

**Opportunity Title:** Transit Geospatial Developer Fellow  
**Opportunity Reference Code:** USDOT-2023-Transit\_Geospatial\_Developer

**Organization** U.S. Department of Transportation (DOT)

**Reference Code** USDOT-2023-Transit\_Geospatial\_Developer

**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!

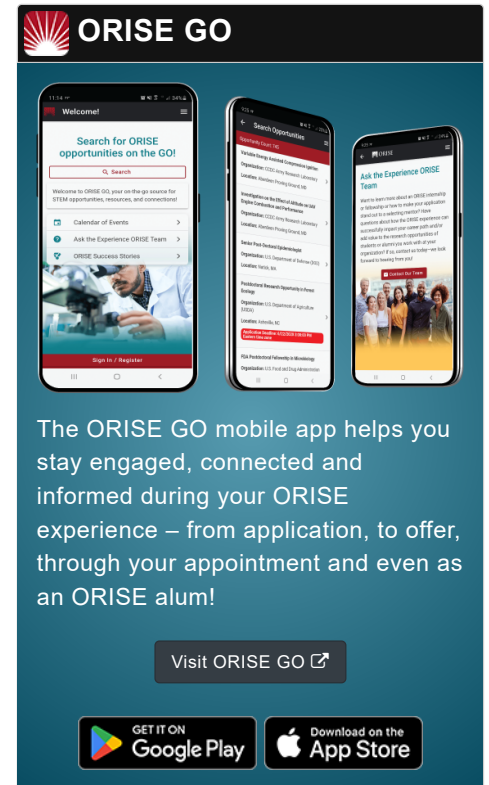
Click on *Apply* below to start your application.

**Description** Do you want to help the United States Department of Transportation (USDOT), planning agencies, and researchers demonstrate the importance and role of transit in America? Are you interested in learning about and modernizing the nuts-and-bolts of a nationwide transit data program? Do you have experience in geospatial data, statistics, and data visualization? Are you looking for a graduate-level or post-graduate research project and developmental opportunity to refine your data science skills? Take an appointment with our team as we transform transit data research and analysis!

As a Transit Geospatial Developer Fellow appointed to the USDOT Bureau of Transportation Statistics (BTS) National Transit Map (NTM) team, you will learn how to help improve resources that will provide communities across the nation with the accurate, reliable data we need to measure the connectivity of the transportation network. Beginning September 2024, the Federal Transit Administration's (FTA) requirement for transit agencies with fixed-route or fixed-guideway service to submit static GTFS data will take effect. BTS anticipates that the NTM will have a rapid influx of data and is presently refining the NTM backend procedures and public facing products. This is an opportune time to gain professional-level experience from a Principal Federal Statistical Agency team that is rebuilding the tools it uses to manage and assess transit data.

You will get guidance and mentorship from the BTS NTM program manager, the Director of the Office of Spatial Analysis and Visualization (OSAV), and OSAV technical experts. You will have the opportunity to:

- Hone your coding skills by learning improvements to our authoritative digital nationwide catalog of General Transit Feed Specification (GTFS) data
- Refine your analysis skills by learning to investigate and track the completeness of our transit data catalog and products
- Advance your geospatial skills by learning to create processes to identify missing transit routes, using spatial tools to build missing pieces and coordinating their development with support from technical experts
- Sharpen your communication skills by learning to conduct user research with researchers, planners, and operators on their

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transit data analysis needs and sharing feedback with our team so that we can configure and deploy tools that inform public and private decisions about public transportation

- Expand your transportation research portfolio by collaborating with valuable, authoritative data that is recognized as a National Geospatial Data Asset (NGDA), with USDOT databases, and with data sources outside of the Department
- Practice your collaborative skills by participating across BTS to develop projects that could integrate with NTM, such as the Intercity Bus Atlas; Geospatial Bike, Pedestrian, and Accessibility Infrastructure Data; and Intermodal Passenger Facility Database
- Grow your professional network by participating across USDOT and with Federal partners to support their transit statistics and research needs, such as equity and climate related assessments.

Who are we? We are the United States Department of Transportation (USDOT) 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. Its National Transit Map (NTM) is a National Geospatial Data Asset (NGDA) within NTAD that supports transit research, analysis, and planning by combining General Transit Feed Specification (GTFS) data for fixed-guideway and fixed-route service.

This is a twelve-month research and developmental opportunity currently available at USDOT. The appointment will be served within BTS in Washington, DC (remote participation eligible) or remote as a Transit Geospatial Developer Fellow.

#### **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.

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### 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** We'd love to hear from you if:

- You have an interest in transit or transportation and how it operates
- You are a General Transit Feed Specification (GTFS) enthusiast and have an interest in using it to improve our understanding of the U.S. transportation system
- 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, SQL, 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
- 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 and 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*)

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*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](mailto: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 )
  - **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