



LABOR AND POPULATION

***A Comparative Study of Well-being in the US, the UK, and Continental Europe***

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# *Plan of the Presentation*

- **Motivation**
- **Measurement of Depression by CESD**
- **How Depression Varies by Age and Birth year in different countries**
- **The effects of demographics and functional limitations**
- **How Health Shocks affect Depression**
- **The Role of Work**
- **Preliminary Conclusions**

# ***Motivation***

- **Government policy implicitly or explicitly aims to improve the well-being of its citizens**
- **Well-being and health are positively correlated**
- **At this point we consider one particular aspect: depression**
- **We want to know how depression is distributed across the life cycle in different countries and how it may be affected by differences in institutions and policies**

## ***Definition of Depression Scales***

- **CESD items: CESD questions ask whether the respondent experienced certain feelings much of the time during the week prior to the interview.**
  - **A code of 0 indicates that the respondent did not experience a particular feeling.**
  - **A code of 1 indicates that the respondent experienced a particular feeling.**
- **The depression score is simply the sum of the codes (the number of times a particular feeling is reported).**
- **So the depression score ranges from zero to eight.**

## ***CESD Items***

**depressed**

**everything effort**

**sleep was restless**

**happy**

**lonely**

**enjoyed life**

**felt sad**

**could not get going**

**This is not the complete CESD, but the subset that overlaps with the EuroD used in SHARE**

## ***Explaining Depression (HRS)***

- **Demographics**
- **Major health conditions** (i.e., cancer, heart disease, stroke, lung disease)
- **Minor health conditions** (i.e., diabetes, hypertension, arthritis)
- **Health behavior** (smoking or not)
- **Number of ADLs** (Limitations in activities of daily living)
- **Number of IADLs** (Limitations in instrumental activities of daily living)
- **Age and birth year**

## ***ADLs: Difficulties to...***

**walk across room**

**dressing**

**bathing, shower**

**eating**

**get in/out bed**

**using the toilet**

## *IADLs: difficulties to...*

use a map

use telephone

managing money

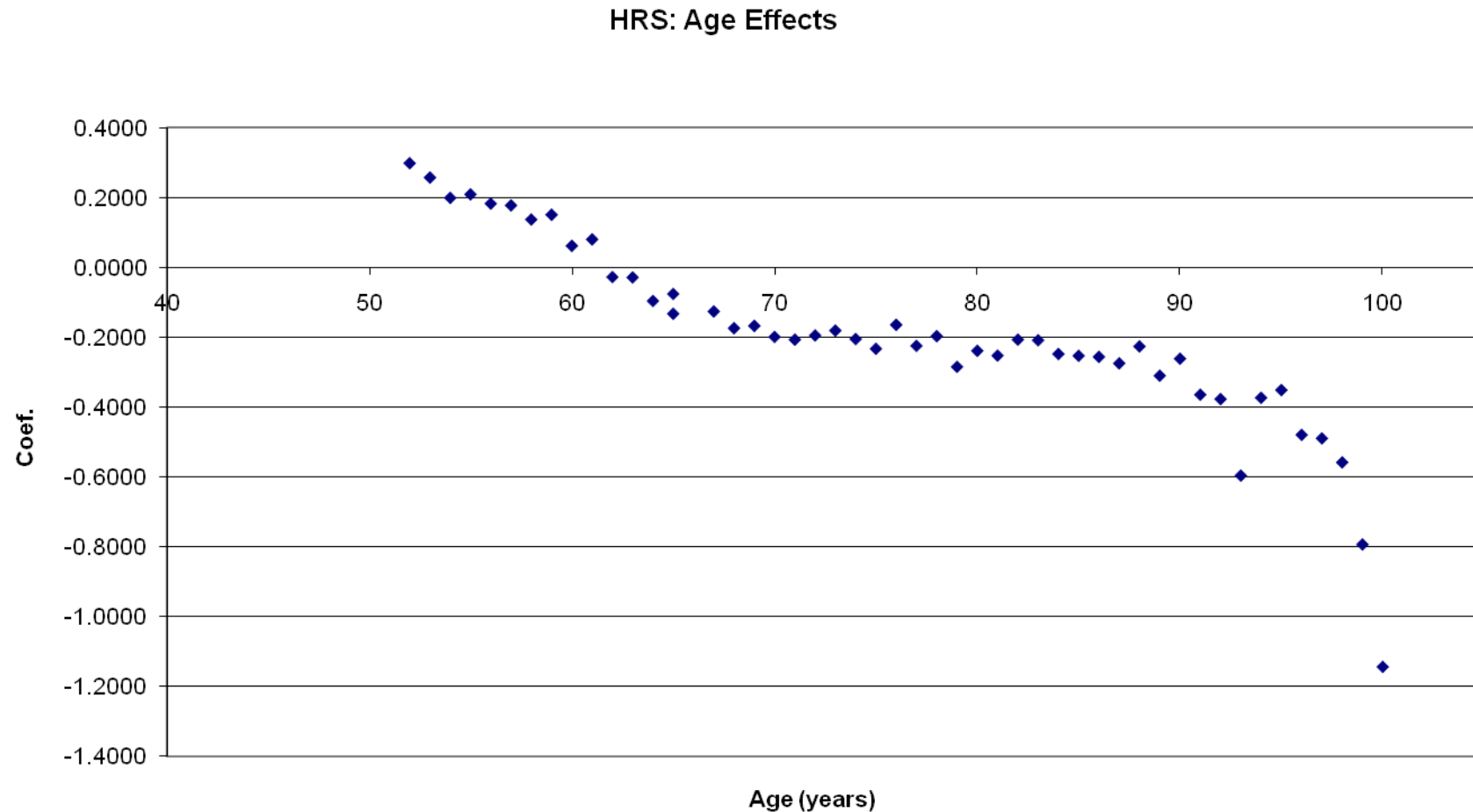
take medications

shop for grocery

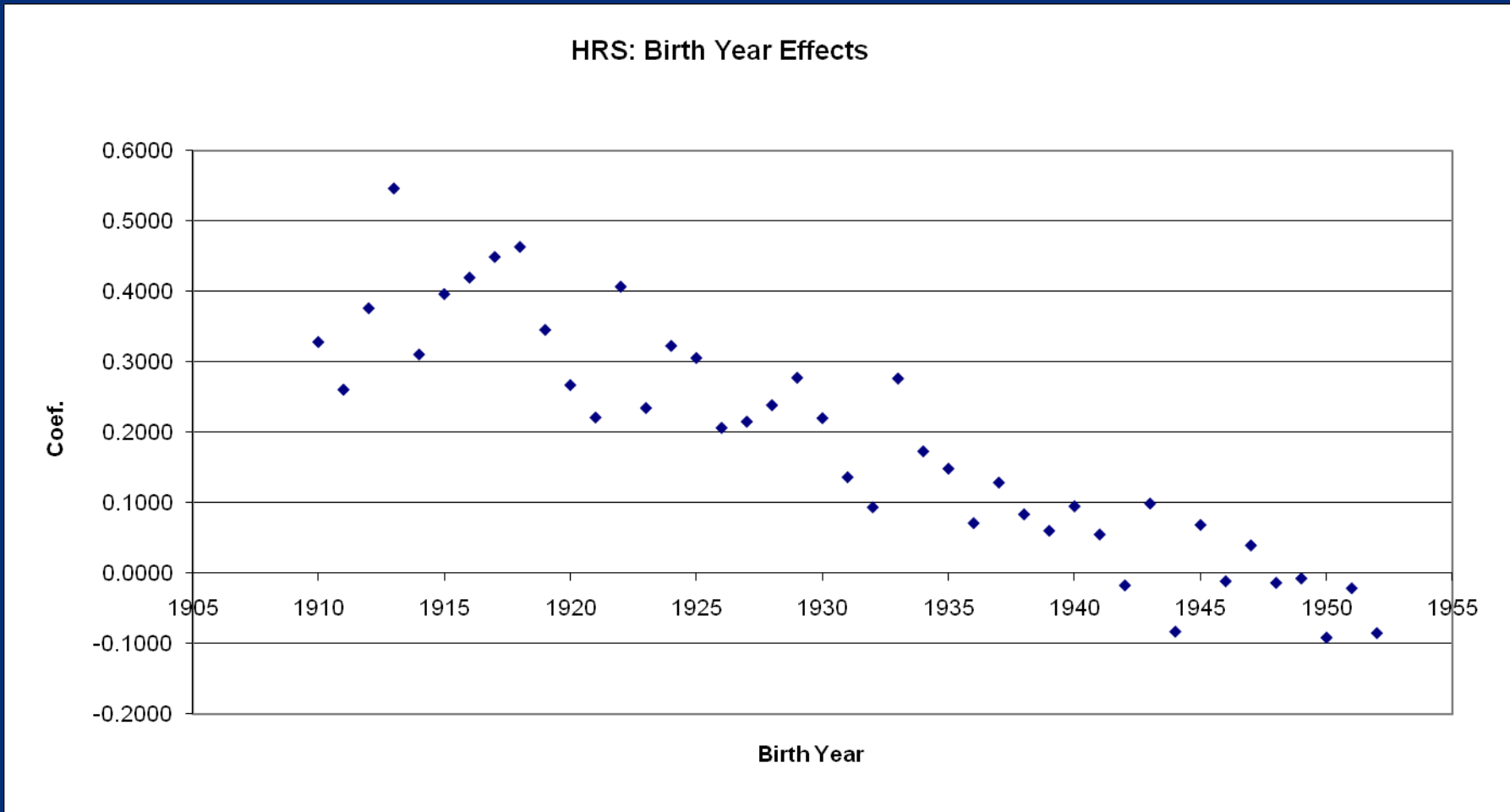
prepare hot meal



# How does Depression vary with Age?

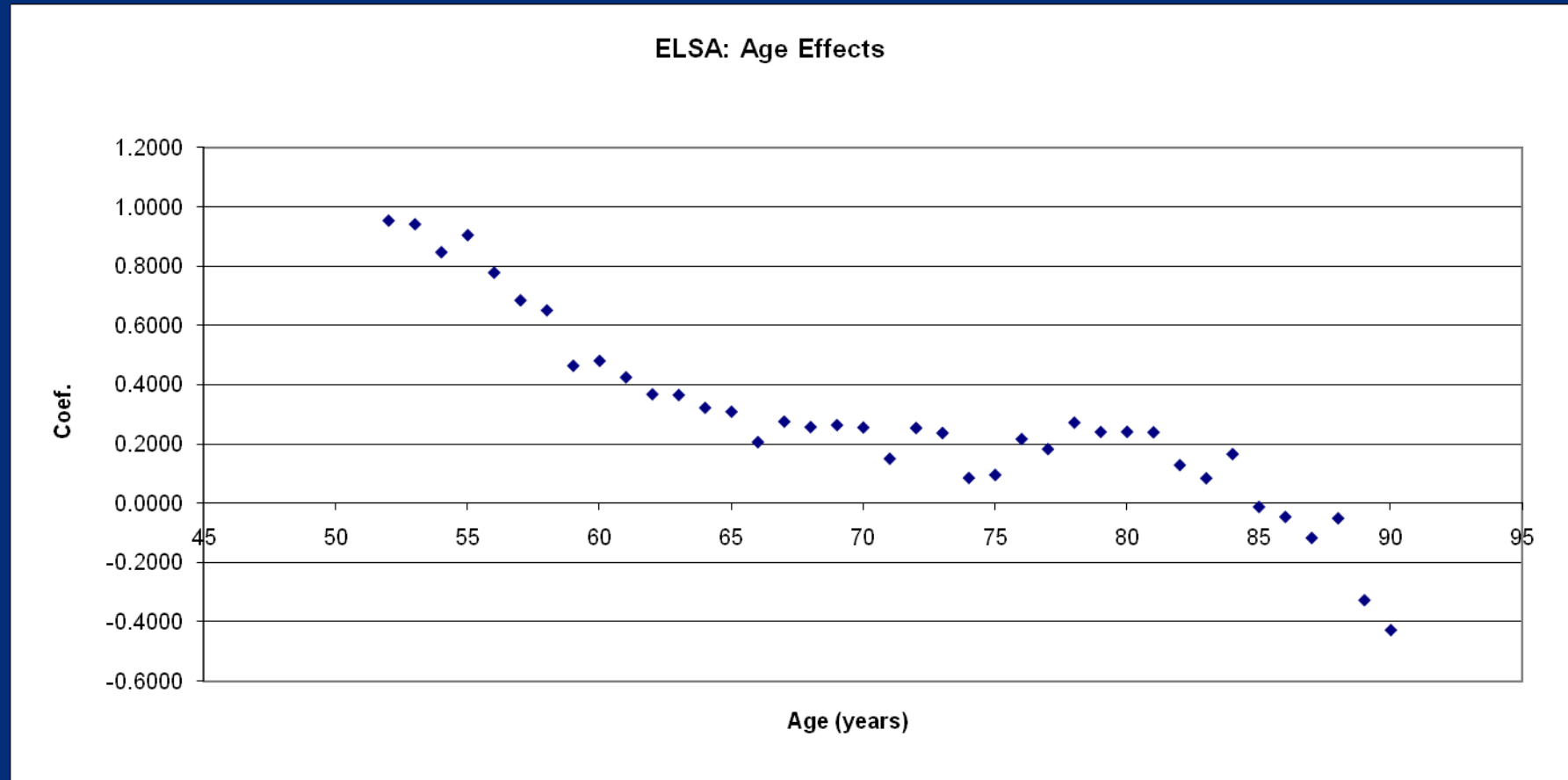


# How does Depression vary with Birth year?



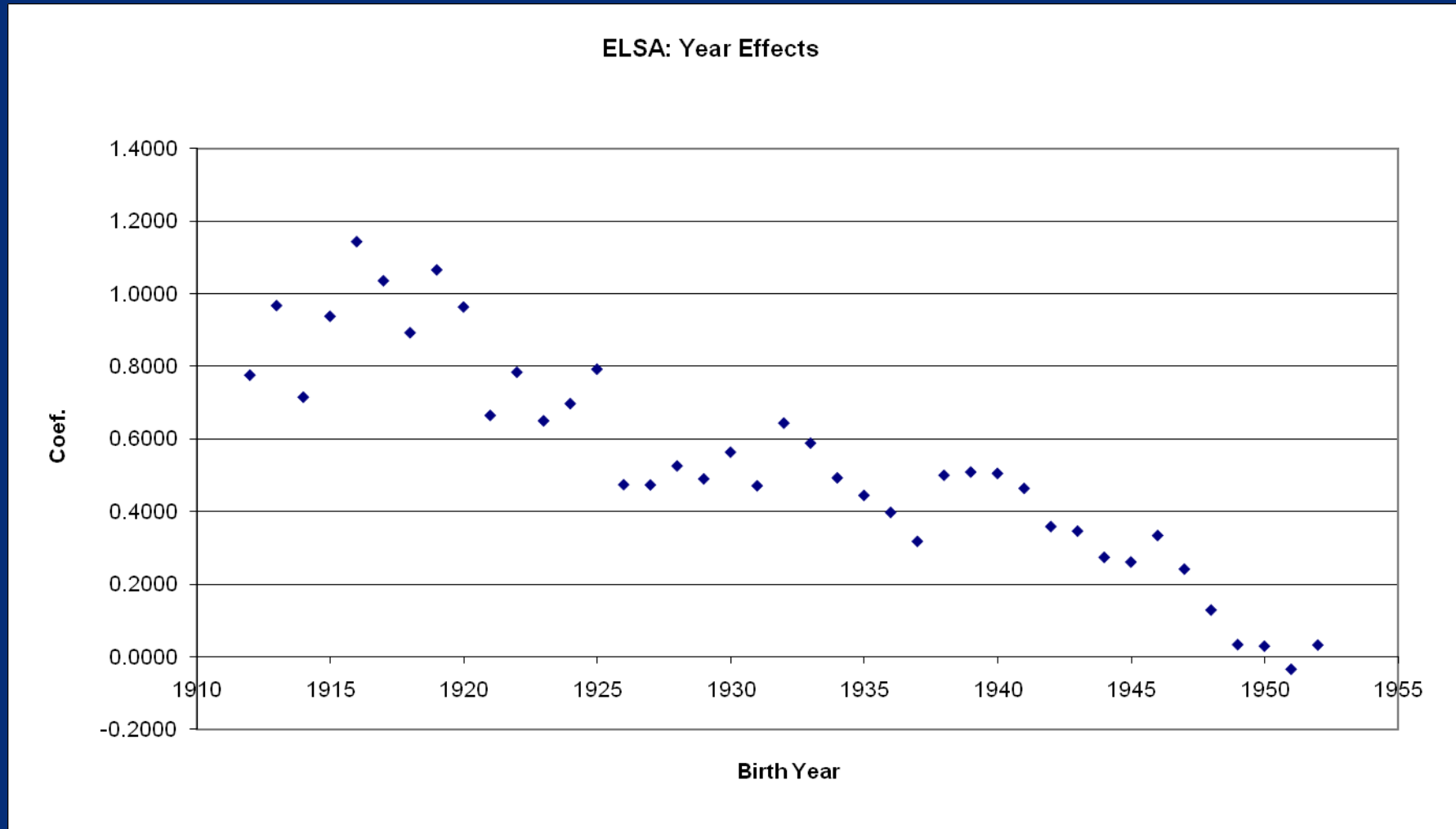
**Correlation: -.926**

# Do the US results hold in the UK?



**Correlation:  $-.907$**

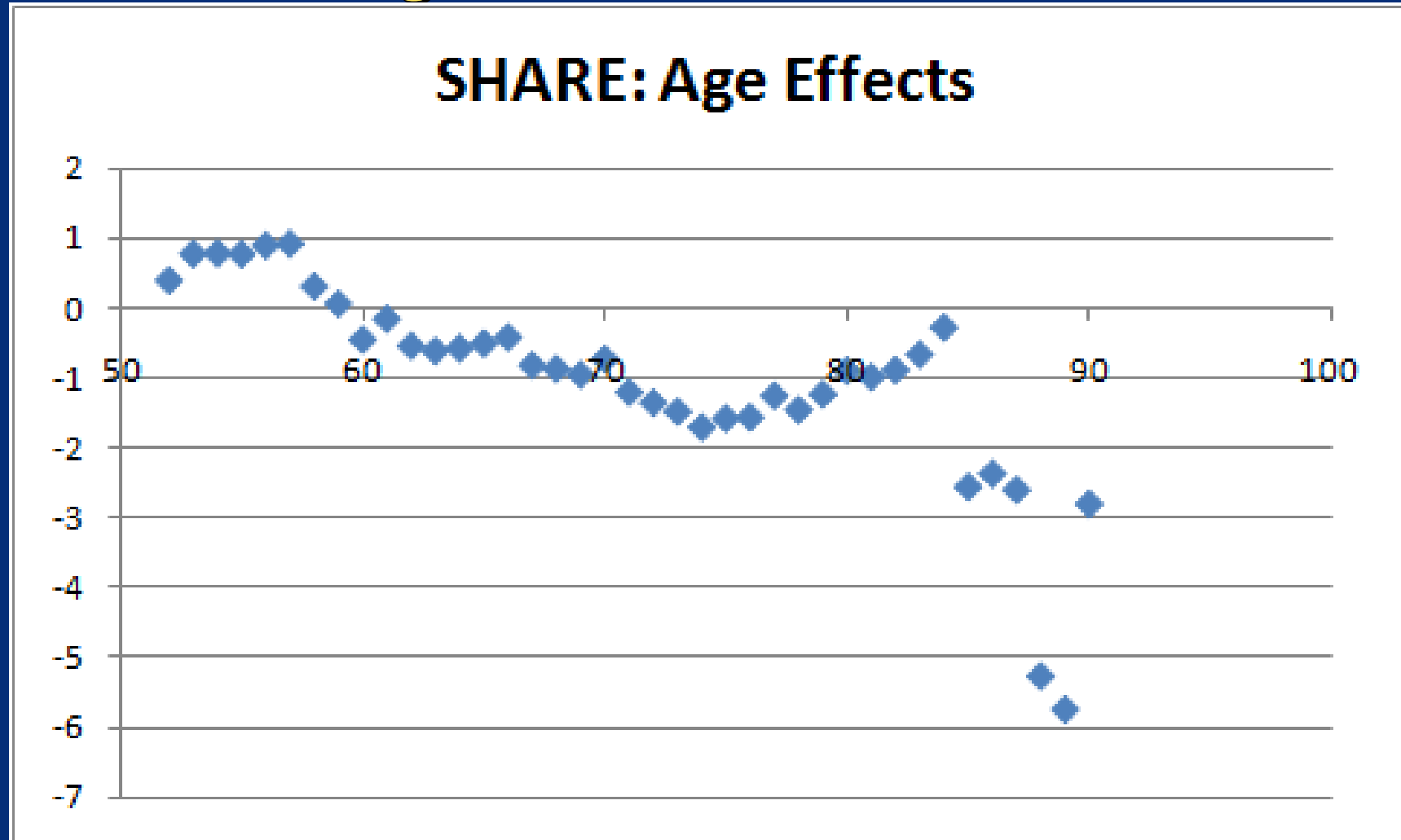
# Birth year effects in the UK



**Correlation: -.916**

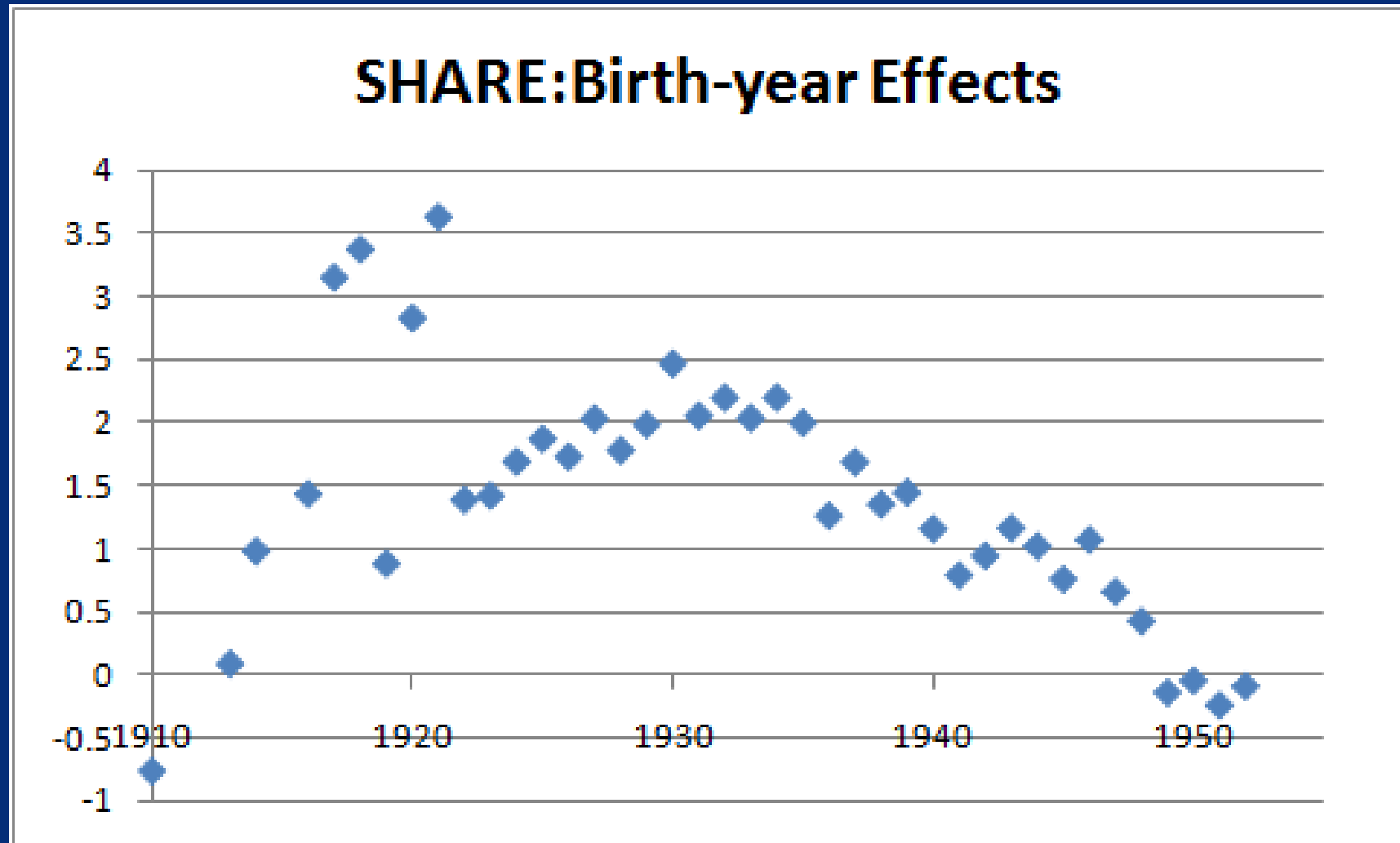
# Age Effects in SHARE

## SHARE: Age Effects



RAND Correlation: **-.800** (data noisier, fewer obs)

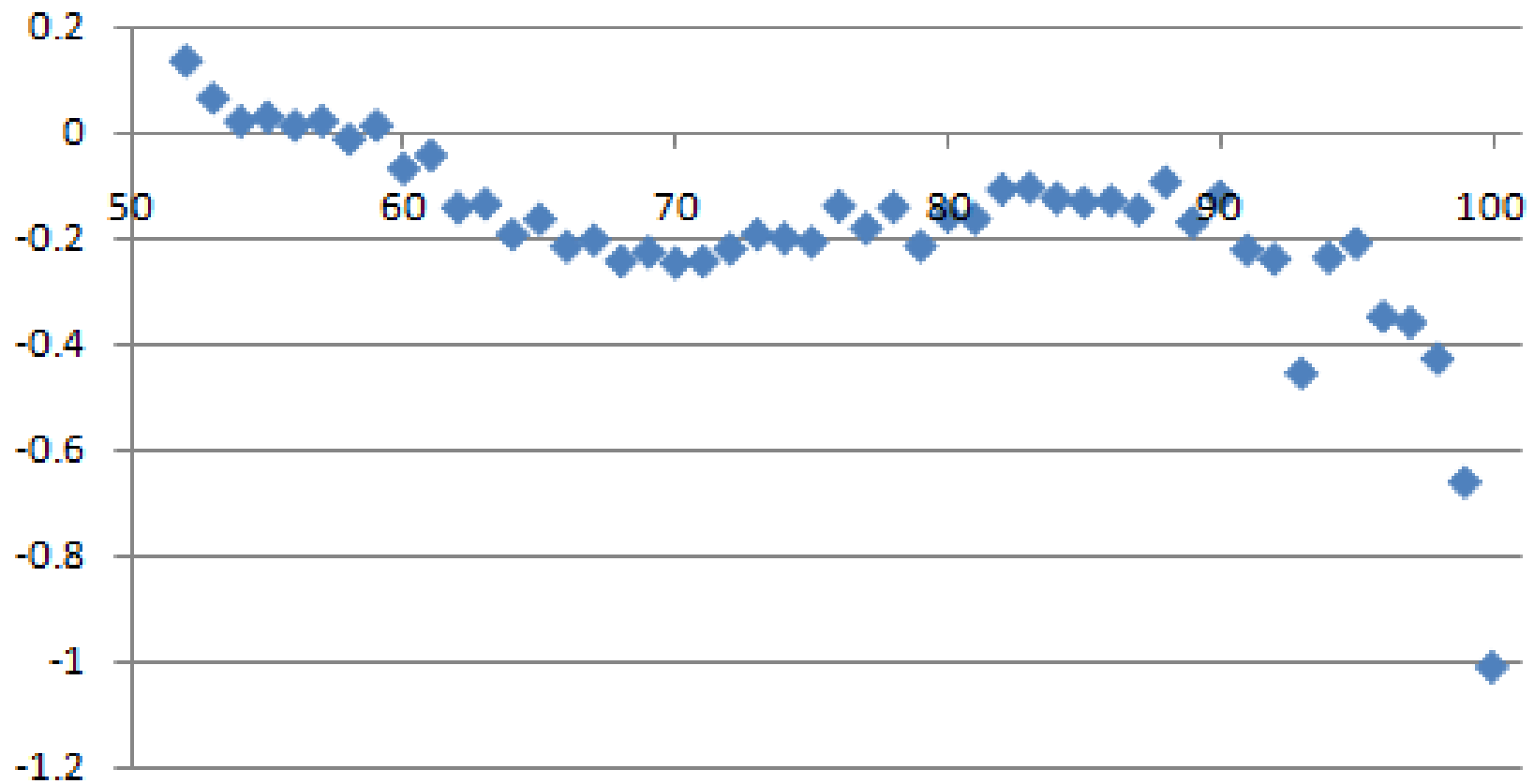
# *Birth Year Effects in SHARE*



***What happens if we ignore  
birth year effects?***

## *HRS: very little change*

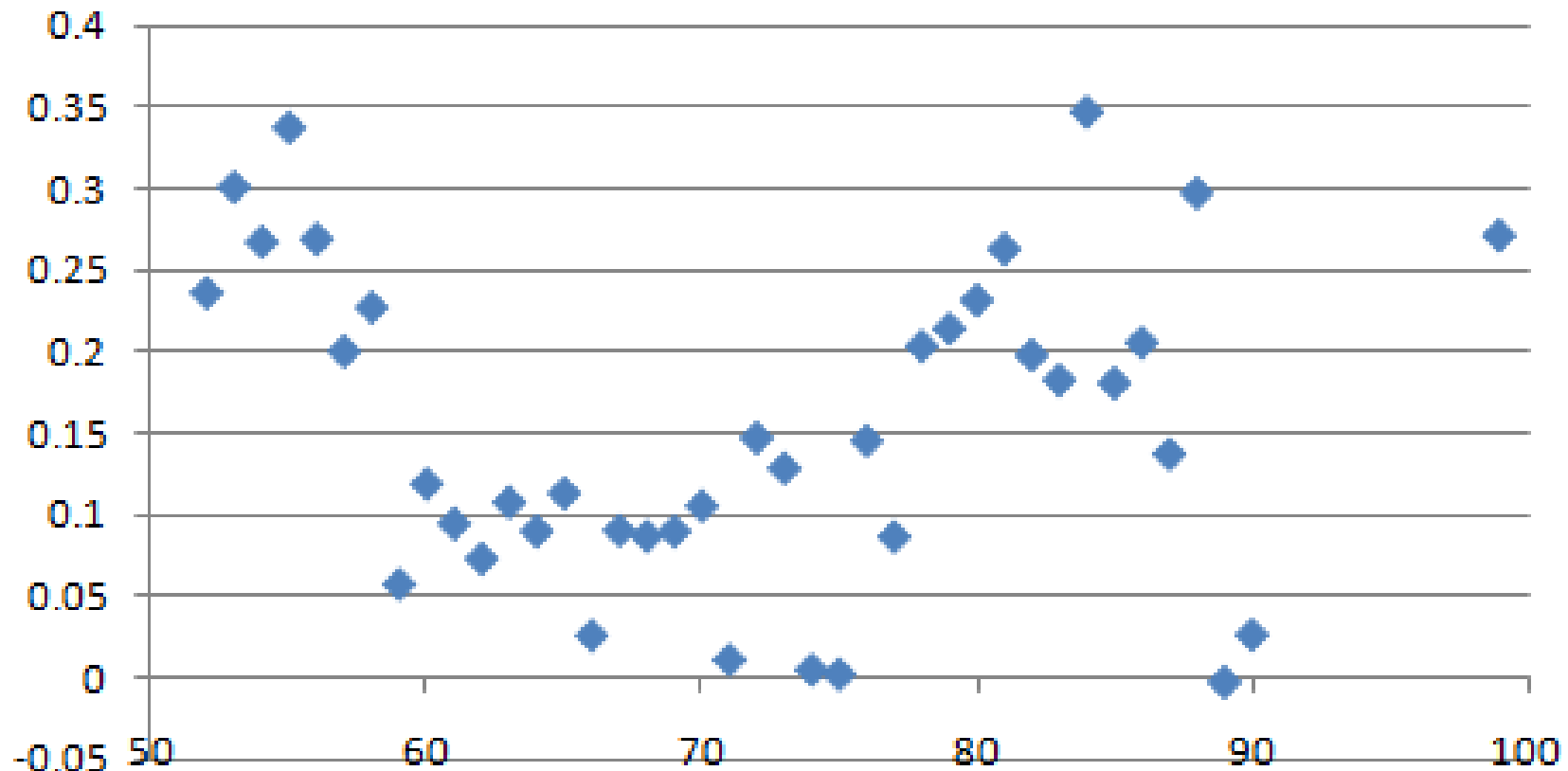
### HRS: Age Effect without cohorts





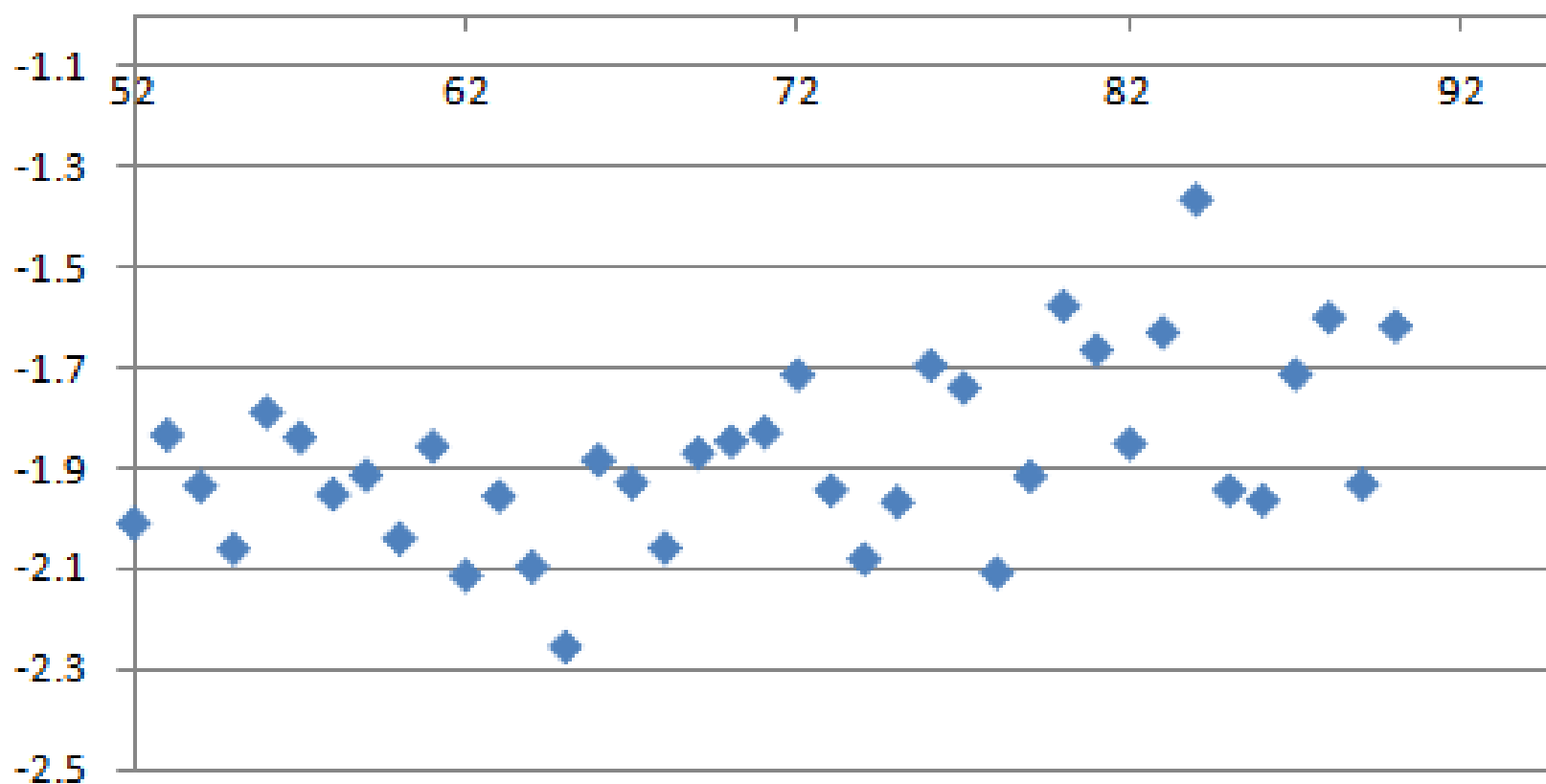
# *ELSA: Considerable Change*

## **ELSA: Age Effects, no Cohort Effects**



## *SHARE: Considerable Change*

### SHARE: Age Effects without Cohorts

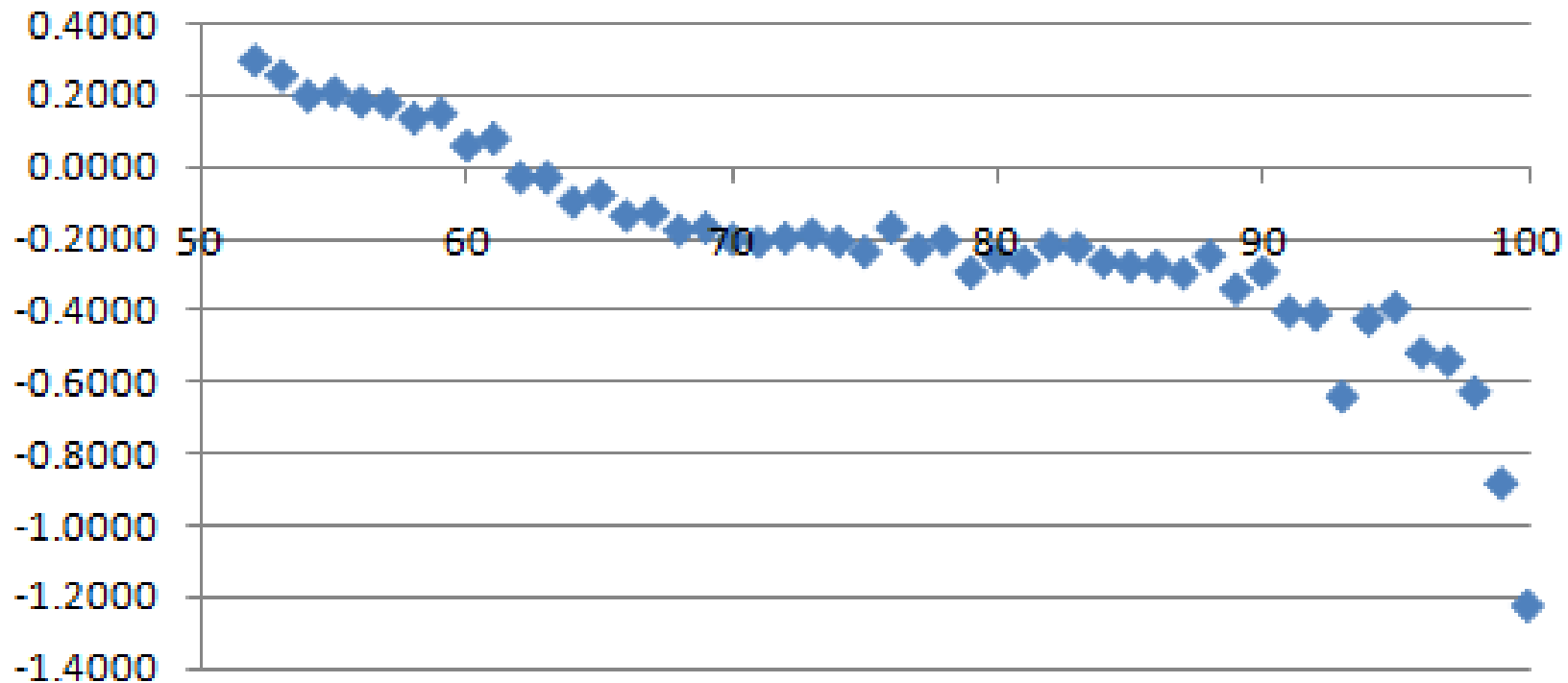


# *Explanations?*

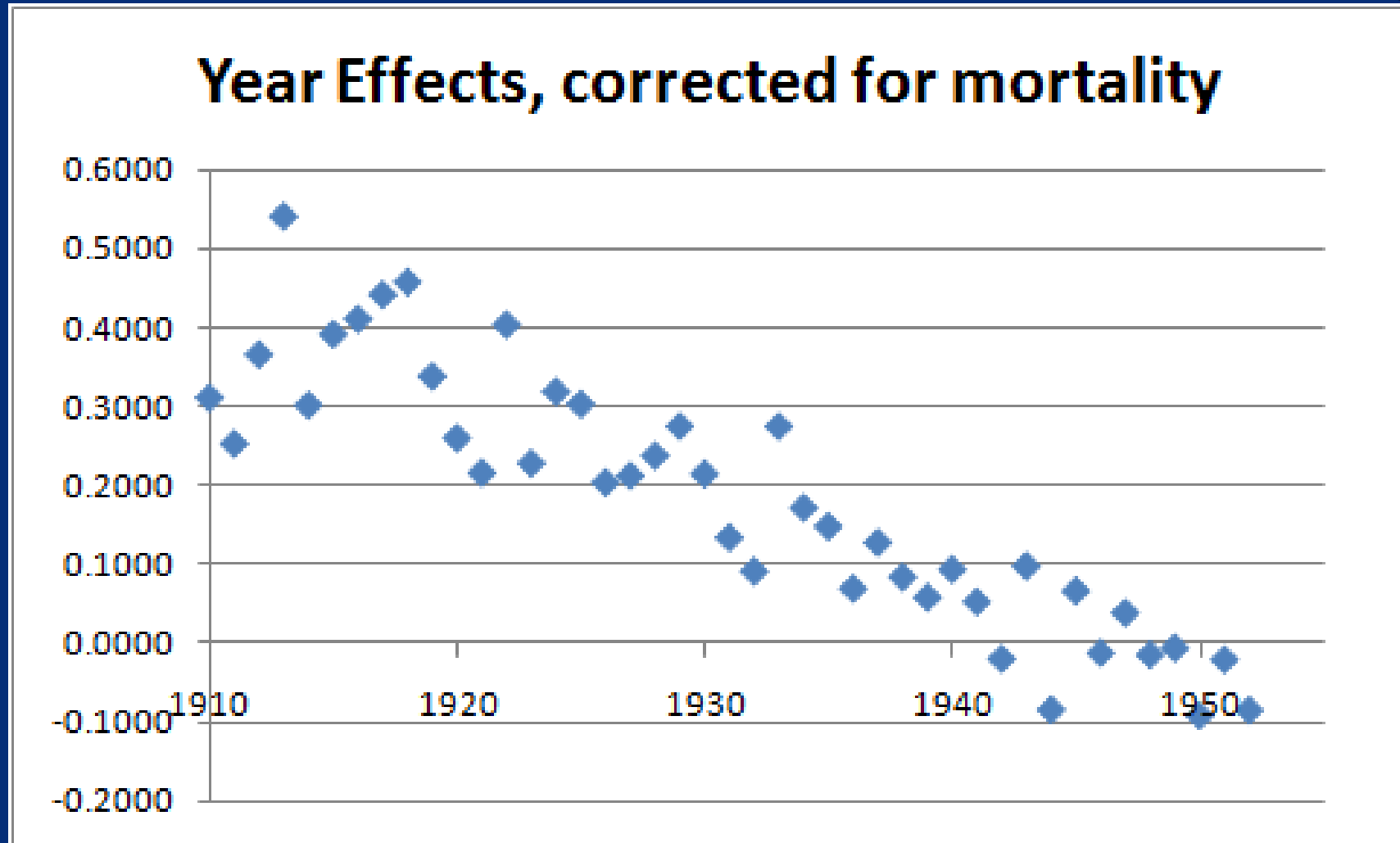
- What causes the variation across cohorts?
- Is it really true that people who grow older become less depressed?
  - Could it be a survival effect? Only the optimists survive?
- We include a variable, representing if a respondent has died in the **next period** (highly significant, but not very big: **.195**)

## *Does selective mortality explain it?*

### HRS: Age Effects corrected for mortality



# *Birth Cohort Effects corrected for Mortality*



**Correlation: -.908**

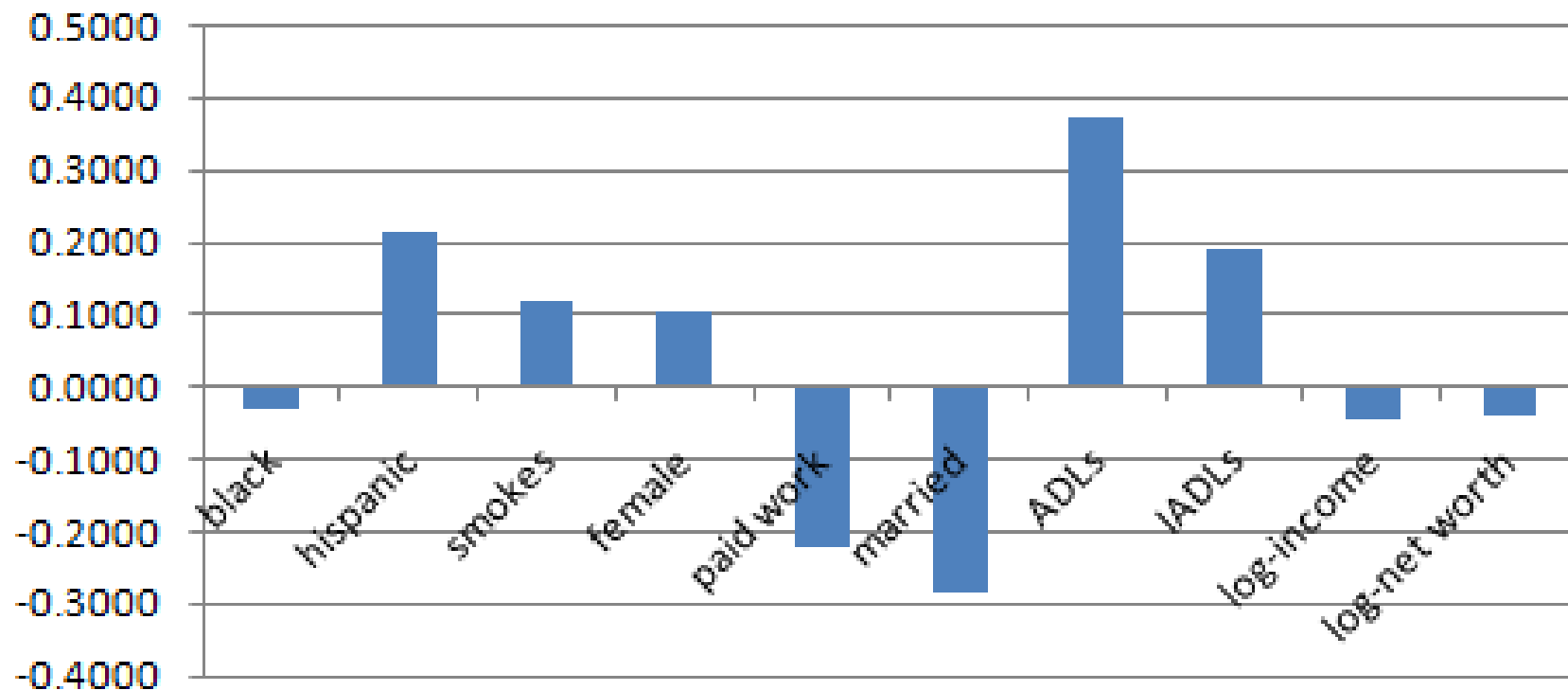
***The same exercise for ELSA  
leads to similar conclusions***

**Future mortality has no significant effect  
on current depression.**

***The Effects of Demographics  
and Limitations***

# Controlling for health and age, who is most likely to be depressed?

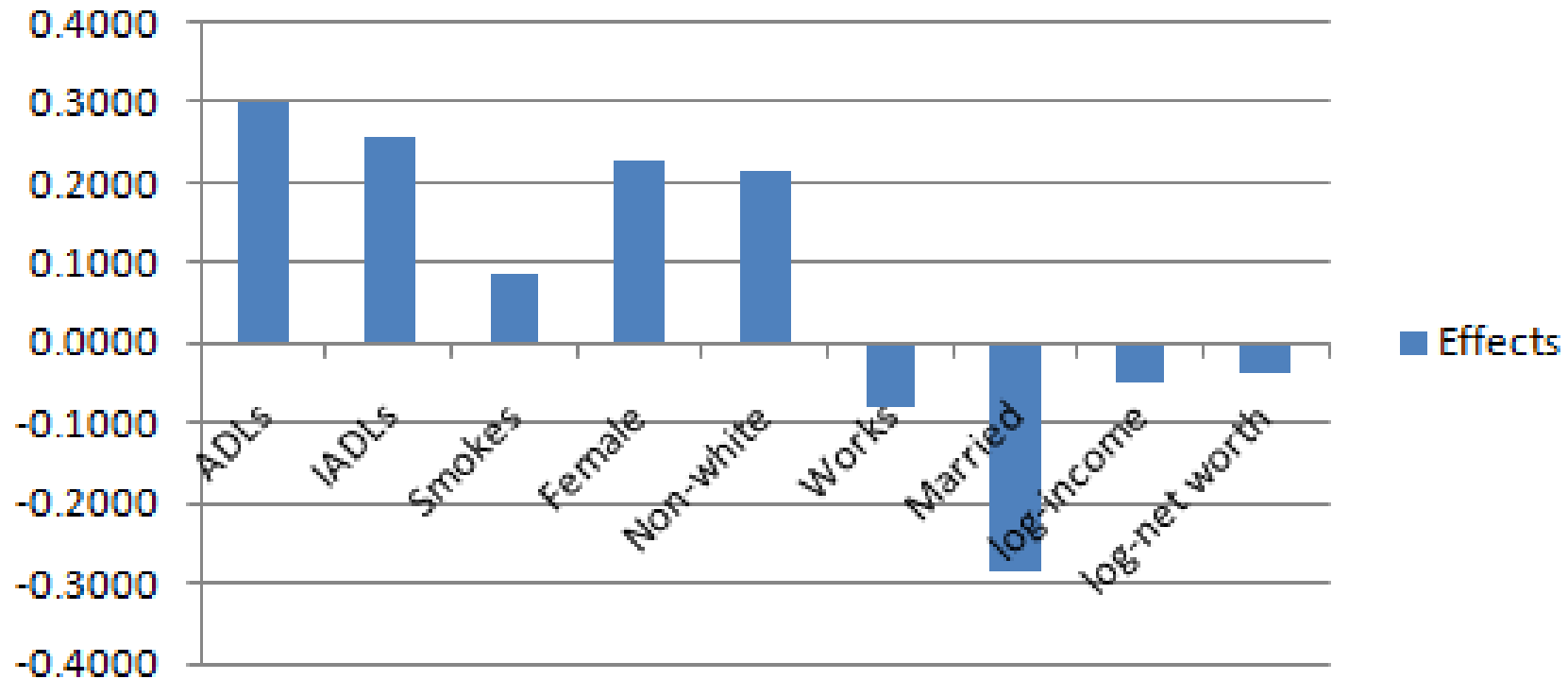
## Effect of Demographics and Limitations on Depression, US





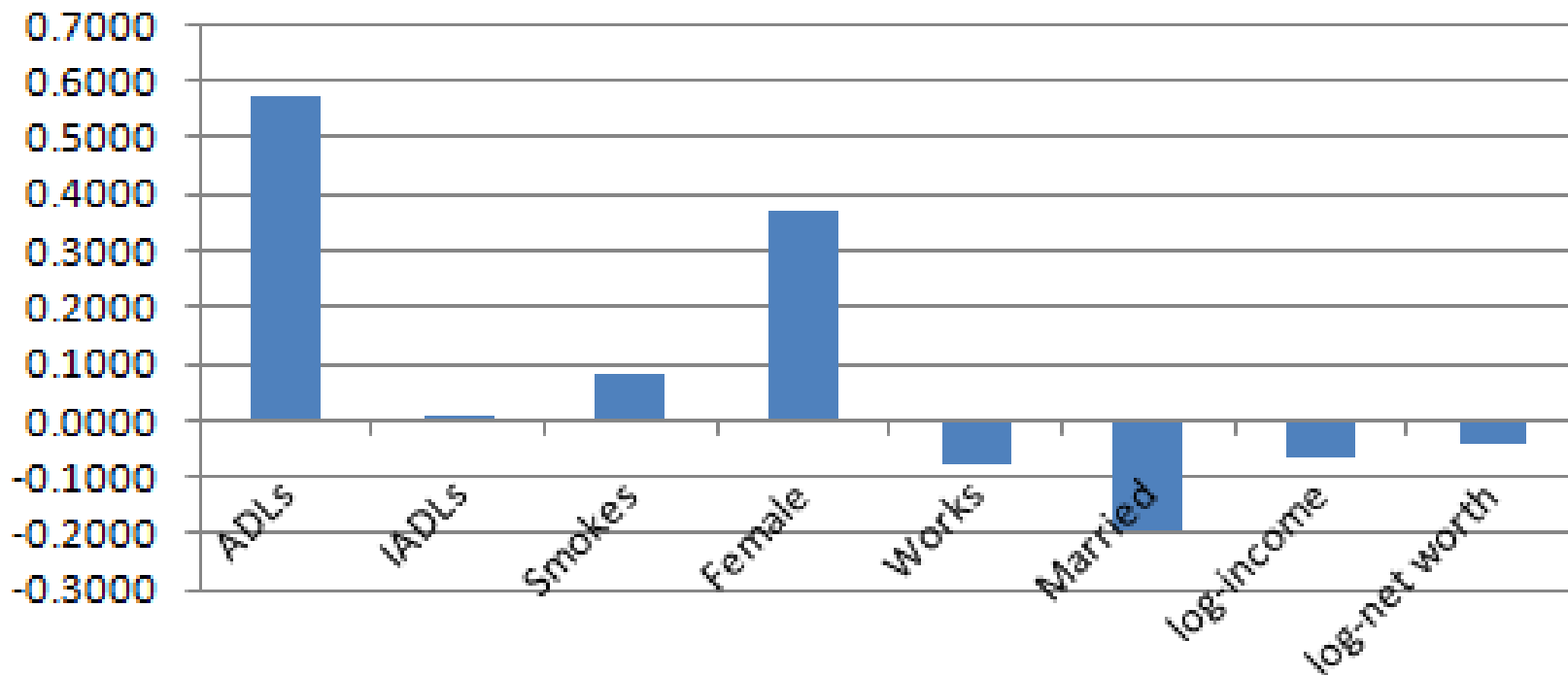
# Depression in the UK

## Effects of Demographics and Limitations on Depression, UK



# Depression in Continental Europe

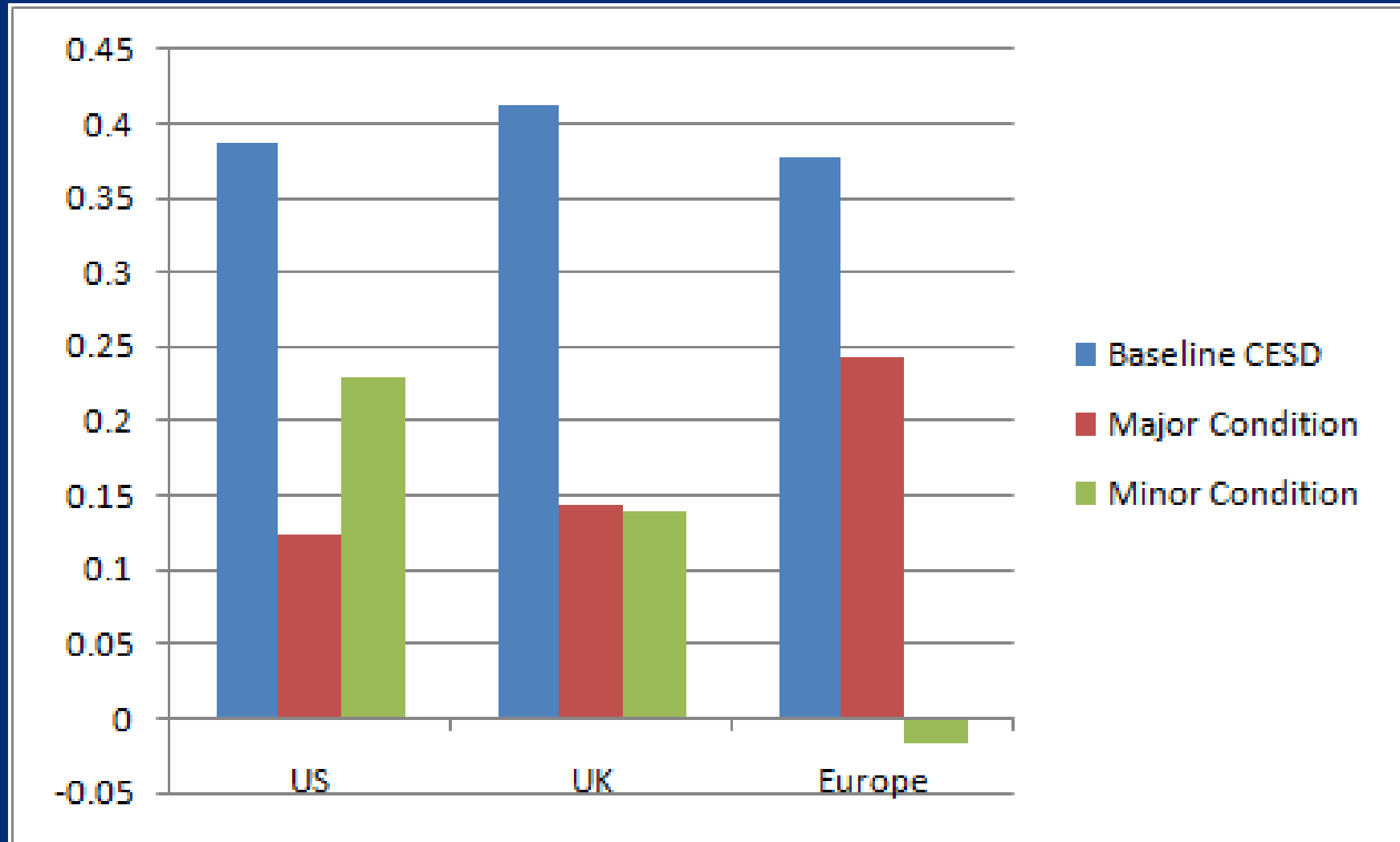
## Effect of Demographics and Limitations on Depression, Europe



**IADLs are totally insignificant**

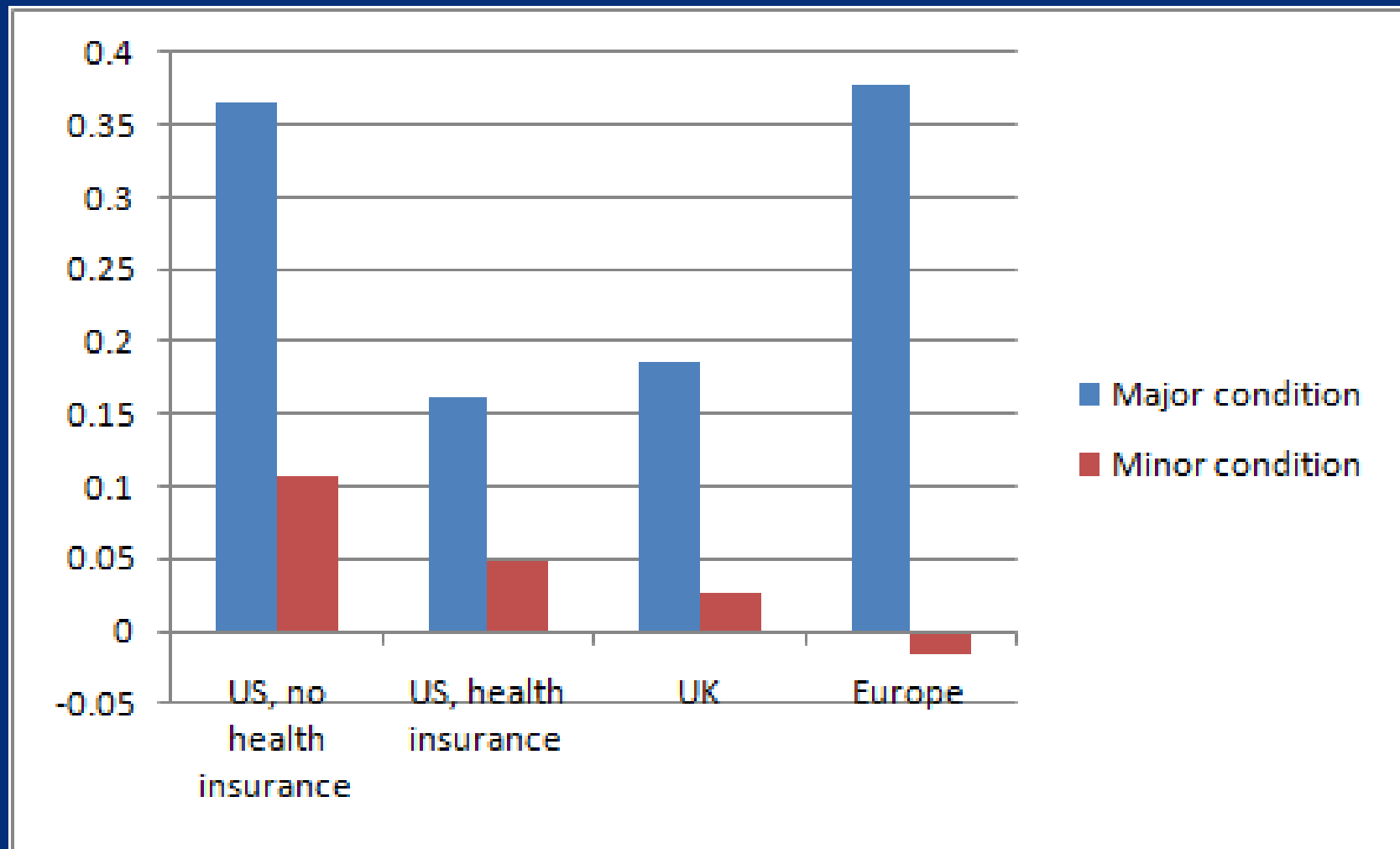
# ***The effects of health conditions***

# *US and UK look very similar (standard errors are larger in Europe)*



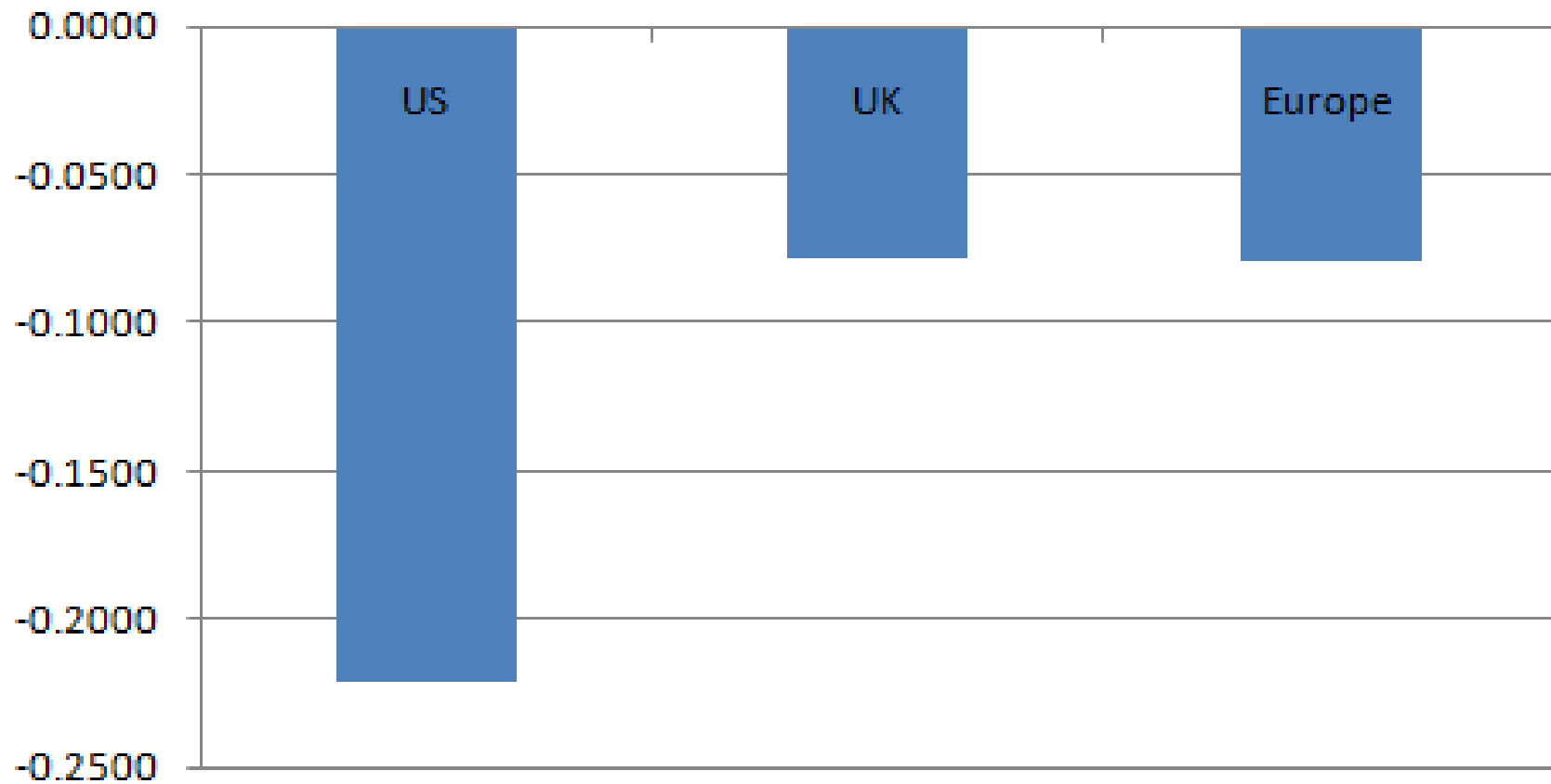
***The effects of the onset of  
new health conditions***

## Onset of new conditions

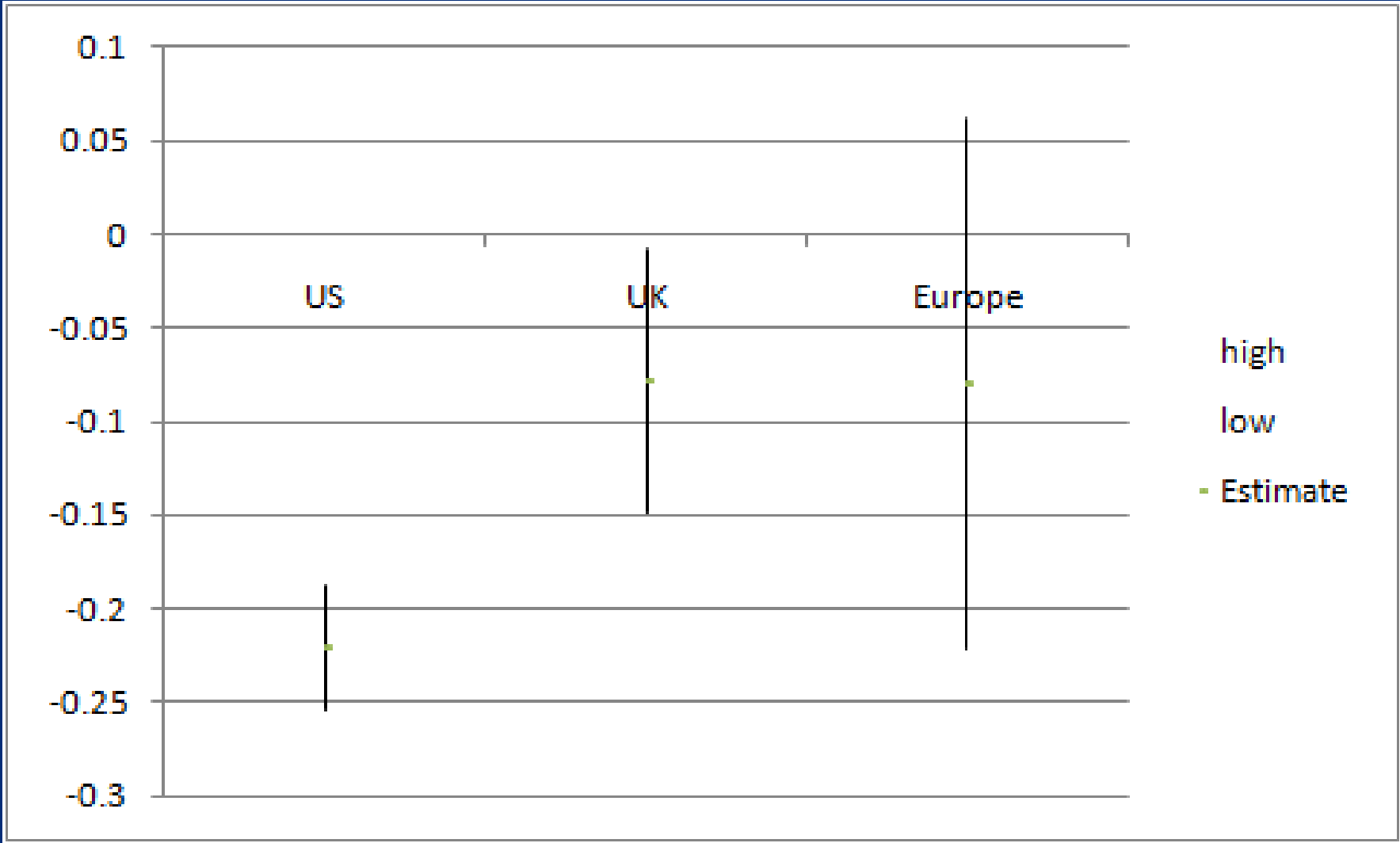


# How important is work?

## Effect of work on depression



# Confidence intervals





## ***Patterns that are similar across countries***

**The evidence suggests different roles for age and birth year;**

**Ignoring birth year effects leads to misleading conclusions about age effects**

**Reduced functioning (more ADLs and IADLs) leads to more depression**

**Money protects**

**Females are more at risk of depression**

**Being married is protective**

## *Patterns that differ*

**Work appears more important for depression in the US than in the other countries**

**Major health shocks appear to have a lesser effect in the US if an individual is insured (in that case the effect is equal to what is found in the UK).**



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