### Curriculum Vitae

C. Clinton Harshaw, Ph.D. Department of Mathematics Presbyterian Collge

September 2015

### Experience

### Presbyterian College Dept. of Mathematics

Tenured Professor of Mathematics and Department Chair, 2010-Present Tenured Associate Professor of Mathematics, 2007-2010 Associate Professor of Mathematics, 2003-Present

#### Newberry College Dept. of Mathematics, Computer Science and Physics

Department Chair, 1998-2003 Tenured Associate Professor of Mathematics, 1996-2003 Tenured, 1995-2003 Assistant Professor of Mathematics, 1991-1996 Instructor of Mathematics, 1988-1991

#### Education

#### Ph.D., Biostatistics

University of South Carolina May 2002

The Tetrahedron Volume Scan: A Tool for the Detection of Spatial-Temporal Disease Clusters

Advisor: J.W. Drane

#### M.S., Mathematical Sciences/Concentration: Statistics

Clemson University May 1988

Exploring the Use of Sound in Regression Diagnostics

Advisor: R.F. Ling

#### B.S., Mathematics and Computer Science

Newberry College May 1986

Advisor: W.I. Layton

### Courses Developed

Linear Models with R (Independent Study Course)

Applied Statistics (MATH 210)

Senior Capstone in Mathematics (MATH 440) – developed with Dr. Brian Beasley and Dr. Doug Daniel

Modeling Data with R

Linux System Administration and Perl Programming for the Mathematician

Data Analysis and Graphics with R

Applied Statistics

Mathematics for the Liberal Arts I and II

Mathematics for the Liberal Arts I (for Distance Learners)

Web Database Applications

### Courses Taught

Cultural Reflections Through James Bond Films

Applied Statistics

Senior Capstone - taught with Dr. Brian Beasley and Dr. Doug Daniel

College Algebra

Finite Mathematics

Calculus for the Social and Biological Sciences

Calculus I: Differential Calculus

Calculus II: Integral Calculus

Calculus IV: Multivariable Calculus

Modern Mathematics for Teachers

Mathematical Statistics

Modeling Data with R

Linux System Administration and Perl Programming for the Mathematician

Data Analysis and Graphics with R

Applied Statistics

Mathematics for the Liberal Arts I and II

Mathematics for the Liberal Arts I (for Distance Learners)

Web Database Applications

Linear Algebra

Discrete Mathematics

Complex Analysis

Modern Abstract Algebra

Discrete and Continuous Probability Theory

Introduction to Data Processing

Math Ideas

# Technology Skills

Comfortable in both GNU/Linux and Mac OS X environments. Extensive installation and administrative experience with both rpm- and deb-based GNU/Linux distributions. Administration and security experience with Apache, and MySQL. Fluent in R, Perl, PHP, HTML, CSS2. Extensive and ongoing experience with standards-based database-backed web application development, security, and maintenance. Extensive use and ongoing experience with IATEX, Scribus, Beamer, Prosper, Emacs. Familiar with Lilypond.

### Consulting

Reviewer for 8th edition of *Introduction to the Practice of Statistics* by Moore, McCabe, and Craig – chapters 6, 7, 8

Article Reviewer for International Journal for Motorsport Management

Advanced Placement Reader - Statistics

Factors Leading to Completion of Reading Book by Fifth Grade Students – responsible for data analysis

Bell Street Middle School – responsible for leading bi-weekly professional development sessions with faculty

NewTech@Newberry – responsible for evaluation and assessment of all aspects of the \$2M PT3<sup>1</sup> grant program.

Newberry County – data analysis for recreation department budget allocation

City of Newberry – data analysis for city services survey

#### Accreditation Reviews

SACS, NCATE, NASDTEC

# Professional Memberships (Current)

Mathematical Association of America Columbia Area Linux Users Group

# Campus Service

2005-Current, Editor, Honors Day Symposium Abstract Book – responsible for all aspects of publication of collection of abstracts, senior art, and music presentations.

Faculty Status Committee – During my time on this committee, I served as Chair for one semester.

Faculty Liaison, Presbyterian College Women's Soccer Team

Faculty Advisor for Students Majoring or Minoring in Mathematics

Griffith Scholarship Interviewer

Quattlebaum Scholarship Interviewer

Freshman Advisor

<sup>&</sup>lt;sup>1</sup>Preparing Tomorrow's Teachers to Use Technology, http://pt3.org/

Library Committee

Safety Committee

Senior Faculty Council

Chair, Senior Faculty Council

Search Committee, Athletic Director

Search Committee, Vice President for Admissions and Marketing

Search Committee, Faculty in Economics

### **Additional Service**

2012-Present, South Carolina Science Olympics, Judge

2015-2016 Congregation Council, Lutheran Church of the Redeemer, Newberry, SC

2015 Vice-Chair, Congregation Council, Lutheran Church of the Redeemer, Newberry, SC

2014 Nominating Committee, Lutheran Church of the Redeemer, Newberry, SC – responsible for securing names of congregation members agreeing to serve on Congregation Council, if elected.

2014 Chaperone, Lutheran Church of the Redeemer Youth Beach Trip

2011 Call Committee, Lutheran Church of the Redeemer

# Papers and Presentations

Asis, G, CC Harshaw, CE Harshaw, 2014. "The Effect of Rule Changes on Competitive Balance in NHRA Professional Classes as Measured by the Gini Coefficient and the Resulting Lorenz Curve." [Presented at Southern Sport Managment Conference, Nashville, TN, March 2014.]

Harshaw, CC, 2008. "Amish Grace: How Forgiveness Transcended Tragedy." [Book review published in the *Journal of College and Character*, Vol. IX, No. 5, July 2008.]

Harshaw, CC, 2006. "Graphical Approaches to Data Analysis Using the R Statistical Environment." [Invited address at Guy Jacobsohn Memorial Mathematics Colloquium Series on November 16, 2006 at USC-Upstate.]

Harshaw, CC, 2006. "Using R to Teach the NCTM Probability and Data Analysis Standards." [Presented at MAA-PMET Regional Conference, Appalachian State University, Boone, NC.]

Harshaw, CC, 2006. "Open Source Technology Tools for the Classroom." [Presented at the Russell Teaching Workshop, Presbyterian College, Clinton, SC.]

Beasley, BD, PE Campbell, DS Daniel, GD Goeckel, CC Harshaw, DE Schoolfield, 2006. "Mathematics History Across the Curriculum: An Integrated Approach for Future Teachers." [Presentened at MAA-PMET Regional Conference, Appalachian State University, Boone, NC.]

Beasley, BD, PE Campbell, DS Daniel, GD Goeckel, CC Harshaw, DE Schoolfield, 2006. "Mathematics History Across the Curriculum: An Integrated Approach for Future Teachers." [Presented at MAA-SIAM Joint Meeting, Southeastern Section, at Auburn University.]

Harshaw, CC, 2006. "Etch Graphical Installer: Current State of Development." [Presented at local Association for Computing Machinery meeting.]

Harshaw, CC, 2005. "Is Open Source the Answer?" [Opinion response published in *Learning and Leading with Technology*, September 2005.]

Harshaw, CC, 2004. "Designing and Implementing an Online Course Management Application Using LAMP Tools." [Presented for local Association for Computing Machinery meeting.]

Harshaw, CC, 2004. "Configuring and Using The Comprehensive Perl Archive Network (CPAN)." [Presented for local Association for Computing Machinery and Mathematical Association of America Chapter meeting.]

Harshaw, CC, J Koon. 2002. "Developing and Maintaining a Cost-Effective Web Site to Support Your PT3 Grant, PT3 Grantees Conference." [Web-based presentation made at the meeting of the PT3 grant awardees in Washington, DC.]

Harshaw, CC, J Koon. 2002. "NewTech@Newberry: How to Foster Collaboration at Various Levels of Web Site Development." [Web-based presentation made at the meeting of the National Educational Computing Conference in San Antonio, TX.]

Harshaw, CC, JW Drane. 2001. "The Tetrahedron Volume Scan: A Diagnostic Tool for the Detection of Spatio-Temporal Clusters." [Presented at the 2001 Spring Meeting of the International Biometric Society, Eastern North American Region in Charlotte, NC.]

Horn, CN, J Williams, CC Harshaw. 1998. "A preliminary study of soils and vegetation on floodplains in the piedmont of South Carolina." ASB Bulletin 45(2): 99. [Paper presented at the meeting of the Association of Southeastern Biologists in Monroe, LA.]

Horn, CN, CC Harshaw. 1998. "Water depth effects on Monochoria vaginalis Pontederiaceae seedling developmental patterns." American Journal of Botany 85(6): 136. [I completed the data analysis for this paper presented at the April 1998 meeting of the American Institute of Biological Sciences (AIBS) in Baltimore, MD.]

Harshaw, CC, JW Drane, H Wang, P Selaru, SS Yoon, F Wu. 1997. "The Odds Ratio for Continuous Risk Factors: Some New Results." [Presented at the 1997 Spring Meeting of the International Biometric Society, Eastern North American Region in Memphis, TN.]

Harshaw, CC, JW Drane. 1997. "Investigating Isoboles of Bivariate Dose-Response Functions Using Mathcad." [Presented at the 1997 Spring Meeting of the International Biometric Society, Eastern North American Region in Memphis, TN.]

Harshaw, CC. 1996. "The Method of Moments Estimators for Binomial Parameters N and

p." W.I. Layton Technical Reports in Mathematics and Mathematics Education, No. 96-101.

# **Funding**

Mathematical Association of American, Preparing Mathematicians to Educate Teachers, National Science Foundation Grant DUE-0230847 - \$5000 for developing teaching and learning activities for integrating mathematics history into our department classes.

Bell Street Middle School - \$183,000 state-funded for improving mathematics education.

Lanier-Scott Technology Endowment Grant - +\$2,100 for adding presentation technology to two classrooms.