WSS NEWS

**WASHINGTON
STATISTICAL
SOCIETY**

17th Annual Morris Hansen Lecture

Joe Sedransk, Professor of Statistics (Case Western Reserve University), will give the 17th Annual Morris Hansen Lecture on Tuesday, October 30, at 3:30 p.m. in the Jefferson Auditorium of the Department of Agriculture's South Building (Independence Avenue SW, between 12th and 14th Street).

Dr. Sedransk will speak on "Assessing the Value of Bayesian Methods for Inference about Finite Population Quantities." Donald Malec (Bureau of Census) will be the chair while Nathaniel Schenker (National Center for Health Statistics) and David Binder (Statistics Canada) will be the discussants. A reception will follow the lecture. The Hansen Lecture Series is sponsored by the Washington Statistical Society, Westat, and the National Agricultural Statistics Service.

The USDA's South Building is between 12th and 14th Streets at the Smithsonian Metro Stop (Blue Line). Enter through Wing 5 or Wing 7 from Independence Ave. (The handicapped entrance is at 12th & Independence). A photo ID is required.

Please pre-register for this event to help facilitate access to the building. Pre-register on line at http://www.nass.usda.gov/morrishansen/ .

WSS and Other Seminars
(All events are open to any interested persons)

October
  16   Tues.   **Protecting the Confidentiality of Tables by Adding Noise to the Underlying Microdata**

  24   Wed.   **Estimating the Measurement Error in the Current Population Survey Labor Force - A Mixture Markov Latent Class Analysis Approach**

  25   Thurs.   **Statistical Issues and Challenges Arising from Analysis of Genome-Wide Association Studies**

  30   Tues.   **Morris Hansen Lecture
Assessing the Value of Bayesian Methods for Inference About Finite Population Quantities**

November
  7   Wed.   **Cell Lines, Microarrays, Drugs and Disease: Trying to Predict Response to Chemotherapy**

Also available on the Web at the following URL: http://www.scs.gmu.edu/~wss/

Announcement

104th Meeting of the Committee on National Statistics

The National Academies, NAS Building, 2100 C St., NW, Washington, DC

Thursday, October 25, 2007
Open Session
Public Seminar and Reception

2:30 p.m.   Light refreshments for Seminar Guests
                 NAS Great Hall

Seminar (Auditorium)

3:00   Welcome and Introduction
                  Joseph Newhouse, CNSTAT and Harvard University

3:05   Developments at the OMB Statistical and Science Policy Office
                 Katherine K. Wallman, Chief Statistician

3:20   Featured Topic Alan Krueger on "National Time Accounting: The Currency of Life"

Abstract: Alan Krueger, Bendheim Professor of Economics and Public Affairs at Princeton
                 University, will report progress on measuring subjective well-being in relation to
                 how people use their time. Economists traditionally have avoided direct measures
                 of well-being, instead often using income as a proxy for opportunities and well-
                 being. However, advances in psychology and neuroscience suggest that experienced
                 utility and well-being can be measured with some accuracy and that such measures
                 relate in a predictable manner to health outcomes and other objective measures.
                 Much of the literature uses a question on overall life satisfaction or happiness; the
                 work of Professor Krueger and his colleagues takes an alternate route based on time
                 budgets and affective ratings of experience.

                 Professor Krueger will present results from the Day Reconstruction Method (DRM)
                 and the Princeton Affect and Time Survey (PATS), combined with historical data on
                 time use. He will present evidence on the reliability and validity of subjective
                 well-being measures and will use the DRM and PATS data to compare time use and
                 well-being over time and across countries. His work offers the prospect of advances
                 in the development of national indicators that provide important information for
                 policy makers and the public.

4:00   Discussion
                 Katharine Abraham, CNSTAT and Joint Program in Survey Methodology

4:20   Floor discussion

4:45   Reception - Great Hall

5:45   Adjourn

Note: All venues are handicapped accessible.

Please RSVP by October 23 to Bridget Edmonds at 202-334-3096 or cnstat@nas.edu.

Program Announcement

Title: **Protecting the Confidentiality of Tables by Adding Noise to the Underlying Microdata**

Speaker: Paul B. Massell, Statistical Research Division, U.S. Census Bureau

Discussants: Richard Clayton, Office of Employment and Unemployment Statistics, BLS
John Ruser, Office of Compensation and Working Conditions, BLS

Chair: Anne Polivka, BLS

Date/time: Tuesday, October 16, 2007 / 12:30 – 2:00 p.m.

Location: Bureau of Labor Statistics Conference Center. To be placed on the seminar attendance list at the Bureau of Labor Statistics you need to e-mail your name, affiliation, and seminar name to wss_seminar@bls.gov (underscore after `wss') by noon at least 2 days in advance of the seminar or call 202-691-7524 and leave a message. Bring a photo ID to the seminar. BLS is located at 2 Massachusetts Avenue, NE. Take the Red Line to Union Station.

Sponsor: WSS Economics Section

Abstract: Users of statistical tables released by the Economic Directorate of the U.S. Census Bureau have raised the issue of whether an alternative to cell suppression can be used to protect the confidentiality of such tables. These users would like to have access to at least an approximate value for each cell, except possibly for those cells that are the most sensitive. An alternative method was developed several years ago by researchers at the Census Bureau that successfully meets that goal. This method uses a carefully calibrated noise distribution to generate noise which is then added to the microdata values of a magnitude variable requiring protection. These noisy microdata values are then tabulated to form the cell values for all the tables in a statistical program that describe that variable (e.g., receipts for Non-Employer Statistics). This method is conceptually simple and easy to implement; in particular, it is much simpler than cell suppression. The main concerns are whether noise protected tables are fully protected and whether the noisy cell values are as or more useful to users than the combination of exact and suppressed values provided by cell suppression. The seminal paper by Evans-Zayatz-Slanta (J. Official Statistics, 1998) showed that this was clearly true for the survey analyzed in that paper. The work presented in this paper provides analysis for additional surveys with different features than the survey described in the earlier paper. We present general protection arguments that involve ways of relating the uncertainty provided by noisy values to the required amount of protection. We present graphs which show the different distributions of net noise on the set of sensitive cells versus that for the non-sensitive cells. We also discuss some ways to fine-tune the algorithm to a particular table, taking advantage of its special characteristics. We call this new variation 'balanced EZS noise'. Our conclusion is that when EZS noise is appropriately applied, it fully protects tables while usually releasing more useful data than cell suppression. The possible application of EZS noise to a variety of statistical programs within the Economic Directorate is currently being researched.

Program Announcement

Topic   **Estimating the Measurement Error in the Current Population Survey Labor Force - A Mixture Markov Latent Class Analysis Approach**

Speakers: Professor Jeroen Vermunt, Tilburg University, Netherlands
                 Dr. Jay Magidson, President Statistical Innovations, Boston MA

Date/Time: Wednesday, October 24, 2007
                 9:00 a.m. - 12:00 p.m.: Research results to enhance the LCA model for complex sample design, weighting and the modification of software
                 1:30 p.m. - 3:30p.m.: (Application of Mixed LCA models to provide measurement error for current surveys)

Location: U. S. Census Bureau, 4600 Silver Hill Road, Auditorium, Suitland, Maryland. By Metro, use the Green Line to Suitland Station and walk through the Metro parking garage to the main entrance of the Census Bureau. Please send an e-mail to Shirrell.Adams@census.gov at (301) 763 - 5955, or Alexis.D.Reese@census.gov at (301) 763 - 4080, to be placed on the visitors list for this seminar by October 12, 2007. A photo ID is required for security purposes.

The Demographic Statistical Methods Division (DSMD) of the Census Bureau, among other things, is responsible for conducting research to implement more timely and less costly methods to estimate and prevent measurement error in demographic surveys. Latent Class Analysis (LCA) is an alternative approach to achieve this goal in contrast to the current reinterview methodology. Historically, at the Census Bureau, the research into LCA (First-order Markov Latent Class Model) was subject to non-complex sample designs. The DSMD has continued its research to improve the use of LCA for estimating response error. Through the most recent partnership with Westat and Statistical Innovations, the DSMD was able to accomplish this goal by conducting a thorough violation study that incorporates complex sample design with weighting and heterogeneity across latent classes. In addition, the research also incorporated an aspect to modify existing software to estimate the models.

This symposium will provide the research results of that partnership, as well as a session on how to apply the enhanced model to estimate measurement error in current surveys.

This event is accessible to persons with disabilities. Please direct all requests for sign language interpreting services, Computer Aided Real-time Translation (CART), or other accommodation needs, to HRD.Disability.Program@census.gov.   If you have any questions concerning accommodations, please contact the Disability Program Office at 301-763-4060 (Voice), 301-763-0376 (TTY).

About the speaker: Dr. Vermunt is a professor in the Department of Statistics Research and Methodology at the University of Tilburg, Netherlands. Dr. Vermunt is the first recipient of the Leo Goodman Award of the ASA Methodology Section (2005). Dr. Vermunt's primary methodological contributions are in the area of categorical data analysis, with particular attention to latent heterogeneity. Using a latent class analysis approach, he has incorporated into log-linear event history analysis methods for handling missing data, unobserved heterogeneity, censoring, and measurement error. He has also successfully applied the same approach to classification and clustering analysis, and multi-level and random coefficient models for categorical data. In his recent work, he has made original and important contributions to the analysis of ordered data with different flexible constraints. Now, with the Census Bureau, Dr. Vermunt showed that the mixture Markov latent class model has a better fit (than previous models) in estimating the Current Population Survey labor force classification errors.

Agenda

October 24, 2007

8:45 am	Refreshments

9:15 am   Introductory Remarks
            Ruth Ann Killion, Chief, Demographic Statistical Methods Division
            Candice Barnes, Chief, Survey Response Analysis Branch

9:30 am   Research results to enhance the LCA model for complex sample design, weighting
            and the modification of software
            Dr. Jeroen Vermunt, Tilburg University, Netherlands
            Dr. Jay Magidson, President, Statistical Innovations

11:00am   Question/Answer

12:00   Lunch

1:30 pm   Workshop -- Application of Mixed LCA models to provide measurement error for
            current surveys
            Dr. Jeroen Vermunt, Tilburg University, Netherlands
            Dr. Jay Magidson, President, Statistical Innovations

3:30 pm   Wrap Up

4:00 pm   Adjourn

Note from the WSS NEWS Editor

Items for publication in the November issue of the WSS NEWS will be accepted until October 10, 2007. E-mail items to Michael Feil at michael.feil@usda.gov.

Program Announcement

Title: **Statistical Issues and Challenges Arising from Analysis of Genome-Wide Association Studies**

Chair: Rene Gonin, Westat

Speaker: Gang Zheng, National Heart, Lung, and Blood Institute

Date/Time: Thursday, October 25, 2007, 12:30 – 2:00 pm

Location: Bureau of Labor Statistics, Conference Center
                To be placed on the seminar list attendance list at the Bureau of Labor Statistics you need to e-mail your name, affiliation, and seminar name to wss_seminar@bls.gov (underscore after 'wss') by noon at least 2 days in advance of the seminar or call 202-691-7524 and leave a message. Bring a photo ID to the seminar. BLS is located at 2 Massachusetts Avenue, NE. Use the Red Line to Union Station.

Sponsor: Methodology Program, WSS

Abstract: With the advance of biotechnology and reduction of genotyping cost, a genome-wide association study testing association between a disease and 100,000 to 500,000 genetic markers (single nucleotide polymorphisms: SNPs) is feasible. Such a study consists of several stages, from quality control, a genome-wide single marker analysis, to more powerful regional analysis, replication studies. Statisticians face challenges in each of these stages. Consequentially, many statistical issues arise from the analyses. We will review and discuss these statistical issues and controversies.

Program Announcement

Title: **Cell Lines, Microarrays, Drugs and Disease: Trying to Predict Response to Chemotherapy**

Speaker: Keith Baggerly
                  Bioinformatics and Computational Biology
                  UT M. D. Anderson Cancer Center

Date/time: Wednesday. November 7, 2007 / 11a.m.-12noon

Location: Executive Plaza North
                  Conference Room G
                  6130 Executive Boulevard
                  Rockville, MD

Abstract: Over the past few years, microarray experiments have supplied much information about the disregulation of biological pathways associated with various types of cancer. Many studies focus on identifying subgroups of patients with particularly agressive forms of disease, so that we know who to treat. A corresponding question is how to treat them. Given the treatment options available today, this means trying to predict which chemotherapeutic regimens will be most effective. We can try to predict response to chemo with microarrays by defining signatures of drug sensitivity. In establishing such signatures, we would really like to use samples from cell lines, as these can be (a) grown in abundance, (b) tested with the agents under controlled conditions, and (c) assayed without poisoning patients.

                  Recent studies have suggested how this approach might work using a widely-used panel of cell lines, the NCI60, to assemble the response signatures for several drugs. Unfortunately, ambiguities associated with analyzing the data have made these results difficult to reproduce. In this talk, we will discuss the steps involved in attacking response prediction, and describe how we have analyzed the data. We will cover some specific ambiguities we have encountered, and in some cases how these can be resolved. Finally, we will describe methods for making such analyses more reproducible, so that progress can be made more steadily.

For Additional Information contact Lisa Poe at the Office of Preventive Oncology cpfpcoordinator@mail.nih.gov
(301) 496-8640

Announcement

GUIDELINES FOR WRITING QUESTIONS FOR STANDARDIZED MEASUREMENT:
A WORKSHOP A two-day short course sponsored by the Joint Program in Survey Methodology

MARCH 27-28, 2008
Presented at the Sheraton Crystal City Hotel, Arlington, Virginia

NORA CATE SCHAEFFER
University of Wisconsin-Madison

COURSE OBJECTIVES

- Introduce a structural analysis of parts of a survey question
- Introduce cognitive interviewing as a method for testing survey questions
- Describe guidelines for diagnosing problems in survey questions and writing new survey questions
- Provide an opportunity to apply the guidelines and principles during in-class exercises
- Focus on improving individual questions and sets of questions.
- Summarize research that underlies key decisions in writing survey questions

WHO SHOULD ATTEND?

Individuals in government, business, academia, and non-profit organizations who will be writing or reviewing survey questions or survey instruments or analyzing survey data. This course gives practical guidance to those who have written survey questions but who are not familiar with research on question design, those who are just beginning to design survey instruments, and those who use survey data but do not themselves design survey instruments.

THE INSTRUCTOR

Nora Cate Schaeffer is Professor of Sociology at the University of Wisconsin-Madison and Faculty Director of the University of Wisconsin Survey Center. She has over thirty years of experience in survey methodology and questionnaire design and has taught Questionnaire Design at the University of Michigan's Summer Institute in Survey Research. Her research has been published in Journal of the American Statistical Association, Public Opinion Quarterly, Sociological Methods and Research, and Sociological Methodology. She is co-editor (with Douglas W. Maynard, Hanneke Houtkoop-Steenstra, and Johannes van der Zouwen) of Standardization and Tacit Knowledge: Interaction and Practice in the Survey Interview.

TENTATIVE SCHEDULE

THURSDAY, MARCH 27, 2008

 7:30 - 8:30   Check-in and Continental Breakfast
 8:30 -10:30   Introduction: Parts of a Survey Question
10:30 -10:45   Morning Break
10:45 -11:45   Cognitive Interviewing to Test Survey Questions
12:00 - 1:00   Lunch
 1:00 - 2:30   General Guidelines for Writing Questions
 2:30 - 2:45   Afternoon Break
 2:45 - 3:30   Guidelines for Questions about Events and Behaviors
 3:30   Adjourn

FRIDAY, MARCH 28, 2008

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 7:30 -  8:30   Check-in and Continental Breakfast
 8:30 -10:00    Guidelines for Questions about Events and Behaviors (continued)
10:00 - 10:15   Morning Break
10:15 - 12:00   Guidelines for Questions about Subjective Things
12:00 -  1:00   Lunch
 1:00 -  2:45   Adapting guidelines for Self-administered Questionnaires
 2:45           Adjourn
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COURSE MATERIALS

Registrants will be provided with a course pack containing notes.

MEALS

JPSM group continental breakfasts, lunches and refreshments are included in the course fee.

SPONSOR AFFILIATE LIST:

https://projects.isr.umich.edu/jpsm/sponsorlist.cfm

FEES

The registration fee for staff at sponsoring agencies and affiliates is $600, $600 for full-time university students, and $810 for other participants. Payment by credit card is required. Post registration payment may be done online using the registration number or by calling
(800) 937-9320. Payment is required by March 13, 2008.

REGISTRATION

Online registration is required. Confirmation of acceptance will be sent after the registration form has been processed. Registration is not firm until you receive an acceptance email. The email will include directions to the course. The automatic web registration number is not an acceptance letter. Payment by credit card is required. Post registration payment may be done online using the web generated registration number or by calling (800) 937-9320. The registration deadline is March 13, 2008.

CANCELLATION

Please notify JPSM as soon as possible if you need to cancel your registration. Cancellation requests should be done online. You will be fully reimbursed if you cancel by March 13, 2008. Cancellation March 14-19, 2008 will require a $100 administrative fee, the remainder will be reimbursed. Cancellation on or after March 20, 2008 is subject to the full fee amount.

LOCATION

The course will be held at the Sheraton Crystal City Hotel, 1800 Jefferson Davis Highway, Arlington, Virginia. The Sheraton Crystal City Hotel is located in the "Crystal City" business district of Arlington, with nearby access to the Crystal City Metro Stop. Located at the intersection of 18th and Eads Street the hotel is 1 mile from Ronald Reagan National Airport

OVERNIGHT ROOMS

Individuals are responsible for making their own overnight reservations and for payment. A limited number of overnight rooms have been reserved for the JPSM Short Course at a rate of $249 per night. The "cut-off date" for accepting reservations into this room block is February 25, 2008. Contact the hotel's reservation department at (703) 486-1111 or 1-800-862-ROOM.

MINORITY FELLOWSHIPS

The Joint Program in Survey Methodology strives to increase the number of survey professionals from groups traditionally under-represented in the field. As part of this effort, a limited number of competitive minority fellowships are available to African-Americans, Hispanic Americans, and Native American Indians for the short course. Applicants should submit:

(1)   A 500-word essay describing their reasons for wanting to attend this short course and how their participation will enhance their chosen career path. The essay should indicate the applicant's race/ethnic background.
(2)   A recommendation written by a person knowledgeable about the applicant's aptitude and interest in survey methodology.
(3)   The course registration form.

If you are applying for a minority fellowship, please be certain to register early. Applications are due before February 28, 2008. JPSM will evaluate the applications and inform the successful applicants by March 6, 2008. The fellowship covers the registration fee for the course, including the cost of materials to be distributed during the course and lunch.

JPSM CITATION PROGRAMS

The citation programs are built around the JPSM short courses. The JPSM Citation in Introductory Survey Methodology is designed to provide the working professional and interested students with state-of-the-art knowledge about current principles and practices for conducting complex surveys combined with practical skills of day-to-day utility. The JPSM Citation in Introductory Economic Measurement is designed for professional staff requiring a grounding in the principles and practices of economic measurement. Completion of the citation programs involves taking a semester-length JPSM credit-bearing course and eight JPSM short courses, of which four are specified core courses. For information on the Certificate and Citation Programs visit the website at http://www.jpsm.org or call 301-314-7911.

INQUIRIES

Questions for this course should be directed to the JPSM Short Course, Institute for Social Research, University of Michigan, 426 Thompson Street, Room 4050, Ann Arbor, MI 48104-2321, Phone: (800) 937-9320, Fax:
(734) 764-8263, Email: jpsmshort@isr.umich.edu .

UNIVERSITY OF MICHIGAN TAX IDENTIFICATION NUMBER: 38-6006309

COURSE LISTS, REGISTRATION, PAYMENT AND CANCELLATION:
https://projects.isr.umich.edu/jpsm/index.html
SPONSOR AFFILIATE LIST:
https://projects.isr.umich.edu/jpsm/sponsorlist.cfm
JPSM HOME PAGE: http://www.jpsm.org Click on "Short Courses"

Primary Funding for JPSM is from the Interagency Council on Statistical Policy

Students' Corner

I am employed full-time as an imaging scientist at a small software company, while I'm also studying as a part-time student in the new Master's program in Biostatistics, at Georgetown University. The company I work for, Medical Numerics, focuses its efforts on the processing, analysis, and display of functional neuroimaging data, especially functional magnetic resonance imaging (fMRI) data. fMRI data is very interesting because the data can be processed and analyzed in many ways. For example, the data is 4-dimensional, having a time dimension in addition to the three spatial axes, so temporal as well as spatial methods come into play. For an overview of fMRI data analysis, see http://bjr.birjournals.org/cgi/reprint/77/suppl_2/S167 (Smith SM, Overview of fMRI analysis, Br J Radiol, 77 (2004), pp. S167-S175).

I have a colleague, "B.", who did an internship with the company last year. B. has since finished his Master's degree in electrical engineering, and is now employed full-time at the company as an imaging scientist, like me. He is currently working on (among other things) an fMRI data processing method in the time domain, and in this context brought an interesting math problem to my attention; he called it a "Math Challenge". Despite his mathematical skills -- and B. is very proficient -- he wasn't able to solve this problem.

I wasn't able to solve it either. (I fear that my teacher in Statistical Inference will be very disappointed in me!) I therefore turned to Yang Yang, a classmate in my program who has proven very adept at solving mathematical problems. As expected, Yang solved B.'s "Math Challenge" with dispatch.

Here is a statement of B.'s problem: http://bist.pbwiki.com/f/MathChallenge.pdf; you are hereby challenged to solve it. It involves an extension of the usual Gaussian log-likelihood function to time-series analysis. I will post Yang's solution next month. In the meantime, if you want to, you may send me your solution, and B. and I will proofread it. Email is fine; or send snail mail to Joe Maisog, Medical Numerics, 20410 Germantown Rd, Suite 210, Germantown, MD, 20876.

As a final note on this time-series theme, last month I mentioned that the cover story of the latest issue (#47) of Stats Magazine dealt with the problem of whether it was the chicken or the egg that came first. That article focused on the time-series analyses sometimes performed on econometric data. If you find time-series data intriguing, you should read that article! Similar problems with temporal autocorrelations arise in fMRI time-series data analysis.

That's all for this month. If you have any feedback on this column or ideas for future topics, please email me at jmm97@georgetown.edu. Your thoughts will be greatly appreciated.

Joe Maisog (with many thanks to B. and Yang)
Georgetown University / Medical Numerics

Further fMRI References

Ashburner J, Friston K, Penny W (eds.), Human Brain Function (2nd ed.), San Diego:Academic Press, 2003.

Jezzard P, Matthews PM, Smith SM (eds.), Functional MRI: An Introduction to Methods, Oxford:Oxford University Press, 2003.

Moonen CTW and Bandettini PA (Eds.), Functional MRI, Heidelberg:Springer, 2000.

Toga AW and Mazziotta JC, Brain Mapping: The Methods (2nd ed.), San Diego:Academic Press, 2002.

Also see the March/April 2006 issue of IEEE Engineering in Medicine and Biology (Volume 25, no. 2); the entire issue is devoted to fMRI.

Employment

As a service to local statisticians, *WSS News* provides notification of employment opportunities and description of those seeking employment here in the Washington, DC, area. Readers are encouraged to take advantage of this feature of the newsletter. The deadline for inserting notices is five (5) weeks before the publication date. Those interested should email or call Anne Peterson, at apeterson@insightpolicyresearch.com or (703) 373-6645.

CLINICAL TRIAL BIOSTATISTICIANS
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With an opportunity for substantial leadership responsibility in studies of international public health import.

The Biostatistics Center of The George Washington University, founded in 1972, is a leader in the statistical coordination of clinical trials conducted by the National Institutes of Health. We enjoy over $45 million per year of NIH research funding for major studies in cardiovascular disease, diabetes, maternal/fetal medicine, osteoporosis, urology, and the genetic basis for various diseases. The center has a staff of over 100 with 27 biostatisticians/epidemiologists, including 10 faculty. We are recruiting M.S. and Ph.D. level staff to participate in these and future studies. Please visit our web site (below).

Master's Level Research Positions: These positions require a Master's in Biostatistics or Statistics and 1-5 years experience in analysis, supervision of data management and study design for biomedical applications. Good written and oral communication skills, and detailed knowledge of SAS required. Send CV to address below.

Assistant to Full Research Professorial Positions are available immediately to serve as Co-Investigator or Principal Investigator (Project Director) and to provide statistical direction of the design, conduct and analysis of studies and the conduct of methodologic research to meet the projects needs. We are seeking individuals who want to join a highly competent team of academic biostatisticians and epidemiologists; who desire to contribute to the design and analysis of major medical studies, seek substantive scientific and statistical responsibility, enjoy interacting with medical investigators; take pride contributing to the publication of major papers in leading medical journals, and desire to make an impact on the public health. Our faculty also participate in graduate programs in biostatistics, epidemiology and statistics which afford opportunities for teaching at the graduate level. The research projects also provide an environment rich in methodological problems, with opportunities for collaboration with research active Center faculty and graduate students.

Minimum Position Requirements: Doctorate in Biostatistics, Statistics or Epidemiology, or alternatively an M.D. or Ph.D. in Biological Science, Physical Science or Computer Science with a Masters in Biostatistics or Statistics, 1-5 years' experience with clinical trials, especially study design and statistical analysis of study results using SAS, excellent oral and written English communication skills, and supervisory experience.

Application Procedures: Applicants must send a Curriculum Vitae and three letters of reference; a letter to include a synopsis of their role in collaborative medical research that has led to medical scientific presentation or publication and a statement of career purpose indicating their career goals and how this position can help you achieve those goals; and applicants for Assistant Research Professor positions must send an Official Transcript of graduate coursework leading to the doctoral degree to: Sarah Fowler, Research Professor and Director, The George Washington University Biostatistics Center, 6110 Executive Blvd., Suite 750, Rockville, MD 20852.

HTTP://WWW.BSC.GWU.EDU

Review of applications is ongoing until the positions are filled.   Rank/position title and salary commensurate with experience and qualifications. Tuition benefits for employees (including Ph.D. in Statistics, Biostatistics and Epidemiology) and for spouse and dependent children.

All research and regular faculty at the rank of Assistant Professor in Biostatistics or Statistics may apply for the Samuel W. Greenhouse Biostatistics Research Enhancement Award. For a period of 1 year, the award will provide 20% effort for methodological research and a discretionary fund to support professional activities, travel to professional meetings, supplies and equipment. Applicants for the research faculty position may also apply for the Greenhouse Award while their faculty application is being considered. For complete information including Award Application Materials Requirements, please visit our website at: www.bsc.gwu.edu.

The George Washington University is an Equal Opportunity/Affirmative Action employer

Survey Sampling Statistician

WESTAT: AN EMPLOYEE-OWNED RESEARCH CORPORATION

Westat is an employee-owned corporation headquartered in the suburbs of Washington, DC (Rockville, Maryland). We provide statistical consulting and survey research to the agencies of the U.S. Government and to a broad range of business and institutional clients. With a strong technical and managerial staff and a long record of quality research, Westat has become one of the leading survey research and statistical consulting organizations in the United States.

Our company was founded in 1961 by three statisticians. The current staff of more than 1,800 includes over 60 statisticians, as well as research, technical, and administrative staff. In addition, our professional staff is supported by data collection and processing personnel situated locally and in field sites around the country. The work atmosphere is open, progressive, and highly conducive to professional growth.

Our statistical efforts continue to expand in areas such as the environment, energy, health, education, and human resources. Westat statisticians are actively involved in teaching graduate-level courses in statistical methods and survey methodology in collaborative arrangements with area colleges and universities.

We are currently recruiting for the following statistical position:

Survey Sampling Statistician (Job Code WSS/DRM/7001)

Three or more years of relevant experience in sample design and selection, frames development, weighting, imputation, and variance estimation. Must have a master's or doctoral degree in statistics and have excellent writing skills. Coursework in sample survey design is highly desirable.

Westat offers excellent growth opportunities and an outstanding benefits package including life and health insurance, an Employee Stock Ownership Plan (ESOP), a 401(k) plan, flexible spending accounts, professional development, and tuition assistance. For immediate consideration, please send your cover letter, indicating the Westat Job Code, and resume by one of the following methods to:

Job Code is REQUIRED to apply.
Westat • Attn: Resume System • 1650 Research Boulevard • Rockville, MD 20850-3195
Email: resume@westat.com • FAX: (888) 201-1452
Equal Opportunity Employer.   www.westat.com

DIRECTOR, OFFICE OF OIL & GAS

DEPARTMENT OF ENERGY
Energy Information Administration

Client:

The Energy Information Administration (EIA), an independent statistical and analytical agency within the Department of Energy (DOE) that provides policy-neutral energy information to promote sound policymaking, efficient markets, and public understanding, is seeking a highly-motivated and experienced individual to fill the position of **Director, Office of Oil & Gas**. The Director will interact with the Administrator and Deputy Administrator of EIA and other senior departmental officers in the course of leading a challenging and comprehensive program to collect, analyze and disseminate petroleum and natural gas information. The highly-regarded products of this office directly influence petroleum and natural gas markets on a regional, national, and global level, as well as the development of federal and state energy policies. The Director manages over $30 million in resources, including 90 federal staff. For more information about EIA, visit its website at www.eia.doe.gov.

Opportunity:

The Director, Office of Oil & Gas is responsible for the efficient and effective design, development, implementation, maintenance, and management of petroleum and natural gas survey data collection systems; survey processing systems; data quality review and analysis; quality control; as well as market analysis and information dissemination activities.

Duties and Responsibilities:

- Planning, directing, evaluating and managing cross-cutting EIA and Office of Oil & Gas programs and activities involving resource needs, allocations, and tracking; personnel recruitment, retention and mentoring; contract task planning, direction and administration; and program changes.

- Survey data collection, processing, dissemination and analysis in support of EIA's mission, and in response to requests from the Congress, White House, DOE and other government agencies.

- Supervising the development, validation, and application of econometric and statistical models for the analysis of oil and gas markets.

- Supervising the design, development, maintenance, and use of data collection, processing, and dissemination systems.

- Provision of services for special data needs for DOE-periodic, adhoc, or ongoing data collection and maintenance.

- Dissemination of information through the preparation of statistical data and analysis products for oil and gas surveys and energy issues.

Requirements:

- Professional experience managing major statistical and/or analysis programs, assuring their quality, and disseminating their outputs (data and analysis) to a varied customer base.

- Experience leading and managing a highly-educated and interdisciplinary supervisory and technical staff.

• Experience in managing projects to provide new capabilities and ongoing operations within time and budget constraints; experience in managing financial resources and overseeing contracts for support services.

• Experience in managing programs that rely on the application of information technology, including the development and integration of applications, used for survey data collection, processing, analysis or information dissemination.

Education: Masters preferred.

Location: Washington, DC

Compensation: To $168,000 plus potential bonus up to 20%

EEO: All candidates will be considered without regard to race, color, religion, sexual orientation, national origin, or disability. The EIA provides reasonable accommodations to applicants with disabilities.

Deadline: To be considered, applications must be received no later than midnight, October 31, 2007.

Citizenship: U.S. Citizenship required. Background investigation required, and you may be required to obtain a security clearance.

Contact:

Benjamin Pastor
JDG Associates, Ltd.
1700 Research Boulevard
Rockville, MD 20850
301 340-2210
Email: **pastor@jdgsearch.com**

JDG Associates, established in 1973, is a leading provider of executive recruiting services to the Federal government, trade associations, Fortune 1000 corporations, non-profit organizations, and a variety of government contractors.

Job Openings for Biostatisticians/statistical programmers

Statistics Collaborative, Inc. is a small, highly professional yet relaxed biostatistical consulting firm involved in medical research. We cooperate with researchers in government, industry, non-profit, and academic settings to provide statistical collaboration in the fields of clinical trials and epidemiology. We help our clients develop research and drug development programs with scientific rigor and statistical validity.

We are now hiring biostatisticians/statistical programmers at all levels:

• Newly graduated candidates with an M.S. or Ph.D. to work on various study teams
• Staff members with several years experience to manage projects
• Senior level biostatisticians to provide statistical leadership to our staff and to our clients

Although we are quite small, our work is very varied. Duties include project coordination, data analysis, SAS programming, data management for medical studies, and technical writing. The studies on which we collaborate involve drugs, biologics, devices, vaccines, and behavioral interventions. We work in many different disease areas, with special emphasis on cardiovascular

disease, sepsis, malaria, and AIDS. One of our special areas of expertise involves the management of Data Safety Monitoring Committees.

We encourage our staff members to remain active in the statistical community at large. Staff regularly attend professional meetings and take short courses.

Applicants should send cover letter, resume, writing sample, a sample computer program, and transcripts (both graduate and undergraduate) by email to Ms. Laura Chapman (laura@statcollab.com) or by snail mail to:

> Janet Wittes, Ph.D.
> Statistics Collaborative, Inc.
> 1625 Massachusetts Ave., NW; Suite 600
> Washington DC 20036

For information about us, visit www.statcollab.com.

Senior Research Statistician
RTI International

RTI International is one of the world's leading research institutes, dedicated to improving the human condition by turning knowledge into practice. With projects in more than 40 countries and a staff of more than 2,600, RTI offers innovative research and technical solutions to governments and businesses worldwide in the areas of health and pharmaceuticals, education and training, surveys and statistics, advanced technology, democratic governance, economic and social development, energy, and the environment.

Job Description:

RTI's Statistics and Epidemiology unit has an opening for a Senior Research Statistician. This position will serve as a principal investigator on multi-center, multi-protocol studies and to provide long-range direction on research programs in the statistics and epidemiology unit.

Specific responsibilities include:

- Serves as PI for coordinating centers of multi-site projects.
- Provides senior leadership for all aspects of the project including study design, protocol development, study implementation, preliminary and final data analysis, and presentation of study results.
- Maintains effective liaison with funding officials, collaborators from universities and other organizations, laboratories, clinical centers, and specimen storage facilities.
- Leads development of grant, cooperative agreement and contract proposals.
- Leads development of manuscripts for refereed journals.
- Presents research findings at scientific conferences.
- Monitors overall process and quality of studies and activities.
- Monitors study resources and budgets.
- Serves in a leadership role in strategic planning, business development, and staff mentoring.

Qualifications:

- A doctorate in statistics or related field.
- At least 10 years experience working with epidemiological and/or clinical trial research.
- Experience in applying statistical methods to clinical, epidemiological, behavioral or environmental problems.
- Proven track record in successfully leading multi-center research.
- Demonstrable track record of leadership in developing and sustaining a climate that fosters growth

in research funding, staff capabilities, and scientific excellence and reputation.
- A record of scientific stature in presentation and publication of study results in peer-reviewed journals on methodological topics related to multi-site study design.
- Participation in major professional societies or associations.
- Extensive experience in developing business and working with clients that fund research in public health, including federal agencies, private foundations, and/or the commercial sector.

Desired Skills:

- Excellent skills in communication, negotiation, compromise, and building consensus within and between groups.

We are flexible on the work location. Possible locations include RTI's offices in Rockville, MD, Washington, DC, Atlanta, GA, Waltham, MA or Research Triangle Park, NC.

For more information, lease visit www.rti.org/careers and refer to position # 10488

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Director, Genomics and Statistical Genetics
RTI International

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Job Description:

RTI's Statistics and Epidemiology unit has an opening for a Director, Genomics and Statistical Genetics position based in Research Triangle Park, North Carolina. This position will lead business development and manage a staff of approximately 20 people in the Genomics and Statistical Genetics Program.

Specific responsibilities include:

- Manage a staff of 20 epidemiologists and statisticians
- Mentor professional development
- Participate in Recruiting activities
- Participate in strategic planning, business development, and marketing for the program.

Qualifications:

- PhD with 10 plus years or MS with 15 plus years experience working with genetic, epidemiological and/or clinical trial research. PhD or Masters in Biology, Biostatistics or Statistics, Epidemiology, Genetics, Medicine or Public Health preferred.
- Experience with project management, contracts, cooperative agreements, grants, regulatory operations, data management, programming, and budget management.
- A record of scientific stature in presentation and publication of study results in peer-reviewed journals on topics related to genomics and statistical genetics.
- Experience working with clients that fund research in public health, including federal agencies, private foundations, and/or the commercial sector.

Desired Skills:

- Excellent skills in communication, negotiation, compromise, and building consensus within and between groups.

For more information, lease visit www.rti.org/careers and refer to position # 10497

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Senior Survey Statistician
RTI International

RTI International is one of the world's leading research institutes, dedicated to improving the human condition by turning knowledge into practice. With projects in more than 40 countries and a staff of more than 2,600, RTI offers innovative research and technical solutions to governments and businesses worldwide in the areas of health and pharmaceuticals, education and training, surveys and statistics, advanced technology, democratic governance, economic and social development, energy, and the environment.

Job Description:

The Statistics and Epidemiology Unit of RTI International seeks a Senior Survey Statistician for design, analysis and management of complex surveys. Individual will supervise statistical staff and have responsibility for technical and fiscal management of significant projects. Duties also include development of statistical methodologies, research opportunities, strategic plans, and proposals. Strong knowledge of sampling design, nonresponse adjustment, weighting, imputation, and analysis of data from complex sample surveys is required.

The Senior Survey Statistician position is also responsible for the scientific integrity of work products for contracts under their supervision. Working in a research unit with responsibility for cross-contract coordination, the Senior Survey Statistician is primarily responsible for study design (research methodology) and deployment of statistical approaches, feasibility assessment, sampling, and the overall reliability and validity of the processes employed.

The successful candidate is expected to play an independent leadership role in developing relationships, interacting with and working with external clients, bringing new technologies and approaches to quality improvement, delivering technical presentations and attending client meetings.

Our Senior Statisticians are responsible for assuring the validity of all work products generated by the analytic team. Originality in hypothesis generation, sound statistical approaches, communication and interpersonal leadership skills are critical to successful performance.

Specific responsibilities include:

- Providing sample design as it relates to methodological considerations to research staff members on complex projects and proposals.
- Define universe and specify the appropriate sample frame and sample size for complex surveys.
- Specify and review demographic research using Census, government statistics, and other sources.
- Specify weighting method appropriate for analysis and reporting and oversee the implementation of weighting adjustments.
- Develop innovative sampling designs as wells as innovative statistical analysis procedures.
- Prepare sampling and weighting methodology write-up for proposals and project reports.
- Determine and implement general analysis strategies and specific statistical techniques appropriate for the sample design and suitable for the analytical goals.
- Assist with training junior staff.
- Provide an estimate of the time to perform any particular task required.

- Interact with the research staff in the design and implementation of the sampling and weighting plan.
- Interact with outside suppliers of statistical information, as well as sample providers and e-Panel vendors.
- Ability to read written texts, produce written documents, and convey complex sampling and weighting concepts to others.
- Write technical reports suitable for peer-reviewed journals analyzing the survey methodology and the substantive results.

Qualifications:

- PhD degree with 10 or more years of experience (or equivalent) developing statistical design and analysis procedures for major survey research projects.
- Ability to understand and conduct all surveys requiring complex sampling and weighting methods.
- Expertise with demographic sources in the US and International countries (Census, Current Population Survey, Federal government statistics).
- Data file management and manipulation through various software packages (i.e. SAS, SPSS, Excel).

Desired Skills:

- Candidate must have excellent writing, leadership, communication, and organizational skills; and demonstrated publication record. Experience in contract research is a plus.

For more information, lease visit www.rti.org/careers and refer to position # 10566

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Statisticians

PricewaterhouseCoopers LLP (PwC)is seeking interested applicants for Statistician positions with1-2 years of experience for our Washington, DC office. A Master's or Doctoral degree in statistics is required. Applicants should havestrong communication skills. SAS programming experience is preferred,but not required.

Our Advisory Services practiceprovides comprehensive analytic, financial, economic and strategic adviceto companies with complex business problems. Statisticians withinour practice work together to develop practical solutions for our commercialand federal clients, through the use of sampling applications, statisticaland economic modeling, forecasting and prediction, and the ability to processand analyze large volumes of data.

For more information, please contact Dr. Jessica Pollner by email at Jessica.Pollner@us.pwc.comor phone at 202-414-1380.

Biostatistician

The intramural program of NINDS is seeking an experienced Biostatistician to serve in its Biostatistics Unit at the NIH Clinical Center in Bethesda, Maryland beginning in Fall 2007. This is a full-time position with responsibility for reviewing and providing statistical support toward improving clinical protocols; general statistical consultation service to research staff for data analysis and study design; and substantial collaboration on projects as a coauthor in published work.

A Doctoral Degree in Statistics or Biostatistics is required. A minimum of 2 years working experience involving biostatistical applications to clinical trials and/or observational studies is required.

Appointment will be in the Staff Scientist (non-tenure track) series and salary will be commensurate with experience. This position is subject to a background investigation.

Applicants should send a cover letter, C.V., and names of three references to:

Ms. Caren Collins
NINDS/NIH/DHHS, 10/5N254
10 Center Dr., MSC 1430,
Bethesda, MD 20892, or via
E-mail: collinsca@ninds.nih.gov

The National Institute of Neurological Disorders and Stroke (NINDS) is a component of the National Institutes of Health (NIH) and the Department of Health and Human Services (DHHS). *DHHS and NIH are Equal Opportunity Employers.*

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**Morris Hansen
Memorial Lecture Series**

Morris Howard Hansen has been described as the most influential statistician in the development of survey methodology in the twentieth century. Early in his Census Bureau career he put together a staff to define the principal problems in the conduct of surveys, investigate these problems, and develop statistical methods to address them. Morris and his staff then widely distributed the results of their efforts, thus influencing statistical agencies all over the world. Generations of statistical students have learned from and been influenced by *Sample Survey Methods and Theory, Volumes I and II* by Hansen, Hurwitz, and Madow, which are commonly referred to by the authors' names instead of the title, and Hansen's other publications.

Morris was also known as a procedures innovator and was a leader in adapting electronic tools, such as computers and mark-reading sensors, to statistics. After his outstanding Census Bureau career, Morris joined Westat which was at the time a fairly small statistical research company. Morris again assembled a strong staff and expanded Westat's scope to take on large Federal government statistical problems.

Morris also made outstanding contributions to professional organizations, serving as the President of both the American Statistical Association and the Institute of Mathematical Statistics and as the first president of the International Association of Survey Statisticians. He was elected to the National Academy of Sciences in 1976 and was an important member of many Academy committees and panels.

There have been many tributes to Morris since his death in 1990, such as memorial issues of both the *Journal of Official Statistics* and *Survey Methodology.* Westat issued a grant to the Washington Statistical Society to honor Morris with an annual lecture series. The series has been so successful in attracting top quality presentations on a wide variety of topics—in keeping with Morris' broad interests—that Westat has added to the original grant.

Sponsors

The Washington Statistical Society
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17th ANNUAL MORRIS HANSEN LECTURE

**WASHINGTON
STATISTICAL
SOCIETY**

ASSESSING THE VALUE OF BAYESIAN METHODS FOR INFERENCE ABOUT FINITE POPULATION QUANTITIES

**Joe Sedransk
Professor of Statistics
Case Western Reserve University**

**Tuesday, October 30, 2007
3:30 p.m. - 6:30 p.m.**

Jefferson Auditorium
USDA South Building
Independence Ave. (between 12th
and 14th Streets) Smithsonian Metro
Station (Blue/Orange Lines)
For expedited entry to USDA, pre-register at
http://www.nass.usda.gov/morrishansen/

Joe Sedransk is currently a Professor in the Department of Statistics, Case Western Reserve University. He has also held faculty positions at the State University of New York at Albany, University of Iowa, and the State University of New York at Buffalo, University of Wisconsin and Iowa State University. He was Department Chair at Case Western Reserve University and the University of Iowa. He has had appointments at the Federal Reserve Board, U.S. Census Bureau, Bureau of Labor Statistics, the National Center for Health Statistics and the Energy Information Administration (current). He has also served on the advisory panels of several federal agencies including the Federal Economic Statistics Advisory Committee, U.S. Census Bureau, Energy Information Administration, Environmental Protection Agency and the Social Security Administration. He is a Fellow of the American Statistical Association and an Elected Member of the International Statistical Institute. He served as Coordinating and Applications Editor of the *Journal of the American Statistical Association* and on the editorial boards of several journals including *Survey Methodology*.

Lecture Abstract

Bayesian methodology is well developed and there are successful applications in many areas of substantive research. However, the use of such methodology in making inferences about finite population quantities has been limited.

This lecture deals with several types of applications where greater use of Bayesian methods is likely to be profitable and some where they are not. The former include inference for establishment surveys where extensive prior information is available and models are transparent, inference for small subpopulations (i.e., "small area" inference), pooling data from disparate sources such as a set of sample surveys and/or administrative data, and general survey design. A further application is developing public "report cards" for providers of medical care, a situation where Bayesian methods are helpful but the choice of model is critical. The lecture will include descriptions of research whose successful completion should lead to improved analysis.

Program

Jefferson Auditorium
U.S. Department of Agriculture
South Building

Tuesday, October 30, 2007
3:30 pm - 5:30 pm

Opening Remarks

Carol House
National Agricultural Statistics Service

Trena Ezzati-Rice

Chair, 2007 Morris Hansen Lecture Committee

Chair

Donald J. Malec

U.S. Bureau of the Census

Keynote Speaker

Joe Sedransk

Case Western Reserve University

Discussants

Nathaniel Schenker, National Center for Health Statistics

David Binder, Statistics Canada (Retired)

Program Committee

Trena Ezzati-Rice (Chair)
Norman Bradburn
Carol House
Daniel Kasprzyk
Keith Rust
Tommy Wright

Reception

Patio
U.S. Department of Agriculture
Jamie L. Whitten Building
(Across Independence Avenue)

5:30 - 6:30 p.m.

17th ANNUAL MORRIS HANSEN LECTURE