

Organization National Science Foundation (NSF)

Reference Code NSF-NCSES-2023-0002

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Application Deadline 7/20/2023 3:00:00 PM Eastern Time Zone

Description

NCSES Research Ambassadors Program

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!

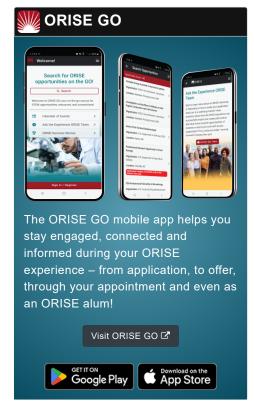
"A research experience at NCSES should always be sought, regardless of what your strengths or fields of study may be!"
—Alexis Doreste, NCSES Fellow

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

What will I be doing?

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 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 does 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 is to improve the 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) presenting 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.

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:https://www.census.gov/library/working-papers/1994/adrm/ces-wp-94-09.html

Christina Davis, C., Steven Deitz, and Christina Freyman (2018). "BRDIS Microdata Research Report," NCSES V Task Order 28.

Where will I be located?

This Research Fellowship is fully remote.

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, 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 Computer Software

Experience with programs such as SAS and STATA are preferred but not required.

Additionally, the ideal candidate will have:

- 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.

A complete application consists of:

- Complete Zintellect profile
- Essay Questions The application includes questions specific to the opportunity.
- Current Resume/CV
- Academic Records: The applicant must submit records for the most recent degree or degree in progress. Unofficial transcripts or copies of academic records provided by the applicant or by academic advisors from internal institutional systems may be submitted.
- One (1) Recommendation: Applicants are required to provide contact information for at least one recommendation in order to submit the application. You are encouraged to request a recommendation from a professional who can speak to your abilities and potential for success as well as your scientific capabilities and personal characteristics. Recommendation requests must be sent and submitted through the Zintellect application system.
 Recommendations submitted via email will not be accepted.

All documents must be submitted via Zintellect. All application components must be received in the system in order to be considered.

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, send an email to NSF-NCSES@orise.orau.gov. Please list the reference code of this opportunity in the subject line of the email.

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

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Eligibility Requirements

- Citizenship: LPR or U.S. Citizen
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- Academic Level(s): 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 ⑤)
- Earth and Geosciences (21 ⑤)
- Engineering (27 ⑤)
- Environmental and Marine Sciences (14 ●)
- Life Health and Medical Sciences (48 ●)
- Mathematics and Statistics (11
- Other Non-Science & Engineering (13 ●)
- Physics (16 ●)
- ∘ Science & Engineering-related (2 ●)
- Social and Behavioral Sciences (29 ●)
- Age: Must be 18 years old by 3/24/2023