California Board of Registered Nursing
2015-2016 Annual School Report

Data Summary and Historical Trend Analysis

San Joaquin Valley

June 8, 2017

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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 regions[1] 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 8-county San Joaquin Valley Region. Counties in the region include Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. 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 through 2015-2016 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. 2015-2016 reporting for the San Joaquin Valley region may be affected by the change in reporting for satellite campus data.

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[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 ANALYSIS[2]

This analysis presents pre-licensure program data from the 2015-2016 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

The San Joaquin Valley region had a total of 14 pre-licensure nursing programs in the 2015-2016 academic year. Of these programs, ten (71%) are ADN programs, and four (29%) are BSN programs. Most (86%) of the region's pre-licensure nursing programs are public.

Table 1. Number of Nursing Programs by Academic Year

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016*
Total nursing programs	**13**	**12**	**13**	**13**	**15**	**15**	**15**	**15**	**15**	**14**
ADN	7	7	8	8	10	10	10	10	10	10
BSN	4	4	4	4	4	4	4	4	4	4
ELM	2	1	1	1	1	1	1	1	1	0
Public	11	10	11	11	13	13	14	14	14	12
Private	2	2	2	2	2	2	1	1	1	2
Total number of schools	**11**	**11**	**12**	**12**	**14**	**14**	**14**	**14**	**14**	**14**

*From 2012-2013 through 2014-2015, one ADN private program was being included as a public program which has now been corrected in the 2015-2016 data.

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[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 2015-2016, 64% (n=9) of San Joaquin Valley nursing programs collaborated with another program that offered a higher degree than offered at their own school. While there has been some fluctuation in the share of programs that partner with other schools, these collaborations have increased dramatically over the last ten years.

Table 2. Partnerships by Academic Year

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Programs that partner with another program that leads to a higher degree	1	1	4	3	6	6	6	7	6	9
Formal collaboration							50.0%	42.9%	50.0%	
Informal collaboration							66.7%	71.4%	66.7%	
Number of programs that reported	**12**	**11**	**13**	**12**	**15**	**15**	**15**	**15**	**15**	**14**

Note: Blank cells indicate the information was not requested

Admission Spaces and New Student Enrollments

In the San Joaquin Valley region, the number of admission spaces available for new students and the number of students enrolling in those spaces reached a high point in 2011-2012 and have since declined to the numbers below those in 2006-2007. In 2015-2016, pre-licensure nursing programs in the region reported a total 1,250 spaces available for new students. These spaces were filled with a total of 1,276 students, which represents the tenth consecutive year pre-licensure nursing programs in the region enrolled more students than there were spaces available.

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

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Spaces available	1,366	1,390	1,500	1,379	1,365	1,459	1,331	1,373	1,253	1,250
New student enrollments	1,455	1,484	1,587	1,598	1,411	1,663	1,515	1,398	1,283	1,276
% Spaces filled with new student enrollments	**106.5%**	**106.8%**	**105.8%**	**115.9%**	**103.4%**	**114.0%**	**113.8%**	**101.8%**	**102.4%**	**102.1%**

[†] 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.

The total number of qualified applications received by San Joaquin Valley nursing programs increased slightly to 3,065 in 2015-2016. Programs in the region continue to receive more applications than can be accommodated. In 2015-2016, 58% (n=1,789) of qualified applications did not enroll. More than half of the San Joaquin Valley programs (57%, n=8) enrolled more students than they had admission spaces.

Table 4. Student Admission Applications*† by Academic Year

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Qualified applications	**2,667**	**3,871**	**3,577**	**4,150**	**3,755**	**4,347**	**4,012**	**3,428**	**2,683**	**3,065**
ADN	1,873	3,006	2,600	3,492	2,890	3,090	3,106	2,671	1,982	2,396
BSN	699	865	901	658	820	1,191	906	757	701	669
ELM	95	0	76	0	45	66	0	0	0	0
% Qualified applications *not* enrolled	**45.4%**	**61.7%**	**55.6%**	**61.5%**	**62.4%**	**61.7%**	**62.2%**	**59.2%**	**52.2%**	**58.4%**

*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.

Pre-licensure nursing programs in the San Joaquin Valley region enrolled 1,276 new students in 2015-2016 which is the lowest number of enrollments in the past ten years. The distribution of new enrollments by program type was 75% ADN (n=957), and 25% BSN (n=319). Most of the new students are enrolled in one of the region's public programs, which accounted for 87% (n=1,116) of total new student enrollments in 2015-2016.

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

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
New student enrollment	**1,455**	**1,484**	**1,587**	**1,598**	**1,411**	**1,663**	**1,515**	**1,398**	**1,283**	**1,276**
ADN	1,070	1,080	1,209	1,262	1,074	1,174	1,123	1,024	944	957
BSN	325	404	325	336	316	454	392	374	339	319
ELM	60	0	53	0	21	35	0	0	0	0
Private	105	96	147	152	140	188	98	114	79	160
Public	1,350	1,388	1,440	1,446	1,271	1,475	1,417	1,284	1,204	1,116

† 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.

Five programs (36%) reported that they enrolled fewer students in 2015-2016 compared to the previous year. The most common reasons programs gave for enrolling fewer students were "insufficient faculty" and "lost funding."

Table 6. Percent of Programs that Enrolled Fewer Students by Academic Year

Type of Program	2014-2015		2015-2016	
	Enrolled fewer	#of programs reporting	Enrolled fewer	#of programs reporting
ADN	40.0%	10	30.0%	10
BSN	0.0%	4	50.0%	4
ELM	100.0%	4	0.0%	0
Total	**33.3%**	**15**	**35.7%**	**14**

Table 7. Reasons for Enrolling Fewer Students by Academic Year

	2014-2015	2015-2016
Lost funding	40.0%	40.0%
Insufficient faculty	0.0%	40.0%
Other	20.0%	40.0%
Accepted students did not enroll	40.0%	20.0%
College/university / BRN requirement to reduce enrollment	0.0%	20.0%
To reduce costs	0.0%	20.0%
Unable to secure clinical placements for all students	0.0%	20.0%
Number of programs that reported	**5**	**5**

Student Census Data

On October 15, 2016 a total of 2,607 students were enrolled in nursing programs in the region. Of these students, 60% (n=1,574) of students were enrolled in ADN programs, and 40% (n=1,033) were in BSN programs.

Table 8. Student Census Data*[†] by Program Type by Year

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
ADN	1,873	1,567	2,076	1,960	2,045	1,707	1,681	1,479	1,799	1,574
BSN	829	838	892	916	840	993	946	1,111	969	1,033
ELM	56	0	49	50	133	58	36	18	0	0
Total nursing students	**2,758**	**2,405**	**3,017**	**2,926**	**3,018**	**2,758**	**2,663**	**2,608**	**2,768**	**2,607**

*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

In the past ten years, the number of students completing pre-licensure nursing programs in the San Joaquin Valley has increased 10% (n=102). In 2015-2016, a total of 1,097 students completed nursing programs in the region. Of these students, 73% (n=805) completed ADN programs and 27% (n=292) BSN programs.

Table 9. Student Completions[†] by Program Type by Academic Year

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
ADN	805	928	982	1,007	1,034	1,018	1,132	1,016	778	805
BSN	190	199	258	233	304	318	314	368	318	292
ELM	0	51	0	8	45	0	21	18	16	0
Total student completions	**995**	**1,178**	**1,240**	**1,248**	**1,383**	**1,336**	**1,467**	**1,402**	**1,112**	**1,097**

[†] 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 1,375 students scheduled to complete a San Joaquin Valley nursing program in the 2015-2016 academic year, 82% (n=1,120) completed the program on-time, 10% (n=142) are still enrolled in the program, and 8% (n=113) dropped out or were disqualified from the program. The retention and attrition rates have fluctuated over the past ten years with the 2015-2016 attrition rate being lower than last year's attrition rate.

Table 10. Student Retention and Attrition[†] by Academic Year

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Students scheduled to complete the program	**985**	**1,117**	**1,173**	**1,100**	**1,389**	**1,279**	**2,438**	**1,398**	**1,084**	**1,375**
Completed on time	681	861	891	962	1,081	1,093	2,255	1,224	924	1,120
Still enrolled	128	102	152	32	133	61	56	56	29	142
Total attrition	176	154	130	106	175	125	127	118	131	113
Attrition-dropped out									*73*	*58*
Attrition-dismissed									*58*	*55*
Completed late[‡]				45	59	67	39	54	228	21
Retention rate**	69.1%	77.1%	76.0%	87.5%	80.3%	85.9%	92.6%	82.7%	79.3%	81.5%
Attrition rate***	17.9%	13.8%	11.1%	9.6%	11.1%	9.8%	5.0%	8.4%	12.4%	8.2%
% Still enrolled	13.0%	9.1%	13.0%	2.9%	8.6%	4.4%	2.3%	8.9%	8.3%	10.3%

[‡] 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.
In 2015-2016 data for traditional and accelerated programs was combined beginning with 2010-2011. Since historical data was used for data prior to 2015-2016, there may be some slight discrepancies between reporting sources in data reported in years 2010-2011 to 2014-2015.

NCLEX Pass Rates

For most of the last ten years, NCLEX pass rates in the San Joaquin Valley Area have been higher for BSN graduates than for ADN program graduates. In 2015-2016, the highest average NCLEX pass rate was for BSN graduates. The NCLEX passing standard was increased in April 2013, which may have impacted NCLEX passing rates for the subsequent years..

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

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
ADN	86.1%	81.2%	84.0%	85.2%	83.6%	85.1%	85.7%	77.3%	79.3%	83.9%
BSN	82.9%	82.2%	90.1%	92.5%	89.8%	92.5%	94.0%	83.0%	81.3%	90.2%
ELM	-	88.9%	-	50.0%	77.8%	-	0.0%	100.0%	76.5%	-

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

Employment of Recent Nursing Program Graduates[3]

Hospitals continue to represent the most frequently reported employment setting for recent graduates of pre-licensure programs in the San Joaquin Valley. In 2015-2016, the region's programs reported that 76% of employed recent graduates were working in a hospital setting which is the highest share since 2007-2008. Programs also reported that 4% of recent graduates had not found employment in nursing at the time of the survey, a decline from the high of 20% in 2009-2010. The 2015-2016 average regional share of new graduates employed in nursing in California was 89%. A sizeable proportion (14%) of graduates were reported to be not yet licensed.

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

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Hospital	89.3%	81.5%	73.4%	58.4%	63.8%	60.6%	65.7%	70.3%	63.2%	75.5%
Not yet licensed										13.5%
Unable to find employment				20.4%	4.2%	1.5%	0.8%	2.5%	5.0%	4.2%
Long-term care facilities	0.8%	2.1%	4.3%	11.2%	9.3%	14.5%	9.2%	6.3%	9.3%	3.2%
Other healthcare facilities							2.8%	5.0%	3.5%	1.5%
Community/public health facilities	2.1%	10.3%	3.5%	10.1%	4.5%	5.1%	5.6%	1.2%	3.2%	1.0%
Pursuing additional nursing education	4.3%	1.3%	2.0%	3.1%	3.2%	4.5%	1.7%	2.2%	2.2%	0.8%
Other setting	11.5%	4.9%	14.7%	12.3%	9.7%	13.7%	14.6%	12.6%	14.4%	0.3%
Employed in California	**89.9%**	**97.1%**	**88.9%**	**92.3%**	**66.0%**	**81.9%**	**70.0%**	**81.9%**	**82.3%**	**88.8%**

[†]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.

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[3] Graduates whose employment setting was reported as "unknown" have been excluded from this table. In 2015-2016, on average, the employment setting was unknown for 21% of recent graduates.

Clinical Training in Nursing Education

Questions regarding clinical simulation[4] were revised in the 2015-2016 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. All fourteen of the San Joaquin Valley nursing programs reported using clinical simulation in 2015-2016. Forty-three percent (43%, n=6) of the 14 programs have plans to increase staff dedicated to administering clinical simulation at their school in the next 12 months.

The content areas using the most hours of clinical simulation on average are Medical/Surgical (25.3) and Pediatrics (11.8). The largest proportion of clinical hours in all programs is in direct patient care (79%) followed by skills labs (13%) and simulation (8%).

On average, programs reported using somewhat more clinical hours in 2015-2016 compared to the prior year, with more or the same number of overall hours in each content area except fundamentals and geriatrics, where fewer hours were reported. Programs overall reported a greater proportion of clinical hours in direct patient care and a smaller proportion in skills labs and about the same proportion of hours in clinical simulation compared to the prior year.

Table 13. Average Hours Spent in Clinical Training by Content Area and Academic Year

Content Area	Direct Patient Care		Skills Lab		Clinical Simulation		All Clinical Hours	
	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015	2015-2016
Medical/surgical	284.3	310.3	48.2	32.3	23.0	25.3	355.5	367.8
Fundamentals	73.6	69.8	56.8	51.1	18.0	7.9	148.3	128.8
Obstetrics	73.7	80.4	7.0	8.7	5.7	10.1	86.3	99.2
Pediatrics	68.2	75.0	6.5	8.2	9.2	11.8	83.8	95.0
Geriatrics	44.5	34.4	5.8	5.1	2.7	4.4	53.1	43.9
Psychiatry/ mental health	67.2	70.4	4.2	5.3	3.3	4.5	74.8	80.2
Leadership/ management	29.9	39.9	5.3	0.9	1.4	1.1	36.6	41.9
Other	12.9	22.5	3.8	1.6	0.4	4.8	16.2	28.9
Total average clinical hours	**653.3**	**702.6**	**137.7**	**113.1**	**63.6**	**70.0**	**854.6**	**885.7**
Percent of clinical hours	**76.4%**	**79.3%**	**16.1%**	**12.8%**	**7.4%**	**7.9%**	**100.0%**	**100.0%**
Number of programs that reported	**13**	**14**	**13**	**14**	**13**	**14**	**13**	**14**

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[4] 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 ADN programs allot the largest percentage of clinical hours (81%) to direct patient care activities. BSN programs allocated more time to clinical simulation (13%). Both programs allocated roughly the same proportion of hours to skills labs (12-13%).

Table 14. Average Hours Spent in Clinical Training by Program Area and Content Type, 2015-2016

Content Area	Direct Patient Care		Skills Lab		Clinical Simulation		Total Average Clinical Hours	
	ADN	BSN	ADN	BSN	ADN	BSN	ADN	BSN
Medical/Surgical	374.2	150.5	41.8	8.5	25.7	24.5	441.6	183.5
Fundamentals	88.1	24.0	50.1	53.8	7.4	9.3	145.5	87.0
Obstetrics	85.0	68.9	9.5	68.9	8.7	13.8	103.1	89.4
Pediatrics	80.0	62.4	8.7	7.0	9.7	17.0	98.4	86.4
Geriatrics	34.8	33.5	5.1	5.0	1.8	11.0	41.7	49.5
Psychiatry/ Mental Health	71.1	68.8	6.6	2.0	5.6	2.0	83.2	72.8
Leadership/ Management	40.9	37.5	1.2	0.0	1.6	0.0	43.7	37.5
Other	0.0	78.8	1.8	1.3	1.8	12.3	3.6	92.3
Total average clinical Hours	**773.9**	**524.3**	**124.7**	**84.3**	**62.2**	**89.8**	**960.7**	**698.3**
Number of programs that reported	**10**	**4**	**10**	**4**	**10**	**4**	**10**	**4**

In the 2015-2016 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, skills lab, 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 and direct patient care hours.

Table 15. Planned Increase or Decrease in Clinical Hours by Content Area and Clinical Experience Type*, 2015-2016

Medical/Surgical	Decrease hours	Maintain hours	Increase hours
Direct patient care	23.1%	69.2%	7.7%
Skills Lab	0.0%	90.9%	9.1%
Clinical simulation	0.0%	72.7%	27.3%
All clinical hours	**16.7%**	**58.3%**	**25.0%**
Fundamentals	**Decrease hours**	**Maintain hours**	**Increase hours**
Direct patient care	0.0%	84.6%	7.7%
Skills Lab	0.0%	90.9%	0.0%
Clinical simulation	0.0%	72.7%	18.2%
All clinical hours	**0.0%**	**83.3%**	**8.3%**

Table 15. Planned Increase or Decrease in Clinical Hours by Content Area and Clinical Experience Type*, 2015-2016 (Continued)

Obstetrics	Decrease hours	Maintain hours	Increase hours
Direct patient care	23.1%	69.2%	7.7%
Skills Lab	9.1%	90.9%	0.0%
Clinical simulation	0.0%	72.7%	27.3%
All clinical hours	**16.7%**	**66.7%**	**16.7%**
Pediatrics	Decrease hours	Maintain hours	Increase hours
Direct patient care	15.4%	76.9%	7.7%
Skills Lab	9.1%	90.9%	0.0%
Clinical simulation	9.1%	72.7%	18.2%
All clinical hours	**16.7%**	**66.7%**	**16.7%**
Geriatrics	Decrease hours	Maintain hours	Increase hours
Direct patient care	0.0%	63.6%	27.3%
Skills Lab	0.0%	60.0%	30.0%
Clinical simulation	0.0%	70.0%	20.0%
All clinical hours	**0.0%**	**66.7%**	**23.3%**
Psychiatry/Mental Health	Decrease hours	Maintain hours	Increase hours
Direct patient care	15.4%	76.9%	7.7%
Skills Lab	9.1%	81.8%	9.1%
Clinical simulation	9.1%	72.7%	18.2%
All clinical hours	**8.3%**	**91.7%**	**0.0%**
Leadership/Management	Decrease hours	Maintain hours	Increase hours
Direct patient care	0.0%	75.0%	8.3%
Skills Lab	0.0%	70.0%	10.0%
Clinical simulation	0.0%	70.0%	10.0%
All clinical hours	**0.0%**	**81.8%**	**0.0%**
Other	Decrease hours	Maintain hours	Increase hours
Direct patient care	0.0%	50.0%	50.0%
Skills Lab	0.0%	100.0%	0.0%
Clinical simulation	0.0%	50.0%	50.0%
All clinical hours	**0.0%**	**66.7%**	**33.3%**

*Totals do not always sum to 100% because some programs answered "not applicable" or "unknown".

Five programs reported they would be reducing overall clinical hours. 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. The most common reasons given were "students can meet learning objectives in less time" and "other".

Table 16. Why Program is Reducing Clinical Hours by Academic Year

	2014-2015	2015-2016
Other	100.0%	60.0%
Can teach required content/ Students can meet learning objectives in less time	0.0%	60.0%
Unable to find sufficient clinical space	0.0%	20.0%
Funding issues or unavailable funding	0.0%	0.0%
Insufficient clinical faculty	0.0%	0.0%
Total reporting	**2**	**5**

Clinical Space & Clinical Practice Restrictions[5]

A third (36%, n=5) of San Joaquin Valley nursing programs reported being denied access to a clinical placement, unit or shift in 2015-2016. This is the smallest number yet reported since these data were first collected in 2010-2011.

In 2015-2016, 60% 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 5 clinical placements, units or shifts, which affected 162 students.

Table 17. RN Programs Denied Clinical Space by Academic Year

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Number of programs denied a clinical placement, unit or shift	**7**	**8**	**6**	**6**	**5**	**5**
Programs offered alternative by site*					2	3
Placements, units or shifts lost*					13	5
Number of programs that reported	15	15	15	15	15	14
Total number of students affected	**212**	**86**	**446**	**196**	**148**	**162**

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

In the 2015-2016 survey, three programs reported that there were fewer students allowed for a clinical placement, unit, or shift in this year than in the prior year.

Table 18. RN Programs That Reported Fewer Students Allowed for Clinical Space by Academic Year

	2014-2015	2015-2016
ADN	1	1
BSN	0	2
ELM	0	0
All Programs	**1**	**3**

[5] 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 may not be shown.

In 2015-2016 a decrease in the patient census (60%) was the most commonly reported reason for clinical space being unavailable, followed by competition for clinical space due to the number of nursing students in the region and a visit from Joint Commission or other accrediting agency.

Table 19. Reasons for Clinical Space Being Unavailable by Academic Year

	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Decrease in patient census	20.0%	42.9%	37.5%	66.7%	16.7%	40.0%	60.0%
Competition for clinical space due to increase in number of nursing students in region	80.0%	57.1%	37.5%	83.3%	66.7%	40.0%	40.0%
Visit from Joint Commission or other accrediting agency				33.3%	33.3%	60.0%	40.0%
Change in facility ownership/management		14.3%	0.0%	0.0%	0.0%	0.0%	20.0%
Closure, or partial closure, of clinical facility		14.3%	37.5%	33.3%	33.3%	0.0%	20.0%
Clinical facility seeking magnet status	40.0%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Displaced by another program	40.0%	28.6%	37.5%	50.0%	66.7%	20.0%	0.0%
Implementation of Electronic Health Records system	0.0%	0.0%	25.0%	83.3%	16.7%	20.0%	0.0%
No longer accepting ADN students	0.0%	0.0%	12.5%	16.7%	0.0%	0.0%	0.0%
Nurse residency programs	20.0%	14.3%	12.5%	0.0%	0.0%	20.0%	0.0%
Other	20.0%	0.0%	12.5%	16.7%	16.7%	20.0%	0.0%
Staff nurse overload or insufficient qualified staff	60.0%	57.1%	37.5%	50.0%	33.3%	20.0%	0.0%
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%
Number of programs that reported	**5**	**7**	**8**	**6**	**6**	**5**	**5**

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

Programs that lost access to clinical space were asked to report on the strategies used to cover the lost placements, sites, or shifts. In 2015-2016, clinical simulation was the most commonly reported strategy (75%) followed by adding or replacing the lost space with a new site OR at the same clinical site (each 50%).

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

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Clinical simulation	12.5%	50.0%	16.7%	66.7%	75.0%
Added/replaced lost space with new site	37.5%	83.3%	33.3%	66.7%	50.0%
Replaced lost space at same clinical site	62.5%	33.3%	50.0%	66.7%	50.0%
Reduced student admissions	0.0%	0.0%	0.0%	0.0%	25.0%
Other	12.5%	16.7%	0.0%	33.3%	0.0%
Replaced lost space at different site currently used by nursing program	50.0%	83.3%	83.3%	66.7%	0.0%
Number of programs that reported	**8**	**6**	**6**	**5**	**4**

The number of nursing programs in the San Joaquin Valley reporting an increase in out-of-hospital clinical placements has fluctuated since 2010-2011. In 2015-2016, six programs reported a number of alternative placement sites with no one type of site predominating.

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	2015-2016
Home health agency/home health service	25.0%	0.0%	33.3%	40.0%	0.0%	50.0%
Medical practice, clinic, physician office	25.0%	0.0%	33.3%	20.0%	66.7%	50.0%
Public health or community health agency	50.0%	0.0%	33.3%	40.0%	0.0%	50.0%
Outpatient mental health/substance abuse	25.0%	100.0%	100.0%	80.0%	0.0%	50.0%
Hospice	25.0%	100.0%	66.7%	40.0%	0.0%	50.0%
Case management/disease management	0.0%	0.0%	0.0%	20.0%	0.0%	33.3%
Other	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%
Skilled nursing/rehabilitation facility	50.0%	0.0%	66.7%	40.0%	0.0%	16.7%
Urgent care, not hospital-based	25.0%	0.0%	33.3%	0.0%	0.0%	16.7%
Renal dialysis unit	25.0%	0.0%	0.0%	0.0%	0.0%	16.7%
Correctional facility, prison or jail	0.0%	0.0%	0.0%	20.0%	0.0%	16.7%
Surgery center/ambulatory care center	0.0%	0.0%	66.7%	20.0%	0.0%	0.0%
Occupational health or employee health service	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
School health service (K-12 or college)	50.0%	0.0%	0.0%	40.0%	33.3%	0.0%
Number of programs that reported	**4**	**1**	**3**	**5**	**3**	**6**

In 2015-2016, 71% (n=10) of San Joaquin Valley nursing schools reported that students in their pre-licensure programs had encountered restrictions to clinical practice imposed on them by clinical facilities. Over the last seven years, the most common types of restricted access students faced were electronic medical records, bar coding medication administration, and access to the clinical site due to a visit from an accrediting agency. In 2015-2016, clinical site due to visit from accrediting agency was the most commonly reported type of restricted access (90%) followed by automated medical supply cabinets and bar coding medication administration (60%)

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	2015-2016
Clinical site due to visit from accrediting agency (Joint Commission)	83.3%	33.3%	90.0%	80.0%	88.9%	55.6%	90.0%
Automated medical supply cabinets	83.3%	44.4%	70.0%	70.0%	100.0%	44.4%	60.0%
Bar coding medication administration	100.0%	44.4%	80.0%	100.0%	88.9%	66.7%	60.0%
Electronic Medical Records	83.3%	55.6%	70.0%	100.0%	100.0%	77.8%	50.0%
Alternative setting due to liability	33.4%	11.1%	20.0%	40.0%	33.3%	22.2%	40.0%
Glucometers	50.0%	22.2%	20.0%	70.0%	66.7%	44.4%	30.0%
IV medication administration	33.4%	33.3%	40.0%	40.0%	22.2%	22.2%	30.0%
Student health and safety requirements		33.3%	50.0%	60.0%	22.2%	11.1%	30.0%
Some patients due to staff workload		55.6%	40.0%	40.0%	66.7%	33.3%	20.0%
Direct communication with health team	0.0%	22.2%	20.0%	30.0%	11.1%	22.2%	0.0%
Number of schools that reported	**6**	**9**	**10**	**10**	**9**	**9**	**10**

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 2015-2016, the top reasons schools reported for restricted student access to electronic medical records were insufficient time for clinical site staff to train students (67%), liability (50%), staff still learning (50%), and patient confidentiality (50%).

In 2015-2016, the top reason schools reported for restricted student access to medication administration systems was liability (87%). Liability was the primary reason for restricting student access to medication administration systems in all three years of reported data.

Table 23. Share of Schools Reporting Reasons for Restricting Student Access to Electronic Medical Records and Medication Administration by Academic Year

	Electronic Medical Records			Medication Administration		
	2013-2014	2014-2015	2015-2016	2013-2014	2014-2015	2015-2016
Liability	70.0%	28.6%	50.0%	57.1%	62.5%	85.7%
Insufficient time to train students	60.0%	57.1%	66.7%	42.9%	37.5%	28.6%
Cost for training	50.0%	42.9%	33.3%	28.6%	37.5%	14.3%
Patient confidentiality	20.0%	28.6%	50.0%	14.3%	12.5%	14.3%
Staff fatigue/burnout	30.0%	28.6%	16.7%	14.3%	37.5%	14.3%
Staff still learning and unable to assure documentation standards are being met	80.0%	71.4%	50.0%	28.6%	37.5%	14.3%
Other	10.0%	0.0%	0.0%	14.3%	12.5%	0.0%
Number of schools that reported	**10**	**7**	**6**	**7**	**8**	**7**

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 San Joaquin Valley Area compensate for training in areas of restricted student access by training students in the classroom (90%) and in the simulation lab (70%).

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

	2013-2014 % Schools	2014-2015 % Schools	2014-2015 % Schools
Training students in the classroom	55.6%	66.7%	90.0%
Training students in the simulation lab	55.6%	88.9%	70.0%
Purchase practice software, such as SIM Chart	33.3%	55.6%	40.0%
Ensuring all students have access to sites that train them in this area	55.6%	55.6%	20.0%
Other	11.1%	0.0%	10.0%
Number of schools that reported	**9**	**9**	**10**

Faculty Census Data[6]

On October 15, 2016, there were 341 total nursing faculty[7] in the region, a decline from the previous year. Of these faculty, 39% (n=132) were full-time and 71% (n=241) were part-time. In addition, there were 39 vacant faculty positions. These vacancies represent a 10.3% faculty vacancy rate overall (10.2% for full-time faculty and 9.1% for part-time faculty).

Table 25. Faculty Census Data[†] by Year

	2007	2008	2009	2010	2011[¥]	2012	2013*	2014*	2015*	2016*
Total Faculty	**340**	**382**	**389**	**386**	**442**	**460**	**472**	**417**	**369**	**341**
Full-time	133	147	146	139	143	147	153	146	122	132
Part-time	207	235	243	247	299	313	319	263	280	241
Vacancy Rate**	**6.8%**	**4.7%**	**6.3%**	**5.6%**	**8.9%**	**5.7%**	**6.0%**	**10.1%**	**9.8%**	**10.3%**
Vacancies	25	19	26	23	43	28	30	47	40	39

[†] 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 2015-2016, schools were asked if the school/program began hiring significantly more part-time than full-time active faculty over the past 5 years than previously. Four of the 14 schools agreed. These 4 schools were asked to rank the reason for this shift.

The top ranked reason was insufficient number of full time faculty applicants with required credential, followed by a shortage of RNs applying for full-time faculty positions.

Table 26. Reasons for Hiring More Part-time Faculty 2015-2016

	Average Rank*	Programs reporting
Insufficient number of full time faculty applicants with required credential	2.25	4
Shortage of RNs applying for full time faculty positions	2.75	4
Non-competitive salaries for full time faculty	4.5	4
Other	5	3
Insufficient budget to afford benefits and other costs of FT faculty	5.5	4
Need for faculty to have time for clinical practice	5.5	4
Need for full-time faculty to have teaching release time for scholarship, clinical practice, sabbaticals, etc.	6.5	4
Private, state university or community college laws, rules or policies	6.5	4
Need for part-time faculty to teach specialty content	7	4
To allow for flexibility with respect to enrollment changes	8.25	4

*The lower the ranking, the greater the importance of the reason (1 has the highest importance and 10 has the lowest importance.)

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

In 2015-2016, 9 of 14 schools in the region (64%) reported that faculty in their programs work an overloaded schedule, and 100% of these schools pay the faculty extra for the overloaded schedule.

Table 27. Faculty with Overloaded Schedules by Academic Year

	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Schools with overloaded faculty	6	7	6	8	10	9	8	9
Share of schools that pay faculty extra for the overload	100.0%	85.7%	100.0%	100.0%	80.0%	77.8%	87.5%	100.0%
Total number of schools	**12**	**12**	**14**	**14**	**14**	**14**	**14**	**14**

Summary

Over the past decade, the number of San Joaquin Valley pre-licensure nursing programs has grown by 8%, from 13 programs in 2006-2007 to 14 programs in 2015-2016. Despite this overall growth, the number of programs in the region has remained constant at 15 over the last five years until 2015-2016, when one program closed. The number of nursing programs that partner with other schools that offer programs that lead to a higher degree has increased over the last ten years – from only 1 program in 2006-2007 to 9 programs in 2015-2016.

San Joaquin Valley programs reported a total of 1,250 spaces available for new students in 2015-2016, which were filled with a total of 1,276 students. For all of the past ten years pre-licensure nursing programs in the San Joaquin Valley region have enrolled more students than were spaces available. There were 3,065 qualified applications to the region's programs in 2015-2016; 42% (n=1,276) of these applicants enrolled.

In 2015-2016, pre-licensure nursing programs in the San Joaquin Valley reported 1,097 student completions. This is the lowest number reported since 2006-2007. With retention rates remaining around 80% over the last three years, there will likely be fewer graduates from San Joaquin Valley nursing programs in the future. At the time of the survey, 14% of recent graduates from San Joaquin Valley RN programs were not yet licensed and 4% were unable to find employment in nursing.

Clinical simulation has become widespread in nursing education, and all nursing schools in the San Joaquin Valley region reporting using it in some capacity, and a 43% reported 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 in nearly all content areas. Five programs reported they would be reducing clinical hours for a combination of reasons. The importance of clinical simulation is underscored by data showing that a large proportion (36%) of San Joaquin Valley programs are being denied access to clinical placement sites that were previously available to them. In addition, three programs were allowed fewer students for a clinical placement, unit, or shift in this year than in the prior year.

The total number of prelicensure nursing students has declined by about 5% (n=151) since 2007. The total number of currently employed nursing faculty in the San Joaquin Valley is 341, after a peak of 472 in 2013 and is now virtually the same as it was in 2007 (341) and the proportion of full-time faculty (39%) is the same in 2016 as it was in 2007. The proportion of full-time faculty decreased over the decade from 39% in 2007 to 35% in 2016. In 2015-2016, 39 faculty vacancies were reported, representing a 10.3% faculty vacancy rate overall (10.2% for full-time faculty and 9.1% for part-time faculty).

APPENDICES

APPENDIX A – San Joaquin Valley RN Nursing Education Programs

ADN Programs (9)

Bakersfield College
College of the Sequoias
Fresno City College
Merced College
Modesto Junior College
Porterville College
San Joaquin Delta College
San Joaquin Valley College
West Hills College Lemoore

LVN to ADN Programs Only (1)

Reedley College at Madera Community College Center

BSN Programs (4)

CSU Bakersfield
CSU Fresno
CSU Stanislaus
University of Phoenix – Northern California

APPENDIX B – BRN Education Issues Workgroup Members

Members	**Organization**
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
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

Dr. Joseph Morris   California Board of Registered Nursing

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