DEPARTMENT *of* STATISTICS
NEWS

T·H·E
OHIO
STATE
UNIVERSITY

Statistics and Climate Change

Humans have been modifying the environment though processes associated with industrialization, population growth, and urbanization. One of the most important outcomes of these activities has been increased emissions of carbon dioxide (CO2) resulting from fossil fuel burning as well as deforestation.

Anthropogenic emissions of CO2 and other gases such as methane are important due to the greenhouse effect. The earth absorbs energy from the sun. Through complicated processes, some energy reaching us from the sun is trapped by constituents of the atmosphere, chiefly water vapor, but also CO2 and others, leading to a warming of the surface and lower atmosphere. This greenhouse effect is a good thing, at least for us. Without it, the environment would be far colder. However, the extra emissions we are putting into the atmosphere create an enhanced greenhouse effect, leading to unnatural global warming. Global warming in combination with other anthropogenic effects may lead to very complex changes to our climate.

In 1988, the World Meteorological Organization and the United Nations Environment Program organized an international panel of scientists to consider climate change. This led to the establishment of the Intergovernmental Panel on Climate Change (IPCC). This large and influential organization recently shared the Nobel Peace Prize with Al Gore.

The latest IPCC report states: "Warming of the climate system is unequivocal" and that it is "very likely" caused by human activities (IPCC's use of the phrase "very likely" corresponds to a probability of at least 0.90). Beyond IPCC, there is a consensus among many scientists and politicians, as evidenced by both candidates in the most recent U.S. Presidential race, and the public that our climate is changing as a result of human activities.
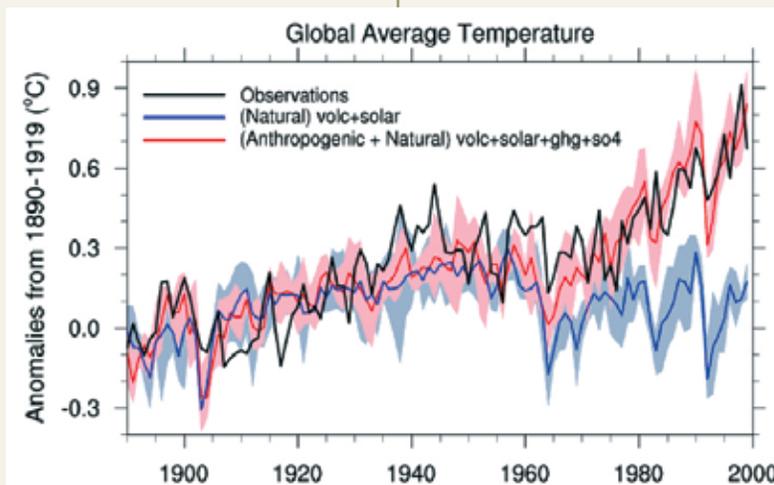
The case for anthropogenic climate change involves three points: (1) climate is changing; (2) human activities have led to increases in CO2 and other greenhouse gases, other pollutants, and created a variety of other changes such as in land-use, agricultural practice, and deforestation, and (3) there are scientific arguments and large-scale computer models suggesting climate change due to anthropogenic inputs. No one of these points stands alone as a compelling argument. Scientific analyses of climate change require a quantitative integration of observations and modeling, and assessments of uncertainty.

The graph shown here presents a summary of the arguments offered by IPCC. This one result is not the basis for the sweeping claims made by IPCC; it is merely emblematic of the weight of evidence so many of us find compelling.

The figure plots time series corresponding to global averaged surface temperatures. Three primary series are plotted: (i) observed temperatures, (ii) temperatures summarizing the results of various climate system models computed using variation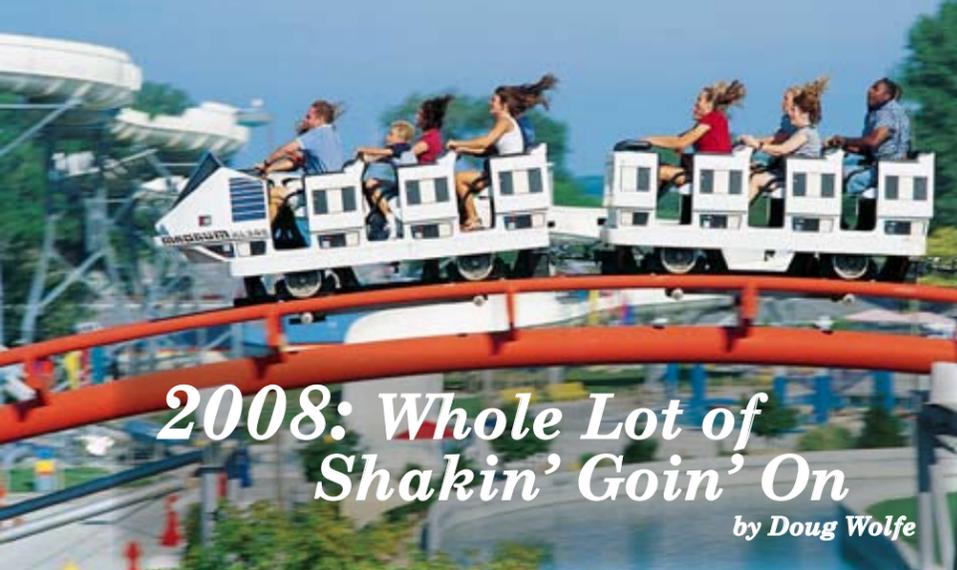s in natural forcings on the climate (e.g., solar energy) and (iii) models using those natural forcings in combination with anthropogenic inputs such as greenhouse gases and aerosols (particulate matter). Note that plots of the latter two series also include some indications of spread or uncertainty. Uncertainties are also present in the observations, though they are judged to be much smaller than those depicted for the model output. The key point is that though the models reasonably represent the observations in the early portion of the time period, model results using natural forcings alone fail to predict rising temperatures indicated by the latter portion of the observations. By including anthropogenic as well as natural forcings, the models suggest warming patterns that match the observations.

The story is far from complete. Today, scientists, policy makers in both the public and private sectors, and the public are concerned about the impacts of climate change and their remediation. The role for statisticians in these efforts is crucial. Efficient decisions and policies require more than statements that climate change is real. They require quantitative predictions of impacts and measures of associated uncertainties.

Editor's Note: Mark Berliner has been an active contributor to the Nobel Prize winning efforts of the IPCC.

Global Average Temperature

2008: *Whole Lot of Shakin' Goin' On*
by Doug Wolfe

The relative calm of the previous year erupted into a full-blown upheaval this past year! We spent a good deal of our time preparing numerous program review and strategic planning documents for our College and the Office of Academic Affairs. One of the consequences of the discussions that followed is that the College of Mathematical Sciences (MAPS) and the College of Biological Sciences have been merged into a single College of Biological and Mathematical Sciences (BMAPS). We will be spending much of the coming year understanding and adjusting to the many implications of this merger, including an entirely new college administration.

On another surprise front, with this considerable restructuring activity the Statistics Department Express did not stop long enough for me to get off as was anticipated at this time last year. As a result it looks like everyone will have to put up with me for another term – or at least for another year. I am happy to do it because of the great faculty and graduate students in our department, but there are many capable faculty members who should be ready to take their turns as conductors once the turmoil subsides.

Doug Wolfe

Faculty Awards and Honors—Kudos

Jason Hsu and Joe Verducci are taking sabbatical leaves during the 2008-2009 academic year. Jason is working with worldwide collaborators to compile and publish a state of the art set of core biostatistics methodologies for optimal pharmaceutical drug development. This effort involves researchers from both the pharmaceutical industry and academia. Jason will provide the lead in developing and delivering the statistical content, while others in industry and academia will concern themselves with the outreach and harmonization issues necessary for successful implementation of these statistical guidelines. Jason will spend a portion of his leave in China working with the primary committee charged with establishing the infrastructure and operating rules for China's growing pharmaceutical industry and clinical trial research programs.

Joe will spend his sabbatical at the newly created Mathematics Applications Consortium for Science and Industry (MACSI) headquartered at the University of Limerick in Ireland. He will be conducting interdisciplinary research with scientists in the pharmaceutical industry on the development of methodology for assessment of competing procedures that are useful in the discovery of new drug compounds. Joe has also received a prestigious Fulbright Fellowship Award to help support this collaborative research program.

Congratulations to Jason and Joe on their exciting sabbatical research opportunities and to Joe on the extremely competitive Fulbright Fellowship Award!

Personnel Changes—Steady as She Goes

This was another relatively quiet year with regard to personnel changes in the Department. Ryan Hayes left our statistical support group to take a position in Nevada near his favorite pastime—mountain skiing. (He apparently was not satisfied with the extensive skiing opportunities available here in Ohio.) We thank Ryan for the tremendous help he provided our Department, particularly with regard to support of our undergraduate statistics education program, and we wish him the best of the west, including no broken bones or squandered paychecks in Lake Tahoe. After some delay we were given permission to hire a replacement for Ryan and I am pleased to welcome Mark Fojas as the very capable newest member of our computer support group— and all indications are that Mark is quite content with the nearby skiing opportunities here in Ohio.

We were also delighted this year to add another excellent faculty member to our growing group, as we welcomed Asuman Turkmen as an Assistant Professor at our Newark Regional Campus. Asuman received her Ph.D. degree this year from Auburn University. She has research interests in a number of areas, including nonparametric statistics, data mining, and multivariate statistics. (For more details about Asuman, see a separate article elsewhere in this Newsletter.)

New Initiative—Nationwide Center for Advanced Customer Insights

Tom Bishop stepped down last year as Director of our Statistical Consulting Service. It didn't take long, however, for Tom to become involved in another major project of significant benefit to the University, in general, and to our Department, in particular. He led the effort to form a new partnership with Nationwide Insurance to establish the Nationwide Center for Advanced Customer Insights in the Fisher School of Business here at Ohio State. The Center is fully funded by Nationwide and managed by Ohio State. It employs faculty members and graduate students from the Marketing, Statistics, Psychology, Economics, and Computer Science Departments to develop new analytical methodologies that help solve important marketing problems. (For more details about this exciting new initiative, see a separate article elsewhere in this Newsletter.)

New Initiative—Gary Koch Family & Friends Graduate Student Travel Funds

We are pleased to announce the formation of the Gary Koch Family & Friends Graduate Student Travel Pending Endowment and Current Use Funds to support graduate student travel to present their research at professional meetings. The Current Use Fund is a source that can be used immediately by the Department to support current student travel to conferences. The Pending Endowment Fund is designated as a fund that will, once it is fully endowed, provide annual income that can be used to support such travel in years to come. These two funds were initiated late last year by a very generous gift to the Department by Dr. Gary Koch, who received his undergraduate and Masters degrees in Industrial Engineering from Ohio State before moving on to obtain his Ph.D. degree in Statistics from the University of North Carolina. Gary has had a distinguished career as a professor in the Department of Biostatistics and Director of the Biometric Consulting Laboratory at the University of North Carolina. Gary established the two funds with an initial contribution of $15,000 to the Pending Endowment Fund #480697 and an initial contribution of $6,000 to the Current Use Fund #312483. The Current Use Fund has already provided funds this year to support our graduate students' travel to the 2008 JSM in Denver and other major professional conferences to give talks and poster sessions about their research.

In addition to his initial gifts to establish these two Funds, Gary has also pledged to match contributions from other alumni and friends (all of you!) up to $15,000 in each of 2008 and 2009. If we are able to meet his generous challenge of these matching amounts in 2008 and 2009, the Pending Endowment Fund will be fully endowed, at which time the interest from it will also be available to support graduate student travel to conferences. I am pleased to say that we have already met over one-half of the $15,000 in matching contributions for 2008 and I want to say a special thank you to each of you who has helped reach this stage of our goal. That leaves roughly $7,000 that still needs to be raised to meet our full matching potential of $15,000 this year. I encourage those of you who have not yet given to this Fund to consider doing so before the end of the year—it is for an extremely good cause and is, of course, tax deductible. Once we have met the $15,000 match for the current year (2008), we will be halfway there for the full endowment of the Fund. A second year of giving to the Fund at the same level as this year's gift would enable us to fully endow the Fund by the end of 2009 and I encourage all of you who have already given or will give this year to consider this option for calendar year 2009 as well. Having a fully operational Endowment Fund to support graduate student travel will be an important (and much appreciated) asset for our graduate program in the years to come.

Update on Space—Continued Good News!

Progress continues to be made on the renovation of Cockins Hall, as work on replacing our failed roof is formally underway. We look forward to its completion so we can turn our attention to improving and modernizing the interior for our faculty and students.

We also are very pleased that for the first time in the history of our Department we have contiguous space for all of our graduate students! Combining the space from the two former classrooms mentioned in last year's Newsletter with some space on the fourth floor of the Mathematics Building, we have been able to provide all of our graduate students with office space in Cockins Hall or the adjoining fourth floor of the Mathematics Building. We very much appreciate the cooperation of the Mathematics Department in helping make this happen.

Responding to overwhelming sentiment that I limit my poetry this year, I will yield only to a short epitaph for the Chicago Cubs from a St. Louis Cardinal.

> The money flew out and the players came in,
> The Cubbies clearly wanted to win;
> All season long,
> They were quite strong;
> Better than they'd ever been.
> But, alas, they struck out,
> Got swept in a rout;
> And the Cubbies must wait yet again.
> (Read that: Maybe next century!)

Decisions, Decisions, Decisions, ...

by Angela Dean and Steve MacEachern

How do we make decisions? Decision making underlies all of our daily activities, from deciding how much time to spend surfing the net, to deciding the optimal route from home to work, to deciding what to eat from a freezer full of melting food (most of us chose to eat the ice cream and other goodies during the week-long power outage in Columbus). An interdisciplinary team from the departments of Statistics, Psychology, and Marketing has been taking a rigorous look at how we make decisions and how we can improve our decision making. This group, affectionately known as SPAM (with a psylent P for the Psychologists), meets every week for lively and entertaining pseminars and discussion.

Highlights of the SPAM seminars have included film clips of frenzied shoppers attempting to fill their carts (yes, plural!) with as much as they could grab in one minute, swarms of bees trying to decide on a new home, and a virtual supermarket for online purchase decisions. The frenzied shopper provides insight into instantaneous decision making under extreme conditions; the swarm of bees gives us a parallel to the firing of neurons in the brain while making a decision; the virtual supermarket allows us to capture the effect of product displays on consumer purchase behavior. Of course, the seminars did include more traditional academic content, with students and faculty members presenting their ongoing research.

Many and varied research projects are underway. Here is a sample of four of them.

The level effect is a well-documented phenomenon in Psychology and Marketing. It occurs when a consumer evaluation of extreme levels of a product attribute, such as credit card interest rate, is influenced by the number of intermediate levels that are evaluated by the same consumer. Qing Liu, along with Angela Dean and Greg Allenby, has developed a means of modelling the level effect which allows one to boldly extrapolate into new choice settings where no consumer has gone before. Qing is continuing to study consumer behavior and is currently an Assistant Professor in the Marketing Department at the University of Wisconsin, Madison.

Item response theory provides the foundation for many exams, from the GRE for admittance to graduate school to professional licensing examinations. Traditionally, the models have been strongly parametric, assuming that the distribution of abilities in a population is normal, and positing extremely restrictive model forms relating ability to exam performance. Longjuan Liang and Michael Browne have created a means of removing many of these restrictions while retaining the most desirable properties of the models, such as monotonicity of the distribution of scores in ability. Longjuan and her models currently reside in New Jersey where she has taken employment at the Educational Testing Service.

Horse racing is an ancient pastime where the winning horse is the first to pass the finish line. Psychologists, notably Trish Van Zandt, have used this as an analogy to model the process of accumulation of evidence in favor of potential choices. Each potential choice plays the role of a horse in the race, and the accumulated evidence is the distance covered by the horse. When there is enough evidence in favor of a potential choice, the choice has "reached the finish line", and the race ends. Shiling Ruan, along with Angela Dean, Steve MacEachern, and Thomas Otter, has expanded the horse-race model to allow for dependence amongst the choices. Shiling chose to work for the Food and Drug Administration (FDA) in Maryland, where she now lives after a lengthy journey through the states of Washington and California.

The cornerstone of Bayesian statistics is the ability to perform an internally consistent analysis that incorporates prior information. The drawback is that, with strict adherence to Bayesian principles, there is no scope for exploratory data analysis, model creation or refinement. Qingzhao Yu, along with Mario Peruggia and Steve MacEachern, has developed a method whereby several decision makers independently and freely analyze a piece of the data set and report their posterior distributions. The posterior distributions then become prior distributions for the unexplored portion of the data, and these prior distributions are updated and combined, through a Bayesian synthesis, to yield a single overall inference. Qingzhao, whose goal is to guarantee employment for an inordinate number of statisticians, is currently an Assistant Professor at Louisiana State University in New Orleans.

The Statistics Department is home to many of the participants, both faculty and students, in the SPAM research group. New participants are always welcome. Look for Greg Allenby, Michael Browne, Peter Craigmile, Angela Dean, Chris Hans, Radu Herbei, Elly Kaizar, Steve MacEachern, Mario Peruggia, Trish Van Zandt, and Xinyi Xu, among the faculty. (Who didn't make it into the photo? Who took the photo?) Look for Hang Joon Kim, Pingbo Lu, Michael Sonsken, Fangfang Sun, and Ruoxi Xu among the students who were there for the photo.

So, how do we make decisions? Well..., the SPAM seminar is going strong, and we're working on a host of interesting applications together with the underlying theory, and will be for years to come.

SPAM Participants

Statistics Takes a Lead Role in the New Nationwide Center for Advanced Customer Insights

by Tom Bishop

Nationwide and The Ohio State University have entered into a partnership and have established the Nationwide Center for Advanced Customer Insights. The Center will conduct marketing research and develop customer insights using state of the art predictive modeling, data mining and advanced analytical techniques that improve Nationwide's understanding of customer behavior and consumer purchasing patterns.

The Center will manage tactical projects involving the application of existing theory and methodologies to solve specific marketing problems. It will also manage projects requiring seminal research by OSU faculty members and graduate students to develop new analytical methodologies. The Center will offer OSU faculty mebers and graduate students direct access to Nationwide customer and marketing data. Nationwide has agreed to grant OSU researchers the right to publish the research results subject to coding the data to protect confidential information. Our faculty and students will work directly with Nationwide marketing executives and marketing staff to solve marketing problems important to Nationwide.

The Center is fully funded by Nationwide and managed by Ohio State. The Center will employ the best OSU faculty members, staff and graduate students from across the University, including faculty and students from the Statistics, Marketing, Psychology, Economics and Computer Science Departments. The Department of Statistics is actively involved in the Center. Dr. Tom Bishop is the new Director for the Center. Juhee Lee, a graduate student in the Department of Statistics, is working for the Center as a research assistant, and Dr. Chris Holloman, the director of the Statistical Consulting Service, is providing research support to the Center.

Bonnie Shook-Sa

Before I discovered statistics, I always felt torn between math and the social sciences. As an undergraduate, I had difficulty choosing a major. I loved math, but I was also very interested in studying social issues. I ended up double majoring in mathematics and political science at Marshall University in Huntington, WV. It was not until my first statistics course that I finally found a way to tie the two fields together. By my junior year, I had decided that I wanted to be a survey statistician. I started researching graduate schools the summer before my senior year. I knew that I wanted to obtain a master's degree that was focused on applications of statistics, and I knew that I wanted to study survey methodology. I found that Ohio State offered me both of these opportunities within the Master's of Applied Statistics program. I applied to the program in the fall and received word the following spring that I had been accepted.

I had nothing but positive experiences during my two years at Ohio State. I was shocked to find that even at such a large university, the statistics department offered a very personal atmosphere. In every course that I took, the professors always showed a passion for the subject and a willingness to go above and beyond to help us learn. Since I was fortunate enough to receive a University Fellowship, I was able to focus 100 percent on my coursework and take several extra electives my first year. I was able to take a variety of both theoretical and applied courses, which gave me both a deeper knowledge of the theoretical underpinnings of statistics and the skills to apply a variety of statistical tools. In addition to my statistics courses, I took courses from the Political Science and Marketing departments in order to receive a Graduate Interdisciplinary Specialization (GIS) in Survey Research. In the midst of all of this, I managed to find time to get married between my first and second years! My second year, I was a TA for Stat 135, which I found to be a great way to practice communicating statistics to non-statisticians and great practice for statistical consulting. I graduated winter quarter and moved to Raleigh, NC.

I am now working as a survey statistician for RTI International, a non-profit research organization in Research Triangle Park, NC. So far, I love my job and am excited about the opportunities that I have already had. In my short time here, I have had the opportunity to work on a variety of projects, including the National Election Survey, O*NET (an occupational survey), and several phone surveys on smoking and tobacco use. I am confident that my time at Ohio State prepared me well for my career. I am proud to be a graduate of the department, and will always have a fondness for the Department of Statistics, OSU, and Columbus!

Soma Roy

One of my favorite childhood games is now my profession. I graduated in August 2008 from The Ohio State University's Department of Statistics with a Ph.D., and now I teach at California Polytechnic State University in the very gorgeous city of San Luis Obispo, California. I still remember how as a kid I would pretend that the living room was a classroom, the furniture was students, and much to the dismay of my mother, that the doors were chalkboards. The journey from those days to this day has been great. I have had my share of successes and failures, and I feel like I am a better person because of it all.

I started at OSU in the summer of 2003. It was the first time I was on "foreign" soil, but everyone in the department was so great that it felt like a second home from day one. I remember Paul Brower taking my picture for the wall of fame, and Patty Shoults making faces at me to make me smile (or rather laugh) for the picture. I remember meeting with Dr. Elizabeth Stasny for the first time. (After having flooded her inbox with thousands of emails throughout the application process, I didn't know if she would ever want to see me.) I remember Dr. Wolfe telling us in Stat 602 that grad school would be the place where we would make some of our best friends. I now realize that he could see the future.

The five years that I spent in OSU Statistics were all amazing. I had some incredible opportunities as a Teaching Assistant (TA). Since my goal was to teach after I got my degree, being a TA was the best kind of training for the job. I started out as a recitation instructor for Statistics 145, working with Dr. Jackie Miller. Even though the first quarter was hard, I learnt a lot about teaching Statistics, and teaching in general. Of course, the Statistics 603 Teaching Statistics course that I took over the summer really helped a lot. I should mention at this point that choosing to accept the Early Start option was one of the smartest choices I have ever made. It was not only a good way to go over the basics of Statistics, but also very helpful in making the transition into graduate school. Returning to what I was saying about my TA experience, although it may sound silly, I have to admit that I loved the grading parties. Yes, you had to grade exams, but doing it with the rest of the gang was fun, especially when you got free pizza for it.

I was very fortunate to have the opportunity to work with Dr. Stasny on at least two research projects. She is, honestly, one of the most encouraging people I have met in my entire life. Even though she likes to dabble in crime, my projects with her were mostly about weight issues. Of course, I also got to work with Dr. Bill Notz - another really great teacher and person - on my thesis. I could not have asked for a better advisor. After I passed my second qualifier, I was looking around for a problem to work on for my dissertation. I started attending the Computer Experiments Journal Club, and soon after signed up for reading hours with Dr. Notz. Thus began the journey towards my thesis – which is about sequential designs for computer experiments.

One of the things that I will always admire about OSU Statistics is the easy rapport between the faculty and the students. It was always easy to go up to any professor and ask for guidance, or just chat. There have been numerous occasions on which I would stop by Dr. Mike Fligner's or Dr. Miller's office to just vent or talk. I could write an entire soap series (the kind that never ends) about my time spent at OSU, but I am going to try and cut it short.

Thanks to my training at OSU Statistics, I have just the kind of job that I wanted, and I have found the solution to aging. As Katherine said in Goodbye, Mr. Chips, "I don't see how you could ever get old in a world that's always young" – and that is what being in school is all about. Even though the department here at Cal Poly is magnificent, OSU Statistics will always have a special place in my memories and my heart.

Yonggang Yao

I joined the Statistics PhD program at OSU in late September 2003. Before entering the program, I obtained my electrical engineering BS and MS in 1992 and 1996 respectively, and a PhD degree in Space Physics in 2002. All of them were offered by Wuhan University, one of the most beautiful universities in China. Looking back over the past five years, I can see how I was changed from an engineer into a statistician, and how my life was influenced by the gifted people that I have met and the heart-warming things that I have experienced. In this short article, I want to especially talk about my experiences in 2008. This year is one of my 'harvest seasons' and I will reminisce about my personal and family history.

About me in 2008, I think the Nationwide advertisement describes it best: 'Life comes at you fast'. In January, I applied to more than 20 job positions. This was my second wave of job applications. (The first was in the previous December.) On February 5th, my daughter Rebecca came into this wide world and looked with fresh eyes at her colourful and cosy surroundings. Although it may take her another two years to speak the word 'statistics', she received lots of 'statistical' gifts and blessings from the department. In March and April, I was occupied with baby-sitting, job interviews, and research. In May, the department honoured me with the Whitney Award (shared with Dr. Jie Ding) for PhD research, which I have dreamed about for several years. Because of the award, Professor Hsu arranged a dinner for me to meet Mrs. Whitney, so that I got a chance to hear personal stories about the first chairman of our department, Professor Emeritus Ransom Whitney. In June, partially funded by the National Science Foundation, I went to Cambridge, UK for a week to attend a workshop on Future Directions in High-Dimensional Data Analysis held by the Isaac Newton Institute for Mathematical Sciences. At the end of the workshop, I visited Trinity College, full of respect and admiration for Isaac Newton, James C. Maxwell, Francis Bacon, and many other famous Trinity alumni. I spent the following July mostly polishing my dissertation to meet the end-of-quarter deadline for my PhD defense. In early August I went to Denver for the 2008 Joint Statistical Meetings with financial support from our department. I defended my dissertation on August 26th, and then kept revising it until the final submission on September 21st. You might think that now I could finally take a breath and have a good rest. Yes, I did, but only for a couple of days. Almost immediately after the submission, I had to pack and move to my next stop, the SAS institute, where I obtained a research statistician/software developer position beginning on October 1st. My first duty with SAS was to study and master the SAS Development System through Proc Robustreg.

Believe it or not, what I am going through in 2008 is not a special case for a last-year PhD student in our department. Almost every alumni of our department has his/her own story about their 'harvest seasons'. Actually, behind the above list of my 2008 experiences, I owe many people great thanks, since they have given me lots of cherishable suggestions, encouragement, understanding, and support. Without their help, I would not have been able to go so far. Especially, I want to express my gratitude to my adviser, Dr. Yoonkyung Lee, for her inspiring ideas, her positive attitude, her patience, and her long-term guidance.

Chris Sroka

I started my graduate studies at Ohio State in 2003 and completed my PhD in 2008. Prior to arriving at OSU, I worked as an economist at the Congressional Research Service in Washington, DC. I was tired of the work there because it involved writing reports that simply summarized the work of other people. I wanted a PhD so that I could conduct some original research. I chose the field of statistics because it seemed like it would be challenging, particularly since I did not have a strong background in mathematics.

Many students come to the Statistics Department not knowing what they want to do when they finish, and I was no exception. A great feature of the OSU Statistics Department is the variety of opportunities available to explore the potential of statistics. One such opportunity is working for the Statistical Consulting Service (SCS). I served as a student consultant at SCS for a year under the guidance of Dr. Tom Bishop and Dr. Chris Holloman.

My time spent working for the SCS broadened my perspective of statistics. I became proficient at many types of analytical methods in order to respond to the needs of various clients. The real-world statistical problems that I encountered were far more complex than the ones portrayed in textbooks. Researchers often seek the advice of a statistician after they collect the data. As a result, there are gaps in the data, or the results cannot be used to show what the researcher intended. My work at the SCS also led to some interesting volunteer opportunities with fellow consultant Jeff Pan. There are several nonprofit organizations in Ohio that need help analyzing or presenting data. Volunteer consulting is a great way to use your statistical talents to improve the community in which we live.

Based on my experiences at the SCS, I decided to accept a job with Battelle after I graduated. My work there poses many of the same challenges I first encountered as a student consultant. The projects which I am assigned require the application of a wide array of statistical methods. The data we are asked to analyze can be messy. Sometimes we are asked to provide answers when there are very little data or no data at all. The projects on which I have worked required skills beyond just statistics, such as computer programming and, surprisingly, economics.

I thought I would end this article by recounting a favorite story of Dr. Stasny's. Before I arrived at OSU, I was offered the choice between one particular fellowship or the more lucrative Battelle fellowship. The only stipulation was that I write a thank-you note to our generous sponsor. I demonstrated to her my economic acumen by stating that $5,000 is greater than $3,000, and that such an amount more than compensated me for the time it took to write a letter.

In Memoriam -- Ransom Whitney

by Tom Willke

D. Ransom Whitney, founder of our Department of Statistics and best known for his Mann-Whitney U Statistic, died on August 16, 2007 at the age of 92.

Professor Whitney held a BA from Oberlin College, an MA in Mathematics from Princeton University, and a PhD in Mathematics from the Ohio State University. After graduating from Princeton he began his teaching career at Mary Washington College and then joined the U.S. Navy, serving from 1942 to 1946. While in the Navy he taught celestial navigation at Princeton, trained at Bell Labs, and served on the USS Atlanta in the Pacific.

Upon discharge from the Navy he came to OSU, received his PhD in 1946, and immediately joined the Mathematics faculty. There he established a working relationship with Professor H. B. Mann, and together in 1947 they published their world-famous paper introducing the Mann-Whitney U Statistic. It soon became the most widely used nonparametric statistic for two-sample tests.

While in the Mathematics Department, Professor Whitney served as Acting Chairman during a difficult time for that department, and he was instrumental in causing the university to act to turn the fortunes of that department around. At that time he also led the planning committee for the "new" math building. By 1970 he had gathered together a critical mass of faculty members in mathematical statistics, and they had established a full range of statistics courses as well as a graduate degree program. The group then separated from Mathematics to form a Division and later a Department of Statistics. Professor Whitney served as Chairman of Statistics for the first eight years of the department's existence, and continued in the Department until retirement. During his tenure in the Mathematics and Statistics Departments he directed many PhD students and well over one hundred Masters students.

Professor Whitney always believed that statistics was an applied branch of mathematics and was meant to be used to help scientists in their research. Thus, in his first years at OSU, he established the Statistics Laboratory to provide consultation and assistance to faculty and students across the university. He personally assisted hundreds of scientists in many departments and colleges over the years. He published dozens of papers with them and became widely known and respected by faculty colleagues. Moreover, by his example and under his direction, statistics faculty members have similarly served in the Statistics Lab. Perhaps equally important was his belief that statistics should be taught to be used, and the Stat Lab has been the vehicle for graduate students in the department to experience an apprenticeship in consulting under faculty guidance. As a result the students have done very well in both the corporate and university job market. It is notable that Professor Whitney did this while he taught a full-time load, proposed and taught over a dozen new courses, and served on many committees at all levels of the university.

Professor Whitney served as a consultant to a number of corporations, especially testifying as an expert witness in utility rate cases. He was author or coauthor of three textbooks in mathematics and statistics.

In the mid-fifties Professor Whitney and Mathematics Professors Roy Reeves and Leslie Miller founded the Numerical Computation Lab. That laboratory was the precursor of the Academic Computing Center, which Roy Reeves went on to head for many years. Professor Whitney was a member of several mathematical and statistical societies. In particular he was named a fellow in the American Statistical Association and the American Association for the Advancement of Science.

Professor Whitney left a legacy in the wider university community in several ways. He served as President of the Faculty Club, started the Tertulian breakfasts and the original Lunch Bunch. These, and many of his other activities, were in keeping with his deeply held belief that the role of university professor extended beyond the boundary of the department or college, and the way to have good things happen was to promote collegiality across the university at the personal level by informal associations. In later years he was one of the founders of OSURA, the retirement association for university faculty and staff, and he served as its first president. He and several others created it from nothing to become an active organization with about 2800 members today.

In 1982 Professor Whitney retired and was given the University Distinguished Service Award. He remained active in the Statistics Department and other organizations for many years after that.

Ramsom Whitney
Founder of our
Department of Statistics

POWERS TEACHING AWARDS

The Thomas and Jean Powers Teaching Awards are presented each year in two categories to (1) the best TAs teaching either recitations or lectures, and (2) an outstanding professor in the Department. These awards were instituted in 1986 through a generous gift to the Statistics Development Fund by Tom and Jean Powers.

The Department is lucky to have a large number of excellent Graduate Teaching Associates. The selection of the best TAs is never an easy task, and there are always a number of extremely good teachers who are runners-up for the award. In 2007-08, the awards for best TA were presented to John Draper, Soma Roy, and Josh Svenson The faculty award was presented to Professor Doug Wolfe.

WHITNEY AWARDS

In 1992, Professor Emeritus Ransom Whitney and his wife Marian Whitney made a generous gift to the Statistics Department Fund to institute several awards for graduate students. In 2007-08, the winner of the best consultant award in the Statistical Consulting Service was Chris Sroka. The award for the best research associate was given to Nader Gemayel. The award for best research leading to the Ph.D. was awarded to Yongang Yao and Jie Ding. We congratulate these students and thank them for their hard work.

Chris Sroka receiving the Whitney Best Consultant award from Bill Notz.

CRAIG COOLEY MEMORIAL PRIZE

The Craig Cooley Memorial Prize for 2007-08 was awarded to Soma Roy. Each year this award is presented to a graduate student in the department demonstrating exceptional scholarly excellence and leadership abilities. Craig embodied these two qualities throughout his graduate career. Tragically, he was killed just before receiving his Ph.D. in 1996. To honor his memory the department created the Craig Cooley Memorial Prize.

UNIVERSITY AND COLLEGE FELLOWSHIPS

For 2007-08, single-year University Fellowships were awarded to Jason Gordon from The Ohio State University, Shawn Graves from Kentucky State University, Ted Yang from The Ohio State University, and Dunke Zhou from Zhejiang University. A three-year Susan Huntington Dean's Distinguished University Fellowship was awarded to Elizabeth Fry from Valparaiso University.

INDUSTRIAL FELLOWSHIPS

Each year the Department of Statistics is able to offer special recruitment Fellowships to some of the very best new applicants to our graduate programs. These Fellowships are funded

Bill Notz presents Soma Roy with the Craig Cooley Memorial Prize.

through the generous support of sponsoring industrial organizations, for which the Department is always grateful. The sponsoring organizations, their Fellowship stipend amounts and the 2007-08 student recipients are as follows:

Battelle Fellowship
Two awards in the amount of $2,500 each were provided by Battelle. The 2007-08 recipients were Stephen Bamattre from California Polytechnic State University-San Luis Obispo and Alice Kemme from Xavier University.

Capital One Fellowship
An award in the amount of $3,000 was provided by Capital One. The 2007-08 recipient was David Spade from West Liberty State College.

Lubrizol Foundation Fellowship
An award in the amount of $3,000 was provided by the Lubrizol Foundation. The 2007-08 recipient was Elizabeth Fry from Valparaiso University.

Merkle Fellowship
An award in the amount of $1,500 was provided by Merkle. The 2007-08 recipient was Dionesia Kalos from University of South Florida.

We appreciate the support from Battelle, Capital One, Lubrizol, and Merkle.

CHAIR FELLOWSHIPS

Chair's Fellowships, provided through the Department, are single-year awards in the amount of $1,500. In 2007-08, Danielle Sullivan from State University of New York-Fredonia was the recipient of this award.

Elizabeth A. Stasny

This Year's Ph.D. Graduates

We are proud to have another excellent group of Statistics and Biostatistics Ph.D. graduates this year. Below are the titles of these graduates' dissertations and the positions they have accepted:

Ph.D. in Biostatistics:

Jie Ding – "Monte Carlo Pedigree Disequilibrium Test with Missing Data and Population Structure", Post-Doctoral Fellow, Division of Oncology Biostatistics, Medical School, Johns Hopkins University.

Xueliang (Jeff) Pan – "Using Structural Information in Modeling and Multiple Alignments for Phylogenetics", Biostatistical Scientist, OSU Center for Biostatistics.

Ph.D. in Statistics:

Zhenhuan Cui – "The Solution Paths of Multicategory Support Vector Machines: Algorithm and Applications", Research Statistician, Enterprise Miner Research and Development Department, SAS Institute, Inc.

Arun Kumar – "Sequential Calibration of Computer Models", Post-Doctoral Fellow, Biostatistics Department, University of Rochester.

Chen Quin (Eric) Lam – "Sequential Designs in Computer Experiments for Response Surface Model Fit", Senior Assistant Director, Singapore Department of Statistics, Ministry of Trade and Industry.

Lixin Lang – "Advancing Sequential Monte Carlo for Model Checking, Prior Smoothing, and Application in Engineering and Science", Senior Research Biostatistician, Bristol Myers Squibb.

Rajib Paul – "Theoretical and Algorithmic Developments in Markov-Chain Monte Carlo", Assistant Professor, Department of Statistics, University of Western Michigan.

Clint Roberts – "Imputing Missing Values in Time Series of Count Data Using Hierarchical Models", Senior Statistician, Capital One.

Soma Roy – "Sequential-Adaptive Design of Computer Experiments for the Estimation of Percentiles", Assistant Professor, Department of Statistics, California Polytechnic State University, San Luis Obispo.

Chris Sroka – "Extending Ranked Set Sampling to Survey Methodologies", Research Scientist for Statistics and Information Analysis, Battelle Memorial Institute.

Ke Wang – "On Concomitants of Order Statistics", Assistant Professor, Department of Statistics, School of Management, Fudan University.

Lai Wei – "Spectral-Based Tests for Periodicities", Biostatistical Scientist, OSU Center for Biostatistics.

Our Winning Students

Our students, and recent graduates, continue to win national, international, and local awards:

At the June, 2008 Evolution meetings it was announced that **Liang Liu** (Ph.D. 2006) won the Publisher's Award for Excellence in Systematic Research. The award is given to the two best papers based on student research in the journal *Systematic Biology*. Liang won the award, and a $500 prize, for his paper, "Species Trees from Gene Trees: Reconstructing Bayesian Posterior Distributions of a Species Phylogeny Using Estimated Gene Tree Distributions", which is based on his dissertation research.

Soma Roy received Honorable Mention in the annual awards for outstanding paper presentation from the ASA Section on Physical and Engineering Sciences (SPES). Soma's paper presentation was selected from among all the contributed papers presented in the SPES sessions at the 2007 Joint Statistics Meetings - her competition included faculty members, industry and government statisticians, and other graduate students.

New student **Taylor Pressler** was selected by the ASA and the Caucus for Women in Statistics for Honorable Mention in the 2008 Gertrude M. Cox Scholarship competition. This prestigious award was established in 1989 to encourage more women to enter statistically oriented professions. Taylor was honored at the 2008 Joint Statistics Meetings as winner of this award.

At the local level, **Nader Gemayel** won a summer research award as an OSU Survey Research Fellow to do original survey research. Nader's research is on

Midwest Biopharmaceutical Statistics Workshop
From left to right: Yi Liu, Haiyan Xu, Stephen Ruberg, Jason Hsu, Jim Roger, Dongmei Li, Youlan Rao, Zhenhuan Cui

"Ranked Set Sampling with Applications in Accounting." **Lori Hoffman**, **Lei (Emily) Kang**, and **Shijin Wu** (an external MAS student whose home department is History) were selected to participate in the 2008 OSU Edward Hayes Graduate Research Forum competition. Lori's talk was on, "A Probabilistic Look at Recombination under the Coalescent"; Emily spoke on, "Statistical Analysis of Small-Area Data Based on Independent, Spatial, Non-Hierarchical, and Hierarchical Models", and Shijin's talk was titled, "Organizational Capability, Entrepreneurship, and Environment: Chinese Multinationals 1912-1949".

A number of our students won awards to present their research at conferences across the country and the world:

Namhee Kim's paper "The effect of L-dopa on fMRI of language processing" was selected by the Cognitive Neuroscience Society for presentation at the Graduate Students Presents Forum of the CNS in Seattle in April, 2008. Namhee also received travel support to attend the conference.

Chen Quin (Eric) Lam won a prestigious IMS Laha Travel Award to attend the 2008 World Congress/IMS Annual Meeting in Singapore, July 14-19, 2008. Eric was recognized and honored at the Presidential Address during the meetings.

Yi Liu was an invited speaker in a session on multiplicity testing at the FDA/DIA Statistics workshop on April 13, 2008. She was the only student speaker at the workshop.

Yi Liu was also selected as one of just eight students, five from OSU and three from Bowling Green, to present her research in the first BGSU/OSU Graduate Student Conference on Population. Yi's paper, "Adjusting for Missing Covariates using the EM Algorithm for Logistic Regression Models: A Study of the Effect of Childhood at Risk of Overweight on the Age of Menarche" was based on her NIH-funded research conducted under Profs. Pam Salsberry (Nursing), Pat Reagan (Economics), and Elizabeth Stasny.

Hyejung Moon won a travel grant to present her paper, "Two-Stage Group Screening for Computer Ex-

Many OSU Statisticians attended Jingyuan (Summer) Yang's wedding.

First-year student Dunke Zhou gets into the swing of things at the Department's Spring Picnic.

periments" in the 2008 Spring Research Conference.

Yonggang Yao was selected to receive a travel award to the workshop on "Future Directions in High-Dimensional Data Analysis" which was held at The Isaac Newton Institute for Mathematical Sciences at Cambridge, U.K. in June 2008.

Internships

Once again our graduate students found a variety of exciting summer (and other quarter) internships this year.

John Draper spent his summer at Battelle as an intern working on image and discriminant analysis.

Vandna Pruthi worked at McGraw-Hill Companies in their Research Department. She conducted data analysis of surveys to evaluate McGraw-Hill math and science products and programs.

Kelly Schlessman was a summer intern in the Statistical Sciences Department of the Lubrizol Corporation in Wickliffe, OH.

Brian Schnitker worked as a data analyst at ITT Industries in the aerospace division. The group he was part of designs and engineers instruments utilized on weather satellites. The instrument that he worked with is scheduled for launch in 2010.

Jingyuan (Summer) Yang enjoyed her internship in the late stage statistics group in the Biostatistics And Research Decision Sciences (BARDS) department within Merck Research Laboratories.

Lili Zhuang traveled to Australia for her summer (Australian winter) internship in the Division of Mathematical and Information Sciences at CSIRO. She worked on "Statistical Models for Investigating Spatio-Temporal Variations in Water Quality Across Water Storages in South East Queensland".

Peter Sprangers, Matthias Katzfuss, and Eric Minton enjoy the food at the Department's Spring Picnic.

Student Presentations at the 2008 JSM

The Department was represented at the Joint Statistical Meetings in Denver this summer by 14 of our graduate students. Thanks to all the presenters for helping us show what impressive students we have. The students and their topics are listed below:

Candace Berrett (Invited Panel member): "Training TAs To Teach in Graduate School and Beyond"

Nader M. Gemayel, joint with D. Wolfe and E. Stasny: "Sequential Unbalanced Ranked Set Sampling"

Gang Han, joint with T. Santner: "Simultaneous Determination of Calibration and Tuning Parameter"

Lei (Emily) Kang, joint with N. Cressie: "Space-Time Random-Effects Models"

Namhee Kim, joint with P. Goel and D. Beversdorf (University of Missouri-Columbia): "Detection of Task-Related Activation in fMRI Data with Segmentation Information from Structural MRI"

Arun Kumar, joint with W. Notz: "Sequential Calibration of Computer Models"

Ju Hee Lee: "Nonparametric Bayesian Models with Various Base Measures"

Chin-Yuan Liang: "Reproducibility of Classification Rules Based on a Bootstrap Resampling Approach"

Hyejung Moon, joint with T. Santner and A. Dean: "Two-Stage Group Screening for Computer Experiments"

Rajib Paul, joint with S. MacEachern and M. Berliner: "Assessing Convergence and Mixing of Markov Chain via Stratification"

Taylor Pressler: "The Use of Singular Value Decomposition and Infrared Spectroscopy To Study Protein Folding Dynamics"

Jingyuan Yang: "Incorporating Heterogeneity of Maternal Effects for Precisely Detecting Parent-of-Origin Effect"

Yonggang Yao, joint with Y. Lee: "Functional Component Pursuit for Small N, Large P Data"

Li Yu, joint with J. Verducci: "The Tau-Path Test for Detecting Subpopulation Association"

We note that many of the students who traveled to present their research this year were supported in part by funds from the new **Gary Koch Student Travel Award Fund**. Dr. Koch wrote the following about his reasons for helping to establish this fund in our department:

The travel awards are very important because they enable graduate students to participate in enlightening environments that can substantially strengthen their education and professional development. When I was a graduate student, attending statistical conferences and presenting contributed papers for emerging categorical data methodology was an invaluable professional experience. Enhancing ways in which current graduate students can have such energizing experiences is a vital priority for me.

Best regards,
Gary Koch

Alumni News

Effective May 9, 2008, **Dave Cameron** (MAS 1987) was promoted to Vice President, Statistical Methodology, at A. C. Nielsen.

Amy Ferketich (MAS 2001) was tenured and promoted to Associate Professor of Epidemiology in the OSU College of Public Health.

Aliesha Keegan (MAS 2008) accepted a position as customer insights analyst for Alliance Data here in Columbus. She joins **Adam Dallas** (**MAS student**) who started at the company about a month earlier.

Bryan Ray (MAS 2005) has been working within the Statistics and Information Analysis product line at Battelle Memorial Institute for over three years now. He writes, "My time is largely spent on projects associated with the Battelle Biomedical Research Center (BBRC), the EPA Office of Water, and internal research and development. Much of the work associated with the BBRC has been centered on the development of a therapeutic model for exposure to anthrax."

Shiling Ruan (Ph.D. 2007) has taken a position as Mathematical Statistician in the Division of Biostatistics at the FDA Center for Devices and Radiological Health.

Leigh (Weiss) Slauson (MAS 2000) received her Ph.D. in Mathematics Education, with a specialization in Statistics Education, from the OSU Department of Education and Human Ecology, School of Teaching and Learning. Leigh's dissertation was titled "Students' Conceptual Understanding of Variability".

Yi-En Wei (MAS 2006) took a position with Battelle for Kids after she graduated. Battelle for Kids is an educational consulting company mainly focusing on K-12 students' progress measurement. With the start of

Toy stuck on roof.

Having fun at the Department's Spring Picnic. (What is the probability of getting the stuck toy off the roof by throwing a ball at it? Apparently, it is quite low.)

the new school year in fall 2008, she began a new job at Olentangy Local Schools. As the in-house statistician, Yi-En is helping the district to interpret and utilize the achievement and growth data for curriculum, scheduling, intervention, and research.

Dan Weston (MAS student) left for Lithuania on August 1, 2007. Dan also recently received his MBA in management from Dallas Baptist University.

Paul Wood (M.S. 1982) joined the University of Pittsburgh Medical Center (UPMC) as Vice President for Public Relations, with responsibility for media relations and internal communications. Paul reports that UPMC is one of the leading nonprofit health systems in the United States, with 48,000 employees. It owns 20 hospitals throughout Pennsylvania as well as clinics and other facilities throughout the U.S., Europe, and the Middle East.

New Dependent Variables

Kristin (Blenk) Duncan (Ph.D. 2004) and husband Chris welcomed daughter Isla Mary on May 2, 2008 in San Diego. Isla started life out in the right tail of the

Enjoying food and freinds at the Department's Holiday Party

weight distribution at 9 pounds 2 ounces. She keeps herself busy learning and growing.

MAS student **Joe Hutchings** and his wife welcomed their third son, Zane Thomas Hutchings, at 8:52 a.m. EDT, March 10, 2008. Important data on the new arrival includes: Weight: 8 pounds 8 ounces; Length: 19 and 12/16"; Head circumference: 14".

Second year Ph.D. student **Hang Joon Kim** reported the birth of his son on Friday, May 9, 2008. Alex Yoobin Kim weighed 7 pounds, 15 ounces. Hang notes, "We do not know which parent he resembles, but it is clear that he is tall. Whenever I see his face, I cannot stop smiling. It's a kind of magic."

With great joy and happiness, **Yufeng Liu** (Ph.D. 2004) and **Juan Du** (Ph.D. 2006) reported that their second boy, Alex HaoPeng Liu, was born on Wednesday, April 23 at 5:07 p.m. His birth weight was 7 pounds and 9 ounces, and height was 21 inches. Mom, baby, and big brother Andrew are doing great.

Sumithra Mandrekar (Ph.D. 2003) and **Jay Mandrekar** (MS 1999) became the proud parents of a baby girl on June 8, 2007. Neha (pronounced Nayha) is reportedly very laid back and content, and never cries! In general, she is quite easy going, but talkative. Neha's parents are both associate professors in the Mayo Clinic College of Medicine, and moving up the ladder.

Fourth year Ph.D. student **Shari Modur** and husband Ashwin Balagopal became the proud parents of a beautiful baby boy named Siddarth, two weeks earlier than expected on January 23, 2008.

Dale Rhoda (MAS 2006) and wife Kara were thrilled to announce that little Nathaniel Charles Rhoda joined their family on August 16, 2008, and that he's doing well. Nathaniel was born on August 11, weighed 7.5 pounds, and was 19.5 inches long at birth. He's a very snugly little guy. He eats well and is happy. We are thrilled to have him be part of our family after many weeks of anticipation.

Graduate student **Rui Wang's** son, William Wang, was born on November 29th, 2007. Rui reports, "He brings us a lot of fun, as well as troubles."

Sincere Thanks to Our Donors

We wish to recognize those alumni, friends, students, staff, and faculty members who have helped the Department financially over the past year. Your donations, no matter the amount, make it possible to continue to attract, train, and reward our excellent graduate students. Many thanks to the following donors:

Craig Cooley Award Fund
Mary Ellen Smircich Frustaci
Brian Wynne

Gary Koch Student Travel Award Fund

Robert Abel	Jun Li
Olajide I. Ajayi	Qianqiu Li
William Anderson	Xiuhong Li
Ignacio Alarcon	Jiun Lin
Karen Blocksom	Xiang Ling
Arthur Bocian	Yi Liu
Meng Chen	Charles Locke
Minxing Chen	Greg Mack
Patricia Borchers Coistello	Ted Miller
Daniel Cotton	Hyejung Moon
Nathan Cruze	Karen Murphy
Cathy Dolsen	Gary Phillips
Doug Dolsen	Jacob Reidhead
Xiaoyi Dong	Bernhard Renard
Greg Elfring	Lisa Elderbrock Rome
Rachel Angeles Eusebio	Minggao Shi
Meng Fan	Chris Sroka
Lin Fei	Amy Ruppert Stark
Amy Ferketich	Greg Stark
Jesse Frey	Michael Starsinic
Mary Ellen Smircich Frustaci	Chin-Ying Jean Wang
Edward Gbur, Jr.	Tao Wang
Marla and Gary Gross	Brian Williams
Radhey Gupta	Jeff Wright
Gang Han	Brian Wynne
Bill Harper	Haiyan Xu
Kyle Hostetler	Carrie Yamashita
Xunyi Hu	Darryl Yamashita
Yifan Huang	Qingzhao Yu
David Jeppesen	Mark Zabel
Lei Kang	Jian Zhang
Tena Katsaounis	Michael Yuanjie Zhang
Gary and Carolyn Koch	Yonggang Zhao
Lixin Lang	Chengfu Zhou
Bin Li	Shanggang Zhou

Graduate Fellowship Fund
Hal Bogart

Rustagi Memorial Lectureship Fund
Madhu Anderson
Patrick Anderson
Carol Maria Ordille

Statistics Support Fund

Lynn Friedman	Lisa Elderbrock Rome
Agatha Clara Henry-Mabry	Jagdish Rustagi
Howard Kaplon	Craig Shirk
Liang Liu	John Skillings
Charles Locke Jr.	John Weston
Mehmet Ozcomak	Marian Gambitsky Weston
Eswar Phadia	

Whitney Endowed Fund

Anonymous (3)	Charles Oprian
Hal Bogart	Maria-Belen Ines Pangilinan
Jerome Dare	C. Thomas Ridenour
Patricia Friedburg Fuller	Neal Alan Wallingford
Lawrence Fulton	Marian Whitney
Walter Hoy	Nina Whitney
John Jacobowitz	Thomas and Geraldine Willke
Margaret Lessmann	

Not listed above are the members of the faculty and staff who donated to the Department this year, as that would almost require giving a complete roster of the Department. Those gifts are evidence of the commitment of the faculty and staff to the Department and are also greatly appreciated.

Supporting Current and Future Students

As you can tell from the reports in this newsletter, we have a spectacular group of graduate students in the Department. To continue to attract and support these students is, of course, expensive. For example, the Department matches any travel support that students receive, up to the actual cost of travel. We recognize excellence in teaching, research, consulting, and service by graduate students through annual awards. We pay for outstanding potential students to come visit the Department. We ask you to consider helping to support our current and future students through a contribution to one of the Departmental funds for graduate students:

Craig Cooley Fund #06940-601434
Gary Koch Student Travel Fund #06940-480697
Graduate Fellow Fund #06940-310567
Powers Award Fund #06940-605898
Statistics Support Fund #06940-307669
Whitney Scholarship Fund #06940-607689

This is an excellent way for alumni to give something back to the Department. Your gift, in any amount, is important and appreciated.

CONGRATULATIONS TO OUR GRADUATES!!

The following students earned degrees in 2007-08.

Master of Applied Statistics

SUMMER 2007
- Sheenu Cherian
- Yuwen Dai
- Joon Ku Im
- Chan Kook Kim
- Na Li
- Honglu Liu
- Sha Liu
- Sung-Hoon Park
- Liyue Tong
- Wei Xiong

AUTUMN 2007
- Erica Christine Cepietz
- Jennifer Anne Sinnott

WINTER 2008
- Adam Robert Lundgren
- Diana Susana Rodriguez
- Bonnie Elizabeth Shook-Sa
- Joanne Marie Sklodowski
- Ashley J. Swert
- Jing Tao
- Lijia Wei
- Jennifer Elaine Williams
- Yan Yang
- Yi Zheng
- Yijun Zhu

SPRING 2008
- Ye Jin
- Aliesha Marie Keegan
- Erinn Elyse Kingman
- Lingfei Li
- Catherine Diane Lucas
- Liang Niu
- Juan Peng
- Jing Xie
- Li Zhang
- Manman Zhang

Master of Science

SUMMER 2007
- Beau Christopher Corkins
- Meng Fan
- Michael David Sonksen
- Lu Wang
- Chaoran Ye

AUTUMN 2007
- Candace Berrett
- Di Wu
- Hao Wu
- Jingyuan Yang
- Yonggang Yao

WINTER 2008
- Jeremy Clay Christman
- Beom Seuk Hwang
- Deedra Rae Nicolet
- Hong Qiu
- Richard Michael Salwan
- Joshua Daniel Svenson
- Li-Fang Yang
- Lili Zhuang

SPRING 2008
- Nathan Bryce Cruze
- William Francis Darnieder
- Mary Loneta Hickey
- Aaron Jeremy Quan
- Jacob Austin Reidhead
- Mansen Wang
- Rui Wang

Doctorate

AUTUMN 2007
- Zhenhuan Cui
- Hongfei Li

WINTER 2008
- Lixin Lang
- Ke Wang
- Lai Wei

SPRING 2008
- Chen Quin (Eric) Lam
- Xueliang (Jeff) Pan
- Clint Roberts