

Social Security Trustees Report:

A Deep-Dive Discussion with the Program's Actuaries

American Academy of Actuaries Webinar
April 25, 2023

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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

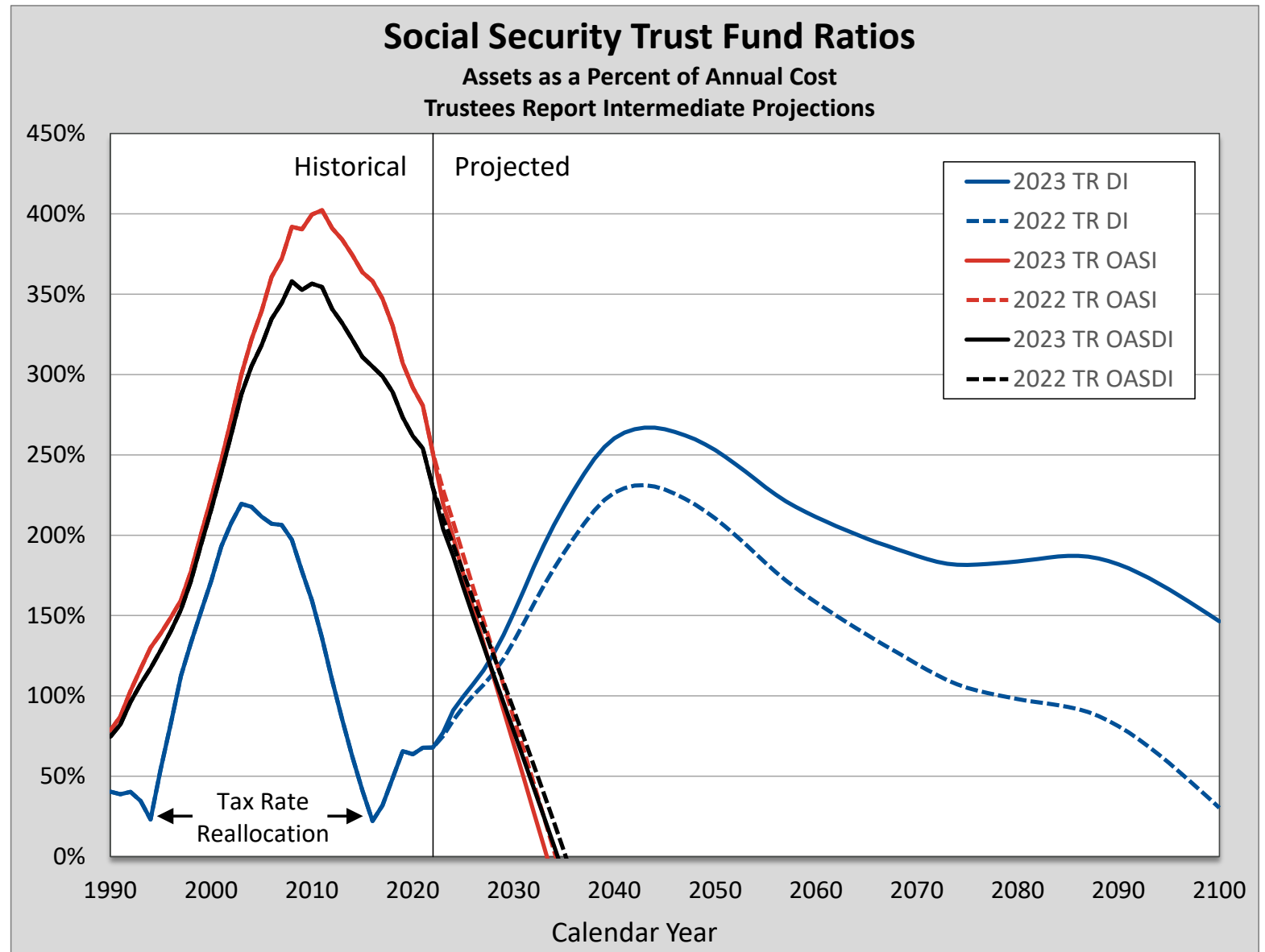
<u>Valuation Period</u> - Changes the actuarial balance by	-0.05 percent of payroll
<u>Legislation etc.</u> – Changes the actuarial balance by <ul style="list-style-type: none">• One-year delay in resuming approval of new DACA applications	0.00 percent of payroll
<u>Demographic Data/Assumptions</u> – Changes the actuarial balance by <ul style="list-style-type: none">• Recent birth data and slightly lower assumed near-term total fertility rates• Higher near-term mortality rates due to ongoing effects of COVID-19• New data for fertility, immigration, marriage/divorce, and population	-0.03 percent of payroll (-0.01 percent) (+0.02 percent) (-0.04 percent)
<u>Economic Data/Assumptions</u> – Changes the actuarial balance by <ul style="list-style-type: none">• Lower levels of GDP and labor productivity• Slightly faster growth in OASDI covered wages• Slightly higher near-term interest rates• New data and other near-term economic assumptions	-0.04 percent of payroll (-0.13 percent) (+0.03 percent) (+0.02 percent) (+0.03 percent)
<u>Disability Data/Assumptions</u> – Changes the actuarial balance by <ul style="list-style-type: none">• New disability data and slightly lower near-term disability incidence rates	+0.01 percent of payroll (+0.01 percent)
<u>Methods and Programmatic Assumptions</u> <ul style="list-style-type: none">• Methodological improvements, programmatic data and other improvements and updates	-0.06 percent of payroll



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).

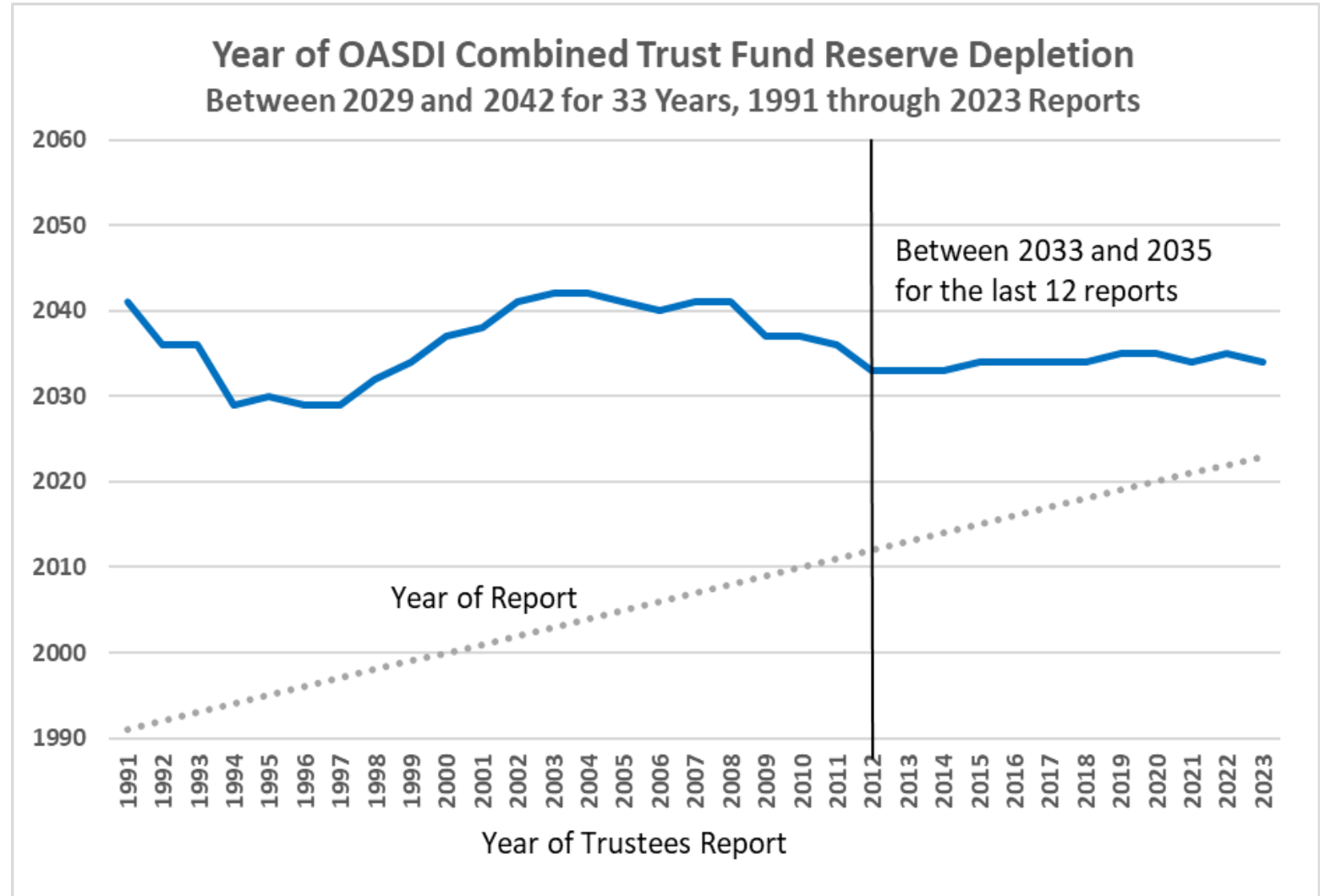
DI Trust Fund: reserves do not deplete, due largely to continued low recent and near-term disability applications and awards.



Year of Reserve Depletion in the 1991-2023 Reports

The year of projected combined OASI and DI Trust Fund reserve depletion has been in the range of 2029 to 2041 in the last 33 annual reports...

and in the range of 2033 to 2035 in the last 12 reports.

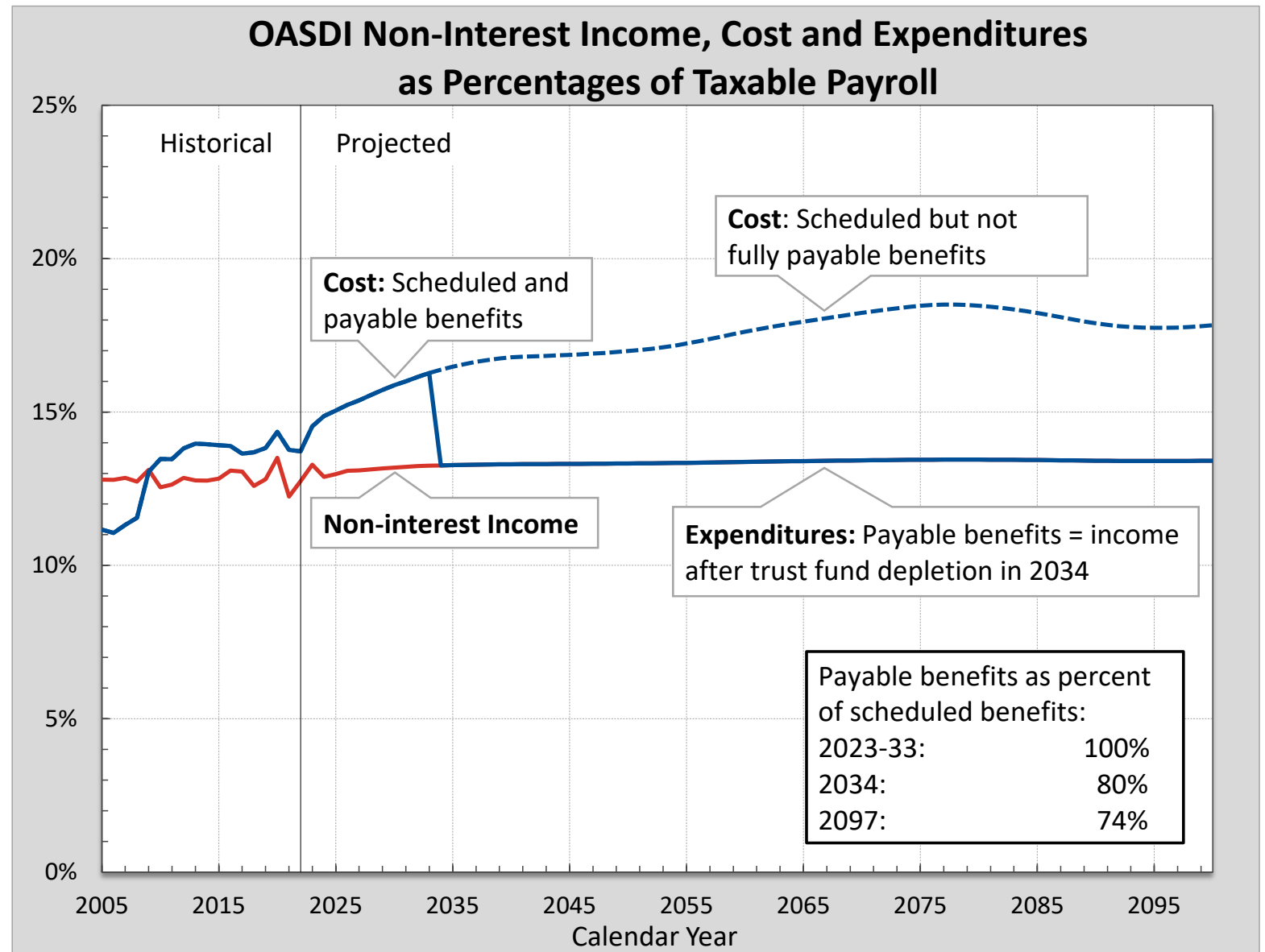


OASDI Annual Cost and Non-Interest Income as Percent of Taxable Payroll

Persistent negative annual cash-flow balance starting in 2010.

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

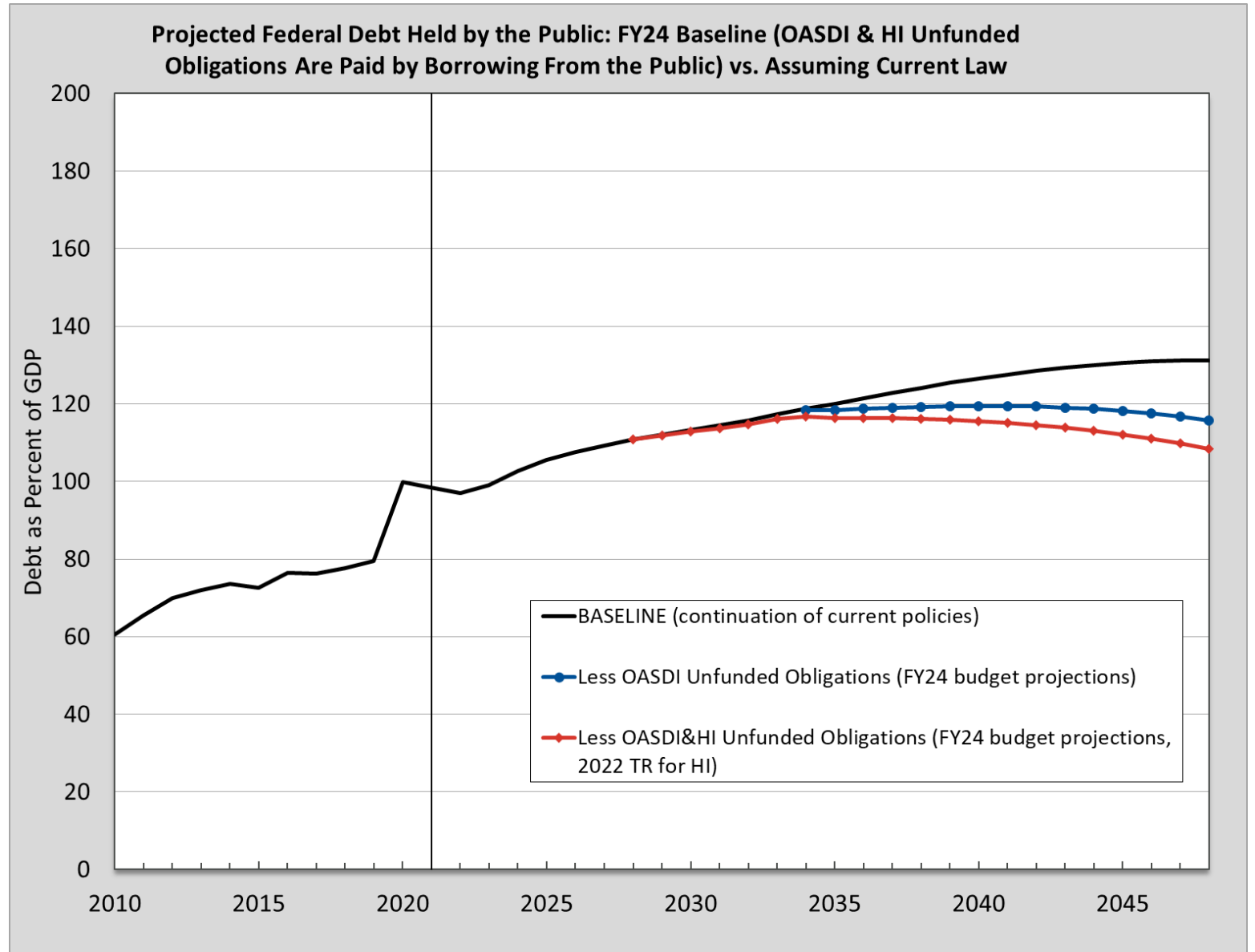
Annual deficit in 2097: 4.35 percent of payroll: 0.09 percent larger than last year.



What Does This Mean for the Federal Debt? (PB24 version)

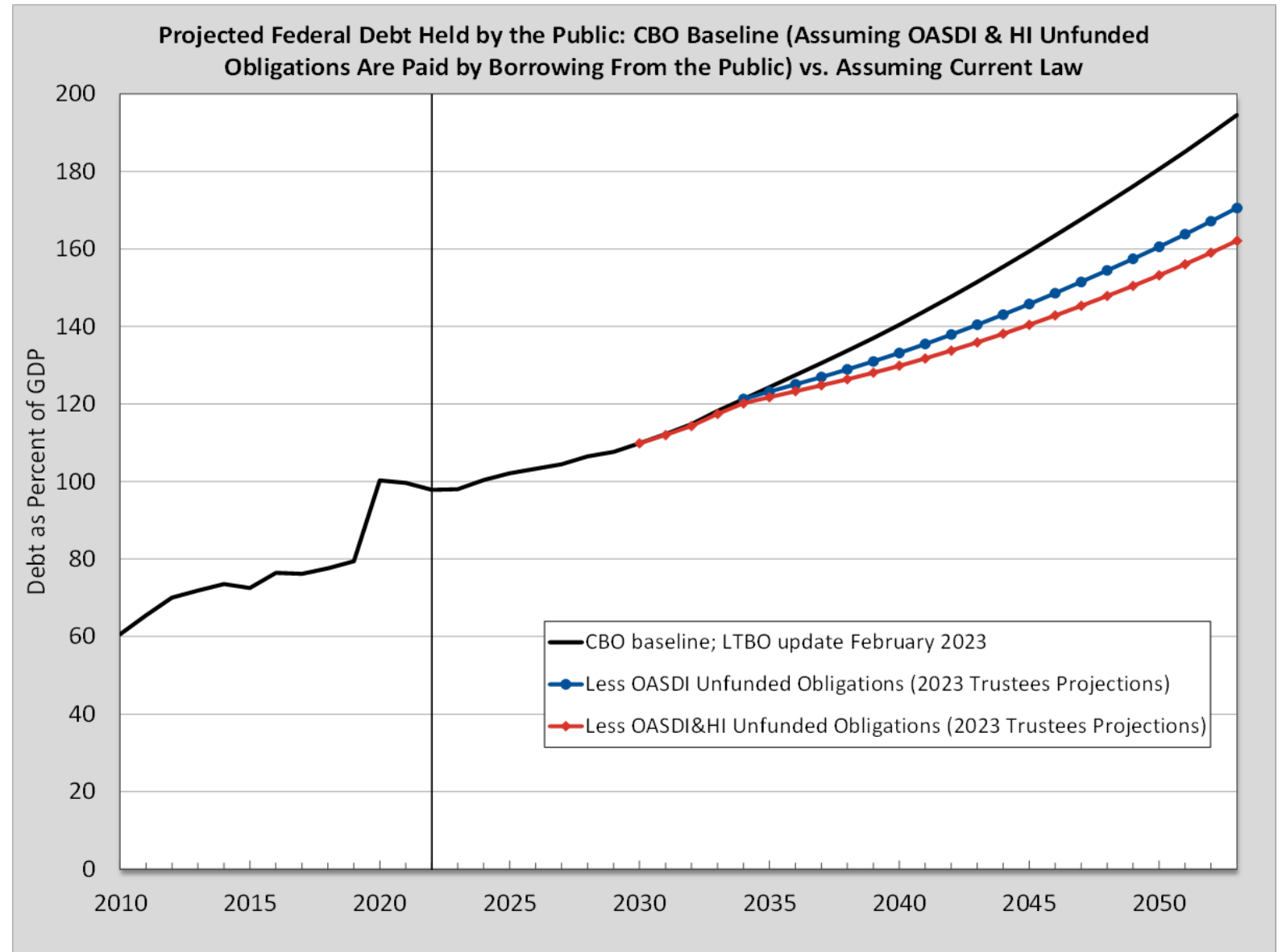
President's Budget and CBO both assume that current law will be changed in the future, requiring the General Fund to borrow from the public to cover any shortfalls after reserve depletion.

Graph shows publicly held debt as a percent of GDP with this assumed change in law, and also the debt levels that would actually occur under current law and policy.



What Does This Mean for the Federal Debt? (CBO version)

Note dramatically higher projections of debt, and different concavity, than in the President's Budget version.

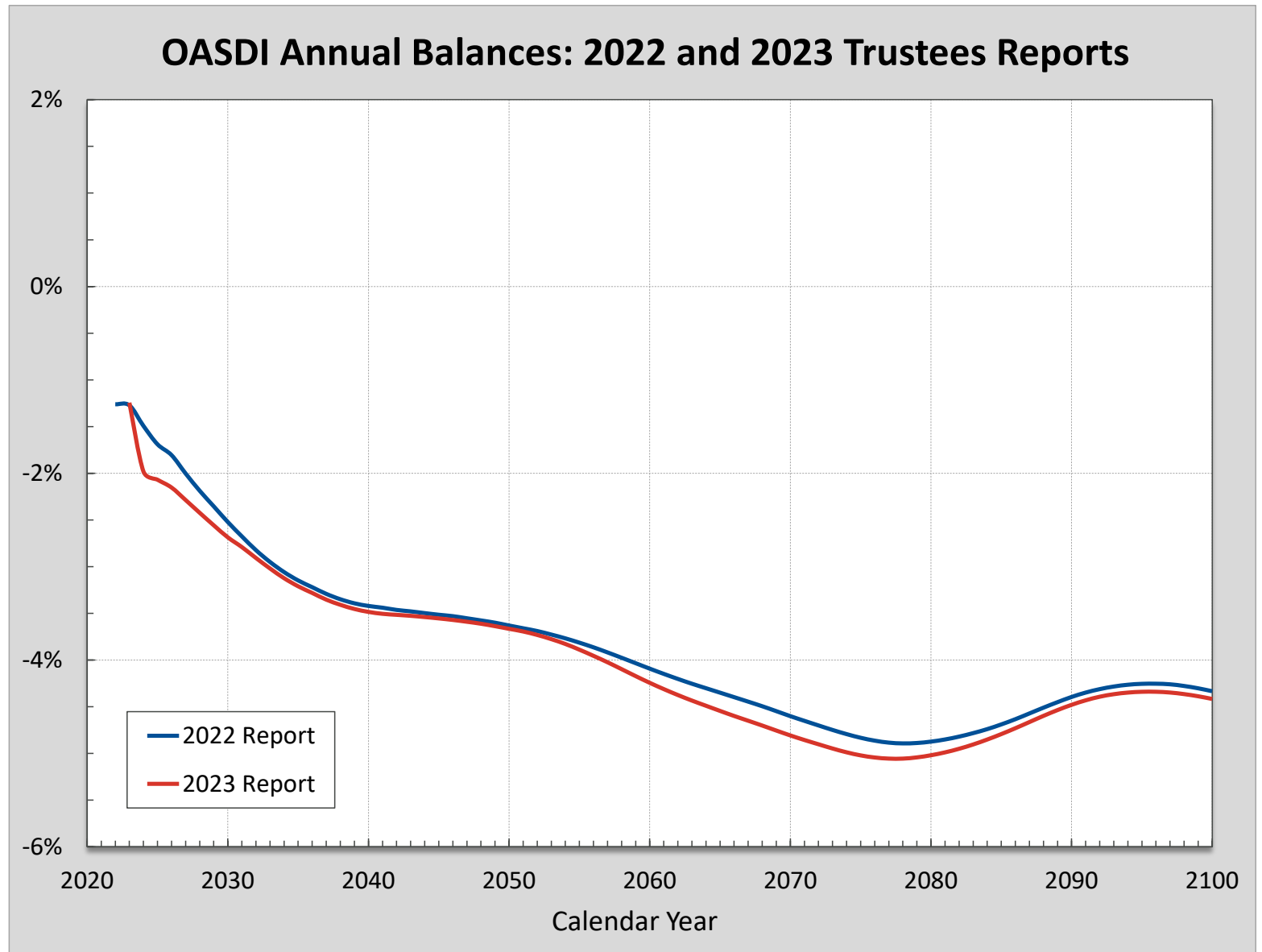


Changes in OASDI Annual Balance

Annual income rate minus annual cost rate.

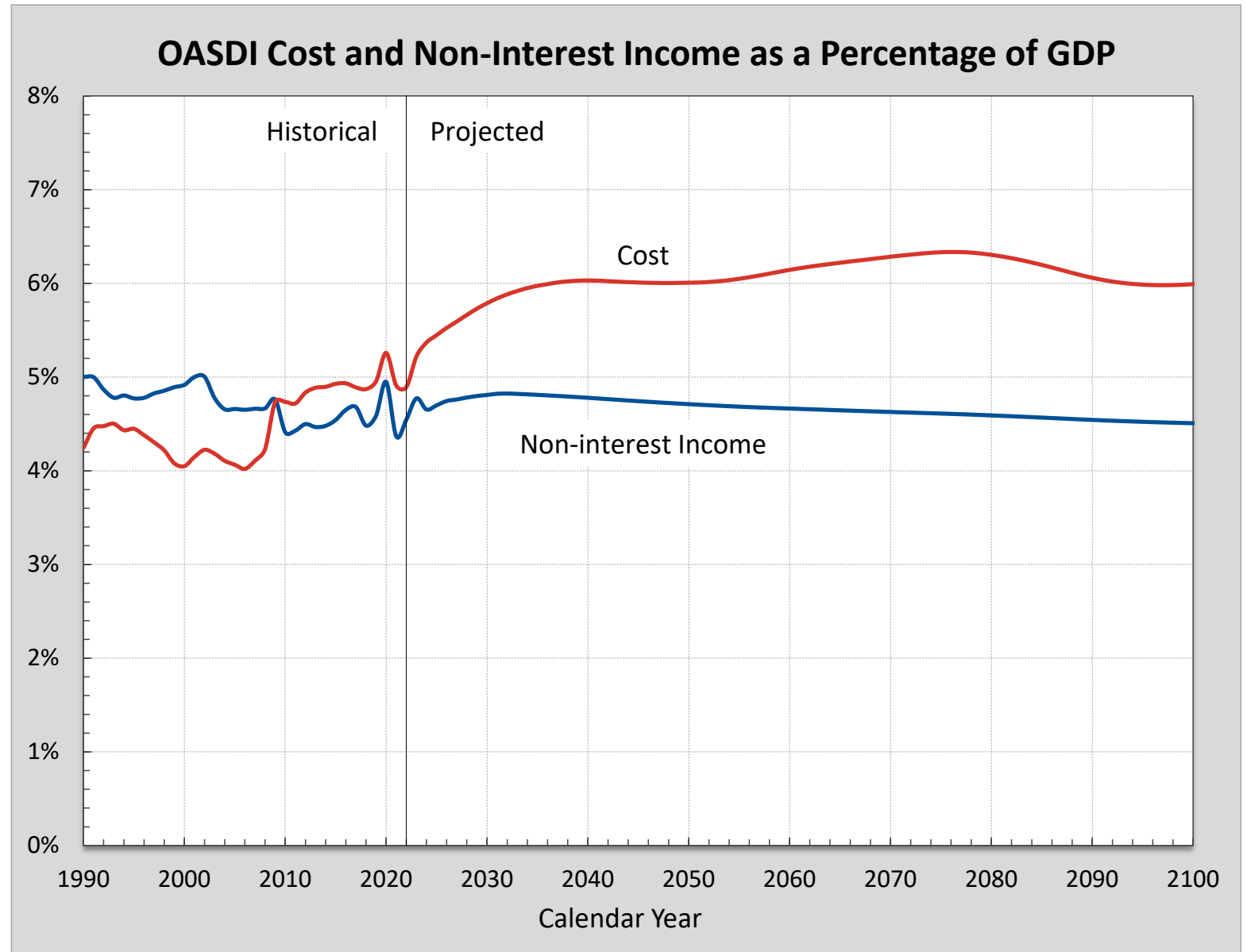
Annual deficits are higher throughout the 75-year projection period.

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



SUSTAINABILITY: Cost as percent of GDP

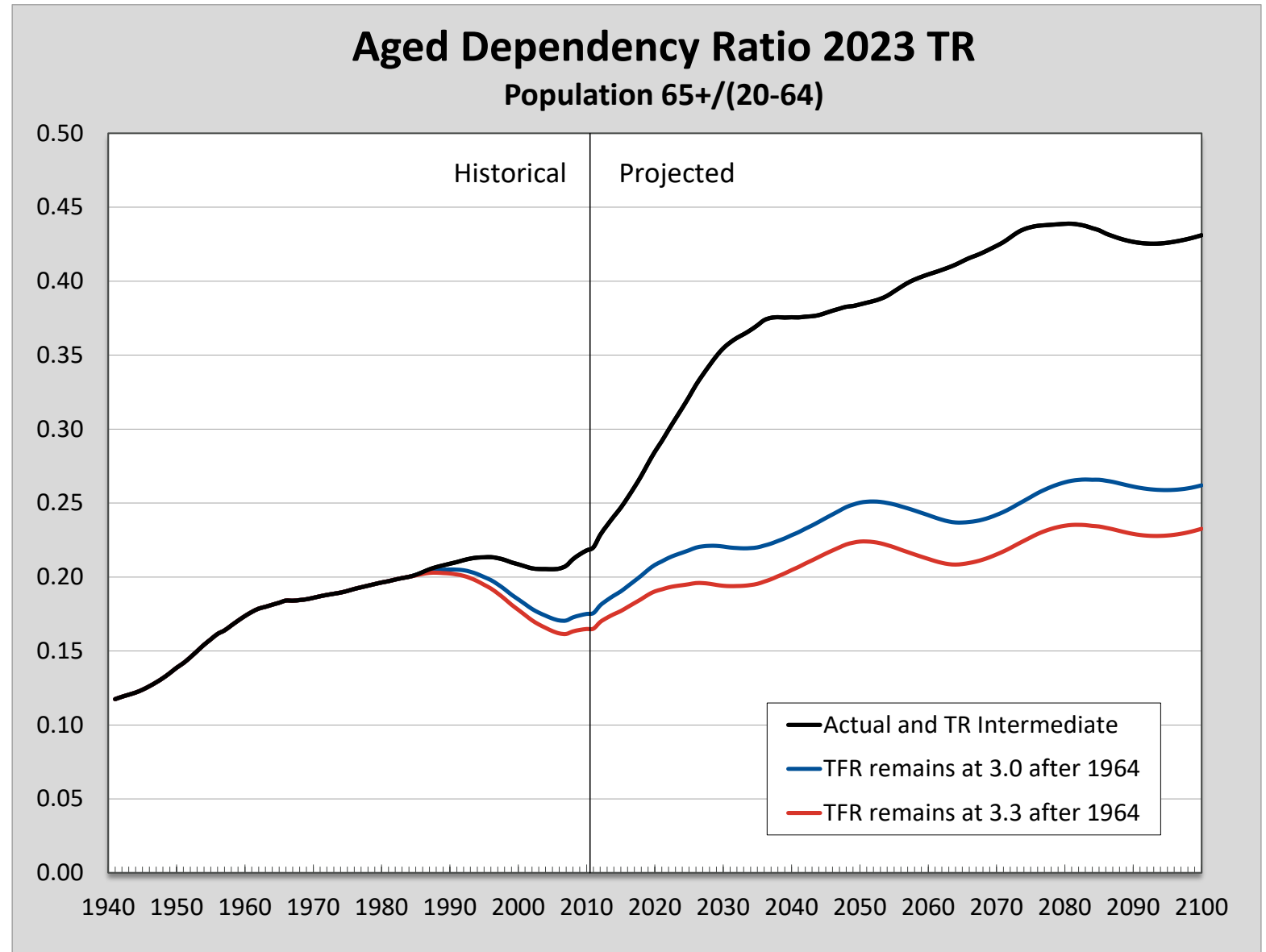
Rises from a 4.2 percent average in 1990-2008, to a peak of about 6.3 percent for 2076, and then declines to 6.0 percent by 2097.



Aging – Change in Age Distribution

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

Mainly due to drop in birth rates.

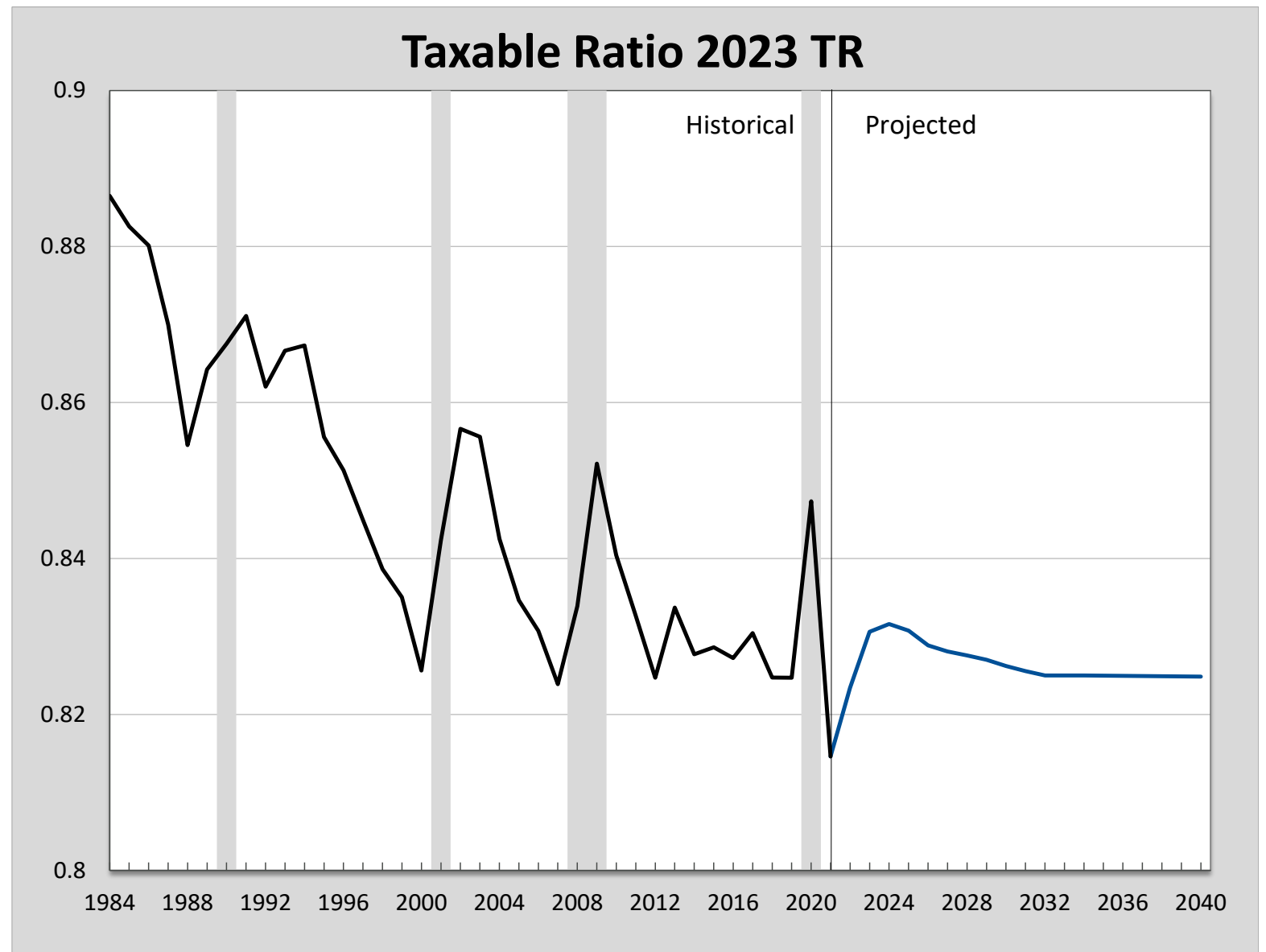


Another Reason: Ratio of Taxable Earnings to All OASDI Covered Earnings

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

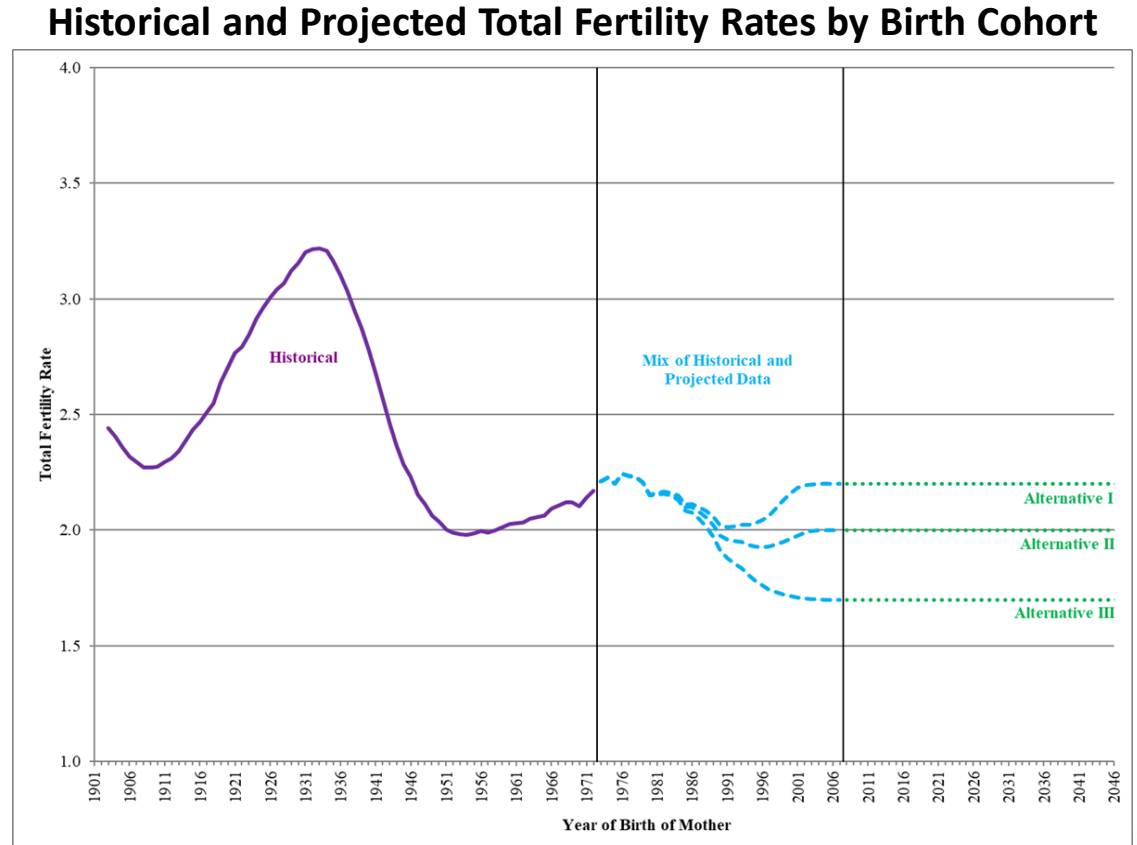
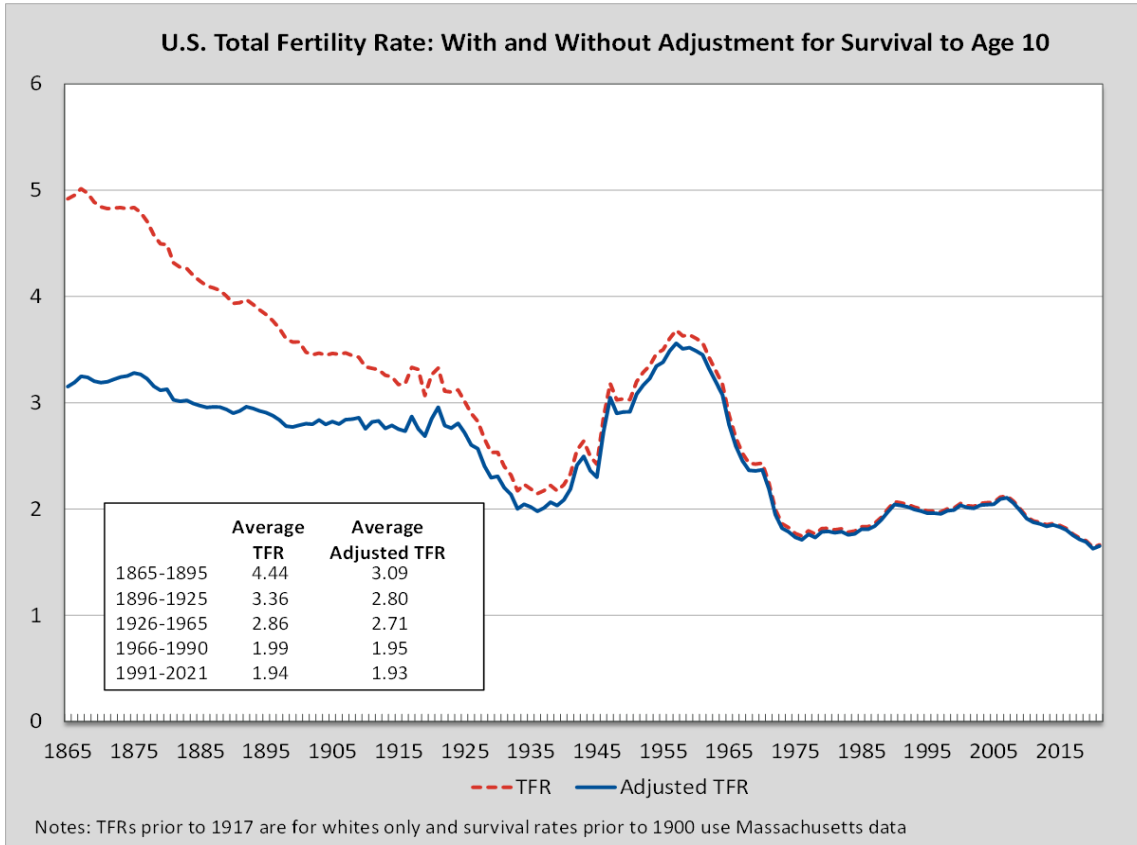
Fluctuation in 2020 and 2021 is due to variation in the average wage, as in past recessions.

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.



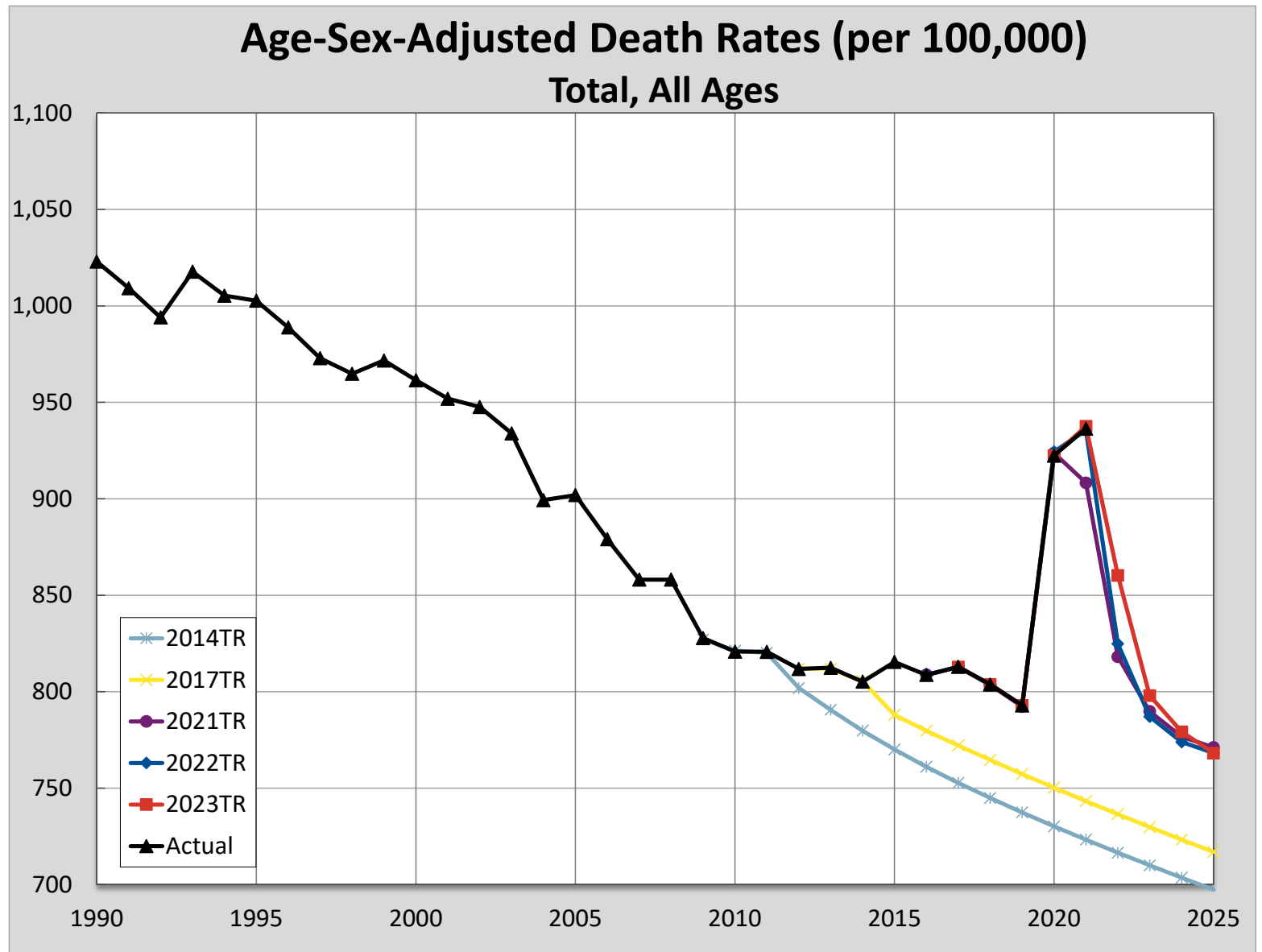
Birth Rates—Both Period and Cohort

Note average period TFR falls from 3 to 2; expected to reach 2 in the long-term



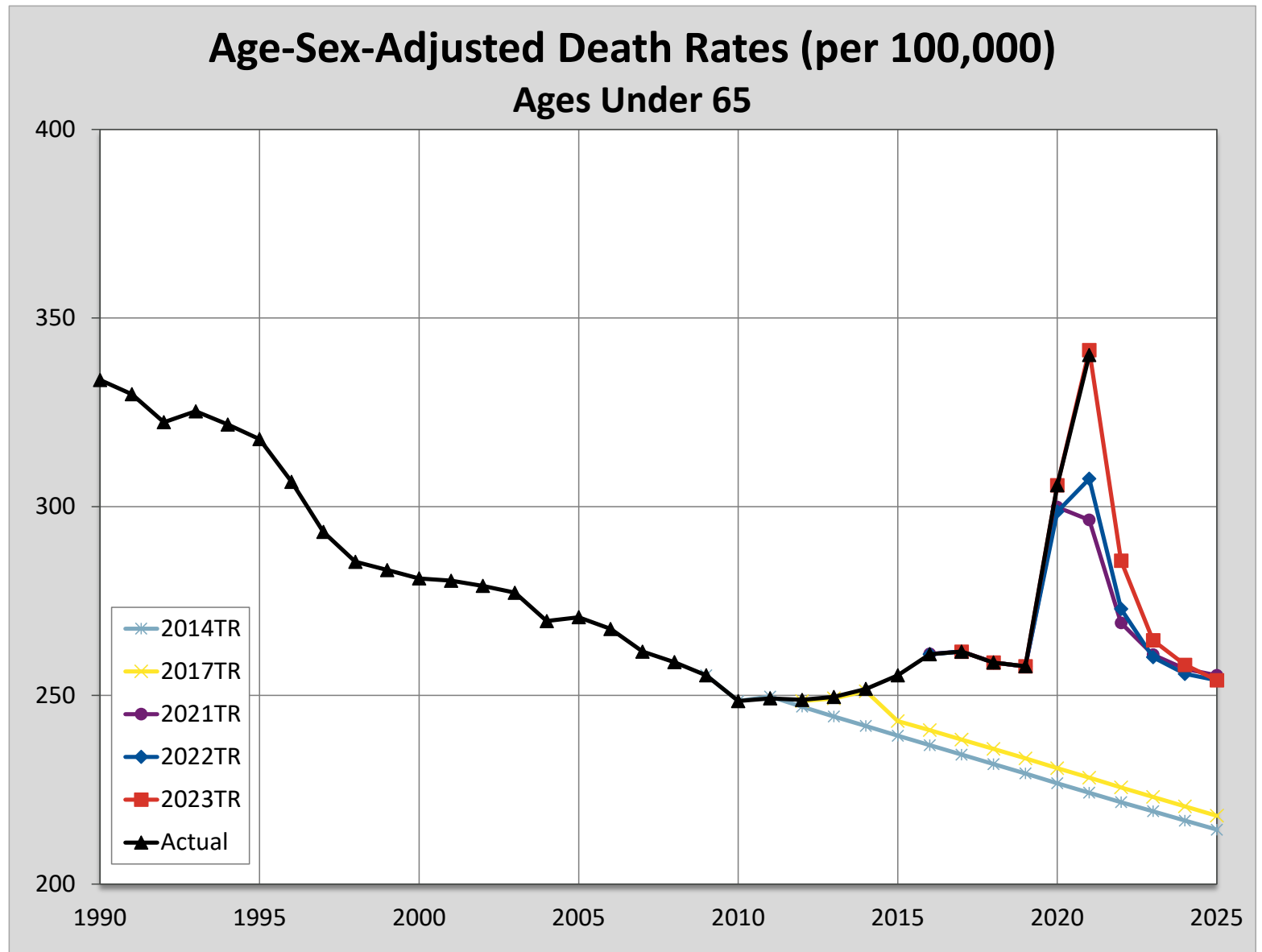
Mortality Experience: All Ages

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.

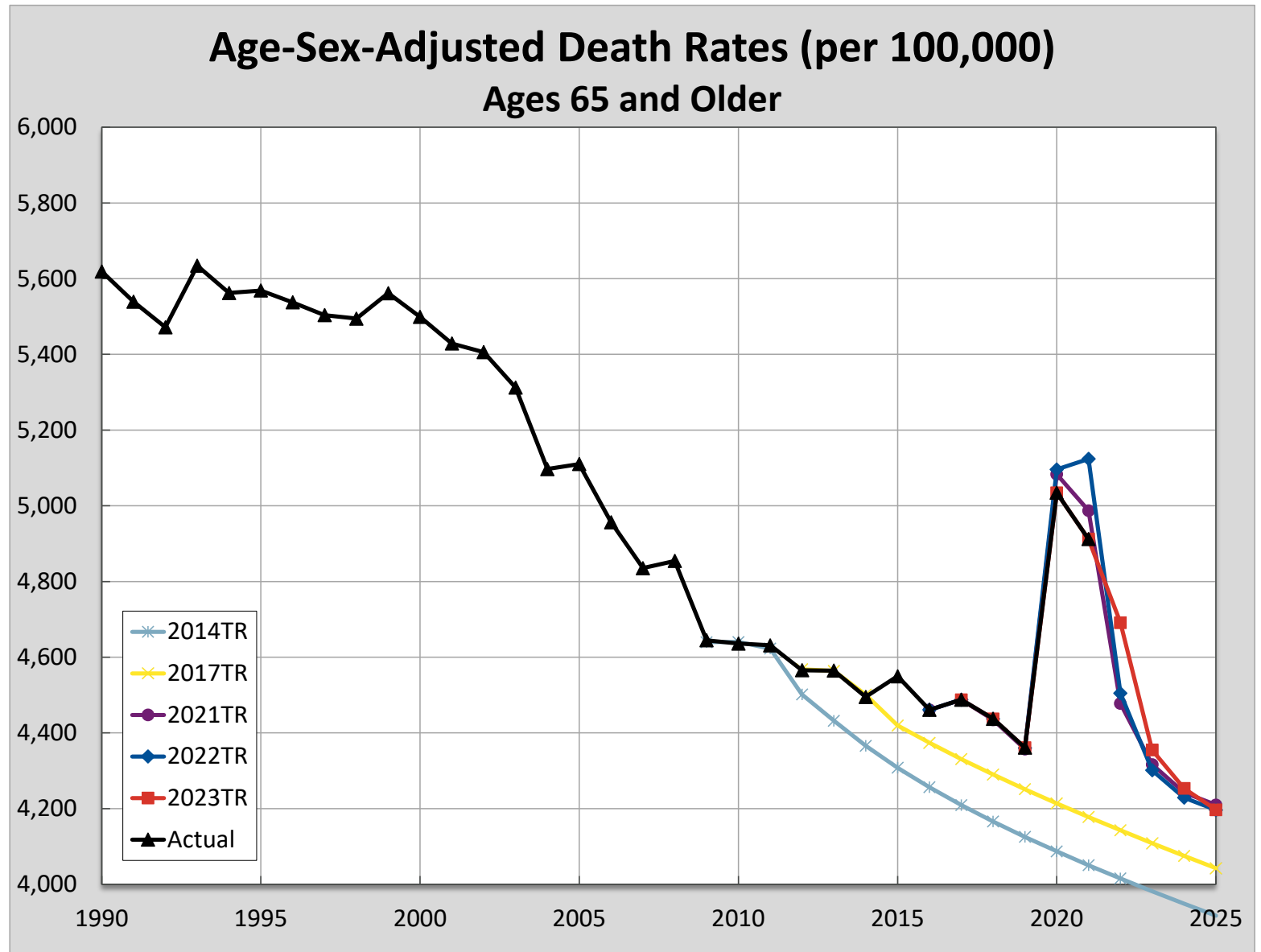


Mortality Experience: Ages 65 and Older

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

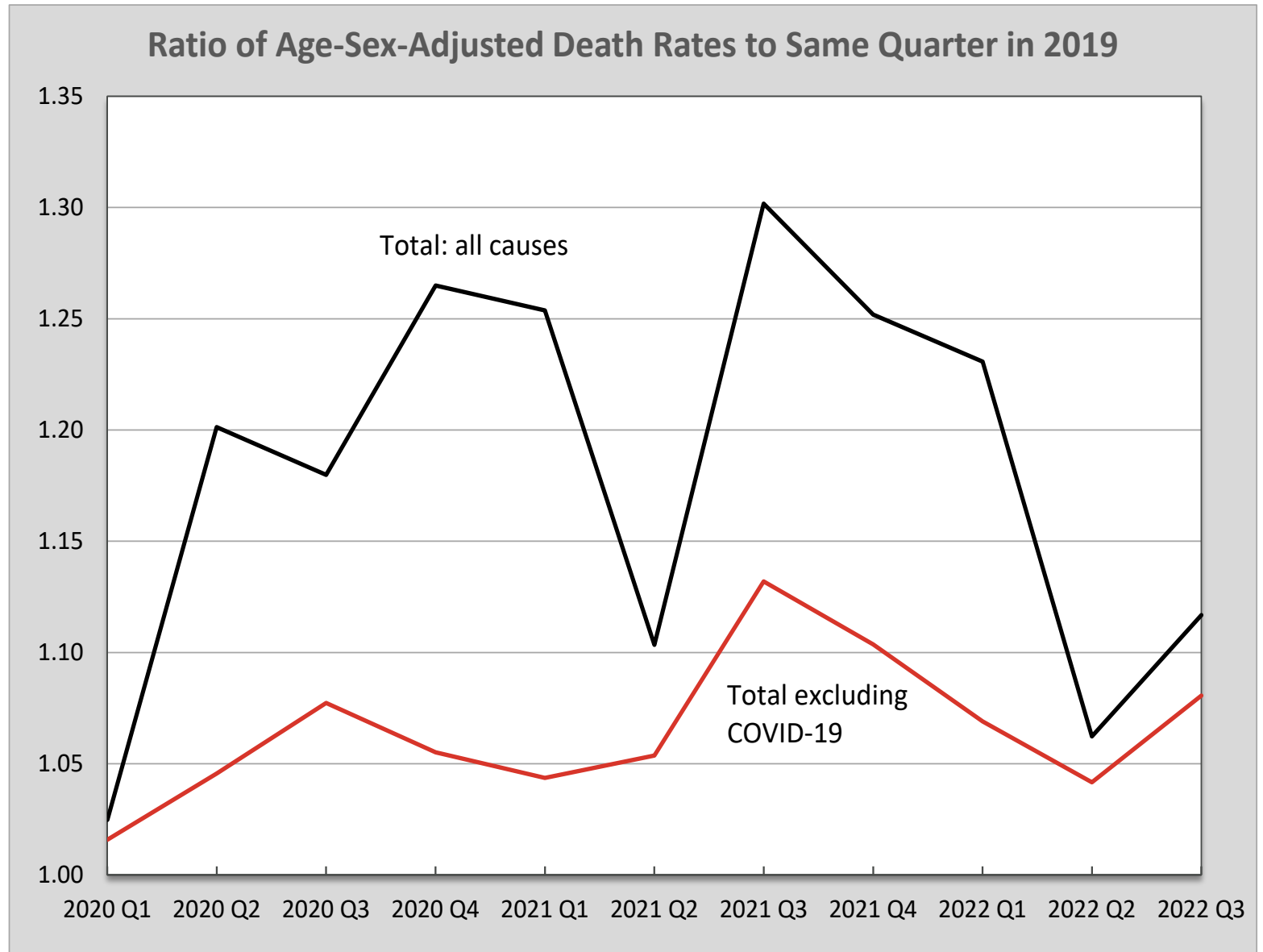
What will the net effect of the pandemic be on mortality in the future?

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

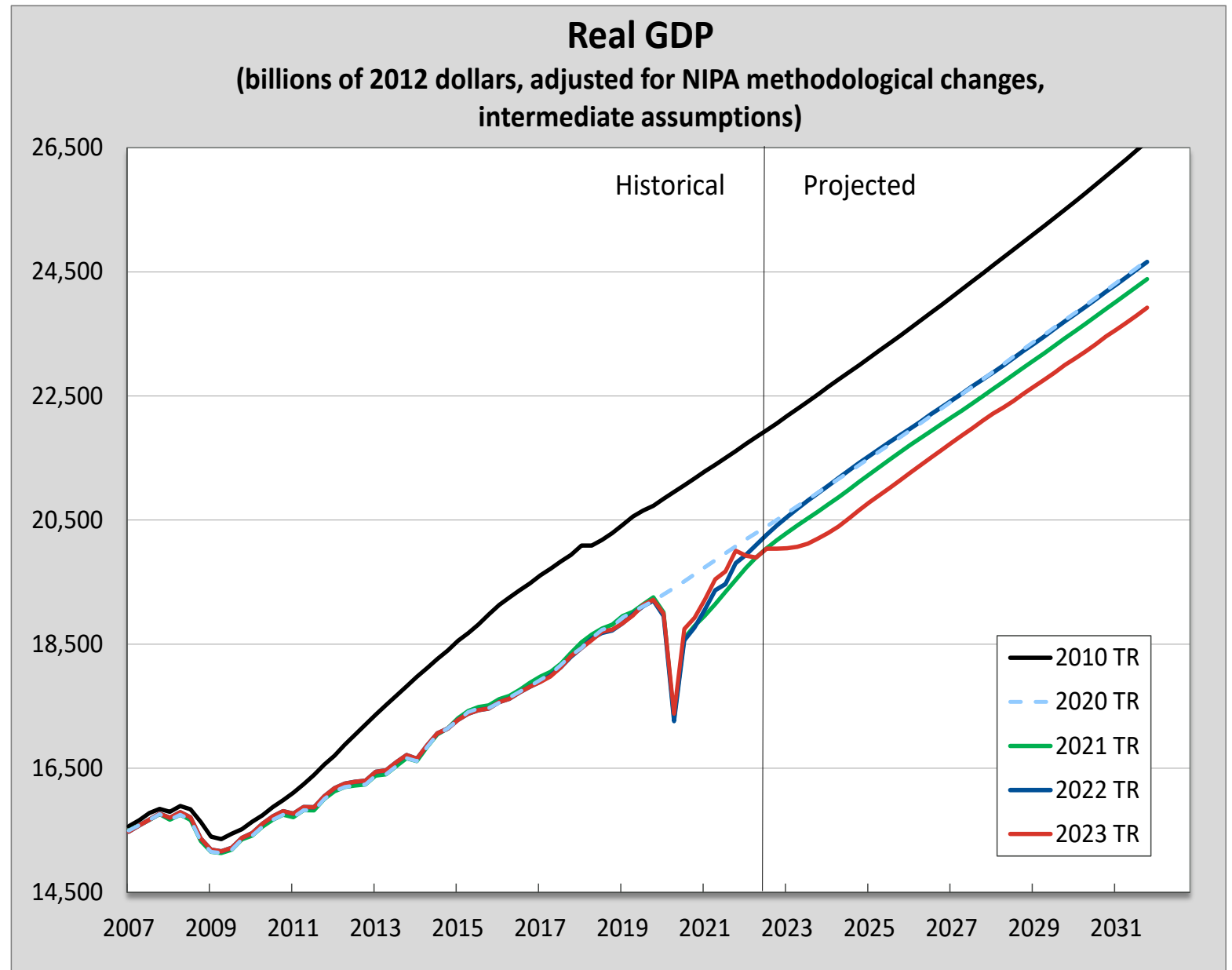
Change in Age-Adjusted Death Rates from the Same Quarter in 2019, by Cause of Death											
<i>Cause of Death</i>	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3
Alzheimer disease	1.013	1.119	1.134	1.082	1.076	0.979	1.076	1.003	1.054	0.965	1.007
COVID-19	--	--	--	--	--	--	--	--	--	--	--
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

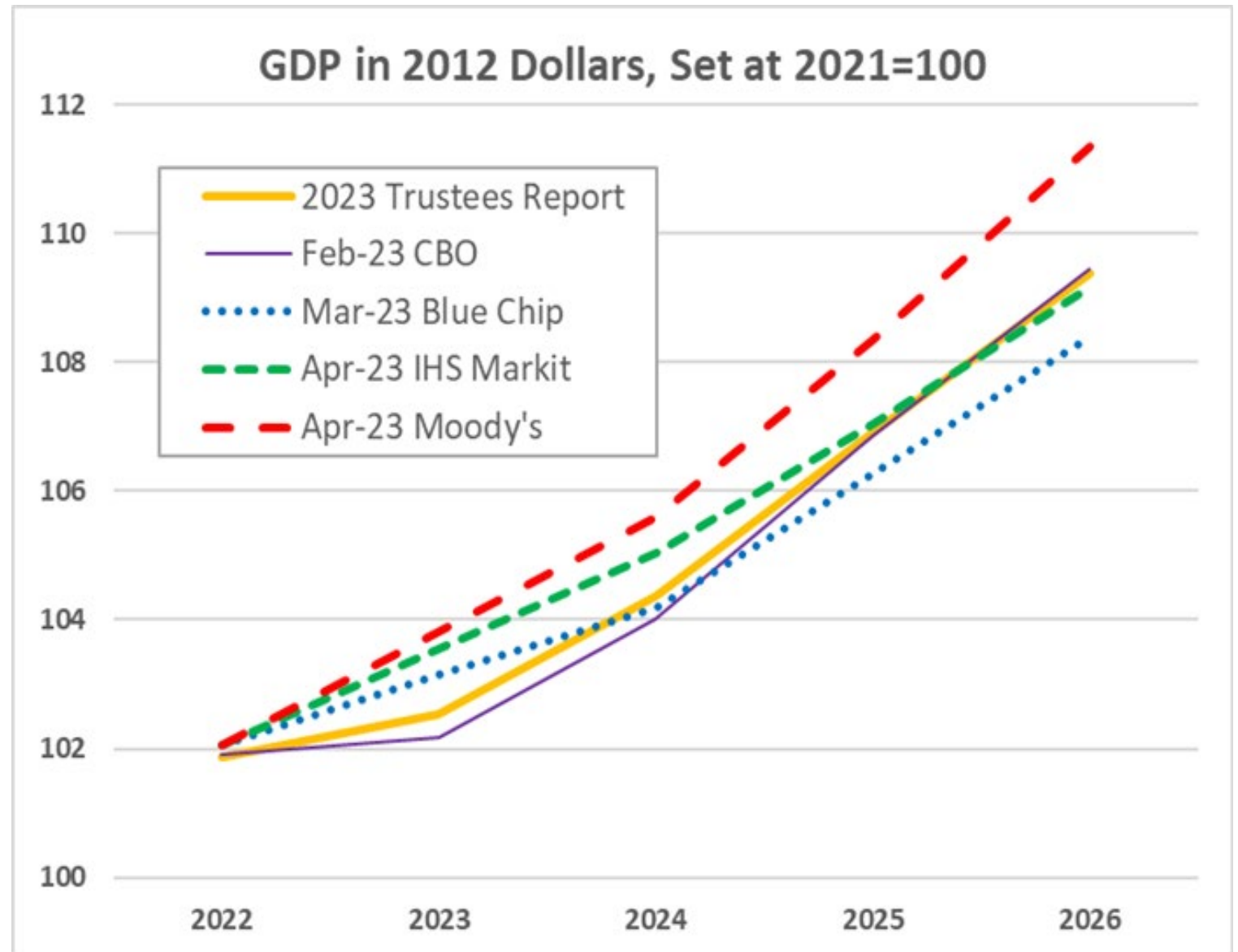
Starting with a slowing of growth in 2023, the level of real GDP is projected to be about 3 percent lower than the level projected in the 2020 and 2022 TRs over the projection period.



However, for Now, the Economy Is Exceeding Expectations

Slowdown in 2023
appears less than
assumed by Trustees
and CBO.

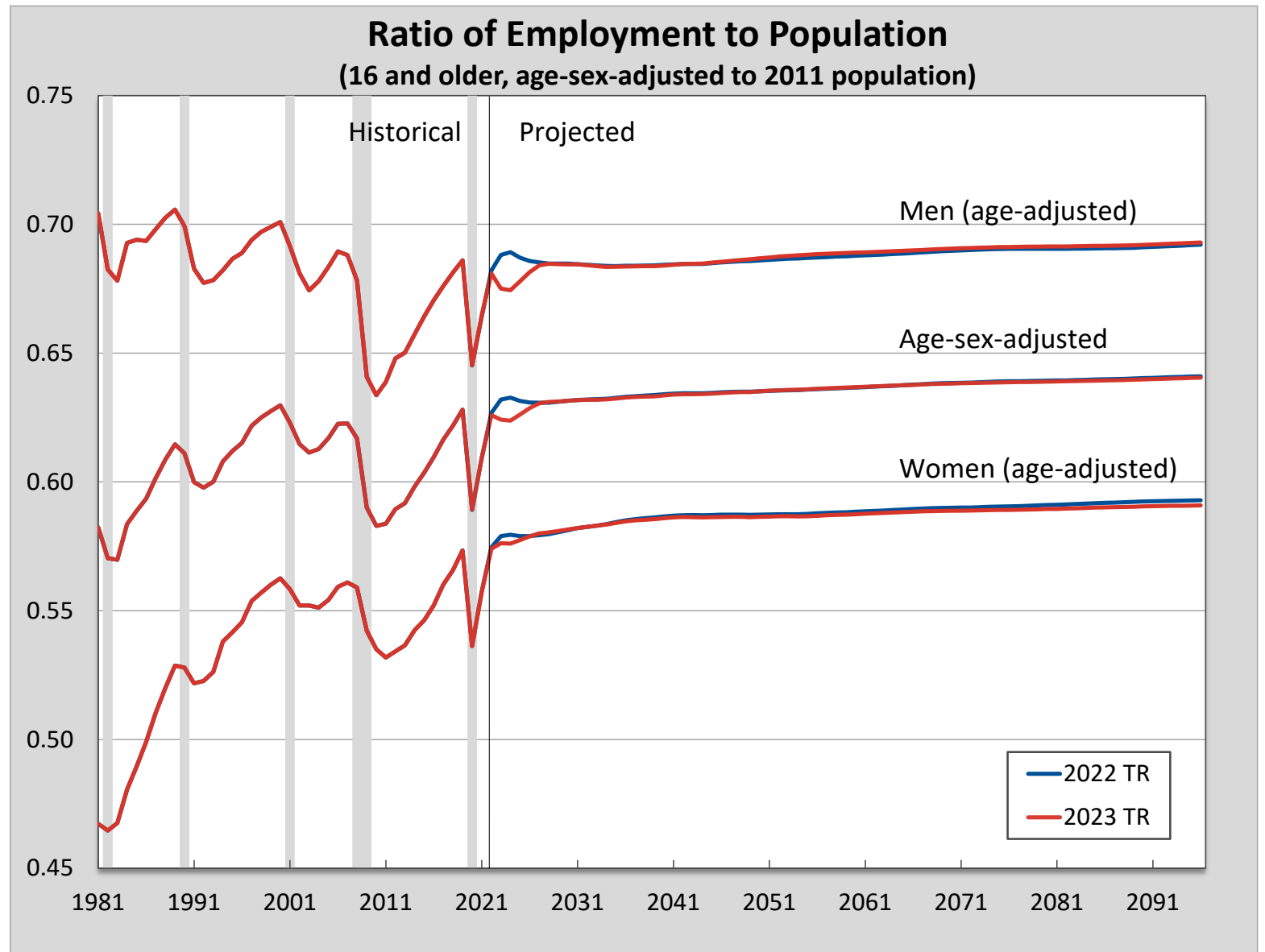
Private forecasters are
now expecting better
for 2023. Trustees and
CBO in about the
middle by 2026.



Ratio of Employment to Population

Recovered strongly from the brief but steep 2020 recession.

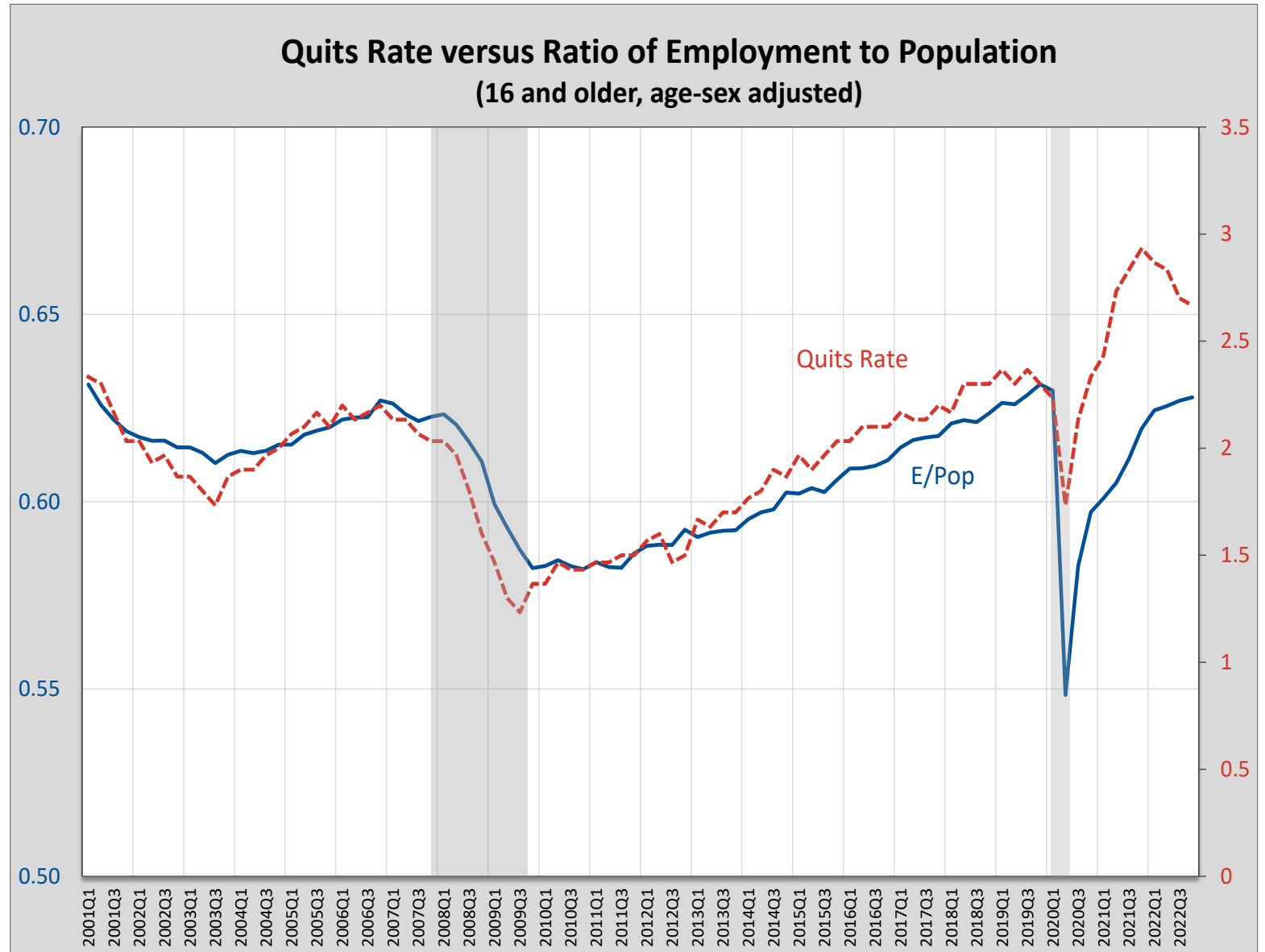
After the assumed slowdown in growth in 2023, the ratio is projected to return to about the peak level of 2019.



Ratio of Employment to Population vs. Quits Rate

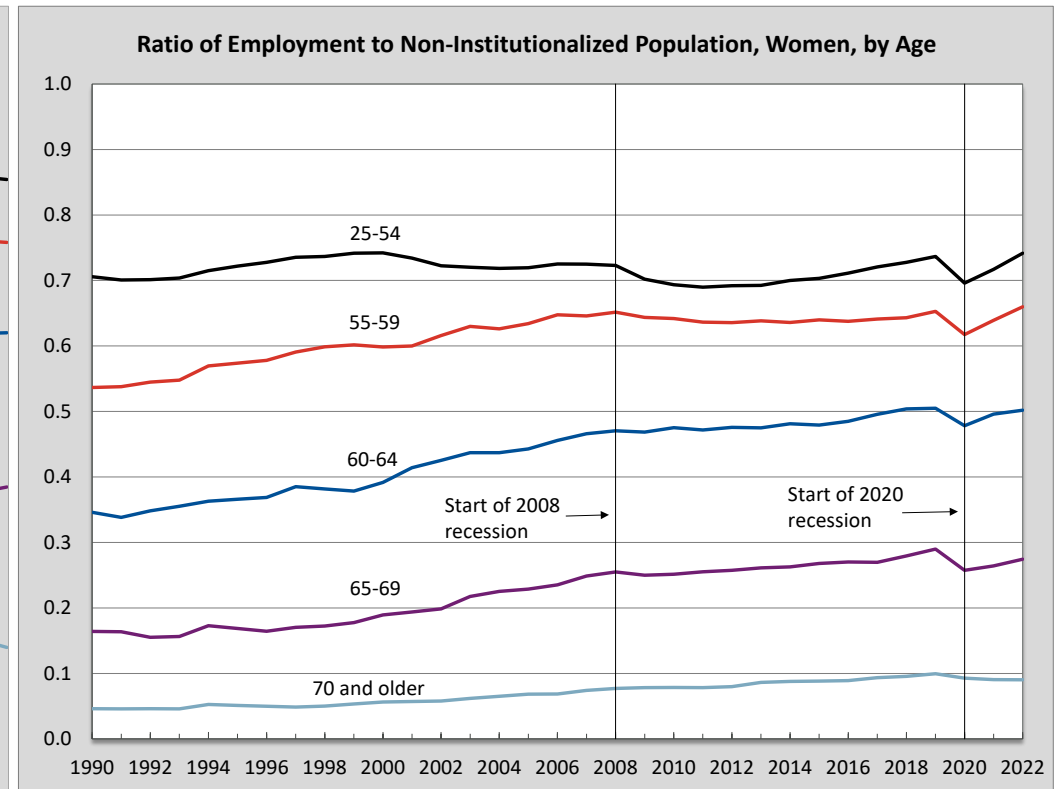
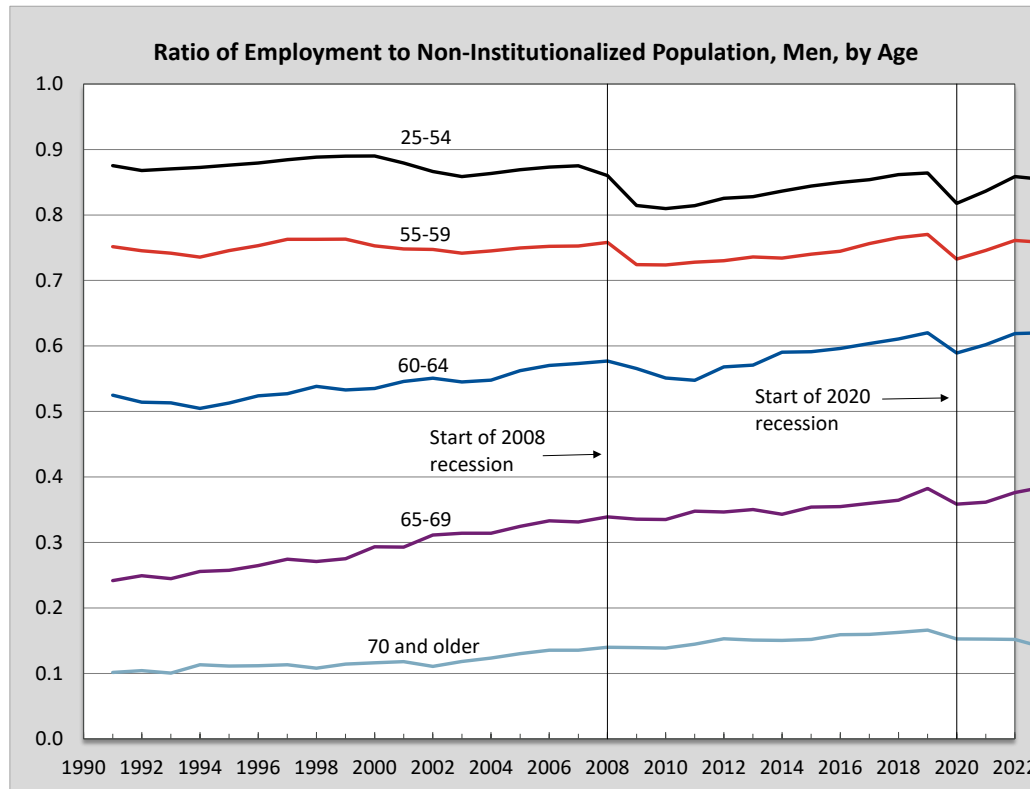
The quits rate represents the number of voluntary separations (when an employee voluntarily leaves a job, regardless of whether it is followed by taking a job with a different employer) as a percentage of total employment.

Elevated quits rates suggest a tight labor market, in which workers are able to switch jobs easily, and usually correspond to periods of a high (or rising) ratio of employment to population.

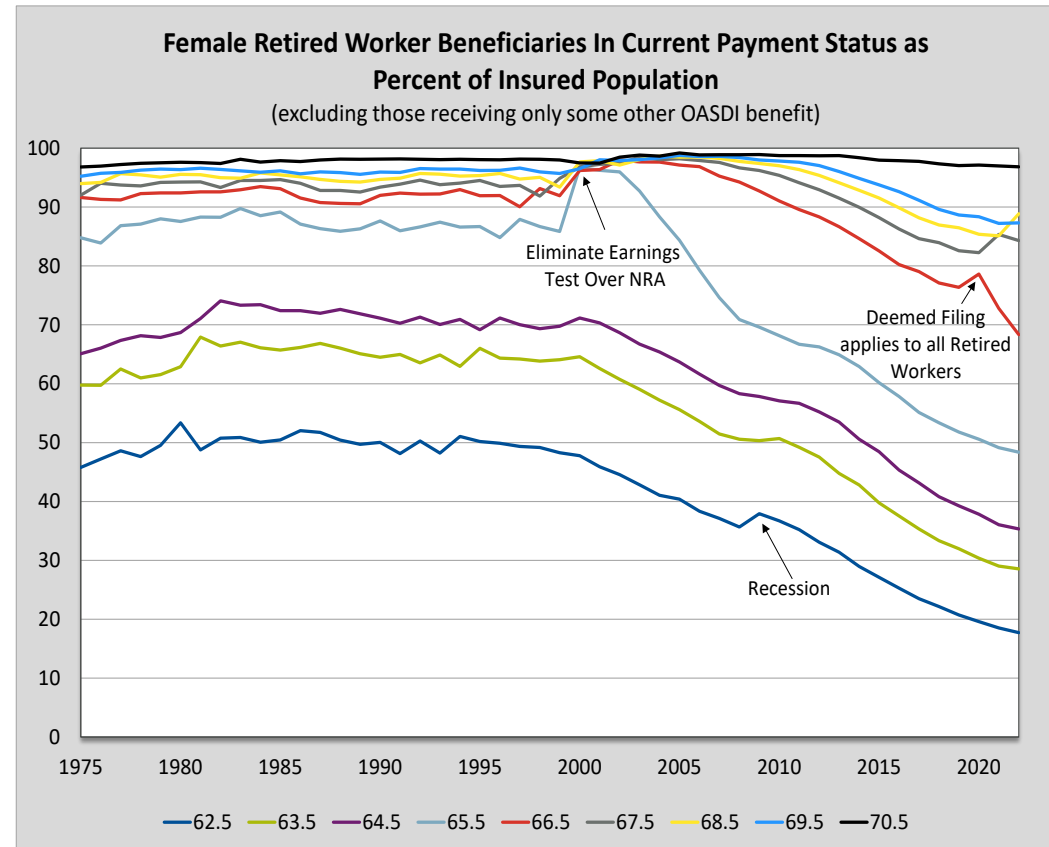
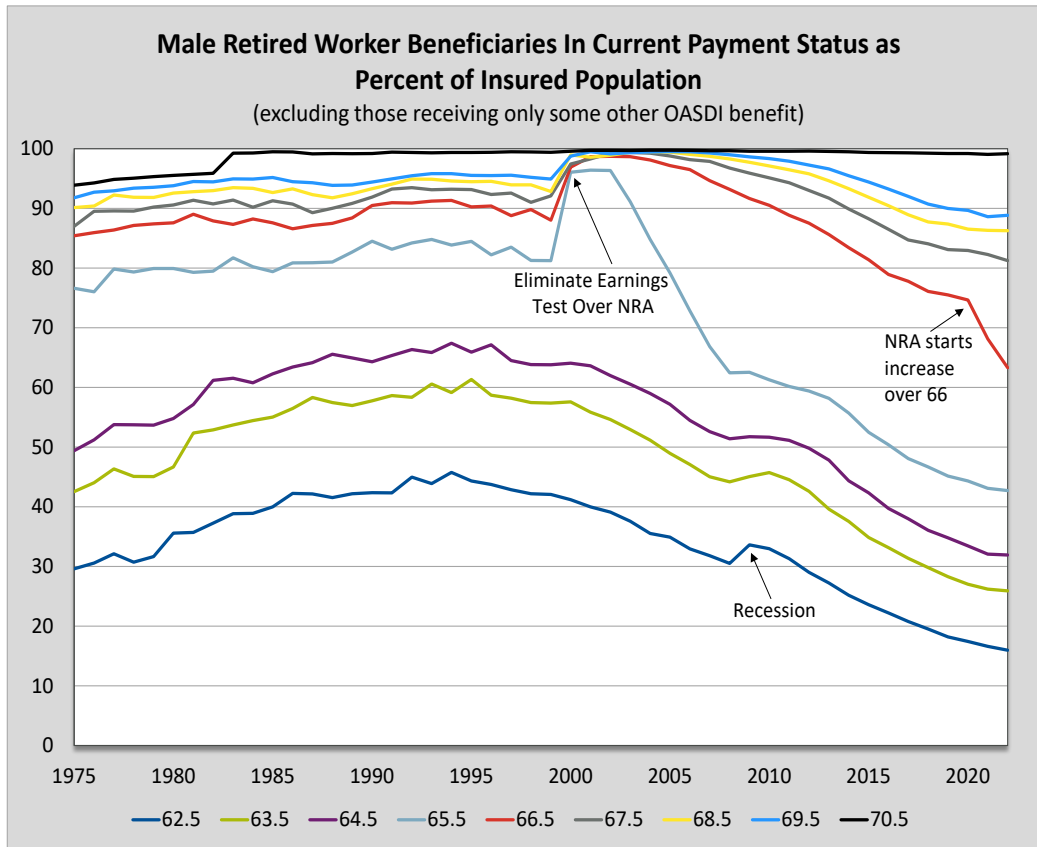


Employment Over Age 65...

declined briefly with the 2020 recession, but is projected to continue rising. How much of this is from changing the NRA and earnings test? *Is the best retirement approach a job (Paul Samuelson)?*



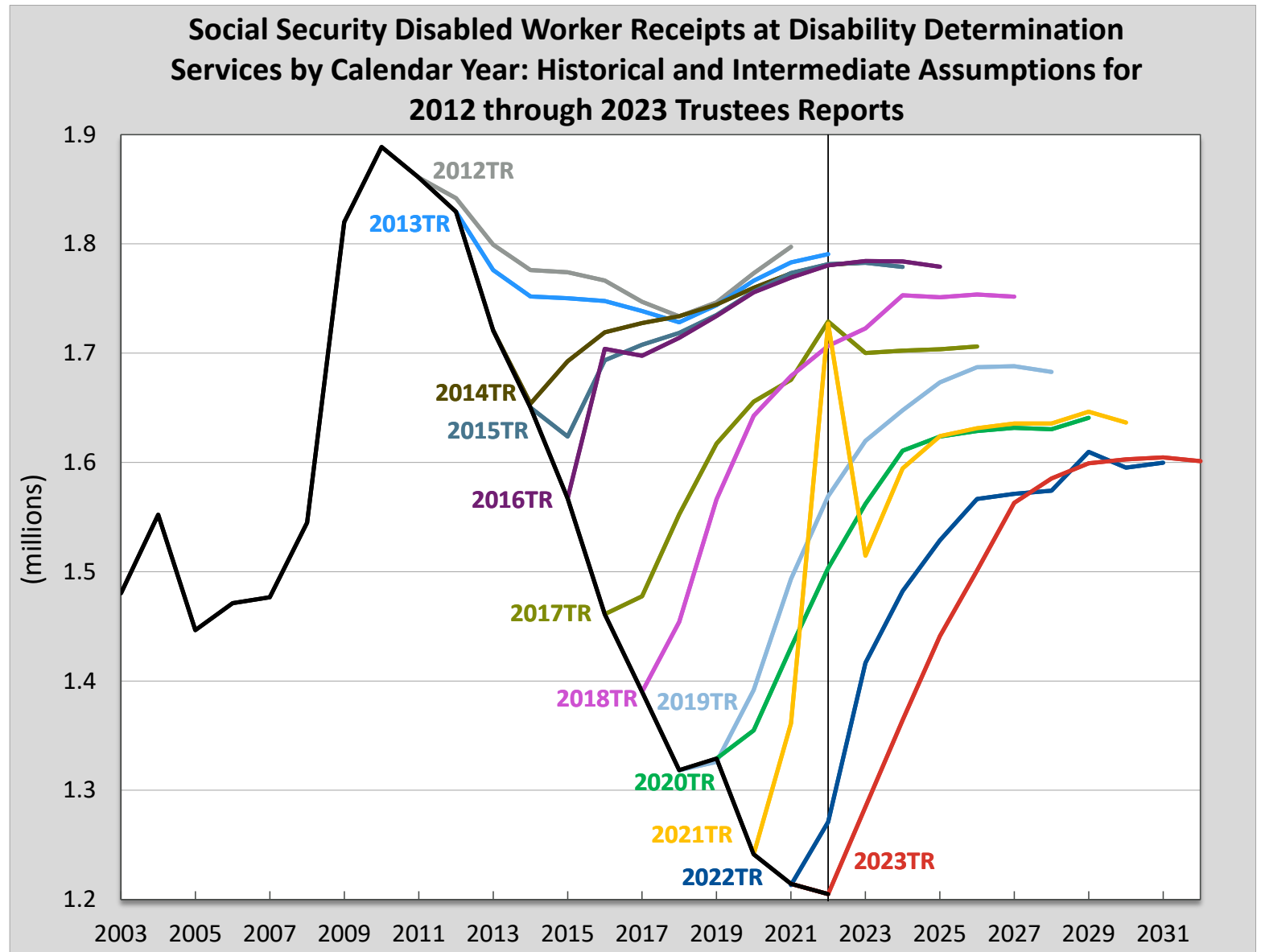
Age of Starting Social Security Retirement Benefits



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.

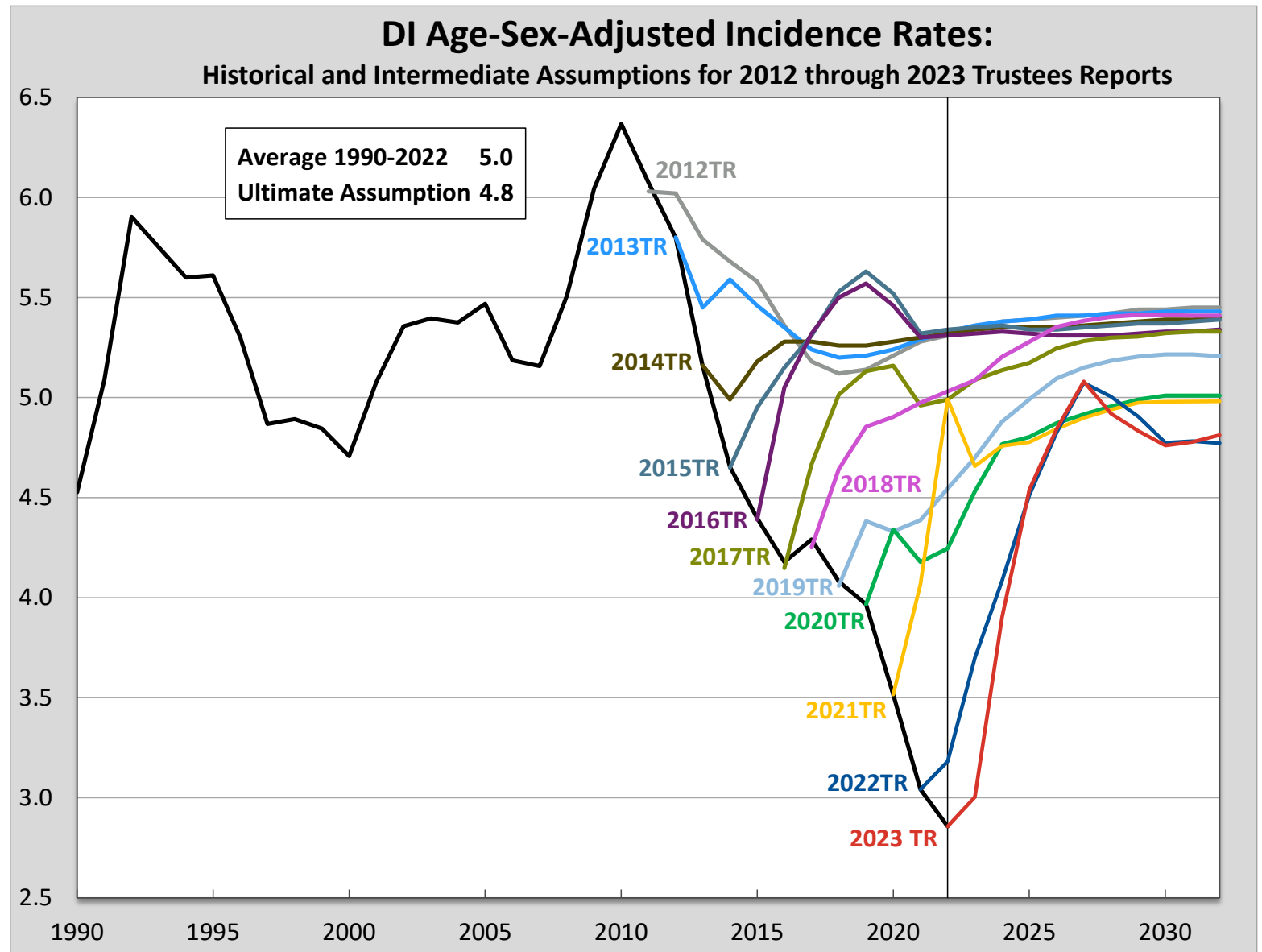
In 2017 through 2022, applications have dropped below the 2007 level.



Disability Incidence Rate Also Remains Historically Low

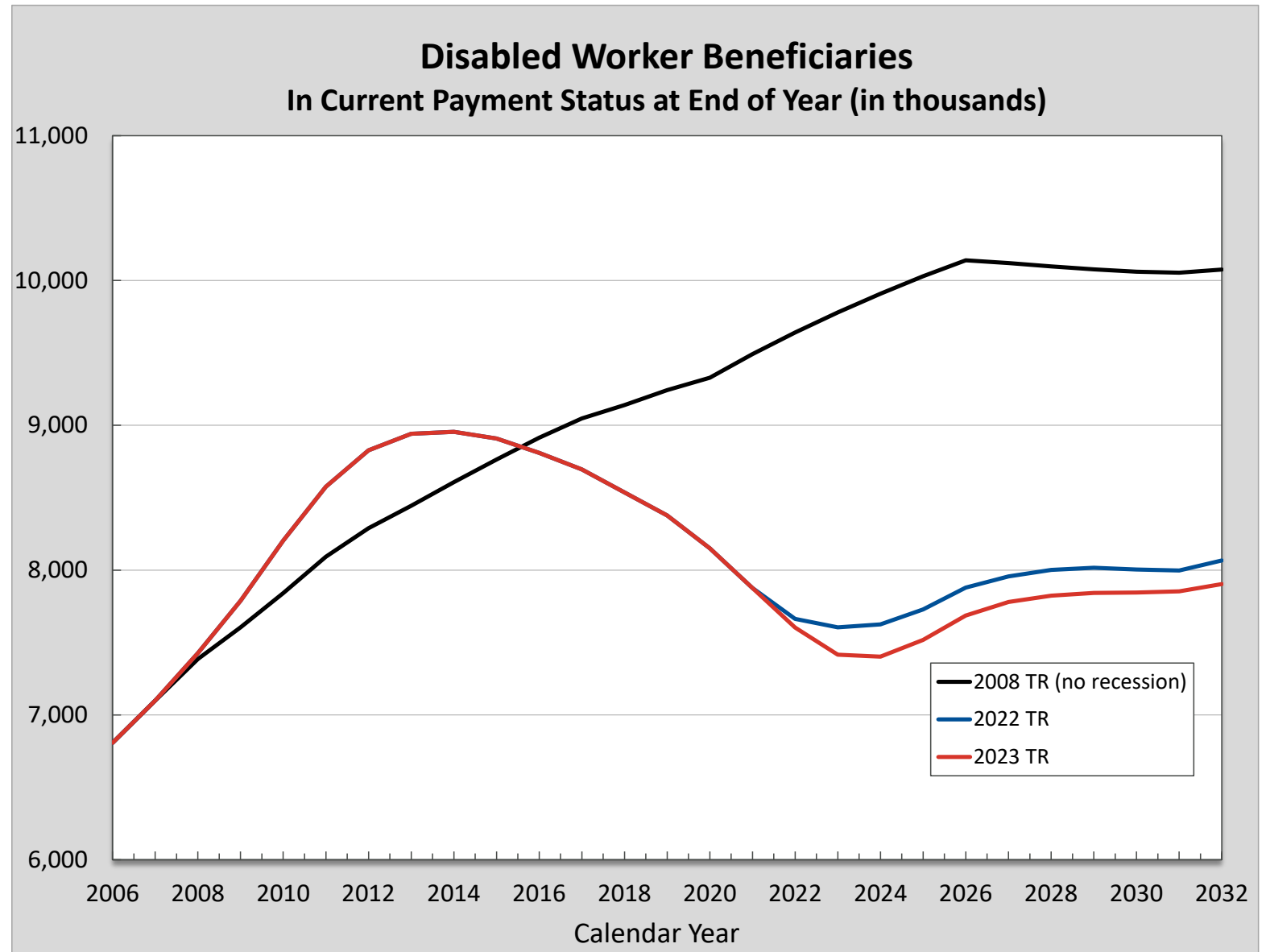
DI disabled worker incidence rate rose sharply in the 2008 recession, and has declined since the peak in 2010 to extraordinarily low levels in 2016 through 2022.

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



Fewer Disabled Worker Beneficiaries

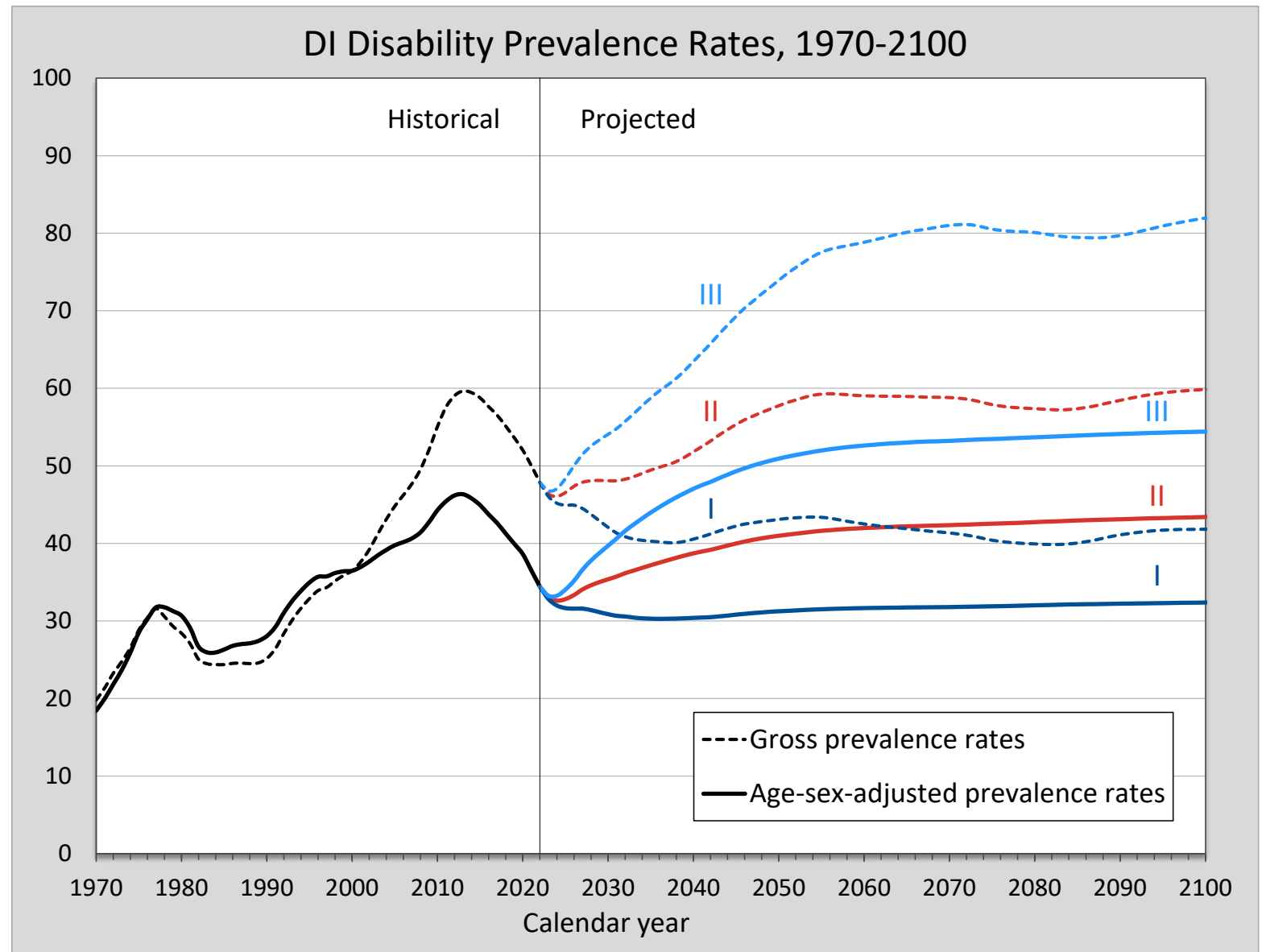
Fewer now and in near term based on recent applications and incidence rates, with assumed increases deferred another year.



Disabled Worker Prevalence Rates

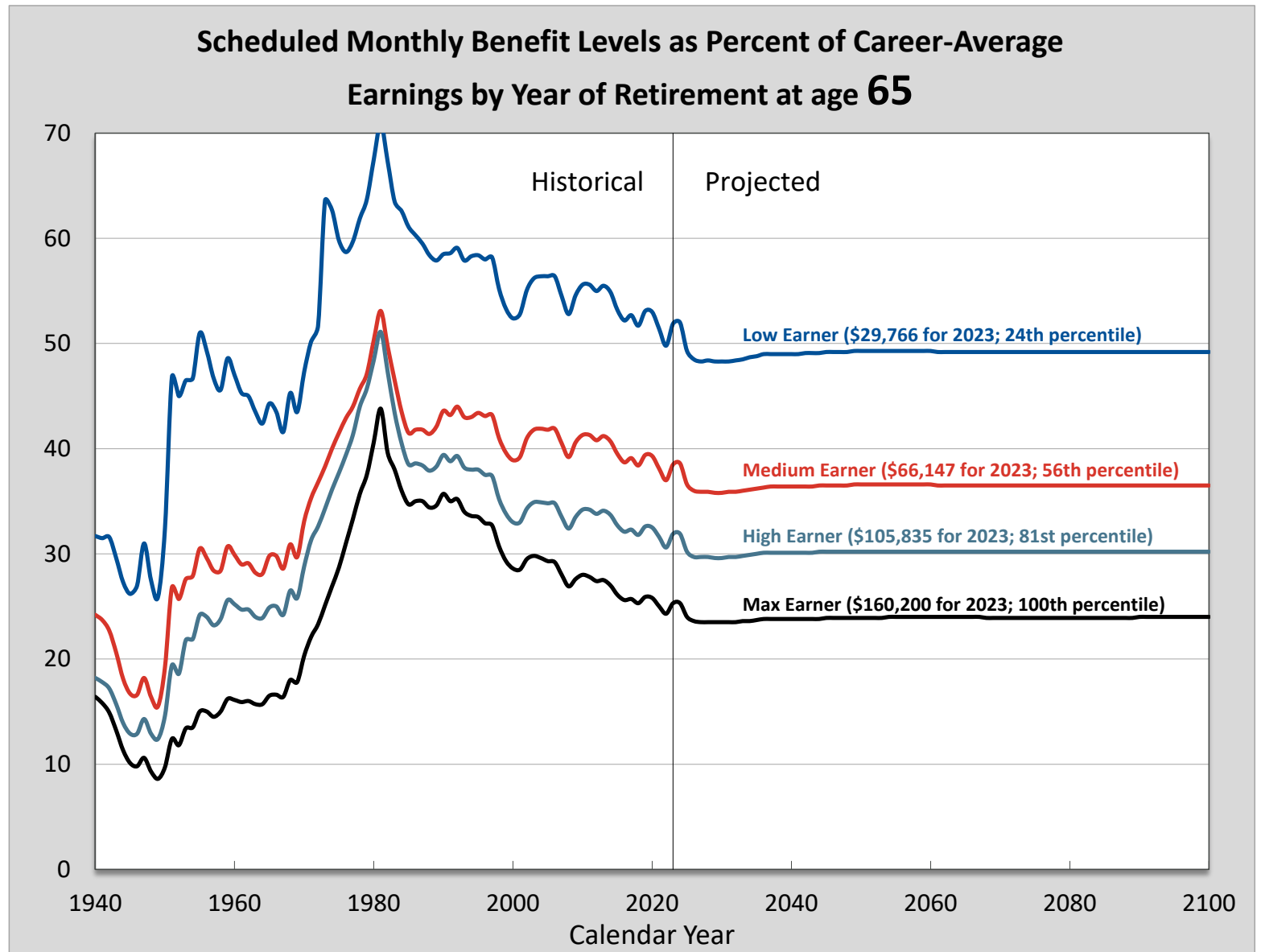
Will prevalence recover to a level above that seen before the 2007-09 recession?

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.



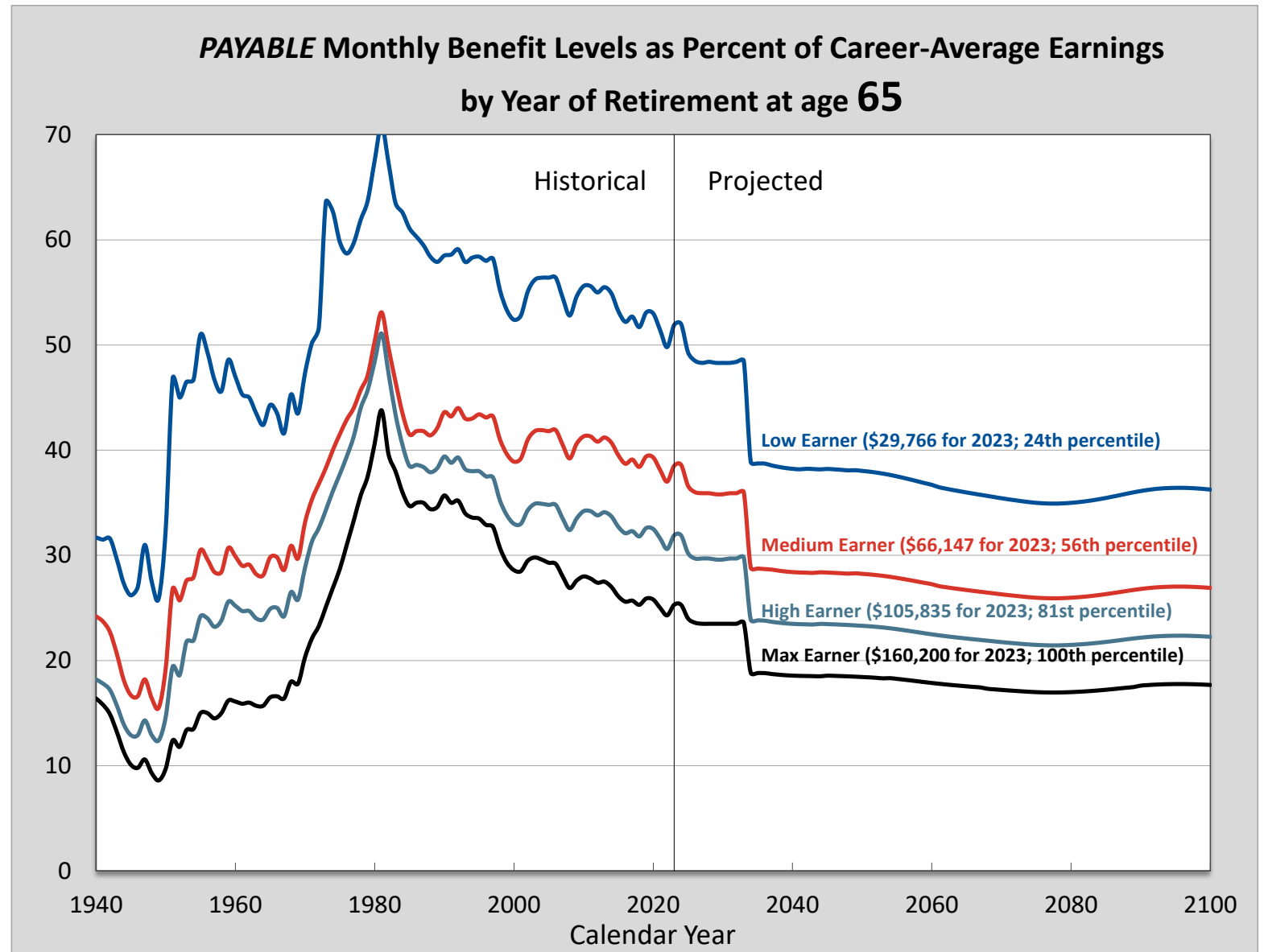
Replacement Rates From the 2023 TR

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



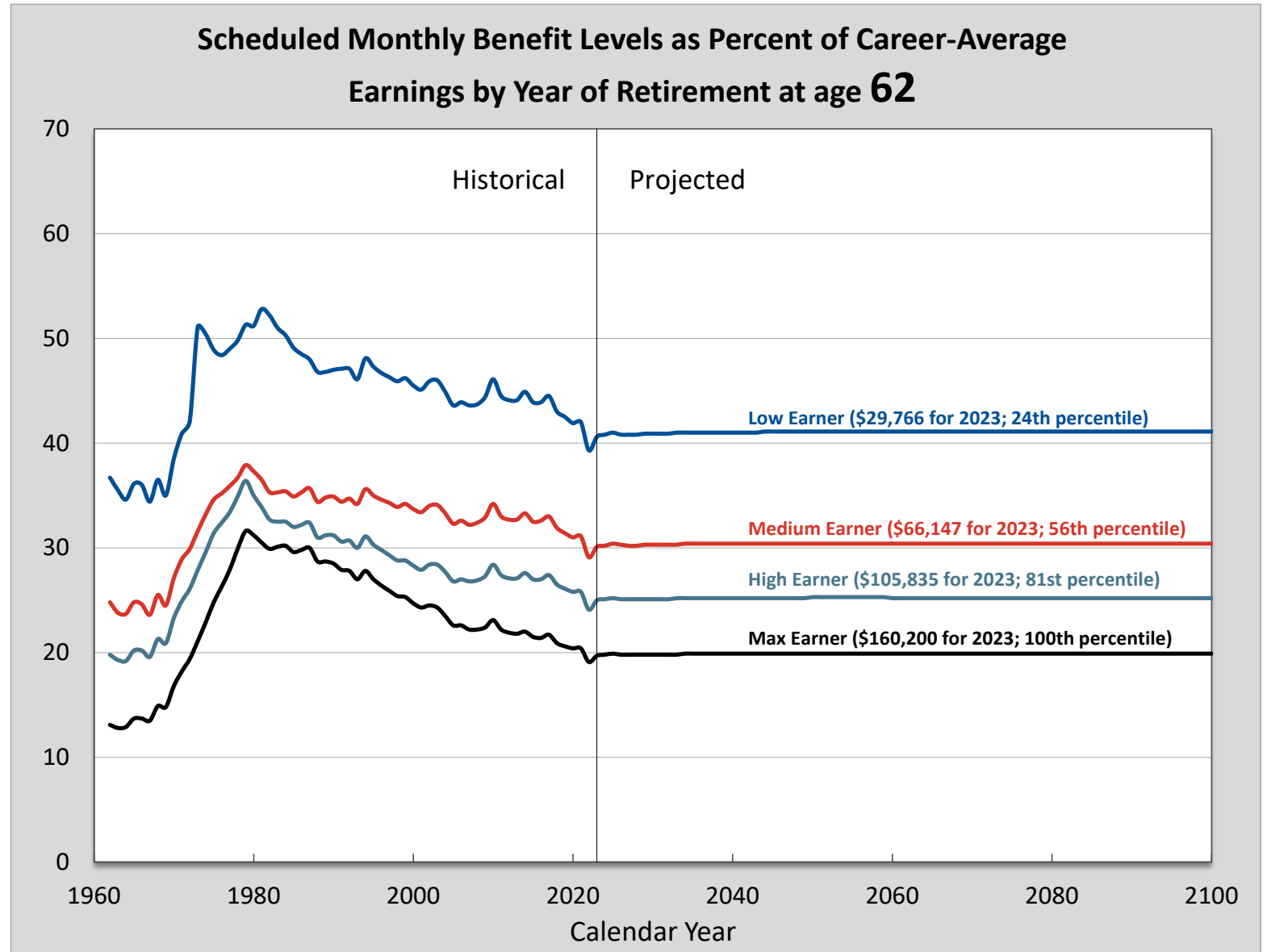
Source: Annual Recurring Actuarial Note #9 at www.ssa.gov/oact/NOTES/ran9/index.html

Payable Benefits Under the Law, After Trust Fund Reserves Are Depleted, Are Even Lower



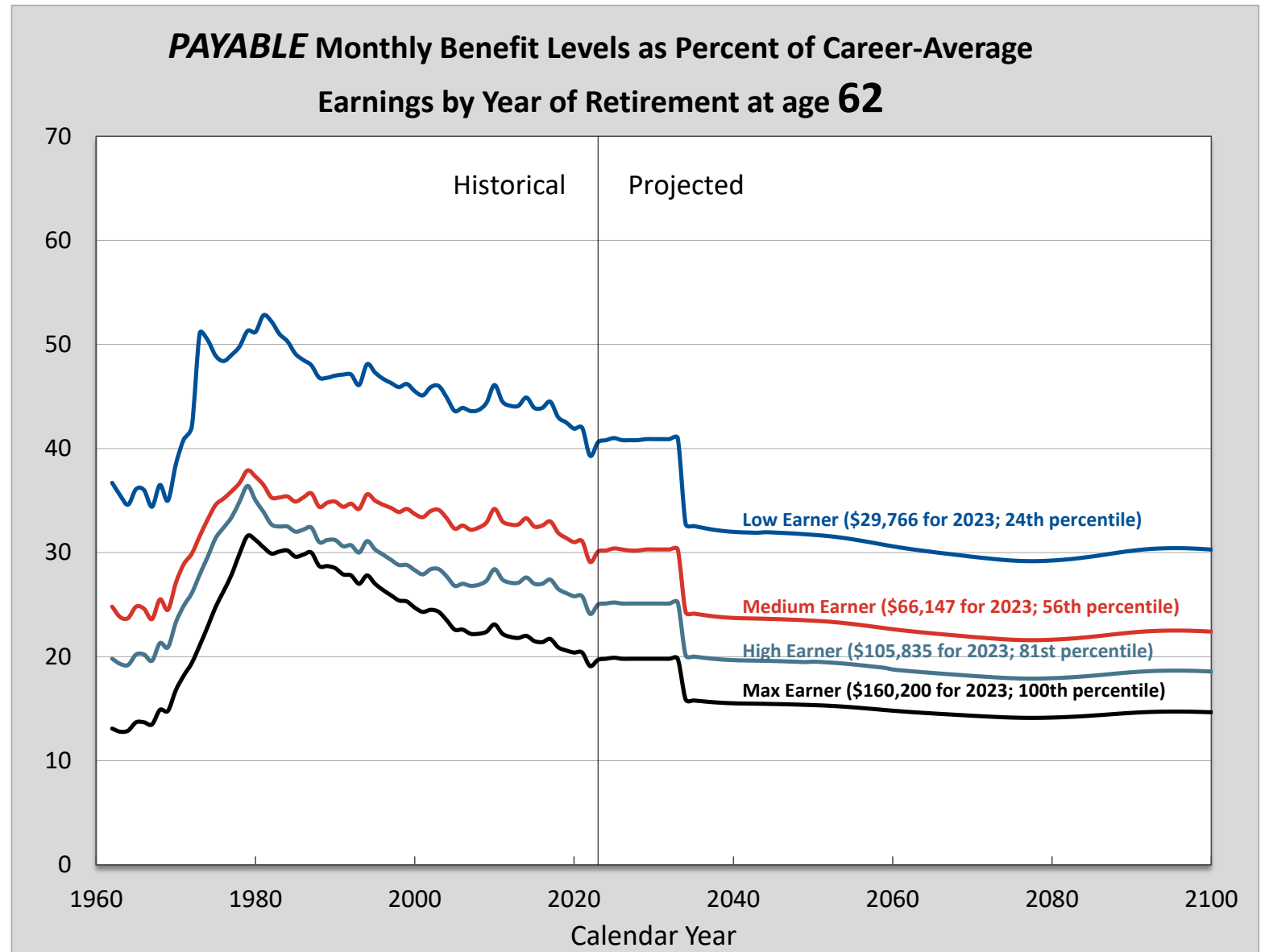
Source: Annual Recurring Actuarial Note #9 at www.ssa.gov/oact/NOTES/ran9/index.html

How About at Age 62, Where Many Start Benefits?



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Payable Benefits Under the Law, After Trust Fund Reserves Are Depleted, Are Even Lower



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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



Ways to Lower Cost

- Lower benefits for retirees – not disabled?
 - Increase normal retirement age (lowers OASI cost, but increases DI cost)
 - Can exempt long-career low earners (Simpson Bowles 2010)
- Lower benefits mainly for high earners?
 - Reduce PIA above some level
 - Noting that higher earners generally live longer
- Lower benefits mainly for the oldest old?
 - Reduce the COLA
 - But, some say increase it with the CPI-E (based on purchase of consumers over age 62)



Ways to Increase Revenue

- Raise the 12.4 percent OASDI payroll tax rate?
- Raise tax on highest earners?
 - Increase taxable maximum amount
 - Some tax on all earnings above the maximum
 - Provide additional benefit credit?
- Tax employer group health insurance premiums?
 - Affects only middle class if taxable maximum remains
- Tax investment income?
 - Or potentially a wealth tax?



Notable Proposals Scored—Sanders

Senator Bernie Sanders—February 13, 2023

- Significant provisions:
 - Increase benefits for everyone; add a new minimum benefit
 - Use the CPI-E rather than the CPI-W
 - Increase taxes on those earning above \$250,000, with no benefit credit
 - Add taxes on investment income, similar to ACA approach
- Making these changes would have lead to 75-year solvency
- See https://www.ssa.gov/OACT/solvency/BSanders_20230213.pdf



Notable Proposals Scored—Johnson

Former Representative Sam Johnson—December 8, 2016

- Significant provisions:
 - Make benefit formula less generous but more “progressive”; change to mini-PIA approach; add a new minimum benefit
 - Raise Normal Retirement Age to age 69 (8-year phase-in)
 - Lower the COLA by using chain-weighted CPI; no COLA if high income
 - Eliminate taxation of Social Security benefits
- Making these changes would have lead to 75-year solvency
- See https://www.ssa.gov/OACT/solvency/SJohnson_20161208.pdf



Notable Proposals Scored—BPC

Bipartisan Policy Center—June 9, 2016

- Significant provisions:
 - Change to mini-PIA approach; add a new minimum benefit
 - Increase the taxable maximum to \$195K in 2020; index with AWI + 0.5 ppt
 - Raise payroll tax rate from 12.4 to 13.4 percent over 10 years
 - Raise Normal Retirement Age to age 69 (48-year phase-in)
 - Lower the COLA by using chain-weighted CPI for OASI, not DI
- Making these changes would have lead to 75-year solvency
- See https://www.ssa.gov/OACT/solvency/BPC_20160609.pdf



Notable Proposals Scored—Simpson/Bowles

Simpson/Bowles Fiscal Commission—December 1, 2010

- Significant provisions:
 - Index NRA to maintain life expectancy at $NRA/(NRA-20)$; EEA=NRA-5 but allow $\frac{1}{2}$ at age 62; exempt AIME<250% poverty from increase in NRA, phase out at 400%
 - Increase the taxable maximum by AWI + 2 ppt until 90% of earnings taxed
 - Restore the special minimum benefit
 - Provide a uniform increase 20-24 years after eligibility: 5% of PIA at AIME=AWI
 - Reduce PIA factors above 50th percentile of AIME to 30%, 10%, 5%
 - Lower the COLA by using chain-weighted CPI
- Making these changes would have lead to 75-year solvency
- See https://www.ssa.gov/OACT/solvency/FiscalCommission_20101201.pdf



Timing for Changes

- Historically, Congress has waited until reserve depletion is imminent
 - Given uncertainties, difficult to lower benefits or raise taxes until necessary
- Enacting “sooner” allows more options, more gradual phase in, and more advance notice
 - Best example: 17-year delay in implementing NRA increase in 1983 amendments
- OASDI reserve depletion now projected for 2034
 - As shown earlier, the date has varied between 2029 and 2042 over the past 33 years



The Bottom Line

- Long-term projections provide information to assess solvency and changes needed to eliminate shortfalls.
- If trust fund reserves were to become depleted:
 - Full benefits could not be paid timely
 - NO pressure on the Budget or Federal Debt
 - So Congress must act, as it always has
- Straightforward solutions:
 - Add revenue and/or lower cost for OASDI
 - Comprehensive changes *implemented* by 2034



For More Information Go to

<http://www.ssa.gov/oact/>

- There you will find:
 - Current 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
 - Extensive databases
 - Congressional testimonies
 - Presentations by OCACT employees

