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PREFACE

Since 1974 the Statistics Program has provided the University administration an annual report summarizing its activities. The department is currently in its fifteenth academic year of operation, having been formed in July, 1985, from the program that had developed within the Mathematics and Statistics Department during 1971-1985. In this Annual Report of Activities for 1999, the department is pleased to provide highlights of its faculty and staff, students, curriculum changes, course offerings, graduates, scholarly and professional activities, and service activities.

This has been a very exciting and successful year! Several examples of some of the significant events of 1999 are: A self-study and an external review of the department was conducted in the spring. This review was quite complimentary of the quality of our programs, faculty, staff, and students. Among other items, the external review team recommended that the department continue to expand its curriculum and faculty. In particular, it was recommended to hire a full-time instructor (Tammiee Dickeon was hired for 1999-2000 in August) and a senior faculty member. Recruiting for the senior faculty position for next academic year, 2000-2001, is a high priority and is currently underway. Expansion of the degree programs is also being undertaken. A new Certificate of Graduate Study in Applied Statistics was proposed and approved. Core courses for the M.S. degree and the Master of Industrial Statistics degree began to be offered via Distance Education. Research activities are at full throttle, external funding is continuing at a high level, and innovations/improvements in teaching are continuing to be introduced each year. The faculty members are increasingly being recognized nationally and internationally, which is evidenced by their funded research projects, invitations to present talks, and selection for professional awards--two have been elected in recent years to membership in the International Statistical Institute, four are Fellows of the American Statistical Association, one is a Fellow of the Institute of Mathematical Statistics, and other awards for recognition at the local and national levels are being obtained.

FACULTY AND STAFF
(Effective Fall 1999)

Professors:
Donald G. Edwards (Ph.D. 1981, Ohio State University)
Director of Graduate Studies, Assistant Chair
James D. Lynch, (Ph.D. 1974, Florida State University)
Director of RQS Center
William J. Padgett, (Ph.D. 1971, Virginia Polytechnic Institute and State University)
Chair, Carolina Professor
Walter W. Piegorsch, (Ph.D. 1984, Cornell University)
Director of Undergraduate Studies
John D. Spurrier, (Ph.D. 1974, University of Missouri)

Associate Professors:
John M. Grego (Ph.D. 1989, Pennsylvania State University)
Director of Statistical Laboratory
Lori A. Thombs (Ph.D. 1985, Southern Methodist University)

Assistant Professors:
Brian Habing (Ph.D. 1998, University of Illinois at Urbana-Champaign)
R. Todd Ogden (Ph.D. 1994, Texas A&M University)
R. Webster West (Ph.D. 1994, Rice University)

Instructor:
Tammiee S. Dickenson (M.S. 1996, M.Math. 1995, University of South Carolina)

Emeritus Professor:
Stephen D. Durham, (Ph.D. 1969, University of California, Davis)

Adjunct Faculty:
J. Wanzer Drane (Professor, Epidemiology and Biostatistics)
Huynh Huynh (Professor, Educational Psychology)

Statistical Laboratory:
W. Holmes Finch, Manager (M.Ed. 1990, University of South Carolina)
Computing Staff:
Minna Moore, Systems Administrator (with Mathematics)
Wei Pan, Computer System Graduate Assistant

Office Staff:
Anita Wood, Administrative Specialist/Student Services Coordinator
Debra Williams, Business and Office Manager
Willia Robinson and Olivia McElveen, Student Assistants

Visiting Faculty:
Honggie Kim began a one-year sabbatical as a visiting scholar in the Department in December. Dr. Kim received his M.S. degree at USC in 1984 and went on to obtain a Ph.D. in Statistics at the University of Wisconsin. He is an Associate Professor in Statistics at Chungnam National University, Korea.

Lorenzo Pascual visited in September from Universidad de San Carlos III, Spain.

STUDENTS

Graduate Students for Spring Semester, 1999

<table>
<thead>
<tr>
<th>Assistants</th>
<th>Nonassistants</th>
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<tbody>
<tr>
<td>Ph.D. Students:</td>
<td></td>
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<tr>
<td>Obaid Al-Saidy</td>
<td>Kirby Jackson</td>
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<tr>
<td>James Gleaton</td>
<td></td>
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<tr>
<td>Daniela Nitcheva</td>
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<td>Wei Pan</td>
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<tr>
<td>Susan Simmons</td>
<td></td>
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<tr>
<td>Eleanne Solorzano</td>
<td></td>
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<tr>
<td>James Surles</td>
<td></td>
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<tr>
<td>M.S. Students:</td>
<td></td>
</tr>
<tr>
<td>Kim Adams</td>
<td>Eva Czabarka</td>
</tr>
<tr>
<td>Will Bradley</td>
<td></td>
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<tr>
<td>Sarah Crawford</td>
<td></td>
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<tr>
<td>Michael Dowd</td>
<td></td>
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<tr>
<td>Grimaldo Febres</td>
<td></td>
</tr>
<tr>
<td>Weiwen Li</td>
<td></td>
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<tr>
<td>Carl Miller</td>
<td></td>
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<tr>
<td>Michele Nichols</td>
<td></td>
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<tr>
<td>Eddie Robinson</td>
<td></td>
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<tr>
<td>Kelly Scrutchfield</td>
<td></td>
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<tr>
<td>Brian Shaffer</td>
<td></td>
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<tr>
<td>Wilma Sims</td>
<td></td>
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<tr>
<td>Craig Sipala</td>
<td></td>
</tr>
<tr>
<td>Craig Wheatley</td>
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<tr>
<td>M.I.S. Students:</td>
<td></td>
</tr>
<tr>
<td>Denice Osborne</td>
<td>Mary Alice Barth</td>
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<tr>
<td>Lisa Branson</td>
<td></td>
</tr>
<tr>
<td>Kenny Brown</td>
<td></td>
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<tr>
<td>Stephen Colohan</td>
<td></td>
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<tr>
<td>Devaris Davis</td>
<td></td>
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<tr>
<td>Pearse Gaffney</td>
<td></td>
</tr>
<tr>
<td>Michael Vitti</td>
<td></td>
</tr>
</tbody>
</table>

Graduate Students for Fall Semester, 1999

<table>
<thead>
<tr>
<th>Assistants</th>
<th>Nonassistants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph.D. Students:</td>
<td></td>
</tr>
<tr>
<td>Obaid Al-Saidy</td>
<td>Kirby Jackson</td>
</tr>
<tr>
<td>Parul Bhargava</td>
<td></td>
</tr>
<tr>
<td>James Gleaton</td>
<td></td>
</tr>
<tr>
<td>David Hare</td>
<td></td>
</tr>
</tbody>
</table>
Brandon Julio
Carl Miller
Daniela Nitcheva
Wei Pan
Tiantian Qin
Susan Simmons
Russell Stocker
Phil Yates

M.S. Students:
Ryan Fescina
Cecilia Siong Huang
Bonnie Kegan
Weiwen Li
Megan Meece
Michele Nichols
Eddie Robinson
Brian Shaffer
Wilma Sims
Craig Sipala

M.I.S. Students:
Lisa Branson
Kenny Brown
Steve Colohan
James Daniels
Devaris Davis
Peare Gaffney
Michael Vitti

Graduate Student Awards:
1999 Outstanding Graduate Student: James Surles
1999 Outstanding First Year Graduate Student: Daniela Nitcheva
1999 Outstanding Graduate Assistants:
1999 Graduate School-Outstanding Graduate Student Award: Obaid Al-Saidy, Michele Nichols, Susan Simmons, Kelly Scritchfield
1999 Sigma Xi Research Award: James Surles
1999 Graduate School Dissertation Fellowships: Eleanne Solorzano, James Surles
1999-2000 Padgett Graduate Fellowship: Megan Meece
1999-2000 USC Graduate School Fellowships: Brandon Julio, Phil Yates
1999-2000 College of Science and Mathematics Fellows: Ryan Fescina, Megan Meece, Tiantian Qin

Undergraduate Students and Awards

The number of active undergraduate majors remained constant at about 25. Substantial efforts are underway to recruit statistics majors from the state's high schools and junior colleges.
1999 Mu Sigma Rho Award: Wilson Shealy
1999 Stephen D. Durham Award: Megan Meece
1999-2000 College of Science and Mathematics Scholarship: Sharon Dziuba

GRADUATES

Doctor of Philosophy:
Eleanne Solorzano
Simultaneous Comparison With More Than One Control. (Spurrier)
Assistant Professor, Department of Decision Science, University of New Hampshire

James Surles
The Scaled Burr Type of X Distribution: Inference and the Stress-Strength Problem (Padgett), Assistant Professor, Department of Mathematics and Statistics, Texas Tech University
Master of Science:

Kim Adams  Normal Likelihood Methods for Quantitative Risk Assessment with Non-Normal Data (West), SC Department of Health and Environmental Control, Columbia

Will Bradley  Interactive Java Tools for Exploring High Dimensional Data (West), Technology Education College, Columbus, Ohio

Sarah Crawford  The Importance of Oysters in Tidal Creeks: Design and Analysis of An Ecological Experiment (Edwards), South Carolina Budget and Control Board, Columbia

Michael Dowd  A Geometric Result Applied to Improve Estimates of Critical Points for Multiple Comparison (Edwards),

Kelly Scritchfield  Asymmetric Bowden Type Confidence Bands for Linear Regression over Intervals. (Piegorsch), Doctoral program in Education, Ohio State University

Craig Wheatley  Repeated Measurement Extensions of the RASCH Model (Grego), Midlands Technical College, Columbia, SC

Master of Industrial Statistics:

Mary Alice Barth  Project Director: West, Blue Cross and Blue Shield of SC

Devaris Davis  Project Director: Lynch, Intertape Polymer Group, Columbia, SC

Bachelor of Science:

Megan Meece (Graduate study in Statistics, USC), Joe Morris (Xionics Document Technologies, Burlington, MA), Wilson Shealy (Graduate study in Statistics, Virginia Tech), Audrey Dixon.

FACULTY HONORS AND AWARDS

Don Edwards  Distinguished Achievement Medal, ASA Section on Statistics and the Environment

Huynh Huynh (Adjunct)  USC Educational Foundation Research Award in the Professional Schools

Joe Padgett  Carolina Trustees Professorship Award

Reappointed as a Carolina Distinguished Professor

COURSES AND CURRICULUM

All courses continued to have good enrollments during the year. The courses, enrollments, and instructors were:

Spring Semester, 1999:

| Course         | Enrollment | Instructors
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>STAT 110</td>
<td>324</td>
<td>Gleanon, West, Robinson, Solorzano, Simmons, Nichols</td>
</tr>
<tr>
<td>STAT 201</td>
<td>255</td>
<td>Finch, Adams, Shaffer, Scritchfield, Nitcheva, Bradley, Crawford, Miller, Wheatley, Lasecki</td>
</tr>
<tr>
<td>SCCC 312A</td>
<td>17</td>
<td>Thombs</td>
</tr>
<tr>
<td>STAT 506</td>
<td>10</td>
<td>Grego</td>
</tr>
<tr>
<td>STAT 509</td>
<td>138</td>
<td>Thombs, Surles, Lynch, Baker</td>
</tr>
<tr>
<td>STAT/MATH 511</td>
<td>12</td>
<td>Sumner</td>
</tr>
<tr>
<td>STAT 512</td>
<td>22</td>
<td>Spurrier</td>
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<tr>
<td>STAT 515</td>
<td>25</td>
<td>Habling</td>
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<tr>
<td>STAT 516</td>
<td>28</td>
<td>Habling</td>
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<tr>
<td>STAT 519</td>
<td>17</td>
<td>Spurrier</td>
</tr>
<tr>
<td>STAT/MGSC 525</td>
<td>29</td>
<td>Whitcomb</td>
</tr>
</tbody>
</table>
New Courses/Programs:
A new graduate course, STAT 775, Generalized Linear Models, is cross-listed with the Biostatistics program (BIOS 815) and was taught in the Spring 1999 for the first time. A new program, Certificate of Graduate Study in Applied Statistics, was approved in Fall 1999 and is being offered immediately. It requires eighteen hours of approved graduate courses. In the fall semester, STAT 704 was offered for the first time as a distance education course via TV. Another new course, STAT 778, Item Response Theory, is being proposed and will be cross-listed with the Department of Educational Psychology as EDRM 828.

AP Teacher Training Institute:
For the second time, Lori A. Thombs, with Todd Ogden, offered a training course to middle and high school teachers for teaching the Advanced Placement course on Statistics during July 6-23, 1999. Nineteen teachers enrolled for the course, supported by another grant from the South Carolina Department of Education. The course qualified these teachers for teaching the AP Statistics course in high schools in South Carolina. Sixteen were enrolled in the Institute in the
summer of 1998. This training is very important since more than 25,000 high school students nationwide took the AP Statistics Exam in 1999.

SCHOLARLY ACTIVITIES

Publications

Books/Other:


R. T. Ogden and R. W. West programmed all the interactive demonstrations in this electronic textbook and provided the analysis software: Utts, J. M., Editor-in-chief, Visualizing Statistics, Cybergnotics, Menlo Park, CA.

Papers In Print:


**Papers In Press:**


J. M. Grego, Trevor Craney and James F. Lewis, "Quantile Plots for Mean Effects in the Presence of Variance Effects for Fractional Factorial Designs,” *Communications in Statistics*.


**J.D. Lynch**, "On Conditions For Mixtures Of Increasing Failure Rate Distributions To Have An Increasing Failure Rate," *Probability in the Engineering and Informational Sciences*.


J. G. Surles and **W. J. Padgett**, "Inference for Reliability and Stress-Strength for a Scaled Burr Type X Distribution," *Lifetime Data Analysis*.


**Papers Submitted:**


S. Gulati, J. W. Kuhn and W. J. Padgett, "A New Reduced-Bias Kernel Density Estimator.”


A. Onar and W. J. Padgett, "Inverse Gaussian Accelerated Test Models Based on Cumulative Damage.”


W.W. Piegorsch and D. Edwards, "What Shall We Teach in Environmental Statistics?"

W.W. Piegorsch and K.A. Richwine, "Large-Sample Pairwise Comparisons Among Multinomial Proportions with an Application to Analysis of Mutant Spectra.”


W. Tu and W.W. Piegorsch, "Empirical Bayes Analysis for a Hierarchical Poisson Generalized Linear Model.”

J. D. Spurrier, “A Capstone Course for Undergraduate Statistics Majors”.

E. Solorzano and J. D. Spurrier, “Nonparametric Multiple Comparisons with More Than One Control.”

E. Solorzano and J. D. Spurrier, “Comparing More Than One Treatment to More Than One Control in Incomplete Blocks.”

X.-B. Li, J. M. Donohue, J. R. Sweigert, and L. A. Thombs, "Linear Discriminant Function Based Multivariate Decision Trees.”

R. W. West, "Interactive Java Tools for Exploring High Dimensional Data.”
R. W. West, "The Data Image: A Tool for High Dimensional Exploratory Data Analysis."

**Papers Presented at Meetings**

*Invited:*

**B. Habing,** "Directed Item-Cluster Assessment" (with Sarah Hartz) and "Optimization of Kernel Smoothing for IRF Estimation," both at the Annual Meeting of the National Council on Measurement in Education, Montreal, Canada, April 20-22.


**R. T. Ogden,** "Data Analysis with Wavelets" and "Wavelets: They Have Their Ups and Downs," 1999 Meeting of the N. C. Chapter of the American Statistical Association, Chapel Hill.


**W. J. Padgett,** "Statistics: Good and Bad Uses," Mathematical Association of America, North Florida Section, Jacksonville, January 30.


**W.W. Piegorsch,** Invited roundtable leader, Biometric Society Eastern North American Regional Meeting, Atlanta, Georgia, March 29: "Constructing/Maintaining a Course in Bioenvironmental and Ecological Statistics."


**R. W. West,** "Changepoint Alternatives to the NOAEL," Annual Joint Statistical Meetings, Baltimore, MD, August 8-12.
Contributed:


J. M. Grego, “Modeling Host Association for Correlated Data,” ENAR Spring Meeting, Atlanta, GA, March.


R. T. Ogden, “On Local Linear Regression for Correlated Data,” Joint Statistical Meetings, Baltimore, Maryland, August 8-12, poster session.


W. J. Padgett, “Some Bayesian Procedures with the Accelerated Inverse Gaussian Model,” Annual Joint Statistical Meetings, Baltimore, Maryland, August 8-12, poster session with A. Onar.


Conferences and Meetings Attended


Annual Business Meeting of the Southern Regional Council on Statistics, October 1-2, 1999, College Station, TX.

Padgett

Eastern North American Region of the Biometric Society, Atlanta, Georgia, March.

Grego, Piegorsch


Edwards, Grego, Habing, Lynch, Ogden, Padgett, Piegorsch, Spurrier, Thombs, West

South Carolina Chapter of the American Statistical Association Meeting, Charleston:

South Carolina AMP Annual Retreat, July.

PER Review for South Carolina AMP, November.

Grego


Ogden, West

North Carolina Chapter of the American Statistical Association Annual Meeting, Chapel Hill.


Ogden


Piegorsch

11th European Meeting of the Psychometric Society, Lueneburg, Germany, July 19-22.

Annual Meeting of the National Council on Measurement in Education, Montreal, Canada, April 20-22.

Habing

Joint Statistical Meetings, Baltimore, MD, August 8-12, 1999.

Dickenson, Edwards, Grego, Lynch, Ogden, Padgett, Piegorsch, Spurrier, Thombs, West
Ogden, Thombs, West

Sixth International Conference on Statistics, Combinatorics, and Related Areas, Mobile, AL, December 1999.
Ogden, Spurrier, Thombs.

Thombs

Conferences/Sessions Organized/Chaired

Edwards
Buzzmeister, Mu Sigma Rho College Bowl (two sessions at the Joint Statistical Meetings, Baltimore, August)
Organized invited paper session on Multiple Comparisons, Ohio State University Statistics Department Silver Anniversary conference, October.
Chaired session on Ecological Statistics, Joint Statistical meetings, Baltimore, MD, August.

Habing

Padgett
SRCOS Program Chair, SRCOS/ASA Summer Research Conference in Statistics, Williamsburg, VA, for 2000.

Piegorsch
Moderated Special Presentation Session, “College Bowl Quarterfinals” at Joint Statistical Meetings, Baltimore, Maryland, August 10, 1999.
Invited Roundtable Leader, Biometric Society Eastern North American Region Meeting, Atlanta, GA, March.

Spurrier

West
Organizer, Biometrics session, Joint Statistical Meetings, Baltimore, Maryland, August
Roundtable leader, Statistical computing section, Joint Statistical Meetings, Baltimore, Maryland, August.
Session Chair, HIV session, Joint Statistical Meetings, Baltimore, Maryland, August.
Session Chair, New Researcher’s Conference, John Hopkins University, August.
Organizer, Web-based computing session, SRCOS/ASA Summer Research Conference in Statistics, Mountain View, Arkansas, June.
Organizer, Annual meeting of SCASA, Columbia, South Carolina, April.

Outside Research Seminars and Colloquia Presented

Edwards
S. C. Commission on Higher Education

Lynch
University of North Carolina at Chapel Hill

Ogden
Columbia University
Mississippi State University

Padgett
University of North Florida
University of Central Florida
53rd Joint Colloquium of Clemson University/University of Georgia
Thombs University San Carlos II de Madrid, Spain.
Universidad Autonoma de Madrid, Spain.

**Talks for General Audiences**

**Edwards**
USC Stat Club and Mu Sigma Rho, "How to Find a Job/Graduate School in Statistics."

**Grego**
Columbia Audubon Society, October.
South Carolina Department of Natural Resources Board, November.
League of Women Voters, Columbia, November.

**Habing**

**Ogden**

**Thombs**
AP Statistics Class at Dreher High School, Columbia, SC, December.

**West**

**Statistics Department Colloquium Series**

**Spring 1999**
- Huynh Huynh
  University of South Carolina
- Jian-Jian Ren
  Tulane University, New Orleans
- Stephen Morgan
  USC , Dept. of Chemistry
- Honggie Kim
  Chon Buk National U., Korea, Visiting Dept. of Statistics, USC
- Webster West, Todd Ogden
  USC Statistics
- Dan Naiman
  John Hopkins University, Baltimore,MD
- Ted Moore
  USC Dept. of Finance
- Dale Zimmerman
  University of Iowa
- Emanuel Parzen
  Texas A&M University
- Brad Efron
  Stanford University

**Fall 1999**
- Jane Harvill
  Mississippi State University
- Lori Thombs
  USC Statistics
- Scott Grimshaw
  Brigham Young University
- Mary Meyer
  University of Georgia
- Brani Vidakovic
  Duke University
- John Spurrier
  USC Statistics

**Grants and Contracts in Effect**

The outside research/contract funding in effect during 1999 is listed below. The details of STATLAB funding are listed in its separate annual report.

<table>
<thead>
<tr>
<th>NAME</th>
<th>AGENCY</th>
<th>DATES IN EFFECT</th>
<th>AMOUNT</th>
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<tbody>
<tr>
<td>Don Edwards</td>
<td>NSF-CREEK</td>
<td>9-95 to 8-00</td>
<td>$15,000</td>
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<td>PI: R. Dame</td>
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<tr>
<td>Don Edwards</td>
<td>S.C. Dept. of Parks, Recreation and Tourism</td>
<td>8-99 to 12-99</td>
<td>8,840</td>
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<tr>
<td>Don Edwards, John Grego</td>
<td>S.C. DNR - NOAA</td>
<td>1-99 to 12-99</td>
<td>28,000</td>
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Don Edwards, John Spurrier
S.C. CHE  6-99 to 6-00  4,000

John Grego
NSF-SCAMP Evaluation  1-99 to 12-99  30,000

John Grego
James Lynch
SCANG/DoD  2-99 to 1-00  42,152

Brian Habing
USC R&PS  1-99 to 1-00  5,241

Joe Padgett, Jim Lynch
NSF  8-99 to 7-02  78,709

Walt Piegorsch, Web West
NIH-NCI  9-97 to 8-00  257,851

J. Spurrier, Lori Thombs
NSF-DUE  3-97 to 8-99  67,845

Lori Thombs
S.C. Dept. of Ed.  7-99 to 9-99  10,930
6-99  3,750

STATLAB:
John Grego, Holmes Finch
S.C. Bar Association  1-99 to 12-99  3,492
S.C Dept. of Natural Resources  12-99  5,522

Holmes Finch
Fisher Communications  10-99 to 5-00  16,497

Finch, Grego
Miscellaneous Sources  1-99 to 12-99  14,783

Total Outside Funding in Effect for 1999 = $592,612

Editorial Activities

Edwards
Associate Editor, Interstat
Associate Editor, Communications in Statistics

Grego
Associate Editor, Journal of Statistical Computation and Simulation

Habing
Associate Editor, Statistical Methodology, Journal of the First-Year Experience and Students in Transition

Ogden
Associate Editor, Communications in Statistics

Padgett
Associate Editor, Journal of Nonparametric Statistics
Associate Editor, Lifetime Data Analysis
Associate Editor, Journal of Applied Statistical Science
Editorial Advisory Board, Journal of Statistical Computation and Simulation

Piegorsch
Associate Editor, Environmental and Ecological Statistics
Associate Editor, Environmetrics
Associate Editor, Journal of the American Statistical Association
Associate Editor, Biometrics
Editorial Board Member, Environmental and Molecular Mutagenesis
Editorial Board Member, Mutation Research/Genetic Toxicology and Environmental Mutagenesis
Co-Editor-in-Chief, Encyclopedia of Environmetrics
Reviewing and Refereeing

79 manuscripts were refereed by faculty members for a variety of journals, including: *Biometrics; Bernoulli; Communications in Statistics; Statistics & Probability Letters; Journal of Statistical Education; Environmetrics; Journal of Applied Statistical Science; Computational Statistics and Data Analysis; IEEE Transactions on Reliability; Journal of Computational and Graphical Statistics; Journal of Nonparametric Statistics; Journal of Statistical Computation and Simulation; Journal of Statistical Planning and Inference; Journal of the American Statistical Association; Lifetime Data Analysis; Mutation Research; Technometrics; Journal of Statistical Software; International Journal of Forecasting; Environmental and Ecological Statistics; Atmospheric Environment; Journal of Composite Materials; International Journal of Reliability, Quality and Safety Engineering; Journal of Agricultural, Biological and Environmental Statistics; Psychometrika; Applied Psychological Measurement; Journal of Educational and Behavioral Statistics; and Journal of the First-Year Experience and Students in Transition.*

Book manuscripts were reviewed for Springer-Verlag, Freeman, and Addison-Wesley.

Faculty members also reviewed proposals for the National Science Foundation, National Institutes of Health, the U.S. Army Research Office, and the Environmental Protection Agency. These included service on review panels for the NSF/EPA Environmental Statistics Program and for the NIH Biostatistics/Statistics.

**OTHER SERVICE TO THE PROFESSION AND STATISTICAL SOCIETIES**

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edwards</td>
<td>Chair of the Statistical Ecology Section, Ecological Society of America&lt;br&gt;Region II Science and Engineering Fair Presenter of Statistics Award, Region II, SC&lt;br&gt;USC School of the Environment Associated Faculty</td>
</tr>
<tr>
<td>Grego</td>
<td>Science Fair Judge for Overall Statistics Award, Region II, SC</td>
</tr>
<tr>
<td>Habing</td>
<td>Science Fair Judge for Overall Statistics Award, Region II, SC</td>
</tr>
<tr>
<td>Lynch</td>
<td>Co-Director of Education, Columbia Section of ASQC</td>
</tr>
<tr>
<td>Ogden</td>
<td>South Carolina Chapter of the American Statistical Association, Council Representative&lt;br&gt;Science Fair Judge for Overall Statistics Award, Region II, SC</td>
</tr>
<tr>
<td>Padgett</td>
<td>USC Representative to the Southern Regional Council on Statistics</td>
</tr>
<tr>
<td>Piegorsch</td>
<td>Regional Committee, Biometric Society, ENAR&lt;br&gt;Website Oversight Committee, Biometric Society, ENAR&lt;br&gt;Joint Statistical Meetings ENAR Program Chair, Baltimore, MD&lt;br&gt;Vice Chair, American Statistical Association Council of Sections Governing Board&lt;br&gt;USC School of the Environment Associated Faculty</td>
</tr>
<tr>
<td>Spurrier</td>
<td>Council of Sections Representative and Fellows Nomination Committee, ASA&lt;br&gt;Section on Physical and Engineering Sciences&lt;br&gt;Chair, SPAIG Subcommittee on Academic Advisory Boards</td>
</tr>
<tr>
<td>Thombs</td>
<td>George W. Snedecor Award Committee of the American Statistical Association&lt;br&gt;Publications Chair of the ASA Section on Statistical Education</td>
</tr>
<tr>
<td>West</td>
<td>Advisory Board, Visual Numerics Incorporated&lt;br&gt;Vice President, South Carolina Chapter of the American Statistical Association</td>
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DEPARTMENTAL AND OTHER COMMITTEE SERVICE
(Effective Fall 1999)

Departmental:
Chairman Advisory Committee: Padgett (Chair), Edwards, Grego, Piegorsch, Spurrier
Undergraduate Advisory Committee: Piegorsch (Chair), Ogden, Thombs
Graduate Advisory Committee: Edwards (Chair), Spurrier, West
Faculty Search Committee: Lynch (Chair), Habing, Thombs
Colloquium Committee: Ogden (Chair), Padgett, Thombs
Library Representative: Piegorsch
Course Coordinators: West, Dickenson (STAT 110); Spurrier, Dickinson (STAT 201); Lynch (STAT 509)
Computer Committee: West (Chair), Habing, Ogden
Ethics Committee (SPAR): Grego (Chair), Habing, Thombs, Lynch (Alt.)
StatLab Advisory Committee: Grego (Chair), Edwards, Padgett, Spurrier, Finch
Tenure and Promotion: Lynch (Chair)
Nominations and Awards Committee: Edwards (Chair), Grego, Thombs
Self-Study Annual Assessment Committee: Padgett (Chair), Spurrier, Piegorsch, Edwards, Finch
Statistics Club Advisor: Grego
Space Utilization Committee: Lynch (Chair), Edwards, Padgett
Mu Sigma Rho Advisor: Edwards
Ad hoc Post-Tenure Review Committee: Padgett (Chair), Edwards, Grego, Piegorsch, Spurrier, Thombs
Peer Review of Teaching Committee: Thoms (Chair), Edwards, Lynch, Piegorsch

College of Science and Mathematics:
COSM Space Committee: Lynch
Computer Committee: West
Standards and Petitions Committee: Ogden
COSM Undeclared Majors Advisor: Piegorsch
Computer Chair Search Committee: Padgett (Chair, Summer/Fall)

University:
Amoco Award Committee: Thombs
Faculty Senate: Piegorsch
Honors College Policy Committee: Thombs
Graduate Council Curriculum Committee on Math, Science & Professional Prog.: Edwards (Chair)
Tenure & Promotion Committee: Spurrier
Graduate Council: Edwards
Curricula and Courses Committee: Edwards
Outstanding Graduate Teaching Assistant Committee: Thombs
School of the Environment Education Committee: Edwards
Faculty Advisory Board for SCAMP: Edwards
SCAMP Executive Committee: Grego
Salary Equity Committee: Spurrier
Retention Committee: Edwards
Graduate Student Day Advisory Committee: Edwards
Preston Residential College Faculty Assoc.: Thombs
Faculty Recruiting Committee:
Epidemiology and Biostatistics: Piegorsch
USC Statistics Club

The Statistics Club holds regular meetings which feature speakers invited from local businesses and agencies (often alumni of the Statistics Department). In the fall semester Don Edwards gave a presentation to club members on conducting a job or graduate school search. Also, Ms. Karin Thomas McCullough, a 1989 (B.S.) and 1991 (M.S.) graduate, of Albany International in St. Stephens, SC, talked to the Club about her work in quality assurance. The Club also organized factory tours and sponsored attendance to the SC Chapter of the American Statistical Association meetings in Charleston, Clemson and Columbia. This year the Club organized a Congaree Swamp hike and other outdoor activities. The Annual Spring Awards picnic was held at Old Woodlands Park in April.

Advisor: Dr. John Grego

Officers: Spring Semester
Kelly Scritchfield, President
Eddie Robinson, Vice-President
Joe Morris, Secretary
Michael Dowd, Treasurer

Fall Semester
Larry Long, President
Jamie Winterton, Vice-President
Michele Nichols, Secretary
Megan Meece, Treasurer

USC Chapter of Mu Sigma Rho

The South Carolina Beta Chapter of Mu Sigma Rho, the national statistics honor society, continues to be active with about twenty current members. The Mu Sigma Rho Chapter co-sponsors with the Statistics Club picnics, field trips, and trips to attend the S.C. ASA Chapter meetings and to national meetings--this year seven students were supported to attend the annual Joint Statistical Meetings in Baltimore, and two to attend the ENAR Meeting in Atlanta. It also co-sponsors guest lecturers and organizes the Department's display for the USC Showcase in April each year.

Advisor: Dr. Don Edwards

Officers: Spring Semester
James Surles, President
Will Bradley, Vice-President
Carl Miller, Treasurer
Susan Simmons, Secretary

Fall Semester
Craig Sipala, President
Carl Miller, Vice-President
Brian Gray, Treasurer
Daniela Nitcheva, Secretary

CONSULTING

Most of the formal statistical consulting with faculty, staff, students, local agencies and industry was performed through the Statistical Laboratory. A separate report on these activities is prepared each year by the Stat Lab Director and Manager. The Stat Lab participated in funded projects totalling over $140,000 this year. Some faculty members of the department have also done statistical consulting work for individuals in other departments within the University, including Honors College, geology, marine science, and the Baruch Institute. Outside consulting by faculty included Visual Numerics (Texas), Ohio Brass (Aiken, SC), SC Commission on Higher Education, SC Department of Natural Resources, and the National Center for Toxicological Research (Arkansas).
The formation of the "Center for Reliability and Quality Sciences" (RQS Center) was formally approved by the S.C. Commission on Higher Education in May, 1990, providing a focus for the activities that had been ongoing in that area for several years. The Center is totally self-supporting with Dr. James Lynch as the Director. The RQS Center is involved in offering short courses on statistical quality control issues and design of experiments, as well as offering consultations with business, government, and industry personnel. Short courses on "Managing for Excellence", "Basic Statistical Quality Control" and "Design of Experiments" are available for offering, both on the USC-Columbia campus and on site at any requesting business, industrial concern, or government agency. Professors Edwards, Grego, Lynch and Padgett typically participate in the teaching of short courses. This year the Design of Experiments course was offered on campus with a relatively large enrollment of seventeen. The Center is also co-sponsor of the Annual South Carolina Statewide Quality Conference and its Director participates in the educational activities of the Columbia Section of the American Society for Quality.

**FACILITIES**

This year, upgrades to departmental computing equipment and facilities continued: Several faculty members received new machines and graduate student areas were upgraded. The department's unix server was also upgraded. The Department Office added a new Pentium with color laser printer and scanner. In addition, the College of Science and Mathematics added a Pentium PC (Windows NT) lab as well as a Sun Ultra Workstation lab in LeConte building. These changes give a good deal of computing power to students, faculty, and staff. The department's home page was revised and updated again during the summer (http://www.stat.sc.edu/).

It is anticipated that by the end of the spring semester 2000, the department will occupy new space consisting of the remainder of the second floor of LeConte, as well as two office areas on the first floor. This will give approximately 14,000 square feet of space which will greatly alleviate our office and classroom crowding.

**CONCLUSION**

The Department of Statistics continuously strives for excellence in its teaching, research, service and other professional activities, as well as growth in its programs. As this annual report shows, the curriculum continues to be fine-tuned and adjusted as national needs and directions in statistics change, and course enrollments are steadily increasing each year. Short courses for industrial personnel are being offered on a regular basis, and the evening course offerings have been expanded to meet demand both within and outside the University. This is particularly the case with respect to the Master of Industrial Statistics degree program and the new Certificate of Graduate Study in Applied Statistics program, since students are typically enrolled in those programs on a part-time basis. Departmental activities in all areas are at virtually an all-time high, and indications are that they will continue at least at this level.

William J. Padgett
Chairman
January 2000