

West Virginia Nursing Workforce Data April 5, 2019

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WV Center for Nursing



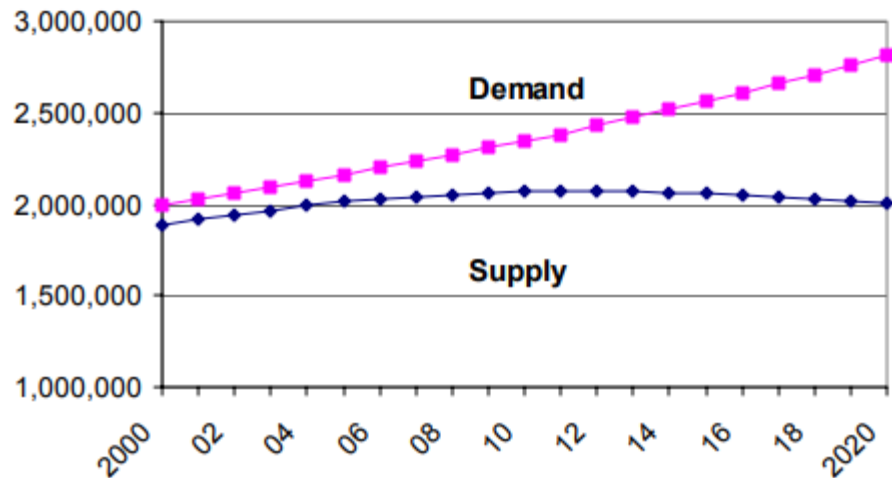
RECRUITMENT. RETENTION. COLLABORATION.

Outline

- ▶ HRSA projections over 20 years and their explanation
- ▶ HRSA's projected area of need in long term care services and support
- ▶ National Workforce Minimum Data Sets
 - ▶ Supply
 - ▶ Demand
 - ▶ Education

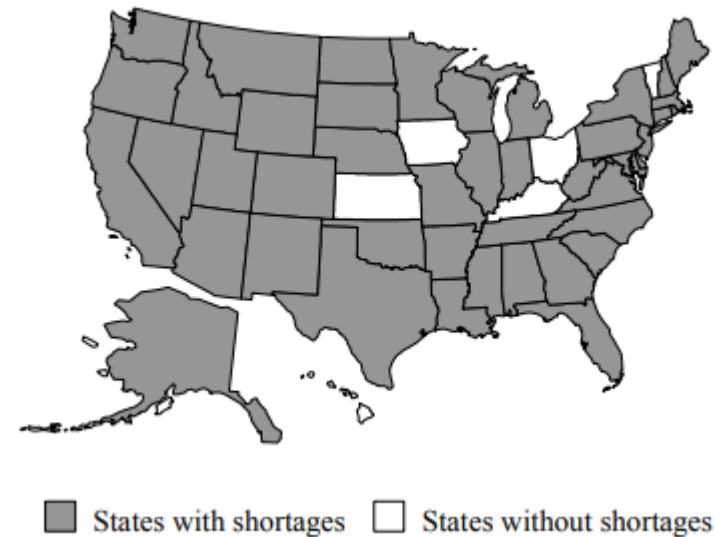
U.S Department of Health and Human Services Health Resources and Services Administration (HRSA) Projected Nurse Workforce 2000-2020

Chart 1: National Supply and Demand Projections for FTE Registered Nurses: 2000 to 2020



Source: Bureau of Health Professions, RN Supply and Demand Projections

Map 2: States with Projected Shortages of FTE Registered Nurses in 2020



U.S Department of Health and Human Services (2002) Projected supply, demand and shortages of Registered nurses: 2000-2020. https://www.ahcancal.org/research_data/staffing/Documents/Registered_Nurse_Supply_Demand.pdf. Retrieved 2/29/2019.

HRSA 2014

WV's Projected Nurse Workforce 2012-2025

Surplus of 7,900 RNs

Region/State	2012	2025 Projected		
	Supply & Demand ^a	Demand	Supply	Difference ^b
Georgia	77,300	101,400	94,700	-6,700
Kentucky	47,300	51,000	67,500	+16,500
Louisiana	41,300	46,500	64,700	+18,200
Maryland	60,600	72,000	59,900	-12,100
Mississippi	32,200	35,800	47,000	+11,200
North Carolina	95,800	120,000	107,100	-12,900
Oklahoma	32,200	37,300	55,000	+17,700
South Carolina	44,600	54,600	54,000	-600
Tennessee	65,000	76,100	92,200	+16,100
Texas	192,000	278,300	284,400	+6,100
Virginia	69,900	87,300	106,700	+19,400
West Virginia	20,600	21,100	29,000	+7,900
South subtotal	1,038,800	1,306,900	1,425,900	+119,000

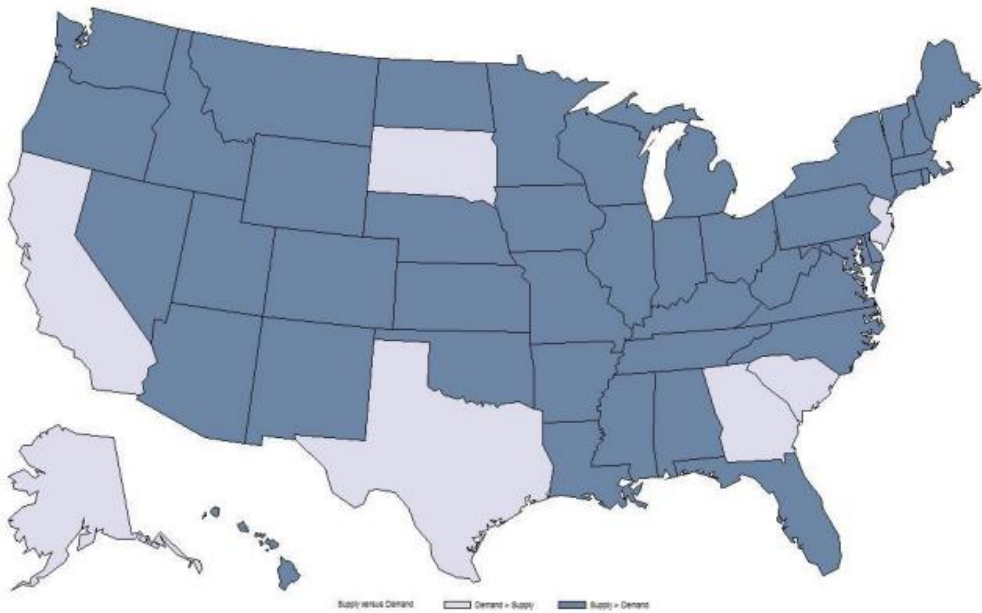
Surplus of 550 LPNs

State/Region	2012	2025 Projected		
	Supply & Demand ^a	Demand	Supply	Difference ^b
South Dakota	1,840	2,090	2,750	+660
Wisconsin	12,120	14,490	15,650	+1,160
Midwest subtotal	173,190	195,800	244,120	+48,320
South				
Alabama	13,930	16,110	15,410	-700
Arkansas	12,750	14,250	17,410	+3,160
Delaware	1,940	2,600	4,380	+1,780
Florida	47,270	63,910	65,430	+1,520
Georgia	25,910	33,260	26,160	-7,100
Kentucky	12,110	13,720	17,350	+3,630
Louisiana	15,890	17,900	20,400	+2,500
Maryland	13,150	16,960	9,080	-7,880
Mississippi	11,210	12,550	13,260	+710
North Carolina	20,650	28,180	20,420	-7,760
Oklahoma	15,440	17,180	19,720	+2,540
South Carolina	11,990	15,540	11,630	-3,910
Tennessee	23,330	27,200	27,580	+380
Texas	60,730	85,090	86,230	+1,140
Virginia	23,630	29,630	34,470	+4,840
West Virginia	7,350	7,830	8,380	+550
South subtotal	317,280	401,910	397,310	-4,600

U.S Department of Health and Human Services Health Resources and Services Administration (2014). The future of the nursing workforce: national and state-level projections. <https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/nursingprojections.pdf>. Retrieved 2/2019.

HRSA 2017 Projected Nurse Workforce 2014-2030

Exhibit 2: RN Supply versus Demand, by State, 2030



U.S Department of Health and Human Services Health Resources and Services Administration (2017). Supply and demand projections of the nursing workforce 2014-2030. https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/NCHWA_HRSA_Nursing_Report.pdf. Retrieved 2/2019.

Explanations for the Drastic HRSA Projection Changes

- ▶ Affordable Healthcare Act (ACA) (2010)
 - ▶ Extended healthcare coverage vs. increased access to preventive care??
- ▶ Nurse migration patterns
- ▶ Federal and local governments took action!
- ▶ Retirees working well past retirement age
- ▶ Multistate license
- ▶ Part-time/Not Working

Limitations to National HRSA Projections

- ▶ Model Assumption that health care delivery will not change substantially
- ▶ Assumes labor markets are in current balance
- ▶ Does not account for nurse migration patterns
- ▶ Does not consider projected supply and demand for RNs by education level
- ▶ Does not address the rapid growing APRN workforce segment
- ▶ Health care delivery model change projections
 - ▶ Growing emphasis on care coordination, preventive services, and chronic disease management in care delivery models.
- ▶ Factors including population growth and the aging of the nation's population, overall economic conditions, nursing workforce and change in healthcare reimbursement.

Maldistribution of Nurses? What do we see in Practice?

- ▶ If we are currently working in a state of surplus of nurses, what explains the high demand for nurses in many organizations throughout the state?
- ▶ High advertisement rates for nursing positions
- ▶ Use of agency nurses to fill vacancies

- ▶ WV Needs better DEMAND Data

Where is the
Demand?

THERE IS AN INCREASING
DEMAND FOR NURSES
PROJECTED IN LONG TERM
CARE SERVICES 2030

HRSA 2018 Long-Term Services and Supports Projections 2015-2030

Exhibit 1: LTSS Demand for Registered Nurses by State, 2015-2030

Region/State	2015	2020	2025	2030	Percent Change
Northeast	92,990	99,550	108,520	122,590	32%
Connecticut	6,230	6,910	7,860	8,970	44%
Maine	2,380	2,550	2,760	3,050	28%
Massachusetts	11,410	12,420	13,600	15,520	36%
New Hampshire	2,390	2,630	3,010	3,660	53%
New Jersey	12,860	14,480	16,130	18,470	44%
New York	30,580	31,570	33,450	36,870	21%
Pennsylvania	23,770	25,550	27,910	31,710	33%
Rhode Island	2,370	2,400	2,620	3,030	28%
Vermont	1,000	1,040	1,180	1,310	31%
Midwest	113,690	122,780	135,560	153,020	35%
Illinois	20,590	22,710	25,680	29,150	42%
Indiana	10,900	11,860	13,100	15,020	38%
Iowa	5,980	6,210	6,700	7,460	25%
Kansas	5,080	5,740	6,480	7,310	44%
Michigan	14,400	15,540	17,170	19,210	33%
Minnesota	8,060	8,850	9,910	11,530	43%
Missouri	11,170	12,210	13,600	15,590	40%
Nebraska	3,630	3,620	3,630	3,770	4%
North Dakota	1,760	1,770	1,990	2,230	27%
Ohio	21,460	22,580	24,130	26,310	23%
South Dakota	1,930	2,200	2,510	2,880	49%
Wisconsin	8,730	9,490	10,660	12,560	44%
South	158,460	181,200	208,970	240,150	52%
Alabama	7,990	9,100	10,160	11,320	42%
Arkansas	5,300	5,860	6,350	6,860	29%
Delaware	1,490	1,680	1,920	2,190	47%
District of Columbia	1,090	1,260	1,420	1,580	45%
Florida	27,620	30,810	35,250	39,400	43%
Georgia	10,670	12,670	14,750	16,800	57%
Kentucky	7,530	8,300	9,220	10,330	37%
Louisiana	7,470	8,210	9,320	10,660	43%
Maryland	7,940	9,220	10,690	12,350	56%
Mississippi	5,320	6,230	7,120	8,050	51%
North Carolina	13,530	15,930	18,560	21,310	58%
Oklahoma	5,610	6,320	7,040	7,830	40%
South Carolina	6,070	6,950	8,010	9,190	51%
Tennessee	9,130	10,600	12,410	14,720	61%
Texas	28,730	33,860	40,630	49,240	71%
Virginia	9,930	10,930	12,570	14,450	46%
West Virginia	3,040	3,270	3,550	3,870	27%
West	73,420	86,410	102,460	123,050	68%

RNs 27%
change

Exhibit 2: LTSS Demand for Licensed Practical Nurses by State, 2015-2030

Region/State	2015	2020	2025	2030	Percent Change
Northeast	77,820	83,270	90,730	102,840	32%
Connecticut	5,170	5,730	6,530	7,470	44%
Maine	2,010	2,160	2,330	2,590	29%
Massachusetts	9,550	10,390	11,360	13,000	36%
New Hampshire	2,020	2,220	2,540	3,100	53%
New Jersey	10,770	12,130	13,510	15,510	44%
New York	25,230	26,020	27,570	30,490	21%
Pennsylvania	20,190	21,680	23,650	26,970	34%
Rhode Island	2,030	2,060	2,250	2,600	28%
Vermont	850	880	990	1,110	31%
Midwest	95,370	102,990	113,770	128,950	35%
Illinois	17,060	18,820	21,330	24,310	42%
Indiana	9,070	9,870	10,910	12,550	38%
Iowa	4,970	5,170	5,560	6,210	25%
Kansas	4,360	4,930	5,580	6,320	45%
Michigan	11,800	12,730	14,080	15,840	34%
Minnesota	7,000	7,690	8,620	10,070	44%
Missouri	9,330	10,190	11,350	13,040	40%
Nebraska	3,160	3,150	3,150	3,280	4%
North Dakota	1,550	1,560	1,760	1,980	28%
Ohio	17,870	18,790	20,070	21,970	23%
South Dakota	1,680	1,920	2,190	2,510	49%
Wisconsin	7,520	8,170	9,170	10,870	45%
South	129,840	148,460	171,590	197,780	52%
Alabama	6,490	7,410	8,300	9,290	43%
Arkansas	4,290	4,750	5,160	5,590	30%
Delaware	1,250	1,400	1,600	1,830	46%
District of Columbia	920	1,060	1,200	1,330	45%
Florida	22,780	25,330	29,040	32,430	42%
Georgia	8,590	10,220	11,940	13,650	59%
Kentucky	6,110	6,740	7,500	8,440	38%
Louisiana	6,040	6,630	7,540	8,650	43%
Maryland	6,650	7,720	8,990	10,440	57%
Mississippi	4,360	5,130	5,870	6,660	53%
North Carolina	11,060	13,040	15,230	17,560	59%
Oklahoma	4,590	5,180	5,780	6,440	40%
South Carolina	4,900	5,610	6,490	7,470	52%
Tennessee	7,400	8,600	10,090	12,040	63%
Texas	23,660	27,870	33,460	40,680	72%
Virginia	8,310	9,130	10,520	12,130	46%
West Virginia	2,440	2,640	2,880	3,150	29%
West	61,170	72,040	85,540	103,360	69%

LPNs 29%
change

Limitations to this Projection

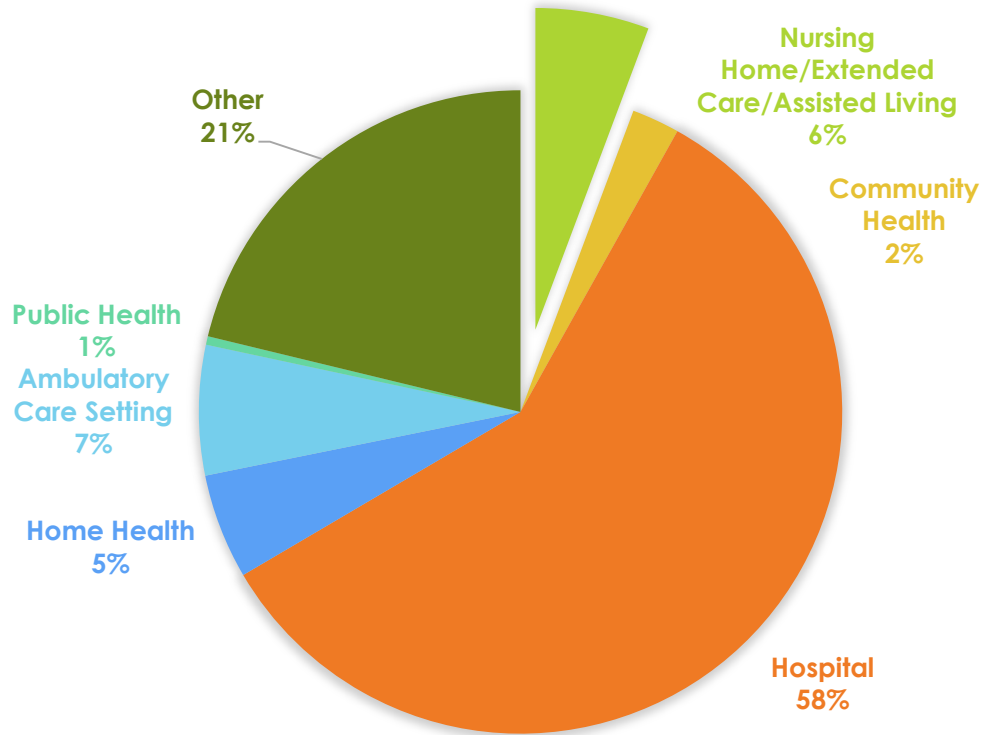
- ▶ Assumptions that health care delivery and practices will not change between 2015 and 2030
- ▶ Stability in the current rates of health care utilization
- ▶ *IF the growing population health emphasis on prevention and chronic disease management leads to reduced mortality=> then these projections might be further underestimated.

Where Does WV Stand Supplying our Long Term Care Settings?

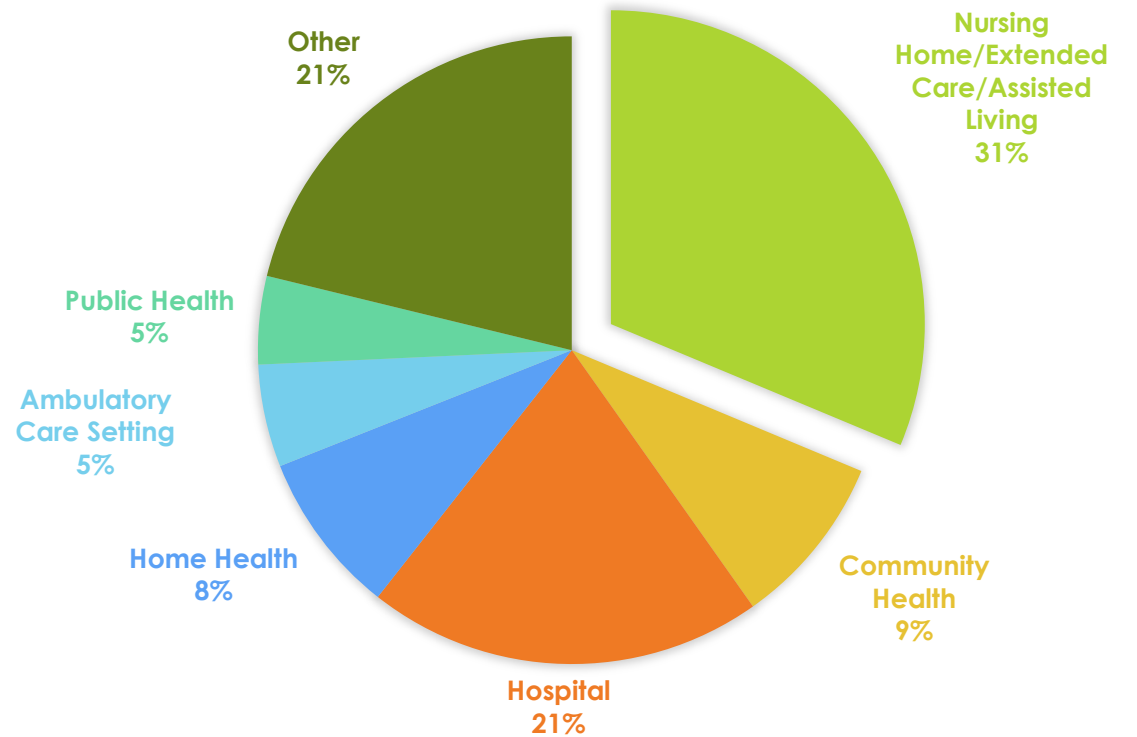
2018 LPN AND RN LICENSURE
DATA REPORTS

Primary Employment Setting

2018 WV RN EMPLOYMENT SETTINGS

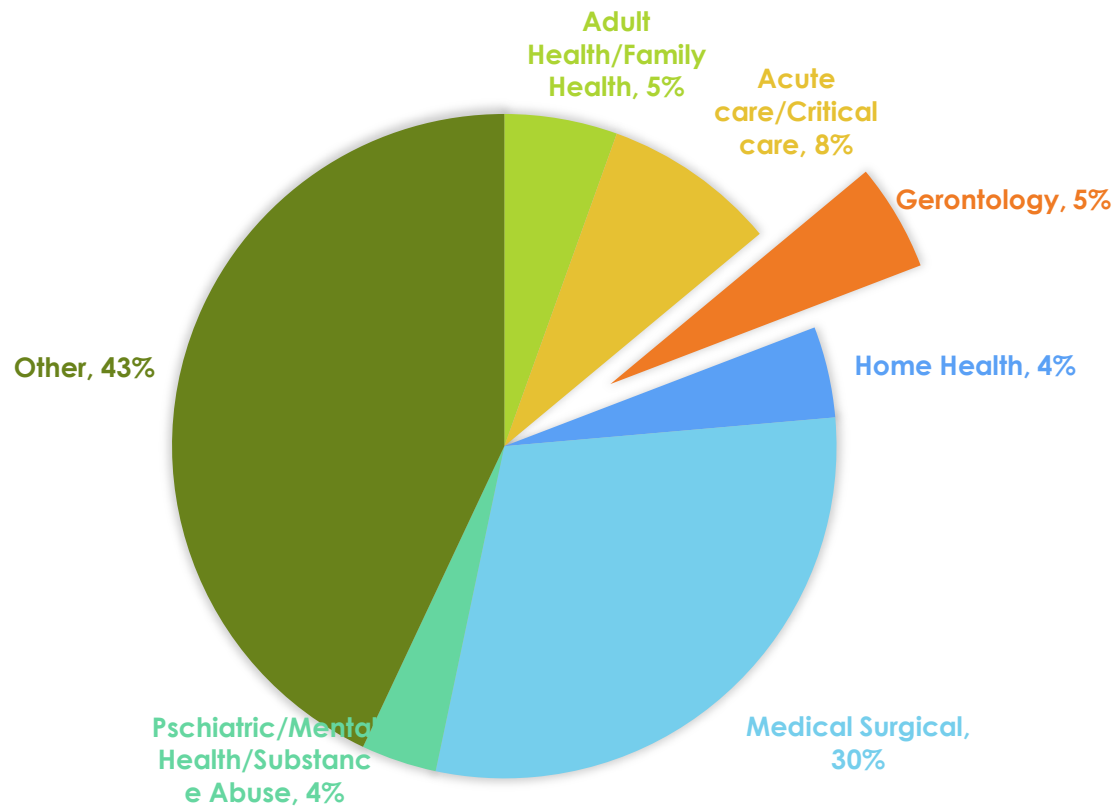


2018 WV LPN TOP EMPLOYMENT SETTINGS

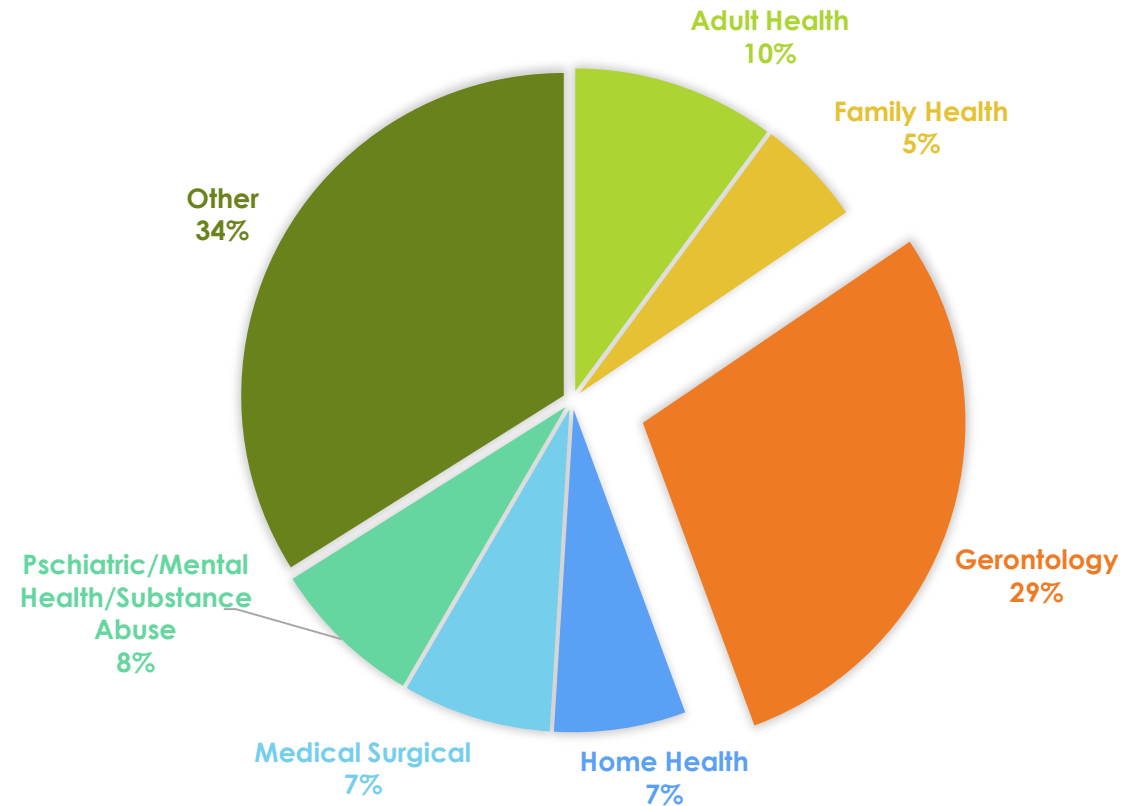


Primary Employment Specialty

2018 RN TOP EMPLOYMENT SPECIALTY



2018 LPN TOP EMPLOYMENT SETTING



National Nursing
Workforce
Minimum
Datasets

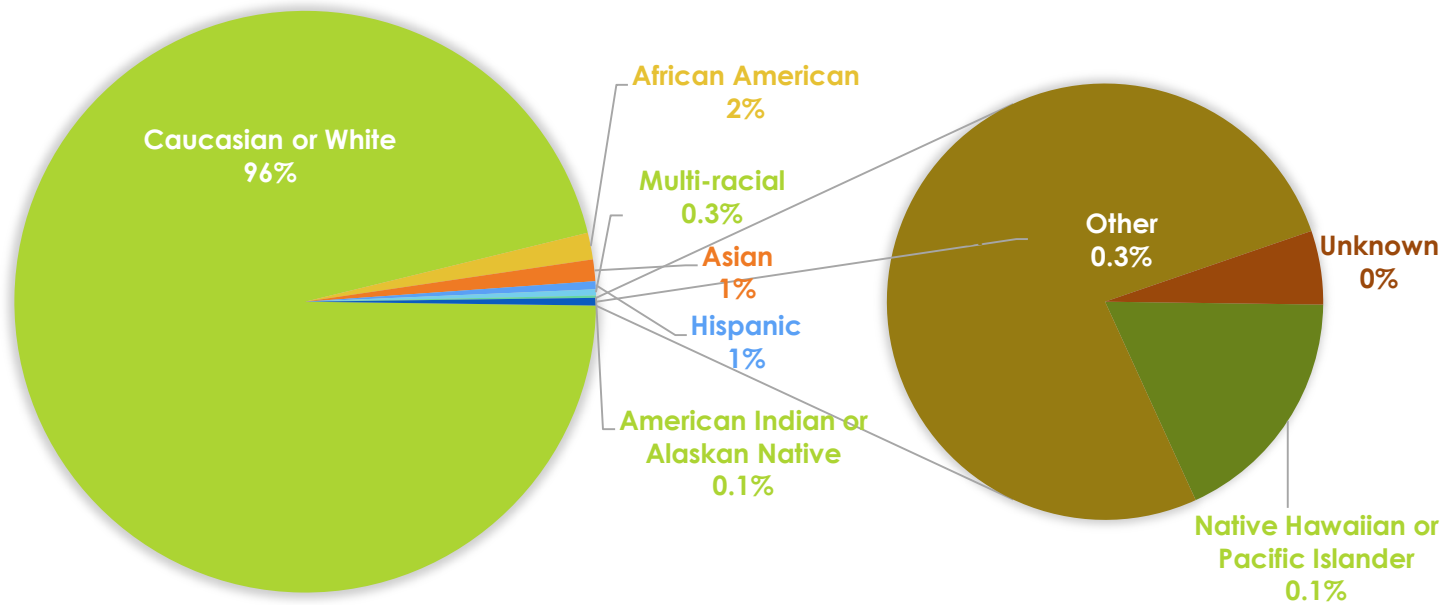
- SUPPLY
- DEMAND
- LEVEL OF NURSING
EDUCATION

Supply Data

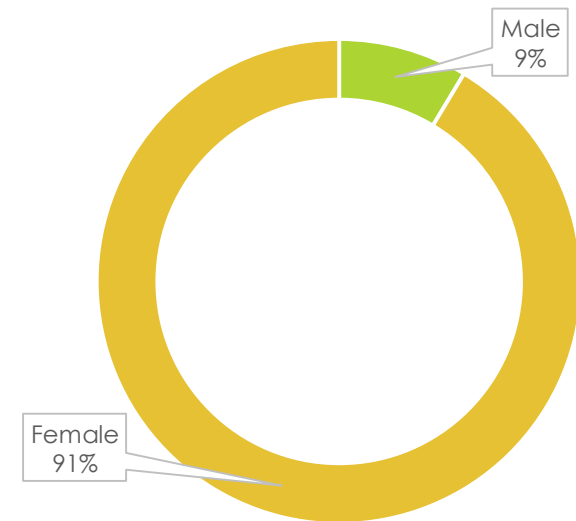
- ▶ WV State Board of Examiners for Registered Nurses
- ▶ WV State Board of Examiners for Licensed Practical Nurses

2018 RN Demographics

2018 RN RACE

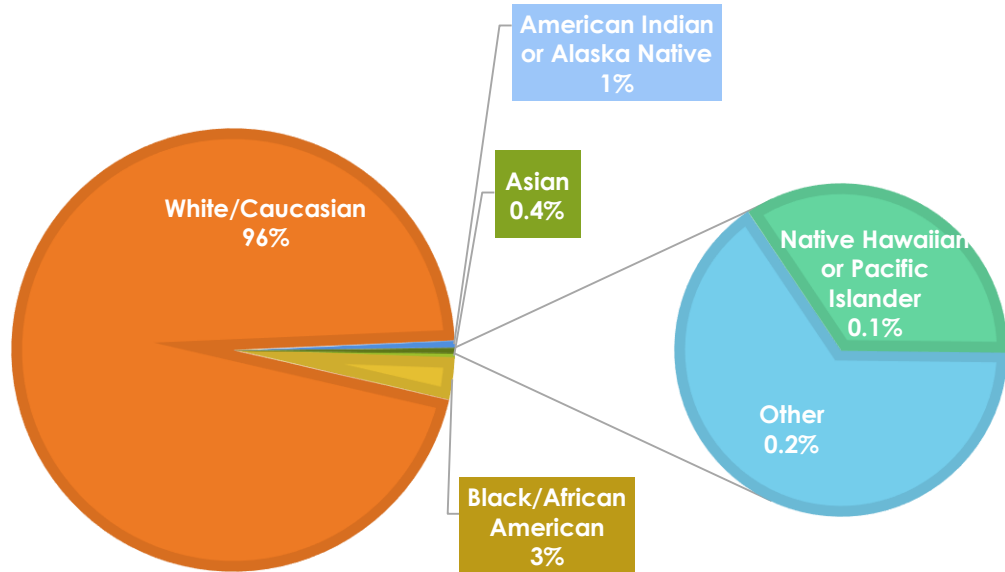


2018 RN Gender

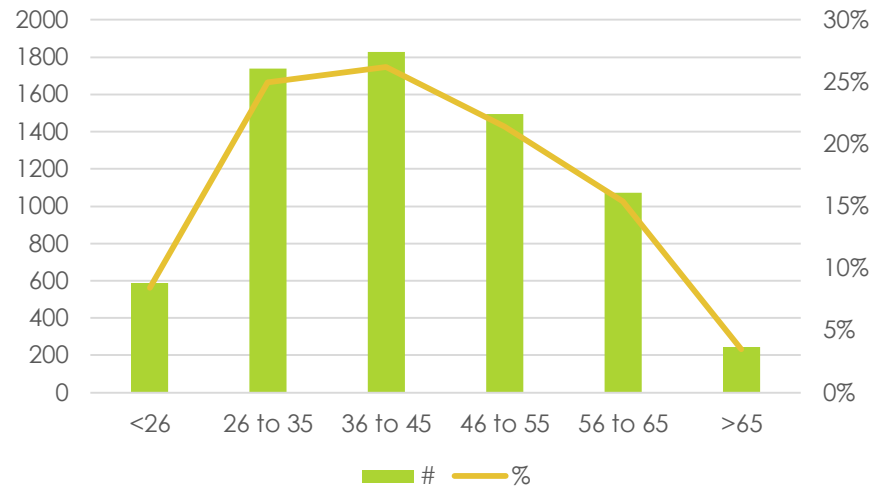


2018 LPN Demographics

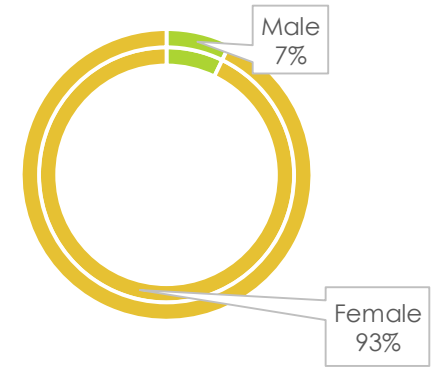
2018 LPN RACE



2018 LPN AGE DISTRIBUTION

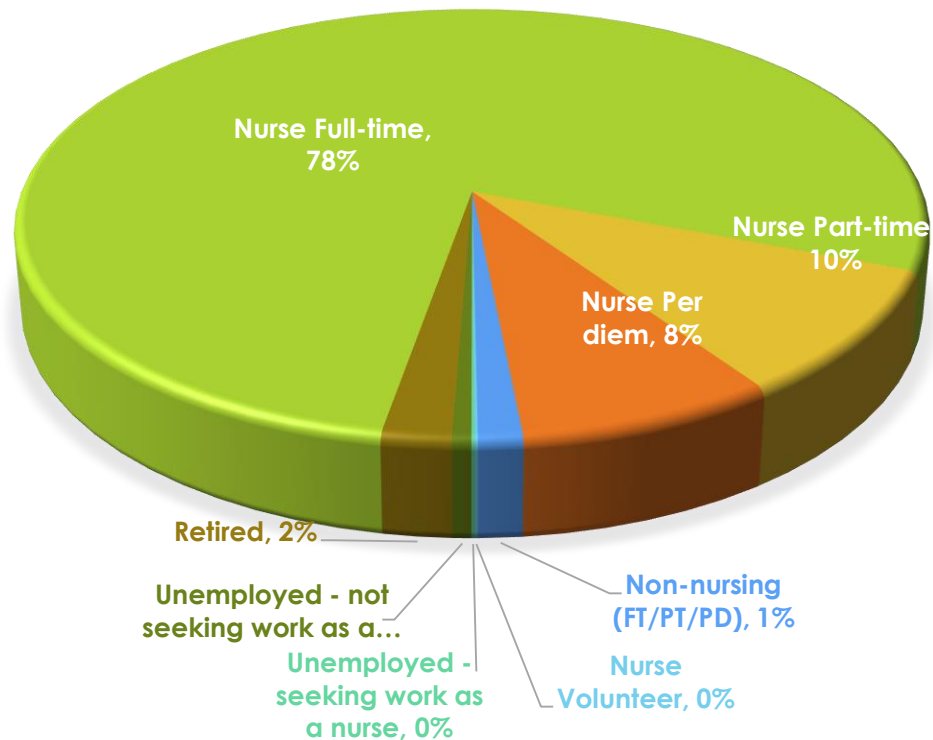


2018 LPN Gender

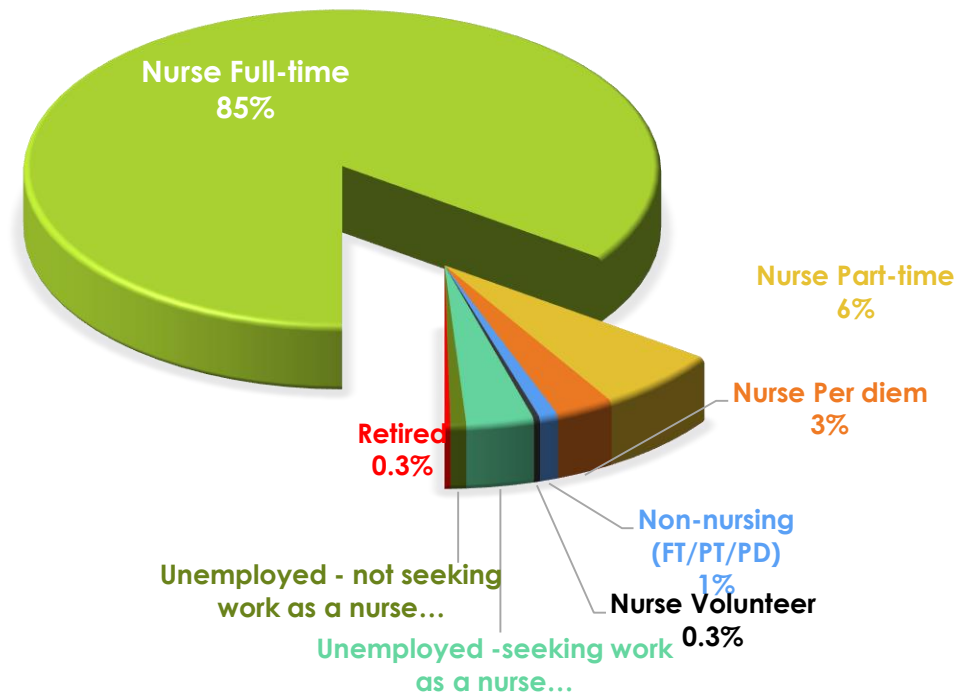


RN Employment Status

2017 RN EMPLOYMENT STATUS



2018 LPN EMPLOYMENT STATUS



2015-2017 Total Employment, Mean Hourly Wage and Mean Annual Wage West Virginia and Border States

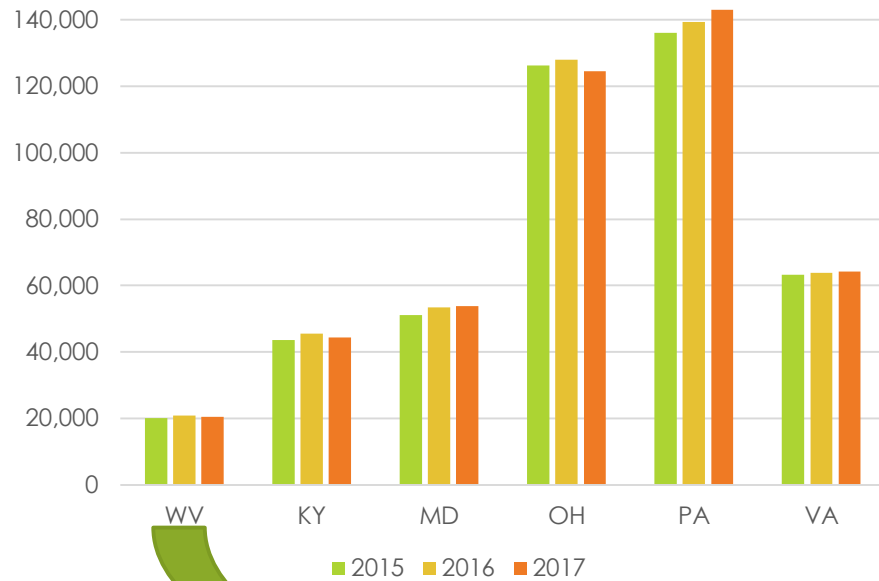


WVCN Data Committee

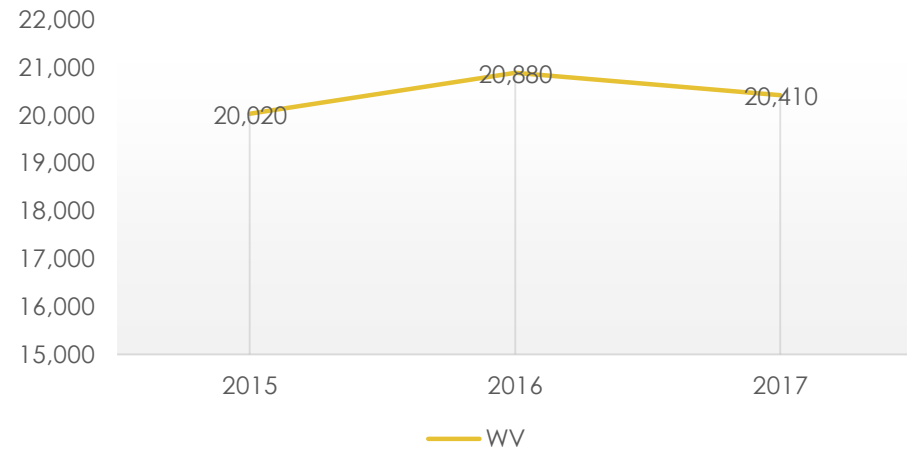
- ▶ Bureau for Labor Statistics (2017) Occupational Employment and Wages. <https://www.bls.gov/>. Retrieved February 2019.
- ▶ Occupational Informational Network (2017). Retrieved February 2019.
- ▶ The National Center for the Analysis of Healthcare Data's 2018 Enhanced State Licensure Data. www.ncahd.org. Retrieved March 2019.
- ▶ National Council of State Boards of Nursing (2018). West Virginia –PN workforce data. Retrieved March 2019.

Supply – RN Total Employment

Total Employment

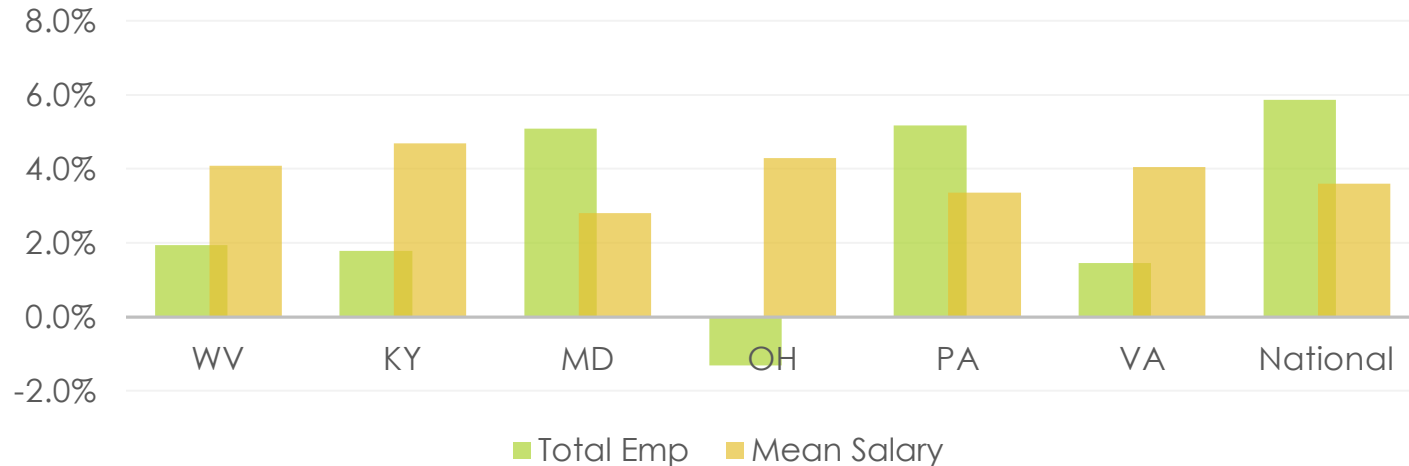


WV



2015-2017 % Change Registered Nurses Surrounding State and National Comparison

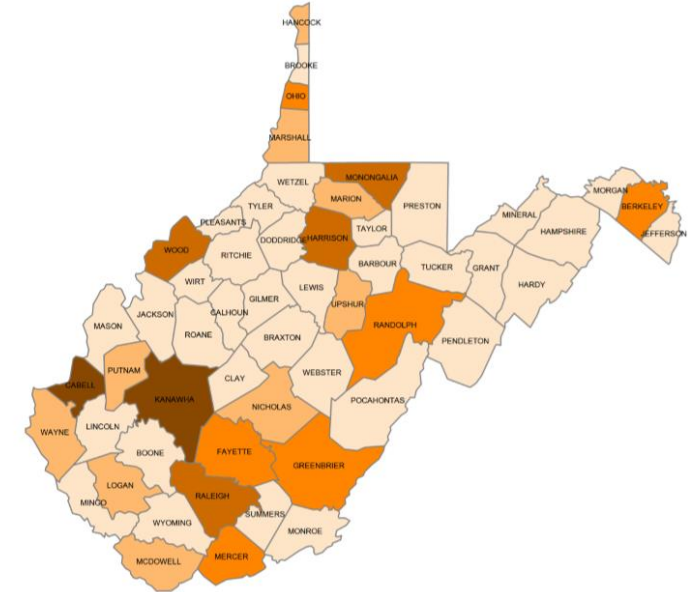
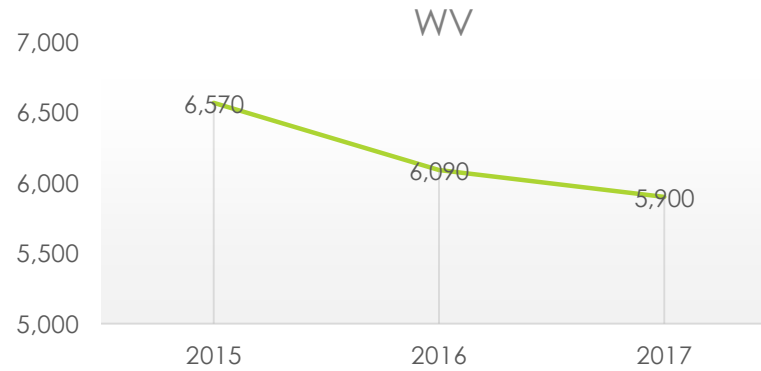
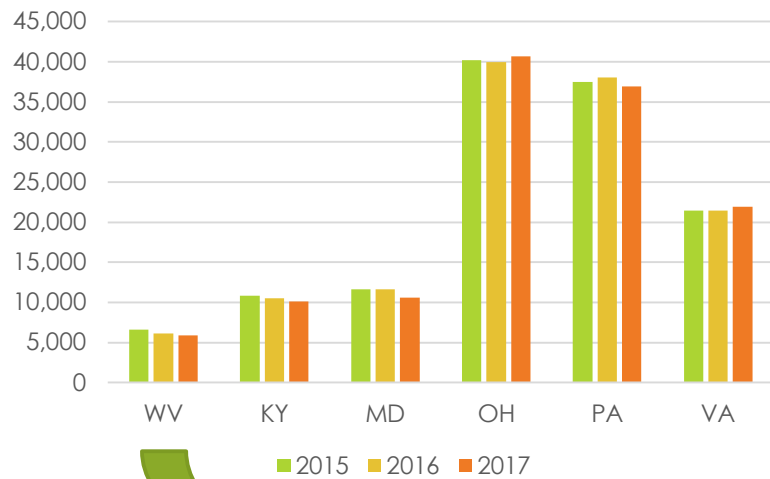
2015-17 % Change Registered Nurses



Registered Nurses		
Area	Total Emp	Mean Salary
WV	1.9%	4.1%
KY	1.8%	4.7%
MD	5.1%	2.8%
OH	-1.3%	4.3%
PA	5.2%	3.4%
VA	1.5%	4.1%
National	5.9%	3.6%

Supply – LPN Total Employment

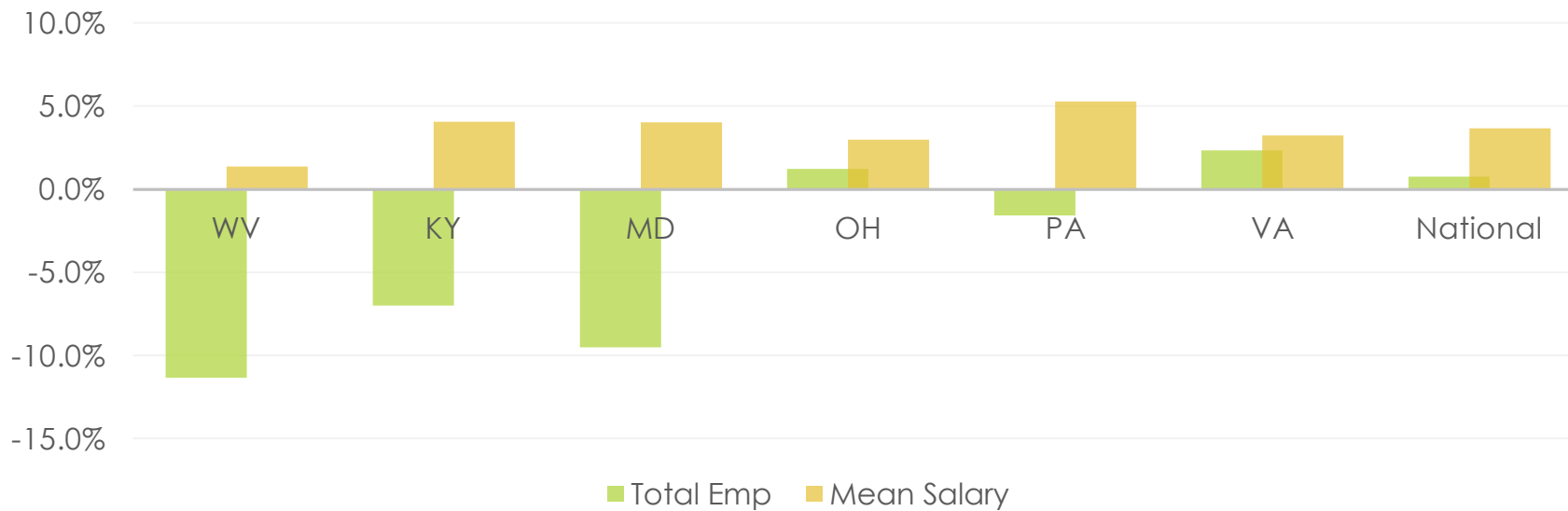
Total Employment



PN Totals

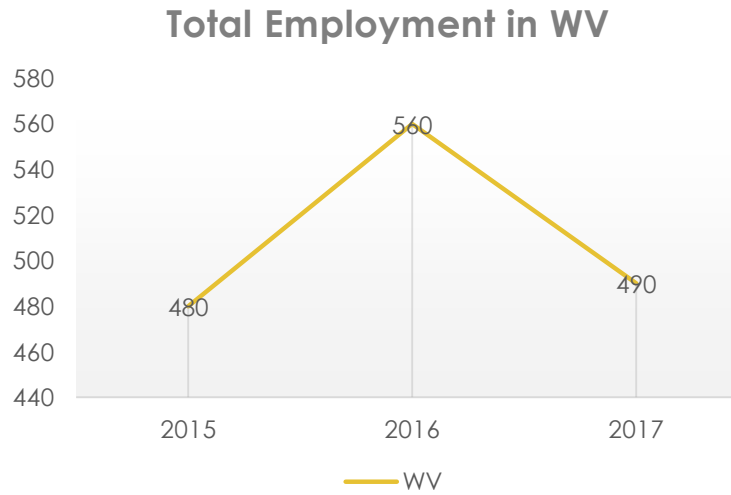
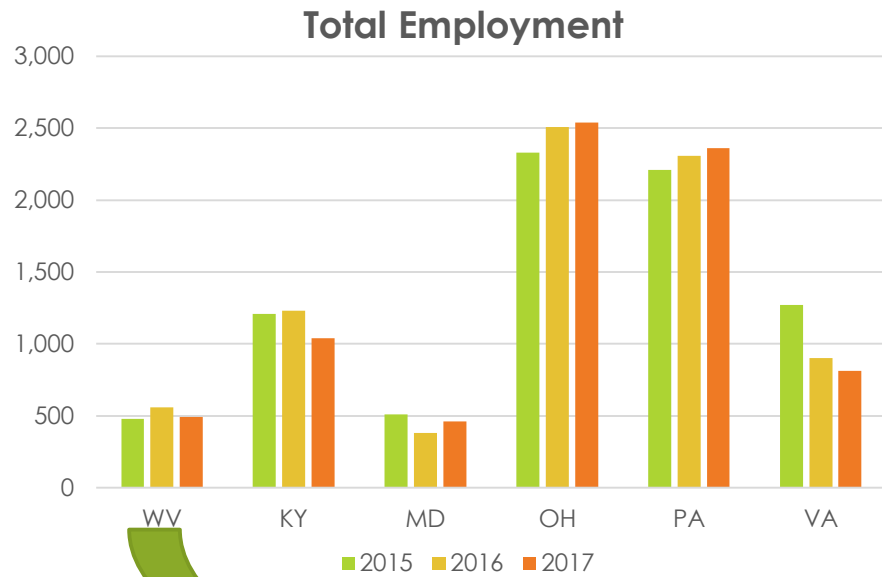
2015-2017 % Change Licensed Practical Nurses Surrounding State and National Comparison

2015-17 % Change Licensed Practical Nurses

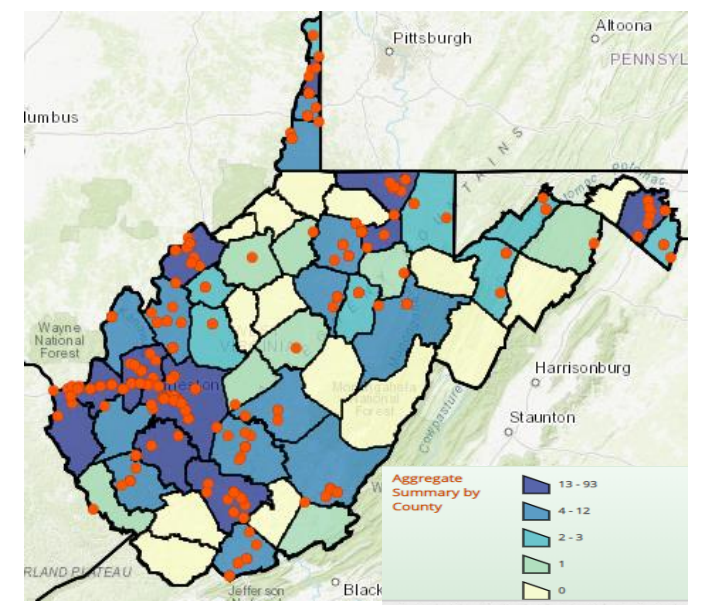


Licensed Practical Nurses		
Area	Total Emp	Mean Salary
WV	-10.2%	1.4%
KY	-6.5%	4.3%
MD	-8.7%	4.2%
OH	1.2%	3.1%
PA	-1.5%	5.6%
VA	2.4%	3.3%
National	0.8%	3.8%

Supply – Nurse Anesthetists Total Employment

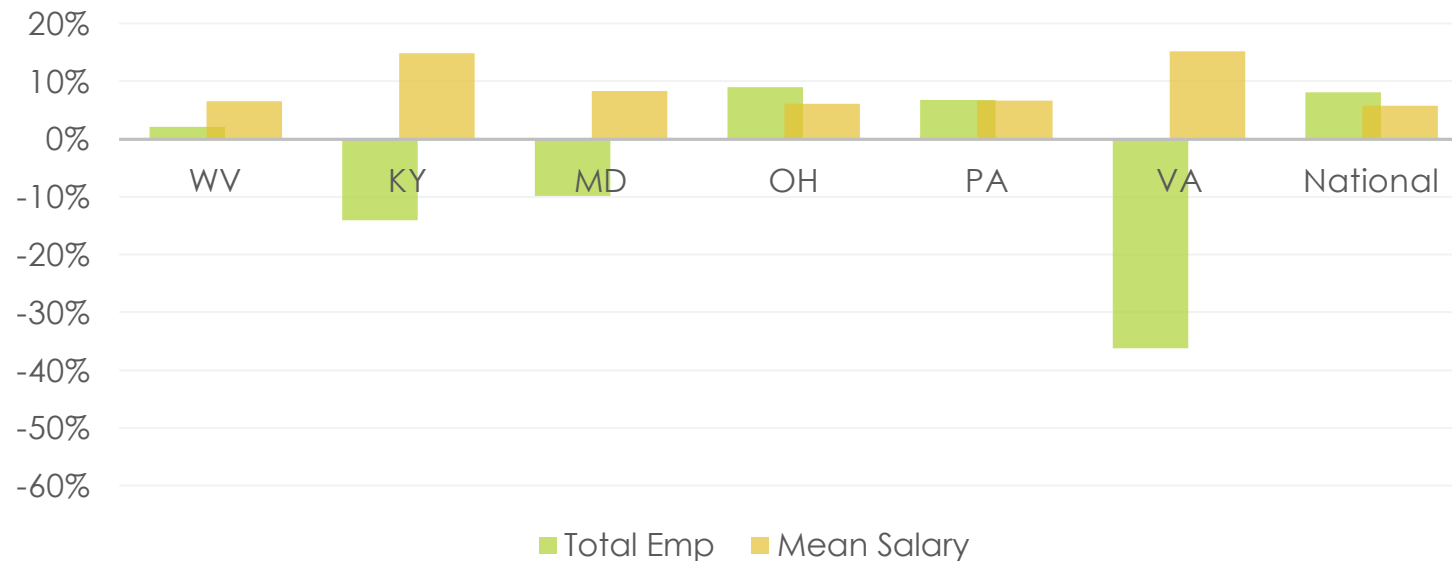


Aggregate Summary by County and Individual of Primary Care Workforce, Nurse Anesthetists



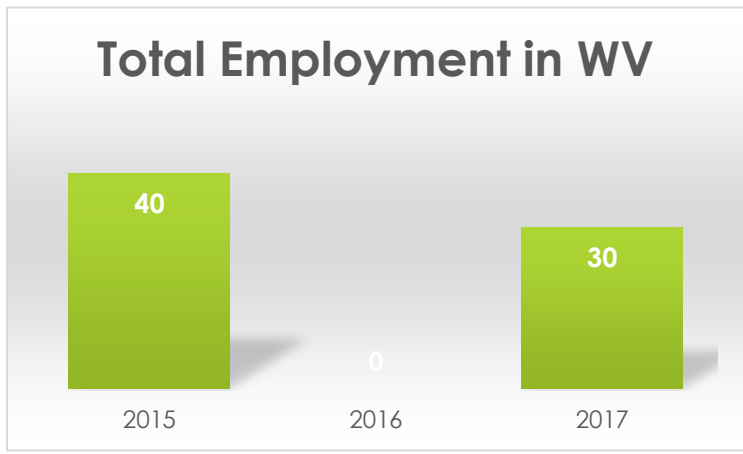
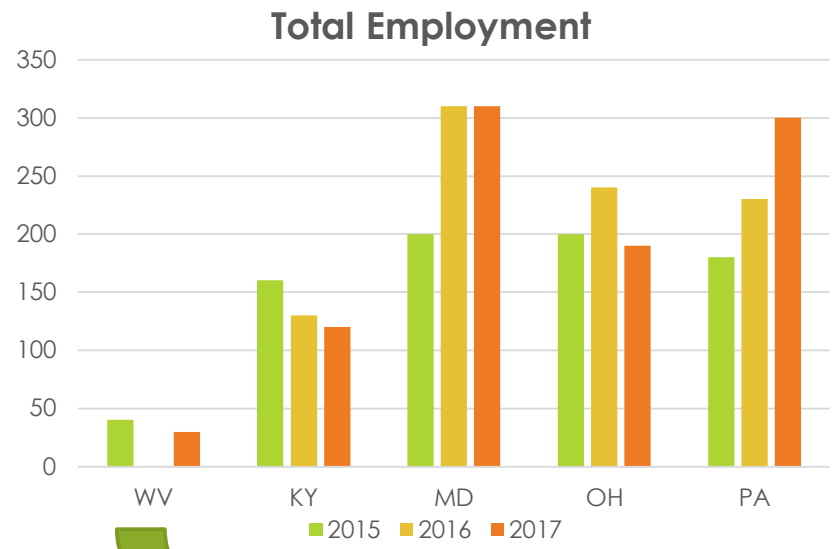
2015-2017 % Change Nurse Anesthetists Surrounding State and National Comparison

2015-17 % Change Nurse Anesthetists

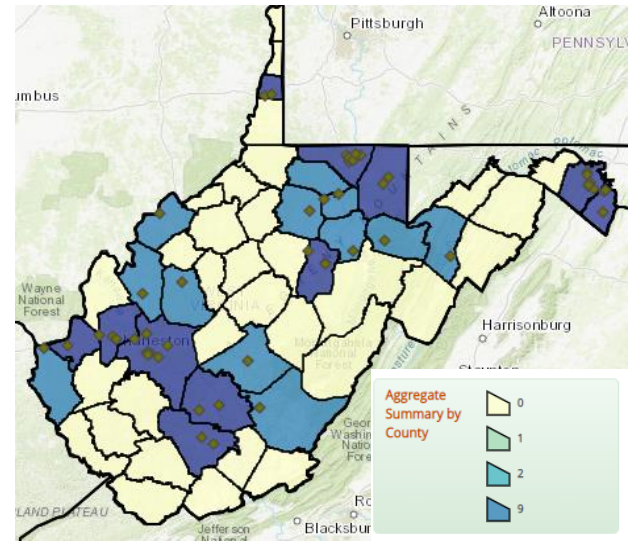


Nurse Anesthetists		
Area	Total Emp	Mean Salary
WV	2.1%	6.6%
KY	-14.0%	14.9%
MD	-9.8%	8.4%
OH	9.0%	6.1%
PA	6.8%	6.6%
VA	-36.2%	15.17%
National	8.1%	5.7%

Supply – Nurse Midwives Total Employment

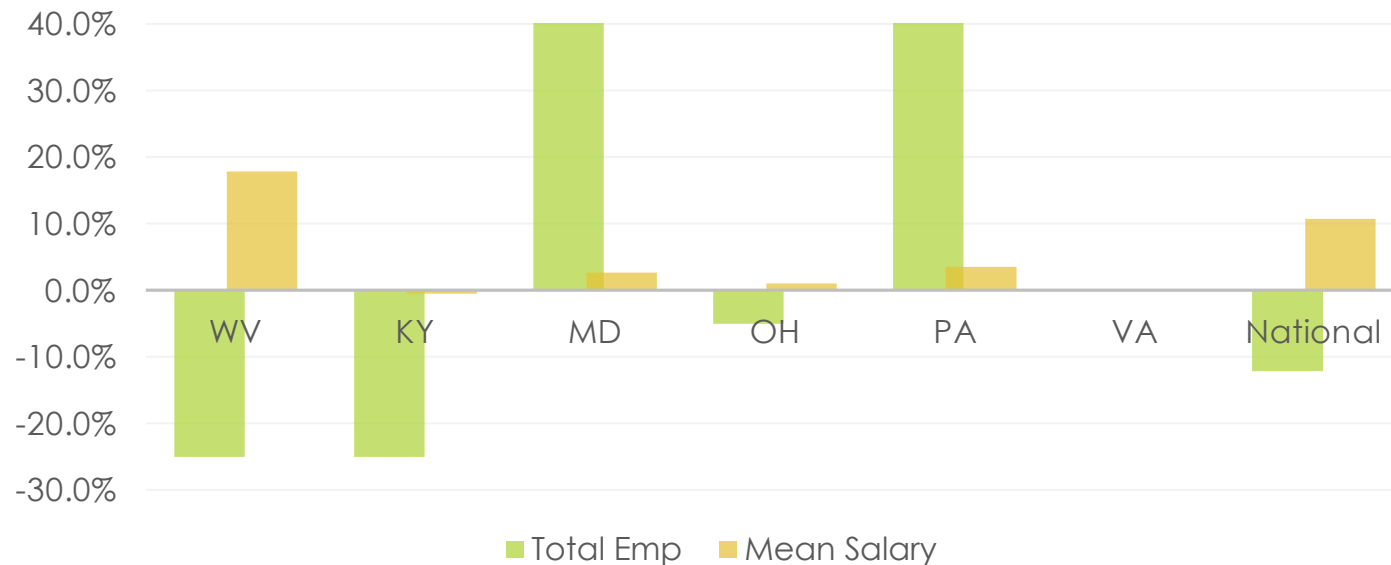


Aggregate Summary by County and Individual of Primary Care Workforce, Nurse Midwives



2015-2017 % Change Nurse Midwives Surrounding State and National Comparison

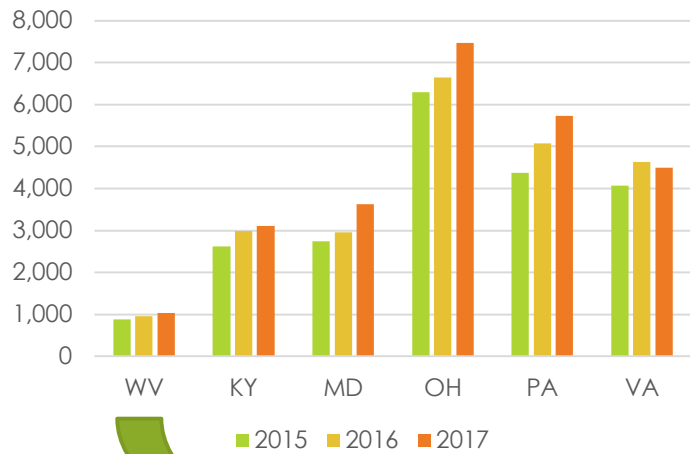
2015-17 % Change Nurse Midwives



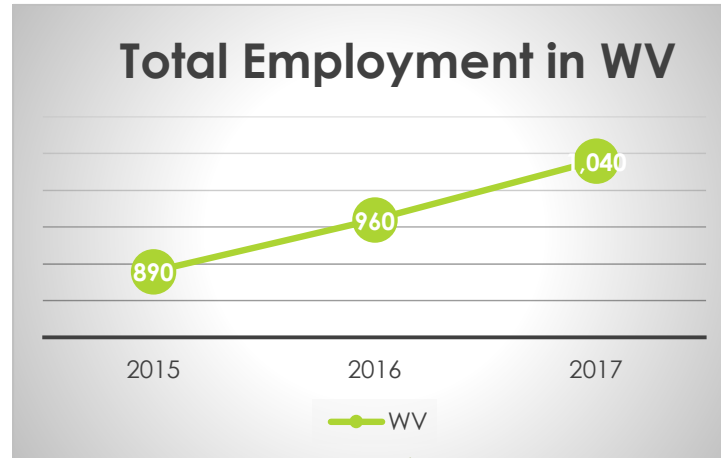
Nurse Midwives		
Area	Total Emp	Mean Salary
WV	-25.0%	17.8%
KY	-25.0%	-0.5%
MD	55.0%	2.6%
OH	-5.0%	1.0%
PA	66.7%	3.6%
VA	**	**
National	-12.1%	10.7%

Supply – Nurse Practitioners Total Employment

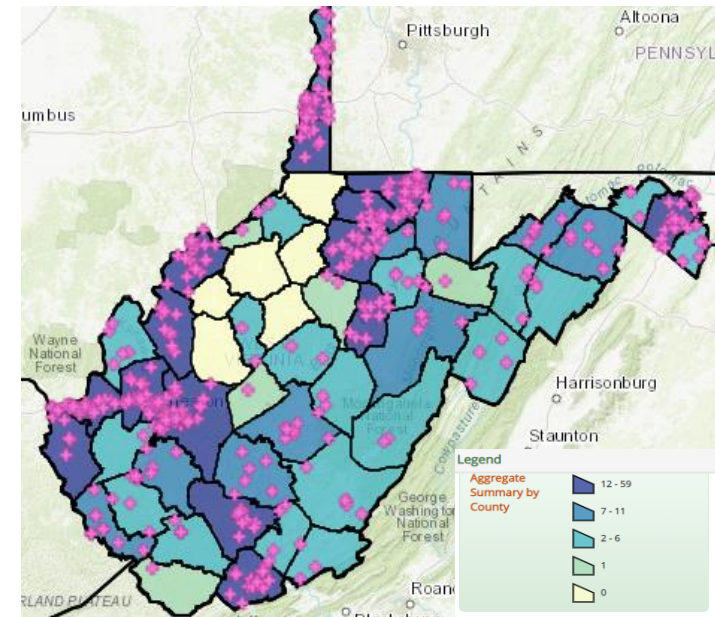
Total Employment



Total Employment in WV

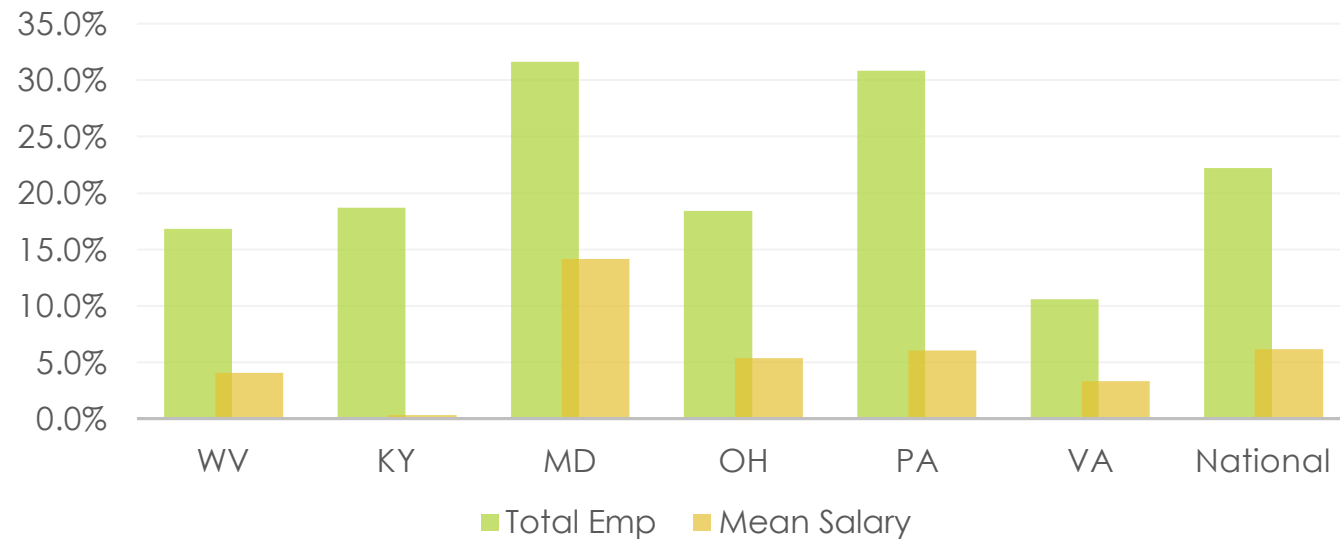


Aggregate Summary by County and Individual of Primary Care Workforce, Nurse Practitioners



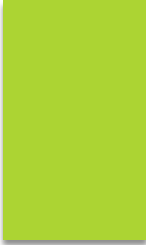
2015-2017 % Change Nurse Practitioners Surrounding State and National Comparison

2015-17 % Change Nurse Practitioners

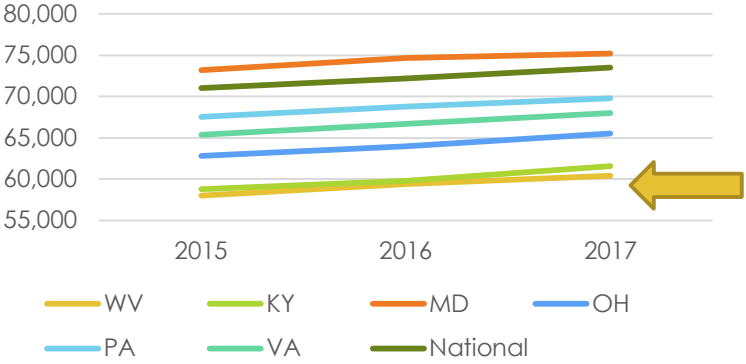


Nurse Practitioners		
Area	Total Emp	Mean Salary
WV	16.9%	4.1%
KY	18.7%	0.3%
MD	31.6%	14.2%
OH	18.4%	5.4%
PA	30.8%	6.0%
VA	10.6%	3.3%
National	22.2%	6.1%

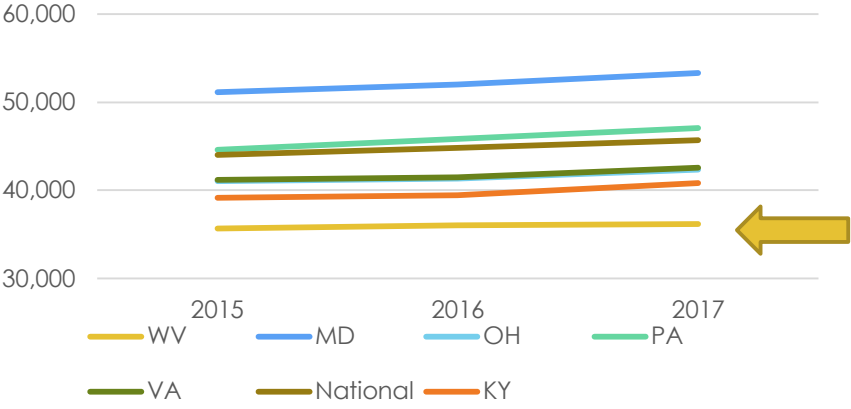
WV Nurse Mean Annual Salary Comparisons Among Disciplines



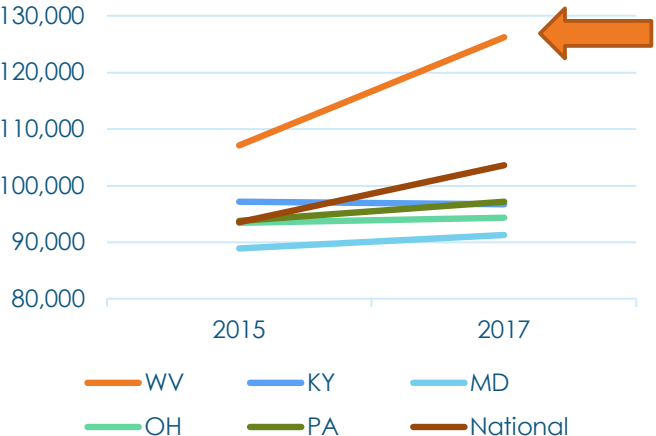
RN



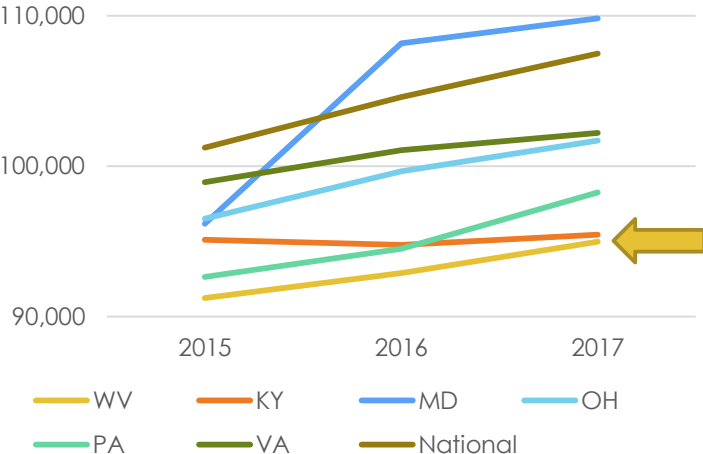
LPN



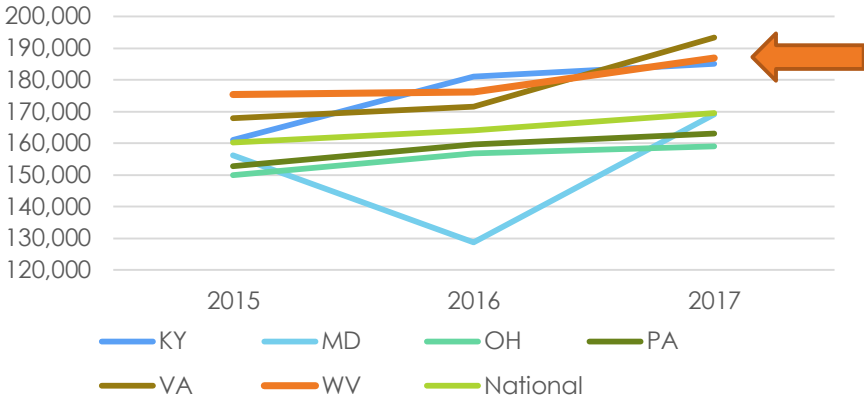
Nurse Midwives



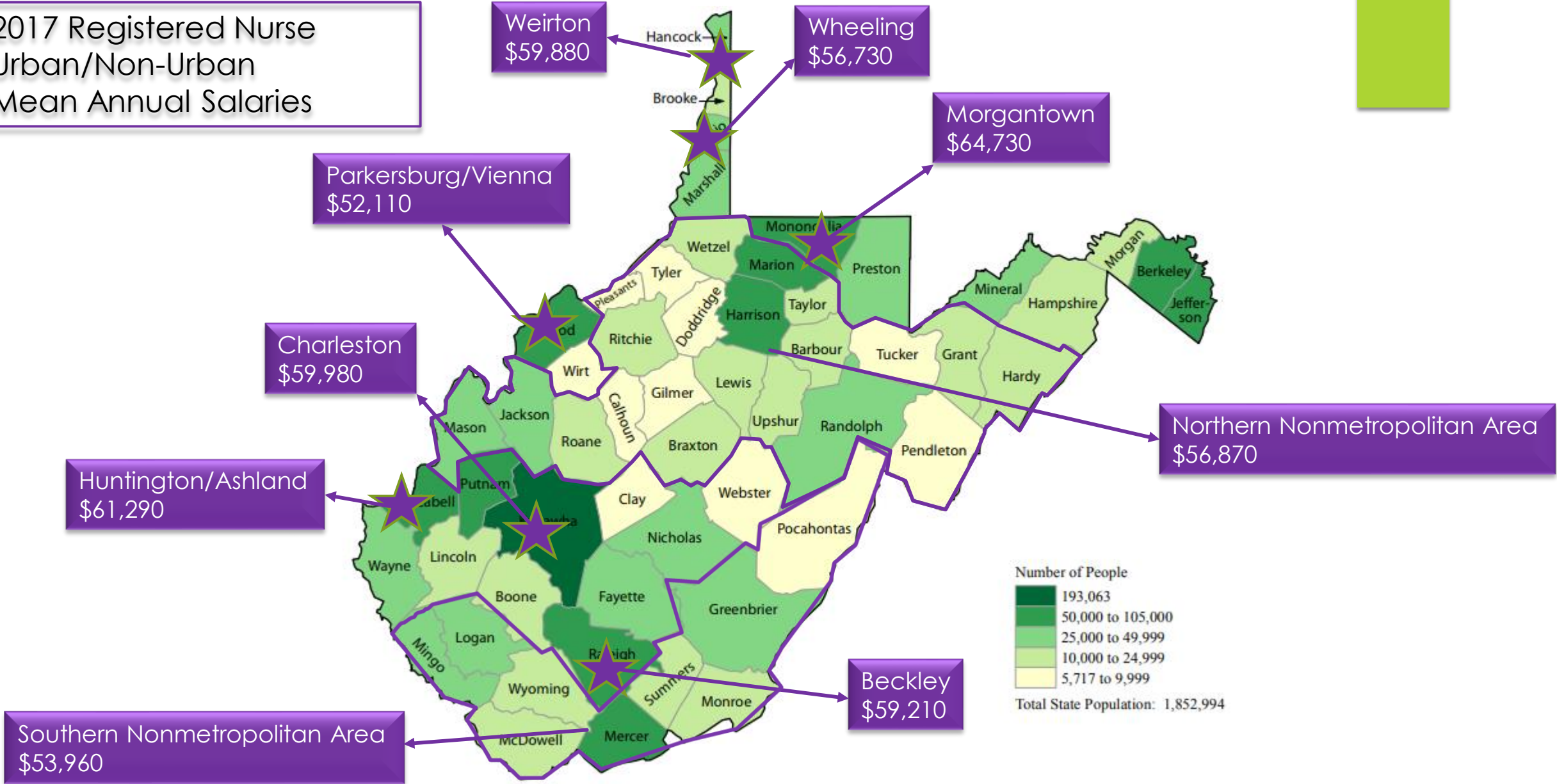
Nurse Practitioner



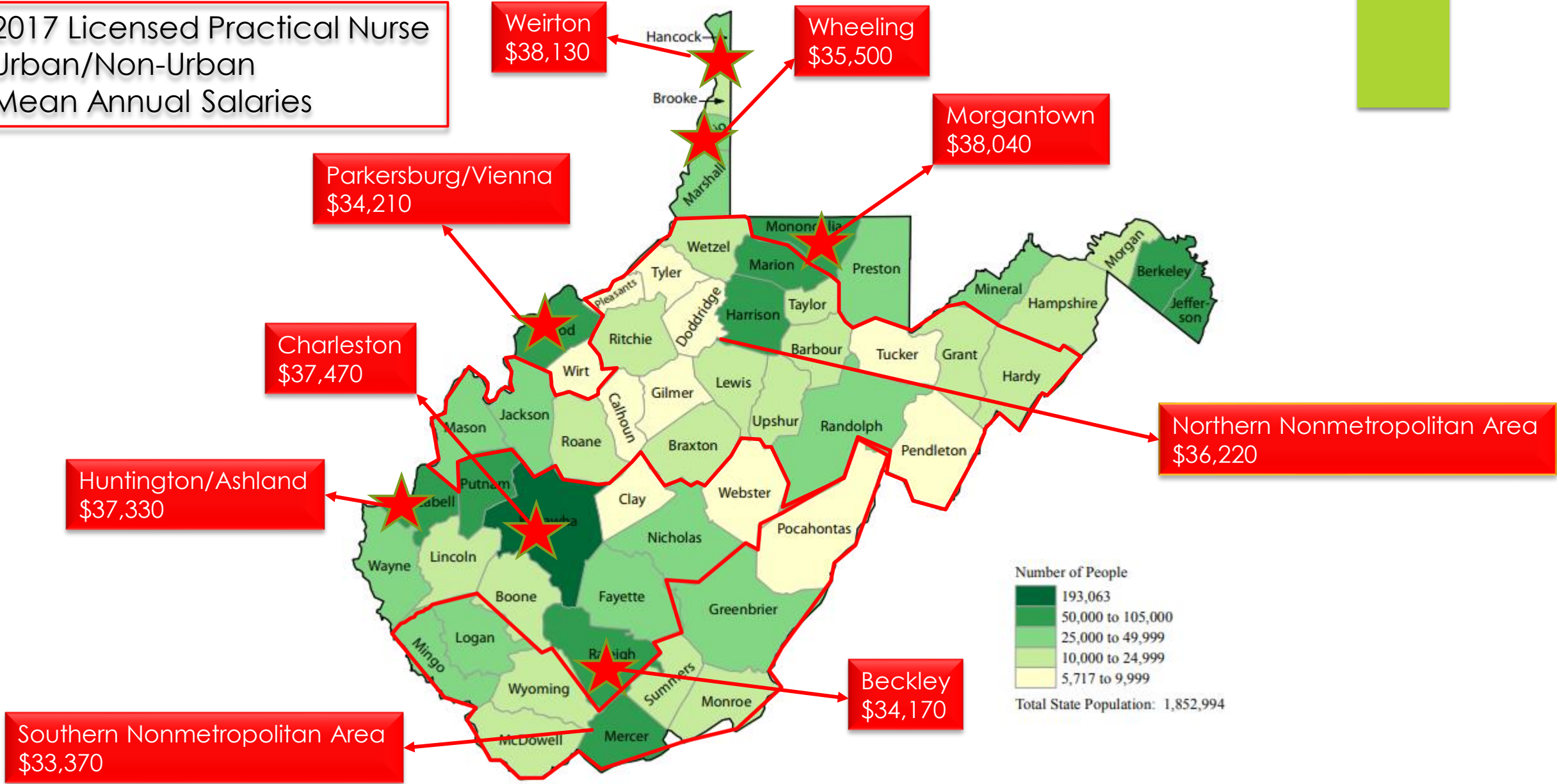
Nurse Anesthetist



2017 Registered Nurse
Urban/Non-Urban
Mean Annual Salaries



2017 Licensed Practical Nurse
Urban/Non-Urban
Mean Annual Salaries



Demand Data

- ▶ Projections Managing Partnership. www.projectioncentral.com
- ▶ O-Net, Bureau of Labor Statistics – Workforce West Virginia.
- ▶ Emsi 2019.1 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

West Virginia and National Trends for Registered Nurses 2014-2024, 2016-2026 (DOL) and 2018-2028 (Emsi)

Registered Nurses					
Data Source		Employment			
O-net		2014	2024	Percent Change	Projected Annual Job Openings*
	United States	2,751,000	3,190,300	16.0%	108,840
	West Virginia	21,320	23,090	8.0%	590

Registered Nurses					
Data Source		Employment			
O-net		2016	2026	Percent Change	Projected Annual Job Openings*
	United States	2,955,200	3,393,200	14.8%	203,700
	West Virginia	22,170	25,110	13.3%	1,490

Registered Nurses					
Data Source		Employment			
Emsi		2018	2028	Percent Change	Projected Annual Job Openings*
	United States	N/A	N/A	N/A	N/A
	West Virginia	20,189	22,244	10.0%	N/A

*Projected annual job openings refers to the average annual job openings due to growth and net replacement

West Virginia and National Trends for Nursing Instructors 2014-2024 and 2016-2026 (DOL)

Nursing Instructors - Teachers					
Data Source		Employment			
O-net		2014	2024	Percent Change	Projected Annual Job Openings*
	United States	68,600	81,800	19.0%	2,540
	West Virginia	240	300	23.0%	10

Nursing Instructors - Teachers					
Data Source		Employment			
O-net		2016	2026	Percent Change	Projected Annual Job Openings*
	United States	67,900	84,200	24.0%	7,300
	West Virginia	530	650	22.6%	60

West Virginia and National Trends for Licensed Practical Nurses 2014-2024 2016-2026 (DOL) & 2018-2028 (Emsi)

Licensed Practical Nurses					
Data Source		Employment			
O-net		2014	2024	Percent Change	Projected Annual Job Openings*
	United States	719,900	837,200	16.0%	32,220
	West Virginia	6,750	7,360	9.0%	230

Licensed Practical Nurses					
Data Source		Employment			
O-net		2016	2026	Percent Change	Projected Annual Job Openings*
	United States	724,500	813,400	12.3%	62,700
	West Virginia	6,130	6,570	7.2%	490

Licensed Practical Nurses					
Data Source		Employment			
Emsi		2018	2028	Percent Change	Projected Annual Job Openings*
	United States	N/A	N/A	N/A	N/A
	West Virginia	5,874	6,151	5.0%	N/A

West Virginia and National Trends for Nurse Anesthetists, Nurse Midwives, and Nurse Practitioners 2016-2026 (DOL)

Nurse Anesthetists					
Data Source		Employment			
O-net		2016	2026	Percent Change	Projected Annual Job Openings*
	United States	41,800	48,600	16.3%	2,800
	West Virginia	560	600	7.1%	30

Nurse Midwives					
Data Source		Employment			
O-net		2016	2026	Percent Change	Projected Annual Job Openings*
	United States	6,500	7,800	20.0%	500
	West Virginia	n/a	n/a	n/a	n/a

Nurse Practitioners					
Data Source		Employment			
O-net		2016	2026	Percent Change	Projected Annual Job Openings*
	United States	155,500	211,600	36.1%	14,400
	West Virginia	1,070	1,430	33.6%	100

Job Posting Summary 2016-2019 (Emsi)

Job Posting Summary of ALL Nursing Disciplines

Unique Postings	Posting Intensity	Median Posting Duration
64,131	4 : 1	19 days
Total Postings	Regional Average	Regional Average
229,050	3:1	22 days

WV Posted Occupations (Sept 2016- Feb 2019)

Occupation	Total Postings	Unique Postings	Median Posting Duration
Registered Nurses	191,245	53,734	18 days
Licensed Practical and Licensed Vocational Nurses	27,488	7,428	33 days
Nurse Practitioners	9,178	2,542	27 days
Nurse Anesthetists	1,058	365	30 days
Nurse Midwives	81	62	42 days

Demand Data Needs – Best Practices

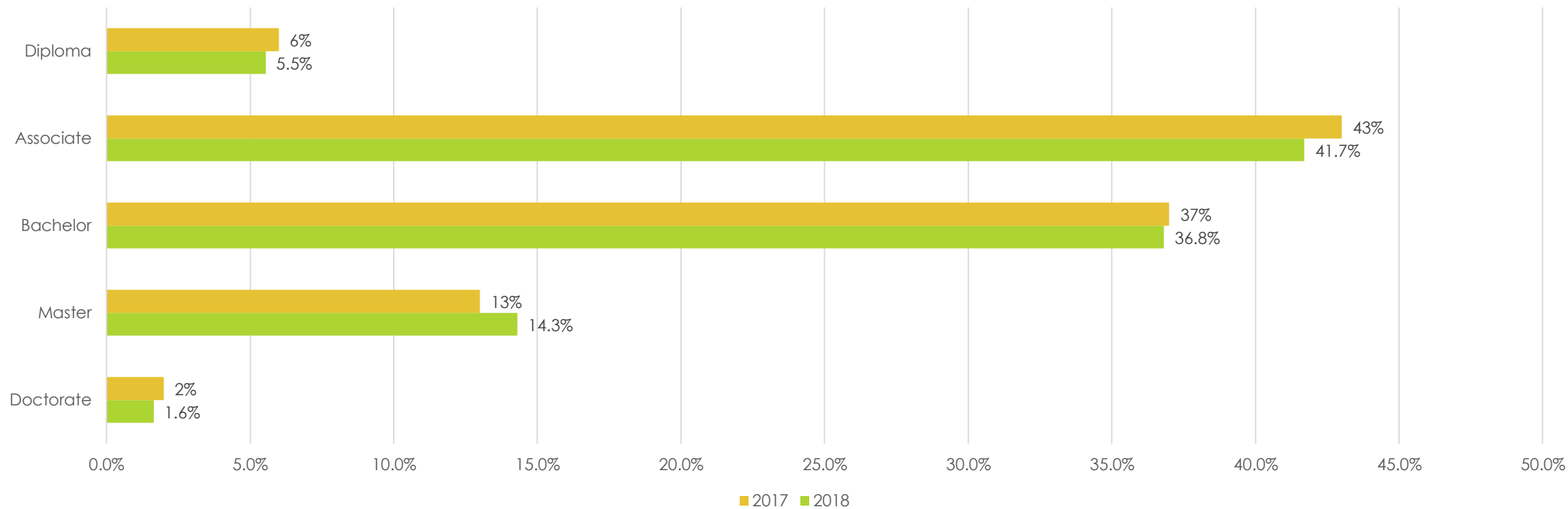
- ▶ Collected biennially
- ▶ Standardized sampling methodology
- ▶ Collected by a statewide agency; willing to make data available
- ▶ Quality and content can be specified
 - ▶ FTEs (Occupied vs. Vacant)
 - ▶ Employment status (FT,PT,PD)
 - ▶ Areas of work
 - ▶ Clear data collection time frame
 - ▶ Unit of measurement is defined (hospital vs. unit level)

Nursing Education

- ▶ WV State Board of Examiners for Registered Nurses
- ▶ WV State Board of Examiners for Licensed Practical Nurses
- ▶ Bureau for Labor Statistics (2017) Occupational Employment and Wages. <https://www.bls.gov/>. Retrieved February 2019.

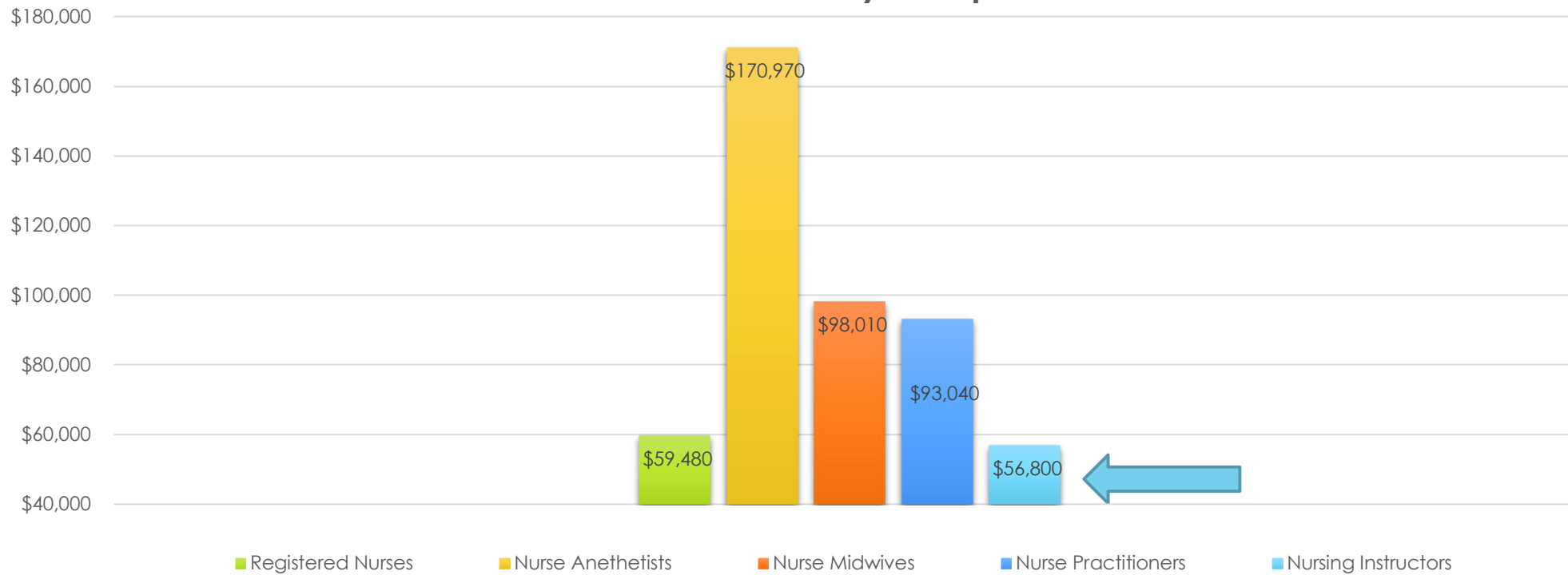
2017 & 2018 RN Education Preparation

2017-2018 RN Educational Preparation
by Highest Degree Obtained



2017 WV Nurse Median Salary Comparisons

2017 Median Salary Comparisons

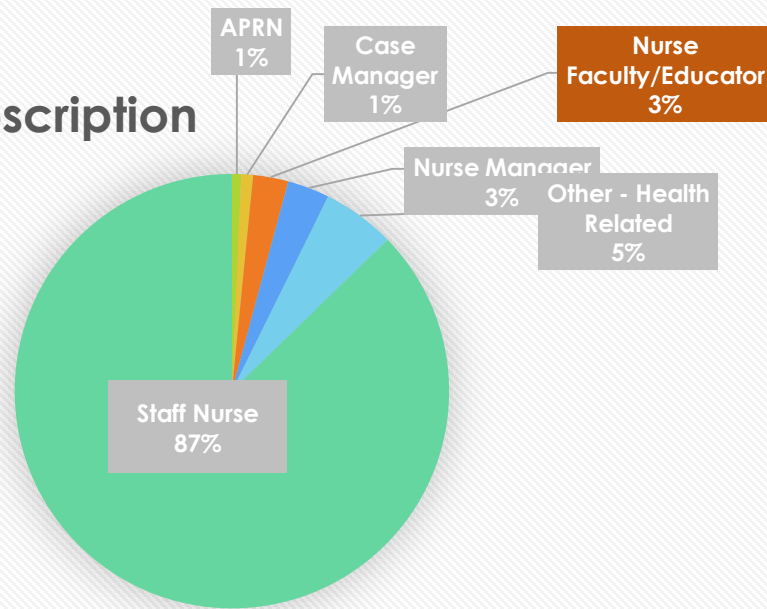


WV Faculty Salaries 2016

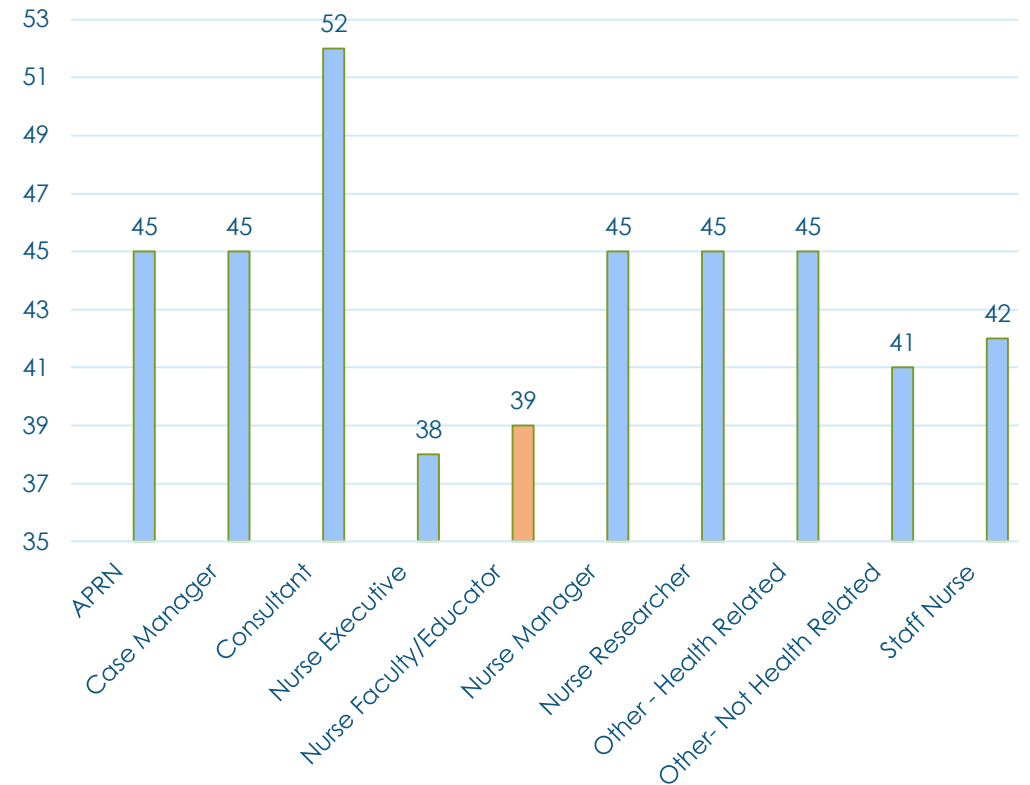
	9 month contract	10 month contract	12 month contract
Lecturer/ Instructor	\$31,533- \$58,931	\$77,000*	\$60,000- \$81,387
Assistant Professor	\$40,000- \$68,629	\$37,000- \$77,000	\$50,000- \$90,163
Associate Professor	\$41,215- \$75,817	\$58,000- \$77,000	\$67,300- \$100,200
Professor	\$51,000- \$82,759	\$67,000- \$77,000	\$76,000- \$106,533

2018 LPN Nurse Faculty

**2018 LPN
Primary Position Description**



Average Age Primary Position



Faculty Survey Data

- ▶ To date, 33% response rate
- ▶ Follow us on Twitter **@WVcentr4Nursing** for latest updates and announcement for publication of the survey's results

Educational Program Data

- ▶ The WVCFN plans to move forward with more concrete methods of obtaining data while working with our workforce partners in the state to obtain the needed information to collect, analyze, and evaluate our nursing programs across the state.

Summary

- ▶ Caution with interpretation of only using national projections for decision making.
- ▶ LTSS may be an area of need for nurses in the future, again interpreted with caution
- ▶ WV saw a rise in RN, NP and Nurse Anesthetist workforce and a fall in LPN and Midwives.
- ▶ Localized data shows an increasing demand for all disciplines of the nursing workforce; greatest with registered nurses
- ▶ Nursing education data was limited this year
- ▶ WV needs better and more consistent demand and education data methods

Data Limitations

- ▶ Federal demand data only accounts for demographics, not behaviors
- ▶ Specific local demand data is difficult to obtain (turnover and vacancy rates by region), but solid projections and job post intensity information is available
- ▶ Licensure data are self reported
- ▶ Challenges with both regulatory and system changes

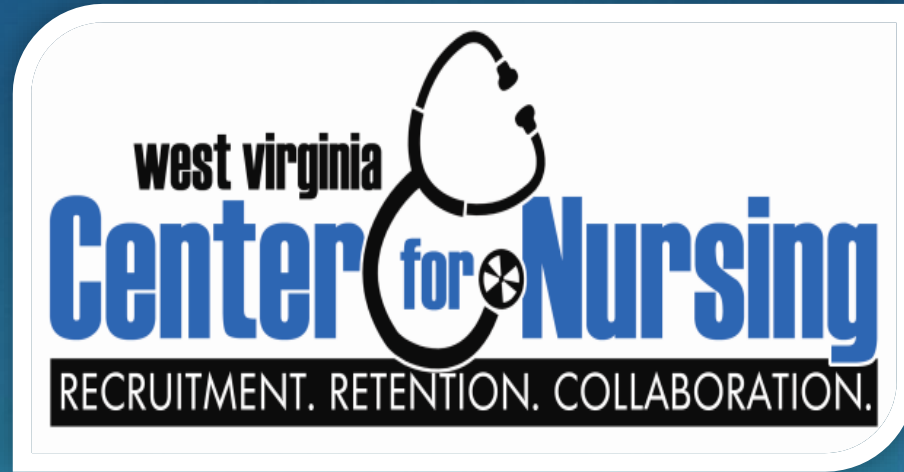
In the Future...Goals for the WV Center for Nursing Data Collection

- ▶ Demand Data
- ▶ Education Data

Question?

Thank You

- ▶ WVCFN Board of Directors
- ▶ WVCFN Data Committee
 - ▶ Dr. Cyndi Persily
 - ▶ Rachel Bowman
- ▶ Sue Painter and the RN Board
- ▶ Michelle Mayhew and the LPN Board
- ▶ Policy and Planning Team at HEPC
- ▶ Aila Accad – Future of Nursing



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