

Social Security Financing and Options

**National Pension Service Korea discussion
November 7, 2017**

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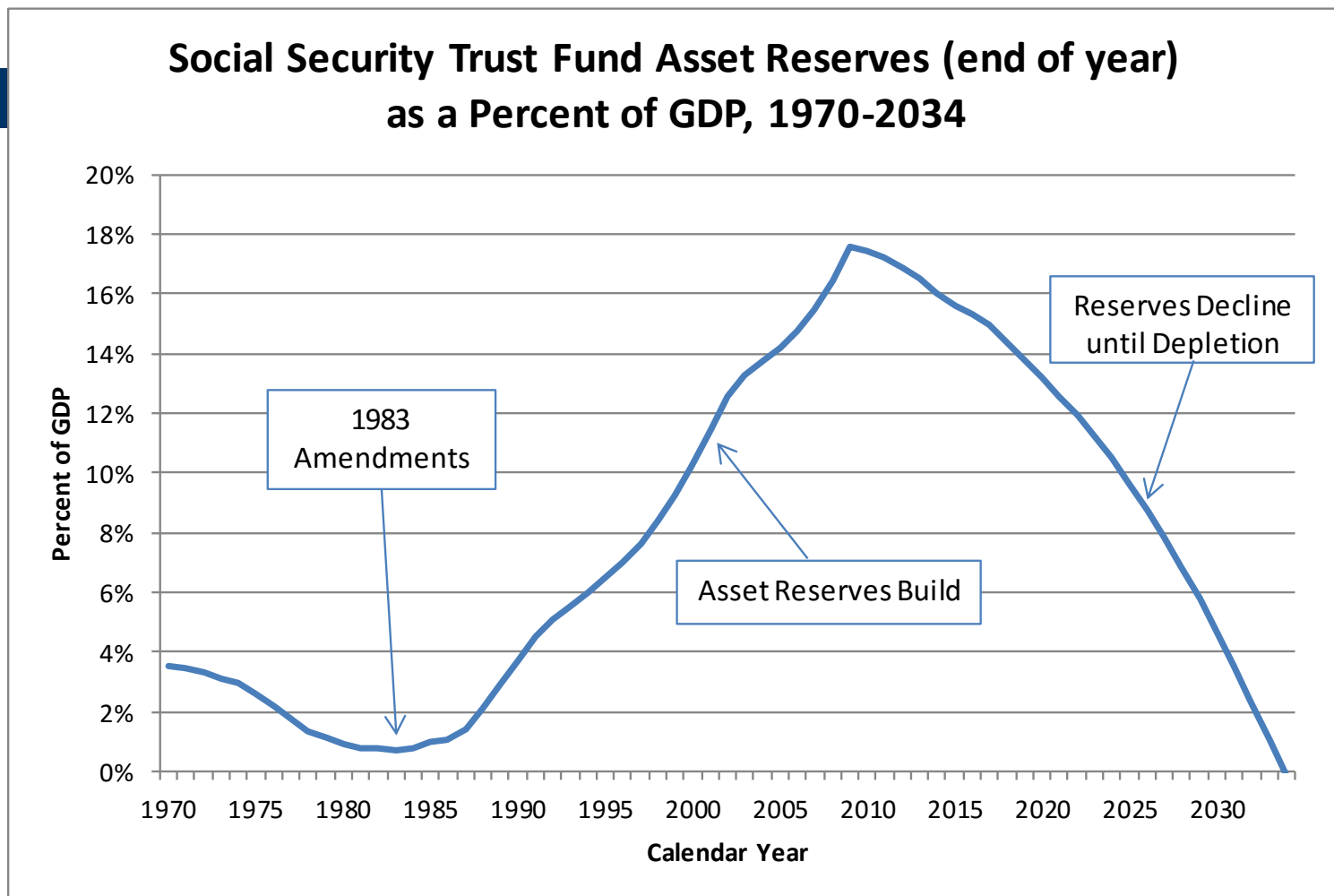
Social Security Trust Funds

- Two legally distinct trust funds:
 - **OASI** = Old-Age and Survivors Insurance
 - **DI** = Disability Insurance
- Financial operations are overseen by the Social Security Board of Trustees
- The two funds are often looked at on a theoretical combined basis
 - As of December 31, 2016, the trust funds hold about **\$2.85 trillion** in asset reserves

Social Security Trust Funds

- The combined funds have run surpluses since the early 1980s and are expected to do so through 2021
- Beginning in 2022, combined asset reserves will start to decline until they are depleted in **2034**
- The DI fund alone is projected to become depleted in **2028**
- What happens then when the reserves are depleted? Stay tuned...

Social Security Trust Funds



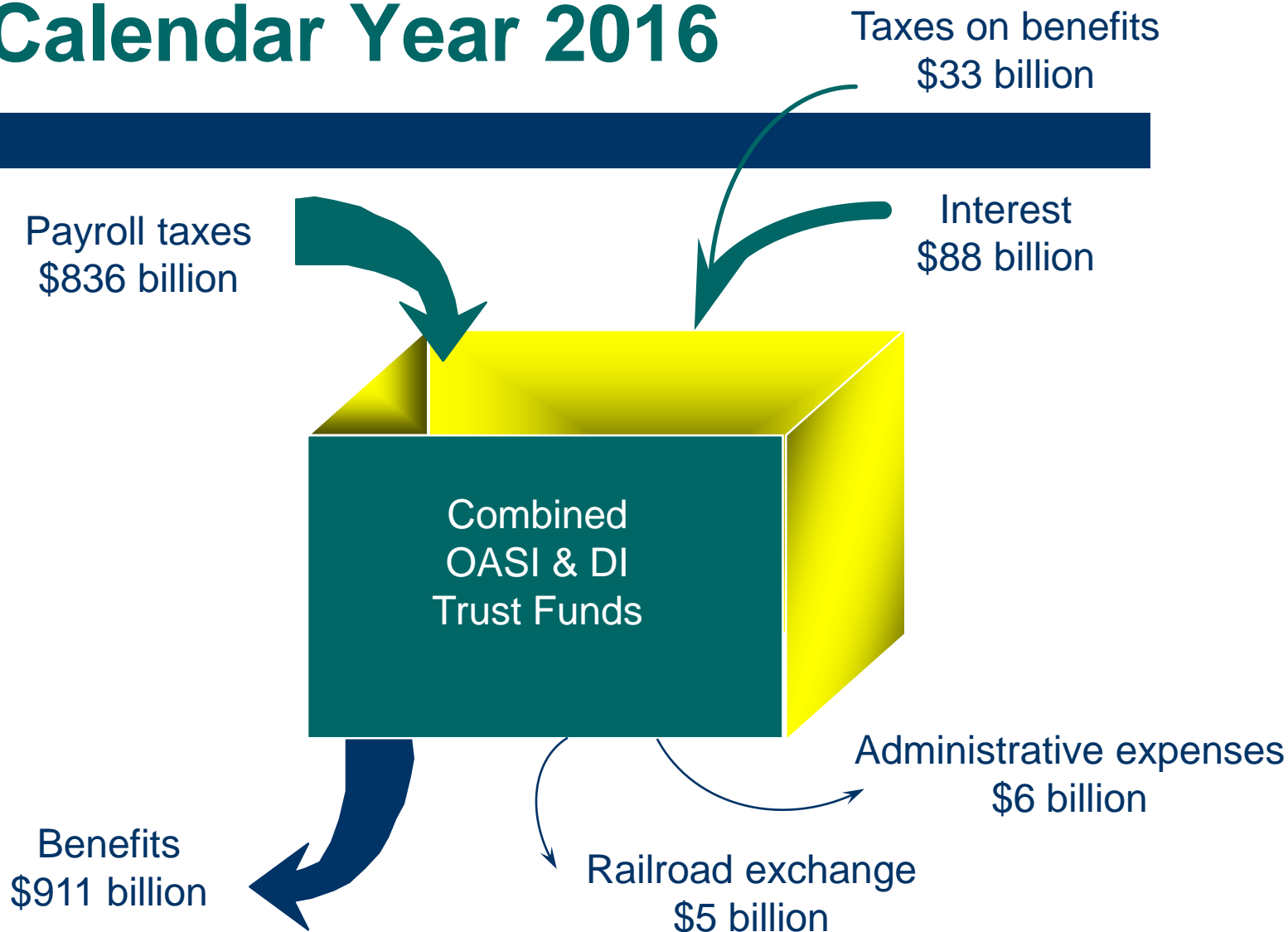
How Is Social Security Financed (Income)?

- Payroll taxes
 - Employees and employers each pay **6.2%** of covered earnings
 - The self-employed pay **12.4%** of covered earnings
 - On earnings up to **\$127,200** in 2017
- Taxes on Social Security benefits
 - High-income beneficiaries pay federal income tax on their benefits
- Interest on trust fund reserves
 - Invested in interest-bearing securities of the US government

Where Does the Money Go (Outgo)?

- Benefit payments
 - About **61 million** people getting benefits as of December 2016:
 - **44 million** retired workers and dependents of retired workers
 - **6 million** survivors of deceased workers
 - **11 million** disabled workers and dependents of disabled workers
- Administrative expenses
 - Only about **0.7 percent** of total expenditures in 2016

Income and Outgo Calendar Year 2016



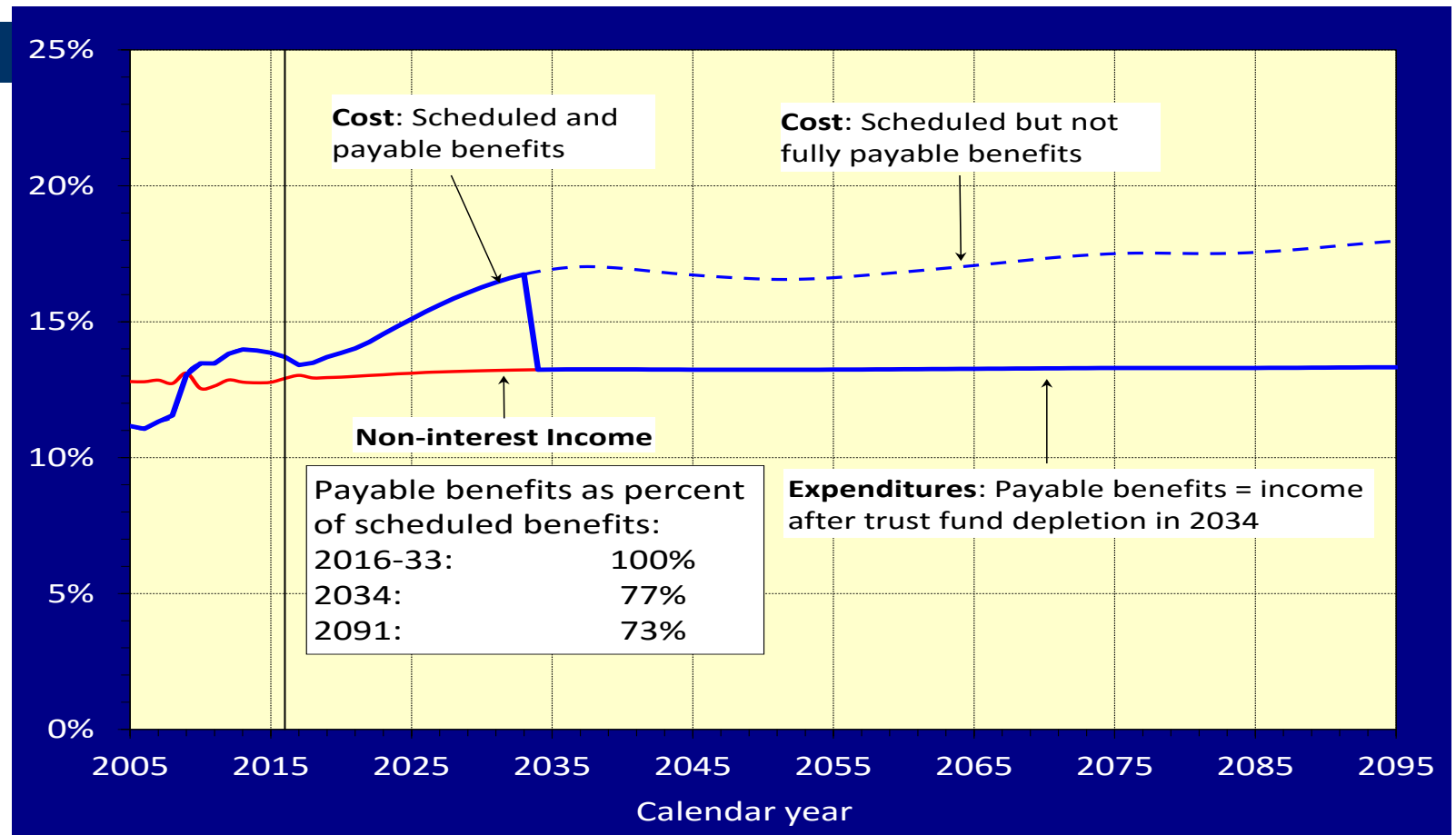
Social Security Trust Funds

- Why do we have trust funds?
 - The trust funds provide an essential reserve so benefits can be paid even when current income alone is not enough
 - Social Security (OASI and DI) cannot borrow; can only spend what has been collected
- Are the trust funds “real”?
 - If reserves deplete, full benefits cannot be paid
 - The trust funds force Congress to act in order to maintain continuous benefit payments

Trust Fund Financing

- How is the future shortfall expressed?
- To make shortfalls comparable over years, they are often scaled as a **percent of taxable payroll**
 - The amount of earnings taxable by the program for a time period
- For example, in **2045**:
 - Taxable payroll is expected to be about \$24.1 trillion in nominal \$\$
 - Income to the program is expected to be about \$3.2 trillion, or **13.24** percent of taxable payroll
 - The cost of the program is expected to be about \$4.0 trillion, or **16.72** percent of taxable payroll
 - So the shortfall is **3.48** percent ($16.72 - 13.24$)

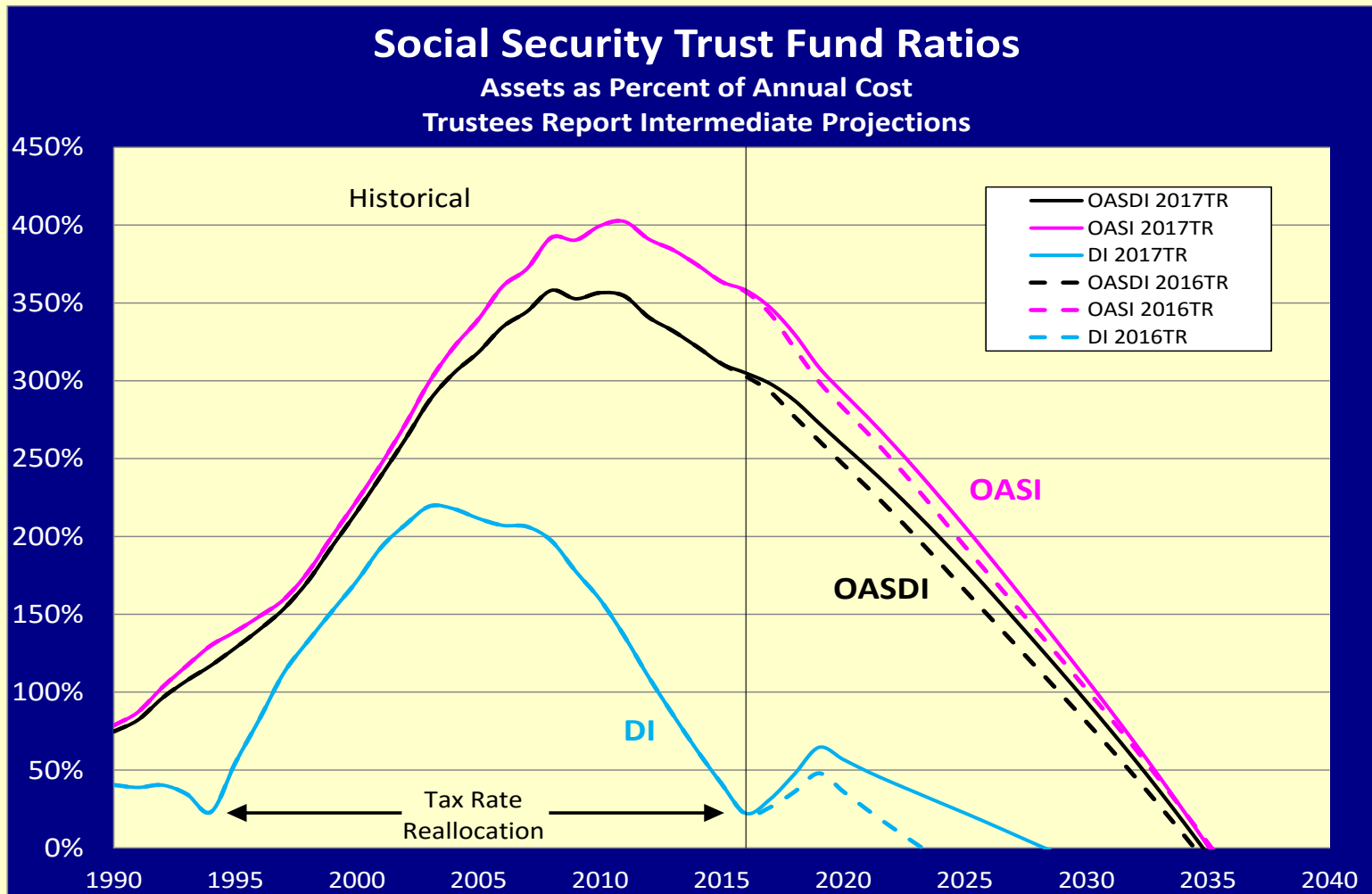
Trust Fund Financing (as a percent of taxable payroll)



**SOCIAL SECURITY:
HOW BIG IS THE FINANCING
CHALLENGE?**

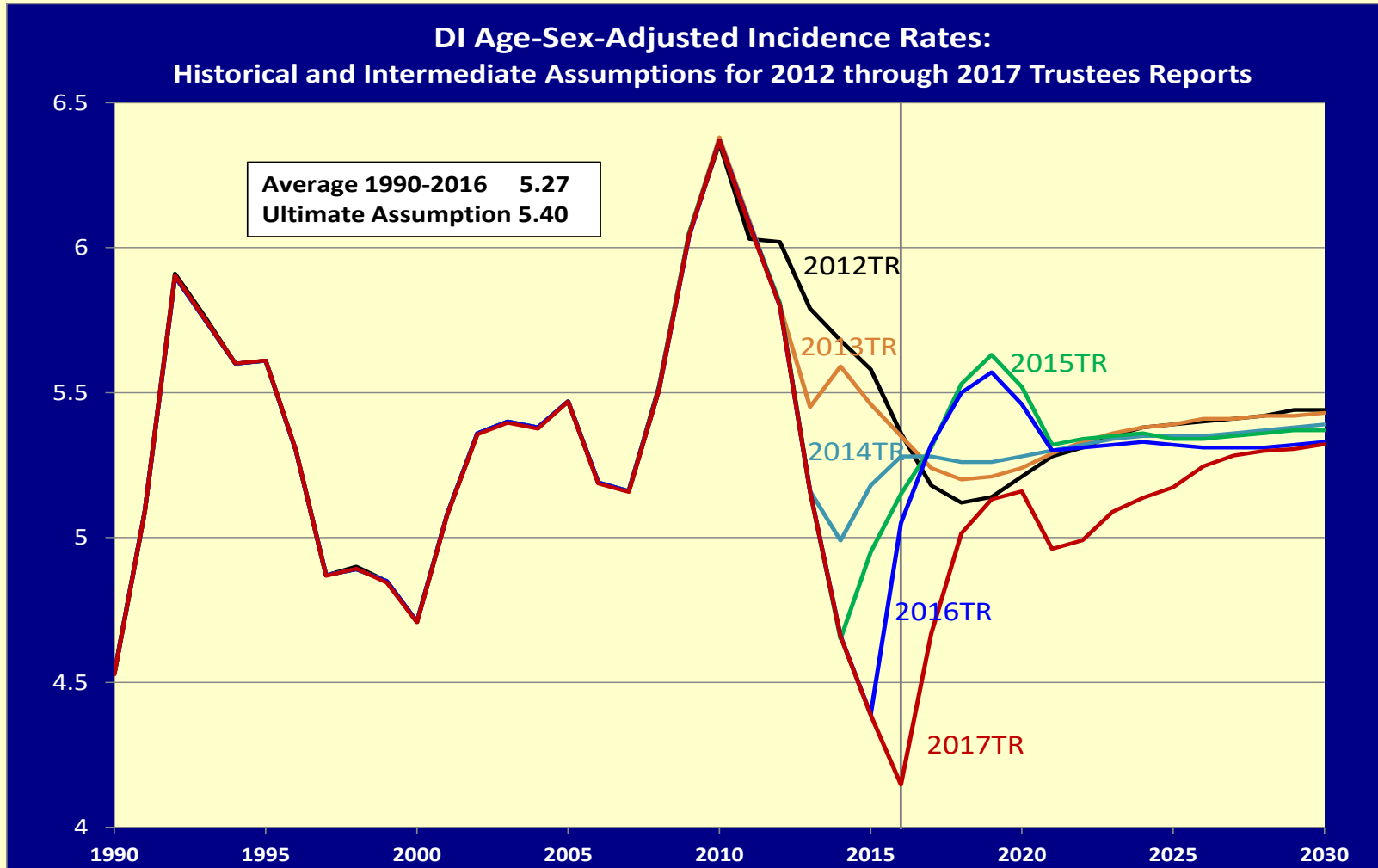
SOLVENCY: OASDI Trust Fund Reserve Depletion 2034 (same as last year)

- Reserve depletion date varied from 2029 to 2042 in reports over the past 25 years (1992-2017)
- ***DI Trust Fund — reserve depletion in 2028, five years later than last year***
 - Due largely to lower recent and near-term disability applications and incidence rate



Disability Incidence Rate Falls to Historic Lows

DI disabled worker incidence rate rose sharply in the recession, and has declined since the peak in 2010 to an extraordinarily low level for 2016

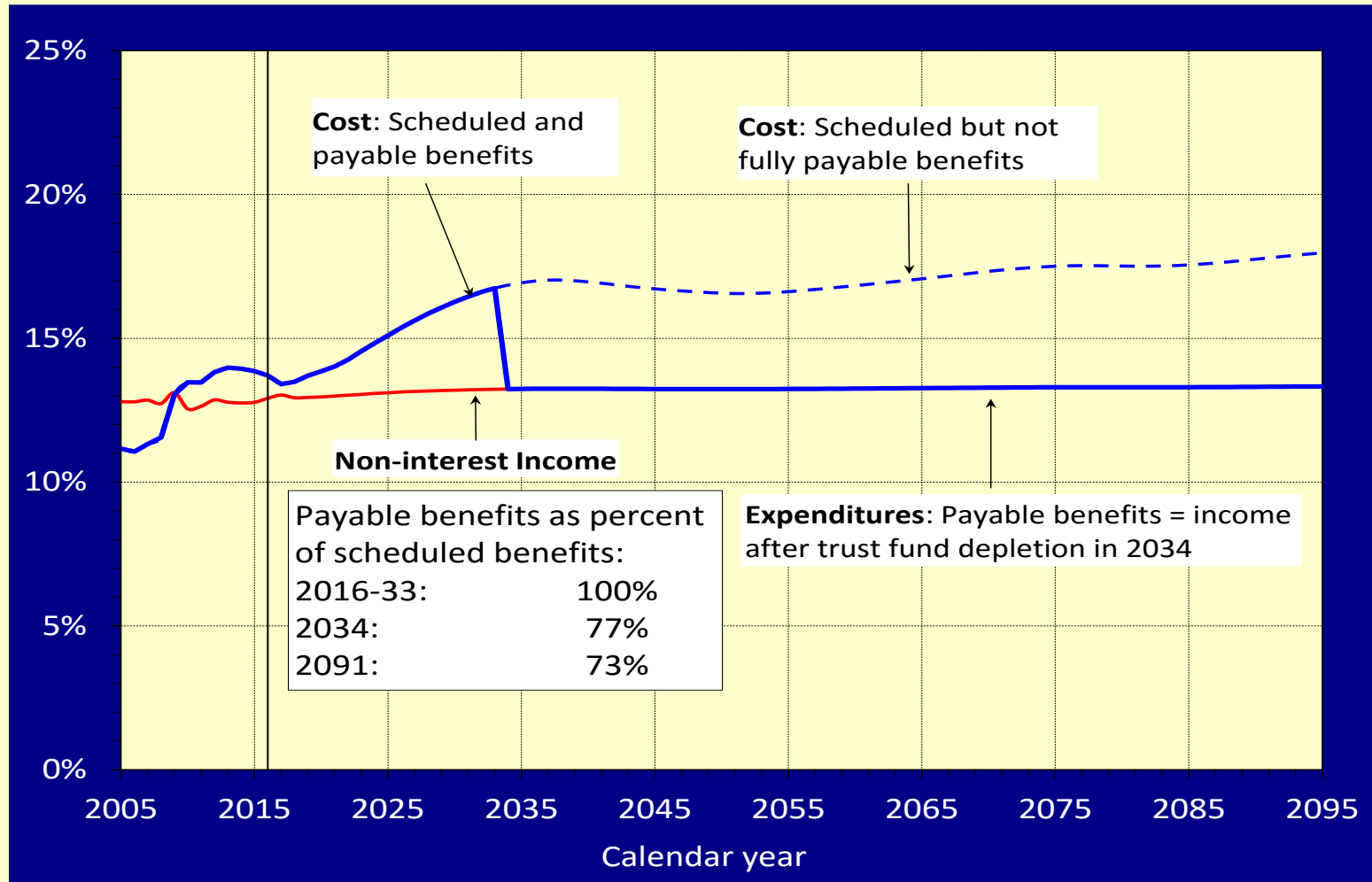


OASDI Annual Cost and Non-Interest Income as Percent of Taxable Payroll

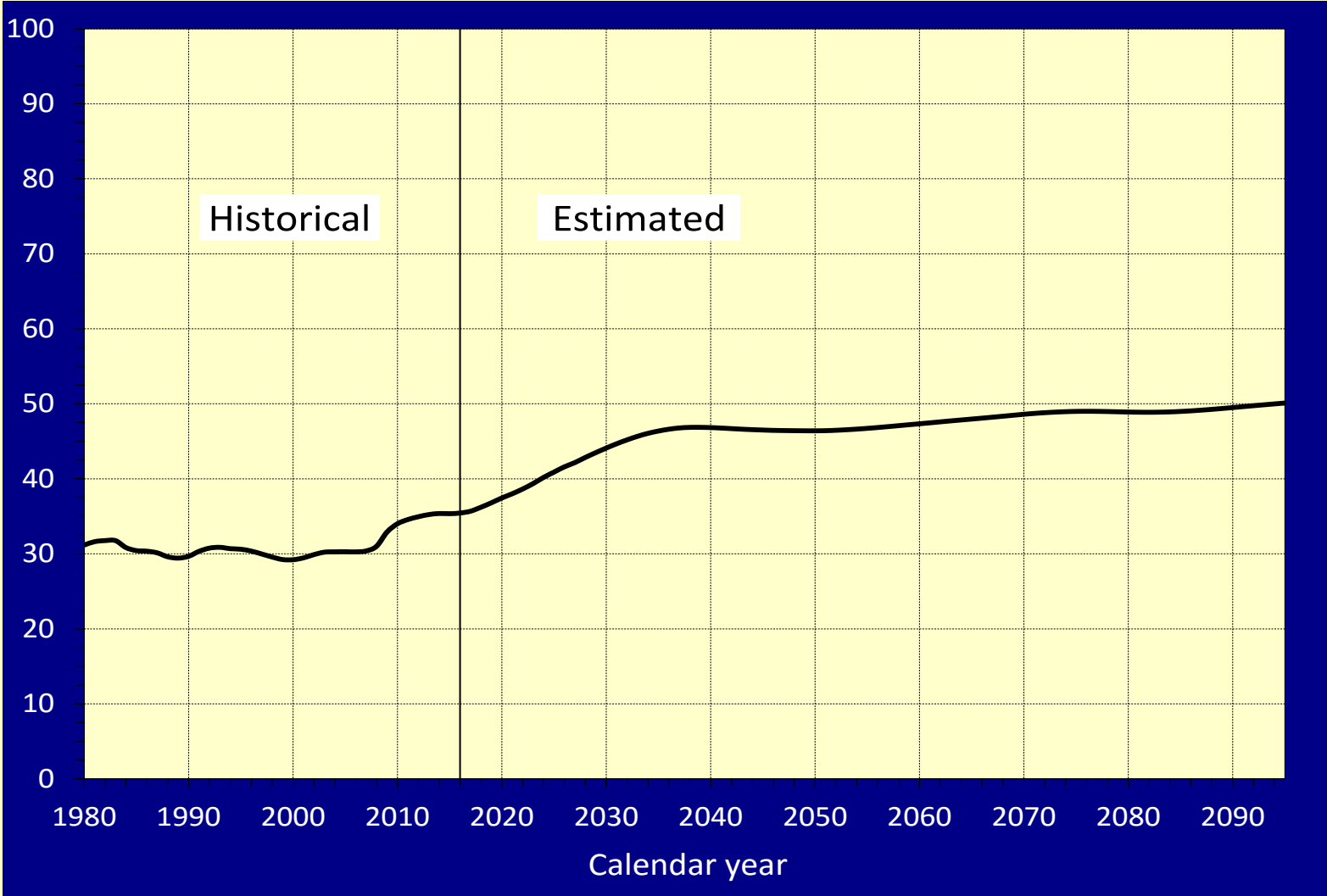
Persistent Negative Annual Cash-Flow Balance Starting in 2010

77% of scheduled benefits still payable at trust fund reserve depletion

Annual deficit in 2091: 4.48 percent of payroll

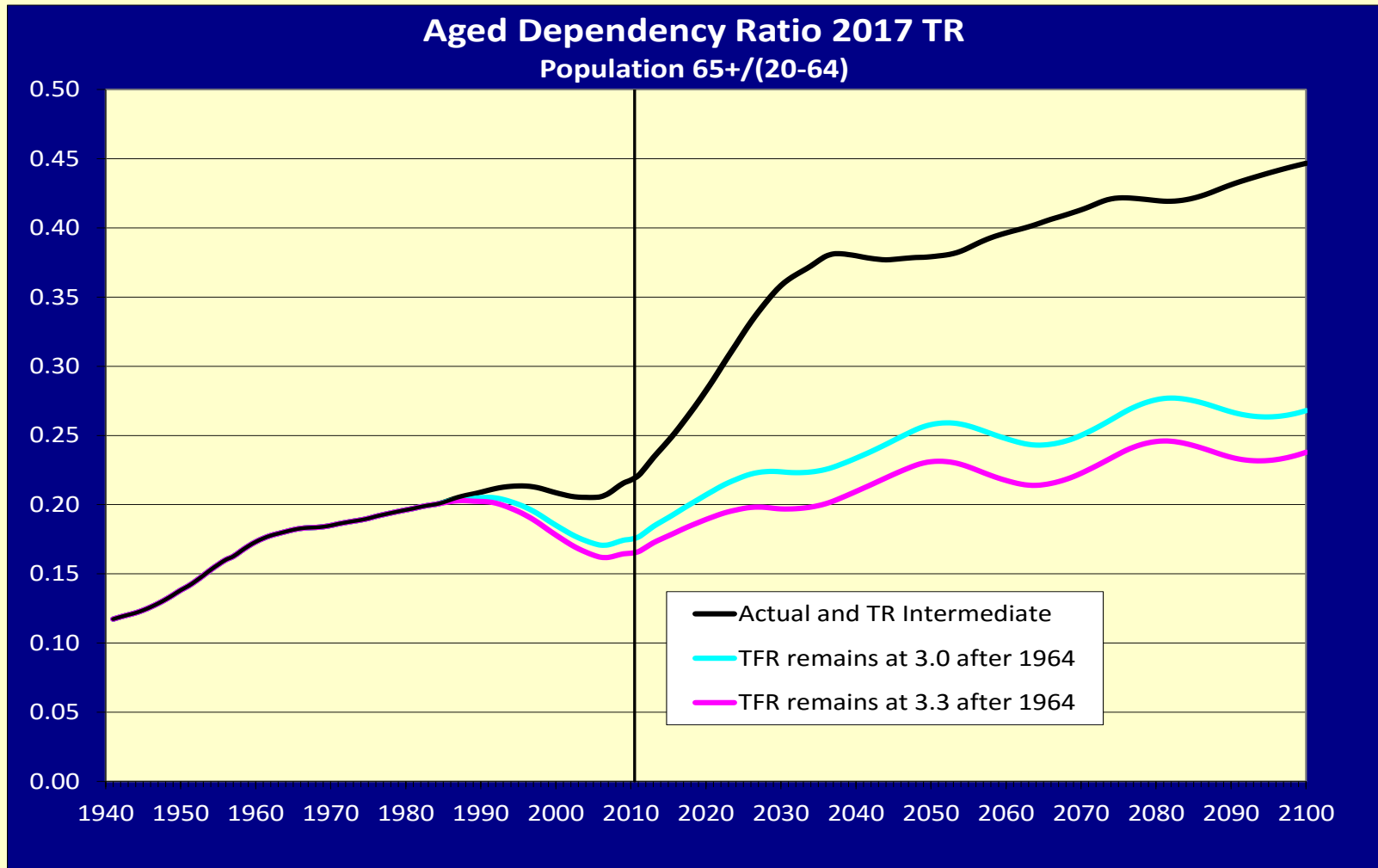


OASDI Beneficiaries per 100 Workers

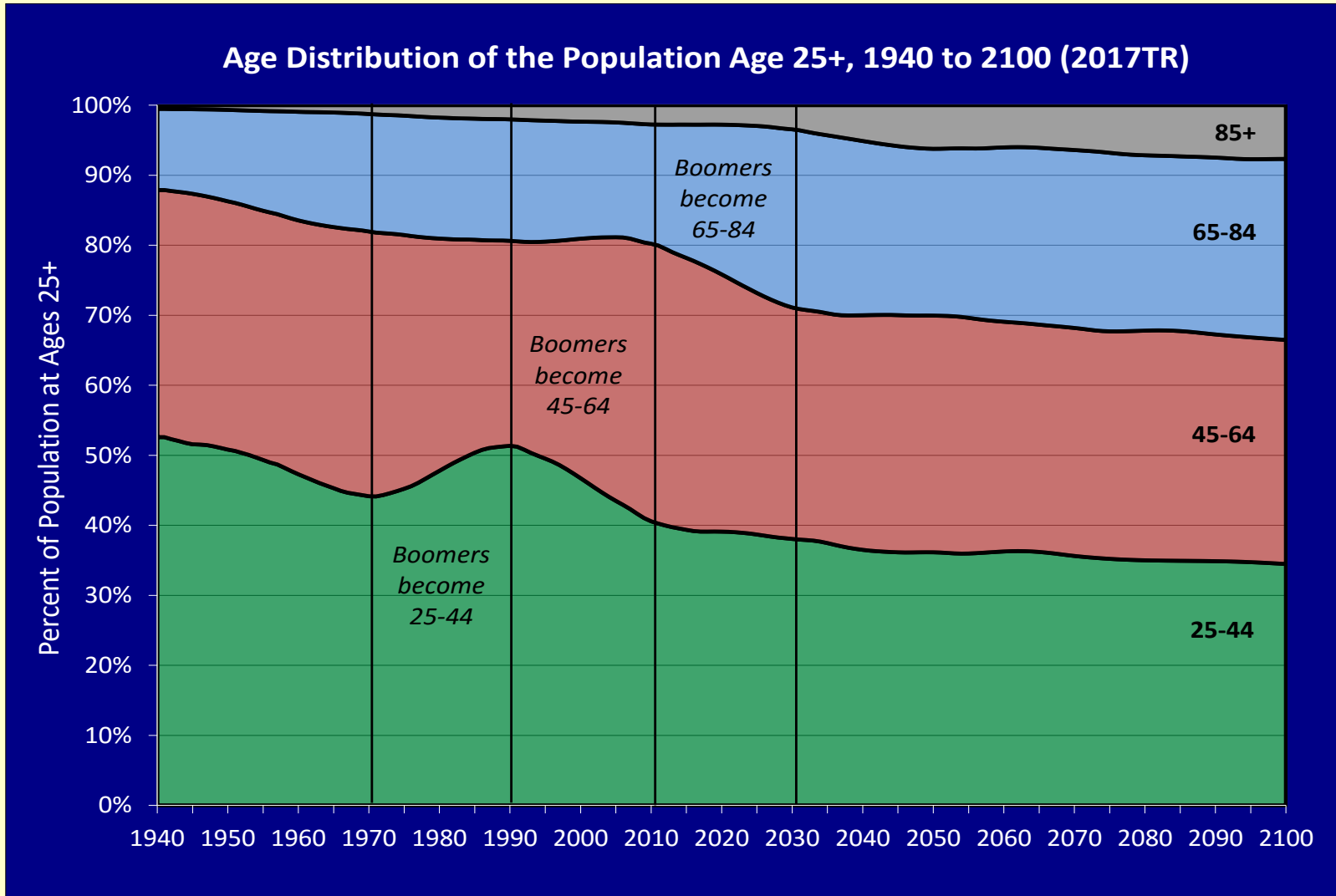


Aging (change in age distribution)

Mainly due to drop in birth rates

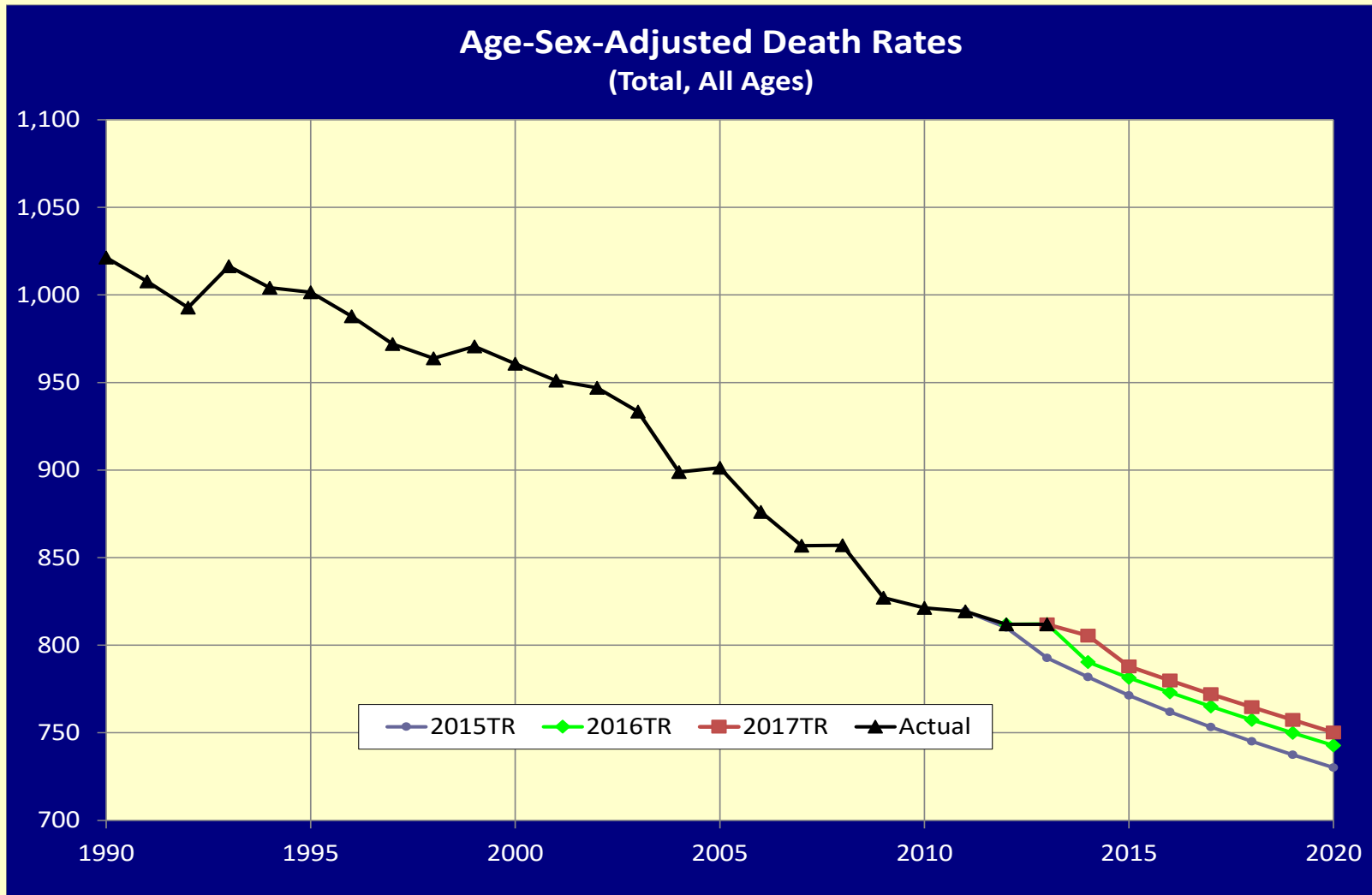


Changing Age Distribution Over Last 20 and Next 20 Years Mainly Due to Macro Aging—*permanent level shifts*



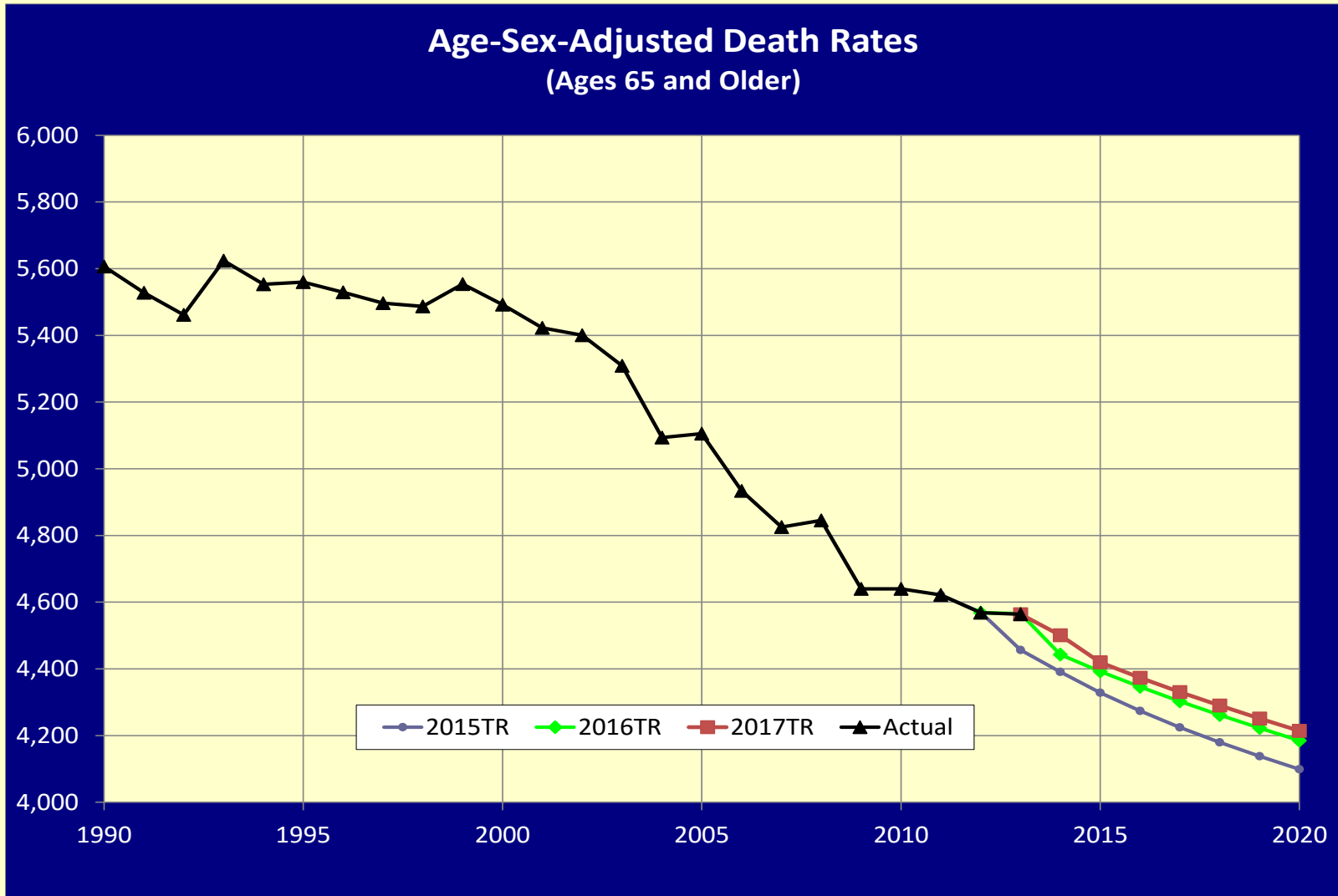
Mortality Experience: All Ages

Reductions continue to fall short of expectations

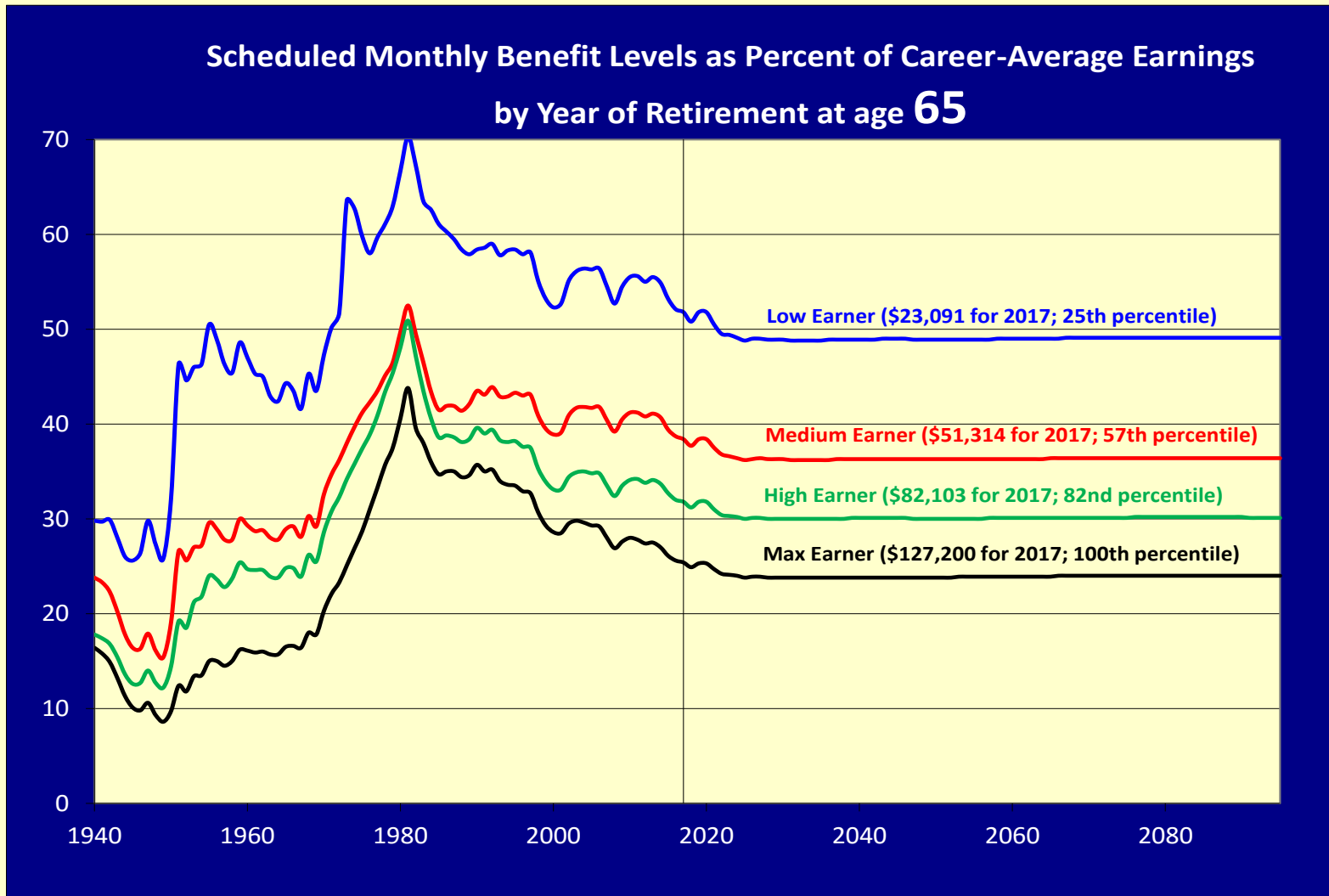


Mortality Experience: Ages 65 and Older

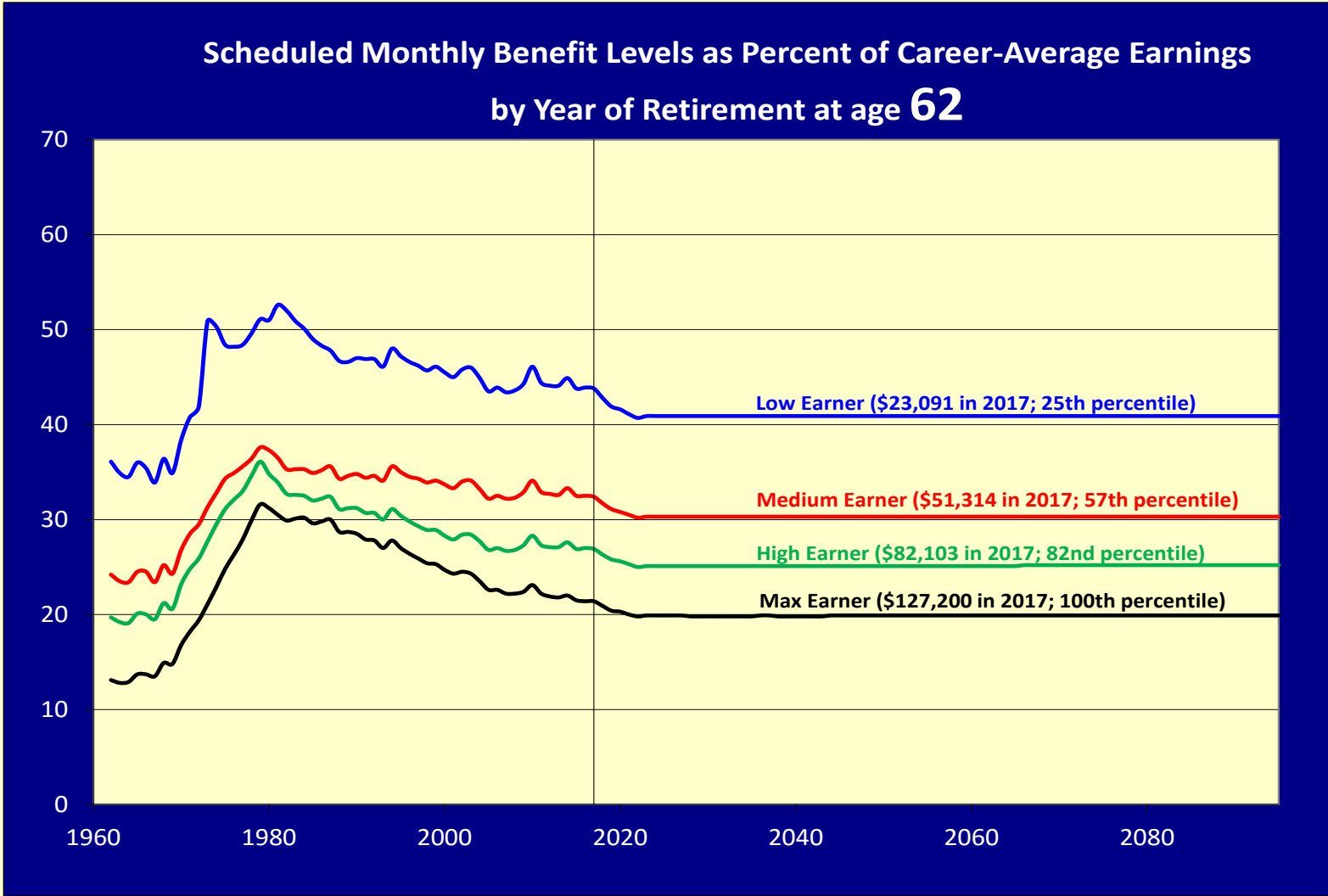
Reductions since 2009 continue to fall short of expectations



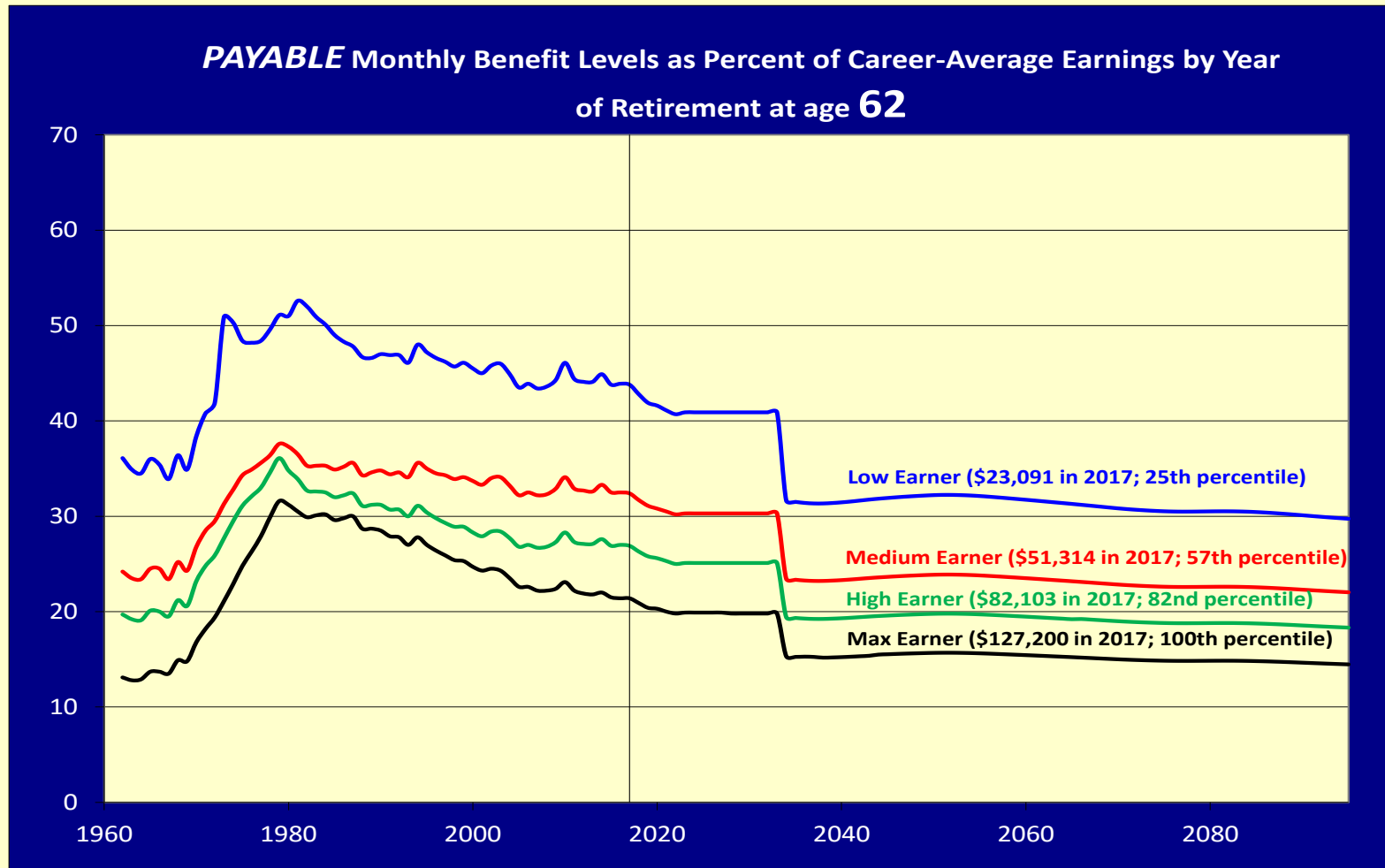
Replacement Rates Based on the 2017 TR



How About at Age 62, Where Most Start Benefits?



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



How to Fix Social Security Long-Term

Make choices addressing OASDI deficits 2034-2091:

- Raise scheduled revenue after 2033 by about 33%:
increase revenue from 4.6 to 6.1% of GDP
- Reduce scheduled benefits after 2033 by about 25%:
lower benefits from 6.1 to 4.6% of GDP
- Or some combination of the two
- Invest trust funds for higher return?
 - ◆ Limited help—it is a PAYGO world
 - ◆ So invest in coming generations of workers

How to Fix Social Security Long-Term

- How can the financing shortfalls be covered?
 - Lower cost (reduce benefits) by about 25%
 - Increase revenues by about 33%
 - Or some combination of approaches
 - Also consider benefit adequacy?

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
- Lower benefits mainly for high earners
 - Reduce PIA above some level
 - Often combined with increasing PIA below some level, subject to work year requirements

Ways to Lower Cost (continued)

- Lower benefits mainly for the oldest old
 - Reduce the COLA by using a *chained* version of the CPI
 - Some say instead raise the COLA by using the CPI-E (based on purchases of consumers over age 62)
- Increase the number of years used in calculation (currently 35)
 - Hurts those who haven't been in the workforce for 35 years

Ways to Increase Revenue

- **Raise tax rate on all earners**
 - Increasing rate from current 12.4 percent to 15.2 percent is projected to eliminate the long-range shortfall
- **Raise tax on highest earners**
 - Increase taxable maximum amount
 - Some tax on all earnings above the maximum

Ways to Increase Revenue (continued)

- Tax employer group health insurance premiums
 - Affects only middle class if taxable maximum remains the same
- Tax certain investment income
 - Consistent with ACA approach?
- Maintain larger trust fund reserves
 - Added interest/yield can lower needed taxes

Additional Resources

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



Social Security

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Actuarial Publications	Actuarial publications include Trustees Reports, SSI Annual Reports, Actuarial Studies and Notes, ...
Program Changes— <ul style="list-style-type: none"> ▸ Proposals ▸ Provisions 	Proposals affecting the Trust Funds, including those addressing Trust Fund solvency <ul style="list-style-type: none"> ▸ Memoranda providing estimates for proposals and groups of provisions ▸ Individual changes considered for modifying Social Security
Automatic Increases	Cost-of-living adjustment (COLA), national average wage index, taxable maximum, benefit formulas, ...
Benefit Calculators	Estimate your Social Security benefit with one of our calculators
Data— <ul style="list-style-type: none"> ▸ Beneficiaries ▸ Trust Funds 	Social Security data on— <ul style="list-style-type: none"> ▸ Number of beneficiaries paid, average benefits paid, ... ▸ Trust fund assets, income, outgo, interest rates, ...
Historical Estimates and Projections <ul style="list-style-type: none"> ▸ Death Probabilities ▸ Population 	Downloadable files— <ul style="list-style-type: none"> ▸ Probabilities of death ▸ Population of the Social Security area
Social Security Actuaries	General information about the actuary's role at SSA, including a site map for the Office of the Chief Actuary
Congressional Testimony	Testimony and other communications by the Office of the Chief Actuary Staff