Southern New Hampshire University

ECO 675 Final Project Guidelines and Rubric

Overview

The final project for this course is the creation of an economic impacts and results paper.

The study of environmental and natural resources through an economic lens is critical in establishing a broader understanding of local and global roles and responsibilities for these resources. This understanding is utilized when developing more sustainable methods for managing these resources, ensuring their availability for future generations.

Using your knowledge of the measurement of environmental-economic impacts, you will analyze the results of the market, stated preference, and revealed preference econometric studies examined during this course.

The project is divided into **three milestones**, which will be submitted at various points throughout the course to scaffold learning and ensure quality final submissions. These milestones will be submitted in **Modules Two, Four, and Six**. The final submission will occur in **Module Nine**.

In this assignment, you will demonstrate your mastery of the following **course outcomes:**

- Select appropriate econometric techniques based on economic impact situation, theory, identified needs, and application of models to address resource problems
- Analyze data on the impacts of economic or environmental changes through the various types of economic models
- Quantify results of economic decisions on natural resources in terms of damage levels and impacts to current and future uses
- Inform stakeholder decisions on environmental and natural resources through providing estimates of resource impact

Prompt

Your economic impacts and results paper should answer the following question:

Based on the measurement of environmental-economic impacts examined during this course, what information would non-economists need in order to understand the implications of these situations so that they can determine possible benefits of future studies?

The paper should be divided into three sections, as detailed below. The introduction should be general in nature, but appropriate for both technical and non-technical audiences. The second section, the identification of impacts, should be written with discipline-specific terminology. The last section, reporting of results, should be aimed at informing decision makers, such as a resource management agency, about your findings, assuming that they have no particular expertise in economics, econometrics, or statistics.

Specifically, the following **critical elements** must be addressed:

I.   **Introduction**
    A.   In general, what guides the **selection** of appropriate econometric models in studies of interactions between environmental and economic variables? Specifically discuss the economic situation, theory, identified needs, and application of models to address the problem.
    B.   Briefly describe **data collection** techniques for analyzing market, stated preference, and revealed preference techniques.

II.   **Identification of Impacts**
    A.   From a technical perspective (assume an audience of fellow economists and natural resource practitioners), describe the analyses, the limitations, and whether the analyses could be improved with additional data, different specification of question, and so on for the following types of studies that you previously performed:
        i.   **Market**
        ii.   **Revealed preference**
        iii.   **Stated preference**
    B.   Describe **alternative techniques** that could be used to estimate the same kinds of impacts.
    C.   For the alternative techniques, discuss how analyses from multiple **perspectives** provide better information to a decision maker. Are there consistent or inconsistent aspects of the studies?

III. **Reporting Results**
     For an audience of varying status-level decision makers, such as a resource management agency, relay the results of the market, stated preference, and revealed preference studies you examined during this class. Provide any background that a non-economist would need in order to understand the implications of the results.
    A.   **Market**
        i.   Resource valuation **question** and the methods and techniques used to address the issue
        ii.   Quantify the **results** in terms of damage levels and impacts to current and future uses
        iii. **Implications**
    B.   **Revealed Preference**
        i.   Resource valuation **question** and the methods and techniques used to address the issue
        ii.   Quantify the **results** in terms of damage levels and impacts to current and future uses
        iii. **Implications**
    C.   **Stated Preference**
        i.   Resource valuation **question** and the methods and techniques used to address the issue
        ii.   Quantify the **results** in terms of damage levels and impacts to current and future uses
        iii. **Implications**
    D.   Discuss the **validity and reliability** of data obtained through market, revealed preference, and stated preference types of econometric techniques. Which method could you count on to most reliably measure the change in environmental quality with the greatest validity of data? Discuss.

E. Suppose those in the audience are requesting your **recommendation** for only one of the studies to be used as a proxy for a new study; for example, a benefit transfer. Knowing that the budget for this study is severely limited, which of your three models do you recommend? Why? What are the limitations of the benefit transfer model?

Milestones

Milestone One: *Econometric Model Selection*
In **Module Two**, you will submit a report on the topic you have chosen and the data available to conduct a review of this topic. In your introduction, describe what guides the selection of appropriate econometric models in studies of interactions between environmental and economic variables. Specifically discuss the economic situation, theory, identified needs, and application of models to address the problem. In addition, briefly describe data collection techniques for analyzing the market, stated preference, and revealed preference techniques. This introduction should be general in nature, but appropriate for both technical and non-technical audiences. **This milestone is graded with the Milestone One Rubric.**

Milestone Two: *Identification of Impact*
In **Module Four**, you will submit a report addressing the identification of impacts. Use the data to calculate coefficients and to quantify relationships. Conduct an analysis of variance and provide the reader with a basic image and your analysis of the data.

From a technical perspective (assume an audience of fellow economists and natural resource practitioners), describe the analyses, the limitations, and whether the analyses could be improved with additional data, different specification of question, and so on for the following types of studies that you previously performed: market, revealed preference, and stated preference. Describe alternative techniques that could be used to estimate the same kinds of impacts. For the alternative techniques, discuss how analyses from multiple perspectives provides better information to a decision maker. Are there consistent or inconsistent aspects of the studies? **This milestone is graded with the Milestone Two Rubric.**

Milestone Three: *Reporting Results*
In **Module Six**, you will submit a report relaying the results of the market, stated preference, and revealed preference studies that you have examined during this course. Consider an audience of varying status-level decision makers while writing your report. Provide any background that a non-economist would need in order to understand the implications of the results (market, stated preference, and revealed preference). **This milestone is graded with the Milestone Three Rubric.**

Final Submission: *Economic Impacts and Results Paper*
In **Module Nine**, you will submit an economic impacts and results paper. It should be a complete, polished artifact containing **all** of the critical elements of the final product. It should reflect the incorporation of feedback gained throughout the course. **This submission will be graded using the Final Project Rubric.**

Deliverables

Milestone	Deliverables	Module Due	Grading
1	Econometric Model Selection	Two	Graded separately; Milestone One Rubric
2	Identification of Impact	Four	Graded separately; Milestone Two Rubric
3	Reporting Results	Six	Graded separately; Milestone Three Rubric
	Final Submission: Economic Impacts and Results paper	Nine	Graded separately; Final Project Rubric

Final Project Rubric

Guidelines for Submission: Written components of this project must follow these formatting guidelines when applicable: double spacing, 12-point Times New Roman font, one-inch margins, and discipline-appropriate citations.

Critical Elements	Exemplary (100%)	Proficient (90%)	Needs Improvement (70%)	Not Evident (0%)	Value
Introduction: Selection	Meets "Proficient" criteria and the summary amply describes all major variables that are authentic to each situation	Summarizes the use of environmental and economic variables when determining the most appropriate model for use in a study	Summarizes the use of environmental and economic variables when determining the most appropriate model for use in a study, but the summary does not provide sufficient details for selection	Does not summarize the use of environmental and economic variables when determining the most appropriate model for use in a study	5
Introduction: Data Collection	Meets "Proficient" criteria and description clarifies notable differences among the techniques	Describes data collection techniques for analyzing market, stated preference, and revealed preference	Describes data collection techniques for analyzing market, stated preference, and revealed preference, but description is missing key components or is inaccurate	Does not describe data collection techniques for analyzing market, stated preference, and revealed preference	5
Impacts: Analysis of Market Type	Meets "Proficient" criteria and description utilizes appropriate economic terminology for communicating with economists	Describes the analysis, the limitations, and whether the analyses could be improved for the previously performed market-type study	Describes the analysis and limitations of the market-type study, but is lacking in detail, is missing major components, or is inaccurate	Does not describe the analyses and limitations of the market-type study	5
Impacts:	Meets "Proficient" criteria and description utilizes appropriate	Describes the analysis, the limitations, and whether the analyses could be improved for the	Describes the analysis and limitations of the revealed preference study, but is lacking in	Does not describe the analyses and limitations of the revealed preference study	5

Analysis of Revealed Preference	economic terminology for communicating with economists	previously performed revealed preference study	detail, is missing major components, or is inaccurate	
Impacts: Analysis of Stated Preference	Meets "Proficient" criteria and description utilizes appropriate economic terminology for communicating with economists	Describes the analysis, the limitations, and whether the analyses could be improved for the previously performed stated preference study	Describes the analysis and limitations of the stated preference study, but is lacking in detail, is missing major components, or is inaccurate	Does not describe the analyses and limitations of the stated preference study	5
Impacts: Alternative Techniques	Meets "Proficient" criteria and description utilizes appropriate economic terminology for communicating with economists	Describes alternative techniques that could be used in estimating the same types of economic impacts	Describes alternative techniques that could be used in estimating the same types of economic impacts, but the methods identified are not appropriate for the type of study or the description of the techniques lacks detail	Does not describe alternative techniques that could be used in estimating the same types of economic impacts	5
Impacts: Perspective	Meets "Proficient" criteria and supports claims with concrete examples	Discusses how analyses from alternative perspectives provide better information to a decision maker in terms of the consistent and inconsistent information made available	Discusses how analyses from alternative perspectives could provide consistent and/or inconsistent information to decision makers, but is lacking in detail or contains inaccurate information	Does not discuss how analyses from alternative perspectives could provide consistent and/or inconsistent information to decision makers	5
Reporting: Market Question	Meets "Proficient" criteria and detail is provided in a manner suitable for communicating with non-economists	Provides a detailed description of the background, resource valuation question, and methods and techniques utilized in the market study	Provides the background, resource valuation question, and methods and techniques utilized in the market study, but the information provided is missing key components, is lacking in detail, or is inaccurate	Does not provide the background, resource valuation question, and methods and techniques utilized in the market study	5
Reporting: Market Results	Meets "Proficient" criteria and detail is provided in a manner suitable for communicating with non-economists	Provides detailed results of the market study	Provides the results of the market study, but the information is not detailed or is inaccurate	Does not provide the results of the marketing study	5
Reporting: Market Implications	Meets "Proficient" criteria and detail is provided in a manner suitable for communicating with non-economists	Discusses the overall implications of the market study	Discusses the overall implications of the market study, but the discussion is cursory or inaccurate	Does not discuss the overall implications of the market study	5
Reporting: Revealed	Meets "Proficient" criteria and detail is provided in a manner	Provides a detailed description of the background, resource valuation	Provides the background, resource valuation question, and methods	Does not provide the background, resource valuation	5

Preference Question	suitable for communicating with non-economists	question, and methods and techniques utilized in the revealed preference study	and techniques utilized in the revealed preference study, but the information provided is missing key components, is lacking in detail, or is inaccurate	question, and methods and techniques utilized in the revealed preference study	
Reporting: Revealed Preference Results	Meets "Proficient" criteria and detail is provided in a manner suitable for communicating with non-economists	Provides detailed results of the revealed preference study	Provides the results of the revealed preference study, but the information is not detailed or is inaccurate	Does not provide the results of the revealed preference study	5
Reporting: Revealed Preference Implications	Meets "Proficient" criteria and detail is provided in a manner suitable for communicating with non-economists	Discusses the overall implications of the revealed preference study	Discusses the overall implications of the revealed preference study, but the discussion is cursory or inaccurate	Does not discuss the overall implications of the revealed preference study	5
Reporting: Stated Preference Question	Meets "Proficient" criteria and detail is provided in a manner suitable for communicating with non-economists	Provides a detailed description of the background, resource valuation question, and methods and techniques utilized in the stated preference study	Provides the background, resource valuation question, and methods and techniques utilized in the stated preference study, but the information provided is missing key components, is lacking in detail, or is inaccurate	Does not provide the background, resource valuation question, and methods and techniques utilized in the stated preference study	5
Reporting: Stated Preference Results	Meets "Proficient" criteria and detail is provided in a manner suitable for communicating with non-economists	Provides detailed results of the stated preference study	Provides the results of the stated preference study, but the information is not detailed or is inaccurate	Does not provide the results of the stated preference study	5
Reporting: Stated Preference Implications	Meets "Proficient" criteria and detail is provided in a manner suitable for communicating with non-economists	Discusses the overall implications of the stated preference study	Discusses the overall implications of the stated preference study, but the discussion is cursory or inaccurate	Does not discuss the overall implications of the stated preference study	5
Reporting: Validity and Reliability	Meets "Proficient" criteria and validates claims through scholarly research	Discusses the theoretical aspects of the validity and reliability of data from market, revealed preference, and stated preference studies, indicating the most valid and reliable method to measure change in environmental quality	Discusses the theoretical aspects of the validity and reliability of data from market, revealed preference, and stated preference studies, but does not indicate the most valid and reliable method to measure change in environmental quality or does not adequately address the validity and reliability of each study	Does not discuss the theoretical aspects of the validity and reliability of data from market, revealed preference, and stated preference studies	7

Reporting: Recommendation	Meets "Proficient" criteria and justifies the recommendation through examples	Recommends one study to be used as a proxy for a new study, discussing the issues and limitations of the benefit transfer model	Recommends one study to be used as a proxy for a new study, but does not discuss the issues and limitations of the benefit transfer model or discussion lacks detail	Does not recommend one study to be used as a proxy for a new study	7
Articulation of Response	Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy-to-read format	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas	6
				Earned Total	100%