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Changing Trends in Newly Licensed RNs

A comparison of two cohorts surveyed six years apart shows that new nurses are now less likely to work in hospitals and more likely to work part time.

Whether we will see a return of the nursing shortage in the United States anytime soon continues to be debated.[1,2] Regardless, hospitals are dependent on newly licensed RNs (NLRNs). In 2008, 62% of RNs worked in hospitals,[3] while according to our own unpublished calculations, 89.1% of NLRNs worked in hospitals in 2009, the closest year for which data were available. With hospital RN turnover rates currently at about 14%, hospitals need NLRNs to replace RNs who retire or leave for another job.[4]

The passage of the Affordable Care Act (ACA) and the resulting increase in the number of insured people beginning this year will likely increase the demand for RNs in ambulatory care, particularly NPs.[5] Changes in the Centers for Medicare and Medicaid Services' reimbursement system, linking payment to nursing-sensitive outcomes, is also likely to heighten the demand for RNs.[6] The economic downturn and the related high unemployment rate may have affected RNs' work decisions; for example, they may be reluctant to leave jobs if family members are unemployed.[7]

Much depends on NLRNs but little is known about how their work patterns change over time. Two of us (CTK and CSB) received funding in 2006 for a 10-year national study of NLRNs. The resulting RN Work Project is a longitudinal panel study of issues affecting NLRNs' careers—their work choices, turnover rates, job satisfaction, and commitment to the profession—with the overall goal of providing data that will aid in balancing RN supply and demand in the health care workforce (for more information, see www.rnworkproject.org).

For this current study we decided to compare the work lives of two cohorts of NLRNs licensed six years apart. Understanding the differences between them could be useful in workforce planning.

BACKGROUND

Besides changes in reimbursement and rates of unemployment, other changes have been found among NLRN cohorts, including in the types of people who become RNs. For example, men represent a higher percentage of NLRNs now than in the past.[8]

The supply of NLRNs is increasing. The American Association of Colleges of Nursing reports that applications to bachelor of science in nursing (BSN) programs have consistently increased from 2004 to 2011,[1] with enrollment in prelicensure programs increasing by 5.1% from 2010 to 2011.[9] In 2011, 4,565 more first-time test takers took the licensing exam than in 2010.[10,11] These increases may be related to the public perception of nursing as a recession-proof profession at a time when the U.S. unemployment rate went from 4.7% in January 2006 to 10% in October 2009, improving only slightly to 8.3% in January 2012.[12]

Also, enrollments in RN-to-BSN programs increased by 15.8% from 2010 to 2011.[9] This trend has been partially influenced by the increasing evidence that RNs with bachelor's degrees make a difference in hospital outcomes, especially in lowered rates of death and failure to rescue.[13] It was also influenced by the 2010 Institute of Medicine (IOM) report *The Future of Nursing: Leading Change, Advancing Health*, which called for nurses to achieve higher levels of education and to practice as full partners with other health care providers, including physicians.[14]

Most NLRNs begin their careers working in hospitals,[15] although it appears that demand for these RNs may have decreased. Soon after the recession of 2008 began, there were reports of NLRNs having difficulty gaining employment as RNs, perhaps in part because currently employed nurses were working more hours.[16-18] It has also been reported that as more young people enter nursing, the number of

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ABSTRACT

Objective: Recent changes in U.S. health care and economics may influence the demand for nurses and the work choices of newly licensed RNs (NLRNs). We sought to compare the work lives of two cohorts of NLRNs licensed six years apart.

Methods: Data were collected from two groups of NLRNs in 14 states via mailed surveys. The first group consisted of a subset of NLRNs surveyed for a larger study in 2004–05; the second group was surveyed by similar methods in 2010–11. Responses were weighted to adjust for differences in response rates according to geographic area.

Results: Response rates were 58% and 47%, respectively, for the 2004–05 cohort (N = 774) and the 2010–11 cohort (N = 1,613). The NLRNs in the later cohort were less likely to work in hospitals, special-care units, and direct care and more likely to work as managers, be enrolled in formal education programs, and view their work environments positively, resulting in more commitment to the organization. Also, those in the later cohort reported fewer local job opportunities, and a greater number held a second job.

Conclusions: These findings indicate a shift from the traditional work patterns of NLRNs, who often began their careers in hospitals. Employers' heightened awareness of such changing trends among NLRNs may help them in planning for RN recruitment and retention.

Keywords: job satisfaction, new nurse, nursing shortage, nursing workforce, work environment

nurses will grow faster than estimated, resulting in an overall younger workforce and moderating shortages predicted as a result of the retirement of baby-boomer nurses.[2] But retaining NLRNs in hospitals has been a challenge. More than 26% of RNs leave their first job within two years of starting,[19] although according to our unpublished calculations most get another nursing job. (We determined this using data we had acquired on nurses who left their jobs and what they were doing two years later—one of the advantages of using a panel survey design.)

While many studies of NLRNs employ small or moderate sample sizes,[20-22] this study surveyed samples from many states and builds on a previous study that compared a cohort of NLRNs who were licensed for the first time in 2004–05 with a second cohort who were licensed in 2007–08.[7] That prior comparison found significant differences in NLRNs' perceptions of job opportunities available (lower for the 2007–08 cohort) and in their intention to stay at their current job (higher for the 2007–08 cohort), which has implications for health care management and policy.

To continue to monitor differences over time, here we compared a subset of the 2004–05 cohort with a new 2010–11 cohort.

METHODS

Sample. The first NLRN cohort was a subset of a group of RNs licensed for the first time between August 1, 2004, and July 31, 2005, and surveyed via U.S. mail in 2006. This subset was licensed in one of 23 geographic areas within 14 states (Alabama, Kentucky, Maryland, Michigan, Nevada, New Jersey, North Carolina, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, and West Virginia). The second group consisted of RNs licensed between August 1, 2010, and July 31, 2011, in the same geographic areas. This later cohort was surveyed by U.S. mail in 2012. For both cohorts, we excluded any RN who had practiced outside the country prior to U.S. licensure. For more details about the sampling methods, see two previous *AJN* articles: "Newly Licensed RNs' Characteristics, Work Attitudes, and Intentions to Work" (September 2007) and "New Nurses: Has the Recession Increased Their Commitment to Their Jobs?" (March 2012).[7,15]

Data collection. Approval for the survey was obtained from the institutional review board at each author's institution. We collected data on the 2010–11 cohort using a mailed survey with a $5 incentive and a maximum of five mailings for nonresponders, using the same method we used to collect data on the 2004–05 cohort.[15]

Measures. We surveyed the two cohorts in four areas—personal characteristics, work attributes, perceived work environment, and job opportunities—using a total of 22 scales. Each scale had well-supported reliability (with a Cronbach α coefficient of more than 0.70) and validity in similar populations; they are described in detail elsewhere.[15,23] In addition, for the 2010–11 cohort we included new survey questions on patient safety (based on questions from the Agency for Healthcare Research and Quality; go to http://1.usa.gov/1aRHSQm) and on the ability of new nurses to obtain employment—two important, growing areas of research.

Table 1. Personal Characteristics

Variable	Responses	2004–05 Cohort (N = 774)		2010–11 Cohort (N = 1,613)		*P* Value
Mean age, years		32.28		32.12		NS
		n	%	n	%	
Sex	Female	703	90.8	1,431	89.5	NS
	Male	71	9.2	168	10.5	
Race and ethnicity	White non-Hispanic	596	78.7	1,197	75.7	NS
	White Hispanic	10	1.3	43	2.7	
	Black non-Hispanic	60	7.9	156	9.9	
	Black Hispanic	0	0	3	0.2	
	Asian	31	4.1	64	4	
	Other	60	7.9	120	7.6	
Enrolled in formal education program	No	685	88.6	1,317	83.4	0.001
	Yes	88	11.4	263	16.6	
Extern	No	527	68.2	1,308	81.3	0.000
	Yes	246	31.8	300	18.7	
Marital status	Married	432	55.9	811	50.6	0.018
	Not married	341	44.1	791	49.4	
Children at home	No	442	57.3	929	58.1	NS
	Yes	330	42.7	671	41.9	
Children < 6 years old	No	624	80.8	1,294	80.9	NS
	Yes	148	19.2	305	19.1	
English first language	No	56	7.2	158	9.8	0.038
	Yes	717	92.8	1,446	90.2	
First degree leading to RN licensure	Diploma	25	3.3	41	2.6	NS
	Associate's	463	60.5	887	56.2	
	Baccalaureate	276	36.1	646	40.9	
	Master's or doctorate	1	0.1	5	0.3	

NS = not significant.
Note: For each variable, n values might not sum to N because not every respondent answered every question.

Data analyses. Response rates were 58% for the 2004–05 cohort and 47% for the 2010–11 cohort, according to the American Association for Public Opinion Research definition.[24] Response rates varied by geographic area for the 2004–05 sample; therefore, we weighted responses for the 2010–11 sample so that any differences detected in the findings would not be caused by differences in response rate. All analyses were done with the weighted sample. We included 774 responders for the 2004–05 cohort and 1,613 responders for the 2010–11 cohort. We used PASW Statistics 20 to conduct *t* tests and χ^2 analyses, with a significance level of 0.05.

RESULTS

Personal characteristics. As shown in Table 1, we found no significant differences between the two groups in age, sex, race and ethnicity, children at home, children younger than six years old, and basic nursing education. The 2010–11 cohort was significantly less likely to be married and to speak English as a first language and significantly more likely to be enrolled in a formal education program than the 2004–05 cohort.

Work attributes. There were significant differences between the two groups for most work attributes (see Table 2). Those in the 2010–11 cohort were less likely

Table 2. Comparison of Work Attributes

Variable	Responses	2004–05 Cohort (N = 774)		2010–11 Cohort (N = 1,613)		*P* Value
		n	%	n	%	
At the time of the survey, were you …	In an RN job requiring an RN license?	734	95.1	1,468	91	0.001
	In a health-related job not requiring an RN license?	18	2.3	37	2.3	
	In a nonhealth-related job?	2	0.3	17	1	
	Not employed?	18	2.3	91	5.6	
Setting where you spent most working time	Hospital	668	88.8	1,149	77.4	0.000
	Nursing home	21	2.8	116	7.8	
	Nursing education program	0	0	1	0.1	
	Home health care	9	1.2	25	1.7	
	Ambulatory care	7	0.9	38	2.6	
	Other	45	6	42	2.8	
	Nonnursing	2	0.3	113	7.6	
Magnet facility?	No	573	89.7	1,089	86.5	0.05
	Yes	66	10.3	170	13.5	
Unit where you spent most working time	Special	332	43.9	535	35.8	0.000
	General	268	35.4	474	31.7	
	Home	6	0.8	21	1.4	
	Ambulatory care	17	2.2	162	10.8	
	Home health care or hospice	14	1.9	50	3.3	
	Nursing home	18	2.4	5	0.4	
	Other	101	13.4	247	16.5	
Job title	Manager	22	2.9	97	6.4	0.000
	Consultant	1	0.1	4	0.3	
	Instructor	0	0	3	0.2	
	Direct care RN	703	93.1	1,310	87	
	Advanced practice nurse	2	0.3	1	0	
	Other	27	3.6	91	6.1	
Full or part time	Part time (including for only part of the year)	59	7.8	159	10.5	0.041
	Full time (including for an academic year)	695	92.2	1,353	89.5	
Type of schedule	8-hour shifts	132	17.5	312	20.7	NS
	10-hour shifts	24	3.2	44	3	
	12-hour shifts	556	73.6	1,056	70	
	Flexible schedule	25	3.3	43	2.9	
	Other	18	2.4	52	3.5	

Table 2. Comparison of Work Attributes—Cont'd

Variable	Responses	2004–05 Cohort (N = 774)		2010–11 Cohort (N = 1,613)		*P* Value
		n	%	n	%	
Typical work schedule	Day	301	40	665	44.1	0.041
	Evening	60	8	136	9	
	Night	295	39.2	562	37.3	
	Rotating	97	12.9	143	9.5	
Part of a union	No	590	79.5	1,225	83	0.045
	Yes	152	20.5	250	17	
Importance of benefits from RN job to staying at job	Not important at all	36	4.8	153	10.1	0.000
	Not very important	77	10.2	172	11.4	
	Somewhat important	238	31.6	473	31.3	
	Very important	401	53.3	714	47.2	
Currently unemployed but seeking employment	Yes, in nursing	11	64.7	66	73.8	NS
	Yes, not in nursing	0	0	1	0.7	
	No, not looking for work	6	35.3	23	25.5	
Reason unemployed	Unable to find type of RN job I want	0	0	8	9.6	NS
	No entry-level RN jobs available in my area	2	11.8	27	31.3	
	Personal situation prevents employment	4	23.5	21	24.7	
	In school	3	17.6	7	8.5	
	Don't desire work in nursing	1	5.9	1	0.9	
	Other	7	41.2	22	25	

NS = not significant.
Note: For each variable, n values might not sum to N because not every respondent answered every question.

than those in the earlier cohort to be employed in a job requiring an RN license and less likely to work in a hospital; those who did work in a hospital were more likely to report they worked in a Magnet hospital and more likely to hold more than one job for pay. The later cohort was less likely to work in ICUs than the earlier cohort (11.6% versus 18%) and less likely to work in direct care (87% versus 93.1%). Although there were no significant differences in the type of shift worked, the later cohort was less likely than the earlier cohort to work full time and less likely to be part of a union. The later cohort was also less likely than the earlier cohort to report having the benefits of health insurance (91.9% versus 97.2%) or tuition reimbursement (69.4% versus 86.4%). The later cohort worked fewer hours of voluntary overtime and had a higher yearly income (although this was determined to be lower after the income of the earlier cohort was adjusted for inflation).

Work attitudes. NLRNs in the 2010–11 cohort viewed their work environment more positively than NLRNs from 2004–05 (see Table 3). In most cases, these differences were significant, although very small. Those in the later cohort perceived better nurse–physician relations than those in the earlier cohort, reported fewer organizational constraints, and were more committed to their organizations.

Job opportunities. The later cohort perceived significantly fewer job opportunities than the earlier cohort, both locally and not locally; 96.7% reported having zero to two employers. A significant percentage reported having a schedule they preferred (72.7%) and a shift they preferred (76.3%). Also, 68% of the later cohort applied for an RN job before taking the National Council Licensure Examination (NCLEX), 46.1% got their first RN job before taking the NCLEX, and 15.2% worked on a temporary or provisional permit before taking

Table 3. Comparison of Work Attitudes

Work Attitude	Range of Scale	2004–05 Cohort (N = 774)		2010–11 Cohort (N = 1,613)		*P* Value
		n	Mean score	n	Mean score	
Collegial RN–MD relations	1–4[a]	742	2.83	1,437	2.94	0.000
Intent to stay	1–5[a]	752	3.26	1,515	3.32	NS
Job satisfaction	1–7[b]	755	4.95	1,517	4.94	NS
Organizational commitment	1–5[a]	753	3.70	1,516	3.91	0.000
Organizational constraints	1–6[c]	752	2.53	1,514	2.44	0.039
Local job opportunity	1–6[d]	748	3.32	1,513	2.57	0.000
Nonlocal job opportunity	1–6[d]	738	3.65	1,502	2.97	0.000

NS = not significant.
[a] Strongly disagree to strongly agree.
[b] Rating scale for each job satisfaction item varied.
[c] Never to five or more days per week.
[d] Very difficult to very easy.
Note: For each variable, n values do not equal N because not every respondent answered every question.

the NCLEX. While it took 10.2% of the later cohort four or more months to get an RN job, only 2.7% had no RN job offer by the time of the survey (a mean of nine months after passing the NCLEX).

Employment choices. When NLRNs in the 2010–11 cohort were asked to say why they took their first RN job, the most common reasons given (in descending order) were the work hours were good for work–life balance (44.3%), the commute was short (42%), the organization had a good reputation (39.9%), it was the only RN position that offered full-time employment (38.3%), the RN had clinical experience there as a student (34.4%), and a friend was at the organization (31%) (see Figure 1). NLRNs in the later cohort were much more likely than those in the earlier cohort to have left their first RN job within one year (16% versus 10.4%), although not all RNs had worked for a full year at the time of the survey. Of those who had already left their first job (n = 413) and answered the question about the one thing their employer could have done to keep them at that job (n = 199), by far the greatest percentage (42%) said there was nothing that could have kept them there. Other factors that might have kept them in their jobs (less than 10% each) were an increase in pay, a change in shift or hours, or improvements in management. About 25% worked on a shift or schedule that was not their preference. A large majority said they planned to enroll in additional formal nursing education (71.4%), many within five years (40.5%) or one year (35.5%); 20% were already enrolled.

Patient safety in 2012. The 2010–11 cohort perceived patient safety to be problematic in their work environments (see Figure 2). When asked whether they agreed with the statement: "Patient safety is never sacrificed to get more work done," just over a quarter disagreed. Similarly, fewer than 20% disagreed with the statement: "Procedures and systems are good at preventing errors," or agreed with the statement: "Have patient safety problems on the unit."

The later cohort perceived significantly fewer job opportunities than the earlier cohort.

DISCUSSION

The two cohorts reveal differences that could have implications for workforce planning. Some of these differences, such as job opportunities, may be related to the recent economic downturn and may diminish as the overall job market improves. Unlike Auerbach and colleagues, we found no significant differences in age between the two NLRN cohorts—but this could reflect the different sample sources.[2] However, other differences likely result from evolving expectations and demands of the profession as health care environments change. For example, although the average ages of the two cohorts are the same, the later cohort's much higher enrollment in formal education may be influenced by the 2010 IOM report recommendation that 80% of the nursing workforce hold a BSN by 2020.[14] Similarly, a population eager

for primary care as a result of the ACA[25] may motivate nurses with a baccalaureate to become NPs.

Our later cohort was much less likely to work in hospitals than the earlier cohort. Whether this resulted from the later cohort being less able to obtain a hospital job or preferring to work in other settings is not clear, but we believe the former to be true because of anecdotal reports of nurses' having difficulty finding jobs. There are also anecdotal reports that hospitals are preferentially hiring RNs with a BSN and that if they do hire associate's degree graduates, they are requiring those nurses to get a BSN within a specified period. According to our unpublished calculations, BSN graduates are significantly more likely to work in hospitals within six to 18 months of graduation than associate's degree graduates (82.9% versus 67.1%), and associate's degree graduates in the 2010–11 cohort were much less likely to work in hospitals than those in the 2004–05 cohort (67.1% versus 83.1%).

The NLRNs in the 2010–11 cohort were also much less likely to work in special-care units, in part because they were less likely to work in hospitals. We suspect that hospitals can be more selective in hiring and prefer to hire experienced RNs in special-care units. Because hospitals can be more selective, we suspect that even if the new nurses were able to get hospital jobs, they were likely unable to obtain jobs in these specialty units.

Historically, most NLRNs provided direct care in hospitals and elsewhere.[15] Our results indicate that this may be changing. The NLRNs in the 2010–11 cohort were significantly less likely to work in direct care than those in the 2004–05 cohort, and they were more likely to work as managers. The increase in second-degree RNs in the 2010–11 cohort may reflect that members of this group held management positions in another field prior to becoming RNs. The later cohort reported fewer local job opportunities, coupled with higher commitment to the organization that employs them. Thus, employers may be more likely to retain these NLRNs than those in the previous cohort, although there were no differences in the two groups' intent to stay in their jobs. The later cohort was more likely to have been in a second job than the earlier cohort.

Figure 1. Reasons for Taking Current Job (2010–11 Cohort)

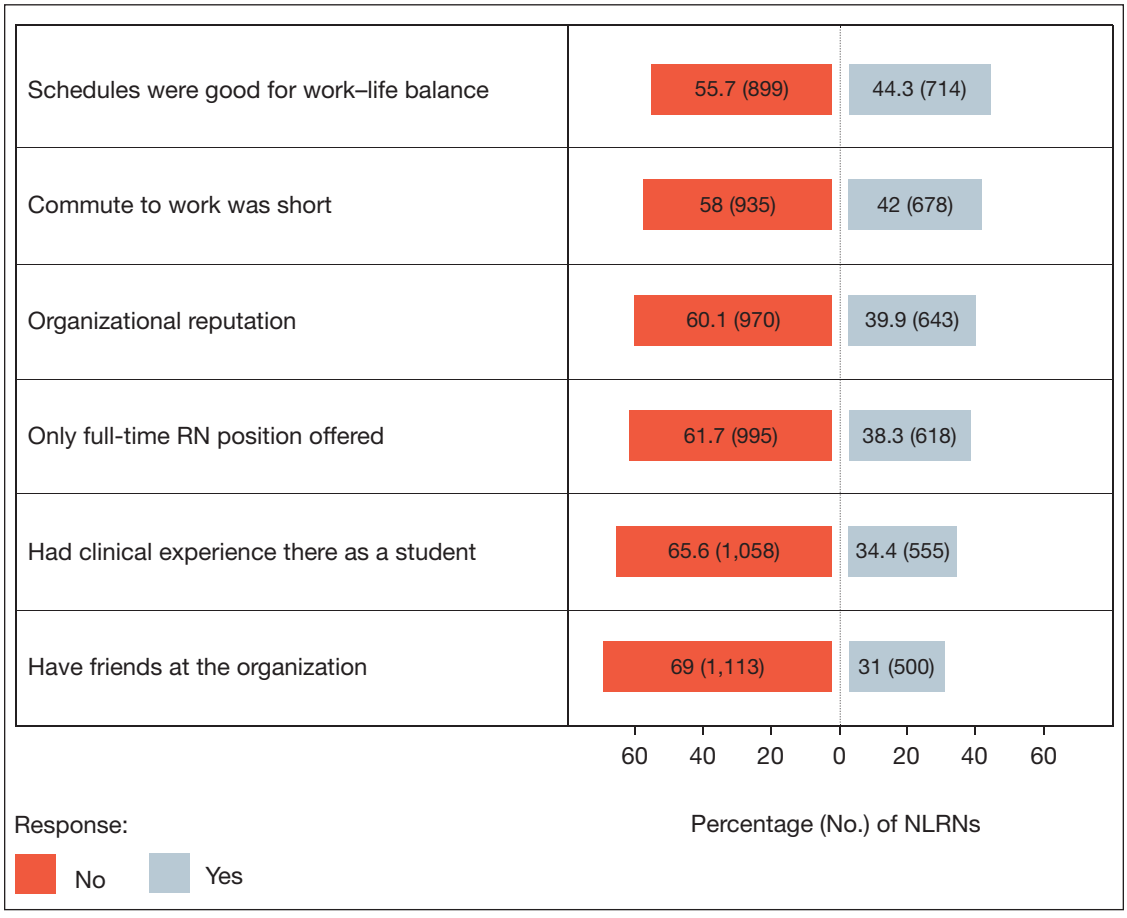
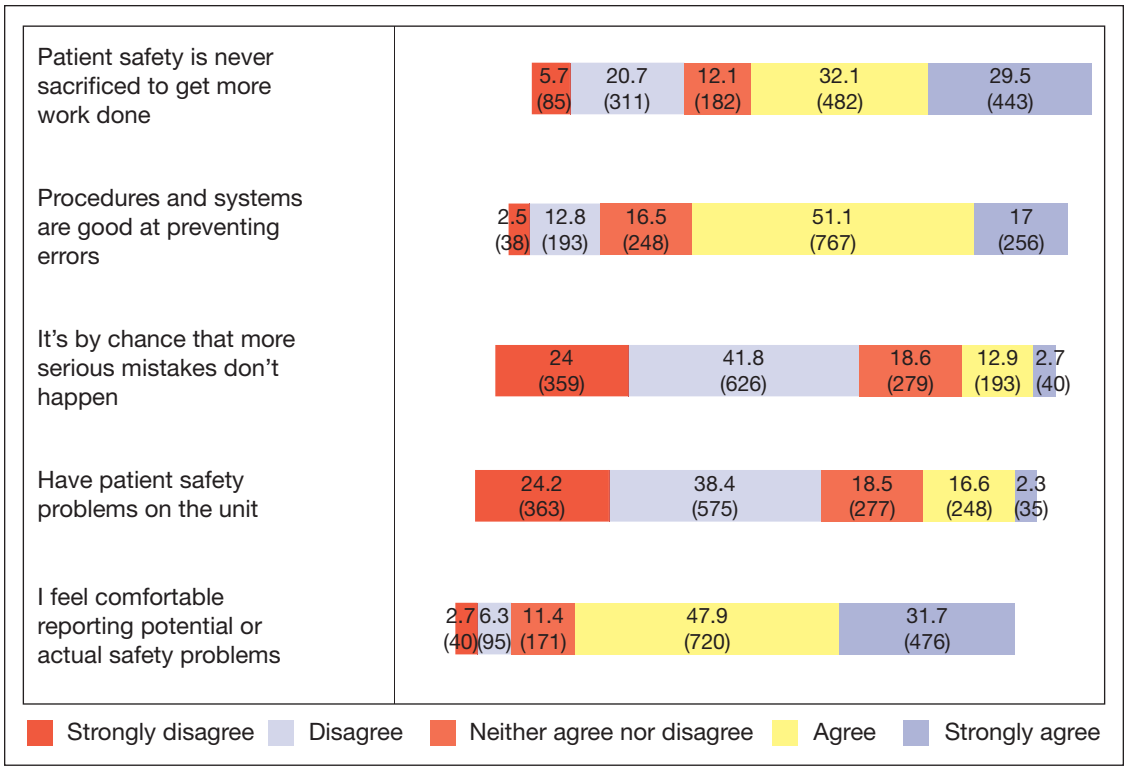


Figure 2. Perceptions About Patient Safety (2010–11 Cohort)



We were disappointed to find that significantly fewer 2010–11 licensees had the employer-provided benefits of health insurance and tuition reimbursement. This likely reflects the types of both jobs and employers (for instance, hospitals tend to offer more benefits than nursing homes), but it might also reflect that the later cohort was more likely to work part time and in jobs that often provide fewer benefits.

It is encouraging that NLRNs in the later cohort perceived their work environments more positively than those in the earlier cohort, especially in terms of better relations between nurses and physicians. This finding may be related to fewer RNs in the later cohort working in hospitals, where nurses tend to have the most interactions with physicians. It may also reflect the overall more positive perceptions of the RNs or that their positive perceptions improve nurse–physician relationships,[15] continuing a trend of improvement that occurred from 2006 to 2009.[7]

The 2010–11 cohort reported continuing problems with patient safety. More than 26% disagreed or strongly disagreed that patient safety is never sacrificed to get more done and 19% reported having patient safety problems on the units in which they work. Further, 9% weren't comfortable reporting potential or actual safety problems. These patient safety problems persist even with the substantial investment that government and the health care industry have made in quality improvement.[26,27] It remains the work of nursing education programs and employers to eliminate these problems.[28]

NLRNs in the 2010–11 cohort were significantly less likely to work in direct care than those in the 2004–05 cohort.

Limitations. The sample was limited to NLRNs from 14 states, and although we have no reason to believe that changes within these geographic areas are systematically different from changes nationwide, our findings cannot be generalized to all NLRNs. Although the response rates were moderate for each cohort, there is the possibility that nonresponders had

different experiences than responders. And with surveys there is always the potential for self-response bias.

CONCLUSIONS

Employers cannot presume that all NLRNs are similar. It is important for employers to continue to assess working conditions and how these conditions affect work attitudes and behaviors. Because of the interest the latest cohort has in ongoing education, employers may find it easier to hire BSN graduates than they have in the past. Employers should consider offering a tuition reimbursement as a benefit.

On a broader scale, these changing trends between RN cohorts are of particular interest to employers and policymakers. Our finding that the later cohort of NLRNs is less likely to work in hospitals is aligned with the demand to expand primary care services as outlined by the ACA. Fewer RNs working in hospitals leaves RNs available to work in primary care. Our data do not indicate that more NLRNs are working in community or primary care settings. But movement away from hospitals as NLRNs' first place of employment is an important indicator of shifts in the nursing workforce that might have broader implications for U.S. health policy. ▼

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