Bowen Center for Health Workforce
—Research & Policy—
Indiana University School of Medicine

Data Report
2015 Indiana Nursing
Licensure Survey

May 2016

Acknowledgements

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Executive Summary

The mission of the Bowen Center for Health Workforce Research and Policy is to improve population health by contributing to informed health workforce policy through data management, community engagement, and original research. The Bowen Center has a rich history of collecting, analyzing, and disseminating health workforce data and research for the State of Indiana. These health workforce data are important to informing health workforce policy and planning efforts throughout Indiana. The nursing workforce represents the largest segment of the health workforce and works in a variety of settings to fulfill direct patient care, coordination of care, administrative and research roles.[1] In fact, in 2015 Indiana had nearly 104,000 registered nurses (RNs) renew their professional license. Furthermore, as the number of medical students choosing to specialize in primary care decreases, the number of advanced practice nurses (APNs) has more than doubled over the past 20 years.[2] Understanding the supply and distribution of the RN and APN workforce is critical to understand their capacity to meet healthcare needs and improve population health. The data presented in this report provides a snapshot of key demographic and practice characteristics for the RN workforce.

The 2015 Indiana Nursing Licensure Survey Data Report presents key information and data collected from the registered nurse re-licensure survey administered by the Indiana Professional Licensing Agency (IPLA) during nurses' biennial license renewal. As of 2015, 103,705 RNs were licensed to practice in the State of Indiana. Of these, 53,411 RNs reported having an Indiana practice address and were included in this report.

The greatest need for nurses is in rural, less populous counties; in nine Indiana counties, there are more than 1,000 residents per registered nurse (RN) FTE[3] while six counties have less than 1.0 APN FTE-equivalent APNs. The majority (57.1%) of RNs work at least 37 hours per week, with the highest proportion (21.1%) of those working in an acute/critical care setting. Over one-third of APNs (35.2%) work with an adult health/family health physician in an ambulatory care setting. Although the median age for RNs is 45 and for APNs 51.8, Indiana's nursing workforce is young: the highest proportion of RNs is under 35 years of age.

This report details important demographic and practice characteristics for the nursing workforce. The report examines these data for APNs in additional to the overall RN workforce. The 2015 Indiana Nursing Data Report presents only a snapshot of data on the nursing profession in order to provide stakeholders with information needed to improve the quality and accessibility of health care for Indiana residents through policymaking, workforce development, and resource allocation. Additional analyses and reports may be made available through the Bowen Center's website: http://family.medicine.iu.edu/hws.

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[1] Institute of Medicine (IOM). (2011). The Future of Nursing: Leading Change, Advancing Health. Washinton, D.C.: The National Academies Press.
[2] *Ibid.*
[3] Full-time equivalent (FTE) is a measure used to indicate the workload of an employed person in order to make workloads comparable. An FTE of 1.0 is equivalent to a full-time worker or student, while an FTE of 0.5 signals half of a full workload. Zimmermann, P. (2002). Nursing management secrets; 974 (13) of Secrets series. *Elsevier Health Sciences*, p. 55.

Introduction

The newly rebranded Bowen Center for Health Workforce Research and Policy (the Bowen Center) aims to improve population health by informing health workforce policy through data management, community engagement, and original research. Formerly known as the Bowen Research Center, the Bowen Center has a rich history of collecting, analyzing, and disseminating health workforce data and research for the State of Indiana. Understanding the status of Indiana's healthcare workforce is critical to ensuring that Indiana residents have access to high quality care, for developing programs that will train practitioners to meet future needs, and for recruiting and retaining healthcare professionals in Indiana. Indiana's nursing workforce is a fundamental part of Indiana's overall healthcare workforce, filling positions in a wide array of occupations and work settings.

The 2015 Nursing Licensure Survey Data Report presents data collected from the nursing re-licensure survey administered by the Indiana Professional Licensing Agency (IPLA) during the biennial license renewal period. The report includes data on the nursing professional workforce that may be used to promote meaningful policy discussion and to inform evidence-based policy development.

Data in this report are presented in primary sections: registered nurses (RNs) and advanced practice nurses (APNs). Each of these sections contains demographic and professional characteristics as well as geographic distribution information (supply).

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.[4] HRSA has established MDS tools for many licensed health professionals to facilitate the establishment of national databases with consistent core data elements covering demographic, educational, credentialing, and practice characteristics of the health professions.[5] Indiana's nursing re-licensure survey was administered by the IPLA during the biennial licensure renewal period. All nurses who renewed their license electronically (n=102,582) were invited to complete the voluntary survey.

Dataset Construction
The data used for this report were extracted from the nursing base license and the nursing survey data files provided by the IPLA through the Indiana State Department of Health (ISDH). The base license file contains administrative data such as license status, expiration date, license number, and date of birth. The base license file was merged with the nurse survey file by unique license number.

Inclusion and exclusion criteria were applied to the survey response data to define the sample of nurses actively practicing in Indiana. Therefore, the following inclusion criteria were applied:

1. Nurse renewed license online in 2015
2. Nurse responded to the 2015 re-licensure survey
3. Nurse holds an active or probationary license
4. Nurse reported actively working in medicine
5. Nurse reported an Indiana practice address

Nurses who did not meet the inclusion criteria were excluded from the sample. Figure 1 provides a diagram of inclusion/exclusion criteria for the study sample. The final sample includes 53,411 nurses who held an active or probationary license, reported actively working in nursing, and provided an Indiana practice location.

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[4] Indiana's 2015 Nurses re-licensure survey is available online at: http://family.medicine.iu.edu/hws
[5] The HRSA's Registered Nurse MDS is available online at http://bhw.hrsa.gov/healthworkforce/data/minimumdataset/nurses.pdf

Inclusion and Exclusion Criteria

INCLUDE

EXCLUDE

103,705 total renewing licenses

2,382 Offline renewals (no survey)

101,323 (97.7%) online renewals (survey)

6,581 did not respond to the survey

94,742 (91.4%) responded to survey

20 held non-active licenses

94,725 (91.3%) held an active or probationary license

16,254 did not report actively working in nursing

78,471 (75.7%) reported actively working in Indiana

25,060 did not report an Indiana practice

53,411 (51.5%) reported working in Indiana

ANALYSIS SAMPLE

Practice Address Verification
Data Sources
Indiana registered nurse workforce data are collected through a survey administered online in conjunction with registered nurse license renewal cycle. Data are grouped into two categories: survey respondents and non-respondents. All survey respondents and non-respondents are analyzed through a geocoding program for address validation. Self-reported practice addresses are validated and verified by geocoding to determine if geographic coordinates can be identified. Addresses for which geographic coordinates cannot be identified are verified through review of secondary data. Respondents holding an Indiana license but reporting a practice address outside of the State of Indiana are assumed to not practice within Indiana and are not verified.

Step One: Grouping of Registered Nurse Survey data
1. Survey respondents and non-respondents are grouped together as Active or Inactive by license status.
    a. Licenses with the status active, probationary or 'valid to practice while under review' are included in the Active Nurses group.
    b. Licenses with the status inactive, expired, expired non-renewable, revoked, suspended and emergency suspension are included in the Inactive group.
        i. Nurses who are included in the Inactive group will not be included in the verification process.

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Validation of Practice Address through Geocoding

1. Survey respondents who hold active, probationary or 'valid to practice while under review' license status and have listed a primary and/or secondary practice address in Indiana are analyzed through a geocoding program to identify valid and invalid practice address. Addresses returned with geographic coordinates are considered valid. Addresses returning without geographic coordinates are considered invalid.
   a. All addresses are included in the review of secondary data collection group.

Step Two: Review of Secondary Data Collection

1. Primary Street addresses are sorted by descending alphabetical order
   a. Many nurses have practice addresses at the same location, likely indicating a group practice or hospital.

2. Filter addresses by key terms to prioritize and anticipate time needed for verification
   a. Court, Way, Place, Drive, Circle and Parkway
      i. Through the verification processes, we have identified these terms generally represent home addresses.
   b. Blvd. and Street
      i. Through the verification processes, we have identified these terms generally represent practice addresses.

3. Internet search engines are used to quickly and efficiently look up practice address
   a. Google is the preferred search engine as it offers robust search results.
   b. Reported Indiana practice addresses are entered into the search engine using the following format:
      i. Street address, City, State, Zip
   c. Address are considered valid if a practice address exists at the reported practice address.

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 they spent in direct patient care. FTEs were assigned to each individual in order to accurately map the distribution of the nurse workforce throughout Indiana. GIS (geographic information system) maps present the distribution of the workforce by FTE throughout the report. Individuals in each hourly category were assigned an FTE as shown in Table 1.1.

Table 1.1: FTE Calculation for Reported Hours per Week in Patient Care.

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
40 or more	1

Rurality
Rurality is determined by whether an area is considered 'urban' or 'non-urban'. The Office of Management and Budget (OMB) defines an area as a Metropolitan Statistical Area (MSA) with the following definition (see http://www.census.gov/population/metro/ for further information):

- one city with a population of 50,000 or more, or
- an urbanized area (as defined by the Bureau of the Census) with a population of at least 50,000 and a total MSA population of at least 100,000 (75,000 in New England).

Each MSA must include the county in which the central city is located and additional contiguous counties (fringe counties), if they are economically and socially integrated with the central county. Any county not included in an MSA is considered non-metro or "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. The information in this report was gathered as 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 provide a best estimate of a provider's practice characteristic and should only be used to inform policy discussion.

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.

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 2015 Indiana Nursing Licensing Survey is to provide a snapshot of key information pertaining to the nursing workforce in Indiana. This report only presents highlights of the 2015 nursing survey data. Additional data tables and reports may be made available online through the Bowen Center website.

Registered Nurses Workforce

With 103,705 registered nurses renewing their license in Indiana, the nursing workforce makes up the largest sector of the health workforce. The nursing workforce is comprised of a diverse group of professionals with a wide range of credentials working in a variety of settings. Although over 103,000 RNs renewed their license in 2015 only approximately 53,411 RNs reported actively working in nursing (Figure 2.1). This section focuses on demographic and practice characteristics of the RN workforce and excludes RNs who also are credentialed as an advanced practice nurse. Subsequent sections will examine characteristics of just the APN workforce.

Highlights

- The largest number of FTEs for all RNs is found in the most populous, urban counties (Marion, Allen, Lake).
- There are more than 15 times as many female RNs vs. male RNs.
- Over 90% of Indiana's nursing workforce is non-Hispanic White.
- More nurses (41.1%) hold a baccalaureate degree in nursing as the highest level of education than any other credential.
- 61.7% do not plan to pursue more nursing education within the next two years.
- Over one-half (57.1%) of nurses work more than 37 hours per week.
- The highest proportion (21.1%) of nurses work in acute care/critical care.
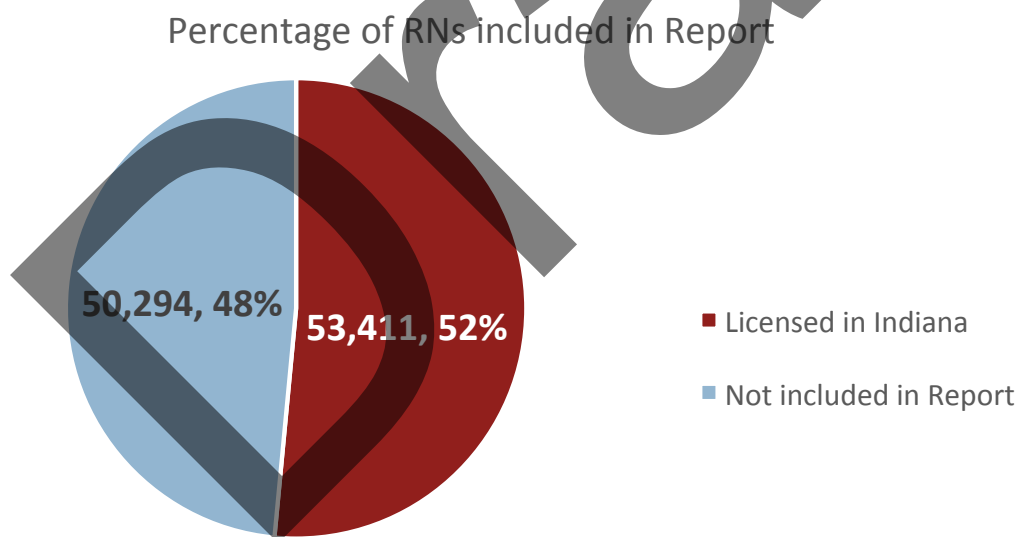
Percentage of RNs included in Report

50,294, 48%   53,411, 52%

■ Licensed in Indiana

■ Not included in Report

Figure 2.1: Comparison of the proportion of licensed RNs in Indiana who have been included in this Report.

Geographic Workforce Distribution

Table 2.1: RN by County

County	Rurality	RN FTEs	Residents per RN FTE	RN mean age
Adams	Rural	22.2	1,526.0	45.6
Allen	Urban	3,524.9	99.8	43.4
Bartholomew	Urban	517.7	147.7	44.2
Benton	Rural	5.7	1,521.2	37.3
Blackford	Rural	50.1	246.0	44.3
Boone	Urban	214.0	268.1	44.3
Brown	Urban	24.4	613.0	41.3
Carroll	Urban	19.5	1,016.7	49.1
Cass	Rural	194.0	195.0	44.4
Clark	Urban	545.8	200.7	43.3
Clay	Urban	59.3	444.3	45.3
Clinton	Rural	83.7	385.5	47.8
Crawford	Rural	5.9	1,782.7	48.1
Daviess	Rural	144.7	216.2	43.1
Dearborn	Urban	207.9	236.5	43.5
Decatur	Rural	102.2	249.7	46.0
DeKalb	Rural	154.1	271.2	43.3
Delaware	Urban	848.0	128.9	43.2
Dubois	Rural	431.0	95.6	42.0
Elkhart	Urban	1,135.0	171.7	43.7
Fayette	Rural	99.1	238.1	46.6
Floyd	Urban	632.3	116.9	43.1
Fountain	Rural	15.5	1,082.7	43.1
Franklin	Urban	15.8	1,450.0	44.0
Fulton	Rural	95.6	214.1	46.4
Gibson	Urban	93.7	348.0	44.8
Grant	Rural	439.2	146.1	44.5
Greene	Urban	124.0	263.0	44.7
Hamilton	Urban	1,619.7	173.4	45.9
Hancock	Urban	224.7	309.3	44.9
Harrison	Urban	103.4	373.2	44.3
Hendricks	Urban	449.6	322.9	44.3
Henry	Rural	202.3	227.2	44.8
Howard	Urban	600.4	135.4	45.6
Huntington	Rural	114.0	312.5	44.6
Jackson	Rural	233.8	178.2	43.2
Jasper	Urban	95.1	340.0	46.7
Jay	Rural	55.9	374.7	43.8
Jefferson	Rural	210.7	143.6	45.3
Jennings	Rural	48.1	579.3	40.2
Johnson	Urban	452.6	305.6	45.5
Knox	Rural	408.5	86.6	43.7
Kosciusko	Rural	258.7	293.9	45.0
LaGrange	Rural	84.3	439.2	41.5
Lake	Urban	3,395.3	30.3	45.0
LaPorte	Urban	571.2	854.7	47.2
Lawrence	Rural	190.1	238.1	44.5
Madison	Urban	706.1	175.6	44.1
Marion	Urban	10,939.4	81.6	42.3
Marshall	Rural	227.5	203.5	46.6
Martin	Rural	23.2	437.5	40.1
Miami	Rural	94.4	365.8	47.6
Monroe	Urban	907.1	137.9	42.3
Montgomery	Rural	93.7	392.2	46.1
Morgan	Urban	195.1	350.6	46.8
Newton	Urban	7.7	1,812.7	50.6
Noble	Rural	120.9	384.3	42.3
Ohio	Urban	6.0	991.0	39.6
Orange	Rural	58.2	332.8	41.7
Owen	Rural	18.4	1,141.5	44.8
Parke	Rural	20.3	769.8	50.5
Perry	Rural	76.9	230.0	44.4
Pike	Rural	27.8	450.9	44.6
Porter	Urban	762.3	211.5	45.9
Posey	Urban	29.2	870.8	43.7
Pulaski	Rural	53.9	240.0	46.7
Putnam	Urban	86.7	370.8	43.5
Randolph	Rural	63.9	399.5	45.8
Ripley	Rural	160.5	175.4	43.5
Rush	Rural	60.7	279.8	46.5
St. Joseph	Rural	1,906.6	12.4	44.6
Scott	Urban	90.6	481.2	43.9
Shelby	Rural	193.7	106.4	41.3
Spencer	Urban	37.5	6,783.3	40.8
Starke	Rural	35.3	654.2	45.7
Steuben	Rural	91.6	357.8	48.3
Sullivan	Urban	62.8	303.2	46.1
Switzerland	Rural	11.0	945.2	47.6
Tippecanoe	Urban	1,301.0	124.3	43.1
Tipton	Urban	58.2	268.4	47.3
Union	Rural	10.1	725.3	45.3
Vanderburgh	Urban	2,050.4	84.5	43.2
Vermillion	Urban	57.3	274.3	43.6
Vigo	Urban	1,012.4	97.3	43.6
Wabash	Rural	98.4	312.1	46.4
Warren	Rural	21.1	395.3	44.8
Warrick	Urban	636.8	92.6	42.0
Washington	Urban	36.7	751.0	44.4
Wayne	Rural	521.1	126.3	42.8
Wells	Urban	98.0	275.6	46.5
White	Rural	70.9	340.2	45.5
Whitley	Urban	93.9	348.8	44.4

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Map 2.1 Geographic Distribution of RN FTEs
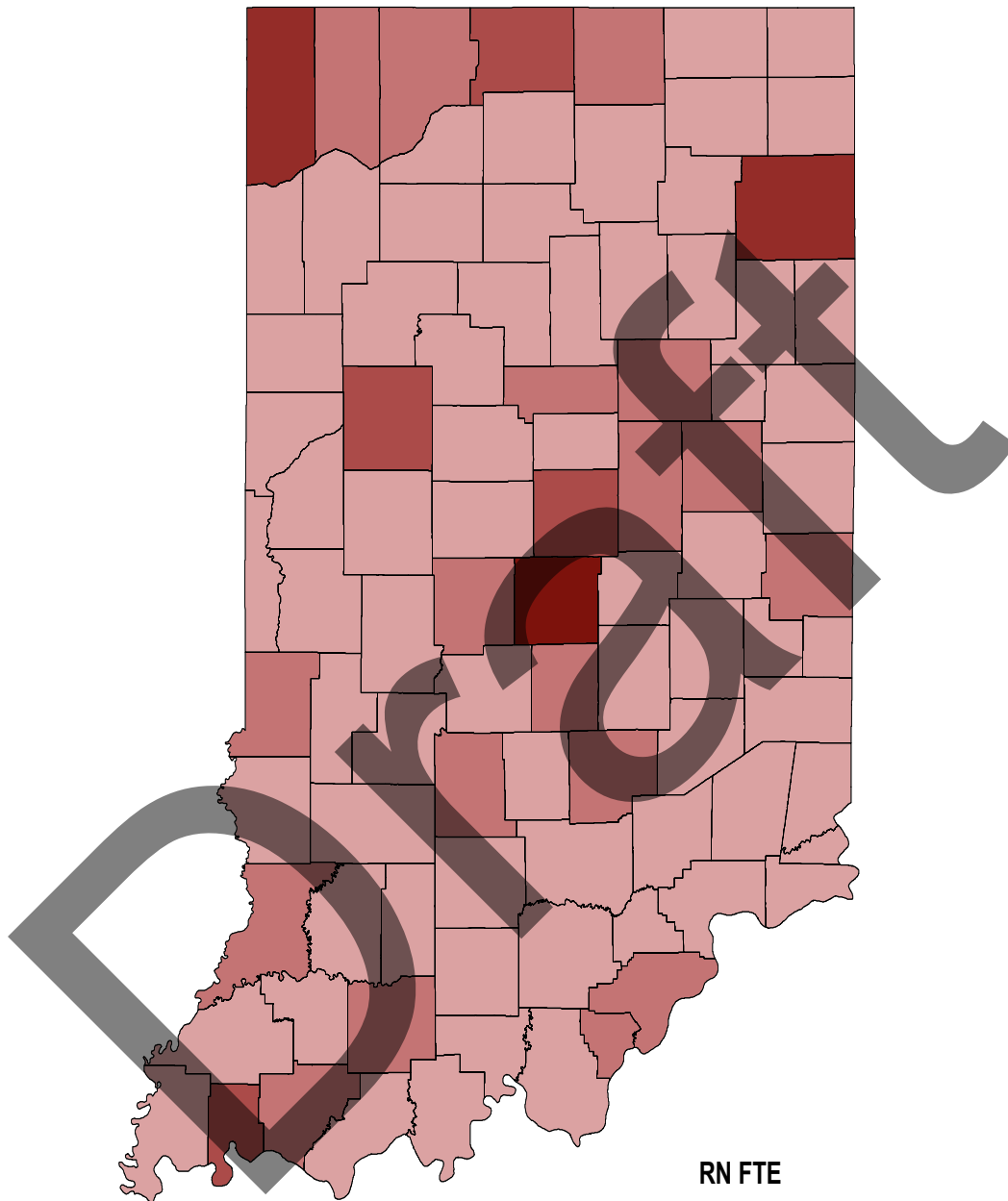
RN FTE

	5.7 - 258.7
	258.8 - 1135.0
	1135.1 - 2050.4
	2050.5 - 3524.9
	3525.0 - 10939.4

Source: Indiana Nursing Re-licensure Survey, 2015
Notes: Darker colors represent a greater concentration of RN FTE in a specific geographic area. The lightest red represents 5.7-258.7 RN FTE whereas the darkest red indicates 3,525.0-10,939.4 RN FTE.

Map 2.2 Population to RN FTE Ratio by Indiana County
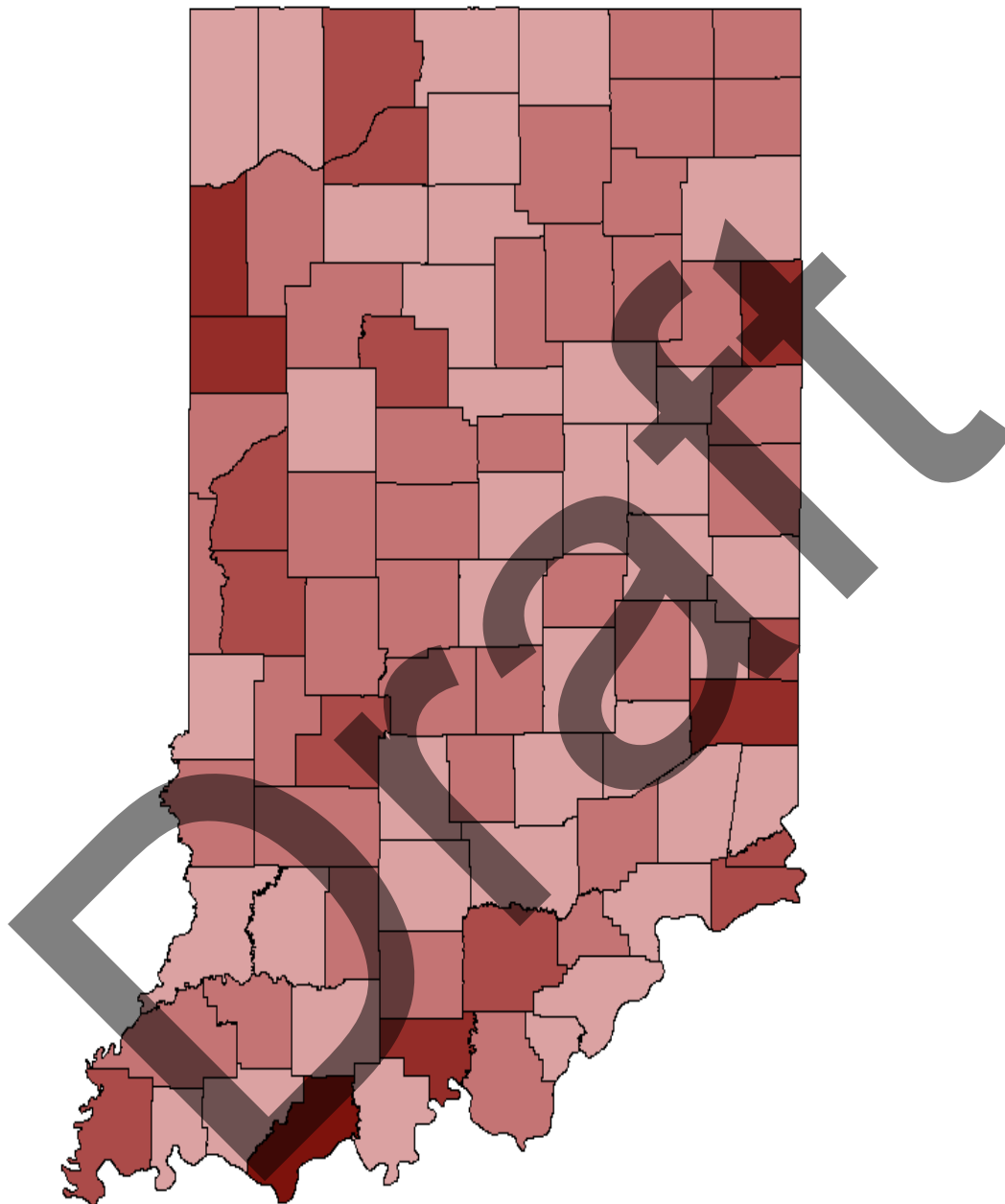
Source: Indiana Nursing Re-licensure Survey, 2015
Notes: Darker colors represent more Indiana residents per 1 RN FTE within a specific geographic area. The darker red represents the greatest need with 1,812.8-6,783.3 Indiana Residents per 1 RN FTE.

Residents per RN FTE

- 12.4 - 249.7
- 249.8 - 613.0
- 613.1 - 1141.5
- 1141.6 - 1812.7
- 1812.8 - 6783.3

Demographic Characteristics

Table 2.2: Age/gender

	Female		Male		Gender Unknown		Total	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Age Groups								
Under 35	13,560.0	29.2	952.0	32.1	54.0	24.2	14,566.0	29.3
35- 44	10,840.0	23.3	845.0	28.5	9.0	4.0	11,694.0	23.5
45 - 54	11,139.0	24.0	671.0	22.6	3.0	1.3	11,813.0	23.8
55 - 64	9,485.0	20.4	428.0	14.4	37.0	16.6	9,950.0	20.0
Over 65	1,401.0	3.0	66.0	2.2	7.0	3.1	1,474.0	3.0
Non-respondents	68.0	0.1	4.0	0.1	113.0	50.7	185.0	0.4
Total	*46,493.0*	*100.0*	*2,966.0*	*100.0*	*223.0*	*100.0*	*49,682.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015
Notes: Indiana Professional Licensing Agency (IPLA) survery data are incomplete in relation to gender since gender was not provided for all respondents. Age was calculated based upon IPLA birthdate survey data and date survey was completed.

Table 2.3: Race/ethnicity

	RN	
	N	**%**
Race		
White	45,936.0	92.1
Asian	646.0	1.3
Black/African American	1,841.0	3.7
Multiracial	477.0	1.0
Native Hawaiian/Pacific Islander	42.0	0.1
American Indian/Alaskan Native	83.0	0.2
Other	586.0	1.2
Non-respondents	257.0	0.5
Total	*49,868.0*	*100.0*
Ethnicity		
Hispanic or Latino	986.0	2.0
Not Hispanic or Latino	48,327.0	96.9
Non-respondents	555.0	1.1
Total	*49,868.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Education/training Characteristics

Table 2.4: Education/Training Characteristics

	RN		ASN or less		BSN or higher	
	N	**%**	**N**	%	**N**	%
Location of program - first licensure qualification						
Indiana	40,319.0	80.9	23,264.0	43.6	19,176.0	35.9
Other US state	8,720.0	17.5	28,576.0	53.5	32,664.0	61.2
Non-respondents	829.0	1.7	1,571.0	2.9	1,571.0	2.9
Total	*49,868.0*	*100.0*	*53,411.0*	*100.0*	*53,411.0*	*100.0*
Highest level of education						
Vocational/Practical certificate (nursing)	5.0	0.0	4.0	0.0	2.0	0.0
Diploma (nursing)	2,002.0	4.0	15.0	0.1	1,969.0	7.5
Associate degree (nursing)	17,857.0	35.8	17,590.0	63.9	15.0	0.1
Associate degree (other field)	206.0	0.4	200.0	0.7	6.0	0.0
Baccalaureate degree (nursing)	20,474.0	41.1	3,499.0	12.7	16,848.0	64.4
Baccalaureate degree (other field)	2,531.0	5.1	2,156.0	7.8	340.0	1.3
Master's degree (nursing)	2,485.0	5.0	1,755.0	6.4	3,671.0	14.0
Master's degree (other field)	1,175.0	2.4	541.0	2.0	1,703.0	6.5
Doctoral degree (nursing)	163.0	0.3	127.0	0.5	195.0	0.7
Doctoral degree (other field)	124.0	0.2	62.0	0.2	89.0	0.3
Non-respondents	2,846.0	5.7	1,585.0	5.8	1,305.0	5.0
Total	*49,868.0*	*100.0*	*27,534.0*	*100.0*	*26,143.0*	*100.0*
Planned nursing degree(s) to pursue within next 2 years						
Baccalaureate degree	10,171.0	20.4	9,329.0	31.5	678.0	2.9
Master's degree	7,528.0	15.1	2,288.0	7.7	5,388.0	23.4
Doctoral degree	837.0	1.7	397.0	1.3	887.0	3.8
No intention to pursue nursing education with next 2 years	30,753.0	61.7	17,215.0	58.2	15,854.0	68.8
Non-respondents	579.0	1.2	361.0	1.2	239.0	1.0
Total	*49,868.0*	*100.0*	*29,590.0*	*100.0*	*23,046.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

*Employment/practice Setting Characteristics*

Table 2.5: Employment Characteristics

	RN			
	Primary location		**Secondary location**	
	N	**%**	**N**	**%**
Employment status				
Actively employed in nursing full-time	39,084.0	78.4	3,165.0	6.3
Actively employed in nursing part-time	8,614.0	17.3	703.0	1.4
Actively employed in nursing per diem	2,051.0	4.1	230.0	0.5
Non-respondents	119.0	0.2	45,770.0	91.8
Total	*49,868.0*	*100.0*	*49,868.0*	*100.0*
Current number of paid nursing positions				
1	44,176.0	88.6	699.0	1.4
2	4,180.0	8.4	3,109.0	6.2
3	374.0	0.7	242.0	0.5
4 or more	169.0	0.3	35.0	0.1
Non-respondents	969.0	1.9	45,783.0	91.8
Total	*49,868.0*	*100.0*	*49,868.0*	*100.0*
Employment setting				
Academic Setting	848.0	1.7	169.0	0.3
Ambulatory Care Setting	4,075.0	8.2	338.0	0.7
Community Health	857.0	1.7	82.0	0.2
Correctional Facility	195.0	0.4	21.0	0.0
Home Health	2,987.0	6.0	257.0	0.5
Hospital	31,209.0	62.6	2,388.0	4.8
Insurance Claims/Benefits	611.0	1.2	44.0	0.1
Nursing Home/Extended Care/Assisted Living	3,792.0	7.6	254.0	0.5
Occupational Health	355.0	0.7	37.0	0.1
Policy Planning/Licensing Agency	13.0	0.0	2.0	0.0
Public Health	528.0	1.1	61.0	0.1
School Health Service	1,050.0	2.1	165.0	0.3
Other	3,089.0	6.2	274.0	0.5
Non-respondents	259.0	0.5	45,776.0	91.8
Total	*49,868.0*	*100.0*	*49,868.0*	*100.0*
Average hours/week, all locations				
0	165.0	0.3	462.0	0.9
1 - 4	488.0	1.0	834.0	1.7
5 - 8	706.0	1.4	888.0	1.8
9 - 12	761.0	1.5	806.0	1.6
13 - 16	791.0	1.6	365.0	0.7
17 - 20	1,135.0	2.3	276.0	0.6
21 - 24	2,907.0	5.8	251.0	0.5
25 - 28	2,492.0	5.0	77.0	0.2
29 - 32	2,462.0	4.9	70.0	0.1
33 - 36	8,308.0	16.7	88.0	0.2
37 - 40	18,770.0	37.6	146.0	0.3
41 or more	9,652.0	19.4	73.0	0.1
Non-respondents	1,231.0	2.5	45,532.0	91.3
Total	*49,868.0*	*100.0*	*49,868.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Specialties

Table 2.6: Specialties		
	RN	
	N	**%**
Primary practice specialty		
Acute Care/Critical Care	10,574.0	21.2
Adult Health/Family Health	1,587.0	3.2
Anesthesia	616.0	1.2
Community	585.0	1.2
Geriatric/Gerontology	3,177.0	6.4
Home Health	2,283.0	4.6
Maternal-Child Health	2,514.0	5.0
Medical Surgical	6,449.0	12.9
Occupational Health	407.0	0.8
Oncology	1,553.0	3.1
Palliative Care	531.0	1.1
Pediatrics/Neonatal	2,672.0	5.4
Psychiatric/Mental Health/Substance Abuse	1,634.0	3.3
Public Health	485.0	1.0
Rehabilitation	1,163.0	2.3
School Health	963.0	1.9
Trauma	1,309.0	2.6
Women's Health	1,035.0	2.1
Other	9,126.0	18.3
Non-respondents	1,205.0	2.4
Total	*49,868.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Advanced Practice Nurses Workforce

Highlights

- Six counties (Benton, Brown, Newton, Pike, Switzerland, Warren) have less than 1.0 APN FTE
- The highest proportion of APNs are 35 – 44 years old
- One-third (33.9%) of APNs work in an ambulatory care setting with a physician specializing in adult health/family health (35.2%)
- Of APN types, 94% are Nurse Practitioners

Percent of Nursing Workforce Credentialed as APN

3,543, 7%

49,868, 93%

- Registered Nurses
- Advanced Practice Nurses

Breakdown of APN Type

139, 4%   **77, 2%**

3,327, 94%

- Nurse Practitioner
- Clinical Nurse Specialist
- Certified Nurse Midwife

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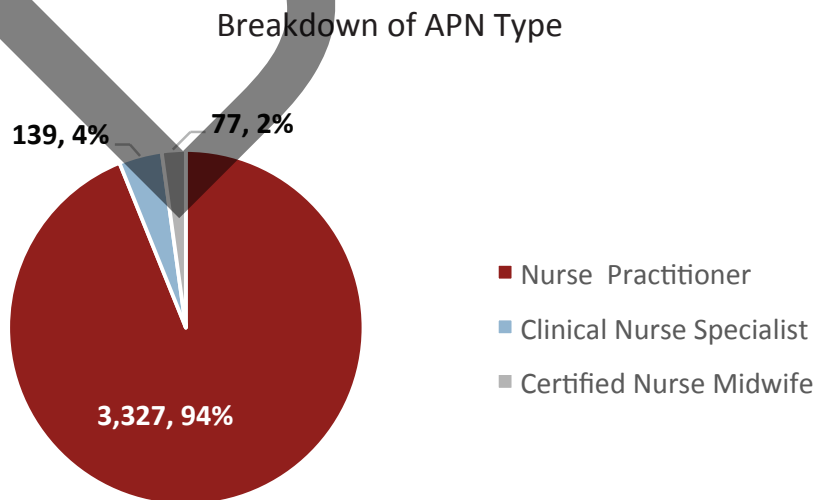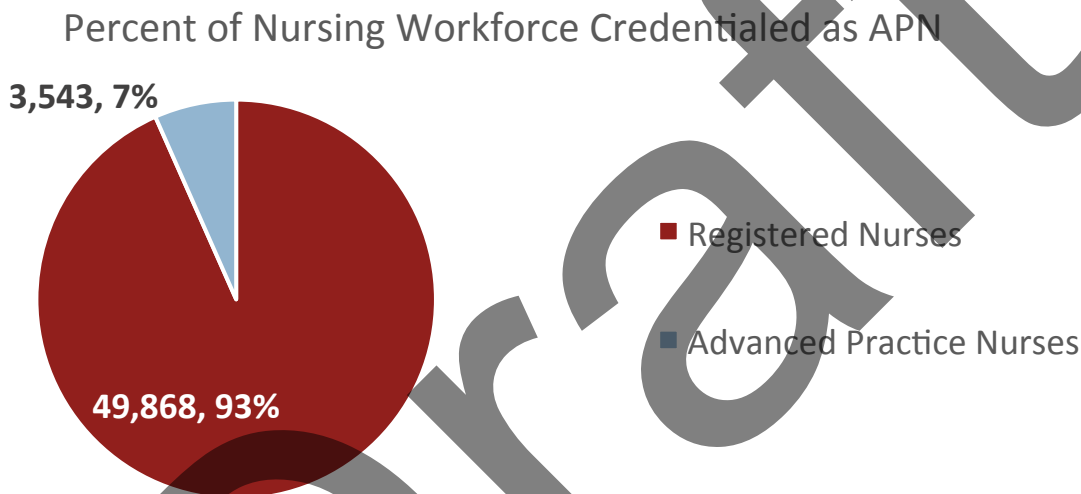
Geographic Workforce Distribution

Table 3.1: APN by County

| County	Rurality	Advanced Practice Nurse		Clinical Nurse Specialist		Nurse Practitioner		Certified Nurse Midwife	
		FTE	Population to Provider Ratio	FTE	Population to Provider Ratio	FTE	Population to Provider Ratio	FTE	Population to Provider Ratio
Adams	Rural	1.7	19,927.6	0.0	0.0	1.7	19,927.6	0.0	0.0
Allen	Urban	225.5	1,560.3	7.5	46,914.4	54.0	6,515.9	3.4	103,487.6
Bartholomew	Urban	43.1	1,774.6	0.9	84,982.2	42.0	1,821.0	0.0	0.0
Benton	Rural	0.0	99,999.0	0.0	0.0	0.0	0.0	0.0	0.0
Blackford	Rural	3.0	4,108.0	0.0	0.0	0.0	0.0	0.0	0.0
Boone	Urban	17.0	3,375.1	0.0	0.0	17.0	3,375.1	0.0	0.0
Brown	Urban	0.8	18,696.3	0.0	0.0	0.8	18,696.3	0.0	0.0
Carroll	Urban	8.3	2,388.6	0.0	0.0	8.3	2,388.6	0.0	0.0
Cass	Rural	17.9	2,113.1	0.0	0.0	17.0	2,224.9	0.0	0.0
Clark	Urban	52.4	2,090.7	0.7	156,505.7	51.0	2,148.1	0.9	121,726.7
Clay	Urban	4.8	5,489.0	0.0	0.0	4.8	5,489.0	0.0	0.0
Clinton	Rural	9.6	3,361.1	0.0	0.0	9.6	3,361.1	0.0	0.0
Crawford	Rural	1.0	10,518.0	0.0	0.0	1.0	10,518.0	0.0	0.0
Daviess	Rural	16.8	1,861.9	0.0	0.0	17.0	1,840.0	0.0	0.0
Dearborn	Urban	13.8	3,563.4	1.0	49,175.0	12.0	4,097.9	1.0	49,175.0
Decatur	Rural	12.0	2,126.9	0.0	0.0	12.0	2,126.9	0.0	0.0
DeKalb	Rural	11.6	3,602.2	0.0	0.0	5.9	7,082.4	2.6	16,071.5
Delaware	Urban	46.0	2,375.4	0.0	0.0	46.0	2,375.4	0.0	0.0
Dubois	Rural	22.6	1,822.5	0.0	0.0	23.0	1,790.8	0.0	0.0
Elkhart	Urban	70.4	2,768.4	0.8	243,617.5	65.0	2,998.4	4.3	45,324.2
Fayette	Rural	16.4	1,438.5	0.8	29,490.0	15.0	1,572.8	0.0	0.0
Floyd	Urban	51.1	1,447.1	1.0	73,947.0	50.0	1,478.9	0.0	0.0
Fountain	Rural	3.8	4,416.3	0.0	0.0	3.8	4,416.3	0.0	0.0
Franklin	Urban	1.9	12,057.9	0.0	0.0	1.9	12,057.9	0.0	0.0
Fulton	Rural	6.3	3,249.0	0.0	0.0	6.3	3,249.0	0.0	0.0
Gibson	Urban	7.8	4,180.4	0.0	0.0	7.8	4,180.4	0.0	0.0
Grant	Rural	18.4	3,488.2	0.0	0.0	17.0	3,775.4	0.0	0.0
Greene	Urban	83.5	390.5	0.0	0.0	7.3	4,466.6	0.0	0.0
Hamilton	Urban	124.0	2,265.1	2.2	127,670.0	121.0	2,321.3	1.0	0.0
Hancock	Urban	21.5	3,233.0	0.4	173,775.0	21.0	3,310.0	0.0	0.0
Harrison	Urban	10.5	3,675.1	0.0	0.0	9.5	4,062.0	1.0	0.0
Hendricks	Urban	44.1	3,291.8	1.0	145,169.0	42.0	3,456.4	1.3	111,668.5
Henry	Rural	6.5	7,070.9		0.0	6.5	7,070.9	0.0	0.0
Howard	Urban	34.1	2,383.2	1.5	54,178.0	28.0	2,902.4	0.0	0.0
Huntington	Rural	7.2	4,948.5	0.0	0.0	6.4	5,567.0	0.0	0.0
Jackson	Rural	24.4	1,707.7	0.0	0.0	24.0	1,736.1	0.0	0.0
Jasper	Urban	13.2	2,449.5	0.0	0.0	13.0	2,487.2	0.0	0.0
Jay	Rural	4.4	4,760.0	0.0	0.0	4.4	4,760.0	0.0	0.0
Jefferson	Rural	13.2	2,291.4	0.0	0.0	13.0	2,326.7	0.0	0.0
Jennings	Rural	2.9	9,609.0	1.0	27,866.0	1.9	14,666.3	0.0	0.0
Johnson	Urban	40.8	3,390.3	1.4	98,803.6	38.0	3,640.1	1.0	138,325.0
Knox	Rural	20.2	1,751.8	1.0	35,387.0	19.0	1,862.5	0.0	0.0
Kosciusko	Rural	31.1	2,444.6	0.0	0.0	26.0	2,924.1	2.5	0.0
LaGrange	Rural	1.3	28,482.3	0.0	0.0	1.1	33,660.9	0.0	0.0
Lake	Urban	162.0	634.2	15.0	6,848.9	142.0	723.5	4.5	22,829.8
LaPorte	Urban	36.5	13,376.0	0.8	610,280.0	36.0	13,561.8	0.5	976,448.0
Lawrence	Rural	19.6	2,309.6	2.0	22,634.5	18.0	2,514.9	0.0	0.0

Table 3.1: APN by County

County	Rurality	Advanced Practice Nurse		Clinical Nurse Specialist		Nurse Practitioner		Certified Nurse Midwife	
		FTE	Population to Provider Ratio	FTE	Population to Provider Ratio	FTE	Population to Provider Ratio	FTE	Population to Provider Ratio
Madison	Urban	52.2	2,375.5	1.0	124,001.0	49.0	2,530.6	2.7	45,926.3
Marion	Urban	785.9	1,136.5	42.0	21,265.6	724.0	1,233.6	18.0	49,619.7
Marshall	Rural	17.3	2,675.9	0.0	0.0	16.0	2,893.3	1.0	0.0
Martin	Rural	1.0	10,151.0	0.0	0.0	1.0	10,151.0	0.0	0.0
Miami	Rural	14.2	2,431.8	1.0	34,532.0	13.0	2,656.3	0.0	0.0
Monroe	Urban	80.8	1,547.9	1.2	104,224.2	76.0	1,645.6	3.4	36,785.0
Montgomery	Rural	7.4	4,966.6	0.0	0.0	7.4	4,966.6	0.0	0.0
Morgan	Urban	17.2	3,977.1	1.0	68,406.0	15.0	4,560.4	0.8	85,507.5
Newton	Urban	0.0	99,999.0	0.0	0.0	0.0	0.0	0.0	0.0
Noble	Rural	6.5	7,147.4	0.0	0.0	5.6	8,296.1	0.0	0.0
Ohio	Urban	3.4	1,748.8	0.0	0.0	3.4	1,748.8	0.0	0.0
Orange	Rural	2.0	9,685.0	0.8	24,212.5	1.2	16,141.7	0.0	0.0
Owen	Rural	4.0	5,251.0	0.0	0.0	4.0	5,251.0	0.0	0.0
Parke	Rural	3.9	4,006.7	0.0	0.0	3.9	4,006.7	0.0	0.0
Perry	Rural	7.7	2,297.3	0.0	0.0	7.7	2,297.3	0.0	0.0
Pike	Rural	0.0	99,999.0	0.0	0.0	0.0	0.0	0.0	0.0
Porter	Urban	42.3	3,812.1	1.0	161,251.0	39.0	4,134.6	1.9	84,868.9
Posey	Urban	1.0	25,426.0	0.0	0.0	1.0	25,426.0	0.0	0.0
Pulaski	Rural	6.0	2,156.0	0.0	0.0	0.9	14,373.3	0.0	0.0
Putnam	Urban	11.3	2,844.8	0.0	0.0	10.0	3,214.6	0.0	0.0
Randolph	Rural	2.7	9,455.9	0.0	0.0	2.7	9,455.9	0.0	0.0
Ripley	Rural	16.0	1,759.3	0.0	0.0	15.0	1,876.5	0.0	0.0
Rush	Rural	1.8	9,433.9	0.0	0.0	1.8	9,433.9	0.0	0.0
St. Joseph	Rural	123.2	191.5	3.6	6,551.9	113.0	208.7	5.5	4,288.5
Scott	Urban	7.8	5,589.0	0.0	0.0	7.8	5,589.0	0.0	0.0
Shelby	Rural	17.1	1,205.7	0.9	22,908.9	16.0	1,288.6	0.0	0.0
Spencer	Urban	2.0	127,187.0	1.0	254,374.0	1.0	254,374.0	0.0	0.0
Starke	Rural	3.4	6,792.1	0.0	0.0	3.4	6,792.1	1.0	23,093.0
Steuben	Rural	4.4	7,448.4	0.0	0.0	3.6	9,103.6	0.0	0.0
Sullivan	Urban	7.2	2,644.4	0.0	0.0	7.2	2,644.4	0.0	0.0
Switzerland	Rural	0.7	14,852.9	0.0	0.0	0.7	14,852.9	0.0	0.0
Tippecanoe	Urban	93.3	1,733.2	6.5	24,877.7	84.0	1,925.1	3.0	0.0
Tipton	Urban	4.9	3,188.2	0.0	0.0	4.9	3,188.2	0.0	0.0
Union	Rural	2.8	2,616.4	0.0	0.0	2.8	2,616.4	0.0	0.0
Vanderburgh	Urban	148.2	1,168.7	9.8	17,673.5	138.0	1,255.1	0.0	0.0
Vermillion	Urban	7.3	2,153.0	0.0	0.0	7.3	2,153.0	0.0	0.0
Vigo	Urban	56.2	1,752.3	2.9	33,959.0	53.0	1,858.1	0.0	0.0
Wabash	Rural	6.8	4,516.0	1.0	30,709.0	5.8	5,294.7	0.0	0.0
Warren	Rural	0.0	99,999.0	0.0	0.0	31.0	269.1	0.0	0.0
Warrick	Urban	31.1	1,896.3	0.0	0.0	31.0	1,902.4	0.0	0.0
Washington	Urban	3.3	8,352.4	0.0	0.0	3.3	8,352.4	0.0	0.0
Wayne	Rural	37.1	1,774.0	3.7	17,787.8	33.0	1,994.4	0.0	0.0
Wells	Urban	4.1	6,587.1	0.0	0.0	2.1	12,860.5	0.0	0.0
White	Rural	6.5	3,711.2	0.0	0.0	6.5	3,711.2	0.0	0.0
Whitley	Urban	7.0	4,678.3	0.0	0.0	5.4	6,064.4	0.0	0.0

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Advanced Practice Nurses Workforce

Map 3.1 Geographic Distribution of Advanced Practice Nurse FTEs
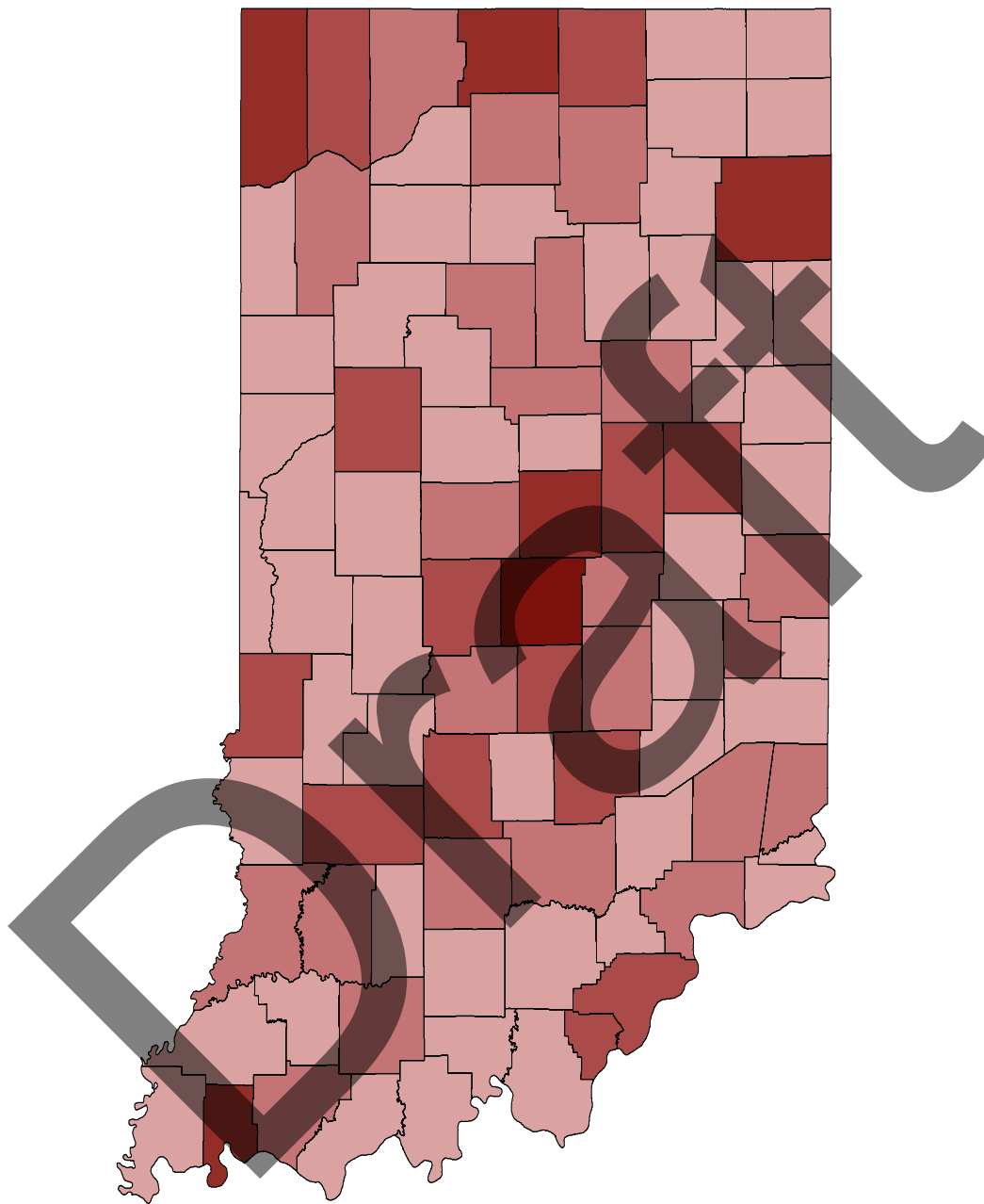
APN FTE

	0.0 - 12.0
	12.1 - 37.1
	37.2 - 93.3
	93.4 - 225.5
	225.6 - 785.9

Source: Indiana Nursing Re-licensure Survey, 2015
Notes: Darker colors represent a greater concentration of APN FTE in a specific geographic area. The lightest red represents 0-12 APN FTE whereas the darkest red indicates 225.6-485.9 APN FTE.

Advanced Practice Nurses Workforce
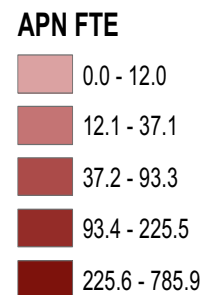
Map 3.2 Resident per APN FTE by Indiana County
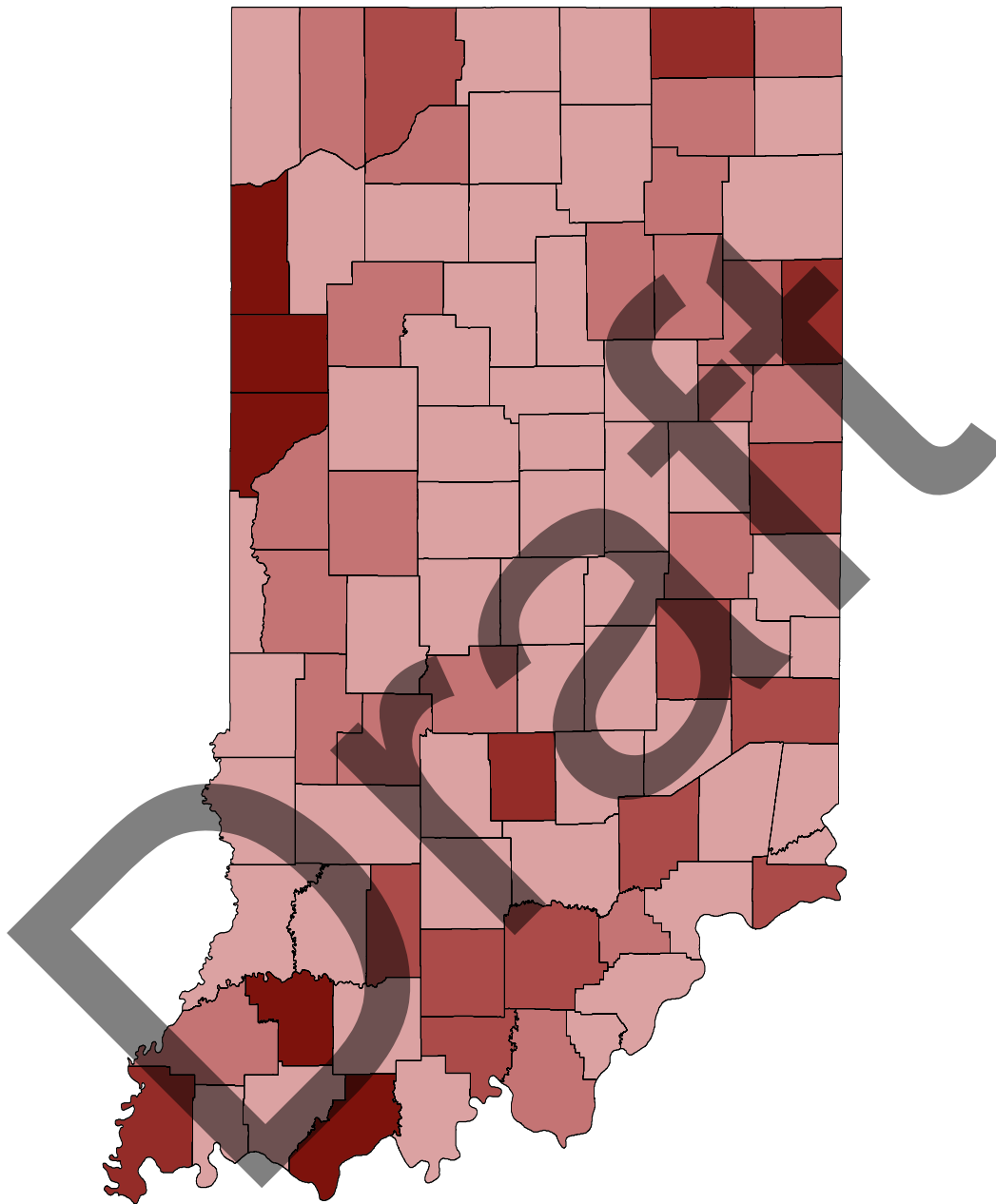
Residents per APN FTE

- 191.5 - 3602.2
- 3602.3 - 7448.4
- 7448.5 - 14852.9
- 14853.0 - 28482.3
- 28482.4 - 127187.0

Source: Indiana Nursing Re-licensure Survey, 2015
Notes: Darker colors represent more Indiana residents per 1 APN FTE within a specific geographic area. The darker red represents the greatest need with 1,812.8-6,783.3 Indiana Residents per 1 APN FTE.

Advanced Practice Nurses Workforce

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Demographic Characteristics

Table 3.2: Age/Gender, APNs

	Female		Male		Unknown		Total	
	N	**%**	**N**	**%**	N	%	**N**	**%**
Age Groups								
Under 35	766.0	22.9	33.0	17.9	1.0	6.7	800.0	22.6
35- 44	899.0	26.9	65.0	35.3	4.0	26.7	968.0	27.3
45 - 54	859.0	25.7	47.0	25.5	3.0	20.0	909.0	25.7
55 - 64	707.0	21.1	34.0	18.5	7.0	46.7	748.0	21.1
Over 65	113.0	3.4	5.0	2.7	0.0	0.0	118.0	3.3
Non-respon-dents	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	*3,344.0*	*100.0*	*184.0*	*100.0*	*15.0*	*100.0*	*3,543.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015
Notes: Age was calculated based upon IPLA birthdate survey data and date survey was completed.

Table 3.3: Race/ethnicity, APNs

	APN	
	N	**%**
Race		
White	3,266.0	92.2
Asian	35.0	1.0
Black/African American	123.0	3.5
Multiracial	39.0	1.1
Native Hawaiian/Pacific Islander	3.0	0.1
American Indian/AlaskanNative	3.0	0.1
Other	39.0	1.1
Non-respondents	35.0	1.0
Total	*3,543.0*	*100.0*
Ethnicity		
Hispanic or Latino	61.0	1.7
Not Hispanic or Latino	3,444.0	97.2
Non-respondents	38.0	1.1
Total	*3,543.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Advanced Practice Nurses Workforce

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Education/training Characteristics

Table 3.4: Education/Training Characteristics, APNs

	APN		ASN or less		BSN or higher		Unknown	
	N	%	N	%	N	%	N	%
Location of program - first licensure qualification								
Indiana	2,711.0	76.5	1,872.0	77.6	805.0	74.5	34.0	69.4
Other US state	803.0	22.7	525.0	21.8	268.0	24.8	10.0	20.4
Non-respondents	29.0	0.8	16.0	0.7	8.0	0.7	5.0	10.2
Total	*3,543.0*	100.0	*2,413.0*	*100.0*	*1,081.0*	*100.0*	*49.0*	*100.0*
Highest level of education								
Vocational/Practical certificate (nursing)	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Diploma (nursing)	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Associate degree (nursing)	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Associate degree (other field)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Baccalaureate degree (nursing)	85.0	2.4	56.0	2.3	28.0	2.6	1.0	2.0
Baccalaureate degree (other field)	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Master's degree (nursing)	2,988.0	84.3	2,062.0	85.5	899.0	83.2	27.0	55.1
Master's degree (other field)	86.0	2.4	62.0	2.6	22.0	2.0	2.0	4.1
Doctoral degree (nursing)	163.0	4.6	95.0	3.9	66.0	6.1	2.0	4.1
Doctoral degree (other field)	28.0	0.8	16.0	0.7	12.0	1.1	0.0	0.0
Non-respondents	189.0	5.3	118.0	4.9	54.0	5.0	17.0	34.7
Total	*3,543.0*	100.0	*2,413.0*	*100.0*	*1,081.0*	*100.0*	*49.0*	*100.0*
Planned nursing degree(s) to pursue within next 2 years								
Baccalaureate degree	15.0	0.4	11.0	0.5	2.0	0.2	2.0	4.1
Master's degree	240.0	6.8	170.0	7.0	65.0	6.0	5.0	10.2
Doctoral degree	467.0	13.2	316.0	13.1	141.0	13.0	10.0	20.4
No intention to pursue nursing education with next 2 years	2,775.0	78.3	1,891.0	78.4	859.0	79.5	25.0	51.0
Non-respondents	46.0	1.3	25.0	1.0	14.0	1.3	7.0	14.3
Total	*3,543.0*	100.0	*2,413.0*	*100.0*	*1,081.0*	*100.0*	*49.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Employment/practice Setting Characteristics

Table 3.5: Employment Characteristics, APNs

	APN			
	Primary location		**Secondary location**	
	N	**%**	**N**	**%**
Employment status				
Actively employed in nursing full-time	2,954.0	83.4	649.0	18.3
Actively employed in nursing part-time	529.0	14.9	93.0	2.6
Actively employed in nursing per diem	56.0	1.6	11.0	0.3
Non-respondents	4.0	0.1	2,790.0	78.7
Total	*3,543.0*	*100.0*	*3,543.0*	*100.0*
Current number of paid nursing positions				
1	2,782.0	78.5	299.0	8.4
2	548.0	15.5	365.0	10.3
3	97.0	2.7	73.0	2.1
4 or more	29.0	0.8	14.0	0.4
Non-respondents	87.0	2.5	2,792.0	78.8
Total	*3,543.0*	*100.0*	*3,543.0*	*100.0*
Employment setting				
Academic Setting	77.0	2.2	39.0	1.1
Ambulatory Care Setting	1,202.0	33.9	256.0	7.2
Community Health	302.0	8.5	67.0	1.9
Correctional Facility	19.0	0.5	2.0	0.1
Home Health	63.0	1.8	12.0	0.3
Hospital	956.0	27.0	184.0	5.2
Insurance Claims/Benefits	2.0	0.1	0.0	0.0
Nursing Home/Extended Care/Assisted Living	162.0	4.6	38.0	1.1
Occupational Health	106.0	3.0	27.0	0.8
Policy Planning/Licensing Agency	0.0	0.0	0.0	0.0
Public Health	33.0	0.9	7.0	0.2
School Health Service	33.0	0.9	9.0	0.3
Other	564.0	15.9	110.0	3.1
Non-respondents	24.0	0.7	2,792.0	78.8
Total	*3,543.0*	*100.0*	*3,543.0*	*100.0*
Average hours/week, all locations				
0	20.0	0.6	66.0	1.9
1 - 4	29.0	0.8	163.0	4.6
5 - 8	70.0	2.0	167.0	4.7
9 - 12	63.0	1.8	122.0	3.4
13 - 16	77.0	2.2	67.0	1.9
17 - 20	152.0	4.3	69.0	1.9
21 - 24	194.0	5.5	40.0	1.1
25 - 28	150.0	4.2	13.0	0.4
29 - 32	233.0	6.6	17.0	0.5
33 - 36	387.0	10.9	10.0	0.3
37 - 40	1,159.0	32.7	12.0	0.3
41 or more	927.0	26.2	18.0	0.5
Non-respondents	82.0	2.3	2,779.0	78.4
Total	*3,543.0*	*100.0*	*3,543.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015

Advanced Practice Nurses Workforce

Specialties

Table 3.6: Specialties, APNs

	APN	
	N	**%**
Primary practice specialty		
Acute Care/Critical Care	397.0	11.2
Adult Health/Family Health	1,213.0	34.2
Anesthesia	13.0	0.4
Community	53.0	1.5
Geriatric/Gerontology	140.0	4.0
Home Health	22.0	0.6
Maternal-Child Health	45.0	1.3
Medical Surgical	56.0	1.6
Occupational Health	94.0	2.7
Oncology	64.0	1.8
Palliative Care	498.0	14.1
Pediatrics/Neonatal	55.0	1.6
Psychiatric/Mental Health/Substance Abuse	287.0	8.1
Public Health	220.0	6.2
Rehabilitation	12.0	0.3
School Health	10.0	0.3
Trauma	15.0	0.4
Women's Health	39.0	1.1
Other	218.0	6.2
Non-respondents	92.0	2.6
Total	*3,543.0*	*100.0*

Source: Indiana Registered Nurse Re-Licensure Survey, 2015
Notes: Not all proportions will sum to 100% due to rounding.