

Statistics in the Community at Michigan (STATCOM@UMICH)

Contact Email: statcom-um@umich.edu

Frequently Asked Questions

Basic Start-Up Questions

Whom does STATCOM@UMICH@UMICH serve?

STATCOM@UMICH serves government and non-profit organizations. The clients we work for generally do not have the funds available to hire a professional consultant, yet have information to collect or data to analyze that would help them in making more informed decisions about their operations. If we receive a request from a client that is not a government or non-profit entity (*e.g.*, business, academic researcher), we usually turn down these projects.

Do clients pay for STATCOM@UMICH services?

No, all work done by STATCOM@UMICH is free of charge for the client.

Who volunteers for STATCOM@UMICH projects?

Any student who is interested in serving the community through statistical consulting projects. Our volunteers are mainly comprised of graduate students in the Department of Biostatistics (M.S. and Ph.D.). Students in other departments (*e.g.*, Statistics, Survey Methodology) are also members of STATCOM@UMICH. Faculty members are not usually involved in STATCOM@UMICH projects. However, we do have several faculty members who provide leadership, assistance with client meetings, and statistical consulting advice if needed.

What are the minimum setup needs for getting a STATCOM@UMICH up and running?

A group of interested and motivated students is the most vital component to starting a STATCOM@UMICH.

Finding one community project to work on is the next step. Tips for finding clients are given in a later section. Once the first project is found, continue to work on finding clients one project at a time until student membership is built up to accommodate multiple projects.

Computing facilities for analyzing data, printing reports, etc. will be needed from the department or university.

Talking to the department head, consulting director, or other faculty/staff members who might serve as a resource for advice is also very beneficial and important to the long-term success of the program.

What kind of support is needed from the department/university to start?

In general, department and faculty support is extremely helpful. The Biostatistics Department allows STATCOM@UMICH to use printers, fax machines, phones, and meeting/conference rooms in order to provide our clients with quality services. Students

could use their own resources for analyzing data, printing reports, communicating with clients, etc., but this could become costly to students over time. In addition, STATCOM@UMICH has faculty advisors who volunteers time to help edit reports and provide guidance with analysis when needed. This will be particularly helpful in the beginning, but over time direct faculty involvement should become less and less important.

Client Related Questions

How do you find clients?

There are many ways to find clients within a community. One way is to place flyers and brochures in government buildings advertising your services. Many people in the community may not be aware of how statistics may help them. If talking to the mayor or other officials personally is an option in your community, then interest could be generated by explaining specific issues that you may be able to help with. Similarly, explaining STATCOM@UMICH services to school principals and superintendents in the area may produce interested clients. If faculty or staff members have ties within the community, they could spread the word to local organizations. After the first few projects are obtained, other organizations may hear about STATCOM@UMICH through word of mouth and will start contacting you personally.

What happens at an initial meeting with a client?

At an initial meeting with a client, team members and the client discuss the project. The director or associate director also attends the initial meeting to facilitate this discussion. The client is expected to explain the project and work with the team to formulate questions that can be evaluated using statistical methods. At this meeting, it is important to clarify with the client what services STATCOM@UMICH can and cannot provide. For example, it should be made clear that the students working on the project are volunteering their time and thus a reasonable timeline should be constructed. Also, it should be emphasized that the client is entirely responsible for decision-making based on the results you provide. After this meeting, the team members should have enough information to translate the client's needs into a statistical framework. Team members can then work with the client to identify the information (data) required to answer their questions and explain how to gather that information. STATCOM@UMICH also informs the client of the confidentiality policy and discusses whether the client wishes to keep the project confidential or will allow STATCOM@UMICH to share details about the project with others.

Who is the primary contact for clients?

Though the director is the initial contact for clients, after the initial meeting is complete the client deals primarily with the team leader. This way, the client has only one primary contact instead of corresponding with multiple team members. All correspondence is sent through the STATCOM@UMICH email address: statcom-um@umich.edu

What types of analyses do most clients need?

The majority of our clients need help with:

- Summarizing data
- Data visualization
- Assessing the effectiveness of a program
- Analyzing the results of a survey.

While this list covers most of our projects, we are not limited to performing the above analyses.

How do we protect ourselves from being sued by clients?

We emphasize that our work is confidential and is on a volunteer basis. Since our clients are solely governmental or non-profit organizations, they are generally pleased with the help we give them. If there is ever a concern of content or quality of STATCOM@UMICH's final product, it is addressed at the final meeting. We also emphasize statistical ethical guidelines and present the results of our analysis in an unbiased manner. We leave all decision-making based on our findings to the client. We always ask for deidentified data, in compliance with ethical guidelines. If we ever came across a project which we felt might compromise our integrity as an impartial party, we reserve the right to turn down such projects.

What final products does STATCOM@UMICH typically provide for the client?

STATCOM@UMICH provides the client with a final written report. The report should be written for an audience without any statistical expertise. With this in mind, the report should be as simple as possible, consisting mainly of graphs, easy-to-understand tables, and a written discussion of the results. A final meeting is set up to present and explain the data analysis. At this meeting, clients are able to ask questions about the analysis.

What does STATCOM@UMICH expect the client to do?

STATCOM@UMICH expects the client to do all data collection and data entry. We expect deidentification of all individuals before we receive the data. For example, if the data consists of a student's grade, the student's name must not appear in the data set we receive. Instead "Student 1" could be used. We also expect the client to educate team members about relevant information that may be important for the analysis. For instance, when writing the report, background information is needed to present our findings in the context of the subject matter. If further expertise is required, STATCOM@UMICH may seek advice from other departments at the University of Michigan.

Student/Volunteer Related Questions

How much time will each person have to volunteer?

Each student can volunteer as much time as he or she wishes. Some projects can be done with only 5-10 hours of work. Others could take much longer, perhaps 30-40 hours of work or more. With groups of 4-5 people it is easy to share the workload of a given project. This way, when students have busy schedules, others can work on the project. If there is a busy week for all students, e.g., finals week, make sure you set a reasonable completion date for the project. School work will always come first.

How does STATCOM@UMICH maintain its strength even with graduate students who are very busy or leave due to graduation?

STATCOM@UMICH recruits new students each year. The first open meeting of the year is dedicated to telling potential members about STATCOM@UMICH and how they can get involved. We advertise this meeting around the Biostatistics, Statistics, and Survey Methodology Department and other places by placing information where interested student might notice it.

As an organization, we try to ensure opportunities for students to advance in leadership opportunities. Teams are carefully designed to have students with varying levels of experience. A team leader is an experienced consultant who is responsible for maintaining progress on the project. Efforts will be made to ensure there is at least one other person with experience on the team to assist the team leader when needed. This results in a good deal of peer mentoring, as less experienced students learn from more senior ones and receive the training and experience they need to later become leaders themselves. At the top of the organization, there is an associate director, a director, and a student advisor, who is the outgoing director. Those in junior leadership positions learn from more senior leaders, and it is the responsibility of senior leaders to train and prepare junior leaders for more senior roles. Since the turnover is every two semesters this allows ample leadership opportunities for all students while stabilizing STATCOM@UMICH's organizational structure for many years to come.

How do students fit STATCOM@UMICH in with their other research and course commitments?

STATCOM@UMICH is a natural way for students to apply what they have learned from research and their courses. It is also excellent experience in teamwork. These are two important skills all students should have when pursuing a graduate degree. Our members have made an effort to volunteer their time not only for the community but to gain these skills. As mentioned above, each student decides how much time they want to commit, and everything in STATCOM@UMICH operates within a team structure. This allows individual team members to take time off when exams, research, teaching, family life, or other needs arise. Other team members are able to maintain steady work on the projects.

How do you get students interested in joining STATCOM@UMICH projects?

There are many different reasons why students choose to volunteer their time working for STATCOM@UMICH. Many students join to receive satisfaction from doing community service, but there are also many personal benefits as well. There is a huge learning component: in statistical methodology, consulting, oral and written communication with the general public, leadership, management of a busy organization and multiple consulting teams, the need for quality control, grant writing, fundraising, etc. Being part of a group such as STATCOM@UMICH can help members with all of these skills. We try to make all this apparent when recruiting new members.

What courses does a student need to be involved?

A background in statistics is needed in order to assist with the analysis. However, each

team has varying degrees of expertise. This allows members with less experience to learn from those who have had many courses. Since STATCOM@UMICH has been involved in many survey analyses, a course in survey design and analysis is helpful.