

Environmental Policy Field Exam
August 16-18, 2021

Exam Administration

The exam may be taken in the venue of your choice. Kelli Jacobs will e-mail the exam to you Monday, August 16 at 9:00 am. Your answers must be returned via an email attachment to Kelli by 5:00 PM on Wednesday, August 18.

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 5,000 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 Thursday, August 19 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: Sources of uncertainty in environmental policy

One of the main challenges in designing environmental policy is dealing with uncertainty. Whether in estimating future benefits or costs of a proposed regulation, policymakers often have to make difficult choices based on uncertain/incomplete information.

- a. Provide a general overview of the different types of uncertainties that policymakers have to address in the context of a regulatory impact analysis. Your overview needs to be comprehensive and address/explain as many sources of uncertainty as possible. Please be specific in the types of uncertainties you discuss, providing clear examples where relevant.
- b. Describe and clearly explain one hypothetical scenario where the choice of the appropriate policy instrument, in the face of uncertainty about the relative slopes of the marginal benefit and marginal damage curves, can reduce the welfare losses from a policy? Your answer needs to include a graphical illustration of your scenario that is clearly explained.
- c. Provide one real world example of a current or proposed environmental policy that had to address issues of uncertainty. Explain what the sources of uncertainty were in the case of that policy and how they were addressed in the regulatory impact analysis. In addition, provide your evaluation of whether or not you believe the way the uncertainty was addressed was credible/sufficient.

Question 2. U.S. Environmental Federalism

During the Trump Administration, EPA Administrator Scott Pruitt emphasized the importance of “cooperative federalism” in U.S. environmental policy. President Biden’s EPA Administrator Michael Regan recently also noted the importance of the federal-state relationship. Speaking before the Environmental Council of the States in March 2021, he reaffirmed the Agency’s commitment to working collaboratively and cooperatively with the states to protect public health and the environment.

When should the federal government decentralize environmental protection responsibilities to states and localities? Do states and localities have the ability and incentives to deliver? Are there instances where the federal government should act in a more forceful and preemptive way? These questions point to an important decision faced by those that design U.S. environmental policy: where should they place authority for choosing and implementing policies?

In recent decades, many policy makers and scholars have argued that decentralization of environmental policy is a good idea. Others have argued that this type of decentralization is misguided. In the context of U.S. federalism, the argument typically centers on whether policy authority should be devolved from the federal government to state and local governments.

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

A complete answer will address the following:

First, summarize the theoretical arguments on both sides of the “decentralization divide.” 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 economics, political science, etc. (i.e., you should ***not*** simply rely upon intuition and inductive logic, but instead cite specific arguments from these literatures).

Second, the effects of decentralization can be observed in policy adoption, policy implementation, and environmental outcomes. Summarize the empirical literature assessing the consequences of decentralization in each of these three areas. Given the evidence, what conclusions do you draw about the decentralization debate?

Third, in your view, what are the remaining questions in the decentralization debate that require additional analysis?

Question 3. Environmental Justice

Over the past half-century, the United States has made immense progress to improve environmental quality. Through regulations, market-based strategies, and technological innovations, emissions of air and water pollutants have been reduced, the use of dangerous chemicals have been restricted, and the disposal of solid and hazardous waste has become better managed. Of course, problems remain (e.g., global climate change, nonpoint source pollution from agriculture, etc.), but the progress that has been made is undoubtedly significant.

Despite these achievements, advocates for “environmental justice” argue that large segments of society have not benefited from these environmental improvements. Please assess the merits of this argument. Is this argument correct, exaggerated, or somewhere in between?

A complete answer will address the following:

First, what are the origins of the environmental justice movement, and what are the key principles its supporter advocate?

Second, what is the nature of the empirical evidence on disparities in environmental outcomes, and what do we know about the underlying causal mechanisms?

Third, what types of policy efforts have been made to mitigate equity issues in environmental policy, and what can be said about their effectiveness?

And, finally, what do you think are the most important questions in the environmental justice debate that require further research?