# California Board of Registered Nursing 2013-2014 Annual School Report

Data Summary and Historical Trend Analysis

A Presentation of Pre-Licensure Nursing Education Programs in California

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#### **PREFACE**

## **Nursing Education Survey Background**

Development of the 2013-2014 Board of Registered Nursing (BRN) School Survey was the work of the Board's Education Issues Workgroup, which consists of nursing education stakeholders from across California. A list of workgroup members is included in the Appendices. The University of California, San Francisco was commissioned by the BRN to develop the online survey instrument, administer the survey, and report data collected from the survey.

Funding for this project was provided by the California Board of Registered Nursing.

## **Organization of Report**

The survey collects data about nursing programs and their students and faculty from August 1 through July 31. Annual data presented in this report represent August 1, 2013 through July 31, 2014. Demographic information and census data were requested for October 15, 2014.

Data from pre- and post-licensure nursing education programs are presented in separate reports and will be available on the BRN website. 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.

Statistics for enrollments and completions represent two separate student populations. Therefore, it is not possible to directly compare enrollment and completion data.

#### **Availability of Data**

The BRN Annual School Survey was designed to meet the data needs of the BRN as well as other interested organizations and agencies. A database with aggregate data derived from the last ten years of BRN School Surveys will be available for public access on the BRN website. Parties interested in accessing data not available on the website should contact Julie Campbell-Warnock at the BRN at Julie.Campbell-Warnock@dca.ca.gov.

#### Value of the Survey

This survey has been developed to support nursing, nursing education and workforce planning in California. The Board of Registered Nursing believes that the results of this survey will provide data-driven evidence to influence policy at the local, state, federal and institutional levels.

The BRN extends appreciation to the Education Issues Workgroup and all survey respondents. Your participation has been vital to the success of this project.

# Survey Participation<sup>1</sup>

All California nursing schools were invited to participate in the survey. In 2013-2014, 131 nursing schools offering 141 pre-licensure programs approved by the BRN to enroll students responded to the survey. A list of the participating nursing schools is provided in the Appendix.

**Table 1. RN Program Response Rate** 

Program Type	# Programs Responded	Total # Programs	Response Rate
ADN	82	82	100%
LVN to ADN	7	7	100%
BSN	36	36	100%
ELM	16	16	100%
Total Programs	141	141	100%

University of California, San Francisco

<sup>&</sup>lt;sup>1</sup> In this 2014 report there are 131 schools in California that offer a pre-licensure nursing program. Some nursing schools offer more than one program, which is why the number of programs (n=141) is greater than the number of schools. In addition, some schools offer their programs at more than one campus. In the 2013-2014 survey, 131 nursing schools reported data for 141 pre-licensure programs at 162 different locations.

#### DATA SUMMARY AND HISTORICAL TREND ANALYSIS

This analysis presents pre-licensure program data from the 2013-2014 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 2013-2014, a total of 141 pre-licensure nursing programs reported students enrolled in their programs. The decline in the number of programs this year is due to the consolidation of several independent schools into one school with multiple satellite campuses. Most pre-licensure nursing programs in California are public. While the share of public programs has shown an overall decrease in the last ten years, the share of public programs has remained about the same (75%) over the past three years.

Table 2. Number of Nursing Programs, by Academic Year

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	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	
Total Nursing Programs*	109	117	130	132	138	139	145	142	143	141	
ADN	76	77	82	84	86	86	89	87	88	89	
BSN	24	26	32	32	36	37	39	39	40	36	
ELM	9	14	16	16	16	16	17	16	15	16	
Public	90	96	105	105	105	105	107	106	107	106	
Private	19	21	25	27	33	34	38	36	36	35	
Total Number of Schools	102	105	117	119	125	125	131	132	133	131	

<sup>\*</sup>Since some nursing schools admit students in more than one program, the number of nursing programs is greater than the number of nursing schools in the state.

The share of nursing programs that partner with another nursing school that offers a higher degree has been increasing since 2007-2008. In 2013-2014, 48% of nursing programs (n=67) collaborated with another program that offered a higher degree than offered at their own program. Of nursing programs that had these collaborations in 2013-2014, 52% (n=35) had formal agreements and 69% (n=46) had informal agreements.

Table 3. Partnerships\*, by Academic Year

	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014
Programs that partner with another program that leads to a higher degree	9	9	9	19	35	44	50	64	67
Formal collaboration								45.3%	52.2%
Informal collaboration								67.2%	68.7%
Total number of programs that reported	117	130	132	138	139	145	142	141	141

<sup>\*</sup>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

The number of spaces available for new students in nursing programs has fluctuated over the past four years, reaching a high of 12,868 in 2012-2013 followed by a significant decline in 2013-2014. In 2013-2014 there were 12,394 spaces available for new students and these spaces were filled with a total of 13,226 students. The share of nursing programs that reported filling more admission spaces than were available decreased, from 48% (n=68) in 2011-2012 to 39% (n=55) in 2013-2014. The most frequently reported reason for doing so was to account for attrition.

Table 4. Availability and Utilization of Admission Spaces, by Academic Year

	2004-	2005-	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Spaces Available	9,026	10,523	11,475	11,773	12,812	12,797	12,643	12,391	12,868	12,394
New Student Enrollments	8,926	11,131	12,709	12,961	13,988	14,228	13,939	13,677	13,181	13,226
% Spaces Filled with New Student Enrollments	98.9%	105.8%	110.8%	110.1%	109.2%	111.2%	110.3%	110.4%	102.4%	106.7%

Although the number of qualified applications received by California nursing programs has shown an overall decline since its ten-year high in 2009-2010, nursing programs continue to receive more applications requesting entrance into their programs than can be accommodated. In 2013-2014, 58% of the 31,575 qualified applications to California nursing education programs did not enroll. Since these data represent applications and an individual can apply to multiple nursing programs, the number of applications is likely greater than the number of individuals applying for admission to nursing programs in California.

Table 5. Student Admission Applications\*, by Academic Year

	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014
Qualified Applications	20,405	28,410	28,506	34,074	36,954	41,634	37,847	38,665	35,041	31,575
ADN	14,615	19,724	19,559	25,021	26,185	28,555	24,722	23,913	19,979	16,682
BSN	4,914	7,391	7,004	7,515	8,585	10,680	11,098	12,387	12,476	12,695
ELM	876	1,295	1,943	1,538	2,184	2,399	2,027	2,365	2,586	2,198
% Qualified Applications Not Enrolled	56.3%	60.8%	55.4%	62.0%	62.1%	65.4%	63.2%	64.6%	62.4%	58.1%

<sup>\*</sup>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.

In 2013-2014, 13,226 new students enrolled in registered nursing programs. ADN programs had a similar number of new students enroll in those programs over the last two years, while BSN programs had a slight increase in enrollment and ELM programs had enrollment declines. Private programs had an increase in enrollment over the last year, while public programs have had declines in the number of new students enrolling in their programs over the last three years. Public programs have seen their enrollments decline by 20% (n=2,019) in the last seven years, while new enrollments have doubled (n=2,536) in private programs during the same time period.

Table 6. New Student Enrollment by Program Type, by Academic Year

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	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	
New Student Enrollment	8,926	11,131	12,709	12,961	13,988	14,228	13,939	13,677	13,181	13,226	
ADN	6,160	7,778	8,899	8,847	9,412	8,594	7,688	7,411	7,146	7,135	
BSN	2,371	2,709	3,110	3,404	3,821	4,842	5,342	5,445	5,185	5,284	
ELM	395	644	700	710	755	792	909	821	850	807	
Private	1,614	2,024	2,384	2,704	3,774	4,607	4,773	4,795	4,642	4,920	
Public	7,312	9,107	10,325	10,257	10,214	9,621	9,166	8,882	8,539	8,306	

#### Student Census Data

The total number of students enrolled in California nursing programs on October 15, 2014 decreased in comparison to the previous year and is lower than any year since 2008. All program types saw decreases during this time period. Of the total student body in California's pre-license nursing programs at the time of the 2014 census, 46% (n=11,502) were in ADN programs, 48% (n=12,008) in BSN programs, and 6% (n=1,473) in ELM programs.

Table 7. Student Census Data\* by Program Type, by Year

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
ADN	11,117	12,632	14,191	14,304	14,987	14,011	13,041	11,860	12,070	11,502
BSN	6,285	6,799	7,059	7,956	9,288	10,242	11,712	12,248	12,453	12,008
ELM	659	896	1,274	1,290	1,405	1,466	1,778	1,682	1,808	1,473
Total Nursing Students	18,061	20,327	22,524	23,550	25,680	25,719	26,531	25,790	26,331	24,983

<sup>\*</sup>Census data represent the number of students on October 15<sup>th</sup> of the given year.

## Student Completions

The number of students graduating from California nursing programs has increased by 69% (n=4,614) over the last ten years and peaked at 11,512 graduates in 2009-2010. Since then, there was a one-year decline in the number of graduates, followed by increasing numbers of graduates that plateaued in 2013-2014 with 11,291 graduates. BSN and ELM programs have had overall increases in the number of students completing their programs over the last ten years, while ADN programs have had an overall decline in the number of graduates since 2008-2009. ADN graduates continue to represent a majority (52%) of all students completing a pre-licensure nursing program in California.

Table 8. Student Completions by Program Type, by Academic Year

	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014
ADN	4,769	5,351	5,885	6,527	7,075	7,690	6,619	6,162	6,164	5,916
BSN	1,664	1,861	2,074	2,481	2,788	3,157	3,330	3,896	4,364	4,606
ELM	244	316	358	572	663	665	717	756	764	769
Total Student Completions	6,677	7,528	8,317	9,580	10,526	11,512	10,666	10,814	11,292	11,291

#### Retention and Attrition Rates

The attrition rate among nursing programs has declined from its high of 20.5% in 2004-2005 to 13.7% in 2013-2014, one of the lowest rates in ten years. Of the 10,366 students scheduled to complete a nursing program in the 2013-2014 academic year, 74.7% (n=7,745) completed the program on-time, 11.6% (n=1,203) are still enrolled in the program, and 13.7% (n=1,418) dropped out or were disqualified from the program.

Table 9. Student Retention and Attrition, by Academic Year

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	2004-	2005-	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Students Scheduled to Complete the Program	8,507	8,208	8,852	9,769	10,630	10,162	10,007	9,595	11,579	10,366	
Completed On Time	6,055	6,047	6,437	7,254	7,990	7,845	7,742	7,570	9,389	7,745	
Still Enrolled	710	849	996	950	1,078	928	742	631	762	1,203	
Attrition	1,742	1,312	1,419	1,565	1,562	1,389	1,523	1,394	1,428	1,418	
Completed Late <sup>‡</sup>						615	487	435	573	1,013	
Retention Rate*	71.2%	73.7%	72.7%	74.3%	75.2%	77.2%	77.4%	78.9%	81.1%	74.7%	
Attrition Rate**	20.5%	16.0%	16.0%	16.0%	14.7%	13.7%	15.2%	14.5%	12.3%	13.7%	
% Still Enrolled	8.3%	10.3%	11.3%	9.7%	10.1%	9.1%	7.4%	6.6%	6.6%	11.6%	

<sup>&</sup>lt;sup>‡</sup>Data were collected for the first time in the 2009-2010 survey. These completions are not included in the calculation of either retention or attrition rates.

Attrition rates vary by program type and continue to be lowest among ELM programs and highest among ADN programs. Over the last ten years, both ADN and ELM programs have seen overall improvement in their average attrition rates, while BSN programs have seen fluctuations in their attrition rates and the highest average attrition rate (13.1%) over the time period was reported in 2013-2014. In 2013-2014, the average attrition rate for ELM programs was at its lowest (4.7%) in ten years. Historically, attrition rates in public programs have been higher than those in private programs over most of the past ten years. However, in 2013-2014, private programs had higher average attrition rates than public programs.

Table 10. Attrition Rates by Program Type\*, by Academic Year

	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014
ADN	23.7%	18.3%	19.0%	19.0%	17.6%	16.6%	18.1%	17.7%	14.0%	15.3%
BSN	11.0%	10.5%	8.7%	8.6%	9.0%	8.1%	10.0%	9.7%	10.3%	13.1%
ELM	14.3%	5.0%	7.2%	5.6%	5.2%	5.6%	8.9%	7.3%	4.9%	4.7%
Private	15.9%	14.6%	7.9%	9.2%	10.0%	8.9%	12.4%	10.9%	11.9%	14.4%
Public	21.2%	16.2%	17.7%	17.5%	16.0%	14.8%	15.9%	15.5%	12.5%	13.4%

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

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

<sup>\*\*</sup>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

# Retention and Attrition Rates for Accelerated Programs

Average retention rates for accelerated programs are higher than those for traditional programs. The data for 2013-2014 show an average attrition rate of 8.7%, lower than last year's rate and lower than the 13.7% attrition rate reported for traditional programs in the same year.

Table 11. Student Retention and Attrition for Accelerated Programs\*, by Academic Year

	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014
Students Scheduled to Complete the Program	686	784	1,159	1,040	1,281	1,035	1,049
Completed On Time	569	674	1,059	878	1,156	875	919
Still Enrolled	88	83	71	69	53	63	39
Attrition	28	27	29	93	72	97	91
Completed Late <sup>‡</sup>			45	34	72	45	61
Retention Rate**	82.9%	86.0%	91.4%	84.4%	90.2%	84.5%	87.6%
Attrition Rate***	4.1%	3.4%	2.5%	8.9%	5.6%	9.4%	8.7%
% Still Enrolled	12.8%	10.6%	6.1%	6.6%	4.1%	6.1%	3.7%

<sup>\*</sup>These data were collected for the first time in 2007-2008.

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

Attrition rates in accelerated programs have varied over the last seven years. Both accelerated ADN and BSN programs had better attrition rates in 2013-2014 than in 2012-2013. The average attrition rate for accelerated ADN programs was about the same as for traditional ADN programs, while accelerated BSN programs had a lower average attrition rate than traditional BSN programs.

Table 12. Attrition Rates by Program Type for Accelerated Programs\*, by Academic Year

	2007- 2008				2011- 2012	2012- 2013	2013- 2014
ADN	24.7%	18.5%	6.6%	7.9%	6.3%	21.6%	15.4%
BSN	6.8%	7.0%	5.8%	9.2%	5.4%	8.7%	6.8%

<sup>\*</sup>These data were collected for the first time in 2007-2008.

<sup>‡</sup>Data were collected for the first time in the 2009-2010 survey. These completions are not included in the calculation of either the retention or attrition rates.

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

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

#### NCLEX Pass Rates

Over the last ten years, NCLEX pass rates have typically been higher for ELM graduates than for ADN or BSN program graduates. Improved pass rates for ADN and BSN graduates and lower pass rates for ELM students have narrowed this gap in recent years. In 2013-2014, the highest average NCLEX pass rate was for ADN graduates. All program types had declines in their NCLEX pass rates in 2013-2014 in comparison to the previous year. The NCLEX passing standard was increased in April 2013, which may have impacted the NCLEX pass rates in 2012-2013 and 2013-2014.

Table 13. First Time NCLEX Pass Rates\* by Program Type, by Academic Year

		2005- 2006								
ADN	85.0%	87.3%	87.8%	85.4%	87.5%	88.6%	87.4%	89.8%	88.8%	83.1%
BSN	83.3%	83.1%	89.4%	85.9%	88.7%	89.2%	87.9%	88.7%	87.1%	82.3%
ELM	92.0%	92.4%	89.6%	92.3%	90.6%	89.6%	88.2%	88.9%	91.8%	81.9%

<sup>\*</sup>NCLEX pass rates for students who took the exam for the first time in the given year.

NCLEX pass rates for students graduated from accelerated nursing programs are generally comparable to pass rates of students who completed traditional programs. While the pass rates for both types of programs have fluctuated over time, students who graduated from accelerated ADN programs had the lowest average pass rate in 2013-2014, while graduates of accelerated BSN programs had average pass rates similar to their traditional counterparts.

Table 14. First Time NCLEX Pass Rates for Accelerated Programs\* by Program Type, by Academic Year

	2007- 2008	2008- 2009	2009- 2010			2012- 2013	
ADN	86.7%	93.7%	89.0%	83.9%	85.8%	93.5%	68.8%
BSN	89.4%	92.1%	88.5%	90.9%	89.9%	83.9%	82.0%

<sup>\*</sup>These data were collected for the first time in 2007-2008.

# Employment of Recent Nursing Program Graduates<sup>2</sup>

The largest share of RN program graduates work in hospitals, even though this share has been decreasing from a high of 88% in 2007-2008. In 2013-2014, programs reported that 56% of graduates where employed in hospitals. The share of new graduates working in nursing in California had been declining, from a high of 92% in 2007-2008 to a low of 64% in 2012-2013. In 2013-2014, there was an increase in the share of graduates working in California, to 69%. Nursing programs reported that 14% of their 2013-2014 graduates had been unable to find employment by October 2014, which has declined slightly from that reported a year ago.

Table 15. Employment Location of Recent Nursing Program Graduates, by Academic Year

Table for Employment Eco				. • 9		C, D, 110			
	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014
Hospital	80.1%	84.3%	88.0%	71.4%	59.0%	54.4%	61.1%	56.7%	56.0%
Long-term care facilities	0.8%	3.7%	2.7%	8.4%	9.7%	7.8%	8.3%	7.9%	7.1%
Community/public health facilities	2.4%	3.4%	2.2%	5.4%	3.9%	4.5%	3.6%	3.6%	3.7%
Other healthcare facilities	1.8%	2.9%	3.1%	5.6%	6.0%	5.0%	5.2%	4.7%	6.0%
Pursuing additional nursing education <sup>T</sup>								7.1%	10.5%
Other	1.4%	6.1%	4.0%	15.6%	14.8%	6.5%	4.2%	1.7%	3.4%
Unable to find employment*					27.5%	21.8%	17.6%	18.3%	13.7%
Employed in California	77.5%	87.8%	91.5%	83.4%	81.1%	68.0%	69.6%	63.7%	68.8%

<sup>\*</sup>This option was added to the survey in 2009-10.

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

This option was added to the survey in 2012-13.

<sup>&</sup>lt;sup>2</sup> Graduates whose employment setting was reported as "unknown" have been excluded from this table. In 2013-2014, on average, the employment setting was unknown for 20% of recent graduates.

# Clinical Simulation in Nursing Education

Between 8/1/13 and 7/31/14, 126 of California's 131 nursing schools reported using clinical simulation<sup>3</sup>. Of the five schools not using clinical simulation, three schools plan to start using it next year. The most frequently reported reasons for why schools used a clinical simulation center in 2013-2014 were to reinforce didactic and clinical training and clinical decision making, to provide clinical experience not available in a clinical setting, and to standardize clinical experiences. Of the 126 schools that used clinical simulation centers in 2013-2014, 55% (n=69) plan to expand the use of simulation.

Table 16. Reasons for Using a Clinical Simulation Center\*, by Academic Year

Table 16. Reasons for Using a Clinical	2007-	2008-	2009-	2010-	2011-	2012-	2013-
	2008	2009	2010	2011	2012	2013	2014
To reinforce didactic and clinical training and clinical decision making							85.7%
To provide clinical experience not available in a clinical setting	73.5%	70.3%	85.1%	85.0%	78.9%	85.9%	81.0%
To standardize clinical experiences	80.9%	75.7%	82.5%	90.0%	85.9%	84.4%	75.4%
To check clinical competencies	69.1%	73.9%	80.7%	71.7%	74.2%	74.2%	69.8%
To make up for clinical experiences	55.9%	56.8%	62.2%	58.3%	58.6%	60.9%	63.5%
To provide interprofessional experiences					44.5%	53.1%	52.4%
To provide remediation							44.4%
To increase capacity in your nursing program	22.1%	14.4%	13.8%	16.7%	14.1%	13.3%	13.5%
To provide faculty development						21.9%	13.5%
To provide collaborative experiences between hospital staff and students					10.9%	11.7%	8.7%
Number of schools that reported reasons for using clinical simulation	68	111	116	120	128	128	126

<sup>\*</sup>These data were collected for the first time in 2006-2007. However, changes in these questions for the 2007-2008 administration of the survey and lack of confidence in the reliability of the 2006-2007 data prevent comparability of the data. Therefore, data prior to 2007-2008 are not shown.

Note - Blank cells indicate that those data were not requested in the given year.

<sup>&</sup>lt;sup>3</sup> Clinical simulation provides a simulated real-time nursing care experience using clinical scenarios and low to hi-fidelity mannequins, which allow 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.

# Clinical Space & Clinical Practice Restrictions<sup>4</sup>

The number of California nursing programs reporting they were denied access to a clinical placement, unit or shift decreased to 81 programs, the lowest in four years. Just under half of all nursing programs in the state (43%, n=61) indicated they were denied access to clinical placements, while 40% (n=57) were denied access to clinical units and 24% (n=34) were denied access to a clinical shift during the 2013-2014 academic year. The clinical site offered fewer alternatives for lost placements and units in 2013-2014 than in the previous three years but offered about the same number of alternative shifts. Access to an alternative clinical site depended on the type of space denied. A quarter of programs denied clinical placement were offered an alternative, compared to 47% of programs denied a clinical unit, and 74% of programs denied a clinical shift. The lack of access to clinical space resulted in a loss of 293 clinical placements, 118 units and 89 shifts, which affected 2,195 students.

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

	2010- 2011	2011- 2012	2012- 2013	2013- 2014
Number of Programs Denied a Clinical Placement, Unit or Shift	93	85	90	81
Programs Denied Clinical Placement	72	65	70	61
Programs Offered Alternative by Site	17	21	23	15
Placements Lost	270	266	227	293
Number of programs that reported	142	140	143	141
Programs Denied Clinical Unit	66	65	62	57
Programs Offered Alternative by Site	35	29	31	27
Units Lost	118	131	106	118
Number of programs that reported	142	139	143	141
Programs Denied Clinical Shift	41	37	39	34
Programs Offered Alternative by Site	31	31	24	25
Shifts Lost	77	54	133	89
Number of programs that reported	141	139	143	141
Total number of students affected	2,190	1,006	2,368	2,195

<sup>&</sup>lt;sup>4</sup> 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.

Competition for space arising from an increase in the number of nursing students continued to be the most frequently reported reason why programs were denied clinical space, though the share of programs citing it as a reason has been declining since 2009-2010.

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

· ·	0000	0040	0044	0040	0040
	2009-	2010-	2011-	2012-	2013-
	2010	2011	2012	2013	2014
Competition for clinical space due to increase in number of nursing students in region	71.4%	64.5%	58.8%	54.5%	46.9%
Staff nurse overload or insufficient qualified staff	54.5%	46.2%	54.1%	41.1%	45.7%
Displaced by another program	62.3%	40.9%	44.7%	42.2%	43.2%
Decrease in patient census	35.1%	30.1%	31.8%	30.0%	28.4%
Closure, or partial closure, of clinical facility		23.7%	25.9%	26.7%	25.9%
No longer accepting ADN students	26.0%	16.1%	21.2%	20.0%	23.5%
Implementation of Electronic Health Records system			3.5%	32.3%	22.2%
Visit from Joint Commission or other accrediting agency				21.1%	21.0%
Nurse residency programs	28.6%	18.3%	29.4%	17.8%	18.5%
Change in facility ownership/management		11.8%	12.9%	21.1%	14.8%
Clinical facility seeking magnet status	36.4%	12.9%	18.8%	15.5%	11.1%
Facility moving to a new location					6.2%
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					4.9%
Other	20.8%	9.7%	10.6%	11.1%	11.1%
Number of programs that reported	77	93	85	90	81

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.

Reasons for lack of access to clinical space vary by program, although one of the predominant reasons among all program levels remains competition from the increased number of nursing students. Staff nurse overload/insufficient qualified staff was also a frequently cited reason by all program types, and the most frequently reported reason for ELM programs. About one-third of ADN programs reported that clinical sites no longer accepting ADN students was a reason for losing clinical space. While 4.9% of nursing programs reported that the facility began charging a fee for the placement, only one nursing program reported paying a fee for a clinical placement. That program offered to pay the fee and was not asked by the facility to do so.

Table 19. Reasons for Clinical Space Being Unavailable, by Program Type, 2013-2014

Tuble 10. Reasons for Similar Space Being Gliavana	ADN	BSN	ELM	Total
Competition for clinical space due to increase in number of nursing students in region	46.4%	47.4%	50.0%	46.9%
Staff nurse overload or insufficient qualified staff	44.6%	42.1%	66.7%	45.7%
Displaced by another program	46.4%	42.1%	16.7%	43.2%
Decrease in patient census	21.4%	42.1%	50.0%	28.4%
Closure, or partial closure, of clinical facility	21.4%	31.6%	50.0%	25.9%
No longer accepting ADN students	33.9%	0.0%	0.0%	23.5%
Implementation of Electronic Health Records system	16.1%	31.6%	50.0%	22.2%
Visit from Joint Commission or other accrediting agency	19.6%	15.8%	50.0%	21.0%
Nurse residency programs	16.1%	26.3%	16.7%	18.5%
Change in facility ownership/management	10.7%	26.3%	16.7%	14.8%
Clinical facility seeking magnet status	16.1%	0.0%	0.0%	11.1%
Facility moving to a new location	5.4%	10.5%	0.0%	6.2%
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	1.8%	10.5%	16.7%	4.9%
Other	12.5%	10.5%	0.0%	11.1%
Number of programs that reported	56	19	6	81

Programs that lost access to clinical space were asked to report on the strategies used to cover the lost placements, sites, or shifts. Most programs reported that the lost site was replaced at another clinical site – either at a different site currently being used by the program (67%) or at a new clinical site (57%). The share of schools replacing the lost placement with a new clinical site has been increasing since 2011-2012. Reducing student admission is an uncommon practice for addressing the loss of clinical space.

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

i and is the action of the act			
	2011-	2012-	2013-
	2012	2013	2014
Replaced lost space at different site currently used by nursing program	61.2%	64.4%	66.7%
Added/replaced lost space with new site	48.2%	53.3%	56.8%
Replaced lost space at same clinical site	47.1%	38.9%	45.7%
Clinical simulation	29.4%	34.4%	32.1%
Reduced student admissions	8.2%	2.2%	7.4%
Other	9.4%	4.4%	1.2%
Number of programs that reported	85	90	81

<sup>\*</sup>Data collected for the first time in 2011-12.

Forty-one (29%) nursing programs in the state reported an increase in out-of-hospital clinical placements in 2013-2014. For the last three years, the most frequently reported non-hospital clinical site to see an increase in placements was a public health/community health agency, reported by 54% of all responding programs in 2013-2014. Skilled nursing/rehabilitation facilities are also common alternatives for hospital clinical placements. Since 2010-2011, the shares of nursing programs using hospice sites and school health service as alternatives for hospital placements have been increasing.

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

	2010-	2011-	2012-	2013-
	2011	2012	2013	2014
Public health or community health agency	43.6%	51.8%	55.0%	53.7%
Skilled nursing/rehabilitation facility	47.3%	46.4%	45.0%	43.9%
Outpatient mental health/substance abuse	36.4%	42.9%	20.0%	39.0%
School health service (K-12 or college)	30.9%	30.4%	22.5%	39.0%
Medical practice, clinic, physician office	23.6%	33.9%	22.5%	34.1%
Home health agency/home health service	30.9%	32.1%	35.0%	29.3%
Hospice	25.5%	25.0%	27.5%	29.3%
Surgery center/ambulatory care center	20.0%	23.2%	30.0%	19.5%
Case management/disease management	7.3%	12.5%	5.0%	12.2%
Urgent care, not hospital-based	9.1%	12.5%	5.0%	7.3%
Correctional facility, prison or jail	5.5%	7.1%	5.0%	7.3%
Renal dialysis unit	12.7%	5.4%	5.0%	4.9%
Occupational health or employee health service	5.5%	5.4%	0%	2.4%
Other				12.2%
Number of programs that reported	55	56	40	41

<sup>\*</sup>These data were collected for the first time in 2010-2011.

In 2013-2014, 71% (n=93) of 131 nursing schools reported that pre-licensure students in their programs had encountered restrictions to clinical practice imposed on them by clinical facilities. The most common types of restrictions students faced continued to be access to the clinical site itself due to a visit from the Joint Commission or another accrediting agency, access to electronic medical records, and access to bar coding medication administration. Schools reported that the least common types of restrictions students faced were direct communication with health care team members, alternative setting due to liability, and IV medication administration.

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
Clinical site due to visit from accrediting agency (Joint Commission)	68.1%	71.0%	74.3%	77.9%	73.1%
Electronic Medical Records	70.3%	50.0%	66.3%	72.6%	66.7%
Bar coding medication administration	70.3%	58.0%	68.3%	72.6%	58.1%
Automated medical supply cabinets	53.1%	34.0%	35.6%	48.4%	45.2%
Student health and safety requirements		39.0%	43.6%	45.3%	43.0%
Some patients due to staff workload		31.0%	37.6%	30.5%	41.9%
Glucometers	37.2%	33.0%	29.7%	36.8%	34.4%
IV medication administration	27.7%	31.0%	30.7%	24.2%	23.7%
Alternative setting due to liability	20.2%	13.0%	22.8%	18.9%	18.3%
Direct communication with health team	11.8%	12.0%	15.8%	17.9%	10.8%
Number of schools that reported	94	100	101	95	93

<sup>\*</sup>Data collected for the first time in 2009-2010.

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

Schools reported that restricted student access to electronic medical records was due to insufficient time for clinical site staff to train students (63%) and clinical site staff still learning the system (62%). Schools reported that students were restricted from using medication administration systems due to liability (67%) and limited time for clinical staff to train students (45%).

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

	Electronic Medical Records	Medication Administration
Insufficient time to train students	63.1%	45.5%
Staff still learning and unable to assure documentation standards are being met	61.9%	36.4%
Liability	42.9%	66.7%
Staff fatigue/burnout	32.1%	37.9%
Cost for training	29.8%	24.2%
Patient confidentiality	28.6%	18.2%
Other	14.3%	18.2%
Number of schools that reported**	84	66

<sup>\*</sup>Data collected for the first time in 2013-2014.

<sup>\*\*</sup>Schools that reported EMR or MA as uncommon, common, or very common restrictions for students in clinical practice reported reasons why access was restricted. Schools that reported these restrictions as very uncommon or NA did not report these data. Note: Data collected for the first time in 2013-2014.

Schools compensate for training in areas of restricted student access by providing training in simulation lab (81%) and in the classroom (61%) and ensuring that all students have access to sites that train them in the area of restricted access (54%).

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

	% Schools
Training students in the simulation lab	80.6%
Training students in the classroom	61.3%
Ensuring all students have access to sites that train them in this area	53.8%
Purchase practice software, such as SIM Chart	39.8%
Training students in skills lab	4.3%
Other	9.7%
Number of schools that reported	93

<sup>\*</sup>Data collected for the first time in 2013-2014.

# Faculty Census Data<sup>5</sup>

The total number of nursing faculty continues to increase. On October 15, 2014, there were 4,181 total nursing faculty<sup>6</sup>. Of these faculty, 36% (n=1,498) were full-time and 63% (n=2,614) were part-time.

The need for faculty continues to outpace the number of active faculty. On October 15, 2014, schools reported 432 vacant faculty positions. These vacancies represent a 9.4% faculty vacancy rate overall (11.9% for full-time faculty and 8.1% for part-time faculty), which is the highest vacancy rate reported in ten years.

Table 25. Faculty Census Data, by Year

	2005*	2006*	2007*	2008	2009	2010	2011	2012	2013*	2014*
Total Faculty	2,432	2,723	3,282	3,471	3,630	3,773	4,059	4,119	4,174	4,181
Full-time	930	1,102	1,374	1,402	1,453	1,444	1,493	1,488	1,521	1,498
Part-time	959	1,619	1,896	2,069	2,177	2,329	2,566	2,631	2,640	2,614
Vacancy Rate**	6.0%	6.6%	5.9%	4.7%	4.7%	4.9%	4.9%	7.9%	5.9%	9.4%
Vacancies	154	193	206	172	181	196	210	355	263	432

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

<sup>\*\*</sup>Vacancy rate = number of vacancies/(total faculty + number of vacancies)

<sup>&</sup>lt;sup>5</sup> Census data represent the number of faculty on October 15<sup>th</sup> of the given year.

<sup>&</sup>lt;sup>6</sup> 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 California nursing schools.

In 2013-2014, 99 of 131 schools (76%) reported that faculty in their programs work an overloaded schedule, and 95% (n=94) of these schools 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
Schools with overloaded faculty	81	84	85	87	94	99
Share of schools that pay faculty extra for the overload	92.6%	90.5%	92.9%	94.3%	93.6%	95.0%
Total number of schools		125	131	132	133	131

<sup>\*</sup>These data were collected for the first time in 2008-09.

## Summary

Over the past decade, the number of California pre-licensure nursing programs has grown dramatically, increasing from 109 programs in 2004-2005 to 141 programs in 2013-2014. In the past nine years, the share of nursing programs that partner with other schools to offer programs that lead to a higher degree increased from 9 to 67.

After a three-year period of declining availability of admission spaces, California RN programs reported an increase in admission space available in 2012-2013, followed by a decrease to 12,394 admission spaces in 2013-2014. New student enrollments increased by 60% in the ten-year period between 2004-2005 and 2009-2010. While there has been an overall decline in enrollments since then, there was a slight increase in enrollments over the last year – to 13,226 students statewide. While nursing programs continue to receive more qualified applications than they can admit, qualified applications have decreased by 18% (n=7,090) since 2011-2012. This decline was due to fewer qualified applications to ADN programs.

Pre-licensure RN programs reported a 69% increase in student completions over the last ten years, to a total of 11,291 completions in 2013-2014. After five consecutive years of growth in the number of graduates from California nursing programs, programs reported fewer students graduating from their programs in 2010-2011 compared to the previous year. Between 2010-2011 and 2012-2013, the number of graduates increased modestly, followed by a plateau in the number of graduates in the last year.

After three years of an increasing average retention rate, to its ten-year high of 81% in 2012-2013, the retention rate declined to 75% in 2013-2014. If retention rates remain at current levels, the declining rate of growth among new student enrollments will likely lead to further declines in the number of graduates from California nursing programs. At the time of the survey, 14% of new nursing program graduates were unable to find employment, which is a decline from the high of 28% in 2009-2010.

Clinical simulation has become widespread in nursing education, with 96% (n=126) of schools reporting using it in some capacity. It is seen by schools as an important tool for reinforcing didactic and clinical training and clinical decision making, providing clinical experiences that are otherwise not available to students, and for standardizing students' clinical experiences. The importance of clinical simulation is underscored by data showing an increase in out-of-hospital clinical placements and programs continuing to report being denied access to clinical placement sites that were previously available to them. In addition, the majority of schools – 71% in 2013-2014 – reported that their students had faced restrictions to specific types of clinical practice.

Expansion in RN education has required nursing programs to hire more faculty to teach the growing number of students. Although the number of nursing faculty has increased by 72% in the past ten years, from 2,432 in 2005 to 4,181 in 2014, faculty hires have not kept pace with the growth in California pre-licensure nursing programs. In 2014, 432 faculty vacancies were reported, representing an overall faculty vacancy rate of 9.4% (11.9% for full-time faculty and 8.1% for part-time faculty). This vacancy rate is the highest reported in the last ten years.

#### **APPENDICES**

# APPENDIX A - List of Survey Respondents by Degree Program

#### ADN Programs (82)

American River College Antelope Valley College Bakersfield College **Butte College** Cabrillo College Cerritos College Chabot College Chaffey College Citrus College

City College of San Francisco

CNI College College of Marin College of San Mateo College of the Canyons College of the Desert College of the Redwoods College of the Sequoias Contra Costa College Copper Mountain College

Cuesta College Cypress College De Anza College

East Los Angeles College

El Camino College - Compton Education Center

El Camino College **Everest College** 

**Evergreen Valley College** Fresno City College

Glendale Community College

Golden West College **Grossmont College** Hartnell College Imperial Valley College

ITT Technical Institute

Kaplan College

Long Beach City College Los Angeles City College

Los Angeles County College of Nursing &

Allied Health

Los Angeles Harbor College Los Angeles Southwest College Los Angeles Trade-Tech College

Los Angeles Valley College Los Medanos College Mendocino College Merced College Merritt College Mira Costa College †Modesto Junior College Monterey Peninsula College

Moorpark College

Mount Saint Mary's University Mount San Antonio College Mount San Jacinto College

Napa Valley College Ohlone College †Pacific Union College Palomar College Pasadena City College

Pierce College Porterville College Rio Hondo College Riverside City College Sacramento City College Saddleback College

San Bernardino Valley College San Diego City College San Joaquin Delta College San Joaquin Valley College

Santa Ana College

Santa Barbara City College Santa Monica College Santa Rosa Junior College

Shasta College Shepherd University Sierra College

Solano Community College Southwestern College \*Stanbridge College Ventura College

Victor Valley College West Hills College Lemoore

†Yuba College

# LVN to ADN Programs Only (7)

Allan Hancock College Carrington College College of the Siskiyous Gavilan College Mission College Reedley College at Madera Community College Center Unitek College

## BSN Programs (36)<sup>∓</sup>

American University of Health Sciences

†Azusa Pacific University

**Biola University** 

California Baptist University

CSU Bakersfield †CSU Channel Islands

CSU Chico
CSU East Bay
CSU Fresno
CSU Fullerton
CSU Long Beach
CSU Los Angeles
CSU Northridge
CSU Sacramento

CSU San Bernardino †CSU San Marcos

†CSU Stanislaus

Concordia University Irvine Dominican University of California Holy Names University Loma Linda University

Mount Saint Mary's University

†National University

Point Loma Nazarene University

†Samuel Merritt University
San Diego State University
†San Francisco State University

Simpson University Sonoma State University University of California Irvine

University of California Los Angeles

†University of Phoenix - Northern California

University of San Francisco

The Valley Foundation School of Nursing at

San Jose State University

†West Coast University

Western Governors University

#### ELM Programs (16)

†Azusa Pacific University
California Baptist University

CSU Dominguez Hills

CSU Fresno CSU Fullerton CSU Long Beach CSU Los Angeles

Charles R. Drew University

†Samuel Merritt University †San Francisco State University

\*United States University

University of California Los Angeles University of California San Francisco

University of San Diego University of San Francisco

Western University of Health Sciences

<sup>†</sup> Reported student data for satellite campuses

<sup>\* -</sup> New programs in 2013-2014

<sup>&</sup>lt;sup>→</sup> - In 2013-2014, the 3 programs at West Coast University were consolidated into one main campus with 2 satellite campuses and Humboldt State University graduated its last cohort of BSN students in 2012-2013, reducing the total number of BSN programs.

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