THE STATISTICS TEACHER NETWORK

WOODROW WILSON NATIONAL FELLOWSHIP FOUNDATION SUMMER INSTITUTES IN STATISTICS FOR TEACHERS OF MATHEMATICS

A series of 5-day institutes on statistics will be held for teachers of mathematics at several sites across the United States during the summer of 1987. The institutes will be presented by Master Teachers who participated in the Summer Institute on High School Mathematics, "Focus on Statistics", which was held at Princeton University in 1984 under the direction of the Woodrow Wilson National Fellowship Foundation. Teachers conducting the institutes include Gail Burrill, Whitnall School District, Greenfield, WI; Chris Olsen, George Washington High School, Cedar Rapids, IA; Peter Barbella, Edgewood High School, Madison WI; and Murray Siegel, Walton High School, Marietta, GA.

The main focus of the institutes will be to give participants new statistical techniques that can and should be used in any classroom. The topics will be centered around the concept of statistics in society and will include exploratory data analysis, sampling and experimental design, probability, simulation, inference, and problem solving as it applies to statistics. The techniques presented do not require an extensive mathematics background. Participants will also explore the use of computers as an aid to learning and as a tool for teaching statistics with "teacher friendly" software. Also included will be a discussion on methods of incorporating statistical ideas into the curriculum at various levels. Time will be allowed for informal discussion between instructors and participants, and provisions will be made for follow-up implementation and seminars during the fall.

The institutes are open to all qualified teachers who are assured of a teaching position for the 1987-88 school year. However, enrollment is limited, so interested teachers should send inquiries as soon as possible. The institute sites and local coordinators are:

6/22-26   Dr. Barbara Hatton
           Tuskegee University
           Tuskegee, AL
           (205) 727-8570

7/6-10   * Mr. Stewart Lyons
           NY Teacher Centers Consortium
           SUNY Purchase
           Purchase, NY
           (718) 381- 5545

7/13-17   Dr. Ann Knoebel
           Trinity University
           San Antonio, TX
           (512) 736-7601

* This institute is open to New York City public school teachers only. Thirty teachers will be chosen by a review committee to attend the institute.

7/27-31   Dr. Mary Lindquist
           Columbus College
           Columbus, GA
           (404) 568-2255

8/3-6   Mrs. Debra Shelmire
           PRISM
           Beaver College
           Glenside, PA
           (215) 977-3280

All institutes, excluding the one to be held in Purchase, NY, are open to both public and private school teachers on a first-come, first-served basis. Brochures with information about registration, fees, college credit, and local arrangements may be obtained by contacting the coordinators at the addresses above.

STATISTICAL PRIZE COMPETITIONS

This year, for the first time, two statistics prize competitions were conducted at a national level. Joining the Annual Applied Statistics Competition for Schools and Colleges of Further Education, which has been held for a number of years in the United Kingdom, is a newcomer to the field, the American Statistical Prize Competition.

Following its announcement earlier this year, the American contest has attracted widespread interest. More than 130 requests for brochures and entry forms were received from all parts of the country. According to Dwayne Cameron, the contest director, attempts to publicize the competition must have been successful since students and teachers from as far north as Alaska to as far south as Hawaii wrote to obtain information or application forms. All students in grades 4-12 in public or private schools in the United States and Canada are eligible to participate in the contest which is being sponsored by the Center for Statistical Education of the American Statistical Association.

In the American competition, prizes of $300.00 will be awarded in each of three categories: grades 4-6, grades 7-9, and grades 10-12. A special prize of $100.00 will be awarded to the team who submitted the project making the best use of the computer. The judging is in progress, and winners will be announced by June 1, 1987. The contest is to be an annual event, and sponsors are anticipating greater involvement and an increased number of entries next year as publicity efforts reach more teachers and students. There will be a follow-up article in the next issue of the Network providing details about the winning projects and additional information about next year's competition.

Meanwhile this past year, the organizing committee of the UK Statistics Prize changed its format. In an effort to widen the scope of the competition, the decision was made to internationalize the contest thus permitting entries from outside the United Kingdom. Feedback from schools and colleges involved in the Statistics Prize indicates that it has been very beneficial to students and teachers alike, and that it is having a real impact on the way statistics is taught and learned by providing the opportunity for experiencing practical statistics research of significance. A wide variety of topics have been included in the projects which were submitted in the UK competition. Research into dental care, health and nutrition, accidents and road congestion, sexism, media studies and viewing habits, origins of language, ecology, and extra-sensory perception represent only a few of the topic areas chosen by the students.

Competitions such as these further the cause of statistics education because they encourage students to work together on research projects and enable them to see first hand how quantitative information influences our everyday lives. For details about the American contest, contact:

    Dwayne Cameron
    Old Rochester Regional School
    135 Marion Road
    Mattapoisett, MA 02739

For details about the United Kingdom contest, contact:

    Anne S. Hawkins
    Centre for Statistical Education
    20 Bedford Way
    London, WC1H OAL

QUANTITATIVE LITERACY:
THE SERIES AND THE SOFTWARE

As most of you know, the four curriculum units which have been written under the auspices of the ASA/NCTM Joint Committee on the Curriculum in Statistics and Probability and the Quantitative Literacy (QL) Project are now available in both student and teacher editions through:

Dale Seymour Publications
P. O. Box 10888
Palo Alto, CA 94303

For those of you who may still be unfamiliar with the QL Series or may need more detailed information about the units, there is an excellent Quantitative Literacy Series Program Sampler which may be ordered at no cost from Dale Seymour at the address above.

The diskette designed to accompany the QL Series is also complete, thanks to the efforts of many people around the country. It is available in both Apple II series and IBM versions. The programs are partitioned into four modules with each module designed to implement one of the units in the series. The programs are menu driven, user friendly, and designed to be used in conjunction with the units with minimal effort.

The first module contains programs which generate box plots, stem-and-leaf plots, scatter plots, and which fit a line to bivariate data on scatter plots.

Except for the stem-and-leaf program, which requires the user to supply his own data, all of the programs allow the user the option of using the pre-programmed data from the applications in Exploring Data or entering his own data.

The second module of programs was designed to supplement the unit Exploring Probability. Included are numerous programs which generate outcomes from dice rolling, coin flipping, and random digit selecting experiments.

The programs in the third module were designed to accompany The Art and Techniques of Simulation. The first program in this section leads a student through the 8 steps involved in setting up a simulation, and each of the remaining programs demonstrates a particular simulation application. Extensive graphics are available at the option of the user.

Currently, there is only one program in the fourth module. It was designed to be used to supplement the unit, Exploring Surveys and Information from Samples.

To purchase a QL diskette, fill out the order form reproduced below and return it along with a check made payable to James L. Kepner to:

Dr. James L. Kepner
Dept. of Mathematics and Statistics
St. Cloud State University
St. Cloud, MN 56301

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SESSIONS ON PRECOLLEGE STATISTICS AT THE JOINT STATISTICS MEETING

Attention those of you who plan to attend the 1987 Joint Statistics Meeting!!! Past meetings have had few sessions dedicated to the discussion of innovative teaching of statistics and probability at the precollege level. Recognizing the increasing importance of training members of our society to collect, organize, display, and interpret data, more emphasis is being placed on teaching these topics at all levels. For this reason, even though most of the statisticians attending the annual meeting do not teach at the precollege level, many are interested in learning about such activities.

With this in mind, Jim Landwehr included a request in the last issue of the newsletter for input from precollege teachers who would be interested in sharing their experiences and ideas about teaching statistics and probability. A number of responses were received. So, as a result of Jim's efforts and the efforts of others sharing his commitment, more sessions on precollege statistics which address the issues of "what to teach" and "how to teach it" are being planned for this and future Joint Statistics Meetings.

One such session at the 1987 meeting, which will be held in San Francisco August 17-20th, will be a panel discussion which Jim is chairing. Participants will be discussing such topics as: "Does Beer Drinking Cause Cancer?", "Sleuthing for Normality", "Using Romeo and Juliet to Teach Probability", and "Why Do Students Miss School?".

Another precollege session is devoted to the topic of children's surveys. Speakers Bob Boruch, Judy Zawojewski, and Eunice Goldberg will discuss various approaches including projects where middle school children designed surveys concerning topics of interest to themselves, elementary school children conducted surveys using results of contests, and high school students ran election polls. Don't miss out on these sessions. You will be surprised at the sophistication of some of the projects!

NEW PUBLICATIONS AND PRODUCTS

Holmes, Peter (Editor)
THE BEST OF TEACHING STATISTICS
Teaching Statistics Trust
Dept. of Probability and Statistics
University of Sheffield
Sheffield S3 7RH, England
1986, Paperbound Text, $10.00

For the past eight years, well over a thousand subscribers from all parts of the world have relied on Teaching Statistics for the latest ideas in statistics education. This journal seeks, through an interdisciplinary approach, to encourage the sound introduction of statistical ideas and methods across the curriculum for students ages 9-19. The objectives of the editors of Teaching Statistics are to inform, entertain, encourage, and enlighten all who teach statistics or use statistics in their teaching. Articles appearing in the journal in the past have included basic concepts and applications, ideas for project work, new approaches to teaching statistics, historical developments, differing attitudes among countries, news and information items, and reviews of books and other publications.

THE BEST OF TEACHING STATISTICS brings together the "best" 41 articles from the first 5 volumes of the journal into one 184 page book designed to provide support and illumination for a new generation of readers and teachers. The book was published to coincide with the occurrence of The Second International Conference on Teaching Statistics held at the University of Victoria in 1986. This conference and ICOTS I, which was held in Sheffield in 1982, are considered by many educators to be milestones in the effort to promote an interest in statistical education at all levels.

The articles in the text are classified under six headings:

Statistics in the Classroom
Practical and Project Work
Pupils' Understanding
Teaching Particular Topics
Visual and Other Aids
Statistics in Society

Don't miss out on the opportunity to review the early journal articles which won the C. Oswald George prizes awarded by the Institute of Statisticians for the best article published each year, all of which are included in the book. There is truly something here for everyone interested in teaching statistics.

Mail your orders plus $1.00 to cover postage and handling to:

Centre for Statistical Education
25 Broomgrove Road
Sheffield S10 2TN, England

DON'T LET THIS PASS YOU BY...

...the May 1, 1987 issue of MATH MAGAZINE, a publication of Scholastic, Inc. for grades 7 - 9. "Figuring The Odds" by Maureen Hunter-Bone is an article dealing with the probability of winning the lottery. In addition to improving consumer awareness, students also gain practice in working with joint probabilities and combinations.

Also contained in the May 1st issue is an article from MATH'S Charts, Graphs and Statistics series entitled "Speak Up Survey". The students are asked to fill out a survey on themselves and their parents. Results will appear in MATH next fall, and three entries chosen at random on June 3, 1987, will win pop albums as prizes.

THE STATISTICS TEACHER NETWORK
DATA BASE OF SUBSCRIBERS

The September 1986 issue of the Network contained an article requesting subscribers to fill out and mail in a form to continue receiving the newsletter. The form also requested demographic information and included some questions about the Quantitative Literacy Project as well as an open ended question asking for input concerning the newsletter. The response has been most gratifying! Thanks to a lot of hard work and effort from Dot Perreca and her colleagues at ASA, we

now have well over 1000 names in our data base.

We want to express our appreciation to all of you for taking your time and making the effort to offer suggestions, make recommendations, and comment on the features you enjoy about the newsletter as well as the areas you feel need improvement. Your input has been put to good use and is greatly appreciated. We are currently in the process of analyzing the data you provided and incorporating your suggestions for changes into our operating procedure in order to make this newsletter as valuable to you as possible. Results of our analysis will be included in a future issue.

The progress we have made in statistics education since The Network was first conceived as a vehicle for sharing of ideas and exchange of information among teachers has been dramatic. However, we can not maintain our progress without your continued support and contributions. The Network will only work if it really is a "network", and that requires your participation. If you have had success with a particular approach or if you have developed an innovative concept, please write us and let others benefit from your efforts. If you have questions or problems, let us hear about them too, and perhaps another reader will have a solution.

WHERE TO WRITE

Address all letters, announcements, questions, articles being submitted for publication, and requests to get on or off of the mailing list to the editor:

-Beth Bryan
Department of Math & CSC
Augusta College
Augusta, Georgia 30910

Please share this newsletter with other teachers interested in statistics. You may photocopy anything in it.