

**Research Participation Program  
National Exposure Research Laboratory  
U.S. Environmental Protection Agency  
Research Triangle Park, NC**

**Project # NERL-AMD-RTP 2007-04**

A research project is available through the Research Participation Program at the U.S. Environmental Protection Agency (EPA), National Exposure Research Laboratory (NERL) at Research Triangle Park, North Carolina. Under the guidance of a research mentor in the Atmospheric Modeling Division (AMD), the research fellow will participate in conducting statistical analysis in support of a health assessment.

The assessment will examine approaches to track potential respiratory health impacts resulting from control actions. The specific objective is to characterize and track the magnitude of changes in hospital admissions for respiratory diseases in NYS during 1997-2005, and before and after the implementation of the NO<sub>x</sub> SIP Call. The design of this study includes a longitudinal and a cross-sectional component. The longitudinal component will compare the number or rate of respiratory hospital admissions pre- and post-implementation of the NO<sub>x</sub> SIP call, while controlling to the extent possible, temporal changes in important factors, such as temperature, population size/demographic composition, availability of hospitals/hospital beds, reporting and coding procedures, etc. This approach will minimize confounding factors due to socio-demographic characteristics by using the hospital admissions in the same geographic area pre-implementation as the control for the admissions post-implementation. The cross-sectional component will compare the rates between geographic regions in which ozone and NO<sub>x</sub> levels differ, while adjusting for many of the same influential factors mentioned above. This approach will control for seasonal and temporal trends in ozone and NO<sub>x</sub> levels resulting from other effects, such as other regulations implemented during the same time period.

The applicant should have received a master's in mathematics, statistics, or a related field within four years of the desired starting date. Substantive experience with statistical techniques for either time series analysis or analysis of spatially correlated data is desired. In addition, the candidate should have substantive experience in applying and interpreting statistical modeling techniques and be proficient with one or more statistical software packages (R, S-Plus, SAS, etc.). S/he should have familiarity with environmental data and have previously worked with either time series or spatially correlated data. Some experience in scientific/statistical programming and algorithm development is also important.

The program is open to all qualified individuals without regard to race, sex, religion, color, age, physical or mental disability, national origin, or status as a Vietnam era or disabled veteran. U.S. citizenship or permanent resident alien status is preferred. The participant must provide proof of medical insurance.

This appointment will be served at the State University of New York, Albany, New York. The appointment is for up to two years, though it may be renewed upon recommendation of NERL for an additional year. The participant will receive a monthly stipend commensurate with education and prior experience.

The EPA contact person for this project is Valerie Garcia. Her e-mail is [Garcia.Val@epa.gov](mailto:Garcia.Val@epa.gov).

**The Internship/Research Participation Program for EPA NERL is administered by the Oak Ridge Institute for Science and Education. *Please reference Project # NERL-AMD-RTP 2007-04 when calling or writing for information.* For additional information and application material**

**contact: Internship/Research Participation Program for EPA NERL, Attn: Betty Bowling, MS 36, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, Tennessee 37831 Phone: (865) 576-8503 Fax: (865) 241-5219 e-mail: [betty.bowling@ornl.gov](mailto:betty.bowling@ornl.gov).**

An application can be found at [www.ornl.gov/orise/edu/EPA/app-gugrgpd.pdf](http://www.ornl.gov/orise/edu/EPA/app-gugrgpd.pdf)