

WSS NEWS

June 2006

WASHINGTON STATISTICAL SOCIETY

A Commemorative in Honor of Joe Waksberg

On Monday, June 26, at 3:30 pm, WSS and Westat will sponsor a commemorative on the life of Joseph Waksberg, who died in January. The event will be held at the Keck Center of the National Academies, 500 Fifth Street, N.W., Room 100, Washington, DC (close to Judiciary Square Metro Station).

The program will consist of recollections of his career, including:

The Census years	 Dan Levine
Methodological innovations	 Graham Kalton
Random Digit Dialing	 Mike Brick.
Fun on Election night	 Warren Mitofsky

Family, friends, and colleagues also are invited to offer brief personal remembrances. A reception will follow. All are invited.

2006 Annual Dinner

The WSS Annual Dinner will be held Thursday, June 22, at Maggiano's in Washington, DC. Vance Berger of the National Cancer Institute and winner of the Gertrude M. Cox Statistics Award, will be our guest speaker.

As always, this event provides a great opportunity to spend time with friends and make new acquaintances. We look forward to seeing you there!

WSS and Other Seminars

(All events are open to any interested persons)

June

1	Thurs.	Estimating Drug Use Prevalence Using Latent Class Models with Item Count Response as One of the Indicators
6	Tues.	Bayesian and Frequentist Methods for Provider Profiling Using Risk-Adjusted Assessments of Medical Outcomes
7	Wed.	Model Evaluation and Model Selection Based on Prediction Error for Various Outcomes
7	Wed.	Independence
8	Thurs.	Characterization of Cost Structures, Perceived Value and Optimization Issues in Small Domain Estimation
20	Tues.	An Update on the NIST Statistical Reference Datasets for MCMC: Ranking the Sources of Numerical Error in MCMC Computations
22	Thurs.	Implications for RDD Design from an Incentive Experiment
July		
•	Tues.	A Multiscale Method for Disease Mapping in Spatial Epidemiology
27	Thurs.	Bayesian Methods for Incomplete Two-way Categorical Table with Application to the Buckeye State Polls

Also available on the Web at the following URL: <u>http://www.science.gmu.edu/~wss</u>

Announcements

Steve Landefeld to receive the 2006 Julius Shiskin Award

J. Steven (Steve) Landefeld, Director of the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce has been selected as the recipient of the 2006 Julius Shiskin Memorial Award for Economic Statistics. He is being recognized for his leadership in strengthening the BEA economic accounts, enhancing the international reputation of BEA, and outstanding staff

development. He becomes the 32nd person to be honored in the 27 years of this unique award for innovation in economic statistics research and applications. Dr. Landefeld will receive awards from the Washington Statistical Society at its annual dinner on June 22 and later from the National Association of Business Economists. He will also be recognized by the Business and Economics Section of the American Statistical Association at its annual meeting in August.

Dr. Landefeld, BEA Director since 1995, has been a leading contributor to the development and improvement of economic statistics, in particular, the U.S. national income and product accounts and related economic accounts. Through innovative management of BEA, support of the U.S. statistical system, authorship of scholarly articles, and participation in government, business, and academic forums, he has improved economic statistics and advanced their use in interpreting the economy.

In 1995, Steve developed, vetted with experts and the statistical user community, and implemented a strategic plan to move the GDP and related national economic accounts back into the forefront of the debate about economic growth. The plan remains as a guide today.

Among the statistical innovations in the GDP accounts implemented pursuant to the plan are: the development and adoption of chained Fisher price and output indexes; the calculation of improved depreciation schedules for almost 200 types of capital equipment; and the treatment of software as investment. The adoption of chained Fisher price and output indexes eliminated a long-standing source of bias in the GDP accounts and has resulted in a reduction in revisions to the estimates. The U.S. took the lead internationally in implementing this recommendation of the United Nations guidelines, the *System of National Accounts*. The new depreciation schedules were based on extensive empirical analysis of used asset prices, recognizing the appropriate analytical framework for measurement. The capitalization of software allows the U.S. to properly account for the persisting contribution of information technology to today's economy. Dr. Landefeld guided those innovations as well as published, usually with BEA colleagues, more than a dozen articles justifying and explaining them.

Steve also has been a leader in integration of the full range of U.S. economic accounts produced by different agencies, quicker provision of statistics, and education of the public through "plain English" explanations. A plan for eventual integration of the economic accounts is presented in *A New Architecture for the U.S. National Accounts* (2006), of which he is a co-author.

Note from the WSS NEWS Editor

Items for publication in the Summer issue of the WSS NEWS should be submitted no later than July 11, 2006. E-mail items to Michael Feil at michael.feil@usda.gov.

Title:Estimating Drug Use Prevalence Using Latent Class Models with Item Count
Response as One of the Indicators

- Chair: John Bushery, U.S. Bureau of the Census
- Speaker: Paul Biemer, RTI International WebPage: http://www.rti.org/experts.cfm?objectid=6E703887-343D-4D32-8DDA0F933AA1A886
- Discussant: Douglas Wright, Substance Abuse and Mental Health Services Administration
- Date/Time: Thursday, June 1, 2006 / 12:30 2 p.m.
- Location: Bureau of Labor Statistics, Conference Center in G440. 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 Section, WSS
- The item count (IC) method for estimating the prevalence of sensitive behaviors was Abstract: applied to the National Survey on Drug Use and Health (NSDUH) to estimate the prevalence of past year cocaine use. Despite considerable effort and research to refine and adapt the IC method to this survey, the method failed to produce estimates that were any larger than the estimates based on self-reports. Further analysis indicated the problem to be measurement error in the IC responses. To address the problem, a new model-based estimator was proposed to correct the IC estimates for measurement error and produce less biased prevalence estimates. The model combines the IC data, replicated measurements of the IC items, and responses to the cocaine use question to obtain estimates of the classification error in the observed data. The data were treated as fallible indicators of (latent) true values and traditional latent class analysis assumptions were made to obtain an identifiable model. The resulting estimates of the cocaine use prevalence were approximately 43 percent larger than the self-report only estimates and the estimated underreporting rates were consistent with those estimated from other studies of drug use underreporting.

Title:Bayesian and Frequentist Methods for Provider Profiling Using Risk-Adjusted
Assessments of Medical Outcomes

- Chair: Trena M. Ezzati-Rice, Agency for Healthcare Research & Quality
- Speaker: Joseph Sedransk, Case Western Reserve University
- Discussant: Robert Baskin, Agency for Healthcare Research & Quality
- Date/Time: Tuesday, 6 June, 2006 / 12:30 to 2:00 pm

Location: NIH's Executive Plaza complex

Executive Plaza North, Conference Room 319, 6130 Executive Boulevard, Rockville, Maryland; pay parking is available. Check with security upon entry—photo ID required.

- Sponsor: WSS Section on Public Health and Biostatistics, WSS Methodology Section
- Abstract: We propose a new method and compare conventional and Bayesian methodologies that are used or proposed for use for 'provider profiling', an evaluation of the quality of health care. The conventional approaches to computing these provider assessments are to use likelihood-based frequentist methodologies, and the new Bayesian method is patterned after these. For each of three models we compare the frequentist and Bayesian approaches using the data employed by the New York State Department of Health for its annually released reports that profile hospitals permitted to perform coronary artery bypass graft surgery. Additional, constructed, data sets are used to sharpen our conclusions. With the advances of Markov chain Monte Carlo methods, Bayesian methods are easily implemented and are preferable to standard frequentist methods for models with a binary dependent variable since the latter always rely on asymptotic approximations.

Comparisons across methods associated with different models are important because of current proposals to use random effect (exchangeable) models for provider profiling. We also summarize and discuss important issues in the conduct of provider profiling such as inclusion of provider characteristics in the model and choice of criteria for determining unsatisfactory performance.

Topic: Independence

Speaker: Cynthia Clark, Director of Methodology, Office of National Statistics, UK

- Chair: Connie Citro, Committee on National Statistics, the National Academies
- Discussant: Fritz Scheuren, NORC
- Date/Time: Wednesday, June 7, 2006 / 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 Social and Demographic Statistics Section
- Abstract: The U.K. Chancellor, Gordon Brown, announced in November 2005 that he planned to introduce legislation to make the U.K. Office of National Statistics (ONS) independent of Government. His proposal is to make the governance and publication of official statistics the responsibility of a wholly separate body at arms length from Government and fully independent of it. The legislation would create an independent Governing Board for the ONS with external members of the Board including leading experts in statistics. The Board has responsibility for meeting an overall objective for the statistical system's integrity. The ONS would be accountable to Parliament through reporting of the Board. The Board would be questioned by the Treasury Select Committee on their performance. The overall goal is for the legislation and the change in organizational arrangements to improve public trust in official statistics. This presentation will discuss the current governmental structure for ONS and the decentralized U.K. Government Statistical Service, covering the issues that have arisen in developing proposed legislation. Comparisons will be made with issues faced in the U.S. with similar proposals.

Title:Model Evaluation and Model Selection Based on Prediction Error for Various
Outcomes

- Speaker: Tanxi Cai, Ph.D., Harvard University School of Public Health, Department of Biostatistics
- Date/Time: Wednesday, June 7th, 2006 / 11:00 am 12:00 noon
- Location: Executive Plaza North, Conference Room G. Address: 6130 Executive Blvd, Rockville MD, 20852. Contact: the Office of Preventive Oncology, 301-496-8640
- Sponsor: WSS Biostatistics/Public Health Section
- Abstract: The construction of a reliable, practically useful prediction rule for future responses is heavily dependent on the ``adequacy" of the fitted regression model. In this research, we consider the absolute prediction error, the expected value of the absolute difference between the future and predicted responses, as the model evaluation criterion and as a basis for evaluating the accuracy of a given prediction rule. This prediction error has the same scale as the observed outcome and thus has better interpretation than the average squared error and the R-square.

When the outcome is binary, the absolute prediction error is is equivalent to the mis-classification error. When the outcome is censored event time, we propose classification rules for predicting the t-year survival status and compare the classification accuracy of prediction rules constructed based on various working models. We show that the distributions of the apparent error type estimators and their cross-validation counterparts are approximately normal even under a misspecified fitted model. When the prediction rule is ``unsmooth", the variance of the above normal distribution can be estimated well via a perturbation-resampling method.

We also show how to approximate the distribution of the difference of the estimated prediction errors from two competing models. Through real data examples and simulation studies, we demonstrate that the resulting interval estimates for prediction errors provide much more information about model adequacy than the point estimates alone.

Title:Characterization of Cost Structures, Perceived Value and Optimization Issues
in Small Domain Estimation

- Chair: Michael P. Cohen, Bureau of Transportation Statistics (retired)
- Speaker: John L. Eltinge, Bureau of Labor Statistics
- Discussant: David G. Waddington, U.S. Bureau of the Census
- Date/Time: Thursday, 8 June, 2006 / 12:30 to 2:00 pm
- Location: Bureau of Labor Statistics, Conference Center in G440 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 Section, WSS
- Abstract: In recent years, government statistical agencies have encountered many requests from stakeholders for production of estimates covering a large number of relatively small subpopulations. Due to resource constraints, agencies generally are not able to satisfy these requests through additional data collection and subsequent production of standard direct estimates. Instead, agencies attempt to meet some of the stakeholders' requests with estimators that combine information from sample data and auxiliary sources. In essence, the agencies are substituting technology (i.e., modeling and related methodological work) for data-collection labor, and in exchange the agencies and data users incur additional risks related to potential model lack of fit and potential misinterpretation of published results.

This presentation characterizes some of the resulting trade-offs among cost structures, data quality, perceived value and optimization issues in small domain estimation. Four topics receive principal attention. First, we highlight several classes of direct and indirect costs incurred by the producers and users of small domain estimates. This leads to consideration of possible cost optimization for small domain estimation programs, which may include the costs of sample design features, access to auxiliary data sources, analytic resources and dissemination efforts. Second, we use the Brackstone (1999) framework of six components of data quality to review some statistical properties of direct design-based and model-based estimators for small domains, and to link these properties with related components of risk. Quality issues related to exploratory analysis and implicit multiple comparisons receive special attention. Third, we explore data users' perceptions of the value of published small domain estimates, and of costs incurred through decisions not to publish estimates for some subpopulations. We suggest that the data users' perceptions are similar to those reported in the general literature on adoption

and diffusion of technology, and that this literature can offer some important insights into efficient integration of efforts by researchers, survey managers and data users. Fourth, we emphasize the importance of constraints in the administrative development and implementation of small domain estimation programs. We consider constraints on both the production processes and on the availability of information regarding costs and data quality. These constraints can often dominate the administrative decision process. This in turn suggests some mathematically rich classes of constrained optimization problems that would warrant further research.

Title:An Update on the NIST Statistical Reference Datasets for MCMC: Ranking the
Sources of Numerical Error in MCMC Computations

- Chair: Charles Hallahan, USDA/ERS
- Speakers: Hung-kung Liu and William F. Guthrie, NIST
- Discussant: James Gentle, George Mason University
- Date/Time: Tuesday, June 20, 2006 / 12:30 to 2 p.m.
- Location: Bureau of Labor Statistics, Conference Center in G440. 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: Statistical Computing Section, WSS
- Abstract: In the Statistical Reference Datasets (StRD) project, NIST provided datasets on the web (www.itl.nist.gov/div898/strd/index.html) with certified values for assessing the accuracy of software for univariate statistics, linear regression, nonlinear regression, and analysis of variance. Another important new area in statistical computing, not addressed in the original STRD project, is the Bayesian analysis using Markov chain Monte Carlo. Despite its importance, the numerical accuracy of software for MCMC is largely unknown.

We have recently updated the StRD web site with the six new datasets for Bayesian model fitting using MCMC algorithms. We will discuss some results obtained using these datasets that challenge the conventional wisdom that longer simulations lead to improved approximation of posterior distribution parameters. The sources of numerical error that arise in the computations associated with a simple Bayesian model for data sets from the StRD web site will be studied. The different sources of numerical error will be compared and ranked with respect to their impact on the total numerical error.

Title: Implications for RDD Design from an Incentive Experiment

Chair: Jonaki Bose, Bureau of Transportation Statistics

- Speakers: Chris Chapman, National Center for Education Statistics
- Date/Time: Thursday, June 22, 2006 / 12:30 to 2 pm
- Location: Bureau of Labor Statistics, Conference Center Room 9. 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 Section, WSS
- Abstract: The National Household Education Surveys Program (NHES) includes a series of random digit dial (RDD) surveys developed by the National Center for Education Statistics (NCES) in the Institute of Education Sciences, U.S. Department of Education. It is designed to collect information on important educational issues through telephone surveys of households in the United States. In 2003, we conducted an experiment using NHES to test the effectiveness of various levels of incentives in gaining increased initial cooperation, refusal conversion, and overall unit response rates. Approximately 79,000 telephone numbers were included in the experiment. The results of the experiment indicate that small cash incentives, used during initial contact stages of the interview process (the Screener stage) can be effective in improving unit response.

Title: A Multiscale Method for Disease Mapping in Spatial Epidemiology

- Chair: Linda Williams Pickle, National Cancer Institute, NIH
- Speaker: Mary M. Louie, National Center for Health Statistics
- Discussant: Myron J. Katzoff, National Center for Health Statistics
- Date/Time: Tuesday, July 25, 2006 / 12:30 to 2:00 pm
- Location: Bureau of Labor Statistics, Conference Center in G440. 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 Section, WSS
- Abstract: The effects of spatial scale in disease mapping are well-recognized, in that the information conveyed by such maps varies with scale. Here we provide an inferential framework, in the context of tract count data, for describing the distribution of relative risk simultaneously across a hierarchy of multiple scales. In particular, we offer a multiscale extension of the canonical standardized mortality ratio (SMR), consisting of Bayesian posterior-based strategies for both estimation and characterization of uncertainty. As a result, a hierarchy of informative disease and confidence maps can be produced, without the need to first try to identify a single appropriate scale of analysis. We explore the behavior of the proposed methodology in a small simulation study, and we illustrate its usage through an application to data on gastric cancer in Tuscany. By way of comparison, we also present results from a hierarchical Bayesian model. Throughout, we discuss broader issues associated with the task of disease mapping such as over-dispersion and estimating relative risks for small areas.

Title:Bayesian Methods for Incomplete Two-way Categorical Table with Application
to the Buckeye State Polls

- Speaker: YouSung Park, Korea University, and Jai Won Choi, NCHS
- Chair: Joe Fred Gonzalez, NCHS
- Date/time: Thursday, July 27, 2006 / 10:30 a.m.- 12:00 p.m.
- Location: Auditorium 1405B, National Center for Health Statistics, 3311 Toledo Road, Hyattsville, MD 20782. Park at the next building. A photo ID is needed to enter the NCHS/CDC building. Please call Jai Choi (301-458-4144) or Joe Gonzalez (301-458-4239) for directions and to let them know that you are attending.
- Sponsor: WSS Public Health and Biostatistics Section
- Abstract: When survey counts or responses are classified into a two-way table, substantial counts miss information on the column or row or both. Then we can not have correct cell inference with fully classified counts only. Hence we propose a method how to utilize the partially classified counts to have correct inference on the cells. To accomplish this goal, we use Bayesian method with five different priors, three previously known and two newly created; we then compare them to maximum likelihood (ML) method under the assumption that responses could be ignorable or nonignorable. Although Bayesian method (BM) often solve the boundary solution problem of ML, BM not always gives better solution as the performance of BM depends partly on the prior specification. We use four sets of data from 1998 Ohio state polls to illustrate the method. Our simulation study also compares the five Bayesian models of five different priors to ML under the ignorable or non-ignorable nonresponse assumption. It is interesting to see that the winner of Columbus Mayor could loose if more people who were unlikely to vote actually voted.

New Masters Program

The Department of Applied and Engineering Statistics, George Mason University (website <u>http://statistics.gmu.edu</u>) announces a new masters program in epidemiology and biostatistics will join existing masters and doctoral programs in statistical science. The website is <u>http://cnhs.gmu.edu/graduate/epibiostat.html</u>. The Department also announces the following special graduate course offerings in summer and fall 2006 in addition to its regular offerings:

Summer Session B June 6-July 27:

STAT 789	TR 7:20—10:00 p.m. Prof.	Sutton
Boots	trapping/Resampling Meth.	Prereq: STAT 554*

Fall Session

STAT 574	W 4:30—7:10 p.m.	Dr. Kott
Su	rvey Sampling I	Prereq: STAT 554*
STAT 658	W 7:20—10:00 p.m.	Prof. Bell
Tir	ne Series Analysis	Prereq: STAT 544 or 652**
STAT 663	W 4:30—7:10 p.m.	Prof. Carr
Sta	tistical Graphics/Data Exp	olor. Prereq: STAT 554*
STAT 665	R 4:30—7:10 p.m.	Prof. Davis
Ca	tegorical Data Analysis	Prereq: STAT 554*
STAT 789	M 7:20—10:00 p.m.	Prof. Rosenberger
Ad	vanced Biostatistics	Prereq: STAT 544 or 652**
* Applied	Statistics ** Probability	y/Mathematical Statistics

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.

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/6001)

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

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The George Washington University School of Public Health & Health Services

Faculty Member in Biostatistics

The Department of Epidemiology & Biostatistics is recruiting for a full time faculty member at the Assistant or Associate Professor level with expertise in biostatistics.

The successful candidate will have the opportunity to join a growing Department of Epidemiology and Biostatistics in the nation's capital that has a highly respected and energetic teaching and research faculty and the opportunity to conduct clinical trials research at The Biostatistics Center.

Under the leadership of its new Chairman, Alan E. Greenberg, MD, MPH, the Department has expertise in HIV/AIDS, cancer, behavioral, and aging epidemiology, geographical health information systems, and biostatistical methods. In addition, the Department has established collaborative opportunities with other Departments in the GWU School of Public Health and Health Services, the GWU Medical Center, the Veterans Administration Hospital, Children's National Medical Center, the National Cancer Institute, the Department of Defense, and the DC Department of Health.

The Biostatistics Center is a leader in the statistical coordination of clinical trials conducted by the National Institute of Health. The center is renowned for its leadership in multi-center trials in diabetes, cardiovascular disease, maternal/fetal clinical medicine, osteoporosis, and urology, and the genetic basis for a series of diseases.

The Department of Epidemiology and Biostatistics is involved in the MS and PhD degree programs in biostatistics and in epidemiology, among other graduate degree programs. The MS and PhD degree programs in biostatistics and in epidemiology admitted its first class in 1995. There are currently 15 doctoral students matriculated in the PhD degree in biostatistics and 10 students matriculated in the MS degree in biostatistics. More than half of the doctoral students in biostatistics are working on their dissertation research.

Responsibilities of the position will include teaching upper level courses in theoretical

and applied biostatistics, mentoring masters and doctoral students in biostatistics, participating in clinical trials research at the GWU Biostatistics Center (<u>http://biostat.bsc.gwu.edu</u>), and developing an externally-funded research program.

Faculty rank and compensation will be commensurate with experience. Review of applications will begin on March 1, 2006, and will continue until the position is filled. Send letter of application, CV, and a list of 3 references, preferably electronically, to:

Dr. Dante A. Verme

Chair, Search Committee, Biostatitsics E-mail: <u>sphdav@gwumc.edu</u> (electronic submissions strongly preferred) Vice Chair for Educational Activities Department of Epidemiology and Biostatistics The George Washington University School of Public Health & Health Services 2300 Eye St., NW, Ross Hall 125 Washington, DC 20037

GWU SPHHS Webpage: <u>http://www.gwumc.edu/sphhs</u> The Biostatistics Center Webpage: http://biostat.bsc.gwu.edu

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The Biostatistics Center

CLINICAL TRIAL BIOSTATISTICIANS M.S. and Ph.D. Level Positions

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 be 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.

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VISITING FACULTY POSITION

DEPARTMENT OF STATISTICS THE GEORGE WASHINGTON UNIVERSITY WASHINGTON, DC 20052

The Department of Statistics at The George Washington University invites applications for a Visiting Assistant Professor position for one year to start in fall 2006. The primary responsibility is teaching 3 courses in Fall 2006 and 3 courses in Spring 2007.

The Department is the first department of statistics in a college of arts and sciences in USA, and is well recognized for its teaching and research accomplishments. The Department provides a stimulating academic environment and great opportunities for research collaboration. The Department has a strong research program and has received research grants from most of the major research funding organizations, NSF, DoD, NIH, EPA, etc.

The Department has 13 full-time faculty members, and offers the B.S., M.S. and Ph.D. degrees in Statistics; M.S. and Ph.D. degrees in Biostatistics and in Epidemiology, in collaboration with the School of Public Health and Health Services; and a Graduate Certificate in Survey Design

and Data Analysis. The Department also teaches statistics to about one thousand students from other departments every semester. Applicants are encouraged to visit the Department's website (www.gwu.edu/~stat) for information on current research interests and activities of the faculty.

The Department's location in the nation's capital offers unique cultural and professional opportunities. Many major Government agencies, international organizations, research institutions, and companies located in Washington, DC offer excellent opportunities for applied research collaboration and professional development. The Department faculty has engaged in collaborative research efforts with several statistical branches of government agencies. Statisticians with collaborative research interest should find our location and the position attractive.

Applicants should have a doctoral degree in Statistics or related field, and demonstrated excellence in teaching. Review of applications will begin on April 17, 2006, and will continue until the position is filled. Please send application, CV, and 3 recommendation letters to:

Search Committee Department of Statistics George Washington University Washington, DC 20052.

The George Washington University is an Equal Opportunity/Affirmative Action Employer.

Director of Customer Intelligence and Analysis

(Fortune 100 Company)

Location: Fort Washington, PA (excellent relocation package)

Description: Analyzes Customer Relationship Management (CRM) system data and external data sources in support of multi-channel marketing initiatives. Studies marketing data such as customer information, call patterns, and demographics in order to assist in the development of strategic recommendations and action plans for management.

Perform analysis using SAS, Siebel Analytics or equivalent data mining tools and software for customer profiling, marketing campaign performance analysis, text mining, operational optimization analysis, and best customer analysis, among others.

Requirements:

BA/BS in Finance, Economic, Statistics or Mathematics required. Masters Degree preferred.3-6 years of analytical experience in a business environment, preferably Healthcare or Insurance.

Ability to work with appropriate databases and different data formats to identify, extract, and analyze data in a creative and non-routine manner.

Must be able to effectively communicate and present insight and results, throughout various levels of the organization.

Advanced SAS programming skills or proficiency in SAS with the demonstrated ability to quickly acquire advanced skills.

Proficiency in MS Office software (particularly Excel) required.

Experience building and implementing statistical models a plus

Contact:

Interested parties please forward your confidential resume in word format to bcuckler@teledevelopment.com, please reference job code CMK421.



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Washington Statistical Society

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WSS Annual Dinner

Washington Statistical Society Annual Dinner

Thursday June 22, 2006, 6:00 – 9:00 PM

Maggiano's, 5333 Wisconsin Ave. N.W., Washington, DC (Metro: Friendship Heights on the Red line)

Speaker:

Vance Berger, National Cancer Institute

Recipient of the Gertrude Cox Award -Made Possible by Funding from RTI International -

Cash Bar

Appetizers

And

Choice of two salads (Maggiano's or Caesar)

And

Choice of two pasta dishes (Marsala or Vegetarian)

And

Oven Roasted Pork Loin,

Or Whole Roast Chicken w. Rosemary & Garlic

-Vegetarian Dish Available Upon Advance Request-

And

Chocolate Zuccotto Cake, Fresh Fruit Plate

Price:.....Check Payable to WSS

Name(s) / *Affiliation:*

Please mail check by June 12 to: Yves Thibaudeau, 1037 17th St S, Arlington, VA 22202

Or email <u>yves.thibaudeau@census.gov</u> or call (301) 763 1706