



University of California  
San Francisco

*Philip R. Lee Institute for Health Policy Studies  
& Healthforce Center at UCSF*

## Research Report

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# Survey of Nurse Employers in California, Fall/Winter 2018-19

Prepared by:

Lela Chu, BA

Joanne Spetz, PhD

April 6, 2020

This study was conducted in collaboration with the Hospital Association of Southern California and HealthImpact. Any views presented in this report do not necessarily reflect the opinions or positions of the Hospital Association or HealthImpact.

## **Survey of Nurse Employers in California, Fall/Winter 2018-19**

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## **Survey of Nurse Employers in California, Fall/Winter 2018-19**

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### **Preface**

#### *Survey Background*

This report summarizes the findings from a survey of general acute care hospital employers of registered nurses (RNs) in California conducted in fall 2018 and winter 2019. This is the ninth annual survey of hospital RN employers; these surveys provide an opportunity to evaluate overall demand for RNs in the state, and changes that have occurred over time. The survey also collects information specific to the hiring of newly-graduated nurses because they are at particular risk for unemployment during a weak labor market. The data obtained in this survey reveal strong overall demand for RNs across California, a preference for hiring experienced nurses, and slow growth in the hiring of new RN graduates.

#### *Summary of Findings*

The 2018-19 survey results found that the vast majority of hospitals reported greater demand for RNs than the available supply. However, the perceived shortage was primarily for nurses with clinical experience, particularly for the clinical areas of peri-operative (OR) care, critical care, labor & delivery, and the emergency department. On average, hospitals indicated that there was a slight surplus of new RN graduates, although the demand for new RN graduates has slowly improved between 2013 and 2018-19.

There was notable regional variation in labor market conditions. Demand for experienced RNs was greatest in the Central California region and lowest in the San Francisco Bay Area. Rural and non-rural hospitals reported similar perceptions of RN demand, which is a change from prior years when rural hospitals consistently perceived greater demand than did urban hospitals.

Over half of responding hospitals reported that their employment of new RN graduates increased between fall 2017 and fall/winter 2018-19, while only 29.7% of hospitals reported that employment of experienced staff RNs increased. More hospitals reported lower employment than higher employment of traveling nurses in 2018-19 compared to the previous year, and over 80% of hospitals reported the same or decreased levels of employment of temporary nurses. Some hospitals indicated that they were focusing their efforts toward hiring permanent staff, building a float pool, and

training new graduate hires to reduce their reliance on temporary and traveling RNs.

Over 90% of hospitals reported hiring new RN graduates over the past year, with new graduates accounting for 30% of all new staff RN hires. However, less than one-third of hospitals reported that they expect to increase their hiring of new graduates in the next year; most hospitals reported expectations of no change (59.8%). The most frequently reported reason for an expected increase in new graduate hiring was a lack of available experienced RNs to mentor and train new graduates. Hospitals also cited expectations of increased retirements, plans to grow their float pool, and creation of other programs to mentor new graduates as reasons for anticipated hiring growth for new graduates.

In fall/winter 2018-19, 18% of hospitals reported they required newly-hired RNs to hold a bachelor's degree, this is double what was reported in fall 2017; another 54.3% of hospitals reported a preference for hiring baccalaureate-trained RNs. Hospitals reported that BSN-prepared nurses represented a larger share of staff compared to prior years, with approximately 46% reporting that at least half their RN staff had a BSN or higher degree. Two-thirds of hospitals reported having goals or plans in place to increase the number of baccalaureate-educated RNs on staff.

The percentage of hospitals offering a formal clinical residency program for new RN graduates decreased from a high of 28.7% in fall 2017 to 19.6% in 2018-19. Most of these programs were developed by either the hospitals themselves (68.2%) or in partnership with a school of nursing (27.3%). The most common clinical areas in which training was provided were medical-surgical, the emergency department, and critical care. Over 80% of these programs paid participants, and 77.3% of these programs hired between 75% and 100% of participants.

Approximately 51% of all hospitals reported expectations that RN employment would increase over the next year. This was an increase from the fall 2017 survey, when 43% reported expectations of greater hiring in the coming year. Seven percent of responding hospitals reported expectations that RN employment would decrease over the next year. The most frequently reported reasons for an expected employment increase were patient census growth, increased hospital bed capacity, and increased patient acuity. Other reasons reported for anticipated growth in RN employment included persistently high vacancy rates, an increasing number of

retirements, expanded service lines, and a desire to replace traveler/agency positions with permanent positions.

As California's population grows larger and older, and more nurses reach retirement age, the demand for RNs – including new graduates – will continue to rise. It is essential that nursing education programs maintain the size of their programs and continue to foster opportunities for new graduates to use and develop their knowledge and skills. This may include expanded efforts by employers to develop the skills of new graduates through training or mentoring programs, and to fill positions that are normally reserved for experienced nurses.

Such efforts are needed to ensure an adequate supply of high-skilled RNs in the future and, without them, California's investment in nursing education may be lost.

#### *Availability of Data*

All data presented in this report are shared through a dedicated website, which summarizes the data statewide and for each region of California. The primary goal of this project is to track changes in demand and supply over time and across regions to support the development of policy and employment strategies that ensure the state does not face serious nursing shortages in the future.

The project website is: <http://rnworkforce.ucsf.edu/demand-data/>



## **Background: Nurse Demand in California**

In the late 1990s, forecasts of the supply and demand for the national registered nurse (RN) workforce pointed to a significant short-term and long-term shortage.<sup>1</sup> In California, the documented shortage was especially acute through most of the 2000s.<sup>2</sup> This spurred action to increase the supply of RNs and the number of graduations from California nursing schools more than doubled between 2001 and 2010.<sup>3</sup> Recent forecasts of long-term supply and demand for RNs in California indicate that the number of RN graduates per year is likely adequate to avert a statewide shortage through 2035.<sup>4</sup> However, shortages could emerge as the growing number of older Americans leads to greater demand for health care services. In addition, the RN workforce is aging and Baby-Boomer nurses are transitioning to retirement, making it essential that the number of new graduates remains stable and that they are retained in California to meet the projected future RN demand.

To better understand the impact of nursing labor market changes on new RN graduates' ability to find jobs in California, in 2009 The Gordon and Betty Moore Foundation commissioned HealthImpact to conduct a survey of healthcare facilities to identify their hiring plans for new RN graduates.<sup>5</sup> This survey revealed that only 65% of hospitals were hiring new graduates and the hospitals that were hiring new graduates were doing so in smaller numbers compared with previous years. Subsequent surveys conducted by the University of California, San Francisco (UCSF), in collaboration with HealthImpact and the Hospital Association of Southern California, have tracked changes in the demand for RNs. This report presents data from the most recent survey, conducted in fall 2018 and winter 2019, to understand how the economic recovery, implementation of the Affordable Care Act, and retirements of Baby Boomer RNs are affecting the RN labor market in California.

<sup>1</sup> Buerhaus, Peter I., Staiger, Douglas O. and Auerbach, David I. "Implications of an Aging Registered Nursing Workforce." *The Journal of the American Medical Association*. 283 (2000):2948-2954.

<sup>2</sup> U.S. Health Resources and Services Administration. *Findings from the 2008 National Sample Survey of Registered Nurses*. Rockville, MD: 2010.

<sup>3</sup> Waneka, R, Keane, D, Spetz, J. 2012. *2010-2011 Annual School Report: Data Summary and Historical Trend Analysis*. Sacramento, CA: California Board of Registered Nursing.

<sup>4</sup> Spetz J. *Forecasts of the Registered Nurse Workforce in California*. Sacramento, CA: California Board of Registered Nursing, 2017

<sup>5</sup> Gordon and Betty Moore Foundation, *Strategic Contribution to California Institute for Nursing and Health Care, Ref (#2239): New RN Job Survey*. 17 Mar 2009.

## **Survey Method**

Two survey instruments were used to provide data for this report, one fielded by UCSF and a second fielded by the Hospital Association of Southern California (HASC). The UCSF survey was structured to collect information from chief nursing officers (CNOs) and focused on their perceptions of the labor market, expectations for hiring, and the characteristics of new graduate residency programs. The HASC Healthcare Workforce Survey was oriented toward human resources directors and was used to collect staffing data, including current headcounts, new employee hires, separations, and vacancies.

A team of researchers from UCSF, HASC, FutureSense, Inc., and HealthImpact designed the survey instruments to ensure consistency with prior surveys and optimize workforce planning and forecasting. The UCSF survey was posted online following approval by the UCSF Committee on Human Research. Pre-notification emails were sent in October 2018 to all CNOs using a mailing list updated from the 2017 survey. The invitation from UCSF included a link to the online version of the survey as well as a fillable-PDF form that could be completed by the respondent and returned to UCSF via email or fax. Follow-up emails were sent through the remainder of 2018, and telephone calls were made in early 2019 to increase response rates.

The HASC Healthcare Workforce Survey was administered online to human resources directors; the data were collected over a period of one month in September 2018 and describe staffing, turnover, and hiring patterns for the third quarter of the year (July 1 – September 31, 2018). Facilities were contacted with follow-up emails and telephone calls to encourage participation. The HASC data were merged with the CNO survey data to provide a comprehensive picture of RN supply and demand in fall/winter 2018-19.

### *Survey Participation and Data Analysis*

The HASC Healthcare Workforce Survey elicited 199 unique responses, representing 234 general acute care (GAC) hospitals and 52,092 beds. The UCSF survey elicited 89 unique responses, representing 118 GAC hospitals and 25,323 beds.<sup>6</sup> In the UCSF survey, 16 respondents reported data for

<sup>6</sup> Some responding hospitals provided data that also described associated outpatient services, including behavioral health, as well as associated facilities including rehabilitation and long-term care sites. As a result, the number of facilities represented by the data may, in some cases, exceed the total number of general acute hospitals described here.

multiple hospital facilities; in the HASC Healthcare Workforce Survey, 22 respondents reported data for multiple facilities. A total of 64 facilities responded to both the UCSF and HASC surveys. Five additional facilities in the HASC survey and four additional facilities in the UCSF survey were focused on acute psychiatric and/or substance-use treatment. Survey respondents represent approximately 58.0% (HASC) and 28.2% (UCSF) of the total number of licensed beds at GAC hospitals in California.<sup>7</sup>

Throughout the report we provide the number of facility responses (N) associated with the statistics in tables and figures. The number of responses reflects the fact that in some cases the data represent multiple hospital facilities.

The multi-facility hospital data are included in regional analyses if they were reported for facilities that were all within the same region; if the facilities crossed regional boundaries the data were excluded. The geographic regions used to group survey responses are based on those used by the California Board of Registered Nursing. However, due to the small number of survey responses for certain parts of the state, some regions were combined. Table 1 lists the regions used in this report and the counties each region represents.

**Table 1. Geographic regions and the counties they represent, 2018-19**

<b>Region</b>	<b>Counties</b>
<i>Sacramento &amp; Northern California</i>	Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Siskiyou, Sierra, Tehama, Trinity, El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba
<i>San Francisco Bay Area</i>	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma
<i>Central California</i>	Alpine, Amador, Calaveras, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tulare, Tuolumne, Monterey, San Benito, San Luis Obispo, Santa Barbara
<i>Los Angeles</i>	Los Angeles, Ventura
<i>Inland Empire</i>	Orange, Riverside, San Bernardino
<i>Southern Border</i>	Imperial, San Diego

<sup>7</sup> General acute care hospitals were identified using the California Office of Statewide Health and Planning hospital listing database, and data made available by the Veterans Administration through a FOIA request.

Table 2 compares the geographic distribution of GAC hospitals that responded to each survey, and both surveys, with the distribution of GAC hospitals in California. Respondents to both surveys are generally representative of GAC hospitals in the state; the differences in proportions were small. Hospitals in the Inland Empire were the main exception, with Inland hospitals being underrepresented in the HASC survey.

**Table 2. Distribution of responding general acute care hospitals vs. general acute care hospitals in California, by region, 2018-19**

Region	General acute care hospitals in CA		UCSF survey		HASC survey		Both surveys	
	#	%	#	%	#	%	#	%
<i>Sacramento &amp; North CA</i>	57	12.4	19	16.1	32	13.7	8	11.6
<i>SF Bay Area</i>	91	19.9	29	24.6	49	20.9	19	27.5
<i>Central CA</i>	80	17.5	14	11.9	36	15.4	10	14.5
<i>Los Angeles</i>	116	25.3	29	24.6	68	29.1	16	23.2
<i>Inland Empire</i>	84	18.3	23	19.5	35	15.0	13	18.8
<i>Southern Border</i>	30	6.6	4	3.4	14	6.0	3	4.3
<b>Total</b>	458	100	118	100	234	100	69	100

Note: Percentages may not sum to 100% due to rounding. Six additional facilities were in the UCSF survey for acute psychiatric care and substance use disorder treatment and are not included in this table.

Table 3 compares the distribution of survey respondents and GAC facilities by number of licensed beds. The UCSF survey respondents are generally representative of hospitals in the state. In the HASC survey, very small hospitals (fewer than 100 beds) are underrepresented, while hospitals with 200 – 299 beds and 300 – 399 beds are overrepresented.

**Table 3. Distribution of responding general acute care hospitals vs. general acute care hospitals in California, by bed size, 2018-19**

Total # of beds	GAC hospitals in CA		UCSF survey		HASC survey	
	#	%	#	%	#	%
<i>Less than 100 beds</i>	152	33.2	31	26.3	43	18.4
<i>100 - 199 beds</i>	130	28.4	42	35.6	63	26.9
<i>200 - 299 beds</i>	76	16.6	12	10.2	51	21.8
<i>300 - 399 beds</i>	51	11.1	13	11.0	50	21.4
<i>400 or more beds</i>	49	10.7	20	16.9	27	11.5
<b>Total</b>	458	100	118	100	234	100

Table 4 compares the rural versus non-rural distribution of survey respondents with GAC facilities in the state.<sup>8</sup> Hospitals in both surveys are generally representative of the rural versus non-rural distribution of GAC hospitals in California.

**Table 4. Distribution of responding general acute care hospitals vs. general acute care hospitals in California, by rural/non-rural geographic location, 2018-19**

Geographic location	GAC hospitals in CA		UCSF survey		HASC survey	
	#	%	#	%	#	%
<i>Rural</i>	39	8.5	14	11.9	13	5.6
<i>Non-rural</i>	419	91.5	104	88.1	221	94.4
<b>Total</b>	458	100	118	100	234	100

<sup>8</sup> The rural vs. non-rural status of a facility was determined using the 2010 Rural-Urban Commuting Area codes and the hospital's zip code. For more information see: <http://depts.washington.edu/uwruca/>











new graduates. In all other regions, a majority of hospitals reported either weak or very weak demand for new graduates.

Figure 5 compares average demand for all RNs by hospital size (total number of licensed beds) from 2010 through 2018-19. On average, hospitals reported a perception of moderate demand, with hospitals of all sizes experiencing some difficulty in filling open positions. Compared with the previous survey year, demand for RNs in fall/winter 2018-19 remained the same or decreased among hospitals under 300 beds, and increased among hospitals with over 300 beds. Medium-sized hospitals (100 to 299 beds) reported slightly lower demand than the previous year. These data show that demand for RNs has substantially increased in recent years for hospitals of all sizes.

**Table 5. RN labor market demand by geographic region, 2018-19**

	Sac/ North CA (%)	SF Bay Area (%)	Central CA (%)	LA (%)	Inland Empire (%)	Southern Border (%)
<b>Overall RN labor market</b>						
High demand	47.6	33.3	57.1	30.6	62.5	25.0
Moderate demand	28.6	40.0	42.9	63.9	18.8	75.0
Demand in balance with supply	19.0	10.0	0.0	5.6	6.3	0.0
Demand less than supply	4.8	16.7	0.0	0.0	12.5	0.0
Demand much less than supply	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total facilities</b>	<b>21</b>	<b>30</b>	<b>14</b>	<b>36</b>	<b>16</b>	<b>4</b>
<b>Experienced RN labor market</b>						
High demand	57.1	3.7	57.1	27.3	12.5	25.0
Moderate demand	9.5	70.4	14.3	66.7	75.0	75.0
Demand in balance with supply	33.3	25.9	28.6	3.0	12.5	0.0
Demand less than supply	0.0	0.0	0.0	3.0	0.0	0.0
Demand much less than supply	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total facilities</b>	<b>21</b>	<b>27</b>	<b>14</b>	<b>33</b>	<b>16</b>	<b>4</b>
<b>New RN graduate labor market</b>						
High demand	0.0	0.0	7.7	2.9	0.0	0.0
Moderate demand	11.1	7.7	46.2	0.0	0.0	0.0
Demand in balance with supply	27.8	7.7	23.1	31.4	31.3	0.0
Demand less than supply	33.3	30.8	7.7	22.9	6.3	25.0
Demand much less than supply	27.8	53.8	15.4	42.9	62.5	75.0
<b>Total facilities</b>	<b>18</b>	<b>26</b>	<b>13</b>	<b>35</b>	<b>16</b>	<b>4</b>







### *Hospital Staffing Data*

The following sections describe employment levels, vacancies, utilization of per diem, contract and agency staff, employee separations, and new employee hiring using data derived from the HASC quarterly turnover and vacancy survey from the third quarter of 2018.<sup>10</sup> These survey data provided information for the following nursing positions:

- Registered Nurse – includes:
  - *Staff RN* – nurses engaged in direct patient care and not identified by one of the other types of nursing positions specified.
  - *Specialty RN* – this includes nurses working in the following clinical areas: operating room, critical care, emergency department, labor and delivery, and the neonatal intensive care unit (NICU).
  - *Other RN* – this includes roles in nursing administration, clinical directors and managers, clinical educators, roles in quality assurance, research, and patient education, as well as other clinical specialty areas not represented by the Specialty RN group identified above.
  - *New RN graduates* – Staff RNs with less than six months of experience.
- Case Manager
- Nurse Anesthetist
- Clinical Nurse Specialist
- Nurse Midwife
- Nurse Practitioner
- Licensed Vocational Nurse
- Certified Nurse Assistant

<sup>10</sup> Staffing data are derived from the HASC Healthcare Workforce Survey, which is conducted quarterly. The data used in this report refer to the period from July 1, 2018 to September 31, 2018.

- Home Health Aide
- Unlicensed aide/assistant

### Current Employment of Nurses

Table 6 presents total employment by nursing position and the distribution of employment by full-time versus part-time status. Responding hospitals reported that 116,354 registered nurses were employed in fall 2018, which accounted for 82% of all nursing position employment. *Staff RNs* accounted for 60.9% of all registered nurses. Hospitals employed comparatively few advanced practice nurses (*nurse anesthetists, clinical nurse specialists, nurse midwives and nurse practitioners*), who accounted for only approximately 2% of total nursing employment. Among advanced practice nurses, only nurse practitioners were employed in significant numbers, accounting for 38.3% of all advanced practice nurses.

Table 6 also shows there was wide variation in full-time versus part-time employment across the different types of nursing positions. Over 96% of *nurse anesthetists* were identified as full-time employees, compared to approximately 70% of all *staff RNs*. Full-time employment was reported for less than 80% of *staff RNs, specialty RNs, and certified nurse assistants*.

**Table 6. Number of current staff (headcount) by position, 2018**

Description	Full-time		Part-time		Total in job title
	Headcount	% of total	Headcount	% of total	
<i>Registered Nurse</i>	86,643	74.5	29,711	25.5	116,354
<i>Staff RN</i>	49,869	70.4	21,008	29.6	70,877
<i>Specialty RN</i>	21,552	77.6	6,228	22.4	27,780
<i>Other RN</i>	12,312	83.9	2,362	16.1	14,674
<i>New RN Graduate</i>	2,910	96.3	113	3.7	3,023
<i>Case Manager</i>	1,322	83.7	258	16.3	1,580
<i>Nurse Anesthetist</i>	96	97.0	3	3.0	99
<i>Clinical Nurse Specialist</i>	2,605	98.6	36	1.4	2,641
<i>Nurse Midwife</i>	19	90.5	2	9.5	21
<i>Nurse Practitioner</i>	1,438	83.7	281	16.3	1,719
<i>Licensed Vocational Nurse</i>	3,457	86.0	565	14.0	4,022
<i>Certified Nurse Assistant</i>	7,208	73.1	2,657	26.9	9,865
<i>Home Health Aide</i>	177	85.1	31	14.9	208
<i>Unlicensed Aide/Assistant</i>	4,229	80.0	1,054	20.0	5,283

Table 7 compares the share of full-time employment by position from 2015 to 2018. Full-time employment of *staff RNs* was similar in all four years, with approximately 70% of staff RNs working full-time in 2017, compared with 73% in 2015. The share of *new RN graduates* employed in full-time positions increased slightly between 2017 and 2018. *Nurse anesthetists*, *clinical nurse specialists*, *nurse midwives*, and *nurse practitioners* experienced large increases in the share of full-time employment between 2015 and 2018. However, the number of people employed in these positions was small, so these large percentage changes were not associated with large changes in absolute numbers.



**Table 7. Percent of employed nurses working full-time by position, 2015 to 2018**

Description	Percent of employed nurses working full-time			
	2015	2016	2017	2018
Registered Nurse	73.9	73.2	74.6	74.5
Staff RN	73.3	70.1	69.7	70.4
Specialty RN	*	76.9	77.4	77.6
Other RN	85.6	89.8	90.9	83.9
New RN Graduate	93.6	97.0	95.4	96.3
Case Manager	82.2	84.9	84.5	83.7
Nurse Anesthetist	83.1	92.0	95.5	97.0
Clinical Nurse Specialist	79.5	84.6	86.4	98.6
Nurse Midwife	47.6	60.9	82.1	90.5
Nurse Practitioner	74.0	80.5	83.1	83.7
Licensed Vocational Nurse	82.6	84.5	86.2	86.0
Certified Nurse Assistant	80.8	70.0	72.6	73.1
Home Health Aide	79.7	91.5	90.4	85.1
Unlicensed Aide/Assistant	80.4	80.5	80.9	80.0
<b>Total</b>	<b>75.6</b>	<b>74.0</b>	<b>74.6</b>	<b>75.6</b>

\*Data not collected.

### Current Vacancies

Table 8 presents vacancy rates by nursing position for the third quarter of 2018.<sup>11</sup> The total vacancy rate for registered nurses was 4.2%, however, there were differences in the rate among the different RN position types. The vacancy rate for *new RN graduates* was considerably higher than for *staff RNs*. Table 8 also shows that *certified nurse assistants*, *home health aides*, and *unlicensed aides/assistants* had high vacancy rates in comparison to *staff RNs*. Note that hospitals did not employ many *nurse anesthetists*, *clinical nurse specialists*, or *nurse midwives*, which means that a small number of vacant positions could result in a high vacancy rate. Nurse practitioners' vacancy rate of 9.9% indicates comparatively strong demand for them among hospitals in California.

Full-time vacancy rates were generally higher than part-time vacancy rates. Exceptions to this included vacancies for part-time *new RN graduates*, and *nurse anesthetists*. *New RN graduates* were hired almost exclusively into full-time positions, so a small number of part-time vacancies results in a high

<sup>11</sup> Vacancy data are derived from the quarterly HASC Healthcare Workforce Survey and represent openings as of the pay period closest to September 31, 2018.

part-time vacancy rate. Variation in the ratio of full-time to part-time vacancies indicates differences in the availability of full-time versus part-time positions. *Staff RNs* had the lowest ratio (2.4), meaning there were approximately two-and-a-fourth full-time vacancies for every one part-time vacancy; in contrast, *specialty RNs* had a ratio of almost 3.6 indicating three and-a-sixth full-time vacancies for every one part-time vacancy. *Case managers* (6.1) and *other RNs* (5.2) had much higher ratios, indicating that openings for full-time positions were much more prevalent than part-time positions.

**Table 8. Current vacancy rates by position, 2018<sup>12</sup>**

Description	Full-time		Part-time		Total		FT:PT ratio
	No.	Rate (%)	No.	Rate (%)	No.	Rate (%)	
<i>Registered Nurse</i>	3,750	4.1	1,302	4.2	5,052	4.2	2.9
<i>Staff RN</i>	2,276	4.4	930	4.2	3,206	4.3	2.4
<i>Specialty RN</i>	951	4.2	267	4.1	1,218	4.2	3.6
<i>Other RN</i>	393	3.1	76	3.1	469	3.1	5.2
<i>New RN Graduate</i>	130	4.3	29	20.4	159	5.0	4.5
<i>Case Manager</i>	110	7.7	18	6.5	128	7.5	6.1
<i>Nurse Anesthetist</i>	5	5.0	1	25.0	6	5.7	5.0
<i>Clinical Nurse Specialist</i>	33	1.3	1	2.7	34	1.3	33.0
<i>Nurse Midwife</i>	1	5.0	0	0.0	1	4.5	
<i>Nurse Practitioner</i>	156	9.8	33	10.5	189	9.9	4.7
<i>Licensed Vocational Nurse</i>	207	5.6	56	9.0	263	6.1	3.7
<i>Certified Nurse Assistant</i>	460	6.0	155	5.5	615	5.9	3.0
<i>Home Health Aide</i>	13	6.8	2	6.1	15	6.7	6.5
<i>Unlicensed Aide/Assistant</i>	244	6.8	75	6.6	319	5.7	3.3

Figure 8 presents overall RN vacancy rates from the third quarter of each year from 2010 through 2018. RN vacancy rates had been rising since 2012, reaching a high of 6.3% in 2017, but there was a decrease in the vacancy rate between 2017 and 2018.

<sup>12</sup> Vacancy rate is calculated as: (number of vacancies reported as of the pay period closest to September 31, 2018)/((headcount as of the pay period closest to September 31, 2018) + (number of vacancies reported as of the pay period closest to September 31, 2018))



**Table 9. Per Diem, contract, and agency staff as share of current staff, 2018<sup>13</sup>**

	# of positions	Share of current staff (%)				
		2018	2017	2016	2015	2014
<b>Per Diem Employees</b>	<b>2018</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Registered Nurse	10,724	9.2	9.5	13.4	14.7	12.2
Staff RN	8,926	12.6	12.2	12.8	14.8	12.5
Other RN	1,763	12.0	15.3	11.5	10.3	9.5
New RN Graduate	35	1.2	3.6	4.0	2.1	5.8
Specialty RN	4,478	16.1	17.0	17.8	*	*
Case Manager	359	22.7	19.9	23.2	21.3	*
Nurse Anesthetist	26	26.3	21.2	31.2	33.8	36.5
Clinical Nurse Specialist	8	0.3	9.3	3.4	3.8	2.5
Nurse Midwife	9	42.9	14.3	65.2	52.4	94.4
Nurse Practitioner	188	10.9	13.2	14.6	14.6	13.3
Licensed Vocational Nurse	629	15.6	13.7	17.4	20.1	16.5
Certified Nurse Assistant	2,067	21.0	16.4	20.1	15.0	17.9
Home Health Aide	38	18.3	16.7	18.6	31.8	73.6
Unlicensed Aide/Assistant	1,024	19.4	18.2	16.4	16.3	14.9
<b>Contract Employees</b>						
Registered Nurse	1,278	1.1	1.3	1.7	2.1	1.8
Licensed Vocational Nurse	5	0.1	0.3	0.1	0.1	0.6
Unlicensed Aide/Assistant	30	0.6	3.0	1.8	0.5	0.7
<b>Agency Employees</b>						
Registered Nurse	485	0.4	0.6	0.8	1.5	1.1
Licensed Vocational Nurse	17	0.4	0.2	0.7	3.2	8.7
Unlicensed Aide/Assistant	201	3.8	3.4	4.3	8.9	4.6

\*Data not collected.

Table 10 shows that the share of current staff comprised of per diem *RNs*, *LVNs*, and *unlicensed aides/assistants* was relatively consistent over the past seven years, each fluctuating within a range of approximately 5 percentage points.<sup>14</sup> Similarly, the utilization of contract and agency *RNs* was relatively consistent over the past nine years. With the exception of 2011, the share of current staff comprised of contract *RNs* ranged from 1% to 2% and, with the

<sup>13</sup> The per diem, contract, and agency share of current staff is calculated as follows: (number of per diem/full-time contract/full-time agency positions as of the pay period closest to September 31, 2018) / (number of regular staff positions as of the pay period closest to September 31, 2018)

<sup>14</sup> The one exception to this trend is the 2011 share of per diem *LVNs*; given subsequent years' data, this appears to be an anomaly.

exception of 2015, the share of current staff comprised of agency RNs ranged from 0.2% to 1%.

The data describing use of contract *LVNs* and *unlicensed aides/assistants* show a similar pattern: the share fluctuated within a relatively narrow range, with the exception of one outlier year for *LVNs* in 2013, and of the years 2016 and 2017 for *unlicensed aide/assistants*. Use of agency *LVNs* and *unlicensed aides/assistants* was more variable over time, although in the four most recent years hospitals reported use of comparatively large shares of agency-based *unlicensed aides/assistants*.

**Table 10. Per diem, contract, and agency staff as share of current staff, 2010-2018**

	Share of Current Staff (%)									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	
<b>Per Diem Employees</b>										
<i>Registered Nurse</i>	12.8	12.4	14.7	13.6	12.2	14.7	13.4	9.5	9.2	
<i>Licensed Vocational Nurse</i>	16.9	8.6	15.2	19.5	16.5	20.1	17.4	13.7	15.6	
<i>Unlicensed Aide/Assistant</i>	17.1	14.0	18.1	20.0	14.9	16.3	16.4	18.2	19.4	
<b>Contract Employees</b>										
<i>Registered Nurse</i>	1.6	2.7	0.8	1.3	1.8	2.1	1.7	1.3	1.1	
<i>Licensed Vocational Nurse</i>	0.4	0.1	1.2	3.6	0.6	0.1	0.1	0.3	0.1	
<i>Unlicensed Aide/Assistant</i>	0.3	0.0	0.1	0.7	0.7	0.5	1.8	3.0	0.6	
<b>Agency Employees</b>										
<i>Registered Nurse</i>	1.0	0.2	0.6	0.6	1.1	1.5	0.8	0.6	0.4	
<i>Licensed Vocational Nurse</i>	1.0	0.3	0.1	3.3	8.7	3.2	0.7	0.2	0.4	
<i>Unlicensed Aide/Assistant</i>	1.5	0.3	1.5	2.0	4.6	8.9	4.3	3.4	3.8	

*Staff Separations by Position*

Table 11 presents separation rates for nurses in the third quarter of 2018. The separation rate measures the number of people who left their job as a share of total current staff. The rate was higher for *specialty RNs* and *other RNs* than for *staff RNs*. *Case managers, nurse practitioners, LVNs, and certified nurse assistants* also had comparatively high separation rates. *Nurse midwives* had a very low overall separation rate but, again, this likely reflects the fact that hospitals employ very few *nurse midwives*. Separation rates were generally higher for full-time employees versus part-time employees among the nursing positions that hospitals employ in significant numbers.

Table 11. Separations (turnover) as a share of current staff, by position, 2018<sup>15</sup>

Description	Full-time		Part-time		Total	
	Number	Rate (%)	Number	Rate (%)	Number	Rate (%)
<i>Registered Nurse</i>	2,403	2.8	723	2.5	3,126	2.8
<i>Staff RN*</i>	1,400	2.8	447	2.1	1,847	2.6
<i>Specialty RN</i>	706	3.3	204	3.3	910	3.3
<i>Other RN</i>	297	2.4	72	3.7	369	2.6
<i>Case Manager</i>	45	3.4	16	6.2	61	3.9
<i>Nurse Anesthetist</i>	1	0.9	0	0.0	1	0.9
<i>Clinical Nurse Specialist</i>	15	0.6	34	94.4	49	1.9
<i>Nurse Midwife</i>	0	0.0	0	0.0	0	0.0
<i>Nurse Practitioner</i>	41	2.9	15	5.4	56	3.3
<i>Licensed Vocational Nurse</i>	118	3.4	31	5.5	149	3.7
<i>Certified Nurse Assistant</i>	322	4.5	76	2.8	398	4.0
<i>Home Health Aide</i>	4	2.4	5	15.6	9	4.6
<i>Unlicensed Aide/Assistant</i>	138	3.2	60	5.7	198	3.7

\*Staff RNs include new RN graduates.<sup>16</sup>

Figure 9 presents annualized RN separation rates for RNs. There has been some variation in separation rates over the past four surveys but, in general, the separation increased over time, rising from 8.2% in 2010 to 10.4% in 2018.

<sup>15</sup> The separation rate was calculated as follows: (number of separations occurring during the quarter July 1, 2018 – September 31, 2018) / (number of positions at the start of the quarter beginning July 1, 2018).

<sup>16</sup> New RN graduates are included with staff RNs in this table because they account for a comparatively small share of registered nurses.





















*Requirements for RN Employment*

Table 13 compares survey responses between 2011 and 2018-19 regarding requirements for an RN to be hired into a general staff nursing position. There has been a downward trend in the percentage of hospitals that reported having a minimum experience requirement, from nearly 68% in 2015 to 48.3% in 2018-19.

Among hospitals that reported a minimum experience requirement, 86% indicated that they required 12 months of experience to be hired into a *staff RN* position. The share of hospitals in fall/winter 2018-19 that reported a bachelor's degree in nursing was required for employment was 18%, which is twice what was reported in fall 2017. A much larger share of hospitals reported having a preference for hiring bachelor's-trained RNs (54.3%), which is consistent with the previous three years.

In fall/winter 2018-19, 16.4% of responding hospitals reported a preference for RNs who speak a second language. Of these hospitals, nearly all reported Spanish as the preferred language. Other preferred languages included Korean and Russian.



**Table 13. Requirements for registered nursing employment, 2011 to 2018-19**

<b>Description</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018-19</b>
<i>Minimum experience requirement</i>	52.3%	53.7%	63.9%	60.5%	67.6%	51.9%	41.7%	48.3%
<i>Baccalaureate degree preferred</i>	69.5%	67.9%	72.2%	70.7%	80.5%	53.8%	54.9%	54.3%
<i>Baccalaureate degree required</i>	4.6%	7.3%	8.2%	9.8%	4.8%	3.8%	9.0%	18.1%
<i>Second language preferred*</i>	*	*	*	40.0%	25.2%	23.1%	28.5%	16.4%
<i>Second language required*</i>	*	*	*	0.0%	0.0%	1.0%	0.0%	0.0%
<i>Other requirements for employment</i>	*	*	*	35.8%	44.3%	28.8%	-	-
<i>No specific requirements</i>	21.2%	21.6%	12.4%	14.9%	19.5%	31.7%	14.6%	18.1%
<b>Number of hospitals</b>	<b>151</b>	<b>218</b>	<b>194</b>	<b>215</b>	<b>210</b>	<b>104</b>	<b>144</b>	<b>116</b>

\*These items were added in 2014









offering tuition reimbursement in support of employed RNs seeking an additional degree, which was an increase from fall 2017. Over 50% of hospitals reported offering tuition reimbursement to RNs working toward advanced certification.

Over 20% of hospitals indicated they provide paid time off for RNs in a degree program, while 26.1% reported providing paid time off for the pursuit for advanced certifications, both of which increased as compared with fall 2017.

Approximately 16% of responding hospitals reported some other form of support for the pursuit of post-licensure education, which was an increase compared to fall 2017. The most commonly reported forms of other support included scholarships and grants put towards tuition.

**Table 14. Support for RNs working toward post-licensure degrees or certification, 2014 to 2018-19**

Description	2014		2015		2016		2017		2018-19	
	#	%	#	%	#	%	#	%	#	%
<b><i>Tuition reimbursement</i></b>										
Post-licensure degree(s)	182	85.0	151	72.6	79	76.7	91	63.6	79	71.2
Certification(s)	125	58.4	104	50.0	58	56.3	66	46.2	57	51.4
<b><i>Paid time off for coursework</i></b>										
Post-licensure degree(s)	54	25.2	80	38.5	26	25.2	21	14.7	23	20.7
Certification(s)	59	27.6	75	36.1	34	33.0	29	20.3	29	26.1
<b><i>Approved use of unpaid time off for coursework</i></b>										
Post-licensure degree(s)	99	46.3	89	42.8	36	35.0	64	44.8	36	32.4
Certification(s)	83	38.8	76	36.5	29	28.2	53	37.1	23	20.7
None	12	5.6	17	8.2	9	8.7	28	19.6	13	11.7
Other	41	19.2	20	9.6	16	15.5	17	11.9	18	16.2
<b>Total responses</b>	<b>214</b>	<b>--</b>	<b>208</b>	<b>--</b>	<b>103</b>	<b>--</b>	<b>143</b>	<b>--</b>	<b>111</b>	<b>--</b>

***Clinical Residency Programs for New RN Graduates***

Hospitals were asked whether they sponsored clinical residency programs for new graduates *who are not guaranteed to be hired*. These residency programs are distinct from typical onboarding programs for newly hired RNs. Figure 27 shows that nearly 20% of hospitals in fall 2018 reported that they sponsored a residency program for *new RN graduates*; this percentage has varied from year-to-year.









*Employment Expectations for the Next Year*

Hospitals were asked to report their expectations for RN employment in the coming year. Figure 31 compares hospitals' expectations for each year the survey has been conducted. The share of hospitals reporting expectations of increased RN employment grew each year beginning with the fall 2012 survey, but began leveling out after 2015. Only 50.9% of hospitals reported expectations of increased employment of RNs in the coming year in 2018-19, compared with 65.3% of hospitals in 2015.

In 2017, a larger share of hospitals expected no change in RN employment in the coming year (46.2%) compared to the percentage that expected increased RN employment (43.4%). Conversely, in 2018-19, over half of hospitals reported they expected increased employment over the next year and only 42 percent reported an expectation of no change. The share of hospitals that reported they expected lower employment was 7.1% in 2018-19, which was notably larger than a low of 1.5% in 2015.

The most frequently reported reasons for expected increases in RN employment included patient census growth, increased hospital bed capacity, and increased patient acuity. Other reasons reported for anticipated growth in RN employment included persistently high vacancy rates, an increasing number of retirements, expanded service lines, and a desire to replace traveler/agency positions with permanent positions.

Figure 31. Expectations for RN employment in the next year, 2010 to 2018-19

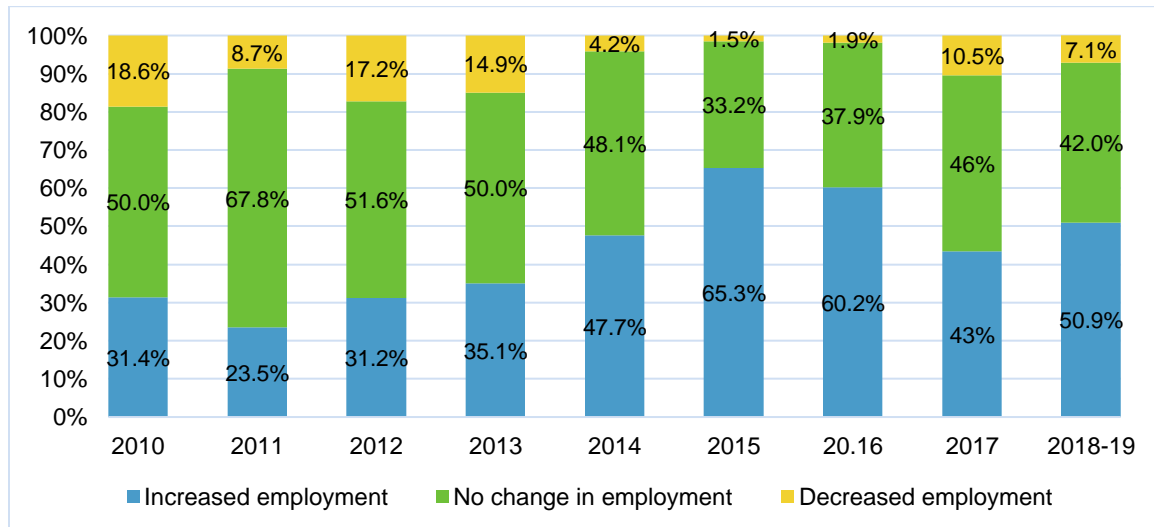


Figure 32 presents hospital responses regarding anticipated shifts in hiring over the coming year by care setting. More hospitals anticipated increased hiring than decreased hiring in all clinical areas.

Figure 32. Expectations for RN hiring in the next year, by care setting, 2018-19

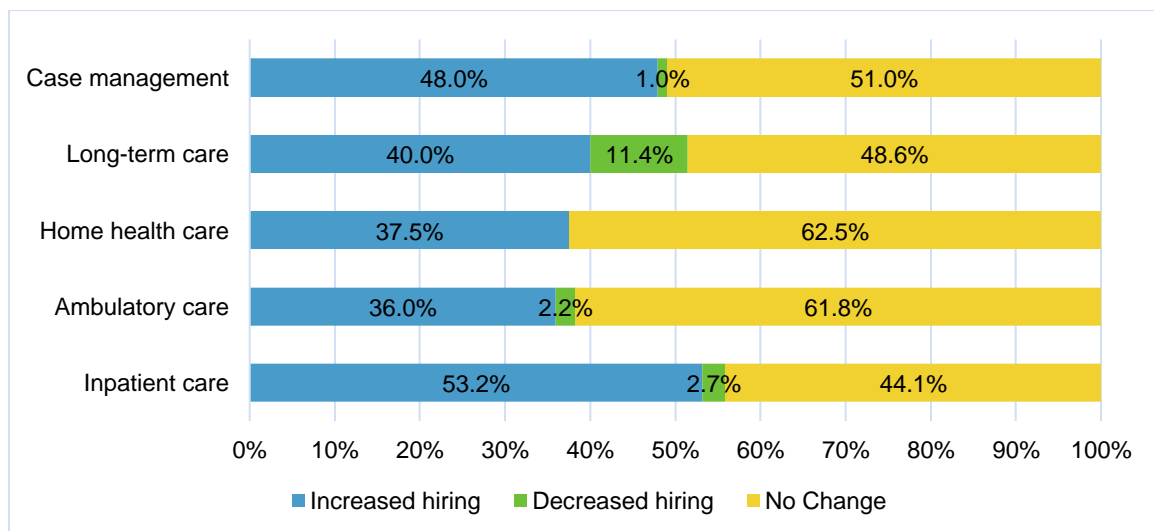
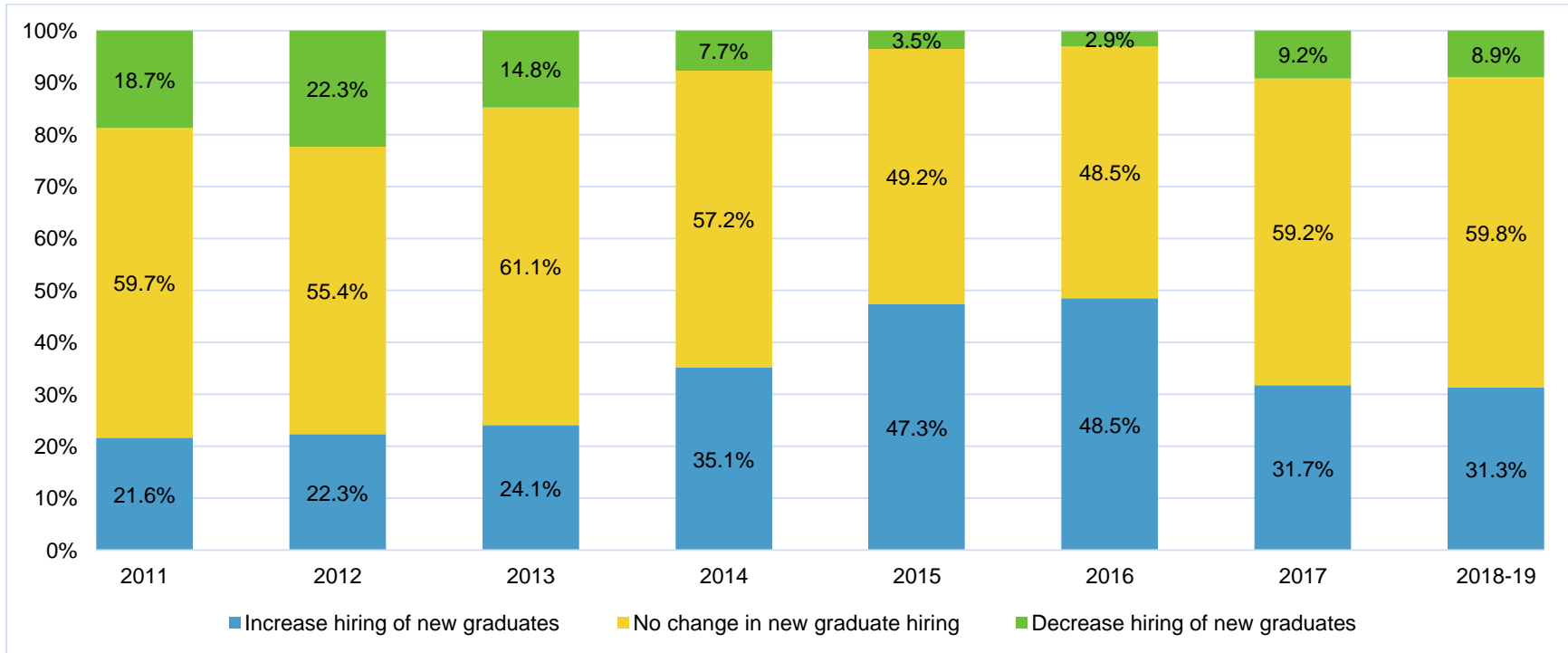


Figure 33 shows that in fall/winter 2018-19, 31.3% of all hospitals reported an expectation that *new RN graduate* hiring would increase next year. This continued the slowing hiring trend that began in 2017. Similarly, the 8.9% of hospitals that reported they expected to decrease hiring of *new RN graduates* next year continued a downward trend that began in fall 2017.

Figure 33. Expectations for new graduate hiring in the next year, 2011 to 2018-19



Hospitals were asked to cite reasons for why they expected hiring of *new graduate RNs* over the next year to be different from the past year. The most frequently-reported reasons for expected increases in hiring included anticipated retirements, high vacancy rates and challenges in recruiting experienced staff. Some hospitals were planning to add *new graduate RNs* to their float pools or pair them with more experienced staff to train/orient new graduate hires.

The reasons for decreased hiring included fewer vacancies and challenges retaining new graduate RNs that had been hired. Some hospitals have reported that they have hired and trained new graduates, only to have those graduates be recruited by other hospitals. This has made some hospitals reluctant to invest in new graduate hiring.

## **Conclusions and recommendations**

In each of the past four years, more than 85% of California hospitals reported that demand for RNs is greater than supply. Although there was some variation across regions, the perceived shortage was present across the state. However, there were notable differences between hospital demand for experienced RNs versus new RN graduates. The vast majority of hospitals reported a shortage of experienced nurses, with particular concern about recruiting RNs with peri-operative (OR), critical care, labor and delivery, and emergency department experience. In contrast, most hospitals reported a surplus of new RN graduates, although the labor market for newly-graduated nurses improved after 2013. Over 10% of responding hospitals indicated they were engaged in international RN recruitment, which was a notable increase as compared with 2011 through 2016 when the share was below 5.7% each year.

Although job availability for new graduates improved, the continuing perception that there was a surplus of newly graduated RNs is concerning. Newly-graduated RNs cannot easily obtain the experience needed to fill vacancies if they are unable to find entry-level positions or participate in a residency program. New graduates often have student loan debt and need to begin paid work as soon as possible to meet their financial obligations.

In 2018-19, only 19.6% of survey respondents reported they had a clinical residency program for new RN graduates. Employers need to invest in the hiring and training of new graduates to ensure they have a sufficient number of well-prepared RNs to fill specialized roles as Baby Boomer RNs retire.

Fortunately, most hospitals reported hiring new RN graduates in fall 2018, and hospitals indicated that 37% of their new staff RN hires were recent graduates. In addition, nearly one-third of hospitals reported an expectation that hiring of new graduates would increase in 2019. Increased employment was expected to be driven by continued growth in patient census and acuity, persistently high vacancy rates, an increasing number of retirements, expanded service lines, and a desire to replace traveler/agency positions with permanent positions.

At some point the perceived surplus of new graduate RNs may vanish as employers implement strategies to transition them into specialized roles. The alternative is for employers to engage in expensive inter-state recruitment, international recruitment, and wage competition. It will be a far better investment for employers to create and expand programs that allow new

graduates to utilize and develop their clinical knowledge and skills, thus ensuring an adequate supply of RNs in the future.

## **ACKNOWLEDGEMENTS**

The collaboration of the HealthImpact, the Hospital Association of Southern California, FutureSense, Inc., and the California Hospital Association was important to the development of the survey questionnaire and conducting of the survey. We specifically thank Teri Hollingsworth, Garrett Chan, Jim Finkelstein, Ben Teichman and Patrick Dobrowolski for their work.

This study benefitted from the work of Alice Chan who assisted with making telephone calls to increase response rates, reviewing data, and finding contact information of Chief Nursing Officers.



**APPENDIX**

**Appendix Table A1. Overall demand scores by region, 2010 to 2018-19**

<b>Region</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018-19</b>
<i>Sacramento &amp; Northern California</i>	3.14	2.81	2.96	3.22	3.54	4.18	4.08	4.23	4.24
<i>San Francisco Bay Area</i>	2.09	2.27	2.76	1.89	3.08	4.29	4.32	4.25	3.95
<i>Central California</i>	2.93	3.34	3.41	3.18	3.72	4.29	4.50	4.33	4.50
<i>Los Angeles</i>	2.82	2.95	3.20	3.17	3.76	4.41	3.94	4.09	4.30
<i>Inland Empire</i>	2.72	3.00	3.78	3.47	3.61	4.00	4.19	4.05	4.11
<i>Southern Border</i>	2.36	2.93	3.00	2.76	3.30	3.64	5.00	4.67	4.33
<i>California</i>	2.68	2.88	3.14	2.95	3.56	4.20	4.23	4.20	4.22

**Appendix Table A2. Experienced RN demand scores by region, 2013 to 2018-19**

<b>Region</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018-19</b>
<i>Sacramento &amp; Northern California</i>	3.91	4.17	4.21	4.25	4.23	4.29
<i>San Francisco Bay Area</i>	2.71	3.79	4.21	4.09	3.75	3.68
<i>Central California</i>	3.98	4.21	4.16	4.64	4.50	4.17
<i>Los Angeles</i>	4.13	4.17	4.15	4.06	4.26	4.20
<i>Inland Empire</i>	4.20	4.14	4.60	4.56	4.17	4.11
<i>Southern Border</i>	4.12	3.70	3.71	5.00	4.00	4.33
<i>California</i>	3.83	4.08	4.20	4.31	4.18	4.09

**Appendix Table A3. New RN graduate demand scores by region, 2013 to 2018-19**

Region	2013	2014	2015	2016	2017	2018-19
<i>Sacramento &amp; Northern California</i>	1.77	2.33	2.25	2.55	2.62	2.43
<i>San Francisco Bay Area</i>	1.31	1.42	1.68	2.00	2.62	1.83
<i>Central California</i>	1.70	1.97	2.21	3.15	2.53	3.09
<i>Los Angeles</i>	1.53	1.68	2.00	2.24	2.09	2.12
<i>Inland Empire</i>	1.45	1.95	2.20	2.13	2.22	2.00
<i>Southern Border</i>	1.29	1.60	1.50	1.50	1.50	2.33
<i>California</i>	1.52	1.84	2.01	2.33	2.23	2.23

**Appendix Table A4. Overall demand scores by hospital bed-size, 2010 to 2018-19**

Number of beds	2010	2011	2012	2013	2014	2015	2016	2017	2018-19
<i>Less than 100 beds</i>	3.12	3.15	3.29	3.07	3.65	4.27	4.26	4.35	4.11
<i>100 – 199 beds</i>	2.65	2.85	3.17	3.23	3.75	4.19	4.41	4.09	4.46
<i>200 – 299 beds</i>	2.50	3.23	3.30	2.64	3.21	4.04	4.14	4.09	4.18
<i>300 – 399 beds</i>	2.00	3.02	2.97	2.74	3.65	4.39	4.00	4.31	4.25
<i>400 beds or more</i>	2.46	2.79	3.17	2.86	3.30	4.17	3.91	4.18	3.92

**Appendix Table A5. Overall demand scores by rural/non-rural geographic location, 2010 to 2018-19**

Geographic location	2010	2011	2012	2013	2014	2015	2016	2017	2018-19
<i>Rural</i>	3.60	3.51	3.69	3.47	4.13	4.28	4.80	4.23	4.33
<i>Non-rural</i>	2.65	2.85	3.09	2.86	3.50	4.18	4.19	4.20	4.20

**Appendix Table A6. Overall demand scores by nursing position, 2015 to 2018-19**

<b>Position</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018-19</b>
<i>Experienced Staff RN</i>	4.23	4.31	4.18	4.09
<i>Other RN</i>	3.95	4.02	3.90	3.88
<i>Clinical Nurse Specialist</i>	3.91	3.85	3.90	3.84
<i>Nurse Practitioner</i>	3.57	3.77	3.67	3.90
<i>Unlicensed Aide/Assistant</i>	2.75	2.64	2.68	2.99
<i>LVN</i>	2.22	2.40	2.29	2.76
<i>New RN Graduate</i>	2.01	2.33	2.23	2.23

**Appendix Table A7. Number of facilities, 2010 to 2018-19**

<b>Region</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018-19</b>
<i>Sacramento &amp; Northern California</i>	22	17	28	23	24	28	11	21	21
<i>San Francisco Bay Area</i>	34	30	45	36	31	38	26	24	30
<i>Central California</i>	28	30	39	45	44	38	20	23	14
<i>Los Angeles</i>	33	40	65	47	58	34	21	39	36
<i>Inland Empire</i>	28	19	18	30	46	25	19	25	23
<i>Southern Border</i>	12	15	22	17	16	14	3	7	4
<i>California</i>	157	151	217	198	219	177	100	139	128
<b>Hospital bed-size</b>									
<i>Less than 100 beds</i>	43	40	55	45	49	52	36	48	32
<i>100 – 199 beds</i>	46	46	55	56	66	47	29	40	44
<i>200 – 299 beds</i>	19	21	28	36	37	23	16	19	12
<i>300 – 399 beds</i>	19	25	33	27	22	23	7	13	14
<i>400 beds or more</i>	30	19	36	37	32	18	12	19	20
<b>Geographic location</b>									
<i>Rural</i>	30	28	38	32	16	29	5	15	14
<i>Non-rural</i>	127	123	179	166	203	147	95	124	108