

DEPARTMENT OF STATISTICS FLORIDA STATE UNIVERSITY

Volume 3, Issue 1

December 1999

Highlights

Ron and Carolyn Hobbs make another generous gift of \$100,000 to the Ron and Carolyn Hobbs Endowed Fund in Statistics.

The Department's 40th Anniversary Celebration is set for April 21 and April 22, 2000 (stat.fsu.edu/40th).

Florida Chapter of the ASA Annual Meeting will be in Tallahassee next February (stat.fsu.edu/flasa).

FSU and UF create the Joint FSU/UF Biannual Statistics Colloquium Series.

Greetings from the Chairman



Myles Hollander

I have been recycled and now occupy the position I held during 1978-1981, making me a used chairman rather than a new chairman (cf. Hollander and Proschan, Testing Whether New is Better than Used, *Annals of Mathematical Statistics*, 43 1136-1146, 1972).

As we approach the new year and a new millenium, I would like to mention some highlights past, present, and future.

The Laboratory for Computational Vision, which opened in March 1999, has made substantial progress in the past 8 months in studying the human brain and in recognizing military targets in cluttered battlefields. Sophisticated software simulations are being used in these studies.

Our department has been bolstered by new grants from both state and federal agencies. Ian McKeague has the NSF grant "Efficient Condensation of Spatial Temporal Data," Doug Zahn has an FDLE grant "Assessment and Improvement for the Alcohol Testing Program," and Pi-Erh Lin, Xufeng Niu, and Duane Meeter are working on "Statistical Analysis of Florida Highway Fatality and Injury Data" for Florida DOT.

I am optimistic about the future of our department and Florida State University. FSU is going to have over the next few years approximately 30 new Francis Eppes Endowed Chairs. These chairs are named in honor of Francis Eppes, a grandson of Thomas Jefferson. Eppes was mayor of Tallahassee during the 1850's and he was a major factor in the establishment of "The Seminary West of the Suwanee." Our Statistics Department will vigorously try to obtain an Eppes Chair.

In November 1999 the first Biannual Florida State University-University of Florida Joint Statistics Colloquium was held here in Tallahassee. Jim Booth of UF gave the colloquium talk entitled "Monte Carlo and the Bootstrap". A large group of FSU and UF statisticians attended the event. The second colloquium of the series will be held on March 30th at the University of Florida in Gainesville and Anuj Srivastava will be the speaker. Florida State and the University of Florida will have two such events each year, one in Tallahassee and one in Gainesville. The idea of the colloquia is to foster interaction between the two departments and to strengthen statistics in the region.

(Continued on page 2)



40th Anniversary Celebration

As most of you know, our department was founded in 1959 under the direction and initiative of Ralph A. Bradley. Since that time we have grown to become one of the leading statistics departments in the United States.

Now in our 40th year of operation, we are preparing to celebrate our creation, achievements, and plans for the future by having a 40th anniversary celebration. Our celebration is scheduled for Friday, April 21st and Saturday, April 22nd, 2000. All alumni, departmental visitors, former faculty, and friends are invited to join us for this special event. Information about the anniversary celebration will be posted and updated on our website at <http://stat.fsu.edu/40th>.

Included in this issue are photographs spanning our 40 years of existence at FSU. We have come a long way since 1959 and we'd like to share our memories with you. We hope that you will enjoy these reminders of the past and reflections of the present and that you will continue to be a part of our statistics family.

Greetings

In December 1999 Ron and Carolyn Hobbs gave an additional \$100,000 to the "Ron and Carolyn Hobbs Endowed Fund for Statistics" which they established in 1998 with an initial \$100,000 donation. Part of the funds will be used to establish the "Duane Meeter Fellowship" for a promising incoming student.

There is a new School of Computational Science and Information Technology at FSU. Under the direction of M. Yousuff Hussaini, this School will be the leader in the development of interdisciplinary research featuring intensive computational advances and information technology. Our department will aim to establish joint appointments and other

(Continued on page 8)

Ron and Carolyn Hobbs Donate Another \$100,000

Earlier this year Ron and Carolyn Hobbs donated \$100,000 to our department to establish the Ron and Carolyn Hobbs Endowed Fund for Statistics. This December, Ron and Carolyn doubled that initial gift by contributing another \$100,000.

Ron Hobbs earned his M.S. degree from our Department in 1967 and Carolyn received a B.S. in Recreation Studies in 1965. The two met while they were both undergrads at FSU and have been together ever since. In 1976 Ron helped found Advanced Technology, Inc., a corporation in Virginia that provided high-tech engineering, analysis, and management support to clients in the government and commercial sectors. By 1988 Advanced Technology had grown from 5 employees to 2,500 and was making over \$200 million a year in sales. Ron later sold that company, moved back to Tallahassee,



Ron and Carolyn Hobbs

and went on to head several successful businesses. His most recent venture is the Twin Action Group of companies which he runs with his three sons and his twin brother Roger.

Ron credits Duane Meeter with inspiring and sparking his interest in computers and has set aside part of the Ron and Carolyn Hobbs Endowed fund to be used to create the "Duane Meeter Fellowship" for promising incoming students.

Ron and Carolyn are committed to the future development of this department and plan to continue these annual donations. Ron said: "I hope these donations to the Department which helped me develop as a statistician and foster my career will inspire other graduates to express their appreciation of the Department through similar contributions."

New Students Welcomed at Tea

On September 19, Myles and Glee Hollander opened their home to faculty and new and returning students to host a welcoming tea for new graduate students **Seo-Eun Choi** (Korea), **Ayesha Collins** (Trinidad), **Kristen Hill** (US), **Panagiota Kitsanta** (Greece), **Abdellahi Meneya** (Mauritania), **Ryan Petska** (US), **Brian Thomasson** (US), **Dai Ho Uhm** (Korea), **Gang Ye** (China), and **Han Yu** (China). The event allowed students and faculty to interact socially outside the classroom.



1ST and 2nd year students Gang Ye, Dacheng Liu, Abdellahi Meneya, Yichuan Zhao, and Han Yu.



Computer Specialist James Stricherz with Ph.D. students Glen Laird, Blake Whitten, and Shaojun Zhang

Alumni News

THANK YOU

Mourad Tighiouart (Ph.D. '98) and **Jee Soo Kim** (Ph.D. '82) each made generous contributions to our Department this year.

Mourad, an Assistant Professor at Utah State University, made a donation to our Statistics General Development Fund. Jee Soo, a Professor at the Loma Linda School of Dentistry, contributed to our Anna and Yongyuan Li award fund.

UPDATES

Barbara Boczany (M.S. '72) is now the Director of Clinical Research for Hollis-Eden Pharmaceuticals. Before joining Hollis-Eden in October of this year, she was Head of Clinical Operations at Agouron Pharmaceuticals, Inc. At Agouron, Barbara managed all aspects of a clinical development program for Viracept, one of the most successful products approved in the treatment of HIV/AIDS.

Michael Schell's new book *Baseball's All-Time Greatest Hitters* was published this year by Princeton University Press. In his book, Mike (Ph.D. '84) develops a method to compare the averages of great hitters past and present, taking into account any changes that may have affected batting averages throughout the years. Using modern statistical techniques, Mike makes adjustments for such factors as late-career declines, the talent pool in hitting and pitching each year, hitting feasts and famines, and the "ballpark effect." Is baseball's all-time greatest hitter really Tony Gwynn, not Ty Cobb? Read the book and find out.

Douglas Ransom (M.S. '84) is the Assistant Vice President of the Financial & Government Solutions Division of Equifax Knowledge Engineering. Doug has been with Equifax for about four years. For the past three years, he has led a team of consultants responsible for the sale, design, development, and delivery of score-based decision so-

lutions within the financial solutions, government and healthcare industries in the Eastern region of the US. Doug and his team have developed many innovative solutions including custom response and risk scores, incorporating various generic scores within process strategy consulting, and account management scores for student loans. Doug and his Wife, Wendy, live in Roswell, Georgia.

Nora Blair (1973-1976) returned to the department this September for a visit. Nora is now an Attorney in Harrisburg, Pennsylvania.

Benedikt Johannesson (M.S. '79 and Ph.D. '81) is the General Manager and Owner of Talnakonnun, Data Analysis. Talnakonnun is a consulting and publishing company that specializes in processing and publishing of information connected to business and economics. Benedikt is also the chairman of IBM of Iceland, Shell of Iceland, and the Icelandic Math Society.

What did you learn that helped you get where you are today?

Teri Berceci Jimenez (M.S. '98) and her husband recently relocated to Raleigh, NC where she now works as a biostatistician for Quintiles, INC, the leading contract research organization in the pharmaceutical industry worldwide. *"I think some key things that I learned at FSU that helped me were (1) having been through an applied track in general and thus having hands on knowledge which enabled me to sit down and start 'producing' with very little instruction/training (2) having very strong SAS/S-plus skills without which I could not have performed my job... (3) having had a course in statistical consulting... (4) ... a strong basic foundation in the theory and principles of statistics was important too."*

Jim Stuart (M.S. '89) currently manages a group of 9 other statisticians providing worldwide statistical support for Eastman Chemical Company. *"My experience with statistical consulting and S-plus programming were the two main assets that were most relevant for my current position. I rarely develop new methodology, but because the theoretical course selection at FSU was broad and deep, I feel capable of developing new methods."*

Tom Burr (Ph.D. '92) works for Los Alamos National Laboratories in New Mexico. Tom applies statistical methods to a wide range of problems in the physical sciences. Recent examples include: evidence for disease clustering, pattern recognition for recognizing virus strains, high-dimensional function approximation for correcting nondestructive assays to reference conditions, and multivariate time series analysis with data aggregation in satellite sensor data. *"The foundation in applied statistics I got from Florida State, particularly the excellent grounding in Statistical Process Control and Statistical Consulting, enabled me to hit the ground running in a manufacturing environment and make solid contributions as a statistician."*

Please keep us updated on your lives and careers. As a special request, we'd like to know what you are doing in your current job, what you learned at FSU that helped you get your first job and helped you get to where you are today. You may contact us by using the Alumni Reply Form in this newsletter or by sending an email to info@stat.fsu.edu.

Florida State University Dep



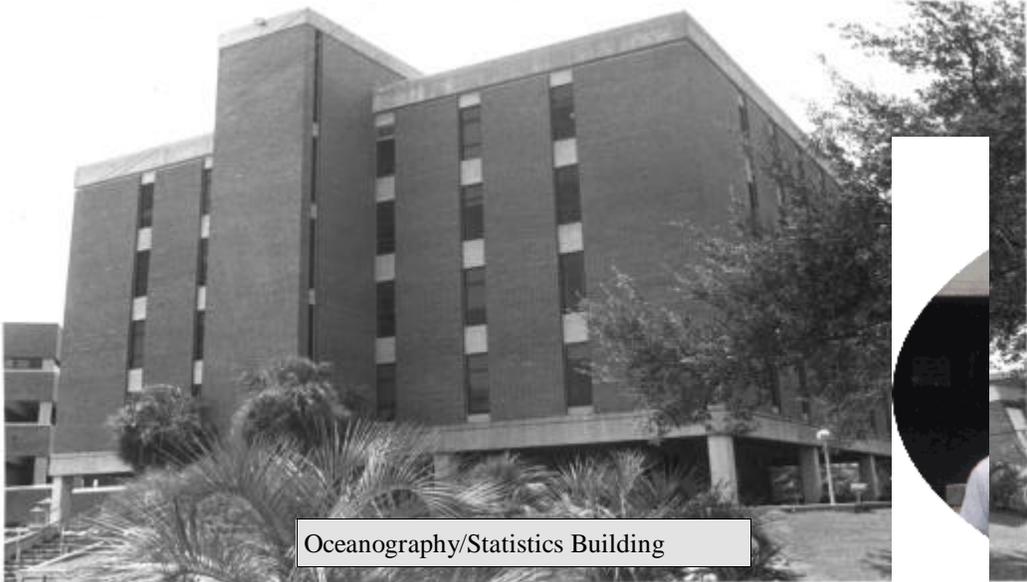
Ralph Bradley



First Annual Departmental Photo 1977



Frank Wilcoxon



Oceanography/Statistics Building



1991



FSU Dinner, ASA Annual Meeting

Department of Statistics 1959-1999



1983



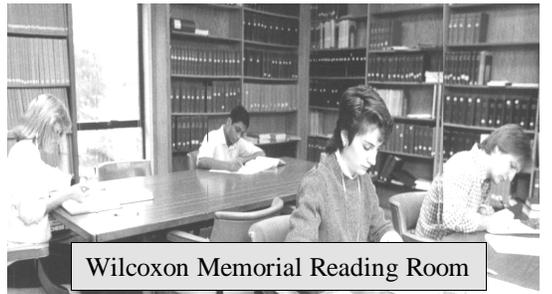
Doug Zahn's Consulting Class 1986



Duane Meeter's Quality Improvement Class 1986



1998



Wilcoxon Memorial Reading Room



Jayaram Sethuraman and students 1998



December 1999

Department in Review

Grant Updates

Drs. **Pi-Erh Lin**, **Xu-Feng Niu**, and **Duane Meeter** have been awarded a new one-year research contract by the Florida Department of Transportation to conduct a "Statistical Analysis of Florida Highway Fatality and Injury Data," which started October 1999. Under this contract, the highway safety crash matrix will be reviewed for possible improvements and a new crash matrix will be created for the year 2000. The research will involve a substantial amount of data analysis. Applied Master's students who are interested in learning more about practical data analysis may sign up for a DIS with us. A limited number of such DIS requests will be considered for the Spring semester of 2000.

Drs. **Lin**, **Niu**, and **Meeter** also received the second year extension of their grant "Statistical and Biological Assessment

of the Everglades Ecosystem" with the Florida Department of Environmental Protection conducting statistical research on issues related to environmental protection and restoration of the Florida Everglades. The issues are complicated. Often, the use of multivariate techniques is required for analysis. Students who are interested in pursuing an "applied Ph.D." in statistics may wish to discuss this possibility with us.

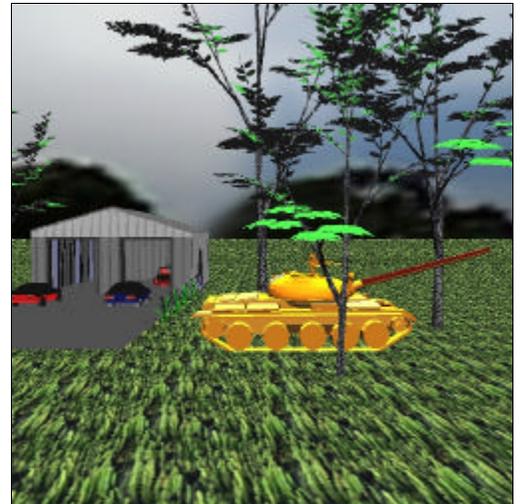
Doug Zahn, graduate students **Hamy Temkit** and **Yichuan Zhao**, and former graduate student **Wenchang Yan** are working on a contract with the Florida Department of Law Enforcement to access the process FDLE uses to buy solutions that are used to standardize all of their alcohol testing equipment.

Laboratory for Computational Vision

This Laboratory has been established for computational support in developing statistical models, algorithms and diagnostic tools as required in automated image understanding. Specifically the research focuses on two image-based applications: studying the human brain and recognizing military targets in cluttered battlefields.

In the target recognition problem, a reasonable understanding of target environment is critical, and sophisticated software simulations are helping in moving towards this goal. Working with Dr. **Anuj Srivastava**, Lab member **Curt Heshner** has developed an SGI based simulation tool to help in analyzing models and algorithms. It consists of a visualization environment for embedding targets of interest (such as tanks, trucks, and jeeps) in cluttered scenes. The clutter elements such as trees, houses, roads, grass, etc. are placed in the scene by means of Poisson cluster processes. In collaboration with the researchers at the Center for Imaging Sciences, Johns Hopkins University, statistical models for image pixels displaying scene clutter are being derived to eventually aid in improving target recognition performance.

These computing facilities are also being actively used by other faculty and graduate students in large-scale simulations associated with their research. Among the applications that are being pursued are Monte-Carlo EM for missing data problems, simulations for survival analysis, modeling space-time processes for meteorological problems, and area-interaction processes for landmark estimation.



Selected Presentations

Anuj Srivastava attended the workshop *ATR via Pose and Location Estimation*, ARO Center for Imaging Sciences Review, Johns Hopkins University, Baltimore, March 1999.

Xufeng Niu gave invited talks on statistical methodologies for environmental data analysis at Shan-Xi University, Shan-Xi Province, China in June 1999. Dr. Niu also presented his talks to the Shan-Xi Statistical Bureau.

Xufeng Niu attended the Impaired Water Technical Advisory Committee Meeting at Tampa to discuss sampling designs and statistical methods for identifying impaired waterbodies in Florida (October 1999).

Myles Hollander gave the talk "Repair Models in Reliability," based on joint research with **Jayaram Sethuraman** at the 10th INFORMS Applied Probability Conference, Ulm, German, July 1999.

Ian McKeague contributed the paper "Empirical Likelihood Based Hypothesis Testing" at the Annual Meeting of the American Statistical Association in Baltimore, August 1999.

Doug Zahn gave the contributed panel session "Watching Videotapes of Your Consulting and Teaching: Reflections from Ten Years Later" at the ASA meeting in Baltimore this August. Terry Smith from Queen's University, Canada and former graduate students Ramesh Korwar, Heather Smith, and Karen Kinard assisted with this project.

Achievements and Events

Pi-Erh Lin was honored with a Distinguished Service Award from the International Chinese Statistical Association this year.

Sandra Hall received the Department's Best First Year Student Award for Applied Statistics

Dacheng Liu and **Feiming Chen** tied for Best First Year Student in Theoretical Statistics.

Mihiro Wakamatsu will receive her M.S. degree this December. After graduation Mihiro plans to take a short vacation in Africa.

Dagang Wang will receive his Ph.D. this month after having successfully defended his dissertation "Nonparametric Dynamic Regression Models with Applications to Financial Data Analysis" under the direction of Xufeng Niu. Dagang plans to continue working as a software engineer for McKesson HBOC, a medical supply company in Alpharetta, Georgia.

Doug Zahn and **Pi-Erh Lin** have been awarded sabbaticals for the 2000-2001 academic year.

Xufeng Niu was invited to be a member of the Technical Oversight Scientific Advisory Board of the Sensory Research Institute at FSU. Dr. Niu was also invited to become a member of the Impaired Water Technical Advisory Committee of the Florida Department of Environmental Protection.

The Department successfully hosted the first Biannual Joint FSU/UF Statistics Colloquium this October. Jim Booth from the University of Florida the talk "Monte Carlo and the Bootstrap" to a large group of UF and FSU statisticians. The next part of the series will be in March 2000 when members from our department will travel to Gainesville for **Anuj Srivastava** presentation to UF's statistics department.

This Fall's colloquium speakers were: Michael Mascagni (FSU's Dept. of Computer Science), **Doug Zahn**, Dan Boroto (Dept. of Psychology), **Jayaram Sethuraman**, Ruth Ann Killion (US Census Bureau), Jim Booth (University of Florida), Mark Novotny (FSU Supercomputer Computations Research Institute), Rama Chellapa (University of Maryland), and Simon Godsill (University of Cambridge).

NOMINATE YOUR FAVORITE TEACHER OR ADVISOR

The Florida State University Teaching and Advising Awards Committee is seeking nominations for awards recognizing faculty for excellence in teaching and advising. Each award carries an honorarium of \$2,000. If you would like to honor a professor whom you consider to be an excellent teacher or advisor, one who challenged you, taught you a great deal, or helped you with academic or career decisions, please send a letter of nomination stating the reasons you feel this professor was an outstanding teacher or advisor to the University Teaching and Advising Committee, 212 Westcott Building, Tallahassee, FL 32306-1310. These awards are announced during the Spring term, therefore, your nomination should be received before January 26, 2000. Nominations can be made by past and present students.

Selected Publications

Greenwood, P.E., **McKeague, I.W.**, and Wefelmeyer, W., Von Mises Type Statistics for Single Site Updated Local Interaction Random Fields, *Statistica Sinica*, 9, 699-712 (1999). This paper studies some simulation aspects of random field models used in image analysis and statistical physics. Such models typically have only local interactions and can be simulated by Markov chains which update a single site at a time. If we wish to approximate the expectation of a function of the random field, can we make better use of the simulations than through the empirical estimator (or "sample mean")? We describe symmetrizations of the empirical estimator which are computationally feasible and can lead to substantial variance reduction.

Livingston, R.J., Howell, R. L. IV, **Niu, X.-F.**, Lewis, F.G. III, and Woodsum, G., Recovery of Oyster Reefs (*Crassostrea Virginica*) in a Gulf Estuary Following Disturbance by Two Hurricanes, *Bulletin of Marine Science*, 64, No. 3, 465-483 (1999). This paper uses intervention time series models and gives a detailed evaluation of the response of oyster reefs to two disturbances: Hurricanes Elena and Kate which struck the Apalachicola Bay in 1985. The study has significant meaning in terms of the long-term ecological stability of estuarine populations and the evolutionary aspects of such biological response to temporarily unstable habitats.

Greetings (Continued from page 2)

tie-ins with this School.

Florida State is in the process of creating new professional masters degree programs in Bioinformatics and Computational Molecular Biology. These new degree programs will be in the Departments of Mathematics, Computer Science, Biology, and Statistics in conjunction with FSU's new School of Computational Science and Information Technology. In our department, we are creating a new emphasis on computational biology within our applied masters option. This emphasis aims for proficiency in applied statistics, statistical consulting and computational methods in biology. One of the new courses to be offered in this program is *Statistical Modeling with Applications to Biology*. This course is being developed by Lei Li.

On February 18 and 19, 2000, Florida State University will host the Annual Meeting of the Florida Chapter of the American Statistical Association. Jayaram Sethuraman, President of the Chapter, has organized the meeting and has invited Malay Ghosh, Ulf Grenander, and Nozer Singpurwalla to give invited talks. Information about the meeting can be found on the FLASA website at <http://stat.fsu.edu/flasa>.

Our department, started by Ralph A. Bradley in 1959, just completed its 40th year of operation. Our 40th anniversary celebration will be held April 21 and 22, 2000 at FSU. We look forward to seeing our graduates, former faculty, and friends at that time. Please come to help us celebrate. Life begins at 40!

Unfortunately, I also have some sad news to report. Werner Baum, who served as Dean of the College of Arts and Sciences from 1979-1990, died in September 1999. Many of you met him at our Orientation Colloquia and other departmental activities. Werner was one of FSU's dynamic "49ers" who came to FSU in 1949. Throughout an illustrious career, Warner was a staunch defender and proponent of academic freedom and integrity. His dedication and leadership were strengths that fostered FSU's drive to excellence.

Li-Shan Huang, an Assistant Professor at FSU since August 1995 (and currently visiting Australian National University) has resigned due to personal family reasons. Li-Shan has been a dedicated and scholarly teacher and researcher in our department and we had looked forward to many more fruitful years with her on our faculty. We wish her well in her future plans.

To alumni and friends: I hope that you will enjoy keeping in touch with us through this newsletter. Please keep us updated on your lives and successes. I wish you all the best for the new year.

Myles Hollander

Alumni Update Request

Please complete the form below to update your information. Include any news (professional and/or personal) of your current activities that you would like to share with us. Unless otherwise requested, we may use your information in a future newsletter. Return the form to:

Pam McGhee
Florida State University
Department of Statistics
Tallahassee, FL 32306-4330

fax: 850-644-5271
email: info@stat.fsu.edu

Alumni Update Form

Comments? Suggestions? We look forward to hearing from you and to receiving your submissions for future newsletter items. You may reach us by mail, phone, fax, or email.

Name: _____ Degree(s) and year(s): _____
City, State, Zip _____ Home Phone: _____
Position: _____
Business Name: _____
City, State, Zip: _____
Business Phone: _____ Fax Number: _____
Internet/Email address: _____
Other Information:

Florida State University Department of Statistics Gift Form

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For more information please contact
 Nancy Smilowitz in the College of Arts
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 (850) 644-9324.

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 My employer's matching gift form is enclosed.

For credit card payment please complete
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 Card Number: _____
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Use my/our gift:
 For the greatest need within the Department
 For the Statistics General Development Fund
 For the Ronald and Carolyn Hobbs Endowed Fund
 For the Ralph A. Bradley Award Fund
 For the Yongyuan & Anna Li Award Fund
 Other: _____

Form 99SDDM

About Our Funds...

The **Statistics General Development Fund** was created to provide general support for our department in a variety of areas. The fund has most recently been used for providing lunch for invited speakers, refreshments for the departmental colloquium series, and for meetings of the faculty and graduate teaching assistants. Other uses of the fund in the past included funding for travel, supplies, and equipment expenses for the use of graduate students; the purchase of audio equipment for classroom use; and, emergency loans for graduate students.

The **Ralph A. Bradley Student Award** is named for our department's founder, Dr. Ralph A. Bradley. The Bradley award is presented to a graduating Ph.D. student who has demonstrated outstanding achievement, culminating in the presentation of the best doctoral dissertation of the year. Since its inception in 1979, 17 graduate students have received the award. They are: Ramon Leon, 1979; Carlos A. B. Pereira, 1981; Harry S. Joe, 1982; Frank M. Guess, 1984; Wai T. Chan, 1985; Edsel A. Peña, 1986; James A. Sconing, 1986; James H. Clair, 1988; Brett D. Presnell, 1989; B. Narasimhan, 1991; T.V. Kurien, 1991; Gang Li, 1992; Yanqing Sun, 1993; Hulin Wu, 1994; Crisanto Dorado, 1995; Jeffrey Stein, 1997; and Mourad Tighiouart, 1998.

Dr. Bradley, who is now Professor Emeritus at the University of Georgia, still keeps in touch with our department about the award. He recently made a special offer to match up to \$10,000 in contributions made to the Bradley Award Fund.

The **Ronald and Carolyn Hobbs Endowed Fund in Statistics** was established earlier this year thanks to the generosity of Ron Hobbs (M.S. '67) and his wife Carolyn. This fund is to be used to support faculty and students within the department. Appropriate expenditures include awards, equipment, facility enhancement, and travel. A portion of this fund has been set aside to create the "Duane Meeter Fellowship" for promising incoming students.

The **Yongyuan and Anna Li Fund** was established in October 1997 by Anna Li in memory of her husband Yongyuan Li who died from cancer on April 7, 1997. Yongyuan was a promising Ph.D. student in our department and the Yongyuan and Anna Li Award was created to commemorate that promise by recognizing our current and future outstanding graduate students with an award for the student who presents the best student colloquium each year in our department's colloquium series. This year's award went to Blake Whitten.