

## **PREP Research Associate for NIST Hurricane Maria Program and Community Resilience Program**

This position is part of the National Institute of Standards (NIST) Professional Research Experience (PREP) program. NIST recognizes that its research staff may wish to collaborate with researchers at academic institutions on specific projects of mutual interest, thus requiring that such institutions must be the recipient of a PREP award. The PREP program requires staff from a wide range of backgrounds to work on scientific research in many areas. Employees in this position will perform technical work that underpins the scientific research of the collaboration.

### **Research Title:**

Research Associate for NIST Hurricane Maria and Community Resilience Programs

### **The work will entail:**

The National Institute of Standards and Technology's National Windstorm Impact Reduction Program Study of Hurricane Maria's Impacts and Recovery in Puerto Rico includes a project focused on the recovery of schools and hospitals in Puerto Rico. The objective of the Recovery of Social Functions project is to identify the underlying characteristics and conditions associated with recovery of critical social functions from Hurricane Maria in Puerto Rico and to examine the recovery trajectories of sampled schools and hospitals. This project also includes investigation of the interdependencies of the broader community (e.g., households, businesses) and the social functions provided by schools and hospitals. Data were collected using surveys and interviews of K-12 schools and hospitals in Puerto Rico following Hurricanes Maria and Fiona. <https://www.nist.gov/topics/disaster-failure-studies/hurricane-maria/hurricane-maria-projects-0>

The primary activities for the research associate include the analysis of school and hospital impacts and recovery in Puerto Rico following Hurricane Fiona. This role requires the application of both quantitative and qualitative methodologies, as well as narrative and technical writing skills. The research associate will contribute to the development of reports, other publications, and presentations that communicate study findings to inform practical guidance and, ultimately, shape broader organizational resilience frameworks. Responsibilities also include supporting the development of data collection instruments (e.g., surveys and interview guides) and documentation required for approvals (e.g., Institutional Review Board, Office of Management and Budget Paperwork Reduction Act). Additionally, the work involves research and publications on related topics such as organizational resilience, community recovery, data collection following disasters, and measurement using social science methods.

This work supports additional efforts of the NIST Community Resilience Program <https://www.nist.gov/community-resilience> to develop the measurement science needed for concepts of recovery and resilience. Specifically, the work overlaps in the area of organizational resilience. In this area, the research associate will contribute to the development of publications as well as generalized survey and interview instruments that can be used to improve standardized measurement of impacts and recovery for organizations following disruptions such as natural hazards.

**Key responsibilities will include but are not limited to:**

- quantitative and qualitative analysis of data
- narrative and technical writing
- communication of results through reports, other publications, and presentations
- support the development of data collection instruments (e.g., surveys and interview guides)
- support in developing documentation required for approvals (e.g., Institutional Review Board, Office of Management and Budget Paperwork Reduction Act),
- research and publications on related topics including organizational resilience, community recovery, data collection following disasters, and measurement using social science methods

### **Qualifications**

- A Master's degree in geography, sociology, or a related social science field
- At least 3 years of relevant expertise in research related to community and organizational resilience, quantitative and qualitative methodologies, and hazard impacts
- Experience on interdisciplinary research teams
- Strong oral and written communication skills
- Ability to develop scientific presentations and publications
- Prior experience working on disaster studies preferred
- US citizens preferred

### **Privacy Act Statement**

**Authority:** 15 U.S.C. § 278g-1(e)(1) and (e)(3) and 15 U.S.C. § 272(b) and (c)

**Purpose:** The National Institute for Standards and Technology (NIST) hosts the [Professional Research Experience Program \(PREP\)](#) which is designed to provide valuable laboratory experience and financial assistance to undergraduates, post-bachelor's degree holders, graduate students, master's degree holders, postdocs, and faculty.

PREP is a 5-year cooperative agreement between NIST laboratories and participating PREP Universities to establish a collaborative research relationship between NIST and U.S. institutions of higher education in the following disciplines including (but may not be limited to) biochemistry, biological sciences, chemistry, computer science, engineering, electronics, materials science, mathematics, nanoscale science, neutron science, physical science, physics, and statistics. This collection of information is needed to facilitate administrative functions of the PREP Program.

**Routine Uses:** NIST will use the information collected to perform the requisite reviews of the applications to determine eligibility, and to meet programmatic requirements. Disclosure of this information is also subject to all the published routine uses as identified in the Privacy Act System of Records Notices: NIST-1: NIST Associates.

**Disclosure:** Furnishing this information is voluntary. When you submit the form, you are indicating your voluntary consent for NIST to use the information you submit for the purpose stated.