INTRODUCTION

Through the management of two general-access computing labs, the Student Access & Computing Group dynamically supports and enhances the effective use of student computing resources on the University of Washington (UW)-Seattle campus. Workstations in the Odegaard Undergraduate Library (OUGL) Computing Commons and the Mary Gates Hall (MGH) Computing Resource Center (CRC) are available to anyone with a UW NetID. To better serve the student population, the SACG conducts an annual lab survey to evaluate its services in the OUGL Computing Commons and the MGH CRC. Survey responses guide decisions for hardware/software purchases and service improvements.

METHODOLOGY

From November 3 through November 10, 2001, clients at the OUGL Computing Commons and the MGH CRC were given the opportunity to complete an on-line survey. The survey was accessed from a web page that was set as the home page on the labs' web browsers. This survey was a modified version of one administered in 2000 (See OEA report 01-9). Students were required to enter their UW NetID to access the survey thereby eliminating the possibility of multiple responses per student. Student identifying information was not kept with the survey data and students were not required to complete the survey. A total of 1886 surveys were completed.

FINDINGS

Responses have been summarized on a modified version of the survey. Frequencies of responses are given for each item, and percentages are based on the number of responses for each question.

Demographics

Seniors (30%) and juniors (26%) responded at a higher rate than did other student groups (Figure 1). Males (53%) responded somewhat more frequently than females (47%). Just over half of the respondents (57%) have indicated a major. Of those students who provided a major, about half (53%) were majoring in either the natural sciences or the social sciences (Figure 2).

Computer Usage

The vast majority of respondents reported using the OUGL Computing Commons (87%), the MGH CRC
(69%), or a computer in their residence (83%) (Figure 3). A smaller proportion of respondents (43%) reported using a departmental computer lab. Most respondents who used the MGH CRC or a departmental computer lab did so for less than three hours per week (Figure 4). For students who stated that they used computers in the OUGL Computing Commons, about one third (31%) did so for less than three hours per week, and just over one third (36%) did so for three to ten hours per week. Almost half (42%) of the respondents who utilized a computer in their residence tended to do so for more than ten hours per week. Some students reported using an alternative computing resource (See coded responses).

Lab Usage

An overwhelming majority (94%) of respondents indicated that they used the general-access labs for email (Figure 5). Word processing (81%), web browsing (70%), and printing (64%) were also frequently selected uses for the labs.

Activities

More than three-quarters of the survey respondents (77%) devoted at least 25% of their time, in the general-access labs, to completing course work/studying (Figure 6) and 66% of survey respondents indicated that they spent less than 25% of their lab time on academic planning.

Preferred Computer Availability

The proportion of respondents choosing PCs as their preferred computer platform was much higher than the proportion that selected Macs (79% for PCs vs. 9% for Macs). The remaining 12% of respondents did not have a platform preference. When asked about the availability of their preferred platform, the majority of respondents (78%) indicated they were able to use their preferred platform "almost always" (Figure 7).

Preferred Hardware and Software Use

Survey respondents were asked to identify hardware and software that they would like to see in the labs, but is not currently available. The most frequently requested software was a graphics package, followed by a web development application (See software coded responses). CD burners and DVD burners were the most frequently requested hardware items, followed by scanners, digital and video cameras, and optical mice (See hardware coded responses).

Comments/Suggestions

On the final survey item, respondents were given the opportunity to make general comments or suggestions about the general-access labs. Of the 1886 respondents, 420 offered responses that could be coded for analysis (See coded responses). Sixty-eight students noted that the labs were great resources and that lab staff was responsive to their needs. In contrast, 75 students complained about lines and wait time in the labs for computer availability. A possible solution offered to address this problem was the addition of more computers, as suggested by 66 students. Another frequent suggestion, made by 67 students, was the need for better and more rapid repair and maintenance of lab computers.
Comparisons to 1999 Survey Data

The distribution of respondents by class level in 1999 was very similar to the distribution in 2001. Juniors and seniors responded more frequently than students at other class levels in both the 1999 survey and the 2001 survey (Figure 8). However, in 2001 there was a 4% decrease from 1999 in the rate at which juniors responded to the survey, and a 6% increase in the response rate for freshman. Graduate students responded to the 2001 survey at a rate that was 6% lower than the 1999 rate.

Computing preferences did not change significantly from 1999 to 2001 (Figure 9). The vast majority of clients who expressed a platform preference indicated that they preferred using a PC. Because the wording for a third option was changed from the 1999 survey ("Other" in 1999 vs. "No Preference" in 2001), only students who indicated a preference for either a PC or a Macintosh were included in the analysis presented in Figure 9.

Although the response options given for resources used in the general-access labs were modified and expanded in the 2001 survey, it is possible to make comparisons for five resources given as options on both the 1999 survey and the 2001 survey (Figure 10). Survey respondents in 1999 and 2001 indicated that email was the most frequently used resource in the general-access labs. There was a 13% increase from 1999 in the proportion of survey respondents using word processing in the labs on the 2001 survey. In addition, the rate of respondents utilizing spreadsheets increased by 16% and the rate of respondents utilizing database software increased by 3%.

CONCLUSIONS

Although the proportion of freshman and sophomores using the labs has increased, upper division students continue to be the heaviest use clients. Future lab planning should continue to cater to the 'general' student while simultaneously making greater efforts to accommodate the specific needs of the upper division students.

While students have always indicated an overwhelming preference for PCs, the survey comparisons indicate that this preference is growing. Future purchases should reflect this Macintosh to PC shift.

Usage patterns indicate that students use their own computers significantly more than the lab computers. The next survey should explore reasons for lab usage so that services can be adjusted to meet the students' needs. Are labs used because they are easily accessible throughout the day, or because the labs offer hardware, software, or services that are not available in the students' residences?

When asked to list hardware, software, or services that they would like to see available in the labs, many students indicated those that are currently available. Lab staff should find a way to advertise those items better so students can make use of them.
FIGURES

Figure 1. Respondents' Class Level

Figure 2. Respondents' Major
Figure 3. Computer Resource Usage  
(Percentage of students reporting use of resource)

Figure 4. Weekly Computer Resource Usage  
(Hours per week spent using the computing resource)
Figure 5. Computer Lab Resource Usage
(Resources utilized by at least 10% of respondents)

- Email
- Word processing (VIIord)
- Browsing the Web
- Printing (Draft)
- Spreadsheets (Excel)
- File Transfer
- Scanning Images
- Presentations (PowerPoint)
- Printing (Color)
- Image Editing (Photoshop)
- CD Burning
- Web Page Design
- Databases (Access)
- Watching Video
Figure 6. Computer Lab Time Allocation  
(Percentage of time allocated to each activity)

Figure 7. Preferred Computer Availability  
(Percentage of respondents)
Figure 8. Respondents' Class Level by Survey Year

<table>
<thead>
<tr>
<th>Class Level</th>
<th>1999</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>9.2%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>16.7%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Junior</td>
<td>30.3%</td>
<td>26.4%</td>
</tr>
<tr>
<td>Senior</td>
<td>28.9%</td>
<td>29.6%</td>
</tr>
<tr>
<td>Graduate</td>
<td>11.9%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Other</td>
<td>3.1%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

Figure 9. Preferred Computing Platform by Survey Year

<table>
<thead>
<tr>
<th>Platform</th>
<th>1999 (N=342)</th>
<th>2001 (N=1635)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>87.1%</td>
<td>89.9%</td>
</tr>
<tr>
<td>Macintosh</td>
<td>12.9%</td>
<td>10.1%</td>
</tr>
</tbody>
</table>
Figure 10. Lab Resource Usage by Survey Year

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>91.9%</td>
<td>94.3%</td>
</tr>
<tr>
<td>Word Processing</td>
<td>68.3%</td>
<td>80.9%</td>
</tr>
<tr>
<td>Spreadsheets</td>
<td>15.2%</td>
<td>30.6%</td>
</tr>
<tr>
<td>Databases</td>
<td>8.7%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Statistics</td>
<td>6.2%</td>
<td>3.6%</td>
</tr>
</tbody>
</table>