COST-BENEFIT ANALYSIS

Exercise 5. Economic Costs and Benefits

Answers to this exercise are due back by class on Monday, May 11, at jhaughton@suffolk.edu.

1. WTP

A project would involve purchasing relatively unproductive farmland that would then be allowed to return to wetlands capable of supporting migrant birds. Researchers designed a survey to implement the dichotomous choice method, and report the following data:

<table>
<thead>
<tr>
<th>Stated Price (annual payment, $)</th>
<th>0</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>30</th>
<th>35</th>
<th>40</th>
<th>45</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of respondents accepting stated price</td>
<td>98</td>
<td>91</td>
<td>82</td>
<td>66</td>
<td>48</td>
<td>32</td>
<td>20</td>
<td>12</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

What is the mean willingness-to-pay for the sampled population? [Assume 100 people were sampled, if you wish.]

3. Writing CV questions

You have been asked to design a questionnaire for a contingent valuation of an environmental project. Pick a project that you would like to evaluate and write a few questions that would yield answers than could be used to measure the value of the item in question. You will need to include an adequate description of the project. One page maximum! You may need to do a bit of background research, and be inventive about the project.

I will ask you to present your work to the class on May 11. Here are some suggestions, just to get the ideas flowing.

a. Project to reduce pollution from the cement factory in Rufisque, Senegal.
b. Build fences to keep grazing animals out, allowing forest to regenerate in The Gambia.
c. Protect mangroves along the coast from being converted into shrimp farms.
d. Ban the use of wood and charcoal for cooking in urban areas.
e. Ban cars from the center of Dakar if the air pollution gets too bad.
f. Clean up the water in the Senegal River.

g. ... Pick your own!