



ILLINOIS CENTER FOR NURSING

Licensed Practical Nurse Workforce Survey Report 2015

Acknowledgements

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

- The Governor of Illinois, Bruce Rauner; the Secretary of the Illinois Department of Financial and Professional Regulation (IDFPR), Bryan A. Schneider; and the Director of Professional Regulations, Jay Stewart, for their support and interest in the study of nursing workforce.
- The Illinois Center for Nursing Advisory Board:
 - Maureen Shekleton, PhD, RN, FAAN, Chairperson
 - Donna Meyer, RN, MSN, Vice-chairperson
 - Julie Bracken, MS, RN, CEN
 - Kathleen Delaney PhD, PMH-NP
 - Corinne Haviley, RN, MSN, PhD
 - Donna L. Hartweg, PhD, RN,
 - Carmen C. Hovanec, MSN, RN
 - Janet Krejci, PhD, RN
 - Mary Lebold, EdD, RN
 - Marsha A. Prater, PhD, RN
 - Deborah A. Terrell, PhD, FNP-BC, RN

Completed in 2015, under the leadership of the Illinois Center for Nursing's Advisory Board of Directors, this survey was the first Illinois Licensed Practical Nurse (LPN) workforce study offered with individual on-line licensure renewal.

The survey was accomplished through the collaboration of the following Illinois Department of Financial and Professional Regulation sections: the Division of Professional Regulation's Licensing and Testing Section, Nursing Section, Illinois Center for Nursing (ICN), the IDFPR's Information Technology Section, and the Office of the Secretary.

We owe a special thanks to: the ICN Data Workgroup: Kathleen R. Delaney, PhD, PMH-NP – Chairperson; Julie Bracken, MS, RN; and Corinne Haviley, RN, MS, PhD, who provided strategic guidance in the design and production of the report. Our thanks also go to Cab Morris IDFPR Deputy Director of Strategy and Operational Performance; data analyst, Ron Payne, Labor Market Economist, Illinois Department of Employment Security; Michele Bromberg, MSN, APN, IDFPR Nursing Coordinator and the first ICN Chairperson; and Linda B. Roberts, MSN, RN, ICN Manager.

Special thanks to the nurses licensed in Illinois who responded to the survey. The feedback provided will make a significant contribution to planning health services in Illinois, specifically those focused on the nursing workforce.

Executive Summary

Illinois Center for Nursing Licensed Practical Nurse Survey 2015

This report details the results of the 2015 Illinois Licensed Practical Nurse (LPN) workforce survey. The survey was structured to capture data on the demographics, education, workplace settings, and state distribution of LPNs in Illinois. The survey was conducted during the 2015 LPN license renewal period from 11/7/2014 to 1/31/2015. This year in Illinois over 85% of LPNs completed their license renewal via the on-line platform. At the conclusion of the renewal process, there was a link to the survey along with an explanation of its purpose. The survey was voluntary and was completed by 6,613 LPNs representing 21.7% of the total LPN population in Illinois.

General Overview

Data on the characteristics, size, practice foci, educational pipeline and distribution of LPNs in the State of Illinois is essential to planning for provision of essential health care services to many groups of Illinois Citizens, particularly the elderly and home bound. This report contains data on the demographics of our current LPN workforce, the relative numbers of LPNs in each age group, their workplace and their plans for retirement; data which is essential for State workforce planning.

Age of the workforce

Similar to the RN workforce, LPNs are an aging group; 27% of the respondents are between the ages of 55-64 years. Taken together with the 65+ and 45-54 age groups, the data indicate that 59% of the LPN workforce falls into upper age ranges. Serious concerns about the capacity of this group to meet future population's health needs surface when one considers that, on the question related to retirement and plans to leave the workforce, one third of the group that responded plans to do so in one to five years. Interestingly half of the LPNs in the younger age group, 25 years and under (N=114) also plan on retiring in one to five years. It is not known what these younger LPNs are considering following retirement.

Diversity

The LPN group, particularly in comparison to the RN workforce, is a racially diverse group. Twenty five percent of respondents to the question on race placed themselves in the Black/African American category. The largest percent of this group was in the 35-44 year age range but the percent was high across all age groups (17.9-31.8%). Interestingly the Hispanic/Latina percent was highest (8%) in the younger age groups. The gender diversity is low and relatively even across age groups with slightly more males in the younger age groups. While there is a clear need to increase diversity in the nursing workforce, the LPN group demonstrates some promising trends.

Workplace Settings

Nursing homes/extended care/assisted living environments were the primary workplace settings for close to half of the respondents (48%). Another large group of LPNs (11%) practice in home health. Of concern is that close to 30% of the LPNs who practice in nursing homes/extended care plan on retiring in one to five years. Demand projections for this workforce depend on the anticipated shift from nursing to home health

care for the elderly but long term employment growth is expected to continue into 2030 (Spetz, Trupin, , Bates, & Coffman, 2015). . Combining workplace setting, age and intent to retire data have clear implication for Illinois workforce planning groups, particularly the need to focus on the nursing home/ home health population, its growth, service needs and the demand/workforce capacity imbalance.

Distribution

Illinois LPNs are generally clustered in the dense Cook County (26.4%) population. The ratio of LPNs to population density is lowest in sparsely populated rural counties. Part of this distribution could be a result of the location of Community Colleges and Proprietary Schools that offer an LPN certification.

Summary

The LPN survey data indicate a workforce that is aging with a small younger- aged pipeline to replace retiring nurses. Discussion around workforce planning needs to occur given LPNs traditional roles in nursing homes/extended care and home care and the anticipated growth of the elderly population. An informed discussion on LPN demand/capacity must also consider the nursing competencies stipulated in new models of team based care. As we plan for the nursing workforce needed to meet health care demands created by population shifts and health care transformation, it would be helpful to have a better understanding of the drivers for choosing an LPN certification and how we might optimize each individual's interest in a nursing career.

Reference

Spetz, J., Trupin, L., Bates, T., & Coffman, J. M. (2015). Future Demand For Long-Term Care Workers Will Be Influenced By Demographic And Utilization Changes. *Health Affairs*, 34(6), 936-945

Table of Contents

| | |
|------------------------|----|
| Acknowledgements | 2 |
| Executive Summary..... | 3 |
| About the Data..... | 5 |
| 1. Demographics | 5 |
| 2. Human Capital..... | 9 |
| 3. Geography..... | 16 |
| 4. Earnings..... | 20 |
| Appendix A..... | 22 |

About the Data

The primary source of data for this report is a survey offered to individual Licensed Practical Nurses completing on-line licensure renewal. The renewal period ran from (11/7/14) to (1/31/15) and the voluntary survey yielded 6,600 participants. There were 30,350 Licensed Practical Nurses in Illinois as of January 2015. The survey includes 28 questions consistent with the national minimum dataset requirements of the National Forum of State Nursing Workforce Centers. A comprehensive record of questions and responses is provided in Appendix A. Information obtained from the survey can be categorized into four areas. Demographic information includes age, diversity (ethnicity, gender), and retirement horizon. Human capital elements are education and area of employment specialty. Job characteristics include work setting, earnings, and other details. Geographic information is derived from employer zip codes reported by participants.

Illinois Center for Nursing Licensed Practical Nurse (LPN) Workforce Survey 2014

The purpose of this report is to detail the results from the 2015 Illinois Licensed Practical Nurse (LPN) workforce survey. The survey was structured to capture data on the demographics, education, state distribution, and practice foci of LPNs in Illinois. The survey was conducted during the 2015 Illinois LPN licensure renewal period, from 11/7/14 to 1/31/15. In Illinois, over 85% of individual LPNs 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 6,600 LPNs, representing 21.7% of the total LPN population in Illinois.

General Overview

Data on the characteristics, supply and distribution of LPNs 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 LPN workforce, the relative numbers of LPNs in each age group, their cultural diversity, and educational preparation.

Demographics

Figure 1 presents the distribution of LPN survey participants by selected age categories. Age is derived from unfiltered participant responses to date of birth. The horizontal bar for each category represents both the number of responses (listed to the right) and the share of total (indicated on the axis below). The substantial share of Illinois RNs in advanced age categories represents a significant context for many other observations in this report. The value of these age categories as a cross-reference for other information is enhanced by the relatively small number of non-responses (44).

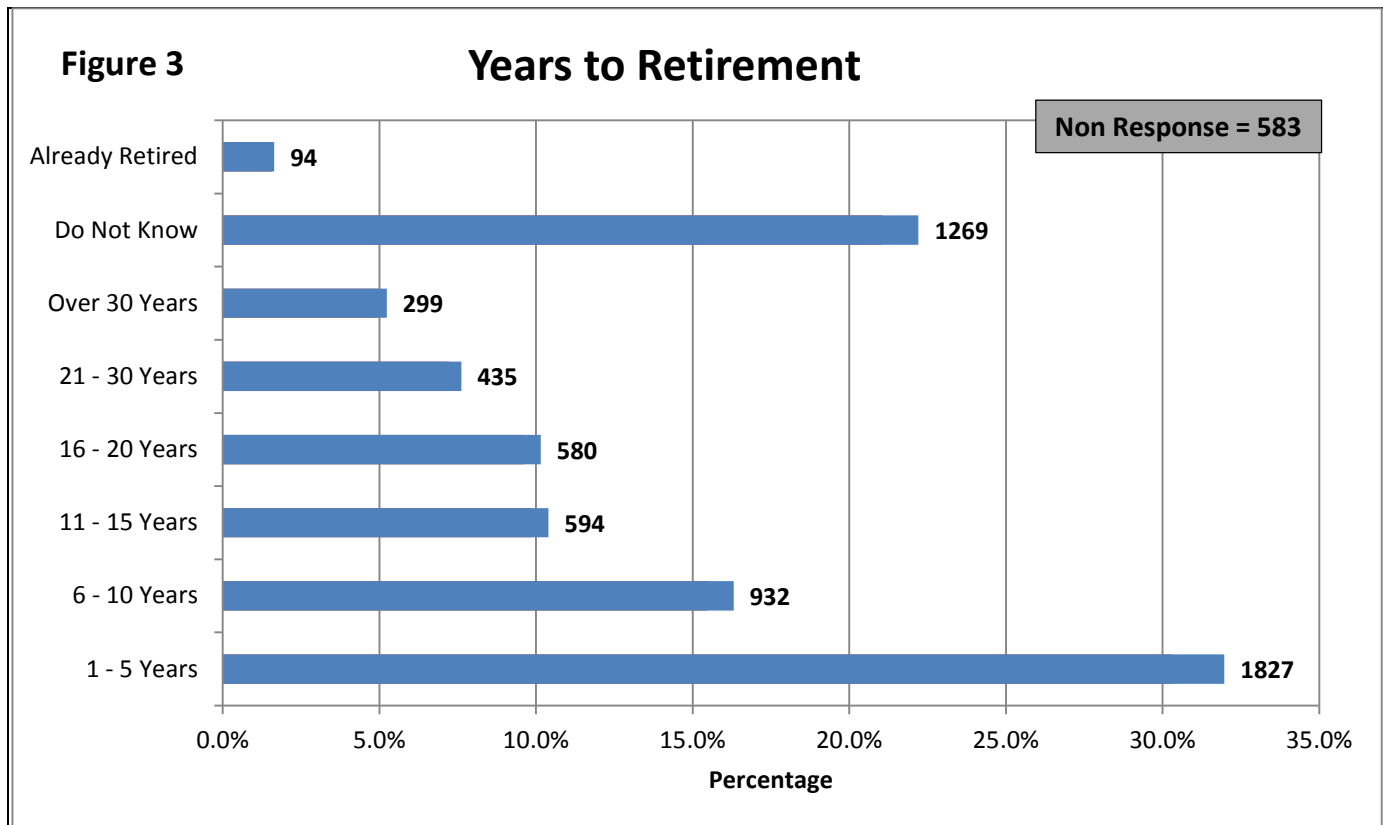
The selected age categories should facilitate comparison to data from other sources. In particular, age distribution is a common focus of other reports on the nursing workforce. Care should be taken with regard to timing of cohorts reported in other studies. Of concern is that close to 30% of the LPNs who practice in nursing homes/extended care plan on retiring in one to five years. Demand projections for this workforce depend on the anticipated shift from nursing homes to home health care for the elderly but long term employment growth is expected to continue into 2030. Spetz, Trupin, Bates & Coffman, 2015)

Age and Gender

| FIGURE 1 Gender and Age Distribution | | | | | | | |
|----------------------------------------------------------------------------------------------------|---------------|-------------------------|----------------|----------------|----------------|----------------|-----------------------|
| Gender | Totals | 25 & Younger | 26 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & Older |
| Female | 6,107 | 207 | 903 | 1343 | 1512 | 1732 | 410 |
| Male | 464 | 20 | 91 | 114 | 136 | 85 | 18 |
| Total Age Frequency | 6,571 | 227 | 994 | 1457 | 1648 | 1817 | 428 |
| Gender and Age Distribution (Percentage) | | | | | | | |
| Gender | Totals | 25 & Younger | 26 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & Older |
| Female Percentage | 92.9% | 91.2% | 90.8% | 92.2% | 91.7% | 95.3% | 95.8% |
| Male Percentage | 7.1% | 8.8% | 9.2% | 7.8% | 8.3% | 4.7% | 4.2% |
| FIGURE 2 Diversity by Age Cohorts Race, Ethnicity and Age Distribution (Non-response = 44) | | | | | | | |
| | Totals | 25 & Younger | 26 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & Older |
| Asian | 319 | 20 | 79 | 85 | 85 | 42 | 8 |
| Black/African American | 1,614 | 43 | 275 | 461 | 409 | 324 | 102 |
| Hispanic/Latino | 248 | 18 | 82 | 66 | 44 | 33 | 5 |
| Native American/Alaskan/Hawaiian/Pacific Islander | 123 | 2 | 21 | 28 | 34 | 29 | 9 |
| Other | 112 | 1 | 16 | 30 | 32 | 26 | 7 |
| White/Caucasian | 4,122 | 142 | 517 | 781 | 1034 | 1353 | 295 |
| Total Age Frequency | 6,582 | 226 | 990 | 1451 | 1638 | 1807 | 426 |
| Race, Ethnicity and Age Distribution (Percentage) (Non-response = 0.7%) | | | | | | | |
| | Totals | 25 & Younger | 26 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & Older |
| Asian Percentage | 4.8% | 8.8% | 8.0% | 5.9% | 5.2% | 2.3% | 1.9% |
| Black/African American Percentage | 24.5% | 19.0% | 27.8% | 31.8% | 25.0% | 17.9% | 23.9% |
| Hispanic/Latina Percentage | 3.8% | 8.0% | 8.3% | 4.5% | 2.7% | 1.8% | 1.2% |
| Native American/Alaskan/Hawaiian/Pacific Islander Percentage | 1.9% | 0.9% | 2.1% | 1.9% | 2.1% | 1.6% | 2.1% |
| Other Percentage | 1.7% | 0.4% | 1.6% | 2.1% | 2.0% | 1.4% | 1.6% |
| White/Caucasian Percentage | 62.6% | 62.8% | 52.2% | 53.8% | 63.1% | 74.9% | 69.2% |

Diversity of the Illinois LPN workforce is explored in Figure 2. White females constitute a substantial majority; however, there are indications of changing demographics observable across age categories. The 35-44 years of age category exhibits the greatest diversity with relative maximum percentages for African-Americans; where the 26-34 years of age category exhibits the greatest diversity for males, Asians, and Hispanic/Latina. Another notable observation from Figure 2 is the minimal ethnic diversity of the youngest age category. Compared to the recent data on the RN workforce (ICN, 2014), the LPN cohort appears to be more diverse and clustered in younger age categories.

Years to Retirement



The survey asked participants a pair of questions related to retirement plans. The distribution across selected categories of years to retirement is presented in Figure 3. The largest category is composed of LPNs within five years of intent to retire. . More than 45% of survey participants report anticipated retirement over the next decade. On this question there are a substantial number, (1,827) indicating uncertainty with regard to retirement plans, a larger number (1,269) did not know, and there were 583 non-responders.

Retirement by Age Distribution

| Figure 4 Years to Retirement and Age Distribution | | | | | | |
|----------------------------------------------------------|-------------------------|----------------|----------------|----------------|----------------|-----------------------|
| Age Range | 25 & Younger | 26 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & Older |
| 1 - 5 Years | 114 | 367 | 323 | 221 | 619 | 177 |
| 6 - 10 Years | 4 | 28 | 76 | 226 | 551 | 44 |
| 11 - 15 Years | 0 | 14 | 57 | 357 | 158 | 6 |
| 16 - 20 Years | 2 | 31 | 182 | 306 | 50 | 4 |
| 21 - 30 Years | 3 | 81 | 235 | 111 | 3 | 2 |
| Over 30 Years | 23 | 140 | 105 | 16 | 10 | 5 |
| Do Not Know | 54 | 246 | 368 | 278 | 224 | 89 |
| Already Retired | 1 | 0 | 0 | 1 | 44 | 48 |
| Age Range Total | 201 | 907 | 1346 | 1516 | 1659 | 375 |

| Years to Retirement and Age Distribution (Percentage) | | | | | | |
|--------------------------------------------------------------|-------------------------|----------------|----------------|----------------|----------------|-----------------------|
| Age Range | 25 & Younger | 26 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & Older |
| 1 - 5 Years | 56.7% | 40.5% | 24.0% | 14.6% | 37.3% | 47.2% |
| 6 - 10 Years | 2.0% | 3.1% | 5.6% | 14.9% | 33.2% | 11.7% |
| 11 - 15 Years | 0.0% | 1.5% | 4.2% | 23.5% | 9.5% | 1.6% |
| 16 - 20 Years | 1.0% | 3.4% | 13.5% | 20.2% | 3.0% | 1.1% |
| 21 - 30 Years | 1.5% | 8.9% | 17.5% | 7.3% | 0.2% | 0.5% |
| Over 30 Years | 11.4% | 15.4% | 7.8% | 1.1% | 0.6% | 1.3% |
| Do Not Know | 26.9% | 27.1% | 27.3% | 18.3% | 13.5% | 23.7% |
| Already Retired | 0.5% | 0.0% | 0.0% | 0.1% | 2.7% | 12.8% |

Figure 4 breaks down retirement information across the familiar age cohorts. It would not be unreasonable to expect a strong negative correlation between age and years to exit, however, the survey results do not fit the expectation. Except in the 45-54 years of age group, all the other age categories have the highest number of respondents, indicating the intent to retire in 1-5 years (1,600). The 45-54 years of age category plans to exit in 11-15 years

Reasons for Delaying Retirement

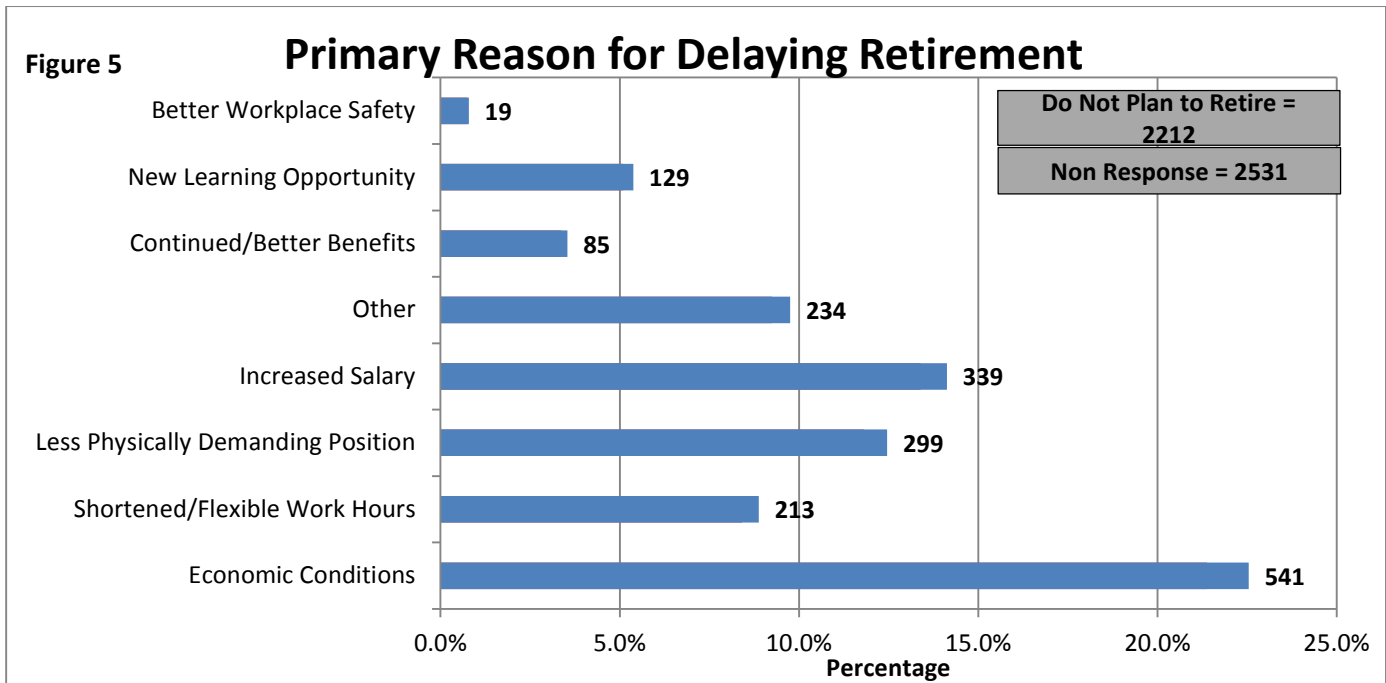
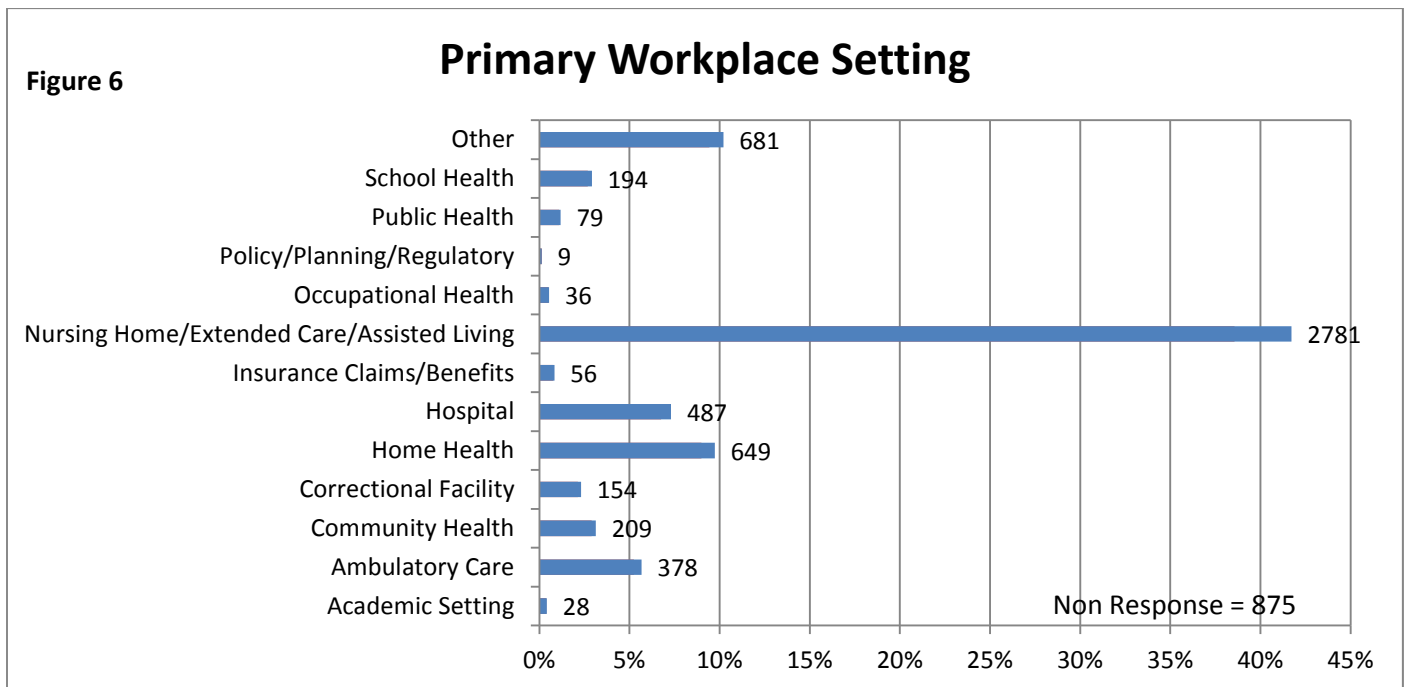


Figure 5 presents primary reasons for delaying retirement. Note first the large number of non-responses (2531) and the additional large number (2212) indicating no eminent retirement as a reason for skipping the question options. The remaining responses are ordered by frequency of response with economic conditions as the leading concern. Other popular responses highlight the reduced physical demands, and increased compensation. Economics still plays an important role in keeping people in the workplace.

Setting of Employment/Setting by Retirement



Participants were asked to identify the setting of their workplace (Figure6). Close to half of all participants who responded to this question (48%) marked Nursing home/Extended care/Assisted living as their place of work. Next closest in frequency was home health (11%) followed by hospital (8%). The range of workplace is quite varied indicating this workforce skill set fits with a variety of workplace needs.

It is interesting to note this question in terms of anticipated retirement (Figure4, page 8). These data indicate that 30% of this workforce intends to retire in the next 1-5 years. This raises concern for staffing of skilled care facilities particularly in light of the growing older adult population.

Human Capital

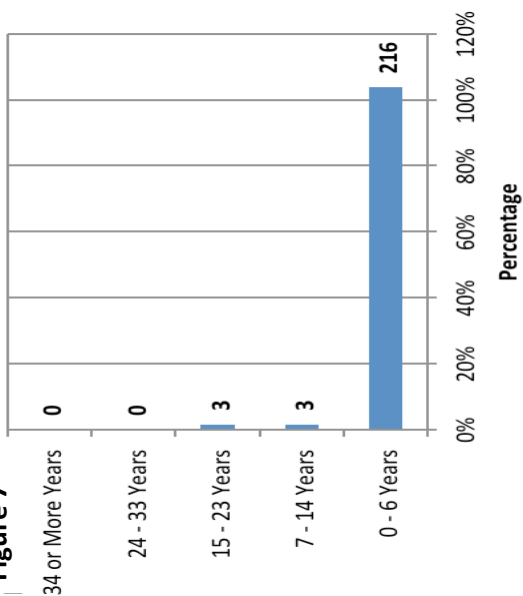
The concept of human capital encourages us to think of the workforce in terms of the productive capacity of each individual. Skills and knowledge can be general (productive in a variety of contexts) or specific (most valuable in a particular context, such as a unique industry setting or specialized occupational role). A human capital perspective is essential to our full appreciation of the role of health care, education, and workforce development in promoting economic growth and societal wellbeing. In this section we look at education and area of medical specialty in the LPN survey responses.

Experience by Age Distribution

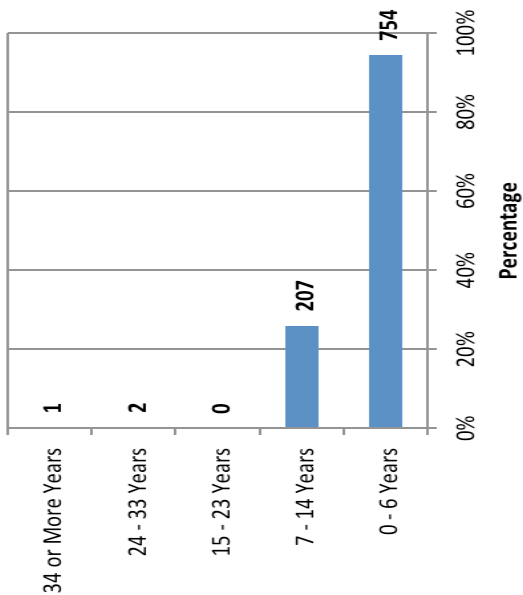
Years of experience as an LPN is another individual element of interest that can be derived from survey responses. Figure 7 (next page) is a six panel diagram that presents experience in categories of 0-6 years, 7-14 years, 15-23 years, 24-33 years and 34+ years of age. The distribution across these five experience categories is presented for each of our familiar age cohorts.

The upper left panel confirms that LPNs, in the youngest cohort, are concentrated in the least experienced group (0-6 years). At the other extreme (lower right) Figure 7 indicates that the vast majority of LPNs aged 65+years belong to the most experienced group (34+ years). However, a more complex picture emerges for age cohorts 25-34 years, 35-44 years, 45-54 years and 55-64 years of age. In each of these age categories are individuals with diverse levels of experience. This observation is consistent with heterogeneity in the timing of LPN career choices. That is, individuals enter the field at different points in the life cycle, up to their late 40's and even beyond. In the age cohort of 35-44 years of age, one cannot equate age with years of experience, which is different from the 25 years and under age cohort where the young age is equated with experience.

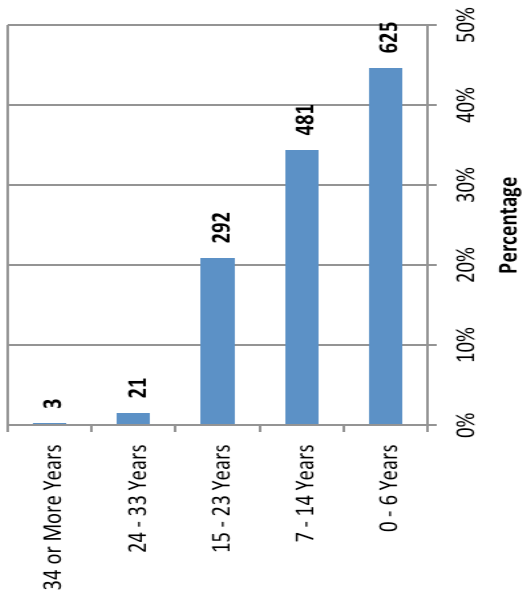
Figure 7
Experience by Age Distribution
(25 & Younger)



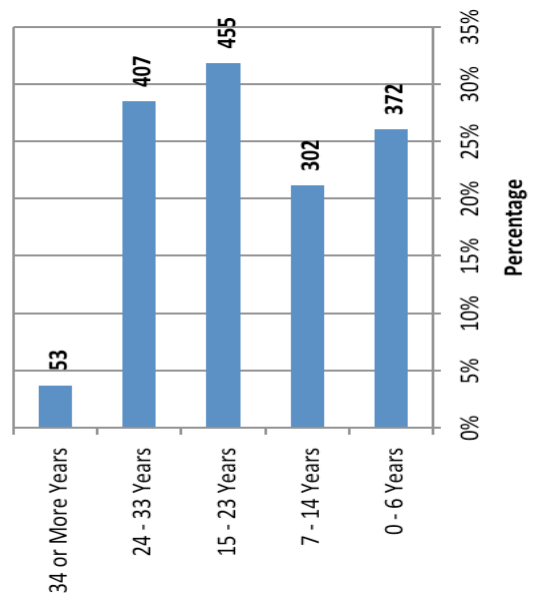
**Experience by Age Distribution
(26 - 34)**



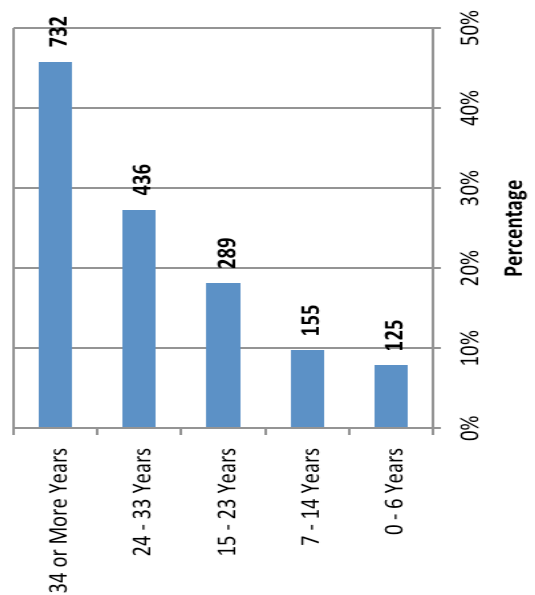
**Experience by Age Distribution
(35 - 44)**



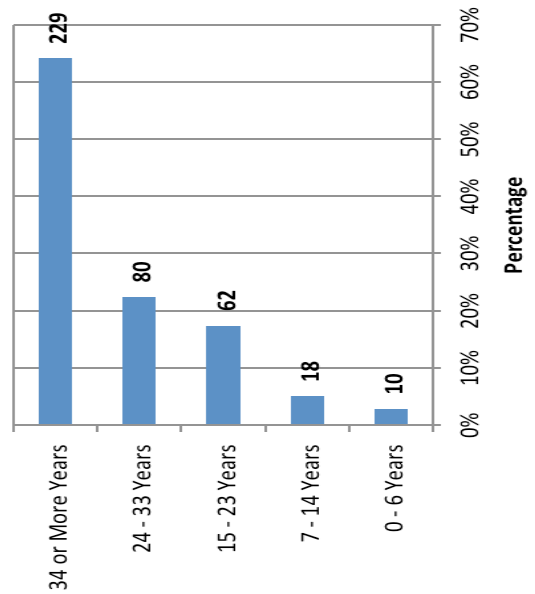
**Experience by Age Distribution
(45 - 54)**



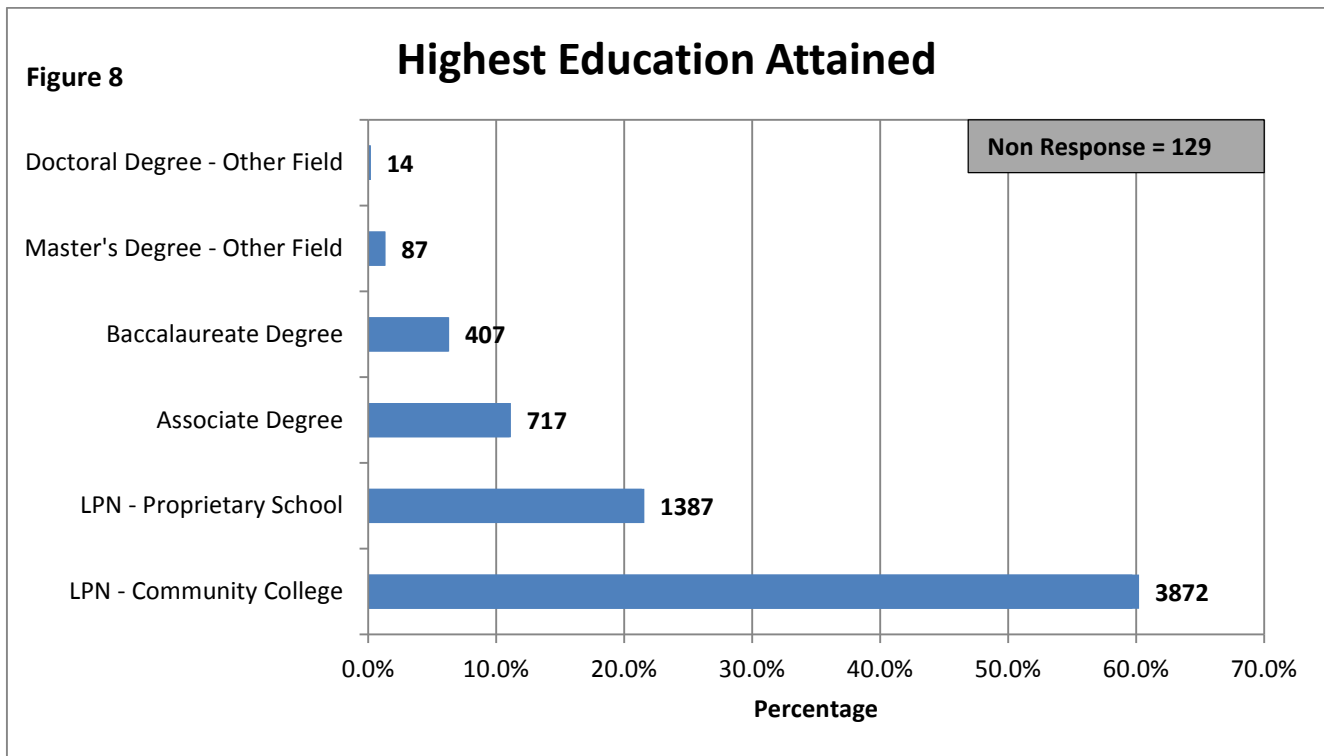
**Experience by Age Distribution
(55 - 64)**



**Experience by Age Distribution
(65 & Older)**



Educational Distribution

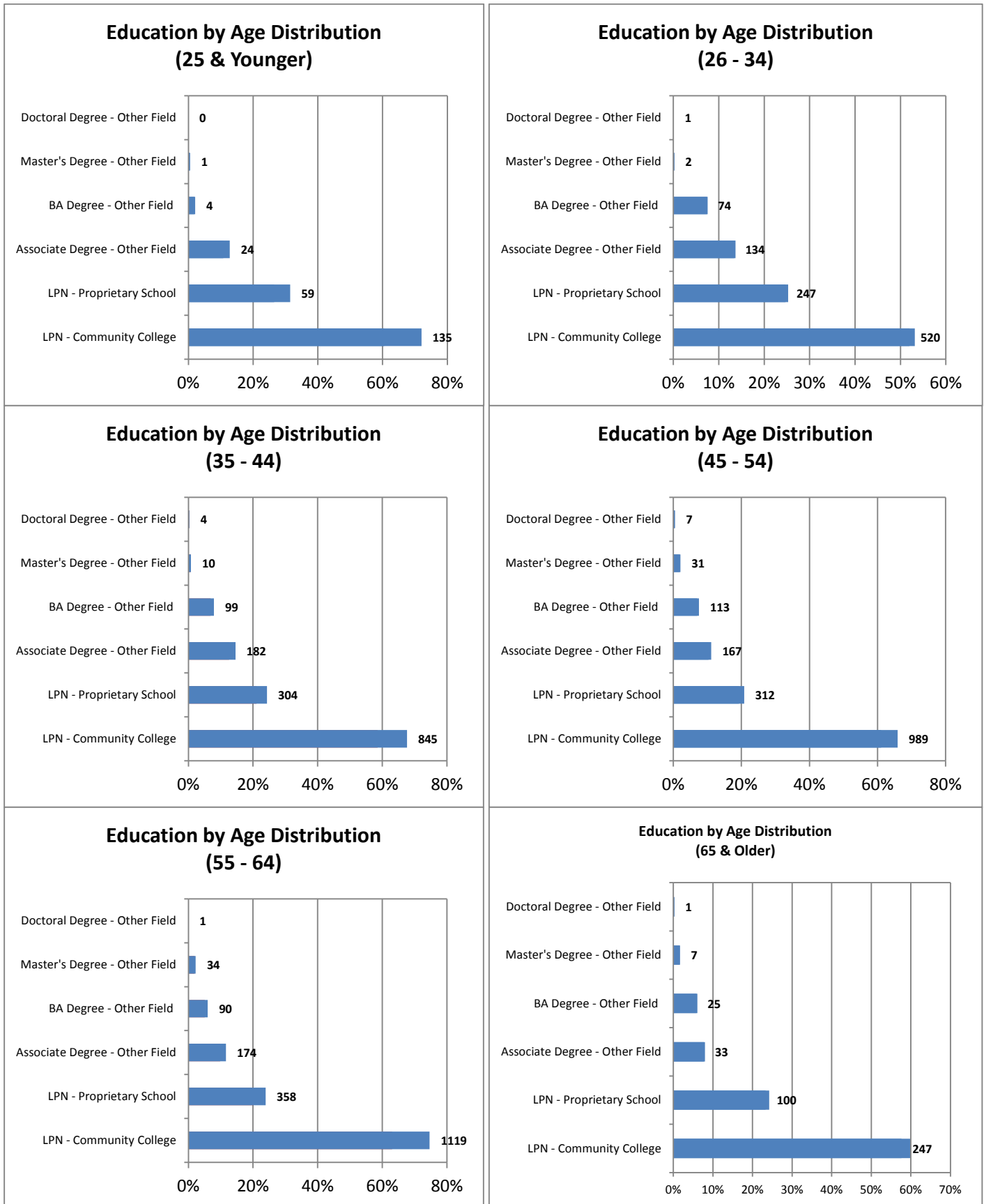


This Figure 8 presents a current snapshot of Illinois LPN educational attainment. The response frequencies choices for educational attainment are to the right of each horizontal bar and shares on the axis below for educational attainment. The categories are ordered by overall frequency with LPN obtained through a community college as the highest ranking followed by proprietary school. Advanced degrees including baccalaureate (nursing and other) constitute 7.8 percent.. Community college remains an important pipeline for the LPN workforce; this data may reflect the consistency of community college education availability for LPN education throughout the state.

Education Attained by Age Distribution

Figure 9 offers a current perspective regarding educational information within age cohorts. Educational categories are ordered by overall frequency to highlight differences in educational levels across age cohorts. It is a six panel diagram that displays the education level achieved by age. LPN achieved through the community college dominates in all age cohorts most notably in the 35 to 44 years; 45 to 54 years; and 55 to 64 years of age ranges. The number of younger nurses pursuing an LPN degree is lower than the other cohorts which may reflect the changing desire to pursue alternative degrees.

Figure 9



Workplace by Education

Figure 10

| Workplace Setting by Highest Education Attained | | | | | | |
|-------------------------------------------------|--------------------------|----------|-----------------------|----------|--------------------------------|----------|
| Workplace Setting | LPN - Proprietary School | % | LPN Community College | % | Associate Degree - other field | % |
| Academic Setting | 8 | 0.7% | 11 | 0.3% | 4 | 0.6% |
| Ambulatory Care | 84 | 6.9% | 228 | 6.7% | 41 | 6.3% |
| Community Health | 41 | 3.4% | 141 | 4.1% | 20 | 3.1% |
| Correctional Facility | 31 | 2.5% | 99 | 2.9% | 15 | 2.3% |
| Home Health | 140 | 11.5% | 355 | 10.4% | 83 | 12.8% |
| Hospital | 96 | 7.9% | 296 | 8.7% | 65 | 10.0% |
| Insurance Claims/Benefits | 16 | 1.3% | 33 | 1.0% | 4 | 0.6% |
| Nursing Home/Extended Care/Asst. Living | 592 | 48.6% | 1663 | 48.7% | 311 | 47.8% |
| Occupational Health | 7 | 0.6% | 17 | 0.5% | 4 | 0.6% |
| Policy/Planning/Regulatory | 3 | 0.2% | 2 | 0.1% | 2 | 0.3% |
| Public Health | 13 | 1.1% | 51 | 1.5% | 7 | 1.1% |
| School Health | 50 | 4.1% | 98 | 2.9% | 24 | 3.7% |
| Other | 136 | 11.2% | 424 | 12.4% | 70 | 10.8% |
| Total | 1217 | - | 3418 | - | 650 | - |

| Workplace Setting by Highest Education Attained | | | | | | |
|-------------------------------------------------|-------------------------|----------|------------------------------|----------|-------------------------------|----------|
| Workplace Setting | BA degree - other field | % | Masters degree - other field | % | Doctoral degree - other field | % |
| Academic Setting | 4 | 1.2% | 1 | 1.4% | 0 | 0.0% |
| Ambulatory Care | 18 | 5.3% | 3 | 4.3% | 0 | 0.0% |
| Community Health | 6 | 1.8% | 1 | 1.4% | 0 | 0.0% |
| Correctional Facility | 6 | 1.8% | 1 | 1.4% | 0 | 0.0% |
| Home Health | 57 | 16.8% | 7 | 10.1% | 3 | 27.3% |
| Hospital | 26 | 7.6% | 2 | 2.9% | 0 | 0.0% |
| Insurance Claims/Benefits | 1 | 0.3% | 1 | 1.4% | 1 | 9.1% |
| Nursing Home/Extended Care/Asst. Living | 156 | 45.9% | 37 | 53.6% | 6 | 54.5% |
| Occupational Health | 5 | 1.5% | 2 | 2.9% | 0 | 0.0% |
| Policy/Planning/Regulatory | 0 | 0.0% | 1 | 1.4% | 1 | 9.1% |
| Public Health | 5 | 1.5% | 3 | 4.3% | 0 | 0.0% |
| School Health | 16 | 4.7% | 3 | 4.3% | 0 | 0.0% |
| Other | 40 | 11.8% | 7 | 10.1% | 0 | 0.0% |
| Total | 340 | - | 69 | - | 11 | - |

Figure 10 reflects the workplace setting reported and highest educational level. Not surprising, LPNs are most frequently utilized in the Nursing Home/Extended Care/Assisted Living environment followed by Home Health and the Hospital setting regardless of their highest education attained. The shift to Policy/Planning/Regulatory and Insurance Claims areas is noted in the Master and Doctoral degree preparedness however work in the Nursing Home/Long term care setting prevails.

Current Enrollment Patterns

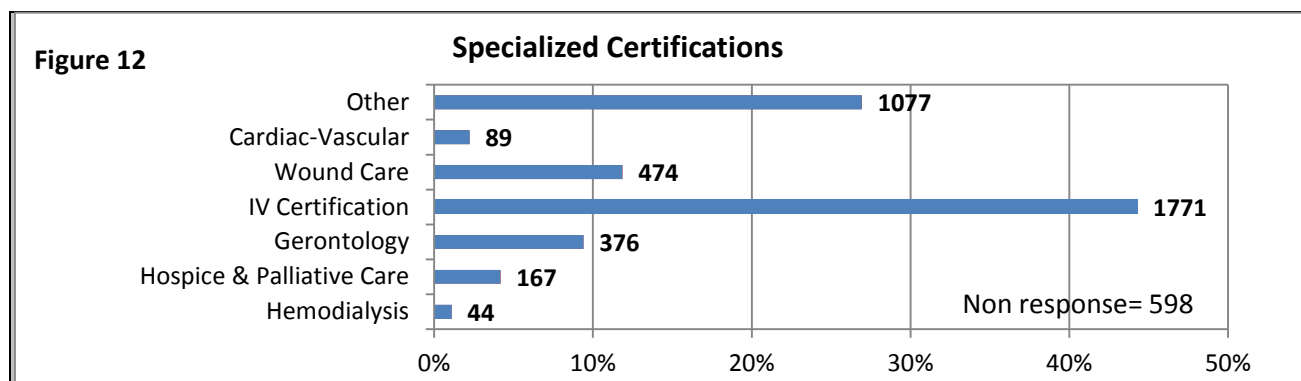
Figure 11

| Currently Enrolled in a Nursing Education Program by Age Distribution | | | | | | | |
|-----------------------------------------------------------------------|--------------|------------|------------|------------|------------|------------|-------------|
| Degree Program Enrolled In | 25 & Younger | 26 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 & Older | Total |
| Associate Degree | 74 | 195 | 216 | 132 | 32 | 3 | 652 |
| Baccalaureate Degree | 20 | 85 | 72 | 52 | 22 | 3 | 254 |
| Masters Degree | 0 | 3 | 0 | 5 | 2 | 0 | 10 |
| Post-Masters Certificate | 0 | 0 | 1 | 3 | 0 | 0 | 4 |
| Doctoral Program | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Post-Doctoral Program | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Other | 0 | 15 | 37 | 34 | 43 | 6 | 135 |
| Total | 94 | 298 | 326 | 226 | 100 | 13 | 1057 |

| Years to Retirement and Age Distribution (Percentage) | | | | | | | |
|-------------------------------------------------------|--------------|-------|-------|-------|-------|------------|--|
| Age Range | 25 & younger | 26-34 | 35-44 | 45-54 | 55-64 | 65 & older | |
| Associate Degree | 78.7% | 65.4% | 66.3% | 58.4% | 32.0% | 23.1% | |
| Baccalaureate Degree | 21.3% | 28.5% | 22.1% | 23.0% | 22.0% | 23.1% | |
| Masters Degree | 0.0% | 1.0% | 0.0% | 2.25 | 2.0% | 0.0% | |
| Post master's Certificate | 0.0% | 0.0% | 0.35 | 1.3% | 0.0% | 0.0% | |
| Doctoral Program | 0.0% | 0.0% | 0.0% | 0.0% | 1.0% | 0.0% | |
| Post-Doctoral Program | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 7.7% | |
| Other | 0.0% | 5.0% | 11.35 | 15.0% | 43.0% | 46.25 | |

The educational pipeline demands attention to all levels of educational settings including community colleges, universities and other academic settings. Figure 11 indicates the number of nurses enrolled in differing educational programs by age. Most noteworthy is the number of nurses pursuing an associate and baccalaureate degree ranging from 26 to 34 years and increasing in the 35 to 44 years of age range and then slightly declining in the 45 to 54 years of age cohort. The numbers of younger LPNs currently enrolled in an Association degree and Baccalaureate program could explain the large number of younger respondents who intend on retiring in one to five years.

Specialized Certification



Specialized certification can enhance skills that are most valuable in a particular context. There are several specialty certifications available to LPNs. Figure 12 reflects the specialty certifications held by the respondents. The top three specialty certifications are IV, Gerontology, and Wound Care. These specialty certification areas, particularly the top one, IV training, could reflect demand in the field for these skills. It should be noted that over half of the respondents do not hold any specialty certification, 3,069 or 51.0%.

Geography

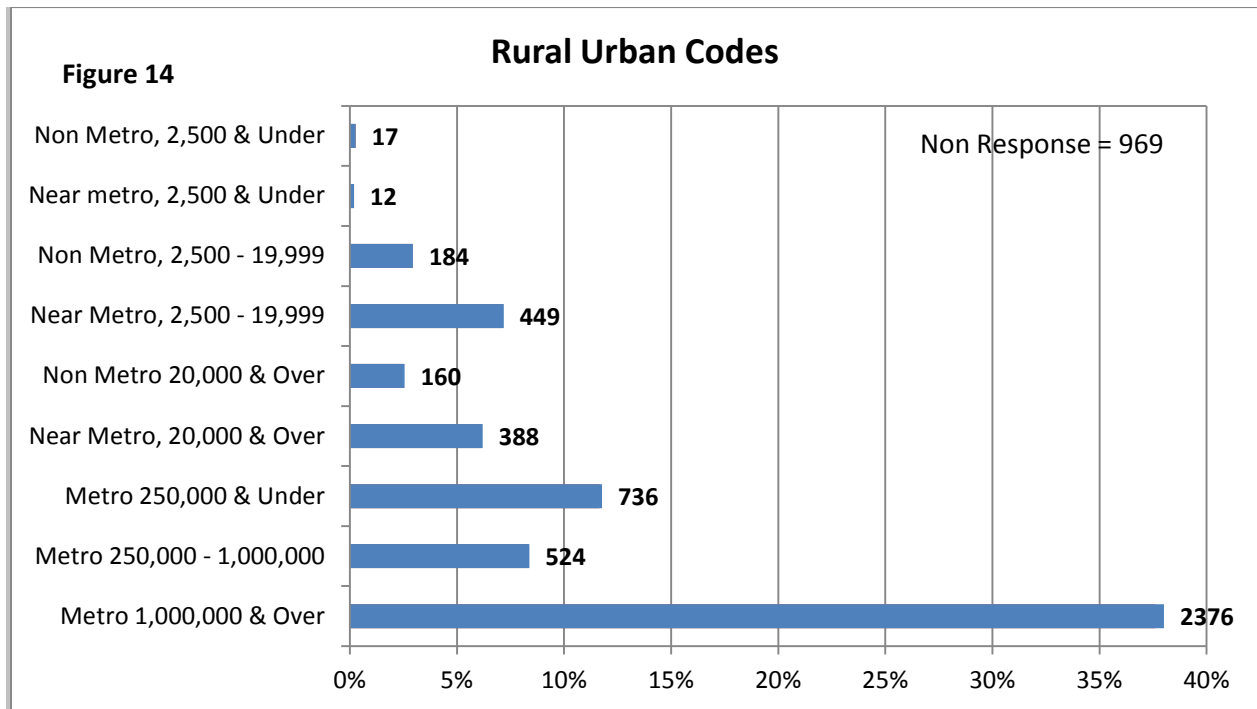
County location-oriented data are collected through four questions on the survey. Question #4 gathers information on country of initial licensure, questions #1 and #13 have respondents identify all states of current licensure and practice, and question #21 asks respondents for the state and zip code of their primary employer. Employer zip codes provide location-oriented views of the Illinois LPN workforce. The employer zip code field has a significant number of non-responses (1,472) plus a number of responses indicating out-of-state employers. Even with these data gaps, we are able to consistently identify employer locations within Illinois for more than 72% of the full participant sample.

Geographic Distribution by County

Illinois counties are the common denominator for geographic information presented. There are 102 counties in the state and each of the 3,000+ zip codes in survey responses has been assigned to the corresponding county. The distribution of respondents across counties is reported in Appendix A with question #21 information. Given the geography of population density in Illinois it is neither surprising nor particularly informative to know that LPNs are generally clustered where people are generally clustered, in this case in the Cook County area. Viewing a ratio of LPN workforce density relative to the population provides a more informative measure for comparison across geographic areas. Note that these are LPNs responding to the survey as opposed to all LPNs and also note that location is based on reported employer location not residence.

| Figure 13 County Distribution (Top 20) | | |
|-----------------------------------------------|--------------|-------------------|
| County | Count | Percentage |
| 1. Cook | 1374 | 26.4% |
| 2. DuPage | 239 | 4.6% |
| 3. Sangamon | 186 | 3.6% |
| 4. Winnebago | 162 | 3.1% |
| 5. Will | 140 | 2.7% |
| 6. Lake | 139 | 2.7% |
| 7. Peoria | 132 | 2.5% |
| 8. Madison | 115 | 2.2% |
| 9. Macon | 113 | 2.2% |
| 10. Saint Clair | 108 | 2.1% |
| 11. Rock Island | 98 | 1.9% |
| 12. Knox | 88 | 1.7% |
| 13. Kane | 84 | 1.6% |
| 14. Williamson | 84 | 1.6% |
| 15. Kankakee | 83 | 1.6% |
| 16. Adams | 76 | 1.5% |
| 17. Coles | 69 | 1.3% |
| 18. Champaign | 69 | 1.3% |
| 19. McHenry | 65 | 1.2% |
| 20. Tazewell | 58 | 1.1% |
| Sum of Top 20 Counties | 2010 | 38.6% |
| Sum of Other Counties | 1726 | 33.1% |
| Non Response | 1472 | - 28.3% |
| Total | 5208 | - |

Rural Urban Codes



Counties can be grouped in terms of their rural-vs-urban nature, a function of population density within the county and nature of contiguous counties. Figure 14 provides a view of Illinois LPN workforce coverage across counties grouped and ordered from most rural to most urban. The LPN workforce coverage appears to be most densely clustered in urban areas. The ratio measuring LPN workforce coverage is lowest in sparsely populated rural counties whether those counties are next to metropolitan areas or in more remote locations.

Health Service Areas

An alternative grouping of Illinois counties is based on location. Health Service Areas (HSAs) serve as a common reference for various health care related reports including *The 2007 Illinois Nursing Workforce Survey Report* (National Research Council, October 2007). Of the eleven HSA defined for Illinois a typical HSA is composed of multiple full counties with at least one housing a metropolitan area. For example, HSA #3 in the Illinois county map below combines Springfield's Sangamon County with neighboring Logan County and Adams County to the east. Particular Health Service Areas (such as HSA #11) refer to counties associated with metropolitan areas in bordering states. Our largest metropolitan area is divided into several HSA with one reserved for the City of Chicago alone (#6), a second for non-Chicago portions of Cook and DuPage counties (#7), and others including the remaining suburban "collar" counties (#8 & #9).

Health Service Area Map



Figure 15

Health Service Area Distribution

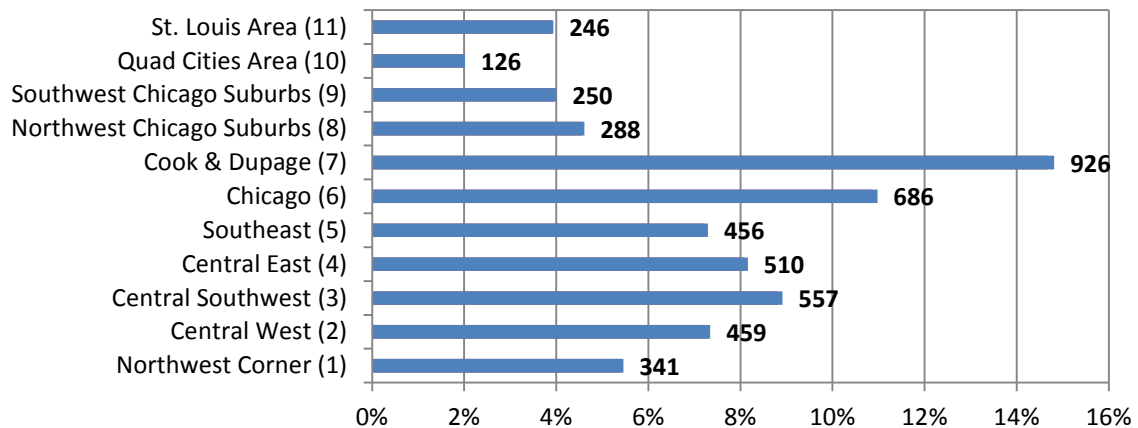
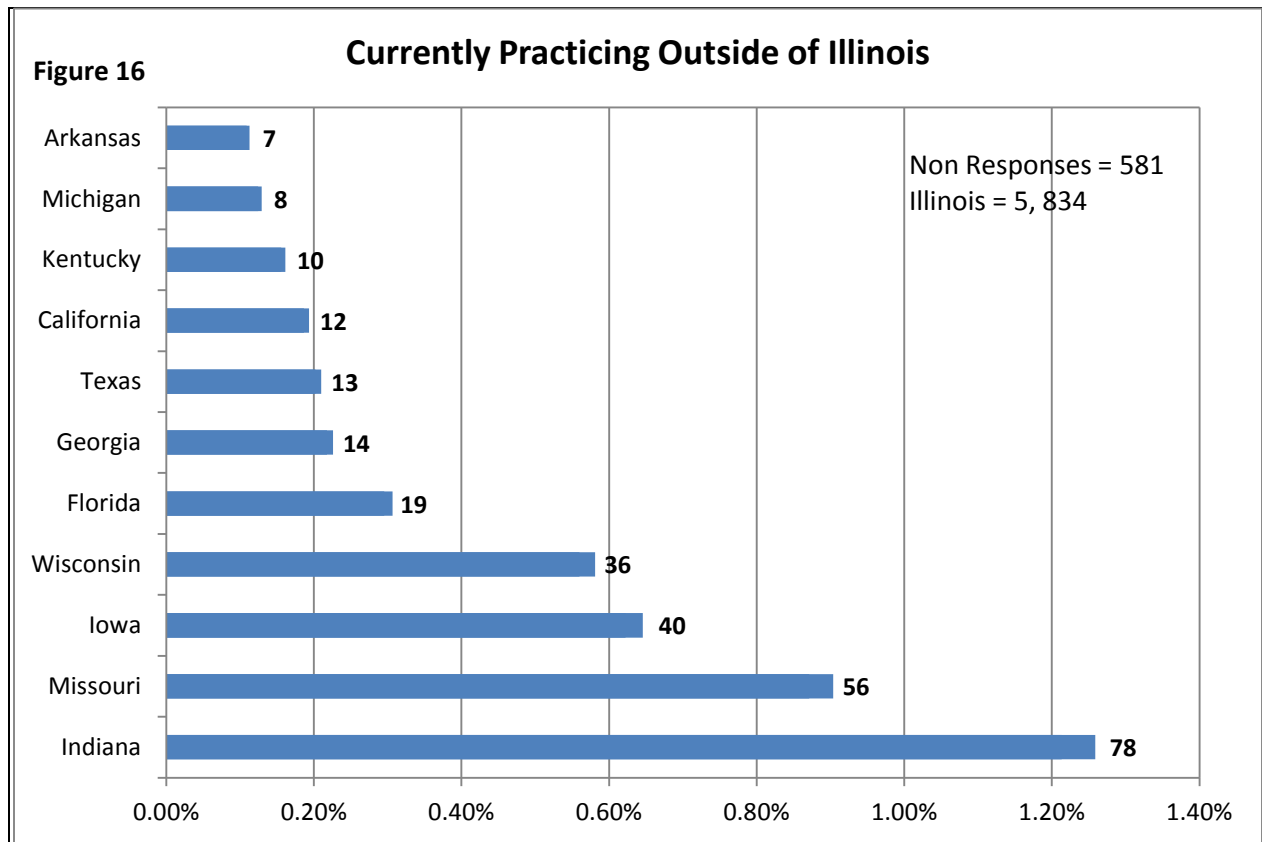


Figure 15 presents the LPN workforce coverage ratios across the eleven Illinois Health Service Areas (HAS). The HAS associated with the non-Chicago portion of Cook and Du Page counties show the highest ratios of LPNs relative to the population.

Distribution Practicing Outside of Illinois

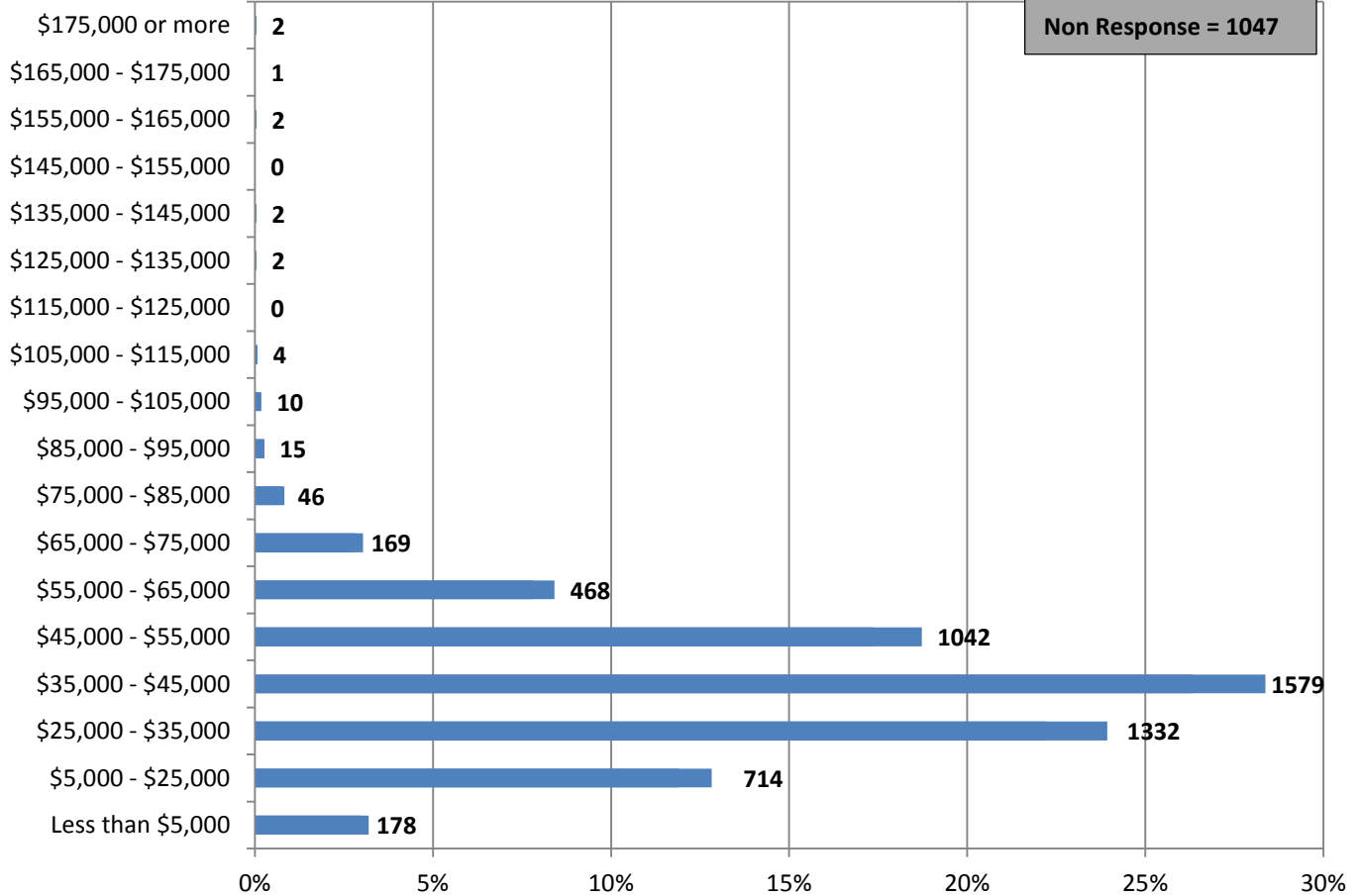


As noted earlier the survey collects data on states in which respondents currently practice, not restricted to Illinois. Figure 16 presents the other states appearing with the greatest frequency. The two states in which IL LPNs are most likely to have additional licenses are Missouri and Indiana along with most of the other states bordering Illinois. Distant states with large populations are also well-represented.

Earnings/Workplace Setting

Annual Salary Distribution

Figure 17



The final LPN survey question asks “what is your current annual salary for your primary nursing position?” with seventeen intervals provided. Approximately 85% of survey participants selected a salary range according to the choices and the frequency distribution is presented in Figure 17. The median response was the \$35,000 to \$45,000 interval with reported values throughout the full range of possibilities. The majority of respondents responded that their salaries fell between \$25,000 and \$45,000; with close to 30% reporting a salary above \$45,000.

Summary

LPNs are an aging group, similar to the RN workforce; 27% of the survey respondents are between the ages of 55-64 years. Serious concerns about the capacity of this group to meet future population's health needs for their services surface when one considers that one third of the group that responded to the question related to retirement and leaving the workforce plans to do so in one to five years.

Demand projections for this workforce depend on the anticipated shift from nursing to home health care for the elderly but as noted long term employment growth is expected to continue into 2030 (Spetz, , Trupin, , Bates, & Coffman, 2015).). However what is known is the anticipated growth in the elderly population, estimates are that between 2010 and 2030, the number of elderly will grow by an average of 2.8 percent annually (US Department of Commerce, <https://www.census.gov/population/socdemo/statbriefs/agebrief.html>) The impending retirement in this workforce should be a focal issue for Illinois workforce planning groups which seem to be focused at the current time in the growth of the community health care worker group to address many workforce issues of elder adults (HTFC, 2014) , essential for Illinois workforce planning groups to focus on the needs of the nursing home/ home health population, its growth and the demand/workforce capacity imbalance.

The growth in demand for LPNs in long-term care settings relative to hospitals has important implications for LPN education. LPNs who work in long-term care settings have less direct supervision than their counterparts in hospitals and need to exercise more independent judgment regarding patient care. LPN education programs need to ensure that students obtain sufficient clinical training in long-term care settings and have the critical thinking and communications skills necessary to practice effectively in these settings. (Coffman, Chan & Bates, 2015).

The LPN survey data indicate a workforce that is aging with a small younger aged pipeline to replace retiring nurses. The findings from this analysis also suggest that there are some important differences in LPN employment patterns between metropolitan and non-metropolitan areas. Discussion around workforce planning needs to occur given LPNs traditional roles in nursing homes/extended care and home care and the anticipated growth of the elderly population. An informed discussion on LPN demand/capacity must also consider the nursing competencies stipulated in new models of team based care (HTFC, 2015). As we plan for the nursing workforce needed to meet health care demands created by population shifts and health care transformation, it would be helpful to have a better understanding of the drivers for choosing an LPN certification and how we might optimize each individual's interest in a nursing career.

(Coffman, JM, Chan, K, Bates, (2015) Profile of the Licensed Practical Nurse/Licensed Vocational Nurse Workforce, 2008 and 2013. San Francisco, CA: UCSF Health Workforce Research Center on Long-Term Care

HCFT (2014). Final Report. [The Workforce Implication of New Health Care Models.](#)

Retrieved from <https://www2.illinoisworknet.com/DownloadPrint/HCTF%20Final%20Report.pdf>

Appendix A

1. What is your gender?
2. What is your race/ ethnicity? (Mark all that apply):
3. What year were you born? (Place a number in a box)
4. In what country were you initially licensed as a LPN?
5. What is the status of the Illinois license you currently hold?
6. What is your highest level of education?
7. Are you currently enrolled in a nursing education program leading to a degree/ certificate?
8. If you are currently enrolled in a nursing education program leading to a degree/certificate, please choose the type of program from the list below:
9. What is the greatest barrier to continuing your education? (Select only one)
10. Which of the following nursing skill-based certifications do you currently have? (Check all that apply)
11. What year did you obtain your initial U.S. Licensure?
12. Please list all states in which you are currently licensed as an LPN:
13. Please list all states in which you are currently PRACTICING as an LPN:
14. What is your employment status? (Mark ALL that apply)
15. In how many positions are you currently employed as a nurse?
16. Please identify the type of setting that most closely corresponds to your primary nursing position:
17. Please identify the position title that most closely corresponds to your primary nursing position:
18. Please identify the employment specialty that most closely corresponds to your secondary nursing position:
19. Please identify the position title that most closely corresponds to your secondary nursing position:
20. How many hours per week do you work during a typical week in ALL your nursing positions?
21. Please indicate state and zip code of your primary employer:
22. Does your compensation from your primary nursing position include (check all that apply):

- 23. If you are unemployed, not currently working as a nurse, please indicate the reason:**
- 24. How much longer do you plan to practice as an LPN in Illinois?**
- 25. 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):**
- 26. What is your current annual salary for your primary nursing position?**