



Yale SCHOOL OF MANAGEMENT

# Trends in Retirement Income Adequacy: Evidence from IRS Tax Data

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**FOX BUSINESS**

**Retirer 71 percent of Americans aren't saving enough**

**CONSUMERS**

Most Americans  
almost 20 percent

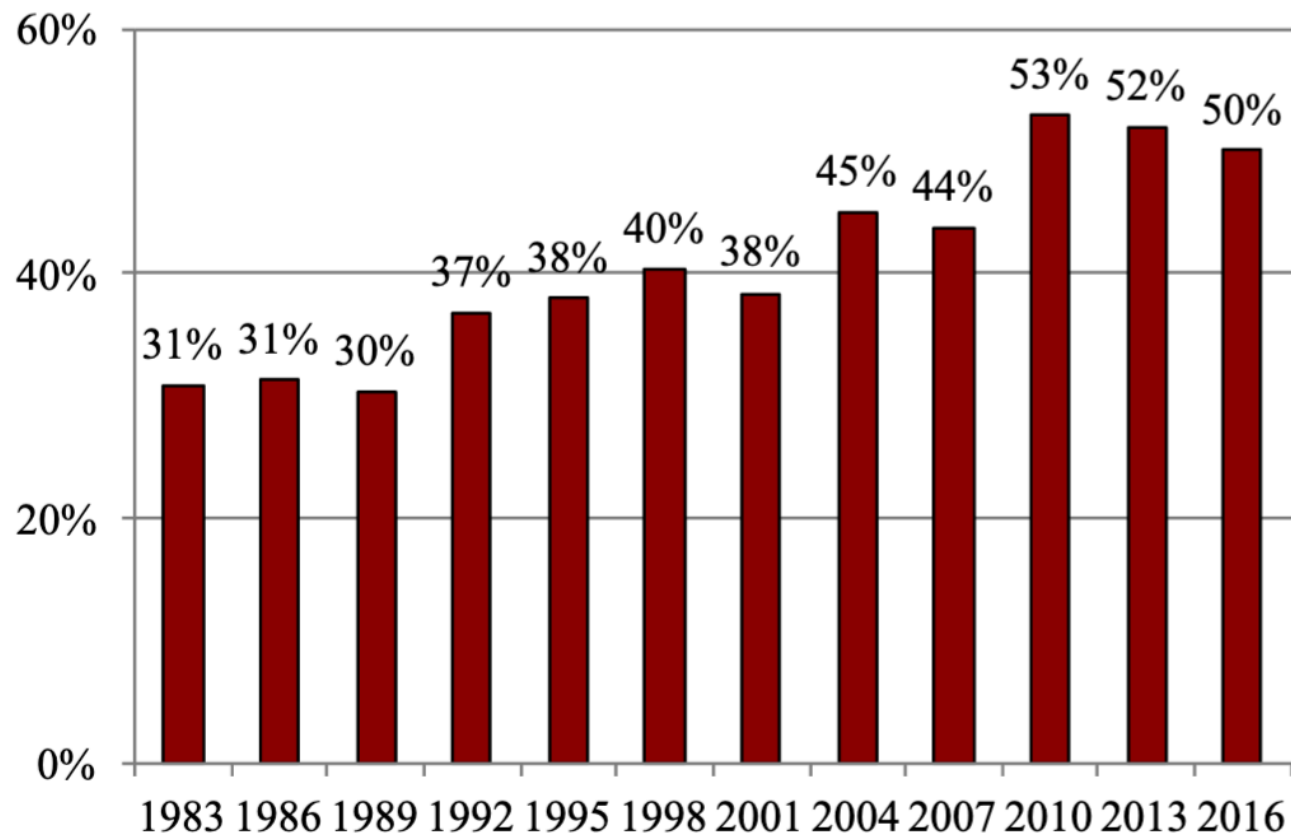
*The Washington Post*  
*Democracy Dies in Darkness*

save for retirement by

**65% of Americans aren't Saving Enough**

Claim: It's getting worse

FIGURE 2. THE NATIONAL RETIREMENT RISK INDEX,  
1983-2016



CENTER *for*  
RETIREMENT  
RESEARCH  
*at* BOSTON COLLEGE

Share of working-age households projected to fall more than 10% short of their retirement savings target

# There is no retirement crisis

WSJ | OPINION

OPINION | COMMENTARY

## *The Phony Retirement Crisis*

By Andrew Biggs

Feb. 28, 2019 6:56 pm ET

# This paper

- Use IRS tax data from 2000 to 2016 to measure income in retirement
  - Tax returns (self-reported) plus information returns (third-party reported)
  - Advantage: Do not rely on survey responses
- 5% random sample of 1930-1941 birth cohorts
  - 22.6 million person-years

# Pre-tax income definition

- Wage income
- Distributions from DB and DC plans, including non-taxable distributions
  - Excluding direct rollovers, Section 1035 exchanges, recharacterized contributions, withdrawals of impermissible contributions
- Social Security benefits
- Interest and dividend income
- Net income from sole proprietorships, S corporations, and partnerships
- Capital gains realizations

# Income not captured

- Supplemental Security Income (SSI)
- Private insurance payouts
- SNAP, WIC, TANF, and VA benefits
- Child support



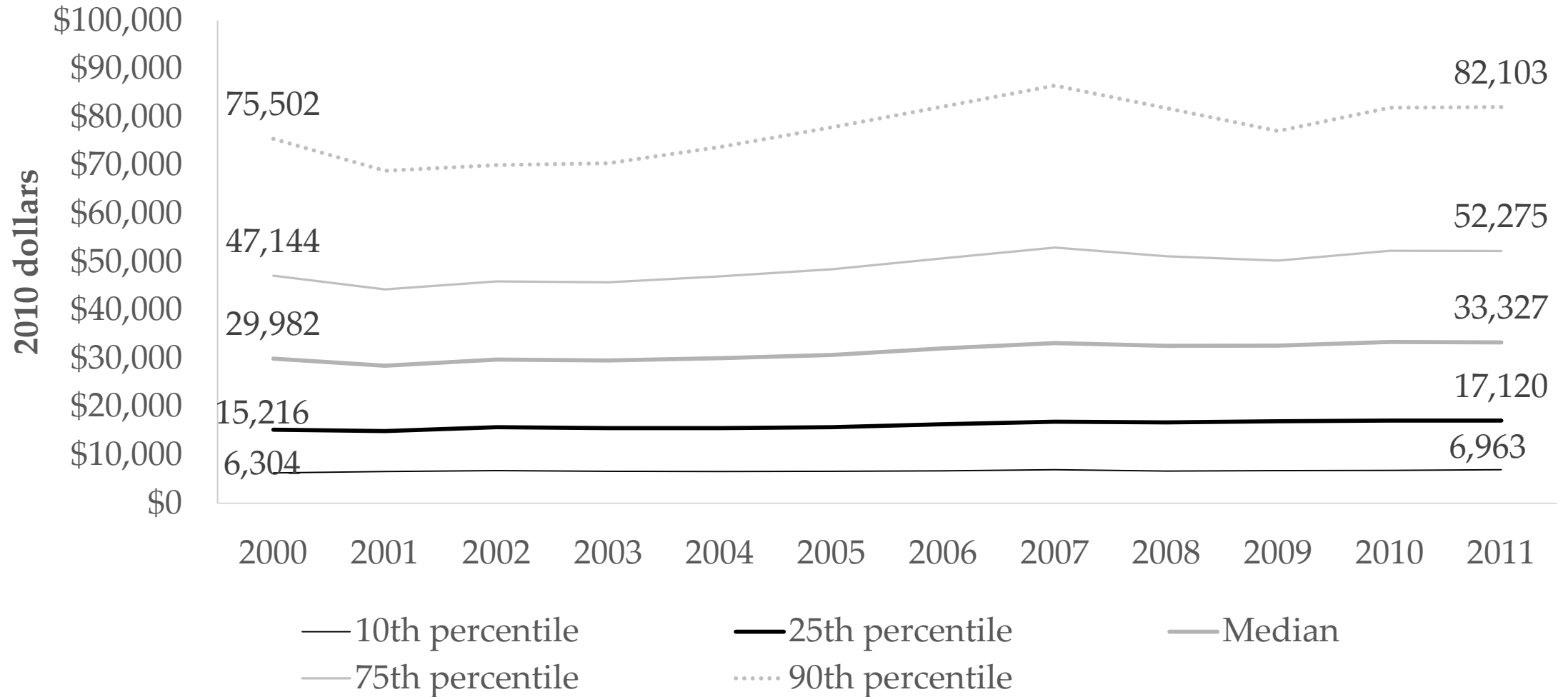
# After-tax income

Pre-tax income + EITC – federal tax liability

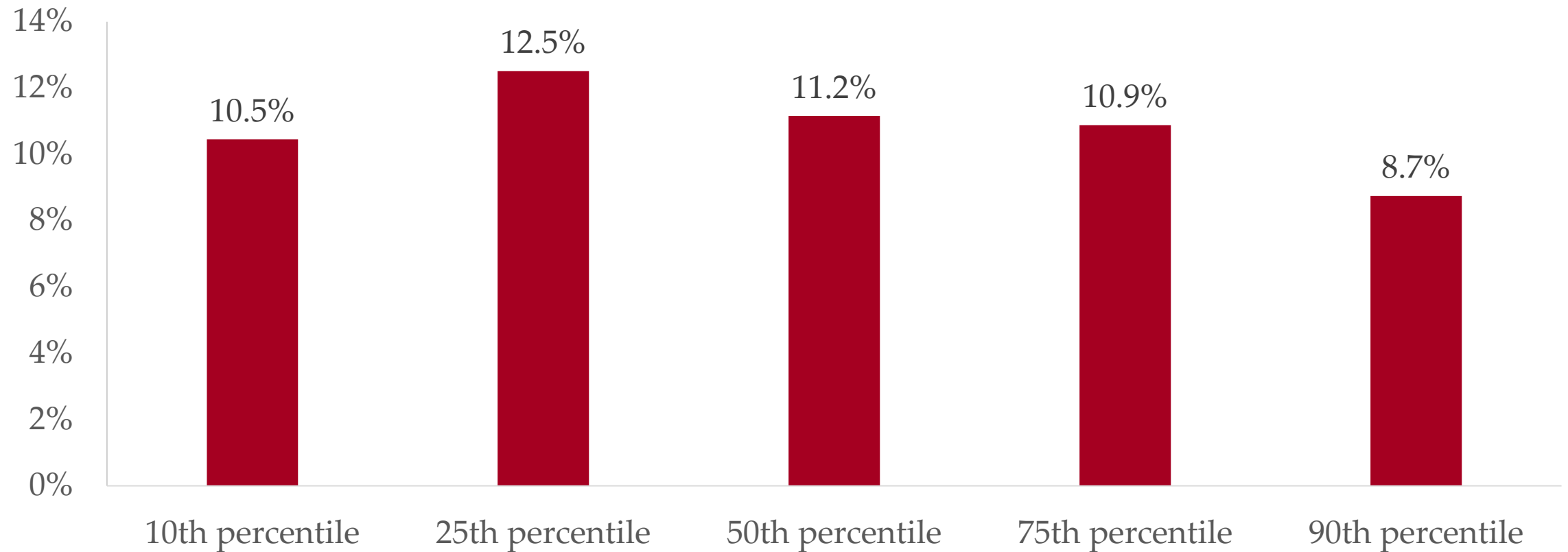
# Equivalent income

- Measure household size by whether initially sampled individual declares spouse when filing tax return
- Equivalent income = Income divided by square root of household size (1 or 2)
  - Do not consider dependents

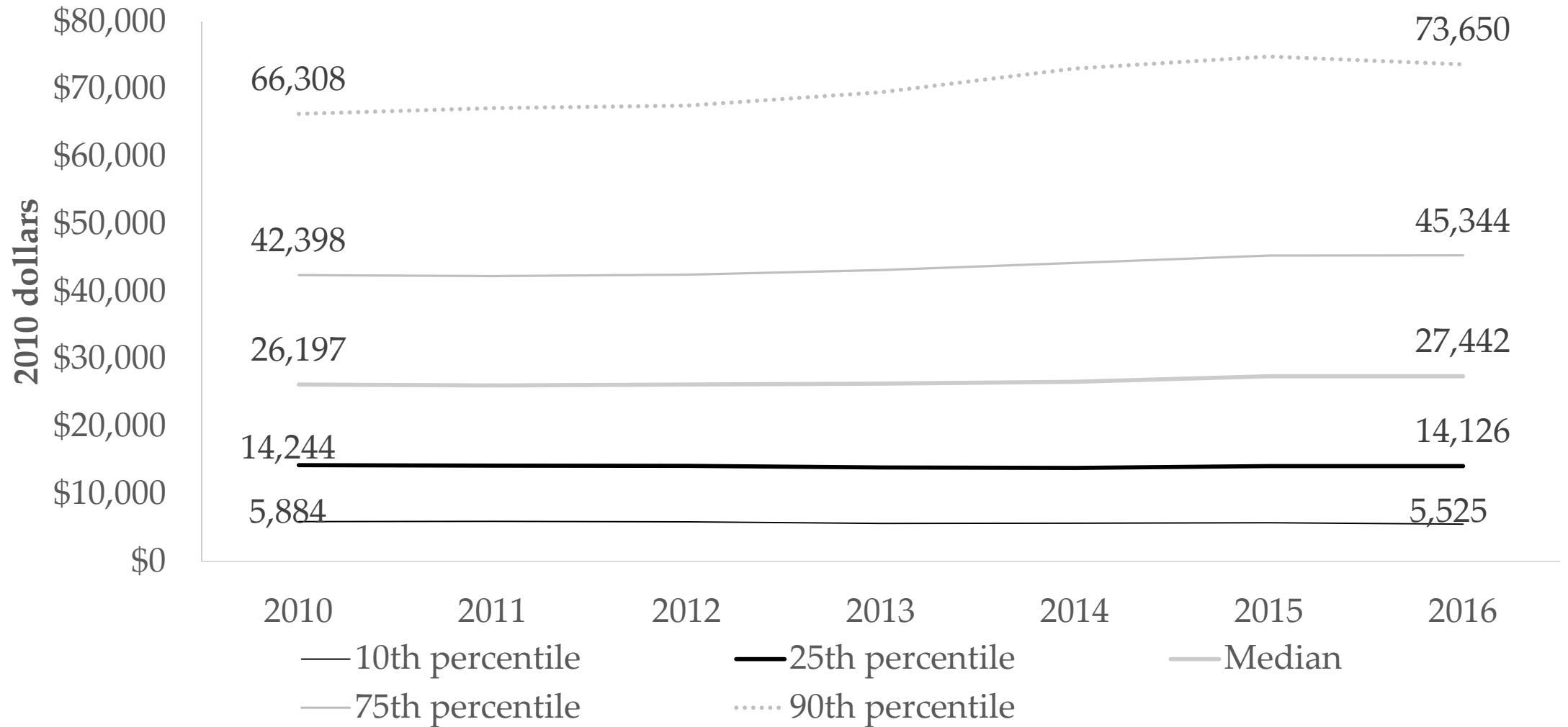
# After-tax equivalent income, age 70



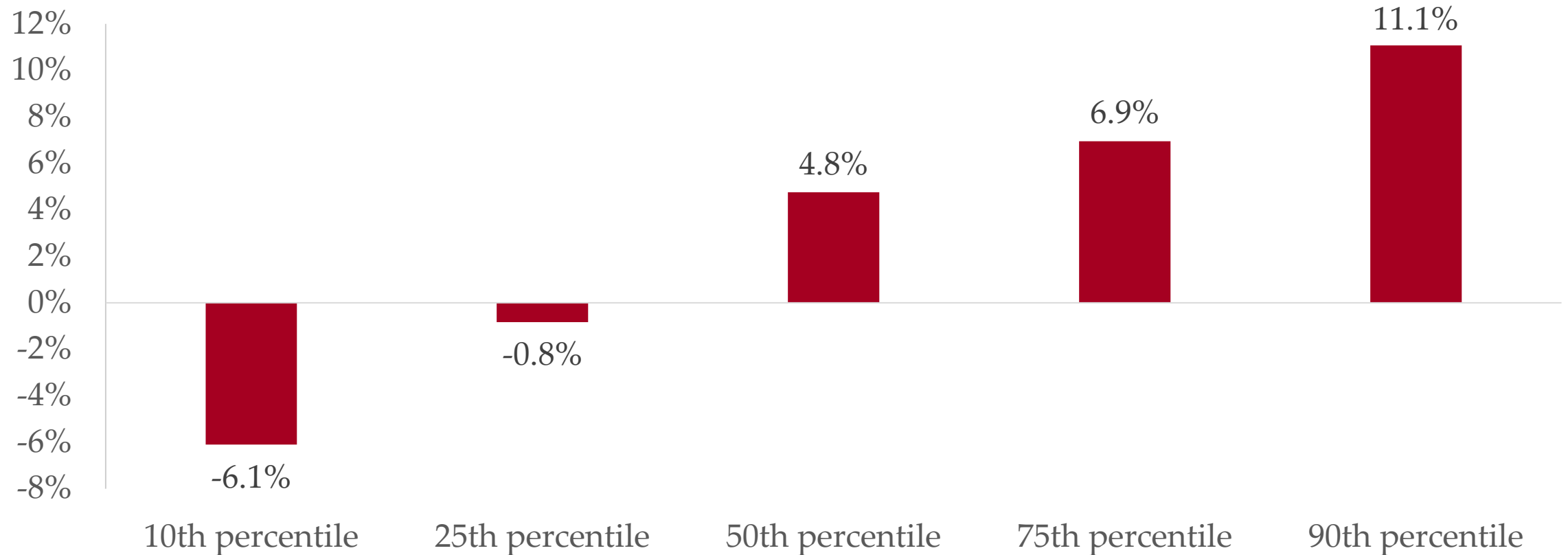
# After-tax equivalent income at age 70, growth from 2000 to 2011



# After-tax equivalent income, age 80



# After-tax equivalent income at age 80, growth from 2010 to 2016



# Economic optimality

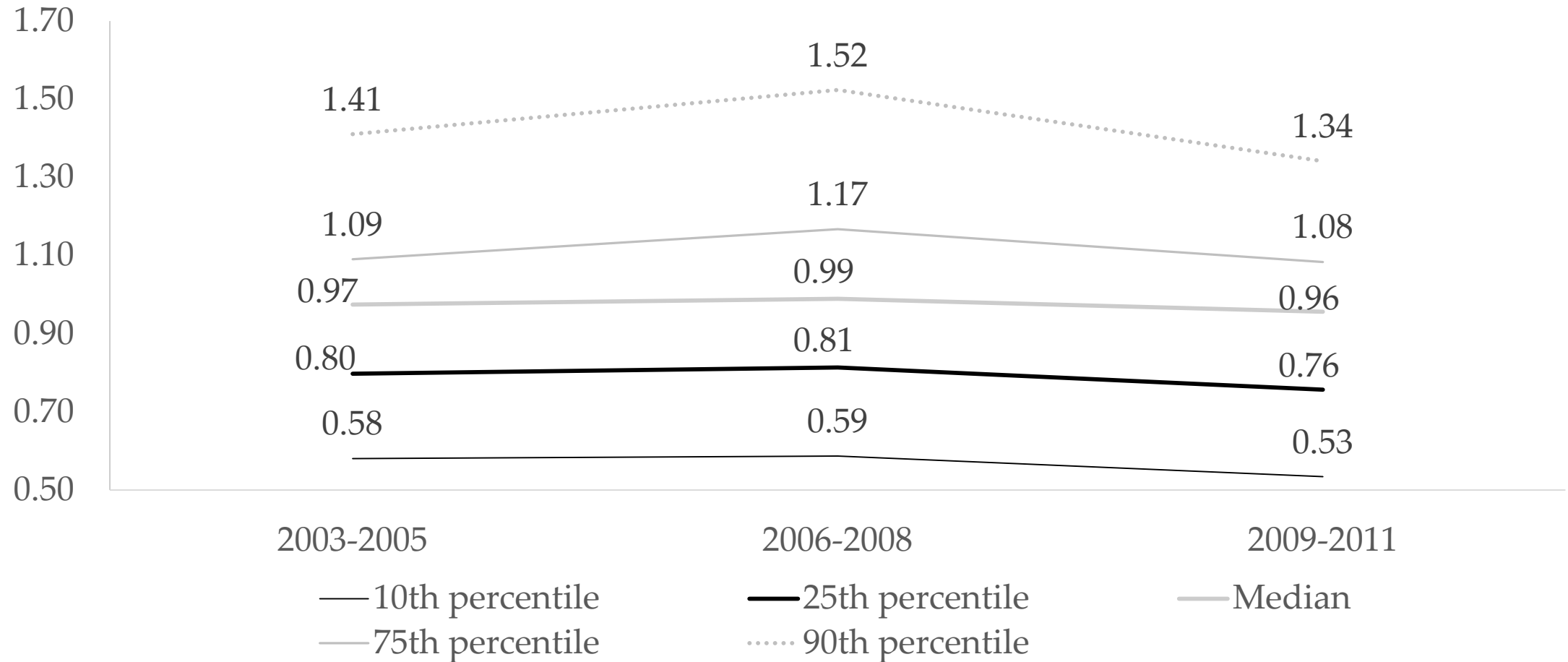
- Determined by consumption, not income
- Determined not just by *level* of consumption
- Determined by whether can maintain standard of living across time

# Income ratio analysis

Income averaged over ages 70-73 or 76-79  
divided by  
income averaged over ages 65-67



# Ratio of after-tax equivalent income at ages 70-73 to ages 65-67



# Ratio of after-tax equivalent income at ages 76-79 to ages 65-67



— 10th percentile  
— 75th percentile

— 25th percentile  
..... 90th percentile

— Median

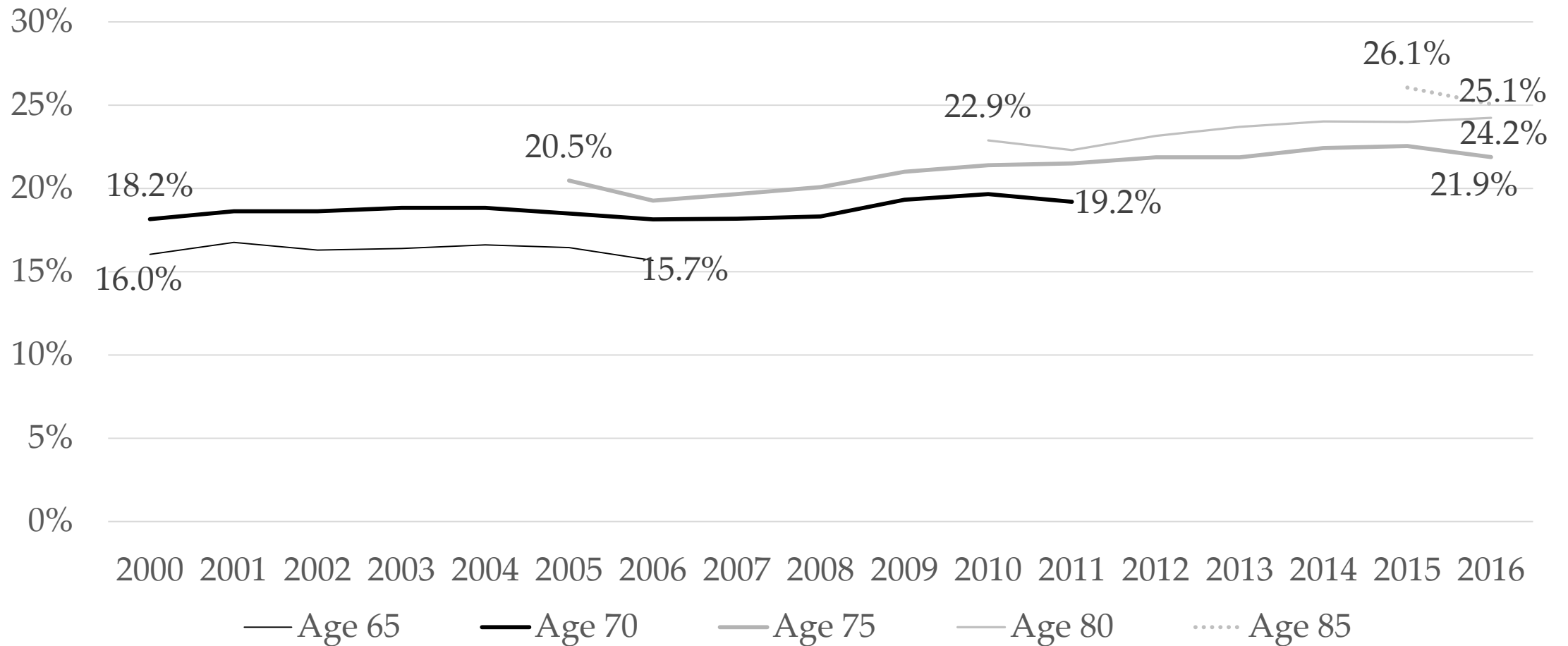
# Complete Social Security dependence

- < \$100 (in 2010 dollars) of non-Social Security income

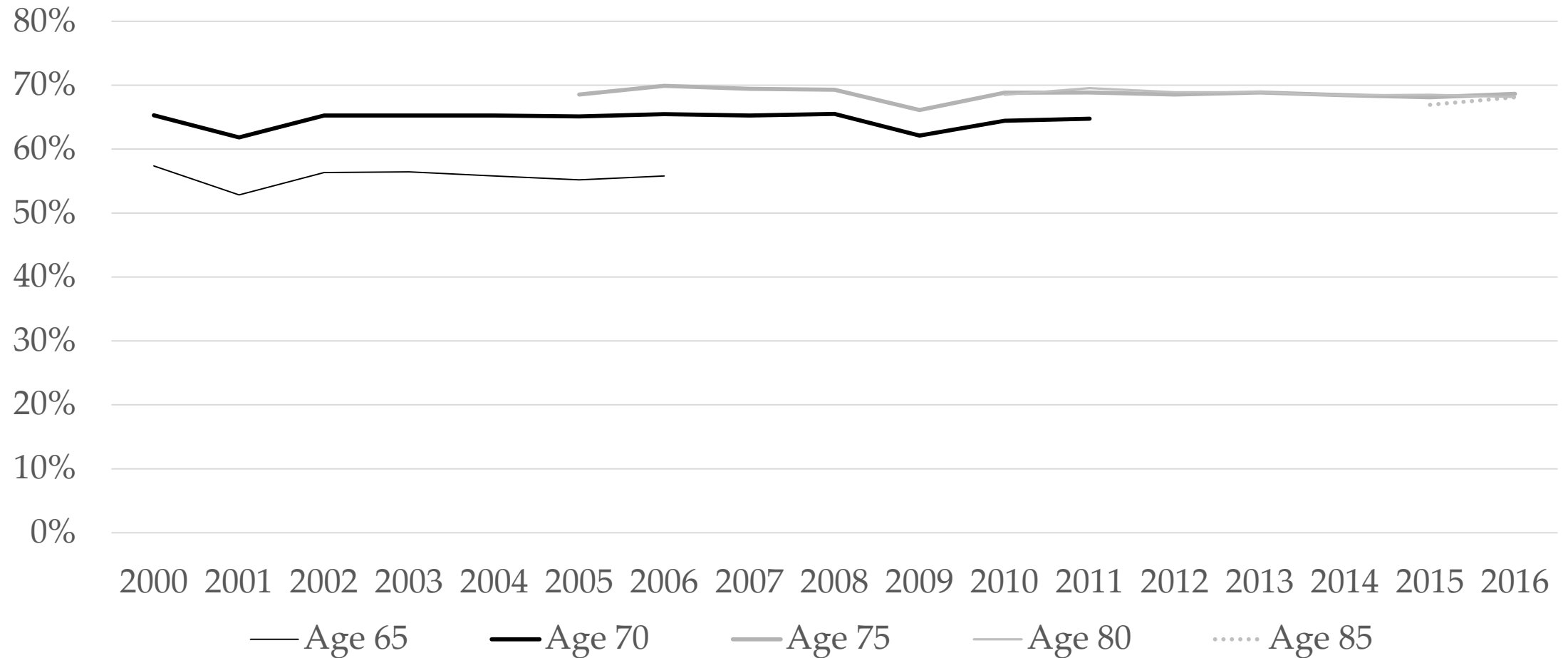
AND

- Zero IRA balances

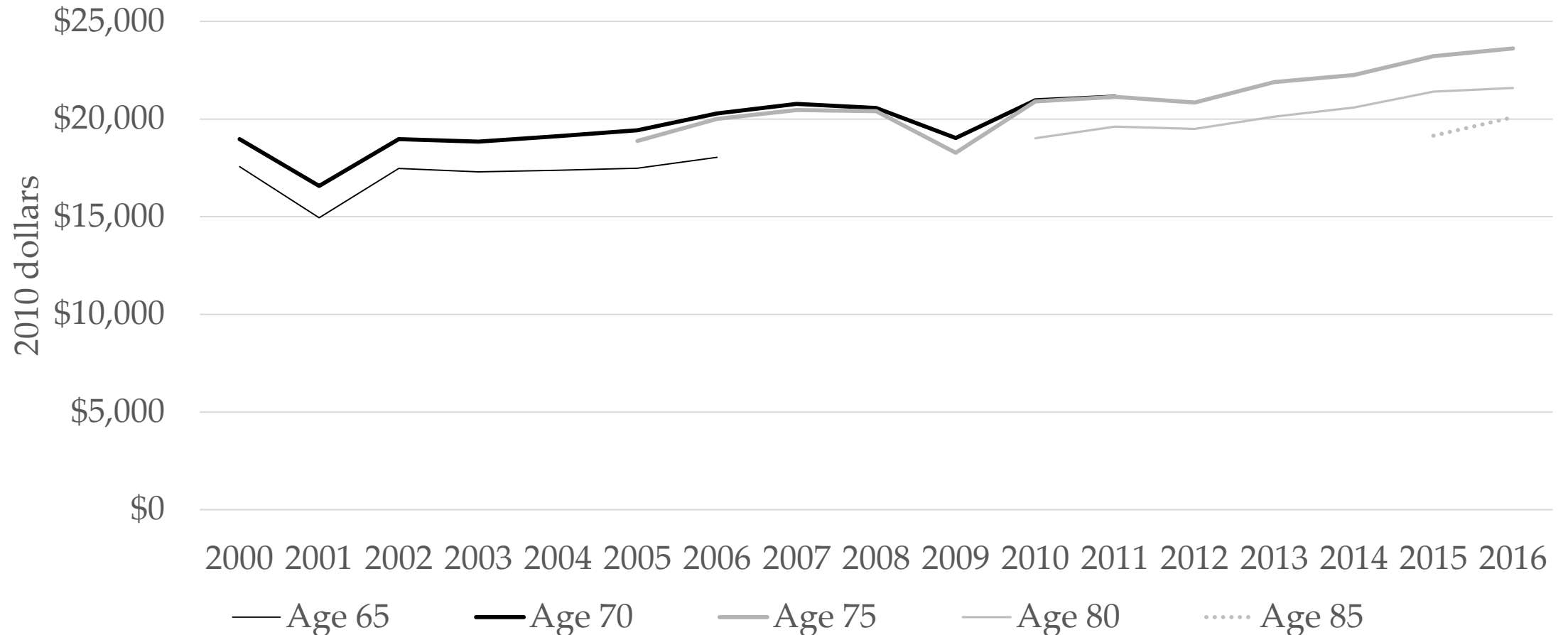
# % tax units who are completely dependent on Social Security



# % tax units with positive pension income



# 75th percentile equivalent pension income



# Summary

- Absolute levels of equivalent income at age 70 has been rising throughout distribution
- Absolute levels of equivalent income at age 80 have been *falling* below the median
- Income replacement ratios relative to age 65-67 income have been *falling* below the median
- Complete Social Security dependence rates have been rising at ages 70, 75, and 80

**KUTZ**