

Econ 415- Environmental Economics

Data Project

Project Overview

Your goal is to research the data on a particular type of environmental issue. You will need to find an acceptable, reliable source of data, compile a time series data set and then discuss the data in a paper. After the data has been discussed, you will report on any policies that are designed to improve the situation. The paper will be approximately 7 to 10 pages in length.

Possible Data

- **Air Pollution Data-** Sulfur Oxides, Nitrous Oxides, Carbon Oxides, Particulate Matter, Volatile Organic Compounds, Greenhouse Gas Emissions, CO2 parts per million, Ammonia Emissions
- **Water Data-** Lead Content, Mercury Content, Biological Oxygen Demand, Freshwater Withdrawals
- **Land Use-** Percent Forested Area, Percent Agricultural Area, Cereal Yields, Area of Rainforest
- **Energy Consumption-** Total Energy Use, Fossil Fuels as Percent of Total, Renewable Electricity Output
- **Other-** Average Temperatures, Seasonal Ice, Deaths from Heat and Cold, Fertility Rates

Paper Structure

Papers in economics journals tend to be divided into numbered sections. Please use the following format:

- I. Introduction
- II. Data Source
- III. Data Analysis
- IV. Economic Analysis
- V. Conclusions
- VI. References

Other Tips

- Avoid exaggeration. State the facts and let the reader decide their level of concern. Do not make emotional arguments in an academic paper.
- Back up any statement with references no matter how obvious something seems.
- To determine a trend in the data, you can use Excel to draw a line of best fit through the data and determine the slope of that line. You can use other statistical analysis programs too. Or you can compute a percentage change from year to year and determine trends from that.

Grading Rubric

Paper Section	Points
Introduction <ul style="list-style-type: none"> Definitions regarding issue. Why it is of environmental interest. 	15 points
Data Source <ul style="list-style-type: none"> Where you found the data set. What organization produced the data set. Years of time series. Countries included. 	10 points
Data Analysis <ul style="list-style-type: none"> Graphs of data Trends in data <ul style="list-style-type: none"> Increasing or decreasing <ul style="list-style-type: none"> For instance, increasing at a faster rate or increasing at a decreasing rates. Average levels, median levels. Are there systematic differences in the data between developing nations and developed nations? Are there reasons to think about the data in per capita terms or in terms of per \$ of GDP? 	25 Points
Economic Analysis <ul style="list-style-type: none"> Describe why there is a market failure with regards to this issue. Describe what policies, if any, exist for this situation. If there are no policies, explain the economics behind what possible solutions could be implemented. If there are policies, but the issue is not improving, explain the economics behind why the existing policies are not working. If there are policies, and the issue is improving, explain the economics behind why the existing policies are working. 	25 Points
Conclusions <ul style="list-style-type: none"> Summarize your finding on why the issue is important. Summarize your finding on the trends in the data. Describe the ideal policy situation. Make predictions for the future of this issue. 	20 Points
References <ul style="list-style-type: none"> Choose a citation format and cite all relevant papers and websites used in the project. Be sure to place citations inside the body of your work which show which reference the information is coming from. 	5 Points