# California Board of Registered Nursing
## 2015-2016 Annual School Report

Data Summary and Historical Trend Analysis

**Northern Sacramento Valley**

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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 5-county Northern Sacramento Valley region. Counties in the region include Butte, Colusa, Glenn, Shasta, and Tehama. 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.

[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 number of pre-licensure nursing programs in the Northern Sacramento Valley has remained the same over the last five years. In 2015-2016, the Northern Sacramento Valley had a total of four pre-licensure nursing programs. Of these programs, two are ADN programs and two are BSN programs. The majority (75%) of pre-licensure nursing programs in the region are public.

**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 | 2014-2015 | 2015-2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total nursing programs** | **3** | **3** | **3** | **3** | **3** | **4** | **4** | **4** | **4** | **4** |
| ADN | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| BSN | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Public | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Private | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| **Total number of schools** | **3** | **3** | **3** | **3** | **3** | **4** | **4** | **4** | **4** | **4** |

[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.

For several years, none of the programs in the region had collaborations with another program that leads to a higher degree than offered at their own institution. Starting in 2009-2010, at least one program has taken part in a collaboration each year. In 2015-2016, no programs reported partnering with other programs in a collaboration.

**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 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 1 | 0 |
| Formal collaboration | | | | | | | 50% | 100% | 100% | |
| Informal collaboration | | | | | | | 50% | 100% | 100% | |
| **Number of programs that reported** | **3** | **3** | **3** | **3** | **4** | **4** | **4** | **4** | **4** | **4** |

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

## *Admission Spaces and New Student Enrollments*

The number of admission spaces for new students in Northern Sacramento Valley nursing programs has fluctuated over the last decade, reaching a high of 290 during 2010-2011. The 242 spaces available for new students in 2015-2016 were filled with a total of 251 students. Pre-licensure nursing programs in the region have enrolled more students than were spaces available in eight of the past ten years. In 2015-2016, this was largely the result of one program overenrolling.

**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 | 206 | 220 | 241 | 226 | 290 | 250 | 230 | 262 | 243 | 242 |
| New student enrollments | 239 | 237 | 272 | 223 | 300 | 257 | 267 | 260 | 267 | 251 |
| **% Spaces filled with new student enrollments** | **116.0%** | **107.7%** | **112.9%** | **98.7%** | **103.4%** | **102.8%** | **116.1%** | **99.2%** | **109.9%** | **103.7%** |

Northern Sacramento Valley nursing programs continue to receive more applications requesting entrance into their programs than can be accommodated. In 2015-2016, programs in the region received 1,277 qualified applications for admission, which is a 6% (n=77) increase in applications compared to the previous year. Of the qualified applications received, 80% did not enroll in 2015-2016.

**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** | **705** | **611** | **1,053** | **1,034** | **1,194** | **1,332** | **1,384** | **1,101** | **1,200** | **1,277** |
| ADN | 262 | 193 | 627 | 763 | 883 | 1,016 | 1,084 | 733 | 723 | 766 |
| BSN | 443 | 418 | 426 | 271 | 311 | 316 | 300 | 368 | 477 | 511 |
| **% Qualified applications *not* enrolled** | **66.1%** | **61.2%** | **74.2%** | **78.4%** | **74.9%** | **80.7%** | **80.7%** | **76.4%** | **77.8%** | **80.3%** |

*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.

New student enrollments in the Northern Sacramento Valley have remained about the same over the past five years. In 2015-2016, there were 251 new students in programs in the region, 56% (n=141) of these students enrolled in ADN programs while 44% (n=110) enrolled in BSN programs.

**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** | **239** | **237** | **272** | **223** | **300** | **257** | **267** | **260** | **267** | **251** |
| ADN | 158 | 146 | 175 | 165 | 193 | 154 | 153 | 148 | 156 | 141 |
| BSN | 81 | 91 | 97 | 58 | 107 | 103 | 114 | 112 | 111 | 110 |
| Private | 0 | 0 | 0 | 0 | 26 | 30 | 34 | 32 | 32 | 30 |
| Public | 239 | 237 | 272 | 223 | 274 | 227 | 233 | 228 | 235 | 221 |

One Northern Sacramento Valley programs reported that it enrolled fewer students in 2015-2016 compared to the previous year due to insufficient faculty and not being able to secure clinical placements for all students.

**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 | 0.0% | 2 | 50.0% | 2 |
| BSN | 0.0% | 2 | 0.0% | 2 |
| **Total** | **0.0%** | **4** | **25.0%** | **4** |

The reasons the program gave for enrolling fewer students were “insufficient faculty” and “unable to secure clinical placements for all students”. Other responses included a variety of reasons.

**Table 7. Reasons for Enrolling Fewer Students by Academic Year**

| | 2014-2015 | 2015-2016 |
|---|---|---|
| Insufficient faculty | 0.0% | 100.0% |
| Unable to secure clinical placements for all students | 0.0% | 100.0% |
| Accepted students did not enroll | 0.0% | 0.0% |
| College/university / BRN requirement to reduce enrollment | 0.0% | 0.0% |
| Lost funding | 0.0% | 0.0% |
| Other | 0.0% | 0.0% |
| To reduce costs | 0.0% | 0.0% |
| **All Reporting** | **0** | **1** |

## *Student Census Data*

The total number of students enrolled in pre-licensure nursing programs in the region has fluctuated over the last decade. On October 15, 2016 there were a total of 545 students enrolled in programs in the region. A little over half (51%) of these students were in ADN programs and a little under half (49%) in BSN programs.

**Table 8. Student Census Data* by Program Type by Year**

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| ADN | 298 | 255 | 303 | 319 | 326 | 291 | 286 | 264 | 279 | 280 |
| BSN | 246 | 264 | 281 | 222 | 304 | 243 | 259 | 261 | 258 | 265 |
| **Total nursing students** | **544** | **519** | **584** | **541** | **630** | **534** | **545** | **525** | **537** | **545** |

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

## *Student Completions*

The number of students that completed a nursing program in the region has been declining since the ten-year high of 267 students in 2010-2011. This decline was driven by ADN programs, which had a 20% (n=33) decline in the number of students completing their programs in the last five years. In 2015-2016, 242 students completed programs in the region. Slightly more than half, 56% (n=136), of graduating students completed an ADN program and 44% (n=106) completed a BSN program.

**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 | 149 | 126 | 139 | 147 | 179 | 169 | 159 | 129 | 136 | 136 |
| BSN | 75 | 77 | 78 | 78 | 88 | 88 | 94 | 100 | 114 | 106 |
| **Total student completions** | **224** | **203** | **217** | **225** | **267** | **257** | **253** | **229** | **250** | **242** |

## *Retention and Attrition Rates*

Of the 252 students scheduled to complete a Northern Sacramento Valley nursing program in the 2015-2016 academic year, 93% (n=234) completed the program on-time, 0.4% (n=1) are still enrolled in the program, and 7% (n=17) dropped out or were disqualified from the program. The average retention rate in the region stayed about the same over the last two years, with a small 2% (n=6) increase in 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** | **211** | **226** | **185** | **231** | **227** | **231** | **249** | **252** | **231** | **252** |
| Completed on time | 194 | 189 | 166 | 203 | 211 | 205 | 213 | 222 | 216 | 234 |
| Still enrolled | 8 | 4 | 1 | 5 | 5 | 7 | 4 | 3 | 4 | 1 |
| Total attrition | 9 | 33 | 18 | 23 | 11 | 19 | 32 | 27 | 11 | 17 |
| *Attrition-dropped out* | | | | | | | | | *10* | *12* |
| *Attrition-dismissed* | | | | | | | | | *1* | *5* |
| Completed late‡ | | | | 4 | 6 | 2 | 4 | 2 | 2 | 4 |
| **Retention rate*** | 91.9% | 83.6% | 89.7% | 87.9% | 93.0% | 88.7% | 85.5% | 88.1% | 93.5% | 92.9% |
| **Attrition rate**** | 4.3% | 14.6% | 9.7% | 10.0% | 4.8% | 8.2% | 12.9% | 10.7% | 4.8% | 6.7% |
| **% Still enrolled** | 3.8% | 1.8% | 0.5% | 2.2% | 2.2% | 3.0% | 1.6% | 1.2% | 1.7% | 0.4% |

‡ These completions are not included in the calculation of either retention or attrition rates.
*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 indicated that the applicable information was not requested in the given year.
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.

The average attrition rate for ADN programs has declined over the last three years from 15.3% in 2012-2013 to 6.3% in 2015-2016. Average attrition rates for BSN programs increased by 7.4% since the previous year (0%).

**Table 11. Attrition 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 | 4.5% | 20.6% | 14.3% | 13.9% | 4.8% | 9.8% | 15.3% | 13.2% | 9.3% | 6.3% |
| BSN | | | | | 5.0% | 5.1% | 9.5% | 7.4% | 0.0% | 7.4% |

## *NCLEX Pass Rates*

Over the last ten years, NCLEX pass rates in the Northern Sacramento Valley region have fluctuated for ADN and BSN program graduates. In 2015-2016, BSN graduates had the highest average NCLEX pass rate (94%). The NCLEX passing standard was increased in April 2013, which may have impacted NCLEX passing rates for the subsequent years.

**Table 12. 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 | 85.5% | 82.1% | 85.1% | 82.8% | 85.8% | 87.9% | 87.9% | 80.4% | 83.1% | 83.0% |
| BSN | 95.3% | 82.9% | 84.4% | 87.4% | 92.8% | 96.6% | 88.7% | 92.5% | 97.0% | 93.8% |

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

## *Employment of Recent Nursing Program Graduates*[3]

The largest share of RN program graduates work in hospitals. Although this share had been decreasing in recent years, from a high of 93% in 2006-2007 to a low of 61% in 2010-2011, it has fluctuated over the past four years. In 2015-2016, Northern Sacramento Valley programs reported that 89% of graduates were employed in hospitals. The share of recent graduates employed as nurses in California had been in decline since 2007-2008 but has increased somewhat over the last four years. Northern Sacramento Valley nursing programs reported that 1% of recent graduates had been unable to find employment at the time of the survey, which is down from a high of 10% in 2010-2011.

**Table 13. 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 | 92.7% | 92.3% | 80.0% | 81.0% | 61.3% | 73.3% | 88.1% | 76.9% | 79.7% | 88.9% |
| Pursuing additional nursing education | | | | | | | 1.3% | 3.3% | 0.8% | 3.8% |
| Community/public health facilities | 1.3% | 1.7% | 20.0% | 15.0% | 6.3% | 3.3% | 2.5% | 5.2% | 3.7% | 2.3% |
| Not yet licensed | | | | | | | | | | 2.3% |
| Long-term care facilities | 2.5% | 3.3% | 5.0% | 5.0% | 6.7% | 8.0% | 3.7% | 8.2% | 10.0% | 1.3% |
| Unable to find employment | | | | 5.0% | 9.5% | 5.7% | 1.8% | 1.8% | 0.8% | 1.0% |
| Other healthcare facilities | 4.3% | 1.0% | 7.5% | 5.7% | 5.0% | 4.0% | 2.0% | 3.1% | 2.5% | 0.5% |
| Other setting | 0.0% | 1.7% | 0.0% | 0.0% | 6.0% | 5.7% | 0.6% | 3.7% | 2.5% | 0.0% |
| **Employed in California** | **98.7%** | **96.0%** | **89.0%** | **92.7%** | **80.0%** | **85.0%** | **86.0%** | **91.5%** | **89.8%** | **90.3%** |

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

[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 1.5% of recent graduates.

## *Clinical Training in Nursing Education*

Questions regarding clinical simulation[4] were revised in the 2014-2015 survey to collect data on average number of hours students spend in clinical areas including simulation in various content areas and plans for future use. All four of the Northern Sacramento Valley region nursing schools reported using clinical simulation in 2015-2016. Three (75%) of the 4 schools 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 (59.8) and Geriatrics (13.0). The largest proportion of clinical hours in all programs is in direct patient care (75%) followed by skills lab (15%) and simulation (9%).

On average, programs reported more clinical hours in 2015-2016 than in 2014-2015 overall and in every clinical area. However, the proportion of time allocated to each clinical experience type was virtually the same, with a slightly bigger proportion allocated to direct patient care in 2015-2016

**Table 14. 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 | 335.3 | 277.1 | 38.7 | 27.9 | 36.0 | 59.8 | 410.0 | 364.8 |
| Fundamentals | 128.0 | 66.0 | 113.7 | 140.8 | 9.3 | 8.0 | 251.0 | 214.8 |
| Obstetrics | 48.3 | 86.4 | 2.7 | 4.3 | 8.0 | 4.8 | 59.0 | 95.4 |
| Pediatrics | 43.3 | 87.4 | 2.7 | 4.3 | 6.7 | 3.8 | 52.7 | 95.4 |
| Geriatrics | 56.0 | 105.5 | 0.0 | 0.0 | 6.0 | 13.0 | 62.0 | 118.5 |
| Psychiatry/Mental Health | 32.7 | 111.5 | 4.0 | 0.0 | 5.3 | 9.5 | 42.0 | 121.0 |
| Leadership/Management | 62.3 | 71.0 | 0.0 | 0.0 | 4.0 | 1.3 | 66.3 | 72.3 |
| Other | 0.0 | 62.0 | 0.0 | 0.0 | 13.3 | 5.5 | 13.3 | 67.5 |
| **Total average clinical hours** | **706.0** | **866.9** | **161.7** | **177.1** | **88.7** | **105.5** | **956.3** | **1,149.5** |
| **Percent of Clinical Hours** | **73.8%** | **75.4%** | **16.9%** | **15.4%** | **9.3%** | **9.2%** | **100.0%** | **100.0%** |
| **Number of programs that reported** | **3** | **4** | **3** | **4** | **3** | **4** | **3** | **4** |

[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.

Both ADN (74%) and BSN (78%) programs allot the largest percentage of clinical hours to direct patient care activities. BSN programs also allocated comparatively more time to clinical simulation (12% vs. 7% for ADN programs), while ADN programs allocated the most time to skills labs.

**Table 15. 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 | 324.3 | 230.0 | 48.3 | 7.5 | 59.5 | 60.0 | 432.0 | 297.5 |
| Fundamentals | 66.0 | 66.0 | 190.0 | 91.5 | 8.0 | 8.0 | 264.0 | 165.5 |
| Obstetrics | 122.5 | 50.3 | 6.5 | 2.0 | 5.5 | 4.0 | 134.5 | 56.3 |
| Pediatrics | 122.5 | 52.3 | 6.5 | 2.0 | 5.5 | 2.0 | 134.5 | 56.3 |
| Geriatrics | 150.0 | 61.0 | 0.0 | 0.0 | 2.0 | 24.0 | 152.0 | 85.0 |
| Psychiatry/ Mental Health | 142.0 | 81.0 | 0.0 | 0.0 | 10.0 | 9.0 | 152.0 | 90.0 |
| Leadership/ Management | 32.0 | 110.0 | 0.0 | 0.0 | 0.0 | 2.5 | 32.0 | 112.5 |
| Other | 0.0 | 124.0 | 0.0 | 0.0 | 0.0 | 11.0 | 0.0 | 135.0 |
| **Total average clinical hours** | **959.3** | **774.5** | **251.3** | **103.0** | **90.5** | **120.5** | **1,301.0** | **998.0** |
| **Number of programs that reported** | **2** | **2** | **2** | **2** | **2** | **2** | **2** | **2** |

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, non-direct patient care, and clinical simulation for each of the eight content areas listed above.

In most content areas, the trend was to maintain the current overall number of clinical hours. However, in a number of instances, programs indicated that they were decreasing hours in direct patient care and increasing hours in clinical simulation. No program reported overall reducing clinical hours in either 2014-2015 or 2015-2016.

**Table 16. 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 | 50.0% | 50.0% | 0.0% |
| Skills lab | 25.0% | 75.0% | 0.0% |
| Clinical simulation | 0.0% | 25.0% | 75.0% |
| **All clinical hours** | **0.0%** | **100.0%** | **0.0%** |
| **Fundamentals** | **Decrease hours** | **Maintain hours** | **Increase hours** |
| Direct patient care | 50.0% | 50.0% | 0.0% |
| Skills lab | 0.0% | 100.0% | 0.0% |
| Clinical simulation | 0.0% | 25.0% | 75.0% |
| **All clinical hours** | **0.0%** | **75.0%** | **25.0%** |

**Table 16. 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 | 0.0% | 100.0% | 0.0% |
| Skills lab | 0.0% | 100.0% | 0.0% |
| Clinical simulation | 0.0% | 75.0% | 25.0% |
| **All clinical hours** | **0.0%** | **100.0%** | **0.0%** |
| **Pediatrics** | **Decrease hours** | **Maintain hours** | **Increase hours** |
| Direct patient care | 25.0% | 75.0% | 0.0% |
| Skills lab | 0.0% | 100.0% | 0.0% |
| Clinical simulation | 0.0% | 50.0% | 50.0% |
| **All clinical hours** | **0.0%** | **100.0%** | **0.0%** |
| **Geriatrics** | **Decrease hours** | **Maintain hours** | **Increase hours** |
| Direct patient care | 0.0% | 100.0% | 0.0% |
| Skills lab | 0.0% | 100.0% | 0.0% |
| Clinical simulation | 0.0% | 75.0% | 25.0% |
| **All clinical hours** | **0.0%** | **100.0%** | **0.0%** |
| Psychiatry/Mental Health | Decrease hours | Maintain hours | Increase hours |
| Direct patient care | 25.0% | 75.0% | 0.0% |
| Skills lab | 0.0% | 75.0% | 0.0% |
| Clinical simulation | 0.0% | 50.0% | 50.0% |
| **All clinical hours** | **0.0%** | **100.0%** | **0.0%** |
| **Leadership/Management** | **Decrease hours** | **Maintain hours** | **Increase hours** |
| Direct patient care | 25.0% | 50.0% | 0.0% |
| Skills lab | 0.0% | 75.0% | 0.0% |
| Clinical simulation | 0.0% | 25.0% | 50.0% |
| **All clinical hours** | **0.0%** | **75.0%** | **0.0%** |
| **Other** | **Decrease hours** | **Maintain hours** | **Increase hours** |
| Direct patient care | 0.0% | 66.7% | 0.0% |
| Skills lab | 0.0% | 66.7% | 0.0% |
| Clinical simulation | 0.0% | 66.7% | 0.0% |
| **All clinical hours** | **0.0%** | **66.7%** | **0.0%** |

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

## *Clinical Space & Clinical Practice Restrictions*[5]

The number of nursing programs in the Northern Sacramento Valley region that reported being denied access to a clinical placement, unit or shift has varied over the last four years. In 2015-2016, no program reported that they were denied clinical space. Consequently, there were no losses in clinical placements, units or shifts, and no students were affected.

**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** | **3** | **2** | **1** | **3** | **2** | **0** |
| Programs offered alternative by site* | | | | | 0 | 0 |
| Placements, units or shifts lost* | | | | | 2 | 0 |
| Number of programs that reported | 4 | 4 | 4 | 4 | 4 | 4 |
| **Total number of students affected** | **31** | **180** | **56** | **126** | **306** | **0** |

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

Only one program reported that there were fewer students allowed for clinical placements, units or shifts in 2015-2016 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 | 2 | 1 |
| BSN | 1 | 0 |
| **All Programs** | **3** | **1** |

[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, no programs reported clinical space being unavailable and hence no reasons were given for clinical space being unavailable. In the prior five years, programs in the region reported staff nurse overload, decrease in patient census, competition for clinical space due to increase in number of nursing students in the region, and displacement by another program as the most common reasons for clinical space being unavailable. In 2014-2015, competition for clinical space due to more nursing students and displacement by another program were the most frequently reported reasons for clinical space being unavailable.

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

| | 2009-2010 | 2010-2011 | 2011-2012 | 2012-2013 | 2014-2015 | 2015-2016 |
|---|---|---|---|---|---|---|
| Competition for clinical space due to increase in number of nursing students in region | 100.0% | 66.7% | 100.0% | 0.0% | 100.0% | 0.0% |
| Displaced by another program | 100.0% | 33.3% | 50.0% | 100.0% | 100.0% | 0.0% |
| No longer accepting ADN students | 0.0% | 33.3% | 0.0% | 100.0% | 50.0% | 0.0% |
| Decrease in patient census | 100.0% | 33.3% | 50.0% | 100.0% | 50.0% | 0.0% |
| Staff nurse overload or insufficient qualified staff | 100.0% | 33.3% | 100.0% | 100.0% | 50.0% | 0.0% |
| Clinical facility seeking magnet status | 0.0% | 0.0% | 0.0% | 0.0% | 50.0% | 0.0% |
| Visit from Joint Commission or other accrediting agency | | | | 0.0% | 50.0% | 0.0% |
| Nurse residency programs | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Closure, or partial closure, of clinical facility | 0.0% | 100.0% | 50.0% | 0.0% | 0.0% | 0.0% |
| Change in facility ownership/management | | 0.0% | 50.0% | 0.0% | 0.0% | 0.0% |
| Implementation of Electronic Health Records system | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 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% |
| Other | 0.0% | 33.3% | 0.0% | 0.0% | 0.0% | 0.0% |
| **Number of programs that reported** | **1** | **3** | **2** | **1** | **2** | **0** |

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

In 2015-2016, no programs reported strategies to address the loss of clinical space since none reported losing clinical space. 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, all schools reported clinical simulation as a strategy to address the loss of clinical space, and three quarters reported replacing the lost clinical space at a different site currently used by the nursing program and replacing the lost space at the same clinical site (both 67%).

**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 | 0% | 100% | 100% | 100.0% | 0.0% |
| Replaced lost space at same clinical site | 0% | 0% | 100% | 66.7% | 0.0% |
| Replaced lost space at different site currently used by nursing program | 0% | 100% | 0% | 66.7% | 0.0% |
| Added/replaced lost space with new site | 0% | 0% | 0% | 0.0% | 0.0% |
| Reduced student admissions | 0% | 0% | 0% | 0.0% | 0.0% |
| Other | 100% | 100% | 0% | 0.0% | 0.0% |
| **Number of programs that reported** | **1** | **2** | **1** | **3** | **0** |

Two of the four nursing programs in the Northern Sacramento Valley reported an increase in out-of-hospital clinical placements in 2015-2016. These programs listed skilled nursing/rehabilitation facility, home health agency/home health service, surgery center/ambulatory care center, outpatient mental health/substance abuse, and correctional facility, prison or jail as the alternative clinical placement sites they utilized.

**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 |
|---|---|---|---|---|---|---|
| Skilled nursing/rehabilitation facility | 50.0% | 50.0% | 0.0% | 50.0% | 50.0% | 50.0% |
| Home health agency/home health service | 50.0% | 100.0% | 100.0% | 50.0% | 50.0% | 50.0% |
| Surgery center/ambulatory care center | 50.0% | 0.0% | 100.0% | 50.0% | 100.0% | 50.0% |
| Outpatient mental health/substance abuse | 50.0% | 100.0% | 100.0% | 100.0% | 100.0% | 50.0% |
| Correctional facility, prison or jail | 0.0% | 0.0% | 0.0% | 0.0% | 50.0% | 50.0% |
| Medical practice, clinic, physician office | 0.0% | 50.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Urgent care, not hospital-based | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Public health or community health agency | 50.0% | 100.0% | 0.0% | 50.0% | 50.0% | 0.0% |
| Occupational health or employee health service | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Renal dialysis unit | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Hospice | 0.0% | 50.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| School health service (K-12 or college) | 0.0% | 0.0% | 0.0% | 0.0% | 50.0% | 0.0% |
| Case management/disease management | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Other | | | 0.0% | 0.0% | 0.0% | 0.0% |
| **Number of programs that reported** | **2** | **2** | **1** | **2** | **2** | **2** |

Over the last five years, schools in the Northern Sacramento Valley consistently reported that students in their pre-licensure nursing programs commonly encountered restricted access to electronic medical records, bar coding medication administration, and the clinical site itself due to a visit from an accrediting agency. In 2015-2016, three out of four schools (75%) reported some type of restricted access in the clinical setting. Restricted access to the clinical site itself due to visit from an accrediting agency was reported by all of these schools. Two-thirds of the schools reported that pre-licensure students in their program had encountered restrictions to bar coding administration, electronic medical records, and automated supply cabinets.

**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 | 2014-2015 | 2015-2016 |
|---|---|---|---|---|---|---|---|
| Clinical site due to visit from accrediting agency (Joint Commission) | 66.7% | 66.7% | 100.0% | 100.0% | 50.0% | 66.7% | 100.0% |
| Bar coding medication administration | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 66.7% | 66.7% |
| Electronic Medical Records | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 66.7% |
| Automated medical supply cabinets | 33.3% | 66.7% | 66.7% | 66.7% | 0.0% | 66.7% | 66.7% |
| Glucometers | 66.7% | 66.7% | 66.7% | 66.7% | 0.0% | 33.3% | 33.3% |
| IV medication administration | 33.3% | 66.7% | 33.3% | 0.0% | 50.0% | 66.7% | 33.3% |
| Student health and safety requirements | | 33.3% | 66.7% | 0.0% | 50.0% | 33.3% | 33.3% |
| Direct communication with health team | 33.3% | 0.0% | 33.3% | 0.0% | 0.0% | 33.3% | 0.0% |
| Alternative setting due to liability | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 66.7% | 0.0% |
| Some patients due to staff workload | | 33.3% | 66.7% | 33.3% | 0.0% | 66.7% | 0.0% |
| **Number of schools that reported** | **3** | **3** | **3** | **3** | **2** | **3** | **3** |

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”.

Schools reported that restricted student access to electronic medical records was primarily due to patient confidentiality (100%). Schools reported that students were restricted from using medication administration systems primarily due to liability (100%) and insufficient time to train students (67%).

**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 | 100.0% | 33.3% | 50.0% | 50.0% | 33.3% | 100.0% |
| Insufficient time to train students | 100.0% | 100.0% | 0.0% | 50.0% | 33.3% | 66.7% |
| Cost for training | 100.0% | 66.7% | 0.0% | 50.0% | 33.3% | 33.3% |
| Other | 0.0% | 0.0% | 50.0% | 0.0% | 0.0% | 33.3% |
| Patient confidentiality | 100.0% | 66.7% | 100.0% | 50.0% | 66.7% | 33.3% |
| Staff fatigue/burnout | 0.0% | 33.3% | 0.0% | 50.0% | 33.3% | 33.3% |
| Staff still learning and unable to assure documentation standards are being met | 100.0% | 33.3% | 50.0% | 50.0% | 33.3% | 33.3% |
| **Number of schools that reported** | **2** | **3** | **2** | **2** | **3** | **3** |

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

A majority of nursing schools in the region compensate for training in areas of restricted student access by training students in the classroom (100%), training students using practice software (100%), training students in the simulation lab (67%), and ensuring all students have access to sites that train them in this area (67%).

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

| | 2013-2014 % Schools | 2014-2015 % Schools | 2015-2016 % Schools |
|---|---|---|---|
| Training students in the classroom | 100.0% | 66.7% | 100.0% |
| Purchase practice software, such as SIM Chart | 100.0% | 100.0% | 100.0% |
| Training students in the simulation lab | 100.0% | 66.7% | 66.7% |
| Ensuring all students have access to sites that train them in this area | 50.0% | 66.7% | 66.7% |
| Other | 0.0% | 0.0% | 0.0% |
| **Number of schools** | **2** | **3** | **3** |

## *Faculty Census Data*[6]

On October 15, 2015, there were 106 total nursing faculty[7] in the Northern Sacramento Valley. Of these faculty, 37% (n=39) were full-time and 72% (n=76) were part-time. The need for faculty continues to outpace the number of active faculty. On October 15, 2015, there were 12 vacant faculty positions in the region. These vacancies represent a 10.2% faculty vacancy rate overall (15.2% for full-time faculty and 6.2% for part-time faculty).

**Table 25. Faculty Census Data by Year**

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015* | 2016* |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total Faculty** | **84** | **80** | **82** | **102** | **99** | **80** | **83** | **92** | **90** | **106** |
| *Full-time* | 33 | 36 | 35 | 36 | 37 | 33 | 37 | 35 | 36 | 39 |
| *Part-time* | 51 | 44 | 47 | 66 | 62 | 47 | 46 | 57 | 55 | 76 |
| **Vacancy Rate**** | **6.7%** | **0.0%** | **3.5%** | **8.1%** | **4.8%** | **2.4%** | **8.8%** | **9.8%** | **11.8%** | **10.2%** |
| *Vacancies* | 6 | 0 | 3 | 9 | 5 | 2 | 8 | 10 | 12 | 12 |

*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)

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. 50% (n=2) of 4 schools responding agreed. These 2 schools were asked to rank the reason for this shift.

The top ranked reason was non-competitive salaries for full-time faculty, followed by insufficient number of full time faculty applicants with required credential.

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

| | Average Rank* | Programs reporting |
|---|---|---|
| Non-competitive salaries for full time faculty | 1 | 1 |
| Insufficient number of full time faculty applicants with required credential | 2 | 1 |
| Other: | 2 | 1 |
| Shortage of RNs applying for full time faculty positions | 3 | 1 |
| Private, state university or community college laws, rules or policies | 4 | 1 |
| Need for full-time faculty to have teaching release time for scholarship, clinical practice, sabbaticals, etc. | 4 | 2 |
| Need for part-time faculty to teach specialty content | 5 | 1 |
| To allow for flexibility with respect to enrollment changes | 6 | 1 |
| Insufficient budget to afford benefits and other costs of FT faculty | 8 | 1 |
| Need for faculty to have time for clinical practice | 9 | 1 |

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

[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 the region's nursing schools.

For the prior five years, three schools in the Northern Sacramento Valley reported that their faculty had overloaded schedules. In 2015-2016, two schools in the Northern Sacramento Valley reported that their faculty had overloaded schedules. Both schools reported paying 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 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 |
| Share of schools that pay faculty extra for the overload | 100.0% | 50.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| **Total number of schools** | **3** | **3** | **4** | **4** | **4** | **4** | **4** | **4** |

## Summary

The Northern Sacramento Valley region reported a total of four nursing programs in 2015-2016, which has been consistent since 2010-2011. In 2015-2016, one program in the region reported collaborating with another program that offers a higher degree than offered at their own institution.

In 2015-2016, there were more admission spaces available in Northern Sacramento Valley pre-licensure nursing education programs than there were ten years ago. Although new enrollments have fluctuated during this time period, they have remained relatively constant over the past five years. Programs in the region continue to receive more qualified applications than can be accommodated. In 2015-2016, the region received 1,277 applications, 20% (n=251) of which enrolled.

Nursing programs in the region graduated 8% (n=18) more students in 2015-2016 than in 2006-2007. The number of students completing these programs has fluctuated over the past six years – from 267 students in 2010-2011 to 229 in 2013-2014 and back up to 242 in 2015-2016. The average retention rate in the region stayed about the same over the last two years, while the average attrition rate increased by 2 percentage points during the same time period. For the prior four years, average attrition rates for BSN programs were lower than for ADN programs. In 2015-2016, the average attrition rate for BSN programs increased from 7% from the previous year while the average attrition rate for ADN programs decreased, making the BSN attrition rate higher than the ADN attrition rate for the first time.

The share of new graduates working as nurses in California has been generally increasing since 2010-2011, comprising 90% of new graduates in 2015-2016. At the time of the survey, 1% of new graduates in the region were unable to find employment in nursing, a decrease from the high of 10% in 2010-2011 and the lowest level in the last six years.

All four programs in the Northern Sacramento Valley have been using clinical simulation since 2010-2011, and 75% (n=3) reported plans to increase staff dedicated to administering clinical simulation in the next 12 months. One-quarter to one-half of schools planned to increase the number of hours spent in clinical simulation in nearly every content area. The importance of clinical simulation is underscored by data showing that three-quarters (75%, n=3) schools in the Northern Sacramento Valley encountered restrictions to clinical space and practice imposed on them by clinical facilities. No programs in the region reported being denied some form of clinical space in 2015-2016.

The total number of nursing faculty in the region has fluctuated over the past ten years, reaching its highest number in 2016. In 2016, there were 106 faculty and 12 faculty vacancies in the region, representing a vacancy rate of 10.2% overall (15.2% for full-time faculty and 6.2 % for part-time faculty). The proportion of faculty made up by part-timers has also fluctuated between 55-65% over the last 9 years, reaching a high of 72% in 2016. Two schools reported that they had hired significantly more part-time faculty over the past five years than previously.

# APPENDICES

## APPENDIX A – Northern Sacramento Valley Nursing Education Programs

*ADN Programs (2)*

Butte College
Shasta College

*BSN Programs (2)*

CSU Chico
Simpson University

## 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 |

**Project Manager**

| | |
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| Julie Campbell-Warnock | California Board of Registered Nursing |