Consumer choice and demand.
Folland *et al* Chapter 9

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Economics 317

February 15, 2011
Chapter 9: Consumer choice and demand

- Econ 103 consumer theory with “doctor visits” instead of “apples.”
- We will run through this quickly.
Bread or health

- Recall our discussion of health capital.
- Sweeping a bunch of stuff under the rug, we can use simple analysis to determine how much health the person would choose.
- (graph: health vs bread PPF)
- How does the person allocate their resources to generate that health?
- (graph: consumer’s equilibrium, other goods and doctor visits)
Demand shifters

- Recall a demand schedule in (price, quantity) space gives the quantity demanded at every price, *holding all else equal*.

- Changes in anything that affects demand other than price *shift* the demand curve. Changes in price move us along the demand curve.
Price elasticity of demand:

\[
\text{Price elasticity} = \left( \frac{\Delta Q}{\Delta P} \right) \left( \frac{Y}{P} \right)
\]

where \( Q \) is quantity and \( P \) is price.
(graph: deriving a demand curve for visits)
Income elasticity of demand:

\[ \text{Income elasticity} = \left( \frac{\Delta Q}{\Delta Y} \right) \left( \frac{Y}{Q} \right) \]  

where \( Q \) is quantity and \( Y \) is income.

(graph: income expansion path)
Other demand shifters

- Health status, e.g., demand more doctor visits when sick.
- Insurance: as we saw in Chapter 8, changing the price the consumer pays by changing the generosity of insurance generally changes the consumer’s quantity demanded.
The role of time

- We can simply incorporate time into the analysis by converting time costs to dollar costs.

\[
\text{full price} = \text{money price} + \text{value of time} \quad (3)
\]
Notice price elasticities are larger (in magnitude) with respect to full price than to money price.

\[
E_{Mp} = \frac{\Delta Q}{\Delta P} \frac{P_M}{Q} \quad (4)
\]

\[
E_{full} = \frac{\Delta Q}{\Delta P} \frac{P_{full}}{Q} \quad (5)
\]
Empirical evidence on demand

- Measurement issues: how do we define a unit of care?
- Usual problems in statistically estimating the causal effect of price or other determinants on care.
- Demand is usually estimated to be quite inelastic, ie, changes in price of care lead to relatively small changes in quantity of care demanded.
Income and demand

- Across people (in the U.S.), income elasticities are quite small.
- Across countries, income elasticities are quite large: richer countries spend not just more, but a greater fraction of GDP, on health care.
- How do we reconcile these results?
Health spending around the world, 1998*
(measured share in total expenditure, % of GDP)

Legend

- 1.37 - 2.62%
- 2.62 - 3.57%
- 3.57 - 4.24%
- 4.24 - 4.89%
- 4.89 - 5.85%
- 5.85 - 6.94%
- 6.94 - 8.08%
- 8.08 - 9.84%
- 9.84 - 13.91%
- No Data

* Data at 26.09.2001

Global Programme on Evidence for Health Policy

Consumer choice
and demand.

Demand analysis
in a health context.