Overview

The Statistical Consulting Center at Florida State University is a research assistance facility for the students, faculty, and staff at FSU. The Center is a function of the graduate program within the Department of Statistics at Florida State University. The Statistical Consulting Center is a free service for members of the FSU community. When requested, clients from outside the FSU community are given at least a one-hour consultation. The Statistical Consulting Center also holds walk-in hours to assist clients on a first-come first-serve basis. Services include but are not limited to:

- Translating research questions and hypotheses into statistical terms
- Designing sampling procedures
- Choosing appropriate statistical methods
- Interpreting computer output
- Phrasing statistical results
- Referrals to other statistical help

The Statistical Consulting Center generally does not perform actual analyses. However, consultants often assist clients with learning various statistical statistical packages and help them with tasks such as data formatting and upload.

Walk-in hours for the 2013-2014 academic year were held on Monday, Tuesday, Wednesday and Thursday afternoons in the Strozier Library Learning Commons. Consulting appointments were planned to accommodate both the consultant's and the clients' specific scheduling needs. The meetings were held during the week to best accommodate the clients schedules.

Summary of Business Activities

Graduate students Michael Rosenthal, Wade Henning, Oliver Galvis and Jalonda Coats served as the consultants for the academic year. Wade was the lead consultant, and everyone shared walk-in hours and consulting appointments.

On average, consultants had 3-4 appointments each week, for a total of 97 appointments over the course of the two semesters. The demand was relatively consistent across the months, with slight increases at the beginning and end of the semester, and close to important dates such as submission deadlines for research proposals or dissertations.

Scheduled Appointments

The large majority of the 37 appointment clients this year were graduate students seeking assistance for the quantitative aspect of their research. However, faculty members from throughout the university also requested consulting. In 2012-2013, we have made it the consulting center's goal to see our clients' analytical needs through to a resolution. A typical consultation process is as follows:

1. The client provides a detailed summary of their problem via email prior to the meeting.
2. An hour is spent in scheduled, in-person consulting.
3. The meeting is followed by additional follow-up via email.
4. Additional meetings are scheduled as needed

Typical Cases

Faculty
This faculty member was looking for assistance in designing a questionnaire
for people who had obtained a degree from their program. The research
questions involved summarizing the population and determining the value
of their degree. We assisted this individual by explaining the inferences and assumptions involve with analyzing survey data.

Graduate Student
A PhD student was interested in receiving guidance on the type of statistical analysis to analyze the data at hand. The data contained measurements of different variables such as the oxygen level, amount of light, temperature, and some microorganisms at different depths and locations in the Gulf of Mexico. The final objective was to estimate how the recorded variables effect the amount of mannoplankton in the ecosystem at different depths. A regression analysis for different levels of depth was suggested to identify the significance of the variables as the observations go deeper. Also a t-test was recommended to validate the differences among locations for groups of nannoplankton. R software was suggested to perform the analysis.

Undergraduate Student
This student was working on a thesis involving clinic data. The analysis involved two sample t-tests and a multiple linear regression model for predicting birth weights based on various predictors. We assisted this student by explaining the interpretations of various relevant hypothesis tests in the context of the given problem.

Graduate Student
This PhD student was investigating the relationship between learning capability and primary language by studying surveys and testing of students whose dominant language is Spanish. Data was collected about the listening, speaking, writing and reading abilities of the student in Spanish. The consultant helped the client properly compile the data in SPSS from several MS

Excel spreadsheets and identify the proper SPSS variable types. An ANOVA was suggested, and there was a follow up appointment for help interpreting the correlation matrix.

Graduate Student
This individual was interested in discussing how to implement the Kriging interpolation method to analyze his data. After reading the paper provided by the PhD student, we found out how to estimate the covariance matrix with the data at hand.

Graduate Student
This graduate student was working on a dissertation investigating the effects of recessions on academic institutions. The proposed analysis involved using mixed effects models on panel data. We assisted by discussing analysis options and the interpretations, model building, and key assumptions for inferences drawn from mixed effects models.

Walk-in Summary

There were 60 walk in consults, split evenly between research and coursework. Model selection, random variable identification and data analysis were common research related topics, with statistical power, ANOVA, logistic regression, linear regression, and t-tests being commonly discussed topics.

Department
Biology
Business
Criminal Justice
Education
Educational Psychology
FSU Libraries
Geography
Information
Internal Affairs
Modern Languages
Music
Music Therapy
Nutrition/ Exercise Science
Public Administration
Retail Merchandising
Social Work
Sociology
Sports Management
Statistics
SUS

Reflections

One of the most enjoyable aspects of working in the statistical consulting center is being able to help faculty and students from throughout the University. This year, our 4 consultants assisted clients better understand the world in more than 60 different ways- from analyzing ocean or forest life to analyzing spectroscopy signals in molecules.

For Department of Statistics graduate students, consulting is an excellent way to prepare for a career in industry or to practice interdisciplinary collaboration. Our consultants would like to sincerely thank the faculty and staff in the FSU Department of Statistics, especially Dr. Stephen Ramsier, for continuing to support the consulting center.