

FEDERAL CAREER INTERN PROGRAM
U.S Environmental Protection Agency
The U.S. Environmental Protection Agency is accepting applications for:
Mathematical Statistician

The U.S. Environmental Protection Agency's Office of Pesticide Programs (OPP)/Health Effects Division is interested in hiring an individual with a background in applied mathematics, mathematical statistics, biostatistics, or operations research for full-time employment. OPP's Health Effects Division is responsible for performing human health risk assessments for pesticides including characterizing and assessing exposure and risks to humans through the food, drinking water, and occupational and residential use exposure pathways. We make extensive use of Monte-Carlo methods and a variety of surveys on food consumption and pesticide residues in food to develop probabilistic distributions of pesticide exposure to the population. The Division is beginning to evaluate occupational and residential exposures using probabilistic methods and is currently involved in extensive data collection efforts.

Although the candidate is not expected to have knowledge or proficiency in many (or even most) of these areas, some of the statistical topics with which we are involved include:

- probabilistic exposure assessments and Monte-Carlo techniques;
- maximum likelihood estimation;
- power and sample size calculations;
- trend analysis;
- logistic regression and generalized linear models;
- mixed models (aka hierarchical or random coefficient models);
- simulation exercises/bootstrapping;
- multivariate statistics (e.g, PCA);
- repeated measures analysis;
- statistics associated with toxicology studies (including survival analysis);
- survey statistics; and
- experimental design

Examples of current activities involving statistics include various statistical procedures and issues associated with crop field trials and establishment of maximum residue limits; CDC's National Health and Nutrition Examination Survey (NHANES) biomonitoring data; USDA's Continuing Survey of Food Intake by Individuals (CSFII) and the NHANES dietary survey data; USDA's Pesticide Data Program (PDP); and environmental indicator and performance measures.

The ideal candidate would (i) possess an M.S. degree in Statistics/biostatistics, Applied Mathematics, Operations Research, etc.; (ii) have an interest and relevant coursework/experience in one or more of the above indicated areas; and (iii) have programming experience/knowledge of SAS, S-plus/R, or other statistical packages.

Positions would be filled at the GS-7 (Salary range: \$39,330-\$51,124) and GS-9 (Salary Range: \$48,108-\$75,669) levels, with promotion potential to GS-13 (Salary Range: \$82,961 – 107, 854)

We are located in Arlington, VA (near Washington D.C.) and accessible by Metro. U.S. citizenship is required.

For further information regarding this announcement, contact David J. Miller at miller.davidj@epa.gov not later than March 21.

We expect to interview in the Atlanta area on Tuesday, March 25 at the Atlanta Workforce Development Agency (AWFDA) Job Fair.

The US EPA is an equal opportunity employer.