Spring 2017 Quarterly Report

Includes Review of 16-17 Annual Data

Computer Lab Management

Prepared by Tim Leamy

Computer Lab Management (CLM) operates 21 computer rooms across the UC Davis campus. These consist of 14 computer classrooms and 7 open access labs with a total of 644 installed stations. CLM also manages eight departmental computer rooms with 226 installed stations for the School of Education, the UC Davis Language Center, and The Arts Admin Group.

Some of the significant items from Spring 2017 include:

- The number of class hours increased by 2% from Spring 2016 (5,951.75) to Spring 2017 (6,078.5). This was the highest value for a Spring quarter in CLM history and part of the overall trend of increasing classroom reservations.
- The computer classrooms were reserved for 21,233 hours in 16-17, the highest annual total in CLM history. The annual data shows there was a huge jump of class hours scheduled in the computer classrooms - an increase of 60% over the past 5 years. The growth is due to the addition of 3 new classrooms in SCC and Shields Library as well as more hours reserved in each classroom.
- The demand for computer classrooms is increasing as UC Davis faculty members continue to adopt and integrate more computer based educational technology into their classroom teaching. CLM cannot accommodate all the demand in our classrooms. Therefore, CLM is continuing to look for ways to add computer classrooms.
- CLM opened a new open-access computer lab in 246 MU on May 1st. The new lab has 22 computers (seven Macs and fifteen PCs) with both stand-up and sit-down stations. The new lab also has two B&W printers, a color printers, a flatbed scanner and a document scanner. This new lab is in addition to our previous MU computer lab which was moved to 102 Wellman in Fall 2013.
- Over the past few years the open-access utilization and waitlines have been decreasing. This decrease is likely overstated in the Spring 2017 statistics since CLM opened the new MU computer lab mid-quarter and it will take time for students to become aware of it and use it. However, there is an overall downward trend in open-access use. Therefore, CLM will analyze our spaces to determine if any open-access lab can be converted into a computer classroom.
- CLM prepared for Summer 2017 upgrades by purchasing hardware and software, implementing and testing software configurations, and developing a summer project plan. The major upgrade this summer is upgrading all the Macs to macOS Sierra (10.12).
- CLM conducted a faculty survey about computer room use. The results are posted at http://computerrooms.ucdavis.edu/pubs/survey/faculty_s17.html.

Spring 2017 Statistical Summary

Utilization

Overall computer room utilization

Computer Lab Management operates 21 computer rooms at UC Davis. The graph below shows average utilization for classrooms, open-access labs and all rooms for Monday through Thursday.

Average Utilization (M-R)
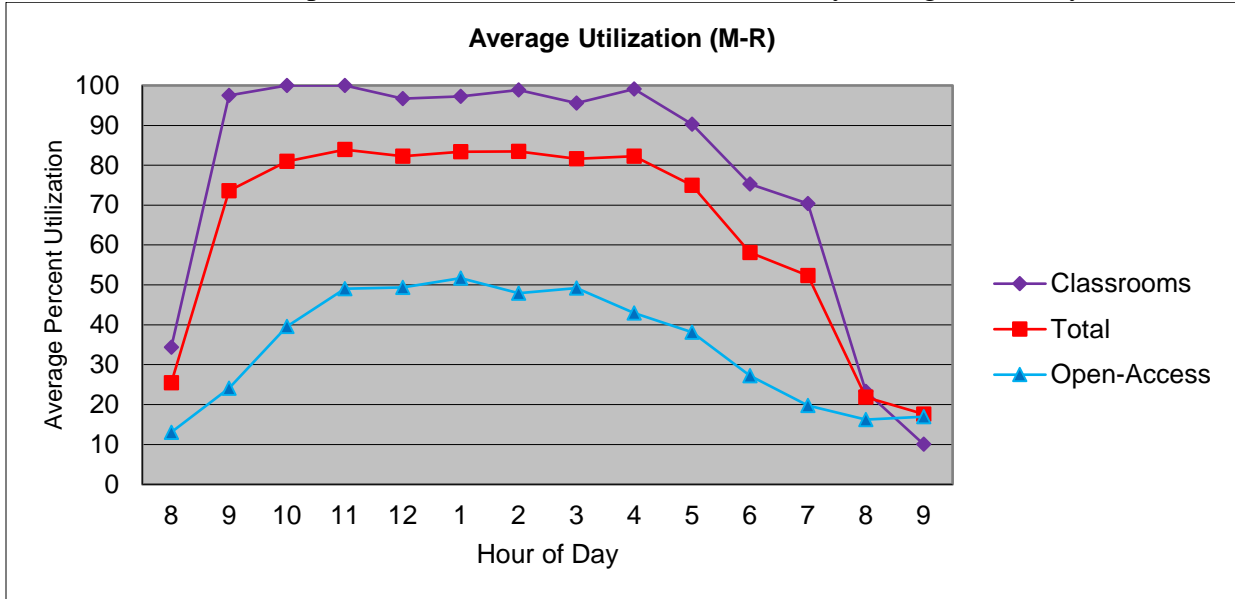
The general trend of high usage from 9am to 5pm continued during Spring 2017. Classrooms use is very high – averaging 98% from 9am to 5pm. Open-access utilization is substantially lower.

Class Use

During Spring 2017 there were 6,078.5 class hours reserved in the computer classrooms. This is the highest amount for a Spring quarter in CLM history.

Spring Quarter Reservations
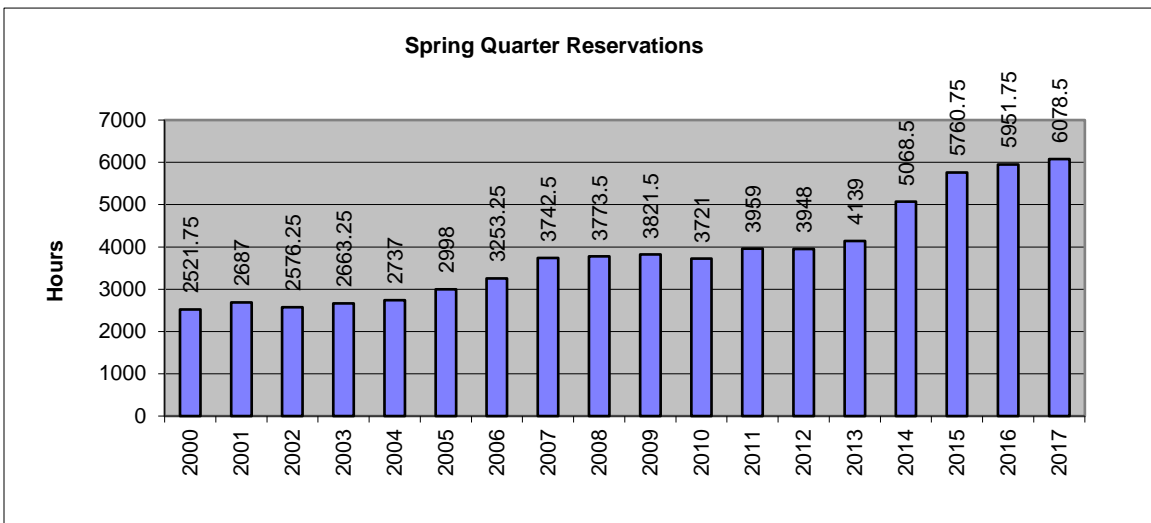
In addition, there were 255 class software installs and 162 class folders created during Spring 2017.

Number of Logins and Users

The total logins in Spring 2017 were 231,356, essentially the same as Winter 2017.

Total logins per quarter
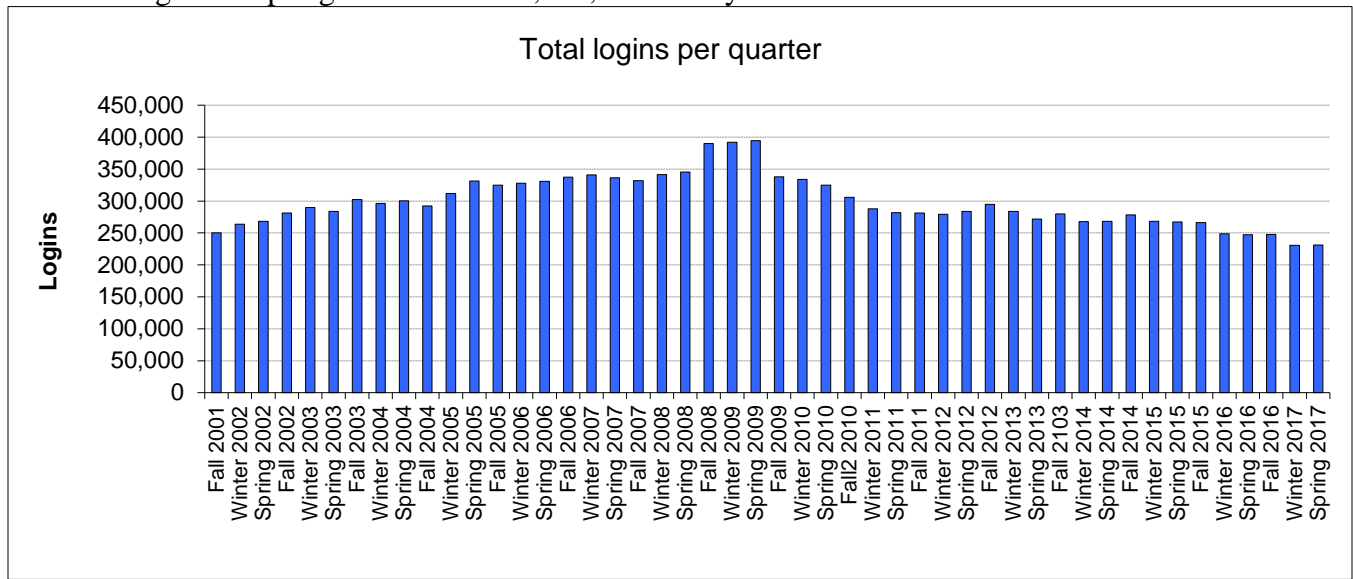
Unique Users

The number of unique clients decreased to 20,291 in Spring 2017. Of these, 19,769 were students. This was a decrease of 292 clients from Winter 2017. The decrease is normal as the total number of students at UC Davis typically drops from Fall to Spring quarter.

Number of Unique Clients per Quarter
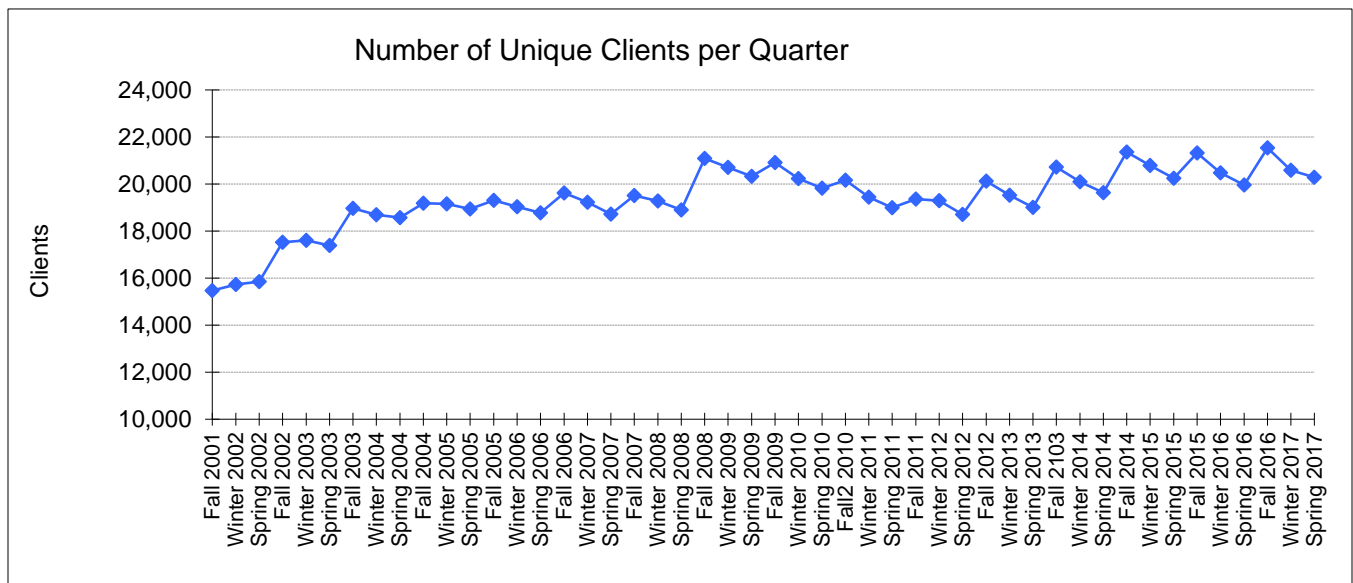
Virtual Lab Users

The IET Virtual Lab was used 8,780 times by 1,420 unique clients. Spring quarters typically have higher use than other quarter. There must be classes which make heavy use specialized software available in the virtual lab which only meet in Spring quarter.

Virtual Lab Usage
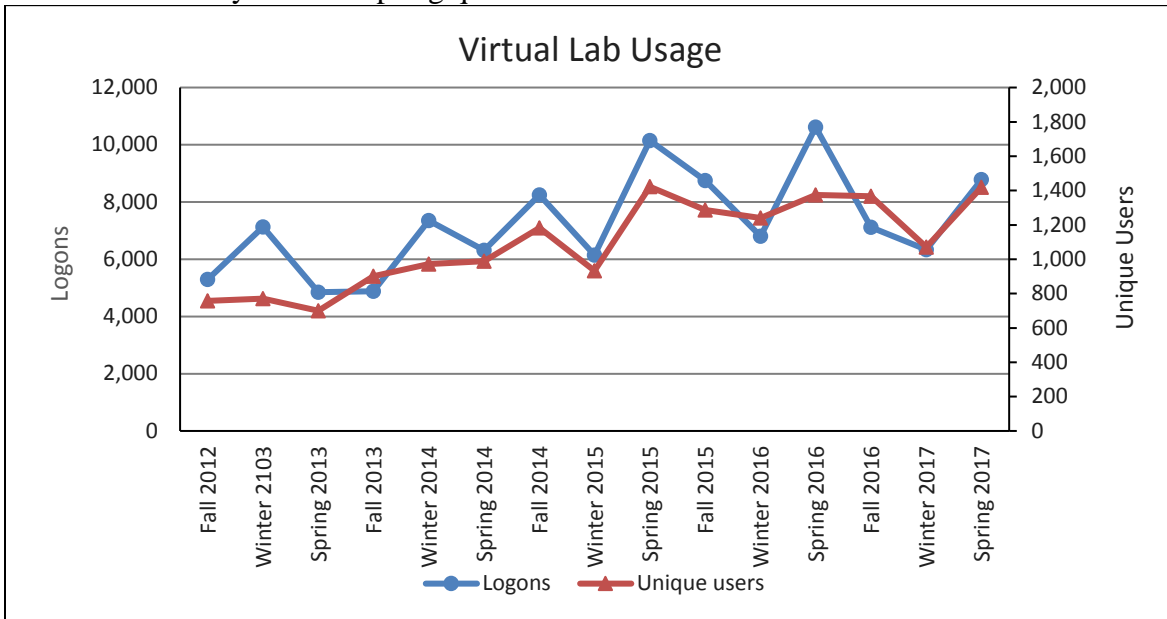
There were 829 denied connections to the virtual lab since there were no free stations. Most denied connections were during the day when there are only a very limited number for computers available.

Printing

The total sheets printed in Spring 2017 decreased to 729,453 (a slight decrease of 0.5%). The average sheets printed per client (of those who printed) was 41.63. The large decrease from 08-09 was due to the change in printing rates at the start of Fall 2009.

Black & White Sheets Printed per Quarter
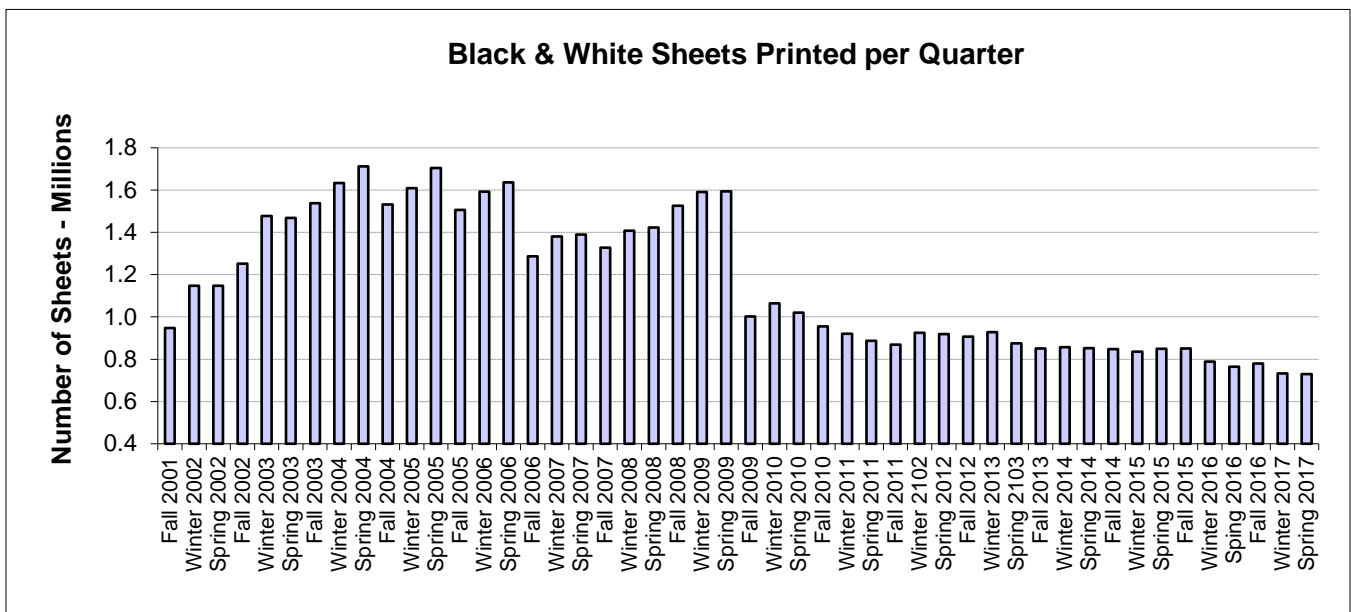
There were 13,367 color pages printed, an increase of 16.4% from Winter 2017.

Color Pages Printed
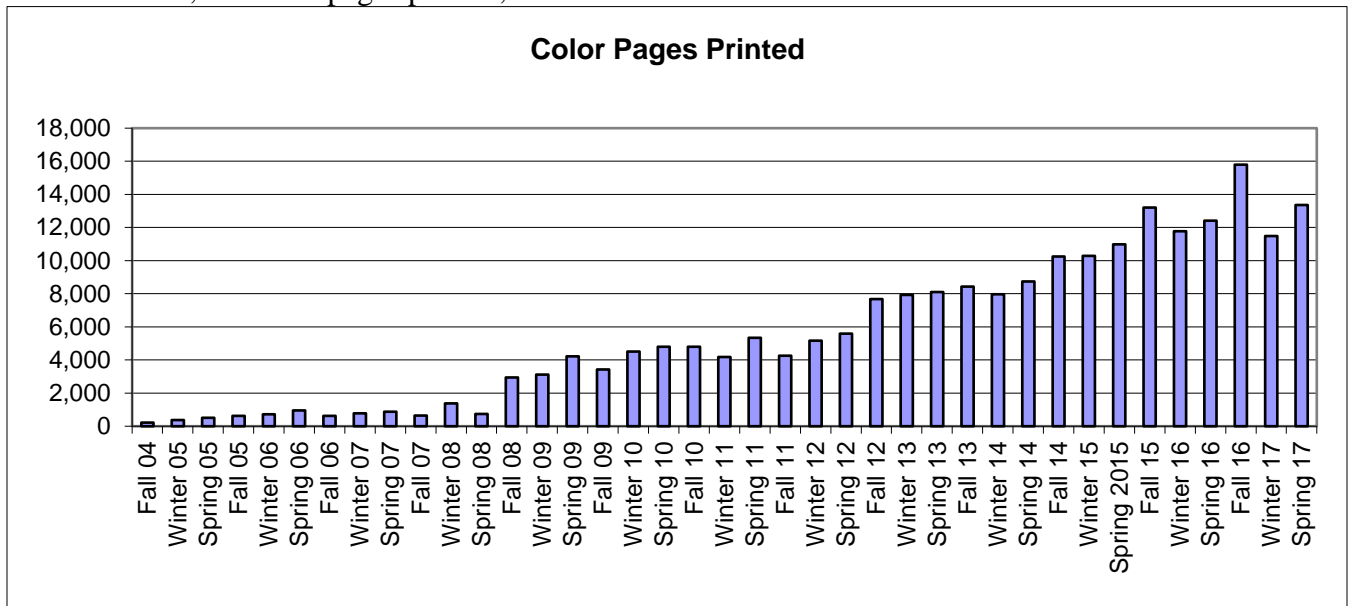
There were 4,571 wireless print jobs, essentially unchanged from Winter 2017. There were 593 unique clients who printed though the wireless printing system. The drop in wireless printing usage from the 08-09 level is most likely due in part to the overall drop in printing caused by the printing rate increase.

Wireless Print Jobs
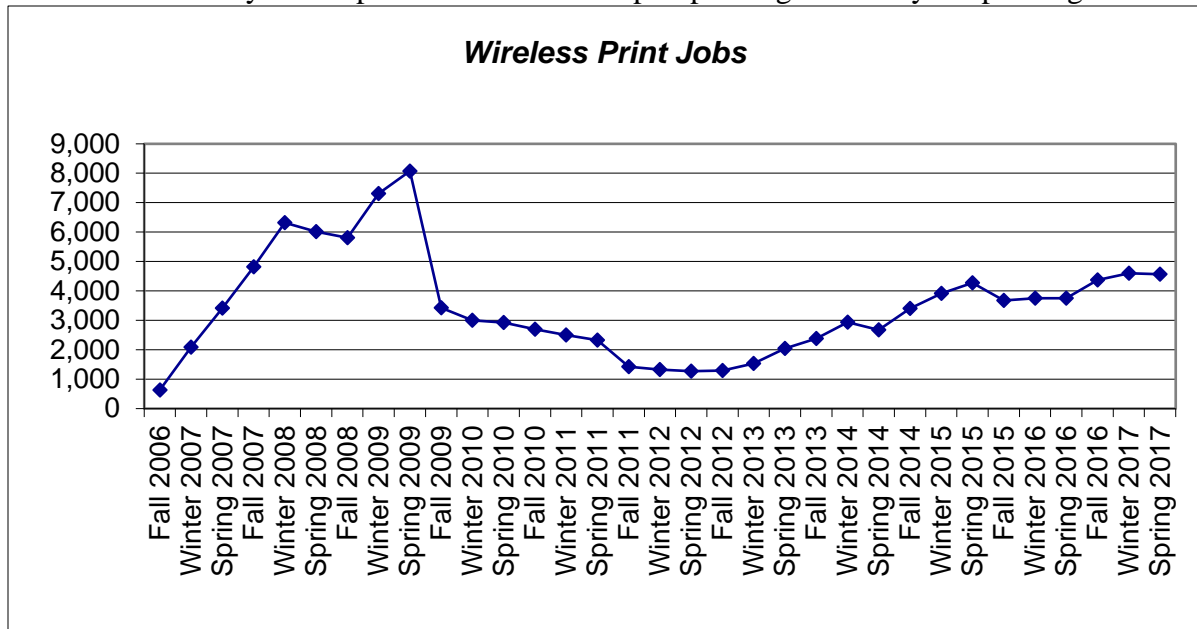
Review of Annual Data

CLM includes annual trends in this quarterly report since Spring quarter is the end of the academic year.

The overall computer classroom reserved hours increased to 21,233 in 16-17. There has been a large increase recently – 60% over the past five years.

Computer Classroom Reservation Trends
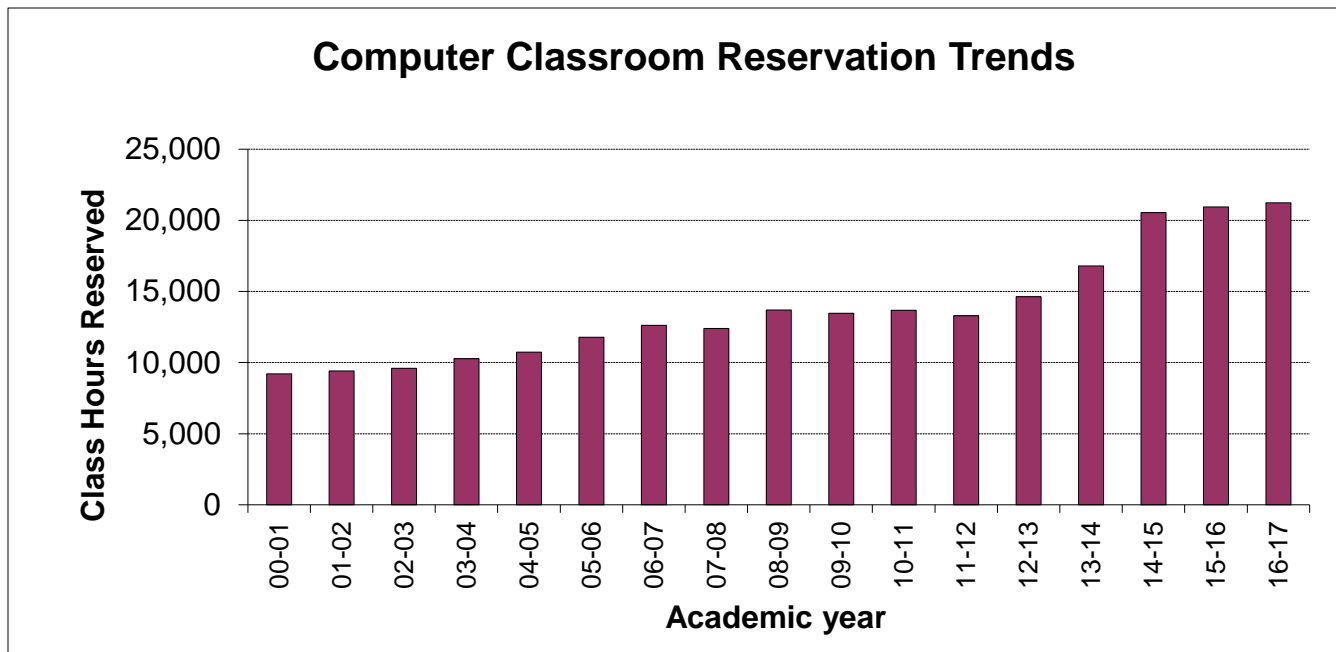
The growth is partially due to the addition of 3 new classrooms in SCC and Shields Library since 2012. However, the average number of class hours has also increased significantly to 43.3 hours per week over the past few years. The need for classrooms has grown so much that faculty and departments are willing to schedule classes at the less desirable times (evenings & Friday afternoon) which were avoided previously.

Class Hours per Week
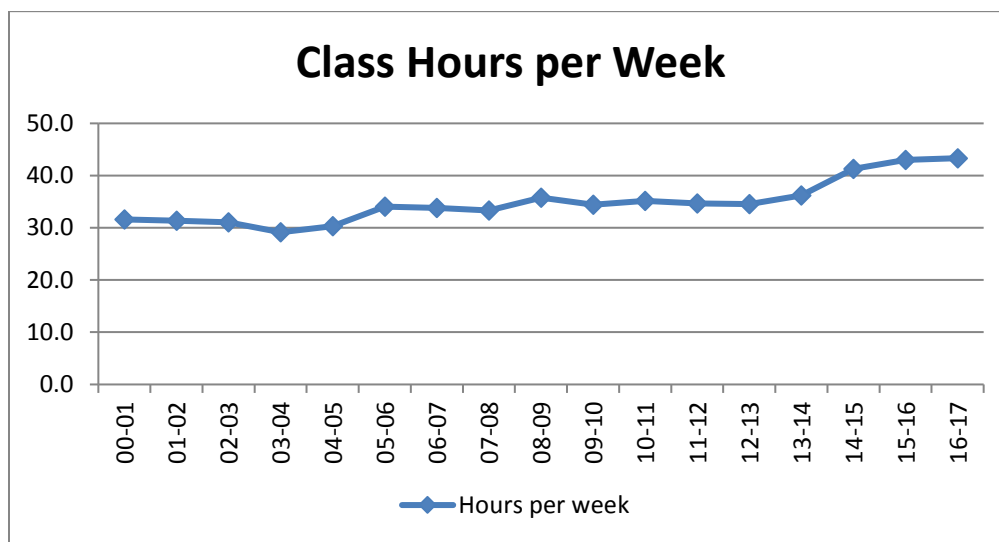
The total number of logins decreased by roughly 7% from 15-16 to 16-17 and the number of unique clients increased by 2%.
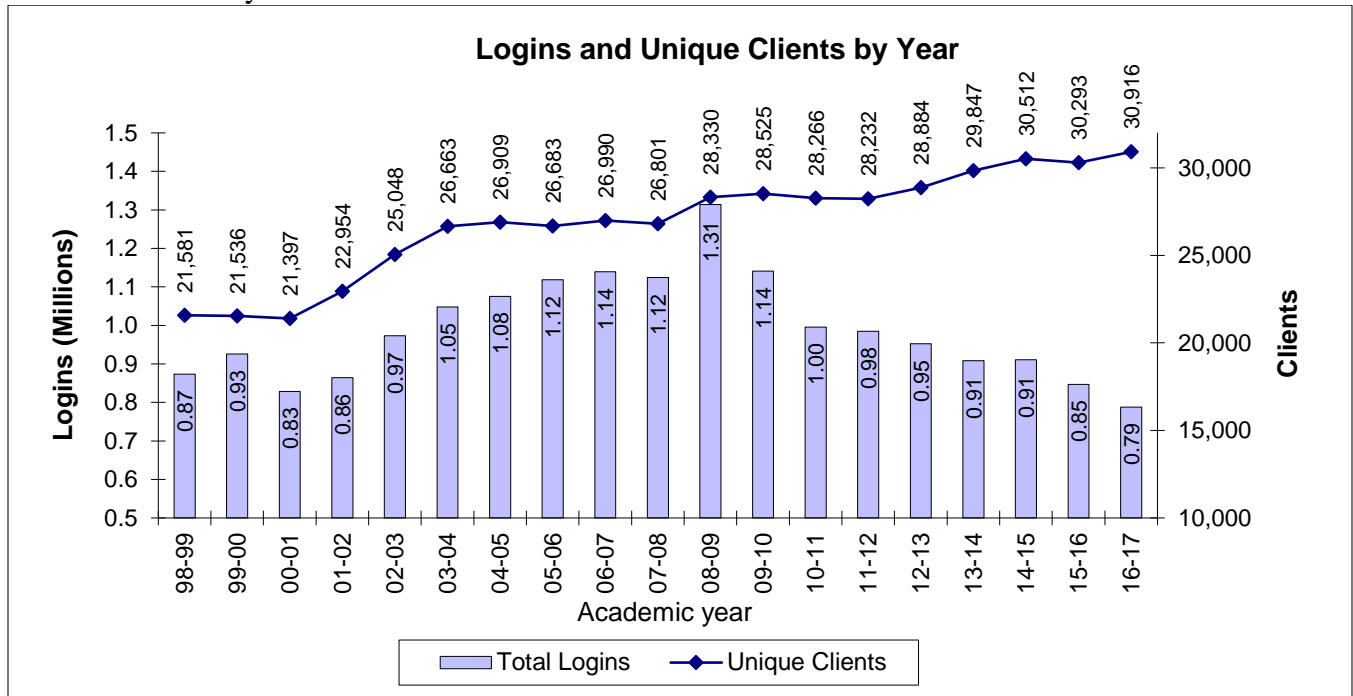
The decrease in number of logins from 08-09 has several likely causes:
- The Fall 2009 printing rate change decreased printing demand and therefore logins.
- Increased ownership of laptops and smartphones reducing student need for accessing the computer rooms.
- Increased reserved class hours reducing the time available for drop-in student use.
- Decrease of open hours – CLM dramatically cut evening and weekend available hours in response to budget issues.

The number of black & white sheets printed decreased by 6.7% to 2,457,823 sheets in 16-17. The sheets printed per hear dropped dramatically after 08-09 due to the printing rate increase in Fall 2009. In recent years the number of sheets printed is slowly trending down.

Black & White Sheets Printed by Year

Sheets Printed (Millions) vs Academic Year

Academic Year	Sheets (Millions)
96-97	2.45
97-98	3.66
98-99	5.28
99-00	5.79
00-01	5.97
01-02	3.45
02-03	4.62
03-04	5.47
04-05	5.55
05-06	5.36
06-07	4.54
07-08	4.59
08-09	5.25
09-10	3.65
10-11	3.10
11-12	3.02
12-13	3.01
13-14	2.81
14-15	2.80
15-16	2.64
16-17	2.46
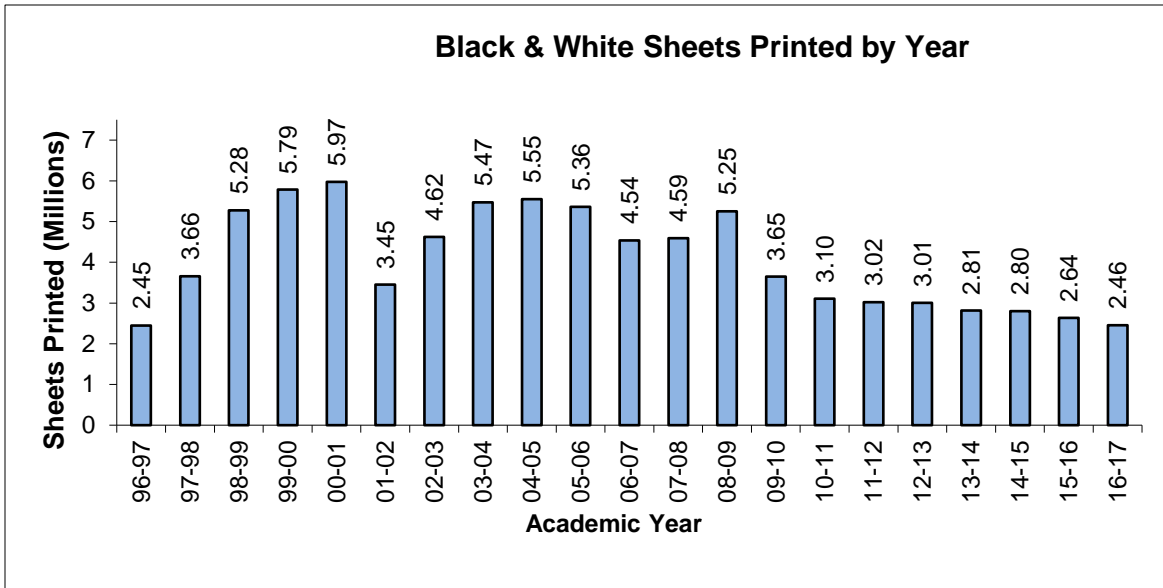
The number of color pages printed per year has grown dramatically over time.

Color Pages Printed by Year

Academic Year	Color Pages
04-05	1,089
05-06	2,636
06-07	2,481
07-08	2,794
08-09	11,224
09-10	14,183
10-11	15,673
11-12	16,865
12-13	25,635
13-14	27,540
14-15	33,899
15-16	39,830
16-17	43,365