

# CTE MU SIGMA RHO<sub>ver</sub>

Volume I

1982

Charleston, SC

## New Slate of Officers

President . . . . . William Warde  
Secretary-Treasurer. . Bonnie P. Dumas  
Director-at-large . . . Edward Mansfield

## A Look at the New Officers

### OFFICE OF THE PRESIDENT

William Warde is an associate professor in the Statistics Department of Oklahoma State University. Dr. Warde received his PhD in Statistics from Iowa State University, his MS in Statistics from Florida State University, and his BSc in Pure Mathematics with Statistics and Geography from the University of London. A member of A.S.A., E.N.A.R., I.M.S. and Classification Society (N.A.B.), Dr. Warde was secretary of the Oklahoma Chapter of the A.S.A. from 1977 to 1980. Dr. Warde has been a member of Mu Sigma Rho since 1970, the permanent faculty correspondent of the Oklahoma Alpha Chapter since 1974, and served as national secretary-treasurer from 1976 to 1982. His research interests include numeric taxonomy or cluster analysis, sampling, consulting, and experimental design.

### OFFICE OF SECRETARY-TREASURER

Bonnie P. Dumas, formerly an instructor in the Department of Biometry at the Medical University of South Carolina (MUSC), begins a job as biometrician at the Westvaco Corporation July first. A member of A.S.A., Ms. Dumas is president of the local chapter of Sigma Xi. A part-time student in the doctoral program in Biometry at MUSC, Ms. Dumas is a chapter member and served as first president of the South Carolina Alpha Chapter of Mu Sigma Rho. She is interested in covariance analysis.

### DIRECTOR-AT-LARGE

Edward Mansfield is an associate professor in the Department of Management Science and Statistics at the University of Alabama. Dr. Mansfield received his PhD and MS from Southern Methodist University, and his BS from St. Mary's University of San Antonio. A member of A.S.A., Dr. Mansfield is the faculty advisor of the Alabama Chi Alpha Phi Chapter of Mu Sigma Rho. Dr. Mansfield is active in the development of audiovisual aids for teaching statistics and is interested in regression analysis.

Editor: Carol Lancaster

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Welcome to the first issue of the MU SIGMA RHOver! To all of you who contributed chapter news, thank you; to those of you who did not, I hope you will next time. This newsletter is intended to be a mouthpiece for each chapter to share its events, activities and plans. It will only be effective and worthwhile if every chapter takes an active interest. Suggestions for changes, additions, or just plain compliments will be accepted. The format is not intended to be static. "Tips From RHOver" will serve as a forum for graduates to tell students about the "real" world. I hope it will appear in every issue.

### TIPS FROM THE RHOver

There is nothing like an inside tip from someone who already has a career in your area of interest. This column will consist of open letters from graduates to their Mu Sigma Rho friends.

Mark Lacy is a 1982 graduate of the PhD program in Biometry at the Medical University of South Carolina and also has an MS in Biochemistry. A biometrician at Norwich-Eaton Pharmaceuticals for six months, Mark's business address is P.O. Box 191, Norwich, New York 13815.

Dear RHOver,

One very useful thing to have, whether you are looking for a job or have already found one, is experience with statistical computing packages such as SAS, BMDP, SPSS, etc. Although learning how to use one of these from scratch is not difficult, familiarity with one or more is a definite advantage.

If you plan to stay in biostatistics, another very useful thing to have is some kind of background in biological/medical science. This is why the minor coursework that is required for graduates is so important. As a statistician in the pharmaceutical industry, one provides services for various pre-clinical and clinical investigators. It is very important to be able to converse with these people on a level as close to their own as possible. Efficient communication between you and them is the key to satisfactory collaboration.

Finally, communication in general is an extremely important asset of working as a biometrician. I would urge everyone to use every opportunity possible to read, write, and present papers and seminars. Developing skills in these areas will make you a better member of any research community.

Please feel free to write me if anyone would like to know more about what it's like on the other side.

Sincerely,  
Mark

## NEWS FROM THE CHAPTERS

### Louisiana Alpha Chapter - McNeese State University

- This chapter's members are active participants in mathematics and statistics regional meetings.
- Student members have been offered jobs by companies such as Texaco and Firestone.
- Ms. Pamela Langley, a graduate student, presented a paper, "Predicting NTE Scores", at the Louisiana Academy of Sciences February meeting.

### Virginia Alpha Chapter - Virginia Polytechnic Institute and State University

- Since the Mu Sigma Rho chapter was initiated in 1979, membership has been extended to 23 undergraduates, 33 graduate students and 11 faculty.
- In June, 1981, 13 students were awarded BS degrees. Those graduates not continuing to graduate school accepted jobs with companies like Bell Laboratories, Batelle Columbia Research Laboratories, Navy Research Laboratories, Corning Glass, and Washington Analytical Services Center. Job categories included statistician, systems analyst (computer-oriented), and operations analyst (quality control) with a starting salary range of \$17000 to \$22000 (median \$19500).
- On the graduate level, 20 advanced degrees were awarded of which four were PhDs. Companies hiring the students entering the world of employment included Corning Glass, IBM, RCA, VEPCO, and Ciba-Geigy.
- In 1981, 16 new members were inducted into the Virginia Alpha Chapter of Mu Sigma Rho. Five of the members are currently in the undergraduate program at VPI & SU. They are Linda Lee Crawford, Ilene L. Dranoff, Howard L. Rauch, Lois Remsen, and Theresa M. Thomas. Ten of the initiates were in the graduate program with six having already earned Master of Science degrees. Members in the graduate program are Cheng-Tao Chang (MS, VPI & SU), Jain Chung (MS, National Tsing-Hua University and Miami University), Sheri Ann Dietz (BS, VPI & SU), Rodney G. Dunn (MS, VPI & SU), Lester L. Freshwater (BA, Wittenberg University), Patrick W. Gerard (MS, VPI & SU), Changsoon Park (MS, Seoul National University), Dhafir Hussain Rashed (MS, Baghdad University and VPI & SU), Edith Tan (BS, University of the Phillipines), and Harold T. Wilson, Jr. (BS, Randolph-Macon College). Golde I. Holtzman, faculty member at VPI & SU, was also inducted into the fraternity. Congratulations to all!
- The meeting held during the Fall Quarter, 1981 featured a talk by Dr. Klaus Hinkelmann of the Department of Statistics, VPI & SU. With the title, "Thirty-Six Officers and Statistics", Dr. Hinkelmann gave a historical review of Euler's conjecture that there does not exist a Graeco-Latin square of order  $4t + 2$  ( $t = 1, 2, \dots$ ), the various attempts to prove this conjecture, and the proof of its

falsity for  $t > 1$ . The role of notions of experimental design in disproving Euler's conjecture was stressed. In addition, the implications concerning the construction of experimental designs based on mutually orthogonal Latin squares were discussed.

#### **Oklahoma Alpha Chapter - Oklahoma State University**

- The Mu Sigma Rho chapter functions as a part of the Statistics Club. In the Fall Semester, 1981, the two sponsored a swim party at the beginning of the semester and a Christmas party at the end.
- In the last eight years or so, nine graduates (six MS and three PhD) have taken jobs with local oil companies (Phillips, Conoco, City Services, and Standard Oil).
- More recently, graduates from the master's program have joined the ranks of IBM at Bartlesville and Conoco at Ponca City earning between \$26000 and \$29000. The two graduates from the PhD program are both assistant professors with one at Texas A&I in Kingsport and one staying at Oklahoma State. Salaries range from \$18000 to \$24000 per annum.

#### **West Virginia Alpha Chapter - West Virginia University**

- The West Virginia Alpha Chapter of Mu Sigma Rho held an initiation banquet in April, 1981. Of the six new members welcomed into Mu Sigma Rho by Chapter President Julie Chinchek, four were students. The new students were Nyah Rohani Azlan, Bruce Bancroft, Kathryn Fletcher, and Michael Wilhelm.

Nyah Rohani Azlan completed the requirements for an MS degree in Statistics in December, 1981 and returned to her native Malaysia.

Bruce Bancroft is working on an MS degree in Statistics and a PhD in Mineral Economics at West Virginia University.

Kathy Fletcher received a BS degree in Statistics in May, 1982 and plans to enter the graduate program in Statistics at West Virginia University in August.

Michael Wilhelm is an undergraduate student majoring in Mathematics and Computer Science. Mike will also complete the degree requirements in Statistics. However, University regulations prevent him from receiving three degrees at the same time. (And he is doing it all in three and one-half years!!)

#### **South Carolina Alpha Chapter - Medical University of South Carolina**

- Six new members were inducted into the Chapter in Fall, 1981. They are Mark Lacy, Tom Hodgson, Lee-Ping Pian, Tai Yung Rhee, David Sisco, and John Jen Tai.

- Professor Ian McKeague from Florida State University presented the talk "Estimation of the Best Linear Approximation to the Drift of a Diffusion Process" for the 1981-82 Mu Sigma Rho sponsored seminar. A party with Chinese food was held by members in honor of the inductees and Professor McKeague. Mu Sigma Rho members made an uncountable number of trips to the paper recycling plant to sell old computer cards and paper to raise money for the event.
- Graduates with masters degrees in Biometry have taken jobs mainly with universities, drug companies and computer corporations. Included are Southern Bell; University of Texas; Medical University of South Carolina; Veterans Administration Hospital; IBM; Technicon Instrument Corporation; SAS Institute, Inc.; University of South Carolina; South Carolina Commission on Alcohol and Drug Abuse; Hewlett-Packard; Baptist College at Charleston; Smith Kline & French; A.H. Robins Co.; Porter-Gaud School (a local private school); Sandoz, Inc.; BDM Services Company; United States Forestry Services; WPAL (a local radio station); Trident Technical College; Norwich-Eaton Pharmaceuticals; Sidney Farber Cancer Institute; Westvaco Corporation; and Sea Island Comprehensive Health Care Corporation.

## Minutes of the Board of Directors

**DATE:** September 21, 1981

**TO:** Mu Sigma Rho Board of Directors  
Mu Sigma Rho Chapters Permanent Faculty Correspondent

**FROM:** William D. Warde, National Secretary-Treasurer

**SUBJECT:** Meeting of Mu Sigma Rho Board of Directors held in Monet Room, Detroit Plaza Hotel, Detroit, Michigan on Wednesday, August 12, 1981

There were nine present at the meeting including Tom Boardman, Vice-President, who chaired the meeting, William Warde, Secretary-Treasurer, Holly Fuchs and Ted Emigh, Directors-at-Large, Edd Mansfield representing Alabama  $\chi\alpha\phi$ , Bonnie Dumas representing South Carolina  $\alpha$ , Roy Hickman Iowa  $\alpha$ , Klaus Hinkelmann representing Virginia  $\alpha$ , and John Aleong of the University of Vermont.

Minutes of the previous meeting of the Board in Houston were approved as circulated.

The treasurers report showed an increase of \$24.10 over last year's balance to a June 30, 1981 balance of \$198.52. One outstanding bill of \$3.09 was brought to the treasurer's attention, and payment authorized to Don Hotchkiss for photos to lodge in the archives.

Klaus Hinkelmann accepted responsibility to arrange for the  $\mu\sigma\rho$  session at the annual ASA meeting in Cincinnati in August, 1982.

Secretary Bill Warde was instructed to prepare another mailing of  $\mu\sigma\rho$  information to all departments of statistics in the U.S. (as listed in January American Statistician). Also, to investigate increasing  $\mu\sigma\rho$  visibility in the profession by various means. Suggestions included advertising a  $\mu\sigma\rho$  reunion, submitting a poster session contributed paper in Cincinnati and placing material on the ASA booth there.

Bonnie Dumas reported on the status of the t-shirts. Chapters had shown little interest.

Holly Fuchs reported the status of the editorial position for the  $\mu\sigma\rho$  newsletter. The first edition is due for 1982.

The meeting adjourned into a nominations committee for new officers. Nominations were made as follows:

### For president:

William Warde	Oklahoma $\alpha$
Larry Ringer	Texas $\alpha$
Gerry Hobbs	W. Virginia $\alpha$

### For director-at-large:

John Aleong	Univ. of Vermont
H. David	Iowa $\alpha$
Klaus Hinkelmann	Virginia $\alpha$
Dave Bowden	Colorado $\alpha$
Edd Mansfield	Alabama $\chi\alpha\phi$

### For secretary-treasurer:

Bonnie Dumas	S. Carolina $\alpha$
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Meeting adjourned



## Message from the Past President David White

It is a real pleasure to express our appreciation to those who have contributed to the growth of Mu Sigma Rho, during the past three years. There were seven chapters at the beginning of this period; there are four more now, and every prospect that growth is going to be steady in the future. We want particularly to express appreciation to Bill Warde, Bonnie Dumas, Carol Lancaster, and Holly Fuchs for their contributions and to express the real hope that the number of people who are willing to help will grow.

Some of us have been interested in discussing what kinds of policies will best tend to encourage genuine growth; this letter is an effort to make one suggestion in this direction, as the time approaches for a change of officers.

Mu Sigma Rho is intended, if I read the constitution accurately, to be an organization dedicated to promoting scholarship in Statistics, and to serving the needs of students engaged therein. These are excellent goals, and I am sure are uncontroversial among those who belong to Mu Sigma Rho.

There are those who are not associated with us who have expressed concern that our functions involve a certain amount of overlap with those of the American Statistical Association, and question how useful we can be.

I personally feel: (1) The closest kinds of ties ought to be maintained with A.S.A. (2) One way in which Mu Sigma Rho can be useful may in fact be related to a profession-wide problem, and this one I would like to address in a few words below.

Currently, a (perhaps vast) majority of practicing statisticians do not have a degree in Statistics; a sizable proportion of these lack adequate preparation for their work. To say that they shouldn't be considered as statisticians is begging the issue. They are out there interpreting data from the real world, and I am given to understand that more than one bad decision is made due to the need for better statistical training.

There is going to be a greater need for well-trained statisticians, due to the current revolution in information processing. The present wave of job openings is for Computer Programmers; with the resulting growth in all kinds of information systems there will be a second wave of job openings for people who can provide guidance in: (a) What kinds of information to gather, and (b) How to make intelligent decisions, using available data.

The computer revolution is inevitably going to increase jobs for practicing statisticians. The lag time before the need for more statisticians may possibly be shorter than we think; and there is no way we can fill all the openings with Statistics majors. In fact, many managers prefer to employ people as Statisticians who have specialized in the field of application, whether they have had adequate statistical training or not.

This brings us to a problem in the academic world. Universities train a few Statisticians very well, and leave many people who will become practicing Statisticians with extremely little training. I believe one facet of the problem is the traditional one of rapport between scientists and non-scientists. Many of the latter avoid Mathematics, for as long as they can. The image of Statistics courses on many campuses is a serious problem.

So where does Mu Sigma Rho fit into this picture?

Our organization has traditionally promoted better Statistical training; and its presence on any campus will tend to help in this respect. Is a seminar on good Statistical teaching practices (say one each year) a worthwhile chapter activity? Would it be possible for local chapters to reach out to faculty and students from other disciplines? Could some sort of secondary membership be offered to those with less Statistical training, to encourage them to take more Statistical courses and become full fledged members, even though they are not (and usually should not be) majors in Statistics? A statistical organization can, and often does lend status to those who aspire to membership. One function of a Chapter could then be to disseminate Statistical know-how (including such things as microcomputer software) to other parts of the campus. We should remember that sharing Statistical information increases our own opportunities; it does not decrease them.

The notion here is that Mu Sigma Rho can play an important role in increasing understanding between statistics and other disciplines; and this can result in enhancing the climate for improvement of Statistical training throughout an entire Campus.

I would like to make one suggestion: Allow an associate membership for individuals as well as for organizations. Modify the constitution to permit this, and lower the number of Statistics credits required for admission with an associate membership. Can we dare to suggest that we are in danger of making our group a bit too exclusive and thereby defeating our own purposes?

We wish our incoming officers well, and offer our services to support their future activities. Have a good three years.