SCHOOL OF MEDICINE
BOWEN CENTER FOR HEALTH
WORKFORCE RESEARCH & POLICY

2017 Indiana Nursing Licensure Survey
Data Report

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Department of Family Medicine
Indiana University School of Medicine
1110 W. Michigan Street, Suite 200
Indianapolis, IN 46202

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Correspondence:
Please address any correspondence regarding this document to the Bowen Center for Health Workforce Research and Policy via email at bowenctr@iu.edu or by phone at 317.278.0316.

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Executive Summary

The Bowen Center for Health Workforce Research and Policy (Bowen Center) has a rich history of collecting, analyzing and disseminating health workforce data and research for the State of Indiana. These efforts are important to informing health workforce policy and planning initiatives throughout the State. Registered nurses (RNs) are the largest licensed profession within the health workforce. Data on supply and distribution of this profession is critical to informing related initiatives regarding education, training and health care delivery.

The 2017 Indiana Nursing Licensure Survey Data Report presents key information collected from the nursing licensure survey administered by the Indiana Professional Licensing Agency during the biennial license renewal cycle. As of November 2017, 110,651 RNs renewed their license to practice in Indiana. Of these, 69,685 (63%) self-reported actively practicing in nursing and had a license address in Indiana.

Highlights from the demographic information contained in this report demonstrate that the majority of Indiana RNs self-report being white, non-Hispanic and female. The average age of RNs is 44.4 and 28.1% of those included in this report are under age 35. Though this is a relatively young workforce, just under a quarter (24.1%) of RNs were found to be over the age of 55. With these current demographics, increasing diversity in this workforce is a priority for nursing leaders. With regards to self-reported educational characteristics, majority (83.5%) of RNs obtained their qualifying nursing education in Indiana, indicating high retention of nursing students in Indiana. Additionally, 58.7% of RNs included in this report reported having obtained a Bachelor of Science in Nursing (BSN) or higher as their highest nursing education, showing progress in the achievement of the Institute of Medicine recommendation of 80% of RNs obtaining a BSN by 2020[1]. Professionally, 58.5 % of RNs reported practicing in a hospital and 19.2% reported having a specialty in acute care/critical care. RNs also demonstrate high capacity in providing clinical services, though counties such as Lagrange and Benton have the lowest RN workforce capacity. Additional information on Indiana's RN workforce is described throughout this report specialty.

Advanced practice registered nurses (APRNs) make up around 7.5% of the RN workforce, with 82.9% practicing as a nurse practitioner. APRNs have similar characteristics to the overall RN workforce; majority self-identifying as non-Hispanic (96.9%) and White (90.0%); less than half (45.6%) qualified for this first nursing degree with a BSN and most (89.4%) reported an MSN as their highest nursing education. Professionally, the highest percentage of APRNs reported working in an outpatient clinic (45.8%) and having a specialty in primary care (38.3%). APRNs also demonstrate high capacity for clinical services as 75.5% reported working more than 32 hours per week. More information on Indiana's advanced practice registered nurses (APRNs) is presented in a separate section of this report.

The 2017 Indiana Nursing Licensure Survey Data Report is a snapshot of Indiana's RN workforce. It presents key information for the purpose of informing initiatives aimed at improving health care for Indiana residents and empowering this invaluable workforce.

[1] Institute of Medicine. The Future of Nursing: Leading Change, Advancing Health. Washington, D.C.: The National Academies Press; 2011

Section I: Background Information

Registered nurses are a foundational part of health care delivery. They practice in a variety of specialties and settings. The 2017 Nursing Licensure Survey Data Report presents key information collected from the nursing re-licensure survey administered by the Indiana Professional Licensing Agency (IPLA) during the 2017 license renewal cycle. This report includes data on Indiana's registered nurse (RN) workforce which may be used to promote meaningful policy discussion and inform evidence-based health workforce policy development.

The data in this report are broken into two sections, including: [1] the total RN workforce and [2] advanced practice registered nurse (APRN) workforce. Each section reports data on demographic and professional characteristics as well as important supply and geographic distribution information.

Methods

Survey Administration

Indiana's nursing re-licensure survey was adapted from the Nursing Minimum Data Set (MDS) created by the Health Resources and Services Administration (HRSA), National Center for Health Workforce Analysis[2] and designed to meet the data needs of Indiana. HRSA has established MDS tools for many licensed health professionals to facilitate the development of national databases with consistent core data elements covering demographic, educational, credentialing, and practice characteristics of the health professions. Indiana's nursing re-licensure survey was administered by the IPLA during the biennial licensure renewal period. Registered nurses (RNs) who renewed their license electronically were invited to complete the voluntary online survey.

Dataset Construction

The data used to generate this report were extracted from the nursing base license and the nursing survey data files provided by the IPLA. The base license file contains administrative data such as license status, expiration date, license number, and date of birth. The survey license file contains responses from licensees to survey questions.

The survey file underwent structured cleaning and coding procedures in SAS 9.4© developed by the Bowen Center[3]. After these procedures were completed, the base license file was merged with the RN survey file by license number to create an RN Master File. The RN Master File was imported into the Indiana Health Professions Database in SQL Server Management Studio©.

License addresses were geocoded using standard procedures by the Polis Center[4]. Sample selection criteria were applied to the survey response data to define the sample of RNs actively practicing in Indiana. Therefore, the following inclusion criteria were applied:

1. Nurse renewed license in 2017;
2. Nurse holds an active, valid to practice while under review or probationary license;
3. Nurse responded to the 2017 re-licensure survey;
4. Nurse reported actively working in nursing; and
5. Nurse reported an Indiana licensure address

[2] https://bhw.hrsa.gov/health-workforce-analysis/data

[3] Additional details on the cleaning and coding procedures are available upon request through email to Bowenctr@iu.edu.

[4] Geocoding process involves standardizing addresses using 360Science software and geocoding using address locator software. Procedures return geographical coordinates for the license address as well as county federal information processing standards (FIPS) code and census block ID. Values are returned to the Indiana Health Professions Database for data reporting.

Registered nurses who did not meet these criteria were excluded from the sample for this report. Figure 1 provides a diagram of RNs who met the criteria for inclusion into the study sample. The final sample includes 69,685 RNs who held an active, 'valid to practice while under review' or probationary license, reported actively working in nursing, and provided an Indiana licensure address which could be verified.

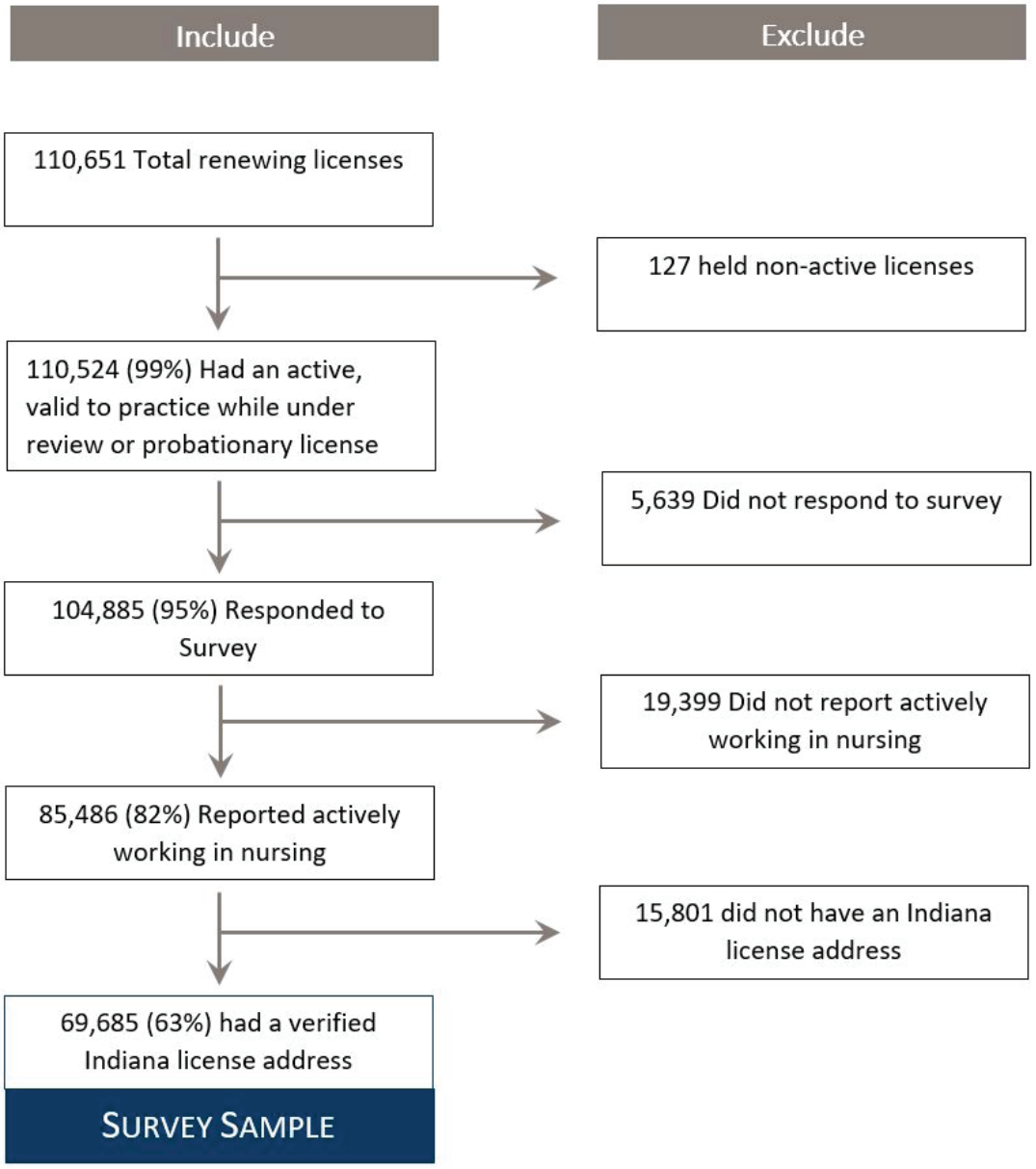


Figure 1.1: 2017 Registered Nurse Survey Sample Selection Criteria

FTE Assignment

A full-time equivalent (FTE) was assigned to each individual based on his or her survey response indicating the average number of hours per week spent in direct patient care. FTEs were assigned to each individual in order to accurately map the distribution of the RN workforce throughout Indiana. Geographic information system (GIS) maps present the distribution of the workforce by population-to-FTE throughout the report. Individuals in each hourly category were assigned an FTE as shown in Table 1.1.

Table 1.1: FTE Calculation Based on Reported Hours per Week in Patient Care

Reported Hours per Week in Patient Care	Assigned FTE
0	0
1 – 4	0.1
5 – 8	0.2
9 – 12	0.3
13 – 16	0.4
17 – 20	0.5
21 – 24	0.6
25 – 28	0.7
29 – 32	0.8
33 – 36	0.9
37 – 40	1
41 or more	1

Rurality

County rurality was determined by population. If a county had a population of at least 50,000 it was designated as "urban". If the county population was less than 50,000 the county was designated as "rural".

Limitations

The analyses and data presented in this report have several key limitations that should be taken into account when utilizing and interpreting these data. First, percentages provided in the descriptive tables were rounded to the nearest decimal. Thus, percentages may not equal 100% exactly. Second, the information in this report includes self-reported responses to a voluntary survey. As is the case with all survey research, it is likely that there is some level of response bias. In this case, it is possible that responses to a question do not reflect the absolute practice characteristics of a provider. Although these self-reported data may not be considered absolute, they offer a best estimate of a provider's practice characteristic for the purpose of informing policy discussions.

Additionally, the data presented in this report only represent a sample of the entire nursing workforce. Due to missing data and the voluntary nature of the survey some nurses are not represented in the final sample of this report. Although, only a sample is present in these data, it is a fairly large sample of the nursing workforce and may be valuable in informing health workforce policies. Moreover, a previous analysis of concordance rates between county of practice address and county of license address suggest that license address is an appropriate geographic indicator for registered nurses.

Lastly, the nursing licensure survey has been updated several times over the years in order to meet the needs of the State of Indiana and due to changes in the methodology for administration of the survey. Therefore, trend analyses on these data are not presented in this report due to changes in the data collection process and questions asked on the survey.

Supplemental Data Tables

The primary purpose of the 2017 Indiana Nursing Licensing Survey is to provide a snapshot of key information pertaining to the nursing workforce in Indiana. This report presents highlights of the 2017 nursing survey data. Additional data tables, maps and reports may be made available online through the Bowen Center website's Technical Assistance Request Form at bowenportal.org.

Section II: Overall Nursing Workforce

This section presents demographics and practice characteristics for the Indiana RN workforce survey sample. Of the 110,651 RNs who renewed their license in 2017, 69,685 reported actively practicing in nursing and had an Indiana license address. These tables have been generated in response to the expressed needs of the nursing advisory committee.

Demographics

The average age of the nursing workforce is 44.4 years. Male RNs – having an average age of 44 and 26.3% under the age of 35 – are slightly younger than their female counterparts who have an average age of 45.7. Self-reported data on RN's race and ethnicity demonstrate little diversity. The nursing workforce is largely non-Hispanic (96.7%) and white (90.7%). Black or African American nurses make up the largest minority at 4.2%. Table 2.1 provides more details on the demographic characteristics of the RN workforce.

Table 2.1: Registered Nurse Demographic Characteristics

	Female		Male		Non-Respondents		Total	
Mean Age	**45.7**		**44.0**		**33.1**		**44.4**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Age Groups								
Under 35	14,227	24.0	1,006	26.3	4,332	66.4	19,565	28.1
35 - 44	14,630	24.7	1,076	28.1	1,192	18.3	16,898	24.2
45 - 54	14,704	24.8	997	26.1	586	9.0	16,287	23.4
55 - 64	13,158	22.2	627	16.4	288	4.4	14,073	20.2
65 and Older	2,531	4.3	115	3.0	73	1.1	2,719	3.9
Non-Respondents	87	0.1	5	0.1	51	0.8	143	0.2
Total	***59,337***	***100.0***	***3,826***	***100.0***	***6,522***	***100.0***	***69,685***	***100.0***
Ethnicity								
Hispanic or Latino	1,337	2.3	124	3.2	254	3.9	1,715	2.5
Not Hispanic or Latino	57,529	97.0	3,648	95.3	6,247	95.8	67,424	96.8
Non-Respondent	471	0.8	54	1.4	21	0.3	546	0.8
Total	***59,337***	***100.0***	***3,826***	***100.0***	***6,522***	***100.0***	***69,685***	***100.0***
Race								
White	54,204	91.3	3,336	87.2	5,650	86.6	63,190	90.7
American Indian or Alaska Native	97	0.2	7	0.2	8	0.1	112	0.2
Native Hawaiian/Pacific Islander	39	0.1	5	0.1	6	0.1	50	0.1
Black or African American	2,381	4.0	159	4.2	385	5.9	2,925	4.2
Asian	698	1.2	91	2.4	162	2.5	951	1.4
Other	687	1.2	94	2.5	138	2.1	919	1.3
Multiracial	558	0.9	75	2.0	127	1.9	760	1.1
Non-Respondents	673	1.1	59	1.5	46	0.7	778	1.1
Total	***59,337***	***100.0***	***3,826***	***100.0***	***6,522***	***100.0***	***69,685***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Notes: Age was calcualted as the difference between the respondent's date of birth and the date of survey completion.

Educational Characteristics

Self-reported educational characteristics demonstrate Indiana successfully retaining many nurses who trained in the state. Over 58,000 (~80%) reported receiving their qualifying education in Indiana. Of the RNs who self-reported completing their qualifying education in Indiana, around half (50.1%) reported their qualifying education being an associate degree in nursing (ASN) while 42.9% reported having completed a baccalaureate degree in nursing (BSN) as their qualifying education. Table 2.2 provides details on qualifying education.

When asked about highest education, 46.2% of respondents reported having obtained a BSN as their highest nursing education, followed by 37.2% reporting an ASN as their highest nursing education. Smaller percentages of RNs reported having an MSN (11.6%) or a doctoral nursing degree (0.9%) as their highest nursing education. Table 2.3 provides more details on RNs' highest nursing and non-nursing education.

Table 2.2: Registered Nurse Qualifying Education and Training

Total	Indiana		Contiguous States		Another State		Another Country (not U.S.)		Non-Respondents		Total	
Qualifying Nursing Education	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Diploma – nursing	2,558	4.4	757	11.5	385	9.9	119	20.2	12	3.0	3,831	5.5
Associate degree – nursing	29,167	50.1	3,417	51.7	1,738	44.6	65	11.1	127	31.8	34,514	49.5
Baccalaureate degree – nursing	24,952	42.9	2,194	33.2	1,596	41.0	384	65.3	75	18.8	29,201	41.9
Master's degree – nursing	1,224	2.1	197	3.0	147	3.8	17	2.9	3	0.8	1,588	2.3
Doctoral degree – nursing	59	0.1	14	0.2	11	0.3	1	0.2	0	0.0	85	0.1
Non-Respondents	230	0.4	32	0.5	19	0.5	2	0.3	183	45.8	466	0.7
Total	***58,190***	***100.0***	***6,611***	***100.0***	***3,896***	***100.0***	***588***	***100.0***	***400***	***100.0***	***69,685***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Notes: Contiguous States include Michigan, Illinois, Kentucky and Ohio

Table 2.3: Registered Nurse Highest Education and Training

Highest Nursing Education	**N**	**%**
Diploma – nursing	2,582	3.7
Associate degree – nursing	25,897	37.2
Baccalaureate degree – nursing	32,185	46.2
Master's degree – nursing	8,049	11.6
Doctoral degree – nursing	610	0.9
Non-Respondents	362	0.5
Total	***69,685***	***100.0***
Highest Non-Nursing Education	**N**	**%**
Not Applicable	48,272	69.3
Diploma – non-nursing	4,465	6.4
Associate degree – non-nursing	4,858	7.0
Baccalaureate degree – non-nursing	8,975	12.9
Master's degree – non-nursing	2,089	3.0
Doctoral degree – non-nursing	213	0.3
Non-Respondents	813	1.2
Total	***69,685***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Professional Characteristics

Tables 2.4 - 2.6 provide information on the professional characteristics of RNs. Majority (86.4%) of RNs reported currently having only one paid position. Professionally, the greatest percentage (66%) of registered nurses work as a staff nurse, followed by nurse manager (9.2%) and other – health related position (8.9%). A hospital setting was the most common practice setting with 58.8% reporting this as their primary practice setting. Nearly one-fifth (19.8%) of RNs reported a specialty in acute care or critical care, followed by 12.1% in a medical surgical specialty.

Table 2.4: Registered Nurse Work Position

Paid Positions	N	%
1 position	60,224	86.4
2 positions	7,170	10.3
3 positions	619	0.9
4 or more positions	107	0.2
Not applicable	159	0.2
Non-Respondents	1,406	2.0
Total	***69,685***	***100.0***
Primary Position	**N**	**%**
Consultant/Nurse Researcher	942	1.4
Nurse Executive	1,392	2.0
Nurse Manager	6,437	9.2
Advanced Practice Nurse	4,797	6.9
Staff Nurse	45,960	66.0
Nurse Educator (faculty)	1,292	1.9
Nurse Educator (staff development)	886	1.3
Nurse Educator (patient educator)	846	1.2
Other – Health Related	6,233	8.9
Not Applicable	329	0.5
Non-Respondents	571	0.8
Total	***69,685***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Table 2.5: Registered Nurse Practice Setting

Primary Work Setting	N	%
Hospital	40,955	58.8
Nursing Home/Extended Care Facility/Assisted Living Facility	4,722	6.8
Home Health	4,156	6.0
Correctional Facility	291	0.4
Academic Setting	1,338	1.9
Public/Community Health	1,094	1.6
School-Based Health	1,409	2.0
Occupational Health	504	0.7
Outpatient Clinic	9,201	13.2
Insurance Claims/Benefits	1,115	1.6
Policy/Planning/Licensing Agency	43	0.1
Other	3,704	5.3
Non-Respondents	1,153	1.7
Total	***69,685***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Table 2.6: Registered Nurse Pracrtice Specialty

Employment Specialty	N	%
Acute Care/Critical Care	13,372	19.2
Adult Health/Family Health	3,285	4.7
Anesthesia	837	1.2
Community	625	0.9
Geriatric/Gerontology	3,507	5.0
Home Health	2,805	4.0
Maternal-Child Health	3,013	4.3
Medical Surgical	7,919	11.4
Occupational Health	458	0.7
Oncology	1,902	2.7
Palliative Care	767	1.1
Patient Education	410	0.6
Pediatrics/Neonatal	3,555	5.1
Public Health	484	0.7
Psychiatric/Mental Health/Substance Abuse	2,073	3.0
Rehabilitation	1,223	1.8
School Health	1,312	1.9
Trauma	1,650	2.4
Women's Health	1,375	2.0
Other	8,197	11.8
I do not provide direct patient care	8,720	12.5
Non-Respondents	2,196	3.2
Total	***69,685***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

As displayed in table 2.7, the majority (83.1%) of RNs reported that they plan to "continue working as they are" for the next 2 years. Nearly one-third (32.9%) of RNs reported an intent to pursue further education in the next 2 years; 14.6% reported intending to pursue a BSN and 13.7% reported intending to pursue a master's degree in nursing (MSN).

Table 2.7: Registered Nurse Future Plans

Employment Plans for the next 2 years	N	%
Continue as you are	58,009	83.2
Increase hours	4,012	5.8
Decrease hours	2,527	3.6
Seek non-clinical job	688	1.0
Retire	1,213	1.7
Unknown	2,625	3.8
Non-Respondents	611	0.9
Total	***69,685***	***100.0***
Degree Anticipated to Pursue in the Next 2 Years	**N**	**%**
Bachelor's Degree – Nursing	10,183	14.6
Bachelor's Degree – Other Field	326	0.5
Master's Degree – Nursing	9,530	13.7
Master's Degree – Other Field	826	1.2
Doctor of Nursing Practice (DNP)	1,608	2.3
PhD – Nursing	229	0.3
Doctoral Degree – Other Field	192	0.3
I do not intend to pursue further education in the next 2 years	46,232	66.3
Non-Respondents	559	0.8
Total	***69,685***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Geographic Distribution and Workforce Capacity

Population-to-provider FTE (PPR) ratios is a key measure used for determining workforce capacity and distribution. There is no standardized population to provider ratio benchmark for determining a shortage of RNs; however, this measure is useful for assessing distribution and determining potential gaps in workforce capacity.

Regarding hours spent in patient care, the greatest percentage (73.4%) of RNs reported working more than 32 hours per week in patient care, and nearly one-fifth (19.4%) reported working 41 or more hours per week in patient care (Table 2.8).

Two of the highest PPRs were found in Lagrange County (245) and Benton County (190). These counties are both rural and have consistently had little to no workforce capacity in their service area. The smallest PPRs are found in more metropolitan counties, such as Boone County (60:1) and Warrick County (63:1). On the follwoing pages table 2.9 provides more details on registered nurse workforce capacity in Indiana and Map 2.1 provides the geographic distribution of RN workforce capacity.

Table 2.8: Registered Nurse Hours per Week in Patient Care

Primary Practice Hours	N	%
0 hours per week	265	0.4
1-4 hours per week	670	1.0
5-8 hours per week	959	1.4
9-12 hours per week	1,223	1.8
13-16 hours per week	1,193	1.7
17-20 hours per week	1,614	2.3
21-24 hours per week	4,071	5.8
25-28 hours per week	3,462	5.0
29-32 hours per week	3,478	5.0
33-36 hours per week	11,438	16.4
37-40 hours per week	26,188	37.6
41 or more hours per week	13,497	19.4
Non-Respondents	1,627	2.3
Total	***69,685***	***100.0***

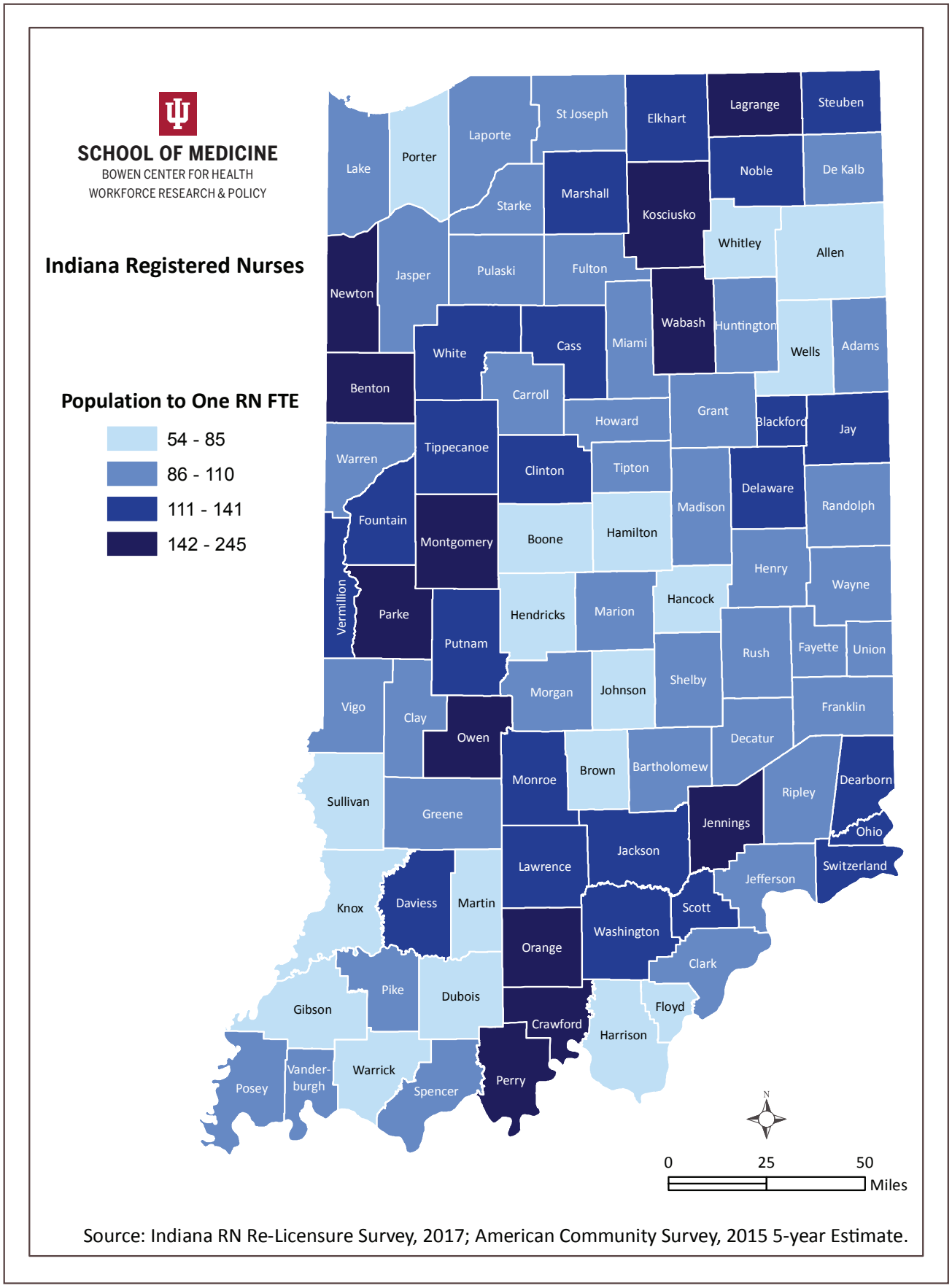
Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Table 2.9: Geographic Distribution of Indiana RNs

County	Rurality	Population to Provider Ratio
Adams	Rural	95
Allen	Urban	78
Bartholomew	Urban	108
Benton	Rural	190
Blackford	Rural	121
Boone	Urban	60
Brown	Urban	79
Carroll	Urban	87
Cass	Rural	126
Clark	Urban	98
Clay	Urban	95
Clinton	Rural	127
Crawford	Rural	189
Daviess	Rural	116
Dearborn	Urban	128
Decatur	Rural	105
DeKalb	Rural	104
Delaware	Urban	114
Dubois	Rural	76
Elkhart	Urban	135
Fayette	Rural	98
Floyd	Urban	81
Fountain	Rural	122
Franklin	Urban	105
Fulton	Rural	103
Gibson	Urban	83
Grant	Rural	89
Greene	Urban	108
Hamilton	Urban	54
Hancock	Urban	59
Harrison	Urban	85
Hendricks	Urban	55
Henry	Rural	98
Howard	Urban	88
Huntington	Rural	107
Jackson	Rural	134
Jasper	Urban	94
Jay	Rural	123
Jefferson	Rural	99
Jennings	Rural	152
Johnson	Urban	64
Knox	Rural	79
Kosciusko	Rural	146
LaGrange	Rural	245
Lake	Urban	100
LaPorte	Urban	109

County	Rurality	Population to Provider Ratio
Lawrence	Rural	112
Madison	Urban	105
Marion	Urban	108
Marshall	Rural	116
Martin	Rural	80
Miami	Rural	108
Monroe	Urban	127
Montgomery	Rural	154
Morgan	Urban	88
Newton	Urban	147
Noble	Rural	141
Ohio	Urban	116
Orange	Rural	163
Owen	Rural	148
Parke	Rural	154
Perry	Rural	154
Pike	Rural	102
Porter	Urban	70
Posey	Urban	92
Pulaski	Rural	100
Putnam	Urban	115
Randolph	Rural	100
Ripley	Rural	93
Rush	Rural	89
St. Joseph	Urban	105
Scott	Rural	121
Shelby	Urban	89
Spencer	Rural	110
Starke	Rural	95
Steuben	Rural	124
Sullivan	Urban	83
Switzerland	Rural	141
Tippecanoe	Urban	120
Tipton	Urban	93
Union	Rural	94
Vanderburgh	Urban	95
Vermillion	Urban	124
Vigo	Urban	97
Wabash	Rural	146
Warren	Rural	108
Warrick	Urban	63
Washington	Urban	116
Wayne	Rural	102
Wells	Urban	78
White	Rural	121
Whitley	Urban	77

Source: Indiana Registered Nurse Re-Licensure Survey, 2017



Source: Indiana RN Re-Licensure Survey, 2017; American Community Survey, 2015 5-year Estimate.

Map 2.1 Geographic distribution of total Indiana Nurse workforce capacity

Section III: Overall APRN Workforce

This section presents demographic and professional characteristics of Indiana's advanced practice registered nurses (APRNs). In 2017, 5,240 nurses were identified as either having an APRN prescriptive authority license or having reported their primary work position as an advanced practice registered nurse. APRNs represent approximately 7.5% of the total RN workforce (Figure 3.1).

APRNs have additional training, education and scope of practice as compared to RNs that are not APRNs. For instance, APRNs have the capacity to examine, treat and – in some cases – prescribe medications for patients under a contractual arrangement with a physician as required by the Indiana Nurse Practice Act (Ind. Code 25-23). APRNs also have the ability to work in specialized positions. Indiana's APRNs predominantly work as nurse practitioners (82.8%). Figure 3.2 provides more information on the positions of Indiana's APRNs.

Figure 3.1 Proportion of Registered Nurses identified as Advanced Practice Nurses

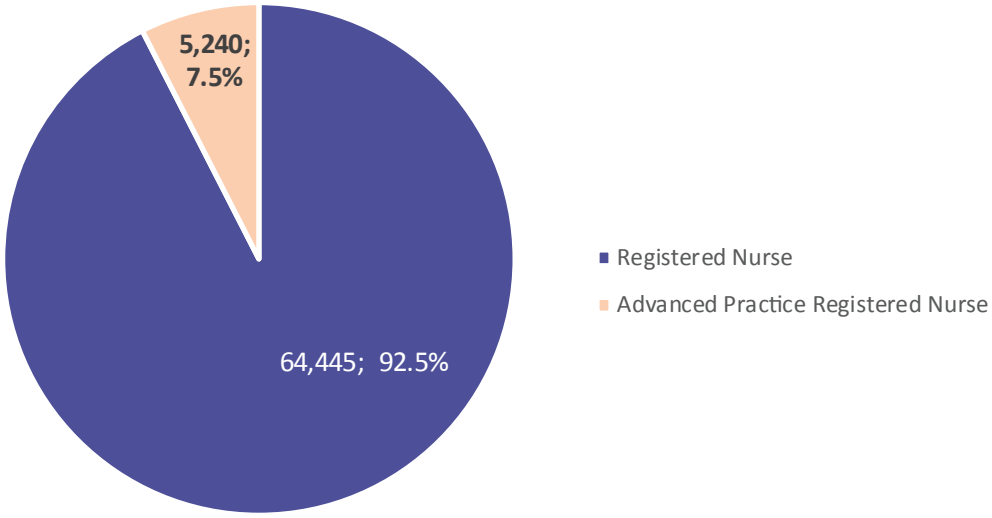
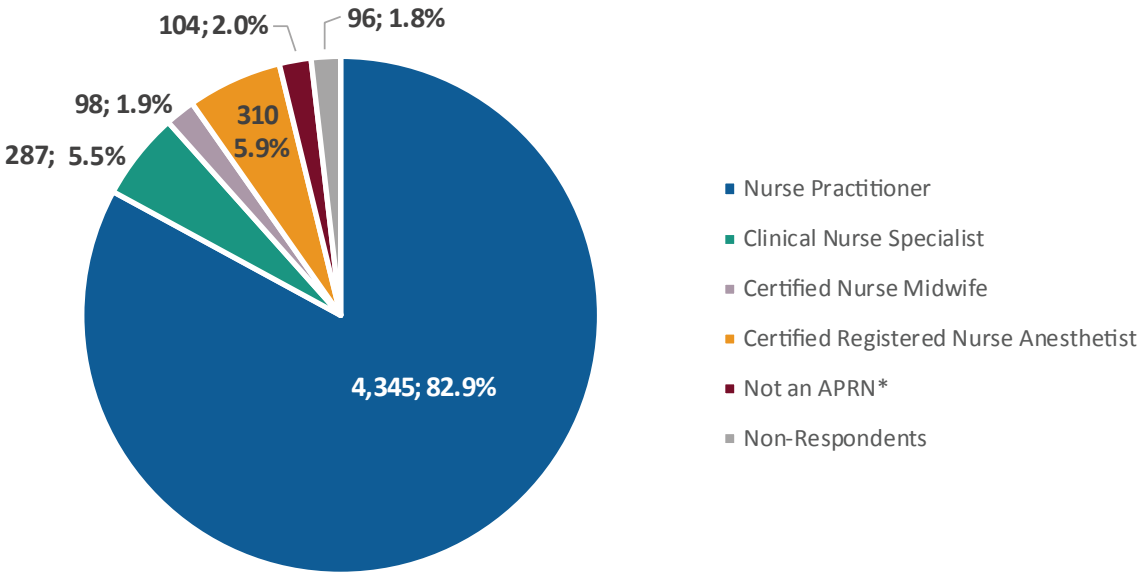


Figure 3.2 Reported Advanced Practice Registered Nurse Positions



*APRNs were identified by whethere they had an APN prescriptive authority license or reported their primary work position as an APRN. These nurses may have indicated in subsequent questions that they are not an APRN because they are not in clinical practice (education, administration, etc.) or because they incorrectly identified as an APRN.

Demographics

The average age of the advanced practice nurse workforce is 45.3 years, though female and male APNs have a similar average age (45.5 and 45.6 respectively). As with the overall RN workforce, the majority of the APRN workforce self-reports being non-Hispanic (96.9%) and white (90.9%). Black or African American nurses make up the largest minority at 3.8%. Table 3.1 provides more details on the demographic characteristics of the APRN workforce.

Table 3.1: Advanced Practice Nurse Demographic Characteristics

	Female		Male		Non-Respondents		Total	
Mean Age	**45.5**		**45.6**		**40.6**		**45.3**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Age Groups								
Under 35	1,045	22.3	62	16.5	77	43.5	1,184	22.6
35 - 44	1,373	29.3	132	35.1	44	24.9	1,549	29.6
45 - 54	1,123	24.0	104	27.7	30	16.9	1,257	24.0
55 - 64	936	20.0	65	17.3	21	11.9	1,022	19.5
65 and Older	205	4.4	13	3.5	5	2.8	223	4.3
Non-Respondents	3	0.1	0	0.0	0	0.0	3	0.1
Total	***4,685***	***100.0***	***376***	***100.0***	***177***	***100.0***	***5,238***	***100.0***
Ethnicity								
Hispanic or Latino	93	2.0	11	2.9	5	2.8	109	2.1
Not Hispanic or Latino	4,548	97.1	357	94.9	171	96.6	5,076	96.9
Non-Respondent	44	1.0	8	2.1	1	0.6	53	1.0
Total	***4,685***	***100.0***	***376***	***100.0***	***177***	***100.0***	***5,238***	***100.0***
Race								
White	4,292	91.6	318	84.6	150	84.7	4,760	90.9
American Indian or Alaska Native	7	0.1	1	0.3	1	0.6	9	0.2
Native Hawaiian/Pacific Islander	4	0.1	0	0.0	0	0.0	4	0.1
Black or African American	168	3.6	22	5.9	10	5.6	200	3.8
Asian	55	1.2	7	1.9	3	1.7	65	1.2
Other	52	1.1	12	3.2	6	3.4	70	1.3
Multiracial	38	0.8	10	2.7	3	1.7	51	1.0
Non-Respondents	69	1.5	6	1.6	4	2.3	79	1.5
Total	***4,685***	***100.0***	***376***	***100.0***	***177***	***100.0***	***5,238***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017
Notes: Age was calcualted as the difference between the respondent's date of birth and the date of survey completion.

Education and Training

Education characteristics demonstrate in-state retention rates of APRNs that are comparable to the overall RN workforce. Of the APRNs practicing in Indiana, 3,686 (70.4%) received their qualifying education in Indiana. Of those trained in Indiana, 46.5% qualified for their first nursing license with a BSN while 29% qualified with an ASN. The majority (89.4%) of APRNs also reported having an MSN as their highest education. Tables 3.2 and 3.3 on the following page provide details on educational characteristics.

Table 3.2: Advanced Practice Registered Nurse Qualifying Education and Training

Total	Indiana		Contiguous States		Another State		Another County		Non-Respondents		Total	
Qualifying Nursing Education	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Diploma – nursing	153	3.8	74	11.4	37	7.1	10	30.3	0	0.0	274	5.2
Associate degree – nursing	1,156	29.0	175	27.0	130	24.9	4	12.1	7	14.6	1,472	28.1
Baccalaureate degree – nursing	1,852	46.5	273	42.1	246	47.0	13	39.4	6	12.5	2,390	45.6
Master's degree – nursing	770	19.3	117	18.1	101	19.3	5	15.2	1	2.1	994	19.0
Doctoral degree – nursing	38	1.0	7	1.1	8	1.5	1	3.0	0	0.0	54	1.0
Non-Respondents	17	0.4	2	0.3	1	0.2	0	0.0	34	70.8	54	1.0
Total	***3,986***	***100.0***	***648***	***100.0***	***523***	***100.0***	***33***	***100.0***	***48***	***100.0***	***5,238***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017
Notes: Contiguous States include Michigan, Illinois, Kentucky and Ohio

Table 3.3: Advanced Practice Registered Nurse Highest Education

Highest Nursing Education	**N**	**%**
Diploma – nursing	15	0.3
Associate degree – nursing	31	0.6
Baccalaureate degree – nursing	152	2.9
Master's degree – nursing	4,682	89.4
Doctoral degree – nursing	310	5.9
Non-Respondents	48	0.9
Total	***5,238***	***100.0***
Highest Non-Nursing Education	**N**	**%**
Not Applicable	3,911	74.7
Diploma – non-nursing	83	1.6
Associate degree – non-nursing	146	2.8
Baccalaureate degree – non-nursing	695	13.3
Master's degree – non-nursing	277	5.3
Doctoral degree – non-nursing	38	0.7
Non-Respondents	88	1.7
Total	***5,238***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Professional Characteristics

The majority (77.4%) of APRNs reported only one paid position. Professionally, the greatest percentage (82.8%) reported their primary position as a nurse practitioner, followed by clinical nurse specialists at 2.6%. Table 3.4 outlines practice characteristics.

Table 3.4: Advanced Practice Registered Nurse Work Position

Paid Positions	**N**	**%**
1 position	4,054	77.4
2 positions	871	16.6
3 positions	142	2.7
4 or more positions	22	0.4
Not applicable	9	0.2
Non-Respondents	140	2.7
Total	***5,238***	***100.0***
Primary Position	**N**	**%**
Nurse Practitioner	4,336	82.8
Clinical Nurse Specialist	134	2.6
Certified Nurse Midwife	87	1.7
Non-Respondents	681	13.0
Total	***5,238***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Nearly half (45.8%) of APRNs reported working in an outpatient clinic. The second largest group of Indiana APRNs work in a hospital setting (31.2%). Table 3.5 below provides more details on practice setting and hours in direct patient care.

Regarding Specialty, 38.3% of APRNs reported their specialty as a primary care, followed by 23.6% reporting having another specialty not listed in the survey. Table 3.6 provides more information on APRN employment specialty.

Table 3.5: Advanced Practice Registered Nurse Practice Setting

Primary Work Setting	N	%
Hospital	1,635	31.2
Nursing Home/Extended Care Facility/Assisted Living Facility	209	4.0
Home Health	116	2.2
Correctional Facility	23	0.4
Academic Setting	110	2.1
Public/Community Health	167	3.2
School-Based Health	43	0.8
Occupational Health	108	2.1
Outpatient Clinic	2,398	45.8
Insurance Claims/Benefits	10	0.2
Other	315	6.0
Non-Respondents	104	2.0
Total	***5,238***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Table 3.6: Advanced Practice Registered Nurse Employment Specialty

APRN Employment Specialty	N	%
Primary Care Specialties	2,004	38.2
Internal Medicine Subspecialties	335	6.4
Pediatric Subspecialties	284	5.4
Obstetrics & Gynecology	288	5.5
General Surgery	51	1.0
Surgical Specialties	158	3.0
Psychiatry (Adult and Child)	258	4.9
Anesthesiology, Pathology, Radiology or Emergency Medicine	346	6.6
Other Specialty	1,234	23.5
I am not an APN	70	1.3
Non-Respondents	212	4.0
Total	***5,240***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

When asked about future plans, the largest percentage (84.7%) of APRNs have no plans to change their employment characteristics, though 6.7% plan to increase their hours in patient care. With regards to pursuing further education, 82.6% do not intend to pursue further education while 10.6% anticipate pursuing a doctor of nursing practice (DNP) in the next 2 years. Table 3.7 on the following page provides more details on future plans of APRNs.

Table 3.7: Advanced Practice Registered Nurse Future Plans

Employment Plans for the next 2 years	N	%
Continue as you are	4,438	84.7
Increase hours	353	6.7
Decrease hours	192	3.7
Seek non-clinical job	14	0.3
Retire	47	0.9
Unknown	123	2.3
Non-Respondents	71	1.4
Total	***5,238***	***100.0***
Degree Anticipated to Pursue in the Next 2 Years	**N**	**%**
Bachelor's Degree – Nursing	7	0.1
Bachelor's Degree – Other Field	3	0.1
Master's Degree – Nursing	125	2.4
Master's Degree – Other Field	61	1.2
Doctor of Nursing Practice (DNP)	556	10.6
PhD – Nursing	46	0.9
Doctoral Degree – Other Field	53	1.0
I do not intend to pursue further education in the next 2 years	4,324	82.6
Non-Respondents	63	1.2
Total	***5,238***	***100.0***

Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Geographic Distribution and Workforce Capacity

Just over three quarters (75.5%) of APRNs reported working more than 32 hours per week in patient care. Moreover, 27.5% reported spending 41 or more hours in direct patient care. Two of the highest PPRs were found in Crawford County (10,591) and Pike County (6,343), both rural counties with consistently low health workforce capacity. Table 3.8 provides more details on the APRN workforce in Indiana and Map 3.1 provides the geographic distribution of workforce capacity in Indiana.

Table 3.8: Advanced Practice Registered Nurse Hours per week in Patient Care

Primary Practice Hours	N	%
0 hours per week	9	0.2
1-4 hours per week	30	0.6
5-8 hours per week	45	0.9
9-12 hours per week	84	1.6
13-16 hours per week	94	1.8
17-20 hours per week	126	2.4
21-24 hours per week	234	4.5
25-28 hours per week	203	3.9
29-32 hours per week	327	6.2
33-36 hours per week	564	10.8
37-40 hours per week	1,950	37.2
41 or more hours per week	1,443	27.5
Non-Respondents	129	2.5
Total	***5,238***	***100.0***

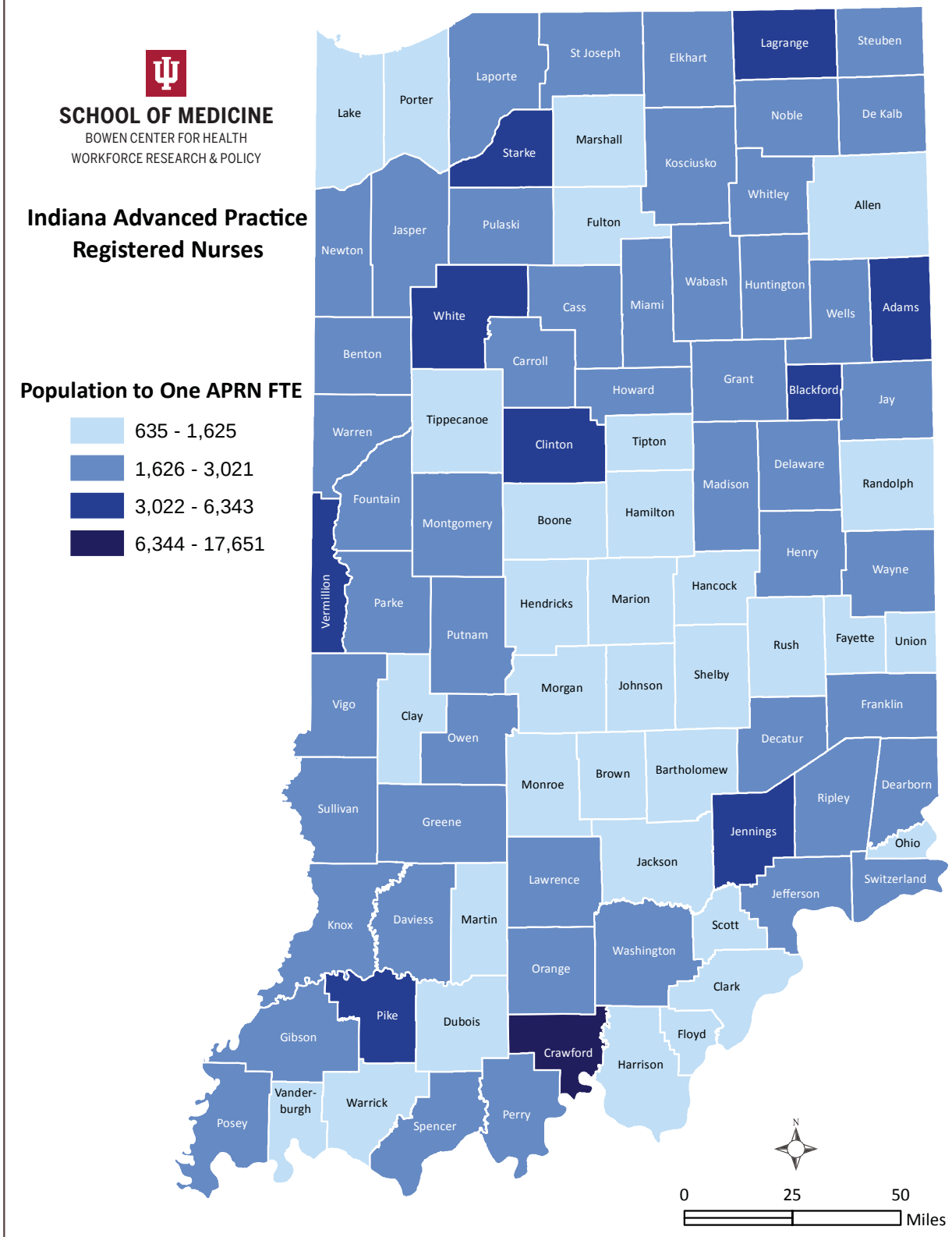
Source: Indiana Registered Nurse Re-Licensure Survey, 2017

Table 3.9: Advanced Practice Registered Nurse Workforce Capacity

County	Rurality	Population to Provider Ratio
Adams	Rural	3149
Allen	Urban	1006
Bartholomew	Urban	1370
Benton	Rural	1750
Blackford	Rural	3119
Boone	Urban	545
Brown	Urban	1154
Carroll	Urban	1667
Cass	Rural	2137
Clark	Urban	1154
Clay	Urban	1569
Clinton	Rural	3283
Crawford	Rural	10591
Daviess	Rural	1473
Dearborn	Urban	1655
Decatur	Rural	1874
DeKalb	Rural	1929
Delaware	Urban	1725
Dubois	Rural	1208
Elkhart	Urban	1631
Fayette	Rural	1132
Floyd	Urban	660
Fountain	Rural	1688
Franklin	Urban	1433
Fulton	Rural	1368
Gibson	Urban	1683
Grant	Rural	1766
Greene	Urban	2187
Hamilton	Urban	536
Hancock	Urban	926
Harrison	Urban	1225
Hendricks	Urban	778
Henry	Rural	2136
Howard	Urban	1561
Huntington	Rural	2633
Jackson	Rural	1402
Jasper	Urban	1454
Jay	Rural	2125
Jefferson	Rural	1411
Jennings	Rural	3514
Johnson	Urban	1004
Knox	Rural	1585
Kosciusko	Rural	1813
LaGrange	Rural	3462
Lake	Urban	1420
LaPorte	Urban	2181

County	Rurality	Population to Provider Ratio
Lawrence	Rural	1579
Madison	Urban	1760
Marion	Urban	1374
Marshall	Rural	1269
Martin	Rural	932
Miami	Rural	1724
Monroe	Urban	1148
Montgomery	Rural	2245
Morgan	Urban	1035
Newton	Urban	2342
Noble	Rural	1639
Ohio	Urban	1206
Orange	Rural	1793
Owen	Rural	2649
Parke	Rural	1900
Perry	Rural	1764
Pike	Rural	6343
Porter	Urban	1047
Posey	Urban	1826
Pulaski	Rural	1630
Putnam	Urban	2091
Randolph	Rural	1505
Ripley	Rural	1430
Rush	Rural	1132
St. Joseph	Urban	1527
Scott	Rural	1486
Shelby	Urban	1083
Spencer	Rural	2317
Starke	Rural	3302
Steuben	Rural	1631
Sullivan	Urban	1759
Switzerland	Rural	2100
Tippecanoe	Urban	1292
Tipton	Urban	1297
Union	Rural	811
Vanderburgh	Urban	1119
Vermillion	Urban	3965
Vigo	Urban	1592
Wabash	Rural	2157
Warren	Rural	1394
Warrick	Urban	628
Washington	Urban	1551
Wayne	Rural	1615
Wells	Urban	1323
White	Rural	2709
Whitley	Urban	2222

Source: Indiana Registered Nurse Re-Licensure Survey, 2017



Source: Indiana RN Re-Licensure Survey, 2017; American Community Survey, 2015 5-year Estimate.

Map 3.1 Advanced Practice Registered Nurse Workforce Capacity by County

Closing Summary

RNs represent the largest licensed profession in the health workforce. As presented in this report, Indiana RNs practice in a diverse array of settings, specialties and locations. The data presented here can be used to inform workforce related initiatives. For example, like many health professions, Indiana's RN workforce has very little racial and ethnic diversity. Increasing diversity among RNs is a strategic priority for nursing education. Indiana retention rate of RNs after completion of their education and training is high (in other words, we keep our RNs). As the primary pipeline for RNs, Indiana nursing educators can leverage these data to inform, advance, and evaluate diversity initiatives.

This report provides a snapshot of the RN workforce. The Bowen Center is committed to continuous improvement in our reporting on Indiana's RN workforce. The data presented in this report are also available through the BowenPortal.org. The Portal offers users the ability to generate interactive GIS maps, develop customized reports, and download data for customized analyses. We welcome feedback on this report and/or inquiries for customized reports through email at bowenctr@iu.edu.