Opportunity Title: EPA Environmental Economics and Environmental Policy Postgraduate Research Opportunity
Opportunity Reference Code: EPA-OW-OST-2020-0001

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-OW-OST-2020-0001

How to Apply A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click here for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

All documents must be in English or include an official English translation.

If you have questions, send an email to EPArpp@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 4/21/2020 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

A research opportunity is currently available at the U.S. Environmental Protection Agency's (EPA) Office of Water (OW), Office of Science and Technology (OST), Engineering and Analysis Division (EAD) located in Washington, DC.

This project will focus on research aspects of a methodology and tool development program aimed at a better understanding of extent of market for monetizing the benefits of improved surface water quality. The research project will include: 1) examining the recreation demand, hedonic property value and stated preference literatures to create evidence-based approaches to extent of market, 2) investigating other data sources that can be combined with information in the existing literature to control for extent of market in a meta-analysis of surface water quality valuation studies, or 3) developing a theory by which other factors influencing willingness-to-pay could be quantified and incorporated in future applications of the standard suite of water quality valuation tools, in particular with an eye towards nonuse benefits.

The research participant will have the opportunity to apply their education to very real-world problems in water quality protection. The research participant will have the opportunity to engage in interdisciplinary teamwork, and collaborate with a variety of EPA staff. The participant will benefit by observing how advancements in environmental economics and water science are incorporated into analyses supporting environmental policy and regulations. This opportunity will provide the participant with exposure to a broad range of technical and policy issues surrounding watershed protection and water quality management. The research participant will have the opportunity to publish and present their research. Travel funds will be available for participants to present their research at appropriate workshops or conferences.

The participant will have the opportunity to conduct research on benefit-cost analysis, and benefit transfer methods, including research on the geographic extent over which benefits are realized. Some primary studies used in benefit transfer include distance information to the improved resource (e.g., travel cost models for recreation demand; hedonic property valuation studies), while others do not (many stated preference studies), making for a thin literature on distance decay

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and/or the extent of market applicable to nonuse values. The EPA has employed certain assumptions in conducting benefits transfer to date but is interested in research to fill this information gap much more systematically going forward. An extent-of-market approach might better account for possible patchiness of the location of households with willingness to pay to improve certain waters. We are also interested in being able to better account for substitute waters in our benefits transfer methods.

The participant will have the opportunity to gain skills in decision support tool development. The Office of Water is developing a software platform for estimating the benefits of surface water quality improvements more generally, and the results of research completed by the research participant, with mentorship from EAD staff, could potentially inform the building of this software tool. We are also interested in having a better understanding of how benefits transfer of both stated preference and revealed preference can be conducted in ways that clearly avoid any double counting.

The mentor for this opportunity is Todd Doley (doley.todd@epa.gov).

The coordinator for this opportunity is Octavia Dixon (dixon.octavia@epa.gov).

Anticipated Appointment Start Date: Summer 2020

This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. The initial appointment is for one year, but may be renewed upon recommendation of EPA and is contingent on the availability of funds. The participants will receive a monthly stipend commensurate with educational level and experience. The annual stipend will be as follows depending on education level: $59,534 (Master's), and $72,030 (Doctoral). Travel funds will be available for participants to present their research at appropriate workshops or conferences. Proof of health insurance is required for participation in this program. The appointment is full-time at EPA in the Washington, DC area. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

Qualifications

The qualified candidates should have received a master's or doctoral degree in one of the relevant fields, or be currently pursuing the degree and will reach completion by August 1, 2020. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Demonstrate coursework in environmental economics, and environmental policy especially as it related to water quality or the Clean Water Act
- Technical background and familiarity with valuation techniques such as hedonics, travel cost, averting behavior, contingent valuation, choice modeling, and benefits transfer
- Strong quantitative and programming skills, including:
  - Econometrics, and use of common econometrics software (e.g., R, SAS, Stata, MatLab, GAUSS)
  - Geographic information system (GIS) data management, analysis, and mapping
- Strong writing and oral communication skills
- Prior experience with water quality or environmental quality issues

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60

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months or anticipated to be received by 8/1/2020 11:59:00 PM.

- **Discipline(s):**
  - **Engineering** (1 👁)
  - **Environmental and Marine Sciences** (4 👁)
  - **Life Health and Medical Sciences** (4 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Other Non-Science & Engineering** (1 👁)
  - **Social and Behavioral Sciences** (8 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).