



TEACHING OF STATISTICS IN THE HEALTH SCIENCES

Section of the American Statistical Association

July, 1991

American Statistical Association Annual Meeting August 18-22, 1991 Atlanta, Georgia

Monday - August 19

General Business Meetings

5:00 p.m. Section on Teaching Statistics in the
Health Sciences Executive Committee
(Closed)

6:00 p.m. Section on Teaching Statistics in the
Health Sciences Business Meeting

Wednesday - August 21

Bringing Real Problems to the Classroom

Contributed Papers
*Sec. on Stat. Educ., Sec. on Teaching of Stat. in
Hlth. Sci.*

8:50 a.m. Control Charts for Hospital Length of
Stay Data - Dawn Dubois, Robert
Gibberd, Craig Shaw, W. Robert
Stephenson

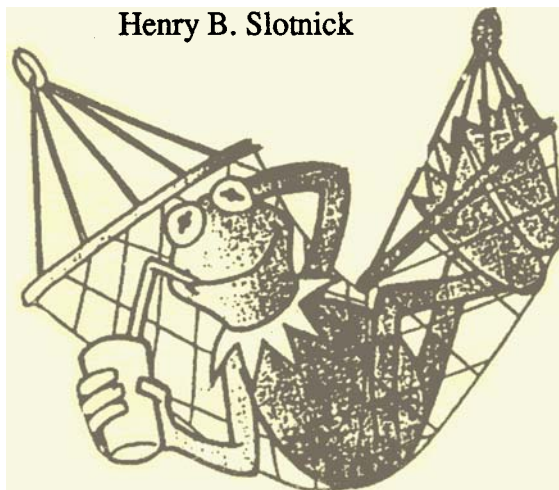
Thursday - August 22

Teaching Statistics in Diverse Environments

Contributed Papers
Sec. on Stat. Educ.

9:20 a.m. The Priority of Topics for Instruction in
An Introductory Biostatistics Course -
James H. MacMillan

9:35 a.m. Science, Statistics, and Journal Formats -
Henry B. Slotnick



See you in Atlanta!

Thursday - August 22

8:30 a.m. - 10:20 a.m.

Computational Aids in the Teaching of Biostatistics

Chair/Organizer - William R. Clarke
Sec. on Teaching of Stat. in Hlth. Sci., Sec. on Stat. Educ.

8:35 a.m. Computational Aids in the Teaching of Biostatistics - Stanley P. Azen, Joyce C. Niland

9:00 a.m. Development of Academic Computing in a Health Sciences Center - Ronald G. Marks

9:25 a.m. Use of GLIM in Teaching Introductory Biostatistics - Charles A. Rohde

9:50 a.m. The Computer in Biostatistical Training at the University of Washington - T.E. Raghunathan

10:15 a.m. Floor Discussion



Survey Highlights

Once again the Executive Committee of the Newsletter would like to thank everyone who took the time and thought to complete the membership survey. Sixty-three of the 859 mailed surveys were returned. A detailed report of the results will be available at the August ASA meeting in Atlanta, however, a few points are worth mentioning now.

1 Continue the Section Newsletter

	Frequency	Percent
Do not do	12	19.7
Fee for service	6	9.8
Part funding from dues	15	24.6
Full funding from dues	28	45.9

2) Publish Teaching Modules

	Frequency	Percent
Do not do	4	6.3
Fee for service	38	60.3
Part funding from dues	14	22.2
Full funding from dues	7	11.1

Over a dozen potential topics were included, ranging from Aids trials to quality control in clinical medicine. There seems to be some good food for thought in the topics.

3) Workshops and Round-Table Luncheons

Between 60 and 70 percent of the respondents indicated a fee for service arrangement for these types of activities. Again a variety of topics were suggested, including problems in teaching statistics to math(stat)phobes, as well as specific data analysis techniques.

Hopefully, there will be a good turnout for the section's general business meeting so that future directions can be discussed and implemented.

Editor's Notes

As many of you have already read, the number of paying section members is 491 with an approximate 500 other members cycling through various payment schedules. This means that we will have one seat on the council of sections for next year, unless our numbers grow substantially.

Obviously, one of the most important issues for the August, 1991 section business meeting has to do with use of the Newsletter and/or the monthly page available in *AMSTAT NEWS*. Bring or send your comments to the business meeting. There is also the possibility of combining with another section to produce a newsletter.

Regardless of how we continue to disseminate information, some topics for discussion or thought are always appreciated. The Newsletter is becoming sparse once again and some new vitality needs to be found. **The Newsletter could use your help.** If you have any articles or tidbits of interest that you would like published, please send them to us.

New Books

Professor Thomas Hassard of the University of Manitoba has written Understanding Biostatistics, published by Mosby-Year Book, Inc., 1991. The book focuses on the health and life sciences and could be used in a one or two semester class, in addition to a self-teaching tool. While skimming through the book, I have already found a wonderful conceptual presentation of degrees of freedom. I fully expect the rest of the book to be of similar high quality. Hopefully, a full review will follow in a future newsletter.

* * * * *

Several readers have requested information on Standards for School Mathematics. This is available from the National Council of Teachers of Mathematics, 1906 Association Drive, Reston, Virginia 22091. The price is approximately \$29.00 which includes shipping and handling costs.

Statistics Curriculum

Four people are sitting around a table discussing body weights ranging from 0-460 pounds. While analyzing the data, they discuss clusters, clumps, gaps, and the range. Are these statisticians working in the health sciences? No. They are 4th, 5th, and 6th graders using a new statistics curriculum called Used Numbers (written by Susan Jo Russell and Rebecca B. Corwin, and published by Dale-Seymour Publications, P.O. Box 10888, Palo Alto, CA 94303). The data is in the form of a bar graph and the body weights are the weights of lions in a number of U.S. zoos.

To continue this activity, students are instructed to find a median and use it to answer this question "About how many typical cats would it take to balance a typical lion?" (A previous activity worked with cats). Students then describe the strategies used to answer the question.

The kids love the activities. Teachers will love them because they are so well written that anyone can teach them. A statistical background is not needed. There are 6 books covering the levels K-6th grade.

Each book begins with a page explaining why we need statistics in the elementary mathematics curriculum. Then there are three pages describing the teaching of data analysis. The activities are then summarized. Only the teacher needs a book. Students are kept busy with materials such as post-it notes, paper plates, scissors, calculators, etc. Each activity lists the necessary materials. The few student pages suggested are provided in each book in black line master form. These activities are designed for classroom use, but they could also be modified for use by small groups or even for a family.

The K-1 level suggests using 3-6 class sessions approximately 45 minutes long. The higher levels require 17-18 sessions each 45 minutes.

Using the activities in Used Numbers will help children see how statistics are part of mathematics in the world. They will begin to experience the joy of numbers through the variety of uses not usually found in mathematics curriculum.

Reviewed by:

Bonnie Verhulst, Elementary Teacher
Steven J. Verhulst, Ph.D.

Teaching of Statistics in the Health Sciences

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This newsletter will publish official notices, articles, book reviews, descriptions of research in progress, reviews of research, letters, and announcements judged to be of interest to members of the section. Materials and manuscripts should be submitted to:

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