Opportunity Title: Data Visualization Fellow
Opportunity Reference Code: DOT-2016-0003

Organization	U.S. Department of Transportation (DOT)
Reference Code	DOT-2016-0003
How to Apply	A complete application consists of:

- An application
- A current resume/CV
- Transcripts – 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. Selected candidate may be required to provide proof of completion of the degree before the appointment can start.

All documents must be in English or include an official English translation. If you have questions, send an email to SciEdPrograms@orau.org. Please include the reference code for this opportunity in your email.
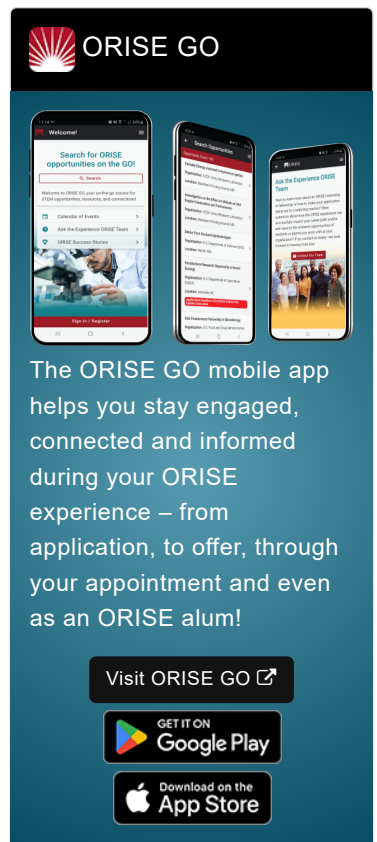
Application Deadline	7/28/2017 12:00:00 AM Eastern Time Zone
Description	Do you wake up in the middle of the night reimagining new ways to visualize movements, time, and other types of change in multiple dimensions? Are you obsessed with simplifying complex problems with visuals that easily convey information in new, understandable ways? Take an appointment with our team as we transform national transportation analysis, and where you design, develop, and implement innovative web and mobile visualizations, dashboards and applications. 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 as a Data Visualization Fellow.

The goal of the project is to further develop DOT's data visualization across the modes of transportation (highway, rail, air, water, and pipeline). The participant will collaborate with individuals from DOT's operating administrations and offices under the Secretary of Transportation, to connect, understand, analyze, and visualize DOT databases, data sources outside of the Department, and geospatial data. The work will foster increased use of DOT data to inform programmatic and policy decisions, and further demonstrate the value of a cross-modal approach through the power of data analytics and visualization.

The applications you create will enable the public to visualize, view, interact with and analyze data and statistics related to transportation. Working closely with graphic designers to craft compelling user experiences, you will design and build innovative and dynamic web and mobile visualizations and dashboards that consume, process and report about transportation information.

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 a joint appointment with the Office of Spatial Analysis and Visualization (OSAV) and the Office of Transportation Analysis (OTA). 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, high quality, timely, comparable, complete, and accessible geospatial products and statistical visualizations. The OTA prepares compilations and analyses of transportation statistics, estimates freight activity, and develops freight performance measures. Examples of major OTA products include the Transportation Statistics Annual Report, the Facts and Figures series, National Transportation Statistics, State Transportation Statistics, and monthly updates to the Transborder Freight and Border Crossing Data programs. OTA employs a variety of analytical methods and effective writing to produce relevant, high quality, timely, comparable, complete, and accessible products.

Participant Benefits

The selected candidate will receive a stipend 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 for one year and may be extended in increments of up to one year, contingent upon project needs and funding availability.

Nature of the Appointment

Participants will not enter into an employee/employer relationship with ORISE, ORAU, the DOT, 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.

Qualifications The successful applicant has received a Bachelor's degree (master's degree desired) in related field required (preferably in Geographic Information Systems, Geography, Social or Behavioral Science, Computer Science, Information Systems, Math or Statistics, Earth or Geo Science, Engineering, Business, Graphic Design, Data Science, Data Visualization, Media Arts).

The ideal candidate will have a combination of the following:

- Demonstrated ability to transform information and data into documents, reports, and similar products that tell a compelling story

- Demonstrated ability to work with and connect multiple data systems and sources
- Experience analyzing data to identify patterns and trends
- Experience presenting results in a clear, effective, and attractive manner to inform next steps
- Experience with data tools and techniques, including the application of modern programming languages and open source software. Experience should include geospatial information systems
- Strong written and verbal communications skills
- Ability to work across various offices and work units to obtain information, collaborate on data-related projects, and validate findings and conclusions
- Ability to work with subject matter experts to identify and mitigate data limitations
- A self-starter with the ability to perform work with limited supervision and changing outcome goals
- Knowledge of U.S. transportation systems
- Experience working with forecast data and information a plus, but is not required
- Experience with statistical analysis and econometric modeling a plus, but is not required.

Eligibility Requirements	
	- **Citizenship:** U.S. Citizen Only
	- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
	- **Discipline(s):**

  - **Business** (1 👁)
  - **Communications and Graphics Design** (4 👁)
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (45 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Other Non-Science & Engineering** (9 👁)
  - **Social and Behavioral Sciences** (28 👁)