# How Much Should the Poor Save for Retirement?

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REMAKING RETIREMENT? DEBT IN AN AGING ECONOMY

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# Widespread concern over retirement saving

- Surveys show most Americans believe there is a “retirement crisis”
  - Though only 5% of current retirees say they are “Finding it difficult to get by.” (Fed Survey of Household Economics and Decisionmaking, 2017.)
- Proposed solutions include:
  - Expand access to employer-sponsored plans
    - E.g., SECURE Act
  - Expand Social Security
    - Particularly for low earners
  - Establish state-run “auto-IRA” plans
    - Since employer coverage is skewed toward high earners, low-wage workers disproportionate audience for auto-IRAs

# But do we *know* low-earners are undersaving?

- Yes, low earners save very little
  - The bottom quintile of retiree is highly dependent on Social Security and SSI
- But poverty in old age has dropped dramatically
  - From 9.7% in 1990 to 6.7% in 2012 (Bee and Mitchell 2017, using IRS data)
- Replacement rates among low earners are high
  - Lowest quintile mean of 106% of prior earnings; 2$^{nd}$ quintile, 95% (Brady, et al. 2017.)
- But self-assessed retirement income adequacy is much poorer
  - 2016: 32% of retirees in bottom income quintile describe income as "totally inadequate," down from 39% in 1992 (SCF)

# How much should low-earners saving for retirement?

- Create stylized earnings patterns
- Calculate Social Security replacement rates
- Compare these to target rates for total retirement incomes to calculate residual replacement rate from savings
- Set assumptions on pre- and post-retirement interest rates
- Set assumptions on life expectancy in retirement by earnings level
- Calculate wealth at retirement to fund residual replacement rate
- Calculate savings from ages 30 through 65 to meet target wealth at retirement
  - Repeat the process for sensitivity to interest rates and post-retirement longevity

# Using SSA stylized earners

- Stylized earners created by SSA actuaries
  - Based on SSA earnings data by age
  - Follow familiar hump-shaped age-earnings profile
- Earner types
  - Very low (averaging 25% of national average wage over career)
  - Low (45%)
  - Medium (100%)
  - High (160%)
  - Maximum (earns maximum taxable wage every year; currently $132,000)

# Replacement rate targets

- Replacement rate formula
  - Initial Social Security benefit at full retirement age of 66 as percent of real average earnings from ages 45 thru 60.
- Replacement rate targets (based on Myers, 1993)
  - Very low: 90%
  - Low: 83%
  - Medium: 75%
  - High: 67%
  - Maximum: 60%

# Social Security replacement rates

- Social Security as percent of age 45-60 earnings
  - Very low: 82% (8% residual replacement rate target)
  - Low: 68% (15%)
  - Medium: 50% (25%)
  - High: 42% (25%)
  - Maximum: 27% (33%)
- Why so high?
  - SSA publishes replacement rates for medium earner of about 40%
  - But this figure is relative to "wage-indexed" career earnings
  - Equivalent to comparing average benefit of new retirees in year x to average wage of workers in the same year. Not relevant for personal retirement planning.

# Converting savings to incomes

- Interest rates on savings
  - Pre-retirement: 8.7%, historical yield on 60-40 portfolio
  - Post-retirement: 0.8% plus inflation, from 2015 yield on 10-year TIPS
  - Simulates recent retiree, who experienced high pre-retirement returns but low post-retirement interest rates
- Assumed longevity at age 66: Extrapolated from GAO (2016)
  - Very low: 15 years
  - Low: 17
  - Medium: 20
  - High: 23
  - Maximum: 25
- Retirement saving assumed to begin at age 30
  - Required saving rate is percent of age 30-65 earnings that will fill gap between Social Security replacement rate and target rate

# Required saving rates to meet targets

- Required savings as percent of age 30-65 earnings
  - Very low: 0.4% (0.6%)
  - Low: 2.6% (3.8%)
  - Medium: 4.4% (6.1%)
  - High: 4.9% (6.8%)
  - Maximum: 6.4% (8.5%)
- Sensitivity analysis
  - Interest rates based on CBO long-term projections
    - Lower pre-retirement return: 7.0%;
    - Higher post-retirement interest rates: 4.7% (2.3% real)
  - Mortality: Baseline life expectancy + 20%
  - Results shown above in brackets.

# Takeaways

- Truly low-income workers probably don't need to save for retirement
  - *If* Social Security pays scheduled benefits; very likely for low earners, less so for middle/high earners
  - If Social Security expanded, saving need for low-earners reduced further
  - Additional general precautionary saving probably makes sense
- Low-earners (~half the average wage) should save modestly
  - State auto-IRAs with 3-5% default contribution rates could help
  - But auto-escalation up to ~10% is probably too much
  - But danger of running up against asset/income tests for transfer programs
- For middle/high earners, saving is necessary but perhaps less than thought
  - Main reason: Social Security replacement rates higher than commonly believed
  - Results not very sensitive to reasonable changes in interest rates or mortality