

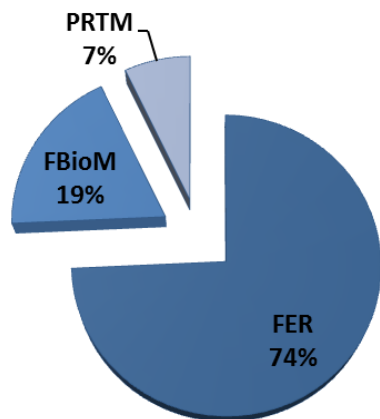
# CNR STATISTICAL CONSULTING REPORT – YEAR 2010

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- Overall a higher demand for the consulting service was observed in 2010
- Most of people seeking consultancy were from the Department of Forestry and Environmental Resources (see pie chart below). This could be due to greater awareness of such service in the FER department.



## COMMON PROBLEMS

- Data from experimental designs with **no replication** or with **no randomization**. Such data would not be publishable.
  - Data from stratified random sampling survey with small sample size for some strata.
  - **Before designing an experiment or survey, it is imperative to consult advice.** Unfortunately mistakes cannot be undone easily after data are collected.
  - Some students had amassed large data but without any prior planning of how to analyze it.
  - Most of request for statistical consulting come from clients about what to do with the data; e.g., should I use regression, ANOVA or other statistical models.
- The second most frequent help is about how to analyze data; e.g., using software.
  - Before data are collected, I strongly advise students & faculty advisors to have a research/survey plan detailing about hypotheses testing. State the goal of the research and put specific questions. Then collected data accordingly. **Data should be collected keeping the objectives/hypotheses in mind.** This will help to formulate testable hypotheses. It is not the other way around.

## DETAILS ABOUT TIME SPENT (CRUDE ESTIMATES)

- Received and/or wrote about 171 emails. The estimated time spent on emails (reading, writing), was about **128** hours.
- Wrote 8 statistical analysis reports for graduate students and faculty (~**13** hours). See selected examples of the statistical analysis reports here <http://www4.ncsu.edu/~fisik/>
- Had 74 meetings with 36 different clients from three departments (~**114** hours).
- Co-taught NR 554, Introduction to Data Analysis in NR in spring semester of 2010. Time spent on preparing and teaching was about 6 hours per week (4 hours teaching). Approximately spent (14 weeks x 6 hours) =~ **96** hours.
- In total, I spent approximately **306** hours. This is approximately 20% of my time work when holidays and weekends are excluded. Including research on specific topics and reading background of experiments & surveys data, also helping with software coding, it approximately totals 25% of my work time.