

**Opportunity Title:** Data Analysis Fellowship

**Opportunity Reference Code:** USDOT-2020-0006

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

**Reference Code** USDOT-2020-0006

**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!

A complete application consists of:

- An application
- Transcripts
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

All documents must be in English or include an official English translation.

If you have questions, send an email to [USDOT@orau.org](mailto:USDOT@orau.org). Please include the reference code for this opportunity in your email.

**Description** Have you ever wanted to influence and improve the effectiveness of transportation data at the national level? Are you detail-oriented and committed to producing high-quality data products? Come apply your data analytic skills for the public good and join us as we lead the development of new and improved national statistical products and visualizations. We are looking for a graduate student interested in learning new skills and techniques from our data scientists who are working with aviation data.

This fellowship provides a learning opportunity to strengthen your skills in data compilation, statistical analysis, machine learning, and data mining. You will learn techniques to collect, organize and unify aviation datasets from different sources. Your learning experience will include working with different cloud service solutions to perform ETL process on different data formats.

You will have the opportunity to create On-time Performance estimates for Airports and Airlines and learn how to develop visualization dashboards for the real-time data streams. Your learning experience will include work with Tableau and Python visualization libraries to visualize:

- o On-time Performance estimate of Airport/Airline by causes.
- o Weather Impact on Air System,
- o Real-time Flight Mapping,
- o Operational and Economic Impact of Delays/Diversions/Cancellations.

Who are we? We are the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS). BTS is an independent federal statistical agency that provides objective, comprehensive, and relevant information on the extent and use of the Nation's transportation systems. Learn more about the work we do at [www.bts.dot.gov](http://www.bts.dot.gov).

**Qualifications** The appointed Data Analyst fellow must be currently enrolled in, or





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have received, a Master's Degree or Ph.D. program in a relevant field (Preferably in Data Science, Data Analytics, Industrial Engineering, Systems Engineering, Computer Science, Applied Mathematics)

Preferred skills:

- Demonstrated experience with Python, PySpark and SQL.
- Experience preferred but not required on Tableau, Databricks, ArcGIS, Git, and Power BI.
- Strong written and verbal communications skills;
- A self-starter with the ability to perform work with limited supervision and changing outcome goals;
- Knowledge of and interest in U.S. transportation systems;
- Experience presenting results in a clear, effective, and attractive manner to inform next steps;
- Proficiency translating high level business requirements into detailed design specifications;
- Ability to work across various offices and work units to obtain information, collaborate on data-related projects, and validate findings and conclusions;

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
  - **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
  - **Academic Level(s):** Graduate Students, Postdoctoral, or Post-Master's.
  - **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** ([46](#) )
    - **Mathematics and Statistics** ([10](#) )
    - **Physics** ([16](#) )
    - **Social and Behavioral Sciences** ([29](#) )
  - **Age:** Must be 18 years of age