



OCTOBER 1984

WASHINGTON
STATISTICAL
SOCIETY

NEWSLETTER

Calendar

- October 9 Tuesday Multi-Sample Cluster Analysis as an Alternative to Multiple Comparison Procedures with Applications to Remote Sensing
- October 10 Wednesday Forecasting the 1984 Elections (Reservation Required)
- October 11 Thursday Modeling Labor Supply in Occupations With Limited Entry
- October 15 Monday SAS Software-Macros for Mainframe/Microcomputer Data Transfer
- October 18 Thursday Replication Methods for Complex Samples, Including Adjustment of Chi-Square Tests
- October 24 Wednesday Sampling Rare Populations for Health Surveys

 RANDOM BITS - (At the Annual WSS Dinner in June, John Keane, Bureau of the Census, and Janet Norwood, Bureau of Labor Statistics made presentations on the theme of "Looking Ahead". This month's Random Bits prints the text of John Keane's speech at the Annual Dinner. In the November issue, the text of Janet Norwood's speech will be printed).

"GETTING AHEAD BY LOOKING AHEAD AT THE CENSUS BUREAU", John G. Keane, Director, Bureau of the Census, Washington, D.C. Presentation for the Washington Statistical Society Annual Dinner at Blackie's House of Beef, Washington, D.C., Tuesday, June 12, 1984.

I am at some disadvantage here compared with Commissioner Janet Norwood. She can look ahead to her Bureau's second hundred years, while the Census Bureau has 18 more years to go just to complete its first 100 years. I feel like an upstart! Not to worry though, because likely neither of us is eager to be quoted on what things will look like 100 years from now.

When I arrived at the Census Bureau some months ago, of the first questions I asked was whether or not the Census Bureau is accustomed to looking ahead and doing long-range planning. The answer was yes and no. Pursuing that ambiguity, I picked up two of those great slogans agency officials sometimes use to explain themselves.

The first was that in times of abundance, long-range planning thrives, and in times of scarcity, evaluation thrives. The other slogan was that: "Everything we are now doing is more important than anything we have not started". The trouble with the first of these, of course, is that good planning requires evaluation. Evaluation really is a part of planning. The second slogan about the importance of existing work apparently has to do with the uncertainties and frustrations of the program and budget cycle. The way it was put to me is that if you offer up an existing program in exchange for a proposed program you have a pretty good chance of losing not only the proposed program but the existing program as well. There is some truth in both of these propositions, but I don't accept them as inevitable. If we are not looking ahead, even when no financial windfalls are in sight, we are not going to capture opportunities that may arise.

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"Getting Ahead by Looking Ahead at the Census Bureau" (Continued)

Furthermore, I've found, in consulting with many kinds of organizations, that some companies, for example have taken out a new lease on their future, not solely by maximizing their profits, but by cutting their losses, redirecting their resources, taking a closer look at their clients, updating their goals, and engaging in self-renewal.

Now then, for a couple of minutes, concentrate on a scenario. This is a scenario of the Census Bureau's future 25 years down-stream. I'll give you the major elements of it, and then I will tell you who composed it and when. According to this scenario, the Bureau would become an independent agency within the executive branch, but not in any cabinet department.

It would carry out an increased share of the Federal Government's data collection activity. The push for this would come from mounting concerns about reporting burden and confidentiality, while yet meeting the constantly growing demand for statistical information.

The Census Bureau would develop an expanded analytical capability--not to engage in public analysis--but rather to provide increasing insight into the meaning of the data and the inferences that can be drawn from the data. The Bureau would become more user oriented. User access to our data would be more on-line and more interactive, with call up capabilities and flexibility of approach.

The Census Bureau would strengthen its programs for data dissemination, and much more of this would be handled at local levels and certainly at the state level. An Ombudsman Office would be established, both to handle special information requests and to deal with complaints of all kinds. The entire effort toward educating and informing the public would be intensified across the board. The Census Bureau would place much greater emphasis on three of its activities--research, training, and statistical standards adherence. Each of these activities would produce benefits not only for the bureau, but for other data producers and all data users.

The Census Bureau's geographic work would become increasingly automated. This, when integrated into various data bases, would provide an outstanding service to all federal agencies for customized information.

Data collection itself would evolve toward a paperless system, with much greater reliance on hand-held computers, data phones, satellite relays, and so forth. Many respondents would be carrying around their own pocket computers from which they retrieve personal information such as for licensing and credit applications. The electronic age would evolve to the point where a quick survey can be taken and tabulated within an hour.

The Census Bureau's organization itself would change accordingly. Headquarters staff would be smaller, but still paramount. It would spend more of its time working with other federal agencies engaged in long-range planning, training, standard setting, and the coordination of much more decentralized data collection and processing activities. The organizational structure will be less rigid, with much greater emphasis on inter-disciplinary teams, open communication, delegation of responsibility, and personal performance judged by organizational achievement.

The people who developed this scenario added an important commentary on the external environment, noting that many of these developments would depend on whether the general public attitude toward personal information is more protectionist or more inclined to accept free inquiry and free exchange of personal information.

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"Getting Ahead by Looking Ahead at the Census Bureau" (Continued)

Now the group that composed this scenario was a group of volunteers within the Census Bureau itself, who were asked to imagine what the bureau could be like in 25 years and to ignore all the obvious constraints that we have to deal with in the short run. It will come as no surprise to know that the man behind this project was former Director, Vincent Barabba. The group started discussing their ideas in 1974 and they reported on the scenario I've just given you in 1976. There are several very interesting things about this scenario. First, I am told, its reception ranged from laughter to polite applause. Second, there is virtually nothing in the scenario that absolutely cannot happen, that is totally beyond the range of possibility, and third, some of the elements in this vision of the future are beginning to happen anyway, perhaps as very small steps and not necessarily by design. I can make my point about the value of this sort of exercise just with a few illustrations.

First, we certainly do not have an Office of Ombudsman, but in the past few years we have established the position of Assistant Director of Communications -- an organizational step toward a better integration of our public information, user services, and Congressional Affairs activities. At times that Assistant Director, Steve Tupper, helps us by assuming at least a quasi-ombudsman posture.

Second, the Bureau does not spend much time pondering how to become an independent agency, and the whole idea does seem rather impossible. As you may have noticed, this very idea exists in the form of a 1983 Senate amendment, adopted in committee, to the trade reorganization legislation. That proposed legislation would establish a Department of Trade and reorganize the Commerce Department. One never knows. Third, the notion of automating all of our geographic work, or most of it, has begun. We have an ambitious, but very well planned, effort to automate the geographic requirements for the 1990 Census. No one is going to guarantee complete success -- we are more realistic than that; but it is carefully designed, under close scrutiny and very promising.

Fourth, the Bureau is expanding its interactive on-line access capabilities to our public use data bases. We have a contract to provide this access for economic indicators and a similar capability within the public sector for access to our international data base. We have also moved in the direction of greater decentralization of our data dissemination system through the establishment of the state data centers.

Finally, research, training, and standards happen to be three of the areas in which there is a heightened level of planning right now. We have started an effort to create a five-year research plan to bring theory and practice closer together within the Bureau. Analysis teams are doing issues and options studies on such strategic topics as staff development, product quality, and product dissemination.

Well, I can tell you that I am not laughing at anyone's scenario for the Census Bureau or for any other organization. When scenarios of this kind are created, there are two common reactions, and they are both mistakes. The first mistake is to adopt a scenario as a blueprint and then force it to fruition. The second mistake is total rejection. The correct reaction is to use an exercise of this kind as one of many tools in a continuous strategic planning process. The value of this is not to get you where you want to go nor to make you feel better when you did not get there. Rather, the value is to be better prepared to capture opportunities and to cushion adversities through what I call...scenario-sensitizing. Despite the differences between the Federal world within the Beltway and the corporate world outside, mindsets that I suggested earlier, are valuable in both worlds. They are being prepared: 1) To cut losses; 2) To redirect resources; 3) To be ever-sensitive to client needs; 4) To refine organizational missions and goals but with cause and care; 5) To be guided overall by organizational self-renewal. Yet in doing so it is vital to preserve the distinguishing hallmarks of both bureaus... Labor Statistics and Census....while preparing for what's to come. For that is how we shall be looking and getting ahead.

ABSTRACTS

TOPIC: Multi-Sample Cluster Analysis as an Alternative to Multiple Comparison Procedures with Applications to Remote Sensing
SPEAKER: Hamparsum Bozdogan, University of Virginia
MODERATOR: Douglas DePriest, Office of Naval Research
DATE AND TIME: Tuesday, October 9, 1984; 12:30PM-2:00PM
LOCATION: Room BE-069, Forrestal Building, 1000 Independence Avenue, S.W.
ABSTRACT: This paper studies multi-sample cluster analysis, the problem of grouping samples, as an alternative to multiple comparison procedures through the development and introduction of model-selection criteria (such as those of Akaike and Schwarz) as new procedures for comparing means, groups or samples, etc., in identifying and selecting the homogeneous groups of samples from the heterogeneous ones. An application to remote sending data will be discussed.

TOPIC: Forecasting the 1984 Elections
CO-SPONSOR: Washington Operations Research/Management Science Council (WORMSC)
PANELISTS: Jack Moshman, Moshman Associates (ABC); Richard Scammon, Election Research Associates (NBC); Richard Smolka, American University (WRC-TV)
MODERATORS: Dick Taeuber (WSS) and Rod McConnell (WORMSC)
DATE AND TIME: Wednesday, October 10, 1984; 7:30PM-8:00PM, Social Period, Wine & Cheese will be served; 8:00PM-10:00PM, Panel Discussion
LOCATION: 16th Floor Conference Room, System Planning Corporation, 1500 Wilson Boulevard, Rosslyn/Arlington, Va.
RESERVATIONS: Call Dick Taeuber on 328-7799 to place your reservations-space is limited
ABSTRACT: The panelists are involved in the election night projections by various media elements, and the election night shows are the biggest competition between the national and local television/radio news departments. The panelists will discuss the statistical and practical problems with this realtime systems challenge to provide maximum prompt information to the viewing/listening publics. Brief presentations will be followed by a Question and Answer period.

TOPIC: Modeling Labor Supply in Occupations with Limited Lateral Entry
SPEAKERS: Paul Hogan, Department of Defense; David Edson, Mathematica Policy Research; Myles Maxfield, Mathematica Policy Research
CHAIR: Bette S. Mahoney, Department of Defense
DISCUSSANT(S): Alan Fechter, National Research Council
DATE AND TIME: Thursday, October 11, 1984; 12:30PM-2:00PM
LOCATION: Room BE-069, Forrestal Building, 1000 Independence Avenue, S.W.
ABSTRACT: Hogan will discuss taste truncation in occupational choice models. Developed for labor supply modeling for the military, there are applications to other occupations where lateral entry is restricted due to educational or experience requirements. Edson and Maxfield discuss methods of utilizing survey data bases for modeling the supply of scientific and engineering personnel.

TOPIC: SAS Software-Macros for Mainframe/Microcomputer Data Transfer
SPEAKER: J. Harvey Trimble, Jr., Trimble Data Systems
CHAIR: Ron Steele, USDA/SRS
DISCUSSANT: Chapman P. Gleason, Justice Department
DATE AND TIME: Monday, October 15, 1984; 12:30PM-2:00PM
LOCATION: Martin Luther King Memorial Library, Room A-5, 901 G Street, N.W.
ABSTRACT: This program will discuss the basis of data communications between microcomputer and IBM mainframe systems and the importance of transforming data for direct use by microcomputer application packages. An example based on a commercially available SAS 82 macroprocedure is described.

ABSTRACTS (Continued)

TOPIC: Replication Methods For Complex Samples, Including Adjustment of Chi-Square Tests
SPEAKER(S): Robert Fay, Bureau of the Census
CHAIR: Robert J. Casady, NCHS
DISCUSSANT(S): Andrew A. White, NCHS
DATE AND TIME: Thursday, October 18, 1984; 1:30PM-3:00PM
LOCATION: Center Building, Room 1-23, 3700 East-West Highway, Hyattsville, Maryland
ABSTRACT: This talk discusses developments in the theory supporting the application of replication methods to complex sample designs. Familiar replication methods, such as the jackknife or half-sample methods, may be seen as variants of a class of general resampling plans that may be adapted to virtually any variance estimator. Under suitable conditions, these methods may be used to estimate the variance, bias, and, in some cases, other characteristics of the sampling distribution of nonlinear statistics. These general ideas are incorporated in the formation of a jackknifed chi-square test that may be used as a replacement for the chi-square test in complex sample.

TOPIC: Sampling Rare Populations for Health Surveys
SPEAKER(S): Graham Kalton, University of Michigan
CHAIR: Wesley L. Schaible, Bureau of Labor Statistics
DISCUSSANT(S): Joseph Waksberg, WESTAT
DATE AND TIME: Wednesday, October 24, 1984; 12:30PM-2:00PM
LOCATION: Martin Luther King Memorial Library, Room A-5, 901 G Street, N.W.
ABSTRACT: Many health studies require a probability sample of persons with a specified characteristic such as a certain illness, disorder or disability. The design of an efficient sampling procedure for such studies can present a challenging task when the characteristic is a rare one. This presentation reviews the theory and practical feasibility of a variety of methods used for sampling rare populations. Methods discussed include multiple frames; screening methods; disproportionate stratification; multiplicity sampling; and snowball sampling.

FELLOWSHIP ANNOUNCEMENT

The American Statistical Association/Census Bureau Research Program seeks applications for Fellowships and Associateships beginning September 1, 1985. The positions will be at the Census Bureau for one year or a shorter period. Fellows and Associates will have a unique opportunity to make major advances in methodology and applications in such areas as (1) decennial census undercount adjustment, (2) survey of income and program participation (SIPP), (3) social and demographic studies, (4) economic measurement and analysis, (5) survey methodology, (6) statistical quality control for censuses and surveys, (7) statistical confidentiality, (8) statistical computing, (9) time series analysis, or (10) special studies. Requirements: for Fellows, Ph.D. and research record in relevant field (e.g. Statistics, Economics, Demography, Sociology, Business Computer Science); for Associates, at least two years graduate study in relevant field. Salaries will be commensurate with qualifications and experience; also, fringe benefits and a travel allowance will be provided. Apply by January 1, 1985 for Fellows and February 15, 1985 for Associates. For further information contact Dr. William Bell, Coordinator, ASA/Census Research Program, Statistical Research Division, Room 3514-3, Bureau of the Census, Washington, D.C. 20233 (301-763-3848).

SPECIAL SEMINAR IN BAYSEAN INFERENCE AT GEORGE WASHINGTON UNIVERSITY

Dr. Dennis Lindley, former head of the Department of Statistics at University College, London, will be visiting GWU during the fall semester. As part of his program, he will be teaching a special seminar in Baysean Inference, Statistics 289. It will be taught on Mondays from 6:10 to 8:40. Late registration may be accepted. For additional information, contact the Department of Statistics, GWU at 676-6656.

SYMPOSIUM ON METHODOLOGY AND QUALITY ASSURANCE IN CANCER CLINICAL TRIALS-OCTOBER 24-26, 1984, WASHINGTON, D.C.

This major symposium, sponsored by the Cancer Therapy Evaluation Program of the National Cancer Institute, will bring together clinical investigators, biostatisticians, and other professionals concerned with the quality and reliability of cancer clinical trials. Topics to be covered include: quality assurance within a single institution; quality assurance for multi-center trials; evaluation of radiotherapy quality control; evaluation of pathology review; the reliability of response evaluation; the size of clinical trials; policies for interim reporting; non-standard designs for clinical trials; new approaches to developing predictive models; the design of biological response modifier trials; the monitoring of biologic effect in BRM trials; and the use of mathematical models for treatment planning. For further information and registration forms, contact either Mr. Mark Brown or Ms. Paula Watts, Social & Scientific Systems, Inc., 7101 Wisconsin Avenue, Suite 610, Bethesda, Maryland, 20814 (301) 986-4870.

EMPLOYMENT COLUMN

Deadline for inserting notices is five
(5) weeks before the publication date

Send notices and requests to:
Evelyn R. Kay
520-22nd Street, N.W.
Washington, D.C. 20037 202/331-1153

JOB OPENINGS

U.S. General Accounting Office has the following three job openings in the Design, Methodology and Technical Assistance Group in the National Defense and International Affairs Division: Operations Research Analyst, GS-1515-13; Assists auditors/evaluators in evaluations on the use of operations research studies done in the defense area; in evaluations by applying appropriate statistical techniques to international and/or defense data; and in planning, finding problems, formulating hypotheses, and advising on alternative statistical/modeling approaches to analyzing data collected. Prepare pertinent sections of reports/presentations including methodology, findings and recommendations. Statistician, GS-1530-12 (2 openings), Assists auditors by applying appropriate statistical techniques; by identifying, demonstrating, and introducing applications of statistical and information management to program evaluation; and by choosing the appropriate sampling techniques for specific evaluations. One opening requires sampling procedures and survey techniques. Both openings require computerized data collection and manipulation. Send SF-171 to Donna Heivilin, Director NSIAD/DMTAG, GAO, 441 G Street, N.W., Room 5118, Washington, D.C. 20548.

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JOB OPENINGS (Continued)

Statistician The American Petroleum Institute, is seeking a Statistician to perform research on industry-related topics, such as the environment, economics, health, safety and medicine; to develop survey design and sampling methodology; to review statistical methodology in research and analyses performed by others; and to supervise work of outside contractors and API personnel. Candidates should have a Ph.D in Statistics or related discipline; 3-4 years experience in handling a variety of statistical problems, including research and analysis; and excellent oral and written communication skills. Qualified applicants should submit resume with salary history to: Louise Lamb, American Petroleum Institute, 1220 L Street, N.W., Washington, D.C., 20005, EOE.

Labor Economist (Consultant) and Statistician/Data Analyst (Part Time/Temporary) Charles R. Mann Associates has job openings for a Labor Economist (Consultant) and a Statistician/Data Analyst (Part Time/Temporary) to work with attorneys, statisticians and economists providing consulting and litigation support services. Send resume to Charles R. Mann, Charles R. Mann Associates, Inc., 818 Eighteenth Street, N.W., Suite 820, Washington, D.C., 20006

Survey Statisticians GS-9/11 The Bureau Justice, Statistics, has several openings for statisticians with at least a Bachelor's Degree and experience with statistical packages. Involves developing analytic reports using National Crime Survey and Corrections Data. Contact Marilyn Jones, OJARS Personnel Office, 633 Indiana Avenue, Washington, DC, 20531, Telephone 724-7722.

JOB APPLICANTS

Listed below is a brief description of the qualifications of an applicant seeking employment. Employers interested in interviewing this applicant should notify Mrs. Kay of their interest by CODE NUMBER. The request should be by mail and should include the 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 confidential.

CODE NUMBER: 85-01

Position Wanted: Senior Survey Specialist, GS-15 or equivalent in Federal government or international public or private organization.

Education: BS-Statistics; MA-Economics

Experience: All facets of survey research. Currently principal survey specialist; serves as internal consultant, program director, policy formulator, educator through seminars and publications. Served as forms clearance officer.

Areas of Interest: Methodological issues, survey design, communications, and marketing.

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JOB APPLICANTS (Continued)

CODE NUMBER: 85-02

Position Wanted: Data Analyst/Statistical Programmer, Part Time

Education: Masters equivalent in Statistics; BA - Mathematics

Experience: Fourteen (14) years data analysis and data base management. Computer programming and statistical packages including SAS, TPL/PCL, WYLBUR, TSD, and JCL.

Areas of Interest: Statistical Programming and Data Analysis in Washington Metropolitan area.



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