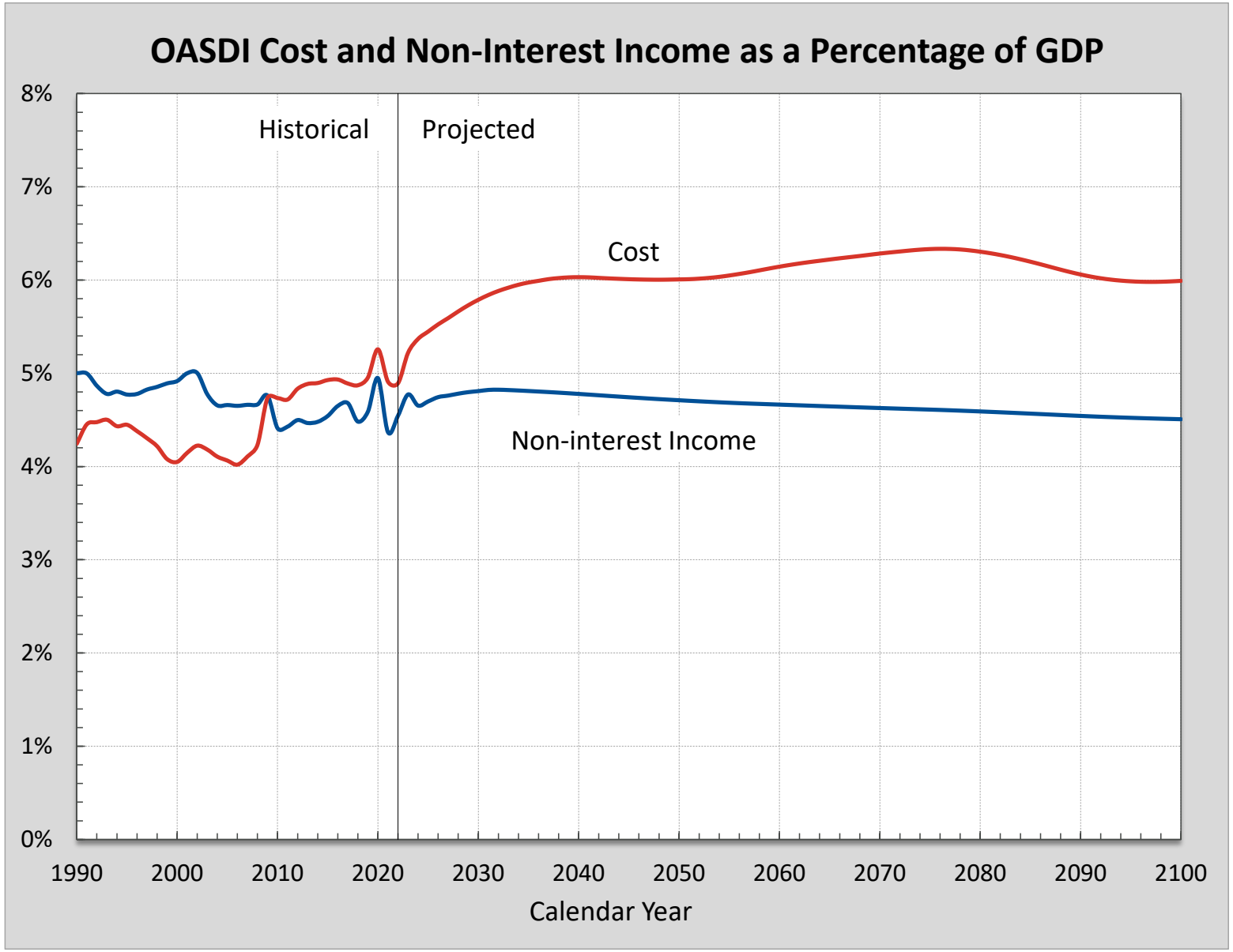
Annual deficits are higher throughout the 75-year projection period.

The increased annual deficits are mainly due to changes in economic factors.



SUSTAINABILITY: Cost as percent of GDP

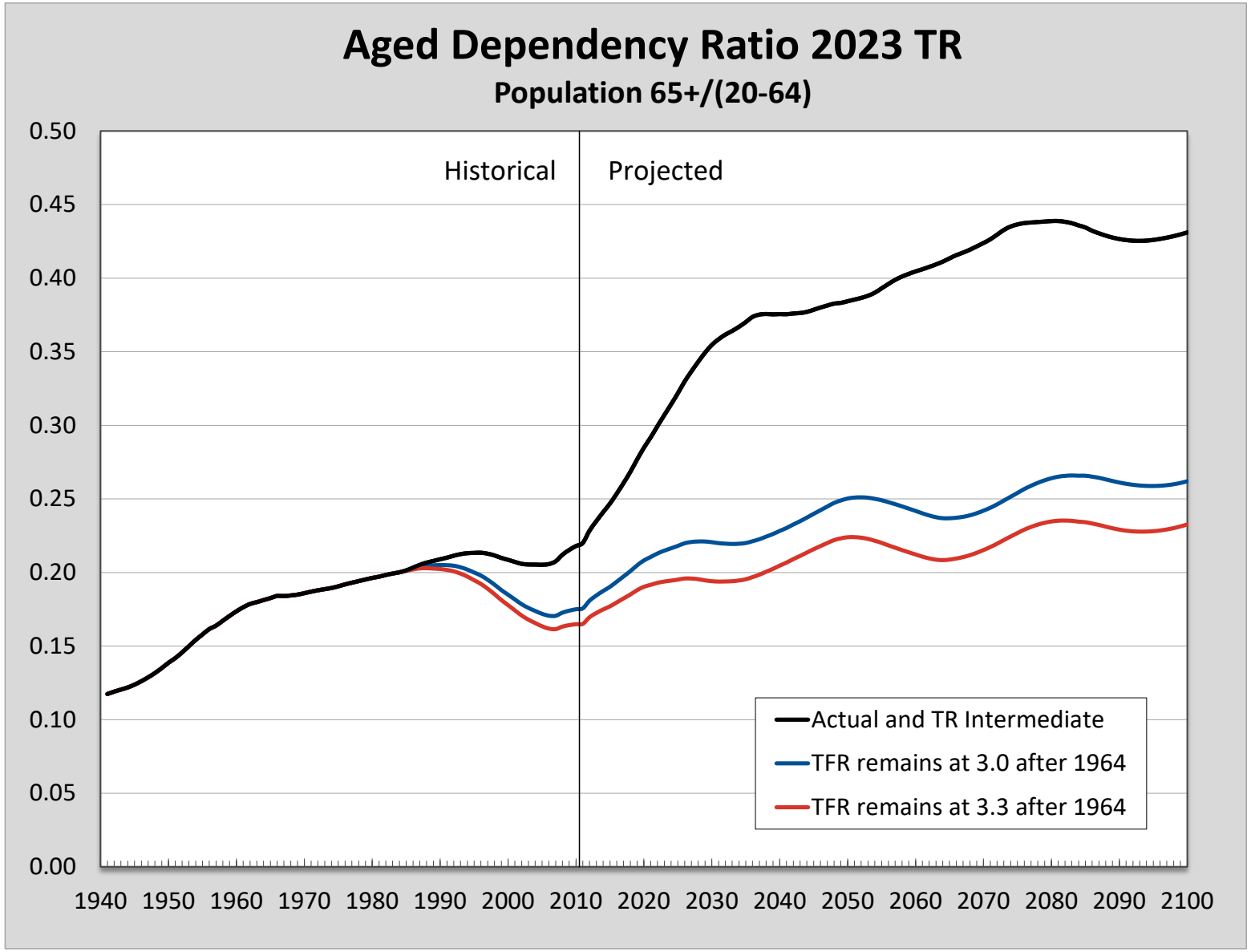
Rises from a 4.2 percent average in 1990-2008, to a peak of about 6.3 percent for 2076, and then declines to 6.0 percent by 2097.



Aging – Change in Age Distribution

The primary reason for increasing cost relative to payroll and GDP.

Mainly due to drop in birth rates.

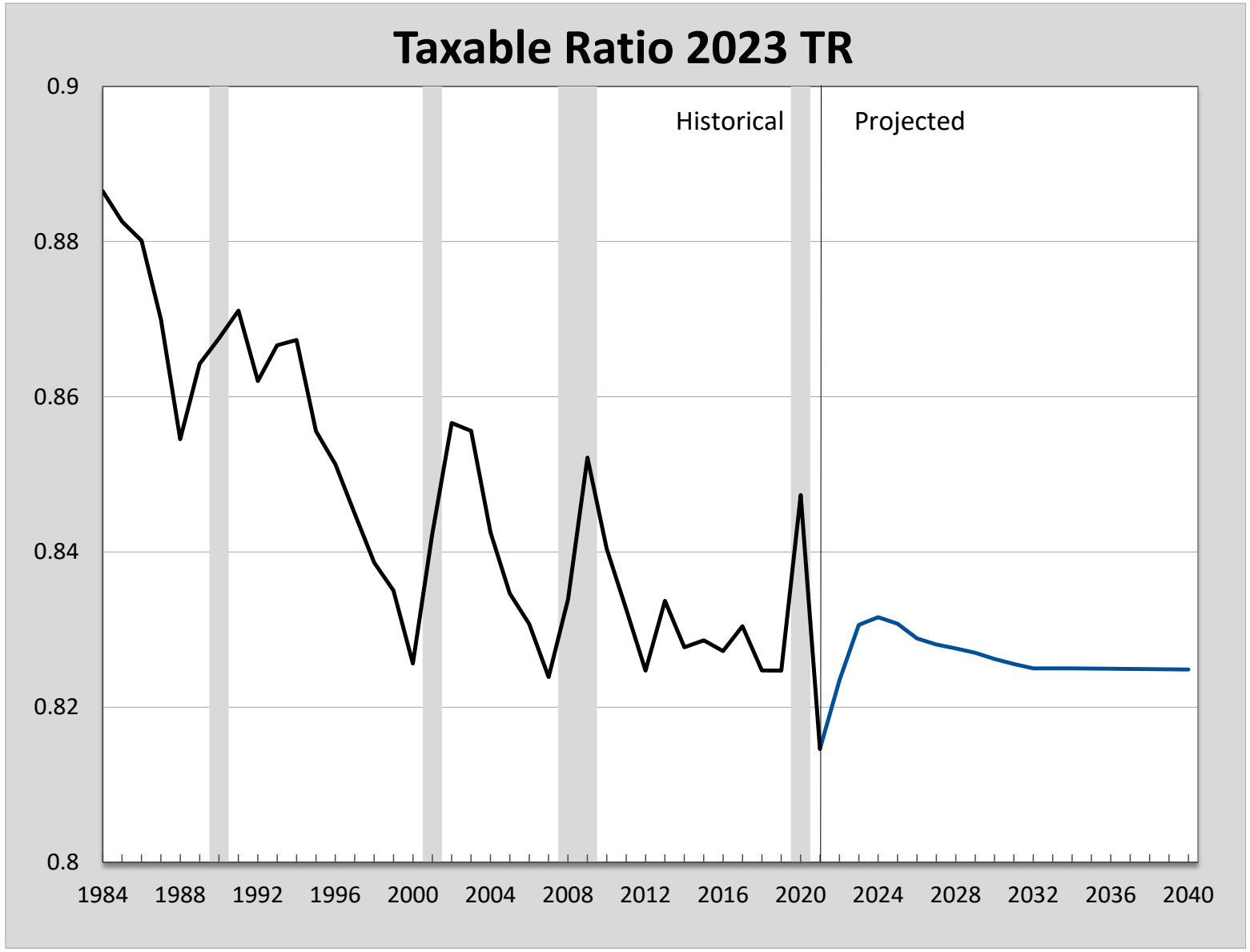


Another Reason: Ratio of Taxable Earnings to All OASDI Covered Earnings

Declined since 1983 due to increasing concentration of earnings at the top of the distribution, particularly through 2000.

Fluctuation in 2020 and 2021 is due to variation in the average wage, as in past recessions.

The ratio is projected to rise through 2024, then gradually converge to 82.5 percent by 2032. Thereafter, it varies slightly due to changes in the share of covered earnings that is from self-employment income.

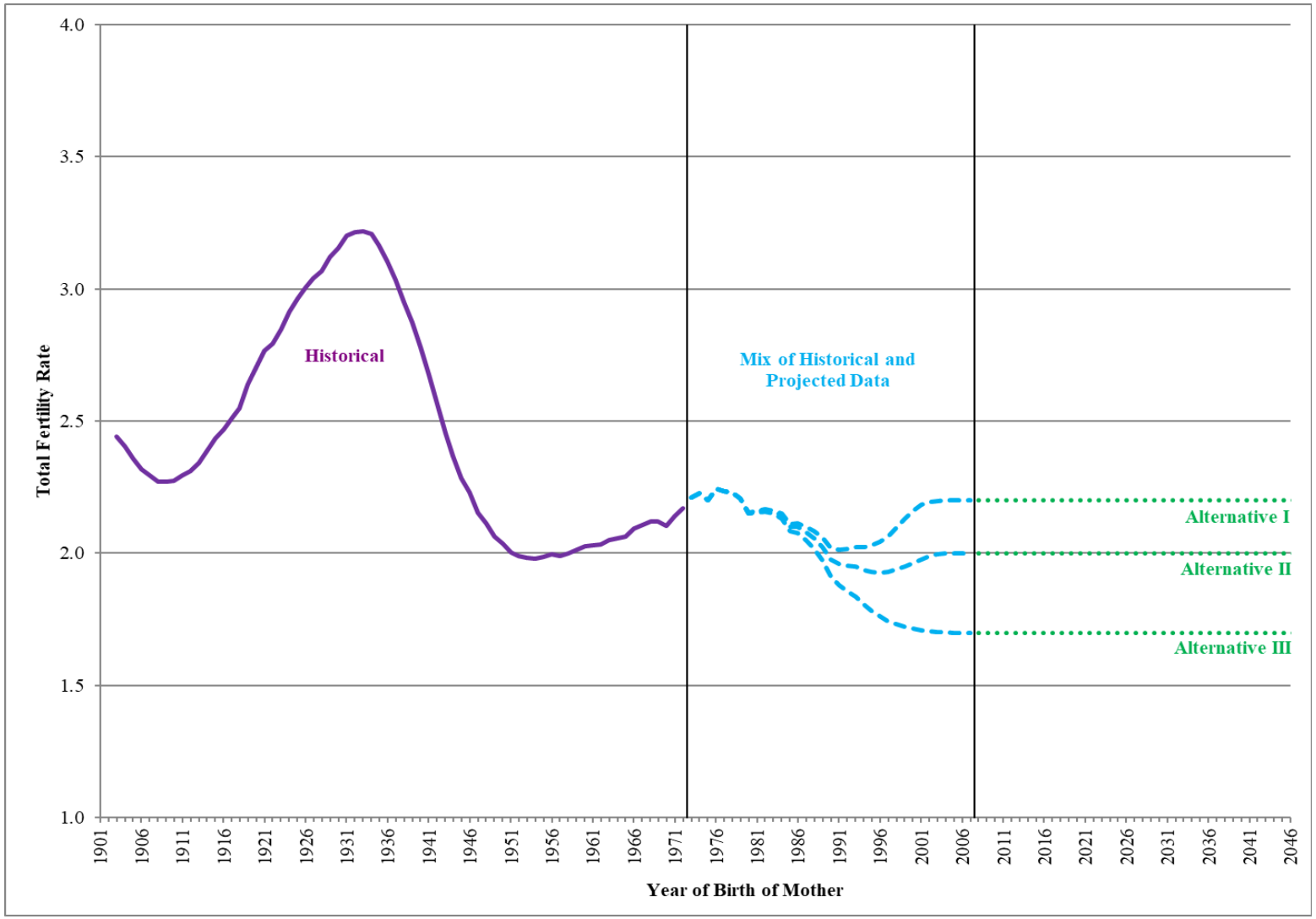


Birth Rates by Cohort

Have been rising for women born since 1954.

Under intermediate assumptions, birth rates are projected to dip below 2.0 for women born between 1990 and 2006, based on low rates since 2008.

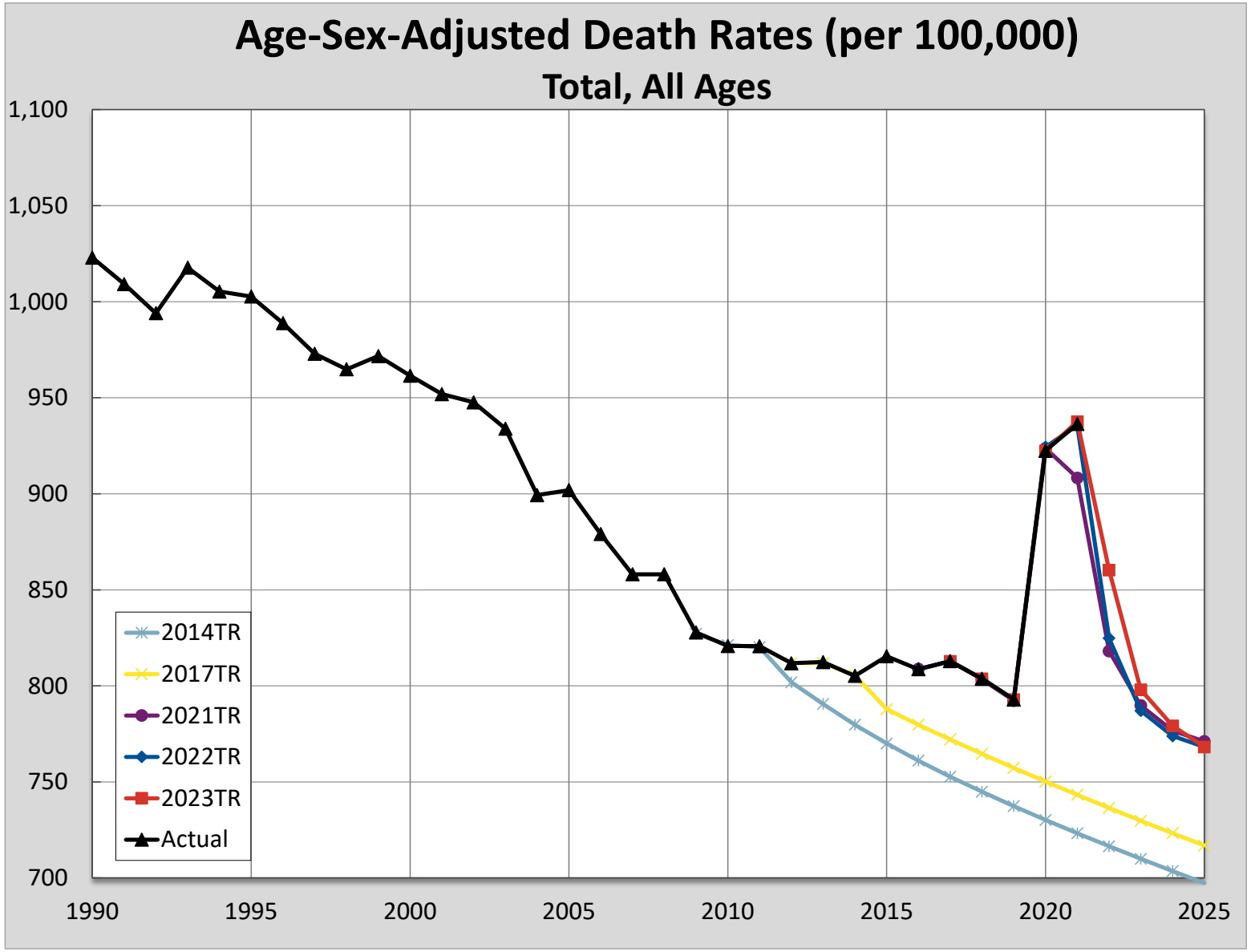
Chart 1.4: Historical and Projected Total Fertility Rates by Birth Cohort



https://www.ssa.gov/oact/TR/2023/2023_Long-Range_Demographic_Assumptions.pdf

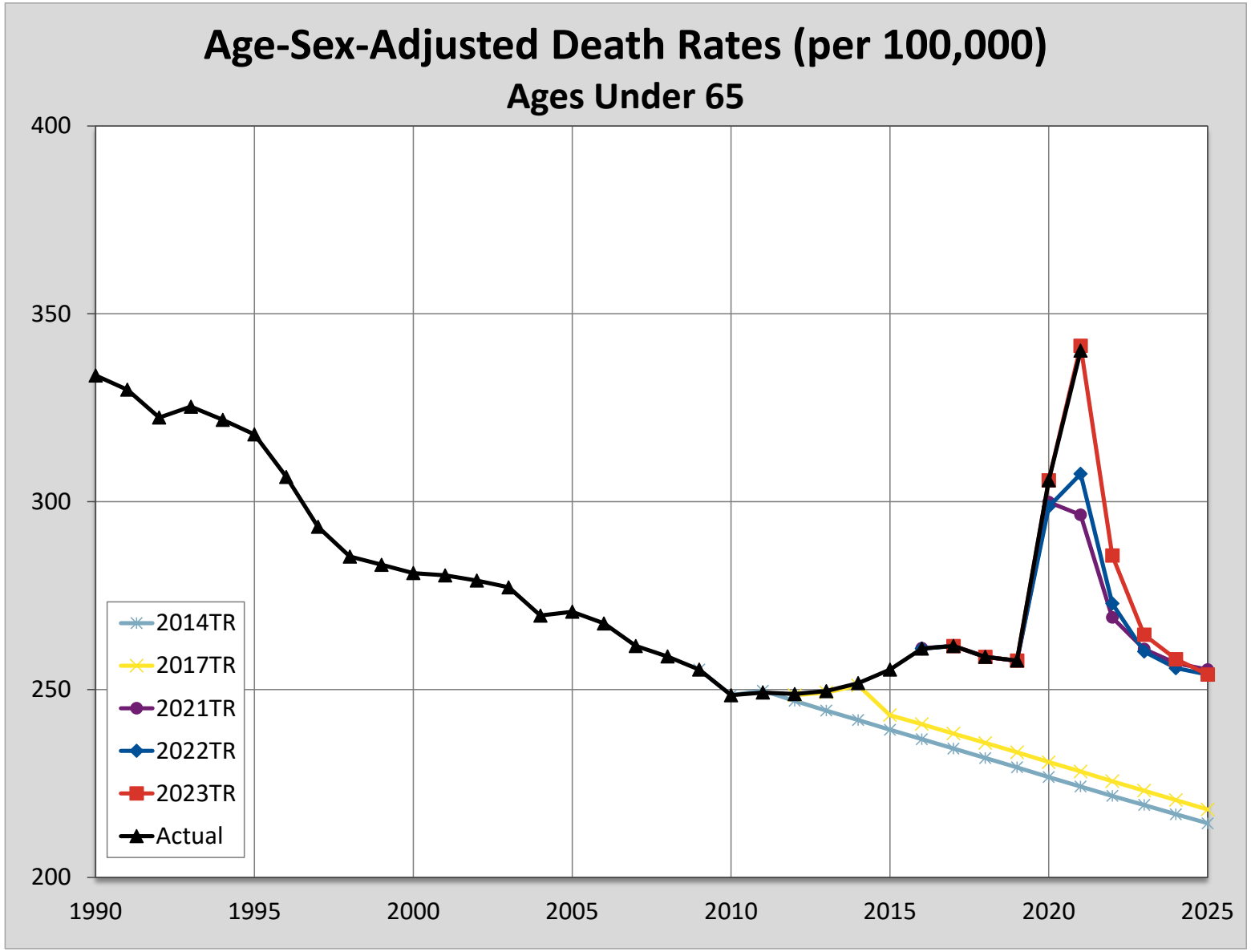
Mortality Experience: All Ages

Increased mortality in the near-term to reflect the effects of the COVID-19 pandemic.



Mortality Experience: Ages Under 65

Increased mortality in the near-term to reflect the effects of the COVID-19 pandemic.

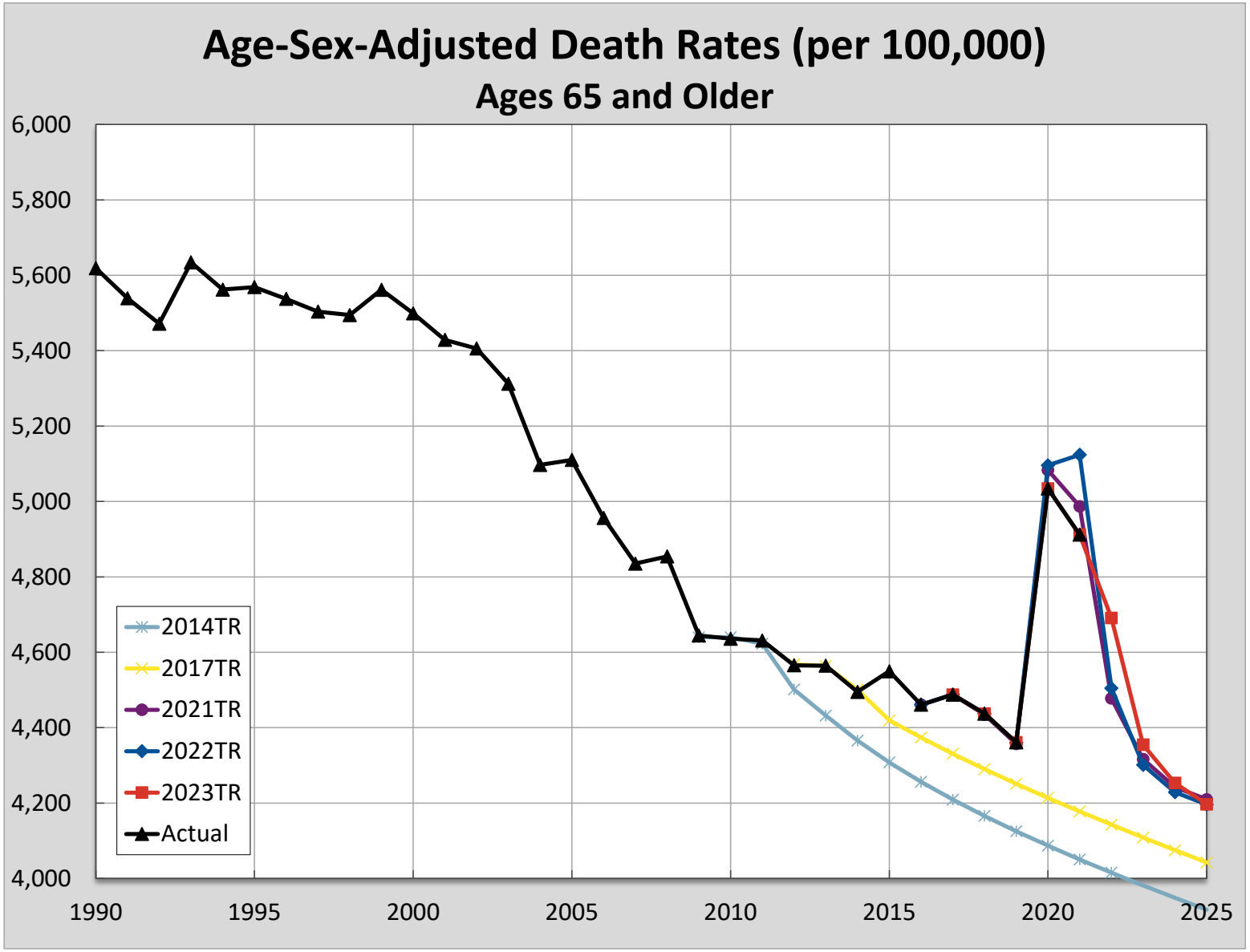


Mortality Experience: Ages 65 and Older

Increased mortality in the near-term to reflect the effects of the COVID-19 pandemic.

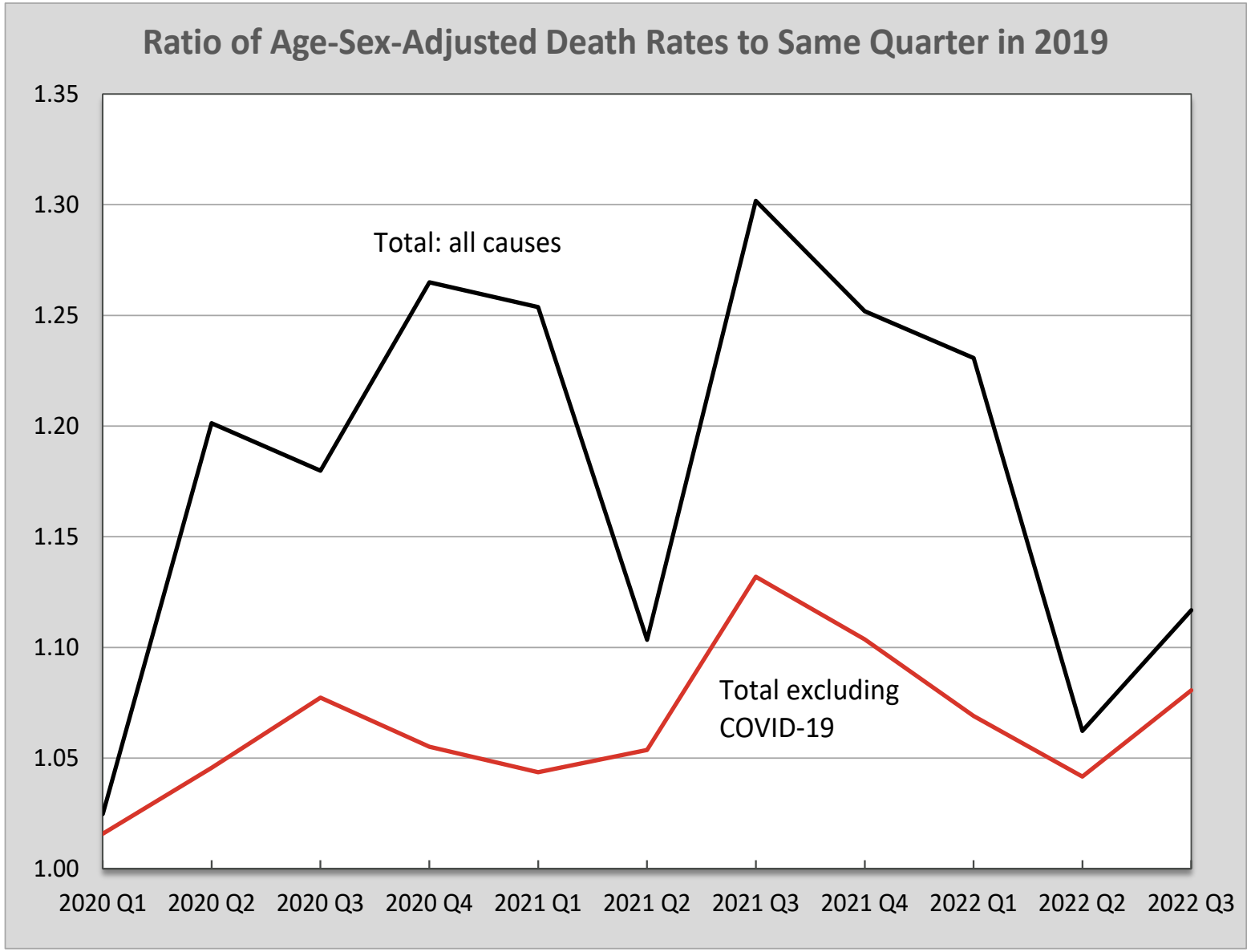
What will the net effect of the pandemic be on mortality in the future?

We assume offsetting effects for the residual population after the pandemic.



Ratio of Age-Sex Adjusted Death Rates to Same Quarter in 2019

Death rates for causes other than COVID have been about 5% higher in the pandemic period through 2022 than they were in 2019.



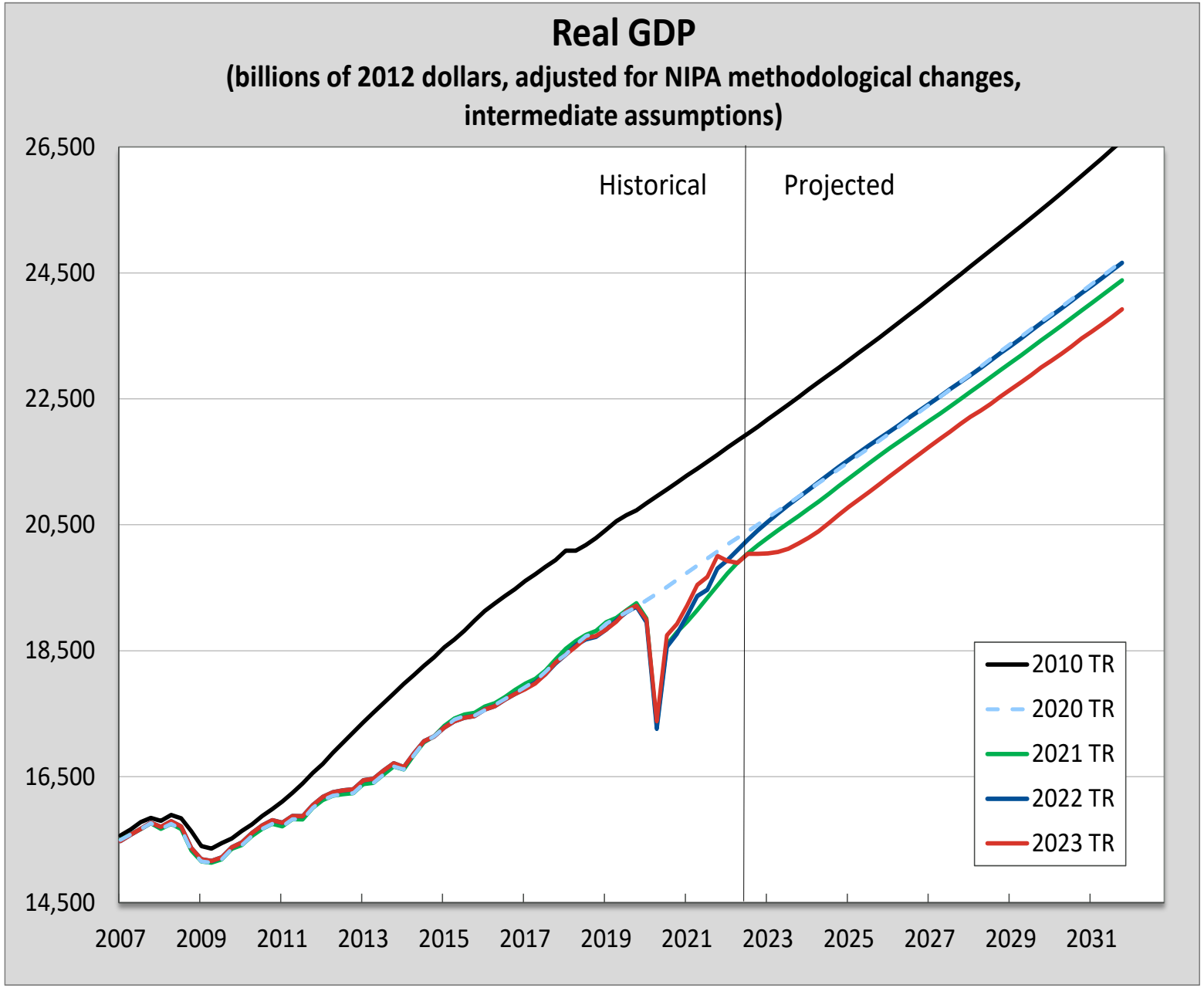
Source: NCHS Quarterly Provisional Estimates as of March 20, 2023

Change in Age-Sex-Adjusted Death Rates

Change in Age-Adjusted Death Rates from the Same Quarter in 2019, by Cause of Death											
Cause of Death	*2020 Q1*	*2020 Q2*	*2020 Q3*	*2020 Q4*	*2021 Q1*	*2021 Q2*	*2021 Q3*	*2021 Q4*	*2022 Q1*	*2022 Q2*	*2022 Q3*
Alzheimer disease	1.013	1.119	1.134	1.082	1.076	0.979	1.076	1.003	1.054	0.965	1.007
COVID-19	--	--	--	--	--	--	--	--	--	--	--
Cancer	0.995	0.965	0.994	0.986	0.975	1.000	1.021	1.009	0.970	0.975	0.988
Chronic liver disease and cirrhosis	1.063	1.116	1.252	1.256	1.286	1.241	1.315	1.282	1.277	1.179	1.198
Chronic lower respiratory diseases	0.991	0.909	0.970	0.935	0.793	0.850	1.030	0.989	0.846	0.858	0.935
Diabetes	1.013	1.170	1.222	1.200	1.149	1.108	1.253	1.186	1.157	1.057	1.116
Drug overdose	1.212	1.495	1.330	1.197	1.542	1.605	1.496	1.355	1.562	--	--
Falls, ages 65 and over	1.007	1.013	1.069	1.084	1.123	1.167	1.184	1.215	1.183	1.159	--
Firearm-related injury	1.071	1.101	1.202	1.212	1.204	1.244	1.250	1.246	1.221	1.235	--
Heart disease	0.992	1.048	1.070	1.054	1.039	1.033	1.128	1.102	1.064	1.015	1.055
HIV disease	1.000	1.000	1.000	1.077	0.933	0.857	1.000	1.077	0.933	0.929	1.000
Homicide	1.109	1.267	1.359	1.387	1.327	1.417	1.359	1.306	1.309	1.317	--
Hypertension	1.021	1.149	1.171	1.165	1.175	1.115	1.256	1.242	1.175	1.138	1.183
Influenza and pneumonia	1.143	1.052	1.045	0.939	0.629	0.774	1.135	1.053	0.674	0.835	0.966
Kidney disease	1.007	0.984	1.034	0.977	1.044	1.024	1.120	1.076	1.140	1.073	1.120
Parkinson disease	1.032	1.157	1.157	1.128	1.097	1.084	1.157	1.117	1.129	1.084	1.120
Pneumonitis due to solids and liquids	0.943	0.870	1.000	0.957	0.925	1.022	1.195	1.170	1.000	1.043	1.049
Septicemia	1.000	1.011	1.057	1.020	1.000	1.000	1.172	1.122	1.019	1.043	1.103
Stroke	1.018	1.042	1.080	1.060	1.098	1.095	1.144	1.112	1.127	1.073	1.103
Suicide	1.000	0.923	0.966	0.977	0.985	0.979	1.007	1.060	1.022	1.021	--
Unintentional injuries	1.086	1.216	1.216	1.146	1.307	1.355	1.318	1.269	1.341	1.255	--
Total	1.025	1.201	1.180	1.265	1.254	1.103	1.302	1.252	1.231	1.062	1.117
Total w/o COVID	1.016	1.046	1.077	1.055	1.044	1.054	1.132	1.104	1.069	1.042	1.081
Source: NCHS Quarterly Provisional Estimates as of March 20, 2023											

Lower Real GDP Trajectory in 2023 TR

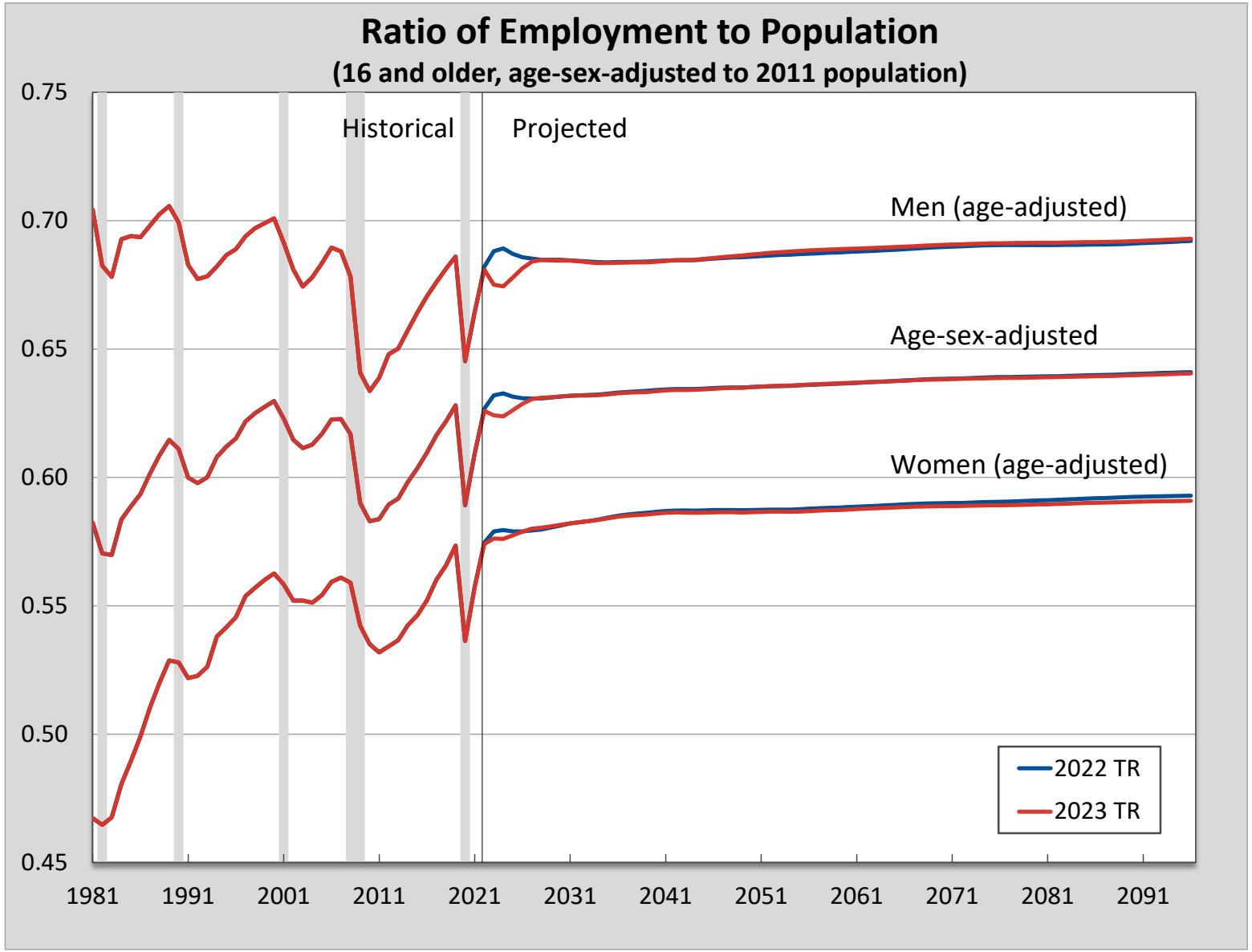
Starting with a slowing of growth in 2023, the level of real GDP is projected to be about 3 percent lower than the level projected in the 2020 and 2022 TRs over the projection period.



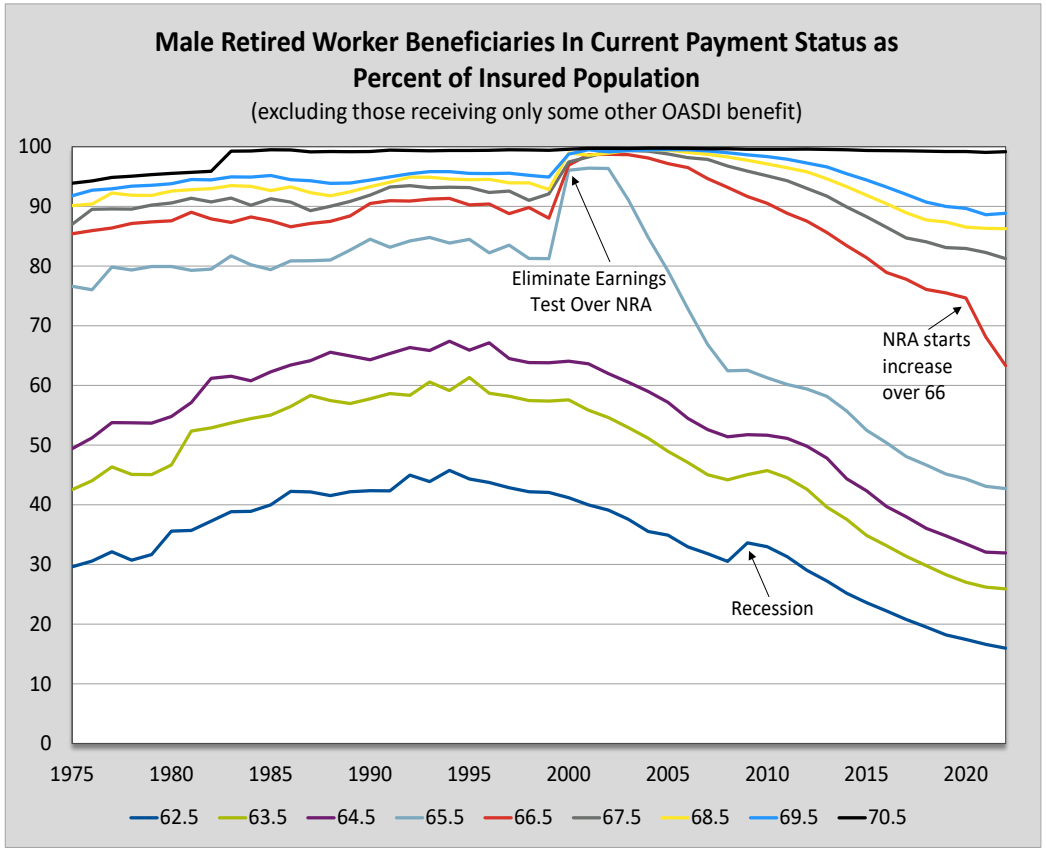
Ratio of Employment to Population

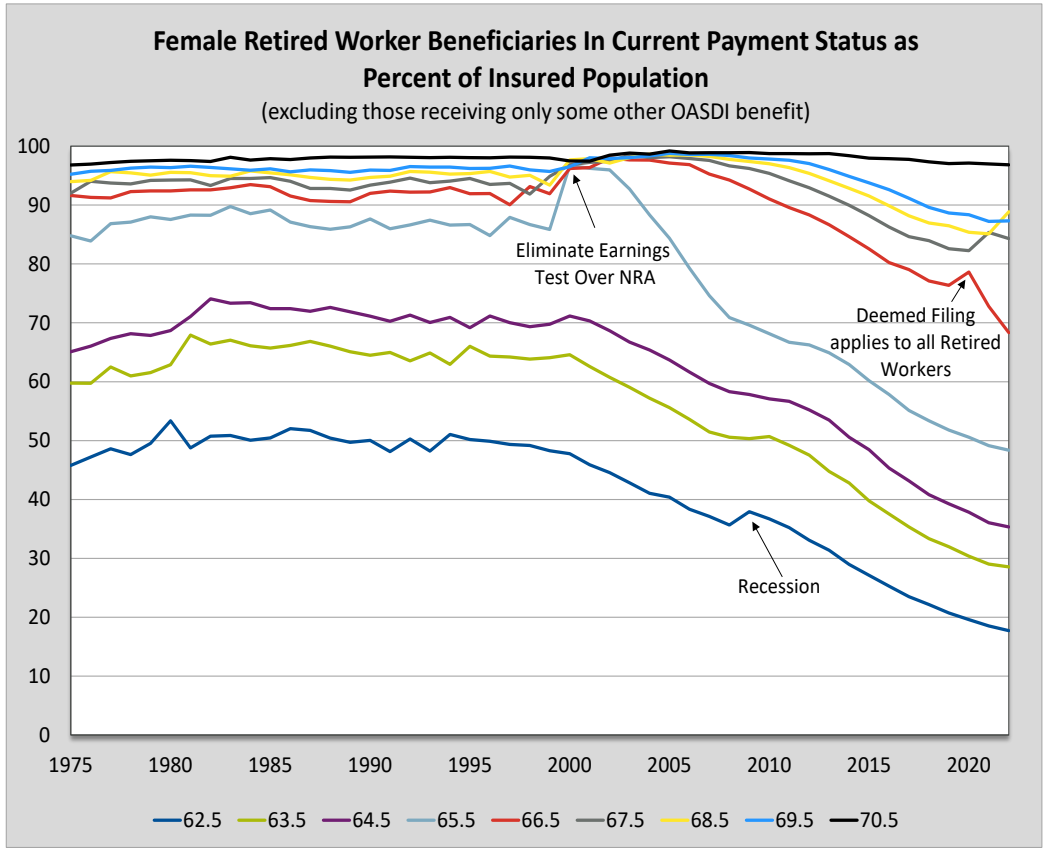
Recovered strongly from the brief but steep 2020 recession.

After the assumed slowdown in growth in 2023, the ratio is projected to return to about the peak level of 2019.



Age of Starting Social Security Retirement Benefits

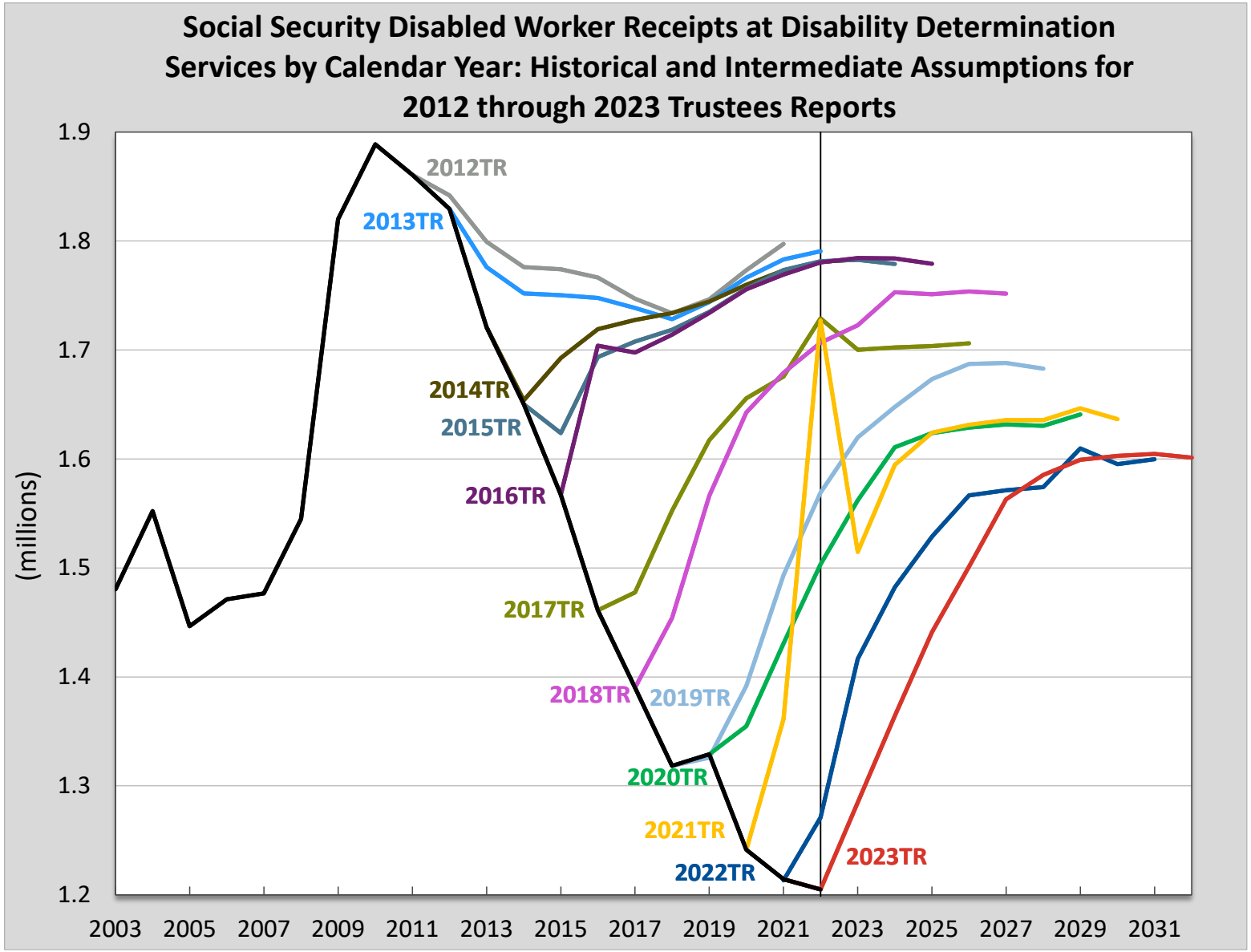




Applications for Disability Benefits Remain Historically Low

At the peak of the last economic cycle in 2007, applications were low, but increased rapidly in the 2008 recession from 1.5 million in 2007 to 1.9 million in 2010.

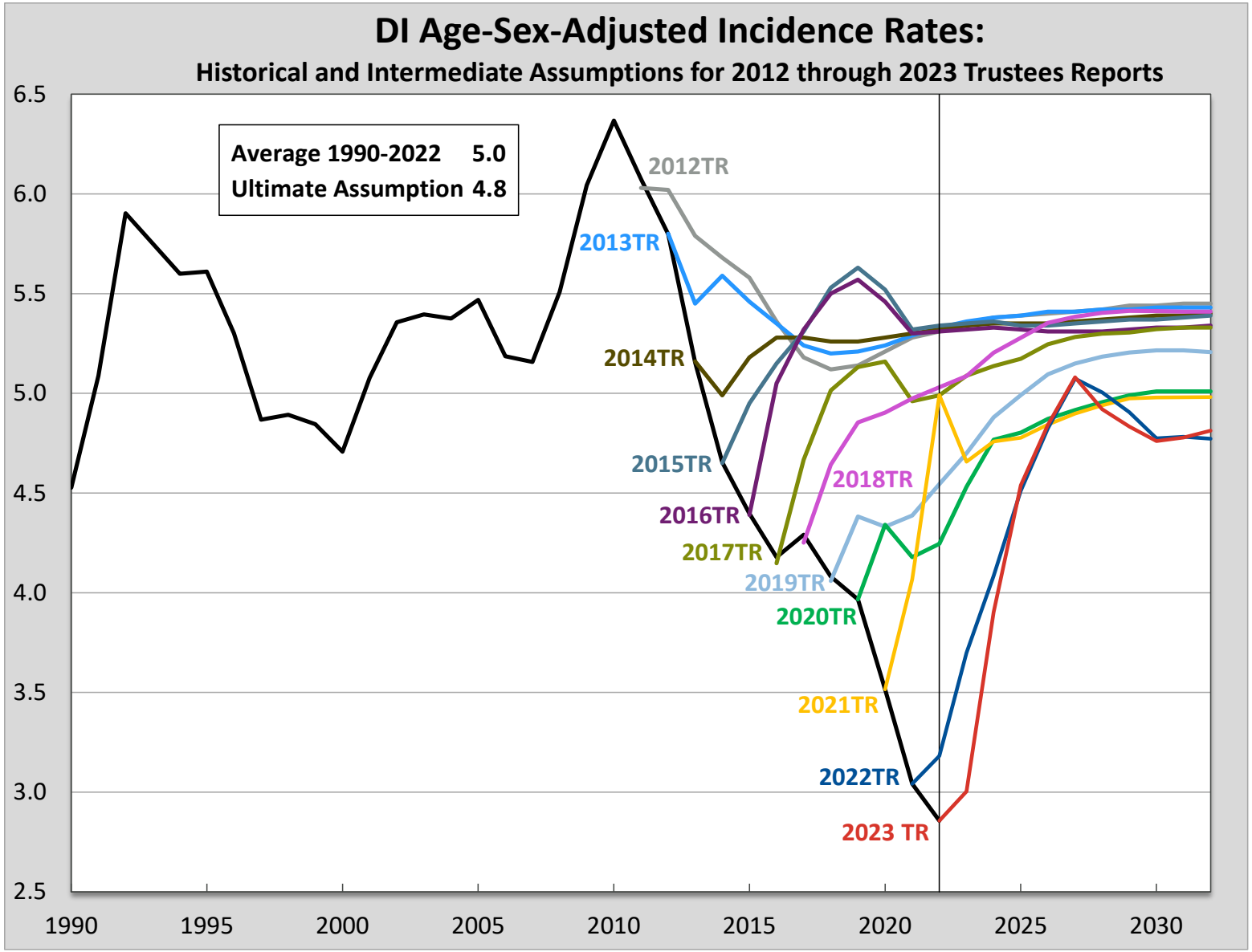
In 2017 through 2022, applications have dropped below the 2007 level.



Disability Incidence Rate Also Remains Historically Low

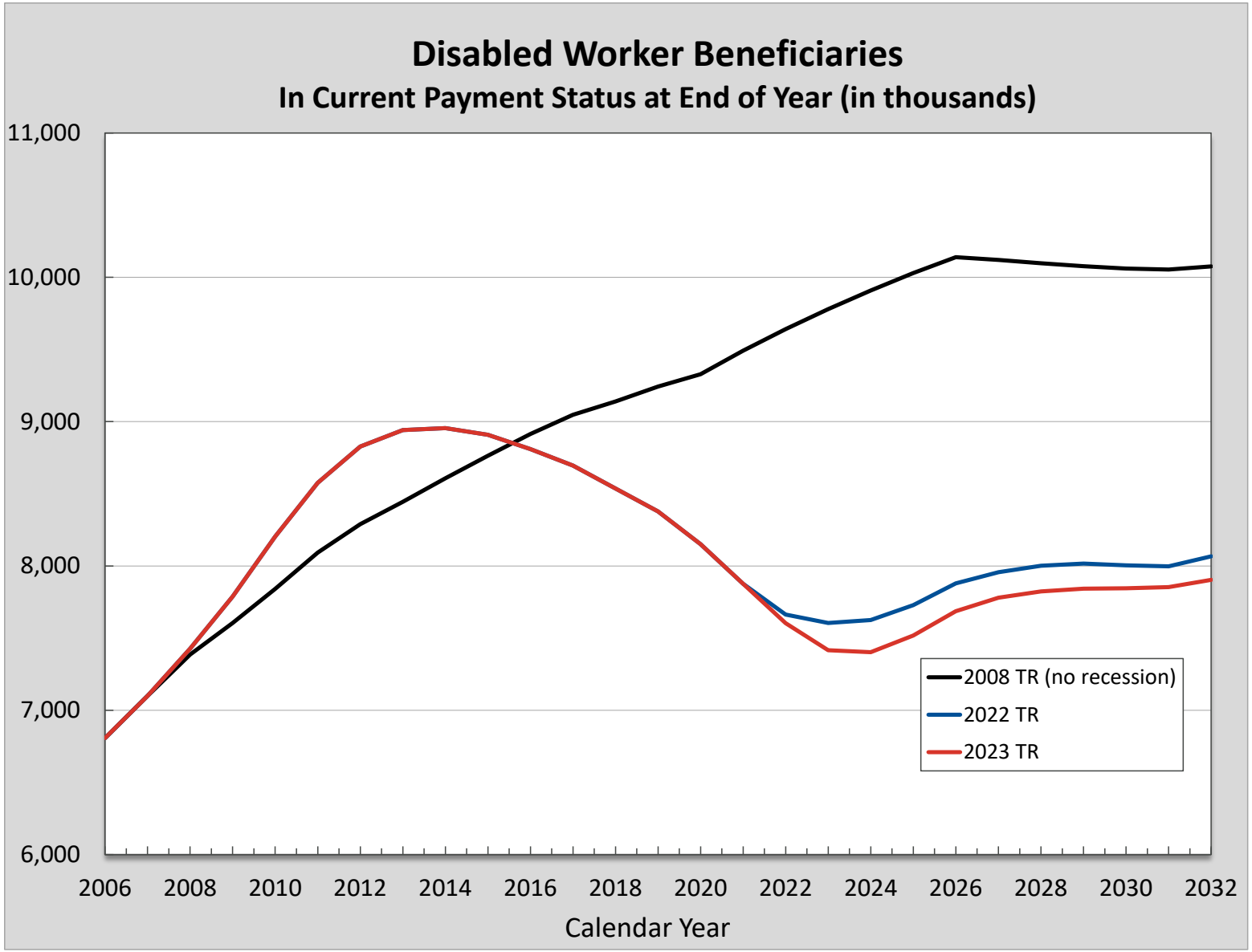
DI disabled worker incidence rate rose sharply in the 2008 recession, and has declined since the peak in 2010 to extraordinarily low levels in 2016 through 2022.

What will be the NET effect of COVID and post-COVID conditions?



Fewer Disabled Worker Beneficiaries

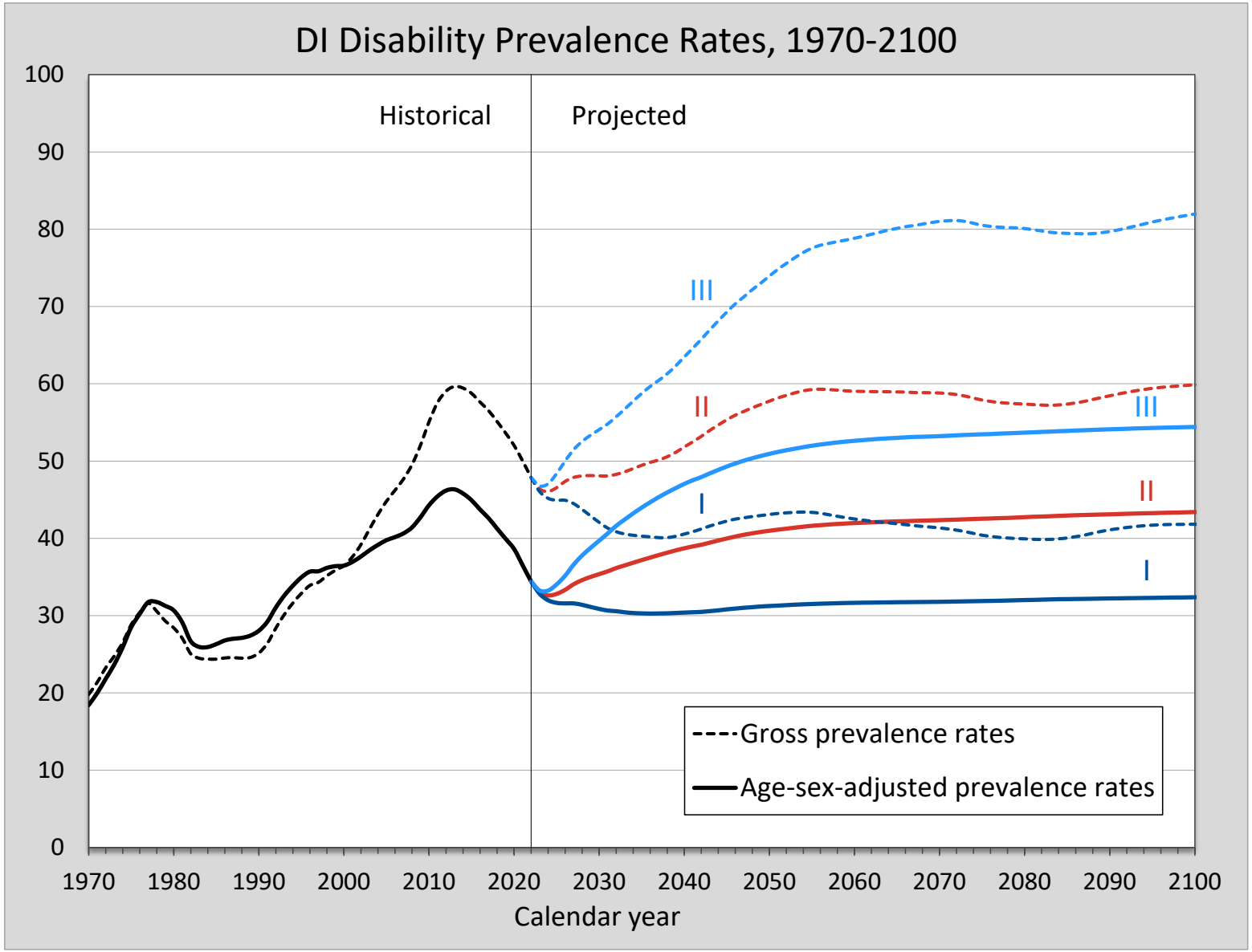
Fewer now and in near term based on recent applications and incidence rates, with assumed increases deferred another year.



Disabled Worker Prevalence Rates

Will prevalence recover to a level above that seen before the 2007-09 recession?

The TR projections assume the incidence rate will ultimately rise to 4.8 per thousand, from the levels seen since 2016 of between 3 and 4.3 per thousand.



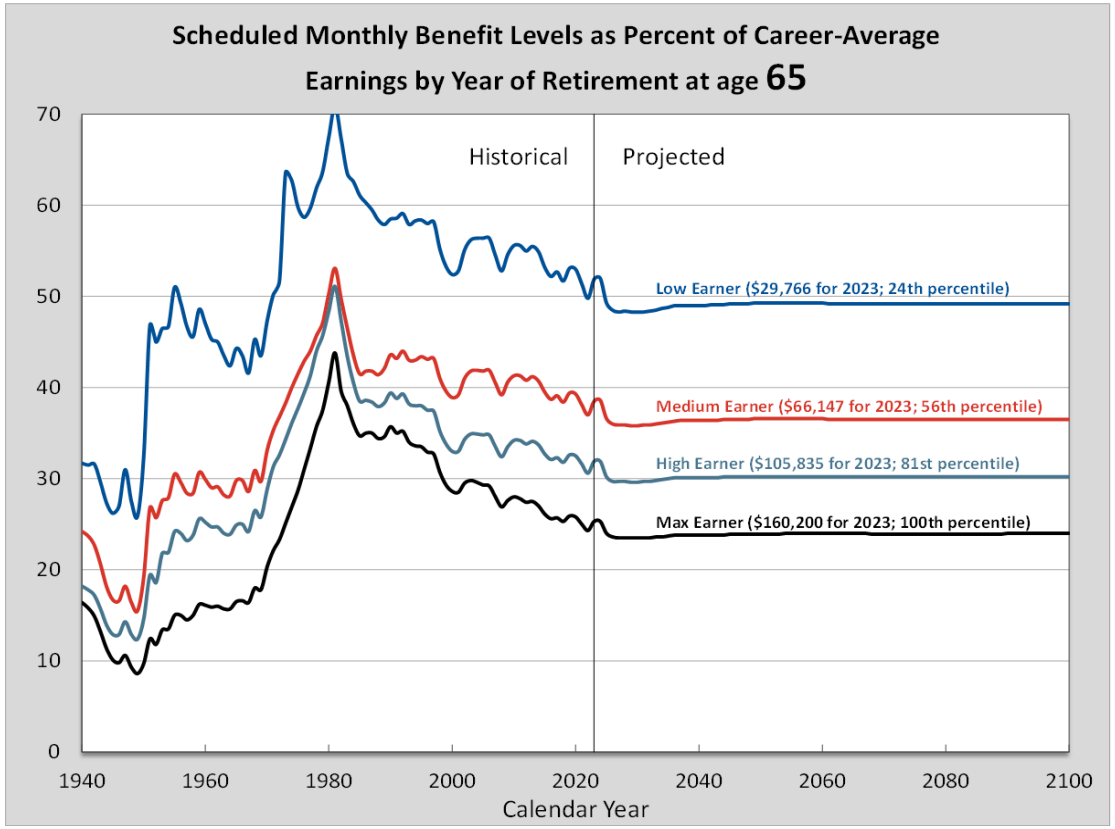
Benefit Replacement Rates Return in the 2023 TR

Benefit levels for selected retirees as a percent of their 35-year career average wage indexed earnings, in addition to showing real growth in benefit levels

Table V.C7.—Annual Scheduled Benefit Amounts[a] for Retired Workers With Various Pre-Retirement Earnings Patterns Based on Intermediate Assumptions, Calendar Years 2023-2100

	Retirement at normal retirement age			Retirement at age 65		
Year attain age 65[b]	Age at retirement	CPI-indexed 2023 dollars[c]	Percent of 35-year average earnings	Age at retirement	CPI-indexed 2023 dollars[c]	Percent of 35-year average earnings
Scaled very low earnings:[d]						
2023	66:8	$13,041	78.9	65:0	$11,311	71.3
2025	67:0	12,790	75.8	65:0	11,063	67.7
2030	67:0	13,581	74.3	65:0	11,758	66.4
2035	67:0	14,707	75.6	65:0	12,730	67.1
2040	67:0	15,703	76.0	65:0	13,601	67.4
2045	67:0	16,686	76.3	65:0	14,454	67.6
2050	67:0	17,676	76.5	65:0	15,306	67.7
2055	67:0	18,675	76.5	65:0	16,169	67.7
2060	67:0	19,730	76.5	65:0	17,088	67.7
2065	67:0	20,852	76.4	65:0	18,060	67.7
2070	67:0	22,067	76.4	65:0	19,109	67.7
2075	67:0	23,356	76.4	65:0	20,226	67.7
2080	67:0	24,713	76.4	65:0	21,401	67.7
2085	67:0	26,150	76.4	65:0	22,646	67.7
2090	67:0	27,668	76.4	65:0	23,959	67.7
2095	67:0	29,262	76.5	65:0	25,341	67.7
2100	67:0	30,942	76.4	65:0	26,795	67.7
Scaled low earnings:[e]						
2023	66:8	17,082	57.4	65:0	14,824	51.9
2025	67:0	16,787	55.2	65:0	14,499	49.3
2030	67:0	17,791	54.1	65:0	15,390	48.3

Illustration of Values Provided in Actuarial Note:



Source: Annual Recurring Actuarial Note #9 at www.ssa.gov/oact/NOTES/ran9/index.html

How to Eliminate the Social Security Long-Term Actuarial Deficit

Make choices addressing OASDI shortfall 2034-2097:

- Raise scheduled revenue by 2034 by about one-third
- Reduce scheduled benefits by 2034 by about one-fourth
- Or some combination of the two

For More Information Go to http://www.ssa.gov/oact/

- There you will find:
  - This and all prior OASDI Trustees Reports
  - Detailed single-year tables for recent reports
  - Our estimates for comprehensive proposals and individual provisions
  - Actuarial notes; including replacement rates
  - Actuarial studies; including stochastic
  - Extensive databases
  - Congressional testimonies
  - Presentations by OCACT employees