Understanding Health Inequalities: My Interests

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Consider a health-related example: health insurance decisionmaking

- Without perfect knowledge of her need for medical care, an individual decides whether or not to purchase a health insurance plan, which reduces her financial responsibility at the point of medical care consumption.

- That is, she chooses health insurance prior to realization of her health state, and hence, her medical care expenses.

A basic, stripped down economic model

The individual chooses a plan characterized by

α - the percentage of cost-sharing, and

P   - the premium per percentage of payout

$$\text{Max} \int (1-p)\, U(w - \alpha P) + p\, U(w - \alpha P - D + \alpha M)\, dF(M)$$

where

w   - individual's wealth

p   - probability of adverse event (sick/need care)

D   - disutility (in $) of being ill

M   - unknown medical care expenditure

F($\cdot$) - known distribution of expenditures

The Role of Structural Components of Decisionmaking

- Risk aversion

- Expectations
  - of future health
  - of future medical care prices
  - of future medical care demand

- Discount rates

- Technology (health production function)

- Disutility of health/medical care consumption

My interests

The Role of Policy

- Most data sets lack measures of risk aversion, discount rates, subjective expectations, marginal productivity of medical care.

- Rather, these concepts are theoretical constructs for the economist.

- We estimate them by solving the optimization problem of the individual and estimating the structural (or primitive) parameters of the model.

⭐ My interests

Gilleskie (1998, 2010);
Blau & Gilleskie (2006, 2008)

- After estimation of these policy invariant primitives, we can evaluate policy alternatives that may not exist in the data.

The Role of Risky Events

- Theory tells us that the shape of the utility function plays a role in determining how much health insurance is optimal for the individual.

- We also know that wealth (income), health, and other demographics play a role.

- The optimal level of health insurance is also sensitive to the "size" of the tail of the medical expenditure distribution. ★ My interests

  Gilleskie & Mroz (2004);
  Gilleskie, Han & Norton (2011)

- Yet, often, economists do not use techniques that allow us to fit well the tails of the medical care expenditure distribution.

The Role of Unobservables

- Obviously unobservables influence behavior.

- Where might unobservables enter the model?

- How do we as econometricians allow for these unobservables, and estimate their distributions … without too many assumptions?

  – Fixed effects

  – Random coefficients

  – Linear/non-linear unobserved heterogeneity factors (affecting intercept)

  – Unobserved heterogeneity affecting multiple parts of optimization problem

My interests

Gilleskie & Lutz (2002)
Gilleskie & Strumpf (2005)
Yang, Gilleskie & Norton (2009)
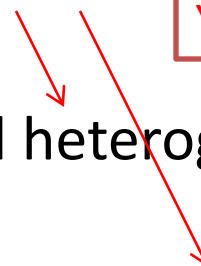
The Role of Personality

- To an economist, unobserved heterogeneity might be personality.

- Most economic data sets do not have measures of personality.

- For that matter, they do not have measures of risk aversion, or subjective expectations, or discount rates, or effectiveness.

- But wait…

Honors Thesis Project Last Year

- The HRS has been asking questions that elicit risk aversion and subjective expectations of longevity.

- There is a 2004/2006 personality inventory.

- Does risk aversion and subjective expectations explain the probability of being insured (or uninsured)?

  My interests | Gilleskie & Mercolino (2011)

- Where does personality fit in?

  – Does it "define" risk aversion and expectations?

  – Does it have an effect on insurance status, independent of risk aversion and subjective expectations?

Understanding Health Inequalities
= Understanding Individual Decisionmaking

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