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# Newly Licensed RNs'

## Characteristics, Work Attitudes, and Intentions to Work

A BETTER UNDERSTANDING OF NEWLY LICENSED RNS AND THEIR EMPLOYMENT PATTERNS IS CRUCIAL TO REDUCING TURNOVER RATES.

### ABSTRACT

**Objective:** In an effort to better understand turnover rates in hospitals and the effect of new nurses on them, this study sought to describe the characteristics and attitudes toward work of newly licensed RNs, a population important to both the nursing profession and the health care system.

**Methods:** A survey was mailed to a random sample of new RNs in 35 states and the District of Columbia. A total of 3,266 returned surveys met the inclusion criteria, for a response rate of 56%. RNs who qualified had completed the licensing examination and obtained a first license between August 1, 2004, and July 31, 2005. Data pertaining to four areas were collected: respondent characteristics, work-setting characteristics, respondents' attitudes toward work, and job opportunities. Respondents who were not working were asked to specify why.

**Results:** Of the eligible newly licensed RNs, 58.1% had an associate's degree, 37.6% had a bachelor's degree, and 4.3% had a diploma or a master's or higher degree as their first professional degree. They were generally pleased with their work groups but felt they had only moderate support from supervisors. About 13% had changed principal jobs after one year, and 37% reported that they felt ready to change jobs. More than half of the respondents (51%) worked voluntary overtime, and almost 13% worked mandatory overtime. Also, 25% reported at least one on-the-job needlestick in a year; 39%, at least one strain or sprain; 21%, a cut or laceration; and 46%, a bruise or contusion; 62% reported experiencing verbal abuse. A quarter of them found it "difficult or impossible" to do their jobs at least once per week because of inadequate supplies.

**Conclusions:** This study provides descriptive evidence that a majority of newly licensed RNs are reasonably satisfied and have no plans to change jobs, but the group is not homogeneous. The negative attitudes expressed in response to some survey questions suggest that newly licensed RNs may not remain in the acute care settings where they start out. Investing in better orientation and management may be the key to retaining them in hospitals. The authors will be following these RNs for two years and will develop predictive models of turnover rates.

**Keywords:** graduate nurses, newly licensed RNs, turnover, satisfaction, orientation, retention



Steve Gilbert

**B**ecause more people in their late 20s and early 30s are choosing a career in nursing, the nursing shortage has been less severe in recent years than had been predicted.<sup>1</sup> Still, a shortfall of 340,000 RNs is projected by 2020.<sup>1</sup> It's therefore important that we understand the factors that promote the retention of newly licensed RNs—those licensed after passing the National Council Licensing Examination (NCLEX) in the preceding 18 months—as well as the factors that contribute to turnover.

The National League for Nursing estimates that there were 84,878 new graduates in the 2004–2005

academic year.<sup>2</sup> According to the National Council of State Boards of Nursing (NCSBN), of 87,171 U.S.-educated people who took the NCLEX for the first time in 2004, 74,327 (85.3%) passed, and of 22,135 who made repeated attempts, 11,497 (51.9%) passed that year.<sup>3</sup>

In 2000, 81% of hospitals hired at least one newly licensed RN.<sup>4</sup> Newly licensed RNs are more likely to work at hospitals than are practicing RNs in general (those newly licensed plus those with longer work experience): another 2004 NCSBN survey found that an estimated 87.7% of newly licensed RNs were employed primarily at hospitals (6.9% worked in ambulatory care and 3% in long-term care),<sup>5</sup> while the most recent, March 2004 National Sample Survey of Registered Nurses found that of an estimated 2,421,351 working RNs, 56.2% (1,360,847) worked at hospitals (a decrease from 59.1% four years earlier).<sup>6</sup> (While the *percentage* of all RNs who worked at hospitals in 2004 had decreased from four years earlier, the *number* of all RNs employed at hospitals actually increased 4.7% during the same period [from 1,300,323].<sup>6</sup>) But little is known about how long newly licensed RNs stay in nursing positions or why they leave.

In our research on nursing staff turnover, we could not locate any national turnover rates for newly licensed RNs, which prompted us to undertake this study. Depending on the source of the data, estimates of turnover rates of newly licensed RNs vary dramatically, from as low as 7.5% (after insti-

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*AJN editor-in-chief Diana Mason serves on the national advisory group for this research project. She recused herself from all decisions regarding the acceptance of this article for publication. AJN editorial board member Donna Diers, PhD, RN, FAAN, served as the handling editor.*

*The authors of this article have no significant ties, financial or otherwise, to any company that might have an interest in the publication of this educational activity.*

## MORE ON METHODS AND STATISTICS

tution of a staff empowerment program)<sup>7</sup> to 70% (at one rural hospital, before implementation of an orientation program).<sup>8</sup> Research shows that factors associated with reduced turnover rates among newly licensed RNs are empowerment<sup>7</sup>; collegial support, including mentoring, having clinical partners, and having a preceptor<sup>9,12</sup>; and comprehensive orientations.<sup>8, 13-15</sup> Developing a sense of belonging<sup>16,17</sup> and determining how they fit into the work group<sup>18</sup> are also important to newly licensed RNs. The complexity of the tasks they have to perform can be overwhelming; one study found that newly licensed RNs were “apprehensive” about the job.<sup>19</sup>

This study aims to describe newly licensed RNs, their first work settings, and their feelings about their job. This analysis uses data collected in the first wave of a three-wave panel study that will estimate the rate of turnover in the second year using data collected in the first year and second year.

### DATA AND METHODS

**Study design.** We report here on data collected in wave 1 of a panel survey. Wave 1 uses a cross-sectional, two-stage design, with a randomly selected sample of newly licensed RNs nested within 51 randomly selected Metropolitan Statistical Areas (MSAs) and nine rural areas in 35 states and the District of Columbia, for a total of 60 sites. (MSAs are defined by the U.S. Census Bureau. For more on study design, see *More on Methods and Statistics*, at right.)

**Procedure.** Data were collected by means of a 16-page survey that was professionally printed in an 8.5" × 11" booklet format. Following the Dillman Tailored Design method,<sup>37</sup> we mailed the survey to the sample of newly licensed RNs and sent multiple mailings to nonresponders. We sent an alert letter, a survey including a \$5 incentive, a reminder postcard, an additional survey, and finally a survey via the U.S. Postal Service's next day-mail service.

**Sample.** We defined “newly licensed RNs” as those who had received their first or basic RN license by taking and passing the NCLEX within the previous 18 months. (These RNs may have had prior experience as LPNs. We did not include anyone who had become licensed by endorsement for the first time in a particular state based on a current and active license in another state or jurisdiction.) For the purposes of this study, we included those RNs who passed the NCLEX and obtained their first license to practice between August 1, 2004, and July 31,

This study was designed to gather baseline data on a cohort of newly licensed RNs and follow them over time in order to develop a better ability to estimate turnover on the basis of RN and workplace characteristics. We report here on data collected in wave 1 of a panel survey. Wave 1 uses a cross-sectional, two-stage design, with a randomly selected sample of newly licensed RNs nested (or contained) within 51 randomly selected Metropolitan Statistical Areas (MSAs) and nine rural areas in 35 states and the District of Columbia, for a total of 60 sites. (MSAs are defined by the U.S. Census Bureau.)

Each U.S. state has its own board of nursing that maintains contact information for all RNs licensed in that state (as does the District of Columbia). The lists of RNs in these jurisdictions constituted our sampling frame (or target population from which the sample was drawn). However, as noted, not all states' databases differentiate between those newly licensed by examination and those recently licensed for the first time in that state by endorsement. These jurisdictions provided lists of names of prospective respondents in three basic forms. Fifteen states were able to provide lists of those RNs who were newly licensed by examination (some of these states could provide sample data for the specific sites selected; others could give us data only for the entire state, so we identified prospective respondents within the selected sites by their zip codes). Maine could provide lists only of all RNs within the selected sites. The remaining states and the District of Columbia could provide lists of recently licensed RNs but couldn't show whether they'd been newly licensed by examination or licensed by endorsement.

This sample design mirrors the one used for the Community Tracking Survey (CTS), a national study of health care system changes over time, conducted by the Center for Studying Health System Change (HSC).<sup>20</sup> It was chosen as a model so that data collected by the CTS could be used with our data in the future. The 60 CTS sites were originally chosen at random and provided by the HSC. We used estimates of the number of newly licensed RNs at each site and estimates of each site's eligibility rate (the proportion of RNs who were newly licensed and, therefore, eligible for inclusion) in allocating the sample. The goal was to make all sampling probabilities equal across the different sites. This minimized the need to weight the data and helps facilitate analysis.

We defined RNs licensed by examination (not by endorsement) as “newly licensed RNs” (rather than as “new graduates,” another term often used in the literature) because only a few states could identify RNs by graduation date. The survey included the following question to determine respondents’ eligibility: *Did you become a newly licensed registered nurse on or after August 1, 2004?* Those who answered yes were instructed to continue; those who answered no were asked to send back the survey without completing it. We also asked respondents to state when they successfully completed the National Council Licensing Examination (NCLEX). The inclusion criteria required the NCLEX to have been taken and passed between August 1, 2004, and July 31, 2005. Any respondent who completed the NCLEX before or after those dates was excluded.

**Developing the survey.** Prior to data collection, a national advisory group composed of experts in the nursing and medical workforce reviewed the survey, and changes were made on the basis of their comments. Attitudes were measured using scales with established validity and reliability that had been used in previous research with RNs.<sup>21-34</sup> A list of the scales, including a sample item, means, standard deviations, and response options and ranges, is given in Tables 1, 2, and 3 (pages 64 and 66). For the present study, the number of items in each scale varied from three (for work–family conflict) to eight (organizational constraints). To save space on the survey, we modified these scales, decreasing the number of items. To select the items to delete, we employed the same principal components analysis of these attitude scales that two of us (CTK and CSB, with colleagues) had used in a previous study of a nationally representative group of RNs.<sup>35</sup> Scales were analyzed independently. Principal components analysis explained 62% or more of the variance for all scales except organizational constraints (52% of the variance was explained) and importance of work (57% of the variance was explained). All items loaded on one component for each scale, indicating that the scales are univariate. (For more on principal components analysis, see Kline TJ. *Assessing validity via item internal structure*. In: Kline TJ, editor. *Psychological testing: a practical approach to design and evaluation*. Thousand Oaks, CA: Sage Publications; 2005. p. 241–58.)

In this study, all scales had Cronbach  $\alpha$  scores of 0.8 or greater (with the exception of promotional opportunities, autonomy, and variety, which had Cronbach  $\alpha$  scores of 0.7 or higher), indicating reliability that was adequate to excellent.

A pilot test was then conducted using 35 students (final semester associate’s degree, bachelor of science in nurs-

ing, and graduate students who had graduated in the previous two years), and minor revisions were made. Using this revised survey, data were collected from January 16, 2006, to April 7, 2006.

**Response rate.** Response rates estimate the proportion of the eligible sample that actually completed a survey. In this case, the eligible sample would include those in the original mailing who were, in fact, newly licensed RNs, as we’ve defined them here. We calculated response rates according to American Association of Public Opinion Research (AAPOR) standards.<sup>36</sup> There are different formulas for calculating the response rate that are based on characteristics of the sample; because there were very specific eligibility requirements for the sample and there was a wide range of eligibility rates across the different states, we used the AAPOR response rate 3 (to estimate the proportion of cases of unknown eligibility that were actually eligible). Response rates across MSAs and rural areas varied from 37% in New York City to 64% in northeast Indiana.

In its basic form, the AAPOR response rate 3 is calculated as  $I / [E + (e \times U)]$ , where  $I$  is the number of completed surveys,  $E$  is the total number of eligible surveys,  $e$  is an estimated eligibility rate, and  $U$  is the number of surveys where eligibility is unknown. Eligible surveys included those that respondents completed as well as those in which respondents indicated a refusal to participate further. Ineligible cases included respondents who were not newly licensed RNs and those who were no longer practicing nurses. Cases of unknown eligibility included all other cases in the sample. The vast majority of the unknown eligibility cases were those in which no questionnaire was returned.

We based our estimates on information from the returned surveys. For example, if 45 of the 100 returned surveys from a particular site were eligible (eligibility rate of 45%), we then assumed that 45% of the surveys that were never returned (or returned undeliverable) had, in fact, been sent to eligible newly licensed RNs.

We computed estimated eligibility rates and response rates for the entire sample and for each site individually. Initially eligible respondents ( $n = 3,863$ ; the number of respondents who returned surveys and were eligible) returned completed surveys for a response rate of 56%.

**Data analysis.** The data were entered into a computerized database by hand, 100% verified by entering data twice, and cleaned to correct for any data entry errors, skip patterns (inappropriate sequencing of answers), invalid responses, and other logical inconsistencies. Descriptive statistics (means and proportions) were computed.

2005. Thus, respondents could have been licensed as RNs for the first time between six and 18 months prior to completing the survey.

The percentage of RNs who are newly licensed varies by state. In adding new names to their address databases, many state boards of nursing do not differentiate between those who have just been licensed by examination (for the first time anywhere) and those who are being licensed for the first time in that state (which may include experienced RNs from other states who have obtained an additional license by endorsement as well as nurses from other countries who have obtained their first U.S. nursing license).

We mailed 14,512 surveys between January 16 and March 16, 2006 (for this study, we stopped accepting returned surveys on April 7, 2006); 6,143 of these were not returned (the RNs in this group were classified as “unknown eligibles”); 4,401 of those who did respond did not meet the criteria for newly licensed RNs. Another 105 respondents returned the surveys but refused to participate further in the study. Of the remaining 3,863 RNs who completed the surveys and returned them, the length of time that they’d worked as RNs (since licensure) could not be determined for 346; another 215 were foreign RNs who had graduated in 2001 or before; and 36 did not include data on either foreign education or date of graduation. These three categories of respondents were eliminated, leaving an analytic sample of 3,266.

**Variables of interest and measurement.** Most questions on respondents’ characteristics and work settings were modeled on the 2000 National Sample Survey of Registered Nurses for consistency in comparing our findings to those from other national data.<sup>38</sup> But we added questions for our study. In choosing the variables to include, we were guided by a conceptual framework of turnover developed by Mueller and Price.<sup>39</sup> (An updated version was published in 2004.<sup>40</sup>) We also included variables related to work setting that the research literature indicates are of interest to nurses, such as shift length and patient load.<sup>41, 42</sup> (See Tables 1, 2, and 3, pages 64 and 66.)

We gathered data in four areas:

- individual characteristics
- work setting
- attitudes toward work and personal life
- perceptions of job opportunities in other organizations, both in the local geographic area and other geographic areas

If respondents were not working, we asked about their reasons for being unemployed, if applicable. In addition, we gathered information about the labor market in each respondent’s area (for example, the unemployment rate and the number

of hospital beds per 1,000 population); we do not report those data in this paper but plan to use them in later multivariate analyses of turnover.

## RESULTS

**Participants.** The typical respondent was a newly licensed RN of 32.3 years of age (SD = 8.6 years), married (55.9%), white (82.3%), and female (91.2%), with no children or with none living at home (55%). (More than a third [34.6%] had never married; 7.5% were black or African American and 5.4% were Asian.) Most (89.7%) spoke English as their first language, and a majority (58.1%) had obtained an associate’s degree as their first professional degree in nursing (45.2% had no postsecondary degree other than their nursing degree). Most (70.5%) had worked in health care before taking their first RN position, and 65% said their health status was very good or excellent.

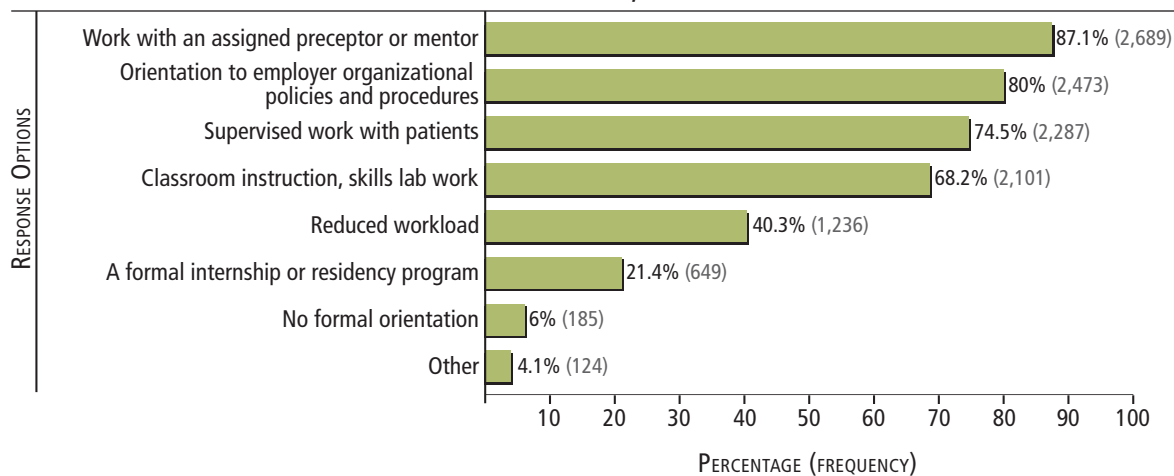
The characteristics of the responders were similar to those of the 2004 NCSBN sample of 628 newly licensed RNs in the United States.<sup>5</sup> White respondents were 77.9% of the NCSBN sample and 82.3% of our sample. Associate’s degree graduates made up 59.3% of the NCSBN sample and 58.1% of ours. In the NCSBN sample, 70.1% of RNs worked 12-hour shifts, compared with 65.8% of ours. The NCSBN sample included 3% who had no formal orientation or internship, externship, mentorship, or preceptorship; in our sample, 6% had no formal orientation. The percentage of respondents employed in rural areas in the NCSBN sample was 17.2%, the same percentage as in our sample. About 87.7% of the NCSBN sample worked in hospitals, compared with 87.3% in our sample.

**Work-related data.** Of the respondents, about 95% (n = 3,091) held positions that required an RN license and had worked for an average of 9.6 months (SD = 4.6 months) at the time of the survey. More than 12% of those employed had other employment in addition to the job they described in the survey.

*On-the-job training and orientation.* Respondents reported considerable differences in the amount and nature of training for or orientation to their current job. Only 6% had not received any orientation; 74.5% had work with patients supervised, 87.1% worked with a preceptor, 21.4% participated in a formal internship or residency program, and 40% had a lesser workload than more experienced nurses. (See Figure 1, page 63.) Note that these terms were not defined in the survey and respondents could select more than one option.

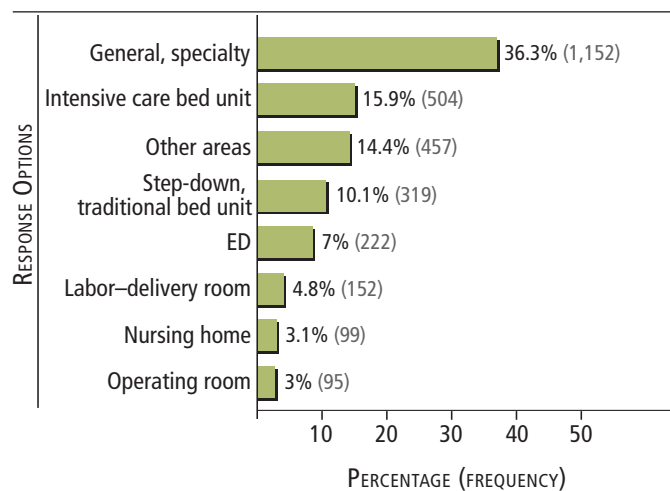
*Work settings, units, and job titles.* Although more than 84% of respondents worked in a hospital inpatient setting, others worked in nursing

**FIGURE 1. ON-THE-JOB TRAINING AND ORIENTATION, FIRST RN JOB**



\* Percentages do not add up to 100 because respondents could check more than one response.

**FIGURE 2. UNITS ON WHICH NEWLY LICENSED RNS SPENT MOST OF THEIR WORKING HOURS**



\* Percentages do not add up to 100 because only units on which 3% or more of respondents worked are given.

homes (3.9%), outpatient settings (2.7%), ambulatory care (1.1%), and other settings. Almost 22% worked in academic medical centers, and 37.4% worked in teaching hospitals (these terms were not defined in the survey).

While more than one-third of respondents worked in general or specialty inpatient units (see Figure 2, above), about 26% worked in ICUs or step-down units. Almost 92% described themselves as staff nurses.

**Shifts and overtime.** A majority (65.8%) worked 12-hour shifts; almost 61% worked evening, night, or rotating shifts. Almost 13% worked mandatory

overtime (mean = 0.8 hours per week; SD = 3.3 hours), and 51% worked voluntary overtime (mean = 3.6 hours per week; SD = 4.9 hours). Respondents worked a mean of 38.8 hours (SD = 8.4 hours) per week.

**Job stability.** Ten percent had transferred permanently to another unit since licensure, and 29% had experienced a change in immediate supervisor. Among those who had worked just 12 months, 13% had changed employers for their principal RN job. Overall, 77.2% of respondents had held one RN job since graduation, and 19.8% had held two or more.

**Income and benefits.** The newly licensed RNs reported a median income of \$45,000 (mean = \$46,240; SD = \$13,401). Those who worked full-time the entire year earned a median income of \$47,770, and those who worked part-time earned

\$35,803. (Respondents' mean income from other sources was \$1,488 [SD = \$9,119.3], and their spouses had a mean income of \$47,480 [SD = \$56,515; spouses' median income = \$40,000].) The respondents had benefits in an average of more than five benefit categories (for example, medical insurance, paid time off, and retirement benefits, among others), and 85% viewed these benefits as somewhat or very important.

**Attitudes toward work** are shown in Table 1 (page 64). Overall, the RNs were very satisfied with their jobs: the mean satisfaction score was 5.2 out of 7; nearly half (47%) described their job as "very

**TABLE 1. NEWLY LICENSED RNS' ATTITUDES TOWARD WORK**

SCALE (DEFINITION)	SAMPLE QUESTION OR STATEMENT	N	MEAN (SD)	RESPONSE RANGE
Job satisfaction (employee's affective reaction to the job without reference to any job aspect)	1. "All in all, how satisfied would you say you are with the job you now have?"  2. "If you were free to go into any type of job you wanted, what would your choice be?"  3. "Knowing what you know now, if you had to decide all over again whether to take the job you now have, what would you decide?"	3,136	5.2 (1.55)*	1 = very dissatisfied; to 7 = very satisfied  1 = I would want the same job I have now; or 2 = I would prefer some other job.  1 = I would definitely not take the same job; to 4 = I would definitely take the same job.
Variety (degree to which job performance is repetitive)	"How much variety is there in your job?"	3,179	3.3 (0.7)	1 = none at all; to 5 = a great deal
Supervisory support (degree to which supervisor supports and encourages employee)	"To what extent do the following statements accurately describe this supervisor? 'Pays attention to what I am saying.'"	3,168	3.6 (1)	1 = not at all; to 5 = to a very great extent
Work-group cohesion (degree to which colleagues work well together)	"Are individuals in your work group friendly?"	3,173	4.0 (0.8)	1 = not at all; to 5 = to a very great extent
Distributive justice (degree to which employees' rewards are related to their performance)	"To what extent are you fairly rewarded considering the responsibilities that you have?"	3,161	2.9 (0.9)	1 = not at all; to 5 = to a very great extent
Opportunities for promotion (degree to which career structures within an organization are available to its employees)	"Promotions are regular."	3,178	3.3 (0.8)	1 = strongly disagree; to 5 = strongly agree
Procedural justice (degree to which employees are involved in decision making)	"People involved in implementing decisions have a say in making decisions."	3,176	3.3 (0.8)	1 = strongly disagree; to 5 = strongly agree
Organizational commitment (employees' loyalty to employers)	"I think that my present employer is a great organization to work for."	3,180	3.8 (0.8)	1 = strongly disagree; to 5 = strongly agree
Organizational constraints (degree to which aspects of the work situation interfere with job performance)	"How often do you find it difficult or impossible to do your job because of organizational rules and procedures?"	3,173	2.5 (0.9)	1 = never; to 6 = 5 or more days per week
Quantitative workload (amount of work required to perform a job)	"Does your job require you to work very fast?"	3,173	4.1 (1)	1 = never; to 6 = 5 or more days per week
Mentor support (adequacy of access to professional sponsorship, protectorship, or professional benefactorship)	"How often does someone at your workplace show you how to work successfully within the organization?"	3,169	3 (0.8)	1 = never; to 5 = very often
Collegial RN-MD relations (quality of the relationship between nurses and physicians)	"Physicians and nurses have good working relationships."	3,113	2.9 (0.6)	1 = strongly disagree; to 4 = strongly agree
Autonomy (degree to which employees control their job performance)	"To what extent are you able to act independently of your immediate supervisor in performing your job?"	3,178	3.8 (0.7)	1 = none at all; to 5 = a great deal

\* In the job satisfaction section, responses to items were standardized by recalibrating, when necessary, to a 7-point scale, resulting in mean response values in the range of 1 to 7.

much like the job I wanted.” But when asked whether they would choose the same job if they were free to go into any type of job, 41.5% answered that they would want another job.

Newly licensed RNs reported a moderate amount of variety in their jobs (rated 3.3 on a 1-to-5 scale). When asked *How often do you find it difficult or impossible to do your job because of lack of equipment or supplies?* 25.9% said at least once per week.

**Workload.** Most respondents (more than 80%) reported that their jobs required them to work fast or hard at least one to two days per week. It should again be pointed out that almost 66% of the sample worked 12-hour shifts. When asked how many days per weeks they had to work hard, 62.5% said three or more days per week. Similarly, when asked how many days they had to work fast, had little time to get things done, and had more work than could be done well, 55.5%, 33.6%, and 31.6%, respectively, answered three or more days per week. Newly licensed RNs who worked in hospitals had cared for 5.3 patients on their most recent shift, while those in ambulatory care settings had cared for 24 patients.

**Relationships with colleagues.** Newly licensed RNs felt positive (a mean score of 2.9 on a 1-to-4 scale) about their relationships with physicians (see Table 1). Sixteen percent disagreed or strongly disagreed with good working relationships, while 27% disagreed or strongly disagreed with teamwork and collaboration. In addition, they reported that mentors were accessible only “sometimes” (3 on a 1-to-5 scale). To specific questions, 12.7% said “never” and 27.5% said “seldom” did anyone show them how to work successfully within the organization. They felt supported by their supervisors “to some extent” (3.6 on a 1-to-5 scale), although some reported that their supervisors were willing to listen to job-related difficulties “not at all” or “to a little extent” (13.1% of respondents), sought out thoughts and feelings of others (21.2% of respondents), or encouraged those they supervise to express opinions (19.7% of respondents). But they did report somewhat high work-group cohesion, rating items such as *Are individuals in your work group friendly* as “quite a bit” (4.1 on a 1-to-5 scale).

**Autonomy, justice, and opportunity for advancement.** Respondents reported that they had “moderate” to “quite a bit” of autonomy in their jobs and commitment to their organization (3.8 on a 1-to-5 scale for both scales), and they saw a moderate opportunity for promotion (3.3 on a 1-to-5 scale). “Procedural justice” (the degree to which employees are involved in decision making) was also perceived to be moderate (3.3 on a 1-to-5 scale); “distributive justice”—the degree to which employees’ rewards are related to their performance

(which included items such as *To what extent are you fairly rewarded?*)—was seen as somewhat lower (2.9 on a 1-to-5 scale). We also found a consistent proportion who answered individual items negatively. For example, 26% thought they had a dead-end job, and almost 18% reported that they disagreed or strongly disagreed with the notion that they had a good chance to get ahead or be regularly promoted.

**Injuries.** Survey respondents worked in environments that subjected them to injuries. We asked them to identify the number of injuries that they had experienced since starting their current job. After results were adjusted for a year of working, 25% of respondents reported at least one needle-stick injury, 39% reported at least one strain or sprain, 21% reported a cut or laceration, 46% reported a bruise or contusion, and 62% reported experiencing verbal abuse.

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Those whose first professional degree was an associate’s degree were more intent on leaving than those whose first professional degree was a bachelor’s degree.

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**Personal characteristics and attitudes** are shown in Table 2 (page 66). In terms of “affectivity” (the degree to which an employee’s mood is positive), the respondents scored, on average, 3.6 on a 1-to-5 scale, but they were not highly motivated by work, averaging 2.1 on a 1-to-5 scale. RNs reported little family interference with work (1.7 on a 1-to-6 scale—between “never” and “less than once a month”), but reported higher scores on work interfering with family (3.3 on a 1-to-6 scale, which fell between “1 to 3 days per month” and “1 to 2 days per week”).

**Job commitment.** Overall, these RNs were neutral (a mean of 3.4 on a 1-to-5 scale) toward leaving their current employment (see Table 3, page 66). Among those who had already left their first job (n = 610), the most common reasons cited were poor management (41.8%), followed by stressful work (37.2%) and wanting to get experience in a different clinical area (34.1%). To statements such as *I plan to leave my present employer as soon as possible*, about 10% agreed or strongly agreed; 49% disagreed or strongly disagreed with the statement *I will not voluntarily leave my employer*. Associate’s degree graduates were significantly more likely to intend to leave their current job than were



**TABLE 2. PERSONAL CHARACTERISTICS OF ALL NEWLY LICENSED RNS**

SCALE (DEFINITION)	SAMPLE QUESTION OR STATEMENT	N	MEAN (SD)	RESPONSE RANGE
Work–family conflict (degree to which an employee’s job interferes with family life)	“How often does (did) your job interfere with your responsibilities at home, such as yard work, cooking, cleaning, repairs, shopping, paying the bills, or child care?”	3,221	3.3 (1.3)	1 = never; to 6 = five or more days per week
Family–work conflict (degree to which an employee’s family life interferes with work)	“How often does (did) your home life interfere with your responsibilities at work, such as getting to work on time, accomplishing daily tasks, or working overtime?”	3,221	1.7 (0.8)	1 = never; to 6 = five or more days per week
Positive affectivity (degree to which the employee’s mood is positive)	“I live a very interesting life.”	3,259	3.6 (0.9)	1 = strongly disagree; to 5 = strongly agree
Negative affectivity (degree to which the employee’s mood is negative)	“Often I get irritated at minor annoyances.”	3,259	2.7 (0.7)	1 = strongly disagree; to 5 = strongly agree
Work motivation (degree to which work is central to an employee’s life)	“The most important things that happen in life involve work.”	3,261	2.1 (0.7)	1 = strongly disagree; to 5 = strongly agree

**TABLE 3. WORK PLANS OF WORKING NEWLY LICENSED RNS**

VARIABLE (DEFINITION)	SAMPLE QUESTION OR STATEMENT	N	MEAN (SD)	RESPONSE RANGE
Intent to stay (degree to which an employee has a positive attitude about voluntarily leaving the employ of an organization)	“I would like to leave my present employer.”	3,179	3.4 (1)	1 = strongly disagree; to 5 = strongly agree
Local job opportunity (perceived likelihood of obtaining jobs in local area at least as good as the current job)	“How easy or difficult would it be for you to find a job with another employer in the local job market in which you work or live that is as good as the one you have now?”	3,158	3.3 (1.2)	1 = very difficult; to 6 = very easy
Nonlocal job opportunity (perceived likelihood of obtaining jobs in non-local area at least as good as the current job)	“How easy or difficult would it be for you to find a job with another employer outside the local job market in which you work or live that is as good as the one you have now?”	3,129	3.6 (1.3)	1 = very difficult; to 6 = very easy
Search behavior (degree to which employees are looking for other jobs.)	“I almost always follow up on job leads.”	3,255	2.8 (0.4)	1 = strongly disagree; to 5 = strongly agree

bachelor’s degree graduates. Nonetheless, they reported that they thought other local jobs would be somewhat difficult to find (3.3 on a 1-to-6 scale) and that nonlocal jobs would be somewhat less difficult to find (3.6 on a 1-to-6 scale). (For more on the employment plans of respondents, see Figure 3, page 67.)

### DISCUSSION

Most of the respondents had weathered the first few difficult months at a new job. They were generally pleased with their work groups but felt they

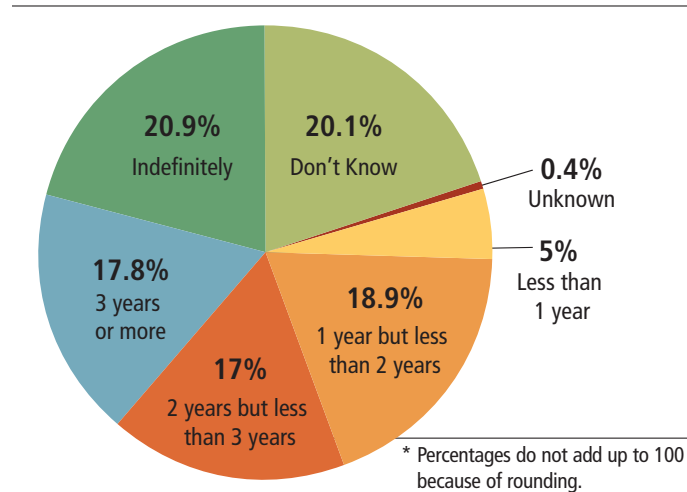
had inadequate support from supervisors. About 13% had changed employers for their principal RN job after working 12 months. Those whose first professional degree was an associate’s degree were more intent on leaving than those whose first professional degree was a bachelor’s degree. Newly licensed RNs reported that work was difficult. More than half worked voluntary overtime, and almost 13% worked mandatory overtime. They experienced injuries and a substantial amount of verbal abuse. They reported having inadequate supplies and equipment. Twenty percent or more of

the newly licensed RNs had negative responses to at least some of the survey questions about attitudes toward work.

**Workload.** After newly licensed RNs complete their orientation, they often have the same patient assignment as more experienced RNs. But they are still trying to master their skills and judgment. At first glance the average workload (5.3 patients) for newly licensed RNs working in hospitals does not appear to be a heavy assignment. However, given the proportion (26%) of newly licensed RNs who work on special units (such as ICUs) that typically care for very ill patients, the reported average number of patients for the whole group may be lower than many nurses actually experience. Seventy-nine percent of newly licensed RNs who worked in ICUs cared for two or fewer patients on their most recent shift. In California, the legally mandated ratio for RNs to patients on medical-surgical units is one RN to five patients and, on ICUs, one RN to two patients.<sup>43</sup> In our study, newly licensed RNs who worked on general medical-surgical units had a mode of five patients, although about 45% had cared for six or more patients on their most recent shift. Aiken and colleagues concluded that at ratios worse than one RN to four general, orthopedic, and vascular surgery patients, patients are at higher risk for death at 30 days after admission and nurses are less satisfied with their jobs.<sup>44</sup> We know of no evidence-based workload criteria for RNs' patient assignments on ambulatory care units, so we cannot determine whether the average of 24 patients reported in our survey is high in comparison with the national average. The influence of newly licensed RNs on inpatient outcomes as well as outcomes related to ambulatory care staffing is an important area for future research.

In research conducted in Nova Scotia, newly graduated RNs reported that stress, feelings of inadequacy, and lack of specific skill and knowledge contributed to their difficulty in making the transition from student to working nurse.<sup>19</sup> Oermann and Garvin noted that the greatest challenges new nursing graduates faced were "applying the knowledge they learned in school to their patients' care and acquiring new skills."<sup>45</sup> They also identified other challenges, including caring for a greater number of patients and having more responsibilities, improving organizational ability and clinical judgment, and caring for critically ill patients.

**FIGURE 3.** LENGTH OF TIME RESPONDENTS (N = 3,233) PLANNED TO STAY IN THEIR FIRST RN JOB



Casey and colleagues conducted a mixed qualitative and quantitative study to identify stresses experienced by 270 newly graduated nurses working in six acute care hospitals in the Denver area.<sup>46</sup> Only 4% of their sample had been comfortable performing all procedures upon being hired.

**On-the-job training and orientation.** There is some evidence that employers have tried to help new nurses adjust to their work life. For example, researchers have reported a positive impact of preceptor programs for new RNs.<sup>11,46</sup> In other research, the large majority of respondents had supervised work with patients or worked with an assigned preceptor or mentor during orientation.<sup>47</sup> But fewer than a third of our respondents reported experiencing extended learning opportunities such as formal externship programs, which have demonstrated benefits in other studies.<sup>48</sup>

**Relationships with colleagues.** Work relationships among supervisors, mentors, coworkers, and physicians are important in creating a supportive and positive work environment for new graduates. Karasek and Theorell have proposed that social support may help to modulate the physical and psychological stresses resulting from job demands and the employee's lack of control over them.<sup>49</sup> Newly licensed RNs in our study reported positive work-group cohesion, but their relationships with other health care workers were only slightly positive or neutral.

**Attitudes toward work.** A segment of newly licensed RNs had a negative attitude toward their jobs. Without doing further analyses, we don't know whether it was the same newly licensed RNs who replied to each scale item in that way. In ear-

lier research conducted by two of us (CTK and CSB, with colleagues), some of the attitudes of newly licensed RNs were found to be similar to those of all RNs (for example, attitudes toward supervisory support and mentor support).<sup>35</sup>

*Autonomy, justice, and opportunity for advancement.* In our current study, the newly licensed RNs' attitudes were more positive than were all RNs' in the previous study with respect to distributive justice and organizational commitment and more negative regarding autonomy.<sup>35</sup> This may reflect rising wages for newly licensed RNs, making nursing more competitive with other careers, as well as the enthusiasm of those who haven't yet had much work experience. The newly licensed RNs believed they had more promotional opportunities than did all RNs,<sup>35</sup> a finding that may also reflect the optimism RNs feel when beginning their careers.

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More than 41% reported that if they were free to go into any job, they would want another job.

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*Job satisfaction* is a key to retention, research suggests.<sup>30</sup> In the present study, the total sample reported reasonably high satisfaction, but when we examined specific items in the various scales, the picture wasn't so clear. For example, 41.5% reported that if they were free to go into any job, they would want another job, and 24% indicated that they planned to leave their first job within two years of taking it; 37% of the sample intended to search for a new position in one year. These are alarming figures, indicating that newly licensed RNs are not finding what they want in the first year of work. Yet these percentages may also reflect normal career development for young adults today. Commitment to a specific organization or institution may be less important than loyalty to the profession, and new RNs may plan to change jobs to have the kinds of experiences they want rather than trying to get them from one employer.<sup>31</sup>

Not all reasons for leaving an employer had to do with work. Mobility is also a factor. Of newly licensed RNs who were no longer in their first RN job (n = 610), 24.6% had moved for reasons an employer would be unlikely to influence, such as a desire to move to a new location or because a partner moved. Of those not working (n = 76), 22 (29%) reported that family and personal reasons

prevented them from working at all; 14 (18.4%) had returned to school, which is consistent with professional career commitment; and 25 (32.9%) had other reasons for not working. The sample size of those not working was small; these findings should be interpreted cautiously.

Managers are responsible for both the quality of the orientation and the oversight of the work environment. Almost 42% of the 610 nurses in our sample who left their first position cited poor management as the most common reason, and another 20% cited stressful work. First-line managers or immediate supervisors may have a limited ability to control overtime and stressful work if the work site is short staffed, but management may be perceived as being at fault by staff nurses.

*Shifts and overtime.* Newly licensed RNs worked overtime, and the majority worked nights, evenings, or rotating shifts. They also reported interference of work with family life. Change of supervisors reduces the stability of management, and 29% of the respondents reported experiencing a change in supervisor.

*Compensation and other job characteristics.* Another interesting finding is the relative importance various job characteristics had for RNs; they were asked to rate these characteristics on a 5-point Likert scale from "not at all important" to "very important" (using the question *How much importance do you personally attach to each of these opportunities?*). The job characteristic with the highest rating was the *ability to do a job well*, followed by *being fairly rewarded* and *getting good pay*. This indicates that compensation is important to newly licensed RNs, which is consistent with the sense of self-worth of younger workers that has been noted in research and the important role managers play in recognizing their worth to the organization.<sup>52-54</sup>

**Study limitations.** Our findings are limited by the self-reporting nature of the survey. The possibility of social response, recall, or other bias exists (social response bias refers to a tendency to give a socially acceptable answer or one assumed to be what the questioner wants). In some cases, questions or possible responses may have been inadequately defined. Because of the sampling approach used in this study, the findings can be generalized to all newly licensed RNs in the United States. Because only 13% of the sample worked in nonhospital settings, readers should be cautious in generalizing findings to RNs working in such settings. Although there were at least 419 respondents who worked in these other settings, such as occupational health, the subgroups were too small to analyze. As noted earlier, our sample closely resembles the newly licensed RNs in the NCSBN study sample.<sup>5</sup>

**Directions for the future.** This study provides descriptive evidence that newly licensed RNs, the majority of whom are reasonably satisfied and have no plans to change jobs, are not homogeneous. We will be following these RNs for two more years and will develop predictive models of turnover based on our findings. The proportion of newly licensed RNs who expressed negative attitudes on individual survey items raises the concern that employers will not be able to retain them in the acute care settings where they start out. If these newly licensed RNs move from one acute care hospital to another, the size of the hospital workforce will not be seriously affected. From a societal standpoint, turnover is both natural for new graduates and productive. Graduates gain useful experience and develop their careers in institutions that are desirable to them. As long as the new graduates stay in nursing, the nursing community has not lost the invested human capital. However, the first employers, which are usually hospitals, will still incur turnover costs.<sup>55,56</sup>

Expectations of reducing turnover may be unrealistic. What may be more important is developing a realistic expectation of what turnover rates should be among newly licensed RNs even when the employer is doing everything right. Investing resources in better orientation and management of newly licensed RNs may be the key in the long term to retaining them at hospitals. Long-term studies will help to answer the question of what happens to newly licensed RNs over time and the reasons behind their decisions. ▼

## REFERENCES

- Auerbach DI, et al. Better late than never: workforce supply implications of later entry into nursing. *Health Aff (Millwood)* 2007;26(1):178-85.
- Nursing data review academic year 2004-2005; baccalaureate, associate degree, and diploma programs*. New York: National League for Nursing; 2006.
- Kenward K, et al. *2004 Nurse licensee volume and NCLEX examination statistics*. Chicago, IL: National Council of State Boards of Nursing; 2005 Oct. NCSBN Research Brief; [https://www.ncsbn.org/LES\\_2004.pdf](https://www.ncsbn.org/LES_2004.pdf).
- Acute care hospital survey of RN vacancy and turnover rates in 2000. *J Nurs Adm* 2002;32(9):437-9.
- Kenward K, Zhong EH. *Report of findings from the practice and professional issues survey, fall 2004*. Chicago: National Council of State Boards of Nursing; 2006 Apr. NCSBN Research Brief; [https://www.ncsbn.org/Vol\\_22\\_web.pdf](https://www.ncsbn.org/Vol_22_web.pdf).
- Health Resources and Services Administration. Bureau of Health Professions. *The registered nurse population. Findings from the March 2004 National Sample Survey of Registered Nurses*. Rockville, MD: U.S. Department of Health and Human Services; 2006 Jun. <ftp://ftp.hrsa.gov/bhpr/workforce/0306rnss.pdf>.
- Roche JP, et al. A partnership between nursing education and practice: using an empowerment model to retain new nurses. *J Nurs Adm* 2004;34(1):26-32.
- Squires A. New graduate orientation in the rural community hospital. *J Contin Educ Nurs* 2002;33(5):203-9.
- Manias E, et al. Medication management by graduate nurses: before, during and following medication administration. *Nurs Health Sci* 2004;6(2):83-91.
- Seago JA, et al. Minimum staffing ratios: the California workforce initiative survey. *Nurs Econ* 2003;21(2):65-70.
- Almada P, et al. Improving the retention rate of newly graduated nurses. *J Nurses Staff Dev* 2004;20(6):268-73.
- Duncan K. Student pre-entry experience and first year of employment. *J Contin Educ Nurs* 1997;28(5):223-30.
- Boswell S, et al. New nurses' perceptions of nursing practice and quality patient care. *J Nurs Care Qual* 2004;19(1):76-81.
- Marcum EH, West RD. Structured orientation for new graduates: a retention strategy. *J Nurses Staff Dev* 2004;20(3):118-24.
- Owens DL, et al. New graduate RN internship program: a collaborative approach for system-wide integration. *J Nurses Staff Dev* 2001;17(3):144-50.
- Health Resources and Services Administration. Bureau of Health Professions. *Projected supply, demand and shortages of registered nurses: 2000-2020*. Rockville, MD; 2002 Jul. [http://www.ahca.org/research/rnsupply\\_demand.pdf](http://www.ahca.org/research/rnsupply_demand.pdf).
- Winter-Collins A, McDaniel AM. Sense of belonging and new graduate job satisfaction. *J Nurses Staff Dev* 2000;16(3):103-11.
- Ferguson LM, Day RA. Supporting new nurses in evidence-based practice. *J Nurs Adm* 2004;34(11):490-2.
- Ellerton ML, Gregor F. A study of transition: the new nurse graduate at 3 months. *J Contin Educ Nurs* 2003;34(3):103-7.
- Center for Studying Health System Change. *Design and methods for the community tracking study*. The Center. n.d. <http://www.hschange.org/index.cgi?data=01>.
- Price JL, Mueller CW. *Absenteeism and turnover of hospital employees*. Greenwich, CT: JAI Press; 1986. Monographs in organizational behavior and industrial relations; 5.
- Gurney CA, et al. Job satisfaction and organizational attachment of nurses holding doctoral degrees. *Nurs Res* 1997;46(3):163-71.
- Blegen MA. Nurses' job satisfaction: a meta-analysis of related variables. *Nurs Res* 1993;42(1):36-41.
- Blegen MA, et al. Measurement of kinship responsibility for organizational research. *J Appl Psychol* 1988;73(3):402-9.
- Wakefield DS, et al. Differences in work unit outcomes. Job satisfaction, organizational commitment, and turnover among hospital nursing department employees. *West J Nurs Res* 1988;10(1):98-105.
- Mueller CW, et al. Employee commitment: resolving some issues. *Work Occup* 1992;19(3):211-36.
- Quinn RP, Staines GL. *The 1977 quality of employment survey: descriptive statistics, with comparison data from the 1969-70 and the 1972-73 surveys*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, University of Michigan; 1979.
- Fields DL. *Taking the measure of work: a guide to validated scales for organizational research and diagnosis*. Thousand Oaks, CA: Sage Publications; 2002.
- Price JL. Reflections on the determinants of voluntary turnover. *Int J Manpow* 2001;22(7):600-24.
- Spector PE, Jex SM. Development of four self-report measures of job stressors and strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *J Occup Health Psychol* 1998;3(4):356-67.
- Lake ET. Development of the practice environment scale of the Nursing Work Index. *Res Nurs Health* 2002;25(3):176-88.
- Frone MR, et al. Developing and testing an integrative model of the work-family interface. *J Vocat Behav* 1997;50(2):145-67.

33. Watson D, Tellegen A. Toward a consensual structure of mood. *Psychol Bull* 1985;98(2):219-35.
34. Gurney CA. *Determinants of intent to leave among nurses with doctoral degrees* [unpublished dissertation]. Chicago, IL: University of Illinois; 1990.
35. Kovner C, et al. Factors associated with work satisfaction of registered nurses. *J Nurs Scholarsh* 2006;38(1):71-9.
36. Smith TW, et al. *Standard definitions: final dispositions of case codes and outcome rates for surveys*. 3rd ed. Lenexa, KS: American Association for Public Opinion Research; 2004. [http://www.aapor.org/pdfs/standarddefs\\_3.1.pdf](http://www.aapor.org/pdfs/standarddefs_3.1.pdf).
37. Dillman DA. *Mail and internet surveys: the tailored design method*. 2nd ed. Hoboken, NJ: Wiley; 2007.
38. Spratley E, et al. *The registered nurse population: findings from the National Sample Survey of Registered Nurses*. Rockville, MD: Health Resources and Service Administration. Bureau of Health Professions; 2002 Feb 22.
39. Mueller CW, Price JL. Economic, psychological, and sociological determinants of voluntary turnover. *J Behav Econ* 1990;19(3):321-35.
40. Price JL. The development of a causal model of voluntary turnover. In: Griffith R, Hom P, editors. *Innovative theory and empirical research on employee turnover*. Greenwich, CT: Information Age Pub.; 2004. p. 3-34.
41. Scott JG, et al. Review of magnet hospital research: findings and implications for professional nursing practice. *J Nurs Adm* 1999;29(1):9-19.
42. Lake ET, Friese CR. Variations in nursing practice environments: relation to staffing and hospital characteristics. *Nurs Res* 2006;55(1):1-9.
43. Nursing Service Staff. Cal. Admin. Code tit. 22§70217. 2003.
44. Aiken LH, et al. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA* 2002; 288(16):1987-93.
45. Oermann MH, Garvin MF. Stresses and challenges for new graduates in hospitals. *Nurse Educ Today* 2002;22(3):225-30.
46. Casey K, et al. The graduate nurse experience. *J Nurs Adm* 2004;34(6):303-11.
47. Halfer D, Graf E. Graduate nurse perceptions of the work experience. *Nurs Econ* 2006;24(3):150-5, 123.
48. Cantrell MA, Browne AM. The impact of a nurse externship program on the transition process from graduate to registered nurse: Part III. Recruitment and retention effects. *J Nurses Staff Dev* 2006;22(1):11-4.
49. Karasek R, Theorell T. *Healthy work: stress, productivity, and the reconstruction of working life*. New York: Basic Books; 1990.
50. Hayes LJ, et al. Career intentions of nursing students and new nurse graduates: a review of the literature. *Int J Nurs Educ Scholarsh* 2006;3:Article 26.
51. Kirpal S. Work identities of nurses: between caring and efficiency demands. *Career Development International* 2004; 9(3):274-304.
52. Hart SM. Generational diversity: impact on recruitment and retention of registered nurses. *J Nurs Adm* 2006;36(1):10-2.
53. Greene J. What nurses want. Different generations. Different expectations. *Hosp Health Netw* 2005;79(3):34-8, 40-2.
54. Stuenkel DL, et al. The multigenerational nursing work force: essential differences in perception of work environment. *J Nurs Adm* 2005;35(6):283-5.
55. Jones CB. The costs of nurse turnover: part 1: an economic perspective. *J Nurs Adm* 2004;34(12):562-70.
56. Jones CB. The costs of nurse turnover, part 2: application of the Nursing Turnover Cost Calculation Methodology. *J Nurs Adm* 2005;35(1):41-9.

*The authors would like to thank the national advisory group for this project: Brenda L. Cleary, Linda Quinn Everett, David Goodman, Kevin Kenward, Diana J. Mason, and James Price.*



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