



SOCIAL AND ECONOMIC WELL-BEING

# Explanations for the Decline in Spending at Older Ages

**Susann Rohwedder**

RAND, NETSPAR

**Michael D. Hurd**

RAND, NBER, NETSPAR

**Péter Hudomiet**

RAND

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## **Context: Financial preparation for retirement**

Common advice based on **income replacement rate:**

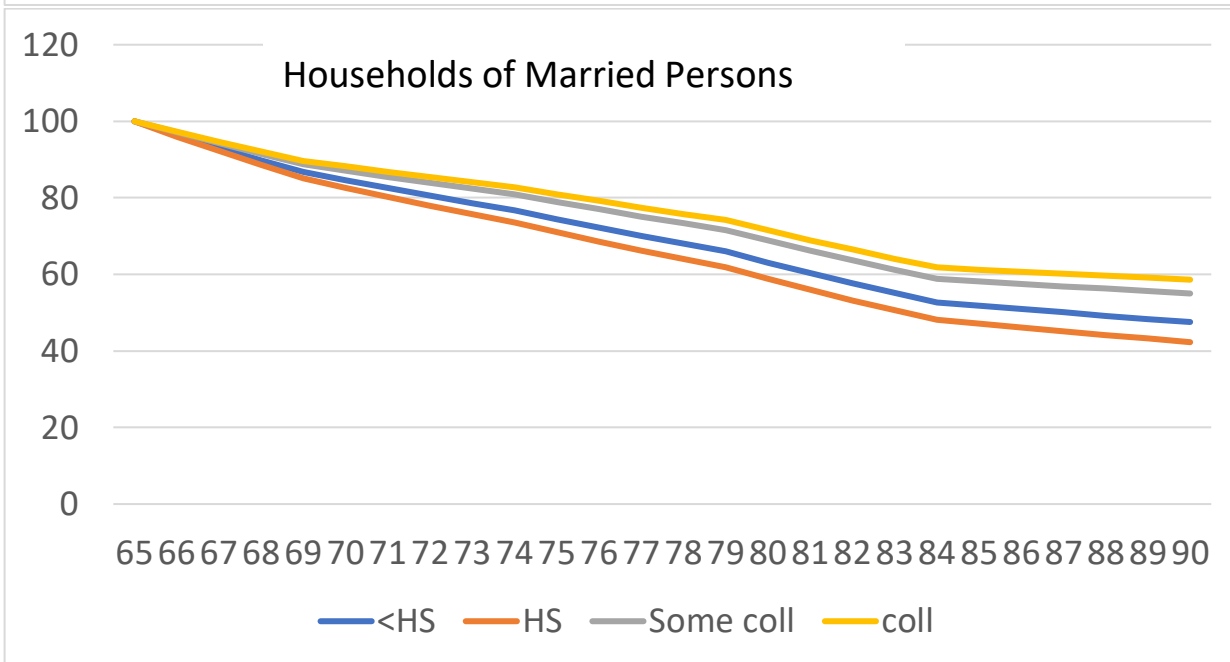
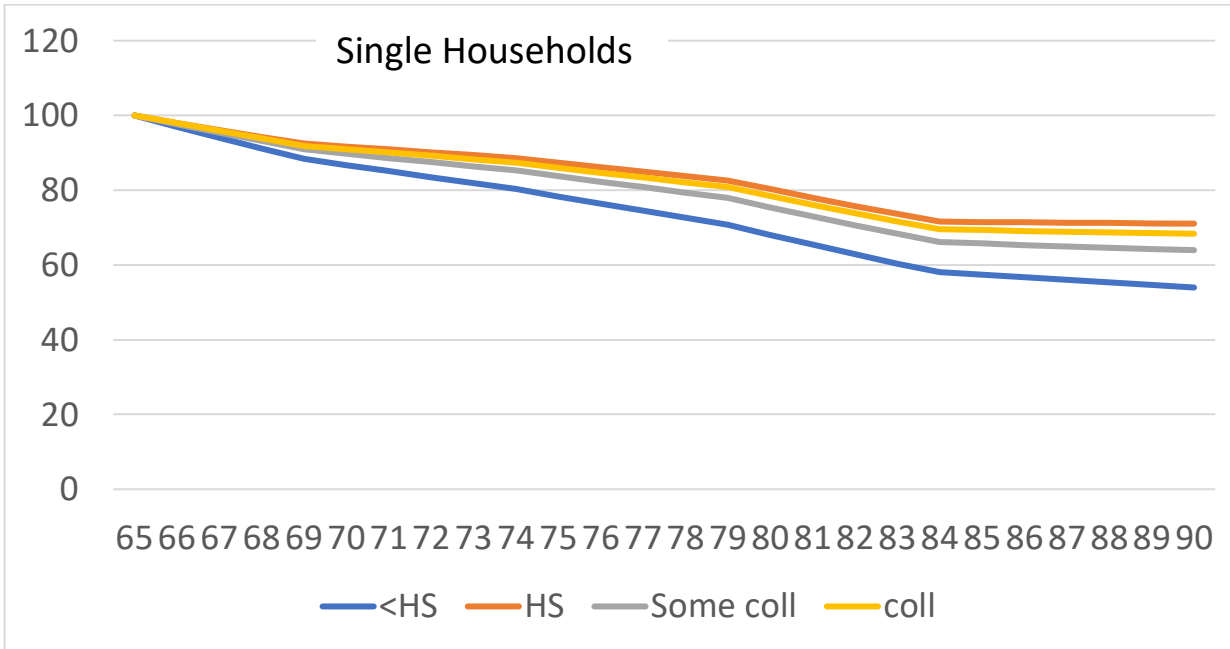
Assumes flat spending path after retirement  
(despite changes in households' circumstances over time)

**But: Actual spending paths decline in real terms.**

- Spending trajectory based on observed rates of change
- Data from Health and Retirement Study (HRS)
- Sub-study: Consumption and Activities Mail Survey (CAMS)
- elicits longitudinal observations on total household spending

**Real spending paths – decline.**  
4 education categories.

Somewhat larger slope among less educated



Source: CAMS 2003-2019. Trajectories estimated from 2-year changes in total household spending.

## What is interpretation of declining spending path?

- Chosen in a utility maximizing framework

OR

- Forced on short-sighted people who overspent/under saved

Or Mixture of both types in the population?

### **This paper**

Analyze data we added to sub study of HRS to shed light on reasons for decline.

## What is interpretation of declining spending path?

### “Yaari path”: the decline is chosen *ex ante*

- Wealth not consumed is wasted
- Therefore, consume more earlier
- With “bad luck” of surviving, reduce spending
- Force of mortality approximately exponential
  - Even with bequest motive should reduce spending at advanced old age
  - Couples more complex
    - “bequest to surviving spouse”
    - But path eventually should decline

### Implication

Declining spending path not evidence of under-saving.  
Rather, result of intemporal optimization.

## Interpretation of declining spending path (cont.)

### Behavioral

- Lack of forward-looking behavior
- Attempt to maintain pre-retirement spending level
- But consumers surprised by low levels of resources
- Logic of budget constraint requires reduction in spending with age
- Declining spending path is evidence of under-saving.

## OR: Extended Yaari-model

- Complementarity between health and some categories of spending (e.g. travel or going out when in good health)
- Or just less enjoyment from some types of spending at older ages (e.g. “already seen it all”)

Motivated by observations about budget shares.

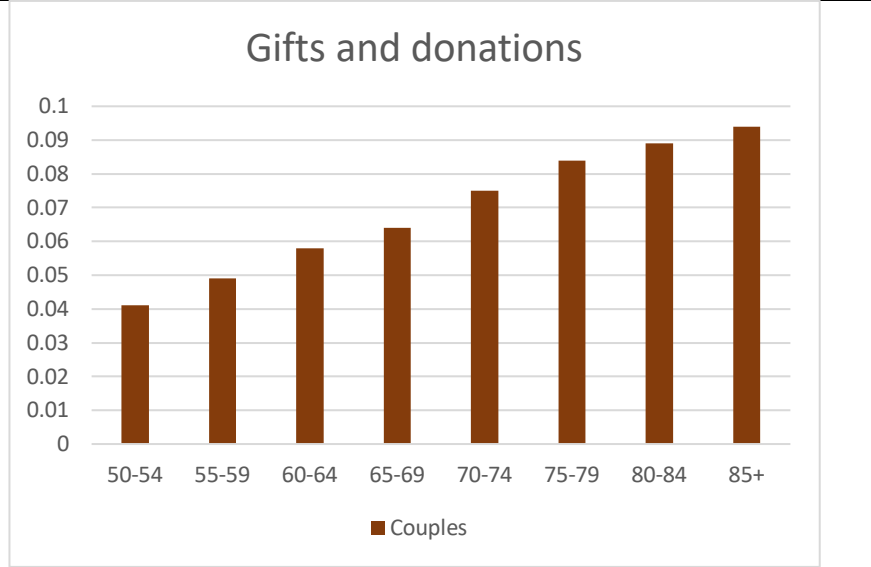
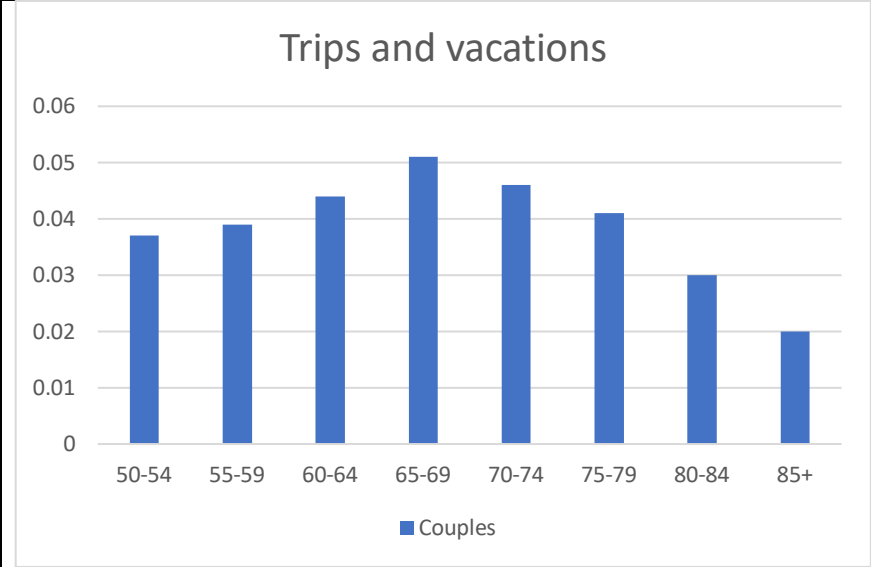
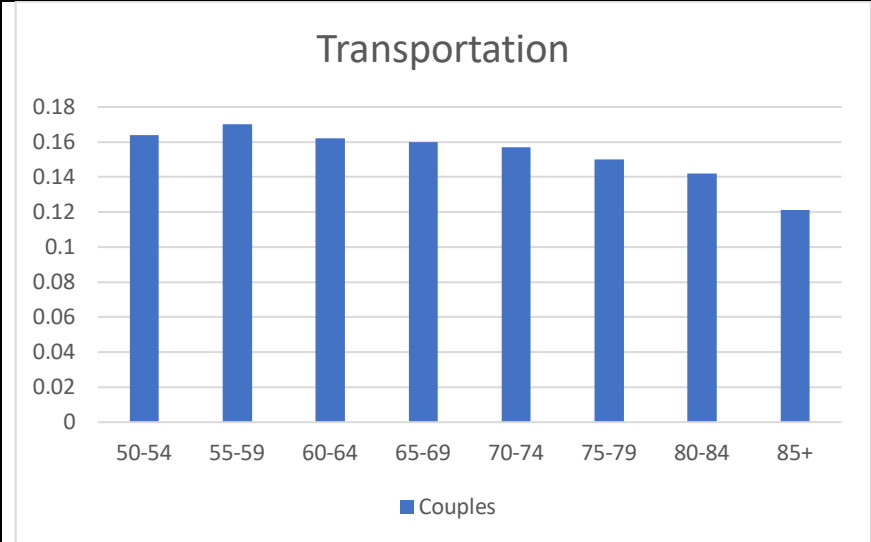
# Budget shares of households of married persons-decline in age



But could be due to budget constraint



# Budget shares of households of married persons (cont.)



## Suggests three categories of goods

1. **Substitutable for health** (health care spending itself)  
Marginal utility lower when health is better.
2. **Neutral** (gifts and donations)  
Marginal utility unchanged by health change
3. **Complementary** (Trips and vacation)  
Marginal utility is higher when health is better.

More broadly, some spending categories are related to states associated with aging

- Health
- Demographics: widowhood
- “Been There Done That” or “Seen too many airports”

## Suggests rational extended Yaari type

Agent knows health will decline

- Productivity of spending on some items will be lower in the future
- Higher spending early when spending productive
- Next time period, when health worse, reduce spending
- Declining path chosen *ex ante*

## Implications

- Declining spending path chosen *ex ante*
  - Decline not evidence of a mistake
- Less emphasis on mortality risk than in Yaari model
- Makes declining spending path more likely than simple Yaari model

### **To examine plausibility, would want to ask respondents:**

- *Has your marginal utility of spending for trips and vacations changed? (holding spending constant)*
- And similar for other health complements and substitutes

# Empirical Approach

## 1. Ask respondents

- A. Reasons for declines/increases in spending
- B. Change in enjoyment (marginal utility) of spending-related activities
- C. Do *changes* in enjoyment predict *changes* in spending?

## 2. Signs of financial distress?

- Satisfaction with financial situation  
Now and whether changed over time
- Financially constrained  
Now and whether changed over time

## We added some questions to the 2019 **Consumption and Activities Mail Survey**

CAMS, a sub study of the U.S. Health and Retirement Study (HRS)

- In year 2001, 5,000 HRS households chosen at random
- Mail-out spending survey
- Longitudinal follow-up on odd-numbered years
- Queries spending in 35 categories
- Complete measure of annual spending
- Total spending in CAMS matches total spending in Consumer Expenditure Survey quite well

## About 2,100 observations in 2019 CAMS

Perceptions of total **spending change over the last 6 years**

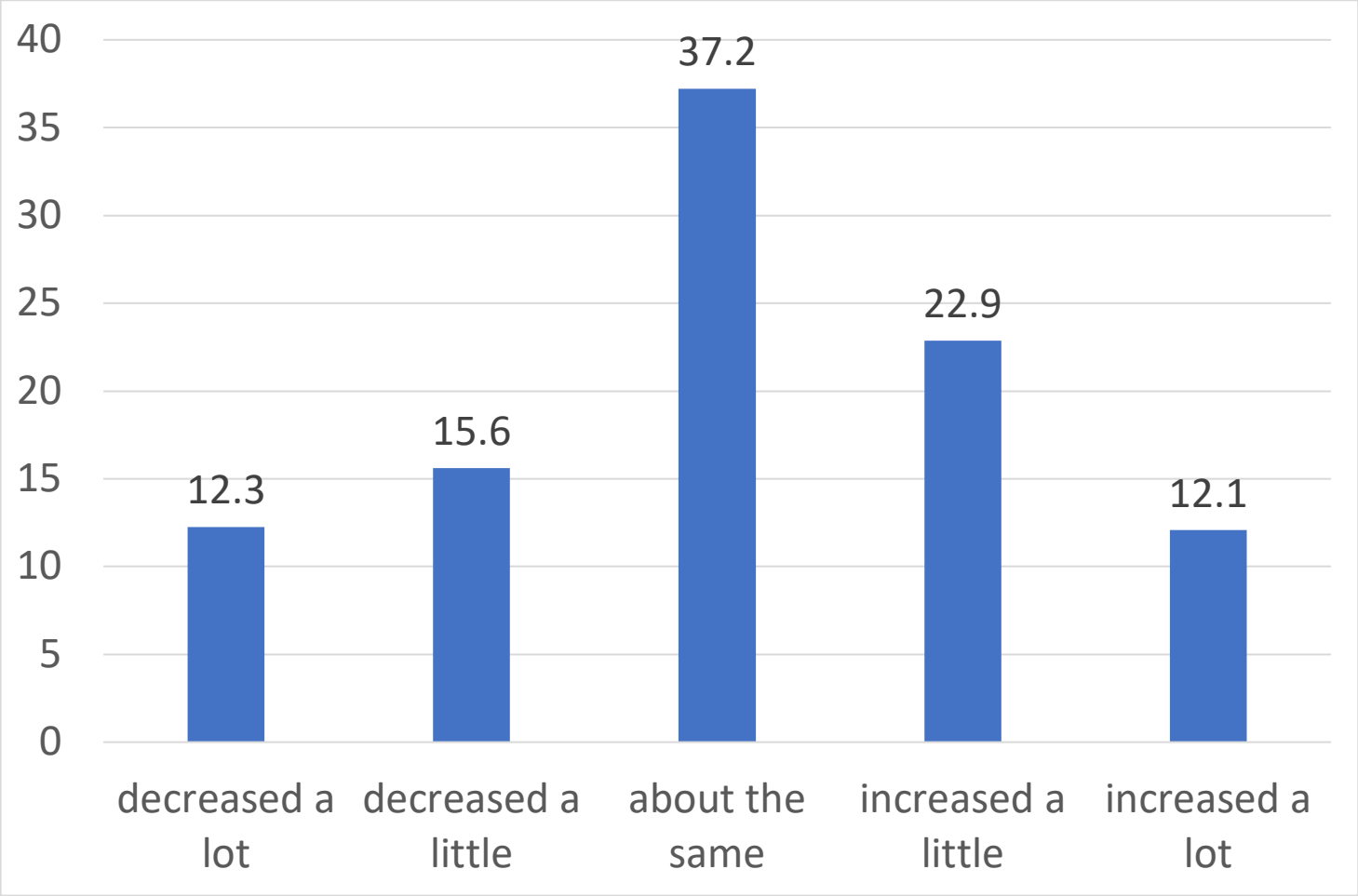
*B41. How has your household's spending changed over the past six years? Please think of what you typically spend, leaving out any unusual expenses.*

Follow-up questions: **reasons** for a spending reduction (or for an increase)

One of six reasons was...

*We/I have reduced spending on some things because we get less enjoyment from them than we used to.*

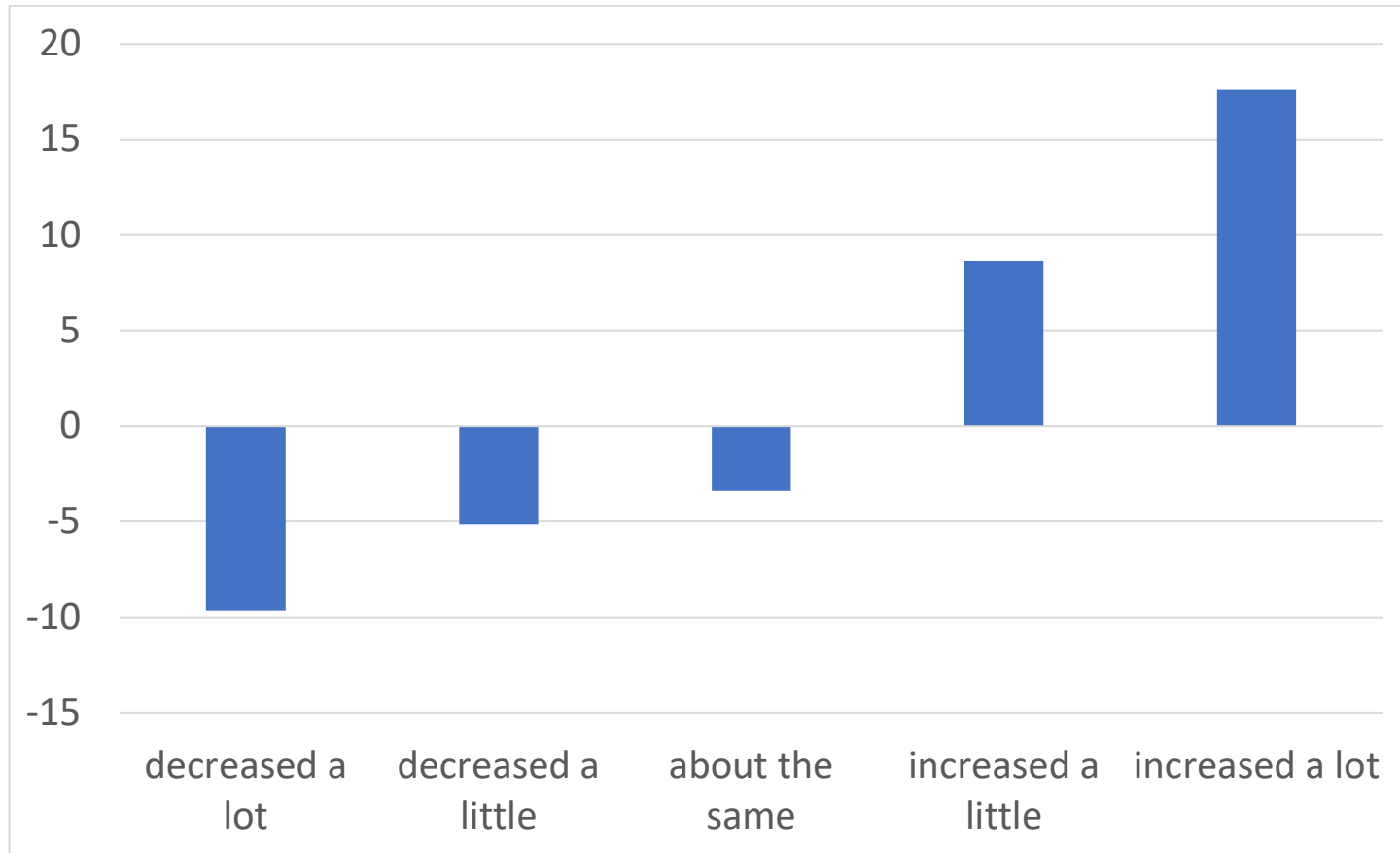
# Distribution of perceived six-year spending change



Respondent probably thinking of nominal spending

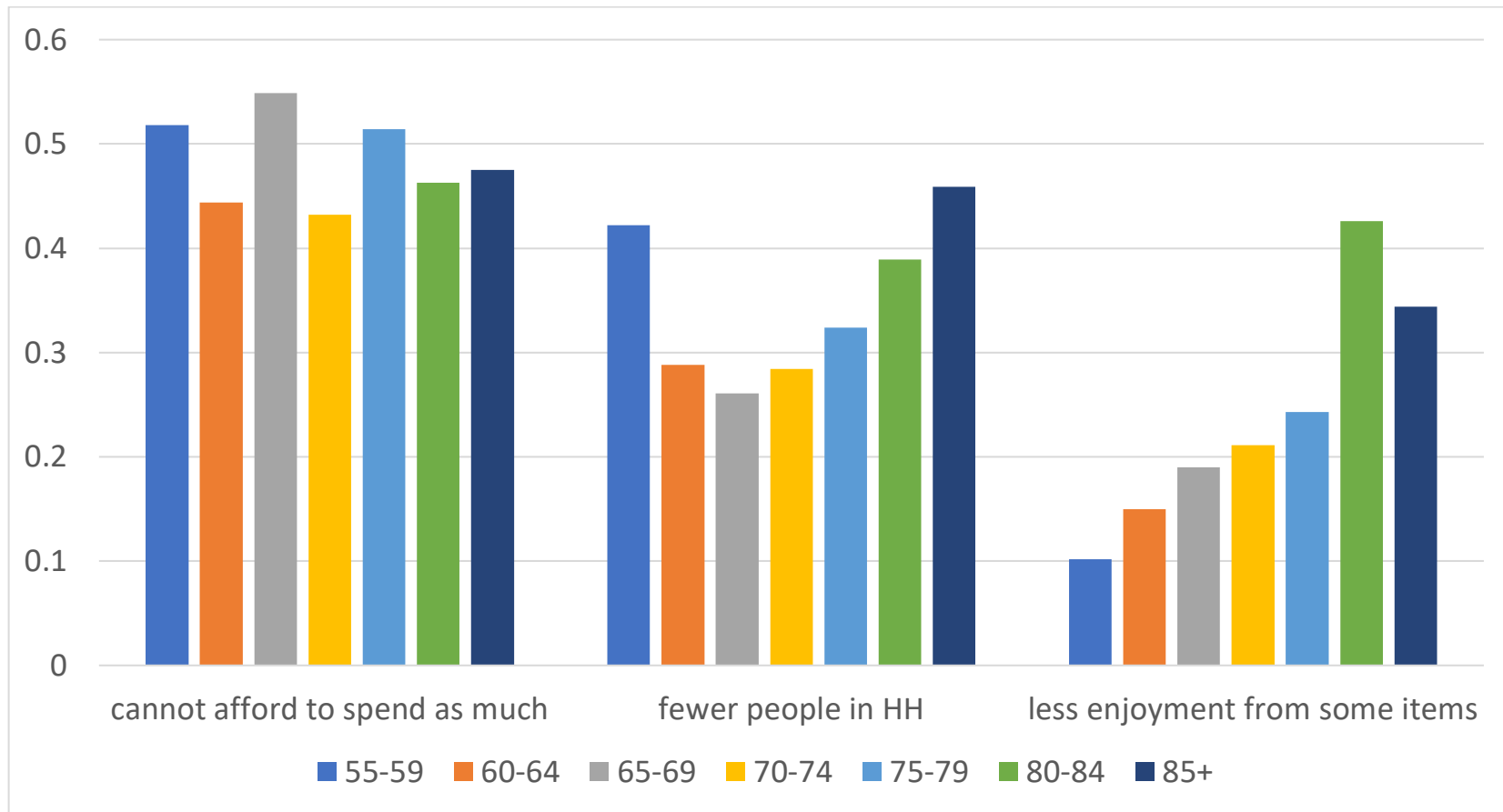


# Median of actual six-year spending change (% nominal) and self-perceived spending change. Actual CAMS 2013 and 2019



Nominal median change was -1% or -11% real.

# Reasons for a spending reduction, percent of those who reduced



Focus on changes in enjoyment

## Change in Enjoyment from Spending-related Activities

Asked of everyone.

Compared to six years ago, how much enjoyment do you (or would you) get today from *going out to eat*?

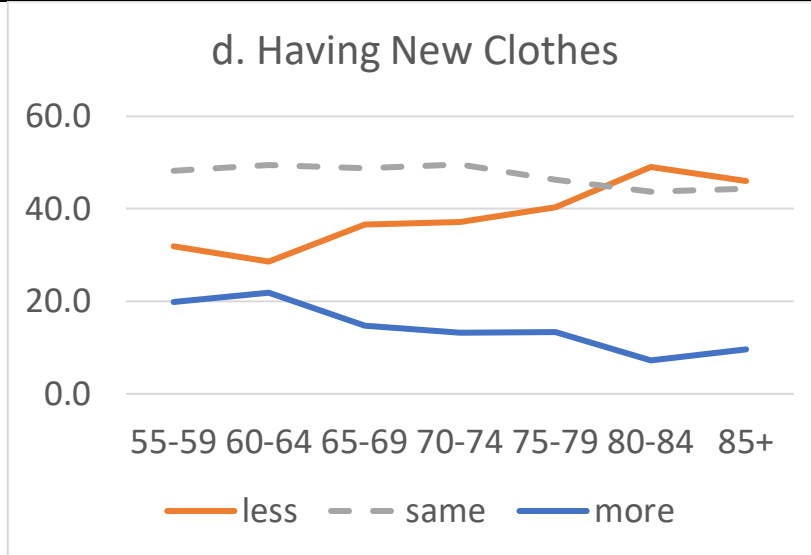
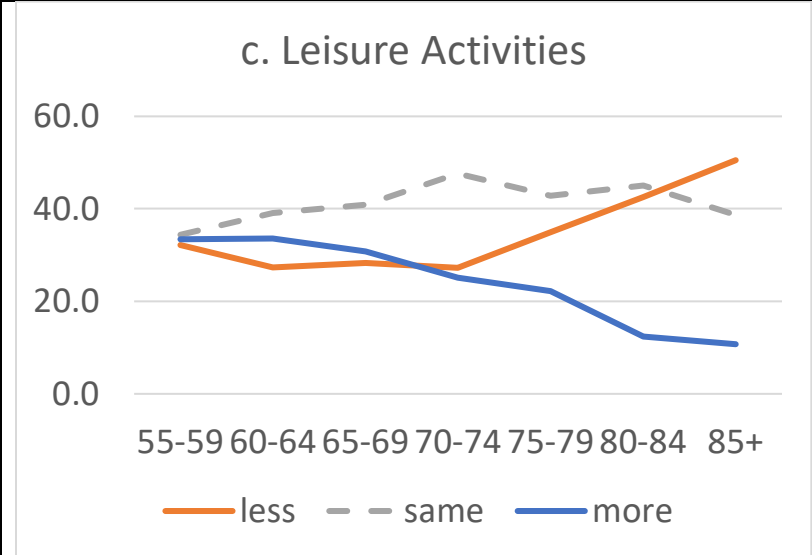
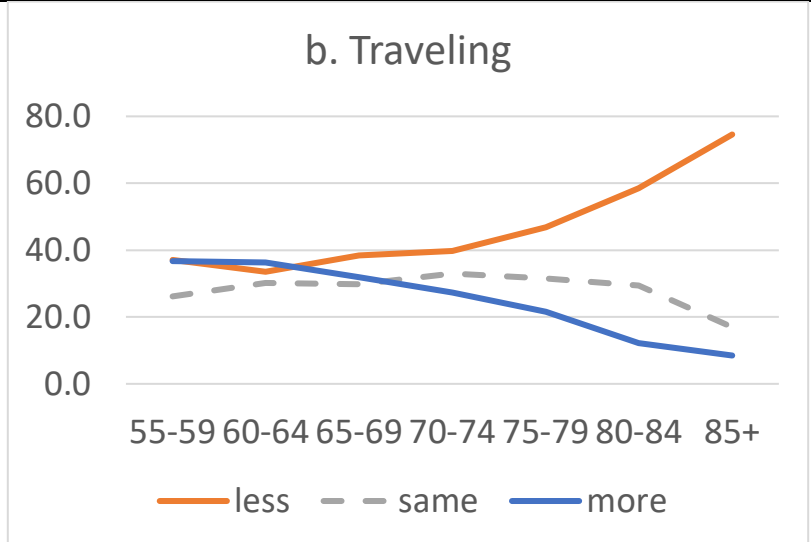
Much less, a little less, about the same, a little more, much more.

### Categories

- Going out to eat
- Traveling
- Leisure activities
- Having new clothes
- Having a new car
- Having new appliances
- Giving financial support to family/friends

Reduce to three-point scale: **less enjoyment, same, more**

# Percent of respondents affirming each category

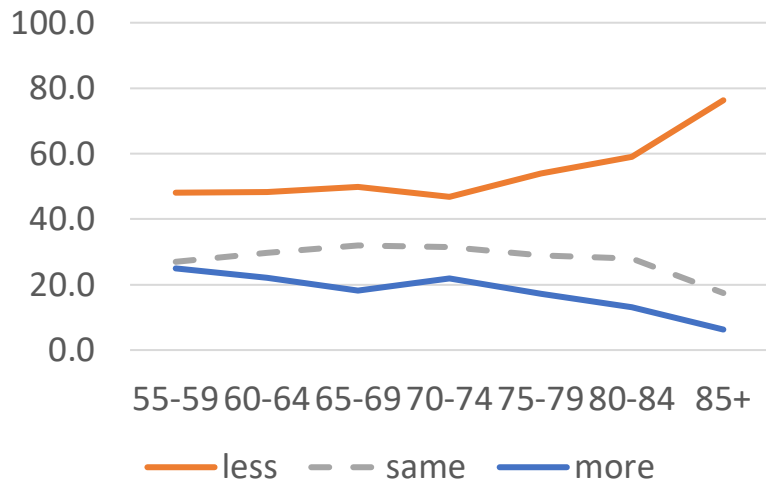


**At older ages**

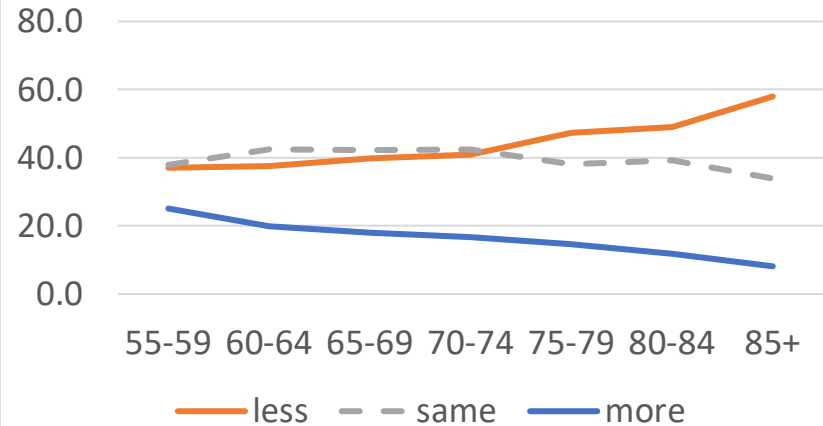
Higher percentage with **less enjoyment** (compared with 6 years ago).

Lower percentage with **more enjoyment**

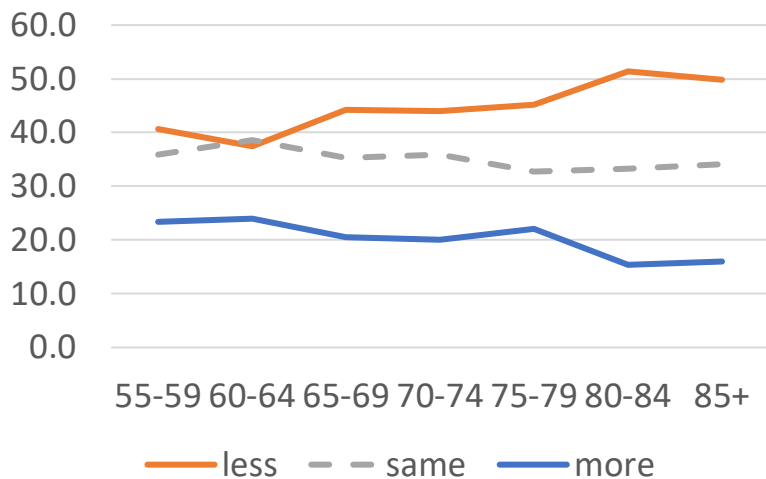
e. Having New Car



f. Having New Appliances, TV, PC, etc.



g. Giving Financial Support

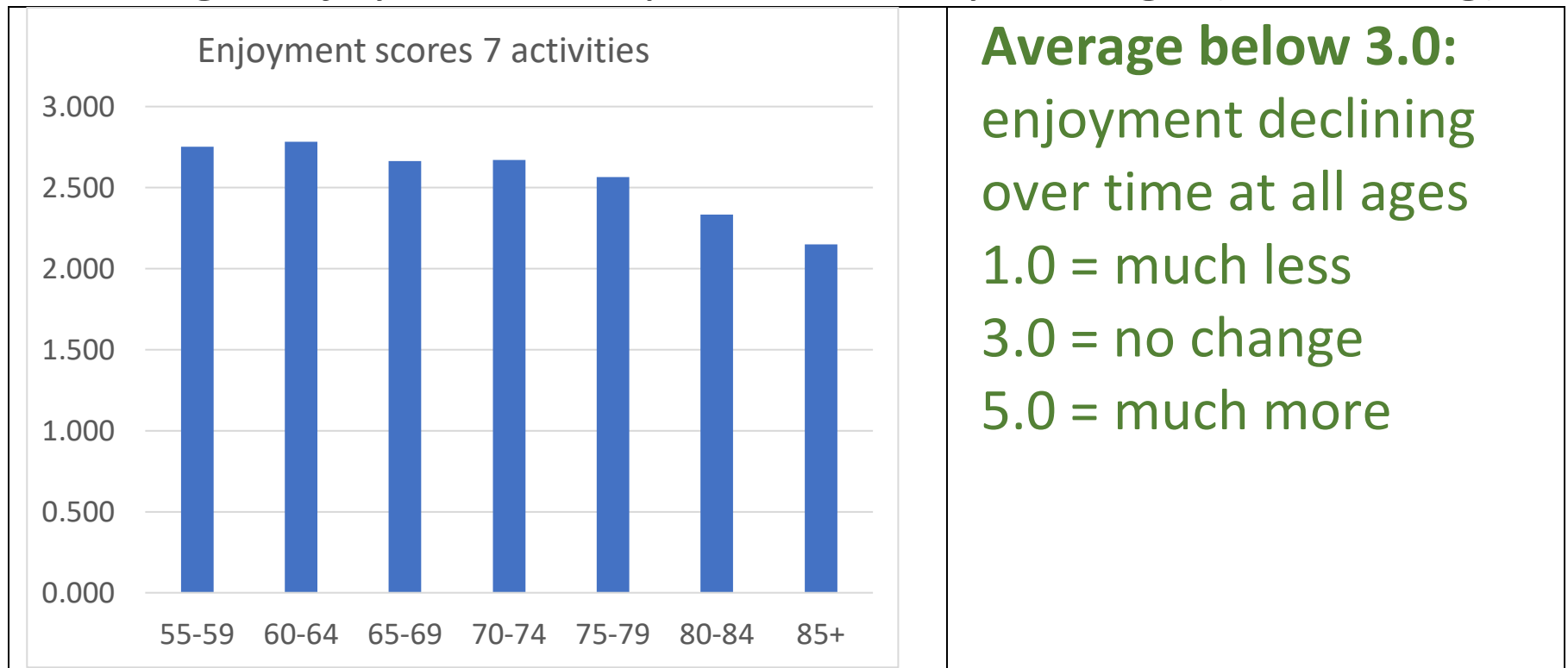


### Interpretation:

At ages 75+ spending on these items produces less utility compared with six years ago.

## Aggregate across activities.

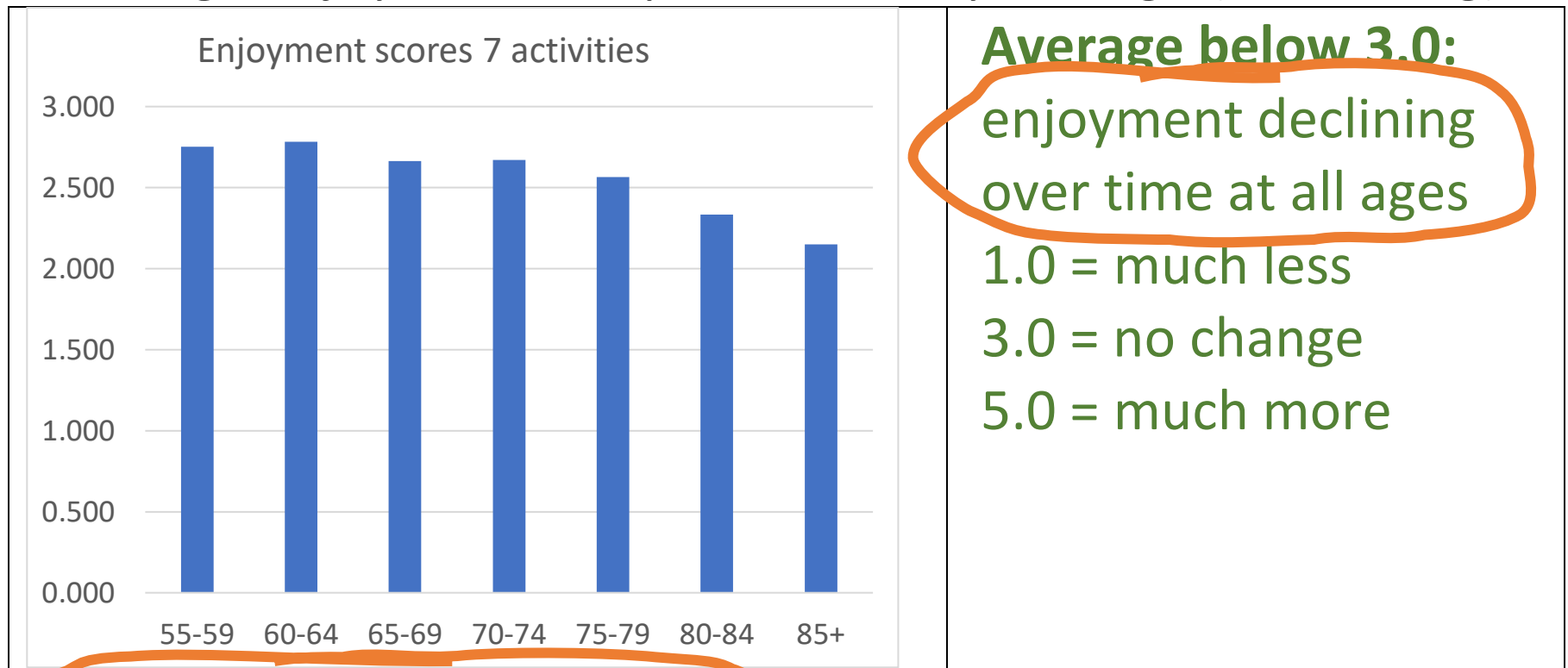
Average enjoyment compared with 6 years ago (1-5 scaling).



Decline accelerates with age: 0.6 of an enjoyment category (2.8 age 55-59 => 2.2 age 85+)

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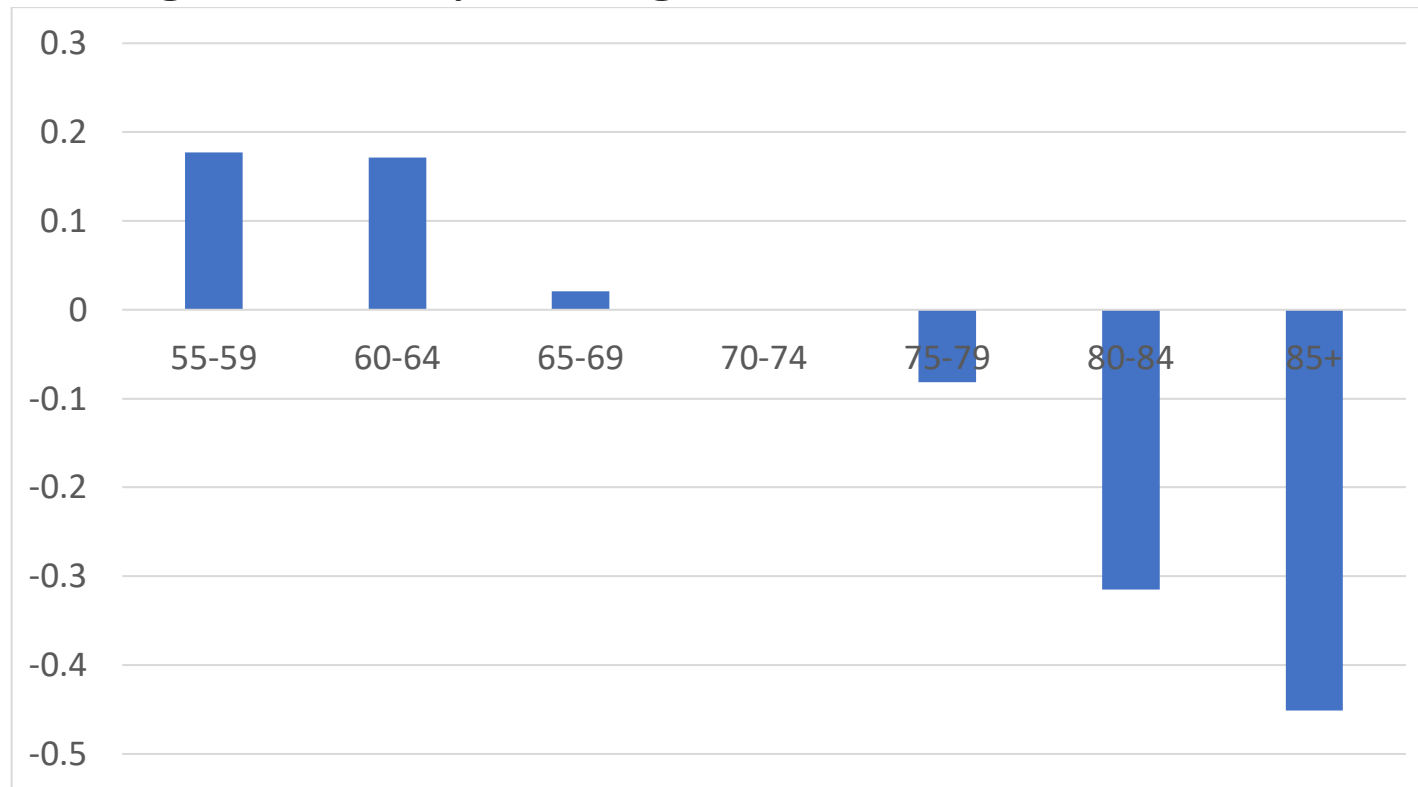


Decline accelerates with age: 0.6 of an enjoyment category  
(2.8 age 55-59 => 2.2 age 85+)

# Changes in enjoyment, controlling for health and financial constraints

## Regression-adjusted enjoyment scores

Change since 6 years ago.



Controls: Self-rated health, financially constrained now and change, education, race/ethnicity, demographics

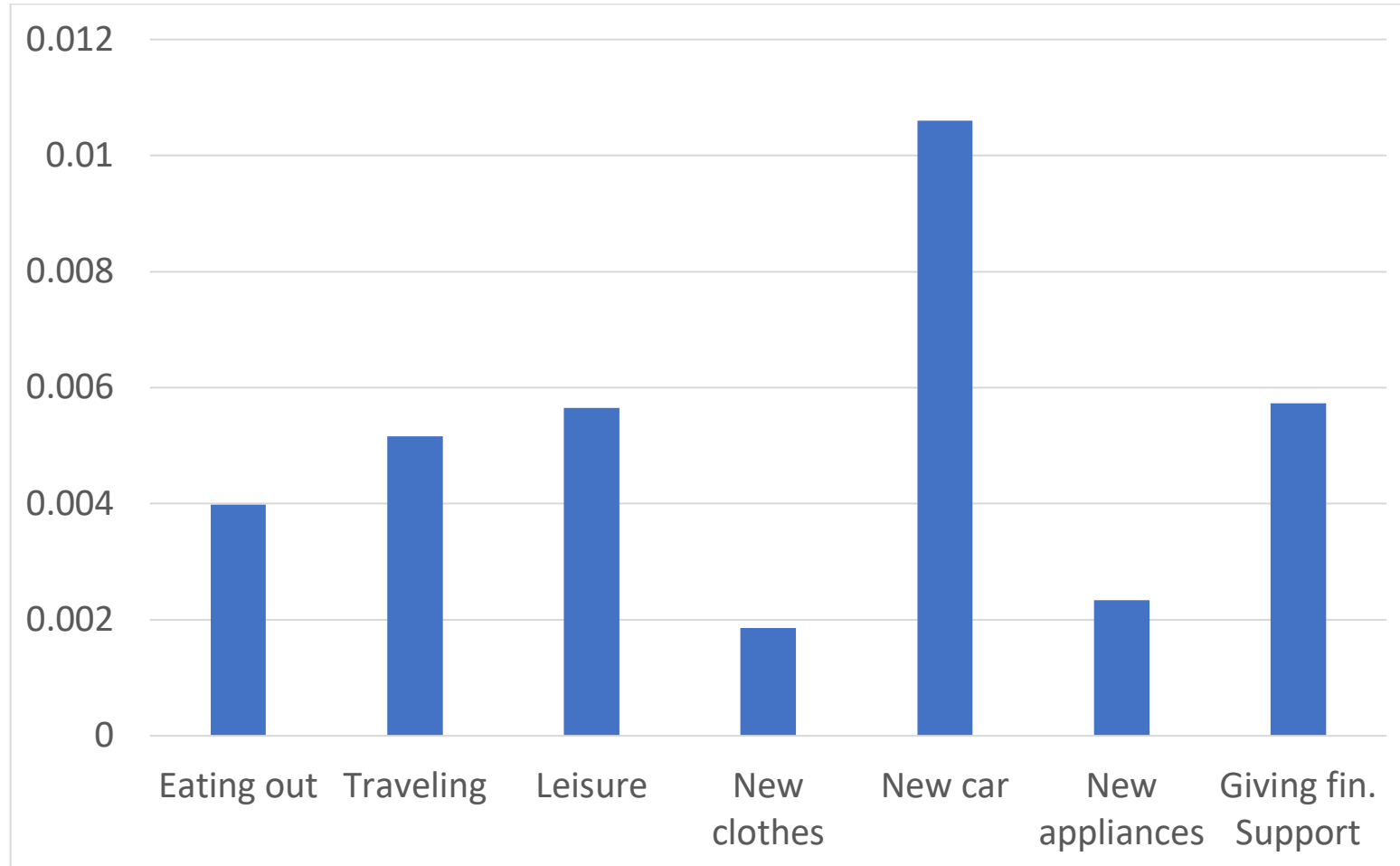


## Do changes in enjoyment predict changes in spending composition?

To control for changes in levels of spending (Engel curve),  
**regression of change in budget shares on**

- changes in total spending,
- “changes in enjoyment” variables,
- age,
- education
- demographics

## Change in budget share associated with change in enjoyment



(Controls for change in total spending)

Typical budget share: Travel = 0.03 to 0.05

## **NEXT: Signs of increasing financial distress at older ages?**

### **Questions on financial situation: current and change**

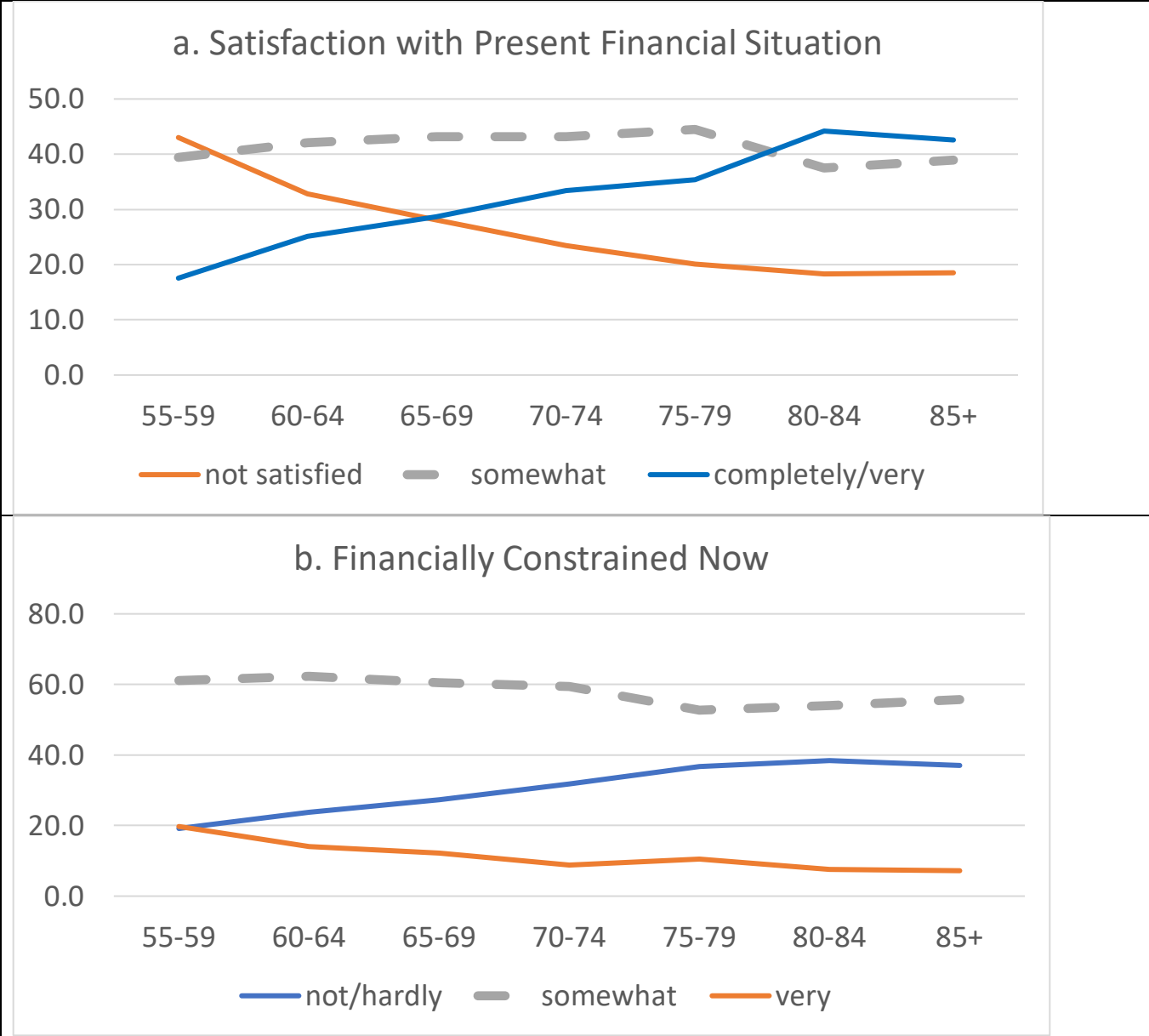
*How satisfied with present financial situation*

- a. Completely satisfied
- b. Very satisfied
- c. Somewhat satisfied
- d. Not very satisfied
- e. Not at all satisfied

*To what extent is household constrained in its spending?*

- a. Very constrained (often we cannot afford to buy things we need)
- b. Somewhat constrained (we have to watch our spending, but can cover all basic needs)
- c. Hardly at all constrained (we can largely buy what we want)
- d. Not constrained (we do not have to worry about finances)

# Reduced to 3-point scale



**Better financial situation with age**

**But cross-section:**  
Includes cohort differences and differential survival

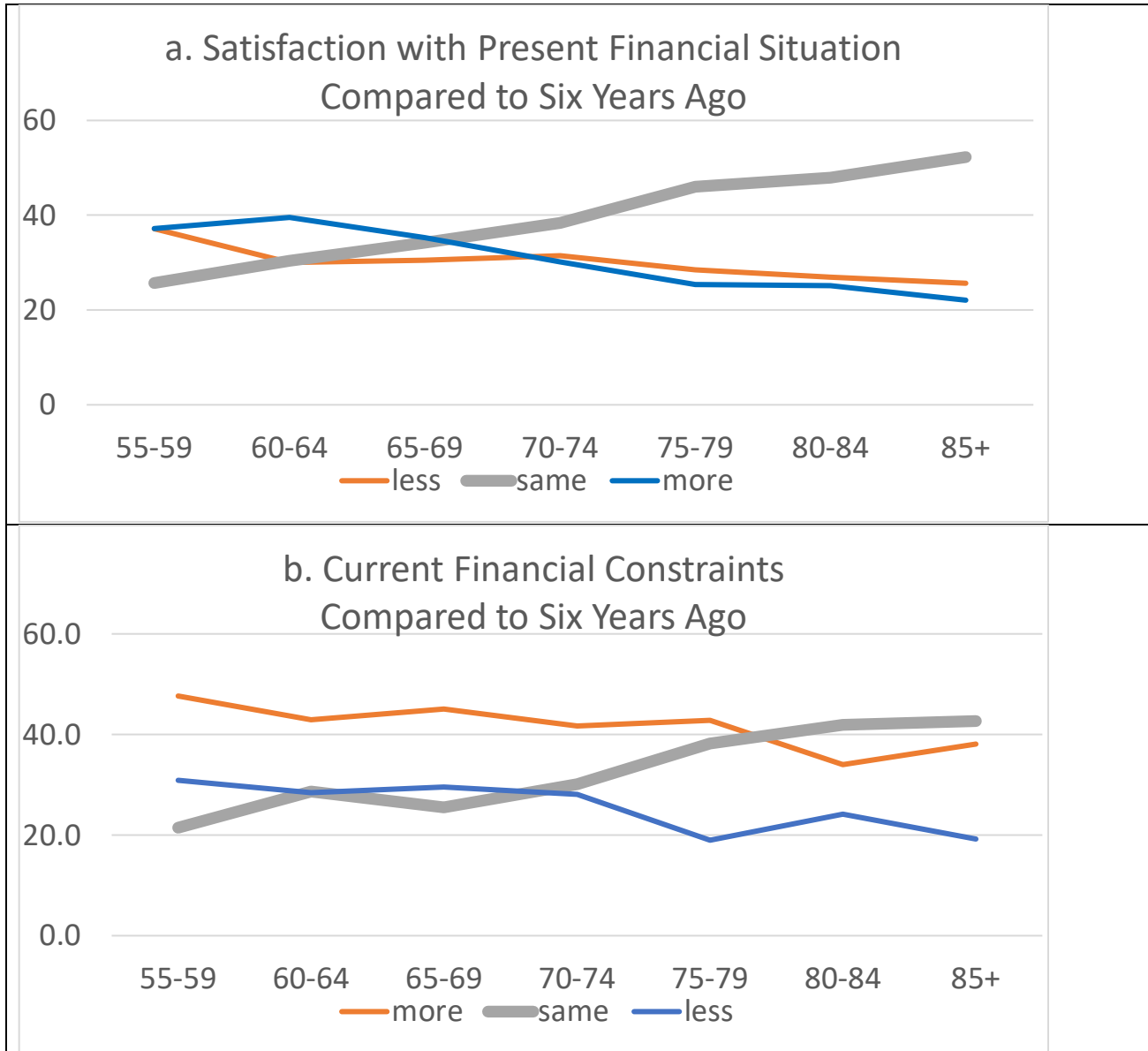
## Satisfaction with financial situation/financially constrained now compared to 6 years ago:

→ within-person comparison

- a. Much more satisfied today than six years ago
- b. A little more
- c. About the same
- d. A little less
- e. Much less

Reduce to 3 categories.

# Within person comparison with six years ago



**Although real spending lower at older ages**

**Satisfaction at 80+**

- 50% report satisfaction same as six years ago.
- 25% report better
- 25% worse.

**Financial constr. at 80+**

- 40% unchanged
- 40% increased
- 20% decreased

## Summary and conclusions

- Real spending declines with age
- What is the explanation?
  - Budget shares suggest health/age complementarity
  - Direct question about change in enjoyment from activity
  - Support for reduced efficiency of spending on some activities
    - Less “need” to spend at older ages
- Economic satisfaction
  - Increases with age in cross-section
  - Increasingly stable at older ages: 48% of 80 year-olds report “no change” over last six years
  - Self-assessed budget constraint does not worsen with age

- What about (extended) Yaari versus behavioral?
  - In both, constraints would increase with age
  - Economic satisfaction and age
    - Yaari: possible flat in age
    - Behavioral: decline with age
  
  - Need expectations data about change in spending



## Importance of understanding spending path

Financial preparation for retirement:

How much to save?

1. Use flat spending path?
2. Or use results from DP model: declining spending path
3. Use observed (declining) spending paths
  - Criterion for success: don't run out of wealth
  - But want to know that declining path is not (too) harmful
  - Are results on "enjoyment" quantitatively important?

Our results suggest most people satisfied with declining path.

**But heterogeneity:** Some had worsening economic situation

**Implication:**

- Don't need to encourage "people" to save more;
- Need to encourage (or provide for) "some people"

Thank you!

[susannr@rand.org](mailto:susannr@rand.org)

