



Understanding Society

THE UK HOUSEHOLD LONGITUDINAL STUDY

Using the British Household Panels for research on functioning well in later life

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Functioning well in later life:

What is the evidence from longitudinal studies?

An initiative by the Economic and Social Research Council, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by the National Centre for Social Research.

Background

- Outline design features of *Understanding Society*
- Advantages of household panel data

UKHLS design features

- *Understanding Society* is a longitudinal household panel
 - Sample based on all residents (adults and children) at addresses selected at wave one
 - Followed annually
 - Include and collect data from new household members
- Basic design similar to that of British Household Panel Survey, which it replaces, and to panels in other countries, e.g. SOEP, HILDA, PSID
 - So opportunities for international comparison
- Sample size of 40,000 households at wave 1
- Wave 1 began in January 2009
 - Takes 24 months to complete

Key features

- The following features shape the priorities for topic content:
 - Large sample size
 - Household focus of the design
 - Full age range sample
 - Innovative data collection methods
 - Multi-topic design to meet a wide range of disciplinary and inter-disciplinary research needs
 - Ethnic minority research
 - Biomedical research
 - Data linkage to administrative records
 - Associated studies e.g. qualitative studies and mixed method research

Sample consists of:

- A UK equal probability main panel with an achieved sample of around 27,000 households.
- A boost ethnic minority sample, to provide 1,000 adult individuals in each of the five main ethnic minority groups in around 4,000 households
- The former British Household Panel Survey(BHPS) sample of approximately 8,400 households (incorporated at wave 2).
- An Innovation Panel of 1500 households to enable methodological research.

Content areas for later life functioning

- **Annual**


Socio-demographics
Health status/ disability
Caring
Income and earnings
Life satisfaction
Transport and
communication
Consumption expenditure
Housing
Housing expenditure
Household facilities, car
ownership

- **Rotating**

Psychological attributes
Cognitive ability
measures
Health outcomes and
health related
behaviour
Quality of sleep
Well-being
Quality of marital
relationships
Social support

Biomarker collection

- Anthropometric measures:
 - height
 - weight
 - waistline
 - body fat percentage
 - respiratory function (spirometry)
 - blood pressure
 - grip strength
- Non-fasting blood samples taken for analytes and for genetic analysis



Data availability: through Economic and Social Data Service, University of Essex

- Innovation Panel data waves 1-4 are available
- Wave 1 and 2 data are available
- Wave 3 data to be released in Autumn 2013
- Nurse visit data
 - Anthropometrics available by spring 2013
 - Blood analytes to follow (funding secured)
- See ESDS website:
<http://www.esds.ac.uk/longitudinal/>



ADVANTAGES OF HOUSEHOLD PANEL DATA

Advantages of panel studies



- **Cohort study**

follows participants over enough time to be able to observe a particular outcome and determine how exposure to a certain variable is associated with the outcome

- **Panel study**

to observe changes in a particular variable over time and explain what factors may lead to the changes in the variable or how changes relate to an outcome of interest or over time

- **Methodological advantages**

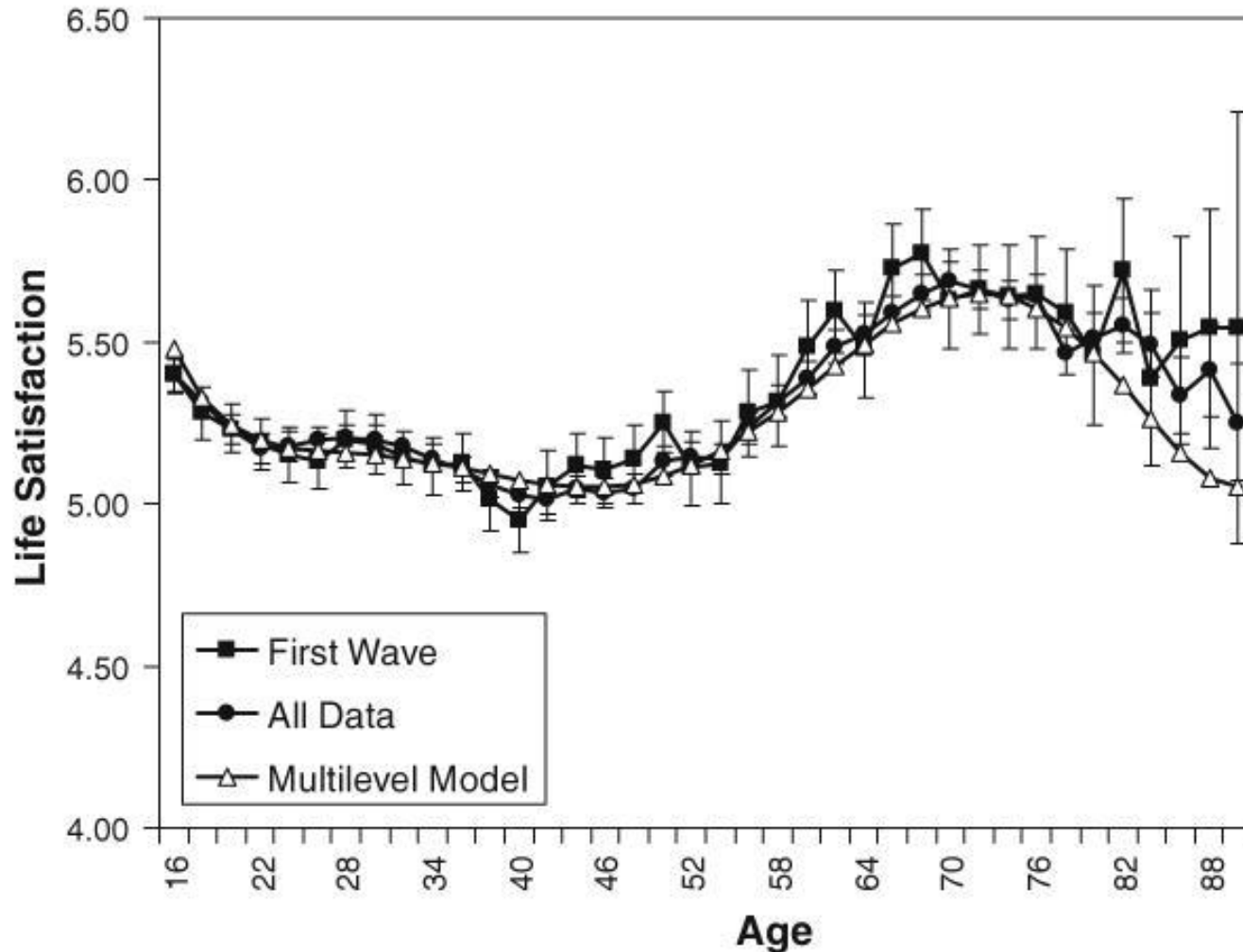
statistical controls for group non-equivalence

allow for complex statistical modelling of dynamic phenomena

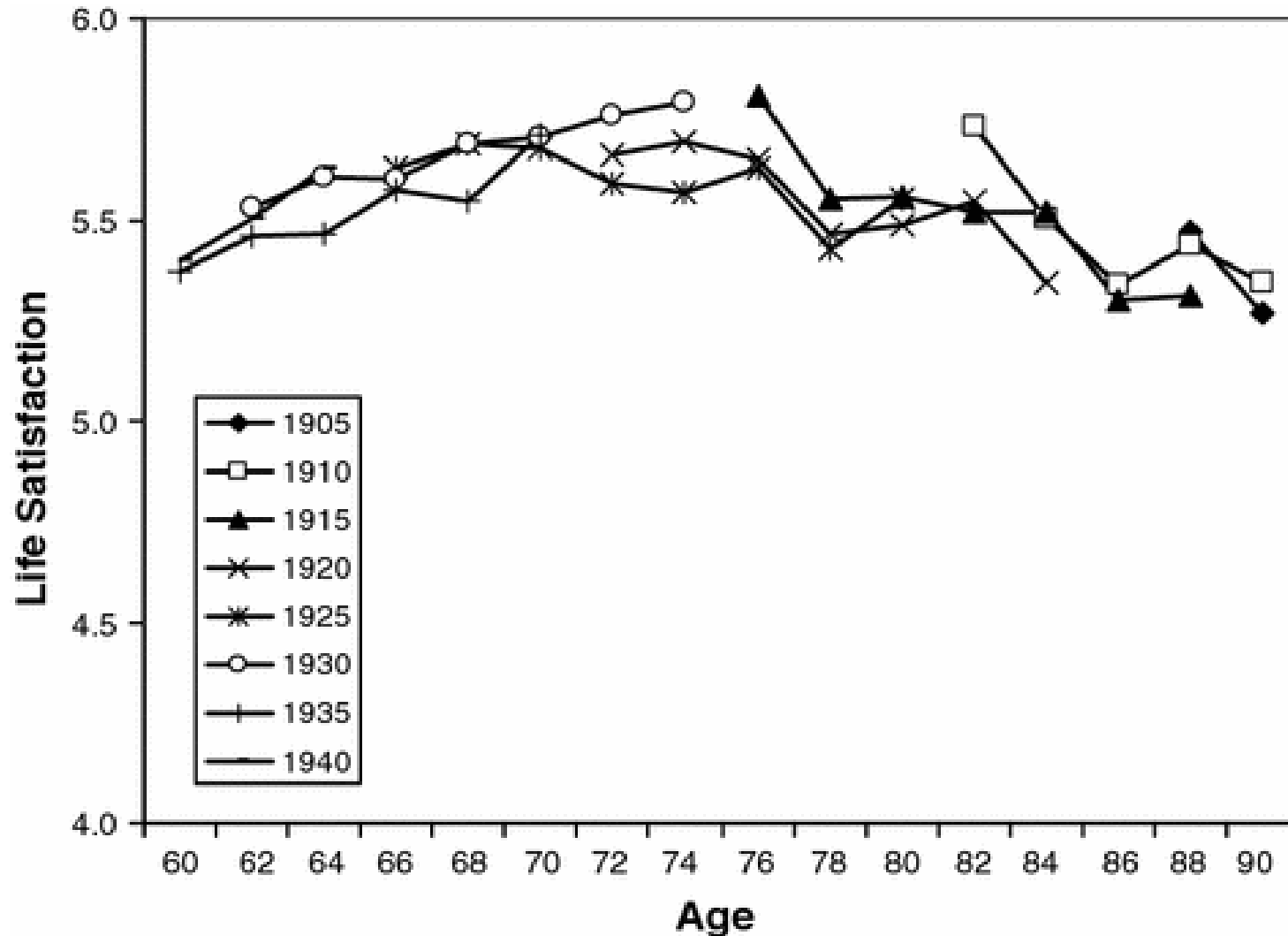
Baird et al (2010). "Life Satisfaction Across the Lifespan: Findings from Two Nationally Representative Panel Studies." Social Indicators Research **99**(2): 183-203.

- Panel design with refreshment samples
- Isolates effect of age from noise (cohort, history, and method effects)
- Focus on convergence of trajectories from different age-groups assessed for different lengths of time
- Uses cohort-sequential designs to separate age effects from cohort and history effects
- Exploits fact that same-aged participants can be assessed at the same time, but after participating in the study for different lengths of time

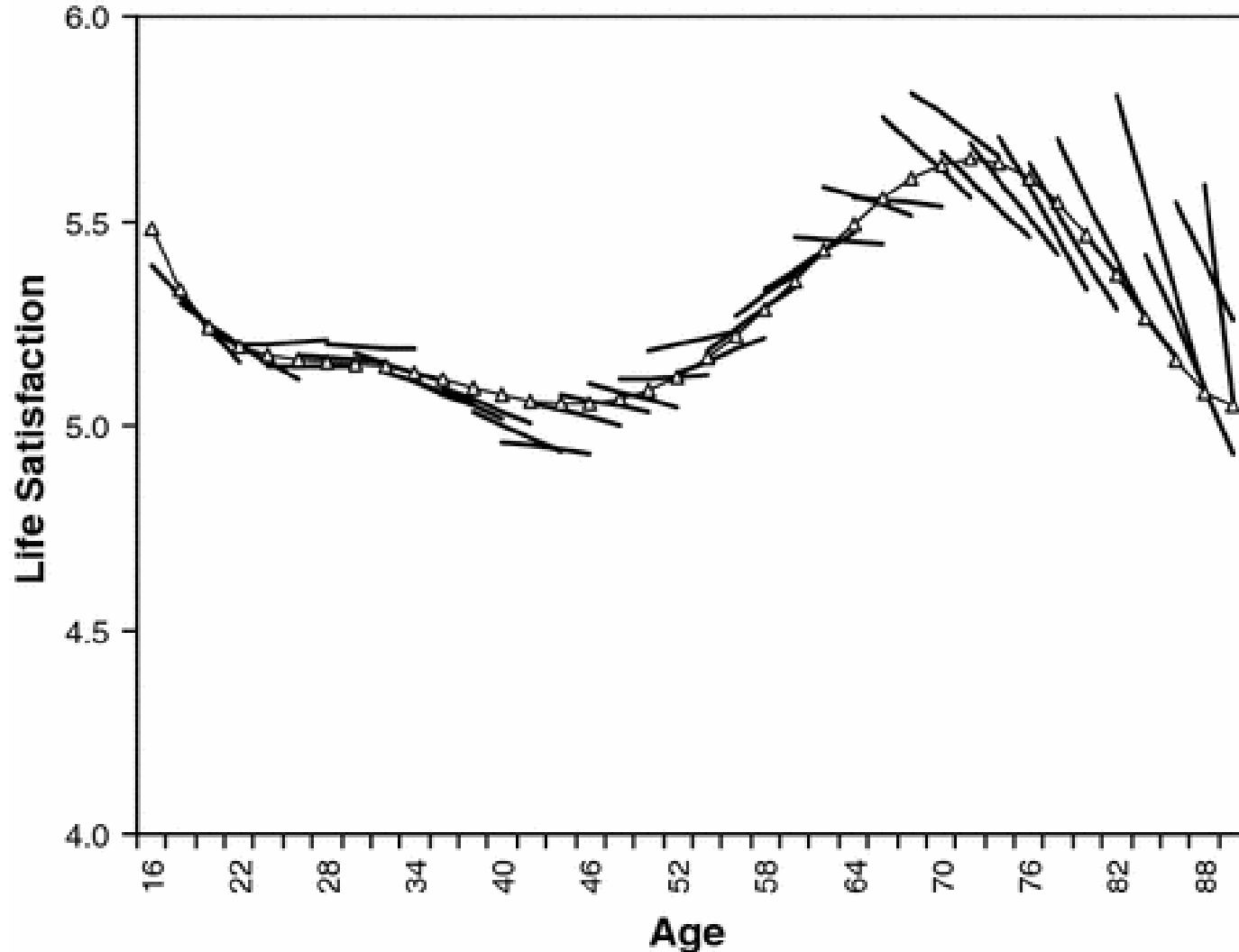
Results from cross-sectional, aggregated, and multilevel modelling analyses (BHPS)



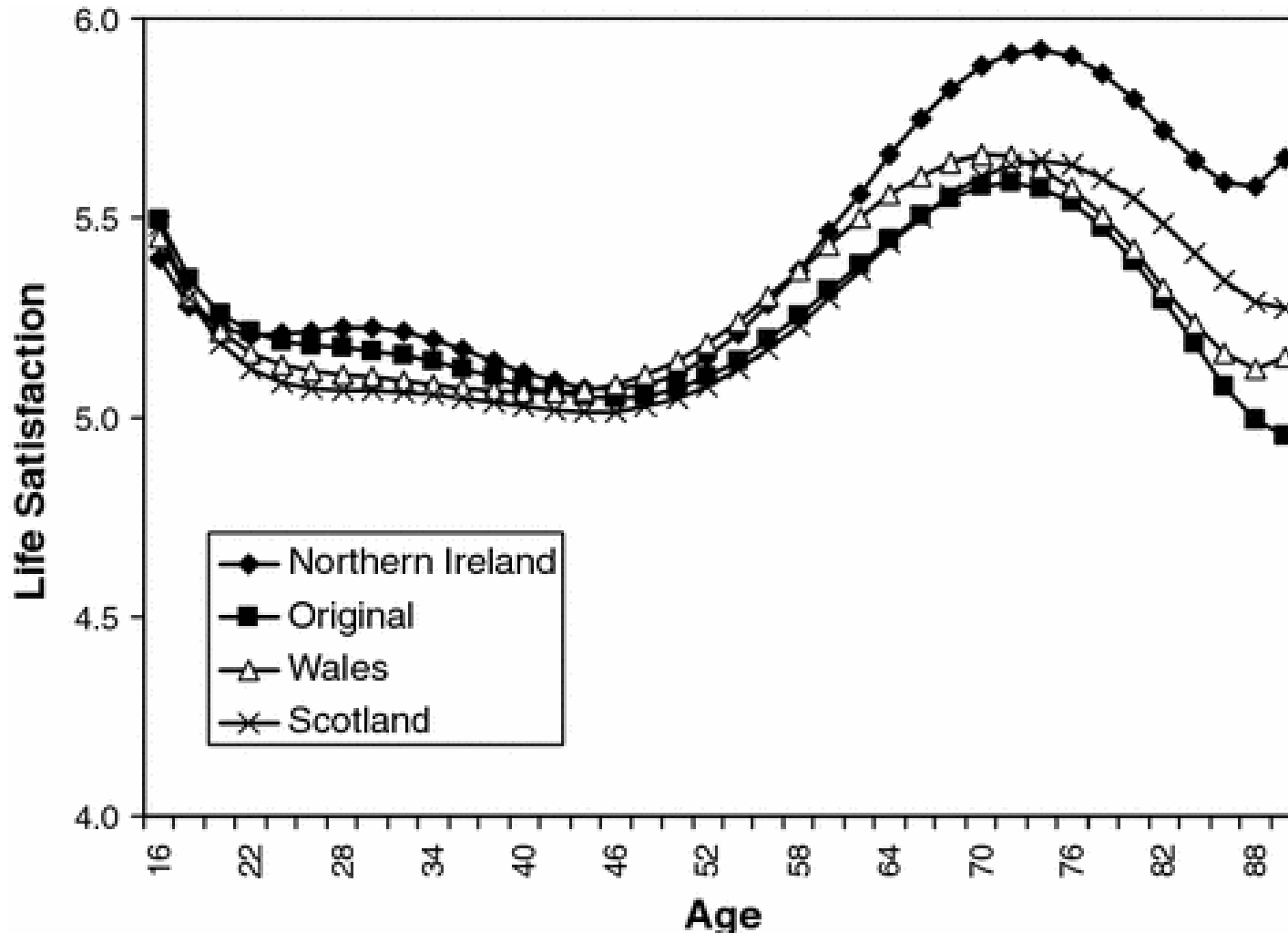
Cohort-sequential analysis from age 60 to age 90 (BHPS)



Linear effect of wave by age group (BHPS)



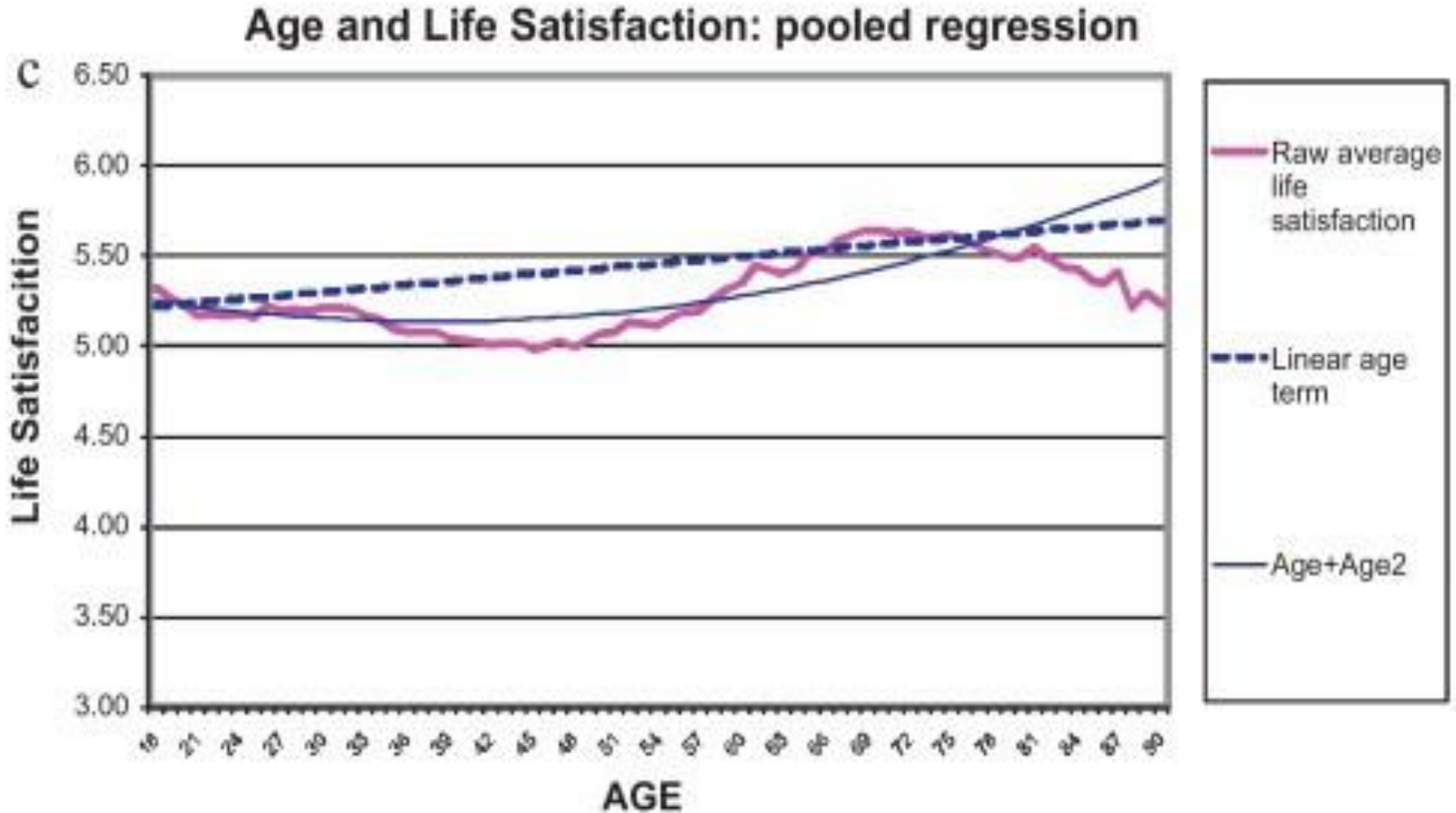
Estimated life satisfaction trajectory for the four subsamples of the BHPS



Frijters & Beaton (2012). "The mystery of the U-shaped relationship between happiness and age." Journal of Economic Behavior & Organization **82**(2-3): 525-542.

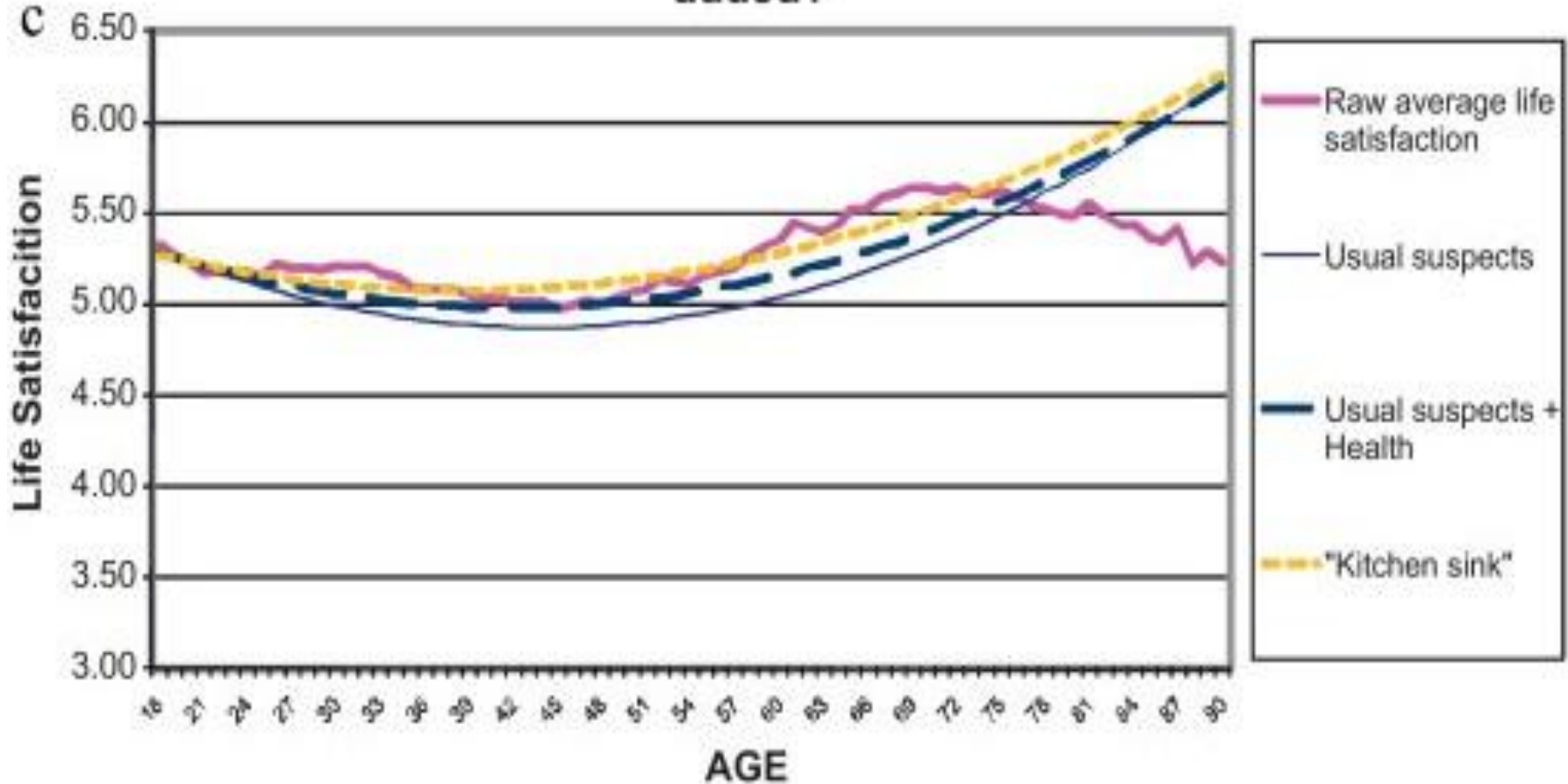
- Re-examine the age–happiness relationship
- Go through a succession of reasons
 - Confounding
 - The U-shape is due to the very young and the very old
 - Selectivity matters
 - Panel conditioning

Average life satisfaction by age in the BHPS



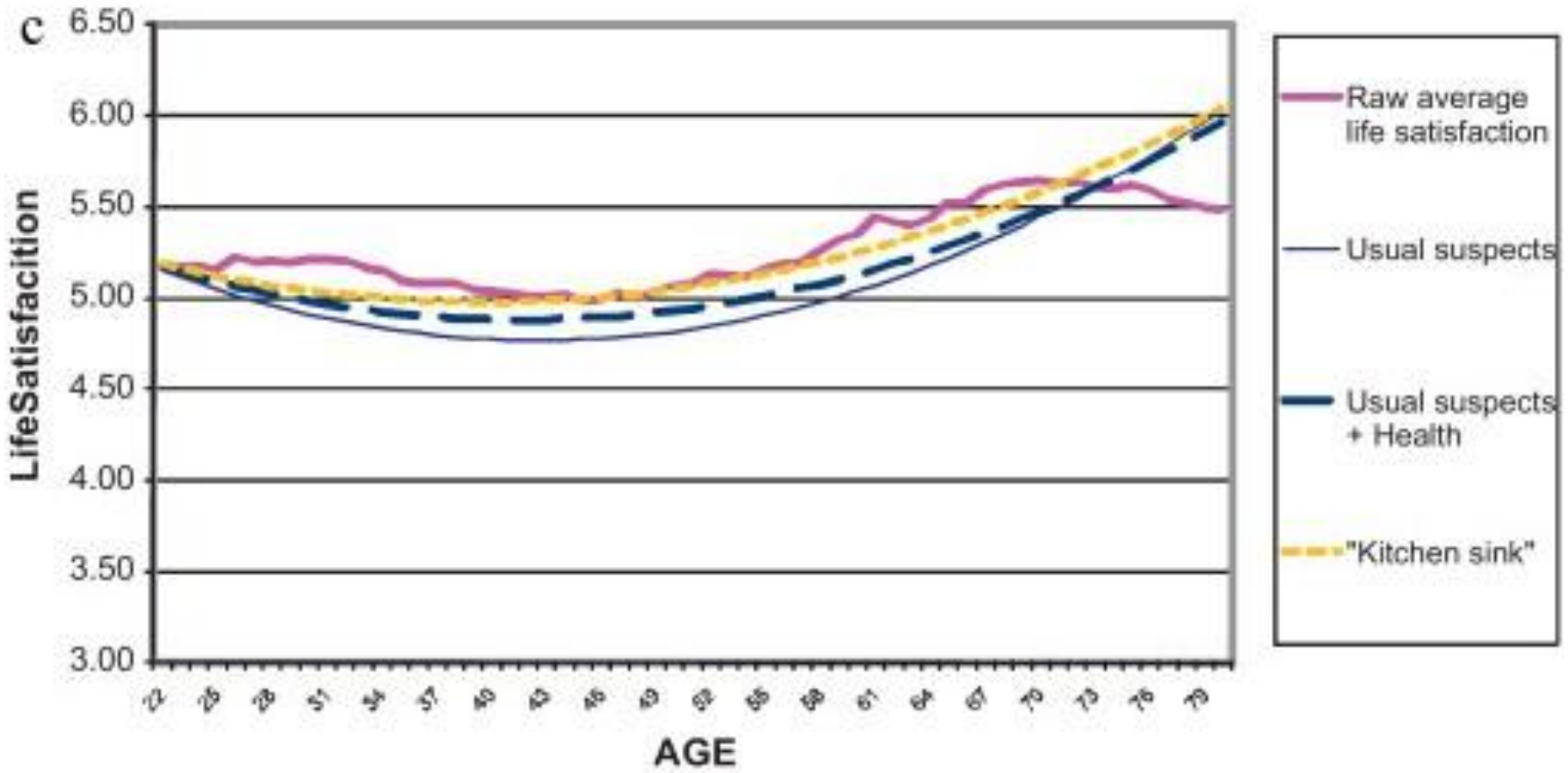
Life satisfaction in the BHPS after controlling for confounders

Age and Life Satisfaction: what if more 'controls' are added?



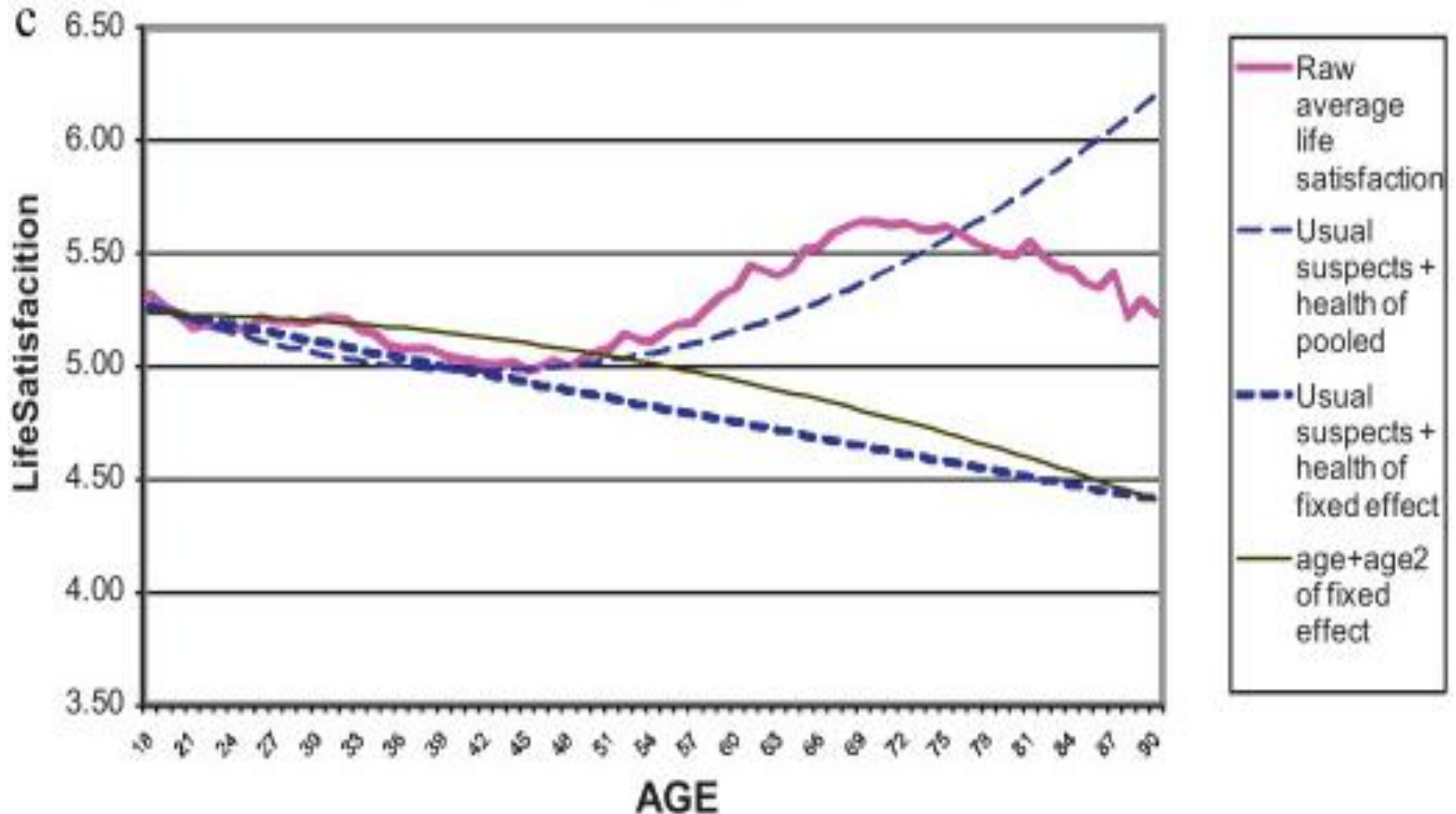
Life satisfaction in the BHPS for the mid-age range.

Life satisfaction in the BHPS; ages 22 to 80

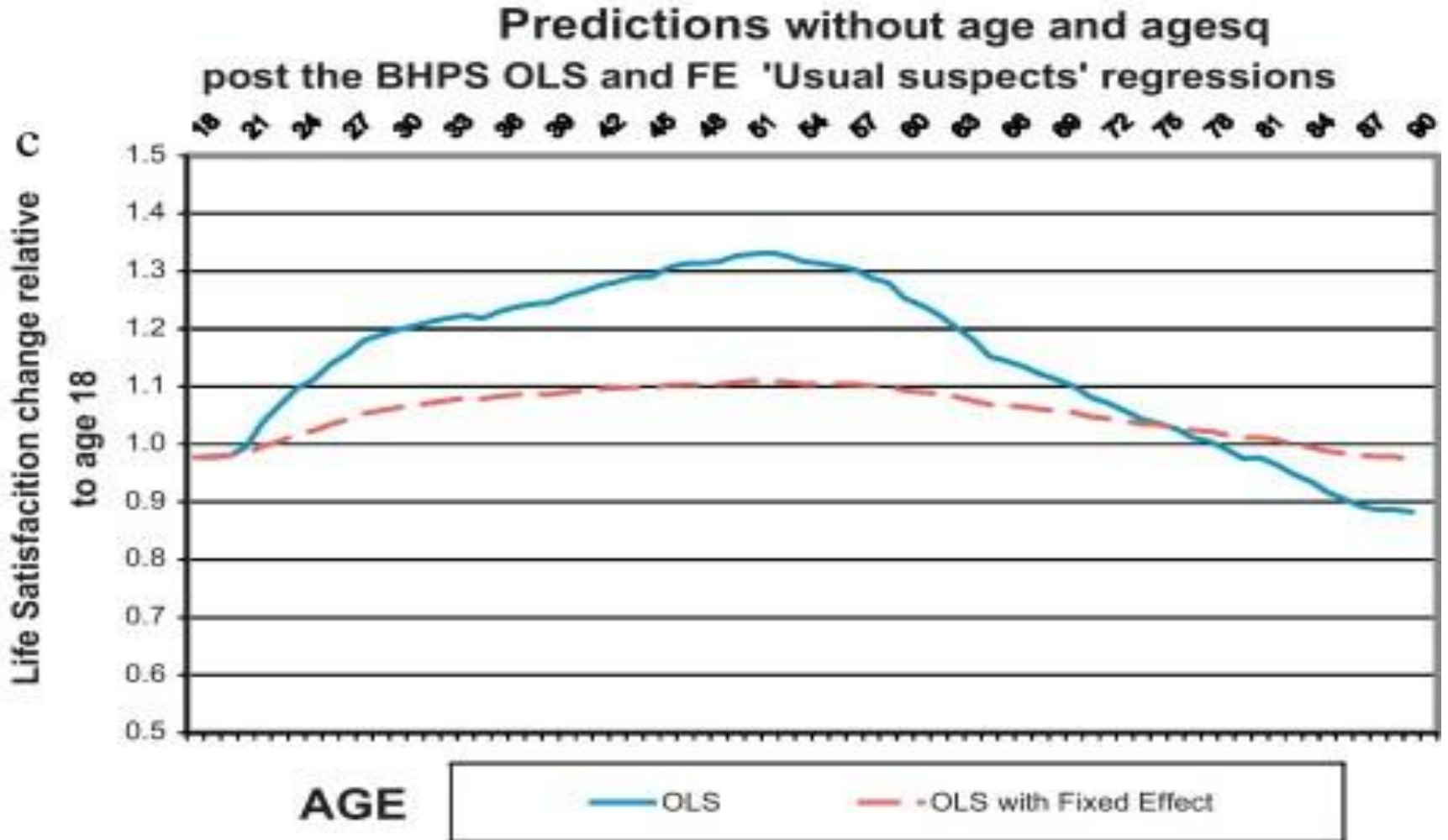


Life satisfaction in the BHPS including fixed-effects

Can reverse causality explain the U-shape?

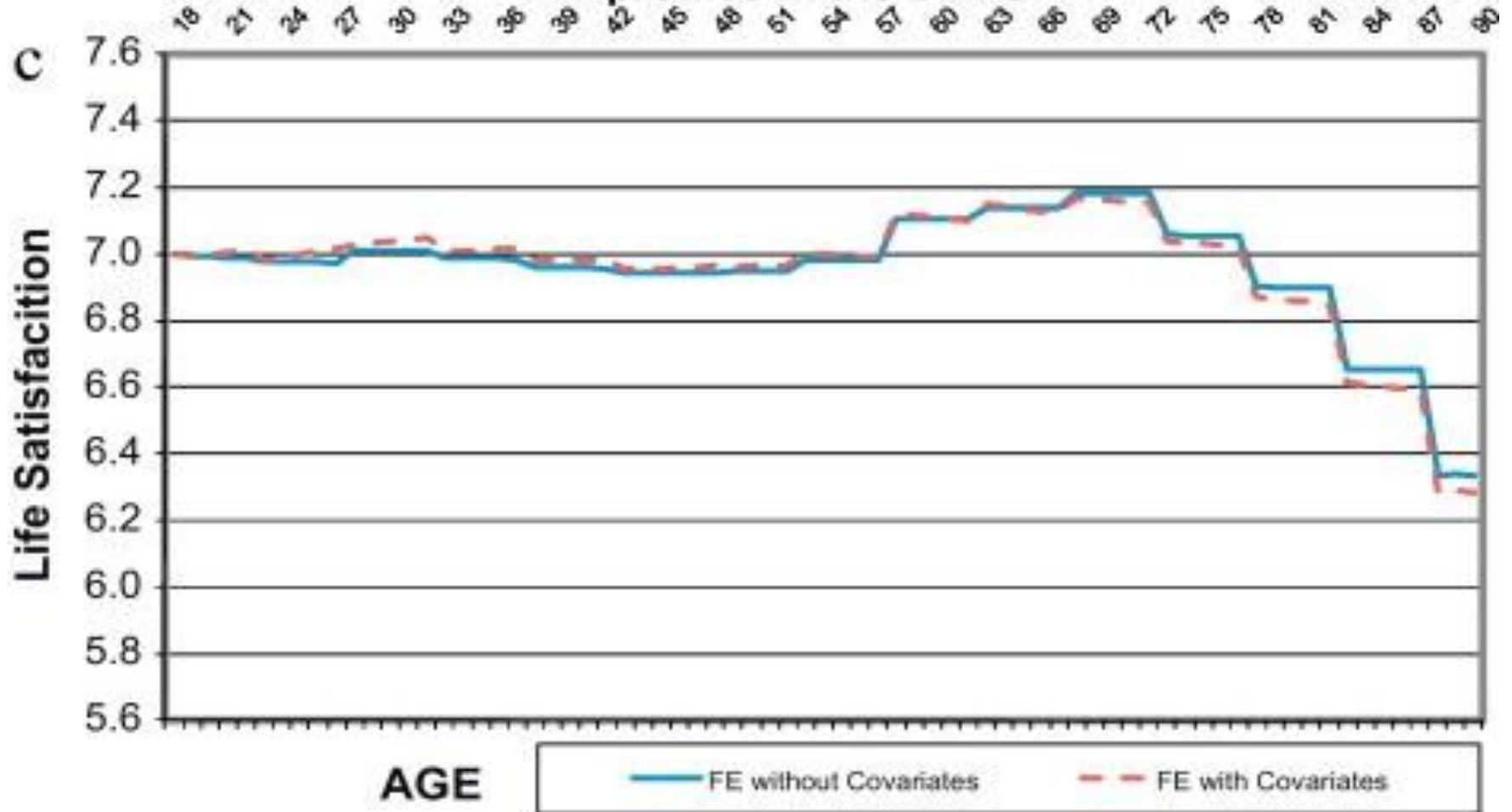


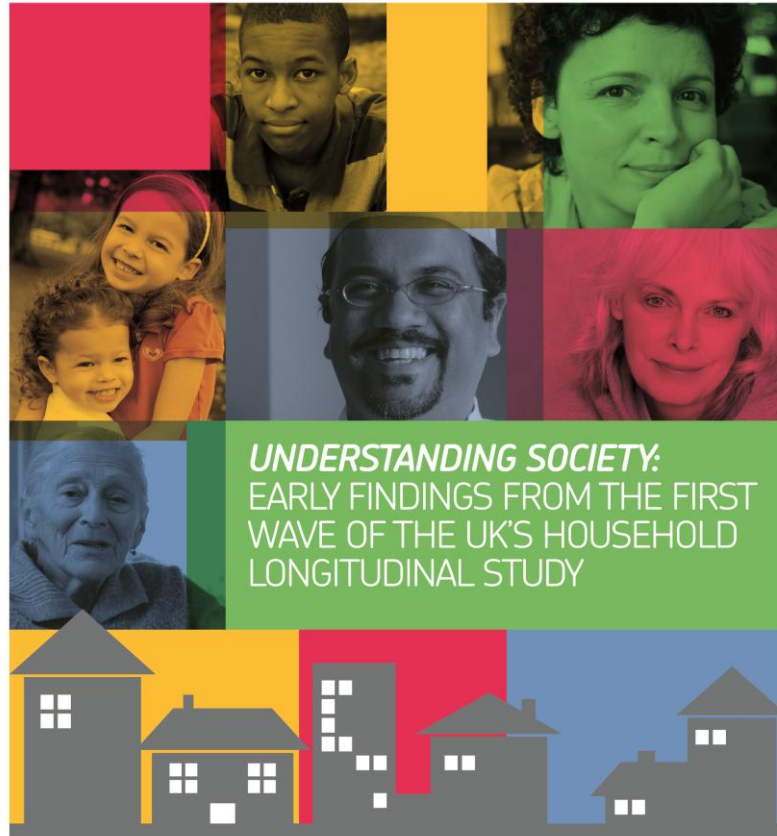
Predicted effects of the non-age variables in the BHPS



Corrected age–satisfaction effect in the BHPS using age-bands

Corrected raw and conditional age-happiness profiles in the BHPS





For further information and early findings from the first two waves of the study:

www.understandingsociety.org.uk