

Opportunity Title: NSF-NCSES Research Fellow

Opportunity Reference Code: NSF-NCSES-2024-0001

Organization National Science Foundation (NSF)

Reference Code NSF-NCSES-2024-0001

Application Deadline 4/12/2024 11:59:00 PM Eastern Time Zone

Description National Center for Science and Engineering Statistics (NCSES)

The National Center for Science and Engineering Statistics (NCSES) — part of the National Science Foundation (NSF) — is the world’s premier source for data and information on the science and engineering enterprise. NCSES is one of only thirteen principal statistical agencies in the U.S. federal government. You will have the opportunity to independently utilize your skills and engage with experts in innovative ideas to move the proposed research forward. NCSES leads several cutting-edge research projects and initiatives that not only further its mission of collecting and disseminating objective information on the science and engineering enterprise, but also will provide you with an exclusive access to high quality data sets and experiences in data analysis, statistics, and more.

- Are you looking for real world experience in cutting edge research from the world's premier source for data and information on the science and engineering enterprise?
- Do you want to learn from top researchers and subject matter experts in data analysis, statistics, economics, science policy, research and more?
- Do you want to develop skills within and outside of your field of study and interest and earn a competitive edge?
- Do you want to network with your peers, travel, and participate in educational events?

If you answered yes to any of these questions, then the NCSES Research Ambassadors Program is for you!

For more information about NSF-NCSES, please visit <https://ncses.nsf.gov/>.

Opportunity

National Center for Science and Engineering Statistics (NCSES) business microdata is available at Federal Statistical Research Data Centers (FSRDCs), so qualified researchers can access our restricted-use data to address important policy and research questions. Recent interviews with a selection of FSRDC data users indicated that there was a “strong need for documentation and resources (Davis et al (2018)).” Beyond resources made available by other researchers, Adams (1994) is the only formal documentation and description available of NCSES data. However, this is outdated as it does not account for major business R&D and innovation survey revisions including the introduction of two novel business data collection efforts. This “insufficient documentation, limited understanding of sampling and response, and an inability to recreate published estimates has lead researchers, likely inappropriately, to question the quality and reliability of the underlying data (Davis et al (2018)).” Because the data made available through the FSRDC is transformed by FSRDC



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administrators, even the data dictionary and questionnaires with survey aggregates and variable names made available by Census Economic Reimbursable Division are of limited use to researchers.

NCSES seeks to improve the documentation and resources available to researchers using NCSES business microdata made available through the FSRDC network and complement this with publicly available documentation to aid prospective researchers. Some resources are available only through the secure FSRDC network. These include survey questionnaires with variable names and annual data dictionaries for the Business Enterprise and R&D Survey (BERD), the Business R&D and Innovation Survey (BRDIS), and the Annual Business Survey (ABS). Unfortunately, there is no publicly available documentation of NCSES innovation microdata or the revisions and improvements to the Survey of Industrial R&D (SIRD) implemented with the 2008 BRDIS introduction or the 2018 transition from BRDIS to BERD. Details regarding sampling, response – including survey skip patterns and valid tabulation scoping criteria are not presented within the FSRDC documentation. For example, the microdata do not contain coding to distinguish between valid skips and non-response. These represent barriers to current and future data users.

The primary purpose of this fellowship centers on learning to improve federal survey documentation for all NCSES business microdata available through the FSRDC network including SIRD, BRDIS, BERD and ABS. As appropriate, the documentation will be made available through working paper(s), presentation of data descriptions and summary statistics, and through the FSRDC network (i.e., protected under Title 13 and 26). This will produce programs that recreate tabulated survey aggregates for SIRD, BRDIS, BERD, and ABS to demonstrate appropriate usage of NCSES data. Because tabular estimates of NCSES business data are produced within Census internal estimation systems, no such resources are available to researchers. Additionally, this will produce programs that link NCSES surveys such as BERD and ABS with each other and with Census administrative data such as the Longitudinal Business Database. Finally, in addition to the documentation and programs, the fellow will collaborate with NCSES and Census to make recommendations for a sustainable approach to ensure appropriate microdata documentation is made available for future survey cycles.

Questions about this opportunity should be sent to NSF-NCSES@orise.orau.gov.

References

Adams, J (1994). “A Guide To R&D Data At The Center For Economic Studies U.S. Bureau Of The Census,” Center for Economic Studies Working Paper Number CES-94-09. Available at:
<https://www.census.gov/library/working-papers/1994/adrm/ces-wp-94-09.html>

Christina Davis, C., Steven Deitz, and Christina Freyman (2018). “BRDIS

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Microdata Research Report," NCSES V Task Order 28.

Where will I be located?

This Research Fellowship is a hybrid role and requires in-person participation at the NSF headquarter in Alexandria, VA.

Participant Benefits

Participants will receive a stipend to be determined by NCSES. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location.

Other benefits may include the following:

- Health Insurance Supplement. Participants are eligible to purchase health insurance through ORISE.
- Training and Travel Allowance

Duration

This Research Fellowship is a 12-month appointment and can be extended for a total period of five years based on performance and need. The participant will not enter into an employee/employer relationship with ORISE, ORAU, DOE, NSF, 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 ideal candidate will have:

- Experience with computer software programs such as SAS and STATA (preferred but not required).
- Prior experience providing constructive and strategic solutions.
- Strong verbal and written communication skills
- Curiosity, attention to detail, and the ability to work efficiently and attentively.
- Ability to contribute independently and as part of a team.
- Strong critical thinking and decision-making skills.

Census Bureau Special Sworn Status (SSS)

The selected participant must obtain Special Sworn Status (SSS) from the Census Bureau. SSS is not required prior to starting. To obtain a SSS, an individual must be a U.S. citizen or meet the following criteria: 1) have a formal affiliation with a US institution and possess a current visa (F, H, J) permitting work in the US, or have a Lawful Permanent Residence Card, 2) have 3 years of US residence within the past 5 years and 3) provide copies of current visa, permanent resident card, and the picture page of passport. If an individual is in the United States on a student visa, a copy of Form I-20 will be requested.

Eligibility • **Citizenship:** LPR or U.S. Citizen

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- Requirements**
- **Degree:** Master's Degree or Doctoral Degree.
 - **Discipline(s):**
 - **Business** ([11](#) 👁)
 - **Computer, Information, and Data Sciences** ([17](#) 👁)
 - **Social and Behavioral Sciences** ([30](#) 👁)
 - **Age:** Must be 18 years of age