

Opportunity Title: Geospatial Science Fellow

Opportunity Reference Code: USDOT-2023-Geospatial_Science_Fellowship

Organization U.S. Department of Transportation (DOT)

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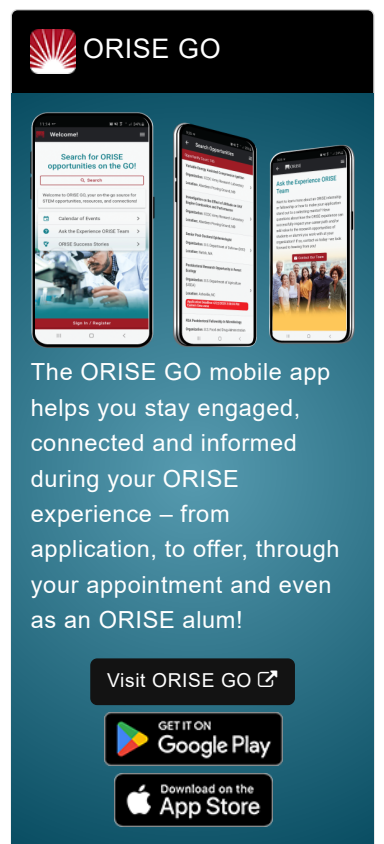
How to Apply **Connect with ORISE...on the GO!** Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

Click on *Apply* below to start your application.

Description Are you passionate about transportation? Do you want to learn more about intermodal connections and build a resource that will provide communities across the Nation with the accurate, reliable data we need to measure connectivity of the transportation network? Do you want to help the United States Department of Transportation (USDOT), planning agencies, and researchers demonstrate the importance and role of passenger transportation in America? Do you have experience working with geospatial data, statistics, and data visualization? Take an appointment with our team as we transform national transportation analysis, and where you participate in developing a new geospatial layer depicting intermodal passenger facilities. This post-graduate research project and developmental opportunity is currently available at the U.S. Department of Transportation. The appointment will be served within the Bureau of Transportation Statistics in Washington, DC or remotely, as a Geospatial Science Fellow.

You will participate in a project to develop an Intermodal Passenger Facility Database, a complete location database of the Nation's passenger transportation facilities where more than one transportation mode can be accessed, and the newest geospatial layer of the National Transportation Atlas Database (NTAD). The database will leverage a variety of data sources, including GTFS (General Transit Feed Specification), FEMA's USA Structures data, FAA's airport charts, Location Based Services, web-scraped information, and other innovative datasets. With guidance from BTS OSAV technical experts, you will have the opportunity to:

- Think creatively to collaborate on planning, design, and development of a new product
- Sharpen your research skills by learning to identify existing datasets that could contribute to the Intermodal Passenger Facility Database
- Grow your analysis skills by learning to evaluate the quality of passenger facility data and visualizing dataset extent
- Advance your geospatial skills by refining location accuracy of intermodal passenger facilities, at point and polygon level
- Practice your communication skills by learning to write technical reports, deliver presentations to diverse audiences of transportation professionals
- Expand your transportation research portfolio by working with an emerging dataset that will become a National Geospatial Data Asset (NGDA), with USDOT databases, and with data sources outside of the Department
- Grow your professional network by working across USDOT and with Federal partners to support their passenger transportation research needs,



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such as equity and climate related assessments

Who are we? We are the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS). The BTS is the Principal Federal Statistical Agency that provides objective, comprehensive, and relevant information on the extent and use of the Nation's transportation system, how well the system performs, and the effects of the system on society and the environment. You will have an appointment with the Office of Spatial Analysis and Visualization (OSAV). The OSAV develops geospatial information and visualization tools, conducts spatial and network analyses, develops performance measures related to the transportation network and geographic accessibility provided by the network, prepares maps for BTS publications, coordinates the transportation layer of the National Spatial Data Infrastructure, and publishes the National Transportation Atlas Database (NTAD). OSAV employs high quality cartography and innovative web applications to produce relevant, timely, comparable, complete, and accessible geospatial products and statistical visualizations.

Nature of Appointment

The fellow will not enter into an employee/employer relationship with ORISE, ORAU, USDOT, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Annual Stipend and Benefits

Fellows will receive a stipend to be determined by USDOT and other benefits including:

- Stipend: \$75,000. The stipend is typically based on the participant's academic standing, discipline, experience, and research facility location.
- Health insurance supplement: \$6,000. Fellows are eligible to purchase health insurance through ORISE.
- Training and travel allowance: \$3,000. Fellows are eligible to participate in professional development trainings and attend conferences relevant to their appointment.
- This appointment is eligible for remote participation.

Qualifications The ideal candidate will have the preferred skills:

- You have an interest in passenger transportation and how it operates
- You have formal experience (e.g., some coursework or on-the-job experience) with geospatial and tabular data, statistics, data visualization, spatial mapping tools (ArcGIS, QGIS, Mapbox, OpenStreetMap, etc.), dashboards (Tableau, R Shiny, etc.), coding (R, Python, etc.), or computer science.
- You like using data to tell stories by linking various datasets and presenting results in a clear, effective, and attractive manner

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- You are highly organized, motivated, and collaborative worker who can translate high-level business requirements into detailed design specifications
- You are a current graduate school student or recent post-graduate with a great attention-to-detail and strong written and verbal communication skills

The BTS Fellows program prepares a diverse, highly talented, educated, and skilled pool of individuals to address science, technology and policy issues related to transportation systems, and enhances the future workforce to be both knowledgeable and trained in fields of specific interest to transportation and statistics agencies. This is a developmental opportunity, and we encourage you to apply even if you don't believe you fully meet the preferred skills listed. We're committed to maximizing the diversity of our team and want to hear from anyone who is passionate about our efforts, has a desire to learn, and is interested in supporting our work.

A complete application consists of:






- Profile Information
- Application Questions (*goals, experiences, and skills relevant to the opportunity*)
- Transcript(s) - 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. Selected candidate may be required to provide proof of completion of the degree before the appointment can start.
- A current resume/CV
- Two Letters of recommendation - Applicants are required to provide contact information for two recommendations in order to submit the application. Applicants are encouraged to request a letter of recommendation before submission as this may help reviewers have a better understanding of the applicant's qualifications and interests. The letter of recommendation must be submitted on your behalf before selections are completed and offers are made.

If you have questions, please email USDOT@orau.org. Please list the reference code for this opportunity in the subject line of your email.

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Bachelor's Degree or Master's Degree.
 - **Discipline(s):**
 - **Business** ([11](#) 👁)
 - **Chemistry and Materials Sciences** ([12](#) 👁)
 - **Communications and Graphics Design** ([6](#) 👁)
 - **Computer, Information, and Data Sciences** ([17](#) 👁)
 - **Earth and Geosciences** ([21](#) 👁)
 - **Engineering** ([27](#) 👁)
 - **Environmental and Marine Sciences** ([14](#) 👁)

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- **Life Health and Medical Sciences** ([48](#) )
- **Mathematics and Statistics** ([11](#) )
- **Other Non-Science & Engineering** ([13](#) )
- **Physics** ([16](#) )
- **Social and Behavioral Sciences** ([29](#) )
- **Age:** Must be 18 years of age