

The

MU SIGMA RHO Over

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Charleston, SC

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Tips from the RHOVer

This issue presents some thoughts from Dr. Bill Warde who spent last year working with the National Agricultural Statistics Service.

During the 1985-86 academic year I was one of the American Statistical Association Fellows with what is now the National Agricultural Statistics Service (N.A.S.S.) of the United States Department of Agriculture (U.S.D.A.). The A.S.A. currently helps to administer five such fellowship programs. The best known is probably the one run with the U.S. Bureau of the Census which typically has five to nine Fellows employed at any one time. N.A.S.S. is authorized to employ up to two fellows each year, and had no one coming in September when I returned to Oklahoma State University. In its original set up, N.A.S.S. was to have one fellow and one associate. Technically, the fellow is a faculty level position while the associate is a senior graduate student. Other fellowships which were started last year are with the Bureau of Labor Statistics and the National Institute of Education. In addition there is a fellowship program with Statistics Canada.

Any of these programs will provide up to a year of salary at a mutually agreed upon level (depending upon the experience of the fellow or associate) and provides some travel money for the fellow while they are on the fellowship program. This travel money also typically includes the moving allowance to pay travel to Washington for the fellowship period.

Most of the programs require that you write up a brief proposal or plan of research in one of the areas of interest to the agency with whom you will be working. Some of these proposals are quite specific while others can be relatively broad. All of the agencies have a big concern in survey sampling and the analysis of data which has been collected using survey sampling, and most of them also have interests in econometric type areas. N.A.S.S. also has a section which works with remote sensing and would be very interested in a fellow or associate who has an interest in this area.

The area in which I was interested was non-sampling errors in surveys. I was assigned to the Sampling Frames and Survey Research Section and had access to data from several of the regular N.A.S.S. surveys. In particular, I worked with data collected using the agency Computer Assisted Telephone Interviewing equipment and analyzed this data from the perspective of trying to increase the probability of obtaining responses to a telephone interview from the farm operator. This research also involved trying to determine the best time of

day to make a call to obtain a completed response by the operator, and some research on optimal timing between calls when the outcome of the earlier call is known.

I found my year with N.A.S.S. to be very enjoyable and the people with whom I worked at the agency to be a dedicated and hard working group. I would heartily recommend this experience to anyone who is interested. In my case, I felt that I had taken a sabbatical leave but in fact it did not count as one since I was receiving full salary through the fellowship. Administratively, my salary and benefits were still paid by the University and they were reimbursed by A.S.A. who in turn billed N.A.S.S. However, my travel was billed directly to A.S.A. which was much less trouble than working either with the U.S.D.A. or the University travel clerks.

Overall, I would heartily recommend any student with even a remote interest in working for the Government or with any interest in a survey sampling topic for their research to apply for any one of these fellowship programs. I found D.C. to be a pleasant and enjoyable place to spend a year on leave and enjoyed my association with colleagues in the U.S.D.A. and also in the various other agencies whom I met through the Washington Statistical Society (the A.S.A. chapter for the D.C. area).

NEWS FROM THE CHAPTERS

Louisiana Alpha Chapter - McNeese State University

- Recent graduates have opted for graduate work at Iowa State, SMU, Clemson, and Louisiana State.
- Students entering the business world have joined industries in the Houston, Dallas and Detroit areas.
- Future programs will be sponsored in conjunction with other honor fraternities' programs, namely ACM and Pi Mu Epsilon.

Virginia Alpha Chapter - Virginia Polytechnic Institute and State University

- Twelve BS degrees were awarded in 1986 with six students going on to graduate school.
- Fourteen students completed the requirements for the MS degree and joined several companies including Biometric Research Institute, Corning Glassworks, AT&T Communications, Stat Reporting Service, Wyatt Corporation, and Nichols Research Corporation. Salaries ranged from \$22,000 to \$33,000.
- Five students completed the PhD degree and accepted positions at the Universities of Alabama, Jordan, Yonsei, and Tunghai, and Southern Methodist University.
- Current officers are Michael A. Rozum, president; Todd Treichel, vice president; and David Agard, secretary/treasurer.
- Recent activities include a seminar entitled, "Shakespeare and Anaerobic Bacteria", by Dr. I.J. Good, University Distinguished Professor of Statistics and a presentation by Dr. Lynne Billard, Head of the Department of Statistics, University of Georgia, called "Stochastic Combat Models."
- Initiates for 1986 are Clint W. Coakley, Robert B. Hall, Julie A. Myers, and Mark Traccarella (undergraduate); Jessica M. Hasson, Karen E. Hufnagel, Kimberly J. Kearns, Donald E. Mercante, G. Geoffrey Vining, and Victoria P. Vizcanio (graduate); and Dr. Lynne Billard, University of Georgia, and Dr. Donald S. Burdick, Duke University (honorary).

South Carolina Alpha Chapter - Medical University of South Carolina

- In 1986, twelve members were initiated: David Buckles, Stewart Denslow, Emma Frazier, Fu-Shing Lee, Krishan P. Singh, Christopher W. Starr, Calvin L. Williams, Derek B. Janszen, Judith S. Cooper, Erin McDade, Qulu Chen, and Michelle Spivey. All twelve are working toward the Ph.D. degree.
- Activities included seminars by Stewart Denslow, Lee Pian and Chris Starr. Fu-Shing Lee recently had a paper of fisheries modelling accepted

by Fisheries Bulletin. Chris Starr presented a paper on a microcomputer-based expert system for gynecology at the 39th Annual Conference on Engineering in Medicine and Biology and a paper on digital cluster analysis system to locate labelled cell regions in autoradiographic images at the 12th Annual Northeast Bioengineering Conference.

- A social gathering was held on October 3, 1986 and a beach party is planned for Spring, 1987.
- At the annual business meeting of the Chapter, a decision was made to institute a Mu Sigma Rho Award for the best graduate of the year. The award will be a plaque. The name of the winner will be inscribed each year on the plaque which will be displayed in the Department of Biometry, MUSC. A three-member committee was formed to give recommendations for criteria to select the best graduate.

Iowa Alpha Chapter - Iowa State University

- The Iowa Alpha Chapter of Mu Sigma Rho had its initiation banquet on April 29, 1986. Among the 75 people attending were many of the 35 new members of Mu Sigma Rho. Following the banquet, Dr. Gary Koch, Professor of Biostatistics, University of North Carolina gave the annual Mu Sigma Rho lecture. Dr. Koch's talk, "General Strategies for the Analysis of Categorical Data" described analyses of categorical data in the health sciences. The annual Mu Sigma Rho lecture at Iowa State University is jointly sponsored by the Iowa Alpha Chapter, the Graduate College, the Committee on lectures and several academic departments.
- All undergraduate majors who received B.S. degrees during the 1986-86 school year either obtained employment in a statistics related field or went on to graduate school. Some of the companies hiring our B.S. graduates are: Dewey & Almy Chemical Division of W.R. Grace, The Principal Financial Group, U.S. Bureau of Labor Statistics, Garst Seed Company, and the Iowa State Commerce Commission. The graduate programs accepting our students include the University of Minnesota, University of Florida and Iowa State University.

REPORT ON 1986 ANNUAL MEETING OF MU SIGMA RHO

Gerry Hobbs, Vice President of Mu Sigma Rho, conducted the annual meeting of Mu Sigma Rho held on August 19, 1986 in Chicago, Illinois as the president, David White, was not able to attend. In attendance were Edd Mansfield, University of Alabama; Duane Boes, Colorado State University; Bob Stephenson, Iowa State University and Mu Sigma Rho National Director; William Warde, Oklahoma State University and Mu Sigma Rho National Past-President; David Dickey, North Carolina State University; Klaus Hinkelmann, Virginia Polytechnic Institute; Gerry Hobbs, West Virginia University and Mu Sigma Rho National Vice-President; Bonnie Dumas, Medical University of South Carolina; Carol Lancaster, Mu Sigma Rho National Director; and Cynthia Clark, Mu Sigma Rho National Secretary-Treasurer. The minutes from the 1985 meeting were read and approved. The treasurer's report was presented.

Under old business, chapter activation was discussed. Discussion was entertained concerning activities sponsored by Mu Sigma Rho. In most chapters the activities are limited to a single meeting each academic year at which new members are presented. Often the meeting includes a seminar on statistics. Some chapters invite visiting professors to give this seminar and present the professor with an honorary membership in Mu Sigma Rho. Only five of thirteen chapters initiated new members in 1985-86 through the national organization by paying the membership fee of \$5 for each member. (This fee covers the cost of a lettered certificate and a copy of the Mu Sigma Rho Constitution.)

During 1985-86 inquiries concerning the establishment of a chapter of Mu Sigma Rho were received from two institutions--North Carolina State University in Raleigh, North Carolina and St. Johns University in Bayside, New York. Information on establishing a chapter was provided. North Carolina State University's formal petition to Mu Sigma Rho to establish a chapter has been accepted by the Mu Sigma Rho Board and Chapter Representatives. The charter for North Carolina State University will be mailed to the chapter representative, Professor John Wasik, when the initiation fee has been received. David Dickey of North Carolina State University stated that it was mailed to Cynthia Clark early in August. It was suggested that a letter from David White be sent to universities that might qualify for membership in Mu Sigma Rho. Such universities could be selected from the list of universities with statistics departments published annually in AmStat News.

At the 1985 annual meeting of Mu Sigma Rho a suggestion was made that Mu Sigma Rho might assist chapter members by distributing noncopyrighted statistical microcomputer software. A questionnaire directed towards determining the need and availability of statistical software among Mu Sigma Rho members was sent with the annual newsletter. Response to the questionnaire was limited to Iowa State University and McNeese State University. President White coordinated responses to those completing a questionnaire.

A suggestion was made to publish the Mu Sigma Rho Newsletter earlier in the 1986-87 academic year. Carol Lancaster, editor of the Mu Sigma RhoVER, requested that chapter representatives send news and information to her by the first of October so that the newsletter could be printed in November.

Under new business, the National Mu Sigma Rho organization is planning to compile a list of Mu Sigma Rho members. Chapters were requested to bring a list of all their initiates including the name, current address if available, academic year of initiation, and degree (with major subject) granted from its institution. Lists should include faculty members and honorary members. Lists have been received from the following chapters: University of Alabama, Colorado State University, Iowa State University, and Medical University of South Carolina. Records kept by previous National secretaries will be used when chapters do not supply lists.

Several ways in which Mu Sigma Rho might present awards were discussed. A suggestion had been made that Mu Sigma Rho provide awards for papers submitted for publication in the new ASA student journal. Chapter representatives were reluctant to become involved in determining "best paper" submitted for publication. In addition, this journal is still in the planning stages.

Another idea discussed was that Mu Sigma Rho sponsor a student session at the annual ASA meetings, and select papers to be presented in that session. This suggestion presents a number of coordination problems with ASA. An alternative with fewer coordination problems might be for Mu Sigma Rho to judge student submitted papers to poster sessions. Both of these suggestions would tend to draw applicants from universities near the annual meeting site.

It was suggested that individual Mu Sigma Rho chapters might present awards for paper participation at local meetings. The chapters represented decided to pursue this type of award. In addition to recognizing good work in statistics, such awards could help raise the awareness of Mu Sigma Rho in the local statistical communities.

Several other ideas were presented for raising the awareness of Mu Sigma Rho in the statistical community. A short article describing Mu Sigma Rho could be written for AmStat News. In addition, Mu Sigma Rho might coordinate sponsorship with ASA of the student mixer at the ASA annual meeting. Mu Sigma Rho will continue to provide joint sponsorship of an ASA session with the Statistical Education Section. For 1987, Bill Warde will organize a session working with section's program chair, Jeff Birch.

TREASURER'S REPORT
August 6, 1986
(Revised 8-17-86)

<u>Balance on Hand (August 15, 1985)</u>			\$339.51
<u>Outstanding Checks</u>			\$ 57.39
<u>Income</u>			
Membership Fees			
Virginia	12	\$ 60.00	
Louisiana	2	10.00	
West Virginia	3	15.00	
Colorado State University	3	15.00	
Other Sources		57.39	
<u>Total Receipts</u>			\$100.00
<u>Expenses</u>			
Printing of Certificates		\$ 32.14	
Lettering of Certificates		60.00	
Postage		9.44	
<u>Total Expenses</u>			\$101.58
<u>Balance on Hand (6 August 1986)</u>			\$337.93

Message from the President

This is essentially a response to the Rhoer letter of last year, written by Dr. Fred Morgan. This was blunt, in its message: "If you think that you want to be a statistician, I say, 'Forget it?' There is very little demand for statisticians. There is a great need for statisticians, but little demand."

Dr. Morgan makes some extremely important points of real value for students. If I interpreted his message correctly, he was saying that one should expect to do a lot of things currently not considered as part of statistics in most available jobs, and so a broader academic training will be most valuable.

Perhaps Dr. Morgan has a more limited role in mind for statisticians; but some of us have considered any branch of applied mathematics as fair game for statisticians to work in. He recommends course work in operations research, numerical analysis, and computing (with which advice I heartily agree), presumably in case you need this background more than your statistics training. I personally find it very difficult to draw a clear line between statistics and any of these topics, and would consider myself as functioning as a statistician in most branches of operations research.

The recognition of the need for good statisticians is growing. I foresee a brighter future for well-trained people in our discipline than does Dr. Morgan.

While I believe that Fred Morgan may have overstated his position, he brings up a crucial point; in the world of work, and on campuses, the image of statistics leaves a lot to be desired. In part, this has been due to our failure to see the importance of good service courses, and to ensure that a high enough proportion of our resources is devoted to this area.

To change this situation is difficult, because most universities do not reward their faculty on the basis of the quality of the service courses they teach. So, we have a situation in which the attitudes of most students toward statistics are colored by the quality of the service courses they were required to take - and as a discipline - we may be diminishing the job opportunities for our majors, by the way we treat the rest of the campus.

Is this problem entirely of our own making? Perhaps university-wide policies are in part responsible. In the U.S., serving the rest of the campus without enough emphasis on one's own discipline is a sure route to academic oblivion. So guess where the emphasis is going to go. Is there, or should there be, a better place in universities for a department with a greater commitment to servicing the campus, for consulting and teaching in the quantitative disciplines?

With respect to the matter of broadening the technical training of professional statisticians, we understand that the statistical group at the University of Iowa (R.V. Hogg, et al.) is moving toward more integration of operations research and statistics. The University of Pennsylvania's Wharton School of Business has a Department of Operations Research and Statistics. Would Mu Sigma Rho chapters like to contribute a letter to the Mu Sigma Rho newsletter telling us what their institutions are doing.