

California Board of Registered Nursing

2008-2009 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 2008-2009 Board of Registered Nursing (BRN) School Survey was the work of the Board's Education Advisory Committee (EAC), which consists of nursing education stakeholders from across California. A list of the EAC 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, 2008 through July 31, 2009. Demographic information and census data were requested for October 15, 2009.

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 2000-2001 through 2008-2009 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 the BRN.

The BRN acknowledges that survey respondents may not have had ready access to some of the data that were being requested. To address this issue, a member of the EAC developed a computer program for tracking most of the required data. The computer tracking program was distributed to nursing programs in the fall of 2006. Nursing programs that do not have this program may contact the BRN.

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 Advisory Committee and all survey respondents. Your participation has been vital to the success of this project.

Survey Participation

All California nursing education programs were invited to participate in the survey. Of the 139 pre-licensure programs approved by the BRN to enroll students in 2008-2009, all responded to the survey. A list of nursing programs that responded to the survey is provided in the Appendix.

Program Type	# Programs Responded	Total # Programs	Response Rate
ADN	76	76	100.0%
LVN to ADN	10	10	100.0%
BSN	36	36	100.0%
ELM	17	17	100.0%
Sum of Pre-Licensure Programs*	139	139	100.0%

*Since some nursing schools admit students in more than one program, the number of nursing programs is greater than the number of nursing schools (n=125) in the state.

DATA SUMMARY AND HISTORICAL TREND ANALYSIS

This analysis presents pre-licensure program data from the 2008-2009 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, student and faculty census data, and the use of clinical simulation by nursing programs.

Trends in Pre-Licensure Nursing Programs

Number of Nursing Programs

In 2008-2009, California had a total of 139 pre-licensure nursing programs. This represents a net increase of eight (6.1%) nursing programs since 2007-2008. During the last year, nine new programs (3 ADN programs, 4 BSN programs, and 2 ELM programs) accepted students for the first time. During the same time period, one ADN program closed. Although most pre-licensure nursing programs in California are public, the share of public programs has decreased from its high of 85.6% (n=83) of pre-licensure nursing programs in 2000-2001 to its current share of 76.3% (n=106) in 2008-2009.

Number of Nursing Programs

	<i>Academic Year</i>								
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>
Total # Nursing Programs	97	100	101	104	109	117	130	131	139
ADN Programs	71	72	73	73	76	77	82	84	86
BSN Programs	22	23	23	23	24	26	32	32	36
ELM Programs	4	5	5	8	9	14	16	15	17
Public Programs	83	85	86	87	90	96	105	104	106
Private Programs	14	15	15	17	19	21	25	27	33

Admission Spaces and New Student Enrollments

Admission spaces available for new student enrollments increased by 7.0% (n=843), from 11,969 spaces in 2007-2008 to 12,812 in 2008-2009. These spaces were filled with a total of 13,988 students, increasing new student enrollment by 6.3% (n=831) from 2007-2008.

Availability and Utilization of Admission Spaces

	<i>Academic Year</i>								
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>
Spaces Available	6,610	6,719	7,601	7,797	9,026	10,523	11,475	11,969	12,812
New Student Enrollments	6,128	6,422	7,457	7,825	8,926	11,131	12,709	13,157	13,988
% Spaces Filled	92.7%	95.6%	98.1%	100.4%	98.9%	105.8%	110.8%	109.9%	109.2%

Despite the increase in available admission spaces, nursing programs receive more applications requesting entrance into their programs than can be accommodated. There was an 8.2% (n=2,765) increase in the number of qualified applications nursing schools received between 2007-2008 and 2008-2009. In 2008-2009, 61.7% (n=22,523) of qualified applications to California nursing education programs were not accepted for admission. 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.

Student Admission Applications*

	<i>Academic Year</i>								
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>
Qualified Applications	10,021	10,362	13,926	17,887	20,405	28,410	28,506	33,746	36,511
ADN	6,924	7,554	9,531	12,585	14,615	19,724	19,559	25,021	26,185
BSN	2,635	2,413	3,301	3,964	4,914	7,391	7,004	7,187	8,142
ELM	462	395	1,094	1,338	876	1,295	1,943	1,538	2,184
% Qualified Applications Not Accepted	38.8%	38.0%	46.5%	56.3%	56.3%	60.8%	55.4%	61.0%	61.7%

*Since these data represent applications rather than individuals, the increase in qualified applications may not represent an equal growth in the number of individuals applying to nursing school.

Although new student enrollments in pre-licensure nursing education programs continue to increase, enrollments are growing at slower rates than they have in previous years. The number of students who enrolled in a nursing program in California increased by 6.3% (n=831), from 13,157 in 2007-2008 to 13,988 in 2008-2009. Since 2000-2001, new student enrollments have more than doubled (n=7,860). In the last year, new student enrollments in BSN and ELM programs increased by 6.1% (n=221) and 6.3% (n=45) respectively. After a slight decline in new student enrollments in ADN programs between 2006-2007 and 2007-2008, these programs demonstrated a 6.4% (n=565) increase in new student enrollments over the last year.

New Student Enrollment by Program Type

	<i>Academic Year</i>								
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>
New Student Enrollment	6,128	6,422	7,457	7,825	8,926	11,131	12,709	13,157	13,988
ADN	4,236	4,558	5,316	5,547	6,160	7,778	8,899	8,847	9,412
BSN	1,732	1,677	1,903	1,960	2,371	2,709	3,110	3,600	3,821
ELM	160	187	238	318	395	644	700	710	755
Private	951	884	980	1,150	1,614	2,024	2,384	2,704	3,774
Public	5,177	5,538	6,477	6,675	7,312	9,107	10,325	10,453	10,214

Student Completions

Although RN programs continue to graduate more students every year, the number of new graduates is growing at a slower rate than in previous years. In 2008-2009, the number of students who completed a nursing program in California increased by 10.3% (n=990) from the previous year, while there was a 15.2% (n=1,263) increase in new graduates between 2006-2007 and 2007-2008. The majority of students that completed a nursing program in 2008-2009 (67.4) did so through an ADN program.

Student Completions

	<i>Academic Year</i>								
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>
Student Completions	5,178	5,346	5,623	6,158	6,677	7,528	8,317	9,580	10,570
ADN	3,799	3,826	4,027	4,488	4,769	5,351	5,885	6,527	7,119
BSN	1,277	1,394	1,412	1,479	1,664	1,861	2,074	2,481	2,788
ELM	102	126	184	191	244	316	358	572	663

Retention and Attrition Rates

Of the 10,630 students scheduled to complete a nursing program in the 2008-2009 academic year, 75.2% (n=7,990) completed the program on-time, 10.1% (n=1,078) are still enrolled in the program, and 14.7% (n=1,562) dropped out or were disqualified from the program. The retention rate has increased 9.0% in the last nine years, from 66.2% in 2000-2001 to 75.2% in 2008-2009.

Student Retention and Attrition

	<i>Academic Year</i>								
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>
Students Scheduled to Complete the Program	8,478	6,806	8,208	8,151	8,507	8,208	8,852	9,769	10,630
Completed On Time	5,610	4,553	5,621	5,831	6,055	6,047	6,437	7,254	7,990
Still Enrolled	1,372	1,184	1,314	1,082	710	849	996	950	1,078
Attrition	1,496	1,069	1,273	1,238	1,742	1,312	1,419	1,565	1,562
Retention Rate*	66.2%	66.9%	68.5%	71.5%	71.2%	73.7%	72.7%	74.3%	75.2%
Attrition Rate	17.6%	15.7%	15.5%	15.2%	20.5%	16.0%	16.0%	16.0%	14.7%
% Still Enrolled	16.2%	17.4%	16.0%	13.3%	8.3%	10.3%	11.3%	9.7%	10.1%

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

Attrition rates in BSN and ELM programs remained relatively constant over the last year, while rates in ADN programs decreased to 17.6% - the lowest attrition rate in five years. Public programs had an improvement in attrition, from 17.5% in 2007-2008 to 16.0% in 2008-2009, while attrition in private programs increased slightly during this one-year time period.

Attrition Rates by Program Type

Program Type	Academic Year								
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
ADN	21.5%	16.9%	19.1%	17.0%	23.7%	18.3%	19.0%	19.0%	17.6%
BSN	9.0%	14.0%	8.1%	10.8%	11.0%	10.5%	8.7%	8.6%	9.0%
ELM	3.3%	1.2%	3.2%	4.7%	14.3%	5.0%	7.2%	5.6%	5.2%
Private	11.7%	12.0%	9.6%	10.1%	15.9%	14.6%	7.9%	9.2%	10.0%
Public	18.8%	16.5%	16.7%	15.9%	21.2%	16.2%	17.7%	17.5%	16.0%

There has been fluctuation in the retention and attrition rates over the nine-year period documented in the above tables. There were changes to the survey between 2003-2004 and 2005-2006 that may have affected the comparability of these data over time.

Student Census Data

The total number of students enrolled in California nursing programs increased by 7.4% (n=1,735), from 23,550 on October 15, 2008 to 25,285 a year later. Of these students, 59.3% (n=14,987) were in ADN programs, 35.2% (n=8,893) in BSN programs, and 5.6% (n=1,405) in ELM programs.

The reported number of pre-nursing students increased by 23.8% (n=5,715) in the last year, from 23,976 in 2008 to 29,691 in 2009. Changes to the survey and more nursing programs reporting these data in more recent years¹ may account for some of the fluctuation in the number of pre-nursing students reported over time.

Student Census Data*

Program Type	Year								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
ADN Program	8,236	8,999	9,547	9,939	11,117	12,632	14,191	14,304	14,987
BSN Program		4,235	4,254	5,279	5,669	6,285	6,799	7,956	8,893
ELM Program		190	148	368	804	659	896	1,290	1,405
Total Nursing Students	12,661	13,401	15,194	16,412	18,061	20,327	22,524	23,550	25,285
Pre-Nursing Students**					28,478	20,980	16,023	23,976	29,691

*Census data represent the number of students on October 15th of the given year. Blank cells indicated that the applicable information was not requested in the given year.

**Changes in the survey may have accounted for the fluctuation in the number of pre-nursing students reported.

¹ In 2007, 26 nursing programs reported knowing the number of pre-nursing students at their school, while 44 programs knew this information in 2008 and 49 programs knew this information in 2009.

Clinical Simulation in Nursing Education

The number of nursing schools using clinical simulation increased by 63.2% (n=43) over the last year. Data show that 88.8% (n=111) of the 125 nursing schools in California used clinical simulation² between 8/1/08 and 7/31/09, two schools started using clinical simulation since 7/31/09, and 11 schools plan to start using simulation in the next year.

The majority of schools that used a clinical simulation center in 2008-2009 reported that they used these facilities to standardize clinical experiences, to check clinical competencies, to provide clinical experience not available in a clinical setting, and to make up for clinical experiences. Most of the schools did not use a clinical simulation center as a method of increasing capacity in their nursing programs. Of the 111 schools that used clinical simulation centers in 2008-2009, 76.6% (n=85) plan to expand the center.

Reasons for Using a Clinical Simulation Center*	2007-2008	2008-2009
To standardize clinical experiences	80.9%	75.7%
To check clinical competencies	69.1%	73.9%
To provide clinical experience not available in a clinical setting	73.5%	70.3%
To make up for clinical experiences	55.9%	56.8%
To increase capacity in your nursing program	22.1%	14.4%
Number of schools that use a clinical simulation center	68	111

*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.

Faculty Census Data

The total number of nursing faculty increased by 4.6% (n=159) over the last year. On October 15, 2009, there were 3,630 total nursing faculty. Of these faculty, 40.0% (n=1,446) were full-time and 60.0% (n=2,172) were part-time.

Although there was an increase in the total number of nursing faculty in 2009, that increase has not kept pace with the need for faculty. On October 15, 2009, there were 181 vacant faculty positions. These vacancies represent a 4.7% faculty vacancy rate.

Faculty Census Data¹

	Year								
	2001	2002	2003	2004	2005 ²	2006*	2007*	2008	2009*
Total Faculty	1,840	1,957	2,031	2,207	2,432	2,723	3,282	3,471	3,630
Full-time	1,047	1,090	1,087	1,061	930	1,102	1,374	1,402	1,446
Part-time	793	867	944	1,146	959	1,619	1,896	2,069	2,172
Vacancy Rate**		4.1%	5.9%	3.7%	6.0%	6.6%	5.9%	4.7%	4.7%
Vacancies		83	128	84	154	193	206	172	181

*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)

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

2 - Faculty vacancies were estimated based on the vacant FTEs reported.

² 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.

Summary

Over the past nine years, the number of California pre-licensure nursing programs has grown by 43.3%, to 139 programs in 2008-2009. Since 2000-2001, new student enrollments have more than doubled (n=7,860). Although admission spaces and new student enrollments in these programs have grown, data indicate that the rate of enrollment growth may have stabilized. Enrollment growth peaked at 24.7% in 2005-2006 and has been followed by three years of slower growth – 14.2% in 2006-2007, 3.5% in 2007-2008, and 6.3% in 2008-2009. This stabilization of enrollment growth since 2005-2006 may signify a new trend in nursing program expansion in California.

RN programs have more than doubled (n=5,392) the number of graduations from their programs since 2000-2001. Despite the overall increase in graduates and the lowest statewide attrition rate (14.7%) in nine years, the number of new graduates grew at a slower rate this year (10.3% in 2008-2009) than it did in the previous year (15.2% in 2007-2008). If the rate of enrollment growth stabilizes and statewide attrition remains at current levels, it is likely that the number of graduates from California nursing programs will also stabilize in the next few years.

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 almost doubled (n=1,790) since 2000-2001, faculty hires have not kept pace with the growth in California pre-licensure nursing programs and the need for faculty. In 2008-2009, 181 faculty vacancies were reported, representing a faculty vacancy rate of 4.7%. Although this vacancy rate is one of the lowest reported in five years, RN programs will not be able to maintain or expand enrollments without more faculty.

APPENDICES

APPENDIX A – List of Survey Respondents by Degree Program

ADN Programs (76)

American River College	Los Angeles Southwest College
Antelope Valley College	Los Angeles Trade-Tech College
Bakersfield College	Los Angeles Valley College
Butte Community College	Los Medanos College
Cabrillo College	Mendocino College
Cerritos College	Merced College
Chabot College	Merritt College
Chaffey College	Modesto Junior College
Citrus College	Monterey Peninsula College
City College of San Francisco	Moorpark College
College of Marin	Mount Saint Mary's College
College of San Mateo	Mount San Antonio College
College of the Canyons	Mount San Jacinto College
College of the Desert	Napa Valley College
College of the Redwoods	Ohlone College
College of the Sequoias	Pacific Union College
Contra Costa College	Palomar College
Copper Mountain College	Pasadena City College
Cuesta College	Rio Hondo College
Cypress College	Riverside Community College
De Anza College	Sacramento City College
East Los Angeles College	Saddleback College
El Camino College - Compton Education Center	San Bernardino Valley College
El Camino College	San Diego City College
* Everest College	San Joaquin Delta College
Evergreen Valley College	San Joaquin Valley College
Fresno City College	Santa Ana College
Glendale Community College	Santa Barbara City College
Golden West College	Santa Monica College
Grossmont College	Santa Rosa Junior College
Hartnell College	Shasta College
Imperial Valley College	Sierra College
Kaplan College (formerly Maric College)	Solano Community College
Long Beach City College	Southwestern College
Los Angeles City College	Ventura College
Los Angeles County College of Nursing & Allied Health	Victor Valley College
Los Angeles Harbor College	* West Hills College Lemoore
Los Angeles Pierce College	Yuba College

* - New programs in 2008-2009

LVN to ADN Programs Only (10)

Allan Hancock College
 College of the Siskiyous
 Gavilan College
 Mira Costa College
 Mission College

Unitek College
 * West Coast University – Inland Empire
 West Coast University – Los Angeles
 West Coast University – Orange
 Western Career College

BSN Programs (36)

American University of Health Sciences
 Azusa Pacific University
 Biola University
 California Baptist University
 * Concordia University Irvine
 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

Dominican University of California
 Humboldt State University
 Loma Linda University
 Mount Saint Mary's College
 National University
 Point Loma Nazarene University
 Samuel Merritt College
 San Diego State University
 San Francisco State University
 San Jose State University
 Sonoma State University
 University of California Irvine
 University of California Los Angeles
 University of Phoenix - Northern California
 University of San Francisco
 * West Coast University – Inland Empire
 * West Coast University – Orange County
 * Western Governors University

ELM Programs (17)

Azusa Pacific University
 California Baptist University
 CSU Dominguez Hills
 CSU Fresno
 CSU Fullerton
 CSU Long Beach
 CSU Los Angeles
 * CSU Sacramento
 * InterAmerican College

Samuel Merritt College
 San Francisco State University
 Sonoma State University
 University of California Los Angeles
 University of California San Francisco
 University of San Diego
 University of San Francisco
 Western University of Health Sciences

* - New programs in 2008-2009

APPENDIX B – BRN Education Advisory Committee Members

BRN Education Advisory Committee Members

Members

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 Jim Comins
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