



2018 REPORT

Nursing Educational Programs Report



ELOY ORTIZ OAKLEY
Chancellor

1102 Q Street, Suite 4400 | Sacramento, California 95811-6539
t: 916.322.4005 | f: 916.322.4783
CaliforniaCommunityColleges.cccco.edu

April 27, 2018

The Honorable Edmund G. Brown, Jr.
Governor of California
State Capitol
Sacramento, CA 95814

RE: Report on California Community College Nursing Programs for 2016-17

Dear Governor Brown:

I would like to present to you the Chancellor's Office report on California community college nursing programs for the 2016-17 academic year.

With a total enrollment of 14,010 full-time equivalent students in 2016-17, seventy-seven California community colleges offer nursing programs.

This report provides information on funding for nursing programs, admission criteria, statistics on student attrition and license exam passage rates, among other data. I hope you will find it to be a useful summary of the state of California's community college nursing programs.

If you or your staff have any questions about this report, please feel free to contact my office at (916) 322-4005.

Thank you for your interest and support for the nursing programs.

Sincerely,

A handwritten signature in black ink, appearing to read 'EO', with a stylized flourish at the end.

Eloy Ortiz Oakley, Chancellor

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NURSING EDUCATIONAL PROGRAMS

EXECUTIVE SUMMARY

The California Community Colleges serves more than 2.1 million students each year and is the largest system of higher education in the nation. The state's 114 community colleges are charged with providing workforce training, basic skills education and preparing students to transfer to four-year postsecondary institutions.

Seventy-seven California community colleges operate registered nursing programs, enrolling a statewide total of 14,010 full-time equivalent students in 2016-17, an increase of 3.6 percent from the previous school year. Of the 77 colleges with nursing programs, 74 were awarded state funds to expand the enrollment capacity of nursing programs and to implement assessment, remediation and retention strategies to decrease attrition rates. In 2016-17, California community college nursing program enrollment increased by 1,514 students (compared to last year's enrollment increase by 1,525 students), and the overall attrition rate was 11.82 percent (compared to last year's 13.8 percent).

Colleges with nursing programs receive funding through general apportionment by number of full-time equivalent students in each program at each college. This report presents information on categorical funding beyond this apportionment funding awarded through an application process to the Chancellor's Office for nursing programs in fiscal year 2016-17. Also included in this report is a summary on Nursing Program Support provided in the Budget Act of 2016 to expand community college nursing enrollments and improve student retention [required by Provision (23) of Item 6870-101-0001 of the Budget Act of 2016].

Reporting Requirements

Education Code Section 78261, subdivision (g) states the following:

"As a condition of receiving grant funds pursuant to paragraph (2) of subdivision (d), each recipient district shall report to the Chancellor's Office the following data for the academic year on or before a date determined by the Chancellor's Office:

1. The number of students enrolled in the nursing program.
2. The number of students taking diagnostic assessments.
3. The number of students failing to meet proficiency levels as determined by diagnostic assessment tools.

4. The number of students failing to meet proficiency levels that undertake pre-entry preparation classes.
5. The number of students who successfully complete pre-entry preparation coursework.
6. The average number of months between initial diagnostic assessment, demonstration of readiness and enrollment in the nursing program for students failing to meet proficiency standards on the initial diagnostic assessment.
7. The average number of months between diagnostic assessment and program enrollment for students meeting proficiency standards on the initial diagnostic assessment.
8. The number of students who completed the associate degree nursing program and the number of students who pass the National Council Licensure Examination.”

Further reporting requirements are outlined in subdivision (h) of Education Code Section 78261:

- a. “Data reported to the Chancellor's Office under this article shall be disaggregated by age, gender, ethnicity and language spoken at home.
- b. The Chancellor's Office shall compile and provide this information to the Legislature and the governor by March 1 of each year.”

METHODOLOGY

The Nursing Educational Programs report includes number of enrollments, awards, statistics on student attrition and retention, license exam pass rates and assessment testing data for fiscal year 2016-17, as required by California Education Code Section 78261, subdivision (g). The Chancellor's Office resources used for information include:

- California Community Colleges Chancellor's Office Management Information System (COMIS), which collects data from all the colleges
- Funds for Nursing Final Report Expenditures Survey
- Data Mart: datamart.cccco.edu
- California Board of Registered Nursing: rn.ca.gov
- Test of Essential Academic Skills (TEAS) from Assessment Technologies Institute (ATI)

The Workforce and Economic Development Division and Research Unit staff analyzes and calculates data regarding the number and types of awards, full-time equivalent students and apportionment generated by student attendance. The findings are displayed in a variety of tables, charts and graphs by college.

KEY FINDINGS

As in previous years, the Budget Act of 2016 directed the Chancellor's Office to report on the data reported by the nursing grant awardees funded by the \$13.4 million. These funds were awarded to colleges who participated in an application process in the spring of 2016-17 and 2017-18. Below is a summary of information that addresses the specific areas (numbered) required by the Budget Act of 2016.

1. Amount of Funding Received

Funds were awarded based on an application process that was conducted in the spring of 2016 for projects to be funded during fiscal year 2016-17. The Chancellor's Office awarded funds to all colleges that applied, but not all colleges were allocated the funding they requested. A total of \$13,231,224 was awarded to colleges, which included funds for enrollment growth, diagnostic and support services. The following is a description of the grants receiving funding:

Enrollment Growth for Nursing:

Seventy-one colleges received grants to expand enrollment by 1,514 students. The colleges are using these funds to provide support for nursing program enrollment and equipment needs. The equipment purchased is only intended to be used for increasing the number of nursing students served.

Assessment, Remediation and Retention Funds:

During 2015-16, all 62 colleges that requested enrollment growth funds received some funds for diagnostic and support services, pre-entry coursework and other services to reduce attrition. Figure 1 and 2 provide a list of the colleges receiving funds specifically for reducing attrition. The respective attrition rates are as reported by the community colleges to the Board of Registered Nursing for the 2016-17 Annual School Report. This item is also discussed in Section 5 of the Key Findings beginning on page 29.

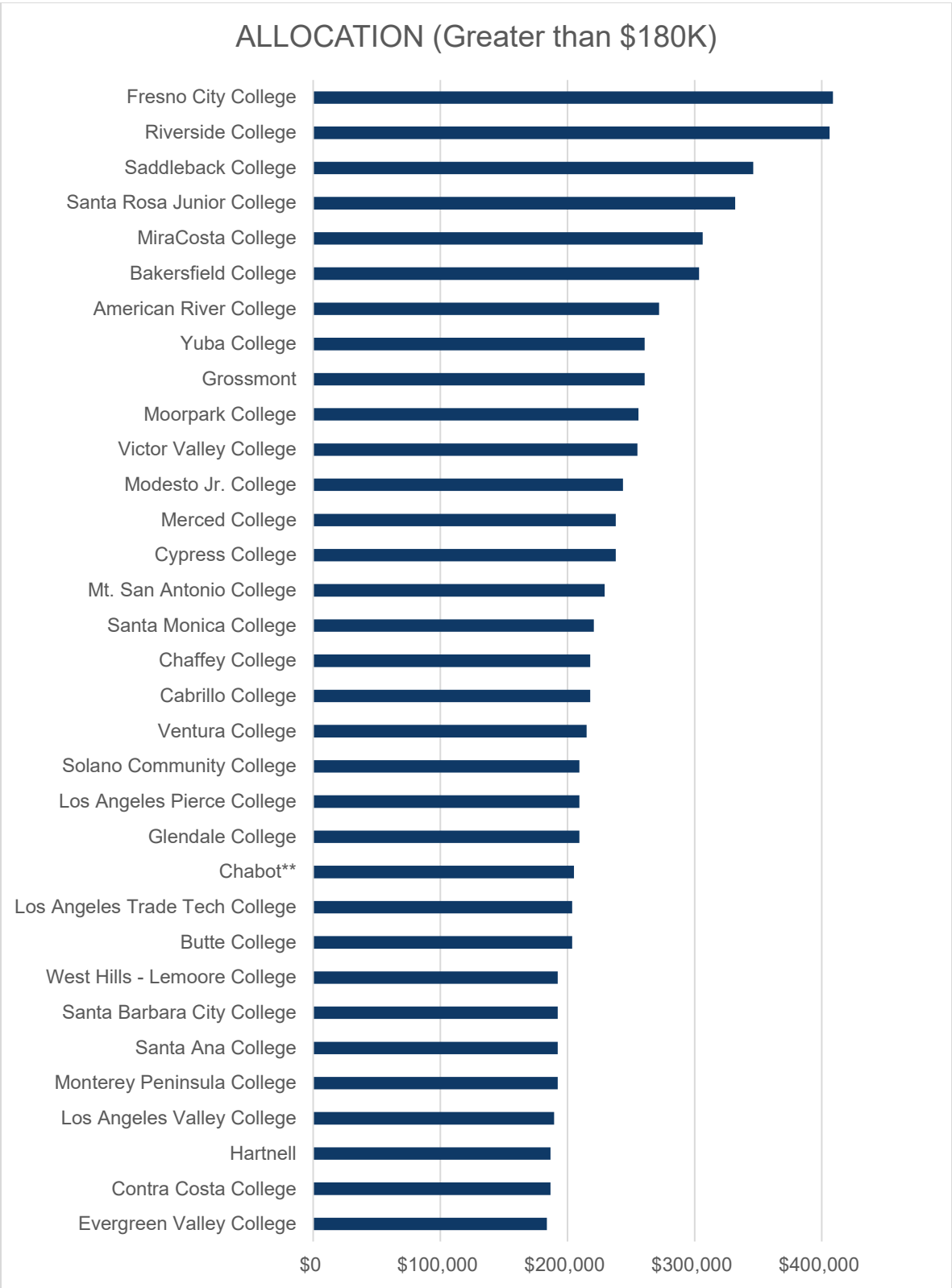


Figure 1. Allocation of Funds (\$180,000 to \$409,000);

**Colleges only served Assessment, Remediation and Retention students.

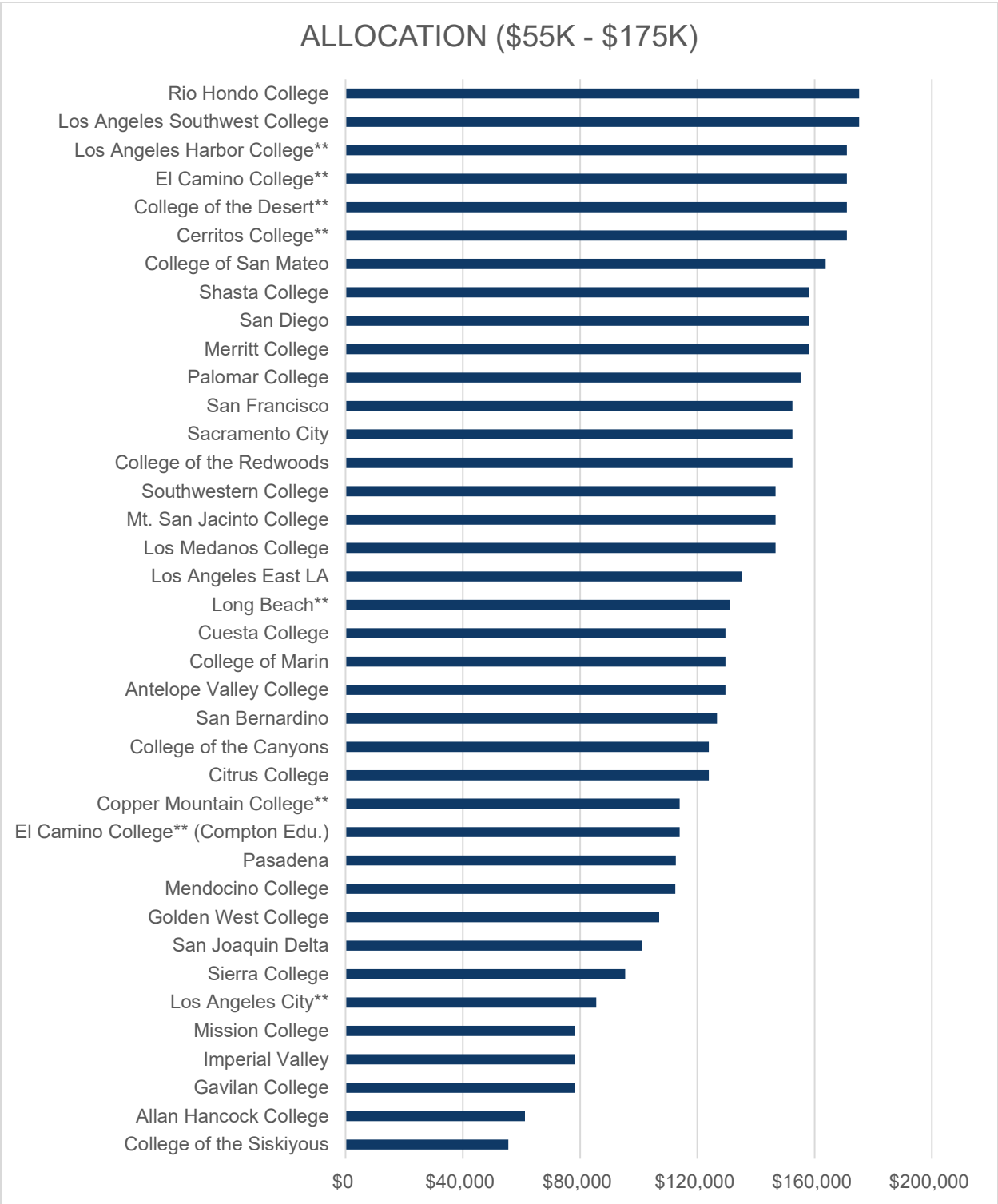


Figure 2. Allocation of Funds (\$55,000 to \$175,200)

**Colleges only served Assessment, Remediation and Retention students.

2. Number of Nursing Full-time Equivalent Students Grants Awarded

Colleges receiving nursing grants for enrollment growth had 14,010 nursing full-time equivalent students in 2016-17, an increase of 3.6 percent from the previous fiscal year, and a break from the decreasing enrollment trend during the past four years. Grants were awarded based on the additional capacity achieved by the additional enrollments.

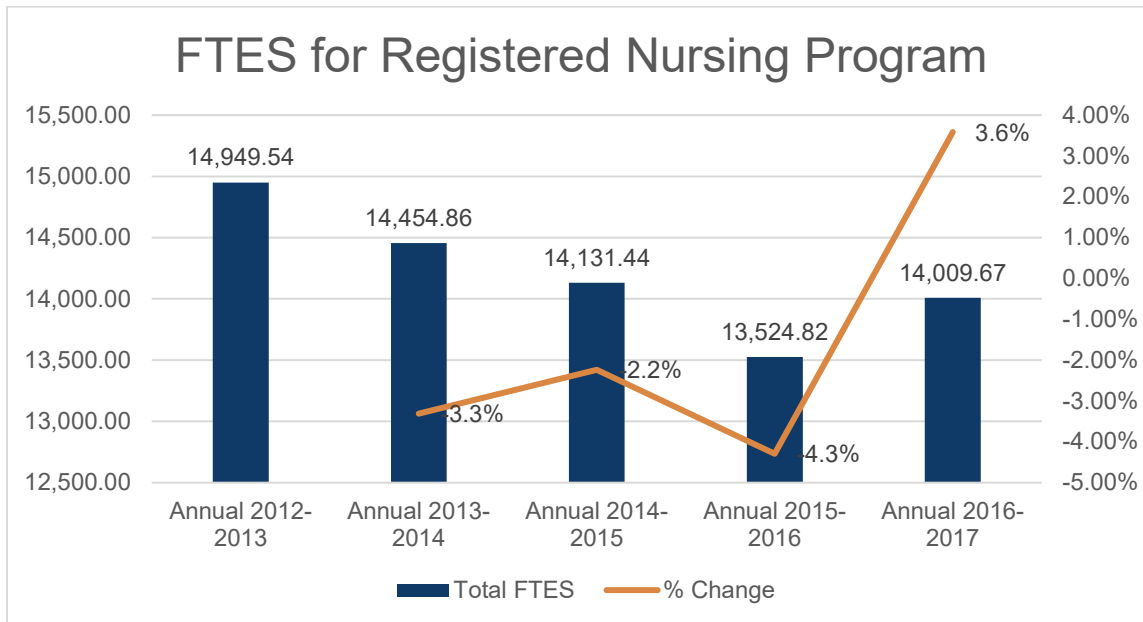


Figure 3. Five-Year Trend in Full-time Equivalent Students (FTES)

3. Data Required by SB 1309, Statutes of 2006

SB 1309 (Stats. 2006, Chap. 837) requires the Chancellor's Office to collect and report data from colleges receiving grants on the results of assessment testing for students as a condition of enrollment. Colleges were required to provide remediation to those students who did not achieve a statewide passing score of **62 percent or higher**.

The Chancellor's Office works with assessment vendors and the colleges to collect the data required in Education Code Section 78261, subdivision (g). The vendors provided information on exam results, gender, ethnicity and age for students. The colleges then provided information on remediation and enrollment. Tables 1a through 1d on pages 14–17 provide the collated data addressing those questions not reported in other areas of this report. The percentage point gap (PPG) method was used in identifying disproportionate impact in the areas of gender, age, ethnicity, disability and language spoken at home.

In addition, this data reflects students who received assessment testing between July 1, 2016 and June 30, 2017. In response to subsection (g)(8) of the Education Code, Table 2 on page 17 lists the colleges, the number of students from the colleges that took the licensure exam (National Council Licensure Examination or NCLEX), and the pass rate from 2016-17. The overall pass rate from the 77 colleges for the NCLEX licensure exam was calculated to be 89.44 percent.

Table 1a: Assessment Testing as Part of the Selection Process – by Gender and Age

- Total number of students assessed in July 1, 2016 – June 30, 2017: **7,342 students**
- Total number of students who passed: **6482 students**
- Pass rate: **88.3 percent**

Gender & Age	Grand Total	Passed	Percent of Total	PPG
Overall	7342	6482	88.30%	n/a
Gender: Male	1332	1252	94.00%	5.70%
Gender: Female	5821	5062	87.00%	-1.30%
Gender: Not Listed	189	168	88.90%	0.60%
Age: < 20	169	163	96.40%	8.10%
Age: 20 - 24	2316	2142	92.50%	4.20%
Age: 25 - 29	1832	1635	89.20%	0.90%
Age: 30 - 34	1113	959	86.20%	-2.10%
Age: 35 - 39	597	501	83.90%	-4.40%
Age: 40 - 49	565	454	80.40%	-7.90%
Age: 50 and older	159	107	67.30%	-21.00%
Age: No Record	591	521	88.20%	-0.10%

Data Source: Test of Essential Academic Skills (TEAS) from ATI database

Table 1b: Assessment Testing as Part of the Selection Process – by Language, Disability and Ethnicity

Language, Disability & Ethnicity	Grand Total	Passed	Percent of Total	PPG
Overall	7342	6482	88.30%	n/a
Arabic Spoken at Home	*	*	100.00%	n/a
Chinese Spoken at Home	19	18	94.70%	6.40%
English Spoken at Home	6272	5612	89.50%	1.20%
Farsi Spoken at Home	13	11	84.60%	-3.70%
Other Spoken at Home	79	61	77.20%	-11.10%
Russian Spoken at Home	26	26	100.00%	11.70%
Spanish Spoken at Home	328	242	73.80%	-14.50%
Tagalog Spoken at Home	36	33	91.70%	3.40%
No Response to Languages Spoken at Home	568	478	84.20%	-4.10%
Disability Accommodation: No	2296	2018	87.90%	-0.40%
Disability Accommodation: Yes	182	169	92.90%	4.60%
Disability Accommodation: No Response	4864	4295	88.30%	0.00%
African-American	395	288	72.90%	-15.40%
American Indian/Alaskan Native	49	45	91.80%	3.50%
Asian	1344	1193	88.80%	0.50%
Filipino	116	105	90.50%	2.20%
Hispanic	2205	1842	83.50%	-4.80%
Other Non-White	43	39	90.70%	2.40%
Pacific Islander	14	11	78.60%	-9.70%
Unknown/Non-Respondent	70	64	91.40%	3.10%
White Non-Hispanic	2334	2203	94.40%	6.10%

*Suppressed – fewer than 10 students.

The Chancellor’s Office found no significant gender disparity and no disproportionate impact on students with disabilities. However, adverse disproportionate impact were found on the following subgroups: (1) Hispanic and African American racial/ethnic subgroups; (2) students who speak Spanish at home, and those who reported other language; and (3) older students age 35 and over.

Table 1c: Assessment Testing as Part of the Selection Process – Status of Successful Students in Fall 2016 and Spring 2017

Fall 2016 — Status of Successful Students	Grand Total	Passed	Percent of Total
0:Tested but not applied at this site	389	348	89.50%
1:Applied but not selected	603	559	92.70%
2:Selected but need to remediate	58	38	65.50%
3:Selected but not enrolled (on waitlist)	479	453	94.60%
4:Selected but not enrolled (choosing not to enroll)	12	11	91.70%
5:Initial enrollment	52	46	88.50%
Other*	14	7	50.00%

Spring 2017 — Status of Successful Students	Grand Total	Passed	Percent of Total
0:Tested but not applied at this site	653	596	91.30%
1:Applied but not selected	1223	1112	90.90%
2:Selected but need to remediate	116	40	34.50%
3:Selected but not enrolled (on waitlist)	788	751	95.30%
4:Selected but not enrolled (choosing not to enroll)	143	142	99.30%
5:Initial enrollment	468	468	100.00%
Other*	70	63	90.00%

*Other – includes students who are continuing to enroll; graduated; dropped; or transferred in.

Table 1d: Assessment Testing as Part of the Selection Process – by Remediation Participation and Completion

Remediation, Participation & Completion	Number
Total Students	7342
Required Remediation	583
Participation in Remediation	340
Completed Remediation	217

Table 2: National Council Licensing Exam – Registered Nursing Community Colleges Pass Rates in 2016-2017

n	College	# Taken	# Pass	% Pass
1	Allan Hancock College	33	26	78.79%
2	American River College	101	99	98.02%
3	Antelope Valley College	129	103	79.84%
4	Bakersfield College	104	95	91.35%
5	Butte College	102	86	84.31%
6	Cabrillo College	56	45	80.36%
7	Cerritos College	79	73	92.41%
8	Chabot College	30	30	100%
9	Chaffey College	40	37	92.50%
10	Citrus College	27	25	92.59%
11	City College of San Francisco	73	71	97.26%
12	College of Marin	37	33	89.19%
13	College of San Mateo	36	28	77.78%
14	College of the Canyons	109	87	79.82%
15	College of the Desert	68	61	89.71%

n	College	# Taken	# Pass	% Pass
16	College of the Redwoods	57	50	87.72%
17	College of the Sequoias	51	45	88.24%
18	College of the Siskiyous	29	27	93.10%
19	Contra Costa College	52	43	82.69%
20	Copper Mountain College	21	19	90.48%
21	Cuesta College	43	43	100%
22	Cypress College	87	82	94.25%
23	De Anza College	56	53	94.64%
24	East Los Angeles College	98	72	73.47%
25	El Camino College	51	47	92.16%
26	El Camino College - Compton Education Center	60	43	71.67%
27	Evergreen Valley College	65	61	93.85%
28	Fresno City College	205	173	84.39%
29	Gavilan College	16	16	100%
30	Glendale Community College	73	66	90.41%
31	Golden West College	87	79	90.95%
32	Grossmont College	57	55	96.49%
33	Hartnell College	34	31	91.18%
34	Imperial Valley College	36	33	91.67%
35	Long Beach City College	91	84	92.31%
36	LA City College	67	63	94.03%
37	LA Harbor College	67	64	95.52%
38	LA Southwest College	39	27	69.23%
39	LA Trade-Tech College	43	41	95.35%
40	LA Valley College	75	62	82.67%

n	College	# Taken	# Pass	% Pass
41	Los Angeles Pierce College	58	44	75.86%
42	Los Medanos College	43	38	88.37%
43	Mendocino College	33	30	90.91%
44	Merced College	65	60	92.31%
45	Merritt College	32	30	93.75%
46	Mira Costa College	39	36	92.31%
47	Mission College	28	17	60.71%
48	Modesto Junior College	113	103	91.15%
49	Monterey Peninsula College	30	28	93.33%
50	Moorpark College	54	51	94.44%
51	Mt. San Antonio College	111	98	88.29%
52	Mt. San Jacinto College	55	51	92.73%
53	Napa Valley College	25	23	92%
54	Ohlone College	34	28	82.35%
55	Palomar College	72	66	91.67%
56	Pasadena City College	117	106	90.60%
57	Porterville College	16	15	93.75%
58	Reedley College at Madera Community College Center	8	8	100%
59	Rio Hondo College	76	70	92.11%
60	Riverside City College	168	159	94.64%
61	Sacramento City College	42	41	97.62%
62	Saddleback College	112	110	98.21%
63	San Bernardino Valley College	75	59	78.67%
64	San Diego City College	37	34	91.89%
65	San Joaquin Delta College	102	93	91.18%

n	College	# Taken	# Pass	% Pass
66	Santa Ana College	99	93	93.94%
67	Santa Barbara City College	68	64	94.12%
68	Santa Monica College	52	50	96.15%
69	Santa Rosa Junior College	112	107	95.54%
70	Shasta College	62	57	91.94%
71	Sierra College	38	38	100%
72	Solano Community College	31	28	90.32%
73	Southwestern College	63	51	80.95%
74	Ventura College	81	72	88.89%
75	Victor Valley College	65	64	98.46%
76	West Hills College Lemoore	34	27	79.41%
77	Yuba College	61	51	83.61%
	GRAND TOTAL	4895	4378	89.44%

Source: California Board of Registered Nursing <http://www.rn.ca.gov/education/passrates.shtml>

Majority of the colleges (67.53 percent or 52 out of 77 colleges) achieved pass rates that were above the 89.44 percent overall pass rate. There were five colleges that achieved 100 percent pass rates. Those colleges were Chabot College, Cuesta College, Gavilan College, Reedley College and Sierra College.

Spotlight: Cuesta College

“Nursing Program has 100% Pass Rate 4 Years Running”

Excerpt from the Paso Robles Daily News, released on December 20, 2017:

“For the fourth year in a row, *Cuesta College’s Registered Nursing* (RN) graduates scored a 100–percent pass rate on the National Council Licensure Examination (NCLEX), the state board that allows individuals to practice nursing. The Cuesta College RN graduating classes of 2014, 2015, 2016, and 2017 achieved a 100–percent first-test pass rate, meaning every student who graduated in the corresponding spring semester and took the NCLEX, passed it the first time they sat for the exam.”

“Forty-one RN students graduated from Cuesta College this year. Cuesta College’s Director of Nursing Marcia Scott attributes the program’s success to a variety of factors.”

“We admit a high caliber of students through a merit-based, multi-criteria screening process that gives points for various life experiences, previous education, and other accomplishments, all in accordance with the California Education Code and the California Community College Chancellor’s Office requirements,” – Marcia Scott (Cuesta College’s Director of Nursing)

Cuesta College’s Success Story:

The Cuesta College’s Associate’s Degree in Nursing Program, began enrolling students 50 years ago in 1967. They will be graduating their 50th Registered Nursing (RN) class in May 2019. Their first RN class admitted through the multi-criteria screening process graduated in 2013. They use the ATI (a private testing vendor called Assessment Technologies Institute) TEAS (Test of Essential Academic Skills) diagnostic tool during the multi-criteria screening process. They have been using the Kaplan NCLEX integrated program and Live Review since 2011, which coincided with the year that the first MCS class was admitted. Cuesta College offers a four-day NCLEX Live Review to all students with grant funding from the Chancellor’s Enrollment Growth Grant funding, which occurs during the week following RN program completion.

Through the Chancellor’s Office Enrollment Growth Grant funding, Cuesta College was able to hire an RN success specialist, who works with admitted RN students within the program to complete the program as well as with ineligible applicants requiring remediation due to low assessment scores to become eligible applicants in future application cycles. Since the move to the multi-criteria selection process, the number of students who dropped for academic or clinical failure has significantly decreased. In 2013-2018, 10 students were dropped for those reasons. From 2006-2012 in comparison, 31 students were dropped for those reasons. Of course, not all students who were selected through the multi-criteria selection process complete the program. Some students drop due to personal reasons. These vacant spots are then backfilled in each semester with reentry, transfer or licensed vocational nursing students. The chart below shows the retention and the NCLEX pass rates, however, it does not list the number of reentry students.

Table 3: Retention and NCLEX Pass Rates for Cuesta College

Class of Year	Enrolled	Drops	Grads	Retention/ on-time in 4 semesters	Selection Process	NCLEX Pass Rate
2019	43	2			Multi-criteria/ATI TEAS	
2018	43	5			Multi-criteria/ATI TEAS	
2017	42	5	41	88%	Multi-criteria/ATI TEAS	100%
2016	43	7	39	84%	Multi-criteria/TEAS V	100%
2015	43	8	41	81%	Multi-criteria/TEAS V	100%
2014	43	9	38	79%	Multi-criteria/TEAS V	100%
2013	46	4	43	91%	Multi-criteria/TEAS	98%
2012	46	4	44	91%	Formula for Success	93%
2011	50	15	39	70%	End of waitlist	95%
2010	56	7	53	87%	Waitlist	94%
2009	56	10	52	82%	Waitlist	96%
2008	56	12	49	78%	Waitlist	96%
2007	56	12	48	79%	Waitlist	97%
2006	46	9	41	80%	Waitlist	97%

Cuesta College formalized the Advanced Placement licensed vocational nurse to registered nurse Full-Degree Program in 2013, which admits three licensed vocational nurses annually into the second semester. They admit 43 generic students in the first semester and reserve three spots for LVNs to enter into the 2nd semester, creating capacity for 46 RN students in the second, third and fourth semesters.

4. Data Required Multi-criteria Screening Process

The requirements of this legislation were originally introduced by AB 1559 (Berryhill) in 2007 and amended by AB 548 (Salas) in 2014. Assembly Bill 548 extended the sunset provision in Education Code Section 78261.5 until January 1, 2020. On or after January 1, 2008, AB 548 required a community college registered nursing program electing to

use a multi-criteria screening process to evaluate applicants for admission to nursing programs to include specified criteria relating to the academic performance, work or volunteer experience, foreign language skills, life experiences and special circumstances of the applicant. The law authorizes a community college registered nursing program using a multi-criteria screening process to use an approved diagnostic assessment tool before, during or after the multi-criteria screening process.

Following this law, Section 78261.5 was added to the Education Code to read:

A community college registered nursing program that determines the number of applicants to that program exceeds its capacity may admit students in accordance with any of the following procedures:

1. A random selection process.
2. A blended combination of random selection and a multi-criteria screening process.
3. A multi-criteria screening process.

When using the multi-criteria screening process, the following criteria shall be included, but not necessarily be limited to, all of the following:

1. Academic degrees or diplomas, or relevant certificates, held by an applicant.
2. Grade-point average in relevant course work.
3. Any relevant work or volunteer experience.
4. Life experiences or special circumstances of an applicant, including, but not necessarily limited to, the following experiences or circumstances:
 - a. Disabilities
 - b. Low family income
 - c. First generation of family to attend college
 - d. Need to work
 - e. Disadvantaged social or educational environment
 - f. Difficult personal and family situations or circumstances
 - g. Refugee or veteran status
5. Proficiency or advanced level coursework in languages other than English. Credit for languages other than English shall be received for languages that are identified by the chancellor as high frequency languages, as based on census data.

Additional criteria—such as a personal interview, personal statement, letter of recommendation or the number of repetitions of prerequisite classes, or other criteria, as approved by the chancellor—may be used but are not required. In response to Assembly Bill 548, below is a list of the participating colleges. Of the 77 California community colleges with registered nursing programs, 42 colleges (55 percent of the total offering nursing programs) reported in the survey that they used the multi-criteria process during the fiscal year 2016 to 2017. Since colleges have continued to use the multi-criteria process beginning at 2008, the Chancellor’s Office has enough data to compare the colleges that use multi-criteria selection to those colleges not using multi-criteria.

List of Colleges that used Multi-Criteria Screening Process

Below is a list of 42 colleges that used the multi-criteria screening process, as defined in Section 78261.5 of the Education Code in fiscal year 2016-17:

1. American River College
2. Antelope Valley College
3. Cabrillo College
4. Chabot College
5. Citrus College
6. Compton College
7. Cuesta College
8. Cypress College
9. College of the Desert
10. El Camino College
11. Fresno City College
12. Golden West College
13. Grossmont College
14. Hartnell College
15. Imperial Valley College
16. Los Medanos College
17. Merced College
18. Mira Costa College
19. Modesto Junior College
20. Monterey Peninsula College
21. Moorpark College
22. Mt. San Antonio College
23. Mt. San Jacinto College
24. Palomar College
25. Pasadena City College
26. Porterville College
27. Rio Hondo College
28. Riverside City College
29. Sacramento City College
30. Saddleback College
31. San Bernardino Valley College
32. San Diego City College
33. San Joaquin Delta College
34. San Mateo, College of
35. Santa Ana College
36. Santa Barbara City College
37. Santa Monica College
38. Southwestern College
39. Ventura College
40. Victor Valley College
41. West Hills College Lemoore
42. Yuba College

A survey was given to 77 colleges to assess the funds for the nursing program. There were 71 colleges who responded (92.21 percent response rate), while six did not complete the survey. There were 42 out of 71 (59.15 percent) colleges who use multi-

criteria screening in the selection of their applicants, while 29 out of 71 (40.85 percent) used at least one of the following methods: (1) first come first serve; (2) pre-requisite courses; (3) the Chancellor’s Office validation process; (4) modified random selection; and (5) lottery/random selection. Some multi-criteria colleges also use a combination of these five additional methods in selecting students from their qualified applicant pool.

Table 4a: How many applicants qualified for the nursing program after screening?

	Count	Average	Standard Deviation	Minimum	Maximum	Sum
Non-Multi-Criteria Screening	29	178.69	137.55	25	518	5182
Multi-Criteria Screening	42	247.31	169.58	61	924	10387
Overall	71	219.28	159.89	25	924	15569

The colleges received a total of 15,569 qualified applicants, but this number contains duplicates because students usually apply at multiple colleges. Below is the descriptive statistics of the 5,476 qualified applicants who enrolled for the first time in the nursing program.

Table 4b: How many qualified applicants were enrolled?

	Count	Average	Standard Deviation	Minimum	Maximum	Sum
Non-Multi-Criteria Screening	29	68.17	39.37	12	162	1977
Multi-Criteria Screening	42	83.31	51.55	20	332	3499
Overall	71	77.13	47.25	12	332	5476

Demographics of Registered Nursing Students Enrolled in Fiscal Year 2016-17:

The following tables/graphs show the demographics of students in the program.

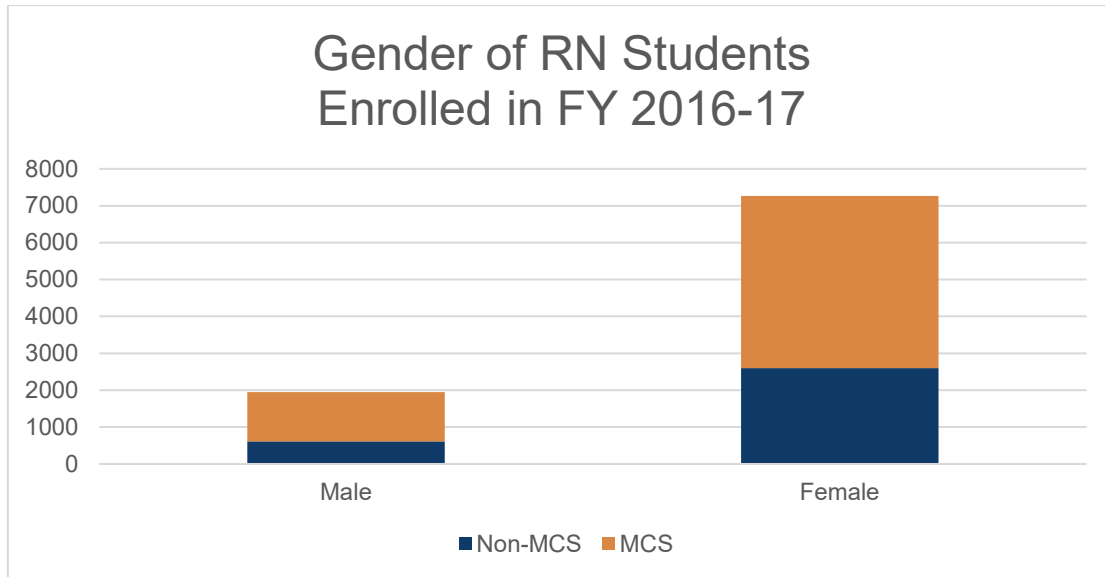


Figure 4. Gender of Registered Nursing Students

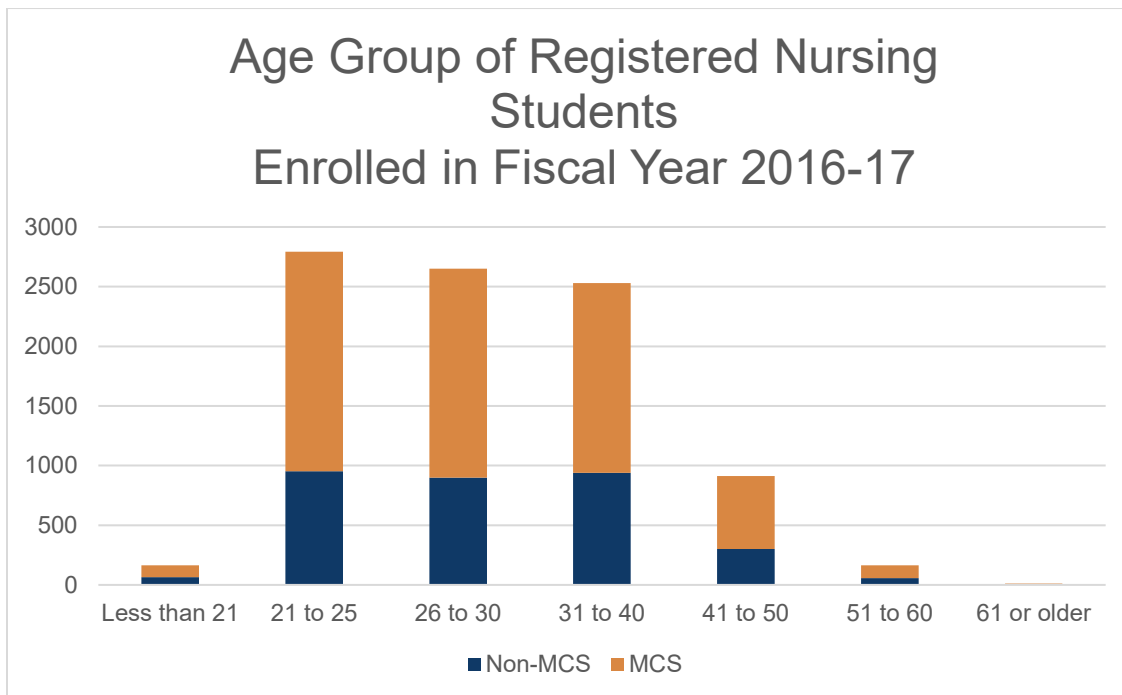


Figure 5. Age Group of Registered Nursing Students

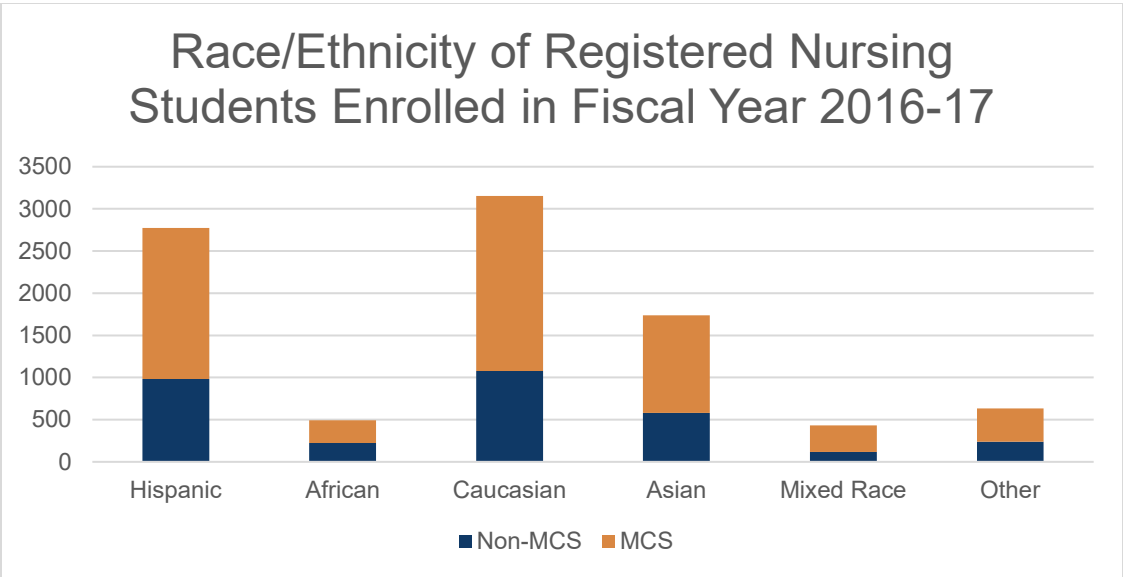


Figure 6. Race/Ethnicity of Registered Nursing Students

Graduates of Registered Nursing Programs

Table 5: How many total students graduated in fiscal year 2016-17?

Q1_E	Count	Average	Standard Deviation	Minimum	Maximum	Sum
Non- Multi-Criteria Screening	29	54.76	26.79	12	126	1588
Multi-Criteria Screening	42	70.31	36.85	20	214	2953
Overall	71	63.96	33.79	12	214	4541

A total of 4,541 students graduated from a registered nursing program from one of the 71 colleges. Results from a 2-sample t-test ($t=-2.0582$, $df=68.7799$, $p-value=.0435$) shows a small but significant difference in the average number of applicants who graduated in the program using Multi-Criteria Screening versus non-MCS. **It appears that colleges who use multi-criteria screening graduate more students, on average, than colleges who do not use it.**

Spotlight: Ventura College

Applicants and Admissions to the Associate Degree of Nursing Program & Disproportionate Impact Study

Admission to the Ventura College associate degree of nursing program is based on an applicant’s multi-criteria selection score or waitlist number. About 75 percent of each class is admitted based on multi-criteria selection score; the remainder of the class is

admitted via waitlist number. In fall 2016, 62 students with a multi-criteria selection score of 50 or greater were selected for admission. This study is concerned with associate degree of nursing admission selection based on an applicant's multi-criteria selection score.

The methodology used to measure disproportionate impact was the percentage point gap method. The percentage of selected applicants in each sub-group was subtracted from the percentage of selected applicants for all groups. The resulting percentage point gaps were compared to the margin of error for each of the sub-groups. Margin of error is based on the number of applicants in the sub-group. Therefore, the margin of error differed among sub-groups.

No disproportionate impact was detected (per the California Community Colleges Chancellor's Office, sub-groups with less than eleven applicants were not evaluated).

Table 6: Applicants and Admissions to the Associate Degree of Nursing Program & Disproportionate Impact Study

Demographic Characteristic	Fall 2016 Applicants		Fall 2016 Selected for Admission		Percent of Selected Applicants from Each Sub-Group	(PPG) Percentage Point Gap	(E) Margin of Error	Comparison of Threshold $-(E) < PPG < (E)$	Did Sub-Group Experience Disproportionate Impact?
	Number	Percent	Number	Percent					
Ethnicity									
Asian	23	16.1%	13	21.0%	56.5%	13.1	20	$-20 < 13.1 < 20$	No
Black	4	2.8%	2	3.2%	50.0%	6.6	---	---	---
Hispanic	72	50.3%	29	46.8%	40.3%	-3.1	12	$-12 < -3.1 < 12$	No
Two/More Races	6	4.2%	3	4.8%	50.0%	6.6	---	---	---
White	38	26.6%	15	24.2%	39.5%	-3.9	16	$-16 < -3.9 < 16$	No
Unreported	0	---	---	---	---	---	---	---	---
Total	143	100.0%	62	100.0%	43.4%	---	---	---	---
Gender									
Female	121	84.6%	49	79.0%	40.5%	-2.9	9	$-9 < -2.9 < 9$	No
Male	22	15.4%	13	21.0%	59.1%	15.7	21	$-21 < 15.7 < 21$	No
Total	143	100.0%	62	100.0%	43.4%	---	---	---	---
Age Group									
18-25 years old	51	35.7%	26	41.9%	51.0%	7.6	14	$-14 < 7.6 < 14$	No
26-45 years old	85	59.4%	31	50.0%	36.5%	-6.9	11	$-11 < -6.9 < 11$	No
46 years or older	7	4.9%	5	8.1%	71.4%	28.0	---	---	---
Total	143	100.0%	62	100.0%	43.4%	---	---	---	---

“Ventura College began to phase in the implementation of the multi-criteria in 2010. At that time, our attrition rate was averaging 60 percent and sometimes 70 percent with the BRN definition of on time completion. Since the use of the multi-criteria, we have decreased our attrition rate to 35-40 percent on time. When the ACEN definition of completion on time is used, our attrition rate decreases to 15 percent! Pretty impressive!” -- Sandra Melton, PhD (Director of School of Nursing & Allied Health, Ventura College)

5. College Attrition and Completion Rates

College Attrition Rates

The Chancellor's Office used data reported by the colleges to the Board of Registered Nursing to determine the attrition rate for each college program. The colleges collected data on students who were scheduled to complete the program between Aug. 1, 2016 and July 31, 2017. These students have benefited from the specific retention activities funded by the nursing program grant funds. While some colleges have improved their attrition rates with these grants, some colleges continue to have high attrition rates. We are recommending that those colleges with greater than 15 percent attrition apply for assessment, remediation and retention funds for the following year. The attrition data is presented in Tables 7a and 7b. Attrition rates were reported by the colleges in the survey *Funds for Nursing Final Report Expenditures*.

Table 7a: What is your attrition rate for fiscal year 2016-17?

	Count	Average	Standard Deviation	Minimum	Median	Maximum
Non- Multi-Criteria Screening	29	12.86	8.25	0	11	33
Multi-Criteria Screening	42	11.1	6.81	0	10.5	30
Overall	71	11.82	7.43	0	11	33

The survey results showed an average of 11.82 percent attrition rate among 71 colleges. There were a total of 21 colleges with high attrition rates or rates greater than 15 percent. Majority of the colleges (70.42 percent or 50 out of 71 colleges) have low attrition rates. Moreover, 31 colleges out of those 50 use multi-criterion.

Table 7b: Low versus High Attrition Rates

	Low Attrition Rate (0% - 15%)	High Attrition Rate (> 15%)	Total
Non- Multi-Criteria Screening	19	10	29
Multi-Criteria Screening	31	11	42
Overall	50	21	71

Retention Rates and Success Rates

The Chancellor’s Office used data available in [Data Mart](http://datamart.cccco.edu) (datamart.cccco.edu) to determine the nursing programs’ degree applicable course retention and success rates. For this analysis, we focus on students in registered nursing programs by filtering the Taxonomy of Programs code 123010, and from non-distance education method of teaching Registered Nursing degree applicable courses. There are some courses taught using distance education methods or internet based methods, but these were excluded from the analyses due to small enrollment numbers. The following analyses show the retention and success rates during the fall 2006 and fall 2016 terms, which will serve as a comparison before and after the implementation of AB 1559 for multi-criteria screening process. For this analysis, we identified 46 colleges using multi-criteria screening (MCS) from 2013-16, but nine of these colleges were excluded due to incomplete data. Thus, the data included 37 multi-criteria screening colleges, and 28 non-multi-criteria screening colleges.

Tables 8a, 8b and 8c show the retention and success rates in degree applicable registered nursing courses by gender, age group and ethnicity/race, respectively. The results show no disproportionate impact by gender. However, there are some subgroups in age and ethnicity/race showing adverse disproportionate impact. In particular, students who are younger than 20 years old, or at least 50 years in age, have disproportionately lower retention and success rates in both fall 2006 and fall 2016. For the ethnicity/race, the African American subgroup had an adverse disproportionate impact in both retention and success rates in fall 2006, but the gap has improved in fall 2016 by eliminating the significant gap in the retention rate.

Tables 8a: Retention and Success Rates in Degree Applicable RN Courses – by Gender

Fall 2006	Enrollment Count	Retention Count	Success Count	Retention Rate	Success Rate	PPG-Retention	PPG-Success
Female	15,715	14,797	13,803	94.16%	87.83%	0.19%	0.56%
Male	3,326	3,096	2,813	93.08%	84.58%	-0.89%	-2.69%
Overall	19,080	17,930	16,652	93.97%	87.27%		

Fall 2016	Enrollment Count	Retention Count	Success Count	Retention Rate	Success Rate	PPG-Retention	PPG-Success
Female	11,983	11,649	11,206	97.21%	93.52%	0.16%	0.10%
Male	3,332	3,217	3,104	96.55%	93.16%	-0.50%	-0.26%
Overall	15,371	14,917	14,359	97.05%	93.42%		

Tables 8b: Retention and Success Rates in Degree Applicable RN Courses – by Age

Fall 2006	Enrollment Count	Retention Count	Success Count	Retention Rate	Success Rate	PPG-Retention	PPG-Success
1 to 17	22	20	17	90.91%	77.27%	-3.06%	-10.00%
18 & 19	208	168	131	80.77%	62.98%	-13.20%	-24.29%
20 to 24	4,436	4,239	3,964	95.56%	89.36%	1.59%	2.09%
25 to 29	4,759	4,550	4,251	95.61%	89.33%	1.64%	2.06%
30 to 34	3,453	3,262	3,063	94.47%	88.71%	0.50%	1.44%
35 to 39	2,559	2,361	2,189	92.26%	85.54%	-1.71%	-1.73%
40 to 49	2,828	2,597	2,383	91.83%	84.26%	-2.14%	-3.01%
50 +	814	732	653	89.93%	80.22%	-4.04%	-7.05%
Unknown	*	*	*	*	*		
Overall	19080	17930	16652	93.97%	87.27%		

Fall 2016	Enrollment Count	Retention Count	Success Count	Retention Rate	Success Rate	PPG-Retention	PPG-Success
1 to 17	21	14	14	66.67%	66.67%	-30.38%	-26.75%
18 & 19	217	191	149	88.02%	68.66%	-9.03%	-24.76%
20 to 24	3,979	3,862	3,725	97.06%	93.62%	0.01%	0.20%

Fall 2016	Enrollment Count	Retention Count	Success Count	Retention Rate	Success Rate	PPG-Retention	PPG-Success
25 to 29	4,636	4,554	4,415	98.23%	95.23%	1.18%	1.81%
30 to 34	2,938	2,863	2,773	97.45%	94.38%	0.40%	0.96%
35 to 39	1,621	1,562	1,504	96.36%	92.78%	-0.69%	-0.64%
40 to 49	1,570	1,524	1,454	97.07%	92.61%	0.02%	-0.81%
50 +	388	346	324	89.18%	83.51%	-7.87%	-9.91%
Unknown	*	*	*	*	*		
Overall	15371	14917	14359	97.05%	93.42%		

*Suppressed – fewer than 10 students.

In Tables 8c, we can see that before multi-criteria was used (fall 2006) that the African American subgroup's retention and success rates were disproportionately impacted. After multi-criteria was used (fall 2016), only the African American subgroup's success rate was disproportionately impacted. **It appears that using the multi-criteria is associated with decreasing the percentage point gap in the retention rates for all subgroups.**

Tables 8c: Retention and Success Rates in Degree Applicable RN Courses – by Ethnicity/Race

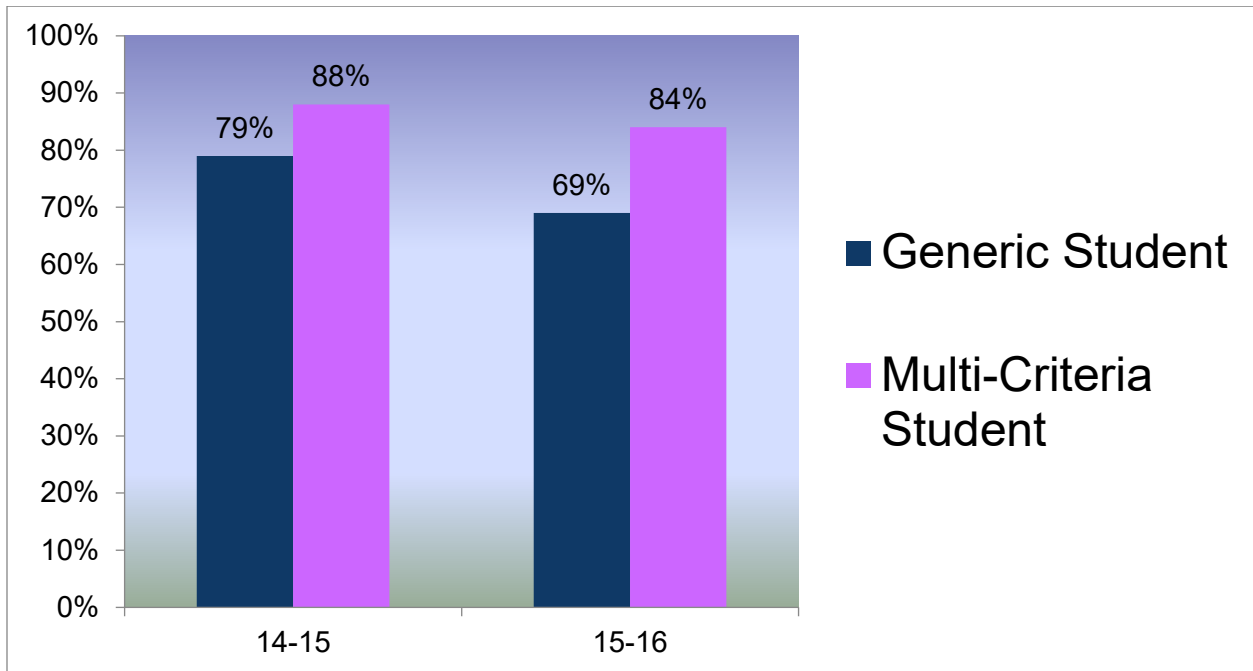
Fall 2006	Enrollment Count	Retention Count	Success Count	Retention Rate	Success Rate	PPG-Retention	PPG-Success
African-American	1,312	1,155	1,019	88.03%	77.67%	-5.94%	-9.60%
American Indian/Alaskan Native	124	115	104	92.74%	83.87%	-1.23%	-3.40%
Asian	4,919	4,599	4,225	93.49%	85.89%	-0.48%	-1.38%
Hispanic	4,369	4,111	3,762	94.09%	86.11%	0.12%	-1.16%
Pacific Islander	144	134	126	93.06%	87.50%	-0.91%	0.23%
Unknown	1,234	1,145	1,067	92.79%	86.47%	-1.18%	-0.80%

Fall 2006	Enrollment Count	Retention Count	Success Count	Retention Rate	Success Rate	PPG-Retention	PPG-Success
White Non-Hispanic	6,978	6,671	6,349	95.60%	90.99%	1.63%	3.72%
Overall	19,080	17,930	16,652	93.97%	87.27%		

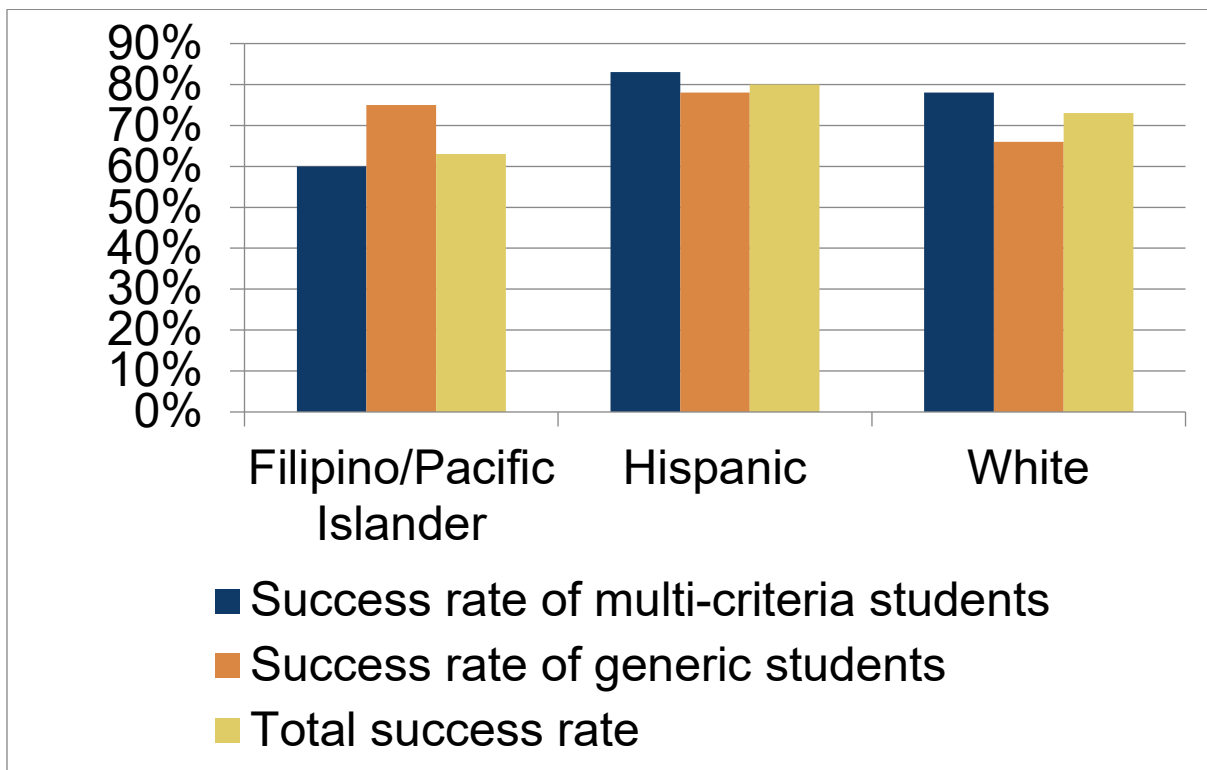
Fall 2016	Enrollment Count	Retention Count	Success Count	Retention Rate	Success Rate	PPG-Retention	PPG-Success
African-American	806	769	717	95.41%	88.96%	-1.64%	-4.46%
American Indian/Alaskan Native	87	85	72	97.70%	82.76%	0.65%	-10.66%
Asian	3,438	3,329	3,216	96.83%	93.54%	-0.22%	0.12%
Hispanic	5,595	5,425	5,186	96.96%	92.69%	-0.09%	-0.73%
	570	555	535	97.37%	93.86%	0.32%	0.44%
Pacific Islander	71	71	69	100.00%	97.18%	2.95%	3.76%
Unknown	298	286	272	95.97%	91.28%	-1.08%	-2.14%
White Non-Hispanic	4,506	4,397	4,292	97.58%	95.25%	0.53%	1.83%
Overall	15371	14917	14359	97.05%	93.42%		

Spotlight: Moorpark College

At Moorpark College, the retention rates are above 80 percent for students who were admitted using the multi-criteria selection process, as compared to generic students.



The next figure shows the success rates for 2014-16 and multi-criteria students from Hispanic and White backgrounds have higher success rates compared to generic students. No disproportionate impact was noted for these ethnicity groups.



6. HiTouch Health Care

Workplace experts have long believed that hard skills may get someone hired, but soft skills ultimately determine success on the job. Across all job titles and industries, developing better soft skills leads to exceptional customer experiences, improved employee morale, increased collaboration, higher productivity, and reduced employee turnover.

The healthcare industry is now recognizing the value of connecting and communicating in the medical setting since it is here that “customers” are at their most vulnerable. With the advent of mandatory consumer survey reporting through the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), soft skills can now affect reimbursement, putting them alongside clinical skills as a key component of success.

HCAHPS is a patient satisfaction survey required by the federal Centers for Medicare and Medicaid Services for all hospitals in the United States.

“This is the current ‘ask’ from healthcare providers,” says Linda Zorn, Statewide Director/Sector Navigator for the Health Workforce Initiative (HWI). “They know that soft skills are central to patient-centered care, yet the current competency levels of many healthcare employees do not meet industry expectations.”

Since there is a need, Butte College received an augmentation of \$199,100 with nursing support grant funds from the California Community Colleges Chancellor’s Office to solve the problem. The work has identified soft skills categories and subcategory modules that fully address the skill sets needed to meet industry expectations.

“California employers say loudly and clearly that soft skills are important. It does not matter what industry. The work that has been done in the healthcare sector responds to what employers ask of their education partners,” said Van Ton-Quinlivan, executive vice chancellor for Workforce and Digital Futures for the California Community Colleges and architect of the Strong Workforce Program. “We are most proud to have invested in this effort that has been so well received by the healthcare community.”

The Critical Six Soft Skills:

1. **Communication Competency** – modules range from listening and non-verbal skills to written communication and emotional intelligence.
2. **Workplace Ethics & Professionalism** – Includes modules on social media use, integrity and social graces.

3. **Team Building & Collaboration** – these modules address leadership management skills, workplace pride and self-confidence.
4. **Effective Problem Solving** – includes modules on stress management and self-care as well as conflict management.
5. **Embracing Diversity** – modules address mutual respect, tolerance and cultural diversity in the workplace.
6. **Demonstrating Compassion** – modules are designed to deal with empathy and caring behaviors.

The nursing support grant funds helped 17 additional training sessions this year with 279 in attendance.



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Workforce and Economic Development Division:

Van Ton-Quinlivan

Executive Vice Chancellor

Gary Adams

Dean

Jeff Mrizek

Dean

Brenda Fong

Specialist

Nicole Alexander

Associate Governmental Program Analyst

Research and Data Analytics Unit:

Ryan Fuller

Caroline Ramirez-Faghieh

Research Specialists

Special Thanks:

Office of Communications

Paul Feist

Vice Chancellor

Paige Dorr Marlatt

Director

Courtney Chittock

Graphic Designer

Jordyn Parrott

Webmaster

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Public Information Officer

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California Community Colleges Chancellor's Office
1102 Q Street | Suite 4400 | Sacramento, CA 95811
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