



Age and Net Worth in Australia

Aims ...

- Examine changing composition of net worth with age in Australia
- Examine changing distribution of net worth with age in Australia

Data Sources

- Income and Household Cost Survey (IHCS)
- 1994; 1995; 1996; 1997
- (1994 means June 1994 to June 1995)

- Data are available in Australia in the form of CURFs (confidentialised unit record files)
- Marginal cost (Universities)

Net Worth (Non-human wealth)

- Net Worth calculated as:
- Disposable income
- -debt (mainly mortgage)
- + value of dwellings
- + value of income-bearing assets:
- Interest; dividends; rental income
- Use of 'multipliers'

Exclusions

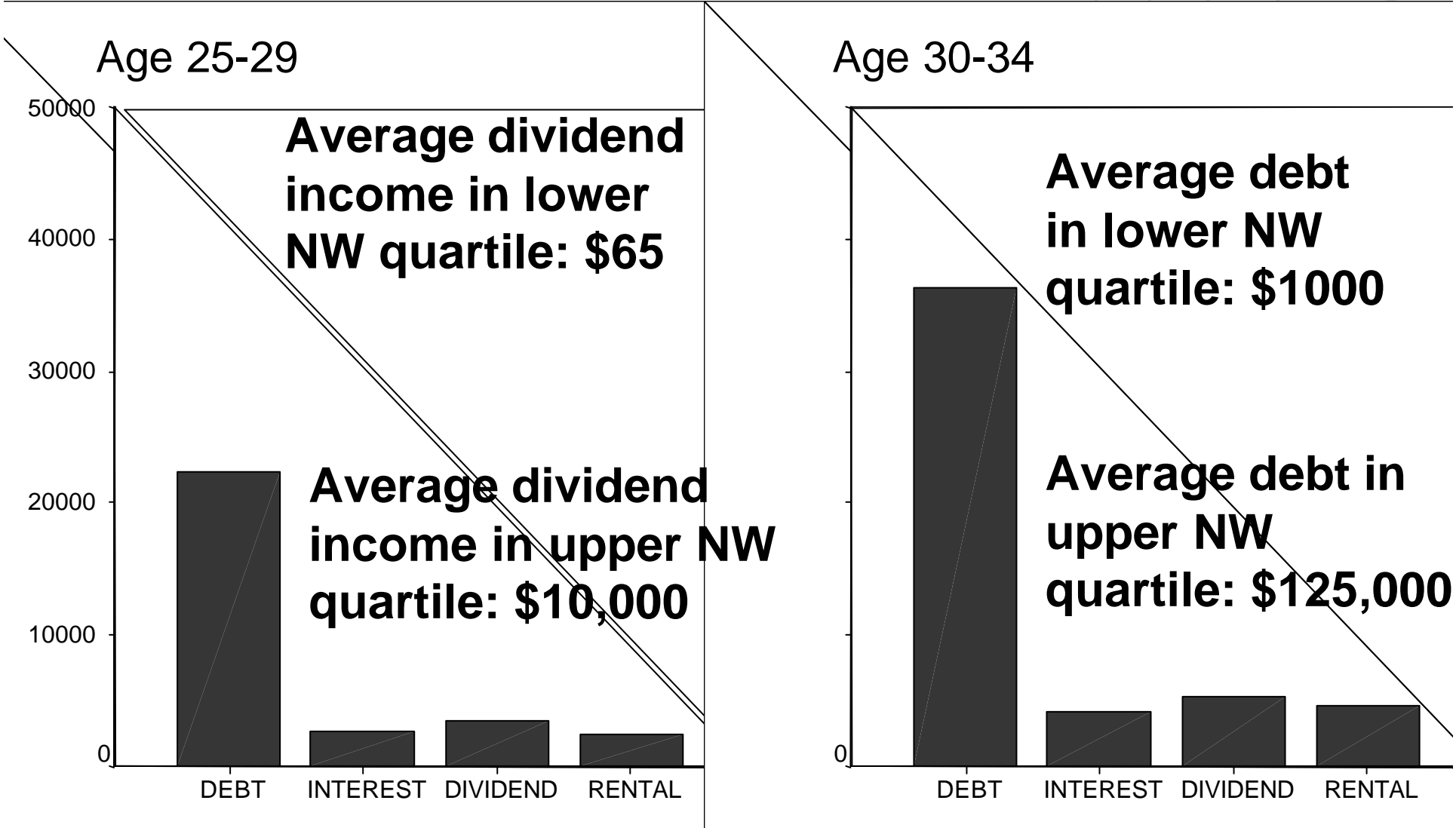
- Business and Farm Assets (not included in IHCS).
- Transfer payments (particularly pension rights)
- Non-interest-generating assets (art, antiques)
- Exclude those under 25 years.
- Deletion of –ve NW observations from sample (for log-NW age profile)
- N = 5,758; 6,533; 6,049; 5,857.

Units

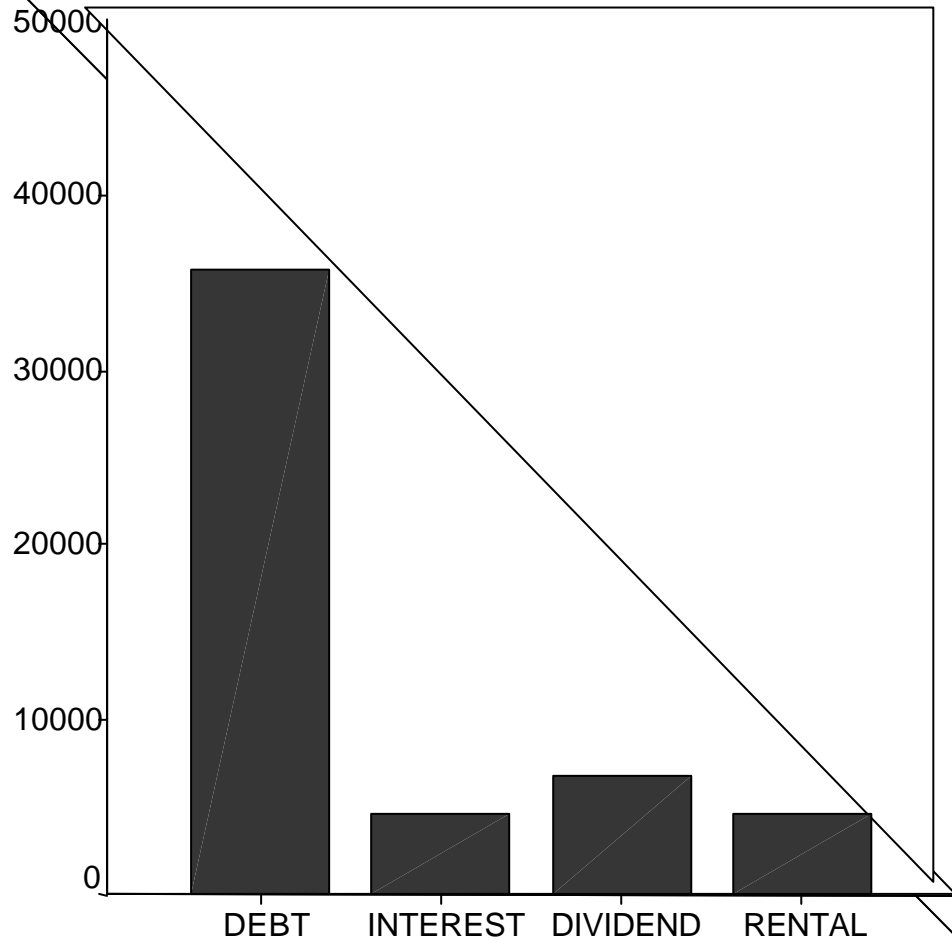
- Unit of Analysis: Income Unit
- Problems of transitions over the life cycle
- No adjustment for adult equivalent size of income unit
- All Net Worth data adjusted to 1994 values

Age and Average Income from Alternative Sources

- Pooled samples
- 5-year age groups
- Cross-sectional data – interpretation ...
- Have older generations invested more heavily in property? (given changes in real borrowing rates)



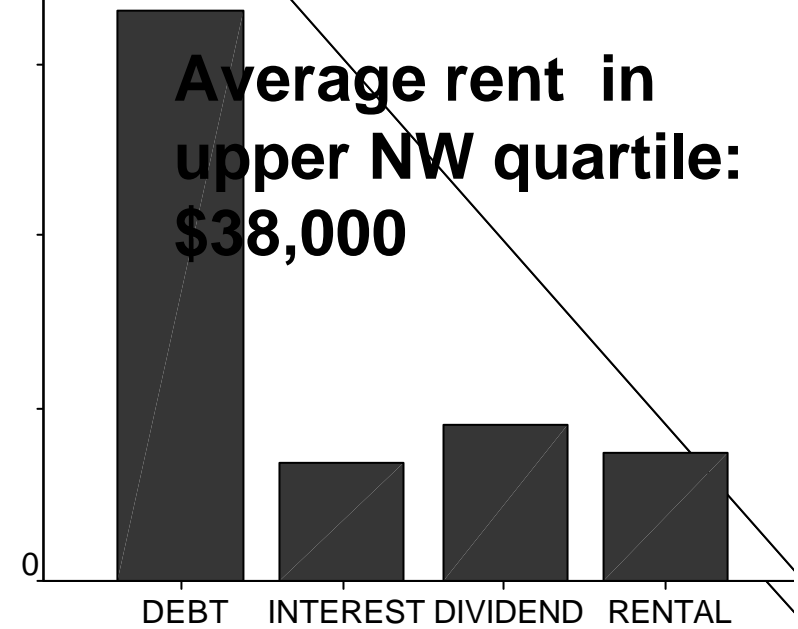
Age 35-39

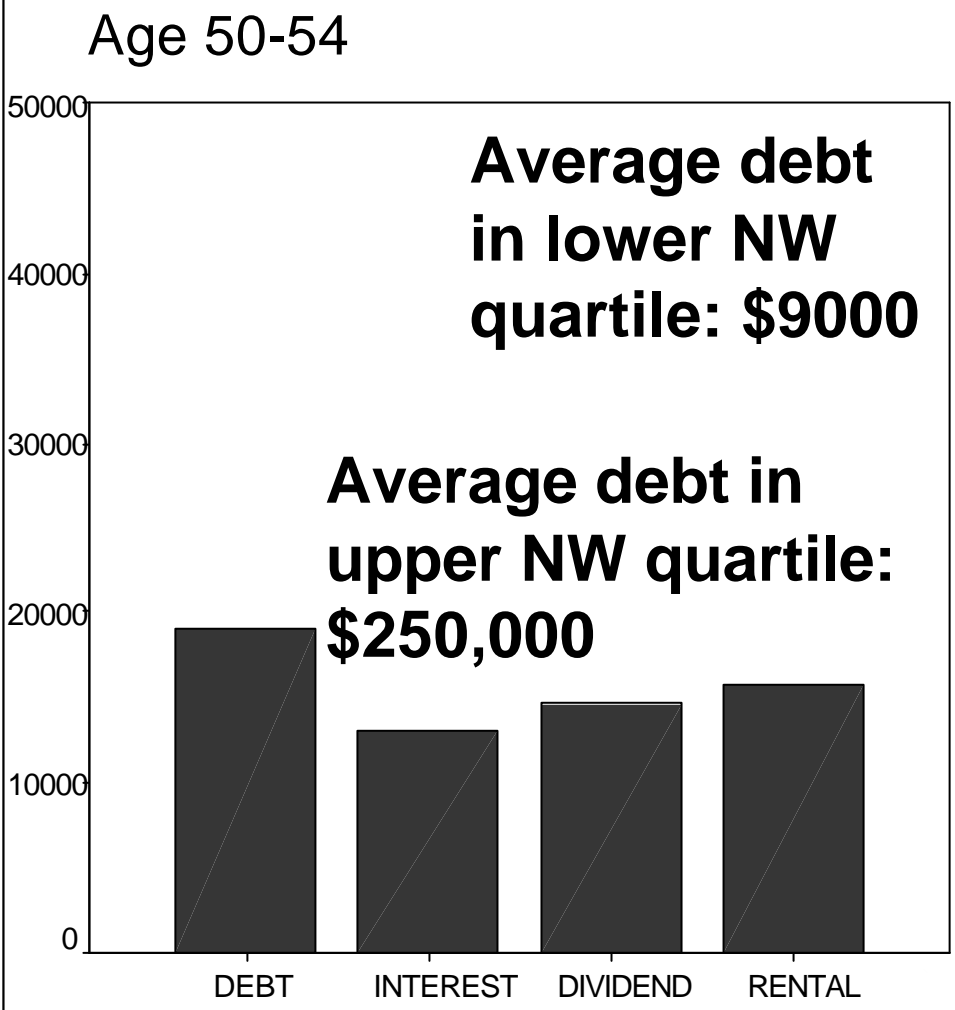
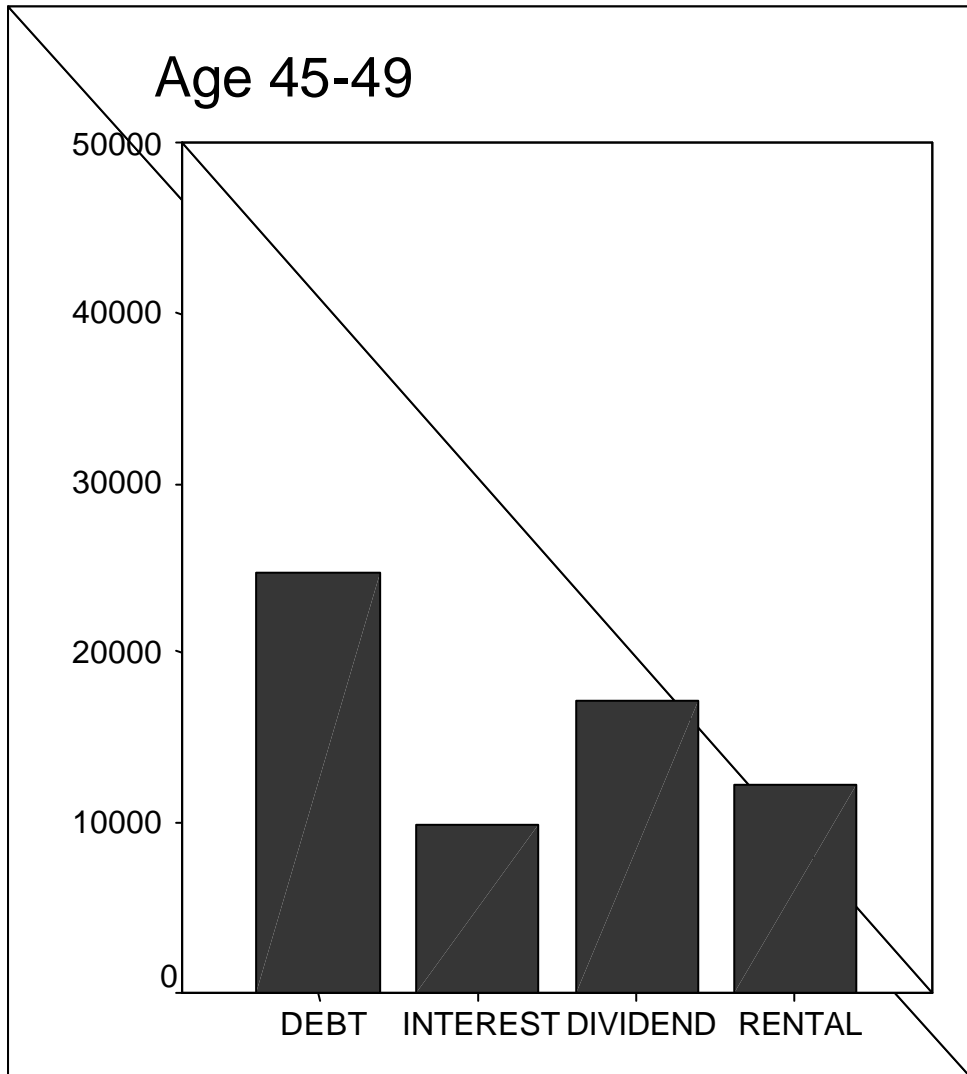


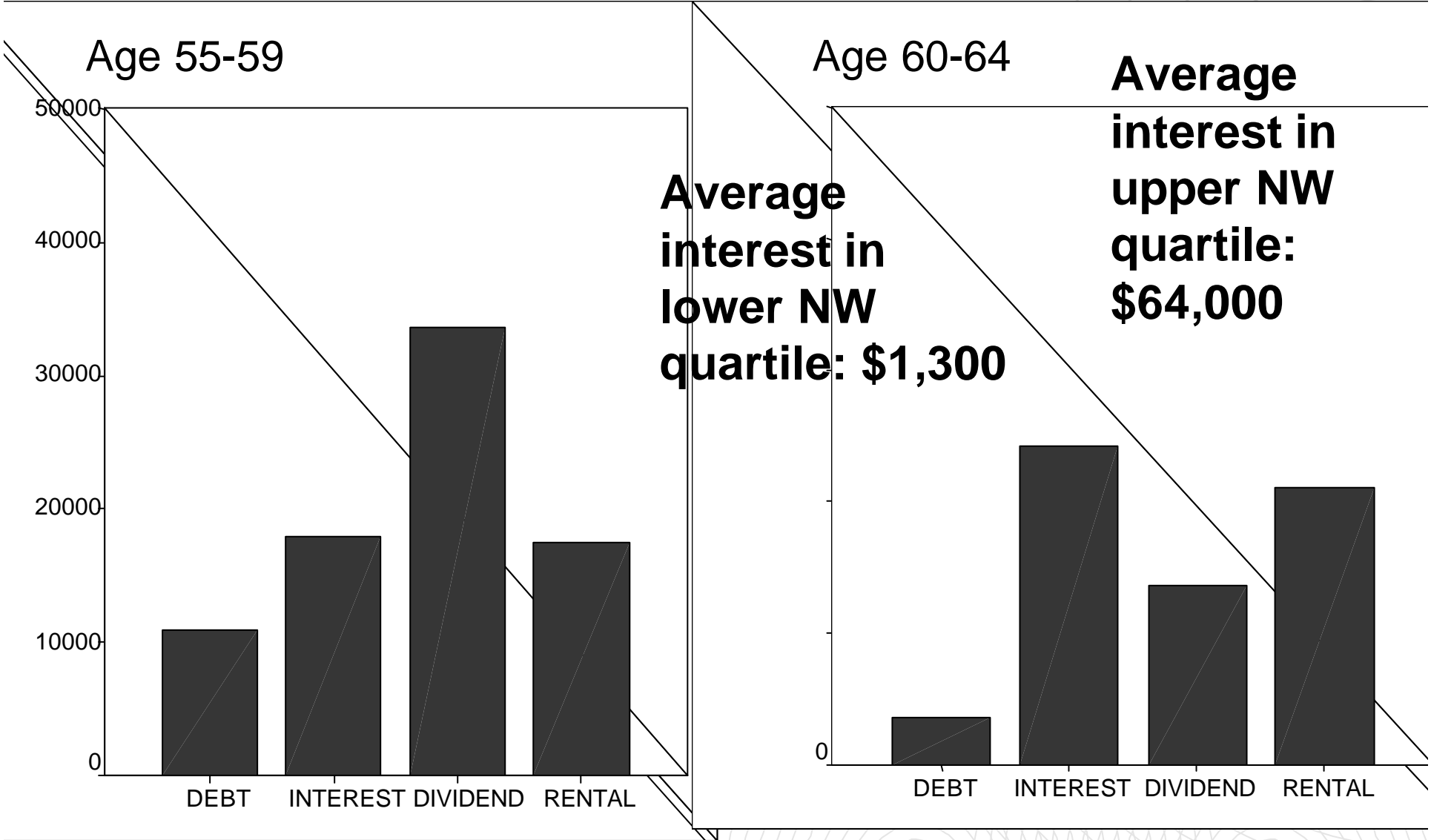
Age 40-44

Average rent in lower NW quartile: -\$12,000

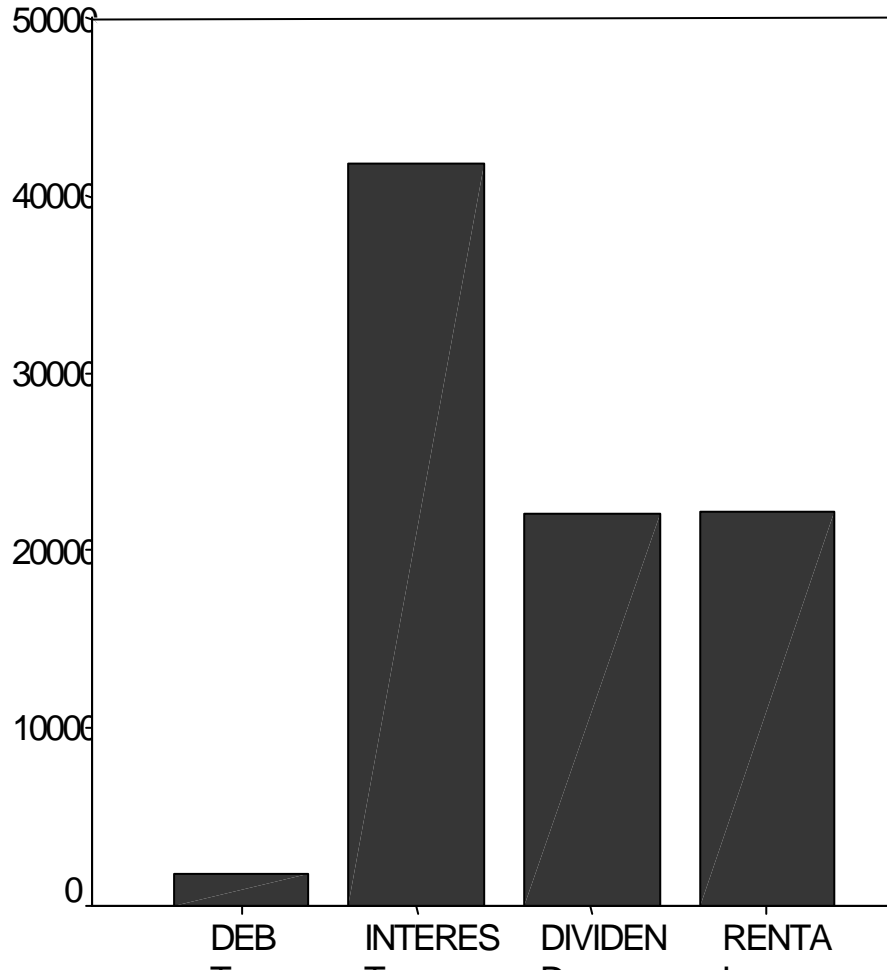
Average rent in upper NW quartile: \$38,000



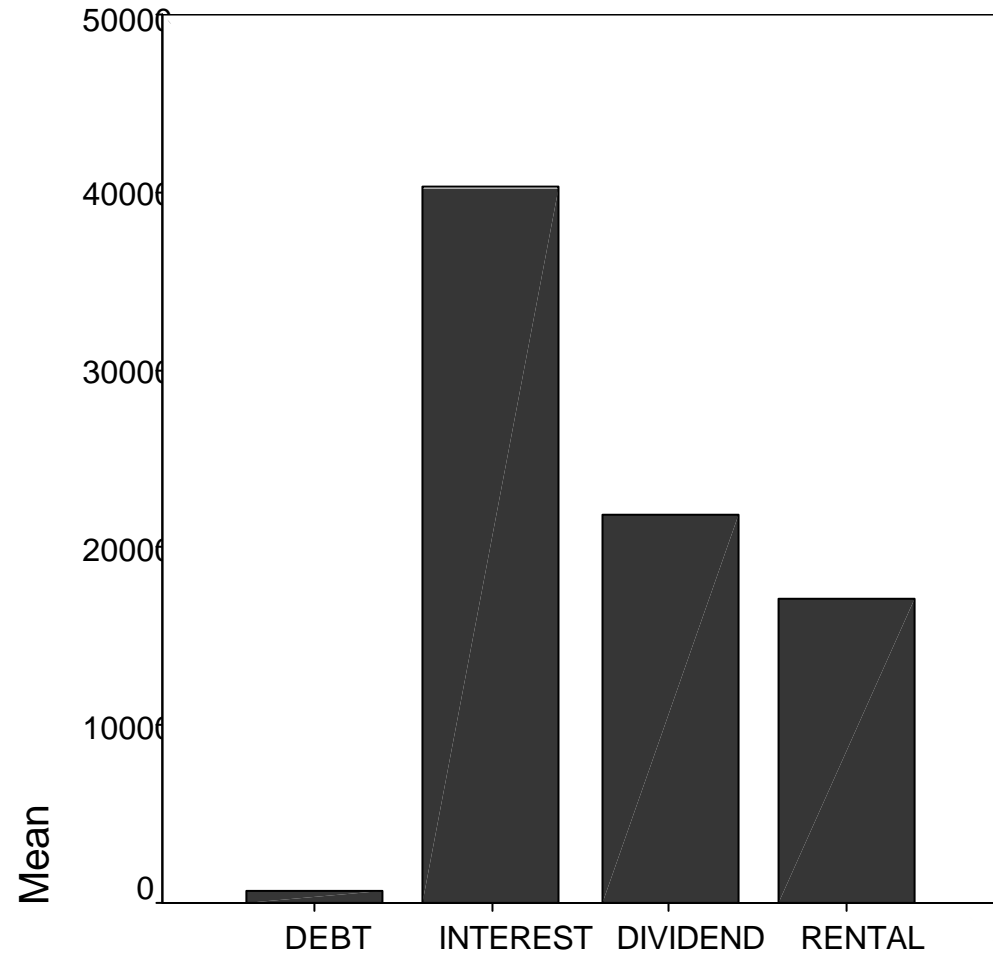


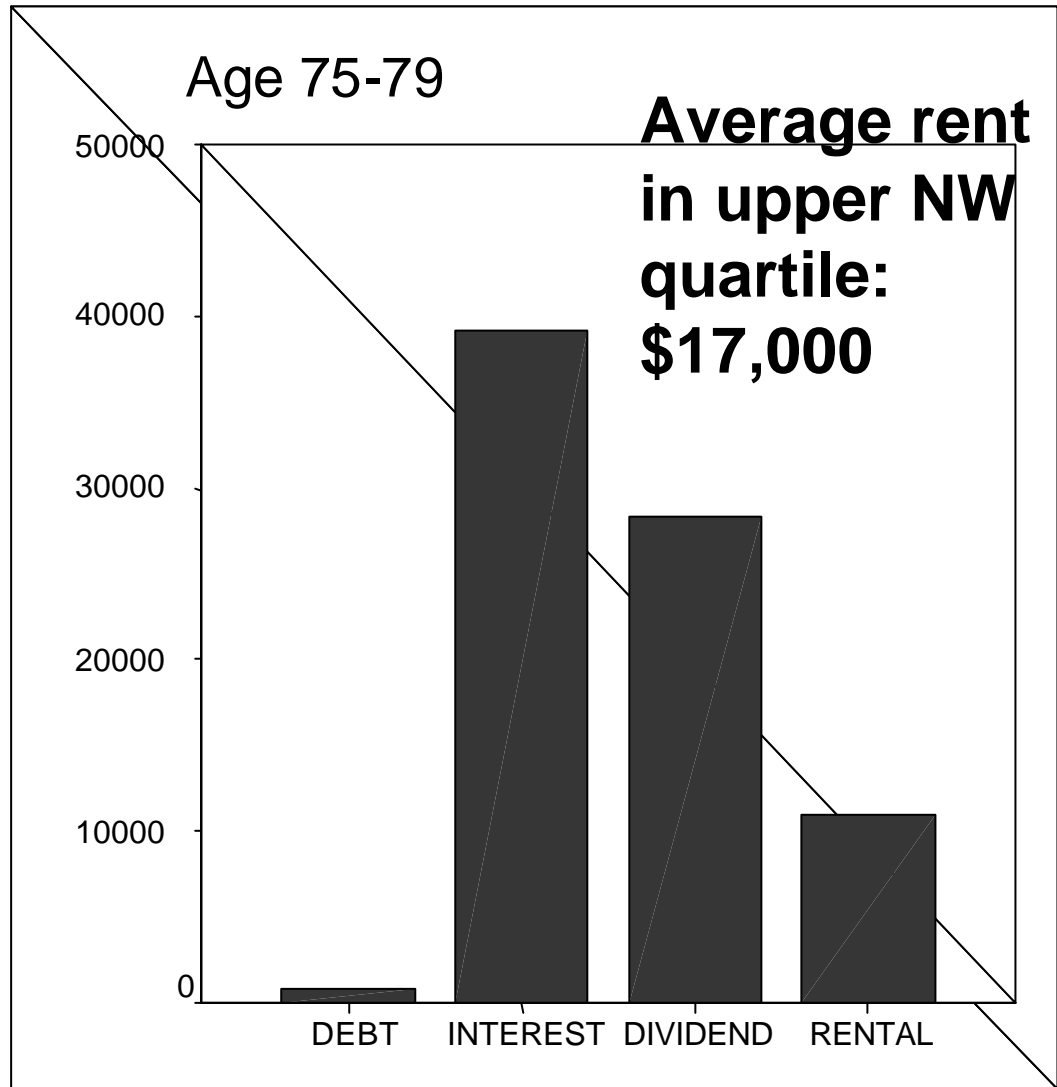


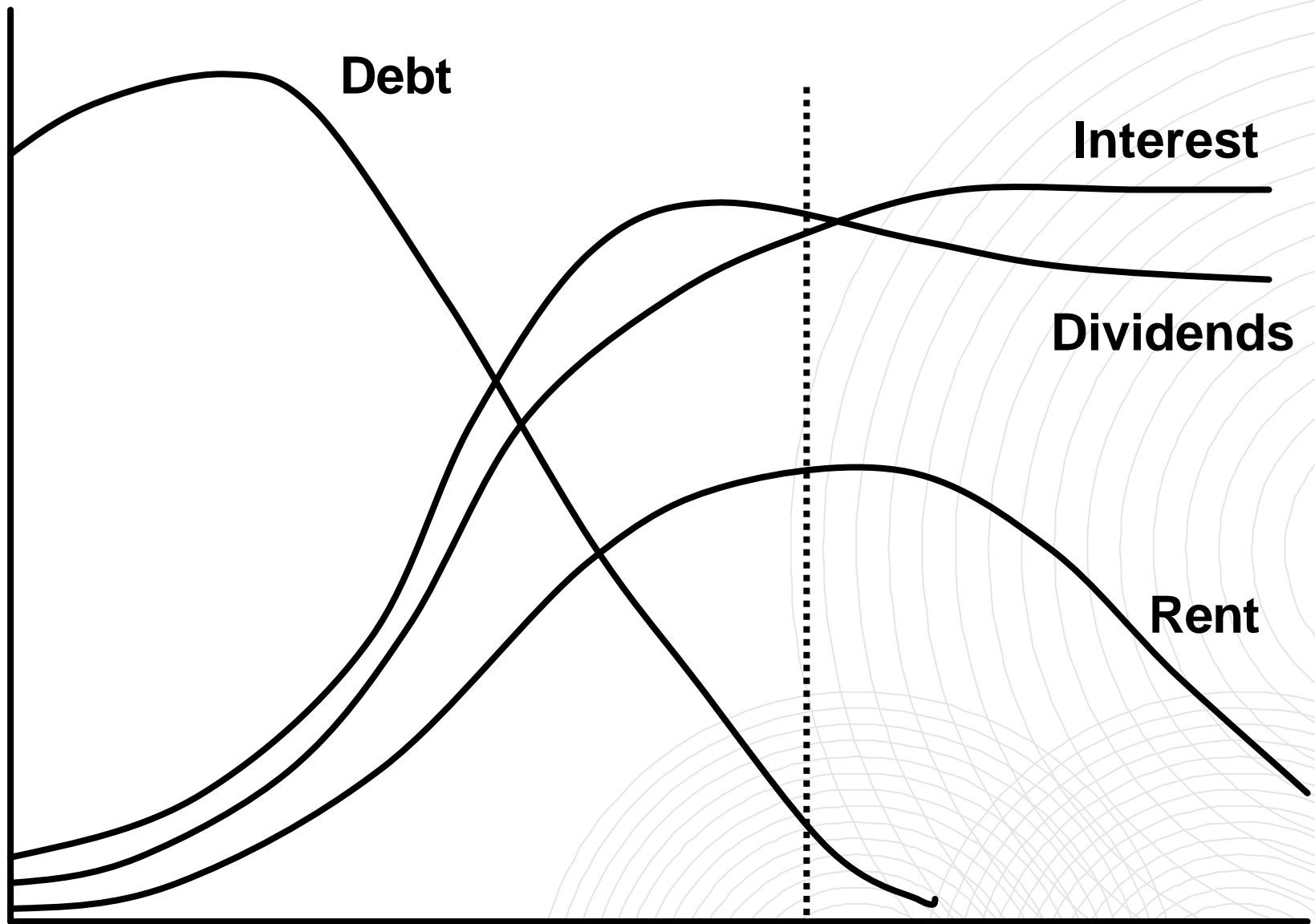
Age 65-69



Age70-74





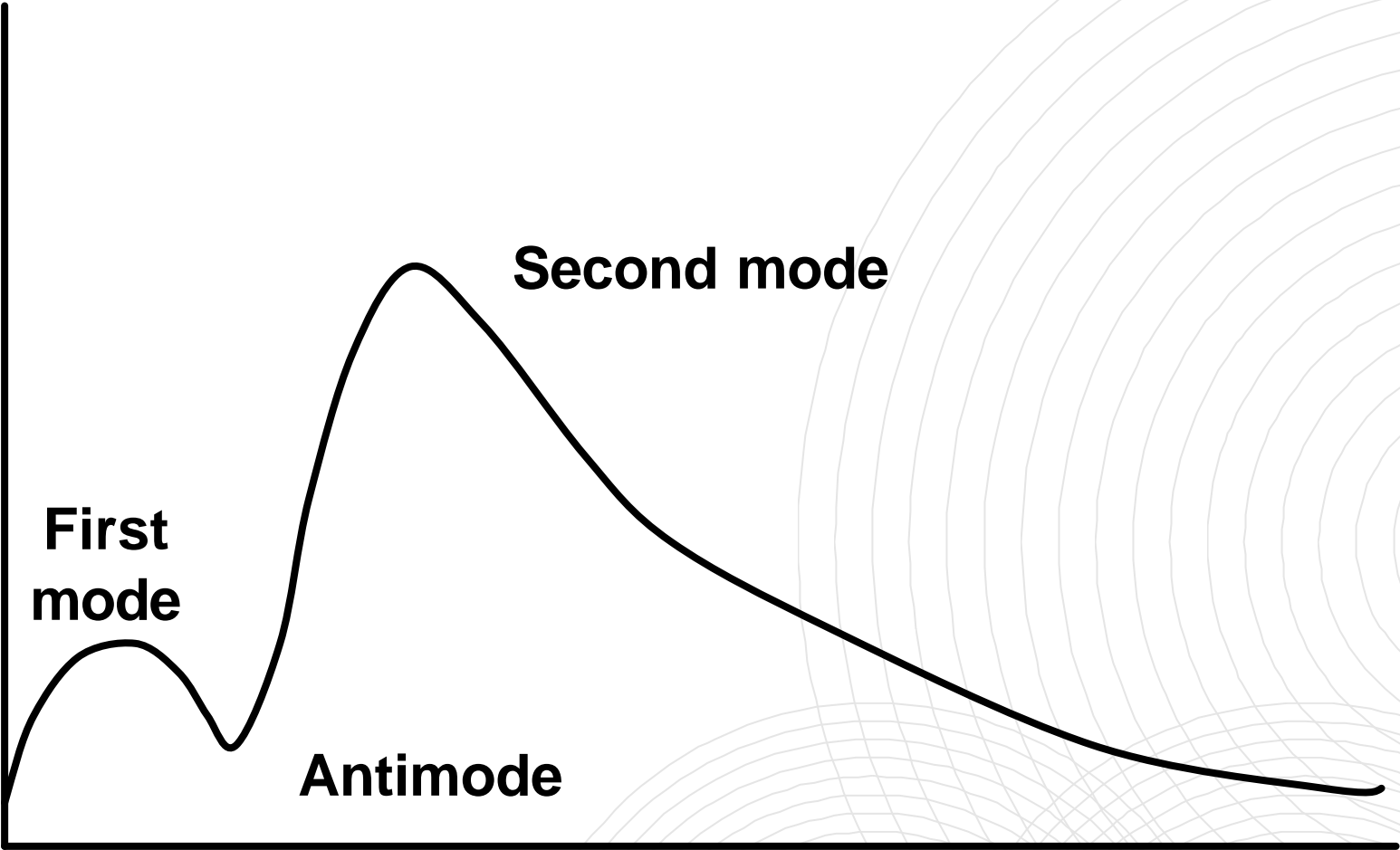


Age

Age and the Distribution of Net Worth

- Pooled Samples
- Characteristics of Distributions:
 - Positively skewed
 - Bimodal

Proportion



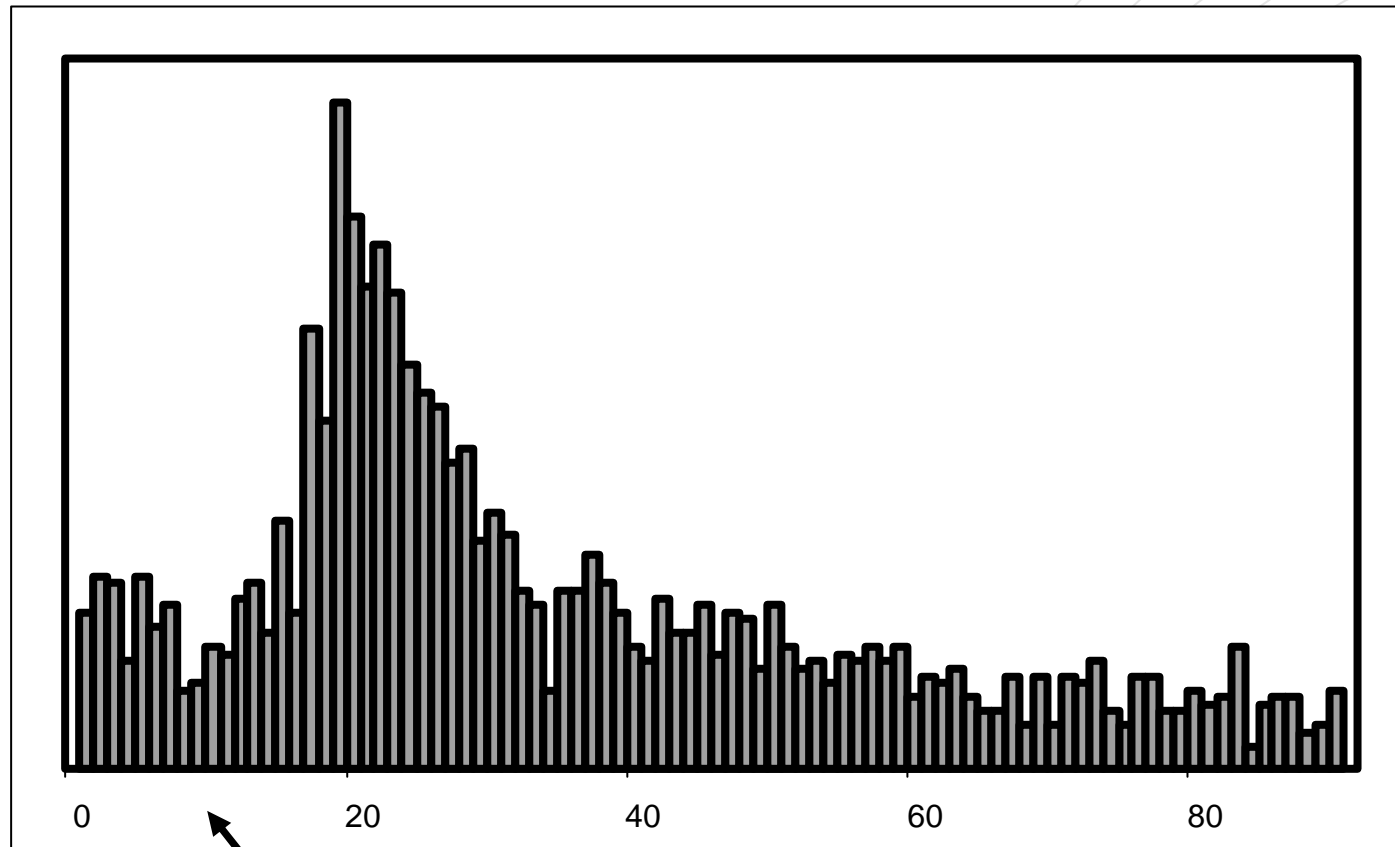
First mode

Second mode

Antimode

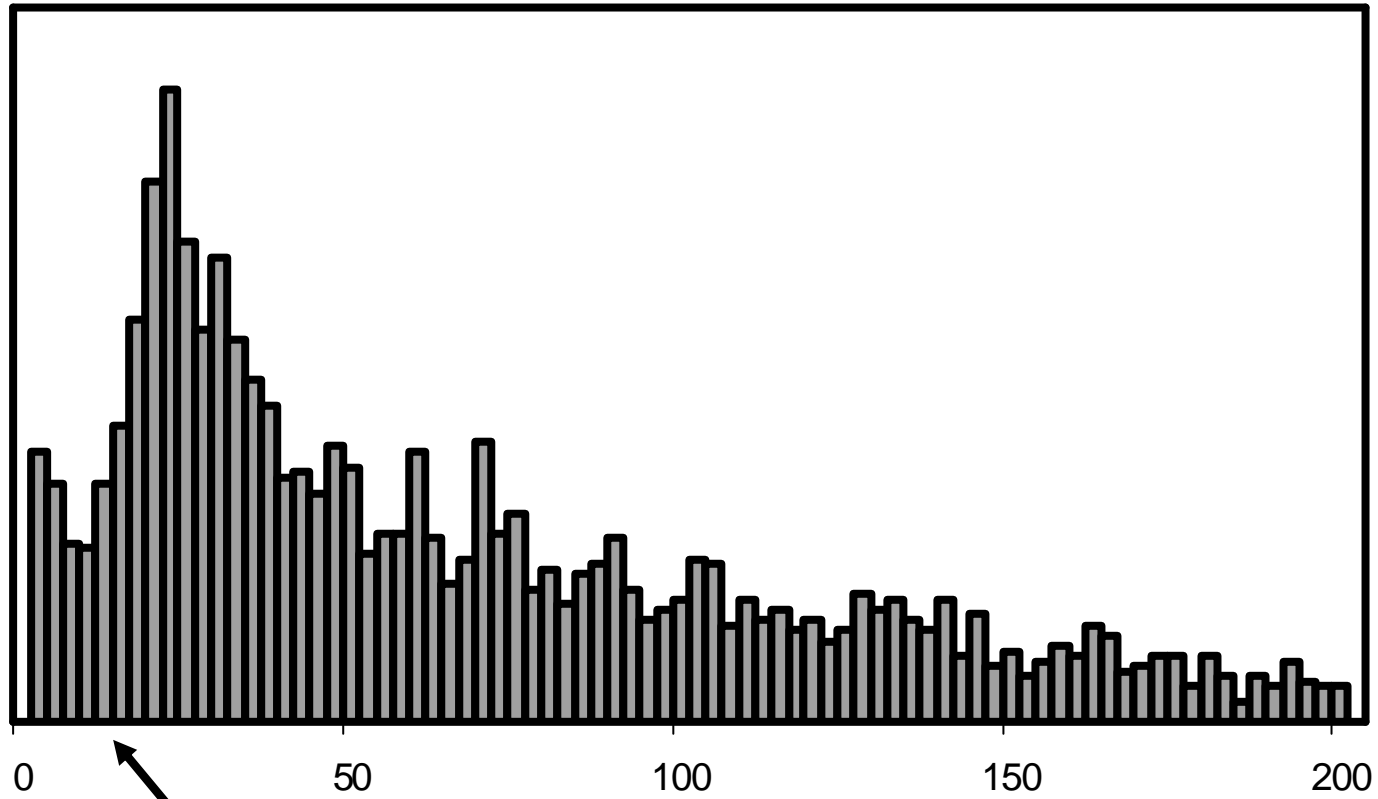
Net Worth

Age 25-29



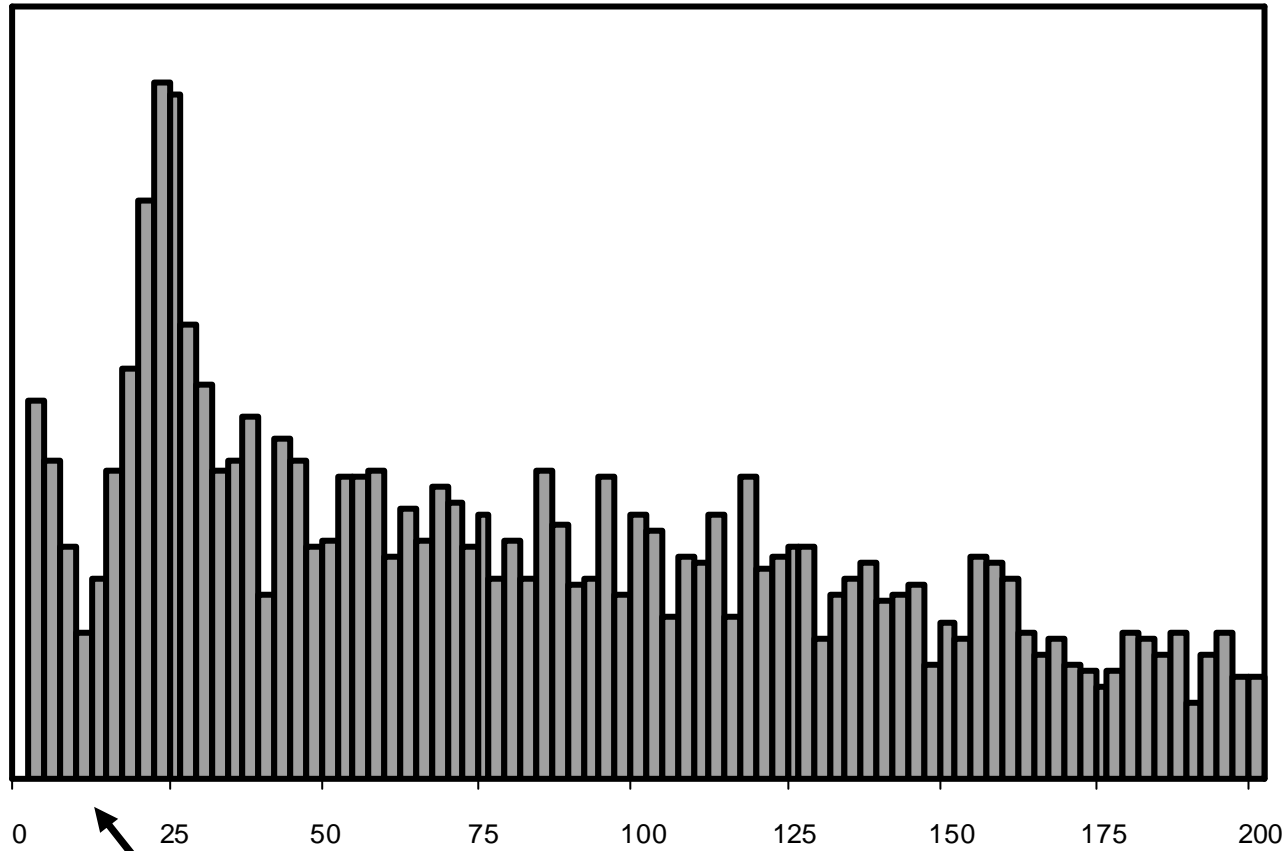
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Age 30-34



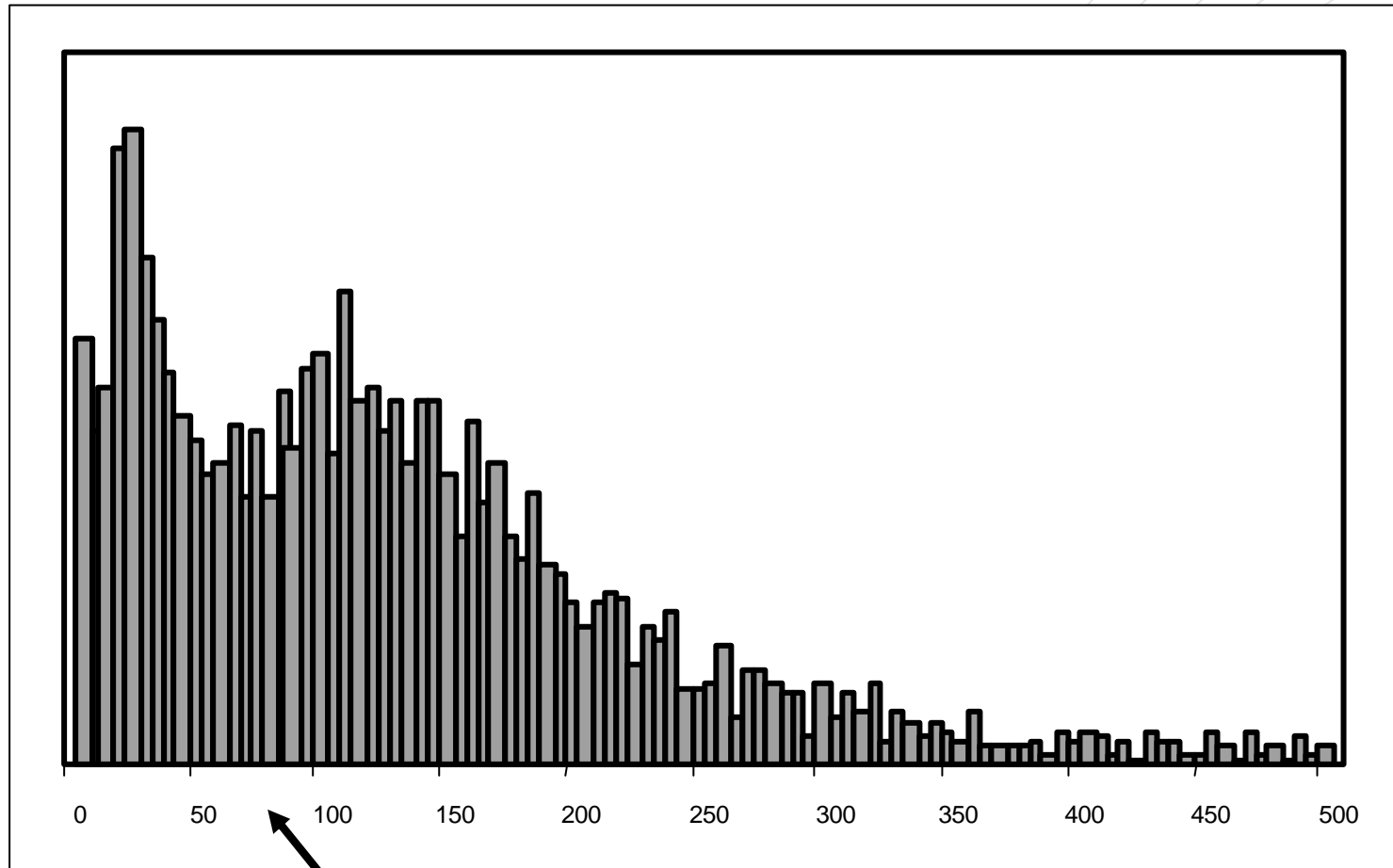
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Age 35-39



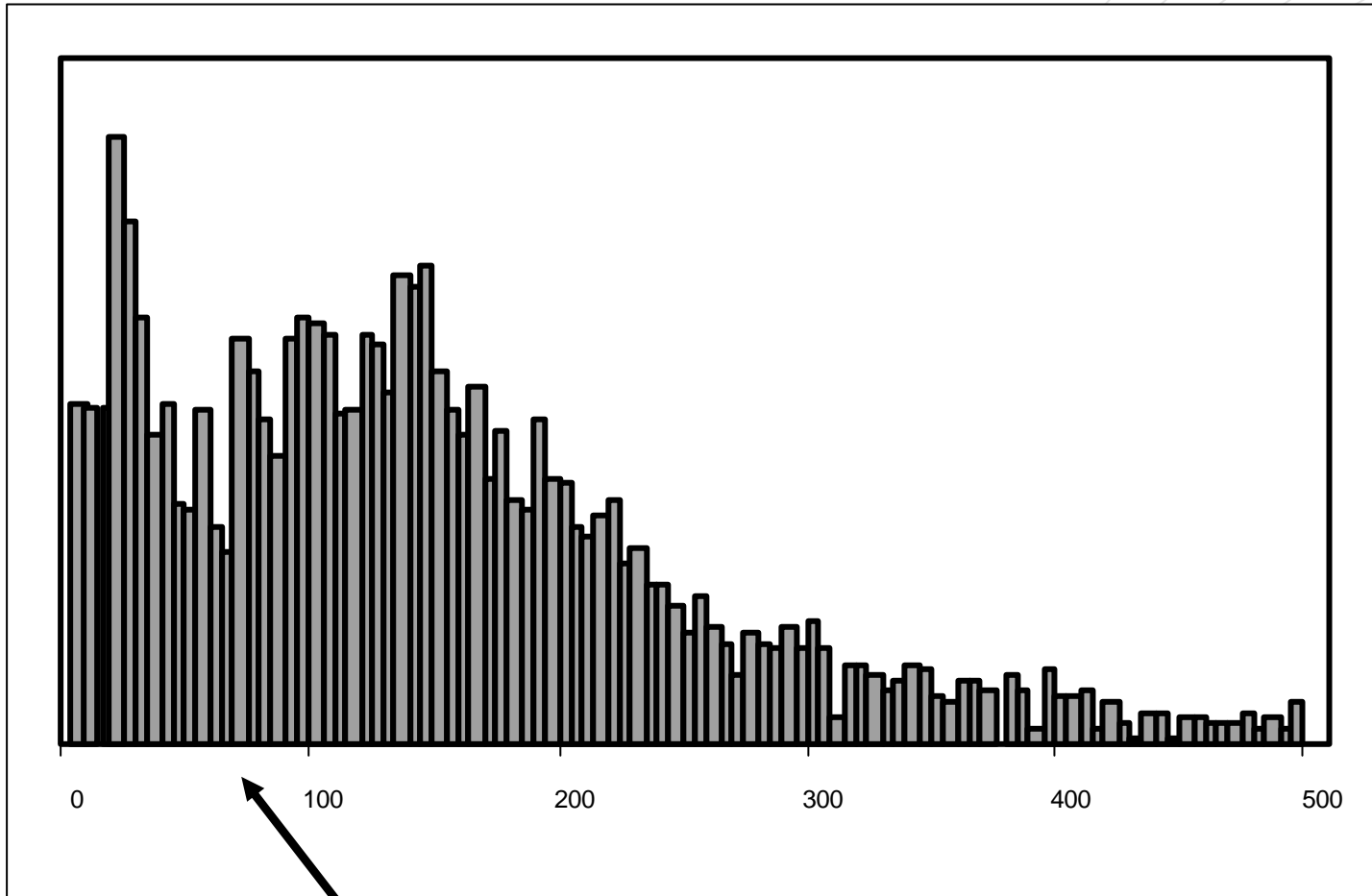
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Age 40-44



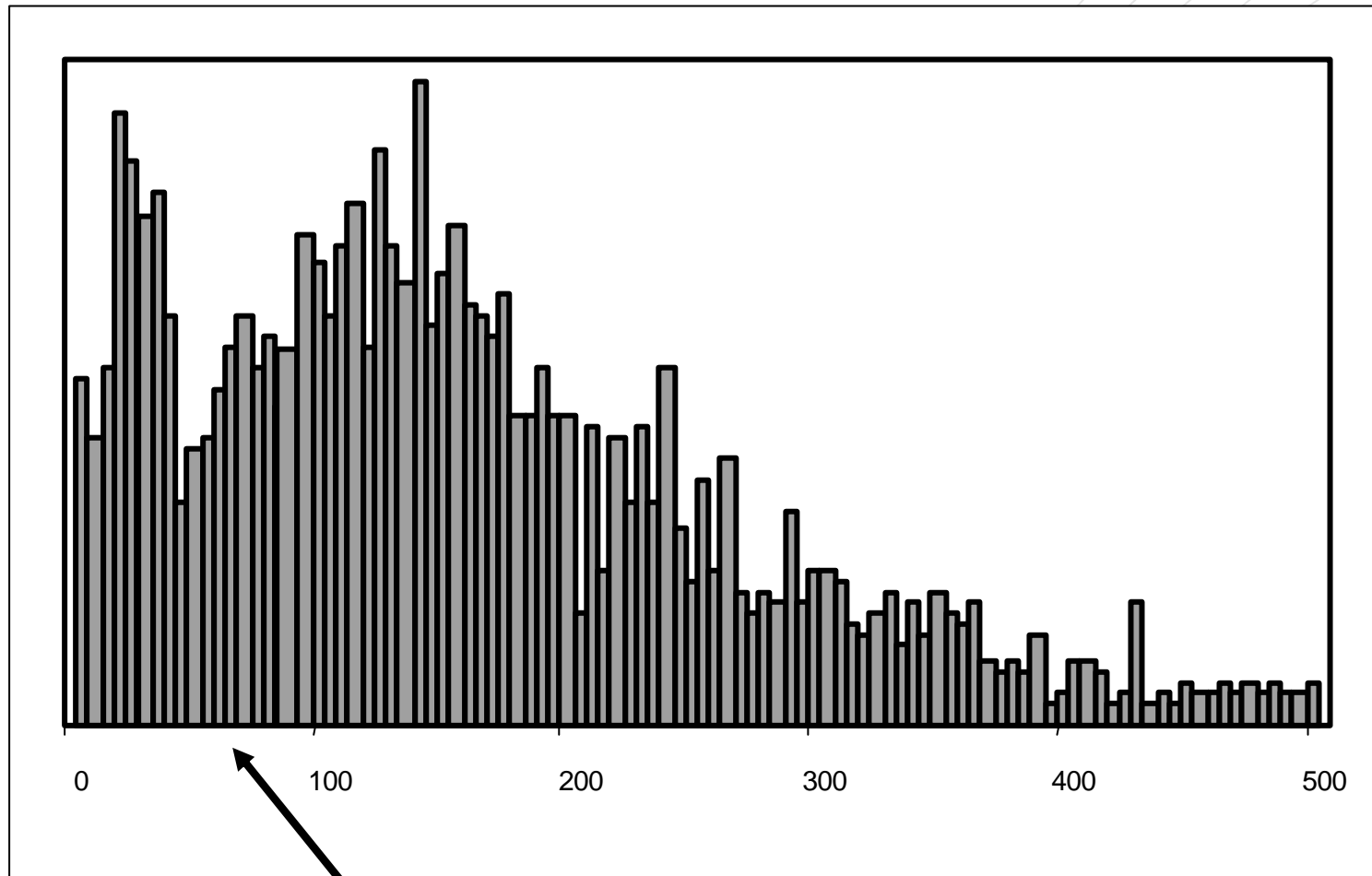
Antimode=70

Age 45-49



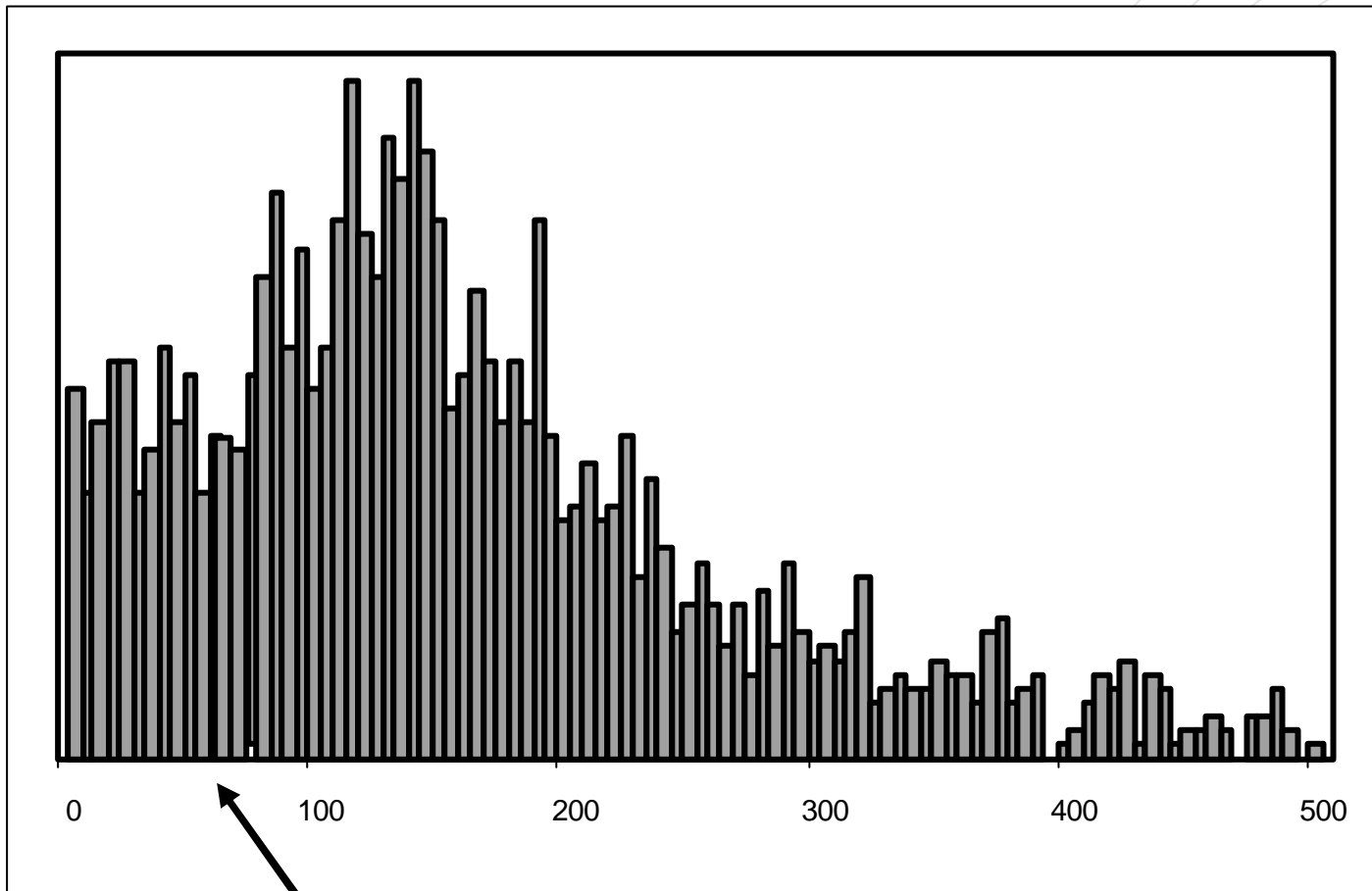
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Age 50-54



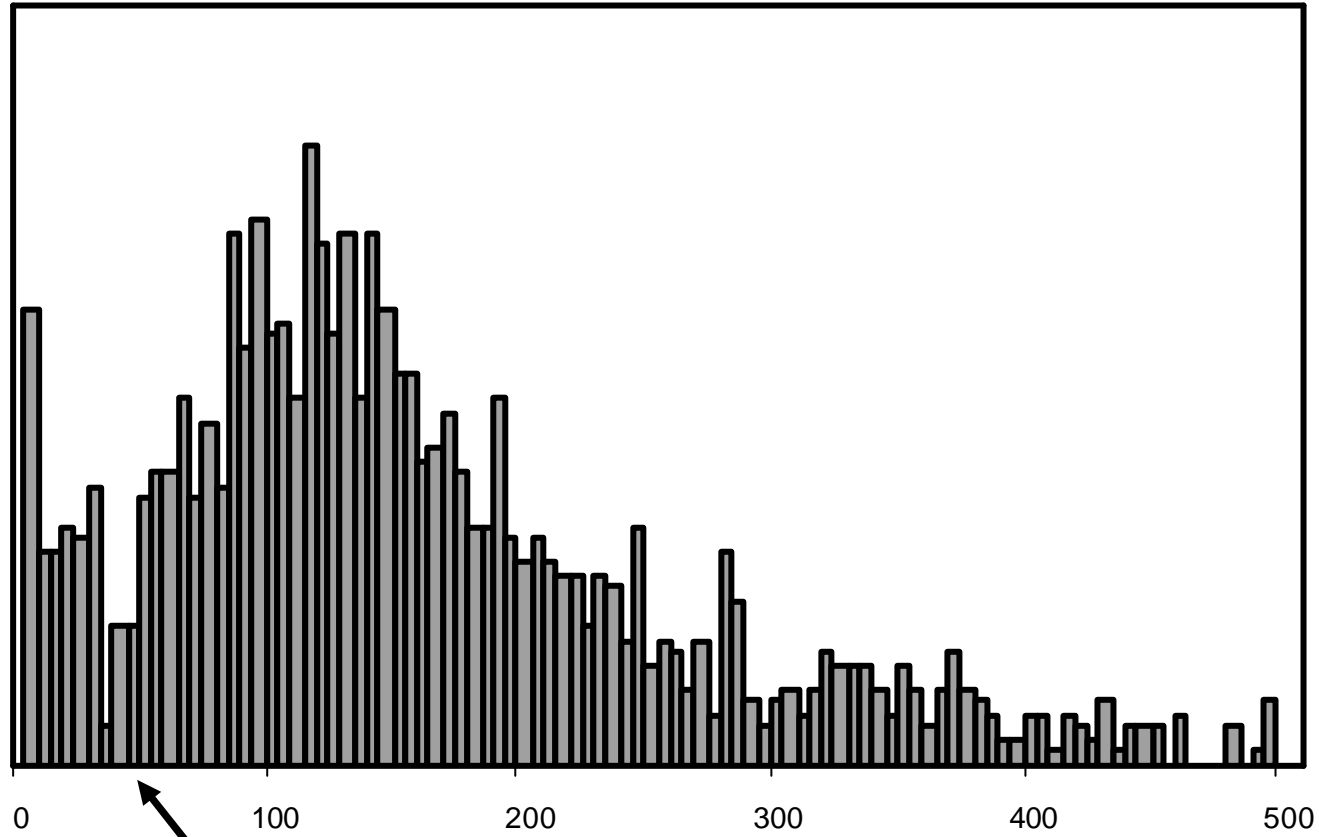
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Age 55-59



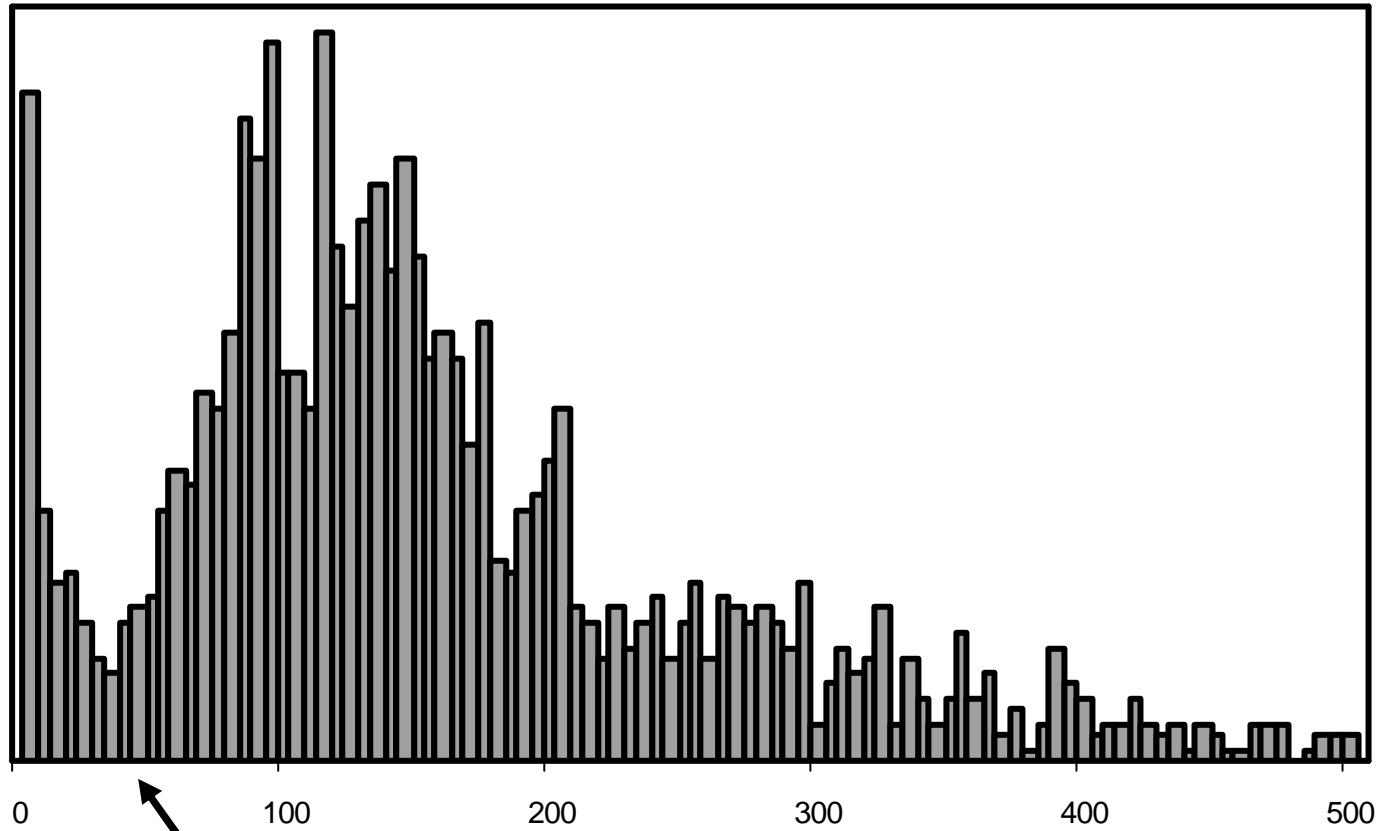
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Age 60-64



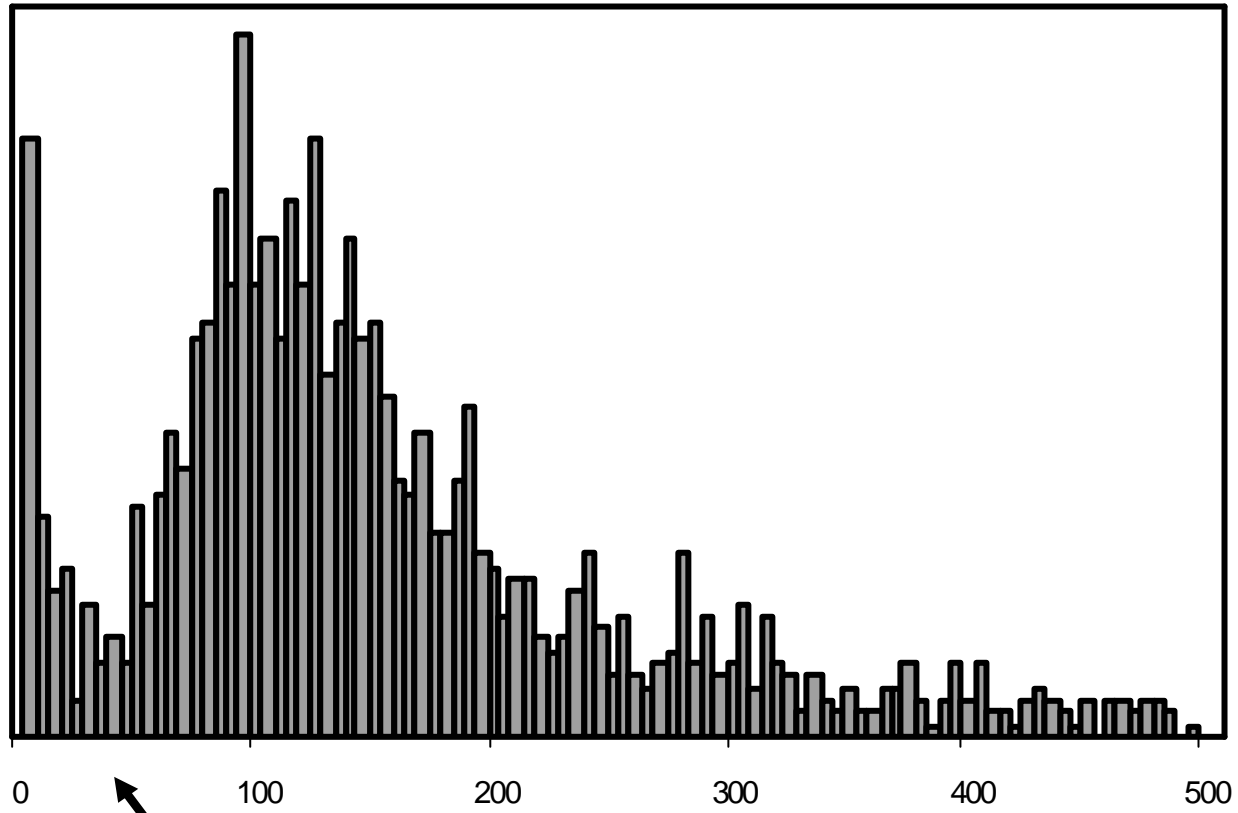
Antimode=40

Age 65-69



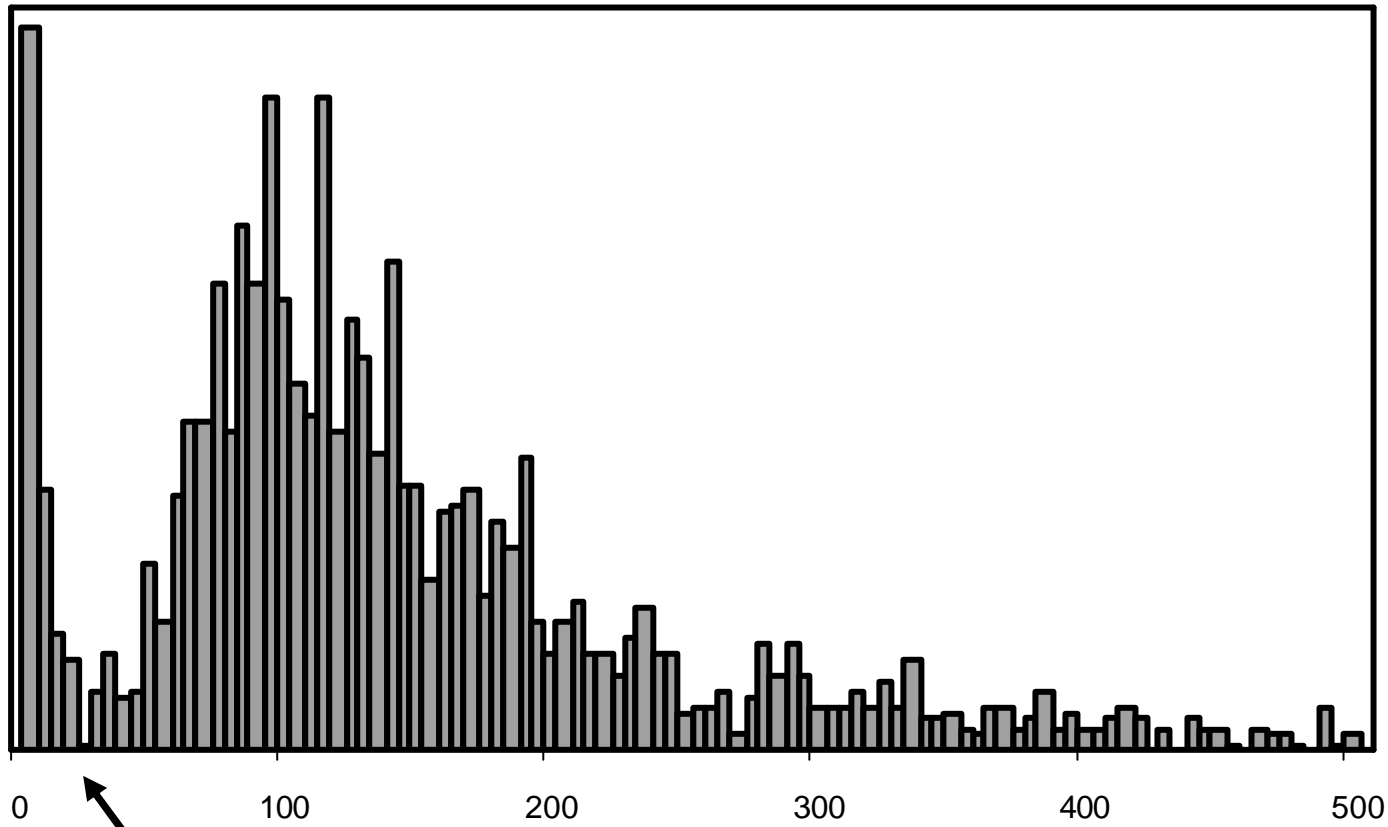
Antimode=40

Age 70-74



Antimode=30

Age 75-79



Antimode=30

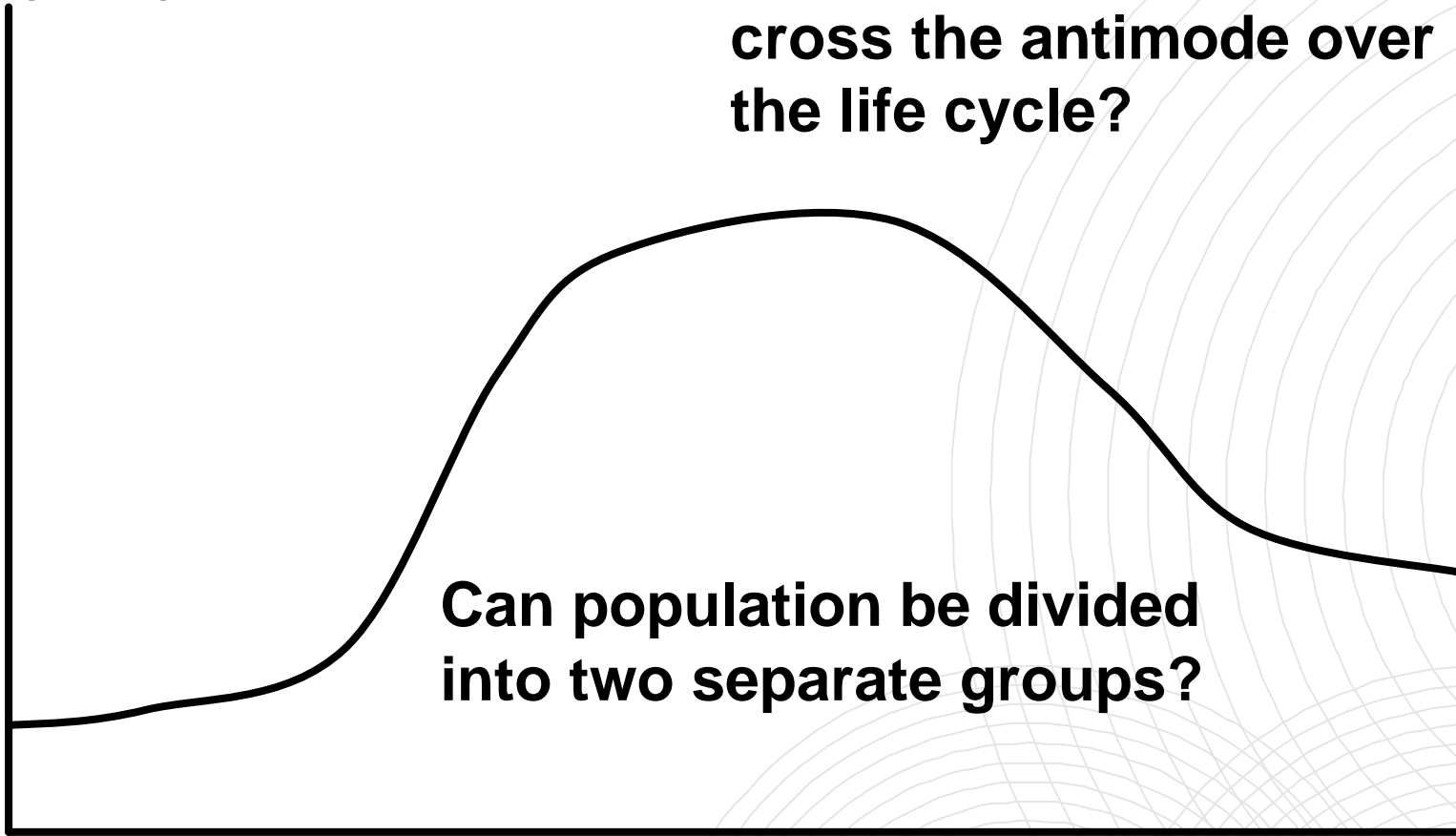
Age Profile of Antimode

Net Worth

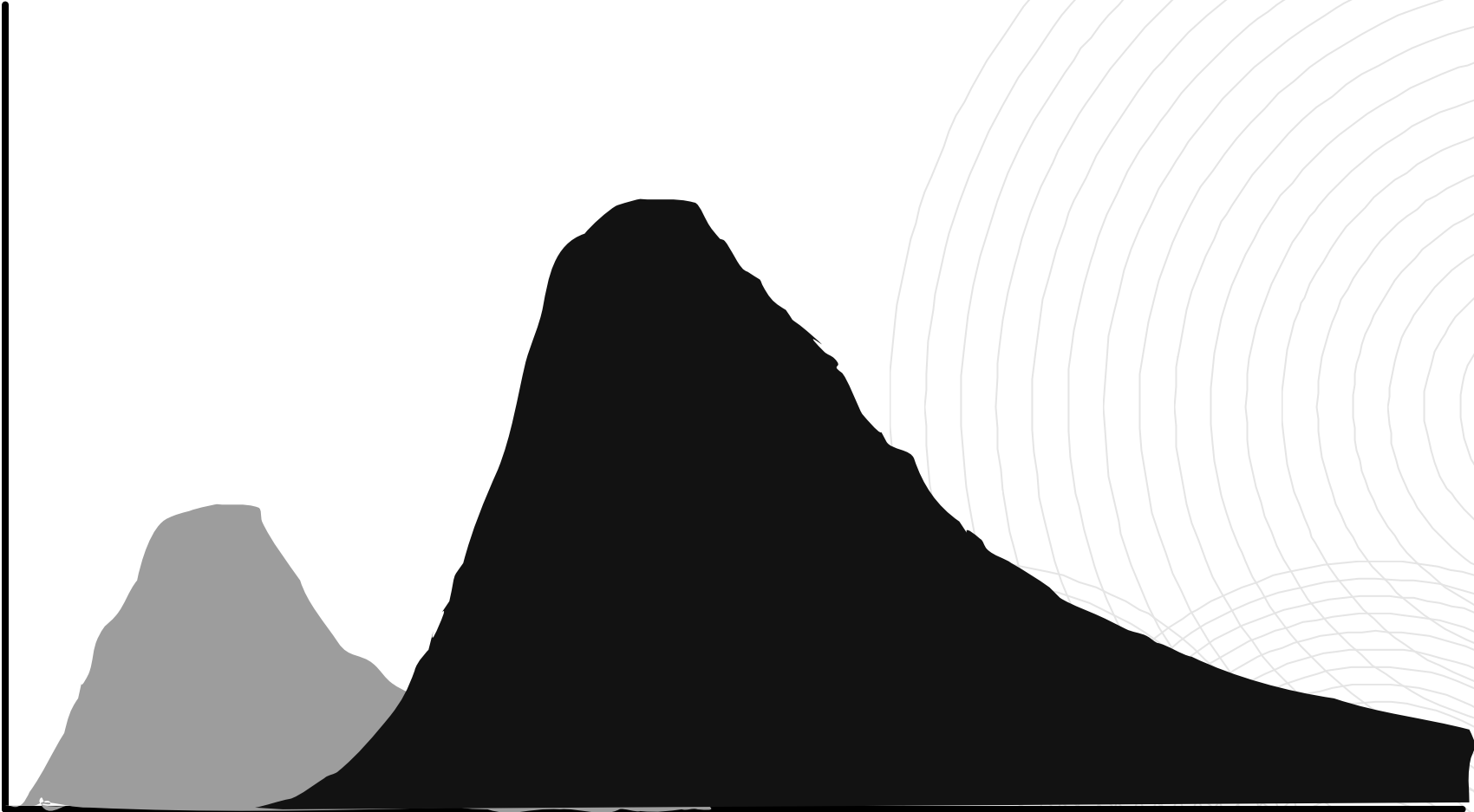
To what extent do units cross the antimode over the life cycle?

Can population be divided into two separate groups?

Age

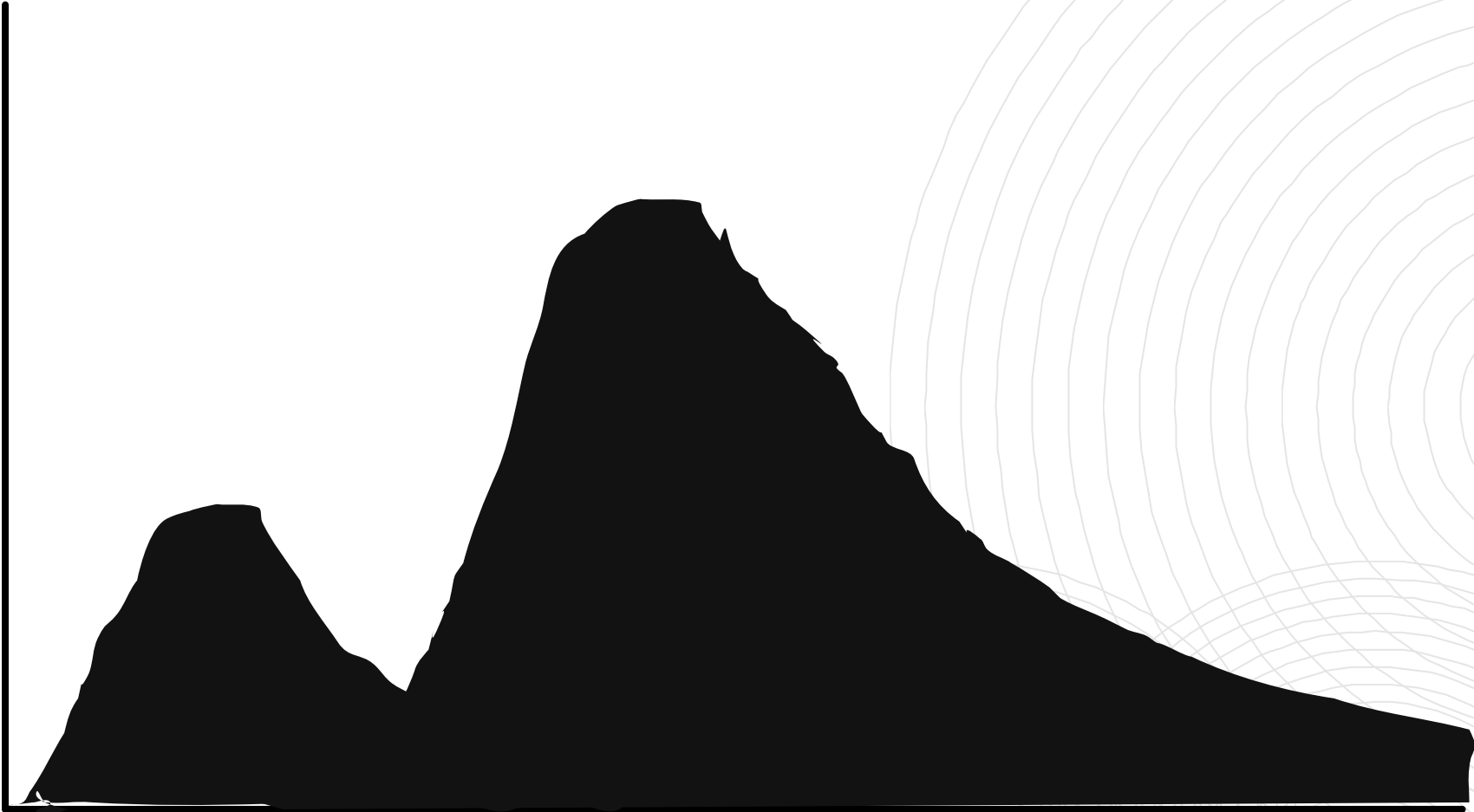


A Mixture of Two Distributions?



Net Worth

A Mixture of Two Distributions?



Net Worth

Net Worth over the Life Cycle

- Three effects associated with:
- Age
- Calendar time
- Cohort (date of birth)

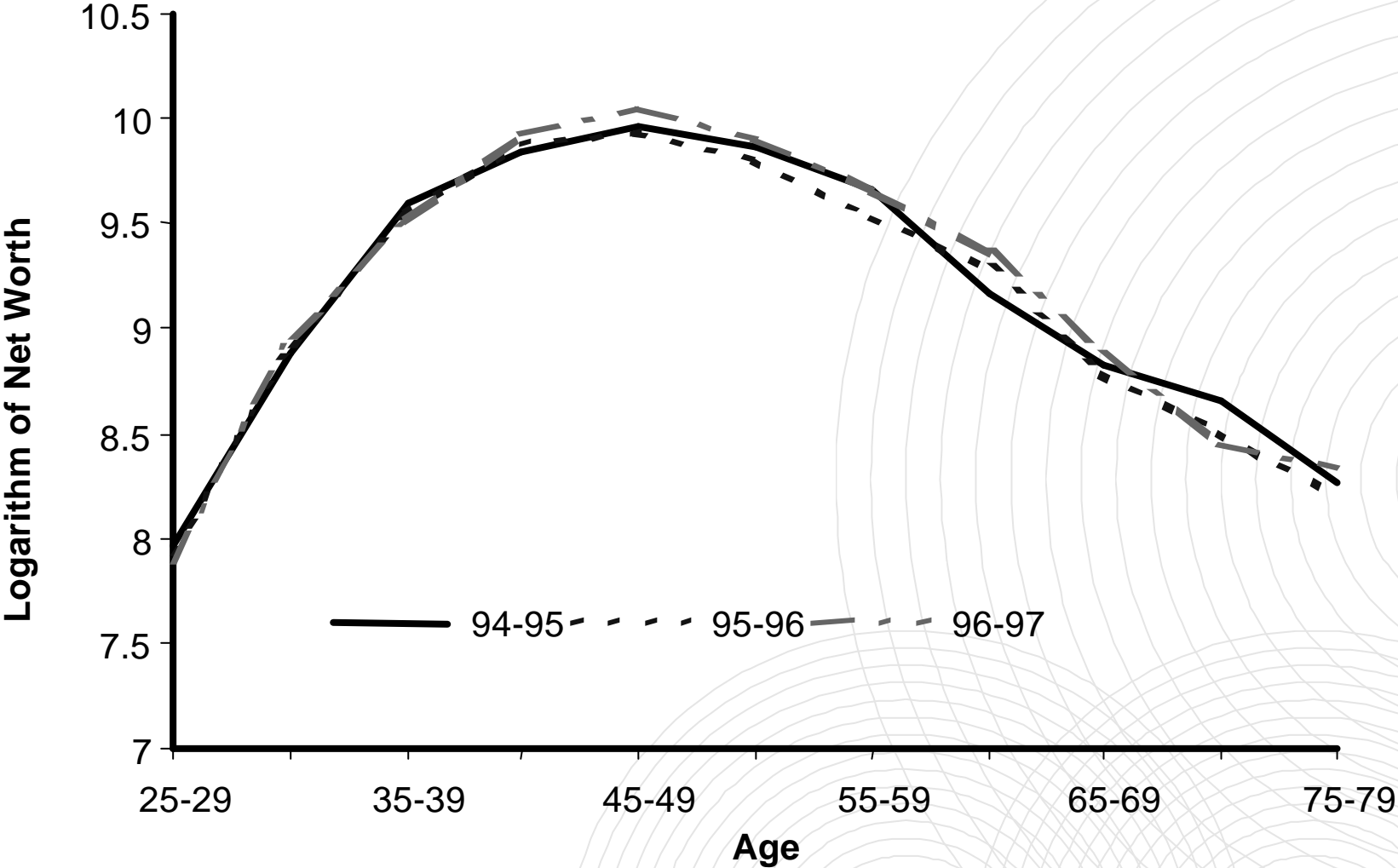
Assumptions Used

- No cohort effects
- (In principle, cohort profiles can take different shapes if time effects are nonlinear)
- Simple time effects:
 - X-S profiles shift position over time
 - (cohort profiles have additional growth)

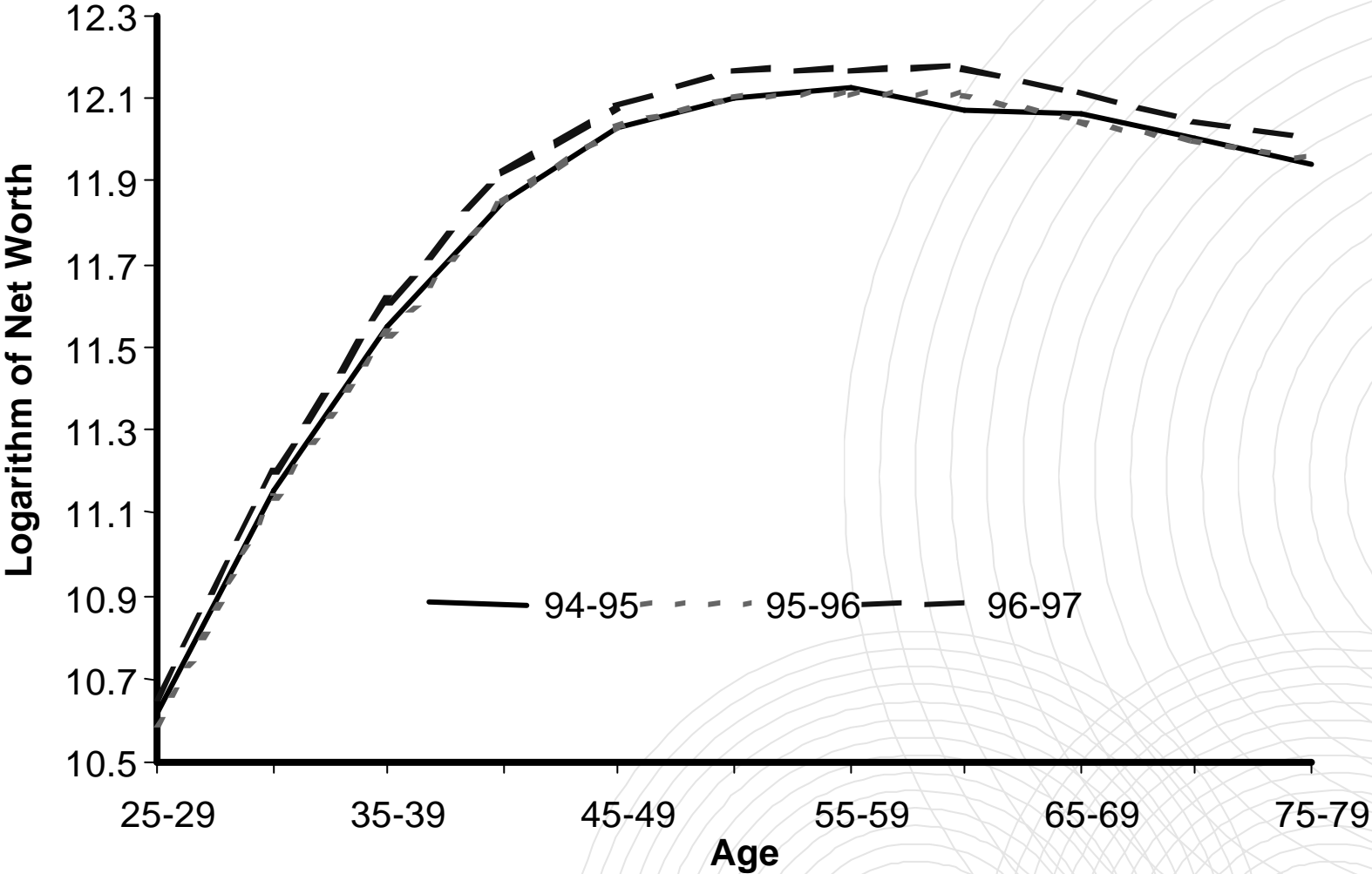
Form of Age - Net Worth Profiles

- Dependent variable: logarithm of net worth
- Independent variables: age, age-squared, age-cubed +
- time dummy variables (shift terms)
- Use individual observations (not means)
- The variation in dispersion with age is not modelled (overall - increase up to late 40s, then stable)

'Low' Net Worth Profile



'High' Net Worth Profile



Age and Net Worth Profiles: summary

- There is considerable dispersion in distribution of net worth
- Distribution of net worth within age groups is bimodal
- ‘Low’ net worth profile with age shows some dissaving in older groups
- ‘High’ net worth profile shows relatively little dissaving in older age groups.

Some Questions

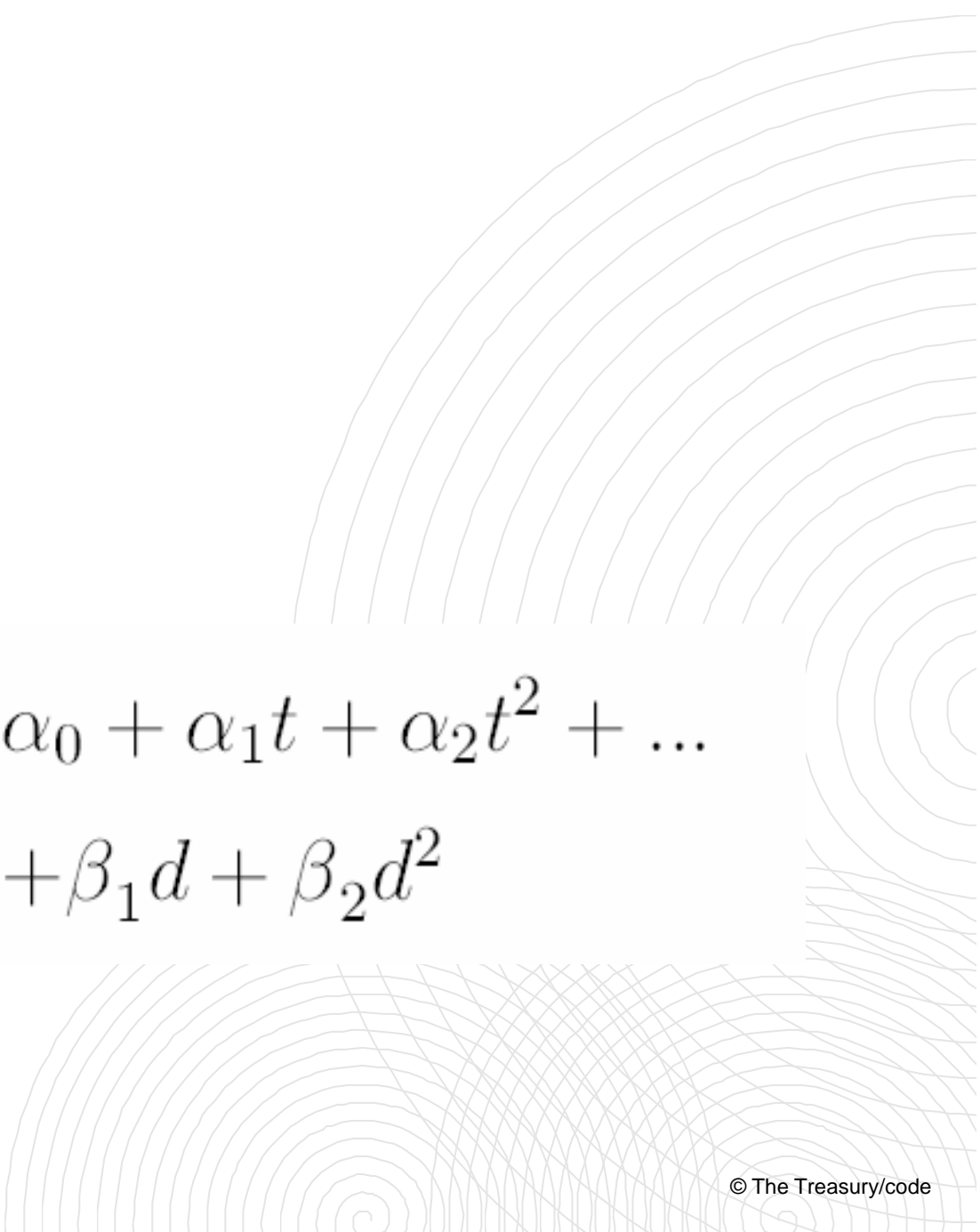
- Does bimodality indicate genuine segmentation?
- Do age profiles indicate evidence of:
 - A bequest motive?
 - Uncertainty regarding age at death?
 - (combined with increased longevity)
- Are people, on average, making adequate plans for retirement?

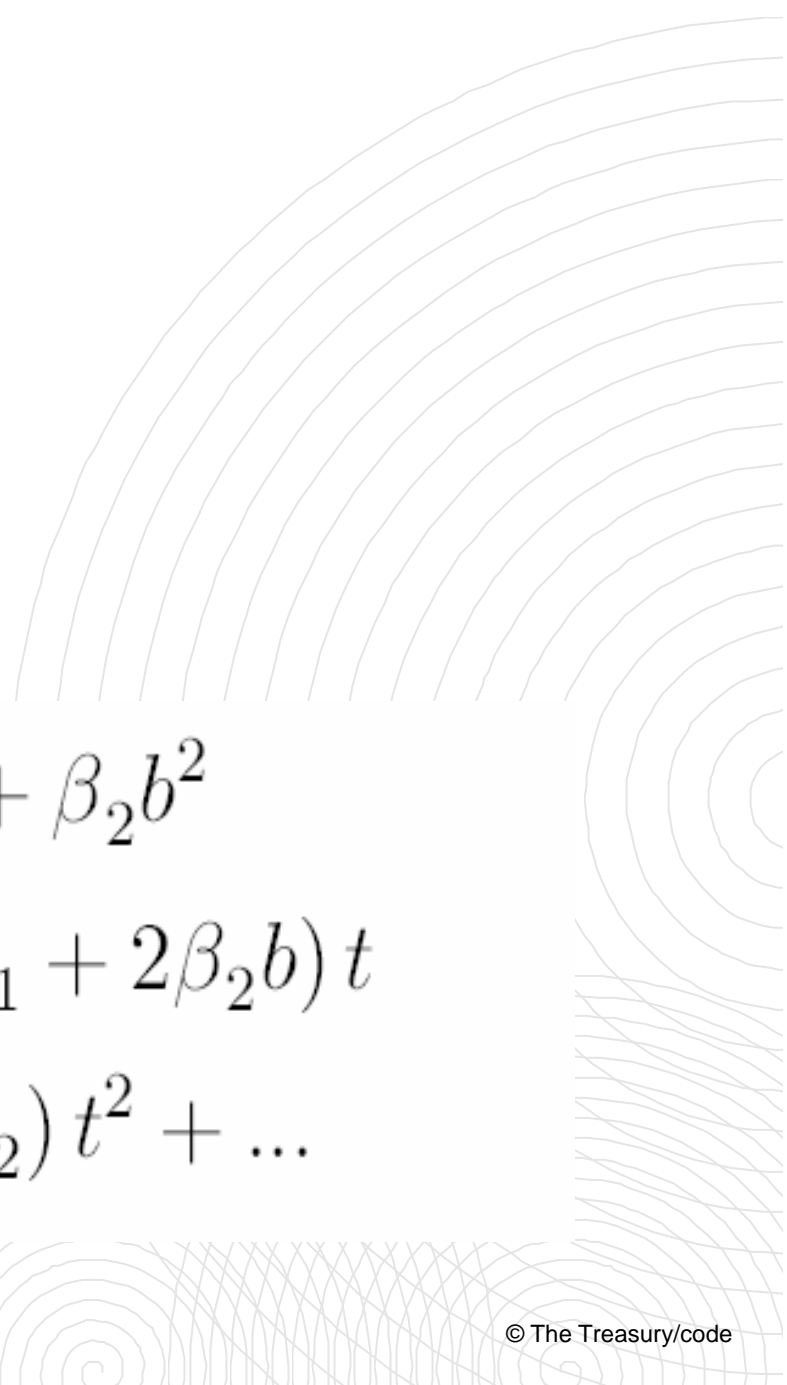
The End



Age/time/cohort Profiles

- The following slides will not be used in the presentation


$$\log W_{t,d} = \alpha_0 + \alpha_1 t + \alpha_2 t^2 + \dots \\ + \beta_1 d + \beta_2 d^2$$


$$\begin{aligned}\log W_{t,b} &= \alpha_0 + \beta_1 b + \beta_2 b^2 \\ &\quad + (\alpha_1 + \beta_1 + 2\beta_2 b) t \\ &\quad + (\alpha_2 + \beta_2) t^2 + \dots\end{aligned}$$

$$\begin{aligned}\log W_{t,b} &= \alpha_0 + \beta_1 b \\ &\quad + (\alpha_1 + \beta_1) t \\ &\quad + (\alpha_2) t^2 + \dots\end{aligned}$$