The Hospital Nursing Workforce in South Carolina: 2015

May, 2015

OFFICE OF HEALTHCARE WORKFORCE RESEARCH FOR NURSING

One Voice, One Plan
Future of Nursing Action Coalition

Office for HEALTHCARE WORKFORCE analysis & planning

Acknowledgments

This study of the nursing workforce in South Carolina hospitals was a joint effort between The Office for Healthcare Workforce Analysis and Planning in the South Carolina AHEC program office and The Office for Health Workforce Research for Nursing in the College of Nursing at the University of South Carolina – Columbia. Much of the impetus for the survey came from the One Voice One Plan Coalition in South Carolina which focuses on developing effective nursing workforce policies, and from the South Carolina Action Coalition which is working to improve the nursing workforce by implementing the recommendations of the national Institute of Medicine in their 2011 landmark report "The Future of Nursing: Leading Change, Advancing Health."

This report was prepared by Linda M. Lacey in the Office for Healthcare Workforce Analysis and Planning. Our office is dedicated to studying supply and demand issues affecting a wide variety of healthcare professions and occupations in South Carolina. Our primary purpose is the development and analysis of accurate, reliable data on the supply of healthcare professionals and the demand for health services in order to support workforce planning efforts.

For questions, more information or additional copies of this report, please contact Ms. Lacey at LaceyL@musc.edu. Or visit our website at: www.OfficeForHealthcareWorkforce.org

Contents

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This work was supported in part by the Duke Endowment. The Duke Endowment, located in Charlotte, North Carolina, The Duke Endowment strengthens communities in North Carolina and South Carolina by nurturing children, promoting health, educating minds and enriching spirits. Since its inception, the endowment has awarded more than $3.2 billion in grants.

Background

In December, 2014, the Office of Healthcare Workforce Research for Nursing at the USC College of Nursing and the Office for Healthcare Workforce Analysis and Planning within the South Carolina AHEC surveyed the Chief Nursing Officers (CNOs) in each hospital in the state to hear their perceptions of the local nursing labor market and to learn how the demand for different types of nurses might be changing. The results of that survey are summarized in this report.

A total of 60 hospitals were surveyed and 48 responded for an overall response rate of 80%. Several CNOs combined two or more facilities into their questionnaire responses resulting in a final response count of 40. Questionnaires were made available on paper and on-line. We initially mailed a cover letter explaining the study and a paper questionnaire in early December. This was followed within a week by an email containing instructions for accessing the questionnaire online. We followed up with non-respondents approximately every two weeks through the end of January, 2015. A second paper questionnaire was sent out in early January to non-respondents. The majority of responses were received online. Paper questionnaires returned to us were entered into the online system as they were received.

Analysis was conducted using SAS version 9.4. Cross-tab analyses used Fisher's Exact test for proportionate reduction of error which is appropriate for the small number of cases in our analysis tables and the fact that table cells often contained fewer than five cases. Comparisons of means used a 95% confidence interval to assess significant differences. All questionnaire items were examined by the hospital characteristics in Table 1. Charts were created using Excel 2010.

Table 1. Hospital Characteristics of Respondents and Non-Respondents

	Respondents	Non-Respondents
Size:		
Small < 100 beds	12	9
Medium 100 – 299 beds	17	9
Large 300 + beds	11	2
Ownership Status		
Government	17	4
Non-Profit	16	4
For-Profit	7	12
DHEC Region Location		
Upstate	11	5
Midlands	9	2
Pee Dee	10	7
Low Country	10	6

Note: Government ownership may be county, state, district, or federal

A bias analysis was conducted to determine if there was any systematic difference between hospitals that responded and those that did not. There was no geographic bias found, but larger hospitals seem to have been more likely to respond than smaller hospitals, based on an analysis of average bed size using a 95% confidence interval around the means. However, a chi-square analysis of categorical size (as in the table above) was not statistically significant. Also, government-owned and nonprofit hospitals were more likely to respond then for-profit hospitals (Chi-square $p = 0.0038$).

New RN Graduate Employment

Despite a perception by newly licensed RNs of a weak hospital job market, hospitals are still hiring new graduates. Figure 1 shows that the great majority of hospitals reported hiring new RN graduates in the past year. In addition, 23% said they expect to increase the number of new graduates hired in 2015. Only 3% of hospitals expect to decrease the number of new RN graduates hired in 2015.

New graduate perceptions are not entirely wrong, however, as shown by Figure 2. Most CNOs felt that the labor market for experienced RNs is one in which demand exceeds the supply and finding experienced RNs is difficult. In contrast, very few reported difficulty in hiring new graduates – most felt that the market is in balance, or that the supply of new RN graduates exceeds the current demand. Regional location did not make a difference in these assessments.

Figure 1

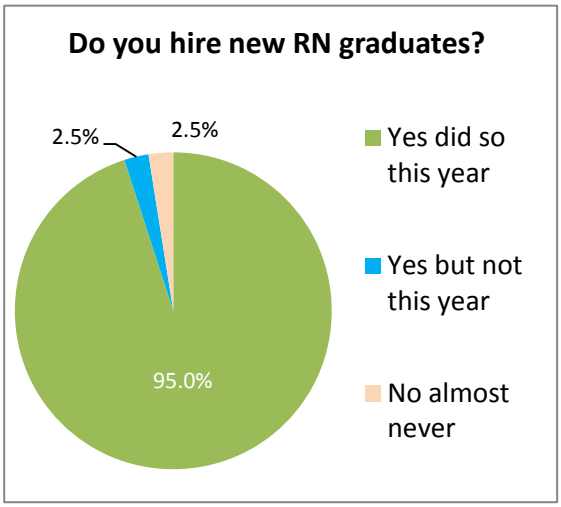
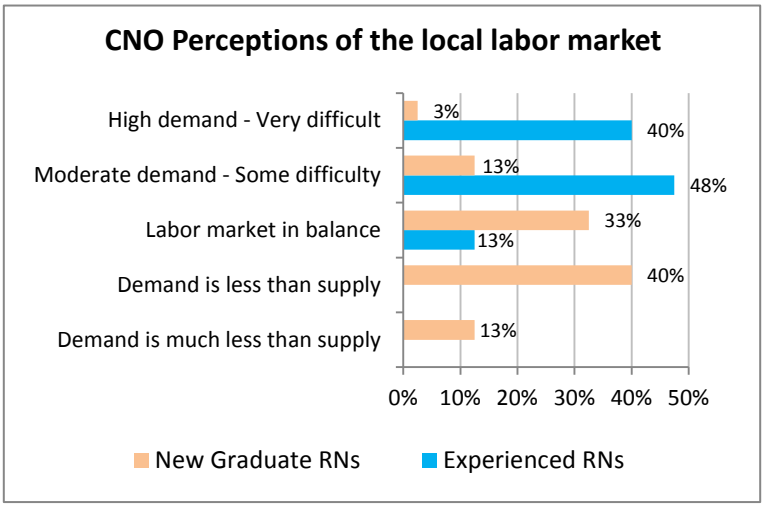


Figure 2



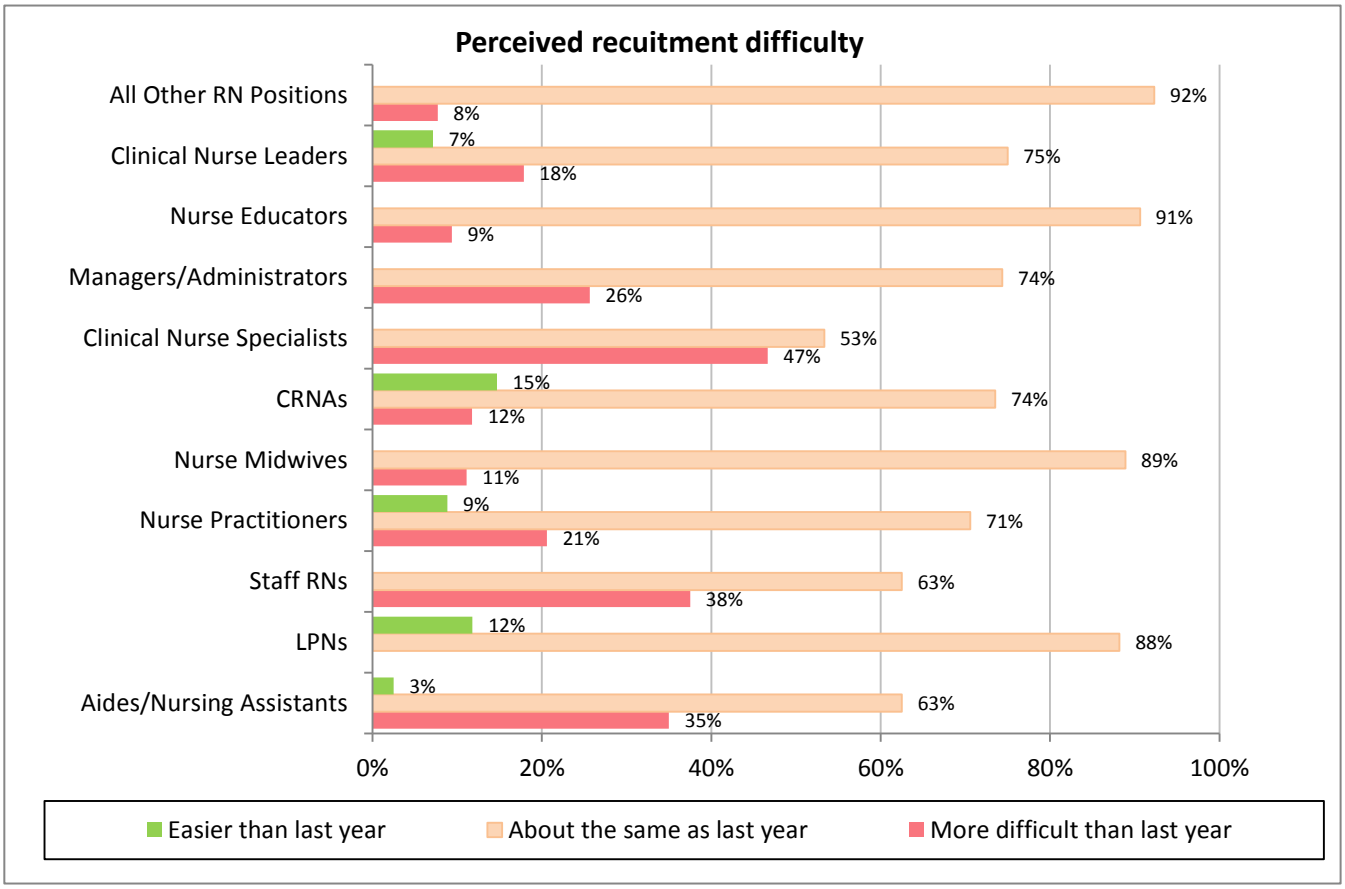
Recruitment Difficulties

Hospitals were also asked to assess recruitment difficulty for a variety of nursing personnel. Because not all hospitals employ each of the personnel types on the list (see Table 2 below), we removed hospitals that did not employ a particular type of nurse from the statistics in the chart below.

Most hospitals said recruitment for nursing personnel was no more difficult this year than last. However, more than one-third of the hospitals responding to our survey said that Clinical Nurse Specialists, staff RNs and nurse aides were becoming more difficult to find. See Figure 3 below for assessments of recruitment difficult for a wide variety of nursing personnel.

We expected that recruitment problems might differ by either the size of the hospital, type of ownership, or geographic location. We analyzed all of the responses to this survey using cross-tab analysis with those hospital characteristics. Contrary to our expectations, we found only one instance in which recruitment difficulties were significantly associated with one or more of those characteristics.

Figure 3.



In the case of recruitment for aides and nursing assistants, 63% of hospitals said that recruitment difficulty was about the same as last year and 35% said it was becoming more difficult. However, 73% of hospitals in the Upstate DHEC region said that recruiting aides has become more difficult than last year (Fisher's Exact p = 0.0271).

Table 2. Percentage of responding hospitals that do or do not employ specific types of nursing personnel

	We do employ		We do not employ	
	n	percent	n	percent
Aides/nursing assistants	40	100%	0	0%
LPNs	17	42%	23	58%
Staff RNs	40	100%	0	0%
Nurse practitioners	34	85%	6	15%
Nurse midwives	9	22%	31	78%
Certified RN anesthetists	34	85%	6	15%
Clinical nurse specialists	15	37%	25	63%
Nurse manager/administrators	40	100%	0	0%
Nurse educators	32	80%	8	20%
Clinical nurse leaders	28	70%	12	30%
All other RN positions	39	97%	1	3%

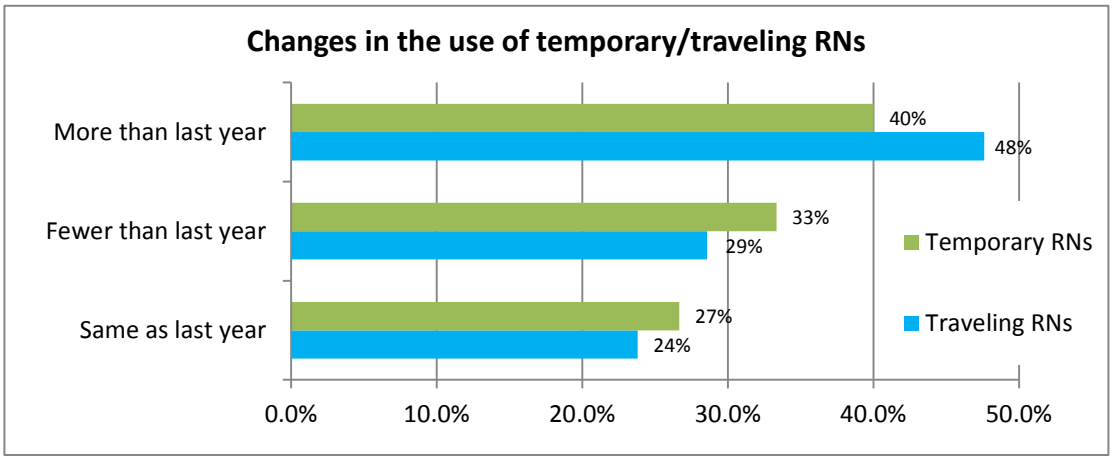
Table 3. Additional types of nurses hospitals cited as difficult to recruit and percent of hospitals naming them

Emergency department RNs	28%		Specialty unit RNs	**18%**
Critical care RNs	25%		Labor and delivery	15%
Nurse managers/supervisors/directors	25%		MedSurg/bedside/staff RNs	13%
OR/surgical services RNs	23%		Unit secretary/nurse aides	8%
Experienced bedside nurses	18%		Catheterization Lab nurses	5%
Intensive care unit nurses	18%		RNs for the night shift	5%

When asked about the types of nursing positions most difficult to fill, most CNOs specified that they were looking for experienced nurses regardless of the unit type provided in their answer. (Table 3 shows the variety of answers to this question.) But it is not always possible to find experienced nurses when you need them. And, as more and more new RN graduates begin their careers in non-hospital settings it may become even more difficult in the future. When asked if their hospital has a training program (beyond their standard new hire orientation program) for new RN hires without acute-care experience, 74% said yes. Twenty six percent of hospitals said no.

Hospitals were asked to report how their use of temporary or traveling nurses had changed in the past year or if they use them at all. Fifty five percent of responding hospitals use traveling nurses and 41% report using temporary (agency) nurses. Regional location is significantly associated with this practice.

Figure 4



All of the hospitals in the Low Country and 63% of those in the Midlands DHEC region report using traveling RNs, compared to 36% in the Upstate and 30% in the Pee Dee regions (Fisher's Exact p = 0.0054). A similar situation exists for the use of temporary or agency RNs: 70% of Low Country hospitals and 57% of hospitals in the DHEC Midlands region report using temporary or agency RNs compared to 30% in the Pee Dee and 10% in the Upstate region (Fisher's Exact p = 0.0281).

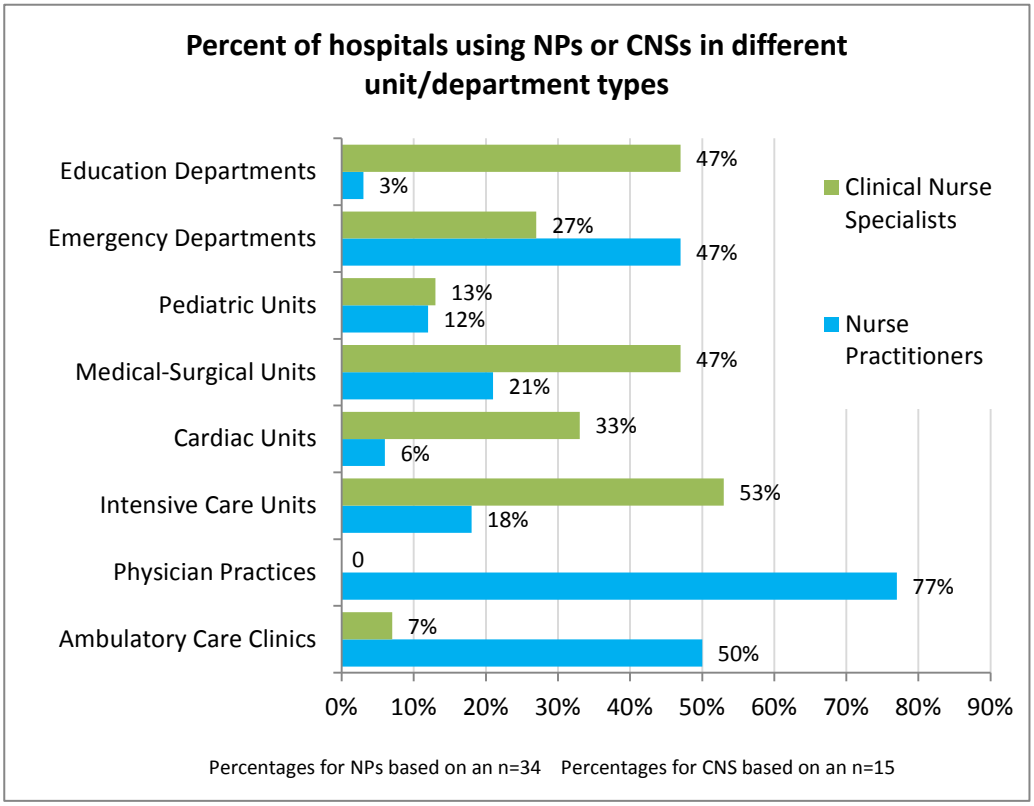
Among those hospitals that do use these types of replacement nurses Figure 4 shows that while some are using fewer than last year a greater proportion are using more.

The reasons for using more temporary and traveling nurses ranged from increased turnover and a low supply of experienced nursing staff for specialty positions to getting behind in filling vacant positions due to cost saving measures in the hospital. Some of the reasons given for using fewer temporary or traveling nurses is that hospitals have cross-trained staff to fill vacant positions on an as-needed basis and that management changes have made recruitment easier.

Changing Roles for RNs

Hospitals were asked to report the types of units or departments in which they employ Nurse Practitioners (NPs) or Clinical Nurse Specialists (CNS). In an earlier question focused on recruitment difficulties, CNOs were able to indicate if they did not employ a particular type of nurse. In Figure 5 (below) we have limited the analysis to only those hospitals that reported employing either NPs or CNS nurses.

Figure 5



When we analyzed these findings by hospital size and ownership status we found that large hospitals (300 beds or more) were more likely to employ NPs in their ambulatory care clinics (82%) than were hospitals with fewer than 100 beds (27%) (Fisher's Exact p = 0.0387). Ownership was significantly associated with the employment of CNS in education departments: 83% of non-profit hospitals employ CNS nurses in their education departments compared to just 14% of hospitals owned by a governmental entity such as a county, hospital district, or the Department of Defense (Fisher's Exact p = 0.0275).

The majority of hospitals (56%) said they had created new job classifications in the past year or that they intend to in the coming year. Of those (n= 22), Table 4 shows the types of positions created and the percentage of hospitals that named a specific type of position. Other types of new roles mentioned were chief nursing information officer, care assurance nurse, OR educator, population health nurse, RN operations manager, resource nurse, and magnet coordinator.

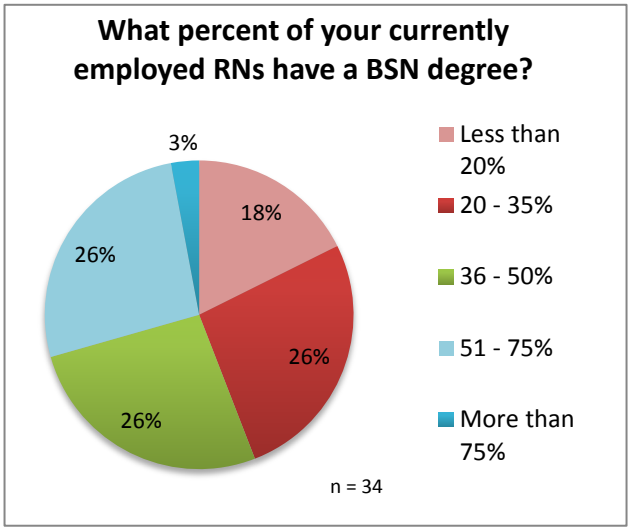
Table 4. New RN Roles Being Created by Hospitals

Position Titles	% that created or plan to create this position type
Case manager	5%
Care coordinator	23%
Informaticist	28%
Clinical documentation specialist	41%
Care/patient navigator	55%

Goals for a BSN-prepared Workforce

A series of questions were asked in order to assess the extent to which hospitals in South Carolina are interested in increasing the proportion of BSN prepared nurses in their workforce. The first question asked CNOs to estimate the percentage of their currently employed RNs who have a BSN degree. Six hospitals chose not to answer that question. Figure 6 shows South Carolina hospitals are very diverse in this regard. The average percentage across all hospitals reporting data was 36%. When we examined this data by hospital size, ownership, and regional location we found that large hospitals had an overall average of 49% of their RNs with a BSN degree compared to small hospitals where the overall average was 26%. A comparison of the 95% confidence interval around these means shows a statistically significant difference (p = 0.05).

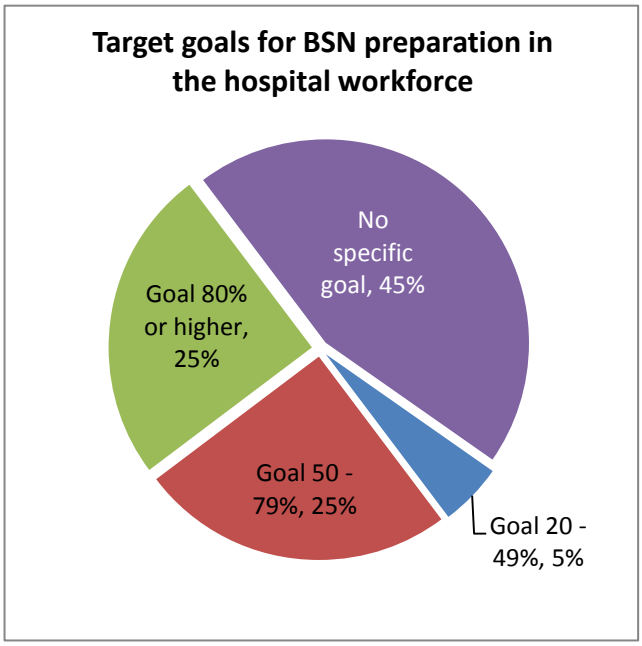
Figure 6



Location also matters. The hospitals who responded from the Pee Dee DHEC region had an overall mean of 16% of their RNs with a BSN degree which was significantly lower than the overall average for hospitals in either the Upstate (mean=39%) or the Low Country DHEC region (mean=38%) (p = 0.05). Hospitals in the Midlands region had an overall average of 39% which was not statistically different from the overall average in any of the other regions.

When asked if their hospital had a target or goal for the percentage of their RN workforce with a BSN degree within the next three years, all hospitals answered this question and the majority reported having a target as illustrated in Figure 7. Surprisingly, a large percentage (45%) indicated that they have no specific goal. However this differed by the size of the hospital (Fisher's Exact p = 0.0012). All of the large hospitals (over 300 beds) indicated that they did have a goal and the majority of them (55 %) indicated that goal was 80% or more.

Figure 7



Among hospitals that have no specific goal in mind, there is a large amount of variation in the size of their current BSN-prepared workforce (see Table 5).

Table 5. BSN Profile of Hospitals with No Specific Goal

For hospitals with no specific goal – current % of RN workforce with a BSN Degree:	
No data reported	22%
5% of RNs have a BSN	17%
10% of RNs have a BSN	11%
20% of RNs have a BSN	11%
25% of RNs have a BSN	6%
30% of RNs have a BSN	6%
35% of RNs have a BSN	6%
50-55% of RNs have a BSN	22%

The majority of hospitals responding to the survey (70%) said they do not require new hires to complete a BSN in a specified period of time. But this differs by region. Sixty percent of hospitals in the Low Country and 46% of those in the Upstate do have such a requirement. None of the hospitals responding from the Midlands DHEC region and only one from the Pee Dee region have such a requirement (Fisher's Exact p = 0.0074).

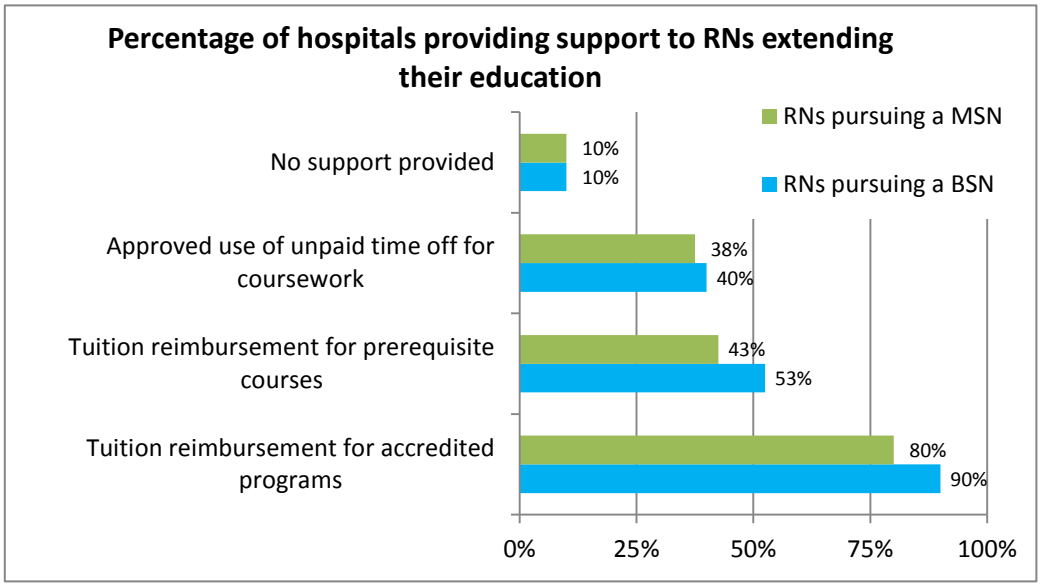
The small number of hospitals having a BSN-completion requirement (n= 12) makes it difficult to assess how size, ownership or location might be associated with the time frame allowed. When asked how much time nurses have to complete the degree, answers varied from 2 years to "by 2020." Among those hospitals that have this requirement, the great majority (83%) indicated RNs are given between 3 to 5 years to complete a BSN degree.

Support for Extending Education

Slightly more than half (59%) of the hospitals responding to the survey said they do not offer a salary differential for BSN preparation. However this differs by region in the state. In the Upstate, 82% of responding hospitals said they do offer a salary differential (Fisher's Exact p = 0.0057).

The great majority of hospitals (90%) offer some type of support to RNs who are extending their education either to a BSN or Master's degree. See Figure 8 for the specifics. Providing approved use of unpaid time off for BSN coursework is more common in for-profit hospitals (71%) then in nonprofit hospitals (19%) (Fisher's Exact p = 0.0522). The same association is found for time off for Master's degree coursework but at a slightly weaker level of association (Fisher's Exact p = 0.0546).

Figure 8



Regional location is also associated with some types of support for extended education. Overall, 80% of hospitals provide tuition reimbursement for an accredited Master's degree program. However this is true of only 50% of hospitals in the Pee Dee DHEC region (Fisher's Exact p = 0.0332).

Barriers to Increasing the BSN Workforce

CNOs were asked if they think any of the issues listed in Table 6 are barriers to increasing the number of BSN prepared nurses in their hospital. The majority of hospitals said no to each of the items in the list, but almost half

(48%) cited insufficient funds for tuition reimbursement as a barrier. Another issue identified by a large segment of our responding hospitals (42%) was insufficient funds that can be used for incentives such as promotions, pay differentials or bonuses.

Table 6. Perceived Barriers among Hospital CNOs to Increasing the BSN Workforce

Barrier:	% yes	% no
Insufficient funds for tuition reimbursement	48	52
Insufficient funds for incentives (promotion, pay differential, bonus, etc.)	42	58
Lack of interest in BSN education among incumbent RNs	30	70
Low supply of BSN nurses in the community	27	73
Scheduling/staffing barriers	20	80
Lack of BSN education programs in the community	13	87
Insufficient senior leadership support	2	98

Hospital size may be associated with a few of these barriers. In the case of insufficient funds for tuition reimbursement, only 18% of large hospitals said yes compared to 67% of small hospitals (Fisher's Exact p = 0.0624). Hospital location and possibly size are associated with identifying a lack of BSN education programs in the community as a barrier. Overall 13% of hospitals said yes to this item but among small hospitals 33% said yes, 6% of medium-sized hospital said yes and no large hospitals thought this was an issue (Fisher's Exact p = 0.0469). This finding may be confounded with location. Only hospitals in the Midlands and Pee Dee regions indicated this was a barrier. None of the hospitals in the Low Country or Upstate region said this was an issue (Fisher's Exact p = 0.0659).

Several CNOs felt that the cost of BSN completion programs is a factor, as are family obligations and finding a good balance between work and life. One CNO noted that a lot of community based positions with Monday through Friday work hours have recently become available and are affecting the hospital's ability to recruit BSN nurses.

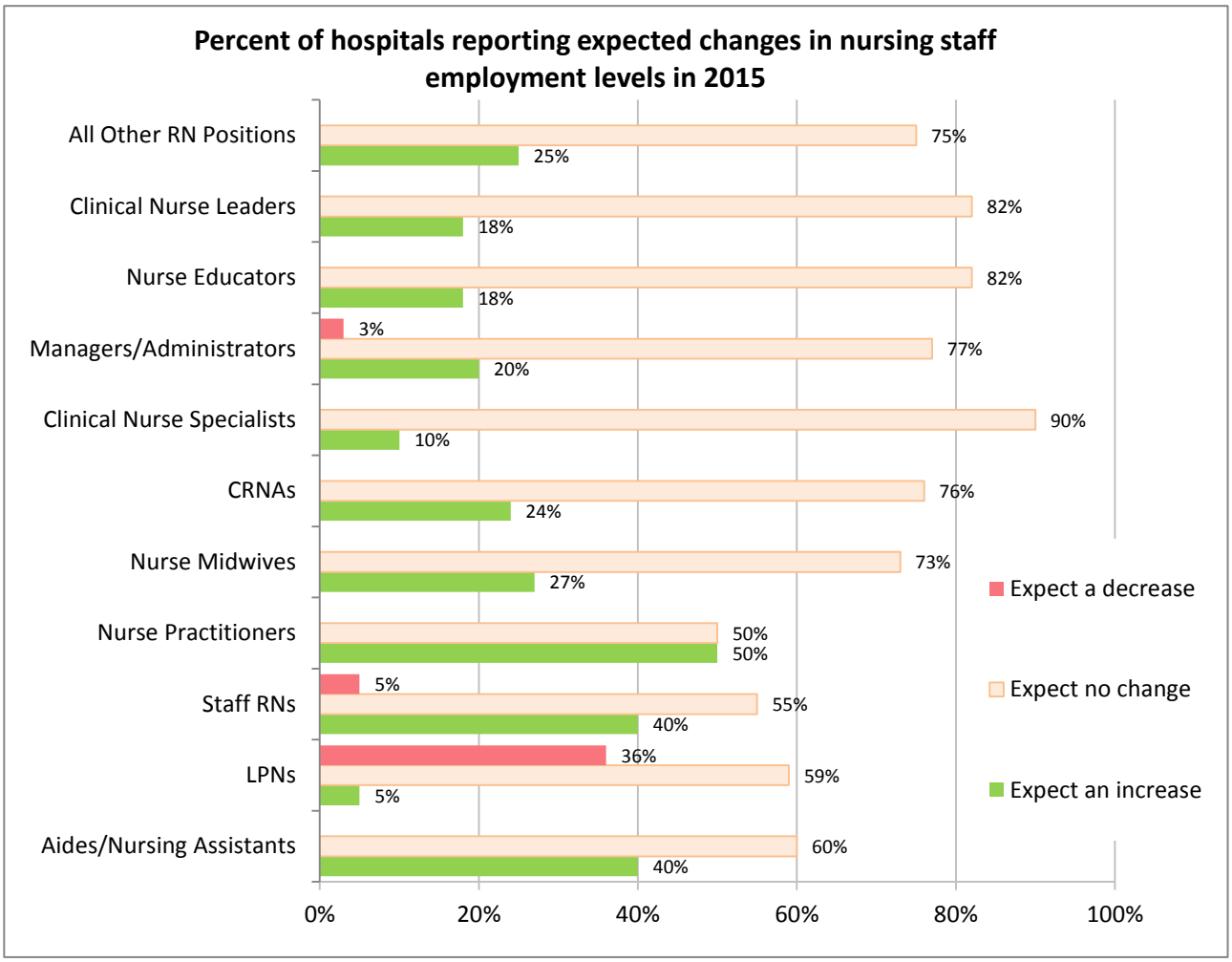
Future Expectations for Employment

Hospitals were asked to report how they expect employment levels to change in 2015 for a variety of different types of nursing personnel. In almost all cases hospitals expect either no change from conditions in place at the beginning of the year, or an increase. Only a small number of hospitals expect decreases and those decreases were focused on LPNs, staff RNs, and nurse managers. See Figure 9 below for the statistics. Please note that when one or more hospitals did not employ a particular type of personnel (refer to Table 2), we have adjusted the statistics to ensure they are based only on hospitals that actually employ that personnel type.

Hospital size is associated with employment expectations for staff RNs. Among the small number of hospitals expecting a decrease in staff RN employment in 2015 (n=2), both of them were large hospitals. Among those expecting an increase in staff RN employment, the majority (53%) were medium sized hospitals with 101 – 299 beds (Fisher's Exact p = 0.0413).

Ownership type is associated with the demand for clinical nurse specialists in the coming year. Among private for-profit hospitals responding to the survey and that already employ Clinical Nurse Specialists, 50% of them expect CNS employment levels to increase in 2015. None of the nonprofit or government owned hospitals expect a change (Fisher's Exact p = 0.0316).

Figure 9



Because of the structure of the survey questionnaire, it was difficult to untangle the reasons given for why the employment levels for certain types of nursing personnel are expected to increase or decrease. Many hospitals cited increasing patient volumes, expansion of units and programs, and other growth related reasons that affect many different types of nursing personnel. The summary in Table 7 provides the reasons CNOs gave for expected changes in employment levels that were clearly discernible for specific types of nursing personnel.

Table 7. Reasons for expected changes in employment levels for nursing staff

Reductions in employment levels for:	
LPNs:	converting to an all RN staff
	converting LPN positions to RN with new hires
	use of LPNs is decreasing in the acute care environment
	limiting our use of LPNs as we move toward more BSN prepared nurses
	trying to decrease labor costs by meeting productivity goals at the 50th percentile
	staff mix changes are required to decrease labor costs and facilitate maximum licensure
Nurse managers /administrators:	expecting a change in ownership or partnerships that might affect employment
Increases in employment levels for:	
Aides/nursing assistants:	more CNAs are needed to ensure good patient experience
	more nurse aides are needed for companion/sitter positions
	opening more beds / patient volumes are increasing
	we are expecting high occupancy rates
	converting to a different care model that includes CNAs
Staff RNs:	adding new services/programs and licensed beds
	demands of patient care, increased regulatory requirements
	RNs will replace LPNs
	increasing volume / census expected
	escalating unavoidable turnover (e.g. retirements)
Nurse Practitioners:	increasing our use of mid-levels to make up for too few physicians
	using more NPs in critical care
	expanding roles for NPs in care transition roles
	demand for primary care is not being met – we need to increase our use of NPs
	specialists are asking for NPs to round on patients in the hospital
CRNAs:	growth of surgical services requires more physician extenders
Nurse Managers:	expect to have several openings for experienced clinical director positions
Nurse Educators:	more nurse educators needed to help with EPIC installations
Clinical nurse leaders:	the hospital is developing more leader positions
all other RN positions:	growth in the roles created to help with value-based purchasing (VBP) requirements and length of stay issues

Summary

This study of South Carolina hospitals reveals a strong preference for experienced RNs in the hiring process, although almost all hospitals routinely hire new RN graduates and expect to continue to do so in the coming year. Statewide, perceptions of the local labor market for RNs indicate a fairly tight market for experienced RNs where supply is less than the demand, and the opposite for new graduate RNs. While most hospitals said that recruitment difficulty for different types of nursing personnel had not changed much over the past year, a sizable minority reported increasing difficulty finding some types of nurses. Very few said that recruitment was getting easier. And, among hospitals that use temporary or traveling RNs, more of them said their use had increased over the past year rather than decreased. In addition, a sizable minority of hospitals expect to see employment levels rise over 2015 for different types of nursing personnel. Many are also creating new roles for RNs: care/patient navigator, clinical documentation specialist and infomaticist were the new job titles mentioned most often. Taken together, these findings suggest that the demand for nurses – especially RNs – is increasing throughout the state.

Another major finding from the survey is that while 90% of hospitals provide some support to RNs who want to extend their education, only 41% of hospitals offer a pay differential for BSN education. Many cited insufficient funds for tuition or pay incentives as a barrier to increasing BSN preparation among their RN staff. Currently less than one-third of hospitals in the state have an RN staff in which 50% or more have a BSN degree or higher. Half of responding hospitals said they would like to see at least half of their RNs with a BSN education, but another 45% said they have no specific educational goal for their RN workforce.

Many of the survey's findings differed by regional location. We used the DHEC planning regions to divide the state into 4 geographic areas: Upstate, Midlands, Pee Dee and Low Country. Some of the survey findings that differed by geographic location are as follows:

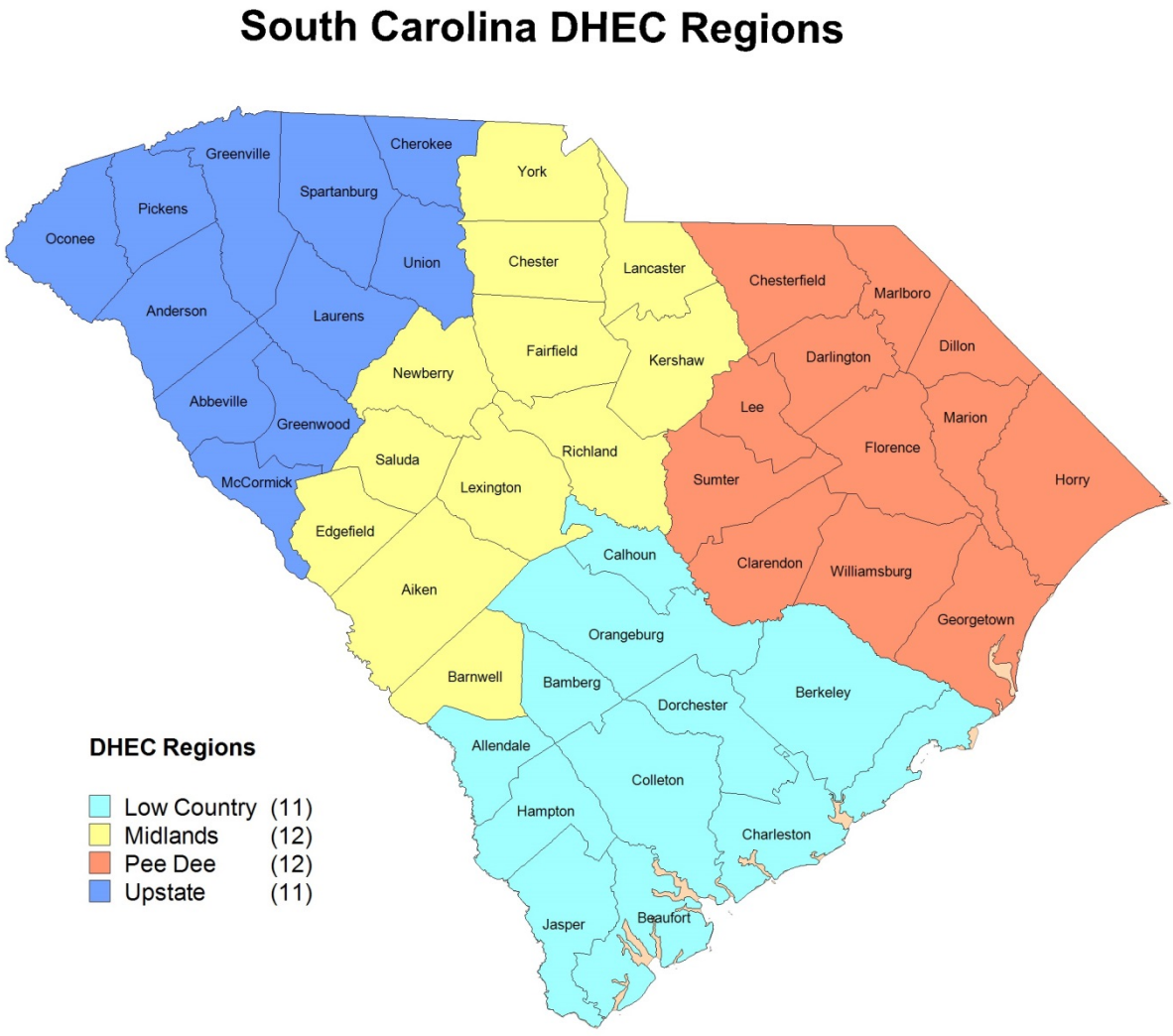
- 73% of hospitals in the Upstate region said recruiting nurse aides is becoming more difficult compared to 35% of hospitals overall
- hospitals in the Upstate and Pee Dee regions are less likely than those in the Low Country or Midlands regions to use traveling nurses or temporary RNs
- hospitals in the Pee Dee region tend to have a smaller percentage of BSN prepared nurses on staff than hospitals in the Upstate or Low Country regions
- hospitals in the Low Country and Upstate regions are more likely to require that newly hired RNs complete a BSN degree within the specific period of time than hospitals in other regions of the state
- 82% of hospitals in the Upstate region offer a salary differential for BSN preparation compared to 41% of hospitals overall.

Hospital size sometimes had an influence on results as well:

- Large hospitals (those with 300 beds or more) are more likely to employ nurse practitioners in their ambulatory care clinics than hospitals with fewer than 100 beds
- all of the large hospitals responding to the survey have a target goal in mind for BSN preparation among their RN staff and the majority of them said that target was 80% or more
- 67% of small hospitals identified insufficient funds for tuition reimbursement as a barrier to increasing BSN preparation among their RN staff compared to 18% of large hospitals

This study provides some insights into how the nursing workforce is changing in South Carolina and the general nature of the hospital nursing labor market and nursing personnel policies in different areas of the state.

Appendix


South Carolina DHEC Regions
Greenville
Cherokee
Spartanburg
York
Pickens
Oconee
Union
Chester
Lancaster
Chesterfield
Marlboro
Anderson
Laurens
Fairfield
Kershaw
Darlington
Dillon
Newberry
Abbeville
Greenwood
Lee
Marion
Florence
Saluda
Richland
Sumter
Horry
McCormick
Lexington
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