Opportunity Title: Data Analytics Fellow
Opportunity Reference Code: USDOT-2021-2004

Organization	U.S. Department of Transportation (DOT)	

Reference Code   USDOT-2021-2004

How to Apply   Click on *Apply* below to start your application.

Description   The Federal Transit Administration (FTA) of the United States Department of Transportation (USDOT) provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys and ferries. FTA also oversees safety measures and helps develop next-generation technology research. Our mission is to Improve Public Transportation for America's Communities. Transit services supported by FTA, span many groups and provide wide-ranging benefits. See more details at www.transit.dot.gov

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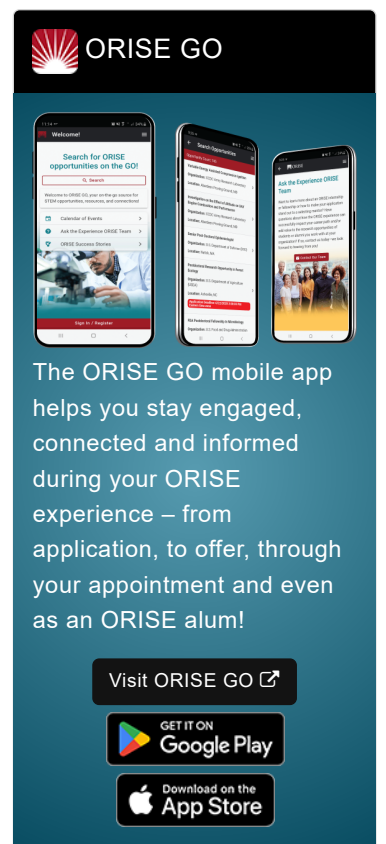Visit ORISE GO

Why should I apply?

FTA is looking for a paid Fellow trained in data analytics disciplines. This is a great opportunity to strengthen your programming and analysis skills with robust national data and to gain invaluable experience learning from subject-matter experts. The fellowship offers an excellent opportunity to provide input, direction, and creativity into projects involving national databases as well as skill development and training, and networking opportunities.

If this sounds exciting to you, come apply your data analytics and research skills to help shape the best U.S. transportation system!

What will I be doing?

You will be located in the Office of Budget and Policy (TBP) in the Analysis Division (TBP-32). TBP-32 houses three of the FTAs data programs, the biennial Conditions and Performance report to Congress, the Transit Asset Management (TAM) and the National Transit Database (NTD) programs. TBP-32 designs, develops and conducts data collection and development programs to capture information on U.S. public transportation systems for effective use in decision making. TBP-32 staff work collaboratively across agencies, within and outside USDOT, to explore innovative methods of data collection/analysis/visualization and survey design in improving and initiating data development programs.

You will collaborate with data analytics related to the TAM program. The work will involve assessing existing processes and identify possible improvements to TAM data stored in the National Transit Database (NTD). The TAM program uses the NTD for data collection, storage, and analysis purposes. Possible improvements could include database changes to optimize how TAM data moves through the NTD into apportionment,

monthly, annual, and ad-hoc data products. These improvements will prefer at least some technical knowledge (and past application) of at least one scripting language in structured query language (SQL), R, or Python.

You will engage with developing and implementing transportation data development programs through several projects. You will apply data analytics techniques to collect, augment, and analyze transportation data. You will be involved with researching administrative and auxiliary data sources to enhance the public transportation data. You will also engage with disseminating data and analysis findings by developing visualization applications and presenting at conferences. Strong communication, coordination, and team work skills are essential to be successful in this role.

U.S. Department of Transportation (DOT) ensures our Nation has the safest, most efficient and modern transportation system in the world, which improves the quality of life for all American people and communities, from rural to urban, and increases the productivity and competitiveness of American workers and businesses.

Appointment Length

This appointment is a twelve-month research appointment, with the possibility to be renewed for additional research periods. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

Participant Benefits

Participants will receive a stipend to be determined by USDOT. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. *Participants are eligible to purchase health insurance through ORISE.*

- Training and Travel Allowance

- Telework eligible

Nature of Appointment

The participant 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:

Stipend: $60,000-$70,000/ Education; Travel Allowance: $1,000 and Health Insurance: $6,000.

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Qualifications   The ideal candidate will have a combination of the following preferred skills and/or experiences:

- Data Processing using R, Python, and/or SQL: (1) Read and merge multiple datasets; (2) Record linkage across disparate datasets; (3) Clean data to produce a final analysis-ready dataset.

- Programming using R, Python, and/or SQL: Develop reusable programs and scripts to facilitate data processing, cleaning, and retrieval efforts.

- Statistical Analysis using R, and/or Python: (1) Understand descriptive & inferential analysis; and (2) Understand data mining & predictive modeling.

- Geospatial and Visualization using ESRI suite and/or Tableau: (1) Extract geographic information; and (2) Visualize data in dashboards including tables, charts, and maps.

- Record Management: (1) Document data processing and analysis methods & results; and (2) Write a technical report and a journal paper.

- Microsoft Excel (e.g., pivot tables and lookup)

- Structured Query Language (SQL)

- One or more computer programming languages (Python, R, etc.)

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or anticipated to be received by 9/1/2023 12:00:00 AM.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (9 👁)
  - **Engineering** (8 👁)
  - **Mathematics and Statistics** (6 👁)
  - **Physics** (2 👁)
  - **Social and Behavioral Sciences** (10 👁)
- **Age:** Must be 18 years of age