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Advancing Nursing Excellence for Public Protection

The National Council of State Boards of Nursing and The Forum of State Nursing Workforce Centers 2013 National Workforce Survey of Registered Nurses

Jill S. Budden, PhD; Elizabeth H. Zhong, PhD; Patricia Moulton, PhD; and Jeannie P. Cimiotti, DNSc, RN

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CONTENTS

July 2013 • Volume 4 • Issue 2 Supplement

Advancing nursing excellence for public protection

Mission

The *Journal of Nursing Regulation* provides a worldwide forum for sharing research, evidence-based practice, and innovative strategies and solutions related to nursing regulation, with the ultimate goal of safeguarding the public. The journal maintains and promotes National Council of State Boards of Nursing's (NCSBN's) values of integrity, accountability, quality, vision, and collaboration in meeting readers' knowledge needs.

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Letters to the Editor

Send to Maryann Alexander at malexander@ncsbn.org

The 2013 National Nursing Workforce Survey of Registered Nurses

The National Council of State Boards of Nursing (NCSBN) is invested in the collection of nursing workforce data primarily because an adequate number of nurses and a competently prepared workforce lay the foundation of public protection in health care. We are proud to present the 2013 National Nursing Workforce Survey of Registered Nurses, a collaborative effort between NCSBN and the Forum of State Nursing Workforce Centers (FSNWCs). A team of scientists from both organizations developed the study and analyzed the data.

The study was conducted from January 2013 to March 2013, and a total of 42,294 registered nurses (RNs) participated in the survey. A random sample of RNs, stratified by state was drawn from all licensed RNs in the United States and territories. The majority of the sample was taken from Nursys®, NCSBN's licensure database. The remaining six jurisdictions provided state lists of licensees. All licensure information from boards of nursing is updated on a daily basis and is highly accurate. The results provide a comprehensive description of the nursing workforce that constitutes the U.S. health care system today.

National workforce data were traditionally collected by the Health Resources and Services Administration (HRSA), which conducted the National Sample Survey of Registered Nurses every 4 years. In 2010, HRSA released its most recent study, The 2008 National Sample Survey of Registered Nurses. Because an RN survey has not been performed since that time, NCSBN and FSNWCs designed their 2013 study to collect these much-needed data. Efforts have been made in this study to compare the 2013 findings with those of the 2008 HRSA survey, but the reader should be mindful that different survey instruments were used. This study is the first to use the Minimum Dataset (MDS). FSNWCs developed the MDS through a consensus-building process to help meet the need for one data set that could be used nationally to consistently collect the same data.

In addition to providing a portrait of the current state of the nursing workforce, the data from this study will also:

- allow for an examination of trends by comparison with past HRSA and other nurse workforce data and serve as a baseline for future data collected using the MDS
- allow for state analysis. Each board of nursing and state workforce center will be provided with their state data, and they are free to conduct their own analysis of their state workforce
- provide workforce statistics and lay the groundwork for future research.

The National Workforce Study is an example of NCSBN's commitment to generating new knowledge through research. As it commemorates 35 years of service to boards of nursing, NCSBN remains dedicated to advancing the science of nursing regulation and contributing to the body of knowledge that will enhance public protection and make health care safer and more accessible for all.

Introduction

Having an adequate supply of registered nurses (RNs) in the United States workforce is critical to ensuring a safe and effective health care system. Over time, there has been a substantial body of evidence to suggest a potential shortfall of nurses that could have a major impact on health care delivery. The factors contributing to this RN shortage include the aging of the U.S. population, the aging of the RN workforce, the Patient Protection and Affordable Care Act, which predicts that 30 million more U.S. residents will become insured and seek medical care in the years ahead. Data on the RN workforce can be used to predict possible shortages and assist in the allocation of resources, program development, and recruitment efforts in both the health care system and education sectors.

Over the past 3 decades, the Health Resources and Services Administration (HRSA) has reported on the supply of RNs through the *National Sample Survey of Registered Nurses* (NSSRN). Data collection from the most recent, and final, NSSRN was completed in 2008; hence, there are no current data on the nationwide supply of RNs. This current project was conducted by the National Council of State Boards of Nursing (NCSBN) and the Forum of State Nursing Workforce Centers to fill this ongoing need.

A variety of methods to collect workforce data about the U.S. nursing population was examined; the most comprehensive, valid, and cost-effective method was chosen for this study.

Method

Participants

All RNs in the United States and its territories were eligible candidates for survey participation. A random sample, stratified by state, was obtained. A portion of the sample was drawn from Nursys®, NCSBN's licensure database. This database contains basic contact and demographic information for RN licensees from 49 U.S. jurisdictions. At the time of study sampling, Nursys contained information on 3,998,416 RNs licensed to practice in U.S. jurisdictions. This number, however, included individuals with multiple licenses. RNs with multiple licenses in the Nursys database were de-duplicated prior to sampling, to ensure that they were not oversampled. The remaining six jurisdictions (i.e., Alabama, Connecticut, Georgia, Hawaii, Oklahoma, and Pennsylvania), which did not participate in Nursys at that time, were contacted and asked for a database of all active RN licensees in their state—this brought the total list to 4,104,854 RNs (see Table 1). From this list, 109,853 RNs were sampled, stratified by state. 1,603 had addresses that were undeliverable, and of the remaining 108,250 RNs, 42,294 responded, for a response rate of 39%.

TABLE 1

Sampling

Jurisdiction	Number of active RN licensees	Estimated sample: 95% confidence, 3% error	Estimated online response rate	Estimated mailing response rate	Number of surveys mailed	Actual sample: number of surveys received	Actual online response rate	Actual paper response rate	Total response rate
AK	15,377	998	24%	32%	1,757	631	18%	18%	36%
AL	68,377	1,051	12%	13%	4,204	1,323	13%	18%	31%
AR	35,754	1,036	24%	28%	1,990	672	15%	19%	34%
AZ	71,542	1,051	24%	31%	1,911	634	16%	18%	33%
CA	382,020	1,064	24%	32%	1,949	689	15%	20%	35%
CO	61,374	1,049	24%	34%	1,812	690	16%	22%	38%
CT	57,628	1,048	12%	13%	4,192	1,661	15%	25%	40%
DC	25,691	1,025	24%	28%	1,931	603	14%	17%	31%
DE	15,734	999	24%	35%	1,687	729	19%	24%	43%
FL	251,673	1,063	24%	24%	2,254	721	13%	19%	32%
GA	111,657	1,057	12%	13%	4,228	1,410	14%	19%	33%
HI	21,351	1,016	12%	13%	4,064	1,611	16%	24%	40%
IA	48,280	1,044	24%	35%	1,768	817	19%	27%	46%
ID	20,019	1,013	24%	37%	1,656	726	19%	25%	44%

Jurisdiction	Number of active RN licensees	Estimated sample: 95% confidence, 3% error	Estimated online response rate	Estimated mailing response rate	Number of surveys mailed	Actual sample: number of surveys received	Actual online response rate	Actual paper response rate	Total response rate
IL	160,284	1,060	24%	32%	1,902	702	16%	21%	37%
IN	99,263	1,056	24%	33%	1,855	726	17%	22%	39%
KS	48,372	1,044	24%	32%	1,855	810	20%	24%	44%
KY	62,385	1,049	24%	30%	1,940	692	15%	21%	36%
LA	58,215	1,048	24%	27%	2,055	659	13%	19%	32%
MA	118,126	1,058	24%	31%	1,947	686	13%	22%	35%
MD	72,060	1,052	24%	30%	1,966	738	17%	20%	38%
ME	22,625	1,019	24%	34%	1,751	740	15%	27%	42%
MI	137,777	1,059	24%	32%	1,893	859	19%	26%	45%
MN	89,297	1,055	24%	40%	1,659	760	20%	26%	46%
MO	98,024	1,056	24%	33%	1,863	790	19%	28%	42%
MS	43,688	1,042	24%	22%	2,266	653	12%	17%	29%
MT	16,848	1,004	24%	32%	1,786	904	21%	29%	51%
NC	118,807	1,058	24%	38%	1,712	729	20%	22%	43%
ND	12,550	983	24%	39%	1,551	776	22%	28%	50%
NE	26,707	1,026	24%	41%	1,576	704	20%	24%	45%
NH	20,628	1,015	24%	40%	1,584	700	17%	27%	44%
NJ	114,224	1,057	24%	28%	2,032	800	16%	23%	39%
NM	24,566	1,023	24%	34%	1,762	665	17%	21%	38%
NV	29,006	1,029	24%	32%	1,813	619	15%	19%	34%
NY	281,910	1,063	24%	32%	1,927	707	15%	22%	37%
OH	184,038	1,061	24%	34%	1,843	748	18%	23%	41%
OK	46,113	1,043	12%	13%	4,172	1,388	14%	19%	33%
OR	48,989	1,044	24%	38%	1,683	698	19%	22%	41%
PA	212,975	1,062	12%	13%	4,248	1,852	18%	26%	44%
RI	18,130	1,008	24%	28%	1,930	720	13%	24%	37%
SC	55,353	1,047	24%	31%	1,902	675	15%	21%	35%
SD	15,452	998	24%	38%	1,604	744	20%	27%	46%
TN	87,207	1,054	24%	25%	2,150	709	15%	18%	33%
TX	249,890	1,063	24%	27%	2,091	675	15%	17%	32%
UT	30,060	1,031	24%	30%	1,912	760	21%	19%	40%
VA	94,898	1,055	24%	30%	1,965	751	18%	20%	38%
VT	18,907	1,010	24%	35%	1,686	742	19%	25%	44%
WA	69,751	1,051	24%	36%	1,752	724	18%	23%	41%
WI	86,666	1,054	24%	32%	1,884	999	26%	27%	53%
WV	30,787	1,031	24%	32%	1,836	618	13%	20%	34%
WY	9,816	962	24%	41%	1,473	674	20%	26%	46%
Virgin Islands	1,714	658	24%	32%	777	226	12%	17%	29%
Guam	927	496	24%	32%	477	137	15%	14%	29%
American Samoa	87	80	24%	32%	69	20	22%	7%	29%
Northern Mariana Islands	1,254	577	24%	32%	301	78	20%	6%	26%

Jurisdiction	Number of active RN licensees	Estimated sample: 95% confidence, 3% error	Estimated online response rate	Estimated mailing response rate	Number of surveys mailed	Actual sample: number of surveys received	Actual online response rate	Actual paper response rate	Total response rate
TOTAL	**4,104,853**	**54,755**	**23%**	**30%**	**109,853**	**42,294**	**17%**	**22%**	**39%**

Note. Alabama, Connecticut, Georgia, Hawaii, Oklahoma, and Pennsylvania were non-Nursys participating boards. These states had larger sample sizes because it was estimated, based on past response rates, that they would have a lower response rate. Estimates for first mailing response rate were from NCSBN's Commitment to Ongoing Regulatory Excellence (CORE) project; lists from Nursys-participating boards averaged a 32% response rate, while non-Nursys lists averaged a 13% response rate. HRSA's (2010) overall paper survey response rate was 27% and overall online response rate was 24%. Nursys-participating states had their RN licensee lists compiled in October 2012.

Materials

The Forum of State Nursing Workforce Centers minimum dataset (MDS) was utilized for the primary questions on the survey. This instrument was created through a process of consensus-building. Forum workgroups (participating states included Alabama, Colorado, Florida, Hawaii, Illinois, Indiana, Iowa, Massachusetts, New Jersey, North Dakota, Oklahoma, Tennessee, Vermont, and West Virginia) drafted the dataset. Following a public comment period, which allowed input from national organizations, the Forum voted and approved the datasets in September 2009. NCSBN and the National Forum of State Nursing Workforce Centers currently use the MDS questionnaire to collect data on the nursing workforce at the state-level and believe that the dataset enhances the ability to plan for the future. More information about the development and current status of implementation can be found in Moulton et al. (2013) and Nooney et al. (2010). Additional questions pertaining to the Nurse Licensure Compact and tele-health were added as a supplement to the MDS by NCSBN (see Appendix A).

Procedure

Survey distribution opened January 2013 and closed March 2013 using a modified Dillman approach (Dillman, Smyth, & Christian, 2009), which included the following steps:

1. Week 1: RNs in the initial sample received a telephone announcement that they should expect a survey in the mail. The telephone announcement stated the purpose and importance of completing the survey. The day after the telephone announcement, a letter inviting RNs to participate in the survey was mailed and included a $1 incentive. The letter, which explained the voluntary nature of the survey and the due date for the following week, contained a link for online survey participation. The letter was sent first class to allow the return of invalid addresses.
2. Week 3: A hardcopy of the survey was sent to nonresponders, and included an online option. Participants were instructed to complete the survey within the following 2 weeks.
3. Week 5: A telephone announcement was sent to remind nonresponders to complete the survey, and to thank those who had already participated.
4. Week 7: A hardcopy of the survey was sent to nonresponders, and included an online option. Participants were instructed to complete the survey within the following 2 weeks.
5. Week 9: Deadline for surveys and closure of the online option.

Nonresponse Analyses and Sample Weighting

A formal nonresponse bias analysis was conducted following the close of the survey. Although response rates are a valuable indicator of survey quality, response rates do not give an indication of response biases. An analysi of basic demographic data (i.e., gender, age, race/ethnicity, number of years since graduation, number of years since first licensed) for all RN licensees sampled from the Nursys database was used to compare the survey respondents, and nonrespondents, to determine the representativeness of the survey participants.

The complete data file, or sample, included 109,853 RNs. Variables on the data file came from either the Nursys database (i.e., the frame data) or responses to the survey (i.e., survey data). The variables used in the nonresponse analysis were from the frame and include state, date of birth, gender, ethnicity, original license date, and graduation date. The dependent variable in the analysis was whether or not the sampled RN completed the questionnaire.

Preliminary analysis. Of the 109,853 RNs in the sample frame, 1,603 had addresses that were undeliverable. Of the remaining 108,250 RNs, 42,294 responded, for a response rate of 39%[1] (see Table 2). Tables 3 and 4 show the frequencies for the

1 This response rate corresponds to the American Association of Public Opinion's Response Rate 1, in which the numerator is the number of completed questionnaires and the denominator is the total sample size. Retrieved from www.aapor.org/AM/Template.cfm?Section=Standard_Definitions2&Template=/CM/ContentDisplay.cfm&ContentID=3156

categorical variables. Table 5 shows the descriptive statistics for the continuous variables, while Table 6 shows the number of respondents who had complete data on gender, race, age, years since graduation, and years since initial licensure. These 30,187 RNs were the basis of the nonresponse analysis.

TABLE 2

Response Bias—Response Rate

	(*n* = 109,853)	Percentage
No	67,559	62%
Yes	42,294	39%

TABLE 3

Response Bias—Gender

		Frequency	Percentage	Valid percent
Valid	Male	5,401	5%	8%
	Female	64,250	59%	92%
	Total	69,651	63%	100%
Missing	Restricted/unknown	13,342	12%	
	System missing	26,860	25%	

TABLE 4

Response Bias—Race/Ethnicity

		(*n* = 109,853)	Percentage	Valid percent
Valid	White	25,551	23%	80%
	Black/African American	2,142	2%	7%
	Asian	1,264	1%	4%
	Hispanic	1,082	1%	3%
	Native American	207	.2%	.6%
	Pacific Islander	10	.0%	.0%
	Other	1,754	2%	6%
	Total	32,010	29%	100%
Missing	Restricted	3,910	4%	
	Incomplete data	47,073	4%	
	State not in Nursys database	26,860	25%	
	Total	77,843	71%	

TABLE 5

Response Bias—Descriptive Statistics for Continuous Measures

	n	*M*	*SD*	Min	Max
Age in years	77,279	47.7	13.1	20.1	94.5
Number of years since graduation	72,062	18.5	13.4	.6	73.9
Number of years since original licensure	82,599	15.9	12.6	.5	73.5
Valid N (listwise)	68,875				

TABLE 6

Response Bias—Case Had Complete Data for Nonresponse Analysis

		Frequency	Percentage	Valid percent
Valid	No	78,382	71%	72%
	Yes	30,187	28%	28%
	Total	108,569	99%	100%
Missing	System	1,284	1%	
Total		109,853	100%	

Bivariate analysis. Tables 7 and 8 show the bivariate relationships between the demographic variables from the sample frame and whether or not the respondent completed the survey. There were far fewer men in the database (5,401 compared to 64,250 women) and they were less likely to complete the survey (32% compared to 40% among women).

TABLE 7

Response Bias—Survey Completion Rate by Gender

		Complete survey?	
	n	No	Yes
Male	5,401	68%	32%
Female	64,250	60%	40%
Total	69,651	61%	39%

Note. χ^2 (1, N = 69,651) = 135.4, p = .000.

From Table 8, nurses who identified as White or as a race classified as "Other" were most likely to respond, with response rates of 39% and 41%, respectively. African American and Hispanic nurses were least likely to respond (28% and 30%, respectively).

TABLE 8

Response Bias—Survey Completion Rate by Race/Ethnicity

		Complete survey?	
Race/ethnicity	***n***	**No**	**Yes**
White	25,551	61%	39%
African American	2,142	72%	28%
Asian	1,264	68%	32%
Hispanic	1,082	70%	30%
Native American	207	67%	32%
Other	1,764	60%	41%
Total	32,010	62%	38%

Note. χ^2 (5, N = 32,010) = 168.8, p = .000.

Table 9 displays the mean age of RNs, mean number of years since graduation, and mean number of years since original licensure by completion status. Those who completed the survey were older than nonrespondents; graduated, on average, 5 years earlier than nonrespondents; and obtained their original license 4 years earlier, on average. All relationships were statistically significant.

TABLE 9

Response Bias—Differences in Mean Age, Years Since Graduation, and Years Since Licensure, by Survey Completion

Complete survey?		**Age in years**	**Number of years since graduation**	**Number of years since original licensure**
No	*n*	47,348	44,354	50,460
	M	45.5	16.6	14.3
	SD	12.6	12.4	11.6
Yes	*n*	29,931	27,708	32,139
	M	50.4	21.6	18.5
	SD	13.3	14.5	13.6
Total	*n*	77,279	72,062	82,599
	M	47.4	18.5	15.9
	SD	13.1	13.4	12.6

Note. In all three analyses, *F* statistics show that the relationships were significant at the .000 level.

Table 10 shows that having complete data on all demographic variables was not related to completing the survey. While demographic characteristics themselves were related to response propensity, the lack of information about these characteristics was not.

Missing data on demographic characteristics were largely a function of the jurisdiction in which the respondent worked. Data on gender were completely missing in three jurisdictions and largely missing (greater than 84% of RNs) in two. Data on race/ethnicity were completely missing in 32 jurisdictions and largely missing (67% of RNs or greater) in six. Date of birth was completely missing in three jurisdictions. In addition, response rates differed significantly by jurisdiction (see Table 1). The response

rates ranged from a low of 26% in the Northern Mariana Islands to a high of 53% in Wisconsin ($\chi^2(54, N = 109{,}853) = 1441.8$, $p = .000$).

TABLE 10

Response Bias—Survey Completion Rate

		Complete survey?	
Status of data	***n***	**No**	**Yes**
Incomplete	78,382	61%	39%
Complete	30,187	62%	38%
Total	108,569	62%	39%

Note. χ^2 (1, N = 108,569) = 2.6, p = .106.

Multivariate analysis. The final step of the nonresponse analysis was to analyze the effect on response propensity of all five demographic variables simultaneously, via a logistic regression model in which the dependent variable was the dichotomous variable measuring whether or not the RN responded to the questionnaire. The demographic variables were gender, race, age, years since graduation, and years since original licensure. The multivariate analysis demonstrates which demographic characteristics affect the likelihood of responding, while holding constant the others in the model.

In the first model, all variables were coded as categorical, with one category indicating that data on that variable were missing. For example, gender was coded 0 if the data were missing, 1 if the RN was female and 2 if the RN was male. With categorical variables, one category of the variable was omitted from the model and all other categories were compared to the omitted one. For example, with gender, the omitted category was the one indicating gender was missing. Thus, the analysis showed the odds of women responding to the survey compared with those whose gender was not reported. Likewise, it compared men to those with missing data. The analysis did not compare men to women. The continuous variables (i.e., age, years since graduation, and years since initial licensure) were recoded into five categories based on quintile cutoffs.

In each variable in Model 1, the omitted category was the category indicating missing data. In Table 11, the last two columns are of primary interest. The last column shows the odds of respondents in each category of a variable responding to the survey relative to those in this missing category. If the value in the last column is greater than 1, respondents in that category were more likely to respond. If the value is less than 1, they were less likely to respond. Respondents with missing data do not have a value because they were the reference category. The column labeled "*p*" shows the significance level of the *B* coefficient and the odds—the odds ratio is *e* raised to the power of the *B* coefficient; hence, the significance test applies to both.

While not every category of every variable was significant, Table 11 does show a pattern of effects. Women were 1.2 times more likely to complete the survey versus those respondents whose gender was missing from the data file. While men were slightly less likely (odds ratio = .942), the results were not statistically significant.

With respect to race/ethnicity, only the odds for Whites, African Americans, and Hispanics were significant. Whites were slightly more likely to respond than respondents with missing data, while both African Americans and Hispanics were less likely to respond.

All but one category of age was significant. In all but the oldest age category, respondents were less likely to respond than those with missing data; however, the odds ratios increased with each increasing category of age. In the oldest age-group (i.e., 60.1 or older), respondents were more likely to complete the survey than those with missing data. A similar pattern was evident in years since graduation—only those with the greatest number of years since graduation (i.e., 32.1 or more) were more likely to respond, compared to those with missing data. Respondents in all other categories were less likely. However, in two of the categories, the results were not significant. Respondents in every category of years since licensure were more likely to respond than those with missing data, with the odds ratio increasing with time since licensure, except in category 4.1 thru 9, which was not statistically significant.

The multivariate model basically confirms the results of the bivariate results. Even when controlling for other variables, women, Whites, older respondents, and those with the greatest number of years since graduation and licensure were more likely to participate in the survey than other respondents.

One other aspect of this model worth noting is the predictive power of the overall model. The first step of the Logistic procedure is to predict the distribution of the outcome variable, without reference to any of the independent variables. In this case, it simply

predicted that none of the respondents would complete the survey. It was correct in 62% of the RNs. After the addition of the five predictor variables, the predictive power of the model increases to only 63%. In addition, the Nagelkerke R^2 for the full model was .042. This suggests that while the five explanatory variables do have some effect on nonresponse, they were not good predictors of it.

TABLE 11

Model 1 Logistic Regression with Missing Values Coded as Category

Category	*B*	*SE B*	Wald's χ^2	*df*	*p*	Odds Ratio
Gender						
Missing (reference)			105.867	2	.000	
Female	.179	.024	55.096	1	.000	1.196
Male	-.059	.038	2.484	1	.115	.942
Race/ethnicity						
Missing (reference)			96.678	6	.000	
White	.036	.017	4.543	1	.033	1.037
Black/African American	-.411	.050	67.390	1	.000	.663
Asian	-.087	.062	1.941	1	.164	.917
Hispanic	-.251	.068	13.498	1	.000	.778
Native American	-.195	.151	1.668	1	.197	.823
Other	.048	.051	.895	1	.344	1.049
Age						
Missing (reference)			595.777	5	.000	
20 thru 34	-.431	.039	121.443	1	.000	.650
34.1 thru 43	-.486	.037	172.008	1	.000	.615
43.1 thru 52	-.311	.036	75.967	1	.000	.733
52.1 thru 60	-.033	.035	.866	1	.352	.968
60.1 or older	.211	.036	33.449	1	.000	1.234
Years since graduation						
Missing (reference)			98.111	5	.000	
0.6 thru 5	-.068	.038	3.141	1	.076	.934
5.1 thru 12	-.074	.033	5.023	1	.025	.929
12.1 thru 20	-.115	.030	14.855	1	.000	.892
20.1 thru 32	-.004	.028	.026	1	.871	.996
32.1 or more	.202	.029	47.508	1	.000	1.224

Category	*B*	*SE B*	Wald's χ^2	*df*	*p*	Odds Ratio
Years since initial licensure						
Missing (reference)			122.804	5	.000	
1.5 thru 4	.076	.038	3.994	1	.046	1.079
4.1 thru 9	.038	.036	1.167	1	.280	1.039
9.1 thru 17	.092	.034	7.313	1	.007	1.097
17 thru 28	.119	.033	13.207	1	.000	1.127
28.1 or more	.319	.034	89.462	1	.000	1.375
Constant	-.520	.012	1760.262	1	0.000	.594

The second model, presented in Table 12, was similar to Model 1, with two major exceptions: 1) RNs with missing values were eliminated from analysis. 2) The reference category for gender was male, while for race it was White, Age, years since graduation, and years since initial licensure were continuous variables, rather than categorical.

From Table 12, women were 1.3 times more likely to complete the questionnaire than men. African American and Hispanic respondents were less likely to respond than white respondents. The coefficients for Native American and Other respondents were not significant. The relationships between age and completion, and years since graduation and completion, were both positive and significant, albeit small. This indicates that older respondents and those who graduated longer ago were more likely to respond. Unlike Model 1, the relationship between years since licensure and completion was not significant.

TABLE 12

Model 2 Logistic Regression with Missing Values Coded as Category

Category	*B*	*SE B*	Wald's χ^2	*df*	*p*	Odds Ratio
Gender						
Male (reference)						
Female	.265	.046	32.830	1	.000	1.304
Race/ethnicity						
White (reference)						
Black/African American	-.476	.052	82.656	1	.000	.621
Asian	-.350	.087	16.375	1	.000	.704
Hispanic	-.319	.070	20.515	1	.000	.727
Native American	-.245	.151	2.637	1	.104	.783
Other	.007	.052	.020	1	.889	1.007
Age (continuous)	.017	.002	106.329	1	.000	1.017
Years since graduation (continuous)	.015	.002	47.404	1	.000	1.015
Years since initial licensure (continuous)	-.002	.002	.828	1	.363	.998
Constant	-1.715	.073	550.903	1	.000	.180

The predictive power of Model 2 is similar to Model 1. In the null model, 62% of the RNs were predicted accurately. In the full model, that percentage increases to 63.9. Nagelkerke R^2 = .053, suggesting Model 2 was a slightly better fit than Model 1.

While the analysis provides some insight into the relationship between demographic characteristics and nonresponse, this information cannot be used to make nonresponse adjustments because of the high degree of missing data in the sample frame.

Weights. Post-stratification weights were constructed at the state level, to adjust for differing sampling rates across states. For example, while California accounts for 9% of all RN licenses in the country, it accounts for only about 2% of the sample frame and 2% of the completed interviews. In contrast, Alaska accounts for less than one-half of 1% of the licensees but for 2% of the frame and 2% of the completed surveys. Analysis of the raw data, without accounting for the sample design, would lead to the overall results being too heavily influenced by states with fewer licensees.

Four separate weights were calculated. The descriptive statistics for these weights are presented in Tables 13 and 14. The weights labeled count_wgtF and count_wgtC were both based on the number of RNs in each jurisdiction in the sample frame (see Table 1). Count_wgtF is the ratio of the state total in Table 1 to the state total in the sample frame of 109,853. It weights each case in the frame so it represents all nonsampled RNs in the state as well. As Table 14 illustrates, the sum of count_wgtF is equal to the total number of licenses in the United States given in Table 1. Count_wgtC was constructed to weight only the completed responses. Applying that weight to the entire frame would result in a weighted sample size that is far greater than the number of licenses in the United States. As Table 14 shows, when applied only to the completed responses, count_wgtC sums to the total population of licenses.

The weight pct_wgtF is the ratio of the population percentage in each state to the frame percentage in each state. Similarly, pct_wgtC is the ratio of the population percent in each state to the percentage of completed responses in each state. These weights sum to the actual *n* in the data file. When applied to the entire frame, pct_wgtF sums to the frame size of 109,853. When applied to only the complete responses, pct_wgtC sums to the number of completed responses (i.e., 42,294). The weights based on the counts adjust for both the distribution of RNs across states as well as the actual number of responses and can be used when the intent is to estimate population numbers. The weights based on the percents simply adjust the distribution across states, but sum to the actual number of RNs in either the frame or the subset of completed responses. They can be applied when analyzing relationships between variables without the effect of artificially increasing the degrees of freedom and thereby affecting significance tests.

TABLE 13

Response Bias—Descriptive Statistics of Weights, Total Frame

	n	Min	Max	Sum	Mean
count_wgtF	109,853	1.261	196.008	4,104,853.00	37.367
count_wgtC	109,853	4.350	554.456	10,982,919.86	99.978
pct_wgtF	109,853	0.034	5.246	109,853.00	1.000
pct_wgtC	109,853	0.045	5.713	113,161.57	1.030

TABLE 14

Response Bias—Descriptive Statistics of Weights, Complete Responses Only

	n	Min	Max	Sum	Mean
count_wgtF	42,294	1.261	196.008	1,559,834.27	36.881
count_wgtC	42,294	4.350	554.456	4,104,853.00	97.055
pct_wgtF	42,294	0.034	5.246	41,743.88	0.987
pct_wgtC	42,294	0.045	5.713	42,294.00	1.000

Results

Descriptive statistics were used to analyze survey data. In some cases, the current study's results were compared to HRSA (2010) results, which were RN workforce data from 2008, and HRSA (2013), which were data from 2008–2010. Importantly, when comparing the current study's results to HRSA (2013), it should be noted the data were from individuals who reported their current occupation as nursing and who currently had or were seeking a job. These data were obtained from the U.S. Census Bureau's American Community Survey. The current study is a survey of a sample of all RN licensees, which included individuals who were not actively employed in nursing. In the current study, 82% of the respondents were actively employed in nursing. Also, when comparing the current study's results with HRSA (2010), it is important to note that HRSA (2010)'s survey was longer and more detailed; hence, some grouping of the data could not be performed in a similar manner. Data comparisons should be interpreted with caution.

A weighting strategy was used with analyses; as a result, in some cases results may indicate < 1 person in a cell. Also, in some tables, percentages may not sum to exactly 100% because of rounding errors. Throughout the results section the following acronyms are used:

- Associate Degree Nursing (ADN)
- Baccalaureate Degree Nursing (BSN)
- Master of Science Degree Nursing (MSN)
- Doctorate of Nursing Practice (DNP)
- Doctor of Philosophy (PhD)

Gender, Age, and Ethnic Diversity

Gender. The current study indicated that male RNs (7%) were underrepresented in the nursing workforce (see Table 15). This percentage is the same as HRSA (2010), while HRSA (2013) found that 9% of the workforce was male.

TABLE 15

Gender

	(*n* = 40,365)	Percentage
Male	2,679	7%
Female	37,686	93%

Examining highest education of RNs by gender, HRSA (2010) found that half of the RN population had a bachelor's or higher degree in nursing or a nursing-related field. HRSA (2013) found that 55% of the RN workforce held a bachelor's or higher degree. Importantly, in HRSA (2010), if a respondent indicated that a non-nursing degree was related to his or her career in nursing, the degree was described as a "nursing-related" degree. Nursing-related degrees included public health, health administration, social work, education, and other fields. The current study did not exclude non-nursing-related degrees from analyses. The current data showed 71% of the male respondents and 62% of female respondents working in nursing held bachelor and higher degrees in nursing and any non-nursing field (see Table 16).

TABLE 16

Highest Education of Registered Nurses Working in Nursing, by Gender

	n	Percent with bachelor's or higher degree in nursing	Percent with bachelor's or higher degree in nursing or any non-nursing field
Men	2,248	1,075 (48%)	1,598 (71%)
Women	29,767	14,900 (50%)	18,369 (62%)

Examining employment settings by gender revealed that the highest percentage of men worked in correctional facilities (17%), while the highest percentage of women worked in school health service (see Table 17).

TABLE 17

Employment Settings, by Gender

Primary nursing practice position setting	*n*	Gender	
		Men	Women
Hospital	18,607	1,581 (8%)	17,026 (92%)
Nursing home/extended care/assisted living facility	2,075	111 (5%)	1,964 (95%)
Home health	1,958	101 (5%)	1,857(95%)
Correctional facility	211	35 (17%)	176 (83%)
Academic setting	988	45 (5%)	943 (95%)
Public health	591	10 (2%)	581 (98%)
Community health	710	49 (7%)	661(93%)
School health service	1,106	13 (1%)	1,093 (99%)
Occupational health	211	12 (6%)	199 (94%)
Ambulatory care setting	2,853	147 (5%)	2,706 (95%)
Insurance claims/benefits	461	16 (3%)	445 (97%)
Policy/planning/regulatory/licensing agency	144	4 (3%)	140 (< 97%)
Other	2,884	164 (6%)	2,720 (94%)

An examination of the percent of men and women employed in nursing, by job title, revealed that the job titles with the highest percentage of men were the following: "advanced practice nurse" (12%), "nurse manger" (7%), and "staff nurse" (7%) (see Table 18).

TABLE 18

Percent of Men and Women Employed in Nursing, by Job Title

	Consultant	Nurse researcher	Nurse executive	Nurse manager	Nurse faculty	Advanced practice nurse	Staff nurse	Other—health-related	Other—not health-related
Gender n	717	235	783	3,576	1,048	2,396	20,822	2,886	76
Men	39 (5%)	5 (2%)	40 (5%)	268 (7%)	46 (4%)	295 (12%)	1,482 (7%)	101 (3%)	3 (4%)
Women	678 (95%)	230 (98%)	743 (95%)	3,308 (93%)	1,002 (96%)	2,101 (88%)	19,340 (93%)	2,785 (97%)	73 (96%)

Age. The average age of the respondents was 50 (see Table 19). HRSA (2013) found an average age of 44.6 years.

TABLE 19

Average Age of Registered Nurse Respondents

	n	*M*	*SD*	Min	Max	Median
Overall	34,880	50	13	18	99	52

HRSA (2010) found that half of the RNs working in nursing in 2008 were age 46 or older. The current study found that more than half (53%) of the respondents working in nursing were age 50 or older (see Table 20).

TABLE 20

Age Distribution of Registered Nurses Working in Nursing

Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
2,808 (10%)	2,415 (8%)	2,558 (9%)	2,822 (10%)	3,060 (11%)	4,194 (15%)	5,099 (18%)	3,405 (12%)	2,257 (8%)

Ethnic diversity. According to the U.S. Census Bureau (2013), individuals from ethnic and racial minority groups accounted for 37% of the U.S. population in 2012. The current study found that 19% of responding RNs were minorities (see Table 21). This percentage is a slight increase from HRSA (2010), which found that 17% were minorities. Additionally, the current study found that 83% of the respondents were White/Caucasian. This was followed by 6% Asian and 6% Black/African American. HRSA (2013) found that 75% of the RN population was White/Caucasian. HRSA (2010) reported that 83% of the RN population was White/Caucasian.

TABLE 21

Registered Nurses by Race/Ethnicity

	(*n* = 41,880)	Percentage
American Indian or Alaska Native	453	1%
Asian	2,561	6%
Black/African American	2,632	6%
Native Hawaiian or Other Pacific Islander	237	1%
White/Caucasian	34,838	83%
Hispanic/Latino	1,407	3%
Other	506	1%

An examination of age of RNs working in nursing by race/ethnicity found that Asians were, on average, the youngest (M = 45.93, SD = 12.78), while American Indian or Alaska Native were the oldest (M = 51.45, SD = 11.23) (see Table 22).

TABLE 22

Mean Current Age of Registered Nurses Working in Nursing, by Race/Ethnicity

	n	Mean age
American Indian or Alaska Native	482	51.45 (11.23)
Asian	1,813	45.93 (12.78)
Black/African American	1,728	48.94 (14.62)
Native Hawaiian or Other Pacific Islander	283	46.39 (9.71)
White/Caucasian	29,943	50.85 (13.01)
Hispanic/Latino	806	43.96 (14.80)
Other	280	46.36 (14.54)

Note. Standard Deviations are in parentheses.

An examination of initial nursing education and highest level of education of RNs employed in nursing, by race/ethnicity found that educational attainment varied among the racial/ethnic groups (see Tables 23 and 24). HRSA (2010) found that 70% of Asian RNs entered the profession with a bachelor's or higher degree. A similar trend is presented in Table 23.

TABLE 23

Initial Nursing Education of Registered Nurses Employed in Nursing, by Race/Ethnicity

		Race/ethnicity						
Initial nursing education	***n***	**American Indian or Alaska Native**	**Asian**	**Black/ African American**	**Native Hawaiian or Other Pacific Islander**	**White/ Caucasian**	**Hispanic/ Latino**	**Other**
Certificate	1,684	30 (2%)	67 (4%)	191 (11%)	16 (1%)	1,280 (76%)	90 (5%)	10 (1%)
Diploma	4,892	38 (1%)	160 (3%)	218 (4%)	12 (< 1%)	4,360 (89%)	60 (1%)	44 (1%)
ADN	13,855	162 (1%)	482 (3%)	941 (7%)	76 (1%)	11,417(82%)	599 (4%)	178 (1%)
BSN	12,860	110 (1%)	1,404 (11%)	794 (6%)	101 (1%)	9,835 (76%)	425 (3%)	191 (1%)
MSN	1,115	20 (2%)	92 (< 1%)	77 (7%)	6 (1%)	861 (77%)	52 (5%)	7 (1%)
DNP	15	--	< 1	3 (20%)	< 1	12 (80%)	--	--
PhD-nursing	18	--	1 (6%)	< 1	--	14 (78%)	1 (6%)	2 (11%)
Doctoral-nursing other	28	--	< 1	6 (21%)	6 (21%)	16 (57%)	--	< 1

Data also suggested that RNs with a "doctoral-nursing other" or "doctoral-other field" as their highest level of education were more racially/ethnically diverse when compared to RNs with a "PhD-nursing" as their highest level of education. Specifically, 68% of RNs with "doctoral-nursing other" and 68% of RNs with "doctoral-other field" were White/Caucasian, while 87% of RNs with a PhD-nursing were White/Caucasian (see Table 24).

TABLE 24

Highest Education of Registered Nurses Employed in Nursing, by Race/Ethnicity

		Race/ethnicity						
Highest level of education	***n***	**American Indian or Alaska Native**	**Asian**	**Black/ African American**	**Native Hawaiian or Other Pacific Islander**	**White/ Caucasian**	**Hispanic/ Latino**	**Other**
Certificate	16	< 1	--	4 (25%)	--	10 (63%)	< 1	2 (13%)
Diploma	2,863	28 (1%)	129 (5%)	101 (4%)	8 (< 1%)	2,548 (89%)	30 (1%)	19 (1%)
ADN	9,665	114 (1%)	264 (3%)	607 (6%)	30 (< 1%)	8,137 (84%)	416 (4%)	97 (1%)
Associate's-other field	227	5 (2%)	17 (7%)	17 (7%)	2 (1%)	183 (81%)	1 (< 1%)	2 (1%)
BSN	12,137	100 (1%)	1,250 (10%)	809 (7%)	78 (1%)	9,276 (76%)	457 (4%)	167 (1%)
Baccalaureate-other field	2,450	27 (1%)	135 (6%)	175 (7%)	20 (1%)	1,980 (81%)	72 (3%)	41 (2%)
MSN	4,265	47 (1%)	213 (5%)	284 (7%)	55 (1%)	3,481 (82%)	125 (3%)	60 (1%)

Highest level of education	n	Race/ethnicity						
		American Indian or Alaska Native	Asian	Black/ African American	Native Hawaiian or Other Pacific Islander	White/ Caucasian	Hispanic/ Latino	Other
Master's-other field	1,546	14 (1%)	86 (6%)	144 (9%)	5 (< 1%)	1,210 (78%)	62 (4%)	25 (2%)
DNP	199	< 1	13 (7%)	15 (8%)	4 (2%)	154 (77%)	13 (7%)	< 1
Ph-nursing	136	1 (1%)	6 (4%)	6 (4%)	< 1	118 (87%)	5 (4%)	--
Doctoral-nursing other	47	--	--	5 (11%)	6 (13%)	32 (68%)	4 (9%)	--
Doctoral-other field	213	--	39 (18%)	12 (6%)	1 (< 1%)	144 (68%)	13 (6%)	4 (2%)

An examination of advanced practice preparation by race/ethnicity revealed that the specialty with the highest percentage of White/Caucasian was certified registered nurse anesthetist (84%) (see Table 25).

TABLE 25

Advanced Practice Preparation of Registered Nurses, by Race/Ethnicity

Advanced practice preparation	n	Race/ethnicity						
		American Indian or Alaska Native	Asian	Black/ African American	Native Hawaiian or Other Pacific Islander	White/ Caucasian	Hispanic/ Latino	Other
Nurse practitioner	2,298	33 (1%)	130 (6%)	137 (6%)	27 (1%)	1,865 (81%)	84 (4%)	22 (1%)
Clinical nurse specialist	480	12 (3%)	38 (8%)	25 (5%)	< 1	376 (78%)	19 (4%)	10 (2%)
Certified registered nurse anesthetist	513	4 (1%)	31 (6%)	22 (4%)	14 (3%)	429 (84%)	12 (2%)	1 (< 1%)
Certified nurse midwife	168	2 (1%)	16 (10%)	17 (10%)	< 1	122 (73%)	4 (2%)	7 (4%)

Note. In some states, the job title of "clinical nurse specialist" (CNS) is not legally limited to RNs who have CNS preparation of certification. Respondents that indicated "Clinical Nurse Specialist" without a master's degree or higher were removed from this analysis; 790 respondents were removed.

Examining employment setting by race/ethnicity revealed that the majority of the respondents reported hospital as their primary practice setting across all ethnicity groups (see Table 26).

TABLE 26

Employment Setting of Registered Nurses, by Race/Ethnicity

Primary nursing practice position setting	*n*	Race/ethnicity						
		American Indian or Alaska Native	Asian	Black/ African American	Native Hawaiian or Other Pacific Islander	White/ Caucasian	Hispanic/ Latino	Other
Hospital	19,587	193 (1%)	1,456 (7%)	1,274 (7%)	129 (1%)	15,521 (79%)	737 (4%)	277 (1%)
Nursing home/ extended care/ assisted living facility	2,226	21 (1%)	270 (12%)	194 (9%)	20 (1%)	1,637 (74%)	55 (2%)	29 (1%)
Home health	2,076	25 (1%)	80 (4%)	136 (7%)	11 (1%)	1,720 (83%)	80 (4%)	24 (1%)
Correctional facility	226	5 (2%)	14 (6%)	14 (6%)	< 1	183 (81%)	5 (2%)	5 (2%)
Academic setting	1,007	5 (< 1%)	19 (2%)	70 (7%)	7 (1%)	875 (87%)	16 (2%)	15 (1%)
Public health	613	5 (1%)	50 (8%)	59 (10%)	1 (< 1%)	465 (76%)	19 (3%)	14 (2%)
Community health	764	8 (1%)	33 (4%)	56 (7%)	11 (1%)	607 (79%)	48 (6%)	1 (< 1%)
School health service	1,148	9 (1%)	13 (1%)	60 (5%)	< 1	1,026 (89%)	28 (2%)	12 (1%)
Occupational Health	227	3 (1%)	2 (1%)	11 (5%)	< 1	194 (85%)	10 (4%)	7 (3%)
Ambulatory care setting	3,028	36 (1%)	119 (4%)	113 (4%)	16 (1%)	2,594 (86%)	124 (4%)	26 (1%)
Insurance claims/benefits	480	8 (2%)	17 (4%)	57 (12%)	3 (1%)	380 (79%)	13 (3%)	2 (< 1%)
Policy/planning/ regulatory/ licensing agency	151	< 1	12 (8%)	4 (3%)	--	133 (88%)	1 (1%)	1 (1%)
Other	3,063	36 (1%)	97 (3%)	155 (5%)	7 (< 1%)	2,659 (87%)	85 (3%)	24 (1%)

An examination of RN job titles by race/ethnicity found that "nurse faculty" and "nurse executive" had the least diversity (87% and 86% White/Caucasian), while "staff nurse" had the most diversity (79% White/Caucasian) (see Table 27).

TABLE 27

Job Titles of Registered Nurses, by Race/Ethnicity

Job title of principal nursing position	*n*	Race/ethnicity						
		American Indian or Alaska Native	Asian	Black/ African American	Native Hawaiian or Other Pacific Islander	White/ Caucasian	Hispanic/ Latino	Other
Consultant	787	10 (1%)	30 (4%)	55 (7%)	12 (2%)	649 (82%)	18 (2%)	13 (2%)
Nurse researcher	248	1 (< 1%)	13 (5%)	7 (3%)	--	199 (80%)	17 (7%)	11 (4%)

Job title of principal nursing position	*n*	Race/ethnicity						
		American Indian or Alaska Native	Asian	Black/ African American	Native Hawaiian or Other Pacific Islander	White/ Caucasian	Hispanic/ Latino	Other
Nurse executive	831	10 (1%)	16 (2%)	58 (7%)	6 (1%)	713 (86%)	21 (3%)	7 (1%)
Nurse manager	3,834	45 (1%)	205 (5%)	266 (7%)	27 (1%)	3,129 (82%)	121 (3%)	41 (1%)
Nurse faculty	1,104	10 (1%)	19 (2%)	71 (6%)	7 (1%)	958 (87%)	25 (2%)	14 (1%)
Advanced practice nurse	2,569	29 (1%)	113 (4%)	111 (4%)	25 (1%)	2,170 (84%)	89 (3%)	32 (1%)
Staff nurse	22,252	312 (1%)	1,721 (8%)	1,464 (7%)	126 (1%)	17,511 (79%)	852 (4%)	266 (1%)
Other—health-related	2,997	40 (1%)	85 (3%)	191 (6%)	12 (< 1%)	2,630 (88%)	--	39 (1%)
Other—not health-related	100	< 1	2 (2%)	4 (4%)	1 (1%)	88 (88%)	5 (5%)	< 1

Education and Licensing

Education. The current study found an increase in the percentage of respondents with a BSN (36%) as their initial nursing education, as compared to previous studies (see Table 28). A little over 39% of RNs held either a BSN (36%) or graduate degree (3%) as their initial credential. This trend toward an increase in the percentage of respondents with an initial BSN degree is in alignment with HRSA (2013) results, which found an increase in BSN-prepared first-time NCLEX-RN® test takers, at 135% growth from 2001 to 2011. HRSA (2010) found an increase in percentage of baccalaureate- prepared RNs from 18% in 1980 to 34% in 2008.

TABLE 28

Type of Nursing Degree/Credential That Qualified Respondents for First U.S. Nursing License

	(*n* = 41,823)	Percentage
Vocational/practical certificate-nursing	1,994	5%
Diploma-nursing	7,365	18%
Associate degree-nursing	16,152	39%
Baccalaureate degree-nursing	15,019	36%
Master's degree-nursing	1,218	3%
Doctoral degree-nursing (DNP)	18	< 1%
Doctoral degree-nursing (PhD)	26	< 1%
Doctoral degree-nursing other	30	< 1%

When asked to indicate highest level of education, 61% of respondents in the current study indicated that they had obtained a baccalaureate or higher degree (see Table 29). HRSA (2013) found that 55% of RNs reported their highest degree as a baccalaureate or higher. This was an incremental increase from 2000 Census data that indicated 50% of RNs obtained a baccalaureate or higher degree (HRSA, 2013). HRSA (2010) found an increase in the percentage of RNs with a baccalaureate or higher degree from 28% in 1980 to 50% in 2008; however, this includes baccalaureate or higher degrees in nursing or nursing-related fields.

TABLE 29

Highest Level of Education

	(*n* = 41,018)	Percentage
Vocational/practical certificate-nursing	25	< 1%
Diploma-nursing	4,319	11%
Associate's degree-nursing	11,332	28%
Associate's degree-other field	286	1%
Baccalaureate degree-nursing	14,097	34%
Baccalaureate degree-other field	3,091	8%
Master's degree-nursing	4,846	12%
Master's degree-other field	2,203	5%
Doctoral degree-nursing practice (DNP)	143	< 1%
Doctoral degree-nursing (PhD)	217	1%
Doctoral degree-nursing other	63	< 1%
Doctoral degree-other field	396	1%

Nursing has multiple educational pathways leading to an entry-level license to practice. At the current time, nursing students are able to pursue four different educational pathways to become an RN: MSN, BSN, ADN, and diploma. More recently, an accelerated, second-degree bachelor's program for students who possess a baccalaureate degree in another field also has become a popular option.

Many RNs pursue additional degrees after initial licensure. HRSA (2010) found that of the RNs whose initial nursing education was diploma, 32% obtained additional degrees after licensure. The degree most commonly obtained was a BSN (13%). The current study found that of those whose initial nursing education was diploma, 42% obtained additional degrees after licensure; the most common highest level of education inevitably obtained was a BSN (13%) (see Table 30). In addition to those whose initial nursing education was BSN, 24% obtained higher-level degrees after licensure.

TABLE 30

Highest Education of Registered Nurses, by Initial Nursing Education

		Type of nursing degree/credential that qualified respondents for first U.S. nursing license							
Highest level of education	***n***	**Certificate**	**Diploma**	**ADN**	**BSN**	**MSN**	**DNP**	**PhD-nursing**	**Doctoral-nursing other**
Certificate	15	15 (100%)	--	--	--	--	--	--	--
Diploma	4,248	44 (1%)	4,204 (99%)	--	--	--	--	--	--
ADN	11,250	997 (9%)	133 (1%)	10,120 (90%)	--	--	--	--	--
Associate's—other field	279	11 (4%)	132 (47%)	136 (49%)	--	--	--	--	--
BSN	13,998	522 (4%)	932 (7%)	1,809 (13%)	10,735 (77%)	--	--	--	--

Highest level of education	*n*	Type of nursing degree/credential that qualified respondents for first U.S. nursing license							
		Certificate	Diploma	ADN	BSN	MSN	DNP	PhD-nursing	Doctoral-nursing other
Baccalaureate—other field	3,071	112 (4%)	690 (22%)	1,959 (64%)	310 (10%)	--	--	--	--
MSN	4,784	193 (4%)	563 (12%)	896 (19%)	2,025 (42%)	1,107 (23%)	--	--	--
Master's—other field	2,190	54 (2%)	484 (22%)	588 (27%)	1,012 (46%)	52 (2%)	--	--	--
DNP	140	3 (2%)	14 (10%)	44 (31%)	56 (40%)	5 (4%)	18 (13%)	--	--
PhD-nursing	213	7 (3%)	36 (17%)	33 (15%)	112 (53%)	3 (1%)	--	22 (10%)	--
Doctoral-nursing other	63	< 1	11 (17%)	7 (11%)	28 (44%)	--	--	--	17 (27%)
Doctoral-other field	393	6 (2%)	67 (17%)	66 (17%)	222 (56%)	17 (4%)	--	3 (1%)	12 (3%)
Total	40,648	1,965	7,265	15,658	14,501	1,182	18	25	29

Note. Displayed percentages were calculated with highest level of education *n* as the denominator. Respondents who answered in a nonlogical manner were removed (e.g., initial licensure = BSN and highest level of education = diploma); 73 respondents were removed.

The majority (94%) of RNs received their entry-level education in the United States, while 6% of them received their entry-level education from other countries (see Table 31).

TABLE 31

Country Where Entry-Level Education Received

	(*n* = 41,752)	Percentage
United States	39,141	94%
Canada	288	1%
Philippines	1,081	3%
India	191	< 1%
Other	1,051	3%

Licensing. Respondents had been licensed for an average of 23 years, ranging from less than 1 year to a maximum of 76 years (see Table 32).

TABLE 32

Years Since Initial U.S. Licensure

	n	*M*	*SD*	Min	Max	Median
Overall	37,774	23	15	0	76	23

The current study found that approximately 5% of RNs were initially licensed as an RN or licensed practical nurse (LPN) outside of the United States (see Table 33).

TABLE 33

Country Where Initially Licensed as an RN or LPN

	(*n* = 40,393)	Percentage
United States	38,365	95%
Canada	271	1%
Philippines	925	2%
India	123	< 1%
Other	708	2%

An examination of the type of license currently held revealed 7% (see Table 34) to 8% (see Table 35) were licensed as an advanced practice RN (see Tables 34 and 35).

TABLE 34

Type of License Currently Held

	(*n* = 41,658)	Percentage
RN	39,522	95%
LPN	216	1%
Advanced practice RN license (include all advanced license statuses in your state)	3,046	7%

TABLE 35

Currently Licensed/Certified as an Advanced Practice Registered Nurse (APRN)

	(*n* = 39,278)	Overall percentage	Percentage of APRNs
Nurse practitioner	2,266	6%	67%
Clinical nurse specialist	469	1%	14%
Certified registered nurse anesthetist	509	1%	15%
Certified nurse midwife	159	< 1%	5%
Not licensed/certified as any of the above	35,875	91%	--

Note. In some states, the job title "clinical nurse specialist" is not legally limited to RNs who have CNS preparation of certification. Respondents who indicated "clinical nurse specialist" without a master's degree or higher were removed from this analysis; 774 respondents were removed.

Table 36 shows the percentage of licensees by state. These data illustrate which states have the largest (or smallest) numbers of licensees. In addition, simply because a respondent indicated they have a license in a particular state does not mean they actually practice, or have practiced, in that state—this information is presented in Table 38. Results indicated that 11% of respondents had a California license, followed by New York (8%), Texas (7%), Florida (7%), and Pennsylvania (7%); 14% of respondents held multiple licenses (see Table 37).

Table 38 shows percentage of practicing licensees by state. These data illustrate which states have the largest (or smallest) numbers of licensees practicing in their state. Results indicated that 9% of respondents were practicing in California, followed by Texas (7%), Pennsylvania (7%), Florida (6%), and New York (6%); 2% of respondents practiced in multiple states (see Table 39).

TABLE 36

All States in Which Respondents Had an Active License to Practice as an RN

	(*n* = 40,400)	Percentage		(*n* = 40,400)	Percentage
Alabama	810	2%	New Hampshire	360	1%
Alaska	194	< 1%	New Jersey	1,392	3%
Arizona	916	2%	New Mexico	366	1%
Arkansas	480	1%	New York	3,218	8%
California	4,309	11%	North Carolina	1,448	4%
Colorado	793	2%	North Dakota	249	1%
Connecticut	767	2%	Ohio	2,059	5%
Delaware	263	1%	Oklahoma	602	1%
Florida	2,927	7%	Oregon	586	1%
Georgia	1,448	4%	Pennsylvania	2,706	7%
Hawaii	315	1%	Rhode Island	320	1%
Idaho	288	1%	South Carolina	709	2%
Illinois	1,883	5%	South Dakota	249	1%
Indiana	1,160	3%	Tennessee	1,029	3%
Iowa	617	2%	Texas	2,855	7%
Kansas	630	2%	Utah	386	1%
Kentucky	778	2%	Vermont	247	1%
Louisiana	665	2%	Virginia	1,183	3%
Maine	327	1%	Washington	981	2%
Maryland	966	2%	West Virginia	376	1%
Massachusetts	1,367	3%	Wisconsin	1,036	3%
Michigan	1,530	4%	Wyoming	139	< 1%
Minnesota	1,056	3%	DC	328	1%
Mississippi	550	1%	Virgin Islands	11	< 1%
Missouri	1,231	3%	Guam	19	< 1%
Montana	213	1%	American Samoa	1	< 1%
Nebraska	339	1%	Northern Mariana Islands	9	< 1%
Nevada	423	1%			

TABLE 37

Respondents with Multiple Licenses

	(*n* = 40,400)	Percentage
Single license	34,652	86%
Multiple licenses	5,748	14%

TABLE 38

All States in Which Respondents Were Currently Practicing

	(*n* = 35,755)	Percentage		(*n* = 35,755)	Percentage
Alabama	636	2%	New Hampshire	243	1%
Alaska	137	< 1%	New Jersey	1,029	3%
Arizona	660	2%	New Mexico	243	1%
Arkansas	327	1%	New York	2,159	6%
California	3,252	9%	North Carolina	1,168	3%
Colorado	564	2%	North Dakota	176	< 1%
Connecticut	556	2%	Ohio	1,663	5%
Delaware	159	< 1%	Oklahoma	467	1%
Florida	2,187	6%	Oregon	453	1%
Georgia	1,073	3%	Pennsylvania	1,988	6%
Hawaii	208	1%	Rhode Island	184	1%
Idaho	182	1%	South Carolina	519	1%
Illinois	1,451	4%	South Dakota	176	< 1%
Indiana	871	2%	Tennessee	858	2%
Iowa	453	1%	Texas	2,361	7%
Kansas	471	1%	Utah	273	1%
Kentucky	571	2%	Vermont	186	1%
Louisiana	532	1%	Virginia	872	2%
Maine	208	1%	Washington	787	2%
Maryland	772	2%	West Virginia	293	1%
Massachusetts	1,032	3%	Wisconsin	797	2%
Michigan	1,149	3%	Wyoming	112	< 1%
Minnesota	831	2%	DC	218	1%
Mississippi	422	1%	Virgin Islands	< 1	< 1%
Missouri	908	3%	Guam	21	< 1%
Montana	161	< 1%	American Samoa	1	< 1%
Nebraska	268	1%	Northern Mariana Islands	7	< 1%
Nevada	341	1%			

TABLE 39

Respondents Practicing in Multiple States

	(*n* = 35,755)	Percentage
Practice in single state	34,901	98%
Practice in multiple states	854	2%

Employment

In the employment section of the survey, participants were asked about primary and secondary positions. Respondents were given the following definitions:

- Primary position: The position at which you work the most hours during your regular work year.
- Secondary position: The position at which you work the second greatest number of hours during your regular work year.
- Per diem: An arrangement wherein a nurse is employed directly on an as-needed basis and usually has no benefits.

Employment status. HRSA (2010) estimated that 2,596,399 RNs were employed in nursing, representing 85% of licensed RNs. This was the highest rate of nursing employment since HRSA's first workforce survey in 1977. Additionally, in 2004 HRSA found full-time employment of 58%; this increased to 63% in 2008 (HRSA, 2010). The current study's results revealed a slight decrease from 2008; specifically, 82% of licensees were actively employed in nursing and 60% of licensees were employed full time. Of note, results indicated 7% were unemployed; however, only 3% were actively seeking work as a nurse (see Table 40).

TABLE 40

Employment Status

	(*n* = 42,146)	Percentage
Actively employed in nursing	**34,399**	**82%**
Full time	25,447	60%
Part time	6,276	15%
Per diem	3,069	7%
Actively employed in a field other than nursing	**3,429**	**8%**
Full time	1,713	4%
Part time	1,169	3%
Per diem	513	1%
Working in nursing only as a volunteer	**811**	**2%**
Unemployed	**2,997**	**7%**
Seeking work as a nurse	1,144	3%
Not seeking work as a nurse	1,463	3%
Retired	4,755	11%

Note. Respondents were asked to mark all that applied. Percentages are calculated off of responding sample.

Of respondents who indicated they were unemployed, approximately half (51%) indicated the reason was because of taking care of home and family. Only 27% of those who gave a reason for unemployment indicated difficulty in finding a nursing position (see Table 41).

TABLE 41

Reasons for Being Unemployed

	(*n* = 2,549)	Percentage
Taking care of home and family	1,296	51%
Disabled	504	20%
Inadequate salary	61	2%
School	196	8%
Difficulty in finding a nursing position	683	27%
Other, please specify	1,627	64%

Note. Respondents were asked to mark all that applied.

HRSA (2010) found that RNs were less likely to work in nursing positions as they aged. Among RNs younger than age 50, 90% or more were employed in nursing. HRSA found that the percentages of RNs working in nursing dropped in each age-group older than age 50, decreasing from 88% of RNs age 50 to 54 to 85% of RNs age 55 to 59 and to less than half of RNs older than age 65. Also, HRSA found that more than 70% of RNs younger than age 30 worked full time. The percentage of RNs age 30 to 59, and working full time, ranged between 65% and 70%. The percent of RNs who worked full time dropped rapidly after age 60, although more than 30% of RNs older than age 70 continued to work in nursing in either full-time or part-time positions. The current study found similar trends; however, employment rates tended to be slightly higher (see Table 42).

TABLE 42

Employment of Registered Nurses, by Age-Group

		Age of nurses								
Employment		**Younger than 30**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65 and older**
	n	2,985	2,615	2,781	3,077	3,375	4,646	5,888	4,566	4,804
Actively employed in nursing		2,808 (94%)	2,415 (92%)	2,558 (92%)	2,822 (92%)	3,059 (91%)	4,194 (90%)	5,099 (87%)	3,405 (75%)	2,256 (47%)
Employed in nursing full time		2,356 (79%)	1,891 (72%)	1,913 (69%)	2,169 (70%)	2,424 (72%)	3,307 (71%)	3,880 (66%)	2,415 (53%)	909 (19%)
Employed in nursing part time		321 (11%)	353 (13%)	420 (15%)	486 (16%)	480 (14%)	657 (14%)	917 (16%)	747 (16%)	766 (16%)
Employed in other field*		165 (6%)	141 (5%)	213 (8%)	208 (7%)	296 (9%)	429 (9%)	541 (9%)	425 (9%)	308 (6%)

Note. Columns do not sum to age *n*'s and percentages do not sum to 100% because the employment status question had additional response options and respondents could select multiple options (see Table 40). Some respondents may have selected "actively employed in nursing"; however, they may not have specified full time or part time. Hence, those numbers will not sum to "actively employed in nursing" totals.

*Some respondents may have been both employed in another field and actively employed in nursing.

Employment rates of RNs vary by initial and highest education. HRSA (2010) found that more than 87% of RNs whose initial RN education was an ADN, BSN, or MSN reported that they were employed in nursing positions. This is compared to less than 75% of those whose initial education was a nursing diploma. The current study found that 85% to 90% of RNs whose initial

RN education was ADN, BSN, or MSN reported being employed in nursing; compared to 66% of those whose initial education was a nursing diploma.

TABLE 43

Employment Rates, by Initial Nursing Education

Type of nursing degree/credential that qualified respondents for first U.S. nursing license	*n*	Employment			
		Employed in nursing	Full time	Part time	Employed in other field*
Certificate	1,990	1,643 (83%)	1,263 (63%)	269 (14%)	111 (6%)
Diploma	7,353	4,882 (66%)	3,101 (42%)	1,215 (17%)	599 (8%)
ADN	16,136	13,705 (85%)	10,401 (64%)	2,326 (14%)	1,274 (8%)
BSN	14,983	12,699 (85%)	9,529 (64%)	2,237 (15%)	1,285 (9%)
MSN	1,216	1,098 (90%)	884 (73%)	163 (13%)	120 (10%)
DNP	18	17 (94%)	16 (89%)	--	< 1
PhD-nursing	26	20 (77%)	20 (77%)	1 (4%)	2 (8%)
Doctoral-nursing other	30	28 (93%)	19 (63%)	1 (3%)	6 (20%)

Note. Rows will not sum to initial licensure degree/credential *n*'s because the employment status question had additional response options and respondents could select multiple options (see Table 40).

*Some respondents may have been both employed in another field and actively employed in nursing.

Study results of respondents who indicated they were actively employed in nursing, by highest level of education, showed that respondents with an ADN (85%), BSN (85%), MSN (87%), DNP (97%), and PhD-nursing (85%) had the highest percentages of respondents actively employed in nursing. Respondents with their highest degrees in other fields tended to be less likely to have been actively employed in nursing (see Table 44).

TABLE 44

Employment Rates, by Highest Level of Education

Highest Level of Education	*n*	Employment			
		Employed in nursing	Full time	Part time	Employed in other field*
Certificate	25	16 (64%)	15 (60%)	1 (4%)	--
Diploma	4,309	2,865 (66%)	1,724 (40%)	782 (18%)	282 (7%)
ADN	11,321	9,593 (85%)	7,245 (64%)	1,688 (15%)	686 (6%)
Associate's-other field	286	220 (77%)	164 (57%)	41 (14%)	25 (9%)
BSN	14,064	11,985 (85%)	8,963 (64%)	2,066 (15%)	1,019 (7%)
Baccalaureate-other field	3,089	2,401 (78%)	1,711 (55%)	476 (15%)	390 (13%)
MSN	4,837	4,220 (87%)	3,324 (69%)	705 (15%)	318 (7%)
Master's-other field	2,202	1,524 (69%)	1,111 (50%)	236 (11%)	454 (21%)
DNP	143	138 (97%)	125 (87%)	11 (8%)	15 (10%)

Highest Level of Education	*n*	Employment			
		Employed in nursing	Full time	Part time	Employed in other field*
PhD-nursing	217	184 (85%)	157 (72%)	17 (8%)	23 (11%)
Doctoral-nursing other	63	47 (75%)	37 (59%)	3 (5%)	11 (17%)
Doctoral-other field	395	214 (54%)	149 (38%)	43 (11%)	97 (25%)

Note. Columns will not sum to highest level of education *n*'s because the employment status question had additional response options and respondents could select multiple options (see Table 40).
*Some respondents may have been both employed in another field and actively employed in nursing.

An examination of the number of positions respondents were currently employed in as an RN revealed that approximately 15% of employed licensees held more than one nursing position (see Table 45).

TABLE 45

Number of Positions Respondents Were Currently Employed in as a Nurse

	(*n* = 33,264)	Percentage
1	28,069	84%
2	4,435	13%
3 or more	761	2%

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

HRSA (2010) found that more than 12% of RNs who had full-time principal nursing positions reported at least one other nursing job, and 14% of those with part-time positions reported more than one nursing job. The current study found similar results (see Table 46).

TABLE 46

Registered Nurses Holding Multiple Positions, by Primary Employment Status

	Full time in principal position (*n* = 24,755)	Part time in principal position (*n* = 5,999)
No additional nursing position	21,035 (85%)	4,973 (83%)
Holds 2 nursing positions	3,191 (13%)	859 (14%)
Holds 3 or more nursing positions	528 (2%)	166 (3%)

Position setting. In 2004, HRSA found that 57% of respondents' primary employment setting was a hospital; this increased to 62% in 2008 (HRSA, 2010). The current study's results indicated a return to 2004 levels at 57% (see Table 47), followed by 9% of RNs in ambulatory care, 6% in home health, and 6% in nursing homes. These findings were similar to those reported by HRSA (2010).

TABLE 47

Primary Nursing Practice Position Setting

	(*n* = 34,238)	Percentage
Hospital	19,343	56%
Nursing home/extended care/assisted living facility	2,211	6%
Home health	2,058	6%
Correctional facility	229	1%
Academic setting	1,012	3%
Public health	609	2%
Community health	740	2%
School health service	1,146	3%
Occupational health	224	1%
Ambulatory care setting	2,994	9%
Insurance claims/benefits	477	1%
Policy/planning/regulatory/licensing agency	152	< 1%
Other	3,042	9%

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

In the current study, 26% of RNs reported a secondary nursing position, the same percent reported by HRSA in 2010. The largest percent of secondary positions was reported in hospitals; 25% of RNs reported working in this setting. This is much lower than the 43% reported by HRSA (2010) and is most likely explained by the 15% of RNs who reported "other" as their secondary practice setting in the current study. Nursing home/extended care (12%), home health (12%), ambulatory care (11%) were similar to previous reports, as are community and public health, occupational health, school services, and insurance claims (see Table 48).

TABLE 48

Secondary Nursing Practice Position Setting

	(*n* = 7,524)	Percentage
Hospital	1,868	25%
Nursing home/extended care/assisted living facility	892	12%
Home health	899	12%
Correctional facility	98	1%
Academic setting	621	8%
Public health	177	2%
Community health	334	4%
School health service	357	5%

	(*n* = 7,524)	Percentage
Occupational health	144	2%
Ambulatory care setting	853	11%
Insurance claims/benefits	124	2%
Policy/planning/regulatory/licensing agency	55	1%
Other	1,102	15%
No secondary practice position	**20,819**	**73%**

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

Results indicated that of respondents who indicated "hospital" as their primary nursing practice position, the following was the breakdown of their highest level of education: diploma (8%), ADN (29%), BSN (41%), and MSN (10%) (see Table 49).

TABLE 49

Employment Settings, by Highest Level of Education

		Highest level of education											
Primary nursing practice position setting	***n***	**Certificate**	**Diploma**	**ADN**	**Associate's-other field**	**BSN**	**Baccalaureate-other field**	**MSN**	**Master's-other field**	**DNP**	**PhD-nursing**	**Doctoral-nursing other**	**Doctoral-other field**
Hospital	18,767	19 (< 1%)	1,416 (8%)	5,478 (29%)	112 (1%)	7,613 (41%)	1,365 (7%)	1,849 (10%)	769 (4%)	36 (< 1%)	24 (< 1%)	6 (< 1%)	80 (< 1%)
Nursing home/ extended care/ assisted living facility	2,145	< 1	272 (13%)	936 (44%)	33 (2%)	542 (25%)	151 (7%)	143 (7%)	53 (2%)	7 (< 1%)	2 (< 1%)	< 1	5 (< 1%)
Home health	1,994	--	233 (12%)	730 (37%)	17 (1%)	646 (32%)	156 (8%)	125 (6%)	74 (4%)	4 (< 1%)	--	2 (< 1%)	7 (< 1%)
Correctional facility	220	< 1	15 (7%)	90 (41%)	4 (2%)	54 (25%)	25 (11%)	17 (8%)	11 (5%)	--	--	--	3 (1%)
Academic setting	996	2 (< 1%)	24 (2%)	45 (5%)	--	123 (12%)	19 (2%)	472 (47%)	58 (6%)	37 (4%)	125 (13%)	29 (3%)	63 (6%)
Public health	588	33 (6%)	36 (6%)	165 (28%)	< 1	240 (41%)	28 (5%)	70 (12%)	33 (6%)	3 (1%)	4 (1%)	--	7 (1%)
Community health	715	< 1	83 (12%)	171 (24%)	2 (< 1%)	179 (25%)	48 (7%)	165 (23%)	43 (6%)	10 (1%)	5 (1%)	< 1	10 (1%)
School health service	1,115	--	90 (8%)	203 (18%)	5 (< 1%)	470 (42%)	103 (9%)	128 (11%)	113 (10%)	--	2 (< 1%)	--	1 (< 1%)
Occupational health	220	15 (7%)	21 (10%)	62 (28%)	< 1	64 (29%)	14 (6%)	40 (18%)	15 (7%)	1 (< 1%)	< 1	--	3 (1%)
Ambulatory care setting	2,941	< 1	284 (10%)	683 (23%)	10 (< 1%)	956 (33%)	156 (5%)	703 (24%)	97 (3%)	20 (1%)	15 (1%)	9 (< 1%)	9 (< 1%)
Insurance claims/benefits	466	--	55 (12%)	113 (24%)	2 (< 1%)	184 (39%)	43 (9%)	31 (7%)	38 (8%)	1 (< 1%)	--	--	--

Primary nursing practice position setting	*n*	Highest level of education: Certificate	Diploma	ADN	Associate's-other field	BSN	Baccalaureate-other field	MSN	Master's-other field	DNP	PhD-nursing	Doctoral-nursing other	Doctoral-other field
Policy/planning/ regulatory/ licensing agency	152	--	5 (3%)	32 (21%)	2 (1%)	32 (21%)	33 (22%)	21 (14%)	17 (11%)	--	< 1	--	10 (7%)
Other	2,958	--	352 (12%)	837 (28%)	39 (1%)	803 (27%)	232 (8%)	435 (15%)	213 (7%)	15 (1%)	8 (< 1%)	< 1	25 (1%)
Total	33,278	22	2,885	9,545	224	11,907	2,373	4,200	1,532	136	185	47	223

Note. Percentages were calculated with primary nursing practice position setting's n as the denominator.

Employment settings may change with age. HRSA (2010) found that 85% of RNs younger than age 30 worked in hospitals; however, this percentage declined with age, where 50% of RNs age 55 and older worked in hospitals. HRSA explained this as hospitals offer a good initial career development opportunity for a new RN because new RNs can gain hands-on experience with patients with many different needs while having the support of other experienced clinicians. Nonhospital settings (e.g., home health, public and community health, nursing homes, and academic education) were employment settings for a larger percentages of older RN age-groups. The current study found that 79% of RNs younger than age 30 worked in hospitals; this percentage declined with age, where 46% of RNs age 55 and older worked in hospitals (see Table 50).

TABLE 50

Employment Settings, by Age-Group

Primary nursing practice position setting	*n*	Age-group: Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over
		2,815	2,398	2,548	2,801	3,034	4,169	5,053	3,389	2,295
Hospital		2,220 (79%)	1,692 (71%)	1,615 (63%)	1,693 (60%)	1,846 (61%)	2,289 (55%)	2,595 (51%)	1,553 (46%)	812 (35%)
Nursing home/ extended care/ assisted living facility		164 (6%)	143 (6%)	143 (6%)	183 (7%)	160 (5%)	240 (6%)	286 (6%)	242 (7%)	245 (11%)
Home health		76 (3%)	85 (4%)	156 (6%)	172 (6%)	180 (6%)	249 (6%)	315 (6%)	227 (7%)	228 (10%)
Correctional facility		6 (< 1%)	9 (< 1%)	12 (< 1%)	13 (< 1%)	32 (1%)	31 (1%)	31 (1%)	20 (1%)	25 (1%)
Academic setting		8 (< 1%)	27 (1%)	42 (2%)	55 (2%)	52 (2%)	139 (3%)	191 (4%)	187 (6%)	112 (5%)
Public health		34 (1%)	28 (1%)	36 (1%)	38 (1%)	37 (1%)	73 (2%)	115 (2%)	94 (3%)	38 (2%)
Community health		39 (1%)	50 (2%)	57 (2%)	79 (3%)	54 (2%)	70 (2%)	83 (2%)	85 (3%)	85 (4%)
School health service		53 (2%)	40 (2%)	68 (3%)	81 (3%)	111 (4%)	161 (4%)	184 (4%)	148 (4%)	111 (5%)

	Age-group								
	Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over
Primary nursing practice position setting ***n***	2,815	2,398	2,548	2,801	3,034	4,169	5,053	3,389	2,295
Occupational health	4 (< 1%)	3 (< 1%)	8 (< 1%)	21 (1%)	26 (1%)	20 (< 1%)	41 (1%)	24 (1%)	38 (2%)
Ambulatory care setting	107 (4%)	160 (7%)	224 (9%)	232 (8%)	254 (8%)	426 (10%)	530 (10%)	359 (11%)	205 (9%)
Insurance claims/ benefits	9 (< 1%)	17 (1%)	30 (1%)	52 (2%)	43 (1%)	58 (1%)	93 (2%)	63 (2%)	22 (1%)
Policy/planning/ regulatory/ licensing agency	--	2 (< 1%)	9 (< 1%)	3 (< 1%)	5 (< 1%)	23 (1%)	43 (1%)	14 (< 1%)	23 (1%)
Other	94 (3%)	142 (6%)	150 (6%)	177 (6%)	234 (8%)	389 (9%)	546 (11%)	372 (11%)	352 (15%)

Position title. In 2004, HRSA found that 64% of respondents' primary job title was "staff nurse"; this increased to 66% in 2008 (HRSA, 2010). The current study's results indicated a return to 2004 levels at 64% (see Table 51). This is followed by 13% of RNs in management positions and 3% nurse faculty, the same percent reported by HRSA (2010). The 7% of RNs identified as advanced practice was an increase over the 5% reported by HRSA (2010).

TABLE 51

Primary Nursing Practice Position Title

	(*n* = 34,357)	Percentage
Consultant	772	2%
Nurse researcher	251	1%
Nurse executive	834	2%
Nurse manager	3,792	11%
Nurse faculty	1,105	3%
Advanced practice nurse	2,531	7%
Staff nurse	21,902	64%
Other–health-related	3,069	9%
Other–not health-related	99	< 1%

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

The largest number of secondary position titles was "staff nurse" (55%), followed by 12% of RNs reporting a secondary position in "other–health-related" position. These findings were not surprising based on the secondary practice setting reported in Table 48. Nine percent of RNs reported a secondary position in management and another 9% reported a secondary position as an advanced practice nurse. A secondary position as nurse faculty and consultant was reported by 8% and 5% of RNs with a secondary position, respectively. Only 1% of RNs reported a secondary position in research (see Table 52).

TABLE 52

Secondary Nursing Practice Position Title

	(*n* = 8,301)	Percentage
Consultant	386	5%
Nurse researcher	69	1%
Nurse executive	158	2%
Nurse manager	586	7%
Nurse faculty	629	8%
Advanced practice nurse	780	9%
Staff nurse	4,558	55%
Other–health-related	1,011	12%
Other–not health-related	124	1%
No secondary practice position	**21,134**	**72%**

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

An examination of job titles by highest level of education revealed that of respondents who indicated "staff nurse" as their primary nursing practice position title, 41% had BSN as highest level of education, while only 4% indicated MSN as highest level of education. In terms of nurse faculty, these respondents' highest level of education was as follows: MSN (43%), DNP (3%), PhD-nursing (10%), doctoral-nursing other (2%), doctoral-other field (5%) (see Table 53).

TABLE 53

Job Titles, by Highest Level of Education

		Primary nursing practice position title								
		Consultant	Nurse researcher	Nurse executive	Nurse manager	Nurse faculty	Advanced practice nurse	Staff nurse	Other–health-related	Other–not health-related
Highest level of education	***n***	759	238	804	3,699	1,080	2,466	21,236	2,996	98
Diploma		68 (9%)	19 (8%)	33 (4%)	349 (9%)	25 (2%)	44 (2%)	1,979 (9%)	330 (11%)	20 (20%)
ADN		133 (18%)	29 (12%)	158 (20%)	1,056 (29%)	127 (12%)	72 (3%)	7,288 (34%)	699 (23%)	23 (23%)
BSN		137 (18%)	82 (34%)	157 (20%)	1,281 (35%)	164 (15%)	137 (6%)	8,760 (41%)	1,088 (36%)	33 (34%)
MSN		133 (18%)	47 (20%)	194 (24%)	432 (12%)	463 (43%)	1,886 (76%)	767 (4%)	303 (10%)	4 (4%)
DNP		5 (1%)	1 (< 1%)	19 (2%)	7 (< 1%)	27 (3%)	71 (3%)	3 (< 1%)	5 (< 1%)	--
PhD-nursing		5 (1%)	7 (3%)	19 (2%)	6 (< 1%)	112 (10%)	29 (1%)	1 (< 1%)	7 (< 1%)	1 (1%)
Doctoral-nursing other		< 1	--	6 (1%)	< 1	26 (2%)	12 (< 1%)	2 (< 1%)	--	--
Doctoral-other field		26 (3%)	10 (4%)	13 (2%)	12 (< 1%)	56 (5%)	26 (1%)	62 (< 1%)	12 (< 1%)	1 (1%)

Note. Highest level of education does not sum to 100% because not all response options are displayed.

Employment specialty. In the current study 17% of RNs reported their primary practice specialty as acute care/critical care followed by 13% who reported a medical-surgical specialty. RNs reported specializing in population-specific care for example, 6% reported a geriatric specialty and 6% reported a pediatric specialty. Five percent of RNs reported maternal-child health as a specialty; all other specialty positions were reported to be less than 5%. Rehabilitation and women's health both were identified as a specialty by 2% of RNs, a finding similar to that reported by HRSA (2010) where rehabilitation specialty was 3% and women's health 4%. Twenty percent of RNs reported their specialty in the "other" category (see Table 54).

TABLE 54

Primary Nursing Practice Position Employment Specialty

	(*n* = 33,516)	Percentage
Acute care/critical care	5,789	17%
Adult health/family health	872	3%
Anesthesia	654	2%
Community	335	1%
Geriatric/gerontology	1,989	6%
Home health	1,515	5%
Maternal-child health	1,662	5%
Medical-surgical	4,249	13%
Occupational health	333	1%
Oncology	953	3%
Palliative care	499	1%
Pediatrics/neonatal	1,996	6%
Primary care	857	3%
Psychiatric/mental health/substance abuse	1,341	4%
Public health	511	2%
Rehabilitation	691	2%
School health	1,097	3%
Tele-health	388	1%
Trauma	566	2%
Women's health	651	2%
Other	6,568	20%

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

The data showed that 13% of RNs reported secondary specialty in acute care/critical care and 10% in medical-surgical; 21% reported "other" as a specialty, which explains the lower percent reported in acute-care areas. Geriatrics and home health were reported as a secondary specialty by 8% and 7% of RNs, respectively. Pediatrics was reported as a secondary specialty by 5% of RNs; 4% or less of RN participants reported all other specialties (see Table 55).

TABLE 55

Secondary Nursing Practice Position Employment Specialty

	(*n* = 7,879)	Percentage
Acute care/critical care	1,010	13%
Adult health/family health	262	3%
Anesthesia	197	3%
Community	179	2%
Geriatric/gerontology	627	8%
Home health	539	7%
Maternal-child health	311	4%
Medical-surgical	758	10%
Occupational health	127	2%
Oncology	145	2%
Palliative care	142	2%
Pediatrics/neonatal	374	5%
Primary care	226	3%
Psychiatric/mental health/substance abuse	354	4%
Public health	152	2%
Rehabilitation	189	2%
School health	285	4%
Tele-health	85	1%
Trauma	151	2%
Women's health	127	2%
Other	1,639	21%
No secondary practice position	**21,252**	**73%**

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

The most prevalent primary clinical specialties in respondents' principal nursing position in hospital settings were "acute care/critical care" (29%) followed by "medical-surgical" (19%). In nonhospital settings the most prevalent primary clinical specialties were "geriatric/gerontology" (14%) and home health (11%). Although in both hospital and nonhospital settings large percentages selected "other" (17%, 24%) (see Table 56). Primary clinical specialty in principal nursing position, by highest level of education results are presented in Table 57.

TABLE 56

Primary Clinical Specialty in Principal Nursing Position for Hospital and Nonhospital Settings

Primary nursing practice position employment specialty	Work setting	
	Hospital setting (*n* = 18,716)	Nonhospital setting (*n* = 13,361)
Acute care/critical care	5,475 (29%)	291 (2%)
Adult health/family health	93 (< 1%)	757 (6%)
Anesthesia	516 (3%)	129 (1%)
Community	20 (< 1%)	304 (2%)
Geriatric/gerontology	53 (< 1%)	1,910 (14%)
Home health	8 (< 1%)	1,489 (11%)
Maternal-child health	1,441 (8%)	209 (2%)
Medical-surgical	3,621 (19%)	597 (4%)
Occupational health	50 (< 1%)	269 (2%)
Oncology	537 (3%)	407 (3%)
Palliative care	54 (< 1%)	438 (3%)
Pediatrics/neonatal	1,383 (7%)	562 (4%)
Primary care	114 (1%)	722 (5%)
Psychiatric/mental health/substance abuse	707 (4%)	605 (5%)
Public health	11 (< 1%)	488 (4%)
Rehabilitation	396 (2%)	284 (2%)
School health	--	46 (< 1%)
Tele-health	176 (1%)	211 (2%)
Trauma	525 (3%)	32 (< 1%)
Women's health	291 (2%)	347 (3%)
Other	3,243 (17%)	3,264 (24%)

TABLE 57

Primary Clinical Specialty in Principal Nursing Position, by Highest Level of Education

Primary nursing practice position employment specialty	*n*	Highest level of education					
		Diploma	ADN	BSN	MSN	DNP	PhD-nursing
Acute care/critical care	5,617	330 (6%)	1,583 (28%)	2,385 (42%)	588 (10%)	15 (< 1%)	31 (1%)
Adult health/family health	851	57 (7%)	153 (18%)	188 (22%)	326 (38%)	13 (2%)	13 (2%)

Primary nursing practice position employment specialty	*n*	Highest level of education					
		Diploma	ADN	BSN	MSN	DNP	PhD-nursing
Anesthesia	636	25 (4%)	57 (9%)	138 (22%)	249 (39%)	5 (1%)	< 1
Community	325	45 (14%)	64 (20%)	99 (30%)	61 (19%)	1 (< 1%)	1 (< 1%)
Geriatric/gerontology	1,925	241 (13%)	781 (41%)	495 (26%)	180 (9%)	8 (< 1%)	2 (< 1%)
Home health	1,473	176 (12%)	551 (37%)	462 (31%)	77 (5%)	< 1	--
Maternal-child health	1,629	148 (9%)	431 (26%)	652 (40%)	199 (12%)	4 (< 1%)	6 (< 1%)
Medical-surgical	4,119	346 (8%)	1,407 (34%)	1,563 (38%)	343 (8%)	10 (< 1%)	16 (< 1%)
Occupational health	330	41 (12%)	92 (28%)	95 (29%)	40 (12%)	3 (1%)	< 1
Oncology	936	73 (8%)	220 (24%)	402 (43%)	132 (14%)	1 (< 1%)	5 (1%)
Palliative care	487	46 (9%)	175 (36%)	128 (26%)	46 (9%)	7 (1%)	3 (1%)
Pediatrics/neonatal	1,940	136 (7%)	403 (21%)	893 (46%)	311 (16%)	7 (< 1%)	7 (< 1%)
Primary care	838	65 (8%)	197 (24%)	179 (21%)	273 (33%)	12 (1%)	17 (2%)
Psychiatric/mental health/ substance use	1,292	96 (7%)	348 (27%)	312 (24%)	239 (18%)	6 (< 1%)	15 (1%)
Public health	496	30 (6%)	107 (22%)	215 (43%)	46 (9%)	3 (1%)	7 (1%)
Rehabilitation	669	50 (7%)	254 (38%)	228 (34%)	36 (5%)	1 (< 1%)	1 (< 1%)
School health	1,071	86 (8%)	202 (19%)	457 (43%)	102 (10%)	--	< 1
Tele-health	383	26 (7%)	149 (39%)	130 (34%)	22 (6%)	1 (< 1%)	--
Trauma	549	24 (4%)	193 (35%)	224 (41%)	46 (8%)	--	--
Women's health	639	51 (8%)	138 (22%)	213 (33%)	153 (24%)	12 (2%)	8 (1%)
Other	6,415	694 (11%)	1,793 (28%)	2,215 (35%)	704 (11%)	28 (< 1%)	51 (1%)

Note. Highest level of education does not sum to 100% because not all response options are displayed.

Hours worked. According to HRSA (2010), the number of hours that RNs work per week is a measure of the supply of nursing. The current study found that the average number of hours worked during a typical week was 36.89 hours (*SD* = 12.26) (see Table 58). HRSA (2010) found that RNs who worked one nursing job worked approximately 36 hours per week. The current study found similar results (*M* = 36.21, *SD* = 11.53) (see Table 59).

TABLE 58

Hours Worked During a Typical Week in All Nursing Positions

	N	*M*	*SD*	Min	Max	Median
Overall	33,220	36.89	12.26	0	100	40

Note. Survey participants were asked to answer this question only if they were actively employed in nursing.

TABLE 59

Average Hours Worked per Week in All Nursing Jobs, by Number of Nursing Jobs

Number of positions respondents were currently employed in as a nurse	*n*	*M*	*SD*	Min	Max	Median
1	27,223	36.21	11.53	0	100	40
2	4,285	41.49	13.62	0	100	40
3 or more	739	41.86	14.07	0	100	40

The average hours worked per week in all nursing positions, by age-group, is presented in Table 60. Results revealed that respondents age 40 to 59 tended to work the most hours per week. With the exception of respondents age 65 and older, there were very small differences in average hours worked per week.

TABLE 60

Average Hours Worked per Week in All Nursing Positions, by Age-Group

Age-group	*n*	*M*	*SD*	Min	Max	Median
Younger than 30	2,931	37.19	8.47	0	90	36
30-34	2,602	36.61	10.02	0	96	37
35-39	2,551	36.66	11.53	0	95	39
40-44	2,697	38.10	11.85	0	100	40
45-49	2,924	38.78	11.44	0	96	40
50-54	3,936	38.79	11.46	0	100	40
55-59	4,893	38.15	11.68	0	100	40
60-64	3,339	36.51	12.56	0	90	40
65 and older	2,004	26.89	16.60	0	100	24

In terms of average hours worked per week, by highest level of education, DNPs, on average, worked the most (M = 47.12, SD = 11.94), followed by PhD-nursing (M = 44.97, SD = 17.33), noting that PhD-nursing had higher median number of hours. Respondents with a diploma in nursing worked the fewest (M = 33.36, SD = 14.27) (see Table 61). This mirrors the fact that those with diplomas tend to be older, and older RNs work less hours. These results are similar to HRSA's (2010) findings.

TABLE 61

Average Hours Worked per Week in All Nursing Positions, by Highest Level of Education

Highest level of education	*n*	*M*	*SD*	Min	Max	Median
Certificate	14	41.64	12.30	24	80	40
Diploma	2,682	33.36	14.27	0	99	36
ADN	9,171	37.07	11.38	0	100	40
Associate's-other field	215	37.20	12.64	0	74	40
BSN	11,992	36.36	11.40	0	100	38
Baccalaureate-other field	2,278	36.11	12.00	0	96	38

Highest level of education	*n*	*M*	*SD*	Min	Max	Median
MSN	3,993	39.97	12.84	0	100	40
Master's-other field	1,455	37.38	14.19	0	90	40
DNP	130	47.12	11.94	4	90	48
PhD-nursing	164	44.97	17.33	0	80	50
Doctoral-nursing other	37	41.22	13.16	8	70	40
Doctoral-other field	220	35.97	16.43	0	95	40

An examination of average hours worked per week in respondents' principal nursing position revealed that respondents who worked in academic settings (M = 45.74, SD = 8.67) and home health tended to work the most (M = 44.12, SD = 9.11). Respondents who worked in school health service tended to work the least (M = 40.04, SD = 6.50) (see Table 62). HRSA (2010) showed similar results.

TABLE 62

Average Hours per Week in Principal Nursing Position, by Full-Time/Part-Time Status and Employment Setting

	Full-time/part-time status	
Primary nursing practice position setting	Mean hours/week full time	Mean hours/week part time
Hospital	41.01 (8.36)	26.38 (8.08)
Nursing home/extended care/assisted living facility	43.51 (8.89)	22.22 (9.67)
Home health	44.12 (9.11)	22.65 (10.34)
Correctional facility	42.20 (6.33)	30.20 (14.75)
Academic setting	45.74 (8.67)	20.16 (10.33)
Public health	40.78 (6.72)	23.23 (9.56)
Community health	41.88 (7.71)	22.51 (8.95)
School health service	40.04 (6.50)	22.57 (12.37)
Occupational health	42.55 (7.02)	20.54 (8.44)
Ambulatory care setting	41.74 (7.47)	25.14 (8.34)
Insurance claims/benefits	42.94 (7.65)	25.31 (7.47)
Policy/planning/regulatory/licensing agency	42.06 (9.66)	19.59 (11.83)
Other	42.64 (8.02)	22.41 (9.92)

Note. Standard deviations are in parentheses.

The number of hours worked can also be associated with job title. Respondents with the job title "nurse executive" worked the most (M = 48.42, SD = 9.04), while those with the job title "staff nurse" worked the fewest (M = 40.17, SD = 7.74) (see Table 63).

TABLE 63

Average Hours per Week in Principal Nursing Position, by Full-time/Part-time Status and Job Title

	Full-time/part-time status	
Primary Nursing Practice Position Setting	**Mean hours/week full time**	**Mean hours/week part time**
Consultant	42.86 (8.19)	20.62 (10.22)
Nurse researcher	42.79 (6.89)	21.79 (7.32)
Nurse executive	48.42 (9.04)	26.13 (16.84)
Nurse manager	44.86 (8.77)	26.23 (10.29)
Nurse faculty	44.91 (8.86)	20.47 (10.56)
Advanced practice nurse	43.19 (9.21)	25.56 (9.48)
Staff nurse	40.17 (7.74)	25.25 (8.74)
Other–health-related	42.46 (7.28)	22.46 (9.51)
Other–not health-related	43.28 (6.76)	20.97 (9.28)

Note. Standard deviations are in parentheses.

Nurses not employed in nursing. Findings from HRSA (2010) estimated that 29% of RNs not working in nursing were age 65 or older. The current study's results indicated that of RNs not employed in nursing, 19% were between ages 60 and 64 and 42% were age 65 or older; 3% of RNs not employed in nursing were younger than age 30 (see Table 64). In the current study, "nurses not employed in nursing" included those respondents who indicated they were actively employed in a field other than nursing, unemployed RNs, and retired RNs. Differences in grouping may explain the differences between HRSA's (2010) results and the current study's results.

TABLE 64

Age Distribution of Nurses Who Were Not Employed in Nursing

Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
177 (3%)	200 (3%)	222 (4%)	255 (4%)	315 (5%)	452 (7%)	788 (13%)	1,160 (19%)	2,548 (42%)

Respondents who were seeking employment in nursing, by age, indicated that 12% were younger than age 30, 16% were between ages 55 and 59, and 16% were between ages 60 and 64. Respondents between the ages of 30 and 39 had the lowest employment-seeking percentages (7%) (see Table 65).

TABLE 65

Percent of Registered Nurses Seeking Nursing Employment by Age

Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
115 (12%)	67 (7%)	66 (7%)	80 (9%)	80 (9%)	94 (10%)	152 (16%)	150 (16%)	136 (14%)

Nurse Faculty

As a result of shortages of qualified faculty, especially of doctorally prepared nursing faculty, the capacity for accepting qualified applicants into prelicensure nursing education programs is limited. This is occurring at a time when the need and demand for RNs continue to grow (American Association of Colleges of Nursing, 2012). The ability of a nursing program to expand its capacity to

admit additional students is directly dependent on the numbers of qualified faculty. In the current study only 10% of nurse faculty reported having a PhD in nursing and an additional 3% reported having a DNP. The minimum educational qualification for a nurse faculty position is an MSN, of which 43% of nurse faculty held (see Table 53).

In addition to the 1,105 (3%) respondents who reported their primary nursing position as faculty in an academic nursing program, there were 615 RNs who were employed as faculty in their secondary nursing position (see Table 66). Those RNs employed in part-time positions as faculty usually focus on clinical education of nursing students in clinical settings, or teach one or two didactic courses a year. Of the 615 RNs employed as faculty in a secondary nursing position, 37% reported their principal nursing position as a staff nurse, 27% reported their primary nursing position as nurse manager/executive or advanced practice nurse, and 26% reported their principal nursing position as nurse faculty. These part-time nurse faculty serve an important role in enabling nursing education programs to more cost-effectively and efficiently implement their curriculum and provide supervision and instruction for students in clinical settings, as well as to expand their capacity to admit larger numbers of nursing students.

TABLE 66

Registered Nurses Employed as Faculty in Their Secondary Nursing Position(s), by Job Title of Principal Nursing Position

	Faculty in secondary nursing position	
Job title of principal nursing position	***n* = 615**	**Percentage**
Consultant	18	3%
Nurse researcher	8	1%
Nurse executive	25	4%
Nurse manager	70	11%
Nurse faculty	162	26%
Advanced practice nurse	72	12%
Staff nurse	225	37%
Other–health-related	34	6%
Other–not health-related	--	--

In the current study, 72% of respondents who held a principal position as full-time faculty were age 50 and older, indicating the potential and emerging shortage of nurse faculty in the future. Only 14% were younger than age 40, indicating that younger RNs are not choosing to work as full-time faculty. Of those with a secondary faculty position, 63% were age 50 and older, and 17% were younger than age 40. These data are comparable to those of HRSA (2010), which found that almost 60% of nursing faculty were older than age 50, and only 15% were younger than age 40. It continues to be evident that younger RNs are not choosing to work as faculty in academic nursing education programs (see Table 67).

TABLE 67

Age Distribution of Registered Nurses Who Work as Faculty

	Faculty position	
Age	**Principal position (*n* = 889)**	**Secondary position (*n* = 480)**
Younger than 30	34 (4%)	23 (5%)
30-34	33 (4%)	20 (4%)
35-39	53 (6%)	38 (8%)
40-44	55 (6%)	46 (10%)

Age	Faculty position	
	Principal position (*n* = 889)	Secondary position (*n* = 480)
45-49	76 (9%)	53 (11%)
50-54	147 (17%)	72 (15%)
55-59	171 (19%)	110 (23%)
60-64	195 (22%)	70 (15%)
65 and older	126 (14%)	48 (10%)

In response to the item on hours worked per week by RNs who were faculty in their principal nursing position, 41% reported working 40 to 47 hours per week, with an additional 30% reporting they work 48 to over 56 hours per week. These results are comparable to those of HRSA (2010), where 37% of faculty reported they worked 40 to 47 hours per week, and 33% reported they worked 48 or more hours per week (see Table 68).

TABLE 68

Hours Worked per Week, by Registered Nurses Who Were Faculty in Their Principal Nursing Position

Hours worked per week	Faculty in principal nursing position	
	n = 1,048	Percentage
1-15	93	9%
16-23	67	6%
24-31	65	6%
32-39	89	8%
40-47	433	41%
48-55	207	20%
56 or more	95	9%

Advanced Practice Registered Nurses

Advanced practice registered nurses (APRNs) are a vital part of the health system of the United States. APRNs consist of nurse practitioners (NPs), certified nurse midwives (CNMs), certified registered nurse anesthetists (CRNAs), and clinical nurse specialists (CNSs). They are RNs educated at master's or post-master's/doctoral level and in a specific role and patient population. They have advanced education, knowledge, and skills to care for a specific population of patients, including adults, families, children, and neonates. APRNs can also provide gender-specific health care (such as women's health) or psychiatric/mental health services. They are educationally prepared to assess, diagnose, and manage patient problems, including ordering tests and prescribing medications. APRNs work in a variety of settings, including hospitals, clinics, and private offices. They can provide care in places where there is a shortage of physicians and health care is badly needed (AcademyHealth, 2007; NCSBN, 2013).

In the current study, 3,046 RNs reported also being licensed/certified as an APRN. This represents 7% of the total responding sample. Of those indicating recognition as an APRN, 54% identified themselves as NPs, 30% as CNSs, 12% as CRNAs, and 4% as CNMs. These proportions are somewhat different than the known proportions of APRNs (Phillips, 2009, 2013). The current study's sample was representative of CNMs and NPs, while CNSs were overrepresented, and CRNAs were somewhat underrepresented.

Over the last 4 years, the number of APRNs has increased 29%. According to an annual survey of boards of nursing, the increase has occurred in all APRN categories (Phillips, 2009, 2013). The number of NPs increased from 108,787 in 2008 to 144,249 in 2012—a 33% increase. CRNAs had the most substantial increase, up 46% since 2008 and CNSs and CNMs increased 19% and 26%, respectively.

Nurse practitioners. The current survey found that 40% of NPs were age 55 or older, compared to 30% found in HRSA (2013). Eleven percent of working NPs were age 65 or older, compared to 6% of NPs just 5 years earlier. The percent of NPs younger than age 40 has remained unchanged at 25% since the last HRSA survey (see Table 69).

TABLE 69

Age Distribution of Registered Nurses Prepared as Nurse Practitioners

Age of nurse practitioner								
Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
70 (4%)	192 (11%)	174 (10%)	214 (12%)	200 (11%)	242 (13%)	325 (18%)	204 (11%)	196 (11%)

In terms of NPs' highest level of education, 89% of NPs had a master's degree or higher. This was essentially unchanged from HRSA (2010) results. However, the proportion of NPs who were doctorally prepared has increased from 4% to 9% (see Table 70).

TABLE 70

Nurse Practitioner Preparation, by Highest Level of Education

Highest level of education										
Diploma	ADN	ADN-other field	BSN	Baccalaureate/other field	MSN	Master's-other field	PhD-nursing	DNP	Doctoral-nursing other	Doctoral-other field
54 (2%)	33(1%)	9 (<1%)	129 (6%)	24 (1%)	1,698 (77%)	47 (2%)	47 (2%)	86 (4%)	18 (< 1%)	63 (3%)

In terms of job titles, 81% of NPs reported having a job title of "advanced practice nurse (APN)." This demonstrates a shift to more NPs working with the APN title. HRSA (2010) found that 70% of NPs reported having "nurse practitioner" as their job title. This increase in the use of the APN title coincides with a decrease in all the other job title categories (see Table 71).

TABLE 71

Job Titles of Nurse Practitioners

Job Titles								
Consultant	Nurse researcher	Nurse executive	Nurse manager	Nurse faculty	Advanced practice nurse	Staff nurse	Other–health-related	Other–not health-related
16 (< 1%)	13 (< 1%)	27 (1%)	41 (2%)	99 (5%)	1,648 (81%)	171 (8%)	29 (1%)	1 (< 1%)

In terms of clinical specialties, 15% of NPs in this survey reported primary care as their principal clinical specialty area. Other settings where NPs were working included 16% in adult/family health, 10% in pediatrics/neonatal settings, and 5% in geriatric/gerontological settings (see Table 72). While an "advanced practice nurse" title was the most common job title for NPs working in primary care, NPs with other job titles reported working in primary care settings as well (see Table 73).

TABLE 72

Primary Clinical Specialties of Employed Nurse Practitioners With Job Title of Nurse Practitioner

	Nurse practitioners	
Primary clinical specialties of nurse practitioners	(*n* = 2,023)	Percentage
Acute care/critical care	204	10%
Adult health/family health	326	16%

Primary clinical specialties of nurse practitioners	Nurse practitioners (*n* = 2,023)	Percentage
Anesthesia	15	1%
Community	16	1%
Geriatric/gerontology	92	5%
Home health	5	< 1%
Maternal-child health	39	2%
Medical-surgical	62	3%
Occupational health	38	2%
Oncology	55	3%
Palliative care	18	< 1%
Pediatrics/neonatal	206	10%
Primary care	295	15%
Psychiatric/mental health/substance abuse	145	7%
Public health	16	< 1%
Rehabilitation	12	< 1%
School health	35	2%
Tele-health	6	< 1%
Trauma	16	< 1%
Women's health	138	7%
Other	284	14%

TABLE 73

Employed Nurse Practitioners in Primary Care, by Job Title

Job title	Nurse practitioners in primary care (*n* = 294)	Percentage
Consultant	1	< 1%
Nurse researcher	--	--
Nurse executive	1	< 1%
Nurse manager	11	4%
Nurse faculty	12	4%
Advanced practice nurse	266	90%
Staff nurse	5	2%

NPs provide care in a variety of work environments: Hospital settings accounted for 28% of the practice settings, 48% of NPs worked in ambulatory care and other community-based settings, and 6% worked in academic settings. Adding to the diversity of

work environments, when compared to HRSA (2010) results, there was a large increase in the "Other" category, up to 14% from 2% (see Table 74).

TABLE 74

Employment Settings in Which Nurse Practitioners Work

	(*n* = 2,012)
Hospital	561 (28%)
Nursing home/extended care/assisted living facility	94 (5%)
Home health	50 (3%)
Correctional facility	8 (< 1%)
Academic setting	127 (6%)
Public health	51 (3%)
Community health	156 (8%)
School health service	59 (3%)
Occupational health	31 (2%)
Ambulatory care setting	590 (29%)
Insurance claims/benefits	9 (< 1%)
Policy/planning/regulatory/licensing agency	4 (< 1%)
Other	272 (14%)

For NPs who selected primary care as their employment speciality, 44% worked in ambulatory care settings, 19% worked in public/community health settings, 7% worked in hospitals, and 5% worked in educational settings (see Table 75).

TABLE 75

Employment Setting of Nurse Practitioners in Primary Care

Hospital	Academic education	Public/community health	School health	Ambulatory care	Other
22 (7%)	14 (5%)	58 (19%)	8 (3%)	129 (44%)	54 (18%)

Certified nurse midwives. In 2012 there were 7,777 nurse midwives, up from 6,173 in 2008, a 26% increase in the total number of CNMs (Phillips, 2009, 2013). There is a trend towards the aging of the nurse midwife workforce, more so than any other group of APRNs. The current study found fewer younger CNMs: 20% were younger than age 40, compared to HRSA's (2013) 23%. Similarly, there were increased numbers of CNMs in the older age categories: 63% were age 50 or older compared to HRSA's (2010) 55%. A striking 31% of CNMs in the current study were age 65 or older, a 20% jump from HRSA (2010) results (see Table 76).

TABLE 76

Age Distribution of Registered Nurses Prepared as Nurse Midwives

Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
2 (2%)	14 (11%)	10 (7%)	12 (9%)	11 (8%)	13 (10%)	30 (22%)	11 (8%)	30 (23%)

Prior to 2011, a graduate degree was not required to become a CNM. However, there has been a substantial increase for those CNMs actively working to have a master's or doctorate compared to HRSA's (2010) findings. Seventy-seven percent of CNMs hold graduate degrees compared to 56% in 2008 (see Table 77).

TABLE 77

Nurse Midwife Preparation, by Highest Level of Education

Diploma	ADN	ADN-other field	BSN	Baccalaureate-other field	MSN	Master's-other field	DNP	PhD-nursing	Doctoral-nursing other	Doctoral-other field
13 (8%)	6 (4%)	--	18 (11%)	--	91 (57%)	15 (9%)	5 (3%)	6 (4%)	2 (1%)	5 (3%)

In terms of job titles of nurse midwives, the majority of nurse midwives had an "advanced practice nurse" title (68%) while 22% had a "staff nurse" title. This is a shift from HRSA (2010), where 42% of CNMs had an APN title and 38% had a staff nurse title (see Table 78).

TABLE 78

Job Titles of Nurse Midwives

Consultant	Nurse researcher	Nurse executive	Nurse manager	Nurse faculty	Advanced practice nurse	Staff nurse	Other–health-related	Other–not health-related
1 (1%)	--	1 (1%)	6 (4%)	4 (3%)	90 (68%)	29 (22%)	2 (2%)	--

Over half of CNMs worked in hospital settings (53%), and 9% were working in ambulatory care settings. Table 79 lists employment settings for CNMs.

TABLE 79

Employment Settings in Which Nurse Midwives Work

	(*n* = 133)
Hospital	70 (53%)
Nursing home/extended care/assisted living facility	2 (1%)
Academic setting	4 (3%)
Public health	5 (4%)
Community health	6 (5%)
Ambulatory care setting	11 (9%)
Other	33 (25%)

The large majority of CNMs with an APN title work in clinical specialties related to women's health. Seventy-nine percent of CNMs indicated working in maternal-child or women's health specialties (see Table 80).

TABLE 80

Employment Specialties of Registered Nurses Prepared as Nurse Midwives, for Selected Job Titles in the Hospital Setting

Primary clinical specialties of nurse midwives	(*n* = 70)
Acute care/critical care	1 (1%)
Maternal-child health	39 (56%)
Medical-surgical	9 (13%)
Oncology	1 (1%)
Pediatrics/neonatal	2 (3%)
Psychiatric/mental health/substance abuse	1 (1%)
Women's health	16 (23%)

Certified registered nurse anesthetists. The number of CRNAs has increased more than any other group of APRNs. In 2012 there were 45,059 CRNAs compared to 30,825 in 2008; this reflects a 46.2% increase (Phillips, 2009, 2013). Compared to other APRN groups, CRNAs tend to be younger than their colleagues. Twenty-six percent were younger than age 40, while 36% were age 55 or older. While these were the youngest of the APRNs, these percentages still indicate a trend toward increasing age in the APRN workforce. The percentage of CRNAs younger than age 40 has decreased from 2008 (HRSA, 2010), and the percentage older than age 55 is higher. Nine percent of CRNAs age 65 or older continue to work, which is the same as the percentage found in 2008 (HRSA, 2010) (see Table 81).

TABLE 81

Age Distribution of Registered Nurses Prepared as Certified Nurse Anesthetists

Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
12 (3%)	29 (7%)	68 (16%)	63 (15%)	41 (10%)	57 (14%)	52 (12%)	61 (15%)	35 (9%)

The number of CRNAs with graduate-level preparation is increasing. Seventy-five percent of CRNAs in this sample reported having a master's or doctoral degree compared to 65% reported by HRSA (2010). Prior to 2008, CRNAs were not required to have graduate-level education. This requirement is reflected in the current increase in master's-prepared and doctorally prepared CRNAs (see Table 82).

TABLE 82

Nurse Anesthetist Preparation, by Highest Level of Education

Diploma	ADN	ADN-other field	BSN	Baccalaureate-other field	MSN	Master's-other field	DNP	PhD-nursing	Doctoral-nursing other	Doctoral-other field
20 (4%)	23 (5%)	8 (2%)	50 (10%)	32 (6%)	252 (52%)	98 (20%)	5 (1%)	--	6 (1%)	4 (1%)

Clinical nurse specialists. As with other APRNs, the number of CNSs increased in the 4-year period of 2008 through 2012. A 19% increase is seen in the CNS group, with 13,742 currently recognized by boards of nursing, while 11,560 were recognized in 2008 (Phillips, 2009, 2013). Also, as with their other APRN colleagues, CNSs show a trend toward an aging workforce. In the current study, only 9% were younger than age 40, while 61% were age 55 or older, and 25% were age 65 or older (see Table 83). HRSA (2010) found that 10% were younger than age 40, and only 8% were age 65 or older.

TABLE 83

Age Distribution of Registered Nurses Prepared as Clinical Nurse Specialists

Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
4 (1%)	10 (3%)	18 (5%)	14 (4%)	27 (7%)	78 (20%)	66 (17%)	72 (19%)	96 (25%)

Note. In some states, the job title of "clinical nurse specialist" is not legally limited to RNs who have CNS preparation of certification. Respondents who indicated "clinical nurse specialist" without a master's degree or higher were removed from this analysis.

Graduate-level education has always been required for recognition as a CNS. There has been a shift towards more CNSs having doctoral degrees. Nineteen percent of CNSs reported having a doctoral degree (see Table 84) compared to 7% found by HRSA (2010).

TABLE 84

Clinical Nurse Specialist Preparation, by Highest Level of Education

MSN	DNP	PhD - nursing	Doctoral - nursing other	Doctoral - other field
343 (82%)	7 (2%)	40 (10%)	8 (2%)	20 (5%)

Note. In some states, the job title of "clinical nurse specialist" is not legally limited to RNs who have CNS preparation of certification. Respondents that indicated "clinical nurse specialist" without a master's degree or higher were removed from this analysis.

There has been an increase in the use of the "advanced practice nurse" and "staff nurse" job titles for CNSs. According to HRSA (2010), 35% of CNSs had the job title of "advanced practice nurse," and the current study found that 38% reported having that title. HRSA (2010) found that 16% of CNSs reported having a "staff nurse" job title, while 20% indicated this job title in the current study. These data indicate a shift from management and faculty titles, which made up 39% of CNSs in 2008 (HRSA, 2010), towards patient-care titles (see Table 85).

TABLE 85

Job Titles of Employed Nurses Prepared as Clinical Nurse Specialists

Consultant	Nurse researcher	Nurse executive	Nurse manager	Nurse faculty	Advanced practice nurse	Staff nurse	Other–health-related	Other–not health-related
26 (7%)	8 (2%)	11 (2%)	18 (4%)	70 (18%)	152 (38%)	78 (20%)	31 (8%)	3 (< 1%)

Note. In some states, the job title of "clinical nurse specialist" is not legally limited to RNs who have CNS preparation of certification. Respondents that indicated "clinical nurse specialist" without a master's degree or higher were removed from this analysis

CNSs work in diverse practice settings. Almost half of the CNSs (48%) worked in hospital settings, while 18% reported working in academic settings, and 12% worked in ambulatory care environments. These categories represent the most commonly reported work settings, but CNSs also reported working in nursing homes, home health, public and community health, schools, and policy/regulatory agencies (see Table 86).

TABLE 86

Employment Settings in Which Clinical Nurse Specialists Work

	(*n* = 393)
Hospital	189 (48%)
Nursing home/extended care/assisted living facility	15 (4%)

	(*n* = 393)
Home health	14 (4%)
Correctional facility	--
Academic setting	73 (18%)
Public health	4 (1%)
Community health	14 (4%)
School health service	4 (1%)
Occupational health	--
Ambulatory care setting	49 (12%)
Insurance claims/benefits	--
Policy/planning/regulatory/licensing agency	5 (1%)
Other	26 (7%)

Note. In some states, the job title of "clinical nurse specialist" is not legally limited to RNs who have CNS preparation of certification. Respondents who indicated "clinical nurses specialist" without a master's degree or higher were removed from this analysis

Foreign-Educated Nurses

Foreign-educated nurses (FENs) are another pipeline for the U.S. RN workforce, especially in times of shortage in domestic supply (HRSA, 2013). HRSA (2010) showed that 5% of the RNs licensed prior to 2004 were FENs, and 8% since then. The current study showed 6% of the respondents were foreign-educated. The average age of these nurses was 49. Tables 87 to 92 reveal similar demographic and practice characteristics between U.S.-educated and foreign-educated respondents.

There was not a substantial age difference between the U.S.-educated and FENs. HRSA (2010) showed similar results (see Table 87).

TABLE 87

Median Current Age of Registered Nurses Employed in Nursing, by Foreign-Education Status

	U.S.-educated	Foreign-educated
Current age	48.22 (12.43)	48.96 (12.83)

Note. Standard Deviations are in parentheses.

In an examination of RNs working full time, by location of education and year of licensure—where "newly licensed" was defined as RNs licensed in 2010 and after—only 1% were newly licensed and foreign-educated; 11% were newly licensed and U.S.-educated (see Table 88).

TABLE 88

Registered Nurses Working Full Time, by Location of Education and Year of Licensure

	U.S.-educated	Foreign-educated
Licensed prior to 2010	18,220 (81%)	1,571 (7%)
Licensed 2010-2013	2,550 (11%)	133 (1%)

Results revealed no substantial differences in the average number of hours worked per week between U.S.-educated and FENs (see Table 89).

TABLE 89

Average Hours Worked per Week, by Full-Time and Part-Time Status and Location of Education

	U.S.-educated	Foreign-educated
Full-time employment	41.72 (7.98)	42.03 (13.67)
Part-time employment	24.75 (9.13)	25.29 (12.01)

Note. Standard Deviations are in parentheses.

The majority of the responding FENs (82%) who worked full time held only one principal position (see Table 90).

TABLE 90

Secondary Nursing Positions Held by Foreign-Educated Nurses Working Full Time in Their Principal Nursing Position

Secondary nursing position	No secondary nursing position
333 (18%)	1,513 (82%)

An examination of the number of RNs employed in a hospital setting for their principal nursing position, by location of initial education and year of licensure, revealed that less than 1% were newly licensed and foreign-educated (see Table 91).

TABLE 91

Number and Percent of Nurses Employed in a Hospital Setting for Their Principal Nursing Position, by Location of Initial Education and Year of Licensure

	U.S.-educated	Foreign-educated
Licensed prior to 2010	13,642 (80%)	1,175 (7%)
Licensed 2010-2013	2,195 (13%)	62 (< 1%)

Results revealed that 4% of RNs employed in ambulatory care settings were foreign-educated and 3% of RNs employed in academic settings were foreign-educated (Table 92).

TABLE 92

Registered Nurses Employed in Ambulatory Care and Academic Setting, by Location of Initial Education

	n	U.S.-educated	Foreign-educated
Ambulatory care	2,967	2,856 (96%)	111 (4%)
Academic Setting	1,008	982 (97%)	26 (3%)

Results revealed that of RNs employed as newly licensed staff nurses, 5% were foreign-educated (see Table 93).

TABLE 93

Registered Nurses Employed as Staff Nurses, by Location of Initial Education and Year of Licensure

	n	U.S.-educated	Foreign-educated
Licensed prior to 2010	33,783	31,661 (94%)	2,122 (6%)
Licensed 2010-2013	3,482	3,292 (95%)	190 (5%)

Newly Licensed Nurses

In the current study, newly licensed nurses were defined as RNs who received their license in 2010 or after. An examination of initial education of RNs by year licensed cohort revealed that RNs licensed between 2000 and 2013 were more likely to have obtained a BSN as their initial education (42%–44%) versus RNs licensed prior to 2000 (33%). However, the data did not show that newly licensed nurses were more likely to have a BSN degree as their initial entry into the field (see Table 94).

TABLE 94

Initial Education of Registered Nurses, by Year Licensed Cohort

Type of nursing degree/credential that qualified respondents for first U.S. nursing license		Licensed cohort			
		Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
	n	25,635	3,301	4,873	3,606
Vocational/practical certificate-nursing		1,365 (5%)	153 (5%)	186 (4%)	73 (2%)
Diploma-nursing		6,220 (24%)	115 (3%)	174 (4%)	74 (2%)
Associate's degree-nursing		8,961 (35%)	1,525 (46%)	2,210 (45%)	1,809 (50%)
Baccalaureate degree-nursing		8,361 (33%)	1,376 (42%)	2,150 (44%)	1,549 (43%)
Master's degree-nursing		694 (3%)	129 (4%)	151 (3%)	80 (2%)
Doctoral degree-nursing (DNP)		14 (<1%)	1 (<1%)	1 (<1%)	--
Doctoral degree-nursing (PhD)		--	--	--	21 (<1%)
Doctoral degree-nursing other		20 (<1%)	2 (<1%)	1 (<1%)	--

Examining the location of initial education, by year licensed cohort revealed the following percentages of foreign-educated RNs: licensed prior to 2000 (5%), licensed 2000–2004 (11%), licensed 2005–2009 (10%), and licensed 2010–2013 (5%) (see Table 95). HRSA (2013), when examining NCLEX-RN data, found wide variation in the number of foreign-educated nurses from 2001 through 2011, with the greatest number in 2007 (HRSA, 2013). In 2008, foreign graduates that were licensed prior to 2004 were 5% of the RN workforce. Additionally, foreign graduates who were licensed between 2004 and 2008 composed 5% of the RN workforce (HRSA, 2010).

TABLE 95

Location of Initial Education of Nurses, by Year Licensed Cohort

	Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
n	**25,599**	**3,299**	**4,884**	**3,481**
U.S.-educated	24,308 (95%)	2,939 (89%)	4,414 (90%)	3,291 (95%)
Foreign-educated	1,291 (5%)	360 (11%)	470 (10%)	190 (5%)

Newly licensed foreign graduates were more likely to have obtained a BSN to qualify them for their first U.S. license (64%) as compared to U.S.-educated graduates (43%) (see Table 96). HRSA (2010) found that, across all licensees, approximately 68% of foreign-educated RNs had at least a baccalaureate degree in nursing or a related field compared with 49% of U.S.-educated nurses.

TABLE 96

Initial Nursing Education, by Year Licensed and Location of Education

Type of nursing degree/credential that qualified respondents for first U.S. nursing license	U.S. educated			
	Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
n	**24,067**	**2,911**	**4,383**	**3,283**
Certificate	1,318 (5%)	139 (5%)	173 (4%)	71 (2%)
Diploma	5,748 (24%)	76 (3%)	117 (3%)	61 (2%)
ADN	8,670 (36%)	1,444 (50%)	2,101 (48%)	1,651 (50%)
BSN	7,637 (32%)	1,141 (39%)	1,850 (42%)	1,420 (43%)
MSN	640 (3%)	108 (4%)	140 (3%)	80 (2%)
DNP	14 (< 1%)	1 (< 1%)	1 (< 1%)	--
PhD-nursing	20 (< 1%)	--	--	--
Doctoral-nursing other	20 (< 1%)	2 (< 1%)	1 (< 1%)	--

Type of nursing degree/credential that qualified respondents for first U.S. nursing license	Foreign-educated			
	Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
n	**1,273**	**360**	**465**	**184**
Certificate	30 (2%)	13 (4%)	13 (3%)	2 (1%)
Diploma	379 (30%)	36 (10%)	57 (12%)	13 (7%)
ADN	175 (14%)	64 (18%)	90 (19%)	52 (28%)
BSN	637 (50%)	227 (63%)	295 (63%)	117 (64%)
MSN	52 (4%)	20 (6%)	10 (2%)	--
DNP	--	--	--	--
PhD-nursing	--	--	--	--
Doctoral-nursing other	< 1 (< 1%)			

An examination of gender of RNs, by year licensed cohort revealed a trend toward an increase in the proportion of males in the workforce. Specifically, for respondents licensed prior to 2000, 5% were male, while of those licensed between 2010 and 2013 11% were male (see Table 97).

TABLE 97

Gender of Registered Nurses, by Year Licensed Cohort

Gender		Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
	n	24,572	3,222	4,769	3,404
Female		23,370 (95%)	2,920 (91%)	4,376 (92%)	3,035 (89%)
Male		1,202 (5%)	302 (9%)	393 (8%)	369 (11%)

As compared to those licensed prior to 2000, newly licensed nurses were more likely to have a more diverse racial/ethnic composition. In particular, there were increased percentages of RNs of Asian, Black/African American, and Hispanic/Latino decent in the most recent licensed cohorts (see Table 98).

TABLE 98

Racial/Ethnic Composition of Registered Nurse Population, by Year Licensed Cohort

Race/ethnicity		Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
	n	25,983	3,373	5,006	3,629
American Indian or Alaska Native		289 (1%)	27 (< 1%)	46 (< 1%)	42 (1%)
Asian		1,123 (4%)	325 (10%)	481 (10%)	340 (9%)
Black/African American		1,354 (5%)	316 (9%)	398 (8%)	288 (8%)
Native Hawaiian or Other Pacific Islander		117 (< 1%)	14 (< 1%)	48 (< 1%)	27 (< 1%)
White/Caucasian		22,373 (86%)	2,427 (72%)	3,680 (74%)	2,628 (72%)
Hispanic/Latino		497 (2%)	201 (6%)	275 (5%)	234 (6%)
Other		230 (< 1%)	63 (2%)	78 (2%)	70 (2%)

An examination of RNs, by year licensed cohort revealed that of employed licensees, 10% were newly licensed (see Table 99) and 12% of RNs employed full time in nursing were newly licensed (see Table 100). The vast majority of RNs not employed in nursing were licensed prior to 2000 (88%) (see Table 100).

TABLE 99

Registered Nurses, by Year Licensed Cohort

	n	Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
Licensees	37,656	25,915 (69%)	3,329 (9%)	4,911 (13%)	3,501 (9%)
Employed licensees	30,685	19,822 (65%)	3,064 (10%)	4,598 (15%)	3,201 (10%)

TABLE 100

Employment of Registered Nurses, by Year Licensed Cohort

	n	Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
Employed full time in nursing	22,676	13,866 (61%)	2,403 (11%)	3,706 (16%)	2,700 (12%)
Employed part time in nursing	5,641	4,236 (75%)	470 (8%)	574 (10%)	362 (6%)
Not employed in nursing	6,909	6,060 (88%)	261 (4%)	308 (4%)	281 (4%)

The current results indicated that newly licensed RNs were the cohort most likely to work in a hospital setting (71%), compared to 50% of RNs licensed prior to 2000 (see Table 101). HRSA (2013) found that the greatest percentage of RNs were employed in hospitals (63%), followed by nursing care facilities (7%). This was a slight decrease from 2000 Census information of 63% employed in hospitals and 8% in nursing care facilities. HRSA (2010) found a slight decrease in the percentage of RNs employed in hospitals, with 66% in 1980 and 62% in 2008. The next greatest setting was ambulatory care, with 11% in 2008, followed by public/community health, with 8% in 2008.

TABLE 101

Employment Setting of Principal Nursing Position, by Year Licensed Cohort

Primary nursing practice position setting		Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
	n	**19,745**	**3,019**	**4,570**	**3,189**
Hospital		9,836 (50%)	1,986 (66%)	3,142 (69%)	2,271 (71%)
Nursing home/extended care/assisted living facility		1,205 (6%)	139 (5%)	276 (6%)	338 (11%)
Home health		1,300 (7%)	153 (5%)	245 (5%)	141 (4%)
Correctional facility		125 (1%)	26 (1%)	33 (1%)	14 (< 1%)
Academic setting		817 (4%)	43 (1%)	32 (1%)	8 (< 1%)
Public health		409 (2%)	43 (1%)	69 (2%)	31 (1%)
Community health		447 (2%)	72 (2%)	92 (2%)	65 (2%)
School health service		848 (4%)	54 (2%)	78 (2%)	53 (2%)
Occupational health		156 (1%)	16 (1%)	14 (< 1%)	4 (< 1%)
Ambulatory care setting		2,113 (11%)	223 (7%)	234 (5%)	120 (4%)
Insurance claims/benefits		346 (2%)	28 (1%)	46 (1%)	12 (<1%)
Policy/planning/regulatory/licensing agency		118 (1%)	11 (< 1%)	2 (< 1%)	< 1
Other		2,025 (10%)	225 (7%)	307 (7%)	132 (4%)

An examination of secondary nursing positions, by year licensed cohort revealed that newly licensed nurses were more likely to be employed in nursing home/extended care/assisted living facilities (27%) compared to the other year licensed cohorts (9%–14%) (see Table 102).

TABLE 102

Secondary Nursing Positions, by Year Licensed Cohort

Secondary nursing practice position setting	Year Licensed cohort			
	Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
Has a secondary nursing job	**(*n* = 18,965)**	**(*n* = 2,994)**	**(*n* = 4,537)**	**(*n* = 3,172)**
1 position	16,166 (85%)	2,462 (82%)	3,738 (82%)	2,737 (86%)
2 positions	2,370 (12%)	450 (15%)	696 (15%)	397 (13%)
3 or more positions	429 (2%)	82 (3%)	103 (2%)	38 (1%)
Setting of secondary job(s)	**(*n* = 4,423)**	**(*n* = 732)**	**(*n* = 900)**	**(*n* = 586)**
Hospital	1,065 (24%)	253 (35%)	270 (30%)	154 (26%)
Nursing home/extended care/assisted living facility	396 (9%)	87 (12%)	128 (14%)	157 (27%)
Home health	505 (11%)	70 (10%)	124 (14%)	70 (12%)
Correctional facility	60 (1%)	4 (1%)	9 (1%)	8 (1%)
Academic setting	411 (9%)	62 (8%)	50 (6%)	26 (4%)
Public health	91 (2%)	16 (2%)	20 (2%)	12 (2%)
Community health	213 (5%)	30 (4%)	40 (4%)	16 (3%)
School health service	233 (5%)	17 (2%)	31 (3%)	35 (6%)
Occupational health	98 (2%)	4 (1%)	13 (1%)	2 (<1%)
Ambulatory care setting	557 (13%)	66 (9%)	75 (8%)	46 (8%)
Insurance claims/benefits	85 (2%)	8 (1%)	6 (1%)	8 (1%)
Policy/planning/regulatory/licensing agency	28 (1%)	8 (1%)	8 (1%)	1 (<1%)
Other	681 (15%)	107 (15%)	126 (14%)	51 (9%)

The current study found that the most common job title was "staff nurse," especially for newly licensed (89%) versus RNs licensed prior to 2000 (56%) (see Table 103). HRSA (2010) found that the most common job title was "staff nurse" with 64% in 2004 and 66% in 2008.

TABLE 103

Job Titles of Registered Nurses, by Year Licensed Cohort

Job title of principal nursing position		Year licensed cohort			
		Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
	n	**19,798**	**3,049**	**4,593**	**3,186**
Consultant		604 (3%)	49 (2%)	39 (1%)	5 (< 1%)
Nurse researcher		179 (1%)	13 (< 1%)	18 (< 1%)	8 (< 1%)
Nurse executive		684 (3%)	40 (1%)	23 (< 1%)	6 (< 1%)

Job title of principal nursing position		Year licensed cohort			
		Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
	n	19,798	3,049	4,593	3,186
Nurse manager		2,523 (13%)	276 (9%)	355 (8%)	129 (4%)
Nurse faculty		812 (4%)	56 (2%)	58 (1%)	55 (2%)
Advanced practice nurse		1,704 (9%)	289 (9%)	270 (6%)	64 (2%)
Staff nurse		11,000(56%)	2,107 (69%)	3,601 (78%)	2,847 (89%)
Other–health-related		2,214 (11%)	213 (7%)	224 (5%)	72 (2%)
Other–not health-related		78 (< 1%)	6 (< 1%)	5 (< 1%)	< 1

In terms of average hours worked per week, newly licensed nurses work the fewest hours in full-time positions (M = 39.94, SD = 7.44), while they work the most in part-time positions (M = 27.70, SD = 10.34) as compared to other year licensed cohorts (see Table 104).

TABLE 104

Average Hours Worked per Week by Registered Nurses, by Full-Time/Part-Time Status and Year Licensed Cohort

	Licensed prior to 2000	Licensed 2000-2004	Licensed 2005-2009	Licensed 2010-2013
Employed full time	42.30 (8.57)	41.84 (9.18)	41.10 (7.68)	39.94 (7.44)
Employed part time	24.18 (9.30)	25.87 (8.50)	26.43 (8.69)	27.70 (10.34)

Note. Standard Deviations are in parentheses.

Registered Nurses Nearing Retirement

Examining the demographic and education characteristics of RNs by age, more specifically respondents younger and older than age 50, can illustrate trends in the nursing workforce.

The current study indicated RNs were slightly more ethnically diverse than reported by HRSA (2010). Recent findings suggest that 23% of RNs younger than age 50 and 14% of RNs age 50 and older were Hispanic. HRSA (2010) reported 20% and 13% of RNs were Hispanic in the younger than age 50 and 50 and older age-groups, respectively. There were no differences noted in the percentage of RNs who were women younger than age 50 (92%) and age 50 or older (94%) when comparing the current study to previous work.

The current study suggested that a smaller number of RNs had diploma education as their initial nursing education that led to licensure for those younger than age 50 (5%) compared to respondents age 50 or older (20%). Additionally, a higher percentage of those younger than age 50 indicated BSN as their initial nursing education (47%) versus those age 50 or older (31%) (see Table 105).

TABLE 105

Demographic and Educational Characteristics of Registered Nurses, by Age

		Younger than age 50	Age 50 or older
Race/ethnicity	*n*	14,808	14,983
White, non-Hispanic		11,435 (77%)	12,926 (86%)
Non-white or Hispanic		3,373 (23%)	2,057 (14%)

		Younger than age 50	Age 50 or older
Gender	***n***	**14,506**	**14,396**
Male		1,213 (8%)	823 (6%)
Female		13,293 (92%)	13,573 (94%)
Initial nursing education	***n***	**14,768**	**14,985**
Certificate		585 (4%)	856 (6%)
Diploma		729 (5%)	2,956 (20%)
ADN		6,107 (41%)	6,072 (41%)
BSN		6,880 (47%)	4,684 (31%)
MSN		453 (3%)	395 (3%)
DNP		5 (< 1%)	5 (< 1%)
PhD-nursing		1 (< 1%)	12 (< 1%)
Doctoral-nursing other		8 (< 1%)	5 (< 1%)

The majority of RNs employed full time and part time in nursing were in the 50 or older age-group, with 49% and 61% of RNs working full time and part time, respectively. At 18%, the largest number of nurses employed full time and part time were in the 55 to 59 age-group. The current study found that 20% of RNs were employed in nursing part time, which is similar to HRSA's (2010) findings, which indicated that 21% of RNs were employed in nursing part time (see Table 106).

TABLE 106

Percent of Employed Registered Nurses Working Full Time and Part Time, by Age-Group

	n	**Younger than 30**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65 and older**
Full time	21,264	2,356 (11%)	1,891 (9%)	1,913 (9%)	2,169 (10%)	2,424 (11%)	3,307 (16%)	3,880 (18%)	2,415 (11%)	909 (4%)
Part time	5,146	321 (6%)	352 (7%)	420 (8%)	486 (9%)	480 (9%)	657 (13%)	917 (18%)	747 (15%)	766 (15%)

Findings from the current study suggest that the largest percentage of RNs with a principal position title of "nurse executive" (31%), "nurse manager" (21%), "advanced practice nurse" (18%), "staff nurse" (16%), and other health (16%) and non-health-related (23%) was in the 55 to 59 age-group. The largest number (22%) of nurse researchers were age 50 to 54, 22% of nurse faculty were age 60 to 64, and 24% of nurse consultants were age 65 and older (see Table 107).

TABLE 107

Job Titles of Registered Nurses in Their Principal Nursing Position, by Age-Group

		Age of nurses								
Job title of principal nursing position	***n***	**Younger than 30**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65 and older**
Consultant	620	3 (< 1%)	13 (2%)	27 (4%)	27 (4%)	72 (12%)	112 (18%)	130 (21%)	90 (15%)	146 (24%)
Nurse researcher	186	2 (1%)	13 (7%)	9 (5%)	7 (4%)	21 (11%)	40 (22%)	33 (18%)	36 (19%)	25 (13%)

Job title of principal nursing position	*n*	Age of nurses: Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
Nurse executive	669	5 (1%)	14 (2%)	34 (5%)	48 (7%)	73 (11%)	120 (18%)	208 (31%)	100 (15%)	67 (10%)
Nurse manager	3,134	94 (3%)	169 (5%)	250 (8%)	308 (10%)	371 (12%)	574 (18%)	648 (21%)	470 (15%)	250 (8%)
Nurse faculty	890	34 (4%)	33 (4%)	53 (6%)	55 (6%)	76 (9%)	147 (17%)	171 (19%)	195 (22%)	126 (14%)
Advanced practice nurse	2,072	72 (3%)	225 (11%)	213 (10%)	260 (13%)	239 (12%)	304 (15%)	383 (18%)	230 (11%)	146 (7%)
Staff nurse	18,387	2,504 (14%)	1,858 (10%)	1,786 (10%)	1,869 (10%)	1,926 (10%)	2,539 (14%)	2,895 (16%)	1,846 (10%)	1,164 (6%)
Other–health-related	2,557	95 (4%)	86 (3%)	179 (7%)	222 (9%)	255 (10%)	357 (14%)	587 (23%)	409 (16%)	367 (14%)
Other–not health-related	83	1 (1%)	< 1 (1%)	3 (4%)	7 (9%)	15 (18%)	11 (13%)	26 (32%)	11 (13%)	8 (10%)

On average, full-time and part-time RNs in this study worked 41.6 and 25.1 hours per week, respectively. Other than part-time nurses age 65 and older, the current study showed that the number of weekly hours worked by full-time and part-time RNs was consistent across all age-groups (see Table 108). These findings were similar to those reported by HRSA (2010).

TABLE 108

Average Hours Worked per Week by Registered Nurses in Their Principal Nursing Position, by Age

	Age of nurses: Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
Average hours worked, full-time nurses	39.33 (5.87)	40.20 (6.65)	41.34 (7.83)	42.21 (8.96)	42.52 (8.60)	42.28 (9.03)	42.39 (8.30)	42.13 (8.10)	41.84 (9.92)
Average hours worked, part-time nurses	27.92 (9.37)	25.12 (25.12)	24.58 (24.58)	25.78 (25.78)	26.11 (8.39)	26.33 (7.32)	26.29 (9.29)	25.36 (9.24)	18.35 (9.19)

Note. Standard Deviations are in parentheses.

HRSA (2010) reported that 12% of RNs working full time and 14% of RNs working part time held a secondary position in nursing. The current study suggests the smallest number of RNs working a secondary position in nursing were younger than age 35, or age 60 and older. At 17%, RNs in the 55 to 59 age-group represented the largest number of RNs with a secondary nursing position (see Table 109).

TABLE 109

Percent of Employed Registered Nurses With Secondary Nursing Positions, by Age

n	Age of nurses: Younger than 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and older
4,315	352 (8%)	401 (9%)	468 (11%)	522 (12%)	575 (13%)	623 (14%)	722 (17%)	391 (9%)	260 (6%)

Results revealed that of RNs who indicated they worked outside of nursing, older nurses (i.e., age 45 to 64) were more likely to work outside of nursing versus younger nurses (i.e., younger than age 30 to 34) (see Table 110).

TABLE 110

Percent of Registered Nurses Employed in Other Field, by Age-Group

		Age of nurses								
	n	**Younger than 30**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65 and older**
Percent working outside nursing	1,169	39 (3%)	40 (3%)	66 (6%)	75 (6%)	116 (10%)	201 (17%)	256 (22%)	224 (19%)	152 (13%)

Nurse Licensure Compact

The Nurse Licensure Compact (NLC) enables multistate licensure for nurses. In 2000, NCSBN launched a new initiative to expand the mobility of nurses as part of our nation's health care delivery system. The NLC allows nurses to have one multistate license, with the ability to practice in both their home state and other party states. The following states were members of the NLC at the time of survey data collection: Arkansas, Arizona, Colorado, Delaware, Iowa, Idaho, Kentucky, Maine, Maryland, Missouri, Mississippi, North Carolina, North Dakota, Nebraska, New Hampshire, New Mexico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin.

Table 111 shows the percentage of respondents who indicated their primary state of residence was part of the NLC (37%). Results indicated that 13% of respondents with a compact license indicated Texas as their primary state of residence.

TABLE 111

Is Primary State of Residence Part of the Nurse Licensure Compact?

	(*n* = 39,008)	**Percentage**
No	24,545	63%
Yes	14,463	37%

Primary state of residence	**(*n* = 13,263)**	**Percentage**	**Primary state of residence**	**(*n* = 13,263)**	**Percentage**
Arizona	735	3%	New Hampshire	235	2%
Arkansas	362	3%	New Mexico	256	2%
Colorado	640	5%	North Carolina	1,253	9%
Delaware	159	1%	North Dakota	142	1%
Idaho	199	2%	Rhode Island	123	1%
Iowa	479	4%	South Carolina	378	3%
Kentucky	636	5%	South Dakota	352	3%
Maine	244	2%	Tennessee	544	4%
Maryland	817	6%	Texas	1,741	13%
Mississippi	452	3%	Utah	1,351	10%
Missouri	942	7%	Virginia	519	4%
Nebraska	266	2%	Wisconsin	438	3%

Table 112 shows the percentage of licensees who had physically or electronically/telephonically practiced in other compact states. In general, this information helps illustrate how compact licenses have been utilized. Of the respondents who indicated their

primary state of residence was a compact state, approximately 36% (i.e., 5,138/14,463) indicated utilizing their compact license (see Tables 111, 112, and 113).

Arkansas (55%), Tennessee (12%), and Colorado (7%) had the largest percentage of respondents who indicated they had practiced in these states in addition to their primary state of residence. At this time it is unclear why Arkansas had such an unusually large percentage of respondents who indicated they had practiced in this state in addition to their primary state of residence. Data were rechecked for potential errors and nothing was found; caution should be taken with this result and, in general, utilization of the compact license should be further investigated.

TABLE 112

Number of Additional Compact States Respondents Had Physically or Electronically/ Telephonically Practiced in Since Receiving Compact License

	(*n* = 5,138)	Percentage		(*n* = 5,138)	Percentage
Arizona	142	3%	New Hampshire	155	3%
Arkansas	2,803	55%	New Mexico	69	1%
Colorado	345	7%	North Carolina	192	4%
Delaware	146	3%	North Dakota	30	1%
Idaho	210	4%	Rhode Island	183	4%
Iowa	94	2%	South Carolina	114	2%
Kentucky	87	2%	South Dakota	129	3%
Maine	107	2%	Tennessee	605	12%
Maryland	135	3%	Texas	199	4%
Mississippi	71	1%	Utah	53	1%
Missouri	93	2%	Virginia	191	4%
Nebraska	64	1%	Wisconsin	218	4%

Note. Respondents who indicated their primary state of residence as an "additional state" were removed from analyses; 1,259 responses were removed. Respondents who indicated their primary state of residence was not a compact state were also removed; an additional 527 responses were removed. Percentages will not sum to 100% because respondents could select multiple states.

Of respondents who indicated they had practiced in an additional compact state, 92% indicated they had practiced in one additional state, while 8% indicated they had practiced in multiple additional states (see Table 113).

TABLE 113

Percent of Compact Respondents Who Practiced in Multiple Compact States

	(*n* = 5,138)	Percentage
Practiced in 1 additional state	4,738	92%
Practiced in multiple additional states	400	8%

Tele-health

In an effort to investigate the utilization of tele-health, respondents were asked to indicate if they had utilized tele-health in their primary or secondary positions. Results indicated that 9% utilized tele-health, 80% did not utilize tele-health, while 11% were unsure (see Table 114).

TABLE 114

Did Respondents Utilize Tele-health in Their Primary or Secondary Positions?

	(*n* = 38,914)	Percentage
Yes	3,560	9%
No	30,964	80%
Unsure	4,391	11%

Respondents who indicated they utilized tele-health in their primary or secondary positions were asked to indicate if patients were ever located in a different state when respondents utilized tele-health. Results indicated that of those who utilized tele-health, 27% indicated patients had been located in a different state, while 8% were unsure (see Table 115).

TABLE 115

When Respondents Utilized Tele-health, Were Patients Ever Located in a Different State?

	(*n* = 3,520)	Percentage
Yes	933	27%
No	2,291	65%
Unsure	296	8%

Summary of Results

The current study was a collaborative research effort that identified the most current characteristics of the RN workforce in the United States.

Results were compared to HRSA (2010) results, which were based on RN workforce data from 2008, and to those of HRSA (2013), which were based on Census data from 2008–2010. Importantly, when comparing the current study's results to those of HRSA (2013), it should be noted the HRSA (2013) data were from individuals who reported their current occupation as nursing and who currently had or were seeking a job. These data were obtained from the U.S. Census Bureau's American Community Survey. The current study was a survey of all RN licensees, which included individuals who were not actively employed in nursing. In the current study, 82% of the respondents were actively employed in nursing. Also, when comparing the current study's results with those of HRSA (2010), it is important to note that HRSA's (2010) survey was longer and more detailed; hence, some grouping of the data could not be performed in a similar manner. Data comparisons should be interpreted with caution.

Results on the following topic areas are discussed: gender, age, racial/ethnic diversity, education, licensing, employment status, position setting, position title, employment specialty, Nurse Licensure Compact, and tele-health.

Gender. The current study indicated that male RNs are a relatively small but growing minority in the nursing workforce. An examination of gender, by year licensed cohort, revealed a trend toward an increase in the proportion of males in the workforce. Specifically, for respondents licensed prior to 2000, 5% were male, while of those licensed between 2010 and 2013, 11% were male.

Examining highest education of RNs by gender, the current data showed 71% of male respondents and 62% of female respondents working in nursing held bachelor or higher degrees in nursing and any non-nursing field.

The job titles with the highest percentage of men were the following: "advanced practice nurse" (12%), "nurse manger" (7%), and "staff nurse" (7%).

Age. The average age of the respondents was 50, and more than half (53%) of those working in nursing were age 50 or older.

In terms of APRNS, there is a trend towards the aging of the nurse midwife workforce, more so than any other group of APRNs. The current study found fewer younger CNMs: 20% were under the age of 40, compared to HRSA's (2013) 23%. Similarly,

there were increased numbers of CNMs in the over 40 categories: 63% were age 50 or older compared to HRSA's (2010) 55%. A striking 31% of CNMs in the current study were age 65 or older, a 20% jump from HRSA (2010) results.

In terms of nurse faculty, 72% of respondents who held a principal position as full-time faculty were age 50 and older, indicating the potential and emerging shortage of nursing faculty in the future. Only 14% were younger than age 40, indicating that younger RNs are not choosing to work as full-time faculty. Of those with a secondary faculty position, 63% were age 50 or older, and 17% were younger than 40. These data are comparable to those of HRSA (2010), which found that almost 60% of nursing faculty were older than age 50, and only 15% were younger than age 40. It continues to be evident that younger RNs are not choosing to work as faculty in academic nursing education programs.

Racial/ethnic diversity. According to the U. S. Census Bureau (2013), individuals from ethnic and racial minority groups accounted for 37% of the U.S. population in 2012. The current study found that 19% of responding RNs from a minority population. This percentage is a slight increase from HRSA (2010), which found that 17% were from a minority population. As compared to those licensed prior to 2000, newly licensed nurses were more likely to have a more diverse racial/ethnic composition. In particular, there were increased percentages of RNs of Asian, Black/African American, and Hispanic/Latino descent in the most recent licensed cohorts.

An examination of RN job titles, by race/ethnicity found that "nurse faculty" and "nurse executive" had the least diversity (87% and 86% White/Caucasian, respectively), while "staff nurse" had the most diversity (79% White/Caucasian) .

Education. The current study found an increase in the percentage of respondents with a BSN (36%) as their initial education, as compared to previous HRSA studies. A little over 39% of RNs held either a BSN (36%) or graduate degree (3%) as their initial credential. The increase in the percentage of respondents with a BSN as their initial education aligns with HRSA's (2013) results, which found an increase in baccalaureate-prepared first-time NCLEX-RN test takers, at 135% growth from 2001 to 2011.

When asked to indicate highest level of education, 61% of respondents in the current study indicated that they had obtained a baccalaureate or higher degree. Using 2008–2010 data, HRSA (2013) found that 55% of RNs reported their highest degree as a baccalaureate or higher. This was an incremental increase from 2000 Census data that indicated 50% of RNs obtained a baccalaureate or higher degree. HRSA (2010) found an increase in the percentage of RNs with a baccalaureate or higher degree from 28% in 1980 to 50% in 2008; however, this includes only baccalaureate or higher degrees in nursing or nursing-related fields.

An examination of initial education of RNs, by year licensed cohort revealed that RNs licensed between 2000 and 2013 were more likely to have obtained a BSN as their initial education (42%–44%) versus RNs licensed prior to 2000 (33%). However, the data did not show that newly licensed nurses were more likely to have a BSN as their initial entry into the field.

Foreign-educated nurses (FENs) are another important resource for the U.S. RN workforce, especially in times of shortage in domestic supply (HRSA, 2013). HRSA (2010) revealed that 5% of the RNs licensed prior to 2004 were FENs, and 8% since then. Results from the current study indicated that the majority of responding RNs (94%) received their entry-level education in the United States, while 6% were foreign-educated. Additionally, of RNs working full time, only 1% were newly licensed and foreign-educated; 11% were newly licensed and U.S.-educated. Also, 64% of newly licensed foreign-educated graduates were likely to have obtained a BSN to qualify them for their first US license as compared to 43% of US educated graduates. An examination of initial education, by year licensed cohort revealed the following percentages of foreign-educated RNs: licensed prior to 2000 (5%), licensed from 2000 to 2004 (11%), licensed from 2005 to 2009 (10%), and licensed from 2010 to 2013 (5%). HRSA (2013) showed similar results; NCLEX-RN data were examined and wide variations in the number of foreign-educated nurses from 2001 through 2011 were found, with the greatest number in 2007.

Licensing. Respondents had been licensed for an average of 23 years, 14% of respondents held multiple licenses, and 2% of respondents practiced in multiple states. Results indicated 11% of respondents had a California license, followed by New York (8%), Texas (7%), Florida (7%), and Pennsylvania (7%). In terms of practicing in a state, 9% of respondents were practicing in California, followed by Texas (7%), Pennsylvania (7%), Florida (6%), and New York (6%).

An examination of RNs, by year licensed cohort revealed that of employed licensees, 10% were newly licensed and 12% of RNs employed full time in nursing were newly licensed (i.e., licensed in 2010 or after).

An examination of the type of license currently held revealed approximately 7% were licensed as APRNs. Of those indicating recognition as an APRN, 54% identified themselves as NPs, 30% as CNSs, 12% as CRNAs, and 4% as CNMs. These proportions are somewhat different than the known proportions of APRNs (Phillips, 2009, 2013). The current study's sample was representative of CNMs and NPs, while CNSs were overrepresented and CRNAs were somewhat underrepresented. Over the last 4 years, the numbers of APRNs has increased 29%. According to an annual survey of boards of nursing, the increase has occurred in all APRN categories (Phillips, 2009, 2013). The number of NPs increased from 108,787 in 2008 to 144,249 in 2012—a 33% increase. CRNAs had the most substantial increase, up 46% since 2008 and CNSs and CNMs increased 19% and 26%, respectively.

Employment status. In 2008, HRSA estimated that 2,596,399 RNs were employed in nursing, representing 85% of licensed RNs (HRSA, 2010). This was the highest rate of nursing employment since HRSA's first workforce survey in 1977. Additionally, in 2004 HRSA found full-time employment of 58%; this increased to 63% in 2008 (HRSA, 2010). The current study's results revealed a slight decrease from 2008 numbers; specifically, in the current study, 82% of licensees were actively employed in nursing and 60% of licensees were employed full time.

An examination of RNs by year licensed cohort revealed that of full-time employed licensees, 12% were newly licensed. The vast majority of RNs not employed in nursing were licensed prior to 2000.

Study results of respondents who indicated they were actively employed in nursing, by highest level of education, showed that respondents with an ADN (85%), BSN (85%), MSN (87%), DNP (97%), and PhD-nursing (85%) had the highest percentages of respondents actively employed in nursing, while respondents with their highest degrees in other fields tended to be less likely to have been actively employed in nursing.

The average number of hours worked during a typical week was 36.89 hours. In terms of average hours worked per week, by highest level of education, DNPs, on average, worked the most (M = 47.12, SD = 11.94), followed by PhD-nursing (M = 44.97, SD = 17.33), noting that PhD-nursing had higher median number of hours. Respondents with a diploma in nursing worked the fewest (M = 33.36, SD = 14.27). This mirrors the fact that those with diplomas tended to be older, and older RNs work fewer hours. An examination of average hours worked per week in respondents' principal nursing position revealed that respondents who worked in academic settings (M = 45.74, SD = 8.67) and home health tended to work the most (M = 44.12, SD = 9.11). Respondents who worked in school health service tended to work the least (M = 40.04, SD = 6.50) (see Table 62). HRSA (2010) showed similar findings.

Results on unemployment indicated 7% of respondents were unemployed; however, only 3% were actively seeking work as a nurse. Of respondents who indicated they were unemployed, approximately half (51%) indicated the reason was because of taking care of home and family. Only 27% of those who gave a reason for unemployment indicated difficulty in finding a nursing position.

Position setting. In 2004, HRSA found that 57% of respondents' primary employment setting was a hospital; this increased to 62% in 2008 (HRSA, 2010). The current study's results indicated a return to 2004 levels, at 57% (see Table 47), followed by 9% of RNs in ambulatory care, 6% in home health, and 6% in nursing homes. Also, 26% of RNs reported a secondary nursing position. These findings are similar to those reported by HRSA (2010).

Of respondents who indicated "hospital" as their primary nursing practice position, the following was the breakdown of their highest level of education: diploma (8%), ADN (29%), BSN (41%), and MSN (10%).

Additionally, the current study found that 79% of RNs younger than age 30 worked in hospitals. This percentage declined with age, with 46% of RNs age 55 and older working in hospitals.

Position title. In 2004, HRSA found that 64% of respondents' primary job title was "staff nurse"; this increased to 66% in 2008 (HRSA, 2010). The current study's results indicated a return to 2004 levels, at 64% (see Table 51). This is followed by 13% of RNs in management positions and 3% in nurse faculty positions—the same percentage reported by HRSA. The 7% of RNs identified as advanced practice was an increase over the 5% reported by HRSA (2010).

An examination of job titles, by highest level of education revealed that of respondents who indicated "staff nurse" as their primary nursing practice position title, 41% had BSN as highest level of education, while only 4% indicated MSN as highest level of education. In terms of nurse faculty, these respondents' highest level of education was as follows: MSN (43%), DNP (3%), PhD-nursing (10%), doctoral-nursing other (2%), and doctoral-other field (5%).

Employment specialty. In the current study, 17% of RNs reported their primary practice specialty as acute care/critical care, followed by 13% who reported a medical-surgical specialty. Respondent RNs reported specializing in population-specific care, where 6% reported a geriatric specialty and 6% reported a pediatric specialty. Five percent of RNs reported maternal-child health as a specialty; all other specialty positions were reported to be less than 5%. Rehabilitation and women's health both were identified as a specialty by 2% of RNs, a finding similar to that reported by HRSA (2010), where rehabilitation specialty was 3% and women's health, 4%. Twenty percent of RNs reported their specialty in the "Other" category.

Nurse Licensure Compact. The Nurse Licensure Compact (NLC) enables multistate licensure for nurses. In 2000, NCSBN launched a new initiative to expand the mobility of nurses as part of our nation's health care delivery system. The NLC allows nurses to have one multistate license, with the ability to practice in both their home state and other party states. The following states were members of the NLC at the time of survey data collection: Arkansas, Arizona, Colorado, Delaware, Iowa, Idaho, Kentucky, Maine, Maryland, Missouri, Mississippi, North Carolina, North Dakota, Nebraska, New Hampshire, Virginia, Wisconsin.

Results indicated that of the respondents who indicated their primary state of residence was a compact state, approximately 36% indicated utilizing their compact license; specifically, 92% indicated they had practiced in one additional state, while 8% indicated they practiced in multiple additional states. Further study on the utilization of the compact license is needed.

Tele-health. In an effort to investigate the utilization of tele-health, respondents were asked to indicate if they utilized tele-health in their primary or secondary positions. Results indicated that 9% utilized tele-health, 80% did not utilize tele-health, while 11% were unsure.

Respondents who indicated they utilized tele-health in their primary or secondary positions were asked to indicate if patients were ever located in a different state when respondents used tele-health. Results indicated that of those who utilized tele-health, 27% indicated patients had been located in a different state, while 8% were unsure.

Discussion

The current study had a few limitations. First, the current study's response rate was 39%, lower than anticipated. Although response rates are a valuable indicator of survey quality, they may not be a good measure of response bias. A formal nonresponse bias analysis was conducted following the close of the survey. An analysis of basic demographic data (i.e., gender, age, race/ethnicity, number of years since graduation, number of years since first licensed) for all RN licensees sampled from the Nursys database was used to compare the survey respondents and nonrespondents, to determine the representativeness of the survey participants. Results revealed that the following groups of nurses may have been slightly overrepresented: White/Caucasian, female, age 60 or older. While the analysis provided some insight into the relationship between demographic characteristics and nonresponse, this information was not used to make nonresponse adjustments because of the high degree of missing data in the sample frame. Because of this, the only weighting that was utilized was constructed at the state level, to adjust for differing sampling rates across states.

Second, data were missing in the current study. The problem of missing data in certain variables caused inconsistent statistics in certain categories. To help the readers get an accurate and comprehensive view of the statistics drawn from the sample, the number of actual valid answers to each question was reported. The large sample size of the study has partially compensated for this stated problem.

Finally, this national survey of RNs represents one point in time. The RN workforce is constantly changing and needs ongoing monitoring and evaluation.

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Appendix A – Survey questionnaire

NCSBN
National Council of State Boards of Nursing

THE FORUM
OF STATE NURSING WORKFORCE CENTERS

National RN Workforce Survey

Marking Instructions

Use a No. 2 pencil or blue or black ink pen only.
Do not use pens with ink that soaks through the paper.
Make solid marks that fill the oval completely.
Make no stray marks on this form.
Do not tear or mutilate this form.

Correct Mark ✓ ✗ Incorrect Marks

Demographics

1. **What is your gender?** ○ Male ○ Female

2. **What is your race/ethnicity?** ***(Mark all that apply)***
   - ○ American Indian or Alaska Native
   - ○ Asian
   - ○ Black/African American
   - ○ Native Hawaiian or Other Pacific Islander
   - ○ White/Caucasian
   - ○ Hispanic/Latino
   - ○ Other

3. **What is your date of birth?**

MO		DAY		YEAR			
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2		2	2	2	2	2	2
3		3	3	3	3	3	3
4			4	4	4	4	4
5			5	5	5	5	5
6			6	6	6	6	6
7			7	7	7	7	7
8			8	8	8	8	8
9			9	9	9	9	9

4. **What type of nursing degree/credential qualified you for your first US nursing license?**
   - ○ Vocational/practical certificate-nursing
   - ○ Diploma-nursing
   - ○ Associate degree-nursing
   - ○ Baccalaureate degree-nursing
   - ○ Master's degree-nursing
   - ○ Doctoral degree-nursing (DNP)
   - ○ Doctoral degree-nursing (PhD)
   - ○ Doctoral degree-nursing other

5. **What is your highest level of education?**
   - ○ Vocational/practical certificate-nursing
   - ○ Diploma-nursing
   - ○ Associate degree-nursing
   - ○ Associate degree-other field
   - ○ Baccalaureate degree-nursing
   - ○ Baccalaureate degree-other field
   - ○ Master's degree-nursing
   - ○ Master's degree-other field
   - ○ Doctoral degree-nursing practice (DNP)
   - ○ Doctoral degree-nursing (PhD)
   - ○ Doctoral degree-nursing other
   - ○ Doctoral degree-other field

PageONE

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License/Certification Information

6. What type of license do you currently hold?

○ RN ○ LPN ○ Advanced Practice RN license (include all advanced license statuses in your state)

7. What year did you obtain your initial US licensure?

YEAR

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

8. In what country did you receive your entry-level education?

○ United States ○ India
○ Canada ○ Other, please specify
○ Philippines _____

9. In what country were you initially licensed as RN or LPN?

○ United States ○ India
○ Canada ○ Other, please specify
○ Philippines _____

10. What is the name of the school (education program) you graduated from that qualified you for your first US RN license?

_____

11. In what city and state was this education program located?

_____ City _____ State

12. What is the status of the license currently held? ○ Active ○ Non Active

13. Are you currently licensed/certified as a...

○ Nurse Practitioner ○ Certified Nurse Midwife
○ Clinical Nurse Specialist ○ Not licensed/certified as any of the above
○ Certified Registered Nurse Anesthetist

14. Please list all states in which you hold an active license to practice as an RN:

_____ _____ _____ _____ _____ _____

15. Please list all states in which you are currently practicing:

_____ _____ _____ _____ _____ _____

Employment Information

16. What is your employment status? *(Mark all that apply)*

○ **Actively employed in nursing**
  ○ Full-time
  ○ Part-time
  ○ Per diem
○ **Actively employed in a field other than nursing**
  ○ Full-time
  ○ Part-time
  ○ Per diem
○ **Working in nursing only as a volunteer**
○ **Unemployed**
  ○ Seeking work as a nurse
  ○ Not seeking work as a nurse
○ **Retired**

Primary position: The position at which you work the most hours during your regular work year.

Secondary position: The position at which you work the second greatest number of hours during your regular work year.

Per diem: an arrangement wherein a nurse is employed directly on an as needed basis and usually has no benefits.

PageTWO

17. If unemployed, please indicate the reasons:

- ○ Taking care of home and family
- ○ Disabled
- ○ Inadequate Salary
- ○ School
- ○ Difficulty in finding a nursing position
- ○ Other, please specify _____

Please answer questions 18 – 26 only if you are actively employed in nursing.

18. In how many positions are you currently employed as a nurse? ○ 1 ○ 2 ○ 3 or more

19. How many hours do you work during a typical week in all your nursing positions?

HOURS

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

20. Please indicate the state and zip code of your primary employer:

_____
State

ZIP CODE

0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

21. Please identify the type of setting that most closely corresponds to your primary nursing practice position:

- ○ Hospital
- ○ Nursing Home/Extended Care/Assisted Living Facility
- ○ Home Health
- ○ Correctional Facility
- ○ Academic Setting
- ○ Public Health
- ○ Community Health
- ○ School Health Service
- ○ Occupational Health
- ○ Ambulatory Care Setting
- ○ Insurance Claims/Benefits
- ○ Policy/Planning/Regulatory/Licensing Agency
- ○ Other

22. Please identify the position title that most closely corresponds to your primary nursing practice position:

- ○ Consultant
- ○ Nurse Researcher
- ○ Nurse Executive
- ○ Nurse Manager
- ○ Nurse Faculty
- ○ Advanced Practice Nurse
- ○ Staff Nurse
- ○ Other-Health Related
- ○ Other-Not Health Related

23. Please identify the employment specialty that most closely corresponds to your primary nursing practice position:

- ○ Acute Care/Critical Care
- ○ Adult Health/Family Health
- ○ Anesthesia
- ○ Community
- ○ Geriatric/Gerontology
- ○ Home Health
- ○ Maternal-Child Health
- ○ Medical Surgical
- ○ Occupational Health
- ○ Oncology
- ○ Palliative Care
- ○ Pediatrics/Neonatal
- ○ Public Health
- ○ Primary Care
- ○ Psychiatric/Mental Health/Substance Abuse
- ○ Rehabilitation
- ○ School Health
- ○ Tele-health
- ○ Trauma
- ○ Women's Health
- ○ Other

24. Please identify the type of setting that most closely corresponds to your secondary nursing practice position:

- ○ Hospital
- ○ Nursing Home/Extended Care/Assisted Living Facility
- ○ Home Health
- ○ Correctional Facility
- ○ Academic Setting
- ○ Public Health
- ○ Community Health
- ○ School Health Service
- ○ Occupational Health
- ○ Ambulatory Care Setting
- ○ Insurance Claims/Benefits
- ○ Policy/Planning/Regulatory/Licensing Agency
- ○ Other
- ○ No Secondary Practice Position

PageTHREE

25. Please identify the position title that most closely corresponds to your secondary nursing practice position:

- ○ Consultant
- ○ Nurse Researcher
- ○ Nurse Executive
- ○ Nurse Manager
- ○ Nurse Faculty
- ○ Advanced Practice Nurse
- ○ Staff Nurse
- ○ Other-Health Related
- ○ Other-Not Health Related
- ○ No Secondary Practice Position

26. Please identify the employment specialty that most closely corresponds to your secondary nursing practice position:

- ○ Acute Care/Critical Care
- ○ Adult Health/Family Health
- ○ Anesthesia
- ○ Community
- ○ Geriatric/Gerontology
- ○ Home Health
- ○ Maternal-Child Health
- ○ Medical Surgical
- ○ Occupational Health
- ○ Oncology
- ○ Palliative Care
- ○ Pediatrics/Neonatal
- ○ Public Health
- ○ Primary Care
- ○ Psychiatric/Mental Health/Substance Abuse
- ○ Rehabilitation
- ○ School Health
- ○ Tele-health
- ○ Trauma
- ○ Women's Health
- ○ Other
- ○ No Secondary Practice Position

Nurse Licensure Compact Information

27. The following states are a part of the Nurse Licensure Compact, please indicate if your primary state of residence is one of these states: AR, AZ, CO, DE, IA, ID, KY, ME, MD, MO, MS, NC, ND, NE, NH, NM, RI, SC, SD, TN, TX, UT, VA, WI

○ Yes, please specify the state _____ ○ No, skip to question #29

28. How many other Compact states have you physically or electronically/ telephonically practiced in since receiving your Compact license?

○ AR	○ IA	○ MD	○ ND	○ RI	○ TX
○ AZ	○ ID	○ MO	○ NE	○ SC	○ UT
○ CO	○ KY	○ MS	○ NH	○ SD	○ VA
○ DE	○ ME	○ NC	○ NM	○ TN	○ WI

○ I do not hold a Compact license

29. Do you utilize tele-health in your primary or secondary positions?

○ Yes ○ No ○ Unsure

30. If yes, when utilizing tele-health, are patients ever located in a different state?

○ Yes ○ No ○ Unsure

Thank you for your participation in this important work!

If you have any questions, contact Jill Budden, PhD (jbudden@ncsbn.org; 312.525.3658) or Elizabeth Zhong, PhD (ezhong@ncsbn.org; 312.525.3636)

Please return your completed questionnaire in the postage-paid envelope to: Scantron, PO Box 64928, St. Paul MN 55164

PageFOUR

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Appendix B