
California Board of Registered Nursing

2014-2015 Annual School Report

Data Summary and Historical Trend Analysis

Bay Area

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Prepared by:
Lisel Blash, MPA
Dennis Keane, MPH
Joanne Spetz, PhD
University of California, San Francisco
3333 California Street, Suite 265
San Francisco, CA 94118

PREFACE

Each year, the California Board of Registered Nursing (BRN) requires all pre-licensure registered nursing programs in California to complete a survey detailing statistics of their programs, students and faculty. The survey collects data from August 1 through July 31. Information gathered from these surveys is compiled into a database and used to analyze trends in nursing education.

The BRN commissioned the University of California, San Francisco (UCSF) to develop the online survey instrument, administer the survey, and report data collected from the survey. This report presents ten years of historical data from the BRN Annual School Survey. Data analyses were conducted statewide and for nine economic regions¹ in California, with a separate report for each region. All reports are available on the BRN website (<http://www.rn.ca.gov/>).

This report presents data from the 10-county Bay Area. Counties in the region include Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma. All data are presented in aggregate form and describe overall trends in the areas and over the times specified and, therefore, may not be applicable to individual nursing education programs. Additional data from the past ten years of the BRN Annual School Survey are available in an interactive database on the BRN website.

Beginning with the 2011-2012 Annual School Survey, certain questions were revised to allow schools to report data separately for satellite campuses located in regions different from their home campus. This change was made in an attempt to more accurately report student and faculty data by region, and it resulted in data that were previously reported in one region being reported in a different region. This is important because changes in regional totals that appear to signal either an increase or a decrease may in fact be the result of a program reporting satellite campus data in a different region. However, due to the small number of students impacted and the added complication in collecting the data, accounting for satellite programs in different regions was discontinued in 2014-2015.

Data for 2005-2006 through 2010-2011 and 2014-2015 is not impacted by differences in satellite campus data reporting while 2011-2012 through 2013-2014 includes the regional data separately for satellite campuses. Data tables impacted by these change will be footnoted and in these instances, caution should be used when comparing data across years. 2014-2015 reporting for the Bay Area region may be affected by the change in reporting for satellite campus data.

¹ The regions include: (1) Bay Area, (2) Central Coast, (3) Central Sierra (no programs), (4) Greater Sacramento, (5) Northern California, (6) Northern Sacramento Valley, (7) San Joaquin Valley, (8) Los Angeles Area (Los Angeles and Ventura counties), (9) Inland Empire (Orange, Riverside, and San Bernardino counties), and (10) Southern Border Region. Counties within each region are detailed in the corresponding regional report.

DATA SUMMARY AND HISTORICAL TREND ANALYSIS²

This analysis presents pre-licensure program data from the 2014-2015 BRN School Survey in comparison with data from previous years of the survey. Data items addressed include the number of nursing programs, enrollments, completions, retention rates, NCLEX pass rates, new graduate employment, student and faculty census data, the use of clinical simulation, availability of clinical space, and student clinical practice restrictions.

Trends in Pre-Licensure Nursing Programs

Number of Nursing Programs

In 2014-2015, the Bay Area had a total of 30 pre-licensure nursing programs. Of these programs, 18 are ADN programs, 8 are BSN programs, and 4 are ELM programs. The number of programs in the region has remained about the same over the last eight years. Nearly three-quarters (73%, n=22) of pre-licensure nursing programs in the Bay Area are public. The share of private programs has increased over the last ten years, from 21% (n=6) in 2005-2006 to its current share of 27% (n=8) in 2014-2015.

Table 1. Number of Nursing Programs*, by Academic Year

	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015
Total nursing programs	28	29	30	30	30	31	30	30	30	30
ADN	16	17	18	18	18	18	18	18	18	18
BSN	7	7	7	7	7	8	8	8	8	8
ELM	5	5	5	5	5	5	4	4	4	4
Public	22	22	23	23	23	23	22	22	22	22
Private	6	7	7	7	7	8	8	8	8	8
Total number of schools	24	25	26	26	26	27	27	27	27	27

*Since some nursing schools admit students in more than one program, the number of nursing programs is greater than the number of nursing schools.

² Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Tables affected by this change are noted, and readers are cautioned against comparing data collected these years with data collected before and after this change.

In 2014-2015, 47% (n=14) of Bay Area nursing programs collaborated with another program that offered a higher degree than offered at their own school. Of nursing programs that had these collaborations in 2014-2015, 43% (n=6) had formal agreements and 71% (n=10) had informal agreements. While there has been some fluctuation in the share of programs that partner with other schools, these collaborations have increased dramatically over the last nine years.

Table 2. Partnerships*, by Academic Year

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Programs that partner with another program that leads to a higher degree	2	1	3	8	13	15	12	14	16	14
Formal collaboration								42.9%	50.0%	42.9%
Informal collaboration								71.4%	68.8%	71.4%
Number of programs that reported	27	28	29	30	30	31	30	30	30	30

*These data were collected for the first time in 2005-2006.
 Note: Blank cells indicate the information was not requested

Admission Spaces and New Student Enrollments

Over the last five years, the Bay Area has seen fluctuation in the number of spaces available for new students in pre-licensure nursing programs and the number of students enrolling in these spaces. These reported numbers are slightly higher in 2014-2015 than a decade ago, with 5% (n=113) more spaces available and 12% (n=275) more new students enrolled.

Table 3. Availability and Utilization of Admission Spaces†, by Academic Year

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Spaces available	2,193	2,319	2,368	2,513	2,152	2,523	2,375	2,449	2,254	2,306
New student enrollments	2,250	2,521	2,752	2,874	2,640	2,805	2,545	2,411	2,361	2,525
% Spaces filled with new student enrollments	102.6%	108.7%	116.2%	114.4%	122.7%	111.2%	107.2%	98.4%	104.7%	109.5%

† Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

Bay Area nursing programs continue to receive more applications requesting entrance into their programs than can be accommodated. Of the 6,765 qualified applications received in 2014-2015, 63% did not result in enrollments.

Table 4. Student Admission Applications*†, by Academic Year

	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015
Qualified applications	6,623	8,070	7,910	8,077	8,063	7,574	7,812	6,595	7,060	6,765
ADN	3,424	4,429	4,603	4,363	4,572	4,212	4,422	3,143	2,944	2,971
BSN	2,579	2,605	2,485	2,665	2,522	2,567	2,724	2,366	3,488	2,919
ELM	620	1,036	822	1,049	969	795	666	1,086	628	875
% Qualified applications not enrolled	66.0%	68.8%	65.2%	64.4%	67.3%	63.0%	67.4%	63.4%	66.6%	62.7%

*These data represent applications, not individuals. A change in the number of applications may not represent an equivalent change in the number of individuals applying to nursing school.

†Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

New student enrollment in Bay Area nursing programs has declined in recent years. The distribution of new enrollments by program type was 44% ADN (n=1,105), 41% BSN (n=1,040), and 15% ELM (n=380). A majority of the new students enrolled are at one the region's public programs, accounting for 51% (n=1,291) of total new student enrollments in 2014-2015. The proportion of new enrollments at private schools has increased dramatically since 2005-2006, when it made up only 30% of all enrollments, to nearly half (49%) in 2014-2015.

Table 5. New Student Enrollment by Program Type†, by Academic Year

	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015
New student enrollment	2,250	2,521	2,752	2,874	2,640	2,805	2,545	2,411	2,361	2,525
ADN	1,113	1,332	1,378	1,426	1,313	1,284	1,130	1,107	1,118	1,105
BSN	846	872	1,043	1,173	1,031	1,246	1,179	1,090	1,067	1,040
ELM	291	317	331	275	296	275	236	214	176	380
Private	664	764	900	1,042	1,037	1,189	1,096	1,025	1,028	1,234
Public	1,586	1,757	1,852	1,832	1,603	1,616	1,449	1,386	1,333	1,291

† Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

Six programs, the majority being BSN programs, reported that they enrolled fewer students in 2014-2015 compared to the previous year. The most common reasons programs gave for enrolling fewer students were “accepted students did not enroll” and “to reduce costs.”

Table 5.1. Percent of Programs that Enrolled Fewer Students in 2014-2015

Type of Program	ADN	BSN	ELM	Total
Enrolled fewer	11.1%	50.0%	0.0%	20.0%
Did not enroll fewer	88.9%	50.0%	100.0%	80.0%
Number of programs that reported	18	8	4	30

Table 5.2. Reasons for Enrolling Fewer Students

	% of programs
Accepted students did not enroll	83.3%
To reduce costs	50.0%
Lost funding	33.3%
Insufficient faculty	33.3%
Unable to secure clinical placements for all students	33.3%
College/university / BRN requirement to reduce enrollment	0.0%
Other	0.0%
Program discontinued	0.0%
Lack of qualified applicants	0.0%
Number of programs that reported	6

Student Census Data

The total number of students enrolled in Bay Area nursing programs has shown a slow rate of decline since 2009 – from 5,558 students on October 15, 2009 to 5,022 students on the same date in 2015. The composition of currently enrolled students shows 36% (n=1,789) of students were enrolled in ADN programs, 53% (n=2,681) in BSN programs, and 11% (n=552) in ELM programs.

Table 6. Student Census Data*† by Program Type, by Year

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ADN	1,621	1,935	2,208	2,176	2,072	1,964	1,786	1,872	1,826	1,789
BSN	2,431	2,179	2,556	2,790	2,890	2,851	3,029	2,886	2,678	2,681
ELM	422	586	601	592	542	664	528	507	478	552
Total nursing students	4,474	4,700	5,365	5,558	5,504	5,479	5,343	5,265	4,982	5,022

*Census data represent the number of students on October 15th of the given year.

† Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

Student Completions

The Bay Area has seen an increase in the number of students enrolling in its nursing programs over the last ten years. In 2014-2015, 2,472 students completed a nursing program in the Bay Area. Of these students, 38% earned an ADN (n=942), 55% a BSN (n=1,354), and 7% an ELM (n=176).

Table 7. Student Completions† by Program Type, by Academic Year

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
ADN	903	863	993	1,055	1,148	1,124	961	968	936	942
BSN	639	697	973	979	986	1,017	965	1,060	1,046	1,354
ELM	210	228	227	285	290	200	222	229	211	176
Total student completions	1,752	1,788	2,193	2,319	2,424	2,341	2,148	2,257	2,193	2,472

† Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

Retention and Attrition Rates

Of the 2,053 students scheduled to complete a Bay Area nursing program in the 2014-2015 academic year, 84% (n=1,724) completed the program on-time, 4% (n=82) are still enrolled, and 12% (n=247) dropped out or were disqualified from the program. Retention rates have shown overall steady improvement over the last decade and 12% attrition rate in 2014-2015 is one of the lowest reported in the last ten years.

Table 8. Student Retention and Attrition[†], by Academic Year

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Students scheduled to complete the program	1,781	1,965	2,205	2,293	2,165	2,138	2,165	2,065	2,080	2,053
Completed on time	1,427	1,591	1,746	1,827	1,717	1,724	1,787	1,684	1,779	1,724
Still enrolled	101	137	153	158	153	95	67	129	83	82
Total attrition	253	237	306	308	295	319	311	252	218	247
<i>Attrition-dropped out</i>										121
<i>Attrition-dismissed</i>										126
Completed late [‡]					97	102	62	84	85	105
Retention rate*	80.1%	81.0%	79.2%	79.7%	79.3%	80.6%	82.5%	81.5%	85.5%	84.0%
Attrition rate**	14.2%	12.1%	13.9%	13.4%	13.6%	14.9%	14.4%	12.2%	10.5%	12.0%
% Still enrolled	5.7%	7.0%	6.9%	6.9%	7.1%	4.4%	3.1%	6.2%	4.0%	4.0%

[‡] These completions are not included in the calculation of either retention or attrition rates.

[†] Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

*Retention rate = (students completing the program on-time) / (students scheduled to complete)

**Attrition rate = (students dropped or disqualified who were scheduled to complete) / (students scheduled to complete the program)

Note: Blank cells indicate the information was not requested.

Attrition rates among the region’s pre-license nursing programs vary by program type. Average attrition rates have declined for all program types over the past ten years. The most significant declines have been in ELM and BSN programs. ADN programs continue to have the highest attrition rates.

Table 9. Attrition Rates by Program Type[†], by Academic Year

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
ADN	18.9%	17.0%	21.0%	17.8%	18.4%	18.2%	19.3%	18.0%	16.9%	18.8%
BSN	10.5%	6.5%	6.3%	8.9%	7.2%	13.6%	10.4%	7.2%	4.2%	5.9%
ELM	5.0%	8.8%	5.5%	7.1%	7.2%	6.0%	5.1%	5.9%	0.5%	1.8%
Private	12.3%	9.6%	6.1%	10.2%	10.8%	17.7%	13.4%	11.2%	7.1%	8.0%
Public	15.0%	13.1%	17.2%	14.9%	14.7%	14.3%	14.8%	13.2%	12.3%	14.1%

*Changes to the survey that occurred prior to 2005-2006 may have affected the comparability of these data to data in subsequent years.

[†] Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

Retention and Attrition Rates for Accelerated Programs

The average retention rate for accelerated BSN programs³ in the Bay Area was 95% in 2014-2015 which is much higher when compared with traditional programs. Similarly, the average attrition rate in 2014-2015 was 2%, which is considerably lower than the average rate for traditional programs.

Table 10. Student Retention and Attrition for Accelerated Programs*†, by Academic Year

	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015
Students scheduled to complete the program	222	254	332	268	237	222	221	350
Completed on time	213	244	321	255	216	208	211	332
Still enrolled	4	4	3	7	15	12	6	10
Total attrition	5	6	8	6	6	2	3	8
Attrition-dropped out								7
Attrition-dismissed								1
Completed late‡			8	0	14	4	1	9
Retention rate**	95.9%	96.1%	96.7%	95.1%	91.1%	93.7%	95.5%	94.9%
Attrition rate***	2.3%	2.4%	2.4%	2.2%	2.5%	0.9%	1.4%	2.3%
% Still enrolled	1.8%	1.6%	0.9%	2.6%	6.3%	5.4%	2.7%	2.9%

*These data were collected for the first time in 2007-2008.

† Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

‡These completions are not included in the calculation of either the retention or attrition rates.

**Retention rate = (students who completed the program on-time) / (students scheduled to complete the program)

***Attrition rate = (students who dropped or were disqualified who were scheduled to complete) / (students scheduled to complete the program)

Note: Blank cells indicated that the applicable information was not requested in the given year.

NCLEX Pass Rates

Over the last ten years, NCLEX pass rates in the Bay Area have been higher for ELM graduates than for ADN or BSN program graduates. In 2014-2015, ELM program graduates again had the highest average NCLEX pass rate. All program types had declines in their NCLEX pass rates in 2013-2014 and 2014-2015 in comparison to the prior seven years. The NCLEX passing standard was increased in April 2013, which may have impacted NCLEX passing rates for these years.

Table 11. First Time NCLEX Pass Rates* by Program Type, by Academic Year

	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015
ADN	90.9%	86.8%	84.3%	87.1%	87.0%	86.8%	88.8%	89.0%	83.1%	83.7%
BSN	81.0%	90.3%	85.3%	86.2%	89.0%	86.6%	87.7%	86.6%	80.1%	81.4%
ELM	92.1%	96.2%	93.8%	91.4%	93.0%	90.5%	92.8%	93.2%	87.0%	84.7%

*NCLEX pass rates for students who took the exam for the first time in the given year.

³ BSN programs were the only type of accelerated programs in the Bay Area for which attrition rates were reported.

Employment of Recent Nursing Program Graduates⁴

Hospitals have historically been the most common employment setting for recent RN graduates. While hospitals continue to employ the largest share of new graduates in the Bay Area, this share has been declining and no longer represents the majority of recent RN graduates in the region. In 2014-2015, the region's programs reported that 46% of recent graduates were working in a hospital setting. Programs also reported that 11% of students had not found employment in nursing at the time of the survey, which is the lowest level since 2009-2010 when these data were first collected. However, it was also reported that 22% were pursuing additional nursing education. More than half (61%) of recent Bay Area RN graduates were employed in California, a share that has declined from a high of 90% of graduates in 2007-2008 but has been increasing again in recent years.

Table 12. Employment Location for Recent Nursing Program Graduates[†], by Academic Year

	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015
Hospital	76.5%	89.3%	84.5%	53.8%	42.7%	34.5%	48.4%	37.0%	37.9%	46.2%
Pursuing additional nursing education ^T								13.3%	23.9%	21.8%
Unable to find employment					37.6%	41.8%	26.5%	30.3%	15.4%	10.7%
Long-term care facilities	0.4%	0.8%	1.8%	13.4%	12.6%	12.3%	9.7%	8.2%	10.0%	9.2%
Community/public health facilities	1.9%	4.3%	1.0%	3.0%	1.8%	5.7%	4.8%	3.5%	6.5%	5.6%
Other healthcare facilities	1.4%	2.1%	1.5%	8.6%	5.4%	7.4%	7.3%	5.6%	6.4%	4.2%
Other	19.8%	11.5%	11.2%	43.7%	15.3%	14.3%	3.3%	2.0%	0.9%	2.3%
Employed in California	71.6%	89.9%	89.8%	70.5%	75.6%	56.4%	54.0%	50.8%	56.3%	61.1%

[†]Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

Note: Blank cells indicated that the applicable information was not requested in the given year.

⁴ Graduates whose employment setting was reported as "unknown" have been excluded from this table. In 2014-2015, on average, the employment setting was unknown for 20% of recent graduates.

Clinical Training in Nursing Education

Questions regarding clinical simulation⁵ were revised in the 2014-2015 survey to collect data on average amount of hours students spend in clinical areas including simulation in various content areas and plans for future use. Twenty-seven of the 30 Bay Area nursing programs reported using clinical simulation in 2014-2015. About a quarter (27%, n=8) of the 30 programs have plans to increase staff dedicated to administering clinical simulation at their program in the next 12 months.

The content areas using the most hours of clinical simulation on average are Medical/Surgical (18.6) and Pediatrics (11.3). The largest proportion of clinical hours in all programs is in direct patient care (83%) followed by non-direct patient care (9%) and simulation (8%).

Table 13. Average Hours Spent in Clinical Training by Content Area 2014-2015

Content Area	Direct Patient Care	Non-Direct Patient Care (excluding simulation)	Clinical Simulation	Total Average Clinical Hours
Medical/surgical	228.0	22.4	18.6	269.0
Fundamentals	88.7	38.3	8.9	135.9
Obstetrics	83.7	6.2	10.6	100.6
Pediatrics	79.0	6.4	11.3	96.2
Geriatrics	71.6	3.1	7.5	82.2
Psychiatry/mental health	97.4	3.1	7.5	108.1
Leadership/management	65.8	4.4	6.4	76.6
Other	59.6	0.0	6.8	66.4
Total average clinical hours	773.9	84.0	77.1	935.0
Percent of clinical hours	82.8%	9.0%	8.3%	100.0%
Number of programs that reported	27	27	27	27

⁵ Clinical simulation provides a simulated real-time nursing care experience which allows students to integrate, apply, and refine specific skills and abilities that are based on theoretical concepts and scientific knowledge. It may include videotaping, de-briefing and dialogue as part of the learning process.

The largest proportion of clinical hours in all programs is in direct patient care, and ELM programs allot the largest percentage of clinical hours (87%) to direct patient care activities. BSN, ADN and ELM programs allocated roughly the same proportion of time to clinical simulation (8-9%) and ADN and BSN programs allocated more time to non-direct patient care (10%) than did ELM programs.

Table 14. Average Hours Spent in Clinical Training by Program Area and Content Type

Content Area	Direct Patient Care			Non-Direct Patient Care (excluding simulation)			Clinical Simulation			Total Average Clinical Hours		
	ADN	BSN	ELM	ADN	BSN	ELM	ADN	BSN	ELM	ADN	BSN	ELM
Medical/Surgical	273.3	169.0	176.0	23.6	30.4	2.0	19.7	17.4	17.0	316.6	216.8	195.0
Fundamentals	104.5	51.4	97.0	47.3	27.8	25.8	9.5	8.1	8.0	163.2	87.3	130.8
Pediatrics	72.0	87.5	88.5	7.3	4.8	6.3	9.8	13.5	11.8	88.4	105.8	106.5
Obstetrics	77.7	86.9	100.0	7.8	5.8	1.0	7.3	14.0	16.5	92.8	106.6	117.5
Geriatrics	78.1	69.2	52.3	3.4	4.0	0.0	7.0	8.6	7.0	88.6	81.8	59.3
Psychiatry/ Mental Health	89.1	104.5	114.3	3.4	4.0	0.5	4.7	11.3	10.5	97.2	119.8	125.3
Leadership/ Management	62.5	81.3	47.5	2.3	10.6	0.0	6.3	8.4	3.0	71.0	100.3	50.5
Other	43.6	86.8	65.3	0.0	0.0	0.0	10.7	1.6	2.3	54.3	88.4	67.5
Total average clinical hours	802.7	736.4	740.8	95.2	87.3	35.5	74.4	82.9	76.0	972.3	906.5	852.3
Number of programs that reported	15	8	4	15	8	4	15	8	4	15	8	4

In the 2014-2015 survey, programs were asked to report whether over the next 12 months they planned to increase, decrease, or maintain the number of hours in direct patient care, non-direct patient care, and clinical simulation for each of the eight content areas listed above.

In each content area and clinical experience, the majority planned to maintain the current balance of hours.

Respondents were more likely to indicate plans to increase rather than decrease clinical simulation hours.

Table 15. Planned Increase or Decrease in Clinical Hours by Content Area and Clinical Experience Type

	Decrease hours	Maintain hours	Increase hours
Fundamentals			
Direct patient care	6.7%	83.3%	10.0%
Non-direct patient care	3.3%	90.0%	6.7%
Clinical simulation	3.3%	80.0%	16.7%
All clinical hours	3.3%	86.7%	10.0%
Medical/Surgical			
Direct patient care	3.3%	93.3%	3.3%
Non-direct patient care	3.3%	90.0%	6.7%
Clinical simulation	0.0%	83.3%	16.7%
All clinical hours	0.0%	90.0%	10.0%

Table 15. Planned Increase or Decrease in Clinical Hours by Content Area and Clinical Experience Type, Continued

Obstetrics	Decrease hours	Maintain hours	Increase hours
Direct patient care	10.0%	90.0%	0.0%
Non-direct patient care	3.3%	96.7%	0.0%
Clinical simulation	0.0%	86.7%	13.3%
All clinical hours	6.7%	86.7%	6.7%
Pediatrics	Decrease hours	Maintain hours	Increase hours
Direct patient care	13.3%	83.3%	3.3%
Non-direct patient care	10.0%	86.7%	3.3%
Clinical simulation	3.3%	86.7%	10.0%
All clinical hours	6.7%	90.0%	3.3%
Psychiatry/Mental Health	Decrease hours	Maintain hours	Increase hours
Direct patient care	6.7%	93.3%	0.0%
Non-direct patient care	6.7%	93.3%	0.0%
Clinical simulation	3.3%	93.3%	3.3%
All clinical hours	3.3%	96.7%	0.0%
Geriatrics	Decrease hours	Maintain hours	Increase hours
Direct patient care	3.3%	96.7%	0.0%
Non-direct patient care	3.3%	96.7%	0.0%
Clinical simulation	0.0%	93.3%	6.7%
All clinical hours	0.0%	93.3%	6.7%
Leadership/Management	Decrease hours	Maintain hours	Increase hours
Direct patient care	3.3%	96.7%	0.0%
Non-direct patient care	3.3%	96.7%	0.0%
Clinical simulation	0.0%	96.7%	3.3%
All clinical hours	0.0%	100.0%	0.0%

Respondents were asked why they were reducing the clinical hours in their program if they indicated in the prior questions that they were decreasing clinical hours in any content area or clinical experience type. Six programs reported they would be reducing clinical hours, however, several commented that they were not actually decreasing the number of clinical hours overall, but that they were shifting allocations (33%). The inability to find sufficient clinical space (50%) and insufficient clinical faculty (33%) were also commonly noted.

Table 16. Why Program is Reducing Clinical Hours

Reason	%
Unable to find sufficient clinical space	50.0%
Not decreasing overall; shifting allocations	33.3%
Insufficient clinical faculty	33.3%
Other	16.7%
Can teach required content in less time	0.0%
Funding issues or unavailable funding	0.0%
Number of programs that reported	6

Clinical Space & Clinical Practice Restrictions⁶

The majority (57%, n=17) of Bay Area nursing programs reported being denied access to a clinical placement, unit or shift in 2014-2015.

In 2014-2015, 24% of programs that had been denied clinical placements, units or shifts were offered an alternative by the same clinical site. The lack of access to clinical space resulted in a loss of 39 clinical placements, units or shifts, which affected 503 students.

Table 17. RN Programs Denied Clinical Space, by Academic Year

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Number of programs denied a clinical placement, unit or shift	23	16	24	24	17
Programs offered alternative by site*					4
Placements, units or shifts lost*					39
Number of programs that reported	31	30	30	30	29
Total number of students affected	694	152	592	619	503

*Significant changes to these questions for the 2014-2015 administration prevent comparison to the data from prior years.

In the 2014-2015 survey, 10 programs reported that there were fewer students allowed for a clinical placement, unit, or shift in this year than in the prior year.

Table 17.1 RN Programs That Reported Fewer Students Allowed for a Clinical Placement, Unit, or Shift

	ADN	BSN	ELM	Total
Fewer students allowed for a clinical placement, unit, or shift	3	4	3	10
Total number of programs that reported	17	8	4	29

⁶ Some of these data were collected for the first time in 2009-2010. However, changes in these questions for the 2010-2011 administration of the survey prevent comparability of the data. Therefore, data prior to 2010-2011 are not shown.

While still one of the most commonly reported reasons why Bay Area programs were denied clinical space in 2014-2015, the share of Bay Area programs reporting competition for clinical space due to the number of nursing students in the region has declined from that first reported in 2009-2010. Closure – or partial closure – of clinical facility, followed by displacement by another program, were also among the most commonly reported reasons why Bay Area programs were denied clinical space.

No Bay Area programs reported that the facility charging a fee for the placement was a reason for clinical space being unavailable.

Table 18. Reasons for Clinical Space Being Unavailable*, by Academic Year

	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Closure, or partial closure, of clinical facility		26.1%	6.3%	20.8%	33.3%	44.4%
Competition for clinical space due to increase in number of nursing students in region	79.0%	73.9%	50.0%	50.0%	29.2%	44.4%
Displaced by another program	63.2%	39.1%	31.3%	33.3%	25.0%	38.9%
Staff nurse overload or insufficient qualified staff	52.6%	65.2%	68.8%	45.8%	41.7%	22.2%
Decrease in patient census	36.8%	43.5%	37.5%	29.2%	29.2%	22.2%
No longer accepting ADN students	36.8%	17.4%	18.8%	16.7%	12.5%	22.2%
Clinical facility seeking magnet status	47.4%	8.7%	18.8%	12.5%	4.2%	22.2%
Visit from Joint Commission or other accrediting agency				37.5%	33.3%	16.7%
Nurse residency programs	31.6%	13.0%	25.0%	0.0%	20.8%	16.7%
Change in facility ownership/management		8.7%	18.8%	12.5%	16.7%	16.7%
Other	10.5%	17.4%	18.8%	4.2%	8.3%	16.7%
Implementation of Electronic Health Records system			6.3%	45.8%	37.5%	11.1%
Facility moving to a new location					16.7%	5.6%
The facility began charging a fee (or other RN program offered to pay a fee) for the placement and the RN program would not pay					0.0%	0.0%
Number of programs that reported	19	23	16	24	24	18

*Data were collected for the first time in the 2009-2010 or 2010-2011 survey.

Note: Blank cells indicated that the applicable information was not requested in the given year.

ADN programs reported competition for clinical space and displacement by another program the most frequently reported barriers to finding clinical space. For BSN programs, decrease in patient census and closure, or partial closure, of clinical facility tied for first place as barriers. There was no clear pattern for ELM programs as a number of factors were cited.

Table 19. Reasons for Clinical Space Being Unavailable, by Program Type, 2014-2015

	ADN	BSN	ELM	Total
Competition for clinical space due to increase in number of nursing students in region	50.0%	60.0%	0.0%	44.4%
Closure, or partial closure, of clinical facility	30.0%	80.0%	33.3%	44.4%
Displaced by another program	50.0%	20.0%	33.3%	38.9%
No longer accepting ADN students	40.0%	0.0%	0.0%	22.2%
Clinical facility seeking magnet status	30.0%	20.0%	0.0%	22.2%
Staff nurse overload or insufficient qualified staff	10.0%	40.0%	33.3%	22.2%
Nurse residency programs	10.0%	60.0%	0.0%	22.2%
Decrease in patient census	0.0%	80.0%	0.0%	22.2%
Change in facility ownership/management	20.0%	0.0%	33.3%	16.7%
Other	20.0%	20.0%	0.0%	16.7%
Visit from Joint Commission or other accrediting agency	10.0%	40.0%	0.0%	16.7%
Implementation of Electronic Health Records system	0.0%	20.0%	33.3%	11.1%
Moved to new facility	0.0%	0.0%	33.3%	5.6%
The facility began charging a fee (or other RN program offered to pay a fee) for the placement and the RN program would not pay	0.0%	0.0%	0.0%	0.0%
Number of programs that reported	10	5	3	18

Programs that lost access to clinical space were asked to report on the strategies used to cover the lost placements, sites, or shifts. In 2014-2015, the most frequently reported strategy (68%) was to replace the lost clinical space at a different clinical site currently used by the nursing program. This strategy has become more common among Bay Area programs over the last three years. More than half of the programs also reported being able to add or replace lost space with a new site (61%).

Table 20. Strategies to Address the Loss of Clinical Space*, by Academic Year

	2011-2012	2012-2013	2013-2014	2014-2015
Replaced lost space at different site currently used by nursing program	56.3%	58.3%	75.0%	66.7%
Added/replaced lost space with new site	56.3%	41.7%	58.3%	61.1%
Replaced lost space at same clinical site	62.5%	45.8%	50.0%	16.7%
Clinical simulation	50.0%	54.2%	45.8%	44.4%
Reduced student admissions	6.3%	0.0%	0.0%	0.0%
Other	6.3%	0.0%	0.0%	5.6%
Number of programs that reported	16	24	24	18

*Data collected for the first time in 2011-12.

The share of Bay Area nursing programs that reported using out-of-hospital clinical placements has declined over the past three years. In 2014-2015, only 33% (n=10) of Bay Area nursing programs reported an increase in out-of-hospital clinical placements. This represents a decrease from the 45% (n=14) of nursing programs reporting an increase in out-of-hospital clinical placements in 2010-2011. In 2014-2015, the most frequently reported non-hospital site was a skilled nursing/rehabilitation facility (reported by 80% of all responding programs). School health service, public health or community health agency, and surgery center/ambulatory care center were also frequently reported as alternative clinical placement sites.

Table 21. Alternative Out-of-Hospital Clinical Sites* Used by RN Programs, by Academic Year

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Skilled nursing/rehabilitation facility	42.9%	40.0%	25.0%	14.3%	80.0%
Public health or community health agency	57.1%	70.0%	50.0%	71.4%	30.0%
School health service (K-12 or college)	50.0%	30.0%	37.5%	42.9%	30.0%
Surgery center/ambulatory care center	35.7%	20.0%	0.0%	0%	30.0%
Outpatient mental health/substance abuse	50.0%	50.0%	0.0%	28.6%	20.0%
Medical practice, clinic, physician office	14.3%	30.0%	25.0%	14.3%	20.0%
Hospice	28.6%	30.0%	12.5%	14.3%	20.0%
Home health agency/home health service	28.6%	20.0%	0.0%	14.3%	20.0%
Other	21.4%	40.0%	0.0%	28.6%	10.0%
Correctional facility, prison or jail	0.0%	0.0%	0.0%	0%	10.0%
Case management/disease management	14.3%	0.0%	0.0%	14.3%	0.0%
Renal dialysis unit	14.3%	10.0%	0.0%	0%	0.0%
Occupational health or employee health service	7.1%	0.0%	0.0%	0%	0.0%
Urgent care, not hospital-based	0.0%	0.0%	0.0%	0%	0.0%
Number of programs that reported	14	10	8	7	10

*These data were collected for the first time in 2010-2011.

The number of Bay Area nursing schools reporting that pre-licensure students in their programs had encountered restrictions to clinical practice imposed on them by clinical facilities has remained about the same over the last five years. The most common types of restrictions students face continue to be access to the clinical site due to a visit from the Joint Commission or other accrediting agency (80%) and bar coding medication administration (65%). Restrictions due to student health and safety requirements were also commonly cited (50%). More schools reported restricted student access to IV medication administration (40%) than in prior years, but fewer schools reported restricted access to electronic medical records (35%), automated medical supply cabinets (35%), and glucometers (30%) than in prior years,

Table 22. Common Types of Restricted Access in the Clinical Setting for RN Students, by Academic Year

	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2105
Clinical site due to visit from accrediting agency (Joint Commission)	72.7%	91.7%	77.3%	78.3%	81.0%	80.0%
Bar coding medication administration	68.2%	70.8%	68.2%	56.5%	57.1%	65.0%
Student health and safety requirements		50.0%	31.8%	43.5%	38.1%	50.0%
Some patients due to staff workload		37.5%	59.1%	30.4%	47.6%	40.0%
IV medication administration	36.4%	45.8%	31.8%	30.4%	23.8%	40.0%
Electronic medical records	68.2%	41.7%	63.6%	69.6%	57.1%	35.0%
Automated medical supply cabinets	54.5%	37.5%	40.9%	52.2%	42.9%	35.0%
Glucometers	40.9%	54.2%	22.7%	43.5%	47.6%	30.0%
Alternative setting due to liability	22.7%	16.7%	27.3%	17.4%	14.3%	15.0%
Direct communication with health team	18.2%	12.5%	9.1%	13.0%	9.5%	0.0%
Number of schools that reported	22	24	22	23	21	20

Note: Blank cells indicated that the applicable information was not requested in the given year. Numbers indicate the percent of schools reporting these restrictions as “common” or “very common”.

In 2014-2015, the top reasons schools reported for restricted student access to electronic medical records were insufficient time for clinical site staff to train students (69%), clinical site staff still learning the system (63%), and the cost of training (44%). The proportion of schools reporting clinical site staff still learning the system as a reason for restricting student access decreased from 80% in 2013-2014.

In 2014-2015, the top reasons schools reported for student restricted student access to medication administration systems were liability (60%), clinical site staff still learning the system (40%), and limited time for clinical staff to train students or staff fatigue (27%). Liability was the primary reason for restricting student access to medication administration systems in both 2013-2014 and 2014-2015.

Table 23. Share of Schools Reporting Reasons for Restricting Student Access to Electronic Medical Records and Medication Administration, 2013-2014 & 2014-2015

	Electronic Medical Records		Medication Administration	
	2013-2014	2014-2015	2013-2014	2014-2015
Staff still learning and unable to assure documentation standards are being met	80.0%	62.5%	46.2%	40.0%
Insufficient time to train students	60.0%	68.8%	46.2%	26.7%
Cost for training	35.0%	43.8%	38.5%	20.0%
Staff fatigue/burnout	30.0%	25.0%	30.8%	26.7%
Patient confidentiality	25.0%	31.3%	7.7%	0.0%
Liability	15.0%	6.3%	61.5%	60.0%
Other	0%	0.0%	0%	6.7%
Number of schools that reported	20	16	13	15

Note: Data collected for the first time in 2013-2014.

Numbers indicate the percent of schools reporting these restrictions as “uncommon”, “common” or “very common” to capture any instances where reasons were reported.

The majority of nursing schools in the Bay Area that experienced student restrictions to clinical practice compensate for training in these areas of restricted access by providing training in the simulation lab (86%) and ensuring that all students have access to sites that train them in the area of restricted access (62%).

Table 24. How the Nursing Program Compensates for Training in Areas of Restricted Access

	2013-2014 % Schools	2014-2015 % Schools
Training students in the simulation lab	90.5%	85.7%
Ensuring all students have access to sites that train them in this area	61.9%	61.9%
Training students in the classroom	52.4%	52.4%
Purchase practice software, such as SIM Chart	52.4%	52.4%
Training students in the skills lab	--	9.5%
Other	0%	4.8%
Number of schools that reported	21	21

Note: Data collected for the first time in 2013-2014.

Faculty Census Data⁷

On October 15, 2015 there were 1,021 total nursing faculty⁸ teaching at Bay Area nursing programs, 31% of whom (n=315) were full-time while 69% (n=707) were part-time. In addition, there were 109 vacant faculty positions. These vacancies represent a 9.6% faculty vacancy rate overall (13.9% for full-time faculty and 7.6% for part-time faculty).

Table 25. Faculty Census Data[†], by Year

	2006	2007*	2008	2009	2010	2011	2012 [‡]	2013	2014*	2015*
Total Faculty	652	802	855	836	875	932	788	885	938	1,021
<i>Full-time</i>	237	334	333	321	319	314	244	283	322	315
<i>Part-time</i>	415	466	522	515	556	618	544	602	591	707
Vacancy Rate**	10.7%	4.8%	3.5%	3.9%	2.9%	4.1%	14.4%	9.7%	8.9%	9.6%
<i>Vacancies</i>	78	40	31	34	26	40	133	95	92	109

[†] Between 2011-2012 and 2013-2014 data may be influenced by satellite campus data being reported and allocated to their proper region. Readers are cautioned against comparing data collected these years with data collected before and after this change.

*The sum of full- and part-time faculty did not equal the total faculty reported in these years.

**Vacancy rate = number of vacancies/(total faculty + number of vacancies)

[‡] One program in the region did not report faculty data for the 2011-2012 survey.

In 2014-2015, the majority (70%, n=19) of Bay Area nursing schools reported that their faculty worked overloaded schedules. Of these schools, 95% (n=18) pay the faculty extra for the overloaded schedule.

Table 26. Faculty with Overloaded Schedules*, by Academic Year

	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Schools with overloaded faculty	17	17	21	19	20	24	19
Share of schools that pay faculty extra for the overload	94.1%	94.1%	90.5%	84.2%	90.0%	91.7%	94.7%
Number of schools that reported	26	26	27	27	27	27	27

*These data were collected for the first time in 2008-2009.

⁷ Census data represent the number of faculty on October 15th of the given year.

⁸ Since faculty may work at more than one school, the number of faculty reported may be greater than the actual number of individuals who serve as faculty in nursing schools in the region.

Summary

Over the past decade, the number of Bay Area pre-licensure nursing programs has grown by 7%, from 28 programs in 2004-2005 to 30 programs in 2014-2015. Despite this overall growth, the number of programs in the region has remained relatively constant over the last eight years. The number of nursing programs that partner with other schools that offer programs that lead to a higher degree has increased dramatically over the last nine years – from only 2 programs in 2005-2006 to 14 programs in 2014-2015.

Bay Area programs reported a total of 2,306 spaces available for new students in 2014-2015, which were filled with a total of 2,525 students. For nine out of the past ten years pre-licensure nursing programs in the Bay Area have enrolled more students than were spaces available. There were 6,765 qualified applications to the region's programs in 2014-2015; 37% (n=2,525) of these applicants enrolled.

In 2014-2015, pre-licensure nursing programs in the Bay Area reported 2,472 student completions. This is a slight increase after four years of decline. With retention rates remaining between 80% and 85%, unless the upward trend continues, there will likely be fewer graduates from Bay Area nursing programs in the future. At the time of the survey, 22% of recent graduates from Bay Area RN programs were pursuing additional nursing education and 11% were unable to find employment in nursing.

Clinical simulation has become widespread in nursing education, with all but three nursing schools in the Bay Area reporting using it in some capacity⁹, and approximately a quarter of programs (27%) reporting plans to increase staff dedicated to administering clinical simulation in the next 12 months. The majority of programs plan to maintain their number of clinical simulation hours and if any changes were reported, they were more likely to increase the number of clinical simulation hours. Reasons for decreasing overall clinical hours when reported were most often inability to find sufficient clinical space and clinical faculty. The importance of clinical simulation is underscored by data showing that the majority (57%) of Bay Area programs are being denied access to clinical placement sites that were previously available to them. In addition, a third (33%, n=10) were allowed fewer students for a clinical placement, unit, or shift in this year than in the prior year.

Although the total number of prelicensure nursing students has declined by about 10% since 2009, the number of nursing faculty has increased significantly in the same period (22%), largely driven by an increase in part-time faculty. In 2014-2015, 109 faculty vacancies were reported, representing a 9.6% faculty vacancy rate overall (13.9% for full-time faculty and 7.6% for part-time faculty).

⁹ One school did not answer this question.

APPENDICES

APPENDIX A – Bay Area Nursing Education Programs

ADN Programs (15)

Cabrillo College
Chabot College
City College of San Francisco
College of Marin
College of San Mateo
Contra Costa College
De Anza College
Evergreen Valley College

Los Medaños College
Merritt College
Napa Valley College
Ohlone College
Pacific Union College
Santa Rosa Junior College
Solano Community College

LVN to ADN Programs Only (3)

Gavilan College
Mission College
Unitek College

BSN Programs (8)

CSU East Bay
Dominican University of California
Holy Names University
Samuel Merritt University
San Francisco State University

Sonoma State University
University of San Francisco
The Valley Foundation School of Nursing at
San Jose State University

ELM Programs (4)

Samuel Merritt University
San Francisco State University
University of California San Francisco
University of San Francisco

APPENDIX B – BRN Education Issues Workgroup Members

Members

<u>Members</u>	<u>Organization</u>
Loucine Huckabay, Chair	California State University, Long Beach
Judee Berg	HealthImpact (formerly CINHC)
Audrey Berman	Samuel Merritt University
Stephanie L. Decker	Kaiser Permanente National Patient Care Services
Brenda Fong	Community College Chancellor's Office
Deloras Jones	Independent Consultant
Judy Martin-Holland	University of California, San Francisco
Robyn Nelson	West Coast University
Tammy Rice	Saddleback College
Stephanie R. Robinson	Fresno City College
Paulina Van	Samuel Merritt University

Ex-Officio Member

Louise Bailey	California Board of Registered Nursing
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Project Manager

Julie Campbell-Warnock	California Board of Registered Nursing
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