Registered Nurse

Workforce Survey 2016

Acknowledgements

The Illinois Center for Nursing (ICN) would like to express our gratitude to the individuals and organizations that have made this report possible. We would especially like to thank:

Executive Summary

Illinois Center for Nursing Registered Nurse Workforce Survey 2016

The purpose of this report is to detail the results from the 2016 Illinois Registered Nurse (RN) workforce survey. The survey was structured to capture data on the demographics, education, state distribution, and practice foci of RNs in Illinois. The survey was conducted during the 2016 Illinois RN licensure renewal period, from 3/14/16 to 5/31/16. In Illinois, over 90% of individual RNs completed licensure renewal via an on-line platform. When individuals concluded the renewal process, there was a link to the survey along with an explanation of its purpose. The voluntary survey was completed by 41,194 RNs, representing 23.3% of the total RN population in Illinois.

General overview: Data on the characteristics, supply and distribution of RNs in the State of Illinois is essential to expanding access to care and planning for provision of essential primary and other health care services. This report contains data on the demographics of the current RN workforce, the relative numbers of RNs in each age group, their cultural diversity, and educational preparation. Based on these findings, issues and concerns for the nursing workforce into the near future are identified.

Aging workforce: The report presents important information about the aging of the RN workforce. In 2016, 50.18% respondents are over the age of 55 years, which is approximately an 8% increase in this cohort of Illinois RNs since 2014. The relatively rapid increase in RNs in older age categories has significant implications for workforce planning. In addition, one third of the respondents indicated intent to retire within the next five years. This combination of aging workforce and retirement plans predict the potential of an impending nursing shortage within the next five years.

Education post-licensure: Responses to questions regarding registered nurses' intent to seek higher degrees revealed two major barriers. Respondents who are not pursuing a degree post-licensure indicated that the greatest barrier was cost, specifically cost of tuition, followed by family obligations. In the 2014 survey, 40% respondents said cost of tuition was the greatest barrier; in 2016 that number rose to 52%. As schools move to requiring the Doctorate of Nursing Practice (DNP)

degree as a minimum credential for advanced practice nursing education, the increased cost of these degrees should be considered.

Decreased diversity: In contrast to the increase in cultural and racial diversity in the state of Illinois, data indicated a decrease in the cultural diversity of the RN workforce in the younger cohorts in several groups For instance, 4% of Black/African American respondents reported being younger than 35 years, compared to the 29% in those over 65 years. In contrast, those identifying as Hispanic/Latino, 15% are younger than age 36 years, while only 6% are over age 55 years. White females with initial licensure in the U.S. constitute a substantial majority (approximately 80%); however, indications of changing demographics are observable across age categories.

Specialty foci: The respondents reported employment in these top five nursing specialties: acute care, critical care, emergency, surgical, and geriatrics. The data also demonstrated the distribution of nurses in specialties by age cohorts, revealing significantly fewer younger nurses in specialties such as psychiatric mental-health, school, home health, gerontology, and community health nursing. These trends stand in contrast to the Illinois report, *The Workforce Implications of New Health Care Models,* which forecasts a significant increase in ambulatory services, as well as a concomitant need for RNs to practice in community based models of care.

Summary: Collectively, the 2016 Illinois Registered Nurse (RN) workforce survey is a useful resource as health care planners project the human health care capital that will be needed in Illinois. The information will allow ICN to address questions such as, what is the current RN supply and will it be adequate to meet the health care needs of Illinois citizens? Health care workforce planners can help determine and guide educational preparation as to what types of RN (e.g. specialty) will be in greatest demand, as well as the types of specialties and skills required of future models of care.

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About the Data

The primary source of data for this report was from a voluntary survey offered to individual Registered Nurses completing an on-line licensure renewal conducted from 3/14/16 to 5/31/16. Of the 176,974 Registered Nurses in Illinois, 41,194 completed the survey, representing 23.3% of those who hold an RN-only license. Advanced practice nurses (APNs), who are also licensed as Registered Nurses, were not included in the survey data.

Illinois Center for Nursing Registered Professional Nurse (RN) Workforce Survey 2016

The survey included 28 questions consistent with the national minimum dataset requirements of the National Forum of State Nursing Workforce Centers. A comprehensive record of questions is provided in Appendix A. Information obtained from the survey can be categorized into four areas: 1) demographic information such as age, diversity (ethnicity, gender), and retirement horizon; 2) human capital elements of education and area of employment specialty; 3) job characteristics of work setting, earnings, and other details; and 4) select geographic information derived from employer zip codes reported by participants.

General Overview

Data on the characteristics, supply and distribution of RNs in the State of Illinois is essential to expanding access to care and planning for provision of essential primary and other health care services. This report contains data on the demographics of our current RN workforce, the relative numbers of RNs in each age group, their cultural diversity, and educational preparation.

Demographics

Figure 1: Age Cohorts

Age Cohorts

Age Range	Percent
71+ years (1,900)	4.67%
65-70 years (4,646)	11.51%
55-64 years (13,715)	33.96%
45-54 years (8,723)	21.60%
35-44 years (5,953)	14.74%
26-34 years (4,883)	12.09%
25 years & younger	1.39%
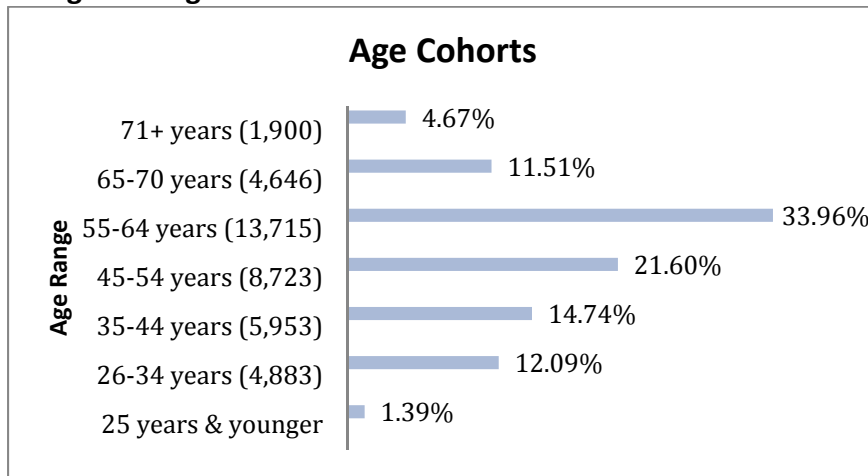
The Registered Nurse (RN) survey participants' ages are presented by selected age categories (Figure 1). Age is derived from unfiltered participant responses to date of birth. The horizontal bar for each category represents the percent of respondents in this age category. The substantial share of Illinois RNs in advanced age categories represents a significant context for many other observations in this report. Note that 815 individuals did not respond to this question. In 2014, 42.57% respondents were 55 years of age and over; in 2016, 50.18% respondents were over the age of 55 years, an approximate 8% increase in this cohort in a two year period. The relatively rapid increase in RNs in the older age categories has significant implications for workforce planning.

Diversity of the Illinois RN workforce is explored in Figure 2. The U.S. Census Bureau describes the Hispanic ethnonym as a culture regardless of race, so these data may represent duplicate counts. White females with initial licensure in the U.S. constitute a substantial majority (approximately 80%); however, there are indications of changing demographics observable across age categories. Diversity of the workforce differs depending on the age. For instance, 10% of Black/African American respondents were in the 34 years of age and younger category in contrast to 28% in the over-60 years of age category. This is higher than the national RN average in this age group (20%).[1] Conversely, the

Hispanic/Latino diversity is greater in the 35 years of age and younger cohort (32%) compared to 23% in the age 55 years and older cohort.

Figure 2: Diversity: Race/Ethnicity, by Age

Race/Ethnicity, by Age										
Age	<30	30-34	35-39	40-44	45-49	50-54	55-59	60-65	>65	Total
American Indian or Alaska Native	4	3	5	10	8	10	17	15	9	**81**
Percent	5%	4%	6%	12%	10%	12%	21%	19%	11%	
Asian	298	278	238	512	612	295	379	520	223	**3355**
Percent	9%	8%	7%	15%	18%	9%	11%	15%	7%	
Black/African American	133	183	281	340	409	425	471	549	350	**3141**
Percent	4%	6%	9%	11%	13%	14%	15%	17%	11%	
Native Hawaiian or Other Pacific Islander	13	15	17	18	25	16	12	15	11	**142**
Percent	9%	11%	12%	13%	18%	11%	8%	11%	8%	
White/Caucasian	2475	2149	2009	2387	2848	4046	5679	6573	3709	**31875**
Percent	8%	7%	6%	7%	9%	13%	18%	21%	12%	
Hispanic/Latino	303	232	214	199	182	155	187	143	51	**1666**
Percent	18%	14%	13%	12%	11%	9%	11%	9%	3%	
Other	74	45	63	61	52	53	84	65	38	**535**
Percent	13.83%	8.41%	11.78%	11.40%	9.72%	9.91%	15.70%	12.15%	7.10%	
Mulitracial	64	55	50	41	65	60	65	91	44	**535**
Percent	12%	10%	9%	8%	12%	11%	12%	17%	8%	

Figure 2 Note. Respondents were asked to mark all that applied for Race/Ethnicity. If multiple options were selected, respondents were coded to be mutually exclusive. Hispanic is a culture regardless of race so respondent options for Hispanic were not included in the Multiracial category and therefore represent duplicate counts.

Figure 3: Diversity: Race/Ethnicity Overall
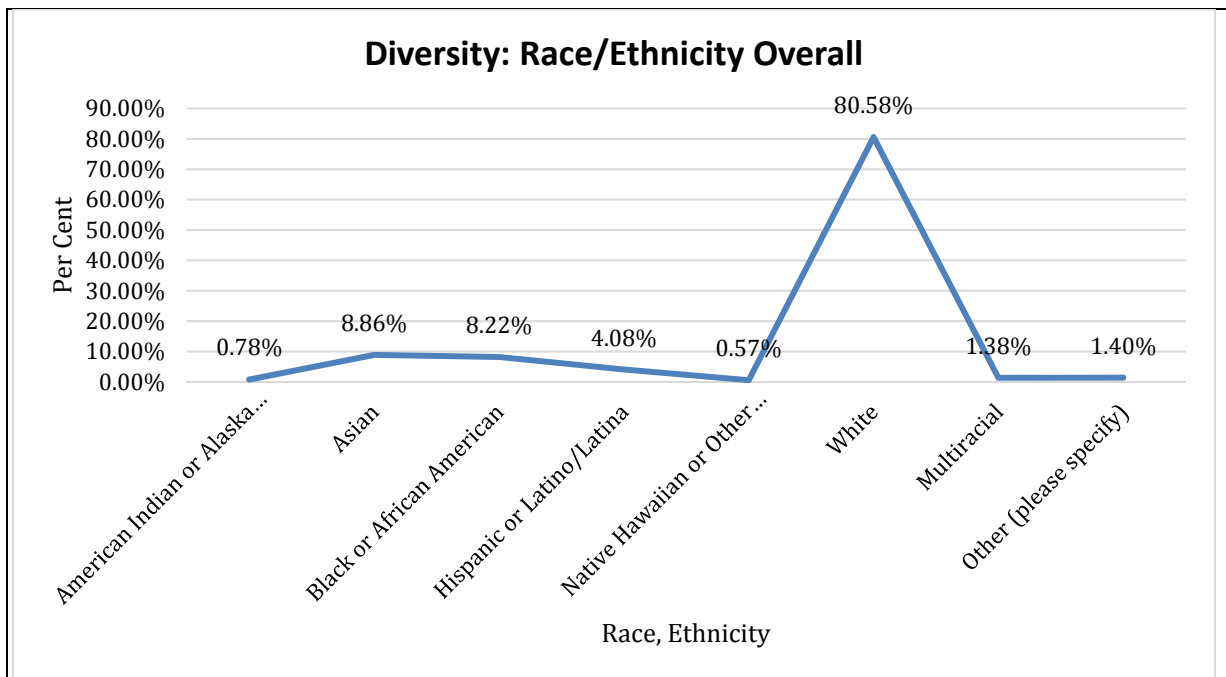
Overall diversity of the nursing workforce in Illinois was determined by two questions asked in sequence: "Are you Hispanic or Latino;" followed by the question "What is your race/ethnicity (mark all that apply)". Responses are illustrated in Figure 3. There were 40,645 responses, 553 individuals did not respond to the question. These 2016 results are similar to those of the 2014 Illinois RN survey with two exceptions. In 2016 Multiracial was offered as an option, and asking if one was Hispanic or Latino was a separate question. There was almost a 5% variance in responses between 2014 and 2016.

The gender distribution among the Illinois nursing workforce continues to be dominated by women. Respondents to the 2016 survey (n=40,960) were 94% female. This is consistent with national data indicating 92% female RNs in the workforce.[1] This is also consistent with the 2014 Illinois RN workforce survey in which 94% respondents were female.

Figure 4: Retirement

How much longer do you plan to practice as an RN in illinois?
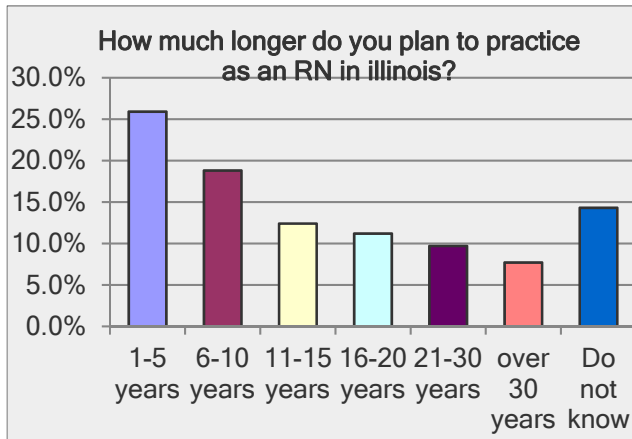
The retirement plans of respondents were assessed by a pair of questions in the survey. The distribution across selected categories of years to retirement is presented in Figure 4 (left). On this question, there was a substantial number (4,754) of non-responses and 14% (5,213) indicating uncertainty with regards to retirement plans. Therefore, the following is based on responses of only 76% of the actual participants and must be a consideration when interpreting the data. What is unknown is the number of the respondents who have already retired but continue their license. The largest group of respondents is composed of RNs within five years of exit. More than 44% of those addressing the question report anticipated retirement over the next decade. A comparison between the 2014 and 2016 survey data shows an increase of 8.4**%** in the percentage of respondents who plan to retire in 10 years, from 36.3% in 2014 to, 44.7% in 2016

Figure 5: Reasons to Delay Retirement

If you plan to retire within the next 5 years, is there a primary factor that would persuade you to continue working as a nurse, extend your date of retirement? (Select only one):
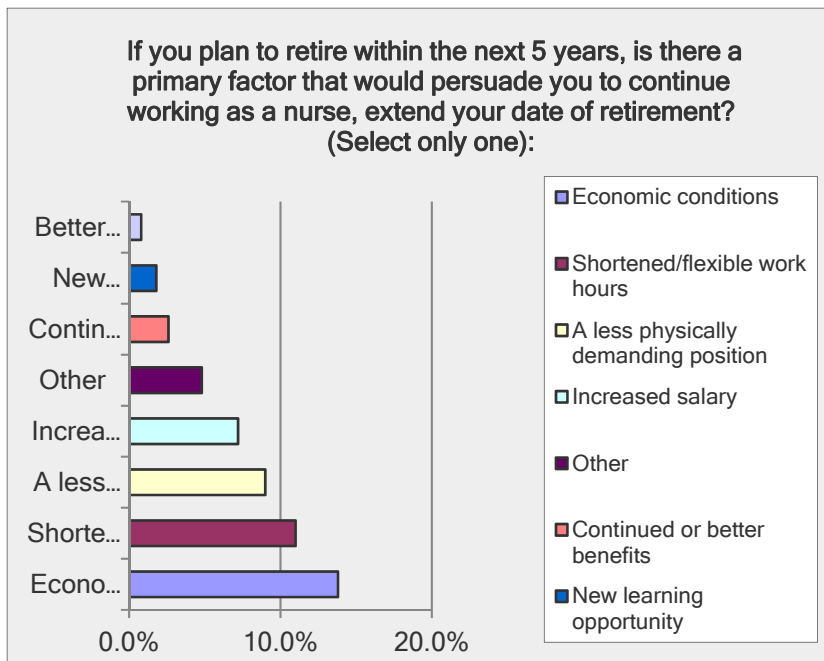
Responses to the question of factors affecting delayed retirement are illustrated in Figure 5. The responses are ordered by frequency of response with economic conditions as the leading concern (13.8%), followed by desirability of shortened/flexible work hours (11%), reduced physical demands (19%) and increased compensation (7.2%).

Human Capital
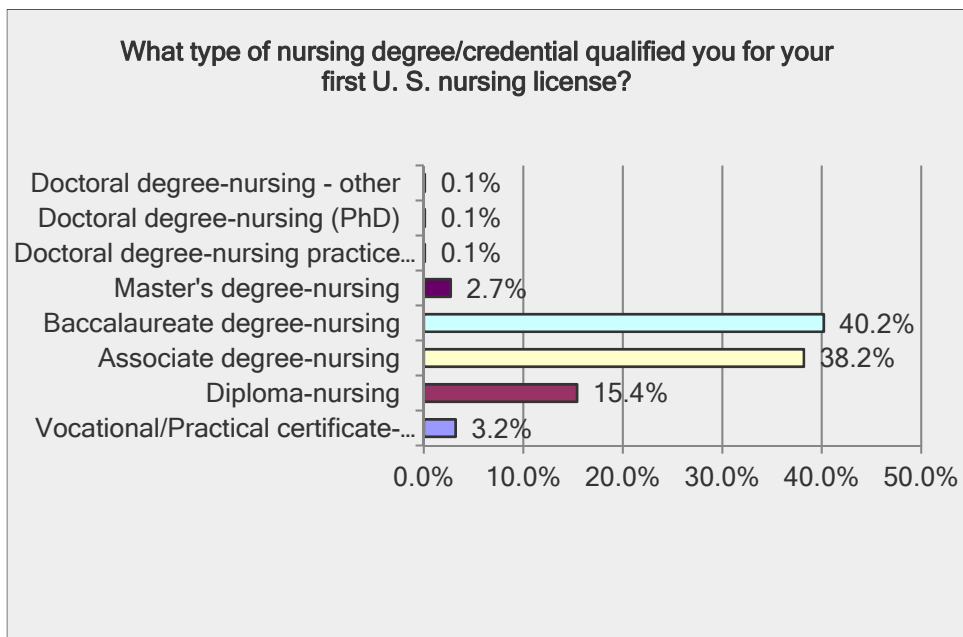
The concept of human capital encourages workforce analysis in terms of the productive capacity of each individual. Skills and knowledge can be general (productive in a variety of contexts) or specific (most valuable in a particular context, such as a unique industry setting or specialized occupational role). A human capital perspective is essential to a full appreciation of the role of health care, education, and workforce development in promoting economic growth and societal well-being. This section reports on registered nurse (RN) education and clinical practice specialties.

Figure 6: Initial Nursing Credentials

What type of nursing degree/credential qualified you for your first U. S. nursing license?

- Doctoral degree-nursing - other: 0.1%
- Doctoral degree-nursing (PhD): 0.1%
- Doctoral degree-nursing practice…: 0.1%
- Master's degree-nursing: 2.7%
- Baccalaureate degree-nursing: 40.2%
- Associate degree-nursing: 38.2%
- Diploma-nursing: 15.4%
- Vocational/Practical certificate-…: 3.2%

The response frequencies to the question of the type of nursing credential that qualified an individual for his/her first U.S. nursing license is presented in Figure 6 (left). The percentage of nurses entering the field via the Associate Degree in Nursing (ADN) route was 38.2%, was similar to those entering at the Bachelor of Science in Nursing (BSN) level of 40.2%. The next highest category was comprised of nurses who initiated their career via a diploma school (15.4 %). The remaining 6.2% were distributed across a broad spectrum of educational categories.

Interestingly when respondents were asked to indicate the highest degree attained (Figure 7 below), the percent who indicated an associate degree in nursing (ADN) decreased to 25.2% and diploma to 8.1%, suggesting many nurses go on to higher degrees during the course of their careers. While a significant percent of nurses continue in school to obtain a master's degree, either in nursing

(9%) or another field (5.4%) the number of nurses with an earned research doctorate (PhD) remains small (0.6%).

Figure 7: Highest Level of Education
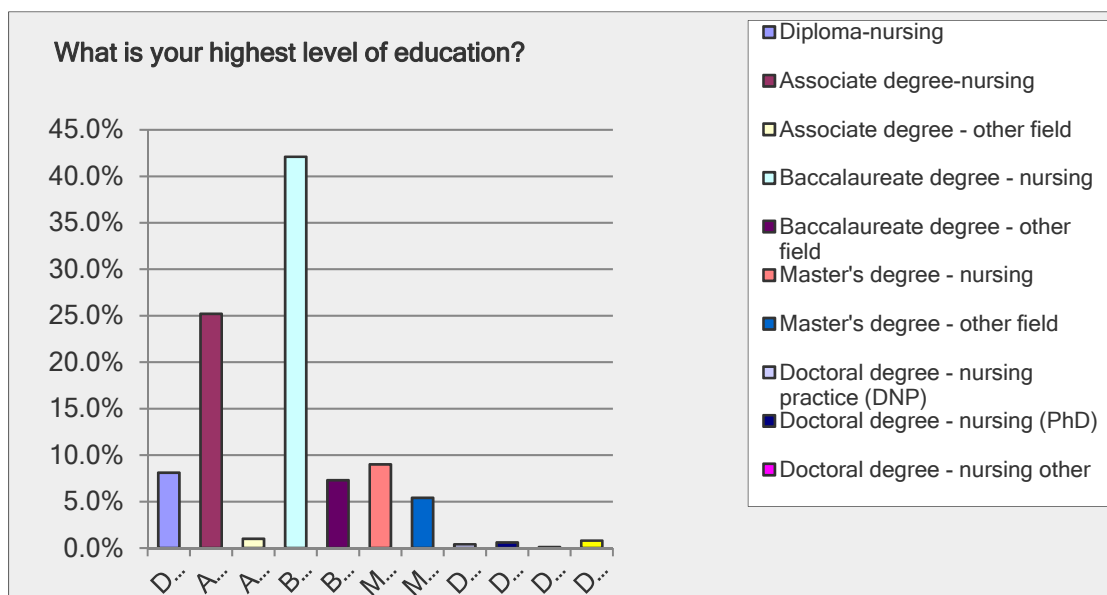
Availability of education affects the nursing pipeline, which in turn impacts the future supply of nurses, an essential part in our health care system. In Illinois, the minimum requirement to teach in an LPN program is a baccalaureate degree with a major in Nursing (Nurse Practice Act/NPA Section 1300.230g). For all other pre-licensure nursing education programs, the minimum requirement is a master's degree with a major in nursing (NPA Section 1300.340g). A doctoral degree is required to teach in graduate nursing education, including Advanced Practice Registered Nurses (APRNs). These data are important because they raise questions of the adequacy of nursing faculty to maintain the nursing education pipeline.

When asked if they were currently pursuing a higher degree, the majority (88.2%) of respondents indicated they were not. However, 4.5% seeking an additional degree were enrolled in a Master's program and 4.6% in a bachelor's program. It is difficult to ascertain if the 1.2% of individuals enrolled in doctoral programs were seeking a doctor of nursing practice (DNP) or a doctor of philosophy (PhD). Future surveys should include questions to determine types of doctoral degrees being pursued.

Figure 8: Barriers to Pursuing a Higher Degree
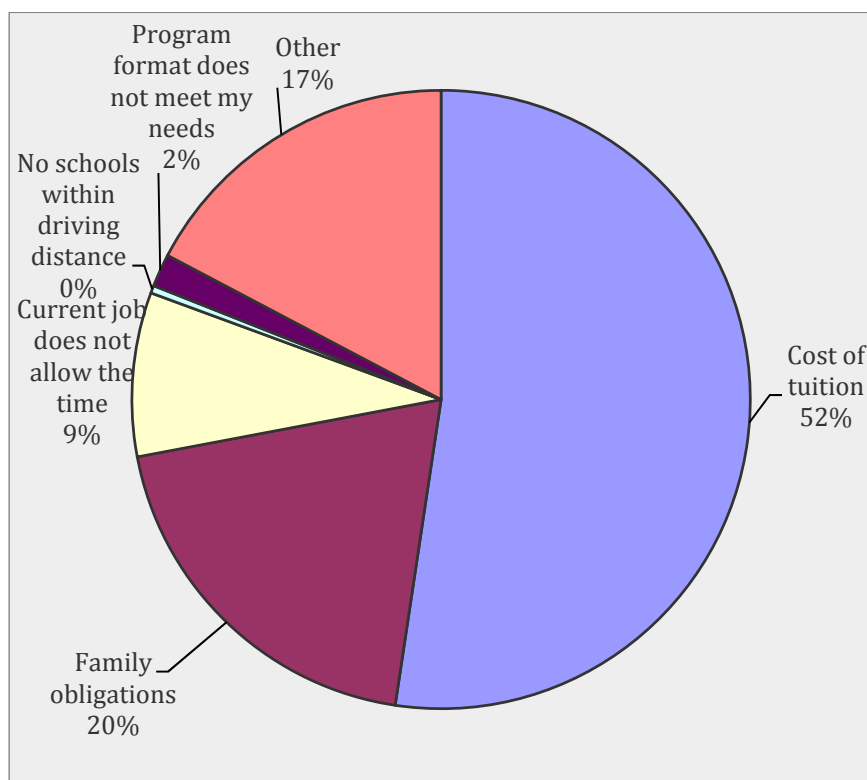
Respondents were asked: "What is the greatest barrier to continuing your education?" Those not pursuing a higher degree indicated the greatest barrier was cost, specifically cost of tuition, followed by family obligations. As schools move to requiring the doctorate of nursing practice (DNP) degree, as a minimum credential for advanced practice nursing education rather than the masters' degree in nursing, the increased cost of these degrees should be considered. In the 2014 survey, 40% of respondents said cost of tuition was the greatest barrier; in 2016, 52% of respondents cite cost of tuition as the greatest barrier Figure 8 (above).

Another survey question asked: "In what country were you initially licensed as a Registered Nurse (RN)." Consistent with the 2014 Illinois RN survey, the overwhelming majority of respondents received initial licensure in the United States. In 2016, 94.43% received initial RN licensure in the United States, 0.2% Canada, 4.62% Philippines, 0.75% India, and 830 did not respond to the question. These trends have implications for issues around the nursing shortage and use of foreign-educated RNs. The number of foreign nursing graduates represented only about 5 percent of first time National Council Licensure Examination (NCLEX) takers.[2] This is very modest in comparison to the 23 percent of the physicians entering graduate medical education in 2014 who were graduates of foreign medical education. Though the number of nurses who received their initial pre-licensure education in another country is small, with the impending nursing shortage, the increasing number of nurses retiring each year, recruitment of foreign educated and licensed nurses is a potential resource.

Employment, Job Characteristics

The overwhelming majority of respondents, 91.25% work full-time at one job and are actively employed in nursing. Of those respondents who work part-time or per diem, the majority are also actively employed in nursing. A small number of respondents, approximately 10-15%, work multiple jobs. Approximately half or 55.4% of respondents work a total of 40 hours per week on all jobs. For those who work part-time, 25% work less than 40 hours per week, and approximately 20% work between 50-60 hours per week; very few respondents work more than 60 hours per week.

Figure 9: Primary Employment Setting
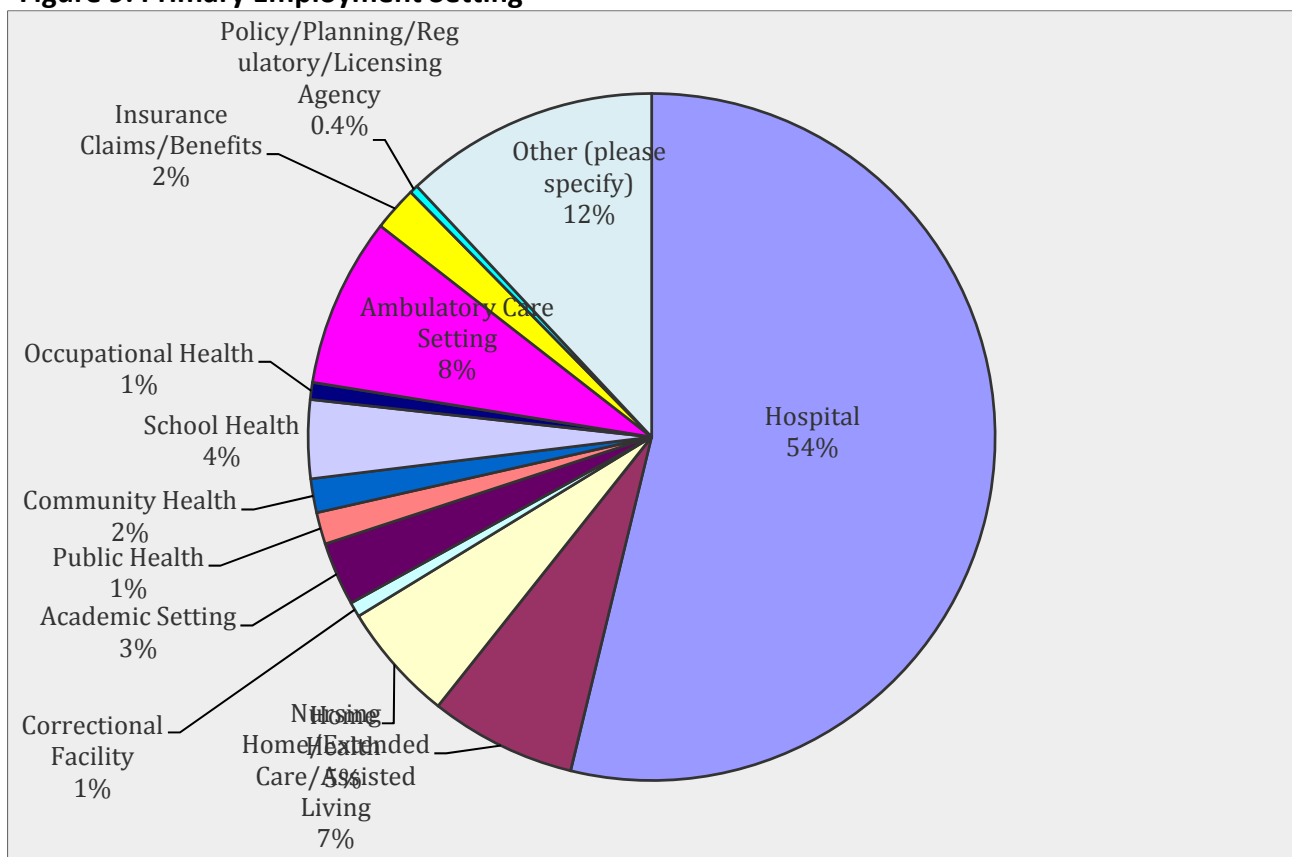
Respondents were asked to identify the type of setting that most closely corresponds to their primary nursing position. The primary employment setting of nurse respondents is described in Figure 9 (above). The main employment for RNs is in a hospital/acute care setting (54%). The remainder are employed in a myriad of settings; the most common are ambulatory and nursing homes and include community, school, extended care, and home health. The high percentage of nurses employed in acute

care is essentially unchanged from the 2014 survey, which indicated that 53.52% of respondents were employed in acute care. But considering that in the 2000 survey 64.4% were employed in a hospital setting the number is trending downward. This shift in care setting reflects an increased focus on RN positions in non-acute care, community settings. These settings carry an increased focus on health promotion, disease prevention, and wellness. Nurses play a critical role in optimizing health outcomes through a traditional and evolving focus in areas such as care coordination, health promotion and quality improvement.[3] It will be important that nursing school curriculums adjust their emphasis to include these foci.

Figure 10: Position Title

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

- Staff Nurse
- Administrator/ Manager
- Other-Health Related
- Patient Care Coordinator
- Faculty
- Consultant
- Executive

67% 33% 8% 5% 3% 12% 2% 1% 1% 0% 1%
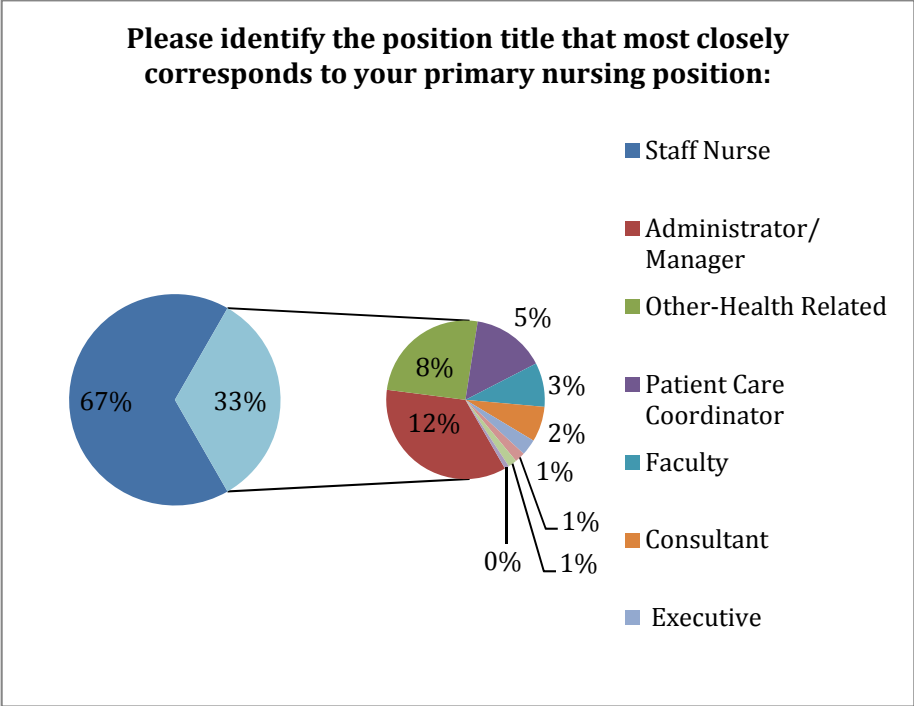
In their employment settings approximately two thirds (66.6%) of the respondents provide direct patient care as staff nurses (Figure 10). The next most common position title is nurse manager or administrator (11.8%), followed by patient care coordinator (5%), and nursing faculty (3%). This is similar to the 2014 RN survey report where 66.05% respondents identified as staff nurse, and 11.23% as nurse manager.

Employment specialty displays the breadth of clinical specialty knowledge areas required for the RNs primary position. For this question, more than one clinical specialty knowledge area could be selected by respondents. The most frequently reported knowledge areas were medical (18%), surgical (9.5%), acute care/critical care/intensive care (20.7%), and maternal-child (11.6%).

Figure 11: Age by Employment Specialty – Percentages

Age by Employment Specialty	Age Range									
Employment Specialty	<30	30-34	35-39	40-44	45-49	50-54	55-59	60-65	>65	Total
Acute Care	11%	10%	10%	10%	9%	8%	8%	8%	5%	9%
Adult Health	3%	2%	3%	3%	3%	3%	3%	3%	4%	3%
Anesthesia	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Community	1%	1%	1%	1%	1%	1%	1%	2%	3%	1%
Critical Care	11%	12%	9%	8%	8%	5%	5%	4%	3%	7%
Emergency	7%	8%	8%	6%	6%	4%	4%	3%	2%	5%
Family Health	1%	1%	1%	1%	1%	2%	2%	2%	2%	1%
Geriatric/Gerontology	4%	5%	5%	6%	6%	5%	6%	6%	9%	6%
Home Health	2%	2%	3%	4%	4%	4%	5%	5%	8%	4%
Maternal-Child Health	5%	5%	5%	5%	4%	4%	4%	4%	3%	4%
Medical	10%	6%	6%	5%	5%	5%	4%	4%	3%	5%
Neonatal	3%	2%	2%	2%	2%	2%	2%	2%	1%	2%
Nephrology	1%	1%	1%	2%	1%	1%	1%	1%	1%	1%
Occupational Health	0%	0%	1%	1%	1%	1%	1%	1%	2%	1%
Oncology	3%	3%	2%	3%	3%	3%	3%	2%	1%	3%
Palliative Care	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%
Pediatrics	5%	5%	4%	3%	3%	4%	3%	3%	3%	4%
Perioperative	2%	3%	3%	3%	3%	3%	3%	4%	2%	3%
Primary Care	1%	1%	2%	1%	1%	1%	2%	1%	1%	1%
Psychiatric/Mental Health/Substance Abuse	3%	3%	3%	3%	4%	4%	3%	4%	5%	4%
Public Health	1%	1%	1%	1%	1%	2%	2%	2%	2%	1%
Rehabilitation	3%	3%	2%	3%	3%	2%	3%	2%	2%	2%
School Health	1%	1%	2%	3%	3%	4%	4%	4%	4%	3%
Surgical	7%	7%	7%	6%	6%	7%	6%	6%	5%	6%
Tele-health	4%	3%	3%	2%	3%	2%	2%	2%	1%	2%
Trauma	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Women's Health	1%	2%	1%	1%	1%	1%	1%	1%	1%	1%
Other	10%	10%	13%	14%	15%	19%	20%	22%	24%	17%

Employment specialty by age cohorts is illustrated in Figure 11. There are subtle but notable differences with acute/ critical care, emergency, medical and telehealth commanding greater shares within young cohorts. Specialty areas with larger shares in older cohorts include psychiatric/mental health/substance abuse, school nursing, geriatric/gerontology and community health This is particularly concerning given the high need for mental health and the anticipated rise in the geriatric population.

A summary of Employment Specialty is described in Figure 12 (below); this summary reflects a combining of employment specialty responses based on similarities in specialty, acuity or geography-where the care is provided. Certain specialties are shown separately due to the uniqueness of their care or setting (e.g. Maternal-Child Health; Palliative Care). In the current study, 8.73% of respondents

indicated acute care as their primary practice specialty, followed by 6.72% who reported a specialty in critical care and 6.19% reported a surgical specialty. RNs also reported employment specialties in geriatric/gerontology (5.88%) and medical (5.1%). All other specialties were reported at less than 5 percent. The specialties that were combined are as follows:

- **Acute Specialties**: Acute Care (8.73%), Critical Care (6.72%), Emergency (4.87%), Trauma (0.37%), Neonatal (2.11%)

- **Community, Health Promotion**: Community (1.35%), Home Health (4.19%), Public Health (1.31%), School Health (3.31%)

- **Family** – includes Pediatrics through Gerontology/Geriatrics: Family Health (1.46%), Primary Care (1.29%), Geriatric/Gerontology (5.88%), Adult Health (3.05%), Pediatrics (3.75%), Women's Health (1.20%)

- **Maternal-Child Health (**4.49%)

- **Medical, includes Specialties:** Medical (5.10%), Nephrology (1.17%), Oncology (2.81%), Rehabilitation (2.45%), Occupational Health (1.05%)

- **Other**: respondents listed individual specialty titles (17.31%)

- **Palliative Care** (0.63%)
- **Psychiatric/Mental Health/Substance Abuse** (3.59%)
- **Surgical, Perioperative: Anesthesia** (0.18%), **Perioperative** (3.09%), **Surgical** (6.19%)
- **Tele-health** (2.35%)

Figure 12: Employment Specialty – Summary

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IDFPR/ILLINOIS CENTER FOR NURSING RN SURVEY REPORT
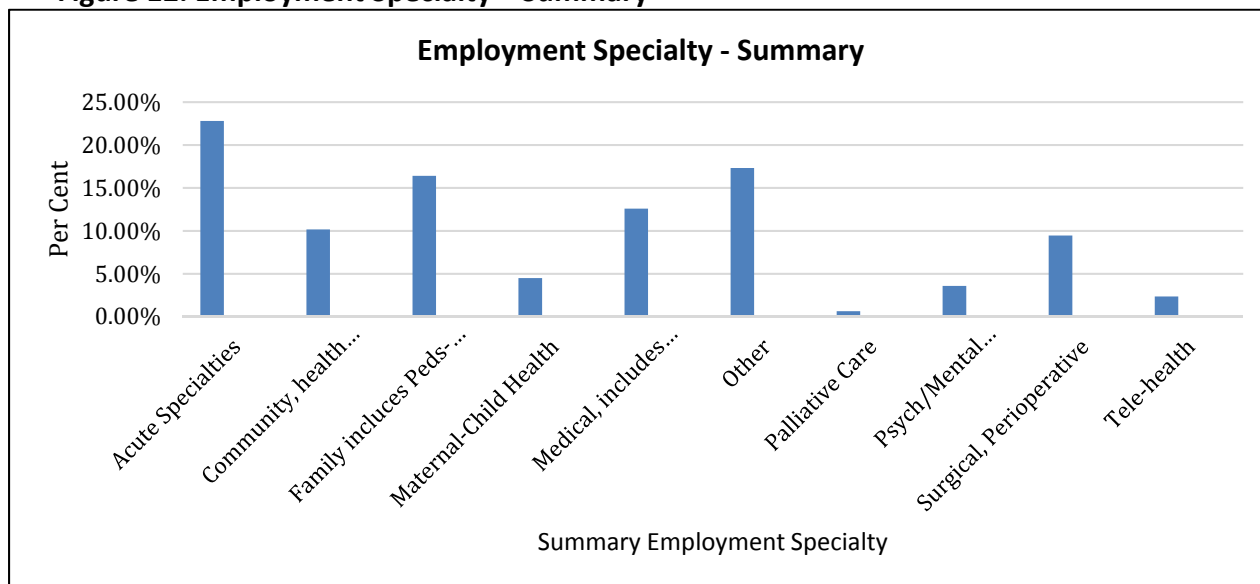
Geography

Location-oriented data are collected through four questions on the survey. Question #6 gathers information on country of initial licensure, questions #13 and #14 have respondents identify all states of current licensure and practice, and question #19 asks respondents for the state and zip code of their primary employer. This report uses the employer zip code to provide location-oriented views of the Illinois RN workforce. Employer locations within Illinois have been consistently identified for more than 75% of the full participant sample. While not displayed in graphs, data collected indicates that slightly more than 90% of survey respondents have only an active license in Illinois, with the next highest number (1-2.5%) have additional licenses in states bordering Illinois (Indiana, Iowa, Missouri, Wisconsin).

Employment Location

Location data are collected in the question which asks respondents for the state and zip code of their primary employer. In the current study, 90% of respondents indicated their employment zip code is in the state of Illinois. Other states represented by respondents are listed in Figure 13 (below). The states with the highest number of primary employer zip codes are the states bordering Illinois: Indiana, Iowa, Missouri and Wisconsin, these are highlighted in yellow.

Figure 13: Location, Zip Code of Primary Employer

State	n	State	n	State	n	State	n	State	n	State	n
AK	5	FL	203	KY	77	NC	31	OR	11	WA	19
AL	13	GA	51	LA	9	ND	7	PA	54	WI	381
AR	16	GU	4	MD	18	NE	16	SC	17	WV	5
AZ	108	HI	7	MI	70	NM	11	SD	5	WY	4
CA	174	IA	410	MN	74	NV	30	TN	44		
CO	60	ID	35	MO	526	NY	24	TX	157		
DC	3	IN	410	MS	7	OH	49	UT	5		
DE	1	KS	19	MT	5	OK	8	VA	26		

Illinois counties are the common denominator for geographic information presented. There are 102 counties in the state and each of the zip codes in survey responses has been assigned to the corresponding county. Note that the figures represent RNs responding to the survey as opposed to all RNs in a county; also note that location is based on reported employer location not RN residence.

Employment location of the respondents corresponds to major metropolitan areas. Data reported as zip code were coded by county according to the U.S. Postal Service zip code designations. The distribution of survey respondents is illustrated in Figure 14 (below), which demonstrates a heat map by county of employment responses. All Illinois counties were represented in the survey, with the highest number of respondents in Cook and the five collar counties: Du Page, Kane, Lake, McHenry and Will counties. The next highest numbers were in Winnebago, Sangamon, St. Clair and Champaign counties, followed by McLean and Madison counties. Given the geography of population density in Illinois it is not surprising that RNs are generally clustered where people are generally clustered. 6, 693 individuals skipped this question.

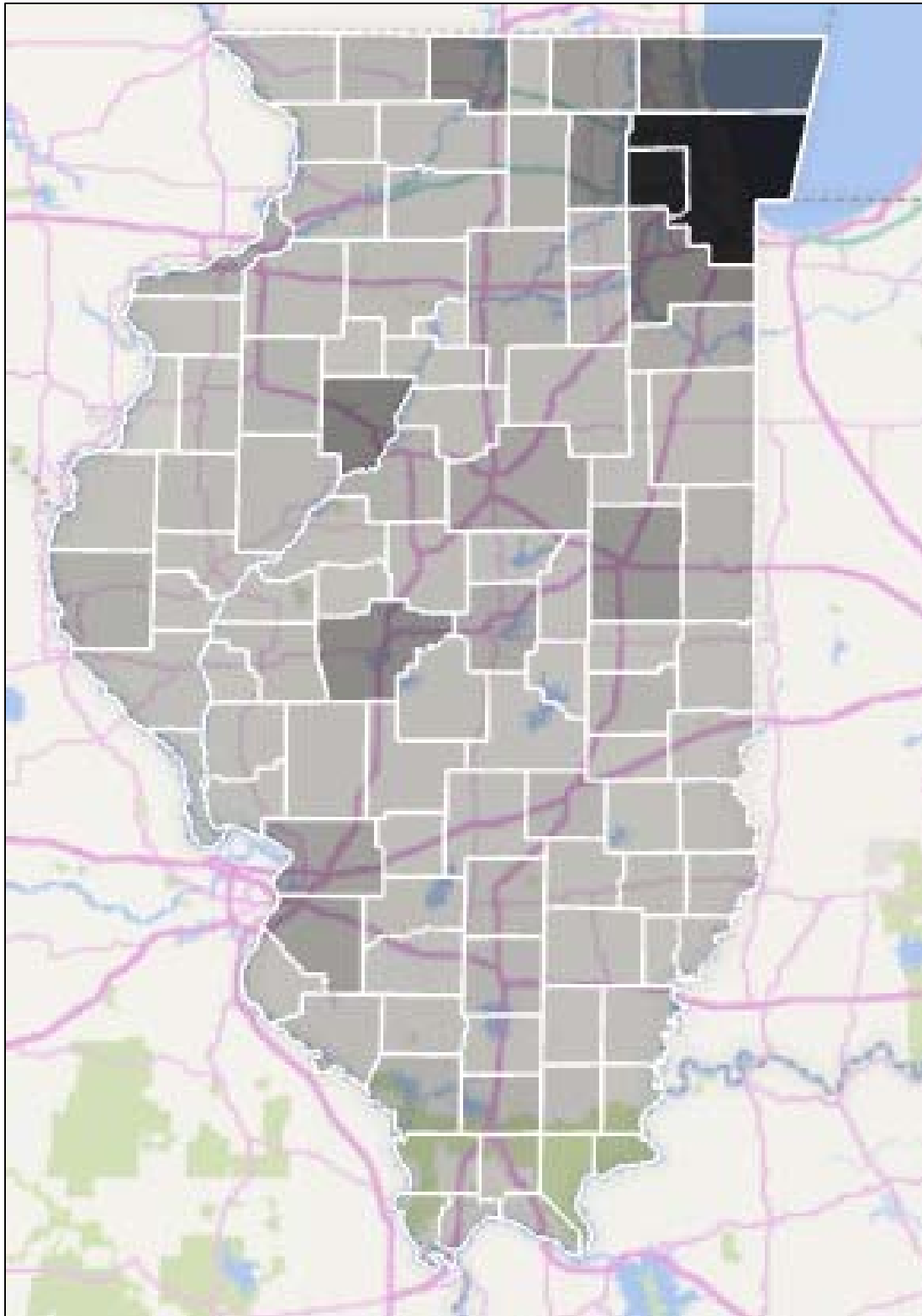**Figure 14: Heat Map of Zip Codes by Primary Employer**

Figure 15 (below) is the list of all 102 Illinois counties and the total number of respondents from each county.

Figure 15: Primary employer zip codes – total numbers

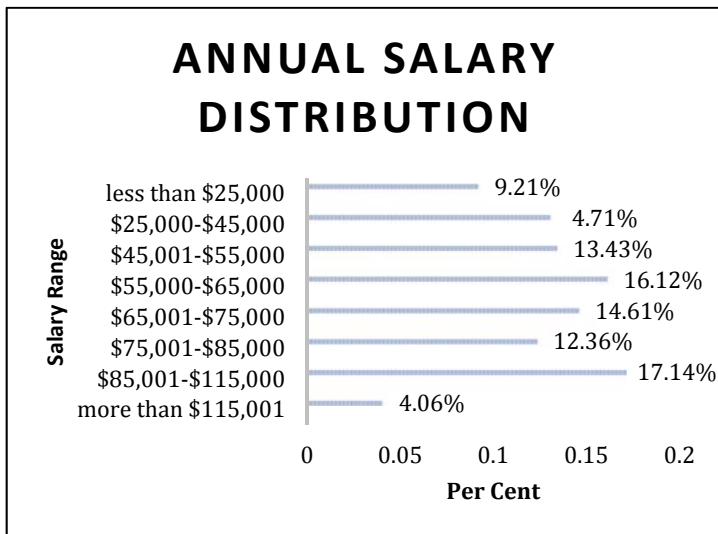| County	Count	County	Count	County	Count
Adams County	247	Henderson County	2	Ogle County	65
Alexander County	3	Henry County	69	Peoria County	1060
Bond County	35	Iroquois County	63	Perry County	43
Boone County	38	Jackson County	219	Piatt County	22
Brown County	8	Jasper County	8	Pike County	29
Bureau County	76	Jefferson County	145	Pope County	2
Calhoun County	6	Jersey County	20	Pulaski County	8
Carroll County	15	Jo Daviess County	25	Putnam County	2
Cass County	10	Johnson County	10	Randolph County	65
Champaign County	651	Kane County	907	Richland County	58
Christian County	60	Kankakee County	295	Saline County	65
Clark County	12	Kendall County	103	Sangamon County	861
Clay County	31	Knox County	168	Schuyler County	20
Clinton County	58	Lake County	1312	Scott County	3
Coles County	154	LaSalle County	262	Shelby County	17
Cook County	10698	Lawrence County	29	St. Clair County	550
Crawford County	50	Lee County	80	Stark County	4
Cumberland County	7	Livingston County	76	Stephenson County	161
De Witt County	17	Logan County	58	Tazewell County	220
DeKalb County	224	Macon County	323	Union County	41
Douglas County	11	Macoupin County	52	Vermilion County	180
DuPage County	2658	Madison County	485	Wabash County	26
Edgar County	38	Marion County	132	Warren County	31
Edwards County	7	Marshall County	22	Washington County	17
Effingham County	142	Mason County	25	Wayne County	25
Fayette County	31	Massac County	22	White County	17
Ford County	38	McDonough County	79	Whiteside County	59
Franklin County	42	McHenry County	493	Will County	1017
Fulton County	97	McLean County	415	Williamson County	222
Gallatin County	4	Menard County	13	Winnebago County	943
Greene County	25	Mercer County	16	Woodford County	63
Grundy County	126	Monroe County	20		
Hamilton County	13	Montgomery County	53		
Hancock County	19	Morgan County	86		
Hardin County	3	Moultrie County	8		

Earnings

ANNUAL SALARY DISTRIBUTION

less than $25,000   9.21%
$25,000-$45,000   4.71%
$45,001-$55,000   13.43%
$55,000-$65,000   16.12%
$65,001-$75,000   14.61%
$75,001-$85,000   12.36%
$85,001-$115,000   17.14%
more than $115,001   4.06%

Salary Range (y-axis)

Per Cent (x-axis): 0, 0.05, 0.1, 0.15, 0.2

Figure 16: Earnings. The final question of the 2016 RN survey asks "what is your current annual salary for your primary nursing position?", Twenty intervals were provided. About 15% of RNs did not respond. The median response was $65,000 to $70,000, with reported values throughout the full range of possibilities. The United States Department of Labor, Bureau of Labor Statistics national average shows an annual mean income for RNs working in Illinois to be $70,890, (#29-1141) https://www.bls.gov/oes/current/oes_il.htm#29-0000

Limitations

There are several limitations to this survey report. First, there was a 23.3% response rate to the voluntary survey offered to individual registered nurse (RNs) during on-line license renewal. This limits conclusions that can be drawn from the survey. While responses were received from all 102 Illinois counties, some counties have few respondents making it difficult to discern if response rate is low because of the small number of RNs in that region or some other reason that impacted rate of response. The data were compared with the Illinois Department of Financial and Professional Regulation (IDFPR) database, and the voluntary responses are reflective of the Illinois RNs with respect to age. The IDFPR license database collects limited information during the license renewal process so it is difficult to compare other categories of survey data to the larger population of RNs.

Discussion

Illinois continues to have a robust RN workforce with practice in every setting where health care is delivered. However, the data raise several concerns around sustaining this workforce. The registered nurse (RN) workforce is an aging group, with 50.18% respondents over the age of 55 years, which is approximately an 8% increase in this age cohort of Illinois RNs since 2014. In addition, one fourth of respondents indicated an intent to retire within the next five years. Also, note that since a significant number did not answer this question, there is no way of knowing how many of these non-responders are already retired. Overall, the number of graduates from pre-licensure RN programs has held steady in the last 3-4 years, though the number of associate degree RN graduates has decreased from 41 to 36%.[4] Given anticipated retirements, this raises the concern that the rate of nurses retiring will outpace the number of new nurses entering the workforce.

A second related concern involves the RN pipeline and adequate faculty to teach in Illinois nursing programs. In Illinois, RN pre-licensure nursing education requires that faculty teaching RN students have at least a master's degree with a major in nursing. A doctoral degree is often required to teach graduate nursing education, both Advanced Practice Registered Nurses (APRNs) and nursing education programs. Eighty- eight percent of RN respondents do not plan on continuing their education which could result in a shortage of masters and doctorally prepared faculty. Having enough nursing faculty to maintain the nursing education pipeline is essential to the supply of nurses required to maintain and improve the health status of Illinois citizens.

The actual supply and demand for nurses in Illinois demands additional consideration. Nationally there has been considerable debate around nursing supply and demand. In discussing the nursing pipeline, Salsberg[5], a workforce expert, commented that after 14 years of steady growth, the number of newly educated RNs in America appears to be leveling off. Yet the recent RN workforce report of the U.S. Health Resources and Services Administration[6] (HRSA) estimates a surplus of RNs by 2020 in particular states. The HRSA model is described as a micro-simulation model that uses data on individuals to develop forecasts. This model assumes that supply and demand for RNs was balanced in 2012, graduations will remain stable at the 2012 rate and employment patterns will not change notably. This model does not acknowledge that enrollment in nursing pre-licensure education

programs is susceptible to the fragile supply of nurse educators. HRSA also acknowledges that state data based on licensure data holds more accurate predictions. For Illinois, there was a shortage of RNs based on the 2011 demand study [7] and the 2014 and 2016 RN reports indicate significant retirements. Thus, in Illinois there is reason to be concerned about the future supply of RNs.

An informed discussion on RN demand/capacity must also consider the nursing competencies that will be demanded in new models of care, such as team based care and health homes.[8] Another dynamic impacting RN roles is the shift in health care from acute to non-acute care with the increased emphasis on health promotion and disease prevention. [9] There is some shifting away from employment in acute care settings (64% in 2014 to 53.4% in 2016) and a movement to Family health (Pediatrics-through-Geriatrics/Gerontology) (16.4% of respondents) and, Community/Health Promotion (10.16%). However, the data indicating that nurses in the younger age cohorts continue to choose acute care nursing roles, raises concerns around the nursing workforce that will be needed to meet health care demands created by service delivery changes, population shifts and health care transformation. It would be helpful to have a better understanding of the drivers for choosing an RN degree, and how the profession might optimize each individual's interest in a nursing career. As we engage in workforce planning what must be considered is the movement of RNs to community roles and the training that will demand. As the need for more RNs and health care providers in non-acute care settings grows, educators must consider how to assist in retraining the acute care RN workforce.

One in four Americans experience a behavioral health illness each year, and the majority of those individuals also suffer from a comorbid physical health condition.[10] Given the increased demand for behavioral health services it is concerning that a limited number of Illinois nurses are choosing psychiatric- mental health nursing. Moreover, between 30 to 80% of all primary care visits are driven, in part, by behavioral health issues, necessitating that primary care physicians (PCPs) provide mental health care and substance use disorder services.[11]   RNs are well suited for integrated care given the wide breadth of skills and emphasis on holistic health.[12] Work force planning for behavioral health will demand consideration of how to optimize the RN role in these new models of care.[13]

There are additional concerns raised in this report, particularly around the diversity of the RN workforce. In several of the younger cohorts there is decreasing diversity, particularly African American nurses. Perhaps reflecting population trends, there is an increase of Hispanic nurses in Illinois. Vigilance

to this issue is necessary, particularly how the profession might increase diversity by optimizing entrée to nursing through community college routes and plan for smooth academic progression.[14]

Given these issues and concerns there are policy implications in five areas:

1. To assure an adequate RN pipeline, there is a need for more nursing faculty in both pre-licensure nursing education and post-licensure education, especially graduate nursing education. Incentives for nurses to enter educational programs for nursing faculty are needed, particularly PhD programs.

2. With the changing focus of where individuals receive health care and health promotion, there is a need for improved competencies in community health, both in the education setting, and in the expanding work areas.

3. Behavioral health demands are great particularly given the move to integrated care and providing behavioral health care in a variety of settings. Programs are needed to incentivize RNs to seek careers in psychiatric mental health (PMH) as well as retraining for the existing acute care PMH RN workforce.

4. Increasing the racial and ethnic diversity of the health care workforce is essential for the adequate provision of culturally competent care.

5. Given the conflicting views on the need for RNs in Illinois in the next decade, and the data indicating the retirements of a large segment of the workforce, there is a need to study demand in Illinois and build supply demand models considering all areas of the state and all RN specialties.

This report is a starting point for focusing on RN workforce in Illinois, and the gaps in the care providers that *exist and* need to be filled to meet the needs of Illinois citizens. Moving forward, policy decisions regarding nursing education and employment patterns should be based on the data obtained through the biennial RN workforce surveys. Comparisons from subsequent surveys should be analyzed for shifting trends and to evaluate progress toward meeting workforce requirements for addressing the current and future healthcare needs of Illinois.

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Appendix A

Survey Questions

Question 1: What is Your Gender?

*Question 2: Are you currently licensed as an APN (CRNA, CNMW, CNP, CNS)? If yes, please cease participation.

Question 3: Are you Hispanic or Latino? (Yes or No)

Question 4: Select one or more of the following races that apply to you? (Mark all that apply):

Question 5: What year were you born? (Place a number in a box)

Question 6: In what country were you initially licensed as RN or LPN?

*Question 7: What type of nursing degree/ credential qualified you for your first U. S. nursing license?

*Question 8: What is your highest level of education?

Question 9: Are you currently enrolled in a nursing education program leading to a degree/ certificate?

Question 10: What is the greatest barrier to continuing your education? (Select only one)

Question 11: What year did you obtain your initial U.S. Licensure? (Place a number in a box)

Question 12: What is the status of the Illinois license currently held?

Question 13: Please list all states in which you hold an active license to practice as an RN:

Question 14: Please list all states in which you are currently practicing as an RN:

Question 15: What is your employment status? (Mark ALL that apply)

Question 16: If you are unemployed, not currently working as a nurse, are you: (Mark all that apply)

Question 17: In how many positions are you currently employed as a nurse:

Question 18: In how many hours per week do you work during a typical week in <u>ALL</u> your nursing positions?

Question 19: Please indicate state and zip code of your primary employer:

Question 20: Please identify the type of setting that most closely corresponds to your <u>primary</u> nursing position:

Question 21: Please identify the position title that most closely corresponds to your <u>primary</u> nursing position:

Question 22: Please identify the employment specialty that most closely corresponds to your <u>primary</u> nursing position:

Question 23: Please identify the type of setting that most closely corresponds to your <u>secondary</u> nursing position:

Question 24: Please identify the position title that most closely corresponds to your <u>secondary</u> nursing position:

Question 25: Please identify the employment specialty that most closely corresponds to your <u>secondary</u> nursing position:

Question 26: How much longer do you plan to practice as an RN in Illinois?

Question 27: If you plan to retire within the next 5 years, is there a primary factor that would persuade you to continue working as a nurse, extend your date of retirement? (Select only ONE):

Question 28: Please estimate our 2015 pre-tax annual earnings from your primary nursing position. Include overtime, on-call earnings, and bonuses:

(*) An asterisk prior to a question indicates that the question is mandatory and must be answered in order for the respondent to continue.