



WASHINGTON
STATISTICAL
SOCIETY

WSS NEWS

November 1994

Roger Herriot Award

The Government Statistics Section, Social Statistics Section, and Washington Statistical Society have agreed to sponsor the Roger Herriot Award for the next 5 years. A proposal for the first award is being developed by Dan Kasprzyk, Dan Levine, and Fritz Scheuren. More details from this committee will follow.

In addition, one of the memorial sessions at the 1995 meeting in Orlando will honor Roger Herriot. The speakers will be Leslie Kish and Bill Butz. Leslie Kish will prepare a speech relating to Roger Herriot's work.

WSS Seminars	
(All events are open to any interested persons)	
November	
8 Tues.	Time Series and Cross Section Edits with Applications to Federal Reserve Deposit Reports(Tenth in the series on Editing, Imputation, and Other Methods of Handling Missing (or Bad) Data.)
15 Tues.	The Economy: 1994 In Review -- 1995 In Prospect
16 Wed.	The Use of Bayesian and Frequentist Approaches in Clinical Trials
17 Thurs.	Imputation of Vacant Units in the Rent Index of the U.S. Consumer Price Index (Eleventh Presentation in Methodology Seminar Series on Handling Missing or Bad Data)
21 Mon.	The Nonparametric Translog with Application to Scale and Scope Economies
22 Tues.	The Natural Gas Futures Market: Econometric and Statistical Issues
December	
5 Mon.	Huge Data Sets, Computational Feasibility, and High Performance Computing
6 Tues.	Touchtone Data Entry Systems for Establishment and Household Surveys

Call (703) 803-8109 for up-to-date information.

Announcements

Notice Concerning WSS Calendar

As a cost-saving measure, this is the last issue of the WSS Newsletter for which the WSS Calendar (the orange sheets) will be distributed to the current mailing list. Starting with the December WSS Newsletter, the WSS Calendar will be distributed only by fax. The fax list was arrived at in the following way. A request to update the WSS Calendar mailing list was sent out last January and February, and was responded to by 65 individuals, 52 of whom included fax numbers. Therefore, we will begin the list with these 52 individuals who will receive a faxed version of the WSS calendar. The list will be updated as follows. Groups of five or more individuals that want to receive a faxed version of the Calendar should send a letter with the signatures of five or more current members of the WSS, the name, address, and phone number of the group leader, and a single fax number to Michael L. Cohen, 9005 Walden Rd., Silver Spring, MD 20901. Groups that wish to discontinue receiving the Calendar or who wish to change their fax number should do so with a letter to the above address. (We will assume the group leader speaks for the group in all situations.) Individuals who wish to be notified of events who do not have access to fax or who are not part of a cluster of WSS members will have to rely on the WSS newsletter or the WSS hotline at (703) 803-8109. We hope that this change does not inconvenience anyone. Comments on this change should be sent to the above address, or can be made by calling Michael L. Cohen at (202) 586-6782.

Seventh Annual Federal Forecasters Conference

The Seventh Annual Federal Forecasters Conference will be held on November 15, 1994. The theme of the conference is "Issues of Coordination and Networking for Federal Forecasters in the Information Highway Era."

Numerous federal government agencies are charged with developing forecasts that overlap in terms of assumptions, outputs, or purpose. Deciding whether and how these agencies should coordinate with each other or interact in the process of forecast development is hardly a new issue, but it involves perhaps many unresolved questions. For example, what consideration and weight should an agency that is developing industry or market forecasts give to forecasts prepared by other agencies whose primary function is to develop basic economic projections such as population or productivity growth?

The conference will be held at the Best Western Rosslyn Westpark Hotel in Arlington, VA. If you wish to attend the conference, register by contacting Dave Costello at Energy Information Administration, Mailstop EI-621, 1000 Independence Avenue SW, Washington, DC 20585, Fax (202) 586-9753, Phone (202) 586-1468, Internet dcostell@eia.doe.gov.

SIGSTAT Meetings

SIGSTAT, the Special Interest Group in Statistics for the Capital PC User Group and the Washington Operations Research and Management Science Council (WORMSC), will be sponsoring the following meetings. On November 11, 1994, we'll look at some free packages available through Internet such as Xlisp-Stat. On December 14, 1994, there will be a demonstration of Resampling Stats.

All meetings are scheduled from 12:30 PM to 1:30 PM in Room B-14, 1301 New York Avenue, NW. The building is located midway between the Metro Center and McPherson Square Metro stops. If this is your first SIGSTAT meeting, call Charlie Hallahan at (202) 219-0507 or e-mail to hallahan@ers and leave you name in order to gain entry into the building.

Program Abstracts

- Topic:** Time Series and Cross Section Edits with Applications to Federal Reserve Deposit Reports (Tenth in the series on Editing, Imputation, and Other Methods of Handling Missing (or Bad) Data.)
- Speaker(s):** David Pierce, Federal Reserve Board
Laura Bauer Gillis, Federal Reserve Board
- Chair:** Sandra A. West, Bureau of Labor Statistics
- Date/Time:** Tuesday, November 8, 1994, 12:30-2:00 PM
- Location:** BLS Cognitive Lab, Postal Square Building, Room 2990, 2 Massachusetts Avenue, NE, Washington, DC (Red Line -- Union Station). Enter at Massachusetts Avenue and North Capitol Street.
- Sponsor:** Methodology Section
- Abstract:** Currently data from the major deposit reports submitted by commercial banks to the Federal Reserve System are edited by comparing the incoming value for a variable to that variable's value for the previous week, using a set of published *tolerances*. The previous value represents an estimate or forecast of what the current value would be in the absence of error or unusual circumstance. This paper investigates two generalizations of this editing method, which both involve incorporating information beyond that contained in the previous week's value. One of these is to base this estimate on the item values from a *cross section* of similar institutions in the current time period, which have already reported, and the other is to calculate a forecast based on the *time series* of past values of the item. A composite estimate combining these two methods is also presented. Edit simulations are performed to measure the improvement from this approach (in terms of fewer edit exceptions, which are correct and/or increased detection of errors), which is found to be substantial for some items and size groups. Progress in implementing these enhancements is described, and possible further generalizations are mentioned.

Program Abstracts (Cont'd)

- Topic:** The Economy: 1994 In Review -- 1995 In Prospect
- Speaker(s):** Ralph Monaco, University of Maryland
- Chair:** Michael Horrigan, Bureau of Labor Statistics
- Date/Time:** Tuesday, November 15, 1994, 12:30-2:30 PM
- Location:** BLS Training Center, Postal Square Building, Suite G-440, Room 8, 2 Massachusetts Avenue, NE, Washington, DC (Red Line -- Union Station). Enter at First Street.
- Sponsor:** Social and Demographic Section
- Abstract:** This session will discuss the current state of the economy and the forecast for the next year. The speaker for this session is Ralph Monaco, who is currently at the Inforum Group at the University of Maryland, and formerly a senior staff economist for Macroeconomics and Forecasting at the President's Council of Economic Advisers.

*** * * Note from the WSS NEWS Editors * * ***

Items for publication in the January 1995 WSS NEWS should be submitted no later than November 29, 1994. FAX items to:

Hattie Ramseur or Theresa Hallquist
FAX: (202) 586-0018

Program Abstracts (Cont'd)

- Topic:** The Use of Bayesian and Frequentist Approaches in Clinical Trials
- Speaker(s):** K. K. Gordon Lan, George Washington University
- Discussant(s):** Laurence M. Freedman, National Cancer Institute
- Chair:** Margaret C. Wu, National Heart, Lung and Blood Institute
- Date/Time:** Wednesday, November 16, 1994, 1:30-3:00 PM (Note special time)
- Location:** Conference Room G, Executive Plaza North, 6130 Executive Blvd., Rockville, MD
- Sponsor:** Public Health and Biostatistics Section
- Abstract:** Statistical methods in analysis and sequential monitoring of clinical trial data will be examined from both the Bayesian and the frequentist points of view. A hypothetical example will be provided to illustrate the similarities and differences between the two approaches when prior information is used to determine treatment superiority in a fixed-sample size clinical trial. Sequential data analysis will also be discussed, assuming that the process being monitored is a Brownian motion with linear drift. It can be shown that every frequentist sequential boundary has a Bayesian interpretation.

Program Abstracts (Cont'd)

- Topic:** Imputation of Vacant Units in the Rent Index of the U.S. Consumer Price Index (Eleventh Presentation in Methodology Seminar Series on Handling Missing or Bad Data)
- Speaker(s):** Robert M. Baskin, Bureau of Labor Statistics
- Chair:** Michael P. Cohen, National Center for Education Statistics
- Date/Time:** Thursday, November 17, 1994, 12:30-2:00 PM
- Location:** BLS Cognitive Lab, Postal Square Building, Room 2990, 2 Massachusetts Avenue, NE, Washington, DC (Red Line -- Union Station). Enter at Massachusetts Avenue and North Capitol Street.
- Sponsor:** Methodology Section
- Abstract:** The Residential Rent Index of the Consumer Price Index is based on repricing rental housing units at 6-month intervals. Most units that have no reported rent values are treated by non-interview adjustment, but historically, units that are vacant have been imputed because they have been shown to behave differently from other types of nonresponse units. This work investigates the current vacancy imputation methodology as well as alternatives. All vacancy imputations are performed at the primary sampling unit level. In this talk an empirical Bayes estimator of the rent for vacant units is investigated along with two ad hoc methods. The assumptions of the current model are investigated and simpler alternatives are proposed. Improvements are seen in situations in which there are an insufficient number of units contributing to the imputation at the primary sampling unit level. Evaluation of the methods is based on accuracy of prediction of the next available rent as well as evaluation of simulation results.

Program Abstracts (Cont'd)

- Topic:** The Nonparametric Translog with Application to Scale and Scope Economies
- Speaker(s):** Douglas A. McManus, Freddie Mac
- Discussant(s):** Ferdinand Wang, American University
- Chair:** Arthur Kennickell, Federal Reserve Board
- Date/Time:** Monday, November 21, 1994, 12:30-2:00 PM
- Location:** BLS Cognitive Lab, Postal Square Building, Room 2990, 2 Massachusetts Avenue, NE, Washington, DC (Red Line -- Union Station). Enter at Massachusetts Avenue and North Capitol Street.
- Sponsor:** Economics Section
- Abstract:** The translog specification, while perhaps the most popular in econometric application, is methodologically flawed in that it globally applies a locally flexible approximation technique. As a consequence, in application the use of the translog functional form may potentially result in serious misspecifications. In contrast, although the methodological foundations of explicitly nonparametric techniques are solid, the applications of these methods are relatively rare--perhaps because of the conceptual and computational complexity of these techniques. This paper offers a simple alternative nonparametric strategy for estimation based on localization. The technique introduced by this paper reforms the usual translog specification by applying the translog specification locally.

Program Abstracts (Cont'd)

- Topic:** The Natural Gas Futures Market: Econometric and Statistical Issues
- Speaker(s):** John H. Herbert, Energy Information Administration
- Discussant(s):** John Fenton, Commodity Futures Trading Commission
- Chair:** Allan B. Griffith, Energy Information Administration
- Date/Time:** Tuesday, November 22, 1994, 12:30-2:00 PM
- Location:** Department of Energy, Forrestal Building, Room GJ-015, 1000 Independence Avenue SW, Washington, DC (Metro Stop: L'Enfant Plaza or Smithsonian)
- Sponsor:** Agriculture and Natural Resources Section
- Abstract:** The natural gas futures market is only several years old. During these several years it has experienced phenomenal growth and dramatic price volatility. In this presentation, the relationship between futures and cash prices and the relationship between changes in the futures price and other factors are investigated. Some striking results are obtained, which support particular conclusions about the market.

Program Abstracts (Cont'd)

- Topic:** Huge Data Sets, Computational Feasibility, and High Performance Computing
- Speaker(s):** Edward J. Wegman, George Mason University
- Chair:** James E. Gentle, George Mason University
- Date/Time:** Monday, December 5, 1994, 12:30-2:00 PM
- Location:** BLS Training Center, Postal Square Building, Suite G-440, Room 10, 2 Massachusetts Avenue, NE, Washington, DC (Red Line -- Union Station). Enter at First Street.
- Sponsor:** Statistical Computing Section
- Abstract:** Recently, Huber (1994) offered a taxonomy of data set sizes ranging from tiny (10^2 bytes) to huge (10^{10} bytes). This taxonomy is particularly appealing because it quantifies the meaning of tiny, small, medium, large, and huge. Indeed, some investigators consider 300 small and 10,000 large, while others consider 10,000 small. In Huber's taxonomy, most statistical and visualization techniques are computationally feasible with tiny data sets. However, with larger data sets, computers run out of computational horsepower and graphics displays run out of resolution fairly quickly. In this paper, we discuss aspects of data set size and computational feasibility for general classes of algorithms in the context of CPU performance, memory size, hard disk capacity, screen resolution and massively parallel architectures. We discuss some strategies such as recursive formulations, which mitigate the impact of size. We also discuss the potential for scalable parallelization, which will mitigate the effects of computational complexity.

Program Abstracts (Cont'd)

- Topic:** Touchtone Data Entry Systems for Establishment and Household Surveys
- Speaker(s):** Ruth McKay, Bureau of Labor Statistics
Richard Clayton, Bureau of Labor Statistics
- Discussant(s):** Bill Nicholls, Bureau of the Census
- Chair:** Catherine Burt, National Center for Health Statistics
- Date/Time:** Tuesday, December 6, 1994, 12:00-1:30 PM (Note special time)
- Location:** BLS Cognitive Lab, Postal Square Building, Room 2990, 2 Massachusetts Avenue, NE, Washington, DC (Red Line -- Union Station). Enter at Massachusetts Avenue and North Capitol Street.
- Sponsor:** Data Collection Methods Section
- Abstract:** Touchtone data entry (TDE) is fast becoming a viable alternative for collecting data from survey respondents. It is particularly useful in establishment surveys because it provides timely, low-cost data delivered at the respondent's convenience. The advantage of TDE for household surveys is that it provides a low-cost means of increasing the sample size. The training of household respondents, however, is problematic. In both cases, special procedures are needed to maintain respondent cooperation. Recent experience with TDE at the Bureau of Labor Statistics will be used to illustrate these issues.

Employment Column

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 write or call: Bill Arends, USDA-NASS, Room 4133 South Building, Washington, DC 20250-2000, (202) 720-6812.

Vacancies

Statistician

Mathematica Policy Research, Inc., a nationally recognized survey research organization, has an immediate opening in its Princeton, NJ office for a Statistician to support its survey sampling and statistical analysis activities.

The successful applicant will have a Ph.D. in Statistics, or a Masters degree and at least five years of relevant experience. The position involves creating and implementing sample designs, including developing frames, selecting samples, calculating weights, imputing missing data, and performing statistical and methodological analyses. Strong communications skills, familiarity with statistical software, and knowledge of sampling methods are essential. Additional years of experience are highly desirable.

We offer a highly competitive salary commensurate with experience and a benefits package which includes an on-site fitness center and 3 weeks vacation. Interested candidates should contact Linda Legge at (609) 936-2767, or send their resume with salary history to: Mathematica Policy Research, Inc., P.O. Box 2393, Princeton, NJ 08543-2393.

Job Applicant

Listed below is a brief description of the qualifications of an applicant seeking employment. Employers interested in interviewing an applicant should write or call: Bill Arends, USDA-NASS, Room 4133 South Building, Washington, DC 20250-2000; (202) 720-6812. All requests should include the code number from the applicant's ad and employer's name, organization, and telephone number. The applicant will be notified of the employer's interest and initiation of any further contact will be left to the applicant. All contacts will be kept confidential.

Applicant # 95-02

A volunteer is looking to donate his service (free) to obtain hands-on experience in SAS programming. This person is trained and experienced in SPSS, but has no formal training in SAS. He has a B.S. degree in business with statistics training in econometrics and applied time series analysis. He is willing to donate up to 2 days a week to learn and use SAS in an applied statistics or business related area.

**Invite a friend to join
WSS this Fall!**

Call Renee Miller at (202) 254-5507 or Antoinette Martin at (202) 254-5409 for membership information.

President Sue Ahmed (202) 219-1781	Past President Michael L. Cohen (202) 586-6782	President-Elect Ron Fecso (703) 235-5213
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