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Research Report

Survey of Nurse Employers in California, Fall 2017

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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.

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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 2017. This is the eighth 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 very strong overall demand for RNs across California, a preference for hiring experienced nurses, and an ongoing lack of positions available for newly graduated RNs.

Summary of Findings

The fall 2017 survey results indicate a stabilization of labor market conditions faced by California's registered nurses (RNs), with the vast majority of hospitals reporting that there was greater demand for RNs than 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 is a slight surplus of new RN graduates, although the demand for new RN graduates has slowly improved between 2013 and 2017.

There is 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. Demand for new RN graduates was strongest in the Sacramento and Northern Counties region and the San Francisco Bay Area, and weakest in the Southern Border region. 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 2016 and fall 2017, while 27.5% of hospitals reported that employment of experienced staff RNs increased. More

hospitals reported lower employment than higher employment of temporary and traveling nursing in 2017 compared with the prior year. Some hospitals indicated that they were increasing their hiring overall, and in particular their hiring of new RN graduates, to reduce their reliance on temporary and traveling RNs.

Over 87% of hospitals reported hiring new RN graduates in 2017, and new graduates accounted for 37% of all new staff RN hires in 2017. Nearly one-third of hospitals reported that they expect to increase their hiring of new graduates in 2018, which is a decline from 2015 and 2016 when nearly half expected increased hiring of new RN graduates. The most frequently reported reason for an expected increase in new graduate hiring was the lack of available experienced RNs. Hospitals also cited expectations of increased retirements, difficulty offering competitive salaries to experienced RNs, and plans to develop programs to mentor new graduates as reasons for anticipated hiring growth.

In fall 2017, 9% of hospitals reported they required newly-hired RNs to hold a bachelor's degree; another 54.9% of hospitals reported a preference for hiring baccalaureate-trained RNs. Hospitals reported that BSN-prepared nurses represent a larger share of staff compared to prior years, with approximately 40% reporting that at least half their RN staff have 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 share of hospitals reporting that they offer a formal clinical residency program for new RN graduates grew from 2014 through 2017, reaching 28.7% in 2017. Most of these programs were developed by either the hospitals themselves (61%) or in partnership with a school of nursing (26.8%). The most common clinical areas in which training was provided are emergency department, critical care, and medical-surgical. Approximately 70% of these programs paid participating new graduates, and 74.2% of these programs hired between 75% and 100% of participants.

Approximately 43% of all hospitals reported expectations that RN employment would increase in 2018. This is a decrease from the prior year, when 60.2% reported an expectation of greater hiring in the coming year. Nearly 11% of responding hospitals reported expectations that RN employment would decrease in 2018. The most frequently reported reasons for the 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 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 strong 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, with a ratio of employed RNs per capita among the lowest in the United States.[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]

Although the California RN labor market appears to be balanced overall, there have been reports of both shortages and surpluses of RNs. During the economic recession that emerged in 2008, employment rates of older RNs in California rose while those of younger RNs dropped.[5] The overall supply of RNs increased through delayed retirements, nurses returning to work, and part-time nurses working full-time, likely due to the increased financial pressure the recession placed on families and the financial losses in many retirement portfolios.[6] Additionally, the recession placed significant financial pressure on hospitals and other health care employers, with many cutting back on hiring new RN graduates due to the lack of vacant RN positions and limited financial resources to pay for new graduate orientation programs.

More recently, the implementation of the Affordable Care Act has spurred greater demand for health care services by the newly-insured. In addition, the growing number of older Americans is expected to increase demand for health care services. The RN workforce is aging and Baby-Boomer nurses are transitioning to retirement, making it essential that the number of new

[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] Spetz, J, Keane, D, Herrera, C. 2010 Survey of Registered Nurses. Sacramento, CA: California Board of Registered Nursing, 2011. http://www.rn.ca.gov/pdfs/forms/survey2010.pdf.

[6] Staiger, Douglas O, Auerbach, David I., and Buerhaus, Peter I. "Registered Nurse Supply and the Recession – Are We In A Bubble?" New England Journal of Medicine, March 21, 2012.

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.[7] 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 since then. This report presents data from the most recent survey, conducted in fall 2017, 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.

[7] 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, the California Hospital Association (CHA), FutureSense, Inc., and HealthImpact designed the 2017 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 to all CNOs using a mailing list updated from the prior year's survey (2016). 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. The HASC Healthcare Workforce Survey was administered online; the data were collected over a period of one month in September 2017 and describe staffing, turnover, and hiring patterns for the third quarter of the year (July 1 – September 31, 2017). For both surveys, facilities were contacted with follow-up emails and telephone calls to encourage participation.

Survey Participation and Data Analysis

The HASC Healthcare Workforce Survey elicited 206 unique responses, representing 195 general acute care (GAC) hospitals and 49,339 beds. The UCSF survey elicited 119 unique responses, representing 139 GAC hospitals and 27,060 beds.[8] In the UCSF survey, 23 respondents reported data for multiple hospital facilities; in the HASC Healthcare Workforce Survey, 31 respondents reported data for multiple facilities. A total of 67 facilities responded to both the UCSF and HASC surveys. Six additional facilities in the HASC survey and seven additional facilities in the UCSF survey were focused on acute psychiatric and/or substance-use treatment. Survey respondents

[8] 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.

represent approximately 54.4% (HASC) and 29.9% (UCSF) of the total number of licensed beds at GAC hospitals in California.[9]

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-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, 2017

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

[9] 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 from both surveys are generally representative of GAC hospitals in the state; the differences in proportions were small. The exception to this was hospitals in the Inland Empire region who were underrepresented in the HASC survey.

Table 2. Distribution of responding general acute care hospitals vs. general acute care hospitals in California, by region, 2017

	General acute care hospitals in CA			UCSF survey			HASC survey			Both surveys	
Region	**#**	**%**		**#**	**%**		**#**	**%**		**#**	**%**
Sacramento & North CA	58	12.5		21	15.1		30	13.8		13	19.7
SF Bay Area	92	19.9		24	17.3		42	19.3		11	16.7
Central CA	81	17.5		23	16.5		38	17.4		10	15.2
Los Angeles	118	25.5		39	28.1		63	28.9		20	30.3
Inland Empire	84	18.1		25	18.0		29	13.3		9	13.6
Southern Border	30	6.5		7	5.0		16	7.3		3	4.6
Total	463	100		139	100		218	100		66	100

Note: Percentages may not sum to 100% due to rounding. Seven 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, 2017

	GAC hospitals in CA			UCSF survey			HASC survey	
Total # of beds	**#**	**%**		**#**	**%**		**#**	**%**
Less than 100 beds	156	33.7		48	34.5		41	18.8
100 - 199 beds	130	28.1		40	28.8		66	30.3
200 - 299 beds	73	15.8		19	13.7		43	19.7
300 - 399 beds	52	11.2		13	9.4		43	19.7
400 or more beds	52	11.2		19	13.7		25	11.5
Total	463	100		139	100		216	100

Table 4 compares the rural versus non-rural distribution of survey respondents with GAC facilities in the state.[10] 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, 2017

	GAC hospitals in CA			UCSF survey			HASC survey	
Geographic location	**#**	**%**		**#**	**%**		**#**	**%**
Rural	39	8.4		15	10.8		10	6.4
Non-rural	425	91.6		124	89.2		221	93.6
Total	464	100		139	100		231	100

[10] 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/

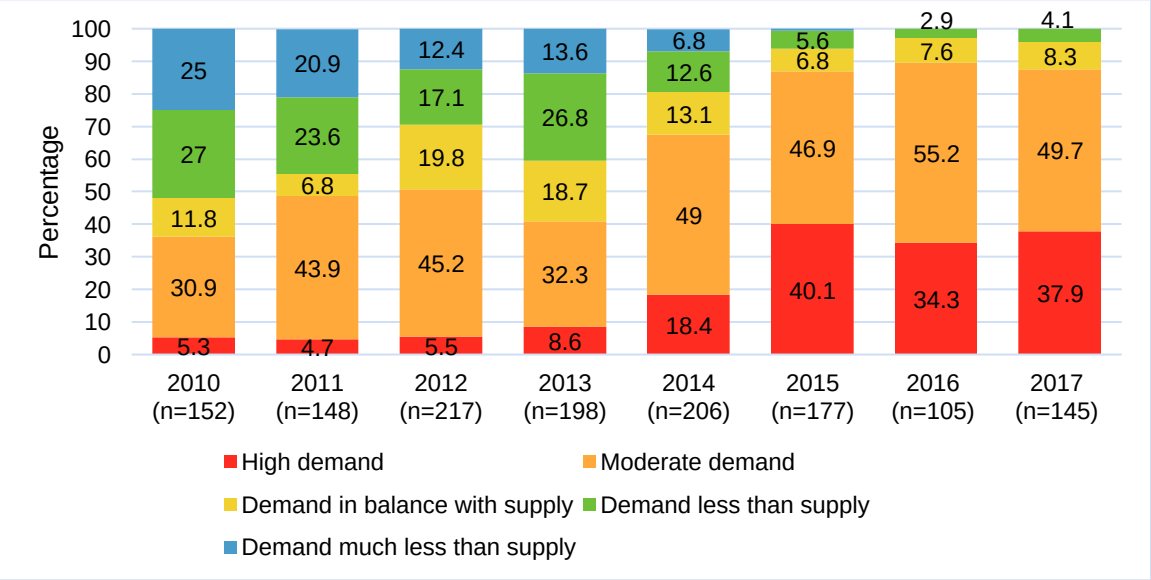
Results

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.[11]

Approximately 38% of hospitals reported a perception of high demand for RNs (difficult to fill open positions). This is a slight increase in comparison to last year's survey. Nearly 50% of hospitals reported moderate demand for RNs, a slight decrease relative to 2015. Combined, 87.6% of hospitals reported demand for RNs being greater than the available supply, which is a small decrease in comparison to 2016, but more than 20% higher than reported in 2014. In the past two surveys, no hospitals have reported that demand was "much less than supply" and only one hospital reported this in 2015.

Figure 1. Overall RN labor market demand in California, 2010 – 2017



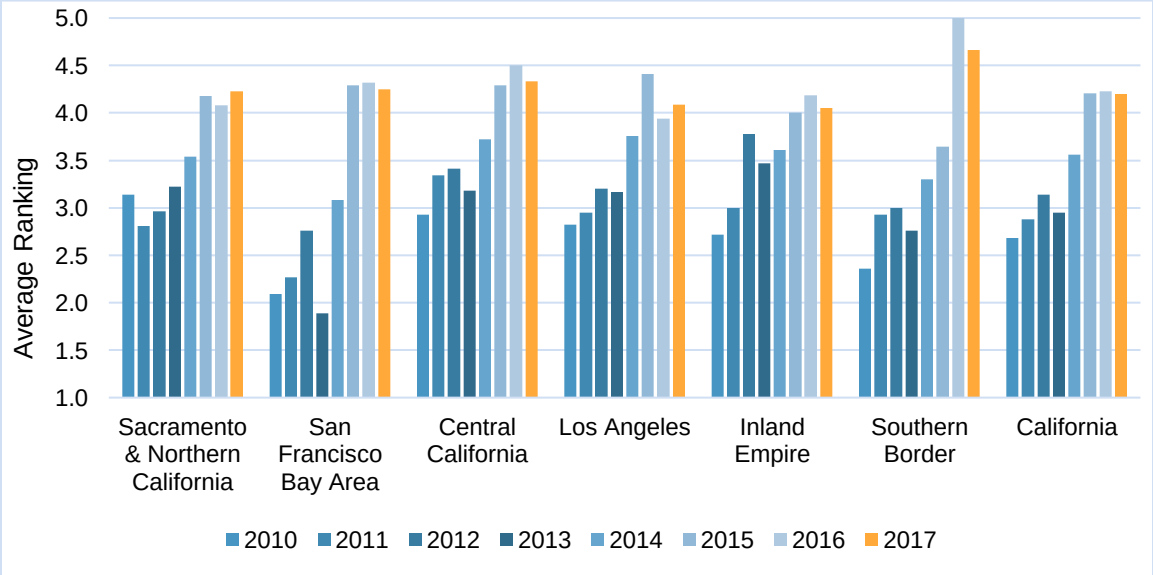
Note: Percentages may not sum to 100% due to rounding.

[11] 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 the operating room, intensive care, the emergency department, and labor and delivery. Survey respondents also reported strong demand for nurses to fill administrative/managerial roles.

Figure 2 shows the average ranking of demand for all registered nurses by region between 2010 and 2017. 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 Southern Border region, demand for RNs was generally stable in comparison to the prior survey year. In all regions, CNOs perceived a shortage of RNs. Perceptions of shortage were strongest in in the Southern Border and Central California regions, and weakest in the Los Angeles and Inland Empire regions.

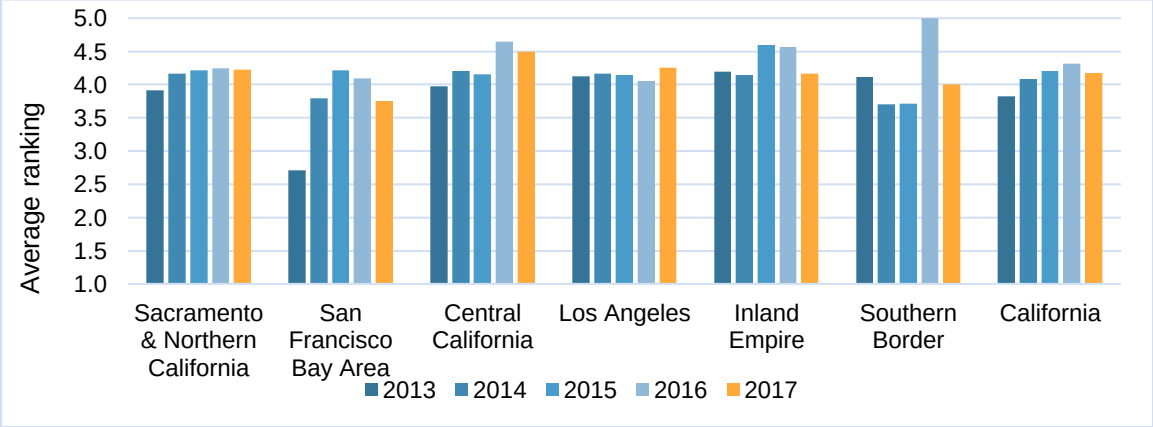
Figure 2. Average ranking of overall labor market demand by geographic region, 2010 – 2017



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).

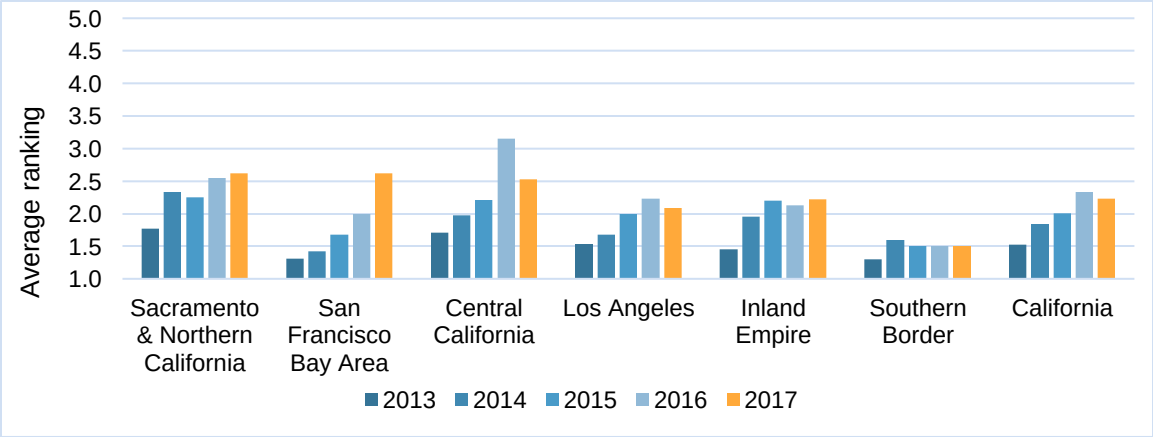
Since 2013, hospitals have been asked to distinguish between the labor markets for *experienced RNs* versus *new RN graduates*. As seen in Figure 3, CNOs have perceived a shortage of *experienced RNs* in every region since 2014; in 2017, hospitals in the Central California region reported the most pronounced perceived shortage. In contrast, Figure 4 demonstrates that hospitals across all regions perceived that demand for *new RN graduates* was less than the available supply. In the San Francisco Bay Area, Sacramento and Northern California, and Central California regions, the labor market for new graduates was stronger, with an average score greater than 2.5, indicating a labor market that is close to being balanced.

Figure 3. Average ranking of labor market demand for experienced RNs by geographic region, 2013 – 2017



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 – 2017



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 2017. A much larger share of hospitals (66.7%) in the Southern Border region reported high demand for RNs compared with other regions of the state. However, combining the shares of hospitals reporting high demand with those reporting moderate demand for RNs indicates that no less than 80% of hospitals in all regions felt that demand for RNs was greater than 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 Los Angeles regions.

There was more regional variation in the demand for *experienced RNs*. Over two-thirds of hospitals in the Southern Border and Central California regions reported demand for *experienced RNs* was much greater than the available supply In contrast, approximately 20% 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 reporting demand for experienced RNs was less than supply were located in the Southern Border region.

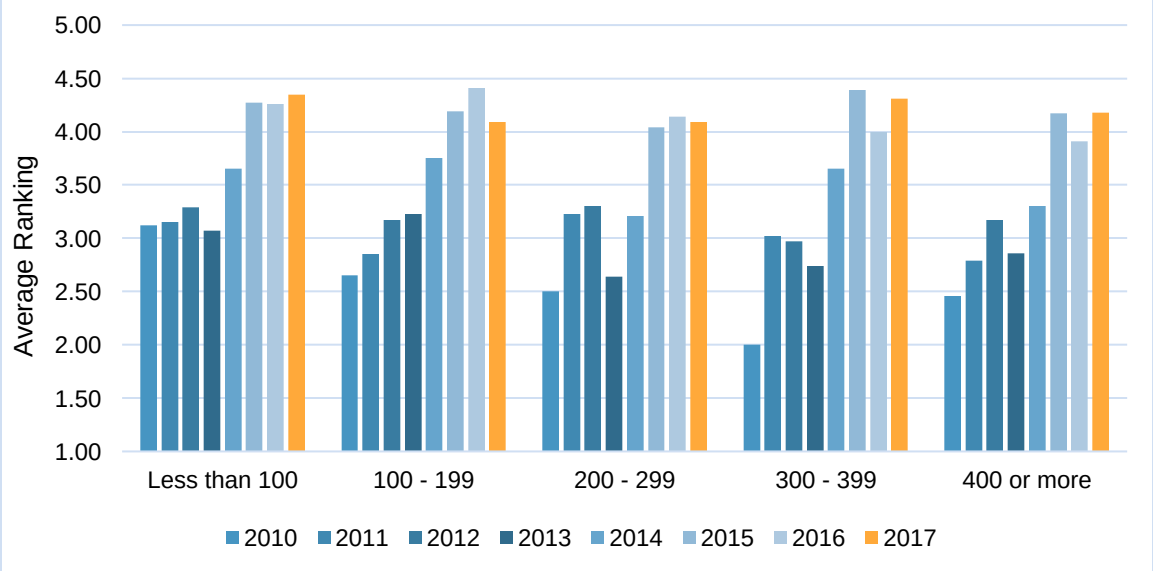
Table 5 indicates generally weak demand for new RN graduates across the state. Only the Sacramento and Northern California regions had less than 50% of hospitals reporting a perception that demand for new graduates was less than the available supply. These same regions, in addition to the Inland Empire region, were the only ones where the largest share of hospitals reported a balanced labor market for new RN graduates; in all other regions the largest share of hospitals reported either weak demand or very weak demand.

Figure 5 compares average demand for all RNs by hospital size (total number of licensed beds) from 2010 through 2017. 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 2017 remained the same or increased among hospitals with fewer than 100 beds and hospitals with 300 and more beds. Among medium-sized hospitals (100 to 299 beds), slightly lower demand was reported than the previous year. However, 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, 2017

	Sac/ North CA (%)	SF Bay Area (%)	Central CA (%)	LA (%)	Inland Empire (%)	Southern Border (%)
Overall RN labor market						
High demand	43.5	40.0	39.1	30.0	32.0	66.7
Moderate demand	39.1	56.0	56.5	50.0	52.0	33.3
Demand in balance with supply	17.4	0.0	4.3	15.0	4.0	0.0
Demand less than supply	0.0	4.0	0.0	5.0	12.0	0.0
Demand much less than supply	0.0	0.0	0.0	0.0	0.0	0.0
Total facilities	**23**	**25**	**23**	**40**	**25**	**9**
Experienced RN labor market						
High demand	47.8	20.0	69.6	42.5	20.8	66.7
Moderate demand	30.4	40.0	21.7	42.5	70.8	0.0
Demand in balance with supply	21.7	40.0	8.7	10.0	8.3	11.1
Demand less than supply	0.0	0.0	0.0	5.0	0.0	0.0
Demand much less than supply	0.0	0.0	0.0	0.0	0.0	22.2
Total facilities	**23**	**25**	**23**	**40**	**24**	**9**
New RN graduate labor market						
High demand	13.6	4.3	4.8	0.0	0.0	0.0
Moderate demand	4.5	0.0	19.0	5.1	4.2	0.0
Demand in balance with supply	36.4	17.4	23.8	25.6	37.5	22.2
Demand less than supply	31.8	43.5	28.6	28.2	33.3	11.1
Demand much less than supply	13.6	34.8	23.8	41.0	25.0	66.7
Total facilities	**22**	**23**	**21**	**39**	**24**	**9**

Figure 5. Average ranking of overall labor market demand by hospital bed-size, 2010 – 2017

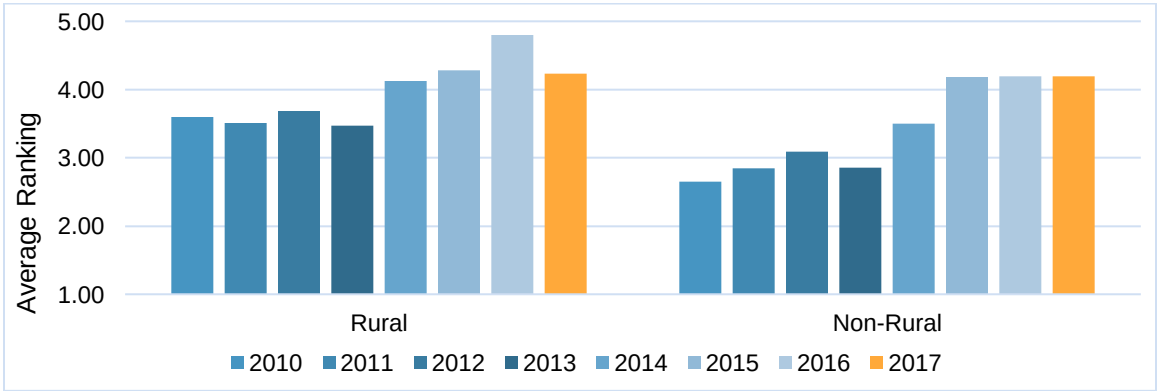


Note: 1 indicates that demand is much less than supply; 5 indicates that demand is much greater than supply. (Lower numbers indicate greater surplus of nurses.)

Differences in demand for *experienced RNs* compared to *new RN graduates* among hospitals of differing size 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 4.4, indicating moderate to high demand with some difficulty filling open positions. Hospitals with fewer than 100 beds and hospitals with 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 1.9 to 2.6. 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 2017 according to whether or not the hospital is located in a rural region. Perceptions of shortage have been consistently greater in rural regions although the average score among rural hospitals dropped from 4.8 in 2016 to 4.2 in 2017. Average demand among hospitals in non-rural locations has been stable over the past three survey years. Rural and non-rural differences in demand for *experienced RNs* compared to *new RN graduates* are generally consistent with data describing regional differences and those describing differences by hospital size. For *experienced RNs*, the average demand scores for both rural and non-rural hospitals indicated moderately high demand (4.1 for non-rural, 4.5 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 (2.6) signaled a labor market closer to being balanced.

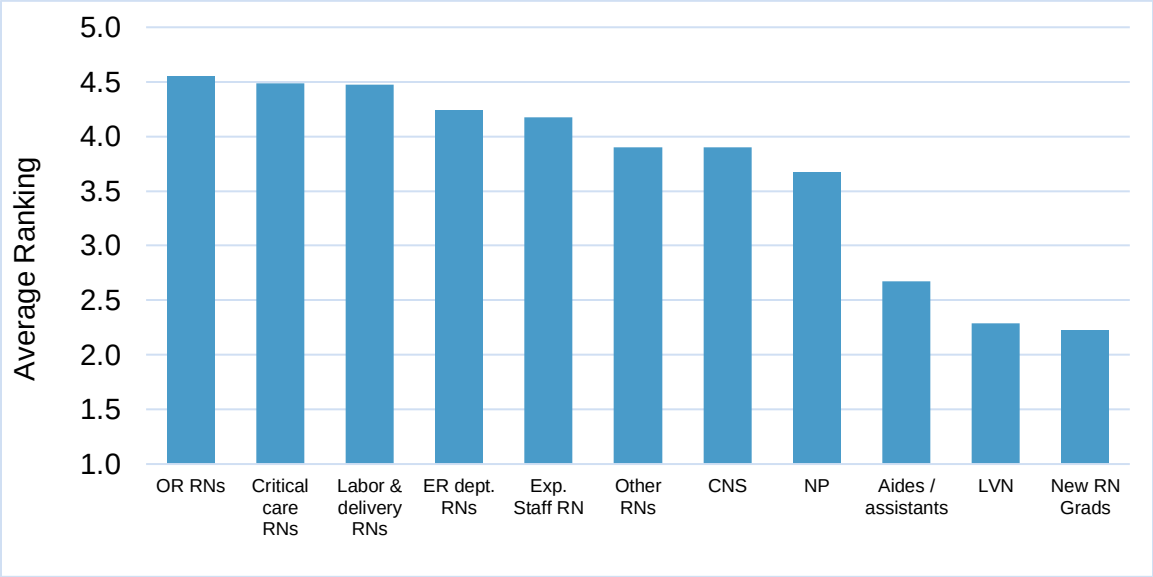
Figure 6. Average ranking of RN labor market demand by rural/non-rural geography, 2010 – 2017



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 2017, 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, 2017



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 2017. [12] These survey data provide 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*
- *Home Health Aide*
- *Unlicensed aide/assistant*

[12] 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, 2017 to September 31, 2017.

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 99,703 registered nurses were employed in fall 2017, which accounted for 80% of all nursing position employment. *Staff RNs* accounted for 68.8% of all registered nurses. Hospitals employ 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 are employed in significant numbers, accounting for 69.3% of all advanced practice nurses.

Table 6 also shows there is wide variation in full-time versus part-time employment across the different types of nursing positions. More than 95% 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, 2017

	Full-time			Part-time			
Description	**Headcount**	**% of total**		**Headcount**	**% of total**		**Total in job title**
Registered Nurse	73,282	73.5		26,421	26.5		99,703
Staff RN	47,830	69.7		20,809	30.3		68,639
Specialty RN	16,702	77.4		4,880	22.6		21,582
Other RN	6,020	90.9		600	9.1		6,620
New RN Graduate	2,730	95.4		132	4.6		2,862
Case Manager	1,658	84.5		303	15.5		1,961
Nurse Anesthetist	126	95.5		6	4.5		132
Clinical Nurse Specialist	542	86.4		85	13.6		627
Nurse Midwife	23	82.1		5	17.9		28
Nurse Practitioner	1,477	83.1		301	16.9		1,778
Licensed Vocational Nurse	3,593	86.2		576	13.8		4,169
Certified Nurse Assistant	7,412	72.6		2,798	27.4		10,210
Home Health Aide	265	90.4		28	9.6		293
Unlicensed Aide/Assistant	4,229	80.9		1,001	19.1		5,230

Table 7 compares the share of full-time employment by position from 2015 to 2017. Full-time employment of *staff RNs* was similar in all three 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 decreased slightly between 2016 and 2017. *Nurse anesthetists*, *clinical nurse specialists*, *nurse midwives*, and *nurse practitioners* experienced large increases in the share of full-time employment between 2015 and 2017. However, the number of people employed in these positions is small, so these large percentage changes are not associated with large changes in absolute numbers.

Table 7. Percent of employed nurses working full-time by position, 2015 – 2017

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

*Data not collected.

Current Vacancies

Table 8 presents vacancy rates by nursing position for the third quarter of 2017.[13] The total vacancy rate for registered nurses was 6.3%, however, there were differences in the rate among the different RN position types. The vacancy rates for *new RN graduates* and *other RNs* were considerably higher than for *staff RNs*. Table 8 also shows that *certified nurse assistants*, *home health aides*, and *unlicensed aides/assistants* had lower vacancy rates in comparison to *staff RNs*. Note that hospitals do not employ many *nurse*

[13] Vacancy data are derived from the quarterly HASC Healthcare Workforce Survey and represent openings as of the pay period closest to September 31, 2017.

anesthetists, *clinical nurse specialists*, or *nurse midwives*, which means that a small number of vacant positions can result in a high vacancy rate. Nurse practitioners' vacancy rate of 10.7% 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, home health aides, unlicensed aide/assistants* and *nurse anesthetists*. *New RN graduates* are hired almost exclusively into full-time positions, so a small number of part-time vacancies results in a high 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* have the lowest ratio (3.3), meaning there were three-and-a-third full-time vacancies for every one part-time vacancy; in contrast, *specialty RNs* had a ratio of almost 6.3, indicating six-and-a-third full-time vacancies for every one part-time vacancy. *Case managers* (10.2), *and other RNs* (19.8) had much higher ratios, indicating that openings for full-time positions were much more prevalent than part-time positions.

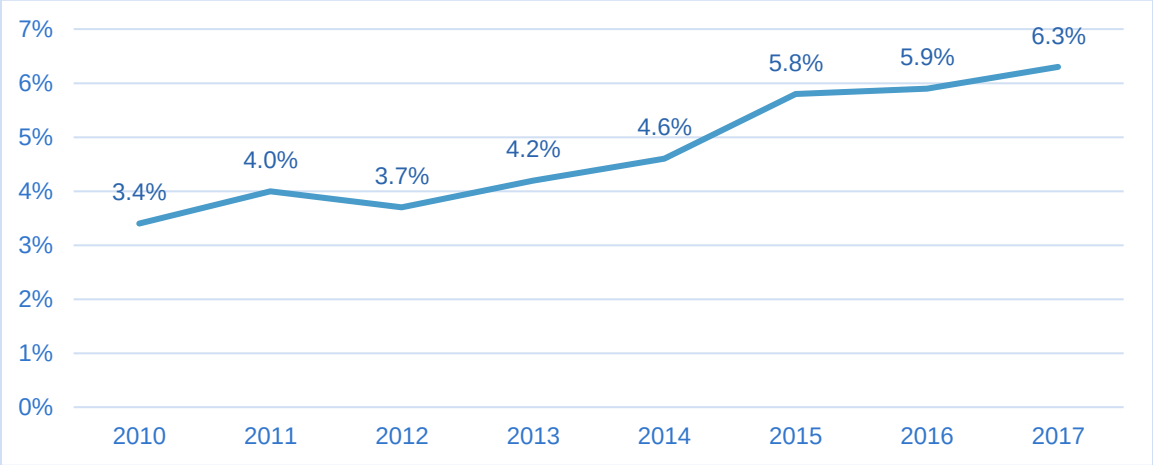
Table 8. Current vacancy rates by position, 2017[14]

	Full-time			Part-time			Total			FT:PT ratio
Description	**No.**	**Rate (%)**		**No.**	**Rate (%)**		**No.**	**Rate (%)**		
Registered Nurse	5,497	7.0		1,252	4.5		6,749	6.3		4.4
Staff RN	3,389	6.6		1,017	4.7		4,406	6.0		3.3
Specialty RN	1,170	6.5		186	3.7		1,356	5.9		6.3
Other RN	694	10.3		35	5.5		729	9.9		19.8
New RN Graduate	244	8.2		14	9.6		258	8.3		17.4
Case Manager	132	7.4		13	4.1		145	6.9		10.2
Nurse Anesthetist	3	2.3		2	25.0		5	3.6		1.5
Clinical Nurse Specialist	352	39.4		3	3.4		355	36.2		117.3
Nurse Midwife	2	8.0		0	0.0		2	6.7		--
Nurse Practitioner	204	12.1		8	2.6		212	10.7		25.5
Licensed Vocational Nurse	237	6.2		36	5.9		273	6.1		6.6
Certified Nurse Assistant	364	4.7		136	4.6		500	4.7		2.7
Home Health Aide	3	1.1		3	9.7		6	2.0		1.0
Unlicensed Aide/Assistant	187	4.2		58	5.5		245	4.5		3.2

[14] Vacancy rate is calculated as: (number of vacancies reported as of the pay period closest to September 31, 2017)/((headcount as of the pay period closest to September 31, 2017) + (number of vacancies reported as of the pay period closest to September 31, 2017))

Figure 8 presents overall RN vacancy rates from the third quarter of each year from 2010 through 2017. RN vacancy rates have been rising since 2012, reaching a high of 6.3% in 2017. This underscores findings that overall demand for RNs is continuing to increase.

Figure 8. Average quarterly vacancy rate for registered nurses, 2010 – 2017



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 2017. The data show that utilization of per diem employees varies considerably depending on the position. In fall 2017, per diem staff accounted for 9.5% of all *RNs*, but was larger for *staff RNs* (12.2%) and *other RNs* (15.3%), while smaller for *new RN graduates* (3.6%). Nearly 20% of *case managers*, more than 21% of *nurse anesthetists*, and 14.3% of *nurse midwives* employed by surveyed hospitals were reported as per diem staff.

Table 9 also indicates that use of per diem staff has been generally stable in recent years for most nursing positions, fluctuating within narrow ranges with some exceptions. These include *nurse anesthetists*, *nurse midwives*, and *home health aides*. Again, it is important to point out the dramatic year-over-year changes in the share of per diem employees for these positions 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 is far more common than the use of either contract or agency employees; per diem RNs outnumbered contract RNs by a ratio of approximately 7 to 1 in fall 2017, and outnumbered agency RNs by a ratio of approximately 16 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, 2017[15]

	# of positions		Share of current staff (%)			
Per Diem Employees	**2017**		**2017**	**2016**	**2015**	**2014**
Registered Nurse	9,459		9.5	13.4	14.7	12.2
Staff RN	8,342		12.2	12.8	14.8	12.5
Other RN	1,012		15.3	11.5	10.3	9.5
New RN Graduate	104		3.6	4.0	2.1	5.8
Specialty RN	3,667		17.0	17.8	*	*
Case Manager	391		19.9	23.2	21.3	*
Nurse Anesthetist	28		21.2	31.2	33.8	36.5
Clinical Nurse Specialist	58		9.3	3.4	3.8	2.5
Nurse Midwife	4		14.3	65.2	52.4	94.4
Nurse Practitioner	235		13.2	14.6	14.6	13.3
Licensed Vocational Nurse	572		13.7	17.4	20.1	16.5
Certified Nurse Assistant	1,675		16.4	20.1	15.0	17.9
Home Health Aide	49		16.7	18.6	31.8	73.6
Unlicensed Aide/Assistant	950		18.2	16.4	16.3	14.9
Contract Employees						
Registered Nurse	1,298		1.3	1.7	2.1	1.8
Licensed Vocational Nurse	11		0.3	0.1	0.1	0.6
Unlicensed Aide/Assistant	158		3.0	1.8	0.5	0.7
Agency Employees						
Registered Nurse	563		0.6	0.8	1.5	1.1
Licensed Vocational Nurse	8		0.2	0.7	3.2	8.7
Unlicensed Aide/Assistant	177		3.4	4.3	8.9	4.6

*Data not collected.

[15] 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, 2017) / (number of regular staff positions as of the pay period closest to September 31, 2017)

Table 10 shows that the share of current staff represented by per diem *RNs, LVNs*, and *unlicensed aides/assistants* has been relatively consistent over the past seven years, each fluctuating within a range of approximately 5 percentage points.[16] Similarly, the utilization of contract and agency RNs has been relatively consistent over the past eight years. With the exception of 2011, the share of current staff represented by contract *RNs* has ranged from 1% to 2%; with the exception of 2015, the share of current staff represented by agency *RNs* has ranged from 0.2% to 1%.

The data describing use of contract *LVNs* and *unlicensed aides/assistants* show a similar pattern: the share fluctuates within a relatively narrow range, with the exception of one outlier year for *LVNs* in 2013, and the past two years for *unlicensed aide/assistants* (although it is possible that the past two years represent an upward trend). Use of agency *LVNs* and *unlicensed aides/assistants* has been more variable over time, although in the four most recent years of survey data hospitals have reported use of a comparatively large share of agency-based *unlicensed aides/assistants*.

Table 10. Per diem, contract, and agency staff as share of current staff, 2010 – 2017

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

[16] The one exception to this trend is the 2011 share of per diem LVNs; given subsequent years' data, this appears to be an anomaly.

Staff Separations by Position

Table 11 presents separation rates for nurses in the third quarter of 2017. 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* (including new RN graduates). *Case managers*, *nurse practitioners*, *LVNs,* and *certified nurse assistants* also had comparatively high separation rates. *Nurse midwives* had a very high overall separation rate but, again, this likely reflects the fact that hospitals employ very few *nurse midwives*. Separation rates are 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, 2017[17]

	Full-time			Part-time			Total	
Description	**Number**	**Rate (%)**		**Number**	**Rate (%)**		**Number**	**Rate (%)**
Registered Nurse	2,320	3.3		539	2.1		2,859	3.0
*Staff RN**	1,518	3.2		371	1.8		1,889	2.8
Specialty RN	597	3.6		143	2.9		740	3.5
Other RN	205	3.4		25	4.3		230	3.5
Case Manager	56	3.6		9	3.2		65	3.5
Nurse Anesthetist	3	2.5		0	0.0		3	2.5
Clinical Nurse Specialist	13	2.4		3	3.6		16	2.6
Nurse Midwife	2	14.3		1	25.0		3	16.7
Nurse Practitioner	54	3.8		6	2.1		60	3.5
Licensed Vocational Nurse	126	3.8		29	5.1		155	3.9
Certified Nurse Assistant	269	3.9		64	2.3		333	3.4
Home Health Aide	5	2.0		1	3.8		6	2.2
Unlicensed Aide/Assistant	111	2.6		37	3.8		148	2.9

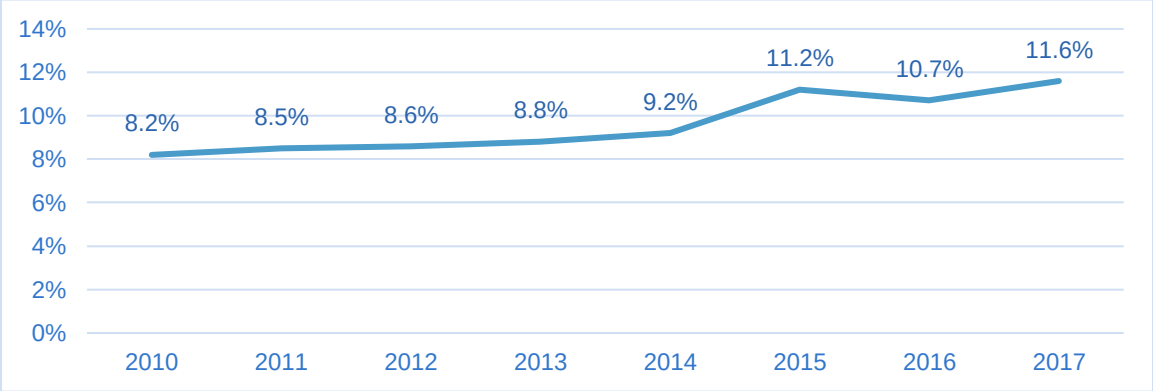
*Staff RNs include new RN graduates.[18]

[17] The separation rate was calculated as follows: (number of separations occurring during the quarter July 1, 2017 – September 31, 2017) / (number of positions at the start of the quarter beginning July 1, 2017).

[18] New RN graduates are included with staff RNs in this table because they account for a comparatively small share of registered nurses.

Figure 9 presents annualized RN separation rates for RNs. The separation rate has increased over time, rising from 8.2% in 2010 to 11.6% in 2017.

Figure 9. RN separations (turnover) as a share of current staff (annualized), 2010 – 2017



New Employee Hiring by Position

Table 12 presents the number of nursing personnel who were hired as new employees in the third quarter of 2017. Hiring rates were highest for *nurse midwives, nurse anesthetists,* and *other RNs,* although the absolute number of positions for nurse midwives and nurse anesthetists is very small. Full-time hiring rates were higher than part-time hiring rates for every type nursing position, with the exception of *unlicensed aides/assistants*.

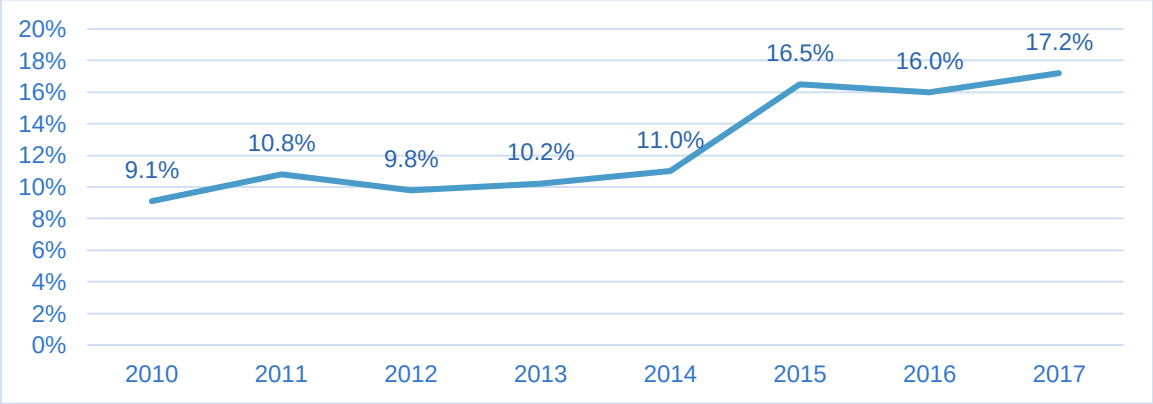
Table 12. New employees as a share of current staff, by position, 2017

	Full-time			Part-time			Total	
Description	**Number**	**Rate (%)**		**Number**	**Rate (%)**		**Number**	**Rate (%)**
Registered Nurse	3,815	5.4		559	2.2		4,374	4.6
*Staff RN**	2,742	6.1		446	2.2		3,188	4.9
Specialty RN	735	4.4		96	2.0		772	3.6
Other RN	338	5.6		17	2.9		355	5.4
Case Manager	56	3.6		1	0.4		57	3.1
Nurse Anesthetist	9	7.6		0	0.0		9	7.4
Clinical Nurse Specialist	12	2.2		1	1.2		13	2.1
Nurse Midwife	3	21.4		0	0.0		3	16.7
Nurse Practitioner	53	3.7		7	2.4		60	3.5
Licensed Vocational Nurse	118	3.5		11	1.9		129	3.3
Certified Nurse Assistant	282	4.1		47	1.7		329	3.4
Home Health Aide	10	4.0		0	0.0		10	3.6
Unlicensed Aide/Assistant	145	3.5		45	4.6		190	3.7

*Staff RNs include new RN graduates.[18]

Figure 10 presents annualized hiring rates for RNs from 2010 to 2017. The 2017 hiring rate of 17.2% continues the upward trend that began in 2012.

Figure 10. New employees as a share of current staff (annualized), by position, 2010 – 2017



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 *case managers, clinical nurse specialists, and licensed vocational nurses*. The trends toward higher separation and hiring rates demonstrate the high level of demand for RNs, and suggest that hospitals are competing with each other for a comparatively limited supply of RNs.

Employment Changes Experienced in the Past Year

Hospitals were asked about changes in employment levels during the past year. Figure 11 shows that hospitals predominantly reported no change in employment between fall 2016 and fall 2017 for *other* RNs and *experienced* RNs. Over 50% of responding hospitals reported increased employment of *new RN graduates* between 2016 and 2017. In contrast, only 27.5% of responding hospitals reported that employment of *experienced staff RNs* increased over the past year, marking the second consecutive time in the past four 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, 2017

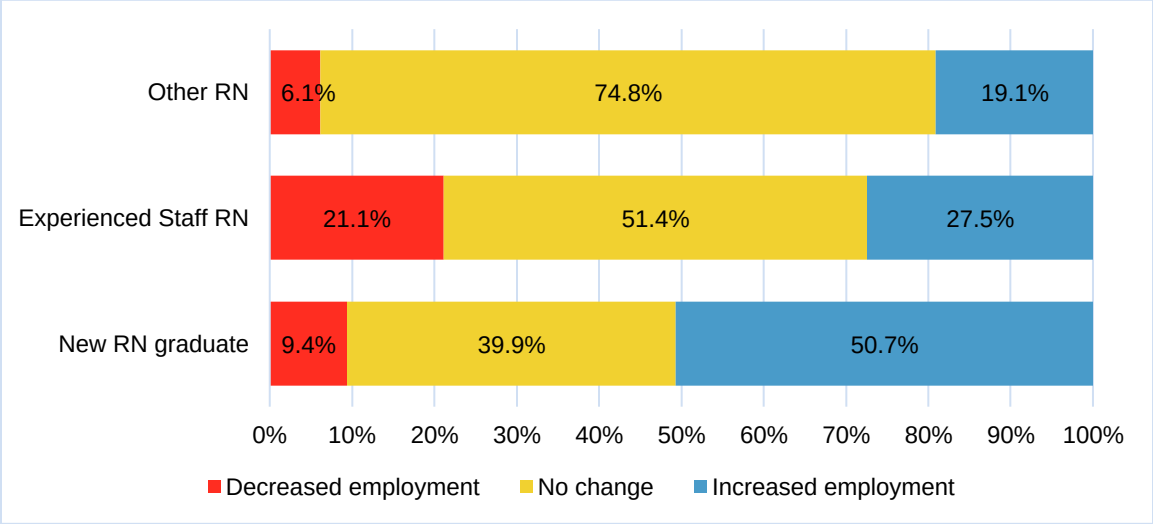


Figure 12 shows that more hospitals reported decreased employment than increased employment of both agency and traveling RNs over the past year. The difference was larger for agency RNs compared to traveling RNs. Hospitals indicated that increased utilization of temporary and traveling RNs was driven by patient census growth, higher turnover of current staff in positions, difficulty filling open positions because of wage competition, and staff leaves of absence. 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 staff and retention of current staff to manage rising demand for RNs.

Figure 12. Employment of temporary and traveling nurses, 2017

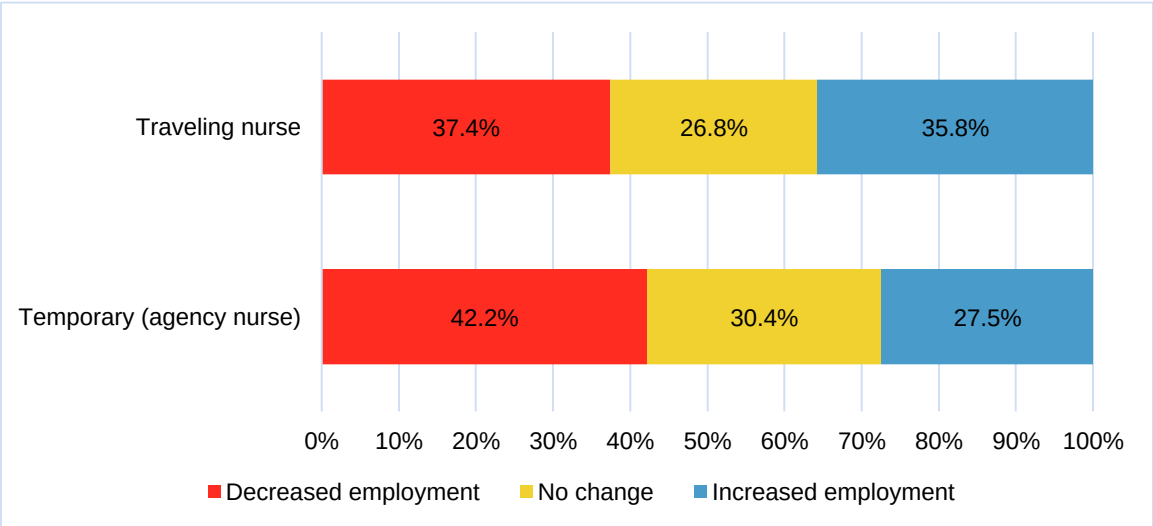
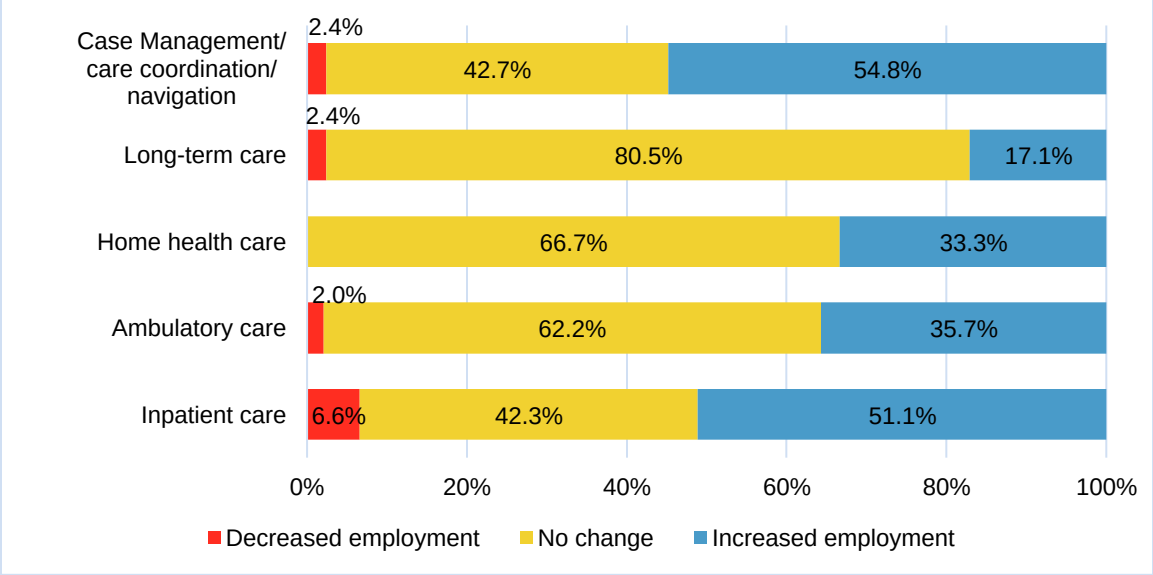


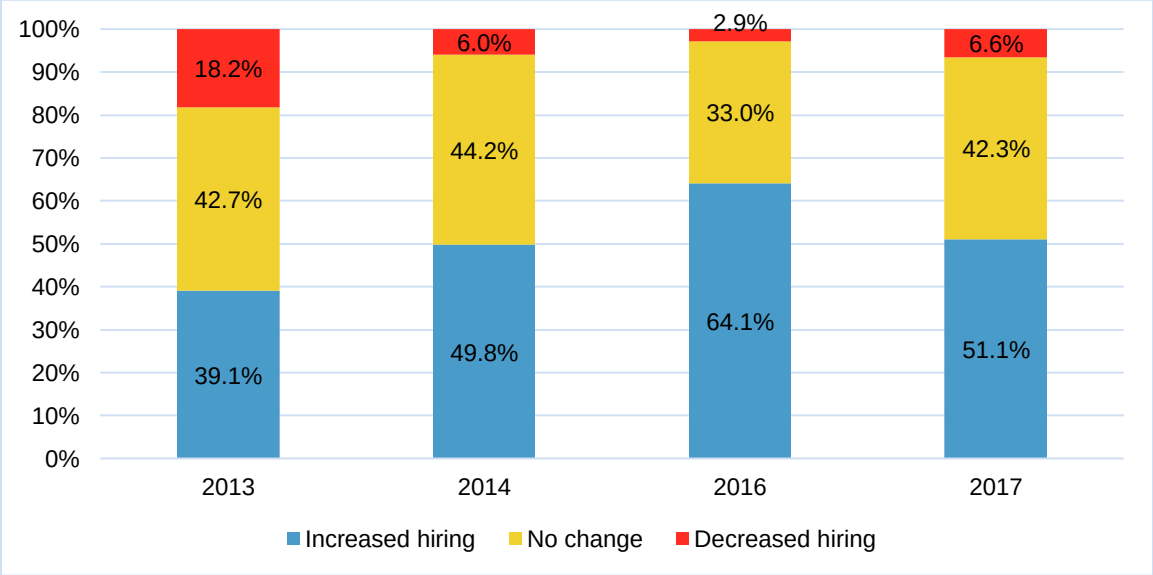
Figure 13 presents shifts in RN hiring over the past year for inpatient care, ambulatory care, home health care, long-term care, and case management (which includes care navigation and care coordination). Over half of responding hospitals reported increased hiring for case management and inpatient care, and more than one-third reported increased hiring for home health care and ambulatory care positions the past year. Very few hospitals reported decreased hiring for any of the care settings.

Figure 13. Change in RN hiring in the past year, by care setting, 2017



Figures 14 through 18 compare year-to-year changes in RN hiring by type of care for the past five survey years. The 2017 survey data mark a reversal of the upward trend in the share of hospitals reporting increased RN hiring for inpatient care, which rose between 2013 and 2016 but declined slightly in 2017. In each of the past two survey years, the share of hospitals reporting increased hiring for ambulatory care, home health care, and long-term care has been stable. The share of hospitals reporting increased hiring for case management positions has declined in each year since 2015. In general, hiring for home health care and long term care settings has shown the most variability over the past five survey years.

Figure 14. Change in RN hiring in the past year, inpatient care, 2013 – 2017



**Data not collected in 2015

Figure 15. Change in RN hiring in the past year, ambulatory care, 2013 – 2017

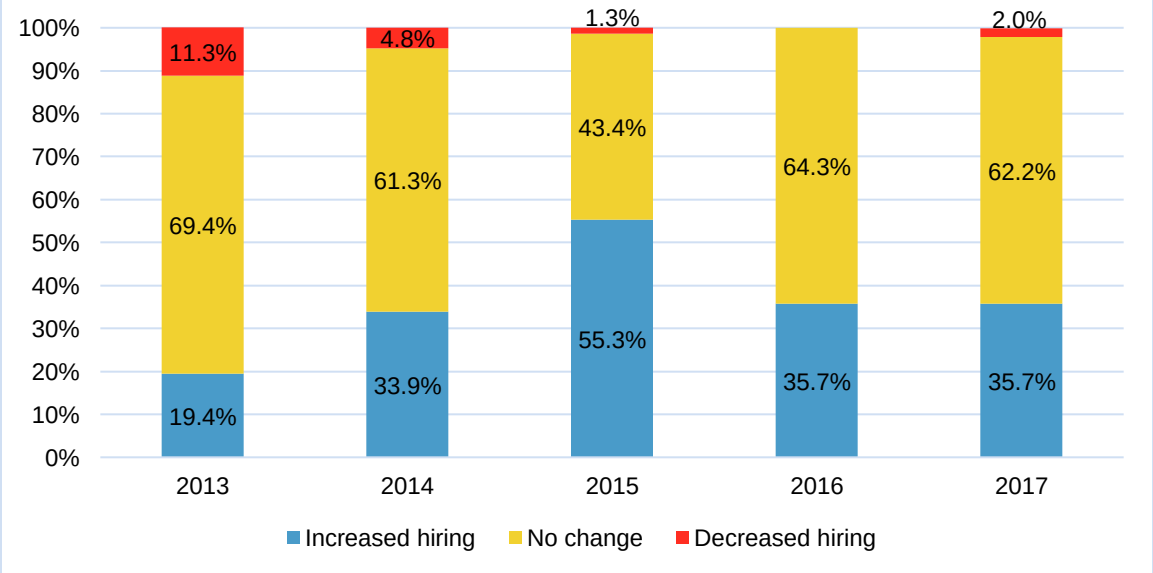


Figure 16. Change in RN hiring in the past year, home health care, 2013 – 2017

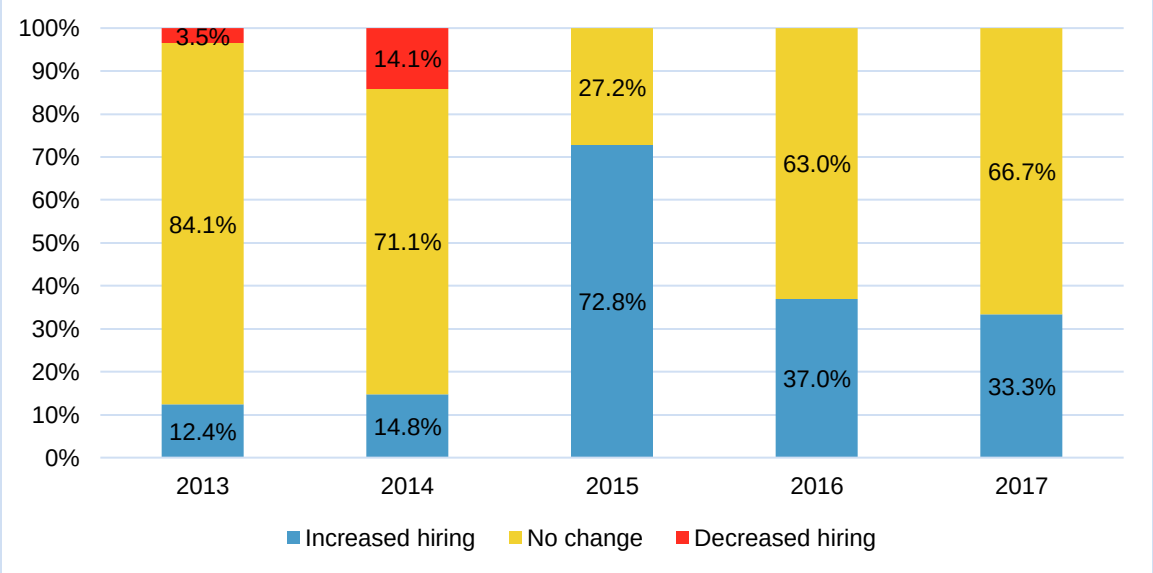


Figure 17. Change in RN hiring in the past year, long-term care, 2013 – 2017

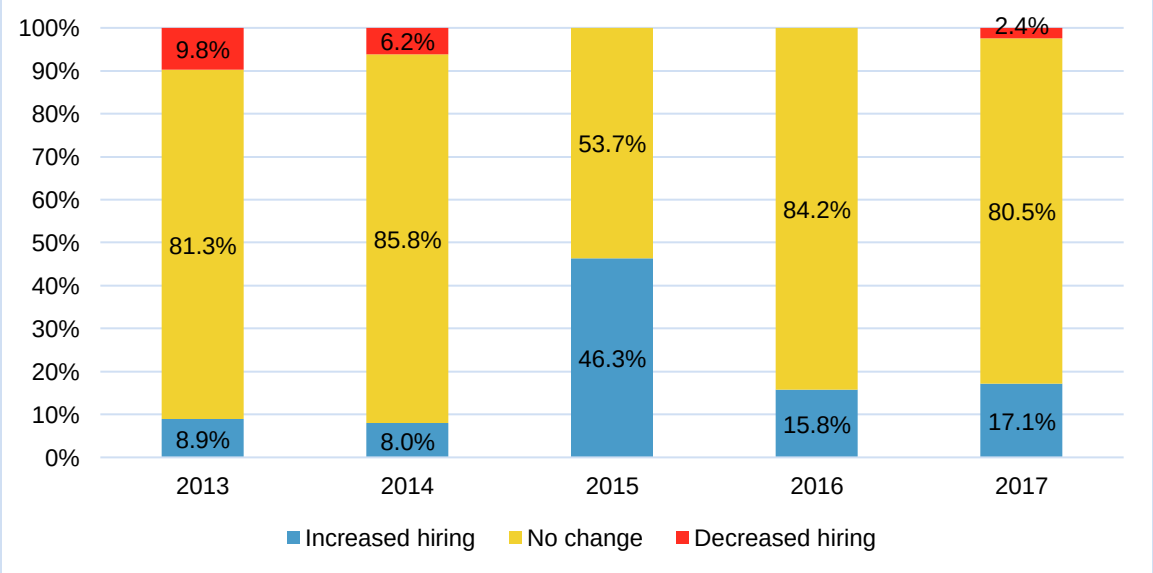
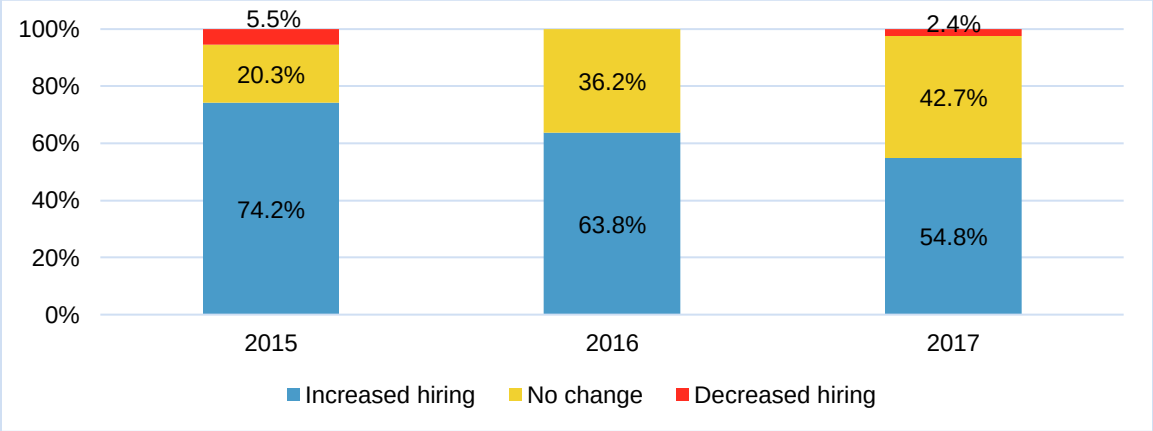


Figure 18. Change in RN hiring in the past year, case management, 2013 – 2017



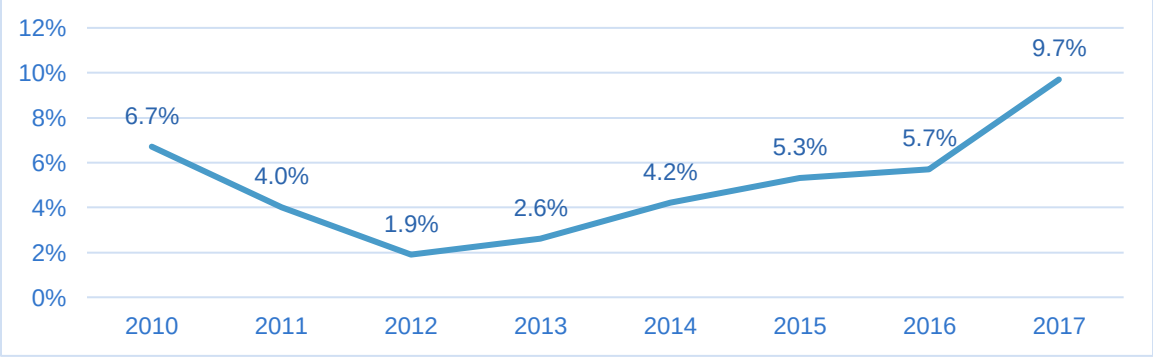
**Data not collected in 2013 and 2014.

Hospitals were asked about environmental changes experienced over the past year. More than 38% reported facing budget constraints in fall 2017, compared to 26% in fall 2016 and 20% of hospitals in fall 2015. Additionally, in 2017, approximately one-third of responding hospitals reported experiencing more turnover and difficulty with staff retention, a decrease in the use of traveler/contract nurses, and that current staff were working more shifts.

Recruitment of Internationally-educated RNs

Figure 19 shows that 9.7% of hospitals reported they were recruiting internationally-educated RNs to fill open staff positions in fall 2017. This is the highest share of hospitals reporting international recruitment in the eight years this survey has been conducted, continuing an upward trend that began in 2012.

Figure 19. Recruitment of internationally-educated registered nurses, 2010 – 2017



New RN Graduates

Over 87% of hospitals reported hiring *new RN graduates* in fall 2017. 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. Since then, the share has stabilized. Similarly, the data show a small downward trend in the share of hospitals reporting that they do not ever hire *new RN graduates* during this same period. Since then, this share also seems to have stabilized. The hospitals that do not hire *new RN graduates* indicated that they prefer to hire RNs who have already developed strong critical thinking skills and that hospitals have difficulty securing sufficient staff for *new RN graduate* orientations.

Figure 20. Hiring of new RN graduates, 2010 – 2017

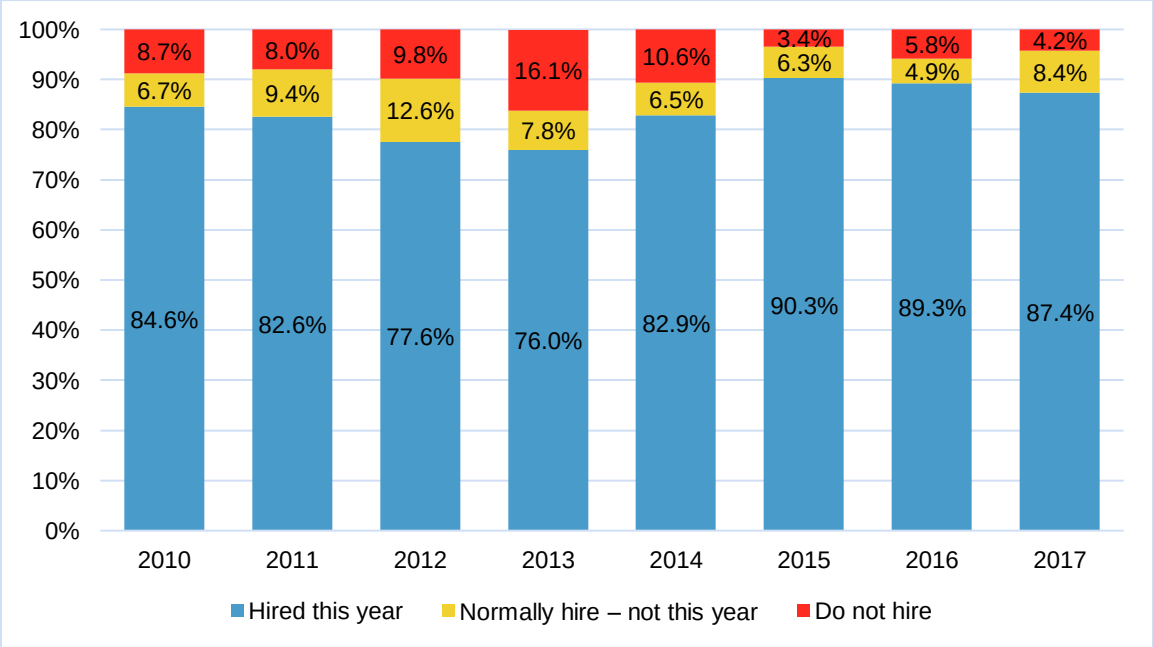
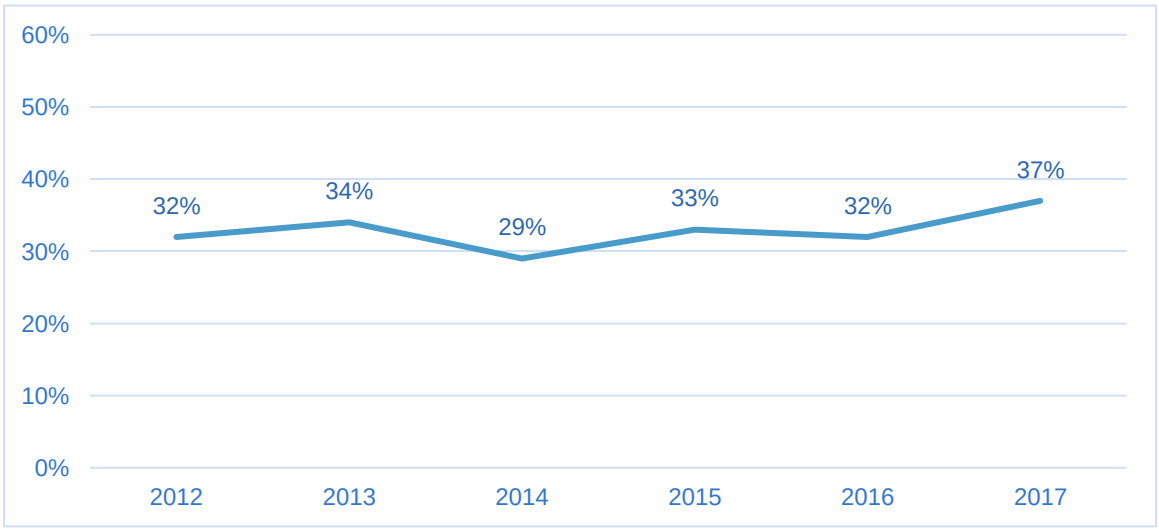


Figure 21 demonstrates that full-time new RN graduates have represented a relatively consistent share of all new full-time *staff RNs* hired in each of the past six survey years. In fall 2017, 37% of all new *staff RNs* hired were *new RN graduates*, which is the highest recorded in the eight years the survey has been conducted. 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 – 2017[19]



[19] 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, and the third quarter of 2017.

Requirements for RN Employment

Table 13 compares survey responses between 2011 and 2017 regarding requirements for an RN to be hired into a general staff nursing position. A substantially smaller share of hospitals reported having a minimum experience requirement in fall 2017 (41.7%) compared to prior years. Among hospitals that reported a minimum experience requirement, 80% indicated that they required 12 months of experience to be hired into a *staff RN* position. The share of hospitals in fall 2017 that reported a bachelor's degree in nursing was required for employment was 9%, which is larger than it has been in recent years. A much larger share of hospitals reported having a preference for hiring bachelor's-trained RNs (54.9%), which is consistent with the previous year, but both the 2016 and 2017 results represent a sharp decline from prior years.

In fall 2017, 28.5% of responding hospitals reported a preference for RNs who speak a second language, which is generally consistent with results from the past two survey years. Of these hospitals, nearly all reported Spanish as the preferred language. Other preferred languages included Chinese dialects (including Cantonese and Mandarin), as well as Tagalog, Vietnamese, and Korean.

Table 13. Requirements for registered nursing employment, 2011 – 2017

Description	2011	2012	2013	2014	2015	2016	2017
Minimum experience requirement	52.3%	53.7%	63.9%	60.5%	67.6%	51.9%	41.7%
Baccalaureate degree preferred	69.5%	67.9%	72.2%	70.7%	80.5%	53.8%	54.9%
Baccalaureate degree required	4.6%	7.3%	8.2%	9.8%	4.8%	3.8%	9.0%
*Second language preferred**	*	*	*	40.0%	25.2%	23.1%	28.5%
*Second language required**	*	*	*	0.0%	0.0%	1.0%	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%
Number of hospitals	**151**	**218**	**194**	**215**	**210**	**104**	**144**

*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 2017, the largest share of hospitals indicated that BSN-prepared RNs represent between 26% and 50% of current nursing staff, which is consistent with prior survey years (although a smaller share). The 2017 data also shows that 15.5% of hospitals reported that BSN-prepared RNs represent between 76% and 100% of current nursing staff, which is a substantial increase compared with survey results from 2014 and 2015.

Figure 22. Share of RNs with BSN or higher degree, 2014 – 2017

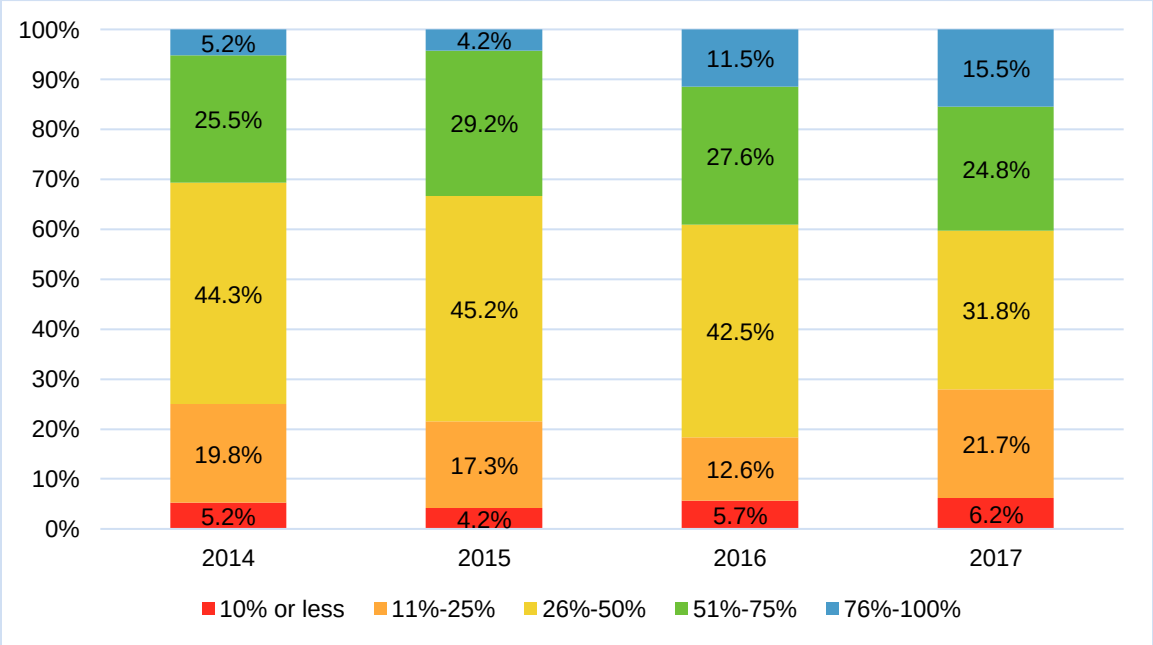
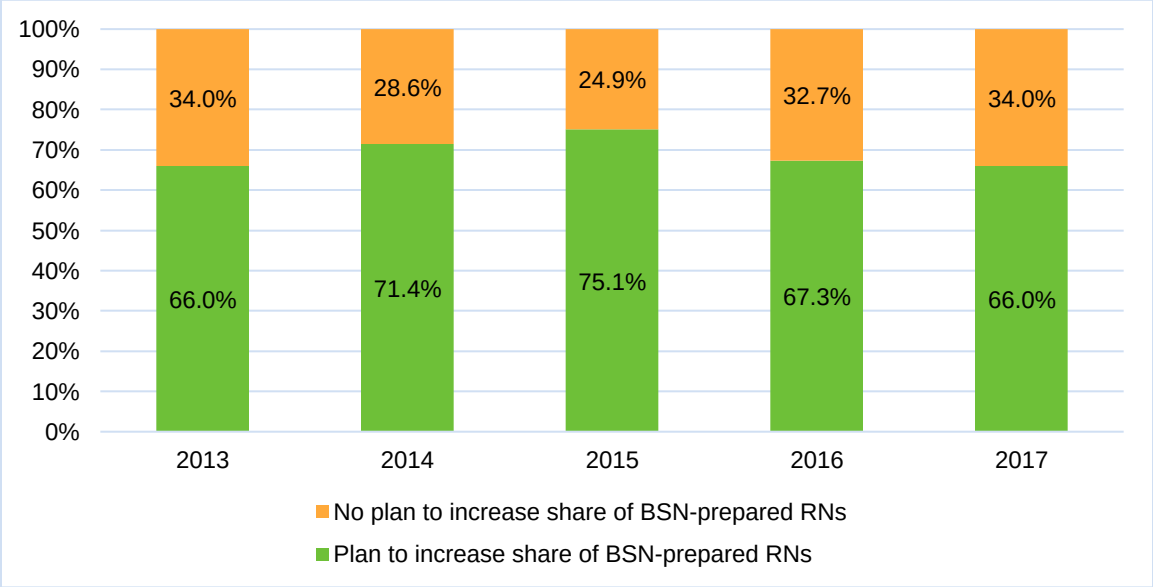


Figure 23 shows that in fall 2017, 66% of hospitals reported plans to increase the share of baccalaureate-trained nurses on staff, which is consistent with the previous survey year but represents a decline from a high of 75% in fall 2015.

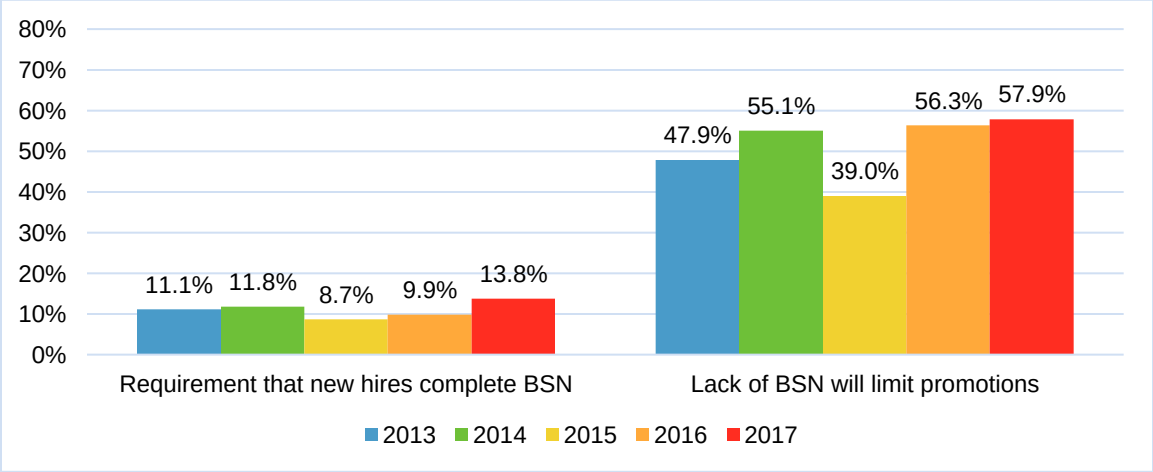
Figure 23. Plans to increase BSN-prepared nurses, 2013 – 2017



RNs educated at the associate degree and diploma level account for a substantial share of California's nursing workforce. Hospitals were asked whether new hires without a bachelor's degree are required earn one and, if so, how much time they have to do so. Figure 24 shows that in fall 2017 nearly 14% of hospitals reported having a requirement that newly hired RNs who don't already possess a BSN obtain one; this is higher than has been reported in previous survey years. For hospitals that have this requirement, it was commonly reported that new hires have between 1 to 3 years to obtain the BSN degree, with a 2 year timeframe being the most common.

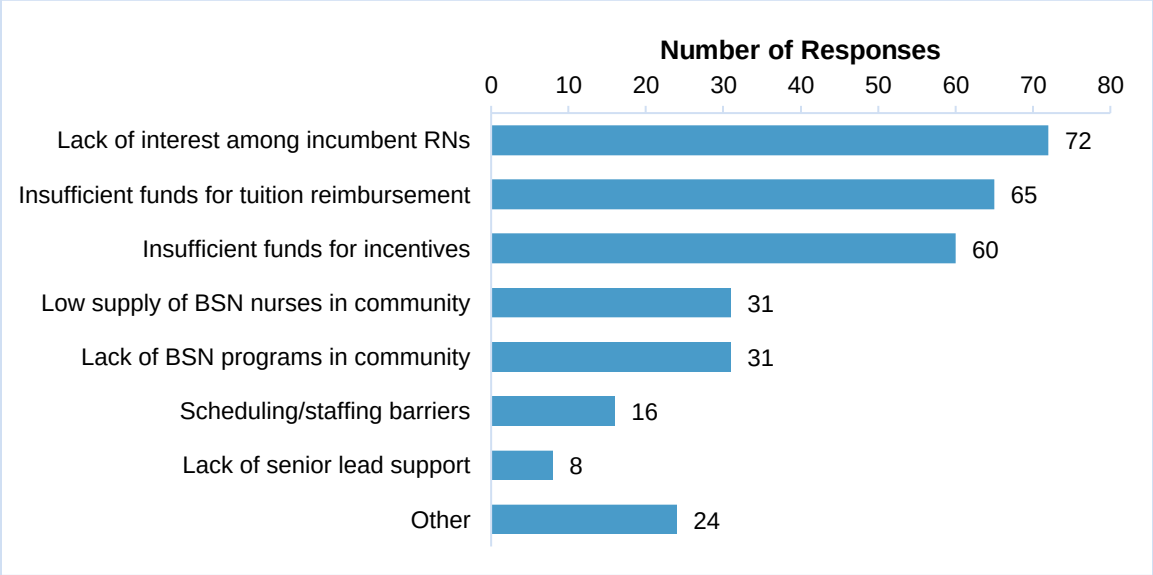
Hospitals were also asked whether RNs who do not have a BSN face limitations to being promoted beyond the level of a *staff RN*. Figure 24 shows that the share of hospitals reporting that a lack of a BSN degree limits professional advancement has fluctuated over the past five survey years. In 2017, the share was 57.9% of hospitals, which is the largest share since the inclusion of this question in the annual survey.

Figure 24. Requirements for BSN and impact of BSN on promotion, 2013 – 2017



Approximately 98% 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, 2017



Note: 141 hospitals reported at least one barrier to increasing number of BSN-prepared nurses.

As seen in Figure 26, in 2017 approximately 32% of hospitals reported that they differentiate RN salaries based on the type of nursing degree (e.g. ADN vs BSN vs MSN); this represents a decrease in comparison to the previous survey year, but is consistent with both 2014 and 2015 survey results.

Figure 26. Organization differentiates RN salaries by degree, 2014 – 2017

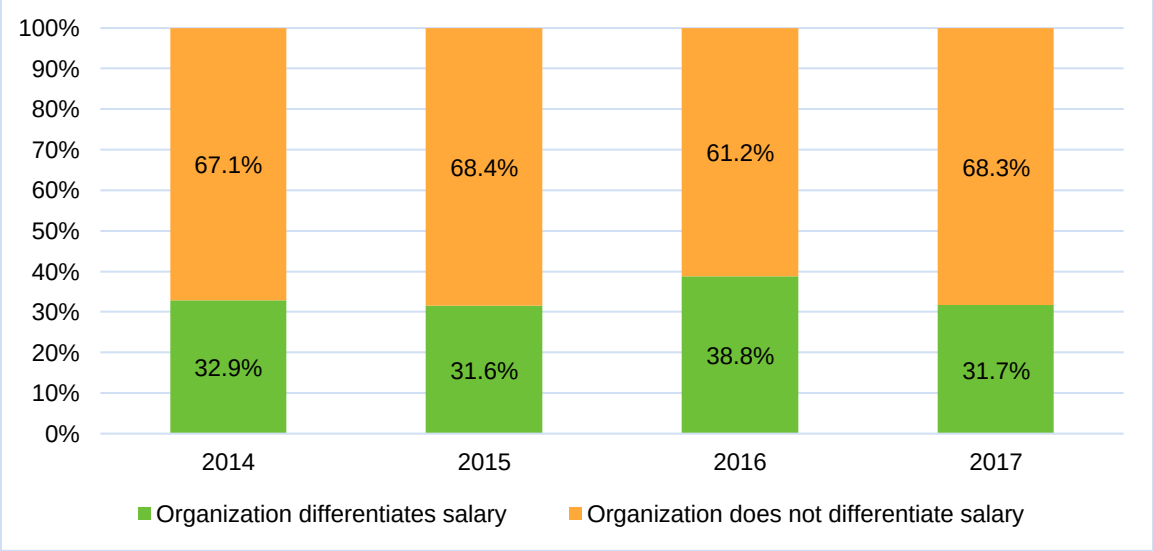


Table 14 details the types of support that hospitals reported they provide to incumbent RNs who are enrolled in a degree program or working toward advanced certification. In fall 2017, nearly 64% of hospitals reported offering tuition reimbursement in support of employed RNs seeking an additional degree, which is a decrease of 13% from the previous year. Approximately 46% of hospitals reported offering tuition reimbursement to RNs working toward advanced certification, which is the lowest share reported over the last four years.

Approximately 15% of hospitals indicated they provide paid time off for RNs in a degree program, while 20.3% reported providing paid time off for the pursuit for advanced certifications, both of which are the lowest reported shares for all previous survey years. Approximately 12% of responding hospitals reported some other form of support for the pursuit of post-licensure education, also a decline compared to last year. The most commonly reported forms of other support included flexible scheduling and scholarships opportunities.

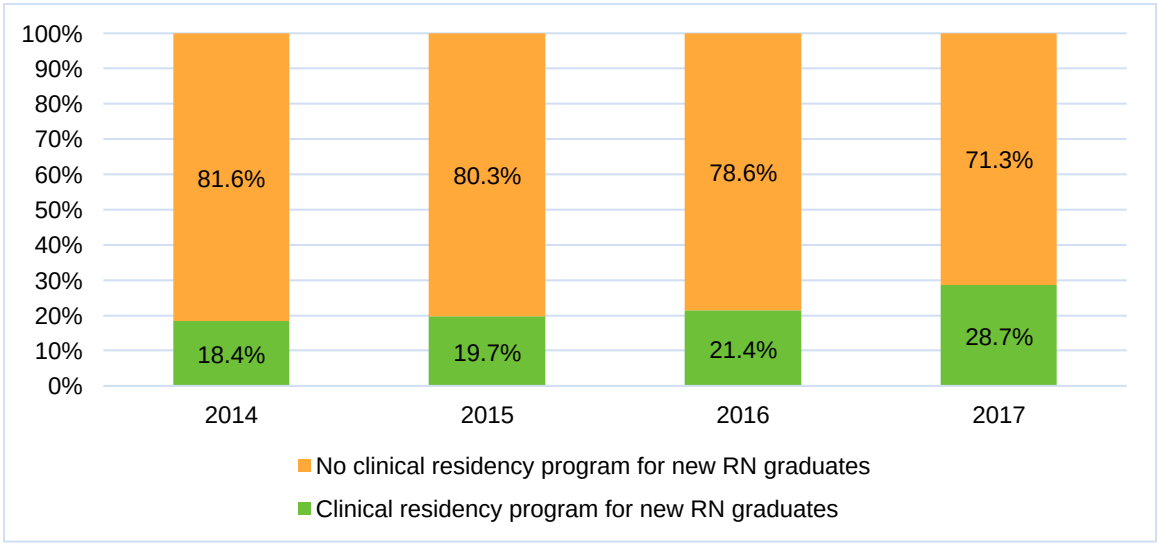
Table 14. Support for RNs working toward post-licensure degrees or certification, 2014 – 2017

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

Clinical Residency Programs for New RN Graduates

Hospitals were asked whether they sponsor 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 28.7% of hospitals in fall 2017 reported that they sponsor a residency program for *new RN graduates*; this share has slowly grown over the past four years.

Figure 27. Clinical residency programs for new RN graduates, 2014 – 2017



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 four years the most common arrangement has been for a hospital to develop its own residency program.

Figure 28. Clinical residency programs for new graduates by type of design, 2014 – 2017

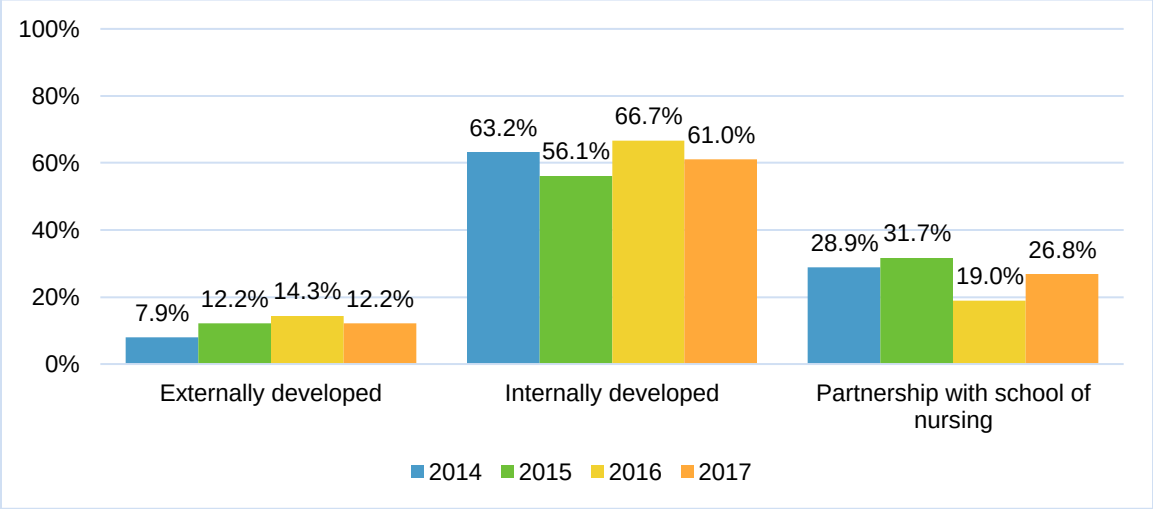
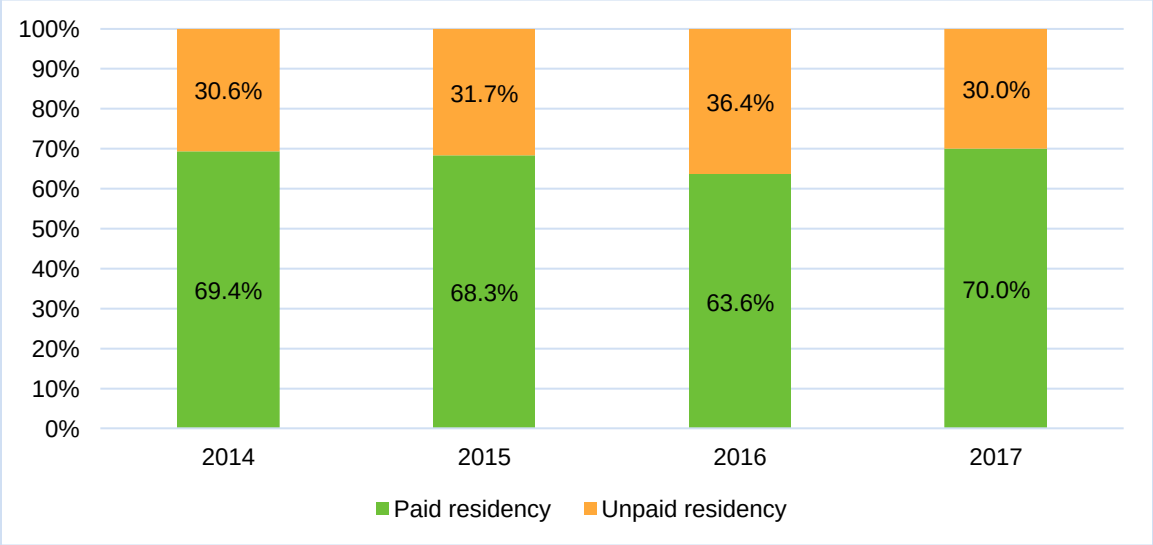


Figure 29 shows that in each of the past four survey years at least two-thirds of hospitals that sponsor clinical residency programs reported that participating *new RN graduates* are paid for their time.

Figure 29. Paid versus unpaid residency programs, 2014 – 2017



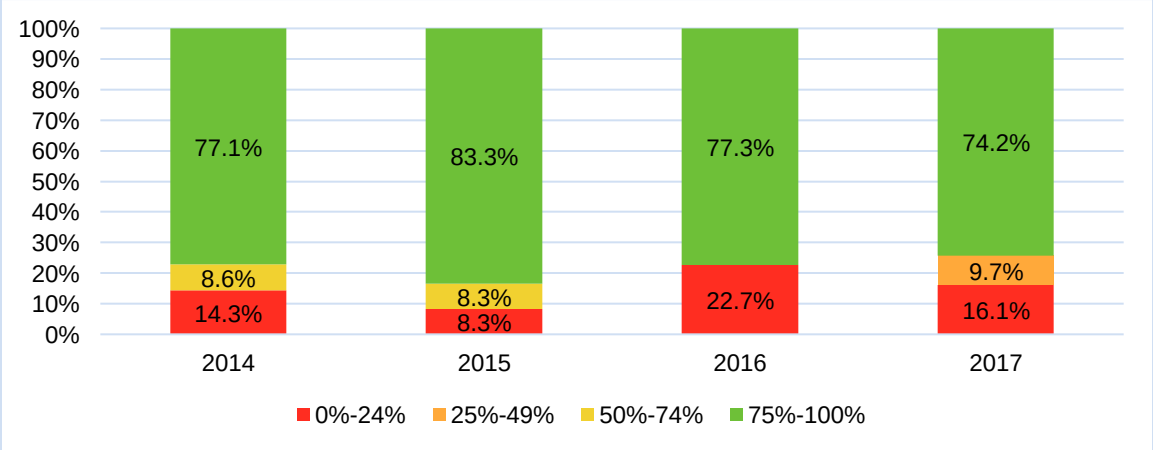
Hospitals with residency programs for *new RN graduates* were asked to report the different clinical practice areas covered. As seen in Table 15, the three most common clinical practice areas covered by residency programs have consistently been medical-surgical, the emergency department, and critical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

Table 15. Reported clinical practice areas for new graduate residency programs, 2014 – 2017

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

Figure 30 indicates that most *new RN graduates* who are accepted into a formal residency program are hired by the hospital. In each the past three survey years, approximately 74% of responding hospitals reported that they hired between 75% and 100% of their residency program graduates.

Figure 30. Percentage of graduates in residency program hired last year, 2014 – 2017



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 has grown each year beginning with the fall 2012 survey. In 2015 and 2016, most hospitals reported expectations of increased employment of RNs in the coming year, compared to either "no change" or "decreased" employment. However, in 2017 more hospitals reported expectations of no change in RN employment in the coming year (46.2%) compared to expectations of increased RN employment (43.4%). The 10.5% of hospitals reporting an anticipated a decline in RN employment is the largest share since the fall 2013 survey.

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, 2010/11 – 2017/18

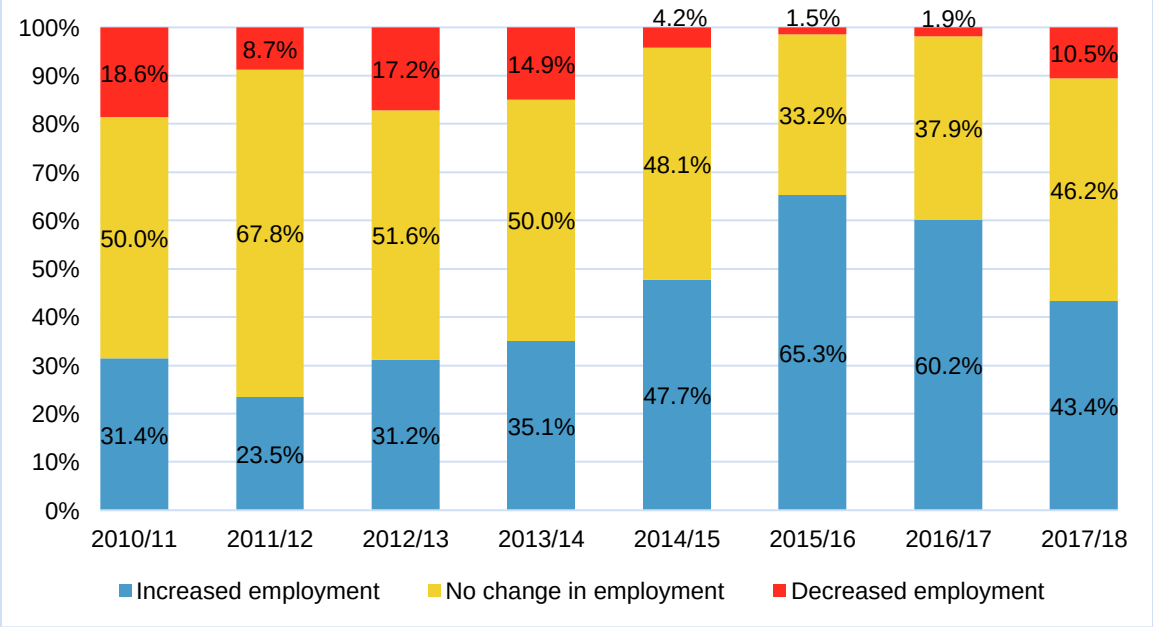


Figure 32 presents hospital responses regarding anticipated shifts in hiring over the coming year by care setting. More hospitals anticipate increased hiring than decreased hiring in all clinical areas.

Figure 32. Expectations for RN hiring in the next year, by care setting, 2017/18

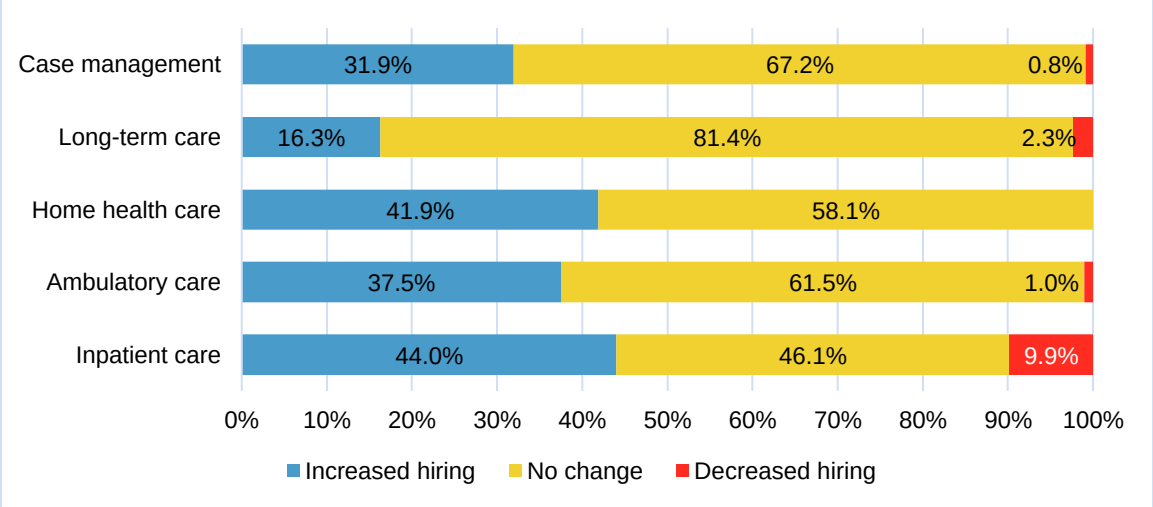
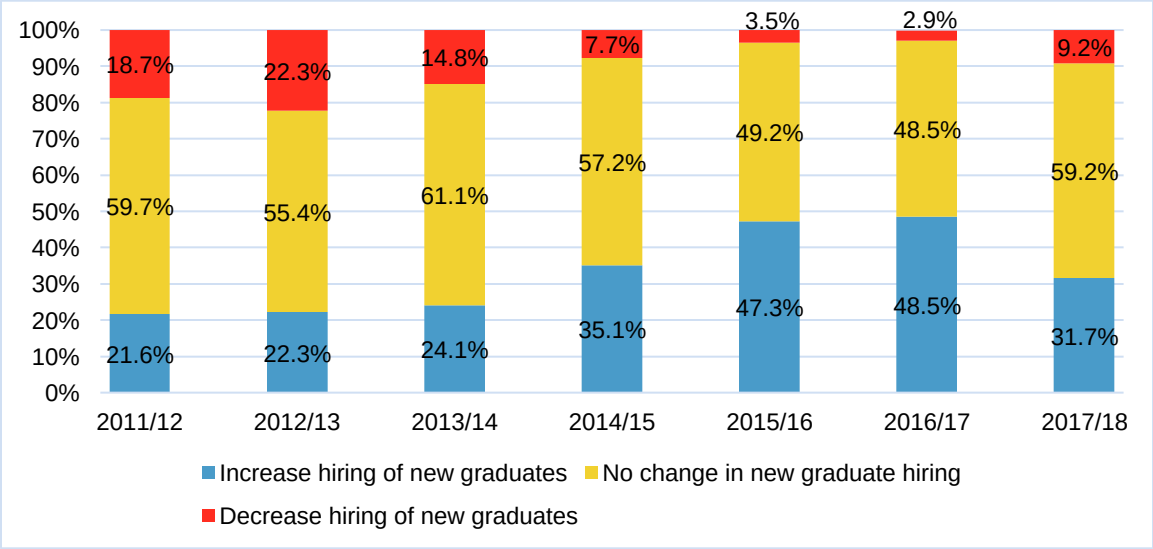


Figure 33 shows that in Fall 2017, 31.7% of all hospitals reported an expectation that *new RN graduate* hiring would increase next year. This reverses the upward trend that began in 2011. Similarly, the 9.2% of hospitals that reported they expect to decrease hiring of *new RN graduates* next year reverses a downward trend that began in fall 2013.

Figure 33. Expectations for new graduate hiring in the next year, 2011/12 – 2017/18



Hospitals were asked to cite reasons for why they expected hiring of *new graduate RNs* in 2018 to be different from 2017. The most frequently-reported reason for an expected increase in hiring was a lack of available experienced RNs. Some hospitals reported that they anticipated a larger number of retirements and planned to hire more *new RN graduates* as a result. Other reasons for anticipated growth in hiring of *new RN* graduates included difficulty offering competitive salaries to experienced RNs and that some hospitals were developing programs to mentor new graduates.

Conclusions and recommendations

Over the past three years, more than 85% of California hospitals have reported that demand for RNs is greater than supply. Although there is some variation across regions, the perceived shortage is present across the state. However, there are notable differences between hospital reports of demand for experienced RNs versus new RN graduates. The vast majority of hospitals report a shortage of experienced nurses, with particular concern about recruiting RNs with peri-operative (OR), critical care, labor and delivery, and emergency department experience. At the same time, most hospitals reported a surplus of new RN graduates, although the labor market for newly-graduated nurses has improved since 2013. Of particular concern is that 9.7% of respondents indicated they are engaged in international RN recruitment, which is a notable increase as compared with 2011 through 2016 when the share was below 5.7% each year.

Although job availability for new graduates has improved, the continuing perception that there is an oversupply of newly graduated RNs is concerning. They 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. Many returned to school to pursue a nursing career and have families to support.

Several potential solutions to this problem have been proposed, including the expansion of residency programs. In 2017, only 28.7% 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 2017, 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 2018. Increased employment will be driven by continued growth in the 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 rapidly 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 Judith Berg, Cathy Martin, Teri Hollingsworth, Jim Finkelstein, Ben Teichman and Patrick Dobrowolski for their work.

This study benefitted from the work of Betty Lew 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 – 2017

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

Appendix Table A2. Experienced RN demand scores by region, 2013 – 2017

Region	2013	2014	2015	2016	2017
Sacramento & Northern California	3.91	4.17	4.21	4.25	4.23
San Francisco Bay Area	2.71	3.79	4.21	4.09	3.75
Central California	3.98	4.21	4.16	4.64	4.50
Los Angeles	4.13	4.17	4.15	4.06	4.26
Inland Empire	4.20	4.14	4.60	4.56	4.17
Southern Border	4.12	3.70	3.71	5.00	4.00
California	3.83	4.08	4.20	4.31	4.18

Appendix Table A3. New RN graduate demand scores by region, 2013 – 2017

Region	2013	2014	2015	2016	2017
Sacramento & Northern California	1.77	2.33	2.25	2.55	2.62
San Francisco Bay Area	1.31	1.42	1.68	2.00	2.62
Central California	1.70	1.97	2.21	3.15	2.53
Los Angeles	1.53	1.68	2.00	2.24	2.09
Inland Empire	1.45	1.95	2.20	2.13	2.22
Southern Border	1.29	1.60	1.50	1.50	1.50
California	1.52	1.84	2.01	2.33	2.23

Appendix Table A4. Overall demand scores by hospital bed-size, 2010 – 2017

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

Appendix Table A5. Overall demand scores by rural/non-rural geographic location, 2010 - 2017

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

Appendix Table A6. Overall demand scores by nursing position, 2017

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

Appendix Table A7. Number of facilities, 2010 – 2017

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