

Opportunity Title: Department of Transportation Data Analytics Fellow Opportunity Reference Code: USDOT-2023-DAF

Organization U.S. Department of Transportation (DOT)

Reference Code USDOT-2023-DAF

How to Apply To apply click on *Apply* at the bottom of this page.

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Description Office of Budget and Policy(TBP) in the in the Analysis Division (TBP-32) at the United States Department of Transportation, in Washington, D.C.

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, including the biennial Conditions and Performance report to Congress, the Transit Asset Management (TAM), and the National Transit Database (NTD). 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.

Under the guidance of a mentor, opportunities to gain skills and experience may include:

- Collaborate with developing improved data pipelines, including data collection, data validation, and data products.
- Improve standard operating procedures and processes to increase program efficiency and automation.
- Analyze and improve user experience and user interface UX/UI for data collection and data products.
- Research administrative and auxiliary data sources to enhance the public transportation data.
- Disseminate data and analysis findings by developing visualization applications and presenting at meetings and conferences.
- Other tasks related to data collection, validation, and data products.

The selected candidate will receive a stipend ranging from \$90,000 to \$100,000 as support for living and other expenses during this appointment. Stipend rates are determined by DOT officials and are based on the candidate's academic and professional background. The candidate may also be eligible to receive a health insurance allowance and reimbursement for travel expenses. This appointment is full-time (40 hours per week) for one year and may be extended in increments of one year (up to three years, with optional extensions for years four and five), contingent upon project needs and funding availability.

ABOUT DOT: U.S. Department of Transportation (DOT) ensures our Nation has the safest, most efficient and modern transportation system in the

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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.

This opportunity is available to U.S. citizens.

For more information about the Research Participation program at the U.S. Department of Transportation, please visit https://orise.orau.gov/dot/

Appointment Location

Remote (in United States)

Nature of Appointment

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

Qualifications • Policy analysis.

- 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.)
- Strong communication, coordination, and teamwork skills

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
- One Letter of recommendation Applicants are required to provide contact information for two recommendations in order to submit the



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> 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 • Citizenship: U.S. Citizen Only
- Requirements
- Degree: Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
- Discipline(s):
 - Computer, Information, and Data Sciences (<u>17</u>)
 - Engineering (<u>27</u> [●])
 - Mathematics and Statistics (<u>11</u>)
 - Physics (<u>16</u>)
 - Social and Behavioral Sciences (29 •)
- Age: Must be 18 years of age