Environmental Policy Field Exam
August 6-8, 2024

Exam Administration

The exam may be taken in the venue of your choice. Kelli Jacobs will e-mail the exam to you Tuesday, August 6 at 9:00 am. Your answers must be returned via an email attachment to Kelli by 6:00 PM on Thursday, August 8.

Instructions

- Your exam and responses should remain anonymous, identified only by a student number that Kelli will provide.

- Answer each of the three questions below. Your answers must be your own work. Show all calculations.

- Each question will be equally weighted in the evaluation.

- Answers should be carefully composed for clarity and brevity. Each answer should be no more than 4,000 words, not including figures and tables.

- You can compose your answers on a laptop or computer of your choice. You can refer to books, articles, and reports during the course of the exam (electronic or hardcopy).

- You may also refer to electronic note files/or a composed annotated bibliography.

- Do not copy and paste text from previously composed answers.

- Within your answers, you may include parenthetical citations (e.g., Coase 1960), and then turn in a complete list of citations (e.g., Coase, R. 1960. The problem of social cost. *Journal of Law and Economics* 3: 1-44.) by email to Kelli by Friday, August 9 by 5:00 PM.

- Be sure to provide citations for all major concepts and data. Where you are using other author's phrases or excerpts from their work, be sure to place the borrowed material in quotes with an appropriate citation.

Question 1. Environmental Economics

Monitoring and enforcement (M&E) of domestic environmental policies (in the US and abroad) is a key aspect of successful policy implementation. In answering the questions below you are expected to provide specific examples from the M&E literature in areas such as local air pollution, water pollution, safe drinking water compliance, deforestation, etc. when relevant.

1) What are the key challenges that policy makers face in their effort to monitor and enforce environmental policies?
2) What empirical evidence has the environmental economics literature studied that can assist policy makers in improving monitoring and enforcement and ensuring compliance with regulations?
3) What are some recent advances in environmental economics research that can offer innovative ways of approaching M&E challenges?

Question 2. Environmental Institutions and Public Policy

An important decision faced by elected officials is where to place authority for choosing and implementing environmental policies. In recent decades, many policy makers and scholars have argued for a decentralization of environmental policy. Others have argued that this type of decentralization is misguided. In the U.S. context, the argument typically centers on whether policy authority should be devolved from the federal government to state and local governments. In the international context, the argument focuses on whether nation-states, rather than supra-national institutions (e.g., those created through international environmental agreements) should have control over environmental policy. One specific arena in which these debates occur is with respect to climate change mitigation.

Please assess the merits of the arguments for and against decentralized control of environmental policy.

Note: This question can be answered in the context of U.S. domestic environmental policy or international environmental policy. Choose one context for your answer.

A complete answer must address the following:

First, summarize the theoretical arguments on both sides of the decentralization debate. What are the purported benefits/drawbacks of decentralization, and what, specifically, are the processes and behaviors leading to these benefits and drawbacks? Your answer should be well grounded in the scholarly literatures in law, economics, political science, etc. (i.e., you should **not** simply rely upon intuition, but instead cite specific arguments from these literatures).

Second, the effects of decentralization/centralization can be observed in policy adoption in the area of climate change. Summarize key patterns of climate mitigation policies and relate these choices back to the theoretical literature on the decentralization debate.

Question 3. Research Design

For this question, please select a climate change impact (e.g., extreme heat, drought, wildfires, flooding, sea-level rise etc.) and comprehensively describe three approaches to empirically assessing its effects. These can be economic, political, social, ecological, health or other effects. The three approaches you will describe can assess impacts on three different types of effects (e.g., economic, political, ecological, social) or the same effect (e.g., three different approaches of assessing economic impacts). As an example, in the area of sea level rise, you might propose ways to examine its effects on real estate markets (cost of rebuilding after a storm), adaptation efforts (cost of building sea walls), migration (cost of people moving away from affected areas).

A complete response will include clear descriptions regarding:

1) Your research questions in each of the three approaches as well as the hypotheses to be tested.

2) Consideration of possible data sources to employed. If you are aware of actual data sources, you should describe cite them. If you are unsure whether the data you need are actually available, you can describe what data you would ideally need.

3) Descriptions of empirical models to be tested for establishing causal relationships. Here you need to be clear about the identification strategy that will allow you to isolate the true effect of climate change on the outcome of interest as well as how you plan to disentangle the influence of other confounding factors from the effect of climate change.

4) Careful consideration of limitations and threats to identification.

You are welcome to refer to existing literature that has examined climate change effects or come up with your own approaches. If you chose to use existing literature, item #4 in the list above will be an especially important part of your answer.