

Odds & Ends

Winter 2011

Department of Statistics Newsletter

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Felix Haas Hall



Mathematical
Sciences Building

PURDUE
UNIVERSITY



Letter from the Head

Purdue
Statistics

Happy New Year Everyone! So many new and exciting things happening at Purdue Statistics!

As we head into 2012, we have a new logo (Bell Tower, Math Building, Haas Hall, and a corn field!), and we are excited about the 8th International Purdue Symposium on Statistics (June 20-24th, 2012). As many of you remember, the International Purdue Symposium on Statistics is a venerable tradition, an event that has been held every five years at Purdue since the late 1960's (started by Professor Shanti Gupta), in an effort to further the development of the field of statistics.



The theme of the 8th Purdue Symposium on Statistics is “Diversity in the Statistical Sciences for the 21st Century”. We are proud that Purdue Statistics exemplifies all aspects of diversity, and we are steadfast in our efforts to maintain and increase diversity in all its forms within our department and in the profession.

The theme of “diversity” in the statistical sciences causes me to reflect on the history and breadth of Purdue Statistics. Starting as a Statistical Laboratory in 1947, we have grown into one of the largest and most diverse statistics departments in the country. Historically, Purdue Statistics has always had a strong presence in probability, theory, and education; but as the field of statistics expanded to include many interdisciplinary areas that require specialization (computational finance, environmental statistics, machine learning, statistical bioinformatics, etc.), Purdue Statistics was among the first in the country to engage in an aggressive program of hiring well prepared faculty with diverse backgrounds who are today playing leading roles in the development of statistics as it continues to expand its scope.

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We do hope that many of our alumni and friends will return to West Lafayette for the 8th International Symposium on Statistics: Diversity in the Statistical Sciences for the 21st Century (www.stat.purdue.edu/symp2012), June 20-24th, 2012. As you can imagine, hosting a symposium of this length and size requires a rather serious financial commitment from the department, and while we are busy writing grants to support the travel and accommodations of our speakers, we ask that you please consider making a charitable contribution to Purdue Statistics by:

1. Going to: <https://donate.purdue.edu/DesignateGift.aspx>
2. Use the pull down menu to indicate: the College of Science (near the bottom of the options)
3. Use the pull down menu to indicate: Department of Statistics (near the bottom of the options)
4. Specify in the textbox how you would like your donation used:
 - Purdue Research Foundation (most flexible funds)
 - General 2012 Symposium Fund
 - Sponsor a Speaker
 - Sponsor a student/post doc
 - General account
5. Enter the dollar amount you wish to donate
6. Click on "Add to Give Basket" and follow the instructions to complete your donation.

If you have questions, feel free to contact me (doerge@purdue.edu) or Ms. Diane Martin (martindl@purdue.edu).

There will be workshops and short courses (www.stat.purdue.edu/symp2012), as well as research talks, poster sessions, cocktail parties, plenaries by famous friends and alumni (Jim Berger, Larry Brown, Steve Lalley, and Sastry Pantula, to name only a few), and of course the symposium banquet!!!

Looking forward to seeing you in June, if not before!

Go Boilers!
Rebecca W. Doerge

Department of Statistics and Actuarial Science Program 2011 Outstanding Alumni

Congratulations to **Joan Varrone** and **Julie Parsons**, the 2011 Outstanding Alumni in Statistics and Actuarial Science. This year the Department of Statistics awarded Joan Varrone (MS, statistics, 1973) with the Statistics Outstanding Alumni Award. The Actuarial Science program, administered jointly by the Department of Statistics and the Department of Mathematics, awarded Julie Parsons (BS, actuarial science, 1993) with the Actuarial Science Outstanding Alumni Award. The Outstanding Alumni Award honors alumni for their contributions and leadership within their profession.

Ms. Varrone and Ms. Parsons were honored at a reception and dinner on September 29, 2011, where they received a plaque commemorating their accomplishments.

Joan Varrone started her own consulting firm in June, 2010 called CFO Consulting and Services. She serves as a part-time consulting CFO to start-ups in digital media, software, and biotech. She builds bottoms-up business plans, implements financial infrastructure, and supports fund raising. Previously, Joan held senior management positions at large multinationals with strategic and operational responsibility for corporate planning and optimal financing of 40 operations worldwide.



Joan received her Master of Science degree from Purdue University in 1973 and her MBA from New York University in 1980.

Joan was raised in New York City, New York. She currently lives in the San Francisco area with her husband, Joseph Catalano. Among Joan's many activities, she is a board member and head of Professional Development for the San Francisco Chapter of Financial Executives International, board member and chair of the Events Committee for the Bay Area Financial Executives Networking Group, and the founder of the International Finance Forum and Treasury Executives Network in Silicon Valley.

*2011 Statistics Outstanding Alumna
Joan Varrone
Founder and Principal -
CFO Consulting and Services*

Department of Statistics and Actuarial Science Program 2011 Outstanding Alumni

Julie Parsons joined Allstate in 1993 after graduating from Purdue University with a Bachelor of Science degree in actuarial science. She began her career as an actuarial analyst in the pricing department and has held various actuarial positions since then. Julie has earned the Fellow of the Casualty Actuarial Society designation and is a Member of the American Academy of Actuaries.

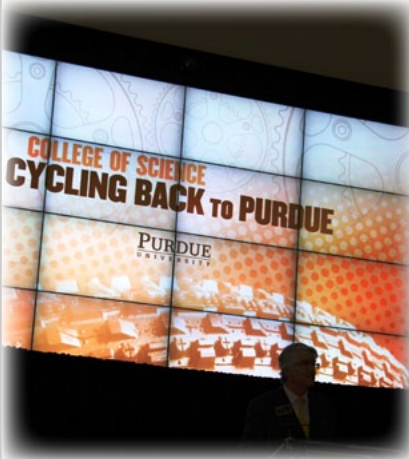
In 2005, Julie was promoted to the position of assistant vice president of product pricing and served as the chief actuary for Allstate's property and casualty lines of business. In 2008, she was promoted to vice president, Emerging Businesses, and had P&L accountability for a \$1.5 billion book of business, including the Motorcycle and Renters lines of insurance. In 2010, she moved to the role of product senior vice president, where she is responsible for product decisions for an \$8 billion homeowners and auto book of business. Julie received the Crain's Chicago Business Top 40 under 40 award in 2009 and the Chicago Anti-Defamation League's Rising Star Award in 2010.



*2011 Actuarial Science
Outstanding Alumna
Julie Parsons
Senior Vice President, Allstate Corp.*



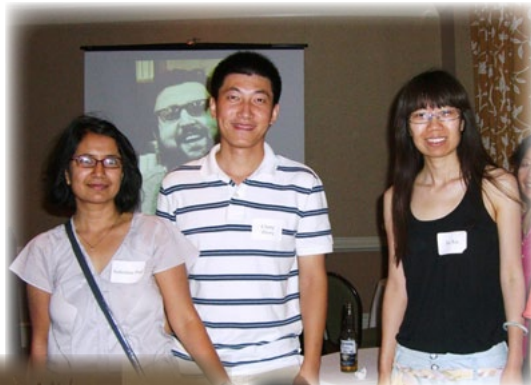
*Department of Statistics and Actuarial Science Program
2011 Outstanding Alumni Events*

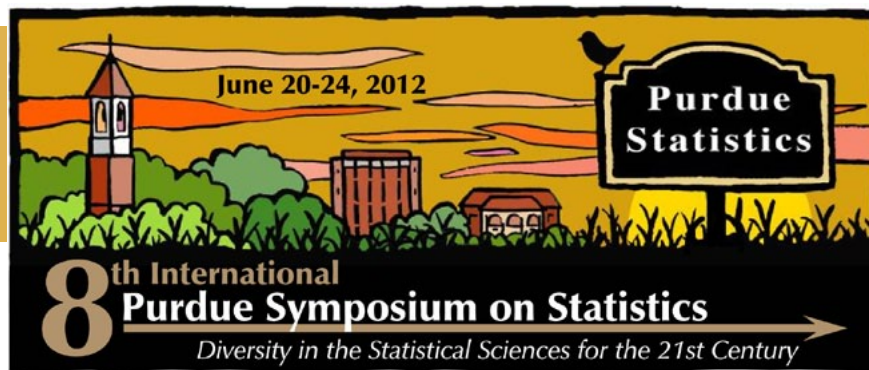


Joint Statistical Meetings 2011

Friends, alumni, faculty and students and their families gathered on the evening of Sunday, July 31, 2011 at the Loews Miami Beach Hotel in Miami, Florida, for the Purdue Statistics Friends and Alumni Reception. A good time was had by all!

Please join us next year in sunny San Diego, California, on Sunday, July 29. See www.amstat.org/meetings/jsm for more information about next year's Joint Statistical Meetings.





The International Purdue Symposium on Statistics is a venerable tradition, an event that has been held every five years at Purdue since the late 1960's (started by professor Shanti Gupta), in an effort to further the development of the field of statistics. The theme of the 8th Purdue Symposium on Statistics is "Diversity in the Statistical Sciences for the 21st Century".

The Purdue Symposium will be made up of two days of Workshops/ Short Courses, June 20-21, 2012, two and a half days of Sessions, June 22-24, and a variety of social activities. This year we are placing the Symposium under the theme of diversity in a variety of forms. We recognize that the statistical sciences form an extraordinarily diverse discipline, with fields ranging from resolutely applied bioinformatics to the most theoretical probability and stochastic

analysis, with new directions drawing on other disciplines such as computer science for machine learning, or earth science for environmental statistics, moving forward in our new century.

Please see <http://www.stat.purdue.edu/symp2012> for complete details.

We ask that you please consider making a charitable contribution to Purdue Statistics by:

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2. Use the pull down menu to indicate: the College of Science (near the bottom of the options)
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 - General 2012 Symposium Fund
 - Sponsor a Speaker
 - Sponsor a student/post doc
 - General account
5. Enter the dollar amount you wish to donate
6. Click on "Add to Give Basket" and follow the instructions to complete your donation.

If you have any questions, please contact Ms. Diane Martin (martindl@purdue.edu).

Accomplishments

Rebecca W. Doerge named Trent and Judith Anderson Distinguished Professor of Statistics

Congratulations to professor Rebecca W. Doerge, ratified by the Purdue University Board of Trustees, as the Trent and Judith Anderson Distinguished Professor of Statistics. Doerge is the head of the Department of Statistics and a professor of statistics and agronomy. Her primary area of research is statistical bioinformatics, and she is the director of Purdue's Statistical Bioinformatics Center.



Doerge earned her BS and MS, both in mathematics, from the University of Utah, and she received her PhD in statistics from North Carolina State University. She has been with Purdue since 1995, and she was named department head in July 2010.

George McCabe to receive ASA's Don Owen Award



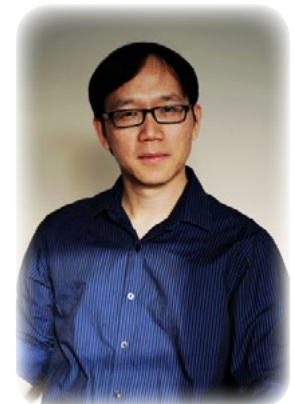
Congratulations to George McCabe, professor of statistics and associate dean for academic affairs, for being recognized as the 2012 recipient of the American Statistical Association's Don Owen Award.

Each year the ASA's San Antonio Chapter presents this award to a statistician who has consistently demonstrated excellence in research, statistical consultation, and service to the statistical community.

Professor McCabe will receive his award during the Conference of Texas Statisticians (COTS) at the annual ASA meeting in Houston, Texas, in March. For more information, please see <http://www.math.lamar.edu/activities/COTS/>.

Qi helps put Purdue's newest supercomputer to use

Alan Qi, assistant professor of statistics and computer science, is taking advantage of Purdue's newest supercomputer. The new supercomputer, named "Carter," is the fastest campus supercomputer in the nation. Qi and his team are using the supercomputer to implement novel statistical models for the analysis of high-dimensional flow cytometry data with an end goal of identifying cancer stem cells.



Read more at <http://www.marketwatch.com/story/purdue-builds-nations-fastest-campus-supercomputer-2011-11-15>.

Accomplishments



US State Department thanks Purdue for Frederi Viens' Service as Franklin Fellow in 2010-2011

Professor Frederi Viens was awarded the national recognition of Franklin Fellow at the United States Department of State for the academic year 2010-2011. The Franklin Fellowship program allows approved organizations to engage in U.S. foreign affairs by sending mid-career and senior professionals to Washington, DC, to work on global issues of vital importance to the U.S. Prof. Viens worked as a Science Advisor to the Assistant Secretary of State for African Affairs, at the main State Department offices in the Foggy Bottom area of Washington.

Prof. Viens was the first scientist to provide broad advice to the State Department's Africa Bureau on all science and technology issues. The subject of his work was U.S. diplomatic engagement toward the major challenges facing Africa, including climate change, environmental degradation, deforestation, loss of biodiversity, scientific capacity building, threats to agriculture and water resources, and demographic pressures. His main role was to interpret science and technology questions related to these challenges, and to formulate recommendations for U.S. policy towards Africa. He also advised country and program "desk" officers in the Africa Bureau in DC, economic officers and ambassadors at various embassies ("posts") in Africa, and science and technology personnel at other bureaus, the US Agency for International Development, and other federal agencies. He built a network of contacts among all these colleagues, assisting them with Africa-specific perspectives, writing comments on a number of internal documents, and putting Africa Bureau co-workers in contact with appropriate personnel outside the Bureau on matters of science and technology.

While professor Viens had some degree of freedom in deciding which problems to work on, he was expected to provide his bureau with coverage on the United Nations climate change negotiations. He was tasked to write briefing papers for assistant secretary Carson and secretary of state Hillary Clinton, as well as a broad policy piece on renewable energy development in Africa. Upon an invitation to speak by the World Bank, his bureau sent him as the U.S. Government representative to an international conference on carbon markets in Africa.

Viens shared his experiences as a Franklin Fellow when he presented a talk entitled *Climate change negotiations, environmental stewardship, energy poverty: science engagement and challenges in Africa*, on October 20 in Felix Haas Hall.

Read more about Prof. Viens' activities and the types of work he performed as a Franklin Fellow at http://www.stat.purdue.edu/news/viens_franklin_fellow.html.

Accomplishments

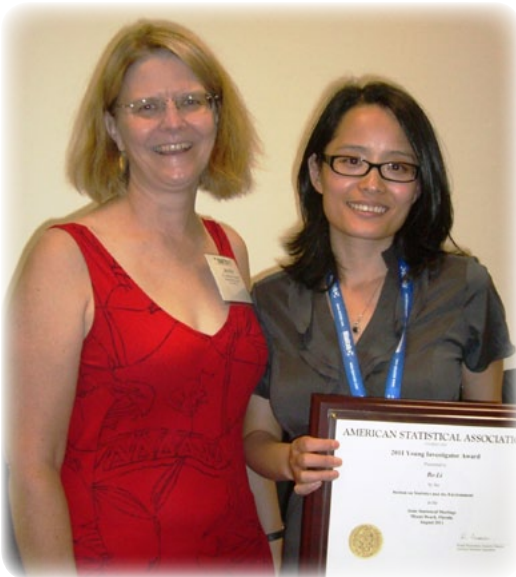
Craig and Li honored at JSM in Miami

The American Statistical Association (ASA), the Committee of Presidents of the Statistical Societies (COPSS), and the Institute of Mathematical Statistics (IMS) convened at the 171st Annual Joint Statistical Meetings (JSM) in Miami, Florida July 31st through August 4th, 2011. Two department faculty members, professor **Bruce Craig** and assistant professor **Bo Li** were honored in separate ceremonies.

Professor Bruce Craig was elected a fellow of the American Statistical Association. The American Statistical Association elected 58 new fellows. A superlative honor for 95 years, fellowship in the American Statistical Association recognizes outstanding professional contributions in the field of statistical science. Professor Craig was elected based upon his important contributions to statistical methodology, for developing and sustaining collaborations with researchers in many areas of application, for excellence in statistical consulting, for service to the profession, and for contributions to innovative introductory statistics texts.



Professor Bruce Craig with spouse Jennifer after the ASA Fellows Ceremony



Bo Li with Jennifer Hoeting, Chair of the ASA Section on Statistics and the Environment

Assistant professor Bo Li was awarded the American Statistical Association Section of Statistics and Environment 2011 Young Investigator Award. She was nominated and selected based upon her impressive research contributions to the field of environmental statistics which includes paleoclimate temperature reconstructions and definitions of climate regions, advances of statistical methods and theory such as the assessment of properties of space-time random fields, and other contributions such as co-organizing the 2010 ASA Statistics and Environment conference. One nominator said, “Her productivity, the diversity of her research, and her interest in substantial applications all fit the spirit of this award.”

Machine Learning Summer School - June 2011

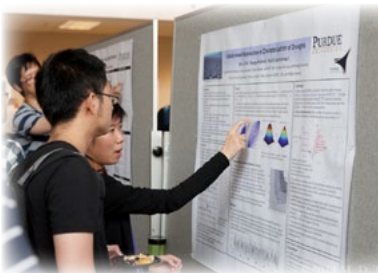
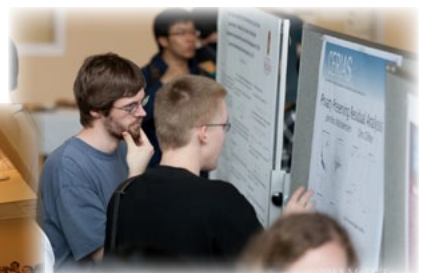
Over 130 attended Machine Learning Summer School

The Departments of Statistics and Computer Science at Purdue University, with help from Discovery Park at Purdue University, hosted a Machine Learning Summer School (MLSS) from June 13-24, 2011. Over 130 participants from all over the world attended. A majority of the participants were graduate students, but a number of undergraduates, post-doctoral fellows, and industry personnel also were in attendance.

The school featured a number of tutorial style lectures by international experts. The students were also exposed to various application areas of machine learning via short application overview talks. In addition to lectures, the participants got a chance to apply their knowledge during hands-on laboratory sessions. The school also featured a number of social events including a trip to Chicago and an end of school party. Women researchers got a unique opportunity to receive mentoring via a Women in MLSS dinner.

To learn more about the summer school please visit <http://learning.stat.purdue.edu/mlss/mlss/start>. Information about Machine Learning at Purdue is available at <http://learning.stat.purdue.edu>. The Machine Learning Summer School has a YouTube channel at the following url: http://www.youtube.com/playlist?list=PL2A65507F7D725EFB&feature=view_all.

Photo credits: My Truong



Congratulations Graduates!

August 2011 Graduates

Ph.D. Graduates - (Advisor) Dissertation Title

- * **Duncan Leaf** - (Chuanhai Liu) "Inferential Models and Restricted Spaces".
- * **Eunjung Lim** - (Bruce Craig) "Bayesian Linkage Analysis for Autotetraploids".
- * **Shraddha Mehta** - (co-advisors: Bruce Craig and Jayanta Ghosh) "Bayesian Nonparametric Density Estimation and Sufficient Dimension Reduction in Survival Analysis".
- * **Jin Xia** - (co-advisors: Mark Daniel Ward and William S. Cleveland) "Divide and Recombine (D&R) the Analysis of Large and Complex Data Sets with Application to VOIP".

MS Graduates:

- * Luis Barboza
- * Yan Sun
- * Zhuangzhuang Xi

Graduate Certificates:

- * William Todd Albin
- * Harold Lopez Araya

Undergraduates in Statistics and Actuarial Sciences:

- * Mingjing Cao
- * Ida Khairina B. Kamaruddin
- * Jeffrey S. Ollis
- * Shanbin Wang



August 2011 Graduates: Mingjing Cao and Ida Hairina Kamaruddin

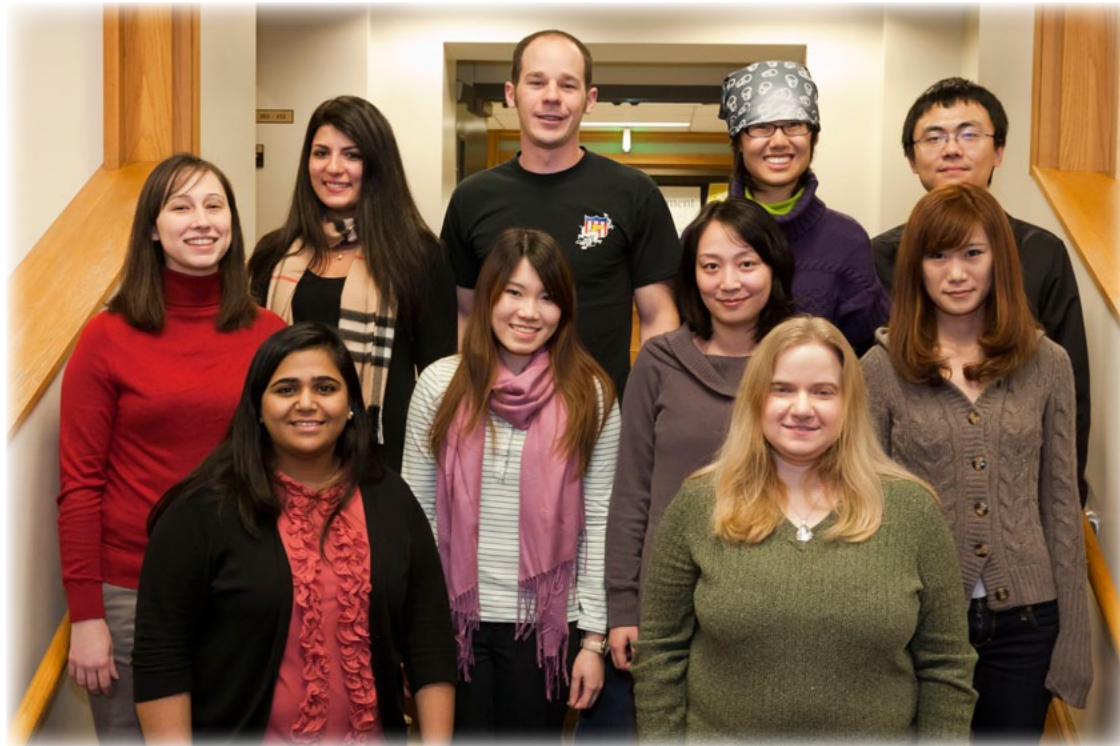


Congratulations Graduates!



December 2011 Graduates

From left to right: PhD graduate Zuoyi Zhang, professor Hao Zhang, and PhD graduate Yong Wang



BS and MS statistics December 2011 graduates: Back row: Cynthia Medawar, Michael Hunter, Chang Yue Lu, Anning Hu. Second row: Rebecca "Rose" Lumley, Qixuan Jiang, Yi Li, Weiwei Cao. Front row: Divvya Aggarwal and Kimberly Krug.

Thank you!



Hello Statistics Alumni and Friends,

I have now been in this role for more than six months and have truly enjoyed spending time with all of the dedicated alumni and friends of the Statistics Department. I thank you for giving me such a warm welcome! There are many exciting things going on right now in Development, for example, the Undergraduate Scholarship Match. This is a 1:1 match that includes corporate matching dollars, so if you have ever been interested in supporting an Undergraduate student, now is the time! Please call or email me for more details. I want to thank each and every one of you for all the support you give to Purdue Statistics. Without your loyalty and generosity, we could not sustain the level of excellence for which we strive.

Finally, if you have an update about your life or career, please send this to us. Please go online to the Statistics homepage (<http://www.stat.purdue.edu>) and click on the left “alums” and then a link to “send us your news/update your information” so that we can keep in touch with you. If you get back to campus, please let me know as I would love to meet you!

All the best,
Julie Paolillo
Director of Development
(765) 496-7502
jpaolill@purdue.edu

Odds & Ends is published for alumni and friends of the Purdue University Department of Statistics. We welcome comments and suggestions for future newsletters.

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Contributors: Eric Imboden, My Truong,
Holly Graef, Julie Paolillo

www.stat.purdue.edu

New Student Orientation 2011

On August 14, we welcomed 30 new graduate students, from five different countries, into Purdue Statistics during our 2011 New Student Orientation. Current students, faculty and staff participated in this annual event.



2011 Department Fall Picnic

On September 17 the annual Department of Statistics Fall Picnic took place at Ross Hills Park. (The event is held every year in honor of the department's incoming students.) This year, the weather was especially nice and we welcomed many new faces - of students, friends and family - to the gathering. Activities after the picnic included a raffle for doorprizes and the Second Annual Department of Statistics Cornhole Tournament. Defending champions Doug Crabill and Larry Smith won the tournament for the second year in a row!

