

Social Security Actuarial Status

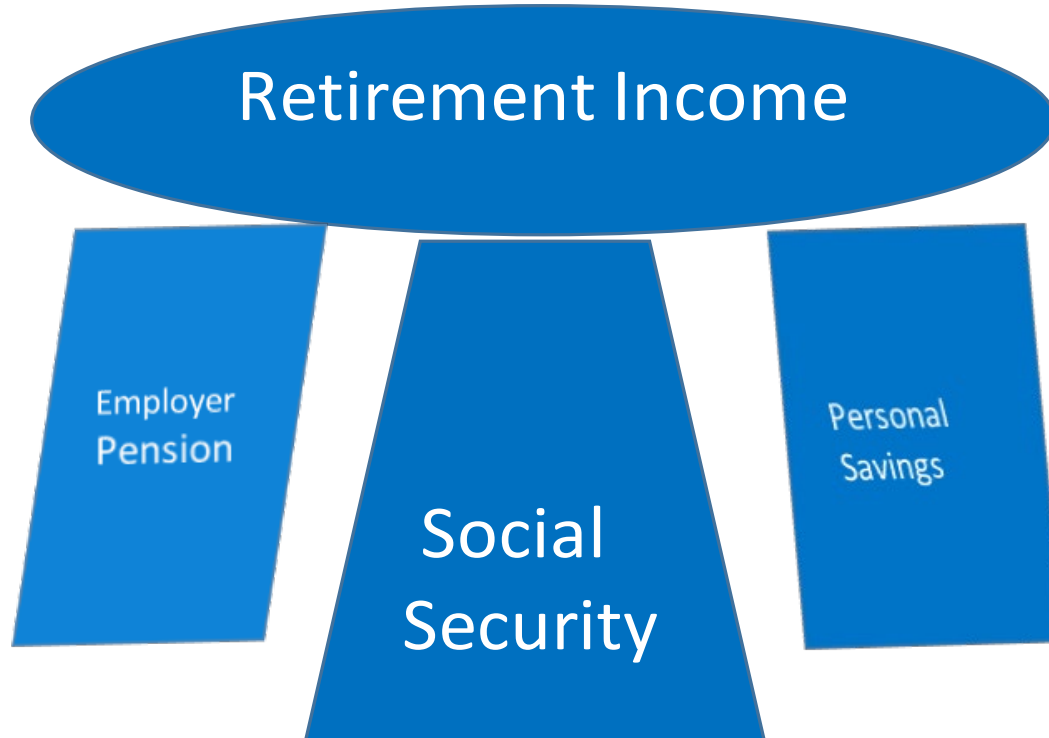
Recent Experience and Prospects for the Future

Stephen C. Goss, Chief Actuary, SSA
Karen P. Glenn, Deputy Chief Actuary, SSA

Kansas City Actuarial Club
December 7, 2022

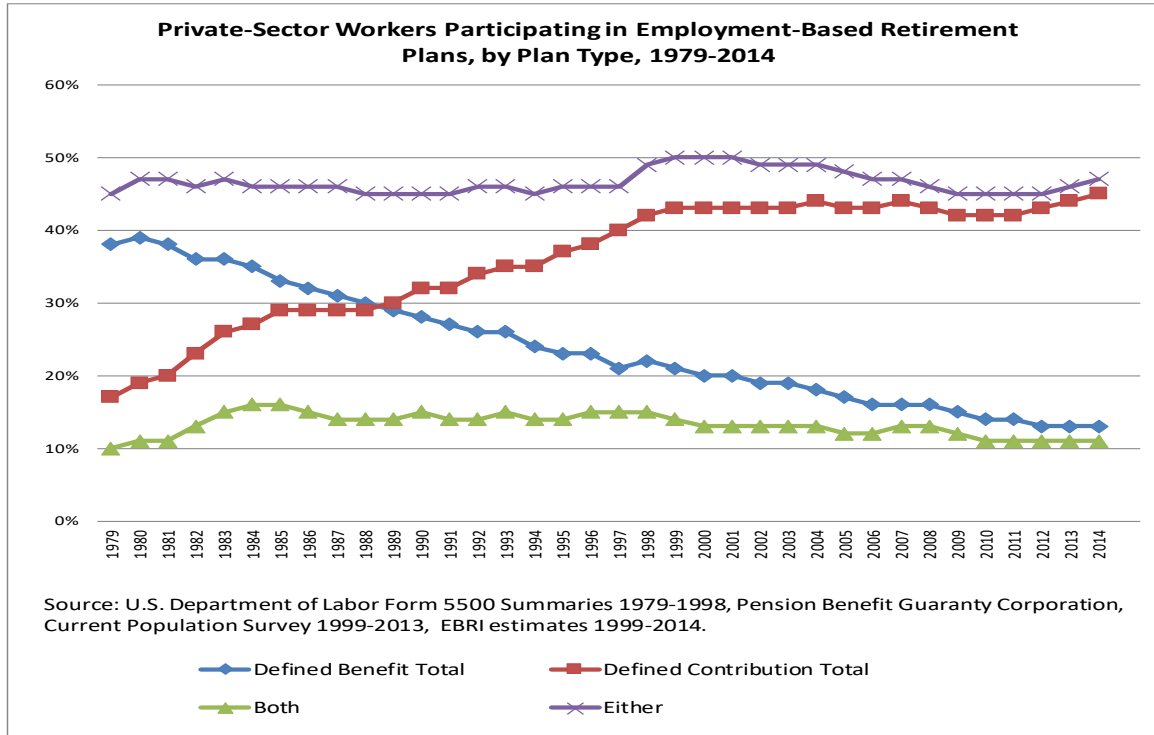
Three-Legged Stool: Basis for Retirement Planning

Common Wisdom: Aim for 75-80 Percent Replacement Rate



Defined Benefit Plans Replaced by DC Plans

And Lump Sum Options Increasing for DB Plans



Social Security: What Does It Provide?

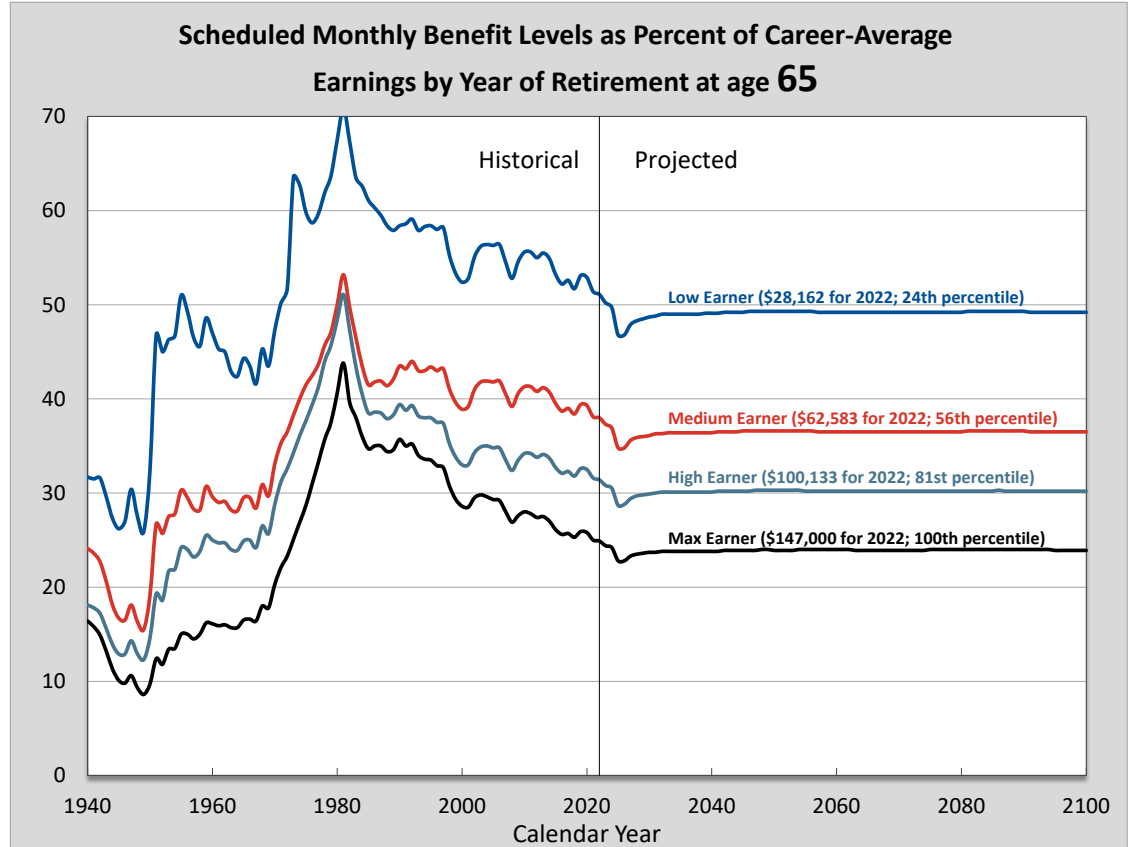
- Retirement and survivor monthly benefits started in 1940
 - *Never missed a payment!*
- Eligible age lowered from 65 to 62 in 1957 for women, 1962 for men
- Monthly benefits are higher if start receipt after 62, up to age 70
- Disability benefits started in 1957
- **Benefits rise with average wage across generations, and with CPI after initial eligibility**
- Payroll taxes are the primary source of financing
 - Rose from 2% in 1937 to 12.4% as system matured

Social Security Financing

- Basically “Pay-As-You-Go”
 - Current workers provide for current beneficiaries
 - Trust Funds are a “contingency reserve” because **cannot** borrow
 - Total spending to date cannot exceed income to date
- Current OASDI reserves (excess income) are \$2.8 trillion
 - Available to augment tax income as needed
- Reserves projected to deplete in 2035 under *current law*
 - But 80 percent of scheduled benefits would still then be payable
- **Expect Congress to act—as it always has**

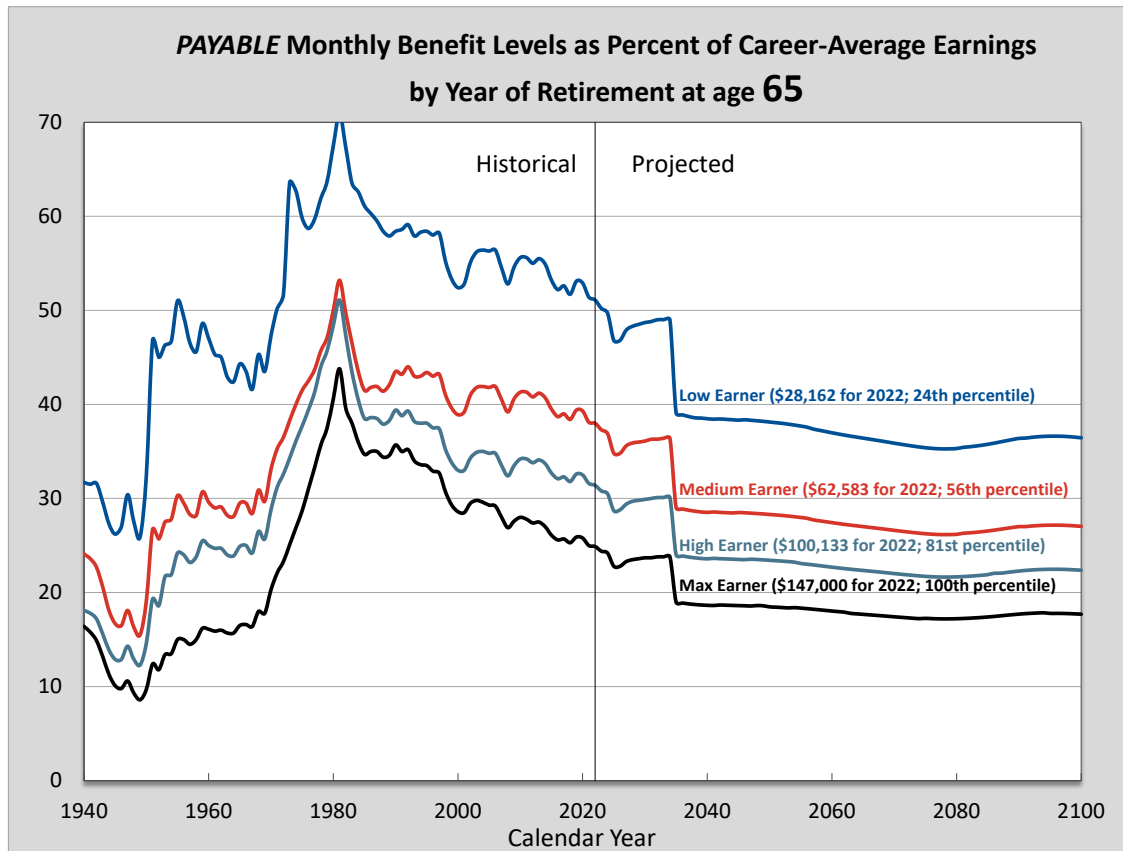
Currently
Scheduled Benefit
Replacement
Rates Based on
the 2022 TR

But—15 percent higher if
wait to start benefits until
age 67, and 43 percent
higher if wait until age 70.



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, Would Be Lower



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

What We Do—Office of the Chief Actuary

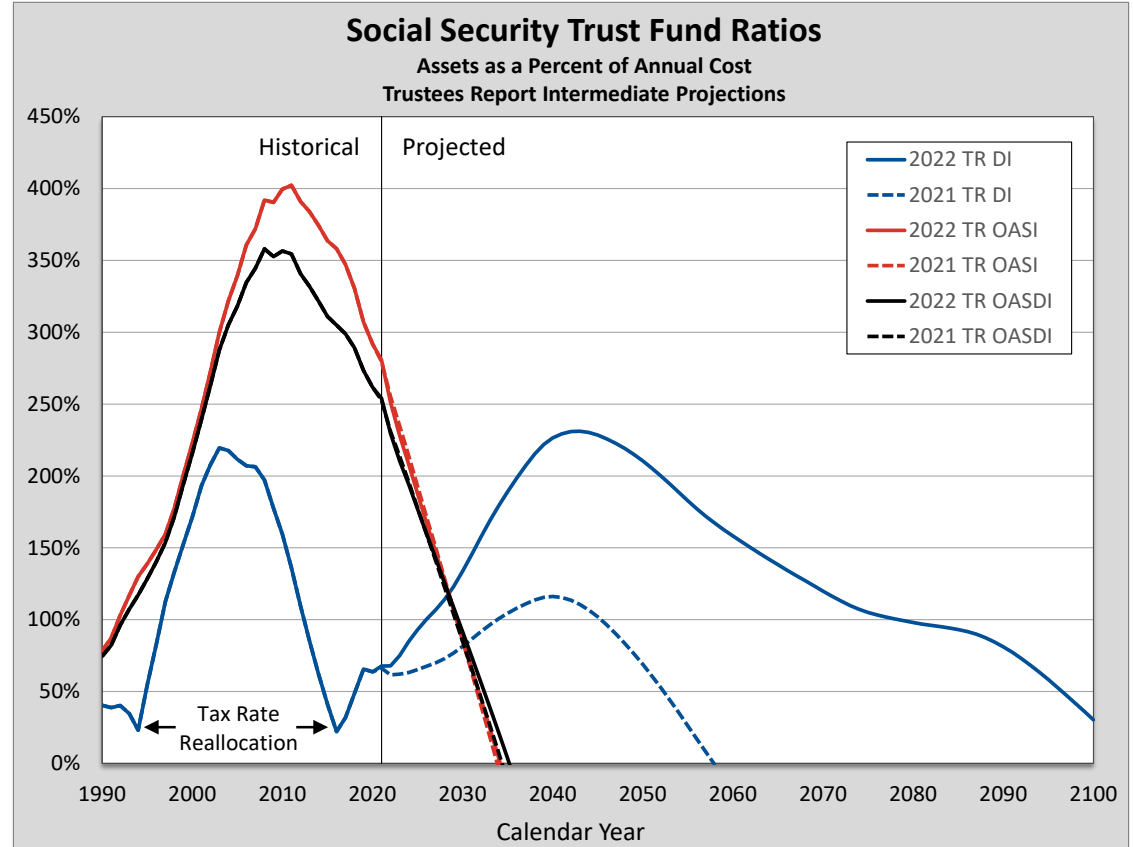
- Baseline projections of OASDI cost and revenue under current law
 - For the Trustees Reports
 - For the President’s Budget (including SSI as well)
 - SSA and Governmentwide Financial Statements
- Estimates for proposals to change law, regulations, and policy
 - For Congress, the Administration, and others
- Actuarial notes and studies

Solvency: OASI+DI Trust Fund Reserve Depletion in 2035 (one year later than last year)

Reserve depletion date varied from 2029 to 2042 in reports over the past 30 years (1993-2022).

DI Trust Fund: reserves do not deplete.

Due largely to continued low recent and near-term disability applications and awards, and a lower assumed ultimate disability incidence rate.

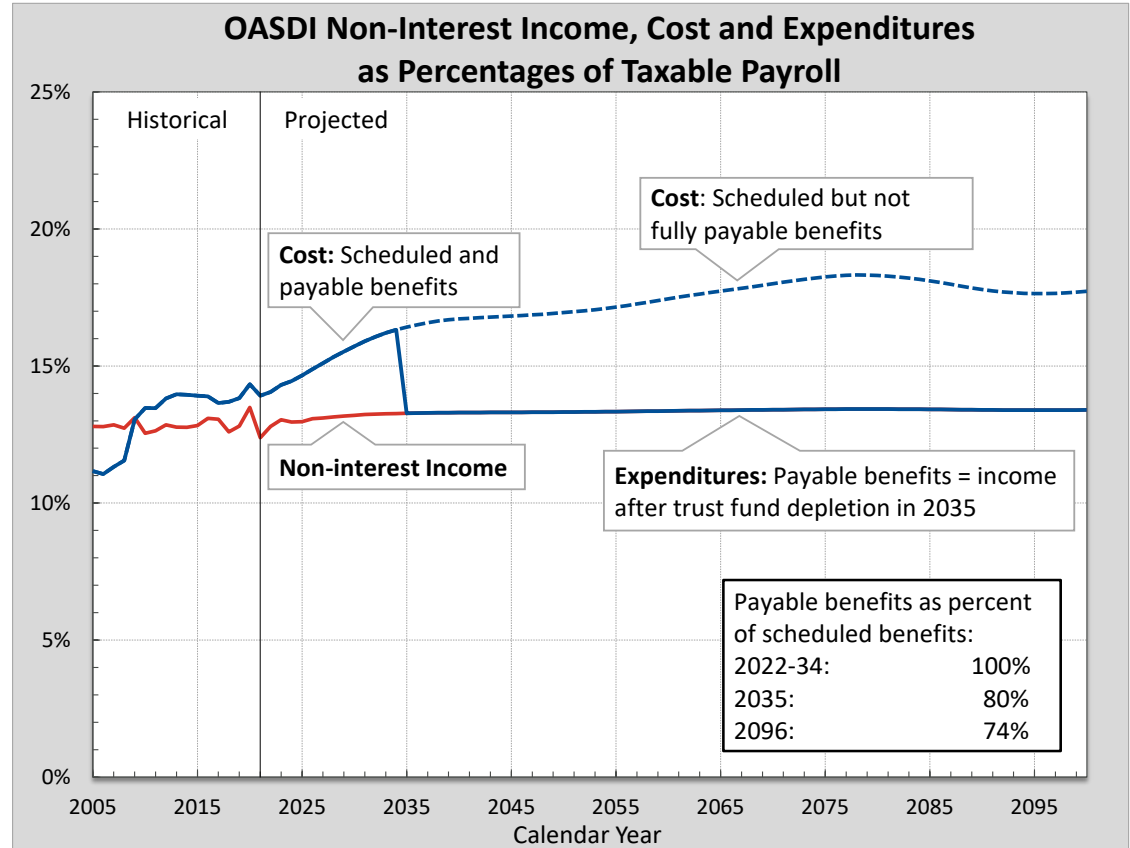


OASDI Annual Cost and Non-Interest Income as Percent of Taxable Payroll

Persistent negative annual cash-flow balance starting in 2010.

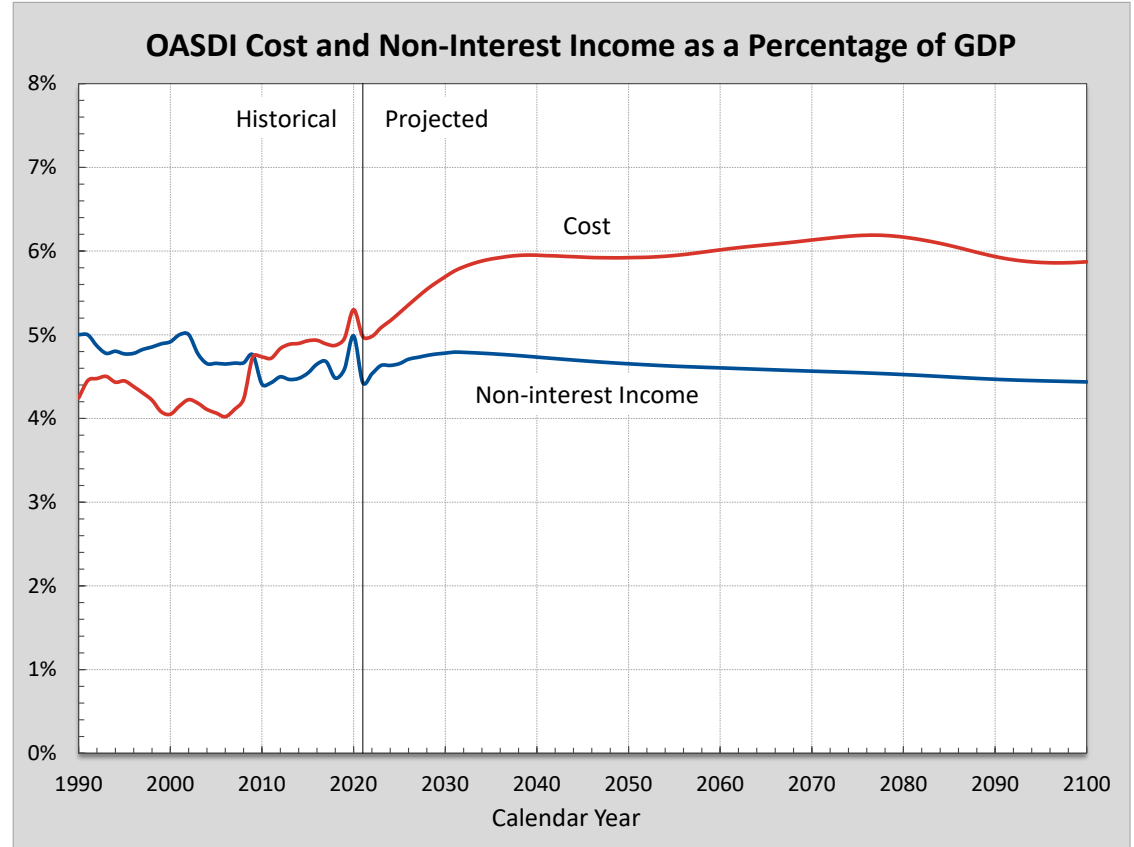
80 percent of scheduled benefits still payable at trust fund reserve depletion.

Annual deficit in 2096: 4.25 percent of payroll: 0.09 percent smaller than last year.



SUSTAINABILITY: Cost as percent of GDP

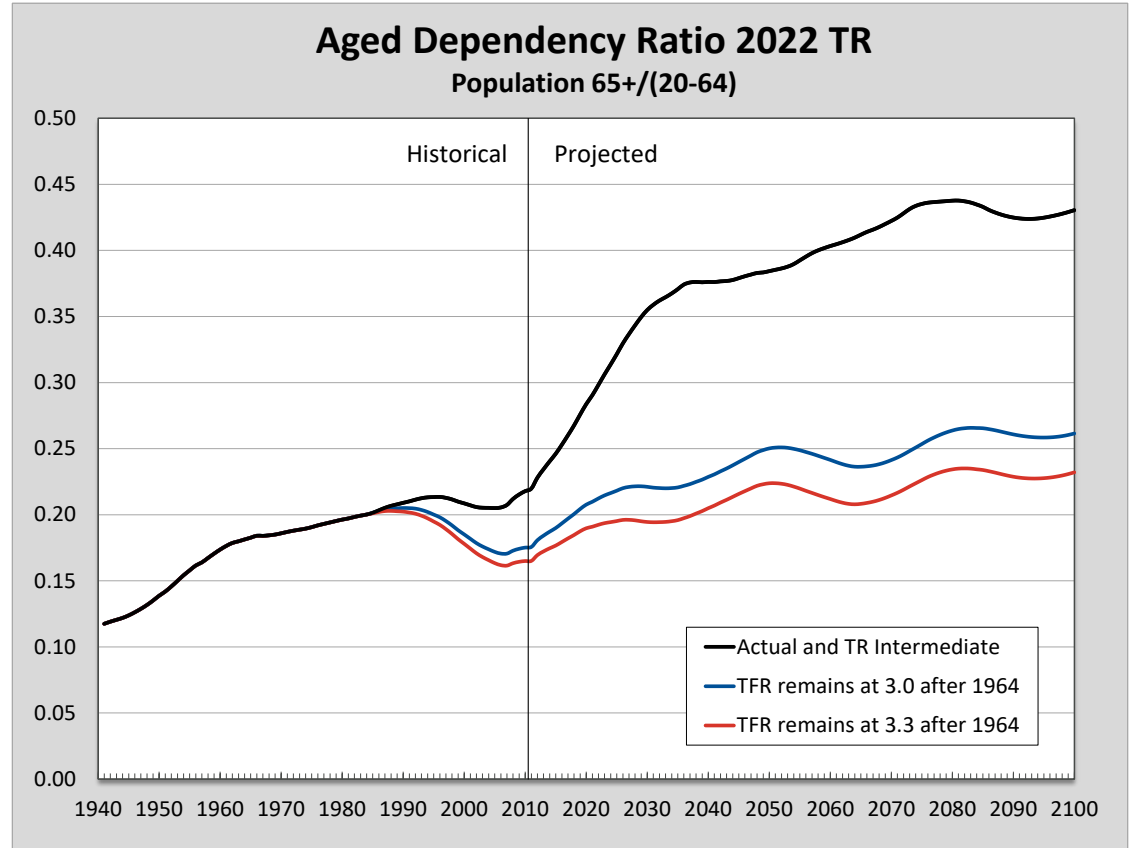
Rises from a 4.2 percent average in 1990-2008, to a peak of about 6.2 percent for 2077, and then declines to 5.9 percent by 2096.



Why the Big Increase in Cost
as Percent of GDP and
Earnings?

Aging - Change in Age Distribution

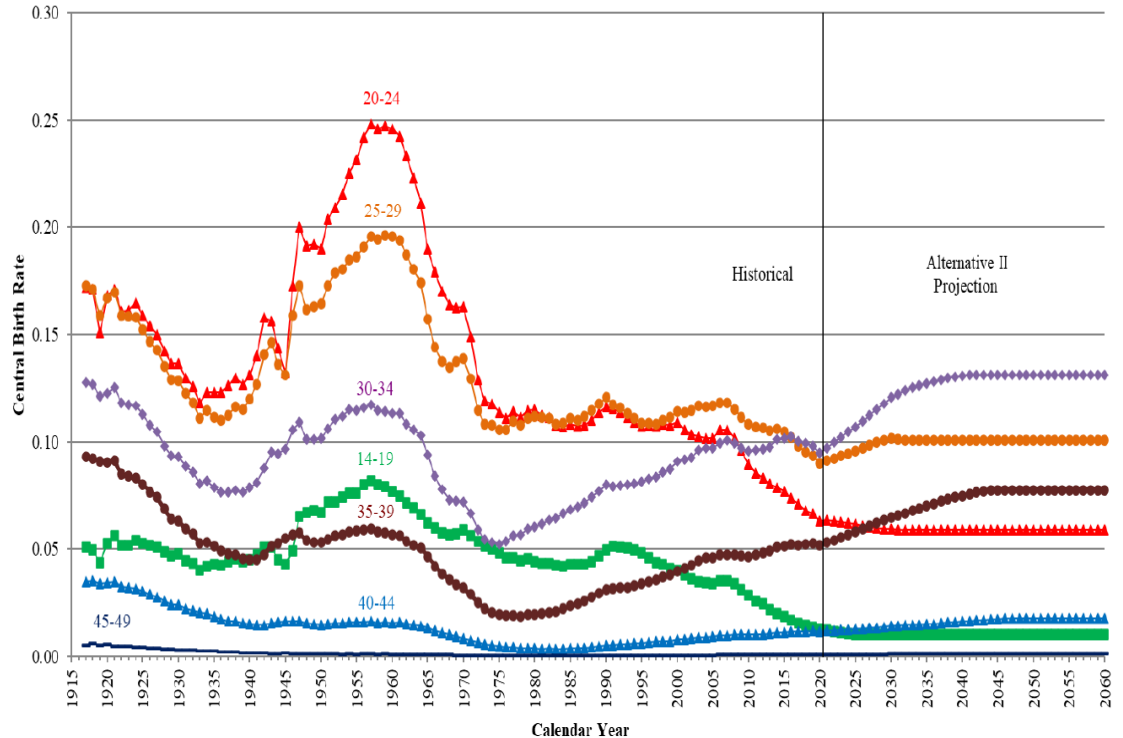
Mainly due to drop in birth rates.



Birth Rates Have Been Dropping for Women Under 30, but Rising for Older Ages

We are projecting some continuing shift toward childbearing at older ages, maintaining lifetime births at around 2 per woman on average, as birth expectation surveys suggest.

Chart 1.2: Central Birth Rates for Five Year Age Groups: Historical and Alternative II Projection

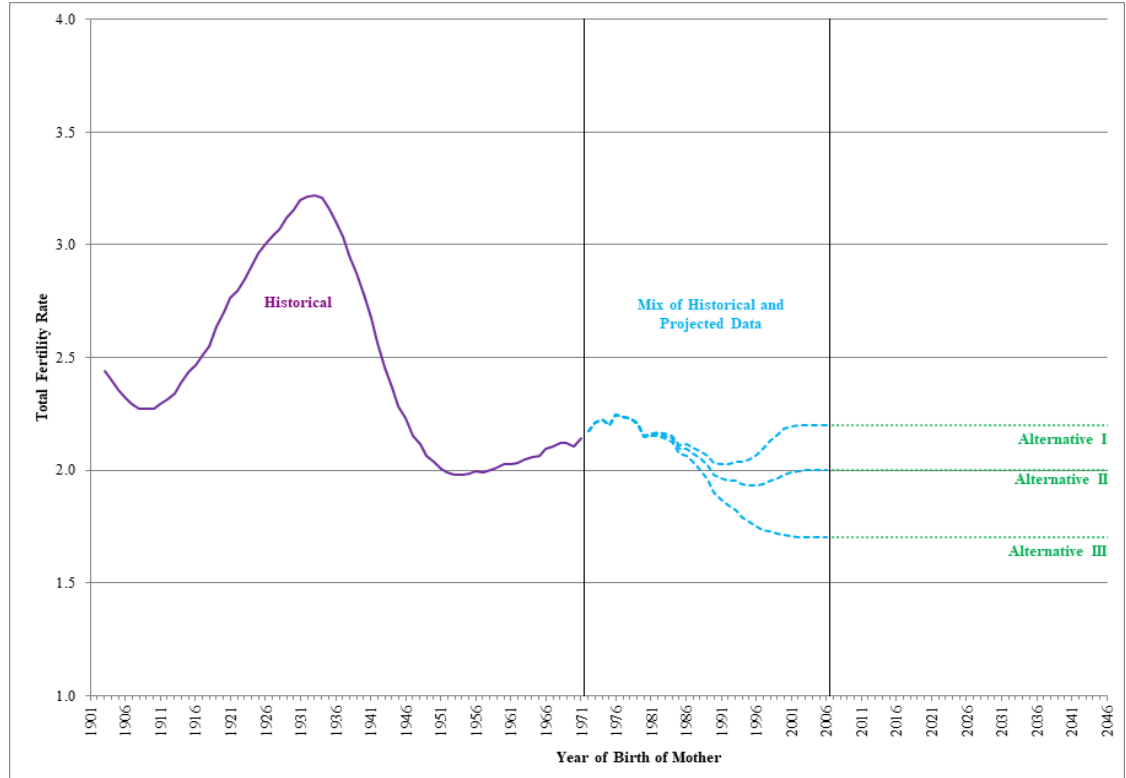


Birth Rates by Cohort

Has been rising for women born since 1951.

Projected to dip below 2.0 for women born between 1990 and 2006, based on low rates since 2008.

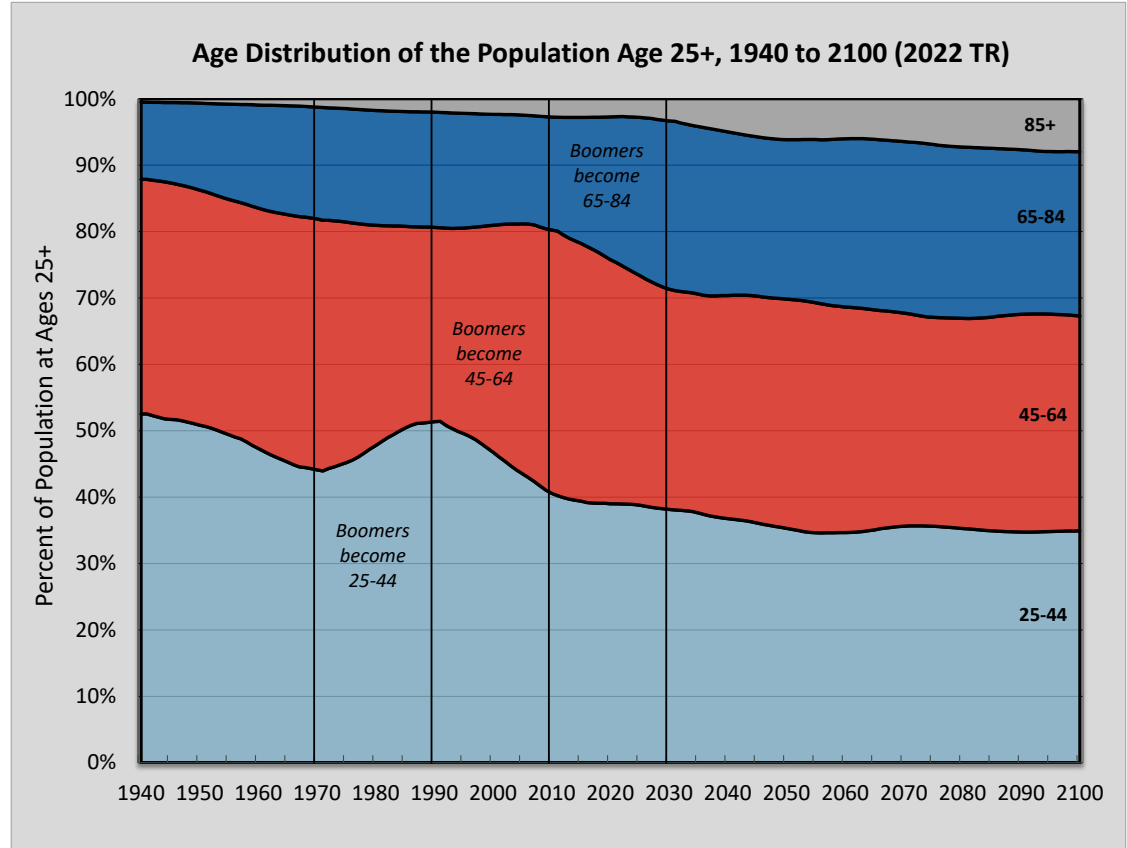
Chart 1.4: Historical and Projected Total Fertility Rates by Birth Cohort



https://www.ssa.gov/oact/TR/2022/2022_Long-Range_Demographic_Assumptions.pdf

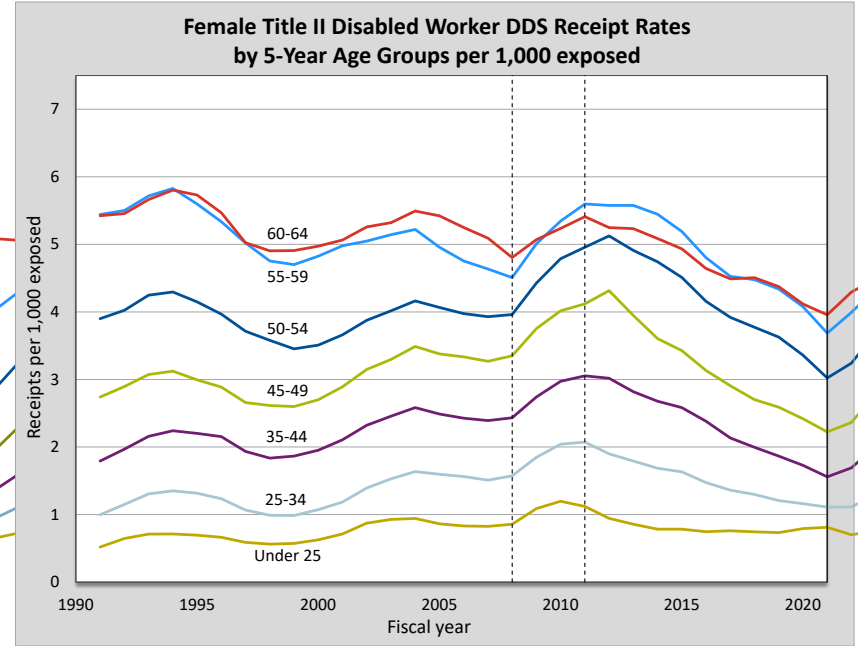
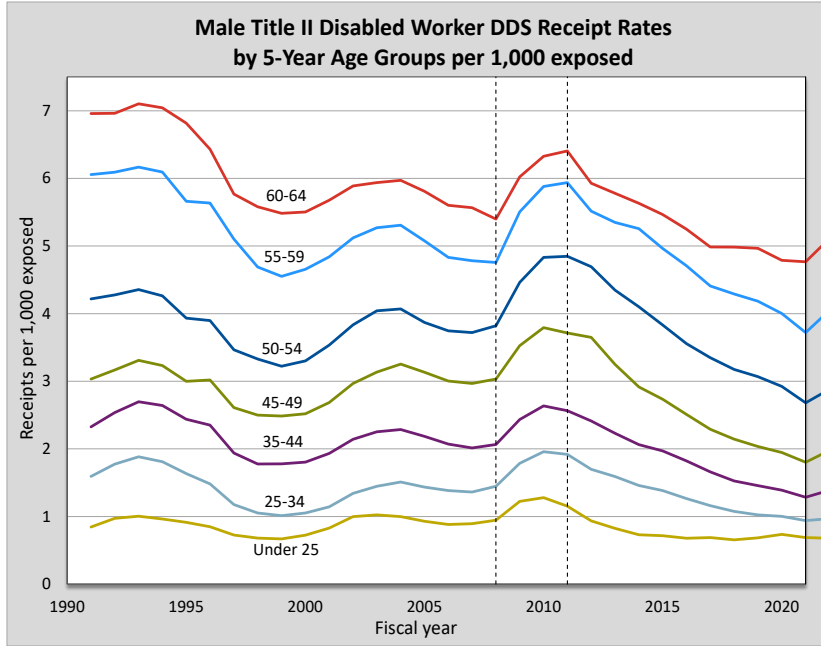
Changing Age Distribution Over Last 20 and Next 20 Years Mainly Due to Macro Aging

Permanent level shifts—after fluctuations between 1970 and 2030.



Disability Experience Has Been Changing

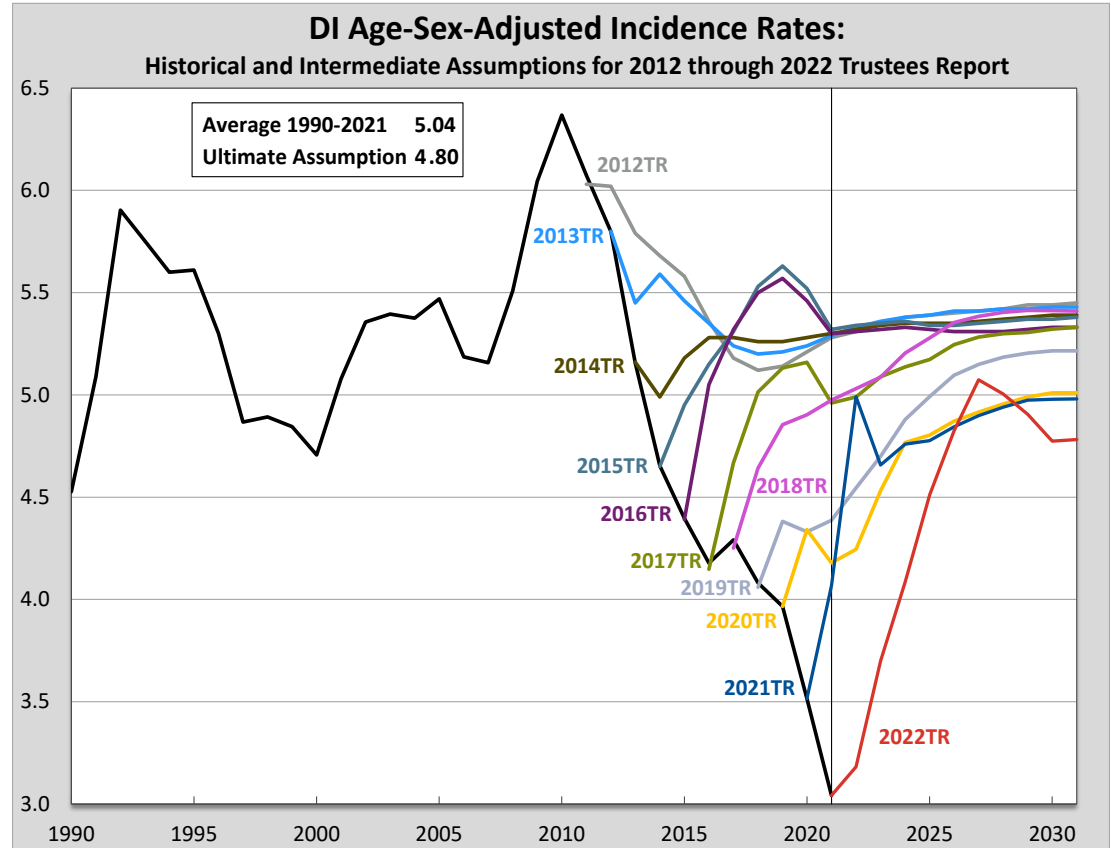
Disabled Worker Receipt (Application) Rates Have Been Dropping Since 1990 at Older Ages, and at All Ages Lately



Disability Incidence Rate Remains Historically Low

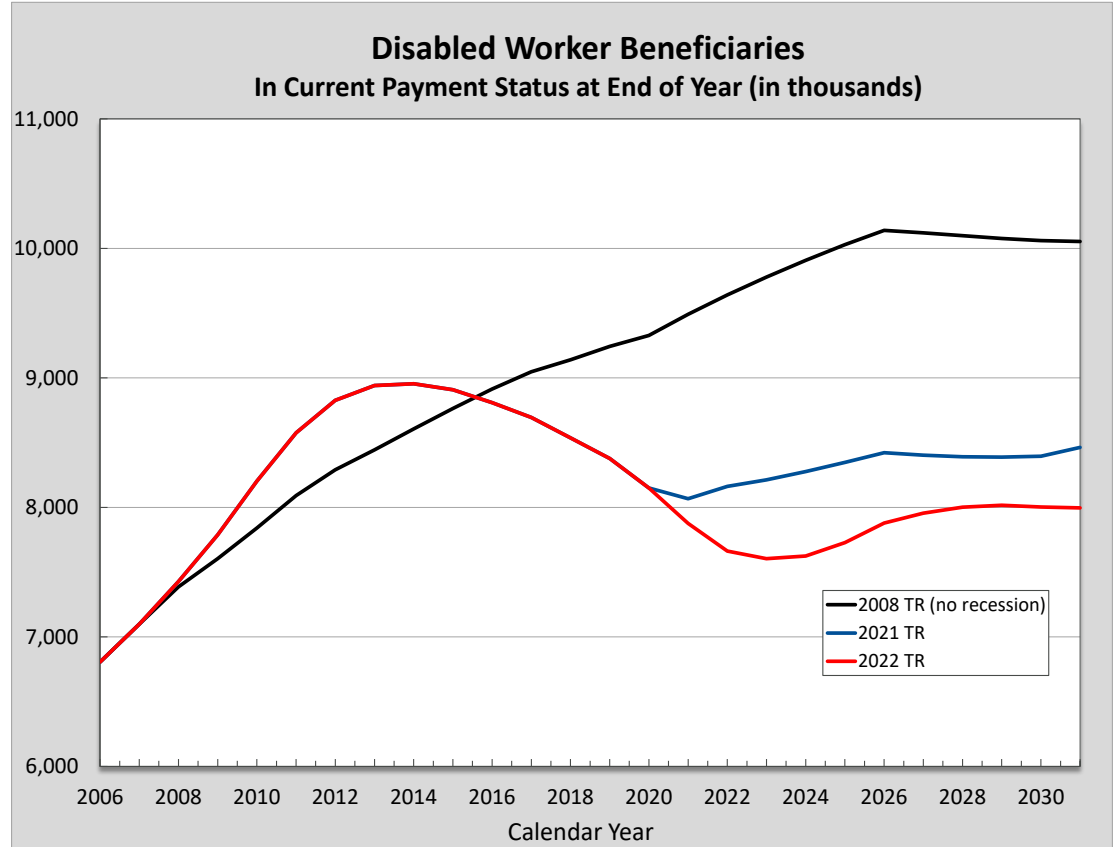
DI disabled worker incidence rate rose sharply in the 2008 recession, and has declined since the peak in 2010 to extraordinarily low levels in 2016 through 2021.

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



Fewer Disabled Worker Beneficiaries

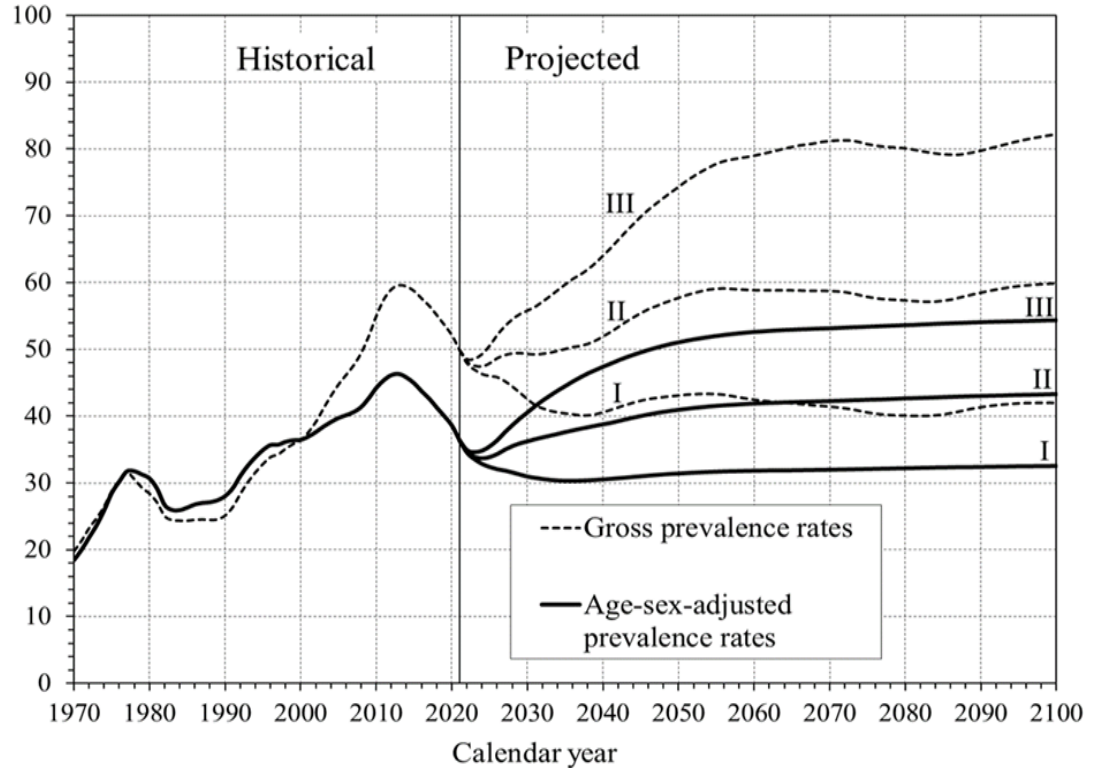
Fewer now and in near term based on recent applications and incidence rates.



Disabled Worker Prevalence Rates

Cease declining, and rise to level above that before the 2007-09 recession?

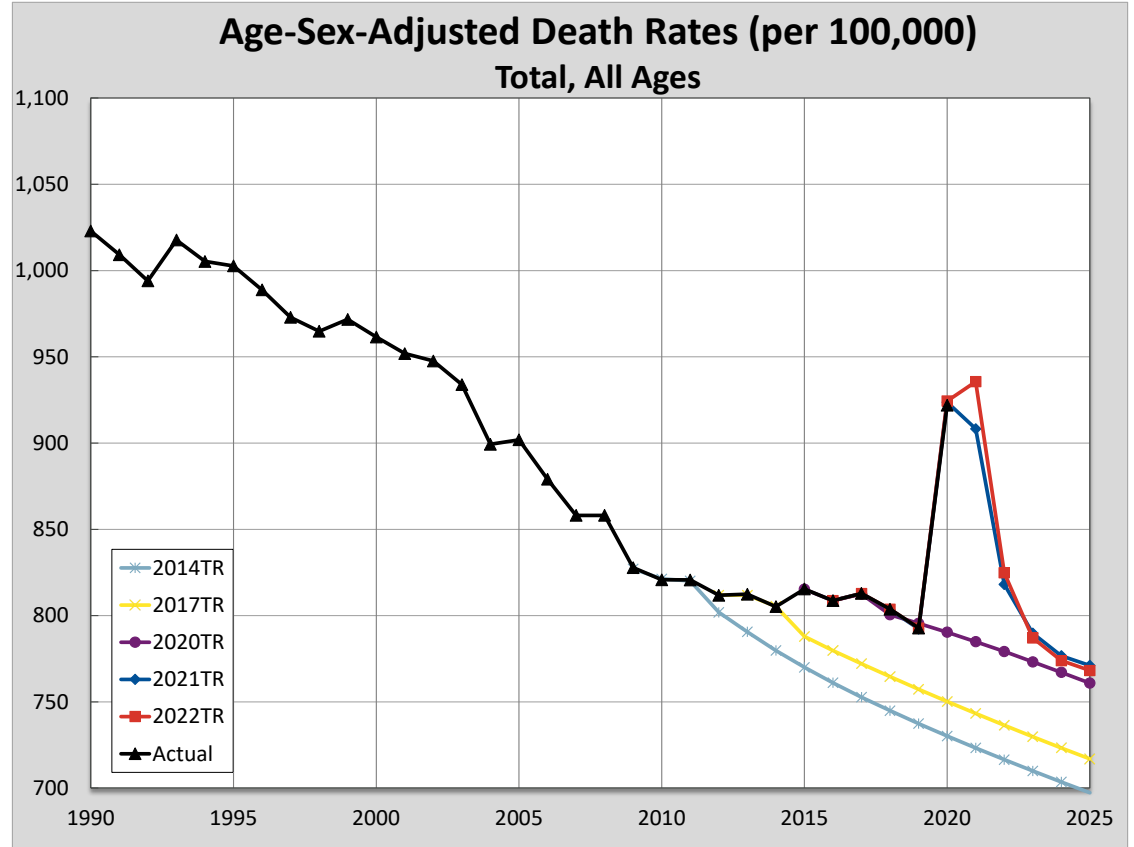
DI Disability Prevalence Rates, 1970-2100



Mortality Trends: Past and Future

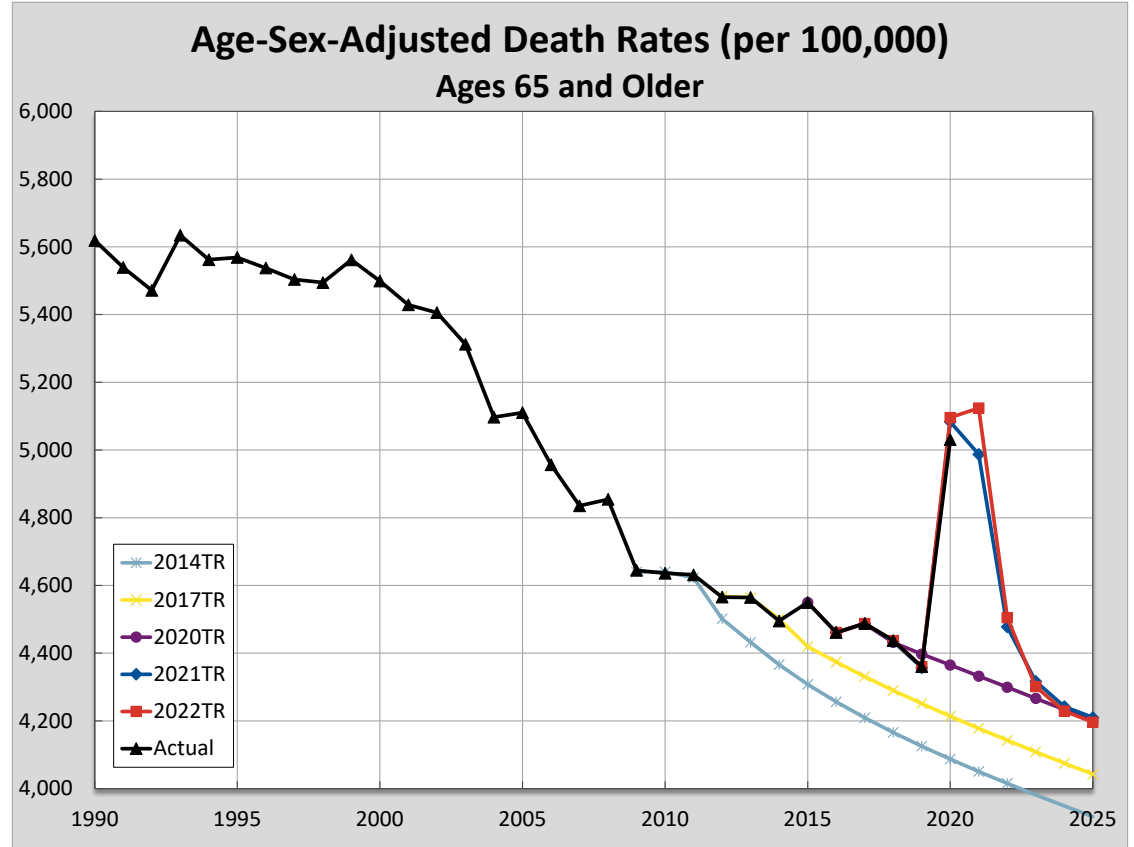
Mortality Experience: All Ages

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

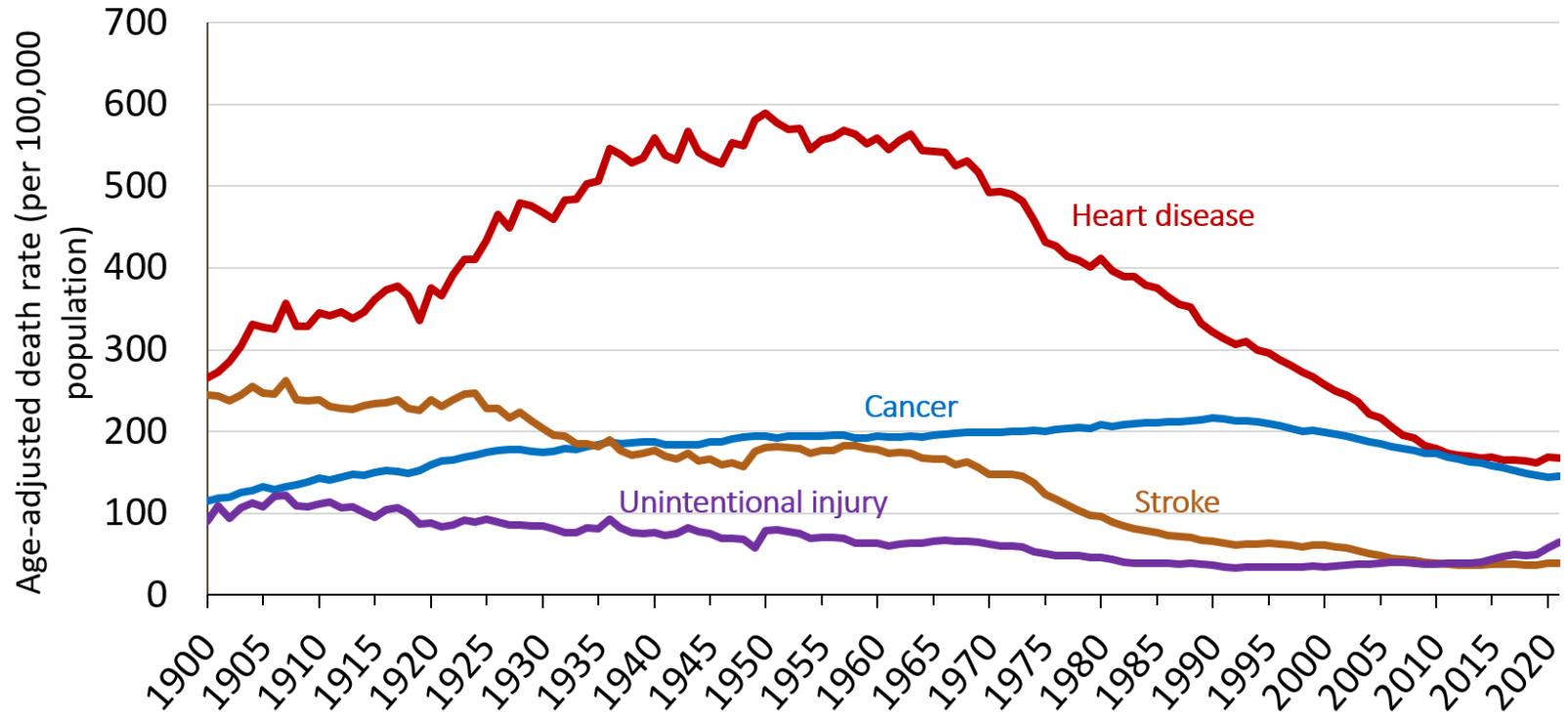


Mortality Experience: Ages 65 and Older

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



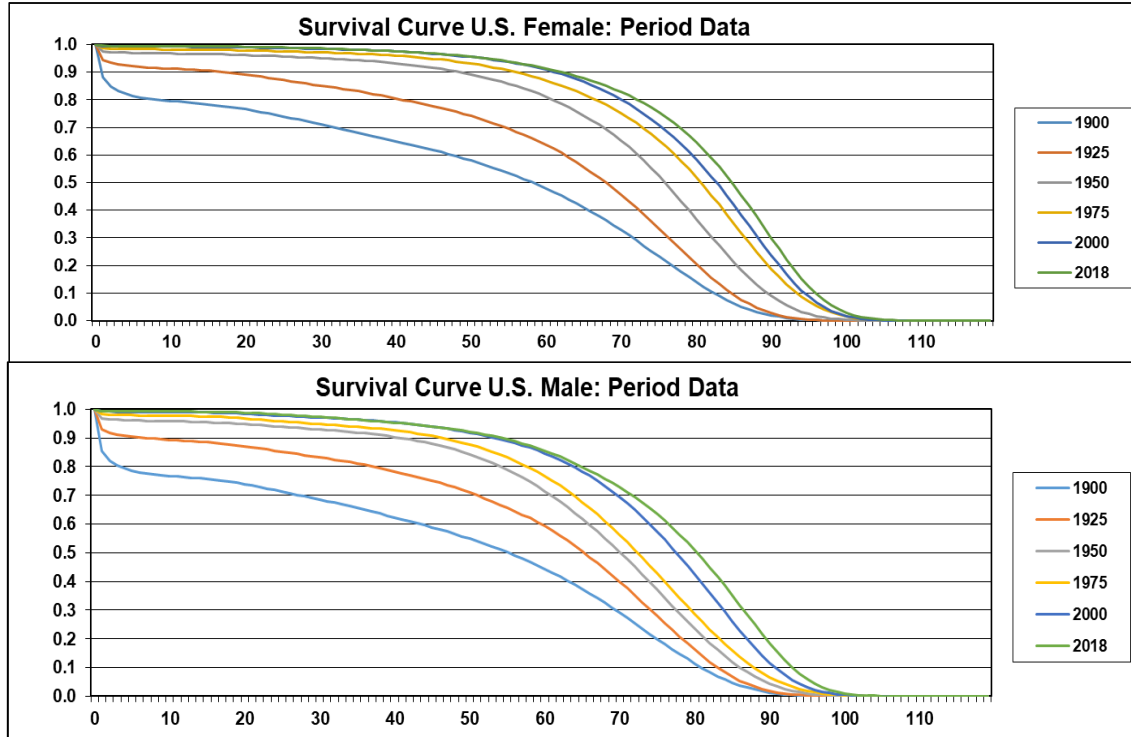
Age-Adjusted Death Rates Due to Selected Leading Causes of Death: United States, 1900-2021 (courtesy Bob Anderson, CDC)



Notes: Data are from the National Vital Statistics System. Prior to 1933, data are for death-registration States only. Data for 2021 are provisional.

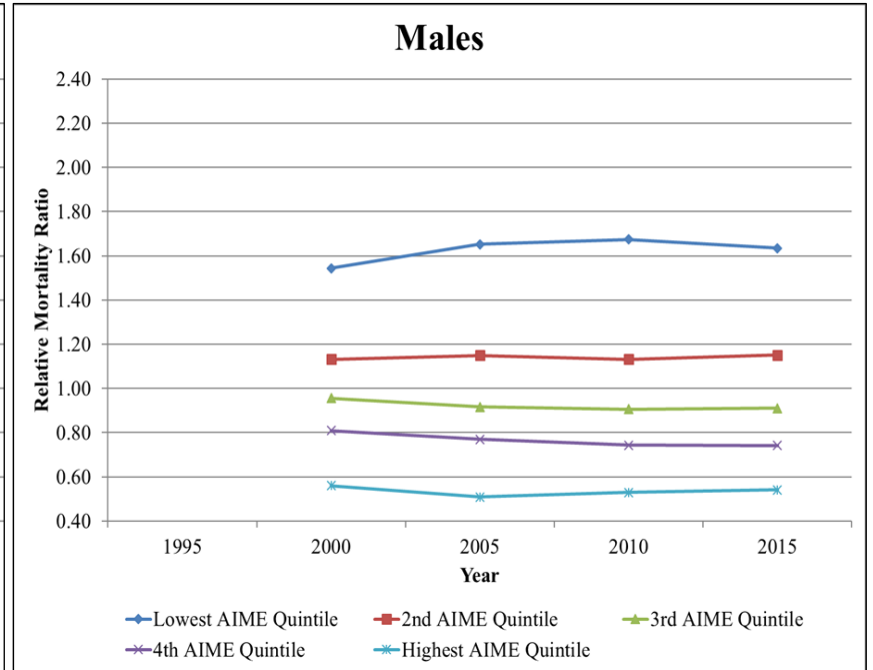
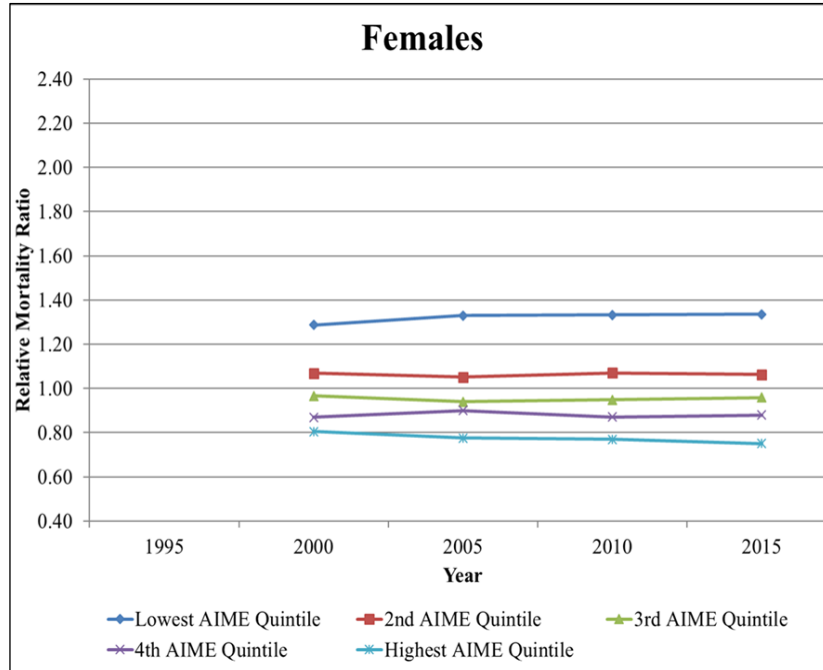
Is There an Omega?

Highest attained age has changed little; it appears we are rectangularizing the survival curve



Level of Mortality Depends on Exposed Population

Example: U.S. death rates vary by career average earnings quintile: lifetime consistent measure
Bosley, Morris, Glenn (2018): Have the spreads roughly stabilized? At ages 65-69:

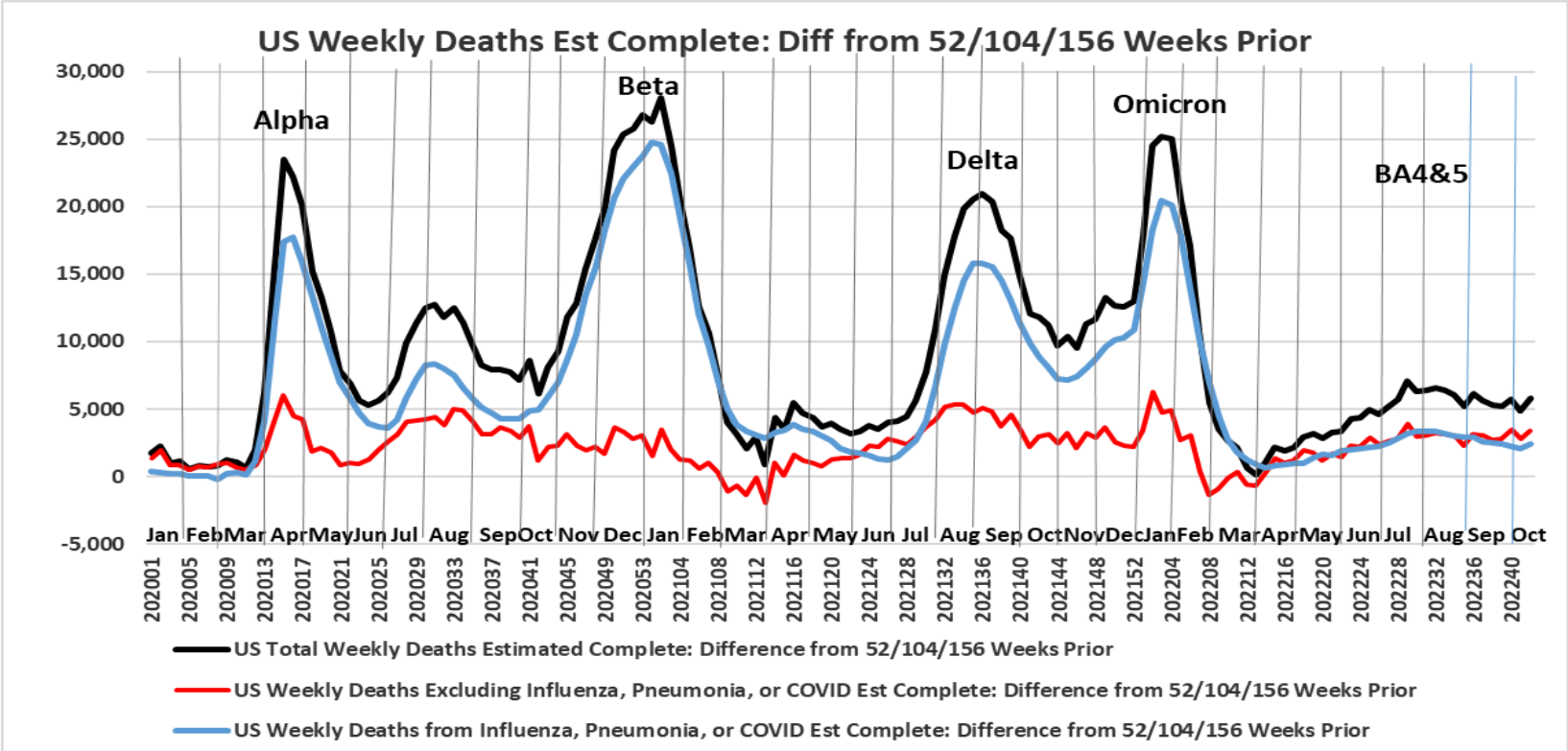


Experience Under COVID

COVID-19 Current and Long-Term Implications

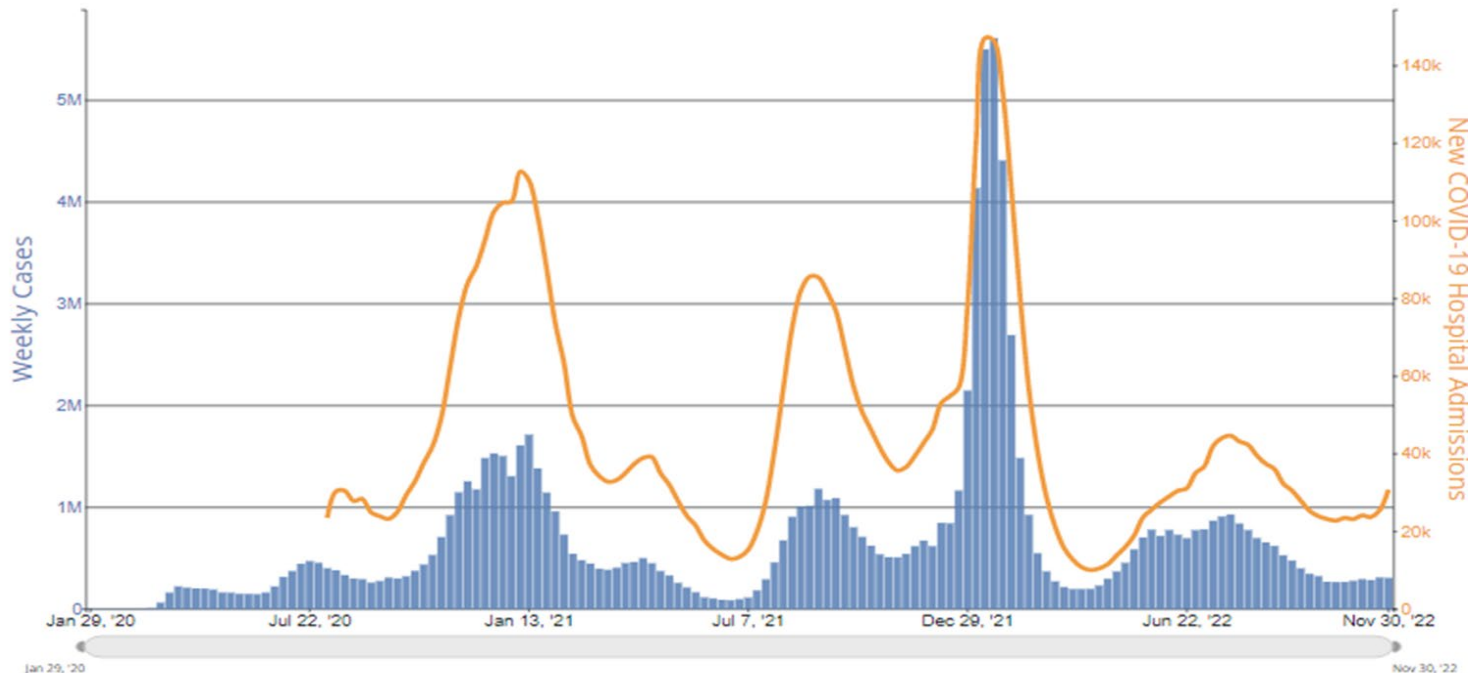
- Raised death rates in US roughly 16% in 2020 and 18% in 2021
- Reduced life expectancy for affected cohorts
 - Many died earlier, disproportionately those with other conditions
 - Most survived infection, but will carry some residual compromise
 - Thus, possibly no net implication for “trend rate” in mortality
- However, this is the second coronavirus in 20 years
 - Expect periodically in a now mobile world population?
- If deaths are raised by 16% in 2 of every 20 years:
 - Average level of mortality will be 1.6% above “trend”

Excess Weekly Deaths for US—Estimated Complete



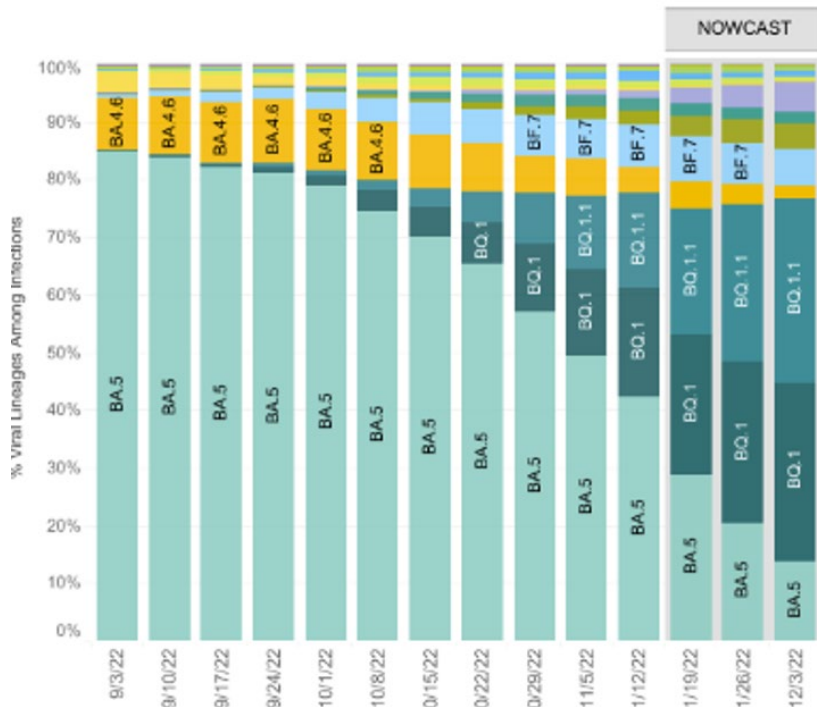
Hospitalizations Reported to CDC Are Rising, Even as “Reported” Cases Appear Stable

Weekly Trends in Number of Cases and Number of New Patients Admitted to Hospital with Confirmed COVID-19 per Week in The United States Reported to CDC

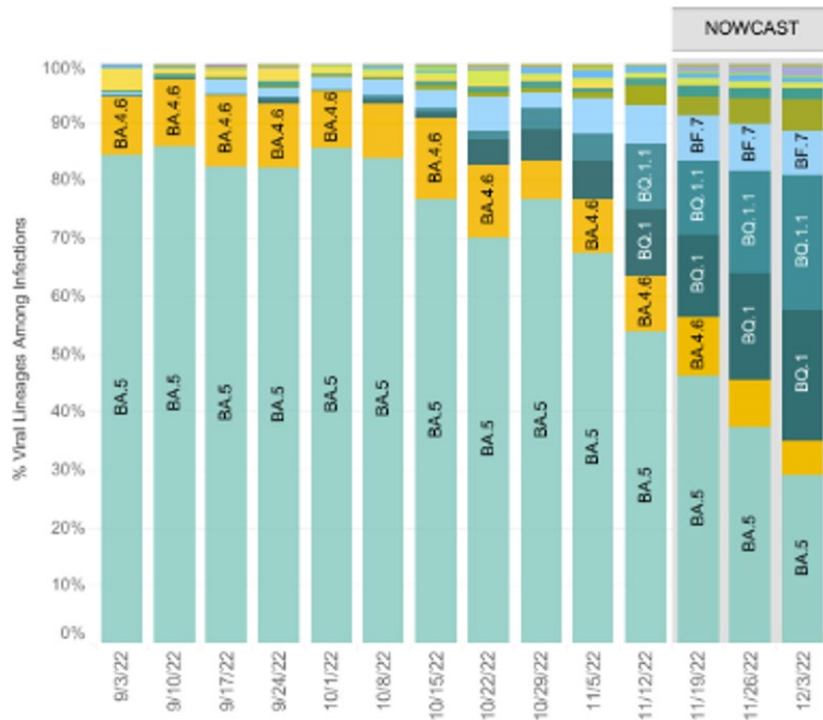


Evolving Variants, BQ Rising in US (CDC COVID Data Tracker: Variant Proportions)

United States: 8/28/2022 – 12/3/2022



HHS Region 7: 8/28/2022 – 12/3/2022



Age-Adjusted Death Rates Have Been Elevated in the Pandemic for Essentially All Causes

To what extent will generations living through the pandemic be compromised in the future?

NCHS Provisional Age-Adjusted Death Rates	2021Q1/ 2019Q1	2021Q2/ 2019Q2	2021Q3/ 2019Q3
Alzheimer disease	1.076	0.979	1.076
COVID-19	#N/A	#N/A	#N/A
Cancer	0.975	1.000	1.021
Chronic liver disease and cirrhosis	1.286	1.241	1.315
Chronic lower respiratory diseases	0.793	0.850	1.030
Diabetes	1.149	1.108	1.253
Drug overdose	1.542	1.605	1.496
Falls, ages 65 and over	1.119	1.167	1.179
Firearm-related injury	1.204	1.244	1.250
Heart disease	1.039	1.033	1.128
HIV disease	0.933	0.857	1.000
Homicide	1.327	1.400	1.359
Hypertension	1.175	1.115	1.256
Influenza and pneumonia	0.629	0.774	1.135
Kidney disease	1.044	1.024	1.120
Parkinson disease	1.097	1.084	1.157
Pneumonitis due to solids and liquids	0.925	1.022	1.195
Septicemia	1.000	1.000	1.172
Stroke	1.098	1.095	1.144
Suicide	0.985	0.979	1.000
<u>Unintentional injuries</u>	<u>1.307</u>	<u>1.355</u>	<u>1.318</u>
Total	1.282	1.132	1.321
Total w/o COVID	1.058	1.079	1.142

How About Inflation and Interest Rates?

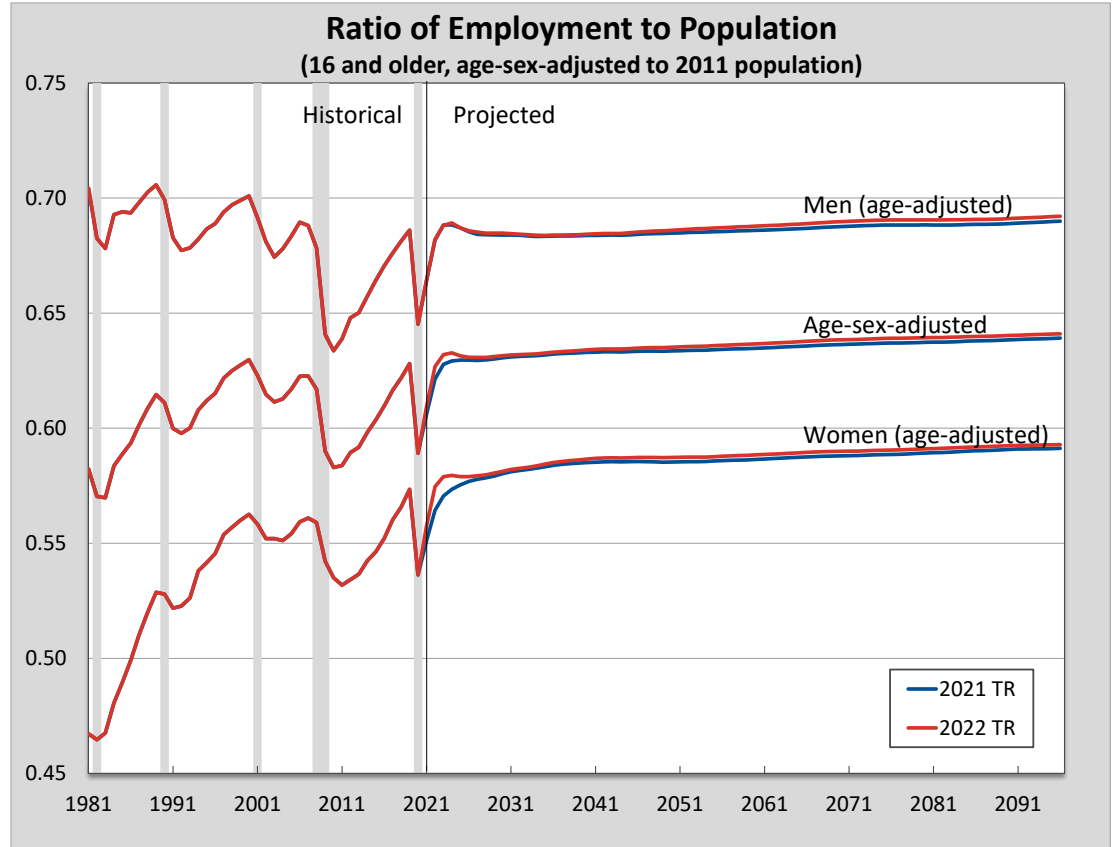
- Price inflation has increased due largely to supply issues that are expected to ease
- Interest rates are being increased in order to counter price inflation, by slowing demand
- Will these factors induce the next recession, or a period of slower but still positive growth?

Trends in Employment and Retirement

Ratio of Employment to Population

Recovered more strongly from the brief but steep recession in 2020.

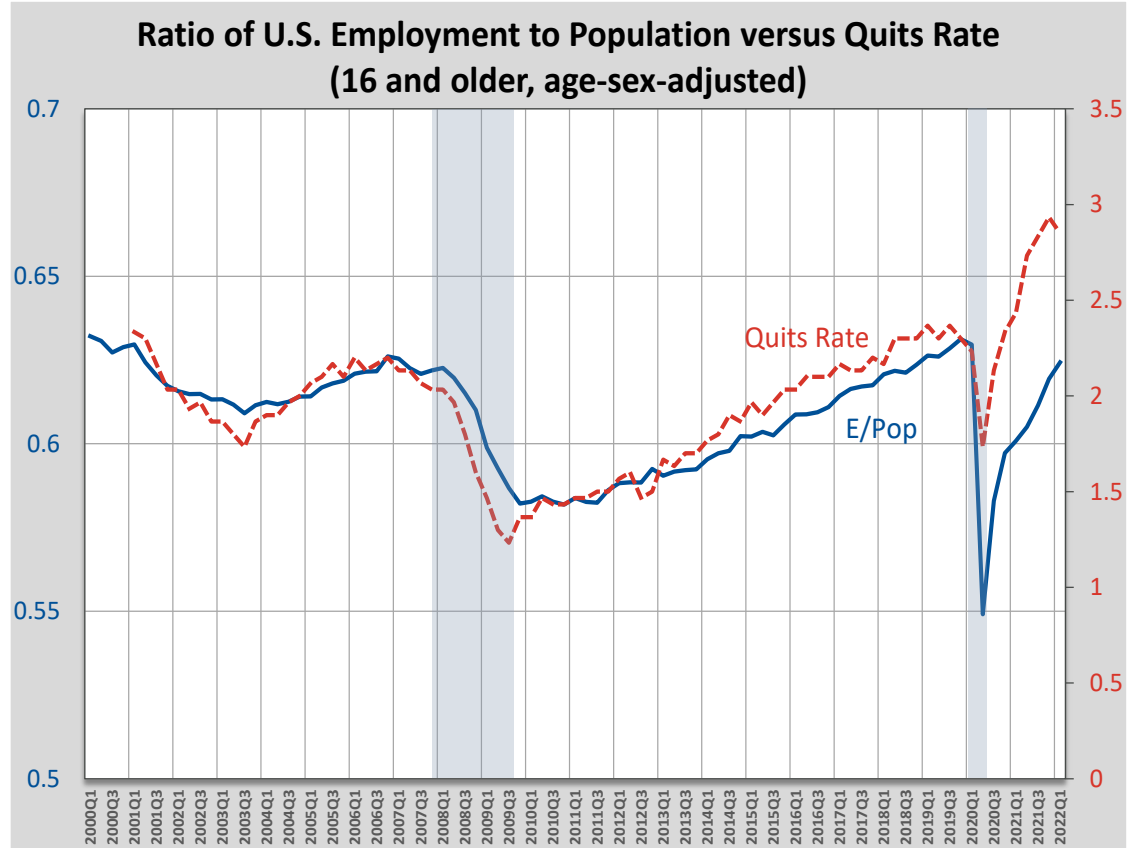
Projected to exceed the level seen at the peak of the last economic cycle by 2022 for women and by 2023 for men.



Ratio of Employment to Population vs. Quits Rate

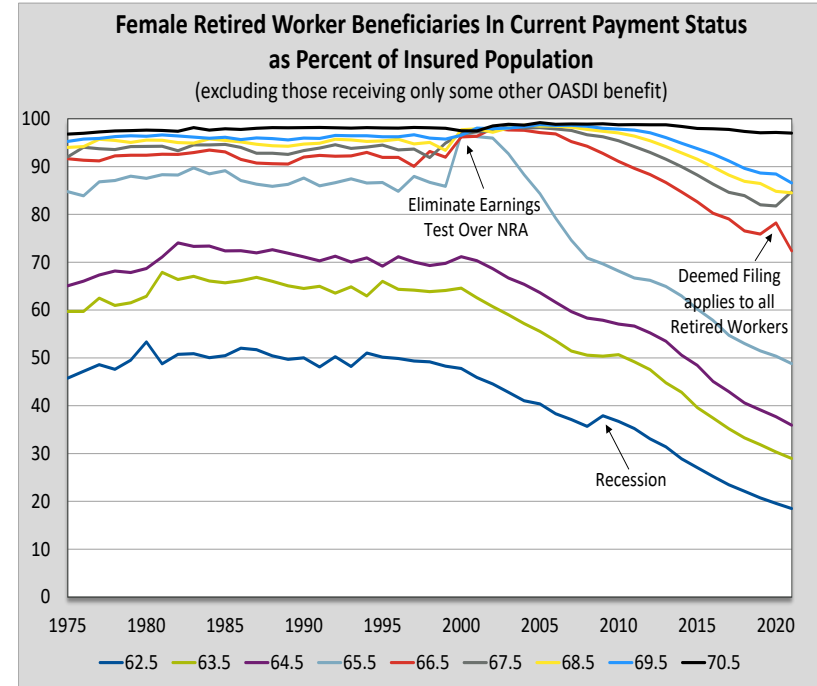
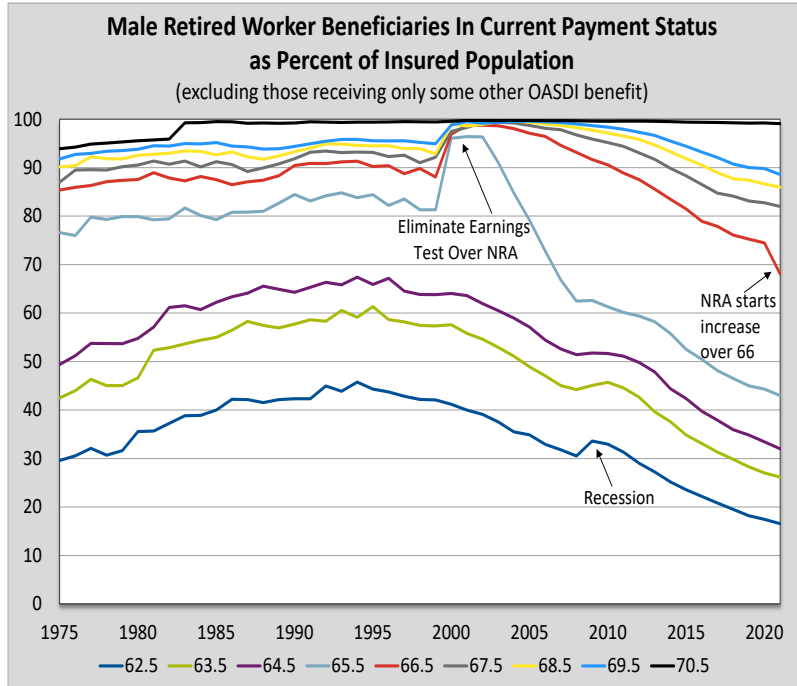
Ratio of employment to population has recovered rapidly since the Trustees Report projections were developed.

Quits rate indicates a “great job churn”, and not a “great resignation”.



Age of Starting Social Security Retirement Benefits

Note significant shift in recent years



Big Picture...

- How will we address the future financial challenges for Social Security—and all retirement systems?
- Our population and that of other nations is shifting toward an older age distribution

The Bottom Line for Social Security

- 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 2035

Some Ways to Lower Cost

- Lower benefits for retirees – not disabled?
 - Increase normal retirement age (lowers OASDI 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
 - Others say increase it with the CPI-E (based on purchases of consumers over age 62)

Some 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?

Finally, 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 2035
 - The date has varied between 2029 and 2042 over the past 30 years

For More Information:

<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
- Actuarial notes, including replacement rates
- Actuarial studies, including stochastic
- Extensive databases
- Congressional testimonies
- Presentations by OCACT employees