Research Report

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.[1] In California, the documented shortage was especially acute through most of the 2000s.[2] 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.[3] 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.[4] 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.[5] 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.

[1] 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.

[2] U.S. Health Resources and Services Administration. Findings from the 2008 National Sample Survey of Registered Nurses. Rockville, MD: 2010.

[3] 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.

[4] Spetz J. Forecasts of the Registered Nurse Workforce in California. Sacramento, CA: California Board of Registered Nursing, 2017

[5] 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.[6] In the UCSF survey, 16 respondents reported data for

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[6] 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.[7]

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

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

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[7] 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

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

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

Table 4 compares the rural versus non-rural distribution of survey respondents with GAC facilities in the state.[8] 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	
	#	%		#	%		#	%
Rural	39	8.5		14	11.9		13	5.6
Non-rural	419	91.5		104	88.1		221	94.4
Total	458	100		118	100		234	100

[8] 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/

Results

Perception of Labor Market Conditions

Hospitals were asked to report their perception of regional labor market conditions for all RNs, and then separately for *experienced RNs* and *new RN graduates*, using a rank order scale of 1 to 5. A score of 1 indicated that demand for RNs was "much less than the available supply", while a score of 5 indicated "high demand for RNs and difficulty filling open positions." Figure 1 compares labor market conditions for all RNs, for all survey years.[9]

Approximately 41% of hospitals reported a perception of high demand for RNs (difficult to fill open positions). This was a slight increase in comparison to the fall 2017 survey. Nearly 44% of hospitals reported moderate demand for RNs, which was a slight decrease relative to 2016 (55.2%). Combined, 85.2% of hospitals reported demand for RNs being greater than the available supply, which is a small decrease from 2017, but more than 20% higher than was reported in 2014. In the past three surveys, no hospitals have reported demand was "much less than supply" and only one hospital reported this in 2015.

Figure 1. Overall RN labor market demand in California, 2010 to 2018-19
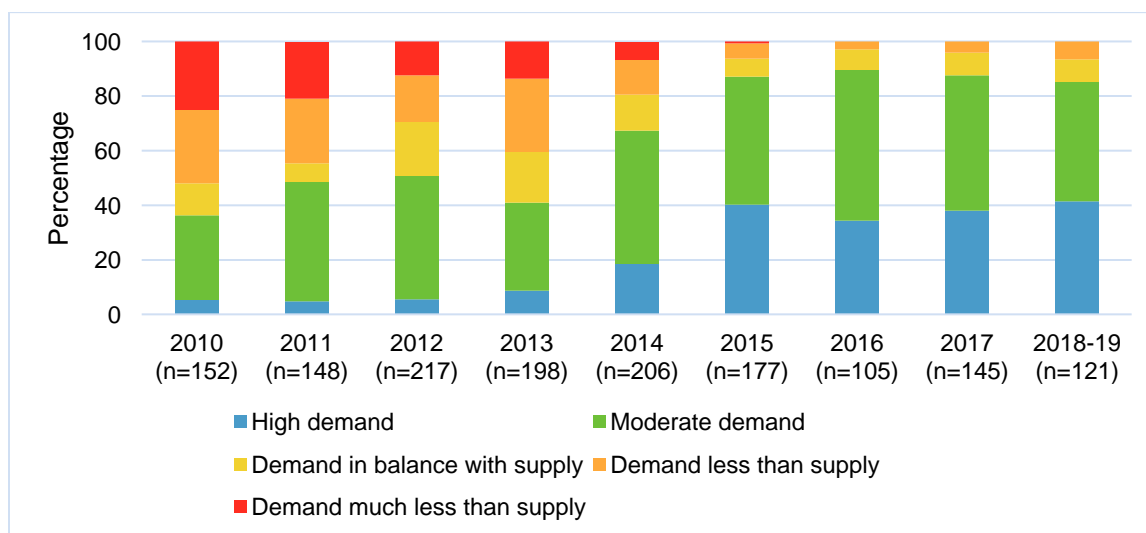
Note: Percentages may not sum to 100% due to rounding.

[9] Surveys fielded between 2010 and 2012 gave respondents the option to report labor market conditions as "other" and write-in a description. This option was excluded beginning with the fall 2013 survey. The 2010 – 2012 survey data included in Figure 1 have been adjusted to exclude "other" response values to allow for comparison across survey years.

Hospitals were asked to describe the types of RN positions that have been difficult to fill. Respondents reported very strong demand for *experienced RNs* across numerous clinical practice areas, particularly intensive care, the emergency department, the operating room, and labor and delivery. Survey respondents also reported strong demand for nurses to fill leadership/managerial roles.

Figure 2 shows the average ranking of demand for all registered nurses by region between 2010 and 2018-19. An average score of 3 indicates a balanced market, while higher scores suggest a shortage of RNs and lower scores suggest a surplus of RNs. With the exception of the San Francisco Bay Area and the Southern Border region, demand for RNs was generally stable in comparison to fall 2017. In all regions, CNOs perceived some shortage of RNs. Perceptions of shortage were strongest in the Central California region and Southern Border regions, and weakest in the San Francisco region and Inland Empire regions.

Figure 2. Average ranking of overall labor market demand by geographic region, 2010 to 2018-19
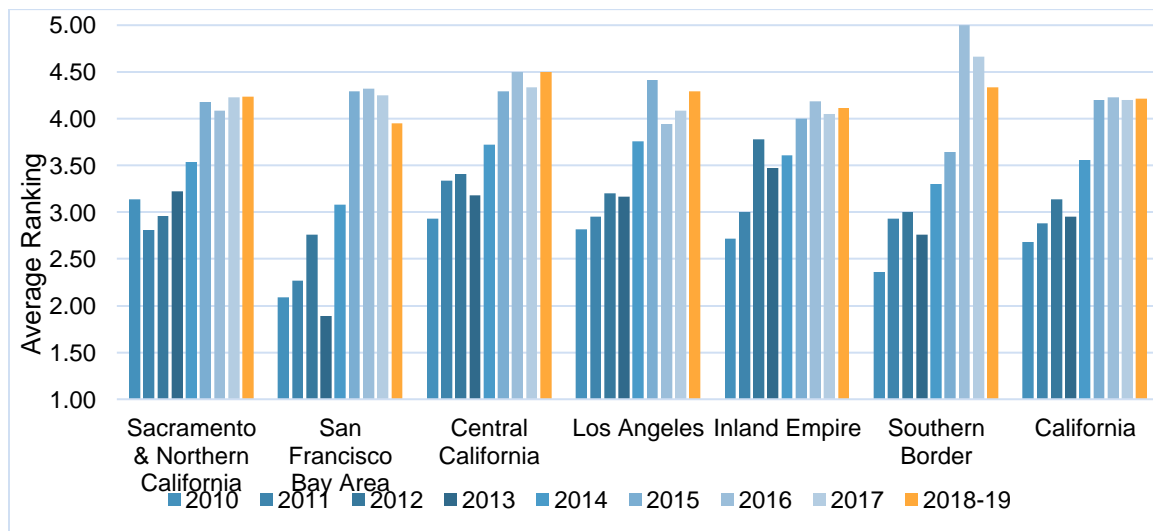
Note: 1 indicates that demand is much less than supply; 5 indicates that demand is much greater than supply. (Lower numbers indicate greater surplus of nurses.) The change in perceived demand among hospitals in the Southern Border between 2016 and 2017 region may be an artifact of the data. A larger number of facilities responded to the 2017 survey compared with 2016 (only 2 facilities were represented in 2016).

Since 2013, hospitals have been asked to distinguish between the labor markets for *experienced RNs* versus *new RN graduates*. As seen in Figure 3, CNOs have perceived a shortage of *experienced RNs* in every region since 2014; in 2018-19, hospitals in the Sacramento & Northern California region reported the most pronounced perceived shortage. In contrast, Figure 4 demonstrates that hospitals across almost all regions perceived that demand for *new RN graduates* was less than the available supply. In the Central California region, the labor market for new graduates was stronger, with an average score greater than 3, indicating a balanced labor market. However, contrast, hospitals in the San Francisco Bay Area reported a much weaker new graduate labor market.

Figure 3. Average ranking of labor market demand for experienced RNs by geographic region, 2013 to 2018-19
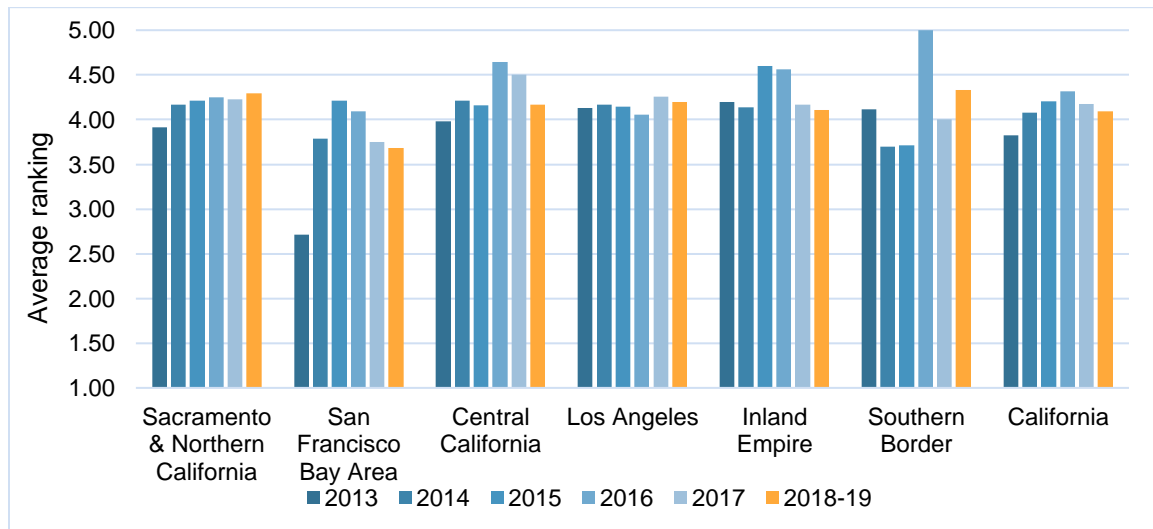
Note: 1 indicates that demand is much less than supply; 5 indicates that demand is much greater than supply. (Lower numbers indicate greater surplus of nurses.)

Figure 4. Average ranking of labor market demand for new RN graduates by geographic region, 2013 to 2018-19
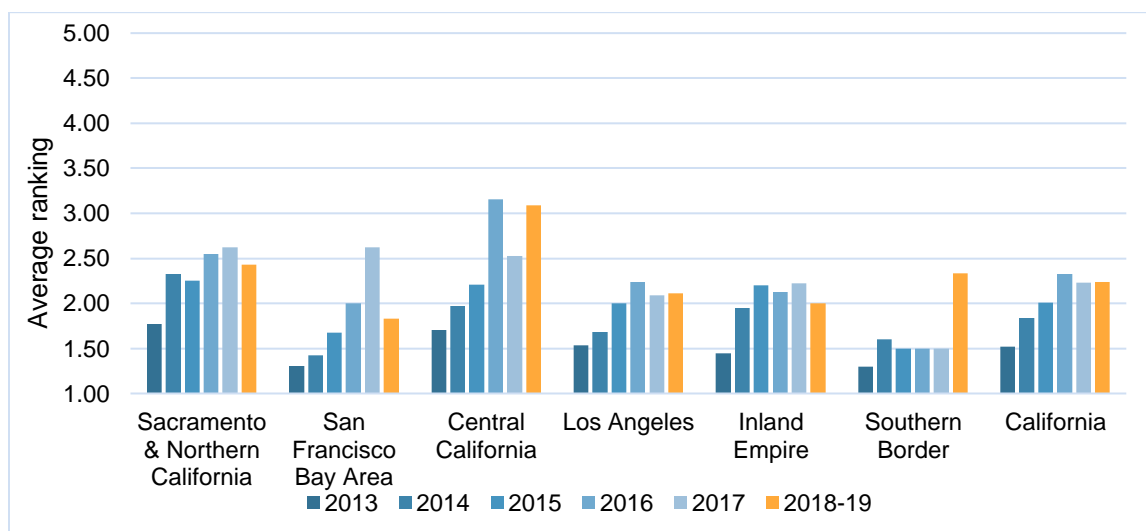
Note: 1 indicates that demand is much less than supply; 5 indicates that demand is much greater than supply. (Lower numbers indicate greater surplus of nurses.)

Table 5 presents the distribution of hospitals in each region according to how they characterized the labor market for all RNs, for *experienced* RNs, and for *new RN graduates* in fall/winter 2018-19. A larger share of hospitals (62.5%) in the Southern Border region reported high demand for RNs compared with other regions of the state. At least 70% of hospitals in all regions reported either high or moderate demand for RNs relative to supply. The few hospitals reporting a perception that there was a surplus of RNs were located in the Inland Empire, San Francisco Bay Area, and to a lesser degree, Sacramento and Northern California.

There was more regional variation in the demand for *experienced RNs*. Over 80% of hospitals in the Southern Border, Los Angeles, and Inland Empire regions reported demand for *experienced RNs* was much greater than the available supply. In contrast, only approximately 25% of hospitals in the San Francisco Bay and Inland Empire regions reported such a perception. The shares of hospitals reporting either high or moderate demand for experienced RNs ranged from a low of 60% in the San Francisco Bay Area region to a high of 92% in the Inland Empire. The only hospitals that reported that demand for experienced RNs was less than supply were located in the Southern Border region.

Table 5 indicates that demand for new RN graduates was generally weak across the state in fall/winter 2018-19. Only the Central California region had more than 50% of hospitals reporting a perception of moderate demand for

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 (%)
Overall RN labor market						
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
Total facilities	**21**	**30**	**14**	**36**	**16**	**4**
Experienced RN labor market						
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
Total facilities	**21**	**27**	**14**	**33**	**16**	**4**
New RN graduate labor market						
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
Total facilities	**18**	**26**	**13**	**35**	**16**	**4**

Figure 5. Average ranking of overall labor market demand by hospital bed-size, 2010 to 2018-19
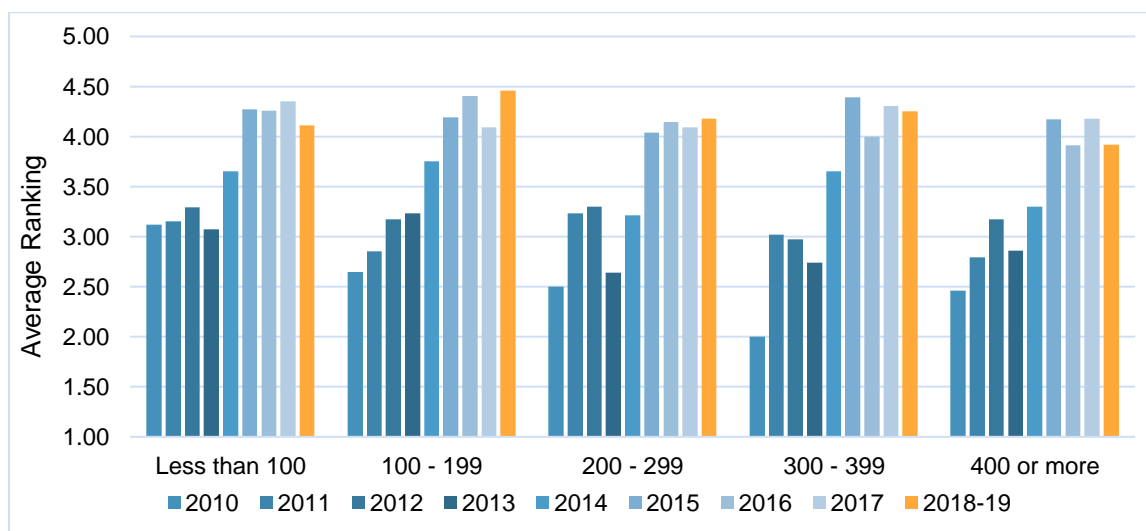
Note: 1 indicates that demand is much less than supply; 5 indicates that demand is much greater than supply. (Lower numbers indicate greater surplus of nurses.)

Differences in demand for *experienced RNs* compared to *new RN graduates* among hospitals of differing sizes are consistent with data describing regional differences (Figures 3 and 4, and Table 5). For *experienced RNs*, the average demand scores ranged from 3.8 to 4.2, indicating moderate to high demand with some difficulty filling open positions. Hospitals with fewer than 100 beds and between 100 to 199 beds reported perceptions of slightly stronger demand in comparison with hospitals of other sizes. Demand for *new RN graduates* was comparatively weak among hospitals of all sizes, with average demand scores ranging from 1.8 to 2.5. This indicates a general perception of demand as being less than the available supply. Hospitals with fewer than 100 beds reported marginally stronger demand in comparison to hospitals of other sizes.

Figure 6 compares average demand for all RNs between 2010 and 2018-19 according to whether the hospital is located in a rural region. Perceptions of shortage have been consistently greater in rural regions; the average score among rural hospitals rose from to 4.2 in 2017 to 4.3 in 2018-19. Average demand among hospitals in non-rural locations was stable over the prior four survey years. Rural and non-rural differences in demand for *experienced RNs* compared to *new RN graduates* were generally consistent with data describing regional differences and with data describing differences by hospital size. For *experienced RNs*, the average demand scores for both rural and non-rural hospitals indicated moderately high demand (4.0 for non-rural,

4.4 for rural). The average demand score for *new RN graduates* among non-rural hospitals (2.2) indicated a general perception of demand being less than the available supply, while the average demand among rural hospitals (2.7) signaled a labor market closer to being balanced.

Figure 6. Average ranking of RN labor market demand by rural/non-rural geography, 2010 to 2018-19

Note: 1 indicates that demand is much less than supply; 5 indicates that demand is much greater than supply. (Lower numbers indicate greater surplus of nurses.)

In 2018, CNOs were asked to rate the labor market for specific types of nursing positions on the 1 to 5 scale presented above. Figure 7 compares the average scores by type of nursing position and demonstrates that respondents reported that demand was greater than the available supply for all positions except LVNs, unlicensed aides/assistants, and new RN graduates. The positions for which reported demand was strongest included *peri-operative (OR) RNs*, *critical care RNs, labor and delivery RNs, emergency department RNs,* and *experienced staff RNs.*

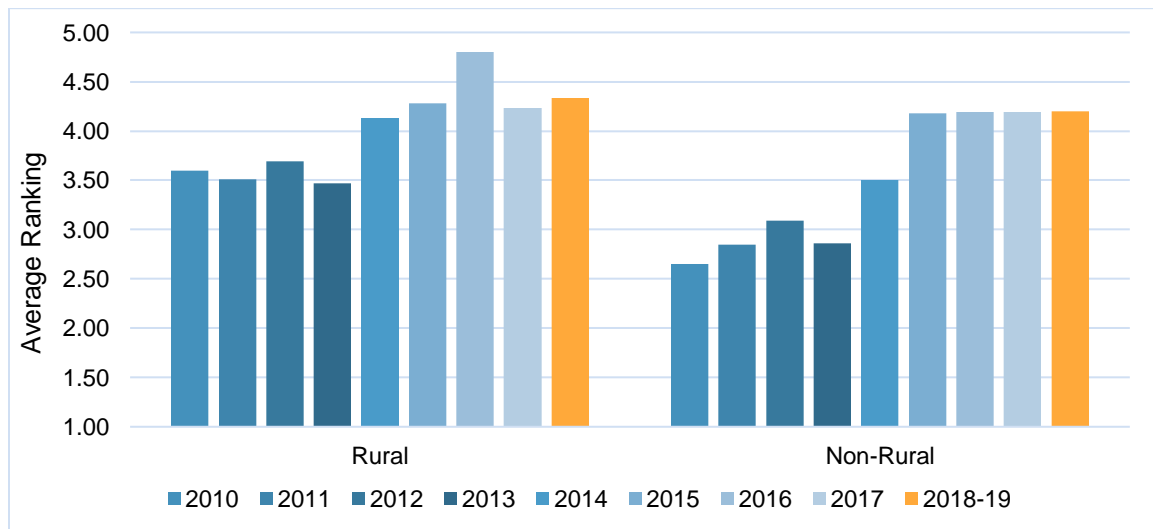Figure 7. Average ranking of RN labor market demand by position, 2018-19
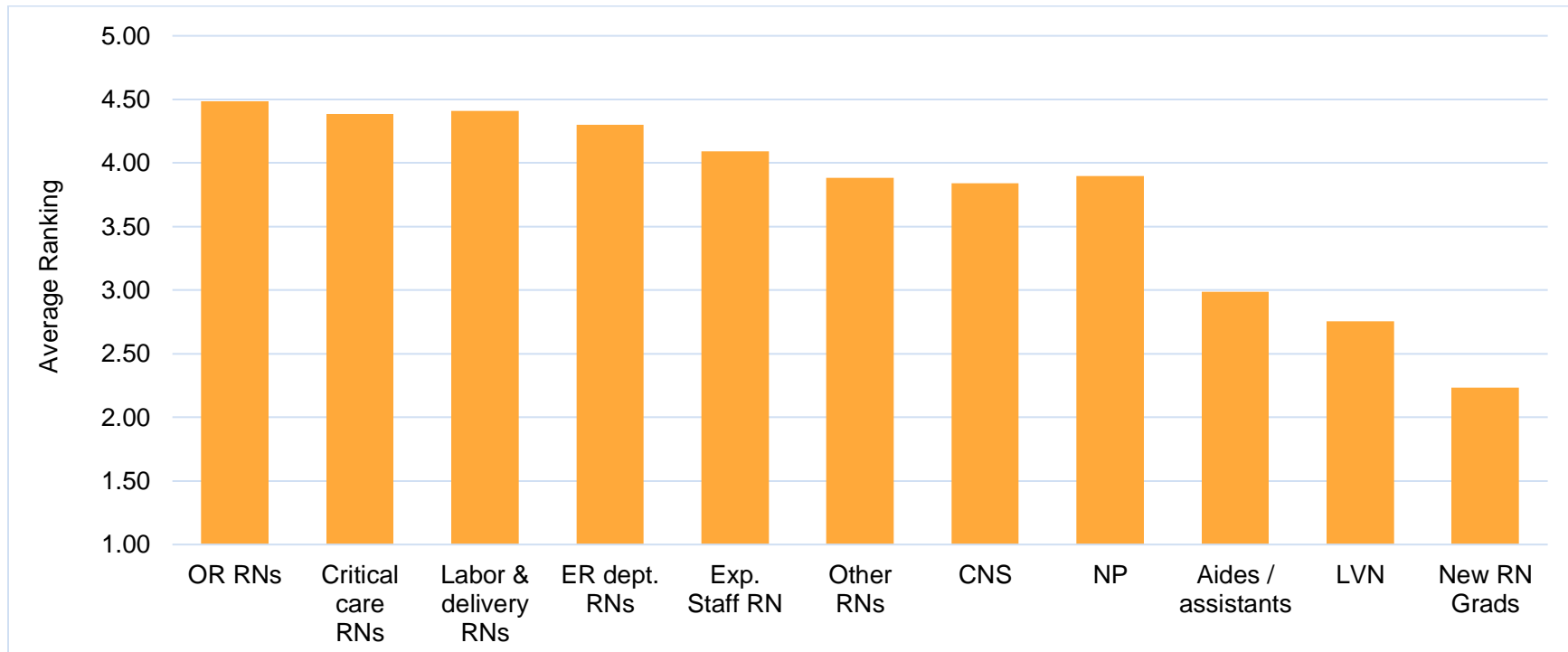
Note: 1 indicates that demand is much less than supply; 5 indicates that demand is much greater than supply. (Lower numbers indicate greater surplus of nurses.)

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. [10] These survey data provided information for the following nursing positions:

- Registered Nurse – includes:

    o *Staff RN* – nurses engaged in direct patient care and not identified by one of the other types of nursing positions specified.

    o *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).

    o *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.

    o *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

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[10] 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		
Registered Nurse	86,643	74.5	29,711	25.5		116,354
Staff RN	49,869	70.4	21,008	29.6		70,877
Specialty RN	21,552	77.6	6,228	22.4		27,780
Other RN	12,312	83.9	2,362	16.1		14,674
New RN Graduate	2,910	96.3	113	3.7		3,023
Case Manager	1,322	83.7	258	16.3		1,580
Nurse Anesthetist	96	97.0	3	3.0		99
Clinical Nurse Specialist	2,605	98.6	36	1.4		2,641
Nurse Midwife	19	90.5	2	9.5		21
Nurse Practitioner	1,438	83.7	281	16.3		1,719
Licensed Vocational Nurse	3,457	86.0	565	14.0		4,022
Certified Nurse Assistant	7,208	73.1	2,657	26.9		9,865
Home Health Aide	177	85.1	31	14.9		208
Unlicensed Aide/Assistant	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

		Percent of employed nurses working full-time			
Description		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
Total		**75.6**	**74.0**	**74.6**	**75.6**

*Data not collected.

Current Vacancies

Table 8 presents vacancy rates by nursing position for the third quarter of 2018.[11] 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

[11] 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[12]

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

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[12] 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))

Figure 8. Average quarterly vacancy rate for registered nurses, 2010 to 2018
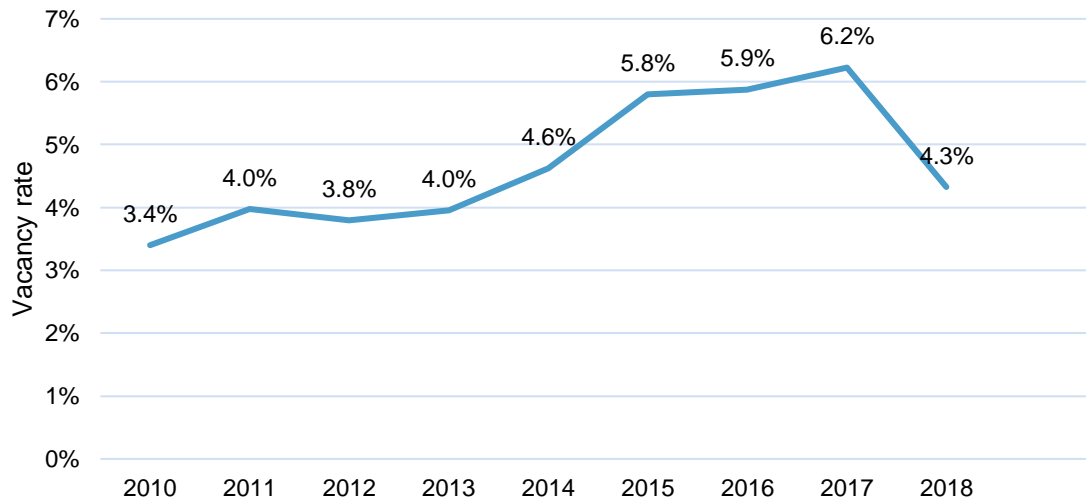
Per Diem, Contract & Agency Employment

Table 9 presents data describing hospitals' use of per diem, contract, and agency employees, by position type, from 2014 to 2018. The data show that utilization of per diem employees varied considerably depending on the position. In fall 2018, per diem staff accounted for 9.2% of all *RNs*, but accounted for a larger percentage among *staff RNs* (12.6%) and *other RNs* (12.0%), while per diem staff were a smaller share of *new RN graduates* (1.2%). Nearly 22.7% of *case managers*, more than 26.3% of *nurse anesthetists*, and 42.9% of *nurse midwives* employed by surveyed hospitals were reported as per diem staff.

Table 9 also indicates that use of per diem staff was generally stable in recent years for most nursing positions, fluctuating within narrow ranges for most job categories. Notable exceptions include *nurse anesthetists*, *nurse midwives*, and *home health aides*, but it is important to note the dramatic year-over-year changes in the share of per diem employees for these categories may reflect the fact that hospitals do not employ many people in these positions, which can result in large relative changes.

Utilization of per diem nurses was far more common than the use of either contract or agency employees; per diem staff RNs outnumbered contract RNs by a ratio of approximately 7 to 1 in fall 2018, and outnumbered agency RNs by a ratio of approximately 18 to 1. Per diem *LVNs* and *unlicensed aides/assistants* also were used in greater number in comparison to contract and agency staff.

Table 9. Per Diem, contract, and agency staff as share of current staff, 2018[13]

	# of positions		Share of current staff (%)				
Per Diem Employees	**2018**		**2018**	**2017**	**2016**	**2015**	**2014**
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
Contract Employees							
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
Agency Employees							
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.[14] 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

13 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)
14 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 (%)								
Per Diem Employees		2010	2011	2012	2013	2014	2015	2016	2017	2018
Registered Nurse		12.8	12.4	14.7	13.6	12.2	14.7	13.4	9.5	9.2
Licensed Vocational Nurse		16.9	8.6	15.2	19.5	16.5	20.1	17.4	13.7	15.6
Unlicensed Aide/Assistant		17.1	14.0	18.1	20.0	14.9	16.3	16.4	18.2	19.4
Contract Employees										
Registered Nurse		1.6	2.7	0.8	1.3	1.8	2.1	1.7	1.3	1.1
Licensed Vocational Nurse		0.4	0.1	1.2	3.6	0.6	0.1	0.1	0.3	0.1
Unlicensed Aide/Assistant		0.3	0.0	0.1	0.7	0.7	0.5	1.8	3.0	0.6
Agency Employees										
Registered Nurse		1.0	0.2	0.6	0.6	1.1	1.5	0.8	0.6	0.4
Licensed Vocational Nurse		1.0	0.3	0.1	3.3	8.7	3.2	0.7	0.2	0.4
Unlicensed Aide/Assistant		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[15]

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

*Staff RNs include new RN graduates.[16]

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.

Figure 9. RN separations (turnover) as a share of current staff (annualized), 2010 to 2018
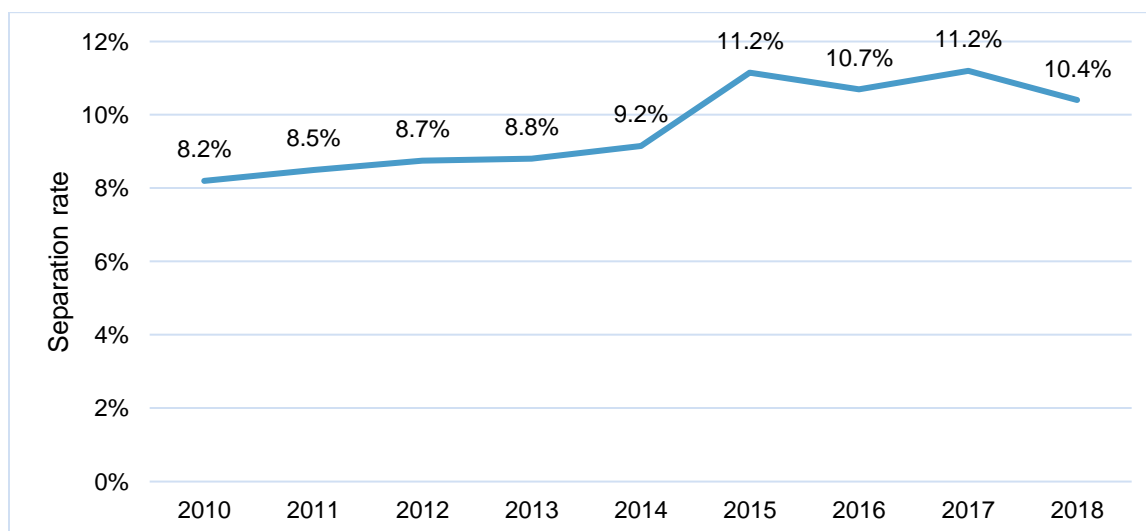
New Employee Hiring by Position

Table 12 presents the number of nursing personnel who were hired as new employees in the third quarter of 2018. Hiring rates were highest for *nurse anesthetists, case managers, and certified nurse assistants,* although the absolute number of positions for *nurse anesthetists* was very small. Full-time hiring rates were higher than part-time hiring rates for most positions, with the exception of *clinical nurse specialists, licensed vocational nurses, home health aides,* and *unlicensed aides/assistants.*

Table 12. New employees as a share of current staff, by position, 2018

Description	Full-time			Part-time			Total	
	Number	Rate (%)		Number	Rate (%)		Number	Rate (%)
Registered Nurse	4,043	4.8		507	1.7		4,550	4.0
*Staff RN**	2,765	5.6		401	1.9		3,166	4.5
Specialty RN	746	3.5		71	1.1		772	2.8
Other RN	532	4.3		35	1.8		567	4.0
Case Manager	68	5.2		5	1.9		73	4.6
Nurse Anesthetist	8	7.0		1	100.0		9	7.8
Clinical Nurse Specialist	96	3.7		2	5.6		98	3.7
Nurse Midwife	0	0.0		0	0.0		0	0.0
Nurse Practitioner	61	4.3		8	2.9		69	4.1
Licensed Vocational Nurse	132	3.8		31	5.5		163	4.0
Certified Nurse Assistant	399	5.6		78	2.8		477	4.8
Home Health Aide	4	2.4		1	3.1		5	2.5
Unlicensed Aide/Assistant	123	2.8		48	4.5		171	3.2

*Staff RNs include new RN graduates.[18]

Figure 10 presents annualized hiring rates for RNs from 2010 to 2018. The 2018 hiring rate of 15.1% continued the upward trend that began in 2012.

Figure 10. New employees as a share of current staff (annualized), by position, 2010 to 2018
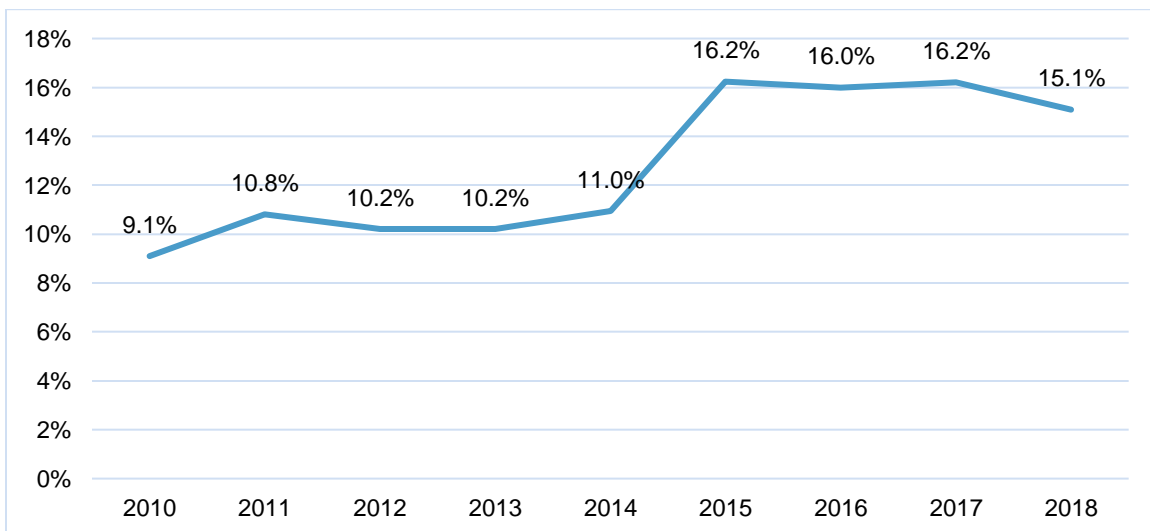
Taken together, the separation and hiring rate data presented indicate that total hiring rates were generally higher than separation rates, with slightly lower hiring rates reported for *specialty RNs, clinical nurse specialists, licensed vocational nurses*, and *home health aides.* The trends toward higher separation and hiring rates demonstrate the high level of demand for RNs,

and suggest that hospitals were competing with each other for a comparatively limited supply of RNs.

Employment Changes Experienced in the Past Year

Hospital CNOs were asked about changes in employment levels during the past year. Figure 11 shows that hospitals predominantly reported no change in employment between fall 2017 and fall/winter 2018-19 for *other* RNs and *experienced* RNs. Over 50% of responding hospitals reported increased employment of *new RN graduates* between 2017 and 2018. In contrast, only about a third of responding hospitals reported that employment of *experienced staff RNs* increased over the past year, marking the third consecutive time in the past five survey years that fewer than half of responding hospitals reported an increase in the employment of *experienced staff RNs*.

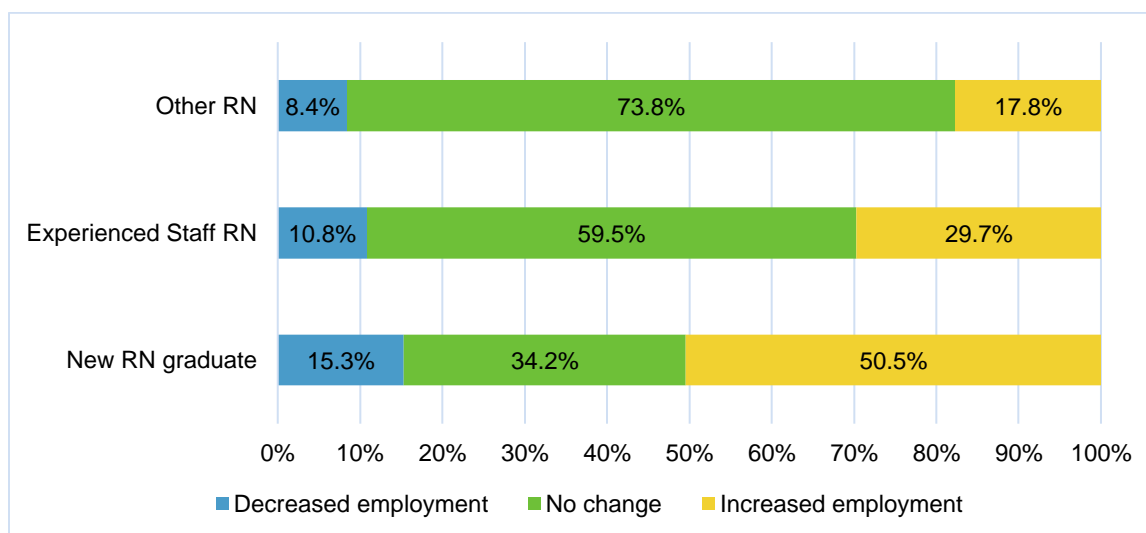Figure 11. Employment of RNs in the past year, by position, 2018-19

Figure 12 shows that more hospitals reported decreased employment of traveling RNs over the prior year than reported increased employment. The percentage of hospitals that reported they had decreased hiring of agency RNs was similar to percentage that said they increased hiring of agency RNs. Hospitals indicated that increased utilization of temporary and traveling RNs was driven by patient census growth, higher turnover of current staff in positions, and difficulty hiring into certain positions. Many of the hospitals that reported decreased utilization over the past year indicated that they have increased their focus on recruitment and training of new graduate staff, building a float pool, and retention of current staff.

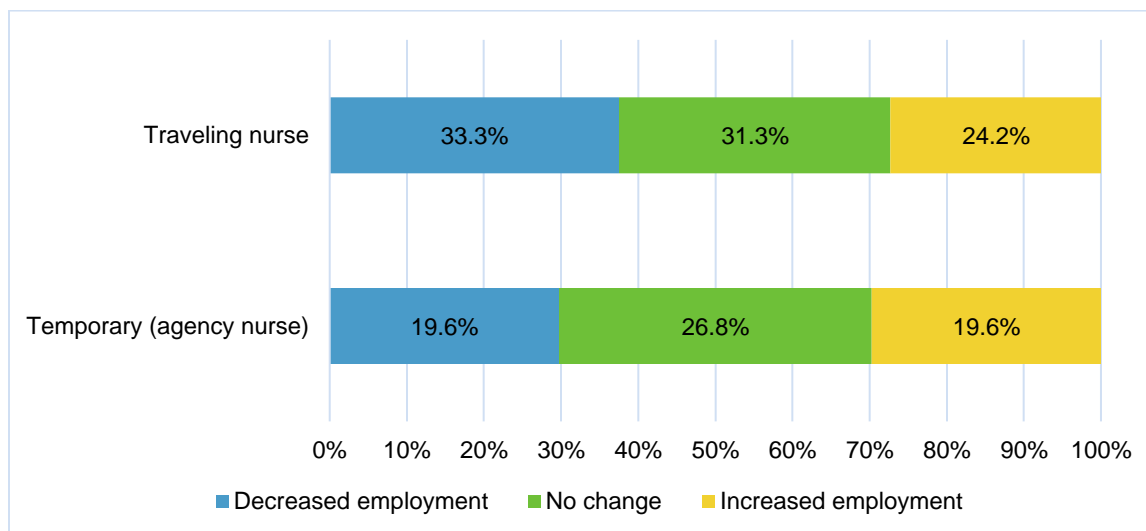Figure 12. Employment of temporary and traveling nurses, 2018-19

Figure 13 presents shifts in RN hiring over the prior year for inpatient care, ambulatory care, home health care, long-term care, and case management (which includes care navigation and care coordination). Nearly half of responding hospitals reported they had increased hiring for case management and inpatient care, and more than one-third reported increased hiring for home health care and ambulatory care positions over the past year. Very few hospitals reported they had decreased hiring for any of the care settings.
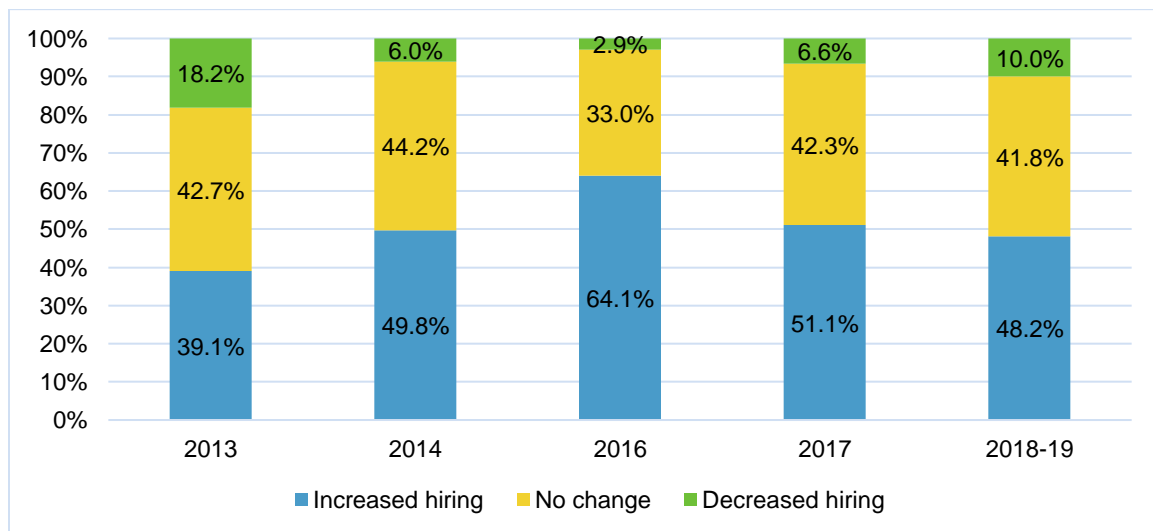
Figure 13. Change in RN hiring in the past year, by care setting, 2018-19
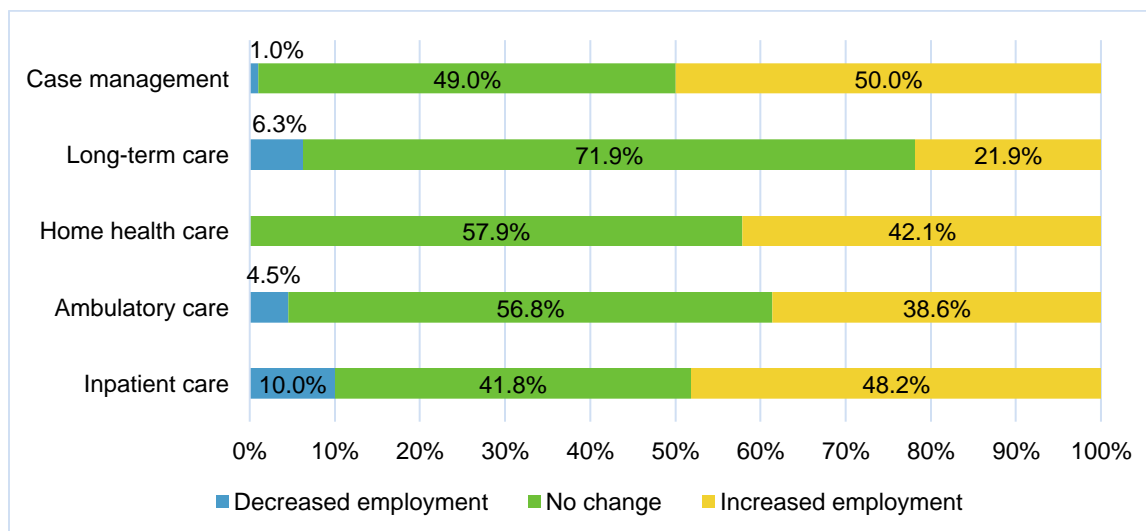
Figures 14 through 18 compare year-to-year changes in RN hiring by type of care for the past six survey years. The 2017 survey data marked a reversal

of the trend toward greater shares of hospitals reporting increased RN hiring for inpatient care, which rose between 2013 and 2016 but then declined in 2017 and 2018. In each of the prio three survey years, the share of hospitals reporting increased hiring for ambulatory care, home health care, and long-term care was stable. The share of hospitals that reported increased hiring for case management positions declined in each year since 2015. In general, hiring for home health care and long term care settings had the most variability over the past five survey years.

Figure 14. Change in RN hiring in the past year, inpatient care, 2013 to 2018-19

Increased hiring   **No change**   **Decreased hiring**

**Data not collected in 2015

Figure 15. Change in RN hiring in the past year, ambulatory care, 2013 to 2018-19
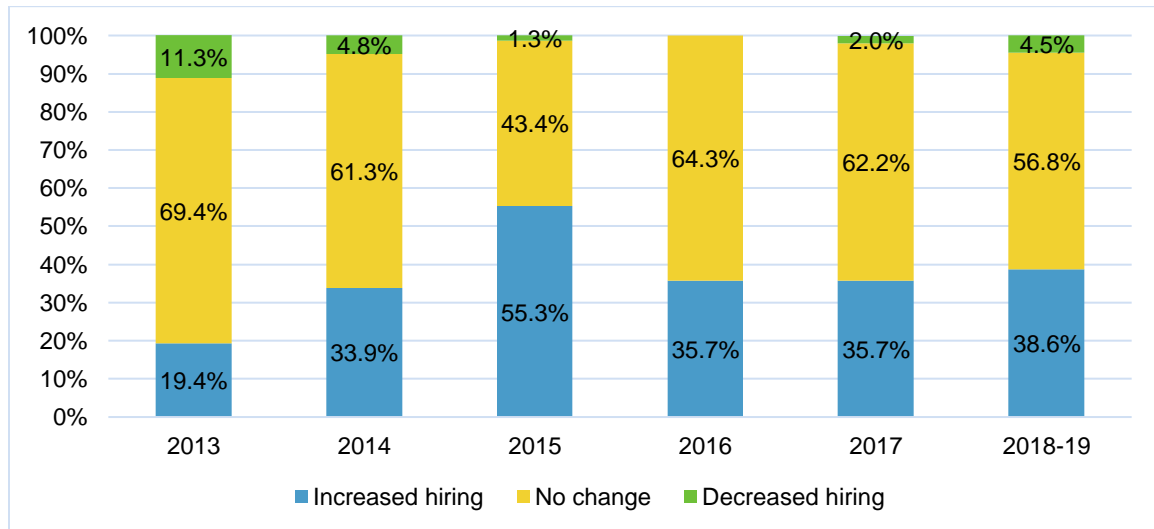
Figure 16. Change in RN hiring in the past year, home health care, 2013 to 2018-19
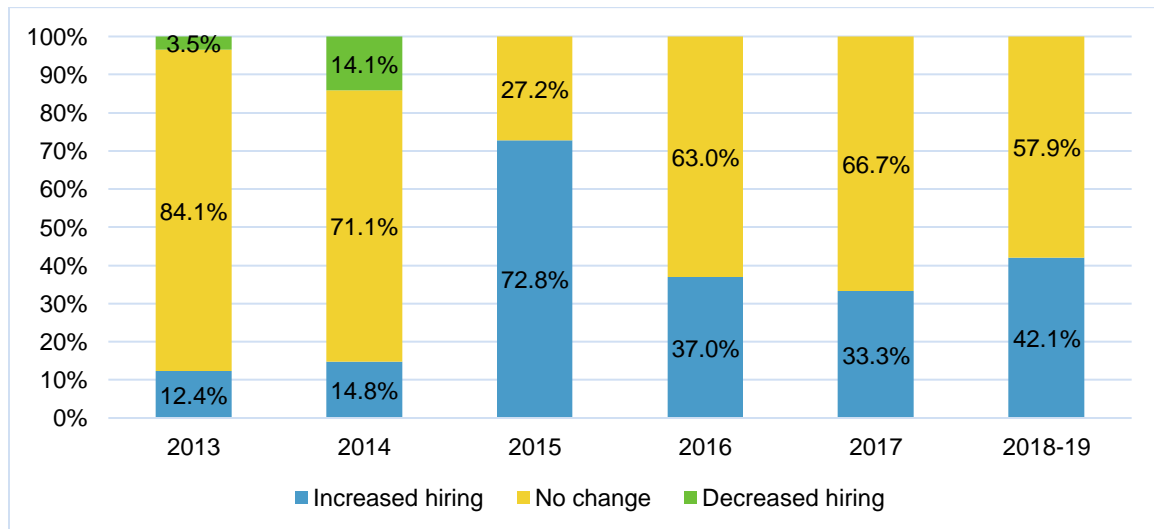
Figure 17. Change in RN hiring in the past year, long-term care, 2013 to 2018-19
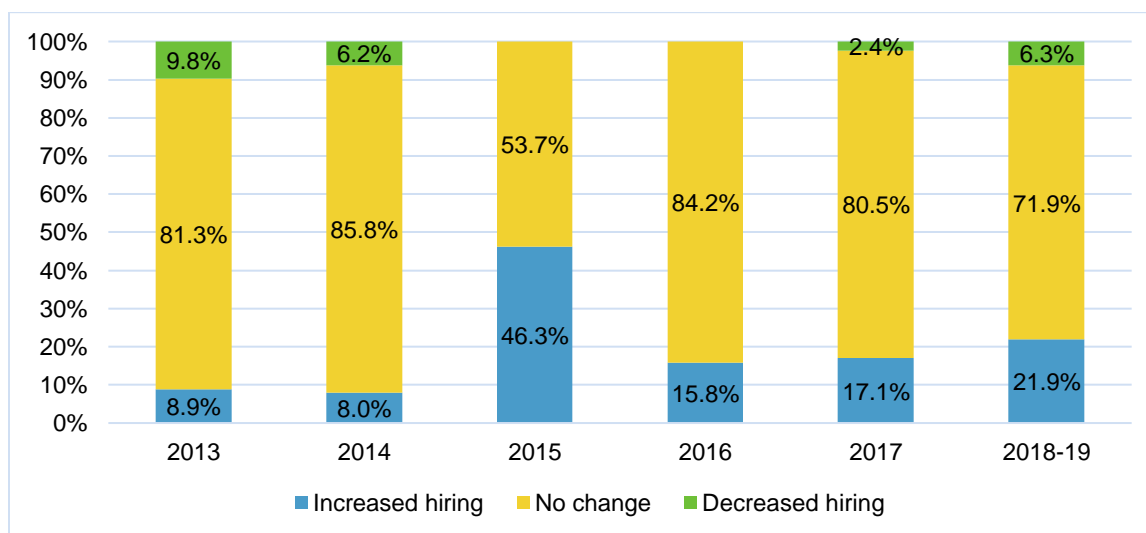
Figure 18. Change in RN hiring in the past year, case management, 2013 to 2018-19
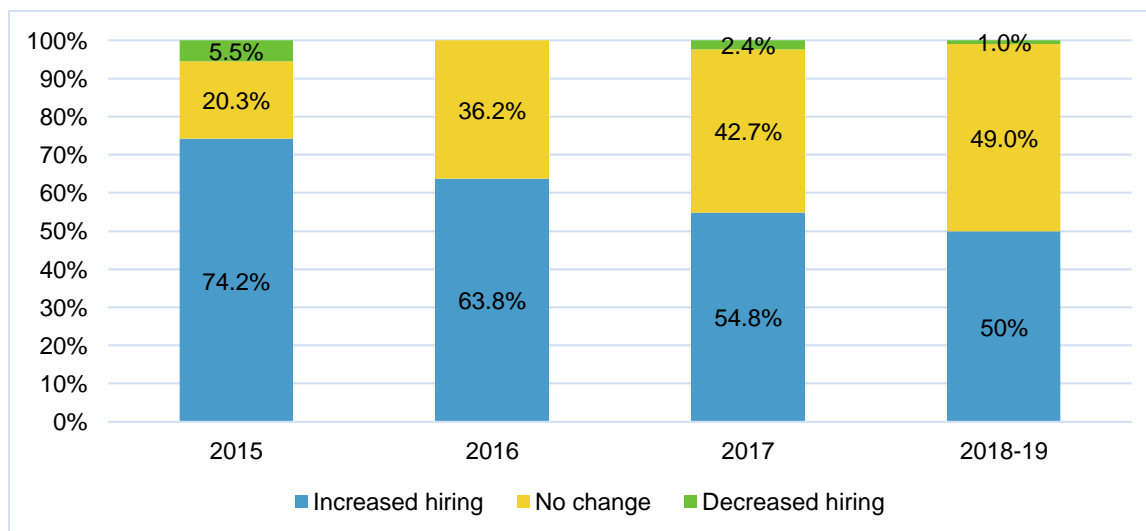
**Data not collected in 2013 and 2014.

Hospitals were asked about environmental changes experienced over the past year. Over a third (34%) of hospitals reported facing budget constraints in fall/winter 2018-19, compared to 20% of hospitals in fall 2015. Additionally, in 2018-19, approximately one-third of responding hospitals reported experiencing more turnover and difficulty with staff retention, increased usage of traveler/contract nurses, and increased patient acuity.

Recruitment of Internationally-educated RNs

Figure 19 shows that 10.3% of hospitals reported they were recruiting internationally-educated RNs to fill open staff positions in fall/winter 2018-19. This is the highest share of hospitals reporting international recruitment in the nine years this survey has been conducted, continuing an upward trend that began in 2012.

Figure 19. Recruitment of internationally-educated registered nurses, 2010 to 2018-19
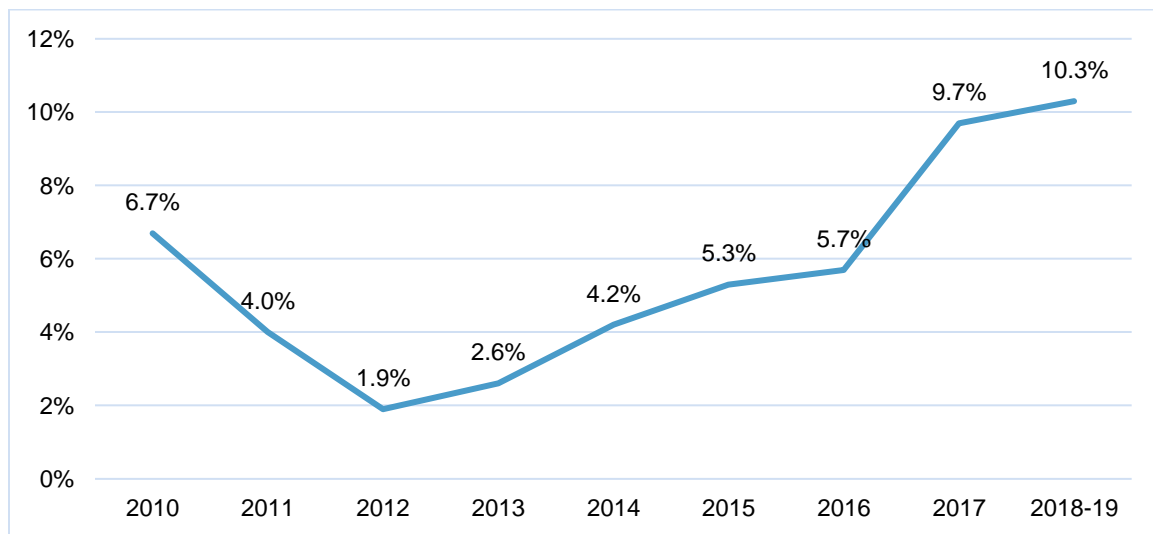
New RN Graduates

Over 90% of hospitals reported hiring *new RN graduates* in fall/winter 2018-19. Figure 20 shows a small upward trend from 2013 to 2015 in the share of hospitals reporting that they hired *new RN graduates* in the previous year, after which time the share stabilized. The data also show a small downward trend in the share of hospitals that reported that they did not ever hire *new RN graduates* during this same period, but this share also stabilized after 2015. The hospitals that did not hire *new RN graduates* indicated that they preferred to hire RNs who had already developed strong critical thinking skills and that hospitals had difficulty securing sufficient staff for *new RN graduate* orientations.

Figure 20. Hiring of new RN graduates, 2010 to 2018-19
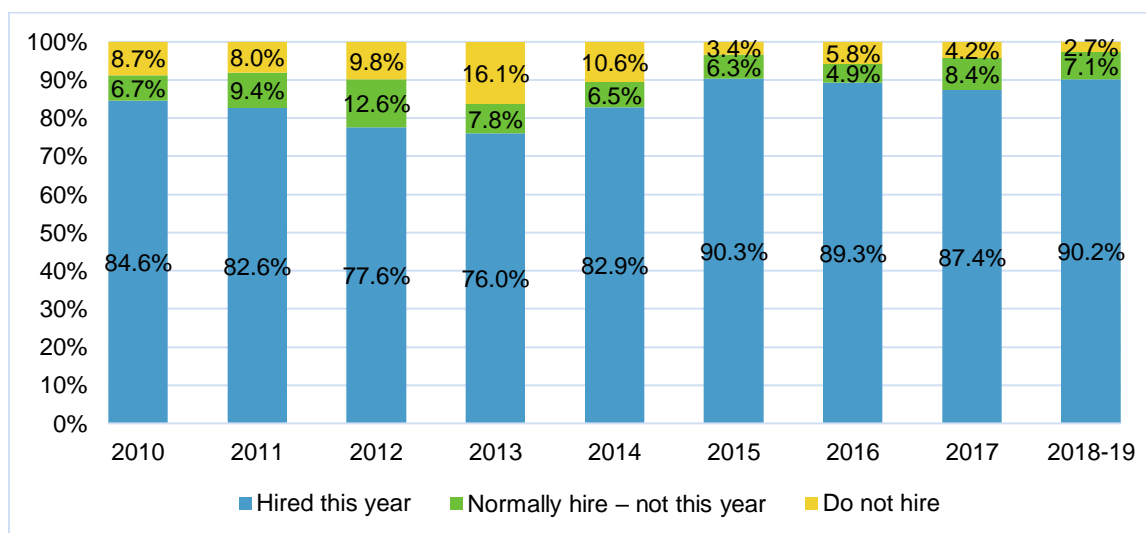
Figure 21 demonstrates that full-time new RN graduates have represented a relatively consistent share of all new full-time *staff RNs* hired in each of the past seven survey years. In fall 2018, 30% of all new *staff RNs* hired were *new RN graduates*. Part-time *new RN graduates* have consistently accounted for approximately 5% of all new part-time *staff RNs* hired.

Figure 21. New RN graduates hired as a share of all staff RNs hired (full-time), 2012 to 2018[17]

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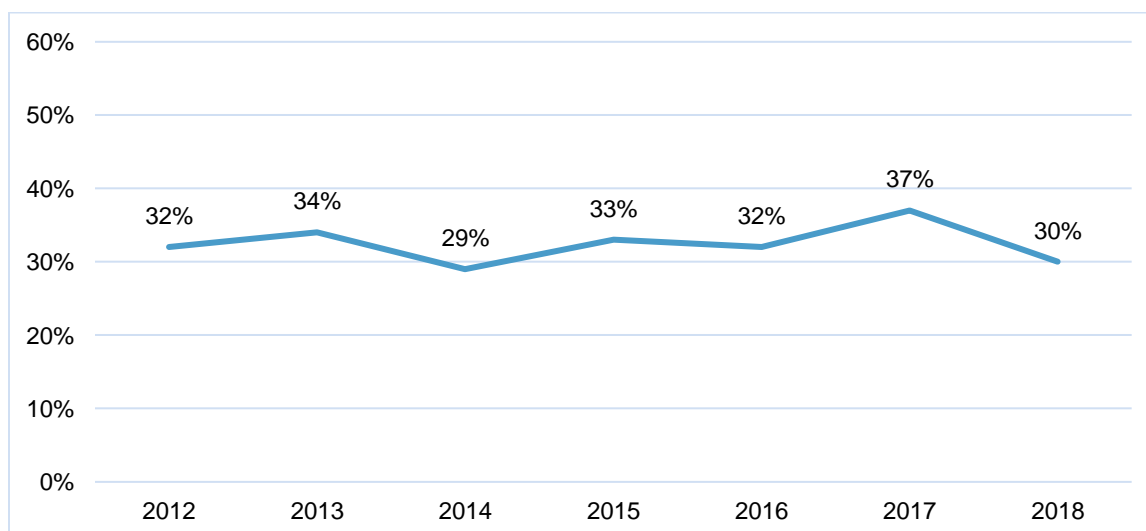
[17] These are hiring ratios for the quarter in which data were reported: the third quarter of 2012, the fourth quarter of 2013, the third quarter of 2014, the third quarter of 2015, the fourth quarter of 2016, the third quarter of 2017, and the third quarter of 2018.

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

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

*These items were added in 2014

Baccalaureate-prepared Nurses

Respondents were asked to report the share of currently-employed RNs who were educated at the BSN level. Figure 22 shows that in fall/winter 2018-19, the largest share of hospitals indicated that BSN-prepared RNs represented between 26% and 50% of nursing staff, which is similar to prior survey years. The 2018 data also show that 26.1% of hospitals reported that BSN-prepared RNs represented between 76% and 100% of nursing staff, which was a substantial increase compared with survey results from 2014.

Figure 22. Share of RNs with BSN or higher degree, 2014 to 2018-19
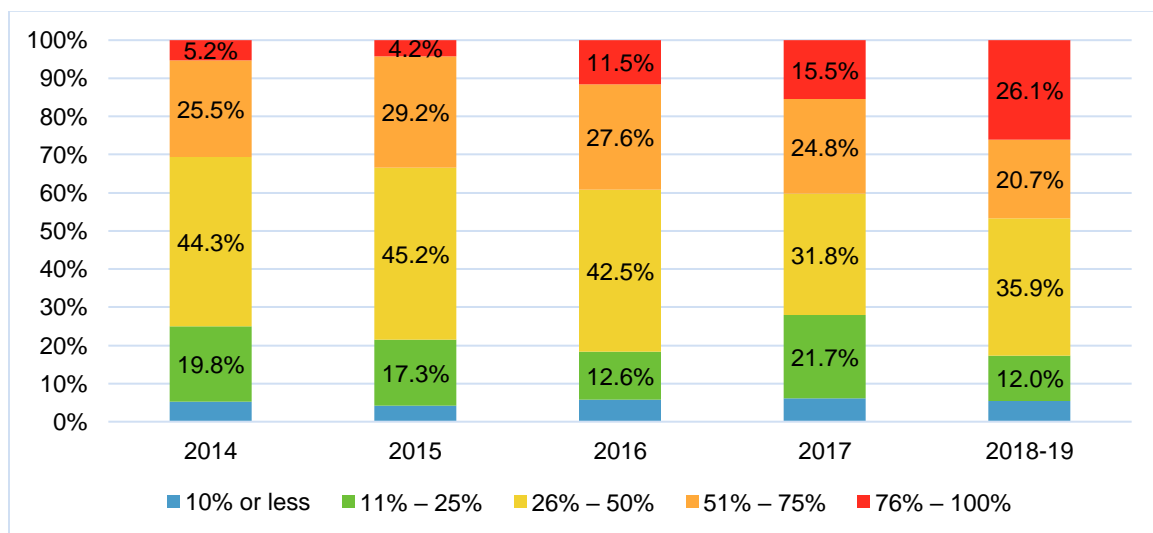

Figure 23 shows that in fall/winter 2018-19, 65.8% of hospitals had plans to increase the share of baccalaureate-trained nurses on staff, which is consistent with the previous two survey years but was a decline from a high of 75% in fall 2015.

Figure 23. Plans to increase BSN-prepared nurses, 2013 to 2018-19
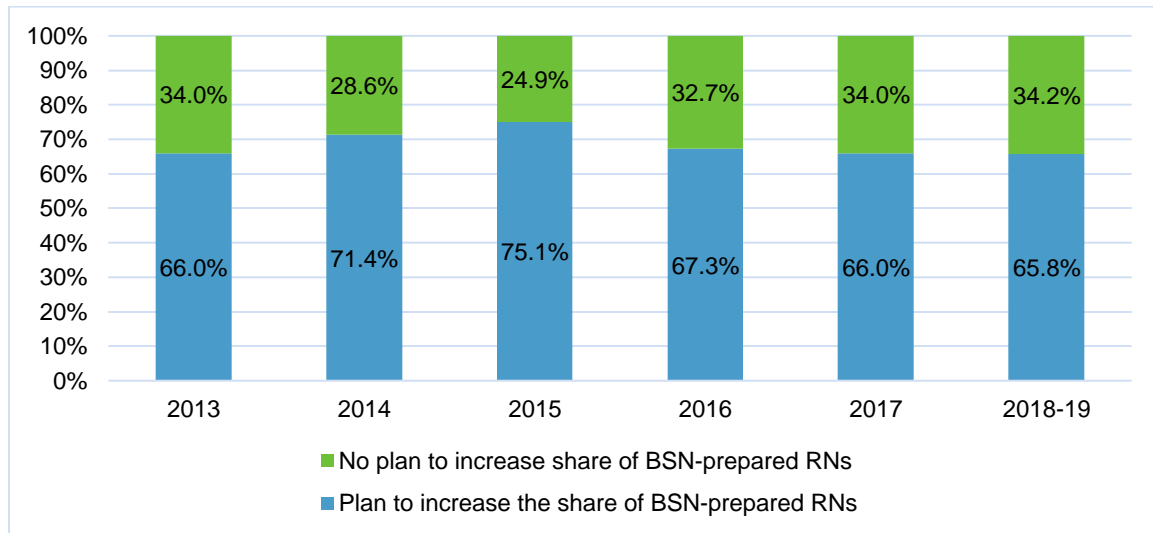
RNs educated at the associate degree and diploma level account for a substantial share of California's nursing workforce. Hospitals were asked whether newly-hired RNs without a bachelor's degree were required earn one and, if so, how much time they had to do so. Figure 24 shows that in fall/winter 2018-19 nearly 7% of hospitals reported having a requirement that newly hired RNs who don't already possess a BSN obtain one; this is lower than reported in previous survey years. For hospitals that had this requirement, it was commonly reported that new hires had between 1 to 3 years to obtain the BSN degree, with a 2 year timeframe being the most common.

Hospitals were also asked whether RNs who did not have a BSN faced limitations to being promoted beyond the level of a *staff RN*. Figure 24 shows that the share of hospitals that reported that a lack of a BSN degree limits professional advancement fluctuated over the past five survey years. In 2018-19, the share was 54.9% of hospitals, which was a small decrease from fall 2017 (57.9%).

Figure 24. Requirements for BSN and impact of BSN on promotion, 2013 to 2018-19
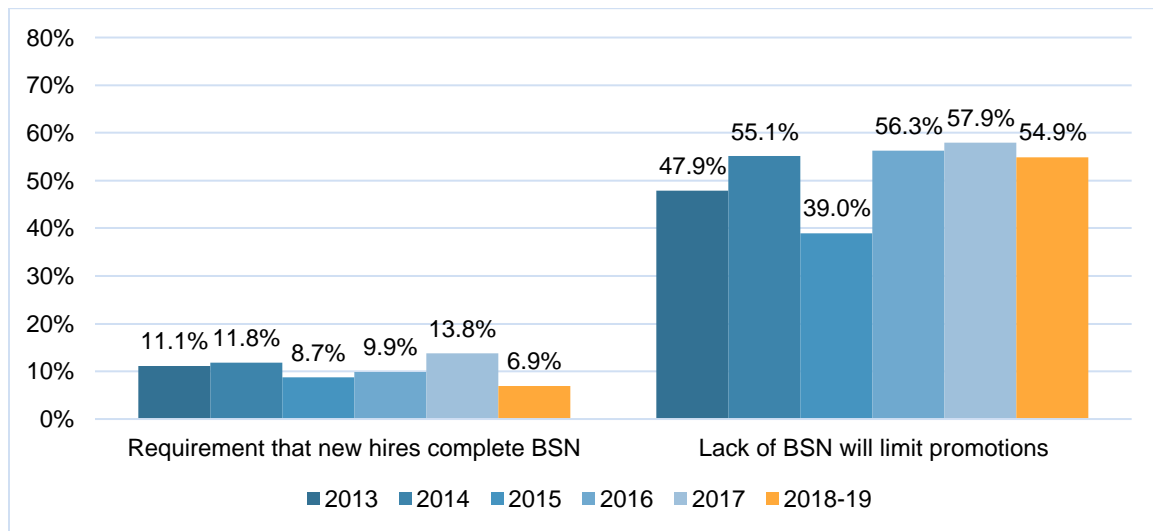
Approximately 79% of responding hospitals reported facing at least one barrier to increasing the number of baccalaureate-trained nurses (Figure 25). The most frequently cited barriers were a lack of interest in BSN education on the part of incumbent RNs, insufficient funding to offer tuition reimbursement, and insufficient funds to incentivize incumbent RNs to complete a baccalaureate degree program with promotions, pay differentials, or bonuses.

Figure 25. Barriers to increasing the number of BSN-prepared nurses, 2018-19
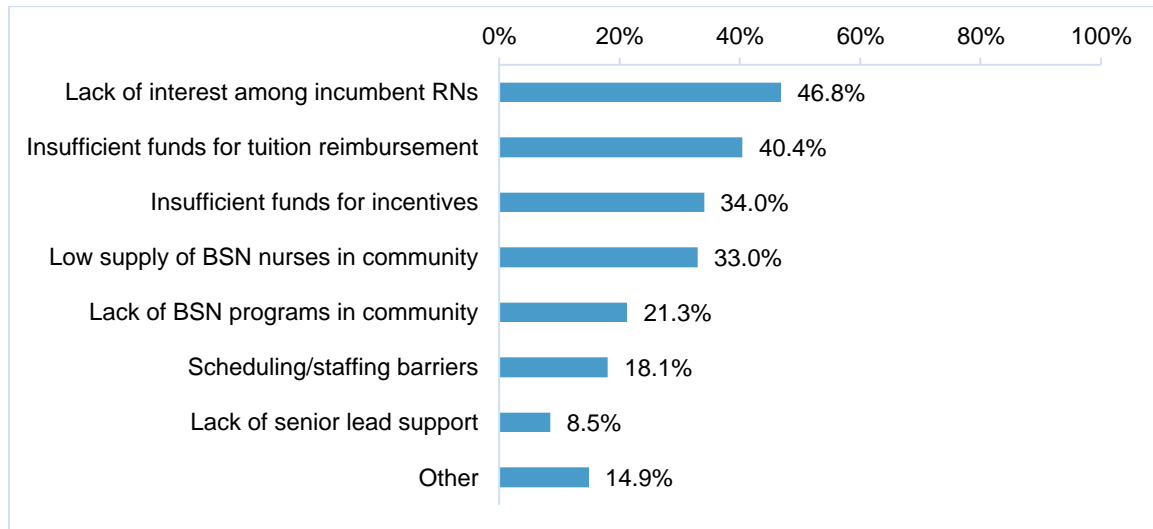
Note: 94 hospitals reported at least one barrier to increasing number of BSN-prepared nurses.

As seen in Figure 26, in 2018-19 approximately 36.3% of hospitals reported that they differentiated RN salaries based on the type of nursing degree (e.g. ADN vs BSN vs MSN); this was an increase from the previous survey year, but was consistent with previous survey results.

Figure 26. Organization differentiates RN salaries by degree, 2014 to 2018-19

Table 14 details the types of support that hospitals reported they provided to incumbent RNs who were enrolled in a degree program or working toward advanced certification. In fall/winter 2018-19, over 71% of hospitals reported
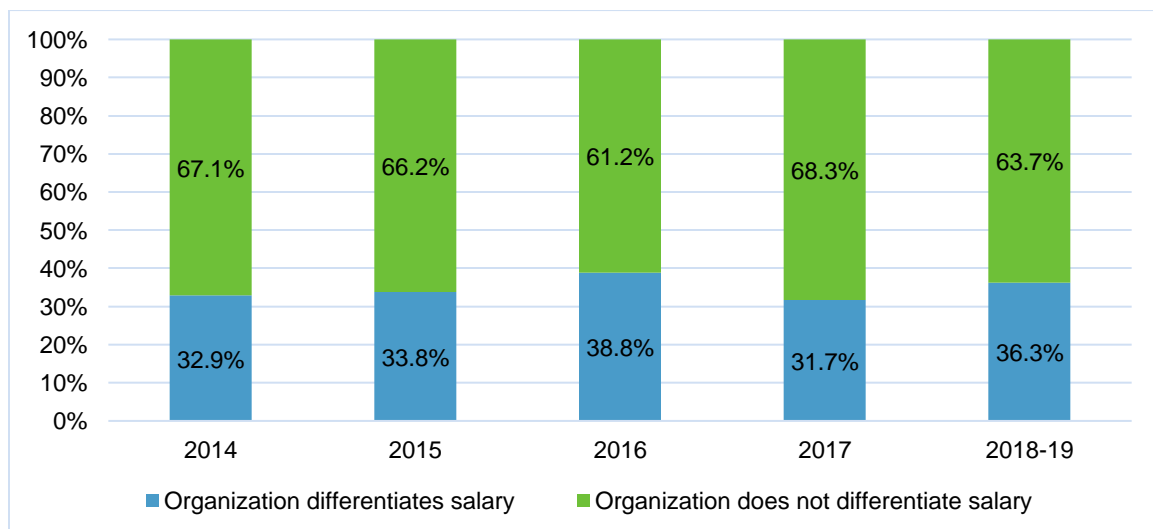
offering tuition reimbursement in support of employed RNs seeking an additional degree, which was an increase from fall 2017. Over 50% of hospitals reported offering tuition reimbursement to RNs working toward advanced certification.

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

	2014		2015		2016		2017		2018-19	
Description	#	%	#	%	#	%	#	%	#	%
Tuition reimbursement										
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
Paid time off for coursework										
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
Approved use of unpaid time off for coursework										
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
Total responses	**214**	--	**208**	--	**103**	--	**143**	--	**111**	--

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.

Figure 27. Clinical residency programs for new RN graduates, 2014 to 2018-19
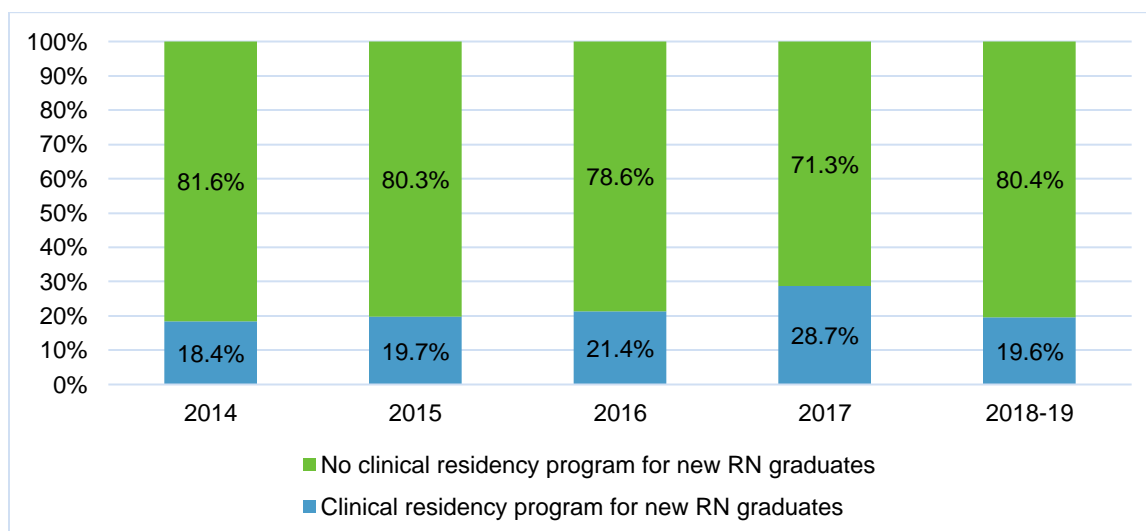
Hospitals with residency programs for *new RN graduates* were asked whether their program had been developed internally, by an external organization, or in partnership with a school of nursing. As seen in Figure 28, in each of the past five years, the most common arrangement was for a hospital to develop its own residency program.

Figure 28. Clinical residency programs for new graduates by type of design, 2014 to 2018-19
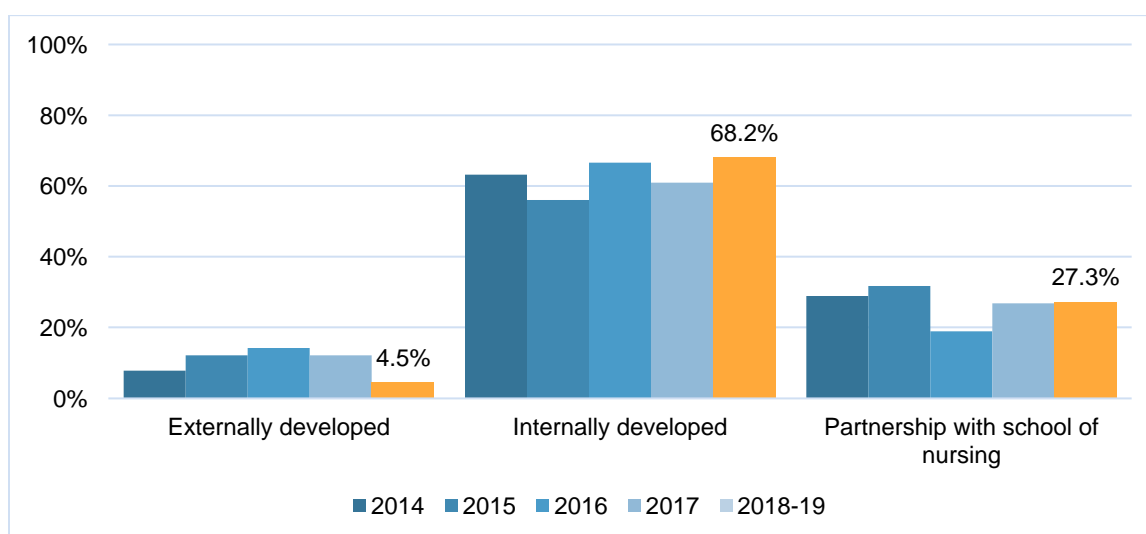
Figure 29 shows that in each of the past five survey years at least two-thirds of hospitals that sponsored clinical residency programs reported that

participating *new RN graduates* were paid for their time; the highest share (82%) was reported this year.

Figure 29. Paid versus unpaid residency programs, 2014 to 2018-19
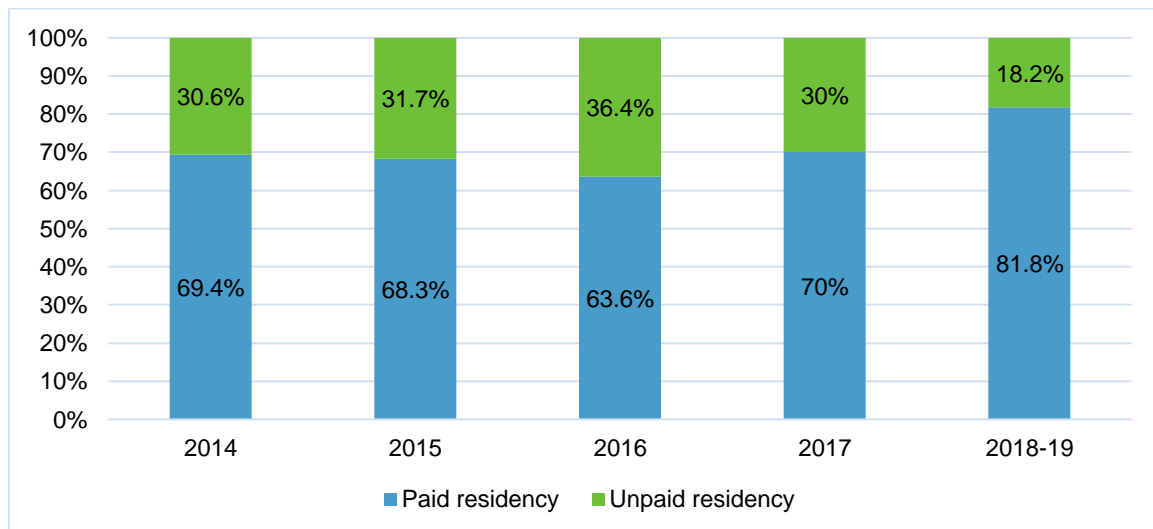
Hospitals with residency programs for *new RN graduates* were asked to report the different clinical practice areas covered. As seen in Table 15, the three most common clinical practice areas covered by residency programs have consistently been medical-surgical, the emergency department, and critical care.

Table 15. Reported clinical practice areas for new graduate residency programs, 2014 to 2018-19

|	2014		2015		2016		2017		2018-19	
Clinical Practice Area	#	%	#	%	#	%	#	%	#	%
Medical-Surgical	39	100.0	40	97.6	19	82.6	39	97.5	18	81.8
Emergency Department	28	71.7	28	68.3	22	95.7	31	77.5	11	50.0
Critical Care	24	61.5	23	56.1	20	87.0	26	65.0	12	54,5
Delivery Room/Postpartum/Newborn Nursery	21	53.8	18	43.9	11	47.8	21	52.5	9	40.9
OR/Peri-operative	17	43.6	15	36.6	11	47.8	21	52.5	11	50.0
Pediatrics/Neonatal	8	20.5	8	19.5	6	26.1	12	30.0	11	50.0
Ambulatory Care	6	15.4	6	14.6	4	17.4	5	12.5	3	13.6
Rehabilitation	3	7.7	6	14.6	3	13.0	4	10.0	3	13.6
Psychiatry	2	5.1	5	12.2	7	30.4	1	2.5	5	22.7
Skilled Nursing	1	2.6	4	9.8	1	4.3	3	7.5	2	9.1
Home Health	0	0.0	1	2.4	1	4.3	1	2.5	1	4.5
Other	5	12.8	4	9.8	0	0.0	0	0.0	0	0.0
Total responses	**39**	--	**41**	--	**22**	--	**40**	--	**22**	--

Figure 30 indicates that most *new RN graduates* who were accepted into a formal residency program were hired by the hospital. In each the past five survey years, at least 74% of responding hospitals reported that they hired between 75% and 100% of their residency program graduates; nearly 78% was reported in 2018-19.

Figure 30. Percentage of graduates in residency program hired last year, 2014 to 2018-19
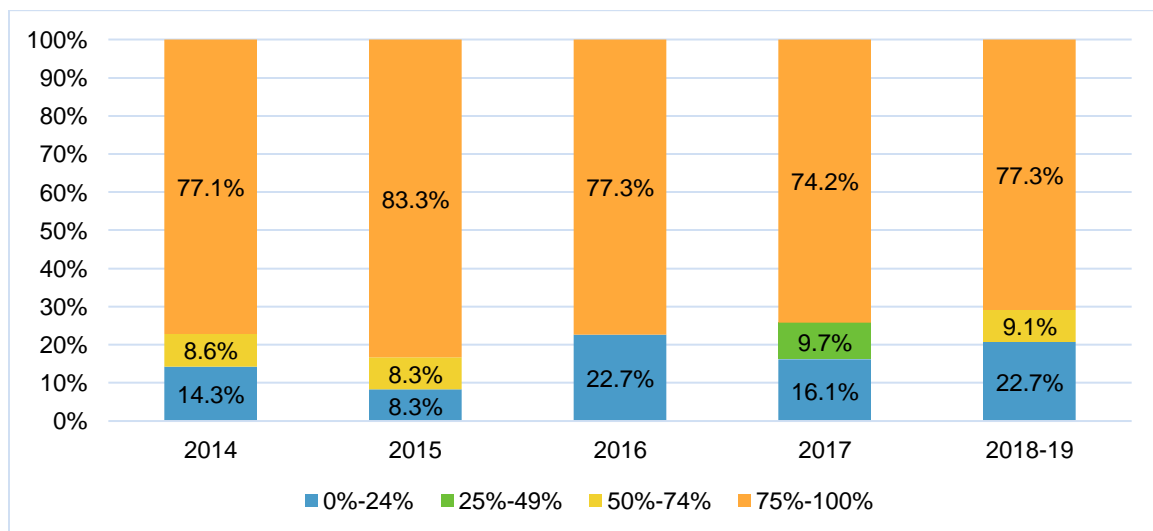
Employment Expectations for the Next Year

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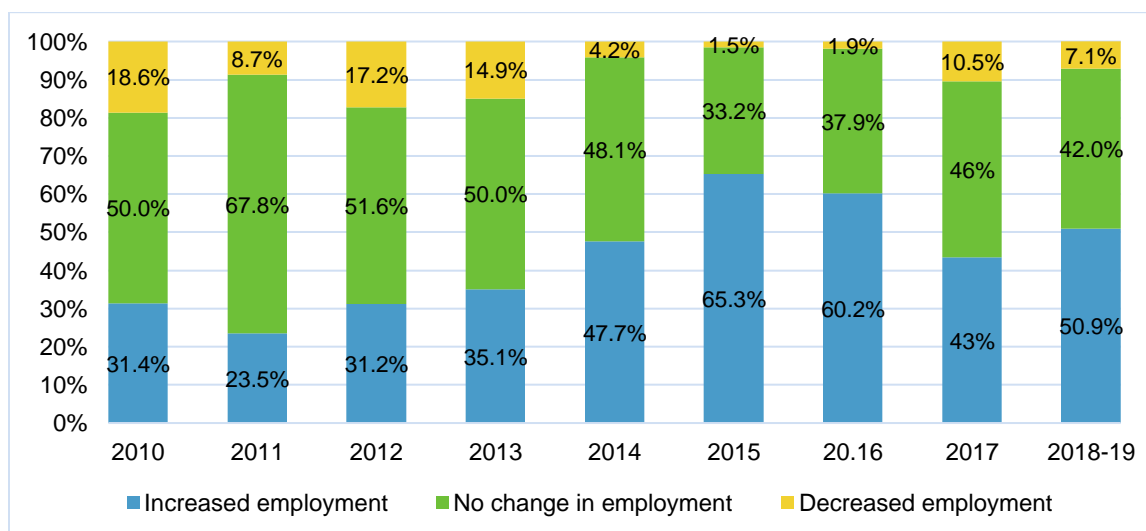
Figure 32 presents hospital responses regarding anticipated shifts in hiring over the coming year by care setting. More hospitals anticipated increased hiring than decreased hiring in all clinical areas.

Figure 32. Expectations for RN hiring in the next year, by care setting, 2018-19
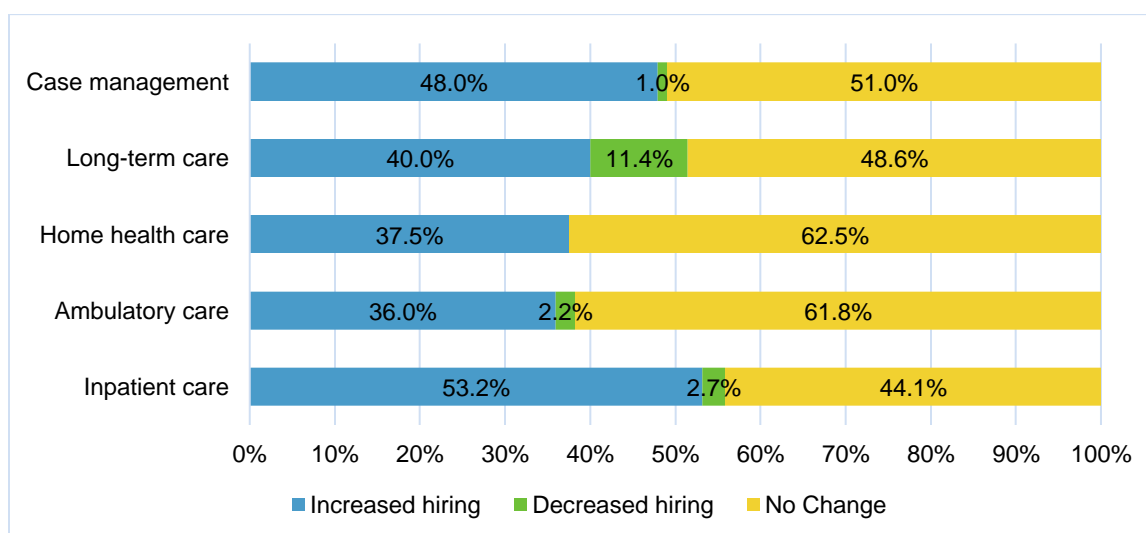
Figure 33 shows that in fall/winter 2018-19, 31.3% of all hospitals reported an expectation that *new RN graduate* hiring would increase next year. This continued the slowing hiring trend that began in 2017. Similarly, the 8.9% of hospitals that reported they expected to decrease hiring of *new RN graduates* 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

Legend:
- ■ Increase hiring of new graduates
- ■ No change in new graduate hiring
- ■ Decrease hiring of new graduates

Year	Increase hiring	No change	Decrease hiring
2011	21.6%	59.7%	18.7%
2012	22.3%	55.4%	22.3%
2013	24.1%	61.1%	14.8%
2014	35.1%	57.2%	7.7%
2015	47.3%	49.2%	3.5%
2016	48.5%	48.5%	2.9%
2017	31.7%	59.2%	9.2%
2018-19	31.3%	59.8%	8.9%
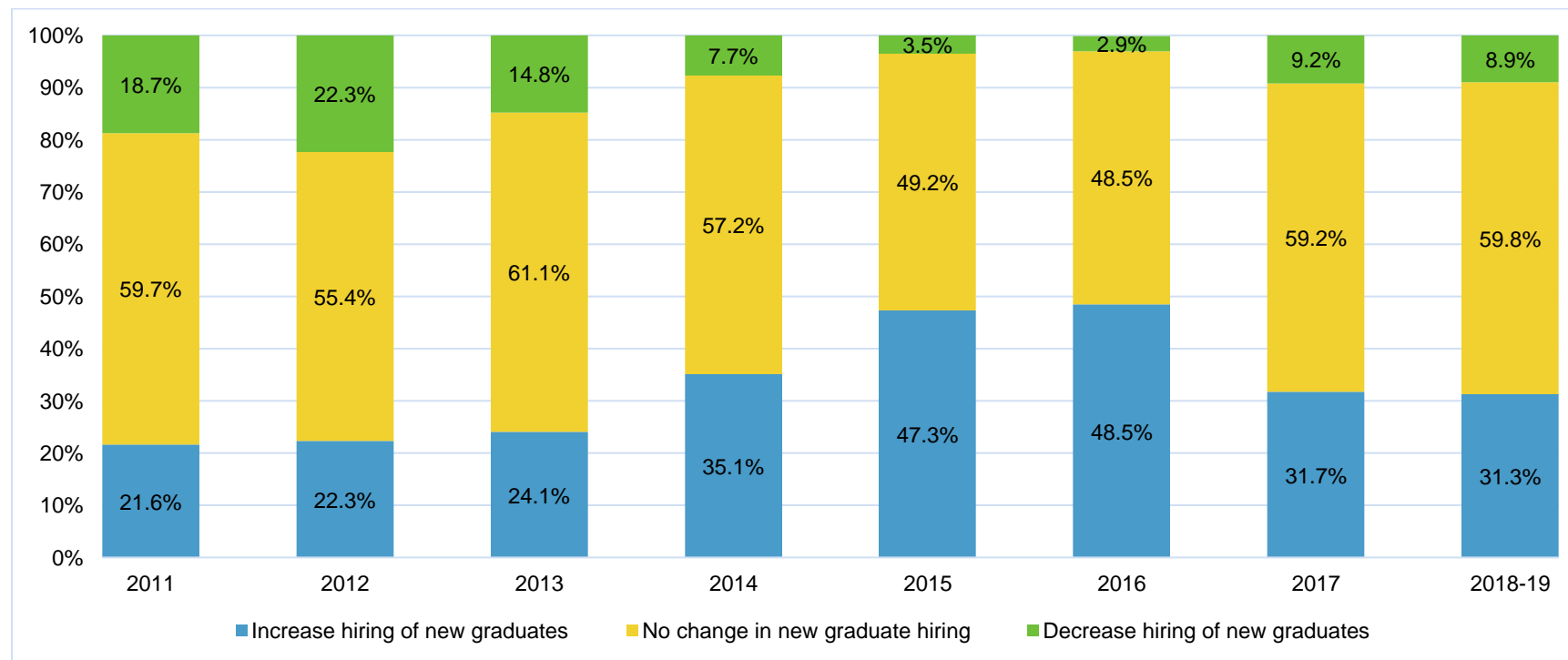
Hospitals were asked to cite reasons for why they expected hiring of *new graduate RNs* over the next year to be different from the past year. The most frequently-reported reasons for expected increases in hiring included anticipated retirements, high vacancy rates and challenges in recruiting experienced 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

APPENDIX

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

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

Region	2013	2014	2015	2016	2017	2018-19
Sacramento & Northern California	3.91	4.17	4.21	4.25	4.23	4.29
San Francisco Bay Area	2.71	3.79	4.21	4.09	3.75	3.68
Central California	3.98	4.21	4.16	4.64	4.50	4.17
Los Angeles	4.13	4.17	4.15	4.06	4.26	4.20
Inland Empire	4.20	4.14	4.60	4.56	4.17	4.11
Southern Border	4.12	3.70	3.71	5.00	4.00	4.33
California	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
Sacramento & Northern California	1.77	2.33	2.25	2.55	2.62	2.43
San Francisco Bay Area	1.31	1.42	1.68	2.00	2.62	1.83
Central California	1.70	1.97	2.21	3.15	2.53	3.09
Los Angeles	1.53	1.68	2.00	2.24	2.09	2.12
Inland Empire	1.45	1.95	2.20	2.13	2.22	2.00
Southern Border	1.29	1.60	1.50	1.50	1.50	2.33
California	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
Less than 100 beds	3.12	3.15	3.29	3.07	3.65	4.27	4.26	4.35	4.11
100 – 199 beds	2.65	2.85	3.17	3.23	3.75	4.19	4.41	4.09	4.46
200 – 299 beds	2.50	3.23	3.30	2.64	3.21	4.04	4.14	4.09	4.18
300 – 399 beds	2.00	3.02	2.97	2.74	3.65	4.39	4.00	4.31	4.25
400 beds or more	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
Rural	3.60	3.51	3.69	3.47	4.13	4.28	4.80	4.23	4.33
Non-rural	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

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

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

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