

**ANNOUNCEMENT FOR PERSONAL SERVICES  
CONTRACT FOR STUDENT SERVICES**

**U. S. Environmental Protection Agency  
Office of Research and Development  
National Exposure Research Laboratory  
Human Exposure and Atmospheric Sciences Division  
Exposure Modeling Research Branch**

**RFQ-RT-09-00220**

The U. S. Environmental Protection Agency's (EPA) Office of Research and Development (ORD) is seeking individuals, at least 18 years of age, who are students with a Master's degree in mathematics, statistics, computer science, engineering, earth sciences, environmental sciences, atmospheric sciences, chemistry, physics, toxicology, physical sciences, public health or related field to provide services under a contractual agreement with its National Exposure Research Laboratory (NERL) in Research Triangle Park, North Carolina.

ORD/NERL conducts research and development leading to improved methods, measurements and models to assess and predict human health and ecosystem exposures to harmful pollutants and other hazardous substances in air, water, soil and food. One component of this work is to develop computer models that allow researchers to estimate human exposures to various multimedia pollutants. The Exposure Modeling Research Branch conducts research in developing, applying and evaluating human exposure models capable of determining population exposures to potentially hazardous substances.

Human health risk assessments within the U.S. Environmental Protection Agency (EPA) are now evolving toward cumulative assessments, which address risks to individuals accumulated over time and space from exposures to multiple chemical and non-chemical stressors. Communities are faced with challenges in identifying and prioritizing environmental issues, taking actions to reduce their exposures, and determining how effective those actions are for reducing human health risks. Adding to these challenges are difficulties in determining what tools are available and most relevant to a given community, and understanding how to use those tools; thus, community groups tend to rely more on risk perception than science. The EPA's Office of Research and Development, National Exposure Research Laboratory (NERL) and collaborators are developing and applying exposure assessment tools for advancing the understanding of cumulative risk to communities and individuals.

The goal of NERL's "Cumulative Communities Research Program" is to develop, apply, and provide tools for advancing the science and understanding of cumulative risk to communities and individuals. This research moves beyond regulatory or legislative mandates to understand risk in the real world context of public health protection. Research was initiated in response to recommendations from the National Academy of Sciences, National Academy of Public Administration, and EPA's Science Advisory Board. It also responds to requests from EPA regions and local communities to conduct community-based cumulative risk assessment. The NERL research program focuses on three main science questions: (1) How to systematically identify and prioritize key chemical stressors within a given community?; (2) How to develop estimates of exposure to multiple stressors for individuals in epidemiologic studies?; and (3) What tools can be used to assess community-level distributions of exposures for the development and evaluation of the effectiveness of risk reduction strategies?

Tools for this project will address these science questions, and could include information, strategies, exposure models, databases, sampling/analytical methods, and GIS maps. The focus is primarily chemical stressors and the human exposure component of the source-to-outcomes human health continuum (source->concentration->exposure->dose->risk->outcomes); however, NERL is collaborating with other groups in ORD and EPA focusing on other stressors and source-to-outcome components. Partners and stakeholders of this Research Program include EPA's Community Action for a Renewed Environment program participants (comprised of EPA regional offices, state and city agencies, and community and tribal groups); EPA program offices; academia; and other federal agencies.

Key science issues, research needs, and data gaps were identified through a literature review and dialogue with partners and stakeholders. Available guidance documents, community environmental issues, exposure models,

methods for community measurement collection, databases, and GIS tools have been inventoried and compiled into an easily accessible format. Existing databases and GIS tools were applied and assessed in several community case studies. A multi-chemical Exposure Model for Individuals (EMI) is being developed to support epidemiology studies such as the large scale National Children's Study. From the initial needs assessment, ORD scientists have designed and developed a prototype Community-Focused Exposure and Risk Screening Tool (C-FERST) that will serve as a research framework for planning and implementing cumulative exposure research in communities, populations, and individuals.

The student contractor shall assist in performing tasks including, but not limited to the following:

- assist with developing models of human exposure for multiple chemicals at the community and individual level;
- assist with applying and assessing modeling tools and C-FERST to specific community case study(ies);
- collect and/or develop information (e.g., fact sheets, weblinks, data, best practices, and maps) on sources, concentrations, exposures, risks, and/or health effects for different community environmental issues in C-FERST;
- review, compile, and assess information on "non-chemical stressors" or risk modifying factors for particular chemical stressors and case studies;
- identify new approaches for developing/improving models for broad application across pollutant types, input datasets, and community research projects;
- collect and analyze relevant data for the models;
- identify and analyze databases that might demonstrate environmental and public health impacts related to funded EPA projects (e.g. collect and analyze States asthma data, such as hospitalization admissions, to determine if changes correspond to state or local actions, such as smoking bans or increased asthma education);
- review and summarize available risk ranking approaches that may be applicable to cumulative risk assessments for communities;
- collaborate and interact with community partners to develop models, apply tools and analyze data to support community case study(ies) and cumulative risk assessments; and
- communicate results to the EPA project team and the broader scientific community (through oral presentations and coauthoring journal article manuscripts).

Expertise in exposure model development, the application of exposure models to specific case studies, and evaluation of the effectiveness of exposure models is highly desirable along with the ability to work in multidisciplinary teams and communicate results. The student may be tasked to perform an analysis of exposure model inputs and outputs to characterize the variability and uncertainty of resulting exposure estimates. The student contractor may be expected to participate in conferences and seminars in support of the Statement of Work (SOW).. The duties of the student contractor are fully described in the contract SOW.

The work is expected to begin approximately September or October 2009. The initial period of the contract will be for a period of 12 months from the anticipated start date, with an option for an additional 3 months. The total hours for the first year are not-to-exceed 1928 hours; for the option period, not-to-exceed 1490 hours. It is anticipated that the student contractor will work no more than 40 hours per week with the majority of the work being performed Monday through Friday between the hours of 8:00AM and 4:30PM. The position will be located at the US EPA's National Exposure Research Laboratory (NERL) Research Triangle Park (RTP), North Carolina. U.S. citizens are eligible to participate in this program. Non-U. S. citizens may be eligible to participate, depending on their immigration/visa status and the applicable regulations of the United States Citizenship and Immigration Services (USCIS), formerly known as the Immigration and Naturalization Service (INS). Students, who are EPA/ORD employees, or the spouse or child of an EPA/ORD employee, are not eligible to participate. The student contractor will be paid on an hourly basis (\$28.62 per hour). Student contractors will be provided the hourly rate and will be instructed to develop a proposal based on the stated hourly rate. This will allow price to be an equivalent comparison factor for all student contractors/offerees. If a student contractor prepares and submits a proposal based

on an hourly rate other than that stated in the solicitation, the proposal must be accompanied by an explanation indicating why the provided hourly rate/price was not proposed.

Student contractors will only be paid the basic hourly rate for any hours worked beyond 40 hours during a work week. Student contractors do not accrue leave, compensatory time, or holiday benefits and are not paid for any non-work days, regardless of the reason.

The student contractor is considered an independent contractor, therefore Federal, State, Local, Social Security, and Medicare taxes will not be withheld. Student contractors are responsible for reporting income to authorities and paying taxes.

Interested student contractors may apply for this opportunity by providing the proposed hourly rate, all college transcripts (copies are acceptable, if it is apparent it is a copy of an official document), documentary evidence from USCIS (if appropriate), and a one or two page resume or statement of qualifications including:

- Full legal name
- Mailing address
- E-Mail address
- Telephone number
- Date of Birth
- Place of Birth
- Citizenship or immigration/visa status (documentary evidence from BCIS)
- Description of recent classes relevant to the SOW
- Work experience (paid or volunteer) related to scientific field(s) listed in SOW
- Analytical laboratory experience (if applicable)
- Scientific publications, including a description of the student's participation
- Copy of all college/university transcripts including a listing of courses taken and overall grade point average

Attach a copy of all your college/university transcripts, listing courses taken, grades, and overall GPA (unofficial copies are acceptable, if it is apparent from the transcript copy that it is a copy of an official document and that the school is identified), listing courses taken, grades, and overall GPA. Send these materials to: William Goins, Contracting Specialist, via email at [goins.william@epa.gov](mailto:goins.william@epa.gov) or via fax, with cover page, to (919) 685-3427. The applications/resume submission deadline will be listed at the website below.

Prior to submitting a proposal for this contract, you should visit the EPA procurement home page at [http://www.epa.gov/oam/rtp\\_cmd/](http://www.epa.gov/oam/rtp_cmd/) to learn the full details of the contract. You should visit the website periodically to check the status of this procurement and to see whether or not any amendments (changes to the requirement of the posted contract) have been issued. If you have any questions on the information contained on the website, contact William Goins, Contracting Specialist, via email at [goins.william@epa.gov](mailto:goins.william@epa.gov) or via fax, with cover page, to (919) 685-3427.

Any proposal received at the designated Government office after the exact date/time specified for receipt is "late" and will not be considered unless it is received before contract award is made and the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition, and:

- .It was transmitted electronically and received at the initial point of entry to the Government infrastructure no later than 5:00p.m., one working day prior to the date established for receipt; or
- .There is acceptable evidence to establish it was received at the Government installation and was under the Government's control prior to the date/time set for receipt; or

.It was the only proposal received.

However, a late modification of an otherwise successful proposal, which was received by the Government prior to the date/time, specified for receipt, that makes its terms more favorable to the Government will be considered anytime it is received and may be accepted.

Acceptable evidence to establish the time of receipt at the designated Government office/installation includes the date/time stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony of statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the designated office by the exact date/time specified, and urgent Government requirements preclude amendment of the announcement, the date/time specified for receipt will be deemed extended to the same time of day specified on the first work day on which normal Government processes resume.

The Government will make contract awards based on all factors other than price. This is because the student's/recent graduates' knowledge and skills, academic and work experience, training and coursework as it relates to the services described in the Announcement is significantly more important than price. Personal interviews may be conducted with the most promising candidates. The Government may elect to award contracts to multiple students under this announcement.

The evaluation of student's resumes or statements of qualification will be based on the following evaluation factors: field of undergraduate degree; field of graduate degree; experience/coursework in stochastic modeling/Monte Carlo simulation/algorithms; experience/coursework in modeling/scientific programming; experience/knowledge in applying exposure models; experience/knowledge of community health/risk assessment issues.

Students or recent graduates who perform under contract to EPA must have a checking or savings account at a financial institution that will accept direct deposits of Federal funds for Electronic Funds Transfer (EFT) prior to award and must register with the Central Contract Registration (CCR) and Dun and Bradstreet (D&B). To register with D&B and obtain a DUNS number, the selected student contractor(s) can call D&B at 866-705-5711 or contact D&B at <http://www.dnb.com/update>. To register for the CCR, the selected student contractor(s) can call CCR at 888-227-2423 or 296-961-5757 or contact CCR at <http://www.ccr.gov>. There is no charge to register for CCR or a DUNS number. Students or recent graduates who perform under contract to EPA are required to undergo a background investigation consisting of a check of Federal Bureau of Investigation (FBI) name and fingerprint files, and a suitability determination. Selected students will be provided copies of the appropriate forms, instructions on the completion of those forms, and submission requirements.

Student contractors are responsible for all costs of transportation to and from the principal duty station/location. EPA does not provide nor pay for housing, meals, or other living expenses while working at the principal duty station/location. If performance of the contract requires overnight travel, the student contractor will travel under the rules and procedures established for Federal employee travel.

EPA will be responsible for compensating student contractors in the same manner as Federal employees for any injury suffered while performing services under this contract. Student contractors are protected from personal common-law tort liability for damages to third parties arising out of his/her work under the same broad-based immunity provided to Federal employees while performing services. Properly licensed student contractors may be permitted to operate Government vehicles, if required to do so by the SOW.

Student contractors will be required to comply with Federal requirements for Standards of Ethical Conduct and Conflict of Interest.

Students or recent graduates may be offered, at Government expense, non-mandatory vaccinations, immunizations, treatments, medical examinations, and health and safety training to safeguard their health prior to beginning certain types of work which may expose them to health or safety risks in the environment.

Students or recent graduates selected for this contract will receive more information about these issues prior to contract award.