Annual Report Executive Summary for 2013

Department of Statistics

The Department of Statistics at Virginia Tech was founded in 1949 and is the third oldest department of statistics in the nation. The Master’s program started in 1949 and the PhD program in 1951. In the 60 plus years of the existence of our department we have conferred over 1000 graduate degrees: 1148 to be exact, 812 masters degrees and 336 doctoral degrees. That is an average of about 18 graduate degrees per year. The undergraduate program was initiated in 1957 and has graduated 576 students.

<table>
<thead>
<tr>
<th>Learning: Undergraduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>The undergraduate statistics program continues to evolve in response to ever-changing student and faculty needs. This year, the program took time to settle into recent changes, including those related to administration and new courses.</td>
</tr>
</tbody>
</table>

The structure and personnel of the undergraduate statistics administration saw a full overhaul in August 2012. For 2013-2014, all of the administrators remained and, with a year of experience, improved the implementation of their duties. For example, all first year students entered with clear schedules, the academic course check sheets for majors and minors was approved early and extended to include more electives, scholarships were advertised and awarded seamlessly, and graduation remained a fun, family-oriented event.

Last year, several courses were designed or redesigned in response to student needs. This year, four of these courses were offered, including STAT 1004, The First Year Experience in Learning from Data and STAT 3654, Introductory Data Analytics and Visualization. One of the many goals of STAT 1004 was to give students early exposure to sub-disciplines and applications of statistics that motivate analytical careers. Hence, this course invited several guest statisticians to speak on how they use data. Speakers included VT faculty, VT graduate students, and statisticians in industry, such as General Electric. Written feedback from students suggested that they were unaware of the many career options available to them after graduation and that they were motivated to learn more in future coursework.

Introductory Data Analytics and Visualization (STAT 3654) was team taught by three statistics faculty and 25 students from several majors enrolled. As the course name suggests, the course focused heavily on data visualization and covered basic supervised and unsupervised analytic strategies for large datasets. At the end of the course, the students presented group projects. While working together or during presentations, several students experienced first hand the benefit of multidisciplinary research teams.

Number of undergraduates: 100 majors, 71 minors, 81 Actuarial Science minors

Graduated 27 majors in 2013.

<table>
<thead>
<tr>
<th>Learning: Graduate</th>
</tr>
</thead>
</table>

Graduated 27 majors in 2013.
Our graduate program specializes in training students in statistical theory balanced with extensive applications including practical experience obtained by consulting and internship opportunities.

A graduate degree in statistics is highly valued by those that count—employers of statisticians. Nearly one hundred percent of our graduates for the past many years leave Virginia Tech with jobs or, at least, with job offers. And, often our graduates have received multiple offers. Our recent graduates began their professional careers at such places as the Merck, Capital One, Morgan Chase, DuPont, Lilly, General Electric, GlaxoSmithKline, Minitab, and numerous universities among many others.

We have a very active collaboration and consulting center with faculty, staff, and students from the entire campus visiting LISA (Virginia Tech’s Laboratory of Interdisciplinary Statistical Research) throughout the year. All of our students are trained in interdisciplinary collaboration via coursework and practical experience. In fact, each MS student must work in LISA for at least one semester for a minimum of five hours per week.

We have a very active Corporate Partners Program where corporations (including Capital One, DuPont, Eastman, Google, GE, Lilly, Minitab, and SAS) sponsor student recruiting and provide scholarships for students. Our Corporate Partners, and other companies, visit us regularly as we are among their top choices for recruiting new hires and interns.

We have a strong internship program with members of our Corporate Partners and other corporations. Statistics interns earn a great summer salary. In addition, an intern can receive three hours of credit for their summer intern experience as we believe that on the job training can be just as valuable as in-class training.

Number of graduate students: 82

Number of PhDs awarded: 4

Number of Masters awarded: 17

Funded on grants: 14 in Spring and 10 in Fall

Post-doctoral students funded: 0

Funded on fellowships: 1

---

**Discovery**

Our department has had another outstanding year in terms of publications and grant support with increases in both grant funding and publications. Faculty members in the department are very active in research ranging from bioinformatics, biostatistics, data analytics, industrial statistics, reliability theory, design of experiments, regression analysis, and Bayesian statistics. In the
calendar year 2013 the department had the following:

Number of grants: 18 new, 37 continuing, 29 submitted

Amount of grants: over $18,490,084

Research expenditures: $1,562,783

Number of publications 53

Number of papers in press 47

**Engagement**

LISA (Laboratory for Interdisciplinary Statistical Analysis) has been advancing research at Virginia Tech via expert statistical analysis since 1948. LISA’s mission is to **train statistics students** to become interdisciplinary collaborators and to demonstrate the value of statistical thinking **through collaboration on research projects**. We provide statistical advice, analysis, and education to Virginia Tech researchers by offering individual collaboration meetings, walk-in consulting, educational short courses, and support for interdisciplinary research projects. LISA’s statistical collaborators are trained to help researchers design experiments, analyze and plot data, run statistical software, interpret results, and communicate statistical concepts to non-statisticians.

LISA (Virginia Tech’s Laboratory for Interdisciplinary Statistical Analysis) activities in 2013:

Collaborations: 348 clients, 6767 hours

Short Courses: 693 attendees, 25 courses over 35 sessions

Walk-in Consulting Service: 413 clients, 593.5 hours.

Corporate partners program – 9 members (American Credit Acceptance, Capital One, DuPont, Eastman Chemical Company, Google, Eli Lilly, General Electric, Minitab, and SAS)

Five faculty members are associate editors for seven journals, one faculty member is on the editorial boards of four journals

**Diversity**

Enhanced graduate education through teaching mentoring of women in Statistics

Enhanced graduate education through research topic courses and graduate student led seminars

Improve diversity through increased recruiting efforts

Participation in departmental, college and university activities related to diversity

**Goals for 2014**
Mentoring new faculty

Increase grant submissions and funding

Enhancing LISA (Laboratory for Interdisciplinary Statistical Analysis)

Improve graduate teaching and service teaching to non-majors

Enhance undergraduate experience and improve undergraduate education

Increase collaborations with Carilion, VBI and ICTAS

Improve graduate student office space
Details

New Grants


**Grants (continuing):**


27. **Hong, Y.** (PI) – Statistical Methods for Modern Reliability Data, *DuPont Young Professor Grant,* $75,000, 08/15/2011-08/14/2014.


Grants Pending:


3. **Deng, X.** (Co-PI) – Center of Excellence on Natural Anti-inflammatory that Target PPAR gamma, *NIH-P01*. $10,078,056 (Deng portion: 0.1 month summer salary). 07/01/2014-06/30/2019.


5. **Franck, C.F.** (PI of subcontract, PI Christine Sheffer) – Enhancing Relapse Prevention for Smoking Cessation with rTMS, *NIH*.

6. **Franck, C.F.** (Co-PI, PI Michael Madigan) – Balance Recovery Training for Fall Prevention Among Older Adults in Retirement Communities, *NIH*.

7. **Franck, C.F.** (Statistician, PI Brian Kleiner) – NIOSH National Construction Center (NCC): A New Step, *NIOSH*.

8. **Franck, C.F.** (Co-PI, PI Andrew McCoy) – Improving the Value of the Reporting and Intelligence of the Nation’s Door, *Window and Skylight Manufacturers*.


13. **House, L.** (PI; Co-PI Scott Leman (Statistics), Christopher North (Computer Science), Yong Cao (Computer Science), Jane Robertson (Statistics); Senior Personnel Liesl Baum (Institute for Creativity, Arts, and Technology)) – Data Debates: Developing Cognitive High Dimensionality (CHD), *National Science Foundation, Division of Undergraduate Education, RFP: Improving Undergraduate STEM Education (IUSE)*. $1,426,890 (24% credit for House).

14. **Kim, I.** (Co-I; PI Susan W. White; Co-I John Richey, Denis Gracanin, Martha Anna Bell) – Neurotherapy to Promote Recognition in Autism, *NIH*. $1,301,455.

15. **Li, J.** (Co-PI; PI Korine Kolivras; Co-PI James Campbell and Stephen Prisley) – Projected Lyme Disease Emergence Under Future Land Cover Scenarios, *NSF-GSS*. $144,433 (20% credit).

16. **Li, J.** (Co-PI; PI Deborah Good; Co-PI Matthew Hulver, Jamie Zoellner, and Alexei Morozov) – Exercise in a Pill, *NIH-R01*. $1,997,312 (10% credit).

17. **Li, J.** (Co-PI; PI Kathryn Hosig; Co-PI Leigh Anne Krometis and Susan Marmagas) – Tazewell County Cancer Project, *Tazewell County*. $75,000 (12% effort).

18. **Vance, E.A.** (Co-PI) – Can group living and the influence of Allee Effects explain infectious disease vulnerability in social species?, *National Science Foundation: Emerging Infectious Diseases*.


20. **Vance, E.A.** (Co-PI) – The Epidemiology of Mycobacterium Mungi- how can we control this emerging disease?, *Morris Animal Foundation*.


25. **Wu, X.** (PI Xie, H.; Co-PI He, J.) – Dissecting epigenetic heterogeneity within pluripotent stem cell clones, *NIH ROI*. $627,879 (15%).


28. **Woodall, W.H.** (Co-PI; PI Camelio; Co-PI Gabbard, Seixas) – National Center for Construction Safety and Health Research and Translation Center-wide Activities and Services- Surveillance Program, *NIOSH/CDC U60 National Center Application*. $1,513,430.00 (Total, Woodall part $378,357.50 or 25%). 9/1/14-8/13/19. (This proposal is part of a larger proposal “NIOSH National Construction Center (NCC): A New Step” with total funding: $28,713,674.96, Brian Kleiner (PI), Woodall (Co-PI), $378,357.50 or 1.32 %, a number of other Co-Is.)


**Books and book chapters (published or in-press):**


**Papers Published:**


**Papers In Press:**


**Faculty**

*Instructors*
1. Marlow Lemons
2. Carmen Tavera

*Assistant Professors of Practice*
3. Jane Robertson
4. Anne Ryan

*Assistant Professors*
5. Xinwei Deng
6. Leanna House
7. Runlong Tang
8. Xiaowei Wu
9. Hongxiao Zhu

*Associate Professors*
10. Pang Du
11. Feng Guo
12. Yili Hong
13. Golde Holtzman
14. Inyoung Kim
15. Scotland Leman
16. George Terrell

*Full Professors*
17. Jeff Birch
18. Ina Hoeschele
19. Sallie Keller
20. JP Morgan
21. Eric Smith
22. Geoff Vining
23. Bill Woodall

*Research Faculty*
24. Chris Franck
25. Jie Li
26. Eric Vance

**Adjunct Faculty**
Richard Beckman
Kristi Griffiths
Shirley Hou
Ilya Lipkovich
Kristian Lum
Angie Neff-Patterson
Matt Rotelli
Spring 2013 Graduates

B.S. Degree Completion
Prakash Adhikari
Eugene Alley III
Agata Bogacki
Stefanie Cain
Kathryn Campbell
Michelle Collura
Joseph Diaz
Michael Foust
Michael Gillespie
Keri Hoover
Joan Kearney
Samantha Lewandoski
Taylor Long
Bethany McGoff
Thomas Moss
Kaitlin Onthank
Christine Rand
Kevin Reynolds
Mitchel Ruloff
Andrea Teter
Bing Jie Wu

M.S. Degree Completion
Ahmad Alothman
Hao Lu
Yi Xiong
Marcos Carzolio

Ph.D. Degree Completion
Pei Xiao
Liaosa Xu

Summer 2013 Graduates

B.S. Degree Completion
Amanda Aubuchon
Kelley Kline
Matthew Nenno
Sarah Holloway

M.S. Degree Completion
Ho Cho

Fall 2013 Graduates

B.S. Degree Completion
Steven Lloyd Buehler
Gregory Rolland Smucker

M.S. Degree Completion
William Tyler Bradley
Jennifer Li Cheng
Shuyu Chu
Jian Huang
Huiquan Jiang
Matthew James Keefe
Xiao Li
Wei Ma
Lonesome Malambo
Jing Niu
Diana Christine Pragel
Sarah Catherine Richards
Xiaoyue Shu

Ph.D. Degree Completion
Lulu Cheng
Ning Wang
Corporate Partners Program

The Corporate Partners program involves the following partners:

American Credit Acceptance
Capital One
DuPont
Eastman Chemical Company
Google
Eli Lilly
General Electric
Minitab
SAS
Service

Jeff Birch

- Chair, Teaching Evaluation Committee, 2000-present
- Chair, Graduate Committee, 2001-present
- Chair, Personnel Committee, 2013-2014
- Chair, Search Committee (spatial-temporal position), 2013-2014
- Personnel Committee, 2009-present
- Director of Graduate Programs in Statistics, 2001-present
- Coordinator for STAT 3005-3006
- Faculty advisor, Mu Sigma Rho (National Statistics Honor Society), 1991-present

Xinwei Deng

- Member of colloquium committee: coordinate and assist organizer on the colloquium arrangement, Fall 2013.
- Search committee member (from Fall 2013) of CMDA: Virginia Tech Department of Statistics
- Master oral exam committee member for 5 statistics graduate students
- Session organizer for
  - INFORMS 2013: Invited Session “Data Fusion for Manufacturing Scale-up”
- Reviewer for
  - JASA (1 paper), Technometrics (2 papers), Statistics Sinica (2 papers), JMLR (1 paper), Biometrika (1 paper), JRSSA (1 paper), Bernoulli Journal (1 paper), IIE-Transaction (1 paper), JSPI (2 paper), American Statistician (1 paper), AISTAT 2014 (4 papers), Statistics and Its Interface (1 paper).

Pang Du

- Department Personnel Committee, Fall 2012 – Summer 2013
- Department Search Committee, Fall 2012 – Spring 2013
- Referee: Annals of the Institute of Statistical Mathematics (1 paper and 1 revision), Bioinformatics (1 paper), Biometrics (2 papers), Computational Statistics and Data Analysis (2 papers and 1 revision), Journal of Applied Statistics (1 paper), Journal of Multivariate Analysis (1 paper), Journal of Nonparametric Statistics (1 paper and 1 revision), Journal of the American Statistical Association (4 papers and 2 revisions), Statistics in Medicine (2 papers and 2 revisions).
Chris Franck

- Virginia Tech Carilion School of Medicine Curriculum Committee, Student Assessment subcommittee.
- During the summer months I ran LISA, which was a very enjoyable and productive experience.
- American Statistical Association

Feng Guo

- Vice-President, College of Science Faculty Associate (2013-2014)
- Department CMDA Hiring Committee (2013-2014)
- Department Spatial-Temporal Hiring Committee (2013-2014)
- Department of Statistics Computing Committee (2007 - present)
- Co-Chair, Data Analysis Committee. SAE Crash Data Collection and Analysis
- Steering committee member, Transportation Statistics Interest group of American Statistical Association.
- Member of the Transportation Research Board Committee on Statistical Methods, (ABJ80)
- Member of the Transportation Research Board Committee on Safety Data, Analysis, and Evaluation (ANB20)
- Member of the Transportation Research Board Subcommittee on Traffic Surrogate Measures
- Chair of Invited Penal Discussion on Transportation Statistics and Data Needs JSM 2013
- Reviewer for
  - *Journal of Transportation Research Record*
  - *Traffic Injury and Prevention*
  - *Accident Analysis and Prevention*
  - *Journal of Transportation Engineering*
  - *Transportmetrica*
  - *Journal of Adolescent Health*
  - Research proposal reviewers for 2013 research solicitation, The National Center for Transportation Systems Productivity and Management (NCTSPM), a U.S. DOT University Transportation Center

Ina Hoeschele

- Steering and admissions committees for GBCB PhD program
- LISA consulting (2 clients, VetMed)
- Associate Editor (AE) for Genetics, AE for Frontiers in Systems Biology, AE for BMC Genetics
- Jeffress Trust Awards Program in Interdisciplinary Research 2013 & 2014 Grant Cycle Review Committee member
• Evaluator of the candidates for a full Professorship at the University of Helsinki (Finland, November 2013)
• Evaluator of tenure application at Wake Forest Medical School, Winston-Salem NC

Yili Hong

• Seminar Committee chair, spring 2013
• Qualifying Exam Committee member, spring 2013, fall 2013
• College Cluster Strategy Committee member, spring 2013
• Serves as an AE of Technometrics
• Editorial support to ISBIS News and contact for ISI monthly News

Leanna House

• Department
  o Fall 2013, Co-organized student talks for Corporate Partners Conference
  o Dec 2013, Gave the commencement speech for Department of Statistics
  o Spring 2013, Meet with potential graduate students
  o Aug. 2012-Present, Virginia Tech Undergraduate advisor in Statistics
  o Aug. 2012-Present, Head of Virginia Tech, Statistics Undergraduate Committee
  o Aug. 2010-Present, Member of Statistics Undergraduate Committee
  o Aug. 2009-Present, Coordinator for Women in Statistics Events at Virginia Tech
• Outside Department
  o Aug. 2012-Present, Faculty advisor for StREAM REU
• College
  o Aug. 2012-Present, Member of Virginia Tech, College of Science Curriculum Committee
  o Spring 2013 – Represented Statistics at CMDA-candidate lunches
• University
  o Aug 2013-Present, member of University Council
  o Aug 2012 – Present, Curie mentor
• Professional
• Reviewed papers in Journal of Statistics Education and VAST.
• Asked to attend a planning meeting for education initiatives within Visual Analytics for Command, Control, Interoperability Environments (VACCINE) www.purdue.edu/discoverypark/vaccine/
• Invited to serve on program committee for 2014 IEEE Visual Analytics Science and Technology Conference (VAST 2014)

Public
• In our proposal to NSF-DUE, we plan to develop a workshop for middle school students.

Inyoung Kim

• Chair of Qualifying exam committee
• Search committee member
• Co-organizer in Mu Sigma Rho Student Research and Collaboration Seminar in Corporate Partner Conference 2013
• Master oral exam committee member for 4 students (Jian Huang, William Tyler Bradley, Diana Pragel, Jennifer Cheng) in Dept. of Statistics
• Ph.D. committee member for 4 students (Ning Wang, Yajuan Chen, Zhibing Xu, Youjia Fang and Yuan yuan Duan) in Dept. of Statistics, 1 student (Ram Thapa) in Dept. of Forest Resources and Environmental Conservation, 1 student (Sunha Kim) in Dept. of Education, and 2 students (Jaesung Jung and Byung O Kang) in Dept. of Electrical and Computer Engineering
• Program committee Bioinformatics (2011-present) (“International conference on Bioinformatics Models, Methods and Algorithms”)
• Program organizer of Poster section in Korean-American Scientists and Engineers Association Virginia Regional Conference 2013
• Associate Editor (2012-present) for Communications for Statistical Applications and Methods
• Referees for Annals of Applied Statistics (2) and Statistics in Bioscience (1)
• Qualifying exam committee member

Scotland Leman

• 104 LISA Collaboration and Consulting Hours (Spring 53+Fall 51)
• Computational Sciences program developer (2013) - In the process of helping with the organization of an undergraduate computational sciences program within the College of Science. The goal is to integrate various computational methodologies (computational statistics, applied mathematics, computational algorithms, modeling) in order to design a cohesive computational program which focuses on scientific applications and computational strategies for investigating such problems.
Discover Analytics Center (DAC) member (2011-2013) Currently I serve as the statistical coordinator within the DAC, which is a joint analytical venture between the Departments of Statistics, Computer Science, Mathematics, and the Institute for Critical Technology and Applied Sciences. The DAC serves the greater Virginia Tech community in providing analytical services on a wide range of applications.


Associate Editor: *Decision Analytics* (2012-Current) – *Decision Analytics* is a peer-reviewed open access journal published under the brand SpringerOpen.

**Marlow Lemons**

- *Statistics Club Advisor* - Responsible for providing consultation on the projects and programs offered through the Statistics Club
- *College of Science Diversity Committee* - Representative for the Department of Statistics
- *University Library Committee* - Representative for the College of Science, Chair of the University Library Committee
- *University Undergraduate Honor Court* - Faculty panel member
- *University Undergraduate Honor Court Review Committee* - Faculty panel member
- *Saturday Science Fair Prep Program* - Founded in Fall2012 as an outreach program for high school students underrepresented in science and mathematics fields. Program gives high school students in the region the opportunity to network with faculty members, graduate students, and undergraduates on research.
- *Virginia Science and Engineering Fair Judge*: Head judge for the mathematics and behavioral sciences categories for the fair

**Jie Li**

- Meet with seminar speaker and interview candidates
- Referee for *Journal of Experimental and Theoretical Artificial Intelligence* and *GIScience & Remote Sensing*
- Work with Dr. Amy Smith on Tazewell County Cancer Project ([www.wvva.com/story/24637028/2014/02/05/cancer-study-launched-intazewell-county](http://www.wvva.com/story/24637028/2014/02/05/cancer-study-launched-intazewell-county))

**Jane Robertson**

- Committee Member, Bayesian Visual Analytics (BaVA) Working Group, (January 2013 - Present). I collaborate with Leanna House, Scotland Leman, and other faculty and graduate students on courses related to BaVA.
• Committee Member, Statistics Undergraduate Committee, (August 10, 2012 - Present). I serve on the undergraduate committee, helping to ensure that all issues affecting statistics undergraduates are taken care of.

• Committee Member, Women in Statistics, (August 10, 2012 - Present). I serve on the Women in Statistics committee, which explores issues related to females in the field of statistics.

• Faculty Mentor, Fall Open House for Potential Incoming Students, (November 10, 2013). Met with potential incoming students and their parents to answer questions about VT, the College of Science, and the Statistics Department. Also tried to encourage students to come to VT.

• Faculty Mentor, Freshman Orientation, (July 10, 2013). Counseled incoming freshman students regarding course of study and helped them get familiar with the statistics department.

• Course/Program Development, First Year Experience Course, (September 10, 2012 - May 20, 2013). I led a committee to develop our First Year Experience course. These activities included curriculum development, grant writing, engagement with various departments across campus, and soliciting speakers to visit with our students.

• Faculty Sponsor, Roc Solid Foundation at VT, (November 20, 2013 - Present). I serve as the faculty sponsor for the Roc Solid Foundation at VT. This is a student foundation that raises money for and builds play sets for children with cancer.

• Committee Member, First Year Experience Coordinator Search Committee, (September 2013 - November 2013). Served on the committee to hire a new First Year Experience Coordinator. Reviewed application materials, met with candidates, and worked with other committee members to choose a coordinator.

• Faculty, Summer Academy, (March 2013 - August 2013). I served as Summer Academy faculty during Summer II 2013. Beyond teaching a course, I met with students outside of class, helped them get adjusted to college, and took field trips with them.

• Committee Member, University Council, (August 10, 2012 - July 2013). I represented the College of Science on University Council.


Anne Ryan

• Worked as a faculty collaborator for LISA (Laboratory for Interdisciplinary Statistical Analysis. During 2012, I worked on a total of 7 projects for 240.75 hours. One of the projects included collaboration with Martha Anderson, a Professor at the Jefferson College of Health Sciences and Pamela Vandevord, an Associate Professor at the School for Biomedical Engineering and Sciences at Virginia Tech.
• Worked as a faculty collaborator for LISA (Laboratory for Interdisciplinary Statistical Analysis. During 2013, I worked a total of 110 hours. One of the projects included collaboration with Martha Anderson, a Professor at the Jefferson College of Health Sciences and Pamela Vandevord, an Associate Professor at the School for Biomedical Engineering and Sciences at Virginia Tech.
• Directed video coaching and feedback sessions for LISA
• Referee for International Journal of Production Economics
• Member of the American Society for Quality (ASQ). In 2013, I accepted a leadership role of being the short-course chair for the Fall Technical Conference (FTC) representing the Statistics Division. I coordinated 4 short courses at the FTC.

Eric Smith

• Associate editor – Environmental Management
• Reviewed Statistics Department at BYU and West Virginia
• Reviewer for two Fish and Wildlife projects related to the BP oil spill
• EPA SAB panel for Hydraulic Fracturing

George Terrell

• Active member of the Statistics Department Undergraduate Committee
• Evaluated transfer credit for undergraduate statistics courses (1 hour per week)

Eric Vance

• Commission on Faculty Affairs (developing policies governing tenure-track faculty members)
• Faculty Senate
• Meeting with visitors from the University of Juba in South Sudan
• GSA Graduate Research Symposium Judge, March 27, 2013
• Elected as chair-elect (2015 chair) of the ASA Section on Statistical Consulting (CNSL)
• Active member of the ASA Committee on Applied Statisticians
• ASA Council of Sections representative for CNSL
• International Year of Statistics contact representative for CNSL, LISA, and the Department of Statistics
• AAAS On-call Scientists
• Vice-chair of Statistics Without Borders
• Sigma Xi
• Conference on Statistical Practice (CSP) Steering Committee
• Faculty advisor for the international StatCom network
• Reviewer for Statistical Methodology
• AAAS Section U
• Reviewer for CSP Posters
• Reviewer for CIDER Conference on Higher Education Pedagogy
• I am the faculty advisor for StatCom, a student-run group that provides pro-bono statistical collaboration for local non-profits and non-Virginia Tech researchers working on problems of interest to the local community. Also, the LISA 2020 program has significant teaching, research, and outreach components

Geoff Vining

• College of Science Promotion and Tenure Committee
• Department Corporate Partners Committee
• Chair of the ASQ Technical Communities Council
• Member, ASQ Executive Council (The Executive Council deals with societal issues in between board meetings)
• Member of the ASQ Board of Directors Representing the Technical Communities (2012-2015)
• Member, ASQ Publications Management Board
• Co-Founder, Stu Hunter Research Conference
• Co-Conference Chair, 2013 Stu Hunter Research Conference
• Member, ASQ Shewhart Medal Committee
• Member, William G. Hunter Award Committee, ASQ Statistics Division

Bill Woodall

• Departmental Personnel Committee (Chair in Spring 2013 Semester; Member in Fall 2013)
• Departmental Graduate Committee
• Departmental Teaching Evaluation Committee
• Departmental Qualifying Exam Committee
• Member of the Editorial Review Boards of the *Journal of Quality Technology*, *Quality and Reliability Engineering International*, *Technometrics*, and *Quality Engineering*
• Member of the American Society of Quality Deming Medal Committee
• Member of Advisory Board of Quality, Statistics, and Reliability Section of INFORMS
• Reviewer for 24 manuscripts: Frontiers in Statistical Quality Control (2); Quality Engineering (3); Quality and Reliability Engineering International (3); Journal of Quality Technology (11), Technometrics (2); Communications in Statistics – Simulation and Computation; Communications in Statistics– Theory and Methods; Applied Stochastic Models for Business and Industry
• Board of Directors for American Society for Quality Roanoke/Radford Section 1107: Student Liaison
• Outside Reviewer: Promotions to Associate Professor at King Fahd University of Petroleum and Minerals (Saudi Arabia) and Memorial University of Newfoundland (Canada)
• Successfully nominated Douglas C. Montgomery of Arizona State University for Honorary Member of the American Society for Quality, the organization’s highest honor.
• Member of Scientific Program Committee: Stu Hunter Research Conference to be held in Phoenix in March 2014 and XIth International Workshop on Intelligent Statistical Quality Control held in Sydney, Australia in August 2013.
• Organized an invited session on innovation and statistics at the Quality and Productivity Research Conference, GE Global Research, Niskayuna, NY, June 2013.

Xiaowei Wu

• Member of the Department of Statistics bioinformatics committee
• Referee for BMC Genetics

Hongxiao Zhu

• Served in the statistics department colloquium committee. Took major responsibility for departmental colloquium organization for the year of 2013.
• Refereed 8 papers for the following journals in 2013: JASA (twice), JRSS-B, EJS, BMC Genetics, CSDA, Biometrics, ICSA 2013 Symposium Volume
Honors and awards

Fellows of the American Statistical Association

Active Faculty

Marion Reynolds
Eric Smith
Geoff Vining
Bill Woodall

Emeritus Faculty

Jesse Arnold
I.J. Good
Klaus Hinkelmann
Dick Krutchkoff
Ray Myers

Fellows of the American Society for Quality

Geoff Vining
Bill Woodall

Elected Members, International Statistics Institute

Pang Du
Marion Reynolds
Eric Smith
Geoff Vining
Bill Woodall

Other awards
1. **C.T. Franck** was named Associate Director of Analytics in the Virginia Center for Housing Research. The title comes with an annually renewable 10% salary coverage.

2. **M. Lemons** received the Diversity & Inclusion Pedagogy Award, 2013.

3. **M. Lemons** received the Carroll B. Shannon Excellence in Teaching Award, 2013.

4. **M. Lemons** received the College of Science Diversity Committee Award, 2013.

5. **G.G. Vining** received a 2013 NESC (NASA Engineering Safety Council) Engineering Excellence Award for collaborations with the NESC.


**Diversity activities (5 faculty reporting)**

- One faculty member is a mentor for the Curie program and StREAM REU. The REU in particular purposely recruits minorities.
- One faculty member organizes breakfasts or lunches for women in statistics at VT. We discuss specific issues that women in the department face or may face and provide information on scholarships and/or research/career resources available to women. Men are not excluded and welcome to attend, if they want.
- One faculty member received the Diversity & Inclusion Pedagogy Award, 2013.
- One faculty member received the College of Science Diversity Committee Award, 2013.
- One faculty member serves on the College of Science Diversity Committee- Recruiting undergraduate and graduates students to Virginia Tech to pursue undergraduate studies in our department by visiting predominantly minority universities.
- One faculty member hosted the Second Annual Suitland Children's Chess Invitational- Founder and Tournament Director, offered in conjunction with the Statistics Club and the U.S. Census Bureau to increase the awareness and interest of chess in an urban, low-income community.
- One faculty member supports diversity initiatives through his attendance at myriad and various events such as the Roanoke Blacksburg Technology Council Tech and Toast “Core Values - Defining, Integrating & Managing Gaps” talk by Richard Hammer, astronaut Edgar Mitchell’s talk “My trip to the moon”, the entire VT Engage speaker series (including as a speaker), and the Entering Mentoring Workshop in Mentoring Undergraduate Students in STEM-Related Research.
• One faculty member leads diversity related initiatives through the LISA 2020 program, the mentoring programs he has developed for the ASA Committee on Applied Statisticians and the Conference on Statistical Practice, and his recruiting efforts for the Department of Statistics.
• One faculty member hosted two international visiting scholars to conduct research under his supervision.
• One faculty member has been collaborating on research projects with a number of women this past year.