Research Statement

William Ottenheimer

1. Research Interests

The domain of environmental economics and subcategories hosted within namely, natural resource economics, policy analysis, land use planning, energy, sustainability, and ecological economics fascinate me and provoke use as topics for my research. My dissertation explores federal environmental system management regarding planning, goals, functionalities and their role in the allocation of natural resources.

2. Dissertation

Specifically, my dissertation evaluates the nature of tradeoffs, uncertainty, and rules vs discretion in US army corps of engineer reservoir operations. A critical part of this work analyzes the interaction of federal environmental system managers and the federal court system regarding environmental legislation and dam multifunctionality. Through my dissertation I have developed competency in several empirical methods. I have experience designing estimation procedures for panel and cross sectional data for different types of dependent variables. I aggregated time periods of dam performance and reproduced the results of (Patterson 2018) with additional data and estimation based on a theoretical model of environmental system management behavior. I developed managerial target data from water control manuals and forecast data. I have experience in anomalous observation identification I used to assess the impact of extreme streamflow occurrence on dam operations. My job market paper employs a hazard regression to identify the legal vulnerability of federally managed dams. This endeavor required technical management of complicated text data and web interfacing skills.

3. Other Experience

I have garnered experience collaborating with biological systems engineers, hydrologists, ecologists, and biologists through a NSF Dynamics of Integrated Socio-Environmental Systems (DISES) grant. This exposure to interdisciplinary systems analysis bolsters my research capacity to wholistically consider research questions and apply economic insight to studies from other fields. Working with this teams has granted me the opportunity to engage with external stakeholders and industry professionals in the realm of environmental systems management. I find the application of industry testimony and synthesis of their lived narrative into an understanding of economic phenomena aptly incorporated into my research.

4. Future Publication Plans

My goal is to contribute to the sum of environmental economics literature with innovative research in topical and growing fields with wide impacts. I am eager to deepen the communal understanding of underserved concepts as well. My dedication to scholarly cohesion primes me to objectively serve as a reviewer should I be called upon in the future.

References

Patterson, L. A., & Doyle, M. W. (2018). A Nationwide Analysis of U.S. Army Corps of Engineers Reservoir Performance in Meeting Operational Targets. *Journal of the American Water Resources Association*, *54*(2), 543–564. https://doi.org/10.1111/1752-1688.12622