



WASHINGTON  
STATISTICAL  
SOCIETY

# WSS NEWS

June 1995

## Quantitative Literacy

During the 1994-95 school year Montgomery County QL volunteers have continued to provide valuable assistance to a variety of activities in the county schools. Five County high schools have begun a new program of classes in planning and conducting long-term research projects. The new program, called Technology and Research Partnership (TARP), has each school providing a two-period class each day, the purpose of which is to have the students plan, conduct and write up the results of a year-long research project performed in partnership with local industries and government agencies. WSS QL volunteers involved in these activities include Lee Abramson, Barry Graubard, Gloria Gridley, Easley Hoy, Carolyn Lichtenstein, John Rogers, Wendy Rotz, Lana Ryaboy and Heather Smith.

Two other activities of note include Adventures in Science, a hands-on science education activity for children ages 8-15 in Montgomery County, meeting Saturday mornings from October to March. Lee Abramson ran a 2-hour workshop at NIH for a dozen 8-11 year-olds and a few parents on the distribution of M&M's, histograms of coin tosses, and box plots of pulse rates. The second activity, the Emeritus Scientists, Mathematicians and Engineers (ESME) program, is designed to supplement the teaching of math and science in elementary schools by using the experience of retired professionals. Eva Jacobs has been working with an elementary school in DC as the first and only person in the field of statistics in the program. She has used material from the Dale Seymour publications to demonstrate sorting, classifying, graphs, averages and interpretation of data. She has planned a field trip to the Bureau of the Census, which has a special tour for school children. Growth in this activity increases the needs for additional volunteers. If you are interested, please contact Eva Jacobs at (202) 966-2674 or via e-mail: [ELJacobs@AOL.com](mailto:ELJacobs@AOL.com). If you are interested in other Montgomery County activities, please contact Dwight Brock at (301) 496-9795 (phone), (301) 496-4006 (fax) or [BrockD@gw.nia.nih.gov](mailto:BrockD@gw.nia.nih.gov) (e-mail).

### WSS Seminars

(All events are open to any interested persons)

WSS Seminars	
(All events are open to any interested persons)	
<b>June</b>	
14 Wed.	Use of Auxiliary Data in Variance Estimation for Phase I of The Third National Health and Nutrition Examination Survey (NHANES III)
14 Wed.	Who Lives Here? Causes and Effects of Errors in Household Rosters
16 Fri.	A Comparison of the Bayesian and BLUP Methods in Small-Area Estimation Problems
19 Mon.	On the Contributions Made in the Theory and Practice of Index Number Problems
20 Tues.	Overview of the Census Bureau's Plans for Continuous Measurement
22 Thur.	Quality in the Federal Government
22 Thur.	Replication-Based Variance Estimation for Nearest Neighbor Imputation (Latest Presentation in Methodology Seminar Series on Variances for Complex Surveys)
28 Wed.	Improving Statistical Presentations
29 Thur.	Practical Considerations in the Evaluation of Record Linkage Software

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

## Announcements

### **Roger Herriot Award**

The Roger Herriot Award has been established jointly by the Washington Statistical Society, the Social Statistics Section and the Government Statistics Section of the American Statistical Association in memory of Roger Herriot, an Associate Commissioner for Statistical Standards and Methodology at the National Center for Education Statistics. Roger's untimely death last spring at the age of 52 robbed the federal statistics community of a creative intellect that always tried to "reinvent" the ways and methods of the statistical system.

Roger Herriot's federal career was marked by his unique and innovative approaches to the solution of problems encountered in federal statistics data collection, data analysis, and statistical program management. The award, therefore, is to recognize innovation and unique approaches in the federal statistical system.

The award is not restricted to "senior" members of an organization, nor is it to be considered as a culmination of a long period of service containing incremental contributions. Rather, individuals at all levels, from entry to senior, federal employees, private sector employees, or employees of the academic community, will be considered.

The award will consist of an honorarium of \$500, to be given at the Memorial Session in honor of Mr. Herriot at the 1995 meeting of the American Statistical Association. A nomination form can be obtained by contacting Daniel Kasprzyk (202) 219-1588, (202) 219-1728 fax, or email to [Daniel\\_Kasprzyk@ed.gov](mailto:Daniel_Kasprzyk@ed.gov). All nomination forms should be returned to the Roger Herriot Award Committee, c/o Daniel Kasprzyk, 4906 Colonel Contee Place, Upper Marlboro, Maryland 20772-2875. Completed nomination forms must be received by June 15, 1995.

### **Introduction to Time Series Analysis**

The WSS Short Course Committee will sponsor a two-day short course, Introduction to Time Series Analysis, on Monday and Tuesday, October 30 & 31, 1995. The instructor will be Richard A. Davis from Colorado State University, Fort Collins, CO.

The goal of the short course will be to introduce the basic concepts and methodology of time series analysis. The course will begin with some classical methods of smoothing and estimation of trend and seasonality and then progress to the heart of the workshop, model building and forecasting with ARIMA processes. Most of the techniques and methods discussed during the workshop will be illustrated using the time series computer package ITSM.

The course is intended for an audience with little or no prior knowledge in time series. It will be assumed that participants have a basic understanding of probability and statistics as well as some practical experience in analyzing data.

The course registration will include a photocopy of the forthcoming text, A First Course in Time Series, and the companion software, ITSM for Windows, both written by Peter J. Brockwell and Richard A. Davis.

The course fee will be about \$200 and the registration flyer will appear in the September & October Newsletters. Course registration will be limited to 125 participants and will not be accepted until September.

### **Social Committee Volunteer Needed**

WSS needs an interested person to work on the Social Arrangements Committee. This committee plans events such as the Annual Dinner and the Holiday Party. Please call Suzanne Dorinski at (301) 505-3965 for more information.

## Program Abstracts

- Topic:** Use of Auxiliary Data in Variance Estimation for Phase I of The Third National Health and Nutrition Examination Survey (NHANES III)
- Speaker:** John L. Eltinge, Texas A&M University
- Chair:** Van Parsons, National Center for Health Statistics
- Discussant:** Barry Graubard, National Institutes of Health
- Date/Time:** Wednesday, June 14, 1995, 1:30 - 3:00 PM (Note special time)
- Location:** National Center for Health Statistics Auditorium, Room 1110, Presidential Building, 6525 Belcrest RD., Hyattsville, MD
- Sponsor:** Office of Research and Methodology, National Center for Health Statistics Methodology Section
- Abstract:** Empirical results have suggested the potential for concern regarding the stability of some standard design-variance estimators used for Phase I of the Third National Health and Nutrition Examination Survey (NHANES III). This talk examines the use of auxiliary data to produce improved estimators of these design variances. One simple alternative is based on the assumption of approximate homogeneity of between-PSU variances. Other alternative estimators are based on more complex errors-in-variables models for the relationship between stratum-level sample variances and the corresponding sample estimates for auxiliary variables. Each proposed alternative uses variance-function-estimation methodology developed previously in the regression and errors-in-variables literature. The competing variance estimators can be compared through "degrees of freedom"-type stability measures. The proposed methods are illustrated with some specific NHANES III applications.

## Program Abstracts (Cont'd)

- Topic:** Who Lives Here? Causes and Effects of Errors in Household Rosters
- Speaker(s):** Elizabeth Martin, Bureau of the Census  
Deborah Griffin, Bureau of the Census
- Chair:** Mary Grace Kovar, NORC
- Date/Time:** Wednesday, June 14, 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:** Data Collection Methods Section
- Abstract:** Who "lives" in a sampled household is the first and most fundamental thing a household survey or census must determine about it, if interviews with its members are to represent the population completely. Yet, there has been little serious attention to sources of measurement error in compiling a household roster, which is treated almost as an administrative detail prior to the survey itself.

Errors in listing household residents account for a large proportion of the gross omissions measured in the decennial census, and contribute to a net undercount of the population in household surveys as well. This presentation examines data relevant to several causes and effects of error in household rosters, and discusses research underway at the Census Bureau to improve coverage within households. The research combines qualitative methods and survey-based, quantitative methods to improve the design of survey rosters and rules.

## Program Abstracts (Cont'd)

- Topic:** A Comparison of the Bayesian and BLUP Methods in Small-Area Estimation Problems
- Speaker:** Partha Lahiri, University of Nebraska-Lincoln
- Chair:** Sandra A. West, Bureau of Labor Statistics
- Date/Time:** Friday, June 16, 1995, 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 Best linear unbiased predictors of small area means, under a mixed linear model with fixed variance components, can be usually motivated from the Bayes or empirical Bayes viewpoint. In this paper, it is shown that for Kleffe-Rao model, a mixed model with random variance components, the BLUP of small area means are different from the corresponding Bayes or empirical Bayes estimators. For this model Bayes and empirical Bayes estimators turn out to be superior to the BLUP in terms of the mean squared error (MSE) criterion. The model is extended to incorporate sampling weights, covariances and unequal sample sizes. A hierarchical Bayesian procedure which takes into account various sources of variabilities has been proposed. A specific small area estimation problem using data from the U.S. Consumer Expenditure Survey is considered. Based on a robust (i.e., model free) evaluation criterion, the proposed hierarchical Bayes method turns out to be superior to the direct survey estimator.

**Program Abstracts (Cont'd)**

**Topic:** On the Contributions Made in the Theory and Practice of Index Number Problems

**Speaker:** K. S. Bannerjee

**Chair:** Arthur Kennickell, Federal Reserve

**Date/Time:** Monday, June 19, 1995, 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 presentation will provide a brief account of the work done by the author since early 50's, the classical theory of cost-of-living-index (CLI) number or consumer price index (CPI) number problems. The work includes, in particular, the development of a whole new approach, called the "factorial approach" (FA) to index number problems. A passing reference will be made to (i) probability sampling of consumption items and unbiased estimation of CLI, (ii) Ipso-facto-derivation of Wald's "True Index" of CLI, and (iii) demonstration of the fact that the ideal log-change index number is not unique -- in fact -- one has to choose from an infinitely many of such ideal log-change index numbers. The main focus of the talk will be on the factorial approach (FA) to index number problems. The FA provides (a) formulae for the "true index" of price and quantity, comparing well with the known "true indexes", (b) orthogonal (independent) decomposition of National Income into the price and quantity components, (c) multidimensional indexes, (d) multi-lateral indexes, (e) multidimensional-multilateral indexes, (f) a new interpretation to some of the well-known classical formulae and (g) a connection with the Hicksian and Marshall-Samuchsonian common surpluses.

## Program Abstracts (Cont'd)

- Topic:** Overview of the Census Bureau's Plans for Continuous Measurement
- Speakers:** Lawrence McGinn, Bureau of the Census  
Lynn Weidman, Bureau of the Census
- Chair:** Theresa DeMaio, Bureau of the Census
- Date/Time:** Tuesday, June 20, 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:** Data Collection Methods Section
- Abstract:** This session will present an overview of the Continuous Measurement System (CM), which is the Census Bureau's plan for producing continual data for census long form characteristics. The discussion will also address: 1) the integration of CM with the Federal Statistical System; 2) general background about the CM design for 1999 and beyond; and 3) the collaborative work with different Federal Agencies to jointly plan the integration of continuing surveys and statistical models with CM.

## Program Abstracts (Cont'd)

- Topic:** Quality in the Federal Government
- Speaker:** Norman E. Lorentz, U.S. Postal Service
- Chair:** Amrut Champaneri, U.S. Postal Service
- Date/Time:** Thursday, June 22, 1995, 12:30 - 2:00 PM
- Location:** USPS Headquarters, Ben Franklin Room (one floor above the 10th floor--south-end elevator to the 10th floor, then walk up the stairs to the Ben Franklin room), 475 L'Enfant Plaza, SW, Washington, DC (Blue/Orange or Yellow/Green Lines to L'Enfant Plaza Metro). All visitors must register at guard's station.
- Sponsor:** Quality Assurance Section
- Abstract:** Postal Leadership created the Quality organization in 1991 because of an identified need to improve operational performance and to ensure a focus on the customer in all our activities. Recently, we completed an organizational assessment using the Malcolm Baldrige National Quality Award criteria. One of the Primary goals of the assessment is to help postal leaders learn how successful total quality companies manage their systems and processes so that they can apply that learning to postal systems and processes. In addition, the Postal Service is developing action plans to help transform the organization into a more customer focused, success oriented and employee empowered Postal Service.

This model can be applied to other agencies too.



## Program Abstracts (Cont'd)

- Topic:** Replication-Based Variance Estimation for Nearest Neighbor Imputation (Latest Presentation in Methodology Seminar Series on Variances for Complex Surveys)
- Speaker:** Robert E. Fay, U.S. Bureau of the Census
- Chair:** Fritz Scheuren, George Washington University
- Date/Time:** Thursday, June 22, 1995, 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:** Rao and Shao (1992) developed a jackknife variance estimator for hot deck imputation suitable for a number of complex sample designs. The assumptions require that each imputation be made randomly from a large pool of donors, although Monte Carlo results are quite satisfactory for pools of size 30 or so. For some surveys, including the March Supplement to the Current Population Survey, a statistical matching procedure is used, searching for the "nearest neighbor" defined in terms of observed characteristics.
- The talk describes a replication-based variance estimator for nearest neighbor imputation, related but not identical to the Rao-Shao approach. The procedure employs a "second nearest neighbor" for variance estimation.

## Program Abstracts (Cont'd)

- Topic:** Improving Statistical Presentations
- Speaker(s):** Nancy Kirkendall, Energy Information Administration  
Wendy Alvey and Beth Kilss, Internal Revenue Service
- Chair:** Nancy Kirkendall, Energy Information Administration
- Date/Time:** Wednesday, June 28, 1995, 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:** Washington Statistical Society
- Abstract:** This is a workshop on improving statistical presentations, particularly aimed at people who will be presenting papers at the Joint Statistical Meetings (JSM) in Orlando this August. The instructors are experienced presenters who will share general lessons and specific hints about making more effective presentations. Topics include selecting and organizing material, effective communication with the audience, visual aids, and handouts. A video on presentation techniques will be interspersed with the presentations and handout material will be made available. Participants will also have a little time to ask specific questions about their presentations and to share their experiences and views.
- Anyone planning on giving a presentation at the JSM--especially first-time presenters--should consider attending. Experienced speakers are also welcome.

**Program Abstracts (Cont'd)**

- Topic:** Practical Considerations in the Evaluation of Record Linkage Software
- Speaker:** Charles Day, National Agricultural Statistics Service
- Discussant:** William Winkler, Bureau of the Census
- Chair:** Mark Pierzchala, National Agricultural Statistics Service
- Date/Time:** Thursday, June 29, 1995, 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:** Statistical Computing Section
- Abstract:** Automated record linkage (matching records between computer files or within one file) is a valuable technique with applications in both statistics and data processing. Improved computing technology and software availability are making sophisticated methods available to new users and causing current users to redesign their systems. The speaker will present an overview of issues in the evaluation of record linkage software including data processing environment, goals of the linkage, and nature of the data sets. He will also present a checklist of features of record linkage software. Additionally, he will discuss commercially available software and its role in developing record linkage solutions.

## *Reminiscence*

*The following is reminiscence written by Jack Ogus. Jack Ogus is an ASA Fellow. WSS is interested in printing similar material, either histories, anecdotes, or reminiscences from other members of our federal statistical community. Possibly, this will motivate other federal agencies to initiate similar projects so that the history of statistics in Washington, DC, that is our rich heritage, is preserved.*

For the 1940 population Census hundreds of recent college graduates, I among them, were hired from the Civil Service Junior Professional Assistant lists. As temporary statistical clerks our entrance salaries were \$1,440 per annum (\$3.95 per day when actually employed). Many stayed on to become, in time, mid-level or high-level professional statisticians in various government agencies.

Dr. W. Edwards Deming as we novices, respectfully, referred to him was involved in introducing several innovative procedures in the 1940 Census. Among them were the use of sampling to collect supplementary information and a program for imputing individuals' ages when they were missing.

As Ed reported in subsequent papers, neither procedure worked perfectly.

The sampling plan called for collecting and tabulating the supplementary information for 5 percent of the enumerated population. The actual percentage tabulated was slightly, but statistically significantly higher.

In order to evaluate the accuracy of the age imputation program Ed directed a study in which the age distributions of reported and corresponding imputed ages were compared by each of many categories for a large sample from the previous census. The distributions compared quite well with the single exception of the occupational category "sales".

The difference between the specified and actual sampling rates was affected by a clerical supervisor's operating rule which prescribed that if a person had been reported on a sample line and also on another line, the sample line was always to be retained and the other deleted.

Ambiguity distorted the age assignment study results. The clerks who participated in that study were not clearly instructed as to whether "sales clerks" were to be considered members of the "sales" category or members of the "clerical" category. As a result they treated sales clerks in their sample inconsistently.

Unhappily Ed was never informed about either of these failures to observe the theory of the plan. While neither of these contributions to census practice looms large in the total body of Ed's contributions, they perhaps deserve to be mentioned in footnotes to a future history of Ed's work.

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

Items for publication in the September 1995 WSS NEWS should be submitted no later than July 25, 1995. FAX items to:

Mike Feil or Alyson Muff  
Internet: [mfeil@nih.gov](mailto:mfeil@nih.gov)  
or Fax: (301) 443-4045

# Announcements

## Cost Benefit Analysis Seminar

The Department of Energy's Office of Environmental Restoration will sponsor a WSS Methodology Seminar on cost-benefit methodological issues, on September 14, 1995, in the Forrestal Building, 1000 Independence Avenue SW, Washington, DC from 9:00 to 11:30 AM. Speakers will provide an understanding of the methodological issues surrounding the use of cost benefit analysis. If you are interested in attending, please inform Gerald Kassalow at (301) 903-8122 or [Gerald.Kassalow@em.doe.gov](mailto:Gerald.Kassalow@em.doe.gov).

## JPSM Short Course Schedule

The Joint Program in Survey Methodology (JPSM) is announcing the following tentative schedule for Fall 1995. Final announcements will be sent later. To be added to the JPSM mailing list, call 800-937-9320, fax 313-764-8263 or send E-Mail to [JPSM@UMICH.EDU](mailto:JPSM@UMICH.EDU).

- September 1995, An Introduction to Survey Sampling, James Lepkowski, Colm O Muirheartaigh
- October 1995, Visualizing Data, William Cleveland
- November 1995, Statistical Disclosure and Disclosure Limitation, Lawrence Cox
- December 1995, cosponsored by WSS and JPSM, Handling Missing Data in Surveys, Graham Kalton

## JPSM Summer 1995 Schedule

The Joint Program in Survey Methodology (JPSM) will offer the following courses:

- Data Collection Methods in Survey Research; May 31-July 19; M,W 6:00-8:30 PM; Mick Couper
- Applied Sampling; June 1-July 20; Tu,Th 6:00-8:30 PM; James Lepkowski
- Randomized and Nonrandomized Design; July 12-

August 30; M,W 3:30-6:00 PM; Chan Dayton

One-week mini-courses will also be offered:

- Application of Behavior Coding in Questionnaire Evaluation; May 30-June 2; Tu, W, Th, F 3:00-6:00 PM; Robert Belli
- Obtaining Autobiographical Data in Survey Research; June 5-June 9; M, Tu, W, Th, F 3:00 - 6:00 PM; Geeta Menon
- Computer-Assisted Interviewing; June 12-June 16; M, Tu, W, Th, F 3:00-6:00PM; Mick Couper
- Cognitive Laboratory Techniques for Questionnaire Development; June 19-June 23; M, Tu, W, Th, F 3:00-6:00 PM; Robert Belli

For further details about these courses, please contact the JPSM at (301) 314-7911.

## Outreach to Applied Statisticians in Orlando

A Planning Team of the ASA Board of Directors is trying to identify ways the Association can better serve applied statisticians. As a result we have organized two events to be held at the Joint Statistical Meetings in Orlando.

First, at 2:00 PM on Tuesday, August 15, we are holding an open meeting with round table discussions, to solicit views of applied statisticians. We plan to have separate round tables on each of five topics: 1) the annual meeting, 2) local activities, 3) continuing education, 4) publications, and 5) membership.

Second, at 4:00 PM on Tuesday, August 15, we are sponsoring a session entitled "Applied Special Topics in the Health Sciences," which we hope will be of interest to applied statisticians. This session might serve as a model for applied sessions.

If you have any questions, please call Nancy Kirkendall at (202) 254-5363.

## Announcements

### **First Call for Presentations: Data Editing Workshop and Exposition**

On March 22, 1996, the Federal Committee on Statistical Methodology (FCSM), the Bureau of Labor Statistics, the Joint Program in Survey Methodology, and the Washington Statistical Society will jointly sponsor a one-day workshop and exposition on the subject of editing survey data. This event will provide an opportunity for those with an interest in the field to demonstrate software, present findings, and discuss experiences in an informal setting. Note that the date is the Friday following the Census Bureau's Annual Research Conference and CASIC Seminar. The location is the Bureau of Labor Statistics Conference and Training Center across from Union Station.

Data editing is a key (and often costly) activity that takes place for almost all surveys. Advances in editing methodology, practice, and systems are not always published or known outside the agencies in which they take place. Yet there are many common needs and situations where solutions and approaches would be applicable to others. Here data editing is defined broadly as any procedure designed and used for detecting erroneous or questionable survey data with the goal of correcting erroneous data or identifying potential estimation problems that may be handled by other means such as reweighting.

Both software exhibits and talks are planned. Those exhibiting software will be given a 3 hour slot to demonstrate their software and to discuss informally how it works and their experiences in the development process. The exhibitions will be primarily educational and presenters should be willing to share technical information. Software exhibitors will be asked to provide their own projection panels and laptop computers. Other talks and presentations should last 15 minutes with 10 more minutes for discussion. Talks may or may

not be accompanied by a paper, at the preference of the presenter. If a sufficient number of presenters prepare a paper, a proceedings volume may be issued.

Presentations concerning new or previously undocumented software systems or editing approaches and methodologies are especially encouraged. Systems personnel, managers, subject matter specialists, and others who normally do not present at conferences or symposia are also encouraged to submit.

Proposals for presentations, including a brief description of the presentation, the presenter's name and affiliation, and a phone number may be submitted any time before February 1, 1996. Early submissions are encouraged. Submit abstracts to:

David Pierce  
Federal Reserve Board, Stop 401  
Washington, DC 20551.  
Use e-mail if you wish: [M1DAP00@frb.gov](mailto:M1DAP00@frb.gov)

Questions may be directed to David Pierce at (202) 452-3895 or Mark Pierzchala at (703) 235-5218 ([mpierzchala@ag.gov](mailto:mpierzchala@ag.gov)).

A list of possible topics follows. An example of a methodological topic is how editing contributes (or doesn't contribute) to data quality and how much editing is needed. A productivity topic is allocating resources to major problems including editing strategies, strategic editing and the like. A system development topic might be issues in use of generalized systems versus survey-specific systems. Organizational and management issues are how to keep systems programmers and survey managers abreast of latest developments in editing techniques and systems. How to implement new ideas in ongoing operational programs. A more extensive list of possible topics is available by sending an e-mail message to [mpierzchala@ag.gov](mailto:mpierzchala@ag.gov).

## Announcement

### General Liability Insurance for Chapters

The ASA Board of Directors approved a proposal to provide general liability insurance to all of the C policy effective January 1996. This move recognizes that the local efforts of chapters are vital to the interests of the ASA. There will be no additional charge to chapters or individuals. If you have any questions, please call Nancy Kirkendall at (202) 254-5363.

### New Approaches to Defining Metropolitan and Non-Metropolitan Areas

COPAFS will host a conference on New Approaches to Defining Metropolitan and Non-Metropolitan Areas on November 29-30, 1995. The Office of Management and Budget (OMB) is considering new ways of defining metropolitan and nonmetropolitan areas. This conference will provide a forum for evaluating alternative definition approaches and for OMB to hear the concerns of the user community. Subjects to be covered include:

- \* What are the basic geographic units for defining areas?
- \* What criteria should be used to aggregate the basic geographic units?
- \* Should there be hierarchies of statistical areas?
- \* What kinds of areas should receive official recognition to meet the needs of various users?
- \* Should the defined areas provide nationwide territorial coverage?

The cost for the two-day seminar, which will take place at the Bethesda, MD, Holiday Inn, will be \$125.00 per person. Registration will be limited to 250 participants. For further information, contact Edward Spar or Susan Cohen in the COPAFS office tel: 703/836-0404; FAX: 703-684-2037.

## 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.

### 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 # 95-03

Looking for an entry-level position as a research assistant, or similar entry level position. Graduated in 1993 with a bachelor's degree in sociology with a certificate in demography. Has worked in various offices; comfortable with a DOS, Windows, or Macintosh environment. Familiar with on-line searches, internal office e-mail, and using Census and vital statistics documents for research.

## 1995 Science Fair Winners

WSS presented awards to 36 Washington area students at five regional science fairs this spring. Since 1986, WSS has been making these awards to students whose projects demonstrated excellence in the investigation or application of statistical methods to a particular scientific problem. This year, first award winners received a book--Statistics: A Guide to the Unknown, by Tanur, et al., or The Fascination of Statistics, by Brook, et al. Others received certificates of honorable mention.

The judging was coordinated by Lee Abramson. Thanks to all of those who volunteered as judges. They are: Lee Abramson, Allison Clark, Bob Clickner, Paul Cook, Brenda Edwards, Gloria Gridley, Linda Hardy, Gene Heyman, Tzu-Cheg Kao, Jim Knaub, Mary Marion, Cecilia McWhirter, Michael Moll, Dan Ramey, Arnie Reznak, John Rogers, Rebecca Roper, Sid Schwartz, Heather Smith, Michael Stoto, Leslie Wallace, Dan Weinburg, Glenn White, and David Wright.

Awardees and their schools and project titles are as follows:

### District of Columbia

#### First Awards

Justin Sausville, 9th grade, Gonzaga High School, "Genetic Linkage in Soy Beans"

#### Honorable Mentions

Veronica Cox, 12th grade, Wilson High School, "Does Money Influence SAT Scores?"

John Kowalski, 11th grade, Gonzaga High School, "Cosmological Models"

Katy Milkman, 7th grade, Sidwell Friends School, "Music and Intelligence: Can Listening to Mozart Affect Intelligence Test Scores?"

### Fairfax County

#### First Awards

Michelle Robinson, 10th grade, Jefferson High School, "Project Autonomy: The Key to Success?"

Rachel Golden, 12th grade, Jefferson High School, "Behavioral Responses of Male Cheetah Coalition Members to Experimental Separations"

#### Honorable Mentions

Noah Dobbins, 11th grade, Herndon High School, "The Magic of Probability"

Natalee Holt, 10th grade, McLean High School, "The Effect of Music on Heart Rate"

Stephen LaGarde, 10th grade, Lee High School, "Is Short-Term Memory Biased by Gender?"

Patrick Montemerlo, 11th grade, Lake Braddock High School, "Three Axis Seismometer: Measuring and Locating Earthquakes and Nuclear Explosions"

Katherin Slimak, 11th grade, West Springfield High School, "Avoidance Response as a Sublethal Endpoint"

Christine Yerg, 10th grade, Annandale High School, "Effect of Age and Education on Women's Clothing Design Preferences"

### Montgomery County

#### First Awards

Yves Chretien, 8th grade, Holy Cross School, "Guitar String Stretching and Tuning Frequency"

Joshua D. Schwab, 12th grade, Montgomery Blair High School, "Increasing Returns and Regional Growth"



## 1995 Science Fair Winners Cont'd.

### Honorable Mentions

Craig Erdrich, 8th grade, Takoma Park Middle School, "Don't Wait-Break the Bond with Acetate"

Paul Piccone, 8th grade, Environmental Sciences (Life) School, "Effect of Metals on the Germination of Avena Sativa"

Daniel Helmer, 8th grade, White Oak Middle School, "How Random is Pi?"

Prashant Rajan, 12th grade, Montgomery Blair High School, "Exchange Rate Volatility..."

Tyson Yu, 7th grade, Takoma Park Middle School, "Do Variables Affect Elastic Collisions?"

John Tritzler, 6th grade, Holy Cross School, "Hit or Miss"

### Northern Virginia Science and Engineering

#### First Awards

Najya Bacool, 11th grade, Wakefield High School, "Decomposing Bacteria vs. Population Growth of Algae During an Oil Spill"

Candice Smith, 10th grade, Yorktown High School, "The Effect of pH on the Respiration Rate of Crayfish"

Rebecca Yurek, 9th grade, Wakefield High School, "The Effects of Plant Pathogen Erwinia carotovora on Carrot Tissue..."

#### Honorable Mentions

Kristin Felker, 7th grade, Thomas Jefferson School, "Mealworm Delite?"

Heather B. Green, 8th grade, Williamsburg School, "The Birds Choose-What is the Effect of the

Opaqueness of a Birdfeeder..."

Rangina Hamidi, 11th grade, Wakefield High School, "The Effect of Temperature on the Population Growth of Chlorella"

Stefanie Stauffer, 9th grade, Washington-Lee High School, "The Lateralization of Figure Skaters Compared to the General Population"

Kevin Will, 9th grade, H-B Woodlawn High School, "Light Color and Plant Pigments"

### Prince George's County

#### First Awards

Andrew Blunck, 7th grade, Hyattsville Middle School, "What Causes Water Pressure?"

Hamidreza Alibadi, 12th grade, Oxon Hill High School, "Effects of Fructose & Galactose on Cu"

Kelly Davis, 12th grade, Eleanor Roosevelt High School, "Host Preference of Varroa Jacobsoni"

#### Honorable Mentions

Shayna Hershkowitz, 7th grade, Benjamin Tasker Middle School, "Stress Relief: Differences of the Sexes!"

Ann Hike, 9th grade, Eleanor Roosevelt High School, "Oh, Those Lying Eyes!"

Brianna Walers, 12th grade, Oxon Hill High School, "Amazonia Education: Zoo Computers"

Timothy Spahr, 12th grade, Eleanor Roosevelt High School, "Genetics of Resistance to Bean Rust"

Kimberly Harrington, 11th grade, Bowie High School, "Video Feedback"

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