Economics 001
Principles of Microeconomics
Professor Arik Levinson

Lecture 10
- preferences and demand (continued)
- applications

**Example: Food Stamps**
("SNAP" as of 10/1/2008)

- Food Stamp Act of 1964
- USDA Thrifty food plan
  \[ \text{benefits} = (\text{cost of TFP}) - 0.30 \times (\text{income}) \]
- 45 million people in FY 2011 (14% of US)
- 21 million households (18% of US)
- > $72 Billion in 2011
- Average monthly benefit = $284 per household
  $134 per person
- Overhead 4.7%

### Food Stamp Program Participation and Costs

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Average Participation</th>
<th>Average Monthly Benefit Per Person</th>
<th>Total Annual Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>--Thousands--</td>
<td>--Dollars--</td>
<td>--Millions of Dollars--</td>
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<tr>
<td>1992</td>
<td>25,407</td>
<td>68.57</td>
<td>20,905.7</td>
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<td>1994</td>
<td>27,474</td>
<td>69.04</td>
<td>22,748.6</td>
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<td>1996</td>
<td>25,543</td>
<td>73.29</td>
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<td>1998</td>
<td>19,771</td>
<td>71.12</td>
<td>16,830.5</td>
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<td>2000</td>
<td>17,194</td>
<td>72.82</td>
<td>14,983.2</td>
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<tr>
<td>2002</td>
<td>16,199</td>
<td>78.87</td>
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<td>2004</td>
<td>23,258</td>
<td>86.10</td>
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<td>2006</td>
<td>26,672</td>
<td>94.31</td>
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<td>2008</td>
<td>28,499</td>
<td>101.95</td>
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<td>2010</td>
<td>30,349</td>
<td>125.87</td>
<td>38,258.9</td>
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<td>2011</td>
<td>44,709</td>
<td>133.85</td>
<td>71,812.2</td>
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</tbody>
</table>

### Food Stamps and the Household Budget

- income = $1000/month
- stamps = $200/month

### Substitution Effect and Income Effect

Substitution effect

The effect of a change in price on the quantity bought when the consumer (hypothetically) remains indifferent between the original and the new situation.
Substitution Effect and Income Effect

Income effect

The change in consumption that results from a change in the consumer’s income, ceteris paribus.

Price Effect (again)

Substitution Effect and Income Effect

Upward sloping Demand (!?)

Labor supply

American Economic Review, September 2008
Suppose tax=30%

Two effects of a wage increase

1) opportunity cost of leisure higher
   - so work more
   - (substitution effect)
2) budget possibilities larger
   - so work less (if leisure a normal good)
   - (income effect)
3) Question:
   - why does income effect work in opposite direction to substitution effect?

Elasticity of labor supply in the USA

- $\eta_{LS}^{men}$ for men $\approx 0.1$
- $\eta_{LS}^{women}$ for women $\approx 0.9$

Savings decisions (supply of capital)

Suppose we tax interest income

Consumption next year

interest rate=$5$

Consumption this year

Interest rate=$5$

tax rate = 50%