

**Opportunity Title:** USDA Forest Service Data Science Research on Spatially Explicit Timber Products Demand

**Opportunity Reference Code:** USDA-FS-SRS-2024-0207

**Organization** U.S. Department of Agriculture (USDA)

**Reference Code** USDA-FS-SRS-2024-0207

**How to Apply** *To submit your application, scroll to the bottom of this opportunity and click **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. 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. At least one recommendation must be submitted in order for the mentor to view your application.

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

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**Application Deadline** 8/16/2024 3:00:00 PM Eastern Time Zone

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

**USDA Forest Service Office/Lab and Location:** A fellowship opportunity is available with the US Department of Agriculture (USDA) Forest Service (FS) within the Forest Service Southern Research Station (SRS) located in Research Triangle Park, North Carolina.

At the heart of the USDA Forest Service's mission is their purpose. Everything they do is intended to help sustain forests and grasslands for present and future generations. Why? Because their stewardship work supports nature in sustaining life. This is the purpose that drives the agency's mission and motivates their work across the agency. It's been there from the agency's very beginning, and it still drives them. To advance the mission and serve their purpose, the USDA Forest Service balances the short and long-term needs of people and nature by: working in collaboration with communities and our partners; providing access to resources and experiences that promote economic, ecological, and social vitality; connecting people to the land and one another; and delivering world-class science, technology and land management.

The mission of the US Forest Service Southern Research Station is to “create the science and technology needed to sustain and enhance southern forest ecosystems and the benefits they provide.” The Forest Economics and Policy Work Unit, a part of the Southern Research Station, aims to advance understanding of how: forest-based disturbances and their



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management affect economic values, policies influence forestry decision making, forest product markets behave and are affected by policies and shocks, and forest-based ecosystem services are produced and valued.

**Research Project:** The Forest Economics and Policy Work Unit in the Southern Research Station is currently seeking an ORISE scholar for a project titled, "Spatially explicit timber product demand data and analysis," for up to 18 months. The potential scholar should have knowledge of data science best practices and a demonstrated ability to use a statistical programming language such as R or Python. Domain knowledge demonstrated by a degree in economics, data science, statistics, forestry, natural resources, or a related field is preferred. The goal of the project is to assimilate a national scale time series database of forest product mills based on publicly available data. The scholar will have the opportunity to contribute to data collection and database production using state-of-the-art data science methods, leading to improved research in forestry and economics. Additionally the scholar will be invited to participate in the broader research goals using the developed data, including understanding how openings and closings of forest product mills impact prices and demand for timber and assessing the relationships between forest product mill capacity and timber sales on National Forests.

**Learning Objectives:** Learning experience benefits for the selected scholar include:

- Extend experience with quantitative methods, including statistical, machine learning, text analysis, and spatial data approaches.
- Practice scientific communication and writing skills.
- Deepen knowledge of forestry-related business.
- Practice critical thinking.
- Collaborate with a team of established scientists.

**Mentor:** The mentor for this opportunity is Jesse Henderson ([jesse.henderson2@usda.gov](mailto:jesse.henderson2@usda.gov)). If you have questions about the nature of the research, please contact the mentor.

**Anticipated Appointment Start Date: August 26, 2024.** Start date is flexible and will depend on a variety of factors.

**Appointment Length:** The appointment will initially be for one year and six months but may be extended upon recommendation of USDA Forest Service and is contingent on the availability of funds.

**Level of Participation:** The appointment is full time.

**Participant Stipend:** The participant will receive a monthly stipend commensurate with educational level and experience in the range of \$51,157 to \$75,708 annually with an additional allowance for health insurance.

**Citizenship Requirements:** This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens](#)

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[Details page](#) of the program website for information about the valid immigration statuses that are acceptable for program participation.

**ORISE Information:** 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 USDA Forest Service. Participants do not become employees of USDA, USDA Forest Service, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

**Questions:** Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email [ORISE.USFS.SRS@orau.org](mailto:ORISE.USFS.SRS@orau.org) and include the reference code for this opportunity.

**Qualifications** The qualified candidate should be currently pursuing or have received a bachelor's, master's, or doctoral degree in the one of the relevant fields. Degree must have been received within the past five years, or anticipated to be received by 7/1/2024.

**Point of Contact** [Justina Conena](#)

- Eligibility Requirements**
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or anticipated to be received by 7/1/2024 12:00:00 AM.
  - **Discipline(s):**
    - **Computer, Information, and Data Sciences** ([7](#))
    - **Engineering** ([1](#))
    - **Environmental and Marine Sciences** ([5](#))
    - **Mathematics and Statistics** ([6](#))
    - **Physics** ([1](#))
    - **Social and Behavioral Sciences** ([6](#))