Students enrolled at Cañada College for the Fall 2013 term can access distance education classes in more than 40 disciplines.(Photo Credit: Cañada College)

Distance Education Report

California Community Colleges Chancellor's Office
Brice W. Harris, Chancellor

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Distance Education Report

Executive Summary

Distance education has existed in the California Community Colleges system for more than 34 years. Before 1994 policies limited the types of courses that could be delivered via distance education to only courses that were transferable to baccalaureate granting institutions. In 1994, new temporary regulations creating a pilot period of seven years were adopted. The policy changes were established to allow the community colleges to explore and develop educational initiatives related to distance education. Those changes were made permanent in 2002.

This 2013 report looks at multiple forms of distance education that is using all types of technology both low and high tech. Regardless of the method of delivery there are two types of time based delivery modes for distance education: synchronous and asynchronous[1]. Online instruction using asynchronous delivery is by far the most widely used method of conducting distance education because it offers students the greatest flexibility in taking courses. Currently over 90 percent of all distance education courses are internet asynchronous courses. Nearly 27 percent of all students take at least one distance education course per term and over 12 percent of all courses are distance education courses.

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Student Services

The Instructional Technology Council, a council of the American Association of Community Colleges (AACC), in its annual survey of its 375 member institutions about distance education reported college administrators ranked "adequate student services for distance-education students" as their greatest challenge, raising it two spots from No. 3 in the previous year's survey. For the past seven years, "support staff need for training and technical assistance" had been the biggest obstacle identified by administrators answering the survey.

[1] Synchronous Communication is direct communication, where all parties involved in the communication are present at the same time (an event). Examples include a telephone conversation, a company board meeting, a chat room event, and instant messaging; and Asynchronous Communication does not require that all parties involved in the communication need to be present and available at the same time. Examples of this include email (the receiver does not have to be logged on when the sender sends the email message), discussion boards, which allow conversations to evolve and communities to develop over a period of time, and text messaging over cell phones.

Student Satisfaction

The level of satisfaction with a course is a strong predictor of retention and success. Not surprisingly, students who are satisfied with online courses and programs persist. In one study, students who had graduated from an online program reported satisfaction levels above 90 percent compared with 20 percent satisfaction levels reported by those who withdrew from courses.[2] California Community Colleges distance education students are very satisfied with their distance education course. Overall a total of 83.3 percent of the students were either "very satisfied" (54.5 percent) or "satisfied" (28.8 percent) with the distance education course they completed. There were only 8.2 percent of the students who were either "Strongly Dissatisfied" (3.9 percent) or "Dissatisfied" (4.3 percent) with their distance education course. When asked if they would take another distance education course 82.5 percent of the students either "Strongly Agreed" (56.3 percent) or "Agreed" (26.2 percent) they would. There were only 5.7 percent of the students who either "Strongly Disagreed" (2.7 percent) or "Disagreed" (3.0 percent) they would take another distance education course.

Critical Thinking in Distance Education Courses

Critical thinking skills in a course are elements of the rigor of a course. Almost 8 out of 10 students believe their distance education course provided them with the opportunity for critical thinking with other students, 78.1 percent of the students either "Strongly Agreed" (45.1 percent) or "Agreed" (33 percent) with the statement "the online discussion board provided opportunity for critical thinking with other students". There were only 7.4 percent of the students who either "Strongly Disagreed" (2.6 percent) or "Disagreed" (4.8 percent) with the statement about the opportunity to do critical thinking with other students. There were only 11.7 percent of the students who "Strongly Agreed" (5.6 percent) or "Agreed" (6.1 percent) with the statement that "the discussion board was a waste of time".

Meeting the Learning Needs of Students through Distance Education Courses

When students enroll in courses there are learning expectations. Agreement on whether the distance education course met those learning needs is an indication of course satisfaction; nearly eight out of ten students either "Strongly Agreed" or "Agreed" that it did and less than 6 percent of the students either "Strongly Disagreed" (2.5 percent) or "Disagreed" (3.4 percent). When asked if they would recommend the course to others eight out of ten students said they would while only 1 student out of 10 said they would not. When asked in two separate questions to compare the distance education course to face to face courses for learning and effectiveness 66.5 percent and 65.7 percent respectively either "Strongly Agreed" or "Agreed" while 14.5 percent and 13.3 percent respectively either "Strongly Disagreed" or "Disagreed".

Student Retention

There are three factors that contribute to the student retention problem: student, instructional, and institutional. Subsequently, the solutions must be addressed in all three areas. Bob Nash, the current

[2] Hart, Carolyn, Factors Associated With Student Persistence in an Online Program of Study: A Review of the Literature, Journal of Interactive Online Learning, Vol. 1`, Number 1, Spring 2012

distance education coordinator at Coast College in an April 2009 Faculty Focus article, *Tips for Improving Retention of Distance Learning Students*, outlines a multiple variant approach to improve retention and success rates. Nash identifies 11 different areas to look at, six of them are 1) an early alert system, 2) an online tutoring program, 3) a student success course, 4) learning communities, 5) focus on individual courses, and 6) involve faculty. Dr. Douglas Hersh, Santa Barbara City College distance education coordinator in his doctoral research demonstrates how human presence design[3] in distance education courses improves the connections and subsequent retention in courses. Dr. Linda Thor, the current chancellor at the Foothill-De Anza Community College District while at Rio Salada College in Arizona as its president states they were able to achieve 86 percent student retention in distance education courses through a comprehensive set of practices focused on the distance education student.
The following table identifies the various student retention methods used by college and the percentage of colleges using them.

California Community Colleges Retention Methods and Percentage of Use by Colleges

Retention Method	**Percent of Colleges Using this Method**
Faculty contacting students when pre-determined parameters of participation are not reached.	86.6%
Early alert notification to student and/or faculty via e-mail	76.8%
Instructional redesign of the curriculum to assure more learner centered engagement of students.	64.3%
Counselors contacting students when pre-determined parameters of participation are not reached.	20.5%
Predictive analytics using data collected from the Learning Management System (LMS).	17.0%
Peer advisors contacting students when pre-determined parameters of participation are not reached.	7.1%

Inter-college Collaboration

Collaboration between colleges in distance education course development has contributed significantly to the development of distance education courses. Inter-college collaboration can benefit all colleges and enable resources to go further by working with other colleges than working alone. The ability to

[3] **Human Presence Design** is the practice of incorporating video and audio of the instructor teaching an online course and therefore increasing interaction between faculty and student which increases and enhances engagement, comfort and, eventually, retention.

work together especially in academia is going to be a key strategy for colleges taking on new approaches to improve performance and outcomes in distance education. College leaders are looking for opportunities for collaboration tools to impact the development and implementation of distance education. In the Chancellor's Office 2012 DE Program Survey, the DE coordinators responded that they have been collaborating with each other on a wide range of distance education related projects. According to research and best practices, the combination of several factors may help steer collaboration to achieve improved academic results, through empowerment, culture, and technology.

Faculty Training

Increase student retention for distance education courses relies heavily on faculty training. Faculty that have completed some form of certification training for teaching via distance education have better retention rates that those that have not completed any certification training. Faculty recognizes that the ability to teach via distance education broadens their marketability and is an opportunity for professional growth.

Massive Open Online Courses (MOOCs)

"A MOOC is a model of educational delivery that is, to varying degrees, massive, with theoretically no limit to enrollment; open, allowing anyone to participate, usually at no cost; online, with learning activities typically taking place over the web; and a course, structured around a set of learning goals in a defined area of study. The range of MOOCs embody these principles in different ways, and the particulars of how MOOCs function continue to evolve. Still, even without a definitive model of what they are or do, MOOCs have prompted a reexamination of many of the conventions of higher education, including the role of faculty and the institution, accreditation, and criteria for awarding credit."[4]

Distance Education Programs

A sign of maturity in distance education is when a college evolves from offering single courses to at least one comprehensive program exclusively at a distance. The California Community Colleges system passed a milestone in 2011-12 when more than 50 percent of the colleges offered at least one degree or certificate via distance education. The following table, Distance Education Programs, 2011-12, shows the number of colleges and degrees being offered. There is an average of 10 degrees offered via distance education at each college.

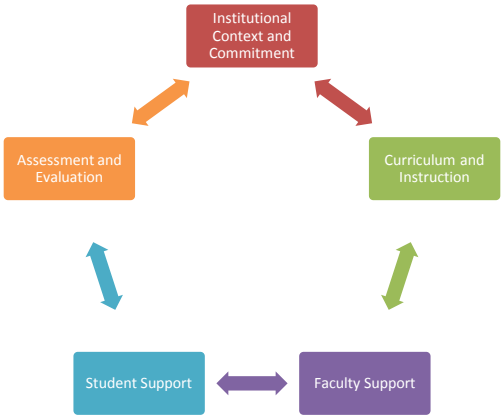
Distance Education Programs, 2011-12

Colleges Offering Degrees and Certificates via Distance Education in 2011-12	Total Associate in Arts Degrees Offered	Total Associate in Science Degrees Offered	Total Certificates of Achievements Offered	Total Degrees and Certificates Offered
56	159	137	291	587

[4] Educause ELI Series, http://net.educause.edu/ir/library/pdf/ELI7097.pdf, July 2013

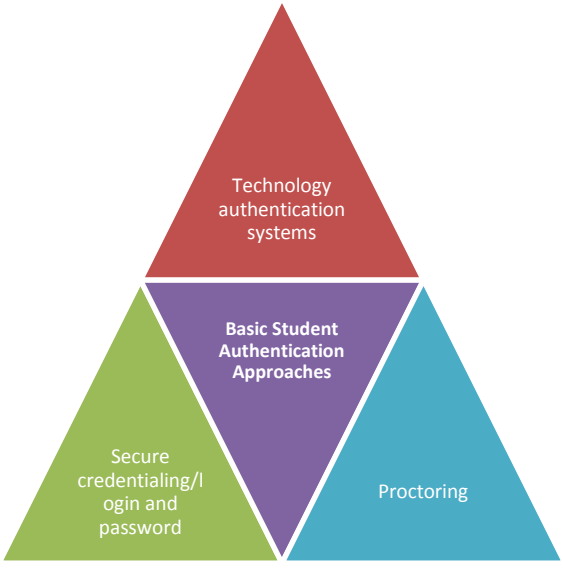
Academic Integrity

Academic integrity is a code of honesty, rigor, ethics, and an avoidance of cheating. It is essential to the success of the mission of the California Community Colleges. It provides a foundation for responsible conduct in our students' lives after graduation. Academic integrity is an important issue that is broader than distance education. Below is a process graph of five categories of *Best Practice Strategies to Promote Academic Integrity in Online Education*, developed in partnership by WCET, the Instructional Technology Council (ITC), and the University of Texas TeleCampus.



Student Authentication

Federal regulations require the Accrediting Commission of Community and Junior Colleges (ACCJC) to assure distance and correspondence education programs have processes in place to verify student identity. The diagram below shows three basic student authentication approaches stipulated in the new federal guidelines:



Accreditation and State Authorization

State authorization is based on state laws where colleges are required to seek state authorization (approval of another state) before serving a student in that other state. Compliance with state laws is a requirement of accreditation and consequently regional accrediting commissions will be exercising authority in this area. The ACCJC as a part of their standards process and the adoption of new policies related to distance education will include demonstration of state authorization compliance as a part of their review.

Introduction

This is a report on distance education in the California Community College. This is the seventh report to the California Community Colleges Board of Governors (BOG) per BOG Standing Order 409 (b) "that evaluates the effectiveness of distance education and education technology system wide and provides analysis of data demographically (by age, disability, ethnicity, and gender) of student accessibility to instruction, and enrollment and completion rates." The first distance education report by the Chancellor's Office was issued in January 2002. It recognized the extent to which DE was offered in the community colleges and covered 1995-2000. Starting in 2003 and every two years since, this report is updated to include data from the prior two fiscal years. The last report was done in April 2011 and covered the five year period of 2004-05 to 2009-10. This report adds distance education data for fiscal years 2010/11 and 2011/12 and covers the five year period from 2006/07 to 2011/12.

The California Community Colleges serve more than 2.4 million students and is the largest system of higher education in the nation. To address the educational needs of this diverse student body, the community colleges offer courses through distance education.

Distance education focuses on the design of pedagogy, technology and instructional systems for students who are not physically present in the same location with the instructor. Title 5, section 55200, defines distance education as —"instruction in which the instructor and student are separated by distance and interact through the assistance of communication technology." Distance education creates an educational experience of equal qualitative value as a face-to-face course for the learner to best suit their needs in an increasingly demanding culture that is challenged by the traditional face-to-face classroom delivery mode. The demands on today's student time from work, family, and education means having to balance multiple commitments in order to achieve academic success. Furthermore, California Community College distance education student survey data indicates that convenience is the number one reason why students take a course.

This report does not address any aspects of the Governor of California's recent proposal to allocate $16.9 million in the 2013/14 fiscal year budget for the planning, coordination, support and increased use of distance education in the CCC System. It describes the current and historical landscape of distance education and discusses issues impacting distance education such as course development and support, state authorization, student authentication and academic integrity, et al. It does provide benchmarks in

several areas that help measure the potential impact of the governor's initiative on distance education in the CCC System.

Background

Distance education has existed in the CCC System for over 34 years. In the early days it was primarily delivered by television but also included radio and correspondence courses. Policies limited the types of courses that could be delivered via distance education. From 1979 to 1994, CCC students were allowed to only take courses that were transferable to baccalaureate institutions. In 1994, due to the growing demand for distance education courses, new temporary regulations creating a pilot period of seven years were adopted. The policy changes were established to allow the community colleges to explore and develop educational initiatives related to distance education. As referenced earlier in the Introduction section, in January 2002 the report *A Seven Year Study of Distance Education in the California Community Colleges: 1994-2001*, summarized the system's activities during the seven-year pilot period. It also identified needed resources and other items required to support distance education throughout the California Community Colleges. The report included information about student access, enrollment, course completion, and student and faculty satisfaction with distance education.

Since that time and using advanced communication and computing technologies the California Community Colleges has addressed student access issues related to geographical, cultural, or facility barriers. Much has changed since the policy reform that allowed distance education to be conducted across the curriculum. In 1995/96 distance education course sessions represented only 0.63 percent of all course sessions; today they have grown to represent 10.5 percent percent of all course sessions. In March 2002 the BOG approved title 5 regulations to permanently expand distance education to all credit and noncredit courses. The BOG also directed continuance of the review and collection

Courses, Sections, and Sessions

Since all enrollment data are derived from the COMIS, this report contains enrollment data reported by Data Element Dictionary (DED) codes. For purposes of this report a distinction needs to be made between a course, course section, and course session. The DED definitions are as follows:

- A **course** is a unique offering by a college, which has a unique course outline that has been approved by a local college's curriculum committee (e.g., Bio. 1: Principles of Biology).
- A **course section** is an individual course offering at the local college (e.g., Bio. 1–04, which would denote the fourth section of Bio. 1 being offered in a particular term).
- A **course session** represents a unique instructional occurrence within a course section. There are two types of course sessions identified in the DED.
- Type —A is the standard type of course session.

Type —C is a course session that is used to assign students from the primary course section to smaller class sizes (e.g., to schedule two or more laboratory course sessions for students in the same Bio. 1 lecture section, the college may offer two sections, Bio 1-04A and Bio 1-04B to allow for smaller lab class sizes for students from the same biology lecture course).

In this report, a course session is roughly equivalent to a course section because a course session captures all student enrollments & presents a more precise count of course offerings.

of DE data that began in 1994. These data, updated every two years, report student access and success in all DE courses by the age, ethnicity, gender and type of disability of the students enrolled.

The 2002 regulatory changes also established courses as equivalent to a regular course rather than as independent study for the purposes of computing full-time equivalent student (FTES) apportionment.

Regulations regarding the standards and criteria for DE courses were revised in collaboration with the renamed Educational Technology Advisory Committee and Chancellor's Office staff and were approved by the BOG in July 2007. In 2007 the regulations specifically addressed instructor contact and separate course approval. Regulations regarding distance education attendance accounting standards for labs and noncredit were also revised and approved by the BOG in June 2008.

Methodology

This report uses data from four primary sources: Chancellor's Office Management Information System (COMIS) and three Chancellor Office generated surveys.

The Chancellor's Office Management Information System was implemented in 1990 and seeks to collect data that can provide answers to fundamental questions related to the areas of students, faculty, staff, and courses. Colleges submit data to the Chancellor's Office within 30 days of the end of each term. Distance education data related to the number of course sessions, Full Time Equivalent Students (FTES), student completion and retention and student demographics are derived from COMIS.

Three Distance Education Surveys of Students and Programs

In January 2013 the Chancellor's Office sent *The CCC Chancellor's Office Distance Education Student Satisfaction Survey for Fall 2012* to 57,000 students who enrolled in and completed a distance education course in the Fall 2012. The survey asked about student interactions and satisfaction related to distance education in five areas: content, instructor interaction, student to student interaction, technology, and general. This survey is hereinafter referred to as the *Chancellor's Office 2012 Satisfaction Survey*.
In the fall of 2012 the Chancellor's Office sent the *CCC Chancellor's Office 2011-12 Survey of Colleges' Distance Education Programs and Services* to all 112 colleges and two centers to gather information about a range of distance education programs and services including degrees and certificates, student authentication, state authorization and distance education course development and support. This survey is hereinafter referred to as the *Chancellor's Office 2012 DE Program Survey*.

In the winter of 2013 the Chancellor's Office sent the *CCC Chancellor's Office 2011-12 Survey of Colleges' Distance Education Programs and Services Addendum* to all 112 colleges and 2 centers to gather information about Massive Open Online Courses (MOOCs) that were currently operating and/or being planned to launch in the next year. This survey is hereinafter referred to as the *Chancellor's Office 2013 DE MOOC Survey*.

Key Findings

This section is divided into three parts: students, courses, and related issues. It highlights the growth of distance education courses and student enrollment. Distance education has grown at a significant rate over the last seven years. It has increased significantly in the number and percentage of course sessions and likewise, the number of students taking distance education courses has also nearly doubled. Course development, state authorization, completion and retention rates, student authentication, academic integrity, support programs, student satisfaction with distance education, and an update about MOOCs are also covered in the key findings section.

This report looks at multiple forms of distance education that is using all types of technology both low and high tech. Regardless of the method of delivery there are two types of time based delivery modes for distance education: synchronous and asynchronous.

- Synchronous Communication is direct communication, where all parties involved in the communication are present at the same time (an event). Examples include a telephone conversation, a company board meeting, a chat room event and instant messaging.
- Asynchronous Communication does not require that all parties involved in the communication need to be present and available at the same time. Examples of this include email (the receiver does not have to be logged on when the sender sends the email message), discussion boards, which allow conversations to evolve and communities to develop over a period of time, and text messaging over cell phones.

Online instruction using asynchronous time based delivery is by far the most widely used method of conducting distance education because it offers students the greatest flexibility in taking courses. More than half of the colleges offer degrees and certificates that can be obtained exclusively through distance education; some colleges offer more than 40 degrees and certificates. As colleges expand their distance education program offerings and align courses with other majors, the number of degrees and certificates using distance education entirely has grown.

The growth of DE programs has generated increased activity with the regional accrediting agency, the Accrediting Commission of Community and Junior Colleges (ACCJC), Western Association of Schools and Colleges (WASC), for "Substantive Change Proposals" related to distance education. To help carry out this function and due to changes in the Higher Education Opportunity Act of 2008, ACCJC is modifying its policies. At its June 2012 meeting the ACCJC adopted a revised policy regarding distance education. The *Guide to Evaluating Distance Education and Correspondence Education* outlines what colleges should be addressing under the four broad and eleven sub standards. This *Guide* is a tool in the ACCJC's series of resources to be used by institutions preparing their Institutional Self Evaluation Report of Educational Quality and Institutional Effectiveness (formerly Self Study Report) and other reports and by teams conducting comprehensive visits and other visits.

Colleges continue to collaborate with each other to develop and support distance education courses while working to improve methods of retaining students. Online services such as registration, tutoring, library access, virtual faculty office hours, etc. reveal how distance education student services have improved as the information age continues to be a major influence in how colleges interact with students.

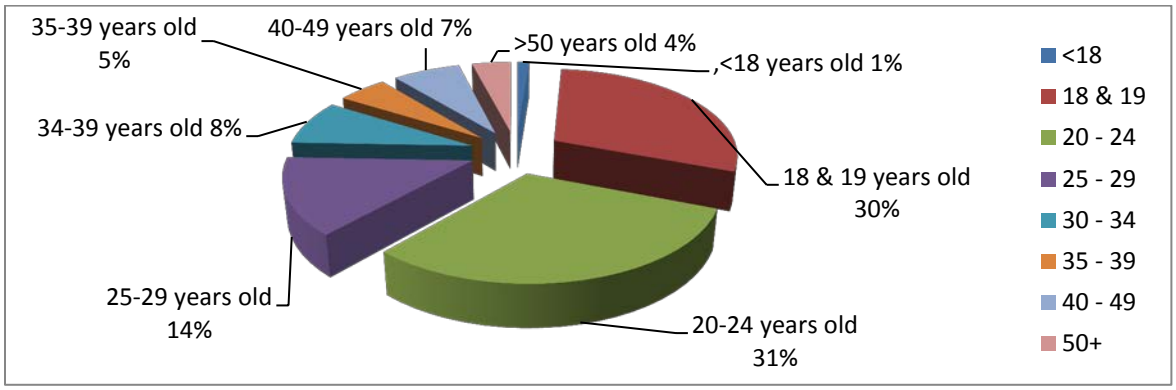
Distance Education Students

Student Demographics

The typical distance education student is a white female between the ages of 18-24 years old. Graph 1, *Percentage of Distance Education Students by Age in 2011-12*, shows the largest age group is 20-24 years old students at 31 percent closely followed by the 18-19 years old students at 30 percent. The third largest group by age is the 25-29 year old students. The three groups identify 75 percent of all students in distance education as being under 30 years of age.

Graph 1

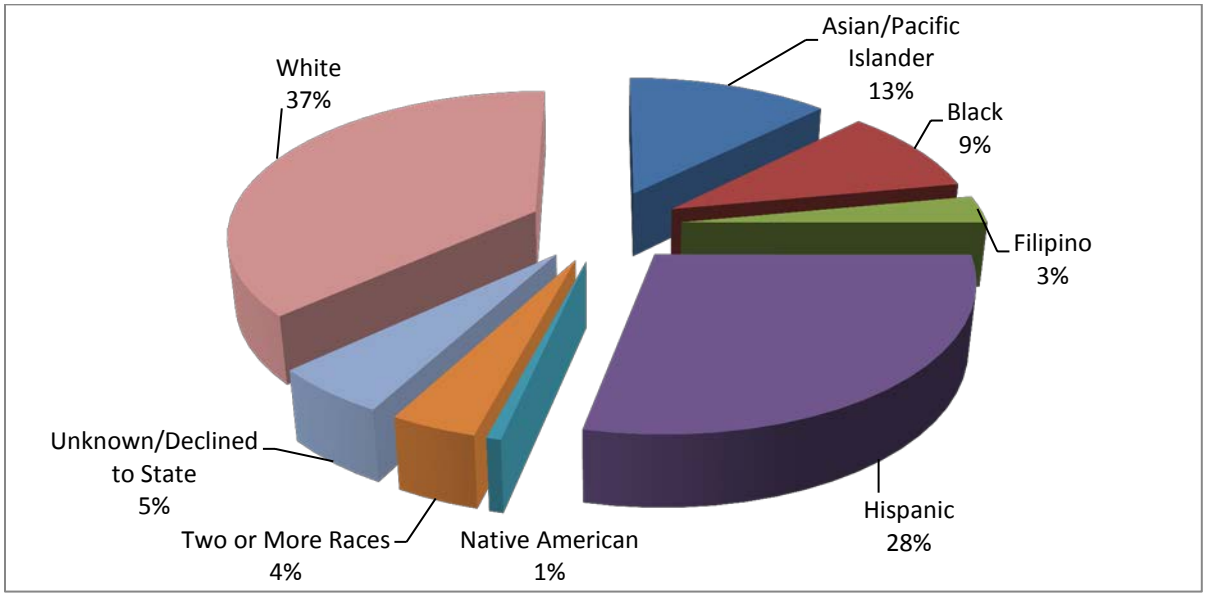
Percentage of CCC Distance Education Students by Age in 2011-12



Graph 2, *Percentage of CCC Distance Education Students by Ethnicity*, shows that the largest ethnic group taking distance education courses is White at 37 percent followed by Hispanics at 28 percent.

Graph 2

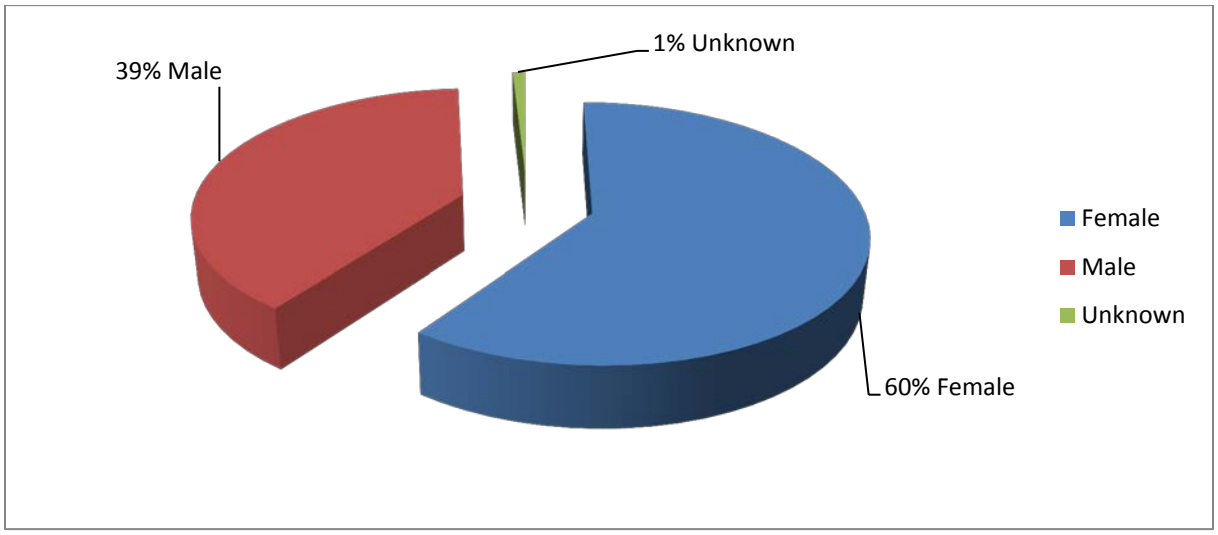
Percentage of CCC Distance Education Students by Ethnicity in 2011-12



Graph 3, Percentage of CCC Distance Education Students by Gender, shows that there are 60 percent female students compared to 39 percent male students taking distance education in 2011-12.

Graph 3

Percentage of CCC Distance Education Students by Gender in 2011-12



Student Enrollment

This section contains information about enrollment headcount, growth by zip code and enrollment rates.

Enrollment by headcount from 2005-12

Table 1, *Total Student Headcount in All Distance Education and Traditional Education Course Sessions (Unduplicated headcount)*, shows the growth in unduplicated student headcount over the seven-year report period. Student headcount in distance education courses grew from 2005/06 to 20011/12 by 14.45 percent. Distance education enrollment peaked in 2010/11 with a student increase of 26,242 students before losing 32,505 students in 2011/12. This drop in students was reflective of an overall drop in students in the CCC System. This is evident because despite a loss of more than 32,000 students distance education increased its overall percentage of students taking distance education compared to traditional face to face instruction by 0.64 percentage points.

Table 1

Total Student Headcount in All Distance Education and Traditional Education Course Sessions

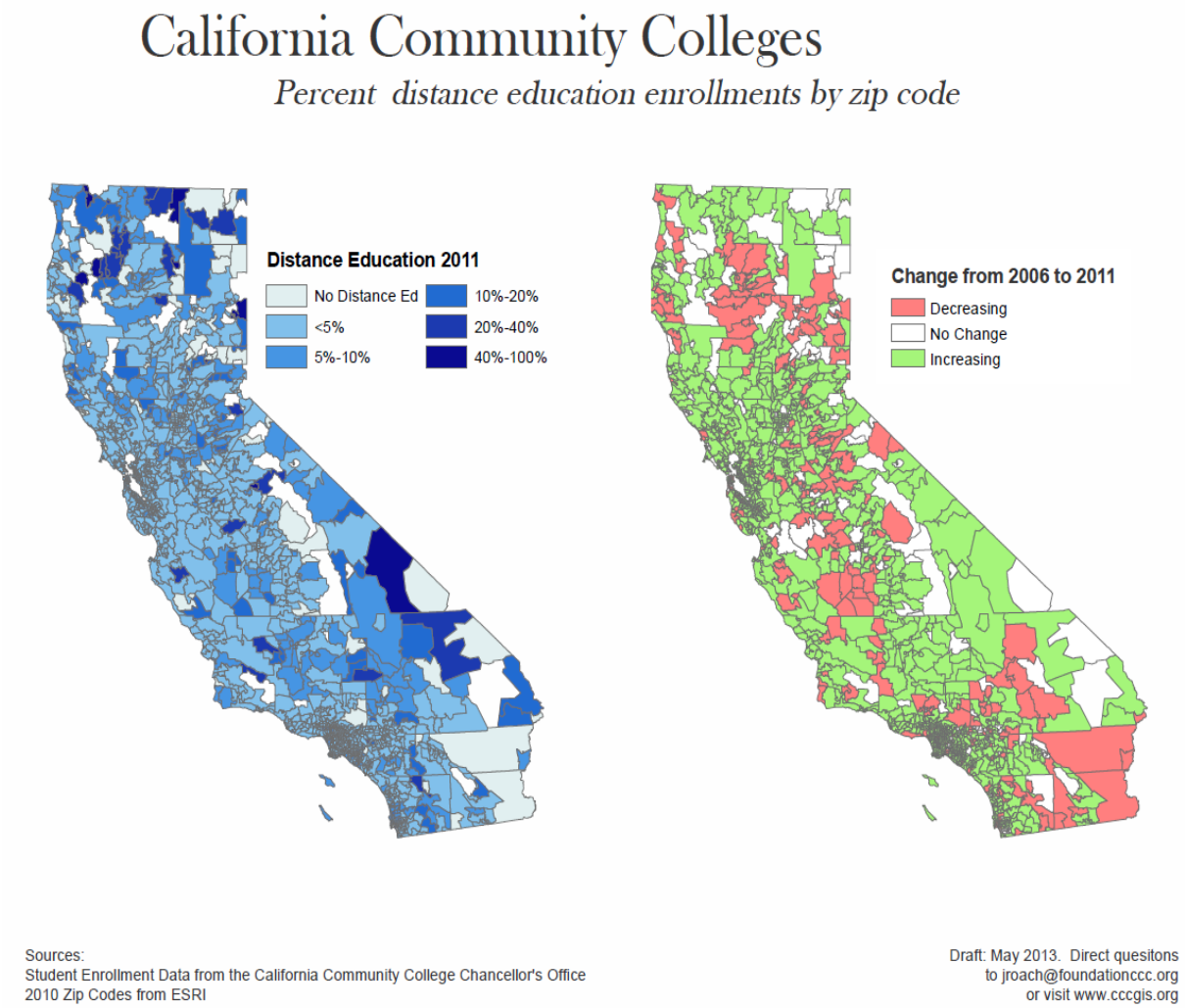
(Unduplicated headcount)

Fiscal Year	Distance Education	Traditional Education	Total	Percent of Total Headcount
2005-06	328,372	2,630,207	2,958,579	12.48%
2006-07	392,355	2,694,149	3,086,504	14.56%
2007-08	483,884	2,810,572	3,294,456	17.22%
2008-09	611,689	2,923,137	3,534,826	20.93%
2009-10	649,518	2,758,831	3,408,349	23.54%
2010-11	675,760	2,570,688	3,246,448	26.29%
2011-12	643,255	2,388,913	3,032,168	26.93%

Distance Education Enrollment Growth by Zip Codes from 2006-11

The map on the following page is generated from enrollment data from COMIS and Zip code information from ERSI. The map shows the percentage of students in a zip code area that took distance education course from a college in CCC System. The map does not necessarily show a relationship between the zip code and the college in a geographical region. It is possible for a student to be identified in a zip code as a distance education student but not be enrolled at the college in that zip code for the distance education course. Thanks and appreciation is acknowledged for the production of the maps through the Foundation for the California Community Colleges Geographical Information System Collaborative. The change in the growth of distance education by zip code was dramatic across the State. There are two maps depicted, one is a map showing where there is distance education as of the academic year of 2011-12. There are six areas identified ranging from no distance education to 40 percent - 100 percent distance education by zip code. The areas showing no distance education are primarily large areas of

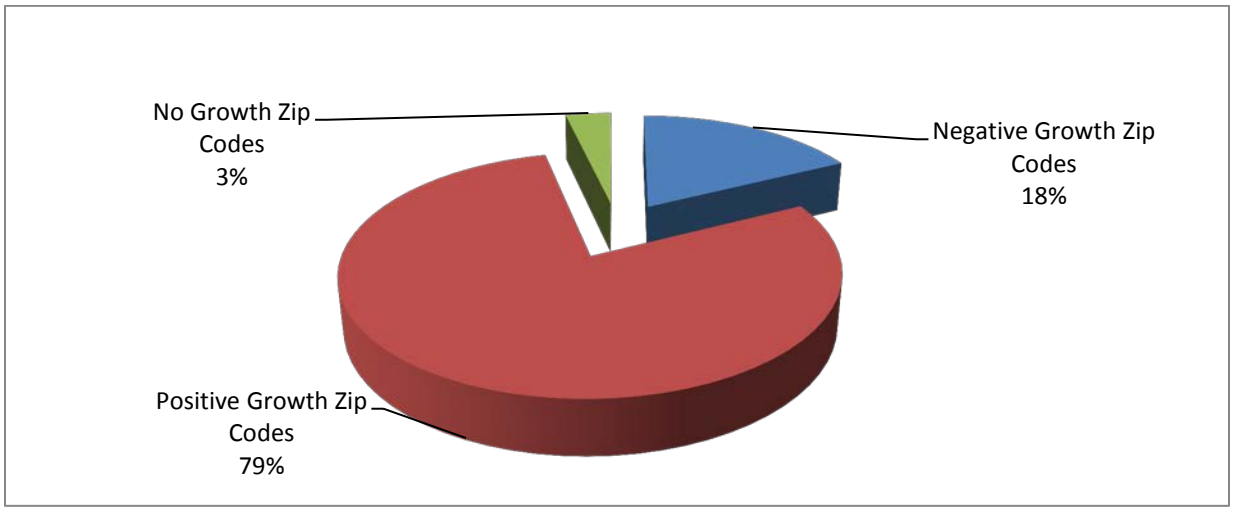
forest and National and State Parks where there is sparse populations. The second map shows where there are areas that have increased, decreased, and no change from 2006-07.



The following Graph 4, *Change in the Growth of Distance Education Courses by Zip Codes from 2006-11*, shows an increase in zip codes grew by 79 percent. There was negative growth in 18 percent of the zip codes. However it should be noted that some areas that show a decrease in distance education by zip code are represented by colleges that show increases in distance education enrollment. For example in the lower southeastern part of the State it shows a decrease in the number of distance education students by zip code however, the two colleges that represent that geographical area, Imperial Valley College and Palo Verde College show increases of 46.3 percent and 41.7 percent in distance education students respectively over the same time period. Another example is in the middle of the State where West Hills Coalinga College and West Hills Lemoore College show increases of 10.6 percent and 2.6 percent respectively over the same period of time.

Graph 4

Change in the Growth of CCC System Distance Education Courses by Zip Codes from 2006-11



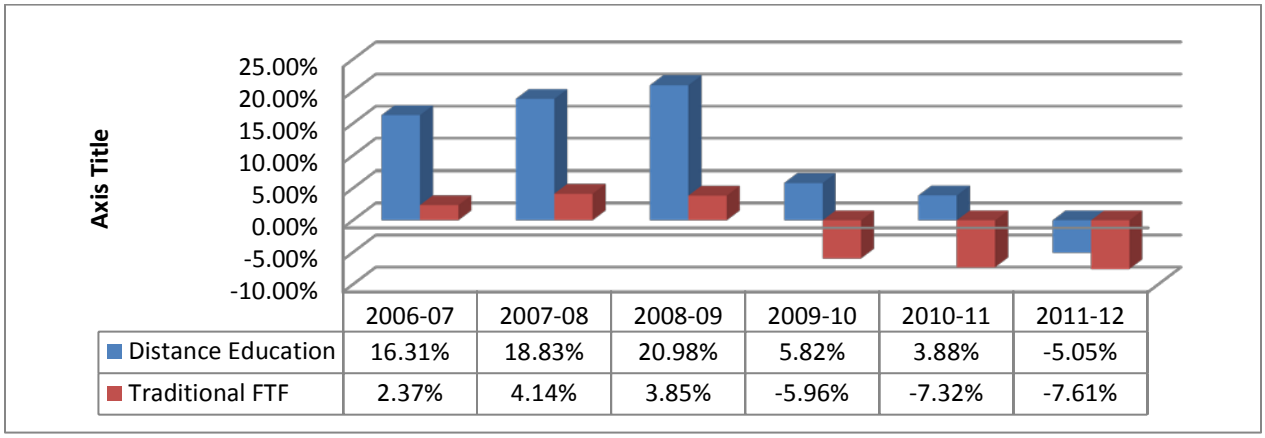
Enrollment Rates: Unduplicated Student Headcount Noticeable Trends from 2005-12

In the three year period from 2009-10 to 2011-12 there were severe budget cuts which created shortages and a reduction in course offerings. This in turn produced a three year decline in traditional enrollments. Prior to those years distance education had been on a steady climb averaging 18.7 percent from 2006-07 to 2008-09. From 2009-10, due to the system wide budget reductions there was a slowing in the growth of distance education and after two years of decline but still positive enrollment distance education loss 32,505 students. This was the first time since COMIS data has been keep on distance education when there has been a decline in enrollments.

Graph 5, *Percent Change for DE Headcount Compared to Traditional Face-To-Face Headcount 2005 -12*, shows the percent change from the 2005-06 base year headcount of 328,372 for distance education sessions and 2,630,207 for traditional sessions.

Graph 5

Percent Change for DE Headcount Compared to Traditional Face-To-face Headcount 2005 -12



	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Distance Education	16.31%	18.83%	20.98%	5.82%	3.88%	-5.05%
Traditional FTF	2.37%	4.14%	3.85%	-5.96%	-7.32%	-7.61%

Faculty – Student Interaction

At the foundation of any quality instruction and educational process is the relationship between the instructor and student. Consequently the amount, level, and depth of the interaction between the faculty teaching the course and the student taking the course is critical. This is true for either traditional or distance education. But because of both the physiological space and temporal space differences between the instructor and student in asynchronous distance education, which accounts for over 90 percent of all distance education, this factor is even more important. In addition to being a foundation of quality instruction, significant faculty-student interaction is a requirement by title 5 of the California Code of Regulations for distance education. Faculty and student interaction also addresses issues of academic integrity and student authentication.[5]

In The Chancellor's Office 2011-12 Annual DE Program Survey, DE coordinators were asked a question that addressed the most commonly used communications methods of interacting with students by faculty. They were asked to rate eighteen methods of communications they believed DE faculty used the most.

The two highest rated areas were again the same but they changed positions. E-mailing moved in the number one spot at 81.4 percent compared to 77.5 percent in the previous report and online discussion boards was second at 76.1 percent compared to 78.8 percent in the previous report. Again there was a significant drop off to third and fourth with class chat room coming in third with 15.9 percent compared to 11.4 percent in the previous report and a new number four spot being occupied by CCC Confer Moodle Room (Open source LMS) at 6.3 percent. Video conferencing with students the previous number four fell to number five with 3.6 percent down by almost three times from 10.1 percent in the previous report. There was a new lowest form of interacting with students which was a tie between text messaging and class Facebook page both at 0.9 percent. The previous lowest method was meeting face-to-face on campus which was up to 5.3 percent from 1.3 percent in the previous report which catapulted it from number 18 to number five. The full results of the responses to the question are displayed in Appendix A, Summary of Methods of How DE Faculty Interact with DE Students.

Student Support Services

The student support services category is divided into two discussions; one is about student services for the distance education student, and the other is about online student services for all students.
The first of these two, student services for the distance education student, is a significant criterion of the accreditation process if a college offers distance education courses. In its publication, the *Guide to Evaluating Distance Education and Correspondence Education,* which was created to assist colleges in the area of distance education as it prepares for accreditation reviews; the Accrediting Commission for Community and Junior Colleges (ACCJC) devotes five pages and four major sections covering 30 – 35

[5] California Code of Regulations, Title 5, Section 55204 Instructor Contact (a) (b)

items related to student services and distance education students (ACCJC 2012)[6]. The student services area is highlighted even more when the college has more than 51 percent of its courses in a program being offered via distance education. This 51 percent course threshold requires colleges to submit a formal substantive change application to ACCJC. The development of student services for the distance education student is an important element of this application process.

Because of the significant growth of distance education students and the development and expansion of courses and programs enrollment is growing at a faster pace than in traditional courses. This growth creates new challenges for colleges that must now provide student services and other support in a virtual world.

The Instructional Technology Council, a council of the American Association of Community Colleges (AACC), in its annual survey of its 375 member institutions about distance education reported results from this year's survey regarding concerns about student support services for distance education students. "…college administrators ranked "adequate student services for distance-education students" as their greatest challenge, raising it two spots from No. 3 in the previous year's survey. For the past seven years, "support staff need for training and technical assistance" has been the biggest obstacle identified by administrators answering the survey. Yet despite the concern, respondents reported a decline in their online student-support services. For example, online counseling and advising services have decreased by 11 percent compared with the prior year's survey, from 60 percent in 2010 to 49 percent in 2011. Meanwhile, student orientation for distance classes has decreased by 16 percent since 2010. These national declines are probably an indication of the budget cuts driven by the poor economy. The second discussion is broader and encompasses all students and speaks to the evolution of the 21st Century campus as all of higher education has embraced the information age. When colleges began to expand the delivery of DE instruction, they were presented with the challenge of teaching at a distance and being able to offer students the same needed support and library services as if they were on a college campus. With the growth of the information age and globalization along with changing demographics, technology is driving today's trends in student services. Traditional students on campus also want access to student services without having to come to campus even though they are coming to campus to obtain instruction. Colleges are creating innovative technological and virtual ways to reach all students with student support.

In The Chancellor's Office 2012 DE Program Survey, DE coordinators were asked to work with their student services professionals to identify if 30 student services were offered via the Internet, telephone or on campus. They were asked to also identify if the services were offered only on campus or not at all, as well as if the information available was static or interactive. The full summary of their responses can be viewed in Appendix B, Student Services available via the Internet, telephone, or on-Campus.

[6] Guide to Evaluating Distance Education and Correspondence Education, http://www.accjc.org/wp-content/uploads/2012/08/Guide-to-Evaluating-DE-and-CE_2012.pdf

Overall the results from the previous report have been dramatic. Across all the areas the level of access to student services via telecommunications has been significant, in many cases doubling and even tripling in levels of frequency. The following is a list of the seven communication areas and the results of the two highest-rated student services within each communication type:

- *Service or program is offered only on-campus* - Assessment and Testing (Diagnostic, Placement, & Academic) at 65.8 percent, which is up from 39.1 percent in the previous report and Health Services at 64.58 percent, which is up from 40.7 percent in the previous report.
- *Offered on-campus and through other communication technologies* – College to Student Communications at 90.9 percent, which replaces Student to Student Communications (48.2 percent) as the number student service in this category and Faculty to Student Communications at 88.1 percent, which is up from 39.8 percent in the previous report.
- *Information available via static web page posting* - Course/Program Catalog at 87.5 percent, which is up from 40.7 percent in the previous report and Schedule of Classes at 82 percent, which is up from 36.6 percent in the previous report.
- *Student can request or submit information to program or service via an interactive web page*- Registration at 74.3 percent, which is up from 30.2 percent, which is up from the previous report and Library services at 67.6 percent, which replaces Student Accounts which was 30.1 percent in the previous report.
- *Student can obtain information via the telephone through prerecorded message*- College to Student Communications at 30.9 percent, which is up from 9.6 percent from the previous report and Admissions at 25.2 percent, which is up from 7.2 percent in the previous report.
- *Student can request or submit information to program or service using the telephone* - Academic Advising and Counseling at 42.3 percent, which is up from 13.6 percent in the previous report and Library services at 25.2 percent, which replaces admissions, which was 12.9 percent in the previous report.
- *"Not offered"* - E-portfolios 79.2 percent, which is up from the 60.7 percent in the previous report and Ethical and legal services at 67.3 percent percent, which replaces Financial Planning at 42.2 percent in the previous report.

Student Satisfaction and Interactions with Distance Education Courses Survey

To help determine how students interact, perceive and their level of satisfaction with distance education courses in the CCC System, the Chancellor's Office conducted a student interaction and satisfaction survey for students who completed a distance education course in the Fall term of 2012[7]. The survey was sent to a stratified random sample of students in 57 colleges. Only students who enrolled in and completed a credit course were surveyed. Students that withdrew from distance education courses did not receive a survey. There were 14,937 responses received out of 48,081 students surveyed (31

[7] The survey was based on the research of Dr. Elaine Strachota, PhD, Associate Professor, Concordia University Wisconsin, *The Use of Survey Research to Measure Student Satisfaction in Online Courses*.

percent). The survey asked about student satisfaction and interactions in five areas: student to content, student to instructor, student to student, student to technology, and general.

The areas of the survey that are highlighted in this report include: sample population demographics compared to the general CCC distance education student demographics, overall satisfaction with distance education courses, reasons for taking distance education courses, orientation courses/workshops prior to taking distance education courses, student engagement and discussion board use in distance education courses, critical thinking in distance education courses and meeting the learning needs of students through distance education courses.

Student Demographics of Survey Population

Students completing the survey had similar demographics as the overall population of CCC distance education students in the areas of age distribution and ethnicity. However, the ratio of females to males was significantly higher by 10 percentage points from 60 percent in the general CCC distance education population to 70 percent in the sample population.

Student Satisfaction

The level of satisfaction with a course is a strong predictor of retention and success. Not surprising, students who are satisfied with online courses and programs persist. In one study, students who had graduated from an online program reported satisfaction levels above 90 percent compared with 20 percent satisfaction levels reported by those who withdrew from courses.[8]

California Community Colleges distance education students are very satisfied with their distance education courses and satisfaction is an important element in student success. The satisfaction and interaction survey asked students about their level of satisfaction and other related elements i.e. if they would take another online course, if the course met their learning needs, if they would recommend the course and to compare learning in a distance education course to the face to face environment.

Overall a total of 83.3 percent of the students were either "very satisfied" (54.5 percent) or "satisfied" (28.8 percent) with the distance education course they completed. There were only 8.2 percent of the students who were either "Strongly Dissatisfied" (3.9 percent) or "Dissatisfied" (4.3 percent) with their distance education course. When asked if they would take another distance education course 82.5% of the students either "Strongly Agreed" (56.3 percent) or "Agreed" (26.2 percent) they would. There were only 5.7 percent of the students who either "Strongly Disagreed" (2.7 percent) or "Disagreed" (3.0 percent) they would take another distance education course.

Motivation for Taking a Distance Education Course

Motivation is another important factor in student persistence. What are the reasons students enroll in distance education courses? The survey asked CCC distance education students to rate the importance of 16 reasons why they enrolled in their distance education course in the Fall 2012 term. Students were

[8] Hart, Carolyn, Factors Associated With Student Persistence in an Online Program of Study: A Review of the Literature, Journal of Interactive Online Learning, Vol. 1`, Number 1, Spring 2012

asked to rate each reason on a scale of 1 to 5 with 5 as "very important". Each reason also had a "Not Applicable" selection option. Table 2, *The Top Seven Reasons CCC Students took a Distance Education Course in the Fall 2012 Term*, shows the number one reason to be convenience their work schedule. The next two top reasons were connected with degree and transfer requirements respectively. The fourth reason was to improve job skills or expand job opportunities.

Table 2

The Top Seven Reasons CCC Students took a Distance Education Course in the Fall 2012 Term

The course was convenient with my work schedule	3.9%	2.0%	6.9%	15.3%	60.8%	12.3%
The course met requirements for the associate degree	6.2%	3.2%	10.6%	15.3%	55.6%	11.1%
The course met requirements for transfer to a 4-year college or university	6.0%	4.0%	11.9%	13.7%	53.1%	12.5%
The course would improve my job skills/expand my job opportunities	8.1%	4.5%	13.7%	18.7%	43.7%	12.4%
I had a personal interest in the subject	7.0%	4.6%	17.6%	22.7%	41.5%	7.4%
I enjoy learning on a computer	6.9%	5.4%	20.5%	22.6%	40.0%	5.6%
I had success with a previous distance education course	6.6%	2.6%	10.9%	14.6%	39.0%	27.1%

Distance Education Orientation Courses and/or Workshops

Success in a distance education course requires a different set of skills and self-discipline than a traditional face-to-face course. Nearly half of the students (49.1 percent) had not taken a distance education course at their college before the Fall 2012 term. Issues of isolation, engagement, independent thinking, and self-motivation are a few of the factors students must address in order to succeed in distance education courses. Orientation courses and/or workshops can help students prepare and acclimate to the physical and temporal separation from the instructor. In their study, *The Impact of Face-to-Face Orientation on Online Retention: A Pilot Study,* Radwan Ali and Elke M. Lee of Kennesaw State University document the impact of face-to-face orientations and online orientations and their benefits to student retention in distance education:

"Face-to-face orientations have been recognized as a successful retention and engagement strategy in numerous studies (Kanuka & Jugdev, 2006; Bozarth, Chapman, & LaMonica, 2004; Wojciechowski & Palmer, 2005). Wojciechowski & Palmer (2005) showed that attendance at a class session was a predictor of online course success. Scagnoli (2001) emphasized that "Orientation for online courses serves the same objectives as orientation for college, in the sense that it can facilitate academic and social interactions, increase student involvement, enhance the sense of belonging to a virtual learning community, and help retention." (p.19) Others recommended orientations to help manage students' expectations and generally prepare them for distance learning (Carnevale, 2000a; Carr, 2000; Chyung, 2001; Ludwig-Hardman & Dunlap, 2003; Nash, 2005; Rovai, 2003; Ryan, 2001; Scalese, 2001; Tresman, 2002). Orientations present many opportunities for managing students' expectations, preparing them for distance learning. Nash (2005) noted that student drop-rates are related to the expectation that online courses are easier than campus-based courses. Orientations can help describe the demands for a particular course, introduce technology standards, and allow for social and professional networking (Carnevale, 2000a; Carr, 2000; Chyung, 2001; Ludwig-Hardman & Dunlap, 2003; Nash, 2005; Rovai, 2003; Ryan, 2001; Scalese, 2001; Tresman, 2002)."

The satisfaction and interaction survey asked students if they had ever taken a distance education orientation course or workshop at their college. Less than half of the students (40.6 percent) responded yes. Of those responding yes, 36.2 percent stated it was a requirement before being able to take a distance education course, 63.8 percent said it was voluntary. A total of 78.4 percent indicated it was a credit course and 21.6 percent stated it was a workshop for no credit. The most common number of units for the orientation course was three units, followed by four units, and one unit as third. The three most number of hours for the workshops were one hour, followed by two hours, and three hours as the third ranking number of hours. When asked how they completed the distance education orientation experience The number one method of completing the orientation was online with an instructor at 47.1 percent compared to 23.5 percent face to face with an instructor. Overall 75.8 percent of the students were either "very satisfied" (42.0 percent) or "satisfied" (33.8 percent) with the orientation course or workshop.

Student Engagement and Discussion Boards

The second factor identified by Carolyn Hart in her research was a sense of belonging to a learning community. Students who are comfortable establishing relationships in an online environment tend to persist at higher rates. These are students who can successfully participate in online discussions and work with others they do not know or have not met. The feeling of "camaraderie" among students within the class contributes to persistence. Student engagement is a primary factor in establishing such learning communities and achieving success in distance education. It facilitates active learning and reduces isolation a primary cause for students dropping distance education courses.

One method of facilitating students' engagement in distance education courses is through the use of discussion boards. The DE satisfaction and interaction survey asked students if their course used discussion boards. If the course did use a discussion board students were provided follow-up questions about opportunities for problem solving and critical thinking as well as its overall value. A significant number of the students (85.1 percent) responded that their course included a discussion board. A total of 78.1 percent of the students either "Strongly Agreed" (44.4 percent) or "Agreed" (33.7 percent) with the statement "the online discussion board provided opportunity for problem solving with other students". Only 7.9 percent of the students either "Strongly Disagreed" (2.8 percent) or "Disagreed" (5.1 percent) with the statement about problem solving with other students.

Critical Thinking in Distance Education Courses

In response to a similarly phrased question about "the opportunity for critical thinking with other students" the results were almost identical, 78.1 percent of the students either "Strongly Agreed" (45.1 percent) or "Agreed" (33 percent) with the statement "the online discussion board provided opportunity for critical thinking with other students". There were only 7.4 percent of the students who either "Strongly Disagreed" (2.6 percent) or "Disagreed" (4.8 percent) with the statement about the opportunity to do critical thinking with other students. There were only 11.7 percent of the students who "Strongly Agreed" (5.6 percent) or "Agreed" (6.1 percent) with the statement that "the discussion board was a waste of time".

Meeting the Learning Needs of Students through Distance Education Courses

When asked if the distance education course met their learning needs nearly eight out of ten students either "Strongly Agreed" or "Agreed" that it did. Less than 6 percent of the students either "Strongly Disagreed" (2.5 percent) or "Disagreed" (3.4 percent) that the course did meet their learning needs. When asked if they would recommend the course to others eight out of ten students said they would while only 1 student out of 10 said they would not. When asked in two separate questions to compare the distance education course to face to face courses for learning and effectiveness 66.5 percent and 65.7 percent respectively either "Strongly Agreed" or "Agreed" that it compared favorably while 14.5 percent and 13.3 percent respectively either "Strongly Disagreed" or "Disagreed" that it did.

Retention and Success in Distance Education Courses

One of the biggest challenges facing the field of Distance Education is student retention and successful completion. Do students drop their courses because of busy schedules? What about family and career demands? Or because of an instructor's teaching methods? Who should be taking online courses? Are online courses equally appropriate for all students? Can any content be taught in an online format or do some kinds of material lend themselves to mastery in an electronic environment? Who should be teaching these courses? These are all good questions that institutions offering online courses — and instructors teaching them — should consider. These and others are crucial questions for those involved in distance education.

Student Retention

Retention in a course is defined as completing the course and receiving an evaluative symbol or a "grade". When a student drops a course before a grade is issued they receive a withdrawal designation of a "W" which is a non-evaluative symbol. When a student withdraws from a course with a "W" or receives a non-passing grade of "D" or "F" they are entitled to retake the course again up to a maximum of three times without a petition. With a petition the student can take the course a fourth time. When a student receives a "W" or non-passing grade the college is compensated by the State as if they received a passing grade or as if they completed the course.

Because of the disparity between the retention rate[9] and success rate[10] of distance education courses compared to traditional face to face courses distance education courses cost the State of California and students millions of dollars a year due to the re-enrollment of students distance education students in those courses they were unsuccessful in or did not complete. The seven-year averages of traditional retention and success rates are 84.5 percent and 66.4 percent respectively. The seven-year average of distance education and retention and success rates are 77.4 percent and 55.9 percent respectively.

When those students who exist in the "gap" between the difference of retention and success rates of traditional face to face and distance education courses re-enroll in the course they constitute a re-enrollment "echo". This "echo gap" when aggregated within one year for multiple prior years of previous withdrawals and unsuccessful completions can represent up to 3 percent of the annual FTES generated by distance education in the CCC System.

This phenomenon is not unique to California or the CCC System. The research on retention and success rates for distance education demonstrates and documents that this is a national and international issue. However, retention and success rates can be improved through comprehensive strategies and methods by college.

The causes for the retention and success rates differences are multiple and varied. The solutions must also be multiple and varied. As cited earlier in an integrative review of the research literature in the hopes of identifying those factors that positively affect a student's persistence in an online course a review based on 20 studies found that researchers used a wide range of definitions for persistence[11]. The study's author opted for a straightforward description: persistence is "the ability to complete an online course despite obstacles or adverse circumstances." The opposite of persistence is attrition,

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[9] The **retention rate** as defined by COMIS as the following formula of numerator/denominator:
Numerator: Number of enrollments with A,B,C,D,F,CR,NC,I*,P,NP*
Denominator: Number of enrollments with A,B,C,D,F,CR,NC,W,I*,P,NP,DR*

[10] The **success rate** as defined by COMIS as the following formula of numerator/denominator:
Numerator: Number of enrollments with A,B,C,CR,P
Denominator: Number of enrollments with A,B,C,D,F,CR,NC,W,I*,P,NP,DR*

[11] Hart, Carolyn, Factors Associated With Student Persistence in an Online Program of Study: A Review of the Literature, Journal of Interactive Online Learning, Vol. 1`, Number 1, Spring 2012

which she defined as “withdrawal from an online course.” Based on her review, she identified the following factors as being related to student persistence in online courses:

Satisfaction with online learning – Not surprising, students who are satisfied with online courses and programs persist. In one study, students who had graduated from an online program reported satisfaction levels above 90 percent, those enrolled in a program reported 70 percent satisfaction levels, and those just beginning indicated a 58 percent satisfaction level. Those percentages compared with 20 percent satisfaction levels reported by those who withdrew from courses.

A sense of belonging to a learning community – Students who are comfortable establishing relationships in an online environment tend to persist at higher rates. These are students who can successfully participate in online discussions and work with others they do not know or have not met. The feeling of “camaraderie” among students within the class contributes to persistence.

Peer and family support – Those learning in online environments more often successfully complete courses if they have peer and family support. The emotional support provided by peers, family, and sometimes even faculty, is especially important when students are trying to complete online courses at the same time they are coping with hardships or juggling competing demands.

Time management skills – “Students with good study habits, [who have] the ability to stay on task with assignments and readings, and [who] are able to successfully manage time are more apt to persist when compared to non-persisters.”

Increased communication with the instructor – “Qualitative findings indicate that in addition to promptness, the quality of feedback, and the willingness of faculty to meet student needs are viewed as important to student persistence.”

Some of these factors for success in the online classroom are not unexpected. It makes sense that students are more likely to complete a course when they are happy with how the course is going and self-motivated enough to see it through. Other factors implicate how online courses should be taught and to some degree who should teach them. Online courses need to be designed so that students have opportunities to connect and work with each other. They should be taught by teachers who understand the importance of communication with students and who willingly interact with them throughout the course.

The research findings also give an indication of who should be taking online courses. If the student is one of those not particularly well prepared for college-level work and not an especially motivated beginning student, online courses early in the college experience may not be advised.

Online courses can be designed so that they work well for many students and with most content. And most teachers can learn how to teach online. But those courses, like any kind of instruction, don’t work

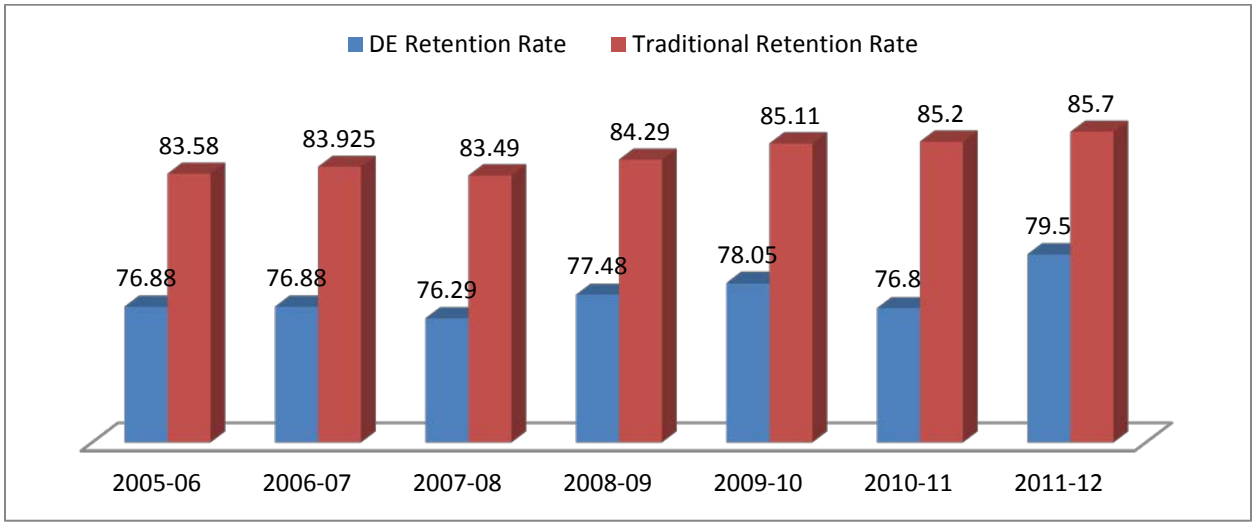
well automatically, which means the questions of who takes, who teaches, and what content is most appropriate should influence decision-making.

There are three factors that contribute to the problem: student, instructional, and institutional. The solutions must be addressed in all three areas. Bob Nash, the current distance education coordinator at Coast College in an April 2009 Faculty Focus article, *Tips for Improving Retention of Distance Learning Students*, outlines a multiple variant approach to improve retention and success rates. Nash identifies 11 different areas to look at, six of them are 1) an early alert system, 2) an online tutoring program, 3) a student success course, 4) learning communities, 5) focus on individual courses, and 6) involve faculty. Dr. Douglas Hersh, Santa Barbara City College distance education coordinator in his doctoral research demonstrates how human presence design[12] in distance education courses improves the connections and subsequent retention in courses. Dr. Linda Thor, the current chancellor at the Foothill-De Anza Community College District, while at Rio Salada College in Arizona as its president states they were able to achieve 86 percent student retention in distance education courses through a comprehensive set of practices focused on the distance education student.

We are getting better. The following Graph 6, Distance Education Retention Rates Compared to Traditional Retention Rates 2005-12, shows that in the last two years annual retention rates have improved. From 2010-11 to 2011-12 the retention rate improved 2.7 percent. There is an average retention gap between DE and traditional instruction of 7.1 percent over the seven-year period. Face-to-face (FTF) retention rates have averaged 84.5. This graph displays that except for this last year the rates have generally mirrored each other. When one falls so do the other, and when one raises the other does

Graph 6

Distance Education Retention Rates Compared to Traditional Retention Rates 2005-12



[12] **Human Presence Design** is the practice of incorporating video and audio of the instructor teaching an online course and therefore increasing interaction between faculty and student which increases and enhances engagement, comfort and, eventually, retention.

California Community Colleges have used a range of methods to improve student retention. The following Table 3 California Community Colleges Retention Methods and Percentage of Use by Colleges created from the *CCC Annual Distance Education Survey of Colleges*. The primary method used by most colleges at 86.6 percent is faculty contacting students directly to inquire about their participation in the course. This is a very effective method because it underscores the need to establish regular and effective contact between the faculty member and the student. The research has demonstrated that relationship between the faculty member and the student is a primary factor in improving retention and the success of the student. The next most prevalent method of use is an early alert system to faculty and/or students via email. There are 76.8 percent of the colleges using this method. Colleges also report that they use multiple methods to combine methods to get the most impact.

Table 3

California Community Colleges Retention Methods and Percentage of Use by Colleges

Retention Method	Percent of Colleges Using this Method
Faculty contacting students when pre-determined parameters of participation are not reached.	86.6%
Early alert notification to student and/or faculty via e-mail	76.8%
Instructional redesign of the curriculum to assure more learner centered engagement of students.	64.3%
Counselors contacting students when pre-determined parameters of participation are not reached.	20.5%
Predictive analytics using data collected from the Learning Management System (LMS).	17.0%
Peer advisors contacting students when pre-determined parameters of participation are not reached.	7.1%

Other distance education course retention strategies include but are not limited to the following:

- an advisor assigned to work with DE students
- analysis of data provided by institutional researcher as part of program review process
- a CTE counselor is in the online course with students
- early assessments
- embedded tutors
- evaluative surveys
- faculty contacting students
- faculty training
- Human Presence Design
- instructor contacts student when logins have not taken place
- mandatory regular student contact

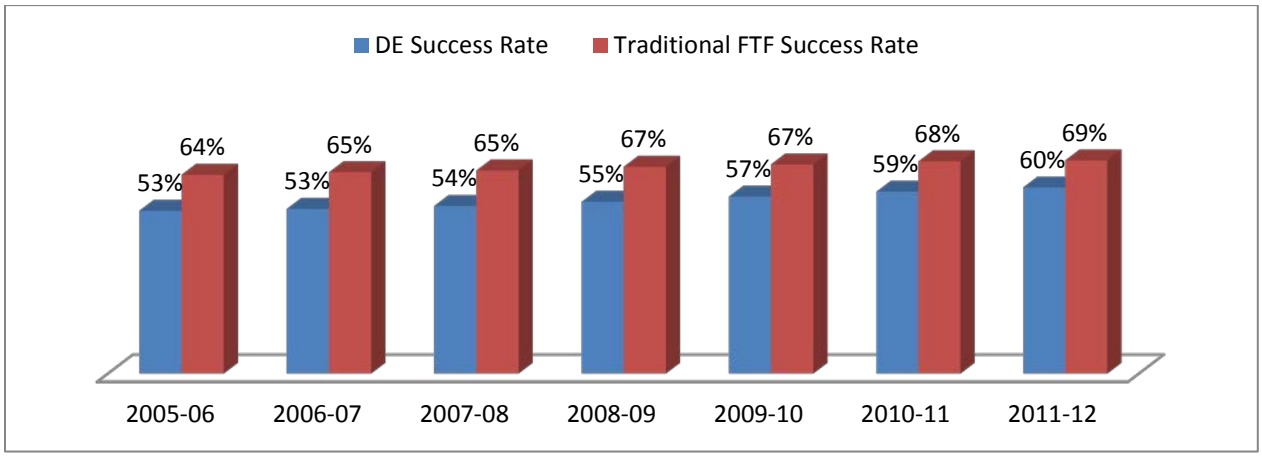
Overall Success Rates

In Appendix C, Success Rates for Credit Distance Education and Traditional Education Course Sessions displays the comparison of success rates between DE students and traditional education students in credit courses. The distance education success rate rose slightly in 2011-12, from 59 percent to 60 percent.

In Graph 7, Success Rates Differences between Distance Education and Traditional Face-To-Face (FTF) Credit Courses 2005-12 the success rate compares to an increase from 64 percent in 2005-06 to 69 percent for traditional education students. The gap for the success rate between traditional instruction and DE instruction closed from 10 percent to 9 percent and is an indication of the improvement of the outcomes of distance education instruction. Since 2005-06 the success rate in distance education has climbed by seven percentage points. The success rate for DE courses grew by one percentage point in one year from 2010-11 to 2011-12, while the success rate in traditional courses remained the same.

Graph 7

Success Rates Differences between Distance Education and Traditional FTF Credit Courses 2005-12

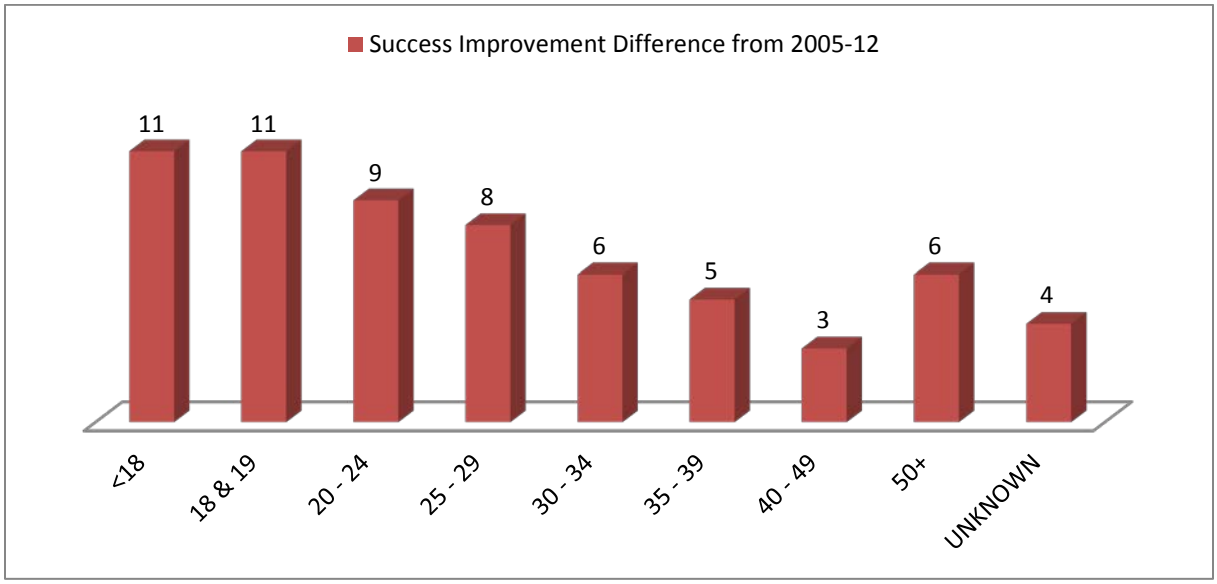


Enrollment and Successful Completion Rates by Age

Appendix D compares student success rates by age in DE credit course sessions. Graph 8, Success Improvement Difference by Age from 2005-12, shows the improvement difference by age group over a seven-year period. The greatest gains in success by age were in the under 18 year old and 18-19 year olds. The trend also points to fewer gains as the age groups grow older. The exception to the trend is the 50+ group. In the earlier years the gap between the younger age groups and the older age groups were wider. The younger age groups have closed the gap over time. For example, in 2005-06 the success gap between success for the 18-19 year group and the 40-49 years old group was 14 percentage points however, in 2011-12 the gap was reduced to 6 percentage points.

Graph 8

Success Improvement Difference Percentages by Age from 2005-12

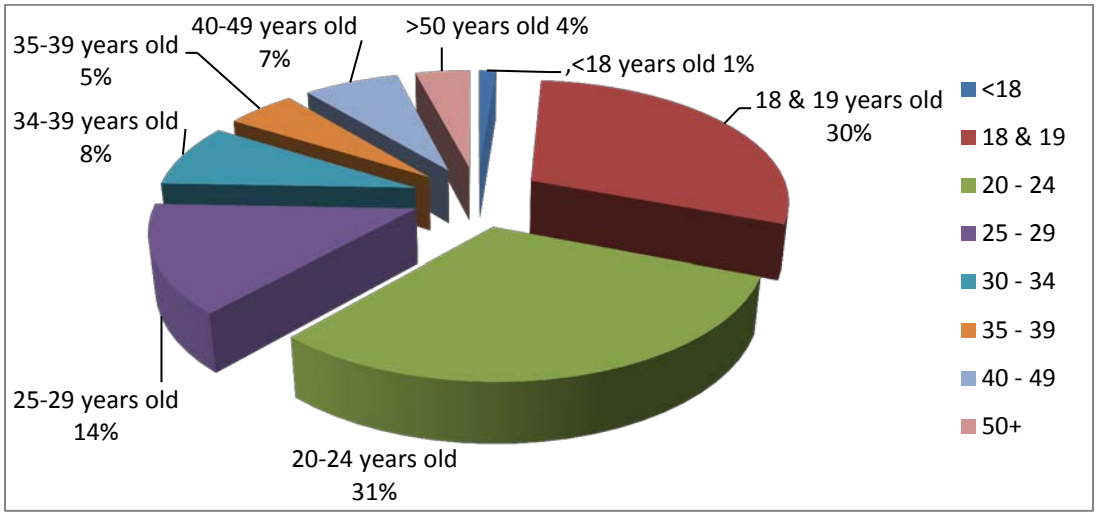


This success rate can be attributed to better instructional design and increased familiarity with distance education instruction by students. As more students took DE courses their ability to perform in the new delivery method improved.

Distance education courses are taken predominantly by young people. Graph 9, Percentage of CCC Students Enrolled in DE Courses by Age in 2011-12 describes the enrollment by age for 2011-12.

Graph 9

Percentage of CCC Students Enrolled in DE Courses by Age in 2011-12

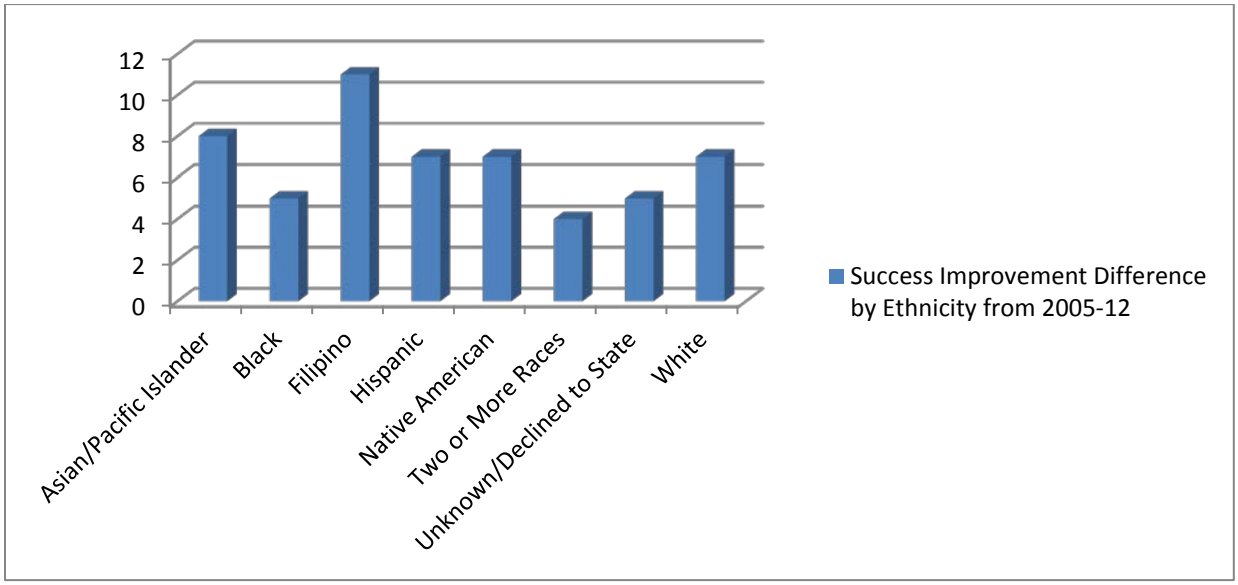


Enrollment and Successful Completion Rates by Ethnicity

Appendix E compares success rates by ethnicity. The highest successful ethnic group was Asian/Pacific Islander at 66 percent and the lowest successful ethnic group was African American students at 44 percent. Graph 10 compares the overall growth of success percent by ethnicity over the seven year period. The greatest growth was in the Filipino ethnicity with 11 percentage points and the smallest growth was "Two or more races" with only 4 percentage points. However, all ethnicities improved over the seven-year period.

Graph 10

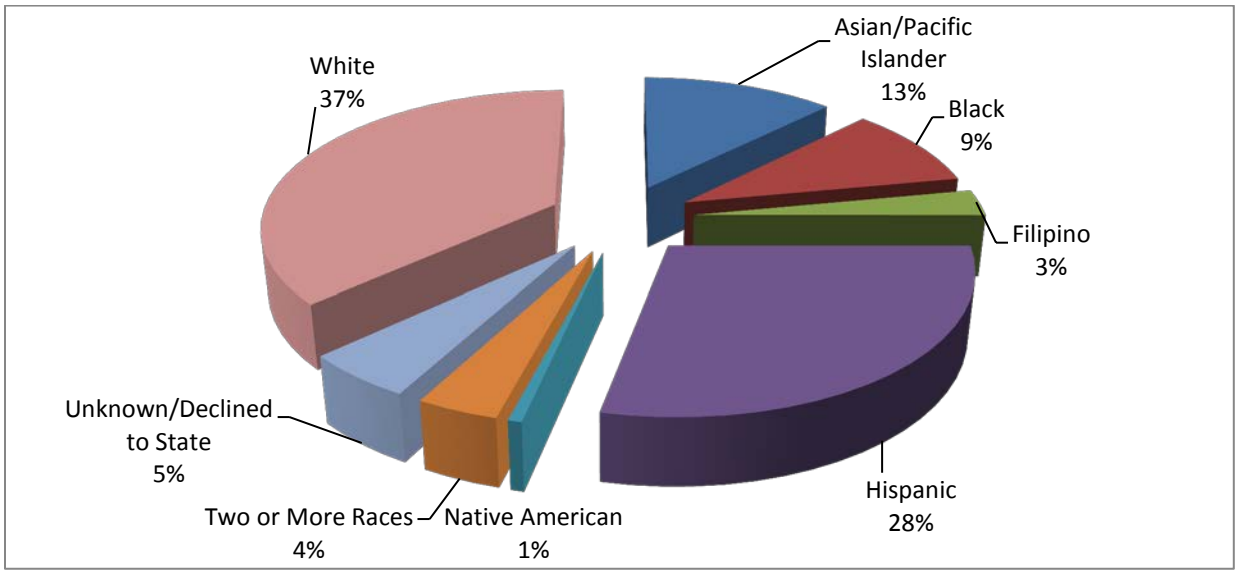
Success Improvement Difference by Ethnicity from 2005-12



Graph 11, Percentage of CCC Distance Education Students by Ethnicity in 2011-12, describes the enrollment in 2011-12 by ethnicity.

Graph 11

Percentage of CCC Distance Education Students by Ethnicity in 2011-12

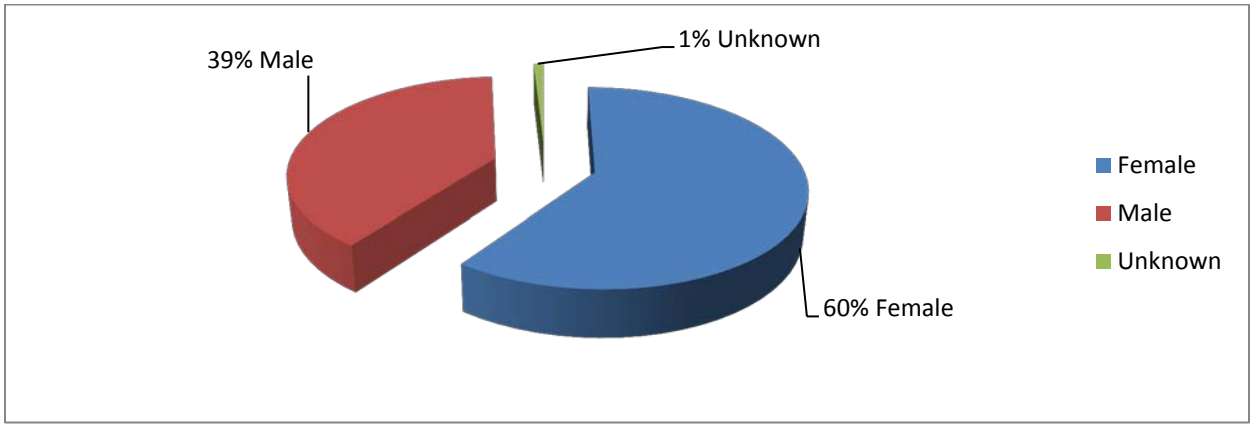


Enrollment and Successful Completion Rates by Gender

Graph 12, Percentage of CCC Distance Education Students by Gender in 2011-12, shows more females take DE courses than males at 60 percent compared to 39 percent. Appendix F compares success rates by gender. The success rate between males and females improved overall by 1 percent; females performed slightly better than males during this time period, maintaining a 2 percent gap.

Graph 12

Percentage of CCC Distance Education Students by Gender in 2011-12



Enrollment and Successful Completion Rates by Disability

There are nine categories of disabilities that are recorded in COMIS data:

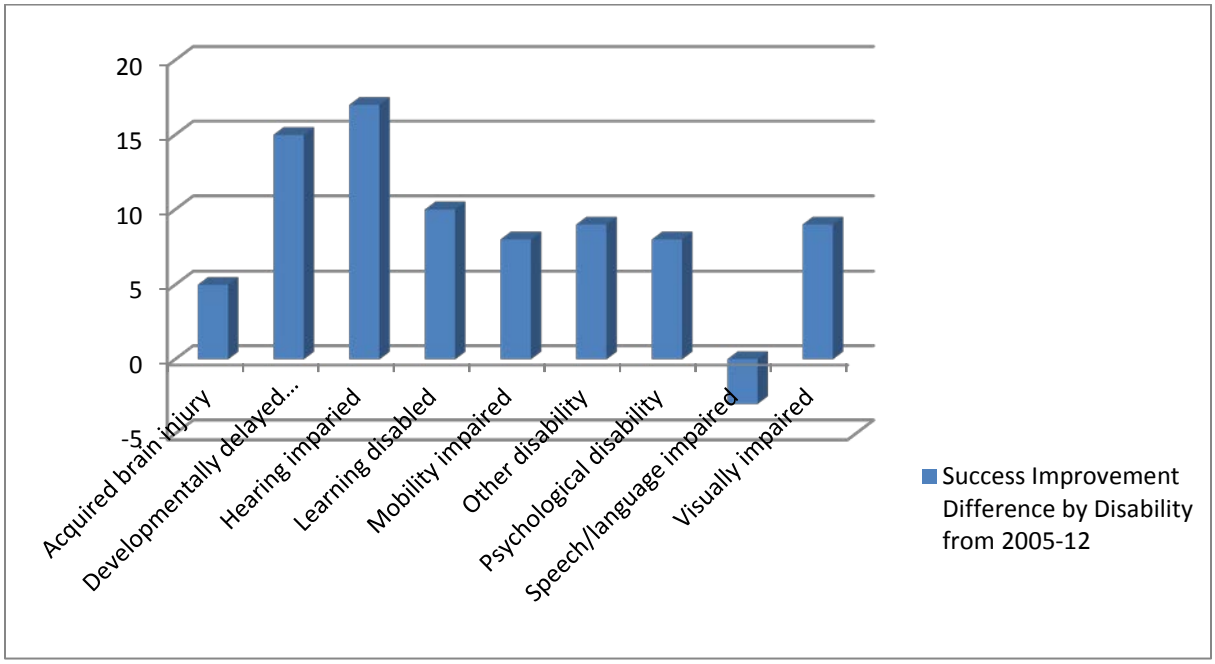
- acquired brain injury
- developmentally delayed learner
- hearing impaired
- learning disabled
- mobility impaired
- other disability
- psychological disability
- speech/language impaired and visually impaired

Appendix G compares success rates of students with disabilities in DE course sessions. Disabled students are provided a wide range of services to assist them in academic course work. In addition all distance education courses must be adapted to accommodate disabled distance education learners such as close captioning. There was significant improvement in success rates for students who are hearing impaired and developmentally delayed learners by 17 and 12 percentage points respectively over the seven year period. There was a slight decline in rates for students with speech/language impairment (-3 percent).

Graph 13, Success Improvement Difference by Disability from 2005-12, shows the difference of improvement by disability over a seven-year period.

Graph 13

Success Improvement Difference by Disability from 2005-12



Distance Education Courses

Number of Distance Education Course Sessions

Noncredit is such a small part of distance education that this report will address primarily credit distance education. In 2005/2006 there were seven noncredit course sessions offered via distance education and in 2011/12 there were 108 sessions.

For distance education credit sessions, in 2005/2006, campuses offered 21,407 DE credit sessions, representing 4.69 percent of total traditional education credit sessions. By 2011/2012 distance education sessions increased 124 percent to represent 10.54 percent of all educational sessions offered. Table 4, Distance Education and Traditional Education Course Sessions 2005-12 compares the number of distance education and traditional course credit sessions offered and the percentage of the total course sessions.

Table 4

Distance Education and Traditional Education Course Sessions 2005-12

Fiscal Years	Distance Education	Traditional Education	Percentage
2005-06	21,407	456,644	4.69%
2006-07	26,121	465,680	5.61%
2007-08	32,380	486,866	6.65%
2008-09	39,178	482,756	8.12%
2009-10	39,964	440,933	9.06%
2010-11	43,561	419,466	10.38%
2011-12	41,246	391,191	10.54%

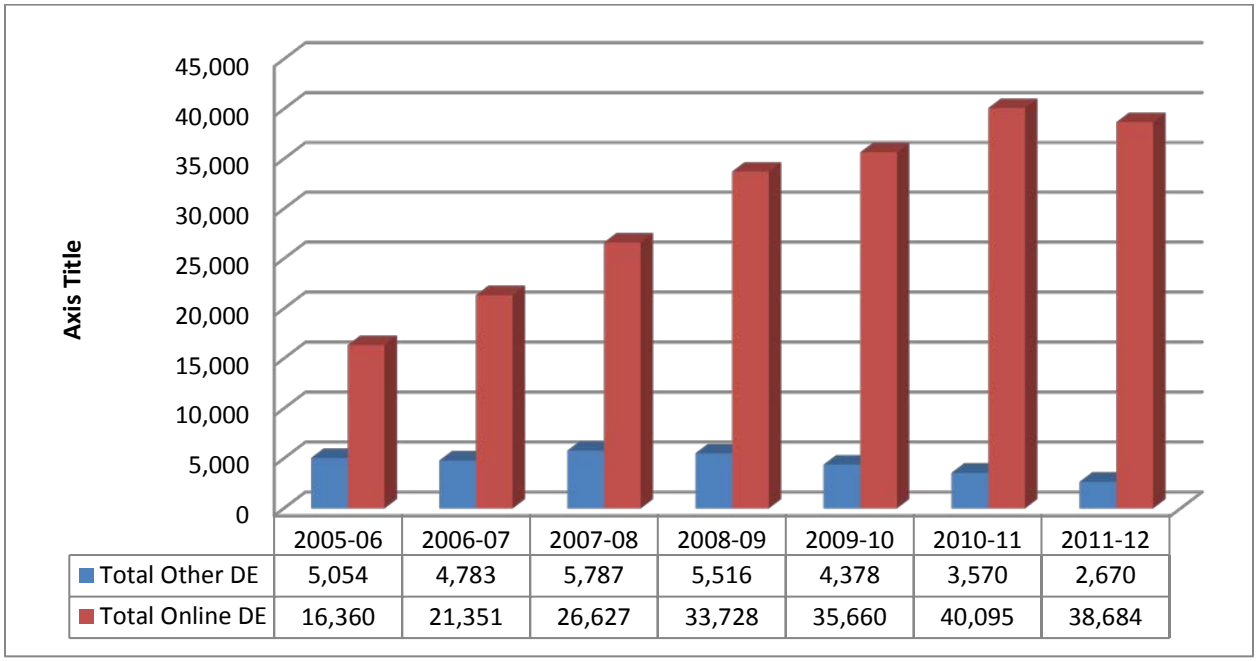
Distance education sessions continued to grow through 2010/11 before being reduced in actual numbers in 2011/12. Despite a reduction in the number of sessions by 2,315, distance education grew in percentage of courses by 0.16 because of a higher similar decrease in the number of traditional FTF course sessions being reduced. These reductions are a direct impact of smaller budgets and colleges decisions to cut sessions to meet funding allocations. This trend corresponds with the reduced numbers of student enrollments as discussed previously. The slowing of the growth was significant. Over the period from 2005/06 to 2010/11 there was an average yearly growth of 1.1 percent of distance education compared to traditional FTF instruction. In 2011/12 the growth from 2010-11 was only 0.16 percent compared to 1.32 percent growth from 2009-10 to 2010-11.

There are 10 types of DE courses by delivery method in the COMIS Data Element Dictionary (DED). Appendix H defines them and shows the number of DE course sessions by delivery method. This section discusses the growth of online instruction (asynchronous and synchronous Internet) as compared to other delivery methods.

There has been a significant shift in delivery methods based on the advent and expansion of Internet based communication technologies. In 1995-96 televised instruction was the primary mode of delivering distance education and accounted for 79 percent of all delivery methods. In 2011/12 it represented only 1.1 percent. The turning point in for all online instruction surpassing televised instruction as the predominant delivery mode was 2002-03 (COMIS). Graph 14, Distance Education Sessions Online Compared to Other DE 2005-12, shows the growth of online distance education and the decrease in other forms of distance education delivery. Other forms of distance education peaked in 2007-08 at 5,787 session before falling by 117 percent to 2,670 sessions in 2011-12.

Graph 14

Distance Education Sessions Online Compared to Other DE 2005-12

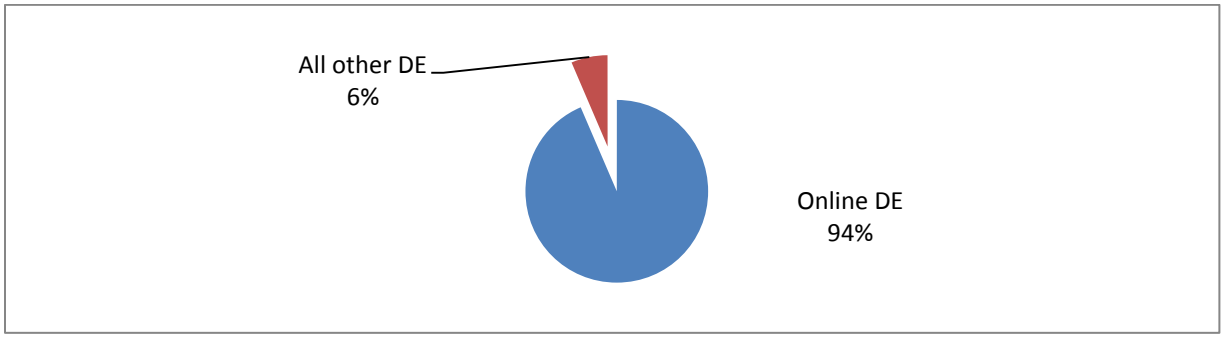


	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Total Other DE	5,054	4,783	5,787	5,516	4,378	3,570	2,670
Total Online DE	16,360	21,351	26,627	33,728	35,660	40,095	38,684

While other forms of distance education were declining, online instruction was growing by 136 percent from 2005-06 to 2001-12. Graph 15, Internet DE Compared to all Other DE in 2011/12, shows the relationship of online instruction to all other forms in 2011-12. Online distance education represents 94 percent of all delivery methods.

Graph 15

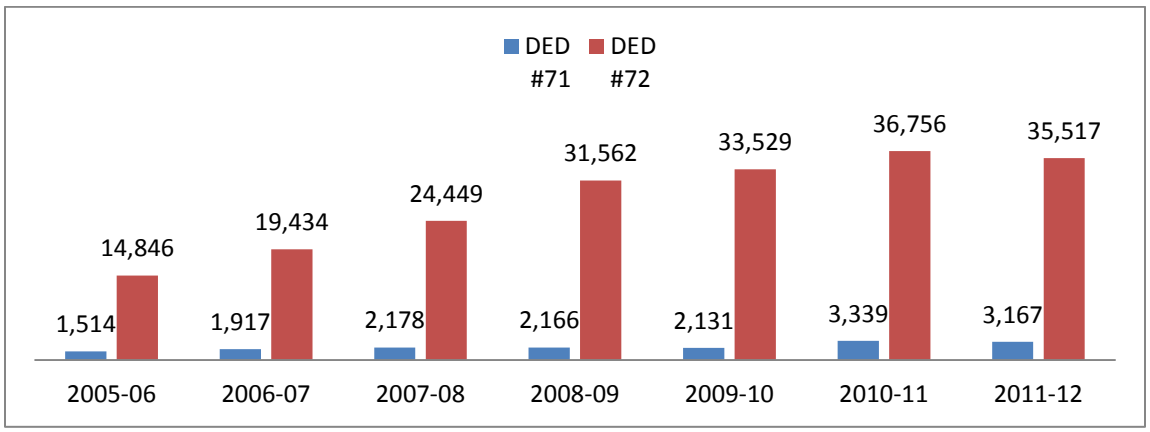
Internet DE Compared to all Other DE in 2011/12



Online instruction is divided into two asynchronous delivery and synchronous delivery. Graph 16, Synchronous DE Internet Courses Sessions Compared to Asynchronous DE Internet Courses Sessions from 2005-06 to 2011-12, shows the relationship between the two forms of distance education during the seven year period. In 2011-12 the significant majority of online courses were asynchronous and accounted for over 92 percent of online instruction (COMIS).

Graph 16

Synchronous (71) DE Internet Courses Sessions Compared to Asynchronous (72) DE Internet Courses Sessions from 2005-06 to 2011-12



Course Conversions and Course Development

There are two paths to implementing the expansion of distance education courses: converting existing courses and developing new courses. In the 2012 CCC Annual Distance Education Survey DE coordinators indicated that 94 colleges (82 percent) converted 808 courses or an average of 8.5 courses per college from traditional face to face courses to distance education courses. There were 20 colleges that did not convert any traditional courses to distance education. The other method of expansion is the development of new courses that did not exist previously. In the same survey DE coordinators indicated that there were 85 new courses created or an average of only 0.74 new courses per college. There were 83 colleges that did not create any new courses.

Inter-college Collaborations

Collaboration between colleges in distance education course development has contributed significantly to the development of distance education courses. Inter-college collaboration can benefit all colleges and enable resources to go further by working with other colleges than working alone. The ability to work together especially in academia is going to be a key strategy for colleges taking on new approaches to improve performance and outcomes in distance education. College leaders are looking for opportunities for collaboration tools to impact the development and implementation of distance education.

As long as the prospect of collaboration will achieve greater results, then why not collaborate? One of the main assumptions, and often overlooked, is whether colleges are willing. In the Chancellor's Office 2012 DE Program Survey, the DE coordinators responded that they have been collaborating with each other on a wide range of distance education related projects. According to research and best practices, the combination of several factors may help steer collaboration to achieve improved academic results, through empowerment, culture, and technology. Here are practical examples of each of these factors that are causing collaboration to work in colleges.

Table 5, Inter-College Collaborations in DE Course Development, displays the responses the DE coordinators provided to the question, "Has your college collaborated with other colleges to develop, teach, or deliver distance education courses in any of the following areas?" Almost half of the colleges responded to collaborating in three major areas: shared staff development activities between two or more colleges (49.6 percent), shared course materials (48.6%) and collaborated on distance education program development (44.1 percent).

Table 5

Inter-college collaborations in DE Course Development

Type of Collaboration	Yes	No
Collaborated on curriculum development	37.5%	62.5%
Used faculty from two or more colleges to teach a course at two or more colleges	26.4%	73.6%
Shared equipment or facilities to teach a course at two or more colleges	22.5%	77.5%
Shared course materials	48.6%	51.4%
Shared staff development activities between two or more colleges	49.6%	50.4%
Collaborated on distance education program development	44.1%	55.9%

Faculty Training

The subject of faculty training is a subset of professional development. The overwhelming majority of faculty training is done at the local level at the college or through college sponsored programs. Faculty has a wide range of options to acquire professional development. The primary program for professional development of the faculty is the Flexible Calendar Program. This program is active in 92 percent of the colleges and averages 33 hours an academic year per faculty member for overall professional development. Many faculty use their allocated "Flex time" for purposes of developing new curriculum for distance education or redesigning a course for distance education delivery as well as improving their instructional skills as they pertain to distance education instruction. Colleges are developing faculty certification programs and beginning to require faculty to complete certification programs prior to teaching via distance education.

Student retention is a faculty training issue and is an important tool to improve student retention rates for distance education courses. Faculty that have completed some form of certification training for teaching via distance education have better retention rates that those that have not completed any certification training. Faculty recognizes that the ability to teach via distance education broadens their marketability and is an opportunity for professional growth.

The @ONE Project, administered by the Palomar Community College District/Palomar College, is funded by a Telecommunications Technology and Infrastructure Program (TTIP) grant from the California Community Colleges Chancellor's Office. This project enables California Community College faculty and staff to learn about technology that will enhance student learning and success. @ONE's programs provide training and online resources for free - or at a very low cost - thanks to funding from the TTIP.

Each year, @ONE offers over 100 trainings, drawing more than 8,500 registrations. Workshops are taught by knowledgeable instructors who tailor their content to the specifics of the community college setting. The programs are also structured to fit a busy faculty or staff member's schedule. Below are descriptions of the training programs of the @ONE project.

- **Desktop Webinars**
  These one-hour webinars present emerging issues and best practices in using technology on a campus. Sessions are conducted with CCC Confer meeting software, which allows the participant to view a live PowerPoint presentation and talk with instructors and participants over a phone bridge.

- **Instructor-Led Online Courses**
  @ONE's online courses are several weeks in length and give participants an in-depth understanding of how to use specific technologies in an instructional context. Courses include posted materials, links to resources, assignments, and the opportunity to share experiences with

CCC faculty and staff throughout the state via discussion boards. Registration is only $65 for CCC faculty and staff.

- **Self-Paced Training**
  Self-paced online courses feature many of the same content areas as @ONE's instructor-led sessions but allow the participant to learn on your own schedule. Streaming videos demonstrate how technology is being used to enhance learning at California Community Colleges.

A key program for the @ONE project is the Certification Program for Online Instructors which is a complete certification curriculum pattern for current and future instructors interested in achieving a recognizable standard of excellence in online distance education. The certification program is designed around the International Association for K-12 Online Learning's (*iNACOL) National Standards for Quality Online Teaching* which is designed to provide states, districts, online programs, and other organizations with a set of quality guidelines for online teaching and instructional design. The initiative began with a thorough literature review of existing online teaching quality standards, a cross-reference of standards, followed by a research survey to iNACOL members and experts to ensure the efficacy of the standards adopted.

- Certification Program for Online Instructors highlights:
- Standardized statewide curriculum
- Curriculum aligned with the International Association for K-12
- Online learning (iNACOL) standards.
- Course redesign and continuous improvement.
- Complete certification curriculum pattern.
- Establish process and standards to incorporate e-Portfolios to demonstrate participant competency and store training artifacts.
- Custom certification programs for districts and colleges.

Massive Open Online Courses (MOOCs)

In early 2012 a new term was created to describe an educational phenomenon that is known as MOOCs, which are massive open online courses. The following description of what is a MOOC is taken from the organization Educause's ELI series, "7 Things You Should Know About …"

> "A MOOC is a model of educational delivery that is, to varying degrees, massive, with theoretically no limit to enrollment; open, allowing anyone to participate, usually at no cost; online, with learning activities typically taking place over the web; and a course, structured around a set of learning goals in a defined area of study. The range of MOOCs embody these principles in different ways, and the particulars of how MOOCs function continue to evolve. Still, even without a definitive model of what they are or do, MOOCs have prompted a reexamination of many of the conventions of higher education, including the role of faculty and the institution, accreditation, and criteria for awarding credit."[13]

[13] Educause ELI Series, http://net.educause.edu/ir/library/pdf/ELI7097.pdf, July 2013

Many MOOCs can have enrollments of over 100,000 students who take the MOOCs for a wide variety of reasons. The retention rates in MOOCs are often in the low teens. How credit is awarded is a challenge for many colleges and for the California community colleges sparks discussions of credit by examination and a need to rethink factors impacting this policy and procedure.

A supplemental survey to the annual distance education survey was distributed to the colleges in Spring 2013 to assess the level of California community colleges involvement with MOOCs. The supplemental survey asked about the college's current involvement with MOOCs as well as their intended development of MOOCs within the next academic year (2013-14). There were five colleges currently offering or planning to offer MOOCs. The topics of those MOOCs are listed in Table 6, List of Existing or Proposed MOOCs in the California Community Colleges (2012-13).

One of the MOOCs is a basic skills MOOC done by Mt. San Jacinto College in conjunction with one of the major MOOC organizers, Coursera. The MOOC is designed to improve the writing ability of students without cost to the student and without acquiring units as a preliminary activity to taking a local college placement assessment. If students perform well in the MOOC they could place higher on the assessment and improve their chances of starting higher in the English sequence and shortening their time to degree. This type of "resource-based" MOOC will also benefit students who are enrolled in transfer level courses and need some refresher in basic writing. Additionally, community members may choose to participate in a course to help them improve their writing for a variety of reasons.

Table 6
List of Existing or Proposed MOOCs in the California Community Colleges (2012-13)

Name of MOOCs
Contemporary Latin American literature
Crafting an Effective Writer: Language Tools
D2L Free Sample Class for Students
Introduction to Online Learning at Gavilan College

Distance Education Programs Leading to Degrees and Certificates

A sign of maturity in distance education is when a college evolves from offering single courses to at least one comprehensive program exclusively at a distance. The CCC System passed a milestone in 2011-12 when more than 50 percent of the colleges offered at least one degree or certificate via distance education. The growing number of degrees and certificates available through distance education has increased since 2009-10. The colleges continue to develop robust educational programs offered completely through distance education.

In the Chancellor's Office 2011 DE Program Survey colleges were asked the following question addressing programs leading to degrees and certificates:

Q20 - "In 2011-12 did your college offer an AA or AS degree or a Certificate of Achievement program where the student could complete the program 100 percent through distance education? Note: This does not mean exclusively on-line (codes 71 and 72) which are two of 10 codes used in COMIS to identify a distance education course. The definition of 100 percent distance education used for this question can represent a mix of distance education delivery modalities that make up that 100 percent. Example: A degree or certificate program delivered 60 percent via Internet (codes 71 and 72) and 40 percent via TV broadcast with audio bridge (code 52) would be 100 percent distance education. Please note that this represents the possibility of completing the degree via distance education."

Graph 17, Colleges Offering Distance Education Programs in 2011-12 shows that 51 percent of the colleges answered yes.

Graph 17

Colleges Offering Distance Education Programs in 2011-12

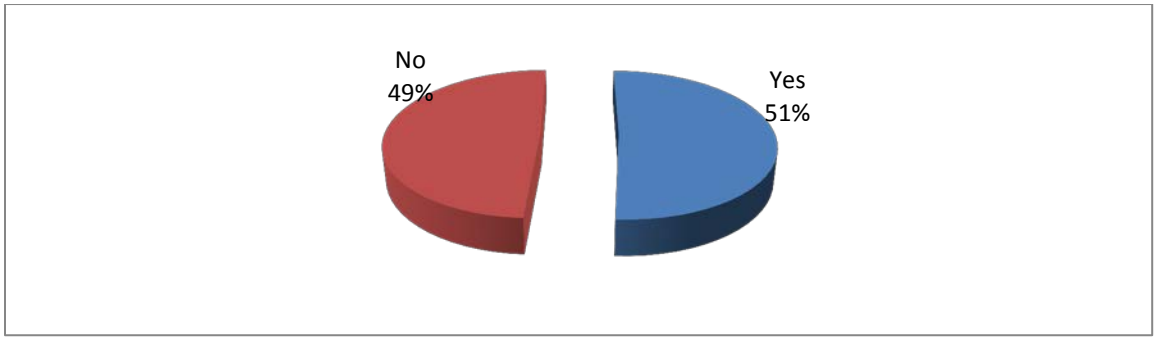


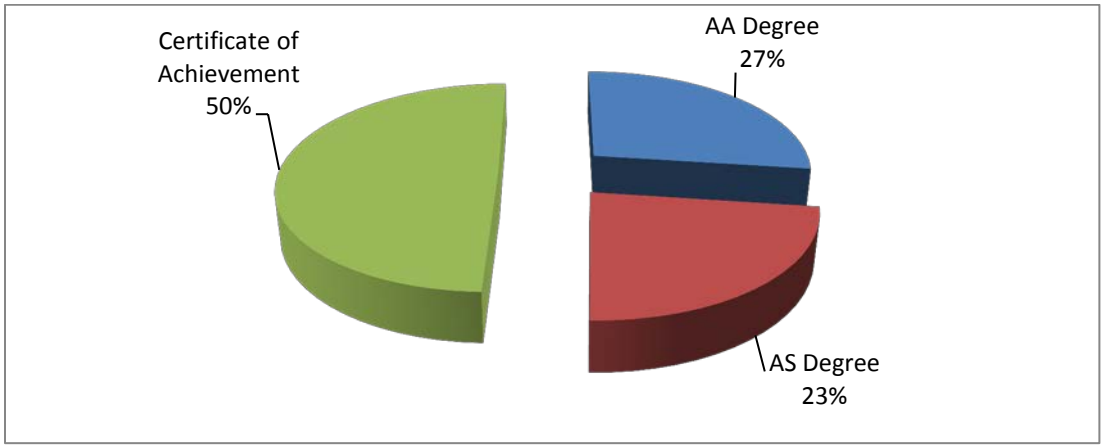
Table 7, Distance Education Programs, 2011-12, shows increases in all areas when compared to data collected in 2009-10. There was a 24 percent increase in the number of colleges offering distance education degrees and certificates; a 41 percent increase in the number of Associate of Arts degrees offered, a 44 percent increase in the number of Associate of Science degrees available via distance education, a 21 percent increase in the number of Certificates of Achievements and an overall increase of 31 percent for all degrees and certificates. There is an average of 10 degrees offered via distance education at each college.

Table 7
Distance Education Programs, 2011-12

Colleges Offering Degrees and Certificates via Distance Education in 2011-12	Total Associate in Arts Degrees Offered	Total Associate in Science Degrees Offered	Total Certificates of Achievements Offered	Total Degrees and Certificates Offered
56	159	137	291	587

The smallest gain over 2009-10 was in the certificate area due to its larger proportion of the overall percentage. As demonstrated in Graph 18, Comparison of Distance Education Programs Leading to a Degree or Certificate, 2011-12, certificates represents 50 percent of the total degrees and certificates offered via distance education.

Graph 18
Comparison of Distance Education Programs, 2011-12



Related Issues

Academic Integrity

Academic integrity is essential to the success of the mission of the California Community Colleges. It provides a foundation for responsible conduct in our students' lives after graduation. Academic integrity is an important issue that is broader than distance education. It is at the core of academia and to combat it requires a basis for honesty by students. It is defined as the moral code or ethical policy of academia. This includes values such as not cheating or committing plagiarism, maintenance of academic standards, and honesty and rigor in research and academic publishing.

Academic integrity is a fundamental value of teaching, learning and scholarship. However challenges to academic integrity are growing. According to the Center for Academic Integrity at Clemson University, there is evidence that students in both face-to face and distance education courses are cheating and plagiarizing in record numbers. In distance education instruction because of the difference in time and space there is the perception that it is easy to cheat or have someone else other than the student enrolled in the course complete the work.

It can be difficult to translate values, even widely-shared values, into action—but action is needed to promote academic integrity in the CCC System in general and in distance education in particular. Researchers agree that rates of cheating among American high school and college students are high and increasing (Nocheating.org 2013) Table 11, Current Cheating Statistics list very disturbing statistics related to cheating.

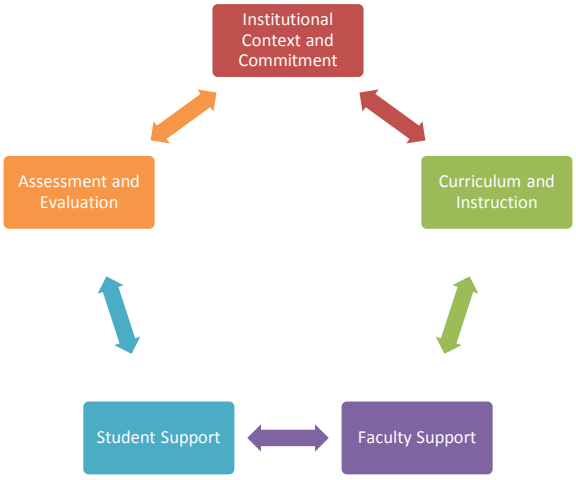
Table 11

Current Cheating Statistics[14]

1. Academic cheating is defined as representing someone else's work as your own. It can take many forms, including sharing another's work, purchasing a term paper or test questions in advance, paying another to do the work for you.
2. Statistics show that cheating among high school students has risen dramatically during the past 50 years.
3. In the past it was the struggling student who was more likely to cheat just to get by. Today it is also the above-average college bound students who are cheating.
4. Seventy-three percent of all test takers, including prospective graduate students and teachers agree that most students do cheat at some point. Eighty-six percent of high school students agreed.
5. Cheating no longer carries the stigma that it used to. Less social disapproval coupled with increased competition for admission into universities and graduate schools has made students more willing to do whatever it takes to get the A.
6. Grades, rather than education, have become the major focus of many students.
7. Fewer college officials (35 percent) believe that cheating is a problem, in this country than do members of the public (41 percent).

[14] International center for Academic Integrity, http://www.academicintegrity.org/icai/integrity-3.php

Appendix I is a list of Best Practice Strategies to Promote Academic Integrity in Online Education, developed by partnership of WCET, the Instructional Technology Council (ITC), and the University of Texas TeleCampus. This list is based on "Institutional Policies/Practices and Course Design Strategies to Promote Academic Integrity in Online Education," produced by WCET in February 2009 and updated in April 2009. In May 2009, the Instructional Technology Council surveyed its membership to invite feedback and additional strategies to enhance the WCET work. The five categories of the strategies are identified in the process graph below.



The Academic Senate for the California Community Colleges (Academic Senate) has demonstrated significant leadership in the area of academic integrity through the adoption of eight resolutions on the topic and the development and publication of the paper, *Promoting and Sustaining an Institutional Climate of Academic Integrity*, by its Educational Policies Committee in the spring of 2007.

This Academic Senate paper is in response to two resolutions from the Fall 2005 Plenary Session concerning academic dishonesty:

- Resolution, 14.02, "Student Cheating," sought clarification on a System Office legal position that limited the ability of local faculty to fail a student for a single incident of academic dishonesty.

- Resolution 14.01, "Student Academic Dishonesty and Grading," required the Academic Senate to investigate faculty legal and professional rights and obligations with regards to dealing with academic dishonesty, including options for grading, disciplinary action, definitions of academic dishonesty, a statement of best practices, and an explanation of student rights.

While not specific to the topic of distance education, the paper discusses the need for a culture of academic integrity that enriches the educational experience of students and faculty and, indeed, all individuals associated with the college as employees or community members. The paper recommends that colleges involve all constituent groups, particularly student leaders in developing and promoting policies and procedures supportive of a climate of academic integrity. Students have key responsibilities and protections provided by Title 5 51023.7 and have the potential to raise awareness throughout an

institution concerning academic integrity. The paper includes examples of policies and procedures that have been adopted at several colleges. Central to all discussions of academic integrity is the importance of due process and the protection of student rights.

Suggestions for promoting a climate of academic integrity are provided, along with examples of policies are applied to such issues as test taking, technology, distance education, Internet use, group work, and maintaining the integrity of graded assignments. Emphasis is placed on the roles of classroom faculty, library services, counseling, and the need to institute mandates for information competency as a means of creating and sustaining a culture of academic integrity. The *Promoting and Sustaining an Institutional Climate of Academic Integrity* paper is located at the following URL: http://www.asccc.org/node/175013.

The Academic Senate in its ongoing efforts to address academic integrity between 2005 and 2008 adopted eight resolutions addressing the issue of academic integrity:

- Fall 2005, 14.02 - Student Cheating
- Fall 2005, 14.01 - Student Academic Dishonesty and Grading
- Spring 2007, 19.02 - Adoption of Academic Integrity Paper
- Spring 2007, 19.03 - Resolution to Amend Adoption of the Academic Integrity Paper
- Spring 2008, 14.03 - Academic Integrity
- Fall 2008, 02.02 - Academic Integrity and the Higher Education Reauthorization Act of 2008
- Fall 2008, 13.03 - Academic Integrity Resource Library
- Fall 2008, 14.01 - Academic Dishonesty

Accreditation Related Issues and Distance Education

The Accrediting Commission for Community and Junior Colleges (ACCJC) Western Association of Schools and Colleges (WASC) is responsible for assuring that colleges meet the requirements of the Higher Education Opportunity Act of 2008 regarding distance education. The commission has begun to more consistently review college distance education programs as a part of their accreditation visits. Earlier in this report there was discussion about the areas that the review would be focusing its attention during those reviews.

Higher Education Opportunity Act of 2008 Regulation Impacting Student Authentication

602.17 Application of standards in reaching an accreditation decision.
(g) Requires institutions that offer distance education or correspondence education to have processes in place through which the institution establishes that the student who registers in a distance education or correspondence education course or program is the same student who participates in and completes the course or program and receives the academic credit. The agency meets this requirement if it –
(1) Requires institutions to verify the identity of a student who participates in class or coursework by using, at the option of the institution, methods such as:
(i) A secure login and pass code;
(ii) Proctored examinations; and
(iii) New or other technologies and practices that are effective in verifying student identification;
(2) Makes clear in writing that institutions must use processes that protect student privacy and notify students of projected additional student charges associated with verification of student identity, if any, at the time of registration or enrollment.

Distance Education Guidelines: Adoption and Publication

At its June 2012 meeting the ACCJC adopted a policy change that will have an impact on California's community colleges and their continued implementation and expansion of distance education. The change is to its policy on distance education and correspondence education. The ACCJC published its Guide to Evaluating Distance Education and Correspondence Education. The commission review teams will use this guide to evaluate distance education programs during accreditation visits.

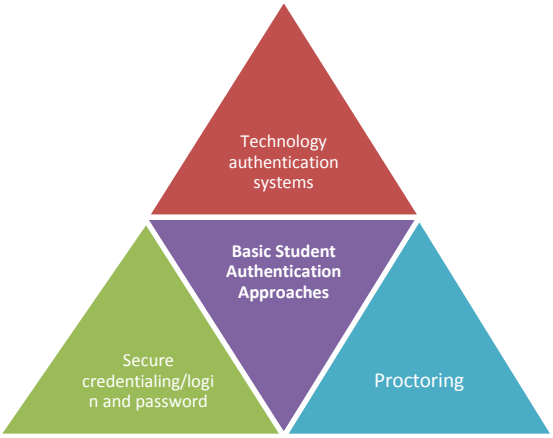
Substantive Program Changes

There are seven changes the ACCJC considers substantive, of which one is "Change in Courses or Programs or their Mode of Delivery that Represents a Significant Departure from Current Practice". Specific changes to this policy are located at the following URL: http://www.accjc.org/wp-content/uploads/2013/08/Substantive_Change_Manual_2013.pdf.

The need to submit a substantive change proposal is triggered by the addition of courses that constitute 50 percent or more of a program offered through a mode of distance or electronic delivery.
Example: When an institution offers courses that make up 50 percent or more of the credits required for a program through an instructional delivery that is new for the college such as on-line instruction it is required to submit a substantive change request to the Commission. Federal law mandates that accrediting agencies require institutions to obtain accreditor approval of a substantive change before the degree is granted at the institution.

Student Authentication

Student authentication in distance education has been an issue of interest to federal policymakers for several years. The growth in enrollments and in the number of educational providers of online learning fueled concerns about institutions verifying the identity of students throughout the cycle of an online course: registration, participation, assessment, academic credit. Passage of the Higher Education Opportunity Act of 2008, followed by federal rulemaking, resulted in new regulations.
One regulation required accrediting agencies to assure distance and correspondence education programs have processes in place to verify student identity. There are three authentication approaches stipulated in the new federal guidelines:



The issue is complex and frequently misrepresented. Among many e-learning professionals, it seems unfairly aimed only at online education when similar concerns of identity falsification could apply in traditional higher education settings. The policy and regulatory conversations concerning identity authentication, originally focused on academic dishonesty, now encompass the serious problem of financial aid fraud, as reported in some high-profile cases.

Every California community college is using a DE Course Management System (CMS) that meets the first criteria identified above for secure credentialing/login and password. However, the regulation guidelines place an expectation that colleges will continue to look at future technological solutions. While colleges are for the most part compliant with the regulations, few have taken formal positions on student authentication.

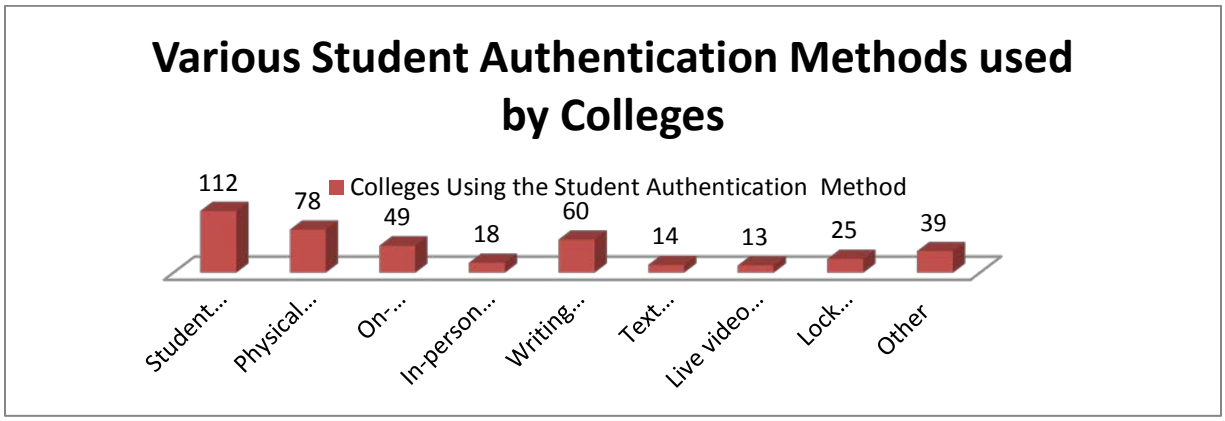
When campus DE coordinators were surveyed in Fall 2012 and asked, "Does your district have a board of trustees approved student authentication policy?" Seventy seven percent responded no they did not which is up 10 points from the 87 percent when surveyed in 2011. Colleges have been slow in responding to establishing a formal policy voted on by their local board of trustees. This is expected to increase as colleges come up for accreditation review and ACCJC begins to look more closely at distance education offerings during accreditation visits.

In the same survey DE coordinators were also asked "Do you re-verify a student's identity at exams or other evaluations?" There were 51 colleges (46.4 percent) that responded yes. This best practice is an example of the growing additional methods that are helping to ensure a student's identity.

Graph 19, Various Student Authentication Methods Used by Colleges shows the various student authentication methods used by colleges as reported on the 2012 Fall DE Annual Survey. All colleges are using the Student ID/User ID embedded in the Course Management System the course is using. The next highest method of student authentication used by the colleges is physical proctoring for exams with 78 colleges using this method. The third most common method of student authentication is writing style software for anti-plagiarism.

Graph 19

Various Student Authentication Methods Used by Colleges



State Authorization

In the previous DE report to the Board of Governors in 2011 information was presented regarding new proposed federal regulations regarding state authorization for colleges serving students that are residents of other states in their home state via distance education. The new proposed federal regulations that required the California Community Colleges to register or apply in other states and seek their approval to offer instruction in their state to students enrolled in DE courses and programs was invalidated by federal court order in June 2012. As a result the U.S. Department of Education new regulation for higher education institutions "§ 600.9(c)[15] State authorization:" was vacated. This regulation was tied to financial aid and was a federal regulation.

However, this was only related to the federal government. The accrediting commission as a part of its standards process and the adoption of new policies related to distance education will include demonstration of state authorization compliance as a part of their review. The foundation of this is based on compliance with State laws. State authorization has been on the State laws in almost every state for decades but was largely ignored. The explosion of distance education in both the public and private sectors has highlighted this heretofore invisible requirement. Based on state laws colleges are still required to seek state authorization before serving a student in another state. Compliance with state laws is a requirement of accreditation and consequently regional accrediting commissions will be exercising authority in this area.

[15] *"If an institution is offering postsecondary education through distance or correspondence education to students in a State in which it is not physically located or in which it is otherwise subject to State jurisdiction as determined by the State, the institution must meet any State requirements for it to be legally offering postsecondary distance or correspondence education in that State. An institution must be able to document to the Secretary the State's approval upon request."*

Historically, over time every state has established laws and rules governing institutions operating within their boundaries. The fundamental premise of these laws has been the concept of "physical presence" – in order to be subject to regulation *by* a state an institution had to be located *in* that state.
The notion of physical presence is changing. Many states consider the conduct of "instructional" activities the appropriate trigger for state oversight. The term "instructional" has several definitions, from the aggregation of learners in "electronic classrooms" to individual students interacting with the institution via the Internet, and in a number of states there is no definition at all, the application of the term is a matter of specific circumstances. Some agencies consider whether an institution is "operating in their state. Again, the term "operating" is differently defined, and again in many cases not defined at all. Finally, a substantial plurality of states consider as part of their determining whether to assert jurisdiction, the degree to which an institution "directly targets" their residents.

Institutions are expected to comply in each state in which they "operate" by July 1, 2014. Institutions possessing proof that they are applying in a state by July 1, 2014 will be considered as "good faith" that the institution is in compliance for the 2014-2015 year.

Colleges were surveyed in the 2012 DE annual survey about their level of out of state distance education. They were asked "Do you serve students via distance education in other states?" There were 75 colleges (67 percent) that are serving students in other states. There were a total of 6,314 students served by those colleges in the 2012 Fall term that were outside the State of California and residents of other states. There were a total of 15 colleges at the time of the survey who have applied for approval in other states. Three colleges have applied for approval in 49 or 50 states while four colleges have applied for approval in only one state. Both of these are extremes but they represent almost half (46.7 percent) of the 15 colleges that have requested state authorization. Colleges will have to decide if serving students in other states is cost beneficial for them as they move forward with state authorization requests.

The Chancellor's Office has acquired membership in a national consortium, the State Authorization Network, that is gathering information and providing guidance to colleges and universities on this topic. This information is shared with the college DE coordinators as it is made available. This topic is also a standing item on the monthly DE coordinators and manager meetings conducted by the Chancellor's Office.

The Chancellor's Office is also helping represent the State of California in discussions related establishing a State Authorization Reciprocity Agreement (SARA) among states that would reduce the need for individual colleges to apply in some states. While still in its formative stage the SARA initiative holds the promise of participating states recognizing participating institutions based on reciprocal agreements between states. Essentially if you are approved in your state and are a member of SARA you would not have to apply in any of the other states that are members of SARA and institutions in other states would not have to apply in your home state.

The organizing meeting of which the Chancellor's Office was a participant was held in April 2013. Some of the issues raised at that meeting are detailed below:

- *Accreditation.* There is concern about the efficacy of depending on accreditation for quality assurance.

- *Fees.* The current plan for fees includes:

    - State fees to institutions. The state might decide to charge an institution for the process of authorizing it to participate in SARA. States raised questions about their own ability to charge institutions (this might be currently prohibited in some states) and the reorganization of duties required.

    - Institutional fees to join SARA. Institutions participating in SARA would be charged a yearly fee on a sliding scale based on overall institutional FTE.

    - State fees to join SARA. States in a regional compact will not be charged. For those states and territories not in a compact (District of Columbia, New Jersey, New York, Pennsylvania, and Puerto Rico), they would be charged $50,000 to affiliate with a regional compact for this one purpose.

- *Legislative and Regulatory Language.* States will need assistance with the proper language.

- *Determination of Home State.* There are several examples of complex relationships and the details on those outliers needs to be considered.

- *Professional Accreditation.* There was a proposal to have more restrictions on education offered in fields of study in which licensure or other professional accreditation is required in a state.

- *Metrics for Holding a State Accountable.* Clear metrics will need to be developed as to what a state reports.

- *The Physical Presence Limit of 25 percent of Course Instruction*. More justification, details, and metrics were requested.

The Chancellor's Office will continue to participate in the discussion surrounding the creation and implementation of SARA.

Distance Education Accessibility

There are three areas discussed in this section: Distance Education Accessibility Guidelines for Students with Disabilities, High Tech Center Training Unit, and Distance Education Captioning and Transcription (DECT) Grant.

Distance Education Accessibility Guidelines for Students with Disabilities

In January 2011, the Chancellor's Office issued a resource for supervisors of Disabled Students Program and Services (DSPS), assistive technology specialists, alternate media specialists, distance education coordinators, instructional designers, faculty, ADA/504 coordinators, trainers and administrators. These guidelines provide an extensive revision to the 1999 *Distance Education: Access Guidelines for Students with Disabilities* and an expansion of the guidance provided in the interim document, *Distance Education Guidelines, 2008 Omnibus Version.*

Since 1996, the California Community College system has been striving to fulfill its obligations to assure accessibility and usability of all college offerings, including those provided through distance education, for people with disabilities. These 2011 *Distance Education Accessibility Guidelines* were developed in response to the results of a 2007 statewide needs assessment study appraising the resources needed to ensure that online distance education delivered in the system is accessible. The needs assessment was conducted after a recommendation by the High Tech Center Training Unit Advisory Committee, with the support of the Educational Technology Advisory Committee, and following observations by the High Tech Center Training Unit that steps to ensure accessibility of distance education offerings varied significantly by local expertise, capacity and the level of resources available to the college.

Since the publication of the 1999 *Distance Education: Access Guidelines for Students with Disabilities*, there has been explosive growth in the number of distance education courses provided by the 112 campuses. Concomitant growth is evident in the technologies available to faculty in developing exciting and interesting course offerings, including information and communication technologies, course delivery systems and assistive technology. Despite the pace and complexity of technological advances, faculty and the overall institution have responsibility to ensure that distance education course materials and resources are accessible to students with disabilities. The document can be accessed at the following URL: http://bit.ly/1cGGNMu

High Tech Center Training Unit

The High Tech Center Training Unit (HTCTU) is a Disabled Students Program and Services (DSPS) grant funded project awarded to the Foothill-DeAnza Community College District and provides a state of the art training, support facility and venue for community college faculty and staff who wish to acquire or improve teaching skills, methodologies, and pedagogy in Assistive Computer Technology, Alternate Media, and Web Accessibility. The HTCTU provide trainings, information, and support in a number of areas related specifically to distance education, including the following:

- Accessible PowerPoint
- Captioning Web-based Media
- Creating Accessible Web Content with Dreamweaver
- Creating Accessible PDF Documents
- Creating Accessible Forms & Tables
- Formatting with MS Word
- Section 508

Most of these trainings are held at their state of the art training lab in Cupertino, in a live face to face environment. However additionally, HTCTU staff can (and often does) visit individual campuses to provide on-site trainings for staff and faculty to assist the campus in fulfilling its obligations to provide access for students with disabilities.

To reach DE faculty, the HTCTU partnered with @ONE to develop an accessibility training as part of @ONE's certificate program for online teaching and learning: Creating Accessible Online Courses. In addition to a link to the DE Accessibility Guidelines, the HTCTU website (www.htctu.net) provides a range of resources from manuals to curriculum to specialized lists.

The HTCTU has licensed the Hi-Software Compliance Sheriff tool for use by each CCC district. This tool allows each district to conduct customized evaluations of their web content to ensure that legal standards for accessibility are being maintained, as well as a host of other assessments useful for ensuring quality and fully functioning web content. Compliance Sheriff creates reports that can be sent to specific content creators and managers for quality control and content creation and compliance.

Distance Education Captioning and Transcription (DECT) Grant

Santa Clarita Community College District (SCCCD) has responsibility for the Distance Education Captioning and Transcription (DECT) grant. The purpose of DECT is to provide assistance to all California community colleges in the facilitation of live and off-line captioning and transcription services for California Community Colleges. The program is intended to aid California community colleges in improving their capacity to serve the disabled student populations and, in some instances, the general public, by ensuring the accessibility of aural information. SCCCD is the fiscal agent for this grant and establishes outside contracts with captioning vendors to provide assistance to any community college that elects to use these vendors. Colleges can receive funds to pay for these services in advance or on a reimbursement basis.

Conclusion

This seventh bi-annual report of the growth of distance education in the California Community Colleges is presented to the California Community Colleges Board of Governors as an information item to help inform them about the impact and development of this instructional model. Distance education growth in the California Community Colleges was slowed in 2011-12 due to budget reductions and the need to curtail all instructional delivery, but it continues to be a significant and important method of the system's academic landscape. It provides students with the opportunity to pursue their educational goals by enabling them to complete courses when otherwise they would not be able to do so. The California Community Colleges will continue to seek better methods to improve student retention, academic integrity and student authentication while providing a quality educational experience for its students.

Appendices

Appendix A

Summary of Methods of How DE Faculty Interact With DE Students

This question addresses the most commonly used methods of interacting with students by faculty. On a scale of 1 to 5, with 5 being the most common use, what methods of communications do you believe DE faculty use the most when interacting with their DE students?

Method of Interaction	1	2	3	4	5	Responses
Meeting face-to-face on campus	**20.4%** 23	**26.5%** 30	**37.2%** 42	**10.6%** 12	**5.3%** 6	**113**
Telephone meetings (either one on one or group conference calls)	**22.3%** 25	**33.9%** 38	**25.9%** 29	**14.3%** 16	**3.6%** 4	**112**
E-mailing	**2.7%** 3	**3.5%** 4	**3.5%** 4	**8.8%** 10	**81.4%** 92	**113**
Text messaging	**36.6%** 41	**28.6%** 32	**28.6%** 32	**5.4%** 6	**0.9%** 1	**112**
Blogging	**27.4%** 31	**34.5%** 39	**23.9%** 27	**11.5%** 13	**2.7%** 3	**113**
Online Discussion Board	**3.5%** 4	**0.9%** 1	**2.7%** 3	**16.8%** 19	**76.1%** 86	**113**
Class Chat Room	**10.6%** 12	**20.4%** 23	**29.2%** 33	**23.9%** 27	**15.9%** 18	**113**
Video Conferencing with students (either point to point or multi point)	**38.4%** 43	**28.6%** 32	**19.6%** 22	**9.8%** 11	**3.6%** 4	**112**
Class Facebook Page	**50.4%** 57	**28.3%** 32	**14.2%** 16	**6.2%** 7	**0.9%** 1	**113**
Class Twitter Feed	**60.7%** 68	**25.9%** 29	**7.1%** 8	**4.5%** 5	**1.8%** 2	**112**
Other Social Networking Sites	**50.5%** 56	**34.2%** 38	**8.1%** 9	**4.5%** 5	**2.7%** 3	**111**
Mailing materials to students (Public/Private Postal Services)	**77.7%** 87	**11.6%** 13	**3.6%** 4	**2.7%** 3	**4.5%** 5	**112**
Faxing materials to/from students	**79.5%** 89	**12.5%** 14	**3.6%** 4	**0.9%** 1	**3.6%** 4	**112**
CCC Call Confer (Telephone conferencing only)	**44.2%** 50	**31.0%** 35	**11.5%** 13	**10.6%** 12	**2.7%** 3	**113**
CCC Meet and Confer (Telephone/computer conferencing)	**41.1%** 46	**26.8%** 30	**20.5%** 23	**8.9%** 10	**2.7%** 3	**112**
CCC Teach and Confer (Telephone/computer	**39.8%**	**27.4%**	**20.4%**	**9.7%**	**2.7%**	**113**

conferencing for teaching)	45	31	23	11	3	
CCC Confer Office Hours (Telephone/computer conferencing for meeting with students)	**33.0%** 37	**28.6%** 32	**26.8%** 30	**8.0%** 9	**3.6%** 4	**112**
CCC Confer Moodle Room (Open source LMS)	**76.6%** 85	**9.0%** 10	**3.6%** 4	**4.5%** 5	**6.3%** 7	**111**

Appendix B

Success Rates for Credit Distance Education and Traditional Education Course Sessions (Duplicated Headcount)

Credit Distance Education Sessions							
Student Outcome	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**
Completed	319,541	392,145	500,142	649,997	696,088	744,032	722,139
Not Completed	289,005	346,551	425,762	525,136	524,723	525,612	481,190
Total	608,546	738,696	925,904	1,175,133	1,220,811	1,269,644	1,203,329
Success Rate	53%	53%	54%	55%	57%	59%	60%
Credit Traditional Education Sessions							
Student Outcome	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**
Completed	5,390,916	5,469,554	5,725,712	6,208,474	6,264,182	6,082,799	5,689,659
Not Completed	3,024,343	2,963,846	3,023,945	3,105,924	3,024,017	2,812,822	2,590,183
Total	8,415,259	8,433,400	8,749,657	9,314,398	9,288,199	8,895,621	8,279,842
Success Rate	64%	65%	65%	67%	67%	68%	69%

Appendix C

Student services available via the Internet, telephone, or on-campus

	Service or program is offered only on-campus	Offered on-campus and through other communication technologies	Information available via static web page posting	Student can request or submit info to program or service via an interactive web page	Student can obtain information via the telephone through prerecorded message	Student can request or submit info to program or service using the telephone	Not offered	Responses
Course/Program Catalog	**3.6%** 4	**74.1%** 83	**87.5%** 98	**33.0%** 37	**9.8%** 11	**33.0%** 37	**0.9%** 1	**112**
Admissions	**5.4%** 6	**78.6%** 88	**62.5%** 70	**62.5%** 70	**24.1%** 27	**38.4%** 43	**0.0%** 0	**112**
Schedule of Classes	**0.9%** 1	**73.0%** 81	**82.0%** 91	**57.7%** 64	**8.1%** 9	**30.6%** 34	**0.0%** 0	**111**
Registration	**6.4%** 7	**76.1%** 83	**56.0%** 61	**74.3%** 81	**16.5%** 18	**34.9%** 38	**0.0%** 0	**109**
Assessment and Testing (Diagnostic, Placement, & Academic)	**65.8%** 73	**28.8%** 32	**39.6%** 44	**23.4%** 26	**12.6%** 14	**23.4%** 26	**0.9%** 1	**111**
Academic Advising and Counseling	**25.2%** 28	**75.7%** 84	**50.5%** 56	**45.0%** 50	**18.0%** 20	**42.3%** 47	**0.9%** 1	**111**
Orientation	**23.4%** 26	**70.3%** 78	**45.0%** 50	**44.1%** 49	**9.0%** 10	**21.6%** 24	**0.9%** 1	**111**
Financial Aid	**15.3%** 17	**73.0%** 81	**69.4%** 77	**45.0%** 50	**27.0%** 30	**36.0%** 40	**1.8%** 2	**111**
Student Accounts	**9.6%** 10	**70.2%** 73	**37.5%** 39	**51.0%** 53	**9.6%** 10	**26.0%** 27	**4.8%** 5	**104**
Student to Student Communications	**5.6%** 6	**70.1%** 75	**18.7%** 20	**34.6%** 37	**5.6%** 6	**12.1%** 13	**15.9%** 17	**107**
Faculty to Student Communications	**4.6%** 5	**88.1%** 96	**45.9%** 50	**49.5%** 54	**11.9%** 13	**37.6%** 41	**0.9%** 1	**109**
College to Student Communications	**4.5%** 5	**90.9%** 100	**60.9%** 67	**41.8%** 46	**30.9%** 34	**34.5%** 38	**0.9%** 1	**110**

	Service or program is offered only on-campus	Offered on-campus and through other communication technologies	Information available via static web page posting	Student can request or submit info to program or service via an interactive web page	Student can obtain information via the telephone through prerecorded message	Student can request or submit info to program or service using the telephone	Not offered	Responses
Bookstore Services	**9.0%** 10	**82.9%** 92	**56.8%** 63	**58.6%** 65	**18.0%** 20	**38.7%** 43	**0.9%** 1	**111**
Library Services	**6.3%** 7	**88.3%** 98	**61.3%** 68	**67.6%** 75	**25.2%** 28	**49.5%** 55	**0.9%** 1	**111**
Remediation Services	**46.1%** 47	**36.3%** 37	**29.4%** 30	**12.7%** 13	**4.9%** 5	**22.5%** 23	**9.8%** 10	**102**
Retention Services	**31.4%** 32	**52.9%** 54	**30.4%** 31	**13.7%** 14	**3.9%** 4	**24.5%** 25	**14.7%** 15	**102**
Tutoring (Individual & Group)	**39.1%** 43	**57.3%** 63	**46.4%** 51	**26.4%** 29	**10.0%** 11	**30.0%** 33	**0.9%** 1	**110**
Disabled Student Services	**42.0%** 47	**58.9%** 66	**64.3%** 72	**21.4%** 24	**19.6%** 22	**41.1%** 46	**0.0%** 0	**112**
Counseling (Personal)	**56.0%** 61	**38.5%** 42	**37.6%** 41	**16.5%** 18	**12.8%** 14	**32.1%** 35	**3.7%** 4	**109**
Career Counseling & Placement Services	**33.6%** 37	**59.1%** 65	**55.5%** 61	**26.4%** 29	**13.6%** 15	**33.6%** 37	**1.8%** 2	**110**
Ethical & Legal Services	**16.3%** 17	**11.5%** 12	**12.5%** 13	**1.0%** 1	**1.9%** 2	**7.7%** 8	**67.3%** 70	**104**
Financial Planning (Budgeting, Banking, Loan & Credit Card Management)	**21.4%** 22	**16.5%** 17	**16.5%** 17	**6.8%** 7	**2.9%** 3	**9.7%** 10	**53.4%** 55	**103**
Health Services	**64.5%** 71	**19.1%** 21	**42.7%** 47	**4.5%** 5	**8.2%** 9	**26.4%** 29	**13.6%** 15	**110**
Student Activities (Recreation, Leadership, Academics, Religion & Spirituality)	**58.6%** 65	**38.7%** 43	**48.6%** 54	**18.9%** 21	**9.0%** 10	**30.6%** 34	**0.0%** 0	**111**
Student	**47.3%**	**50.9%**	**56.4%**	**20.9%**	**10.9%**	**32.7%**	**0.0%**	**110**

	Service or program is offered only on-campus	Offered on-campus and through other communication technologies	Information available via static web page posting	Student can request or submit info to program or service via an interactive web page	Student can obtain information via the telephone through prerecorded message	Student can request or submit info to program or service using the telephone	Not offered	Responses
Population Segments Services (International, Minority, Veteran, Alumni, etc)	52	56	62	23	12	36	0	
Transcript Ordering/payment	**9.8%** 11	**80.4%** 90	**53.6%** 60	**51.8%** 58	**13.4%** 15	**25.9%** 29	**0.0%** 0	**112**
E-portfolios	**0.9%** 1	**12.3%** 13	**2.8%** 3	**10.4%** 11	**0.0%** 0	**2.8%** 3	**79.2%** 84	**106**
Emergency Calls to Landline Telephone	**12.7%** 13	**26.5%** 27	**10.8%** 11	**13.7%** 14	**13.7%** 14	**13.7%** 14	**36.3%** 37	**102**
Emergency Calls to Cellular Telephone	**10.6%** 11	**31.7%** 33	**12.5%** 13	**12.5%** 13	**14.4%** 15	**13.5%** 14	**31.7%** 33	**104**
Emergency Text Message to Cellular Telephone	**8.6%** 9	**56.2%** 59	**19.0%** 20	**21.9%** 23	**13.3%** 14	**18.1%** 19	**16.2%** 17	**105**

Appendix D

Student Enrollment and Completion Rate by Age in Distance Education Credit Course Sessions (Duplicated Headcount)

Age	Student Outcome	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<18	Completed	6,986	9,571	12,126	16,295	15,574	14,085	12,587
	Not Completed	4,892	6,647	8,324	10,814	9,000	6,720	5,513
	Total	11,878	16,218	20,450	27,109	24,574	20,805	18,100
	Rate of completion	59%	59%	59%	60%	63%	68%	70%
18 & 19	Completed	47,209	57,903	75,824	97,402	112,148	119,133	113,451
	Not Completed	51,229	61,280	77,670	92,631	95,819	92,328	80,102
	Total	98,438	119,183	153,494	190,033	207,967	211,461	193,553
	Rate of completion	48%	49%	49%	51%	54%	56%	59%
20 - 24	Completed	104,921	130,155	164,851	212,068	230,314	249,109	247,131
	Not Completed	111,298	134,268	163,056	197,209	197,920	199,658	184,437
	Total	216,219	264,423	327,907	409,277	428,234	448,767	431,568
	Rate of completion	49%	49%	50%	52%	54%	56%	57%
25 - 29	Completed	50,035	63,059	83,021	110,796	117,689	125,808	121,618
	Not Completed	45,445	54,930	69,133	88,102	87,134	88,048	82,073
	Total	95,480	117,989	152,154	198,898	204,823	213,856	203,691

Age	Student Outcome	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	Rate of completion	52%	53%	55%	56%	57%	59%	60%
30 - 34	Completed	33041	39,818	50,829	67,924	69,952	76,019	74,223
	Not Completed	25607	29,626	36,688	47,028	47,479	49,069	46,354
	Total	58,648	69,444	87,517	114,952	117,431	125,088	120,577
	Rate of completion	56%	57%	58%	59%	60%	61%	62%
35 - 39	Completed	25,058	30,199	38,702	48,949	48,839	50,641	47,588
	Not Completed	17,551	20,856	25,224	31,994	30,199	30,476	27,178
	Total	42,609	51,055	63,926	80,943	79,038	81,117	74,766
	Rate of completion	59%	59%	61%	60%	62%	62%	64%
40 - 49	Completed	36,117	42,399	51,021	64,868	66,539	70,448	66,388
	Not Completed	22,396	26,386	30,626	38,279	37,395	38,941	35,698
	Total	58,513	68,785	81,647	103,147	103,934	109,389	102,086
	Rate of completion	62%	62%	62%	63%	64%	64%	65%
50+	Completed	16,106	18,988	23,716	31,619	34,942	38,731	39,103
	Not Completed	10,538	12,505	15,003	19,012	19,697	20,338	19,804
	Total	26,644	31,493	38,719	50,631	54,639	59,069	58,907
	Rate of	60%	60%	61%	62%	64%	66%	66%

Age	Student Outcome	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	completion							
UNKNOWN	Completed	67	49	51	74	86	57	50
	Not Completed	49	42	36	67	73	33	31
	Total	116	91	87	141	159	90	81
	Rate of completion	58%	54%	59%	52%	54%	63%	62%

Appendix E

Student Enrollment and Completion Rate by Ethnicity in Credit Course Sessions

(Duplicated Headcount)

Ethnicity	Student Outcome	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Asian/ Pacific Islander	Completed	40,739	52,311	65,326	81,686	84,400	101,856	99,519
	Not Completed	29,804	36,327	45,871	53,400	51,799	55,334	50,942
	Total	70,543	88,638	111,197	135,086	136,199	157,190	150,461
	Rate of completion	58%	59%	59%	60%	62%	65%	66%
Black	Completed	21,134	25,400	32,703	48,158	46,608	52,082	49,975
	Not Completed	33,488	38,412	48,891	70,546	63,116	69,973	64,352
	Total	54,622	63,812	81,594	118,704	109,724	122,055	114,327
	Rate of completion	39%	40%	40%	41%	42%	43%	44%
Filipino	Completed	10,164	13,114	17,970	22,700	21,694	23,202	22,277
	Not Completed	10,075	12,171	15,760	17,861	16,335	16,257	14,154
	Total	20,239	25,285	33,730	40,561	38,029	39,459	36,431
	Rate of completion	50%	52%	53%	56%	57%	59%	61%
Hispanic	Completed	54,834	69,043	92,843	126,477	141,384	170,400	181,461
	Not Completed	64,405	80,163	102,662	134,974	140,938	161,153	160,707
	Total	119,239	149,206	195,505	261,451	282,322	331,553	342,168
	Rate of	46%	46%	47%	48%	50%	51%	53%

Ethnicity	Student Outcome	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
	completion							
Native American	Completed	3,519	4,414	5,347	6,578	5,369	4,821	4,104
	Not Completed	3,902	4,905	5,697	6,307	5,065	4,562	3,555
	Total	7,421	9,319	11,044	12,885	10,434	9,383	7,659
	Rate of completion	47%	47%	48%	51%	51%	51%	54%
Two or More Races	Completed	5,956	7,537	9,022	244	9,861	19,342	24,543
	Not Completed	5,876	7,141	8,407	261	9,873	17,766	21,043
	Total	11,832	14,678	17,429	505	19,734	37,108	45,586
	Rate of completion	50%	51%	52%	48%	50%	52%	54%
Unknown/Declined to State	Completed	25,850	32,547	43,805	75,977	90,381	53,090	37,934
	Not Completed	20,820	27,428	36,186	60,855	68,778	36,389	24,793
	Total	46,670	59,975	79,991	136,832	159,159	89,479	62,727
	Rate of completion	55%	54%	55%	56%	57%	59%	60%
White	Completed	155,807	185,598	225,268	277,851	279,140	298,078	281,602
	Not Completed	122,173	142,185	170,146	191,258	186,070	185,339	162,368
	Total	277,980	327,783	395,414	469,109	465,210	483,417	443,970
	Rate of completion	56%	57%	57%	59%	60%	62%	63%

Appendix F

Student Enrollment and Completion Rate by Gender in Credit Course Sessions (Duplicated Headcount)

Gender	Student Outcome	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Female	Completed	200,641	244,575	305,512	394,200	419,447	441,585	425,320
	Not Completed	179,232	214,495	264,494	328,115	323,267	321,846	296,381
	Total	379,873	459,070	570,006	722,315	742,714	763,431	721,701
	Rate of completion	53%	53%	54%	55%	56%	58%	59%
Male	Completed	115,375	143,009	183,338	239,059	252,644	274,055	269,516
	Not Completed	109,679	132,349	166,402	203,055	213,979	220,127	201,182
	Total	225,054	275,358	349,740	442,114	466,623	494,182	470,698
	Rate of completion	51%	52%	52%	54%	54%	55%	57%
Unknown	Completed	1,987	2,380	3,434	6,412	6,746	7,231	6,579
	Not Completed	1,632	1,888	2,724	4,292	4,728	4,800	4,351
	Total	3,619	4,268	6,158	10,704	11,474	12,031	10,930
	Rate of completion	55%	56%	56%	60%	59%	60%	60%

Appendix G

Student Enrollment and Completion Rate by Type of Disability in Distance Education Credit Course Sessions (Duplicated Headcount)

Disability	Student Outcome	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
ACQUIRED BRAIN INJURY	Completed	258	262	305	423	536	580	566
	Not Completed	231	306	301	341	456	464	412
	Total	489	568	606	764	992	1,044	978
	Rate of completion	53%	46%	50%	55%	54%	56%	58%
DEVELOPMENTALLY DELAYED LEARNER	Completed	145	159	203	190	285	450	327
	Not Completed	271	211	230	233	322	512	325
	Total	416	370	433	423	607	962	652
	Rate of completion	35%	43%	47%	45%	47%	47%	50%
HEARING IMPAIRED	Completed	296	408	443	548	674	804	854
	Not Completed	351	387	420	475	548	584	509
	Total	647	795	863	1,023	1,222	1,388	1,363
	Rate of completion	46%	51%	51%	54%	55%	58%	63%
LEARNING DISABLED	Completed	2,167	2,626	3,083	3,698	3,970	4205	3987
	Not Completed	2,310	2,739	3,223	3,385	3,429	3264	2883
	Total	4,477	5,365	6,306	7,083	7,399	7,469	6,870

	Rate of completion	48%	49%	49%	52%	54%	56%	58%
MOBILITY IMPAIRED	Completed	1484	1,597	1,691	2054	2344	2650	2819
	Not Completed	1471	1,481	1,638	1848	2049	2147	2007
	Total	2,955	3,078	3,329	3,902	4,393	4,797	4,826
	Rate of completion	50%	52%	51%	53%	53%	55%	58%
OTHER DISABILITY	Completed	2,048	2,542	3,301	4,068	5,417	6970	7674
	Not Completed	2,290	2,785	3,406	4,109	5,303	6261	6073
	Total	4,338	5,327	6,707	8,177	10,720	13,231	13,747
	Rate of completion	47%	48%	49%	50%	51%	53%	56%
PSYCHOLOGICAL DISABILITY	Completed	1,213	1,467	1,772	2,366	2,986	3736	3956
	Not Completed	1,428	1,706	2,012	2,423	2,760	3394	3364
	Total	2,641	3,173	3,784	4,789	5,746	7,130	7,320
	Rate of completion	46%	46%	47%	49%	52%	52%	54%
SPEECH/LANGUAGE IMPAIRED	Completed	36	41	66	96	110	118	113
	Not Completed	29	50	76	83	103	105	104
	Total	65	91	142	179	213	223	217
	Rate of completion	55%	45%	46%	54%	52%	53%	52%
VISUALLY	Completed	274	267	319	410	478	582	571

IMPAIRED	Not Completed	277	256	343	367	428	431	393
	Total	551	523	662	777	906	1,013	964
	Rate of completion	50%	51%	48%	53%	53%	57%	59%

Appendix H

Number of Distance Education Course Sessions by Delivery Method 2005–12

Data Element	Description from Data Element Dictionary	05/06	06/07	07/08	08/09	09/10	10/11	11/12
#50	Asynchronous: (e.g. various types of instructional software, computer assisted instruction (CAI); digitized visual, audio or text selected in response to student input; or specially structured audio tapes, web enhanced television, etc.)	969	809	1,797	1,973	1,335	1,105	926
#51	Televised Synchronous: Two-way interactive video and audio (e.g. videoconference)	428	398	565	527	900	955	741
#52	Televised Synchronous: One-way interactive video and two-way interactive audio	169	185	194	153	159	177	116
#54	Synchronous: Other simultaneous interactive medium	124	167	191	216	193	155	0
#61	Asynchronous: Text one-way (e.g. newspaper, correspondence, web page, etc.)	833	908	1,054	880	712	611	476
#62	Asynchronous: Audio one-way (e.g. audio cassette, radio, etc.)	17	13	8	8	6	6	2
#63	Televised Asynchronous: Video one-way (e.g. ITV, video cassette, etc.)	2,361	2,137	1,705	1,452	1,070	559	409
#64	Asynchronous: Other one-way passive medium	153	166	273	307	3	2	0

#71	Internet Synchronous: Session under supervision of instructor not available by line of sight using the Internet with immediate opportunity for exchange between participants.	1,514	1,917	2,178	2,166	2,131	3,339	3,167
#72	Internet Asynchronous: Session under supervision of instructor not available by line of sight using the Internet without the immediate involvement of the instructor.	14,846	19,434	24,449	31,562	33,529	36,756	35,517

Appendix I

Best Practice Strategies to Promote Academic Integrity in Online Education

This list of best practice strategies is based on "Institutional Policies/Practices and Course Design Strategies to Promote Academic Integrity in Online Education," produced by WCET in February 2009 and updated in April 2009. In May 2009, the Instructional Technology Council (ITC) surveyed its membership to invite feedback and additional strategies to enhance the WCET work. This June 2009 document reflects the combined contributions of WCET, the UT TeleCampus of the University of Texas System, and ITC. This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 United States license.

Institutional Context and Commitment

1. Establish a campus-wide policy on academic integrity that articulates faculty and student responsibilities.
2. Demonstrate an institutional commitment to enforcing the policy and in supporting faculty and staff in the handling of academic integrity matters.
3. Make information on academic integrity easy to find on the campus Web site, library Web site, department Web site, course within the syllabus and within specific assignments.
4. Include ethics instruction within the core curriculum and/or area-specific within degree plans.
5. Address academic integrity at student orientation programs and events.
6. Encourage faculty to report every suspected violation and act upon it.
7. Secure student logins and password to access online courses and related resources, discussions, assignments and assessments.

Curriculum and Instruction

1. State the academic integrity/academic honesty policy within the online learning environment and discuss it early in the course.
2. Require student engagement with the academic integrity policy. For example:
    a. Ask students for their input on how to create community of integrity at the start of the course. This establishes the students as stakeholders in the community and the process of its formation.
    b. Develop and ask students to commit to a class honor code.
    c. Require students to read and sign an agreement to the campus academic integrity policy.
    d. Write a letter to students about integrity and post it in the course.
    e. Ask students to restate the academic integrity policy (this can also be used as a writing sample to use when grading and reviewing student work).

f. Ask students to reflect on the academic integrity policy in the discussion board.

g. Include a lesson on avoiding plagiarism.

3. Have assignments and activities in which appropriate sharing and collaboration is essential to successful completion. Foster a community of integrity by choosing authentic learning tasks that require group cohesiveness and effort. For example, focus assignments on distinctive, individual, and non-duplicative tasks or on what individual students self-identify as their personal learning needs.

4. Provide students with a course or course lesson on research and/or study skills. Work with library staff to design assignments and prepare materials on plagiarism and research techniques.

5. Include a statement that the instructor reserves the right to require alternative forms and/or locations of assessments (e.g., proctoring).

6. Ask students follow-up questions to assignments such as, “expand upon this statement you made,” “tell me why you chose this phrase, description or reference,” and “expand upon the ideas behind this reference.”

7. Select one or two difficult concepts from the paper and ask the student to restate/rewrite the information.

8. Require students to share key learning from references for a paper or self-reflection on an assignment in the discussion board.

9. Include an ethical decision-making case study within the course.

Faculty Support

1. Incorporate academic integrity strategies into professional development and faculty training offerings.

2. Publish academic integrity strategies and policies in faculty handbook and Web-based faculty resources.

3. Publish guidelines for handling/reporting individual student infractions.

4. Assign a department academic integrity liaison to support faculty.

5. Use a plagiarism detection service.

6. Use Google to search for a unique text string or unique phrase from the paper.

7. Keep student papers filed in the department by topic for reference.

Student Support

1. Define academic integrity and cheating and clearly explain what is considered dishonest and unacceptable behavior.

2. Provide information and examples to help students understand the

difference between collaboration on assignments and cheating, and identify plagiarism. Teach the proper use of citations.

3. State how much collaboration is permissible on each assignment.

4. State what the instructor's expectations are for the students and explain what they should expect from the instructor. For example:

    a. Include a statement in the syllabus encouraging honest work.

    b. Repeat the campus academic integrity statement and provide a link to campus policies.

    c. Describe academic dishonesty

    d. Describe the repercussions for academic dishonesty.

    e. Describe permissible and impermissible collaboration.

    f. Include outside links to information on plagiarism, self-tests and examples.

    g. Include information on acceptable sources.

    h. Include information about the college's writing center, library or other support.

5. Provide a writing style sheet or handbook with information on plagiarism and campus policies.

6. Indicate assessments may require follow-up documentation, questions or assignments.

7. State expectations for the time needed to complete coursework.

8. State whether the instructor/college will use a plagiarism detection service.

Assessment and Evaluation

1. Provide rubrics, or detailed grading criteria, for every 1. assignment at the beginning of the course so students understand how they will be graded.

2. Train faculty on ways to use the settings on the 2. college's learning management system to reduce cheating:

    a. Use a test bank with more questions than will be used on any particular test and have the learning management system pull a smaller number of questions from the test bank

    b. Randomize the order of answers for multiple test questions so for example, the correct answer for a particular question might be "a" for one student and "b" for another.

    c. Require forced completion on exams so students cannot re-enter a test.

    d. Set a short window for testing completion, i.e. one or two days to take an exam rather than a

whole week. Setting a completion time reduces a student's ability to access the test, look up the answer, and re-enter the test. Most test-taking software applications keep track of time on the server, not on the student's computer.

e. Password protect exams

f. Show questions one at a time (makes more difficult for students to copy and paste the test in order to give it to someone else).

g. Use a Web browser lock-down service during testing.

h. Check the computer "properties" for the "creation date" and "author" for essay or term paper submissions if students are suspected of submitting work created by someone else.

3. Clarify that students with disabilities and requesting testing accommodations (extended time for completion of examinations and quizzes) must identify themselves to the college's office of disabilities and provide appropriate documentation.

4. Change test items and assignment topics each semester.

5. Emphasize assignments that require written work and problem solving (e.g., essays, papers, online discussions).

6. Use a variety of assessment strategies (quizzes, short and long papers, test questions that require the application of a theory or concept).

7. Adopt the following practices to encourage authentic written work:

    a. Require students to turn in copies of reference articles with cited text highlighted.

    b. Require annotated bibliographies.

    c. Do not allow last minute changes in assignment topics.

    d. Require specific references be used (this might be the course text).

    e. Require an abstract.

    f. Give narrow assignment topics (tied into class experience) and require thesis statements prior to topic approval.

    g. Require students to turn in a draft, and their bibliography or references prior to the paper's due date.

    h. Require students to write a concept paper and h. project plan prior to completing an assignment.

8. Evaluate the research process and the product.

9. After an assignment is due, have students post in the discussion board, describing the assignment and the research method used, a summary of conclusions and an abstract (a meta-learning essay).

10. When evaluating student written work, consider following these practices:

    a. Be wary of student writing that reads like an encyclopedia, newspaper article or expert in the field.

    b. Look for whether a paper reflects the assignment, has changes in tense, includes odd sentences within a well-written paper, is based on references older than three years, refers to past events as current, or uses jargon.

    c. Compare student writing on the discussion board with that on assignments and papers. A writing sample collected at the start of the semester can be helpful.

    d. Compare the writing at the beginning and end of the paper with that in the middle of the paper -- language, sentence length and reading level.

    e. Check references; compare quotations with cited sources; look for the same author in multiple references.

    f. Read all papers on the same topic together.

11. Make assignments cumulative (students turn in parts of a project or paper throughout the semester).

12. Give open book exams.12.

13. Other than grades, do not provide students feedback on tests until all of the students in the class have completed them.

14. Use proctored test sites where appropriate.

15. Faculty should use a robust user name and password to protect their computer-based grade book and keep a printed copy in a secure place in case students are able to hack into the computer system.

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