

# ACN ARKANSAS CENTER FOR NURSING



**2018 State of the Nursing Workforce in Arkansas**  
Nursing Education, Supply, and Demand Report  
Arkansas Center for Nursing, Inc.

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## **EXECUTIVE SUMMARY**

The Arkansas Center for Nursing, Inc. is a non-profit organization that was developed in 2016 to serve as the state's nursing workforce center. The mission of the Arkansas Center for Nursing is to promote a culture of health for the citizens of Arkansas by advancing nursing education, practice, leadership, and workforce development.

### **Conclusions**

- Arkansas's nursing education programs have more applicants than available seats. This gap appears to be widening in both Practical Nursing and Registered Nursing Programs.
- Nursing faculty salaries, on average, are well below the average salaries of other postsecondary faculty. Long-term employment projections suggest that the demand for nursing faculty will increase due to growth of nursing education and replacement of current, aging nursing faculty.
- Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) in Arkansas reside in both urban and rural counties. The proportion of RNs and Advanced Practice Registered Nurses (APRNs) per 1,000 people is higher in urban counties while the proportion of LPNs is higher in rural counties. Some rural counties in Arkansas have no APRNs residing in the county.
- Young people are entering the nursing profession at a steady rate in Arkansas. This trend is especially evident in the number of Certified Nurse Practitioners (CNPs) between the ages of 30 and 39. By contrast, the number of Certified Registered Nurse Anesthetists (CRNAs) under the age of 40 is decreasing.
- The majority of patient care in Nursing Homes/Extended Care Facilities is provided by Nurse Aides/Certified Nursing Assistants (NA/CNAs), followed by LPNs. Facilities reported an increase in turnover for both groups in 2017. Turnover rates for RNs was reported by most of the facilities as unchanged.
- Vacancy rates in Nursing Homes/Extended Care Facilities for full-time direct care RNs and LPNs averaged 12% with NA/CNAs at 9%. RNs added to the workforce has increased steadily between 2012 and 2016. Conversely, LPNs have shown a relatively flat trend of workforce additions between 2010 and 2016.
- Arkansas long- term occupational projections for 2014-2024 indicate that RNs, LPNs, and NA/CNAs will be in the Top 20 Occupations by Total Annual Openings. Projected occupational openings show the gap between supply and demand will continue to increase.

## **METHODOLOGY**

The 2018 State of the Nursing Workforce Report presents data collected from the nursing re-licensure survey administered by the Arkansas State Board of Nursing during the biennial re-licensure period. The 2018 report includes re-licensure data from fiscal year 2016 and fiscal year 2017. Nursing education data were collected from the annual Arkansas State Board of Nursing's Education Program Reports from fiscal year 2016 and fiscal year 2017.

Arkansas' nursing re-licensure survey and education program report were adapted from the Minimum Data Sets (MDSs) created by the National Forum of State Nursing Workforce Centers. Links to the MDSs are included in Appendix B. Approximately 96% of nurses in Arkansas complete the online re-licensure survey during the biennial licensure renewal period. All undergraduate pre-licensure nursing programs are required to complete the annual education program report.

Labor market projections and wage information were gathered from the Arkansas Department of Workforce Services' Discover Arkansas Data Search tool. Methodologies for data collection and statistical modeling are provided on the Discover Arkansas website ([www.discover.arkansas.gov](http://www.discover.arkansas.gov)).

### **Nurse Employer Survey**

The Arkansas Health Care Association (AHCA) and the Arkansas Assisted Living Association (AALA) have 283-member facilities representing 84% of the nursing home/extended care facilities in the state of Arkansas (AHCA/AALA, 2018). The associations educate, inform and represent members and member facilities before government agencies, other trade associations and related industries. The organizations provide training, education and assistance to care facilities across the state, promoting high-quality care for patients and strict professional standards for staff. AHCA also strives to cooperate with the state legislature and state's Office of Long Term Care to improve the quality of life in Arkansas nursing homes (AHCA/AALA, 2018).

The AHCA/AALA agreed to assist the Arkansas Center for Nursing (ACN) with a survey of their membership facilities to collect information on licensed nurses and assistant nursing personnel, and personnel turnover and vacancy rates. The survey was constructed by the ACN, requesting personnel data from July 2016 – June 2017. The associations distributed the survey to the 283 facilities with 53 facilities responding, a response rate of 19% to this inaugural survey. According to the Arkansas Hospital Association (AHA), there are 106 hospitals in the state of Arkansas with 95% (n=101) holding AHA membership. The ACN survey was distributed to 101 hospitals with an 8% (n=8) response rate. Due to the low response by hospitals, only data from nursing home/extended care facilities are presented in this report.

## **Limitations**

The analyses and data presented in this report have limitations that should be considered when interpreting these data. The information included in this report was gathered as self-reported responses on re-licensure surveys, education program reports, and a voluntary nurse employer survey. Any self-reported survey is subject to some level of response bias and reflects the individual's interpretation of the questions.

# NURSING EDUCATION

## Education Programs and Students

Arkansas currently has 57 nursing education programs including preparation for licensure as Licensed Practical Nurses (LPNs), and Registered Nurses (RNs). Of those programs, 46% are Practical Nursing programs, 33% are Associate Degree (AD) programs, and 21% are Baccalaureate Degree (BSN) programs. Among the RN programs, approximately 39% are BSN programs.

The Arkansas State Board of Nursing collects extensive data on undergraduate pre-licensure nursing programs, students, and faculty. However, similar data are not currently collected for graduate programs in Arkansas. Therefore, the data in this report regarding nursing education reflect undergraduate pre-licensure programs in the State. Names and locations of programs are depicted in Figures 1-3. Arkansas Associate Degree (AD) programs are depicted in Figure 2, including the Arkansas Rural Nursing Education Consortium (ARNEC). The ARNEC is a co-operative effort of eight two-year colleges located in rural areas of the state. In this report, ARNEC is represented as a single program. Further information about the ARNEC schools may be found on the program's website ([www.arneec.org](http://www.arneec.org)).

Figure 1: Arkansas Practical Nursing (PN) Programs (n=26)

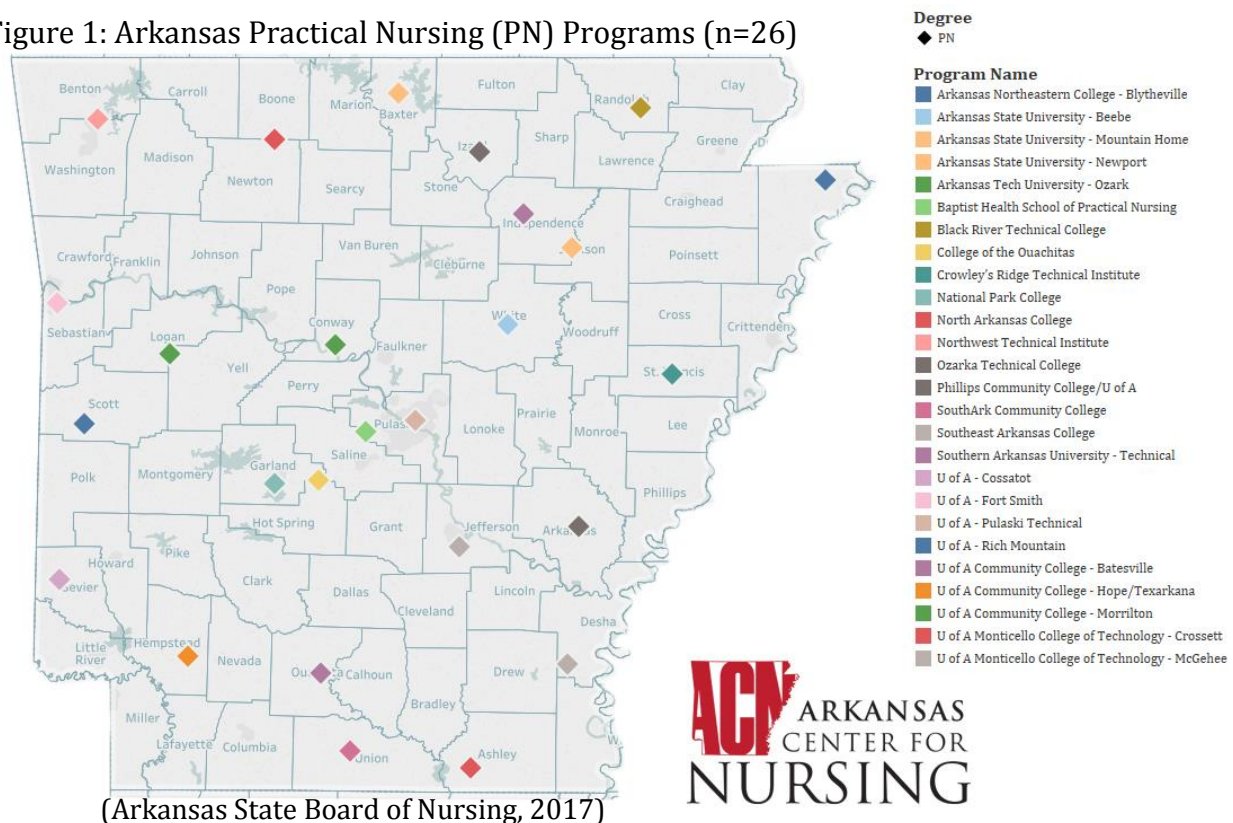


Figure 2: Arkansas Associate Degree (AD) RN Programs (n=19)

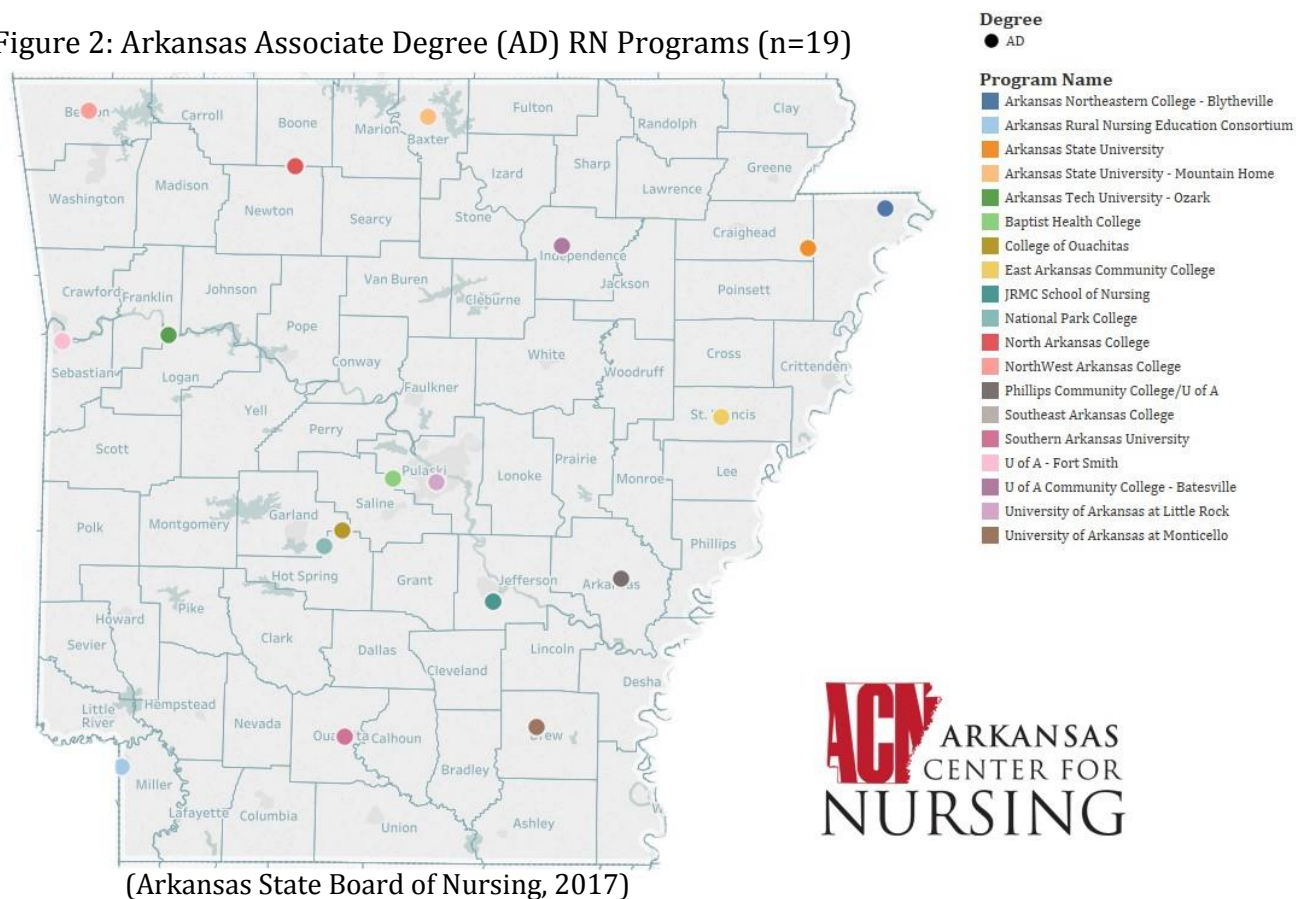
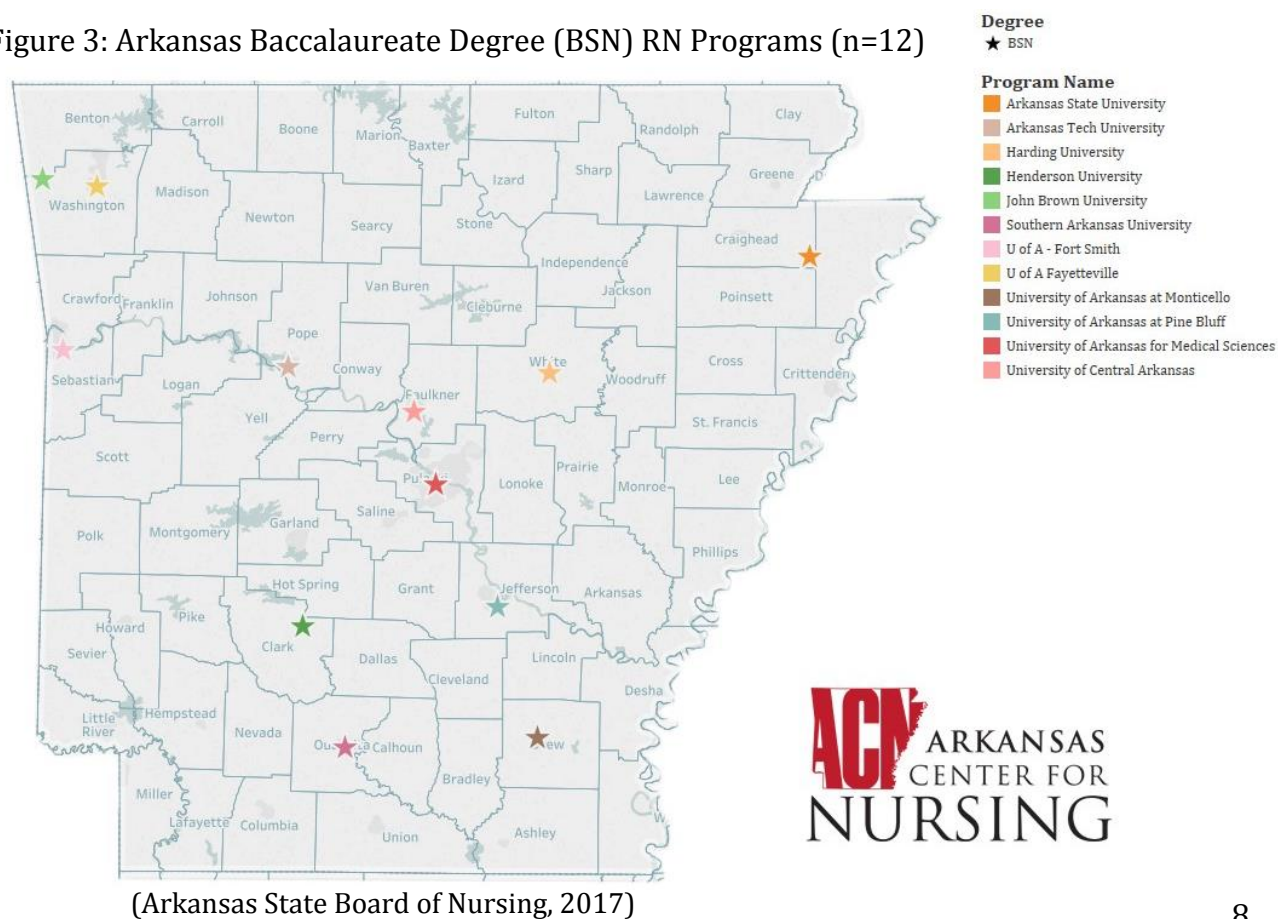


Figure 3: Arkansas Baccalaureate Degree (BSN) RN Programs (n=12)

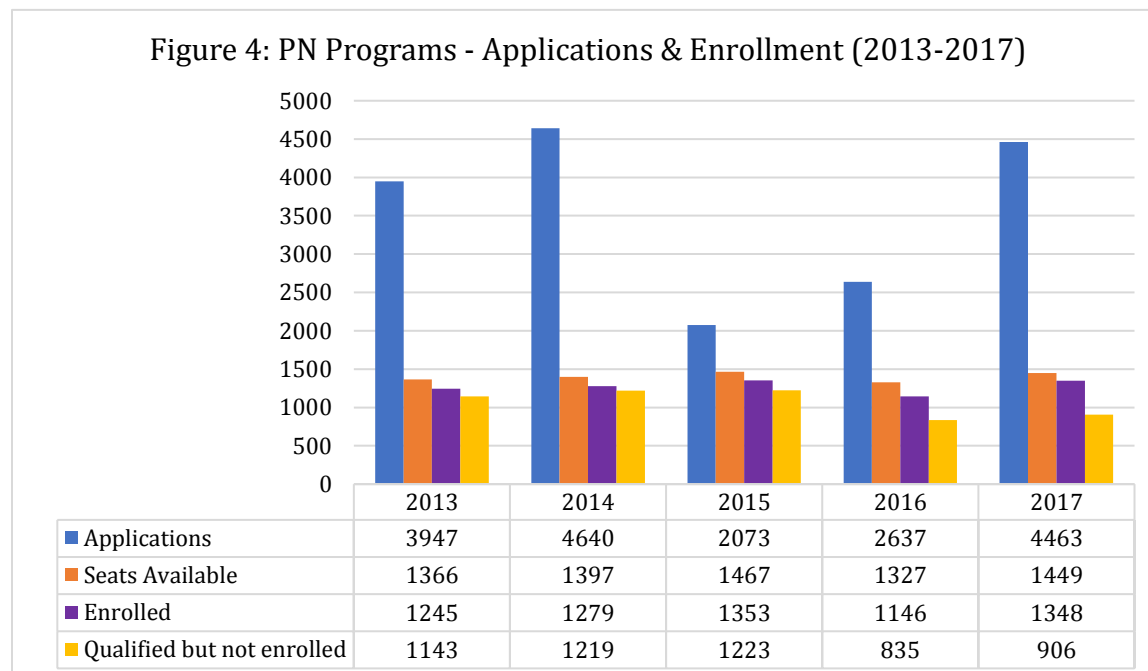


## Applications and Enrollment

Nursing programs in Arkansas vary in size and competitiveness for enrollment. Nursing programs have more applicants than available seats for enrollment. For example, in 2017, there were approximately 1.6 qualified applicants for each available seat in Arkansas PN programs and 1.5 qualified applicants for each available seat in Arkansas RN programs.

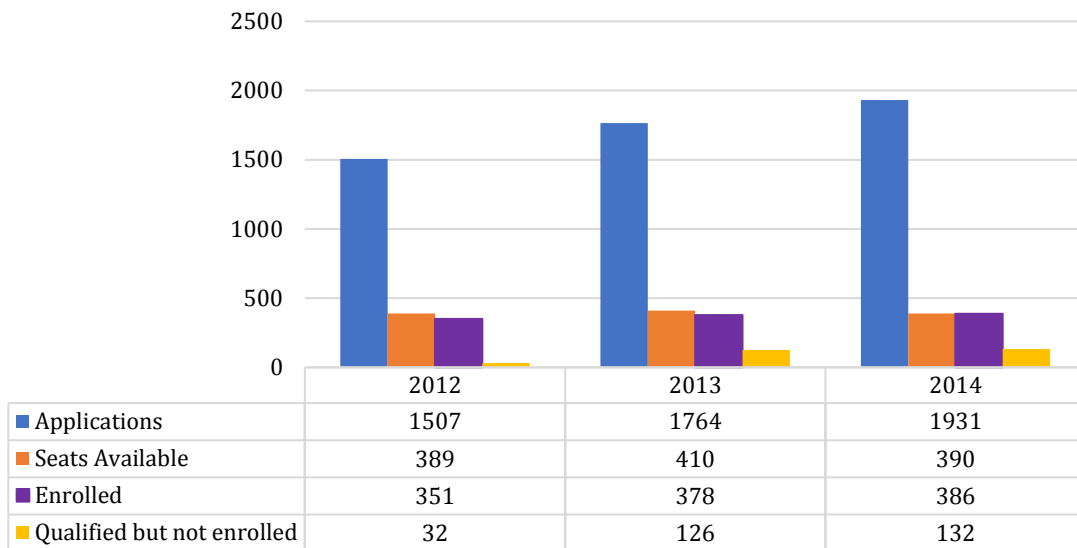
The number of seats available for all pre-licensure nursing students (PN and RN) decreased by 122 from 2016 to 2017. The available seats for BSN students decreased by 62 while the number of available seats for AD students decreased by 182. However, the number of available seats for practical nursing students increased by 122 during the same period.

Overall, the number of students enrolled in pre-licensure nursing programs has increased since 2013. The following figures (Figures 4-7) depict the total number of applications received, seats filled, and qualified (but not enrolled) applicants for nursing programs by program type. The number of applications each year reflects the sum of applications received by each program; therefore, individuals applying to more than one program may be counted multiple times in the total number. Diploma RN programs were converted to Associate Degree RN programs in 2015 which accounts for no applicants to Diploma RN programs after 2015 and the increase in applicants to AD and BSN programs beginning that year.



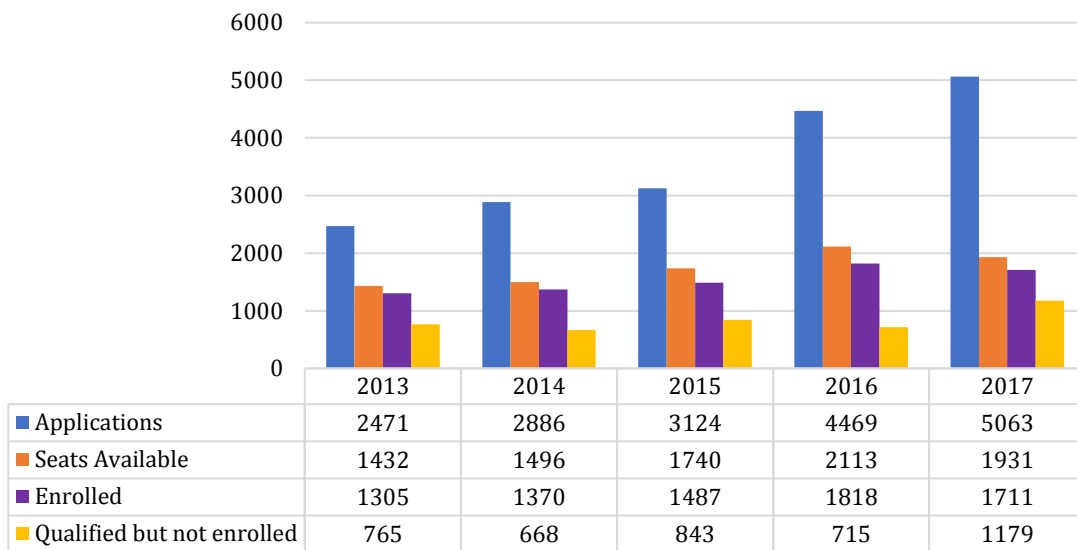
(Arkansas State Board of Nursing, 2017)

Figure 5: Diploma RN Programs - Applications & Enrollment  
(2012-2014)



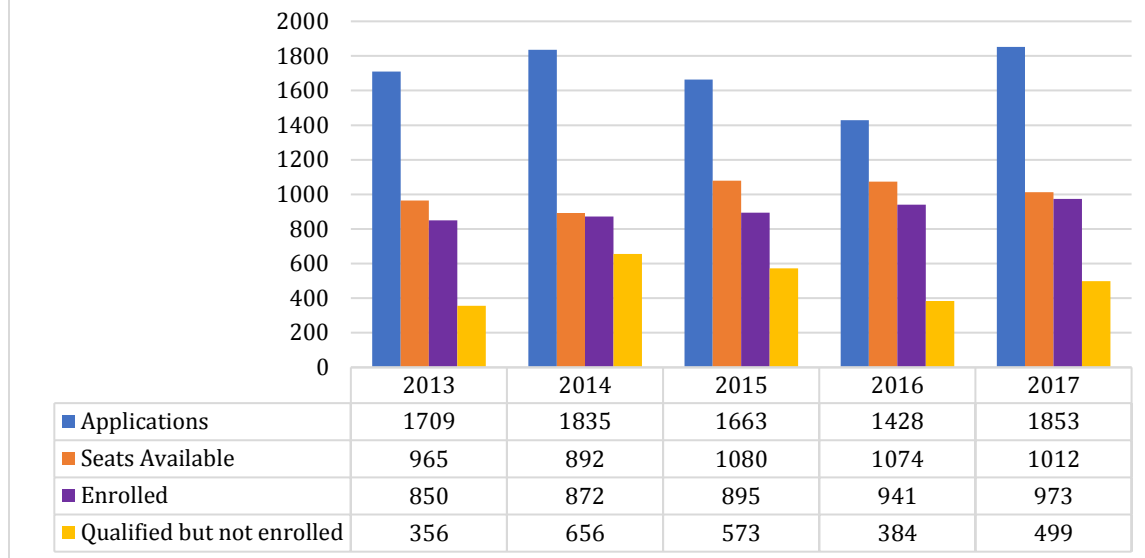
(Arkansas State Board of Nursing, 2017)

Figure 6: AD RN Programs - Applications & Enrollment  
(2013-2017)



(Arkansas State Board of Nursing, 2017)

Figure 7: BSN RN Programs - Applications & Enrollment  
(2013-2017)

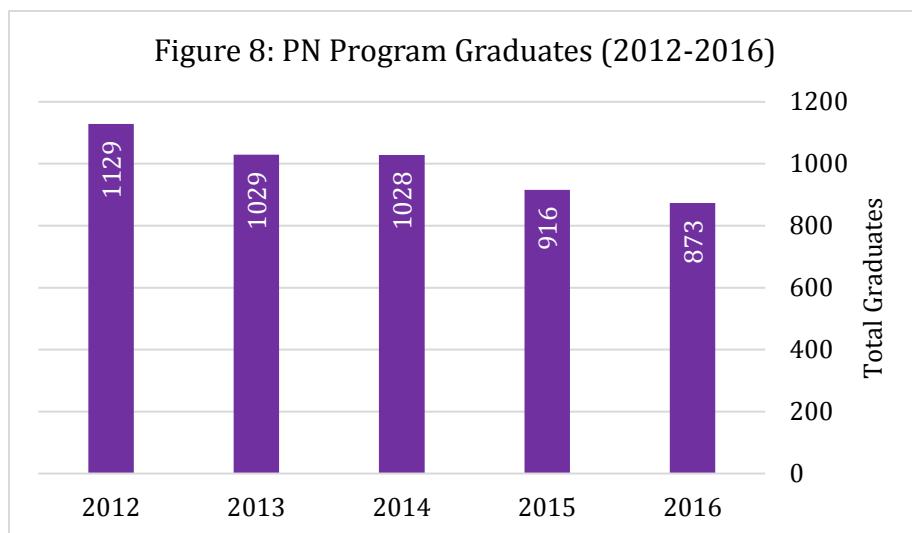


(Arkansas State Board of Nursing, 2017)

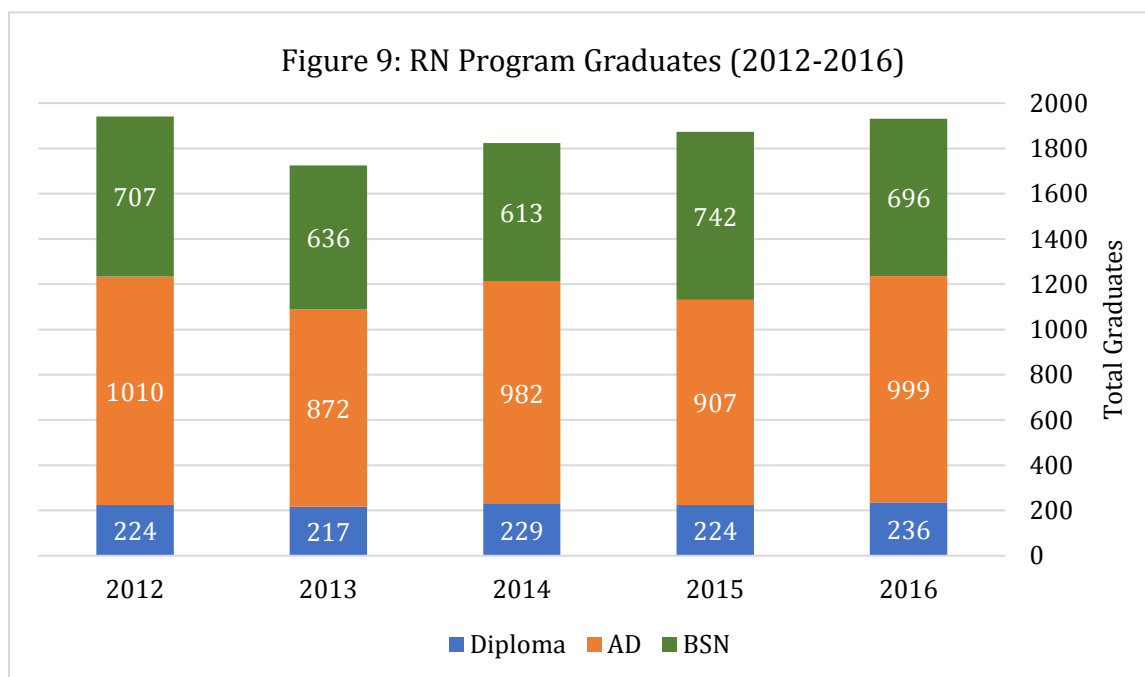
## Nursing Graduates

The number of graduates from pre-licensure nursing programs has remained relatively unchanged over the past 5 years. However, there has been a small downward trend in the number of graduates from practical nursing programs and a slight increase in the number of Associate Degree and Baccalaureate Degree registered nursing graduates. Recently, the two remaining diploma registered nursing programs transitioned to Associate Degree programs, so this upward trend in professional nursing degree graduates is expected to continue.

Graduates from pre-licensure nursing programs are depicted in the following figures. Figure 8 shows the number of graduates from practical nurse programs from 2012 to 2016. Figure 9 displays graduates from diploma, associate degree, and baccalaureate programs who are eligible to take the RN licensing exam (NCLEX-RN).



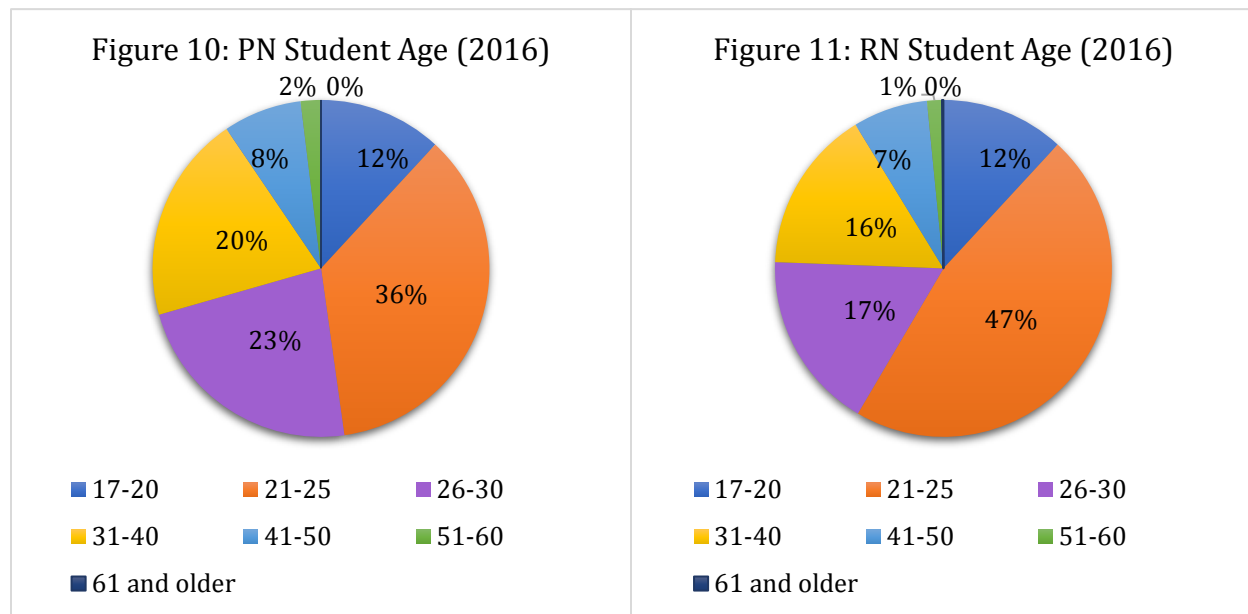
(Arkansas State Board of Nursing, 2016)



(Arkansas State Board of Nursing, 2016)

## Nursing Student Demographics

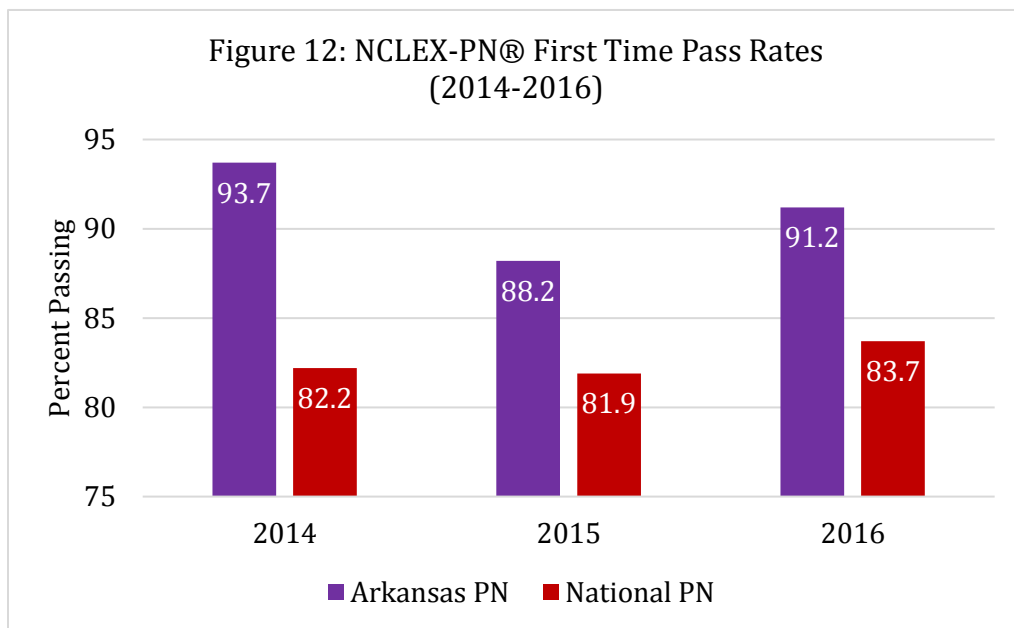
The majority of nursing students (59% enrolled in PN programs and 64% enrolled in RN programs) in Arkansas are under 30 years of age (Figures 10-11).



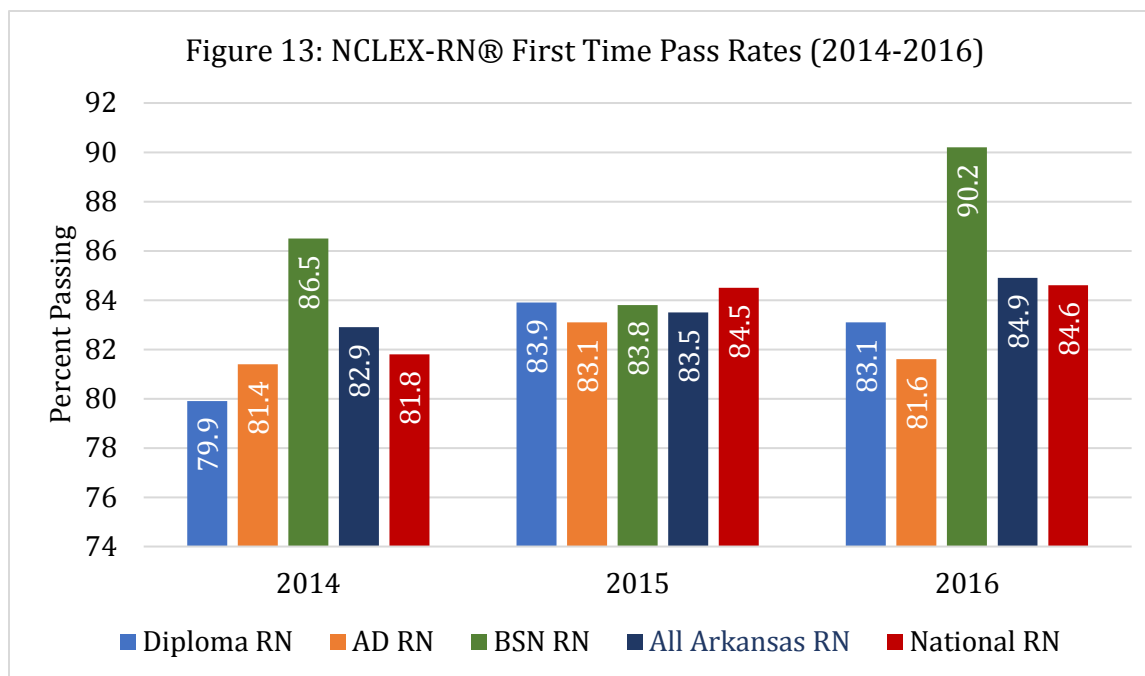
(Arkansas State Board of Nursing, 2016)

## NCLEX Results

NCLEX first time pass rates for graduates of Arkansas practical nurse (PN) programs are consistently above the National NCLEX-PN® pass rate (Figure 12) while the total first-time pass rates for all registered nurse (RN) programs are similar to the National NCLEX-RN® pass rate (Figure 13). Graduates of BSN programs have the highest first time NCLEX-RN® pass rates.



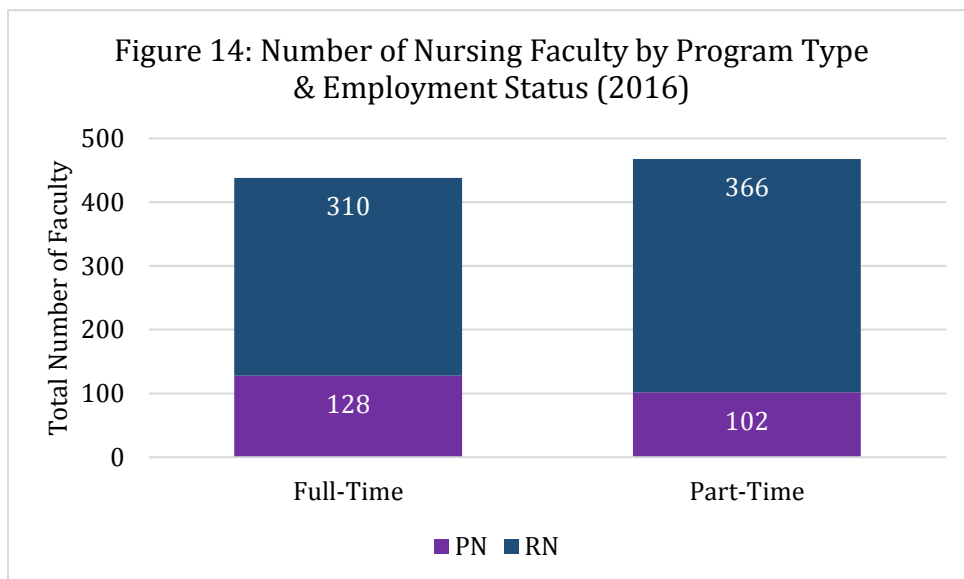
(Arkansas State Board of Nursing, 2016)



(Arkansas State Board of Nursing, 2016)

### Nursing Program Faculty

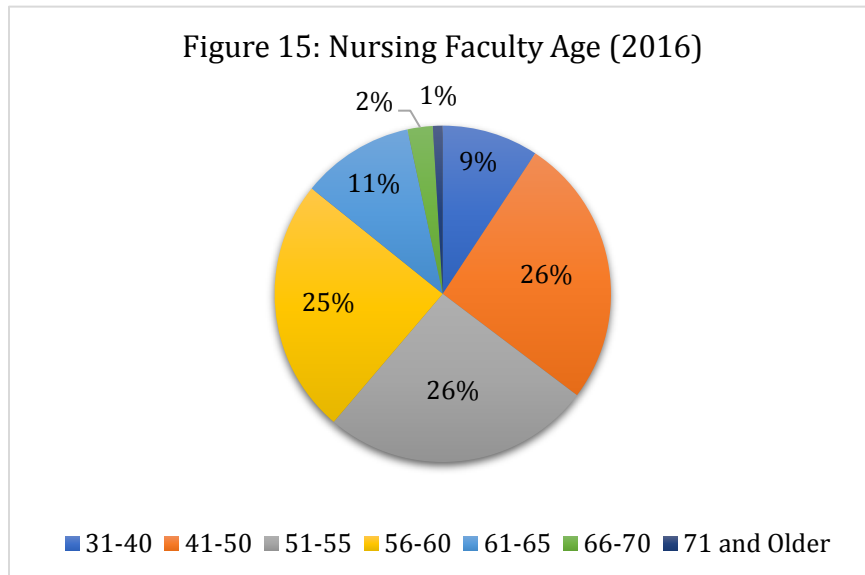
There are 949 nursing faculty in pre-licensure programs in the state of Arkansas (Figure 14). These faculty fill full-time positions (n=438, 48%) and part-time positions (n=468, 52%). There are 676 (75%) faculty teaching in ADN and BSN programs and 230 (25%) faculty teaching in PN programs.



(Arkansas State Board of Nursing, 2016)

## Faculty Demographics

Nationally, the majority (78%) of nursing faculty are older than 45 years of age (NLN, 2015). In Arkansas, the majority (65%) of faculty are 51 years of age and older. Figure 15 depicts the ages of faculty employed at Arkansas programs.

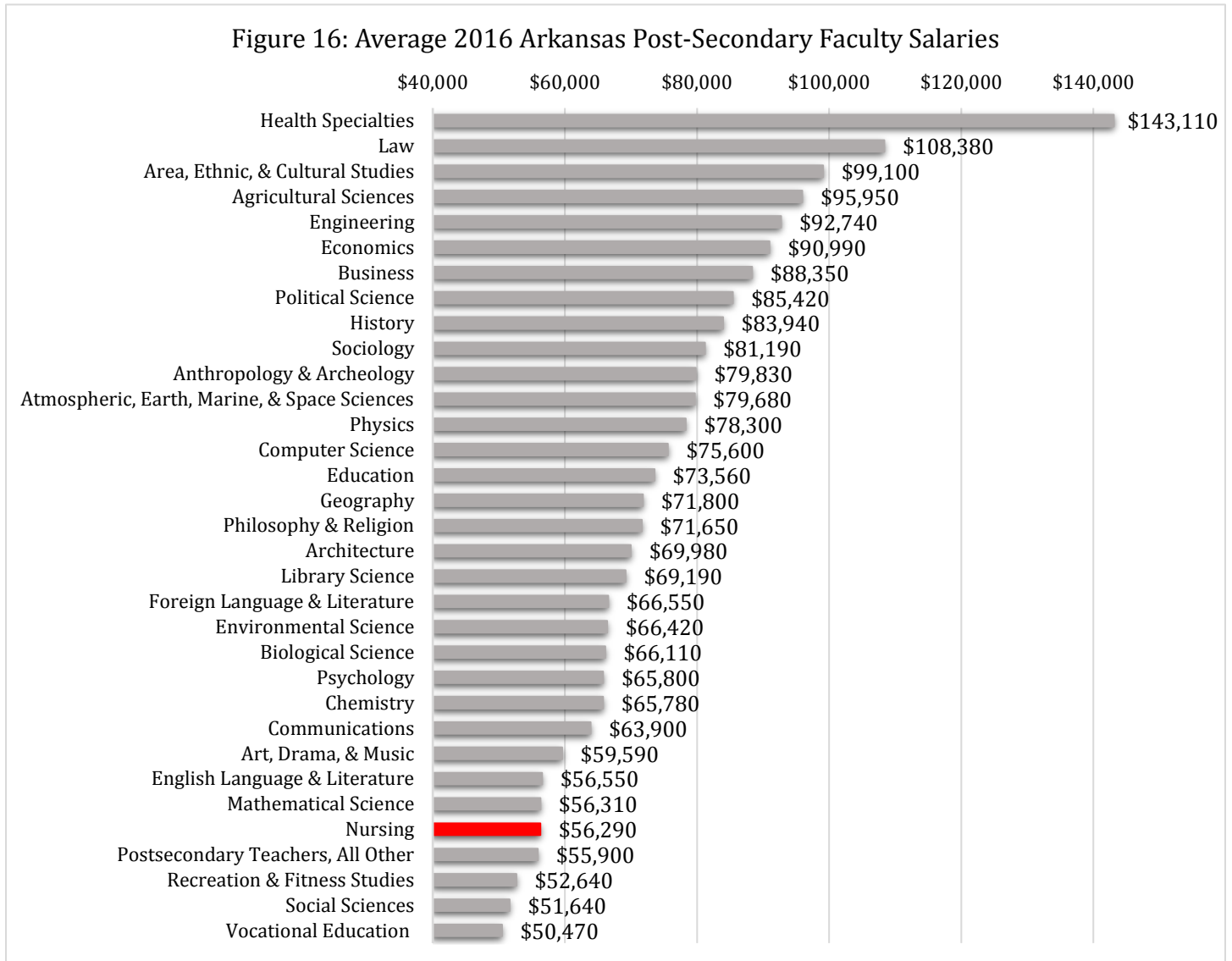


(Arkansas State Board of Nursing, 2016)

Nationally, 93% of nurse faculty are female (NLN, 2015). In Arkansas, the percentage of female faculty members is roughly the same (95%). With regards to ethnicity, nationally, 82% of the nurse faculty are White/Non-Hispanic, 8% are Black/African-American, 4% are Hispanic, and 3% are Asian. Arkansas nursing faculty are relatively less diverse than the nation with 90% of the faculty being White/Non-Hispanic.

## Faculty Salaries

According to the Arkansas Department of Workforce Services/Labor Market Information Section, Nursing Instructors and Teachers, Postsecondary have one of the lowest average salaries of post-secondary faculty (Figure 16). Out of the 33 types of faculty listed, nursing faculty salary ranks 29<sup>th</sup>, the fourth lowest for various faculty. The average annual nursing faculty salary in Arkansas is \$56,290 with a median salary of \$53,930 (Table 1). Faculty salaries are not differentiated by degree type or contract length.



(Arkansas Department of Workforce Services, 2017)

Table 1: Arkansas Labor Market Salary Estimates

Occupation	Employed	Mean Salary	Wage at the 25 <sup>th</sup> Percentile	Median Wages	Wage at the 75 <sup>th</sup> Percentile
Nursing Faculty	520	\$56,290	\$41,470	\$53,930	\$68,100

(Arkansas Department of Workforce Services, 2017; Bureau of Labor Statistics, 2016)

According to the United States Department of Labor, Nursing Instructors and Teachers, Postsecondary is a “Bright Outlook” occupation with a projected growth rate of 28.2% from 2014-2024. Both growth and replacement openings affect the increase in projected employment. Annual openings for Nursing Instructors are more influenced by growth (62%) than replacement (Table 2).

Table 2: Arkansas Labor Market Projections 2014-2024

Occupation	Estimated 2014 Employment	Projected 2024 Employment	Percent Change	Annual Openings due to Growth	Annual Openings due to Replacement	Total Annual Openings
Nursing Faculty	560	718	28.2%	16	10	26

(Arkansas Department of Workforce Services, 2017; Bureau of Labor Statistics, 2016)

## NURSING SUPPLY

Nurses are the largest group in the healthcare workforce. Nurses practice with a wide range of credentials and in a variety of work settings. The total number of nurses in each group represents the number of nurses with an active Arkansas license. The nursing workforce in Arkansas includes:

- 41,231 Registered Nurses (RNs)
- 15,490 Licensed Practical Nurses (LPNs)
- 87 Licensed Psychiatric Technician Nurses (LPTNs)

### Advanced Practice Registered Nurses (APRNs)

- 2,604 Certified Nurse Practitioners (CNP)
- 788 Certified Registered Nurse Anesthetists (CRNAs)
- 166 Clinical Nurse Specialists (CNSs)
- 33 Certified Nurse Midwives (CNMs)

Nurses may be licensed to practice in Arkansas without a primary residence in Arkansas. These nurses are classified as nonresidents. Table 3 depicts the number of resident and nonresident nurses licensed to practice in Arkansas.

Table 3: Nurses Licensed to Practice in Arkansas by License Type

License Type	Arkansas Residents	Nonresidents	Total
RNs	37,683	3,548	41,231
LPNs	14,813	677	15,490
LPTNs	83	4	87
Advanced Practice Registered Nurses (APRNs)			
CNPs	2,260	344	2,604
CRNAs	604	184	788
CNSs	153	13	166
CNMs	26	7	33

(Arkansas State Board of Nursing, 2017)

The following description of the nursing workforce includes nurses that are residents of Arkansas. Certain licensures and credentials are no longer newly granted in Arkansas, including Licensed Psychiatric Technical Nurse (LPTN) and Registered Nurse Practitioner (RNP). Individuals with these credentials may maintain licensure in the state or be granted an endorsement to practice. Since there are no new licenses granted, these groups of nurses are not included in this report.

### Number and Distribution of Nurses Residing in Arkansas

Arkansas is home to approximately three million people. Fifty-seven percent of Arkansans live in urbanized areas (50,000 or more people) or urban clusters (at least 2,500 people and less than 50,000 people) while 43% live in rural areas (U.S. Census Bureau, 2016). In

2010, the national percentage of people living in rural areas was 19.3%, less than half the percentage of Arkansans living in rural areas (Ratcliffe et al., 2016).

Counties classified as urbanized areas or urban clusters include Arkansas, Benton, Bradley, Craighead, Crittenden, Desha, Drew, Faulkner, Garland, Greene, Jefferson, Lonoke, Miller, Mississippi, Phillips, Pulaski, Saline, Sebastian, and Washington. The number of nurses living in urban and rural counties are included in Table 4.

Table 4: Distribution of Nurses in Urban and Rural Counties by License Type

License Type	Urban Counties Number (Percent)	Rural Counties Number (Percent)
RNs	25,771 (68.4%)	11,912 (31.6%)
LPNs	7,684 (51.9%)	7,129 (48.1%)
Advanced Practice Registered Nurses (APRNs)		
CNPs	1,596 (70.6%)	664 (29.4%)
CRNAs	489 (81.0%)	115 (19.0%)
CNSs	117 (76.5%)	36 (23.5%)
CNMs	21 (80.8%)	5 (19.2%)

(Arkansas State Board of Nursing, 2017; U.S. Census Bureau, 2016)

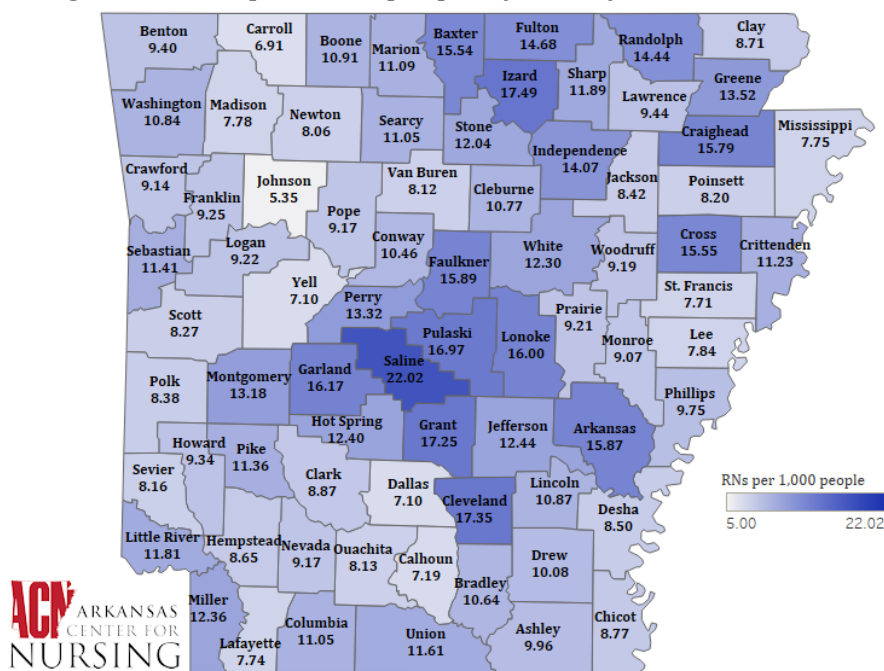
## Ratio of Nurses per 1,000 People by County

Nurse to population ratios and maps are based on the nurse's county of residence.

### Registered Nurses (RNs)

In 2017, Arkansas had 12.61 RNs per 1,000 people which is greater than the national average of 8.84/1,000 people (U.S. Bureau of Labor Statistics, 2016; U.S. Census Bureau, 2016). There is wide variation in the ratio of RNs who reside in each county from the lowest ratio of 5.35/1,000 people in Johnson County to the highest ratio of 22.02/1,000 people in Saline County. The average ratio RNs to residents in rural counties is 10.36/1,000 versus 12.98/1,000 in urban counties.

Figure 17: RNs per 1,000 people by County

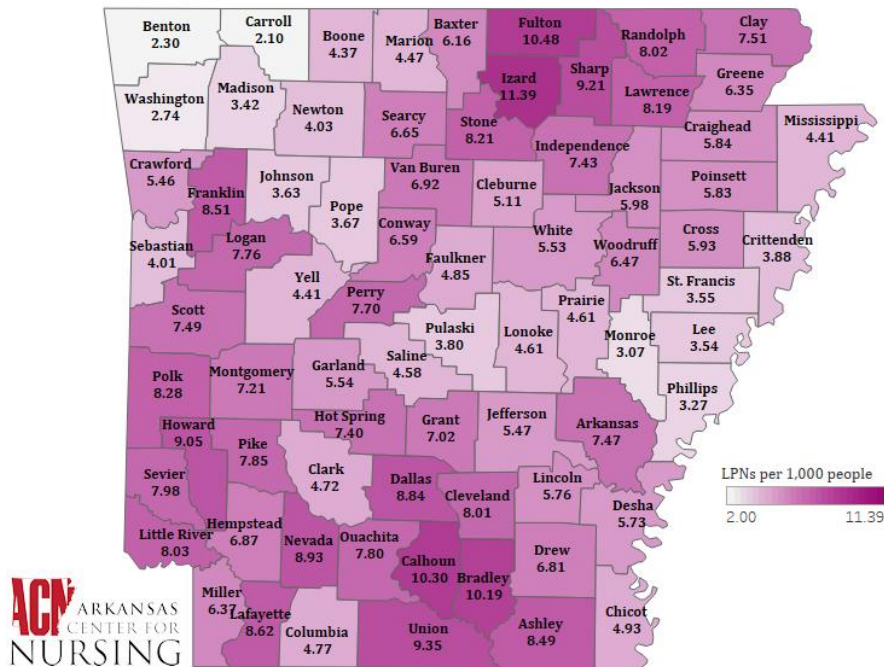


(Arkansas State Board of Nursing, 2017)

## Licensed Practical Nurses (LPNs)

In 2017, Arkansas had 4.96 LPNs per 1,000 people which is greater than the national average of 2.17/1,000 people (U.S. Bureau of Labor Statistics, 2016; U.S. Census Bureau, 2016). There is wide variation in the ratio of LPNs who reside in each county from the lowest ratio of 2.10/1,000 people in Carroll County to the highest ratio of 11.39/1,000 people in Izard County. The average ratio of LPNs to residents in rural counties is 6.67/1,000 versus 5.17/1,000 in urban counties.

Figure 18: LPNs per 1,000 people by County

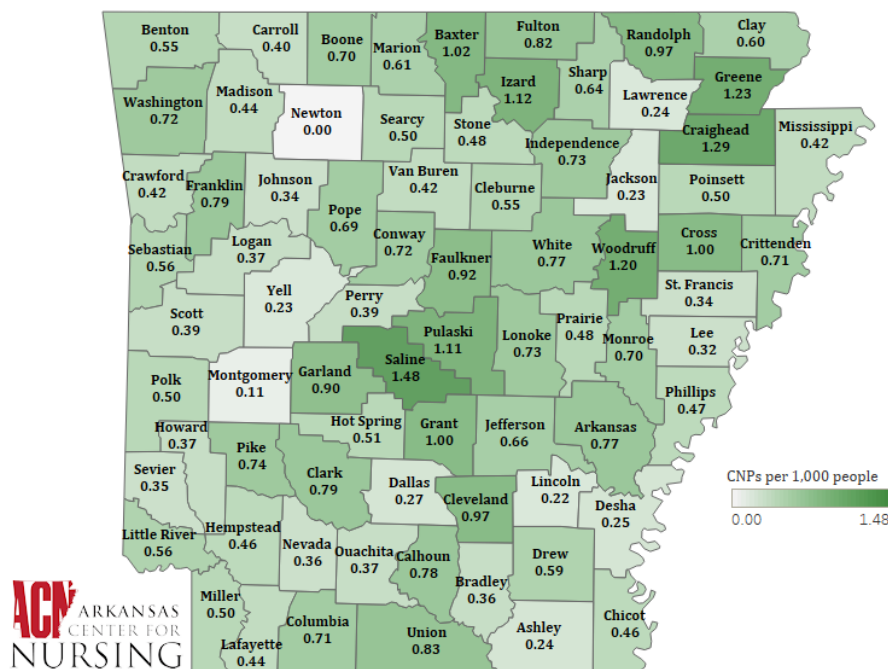


(Arkansas State Board of Nursing, 2017)

## Certified Nurse Practitioners (CNPs)

In 2017, Arkansas had 0.76 CNPs per 1,000 people which is greater than the national average of 0.46/1,000 people (U.S. Bureau of Labor Statistics, 2016; U.S. Census Bureau, 2016). There is wide variation in the ratio of CNPs who reside in each county from the lowest ratio of 0.0/1,000 people in Newton County to the highest ratio of 1.48/1,000 people in Saline County. The average ratio of CNPs to residents in rural counties is 0.56/1,000 versus 0.75/1,000 in urban counties.

Figure 19: CNPs per 1,000 people by County

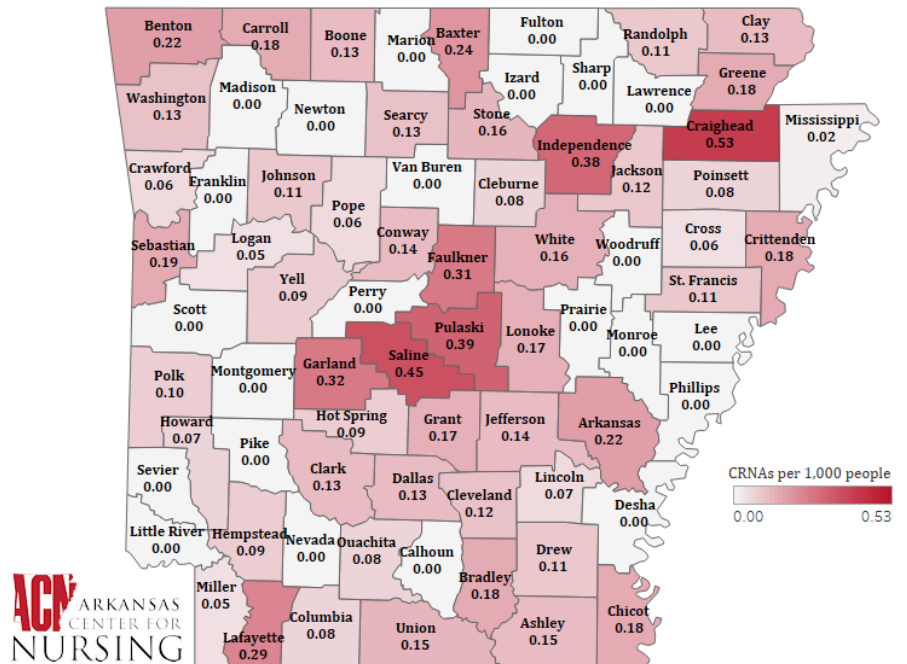


(Arkansas State Board of Nursing, 2017)

## Certified Registered Nurse Anesthetists (CRNAs)

In 2017, Arkansas had 0.20 CRNAs per 1,000 people which is greater than the national average of 0.12/1,000 people (U.S. Bureau of Labor Statistics, 2016; U.S. Census Bureau, 2016). Many counties in Arkansas have a ratio of 0.0/1,000 people up to the highest ratio of 0.53/1,000 people in Craighead County. The average ratio of CRNAs to residents in rural counties is 0.08/1,000 versus 0.20/1,000 in urban counties.

Figure 20: CRNAs per 1,000 people by County



(Arkansas State Board of Nursing, 2017)

## Certified Nurse Midwives (CNMs) and Clinical Nurse Specialists (CNSs)

In 2017, Arkansas had 26 Certified Nurse Midwives (CNMs) (Figure 21) and 153 Clinical Nurse Specialists (CNSs) (Figure 22).

Figure 21: CNMs per 1,000 people by County

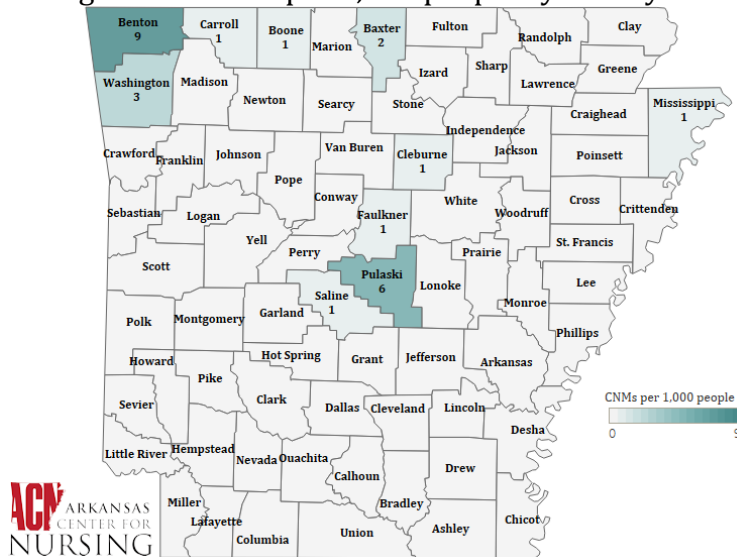
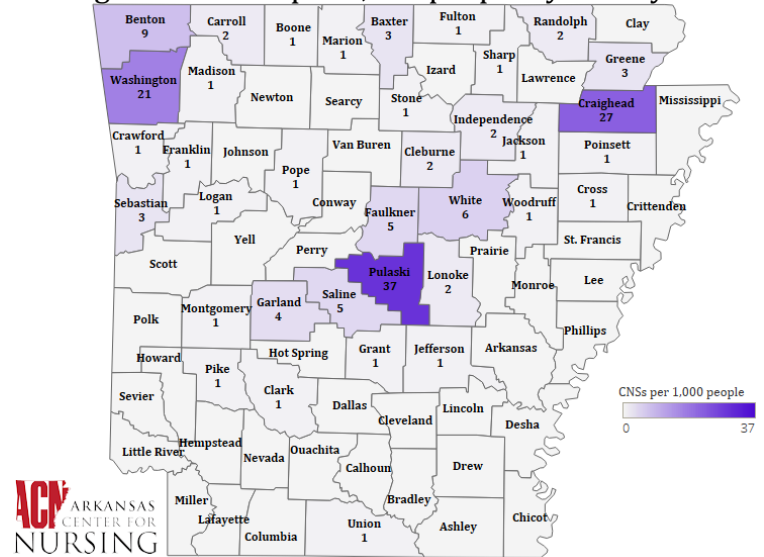


Figure 22: CNSs per 1,000 people by County



(Arkansas State Board of Nursing, 2017)

## Arkansas Nurse Demographics

### Age

Nationally, the nursing profession has aged significantly (Georgetown University, 2017). The average age of an RN has increased from 38 years in 1980 to 45 years in 2016. Sixty-one percent of RNs residing in Arkansas are age 40 or older, and 39% are over the age of 50 (Table 5).

Table 5: Age of Nurses Residing in Arkansas by License Type

Nurse	20-29 years Number (%)	30-39 years Number (%)	40-49 years Number (%)	50-59 years Number (%)	Over 60 years Number (%)
RNs	5,263 (14.0)	9,043 (24.0)	8,907 (23.6)	7,969 (21.1)	6,501 (17.3)
LPNs	2,533 (17.1)	3,688 (24.9)	3,449 (23.3)	2,925 (19.7)	2,218 (15.0)
Advanced Practice Registered Nurses (APRNs)					
CNPs	153 (6.8)	816 (36.1)	633 (28.0)	383 (16.9)	275 (12.2)
CRNAs	33 (5.5)	176 (29.1)	199 (32.9)	90 (14.9)	106 (17.5)
CNSs	1 (0.7)	29 (19.0)	30 (19.6)	47 (30.7)	46 (30.1)
CNMs	2 (7.7)	5 (19.2)	3 (11.5)	6 (23.1)	10 (38.5)

(Arkansas State Board of Nursing, 2017)

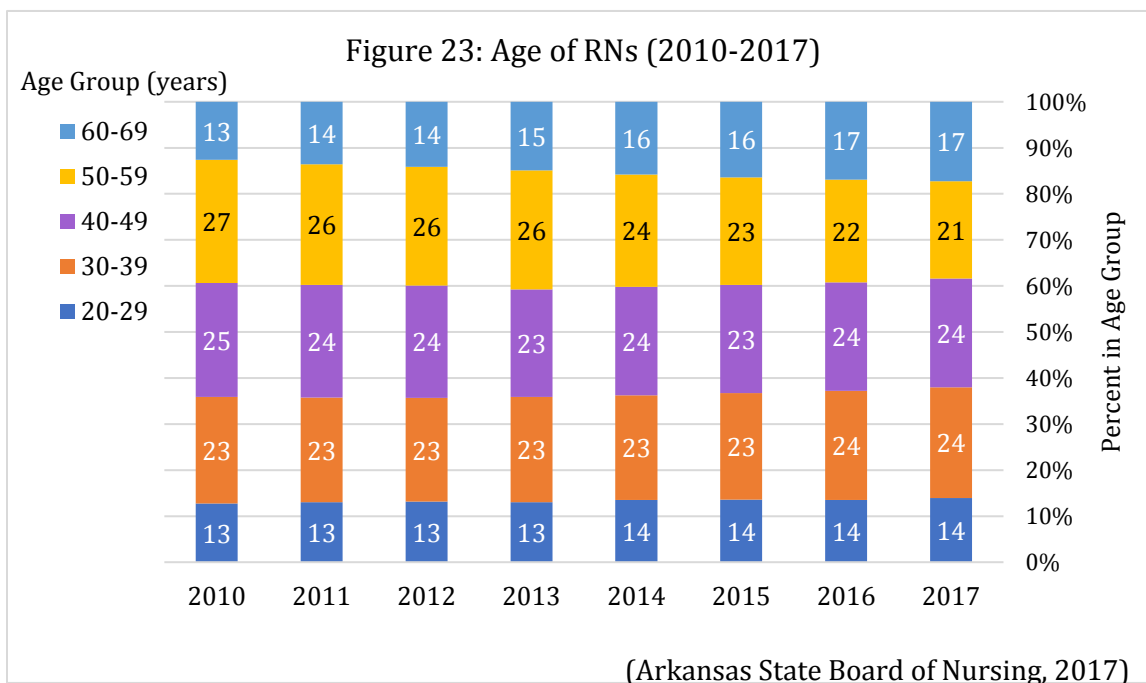
### Age Trends

National trends indicate that the aging of the nursing workforce is slowing. Between 2010 and 2016, the number of RNs over the age of 40 decreased by 4 percentage points while the number of RNs under 40 increased by 4 percentage points (Georgetown University, 2017). According to Auerbach, Buerhaus, and Staiger (2017), Millennials (born after 1980) are almost twice as likely to become RNs as were Baby Boomers. This is encouraging considering the aging and retirement of Baby Boomer nurses.

## Registered Nurses (RNs)

In 2017, 62% of RNs in Arkansas were age 40 or older and 38.4% were over the age of 50.

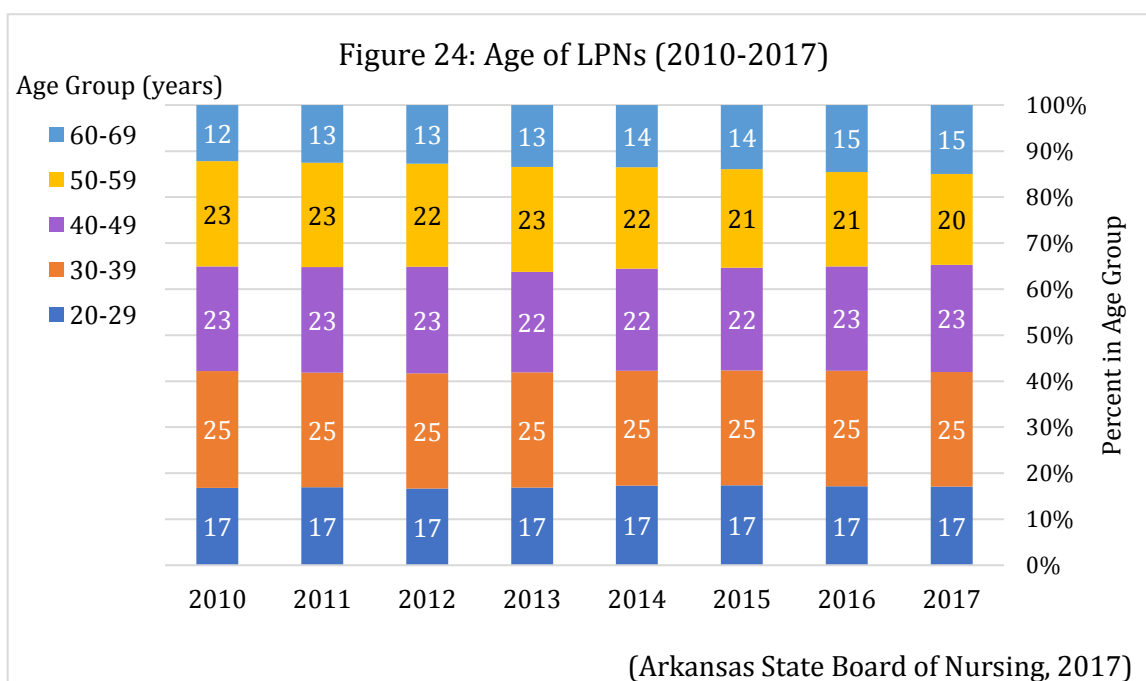
Similar to the national trend, the percentage of RNs under the age of 40 began to increase in 2013 and has continued to increase through 2017 (Figure 23).



## Licensed Practical Nurses (LPNs)

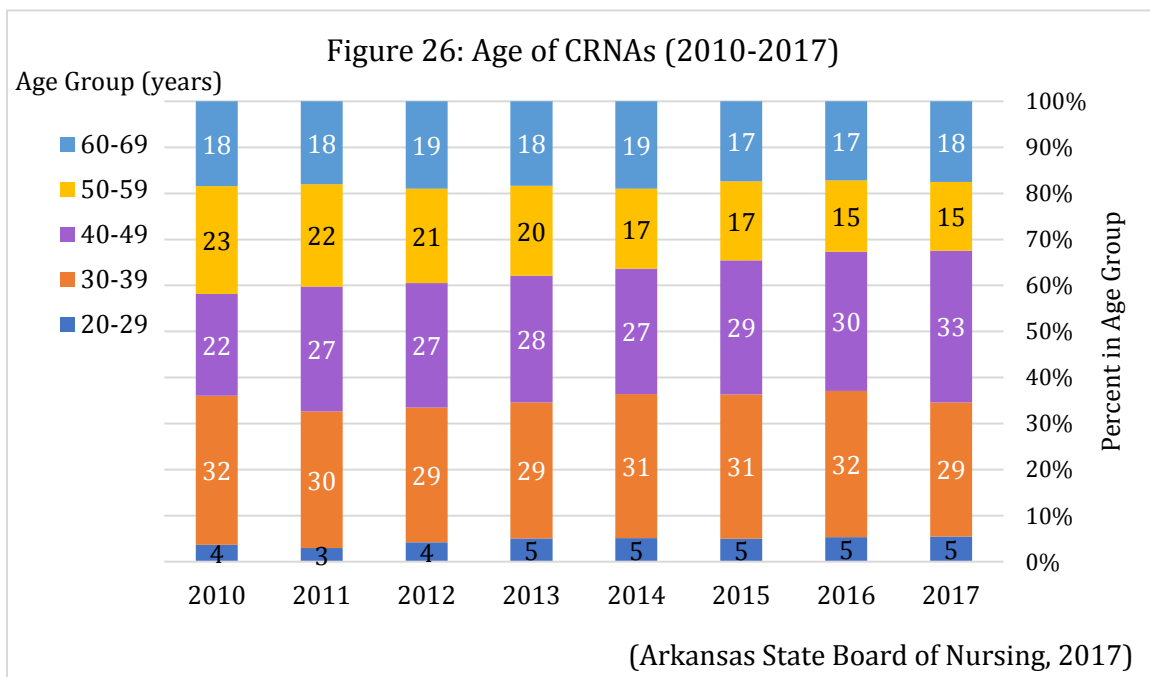
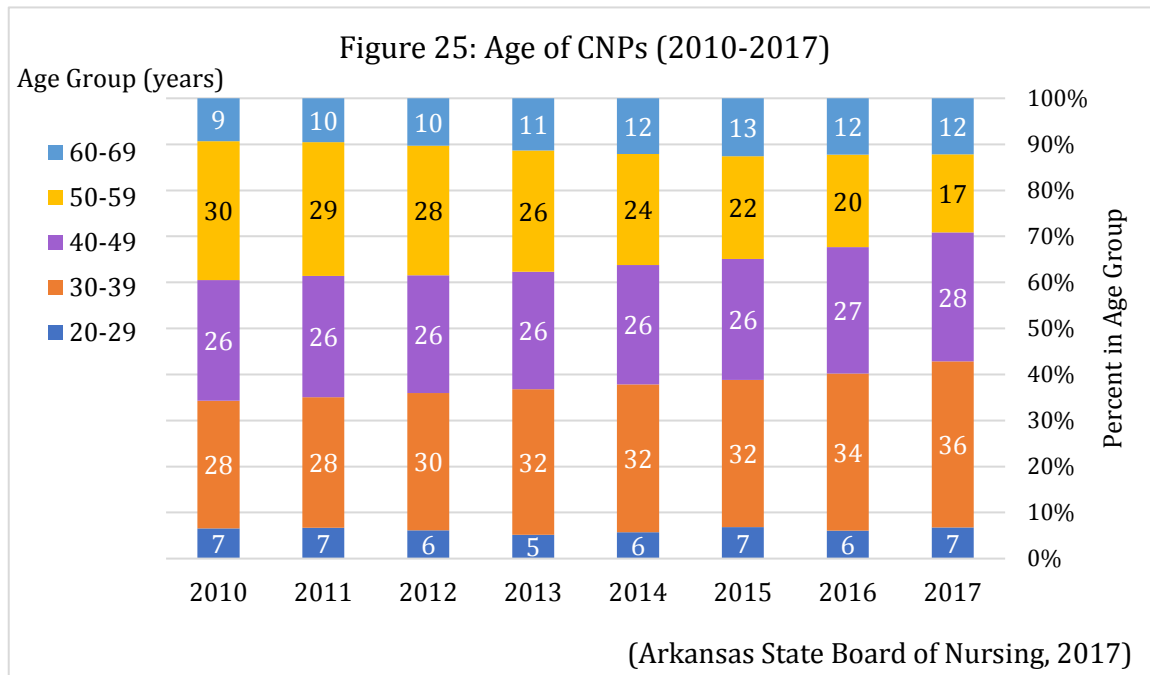
The LPN/LVN workforce also has a high concentration of older nurses. In 2016, the average age of an LPN/LVN in the United States was 42 years. Nationally, 56% of LPNs/LVNs were

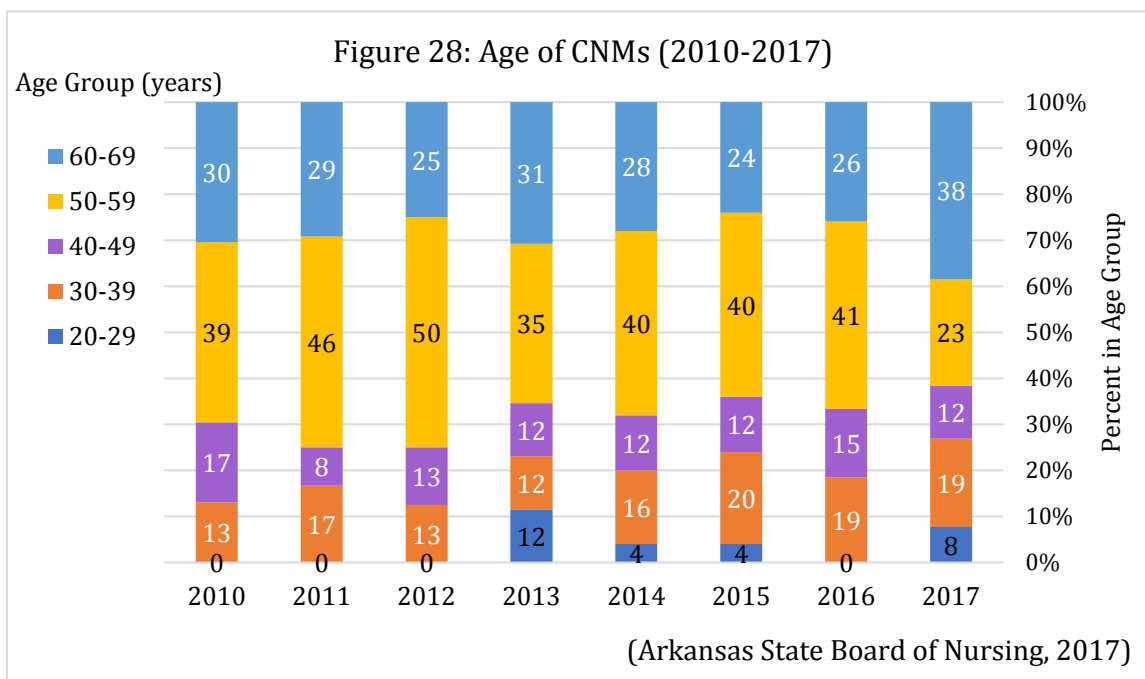
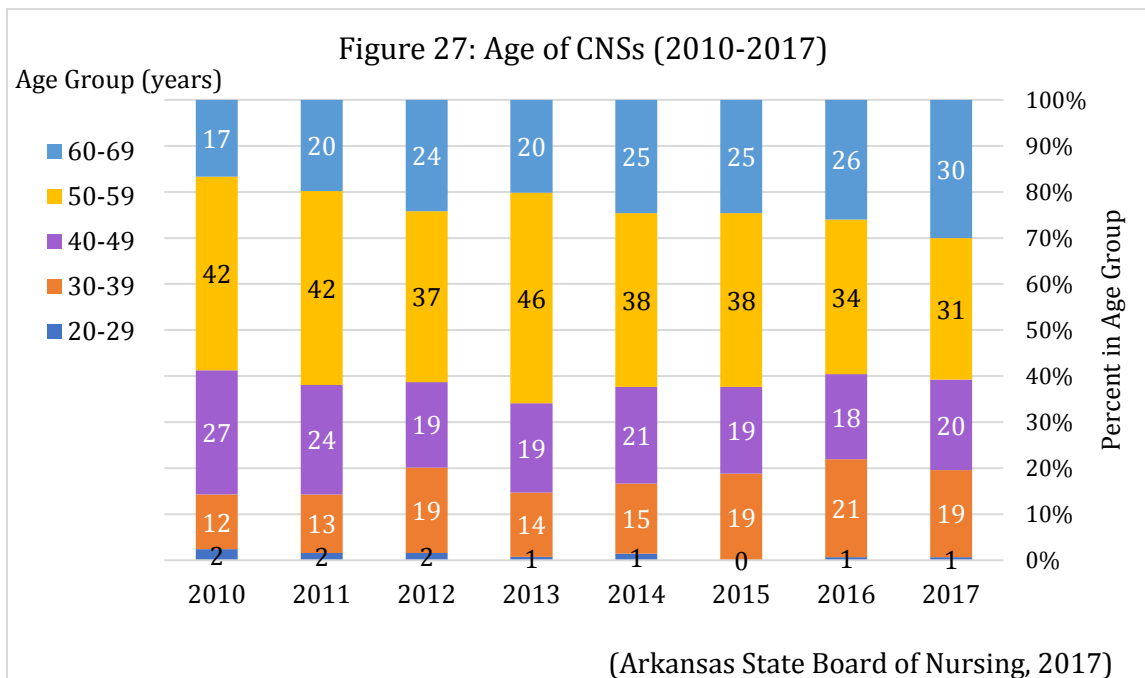
over the age of 40 and 36% were 50 years or older (Georgetown University, 2017). In 2017, 58% of LPNs in Arkansas were age 40 or older and 35% were over the age of 50 (Figure 24), which is slightly younger than LPNs/LVNs in other states.



## Advanced Practice Registered Nurses (APRNs)

The age of APRNs in Arkansas is highly variable by advanced practice specialty. In 2017, CNPs were the youngest of all APRNs with 43% under the age of 40, an increase from 35% in 2010 (Figure 25). CRNA ages have increased slightly from 36% under the age of 40 in 2010 down to 34% in 2017 (Figure 26). CNSs and CNMs are the oldest of the APRNs with 30% and 38%, respectively, over the age of 60 in 2017 (Figures 27-28).





## Gender

In Arkansas, approximately 90% of RNs are female. The percentage of females is greater than 90% for LPNs, CNPs, and CNSs. All CNMs licensed to practice in Arkansas are female. More than half of CRNAs (58.3%) are male (Table 6).

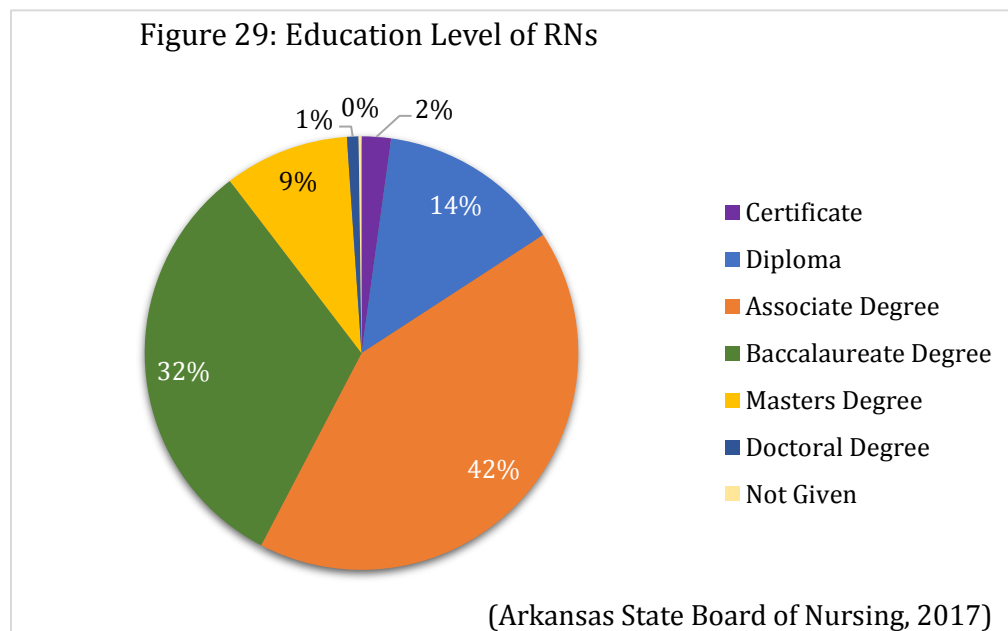
Table 6: Gender of Nurses by License Type

Nurse	Female Number (%)	Male Number (%)
RNs	33,677 (89.4)	4,006 (10.6)
LPNs	13,698 (92.5)	1,115 (7.5)
Advanced Practice Registered Nurses (APRNs)		
CNPs	2,057 (91.0)	203 (9.0)
CRNAs	252 (41.7)	352 (58.3)
CNSs	147 (96.1)	6 (3.9)
CNMs	26 (100)	0 (0.0)

(Arkansas State Board of Nursing, 2017)

## Highest Education Level

In 2010, the Institute of Medicine (IOM) released a report that identified goals to advance the nursing profession and contribute to the overall health of the nation. One priority goal focused on the education and training of the nursing workforce, increasing the proportion of registered nurses (RNs) with a baccalaureate degree to 80% by 2020. Currently, 42% of RNs in Arkansas hold a baccalaureate degree or higher (Figure 29).



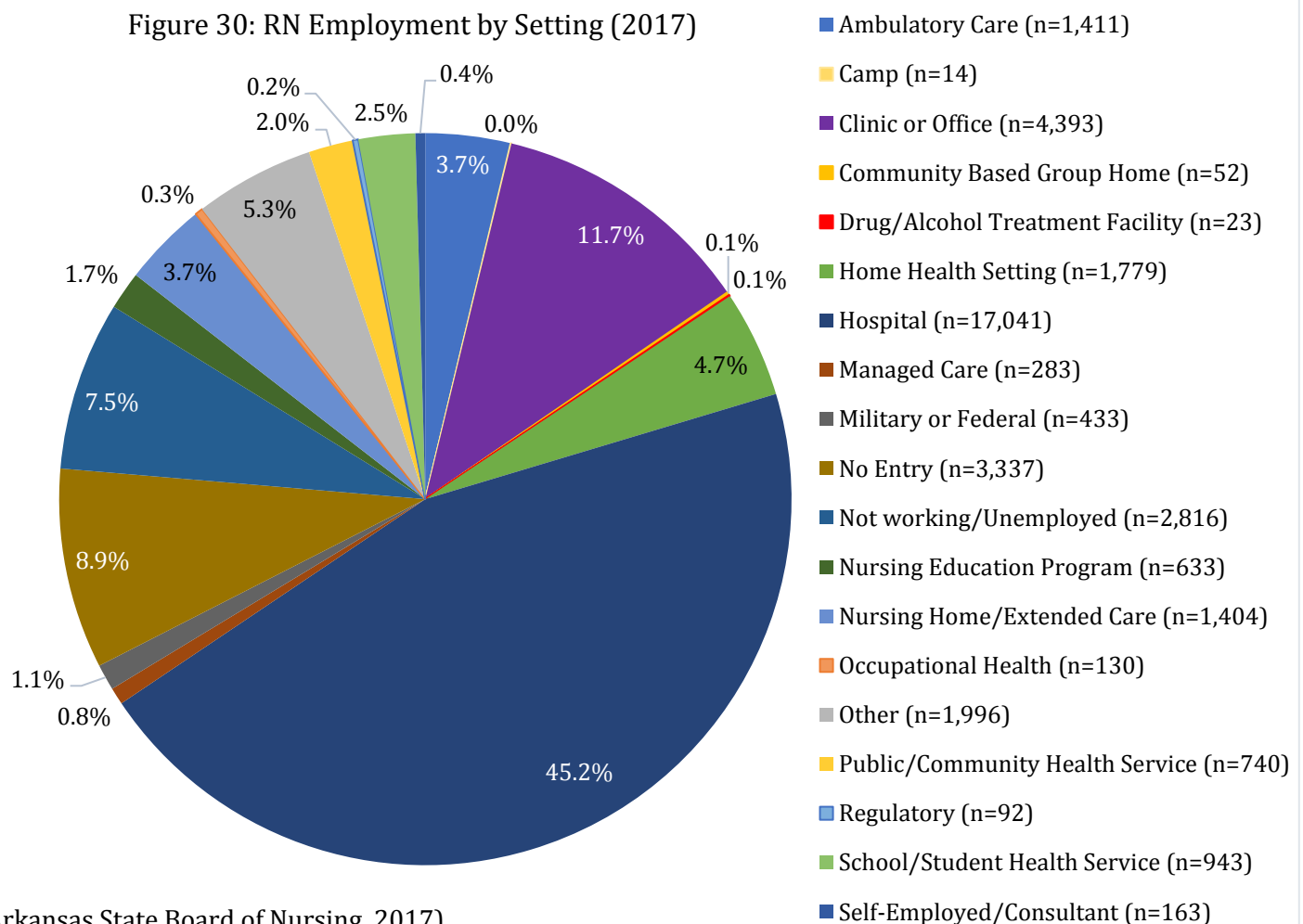
# NURSING DEMAND

## Nurse Demand Demographics

### RN Employment by Setting

In 2017, the highest percentage of RNs were employed in hospitals (45.2%) followed by clinics or offices (11.7%). Several settings employed less than 1% of RNs in Arkansas, including camps (0.04%), community-based group homes (0.1%), drug/alcohol treatment facilities (0.1%), regulatory agencies (0.2%), and occupational health (0.3%). RNs reported *not working in nursing or unemployed* 7.5% of the time. Approximately 9% of RNs did not report an employment setting (Figure 30).

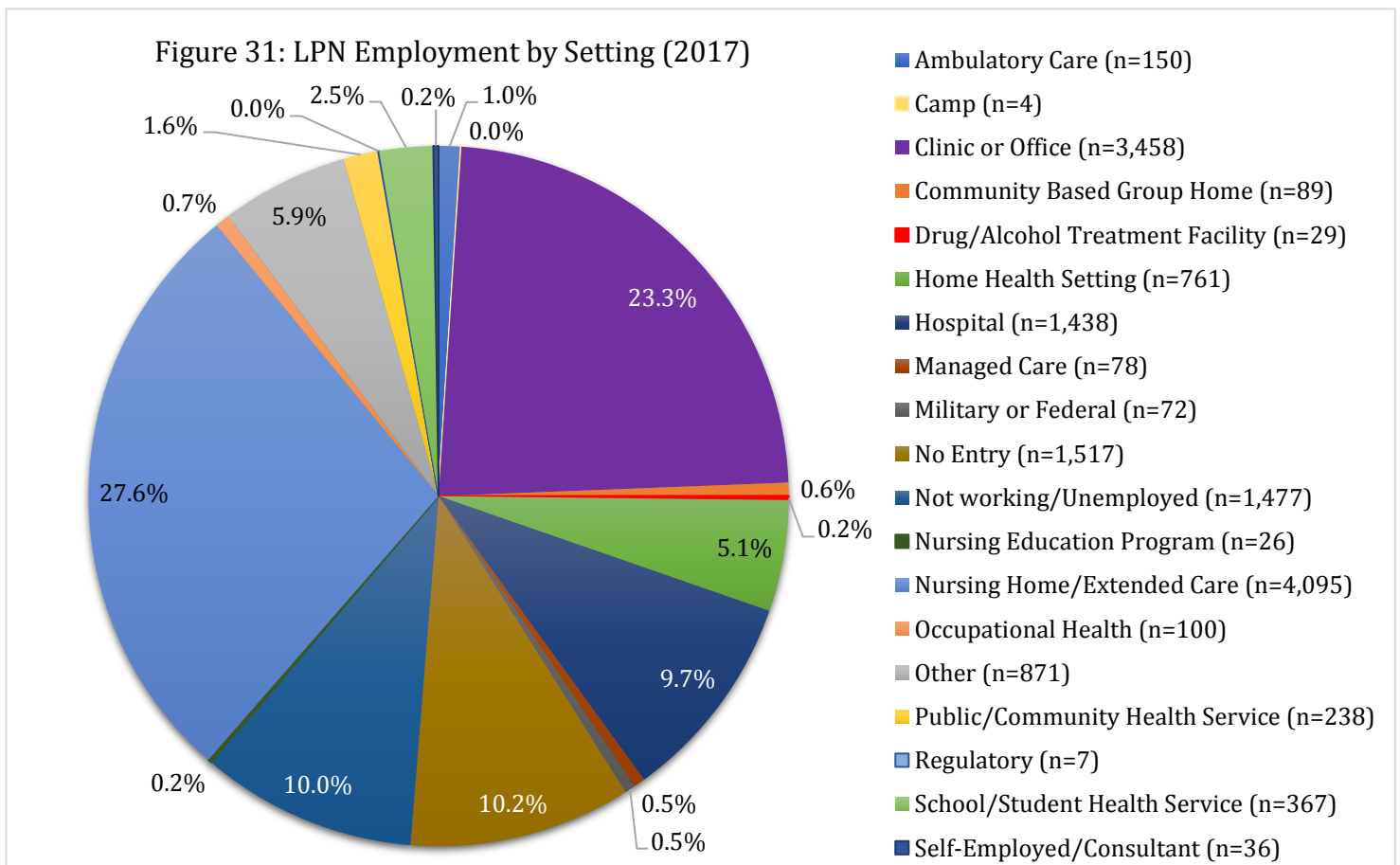
Figure 30: RN Employment by Setting (2017)



(Arkansas State Board of Nursing, 2017)

## LPN Employment by Setting

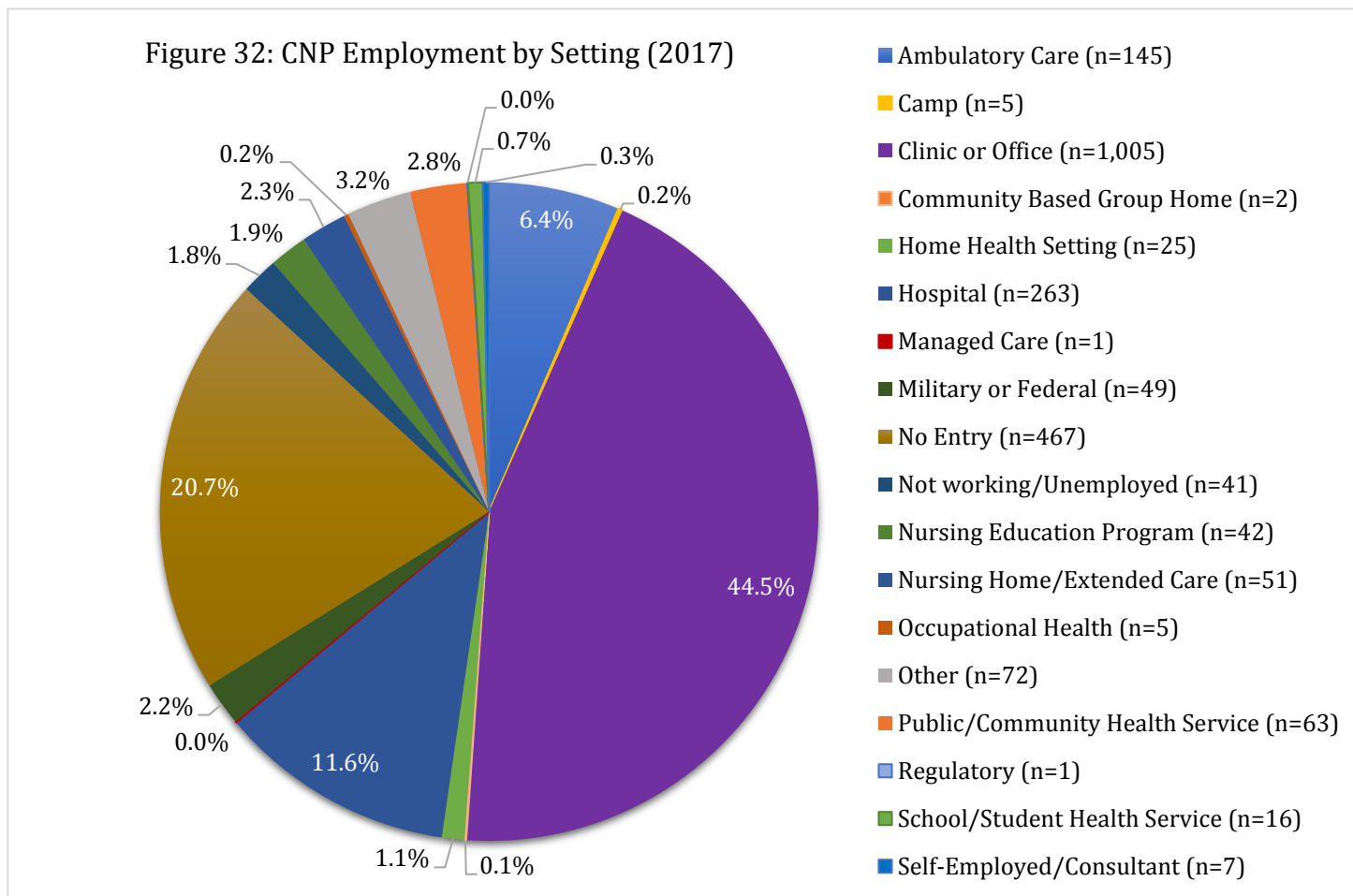
In 2017, the highest percentage of LPNs were employed in nursing home/extended care facilities (27.6%) followed by clinics or offices (23.3%). Several settings employed less than 1% of LPNs in Arkansas, including camps (0.03%), regulatory agencies (0.05%), self-employed (0.2%), drug/alcohol treatment facilities (0.2%), and nursing education programs (0.2%). LPNs reported *not working in nursing* or *unemployed* 10% of the time. Approximately 10% of LPNs did not report an employment setting (Figure 31).



(Arkansas State Board of Nursing, 2017)

## CNP Employment by Setting

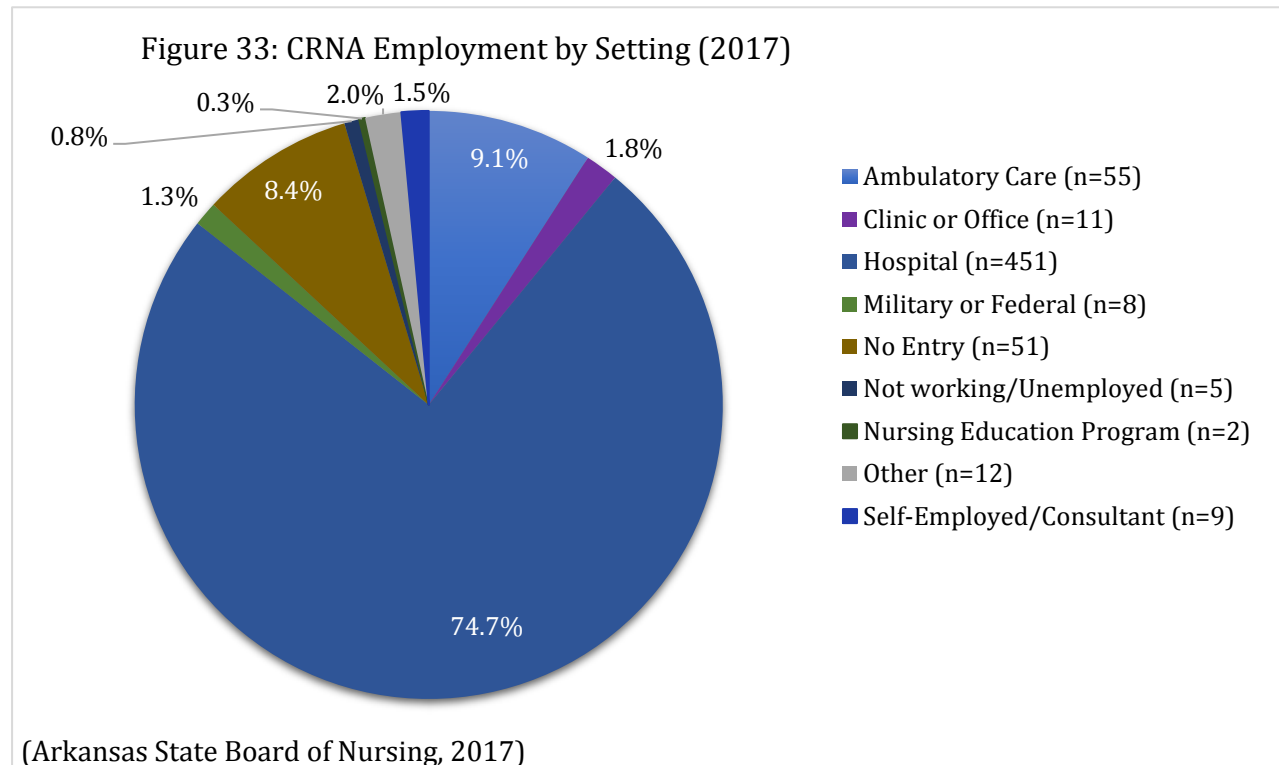
In 2017, the highest percentage of CNPs were employed in clinics or offices (44.5%) followed by hospitals (11.6%). Several settings employed less than 1% of CNPs in Arkansas, including managed care (0.04%), regulatory agencies (0.04%), community-based group homes (0.09%), camps (0.2%), and occupational health (0.2%). CNPs reported *not working in nursing or unemployed* 1.8% of the time. Approximately 20% of CNPs did not report an employment setting (Figure 32).



(Arkansas State Board of Nursing, 2017)

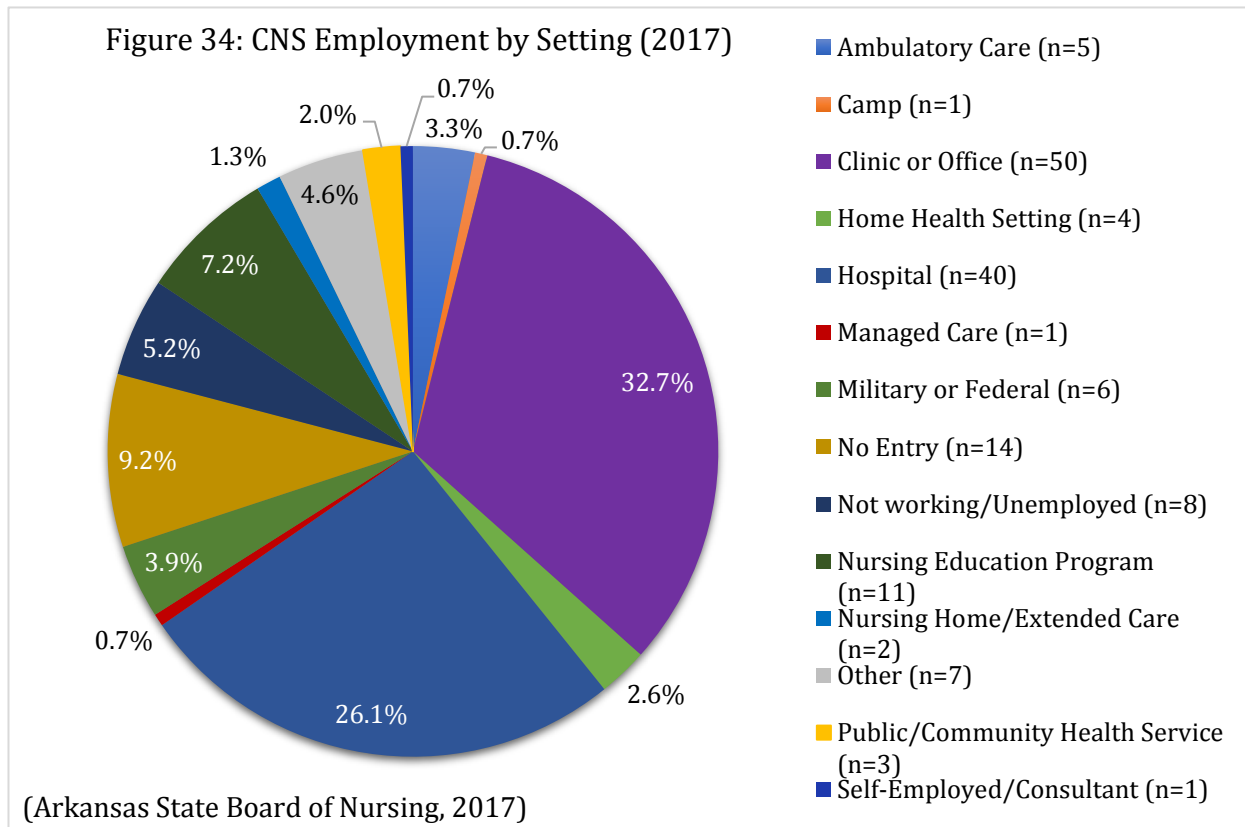
## CRNA Employment by Setting

In 2017, the highest percentage of CRNAs were employed in hospitals (74.7%) followed by ambulatory care (9.1%). Nursing education programs employed the least percentage of CRNAs (0.3%) in Arkansas. CRNAs reported *not working in nursing or unemployed* 0.8% of the time. Approximately 8% of CRNAs did not report an employment setting (Figure 33).



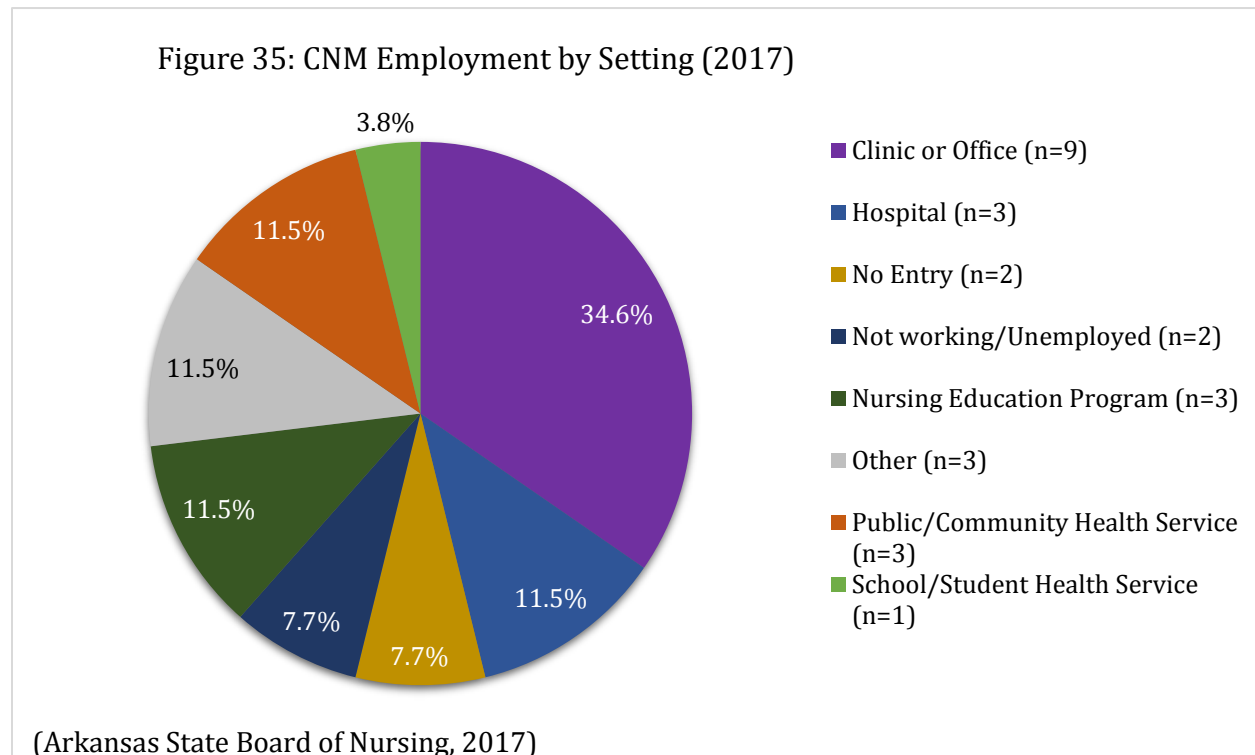
## CNS Employment by Setting

In 2017, the highest percentage of CNSs were employed in clinics or offices (32.7%) followed by hospitals (26.1%). Several settings employed less than 1% of CNSs in Arkansas, including managed care (0.7%), camps (0.7%), and self-employed/consultant (0.7%). CNSs reported *not working in nursing or unemployed* 5.2% of the time. Approximately 9% of CNSs did not report an employment setting (Figure 34).



## CNM Employment by Setting

In 2017, the highest percentage of CNMs were employed in clinics or offices (34.6%) followed by hospitals (11.5%), public/community health services (11.5%), and nursing education programs (11.5%). School/student health services employed the least percentage of CNMs (3.8%) in Arkansas. CNMs reported *not working in nursing* or *unemployed* 7.7% of the time. Approximately 7% of CNMs did not report an employment setting (Figure 35).



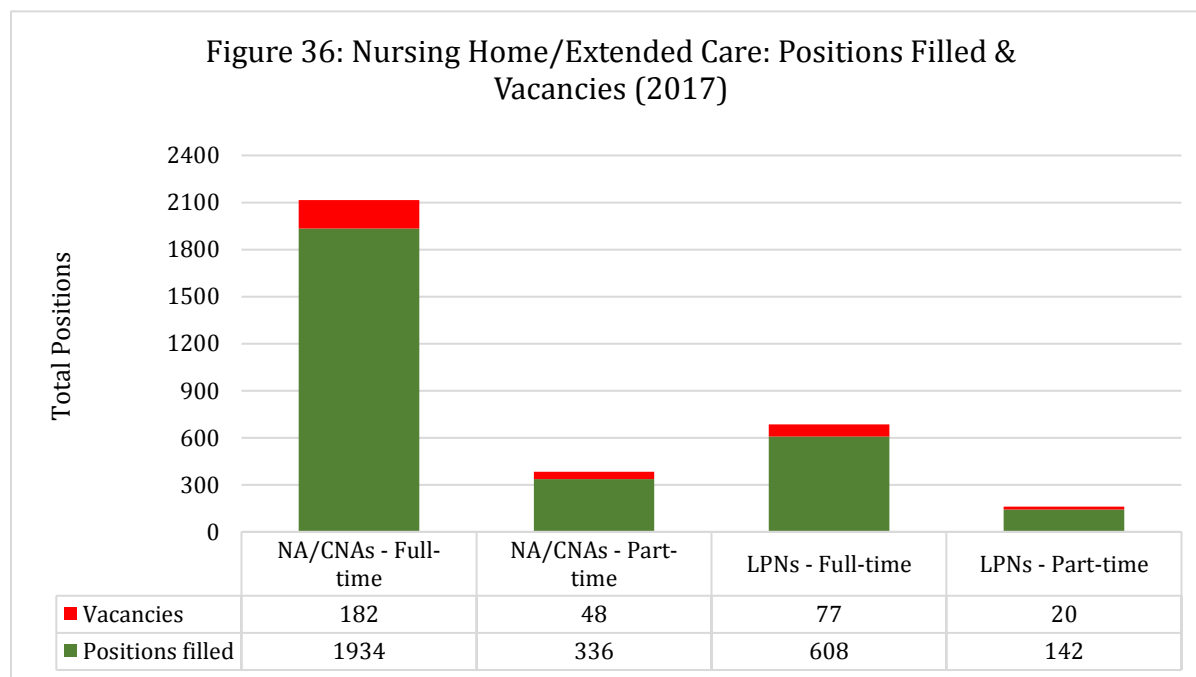
## Nurse Employer Survey Findings

### Nursing Home/Extended Care Facility Employment

According to the Arkansas Department of Human Services (DHS) Office of Long Term Care (OLTC) regulations (2018), the responsibilities of the Nursing Assistant is to provide all direct care for residents except for medications and some treatments. LPNs provide the direct care such as medications and treatments and overseeing the Nurse Aides or CNAs. RNs, often 1 or 2 RNs per facility serve in the capacity as Director or Assistant Director of Nursing for direct care. RNs listed as indirect care provide services such as Medicare/Medicaid oversight, quality outcomes and admissions assessments. A formula is provided to nursing homes and assisted living facilities that outlines the number of staff to resident ratio required for each shift (DHS, 2018).

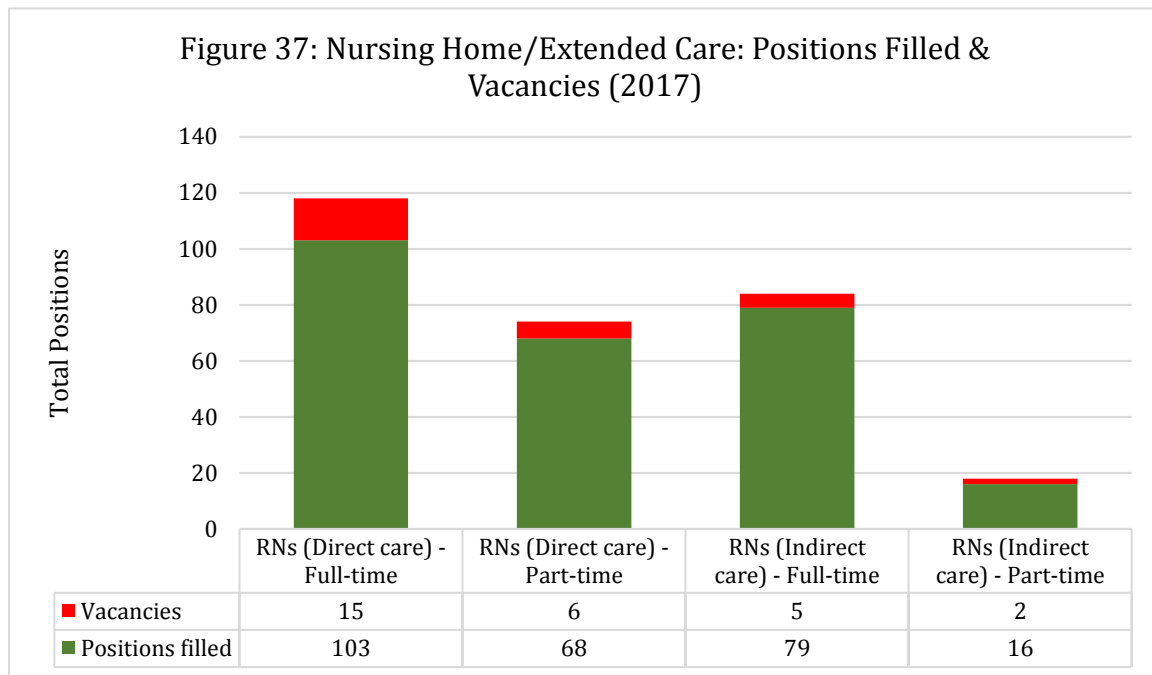
#### Direct Care Positions

Many of the direct care positions are filled by nursing assistants defined as Nurse Aide (NA)/Certified Nursing Assistants (CNAs). Facilities (n=52) employed an average of 37 (Median 36, range 9-109) full-time NA/CNAs. Part-time NA/CNAs made up an average of 7 (Median 5) positions per facility (n=47) (Figure 36). Full-time LPNs were the next largest group direct care givers, averaging 12 positions per facility (n=51) (Figure 36).



(Arkansas Center for Nursing, 2017)

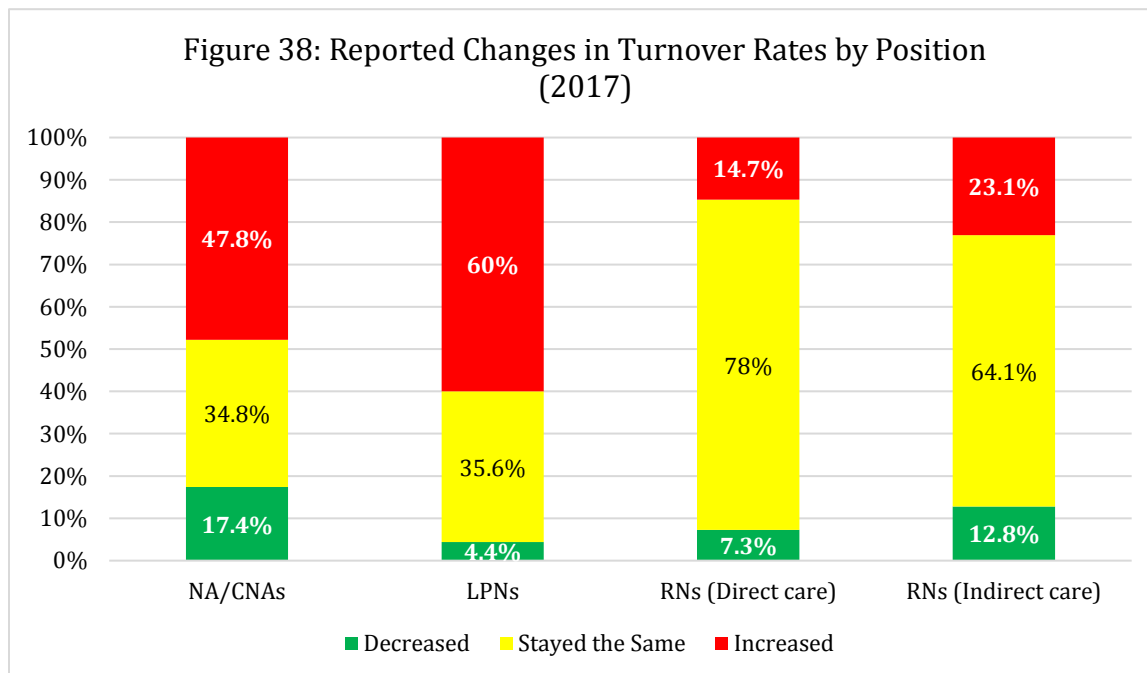
Full-time, Direct care RNs accounted for an average of 2 positions in each of the 47 facilities who reported using RNs in direct care roles (Figure 37).



(Arkansas Center for Nursing, 2017)

## Turnover Rates

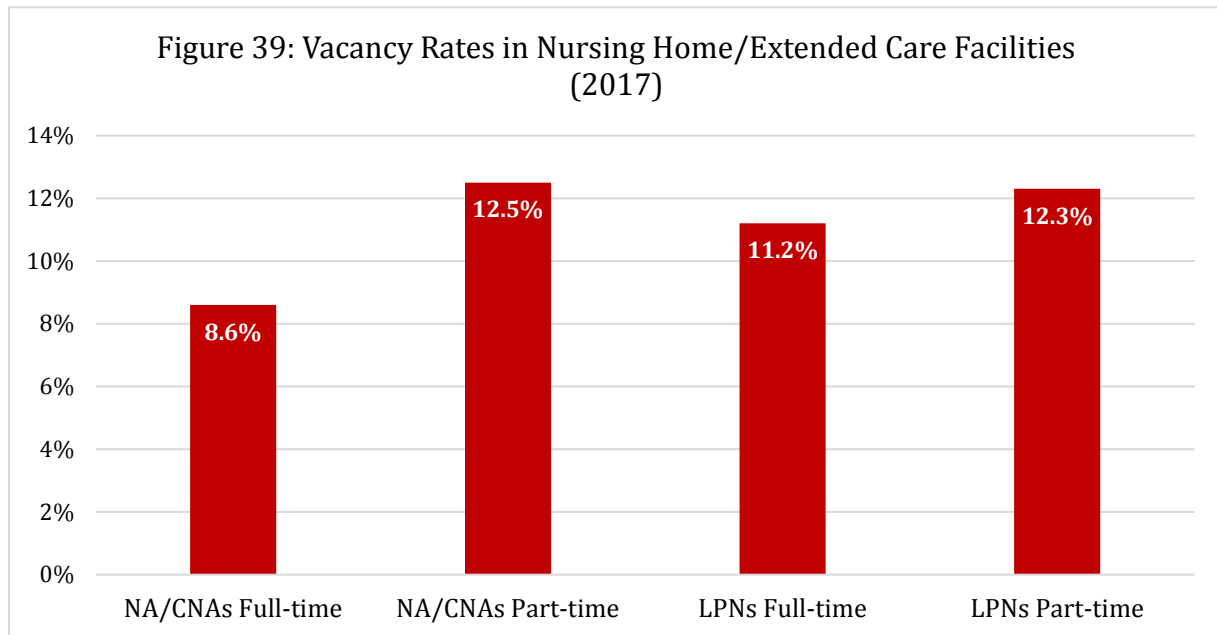
Responses evaluating changes in the personnel turnover rates were received from 46 Nursing Home/Extended Care Facilities. Nurse Aide/CNA turnover rates were reported by all 46 facilities while LPN turnover rates were reported by 45, Direct care RNs by 41, and Indirect care RNs by 39. Nurse Aide/CNA turnover was reported as increased by 47.8% facilities while 34.8% reported that turnover rates remained the same. LPN turnover rates were reported as increased by 60% of facilities. Turnover rates for RNs providing direct care remained the same in 78% of facilities and rates for RN Indirect care positions were reported to have remained the same in 64.1% of facilities (Figure 38).



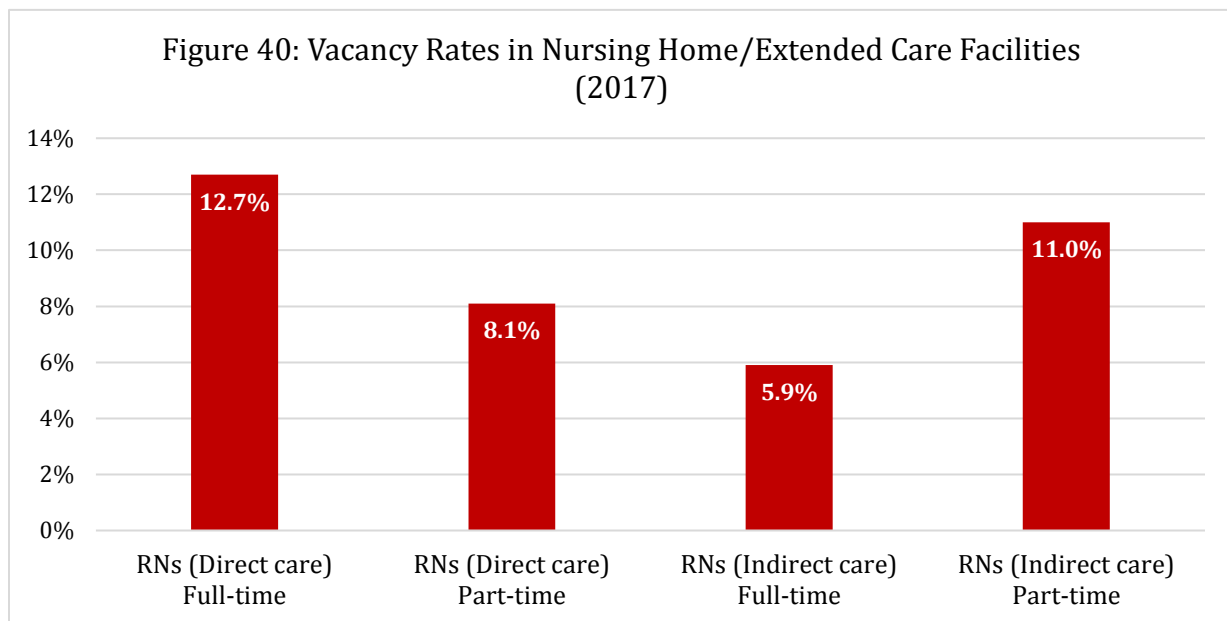
(Arkansas Center for Nursing, 2017)

## Vacancy Rates

Vacancy rates for the Nurse Aide/CNAs were lower for full-time positions (9%) than part-time positions (12%). Both the full-time and part-time positions for LPNs had high vacancy rates at 11% and 12%, respectively. RN full-time positions in direct care had more vacancies (13%) than any other position (Figures 39-40).



(Arkansas Center for Nursing, 2017)



(Arkansas Center for Nursing, 2017)

## **Advanced Practice Registered Nurses (APRNs)**

Advanced Practice Registered Nurses (APRNs) are registered nurses who have been educated beyond the requirements for a registered nurse in one of the four roles of advanced practice nurses. Certified Nurse Practitioner (CNP) and Clinical Nurse Specialist (CNS) are two roles that may practice in Nursing Home/Extended Care facilities.

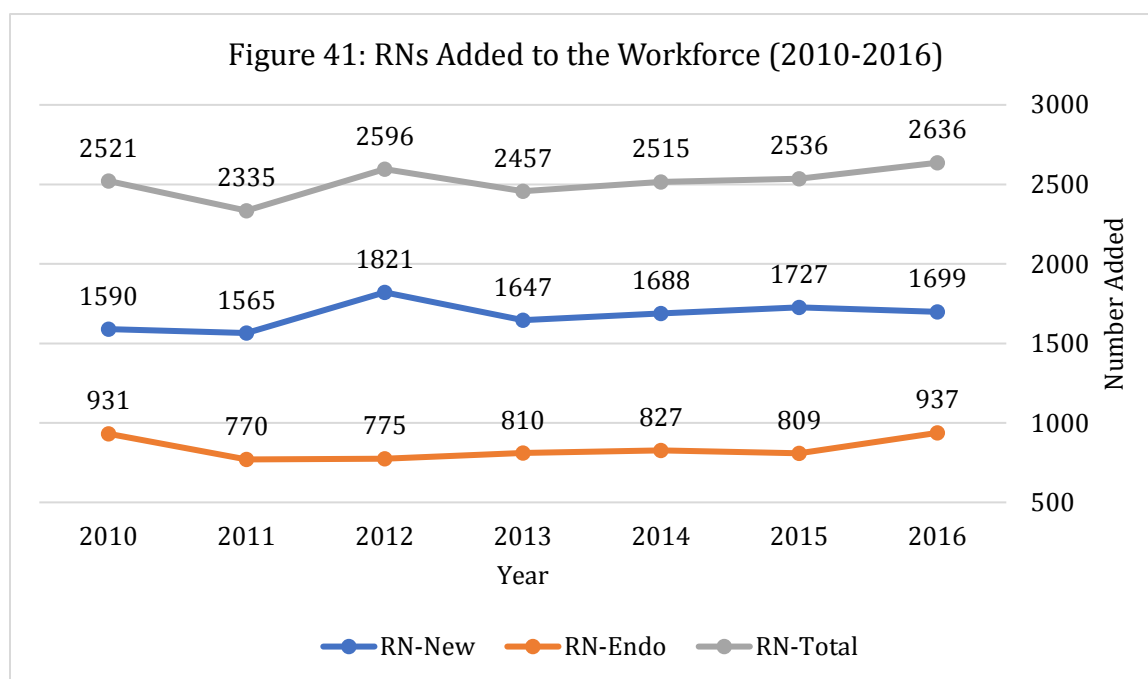
Currently there are no requirements for APRNs to be employed by Nursing Home/Extended Care facilities. Many APRNs work under contract with the medical directors of facilities and are not reported by facilities as personnel (AHCA/AALA, 2018). This survey showed the majority of the facilities (84%, n=38) did not employ APRNs. The Arkansas State Board of Nursing (2017) reported that both Certified Nurse Practitioners and Clinical Nursing Specialists worked in Nursing Home/Extended Care facilities. By Employment Setting self-report, there were 2.3% (n=51) CNPs and 1.3% (n=2) CNSs employed in Nursing Home/Extended Care facilities (Figures 32 and 34, respectively).

## FUTURE SUPPLY AND DEMAND

### Long Term Historical Supply Trends

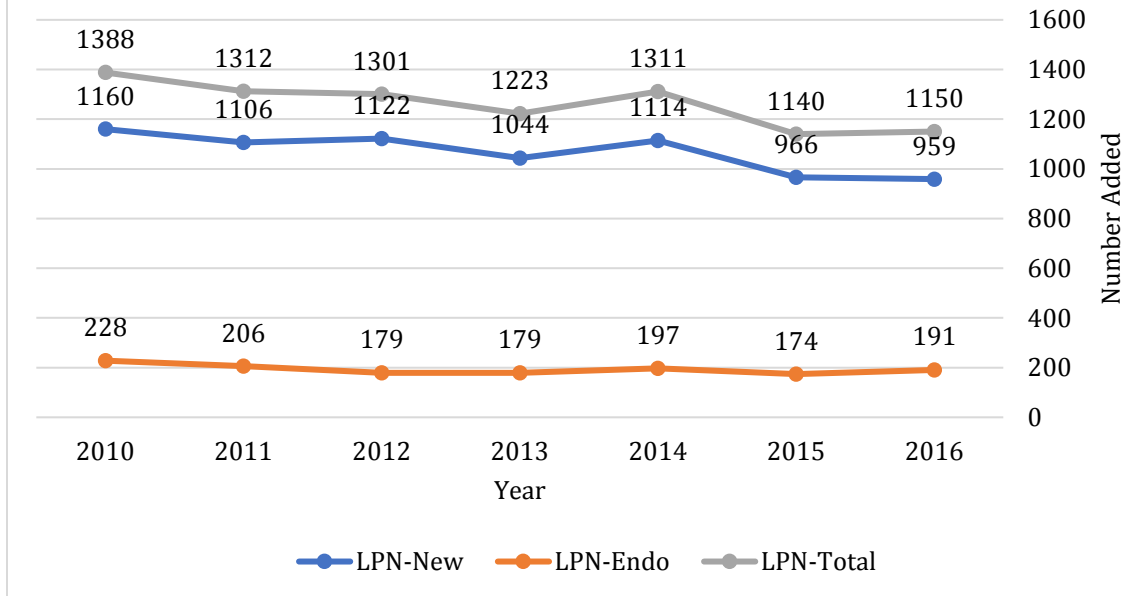
#### New Nurses Added to the Workforce (2010-2016)

In Arkansas, nurses are added to the workforce each year either as new licensees/new graduates (New) or by endorsement (Endo) from another state. The total number of RNs has increased steadily since 2013 (Figure 41). The number of LPNs added to the workforce has declined since 2010 (Figure 42). The number of CNPs added to the workforce has increased dramatically in the last two years while the number of CRNAs, CNSs, and CNMs has remained relatively flat since 2010 (Figure 43).



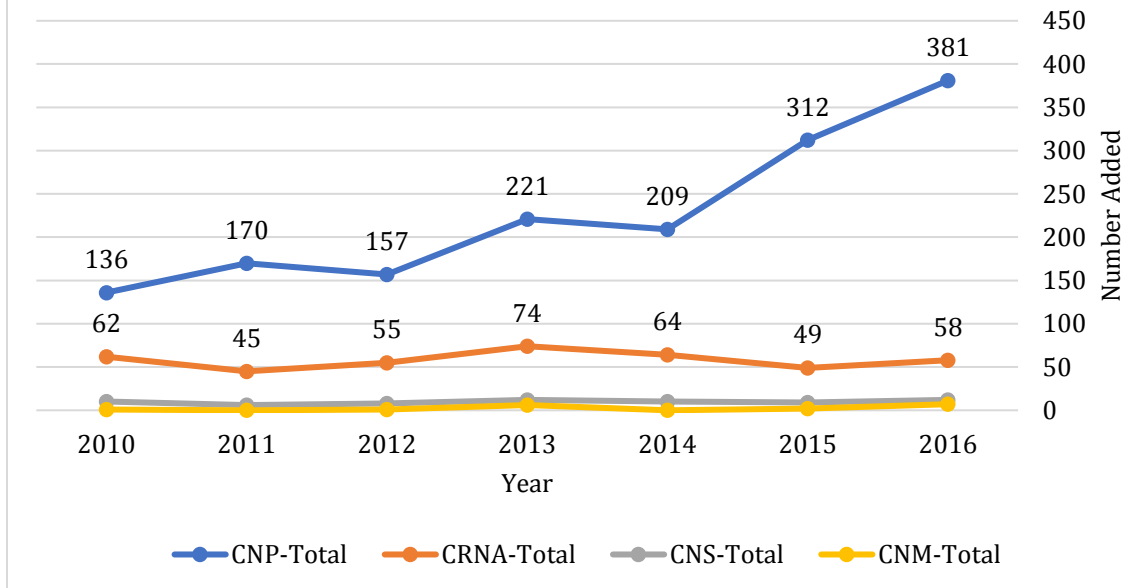
(Arkansas State Board of Nursing, 2016)

Figure 42: LPNs Added to the Workforce (2010-2016)



(Arkansas State Board of Nursing, 2016)

Figure 43: APRNs Added to the Workforce (2010-2016)



(Arkansas State Board of Nursing, 2016)

## Long Term Historical Demand and Projections

### Labor Market Projections

According to the Arkansas Department of Workforce Services 2014-2024, the occupational projection for Registered Nurses is driving the growth of healthcare practitioners and is expected to place among the **top five** in the *Top 20 Growing Occupations by Net Growth* list. For the 2024 employment projections, Nurse Practitioners lead with a 36% change (1,475 positions), Nursing Instructors with a 28% change (718 positions), Nurse Anesthetists with a 22% change (462 positions), and Registered Nurses with a 15% change (25,618 positions) (Table 7).

Both growth and replacement openings affect the increase in projected employment. Annual openings for Nurse Practitioners and Nursing Instructors are more influenced by growth (60%) than replacement.

Nurse Practitioners are listed in sixth place (36% growth) of the *Top 20 Fastest Growing Occupations by Percent Growth*. Both Registered Nurses and Licensed Practical/Vocational Nurses are listed in the *Top 20 Occupations in Total Annual Openings* with 866 and 465 jobs, respectively.

Table 7: Long-term Occupational Projections: Licensed Nurses (Arkansas, 2014-2024)

Occupation	2014 Estimated Employment	Projected 2024 Employment	Percent Change	Annual Openings Due to Growth	Annual Openings Due to Replacement	Total Annual Openings
Nursing Faculty	560	718	28.2%	16	10	26
Registered Nurses	22203	25618	15.4%	342	524	866
Nurse Anesthetists	379	462	21.9%	8	9	17
Nurse Practitioners	1082	1475	36.3%	39	26	65
Licensed Practical & Vocational Nurses	11,570	12,928	11.7%	136	329	465

(Arkansas Department of Workforce Services, 2017)

## Industry Employment Projections

Outpatient sites show the highest percent of change between 2014-2024 for employment of all nursing occupations (Table 8). Percent changes range from 43% to 70% for Nurse Practitioners, the occupation projected to lead the increase for employment in health care practitioner offices and outpatient care centers. Registered Nurses, in addition to the above outpatient settings, are projected to increase employment by over 30% in Psychiatric Hospitals, Specialty Hospitals, and Residential Intellectual and Developmental Disability facilities.

Table 8: Long-term Industry Projections: Healthcare Practitioners (Arkansas, 2014-2024)

Industry	Occupation	2014 Estimated Employment	Projected 2024 Employment	Percent Change
Offices of Physicians	Registered Nurses	1940	2418	24.64%
	Nurse Practitioners	528	757	43.37%
	Licensed Practical Nurses	2625	3272	24.65%
Offices of Other Health Practitioners	Registered Nurses	33	53	60.61%
	Nurse Practitioners	29	46	58.62%
	Licensed Practical Nurses	34	53	55.88%
Outpatient Care Centers	Registered Nurses	636	991	55.82%
	Nurse Practitioners	62	106	70.97%
	Licensed Practical Nurses	192	295	53.64%
Medical/Diagnostic Laboratories	Registered Nurses	39	55	41.02%
Home Health Care Services	Registered Nurses	869	1074	23.59%
	Licensed Practical Nurses	512	633	23.63%
General Medical and Surgical Hospitals	Registered Nurses	12,709	14,143	11.28%
	Nurse Anesthetists	64	69	7.81%
	Nurse Practitioners	288	361	25.35%
	Licensed Practical Nurses	2146	1858	-13.42%
Psychiatric/Substance Abuse Hospitals	Registered Nurses	456	617	35.30%
	Licensed Practical Nurses	228	300	31.58%
Specialty (except Psychiatric/Substance Abuse) Hospitals	Registered Nurses	405	537	32.59%
	Licensed Practical Nurses	72	76	5.55%
Nursing Care Facilities (Skilled Nursing Facilities)	Registered Nurses	910	1082	18.90%
	Licensed Practical Nurses	3532	3880	9.85%
Residential Intellectual & Developmental Disability, Mental	Registered Nurses	78	102	30.77%
	Licensed Practical Nurses	185	240	29.73%

(Arkansas Department of Workforce Services, 2017)

## Wages of Nurses in Arkansas

Advanced practice registered nurses earned the highest annual median wages in 2016 with CRNAs earning \$151,480 and CNPs earning an annual median wage of \$90,180. RNs, the largest occupation group earned a median annual wage of \$56,700. LPNs earned an annual median wage of \$36,720 (Table 9).

Nursing Instructors have one of the lowest average post-secondary faculty salaries reported for 2016 (Figure 16). The average annual nursing faculty salary in Arkansas was \$56,290 with a median salary of \$53,930 (Table 1).

Nursing Assistants are unlicensed assistive personnel, sometimes called nurse aides, that help to provide basic care for patients in hospitals and nursing homes (Bureau of Labor Statistics, 2016). Wage information for this group is provided in Table 10.

Table 9: Wages by Occupation: Licensed Nurses in Arkansas

Occupation		Employed	Mean Wages	Wage at the 25 <sup>th</sup> Percentile	Median Wages	Wage at the 75 <sup>th</sup> Percentile
RN	Hourly	23,380	\$27.71	\$22.79	\$27.26	\$31.86
	Annual	23,380	\$57,630	\$47,400	\$56,700	\$66,270
CRNA	Hourly	320	\$76.42	\$58.84	\$72.83	\$89.72
	Annual	320	\$158,940	\$122,380	\$151,480	\$186,610
CNP	Hourly	1,620	\$43.00	\$36.90	\$43.36	\$48.91
	Annual	1,620	\$89,440	\$76,750	\$90,180	\$101,740
LPN	Hourly	12,100	\$17.69	\$15.49	\$17.65	\$20.13
	Annual	12,100	\$36,800	\$32,220	\$36,720	\$41,870

(Arkansas Department of Workforce Services, 2017; Bureau of Labor Statistics, 2016)

Table 10: Wages by Occupation: Nursing Assistants in Arkansas

Occupation		Employed	Mean Wages	Wage at the 25 <sup>th</sup> Percentile	Median Wages	Wage at the 75 <sup>th</sup> Percentile
Nursing Assistant	Hourly	17,520	\$10.94	\$9.59	\$10.73	\$11.83
	Annual	17,520	\$22,760	\$19,940	\$22,310	\$24,610

(Arkansas Department of Workforce Services, 2017; Bureau of Labor Statistics, 2016)

## References

- Arkansas Center for Nursing. (2017). [Nurse employer survey, 2017]. Unpublished raw data.
- Arkansas Department of Human Services, Office of Long Term Care. (2018). Rules and regulations for nursing homes. Retrieved from <http://humanservices.arkansas.gov/images/uploads/dms/nfregs.pdf>
- Arkansas Department of Workforce Services. (2016). Arkansas-statewide long-term industry and occupational projections 2014-2024. Retrieved from <http://cdm16039.contentdm.oclc.org/cdm/ref/collection/p266101coll7/id/33812>
- Arkansas Department of Workforce Services. (2017). Arkansas-statewide short-term industry and occupational projections 2016-2018. Retrieved from [http://www.discover.arkansas.gov/Portals/136/Publications/Projections/ST\\_Proj\\_State\\_16\\_18.pdf](http://www.discover.arkansas.gov/Portals/136/Publications/Projections/ST_Proj_State_16_18.pdf)
- Arkansas Department of Workforce Services. (2017). Arkansas occupational employment and wage survey. Retrieved from [http://www.discover.arkansas.gov/Portals/136/Publications/OES%20Wages/OES\\_Pub.pdf](http://www.discover.arkansas.gov/Portals/136/Publications/OES%20Wages/OES_Pub.pdf)
- Arkansas State Board of Nursing. (2010-2016). Annual report. Retrieved from [www.arsbn.org/publications](http://www.arsbn.org/publications)
- Arkansas State Board of Nursing. (2017). Nursing programs. Retrieved from [www.arsbn.org/nursing-programs](http://www.arsbn.org/nursing-programs)
- Arkansas State Board of Nursing. (2017). [Nurse re-licensure survey data, fiscal year 2017]. Unpublished raw data.
- Arkansas State Board of Nursing. (2017). [Nursing program report data, fiscal year 2017]. Unpublished raw data.
- Arkansas Health Care Association/Arkansas Assisted Living Association. (2018). About us. Retrieved from [www.arhealthcare.com/about-us](http://www.arhealthcare.com/about-us)
- Arkansas Hospital Association. (2017). A snapshot of Arkansas Hospital Association members. Retrieved from <http://www.arkhospitals.org/archive/arkhospmagpdf/2017Stats/ArkansasHospitalsBytheNumbers.pdf>
- Auerbach, D. I., Buerhaus, P. I., & Staiger, D. O. (2017). Millennials almost twice as likely to be registered nurses as Baby Boomers were. *Health Affairs*, 36(10), 1804-1807.

- Bureau of Labor Statistics. (2016). State Occupational Employment and Wage Estimates Arkansas. Retrieved from [https://www.bls.gov/oes/current/oes\\_ar.htm#29-0000](https://www.bls.gov/oes/current/oes_ar.htm#29-0000)
- Georgetown University Center on Education and the Workforce. (2017). *Nursing: Can it remain a source of upward mobility amidst healthcare turmoil?* Washington, D.C.: Author.
- Institute of Medicine. (2010). *The future of nursing: Leading change, advancing health*. Washington, D.C.: Author.
- Interagency Collaborative on Nursing Statistics. (2018). Nurses, nursing education, and nursing workforce: Definitions. Retrieved from <http://www.iconsdata.org/definitions.html>
- Moulton, P. & Martin, K. (2016). *North Dakota nursing education, supply and demand chartbook* (North Dakota Center for Nursing Research Publication #10). Retrieved from <http://www.ndcenterfornursing.org/wp-content/uploads/2016/07/2016-Education-Supply-and-Demand-Chartbook.pdf>
- National Council of State Boards of Nursing. (2018). Exam statistics & publications: NCLEX pass rates. Retrieved from [https://www.ncsbn.org/exam-statistics-and-publications.htm#section\\_3710](https://www.ncsbn.org/exam-statistics-and-publications.htm#section_3710)
- National Forum of State Nursing Workforce Centers. (2017). Nursing minimum dataset surveys. Retrieved from <https://nursingworkforcecenters.org/minimum-datasets/>
- National League for Nursing. (2015). NLN faculty census survey of schools of nursing academic year 2014-2015: Executive summary. Retrieved from [http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/executive-summary-faculty-census-survey-2014-2015-\(pdf\).pdf?sfvrsn=2](http://www.nln.org/docs/default-source/newsroom/nursing-education-statistics/executive-summary-faculty-census-survey-2014-2015-(pdf).pdf?sfvrsn=2)
- Ratcliffe, M., Burd, C., Holder, K., & Fields, A. (2016). Defining rural at the U.S. Census Bureau: American community survey and geography brief. Retrieved from [https://www2.census.gov/geo/pdfs/reference/ua/Defining\\_Rural.pdf](https://www2.census.gov/geo/pdfs/reference/ua/Defining_Rural.pdf)
- United States Census Bureau. (2016). Urban and rural. Retrieved from <https://www.census.gov/geo/reference/urban-rural.html>
- United States Department of Labor, National Center for O\*NET Development. (2017). Summary report for: 25-1072.00 – Nursing instructors and teachers, postsecondary. Retrieved from <https://www.onetonline.org/link/summary/25-1072.00>

## Appendix A: Glossary

### Nursing Education

**Admitted Applicants:** A count of the individuals who received official notice from the program that they were invited to begin the nursing program during the Reporting Period (National Forum of State Nursing Workforce Centers [NFSNWC], 2017).

**AD Program:** A program of instruction that requires at least two years of fulltime equivalent college academic work generally within a junior or community college, the completion of which results in an associate degree with a major in nursing and eligibility to apply for licensure as an RN (NFSNWC, 2017).

**BSN Program:** A program of instruction to prepare registered nurses that admits students with no previous nursing education, the completion of which results in a baccalaureate degree (e.g., BA, BS, BSN, etc.) with a major in nursing and eligibility to apply for licensure as an RN. The program requires at least four years but not more than five years of full-time equivalent college academic work within in a senior college or university (NFSNWC, 2017).

**Diploma Program:** A program of instruction that requires two to three years of full-time equivalent coursework, usually within a hospital-based structural unit, the completion of which results in a diploma or certificate of completion and eligibility to apply for licensure as an RN (NFSNWC, 2017).

**DNP Program:** A program of instruction that prepares graduates for the highest level of nursing practice beyond the initial preparation in the discipline. The doctor of nursing practice degree is the terminal practice degree (NFSNWC, 2017).

**Full-time Faculty:** Those members of the instructional, administrative, or research staff of the nursing academic unit who are employed full-time as defined by the institution, hold academic rank, carry the full scope of faculty responsibility (e.g., teaching, advisement, committee work), and receive the rights and privileges associated with full time employment. These faculty may be tenured, tenure-track, or non-tenure track (given that there is a tenure system in the institution) (NFSNWC, 2017).

**Graduates:** A count of the number of students who successfully completed the program requirements and were formally awarded the degree during the Reporting Period (NFSNWC, 2017).

**PN Program:** A program of instruction that requires at least one year of full-time equivalent coursework generally within a high school, vocational/technical school or community/junior college setting, the completion of which results in a diploma or certificate of completion and eligibility to apply for licensure as an LPN/VN (NFSNWC, 2017).

**MSN Program – Clinical Track:** A post-licensure master’s program with emphasis on advanced clinical practice, including Nurse Practitioner, Nurse Anesthetist, Nurse Midwifery, and Clinical Nurse Specialist tracks (NFSNWC, 2017).

**MSN Program – Non-clinical Track:** A post-licensure master’s program with non-clinical emphasis, such as Nurse Educator and Management/Leadership tracks (NFSNWC, 2017).

**New Enrollees:** A count of the Admitted Applicants who subsequently enrolled for the first time in the nursing program during the Reporting Period (NFSNWC, 2017).

**NCLEX Pass Rate:** The percentage of first-time candidates for the National Council Licensure Examination (PN or RN) who pass the exam. This percentage can be computed in any time period that accommodates quarters, such as a fiscal year or calendar year. The National Council of State Boards of Nursing (NCSBN) produces quarterly reports of NCLEX results by program, including the number of first-time candidates and the number who pass. The NCLEX pass rate can be computed by summing the candidates and passers across the necessary quarters before dividing to produce the percentage. NCLEX pass rates for calendar years are computed by the NCSBN (NFSNWC, 2017).

**Other doctoral program:** Please combine information for any post-licensure doctoral programs conferring degrees other than the PhD or the DNP (NFSNWC, 2017).

**Part-Time Faculty:** Those members of the instructional, administrative, or research staff of the nursing academic unit who are employed part-time as defined by the institution, may or may not hold academic rank, carry responsibility for a specific area (e.g., teaching a single course), and may carry any number of titles (e.g., adjunct, clinical instructor). These faculty members are typically not eligible for tenure (NFSNWC, 2017).

**PhD Program:** A post-licensure doctoral program that culminates in the Doctorate of Philosophy in Nursing (NFSNWC, 2017).

**Qualified Applicants:** A count of the individuals who submitted complete applications on time and who met all institutional requirements for formal admission to the nursing program during the Reporting Period (NFSNWC, 2017).

**Reporting Period:** The most recently completed state-defined twelve-month reporting period. Questions about the production cycle of a nursing program, such as the number of qualified applicants or graduates, will use this one-year time frame. States may use a reporting period that best suits their needs. Many currently use the Academic Year, defined as Fall, Spring, and Summer semesters (NFSNWC, 2017).

**Seats for New Students:** A count of the total number of seats available for newly admitted students during the Reporting Period (NFSNWC, 2017).

**Total student enrollment:** A count of the number of students enrolled on the fall semester census date (NFSNWC, 2017).

## **Nursing Supply**

**Active License:** A license that is up to date on all licensure and/or renewal requirements (NFSNWC, 2017).

**Advanced Practice Registered Nurse:** A nurse who has obtained a license to practice as an APRN in one of the four APRN roles: certified registered nurse anesthetist (CRNA),

certified nurse-midwife (CNM), clinical nurse specialist (CNS), or certified nurse practitioner (CNP) (NFSNWC, 2017).

**Certified Nurse Midwife (CNM):** Provides a full range of primary health care services to women throughout the lifespan, including gynecologic care, family planning services, preconception care, prenatal and postpartum care, childbirth, and care of the newborn. The practice includes treating the male partner of their female clients for sexually transmitted disease and reproductive health. This care is provided in diverse settings, which may include home, hospital, birth center, and a variety of ambulatory care settings including private offices and community and public health clinics.

**Certified Nurse Practitioner (CNP):** For the certified nurse practitioner (CNP), care along the wellness-illness continuum is a dynamic process in which direct primary and acute care is provided across settings. CNPs are members of the health delivery system, practicing autonomously in areas as diverse as family practice, pediatrics, internal medicine, geriatrics, and women's health care. CNPs are prepared to diagnose and treat patients with undifferentiated symptoms as well as those with established diagnoses. Both primary and acute care CNPs provide initial, ongoing, and comprehensive care, includes taking comprehensive histories, providing physical examinations and other health assessment and screening activities, and diagnosing, treating, and managing patients with acute and chronic illnesses and diseases. This includes ordering, performing, supervising, and interpreting laboratory and imaging studies; prescribing medication and durable medical equipment; and making appropriate referrals for patients and families. Clinical CNP care includes health promotion, disease prevention, health education, and counseling as well as the diagnosis and management of acute and chronic diseases. Certified nurse practitioners are prepared to practice as primary care CNPs and acute care CNPs, which have separate national consensus-based competencies and separate certification processes.

**Certified Registered Nurse Anesthetist (CRNA):** Prepared to provide the full spectrum of patients' anesthesia care and anesthesia-related care for individuals across the lifespan, whose health status may range from healthy through all recognized levels of acuity, including persons with immediate, severe, or life-threatening illnesses or injury. This care is provided in diverse settings, including hospital surgical suites and obstetrical delivery rooms; critical access hospitals, acute care; pain management centers, ambulatory surgical centers; and the offices of dentists, podiatrists, ophthalmologists, and plastic surgeons.

**Clinical Nurse Specialist (CNS):** A unique APRN role to integrate care across the continuum and through three spheres of influence: patient, nurse, system. The three spheres are overlapping and interrelated, but each sphere possesses a distinctive focus. In each of the spheres of influence, the primary goal of the CNS is continuous improvement of patient outcomes and nursing care. Key elements of CNS practice are to create environments through mentoring and system changes that empower nurses to develop caring, evidence-based practices to alleviate patient distress,

facilitate ethical decision making, and respond to diversity. The CNS is responsible and accountable for diagnosis and treatment of health/illness states, disease management, health promotion, and prevention of illness and risk behaviors among individuals, families, groups, and communities.

**Highest level of education in nursing:** The highest degree obtained in nursing (NFSNWC, 2017).

**Inactive** (in regard to licensure): A license that was not renewed or a license placed on inactive status at the request of the licensee (NFSNWC, 2017).

**Licensed Practical Nurse or Licensed Vocational Nurse (LPN/LVN):** An individual who holds a current license to practice as a practical or vocational nurse in at least one jurisdiction of the United States (NFSNWC, 2017).

**Part-time:** An individual employed less than full time or less than a full work week, as defined by the employer (NFSNWC, 2017).

**Per diem:** An arrangement wherein a nurse is employed directly on an as needed basis and usually has no benefits (NFSNWC, 2017).

**Registered Nurse (RN):** An individual who holds a current license to practice within the scope of professional nursing in at least one jurisdiction of the United States (NFSNWC, 2017).

**Rural:** Rural consists of all territory, population, and housing units located outside UAs and UCs (census.gov).

**Urban areas (UA):** Represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses, containing a minimum population of 50,000 (census.gov).

**Urban Clusters (UC):** Areas that have a population of 2,500 to 50,000 (census.gov).

## **Nursing Demand**

**Acute Care Hospitals:** Short-term federal, state, or private hospitals, including inpatient and all outpatient (e.g., Emergency Department) units (NFSNWC, 2017).

**Employed in nursing:** A nurse who receives compensation for work that requires licensure and/or educational preparation as a nurse (Interagency Collaborative on Nursing Statistics [ICONS], 2018).

**Employment Setting:** The setting in which nursing personnel provide nursing services. See examples below: The following definitions are retrieved from a variety of sources (ICONS, 2018).

**Ambulatory Care:** Health services or acute care services that are provided on an outpatient basis. For example, Solo practice, Group practice, Ambulatory surgical center (non-hospital-based), Dental practice, Health Maintenance Organization (HMO), or Urgent care clinic.

**Camp:** A sustained camp experience that provides creative, recreational, and educational opportunities in group living in the outdoors. It utilizes trained leadership and the resources of natural surroundings to contribute to each camper's mental, physical, social, and spiritual growth.

**Clinic or Office:** Medical facilities where on-staff or contracted physicians and other healthcare professionals treat patients who do not require admission to a hospital and whose medical issues are not severe enough to warrant a visit to the emergency department.

**Community Based Group Home:** A facility that offers children and adults with intellectual and developmental disabilities the opportunity to live as independently as possible in the communities of their choice; provide 24/7 staff support, expert clinical services, and opportunities for individual growth.

**Drug/Alcohol Treatment Facility:** Provides care 24 hours a day, generally in non-hospital settings; have lengths of stay of between 6 and 12 months; focus on the "resocialization" of the individual and use the program's entire community—including other residents, staff, and the social context—as active components of treatment.

**Home Health Setting:** Nurses in this specialty provide care for people in their homes, such as those recovering from illness, an accident, or childbirth.

**Hospital (Acute Inpatient Care):** Health care institutions that have an organized medical and other professional staff, and inpatient facilities, and deliver medical, nursing and related services 24 hours per day, 7 days per week.

**Managed Care Facility:** Facility where health care is provided in return for a predetermined monthly fee and coordinate care through a defined network of physicians and hospitals.

**Military or Federal:** The Military Health System (MHS) is a global, comprehensive, integrated system that includes combat medical services, peacetime health care delivery, public health services, medical education and training, and medical research and development. The MHS serves diverse populations in every imaginable health care setting.

**Nursing Education Program:** The nurse educator role requires specialized preparation to advance the nursing profession by instructing nursing students through academic training in preparation for nursing licensure

**Nursing Home Extended Care Facility:** An institution devoted to providing medical, nursing, or custodial care for an individual over a prolonged period, such as during a chronic disease or the rehabilitation phase after an acute illness

**Occupational Health:** Occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards

**Public/Community Health Service:** Public health is defined as the science of protecting the safety and improving the health of communities through education, policy making and research for disease and injury prevention.

**Psychiatric/Mental Health/Substance Abuse:** Nurses in this specialty aid and support the mental health of patients with acute or chronic psychiatric needs.; pain management nurses who help regulate medications and provide care for those addicted to drugs or alcohol, or who are suffering from other types of substance abuse.

**Regulatory Agency:** Central or regional office of Federal agency, State Board of Nursing, Health planning agency, or Workforce Center.

**School/Student Health Service:** A comprehensive school health program is an integrated set of planned, sequential, school-affiliated strategies, activities, and services designed to promote the optimal physical, emotional, social, and educational development of students.

**Employment position/position title:** The position some individual holds at their place of employment (NFSNWC, 2017):

**Advanced Practice Registered Nurse:** A nurse who has obtained a license to practice as an APRN in one of the four APRN roles: certified registered nurse anesthetist (CRNA), certified nurse-midwife (CNM), clinical nurse specialist (CNS), or certified nurse practitioner (CNP).

**Nurse Consultant:** A professional who provides advice or expertise in the field of nursing regarding such issues as nursing education, nurse staffing, nurse policy, etc.

**Nurse Researcher:** An individual who conducts research in the field of nursing

**Nurse Executive:** Involved with management and administration concerns. They provide leadership roles in the designing of care, the planning and developing of procedures and policies, and administration of budgets in hospitals, health clinics, nursing homes, and ambulatory care centers.

**Nurse Manager:** An individual who has line management position with 24-hour accountability for a designated patient care services which may include operational responsibility for patient care delivery, fiscal and quality outcomes.

**Nurse Faculty/Educator:** Nurse faculty are individuals employed by a school of nursing or other type of nursing education program and are generally involved in teaching, research and service. Nurse educators provide education to nurses and other healthcare professionals in nonacademic settings such as hospitals.

**Staff Nurse:** A nurse in direct patient care who is responsible for the treatment and well-being of patients.

**Case Manager:** Case management is a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and

services to meet an individual's and family's comprehensive health needs through communication and available resources to promote quality cost-effective outcomes.

**Endorsement (Licensure by Endorsement):** A nurse licensed in one jurisdiction by meeting additional requirements for licensure in the second jurisdiction (ICONS, 2018).

**Full-time:** An individual employed for a full work week as defined by the employer.

**Full-time Equivalent Positions (FTEs):** A count of positions including both full-time and part-time employees which can be computed in two ways (NFSNWC, 2017):

1. Add total FTEs. For example, if there are 5 full-time RNs (1.0 FTE each), 3 half-time RNs (0.5 FTE each), and one quarter-time Staff RN (0.25 FTE), the total FTEs for RNs =  $5.0 + 1.5 + 0.25 = 6.75$ .
2. Divide the total hours worked in a week for that job type by the number of hours in a standard work week. For example, if there are 270 RN hours worked in your hospital in a week, and an FTE at your institution is 40 hours, RNs =  $6.75 \text{ FTEs } (270 \text{ hours} / 40 \text{ hours})$ .

**Nursing Aides (NAs/CNAs):** Individuals who assist nursing staff in the provision of basic care to clients and who work under the supervision of licensed nursing personnel. Included in, but not limited to, this category are nurse aides, nursing assistants, orderlies, attendants, personal care aides, medication technicians, unlicensed assistive personnel and home health aides (OLTC, 2018).

## Appendix B: Links to Minimum Data Sets (MDSs)

### Nursing Education Minimum Data Set

[http://nursingworkforcecenters.org/wp-content/uploads/2016/06/Nursing Education Dataset.pdf](http://nursingworkforcecenters.org/wp-content/uploads/2016/06/Nursing_Education_Dataset.pdf)

### Nursing Supply Minimum Data Set

[http://nursingworkforcecenters.org/wp-content/uploads/2016/11/National-Forum-Supply-Minimum-Dataset September-2016.pdf](http://nursingworkforcecenters.org/wp-content/uploads/2016/11/National-Forum-Supply-Minimum-Dataset_September-2016.pdf)

### Nursing Demand Minimum Data Set

[http://nursingworkforcecenters.org/wp-content/uploads/2016/06/Nurse Demand Dataset.pdf](http://nursingworkforcecenters.org/wp-content/uploads/2016/06/Nurse_Demand_Dataset.pdf)

## Appendix C: Nurse Employer Survey (Arkansas Center for Nursing, 2017)



### 2017 Nurse Employer Survey

#### Arkansas Center for Nursing, Inc. Mission:

To promote a culture of health for the citizens of Arkansas by advancing nurse education, practice, leadership, and workforce development.

#### Nursing Workforce Demand in Arkansas

The Arkansas Center for Nursing, Inc. (ACN) Nurse Employer Survey is being used to collect the most accurate and current data available about the number and types of nurses employed in Arkansas to determine Arkansas's Nursing Workforce Demand. **Please complete the survey by November 17, 2017.**

The ACN in collaboration with the Arkansas Organization of Nurse Executives (ArONE), the Arkansas Health Care Association (AHCA), and the Arkansas Assisted Living Association (AALA) are working together to address nursing workforce in our state and we need your help to effectively plan for the future.

We want to assure you that the information you share with the ACN will be kept strictly confidential and only aggregate results will be reported and disseminated. If you have any questions about the survey, please contact Dr. Ché Reed at:

Arkansas Center for Nursing, Inc.  
1123 South University Ave., Suite 800  
Little Rock, AR 72204  
Email: arcenterfornursing@gmail.com

#### Contact Information

The following information is required for any clarification that may be needed during the data entry phase of the Nursing Workforce Demand Project. This information will not be reported or used in the analysis of the data.

#### Facility Name

#### Facility Type. Please select the option that best describes your facility.

- ☐ Hospital
- ☐ Nursing home/Extended care facility

#### Name and Title of person completing the survey.

#### Email address of person completing the survey.

#### Telephone number of person completing the survey.

## Nursing Personnel

This section will help us understand your facility's current and future need for nursing personnel. Please report on the **number of employees** and do **not** include per diem staff, contract/agency nurses, or other temporary personnel in these counts. Enter "0" if you have no employees of a given type.

*Notes: For the purpose of this survey, nurses in **Direct Care** will be defined as those RNs spending 75-100% of their scheduled workday providing care to patients using the nursing process, which includes assessment, nursing diagnosis, planning, implementation, and evaluation of care. RNs in **Indirect Care** refers to nurses not providing direct care to patients, or those RNs spending 25% or less of their scheduled work time providing direct care to patients, such as Nurse Administrators and some mid-level managers. If data are not available in the manner requested on the survey (i.e., specific types of RNs), please submit data in the format that is normally collected by your facility (i.e., total number of RNs).*

*\*A rough estimate of the number of new positions you intent to create over the next year would be helpful if exact numbers are not known. This will help us project employment growth in your industry.*

## Registered Nurses (RNs), Licensed Practical Nurses (LPNs), & Nurse Aides/Certified Nursing Assistants (CNAs)

	Total # of RNs (Direct Care)	Total # of RNs (Indirect Care)	Total # of LPNs	Total # of Nurse Aides/CNAs
# of <b>full-time employees</b> as of June 30, 2017	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
# of <b>part-time employees</b> as of June 30, 2017	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
# of <b>full-time vacant</b> (budgeted, unfilled) positions being actively recruited as of June 30, 2017	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
# of <b>part-time vacant</b> (budgeted, unfilled) positions being actively recruited as of June 30, 2017	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

	Total # of RNs (Direct Care)	Total # of RNs (Indirect Care)	Total # of LPNs	Total # of Nurse Aides/CNAs
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# of **NEW full-time** positions you intend to create over the next year (through June 30, 2018)\*

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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# of **NEW part-time** positions you intend to create over the next year (through June 30, 2018)\*

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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## Advanced Practice Registered Nurses (APRNs)

	Certified Nurse Practitioners (CNP)	Certified Registered Nurse Anesthetists (CRNAs)	Clinical Nurse Specialists (CNSs)	Certified Nurse Midwives (CNMs)	Total # of APRNs
# of <b>full-time employees</b> as of June 30, 2017	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
# of <b>part-time employees</b> as of June 30, 2017	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
# of <b>full-time vacant</b> (budgeted, unfilled) positions being actively recruited as of June 30, 2017	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
# of <b>part-time vacant</b> (budgeted, unfilled) positions being actively recruited as of June 30, 2017	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
# of <b>NEW full-time</b> positions you intend to create over the next year (through June 30, 2018)*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

	Certified Nurse Practitioners (CNP)	Certified Registered Nurse Anesthetists (CRNAs)	Clinical Nurse Specialists (CNSs)	Certified Nurse Midwives (CNMs)	Total # of APRNs
# of <b>NEW part-time</b> positions you intend to create over the next year (through June 30, 2018)*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

What is the number of **hours per week** that is considered **full-time** in your organization?

#### Per Diem/Contract Nursing Staff

How many per diem, contract, agency, or other temporary nurses did your facility employ as of June 30, 2017? Include all nurses not counted as part of the facility's permanent, regularly scheduled employees. Enter "0" if none.

	Per Diem	Agency/Contract
Total # of RNs (Direct Care)	<input type="text"/>	<input type="text"/>
Total # of RNs (Indirect Care)	<input type="text"/>	<input type="text"/>
Total # of LPNs	<input type="text"/>	<input type="text"/>
Total # of Nurse Aides/CNAs	<input type="text"/>	<input type="text"/>
Total # of Certified Nurse Practitioners	<input type="text"/>	<input type="text"/>
Total # of CRNAs	<input type="text"/>	<input type="text"/>
Total # of Clinical Nurse Specialists	<input type="text"/>	<input type="text"/>
Total # of Certified Nurse Midwives	<input type="text"/>	<input type="text"/>

#### Turnover Rate

The information in the next question measures turnover July 1, 2016 through June 30, 2017. When reporting the number of persons who left, please include both voluntary and involuntary. Do not count those who moved from one position to another within the facility. Do not count persons who were hired but never reported for work.

#### Nurse Turnover

	RNs (Direct Care)	RNs (Indirect Care)	LPNs	Nurse Aides/CNAs	APRNs (all specialties)
Total # of persons who <b>left your organization</b> during your last fiscal year period.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total # of filled FTEs as of the <b>first day</b> of your last fiscal year.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total # of filled FTEs as of the <b>last day</b> of your last fiscal year.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

How have Turnover Rates changed since last year? *Please select one for each type of nurse.*

	Increased	Stayed the same	Decreased	Does not apply
RNs (Direct Care)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RNs (Indirect Care)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LPNs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nurse Aides/CNAs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
APRNs (all specialties)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Arkansas Center for Nursing, Inc.

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