

California Community College ICT Student Enrollment and Demographics

**A Study of
Enrollments and Demographics Related to
Information and Communication Technologies (ICT)
In California Community Colleges
2008/09 – 2010/11**

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EXECUTIVE SUMMARY

Information and Communication Technologies (ICT) is an umbrella term, widely used outside the U.S. and in the U.N., to encompass all rapidly emerging, evolving and converging Computer, Software, Networking, Telecommunications, Internet, Programming, Information Systems and Digital Media Technologies. A consolidated ICT term is useful, not only because you can Google it and get mostly relevant results, as opposed to Googling “IT” and getting every web page published in the English language, but because it allows for coordination and greater recognition of the scope and importance of the many inter-related and inter-dependent technologies, industries and occupations it encompasses.

ICT industries are an uncontroversial bright-spot in the California economy. Some 46,000 California companies produce ICT related goods and services (12th of California industries by firm count), generating more than \$170 billion in annual revenue (6th of California industries by revenues), employ about a million workers (12th of California industries by employee counts) and pay about \$76 billion in wages (2nd of California industries by wages paid). Most are thriving, even in a down economy.¹

ICT employment exists in every industry, because ICT has been applied by most organizations in every industry to improve organizational efficiencies, productivity and strategic advantages. ICT Workforce already employs almost 1.2 million Californians, who get twice median wages and pay taxes, and ICT Workforce growth is strong. In fact, employers are reporting difficulty finding appropriately skilled ICT Workforce, even in this period of high unemployment.²

The California Community College (CCC) system, the largest higher educational system in the United States with 3 million students, is making great strides in developing California’s ICT Workforce. CCCs are the most cost-effective way of delivering needed ICT education to the California population.

California community colleges have almost 6,000 faculty offering more than 600 associate degrees and 1,500 academic certificates in 295 departments at 112 community colleges. Students enroll in more than half a million for credit and 100,000 non-credit ICT related classes at CCCs every year. Those students are very diverse. They earn about a thousand CCC ICT related degrees and two-thousand academic certificates every year. They are acquiring knowledge and skills that allow them to be successful in the 21st century. Those knowledge and skill sets are helping them get employment and advance in their careers. Many of these students also transfer for further study at 4-year colleges and universities.

The report provides an analysis of ICT related student course enrollments and demographics, ICT related degrees and certificates awarded, and faculty demographics for the 2010/11 academic year - and analyses of trends in these areas between the 2008/09 and 2010/11 academic years. Some key findings include:

- The vast majority (75%) of credit enrollments were in Office Technology, Information Technology, General, Computer Information Systems, Digital Media and Computer Software Development Top Codes³.

¹ 2010 Environmental Scan: Information and Communication Technologies in California Phase Two: Industry & Employment Outlook, MPICT and CCC Economic and Workforce Development Centers of Excellence, Available for download free at: http://www.mpict.org/ict_study_phase2.html.

² Ibid

³ The Taxonomy of Programs is a system of nomenclature for designating programs in the California Community College system. This inventory is in its Sixth Edition. The complete T.O.P. manual may be viewed on the Chancellor's Office Web site at http://www.cccco.edu/Portals/4/TopTax6_rev0909.pdf.

- Approximately 48% of overall credit enrollments were by female and 51% were by male students. However, women dominate some Top Codes (e.g. 82% of Health IT) and men dominate others (e.g. 90% of Electronics).
- Overall, women had higher passing rates in ICT related credit courses than men, and higher rates of degree and certificate awards.
- While Whites represented only 35% of overall ICT related for credit course enrollment demographics, Whites were the majority of enrollments in most Top Codes.
- Students enrolling in CCC ICT related for credit courses range from aspiring high school students (15 years old) to people late in life (in their nineties), averaging about 25.
- Seven percent of students in ICT related classes already had Associate Degrees, and 19% already had bachelor's degrees or higher.
- Generally, the higher the level of educational attainment already achieved, the higher the success rate in completing ICT related courses for credit.
- Among educational goals of students enrolled in ICT related credit classes, 30% said they wanted to pursue a four-year degree, 7% wanted to obtain a two year associate's degree, and 4% wanted to earn a vocational certificate. So, less than half of students had transfer, CCC academic degree or certification as a stated goal. That is important, because CCCs are increasingly judging the success of programs based on how many of their students achieve one of those three things.
- The 295 ICT related programs at 112 CCCs issued 994 Associate (AS/AA) degrees in 2010-11.
- Ages for Associate Degrees ranged from 16 to 69.
- Twelve percent of ICT related associate degree earners had already received an associate degree, and 7% had already received a bachelor degree or higher.
- Only 45% of ICT related associate degree awardees had getting an associate degree as a stated educational goal.
- In 2010-11, CCCs awarded 1,919 for credit academic certificates and 264 non-credit certificates in these ICT related Top Codes. That is 2,201 ICT related certificates all together.
- Ages of ICT related academic certificate awardees ranged from 13 to 78.
- Of those receiving ICT related academic certificates, 16% already had Received a Bachelor degree or higher, and 8% had already Received an Associate Degree.
- For the 2010/11 academic year, there were 5,729 total faculty teaching ICT related courses at California Community Colleges. Of those, 2,604 were full-time and 3,125 were part-time.
- Some 55% of full time faculty in ICT related Top Codes were male and 45 percent were female.
- 61% of CCC ICT faculty were white, though Whites are only 35% of credit enrollment students.
- Between 2008-09 and 2010-11, overall credit enrollment in ICT related courses decreased by 7% (40,909), and overall non-credit enrollment in ICT related courses decreased by 47% (54,551) in a period in which enrollments were cut throughout the CCC system due to educational funding problems.
- Between 2008-09 and 2010-11, overall successful credit enrollment in ICT related courses increased by 2%.
- Between 2008/09, female enrollment decreased 3% and male enrollment increased 3%.

- There was a 12,882% increase in ICT related enrollments for Two or More Races, from 2008-09 to 2010-11. In 2008-09, 106 students indicated Two or More Races, and, by 2010-11, 13,761 had indicated this category.
- Generally, Hispanics, Blacks and Multiple Races are gaining in proportional representation relative to Whites and Unknowns, reflecting general population trends.
- Overall, there were percentage declines in for credit enrollments in all age groups except 0-17, which grew 131%.
- Between 2008/09 and 2010/11, there was a 58% increase in four-year college students taking CCC ICT courses to meet four year college requirements.
- Between the 2008/09 and 2010/11 academic years, the number of ICT related associate degrees increased 9.8%.
- Of ethnic groups, only Hispanics appear to be consistently and significantly increasing their degree award numbers. It is also encouraging to see an increase in numbers of African Americans receiving ICT related degrees.
- The total number of ICT related academic certificates awarded decreased 2% from 2,257 in 2008/09 to 2,201 in 2010/11.
- ICT related faculty at California Community Colleges was reduced 5% from 6,001 to 5,729 between 2008/09 and 2010/11. The reductions were higher for part-time (-7%) than full-time faculty (-1%).
- The gender ratio for faculty remained roughly the same between 2008/09 and 2010/11: about 45% female and 55% male for full-time and about 47% female and 53% male for part-time faculty.
- Between 2008/09 and 2010/11, ethnic composition in full and part time faculty did not change significantly. Whites represented 61% of faculty. Faculty ethnicities do not match student ethnicities, nor is there positive momentum to change that.

California is extraordinarily diverse, and CCC student populations taking ICT are, fortunately, also diverse. We need to draw from all segments of society to meet the diverse needs of ICT applications and workforce. However, CCCs need to do a better job attracting and serving this diversity if we are going to meet the ICT Workforce needs of the State. One way to do that is to improve the ethnic diversity of CCC faculty teaching ICT related courses, so different students have role models and cultural references they can relate to. Currently, CCC ICT faculty is not as diverse as CCC ICT students. CCCs need to do a better job attracting and serving women in some ICT related Top Codes, which are currently dominated by males, including male faculty, like: Electronics, Computer Infrastructure and Support, Computer Science (Transfer), Computer Software Development, Digital Media, World Wide Web Administration and Information Technology.

California Community Colleges are the most cost-effective way of delivering quality higher education ICT knowledge and skills to its population. They have extraordinary infrastructure and traditions in place. CCCs have already benefitted millions of Californians, and California and the California economy have received more than compensating returns on its CCC educational investments. If CCCs can figure out how to optimize ICT educational services in the largest higher educational system in the U.S., the implications are easily national in scope. It would be well worth the effort!

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INTRODUCTION, OBJECTIVES, SCOPE, AND METHODOLOGY

Information and Communications Technologies (ICT) is an umbrella term, widely used outside the U.S. and in the United Nations, to encompass all rapidly emerging, evolving and converging computer, software, networking, telecommunications, Internet, programming, information systems and digital media technologies. Using the ICT superset term allows policymakers and educational system planners to understand the true scope and scale of these inter-related and interdependent technologies, industries, employment opportunities and academic fields. Aggregated ICT gravitates higher in lists of industry and employment metrics and helps inform strategic decision-making. MPICT and the CCC ICT Collaborative have been championing the use of the ICT term and aggregation in California.

The Mid-Pacific ICT Center (mpict.org) is funded by the National Science Foundation (NSF) Advanced Technological Education (ATE) program. Its mission is “to coordinate, promote and improve the quality of ICT education, with an emphasis on 2-year colleges, in a region consisting of California, Nevada, Hawaii and the Pacific Territories.”

The California Community College (CCC) ICT Collaborative (cccict.org) is a Perkins Title IB (state leadership) funded collaborative, awarded by the CCC Chancellor’s office Career Education Practices Unit⁴. Its mission is “to advance ICT education programs at California community colleges and enable a diverse student population to succeed in meeting industry and business ICT workforce needs.”

This study was jointly conducted and funded by MPICT and the CCC ICT Collaborative, adding to past research⁵ documenting the size and importance of ICT industry and employment in California, which is the demand side of the ICT Workforce marketplace. This report provides insight into the supply side of the ICT Workforce marketplace addressed by CCCs.

The objective of this report is to study ICT student enrollment and passing rate characteristics, student and faculty demographics, and their trends in ICT related programs across the California Community College (CCC) system:

- The largest higher educational system in the U.S., with 3 million students attending 112 colleges annually.
- One in four community college students in the U.S. attends a CCC.
- CCCs have the highest attendance rate of any U.S. community college system.
- CCCs enroll one in three Californians aged 18 – 24.
- Over 80% of CCC students work already.
- CCCs transfer 60% of California State University system graduates.
- CCCs transfer 30% of University of California system graduates.
- Every \$1 invested in CCC education returns \$3 to the California economy.
- CCCs provide important workforce preparation services, in addition to preparing students for transfer.⁶

To do so, this effort first mapped CCC Taxonomy of Programs (TOP) codes⁷ to ICT.

The Top Codes analyzed were:

⁴ <http://extranet.cccco.edu/Divisions/WorkforceandEconDev/CareerEducationPractices.aspx>

⁵ http://www.mpict.org/ict_industry_employment_research.html

⁶ <http://www.foundationccc.org/AbouttheColleges/FactsandFigures/tabid/636/Default.aspx>

⁷ http://extranet.cccco.edu/Portals/1/AA/BasicSkills/TopTax6_rev0909.pdf

- 0509XX Marketing and Distribution
- 0514XX Office Technology
- 0601XX Media Communications
- 0607XX Technical Communications
- 0610XX Mass Communications
- 0614XX Digital Media
- 0699XX Other Media & Communications
- 0701XX Information Technology, General
- 0702XX Computer Information System
- 0706XX Computer Science (Transfer)
- 0707XX Computer Software Development
- 0708XX Computer Infrastructure and Support
- 0709XX World Wide Web Administration
- 0799XX Other Information Technology
- 0860XX Educational Technology
- 0934XX Electronics and Electronics Technology
- 0936XX Printing and Lithography
- 0953XX Drafting Technology
- 1223XX Health Information Technology
- 1601XX Library Science
- 1602XX Library Technician
- 1699XX Other Library Science
- 2206XX Geography

Not all of the content and focus of instruction in these Top Codes is focused on technical ICT knowledge and skills. However, programs in in each of these Top Codes do lead to gainful employment in ICT. A table of these ICT related Top Codes is included in [Appendix 1](#). People may disagree whether each or all of these Top Codes should be included in ICT. It is easier to exclude data or findings from these lists than it is to add additional Top Codes to the list later.

A custom data query was conducted for this study by the CCC Chancellor’s Office System Operations Technology, Research and Information Systems division.⁸ Five demographic variables are available: gender, age, race, enrollment status and educational goals. The report provides analysis of that data.

- Section I provides data and analysis of ICT related course enrollments and student demographics across the CCC system for the 2010/11 academic year.
- Section II provides data and analysis of ICT related degrees and academic certificates awarded across the CCC system for the 2010/11 academic year.
- Section III provides data and analysis of ICT related faculty across the CCC system for the 2010/11 academic year.
- Section IV provides analysis of trends for each of these areas across the CCC system between the 2008/2009 and 2010/2011 academic years.

The report also includes a conclusion, acknowledgements, a disclaimer and appendices.

⁸ <http://extranet.cccco.edu/Divisions/TechResearchInfoSys/MIS.aspx>

SECTION I: ICT ENROLLMENT DEMOGRAPHICS (2010-11)

TOTAL CREDIT, CREDIT SUCCESSFUL AND NON-CREDIT ENROLLMENTS

California community colleges attract more than half a million student enrollments in ICT related courses each year. In 2010-11, total credit enrollment in identified ICT Top Codes was 562,575, across all 112 campuses. However, credit enrollment ranged from a high of 16,692 at Palomar Community College to only 209 at Lassen Community College.⁹

Chart 1: CCC ICT Related For Credit Course Enrollments by College – 2010-2011

College Name	Total	College Name	Total	College Name	Total
ALAMEDA	2582	GAVILAN	3214	PASADENA CITY	8068
ALLAN HANCOCK	3045	GLENDALE	7603	PORTERVILLE	1358
AMERICAN RIVER	14312	GOLDEN WEST	4521	REDWOODS	2282
ANTELOPE VALLEY	5843	GROSSMONT	6325	REEDLEY	6288
BAKERSFIELD	4226	HARTNEILL	2570	RIO HONDO	3402
BARSTOW	1395	IMPERIAL VALLEY	2250	RIVERSIDE	6898
BERKELEY CITY	8437	IRVINE VALLEY	5465	SACRAMENTO CITY	10543
BUTTE	6123	L.A. CITY	4777	SADDLEBACK	6046
CABRILLO	7097	L.A. HARBOR	3223	SAN BERNARDINO	2280
CANADA	2698	L.A. MISSION	2804	SAN DIEGO ADULT	0
CANYONS	5330	L.A. PIERCE	5408	SAN DIEGO CITY	3844
CERRITOS	16251	L.A. TRADE-TECH	3300	SAN DIEGO MESA	6633
CERRO COSO	3364	L.A. VALLEY	3992	SAN DIEGO MIRAMAR	1610
CHABOT	5292	LAKE TAHOE	1294	SAN FRANCISCO CITY	14550
CHAFFEY	10143	LANEY	5050	SAN FRANCISCO CTRS	0
CITRUS	2993	LAS POSITAS	2711	SAN JOAQUIN DELTA	6264
COALINGA	1315	LASSEN	209	SAN JOSE CITY	2448
COASTLINE	6846	LEMOORE	748	SAN MATEO	3831
COLUMBIA	1594	LONG BEACH CITY	14917	SANTA ANA	5637
COMPTON	1653	LOS MEDANOS	3531	SANTA BARBARA CED	0
CONTRA COSTA	2691	MARIN	2962	SANTA BARBARA CITY	9887
COPPER MOUNTAIN	828	MENDOCINO	2076	SANTA MONICA CITY	14813
COSUMNES RIVER	7616	MERCED	2574	SANTA ROSA	12089
CRAFTON HILLS	1264	MERRITT	1927	SANTIAGO CANYON	1378
CUESTA	3059	MIRA COSTA	6317	SEQUOIAS	3898
CUYAMACA	3545	MISSION	4780	SHASTA	4442
CYPRESS	6816	MODESTO	6893	SIERRA	5895
DE ANZA	14067	MONTEREY	3438	SISKIYOU	927
DESERT	2104	MOORPARK	3365	SKYLINE	3560
DIABLO VALLEY	7019	MORENO VALLEY	2328	SOLANO	6382
EAST L.A.	8682	MT. SAN ANTONIO	7742	SOUTHWEST L.A.	2152
EL CAMINO	4089	MT. SAN JACINTO	8246	SOUTHWESTERN	6836
EVERGREEN VALLEY	1470	NAPA VALLEY	1200	TAFT	2728
FEATHER RIVER	648	NORCO	3219	VENTURA	2918
FOLSOM LAKE	4087	NORTH ORANGE ADULT	0	VICTOR VALLEY	4714
FOOTHILL	8742	OHLONE	4581	WEST L.A.	3933
FRESNO CITY	10571	ORANGE COAST	6896	WEST VALLEY	5129
FULLERTON	5000	OXNARD	1994	WOODLAND	664
GAVILAN	3214	PALO VERDE	704	YUBA	3565
GLENDALE	7603	PALOMAR	16692	Grand Total	562575

⁹ Find descriptions of ICT related programs at each CCC at http://www.mpict.org/ict_education_california_community_colleges.html.

In addition, there were also 116,726 noncredit enrollments, for a total of 679,301 ICT enrollments across the CCC system. Non-credit enrollments in ICT related courses ranged from more than 30,000 at San Diego Adult to zero in most colleges.

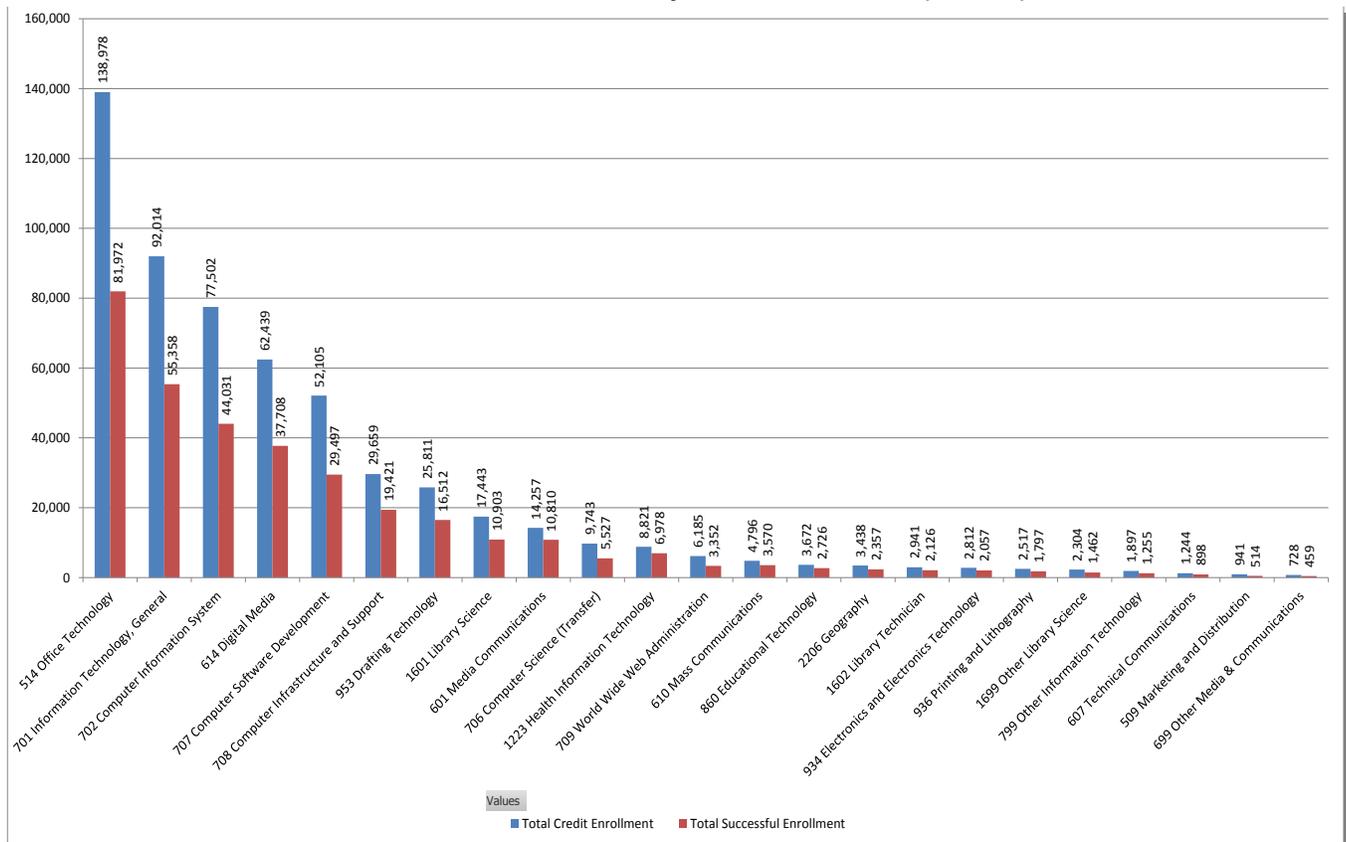
Chart 2: CCC ICT Related Not For Credit Course Enrollments by College – 2010-2011

2010/11 College Name	Non-Credit Enrollments	2010/11 College Name	Non-Credit Enrollments	2010/11 College Name	Non-Credit Enrollments
SAN DIEGO ADULT	30,667	MIRA COSTA	584	L.A. MISSION	180
SANTA ANA	24,656	L.A. PIERCE	556	FRESNO CITY	98
SAN FRANCISCO CTRS	16,573	L.A. VALLEY	544	SOUTHWESTERN	90
SANTIAGO CANYON	11,697	PALO VERDE	539	LONG BEACH CITY	69
NORTH ORANGE ADULT	11,310	PASADENA CITY	490	LASSEN	46
GLENDALE	8,124	MERCED	378	MORENO VALLEY	43
SANTA BARBARA CED	5,547	L.A. HARBOR	316	RIO HONDO	25
MT. SAN ANTONIO	1,540	RIVERSIDE	275	CUESTA	4
ALLAN HANCOCK	1,323	L.A. TRADE-TECH	252	All Others	-
MENDOCINO	604	GAVILAN	196	Grand Total	116,726

Enrollment differed by Top Code. Office Technology had the largest credit (138,978) and successful (81,972) enrollments, followed by Information Technology, General (92,014 & 55,358), Computer Information Systems (77,502 & 44,031), Digital Media (62,439 & 37,708) and Computer Software Development (52,105 & 29,497).

The Top Code with the lowest enrollments was Other Media & Communications, with 728 credit enrollments, of which 459 were successful.

Chart 3: Total Credit vs. Successful¹⁰ Credit Enrollment (2010-11)

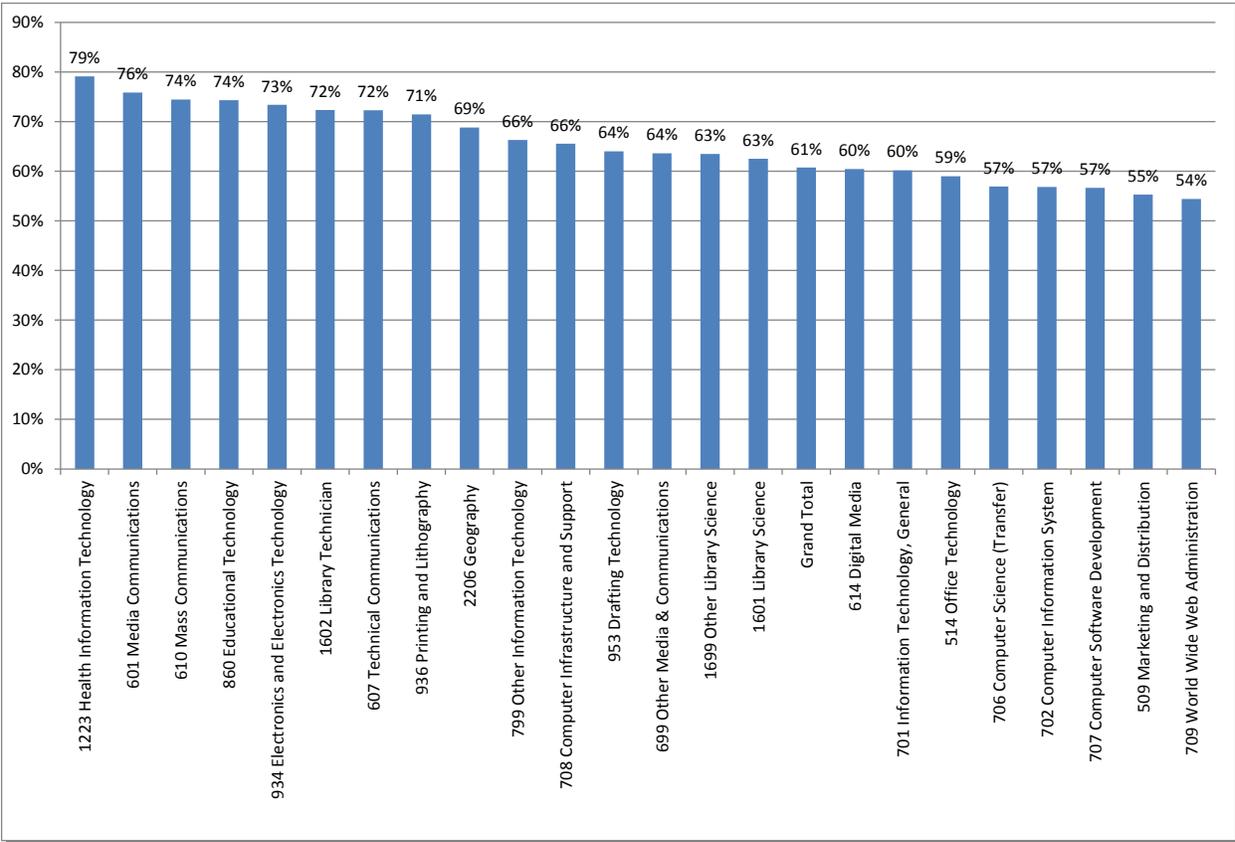


¹⁰ Successful credit enrollment means the student passed the course for credit.

Successful enrollment, or the passing rate for classes, differs by Top Code.

Health Information Technology, had the highest passing rate - 79%. Next was Media Communications, at 76%; followed by two others at 74 percent: Mass Communications and Educational Technology; and Electronics and Electronics Technology with 73%. The Top Code with the lowest success rate was World Wide Web Administration at 54%.

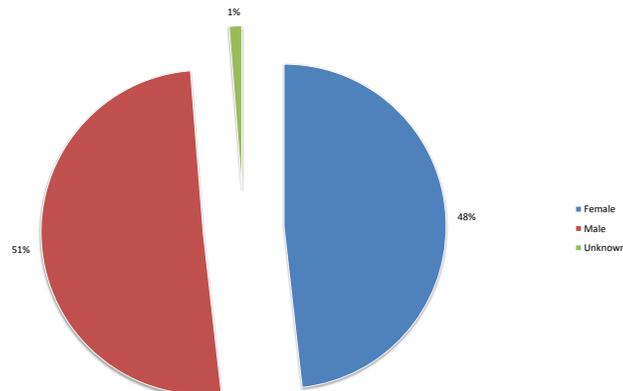
Chart 4: Percentage Passing Rate for Credit by Top Code (2010-11)



GENDER

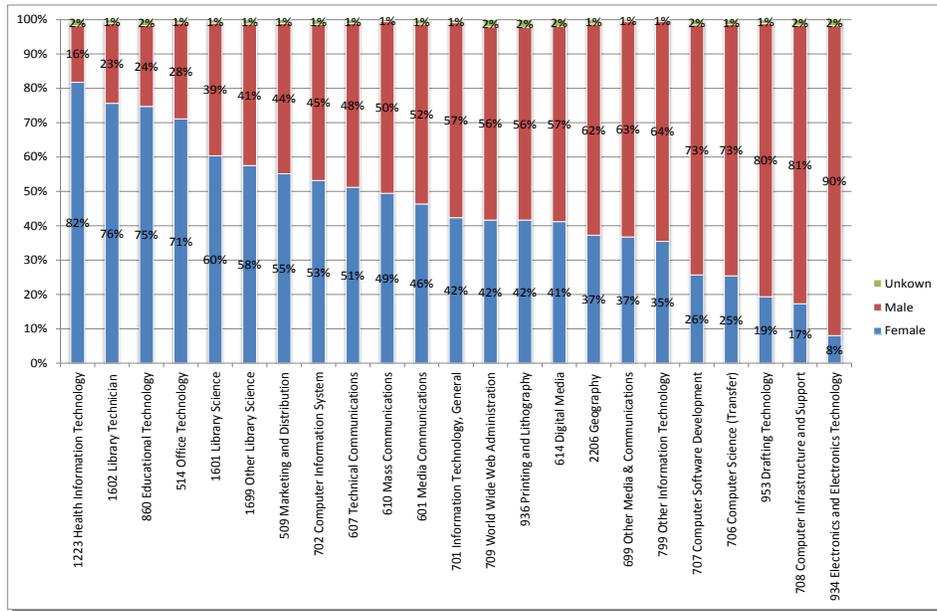
For 2010-11, approximately 48% of overall credit enrollments were by female and 51% were by male students.

Chart 5: Gender Distribution (2010-11)



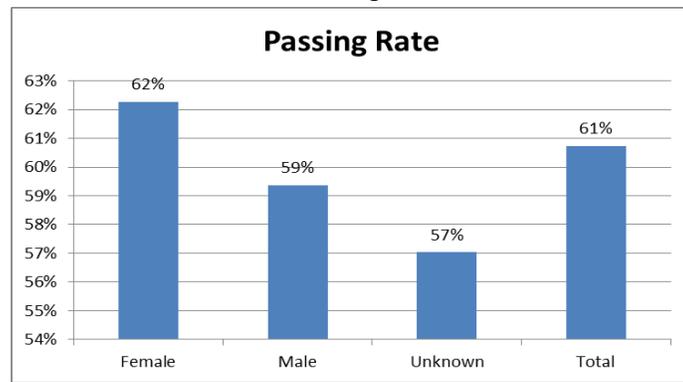
However, gender ratios in for credit courses vary by Top Code. Women dominated in Health Information Technology, at 82%, Library Technician, 76%, Educational Technology, 75%, Office Technology, 71%, and Library Science, 60%. Men, on the other hand, dominated Electronics and Electronics Technology, at 91%, Computer Infrastructure and Support, 81%, Drafting Technology, 80%, Computer Science (Transfer), 73%, Other Information Technology, 64%, and Other Media and Communications, 63%.

Chart 6: Gender Distribution in For Credit Courses by Top Code (2010-11)



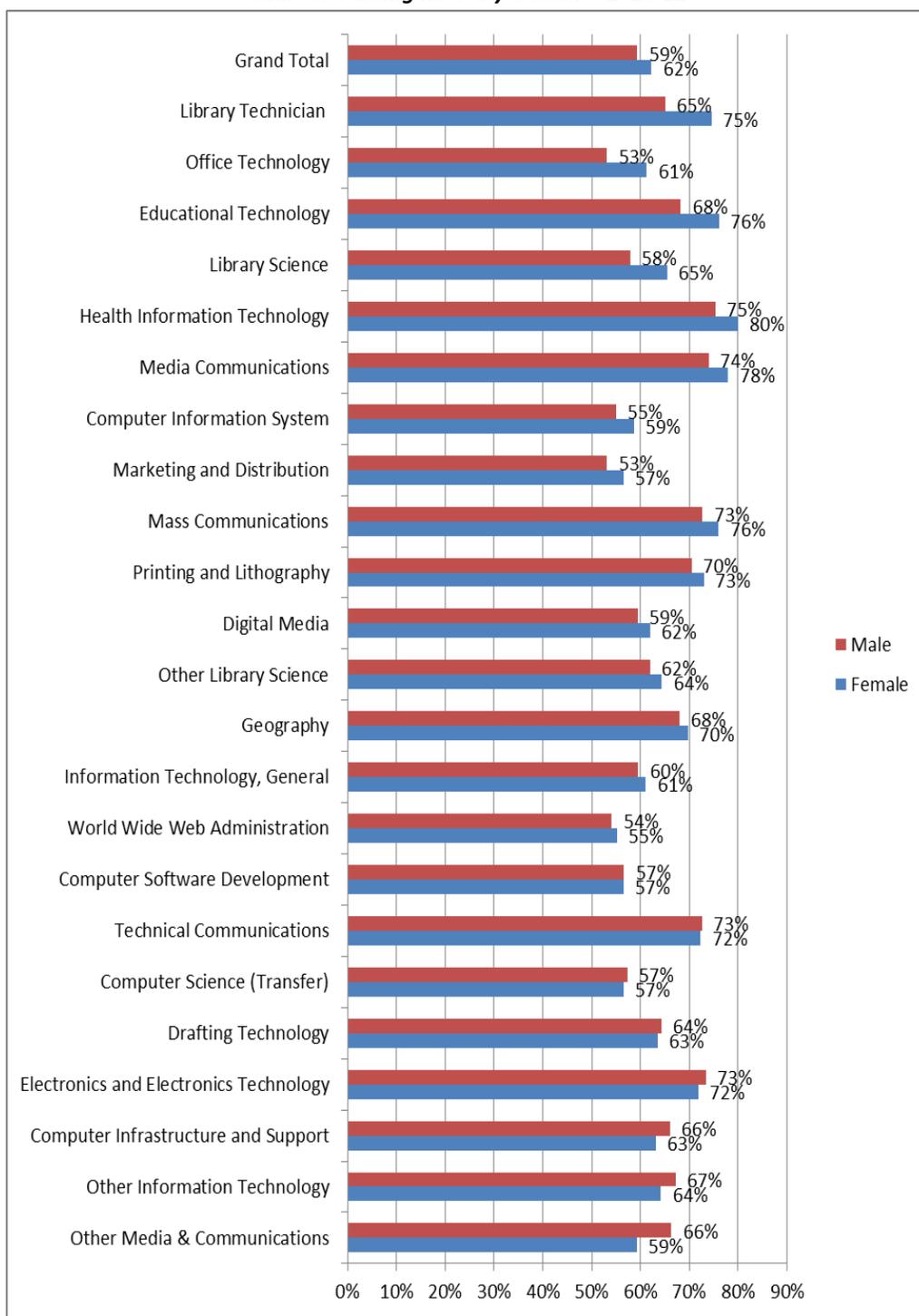
Overall, women had higher passing rates in credit courses than men, 62% versus 59%. Overall passing rates were 61%.

Chart 7: Gender Distribution in For Passing Rates in ICT Credit Courses (2010-11)



Gender differences in for credit course passing rates by Top Code are shown in the following graph, ordered by Top Codes in which women were more successful than men. Men are only more successful than women in passing ICT related courses in the following Top Codes: Other Media & Communications, Other Information Technology, Computer Infrastructure and Support, Electronics and Electronics Technology, Drafting Technology and Computer Science (Transfer). Passing rates were the same in Technical Communications and Computer Software Development. Women were more successful in passing ICT related courses in all other Top Codes.

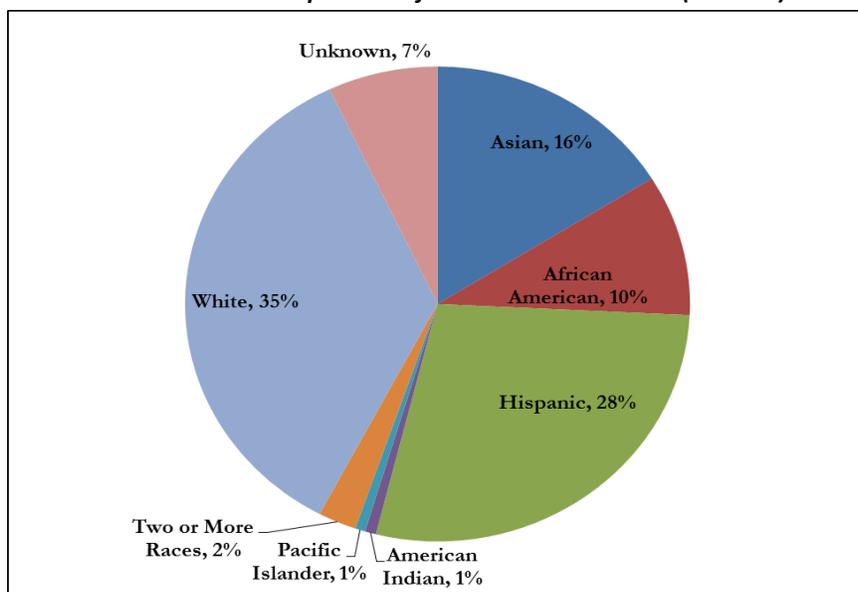
Chart 8: Passing Rates by Gender – 2010-11



ETHNICITY

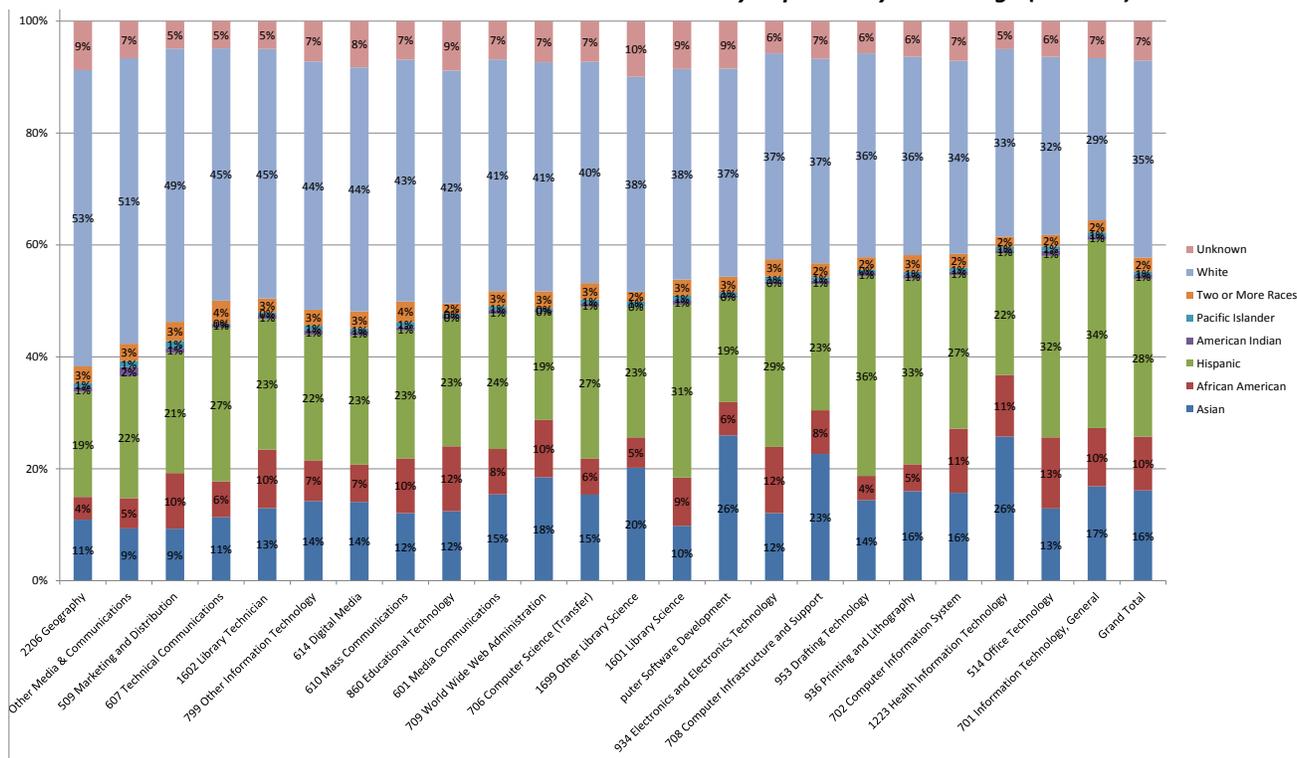
Ethnic composition of ICT related credit enrollments in 2010-11 was: 35% white, 28% Hispanic, 16% Asian, 9.5% African American and 2.5% for two or more races. Less than one percent of the students are Native Americans and Pacific Islanders.

Chart 9: Ethnic Composition of For Credit Enrollments (2010-11)



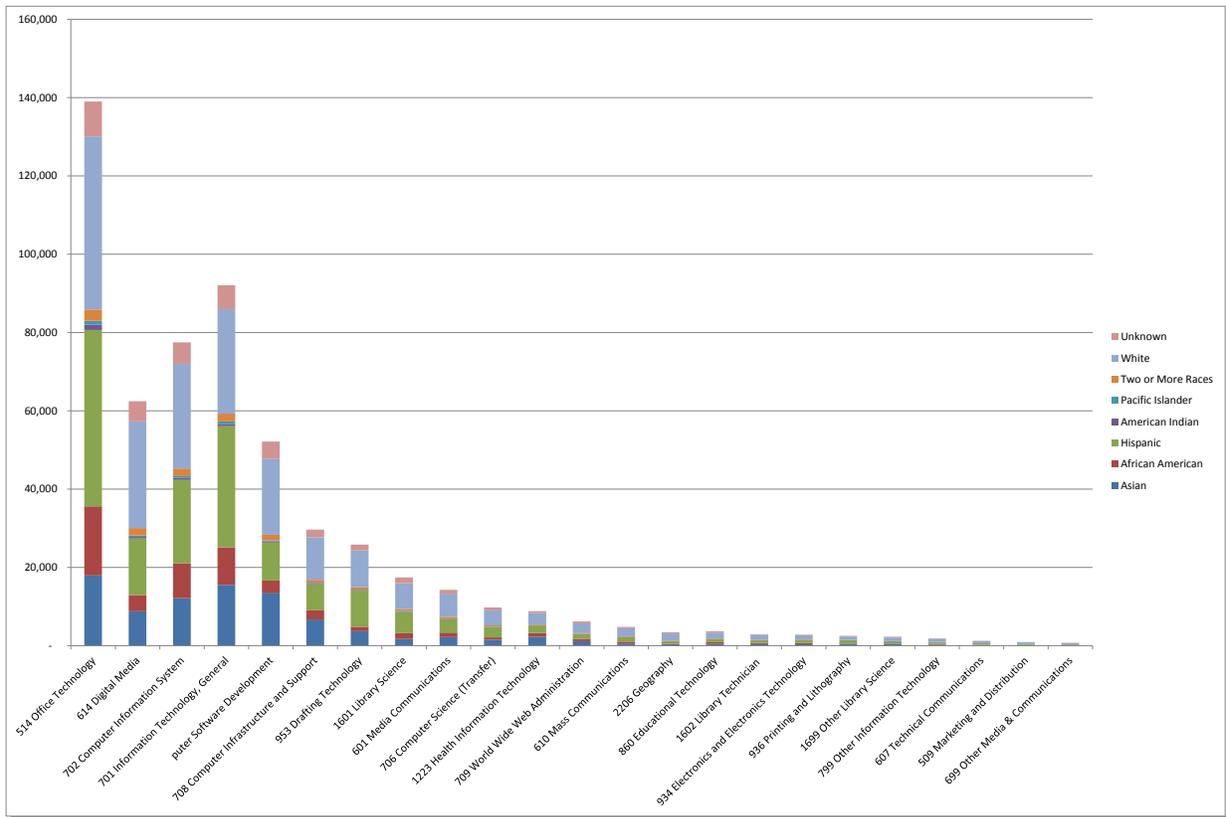
While Whites represented only 35% of overall ICT related for credit course enrollment demographics, Whites were the majority of enrollments in most Top Codes.

Chart 10: Race Distribution in For Credit Courses by Top Code by Percentage (2010-11)



Overall percentages are affected by much larger enrollment counts in some Top Codes than others.

Chart 11: Race Distribution by Top Code by Number (2010-11)



AGE

California Community Colleges serve extremely diverse student age ranges, and students enrolling in CCC ICT related for credit courses range from aspiring high school students to people late in life, those who have not yet started careers to those whose working careers are over.

Chart 12: Age Distribution Percentages in For Credit Enrollments (2010-11)

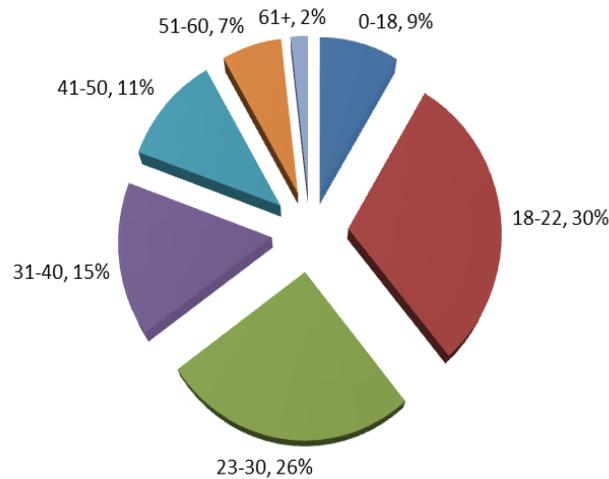
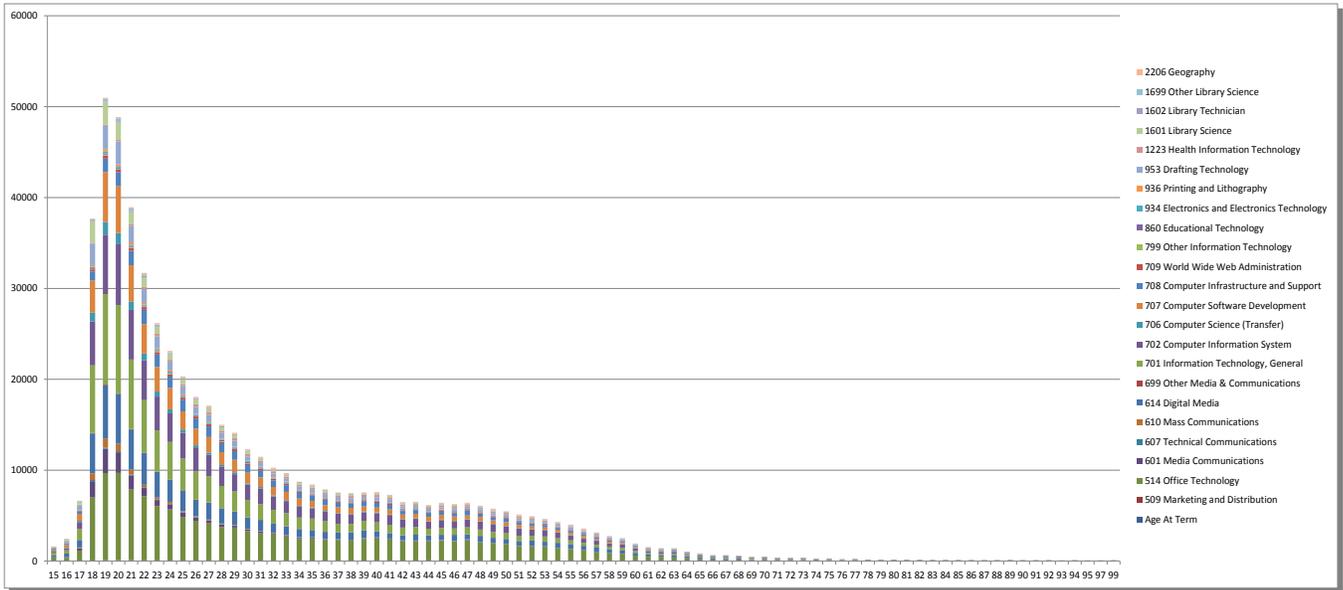


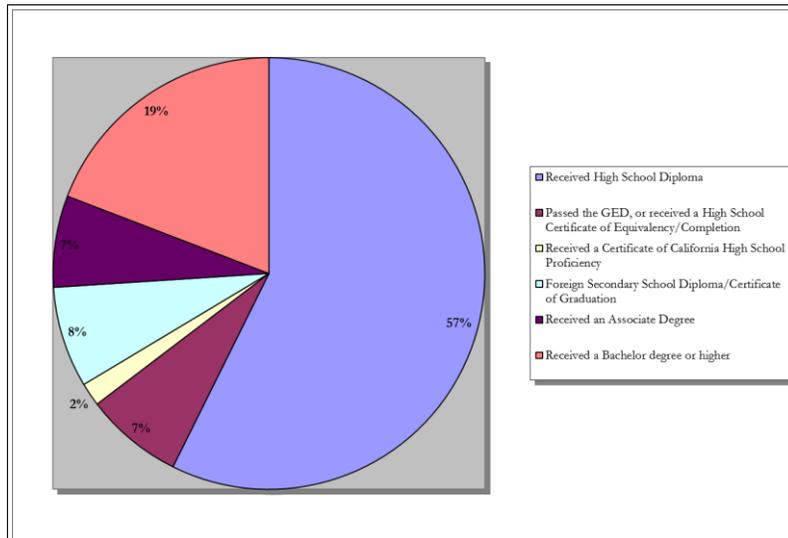
Chart 13: Credit Enrollment Age Distribution with Top Code Proportions (2010-11)



EDUCATIONAL STATUS

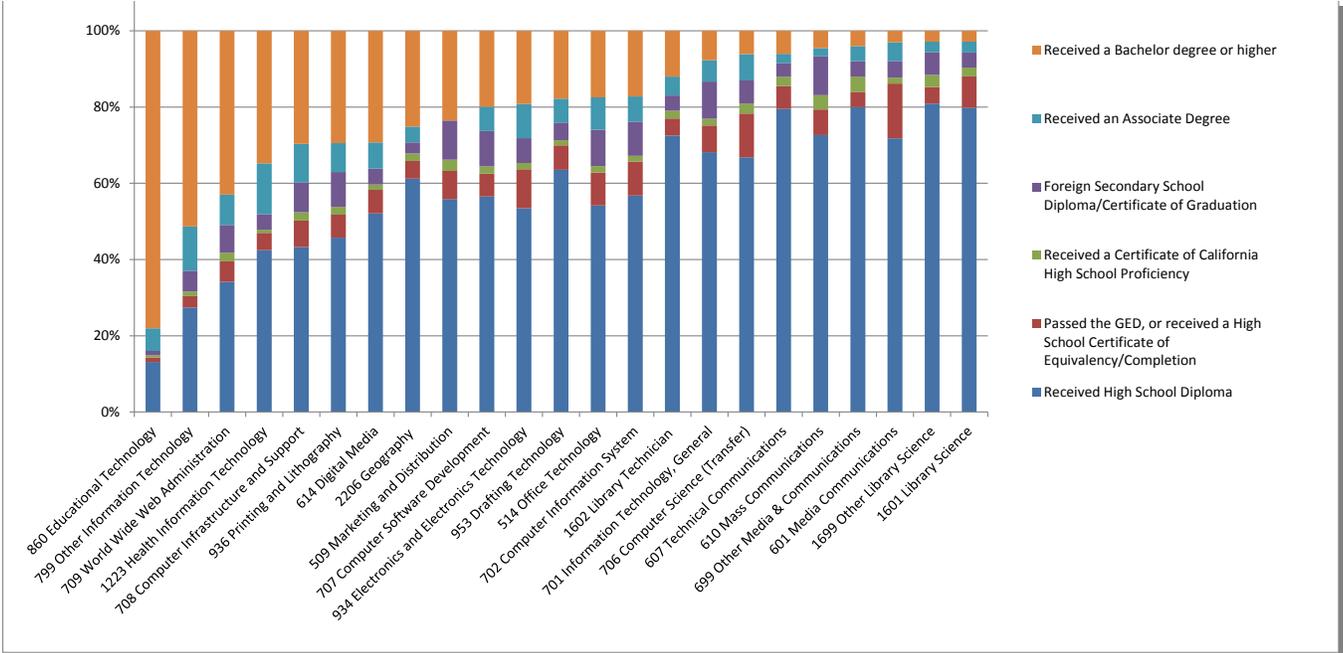
CCC students in ICT related courses have diverse educational backgrounds. Some 66% of those in for credit courses had earned high school diplomas, GEDs or equivalents, 8% had foreign secondary school diplomas, 7% already had Associate Degrees, and 19% already had bachelor’s degrees or higher. It can be assumed that transfer to 4-year colleges and universities or Associate degree completion are not primary goals for students with bachelor degrees or higher.

Chart 14: For Credit Enrollment Educational Status (2010-11)



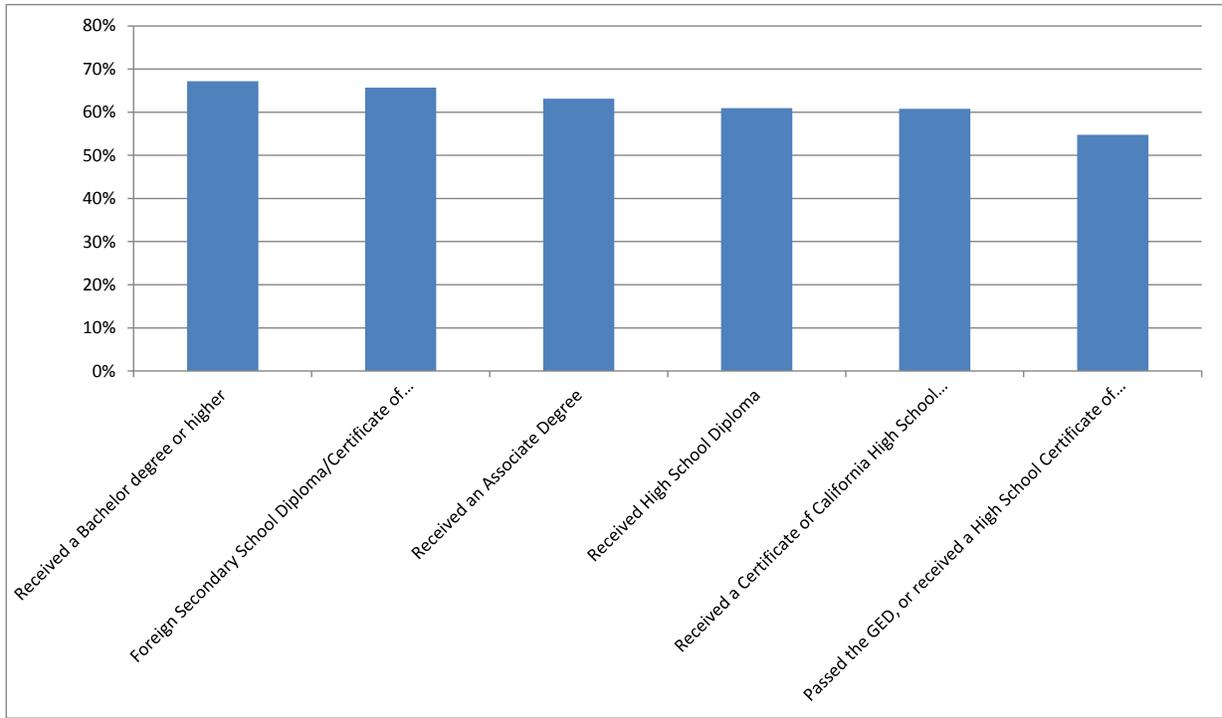
Educational status in for credit courses varied by Top Code. Educational Technology, Other Information Technology and World Wide Web Administration were dominated by students who already had bachelor's degrees or higher. In most Top Codes, however, students had achieved no higher than high school or equivalent degrees.

Chart 15: Percent of Educational Status by Top Code (2010-11)



Generally, the higher the level of educational attainment already achieved, the higher the success rate in completing ICT related courses for credit.

Chart 16: Overall Percent of Students Passing ICT Related Classes by Educational Status (2010-11)



However, in some Top Codes students with less academic achievement passed at higher levels than those with higher achievement.

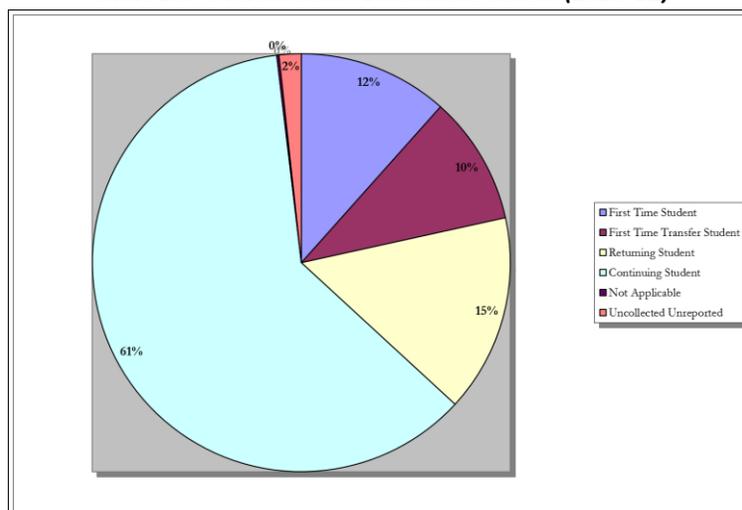
Chart 17: Percent of Students Passing ICT Related Classes by Educational Status and Top Code (2010-11)

Top Code	Received High School Diploma	Passed the GED, or received a High School Certificate of Equivalency/ Completion	Received a Certificate of California High School Proficiency	Foreign Secondary School Diploma/ Certificate of Graduation	Received an Associate Degree	Received a Bachelor degree or higher	All Educational Levels
509 Marketing and Distribution	66%	40%	100%	57%	N/A	78%	67%
514 Office Technology	61%	53%	56%	63%	64%	68%	62%
601 Media Communications	73%	46%	67%	79%	83%	75%	70%
607 Technical Communications	70%	80%	50%	67%	100%	60%	70%
610 Mass Communications	66%	56%	71%	92%	100%	71%	69%
614 Digital Media	63%	61%	67%	72%	61%	58%	62%
699 Other Media & Communications	65%	100%	100%	100%	100%	100%	72%
701 Information Technology, General	60%	57%	62%	74%	62%	67%	62%
702 Computer Information System	57%	52%	62%	51%	63%	62%	57%
706 Computer Science (Transfer)	54%	50%	67%	45%	63%	80%	56%
707 Computer Software Development	56%	50%	61%	66%	52%	64%	58%
708 Computer Infrastructure and Support	67%	58%	64%	64%	65%	71%	67%
709 World Wide Web Administration	49%	49%	64%	53%	50%	70%	59%
799 Other Information Technology	53%	57%	67%	64%	60%	76%	66%
860 Educational Technology	54%	25%	50%	100%	68%	86%	80%
934 Electronics and Electronics Technology	66%	68%	100%	75%	68%	77%	69%
936 Printing and Lithography	62%	48%	44%	90%	56%	71%	66%
953 Drafting Technology	70%	57%	64%	79%	66%	79%	71%
1223 Health Information Technology	86%	94%	67%	93%	94%	93%	90%
1601 Library Science	60%	56%	59%	70%	82%	84%	62%
1602 Library Technician	68%	44%	0%	100%	80%	67%	67%
1699 Other Library Science	61%	67%	49%	76%	69%	74%	63%
2206 Geography	67%	74%	50%	83%	82%	86%	73%
Grand Total	61%	55%	61%	66%	63%	67%	62%

STUDENT STATUS

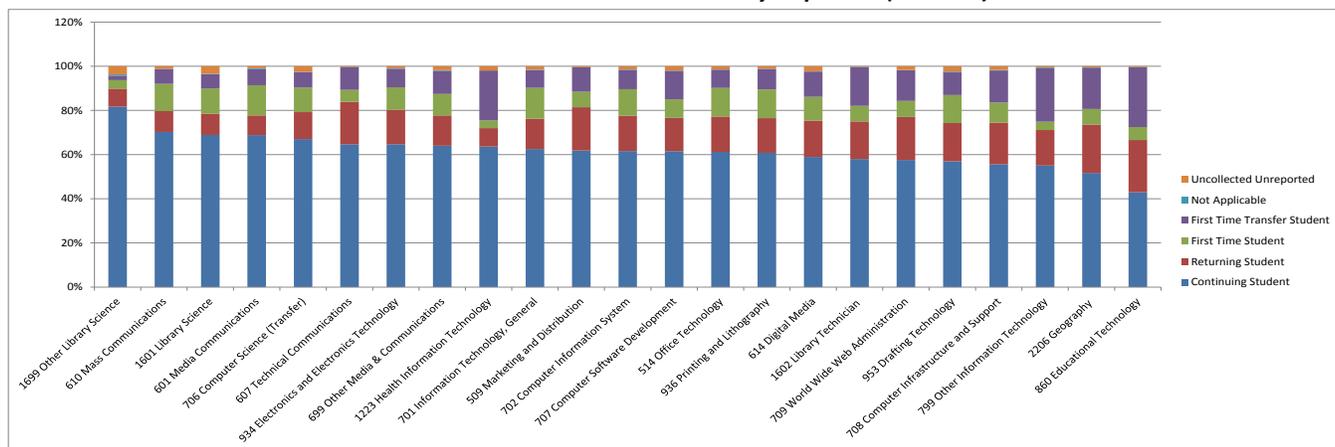
In 2010-11, 61% of ICT related course enrollments in for credit classes were by continuing students, 15% were returning students, 10% were first time students and 10% were first time transfers.

Chart 18: Overall Credit Enrollment Status (2010-11)



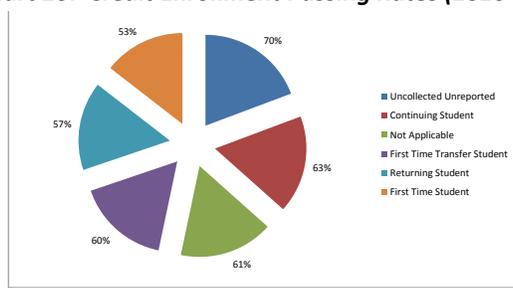
While enrollment status varied slightly by Top Code, enrollments in most Top Codes were dominated by continuing students.

Chart 19: Credit Enrollment Status by Top Code (2010-11)



Success or passing rates were highest for students not reporting enrollment status, at 70%, followed by continuing students (63%), Not Applicable (61%), First Time Transfer Students (60%), Returning Students (57%) and First Time Students (53%).

Chart 20: Credit Enrollment Passing Rates (2010-11)



With few exceptions, that pattern was true within the various ICT related Top Codes also.

Chart 21: Passing Rates by Credit Enrollment Status by Top Code (2010-11)

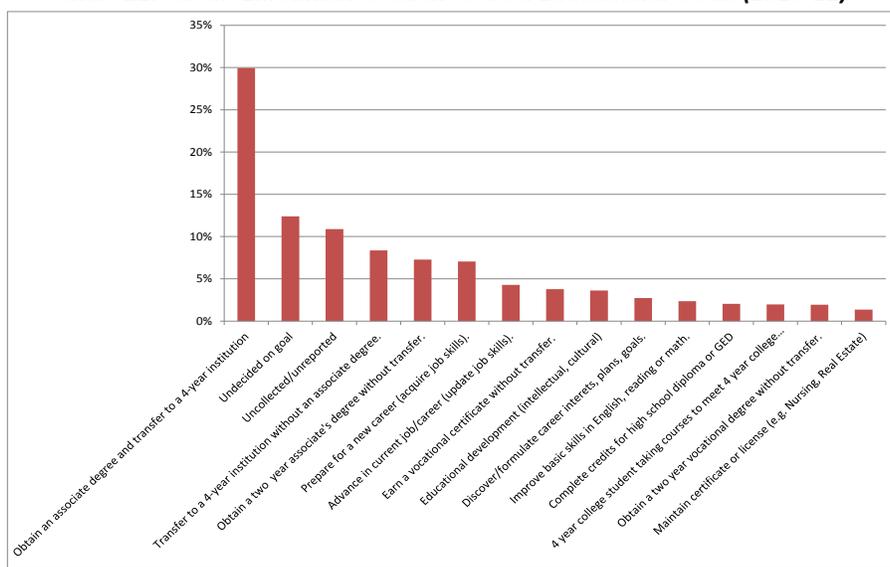
Top Code	Uncollected Unreported	Continuing Student	Not Applicable	First Time Transfer Student	Returning Student	First Time Student	All Enrollment Types
Marketing and Distribution	50%	60%	N/A	57%	49%	48%	56%
Office Technology	74%	61%	53%	57%	57%	50%	59%
Media Communications	68%	78%	85%	72%	69%	70%	76%
Technical Communications	100%	75%	N/A	67%	69%	59%	73%
Mass Communications	89%	78%	N/A	67%	68%	65%	75%
Digital Media	76%	63%	52%	57%	55%	56%	60%
Other Media & Communications	85%	67%	100%	53%	52%	55%	63%
Information Technology, General	69%	62%	55%	60%	57%	55%	60%
Computer Information System	60%	60%	57%	54%	55%	48%	57%
Computer Science (Transfer)	53%	60%	100%	51%	51%	46%	57%
Computer Software Development	72%	59%	70%	55%	51%	49%	57%
Computer Infrastructure and Support	72%	68%	41%	64%	63%	58%	66%
World Wide Web Administration	56%	58%	75%	54%	50%	34%	54%
Other Information Technology	73%	64%	57%	74%	67%	42%	66%
Educational Technology	50%	72%	100%	80%	79%	53%	75%
Electronics and Electronics Technology	63%	78%	50%	72%	66%	59%	73%
Printing and Lithography	43%	75%	100%	71%	69%	65%	72%
Drafting Technology	70%	66%	87%	65%	61%	58%	64%
Health Information Technology	66%	81%	N/A	81%	69%	61%	79%
Library Science	71%	65%	68%	57%	56%	52%	62%
Library Technician	75%	74%	100%	77%	72%	54%	73%
Other Library Science	61%	64%	54%	65%	64%	48%	63%
Geography	65%	71%	100%	72%	68%	46%	69%
Grand Total	70%	63%	61%	60%	57%	53%	61%

EDUCATIONAL GOALS

Among educational goals of students enrolled in ICT related credit classes, 30% said they wanted to pursue a four-year degree, 7% wanted to obtain a two year associate’s degree, and 4% wanted to earn a vocational certificate. So, less than half of students had transfer, CCC academic degree or certification as a stated goal. That is important, because CCCs are increasingly judging the success of programs based on how many of their students achieve one of those three things.

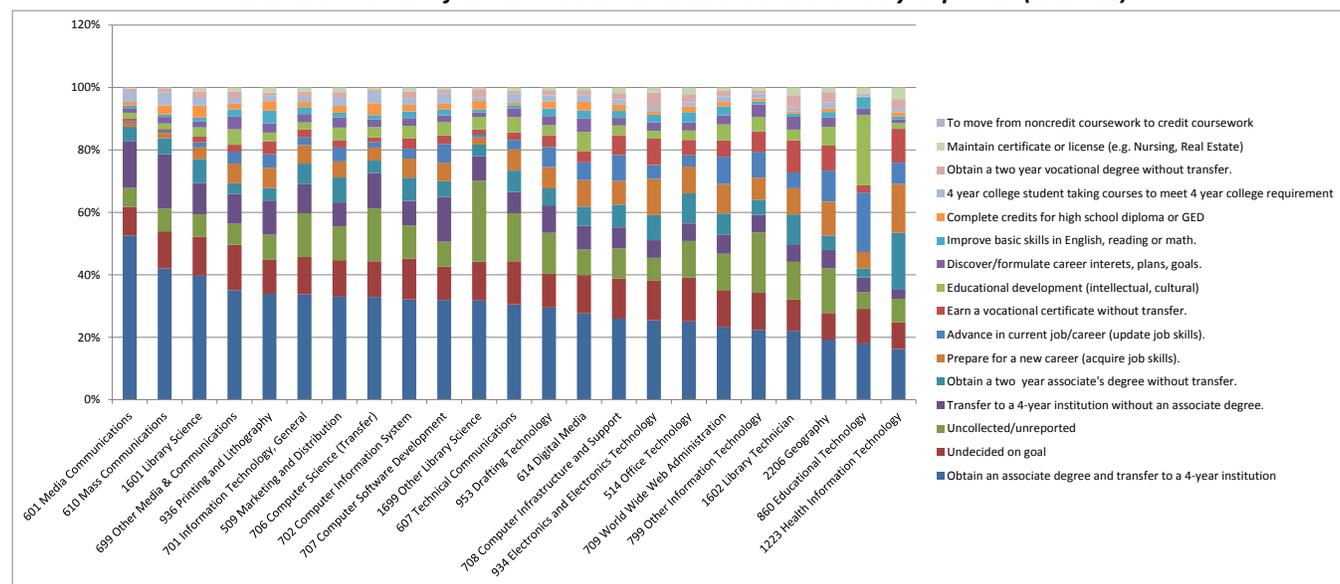
Twenty-three percent of students were undecided or not reported, and the rest were seeking personal growth, basic skills, job skills, career advancement, and a variety of other things.

Chart 22: Credit Enrollment Student Stated Educational Goals (2010-11)



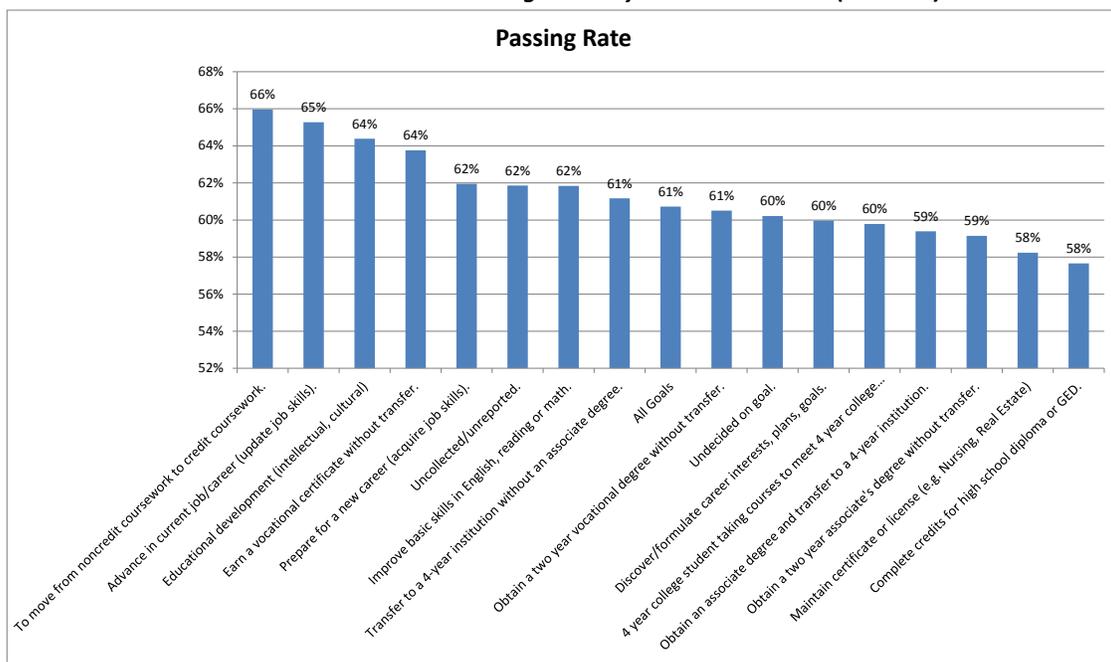
Educational goals varied significantly by Top Code. For example, in Media Communications around half of students wanted to obtain an Associate Degree and transfer to a 4-year institution, but in Health IT less than 20% had that goal.

Chart 23: Percent of Credit Students with Educational Goal by Top Code (2010-11)



Overall passing rates varied by student goal. The highest success rates, each with passing rates of 2/3 or better, were: to move from noncredit coursework to credit coursework (66%), to advance in current job/career - update job skills (65%), educational development - intellectual, cultural (64%), and earn a vocational certificate without transfer (64%). Lowest passing rates were for: to complete credits for high school diploma or GED (58%), to maintain certificate or license (58%), to obtain a two year associate's degree without transfer (59%) and to obtain an associate degree and transfer to a 4-year institution (59%).

Chart 24: Overall Credit Passing Rates by Educational Goal (2010-11)



Credit passing rates by educational goal varied by Top Code.

Chart 25: Passing Rates by Educational Goal by Top Code (2010-11)

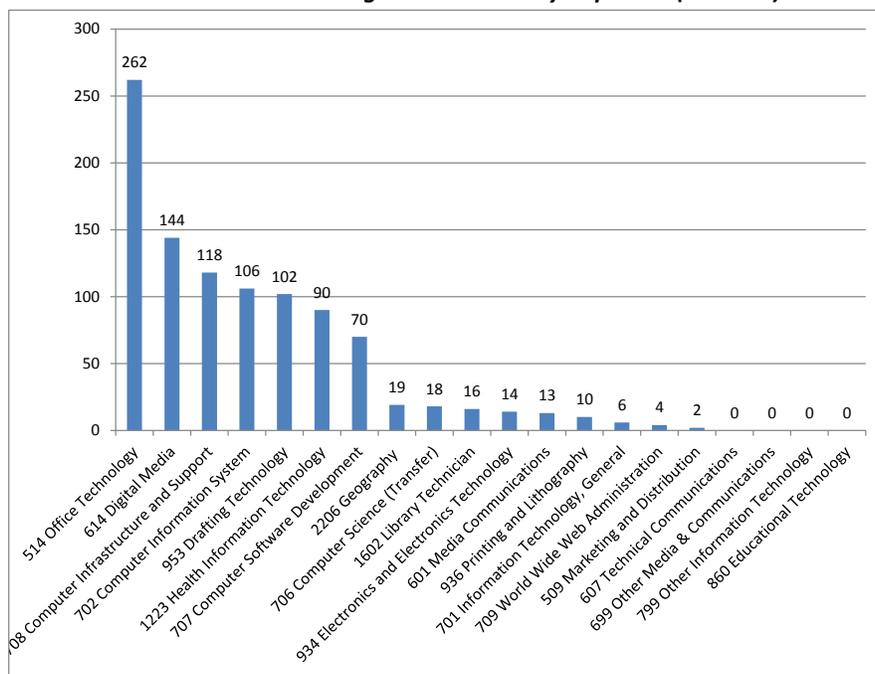
Top Code	To move from noncredit coursework to credit coursework.	Advance in current job/career (update job skills).	Educational development (intellectual, cultural)	Earn a vocational certificate without transfer.	Prepare for a new career (acquire job skills).	Uncollected/unreported.	Improve basic skills in English, reading or math.	Transfer to a 4-year institution without an associate degree.	Obtain a two year vocational degree without transfer.	All Goals	Undecided on goal.	Discover/formulate career interests, plans, goals.	4 year college student taking courses to meet 4 year college requirements.	Obtain an associate degree and transfer to a 4-year institution.	Obtain a two year associate's degree without transfer.	Maintain certificate or license (e.g. Nursing, Real Estate)	Complete credits for high school diploma or GED.
World Wide Web Administration	N/A	65%	63%	63%	60%	50%	53%	46%	76%	55%	53%	59%	51%	50%	55%	51%	53%
Computer Software Development	56%	57%	61%	58%	56%	57%	56%	60%	54%	57%	55%	53%	55%	57%	50%	46%	53%
Computer Science (Transfer)	29%	49%	54%	60%	56%	65%	57%	58%	56%	57%	56%	47%	52%	57%	46%	52%	47%
Computer Information System	69%	60%	67%	57%	57%	60%	54%	56%	54%	57%	56%	56%	56%	56%	57%	57%	48%
Marketing and Distribution	N/A	61%	62%	82%	52%	58%	86%	70%	57%	58%	54%	53%	54%	55%	55%	57%	62%
Office Technology	66%	66%	62%	61%	61%	62%	59%	57%	59%	59%	60%	60%	58%	56%	57%	58%	57%
Information Technology, General	78%	62%	61%	62%	60%	61%	71%	64%	57%	60%	58%	60%	64%	60%	57%	54%	59%
Digital Media	63%	62%	61%	64%	60%	61%	61%	58%	63%	60%	61%	58%	55%	60%	60%	57%	64%
Library Science	61%	74%	66%	64%	63%	63%	65%	61%	64%	62%	62%	65%	68%	61%	65%	63%	66%
Other Library Science	N/A	70%	69%	61%	68%	59%	65%	66%	69%	64%	64%	79%	63%	63%	70%	62%	69%
Drafting Technology	50%	68%	66%	63%	62%	67%	64%	65%	64%	64%	64%	62%	61%	63%	62%	55%	59%
Other Media & Communications	N/A	61%	72%	63%	57%	61%	63%	67%	64%	65%	63%	68%	71%	67%	88%	60%	62%
Computer Infrastructure and Support	78%	68%	68%	69%	70%	67%	63%	63%	67%	66%	69%	67%	57%	63%	63%	58%	61%
Other Information Technology	N/A	78%	73%	79%	72%	68%	44%	55%	63%	67%	68%	66%	47%	61%	57%	76%	67%
Geography	N/A	79%	68%	76%	81%	63%	75%	58%	73%	69%	65%	79%	71%	62%	51%	73%	64%
Printing and Lithography	N/A	83%	64%	76%	73%	60%	79%	76%	82%	72%	72%	72%	75%	70%	76%	78%	68%
Technical Communications	N/A	76%	72%	74%	81%	70%	77%	74%	46%	72%	74%	83%	73%	71%	72%	67%	44%
Library Technician	N/A	91%	79%	82%	80%	72%	72%	70%	75%	73%	73%	71%	85%	60%	74%	83%	62%
Electronics and Electronics Technology	N/A	74%	81%	82%	68%	72%	75%	71%	80%	74%	75%	63%	82%	73%	76%	78%	44%
Educational Technology	N/A	90%	89%	60%	74%	64%	89%	58%	42%	74%	75%	67%	62%	51%	49%	65%	67%
Mass Communications	N/A	82%	74%	74%	74%	74%	69%	79%	85%	75%	71%	83%	77%	74%	73%	48%	61%
Media Communications	50%	77%	78%	70%	76%	70%	79%	78%	75%	76%	73%	69%	79%	77%	75%	76%	70%
Health Information Technology	N/A	77%	68%	81%	84%	74%	86%	75%	82%	79%	78%	83%	83%	73%	83%	78%	74%
Grand Total	66%	65%	64%	64%	62%	62%	62%	61%	61%	61%	60%	60%	60%	59%	59%	58%	58%

SECTION II: ICT DEGREES AND ACADEMIC CERTIFICATES (2010-11)

ASSOCIATE DEGREES

The 295 ICT related programs at 112 California Community Colleges issued 994 Associate (AS/AA) degrees in 2010-11. Office Technology was the Top Code leader, at 262 degrees, followed by Digital Media with 144, Computer Infrastructure and Support with 118, Drafting Technology with 102, Health Information Technology with 90, and Computer Software Development with 70. Nine Top Codes delivered between one and 19 degrees, and four Top Codes awarded no degrees.

Chart 26: Associate Degrees Awarded by Top Code (2010-11)



There was a wide range in numbers of associate degrees produced by different colleges, as shown in the following table, ranging from 46 at Santa Barbara City College to zero at 15 colleges.

Chart 27: ICT Related Associate Degrees Awarded by College (2010-11)

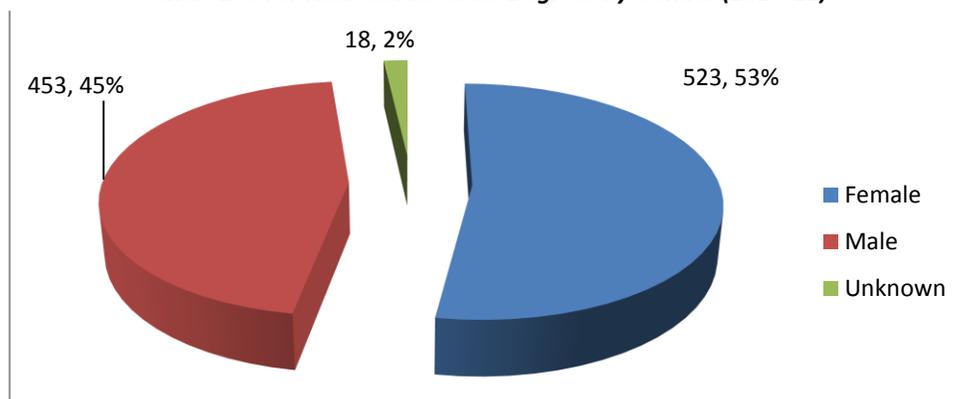
- SANTA BARBARA CITY - 46
- SIERRA - 39
- AMERICAN RIVER - 35
- SACRAMENTO CITY - 33
- SAN DIEGO MESA - 27
- PALOMAR - 25
- SAN FRANCISCO CITY - 25
- CANYONS - 24
- ANTELOPE VALLEY - 23
- DE ANZA - 21
- ORANGE COAST - 21
- MT. SAN ANTONIO - 20
- ALLAN HANCOCK - 19
- BUTTE - 19
- COSUMNES RIVER - 18
- DIABLO VALLEY - 18
- CABRILLO - 17
- CHAFFEY - 17
- RIVERSIDE - 15
- CYPRESS - 14
- EAST L.A. - 14
- MT. SAN JACINTO - 14
- SADDLEBACK - 14
- MERCED - 13
- MOORPARK - 13
- SAN JOAQUIN DELTA - 13
- SHASTA - 13
- CERRO COSO - 12
- EL CAMINO - 12
- FOOTHILL - 12
- GAVILAN - 12
- IMPERIAL VALLEY - 12
- SOUTHWESTERN - 12

- VICTOR VALLEY - 12
- MONTEREY - 11
- FRESNO CITY - 10
- MISSION - 10
- MODESTO - 10
- REDWOODS - 10
- SAN DIEGO CITY - 10
- GLENDALE - 9
- HARTNELL - 9
- SEQUOIAS - 9
- BAKERSFIELD - 8
- CERRITOS - 8
- L.A. TRADE-TECH - 8
- MIRA COSTA - 8
- OHLONE - 8
- CITRUS - 7
- COALINGA - 7
- L.A. CITY - 7
- YUBA - 7
- BERKELEY CITY - 6
- COASTLINE - 6
- COLUMBIA - 6
- CUYAMACA - 6
- DESERT - 6
- EVERGREEN VALLEY - 6
- FULLERTON - 6
- GROSSMONT - 6
- IRVINE VALLEY - 6
- L.A. MISSION - 6
- L.A. VALLEY - 6
- LAS POSITAS - 6
- LONG BEACH CITY - 6
- LOS MEDANOS - 5
- REEDLEY - 5
- BARSTOW - 4
- CANADA - 4
- CONTRA COSTA - 4
- CUESTA - 4
- L.A. HARBOR - 4
- LANEY - 4
- MARIN - 4
- NAPA VALLEY - 4
- OXNARD - 4
- RIO HONDO - 4
- SAN BERNARDINO - 4
- SAN JOSE CITY - 4
- SANTA ANA - 4
- SANTA MONICA CITY - 4
- SANTA ROSA - 4
- SOLANO - 4
- VENTURA - 4
- ALAMEDA - 2
- COPPER MOUNTAIN - 2
- FEATHER RIVER - 2
- GOLDEN WEST - 2
- L.A. PIERCE - 2
- LAKE TAHOE - 2
- LASSEN - 2
- LEMOORE - 2
- MENDOCINO - 2
- MORENO VALLEY - 2
- PORTERVILLE - 2
- TAFT - 2
- WEST VALLEY - 2
- WOODLAND - 2
- CHABOT - 0
- CRAFTON HILLS - 0
- FOLSOM LAKE - 0
- MERRITT - 0
- NORCO - 0
- NORTH ORANGE ADULT - 0
- PALO VERDE - 0
- PASADENA CITY - 0
- SAN DIEGO ADULT - 0
- SAN DIEGO MIRAMAR - 0
- SAN FRANCISCO CTRS - 0
- SAN MATEO - 0
- SANTIAGO CANYON - 0
- SISKIYOU - 0
- WEST L.A. - 0
- **Grand Total - 994**

GENDER

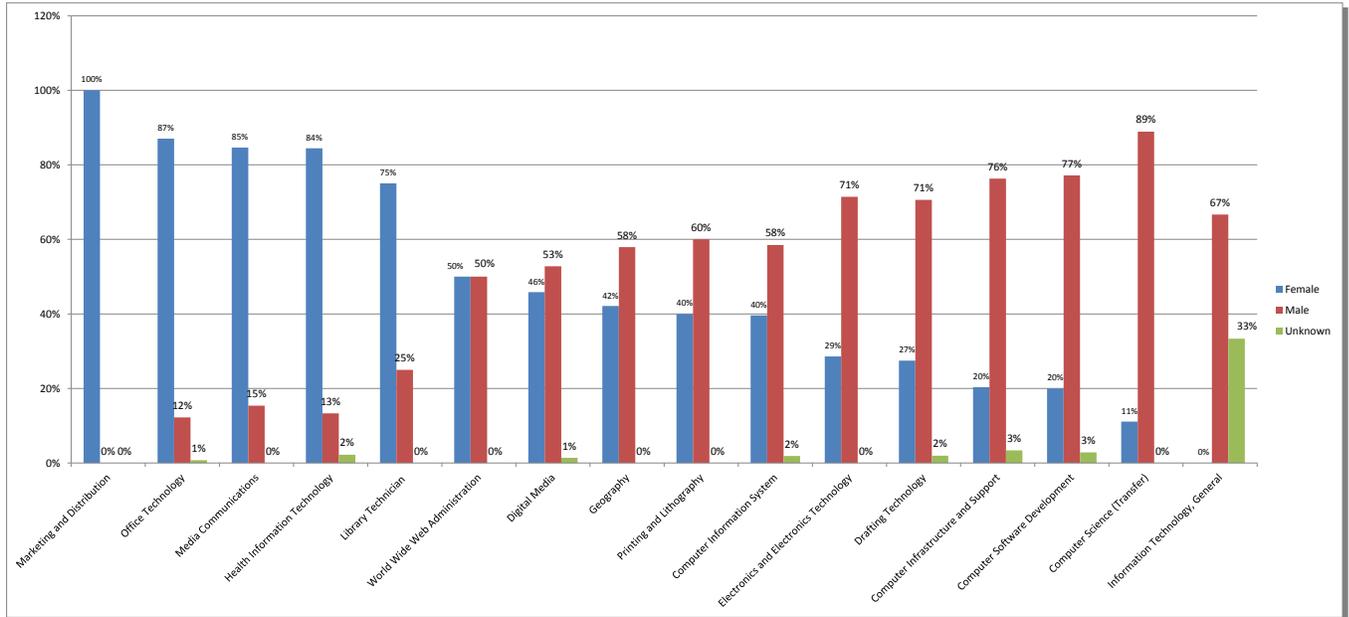
Overall, women achieved a higher proportion of degrees than men, 53% to 45%, with 2% of genders undeclared.

Chart 28: ICT Related Associate Degrees by Gender (2010-11)



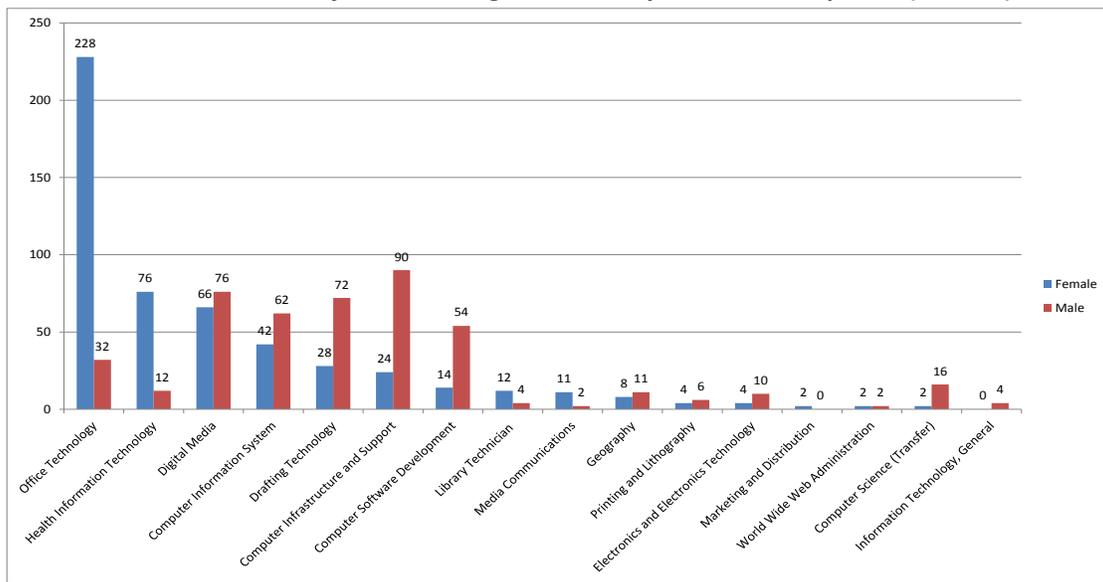
Women achieved the highest percent of degrees in 5 Top Codes: Marketing and Distribution (100%), Office Technology (87%), Media Communications (85%), Health IT (84%) and Library Technician (75%). Males and Females achieved equal degree awards in World Wide Web Administration. Males achieved higher rates of degree awards in all other Top Codes for which degrees were awarded. In Information Technology, General it is interesting to note 67% male and 33% gender undeclared, with no gender declared women.

Chart 29: Percentage Associate Degree Awards by Gender and Top Code (2010-11)



It is helpful to look at overall numbers of males and females receiving associate degrees. Females dominated Office Technology and Health Information Technology, and those Top Codes were a big percentage of all ICT related degrees.

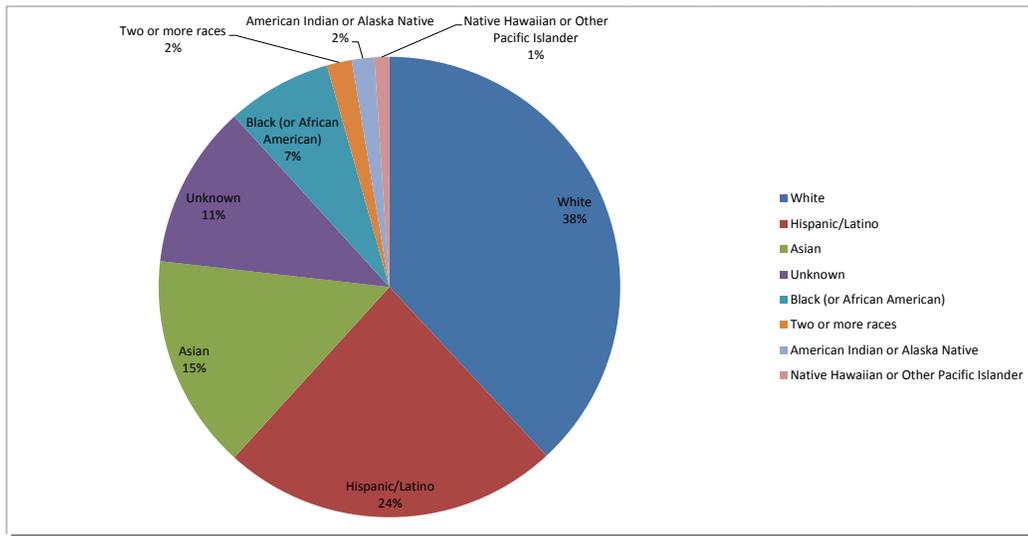
Chart 30: Numbers of Associate Degree Awards by Gender and Top Code (2010-11)



ETHNICITY

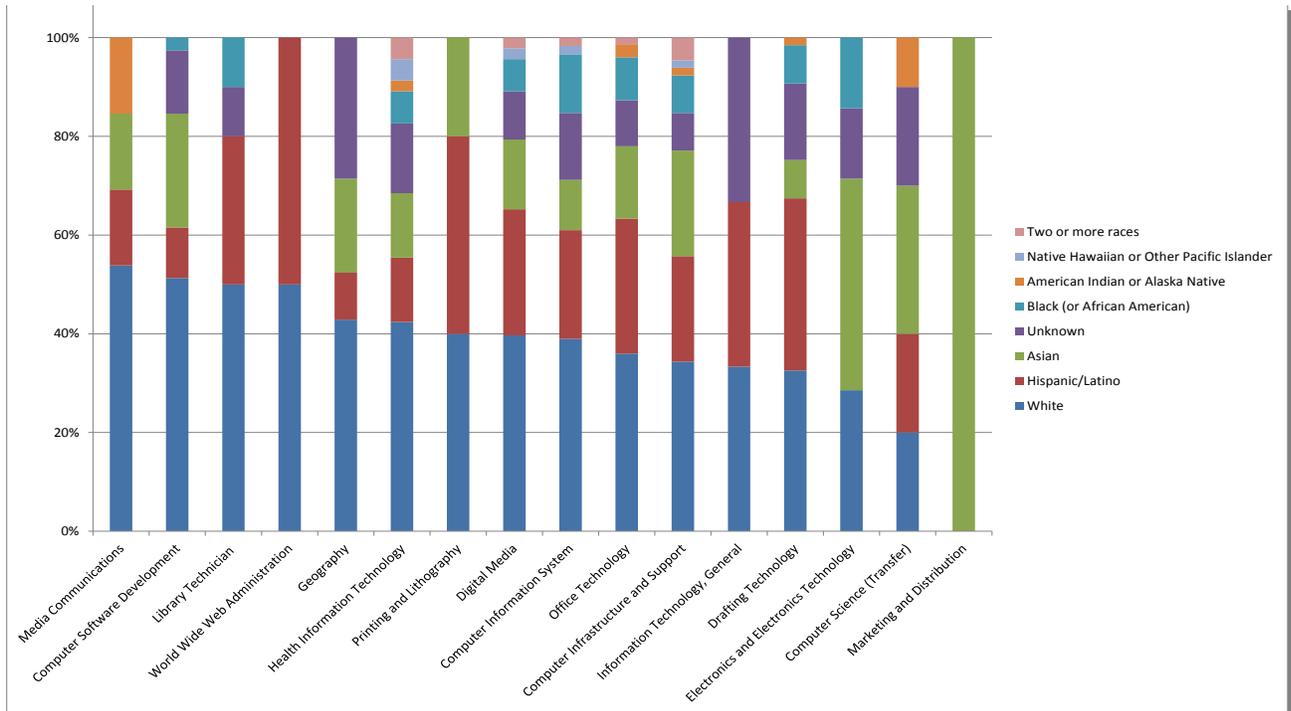
Overall, Whites achieved the greatest percentage of ICT related academic degrees, with 38%, followed by Hispanic (24%), Asian (15%), Unknown (11%), Black or African American (7%), Two or more races (2%), American Indian or Alaska Native (2%) and Native Hawaiian or Other Pacific Islander (1%).

Chart 31: Overall Distribution of Academic Degrees by Ethnicity (2010-11)



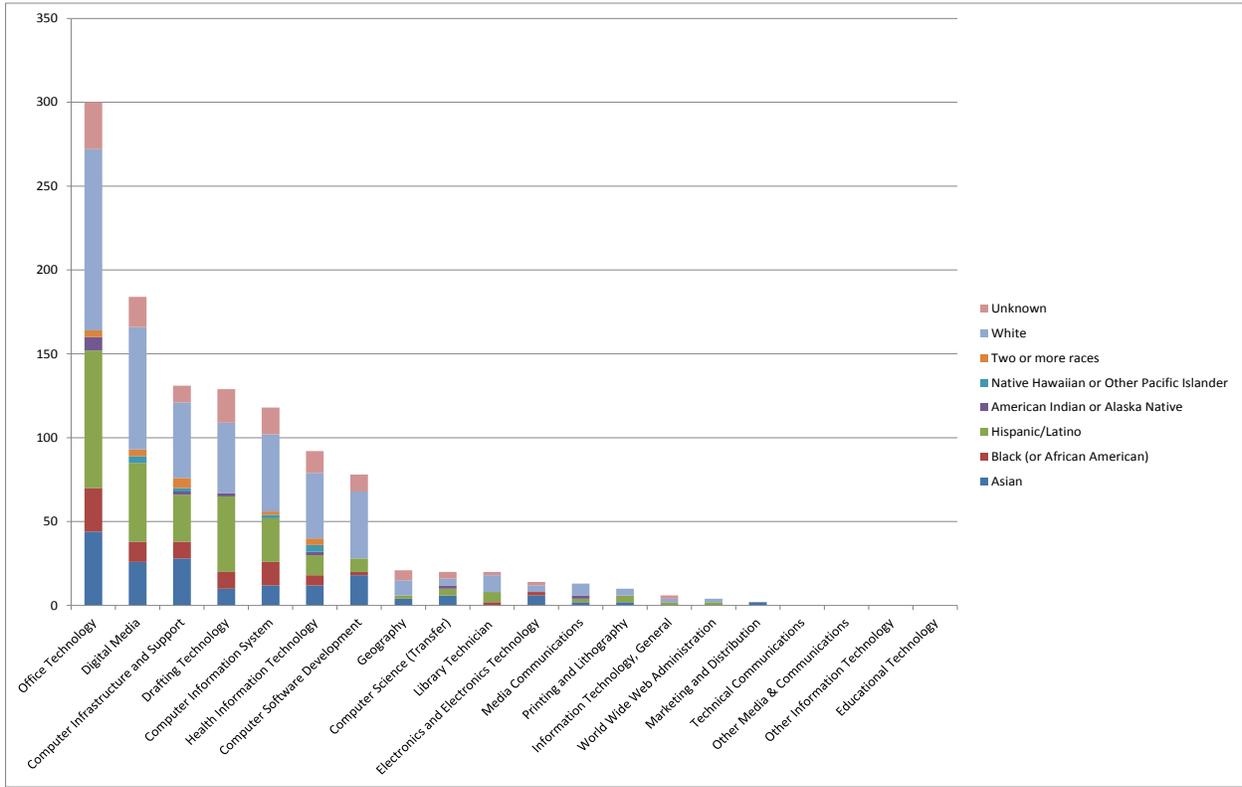
Whites received the highest percentage of ICT related degrees in almost all Top Codes with significant numbers of degrees awarded.

Chart 32: Percentage Distribution of Academic Degrees by Ethnicity by Top Code (2010-11)



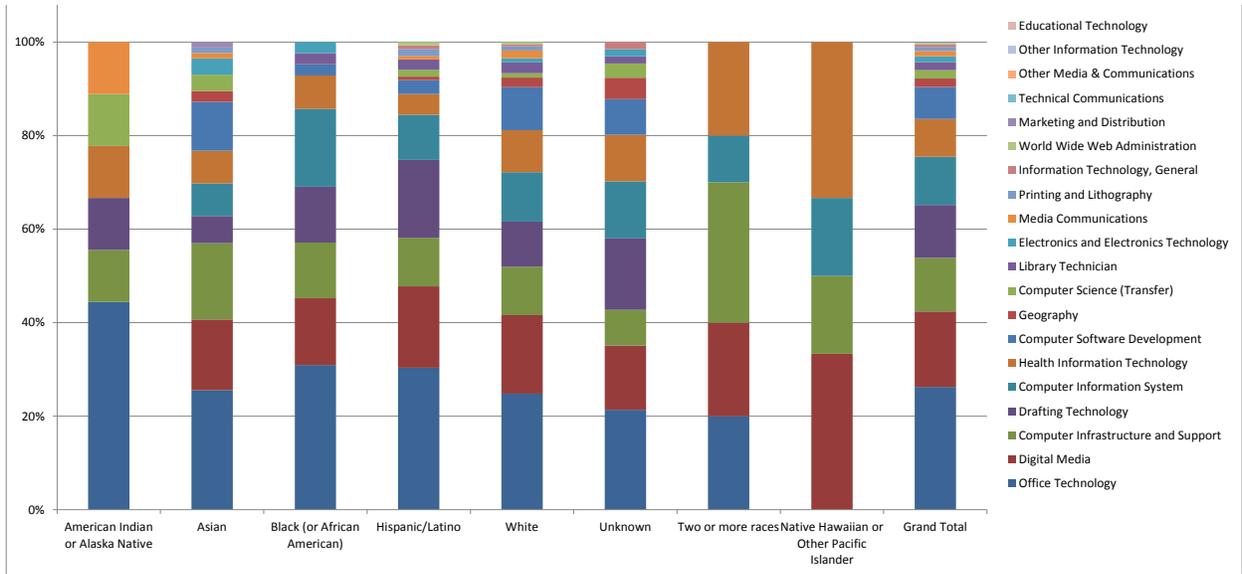
The following chart shows the numbers of degrees awarded by Top Code and ethnicity.

Chart 33: Numbers of Academic Degrees by Ethnicity by Top Code (2010-11)



The following chart shows which Top Codes different ethnic groups received degrees in.

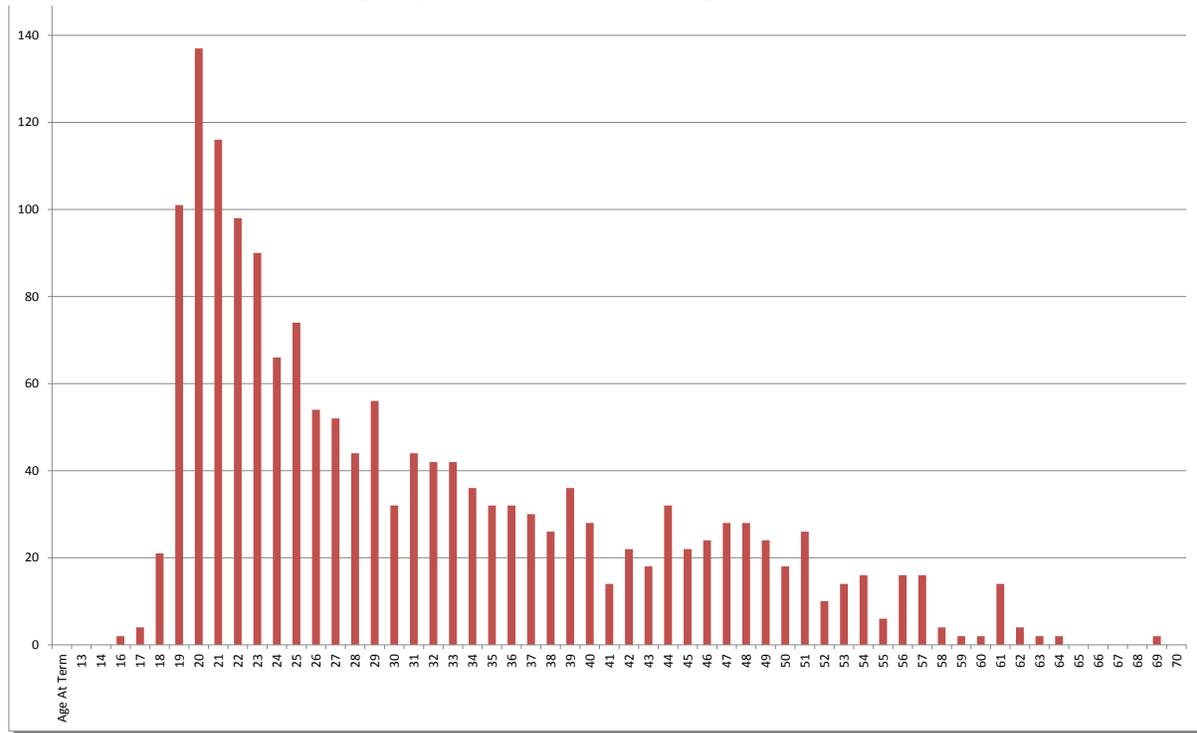
Chart 34: Percent of Academic Degrees in Various Top Codes by Ethnicity (2010-11)



AGE

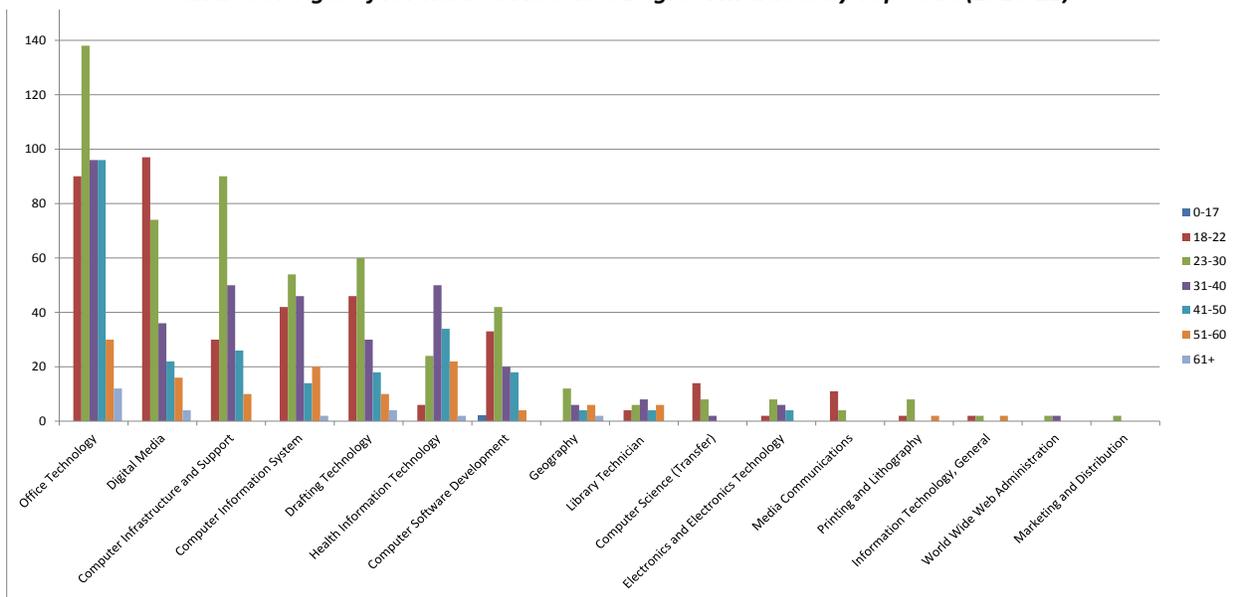
Ages for Associate Degrees ranged from 16 to 69.

Chart 35: Ages of ICT Related Associate Degree Awardees (2010-11)



Age distributions by Top Code are indicated in the following graphic.

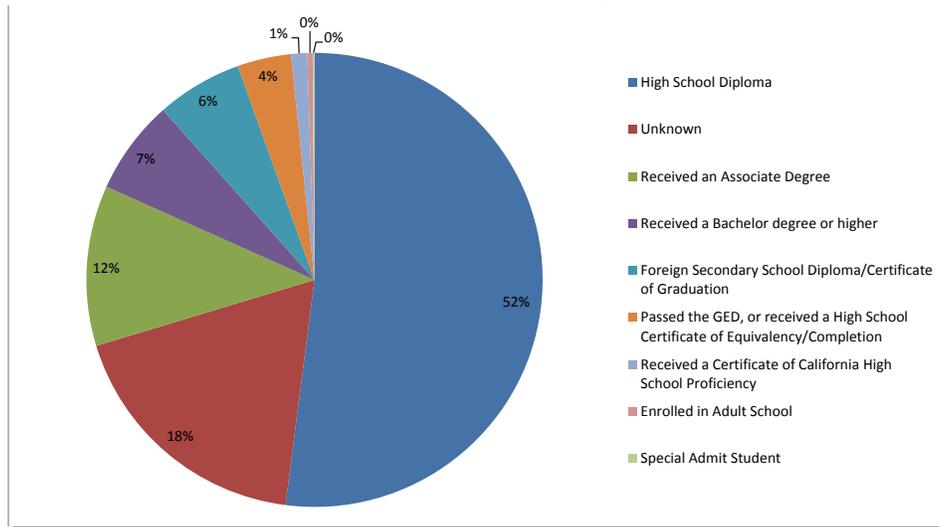
Chart 36: Ages of ICT Related Associate Degree Awardees by Top Code (2010-11)



EDUCATIONAL STATUS

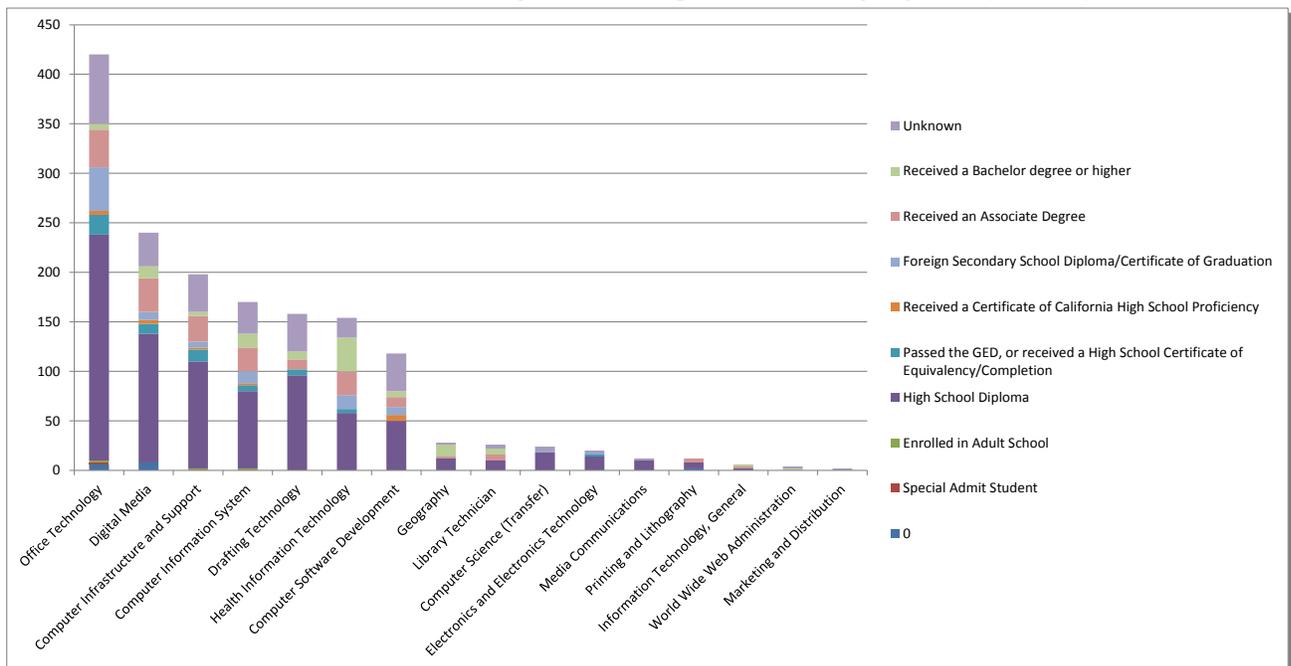
Some 57% of associate degrees awardees had previously only achieved a high school diploma or its equivalent, 6% had a foreign secondary school graduation credential, 12% had already received an associate degree, and 7% had already received a bachelor degree or higher.

Chart 37: Prior Academic Level of Associate Degree Awardees (2010-11)



The distribution of prior academic achievement for associate degree awardees by Top Code can be seen in the following chart. (The highest number of associate degrees earned by those who already had bachelor degrees or higher was in Health Information Technology.)

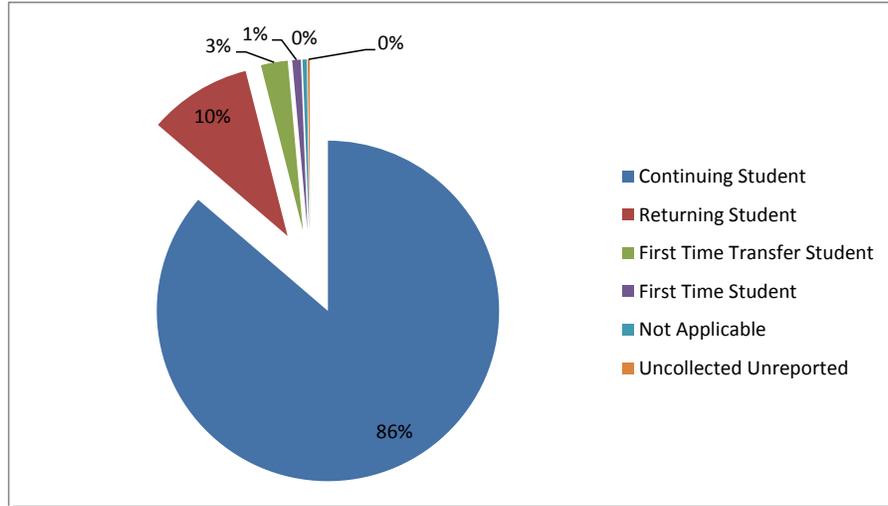
Chart 38: Prior Academic Level of Associate Degree Awardees by Top Code (2010-11)



STUDENT STATUS

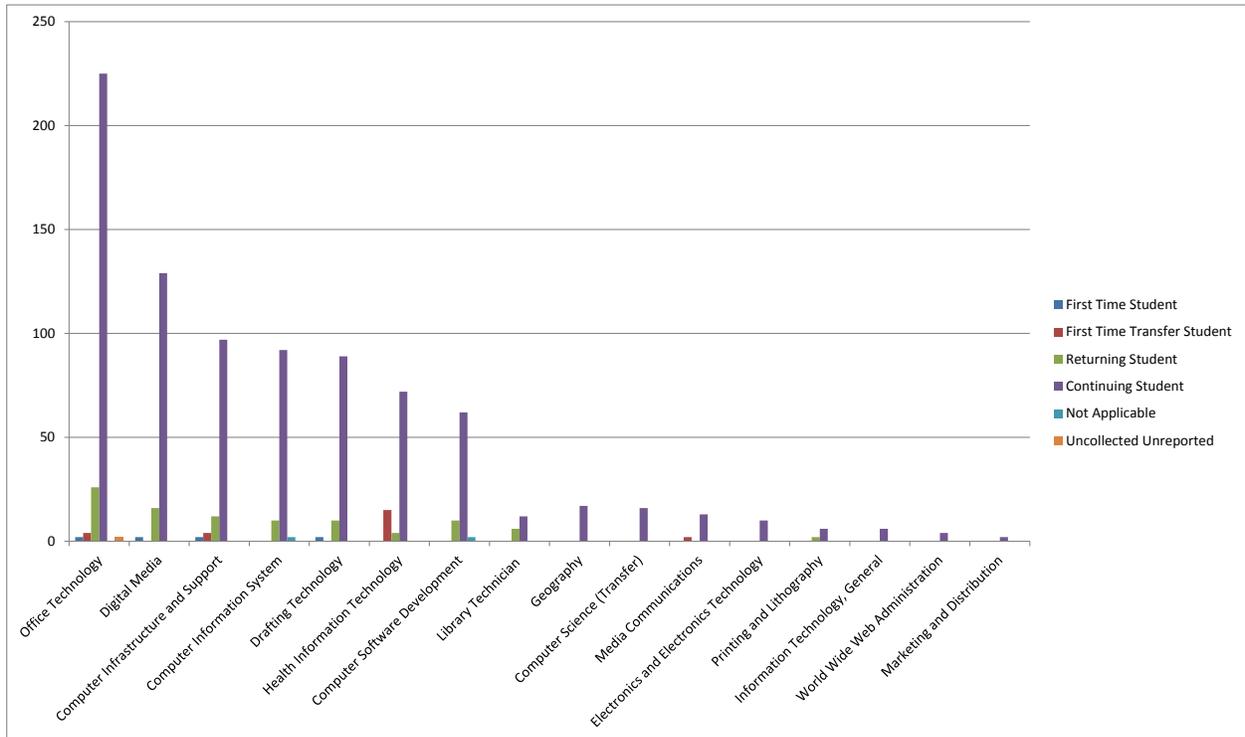
Regarding student status, 86% of students earning associate degrees were continuing students, 10% were returning students, 3% were first time transfer students, and 1% were first time students.

Chart 39: Student Status of Associate Degree Awardees (2010-11)



Continuing students dominated associate degree achievements across all Top Codes awarding degrees.

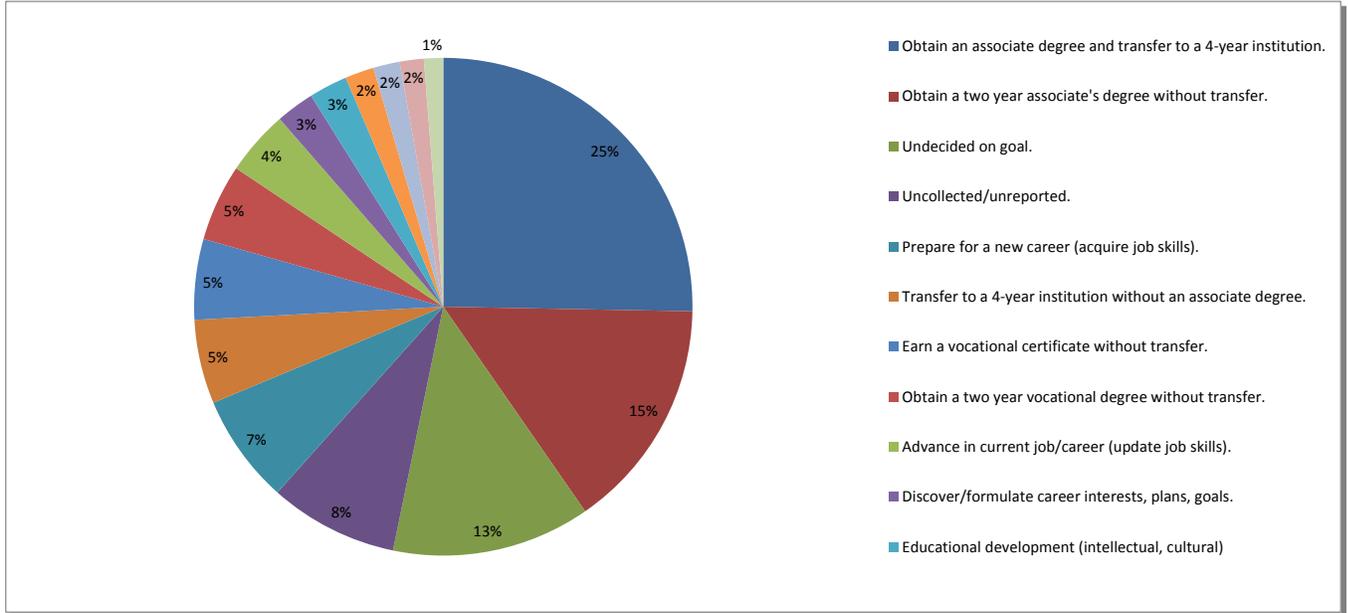
Chart 40: Student Status of Associate Degree Awardees by Top Code (2010-11)



EDUCATIONAL GOALS

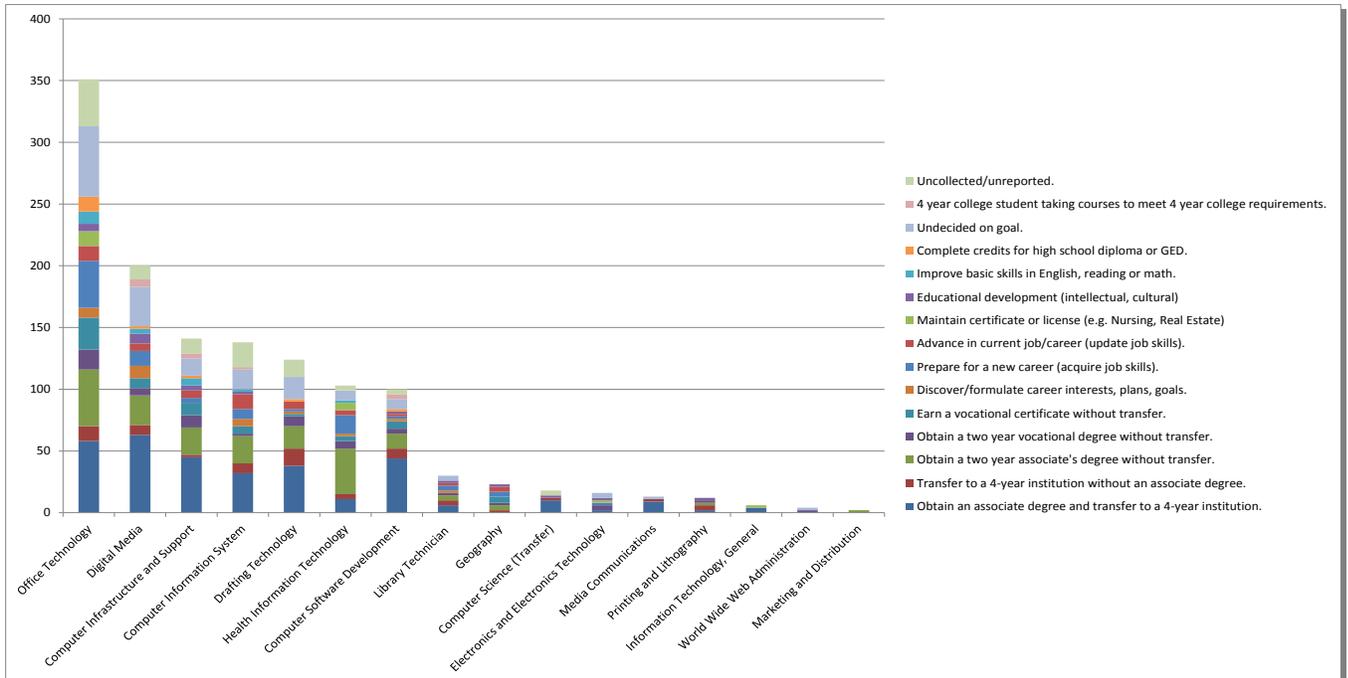
Only 45% of ICT related associate degree awardees had getting an associate degree as their stated educational goal. 21% were undecided or uncollected. The rest earned an associate degree even if that was not their stated educational goal.

Chart 41: Stated Education Goal of Associate Degree Awardees (2010-11)



Those relationships varied by Top Code.

Chart 42: Stated Education Goal of Associate Degree Awardees by Top Code (2010-11)



ACADEMIC CERTIFICATES

California Community Colleges offer academic certificates categorized by numbers of academic units required.

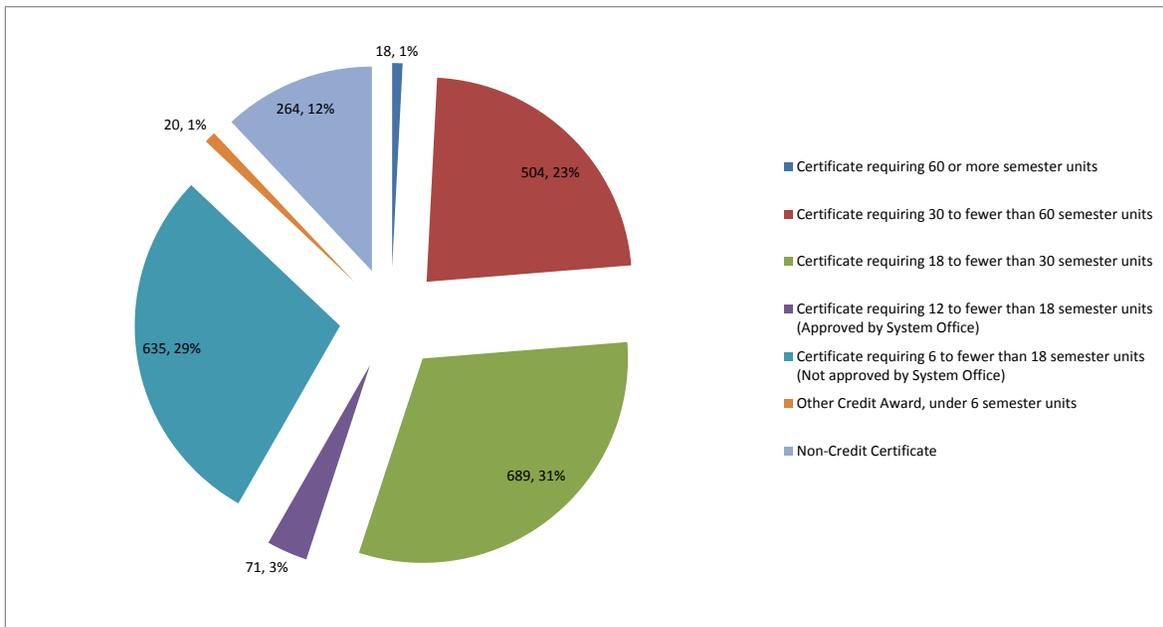
Chart 43: CCC Academic Certificate Classifications

Credit Awards	
E	Certificate requiring 6 to fewer than 18 semester units (Not approved by System Office)
B	Certificate requiring 12 to fewer than 18 semester units (Approved by System Office)
L	Certificate requiring 18 to fewer than 30 semester units
T	Certificate requiring 30 to fewer than 60 semester units
F	Certificate requiring 60 or more semester units
O	Other Credit Award, under 6 semester units

In 2010-11, CCCs awarded 1,919 for credit academic certificates and 264 non-credit certificates in these ICT related Top Codes. That is 2,201 ICT related certificates all together.

Of those, 18 (1%) required 60 or more academic units, 504 (23%) required 30 up to 60 academic units, 689 (31%) required 18 up to 30 academic units, 71 (3%) required 12 up to 18 semester units and were approved by the CCC System Office, 635 (29%) required 6 up to 18 units and were not approved by the CCC System Office, 20 (1%) required fewer than 6 academic semester units, and 264 (12%) were non-credit certificates.

Chart 44: Academic Certificates by Numbers of Units (2010-11)



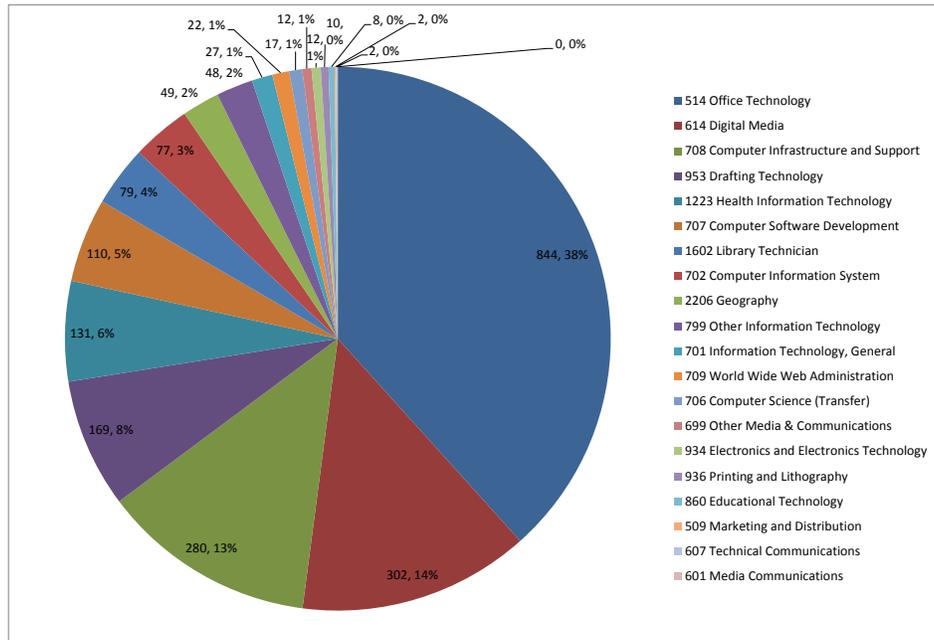
The total number of certificates awarded varied greatly by community college. In 2010-11, San Francisco City College led the number of awards at 113, San Diego Adult School had 92, American River and Chaffey had 90 and Palomar, 82. On the other hand, Canada, Napa Valley, Ventura, Feather River, Lassen Lemoore and Woodland awarded no ICT related certificates.

Chart 45: ICT Related Academic Certificates Awarded by College (2010-11)

College Name	Certificate requiring 60 or more semester units	Certificate requiring 30 to fewer than 60 semester units	Certificate requiring 18 to fewer than 30 semester units	Certificate requiring 12 to fewer than 18 semester units (Approved by System Office)	Certificate requiring 6 to fewer than 18 semester units (Not approved by System Office)	Other Credit Award, under 6 semester units	Non-Credit Certificate	Sum
SAN FRANCISCO CITY	0	21	10	4	78	0	0	113
SAN DIEGO ADULT	0	0	0	0	0	0	92	92
AMERICAN RIVER	0	14	17	2	57	0	0	90
CHAFFEY	0	29	59	0	2	0	0	90
PALOMAR	0	20	28	0	34	0	0	82
SANTA ROSA	0	7	2	0	36	2	0	67
SANTA BARBARA CITY	0	8	54	0	0	0	0	62
GLENDALE	0	2	30	0	0	0	30	62
CYPRESS	0	26	9	0	23	0	0	58
SAN FRANCISCO CTRS	0	0	0	0	0	0	55	55
SHASTA	0	6	18	0	30	0	0	54
LONG BEACH CITY	0	7	13	0	20	14	0	54
EAST L.A.	0	32	2	0	16	0	0	50
NORTH ORANGE ADULT	0	0	0	0	0	0	49	49
DIABLO VALLEY	0	16	14	0	18	0	14	48
FRESNO CITY	0	0	26	0	0	0	18	48
MIRA COSTA	0	10	16	4	15	0	0	45
DE ANZA	0	4	9	29	0	0	0	42
MT. SAN JACINTO	0	27	0	0	11	0	0	38
CERRITOS	9	6	6	16	0	0	0	37
CARRILLO	0	4	7	0	25	0	0	36
SADDLEBACK	0	0	35	0	0	0	0	35
SANTA ANA	0	12	8	0	14	0	0	34
REDFLEET	0	0	33	0	0	0	0	33
PASADENA CITY	0	18	13	0	0	0	0	31
ANTELOPE VALLEY	0	22	8	0	0	0	0	30
SIERRA	0	2	8	0	19	0	0	29
SAN MATEO	0	0	0	0	29	0	0	29
RIVERSIDE	0	8	6	0	13	0	0	27
SACRAMENTO CITY	0	4	16	2	4	0	0	26
SOUTHWESTERN	0	0	0	0	24	0	0	24
L.A. TRADE-TECH	0	22	0	0	0	0	0	22
L.A. PIERCE	0	0	2	0	20	0	0	22
CANYONS	0	6	14	0	0	0	0	20
CHLORE	0	2	13	0	15	0	0	19
IRVINE VALLEY	0	4	15	0	0	0	0	19
MT. SAN ANTONIO	0	6	12	0	0	0	0	18
L.A. CITY	0	4	4	0	10	0	0	18
CUESTA	0	5	13	0	0	0	0	18
SANTIAGO CANYON	0	0	0	0	0	0	18	18
SAN JOAQUIN DELTA	0	5	12	0	0	0	0	17
NORCO	0	6	0	0	11	0	0	17
ORANGE COAST	0	6	10	0	0	0	0	16
MISSION	0	6	6	0	4	0	0	16
BITTE	7	2	6	0	0	0	0	15
SEQUOIAS	0	4	2	0	9	0	0	15
SANTA MONICA CITY	0	15	0	0	0	0	0	15
GAVILAN	0	0	14	0	0	0	0	14
WEST L.A.	0	0	0	0	14	0	0	14
MERCED	0	11	2	0	0	0	0	13
COSUMNES RIVER	0	0	4	0	8	0	0	12
EL CAMINO	0	8	4	0	0	0	0	12
RIO HONDO	0	2	8	0	2	0	0	12
GOLDEN WEST	0	0	8	4	0	0	0	12
PALO VERDE	0	0	0	0	12	0	0	12
SAN DIEGO CITY	0	4	7	0	0	0	0	11
MODESTO	0	6	0	4	0	0	0	10
WEST VALLEY	2	0	4	0	4	0	0	10
SOLANO	0	9	0	0	0	0	0	9
BERKELEY CITY	0	6	2	0	0	0	0	8
COLUMBIA	0	2	0	6	0	0	0	8
CUYAMACA	0	0	8	0	0	0	0	8
EVERGREEN VALLEY	0	0	0	0	4	4	0	8
MARIN	0	6	2	0	0	0	0	8
PODSOM LAKE	0	0	6	0	2	0	0	8
YUBA	0	0	3	0	2	0	0	7
IMPERIAL VALLEY	0	0	0	0	6	0	0	6
HARTNELL	0	6	0	0	0	0	0	6
BAKERSFIELD	0	0	2	0	4	0	0	6
CITRUS	0	0	6	0	0	0	0	6
COALINGA	0	0	6	0	0	0	0	6
COASTLINE	0	2	4	0	0	0	0	6
GROSSMONT	0	0	6	0	0	0	0	6
LANNEY	0	6	0	0	0	0	0	6
SAN BERNARDINO	0	4	0	0	2	0	0	6
MERRITT	0	0	0	0	6	0	0	6
SAN DIEGO MESA	0	0	4	0	0	0	0	4
ALLAN HANCOCK	0	0	2	0	0	0	2	4
MOORPARK	0	2	2	0	0	0	0	4
CERRO COSO	0	4	0	0	0	0	0	4
FOOTHILL	0	0	4	0	0	0	0	4
VICTOR VALLEY	0	0	4	0	0	0	0	4
MONTEREY	0	0	4	0	0	0	0	4
DESERT	0	2	2	0	0	0	0	4
LAS POSITAS	0	0	2	0	2	0	0	4
LOS MEDANOS	0	0	0	0	4	0	0	4
CONTRA COSTA	0	2	2	0	0	0	0	4
LAKE TAHOE	0	0	4	0	0	0	0	4
MENDOCINO	0	2	2	0	0	0	0	4
CHABOT	0	0	4	0	0	0	0	4
CRAFTON HILLS	0	0	2	0	2	0	0	4
REDWOODS	0	2	0	0	0	0	0	2
FULLERTON	0	0	2	0	0	0	0	2
L.A. MISSION	0	2	0	0	0	0	0	2
L.A. VALLEY	0	2	0	0	0	0	0	2
BARSTOW	0	0	2	0	0	0	0	2
L.A. HARBOR	0	2	0	0	0	0	0	2
OXNARD	0	2	0	0	0	0	0	2
SAN JOSE CITY	0	0	2	0	0	0	0	2
ALAMEDA	0	2	0	0	0	0	0	2
COPPER MOUNTAIN	0	2	0	0	0	0	0	2
MORENO VALLEY	0	2	0	0	0	0	0	2
PORTERVILLE	0	2	0	0	0	0	0	2
TAFT	0	0	0	0	2	0	0	2
SAN DIEGO MIRAMAR	0	2	0	0	0	0	0	2
SISKIYOU	0	2	0	0	0	0	0	2
CANADA	0	0	0	0	0	0	0	0
NAPA VALLEY	0	0	0	0	0	0	0	0
VENTURA	0	0	0	0	0	0	0	0
FEATHER RIVER	0	0	0	0	0	0	0	0
LASSEN	0	0	0	0	0	0	0	0

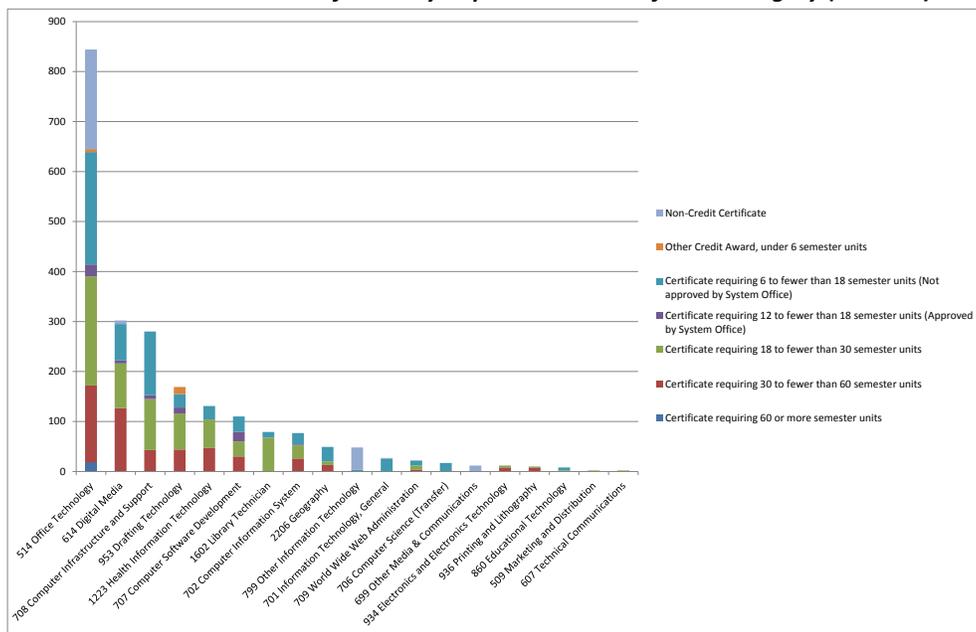
Another key dimension is awards and certificates distributed by each department Top Code. Office Technology allocates the largest number of certificates among all Top Codes with 844 certificates, 38% of the total. Digital Media was second with 302 (14%), followed by Computer Infrastructure and Support with 280 (13%), Drafting Technology with 169 (8%) and Health Information Technology with 131 (6%).

Chart 46: Academic Certificates by Top Code (2010-11)



The following graphic shows the distribution of ICT related academic certificates by Top Code, showing proportions of certificate types.

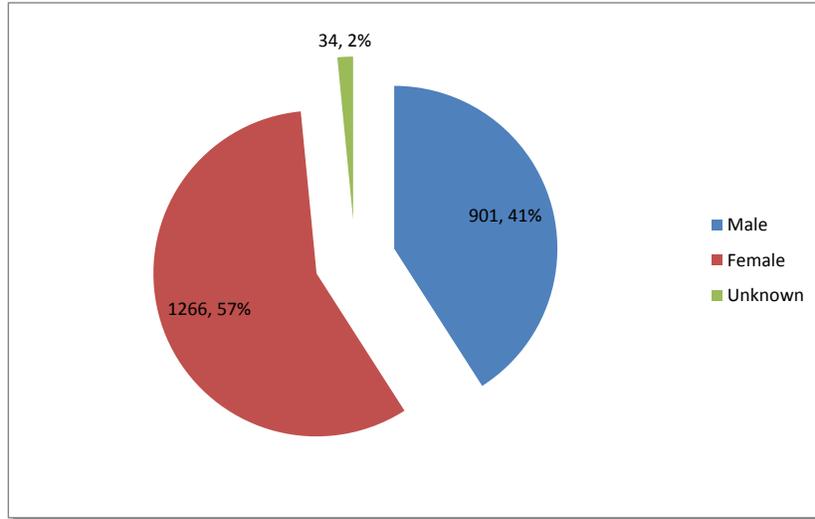
Chart 47: Academic Certificates by Top Code and Certificate Category (2010-11)



GENDER

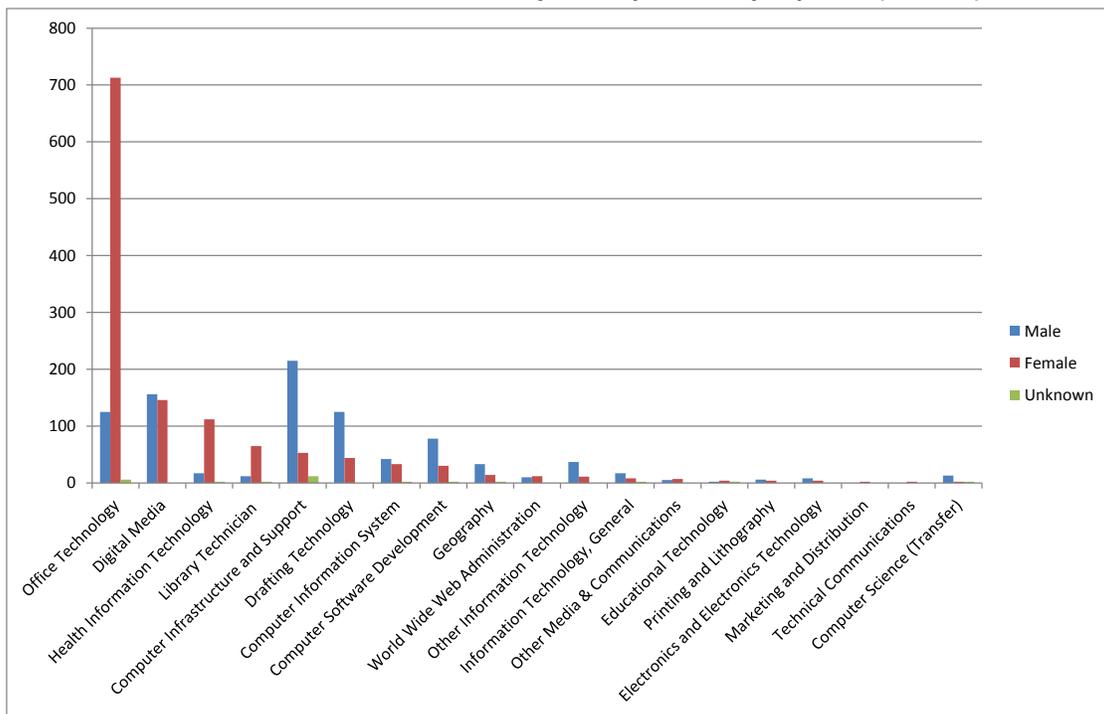
Overall, females earned more ICT related certificates, with 1,266 (57%), than males, with 901 (41%).

Chart 48: Overall ICT Related Academic Certificates by Gender (2010-11)



Looking at gender by Top Code reveals that females dominate males in the largest Top Code, Office Technology, and in Health Information Technology and Library Technician. In the rest of the Top Codes, men received more certificates than women, or the differences were insignificant.

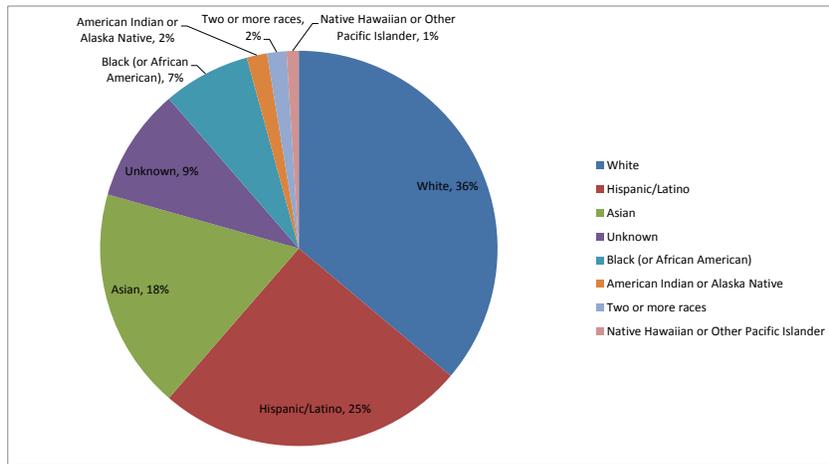
Chart 49: ICT Related Academic Certificates by Gender by Top Code (2010-11)



ETHNICITY

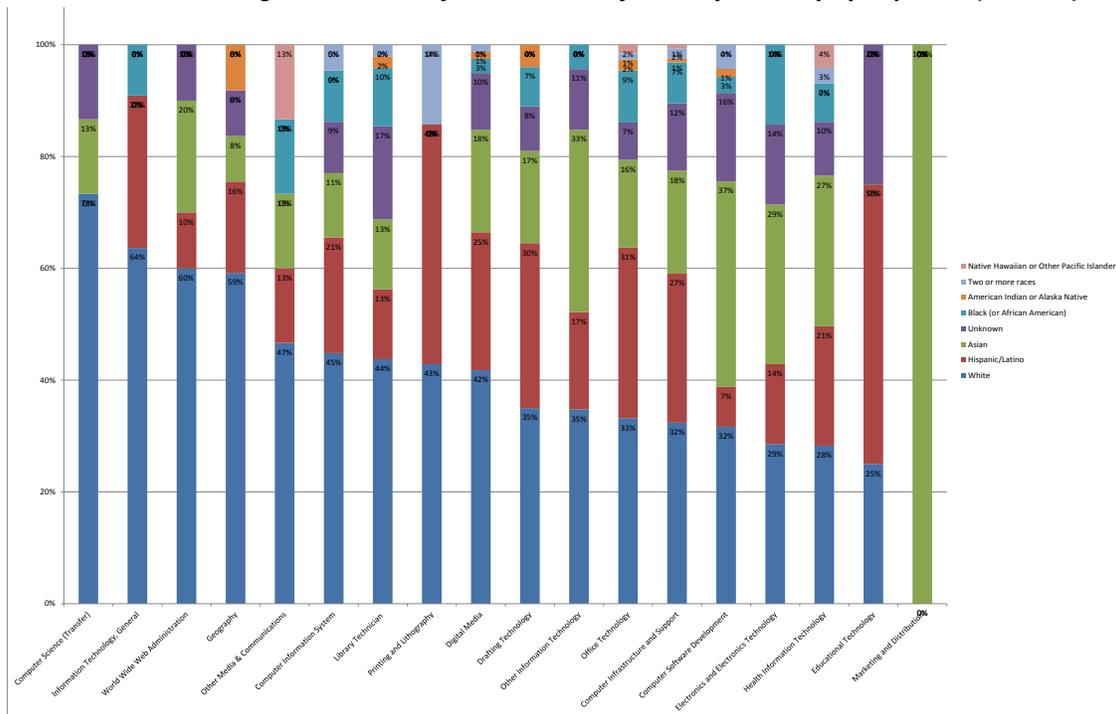
Overall, whites received the highest percentage of ICT related academic certificates, with 36%, followed by Hispanics (25%), Asian (18%), Unknown (9%), Black or African American (7%), American Indian or Alaska Native (2%) and Native Hawaiian or Other Pacific Islander (1%).

Chart 50: Overall Distribution of Academic Certificates by Ethnicity (2010-11)



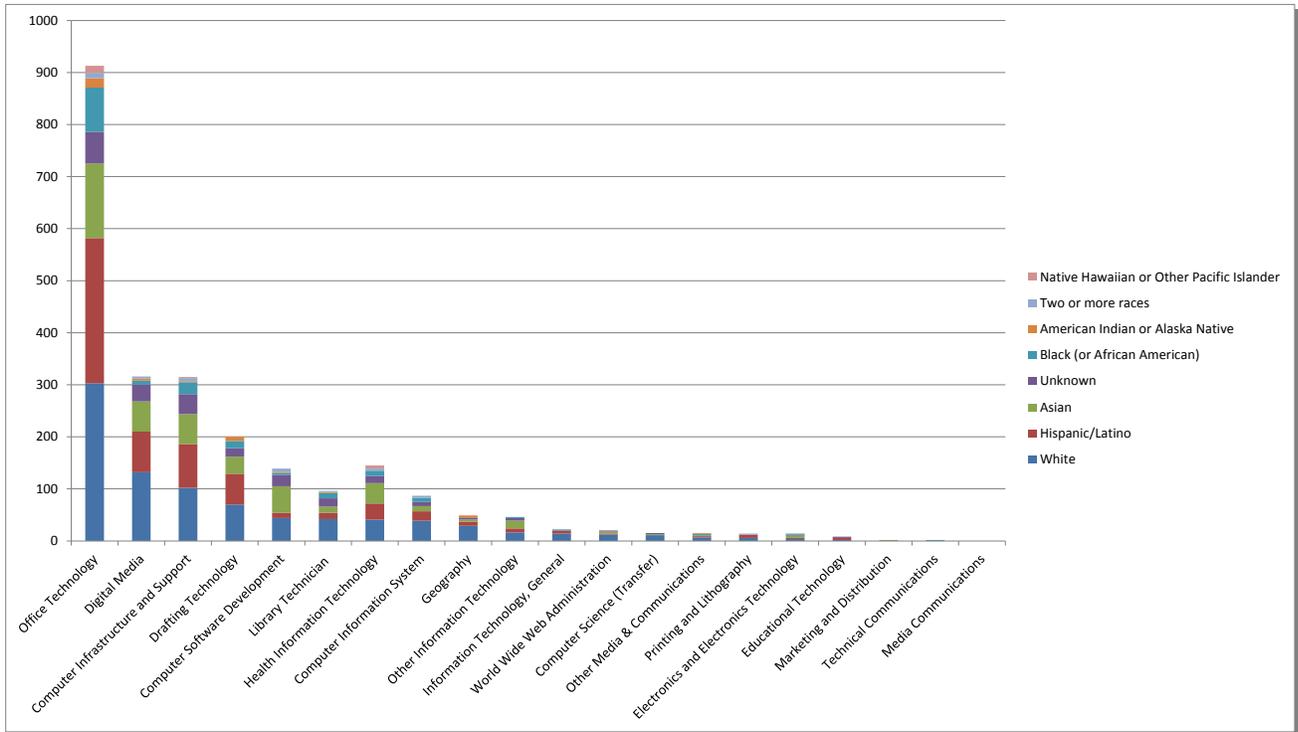
Whites received the highest percentage of ICT related academic certificates in all Top Codes with significant numbers of certificates awarded. Whites have more than half of certificates in Computer Science – Transfer, with 73%, Information Technology, General (64%), World Wide Web Administration (60%) and Geography (59%).

Chart 51: Percentage Distribution of Academic Certificates by Ethnicity by Top Code (2010-11)



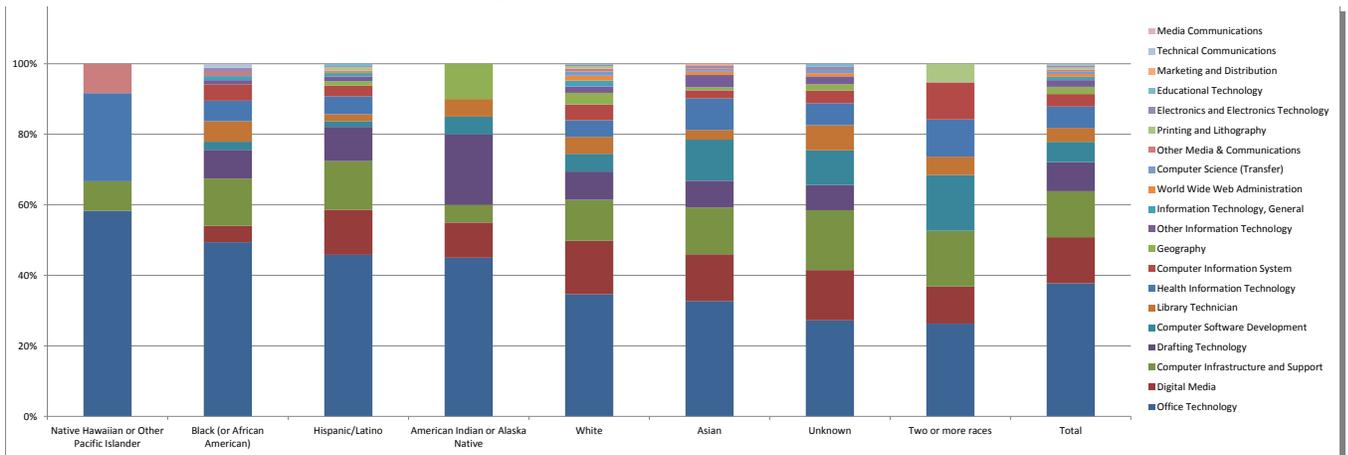
The following chart shows the numbers of certificates awarded by Top Code and ethnicity.

Chart 53: Numbers of Academic Certificates by Ethnicity by Top Code (2010-11)



The following graphic shows which Top Code each ethnicity received certificates in. Native Hawaiian or Other Pacific Islander, Black or African American, Hispanic and American Indian or Alaska Native populations received higher proportions of certificates in Office Technology than Whites. Their certificates are not spread across as many Top Codes as Whites, Asians, Unknowns or Two or More Races.

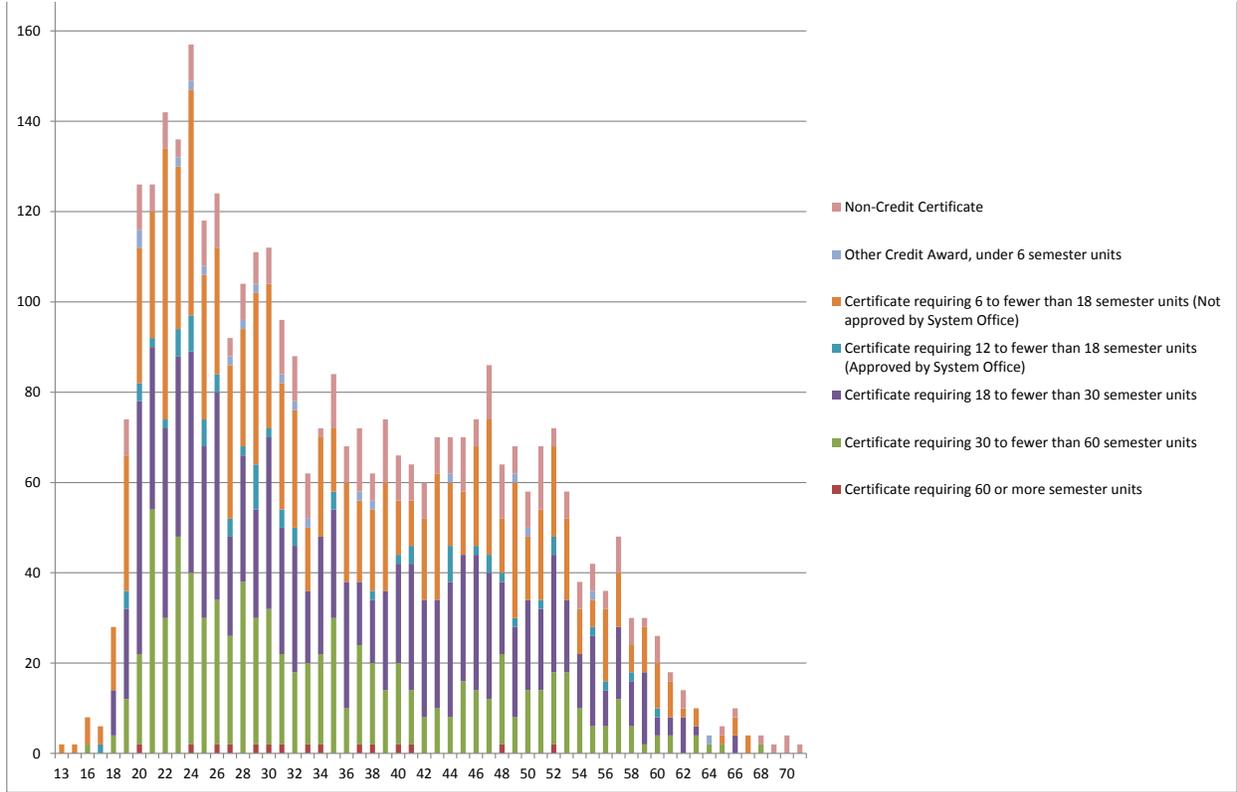
Chart 54: Top Codes of Academic Certificates by Ethnicity (2010-11)



AGE

Ages of ICT related academic certificate awardees ranged from 13 to 78.

Chart 55: ICT Related Academic Certificates by Age by Certificate Type (2010-11)



The following charts show age ranges of certificate awardees for different certificate types.

Chart 56: Certificate requiring 60 or more semester units by Age (2010-11)

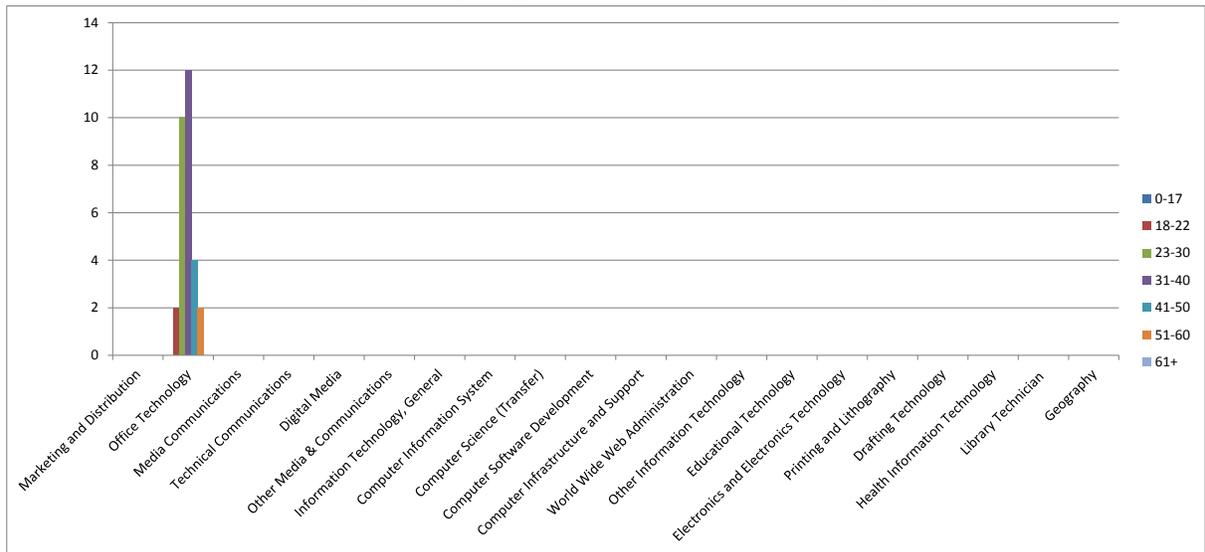


Chart 57: Certificate requiring 30 to fewer than 60 semester units by Age (2010-11)

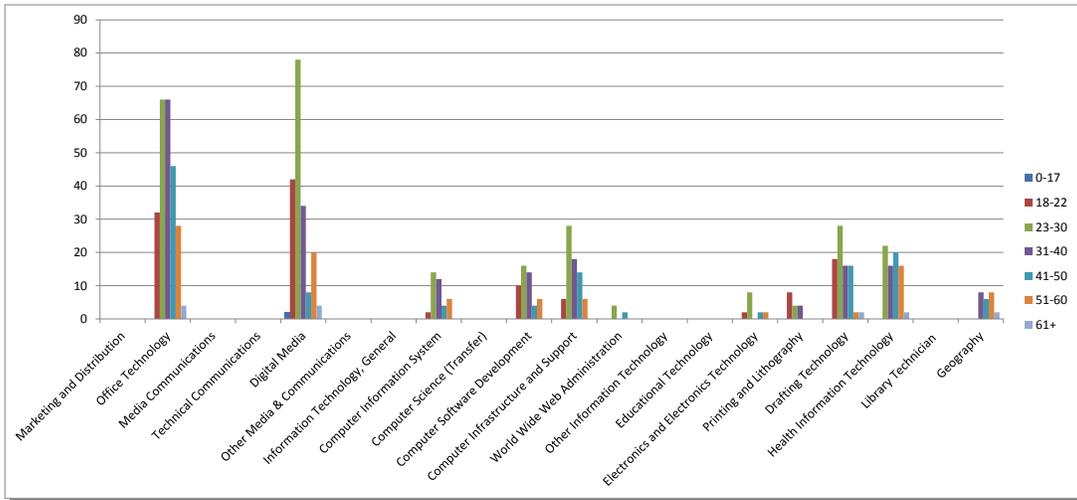


Chart 58: Certificate requiring 18 to fewer than 30 semester units by Age (2010-11)

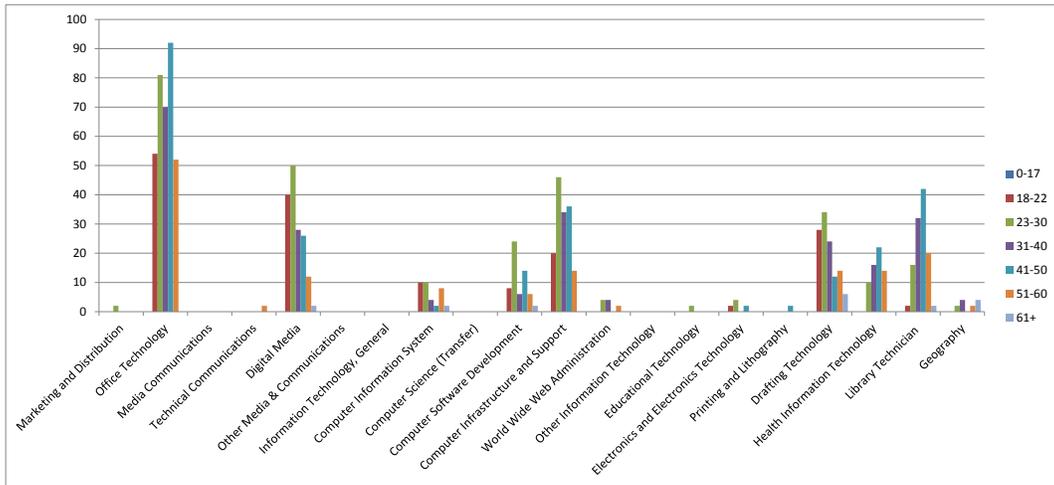


Chart 59: Certificate requiring 12 to fewer than 18 semester units (Approved by System Office) by Age (2010-11)

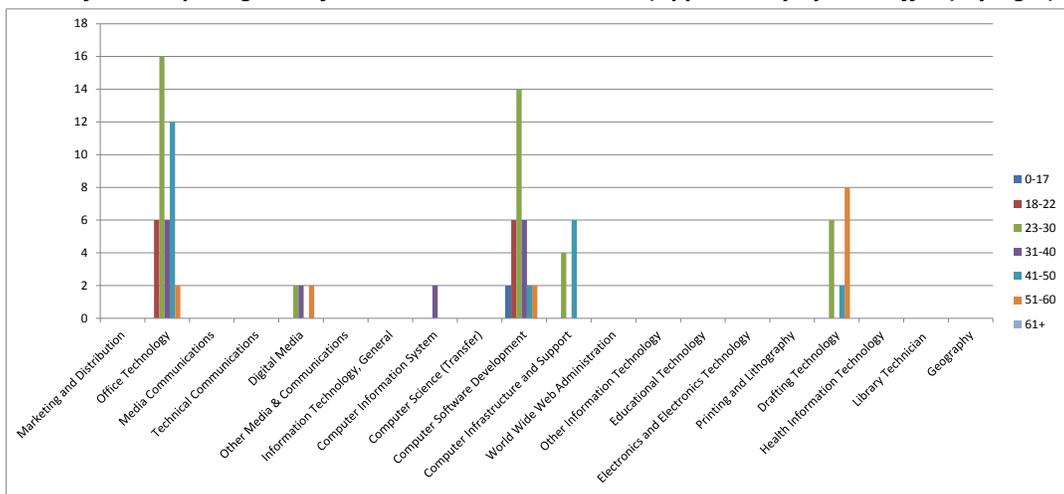


Chart 60: Certificate requiring 6 to fewer than 18 semester units (Not approved by System Office) by Age (2010-11)

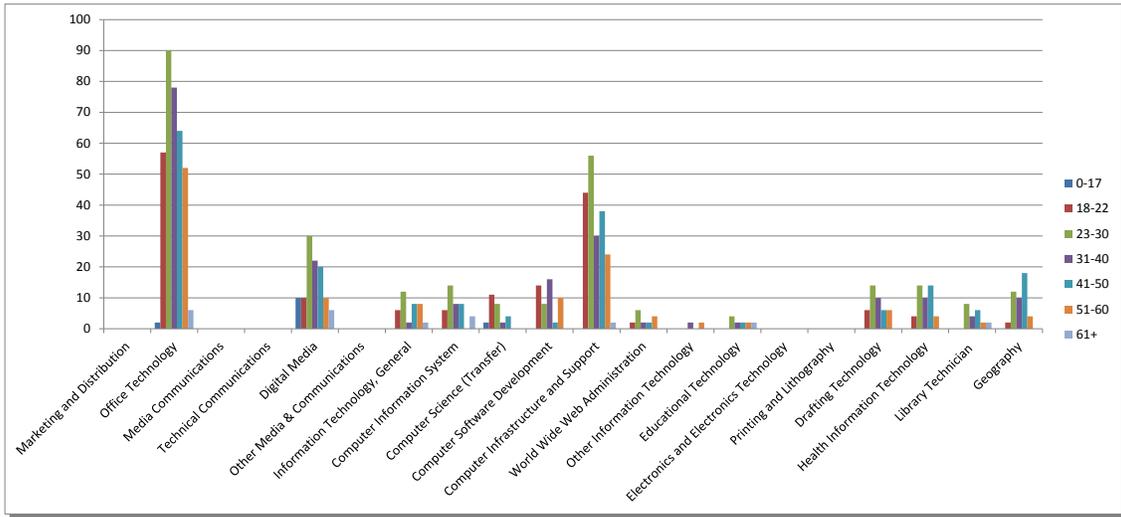


Chart 61: Other Credit Award, under 6 semester units by Age (2010-11)

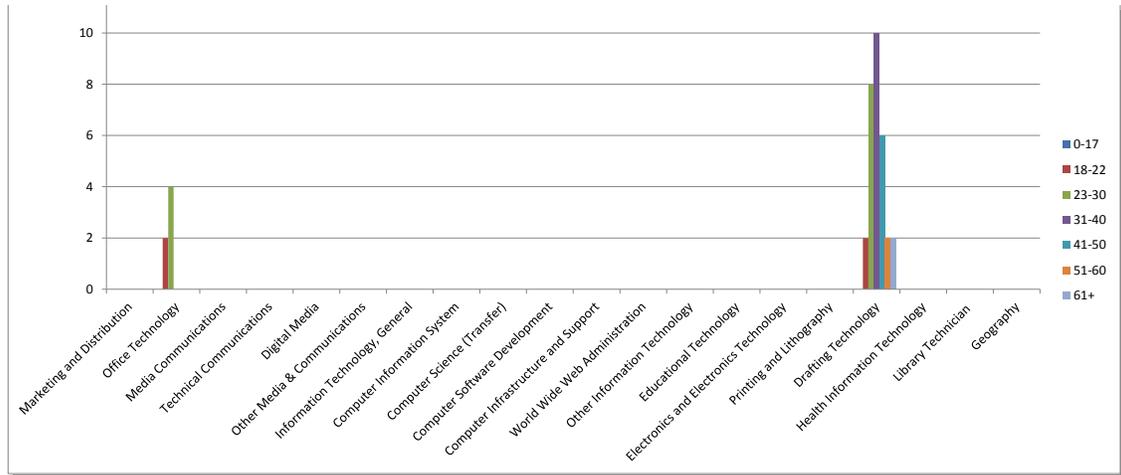
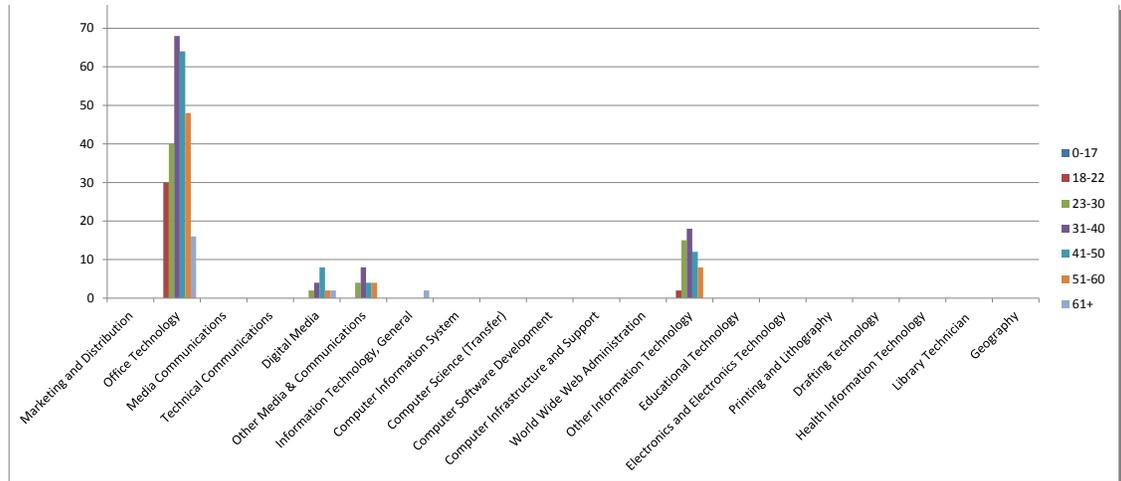


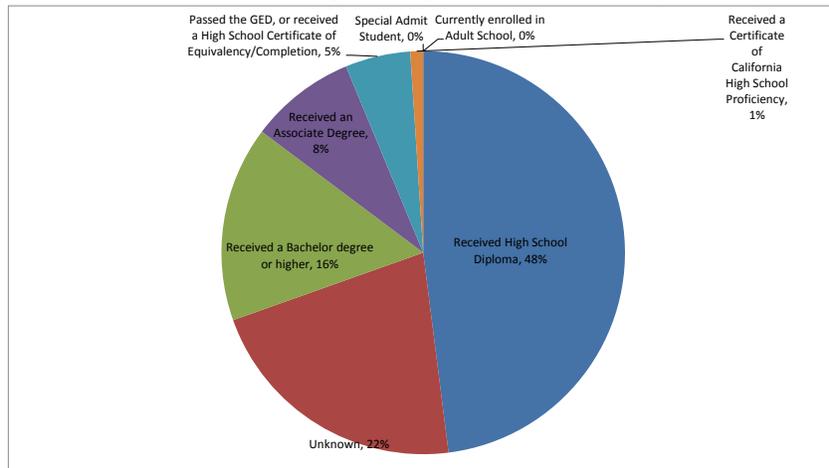
Chart 62: Non-Credit Certificate by Age (2010-11)



EDUCATIONAL STATUS

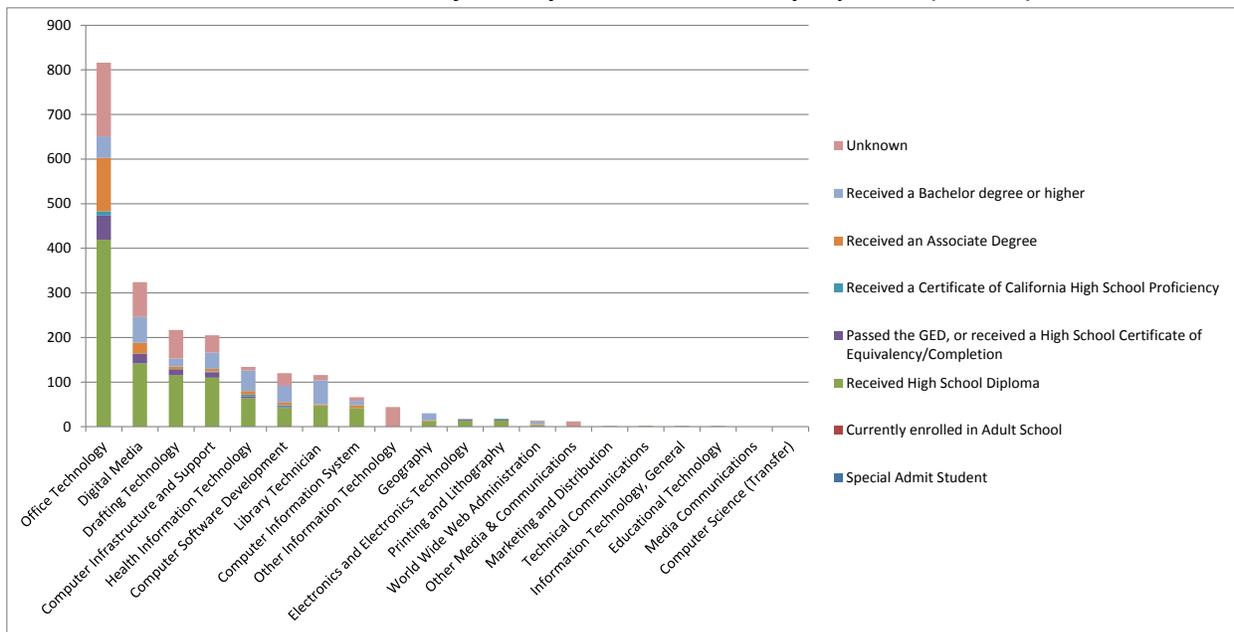
Of those receiving ICT related academic certificates, 48% had Received High School Diplomas, 22% had Unknown educational status, 16% had Received a Bachelor degree or higher, 8% had already Received an Associate Degree, 5% had Passed the GED, or received a High School Certificate of Equivalency/Completion, 1% had Received a Certificate of California High School Proficiency, and none were Special Admit Students or Currently enrolled in Adult School.

Chart 63: Overall Certificates by Educational Status (2010-11)



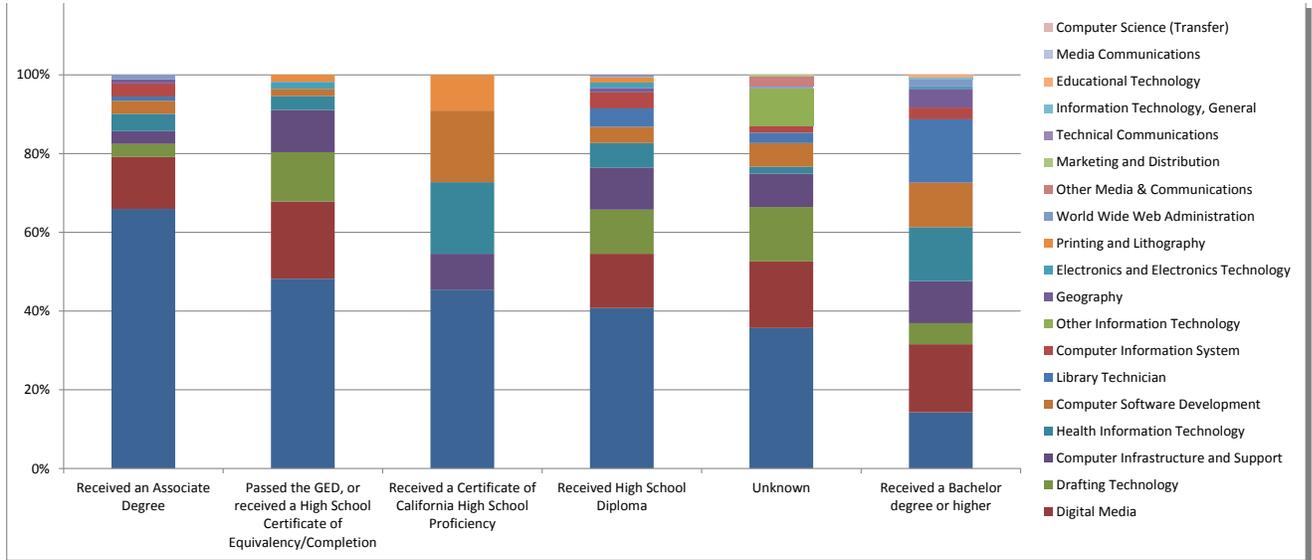
The following chart shows the distribution of ICT related academic certificates by educational status across Top Codes.

Chart 64: Overall Certificates by Educational Status by Top Codes (2010-11)



The following chart shows the distribution of ICT related academic certificates by Top Codes across educational status.

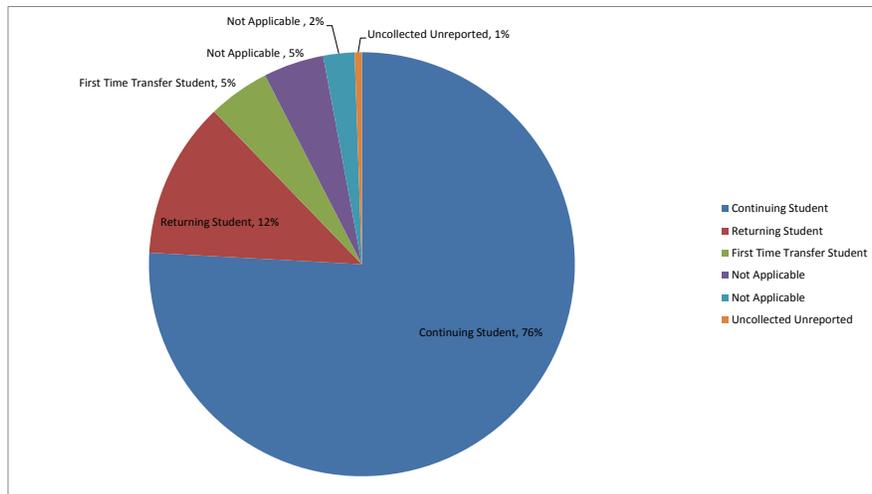
Chart 65: Overall Certificates by Educational Status by Top Codes (2010-11)



STUDENT STATUS

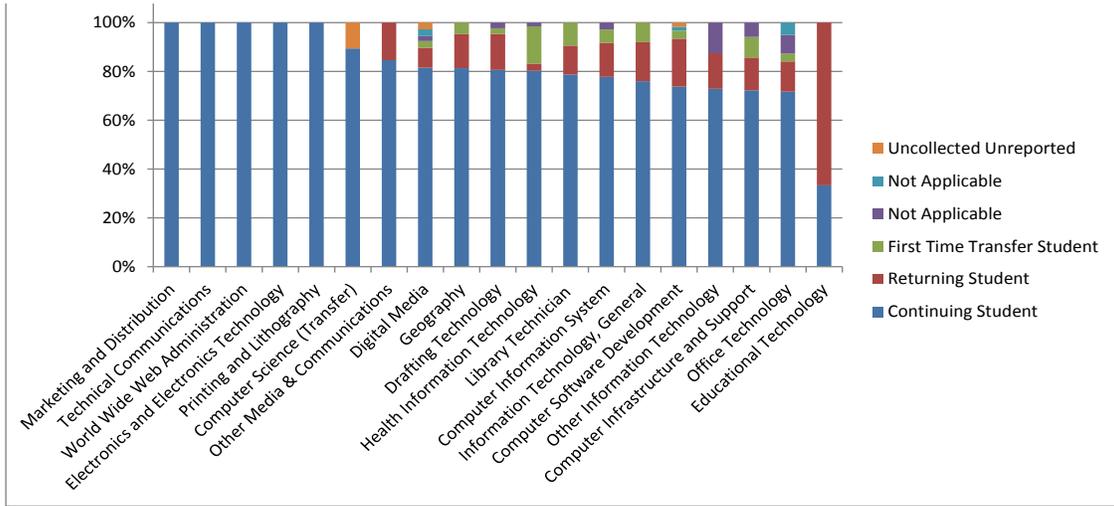
By far, most ICT related academic certificates were earned by Continuing Students (76%), followed by Returning Students (12%), First Time Transfer Students (5%), Not Applicable (7%) and Uncollected Unreported (1%).

Chart 66: Overall Certificates by Student Status (2010-11)



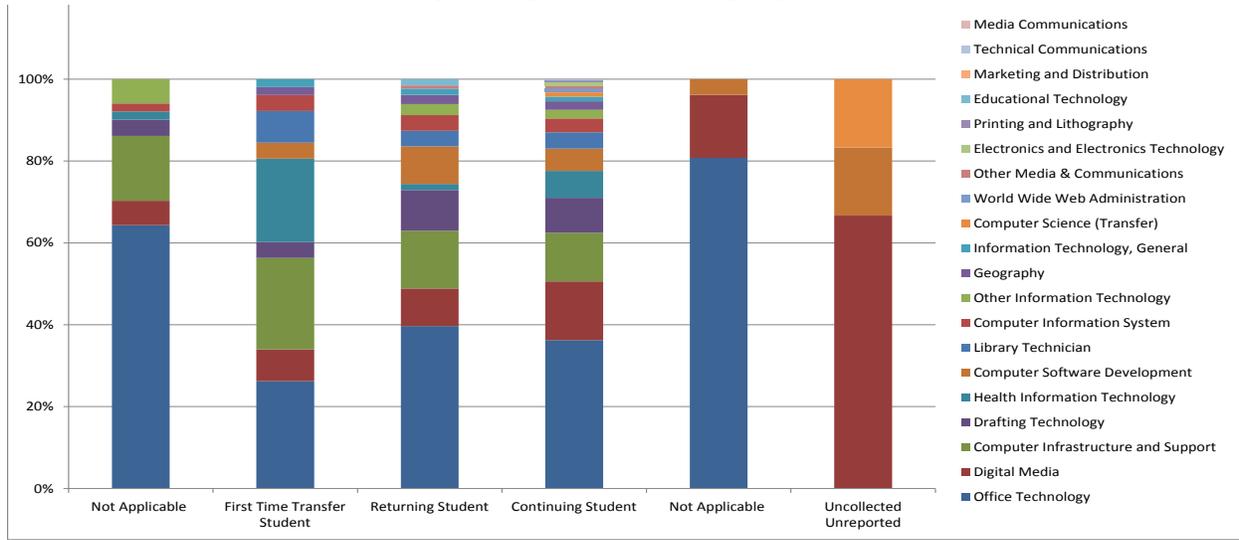
Continuing students earned all of the academic certificates in Marketing and Distribution, Technical Communications, WWW Administration, Electronics and Electronics Technology, and Printing and Lithography. The only Top Code where Continuing Students did not dominate certificate awards was Educational Technology, dominated by Returning Students.

Chart 67: Certificates by Top Codes by Student Status (2010-11)



Continuing and Returning Student certificates were also spread across the most Top Codes.

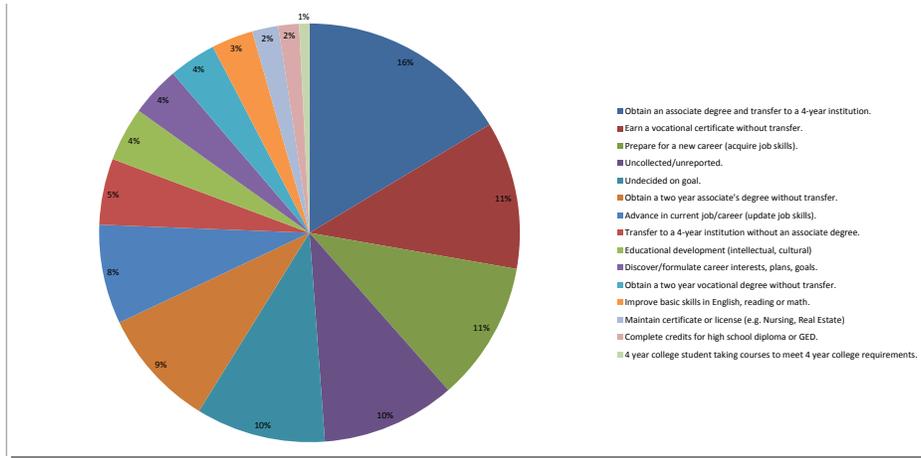
Chart 68: Certificates by Student Status by Top Codes (2010-11)



EDUCATIONAL GOALS

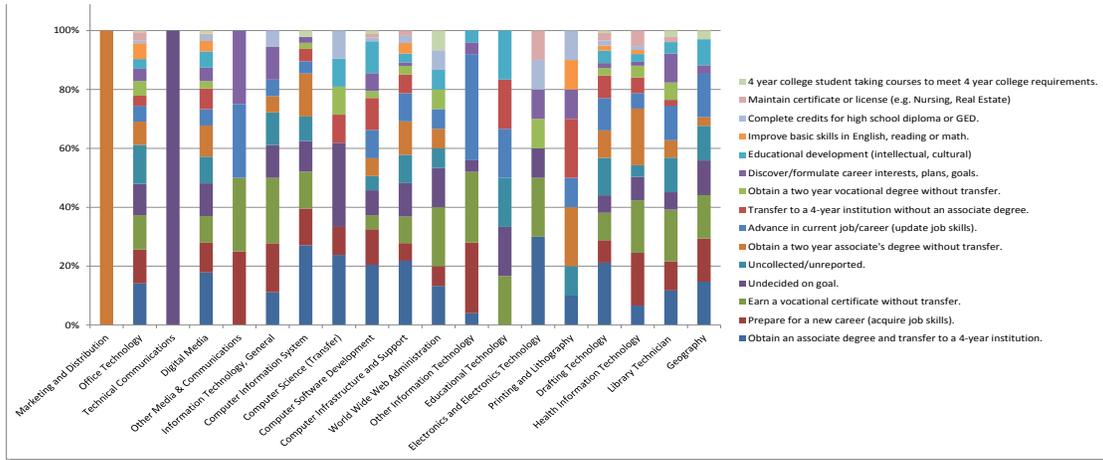
Educational goals of students earning ICT related academic certificates varied widely. Goals with the highest certificate earners were Obtain an associate degree and transfer to a 4-year institution, with 16%, Earn a vocational certificate without transfer (11%), Prepare for a new career (acquire job skills) (11%), Uncollected/unreported (10%), and Undecided (10%).

Chart 69: Educational Goals of Certificate Earners (2010-11)



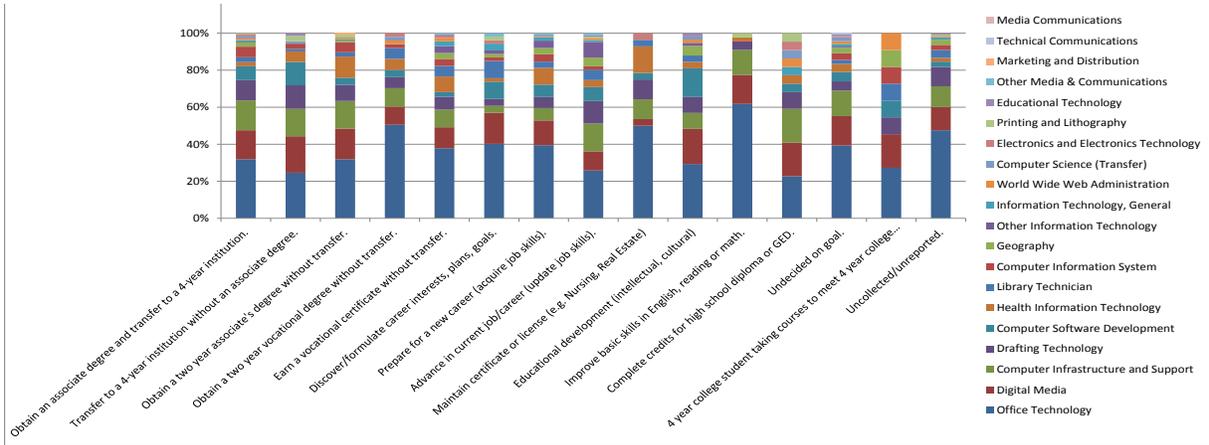
Educational goals varied widely by Top Code.

Chart 70: Educational Goals of Certificate Earners by Top Code (2010-11)



Students with different educational goals also earned certificates in many Top Codes.

Chart 71: Certificates Earned by Students with Different Educational Goals (2010-11)



SECTION III: ICT FACULTY (2010-11)

For the 2010/11 academic year, there were 5,729 total faculty teaching ICT related courses at California Community Colleges. Of those, 2,604 were full-time and 3,125 were part-time. Fresno City College at 130 and City College of San Francisco at 121 had the most faculty. Santa Barbara CED at 4 and Lemoore at 6 had the fewest ICT related faculty.

Chart 72: ICT Related Faculty by College (2010-11)

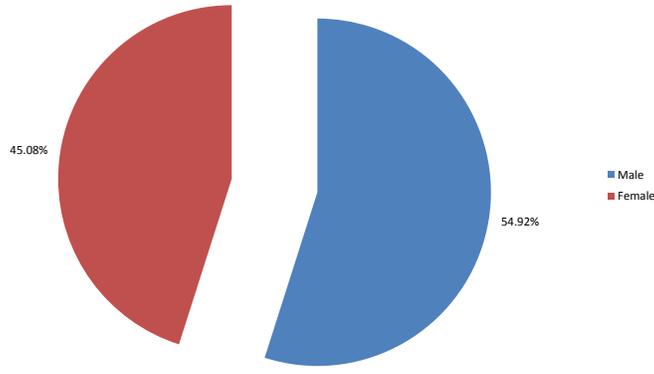
College Name	Full-Time	Part-Time	Total	College Name	Full-Time	Part-Time	Total
ALAMEDA	24	-	24	MENDOCINO	23	36	59
ALLAN HANCOCK	12	21	33	MERCED	16	27	43
AMERICAN RIVER	57	51	108	MERRITT	12	-	12
ANTELOPE VALLEY	16	55	71	MIRA COSTA	28	38	66
BAKERSFIELD	30	18	48	MISSION	26	34	60
BARSTOW	12	6	18	MODESTO	27	18	45
BERKELEY CITY	37	-	37	MONTEREY	24	25	49
BUTTE	24	44	68	MOORPARK	24	22	46
CABRILLO	27	29	56	MORENO VALLEY	8	35	43
CANADA	10	14	24	MT. SAN ANTONIO	35	72	107
CANYONS	31	49	80	MT. SAN JACINTO	33	72	105
CERRITOS	44	32	76	NAPA VALLEY	14	10	24
CERRO COSO	16	19	35	NORCO	12	29	41
CHABOT	26	14	40	NORTH ORANGE ADULT	2	33	35
CHAFFEY	30	44	74	OHLONE	29	32	61
CITRUS	20	8	28	ORANGE COAST	26	29	55
COALINGA	6	4	10	OXNARD	12	8	20
COASTLINE	12	41	53	PALO VERDE	10	6	16
COLUMBIA	16	14	30	PALOMAR	57	52	109
COMPTON	8	4	12	PASADENA CITY	39	36	75
CONTRA COSTA	18	8	26	PORTERVILLE	8	19	27
COPPER MOUNTAIN	13	-	13	REDWOODS	18	25	43
COSUMNES RIVER	32	24	56	REEDLEY	16	30	46
CRAFTON HILLS	8	6	14	RIO HONDO	33	27	60
CUESTA	16	31	47	RIVERSIDE	31	41	72
CUYAMACA	10	21	31	SACRAMENTO CITY	35	51	86
CYPRESS	27	36	63	SADDLEBACK	32	43	75
DE ANZA	34	24	58	SAN BERNARDINO	16	12	28
DESERT	16	17	33	SAN DIEGO ADULT	24	75	99
DIABLO VALLEY	26	45	71	SAN DIEGO CITY	16	31	47
EAST L.A.	22	25	47	SAN DIEGO MESA	18	47	65
EL CAMINO	24	17	41	SAN DIEGO MIRAMAR	8	6	14
EVERGREEN VALLEY	15	10	25	SAN FRANCISCO CITY	70	51	121
FEATHER RIVER	8	6	14	SAN FRANCISCO CTRS	22	47	69
FOLSOM LAKE	14	20	34	SAN JOAQUIN DELTA	22	16	38
FOOTHILL	39	20	59	SAN JOSE CITY	12	22	34
FRESNO CITY	60	70	130	SAN MATEO	24	12	36
FULLERTON	25	16	41	SANTA ANA	26	83	109
GAVILAN	47	-	47	SANTA BARBARA CED	-	4	4
GLENDALE	36	54	90	SANTA BARBARA CITY	36	47	83
GOLDEN WEST	14	35	49	SANTA MONICA CITY	61	43	104
GROSSMONT	15	41	56	SANTA ROSA	29	70	99
HARTNELL	24	14	38	SANTIAGO CANYON	16	45	61
IMPERIAL VALLEY	20	4	24	SEQUOIAS	32	27	59
IRVINE VALLEY	22	45	67	SHASTA	24	42	66
L.A. CITY	19	25	44	SIERRA	31	53	84
L.A. HARBOR	12	21	33	SISKIYOU	12	18	30
L.A. MISSION	10	14	24	SKYLINE	12	17	29
L.A. PIERCE	16	45	61	SOLANO	17	25	42
L.A. TRADE-TECH	8	19	27	SOUTHWEST L.A.	10	8	18
L.A. VALLEY	22	28	50	SOUTHWESTERN	46	59	105
LAKE TAHOE	12	14	26	TAFT	12	12	24
LANEY	35	-	35	VENTURA	12	25	37
LAS POSITAS	18	31	49	VICTOR VALLEY	28	17	45
LASSEN	8	6	14	WEST L.A.	12	18	30
LEMOORE	4	2	6	WEST VALLEY	28	22	50
LONG BEACH CITY	20	27	47	WOODLAND	2	6	8
LOS MEDANOS	8	15	23	YUBA	14	12	26
MARIN	47	-	47	Grand Total	2,604	3,125	5,729

FACULTY DEMOGRAPHICS

GENDER

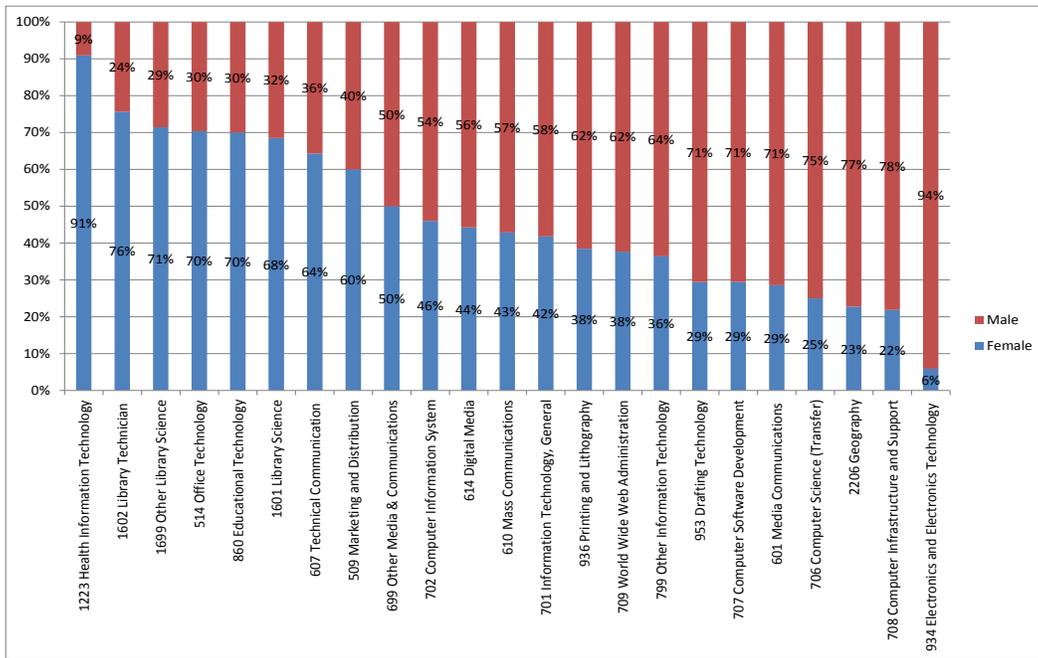
Some 55 percent of full time employees in ICT related Top Codes were male and 45 percent were female.

Chart 73: Full Time Faculty Gender Composition (2010-11)



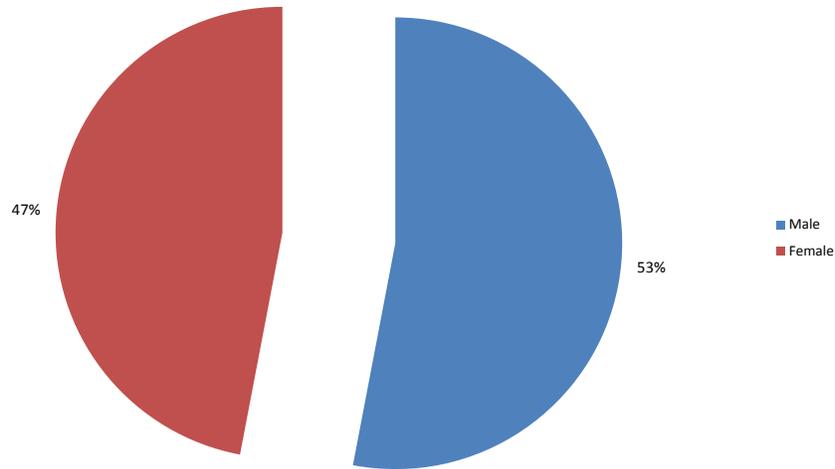
However, percentages based on gender differed significantly, depending on department Top Codes. As of 2010-11, females comprised the largest concentration in 8 Top Codes, including Health Information Technology, 91%, Library Technician, 76%; in Other Library Science, 71%. Males comprised the largest of the two populations in all other Top codes, including Electronics and Electronics Technology, 94%, Computer Infrastructure and Support, 78% and Geography, 77%. Student gender ratios tend to mirror faculty gender ratios by Top Code.

Chart 74: Percent Female/Male Full Time Faculty by Top Code (2010)



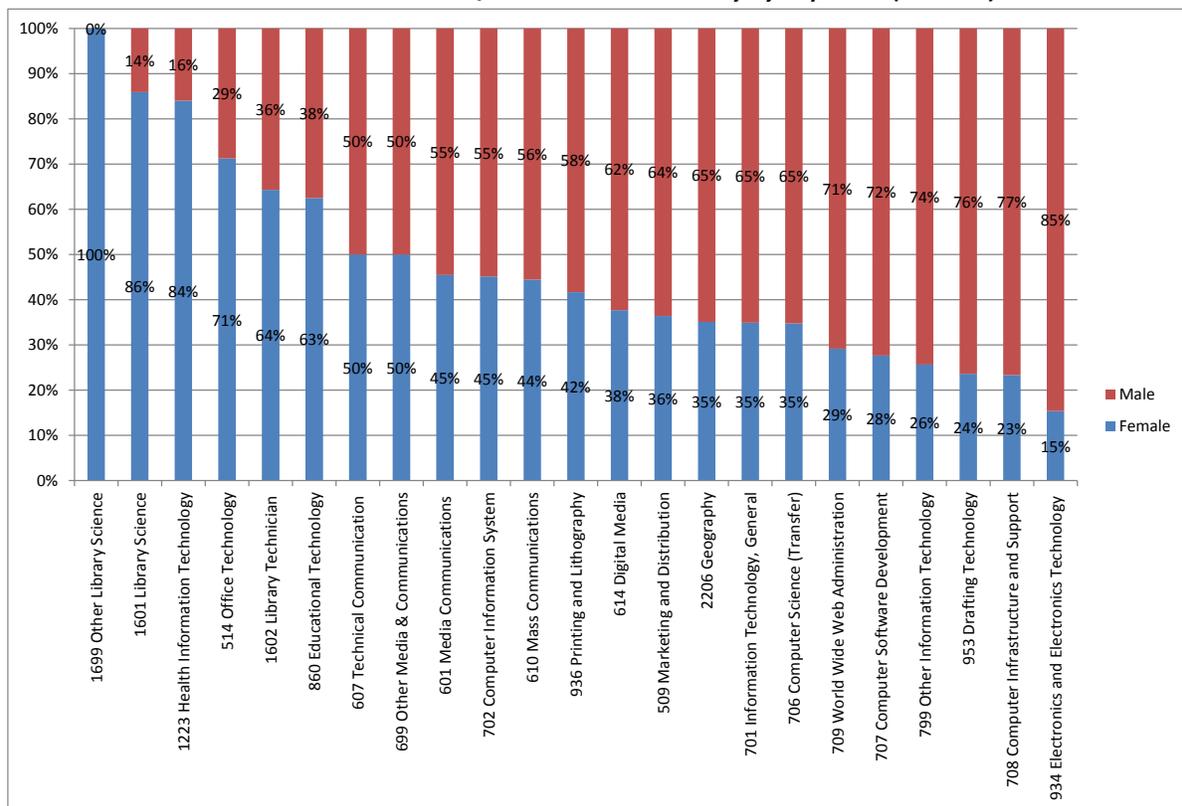
For part time faculty in ICT related Top Codes, 53% were male and 47% were female.

Chart 75: Part Time Faculty Gender Composition (2010-11)



Female part-time faculty exceeded male faculty in 6 Top Codes, including Other Library Science, 100%, Library Science, 86% and Health Information Technology, 84%. Males and females were equally represented in two Top Codes. In all others, there were more male than female teachers, including Electronics and Electronics Technology, 85%, Computer Infrastructure and Support, 77% and Drafting Technology, 78%.

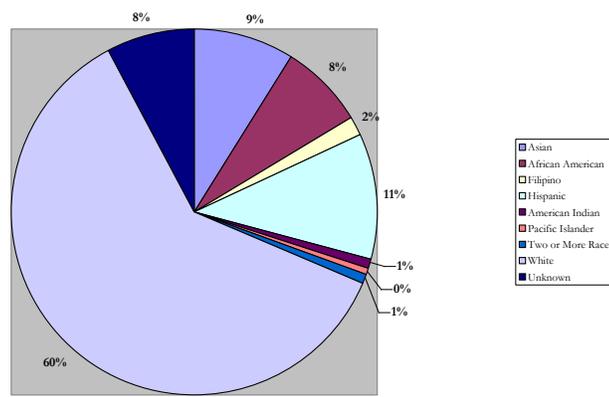
Chart 76: Percent Female/Male Part Time Faculty by Top Code (2010-11)



ETHNICITY

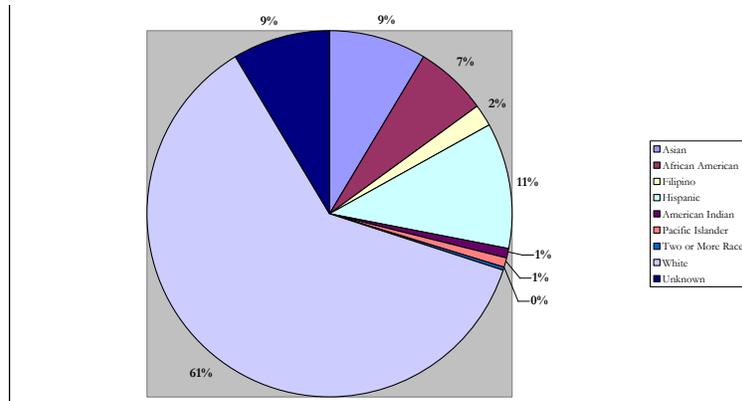
Some 61% of full time ICT faculty were white. Asian and Hispanic populations were each represented by 11% of the teachers; approximately 8% were African Americans, and American Indian and Pacific Islanders each constituted under 1% of the total. This does not reflect general California or CCC ICT student populations.

Chart 77: Ethnic Composition of Full Time Faculty (2010-11)



in the part time faculty pool, 61% were White, 11% Hispanic and 10% Asian-Americans. African Americans were approximately 7%, while American Indian students were approximately 1% and Pacific Islanders under 1%.

Chart 78: Ethnic Composition of Part Time Faculty (2010-11)



SECTION IV: TRENDS: 2008-09 TO 2010-11

ENROLLMENT AND CREDIT SUCCESS TRENDS

Between 2008-09 and 2010-11, overall credit enrollment in ICT related courses decreased by seven percent (40,909). From 2008-09 to 2009-10, enrollment decreased 1% (3,193), and enrollment decreased 6% (37,712) from 2009-10 to 2010-11.

2008-09 and 2010-11, overall non-credit enrollment in ICT related courses decreased by 47% (54,551). 2008-09 to 2009-10, enrollment decreased 30% (51,727), and enrollment decreased 2% (2,823), 2009-10 to 2010-11.

Anecdotally, much of these decreases is attributed to the educational funding crisis in California and demands to reduce courses in response to reduced educational funding.

The largest credit enrollment increases were realized by City College of San Francisco (4,152/40%), Norco (3,216), Palomar (2,626/19%), Moreno Valley (2,325), Glendale (1,800/31%), Solano (1,556/32%), Chabot (1,136/27%) and De Anza (1,121/9%). The largest credit enrollment decreases were at Santa Ana (20,427/78%), Sacramento City (7,941/43%), American River (7,851/35%), Riverside (5,725/45%), Fresno City (3,450/25%), Long Beach (3,438/19%), Folsom Lake (2,697/40%), Rio Hondo (1,611/32%), Santiago Canyon (1,533/53%), Yuba (1,441/29%), Mission (1,315/22%) San Diego City (1,140/23%) and Santa Rosa JC (1,121/8%).

Local colleges each make independent decisions about how to respond to the educational funding crisis, and the rationale for which programs to fund and cut is different at different colleges.

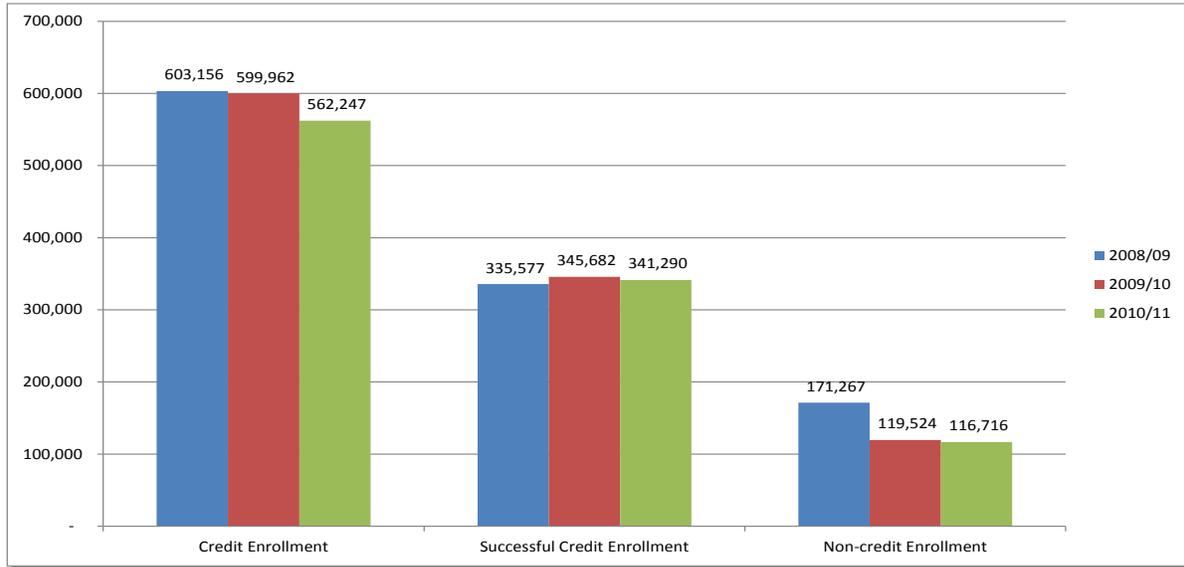
Chart 79: Change in Credit Enrollment by College (2008/09 – 2010/11)

College Name	2008/09	2009/10	2010/11	2008/09 - 2010/11	% Change
SAN FRANCISCO CITY	10,393	14,417	14,545	4,152	40%
NORCO			3,216	3,216	-
PALOMAR	14,063	15,208	16,689	2,626	19%
MORENO VALLEY			2,325	2,325	-
GLENDALE	5,797	6,143	7,597	1,800	31%
SOLANO	4,824	6,247	6,380	1,556	32%
CHABOT	4,153	5,098	5,289	1,136	27%
DE ANZA	12,942	15,288	14,063	1,121	9%
BERKELEY CITY	7,450	8,558	8,437	987	13%
GOLDEN WEST	3,553	3,892	4,518	965	27%
MONTEREY	2,511	3,057	3,429	918	37%
SAN DIEGO MESA	5,729	5,909	6,633	904	16%
SAN MATEO	2,928	3,201	3,829	901	31%
CYPRESS	5,979	6,757	6,812	833	14%
MT. SAN JACINTO	7,420	9,021	8,243	823	11%
SEQUOIAS	3,073	3,908	3,891	818	27%
BUTTE	5,301	5,860	6,117	816	15%
TAFT	1,923	2,547	2,724	801	42%
MIRA COSTA	5,635	6,613	6,317	682	12%
MT. SAN ANTONIO	7,060	7,412	7,736	676	10%
CUYAMACA	2,880	3,333	3,543	663	23%
MARIN	2,438	2,816	2,954	516	21%
SAN DIEGO MIRAMAR	1,167	1,163	1,610	443	38%
BARSTOW	959	1,339	1,393	434	45%
OXNARD	1,588	2,090	1,993	405	26%
MERCED	2,174	2,227	2,572	398	18%
WEST VALLEY	4,730	5,348	5,125	395	8%
GROSSMONT	5,931	6,721	6,322	391	7%
COASTLINE	6,548	6,812	6,845	297	5%
PASADENA CITY	7,780	7,944	8,062	282	4%
SAN BERNARDINO	2,018	1,750	2,279	261	13%
L.A. MISSION	2,543	2,840	2,803	260	10%
SOUTHWESTERN	6,575	7,405	6,829	254	4%
GAVILAN	2,967	3,168	3,210	243	8%
MOORPARK	3,131	3,480	3,363	232	7%
L.A. PIERCE	5,178	5,355	5,408	230	4%
COMPTON	1,433	1,359	1,653	220	15%
LANEY	4,851	5,483	5,047	196	4%
L.A. HARBOR	3,031	2,617	3,223	192	6%
COPPER MOUNTAIN	660	769	827	167	25%
PORTERVILLE	1,194	1,395	1,354	160	13%
COLUMBIA	1,442	1,539	1,587	145	10%
REEDLEY	6,147	6,548	6,287	140	2%
MERRITT	1,788	2,511	1,927	139	8%
CANADA	2,566	2,861	2,697	131	5%

FEATHER RIVER	528	662	647	119	23%
PALO VERDE	586	839	700	114	19%
CANYONS	5,215	5,186	5,326	111	2%
LAS POSITAS	2,596	2,984	2,707	111	4%
ALLAN HANCOCK	2,952	3,238	3,041	89	3%
CONTRA COSTA	2,613	2,526	2,690	77	3%
DESERT	2,031	2,067	2,102	71	3%
WOODLAND	637	673	663	26	4%
MENDOCINO	2,067	2,016	2,073	6	0%
CUESTA	3,052	3,160	3,055	3	0%
CITRUS	2,998	2,876	2,988	(10)	0%
LASSEN	225	146	209	(16)	-7%
SOUTHWEST L.A.	2,172	1,943	2,152	(20)	-1%
COALINGA	1,371	1,157	1,314	(57)	-4%
SISKIYOU	989	850	921	(68)	-7%
COSUMNES RIVER	7,685	8,656	7,610	(75)	-1%
VENTURA	3,002	3,240	2,916	(86)	-3%
LEMOORE	842	766	745	(97)	-12%
ALAMEDA	2,685	2,680	2,580	(105)	-4%
HARTNELL	2,687	2,301	2,567	(120)	-4%
SKYLINE	3,685	3,861	3,557	(128)	-3%
FULLERTON	5,142	5,377	4,996	(146)	-3%
NAPA VALLEY	1,343	1,314	1,197	(146)	-11%
L.A. CITY	4,926	4,108	4,777	(149)	-3%
SHASTA	4,591	4,445	4,435	(156)	-3%
ANTELOPE VALLEY	6,008	5,702	5,841	(167)	-3%
BAKERSFIELD	4,402	4,069	4,224	(178)	-4%
LAKE TAHOE	1,482	1,604	1,285	(197)	-13%
MODESTO	7,100	7,854	6,892	(208)	-3%
CHAFFEY	10,436	10,832	10,138	(298)	-3%
L.A. TRADE-TECH	3,599	2,984	3,300	(299)	-8%
SIERRA	6,215	6,071	5,888	(327)	-5%
OHLONE	4,909	5,092	4,575	(334)	-7%
WEST L.A.	4,296	3,830	3,933	(363)	-8%
REDWOODS	2,656	2,540	2,282	(374)	-14%
L.A. VALLEY	4,368	3,991	3,992	(376)	-9%
SAN JOSE CITY	2,835	2,836	2,445	(390)	-14%
CABRILLO	7,539	7,324	7,095	(444)	-6%
LOS MEDANOS	4,025	3,939	3,529	(496)	-12%
CRAFTON HILLS	1,762	1,314	1,263	(499)	-28%
EL CAMINO	4,586	4,274	4,087	(499)	-11%
EVERGREEN VALLEY	1,987	1,729	1,469	(518)	-26%
ORANGE COAST	7,438	7,372	6,892	(546)	-7%
IRVINE VALLEY	6,045	6,201	5,463	(582)	-10%
CERRO COSO	3,955	4,063	3,362	(593)	-15%
EAST L.A.	9,285	8,857	8,681	(604)	-7%
SAN JOAQUIN DELTA	6,922	6,958	6,261	(661)	-10%
SADDLEBACK	6,741	7,140	6,040	(701)	-10%
CERRITOS	16,964	16,728	16,251	(713)	-4%
FOOTHILL	9,493	9,472	8,738	(755)	-8%
IMPERIAL VALLEY	3,138	2,132	2,247	(891)	-28%
VICTOR VALLEY	5,613	5,231	4,713	(900)	-16%
SANTA MONICA CITY	15,764	14,891	14,811	(953)	-6%
SANTA BARBARA CITY	10,852	11,295	9,883	(969)	-9%
DIABLO VALLEY	7,997	7,975	7,015	(982)	-12%
SANTA ROSA	13,207	12,566	12,086	(1,121)	-8%
SAN DIEGO CITY	4,983	4,367	3,843	(1,140)	-23%
MISSION	6,091	5,072	4,776	(1,315)	-22%
YUBA	5,003	4,406	3,562	(1,441)	-29%
SANTIAGO CANYON	2,909	1,314	1,376	(1,533)	-53%
RIO HONDO	5,008	4,018	3,397	(1,611)	-32%
FOLSOM LAKE	6,780	6,595	4,083	(2,697)	-40%
LONG BEACH CITY	18,355	19,699	14,917	(3,438)	-19%
FRESNO CITY	14,017	12,555	10,567	(3,450)	-25%
RIVERSIDE	12,619	12,479	6,894	(5,725)	-45%
AMERICAN RIVER	22,161	23,056	14,310	(7,851)	-35%
SACRAMENTO CITY	18,482	18,564	10,541	(7,941)	-43%
SANTA ANA	26,056	5,891	5,629	(20,427)	-78%

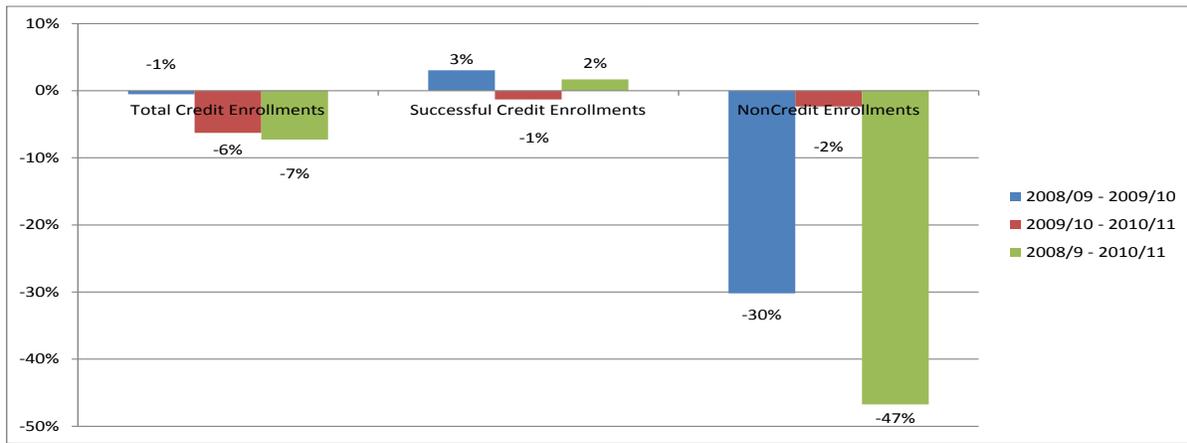
Between 2008-09 and 2010-11, overall successful credit enrollment in ICT related courses increased by 2% (5,701). From 2008-09 to 2009-10, successful credit enrollment increased 3% (10,205), and successful credit enrollment decreased 1% (4,504) from 2009-10 to 2010-11. So, fewer students are taking ICT courses, but a higher percentage were passing.

Chart 80: Trends in Overall ICT Related Credit, Successful Credit and Non-Credit Enrollment (2008/9-2010/11)



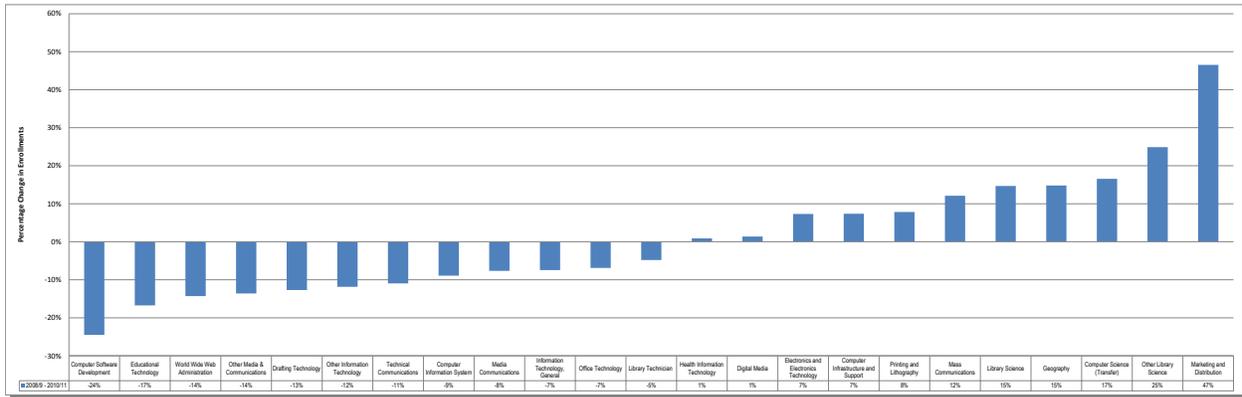
Non-credit enrollments experienced the largest percentage decreases in enrollment.

Chart 81: % Changes in Overall ICT Related Credit, Successful Credit and Non-Credit Enrollment (2008/9-2010/11)



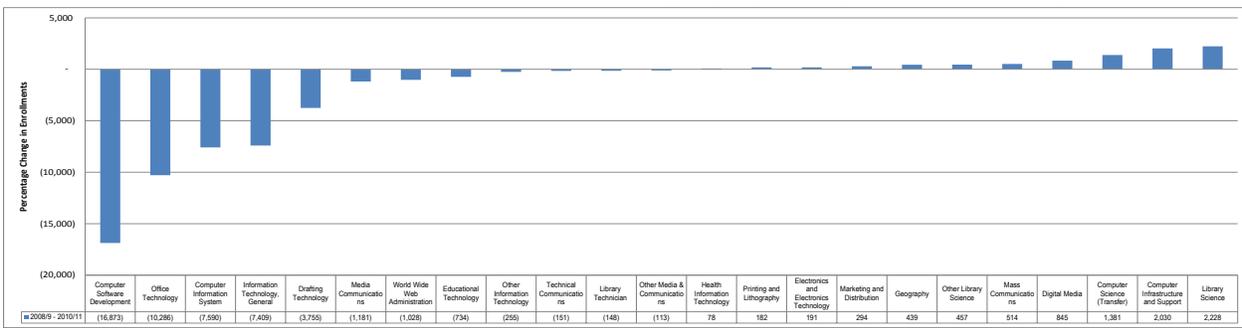
The largest percentage Top Code enrollment increases from 2008-09 to 2010-11 were in Marketing and Distribution (+47%), Other Library Science (+25%) and Computer Science (Transfer) (+17%). The largest Top Code percentage enrollment decreases were in Computer Software Development (-24%), Educational Technology (-17%) and World Wide Web Administration (-14%). Reductions in at least Software Development and WWW Administration enrollments do not reflect increasing ICT Workforce demand in those areas.

Chart 82: % Credit Enrollment Change by Top Code (2008-09 to 2010-11)



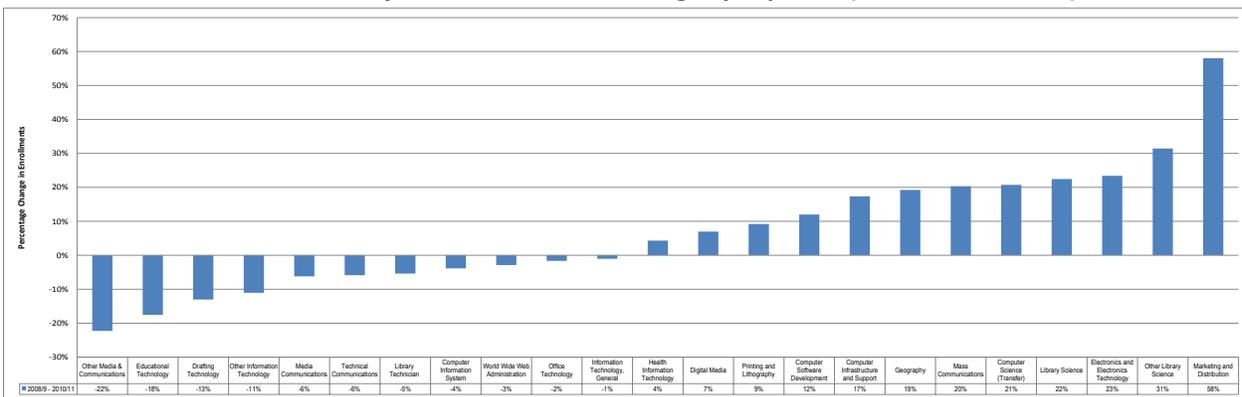
Numerically, however, those winning enrollment gained relatively small numbers from 2008-09 to 2010-11: Library Science (+2,228), Computer infrastructure and Support (2,030) and Computer Science (Transfer) (+1,381). Those losing overall enrollment lost relatively large numbers: Computer Software Development (-16,873), Office Technology (-10,286) and Computer Information System (-7,590).

Chart 83: Numerical Credit Enrollment Change by Top Code (2008-09 to 2010-11)



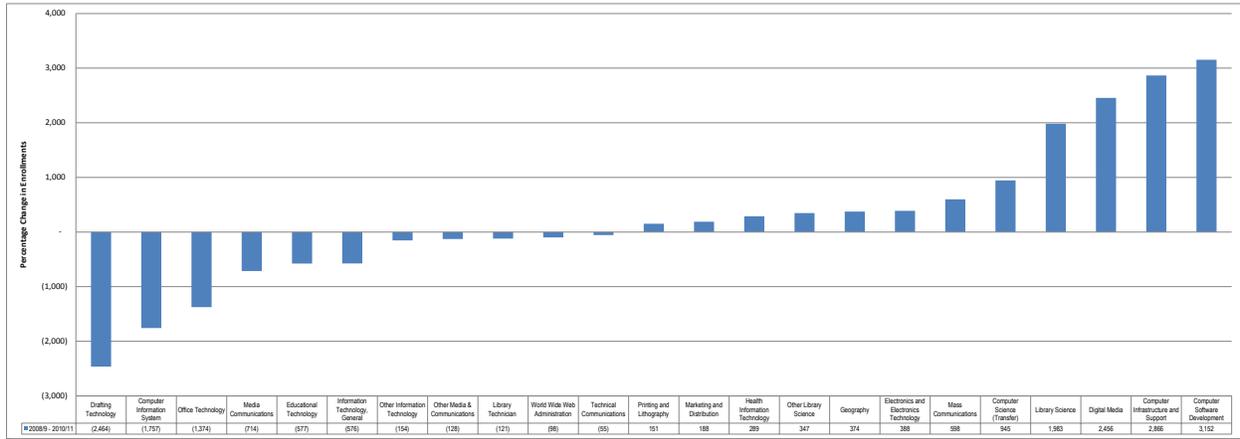
The largest percentage Top Code successful credit enrollment increases from 2008-09 to 2010-11 were in Marketing and Distribution (+58%), Other Library Science (+31%) and Electronics (+23%). The largest Top Code percentage successful credit enrollment decreases from 2008-09 to 2010-11 were in Other Media & Communications (-22%), Educational Technology (-18%) and Drafting Technology (-13%).

Chart 84: % Successful Credit Enrollment Change by Top Code (2008-09 to 2010-11)



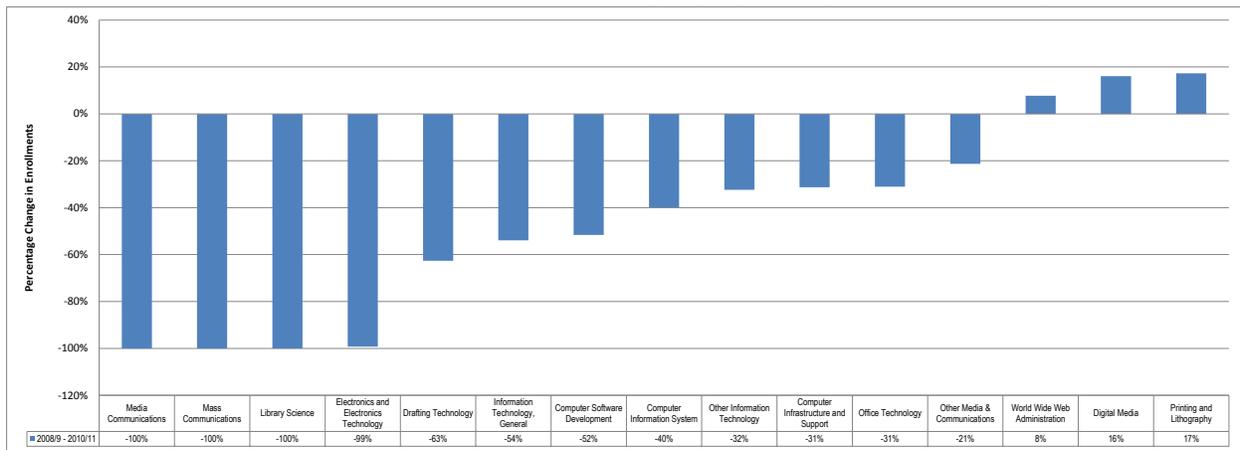
Numerically, the largest gains in successful credit enrollments from 2008-09 to 2010-11: Computer Software Development (+3,152, Computer infrastructure and Support (2,866) and Digital Media (+2,456). Those with the greatest losses in overall successful enrollments enrollment were: Drafting Technology (-2,464), Computer Information System (-1,757) and Office Technology (-1,374).

Chart 85: Numerical Successful Credit Enrollment Change by Top Code (2008-09 to 2010-11)



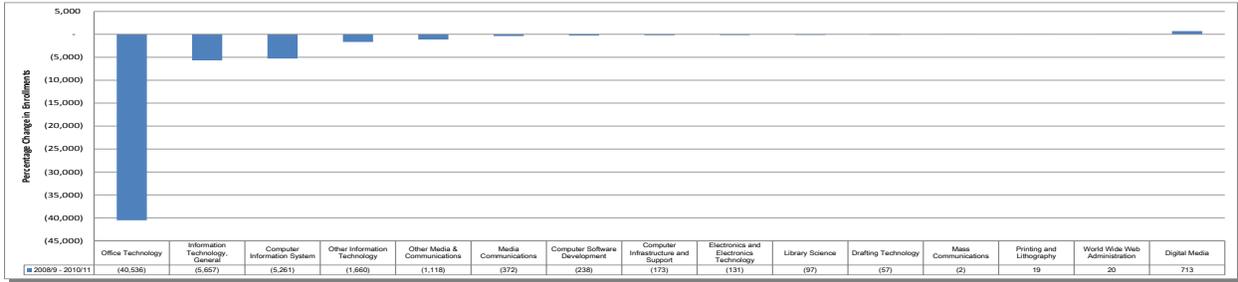
Four Top Codes completely eliminated non-credit enrollments from 2008-09 to 2010-11: Media Communications, Mass Communications and Library Science. Non-credit enrollments in Electronics went down by 99%, in Drafting Technology by 63%, in Informational Technology, General by 54%, and in Computer Software Development by 52%. Only three Top Codes increased non-credit enrollment percentages from 2008-09 to 2010-11: Printing and Lithography (17%), Digital Media (16%) and World Wide Web Administration (8%).

Chart 86: % Non-Credit Enrollment Change by Top Code (2008-09 to 2010-11)



Numerically, though, it is clear non-credit enrollment changes from 2008-09 to 2010-11 are mostly insignificant, except for Office Technology, which lost 40,536 enrollments, Information Technology, General, which lost 5,657, and Computer Information System, which lost 5,261, and Other System Information Technology, which lost 1,660.

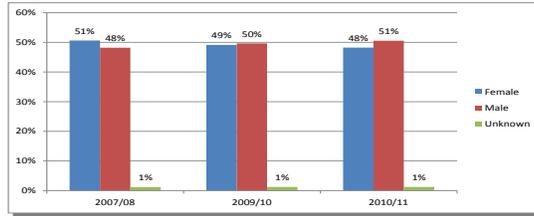
Chart 87: Numerical Non-Credit Enrollment Change by Top Code (2008-09 to 2010-11)



GENDER TRENDS

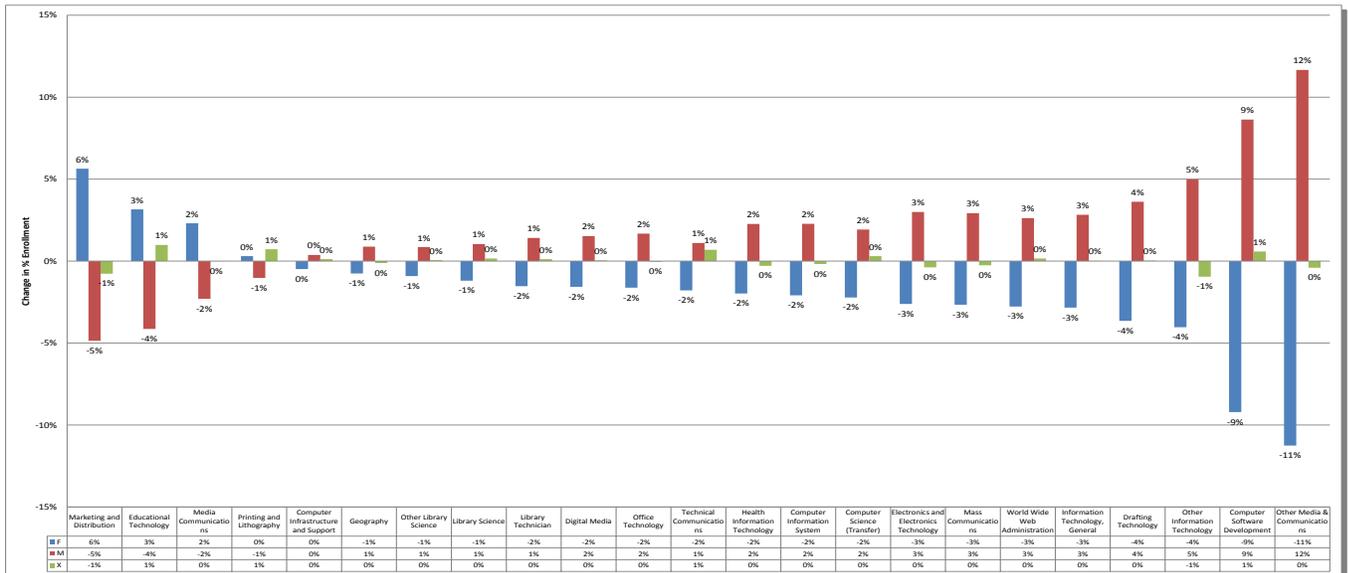
In 2008/09, female versus male ratio in ICT related for credit enrollments was 51 percent for women compared to 48 percent for men. However, by 2010/11, the female population had decreased by 3% while male student enrollment had increased by 3%.

Chart 88: Gender Trends (2008-09 to 2010-11)



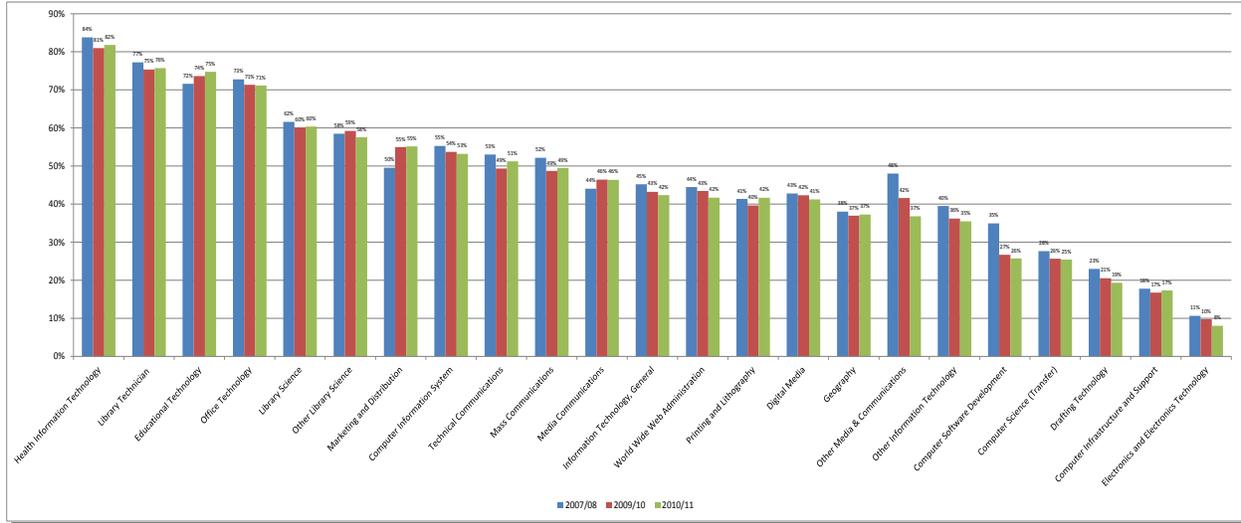
Women experienced gains in gender percentages of enrollments between 2007/08 and 2010/11 in Marketing and Distribution (6%), Educational Technology (3%) and Media Communications (2%). Percentages of men in classes increased in all other Top Codes, including Other Media & Communications (14%), Computer Software Development (9%), and Other Information Technology and Drafting Technology (each 4%).

Chart 89: Female % of Credit Enrollment Trends by Top Code (2008-09 to 2010-11)



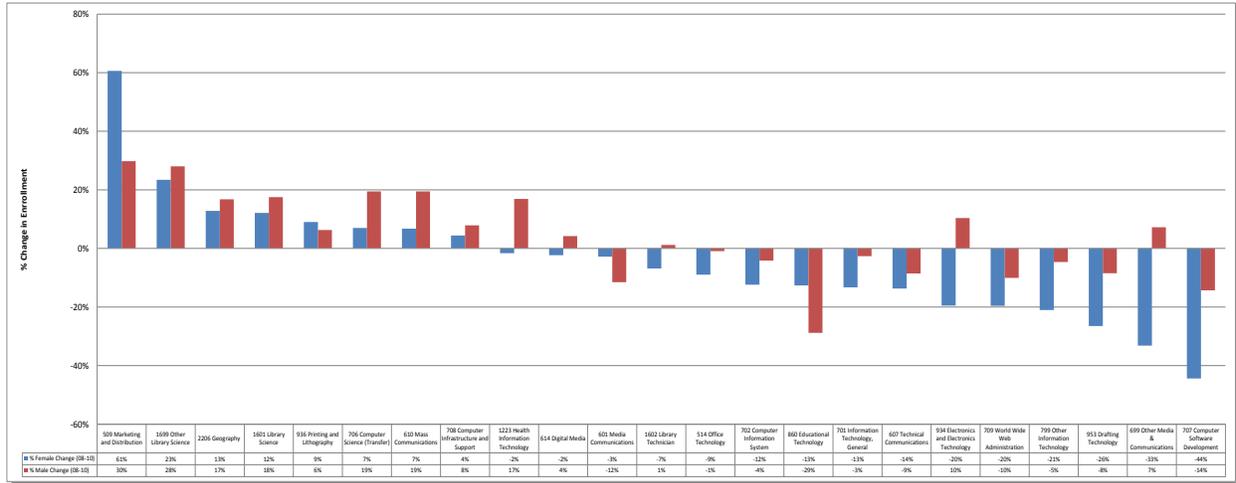
The following chart shows the percentages of women enrolled in each Top Code in the period, ranked from highest to lowest in 2010/11.

Chart 90: Female % of Credit Enrollment by Top Code (2008-09 to 2010-11)



The following chart shows trends in credit enrollment between 2008/09 and 2010/11 for each gender. Note big increases in numbers of women on the left side and large decreases in women on the right side.

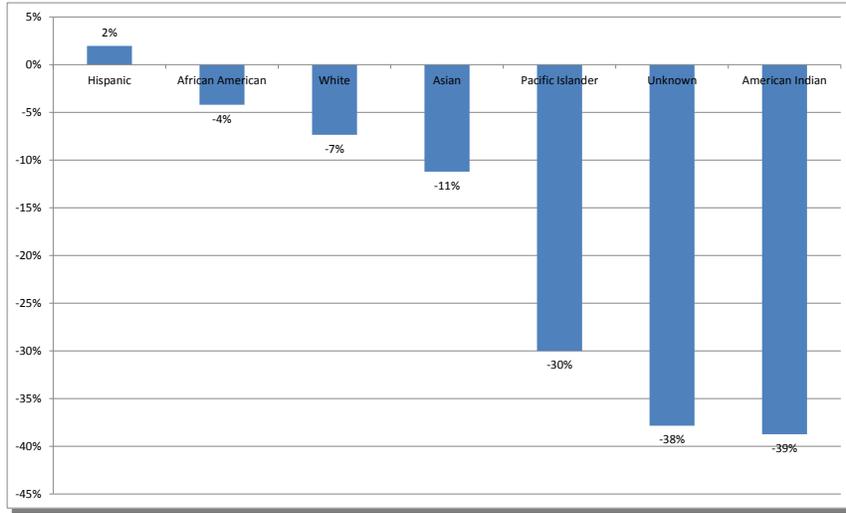
Chart 91: Trends in Credit Enrollment by Top Code by Gender (2008-09 to 2010-11)



ETHNICITY TRENDS

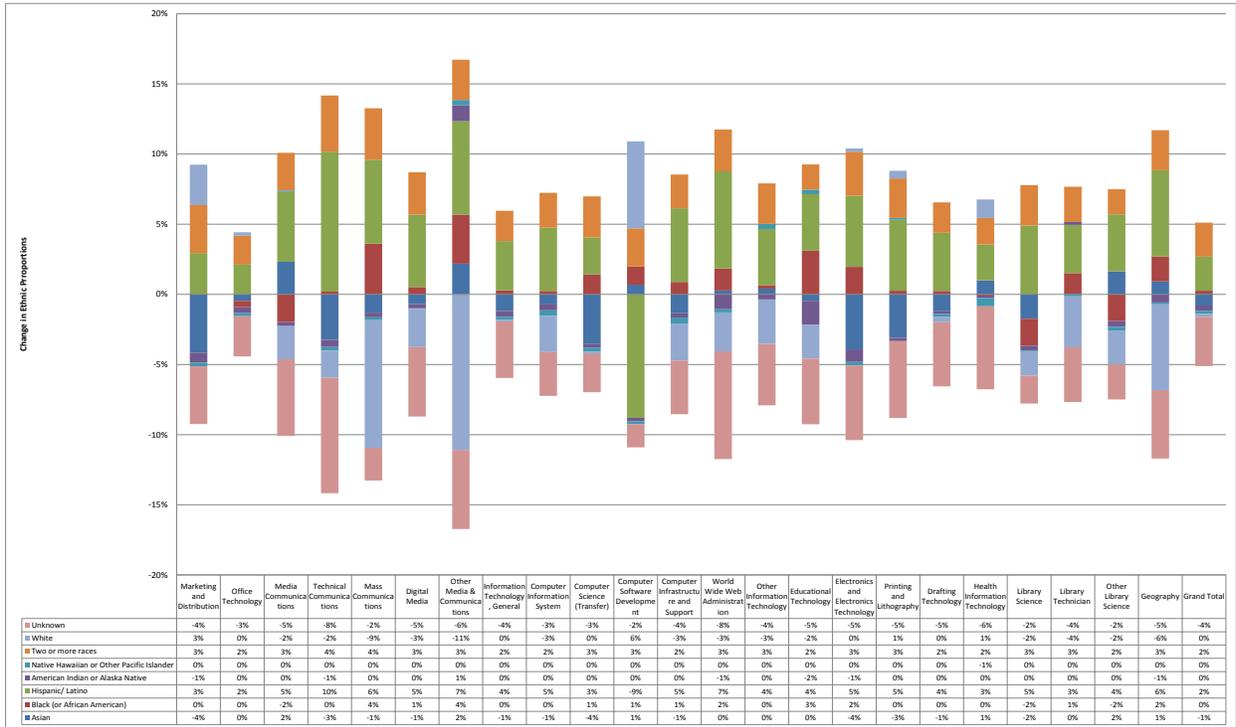
It is interesting to note a 12,882% increase in ICT related enrollments for Two or more races, from 2008-09 to 2010-11. In 2008-09, 106 students indicated two or more races, and, by 2010-11, 13,761 had indicated this category. Between 2008/09 and 2010/11, credit enrollment increased for Hispanic students by two percent. Credit enrollments for all other ethnic groups declined: African American (-4%), White (-7%), Asian-Americans (-11%), Pacific Islander (-30%), Unknown (-38%), and American Indian (-39%).

Chart 92: % Ethnic Change (2008-09 to 2010-11)



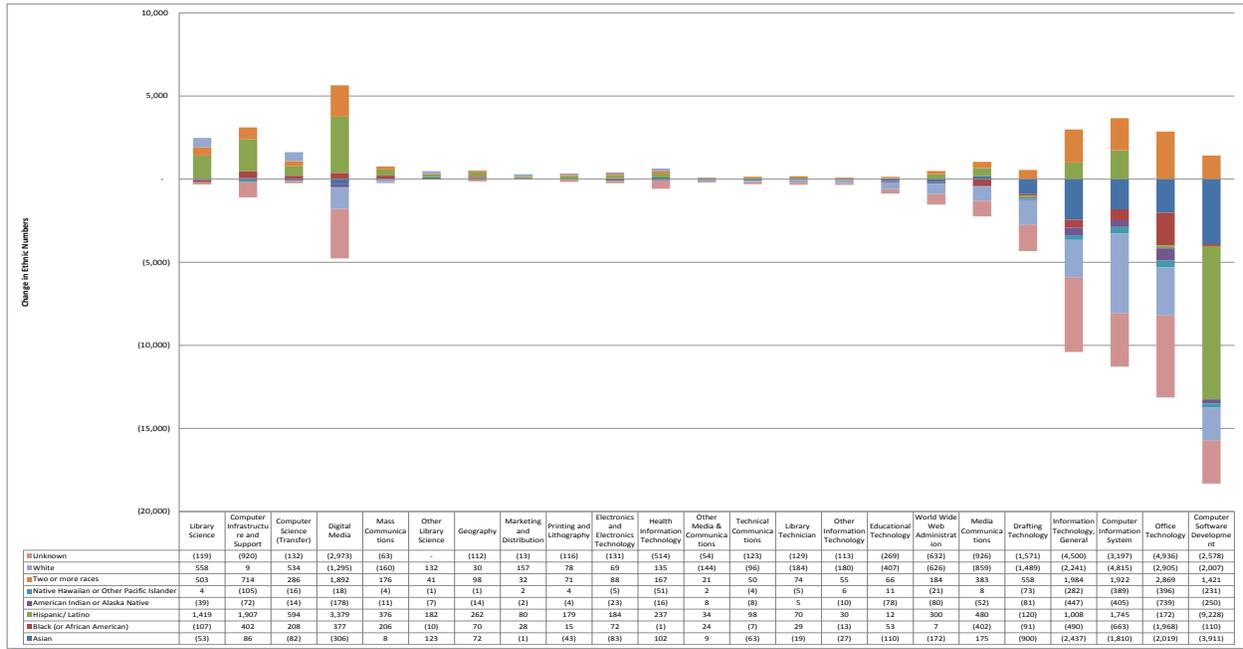
The following table shows changes in proportions of races in ICT related Top Codes between 2008/09 and 2010/11. Increasing proportional representation appears above, and decreases in proportional representation appear below, the 0% horizontal midpoint. Generally, Hispanics, Blacks and Multiple Races are gaining proportional representation relative to Whites and Unknowns, reflecting general population trends.

Chart 93: % Change in Ethnic Proportions by Top Code (2008-09 to 2010-11)



The following table shows changes in numbers of ICT credit enrollments by race in ICT related Top Codes between 2008/09 and 2010/11. Top Codes on the left side of the chart are net gainers of credit enrollments, and those on the right are net losers of credit enrollments.

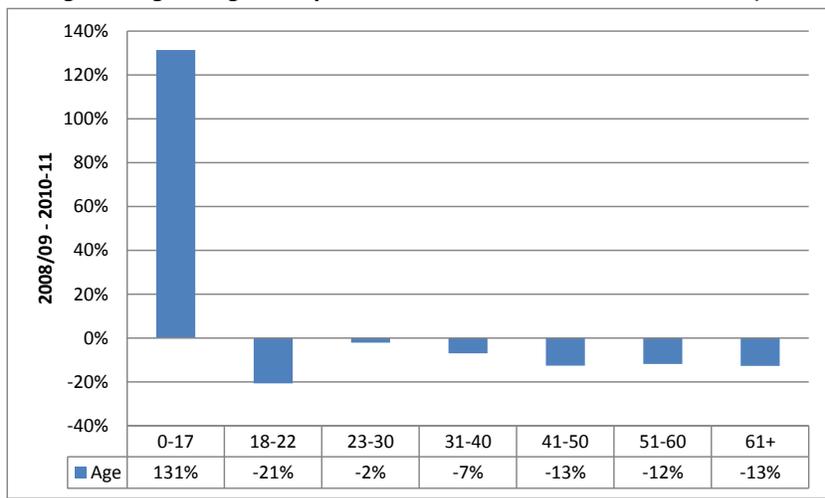
Chart 94: Numerical Change in Ethnic Populations by Top Code (2008-09 to 2010-11)



AGE TRENDS

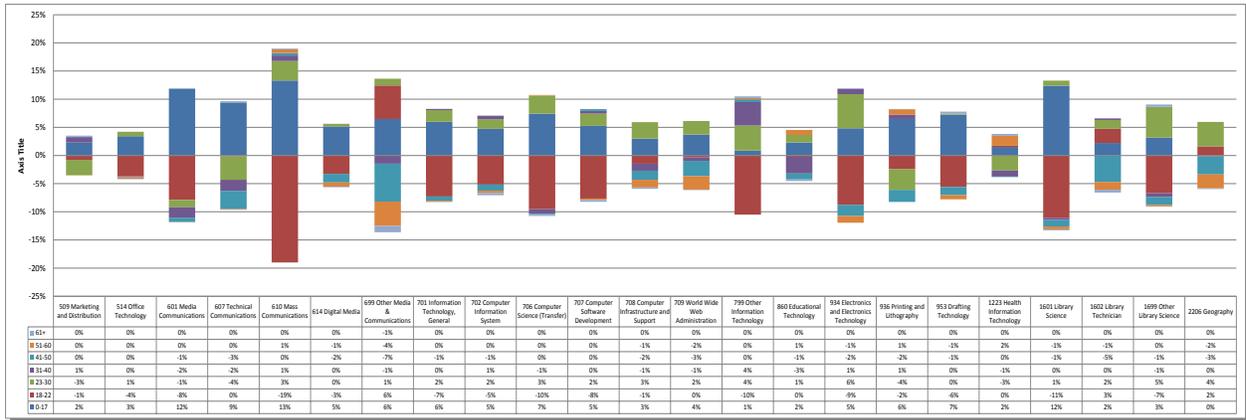
Overall, there were percentage declines in for credit enrollments in all age groups except for 0-17, which grew by 131%.

Chart 95: Percentage Change in Age Groups in ICT Related For Credit Enrollments (2008-09 to 2010-11)



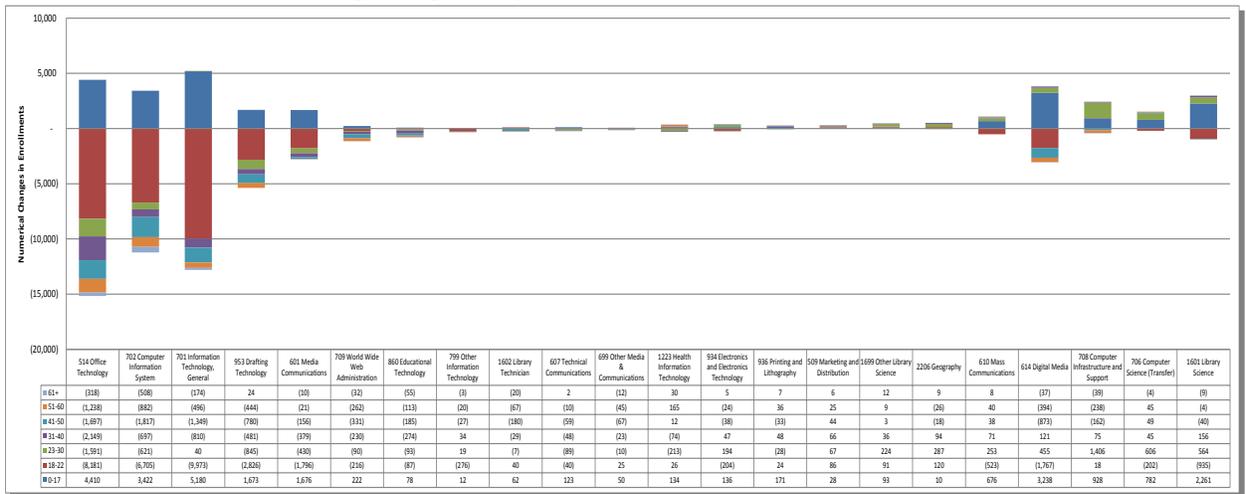
The following graphic shows changes in proportions of each Top Code represented by different age groups, which shows large percentage gains by the 0-17 group and large losses by the 18-22 group. (There may be something anomalous in reported ages in these groups. Or, another hypothesis is that these programs are successfully reaching high school students with concurrent or dual enrollment courses.)

Chart 96: % Change in Age Groups in ICT Related For Credit Enrollments (2008-09 to 2010-11)



The following graphic shows changes in numbers of credit enrollments of different age groups for each Top Code, which shows big gains by the 0-17 group and big losses in the 18-22 group in the Office Technology, Computer Information System, Information Technology (General), Digital Media and Library Science Top Codes. (Again, there may be something anomalous in reported ages in these groups, or they may be targeting and serving younger students.)

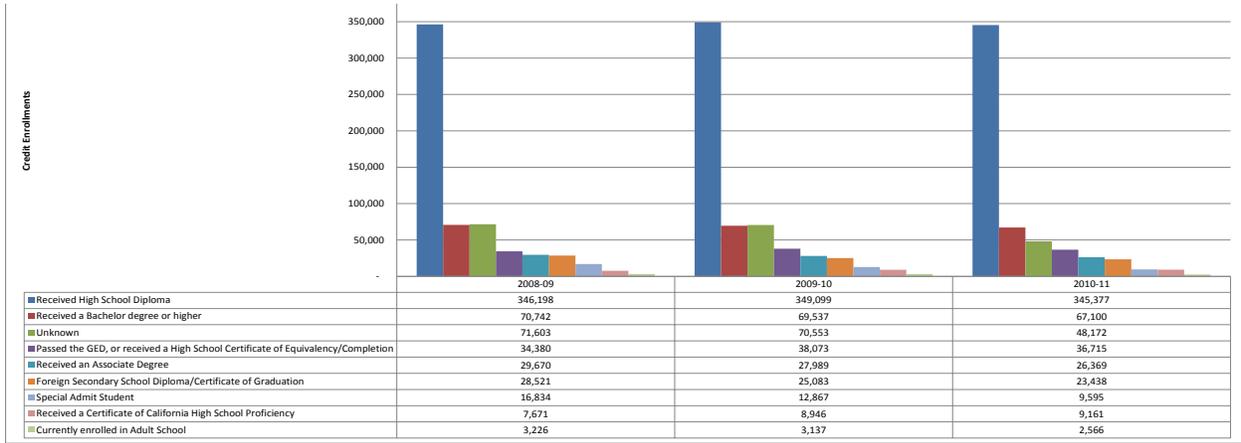
Chart 97: Numerical Change in Age Groups in ICT Related For Credit Enrollments (2008-09 to 2010-11)



EDUCATIONAL STATUS TRENDS

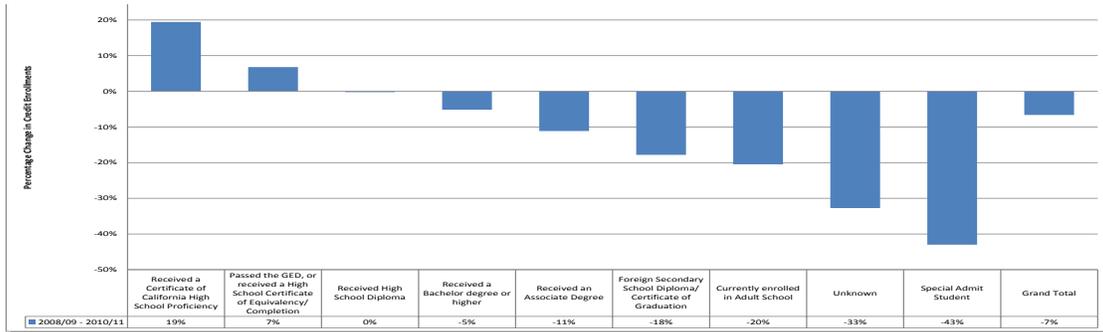
Between 2008/09 and 2010/11, by far most credit enrollments in ICT related courses were by students with high school diplomas. Second/third place consistently went to students who already had a bachelor degree or higher and Unknowns.

Chart 98: Credit Enrollments by Educational Status (2008-09 to 2010-11)



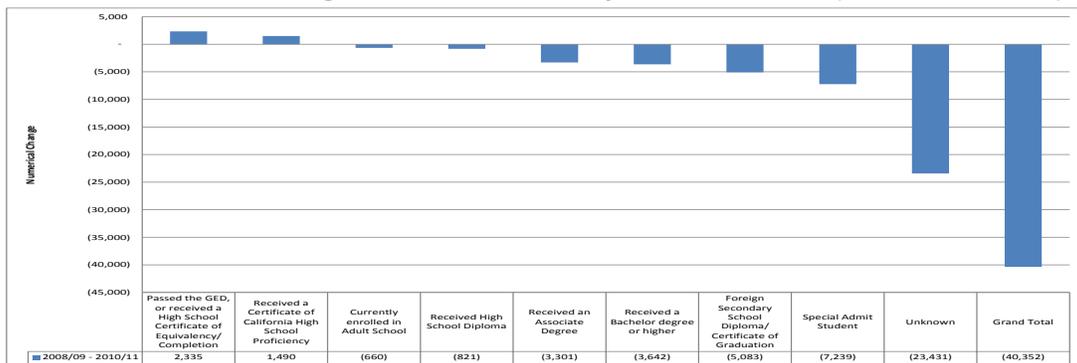
Credit enrollment percentage increases were realized by students who had received Certificates of California High School Proficiency or GED (26%). There was essentially no percentage change in numbers of students who had received high school diplomas. There was a slight (5%) decrease in the percentage of students who already had bachelor degrees or higher. There were increasingly large percentage losses in percentages of students with associate degrees (-11%), with foreign secondary school credentials (-22%), enrolled in adult schools (-20%), Unknown (-33%) and especially special admission students (-43%). Overall credit enrollments were down 7%.

Chart 99: % Change in Credit Enrollments by Educational Status (2008-09 to 2010-11)



Numerically, by far the greatest reduction in credit enrollments was by students with unknown educational status, suggesting that the CCC system is doing a better job collecting this information.

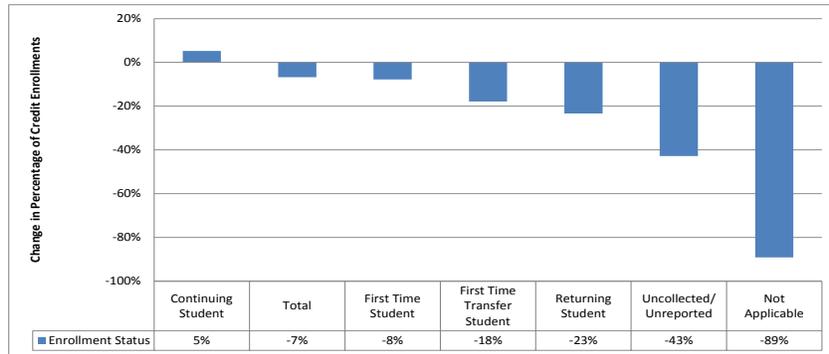
Chart 100: Numerical Change in Credit Enrollments by Educational Status (2008-09 to 2010-11)



STUDENT STATUS TRENDS

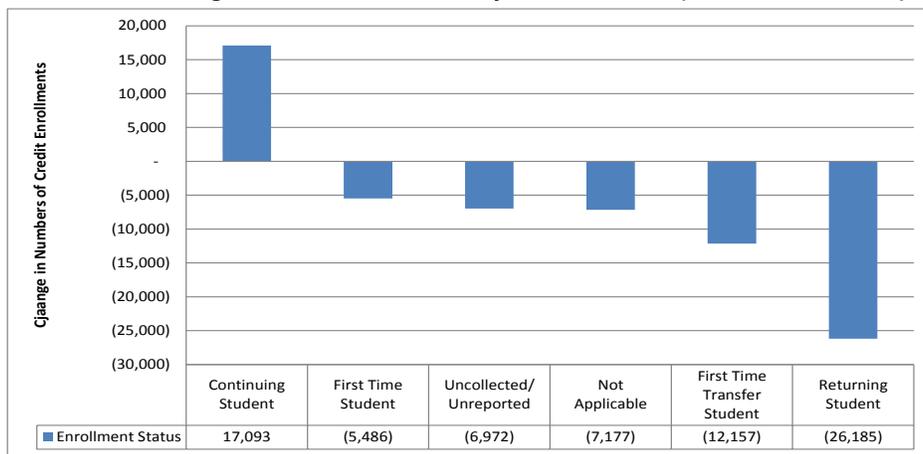
Continuing students continued to represent the majority of credit enrollment, and their numbers increased by 5 percent between 2008/9 and 2010/11. As of 2010/11, they represented 61% of ICT related credit enrollments. All other enrollment status categories had decreased since 2008/09: first time students by 8%, first time transfer students by 18%, returning students by 23%, Uncollected/Unreported by 43% and Not Applicable by 89%.

Chart 101: Percentage Change in Credit Enrollments by Student Status (2008-09 to 2010-11)



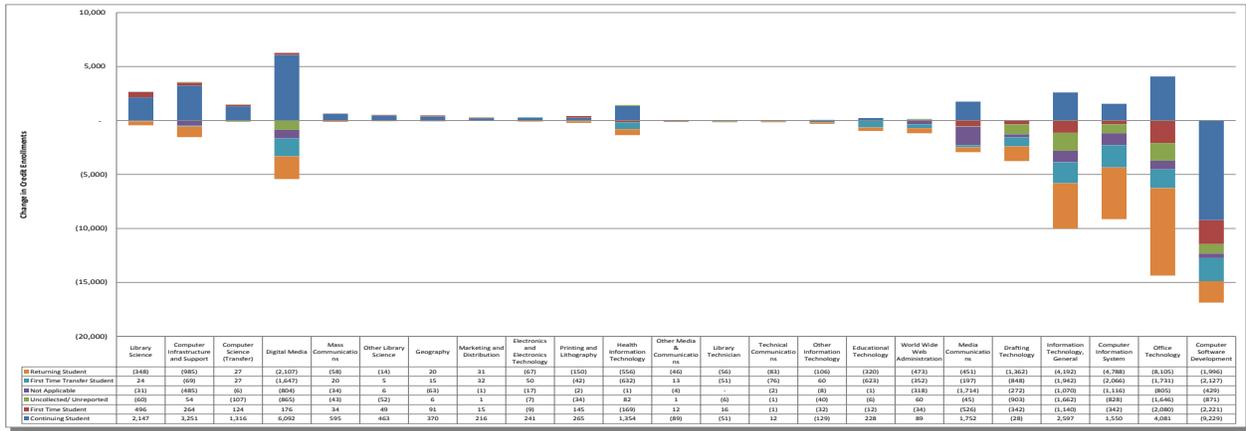
In terms of numbers, Continuing Student enrollments increased by 17,093. Enrollments decreased for First Time Students by 5,486, for Uncollected/Unreported by 6,972, for Not Applicable by 7,177, for First Time Transfer Students by 12,157 and for Returning Students by 26,185.

Chart 102: Change in Credit Enrollments by Student Status (2008-09 to 2010-11)



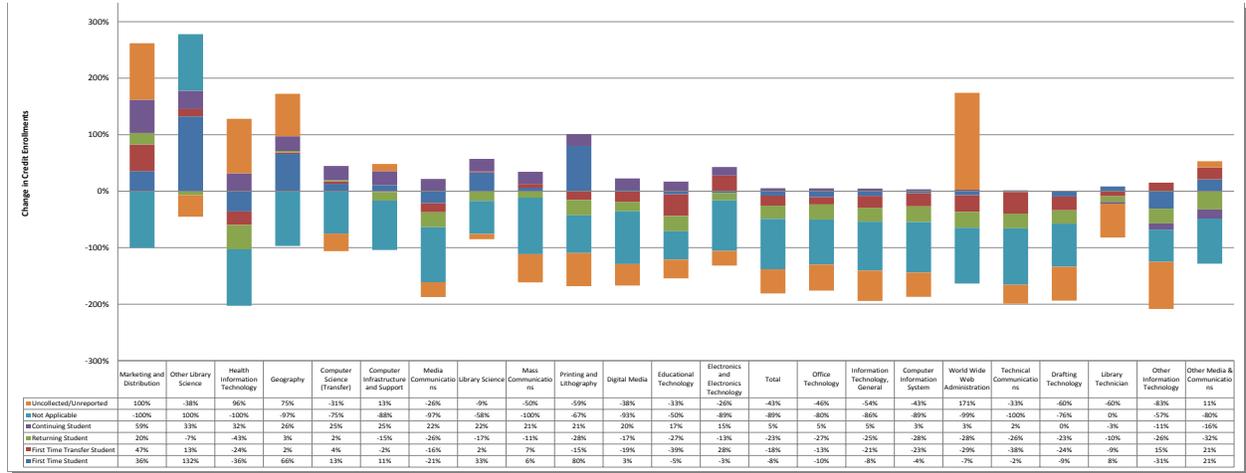
Looking at the numerical data by Top Codes shows the largest increases between 2008/9 and 2010/11 in Continuing Student enrollments in Digital Media, Office Technology, Computer Infrastructure and Support, and Information Technology (General). The largest losses of Returning Students were in Office Technology, Computer Information System, IT General, Digital Media and Computer Software Development.

Chart 103: Change in Credit Enrollments by Student Status by Top Code (2008-09 to 2010-11)



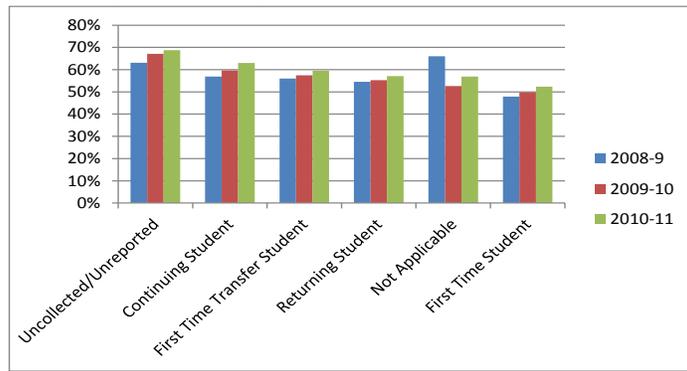
Looking at trend data between 2008/9 and 2010/11 shows general progress in reducing Uncollected/Unreported and Not Applicable responses to Student Status questionnaires. World Wide Web Administration had a big percentage increase in Uncollected/Unreported. The biggest percentage gains in First Time students were in Other Library Science, Printing and Lithography and Geography.

Chart 104: % Changes in Credit Enrollments by Student Status by Top Code (2008-09 to 2010-11)



The data shows improvement in passing rates for all student status categories except Not Applicable.

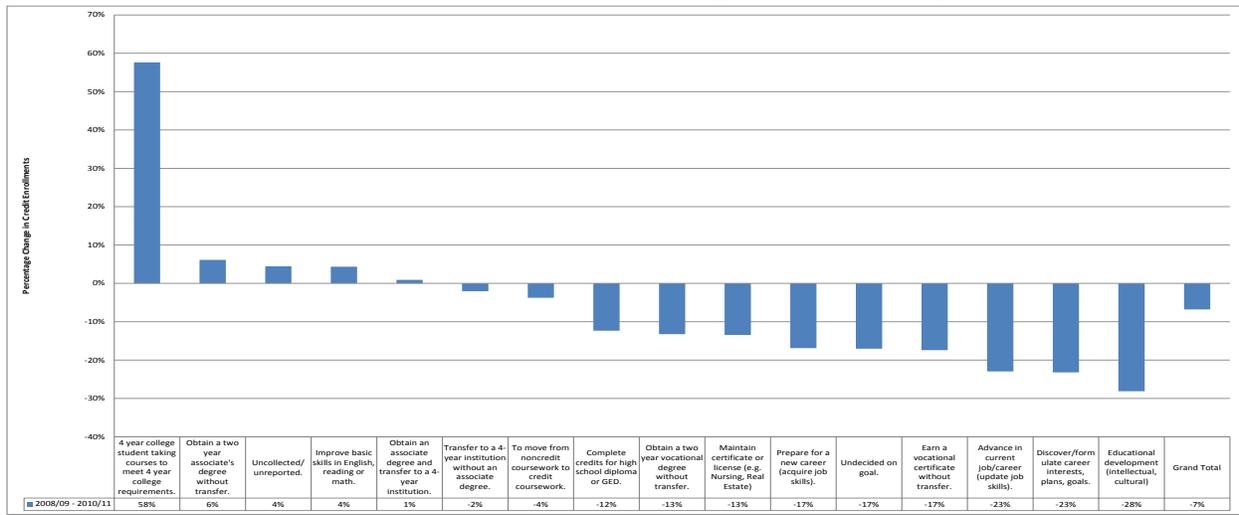
Chart 105: Changes in Passing Rates by Student Status (2008-09 to 2010-11)



EDUCATIONAL GOAL TRENDS

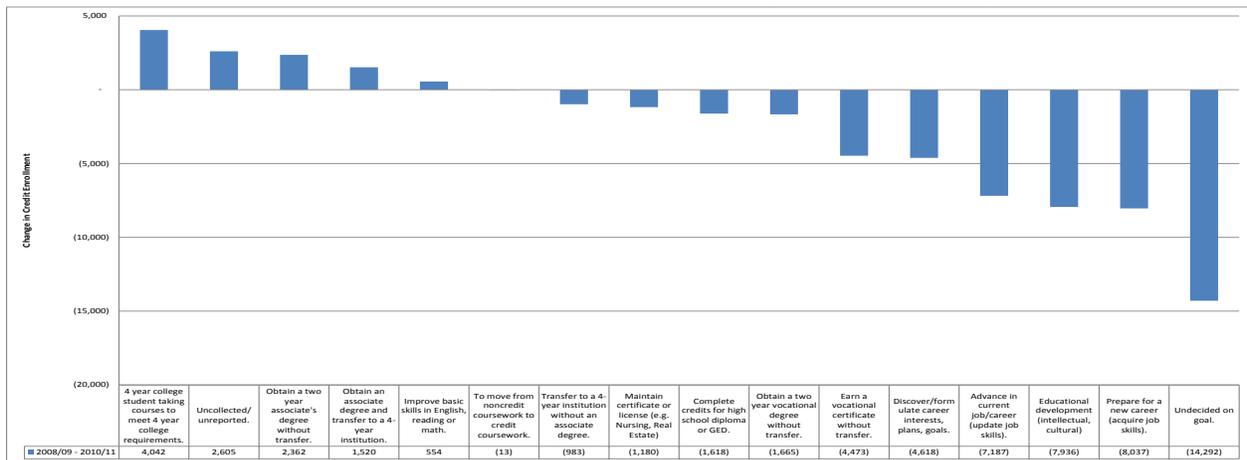
Between 2008/09 and 2010/11, there was a 58% increase in four-year college students taking CCC ICT courses to meet four year college requirements. There were percentage increases in student goals of obtaining a two year associate's degree without transfer (6%), Uncollected/ unreported (4%), improving basic skills (4%) and obtaining an associate degree and transfer to a 4-year institution (1%). Percentage decreases are observed in transfer to a 4-year institution without an associate degree (-2%), moving from noncredit coursework to credit coursework (-4%), completing credits for high school diploma or GED (-12%), obtaining a two year vocational degree without transfer (-13%), maintaining certificate or license (-13%), preparing for a new career (acquire job skills) (-17%), undecided (-17%), obtaining a vocational certificate without transfer (-17%), advancing in current job/career (update job skills) (-23%), discover/formulate career interests, plans, goals (-23%), and educational development (intellectual, cultural) (-28%).

Chart 106: % Educational Goal Trend (2008-09 to 2010-11)



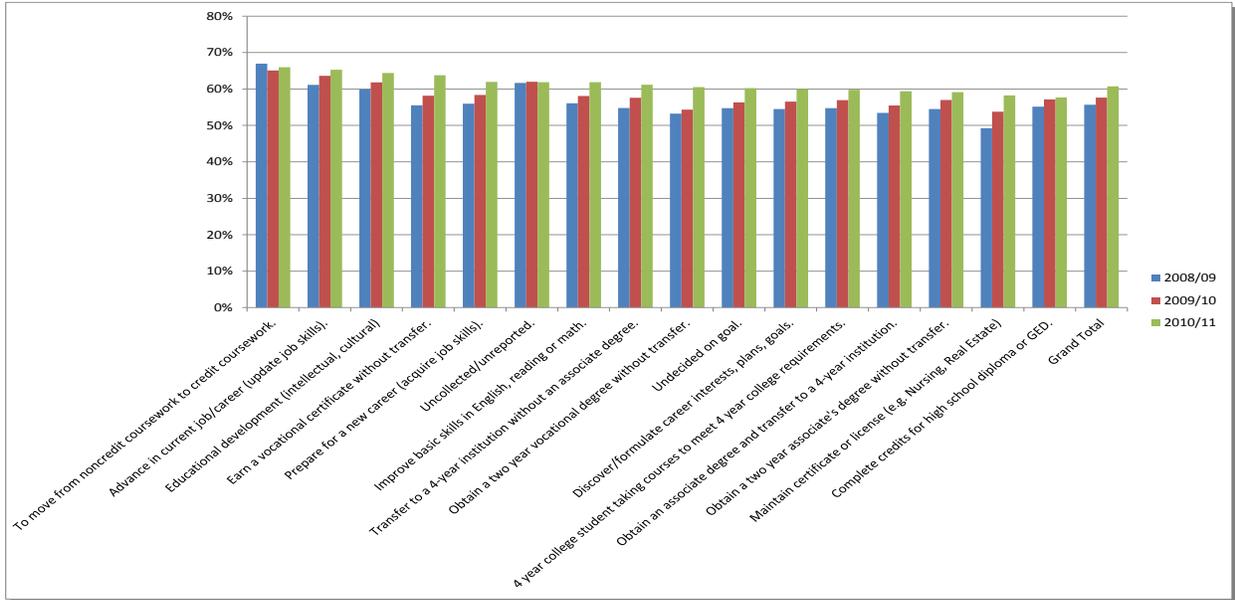
The numerical changes are indicated in the chart below.

Chart 107: Numerical Educational Goal Trend (2008-09 to 2010-11)



The only student goal that did not see an increase in passing rates for credit enrollment between 2008/09 and 2010/11 was moving from noncredit coursework to credit coursework.

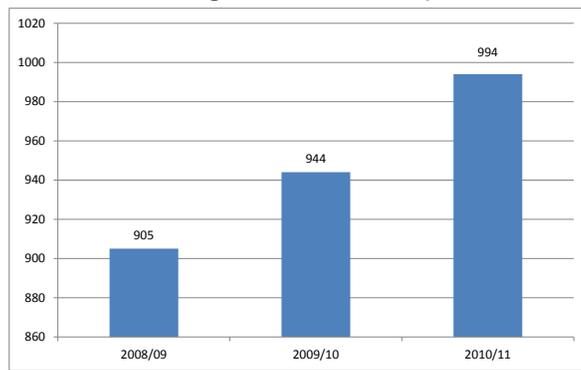
Chart 108: Credit Passing Rates by Educational Goals (2008-09 to 2010-11)



ASSOCIATE DEGREES TRENDS

Between the 2008/09 and 2010/11 academic years, the number of ICT related associate degrees increased 9.8%, or 89 degrees, from 905 to 994. They increased 4.3% (39 degrees) from 2008/09 to 2009/10 and 5.3% (50 degrees) from 2009/10 to 2010/11.

Chart 109: Associate Degree Award Trends (2008-09 to 2010-11)



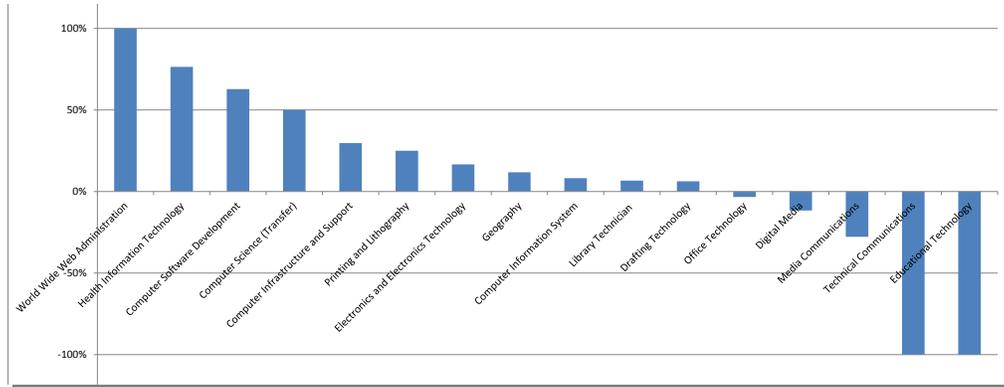
The largest (450%) percentage increase in number of degrees was by Monterey (increasing from 2 to 11 degrees). The largest numerical increases in numbers of degrees were by Chaffey (increasing from 0 to 17 degrees), San Francisco (increasing from 10 to 25), and Butte (increasing from 6 to 19 degrees). Several colleges went from some to no degrees awarded.

Chart 110: Associate Degree Award Trends Table (2008-09 to 2010-11)

Associate Degrees College Name	Year				Numerical Change			Percentage Change		
	2008/09	2009/10	2010/11	Grand Total	2008/09 - 2009/10	2009/10 - 2010/11	2008/09 - 2010/11	2008/09 - 2009/10	2009/10 - 2010/11	2008/09 - 2010/11
ALAMEDA	2	0	2	4	-2	2	0	-100%	-	0%
ALLAN HANCOCK	16	20	19	55	-1	-1	3	25%	-5%	19%
AMERICAN RIVER	42	38	35	115	-4	-3	-7	-10%	-8%	-17%
ANTELOPE VALLEY	26	23	23	72	-3	0	-3	-12%	0%	-12%
BAKERSFIELD	10	4	8	22	-6	4	-2	-60%	100%	-20%
BARSTOW	18	8	4	30	-10	-4	-14	-56%	-50%	-78%
BERKELEY CITY	0	0	6	6	0	6	6	-	-	-
BUTTE	6	13	19	38	7	6	13	117%	46%	217%
CABRILLO	23	25	17	65	2	-8	-6	9%	-32%	-26%
CANADA	4	6	4	14	2	-2	0	50%	-33%	0%
CANYONS	12	10	24	46	-2	14	12	-17%	140%	100%
CERRITOS	14	14	8	36	0	-6	-6	0%	-43%	-43%
CERRO COSO	6	8	12	26	2	4	6	33%	50%	100%
CHABOT	4	4	0	8	0	-4	-4	0%	-100%	-100%
CHAFFEY	4	16	17	33	16	1	17	-	6%	-
CITRUS	7	2	7	16	-5	5	0	-71%	250%	0%
COALINGA	6	2	7	15	-4	5	1	-67%	250%	17%
COASTLINE	2	2	6	10	0	4	4	0%	200%	200%
COLUMBIA	0	4	6	10	4	2	6	-	50%	-
COMPTON	0	0	0	0	0	0	0	-	-	-
CONTRA COSTA	2	2	4	8	0	2	2	0%	100%	100%
COPPER MOUNTAIN	2	4	2	4	-2	2	0	-100%	-	0%
COSUMNES RIVER	8	8	18	34	0	10	10	0%	125%	125%
CRAFTON HILLS	0	0	0	0	0	0	0	-	-	-
CUESTA	2	6	4	12	4	-2	2	200%	-33%	100%
CUYAMACA	4	10	6	20	6	-4	2	150%	-40%	50%
CYPRESS	12	10	14	36	-2	4	2	-17%	40%	17%
DE ANZA	16	13	21	50	-3	8	5	-19%	62%	31%
DESERT	6	2	6	14	-4	4	0	-67%	200%	0%
DIABLO VALLEY	12	17	18	47	5	1	6	42%	6%	50%
EAST LA	18	9	14	41	-9	5	-4	-50%	56%	-22%
EL CAMINO	8	12	12	32	4	0	4	50%	0%	50%
EVERGREEN VALLEY	2	2	6	10	0	4	4	0%	200%	200%
FEATHER RIVER	2	2	4	4	2	0	2	-	0%	-
FOLSOM LAKE	2	2	0	4	0	-2	-2	0%	-100%	-100%
FOOTHILL	6	16	12	34	10	-4	6	167%	-25%	100%
FRESNO CITY	16	14	10	40	-2	-4	-6	-13%	-29%	-38%
FULLERTON	4	4	6	14	0	2	2	0%	50%	50%
GAVILAN	6	8	12	26	2	4	6	33%	50%	100%
GLENDALE	12	9	9	30	-3	0	-3	-25%	0%	-25%
GOLDEN WEST	4	2	2	8	-2	0	-2	-50%	0%	-50%
GROSSMONT	2	2	6	10	0	4	4	0%	200%	200%
HARTNELL	13	4	9	26	-9	5	-4	-69%	125%	-31%
IMPERIAL VALLEY	4	8	12	24	4	4	8	100%	50%	200%
IRVINE VALLEY	6	4	6	16	-2	2	0	-33%	50%	0%
L.A. CITY	15	9	7	31	-6	-2	-8	-40%	-22%	-53%
L.A. HARBOR	4	2	4	10	-2	2	0	-50%	100%	0%
L.A. MISSION	0	4	6	10	4	2	6	-	50%	-
L.A. PIERCE	2	2	2	6	0	0	0	0%	0%	0%
L.A. TRADE-TECH	8	6	8	22	-2	2	0	-25%	33%	0%
L.A. VALLEY	15	11	6	32	-4	-5	-9	-27%	-45%	-60%
LAKE TAHOE	2	0	2	4	-2	2	0	-100%	-	0%
LANEY	2	4	6	12	2	4	2	100%	200%	100%
LAS POSITAS	4	6	2	12	2	0	2	50%	0%	50%
LASSEN	0	2	2	4	2	2	4	-	-	-
LEMOORE	4	2	2	8	-2	2	0	-50%	-	-50%
LONG BEACH CITY	7	4	6	17	-3	2	-1	-43%	50%	-14%
LOS MEDANOS	7	2	5	14	-5	3	-2	-71%	150%	-29%
MARIN	8	8	4	20	0	-4	-4	0%	-50%	-50%
MENDOCINO	4	4	2	10	0	-2	-2	0%	-50%	-50%
MERCED	4	7	13	24	3	6	9	75%	86%	225%
MERRITT	0	0	0	0	0	0	0	-	-	-
MIRA COSTA	2	10	8	20	8	-2	6	400%	-20%	300%
MISSION	6	6	10	22	0	4	4	0%	67%	67%
MODESTO	9	4	10	23	-5	6	1	-56%	150%	11%
MONTEREY	2	0	11	13	-2	11	9	-100%	-	450%
MOORPARK	5	6	13	24	1	7	8	20%	117%	160%
MORENO VALLEY	8	10	2	20	2	2	4	-	-	-
MT. SAN ANTONIO	8	10	20	38	2	10	12	25%	100%	150%
MT. SAN JACINTO	24	32	14	70	8	-18	-10	33%	-56%	-42%
NAPA VALLEY	6	0	4	10	-6	4	-2	-100%	-	-33%
NORCO	0	0	0	0	0	0	0	-	-	-
NORTH ORANGE ADULT	0	0	0	0	0	0	0	-	-	-
OHLONE	2	2	8	12	0	6	6	0%	300%	300%
ORANGE COAST	16	10	21	47	-6	11	5	-38%	110%	31%
OXNARD	6	4	4	14	-2	0	-2	-33%	0%	-33%
PALO VERDE	0	0	0	0	0	0	0	-	-	-
PALOMAR	23	26	25	74	3	-1	2	13%	-4%	9%
PASADENA CITY	0	0	0	0	0	0	0	-	-	-
PORTERVILLE	6	6	2	14	0	-4	-4	0%	-67%	-67%
RANCHO SANTIAGO CED	0	0	0	0	0	0	0	-	-	-
REDWOODS	6	10	10	26	4	0	4	67%	0%	67%
REEDLEY	9	6	5	20	-3	-1	-4	-33%	-17%	-44%
RIO HONDO	4	6	4	14	2	-2	0	50%	-33%	0%
RIVERSIDE	10	16	15	41	6	-1	5	60%	-6%	50%
SACRAMENTO CITY	46	46	33	125	0	-13	-13	0%	-28%	-28%
SADLEBACK	10	12	14	36	2	2	4	20%	17%	40%
SAN BERNARDINO	6	4	4	14	-2	0	-2	-33%	0%	-33%
SAN DIEGO ADULT	0	0	0	0	0	0	0	-	-	-
SAN DIEGO CITY	10	8	10	28	-2	2	0	-20%	25%	0%
SAN DIEGO MESA	15	23	27	65	8	4	12	53%	17%	80%
SAN DIEGO MIRAMAR	2	2	0	2	2	-2	0	-	-100%	-
SAN FRANCISCO CITY	10	20	25	55	10	5	15	100%	25%	150%
SAN FRANCISCO CTRS	0	0	0	0	0	0	0	-	-	-
SAN JOAQUIN DELTA	12	14	13	39	2	-1	1	17%	-7%	8%
SAN JOSE CITY	4	6	4	14	2	-2	0	50%	-33%	0%
SAN MATEO	2	12	0	14	10	-12	-2	500%	-100%	-100%
SANTA ANA	21	11	4	36	-10	-7	-17	-48%	-64%	-81%
SANTA BARBARA CITY	36	47	46	129	11	-1	10	31%	-2%	28%
SANTA MONICA CITY	4	16	4	24	12	-12	0	300%	-75%	0%
SANTA ROSA	2	4	4	10	2	0	2	100%	0%	100%
SANTIAGO CANYON	0	0	0	0	0	0	0	-	-	-
SEQUOIAS	6	6	9	21	0	3	3	0%	50%	50%
SHASTA	15	21	13	49	6	-8	-2	40%	-38%	-13%
SIERRA	32	24	39	95	-8	15	7	-25%	63%	22%
SISKIYOU	4	0	4	4	-4	0	-4	-100%	-	-100%
SKYLARK	4	11	15	30	7	-11	-4	175%	-100%	-100%
SOLANO	7	10	4	21	3	-6	-3	43%	-60%	-43%
SOUTHWEST LA	2	2	2	6	-2	0	-2	-100%	-	-100%
SOUTHWESTERN	15	14	12	41	-1	-2	-3	-7%	-14%	-20%
TAFT	2	2	2	4	2	2	2	-	0%	-
VENTURA	2	2	4	8	0	2	2	0%	100%	100%
VICTOR VALLEY	25	21	12	58	-4	-9	-13	-16%	-43%	-52%
WEST L.A.	0	0	0	0	0	0	0	-	-	-
WEST VALLEY	4	4	2	10	0	-2	-2	0%	-50%	-50%
WOODLAND	16	20	7	43	4	-13	-9	25%	-65%	-56%
YUBA	0	0	0	0	0	0	0	-	-	-
Grand Total	905	944	994	2843	39	50	89	4%	5%	10%

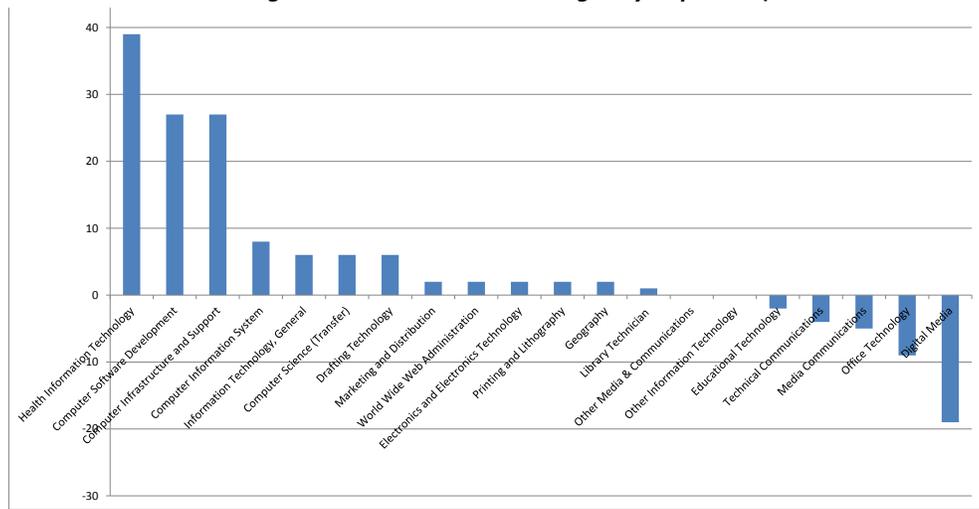
Between 2008/09 and 2010/11 by Top Code, the largest percentage gain in degrees awarded was World Wide Web Administration, which increased 100%, and the largest percentage decreases in degrees awarded was 100% in Technical Communications and Educational Technology.

Chart 111: Associate Degree Award Percentage Changes by Top Code (2008-09 to 2010-11)



Between 2008/09 and 2010/11 by Top Code, the largest numerical gain in degrees awarded was Health IT, which increased by 39 degrees, and the largest numerical decrease in degrees awarded was 19 in Digital Media.

Chart 112: Associate Degree Award Numerical Changes by Top Code (2008-09 to 2010-11)



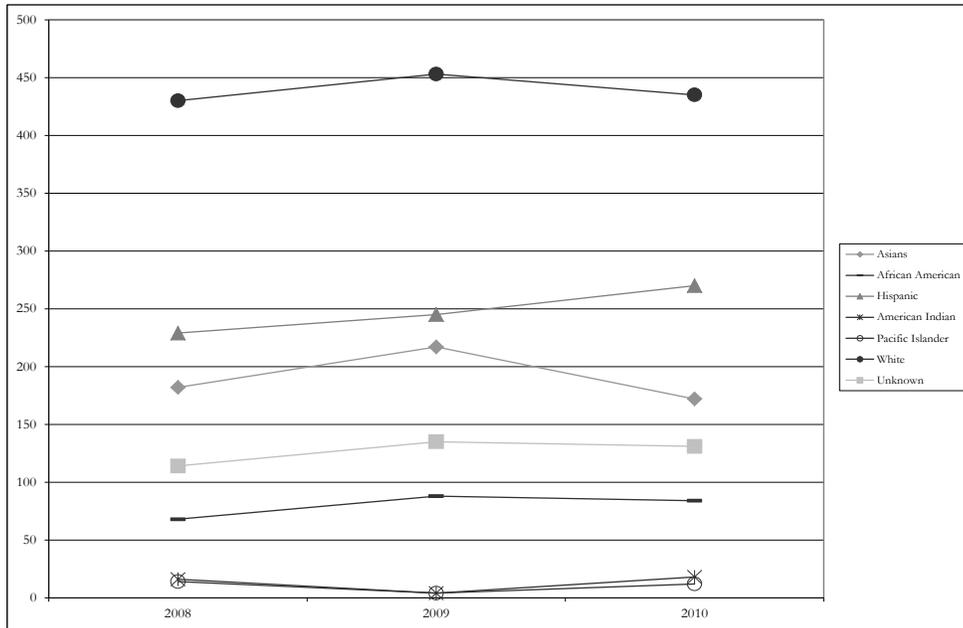
Between 2008/09 and 2010/11, the number of degrees awarded to women increased 5%, by 23, and the number of degrees awarded to men increased 14%, by 56.

Chart 113: Associate Degree Award Trends by Gender (2008-09 to 2010-11)

Degrees	Year			
Gender	2008/09	2009/10	2010/11	Grand Total
Female	500	487	523	1,510
Male	397	447	453	1,297
Unknown	8	10	18	36
Grand Total	905	944	994	2,843

Of ethnic groups, only Hispanics appear to be consistently and significantly increasing their degree award numbers. It is also encouraging to see an increase in numbers of African Americans receiving ICT related degrees.

Chart 114: Associate Degree Award Trends by Ethnicity (2008-09 to 2010-11)



ACADEMIC CERTIFICATES TRENDS

The total number of ICT related academic certificates awarded decreased 2% from 2,257 in 2008/09 to 2,201 in 2010/11.

Chart 115: ICT Related Academic Certificate Award Trends (2008-09 to 2010-11)

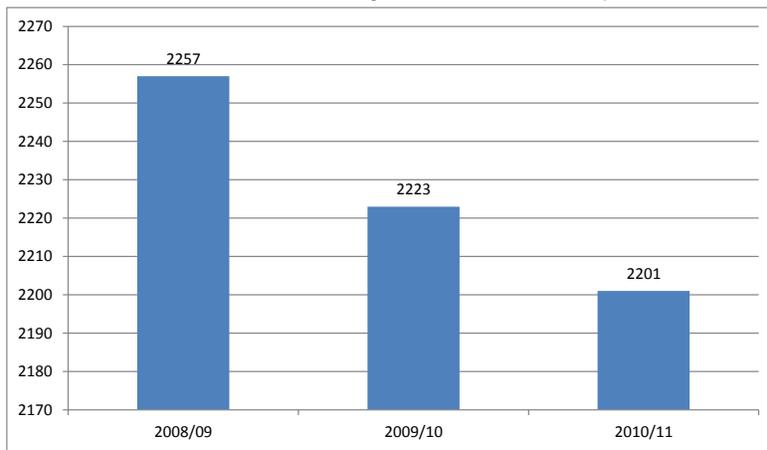
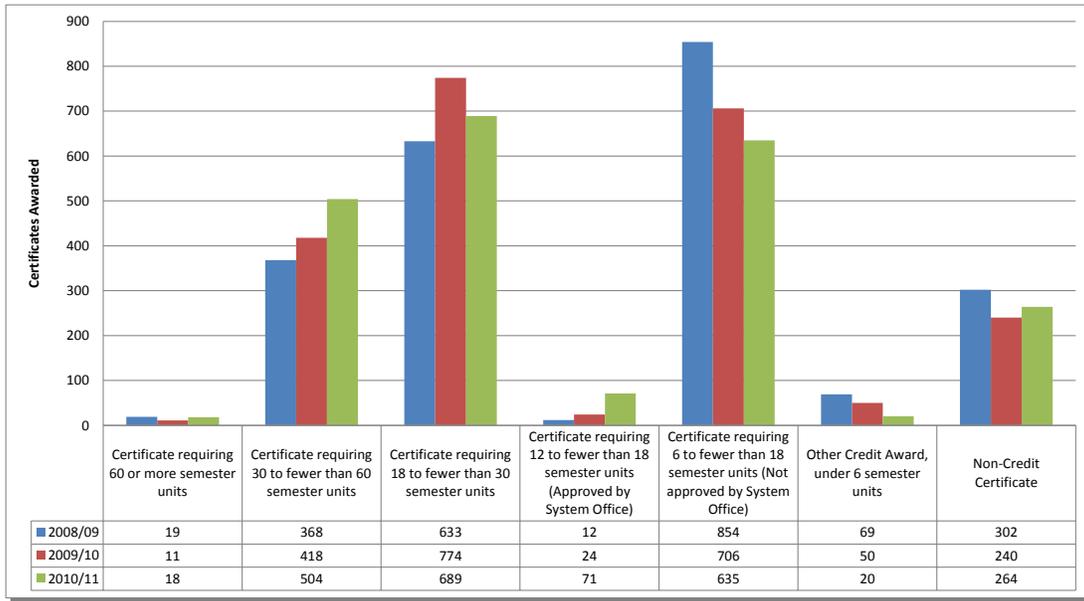
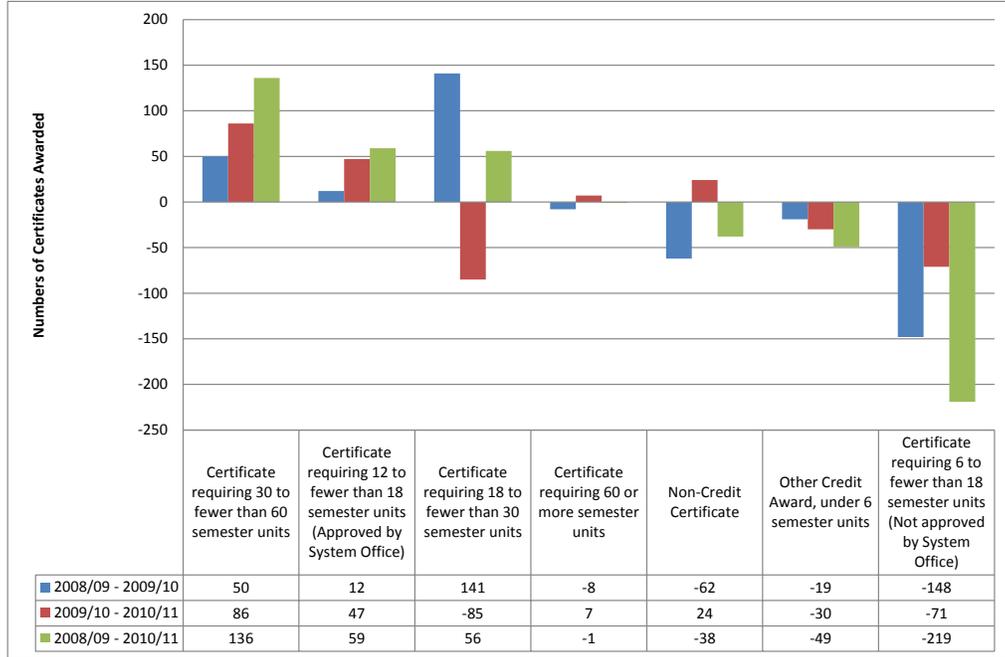


Chart 116: Trends in ICT Related Academic Certificate Awards by Type (2008-09 to 2010-11)



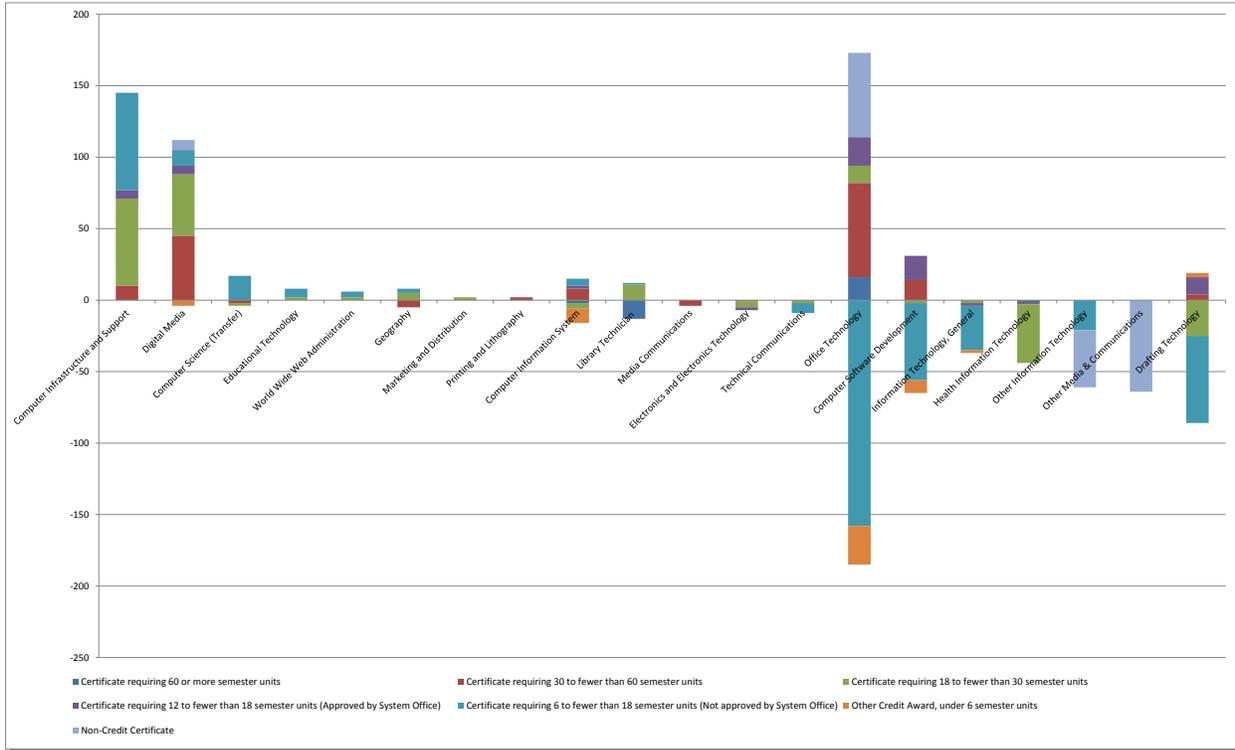
Between 2008/09 and 2010/11, awards increased most for certificates requiring 30-60 units, increasing by 136, or 492%, from 368 to 504. The largest certificate award decreases were for those requiring 8-18 units (Not approved by the System Office), decreasing by 219, or 71%, from 854 to 635.

Chart 117: Numerical Changes in ICT Related Academic Certificate Awards by Type (2008-09 to 2010-11)



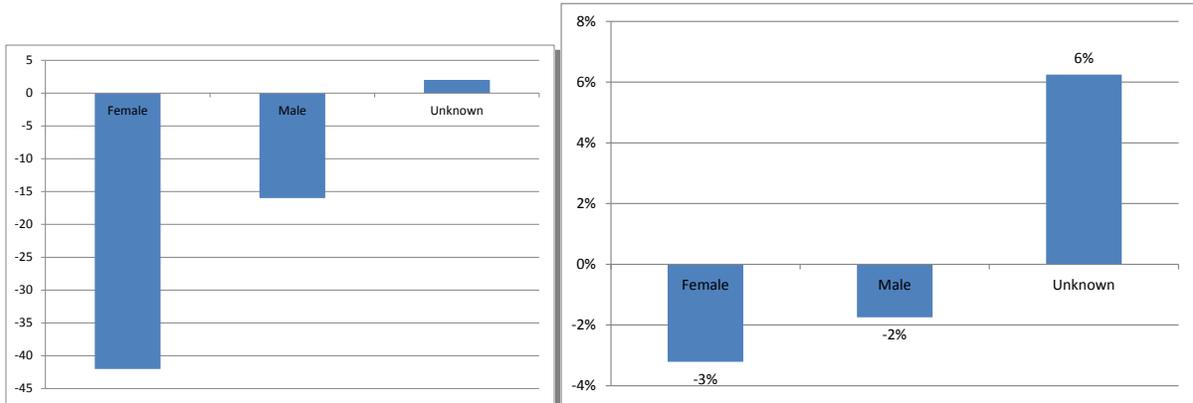
Between 2008/09 and 2010/11, Top Codes Computer Infrastructure and Support (104) and Digital Media (108) saw strong increases in numbers of academic certificates awarded. Drafting Technology (-67), Other Media & Communications (-64), and Other Information Technology (-61) saw the largest decreases in numbers of certificates awarded.

Chart 118: Changes in ICT Related Academic Certificate Awards by Top Code (2008-09 to 2010-11)



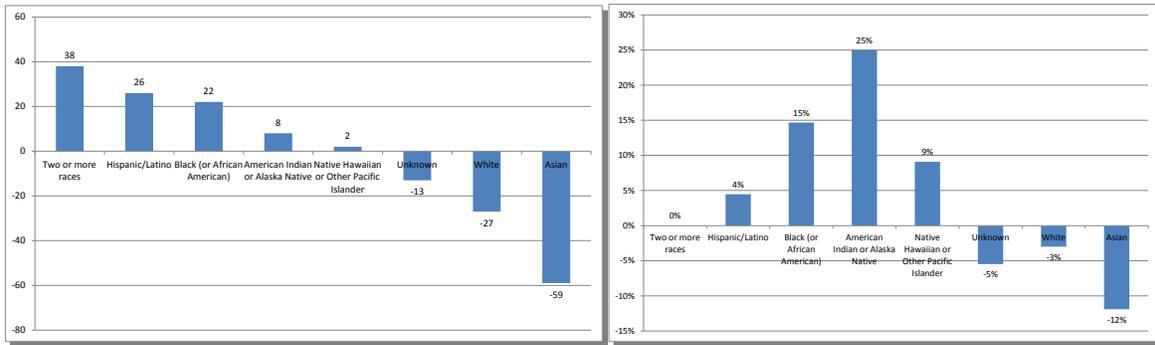
From 2008/09 to 2010/11, academic certificates earned decreased for both males, by 16, or 2%, and females, by 42 or 3%.

Chart 119: Changes in ICT Related Academic Certificate Awards by Gender (2008-09 to 2010-11)



Between 2008/09 and 2010/11, Two or more races, Hispanic/Latino and Black (or African American) ethnicities experienced increased in academic certificates awarded (38 from a base of zero, 26 or 4%, and 22 or 15%, respectively). American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander experienced small numerical gains, but those were large percentage gains, given the low bases. Asian, White and Unknown groups experienced decreases in certificate awards (50 or 12%, 27 or 3% and 13 or 5%, respectively).

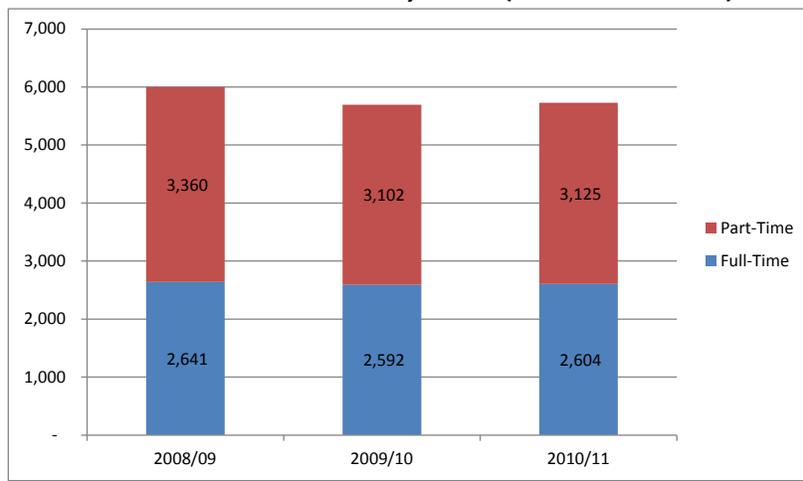
Chart 120: Changes in ICT Related Academic Certificate Awards by Ethnicity (2008-09 to 2010-11)



FACULTY TRENDS

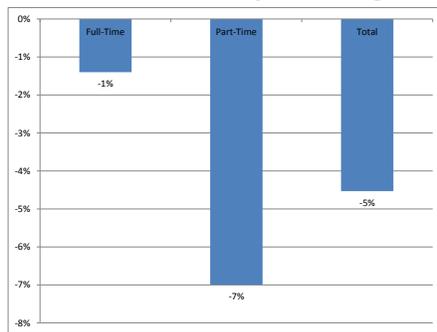
ICT related faculty at California Community Colleges was reduced 5% from 6,001 to 5,729 between 2008/09 and 2010/11.

Chart 121: ICT Related Faculty Trends (2008-09 to 2010-11)



The reductions were higher for part-time (-7%) than full-time faculty (-1%) from 2008/09 to 2010/11.

Chart 122: Full- and Part-Time ICT Related Faculty Percentage Changes (2008-09 to 2010-11)



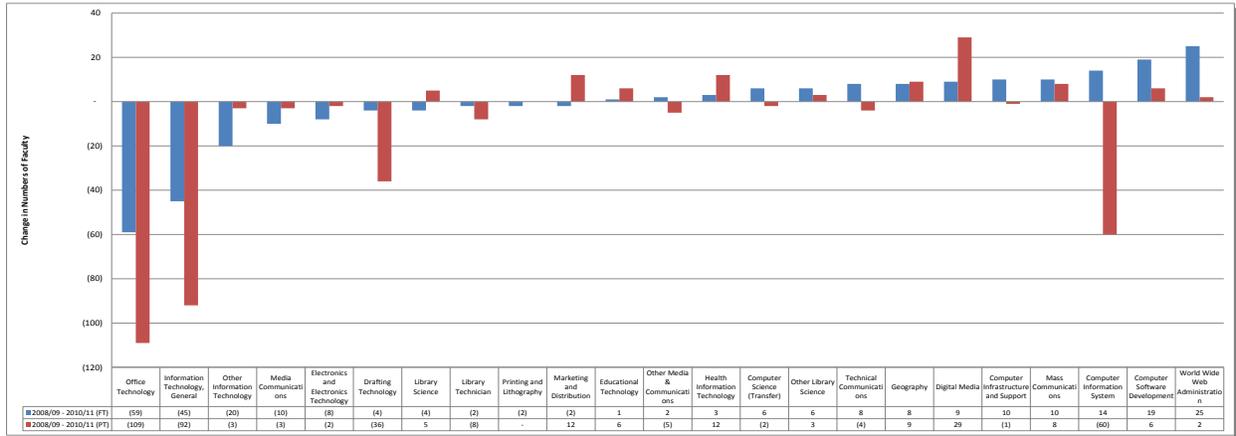
The largest decreases in faculty by college were by Riverside (-132) and Rancho Santiago CED (-113). The largest increases were at Foothill (59) and DeAnza (58).

Chart 123: Full- and Part-Time ICT Related Faculty Changes by College (2008-09 to 2010-11)

Change in Faculty	2008/09 - 2010/11		Total Change	Change in Faculty	2008/09 - 2010/11		Total Change
College Name	Full-time	Part-Time	Change	College Name	Full-time	Part-Time	Change
ALAMEDA	3	0	3	MENDOCINO	11	-12	-1
ALLAN HANCOCK	2	-12	-10	MERCED	-4	-6	-10
AMERICAN RIVER	10	3	13	MERRITT	-4	0	-4
ANTELOPE VALLEY	-6	6	0	MIRA COSTA	-5	15	10
BAKERSFIELD	-7	2	-5	MISSION	4	1	5
BARSTOW	4	0	4	MODESTO	0	-2	-2
BERKELEY CITY	10	-2	8	MONTEREY	-4	7	3
BUTTE	-19	17	-2	MOORPARK	4	-6	-2
CABRILLO	-2	-8	-10	MORENO VALLEY	8	35	43
CANADA	0	6	6	MT. SAN ANTONIO	-46	36	-10
CANYONS	-7	3	-4	MT. SAN JACINTO	-3	24	21
CERRITOS	-4	-11	-15	NAPA VALLEY	2	0	2
CERRO COSO	-6	-9	-15	NORCO	12	29	41
CHABOT	0	6	6	NORTH ORANGE ADULT	2	3	5
CHAFFEY	-4	5	1	OHLONE	-1	1	0
CITRUS	-6	-8	-14	ORANGE COAST	-2	-12	-14
COALINGA	0	-12	-12	OXNARD	0	-4	-4
COASTLINE	-2	4	2	PALO VERDE	2	-2	0
COLUMBIA	2	0	2	PALOMAR	2	-8	-6
COMPTON	-2	2	0	PASADENA CITY	-6	2	-4
CONTRA COSTA	-2	-4	-6	PORTERVILLE	-4	-8	-12
COPPER MOUNTAIN	3	-10	-7	RANCHO SANTIAGO CED	-13	-100	-113
COSUMNES RIVER	2	2	4	REDWOODS	-4	2	-2
CRAFTON HILLS	-8	-8	-16	REEDLEY	-4	-3	-7
CUESTA	-2	1	-1	RIO HONDO	11	-10	1
CUYAMACA	-4	-6	-10	RIVERSIDE	-33	-99	-132
CYPRESS	-5	-10	-15	SACRAMENTO CITY	0	3	3
DE ANZA	34	24	58	SADDLEBACK	2	0	2
DESERT	-2	-2	-4	SAN BERNARDINO	0	-6	-6
DIABLO VALLEY	0	-15	-15	SAN DIEGO ADULT	-4	-30	-34
EAST L.A.	2	-11	-9	SAN DIEGO CITY	-4	2	-2
EL CAMINO	-2	-1	-3	SAN DIEGO MESA	2	18	20
EVERGREEN VALLEY	1	-5	-4	SAN DIEGO MIRAMAR	0	0	0
FEATHER RIVER	-2	2	0	SAN FRANCISCO CITY	1	-4	-3
FOLSOM LAKE	-6	2	-4	SAN FRANCISCO CTRS	-3	-8	-11
FOOTHILL	39	20	59	SAN JOAQUIN DELTA	-4	-4	-8
FRESNO CITY	-18	-14	-32	SAN JOSE CITY	-2	0	-2
FULLERTON	2	-5	-3	SAN MATEO	0	-8	-8
GAVILAN	47	0	47	SANTA ANA	-2	27	25
GLENDALE	7	-6	1	SANTA BARBARA CED	0	-31	-31
GOLDEN WEST	-2	14	12	SANTA BARBARA CITY	0	0	0
GROSSMONT	0	-10	-10	SANTA MONICA CITY	-12	7	-5
HARTNELL	-5	4	-1	SANTA ROSA	-8	20	12
IMPERIAL VALLEY	-3	-10	-13	SANTIAGO CANYON	6	33	39
IRVINE VALLEY	-2	2	0	SEQUOIAS	0	-4	-4
L.A. CITY	-2	-3	-5	SHASTA	-3	-10	-13
L.A. HARBOR	-4	5	1	SIERRA	-1	10	9
L.A. MISSION	0	-2	-2	SISKIYOU	-4	2	-2
L.A. PIERCE	2	4	6	SKYLINE	4	-2	2
L.A. TRADE-TECH	-7	-2	-9	SOLANO	17	25	42
L.A. VALLEY	4	-2	2	SOUTHWEST L.A.	4	-2	2
LAKE TAHOE	-2	-11	-13	SOUTHWESTERN	14	-34	-20
LANEY	12	-2	10	TAFT	-2	4	2
LAS POSITAS	-2	1	-1	VENTURA	0	-10	-10
LASSEN	2	-2	0	VICTOR VALLEY	-7	2	-5
LEMOORE	-4	-8	-12	WEST L.A.	0	4	4
LONG BEACH CITY	-1	-14	-15	WEST VALLEY	-2	3	1
LOS MEDANOS	-2	-6	-8	WOODLAND	-2	0	-2
MARIN	18	-26	-8	YUBA	-6	-3	-9
				Grand Total	-37	-235	-272

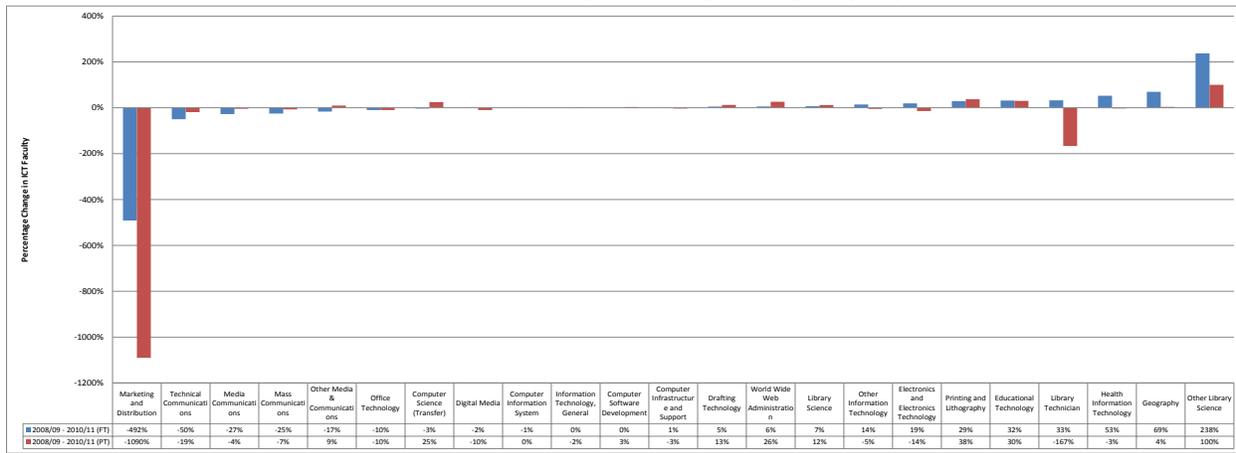
Across Top Codes between 2009/09 and 2010/11, there were large numerical decreases in both full- and part-time faculty (larger) in Office Technology and Information Technology, and for part-time faculty in Drafting Technology and Computer Information Systems, which accounted for most of the overall reductions in ICT related faculty. Largest faculty growth was in full-time World Wide Web Administration, Computer Software Development, and Computer Information Systems. There was also a significant increase in Digital Media part-time faculty hires.

Chart 124: Full- and Part-Time ICT Related Faculty Changes by Top Code (2008-09 to 2010-11)



Looking at percentage changes, Marketing and Distribution experienced a huge reduction in both full- and part-time faculty. Other Library Science, Geography and Health Information Technology experienced the greatest growth in faculty.

Chart 125: Full- and Part-Time ICT Related Faculty Percentage Changes by Top Code (2008-09 to 2010-11)



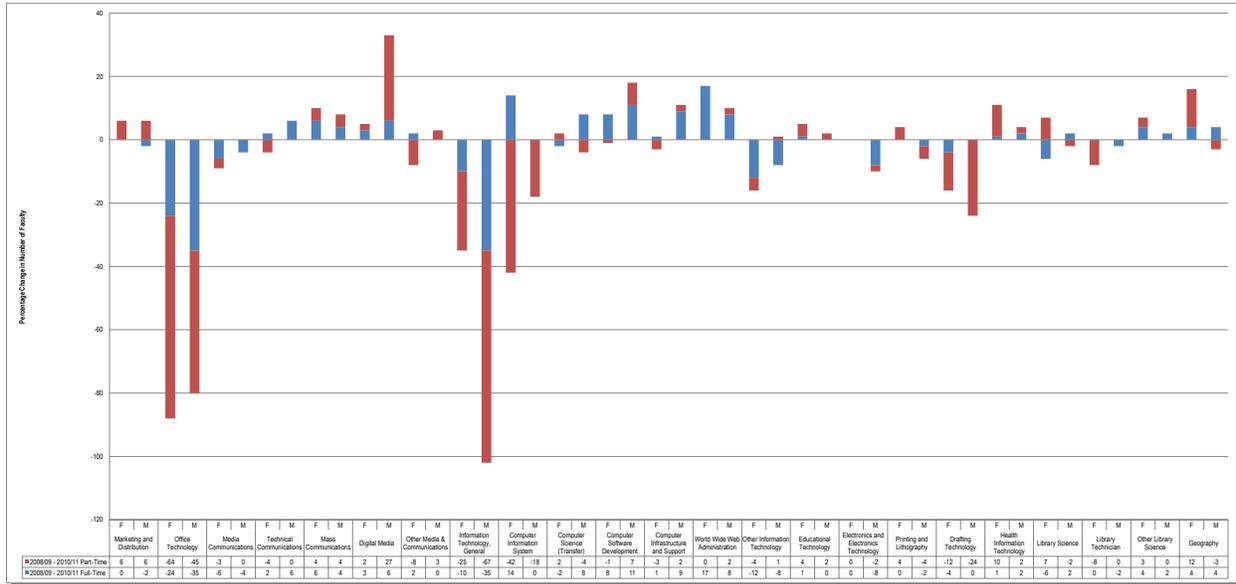
The gender ratio for faculty remained roughly the same between 2008/09 and 2010/11: about 45% female and 55% male for full-time and about 47% female and 53% male for part-time faculty.

Chart 126: Changes in ICT Related Faculty by Gender (2008-09 to 2010-11)

ICT Faculty	Full Time		Part Time		
	Year	Female	Male	Female	Male
2008/09		44%	56%	47%	53%
2009/10		45%	55%	48%	52%
2010/11		45%	55%	47%	53%

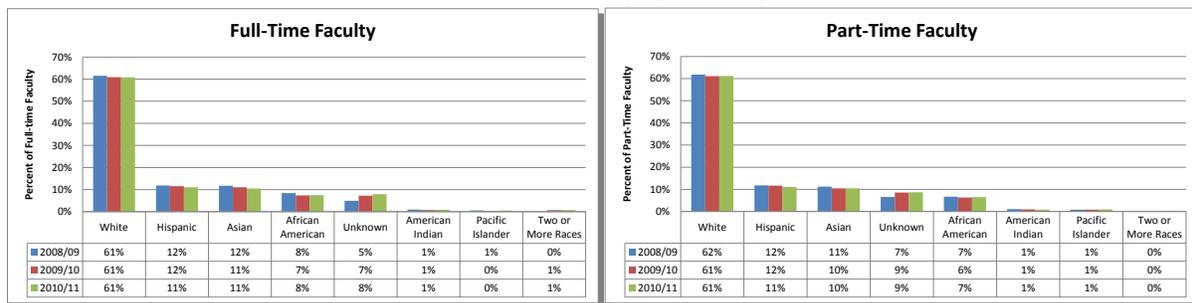
Female faculty gained proportion to male faculty in Marketing and Distribution, Mass Communications, Other Media and Communications, WWW Administration, Educational Technology, Health IT, Library Science, Other Library Science and Geography.

Chart 127: Changes in ICT Related Faculty by Gender by Top Code (2008-09 to 2010-11)



Between 2008/09 and 2010/11, ethnic composition in full and part time faculty did not change significantly. Whites represented 61% of faculty. Faculty ethnicities do not match student ethnicities, nor is there positive momentum to change that.

Chart 128: Trends in ICT Related Faculty by Ethnicity (2008-09 to 2010-11)



KEY FINDINGS SUMMARY:

ENROLLMENT IN ICT RELATED CLASSES:

In the 2010/11 academic year, students enrolled in 562,575 for-credit and 116,726 noncredit courses related to ICT, a total of 679,301 ICT related classes in the CCC system. Credit enrollments ranged from 16,692 at Palomar Community College to 209 at Lassen Community College. Non-credit enrollments in ICT related courses ranged from more than 30,000 at San Diego Adult to zero in most colleges.

ICT related Top Codes for this study were identified as:

- 0509XX Marketing and Distribution
- 0514XX Office Technology
- 0601XX Media Communications
- 0607XX Technical Communications
- 0610XX Mass Communications
- 0614XX Digital Media
- 0699XX Other Media & Communications
- 0701XX Information Technology, General
- 0702XX Computer Information System
- 0706XX Computer Science (Transfer)
- 0707XX Computer Software Development
- 0708XX Computer Infrastructure & Support
- 0709XX World Wide Web Administration
- 0799XX Other Information Technology
- 0860XX Educational Technology
- 0934XX Electronics & Electronics Technology
- 0936XX Printing and Lithography
- 0953XX Drafting Technology
- 1223XX Health Information Technology
- 1601XX Library Science
- 1602XX Library Technician
- 1699XX Other Library Science
- 2206XX Geography

The vast majority of credit enrollments were in Office Technology (81,972), Information Technology, General (92,104), Computer Information Systems (77,502), Digital Media (62,439) and Computer Software Development (52,105) Top Codes.

Passing rates for credit classes was more than 50% in all Top Codes. Health Information Technology, had the highest passing rate (79%), and World Wide Web Administration had the lowest passing rate (54%).

Approximately 48% of overall credit enrollments were by female and 51% were by male students. However, women dominated in Health IT (82%), Library Technician (76%), Educational Technology (75%), Office Technology (71%), and Library Science (60%). Men dominated Electronics and Electronics Technology (91%), Computer Infrastructure and Support (81%), Drafting Technology (80%), Computer Science (Transfer) (73%) and Other IT (64%).

Overall, women had higher passing rates in credit courses than men, 62% versus 59%. Men were only more successful than women in passing ICT related courses in: Other Media & Communications, Other IT, Computer Infrastructure and Support, Electronics and Electronics Technology, Drafting Technology and Computer Science (Transfer). Passing rates were the same in Technical Communications and Computer Software Development. Women were more successful in passing ICT related courses in all other Top Codes.

Ethnic composition of ICT related credit enrollments in 2010-11 was: 35% white, 28% Hispanic, 16% Asian, 9.5% African American and 2.5% for two or more races. Less than one percent of the students were Native Americans and Pacific Islanders.

While Whites represented only 35% of overall ICT related for credit course enrollment demographics, Whites were the majority of enrollments in most Top Codes.

Students enrolling in CCC ICT related for credit courses range from aspiring high school students (15 years old) to people late in life (in their nineties), those who have not yet started careers to those whose working careers are over.

CCC students in ICT related courses have diverse educational backgrounds. Some 66% of those in for credit courses had earned high school diplomas, GEDs or equivalents, 8% had foreign secondary school diplomas, 7% already had Associate Degrees, and 19% already had bachelor's degrees or higher.

Educational Technology, Other Information Technology and World Wide Web Administration were dominated by students who already had bachelor's degrees or higher. In most Top Codes, however, students had achieved no higher than high school or equivalent degrees.

Generally, the higher the level of educational attainment already achieved, the higher the success rate in completing ICT related courses for credit.

In 2010-11, 61% of ICT related course enrollments in for credit classes were by continuing students, 15% were returning students, 10% were first time students and 10% were first time transfers.

Success or passing rates were highest for students not reporting enrollment status (70%), followed by continuing students (63%), Not Applicable (61%), First Time Transfer Students (60%), Returning Students (57%) and First Time Students (53%).

Among educational goals of students enrolled in ICT related credit classes, 30% said they wanted to pursue a four-year degree, 7% wanted to obtain a two year associate's degree, and 4% wanted to earn a vocational certificate. So, less than half of students had transfer, CCC academic degree or certification as a stated goal. That is important, because CCCs are increasingly judging the success of programs based on how many of their students achieve one of those three things.

Overall passing rates varied by student goal. The highest success rates, each with passing rates of 2/3 or better, were: move from noncredit coursework to credit coursework (66%), advance in current job/career - update job skills (65%), educational development - intellectual, cultural (64%), and earn a vocational certificate without transfer (64%). Lowest passing rates were for: to complete credits for high school diploma or GED (58%), maintain certificate or license (58%), to obtain a 2- year associate's degree without transfer (59%) and obtain an associate degree and transfer to a 4-year institution (59%).

ICT RELATED ACADEMIC DEGREES AND CERTIFICATES:

ASSOCIATE DEGREES:

The 295 ICT related programs at 112 California Community Colleges issued 994 Associate (AS/AA) degrees in 2010-11. Office Technology was the Top Code leader, at 262 degrees, followed by Digital Media with 144, Computer Infrastructure and Support with 118, Drafting Technology with 102, Health Information Technology with 90, and Computer Software Development with 70. Nine Top Codes delivered between 1 and 19 degrees, and four Top Codes awarded no degrees.

There was a wide range in numbers of associate degrees produced by different colleges, ranging from 46 at Santa Barbara City College to zero at 15 colleges.

Overall, women achieved a higher proportion of degrees than men, 53% to 45%, with 2% of genders undeclared. Women achieved the highest percent of degrees in 5 Top Codes: Marketing and Distribution (100%), Office Technology (87%), Media Communications (85%), Health IT (84%) and Library Technician (75%). Males and Females achieved equal degree awards in World Wide Web Administration. Males achieved higher rates of degree awards in all other Top Codes for which degrees were awarded.

Overall percentages are skewed by Office Technology and Health IT, which have high proportions of women success and also very high numbers of students, compared to other Top Codes.

Overall, Whites achieved the greatest percentage of ICT related academic degrees (38%), followed by Hispanic (24%), Asian (15%), Unknown (11%), Black or African American (7%), Two or more races (2%), American Indian or Alaska Native (2%) and Native Hawaiian or Other Pacific Islander (1%). Whites received the highest percentage of ICT related degrees in almost all Top Codes with significant numbers of degrees awarded.

Ages for Associate Degrees ranged from 16 to 69.

Some 57% of associate degree awardees had previously only achieved a high school diploma or its equivalent, 6% had a foreign secondary school graduation credential, 12% had already received an associate degree, and 7% had already received a bachelor degree or higher. The highest number of associate degrees earned by those who already had bachelor degrees or higher was in Health IT.

86% of students earning associate degrees were continuing students, 10% were returning students, 3% were first time transfer students, and 1% were first time students.

Only 45% of ICT related associate degree awardees had getting an associate degree as their stated educational goal. 21% were undecided or uncollected. The rest earned an associate degree even if that was not their stated educational goal.

ACADEMIC CERTIFICATES:

California Community Colleges offer academic certificates requiring less than 6 to more than 60 academic units.

In 2010-11, CCCs awarded 1,919 for credit academic certificates and 264 non-credit certificates in these ICT related Top Codes. That is 2,201 ICT related certificates all together.

Of those, 18 (1%) required 60 or more academic units, 504 (23%) required 30 up to 60 academic units, 689 (31%) required 18 up to 30 academic units, 71 (3%) required 12 up to 18 semester units and were approved by the CCC System Office, 635 (29%) required 6 up to 18 units and were not approved by the CCC System Office, 20 (1%) required fewer than 6 academic semester units, and 264 (12%) were non-credit certificates.

San Francisco City College led the number of awards at 113, San Diego Adult School had 92, American River and Chaffey had 90 and Palomar, 82. On the other hand, Canada, Napa Valley, Ventura, Feather River, Lassen Lemoore and Woodland awarded no ICT related certificates.

Office Technology had the largest number of certificates among Top Codes with 844, 38% of the total. Digital Media was second with 302 (14%), followed by Computer Infrastructure and Support with 280 (13%), Drafting Technology with 169 (8%) and Health Information Technology with 131 (6%).

Overall, females earned more ICT related certificates, with 1,266 (57%), than males, with 901 (41%).

Females dominate males in the largest Top Code, Office Technology, and in Health Information Technology and Library Technician. In the rest of the Top Codes, men received more certificates than women, or the differences were insignificant.

Overall, whites received the highest percentage of ICT related academic certificates, with 36%, followed by Hispanics (25%), Asian (18%), Unknown (9%), Black or African American (7%), American Indian or Alaska Native (2%) and Native Hawaiian or Other Pacific Islander (1%).

Whites received the highest percentage of ICT related academic certificates in all Top Codes with significant numbers of certificates awarded. Whites have more than half of certificates in Computer Science – Transfer, with 73%, Information Technology, General (64%), World Wide Web Administration (60%) and Geography (59%).

Ages of ICT related academic certificate awardees ranged from 13 to 78.

Of those receiving ICT related academic certificates, 48% had Received High School Diplomas, 22% had Unknown educational status, 16% had Received a Bachelor degree or higher, 8% had already Received an Associate Degree, 5% had Passed the GED, or received a High School Certificate of Equivalency/Completion, 1% had Received a Certificate of California High School Proficiency, and none were Special Admit Students or Currently enrolled in Adult School.

By far, most ICT related academic certificates were earned by Continuing Students (76%), followed by Returning Students (12%), First Time Transfer Students (5%), Not Applicable (7%) and Uncollected Unreported (1%). The only Top Code where Continuing Students did not dominate certificate awards was Educational Technology, dominated by Returning Students.

Most common educational goals for certificate earners were Obtain an associate degree and transfer to a 4-year institution (16%), Earn a vocational certificate without transfer (11%), Prepare for a new career (acquire job skills) (11%), Uncollected/unreported (10%), and Undecided (10%).

FACULTY:

For the 2010/11 academic year, there were 5,729 total faculty teaching ICT related courses at California Community Colleges. Of those, 2,604 were full-time and 3,125 were part-time. Fresno City College at 130 and City College of San Francisco at 121 had the most. Santa Barbara CED at 4 and Lemoore at 6 had the fewest ICT related faculty.

Some 55% of full time faculty in ICT related Top Codes were male and 45 percent were female. However, percentages based on gender differed significantly, depending on department Top Codes. As of 2010-11, females had the largest concentration in 8 Top Codes, including Health IT (91%), Library Technician (76%) and Other Library Science (71%). There were more male than female faculty in all other Top Codes, including Electronics and Electronics Technology, 94%, Computer Infrastructure and Support, 78% and Geography, 77%. For part time faculty in ICT related Top Codes, 53% were male and 47% were female. Student gender ratios tend to mirror faculty gender ratios.

Some 61% of full time ICT faculty were white. Asian and Hispanic populations were each represented by 11% of the teachers, African Americans (8%) and American Indian and Pacific Islanders (each under 1%). Within the part time faculty pool, 61% were White, 11% were Hispanic and 10% were Asian-Americans. African Americans were approximately 7%, while American Indian were approximately 1% and Pacific Islanders under 1%. CCC ICT faculty demographics do not reflect the general racial demographics of the state or of CCC ICT student populations.

TRENDS:

ENROLLMENTS:

Between 2008-09 and 2010-11, overall credit enrollment in ICT related courses decreased by 7% (40,909), and overall non-credit enrollment in ICT related courses decreased by 47% (54,551) in a period in which enrollments were cut throughout the CCC system due to educational funding problems. Non-credit enrollments experienced the largest percentage decreases.

The largest credit enrollment increases were at City College of San Francisco (4,152/40%), Norco (3,216), Palomar (2,626/19%), Moreno Valley (2,325), and Glendale (1,800/31%). The largest credit enrollment decreases were at Santa Ana (20,427/78%), Sacramento City (7,941/43%), American River (7,851/35%), and Riverside (5,725/45%).

Local colleges each make independent decisions about how to respond to the educational funding crisis, and the rationale for which programs to fund and cut is different at different colleges.

The largest percentage Top Code enrollment increases from 2008-09 to 2010-11 were in Marketing and Distribution (+47%), Other Library Science (+25%) and Computer Science (Transfer) (+17%). The largest Top Code percentage enrollment decreases were in Computer Software Development (-24%), Educational Technology (-17%) and World Wide Web Administration (-14%). Reductions in at least Software Development and WWW Administration enrollments do not reflect increasing ICT Workforce demand in those areas.

Between 2008-09 and 2010-11, overall successful credit enrollment in ICT related courses increased by 2% (5,701). So, fewer students were taking ICT courses, but a higher percentage were passing.

In 2008/09, the female versus male ratio in ICT related for credit enrollments was 51 percent for women compared to 48 percent for men. However, by 2010/11, the female population had decreased by 3% while male student enrollment had increased by 3%.

Women experienced gains in gender percentages of enrollments between 2007/08 and 2010/11 in Marketing and Distribution (6%), Educational Technology (3%) and Media Communications (2%). Percentages of men in classes increased in all other Top Codes, including Other Media & Communications (14%), Computer Software Development (9%), and Other Information Technology and Drafting Technology (each 4%).

It is interesting to note a 12,882% increase in ICT related enrollments for Two or more races, from 2008-09 to 2010-11. In 2008-09, 106 students indicated two or more races, and, by 2010-11, 13,761 had indicated this category. Between 2008/09 and 2010/11, credit enrollment increased for Hispanic students by two percent. Credit enrollments for all other ethnic groups declined: African American (-4%), White (-7%), Asian-Americans (-11%), Pacific Islander (-30%), Unknown (-38%), and American Indian (-39%).

Generally, Hispanics, Blacks and Multiple Races are gaining in proportional representation relative to Whites and Unknowns, reflecting general population trends.

Overall, there were percentage declines in for credit enrollments in all age groups except for 0-17, which grew by 131%, perhaps reflecting better penetration of high school students for CCC ICT classes.

Continuing students continued to represent the majority of credit enrollment, and their numbers increased by 5 percent between 2008/9 and 2010/11.

Between 2008/09 and 2010/11, there was a 58% increase in four-year college students taking CCC ICT courses to meet four year college requirements. There were percentage increases in student goals of obtaining a two year associate's degree without transfer (6%), Uncollected/unreported (4%), improving basic skills (4%) and obtaining an associate degree and transfer to a 4-year institution (1%). Percentage decreases were observed in transfer to a 4-year institution without an associate degree (-2%), moving from noncredit coursework to credit coursework (-4%), completing credits for high school diploma or GED (-12%), obtaining a two year vocational degree without transfer (-13%), maintaining certificate or license (-13%), preparing for a new career (acquire job skills) (-17%), undecided (-17%), obtaining a vocational certificate without transfer (-17%), advancing in current job/career (update job skills) (-23%), discover/formulate career interests, plans, goals (-23%), and educational development (intellectual, cultural) (-28%).

DEGREES:

Between the 2008/09 and 2010/11 academic years, the number of ICT related associate degrees increased 9.8%, or 89 degrees, from 905 to 994.

Between 2008/09 and 2010/11 by Top Code, the largest percentage gain in degrees awarded was World Wide Web Administration, which increased 100%.

Between 2008/09 and 2010/11, the number of degrees awarded to women increased 5%, by 23, and the number of degrees awarded to men increased 14%, by 56.

Of ethnic groups, only Hispanics appear to be consistently and significantly increasing their degree award numbers. It is also encouraging to see an increase in numbers of African Americans receiving ICT related degrees.

CERTIFICATES:

The total number of ICT related academic certificates awarded decreased 2% from 2,257 in 2008/09 to 2,201 in 2010/11. Top Codes Computer Infrastructure and Support (104) and Digital Media (108) saw strong increases in numbers of academic certificates awarded.

Academic certificates earned decreased for both males, by 16, (2%), and females, by 42 (3%).

Between 2008/09 and 2010/11, Two or more races, Hispanic/Latino and Black (or African American) ethnicities experienced increased in academic certificates awarded (38 from a base of zero, 26 or 4%, and 22 or 15%, respectively). Asian, White and Unknown groups experienced decreases in certificate awards (50 or 12%, 27 or 3%, and 13 or 5%, respectively).

FACULTY:

ICT related faculty at California Community Colleges was reduced 5% from 6,001 to 5,729 between 2008/09 and 2010/11. The reductions were higher for part-time (-7%) than full-time faculty (-1%).

Across Top Codes between 2009/09 and 2010/11, there were large numerical decreases in both full- and part-time faculty in Office Technology and Information Technology, and for part-time faculty in Drafting Technology and Computer Information Systems, which accounted for most of the overall reductions in ICT related faculty. Largest faculty growth was in full-time World Wide Web Administration, Computer Software Development, and Computer Information Systems. There was also a significant increase in Digital Media part-time faculty hires.

The gender ratio for faculty remained roughly the same between 2008/09 and 2010/11: about 45% female and 55% male for full-time and about 47% female and 53% male for part-time faculty.

Between 2008/09 and 2010/11, ethnic composition in full and part time faculty did not change significantly. Whites represented 61% of faculty. Faculty ethnicities do not match student ethnicities, nor is there momentum to change that.

CONCLUSION AND RECOMMENDATIONS

ICT industries are an important and booming strategic sector in the California economy. ICT is also now continuing to be applied at most organizations in all industries. ICT Workforce demand is strong, within ICT industries – and in all industries. The ICT Workforce already employs one in twenty California workers, who are paid on average twice median wages. Many now believe that ICT User Competencies, or Digital Literacy, is about as important to educational or workplace success as reading, writing and arithmetic, regardless of academic field or occupational role. California employers are reporting difficulty finding appropriately skilled ICT Workforce, even in this period of high unemployment. Clearly, there is a need for strong public ICT education.

California community colleges are responding to that demand: with almost 6,000 faculty offering more than 600 associate degrees and 1,500 academic certificates in 295 departments at 112 community colleges. Students are enrolling in more than half a million for credit and 100,000 non-credit ICT related classes at CCCs every year. Those students are very diverse. They earn about a thousand ICT related degrees and two-thousand academic certificates at CCCs every year. More importantly, they are acquiring knowledge and skills that allow them to be successful in the 21st century. Those knowledge and skill sets help them get employment and advance in their careers. Many of these students also transfer for further study at 4-year colleges and universities.

Local colleges make decisions locally about ICT programs and credentials, based on different criteria and values, and they are responding to different local conditions. Some colleges have high demand for ICT education, because their communities have employers demanding ICT Workforce (e.g. Bay Area and LA/Orange). Other colleges have less demand for ICT education, because their communities do not demand as much ICT employment (e.g. Far North region).

California is extraordinarily diverse, and CCC student populations taking ICT are, fortunately, also diverse. We need to draw from all segments of society to meet the diverse needs of ICT applications and workforce. However, CCCs need to do a better job attracting and serving this diversity if we are going to meet the ICT Workforce needs of the State. One way to do that is to improve the ethnic diversity of CCC faculty teaching ICT related courses, so different students have role models and cultural references they can relate to. Currently, CCC ICT faculty is not as diverse as CCC ICT students.

Similarly, CCCs need to do a better job attracting and serving women in some ICT related Top Codes, which are currently dominated by males, including male faculty, like: Electronics, Computer Infrastructure and Support, Computer Science (Transfer), Computer Software Development, Digital Media, World Wide Web Administration and Information Technology. One way to do that is to increase the number of female faculty and role models in those Top Codes.

California Community Colleges are the most cost-effective way of delivering quality higher education ICT knowledge and skills to its population. They have extraordinary infrastructure and traditions in place. CCCs have already benefitted millions of Californians, and California and the California economy have received more than compensating returns on its CCC educational investments.

CCC ICT related offerings need to be better harmonized, to increase their value and increase students acquiring academic degrees, certificates and transfers, if those are going to be primary success metrics for CCC ICT related programs.

ACKNOWLEDGEMENTS

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MPICT and the CCC ICT Collaborative would also like to acknowledge and publicly express appreciation to staff in the California Community College System Office for conducting these custom queries and providing the data used in this analysis and report.

DISCLAIMER

While efforts have been made to assure the quality and accuracy of the data used in these analyses, there are anomalies and discrepancies. We discourage relying on the exact numbers collected in this analysis and instead encourage readers to look for larger patterns in the data, which outliers, anomalies and discrepancies would not invalidate.

APPENDICES

APPENDIX 1: LIST OF CCC ICT RELATED TOP CODES

	Top Code	Top Code Names
	0509XX	509 Marketing and Distribution
	0514XX	514 Office Technology
	0607XX	607 Technical Communications
	0614XX	614 Digital Media
Information Technologies	0701XX	701 Information Technology, General
	0702XX	702 Computer Information System
	0706XX	706 Computer Science (Transfer)
	0707XX	707 Computer Software Development
	0708XX	708 Computer Infrastructure and Support
	0709XX	709 World Wide Web Administration
	0799XX	799 Other Information Technology
	0860XX	860 Educational Technology
	0934XX	934 Electronics and Electronics Technology
	0936XX	936 Printing and Lithography
	0953XX	953 Drafting Technology
	1223XX	1223 Health Information Technology
Library Science	1601XX	1601 Library Science
	1602XX	1602 Library Technician
	1699XX	1699 Other Library Science
	2206XX	2206 Geography

APPENDIX 2: LIST OF CCCS WITH LINKS TO COLLEGE AND ICT RELATED PROGRAM SUMMARIES

	College		College		College
1	Allan Hancock College	38	Feather River College	75	Norco College
2	American River College	39	Folsom Lake College	76	Ohlone College
3	Antelope Valley College	40	Foothill College	77	Orange Coast College
4	Bakersfield College	41	Fresno City College	78	Oxnard College
5	Barstow College	42	Fullerton College	79	Palo Verde College
6	Berkeley City College	43	Gavilan College	80	Palomar College
7	Butte College	44	Glendale College	81	Pasadena City College
8	Cabrillo College	45	Golden West College	82	Porterville College
9	Cañada College	46	Grossmont College	83	Reedley College
10	Cerritos College	47	Hartnell College	84	Rio Hondo College
11	Cerro Cosa College	48	Imperial Valley College	85	Riverside Community College
12	Chabot College	49	Irvine Valley College	86	Sacramento City College
13	Chaffey College	50	Lake Tahoe Community College	87	Saddleback College
14	Citrus College	51	Laney College	88	San Bernardino Valley College
15	City College of S.F.	52	Las Positas College	89	San Diego City College
16	Coastline College	53	Lassen College	90	San Diego Mesa College
17	College of Alameda	54	Long Beach City College	91	San Diego Miramar College
18	College of Marin	55	Los Angeles City College	92	San Joaquin Delta College
19	College of San Mateo	56	Los Angeles Harbor College	93	San Jose City College
20	College of Sequoias	57	Los Angeles Mission College	94	Santa Ana College
21	College of Siskiyou	58	Los Angeles Pierce College	95	Santa Barbara City College
22	College of the Canyons	59	Los Angeles Southwest College	96	Santa Monica College
23	College of the Desert	60	Los Angeles Trade-Tech College	97	Santa Rosa Junior College
24	College of the Redwoods	61	Los Angeles Valley College	98	Santiago Canyon College
25	Columbia Community	62	Los Medanos College	99	Shasta College
26	Contra Costa College	63	Mendocino College	100	Sierra College
27	Copper Mountain College	64	Merced College	101	Skyline College
28	Cosumnes River	65	Merritt College	102	Solano College
29	Crafton Hills College	66	MiraCosta College	103	Southwestern College
30	Cuesta College	67	Mission College	104	Taft College
31	Cuyamaca	68	Modesto Junior College	105	Ventura College
32	Cypress College	69	Monterey Peninsula College	106	Victor Valley College
33	DeAnza College	70	Moorpark College	107	West Hills College, Coalinga
34	Diablo Valley College	71	Moreno Valley College	108	West Hills College, Lemoore
35	East LA College	72	Mt. San Antonio College	109	West Los Angeles College
36	El Camino College	73	Mt. San Jacinto College	110	West Valley College
37	Evergreen Valley College	74	Napa Valley College	111	Woodland Community College
				112	Yuba Community College District