Washington Statistical Society

WSS Newsletter-December 1981

CALENDAR

WSS Sponsored:

Topic:

Maximum Likelihood Procedures for Model Selection: A Variety of Applications

Speaker:

David F. Findlay, Principal Researcher, Mathematical Statistics Research Staff,

Census Bureau

Location:

Forestall Building, 1000 Independence Ave., Washington, D.C., Room GJ015

Date and Time:

Wednesday, December 9, 1981, 12:30-2:30 P.M.

Topic:

Regression Diagnostics for Collinearity and Influential Observations

Speaker:

Douglas Montgomery, Georgia Institute of Technology

Chair:

Seymour Selig, Office of Naval Research

Location:

George Washington University-Bldg C, Rooms 220-222. G Street between 22nd

and 23rd Streets, N.W., Washington, D.C.

Date and Time:

Thursday, December 10, 1981-12:30-2:00 P.M.

Topic:

Uncertainty Analysis as Applied to Pollution Data

Speaker:

Alan Gleit, Versar Inc.

Chair:

Turkan Gardenier, Environmental Protection Agency (EPA)

Discussant:

Clifton Bailey, Environmental Protection Agency (EPA)

Location:

3000A, Federal Building, 12th and Penn., N.W., Washington, D.C.

Date and Time:

Thursday, December 10, 1981-12:30-2:00 P.M.

Topic:

Declining Cities and a Growing Countryside: Early Findings from the 1980 Census

Speaker:

Larry H. Long, Center for Demographic Studies, U.S. Bureau of the Census

Chair &

Discussant:

Calvin Beale, Department of Agriculture

Location:

IRS Auditorium, Room 7132, 1111 Constitution Ave., N.W., Washington, D.C.

Date and Time:

Tuesday, December 15, 1981-12:30-2:00 P.M.

REMINDER

Respond to the Survey of interest in a "Yellow Pages" which appeared in the October 1981 issue, if you haven't done

SO.

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Topic: Abstract:

Regression Diagnostics for Collinearity and Influential Observations

Regression Analysis is a widely used technique in the engineering and physical sciences. A number of diagnostic methods have recently been developed to assist data analysts in identifying failures of data to follow the customary regression assumptions. This folk focuses on diagnostics for collinearity and influential observations, two common problems in regression analysis. Several procedures are reviewed and relationships between these are established. Some suggestions on

computing are also given.

Topic: Abstract: Uncertainty Analysis as Applied to Pollution Data

The implementation of air and water pollution criteria typically involve measurements of the concentration C of some material which are subject to a number of sources of variability. By uncertainty analysis we mean the use of appropriate stochastic models to describe the process C and its noisy, measured version C' together with procedures for making statistical inferences concerning the criteria. If we assumed these processes were normal then standard statistical procedures would suffice. However, actual data tend to be lognormally distributed. Hence, for example, E(C)=E(C'). Use of loglinear models and variance components will be discussed with reference to data of visible

emissions from coke ovens.

Topic: Abstract: Declining Cities and a Growing Countryside: Early Findings from the 1980 Census

Most large cities in the Northeast and Midwest lost population more rapidly in the 1970s than in the 1960s, and some are shrinking to their population level in the pre-automobile age. For most of these cities the area of population loss is spreading outward to encompass the inner suburbs. Some Sunbelt cities are beginning to show population losses.

The population of small metropolitan areas and nonmetropolitan counties generally grew more rapidly than the national average in the 1970s. The rural population, after declining since 1950, grew between 1970 and 1980. The "average American," as measured by the concept of the median inhabitant, was living in a smaller place and a less densely populated county in 1980 than in 1970—reversing dominant trends of the twentieth century. A formidable challenge is anticipating when city population losses will begin to slow and whether there are limits to population deconcentration.

JOB OPENINGS

Statistician Position is open for a statistican to lead the development and implementation of INS productivity/work measurement system for allocating resources.

Statistician(s)
Math or General
GS-1529 or 1530-11/12

One or more positions are open for statisticians to work in INS Statistical Analysis Branch. Graduate training is preferred.

ranch. Graduate training is preferred.

For either of these positions, call Immigation and Naturalization Service, Majory Sampson on 633-3053 for details.

JOB APPLICANTS

Code No.:

12-03-82

Position:

Mathematical Statistician, \$30,000

Experience:

More than 10 years experience in the private and public sectors in the areas of transportation, energy, and housing. Both my education and work experience have given me expertise in the following methodological techniques: sampling, statistical inference and estimation procedures, questionnaire design, analysis of variance, regression analysis, discriminant analysis, analysis of log-linear data, probit analysis, and logit analysis, and other types of multivariate analysis techniques and in the use of Non-Parametric tests. I have also had experience using Fortran, APL and SPSS.

I'm also familiar with SAS and BMD.

Education:

M.Sc. in Mathematical Statistics, McGill University B.Sc. in Mathematics, McGill University.

Code No.:

12-04-82

Position:

Mathematical Statistician, GS13/14 (\$40,000) in government or private industry.

Experience:

Seven years experience in all phases of survey sampling: survey planning, area and list frame construction, sample selection, estimation and reliability statements. Three years teaching experience. Extensive background in two years experience in design of experiments and data analysis. Com-

petent FORTRAN programmer experienced with statistical packages.

Education:

PhD in Statistics



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