Program Review 2013-2014
Information Technology Services
Application Support
June 2013

Program Description – Application Support is a service unit in the Information Technology Services Division responsible for the development, deploying, operating, and maintaining of the software applications used by the campus. The unit is responsible for the software development and maintenance in support of the college's student information system Colleague by Ellucian, the student application to the college CCCApply, Financial Aid disbursements, and MIS reporting of student population information to the California Community College's Chancellors Office. In addition the unit develops or implements and maintains applications that can be accessed on the MyECC portal site to provide real-time student information such as unofficial student transcripts and reporting services for administrative staff. Finally, the unit is charged with supporting the Human Resources area with MIS Employee reporting, Faculty Contracts and LACOE human resources and payroll interfaces in addition to supporting Fiscal Services and Purchasing for the Accounts Payables, General Ledger, Accounts Receivables, Purchasing, and Fixed Assets systems. The external LACOE financials and labor distribution interfaces are also maintained and supported by this unit.

Enterprise Resource Planning (ERP)

Program Goals – Application Support Services helps El Camino College utilize technology to provide students with the greatest opportunity for achieving their educational goals; faculty with the resources and support necessary for continued excellence in instruction; administrators and staff with the most efficient and effective work environment for overseeing daily institutional operations; and the community with effective, efficient, and timely responses to their needs for information, training, and instruction.

This activity supports:

Institutional Strategic Initiative B:
Strengthen quality educational and support services to promote student success.

Institutional Strategic Initiative F:
Support facility and technological improvements to meet the needs of students, employees and the community.

The unit goals for this program review are:

1. Maintain Student Information System (SIS) 100% data and file integrity.
2. Colleague software patch levels current to meet the needs of the system and users – patches tested and implemented within 24 days.
3. Provide the college with technical solutions such as applications or modifications to applications to meet mandated state policy.
4. Notify the administration of issues affecting the SIS within one hour or less of the event.

Program Environment
The operational hours of this unit are 40 hours a week; 7:45am to 4:30pm Monday through Friday. The unit has responsibility over the following:

1. The Student Information System (SIS) Colleague functional parameters and operational capabilities.

2. Other custom applications that allow for access to student information or other information residing in the Enterprise Resource Planning System Colleague.
3. Programs other than the SIS that the college has adopted as part of normal operations for administrative or operational functions.
4. Provide reports, Ad hoc queries, and self-serve reporting capability to faculty and staff.
5. Maintain secure SIS access by exercising security policies and procedures

The Assistant Director supervises 1 Business Systems Analyst, 6 Programmer Analysts, and 6 User Support Analysts. 2 User Support Analysts are assigned direct support to the Financial Aid division and Admissions and Records division.

Data Resources
ITS Program Review depends on five sources of data to help assess program effectiveness.

1. **Help Desk statistics** – This program review does not draw upon any data more recent than 2010-11. Since 1998-99, ITS has relied on its own in-house developed help desk software to measure the effectiveness of services being provided. The emphasis was on recording the service request, handing it over to a technician to revolve and documenting the outcome. The software has no real analytics for anything other than counting job tickets and recording the time to close. In 2010, ITS decided to write a SQL version of the help desk software and link it to the SharePoint portal. In early 2012 it became obvious that new help desk software, then in beta test, would not meet design expectations. ITS is looking at commercial service management software capable of the following:
   1. Utilize the power of SQL Reports to obtain more detailed information about the services users are requesting and how the unit is responding.
   2. Provide information about who is asking for services; track the data by division, unit, individual requester, and request type. In addition to information about the responder and time to complete.
   3. Integrate the requesters into the service management process with verbal and electronic notification that the request had been received, the date and time of the visit, and a follow-up satisfaction inquiry.
   4. Categorize the various types of service requests to reveal patterns in the issues and opportunities for user training. Also analyzing the service requests issues found to take action to replace aging or failing hardware and software, or identity end user process improvement.
   5. Compile service information into an "expert system" that first responders can use to resolve issues on the spot.
   6. Integrate with Microsoft Systems Management Server to obtain accurate hardware and software inventory information.

2. **Student logon data**
   ITS is tracking the number of students logging onto the portal and the PCs in the academic computer labs. This data is an indirect indicator of service reliability, accessibility, and ITS's ability to keep student services up and running. The volume of SIS transactions that are processed is a direct correlation to the student logon data.

3. **Monitoring and management tool indicators**
   The unit uses a variety of monitoring tools to maintain SIS performance and data integrity.   System performance, file and data integrity, and process jobs have specific tools run to monitor these parameters. Email alert notifications have been scheduled to inform staff of the output results so that they can react proactively to any adverse changes in systems.

4. **MIS data reporting**
   MIS data reporting is a means of validating data integrity and to comply with State mandates.

5. **System file management and diagnostic tools**
   Are used on a daily basis to screen for any data, file, or process anomalies.

Program Effectiveness
Student Logon Data – Library
Beginning Fall 2011, ITS began tracking student logons in the library. This chart shows the data for all the labs in the library for that semester.

Library LMTC - Sept. 1 - Dec. 16, 2011						
Month	LMTC 31 (Open Access)	LMTC 36 (Reading Lab)	LMTC 42 (Open Access)	LMTC 44 (Open Access)	LMTC 46 (Open Access)	Total
Sept.	9,999	257	2,066	2,354	1,166	15,842
Oct.	9,979	203	2,220	2,138	1,252	15,792
Nov.	9,326	227	2,550	2,327	1,423	15,853
Dec.	10,228	89	1,348	1,179	767	13,611
Total	39,532	776	8,184	7,998	4,608	61,098

Several things are significant in this data:
1. Students used the facility throughout the fall semester
2. Usage was constant; there were no peaks and valleys.
3. There were only 2 weeks between the beginning of December and the end of the semester and yet nearly 1,000 more students logged into the LMTC 31 than during the previous three full monthly totals.

Student Logon Data – MyECC Portal
ITS closely monitors the fall registration period from first day to register in mid-May to first census in early September. This 118 day period experiences the largest logon surge of the year. MyECC student SharePoint portal, which launched in July, 2007, attracted staggering numbers of students during this period. Upgrading the student information system server and related systems doubled student logons in 2010 and increased them by nearly a million in 2011. Network Services plays a major role in preparing and monitoring the infrastructure to ensure that students have access to the portal. It's success is in part their success.

Two charts below, "Student MyECC Logons Fall Enrollment Daily Count" and "Student MyECC Logons Fall Enrollments Total Count by Year" shows the enrollment comparisons over six years from 2006 through 2012.
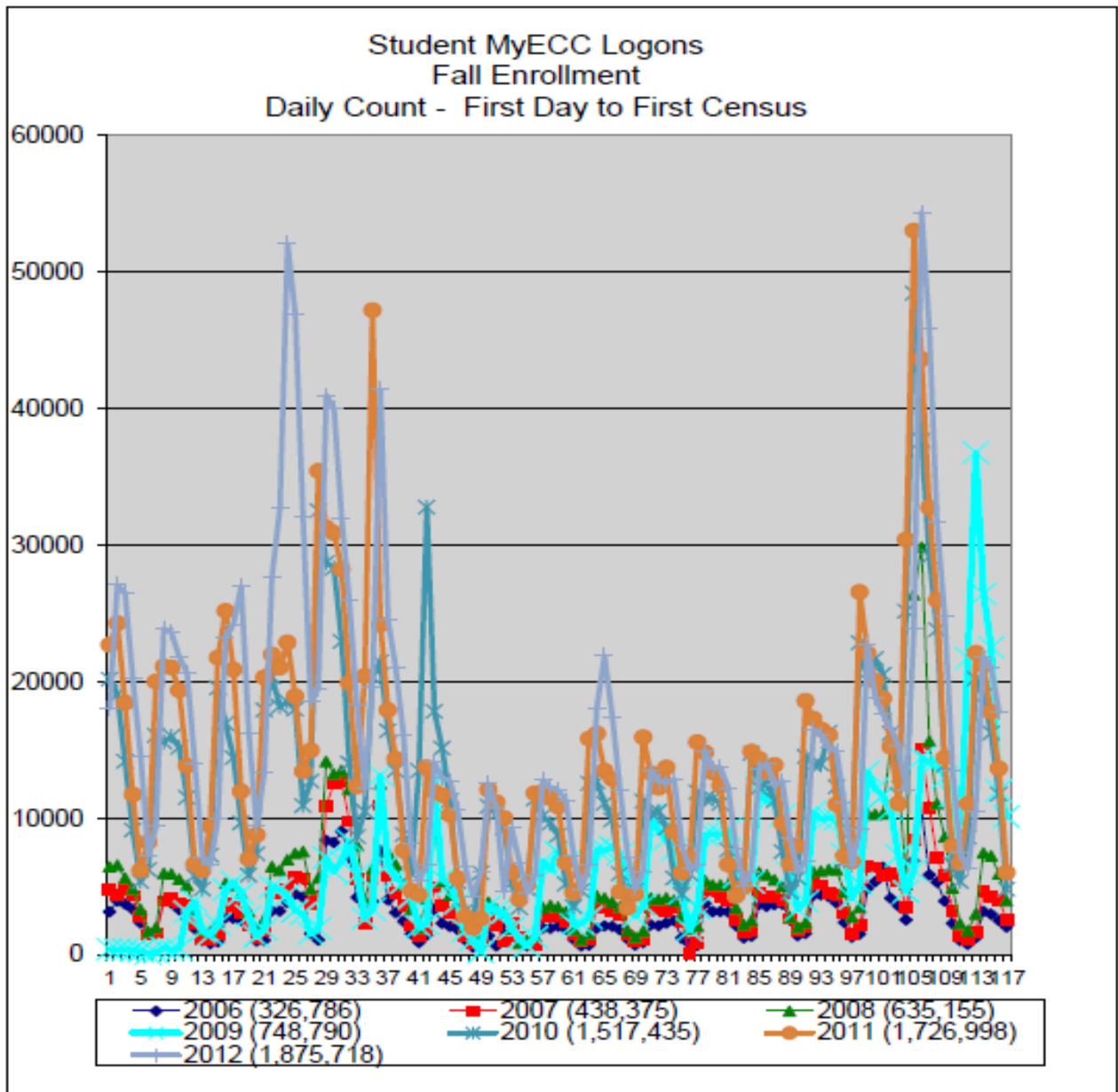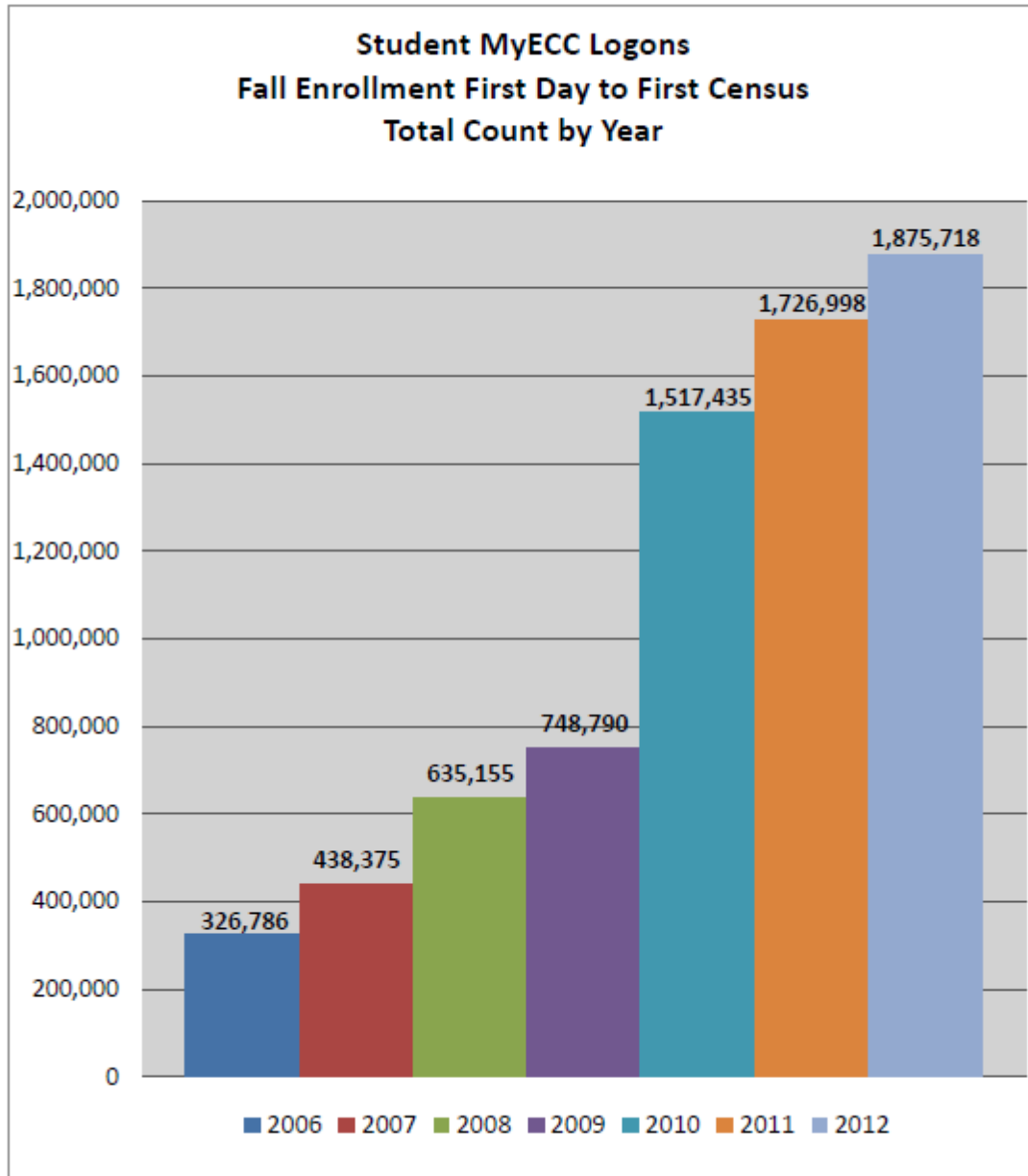
Chart A

Student MyECC Logons
Fall Enrollment
Daily Count - First Day to First Census

Legend:
- 2006 (326,786)
- 2007 (438,375)
- 2008 (635,155)
- 2009 (748,790)
- 2010 (1,517,435)
- 2011 (1,726,998)
- 2012 (1,875,718)

Chart B

**Student MyECC Logons
Fall Enrollment First Day to First Census
Total Count by Year**

Year	Count
2006	326,786
2007	438,375
2008	635,155
2009	748,790
2010	1,517,435
2011	1,726,998
2012	1,875,718

Monitoring and Management tool indicators

ITS closely monitors the Ellucian Colleague SIS environment for system performance, data and file integrity, and process performance. Analysis and monitoring with tools such as the WUFA file analysis tool can provide early warning alerts of file or system threshold limitations being reached. This has become an important indicator during peak periods of activity, when the volume of transactions can spike and press system resources to their limits in a very short time interval.

Below is an example of the output from the Ellucian system analysis WUFA.

Tue Jun 11 14:21:32 PST 2013
LIST UDT_GUIDE FILE_NAME DATATEL.DAMAGED ID.SUP WITH DATATEL.DAMAGED GT "" LPTR 14:21:32
Nov 12 2013 1 File Name....................... Damaged

No records listed.

Changing Conditions

All academic, administrative, and student support functions of the college are now dependent on very complex computer networking and data systems that interconnect departments across the District, the District with state and federal governments, and the college with higher education institutions across the country and throughout the world.

The move to an online registration process away from a manual forms process has dramatically altered and redefined the duties and responsibilities of the programming staff. Prospective students can apply from anywhere in the world using the internet. No longer will the college's Admissions and Records (A&R) division accept applications in paper, A&R staff redirect prospective students expecting to apply in person to the nearby kiosk computers to apply online.

More of the manual processes done by the college are desired to be converted to electronic with the expectation of integrating some automation, in addition to new processes that previously were prohibitive manually because of the resources required. The California Community College's Chancellor's Office (CCCCO) has initiatives in play that will allow for California Community Colleges to leverage common automation platforms the CCCCO tech center is developing as a cost savings to the individual college and to move toward a single student identity with associated common college application requirements. These new initiatives represent cost savings, but the interfaces to the college's SIS are historically the college's responsibility to create.

The California State legislature has enacted into law through SB1456 new mandated requirements of interaction between the California Community College's and their applied students. These new requirements commonly known as the Student Success Act, will mean new ways to execute those required interactions and how to record and report the interactions required by the law.

Conclusions and Recommendations
1. The expectation of prospective and continuing students has become that the processes they use are available to them on a 24/7 basis.
2. The move of the information technology industry away from proprietary languages and systems to openly available and published technology has allowed the CCCCO to offer affordable common solutions to CC Colleges. The College's SIS needs to follow suit and move to the widely accepted Microsoft SQL server Colleague platform.

3. Hours of online applications unavailability need to be established and communicated to align student expectations of 24/7 availability with normal daily system maintenance downtime.
4. Support for students having a problem using automation only exists during normal business hours. Critical deadlines students need to meet need to be defined more in line with normal business hours not in the current reference of a 24 hour day.
5. A SQL database administrative assignment needs to be developed to address the growing reliance on Microsoft SQL server.
6. A focus on the Mandated SB1456 requirements and short term implementation deadline.