**Opportunity Title:** USDA-APHIS Data Visualization Fellowship
**Opportunity Reference Code:** USDA-APHIS-2023-0323

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| **Organization** | U.S. Department of Agriculture (USDA) |
| **Reference Code** | USDA-APHIS-2023-0323 |
| **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
- Transcript(s) – 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. All transcripts must be in English or include an official English translation. 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 recommendations. At least one recommendation must be received in order for the mentor to view your application.
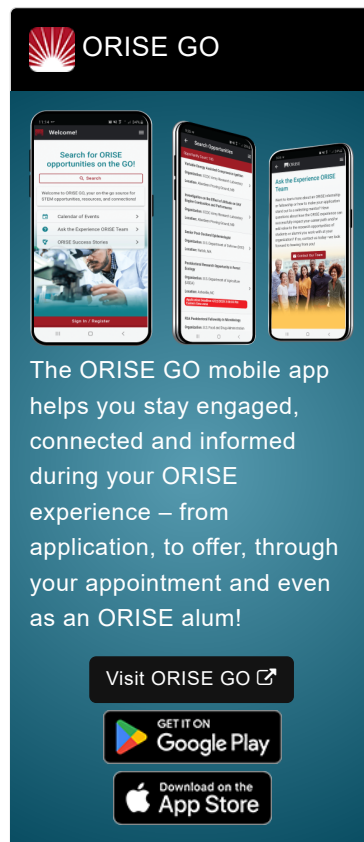
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| **Application Deadline** | 9/15/2023 3:00:00 PM Eastern Time Zone |
| **Description** | **\*Applications are reviewed on a rolling-basis.** |

**APHIS Office/Lab and Location:** A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS), within the National Animal Health Monitoring System (NAHMS) located in Fort Collins, Colorado.

The Animal and Plant Health Inspection Service (APHIS) is a multi-faceted Agency with a broad mission area that includes protecting and promoting U.S. agricultural health, regulating genetically engineered organisms, administering the Animal Welfare Act and carrying out wildlife damage management activities. These efforts support the overall mission of USDA, which is to protect and promote food, agriculture, natural resources and related issues. APHIS' mission also includes addressing issues such as wildlife damage and disease management; regulation of genetically engineered crops and animal welfare; and protection of public health and safety as well as natural resources that are vulnerable to invasive pests and pathogens.

Within APHIS resides the Veterinary Services, Center for Epidemiology & Animal Health (CEAH) National Animal Health Monitoring System (NAHMS). NAHMS is a Federal Statistical Unit that conducts national studies of livestock, poultry, equine and aquaculture industries to examine production and animal health and disease management practices in in the U.S. Multidisciplinary teams of specialists design nationally representative studies annually working in coordination with animal industries, universities, and other Federal and State agencies. These studies are voluntary and the producer confidentiality is protected. Data collected fill information gaps for the industry in topics such as animal health, management, biosecurity,

movement, disease prevention practices, antimicrobial use and resistance, and disease prevalence. Results are provided to the public through descriptive reports, tableau dashboards, information briefs, manuscripts, website and other means.

**Research Project:** NAHMS has transitioned from hard copy descriptive reports to dynamic Tableau dashboards and is continuing to look for improved methods for more timely and accessible sharing of the study results. The participant's research will support finding options for new improvements, continued work in Tableau design, exploration of website data tables and other possibilities for data analysis and reporting. The fellowship will provide opportunities for the participant to learn about national study design, implementation, and reporting, and aid in ensuring NAHMS meets its fundamental responsibility of reporting accurate, credible results for use by researchers and industries to improve the health and productivity of the national's animal industries. The participant will collaborate closely with NAHMS' team of veterinary epidemiologists, statisticians, survey methodologist, data scientist and study collaborators.

Specific activities will include:

- Collaborate with study team leads and statisticians to manage existing data used for reporting, analyzing and researching domestic animal health production and management practices.
- Develop tools for data acquisition and assist with data validation and cleaning
- Assist with development of descriptive and analytical reporting via tableau, other dashboard or web data tables.
- Support timely and accessible data visualization and dashboards to support data interpretation, use and sharing.
- Assist with ensuring data flow is operational from data collection through merging into common repositories for reporting and analytics.
- Design, develop and enhance data standards, metadata, data models and propose new methods to streamline preparation, delivery, storage, and public dissemination of data and study results.

**Learning Objectives:** The fellowship will provide opportunities to:

- Collaborate with veterinary epidemiologists, statisticians, survey methodologists and other animal health professionals to learn about US animal production industries and their information gaps and data needs.
- Learn about the fundamental responsibilities of a Federal Statistical Unit
- Learn about mechanisms used to protect the confidentiality of study participants
- Learn about science communication and statistical analysis reporting to a variety of technical and nontechnical audiences

Professional development opportunities will include:

- Collaborating with other data scientists at CEAH to learn more about

opportunities in data science.

- Enhancing current skills and knowledge while conducting research with national dataset
- Participating in professional shadowing experiences or short details to enhance knowledge and skills
- Presenting their research at internal and external webinars and meetings

**Mentor:** The mentor for this opportunity is Matt Branan (Matthew.a.branan@usda.gov). If you have questions about the nature of the research please contact the mentor.

**Anticipated Appointment Start Date: August 2023.** Start date is flexible and will depend on a variety of factors.

**Appointment Length:** The appointment will initially be for one year but may be renewed upon recommendation of APHIS and is contingent on the availability of funds.

**Level of Participation:** The appointment is full-time.

**Participant Stipend:** The participants will receive a monthly stipend commensurate with educational level and experience. **The current stipend for this opportunity is equal to $86,756 per year plus a health insurance supplement and a travel allowance during the appointment.**

**Citizenship Requirements:** This opportunity is available to U.S. citizens only.

**ORISE Information:** 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 APHIS. Participants do not become employees of USDA, APHIS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, sex, religion, national origin, mental or physical disability, genetic information, sexual orientation, or covered veteran's status.

**Questions:** Please visit our Program Website. After reading, if you have additional questions about the application process please email USDA-APHIS@orau.org and include the reference code for this opportunity.

**Qualifications** The qualified candidate should be currently pursuing or have received a bachelor's or master's degree in one of the relevant fields.

Preferred Skills:

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- Experience with applying scientific and statistical data visualization and information communication methods appropriate for reporting national animal health data and information.  The ability to utilize this knowledge to produce effective and engaging visualizations using tools such as Tableau or other data visualization tools.
- Experience effectively communicating complex animal health, management, and production information to technical and non-technical audiences.
- Ability performing statistical description and analysis using software such as SAS, R, or other statistical software and/or scripting tools such as JavaScript, VBScript, Python or other object oriented scripting language.

**Point of Contact** [Justina](#)

**Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree or Master's Degree.
- **Minimum Overall GPA:** 3.00
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (7 👁)
  - **Life Health and Medical Sciences** (7 👁)
  - **Mathematics and Statistics** (7 👁)