

Kentucky Nursing Workforce Report



2023

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INTRODUCTION

- Rural populations usually have higher rates of chronic illness and higher proportions of elderly residents, which creates more demand within the healthcare workforce (RHlhub, 2024).
- According to the Health Resources and Services Administration, geographic distribution remains an issue for the nursing profession (HRSA, 2022).
- As of 2023, Kentucky has a rate of 67 people per registered nurse, which is better than the national rate of 109 people per registered nurse.
(Cabinet for Health and Family Services Office of Data Analytics, 2023)
- According to the Rural Health Information Hub, for every 10,000 individuals in rural areas there are 63.9 registered nurses, compared to every 10,000 individuals in urban areas, where there are 95.3 registered nurses (RHlhub, 2024).
- Registered nurse employment is projected to grow 6% from 2022 to 2032.
(U.S. Bureau of Labor Statistics, 2023)
- The state of Kentucky has 506 people per Advanced Practice Registered Nurses (APRNs), which is better than the national rate of 1,159 individuals per APRN.
(Cabinet for Health and Family Services Office of Data Analytics, 2023)
- According to the Rural Health Information Hub, for every 10,000 individuals in rural areas there are 10.0 APRNs, compared to every 10,000 individuals in urban areas where there are 12.7 APRNs (RHlhub, 2024).
- Overall, employment of nurse anesthetists, nurse midwives, and nurse practitioners is projected to grow 38% from 2022 to 2032.
(U.S. Bureau of Labor Statistics, 2023)

METHODS

Licensure data was requested through the Kentucky Board of Nursing.

The following information is obtained within the licensure set:

- Full name
- County of residence
- Demographic information
- License issue date
- State of the original license
- Education type

The following data is only available for Advance Practitioner Registered Nurses (APRNs):

- Employment status
- County of employment
- Field of employment
- Type of position
- Practice area
- Population foci

Duplicates and out-of-state cases were excluded.

Frequencies were calculated using IBM SPSS Statistics Version 28. Rural and urban counties were coded on rural designation by the Human Resources and Services Administration (HRSA). County-level population counts were obtained through the US Census.

Years of licensure were calculated using the current year (2023) and the original licensure date within the data.

KEY FINDINGS

- 69,102 RNs working within the state of Kentucky.
 - The majority of registered nurses are located within urban counties.
- 6,460 APRNs working within the state of Kentucky.
 - The majority of advanced practice registered nurses are located within urban counties.
- Most counties with RN and APRN provider shortages are in rural, Appalachian, and Delta counties.

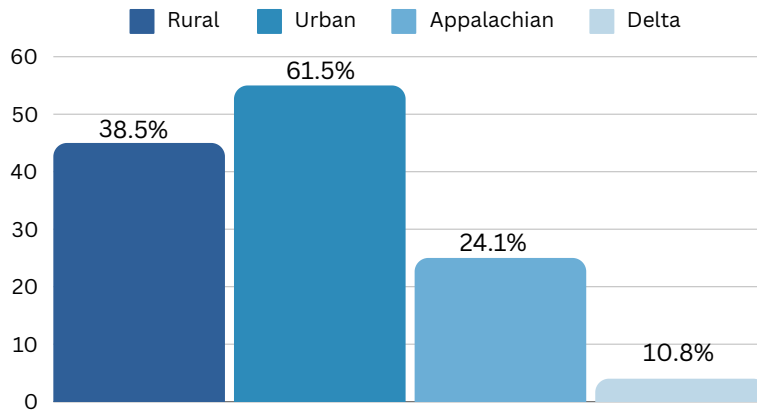


Figure 2. RN counts by geographical designation of employment

- 38.5% of RNs are working in rural, 61.5% are working in urban, 24.1% are working in Appalachia, and 10.8% are working in Delta.
- Most of the nurses practicing in Kentucky have been licensed originally in Kentucky (84.5%). Other states that nurses practicing in Kentucky are originally licensed in include Ohio (4.0%) and Tennessee (1.5%).

APRN Results

- The most prevalent types of APRN license types within the state of Kentucky are nurse practitioner APRN-P (85.7%), nurse anesthetist APRN-A (12.1%), clinical nurse specialist APRN-S (1.2%), and nurse midwife APRN-M (1.0%).
- 16.5% of APRNs living in rural counties travel to urban counties for work.
- 34.1% of APRNs are working in rural, 65.9% are working in urban, 22.4% are working in Appalachia, and 9.1% are working in Delta.

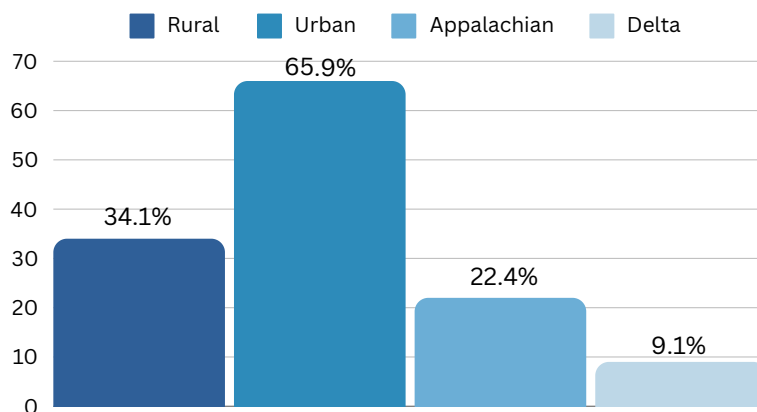


Figure 3. Percent of APRNs by geographic designation

Table 1. The following table illustrates the county-level ratio of providers to population.

County	Ratio (APRN:Population)	Rural/Urban
Adair	1:652	Rural
Allen	1:1094	Rural
Anderson	1:1001	Rural
Ballard	1:3847	Rural
Barren	1:655	Rural
Bath	1:1825	Rural
Bell	1:701	Rural
Boone	1:822	Urban
Bourbon	1:1064	Rural
Boyd	1:504	Urban
Boyle	1:854	Rural
Bracken	1:1687	Rural
Breathitt	1:1129	Rural
Breckinridge	1:860	Rural
Bullitt	1:618	Urban
Butler	1:1229	Rural
Caldwell	1:1402	Rural
Calloway	1:695	Rural
Campbell	1:930	Urban
Carlisle	1:798	Rural
Carroll	1:2172	Rural
Carter	1:644	Rural
Casey	1:1322	Rural
Christian	1:1269	Urban
Clark	1:819	Rural

County	Ratio (APRN:Population)	Rural/Urban
Clay	1:808	Rural
Clinton	1:926	Rural
Crittenden	1:1118	Rural
Cumberland	1:839	Rural
Daviess	1:569	Urban
Edmonson	1:819	Rural
Elliott	1:7381	Rural
Estill	1:2348	Rural
Fayette	1:510	Urban
Fleming	1:1014	Rural
Floyd	1:691	Rural
Franklin	1:1476	Rural
Fulton	1:1628	Rural
Gallatin	1:2925	Rural
Garrard	1:723	Rural
Grant	1:2294	Rural
Graves	1:653	Rural
Grayson	1:1153	Rural
Green	1:705	Rural
Greenup	1:516	Urban
Hancock	1:824	Rural
Hardin	1:871	Urban
Harlan	1:688	Rural
Harrison	1:676	Rural
Hart	1:1144	Rural

Table continued on the next page.

Table 1 Continued. The following table illustrates the county-level ratio of providers to population.

County	Ratio (APRN:Population)	Rural/Urban	County	Ratio (APRN:Population)	Rural/Urban
Henderson	1:726	Urban	Marshall	1:577	Rural
Henry	1:824	Rural	Martin	1:1237	Rural
Hickman	1:4424	Rural	Mason	1:806	Rural
Hopkins	1:537	Rural	McCracken	1:492	Rural
Jackson	1:927	Rural	McCreary	1:703	Rural
Jefferson	1:642	Urban	McLean	1:650	Rural
Jessamine	1:595	Urban	Meade	1:1115	Urban
Johnson	1:663	Rural	Menifee	1:1548	Rural
Kenton	1:830	Urban	Mercer	1:672	Rural
Knott	1:638	Rural	Metcalfe	1:3449	Rural
Knox	1:553	Rural	Monroe	1:2246	Rural
Larue	1:1366	Rural	Montgomery	1:762	Rural
Laurel	1:512	Rural	Morgan	1:921	Rural
Lawrence	1:603	Rural	Muhlenberg	1:990	Rural
Lee	1:3725	Rural	Nelson	1:654	Rural
Leslie	1:685	Rural	Nicholas	1:856	Rural
Letcher	1:518	Rural	Ohio	1:764	Rural
Lewis	1:999	Rural	Oldham	1:319	Urban
Lincoln	1:1154	Rural	Owen	1:1613	Rural
Livingston	1:689	Rural	Owsley	1:1317	Rural
Logan	1:1322	Rural	Pendleton	1:1825	Rural
Lyon	1:880	Rural	Perry	1:450	Rural
Madison	1:595	Rural	Pike	1:512	Rural
Magoffin	1:1149	Rural	Powell	1:2188	Rural
Marion	1:1095	Rural	Pulaski	1:788	Rural

Table continued on the next page.

Table 1 Continued. The following table illustrates the county-level ratio of providers to population.

County	Ratio (APRN:Population)	Rural/Urban
Robertson	0:2257	Rural
Rockcastle	1:1151	Rural
Rowan	1:801	Rural
Russell	1:626	Rural
Scott	1:600	Urban
Shelby	1:682	Urban
Simpson	1:985	Rural
Spencer	1:474	Rural
Taylor	1:904	Rural
Todd	1:1228	Rural
Trigg	1:887	Rural
Trimble	1:4265	Rural
Union	1:846	Rural
Warren	1:710	Urban
Washington	1:1097	Rural
Wayne	1:977	Rural
Webster	1:533	Rural
Whitley	1:710	Rural
Wolfe	1:591	Rural
Woodford	1:601	Rural

DISCUSSION

- Geographic distribution is an issue for the nursing profession, with most registered nurses and advanced practice registered nurses working within urban areas (46.5%) in Kentucky (RHHub, 2024).
- Rural communities lack certain types of providers, particularly specialists (RHHub, 2024).
- Registered Nurses compose the majority of the nursing profession with 69,9102 licensed, compared to 6,460 advanced practice registered nurses licensed in Kentucky.
- Analysis of the nursing workforce grants stakeholders a deeper understanding of issues that plague healthcare systems.
- The supply adequacy of nurses varies considerably across states. The nursing profession is expected to see a national increase in registered nurses and advanced practice registered nurses from the year 2020-2035 (HRSA, 2022).

RECOMMENDATIONS

- The expansion and sustainability of the Commonwealth's Healthcare Worker Loan Relief Program and the National Student Loan Repayment Program are imperative to attracting and retaining APRNs in rural areas.
- Increasing the number of licensed APRNs can improve the ability to provide primary care services and other specialty services in areas with apparent provider shortages.
- The expansion of BSN programs, specifically in rural regions, will aid in addressing provider shortages and help produce more APRNs, which may encourage providers to continue working in those rural regions.

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