

Byran J. Smucker

CONTACT INFORMATION	Department of Statistics The Pennsylvania State University 323 Thomas Building University Park, PA 16802	Phone: (541) 510-3475 Fax: (814) 863-7114 E-mail: absmucker@gmail.com
CITIZENSHIP	USA	
RESEARCH INTERESTS	Design of experiments; response surface methodology; statistical disclosure limitation for tabular data; estimation in angler surveys	
EDUCATION	The Pennsylvania State University , State College, PA USA Ph.D., Statistics and Operations Research (to be completed August 2010) <ul style="list-style-type: none">• Dissertation Topic: Multiresponse and Model-Robust Experimental Design• Advisor: Enrique del Castillo• Committee Chair: James Rosenberger M.S., Statistics and Operations Research, December 2007 <ul style="list-style-type: none">• Thesis Topic: Calculating Cell Bounds in Contingency Tables Based on Conditional Frequencies• Advisor: Aleksandra Slavković• Area of Study: Statistical Disclosure Limitation Oregon State University , Corvallis, OR USA B.S., Industrial Engineering, March 2005 <ul style="list-style-type: none">• <i>Summa cum Laude</i>	
PEER-REVIEWED PUBLICATIONS	Smucker, B. and Slavković, A. B. (2008). Cell bounds in two-way contingency tables based on conditional frequencies. In Domingo-Ferrer, J. and Saygin, Y., editors, <i>PSD 2008 LNCS</i> , volume 5262, pages 64–76. Springer-Verlag, Berlin Heidelberg. Logendran, R., McDonell, B., and Smucker, B. (2007). Scheduling unrelated parallel machines with sequence-dependent setups. <i>Computers and Operations Research</i> , 34(11):3420–3438.	
IN PREPARATION	Smucker, B., Castillo, E. D., and Rosenberger, J. L. (2009). Exchange Algorithms for Constructing Model-Robust Experimental Designs. Submitted to <i>Journal of Quality Technology</i> . Smucker, B., Lorantas, R., and Rosenberger, J. L. (2009). Correcting Bias Introduced by Aerial Counts in Angler Effort Estimation. Smucker, B., Slavković, A., and Zhu, X. (2009). Cell Bounds in k -way Tables Given Conditional Frequencies. Smucker, B., Castillo, D. D., and Rosenberger, J. L. (2009). A Maximin Model-Robust Exchange Algorithm and its Generalization.	

OTHER PAPERS

Smucker, B., Rosenberger, J. L., and Shumway, D. (2009). Juniata/Susquehanna River Creel Survey 2007. Report prepared for Robert Lorantas and the Pennsylvania Fish and Boat Commission.

PRESENTATIONS

"Multiresponse Exchange Algorithms for Model-Robust Experimental Design." Fall Technical Conference, Indianapolis. October 2009.

"Cell bounds in two-way contingency tables based on conditional frequencies." Privacy and Statistical Databases, Istanbul. September 2008.

"Cell bounds in two-way contingency tables based on conditional frequencies." Joint Statistical Meetings, Denver. August 2008.

AWARDS

The Pennsylvania State University

- U.S. Census Bureau Dissertation Fellowship, 2009-2010; full research support
- Student Paper Competition winner (one of five), 2008; contest sponsored jointly by the Social Statistics, Government Statistics, and Survey Research Methods sections of the American Statistical Association
Topic: "Calculating Cell Bounds Based on Conditional Frequencies"
- Top score, Department of Statistics Master's Qualifying Exam Applied Section, May 2006
- Fall Technical Conference Student Travel Grant, American Society for Quality, October 2009

Oregon State University

- First Place in class of Industrial and Manufacturing Engineering students for Senior Project, "Grass Seed Crop Mix Optimization" with Kyle Erickson and Jenni Barnes
- C. E. Boucher Memorial Scholarship, 2004-2005 academic year

ACADEMIC EXPERIENCE

The Pennsylvania State University, State College, PA USA

Graduate Student

August 2005 to present

- Graduate-level applied and theoretical statistics courses, including mathematical statistics, regression/ANOVA, stochastic processes, linear models, asymptotics, spatial statistics, response surface methodology
- Operations research coursework, such as linear and nonlinear programming

Research Assistant, Statistical Consulting Center

August 2007 to present

- Assisted faculty and graduate students, as well as individuals outside the University, with statistical questions
Performed drop-in Stat-On-Call consulting
Longer-term projects involved a variety of statistical techniques, including experimental design, ANCOVA, time series, linear and nonlinear regression, and methods for modeling count data.
- Primary analyst, under faculty supervision, for Juniata/Susquehanna River Creel Survey 2007
Led writing and compilation of report prepared for the Pennsylvania Fish and Boat Commission

Instructor **Summer 2005, 2006**
• Taught introductory statistics course
• Responsible for all aspects of the class, including lecture, lab, homework, exams

Teaching Assistant **2005-2006, 2006-2007 academic years**
• Assisted in introductory statistics course
• Helped students in office hours, graded projects, aided in labs

Oregon State University, Corvallis, OR USA

Undergraduate Researcher **2003-2005**
• Developed (along with another student and professor) a tabu-search algorithm to provide near-optimal solutions in a job-scheduling problem
• Assisted in implementing computer program (C language) to aid in computing solutions
• Used SAS to perform statistical analysis of empirical testing

PROFESSIONAL
ACTIVITIES

Membership in Profession Organizations

- *American Statistical Association*
- *Institute for Operations Research and the Management Sciences* (INFORMS)
- *Institute of Mathematical Sciences*

Leader of Student Advisory Committee, Penn State University, 2009

Reviewer for *Festschrift* in honor of Tom Hettmansperger, 2009

COMPUTER SKILLS

- Windows, R, SAS, LATEX
- Working knowledge of Unix, Matlab, SPSS, C, GAMS/CPLEX

OTHER
EMPLOYMENT

Industrial Assessment Center **Oregon State University, 2004-2005**

Productivity analyst

- Performed on-site energy audits on medium-sized manufacturers with fellow OSU students under direction of Industrial Assessment Center engineer
- Focused on recommendations which would increase productivity, i.e. reducing waste or decreasing downtime
- Prepared written recommendations detailing the estimated savings to the manufacturer, as well as the analysis that led to those estimations

Smucker Pelleting **Harrisburg, Oregon; Summers, 2000-2003**

- Oversaw operation of industrial pellet-mill
- Monitored machinery (grinder, hydraulics)
- Aided in maintenance