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ABSTRACT

The goal of this report is to examine the progress of the Washington Learning Anytime Partnership (LAAP). In 1999, a 1.8 million dollar grant was given to Washington's community and technical colleges to increase and improve the courses offered through the Internet including the development of a "one-step system" to enable students to view and register for online course at a single web site. Part one of the report provides an analysis of data provided by the State Board of Community and Technical colleges. The data includes students enrolled in one or more online classes between July 1, 2000 and June 30, 2001. The majority (80%) of these students enrolled in a mixture of online and on campus classes. The study compares "online students" with "campus students." The data indicates the flexibility is a major reason for growth in online learning. Online learning particularly appeals to women, especially those with children. Although many students have expressed satisfaction with the format, content of courses, the instruction, and service provided by online courses, there have been low completion scores exhibited by online students. It should be noted that there has been an increase in faculty participation rate in online education. Contains three appendices. (MZ)

Second Year Evaluation Report of the Washington Learning Anytime Anywhere Partnership (LAAP)

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Executive Summary

The purpose of this report is to examine the progress of the Washington Learning Anytime Anywhere Partnership (LAAP). In the early fall, 1999 Washington's 34 community and technical colleges were awarded a $1.8 million grant to strengthen and expand courses and services offered via the internet, including the development of a "one-stop system" to enable students to view and register for online courses at a single web site.

Part I of this report provides analysis of data provided by the State Board of Community and Technical Colleges. The data includes students enrolled in one or more online classes between July 1, 2000 and June 30, 2001 (N=22,000). The majority (81 percent) of these students enrolled in a mixture of online and on-campus classes. Nineteen (19) percent of all online students enrolled only in online courses (N=4700) and did not attend any on-campus classes during this period were analyzed separately from the entire set. Throughout the data analysis, the entire set of online students is referred to as "All-Online" students". The subset that attended entirely online is referred to as "Online-Only" students. Finally, a comparison group of "On-Campus" students enrolled only on campus (N=291,000) in similar programs and courses as the "All-Online" students are also analyzed. Other forms of data included a survey of online students and qualitative data collected from four community colleges comprise Parts II and III of the report.

Summary of Findings

Some 22,000 students enrolled in 1 or more online classes in 2000-2001 in the community and technical colleges. This entire set is referred to as "All-Online" students. A subset (19 percent) of this group comprised of 4,700 "online-only" students was enrolled only in online classes whereas the other 17,300 online students (81 percent) enrolled in a mixture of online and on-campus classes.

Sixty-two (62) percent of the all-online students were female and represented in the following ethnic categories: White (81.9 percent), Asian (6.9 percent), Latino/Hispanic (4.2 percent), African American (3.6 percent), Native American (1.7 percent) and other (1.7 percent). Online-only students were slightly more female 66 percent and white (84.1 percent) than all-online students as a whole. Other ethnic categories for this subset were: Asian (5.3 percent), Latino/Hispanic (3.6 percent), African American (3.6 percent), Native American (1.7 percent), and other (1.6 percent). These data for all-online and online-only students compares with on-campus data that shows females are 52 percent of the student body and are 74.8 percent white, 8.2 percent Asian, 7.3 percent Latino/Hispanic, 5.6 percent African American, 2 percent Native American, and 2 percent "other." Students with disabilities comprised 4.7 percent of the all-online students and 2.6 percent of the online-only subset compared with 3.9 percent of the on-campus students.

In addition to attending school, over 59 percent of all-online students worked full or part-time. This compares with 57 percent of on-campus students. However, online-only students were more likely to work full or part-time (69 percent) than other students who also attended on campus. One-third of all-online students also declared they had children compared to 39 percent of online-only students and 32 percent of on-campus students. Most of the all-online students were enrolled full-time (64 percent) and only 16 percent of online-only students were full-time. Of the full time students, 33 percent of all-online students received need-based aid, and 20 percent of online-only students received aid.

Over half of all-online students were preparing to transfer compared to 37.3 percent of online-only students. Nearly 42 percent of the all-online and over 44 percent of the online-only students were enrolled for workforce preparation. Over 18 percent of online-only students were enrolled for personal enrichment compared to 7 percent of the all-online students. The major areas of instruction were social sciences and English (37 percent combined) and business accounting (26 percent of all FTEs instructed).

Online course completion is of particular interest for answering questions regarding the progress of online students. For evaluation purposes, online and on-campus course completions for the 17,300 students enrolled in a mix of courses was analyzed. These students completed nearly 71 percent of their online courses compared to 85 percent of their on-campus courses. They

earned an overall grade point average of 3.25 online compared to 3.30 in their on-campus classes.

Online students as a whole enrolled in 32 of the 34 community and technical colleges. Sixty-seven percent of all-online students enrolled in their home district for online courses and nearly 52 percent of online-only students enrolled in their home district.

Over 500 instructors taught online courses. Most of the online instructors (57.6 percent) were full time.

For the second year of the LAAP project, an online survey was administered to all-online students enrolled in an online class in the spring quarter. Of the 8,000 spring-quarter online students, 1,385 responded (17 percent). The overall findings are consistent with previous year's survey responses and student data, although the response rate still remains low.

Students cited attainment of a degree or certificate as their top goal for attending college (88 percent responded very important and 8 percent somewhat important). Following this goal, future employment was the second highest goal cited (81 percent very important, 15 percent somewhat important).

Students cited flexibility reasons as most important to choosing to enroll online. This included flexibility to work at home (94 percent) and flexibility for family issues (91 percent). Personal preference was cited as important or somewhat important by 91 percent of respondents. The non-availability of the course at their local campus was only somewhat important and marginally important at more distant classes.

Only a minority of the students (35 percent) seemed to rely on the recommendations of other students as a reason for enrolling in online courses. About one-third of students cited geographic distance from a college campus as an important factor influencing them to enroll online.

Most students expressed satisfaction for online courses and services. About three-fourths of respondents were very satisfied or somewhat satisfied with the ease of registration and the quality of instruction, the content of the curriculum of their online courses, timeliness of feedback, student-faculty interaction and student-student interaction. Fewer students were satisfied with the availability of library and other learning materials (59 percent), availability of technical assistance (57 percent) or quality of advising (53 percent),

Students found study skills for online classes as or more demanding than their on-campus classes. Fifty percent of the students said that online learning demanded the same study skills as on-campus courses, while 41 percent said it demanded more. Only 7 percent said it was less. Fifty-one percent of the students claimed that online courses demanded more reading than on-campus courses, while 41 percent of the students said it was the same. Five percent said it was less. Forty-four percent of the students felt that the demands for writing was the same for online classes compared with 40 percent of the students who said it was the same and 13 percent who said it was less.

Only 15 percent of the students said that memorization was more demanding than on-campus courses. Fifty-one percent said it was the same and

29 percent said it was less demanding. In the area of critical thinking, 92 percent of the students rated online classes as more demanding or about the same.

Work required for online classes compared favorably with on-campus classes. Ninety-two percent of the students declared that online classes demanded more or the same amount of work outside the class as on-campus classes. Ninety-three percent of the students said that online classes demanded more or the same application of knowledge as on-campus classes.

As far as class discussion is concerned, 35 percent of the students said that online classes demanded more discussion. Twenty-seven percent of the students said it was about the same, and 35 percent said it was less. Only 14 percent of the students said that library use was more demanding for online classes compared with 41 percent who said it was the same and 35 percent who said it was less. Time demands for classes was declared to be more for 49 percent of the students compared to 36 percent of the students who said it was the same and 13 percent of the students who said it was less.

Students also compared their experiences with online instructors and on-campus instructors. The majority of students (92 percent) declared that faculty knew their subject more or about the same as on-campus instructors. Students rated their experiences with faculty availability outside of class (69 percent), faculty enthusiasm (84 percent), creation of challenging learning (92 percent), and encouraging discussion (87 percent) as more or the same as on-campus experiences.

Forty-eight percent of the students reported that online courses have not been difficult to complete, but thirty-five percent said that the courses were more challenging than they expected. Fourteen percent said that the format presented problems and 11 percent said that computer problems presented difficulties in completing the courses. Eighteen percent of students claimed that they had received some kind of preparation for taking online classes.

Qualitative data in the form of focus interviews was also collected at four different community colleges. Evidence from that section of the report points toward online learning as an established and accepted means of education in the campuses included in this report. The views of faculty and administrators show that online learning continues to grow, and support the likelihood that it will follow that trajectory in the future. Administrators are also seeing effects of online learning in the daily lives of their campus. Campus officials report that the growth in online learning has made an impact on students coming to campus and on services required for their day students. If fewer students are coming to campus, what does that mean for food services, building space, athletic facilities, and libraries? Students and faculty spending less time on campus are currently affecting all of these services, and as in the case of libraries where students reported in surveys that they use just as much when enrolled online as on campus, virtual services may need to be developed further.

Conclusions

In this report, as in last year's, the various forms of data (qualitative and quantitative) were used to address the two major research questions. First of all, (1) does the development of a comprehensive student centered system of services facilitate a cultural and technological shift from institution-centered to student centric services? The data in this study, particularly the qualitative data provide insight into the developing attitudes, and changes in values and day-to-day practices of individuals within the institutions. These noticeable, and documented changes are contributing to a cultural shift in the State's community colleges. These data, along with the quantitative data (State board data and survey data) in this study show continued growth as well as acceptance and satisfaction of this medium by students and faculty.

How do the qualitative and quantitative data collection yield information to answer the second evaluation question? The second evaluation question is: (2) Does the creation and sharing of resources by developing instructional content standards, providing training for staff, pooling of existing resources, improve the quality and increase access to anytime anywhere instruction? A full treatment of this question will be addressed in the ensuing years of this evaluation. At this stage, with the establishment of the Virtual College being planned for the spring, 2002, and with the implementation of new policies, future rounds of data collection will yield relevant data to address this question. Currently, available data show that students are satisfied with instruction and the content of online

courses. As far as services are concerned, students again express satisfaction with services that are currently available.

Comparison with 1st Year Findings

The most direct and reliable comparisons that can be made between the first and second year of the project depend on analysis of the State Board data provided in 1999-2000[1] and 2000-2001. As noted above, the overall growth in online enrollment continues to be impressive. Student enrollment in online classes has grown from approximately 15,000 students in 1999-2000 to over 22,000 in 2000-2001.

The proportion of students in the various demographic categories has remained relatively stable over the two years of the LAAP project. Females are the predominant gender group with over 60 percent of enrollees over the two years. The racial categories are stable, with white students comprising approximately 82 percent of the students in 1999-2000 and in 2000-2001. The other proportion of students in the racial categories has shifted only slightly. Disability status of the students remains virtually unchanged over the two years of the project. Age categories have also remained stable.

A review of the work and family status of the students indicates online students are more likely to have work and family responsibilities than on campus students, with online only students having the heaviest responsibilities.

The course completion rate for all-online students (the only comparison available) was 70.8 percent in 2000-2001 compared to 69.1 percent in 1999-2000. Student grade point averages in 1999-2000 (see 1999-2000 report) were

[1] The State Board 1999-2000 data are summarized in an excel data sheet in Appendix III.

2.99 for online classes and 3.12 for on-campus classes. This compares with 2000-2001 data that shows students with a 3.25 average for online classes and 3.30 for on-campus classes.

A notable trend is the increase in faculty that instruct online classes. In 1999-2000, 258 faculty taught online courses. In 2000-2001 that number increased to over 500 faculty. That represents a gain of nearly 100 percent.

These findings indicate impressive growth of online learning based upon the increases in enrollment and faculty instructors. Academic performance by the students is trending up. In addition, the findings indicate more widespread acceptance by students, faculty, and administrators. These gains in enrollment and participation are noteworthy --that online learning is progressing toward integration into Washington community college organizational culture.

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This project is supported by a grant from the Learning Anytime Anywhere Partnership (LAAP), a program administered by the Fund for the Improvement of Postsecondary Education (FIPSE), U.S. Department of Education.

In the early fall, 1999, Washington's 34 community and technical colleges were awarded a $1.8 million four-year grant from the Learning Anytime Anywhere Partnership (LAAP), U.S. Department of Education. The purpose of the grant was to strengthen and expand courses and services offered via the Internet, including the development of a "one-stop system" so students may view and register for online courses at a single web site.

The purpose of this report is to examine the progress of the Washington Learning Anytime Anywhere Partnership (LAAP) in 2000-01, the second LAAP program year. LAAP seeks to build a new organizational model that allows students to enroll in courses from any campus in the community college system, including a one-stop virtual campus. The new common system will include database and application enhancements, pooled instructional resources, and training for faculty and support service staff. The 2nd year evaluation, just as the 1st year's evaluation will be guided by two major questions that pertain to the goals:

1. How does the development of a comprehensive student-centered system of services facilitate a cultural and technological shift from institution-centered to student-centric services?

2. Does the creation and sharing of resources by developing instructional content standards, providing training for staff, pooling existing resources, implementing technological tools, improve the quality and increase access to anytime anywhere instruction?

In this report I provide analysis of data that addresses the two major questions. There are four parts to this report. Part I is an analysis of student and course data supplied by SBCTC for 22,000 students[2] enrolled in at least one online course between July 1, 2000 and June 30, 2001. Comparisons are made between the entire group of online students and a sub-group of 4,700 (24 percent) online students[3] who were enrolled solely in online classes during the year.

In addition, the all-online students and the online-only student subset were also compared with a group of students (N=291,000) enrolled on campus in similar academic and work related classes and program. Finally the data set included demographic data on 500 full and part-time faculty teaching online courses.

The second part of this evaluation report included analysis of surveys of 1385 online students. These surveys provided information on satisfaction

[2] Referred to as all-online in the text.
[3] Referred to as online-only in the text.

students had with courses, instructors, advising, and services. Students also made comparisons with their on-campus experiences.

Qualitative data collected in interviews from four community colleges was the basis for the third part of this report. These interviews yielded information about the individuals' professional backgrounds, beliefs, conceptions of collaboration, and motivation for participation in the project.

The fourth part of the report is comprised of the conclusions and implications of this report and summary trends during years 1 and 2 of the LAAP project. The conclusions and implications are based on the quantitative portion (SBCTC data and survey data) and qualitative data collected for this evaluation.

Part I: Analysis of SBCTC Data

Students: Gender, Ethnicity, Age, Family, Prior Education and Employment Status

The demographic tables in this report compare "all-online" students (those enrolled for a mix of online and on-campus courses) with those students enrolled only in online courses (designated "online-only"). When available, comparisons were made with students who enrolled only in on-campus courses (referred to as "on-campus" in the tables.

The results show that the majority of online students were female (Table 1). Slightly more online-only students were female than all-online students, but the proportion of females was much higher than students who enrolled only in on-campus courses.

Comparisons among ethnic groups for all-online students and online-only students show that the overwhelming majority of online students are white (Table 2). The findings for all-online and online-only are similar, and are considerably higher than the proportion of white students found in on-campus classes. As far as disabilities are concerned, more all-online students claim a disability (4.7 percent) compared to on-campus students (3.9 percent) and online-only (2.6 percent) students (Table 3).

Comparisons of the age categories show that the all-online students have the highest representation in the 19-29 age group (Table 4). The online-only students tend to be older (44.1 percent in the 30-49 category) than the all-online students (32.2 percent) and on-campus students (35.4 percent). In the 50 and older category, the proportion of online-only students is substantially higher than the all-online students and slightly higher than on-campus students.

There are moderate differences in the family status of all-online, online-only and on-campus students (Table 5). In the single parent category, slightly more all-online students than online-only and on-campus students are represented here. All-online students are more likely to be represented in the no children category (51.1 percent) than online-only (45.7 percent) and are less likely to be married with children (21.5 percent) than online-only students (28.9 percent). All-online students are similar to on-campus students in the married with children category (21.2 percent).

As a "new student" measure, 26 percent of online-only students were new students enrolled for the first time compared to 11 percent of all-online students new to college in their first online quarter (Table 6).

Most of the online-only (69.6 percent), all-online (59.4 percent) and on-campus students (59.4 percent) were employed full or part-time (Table 7). Substantially more online-only students were employed full-time than all-online and on-campus students, however. More all-online students than online-only students were unemployed, but slightly fewer all-online students than on-campus students were unemployed. More all-online students than online-only students were out of the workforce and slightly fewer all-online students than on-campus students were out of the workforce.

There were only slight differences between all-online students and online-only students as far as subjects enrolled were concerned (Table 8). In terms of goals for enrolling in online classes, all-online students were more likely than online-only students to be transfer students. More online-only than all-online students were workforce students. Enrolling in online courses for personal interest was far more appealing to online-only students (18.4 percent) than all-online students (7.4 percent). Almost two-thirds (64 percent) of all-online students attend full time students. However, 15.5 percent of online-only students also attended full-time (Table 10). One-third (33.4 percent) of all-online students receive need-based aid, as did 20 percent of the all-online students (Table 11).

Table 1. Gender Status: Online and On-campus Students Enrolled for the Same Purposes (percentages).

Gender	All-online	Online-only	On-Campus
Female	62	66	52
Male	38	34	48

Table 2. Ethnic Status: Online and on-campus Students Enrolled for the Same Purposes (percentages).

Ethnicity	All-online	Online Only	On-Campus
Asian/Pacific Islander	6.9	5.3	8.2
African American	3.6	3.6	5.6
Native American	1.7	1.7	2.0
Latino/Hispanic	4.2	3.6	7.3
White	81.9	84.1	74.8
Other	1.7	1.6	2.0

Table 3. Disability: Online Students Compared to On Campus Students Enrolled for the Same Purposes (percentages)

Disability Status	All-online	Online-only	On-Campus
No Disability	95.3	97.4	96.1
Has Disability	4.7	2.6	3.9

Table 4. Age Categories: Online and On-Campus Students Enrolled for the Same Purposes (percentages).

Age Category	All-online	Online-only	On-Campus
Under 18	4.5	3.9	10.7
18-29	58.5	42.4	51.1
30-49	32.2	44.1	35.4
50 or older	4.9	9.6	9.3

Table 5. Family Status: Online Students and On-Campus Students Enrolled for the Same Purposes (percentages).

Family Status	All-online	Online-only	On-Campus
Single Parent	11	9.9	10.7
Couple with Children	21.5	28.9	21.2
No Children	51.1	45.7	N/A
Other	16.6	15.4	N/A

Table 6. Students Enrolled in Online Courses for the First Time

Type of Students	Enrolled Online for first time (percentages)
All-online	11
Online-only	26

Table 7. Employment Status: Online and On-Campus Students Enrolled for the Same Purposes (percentages)

Employment Status	All-online	Online-only	On Campus
Employed Full-time	30.1	48.7	31.7
Employed Part-time	29.3	20.9	25.4
Unemployed	18.7	10.2	19.7
Out of Labor Force	22.0	20.3	22.6

Table 8. Online Enrollment by Subject Studied

Major Area	All-online	Online-only
Humanities	6.2	6.2
Social Sciences	22.1	22.2
Accounting/Business/IT	25.9	25.7
Natural Sciences	6.4	6.6
Other Professional/Tech	5.4	5.3
English Lit/Composition	15.0	15.0
Fine Arts	4.4	4.4
Math	3.1	3.2

Table 9. Online Students Goals for Attending (percentages)

Enrollment Status	All-online	Online-only
Workforce	41.6	44.1
Transfer	50.9	37.3
Basic Skills	.1	0
Personal Interest	7.4	18.4

Table 10. Full-Time Status (Enrolled in 10 or more credits): Online Students (percentages).

Type of Student	Full-time Students (percentages)
All-online	64
Online-only	15.5

Table 11. Students Enrolled Full-Time that Received Need-Based Aid (percentages).

Economic Status	All-online	Online-only	On-Campus
Receive Need-Based Aid	33.4	20	N/A
Do not Receive Need-Based Aid	66.4	80	N/A

Course Completion Rates and Grade Point Averages in Online Instruction Compared to Traditional On-Campus Classes

Credit completion (credits attempted/credits earned) and grade point averages were analyzed for the 17,300 students who enrolled in a mix of online

and on-campus classes in 2000-2001. Table 12 displays credit completion ratios and the total percent of credits completed broken out separately for their online and on-campus college level classes taken. Overall, these students completed 71 percent of the online credits compared to 85 percent of the on-campus credits they attempted. Following the course completion data, Table 13 shows the grade point averages for the same students separating out their online and on-campus courses.

Table 12. Credit Completion: Students Enrolled in both Online and On-Campus Classes in 2000-2001 (percentages).

Range of Ratio	Online Classes	On-Campus Classes
0-.25	27.3	8.2
.26-50	5.4	6.7
.51-.75	2.9	10.4
.76-1.00	64.3	74.7
Overall Completion	70.8	85.4

Table 13. Grade Points Earned: Students that Enrolled in Both Online and On-Campus Classes in 2000-2001 (percentages)

Range of Grade Points Per Class	Online Classes	On-Campus Classes
0-1.00	2.4	.5
1.01-2.00	9.0	3.1
2.01-3.00	23.4	24.6
3.01-4.00	65.2	71.8
Overall GPA	3.25	3.30

Colleges where Online Students Enrolled

Online students were enrolled in thirty-two of the thirty-four community colleges (Table 14). Bellevue (12.9 percent) and Edmonds (10.3 percent) continued to lead the state in online enrollment. Other institutions with relatively high enrollment were: Green River (8.6 percent), Seattle North (5.3 percent) Skagit Valley (6.9 percent), and Spokane Community (5.6 percent). Campuses reporting no online enrollments were not listed in the table.

Each college publicizes online classes, but students who enrolled in "WAOL shared classes" via their home college are listed under their home colleges, regardless of where these classes originated. Overall, 67.3 percent of "all-online" students enrolled in online classes in their home college district (Table 15). Students who took only online were less likely to enroll in their home college (51.8 percent).

Table 14. Colleges where Online Students were Enrolled.

Colleges	Percentage of Total Enrollment
Bates	.3
Bellevue	12.9
Big Bend	1.0
Cascadia	.6
Centralia	.5
Clark	2.8
Clover Park	<1
Columbia Basin	3.2
Edmonds	10.3
Everett	3.9
Green River	8.6
Grays Harbor	1.2
Highline	2.7
Lake Washington	1.3
Lower Columbia	.4
Olympic	2.3
Peninsula	.8
Pierce District	6.0
Renton	.4
Seattle Central	4.0
Seattle North	5.3
Seattle South	1.6
Shoreline	3.9
Skagit Valley	6.9
South Puget Sound	.4
Spokane Community	5.6
Spokane Falls	2.6
Tacoma	2.5
Walla Walla	2.2
Wenatchee Valley	2.3
Whatcom	.3
Yakima Valley	2.9

Table 15. Students Enrolled in Home District for Online Classes (percentages)

Type of Students	Percentages
All-online	67.3
OnlineOnly	51.8

Instructors

Over time, the LAAP project aims to increase the number of instructors and resources for instructors to teach online. In this section I discuss demographic information provided by the SBCTC database for these instructors.

Tables 16-18 show the age, gender, and ethnicity of online instructors. Thirty-one percent of online instructors were between 31-40 years of age (Table 16). The largest proportion of instructors was in the 51-60 age category (37 percent). More females (49 percent) than males (39 percent) taught online classes (Table 17) and the overwhelming majority (82 percent) of instructors were white (Table 18).

Online instructors are more likely to be full-time (57.6 percent) than part-time (37.1 percent) which is opposite the trend found among on-campus courses (Table 19). Overall, online instructors represent about 5 percent of all faculty teaching similar courses on campus in the community college.

Table 16. Online Instructor Age (percentages)

Age Range	Online Instructors
18-30	1.2
31-40	26
41-50	31
51-60	37
60 and above	5

Table 17. Online Instructor Gender

Gender	Percentages
Male	39
Female	49
Missing	12

Table 18. Instructor Ethnicity

Ethnicity	Percentages
Asian	2
African American	<1
Native American	<1
Hispanic	<1
White	82
Other	13

Table 19. Full-Time and Part-Time Status of Instructors

Employment Status	Online
Full-Time	57.6
Part-Time	37.1
Other	5.3

Part II: Analysis of Survey Data

Survey Response

For the 2nd year of the LAAP project, an online survey was administered to all students enrolled in an online class in spring quarter. Of 8,000 online students surveyed, 1,385 responded (17% response rate). This low response rate raises concerns about the ability to generalize from the survey results. However, overall findings are consistent with previous year survey responses and student data.

Student Goals

Why do students enroll in online classes? Eighty-eight percent of students declared that the attainment of a degree or certificate was a very important reason for them enrolling in an online course (Table 20). Personal enrichment was important to 97 percent of the students who declared it was very or somewhat important to them (Table 21). Advancement in their current employment had importance to students (Table 22), but not nearly to the degree as preparation for future employment (Table 23). Preparation for additional study at the undergraduate level (Table 24) and at the graduate level (Table 25) carried moderate importance for students enrolling in online classes.

Table 20. Student Goals: Attainment of degree or Certificate

Degree of Importance	Percentage
Very Important	88
Somewhat Important	8
Not Important	4

Table 21. Student Goals: Personal Enrichment

Degree of Importance	Percentage
Very Important	72
Somewhat Important	26
Not Important	2.7

Table 22. Student Goals: Advancement at Current Employment

Degree of Importance	Percentage
Very Important	45
Somewhat Important	24
Not Important	32

Table 23. Student Goals: Prepare for Future Employment

Degree of Importance	Percentage
Very Important	81
Somewhat Important	15
Not Important	4

Table 24. Student Goals: Prepare for Additional Study at Undergraduate Level

Degree of Importance	Percentage
Very Important	55
Somewhat Important	28
Not Important	17

Table 25. Student Goals: Prepare for Additional Study at Graduate Level

Degree of Importance	Percentage
Very Important	42
Somewhat Important	34
Not Important	24

Reasons for Enrolling

Students declared a variety of reasons for enrolling in online classes. The availability of classes at their local college (Table 26) or at another college (Table 27) was not declared to be very important reasons for enrolling online. The ability to complete course work quickly (Table 28) and preference for this mode of delivery (Table 29) were declared to be very important or somewhat important reasons by 75 percent of the students. The quality of online courses is also important to at least 80 percent of online students (Table 30).

The flexibility of online courses appeals to students. Eighty-two percent of students said it was very important that they were able to take courses at a convenient time (Table 31). Family concerns were also important to students

(Table 32). Eighty-four percent of the students declared that the flexibility of the courses to meet their family concerns was either very or somewhat important.

Simply the flexibility due to their personal preference was very important to 68 percent of the students (Table 33). Studying and taking classes at home appealed to 92 percent of the students (Table 34). Accommodating a disability was very important or somewhat important to 16 percent of all-online students (Table 35).

Students did not seem to enroll based on the recommendations of other students. Sixty-six percent of the students said that the recommendation of another student was not important in their decision to enroll (Table 36). Distance from the college also was not important in their decisions to enroll online. Only 16 percent said that distance was very important compared to 66 percent of students who declared it was not important (Table 37).

Table 26. Student Reasons for Enrolling Online: Not Available at Local College

Degree of Importance	Percentage
Very Important	30
Somewhat Important	26
Not Important	45

Table 27. Student Reasons for Enrolling Online: Not Available at Another College.

Degree of Importance	Percentage
Very Important	12
Somewhat Important	20
Not Important	67

Table 28. Student Reasons for Enrolling Online: Ability to Complete Course Quickly.

Degree of Importance	Percentage
Very Important	45
Somewhat Important	30
Not Important	25

Table 29. Student Reasons for Enrolling Online: Preference for Mode of Delivery

Degree of Importance	Percentage
Very Important	40
Somewhat Important	35
Not Important	25

Table 30. Student Reasons for Enrolling Online: The Quality of the Courses

Degree of Importance	Percentage
Very Important	41
Somewhat Important	39
Not Important	21

Table 31. Student Reasons for Enrolling Online: Flexibility to Take Course at Convenient Time

Degree of Importance	Percentage
Very Important	82
Somewhat Important	9
Not Important	9

Table 32. Student Reasons for Enrolling Online: Flexibility because of family concerns

Degree of Importance	Percentage
Very Important	68
Somewhat Important	16
Not Important	17

Table 33. Student Reasons for Enrolling Online: Personal Preference

Degree of Importance	Percentage
Very Important	69
Somewhat Important	22
Not Important	9

Table 34. Student Reasons for Enrolling Online: Flexibility to Study at Home

Degree of Importance	Percentage
Very Important	78
Somewhat Important	14
Not Important	8

Table 35. Student Reasons for Enrolling Online: Flexibility to Accommodate Disability.

Degree of Importance	Percentage
Very Important	9
Somewhat Important	7
Not Important	84

Table 36. Student Reasons for Enrolling Online: Recommendation of other Student

Degree of Importance	Percentage
Very Important	12
Somewhat Important	23
Not Important	66

Table 37. Student Reasons for Enrolling Online: The College is too Far

Degree of Importance	Percentage
Very Important	16
Somewhat Important	19
Not Important	66

Student Satisfaction with Online Courses

Student satisfaction with online courses was generally high. Fifty-six percent of the students said they were very satisfied with the content of their curriculum (Table 38). Even more tellingly, only 8 percent of the students declared that they were somewhat or very dissatisfied. Satisfaction with the quality of instruction reflected a similar pattern to satisfaction with course content

with 76 percent of the students saying the instruction was very or somewhat satisfactory and only 12 percent indicating that the instruction was somewhat or very unsatisfactory (Table 39).

Timeliness of feedback on academic progress was somewhat or very satisfactory to 75 percent of the students (Table 40). Student satisfaction with student-faculty interaction was very or somewhat satisfactory to 72 percent of online students (Table 41). Satisfaction with student-student interaction was not as high (66 percent), but only 10 percent of the students were somewhat or very dissatisfied with student-students interaction (Table 42).

Satisfaction with services was satisfactory to the majority of online students. The availability of technical assistance was somewhat or very satisfactory to 57 percent of students (Table 43). The quality of advising was relatively high with 53 percent of the students saying it was very satisfactory or somewhat satisfactory (Table 44), Only 10 percent declared it to be somewhat or very unsatisfactory. Fifty-nine percent of students said that the availability of library service was very or somewhat satisfactory compared to 6 percent of the students who expressed dissatisfaction (Table 45). Ease of registration appealed to the majority of students with 76 percent of the students claiming they were very or somewhat satisfied with the registration process (Table 46).

Table 38. Student Satisfaction: Content of Curriculum

Degree of Satisfaction	Percentages
Very Satisfied	56
Somewhat Satisfied	29
Neutral	11
Somewhat Dissatisfied	2
Very Dissatisfied	1
No Opinion	1

Table 39. Student Satisfaction: Quality of Instruction

Degree of Satisfaction	Percentages
Very Satisfied	48
Somewhat Satisfied	28
Neutral	12
Somewhat Dissatisfied	9
Very Dissatisfied	3
No Opinion	1

Table 40. Student Satisfaction: Timeliness of Feedback on Academic Progress

Degree of Satisfaction	Percentages
Very Satisfied	47
Somewhat Satisfied	28
Neutral	12
Somewhat Dissatisfied	9
Very Dissatisfied	3
No Opinion	1

Table 41. Student Satisfaction: Quality of Student-Faculty Interaction

Degree of Satisfaction	Percentages
Very Satisfied	46
Somewhat Satisfied	26
Neutral	15
Somewhat Dissatisfied	8
Very Dissatisfied	3
No Opinion	1

Table 42. Student Satisfaction: Quality of Interaction with Fellow Students

Degree of Satisfaction	Percentages
Very Satisfied	38
Somewhat Satisfied	28
Neutral	19
Somewhat Dissatisfied	7
Very Dissatisfied	3
No Opinion	4

Table 43. Student Satisfaction: Availability of Technical Assistance

Degree of Satisfaction	Percentages
Very Satisfied	36
Somewhat Satisfied	21
Neutral	23
Somewhat Dissatisfied	7
Very Dissatisfied	4
No Opinion	9

Table 44. Student Satisfaction: Quality of Advising

Degree of Satisfaction	Percentages
Very Satisfied	31
Somewhat Satisfied	22
Neutral	25
Somewhat Dissatisfied	7
Very Dissatisfied	3
No Opinion	11

Table 45. Student Satisfaction: Availability of Library and other Learning Materials.

Degree of Satisfaction	Percentages
Very Satisfied	37
Somewhat Satisfied	22
Neutral	25
Somewhat Dissatisfied	4
Very Dissatisfied	2
No Opinion	10

Table 46. Student Satisfaction: Ease of Registration

Degree of Satisfaction	Percentages
Very Satisfied	55
Somewhat Satisfied	21
Neutral	15
Somewhat Dissatisfied	5
Very Dissatisfied	2
No Opinion	3

Demands of Online Classes Compared to On-Campus Classes

The following sets of tables assess how students enrolled in both compared the demands of their on-campus and online classes. As far as study skills are concerned, 41 percent of students claim that online courses demand more study skills than on-campus courses (Table 47). Fifty percent of the students however claim that the demands on their study skills are about the same. Only 7 percent claim that the demands are less.

The demands on reading for online courses appear to have more of an affect on students than their on-campus classes (Table 48). Fifty-one percent of students declare that the demands on reading are higher for online students with 41 percent saying it is about the same. Five percent of the students said that the demands were less.

Writing demands do not appear to be as great as the demands on reading (Table 49). Forty percent of the students said that writing demands were greater

in online classes than on-campus classes. Forty-four percent said that the demands were about the same and 13 percent said they were less.

Memorization was not as demanding a skill for online classes as it was for on-campus classes. The majority of students claimed that memorization was about the same or less (Table 50). Critical thinking however was a skill that many students rated (43 percent) as more demanding in online classes than on-campus classes (Table 51). Forty-nine percent of students said that critical thinking was the same for online and on-campus courses, and only 5 percent said it was less.

Online classes appeared to demand more work for the students outside of class than on-campus classes (Table 52). As far as applying knowledge is concerned, 54 percent of the students said it was about the same for online and on campus classes (Table 53). Thirty-nine percent of the students declared that online classes required more application of knowledge than on-campus classes.

Discussion was rated to be more demanding by 28 percent of the students (Table 54). Sixty-two percent of the students said that it was the same or lesson-campus classes.

Only 14 percent of the students declared that the demands on library use in online classes were more than in on-campus classes (Table 55). Forty-one percent said library use was the same and 35 percent said it was less.

What of the overall time required by online students. Table 56 shows that 49 percent of the students claimed that online classes demanded more time in and outside of class than on-campus courses. Thirty-six percent said it was

about the same, but only 13 percent said that it was less. The overall impression here is that online classes have either the same or more demands than on-campus classes, with a few notable exceptions. The most demanding aspects of online classes appear to be the amount of reading required, and overall work outside of class. Online classes also seem to challenge the students to use critical thinking and apply their knowledge to their coursework. The aspects of online learning that appear to be less demanding is the use of the library and the demands on discussion in class.

Table 47. Comparing Demands of Online Classes to On-Campus Classes: Study Skills

Level of Demand	Percentage
More	41
About the Same	50
Less	7
Don't Know	3

Table 48. Comparing Demands of Online Classes to On-Campus Classes: Reading

Level of Demand	Percentage
More	51
About the Same	41
Less	5
Don't Know	2

Table 49. Comparing Demands of Online Classes to On-Campus Classes: Writing

Level of Demand	Percentage
More	40
About the Same	44
Less	13
Don't Know	3

Table 50. Comparing Demands of Online Classes to On-Campus Classes: Memorization

Level of Demand	Percentage
More	15
About the Same	51
Less	29
Don't Know	5

Table 51. Comparing Demands of Online Classes to On-Campus Classes: Critical Thinking

Level of Demand	Percentage
More	43
About the Same	49
Less	5
Don't Know	3

Table 52. Comparing Demands of Online Classes to On-Campus Classes: Work Outside of Class

Level of Demand	Percentage
More	62
About the Same	30
Less	6
Don't Know	3

Table 53. Comparing Demands of Online Classes to On-Campus Classes: Applying Knowledge

Level of Demand	Percentage
More	39
About the Same	54
Less	5
Don't Know	2

Table 54. Comparing Demands of Online Classes to On-Campus Classes: Discussion

Level of Demand	Percentage
More	35
About the Same	27
Less	35
Don't Know	3

Table 55. Comparing Demands of Online Classes to On-Campus Classes: Using the Library

Level of Demand	Percentage
More	14
About the Same	41
Less	35
Don't Know	11

Table 56. Comparing Demands of Online Classes to On-Campus Classes: Time (in and Outside of Class)

Level of Demand	Percentage
More	49
About the Same	36
Less	13
Don't Know	2

Online Instructors

According to the survey information, online instructors compare favorably with on-campus instructors. Seventy-three percent of the students survey said that online instructors knew their subject matter as well as on-campus instructors (Table 57). Three percent said they knew less. Sixty-eight percent of the students said that online instructors were as familiar or more so with their academic work than on-campus instructors (Table 58). As far as instructor availability is concerned, 47 percent of students claimed that online instructors were as available outside of class as on-campus instructors (Table 59). Only 20 percent said online instructors were less available.

Online instructors seem to show the same or more enthusiasm for their teaching as on-campus instructors (Table 60). Fifty-five percent of online students said that online instructors create about the same amount of challenging learning as on campus instructors, and 37 percent of students said they created more (Table 61). Encouraging discussion appears to be a strength among online

instructors (Table 62). Eighty-seven percent of online students claim that online instructors encourage more or about the same amount of discussion as on-campus instructors.

Table 57. Comparing Online and On-Campus Instructors: Know their Subject Matter

Level of Demand	Percentage
More	19
About the Same	73
Less	3
Don't Know	5

Table 58. Comparing Online and On-Campus Classes Instructors: Familiar with Student's Academic Work

Level of Demand	Percentage
More	15
About the Same	53
Less	25
Don't Know	7

Table 59. Comparing Online and On-Campus Classes Instructors: Available Outside of Class

Level of Demand	Percentage
More	22
About the Same	47
Less	20
Don't Know	12

Table 60. Comparing Online and On-Campus Classes Instructors: Show Enthusiasm

Level of Demand	Percentage
More	26
About the Same	58
Less	9
Don't Know	6

Table 61. Comparing Online and On-Campus Classes Instructors: Create Challenging Learning

Level of Demand	Percentage
More	37
About the Same	55
Less	4
Don't Know	4

Table 62. Comparing Online and On-Campus Classes Instructors: Encourage Discussion

Level of Demand	Percentage
More	48
About the Same	39
Less	9
Don't Know	4

Reasons Why Online Courses have been Difficult

Students cited various reasons why completing online courses has been difficult. Not all students however have had difficulty completing courses. Forty-eight percent of online students claimed that completing online courses has not posed any difficulties (Table 63). Thirty-five percent of the students however, declared that online classes were more demanding than they expected. Format of the courses presented problems for 14 percent of the students and computer problems were cited by 11 percent of the students. Only 5 percent of the students identified students support services as contributing to their difficulties. Relatively few of the students responded that they had taken any sort of course preparation for online instruction (Table 64). In fact, 82 percent of the students claimed that they had taken no online or on-campus course preparation for online learning.

Table 63. Reasons Why Online Courses have been Difficult to Complete

Reason	Percentage
Not Difficult	48
More Demanding than Expected	35
Format Posed Problems	14
Support Services Inadequate	5
Health Problems	7
Computer Problems	11
Financial Problems	3
Other	

Table 64. Preparation for Taking Online Courses

Type of Preparation	Percentages
No Specific Preparation	82
Online Course for New Online Students	4
On Campus Course	6
Other	8

Conclusions: Based on Parts I and II

The appeal of online learning is growing, as demonstrated by the increases in online enrollment from approximately 15,000 in 1999-2000 to over 22,000 in 2000-2001. That is an increase of 32 percent in one year. The growth has been astonishing, particularly among certain student populations. Online learning appears to have its strongest appeal among white, female students with at least some college education. This student is likely employed full or part-time,

comes from a suburban area, and is relatively affluent. Although these may be modal characteristics of online students, it is important to note the differences among online students. In particular students who enroll in a mix of online and on-campus classes and those students who enroll only online differ in a variety of characteristics. As an example, employment status differs between these two groups. All-online students are more likely to be employed full-time while online-only students are more likely to employed part-time. Student goals also differ. All-online students are more likely to be transfer students, while online-only students are more likely to be either workforce students or enrolled in online courses for personal interest.

The full-time and part-time status of online students is also significant. Students enrolling in a mix of online and on-campus courses are more likely to be full-time students. Among online-only students, only a minority of the students (16 percent) is full time. It seems that this group of students (online-only), because they tend to work full-time, are older than all-online students, and are likely to have children, are seeking the flexibility of online courses, and that time demands prevent these students from enrolling either full-time or enrolling in on-campus courses.

A continuing problem identified for online learning is the relatively low credit completion rate of online students. This is particularly evident in comparing the online and on-campus credit completion of students. The overall completion rate for these students is 71 percent in online classes. This compares to 85 percent for on-campus classes. There are also slight differences

between the academic achievement of students in their online and on-campus courses. The grade point average of online students is 3.25 compared to 3.30 for on-campus classes. It must be noted however that the achievement gap has closed. Last year's data (1999-2000) showed that online students achieved a 2.99 grade point average compared to 3.12 for on-campus.

Certain campuses continue to lead the way in online learning. The large suburban campuses of Edmonds and Bellevue enroll nearly one-quarter of the state's online students. Certain smaller campuses such as Green River and Skagit Valley also have relatively large enrollments, considering the small sizes of their campuses and surrounding communities. Other urban centers such as Seattle North, Pierce, and Spokane Community also support relatively large and growing enrollments of online students.

Most students still tend to enroll on their home campuses. Those students enrolled in a mix of online and on-campus classes are more apt to enroll on their home campus (67 percent). Online-only students also tend to enroll in their home district (52 percent), but are likelier than all-online students to enroll outside of their home district. This seems to indicate that the all-online students are integrating online classes into their overall curriculum and tend to choose online offerings in their home district. Online-only students appear to do more shopping around for online courses at other campuses to fulfill their goals.

Based on the survey data collected, students tend to be enrolled in Associate degree programs. Approximately 36 percent of the students come from business or computer related majors. The survey data also agree with the

State Board data that these students tend to be female, relatively educated, and affluent. The fact that these students are likely to have children and may be employed full or part-time show that the flexibility of the arrangement of online classes appeals to these students.

The reasons that students enroll in online classes are varied, but some identifiable patterns are apparent. Personal enrichment is important to students, but it is also evident that these students consider the preparation for future employment an important reason for enrolling in online courses. Preparation for future educational goals is also important to online students.

The data show that some of the needs of students are being met by online instruction. Students declare that being able to finish courses quickly, and the flexibility involved in taking these courses are very important reasons for their pursuit of online courses. Overwhelmingly, students affirm that flexibility for studying at home or family concerns are important considerations for taking online classes. This may be in line with the fact cited above that these students tend to be female, older than traditional aged college students, perhaps with children, and are probably employed and enjoy the flexibility of online learning.

Students appear satisfied with the courses they are taking. They continue to express satisfaction with the content of their curriculum, quality of instruction, level of feedback, and faculty interaction. The data show that students are having their needs met through the flexibility of the courses, and express satisfaction with the quality and content of the courses. Satisfaction with services

also is adequate. Relatively few students expressed dissatisfaction with services, including library and technical assistance.

While students claim to be satisfied with their online classes, students also declare that aspects of online courses are more demanding than on-campus courses. Reading in particular is more demanding or at least as demanding as on-campus classes for 74 percent of the students (Table 58). The same is true for writing (Table 59). Sixty-seven percent of the students say that writing in online classes is more demanding or as demanding as on-campus classes. Certain skills such as memorization appear to be less demanding than on-campus classes (Table 60), but critical thinking in online classes (Table 61) is rated more or the same by the overwhelming majority of students. In terms of work required outside of class, online learning appears to be more demanding (Table 62).

The survey data seem to show that quality and standards of online courses remain high. Students are satisfied with online courses, and at the same time enjoy the flexibility of the format. It is also important to note that the demands of online courses are high, and may require more time than on-campus classes.

Students also compared online instructors with their on-campus experiences. According to the students surveyed, online instructors know their subject as well as on-campus instructors and compare favorably with on-campus instructors in knowing their students, and making themselves available to students outside of class. Generally, online instructors compare favorably in

other aspects measured in the survey, including showing enthusiasm, creating challenging learning, and encouraging discussion.

What can be concluded from these data is that online learning compares favorably in most aspects with on-campus instruction. An exception cited above is the course completion rate and academic achievement of students in online classes. What appears to be problematic is that online learning may be more challenging or demanding than students expect. This may be due to the student's lack of experience with the format and could possibly be mediated through training in the online learning format.

Part III: Qualitative Findings

This section of the report represents a follow-up to last year's evaluation of four community colleges. As in last year's report, this study is based on data collected from the same four sites: Bellevue Community College, South Seattle Community College, Skagit Valley Community College, and Spokane Falls Community College. The criteria for selecting these colleges were as follows: (1) the colleges are to be drawn from a variety of geographic areas to represent the diversity of the state, (2) the colleges will represent rural, urban, and suburban regions, (3) the colleges will varied in size, from small to large campuses (for a brief description of each college, see appendix I).

Data Collection

The procedure for initiating data collection followed the procedure established last year. With the aid of the State Board, a contact person from each of the community colleges was identified. Just as last year, it was through

this contact person that the campus visits were arranged. Criteria for the group interviews that were conducted on the campuses were as follows: Two groups of individuals were to be selected. The groups were to be divided into 8-10 faculty and 8-10 administrators. The individuals selected for interviews should have had first hand experience with on-line teaching. In the first year of interviews, identification and selection of the groups by the contact persons met with varying results. Bellevue Community College (BCC) followed the guidelines, and identified separate groups of 8-10 faculty and administrators. Skagit Valley College (SVC) selected one group of 8 administrators. Spokane Falls Community College (SFCC) identified one group of 8 faculty and South Seattle Community College (SSCC) selected two groups of administrators (two individuals in each group. In this year's follow-up study, BCC again identified two groups of 8 faculty and administrators. SVC selected one group consisting of a faculty member and five administrators. South Seattle Community College selected one group consisting of two faculty members and three administrators. SFCC group consisted of two administrators and two faculty members.

The procedures I followed for the interviews followed closely last year's protocol with the exception of SFCC where I conducted phone interviews. Generally, my interview procedure involved introducing probes to the group to elicit discussion. The probes were designed to allow individuals to reflect and share about their experiences in online learning. The probes followed this sequence:

1. Describe your experiences with online learning.

2. What were the advantages and disadvantages of online learning?
3. What were student responses to online learning?
4. Describe the quality of instruction.
5. Describe the campus's attitudes, feelings, and perceptions regarding online learning.
6. Describe administrative support for online learning (local and state).
7. Describe the community response (public and corporate) to online learning.
8. What have been your impressions of the LAAP grant?

The interviews were intended to generate open-ended discussion of the issues raised during the sessions. After individuals spoke, I followed up with additional probes that broadened the sessions. During the interviews, individuals often questioned and challenged each other, which added to the richness of the data.

For the phone interviews, I contacted the individuals identified by the contact person at Spokane Falls Community College. I conducted 30-minute interviews with the two administrators and two faculty members following the probes outlined above.

Data Analysis

When possible, the interviews were tape-recorded. Phone interviews conducted with staff from SVCC however were not recorded. During the phone interview sessions I kept hand-written notes. Handwritten notes were also taken during the one-hour tape-recorded sessions.

After the interviews were conducted, the tape recordings and notes were coded and reviewed to identify the major themes and issues raised during the sessions (See appendix III for more information on coding procedure). The themes that were identified were compared with each other for commonalties and contradictions. The last stage of the analysis involved a cross-case analysis in which topics common to all four institutions were identified. This led to further review, re-categorization of the topics, along with combining and shifting the themes until three major overarching themes were identified. The topics were as follows: (1) Faculty concerns, (2) Student concerns (3) Administrative support. These topics will serve as guides for the discussion of the findings.

Findings

In this section of the report I will discuss each of the major themes identified during the data analysis phase. I will follow that discussion with my conclusions based on the data.

Faculty Concerns

As online learning continues to become established in the community colleges, attitudes toward its place in the community college education continue to evolve. In recounting the history of online learning at his campus, an administrator commented:

> There were those faculty who resisted it and were vocal about their objection to online education. There were a variety of reasons—quality of the courses....some believed that it

was a threat to their jobs. You still have some who oppose it, but the number seems to be getting smaller every year.

This comment was typical and indicates that the level of Acceptance and the promotion of online learning appear to be more of the norm on the campuses included in this report. Faculty and administrators still report concerns over online learning, but the problems cited by individuals are more likely to deal with adjustments that must be made rather than whether online learning will be a mainstay at the community colleges. As an example, a faculty person at a large suburban campus cited the need for better software to conduct on classes. He said: "We're limited by the quality of software. McGraw Hill's software is senseless. The corporate world doesn't have a clue. They're not educators, they're business people."

Aside from the quality of software, individuals at the campuses cited the quality of online course content as an issue of concern. Even though all faculty members interviewed for this study stated without question that their online courses were equivalent in terms of quality to their on-ground courses, one faculty member stated concerns other faculty had about whether rigor in online courses was being preserved compared to on-ground courses. She said: "There is a concern from faculty about the quality of courses. There are examples of courses where the requirements, tests, are not the same for online courses."

Aside from the quality of courses, one administrator cited that faculty at her campus were concerned that the quality of the faculty teaching the courses

was also an issue. She cited examples from her own campus: "For some of the faculty, the quality was not up to snuff. We have a unique faculty, they are really into maintaining academic integrity and they are concerned that some of the faculty teaching online courses were not as qualified as our regular faculty."

These attitudes form part of the history of online learning at the campuses, and some of these concerns remain. Despite these concerns, more faculty are joining in the movement toward online learning. The benefits to faculty are outweighing the concerns. As one faculty member cited:

> I was feeling burned out, but this experience has been revitalizing. It is a chance to create something, create classes and even though it takes a tremendous amount of time, there is still the freedom that online teaching gives you. It is time that you don't have to be on campus, or wasting time commuting.

Time continues to be a major concern of faculty. In last year's report, faculty frequently mentioned the burden of time that online teaching brought to their preparation for courses. Much of the time mentioned by faculty involved the varying demands of online teaching. Routine activities such as collecting assignments created challenges for faculty. Activities such as opening and printing attachments, particularly if they were doing it for 30 students or more created time demands that were burdensome. There was also an expectation that faculty were on-the-job for extended and unusual hours. Students have questions for faculty, and they may be asking the questions in the middle of the

night, and for some students, there is an expectation that faculty should be responsive whenever requests are made.

The question of time also affects how faculty teach their classes, and the type of course work they require. One faculty member, an English instructor, normally requires students to do 5-6 essays during the quarter. He found that that created far too much work online, so he had to make adjustments to the workload and now requires that his students write fewer papers.

Even with some of drawbacks of online learning cited above, this technology is changing the face of education on these campuses. It has met with considerable approbation from the faculty despite the drawbacks highlighted above. The advantages of online learning to faculty, including increased freedom, opportunity for revitalization, and creativity, and introduction of innovative teaching methods into the educational process have secured a place for online learning in the faculty repertoire of instructional methods.

Student Concerns

Faculty cited numerous concerns regarding students who enrolled in online courses. There is concern that students may not necessarily be prepared, or they may not know what they are getting themselves into when they take online courses. As one faculty member said:

> Some of it comes down to advising. Students go talk to their advisors and find that their courses are closed. The advisor see that the course is still available online. They may ask, do you have a computer? You can

take this class online. The students will then enroll in it without much of an idea of what to expect from an online course.

This year as in last year's evaluation, faculty still mention the preparation level of students as a concern. One faculty member stated: "There is a percentage of the students who shouldn't be there. Only about 25 percent of the students thrive online. This just isn't what they're used to, a disembodied teacher."

The problem concerning enrollment of under-prepared students is one that will eventually be addressed as online learning becomes threaded into campus culture. One administrator cited the effort of campuses to prepare and assess student's readiness for online learning. As it stands, students are given opportunities to take tutorials and preparation for online learning, but the issue of preparation still emerges, and presents problems for administrators concerned about student retention in online courses. What remains to be seen, is whether the retention of students improves in the future as students become accustomed to online learning. An administrator pointed out:

> There needs to be something that students need to show that they have the skills to take these courses....a distance education driver's license that shows that the student understands and has developed the skills to be successful in online learning. The students must have the ability from a technical

> standpoint and also the discipline that it is going to take to be successful. This is something that the college is going to have to integrate and incorporate into our campus culture.

Even with the problems associated with students and online learning, more students continue to enroll in these courses. As mentioned above, there are advantages to faculty regarding the flexibility that online enrollment gives students. The same advantages hold for online students. Students are not locked into spending their entire days on campus to attend classes, seek advising, and use the library. These changes become apparent by considering the impact that online enrollment is having on campuses. An administrator reported:

> We already see the difference. Students aren't coming to campus. We see that students are not coming to campus to do the traditional student things. This is something that my colleagues at other campuses are also saying. We need to ask, do we need a new building. Do we need to reallocate resources? In our long-range plan do we need 45-50 people classrooms?

This type of impact has far reaching consequences with implications for campus long-range planning. From the evidence presented in this report, more and more students are enrolling in online courses. While the medium presents

opportunities to many students who may have difficulties getting to campus, such as single parents with young children at home, the method seems to be attractive to many students in general. The flexibility and freedom that online teaching provides gives students more options for filling out their educational programs.

Administrative Concerns

Administrative concerns overlap and extend the concerns of faculty and students. Administrators generally applaud the growth on online learning and sense a demand for increasing the offerings, but they are still concerned with questions of quality and student preparation. The impact of technological innovations is also affecting courses in ways that they were not expecting. For instance, hybrid courses (mixture of online and on ground courses) are becoming popular. Administrators are faced with determining contact hours in a medium that defies measurement. An administrator commented:

> It hasn't been an issue on this campus but how do you determine if the appropriate number of contact hours is being satisfied. At this point it is a value judgment because there is no way to determine it. It becomes and issue of quality control and accountability. It hasn't been figured out for hybrid courses.

Another issue that administrators are contending with is student services. How does the state provide one-stop services for students statewide? As an administrator pointed out "this is a monumental task for even one campus, a statewide effort is daunting." From an administrator's standpoint, the state's effort

to develop a one-stop virtual campus has "provided focus from the student's perspective." The LAAP grant's emphasis on developing a student centric culture provides a target for campuses, however a concern from one administrator is that the "LAAP grant may be trying to play catch-up." It is the view of this administrator that his campus is well developed, including its focus on student services, and will continue to develop its programs and will not wait for the state to show them the way.

A continuing concern for administrators is the ability to provide library services and bookstore services to students. Librarians interviewed for this study consider library services an intrinsic part of student life. The establishment of virtual libraries and virtual bookstores are under way. These electronic resources are vital and absolutely essential for the continued development of online education. The increased availability of electronic books as well as a virtual reference desk, and online databases are making the idea of a virtual campus a reality.

Conclusions and Implications

All evidence points toward online learning as an established and accepted means of education in the campuses included in this report. The views of faculty and administrators show that online learning continues to grow, and support the likelihood that it will follow that trajectory in the future. Administrators are also seeing effects of online learning on the daily lives of their campus. Campus officials recognize that the growth in online learning has made an impact on students coming to campus and on services required for their day students. If

fewer students are coming to campus, what does that mean for food services, building space, athletic facilities, and libraries? Students and faculty spending less time on campus are currently affecting all of these services, and virtual forms of these services may need to be developed further. Systems for advising and certainly libraries will also need to be developed further to provide students access to resources that at one time were available only to students making the trip to the physical campus.

Given that online learning is well established in the state, what does that mean for the needed changes on campus to deal with these changes? Most evident is the need for the preparation of students and for improved advising of students who are considering enrollment in online courses. It is apparent that online learning is not for all students at the moment. Perhaps that will change in the future, as students become more accustomed to the method. In the meantime, many students are enrolling in online courses without sufficient preparation or experience with online learning. It remains to be seen if retention in online courses increases with experience. It also may be important to examine any effects on student retention based on formal student orientation to online learning.

As online learning continues to establish itself in the community colleges, other issues will need to be considered. Faculty appreciate and welcome the flexibility and freedom that online teaching provides for their course loads. As more faculty move toward including online teaching as part of their loads, the question of quality will continue to percolate. Although the evidence is mixed, the

reports from the campus indicate that instructors are making efforts to insure that online and on ground courses cover the same material, so that they are equally challenging for the students. Questions still remain in the minds of some faculty that online courses may not be equivalent to on ground courses. Any questions regarding these perceptions must be addressed and resolved by faculty and administrators across the state.

Another issue regarding online learning is the influence it will have on how faculty teach their courses. It is apparent that not all faculty will embrace online learning, some faculty will embrace it completely, and others may see it as an enhancement to their courses. Administrators may have to grapple with the problem of what constitutes a course and how will they address the issue of hybrid courses. How many contact hours and virtual hours would constitute a "Carnegie unit." The introduction of online technology has considerable potential for revolutionizing how courses are taught and how students, faculty, and administrators view them. The implications of online education, whether in the form of online courses or hybrid courses will have an impact on campuses that will challenge campus planners in the future.

Part IV: Conclusion and Implications Based on Quantitative and Qualitative Data

In this report, as in last year's, I will attempt to use the various forms of data (qualitative and quantitative) to address the two major research questions posed at the beginning of this report. First of all, does the development of a comprehensive student centered system of services facilitate a cultural and technological shift from institution-centered to student centric services? The data

in this study, particularly the qualitative data provide insight into the developing attitudes, and changes in values and day-to-day practices of individuals within the institutions. These noticeable, and documented changes are contributing to a cultural shift in the State's community colleges. These data, along with the quantitative data in this study show continued growth as well as acceptance and satisfaction of this medium by students and faculty.

The first point to be emphasized is that online learning is growing rapidly and steadily in the state. The growth curve is steep, and the popularity of the format is being met with widespread acceptance and satisfaction. This continued growth, and the level of satisfaction expressed by the students for instruction, content of courses, and services point toward the integration of online learning into the regularly accepted organizational practices of the community colleges. This movement, and in particular the emphasis on providing a student centered system of online education, provides evidence for the effectiveness of the LAAP grants effort to instigate cultural change within the institutions. Although LAAP is still in its early stages of implementation, in what follows I will provide evidence that points out trends and indicators that will be used in future years of the LAAP grant to evaluate its implementation.

From the data reported here, we learn that online learning is beginning to change the way individuals think about community college instruction. This is particularly salient among individual classified as "all-online" students. This increasing population of the student body seems to be using online courses as part of their regular curriculum for degree attainment. Based on the State Board

data, these students mix online offerings with their on-campus offerings to meet their educational goals. In the findings for the survey data, it appears that one reason online students are choosing these courses is because of the flexibility in scheduling that these courses offer.

Aside from the all-online students, the other major subgroup of online students is the "online-only" students. These students appear to be a different kind of student than the all-online students, at least demographically. These students are generally older, and are more likely to be employed full time and have children. For these students, as we have seen for all-online students, the flexibility of time is a very important reason for these students to enroll online. Since many of these students are employed full or part-time, they may be taking the courses for other reasons beside requirements for a degree. Personal enrichment, and preparation for future employment appear to be highly motivating factors for these students to enroll online. Therefore, online courses appear to be meeting the various needs of a diverse group of students, including students seeking degrees and those needing to improve their skills for the workforce.

Qualitative data in this study tend to agree with the quantitative data that flexibility is a major reason for growth in online learning. Online learning seems to have particular appeal to women, and may fit into the lifestyle of these students who may be employed and in all likelihood have children. The flexibility of these courses, along with their apparent high quality seem to fulfill the needs

of these students and is a contributing factor to the expansion in growth of this population of online learners.

In last year's report, I cited evidence of pockets of resistance to online learning from some college faculty. Pockets of resistance remain in the colleges I visited, but what emerged from the interviews is that the level of acceptance, and the promotion of online learning appear to be the norm for the campuses. Larger concerns for the campuses would appear to be how to provide support for faculty in terms of resources for developing and maintaining courses, and helping faculty to deal with the issue of time demands for teaching online. The movement toward establishing online learning as an accepted organizational practice, and as part of the organizational culture of the community college is already well established. The evidence for this change is shown through the large increases enrollment, and more significantly, through the increases in faculty who are teaching online. The number of faculty who are teaching online has nearly doubled in one year. This is highly indicative of change in the culture of community college education.

While acceptance of online learning is well established, students have also accepted the format, and express satisfaction with the content of the courses, the instruction, and the services provided. A difficulty with online courses however, has been the persistently low completion rates exhibited by online students. As presented in the data, completion rates and achievement by online students is lower for online courses than on-campus courses. In the qualitative data, administrators and faculty explain that they are aware of these

difficulties and express the idea that students may not be well prepared to take online courses. The evidence from the survey data supports these assumptions. The survey data show that most students have not taken any sort of course preparation for online courses. The fact that many of these students may be new to the online format, and are surprised by the amount of work and the time demands of online learning, may be contributing to the low completion rate. It stands to reason that as students continue to become familiar with the format and demands of online learning, the completion rates will rise in the coming years.

How do the qualitative and quantitative data collection yield information to answer the second evaluation question? The second evaluation question is: Does the creation and sharing of resources by developing instructional content standards, providing training for staff, pooling of existing resources, improve the quality and increase access to anytime anywhere instruction? A full treatment of this question will be addressed in the ensuing years of this evaluation. At this stage, with the establishment of the Virtual College being planned for the spring, 2002, and with the implementation of new policies, future rounds of data collection will yield relevant data to address this question. Currently, available data show that students are highly satisfied with instruction and the content of online courses. As far as services are concerned, students again express satisfaction with services that are currently available. As stated earlier, evaluation of these services will become more relevant at a later stage of implementation of this project.

Comparison with 1st Year Findings

The most direct and reliable comparisons that can be made between the first and second year of the project depend on the State Board data provided in 1999-2000[4] and 2000-2001. As noted above, the overall growth in online enrollment continues to be impressive. Student enrollment in online classes has grown from approximately 15,000 students in 1999-2000 to over 22,000 in 2000-2001.

The proportion of students in the various demographic categories has remained relatively stable over the two years of the LAAP project. Females are the predominant gender group with over 60 percent of enrollees over the two years. The racial categories are stable, with white students comprising approximately 82 percent of the students in 1999-2000 and in 2000-2001. The other proportion of students in the racial categories has shifted only slightly. Disability status of the students remains virtually unchanged over the two years of the project. Age categories have also remained stable.

A review of the family status of the students indicates some modest changes. As reported in the data above, students enrolled in online courses are more likely than students in on-campus courses to have children. Also, online-only students are more likely than all-online students to have children. This is a pattern similar to what was found in 1999-2000. The percentage of students with children however is substantially lower in 2000-2001 than in 1999-2000. The work status of the students reported in 2000-2001 is similar to the percentages reported last year.

[4] The State Board 1999-2000 data are summarized in an excel data sheet in Appendix III.

As far as academic performance is concerned, there has been a modest improvement. The course completion rate for all-online students (the only comparison available) was 70.8 percent in 2000-2001 compared to 69.1 percent in 1999-2000. Grade point averages have also improved slightly. Student grade point averages in 1999-2000 (see 1999-2000 report) were 2.99 for online classes and 3.12 for on-campus classes. This compares with 2000-2001 data that shows students with a 3.25 average for online classes and 3.30 for on-campus classes.

A notable trend that has been established is the increase in faculty participation in online education. In 1999-2000, 258 faculty taught online courses. In 2000-2001 that number increased to over 500 faculty. That represents a gain of nearly 100 percent.

These findings indicate impressive gains in the popularity of online learning, indicated by the increases in enrollment and faculty participation. Although academic performance by the students has shown only a modest improvement, the upward trend is an encouraging sign. In addition, the findings indicate widespread acceptance by students, faculty, and administrators. These gains in enrollment and participation are strong indicators that online learning is progressing toward integration into Washington community college organizational culture.

Appendix I

Bellevue Community College (BCC)

BCC is a large suburban campus located in the midst of one of the world's largest and influential technological centers. BCC benefits from its close association and partnerships with the local computer industry, including Microsoft.

BCC serves over 14,000 state supported students. Approximately 25 percent of the students are Asian, Hispanic, African American, or Native American. Nearly 52 percent of the students are full-time, with the majority of the students being female (60 percent).

South Seattle Community College (SSCC)

SSCC is located in the southwestern section of the city. The campus is a mixture of old and new, with many modern buildings juxtaposed against some aging structures. The campus is a reflection of the community that is characterized by its predominance of working class families, along with an infusion of middle class individuals seeking affordable housing.

SSCC serves over 10,000 state-supported students. The proportions of students of color are Asians (20 percent) and African Americans (8 percent). Approximately 44 percent of the students are full-time.

Skagit Valley College (SVC)

SVC is located in a rural part of the state, near Bellingham and approaching the Canadian border. SVC is a small college serving 8300 students. Approximately 18 percent are students of color, with the highest

proportion being Latino/Hispanic (10 percent). Forty-eight percent of the students are full-time, and 58 percent are female.

Spokane Falls Community College (SFCC)

SFCC is located in Spokane in the sparsely populated eastern end of the state. Spokane is a relatively large city located in Spokane County (population=400,000). The population of the region is predominantly white, but in recent years there has been a large migration of Latinos into the county. The largest categories of students of color are Asian (3.2 percent), Latino/Hispanic (3percent), and African American (2.4 percent). SFCC is a large community college, serving over 17,000 state-supported students. Over 53 percent of the students are full-time, and 59 percent of the students are female.

Appendix II

Additional Notes on Coding the Data

My procedure for coding the data involved reading over my interview field notes, listening to the tape recordings of the interviews, and examining documents. After an initial review, I identified issues in the data that seemed to have relevance to the evaluation questions posed, or seemed to be important to the interview participants. Importance was determined by the repetition of certain incidents, events, or issues. I assigned code names to these issues: time, preparation, software, contact hours (these are example of the initial codes). I then went line by line through the material coding the data with the assigned codes. In instances where the data did not fit the coding scheme, or where there appeared to be contradictions, I tried to find other instances in the data that would resolve the issue.

My final task was to use the coded data to compare and relate the data, and to collapse the data into larger, related themes. The three large themes that I identified emerged from this process.

Appendix III

1999-2000 Data

1st Yr Report Table	%	All Online (N=15,771)	Online Only (N=3348)
	Online Only		21.2%
Table 1	Female	61%	62%
Table 2	Other Race	1.6%	
	Asian/Pacific Islander	7.5%	
	African American	3.2%	
	Native American	1.9%	
	Latino/Hispanic	4.2%	
	White	81.7%	
Table 3	Has Disability	4.8%	2.2%
Table 4	Under 18	3.6%	4.1%
	18-29	41.5%	57.0%
	30-49	42.9%	33.5%
	50+	12.0%	5.3%
	Median Age	26	32
Table 5	single with children	13.7%	12.1%
	couple with children	26.7%	35.2%
Table 6	New to college in 1st Online Year Qtr Enrolled	not available	not available
Table 7	Employed Full-Time	30.8%	50.3%
	Employed Part-time	27.8%	19.5%
	Unemployed Seeking Work	19.0%	10.5%
	Not in Labor Force	22.4%	19.8%
Table 8	Accounting, Business, IT	26.9%	26.6%
	English Lit & Comp	18.3%	18.2%
	Humanities	6.9%	6.9%
	Math	2.9%	2.9%
	Natural Science	7.1%	7.3%
	Performing/Fine Arts	3.4%	3.4%
	Professional/Technical	9.8%	9.7%
	Social Science	19.8%	20.1%
	Other	5.0%	4.9%
Table 9	Workforce	41.8%	44.4%
	Transfer	49.8%	33.5%
	Basic Skills	0.3%	0.4%
	Personal/Other	8.2%	21.7%
Table 10	FT	63.0%	11.5%
Table 11	Receive Aid	32%	not available
	Not Receive	68%	

Table 12	Online	
<.26		29.6%
26-.50		4.8%
.51-.75		2.3%
.76-1.00		63.3%
Overall Completion Rate		69.1%
Table 13		
<1.01		2.7%
1.01-2		9.3%
2.01-3		22.1%
3.01-4		65.9%
Overall GPA		3.27

Table 14

BATES	0.8%
BELLEVUE	14.4%
BIG BEND	0.8%
CENTRALIA	1.2%
CLARK	2.6%
COLUMBIA BASIN	2.4%
EDMONDS	12.9%
EVERETT	4.3%
GRAYS HARBOR	1.3%
GREEN RIVER	7.2%
HIGHLINE	2.9%
LAKE WASHINGTON	1.4%
LOWER COLUMBIA	1.2%
OLYMPIC	2.9%
PENINSULA	1.0%
PIERCE DISTRICT	4.8%
RENTON	0.3%
SEATTLE CENTRAL	3.2%
SEATTLE NORTH	5.8%
SEATTLE SOUTH	2.3%
SHORELINE	4.1%
SKAGIT VALLEY	5.7%
SOUTH PUGET SOUND	0.1%
SPOKANE COMMUNITY	2.8%
SPOKANE FALLS	3.9%
TACOMA	1.8%
WALLA WALLA	2.1%
WENATCHEE VALLEY	2.6%
WHATCOM	0.5%
YAKIMA VALLEY	2.7%

Table 15	Enrolled in Home District		
		66.4%	53.3%

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