

## ECO 605: Module Two Case Study Guidelines and Rubric

**Overview:** The case studies in this course are designed to actively involve you in environmental economics reasoning and to help you apply the course principles to complex real-world situations. In the case studies, you will use data analysis to make informed recommendations and communicate in a professional manner.

The Module Two Case Study focuses on an organization's willingness to pay in terms of environmental impacts. In your submission, you will demonstrate the following skills:

1. Enter given data and create charts in Excel (or similar spreadsheet tool).
2. Generate graphs and tables using data.
3. Incorporate into your analysis recommendations that are designed to reduce pollution. Provide information on oil companies' willingness to pay and incentive-based (IB) policies, transferable discharge licenses (TDP), and similar programs that are designed to reduce pollution. Write a short summary to a target audience of policy makers with the use of data and research from the textbook, the [textbook website](#), and the [Shapiro Library](#).

**Prompt:** In this case study, you will use data, graphs, and tables to analyze an organization's willingness to pay. The following headline is a reaction to the 2010 Gulf oil spill:

### Oil Spill in the Gulf: Recommend Act to Raise Fines

This case study examines two fictitious oil companies: Brand Petrol and American Oil. These companies have released data on how much they are willing to pay in fines. The assumption is that most oil spills are accidents. Yet to prevent oil spills, companies need to put into place resources (a safe environment, training, rules, and so on) to prevent oil spill accidents. This case study narrows the oil spill focus to fines imposed as a means to deter oil spill accidents. You will be provided with data that you will analyze in order to make recommendations for policy makers by using the principles of marginal willingness to pay.

Take the following steps to complete this case study:

1. Enter the data from the table below into a spreadsheet. Label the worksheet "Marginal Willingness to Pay (WTP)."

*Marginal Willingness to Pay (WTP)  
(cost per incident x \$100,000)*

Level of Incidents Tolerated	Brand Petrol	American Oil
0	5.00	6.40
1	4.00	5.20
2	3.20	4.00
3	2.60	3.00
4	2.20	2.10
5	1.80	1.30
6	1.50	0.60
7	1.30	0.30
8	1.20	0.00

2. Generate a **line graph** or **bar graph** from the data and add a trend line to the graph. Make sure the following labels are included:
  - a) Marginal Willingness to Pay
  - b) Cost per Incident
  - c) Level of Incidents Tolerated
  - d) Brand Petrol
  - e) American Oil

3. Create and fill in a **new table** to sum up the quantities of incidents tolerated by the companies for oil spills. Below is a table with starter data entered.

Price (in Millions)	Quantity		
	Brand Petrol	American Oil	Total
\$7	0	0	0
\$6			1
\$5			
\$4			
\$3		4	
\$2	5		
\$1			

4. Construct the **aggregate marginal willingness to pay** demand curve by graphing this new data into a line graph. Make sure the following labels are properly added:
- Price (in Millions)
  - Quantity
  - Brand Oil
  - American Oil
  - Total
5. Write a one-page **paper** on your analysis and make recommendations designed to reduce pollution—for example, incentive-based (IB) policies, transferable discharge licenses (TDL), and similar programs. Write to influence policy makers with the use of the data in the tables and graphs. Focus your writing on a target audience of policy makers or those who influence policy makers.