

# GRADUATE STUDENT HANDBOOK

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# TABLE OF CONTENTS

Page
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1.	INTRODUCTION	03
2.	THE DEPARTMENT	03
3.	DEGREE PROGRAMS AND ACADEMIC REGULATIONS	05
	A. PhD Examinations and Dissertation	05
	B. MS Examination and Thesis Presentation	07
	C. Selected Academic Regulations of the Graduate School	08
	D. Academic Regulations of the Department	08
	E. Grievances and Appeals	09
	F. Graduate Student Assessment	09
4.	ACADEMIC ADVISEMENT	10
	A. Advisement Procedure	10
	B. General Timetables	10
5.	THESIS AND DISSERTATION PREPARATION	11
	A. Selection of Topic and Advisor	11
	B. Thesis Direction and Defense	12
	C. Technical Details	12
6.	FINANCIAL AID	12
	A. Types of Support	12
	B. Taxes & Withholding	13
	C. Travel	13
	D. Graduate Student Awards	14
7.	PROFESSIONAL AND SOCIAL LIFE	15
	A. Student Organizations	15
	B. Professional Societies	15
	C. Seeking Employment	16

## 1. INTRODUCTION

This Graduate Handbook is designed to acquaint each Statistics graduate student with procedures of the Department of Statistics, details of the degree programs, and those aspects of the Graduate School and the University which influence graduate student life. In particular, the procedures and regulations for obtaining degrees as specified herein apply to all students entering the program in the year shown on the title page (despite any changes that may occur in later years). Note that the Graduate School has its own set of degree requirements which must also be satisfied; in most respects the Department's requirements match, or are more stringent than, those of the Graduate School.

The University publishes several supporting documents which are available at no charge. Reference will be made to these throughout the handbook, but all relevant information in these publications is not completely duplicated below. Each graduate student should familiarize themselves with the following:

1. The University of South Carolina Graduate Bulletin (course descriptions and general degree information). This is available undergraduate Bulletin on the Graduate School website:

#### http://www.gradschool.sc.edu

2. All university policies have been housed in the USC Policies and Procedures Manual:

#### http://www.sc.edu/policies/policiesbydivision.php

The information above is complemented by the information on the Department's homepage:

http://www.stat.sc.edu/

#### 2. THE DEPARTMENT

The seeds of the Department of Statistics were planted in 1971 when two young statisticians, W.J. Padgett and R.L. Taylor, were hired by the Department of Mathematics at USC. Under their leadership the size of the statistics faculty grew, and a wide variety of courses are now offered. While there have been numerous important formative events over the years, probably the most significant have been:

- 1977 Formation of Statistical Laboratory
- 1981 Approval of MS and PhD in Statistics Degree Programs
- 1982 Approval of BS in Statistics Degree Program
- 1985 Formation of the Department of Statistics
- 1990 Formation of Center for Reliability and Quality Sciences
- 1992 Approval of the MIS in Statistics degree program
- 1999 Approval of the CAS program
- 2010 Conversion of MIS to MAS Program

#### 2020 Suspension of MAS program

The current administrative officers of the Department are:

David Hitchcock	Chair
Wilma Sims	Scheduling Coordinator
Kathryn Dobereiner	Office Manager
Beth Orlik	Administrative Assistant
Dewei Wang	Director of Graduate Program
Brian Habing	Director of Undergraduate Program

Various aspects of the Departmental functions are supervised by faculty committees. The committee of most interest to graduate students is the Graduate Advisory Committee, which recommends policy for the Department's graduate programs, reviews student academic progress, approves all curriculum developments and revisions at the graduate level, and serves as an appeal body for grievances. The committee also reviews all admissions and awards of financial aid. Current members of the Graduate Advisory Committee are Professors Ray Bai, Karl Gregory, Yen-Yi Ho, and Dewei Wang (Chair).

### FACILITIES

The following facilities are of interest to graduate students:

#### 1. The Thomas Cooper Library:

The Cooper Library is the central library facility on campus. Statistics publications for the Cooper Library are ordered by the Department's library representative, based on recommendations of faculty and graduate students. Cooper Library houses research carrels which are available to graduate students doing research. The library conducts tours each semester to familiarize students with its holdings and facilities. Several mathematics and statistics journals are now electronically accessible from your office computers through large databases such as JSTOR and MathSciNet. To access electronically, go to the website <a href="http://library.sc.edu/p/TCL">http://library.sc.edu/p/TCL</a> and click on "Locate Online Journals by Title."

#### 2. Computer Facilities:

The Department currently has a variety of Unix Machines and PCs, including a PC for each supported graduate student in their office. In addition, the Bayes cluster housed at the Research Scientific Computing Center on campus is available for students to submit simulation jobs. Students may contact the Department Computer Committee Chair to apply for an account on the Bayes cluster. The main UNIX file server (fhat.stat.sc.edu) should not be used for running simulations. Departmental printers should only be used for academic work, and your computer privileges may be revoked for misuse. There are also computer facilities of use to statistics graduate students in Gambrell 003.

Students should read their university email account regularly (daily, at least) as announcements will often be sent via email with no paper copies provided. The

account can be set to forward to another account you have, and the university account has a web-interface.

3. Colloquia and seminar meeting rooms

Colloquium talks are given most Thursdays at 2:50pm during major semesters by visiting scientists, local faculty, and graduate students. Colloquia provide a valuable addition to classroom learning and are an integral part of graduate study. Attending colloquia regularly also provides graduate students an opportunity to meet researchers and faculty from other institutions, to hear and learn about current and new research areas and exploratory talks, and to learn how to present research talks. As such, all graduate students are required to attend and participate actively in these colloquia. Colloquia attendance bears significant weight in various aspects, such as evaluating funding requests for students' travel to conferences, deciding winners of Graduate Student Awards, accommodating students' preferences for TA assignments, and more. Insufficient attendance might necessitate the discontinuation of teaching assistantship.

# 3. DEGREE PROGRAMS AND ACADEMIC REGULATIONS

The Department currently offers programs leading to the Master of Science (MS) in Statistics degree and the Doctor of Philosophy in Statistics (PhD) degree.

Requirements for these programs may be found under the program links on the Graduate Page of the Department Website and in the Graduate Bulletin.

A. PhD Examinations and Dissertation

Students pursuing the Ph.D. in statistics are required to pass three examinations. The first, the Admission to Candidacy Examination, taken after one year of study, is designed to measure potential for advanced study in statistics at the doctoral level. The second, the Comprehensive Exam, is a defense of the dissertation proposal and is taken after most of the student's course work is completed. The third and final, the Dissertation Examination, is a defense of the dissertation results.

#### Admission to Candidacy Examination

The Admission to Candidacy Examination, or "Qualifier," consists of two half-day written examinations in early August before the start of the fall semester each year, one focusing on statistics theory and the other on applications. The Admission to Candidacy Examination is prepared (with input from the Faculty) and is graded by an examination committee consisting of three to five members of the Graduate Faculty appointed by the Department Chair. The intent of this examination is to measure potential for advanced study at the doctoral level in statistics rather than to measure knowledge of content of any particular course. The best preparation for these examinations is to master the topics in the courses STAT 704, 705, 712, and 713. Copies of previous examinations, with solution sketches, can be requested from the chair of the Qualifying Exam

Committee (Dr. Joshua Tebbs this year). It is *highly* recommended that candidates study previous exams carefully as part of their preparation and simulate the test experience itself.

A graduate student who takes this exam may receive a grade of PhD Pass, Masters Pass or Fail. PhD Pass qualifies a student to continue in the PhD Program. A PhD or Master Pass is required for the MS degree unless thesis option is chosen for MS students. Master students are required to take this Candidacy Examination before the start of their second year. Master students who do not take or fail this exam will be advised to take a thesis option for their MS degree. PhD students are allowed **two attempts** for the Candidacy Exam. Supported PhD Students who decline to take the Qualifier after their first year of study may be considered to be no longer "in good standing" for purposes of financial support. Failure to take the second attempt at the next offering after the first attempt may also result in being not "in good standing" for purposes of support.

Incoming graduate students are encouraged to take this qualifying exam before their official start of the first semester. They will be contacted in May about this zero-attempt opportunity. Incoming graduate students who earn PhD Pass on this exam will be advised to register PhD required courses directly in their first semester, and they will be expected to seek research advisors and start their research early. For incoming graduate students, there is no penalty for not taking or not passing the qualifying exam, and a failed attempt will not be recorded if the exam was taken prior to the start of their first year.

# Comprehensive Examination

Upon successfully passing the Doctoral Qualifying examination (i.e., the Admission to Candidacy exam) if he/she has not already done so, the student PhD candidate should begin the process of finding a research advisor for a doctoral dissertation. This research will often begin through either STAT 798 (Independent Study), STAT 898 (Directed Readings and Research), or as a supported research assistant. This should be occurring while most (if not all) of the remaining course requirements are being satisfied.

Once the background reading has progressed to a stage where a dissertation area has emerged, the student should enroll in STAT 890 (Doctoral Seminar) and begin writing the Dissertation Proposal. At this time the student should also select the remaining members of his/her Comprehensive Examination committee. This committee's four members (including the advisor, and at least one from another department) will also typically be the Dissertation Defense committee.

The Comprehensive Examination is typically taken between the end of the third and end of the fourth year of graduate study (for those who have entered the program without a master's degree) after completing the 3 hours of STAT 890. The examination consists of an oral defense of the written Dissertation Proposal. The Dissertation Proposal will typically contain an overview of the problem the dissertation will address, a thorough review of the literature in the area, and a detailed plan of the remaining research to be carried out. It is common for the literature review section to be essentially the same as that in the finished dissertation. The write-up of the research plan often contains some preliminary results.

The Dissertation Proposal should be delivered to the committee at least two weeks in advance of the defense, and the individual members may provide comments to the student in advance of the defense. The proposal is then presented to the committee (with outside observers at the student's and advisor's choice) usually for 30 to 45 minutes. The committee will then orally question the student to assess whether the research topic and plan presented is at the level of a PhD dissertation in statistics or probability, and also to judge whether the student is capable of completing the proposed research work.

No more than two opportunities to pass this Comprehensive Examination are allowed.

### Dissertation and its Oral Presentation

To complete the program, the student, under the guidance of the Graduate Advisor, must complete the research plan contained in his/her dissertation proposal and will then write the dissertation. Upon completion of the dissertation, the student will defend its contents in a final oral Dissertation Examination before his/her doctoral committee. It is expected that the content of the dissertation will be a significant contribution to the statistics or probability literature and that at least one paper will be submitted for publication to a reputable journal in the field before the dissertation defense.

# B. MS Examination and Thesis Presentation

#### MS Examination

The MS Examination is given each August. It is taken by those students who choose the non-thesis MS option. It is meant to test the mastery of topics covered in the courses STAT 704, 705, 712, and 713. It is, in fact, the Admission to Candidacy Exam (Qualifier). A PhD Pass or Masters Pass on the Admission to Candidacy Exam satisfies the MS Examination requirement. Only one attempt of the MS Examination is allowed.

#### Thesis Presentation

For those students choosing the MS thesis option, writing and presentation of a thesis is required. After consultation with faculty members, the student chooses an advisor, usually at the beginning of or during the third semester. Presentation of the thesis, with the agreement of the advisor, is given during the fourth semester to the advisor and two readers. There may also be others present at the discretion of the student and his/her advisor.

## C. SELECTED ACADEMIC REGULATIONS OF THE GRADUATE SCHOOL

- Graduate courses may be passed for credit with a grade as low as C, but a degree-seeking student's cumulative grade point average must be at least B (3.00 on a 4.00 scale). Graduate degree-seeking students whose cumulative grade point average drops below 3.00 (B) will be placed on academic probation and be allowed one calendar year to raise the grade point average to at least 3.00. Students who do not reach a cumulative 3.00 grade point average during this probationary period will not be permitted to enroll for further graduate course work as a degree or nondegree student.
- 2. Courses designated as Thesis Research, Thesis Preparation, Dissertation Research, or Dissertation Preparation will be graded as satisfactory (T), incomplete (I), or unsatisfactory (U). Credit hours with a satisfactory grade may be counted toward total credit hours earned, but these courses will not be considered in determining the student's grade point average.
- 3. Every degree candidate must file a formal Program of Study in the Graduate Office and does so at the earliest convenient date. This is usually done once a dissertation or thesis advisor has been chosen. It should be noted that a student is not considered to be a PhD candidate until his/her Program of Study has been accepted by the Graduate School. A formal Program of Study is an agreement signed by the student and his/her advisor, the Director of Graduate Studies, and the Dean of the Graduate School. This agreement protects the student in the event of unexpected curricular or faculty changes. Although a formal Program of Study is binding, they can be modified or replaced by new programs when necessary.
- 4. No more than 6 credits of course work taken in a non-degree status can apply to a degree program of study.
- 5. As a general rule, no more than 6 hours of independent study may be used on a master's program of study, and not more than 9 hours on a doctoral program of study, unless justified by the department and approved by the dean of The Graduate School.
- 6. At the conclusion of the program, the candidate must have at least a B average on all courses attempted for graduate credit, at least a B average on all courses numbered 700 and above, and at least a B average on all courses included on the program of study.

# D. ACADEMIC REGULATIONS OF THE DEPARTMENT

 Graduate assistants (GA) enrolled in the Master of Science degree program are expected to complete all degree requirements in two academic years. The PhD program normally will require five years unless a Master's Degree has been previously obtained. Graduate assistants are encouraged to be initially enrolled for nine semester hours in each of the fall and spring semester in the first year. Policy on summer enrollment for GA hiring may vary from year to year.

- 2. The level of the courses taken should be consistent with the stated degree program, as should the course content. Courses taken must be approved by the Graduate Director.
- 3. Six hours of coursework with grades of C+ or below may place a student on academic probation. Supported students on academic probation may be reduced to a 1/4 time graduate assistantship. A student will remain in probationary status until achieving an overall "B" average.
- 4. Students with grades of C+ or below in nine hours of course work taken for graduate credit may be dismissed from the degree program in the absence of extenuating circumstances, and may be ineligible for further Department financial support.
- 5. Credit for courses taken elsewhere must be approved by the Graduate School under recommendation of the Graduate Director, based upon sufficient evidence that credit is merited. It is expected that written documentation verifying the course and grade, textbook and syllabus, and instructor qualifications will be provided. As a rule, the Department allows a maximum of six semester hours of transfer credit for the MS degree.
- 6. A candidate may apply for waiver of a Departmental requirement if there are justified extenuating circumstances. No waiver can be granted which violates the basic Graduate School definition of the degree. Waiver of any requirement will be determined by the Graduate Advisory Committee. Waiver of Graduate School rules can also be requested.
- 7. Revalidation of courses: courses taken at USC become invalid after a period of six years. Revalidation is based on re-examination over the course content and payment of a fee per credit hour. To be eligible for revalidation, the course content must be of current value and consistent with the scope and level of the current curriculum.

# E. GRIEVANCES AND APPEALS

The first level of appeal of any regulation is the Graduate Advisory Committee of the Department, through the Director of Graduate Studies. The second level of appeal is the Graduate Council of the University, through the office of the Dean of the Graduate School. Decisions of the Graduate Council are final, subject to approval of the Graduate Faculty of the University.

# F. GRADUATE STUDENT ASSESSMENT

The Department of Statistics' standard Teaching Assistant offer states "Continuance of this assistantship position in succeeding years will depend on satisfactory progress in your degree program and on performance of your assistantship duties." "Satisfactory progress" roughly translates into receiving almost entirely A's and B's in coursework; completing TA/GA/IA duties carefully, on time, and with a spirit of helpfulness; and making timely progress through the program. Timely progress includes passing the qualifier at the appropriate level, and for PhD students, registering for 890 in the third year, passing the Ph.D.

comprehensive, etc. PhD students should not expect support with a TA/GA/IA past their fifth year, regardless of the circumstances. In some cases, students may be able to teach as an adjunct after their fifth year. The progress of every graduate student is formally assessed by faculty in May at the Department's annual retreat. Supported students not making satisfactory progress may lose their TA/GA/IA, and in some cases students are removed from the program.

All TA's with full lecture responsibility are observed in the classroom each academic year by a faculty member and receive an evaluation on their teaching performance. Additionally, all TA's and instructional assistants receive feedback each academic year by the course coordinator addressing overall performance in the graduate assistantship including areas specific to their assignment such as grading, exam proctoring, lab instruction and other administrative duties.

# 4. ACADEMIC ADVISEMENT

# A. ADVISEMENT PROCEDURE

Graduate students will be initially advised by the Graduate Director. When thesis or project research has been initiated, the thesis advisor shares responsibility for advisement and determination of the student's progress toward his/her desired degree.

For all master's degree Students: By the end of the student's second regular semester in attendance (completion of 18 hours) the student and advisor submit a Program of Study to the Graduate Director for approval; this must then be approved by the Dean of the Graduate School.

<u>For PhD Students</u>: The student's preliminary Program of Study form should be submitted to the Graduate Director and Graduate Dean no later than two major semesters following the student's successful completion of the Admission to Candidacy Examination. This Program of Study can be amended later if course offerings change.

Note: For Ph.D. students who join the program without holding a master's degree, required core courses include STAT 704, 705, 712, 713, and 714. It's important to note that these courses are not included in the core curriculum for students who enter the program with a master's degree. While STAT 704, 705, 712, and 713 are subjects covered in the Doctoral Qualifying examination, STAT 714 must not be overlooked. Therefore, in cases where a student has not previously completed an equivalent course to STAT 714 during their master's studies, it becomes a required remedial course. If you have any inquiries regarding this requirement, please do not hesitate to reach out to the Graduate Director.

# B. GENERAL TIMETABLE FOR MS AND PhD DEGREE PROGRAMS

It is your responsibility to check the Graduate School website at the beginning of the semester in which you wish to graduate to verify the dates for various requirements (e.g., application for graduation, defense dates, format check dates, final copy dates, et cetera). These dates are generally as indicated in the table below.

In the table below, the letter "G" indicates the date of expected graduation. Hence "G-60 days" means "60 days before the date of graduation."

### Master's Degree Program: Thesis option

Program of Study Form filed (before end of third semester) Thirty hours of approved courses completed First draft of thesis to Committee (G-65 days) Application for graduation filed (G-65 days) Thirty-five hours of approved courses completed (or in progress) Final version of thesis to Committee (G-45 days) Examination or defense of thesis completed (G-30 days) Thesis electronically delivered to Graduate School (G-15 days)

#### Master's Degree Program: Qualifying exam option

Qualifying Exam PhD Pass or Masters Pass (end of first year) Program of Study Form filed (before end of third semester) Application for graduation filed (G-65 days) Thirty-five hours of approved courses completed (or in progress)

# PhD Degree Program

Admission to Candidacy Examination completed (end of first year) Program of Study Form filed (end of second year) Comprehensive Examination completed (one-two years after Qualifier) Application for graduation filed (G-65 days) Final version of Dissertation to Committee (G-45 days) Dissertation Defense completed (G-30 days) Dissertation electronically delivered to Graduate School (G-15 days) Sixty-three credit hours of approved courses completed for students starting post-baccalaureate degree, or forty-eight credit hours for students starting with a Masters Degree in Statistics from an approved institution upon entry into the program

# 5. THESIS AND DISSERTATION PREPARATION

#### A. SELECTION OF THESIS/DISSERTATION TOPIC AND ADVISOR

Writing a thesis / dissertation is a major project. It is important that you select a research area of interest to you and an advisor with whom you are comfortable. It is recommended that you have preliminary discussions with several faculty members before you make your decision; try to include discussions with faculty members whom you have not had as instructors. For the MS thesis, these

discussions usually occur late in the second semester of study; for PhD candidates, soon after passing the Admission to Candidacy exam.

To interview a potential advisor, the student approaches a faculty member under whose guidance he/she may wish to write his/her thesis or dissertation. Usually the faculty member will propose potential topic(s), though if the student has a topic in mind he/she is encouraged to propose it. If this faculty member agrees to direct the paper, the name of the advisor, student, and the general topic of the paper are submitted to the Graduate Director for approval.

In the event that a student wishes to change advisors or a second reader, etc. during the development of the student's paper, the Graduate Director should be notified by the advisor involved so that the necessary alterations can be implemented.

#### B. THESIS DIRECTION AND DEFENSE

- MS Once the student has begun work on the subject of his/her paper, the advisor notifies the Graduate Director of the student's name and proposed topic. The thesis advisor gathers a three-member committee (with the advisor as chairman) to read the thesis and to hear its defense; the student or thesis advisor then informs the Graduate Director of the committee composition. The defense begins with a presentation of the research (usually about 40 minutes in length) to the Department's faculty and students. The general audience is then excused for the MS examination, to be conducted privately by the three member thesis committee. The committee asks questions about the thesis, and also any aspects of the student's coursework which the examining committee is submitted in writing.
- PhD The pattern is similar to the above, but the dissertation presentation usually takes about twice as long to complete. The presentation is usually about an hour in length and questioning (by a four-member examining committee) is more rigorous and lengthy.

#### C. TECHNICAL DETAILS

Theses and Dissertations are to be submitted electronically following the regulations outlined by the Graduate School at http://gradschool.sc.edu/students/thesisdiss.asp

# 6. FINANCIAL AID

#### A. TYPES OF SUPPORT

The principal source of financial assistance for graduate students in the Department is the Graduate Assistantship. The purpose of a graduate assistantship is threefold. It provides a stipend for the assistant, service to the Department and the University, and practical experience for the assistant in work related to the degree which he or she is seeking. It is within this context that the

Department has established a variety of different assignments for graduate assistants.

*Teaching Assistant (TA):* The teaching assistant has full responsibility for an undergraduate course at the elementary level. Faculty supervision and support mechanisms are provided, e.g., weekly meetings of instructors and peer evaluations.

*Instructional Assistant (IA):* The instructional assistant has responsibility for conducting several labs or recitation sessions per week in support of an undergraduate course at the elementary level. Grading and/or computer laboratory supervision duties may also be assigned to complete the student's responsibilities to approximately 20 hours per week. Faculty supervision and support mechanisms are provided, e.g., weekly meetings of instructors and peer evaluations.

*Research Assistant (RA):* The research assistant serves as an assistant to a faculty member on a research project or to the staff of the Statistical Laboratory. Research assistants may be required to work several days beyond the end of exams, or before the start of classes, at the discretion of their work supervisors. They may also work in other Departments throughout the University.

*Staff Assistant (SA):* A staff assistant is assigned to work with the Department IT Manager in support of Department computing facilities in non-instructional and non-research capacities.

Some fellowships from the Department, the College, and the Graduate School, as well as from external sources, are available for meritorious applicants.

# B. TAXES AND WITHHOLDING

Each assistant should complete a form W-4, available in the Statistics Department business office. If no W-4 is submitted to payroll, the default is to "0" exemptions, resulting in a substantial amount of withholding. A method of determining the number of exemptions to claim and a form for calculating such exemptions is available from the local office of the IRS. Income from Graduate Assistantships is normally considered taxable by the IRS.

# C. TRAVEL

An important aspect of doctoral training is the presentation of dissertation work at regional (e.g. SCASA, SRCOS) and national (e.g JSM, ENAR) conferences. For those involved in educational testing research, the joint meeting of the National Council on Measurement in Education and the American Educational Research Association is an excellent venue. These conferences enable the student to receive valuable feedback from other students and faculty on their work, give the student a broader view of the current state of statistical research and potential

research areas, as well as aiding the student in establishing possible collaborative avenues of research with other researchers through networking.

The Graduate School provides up to \$500 for a student to present a paper or poster at a regional or national conference; up to \$800 is provided for an international conference. More information can be found at http://gradschool.sc.edu/students/ by clicking on "Opportunities & Support" then "Travel Grants".

The Department of Statistics offers financial support of up to **\$800** per student for attending one conference per academic year, provided that the following conditions are met:

- 1. The student must apply for Graduate School funding, as outlined above.
- 2. The student must also present their research (either through a talk or poster presentation) at the conference.

To initiate the reimbursement process, all students are required to contact either the Office Manage or the Administrative Assistant (see Page 4) and submit a Request for Travel Authorization form at least two weeks before their conference attendance. Please note that this travel award operates on a reimbursement basis, so it's essential to retain all receipts for expenses incurred during the conference to facilitate reimbursement.

In cases where students seek travel support for attendance at two or more conferences within a single academic year, the Statistics Department will evaluate such requests on a case-by-case basis, with final approval subject to the discretion of the Department Chair.

It's worth noting that the annual SRCOS conference typically offers NSF funding opportunities for attendance, and, additionally, the annual SCASA statistics symposium, which spans only a day, is conveniently located within driving distance.

#### D. Graduate Student Awards

Every year, we present six Graduate Student Awards. The nomination process typically occurs in March, and the awards ceremony follows our annual department picnic in late April.

- **Outstanding Graduate Assistant Awards:** Typically, three awards are given to students who have demonstrated exceptional contributions while working as teaching, instructional, or research assistants.
- **Outstanding First Year Graduate Student Award:** This award is given to the most outstanding first-year graduate student. Selection is based on factors such as performance in the qualifier exam and course work, with faculty input playing a crucial role in the evaluation.
- **Outstanding Graduate Student in Academics Award:** Typically, one award is presented to a second- or third-year graduate student who has exhibited remarkable academic performance. In certain cases, a fourth- or fifth-year student may also qualify for this distinction.

- James D. Lynch Graduate Student Research Award: Typically, one award is given to recognizing the outstanding research achievements of a fourth- or fifth-year graduate student.
- **Citizenship Awards:** Up to two awards are given to graduate students who have served as exemplary role models through their words and actions in their academic lives.
- **The Huynh-Feldt Award:** This prestigious honor is reserved for a graduate student who has excelled in research in Statistics/Psychometrics. The selection criteria are:
  - 1. Using statistical rigor in the solving of a practical problem.
  - 2. Weight psychometrics over multivariate statistics (including high dimensional methods) over other areas as a tie breaker.

These awards are a testament to the exceptional achievements and contributions of our graduate students, and they serve as a source of pride for our department.

# 7. PROFESSIONAL AND SOCIAL LIFE

# A. STUDENT ORGANIZATIONS

The Department has two organizations for graduate students: (1) the Stat Club, open to all who have interest in the field of Statistics, and (2) Mu Sigma Rho, a chapter of the national honorary society for statistics. Most graduate students will be eligible to join Mu Sigma Rho after completion of at least 18 semester hours of graduate work with at least a 3.5 GPA. These organizations sponsor a wide variety of activities, including field trips to national and regional professional meetings, visits by practicing statisticians (often USC alumni) to discuss career paths in statistics, Science Fair judging, University Showcase days, and social events such as picnics, parties, hikes, etc.

# **B. PROFESSIONAL SOCIETIES**

Through their annual and regional meetings and their publications these societies provide statisticians with a means of making their research public as well as enabling them to keep abreast of new results. The societies perform valuable services in a variety of areas as diverse as curriculum improvement, surveys of salary and job opportunities and leadership in indexing projects, and acting as spokesmen for the statistical community. A graduate student is studying to become a professional and should join one or more of the major professional societies. The choice of societies depends upon personal interests.

The American Statistical Association (ASA), founded in 1839, is one of the oldest professional organizations in the United States. Sections are organized within the Association on the basis of subject matter interest to further development of statistics in specialized fields. A student membership in the ASA is available; application forms are available at http://www.amstat.org. Membership includes a subscription to the newsletter *The AMSTAT News* and (upon election) one or more journals, e.g. *Journal of the American Statistical Association. The AMSTAT News* is the news periodical of the Association and includes articles on current events affecting statisticians, discussions of

professional problems, job listings, and information concerning members and Association activities. In *JASA*, selected papers on theoretical and applied aspects of statistics as well as comprehensive reviews of books are published.

The **Institute of Mathematical Statistics (IMS)** is an international organization founded in 1935 to further research, teaching, and development of applications in the field of mathematical statistics. The IMS publishes the *Bulletin* of the IMS, *The Annals of Applied Statistics,* and *The Annals of Statistics.* The *Bulletin* is the news periodical of the IMS. The other two journals contain research papers. Student membership in the IMS includes a subscription to the *Bulletin* and (upon election) either one of the Annals or both Annals. The IMS website is at http://www.imstat.org/

The International Biometric Society (IBS) was organized in 1947 for the advancement of biological science through the development and dissemination of effective mathematical and statistical techniques. The Biometric Society is an international society. Persons living in the United States belong either to the Eastern or Western North American Regions (ENAR or WNAR). The official journal of the Biometric Society is *Biometrics,* which comes with membership in the society. Student memberships (in ENAR) are available. The ENAR website is <u>www.enar.org</u>, and the IBS website is http://www.biometricsociety.org/.

# C. SEEKING EMPLOYMENT

Part of vour advisor's job is to offer advice on seeking employment - use him/her in that capacity. Advertisements for positions appear in AMSTAT News, Institute Mathematical of Statistics Bulletin, and in online websites. e.a. http://www.stat.ufl.edu/jobs/ and http://jobs.amstat.org/jobseekers/. The University Career Center also is notified of some positions. Specialized employment services (placement services) exist for statisticians and do not charge the job candidate. Most of these advertise in the AMSTAT News. Job announcements received by the Department faculty and staff are distributed by e-mail to all graduate students. Another source are websites such as www.statsjobs.com.

Once you have made contact with a potential employer, you may be invited for an interview visit. Get help from your advisor and/or any trusted faculty member in preparing for your job interview. You may be asked to give a seminar talk. If so, be sure to give a talk at one of the departmental colloquia or research seminars first, if at all possible. Contact the current colloquia director to arrange your talk. You will gain valuable experience in presenting your material and in fielding questions from the audience. Be prepared to discuss your current and proposed future work with others. By the same token, you should be evaluating your interviewers and the institution or firm you are visiting. Will there be people with whom you can discuss problems professionally? Are research facilities adequate? Does the group you are interviewing with appear to be a stimulating group with whom to work? Will they respect you and support your development?