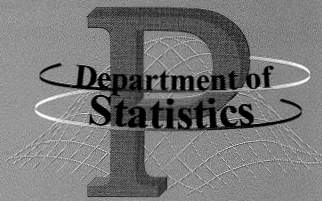


Department of Statistics

NEWSLETTER



Purdue University

Summer 1999

A Message from our Department Head	2
Sixth Purdue International Symposium on Statistics	3
Statistical Consulting Service . . . Beginnings by Prof . V. Anderson	6
1998-99 Traveling Speakers	6
New Faculty Members and Visitors	8
Department News	9
Memorial Lectures	15
Student News	16
Recent Graduates	19
News from the GSO	21
1999 Distinguished Alumni Award	22
Alumni News	22
Alumni Reply	25
Gifts to the Department	27
Statistics Department Annual Picnic	28
1998 Annual Holiday Party	29
Faculty and Staff Appreciation Picnic	30
Department E-Mail Addresses	31

A Message from the Department Head



Dear Alums and Friends,

More than a year later we are still basking in the glow of the June 1998 Sixth Purdue International Symposium on Statistics. It brought together some of the finest statistics researchers in the world. On the next two

pages is the humorous statistical poem delivered by the Symposium banquet speaker **Professor Larry Brown**, University of Pennsylvania. It is followed by some pictures from the Symposium.

The department successfully underwent an external review for the School of Science in April, 1999. These reviews are held every five years using distinguished statisticians and probabilists who work outside of Purdue. One member of this outstanding group is usually also a relatively recent graduate of the program for perspective. This review allows us and the School of Science to obtain outside views of our programs and to obtain excellent advice. The chair of the review committee was **Dr. Jerome Sacks**, Director of the National Institute of Statistical Sciences. Other members of the committee were **Professor Naresh Jain** of the University of Minnesota; **Dr. Ming Tan** of St. Jude Children's Research Hospital; **Professor Elizabeth Thompson** of the University of Washington; and **Professor Grace Wahba** of the University of Wisconsin.

Next year in August, 2000, the Joint Statistical Meetings will be held in Indianapolis, Indiana. Recall that this is only an hour's drive from the West Lafayette campus. We expect high attendance at the annual Purdue dinner there on Monday, August 14, 2000. (This year's Purdue dinner at the Joint

Statistical Meetings in Baltimore, Maryland, was held at Bertha's in the historic Fell's Point area on August 9, 1999.)

The Department convened an Alum Advisory Council for the first time in September, 1998, seeking advice from those in industry positions about our programs. (See page 9.) Their generous service was greatly appreciated and we look forward to a second meeting in September, 1999. An important outcome of the first council meeting is the special Fall 1999 course "Statistical Issues in Drug Development" taught by a team of Eli Lilly statisticians for our students and faculty. (See our web page for titles and abstracts of the lectures.)

The Statistical Consulting Service plays a critical role in the education of department students and many of them continue to consult throughout their careers. Students and faculty from around the campus benefitted in January, 1999, from a lecture entitled "Consulting 101" presented by alum **Dr. Jerone Deverman** of Medical Data Systems. This issue includes an article by graduate student, **James O'Malley**, describing a project in his experience as a statistical consultant. In another article **Emeritus Professor Virgil Anderson** also describes his impressions of the beginnings of the Statistical Consulting Service.

One of the most interesting parts of the newsletter for all of us here is the section Alumni News. We gather the information from news sources whenever possible and are always grateful to those who send information about other alums as well as themselves.

We hope you enjoy reading the newsletter and will join me in thanking the Editor, **Teena Seele**, for her work.

Best regards to you,
Mary Ellen Bock
Mary Ellen Bock

Sixth Purdue International Symposium on Statistics

Banquet Poem by Larry Brown

Once upon some data dreary, which I pondered weak and weary
Came a thought so very cheery,
AHA! I cried - Decision Theory.

And so, as I paused with eyes so bleary from
Trying many a quaint and curious theorem of forgotten lore,
In there flew a Raven of the saintly days of yore
And perched upon a bust of Fisher just above my chamber door;
Issued therefrom a thought most ribald -
"Seek the spirits of Neyman and Wald."

NEYMAN and WALD echoed from atop that bust of Fisher
And filled my chamber with a glow,
In which there sparkled hints of Pearson and of Pitman,
Of Wolfowitz and Kiefer, and an essence of Stein, Le Cam and Lehmann.

But oh so briefly, For that Raven
Not the least obeisance made he; not a minute stopped or stayed he;
And with mien of lord and lady, perched above my chamber door —
Perched upon that bust of Fisher just above my chamber door —
Perched and sat, and nothing more.

And then the Raven, sitting lonely on the placid bust spoke only
One full word, as if his soul in that one word he did outpour
Till I scarcely more than muttered, "Other friends have flown before —
On the morrow he will leave me, as my hopes have flown before,"
And the bird said, "Nevermore"

Startled at the stillness broken by reply so aptly,
I peered deeply at that Raven perched upon his comely bust;
Inwardly he cackled, muttered, murmured, sprinkled some confetti,
And flew off to the place of Bayes and deFinetti;
And thoroughly to ravage
In a land ruled by Savage.

But that black apparition was not away for long ere he returned,
Perched again and was heard to cry —
"ROBUSTIFY"

Sixth Purdue International Symposium on Statistics

After which my Raven, stopped, staggered,
And appeared to feel a pain -
A pain deep in his ribs,
Until most agitated he exclaimed —
"GIBBS"

Nor much had I time to ponder,
When came a cry no whit feebler,
From that orifice there issued —
"KULLBACK-LIEBLER"

Nor yet did his severe condition seem to change,
He blinked, squinted, shriveled up his face,
Seemed to suffer from some queer, severe myopia,
Which he could only cure by squawking,
"ASYMPTOPIA."

Faintly I began to perceive some pattern in this cacophony,
But stopped when he began to groan and pace,
And grimace, and then spoke from atop his bust of Fisher—
"To gain some parity we must invoke -
ANCILLARITY."

Nor Frequentist, nor Bayes was he,
Upon his perch from which he could oversee
A varied and oft contentious past
And, I surmised, also the future toils -
And spoils -
Of many data sets, analyses and analysts.

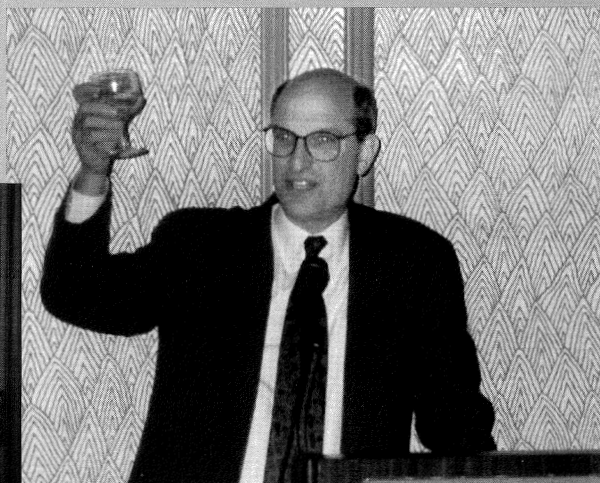
But yet, to my entreaty where to search and what to do,
Some thought he gave in his dark way,
His head he nodded and his wings he spread
As off again he flew.
And though the voice was tired and the call most faint,
I thought I heard him say, "Be wise —
COMPROMISE."

Sixth Purdue International Symposium on Statistics

Some Highlights from the Symposium



A. Dickerman, R. Sederoff and M. E. Bock



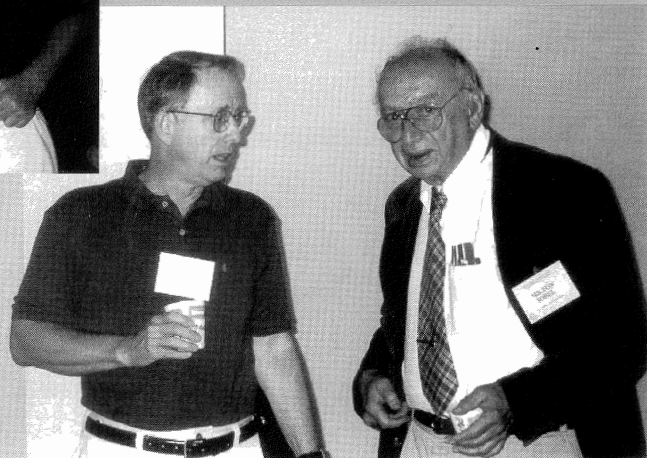
Larry Brown



Tony Zamora Jazz Band



J. Berger, R. Carroll and J. Deely



G. McDonald and M. Sobel

Statistical Consulting Service . . . Beginnings As Remembered by Dr. Virgil Anderson



Organized consulting at Purdue University began in 1955. Prior to that time, **Professors Irving Burr, Paul Irick, Carl Kossack** and **Virgil Anderson** provided the consulting in a very informal manner. Researchers from areas other than statistics would call for help and one of

the four professors would assist them. No records were kept to identify the consulting work done and no time for consulting was allotted to the professors.

In 1955, the Statistical and Computing Laboratory was established. A budget was formulated to allow time for professional statistical and computing consulting and records were kept to show projects and time taken by the statisticians on those projects.

The number of consulting projects grew rapidly over the next ten years, mainly because the Sampling, Regression, Analysis of Variance and Design of Experiments courses had so

many graduate students from other disciplines besides statistics. These students grasped the concept of having the statistics professors teaching these courses on their graduate committees. These professors then demanded sound experiments for the students' theses which, of course, required consulting time by the statistics professors.

The budgeted time for the consultants rose during the ten years following 1955. However, after the Statistics Department was established, **Professor George McCabe** took over this activity and the modern era of using more computing facilities along with the statistical consulting began. ❖

1998-99 Traveling Speakers

Below are a representative sample of the speakers who traveled to Purdue University.

Siddhartha R. Dalal, Bellcore, "Statistical Software Engineering", September 17, 1998.

Rabi Bhattacharya, Indiana University, "Convergence to Equilibrium of a Class of Markov Processes Generated by Iterated Random Maps", September 25, 1998.

Victor Solo, Macquarie University, Sydney, Australia and Massachusetts General Hospital, Harvard University, "Human Brain Mapping with Functional Magnetic Resonance Imaging", October 1, 1998.

Mark Irwin, Ohio State University, "Pedigree Reconstruction with Partial Genetic Information", October 8, 1998.

Barbara A. Bailey, University of Illinois, "Modeling Cloud

Cover as a Dynamical System", October 15, 1998.

Jonathan Arnold, University of Georgia, "Statistical Genomics", October 22, 1998.

Sanjib Basu, Northern Illinois University, "Estimation of Undetected Errors", October 29, 1998.

Robert Lund, The University of Georgia, "Rates of Convergence for Ordered Markov Chains and Processes", November 6, 1998.

1998-99 Traveling Speakers (cont.)

J. Bert Keats, Arizona State University, "A New Procedure for Statistical Monitoring of Autocorrelated Data", November 12, 1998.

S. Stanley Young, Glaxo Wellcome Inc., "The Discovery of Multiple, Interacting Genes", November 18, 1998.

Constance van Eeden, The University of British Columbia, "Estimation in Restricted Parameter Spaces", November 30, 1998.

Brian Yandell, University of Wisconsin, Madison, "Estimating the Number of Quantitative Trait Loci Via Bayesian Model Determination", December 4, 1998.

Alan F. Karr, National Institute of Statistical Sciences, "Recent Events and Future Plans at NISS", December 10, 1998.

Jerone N. Deverman, Medical Data Systems, "Consulting 101", January 22, 1999.

Chunming Li, Indiana University School of Medicine, "Classification by Active Testing with Applications to Medical Imaging", February 9, 1999.

Ronald Christensen, University of New Mexico, "Parametric Modeling of Competing Risks", February 15, 1999.

Steve N. Evans, University of California, Berkeley, "Constructing and Counting Phylogenetic Invariants", February 18, 1999.

Lorens Imhof, RWTH Aachen, "On an Optimal Design Problem for Weighted Polynomial Regression and Rational Models", February 25, 1999.

Sin-Ho Jung, Indiana University School of Medicine, "Rank Tests for Matched Survival Data", March 2, 1999.

Walter W. Offen, Eli Lilly, "Interim Analysis and Data Monitoring Boards in Clinical Trials", March 9, 1999.

Alicia Carriquiry, Iowa State University, "Estimation of Nutrient Intake Distributions", March 11, 1999.

Jim Naessens, Statistician, Biostatistics and Health Services Evaluation Sections, Mayo Clinic, "Working in Statistics at the Mayo Clinic", March 30, 1999.

Vladimir Spokoiny, Institute for Applied Analysis and Stochastics, Berlin, Germany, "Adaptive Methods in Estimation of Complex Statistical Objects", March 29, 1999.

James O. Berger, Duke University, "Conditional P-Values", April 1, 1999.

Susmita Datta, George State University, "Statistical Theory for the Evolutionary Dynamics of Cytonuclear Association", April 8, 1999.

Stephen Duffull, University of Manchester, "Computer Assisted Trial Design in Early Drug Development", April 9, 1999.

Raymond J. Carroll, Texas A&M, "The Statistical Problem of Relating Nutrient Intake and Disease", April 16, 1999.

Bradley P. Carlin, University of Minnesota, "Implementation Issues in Markov Chain Monte Carlo Methods for Bayesian Data Analysis", April 19, 1999.

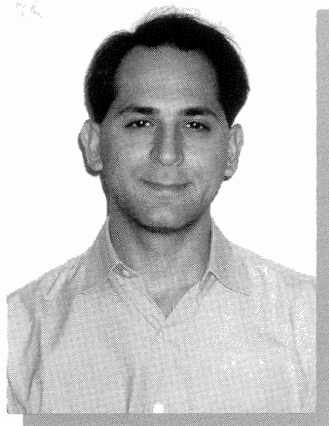
Thomas Santner, Ohio State University, "Empirical Best Linear Unbiased Prediction in Computer Experiments Based on the Spectral Density", April 23, 1999.

Prakash Laud, Medical College of Wisconsin, "Bayesian Non-parametric Survival Analysis", April 27, 1999.

Xiaotong Shen, The Ohio State University, "Random-Sieve Likelihood", April 29, 1999. ❖

New Faculty Members and Visitors

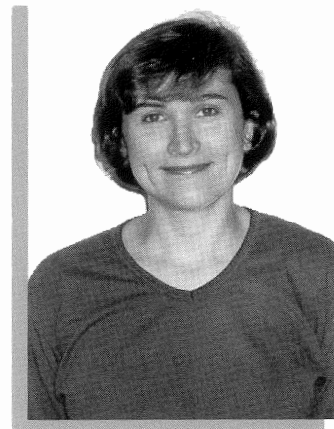
New Faculty



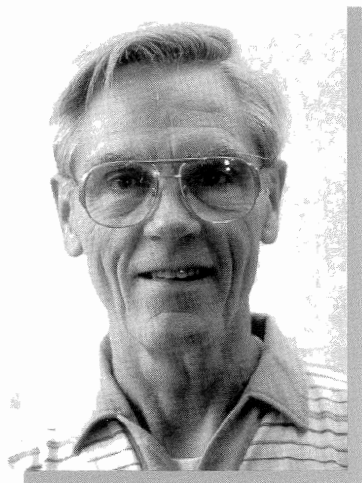
Ioannis Kontoyiannis joined the Statistics Department in August, 1998 as Assistant Professor of Statistics. He also holds a courtesy appointment with the Department of Mathematics and with the School of Electrical and Computer Engineering. He received his Ph.D.

from Stanford University in June 1998. His research interests are in applied probability, information theory, ergodic theory, and nonparametric statistics. Specifically, he has worked on various problems in stochastic processes, string-matching, data- and image-compression, and entropy estimation. Besides work, he is addicted to watching movies and listening to jazz music. He loves the movies of the Spanish director Luis Bunuel, and likes to quote him saying that "Chance governs all things; necessity, which is far from having the same purity, comes only later."

Katy Simonsen joined the Statistics Department in June, 1998 as Assistant Professor of Statistics. Before coming to Purdue, she spent two years as a Postdoctoral Research Associate with the Program in Statistical Genetics at North Carolina State University. She received her Ph.D. in Applied Mathematics from Cornell University in 1996. Her research interest focus on statistical problems in genetics, ranging from inference about evolution and natural selection to locating disease genes and the analysis of genomic data.



Visitors



James W. Dobbin, Jr. is a Visiting Lecturer who started in Fall 1998, holds a B.S. degree in Metallurgical Engineering from the University of Illinois, and a M.S. degree in Industrial Management from Clarkson College of Technology. Jim worked 37 years for Aluminum Company of America as a metallurgist and quality control supervisor, retiring in 1993. His career at Purdue began in the fall of 1995 when he entered the Statistics Masters Degree program. Jim and his wife, Marilou, have three children.

New Faculty Members and Visitors (cont.)



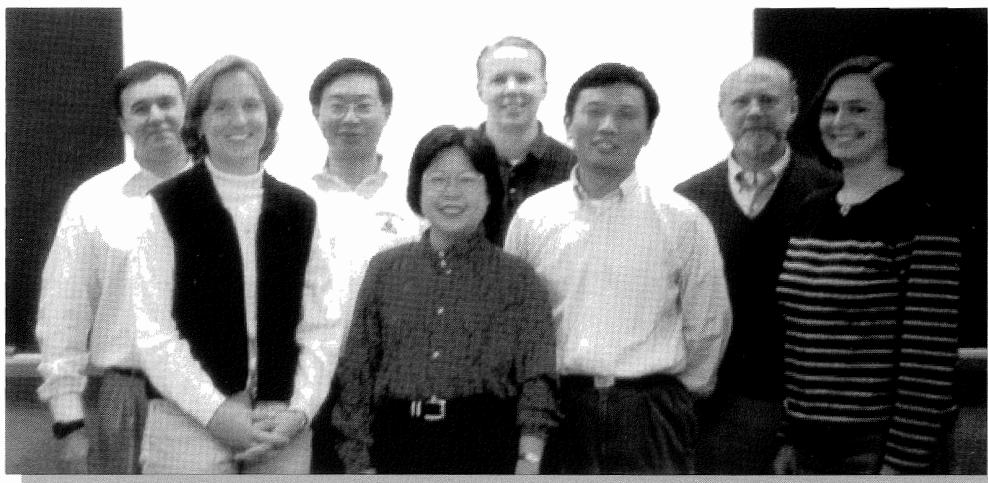
Dimitris Gatzouras was a Visiting Assistant Professor in Spring 1999 who previously taught in the Departments of Mathematics at Yale University and the University of Crete and the Statistical Laboratory of the University of Cambridge, England. After his visit to Purdue, he takes up a three year research position in the Department of Mathematics at the University of Crete. His interests lie in the areas of fractal geometry, ergodic theory and the theory of probability and stochastic processes. Dimitris was a graduate student in our department and received his Ph.D. in 1992. ❖

Department News

Statistics Advisory Council

The first Statistics Advisory Council met October 2-3, 1998. The council is made up of alums who serve a three year term meeting once a year. Advice is based on their experience and will be a useful ingredient in planning and proposals for change.

The members of the Advisory Council are: **Domenic Reda**, Hines VA Hospital; **Christine Emsley**, Indiana University School of Medicine; **Ming Tan**, St. Jude Children's Research Hospital; **Jing Shyr**, SPSS Inc.; **Richard Benz**, Kimberly-Clark Corporation; **Michael Lu**, Abbott Labs; **James Colaianne**, Johnson and Johnson; and **Julia Varshavsky**, Eli Lilly. ❖

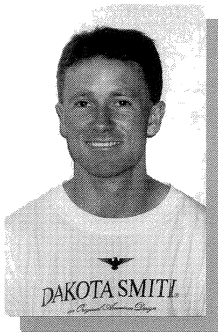


Department News (cont.)

Statistical Consulting Service (SCS) <http://www.stat.purdue.edu/consulting/website/>

Comments on Michael Hunt File

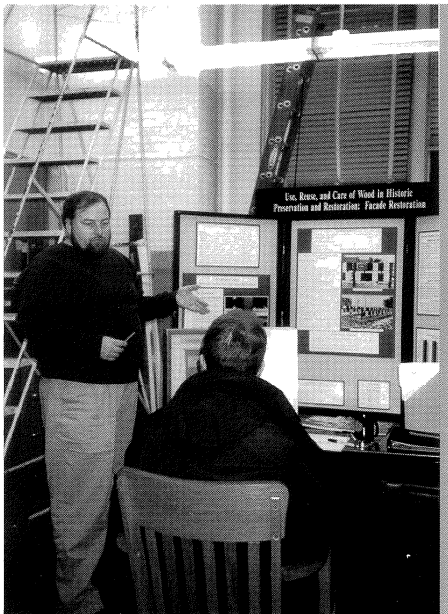
by James O'Malley



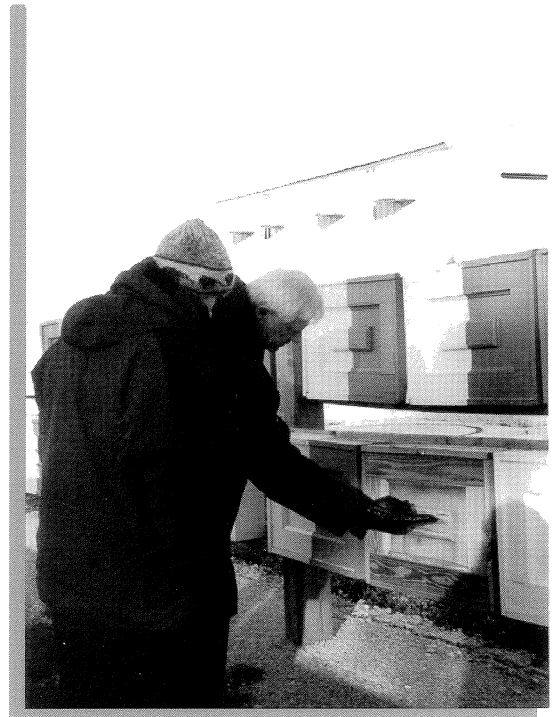
This is a project that I have been lucky to work on throughout the five semesters of my involvement with the statistical consulting service. The project instigator is **Professor Michael Hunt** of the Department of Forestry and Natural Resources (FNR), and his co-researchers

are **Dr. Joel Evans, III** and **Mr. Rick Hanger**, both in FNR, and **Professor Bill Feist**, Exterior Wood Finishing and Weathering, Middleton, Wisconsin. **George McCabe** of the Department of Statistics is the Statistical Consulting Service Director supervising the project.

The initial motivation of the project was Dr. Hunt's interest in the restoration of historic buildings. Premature failure of restored street facades of historic buildings, where the facades are constructed primarily of wood, is widespread. Such failure occurs even for restoration projects done according to the U.S. Department of the Interior Standards. These highly visible construction failures have at least three important negative consequences: it reflects poorly on the business housed within; it creates a negative image of wood in the construction market; and it is a strong deterrent to appropriate restoration of historic buildings.



Dr. J. Evans, III explaining the intricacies of the experimental design used in the wood facade construction project to J. O'Malley.



Dr. M. Hunt pointing out to J. O'Malley a location where a panel has been severely affected by weathering.

Two years ago, Dr. Hunt initiated a research program involving weathering of small facade-like panels. Each panel is manufactured according to a combination of controlled research variables. The goal of the study is to identify cost effective, durable combinations of panel design, materials, and treatments.

The controlled explanatory variables are (1) design of panel, (2) type of surface treatment, (3)

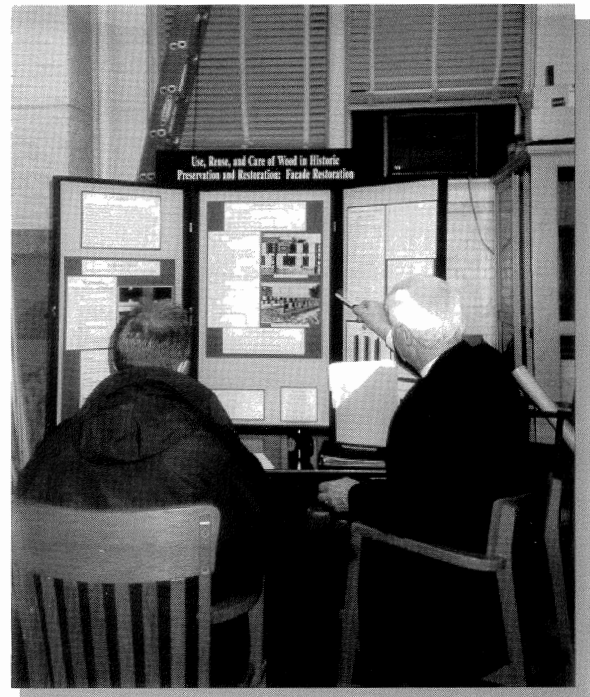
Department News (cont.)

type of sealant, (4) type of paint, (5) color of paint, and (6) type of wood. The weathering of each panel is assessed at six month intervals. Each panel is examined at joints and other locations by expertly trained assessors. At each joint three different observations (joint separation, sealant separation, paint failure) are taken. At every observation point on the panel that is not a joint, eight distinct subjective assessments (substrate cracking, warp or distortion, rot, loose knot, paint cracking, discoloration, flaking, mildew) are recorded. These data have been analyzed using an unbalanced nested design model. The type of paint, sealant, surface treatment and design of the panel are consistent within a panel (these variables are known as whole plot effects in statistical terminology) but the color of the paint often varies from one side of the panel to the other and panels are typically constructed using more than one type of wood. Included in the models is a variable that identifies homogeneous regions within a panel and a variable representing the total mass per unit area of paint applied to the panel. Since there are a large number of panels, the memory required to fit the models containing only the first order terms is immense.

The results to date agree with a priori predictions of the panels' performance. These indicate that one should: use a water repellent preservative pretreatment that can be applied in a "paint like" fashion on all surfaces and ends of parts; use a top quality latex or urethane sealant on all joints; use dry wood; use a quality paint system consisting of an acrylic latex primer and two acrylic latex top coats.

Additional results indicate that white paint is less susceptible to early failure than gray paint (although the performance of the two colors converges with time. The design of the panel does not appear to have much influence on the performance of the panel.

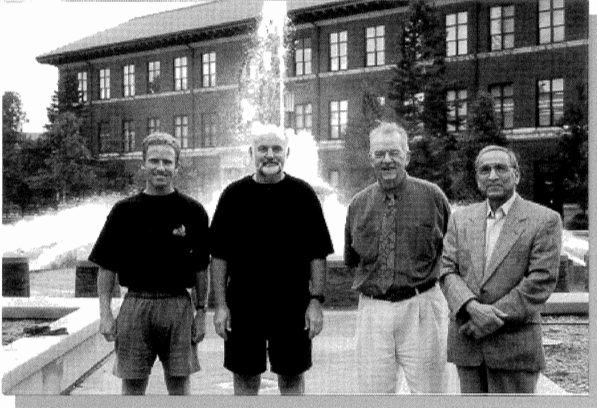
Exhibits from this project are on public display near the Courthouse in Downtown Lafayette, at the back of the Forest Products building on campus and at the main experimental site in a paddock near the airport. Despite these displays and the many pleas for funding made by Dr. Hunt, the project is still not fully funded. It is hoped that a major sponsor will be found in the near future. More information can be found at Dr. Hunt's site <http://www.fnr.purdue.edu/woodresearch/facade/fac.html>. ❖



Professor M. Hunt, Forestry and Natural Resources, and James O'Malley meet to determine analysis methods for the data collected in the past and to be collected in the future in order to make specific recommendations for wood facade construction.

Department News (cont.)

Four Academic Generations of “First Born” Ph.D.’s



*L-R: J. O'Malley, M. Smith, J. Deely and S. S. Gupta
on the West Lafayette, IN, Purdue Campus*

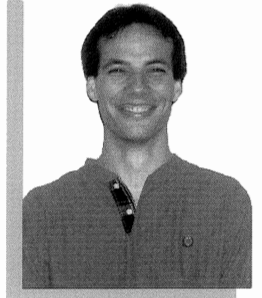
Can you spot the Great Grandfather? **Shanti Gupta** received his Ph.D. from the University of North Carolina in 1956. He has since supervised 28 Ph.D. students who received their degrees under his direction. **John Deely** was his first Ph.D. student in 1965 from Purdue University. **Murray Smith** was John's first Ph.D. student in 1977 from the University of Canterbury. **James O'Malley** was Murray's first Ph.D. student (jointly with John Deely) receiving his Ph.D. in May 1999 from the University of Canterbury. This is the first time that all four men have been in the same place at the same time. ❖

Job Search Network

If you have job information that you would like to include in our web site, please e-mail the job announcement to stat-jobs@stat.purdue.edu. ❖

Computing Facilities

*by Doug Crabill
Computer Systems
Administrator*



A new IBM RS/6000 F50 was purchased this year to replace our old IBM 580. The new machine, named “odds”, has 4 CPU's, each running at least twice with more than twice the memory than the 39H purchased last year. It has been pressed into service as one of our primary computer servers and as a fileserver. The School of Science now has a Windows Terminal Server quad CPU Xeon server that can allow people to run Windows NT software like Excel and Word and have it displayed and usable on their X-Terminals or UNIX Workstations. This makes reading e-mail attachments sent in Excel format, for example, much simpler for those who do not also have a PC in their office.

Mike Hilborn, our new Webmaster, has done a great job giving our Web site a facelift. He is actively working to integrate useful departmental data into the Web site by collecting information into databases. These can then be used to generate hardcopy output or responses to web-based queries. Ultimately information will be more readily available, internally consistent, and easier to update. ❖



Jason Stover, graduate student in Statistics, married Karen Bendersky September 21, 1998. **Renee Jones**, consultant for Statistics, and Tony Hall were married October 9, 1998. **Markus Bachmann** and **Meng-Rong Lee**, both graduate

Department News (cont.)

students in the department were married December 3, 1998. Alumnus, **Joong K. Sohn**, married Heon Joo Kim February 6, 1999. Heon Joo visited the department in the fall of 1996. Congratulations and best wishes to all!! ❖

New Arrivals



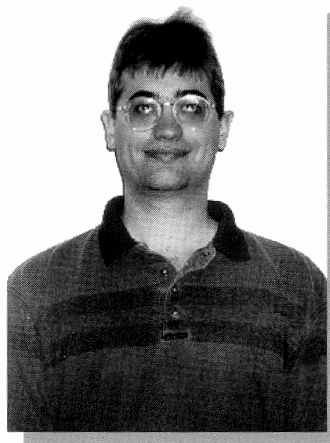
The stork keeps visiting the Statistics Department and alums. **Richard and Naomi (Buerck) Benz** are the proud parents of their second child, Aaron, who made his appearance on July 14, 1998. Aaron has a sister, Anna. **Yung-Pen Chen** and his wife, Yuanchin Lai, are the parents of a new baby girl, Evelyn Shining. They also have a nine year old daughter, Christine. Samuel Michael Craig made his appearance on May 3, 1998. **Prof. Bruce Craig**, his wife, Jen, and Samuel's new sister, Alexandra, are very happy he's here. The second child of **Sayaji Hande** and his wife, Prabha, arrived on September 25, 1998. Her name is

Gauri. **John Hayes** and his wife, Katie, are the proud parents of their second daughter, Anna Cathrina, born October 20, 1998. **Crystal Richard Miller** and her husband, Tom, had a daughter, Alyssa Sue, born on April 13, 1999. Rudra Menon was born August 21, 1998. His parents are Naresh and **Shinjini Menon**. Jasho and **Bhramar Mukherjee** are the proud parents of a daughter, Mrittika, who was born July 26, 1998. **Xiaoli Qi** and his wife are the proud parents of a baby girl, Wendy, born April 1999. Justin Christopher Rellinger was born July 23, 1999. He is the new son of **Chris and Dawn Rellinger**. Mark Sellke has a new sister, Clara Elizabeth, born January 23, 1999. **Prof. Tom Sellke** and his wife, Sarah, are the proud parents of both. **Tom Smith** and his wife, Diane, proudly announced the birth of their son, Steven Adam, who was born July, 27, 1998. Noah Alexander Helterbrand arrived on June 28, 1998. His parents are Jeff Helterbrand and **Julia Varshavsky**. We wish the very best to all the families! ❖

Meet Our New Webmaster

Michael D. Hilborn joined the Department of Statistics in August, 1998, as the department's new webmaster. He earned a BS in Biochemistry from Lafayette College in Easton, Pennsylvania, in 1994 and graduated from Purdue University with a MS in the Biological Sciences in 1998.

A dabbler in computers and the creative arts since the age of ten, Michael's interest in desktop publishing grew during his interim with his college newspaper. The advent of the World Wide Web provided him with a unique opportunity to combine his experience with computer programming, graphic design, and



desktop publishing into one medium. After several years of developing web pages for the Department of Biology's BioMedia Center and working for ArcticSoft in West Lafayette, he decided to pursue a full-time career in web publishing.

Michael's current projects include implementing a central, online database for the Statistics Department and overseeing the development of an online homework solution for the Mathematics Department. For more details about these projects and other information, please feel free to visit the Webmaster's home page at <http://www.stat.purdue.edu/~webmaster>. ❖

Department News (cont.)

Of Special Note

The International Indian Statistical Association (IISA) selected **Professor Shanti S. Gupta** as an Honorary Fellow of the IISA for outstanding contribution in the IISA's profession. He was awarded this honor October 10 and 11, 1998 at the IISA conference at the McMaster University, Hamilton, Canada.

“A Conversation with **Shanti Gupta**” appeared in *Statistical Sciences*, 1998, Vol. 13, No. 3, 291-305. Alumnus, **Dr. Gary McDonald**, Head, Operations Research Department, General Motors Global Research & Development Operations, Warren, Michigan, talked with Shanti Gupta about his career.

Professor Philip Protter created a new course aimed towards Actuarial Science students but also for general math and statistics undergraduate students. “Methods of Random Modeling”, MATH 490M, was offered for the first time in Spring 1999 semester. Professor Protter gave several talks during the Summer of 1998 in Switzerland, Germany and Italy. He was on sabbatical leave Fall of 1998 semester and he gave several talks in France where he visited INRIA.

Professor Steve Samuels was an invited participant in a Eurostat Worksession on Statistical Confidentiality, March 8-10, 1999 in Thessaloniki, Greece.

The year 1998 was a very busy one for **Dr. Marcel Neuts**, a former Purdue statistics professor. He spent five months in Spain as a Senior Fulbright Scholar. In October, Professor Neuts gave a plenary lecture at the annual meeting of the Spanish Statistical Society in Almeria. The year 1999 will bring more traveling for Professor Neuts,

as well. He has planned trips to Germany, Denmark and Athens, Greece. His involvement with mathematical research continues. He misses the direct interaction with doctoral students but that is now replaced by joint research with colleagues in universities and industry. ❖

Calendar of Coming Events

A special seminar series “Statistical Issues in Drug Development” will focus on statistical methods and issues in the pharmaceutical industry for the Fall 1999 semester. It is taught by a team of Eli Lilly statisticians on Wednesdays at 4:30 p.m.

The Annual Department of Statistics picnic will be held Sunday, September 12, 1999, along the scenic Wabash River at Fort Quiatenon, West Lafayette, Indiana.

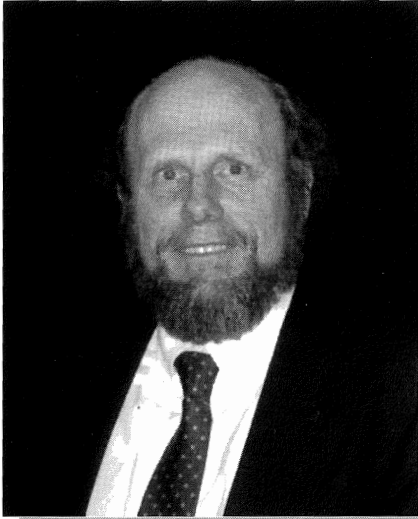
The 1999 Holiday Party will be held at the Ramada Inn, Lafayette, Indiana on Saturday, December 4, 1999.

The Myra Samuels Memorial Lecture will be held Thursday, April 13, 2000, West Faculty Lounge, Purdue Memorial Union, from 4:30 p.m. to 5:30 p.m. **Professor Brad Efron**, Stanford University is the speaker. There will be a reception following the lecture from 5:30 p.m. to 6:30 p.m. in the West Faculty Lounge, Purdue Memorial Union.

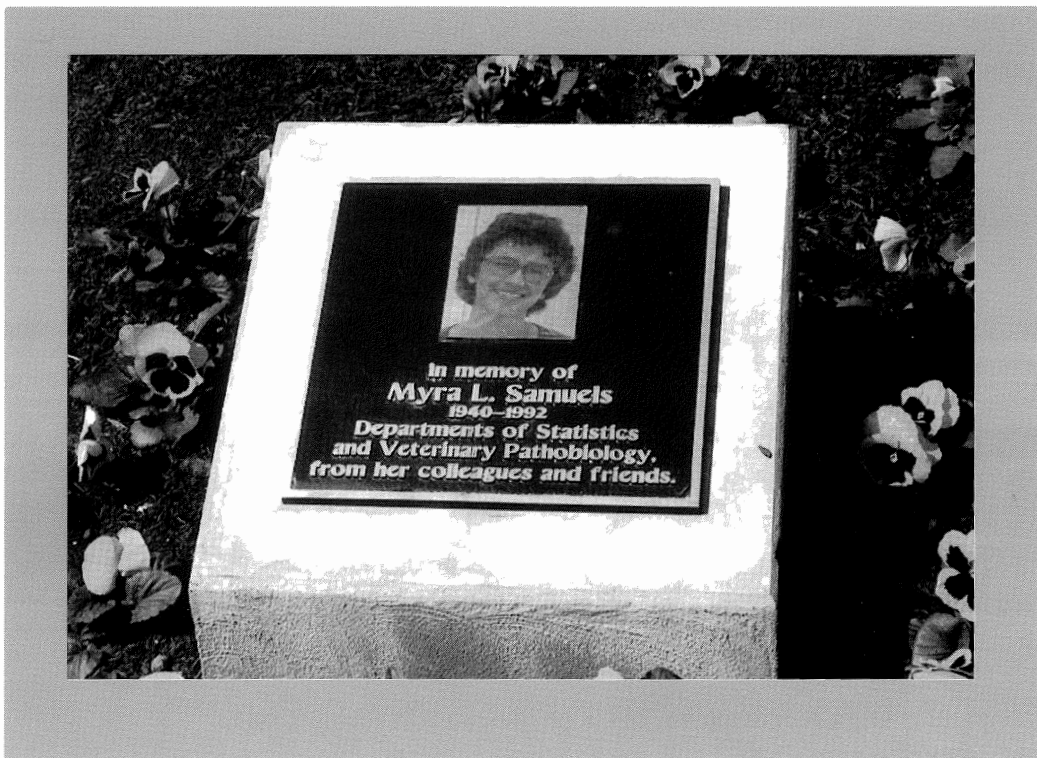
The Purdue annual dinner at the Joint Statistical Meetings will be held Monday, August 14, 2000, in Indianapolis, Indiana. ❖

Memorial Lectures

Myra Samuels Memorial Lecture



The 1999 *Myra Samuels Memorial Lecture* was presented on Friday, April 16, by alum, **Dr. Raymond Carroll**, Professor of Statistics, Biostatistics, Epidemiology, Nutrition and Toxicology, Texas A&M University. The title of the address was “The Statistical Problem of Relating Nutrient Intake and Disease”. The lectures were founded in memory of Dr. Myra Samuels who worked for many years in the Statistics Department and was an Associate Professor in Veterinary Pathobiology at the time of her death. The Myra Samuels Biostatistics Fund provides support for these lectures. ❖

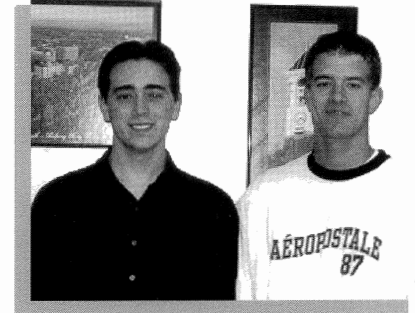


The Myra Samuels Garden was dedicated in April, 1997. The garden blooms continually from Spring through Fall and is a wonderful reminder of our friend and colleague.

Student News

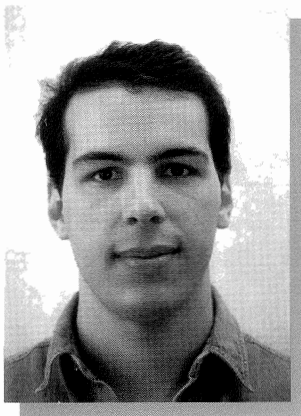
Glen E. Baxter Award

The Glen E. Baxter Memorial Fund was established in 1983 by family and friends of Professor Baxter. The annual proceeds from the fund are used to award scholarships to honor undergraduate students who have demonstrated excellence in mathematics. The recipients of the awards are selected by a committee of professors from the Departments of Mathematics and Statistics.



The 1998 co-recipients of the Glen E. Baxter Award are **Thomas Lee Horine** and **Justin Matthew Kindy**.

I. W. Burr Award



This award was established in 1974 upon the retirement of the late Professor Irving W. Burr, an eminent statistician who taught at Purdue for nearly 35 years.

The student receiving this award should have completed or nearly completed the Ph.D. in statistics. The criteria for selection are: 1) Promise of contribution to the profession as evidenced by academic excellence in courses and exams and by the quality of the thesis research and 2) Excellence in teaching or consulting while the student is at Purdue.

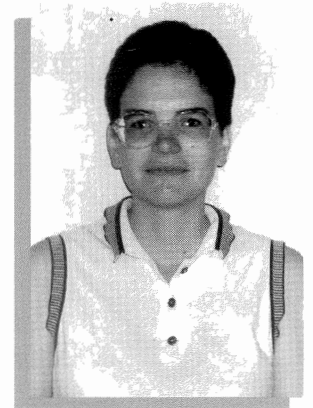
The recipient of the 1999 I. W. Burr award is **Jose M. Perez**. Jose is from Caracas, Venezuela. He entered Purdue University in August, 1994, and received his Ph.D. in December, 1998, under the direction of James O. Berger.

He is currently an Assistant Professor at Universidad Simon Bolivar and his current research area is default model selection in Bayesian analysis.

Outstanding Classroom Teaching by a Teaching Assistant

Teaching Assistants contribute substantially to the teaching mission of the Department of Statistics. The faculty of the department has established an annual award to recognize service to the department and to students through outstanding classroom teaching of Statistics by a Teaching Assistant.

The 1999 recipient is **Olga Korosteleva**. Ms. Korosteleva was recognized for her excellent performance in STAT 225 in the Fall 1998 semester. Olga came to Purdue University in August, 1996, and expects to receive her MS with Specialization in Mathematical Statistics in August, 1999. She plans to continue here working towards her Ph.D.



Student News (cont.)

V. L. Anderson Scholarship

This scholarship is awarded to an undergraduate student who shows promise of contributing to statistics and its applications. The scholarship is in honor of Virgil Anderson who retired from the Department of Statistics in December of 1986 after nearly 36 years.

The recipient of the 1998 V. L. Anderson Scholarship is **Michael J. Heimlich**. Michael is from Reynolds, Indiana. He will be a senior in the Fall of 1999 and is majoring in Math and Statistics, and minoring in Management. Michael will be working for the Statistical Consulting Service this summer and fall. He plans to graduate in May, 2000.



L-R: Michael Heimlich, Rebecca Ambler and James O'Malley

L. J. Cote M. S. Excellence in Statistics

This award is in honor of Louis J. Cote who retired from the Department of Statistics in June of 1991. The student receiving this award should be completing an Applied M.S. rather than a pre-Ph.D. program. The criteria for selection are the qualities required of an applied statistician: 1) Technical skill as evidenced by course performance, faculty evaluation, and performance on the final M.S. Examination and 2) Skill in consulting and communication, normally evidenced by excellence in supervised consulting or secondarily in teaching.

The co-recipients of the 1999 L. J. Cote M. S. Excellence in Statistics award are **Rebecca Ambler** and **James O'Malley**. Rebecca is from Grimsby, United Kingdom, and started Purdue University in August, 1997. She received her M.S. with Specialization in Applied Statistics in May, 1999. She is now employed by the Office of National Statistics, London, England. James came to Purdue University from Christchurch, New Zealand and plans to receive his M.S. with Specialization in Applied Statistics.

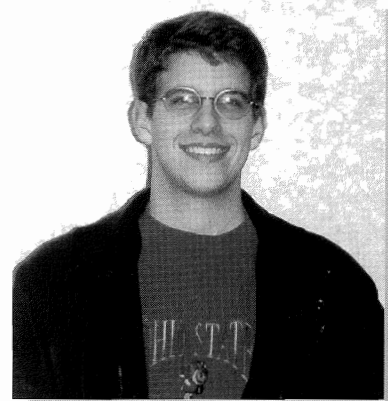
Student News (cont.)

School of Science Outstanding Senior In Statistics

The 1999 recipient of this award is **Timothy Hurst**.

School of Science Outstanding Achievement Award

The 1999 winner of the School of Science Outstanding Achievement Award for Math/Stat is **John William Koelling**.



Timothy Hurst

New 1998-99 Graduate Students

The third annual new graduate student pizza party was held on August 16, 1998. This was a chance for the new students to get to know each other and some of the faculty and staff. It was also an opportunity to give them a head start on learning

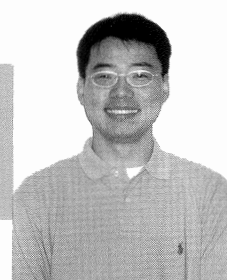
about the department before their first official week on campus. A reception was also held in the Mathematics Library on August 21, 1998, where the new students were introduced to faculty and staff. ❖



L-R: Row 1: Leming Qu, Rui Wang, Young-Ju Kim and Jeonggang Seo; Row 2: Hui Xie, Ionut Florescu, Hao Ren, Ann Kelker and Chris Bessey.

Those new students who were unable to attend the party include:

L-R: Dwight Beaudry, Chonghak Park, Taejin Park and Michial Thompson



Recent Graduates

August Graduates 1998

Doctorates

Sarat Dass (Berger) *Unified Bayesian and Conditional Frequentist Testing Procedures*

Jaeyong Lee (Berger) *Semiparametric Bayesian Analysis: Selection Models and Meteorological Applications*



J. Lee and S. Dass



December Graduates 1998

Doctorates

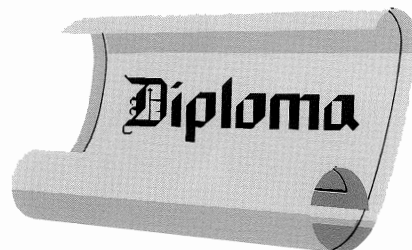
Markus Bachmann (Sellke) *Limit Theorems for the Minimal Position in a Branching Random Walk with Independent Logconcave Displacements*

Zusheng Jin (McCabe) *Subsampling Methods for Stochastic Processes Based on Poisson Samples*

Jose Miguel Perez (Berger) *Development of Expected Posterior Prior Distribution for Model Comparison*

Masters

Meng-Rong Lee
Hua Wang
Chunhua Zhao



Recent Graduates (cont.)

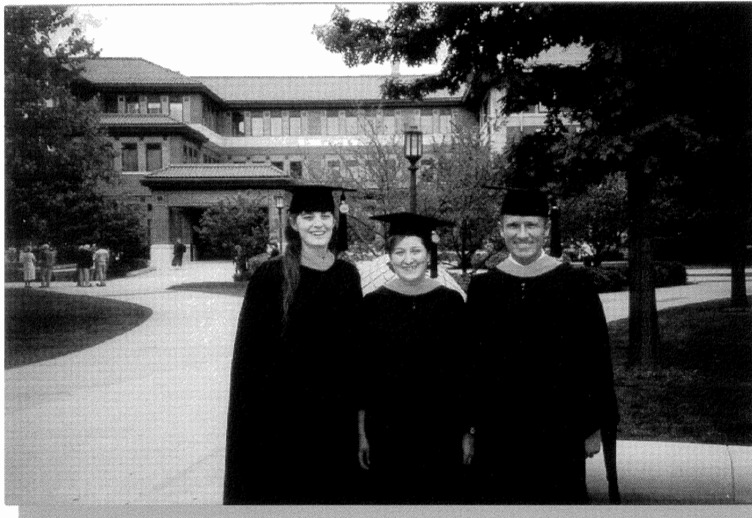
May 1999 Graduates

Doctorates

Xun Lin (Gupta) *Multiple Decision Theory:
Ranking & Selection Problems*

Masters

Rebecca Anne Ambler
Tonya Marie Call
Renee Anne Jones Hall
Mei Ling Ong
Oumar Sekou Sy
David Foster



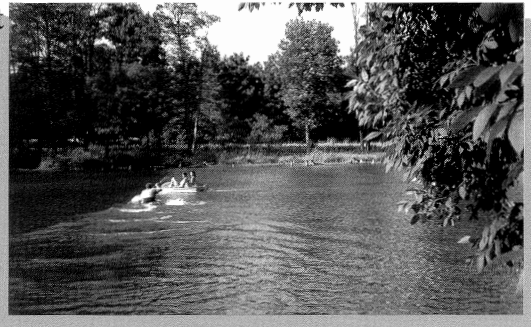
T. Call, R. Ambler and J. O'Malley. James expects to receive his M.S. in August 1999.

Congratulations
You did it!

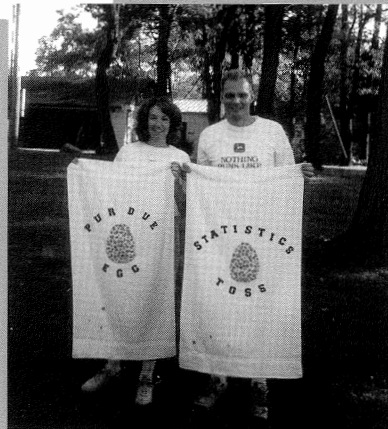
News from the GSO

In a typical monthly meeting of the Statistics Graduate Student Organization (GSO), there were usually two presentations, one by a member of the faculty and the other by a student from the department. Each presented some of their recent work and the talks were followed by pizza.

Student topics ranged from **Jason Stover's** "MCMC with Variable Numbers of Parameters Applied to Finding Oil" to **Wen-Chi Tsai's** "On the Problem of Optimal Location in a Competing Market" to **James O'Malley's** "The Use of Probability by Professional Tennis Players". The most memorable talk was given by **Professor Bruce Craig**, Purdue University, who delivered his talk "Population Trend of the Florida Manatee" while holding his daughter, Ally, due to the lack of a babysitter.



In addition to the monthly meetings, **Professor Brad Carlin**, University of Minnesota, visited the department in April as this year's GSO annual invited speaker. Professor Carlin spoke on "Implementation issues in MCMC" and met with the Biostat Journal Club to discuss a recent paper of his entitled "Fully Model Based Approaches for Spatially Misaligned Data". He also met with a number of students individually to discuss their research.

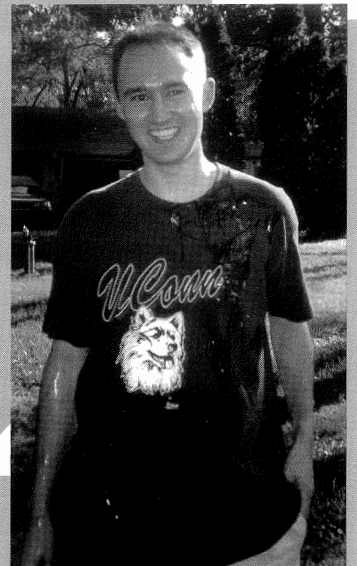


The students also met with alumna, **Christine Emsley**, of Indiana University School of Medicine Division of Biostatistics and **Marcey Abate** of Sandia Laboratories, who visited the department during the fall semester. They each discussed their experiences since leaving Purdue.

The Biostat Journal Club was organized again this year by student, **Michael Black**. This group of faculty and students with interest in biostatistics and/or statistical genetics, met biweekly for an informal discussion of selected journal articles in the field.

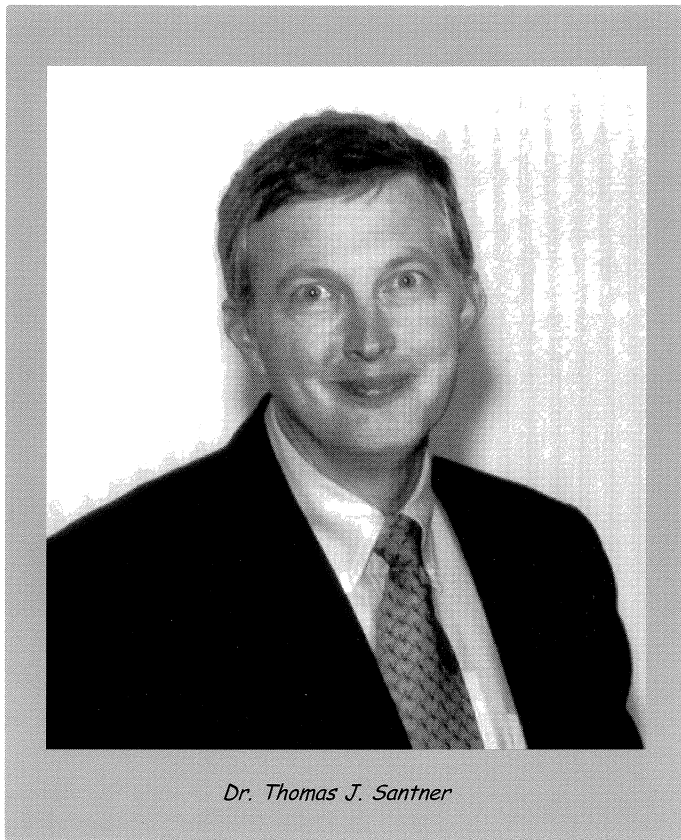
Along with these academic activities, the GSO also organized its traditional social events. In September, **Professor Rebecca Doerge** hosted the second annual "Fall Fun Float Day". In December, the students organized a talent show for the entertainment at the department holiday party. And in April, the GSO sponsored the third annual "Faculty and Staff Appreciation Picnic".

This year the GSO council consisted of **Greg Ball**, **Jessica Lasky**, **Leming Qu** and **Jayson Wilbur**. New officers for next year will be **Michael Black**, **Dwight Beaudry** and **Leming Qu**. ❖



Highlights from the Fall Fun Float Day: Upper right: Kayacks and paddle boats are part of the fun of the day. Left: J. and R. Roper, visiting from U. of Illinois, Urbana-Champaign, won the "egg toss" while J. Wilbur (lower right) wears his egg.

1999 Distinguished Alumni Award



Dr. Thomas J. Santner received the 1999 School of Science Distinguished Alumni Award. These awards were established in 1990 to recognize outstanding achievement in professional and related fields of endeavor for alumni of the School of Science.

Dr. Santner is Professor and Chair of the Department of Statistics at Ohio State University. Before coming to Ohio State in 1989, he was Professor of Operations Research and Industrial Engineering at Cornell University. Dr. Santner has a national reputation for his research in the analysis of discrete data, in the analysis of biomedical and reliability data, and in multiple decision theory. He was director of the Cornell University Statistics Center from 1983 to 1986 and served as director of the Statistical Consulting Service at Ohio State University from 1989 until he became Chair of the Statistics Department in 1992. Dr. Santner has authored three books, and was the Editor in Chief of the *Contemporary Statistics* book series published by the American Statistical Association. He has served as Associate Editor for the *Journal of the American Statistical Association*, for *Biometrics*, and for the *Journal of Statistical Planning and Inference*. He is a Fellow of the Institute of Mathematical Statistics and of the American Statistical Association. ❖

Alumni News

Richard E. Beckwith (Ph.D., 1959) is Professor Emeritus at the College of Business Administration at California State University, Sacramento. Even though he is retired he teaches two sections of “Statistics for the Hopeless, the Disinterested, and the Hostile” (his title) each Spring semester. Dr. Beckwith claims he was never able to realize his ambition to teach statistics in a Department of Statistics to students *interested* in statistics.

As Dr. Beckwith contemplates the eventual closing of his career he proposes to instruct his wife to donate his Academic Regalia to the Statistics Department at Purdue. He claims an interesting story goes with the outfit.

“...During the 1960’s I purchased a number of technical books (mostly in Statistics) from a Hong Kong purveyor who reprinted illegitimate copies of such books from legitimate American publishing houses ... intending them (primarily) for the Asia market. I got wind via a Wall Street Journal article that U.S. authors were bringing pressure to bear on the U.S. State Department to censure the Hong Kong government for allowing this to happen. I wrote the Hong Kong “publisher” of this, with the result that he quickly closed his “book” operations and moved into the manufacture of clothing in Macau. (“You advised us to sell our inventory, Professor

Beckwith, and saved us a lot of money.”) By way of “thanks” they sent me a lovely set of Academic garb which I have used for the past 35 years....”

Rebecca Elliott (M.S., 1982) is currently an independent statistical consultant working under the name *Statistically Significant* in Salt Lake City, Utah. She has worked for a local survey research firm, where she was involved in all aspects of survey research; the University of Utah Department of Mathematics where she taught and developed applied statistics courses; and General Motors Corporation, where she consulted throughout the corporation on projects involving survey research, design of experiments, regression, and data analysis. In 1995 Duxbury Press published her book, *Learning SAS in the Computer Lab*, and the Second Edition is expected to be out Fall 1999. She received a University of Utah Students Choice Award for Excellence in Teaching.

Richard James (Ph.D. 1970) became President/CEO of *First Aid Only* on July 1, 1998. *First Aid Only* is a market leader in medical first aid kits sold through retailers in the U.S., for use in your home, car, boat, travel, sports, or other outdoor activity.

Gary McDonald (Ph.D., 1969) has been appointed Director of

the General Motors Enterprise Systems Laboratory (ESL), one of six of the GM Corporation. The mission of this lab is to engage in research and development work relevant to the global transportation industry by providing math-based processes and systems modeling for planning, manufacturing and distributing of efficient vehicles. Many of the former employees of the GM Math Research and Operations Research departments who worked for Gary when he was the Head of these two departments (successively), are in the new ESL.

Gary continues to be active in research. He has just published, “Constrained regression estimates of technology effects on fuel economy”, jointly with Diane Gibbons, in the April 1999 issue of the *Journal of Quality Technology*.

Peter Mueller (Ph.D., 1991) is currently Associate Professor of Statistics at the Institute of Statistics and Decision Sciences, Duke University, North Carolina. His research over the last eight years has focused on issues related to posterior simulation methods in Bayesian Statistics. In particular he has worked on posterior simulation methods for nonparametric Bayesian methods, including Dirichlet process mixture models; repeated measurement models; semiparametric case-control study models; neural network models; and wavelet

Alumni News (cont.)

based models. A major current interest is simulation based solutions for decision problems.

During the academic year 1999-00, he will be visiting the Department of Statistics, University of Connecticut.

Joong K. Sohn (Ph.D. 1985) is currently Professor in the Department of Statistics, Kyungpook National University, Daegu in Korea. He became Director of Kyungpook National University Computing Center September 1, 1998. He has been Associate Editor of the official *Journal of*

the Korean Statistical Society since 1990. In March 1996, Joong became a member of the Board of Trustees of the General Information Center of Daegu-Kyunpook region attached to the Ministry of Information and Communication of the Korean Government. He is currently a member of the Board of Operation Committee to the Korean Virtual University which is a consortium of nine universities. On June 1, 1998, he became a member of the Board of Trustees to the Purdue Alumni association in Korea.

P. Sundar (Ph.D. 1985) is currently Professor in the Department of Mathematics at Louisiana State University, Baton Rouge.

His present research interests include stochastic partial differential equations, control theory and fluid dynamics and his research efforts have been funded by the U.S. Army Research grants.. He was an organizer for the Mini Symposium on "Control of Fluids" at the SIAM Meeting in Atlanta in May, 1999. ❖

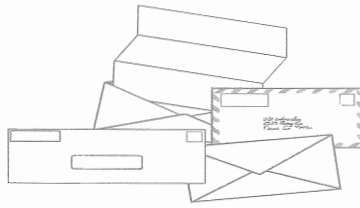
*We want to hear from you!
Fill out the Alumni Reply form
or send an e-mail, fax or letter
and tell us about yourself.*

School of Science Alumni Association's Chili Tent

The School of Science Alumni Association will once again hold its Chili Tent at the Slayter Center Hill on Homecoming, October 16, 1999. Chili vegetable soup, Purdue apples and cider will be served beginning at 11:30 A.M. Game time is 2:30 P.M. against Michigan State so you will have plenty of time to enjoy meeting School of Science faculty, staff and students. The tent will be located near the stage on the hill so you will also be able to enjoy the Purdue Marching Band pre-game concert. ❖

Alumni Reply Form

Please complete and return this form for our alumni files. Include news (professional and/or personal) of your current activities, or suggestions for the next issue of newsletter. Mail it to Teena Seele, Department of Statistics, Purdue University, 1399 Mathematical Sciences Building, W. Lafayette, IN 47907-1399 or fax it to 765-494-0558.



Name _____ Degree(s) and year(s) _____

Residence _____ Home Phone _____

City, State, Zip _____

Position _____

Business Address _____ Business Phone _____

_____ Fax Number _____

City, State, Zip _____

Internet/Commercial Electronic Mail Address _____

Please include some information about yourself:

(unless you request otherwise, we will assume it may be mentioned in future Newsletters.)

If you need more room, please continue on the reverse side.

Alumni Reply Form (cont.)

Gifts to the Department

Special Thanks To Our Friends

The Department of Statistics would like to give a heartfelt "Thank You" to the following donors for their generous contributions from Fall 1998 to Spring 1999. We apologize if we have omitted anyone or incorrectly spelled a name.



Virgil L Anderson Scholarship Department of Statistics

Roger L. Bollenbacher
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Greaton
Charles R. Seitz, Jr.
Karen Snapp

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Ming Tan

Matching

Eli Lilly and Co. Fdn.

Pillai Memorial Lecture Fund

L. Kamalakshi A. Pillai



If you would like to give to any of these funds, contact Norma Lucas at (765) 494-3141. If you are interested in planned gift, estate planning contact Pauline Shen at (765) 494-1752. ❖

The 1998 Statistics Department Picnic

The 1998 Statistics Department Picnic at Ross Hills, West Lafayette, Indiana was held on September 20, 1998. The picnic is held each September in honor of our new graduate students. It's a very good way for everyone to get to know each other outside of classes. This year our "chef", **Bill Lucas**, was unable to attend the picnic. He did, however,

barbeque the chicken at home and sent it to the picnic with his wife, **Norma**. The only difference was we weren't able to enjoy watching the chicken being cooked and the aroma that goes along with it. Overall, the weather cooperated. Some managed to get in a game of softball until the wind picked up and brought in an unexpected rain. ❖



As you can see, there was plenty of food. We had two coolers full of chicken.

M. Black, J. Stover, and N. Mukhopadhyay wait for their turn at bat, while H. Xie watches.



The rain didn't seem to bother R. Doerge and K. Simonsen. They came to the picnic prepared for any kind of weather.

1998 Annual Holiday Party

The 1998 Statistics Department Holiday Party was held December 12 at The Trails in West Lafayette, Indiana. After dinner, **Mary Ellen Bock** presented **Bill Lucas** with an award of appreciation for being our “chef” for our picnics. (He is the husband of **Norma Lucas**.) This year, we enjoyed a variety show instead of the usual skit that our graduate students do for us. **Greg Ball** was the MC for the

show. **Leming Qu** sang “Let Us Row the Boat” acappella. A small skit was performed by **Renee Hall, James O’Malley, Mik Black** and **Jayson Wilbur**. The show ended with **Tonya Call, Becca Ambler** and **Jessica Lasky** playing “O Come All Ye Faithful”, “Deck the Halls” and “We Wish You A Merry Christmas”. The evening continued with dancing to the sounds of “Mad Dog” (Mike Davis, D.J.) ❖



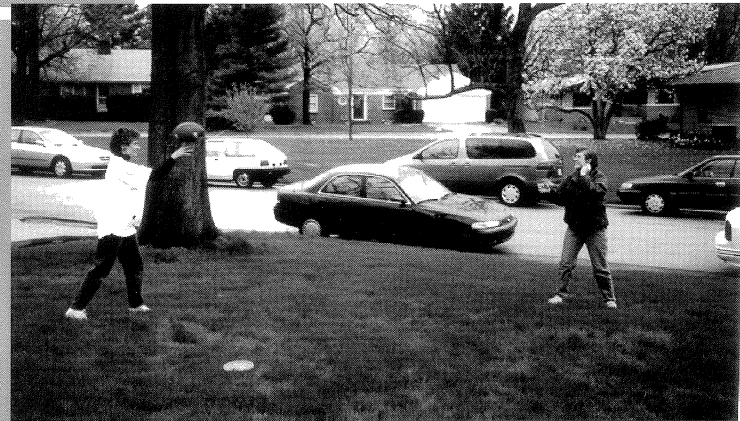
Faculty and Staff Appreciation Picnic

This year's Faculty and Staff Appreciation Picnic was held at **Professor Tom Kuczek's** home on Saturday, April 17, 1999. This picnic is sponsored by the department's Graduate Student Organization (GSO). Mother nature appears to enjoy these picnics as well as the rest of us. Every year she has brought us cool weather and rain. It doesn't seem to keep anyone from having a good time. ❖



Professor John Deely is keeping a watchful eye on the way graduate student, James O'Malley, is cooking his hamburger.

Graduate student, Carol Kuiper and Professor Katy Simonsen manage to toss the football between raindrops.



L-R: Mei-Ling Ong, Dwight Beaudry, Tonya Call and Jessica Lasky. They were starting to clean up and it appears that Dwight has a different idea of "clean up".

Department E-mail Addresses

Faculty E-mail

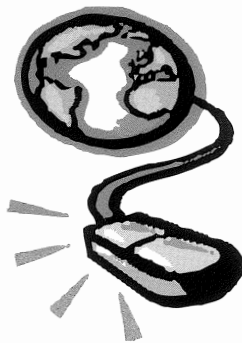


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The Statistics Department Newsletter is published annually for alums and friends of the Statistics Department at Purdue University.

We welcome your comments and suggestions for future newsletters. Please send a fax to 765-494-0558, send e-mail to seele@stat.purdue.edu, call 765-494-5324 or write to

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