

# Differential Mortality Trends: Causes vs. Correlates

SSA Retirement Research Consortium  
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# Differential Mortality—Why?

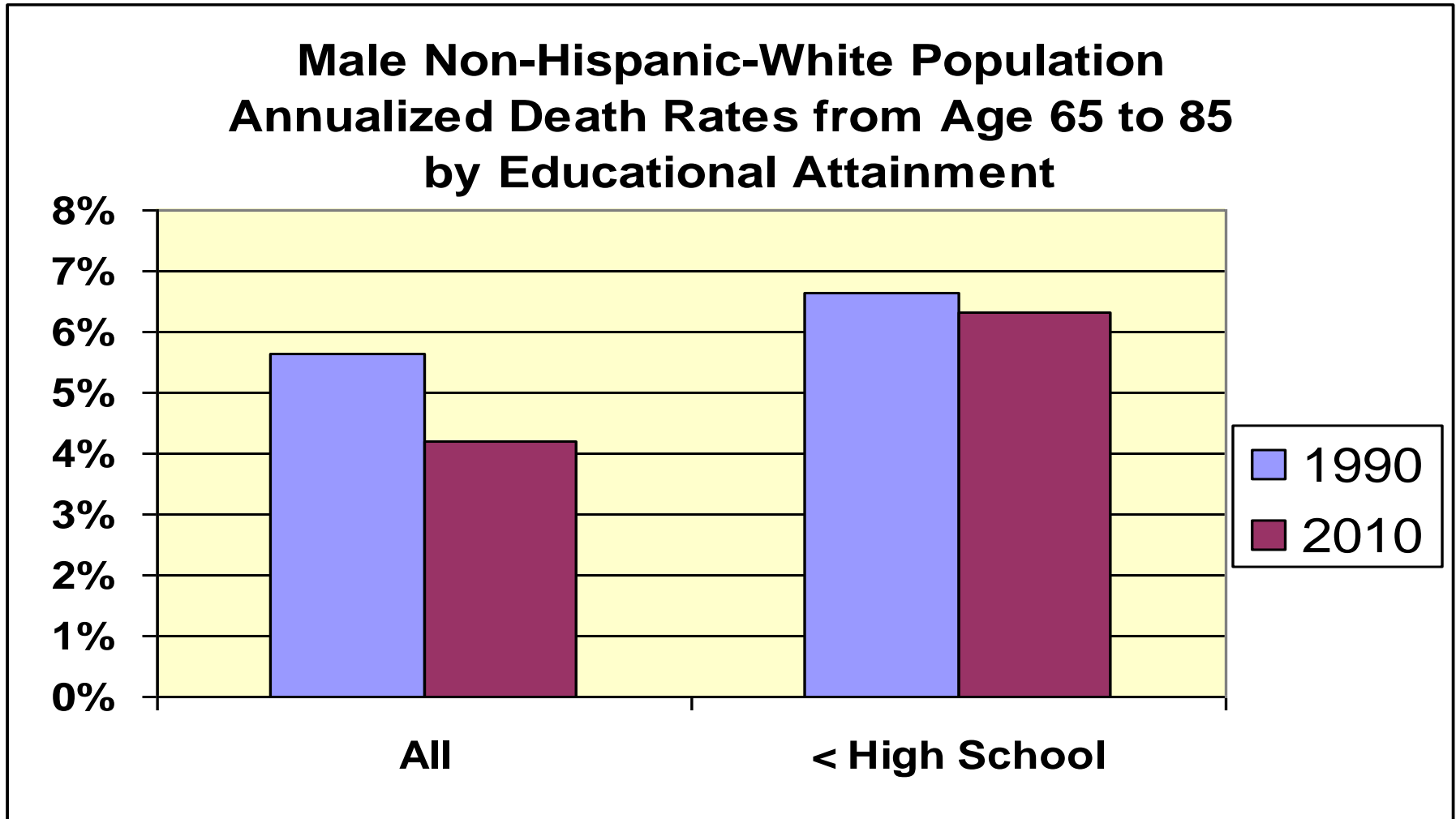
- Are differences in mortality caused by *level* of education or earnings?
- Or are they just correlated?
- Bound/Geronimus/Waidmann/Rodriguez explore this question by educational attainment

# Death Rates by Socioeconomic Status

- Sorting by educational attainment
  - Recognize changing shares—selection bias?
  - Identified low quartile, and the balance
- Show probability survive from age 25 to 35-85
  - “Period life tables”—cross-section, not cohort
  - Many excellent observations
- For OASDI, most important over age 65
  - So let’s consider levels of and changes in annualized death rate 65-85 from 1990 to 2010

# Males Improved a Lot Overall

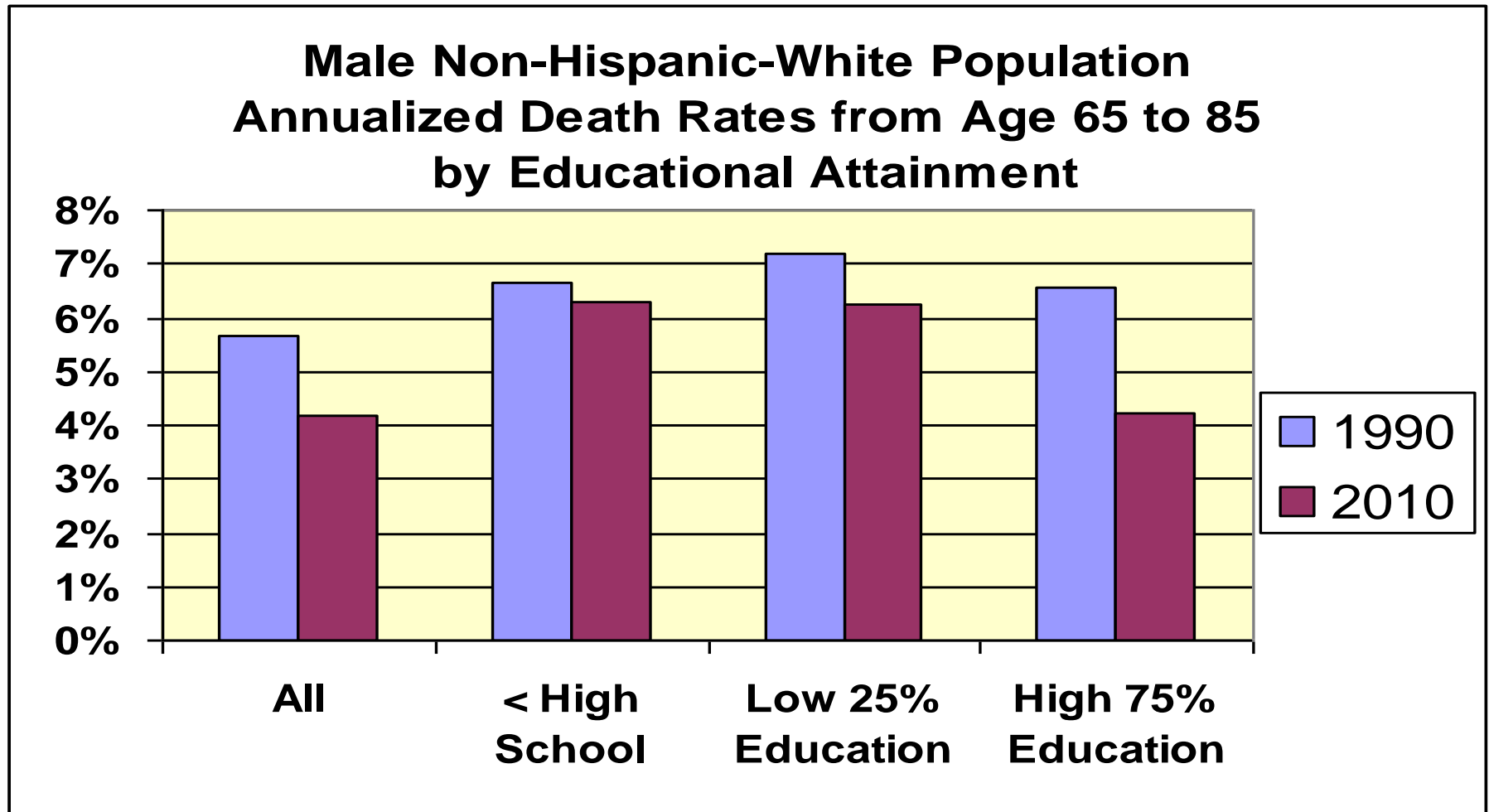
*But very little for <high school; selection bias?*



# Male Low Quartile Education Did Better

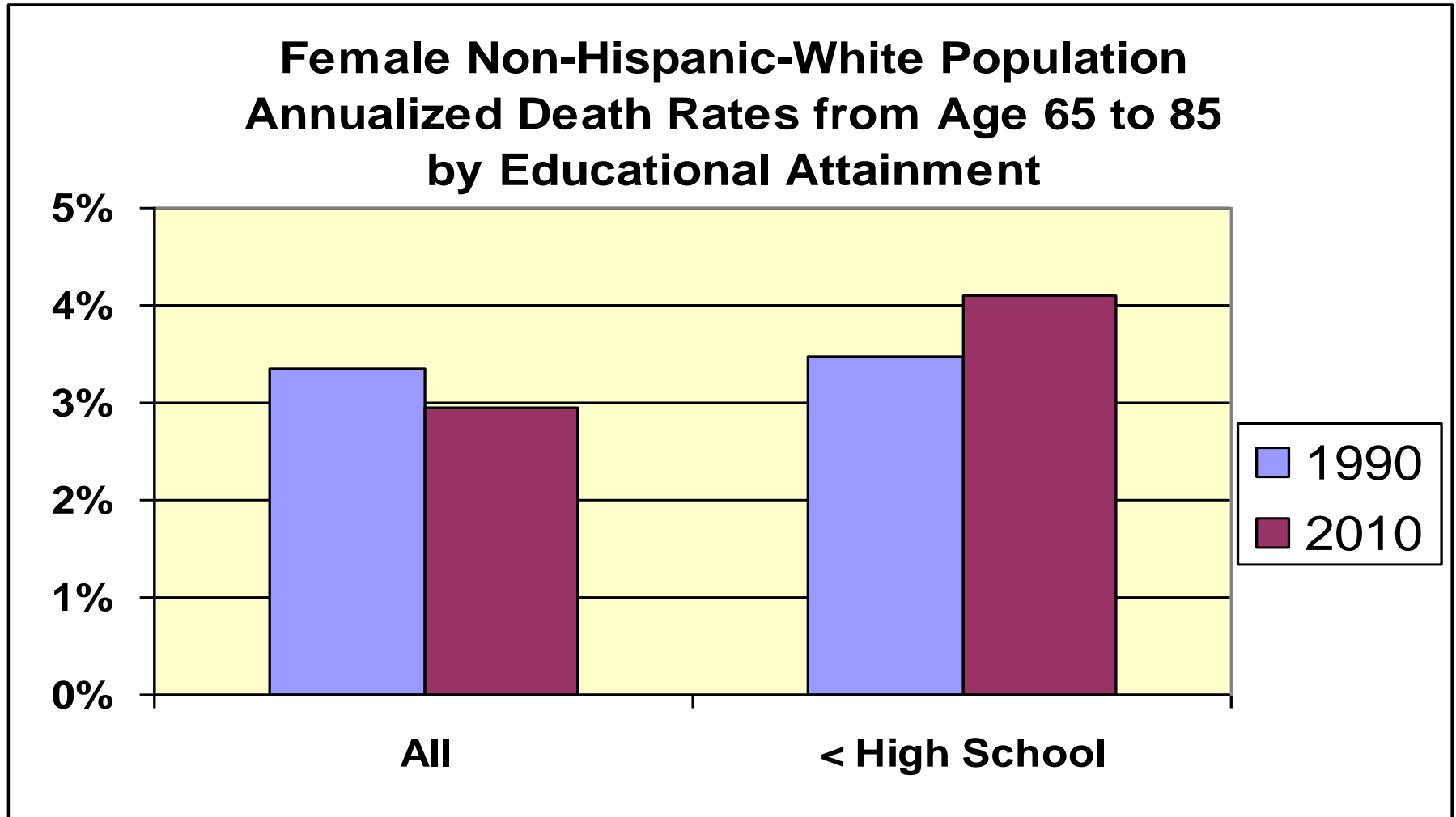
*But not nearly as well as high 75% education*

*Note overall rates are lower than both education groups*



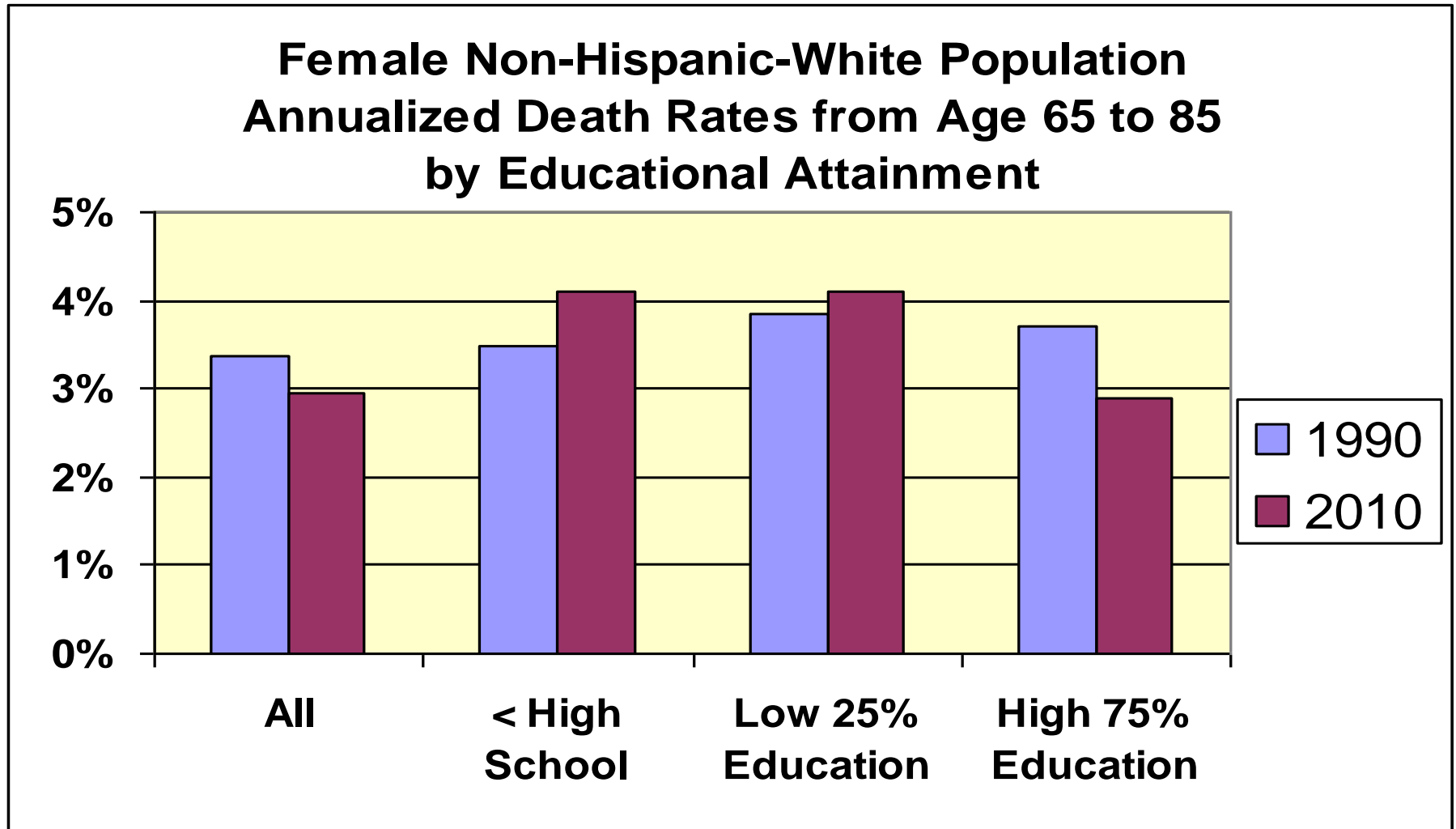
# Females Little Improvement Overall

*For < high school, rising deaths! Selection?*



# Female Controlled to Low Quartile Education

*Much less increase*



# Suggestions

- Would be nice to see:
  - All four quartiles
  - More socioeconomic status groups
- Explore why educational groups all have higher death rates than for overall?
- Keep up the great work

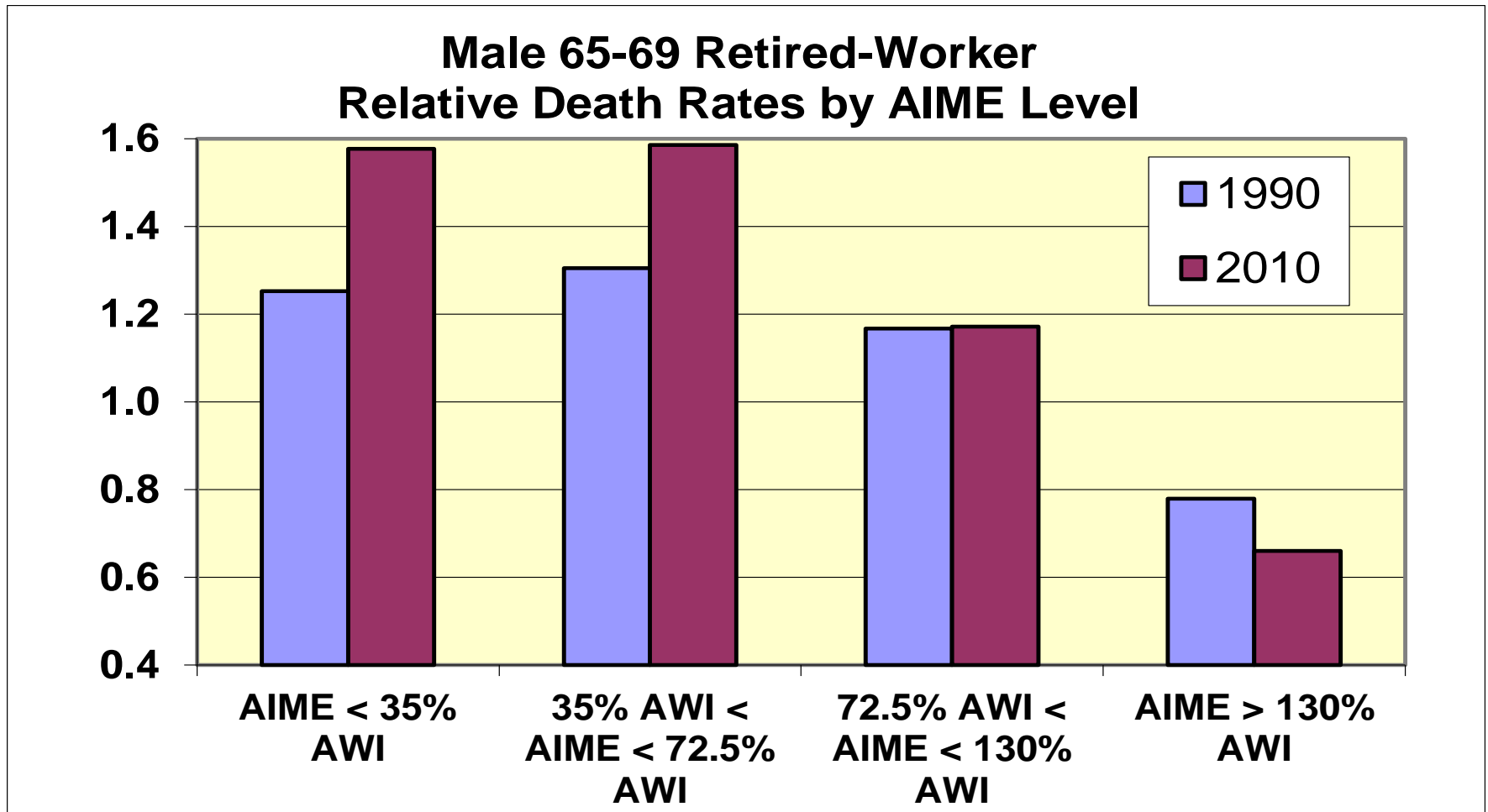


# Mortality by Career Earnings

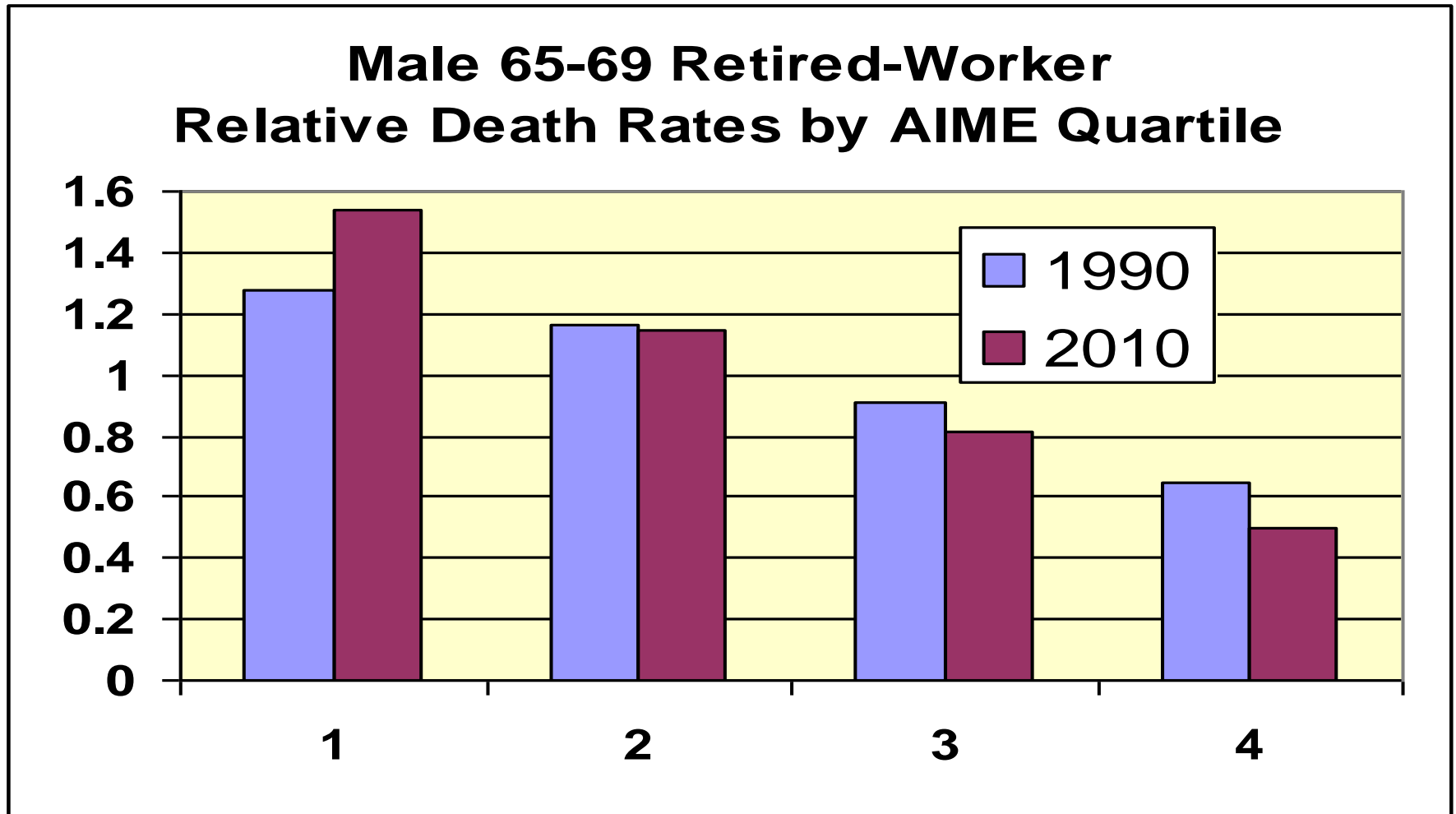
- Preliminary results from Bosley/Morris/Clingman, OCACT/SSA
  - SSA micro data for retired worker beneficiaries (w/o disabled)
  - Career earnings more directly relevant to benefits
  - But highly correlated to educational attainment
  - Similar findings
- Sort by relative career earnings *level*—AIME
  - Issues for those turning 62 before about 1985
- Also sort by quartile to lessen selectivity
  - Less ambiguity for earlier cohorts
- Consider death rates *relative* to all retirees

# Increase in Male *RELATIVE* Death Rates for Retirees with Lower *LEVELS* of Earnings

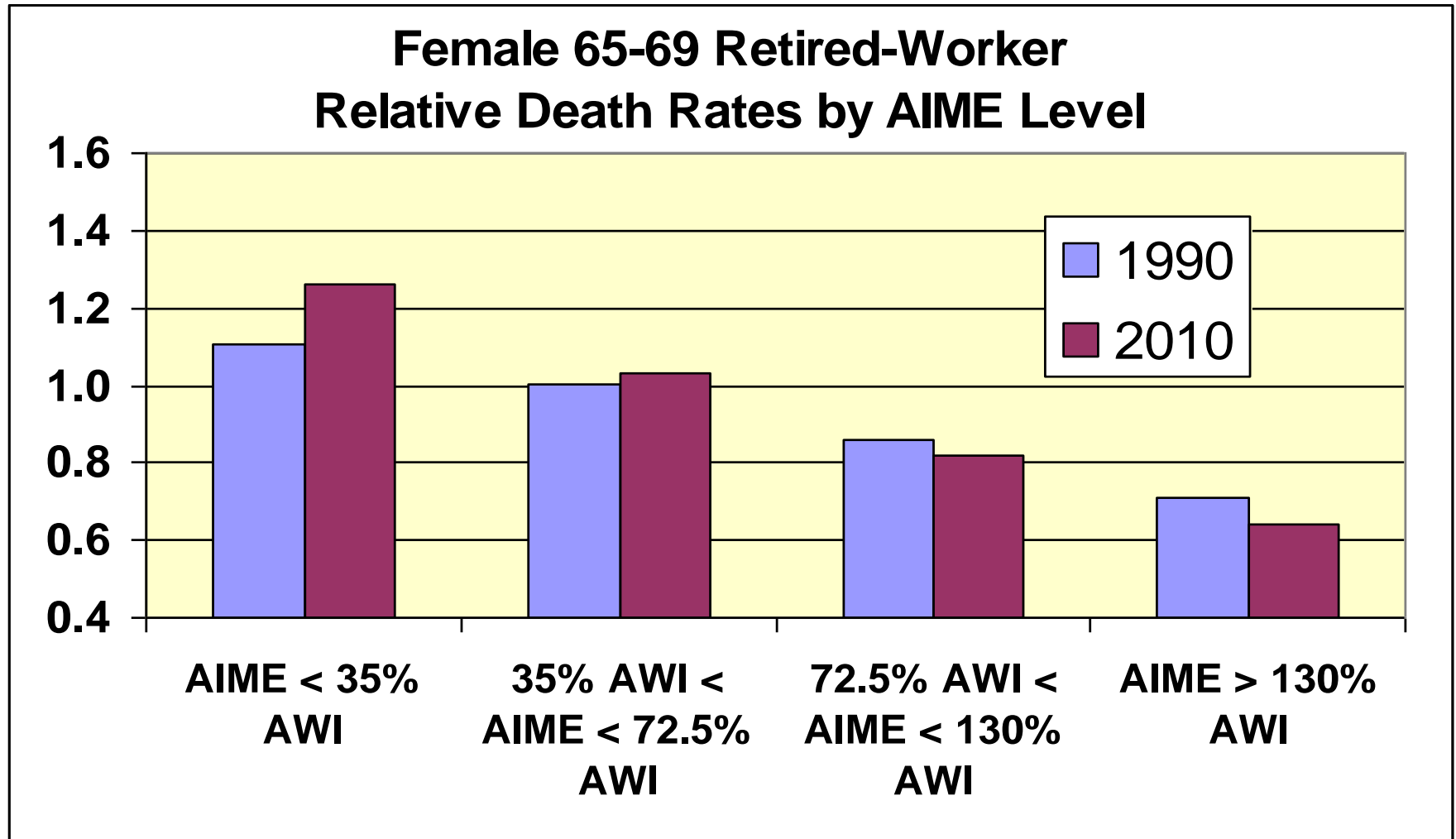
*Small share of males with low earnings*



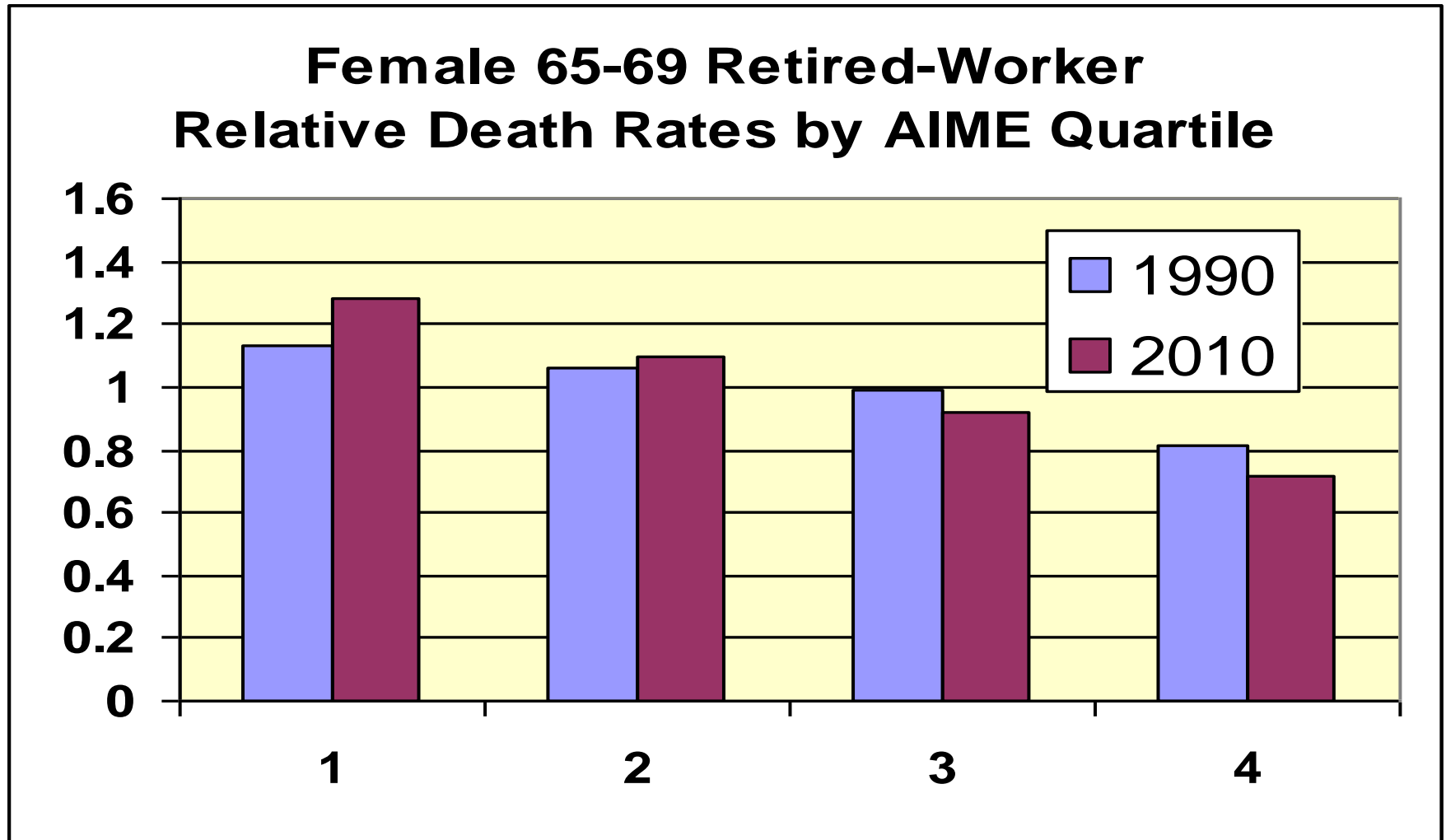
# Less Dispersion of Male Relative Death Rates by Career Earnings *RANKING*



# Dispersion in Female Relative Death Rates by Earnings *LEVEL*: Shift to Higher Earnings Levels



# Similar Dispersion of Female Relative Death Rates by Career Earnings Ranking



# What This All Tells Us

- Education and earnings certainly correlate with death rates, but extent of causation is still unclear
- Confirms OCACT “post-entitlement” factors
- Implications for Social Security plan design
  - Different normal retirement ages?
  - See Simpson/Bowles proposal
- **Question: Will dispersion increase more?**
  - Will ACA help through better general health?