Opportunity Title: Data Visualization/Geospatial Data Developer Fellow
Opportunity Reference Code: DOT2018-08

Organization	U.S. Department of Transportation (DOT)
Reference Code	DOT2018-08
How to Apply	A complete application consists of:

- An application

- Transcripts – Click here for detailed information about acceptable transcripts

- A current resume/CV, including academic history, employment history, relevant experiences, and publication list

- Two educational or professional references

All documents must be in English or include an official English translation.
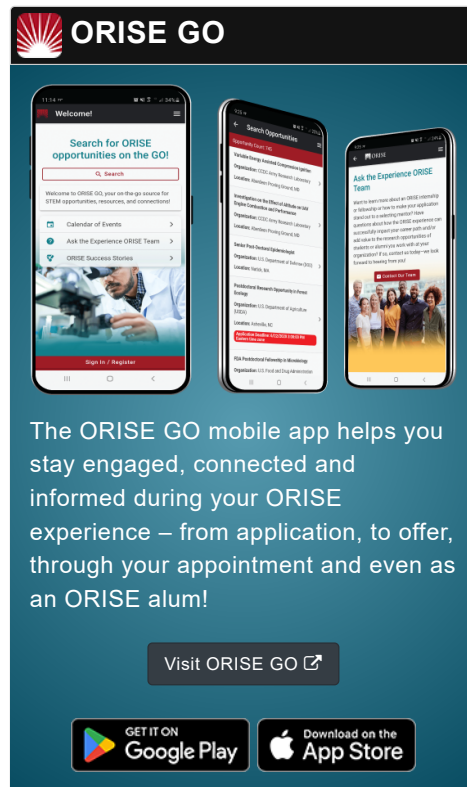
If you have questions, send an email to USDOT@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline	2/28/2019 11:59:00 PM Eastern Time Zone
Description	Innovations in data visualization and the use of geospatial transportation data have major implications on the ways that transportation datasets are used, bringing forth innovative new software and challenges. These changes push us, as analysts and statisticians, to rethink our relationship with data. During this fellowship, you will explore opportunities to advance geospatial and data resources that are appropriate for statistical analysis and visualization, build new data sets and innovate the way in which we use existing datasets.

We are looking for a paid Fellow trained in geospatial and data visualization analytics to mentor under a mid-senior level survey statistician. This is a great opportunity to hone statistical skills and to gain experience collaborating with the Bureau of Transportation Statistics (BTS), one of the 13 independent Federal statistical agencies. The ideal candidate will have experience in geospatial applications, data visualization, and knowledgeable of data compilation and statistical analysis. The fellowship provides an excellent opportunity to provide input and creativity --thinking 'outside the box'-- into projects with the Bureau of Transportation Statistics, as well as offer skills development, skills training, and networking opportunities.

This research opportunity includes a culture of work-life balance at USDOT, moving and health insurance stipend, and all the amenities of the Navy Yard neighborhood, including Yards Park,

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as well as a concurrent staff of 5-10 fellows. This fellowship position has the potential to be renewed up to 3 years.

This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and DOT. The initial appointment is for 12 months but may be renewed upon recommendation of DOT and is contingent on the availability of funds. **The participant will receive an annual stipend of approximately $78,000 commensurate with educational level and experience, in additional to a health insurance supplement of $3,000; professional development allowance of $2,000, and a relocation allowance of $2,000.** Proof of health insurance is required for participation in this program. The appointment is full-time in the Washington, DC area. Participants do not become employees of DOT, DOE or the program administrator, and there are no employment-related benefits.

This fellowship is located in the Office of Survey Programs (OSP). The OSP designs, develops and conducts quality survey programs to capture information on the transportation system for effective use in transportation decision making. OSP staff collaborate across agencies, with all levels of project staff, with key internal and external stakeholders, and others to explore innovative methods of data collection and survey design in improving and initiating survey programs. Strong communication, coordination, and team work are needed to be successful in this role. In addition to assisting with developing and implementing transportation surveys, the selected candidate will be involved with researching and analyzing administrative and auxiliary data sources that can be used to further enhance transportation databases. He or she will also apply specialized data analysis techniques to collect, augment, and enhance BTS datasets. In addition, the candidate will assist with publishing and disseminating data that describe the characteristics, performance, use, and impact of the Nation's transportation systems.

Qualifications   The ideal candidate will have a combination of the following:

- 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;
- Knowledge of open and proprietary exchange formats used in GIS-specific applications, including: REST/JSON, GeoJSON, XML, geodatabases, Web Mapping Services (WMS), and Web Feature Services (WFS);
- Experience with the ESRI suite of products (ArcGIS

Desktop, ArcGIS Server, ArcSDE, ArcObjects, JTX/Workflow Manager);
- Demonstrated knowledge and use of industry standard database tools and languages including standard SQL Oracle/Microsoft/Postgres Relational Databases and geodatabase extensions to relational databases, SQL;
- Knowledge and experience with statistical programming (e.g., SAS, Python, Java, R);
- Experience in data mining and statistical analysis;
- A level of proficiency developing programs and scripts to support the collection, aggregation, processing, storage, analysis and publication of large datasets
- Experience with investigating patterns and performing data interpretation of large datasets;
- Experience with data analytic and visualization tools, such as Socrata and Tableau (desired);
- Ability to transform information and data into documents, reports, and similar products that tell a compelling story;
- Experience presenting results in a clear, effective, and attractive manner to inform next steps;
- Strong written and verbal communications skills; and
- A self-starter with the ability to perform work with limited supervision and changing outcome goals.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
  - **Communications and Graphics Design** (1 👁)
  - **Computer, Information, and Data Sciences** (8 👁)
  - **Earth and Geosciences** (1 👁)
  - **Engineering** (27 👁)
  - **Life Health and Medical Sciences** (2 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Other Non-Science & Engineering** (3 👁)
  - **Social and Behavioral Sciences** (28 👁)