Spring 2013 Quarterly Report
Includes Review of 12-13 Annual Data
Computer Lab Management
Prepared by Tim Leamy

Computer Lab Management (CLM) operates 18 computer rooms across the UC Davis campus. These consist of 12 computer classrooms and 6 open access labs with a total of 558 installed stations. CLM also manages four departmental computer rooms with 111 installed stations for the School of Education and the Language Learning Center.

CLM recently increased the number of computer classrooms by one and we have already seen an increase in reserved hours as faculty and departments take advantage of the additional computer classroom. In the coming years, CLM expects faculty members to continue to adopt and integrate more educational technology into their classroom teaching. Consequently the demand for technology-aided and technology-focused classes will grow. Therefore, CLM is looking for additional ways to add computer classrooms or reconfigure existing rooms to add more computer stations.

Some of the significant items from Spring 2013 include:
- CLM took over management of the School of Education (SOE) computer classroom in May 2013. The lab contains 17 Macs Mini and 17 Dell OptiPlex computers. CLM will migrate the SOE lab to our standard computer room configuration during Summer 2013.
- CLM added a new computer classroom in the Student Community Center in Winter 2012. The total class hours reserved has increased dramatically as the new classroom was filled with classes. The 12-13 academic year had 1,337 more class hours reserved than the 11-12 academic year.
- CLM has reduced the amount of open hours by 14.2% from Fall 2008. These cuts were driven by the ongoing campus budget crisis. This decrease in availability likely caused some of the drop in overall logins and printing we have seen.
- The number of black & white sheets printed in Spring 2013 decreased to 874,420 (a drop of 5.8% from Winter 2013). There was a large decrease from the 08-09 printing levels due to a new printing rate implemented in Fall 2009, but the sheets printed appear to have leveled out in recent quarters. We had expected that sheets printed would drop significantly initially but then slowly increase as students become accustomed to the new rate. It remains to be seen if the printing levels will increase in the future.
- CLM prepared for Summer 2013 planned upgrades by purchasing hardware and software, implementing and testing software configurations, preparing to roll out Mac OS X 10.8, and developing a project plan.
- CLM conducted a faculty survey about computer room use. The results are posted at http://clm.ucdavis.edu/pubs/survey/faculty_s13.html.

Spring 2013 Statistical Summary

## Utilization

Overall computer room utilization

Computer Lab Management operates 18 computer rooms at UC Davis. These computer rooms experience high utilization between 10:00am to 5:00pm, which continues the trend from previous quarters. Most open access labs also experience wait lines. The graph below combines utilization Monday through Thursday.

Average Utilization versus Average Wait Line Length (M-R)
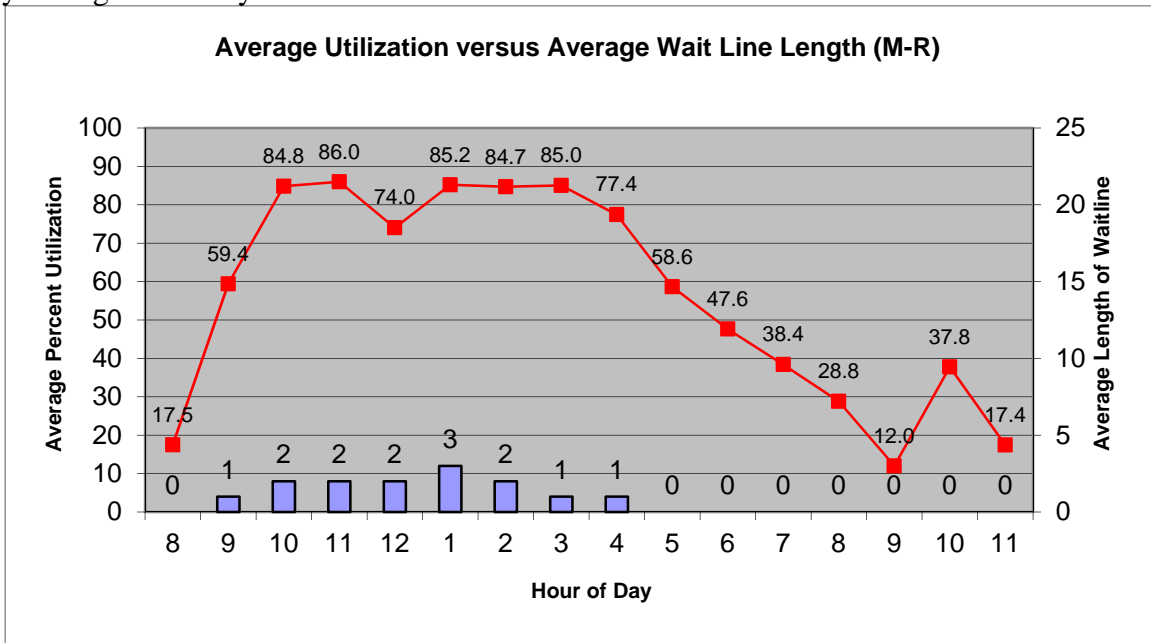
The wait line data shown is the average wait line for the entire quarter. The maximum wait line of 27 on June 7th is many times the average. Past student surveys show roughly only 25% of students would wait if there were line of 10 people. Therefore, CLM's wait line statistics are most likely not an accurate measure of demand during busy times.

Class Use

During Spring 2013 there were 4,139 class hours reserved in the computer classrooms. This was an increase of 191 hours from Spring 2012.

Spring Quarter Reservations
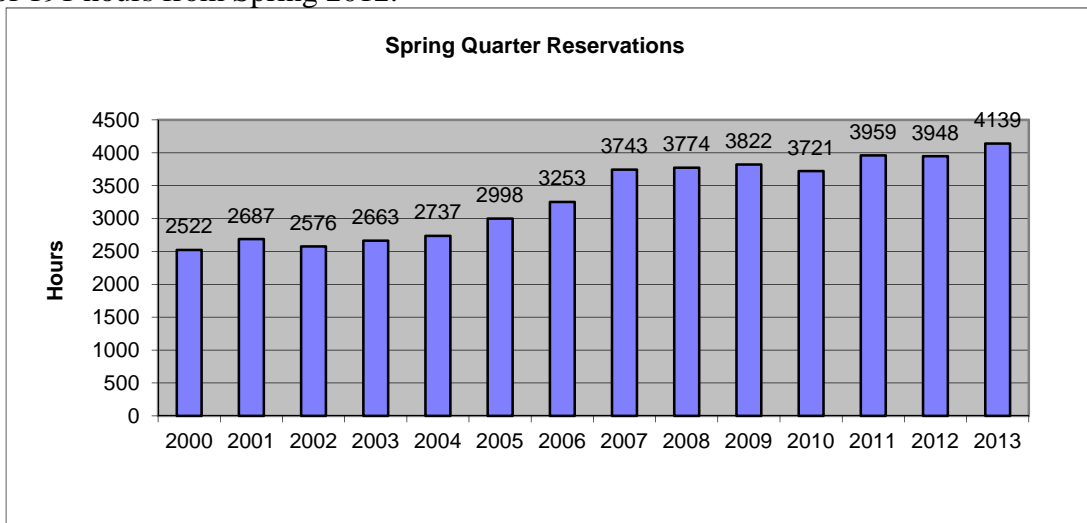
In addition, there were 224 class software installs and 88 class folders created during Spring 2013.

Number of Logins and Users

The total logins in Spring 2013 decreased slightly to 271,799, down 4.3% from Winter 2013. The number of logins has dropped from 08-09, most likely due to a combination in the decrease of open hours and the printing rate change decreasing demand.
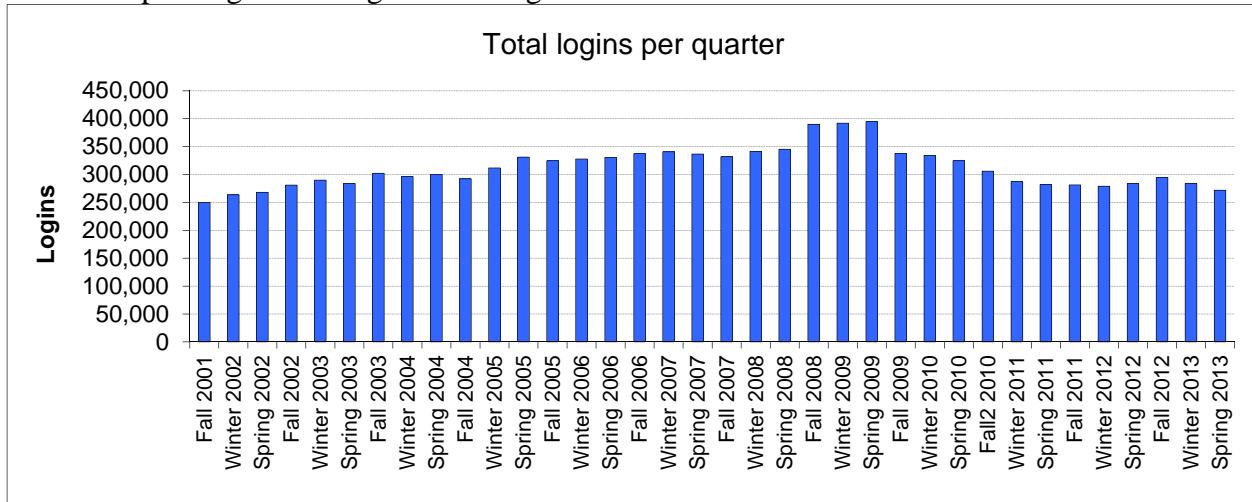
Unique Users

The number of unique clients decreased to 19,002 in Spring 2013. Of these, 18,438 were students. This is a decrease of 522 clients from Winter 2013. The decrease is normal as the total number of students at UC Davis typically drops from Fall to Spring quarter.
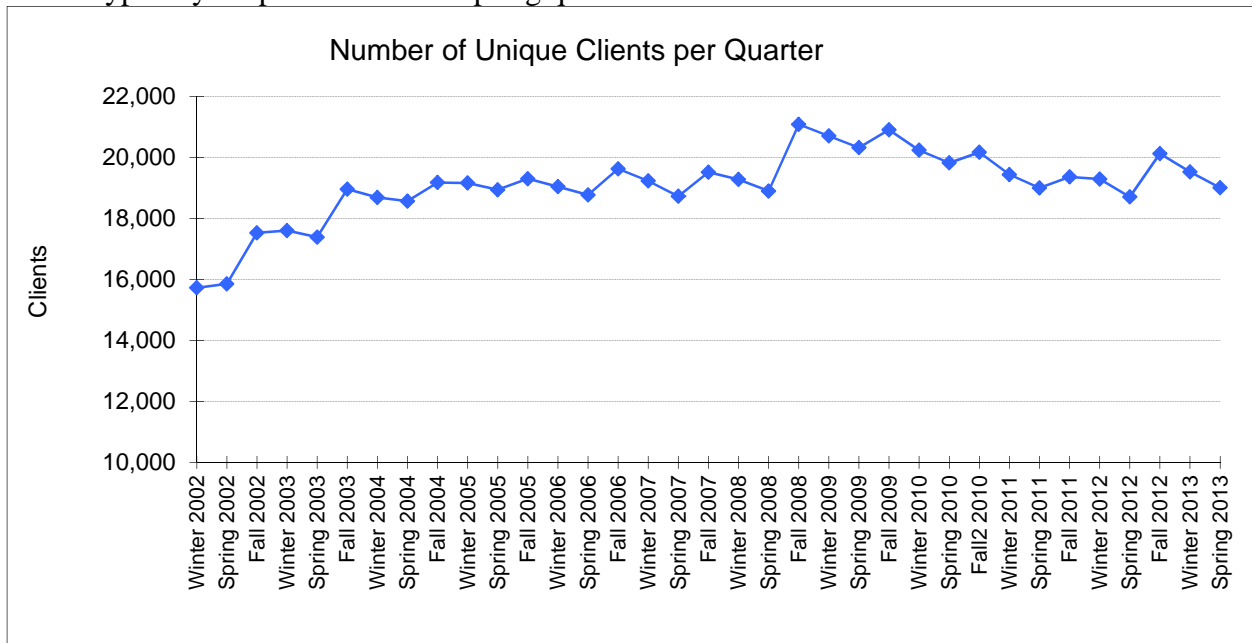
Virtual Lab Users

The IET Virtual Lab was used 4,849 times by 700 unique clients. This was a large drop from Winter 2013. We are not sure what caused the drop, perhaps there were fewer classes that required the specialized software offered during Spring 2013.

Printing

The total sheets printed in Spring 2013 decreased to 874,420 (a drop of 5.8%). The average sheets printed per client (of those who printed) was 53.97. The large decrease from 08-09 was due to the change in printing rates at the start of Fall 2009.
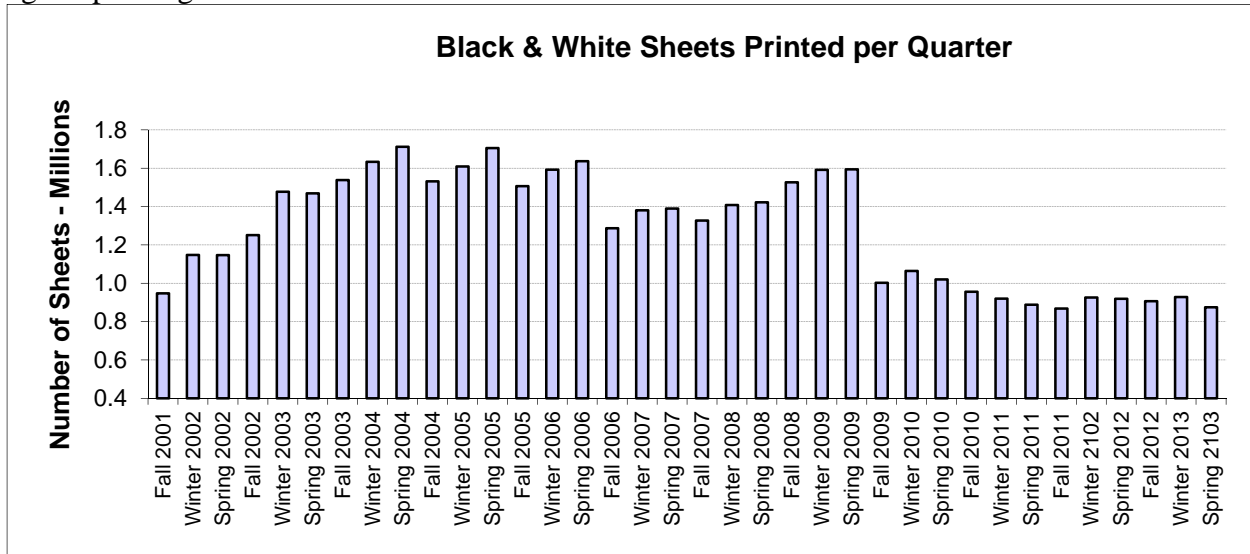
In addition, there were 8,110 color pages printed, an increase of 176 from Winter 2013. This is the highest total of color pages ever printed per quarter.
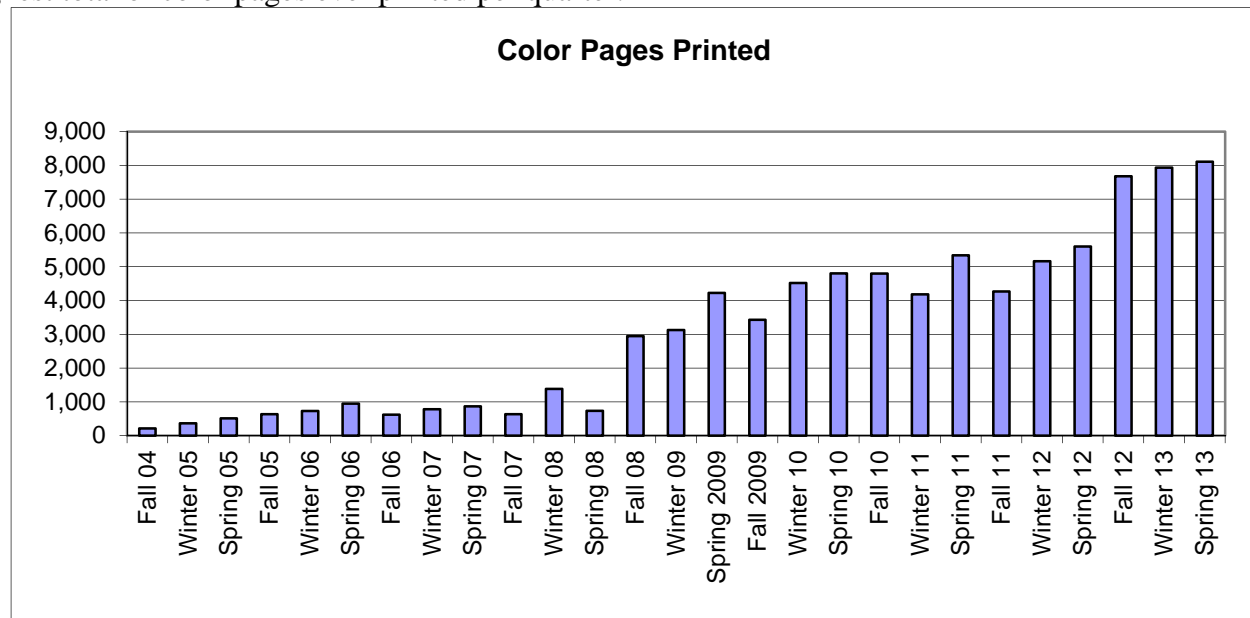

There were 2,039 wireless print jobs, an increase of 508 from Winter 2013. There were 249 unique clients who printed though the wireless printing system. The drop in wireless printing usage from 08-09 level is most likely due to the overall drop in printing caused by the printing rate increase.

Wireless Print Jobs
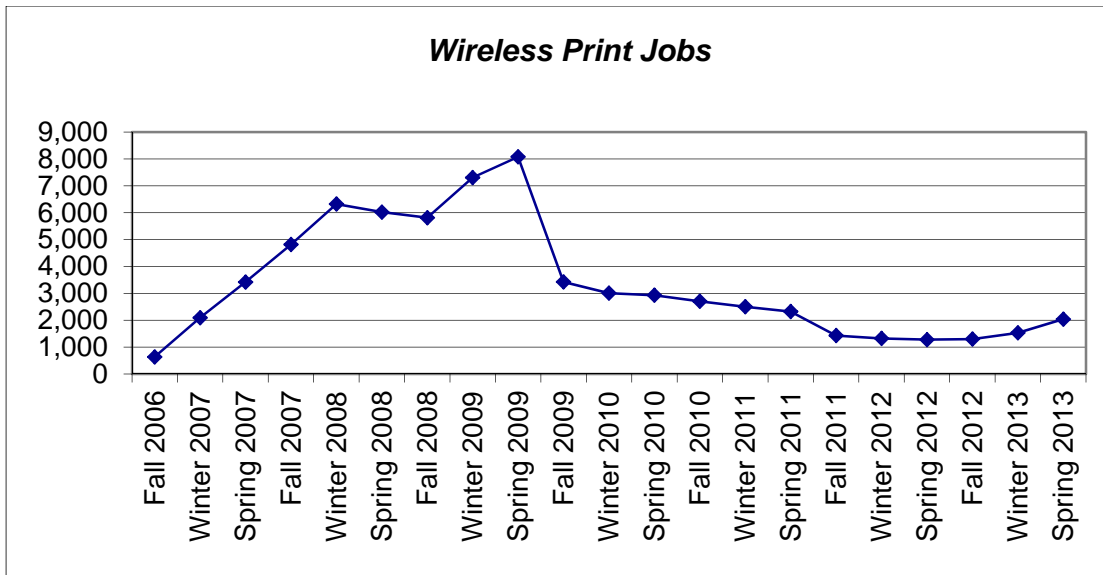

Review of Annual Data

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

The overall computer classroom reserved hours had been relatively constant since the 08-09 year. CLM added a new computer classroom in the Student Community Center in Winter 2012 and the reserved hours increased dramatically as the new classroom was filled with classes.

**Computer Classroom Reservation Trends**
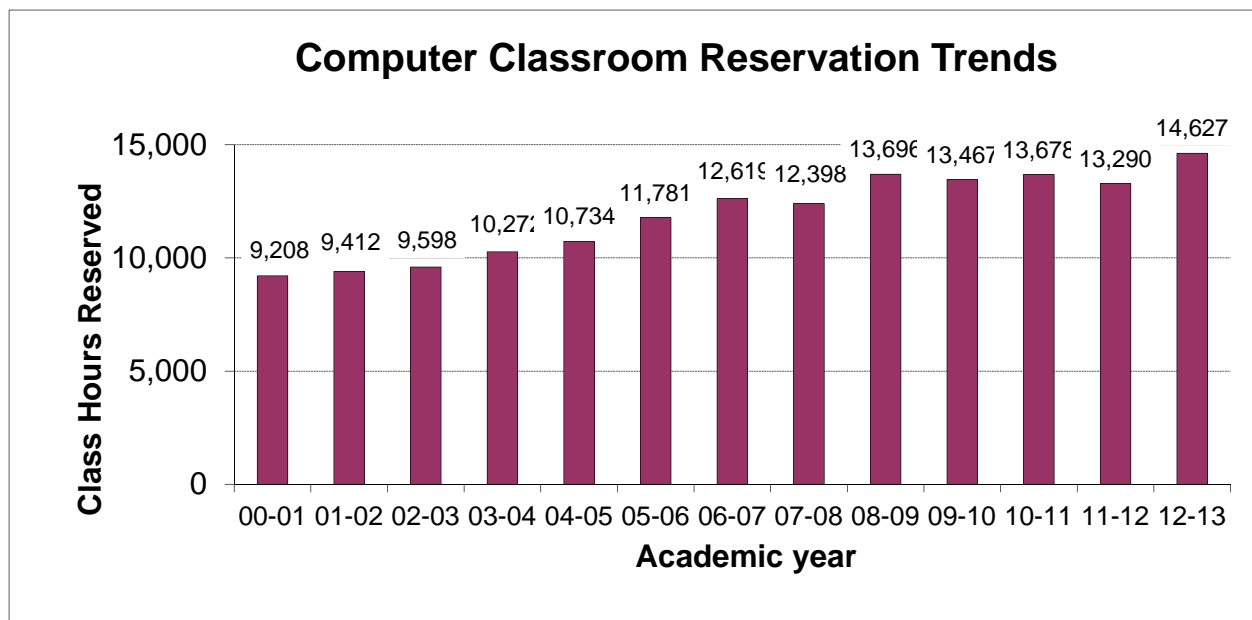
The total number of logins has dropped since 08-09, most likely due to the combination of the increased printing rate and fewer open hours. However, the number of logins appears to no longer to be trending downward and may have flattened out.

The number of unique clients increased by 652 from 11-12, which makes sense given that UC Davis is admitting more sudents.

Logins and Unique Clients by Year
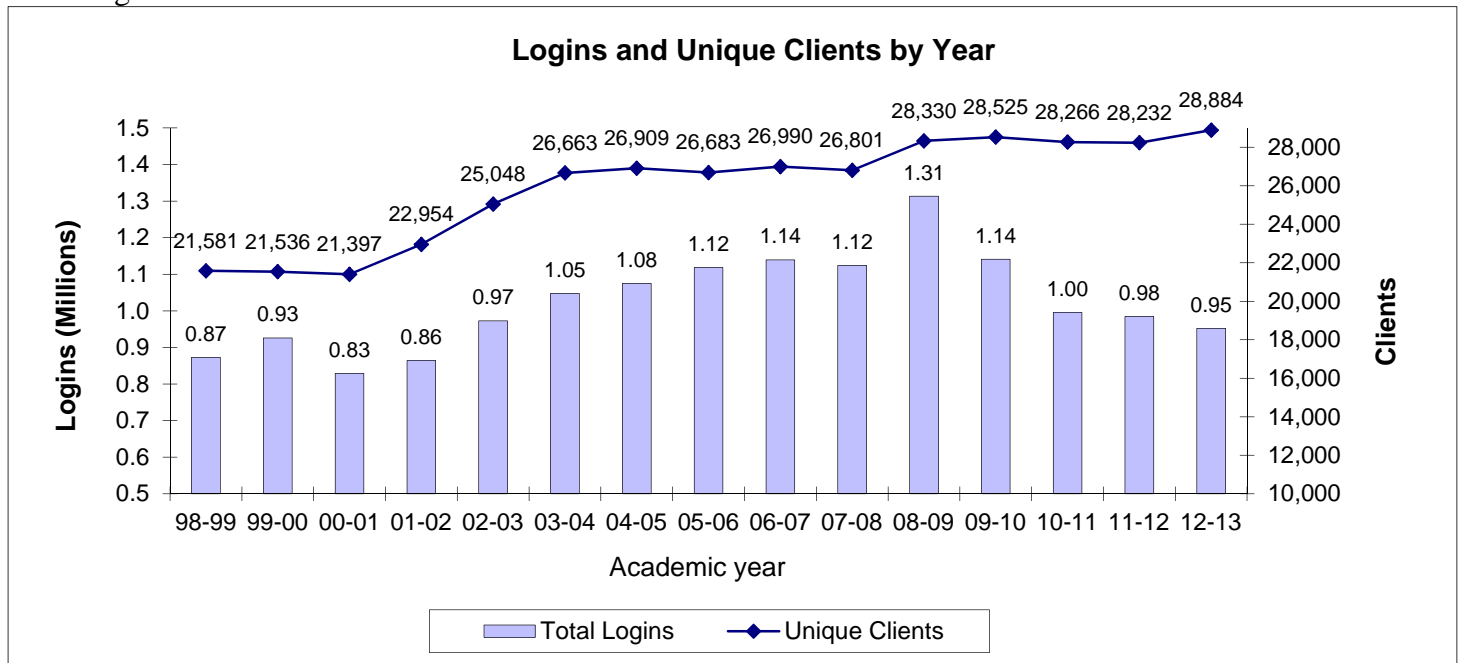
The number of black & white sheets printed per year dropped dramatically from 08-09 due to the printing rate increase in Fall 2009. However, the sheets printed have appears to level out in recent years. We expected that sheets printed would drop significantly initially but then slowly increase as students become accustomed to the new rate. It remains to be seen if the printing levels will increase in the future.

Black & White Sheets Printed by Year
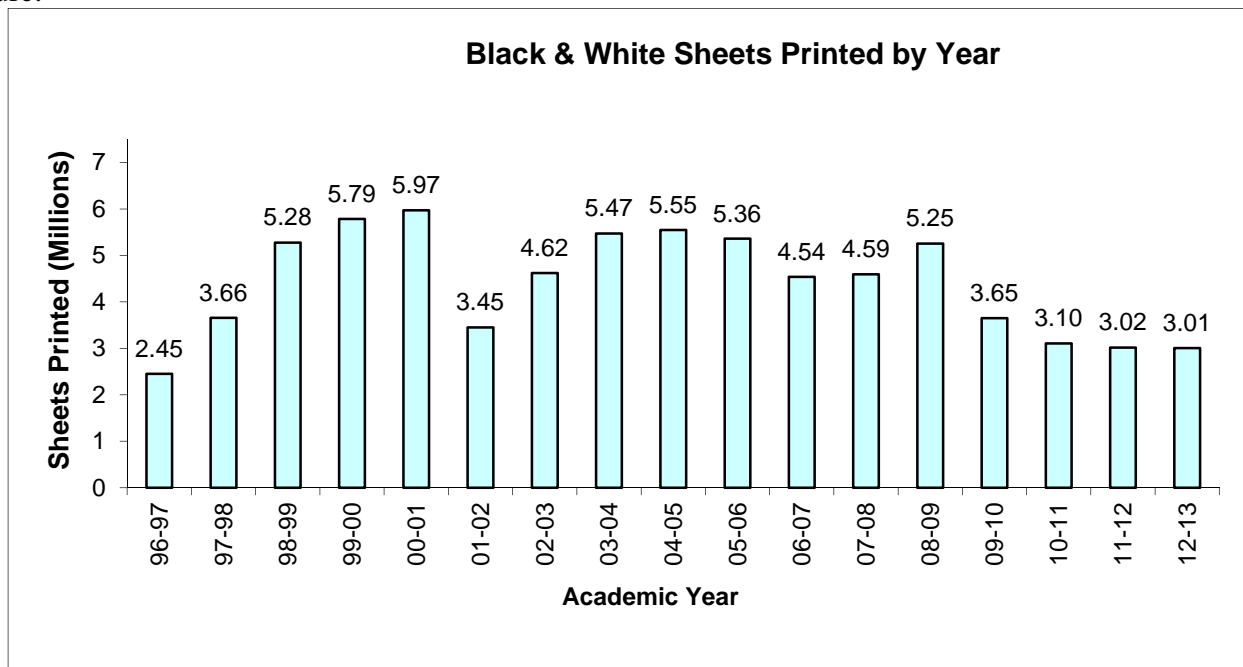
The number of color pages printed per year has grown dramatically over the past few years. CLM increased the number of rooms with color printers in Summer 2008 and in Summer 2012 which led to the large jumps those years.

Color Pages Printed by Year

Year	Color Pages Printed
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