

SIXTH BIENNIAL REPORT | 2021 HEALTH ISSUES FOR THE STATE OF NORTH DAKOTA

SCHOOL OF MEDICINE & HEALTH SCIENCES
ADVISORY COUNCIL



Chapter 1: The Population of North Dakota and Attendant Healthcare Needs

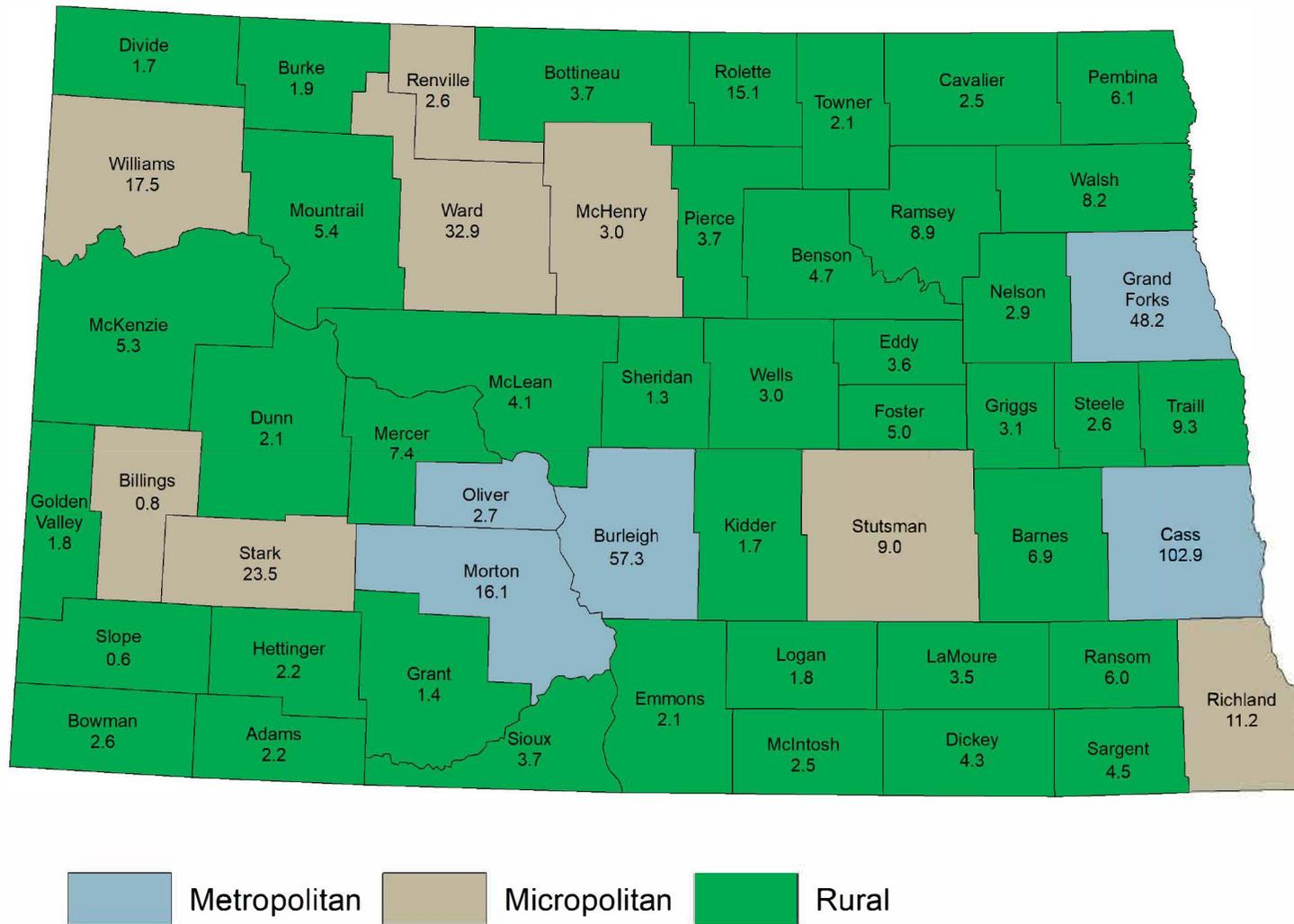


Figure 1.1. Population densities of metropolitan, micropolitan, and rural counties in North Dakota.^{4,9}

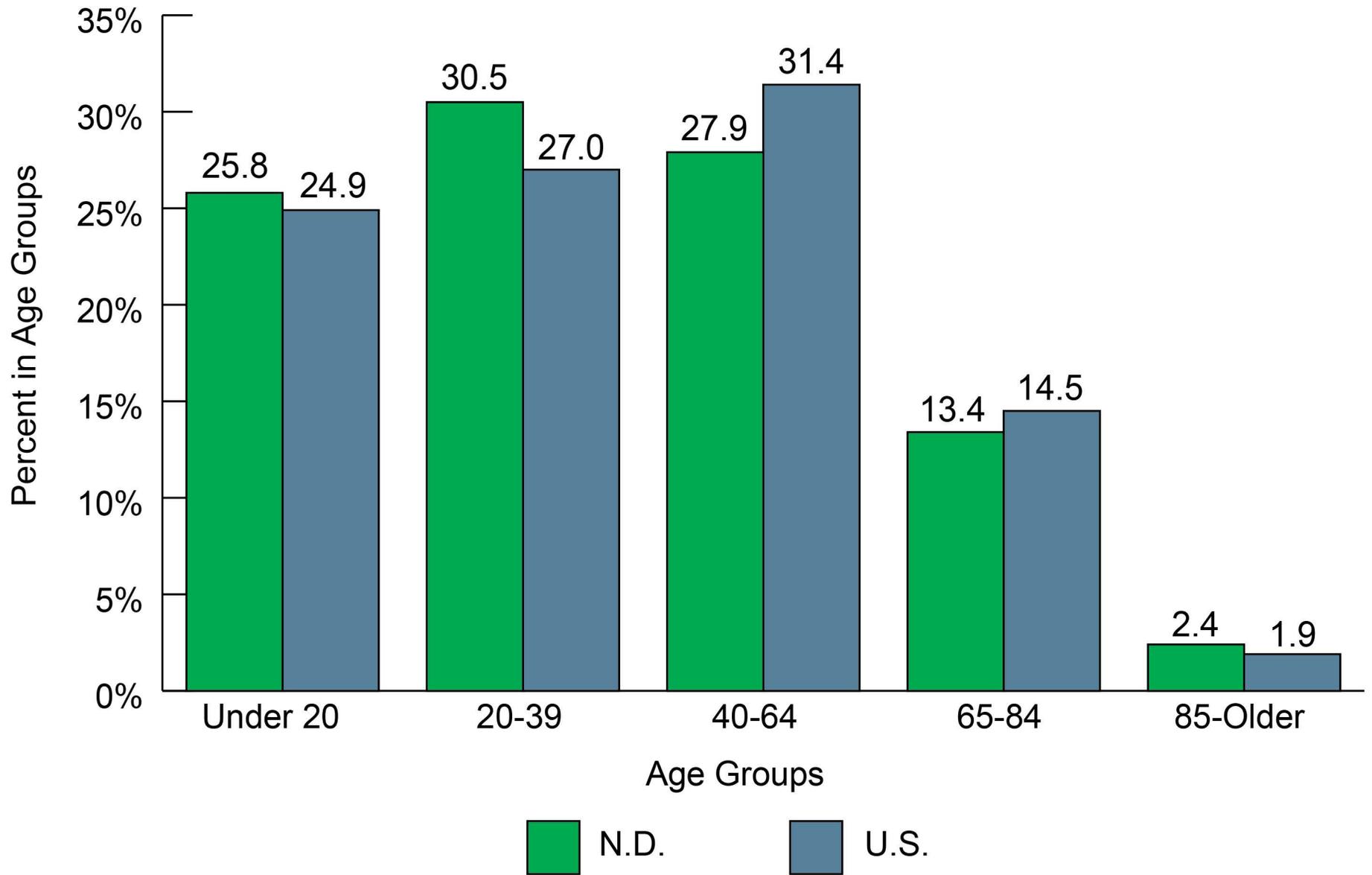


Figure 1.2. Age of people in North Dakota compared with U.S. in 2019.⁴

There are more North Dakotans 85 and older compared with the U.S. population. There are fewer North Dakotans between the ages of 40 to 64 and 65 to 84 relative to the U.S. population.

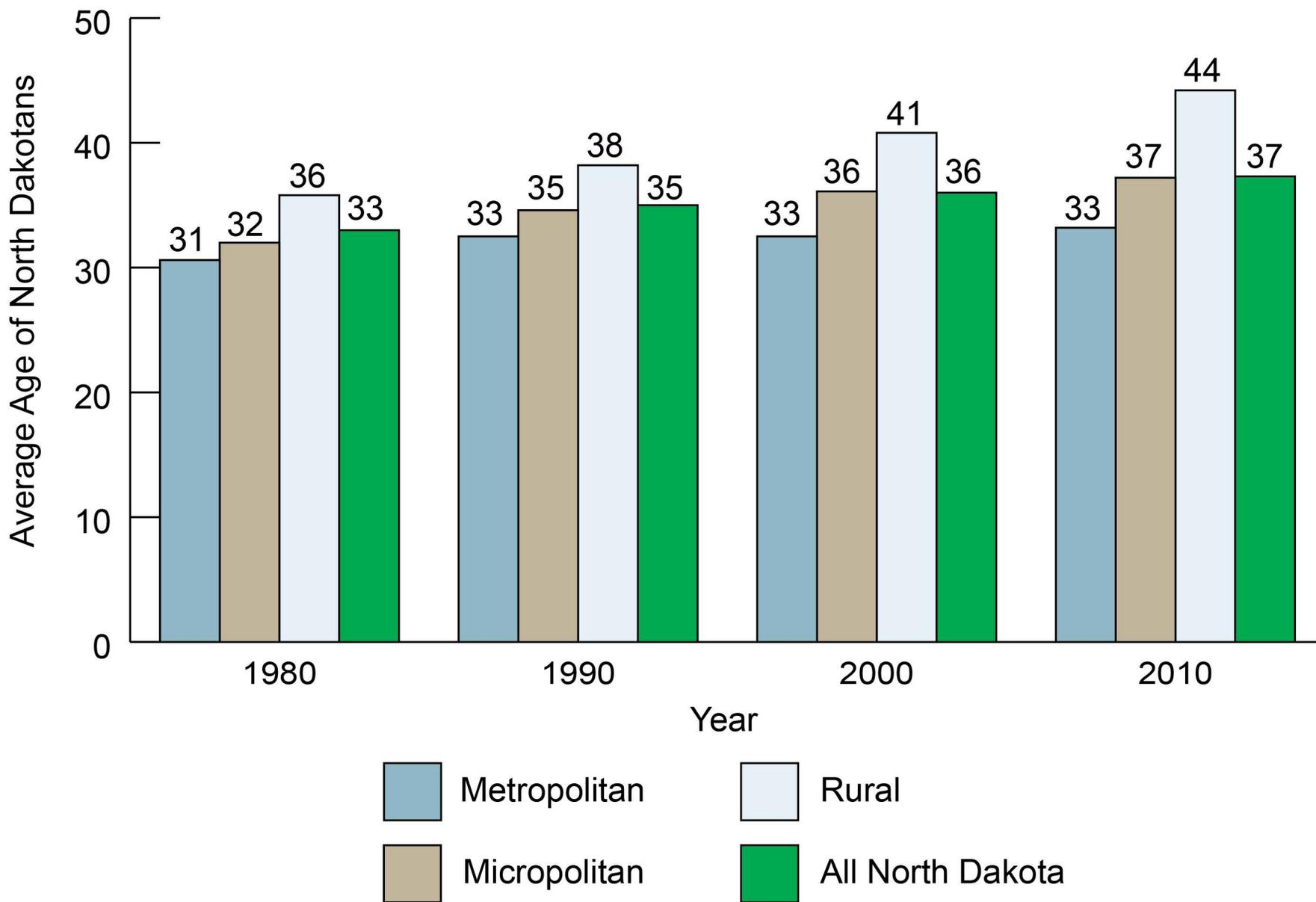


Figure 1.3. Average age of North Dakota residents from 1980 to 2010 by metropolitan, micropolitan, and rural counties.⁵⁻⁹

The average age has increased from 33 years in 1980 to over 37 years in 2010. This trend is projected to increase as the baby boomer population ages. Rural North Dakotans are older than both micropolitan and metropolitan North Dakotans.

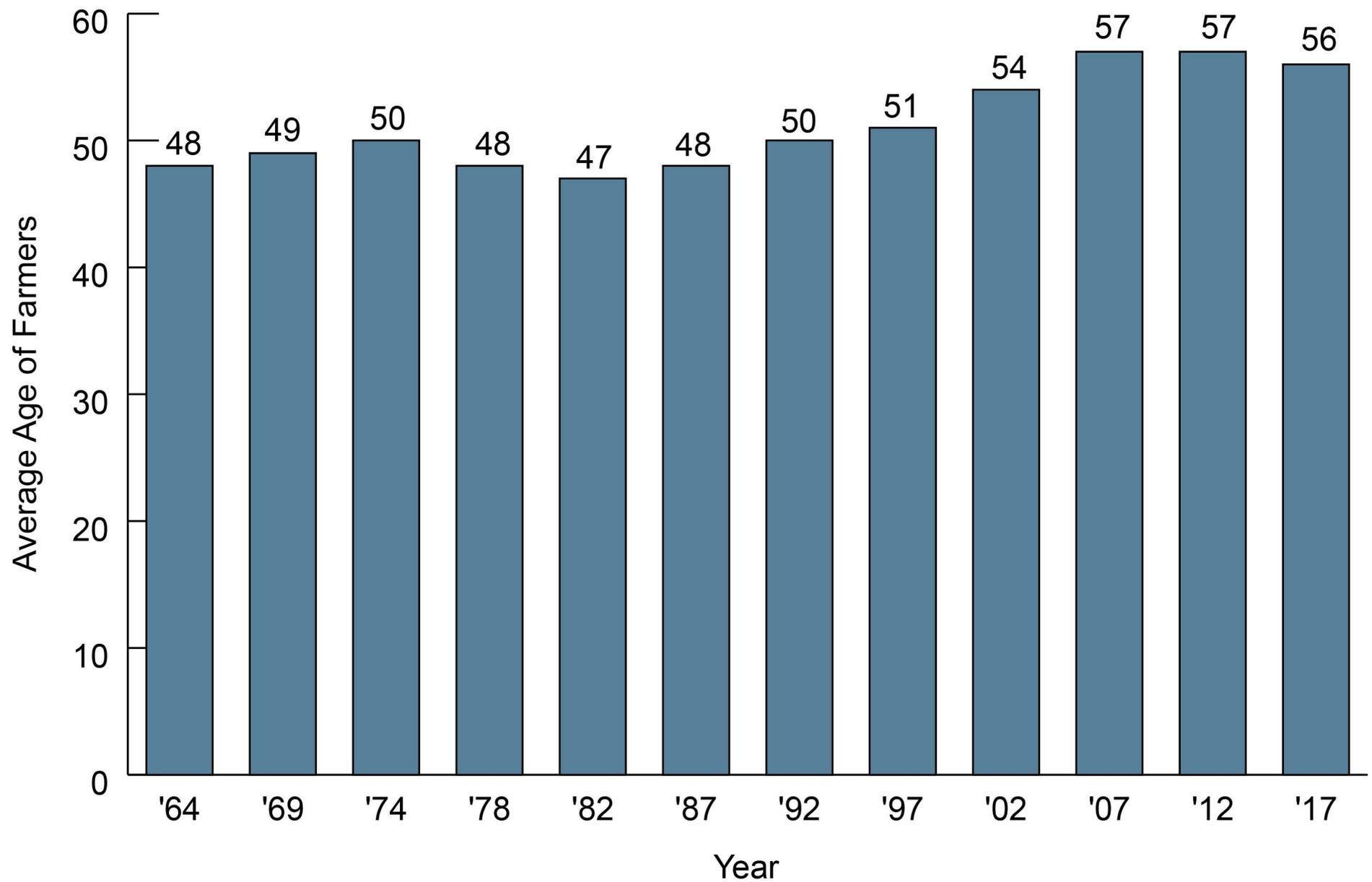


Figure 1.4. Average age of North Dakota farmers from 1964 to 2017.¹¹

The increase in average age has been especially pronounced in North Dakota farmers, whose average age rose from 47.3 to 56.0 years from 1982 to 2017.

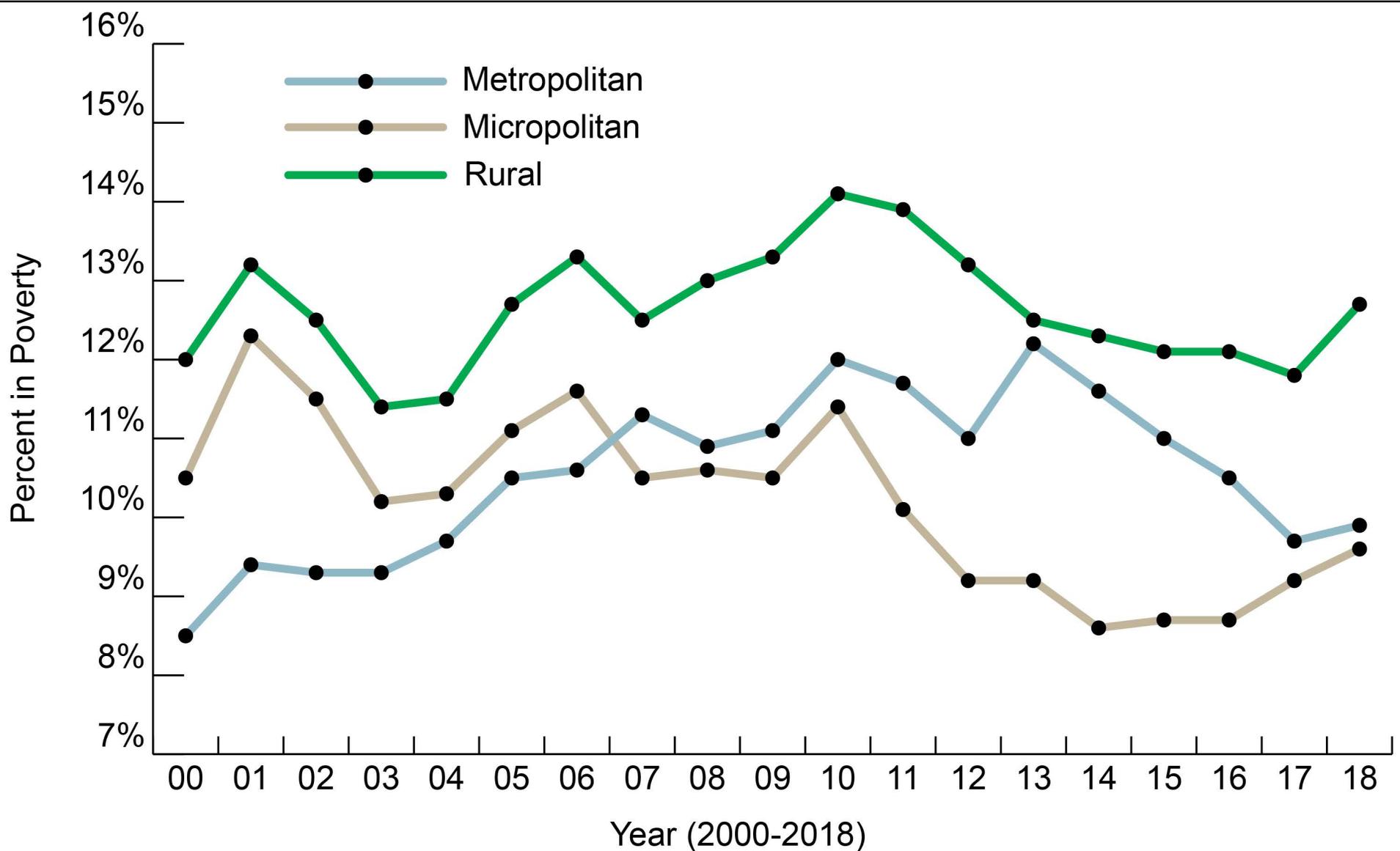


Figure 1.5. Poverty in North Dakota by rural, micropolitan, and metropolitan areas.^{9,13}
 In 2018, the federal Office of Management and Budget (OMB) considered the poverty level for a family of two to be \$16,460 and for a family of four it was \$25,100. In 2018, 10.6% of North Dakota residents were in poverty (the U.S. had 13.1% in poverty) and lived in all regions of North Dakota. Poverty rose from 8.5% to 9.9% in metropolitan areas since 2000, and in rural areas it remained roughly the same, from 12.0% to 12.7%. The poverty rate from 2000 to 2018 was higher in rural North Dakota than other areas.

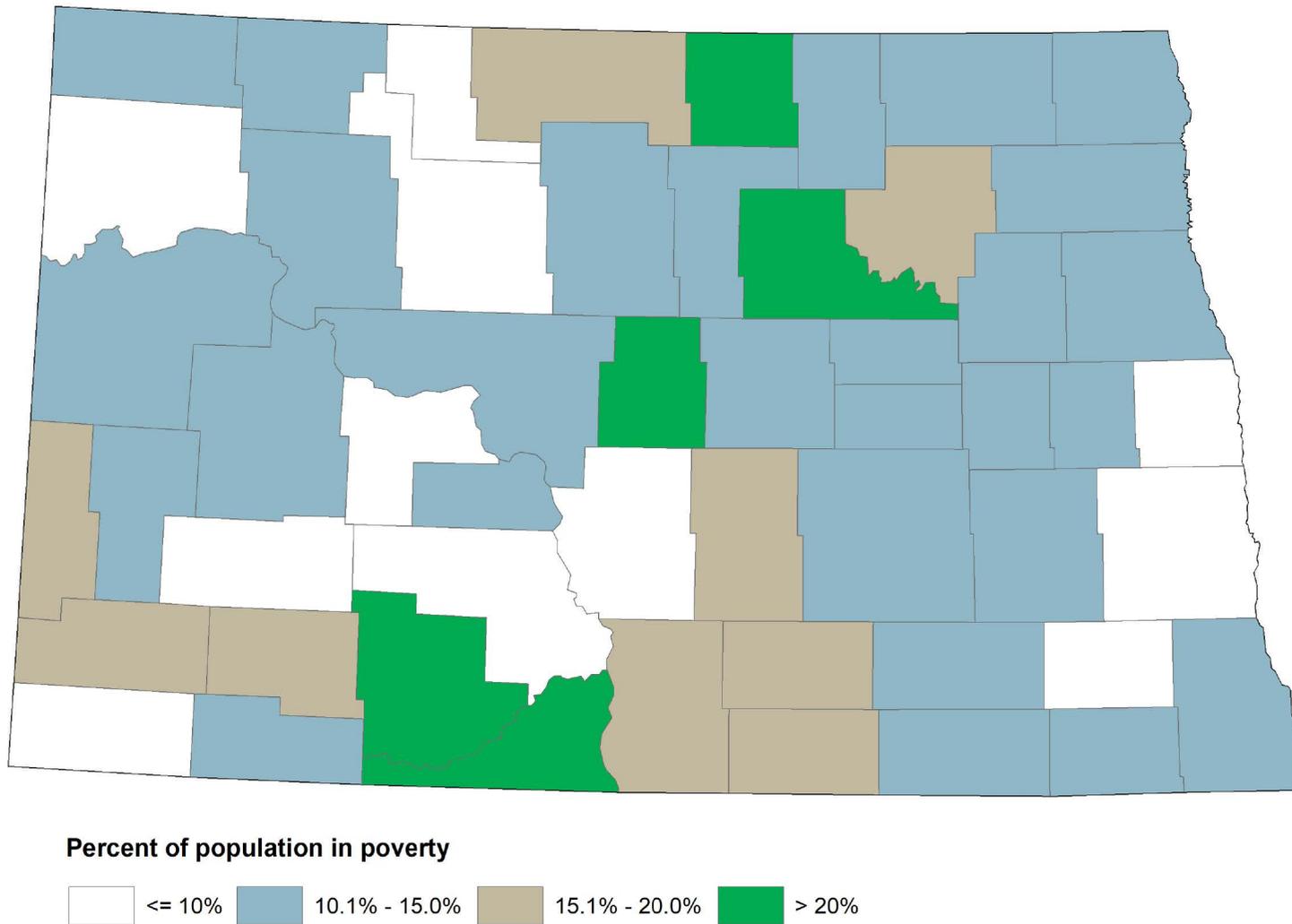


Figure 1.6. Percentage of population in poverty in North Dakota, by county, 2018.¹⁶

In 2018, five counties had more than 20% of their population in poverty. These five counties are designated as rural and 3 have significant American Indian populations. Eleven counties in North Dakota have poverty rates less than or equal to 10% compared to 25 counties within this poverty rate range in 2016.

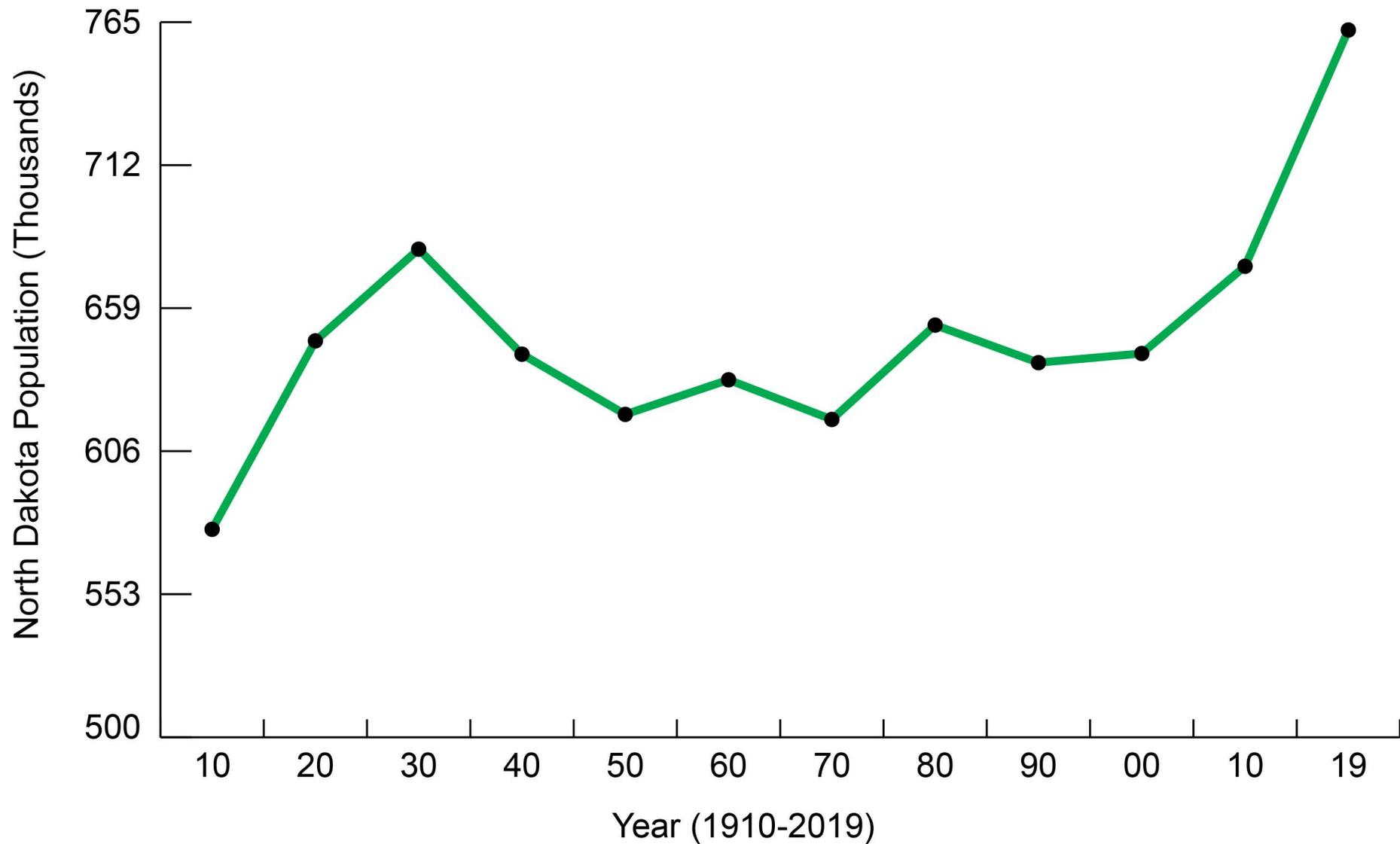
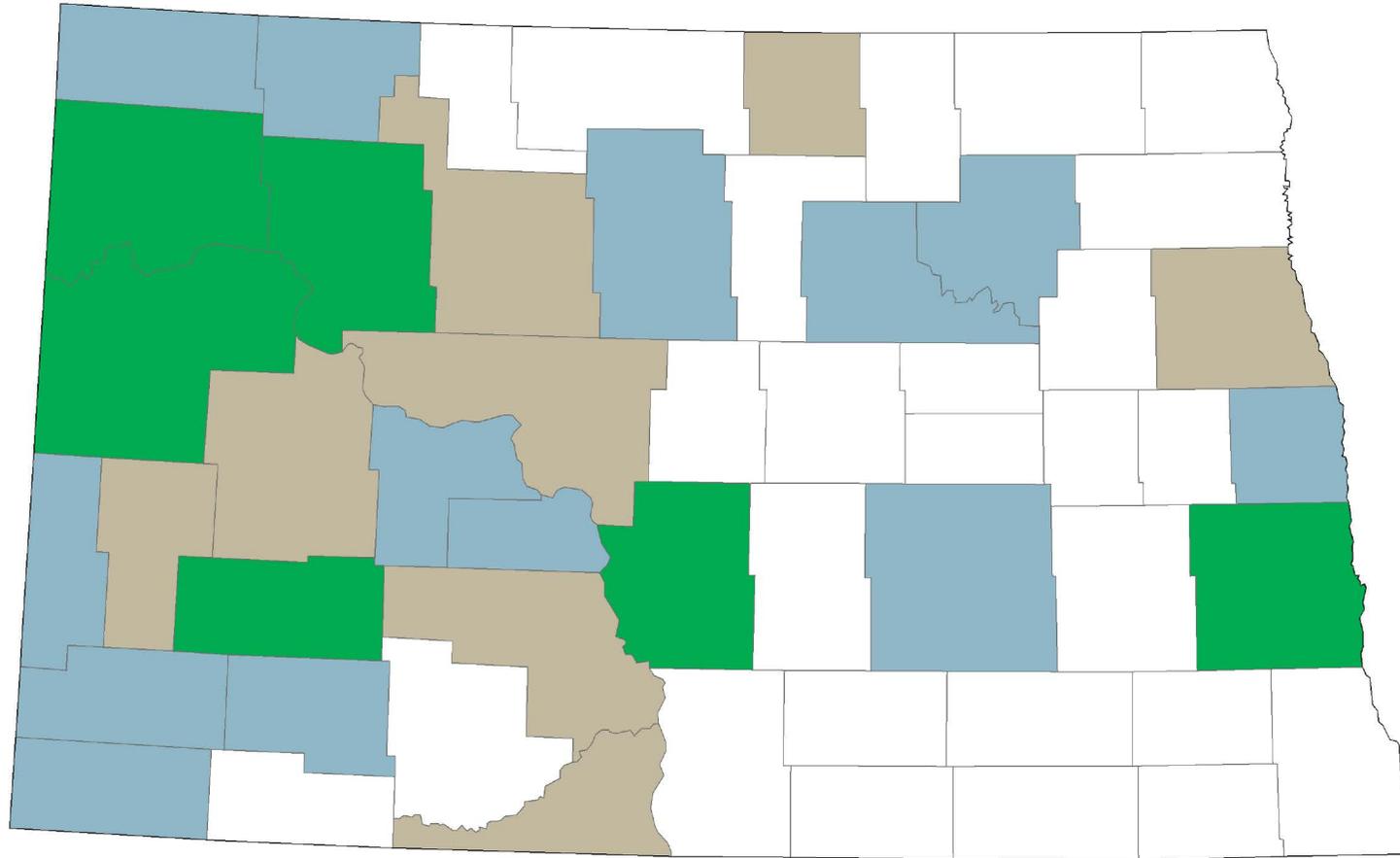


Figure 1.7. Population of North Dakota from 1910 to 2019.⁴
 N.D. population increased from 577,056 in 1910 to 680,845 in 1930, decreased to 617,761 in 1970, and then increased to 674,518 in 2010. North Dakota's highest population was in 1930. In 2019, the U.S. Census Bureau estimated projected population was 762,062. North Dakota has gained more than 100,000 residents since 2000, when the population was 642,200.



Percentage change in county population from 2000 to 2019



Figure 1.8. Percentage change in county population from 2000 to 2019.⁴

Six counties have increased their population by greater than 30% from 2000 to 2019. These six counties are Burleigh, Cass, McKenzie, Mountrail, Stark, and Williams. From 2000 to 2019, 39 counties have lost population.

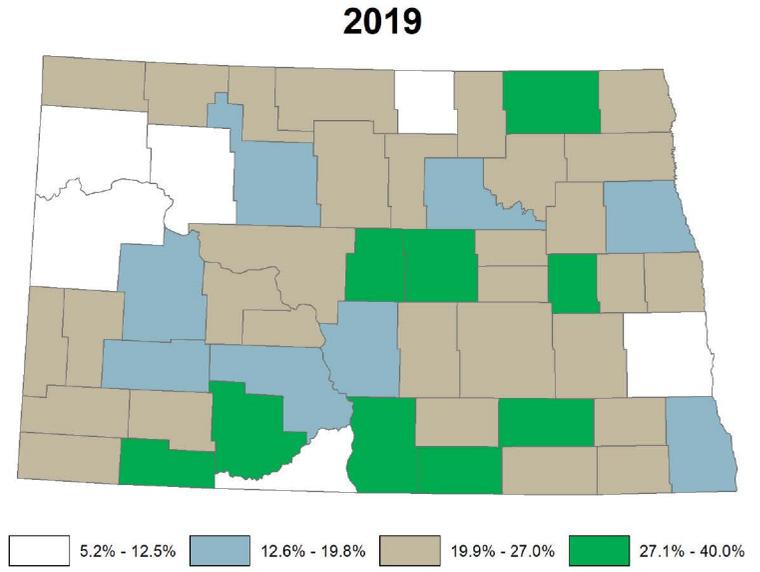
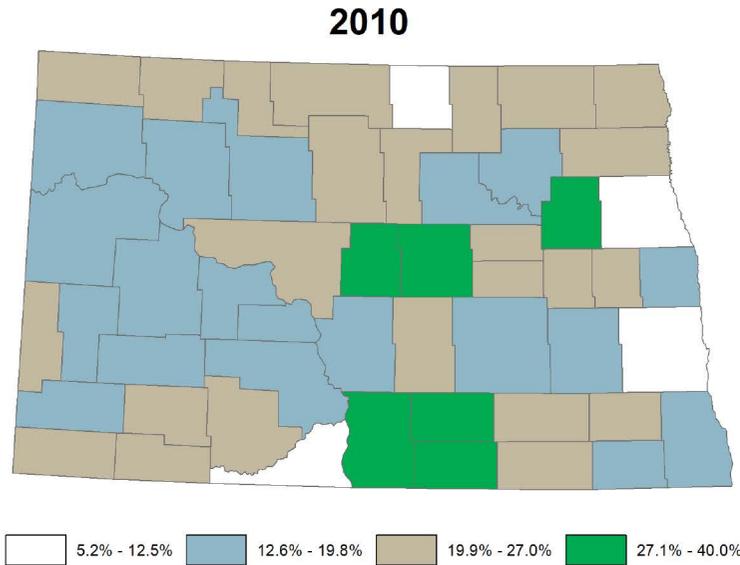
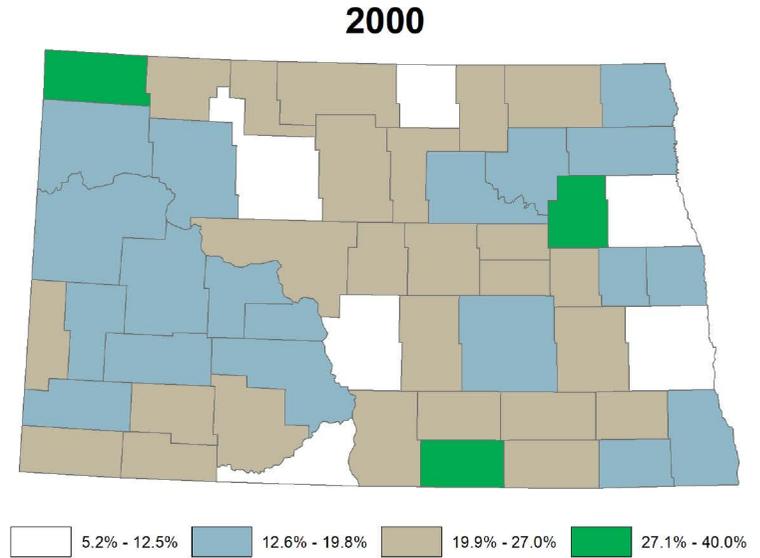
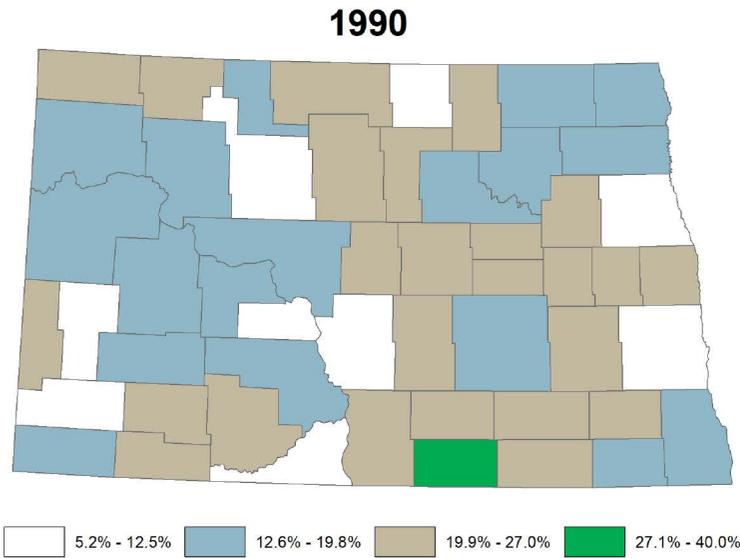


Figure 1.9. Percent of population aged 65 and over in 1990, 2000, 2010, and 2019.^{4,6-8}

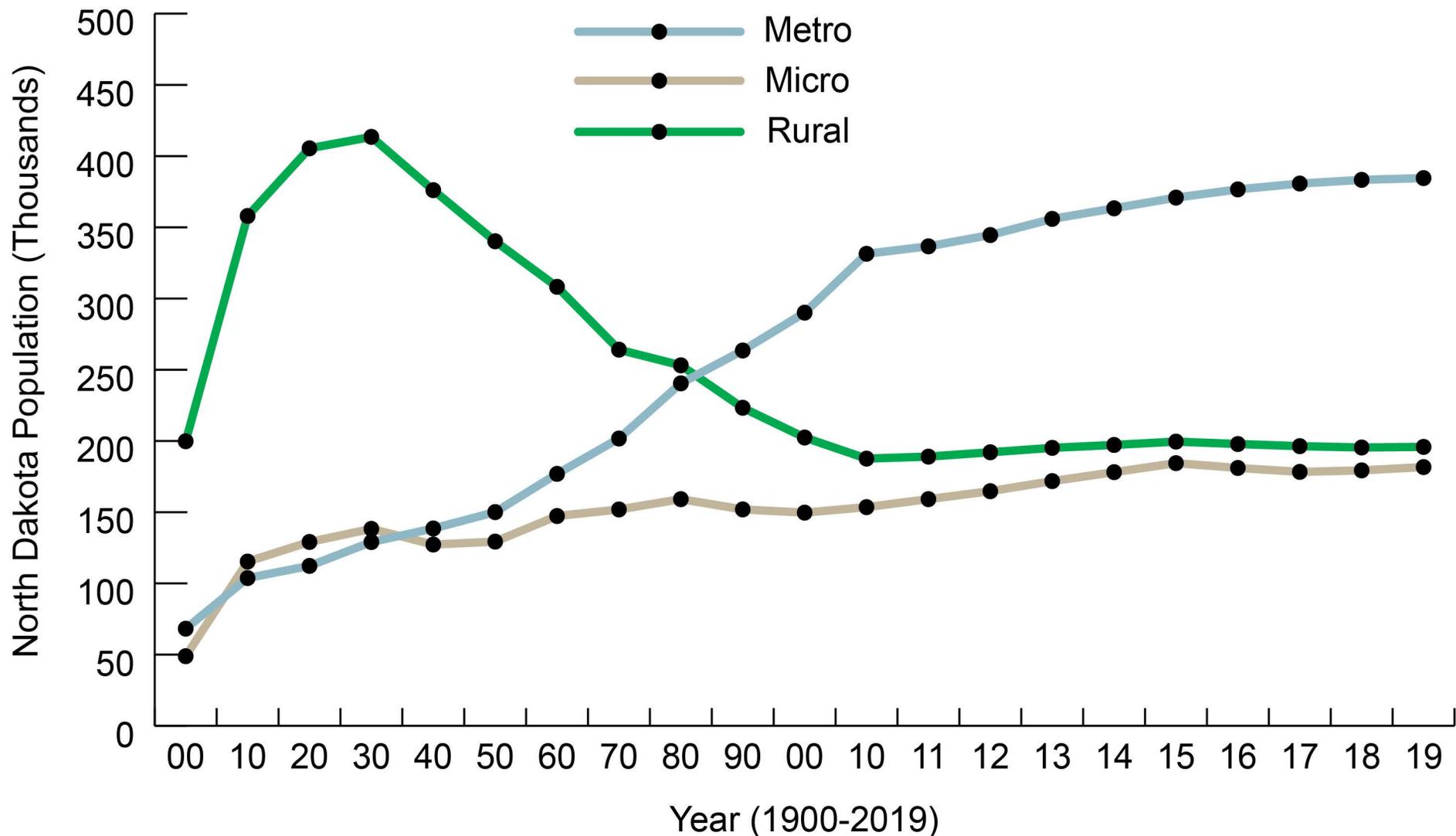


Figure 1.10. Population in North Dakota from 1900 to 2019 by metropolitan, micropolitan and rural counties.^{4,7,9,18}

Rural population decreased from 1930 to 2010, but has remained stable since then. Since 1990, metropolitan population has been higher than rural population. Population in rural North Dakota counties was up to three times as high as metropolitan or micropolitan populations into the 1930s. Then a sharp increase in metropolitan populations and decrease in rural populations caused the rural counties' populations to become less than the metropolitan counties by the 1980s.

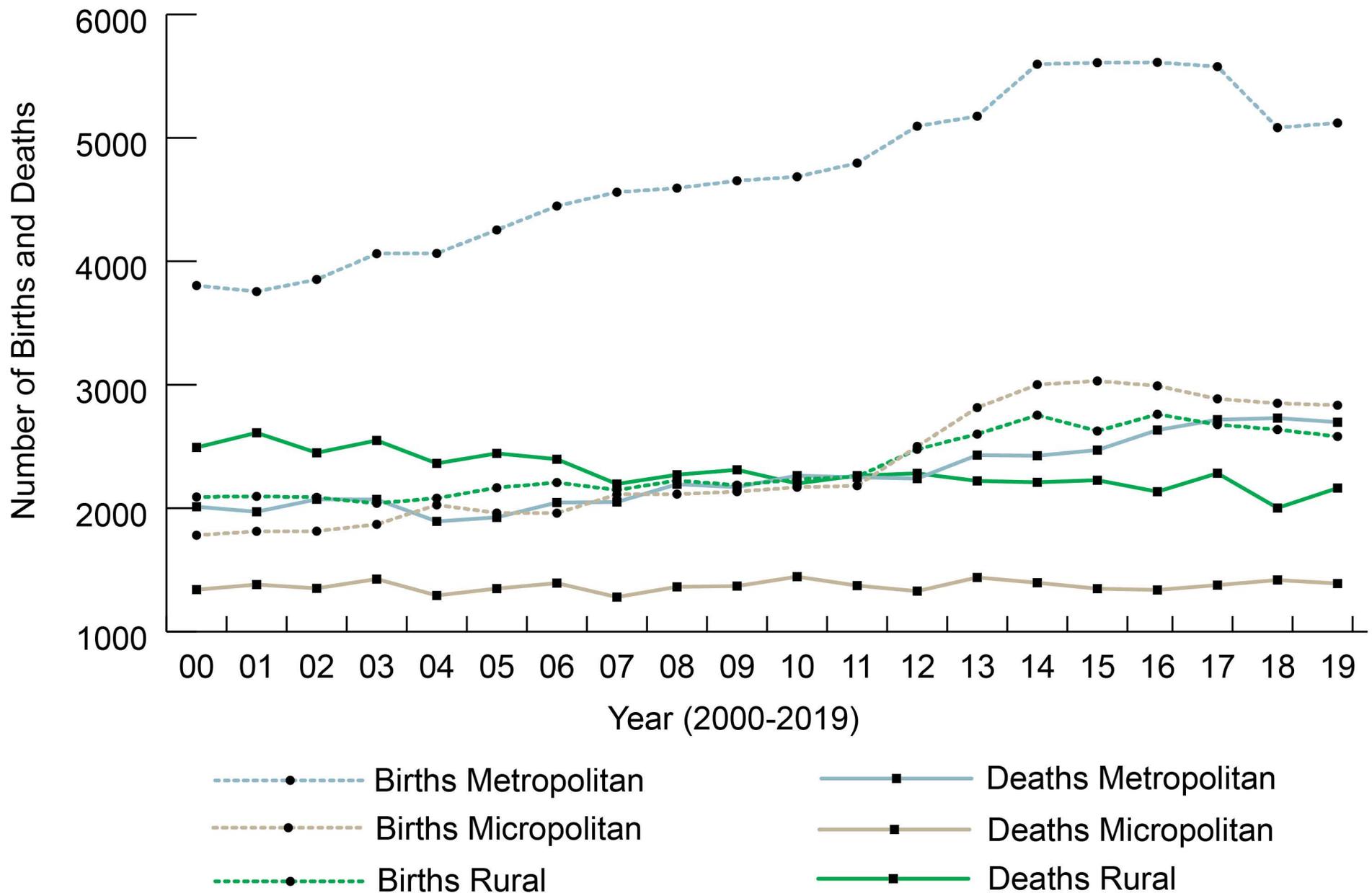


Figure 1.11. Number of births and deaths in North Dakota from 2000 to 2019 by metropolitan, micropolitan, and rural counties.^{4,9,21,22}

Metropolitan births have been rapidly increasing. Rural births have been increasing slightly. Rural and micropolitan deaths have slightly decreased.

Chapter 2: Social Determinants of Health in North Dakota

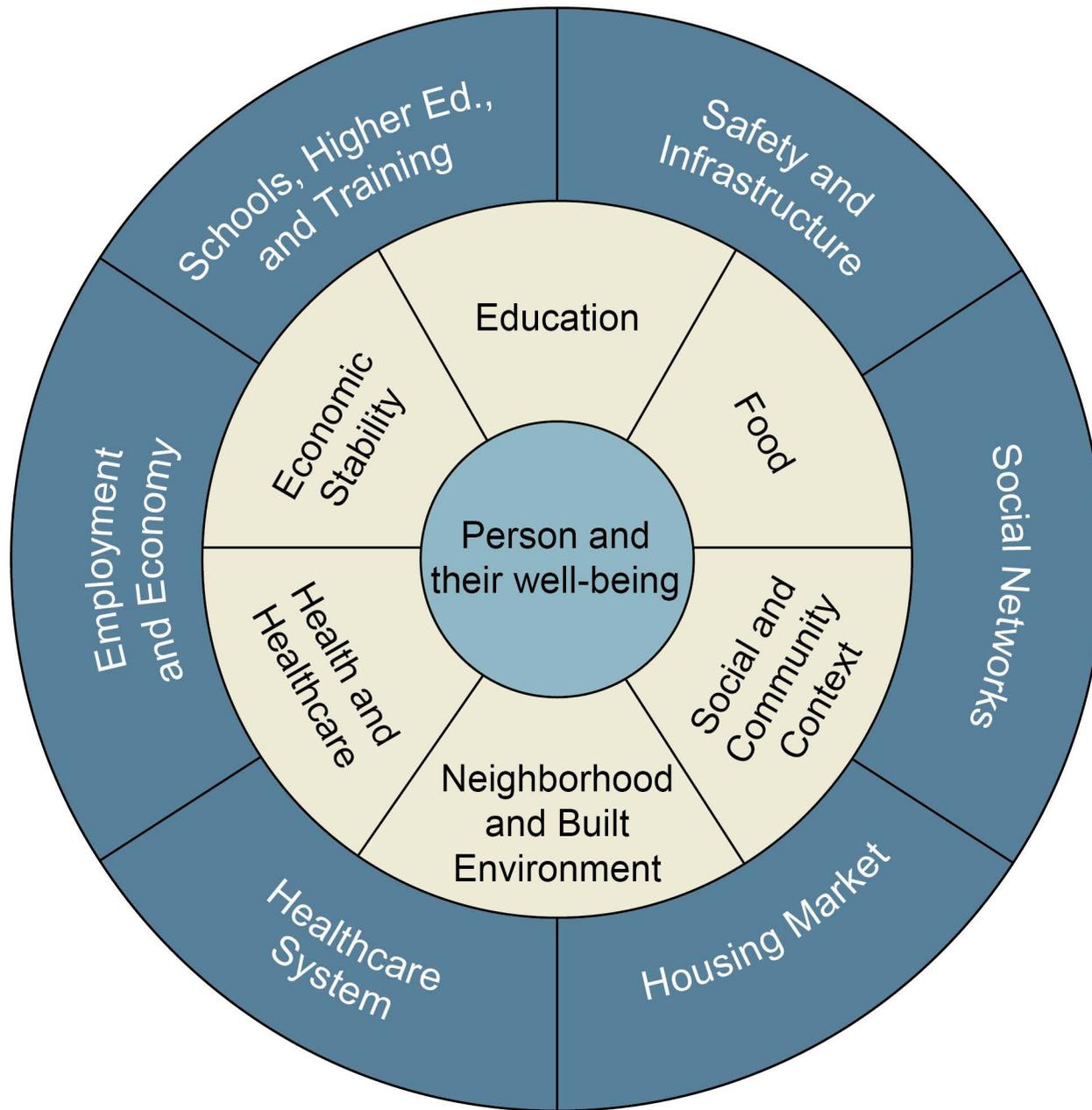


Figure 2.1. Social determinants of health.³ The inner circle represents the individual, the middle ring represents an individual's immediate environment, and the outer ring represents other outside influences on an individual's immediate environment.

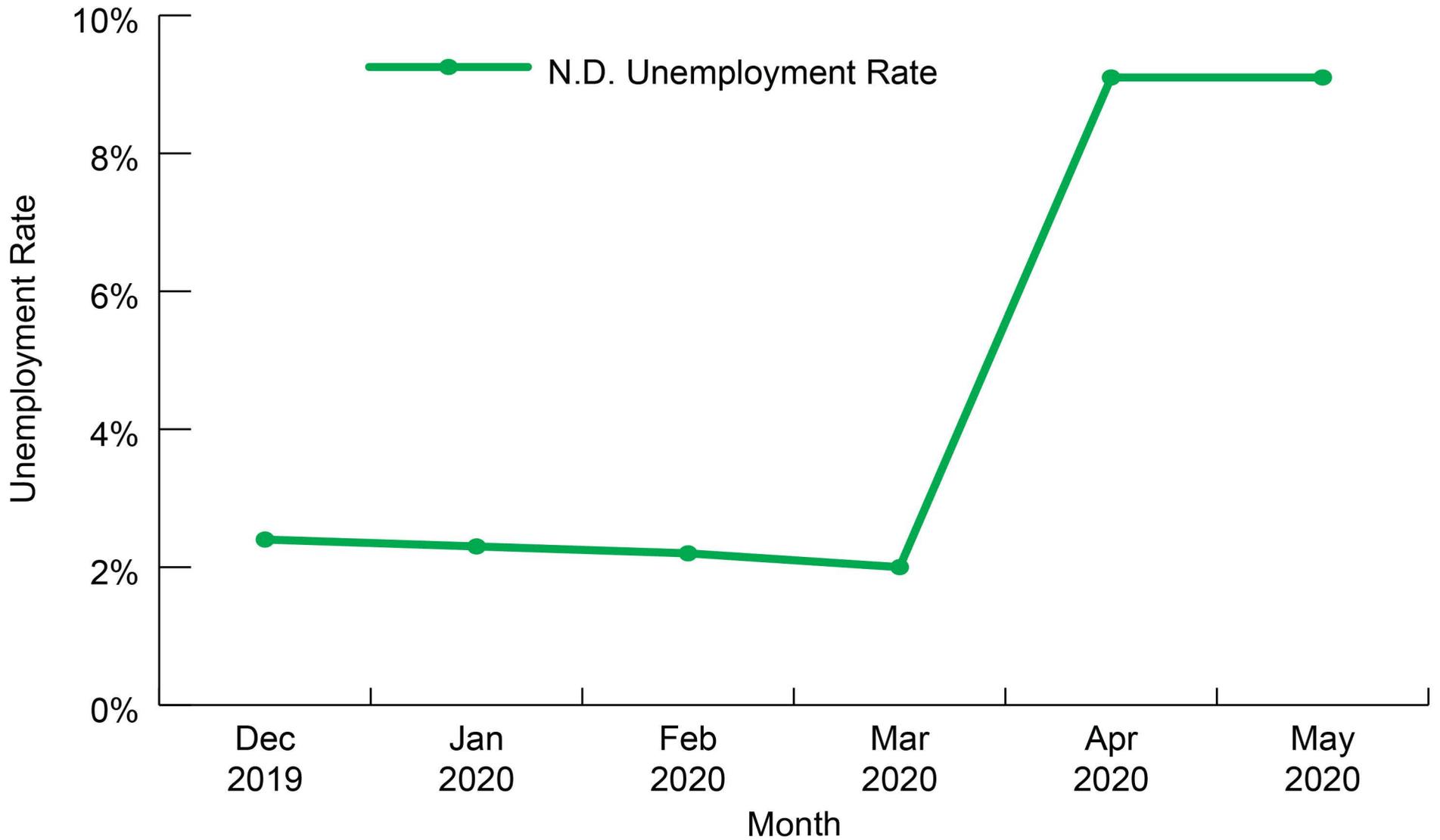


Figure 2.2. North Dakota unemployment rate by month.⁴ North Dakota had an increase in the unemployment rate in the spring of 2020 after a period of having a stable unemployment rate.

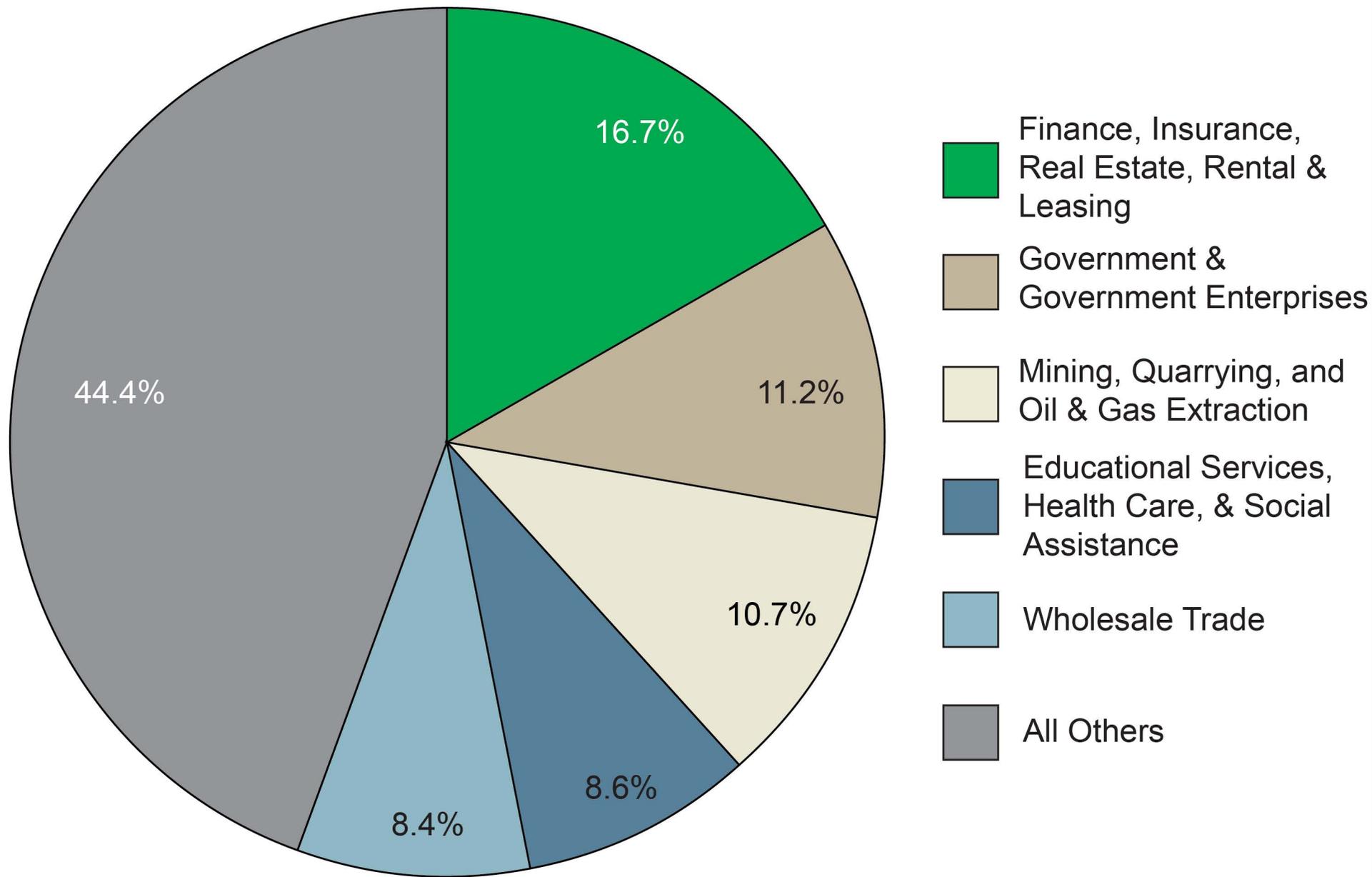


Figure 2.3. Economic sector contributions to North Dakota GDP in 2019.⁷ The 'All Others' category includes: entertainment, recreation, accommodation, and food services; professional and business services; retail trade; transportation and warehousing; information; construction; manufacturing; agriculture, forestry, fishing, and hunting; and utilities.

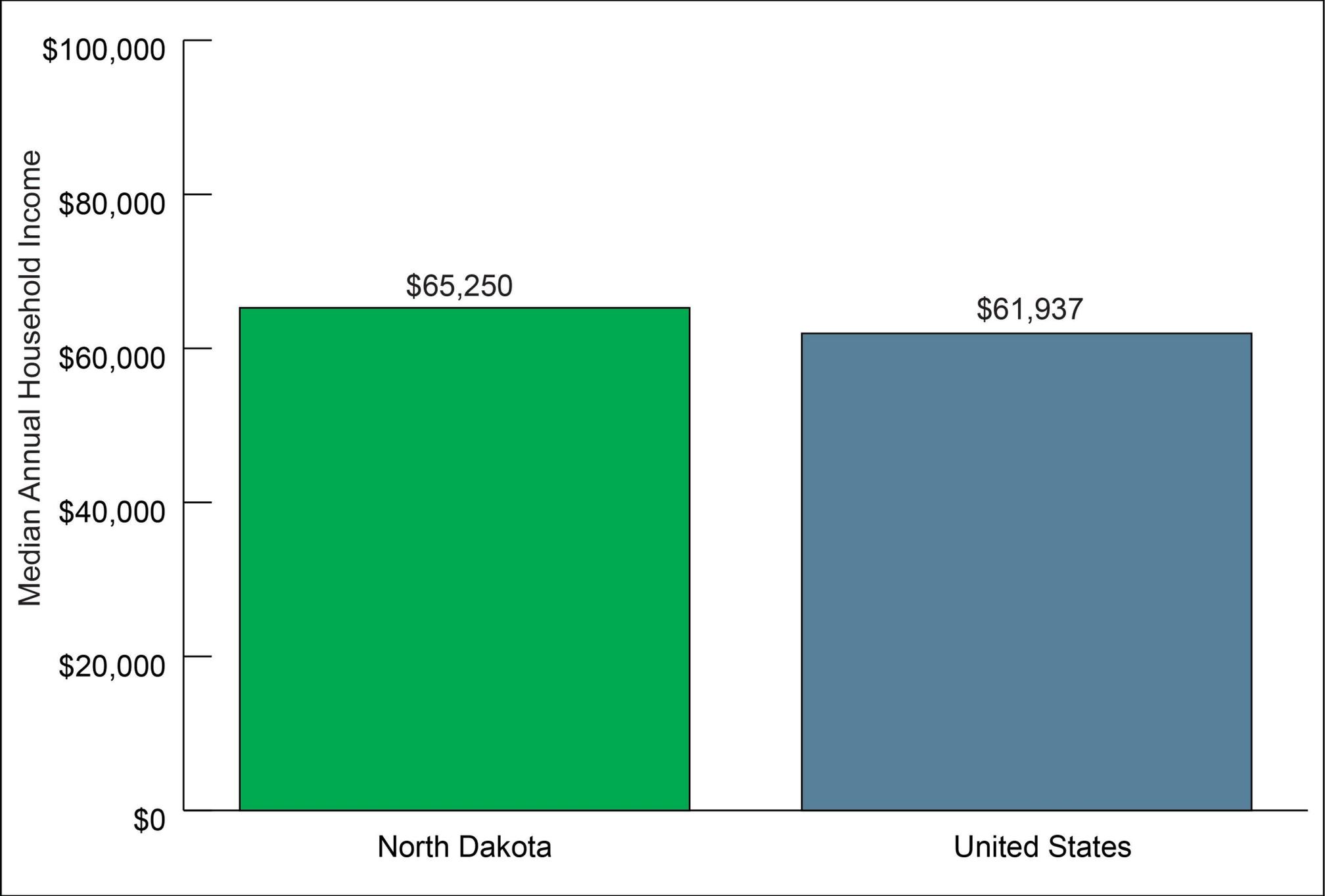


Figure 2.4. Median annual household income for North Dakota and the United States, 2018.⁹

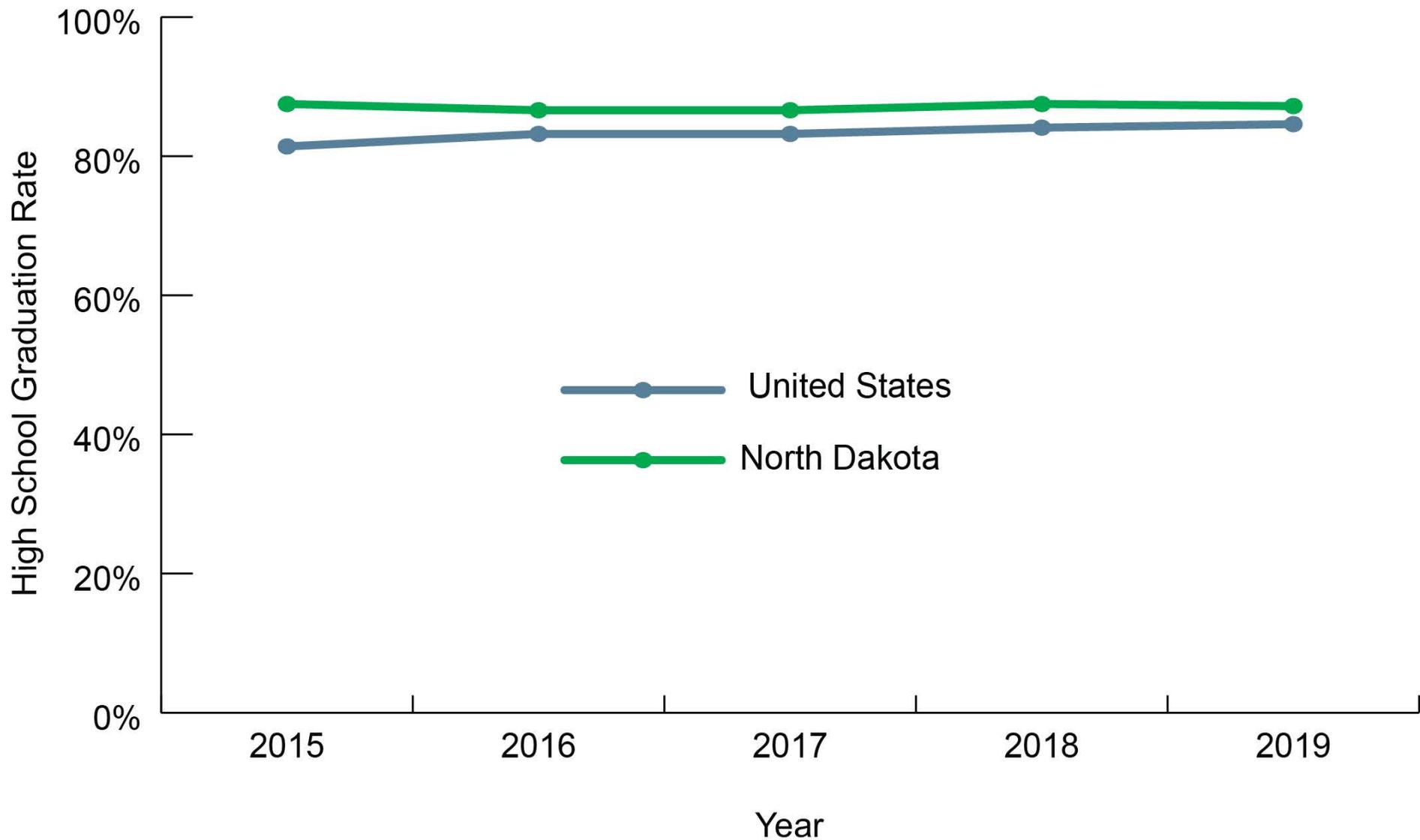


Figure 2.5. High school graduation rate by year for North Dakota and the United States, 2015-2019.¹¹ North Dakota has had a consistently higher graduation rate compared to the U.S. for the past 5 years.

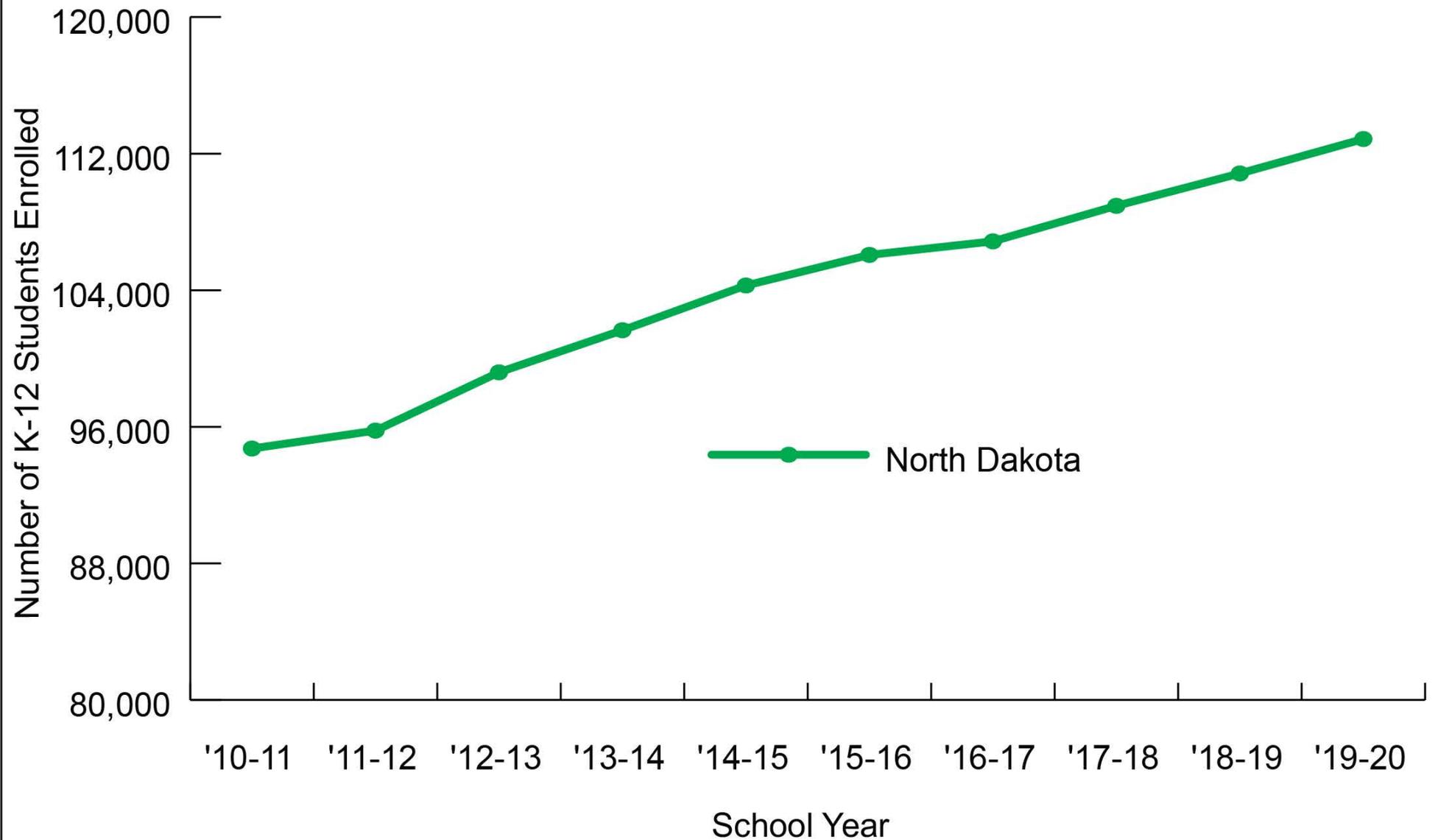
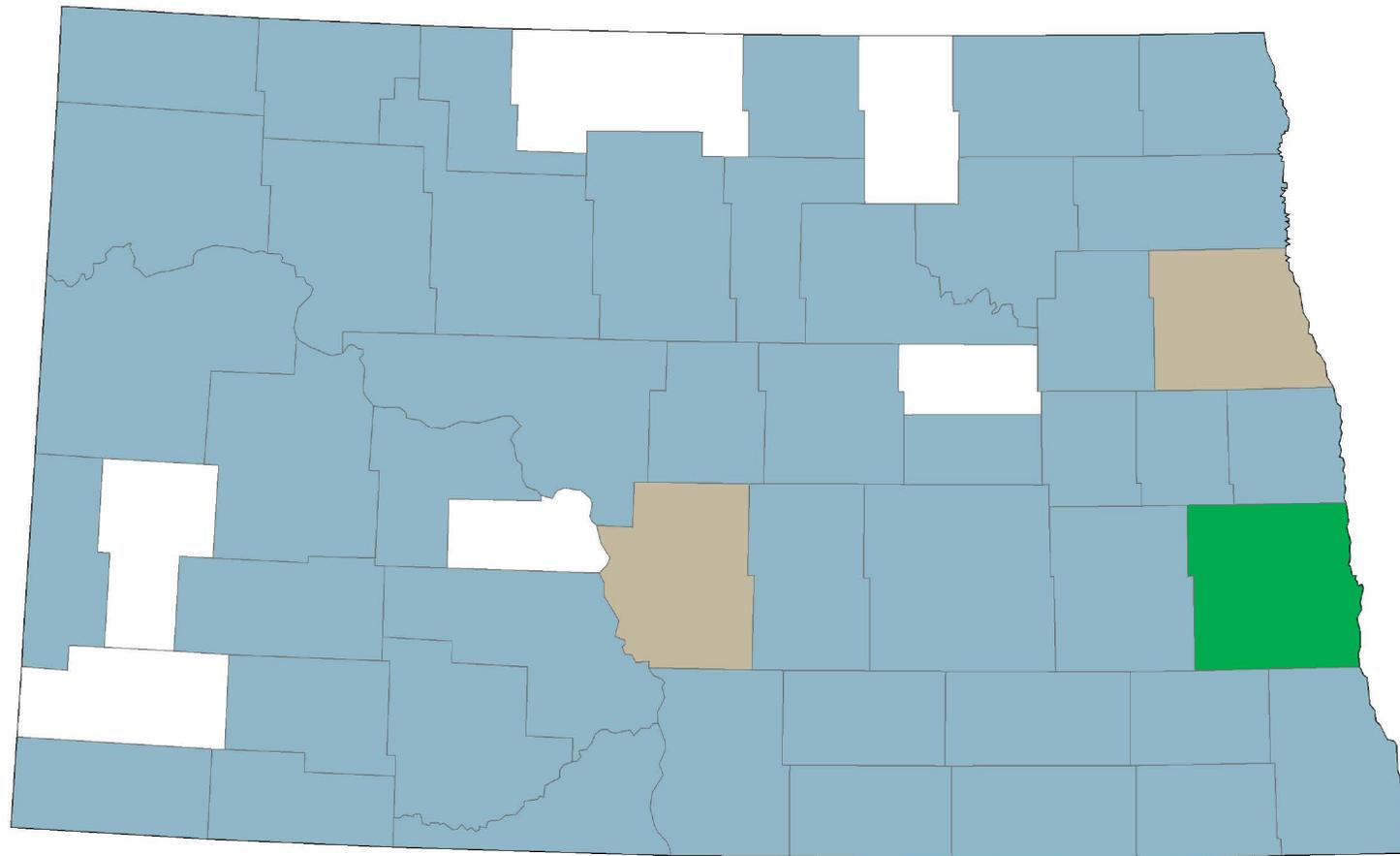


Figure 2.6. Number of K-12 students enrolled in North Dakota public schools, by school year.¹³ North Dakota has had a steady increase in public school enrollment between the 2010-2011 school year and the 2019-2020 school year.



Number of grocery stores per county



Figure 2.7. Number of grocery stores per North Dakota county, 2016.²⁹ The USDA definition of a grocery store does not include convenience stores with or without gasoline, or large general merchandise stores that also sell food.

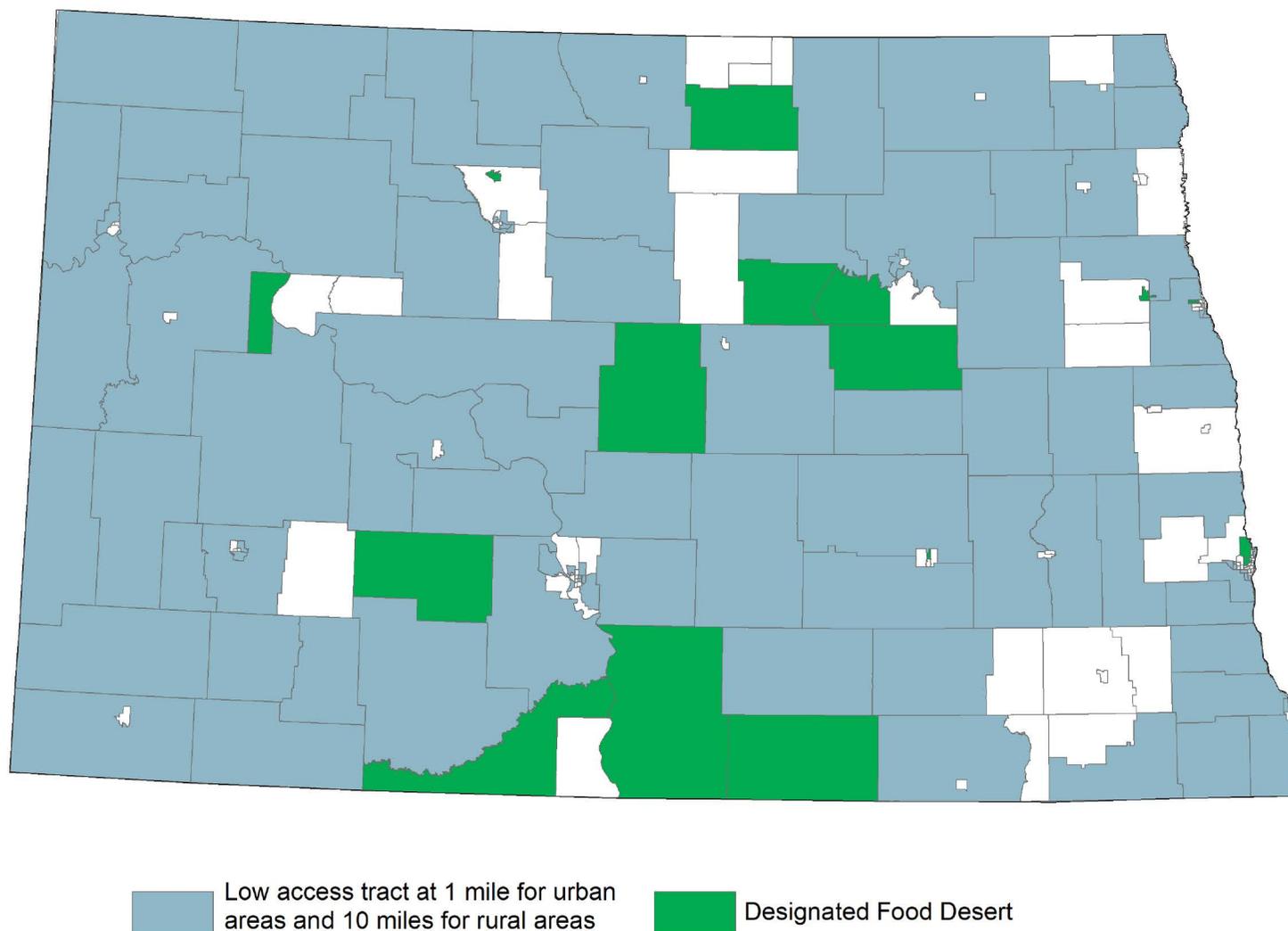
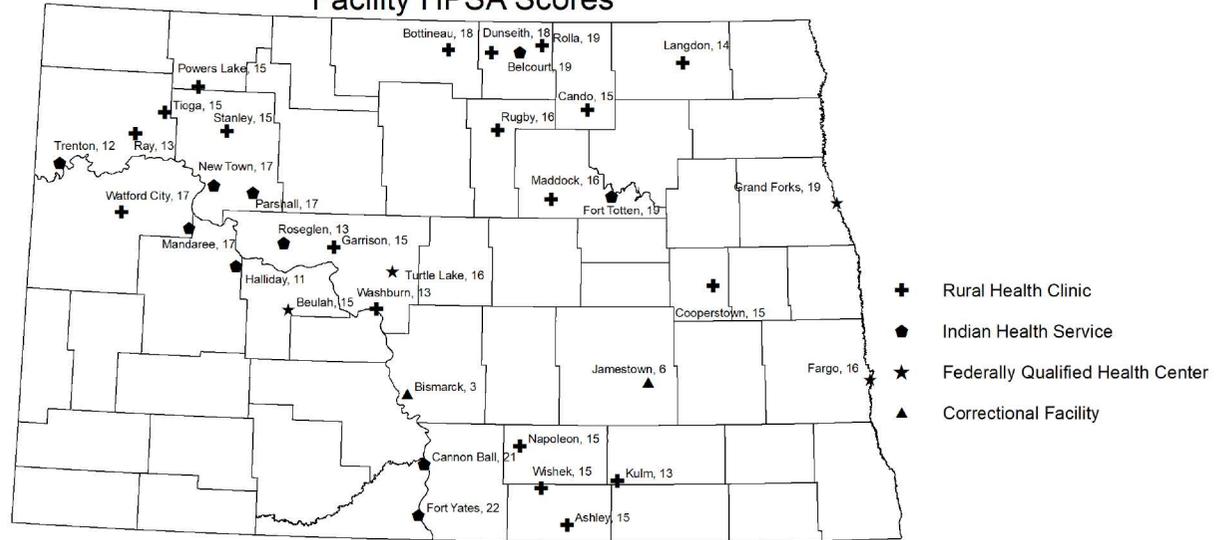


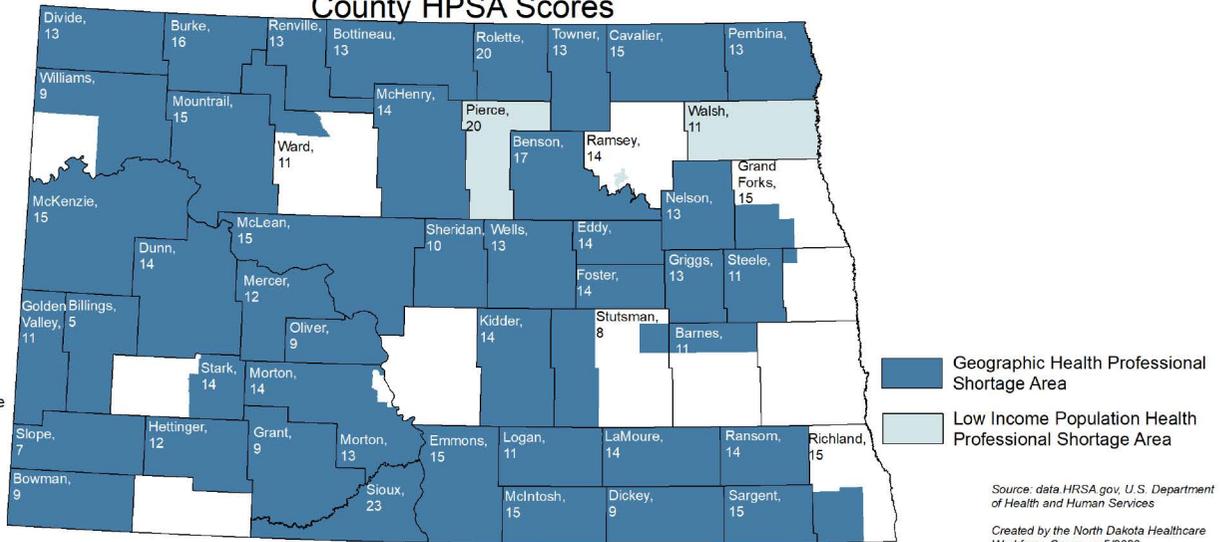
Figure 2.8. Low food access and food desert designated census tracts in North Dakota, 2015.³⁰ Low food access is defined as 500 people and/or 33% of the population of a census tract living more the 1 mile from a grocery store in urban areas and more than 10 miles from a grocery store in rural areas. Food deserts are census tracts designated as low access and low income.

North Dakota Health Professional Shortage Areas: Primary Care

Facility HPSA Scores



County HPSA Scores



Upper map is city name, facility HPSA score
Lower map is county name, HPSA score

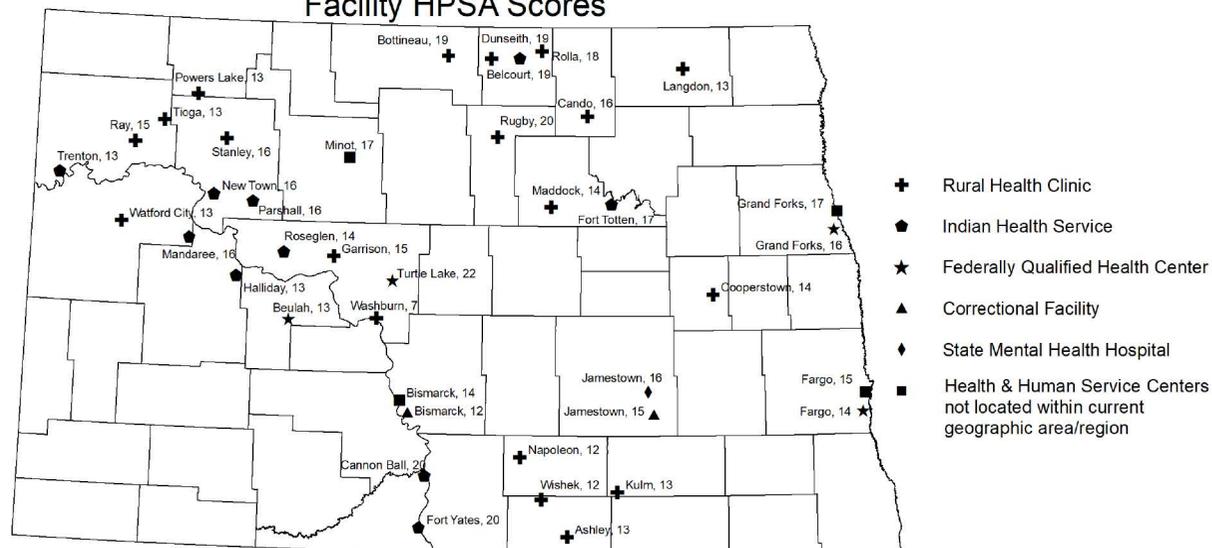


Source: data HRSA.gov, U.S. Department of Health and Human Services
Created by the North Dakota Healthcare Workforce Group on 5/2020

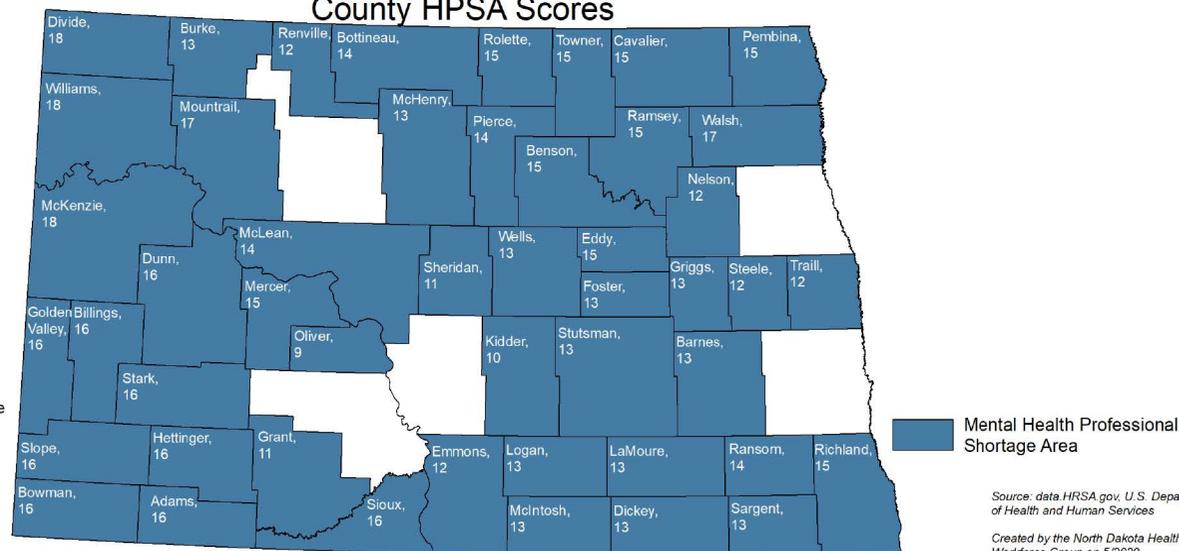
Figure 2.9. Primary care health professional shortage areas (HPSAs) and facilities in North Dakota, 2020.³⁹

North Dakota Health Professional Shortage Areas: Mental Health

Facility HPSA Scores



County HPSA Scores



Upper map is city name, facility HPSA score
Lower map is county name, HPSA score



Source: data.HRSA.gov, U.S. Department of Health and Human Services

Created by the North Dakota Healthcare Workforce Group on 5/2020

Figure 2.11. Mental health professional shortage areas (HPSAs) and facilities in North Dakota, 2020.³⁹ The majority of counties in North Dakota are designated as mental health professional shortage areas. The ones that are not designated contain or are adjacent to the cities of Grand Forks, Fargo, Bismarck, and Minot.

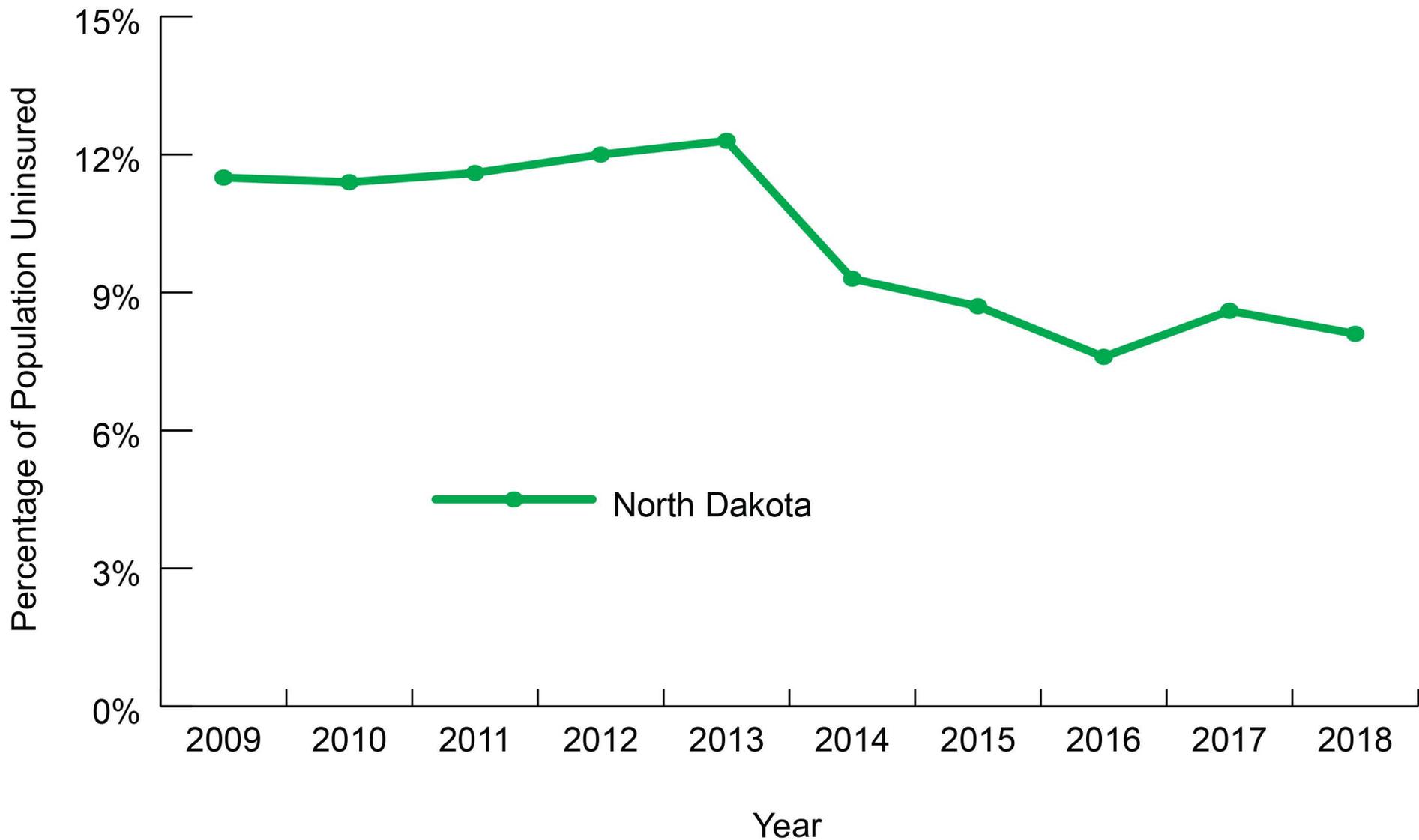


Figure 2.12. Percent of population with no health insurance coverage in North Dakota from 2009-2018.⁴² Between 2013 and 2016 North Dakota had a notable drop in the uninsured rate, and since 2013 the uninsured rate has not gone above 10%.

Chapter 3: The Health of North Dakota

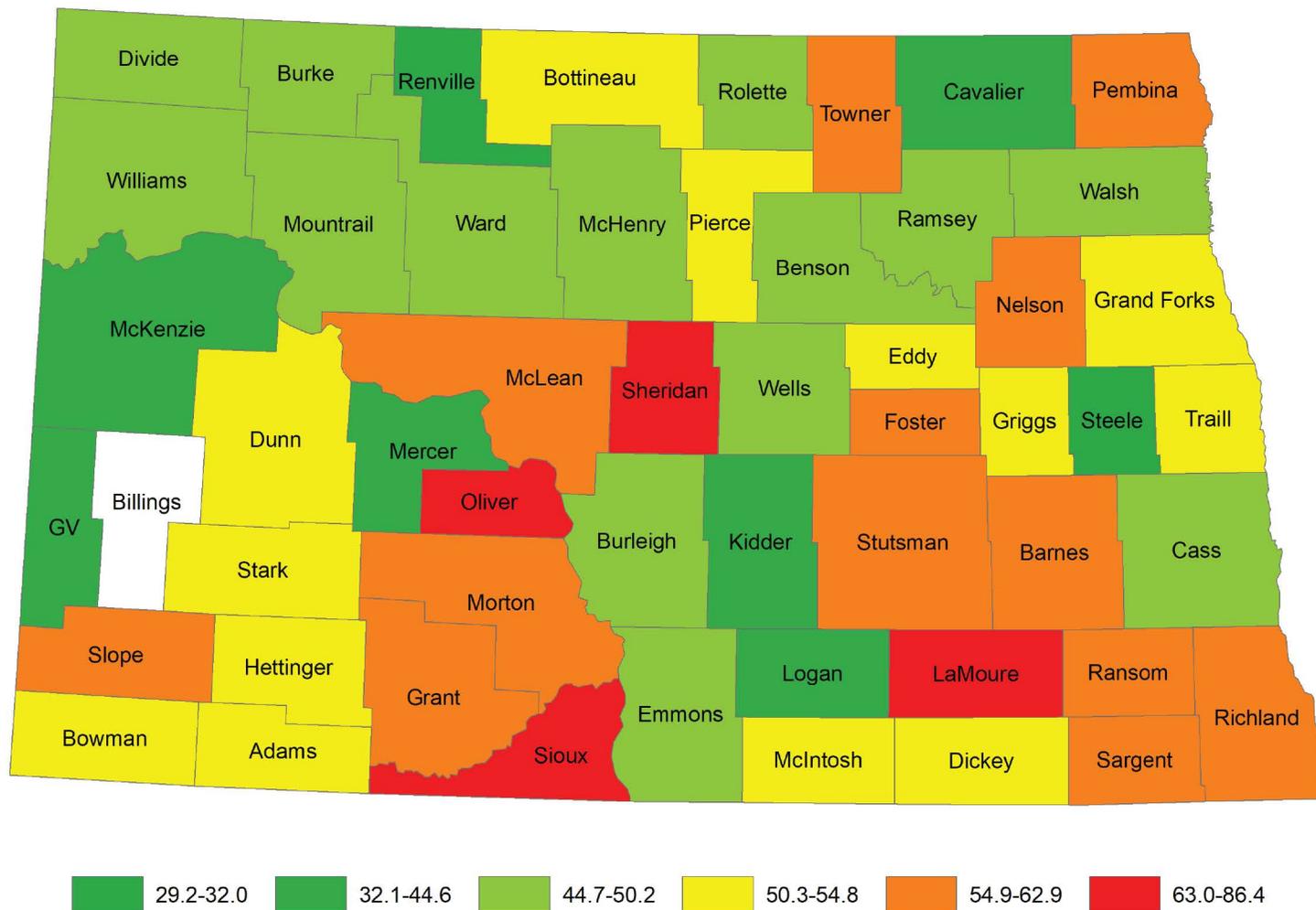


Figure 3.1. Incidence rates of colorectal cancer among North Dakota counties (White non-Hispanics).³²

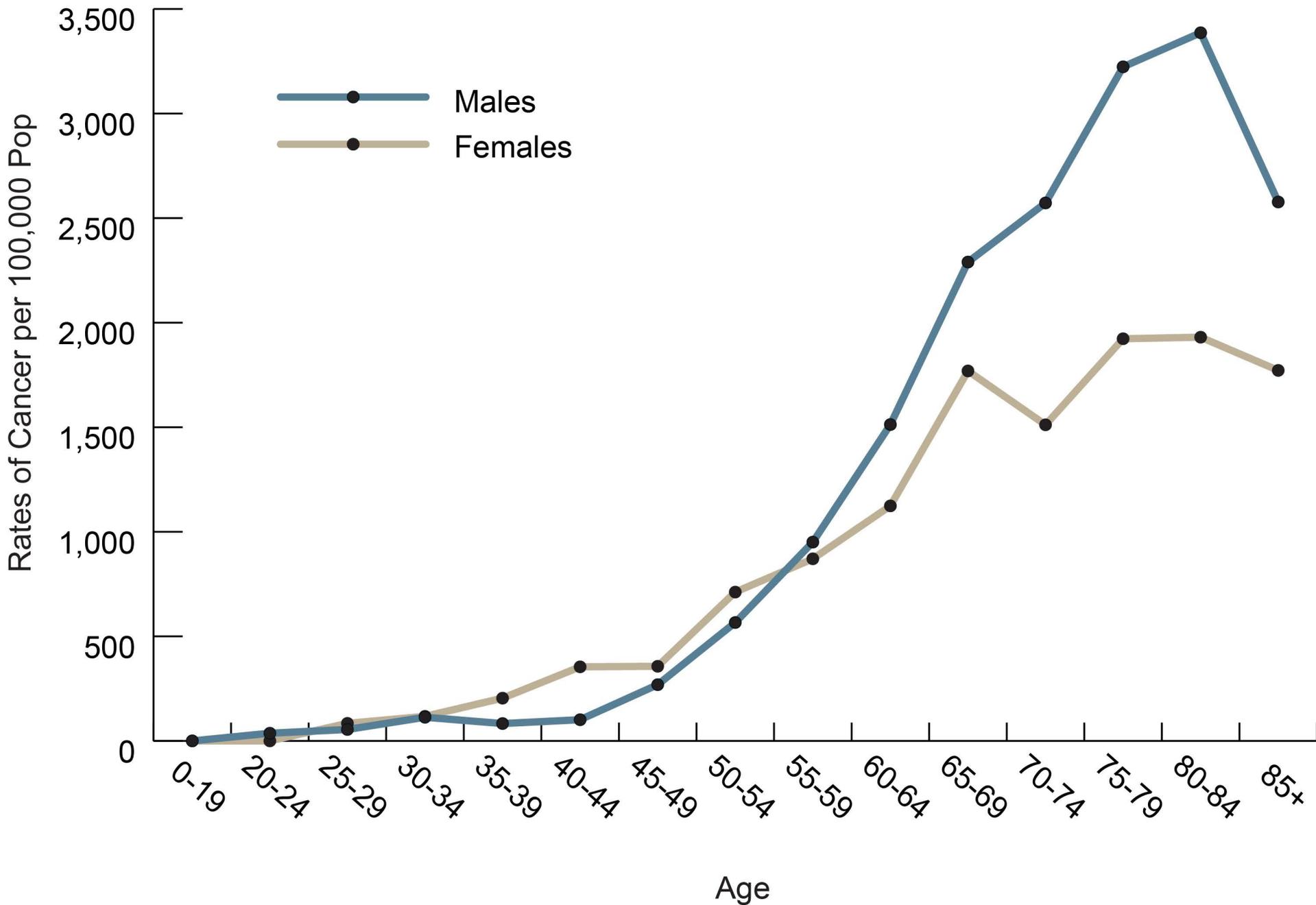


Figure 3.2. Rates of cancer per 100,000 people in North Dakota by age.³³

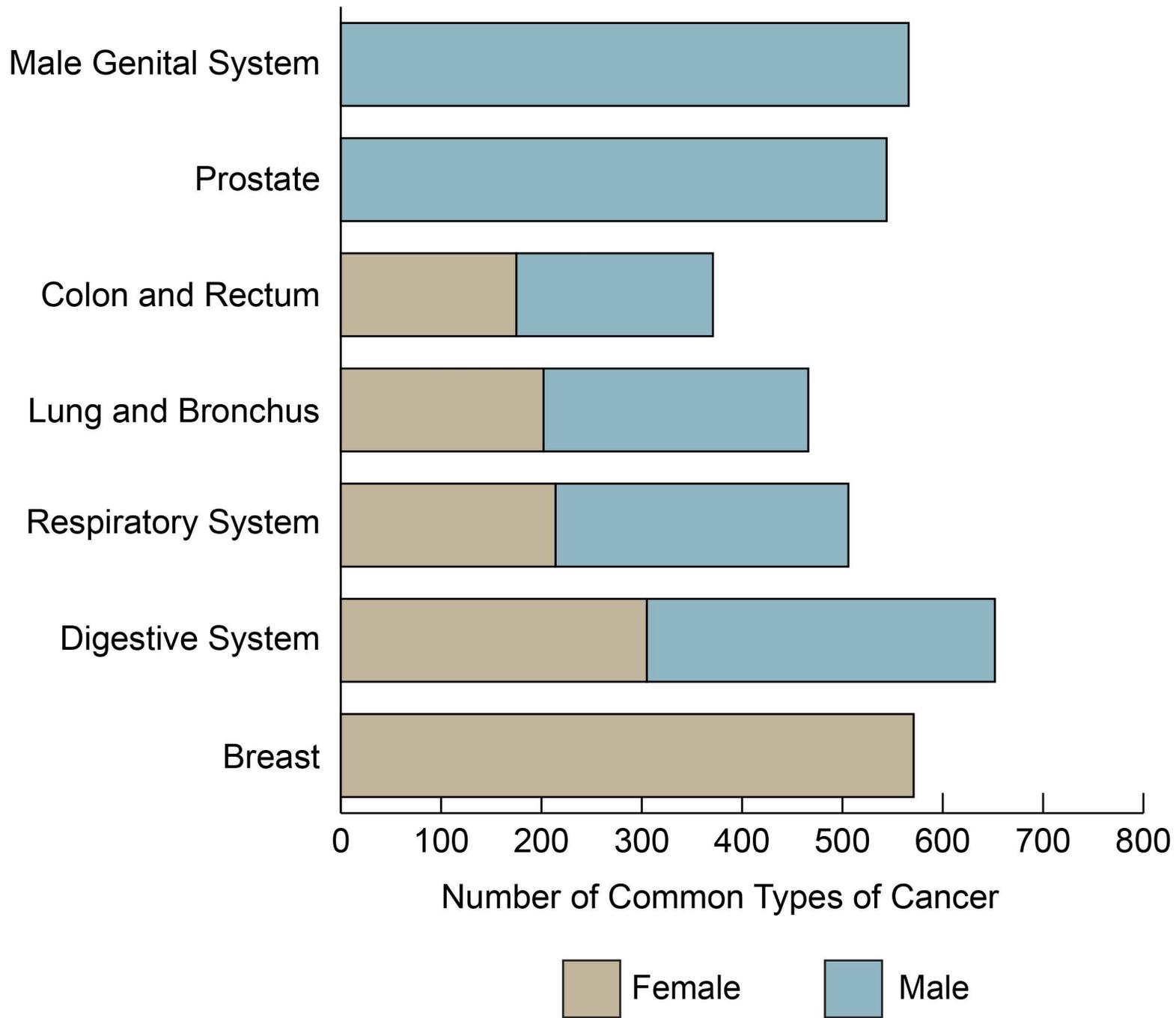


Figure 3.3. Incidence of most common types of cancers in North Dakota.³³

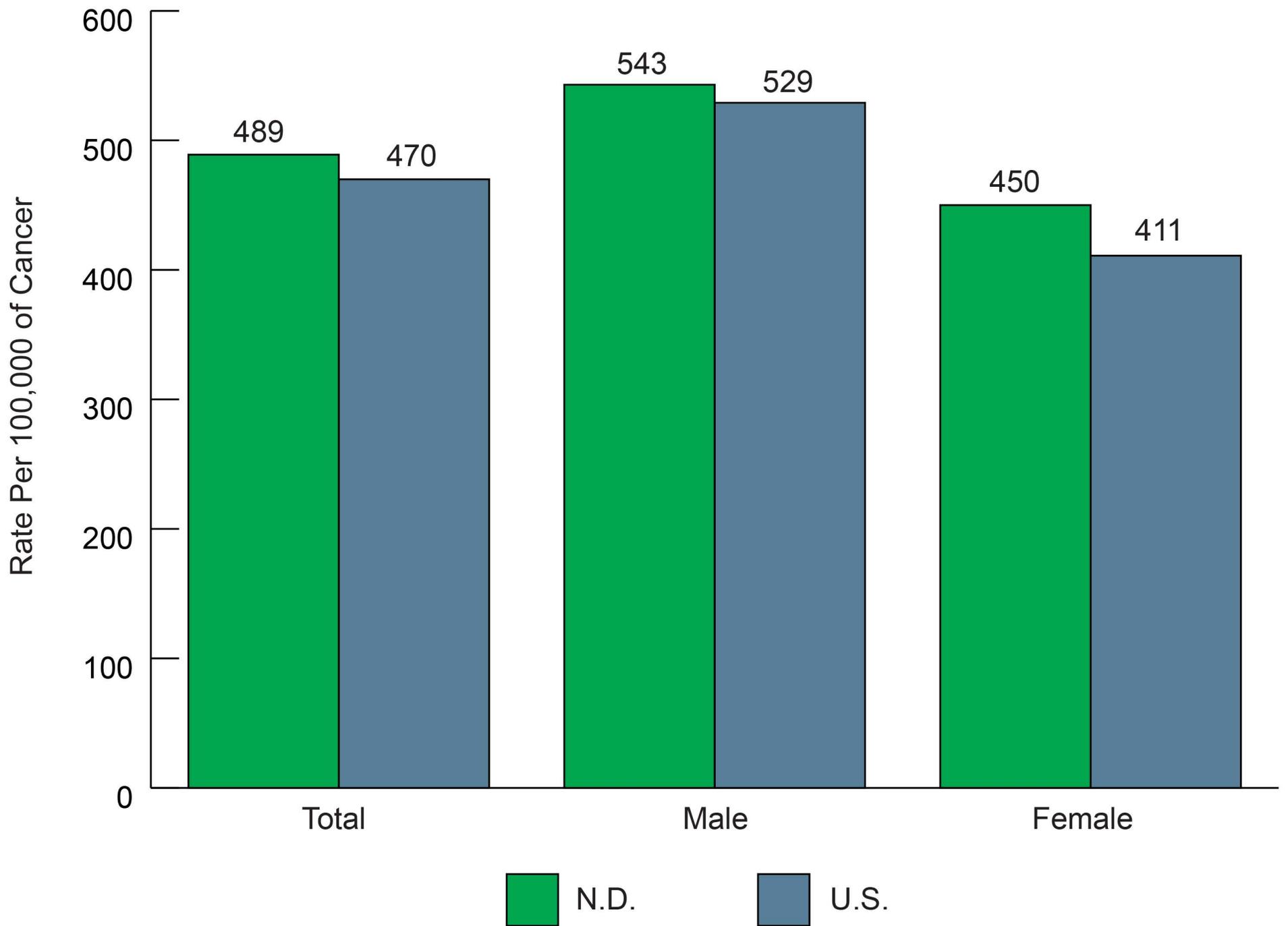


Figure 3.4. Rates of cancer incidence in North Dakota and the United States by gender.^{33,34,35}

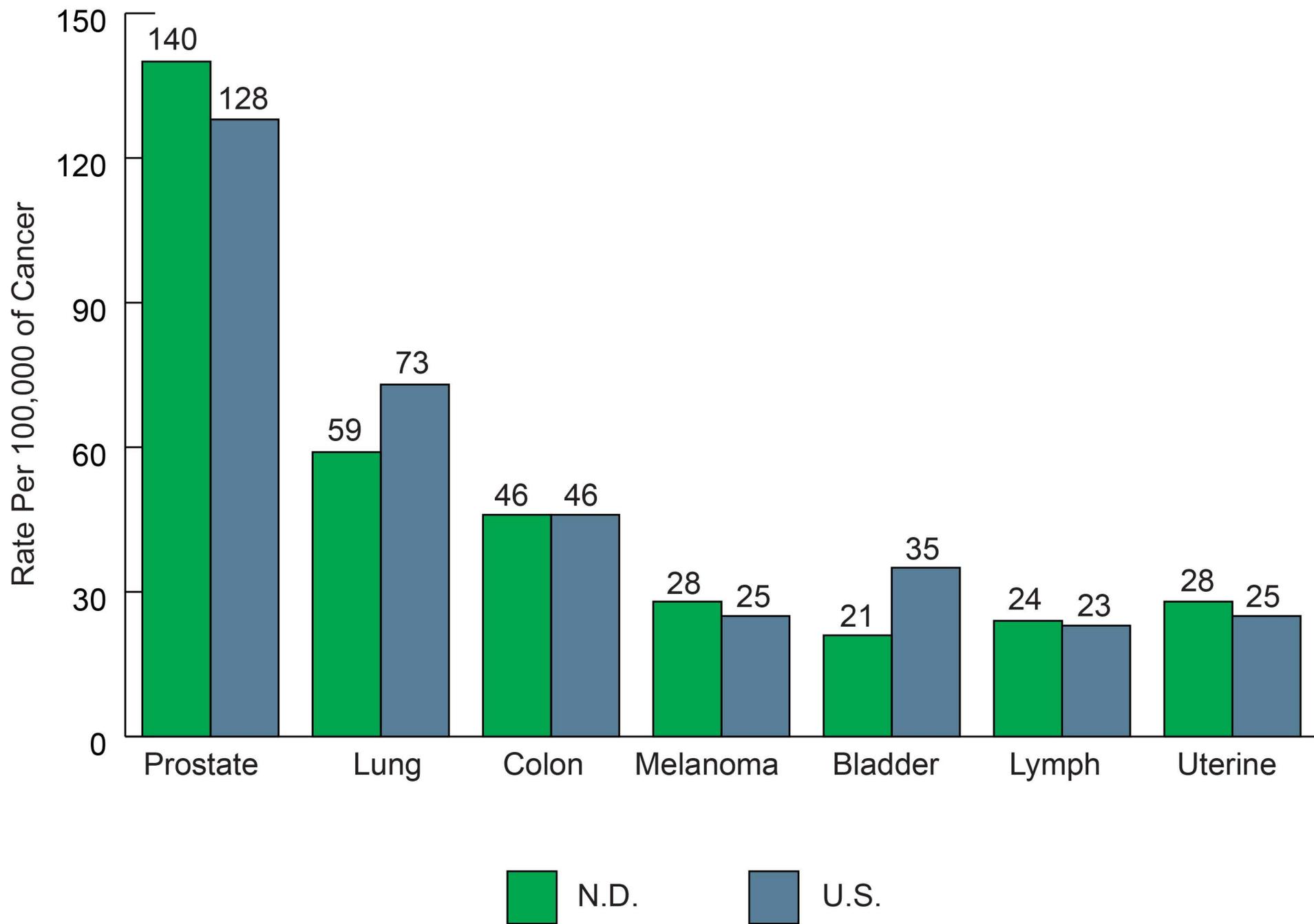


Figure 3.5. Rates of all cancer incidence in North Dakota by cancer type.^{31,33,34}

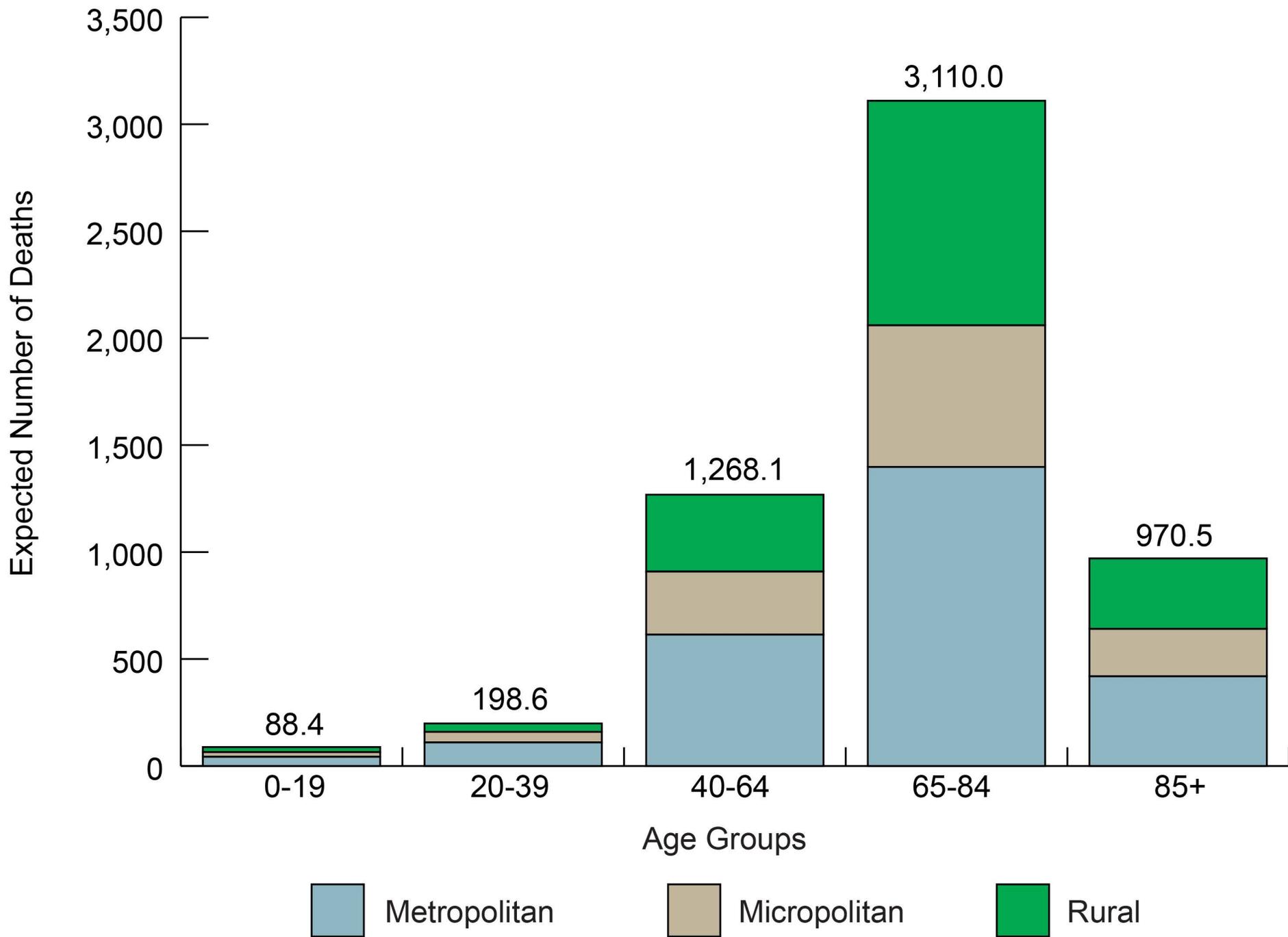


Figure 3.6. Expected number of deaths in North Dakota per age group after adjusting for demographic factors specific to each region.^{19,36}

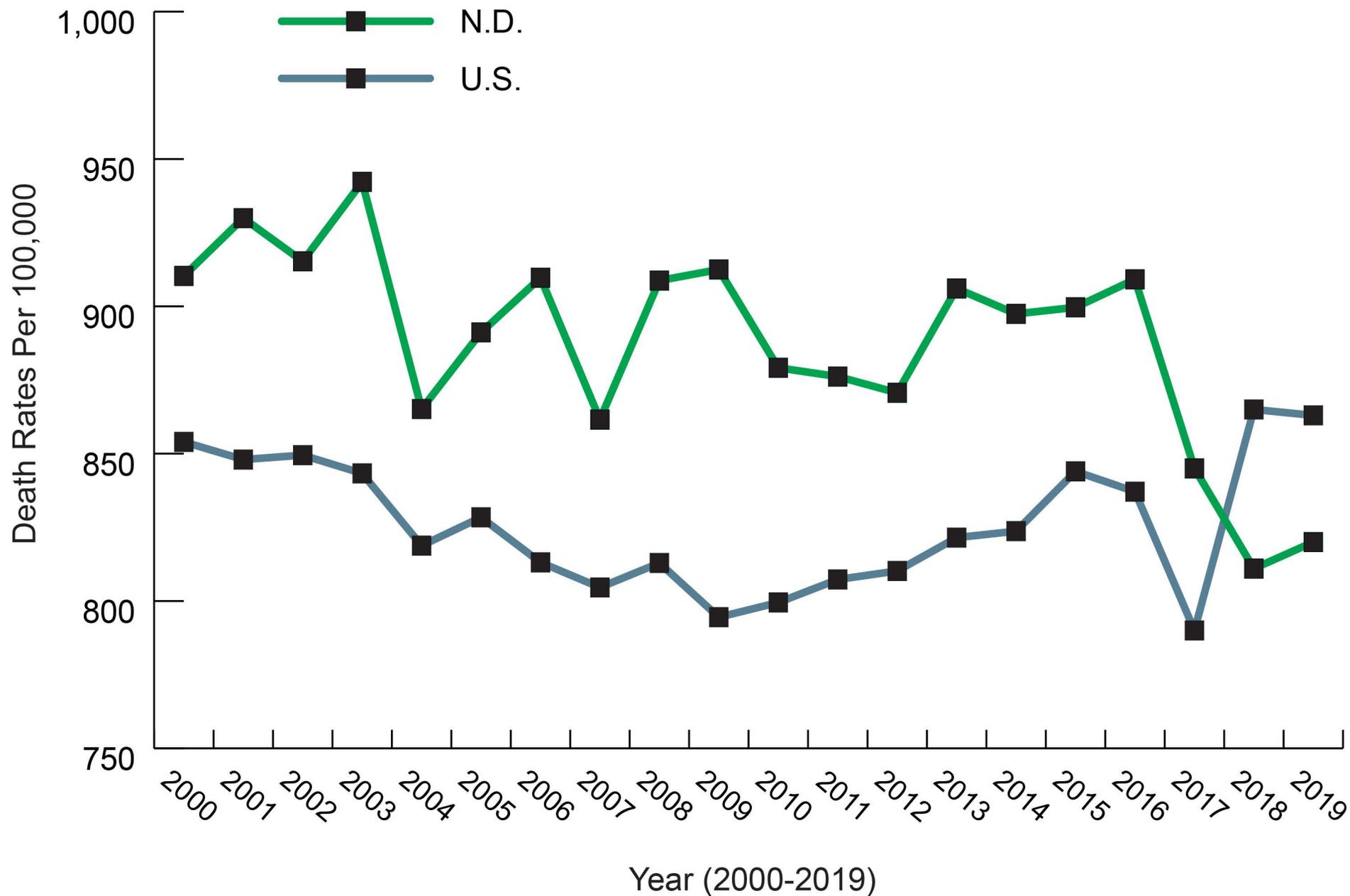


Figure 3.7. Changes in North Dakota mortality rates from 2000 to 2019 compared with the United States.^{37,46}

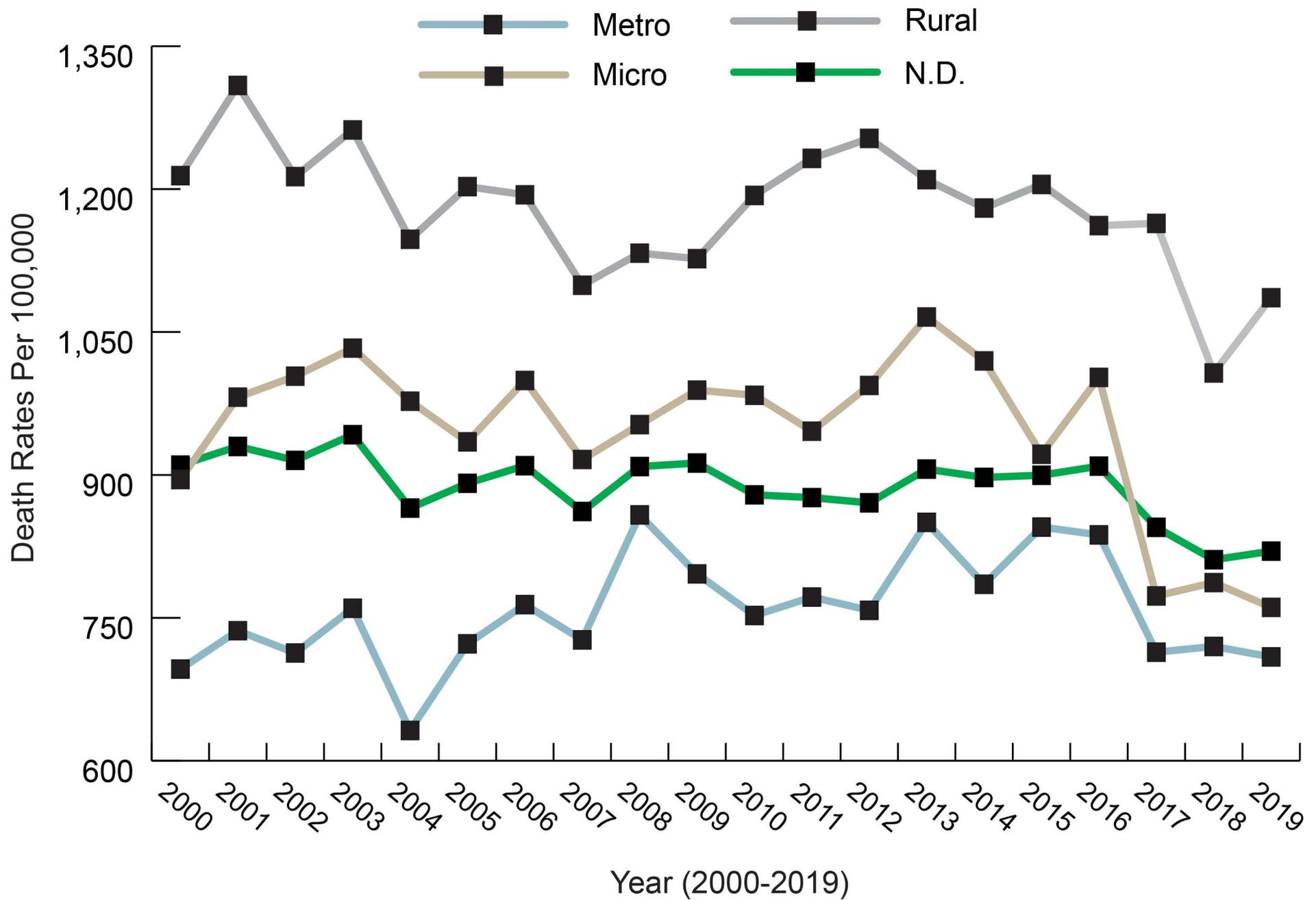


Figure 3.8. Changes in North Dakota mortality rates from 2000 to 2019 for metropolitan, micropolitan, and rural areas.^{19,36,46}

Chapter 4: Physician Workforce in North Dakota

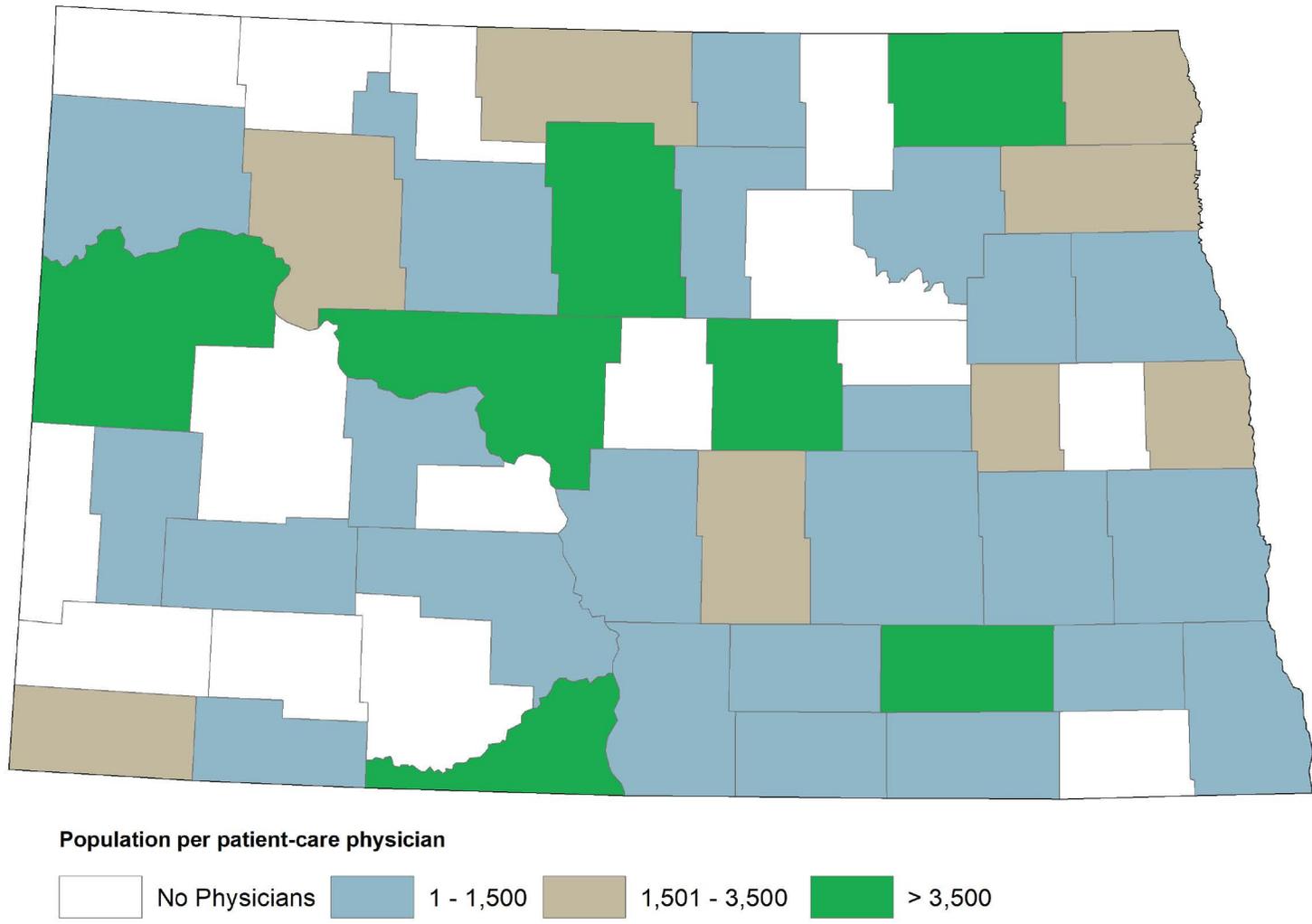


Figure 4.1. County population per patient-care physician for all specialties in North Dakota.^{1,2}

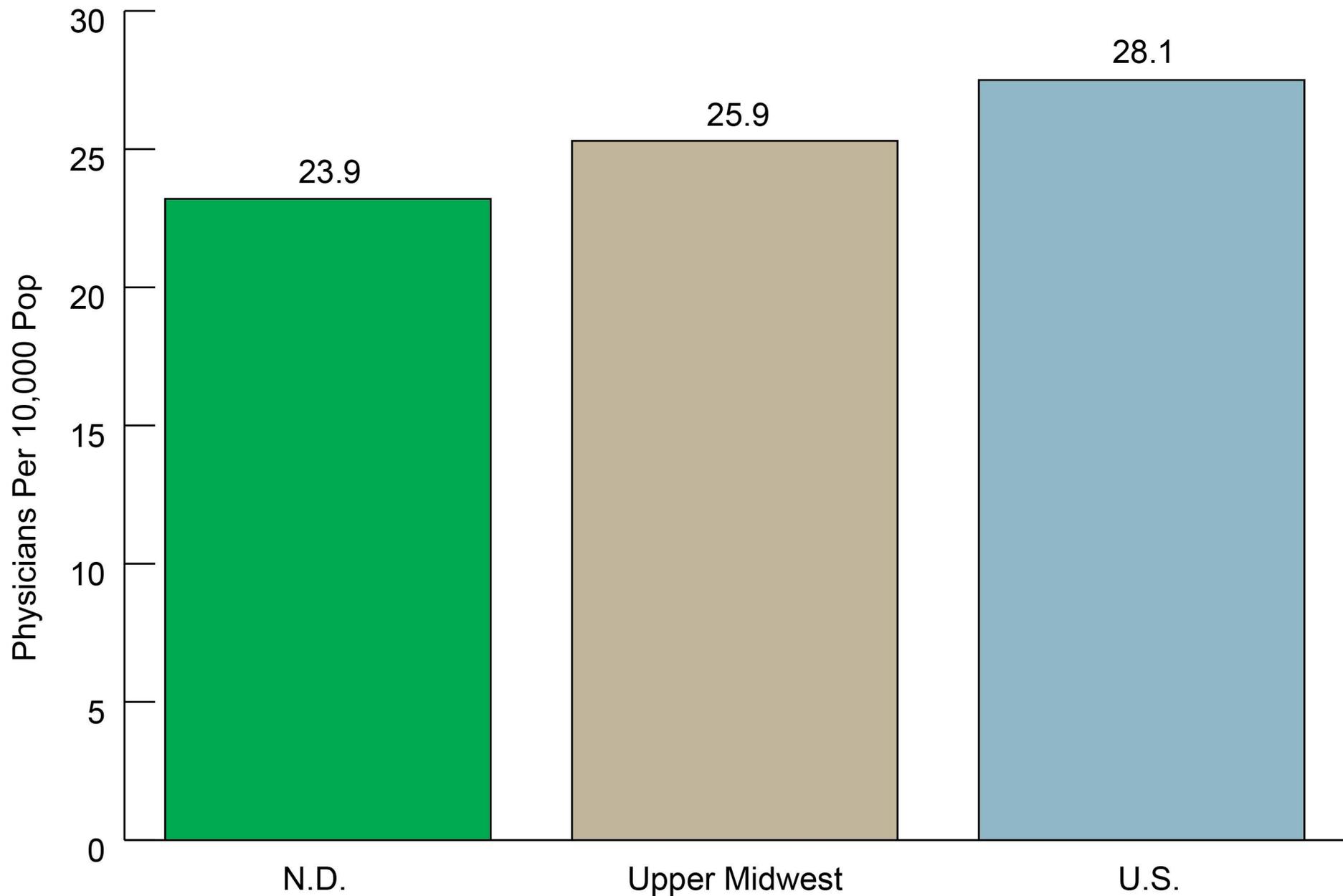


Figure 4.2. Number of physicians per 10,000 population for North Dakota, the Upper Midwest, and the United States (excludes resident physicians), 2017.^{1,3}

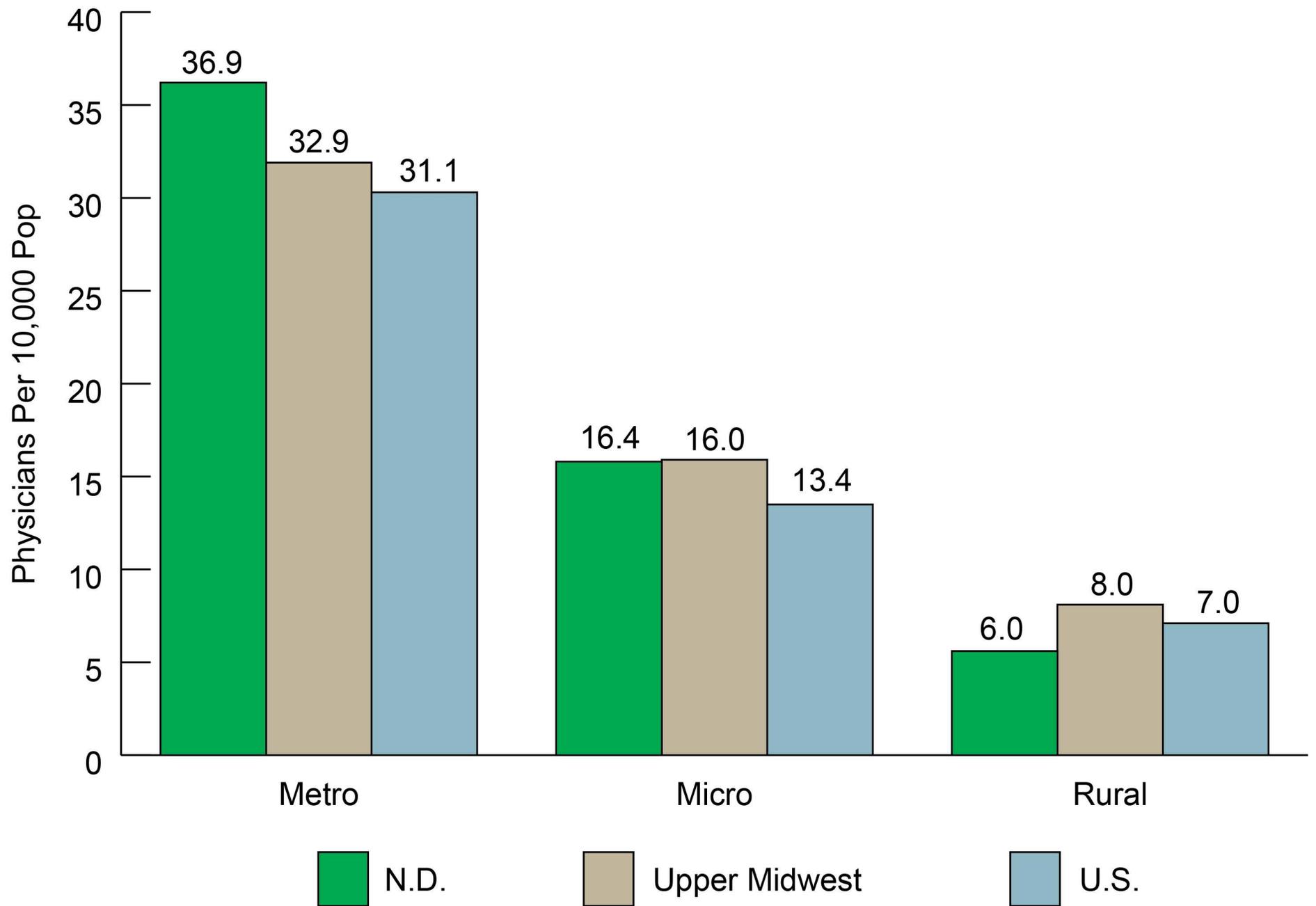


Figure 4.3. Physicians per 10,000 population for North Dakota with comparisons, 2017.^{1,3,6}

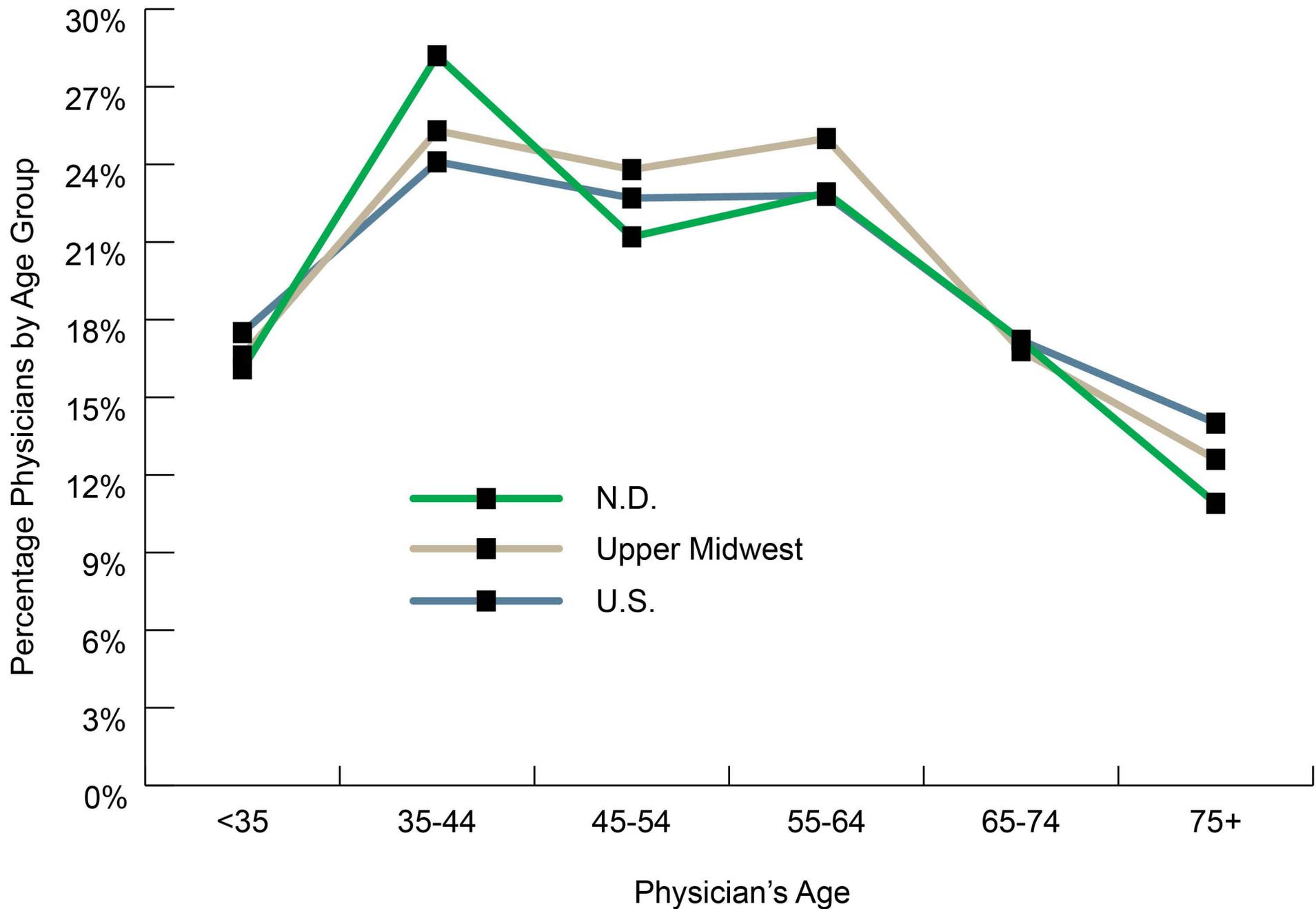


Figure 4.4. Physician percent by age category with comparisons.³

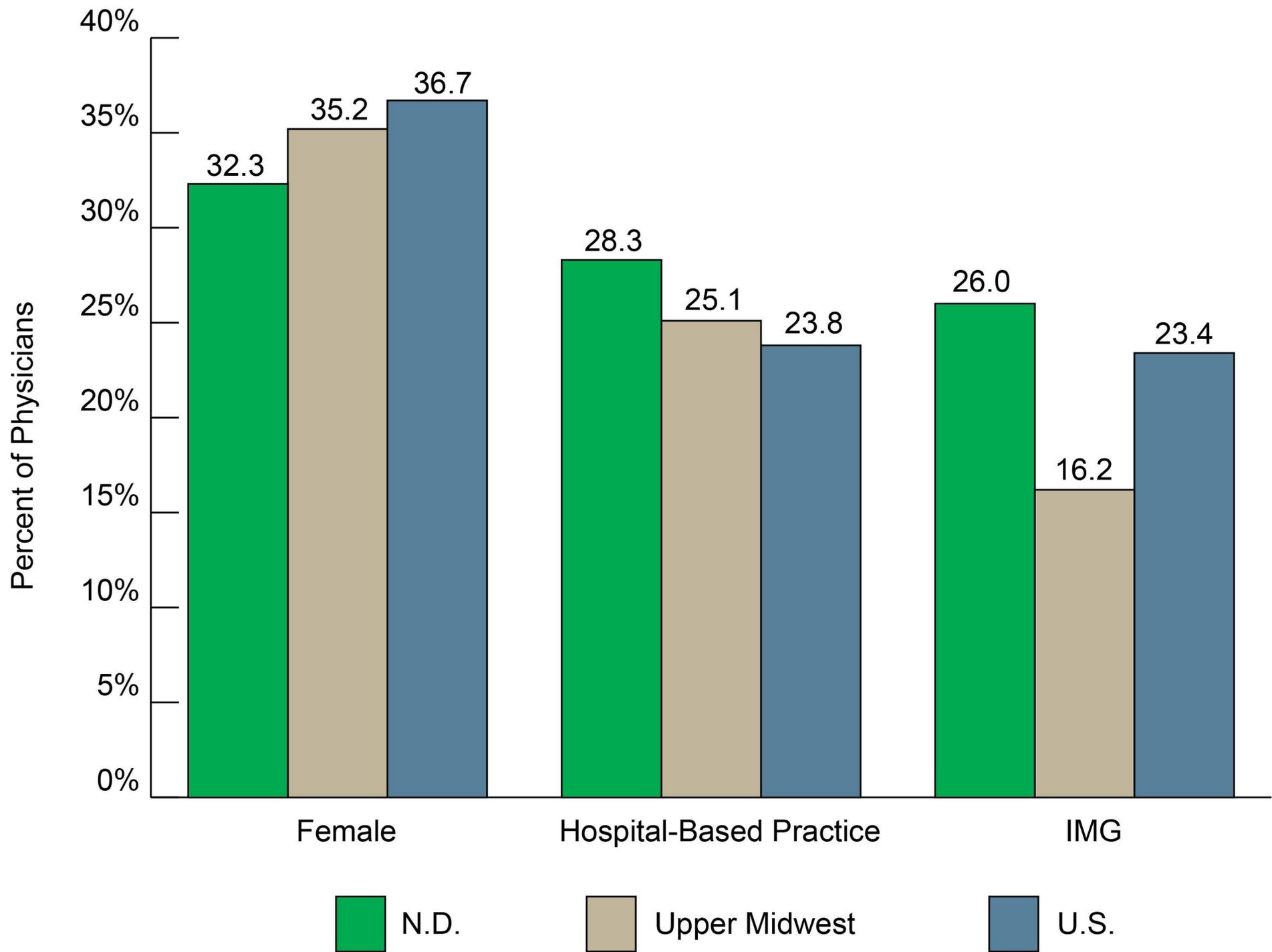


Figure 4.5. Select physician characteristics with comparisons, 2017.³

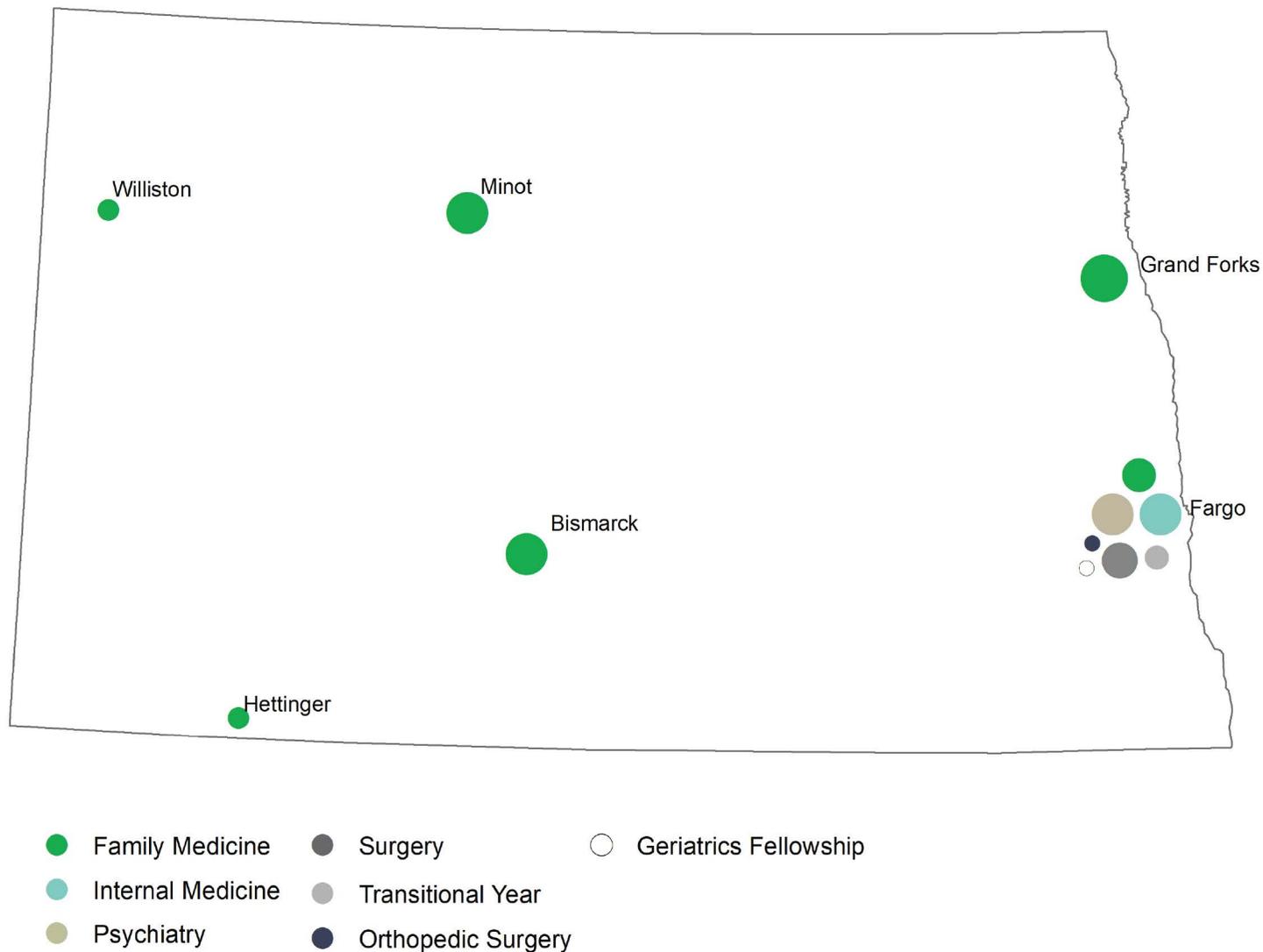


Figure 4.6. Number of residents per year in North Dakota by location and type of residency.⁷

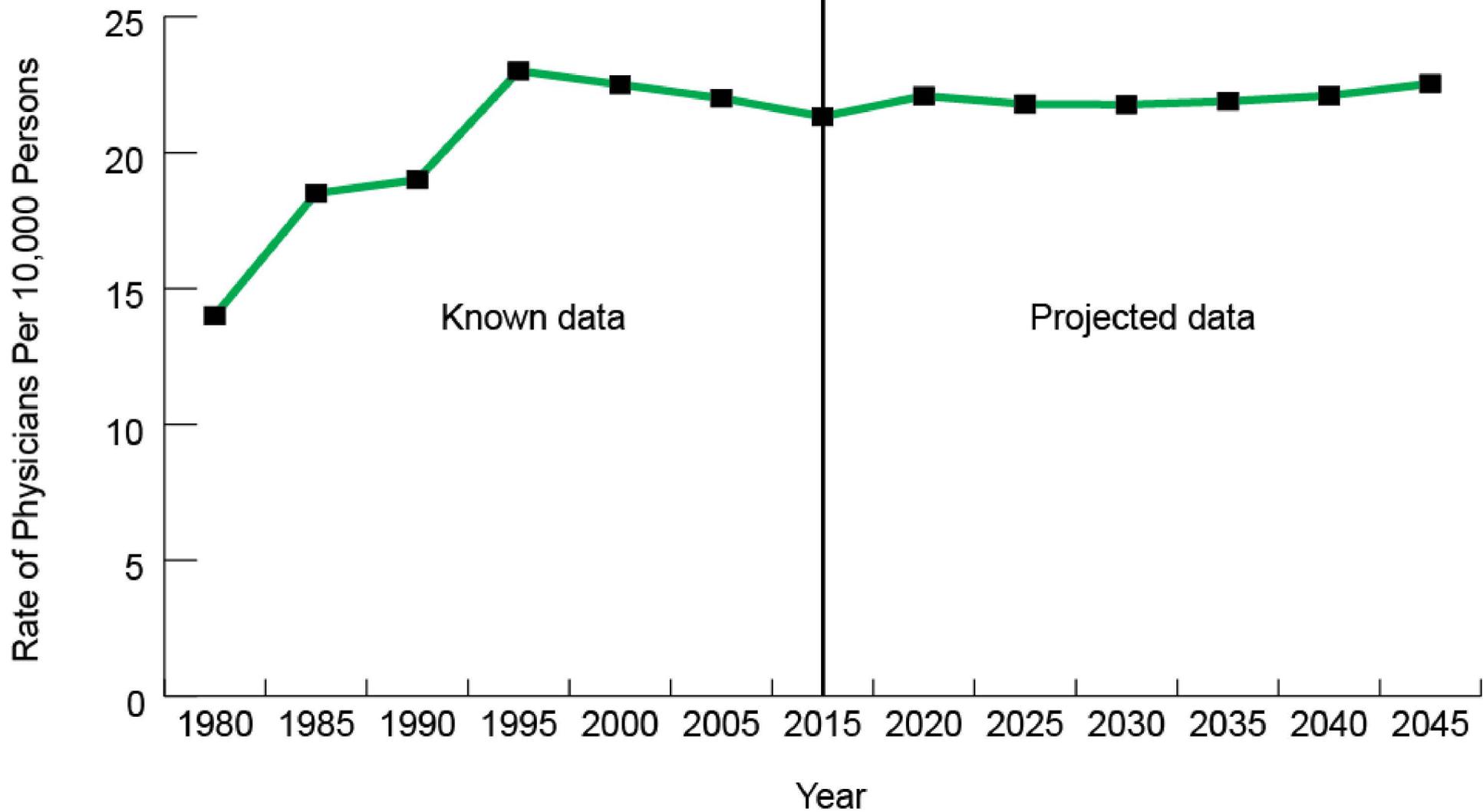
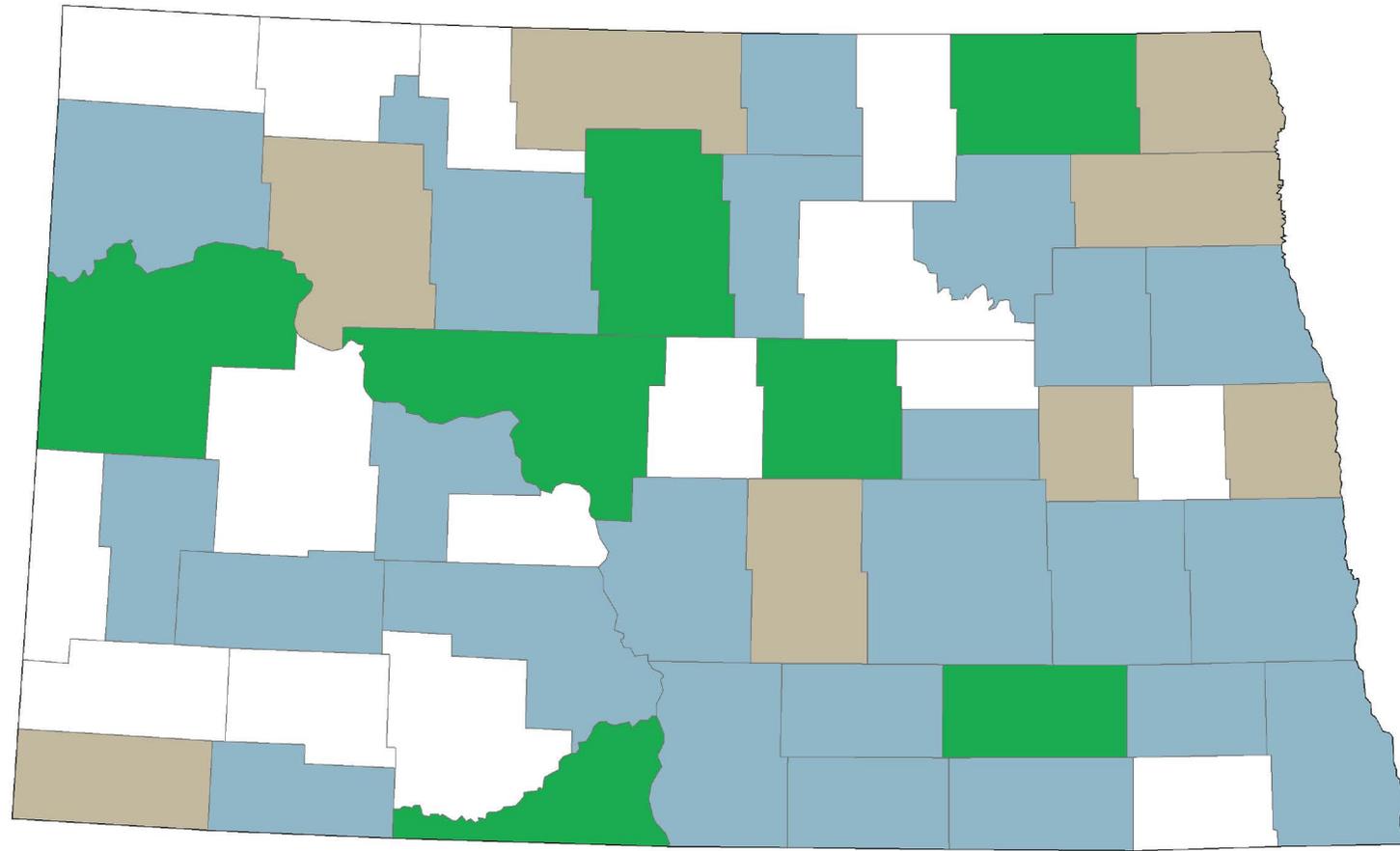


Figure 4.7. Projection of rate of physicians per 10,000 population.^{1,2,5,10,12}

Chapter 5: Primary Care and Specialty Provider Workforce in North Dakota



Population per primary care physician



Figure 5.1. Population per primary care physician in North Dakota, by county, 2019.^{1,2}

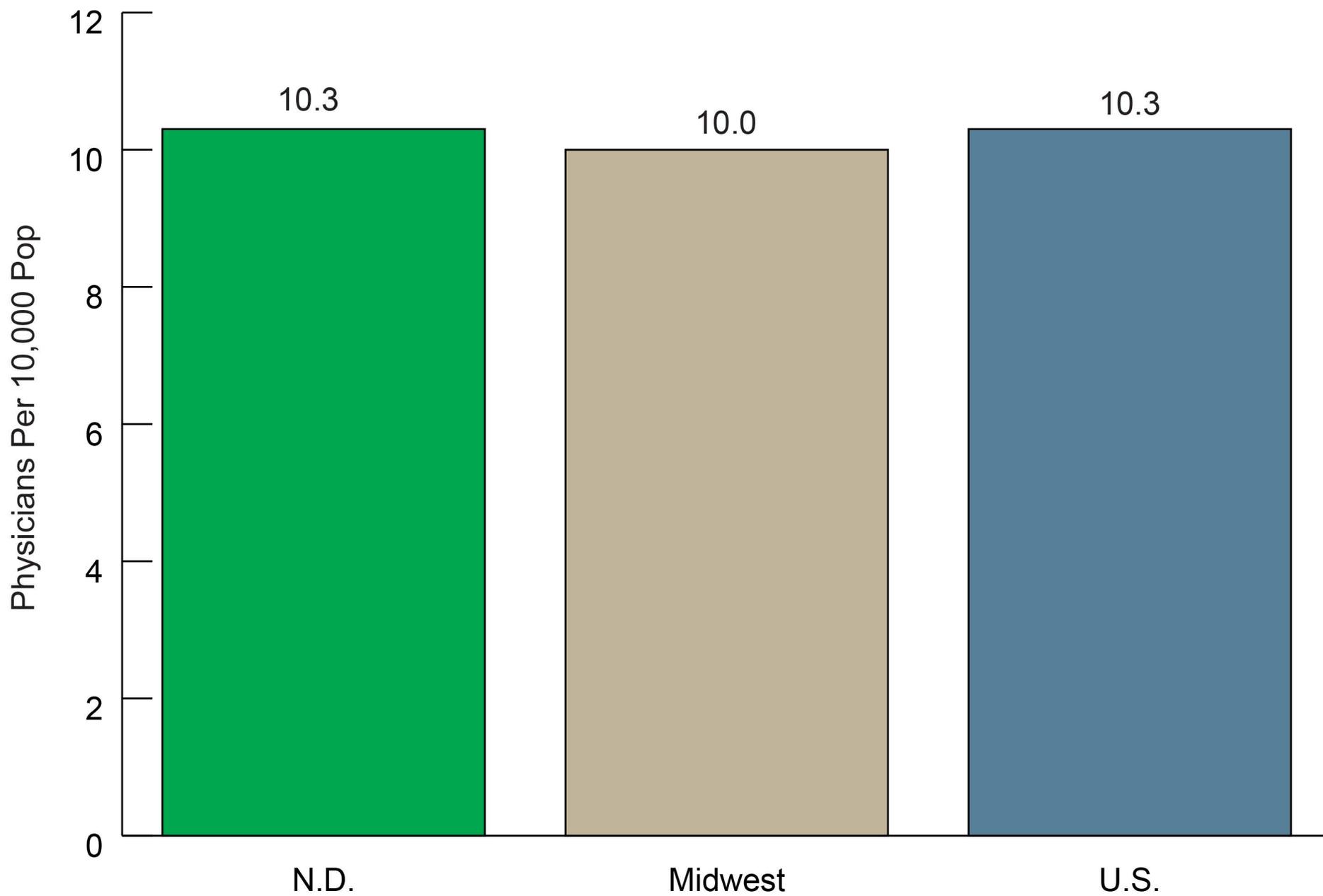


Figure 5.2. Primary care physicians per 10,000 population in North Dakota, the Upper Midwest, and the United States, 2017.^{2,3}

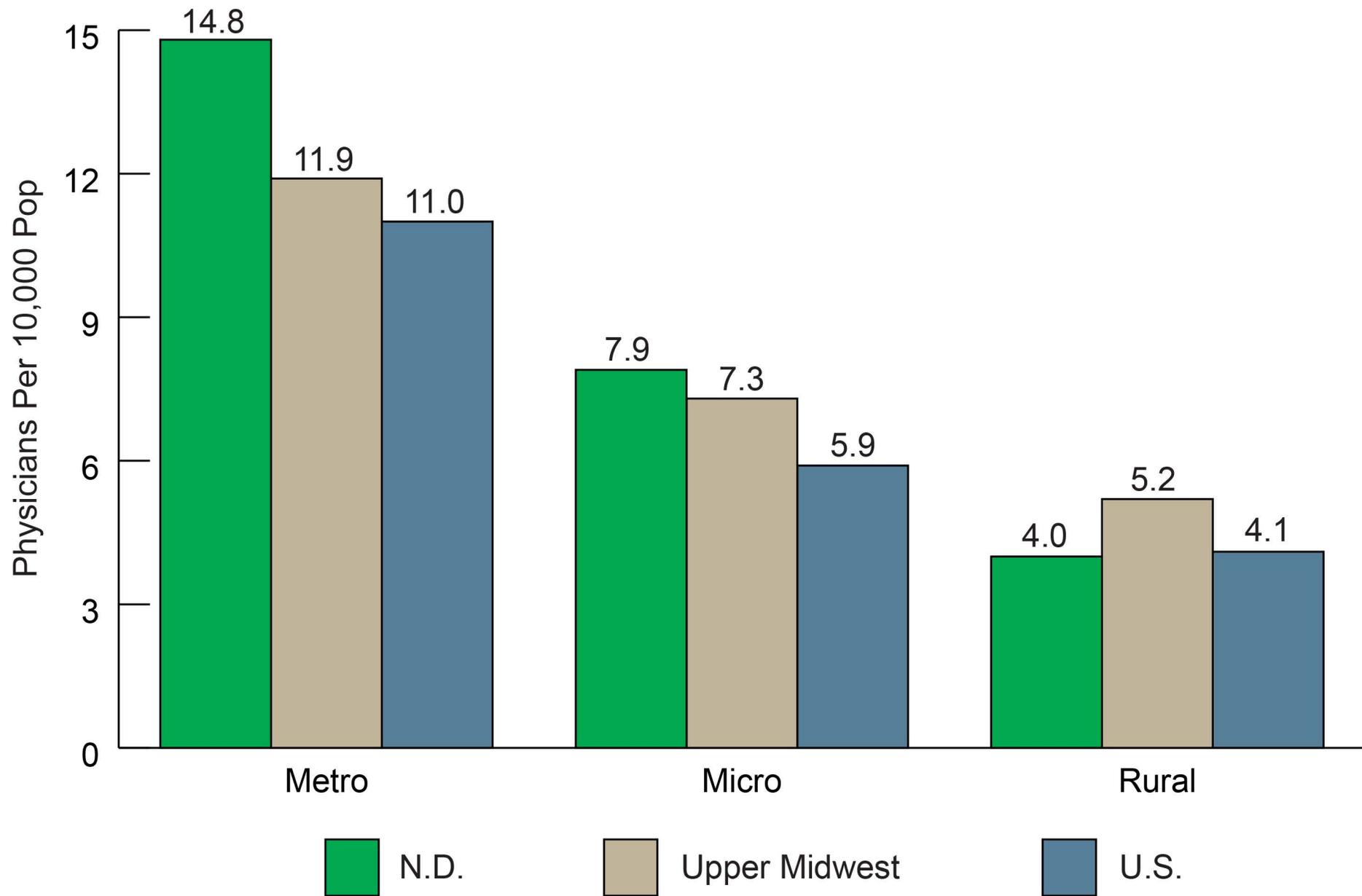


Figure 5.3. Primary care physicians per 10,000 population in North Dakota, with comparisons, 2017.^{2,3,4}

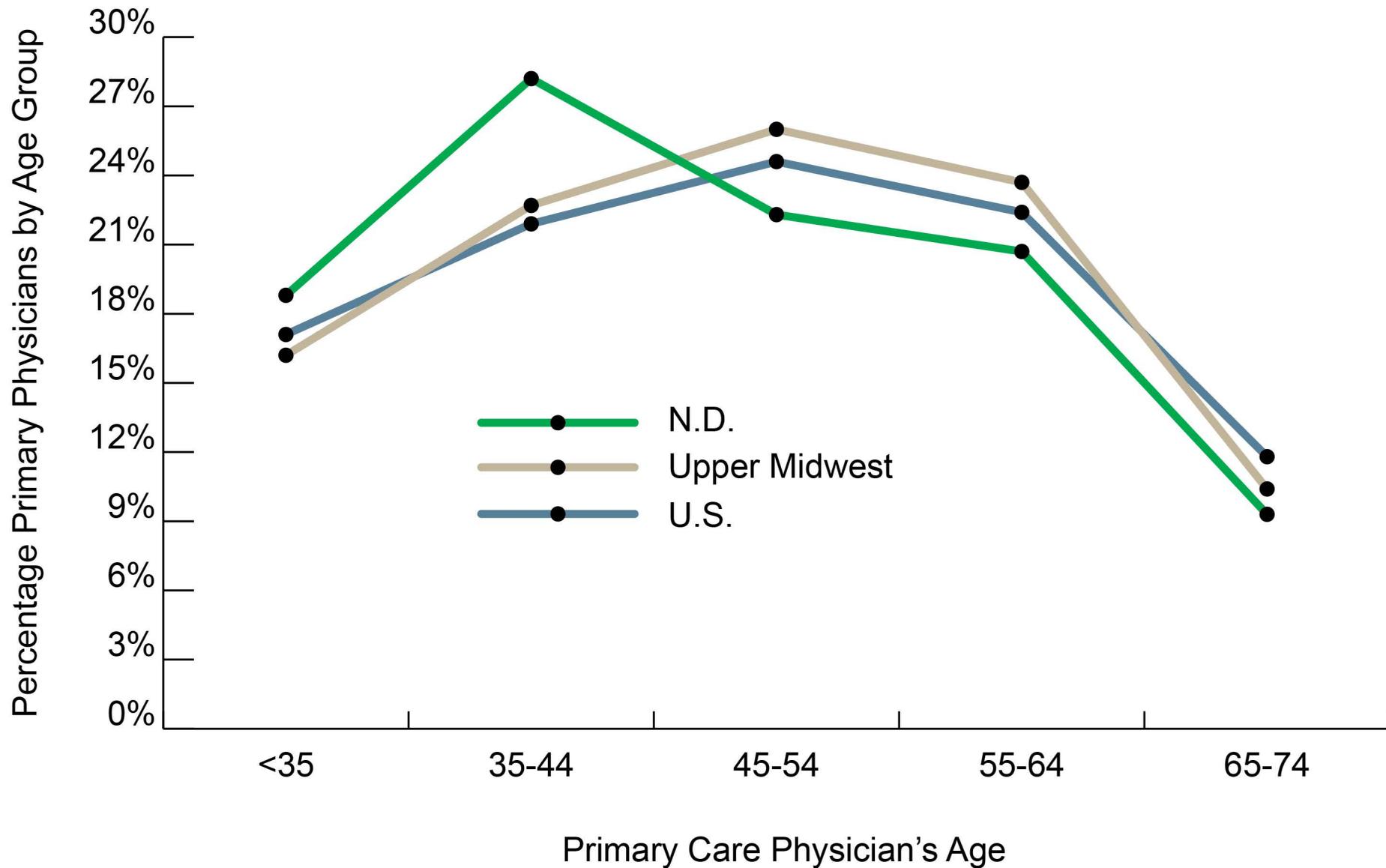


Figure 5.4. Percent of primary care physicians by age for North Dakota, with comparisons, 2017.^{3,4}

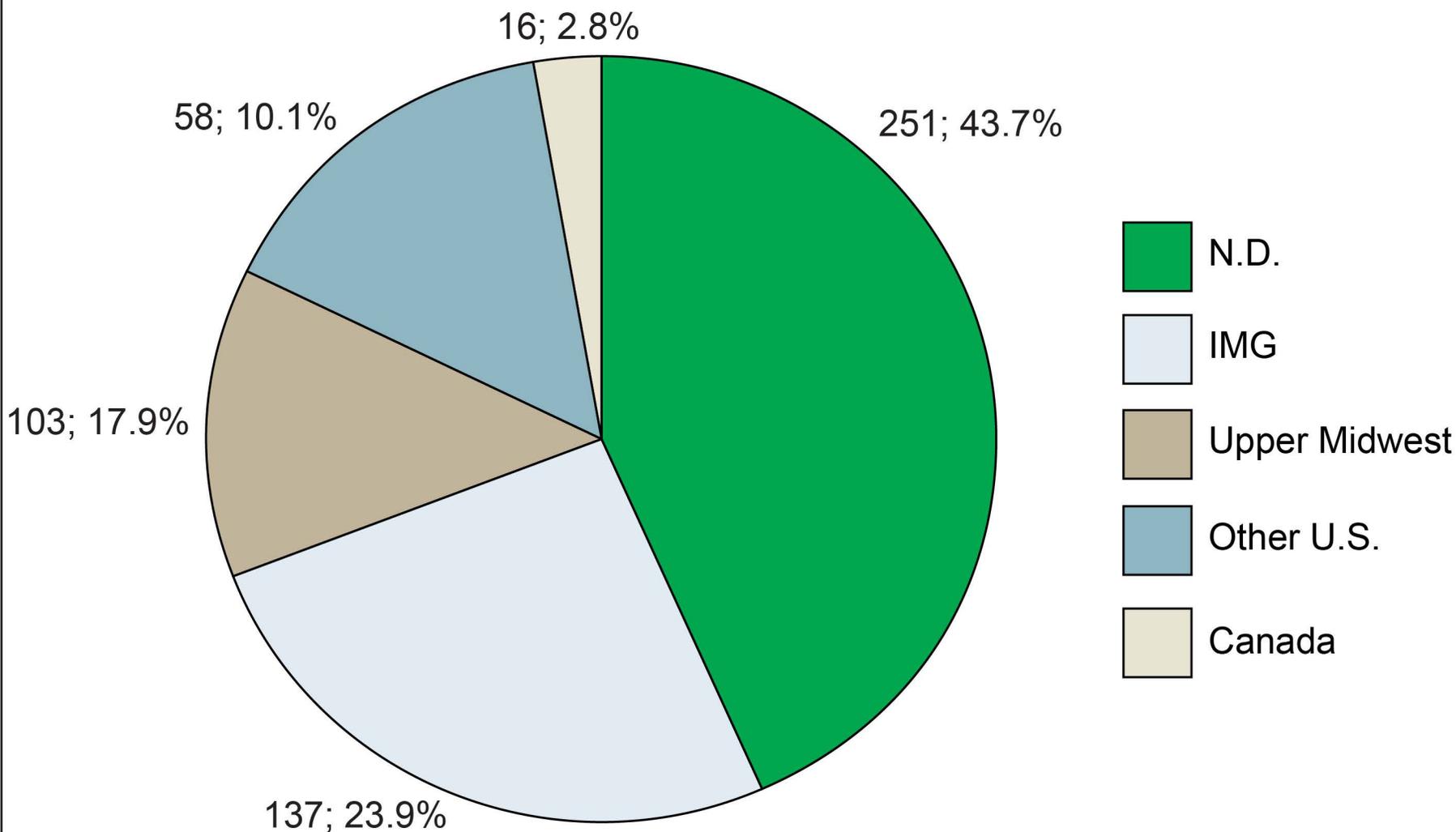


Figure 5.5. Locations where North Dakota primary care physicians graduated from medical school, 2019.¹

North Dakota’s primary care physicians graduated from medical schools from all over the United States and the world. UND SMHS graduates account for 43.7% of practicing primary care physicians in North Dakota. IMGs account for 23.9% and Canadian medical school graduates account for 2.8% (combined 26.7%) of North Dakota’s practicing primary care physicians. The rest of the Upper Midwest states account for 17.9% while the rest of the United States accounts for 10.1% (combined 28%) of North Dakota’s primary care physicians.

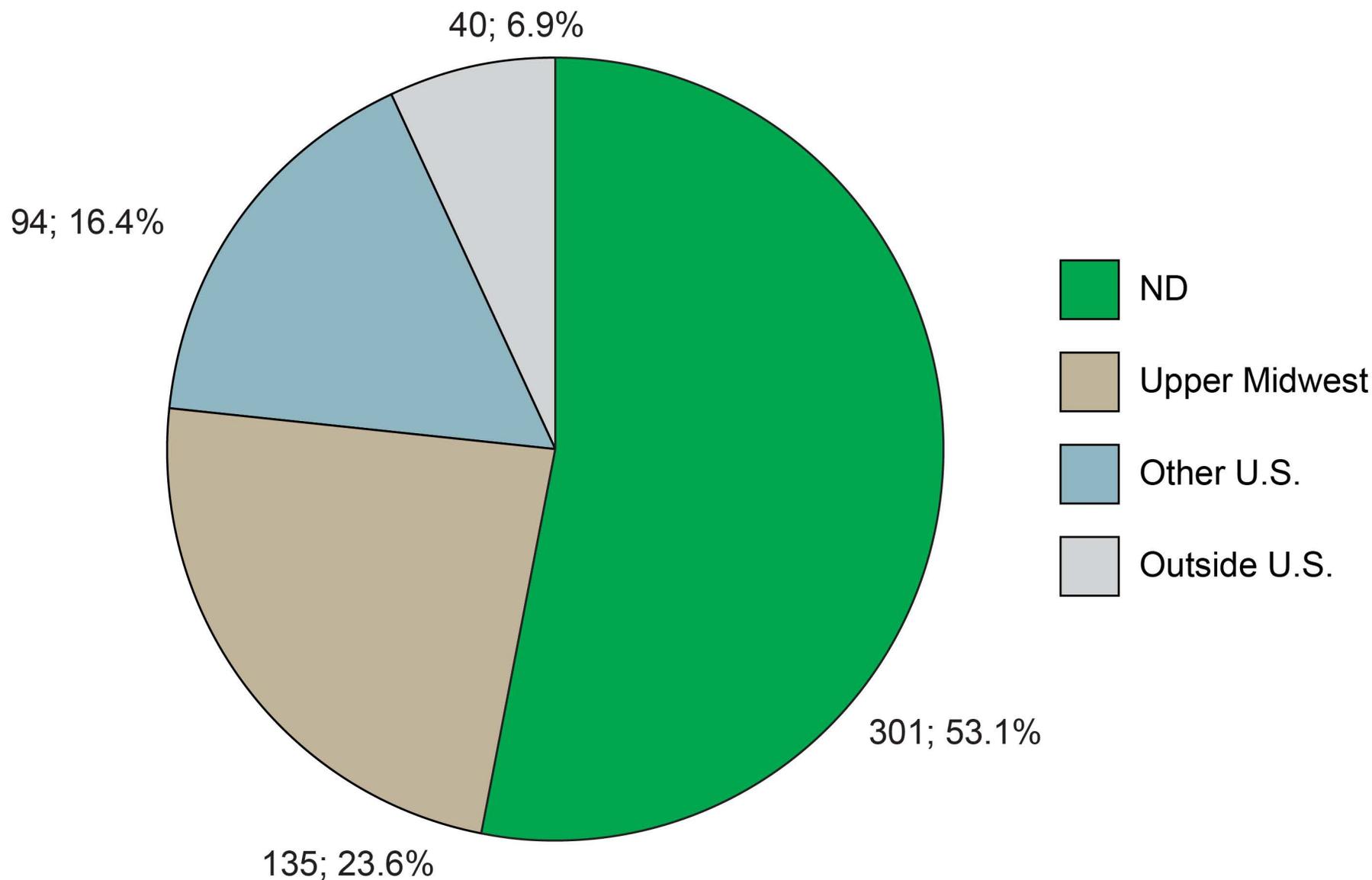


Figure 5.6. Locations where North Dakota primary care physicians completed their residency, 2019.¹

More than half (53.1%) of North Dakota's currently practicing primary care physicians completed their residency training in North Dakota. Primary care physicians who graduated from residency programs outside of North Dakota came from the Midwest (23.6%), other United States (16.4%), and Canada and other foreign (6.9%).

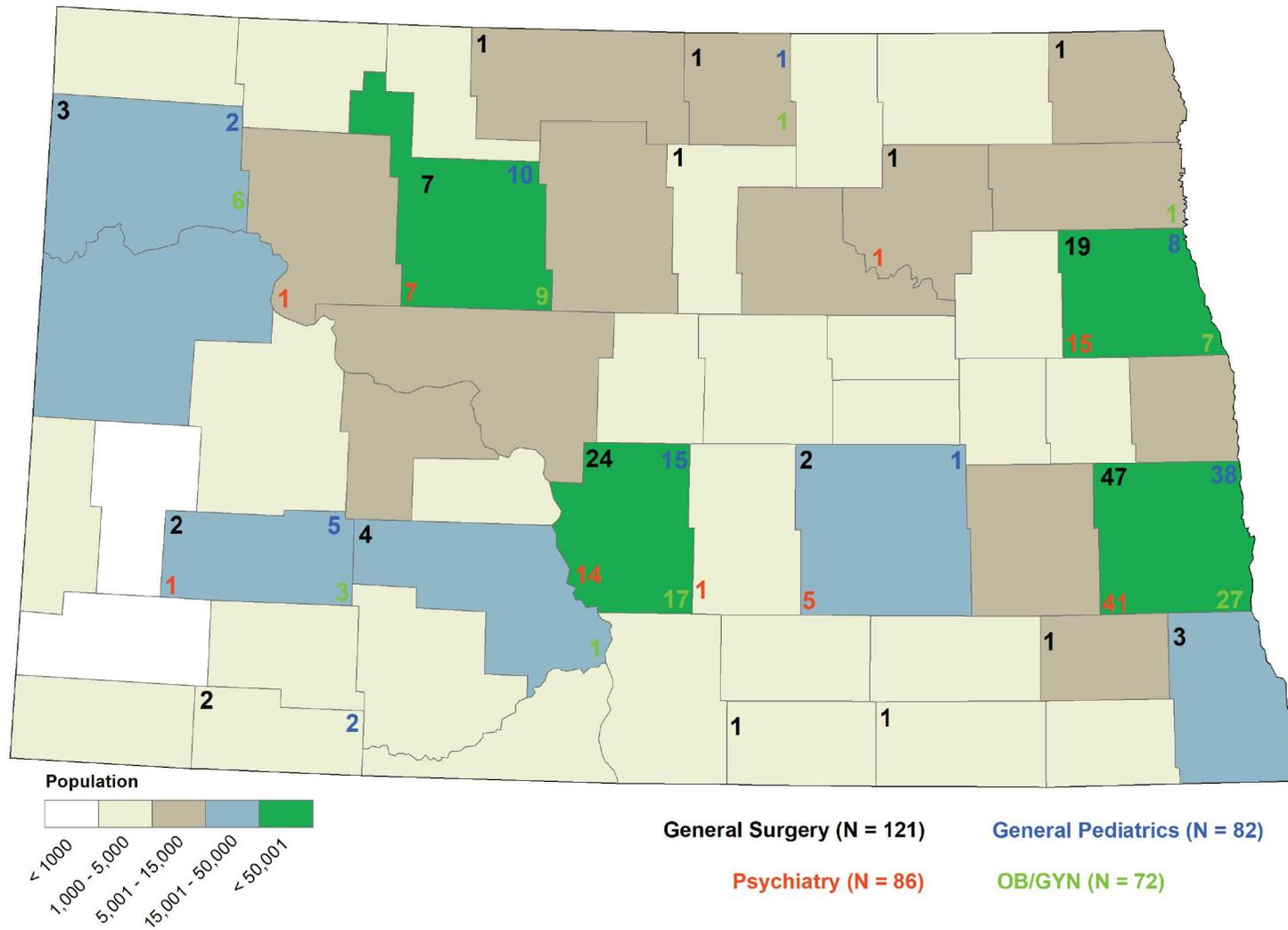


Figure 5.7. Location of specialty physicians in North Dakota, 2019.¹

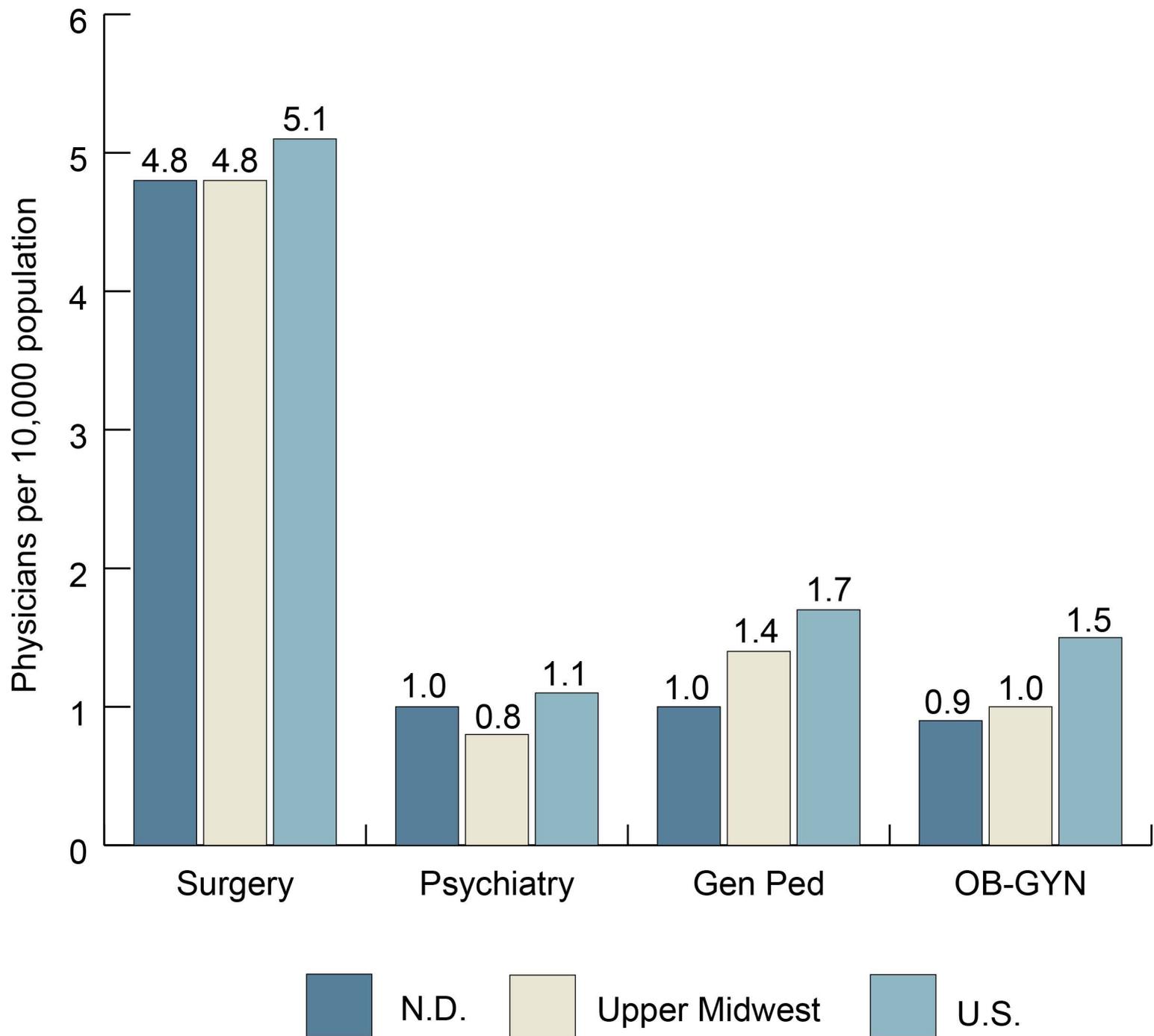


Figure 5.8. Surgeons, psychiatrists, general pediatricians, and OB-GYNs per 10,000 population in North Dakota with comparisons.^{2,3,4}

Chapter 6: Nursing Workforce in North Dakota

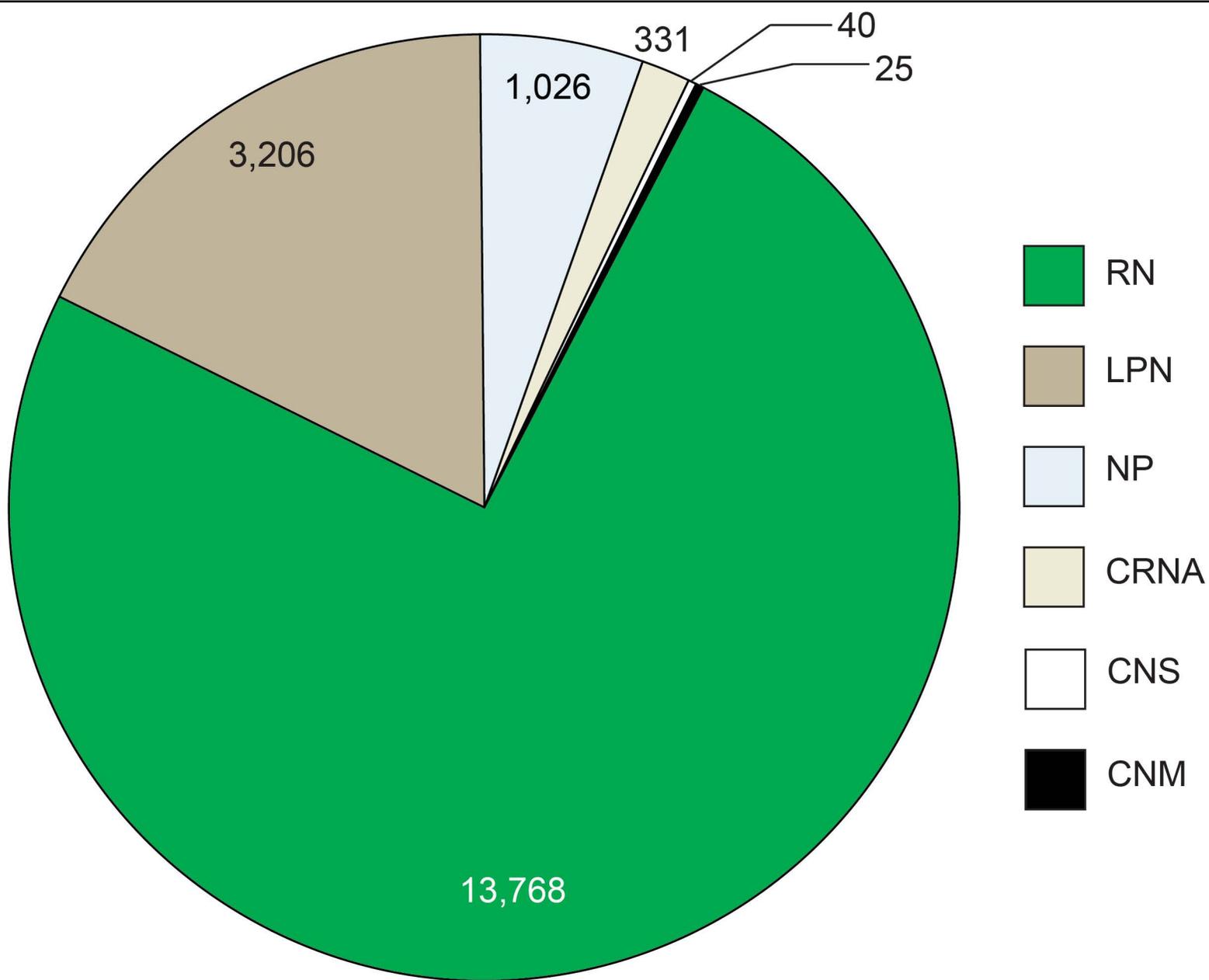


Figure 6.1. Total number of licensed nurses in North Dakota by role.¹

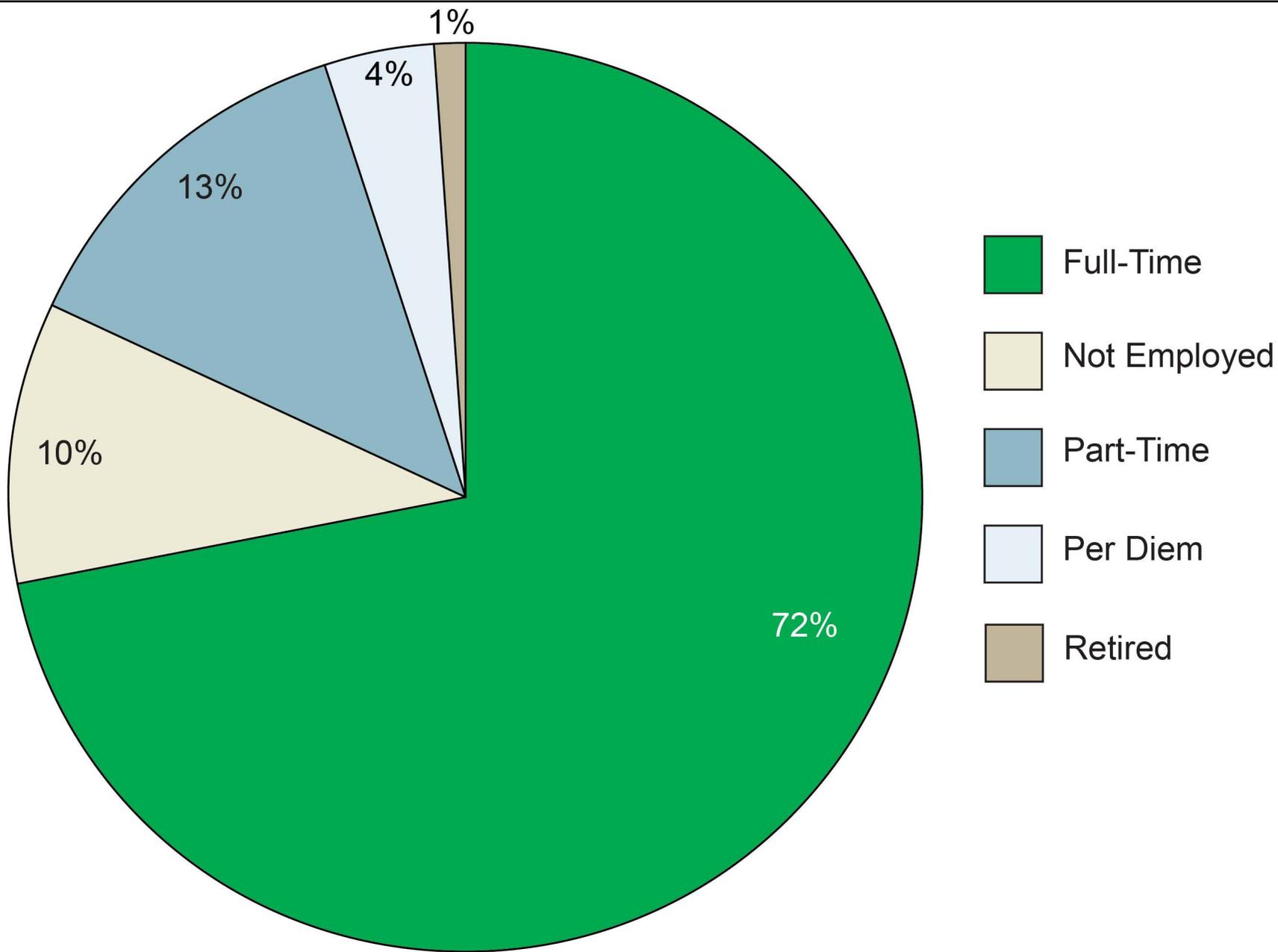


Figure 6.2. Employment status totals for all nursing roles.¹

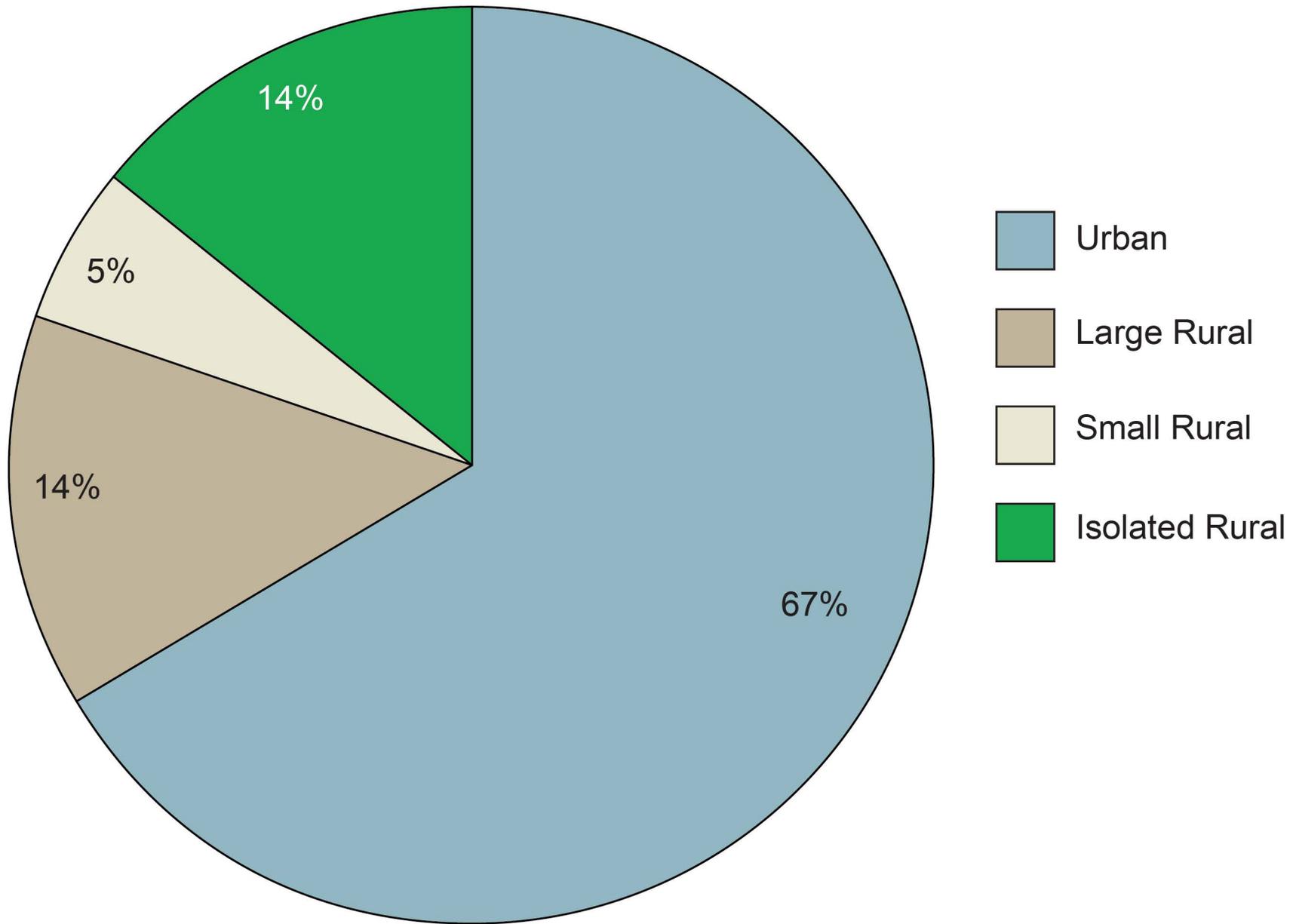


Figure 6.3. Nursing employer location by rural designation.¹

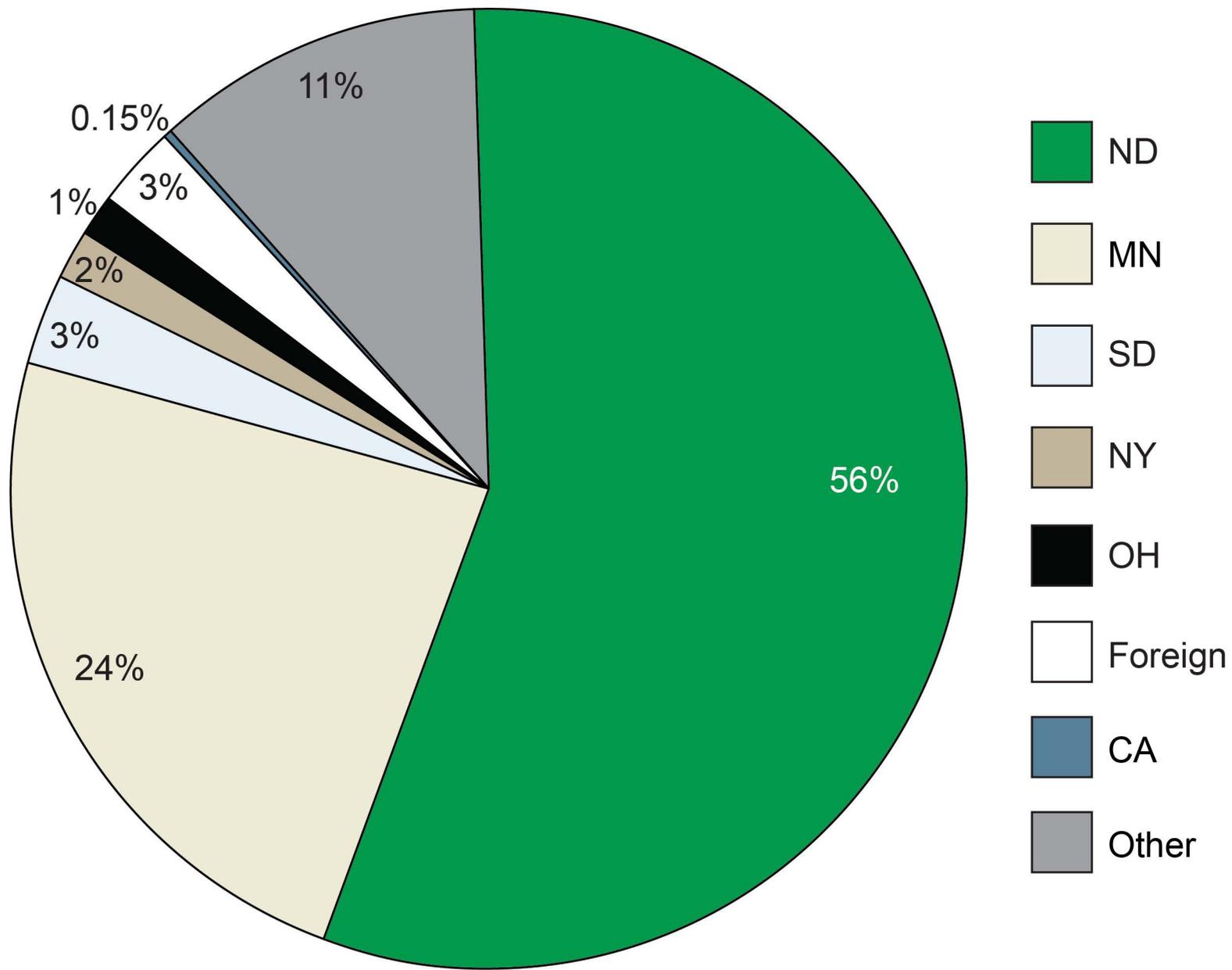


Figure 6.4. Nurses licensed in ND and their state of educational preparation (Other = states with n<185).¹

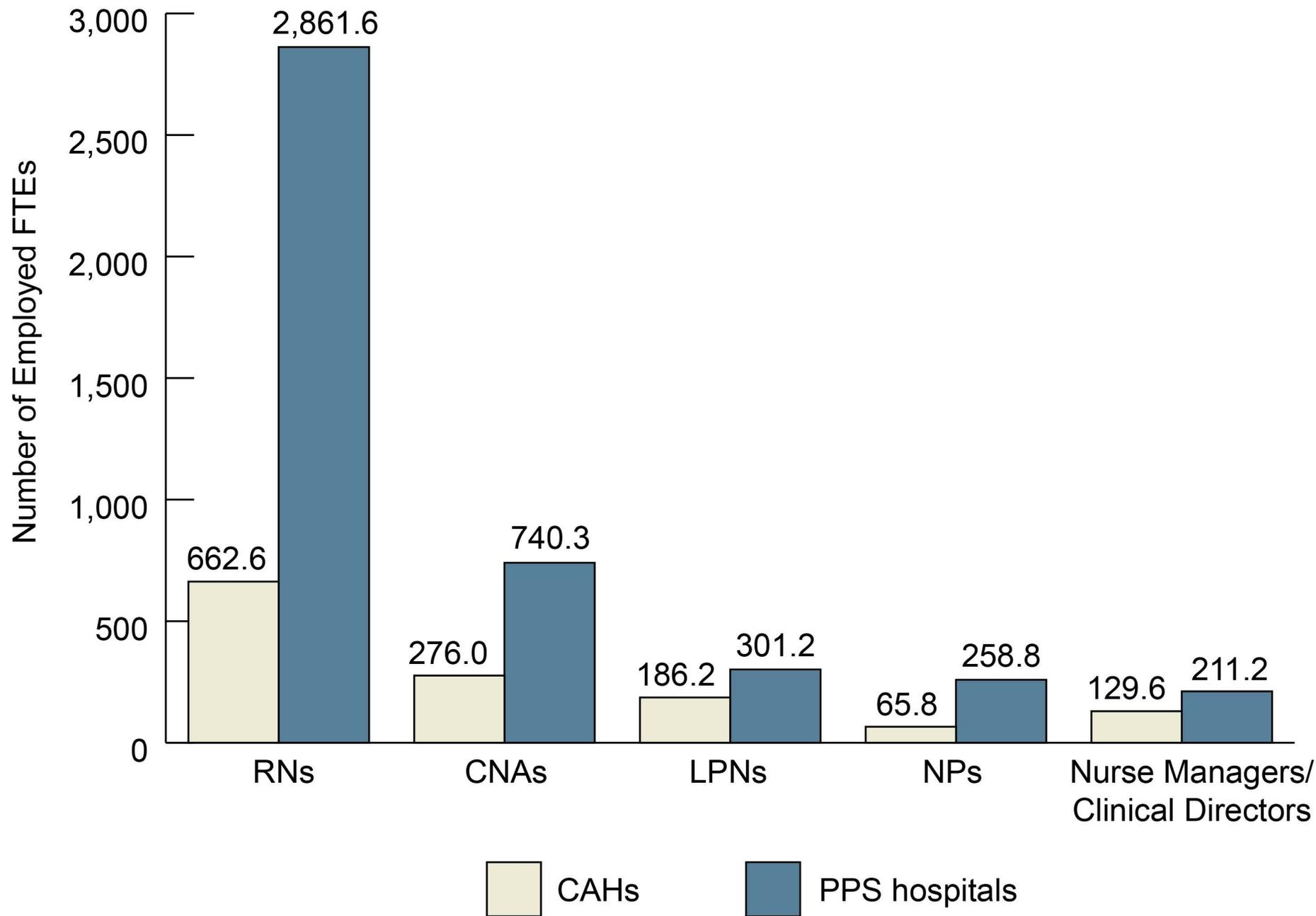


Figure 6.5. CAH and PPS hospital workforce FTE internal and contract employees by nursing position type.³

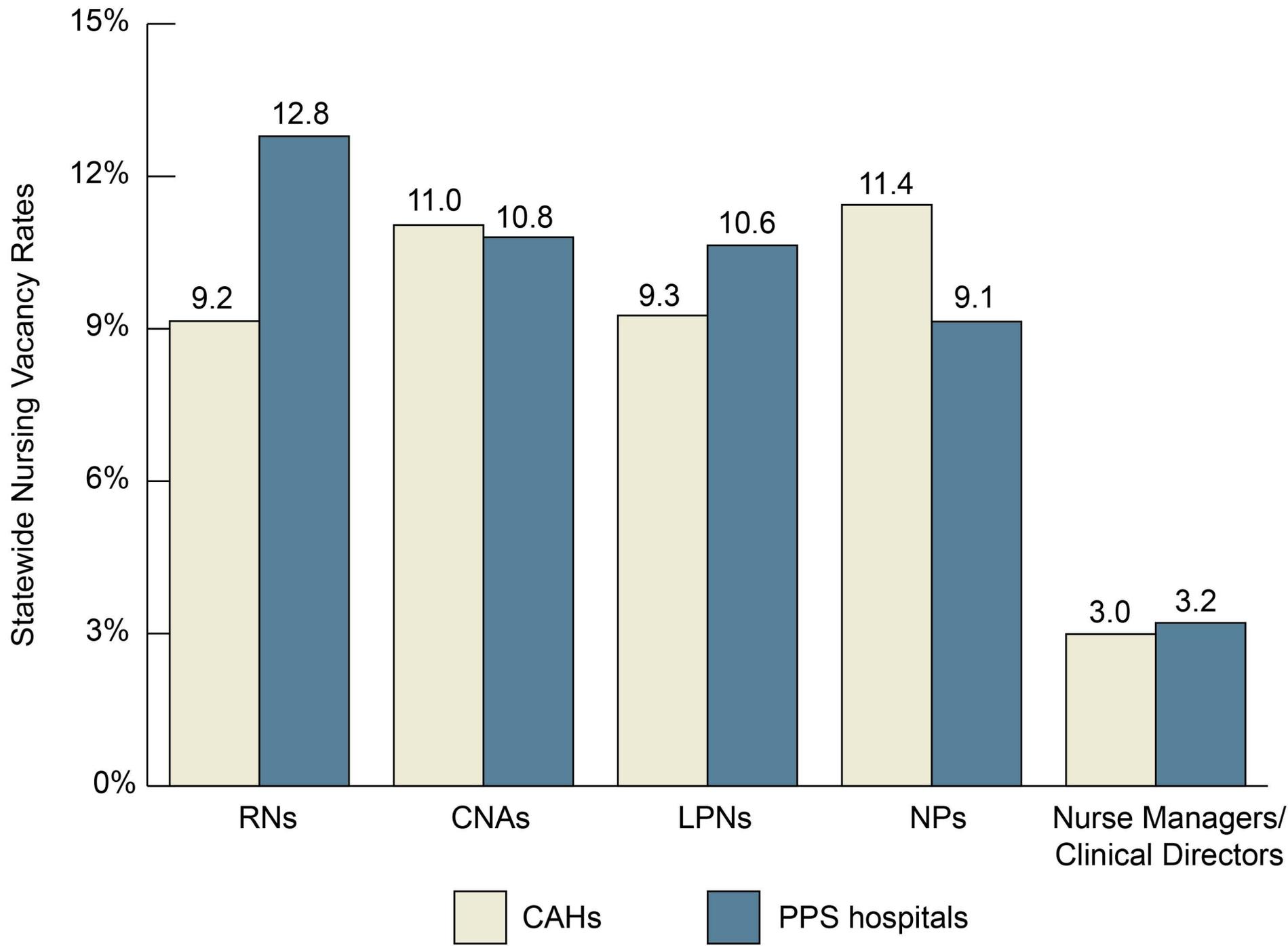


Figure 6.6. Statewide CAH and PPS hospital nursing workforce vacancy rates.³

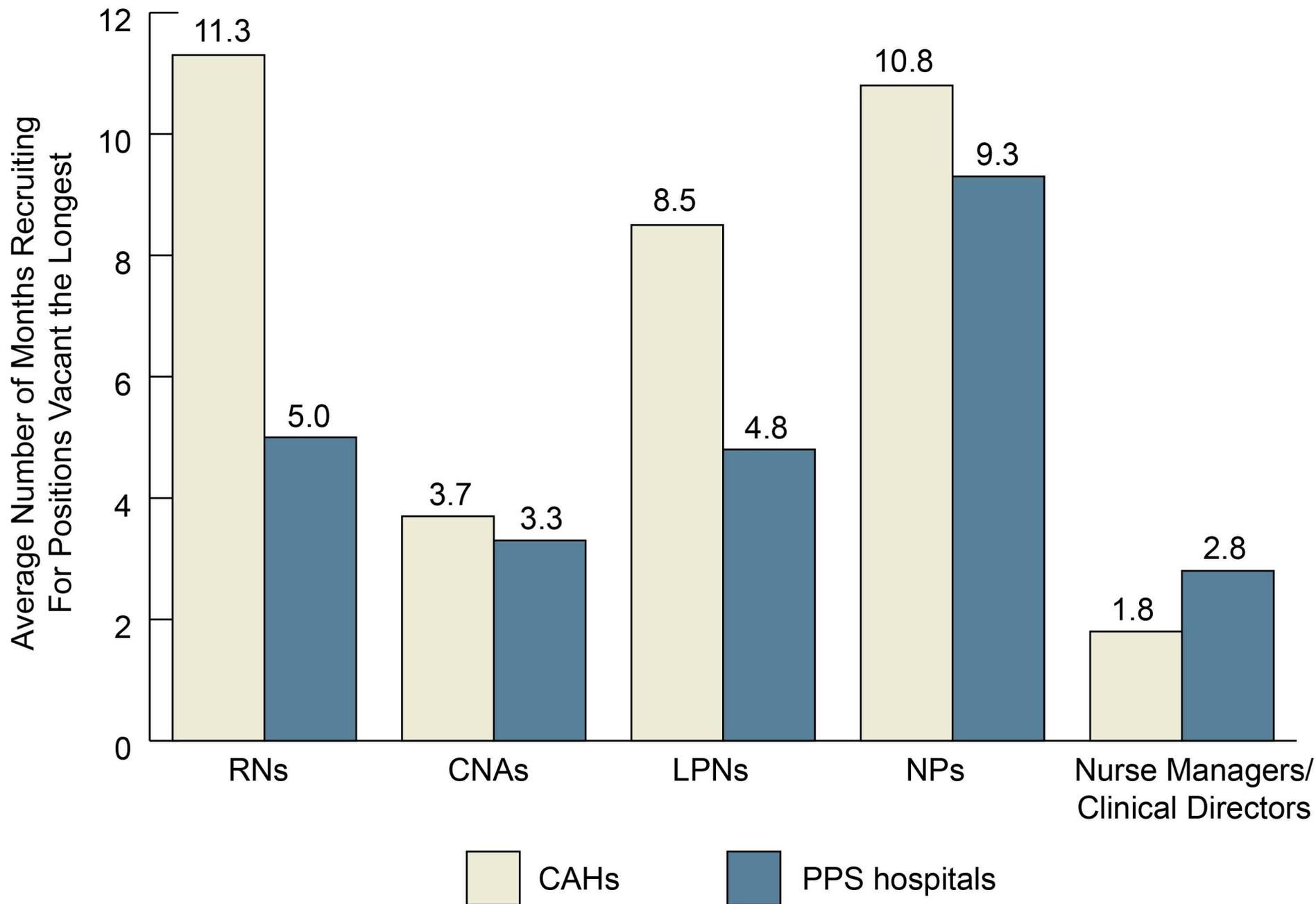


Figure 6.7. Number of months vacant positions existed in CAHs and PPS hospitals.³

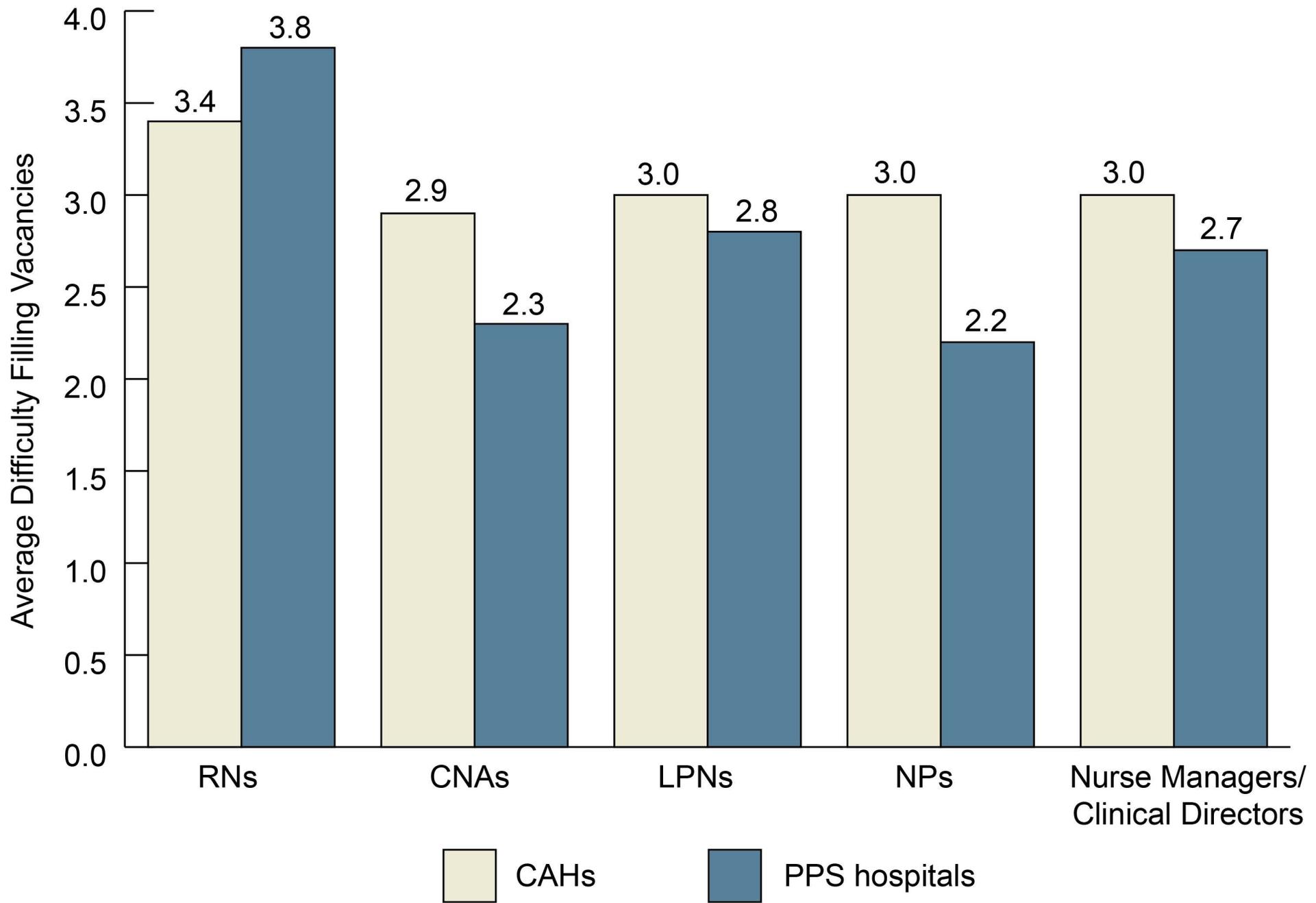


Figure 6.8. CAH and PPS hospital CEO ratings of difficulty recruiting by nurse position type.³

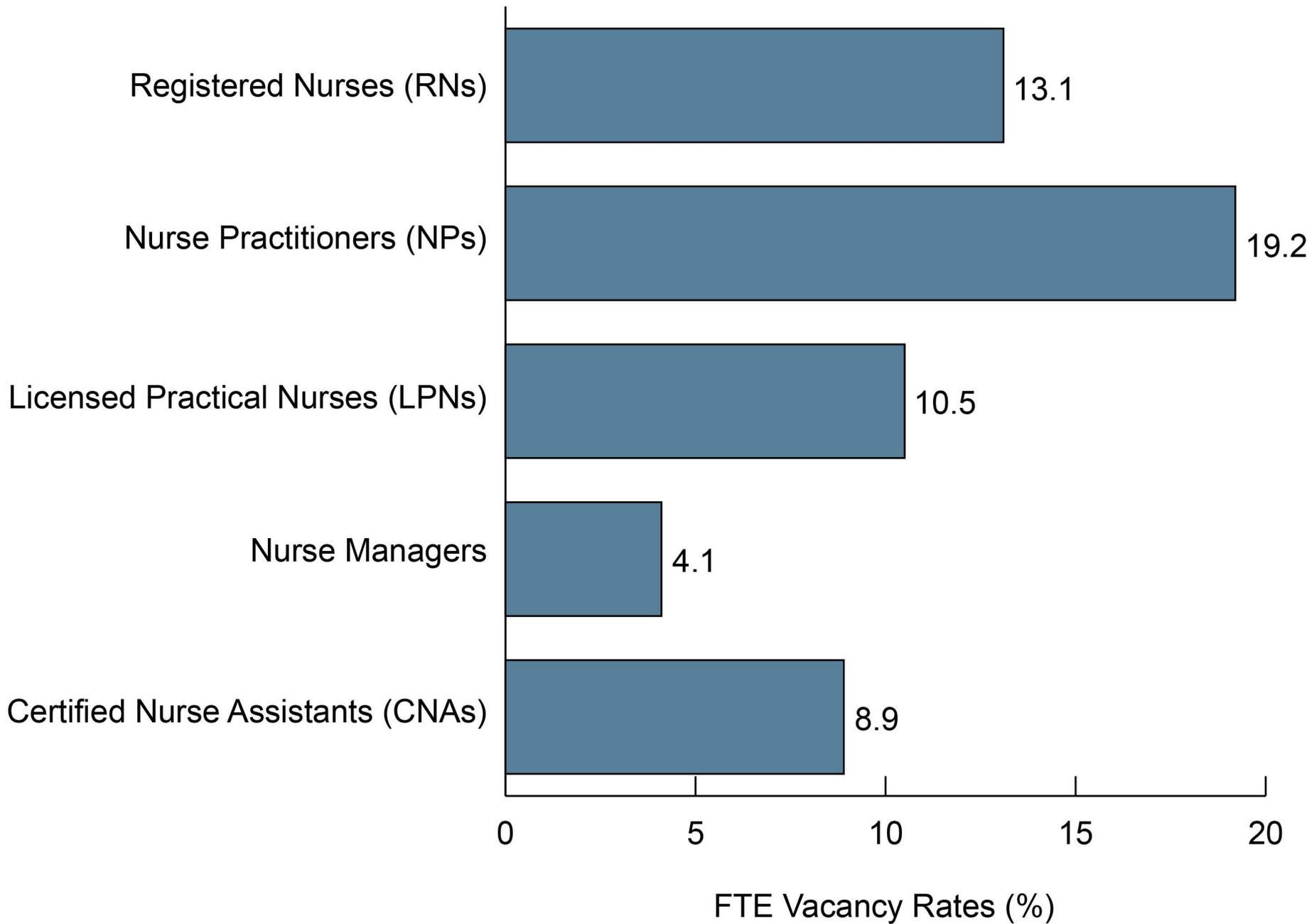


Figure 6.9. Statewide nursing facility workforce vacancy rates.⁴

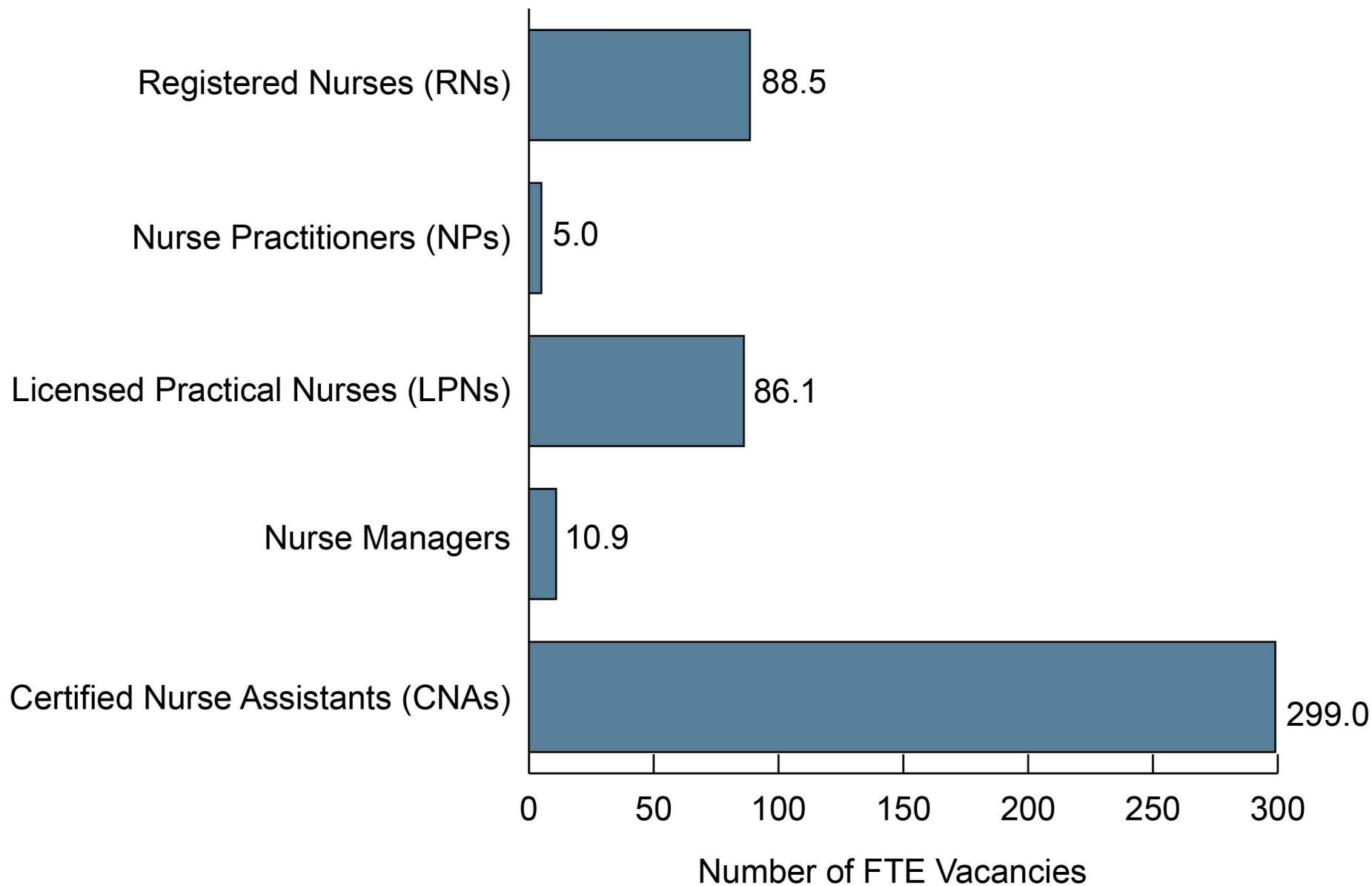


Figure 6.10. Statewide nursing facility workforce FTE vacancies by nursing position type.⁴

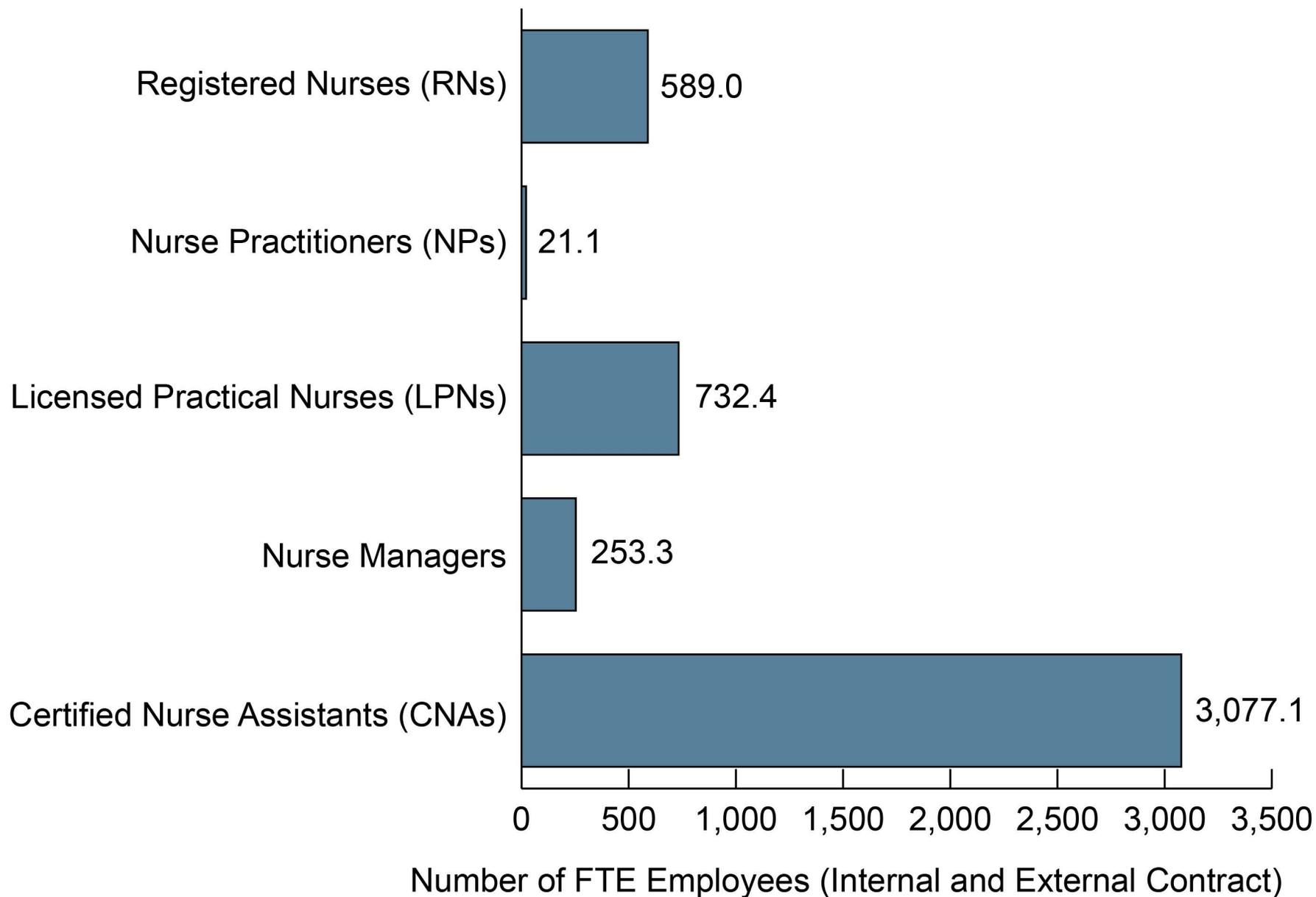


Figure 6.11. Nursing facility workforce FTE internal and contract employees by nursing position type.⁴

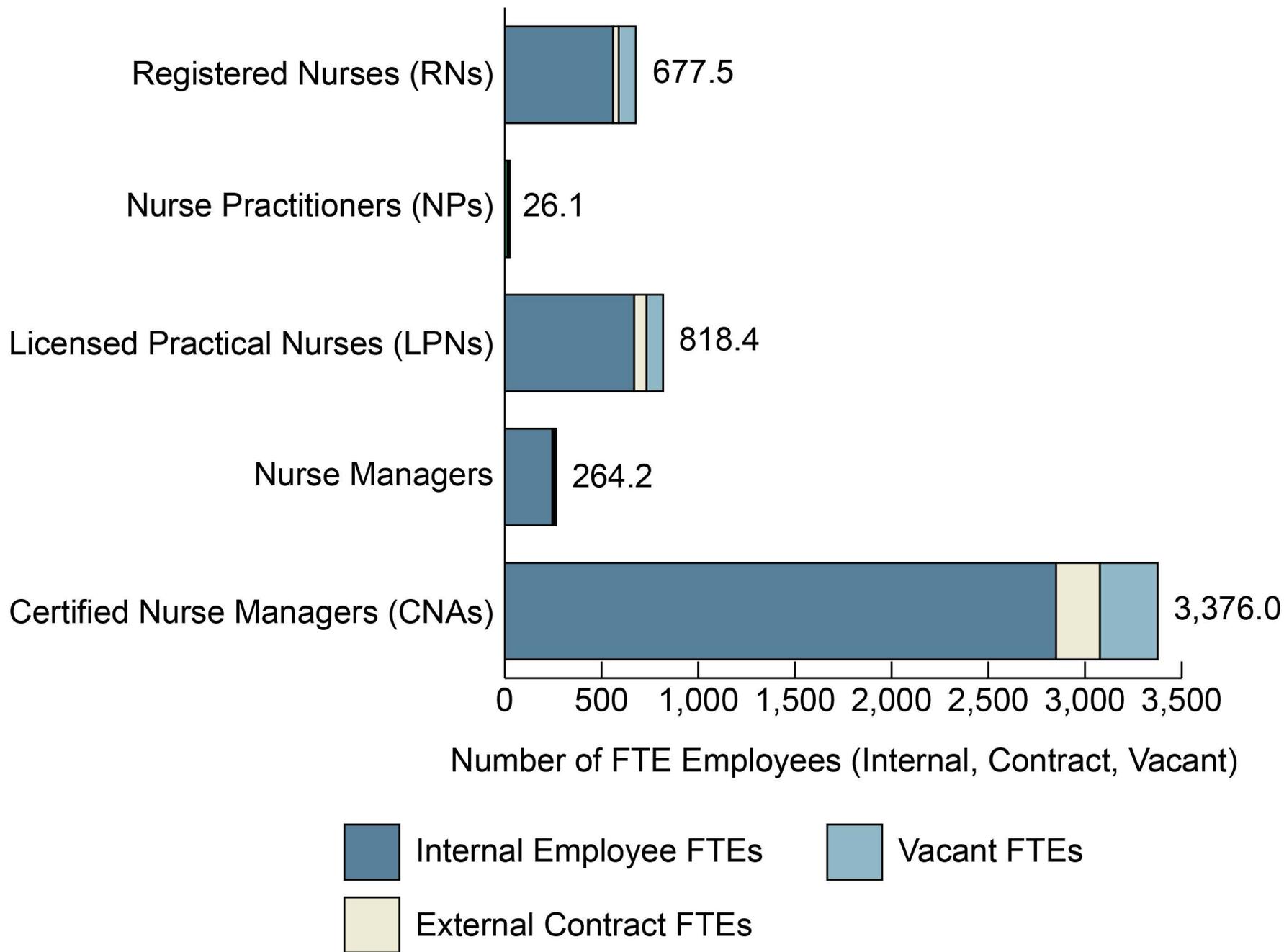


Figure 6.12. Nursing facility workforce FTE internal/contract employees/vacancies to nursing position type.⁴

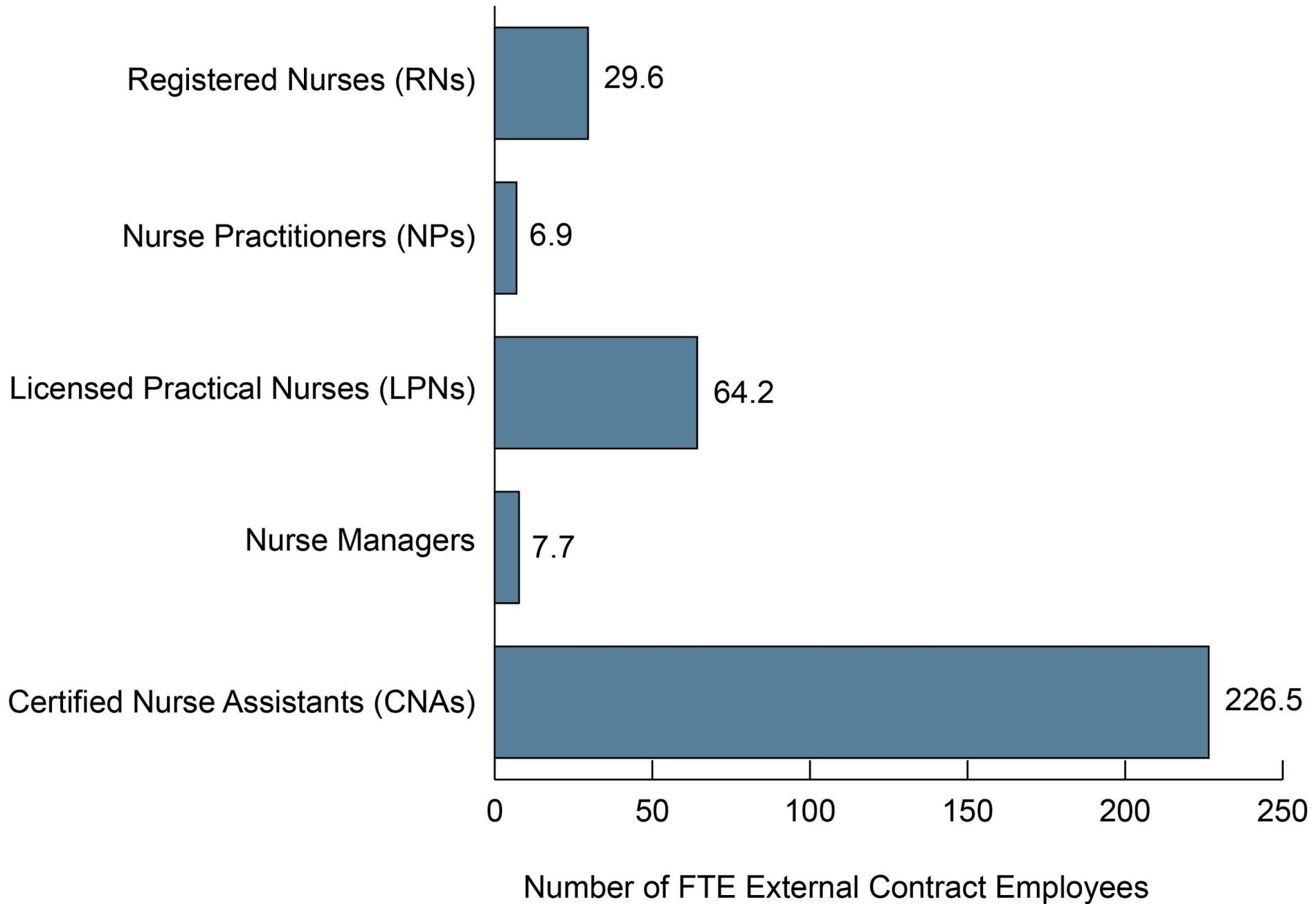


Figure 6.13. Statewide nursing facility workforce FTE contract employees by nursing position type.⁴

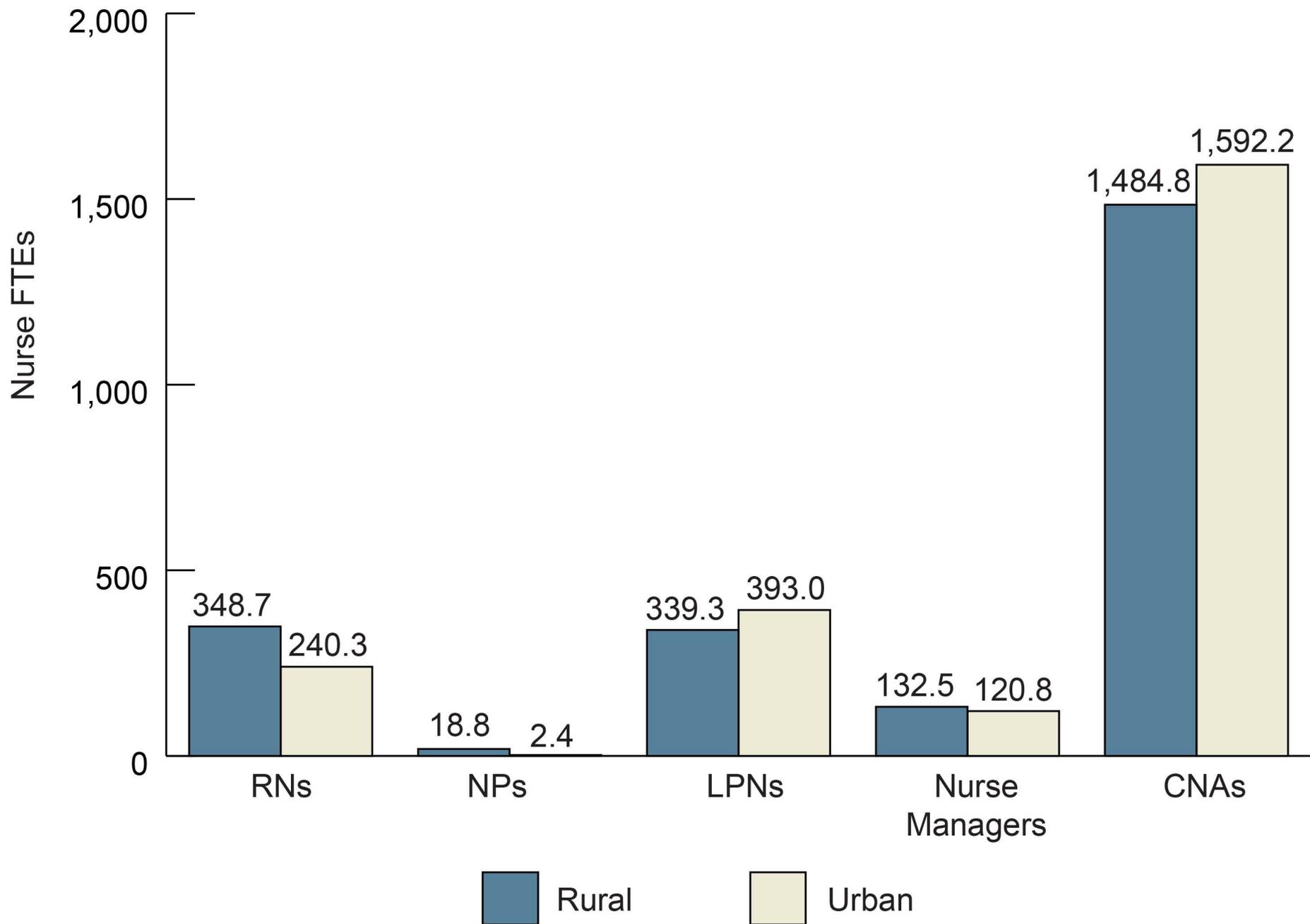


Figure 6.14. Statewide number of nurse FTEs employed by type.⁴

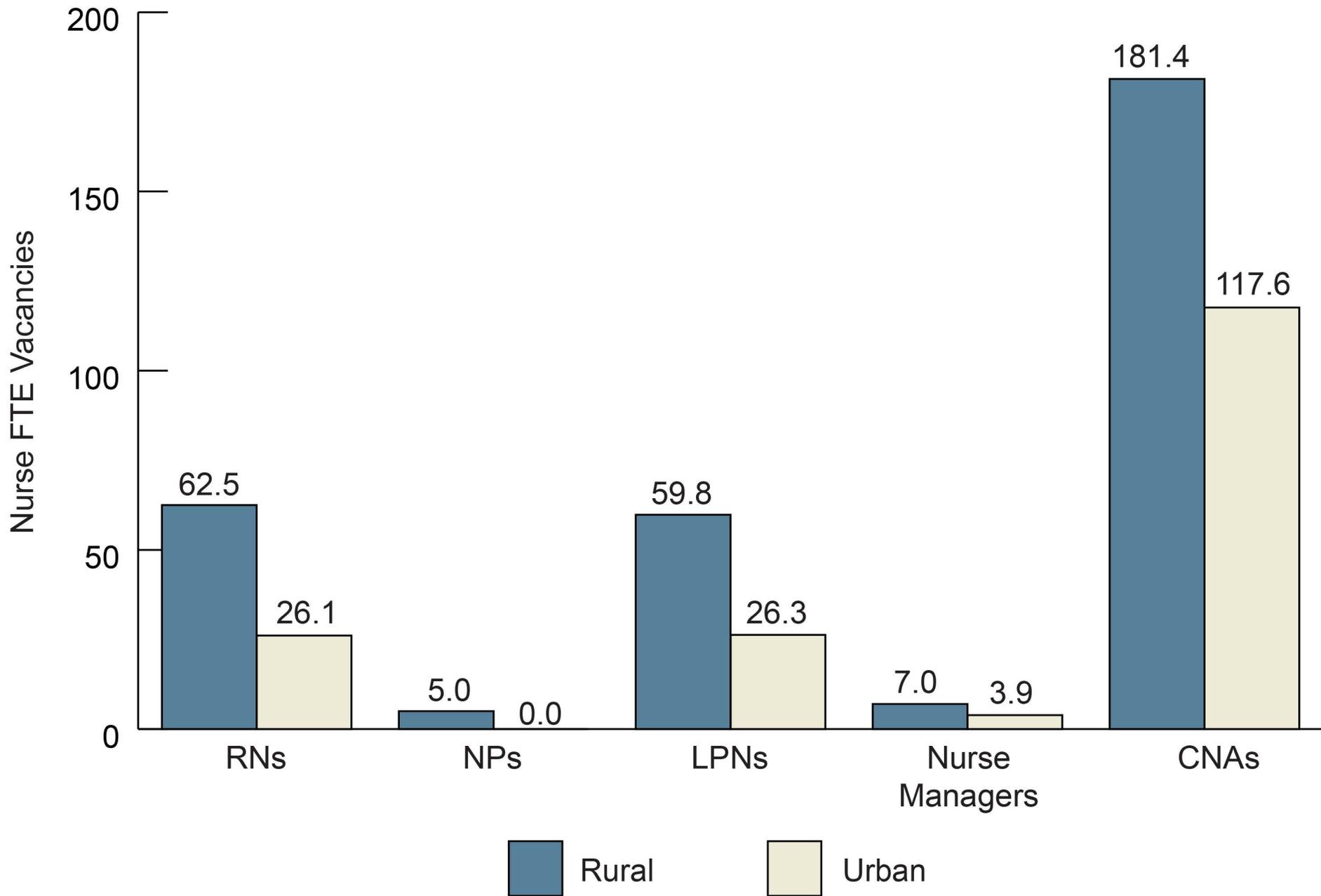


Figure 6.15. Statewide number of nurse FTE vacancies by type.⁴

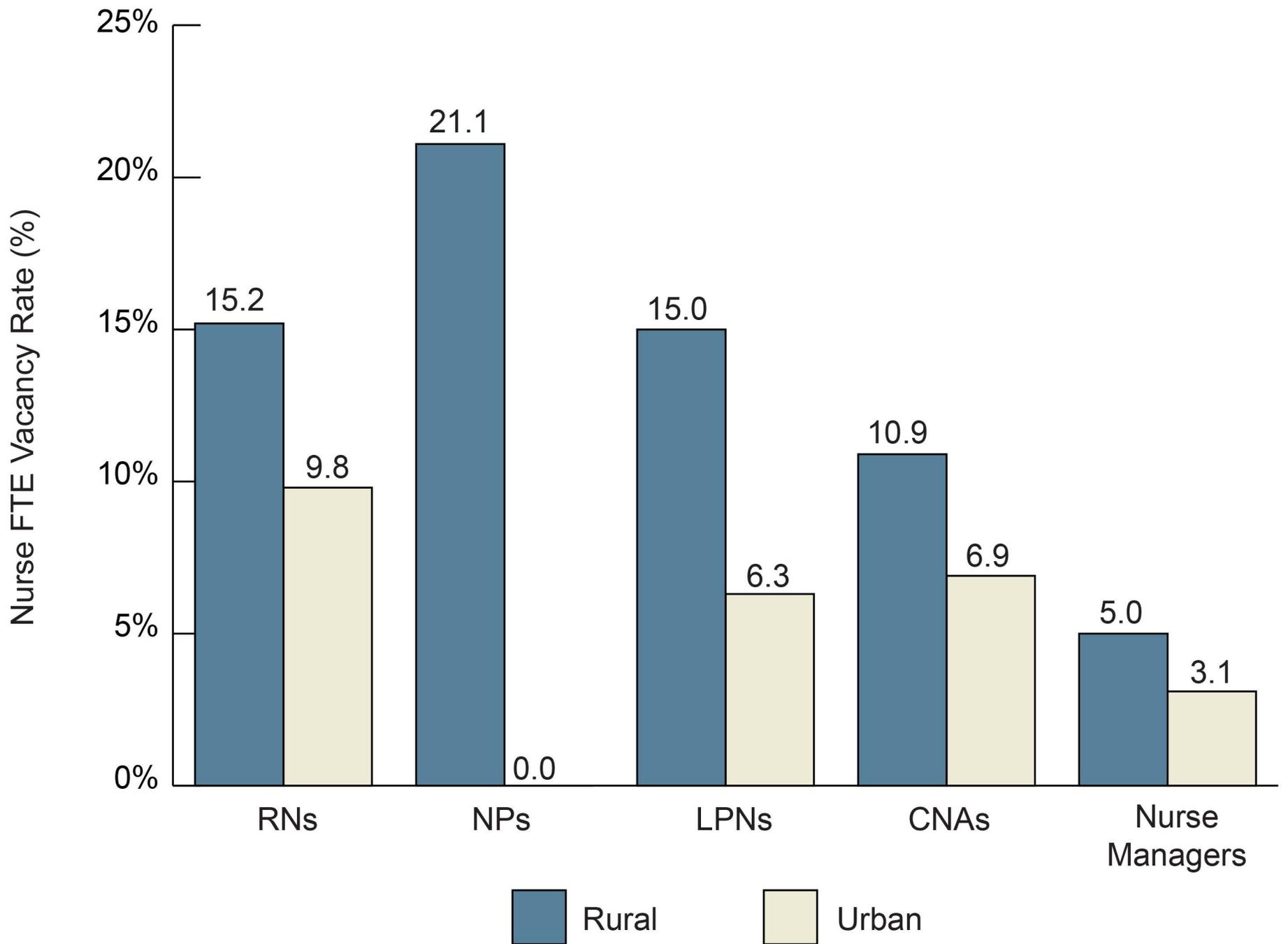


Figure 6.16. Statewide nurse FTE vacancy rates by type.⁴

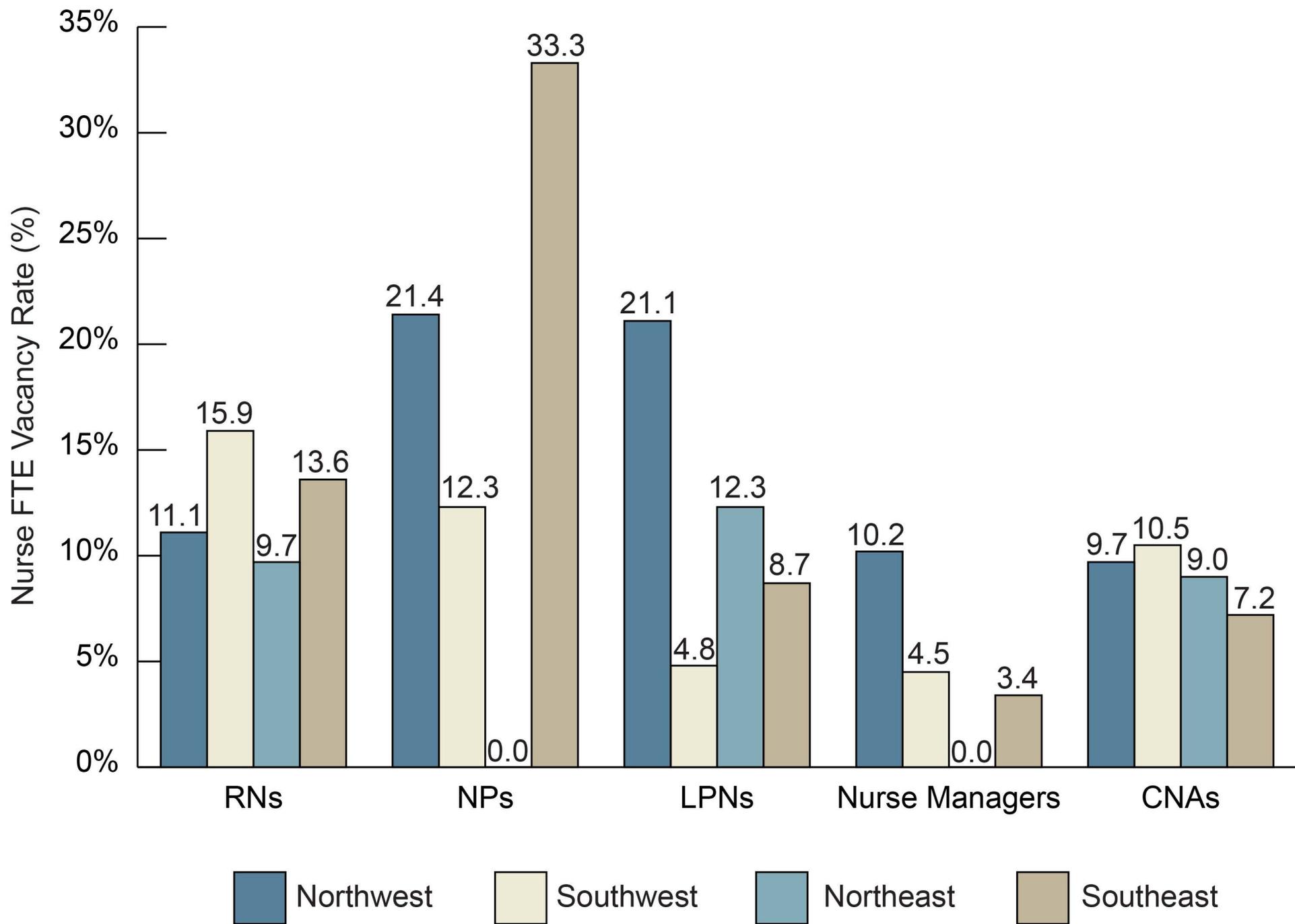


Figure 6.17. Statewide nurse FTE vacancy rates by type.⁴

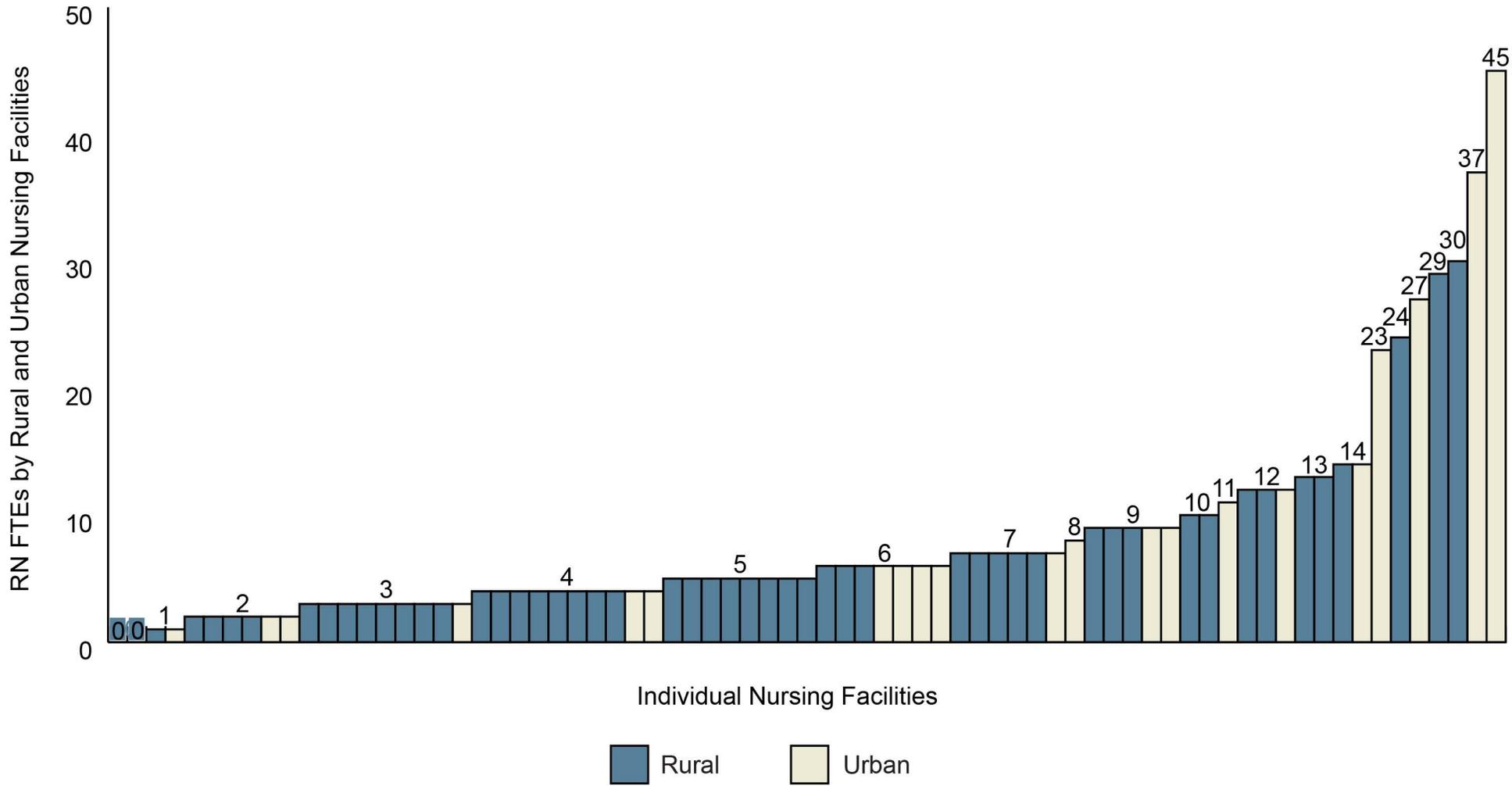


Figure 6.18. FTE internal employee and external contract employee RNs by nursing facilities.⁴

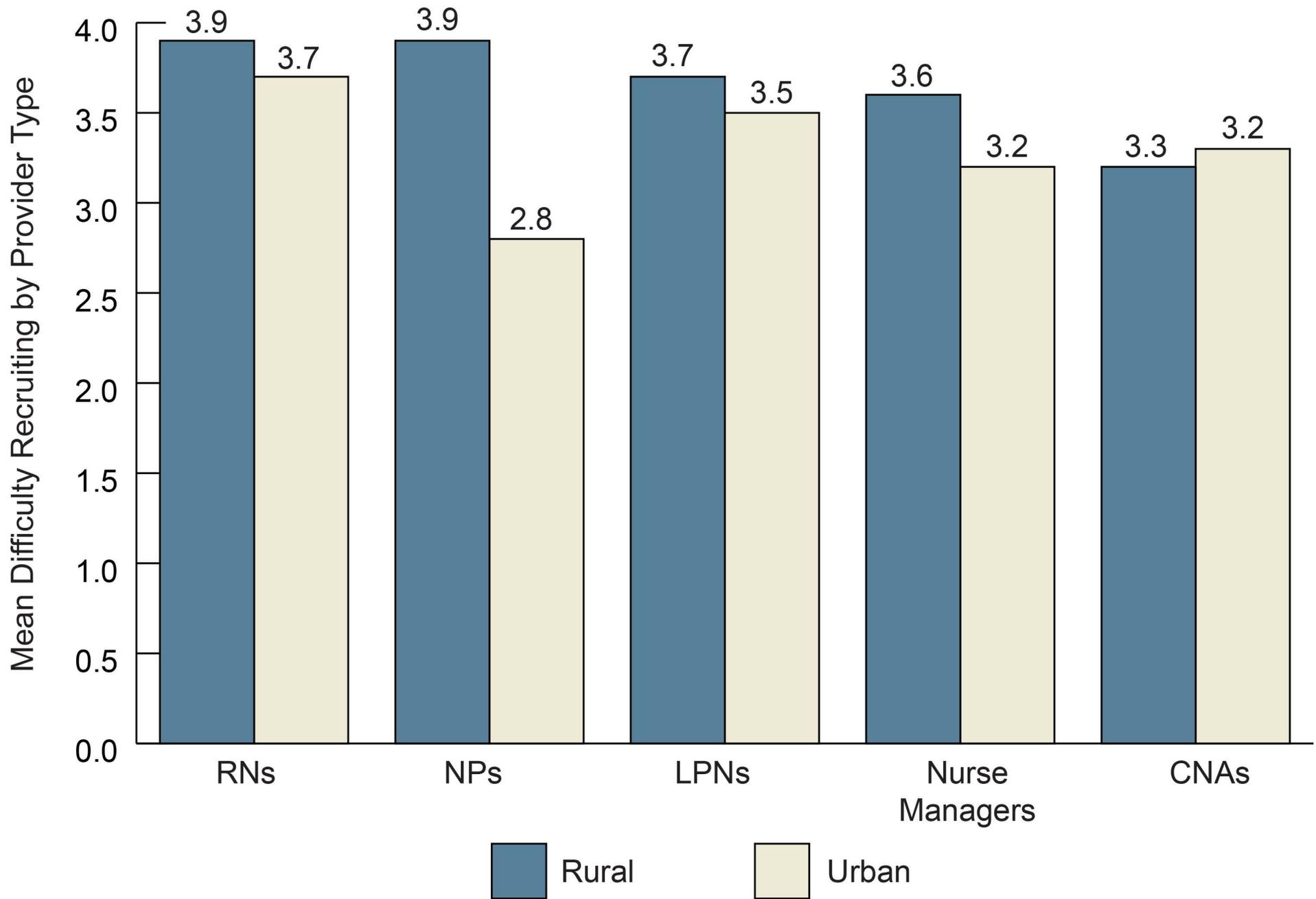


Figure 6.19. Nursing facility CEO ratings of difficulty recruiting by nurse position type.⁴

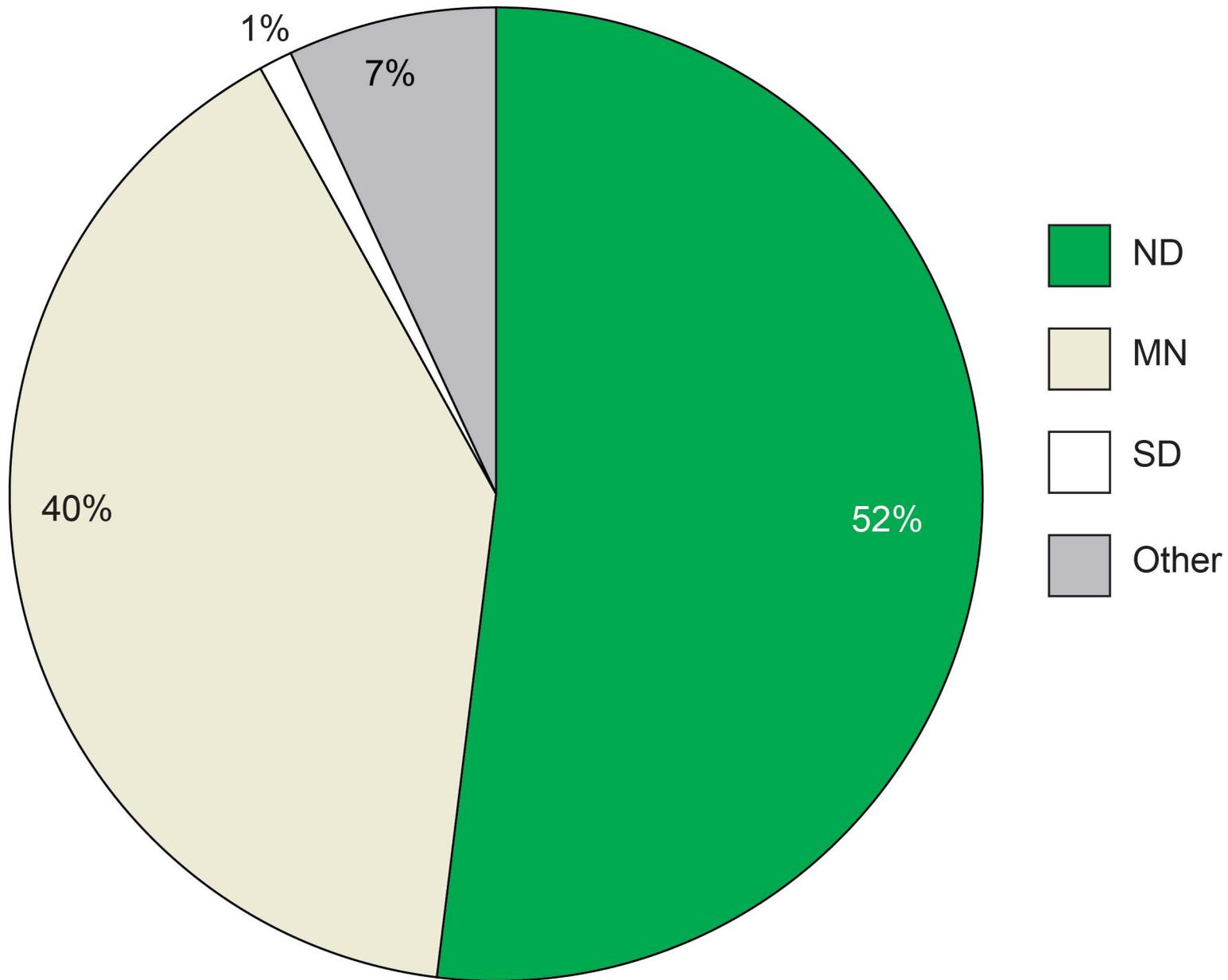


Figure 6.20. Location where LPNs received their initial education (Other = n<17).¹

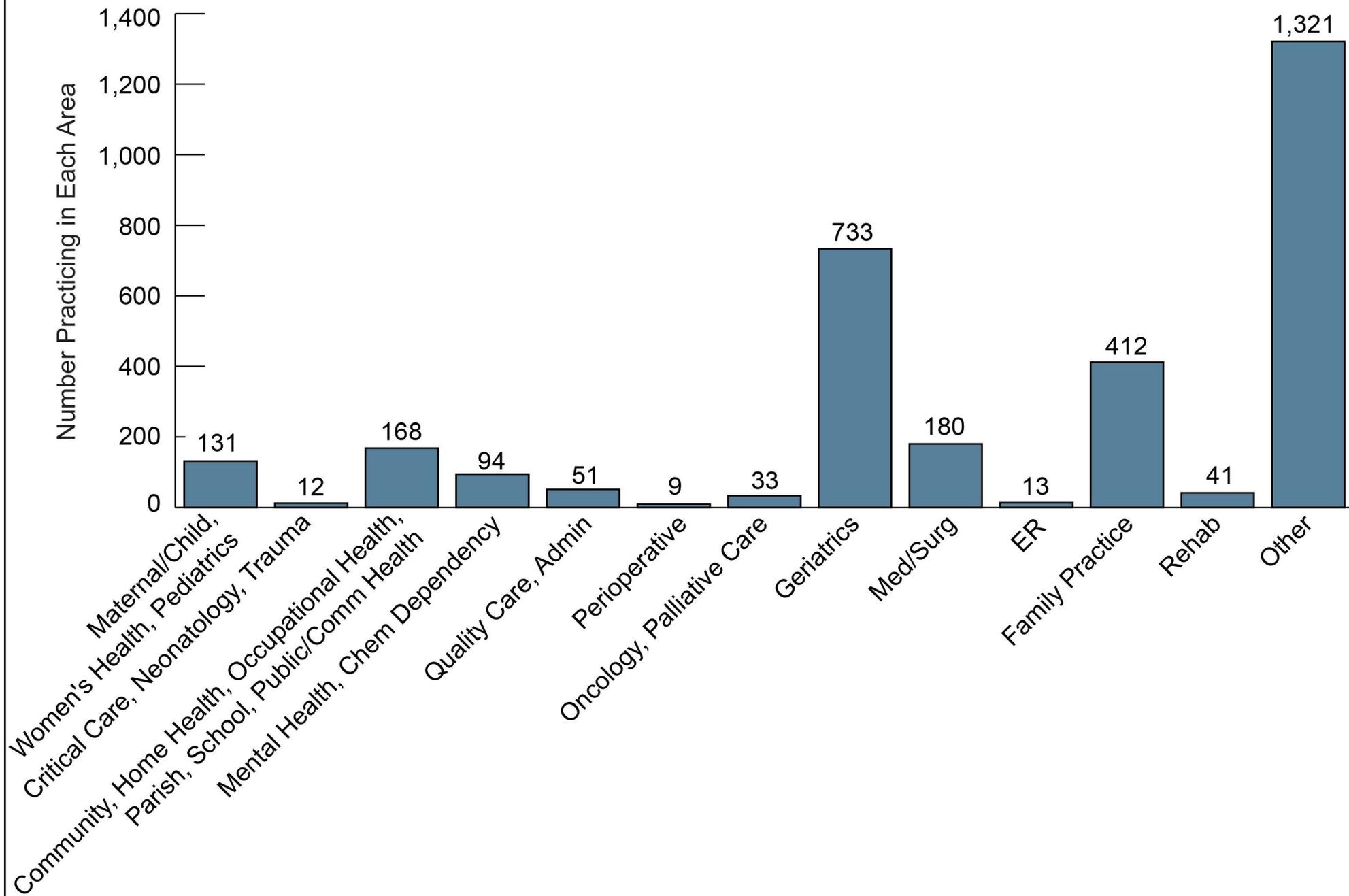


Figure 6.21. LPNs' current practice area.¹

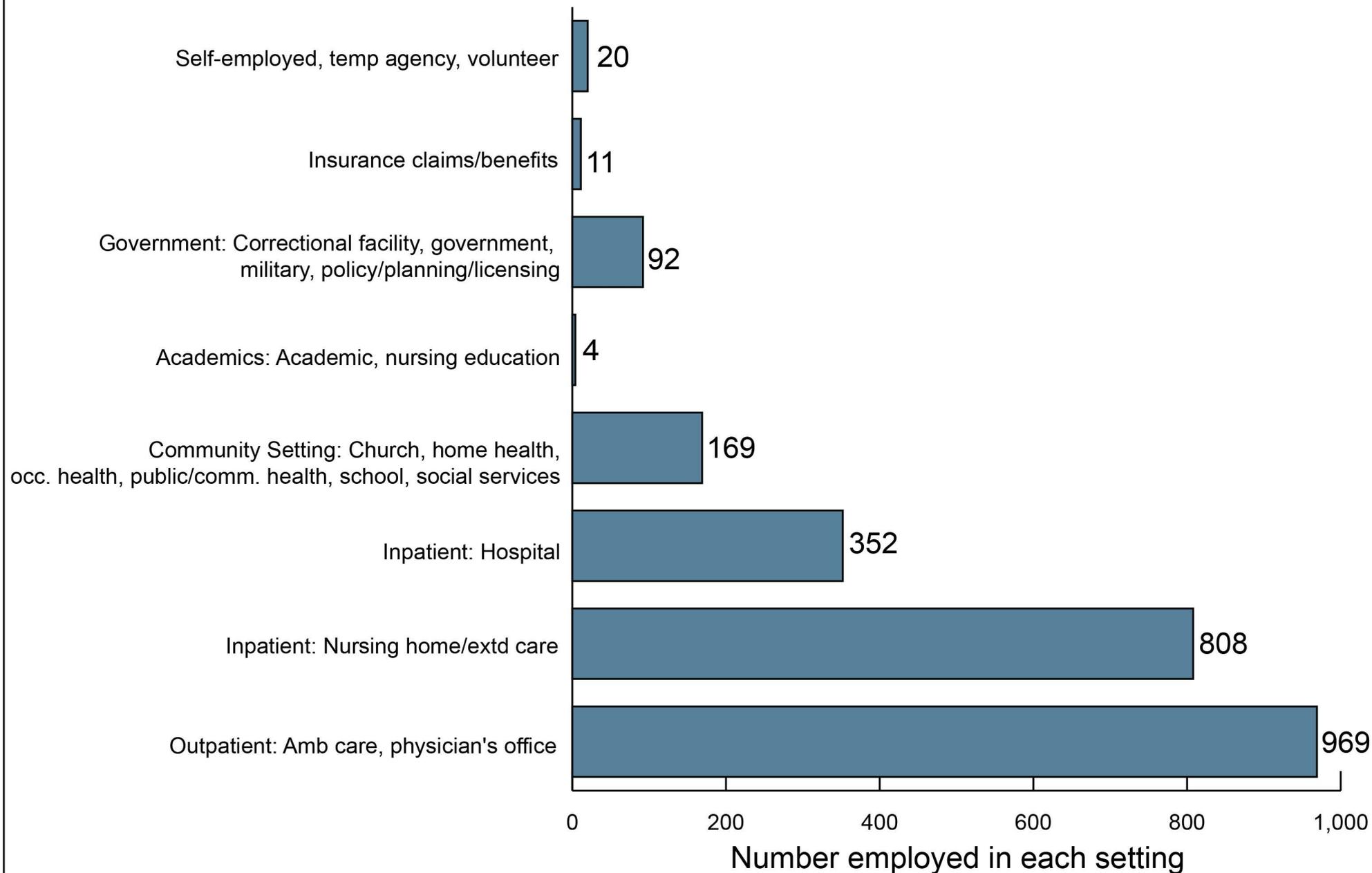


Figure 6.22. LPNs' employment settings.¹

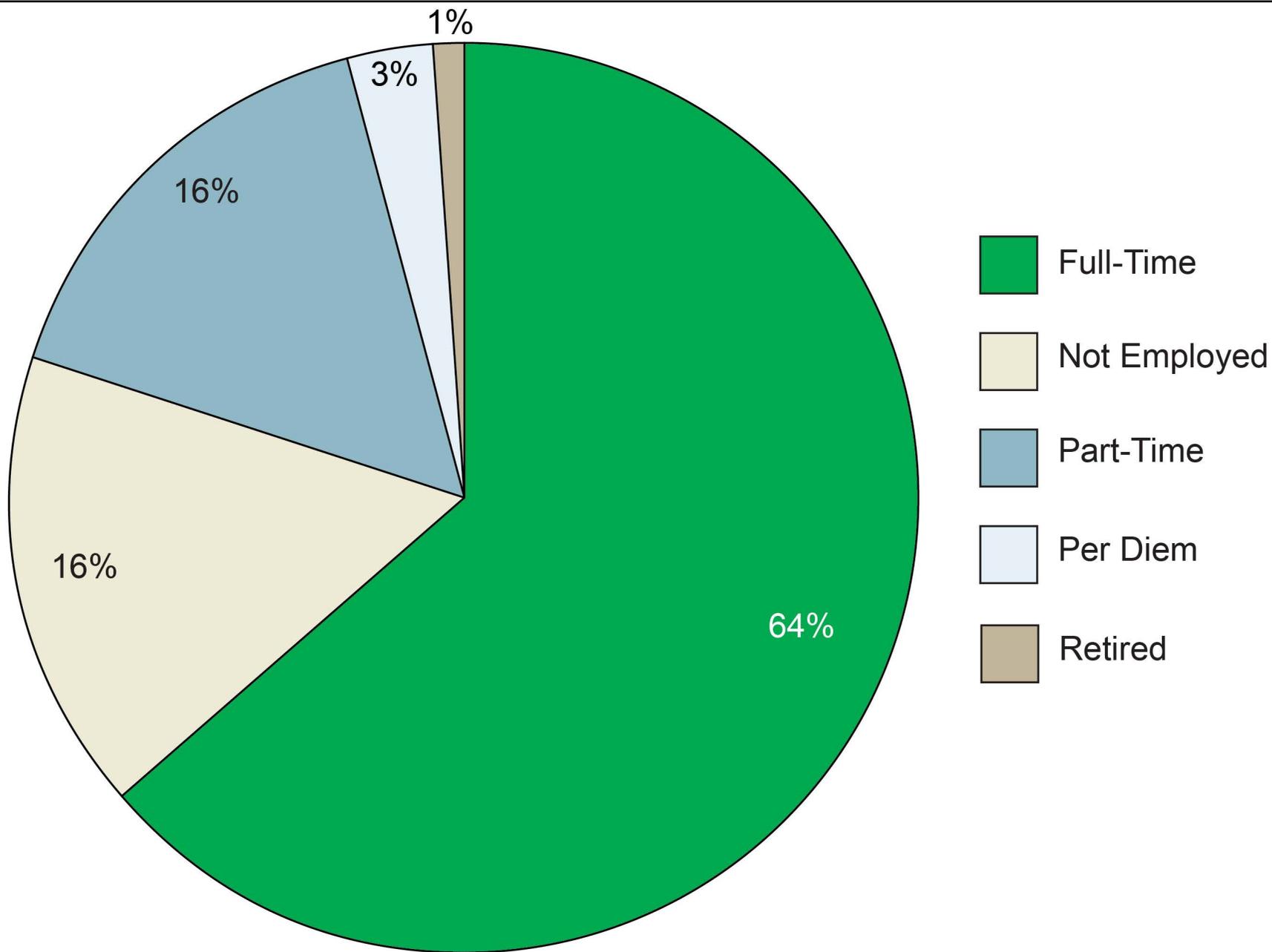


Figure 6.23. LPNs' employment status.¹

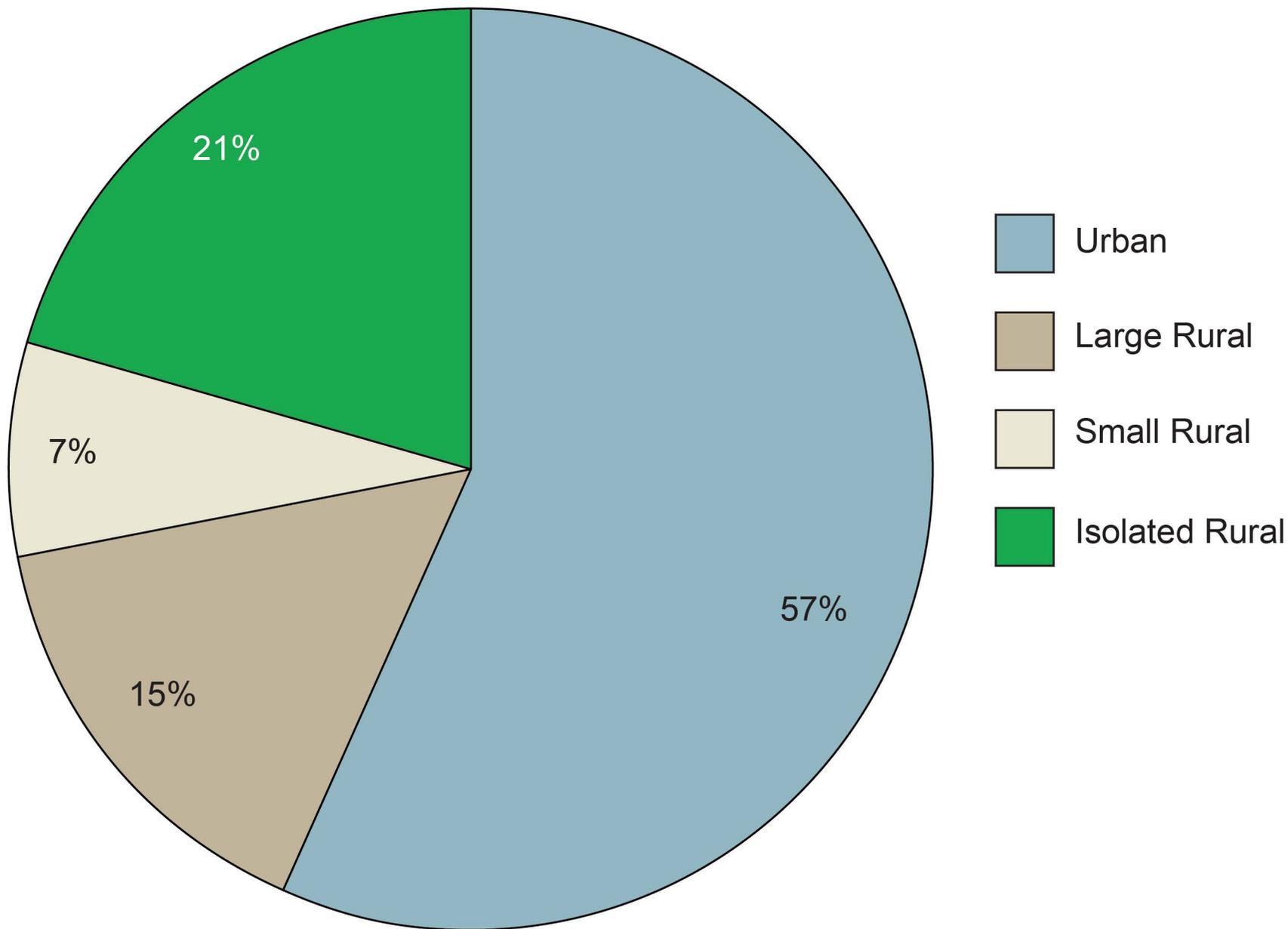


Figure 6.24. LPNs' employment based on RUCA code.¹

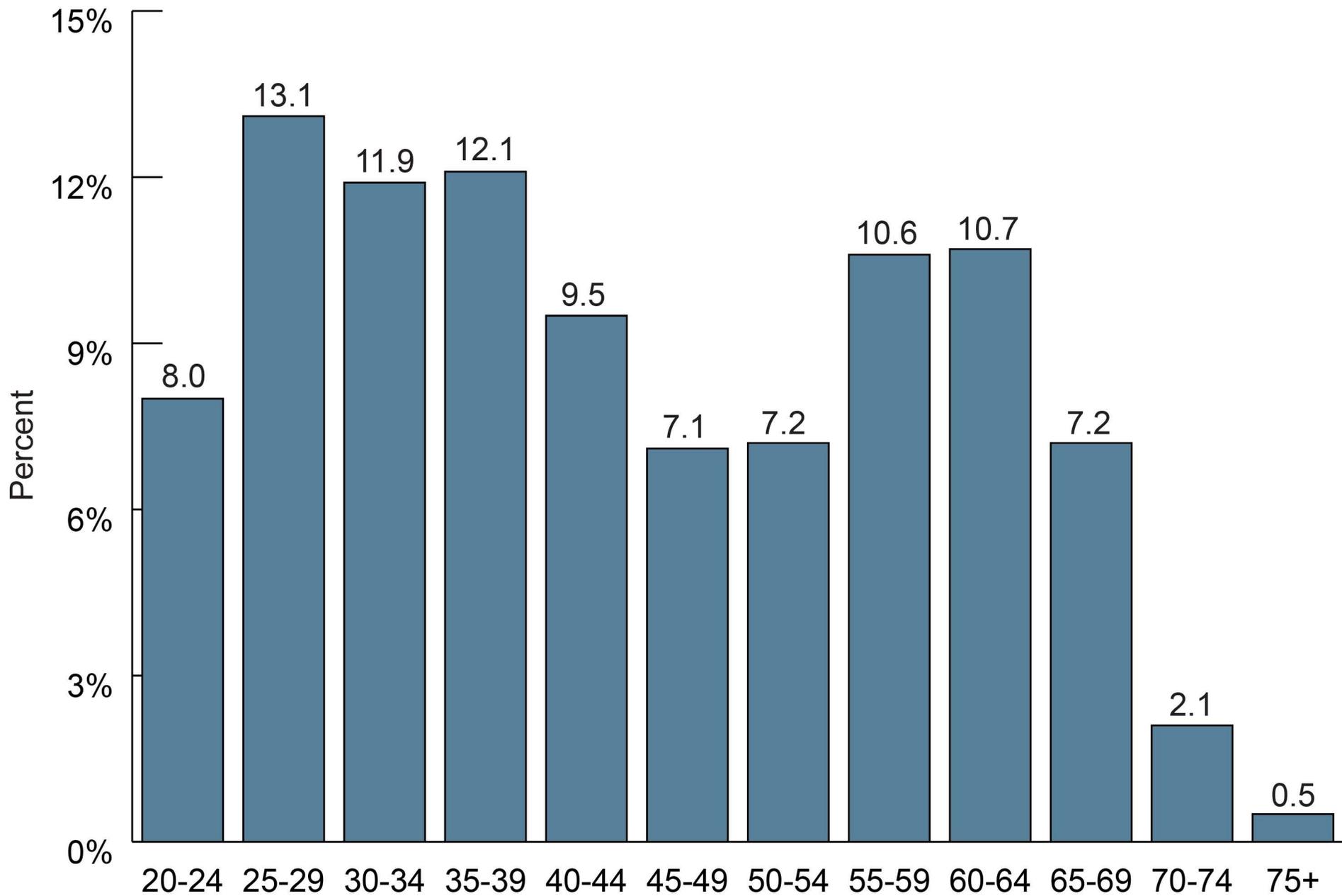


Figure 6.25. Age ranges for LPNs.¹

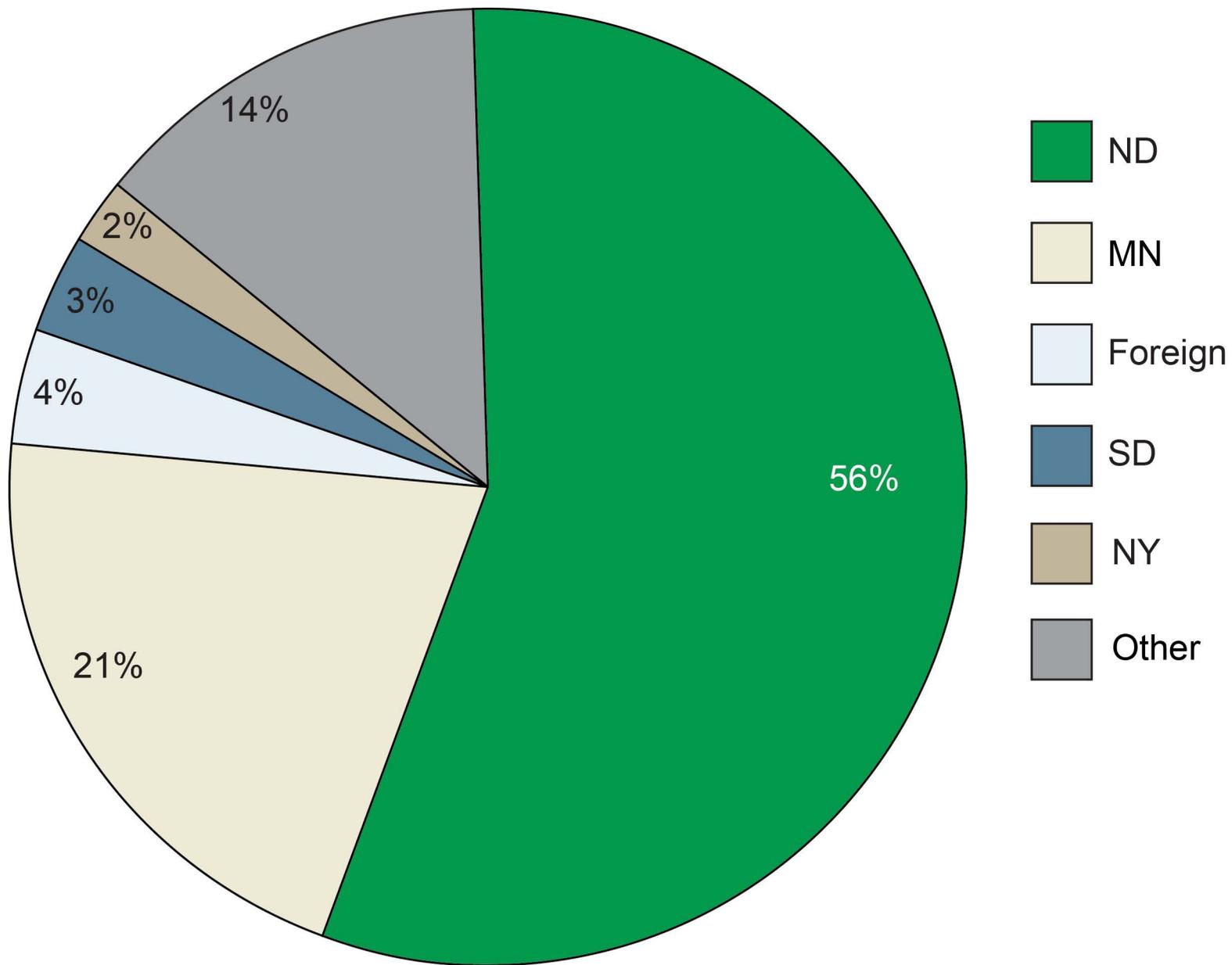


Figure 6.26. Locations where RNs received their initial education (Other = n<250 each).¹

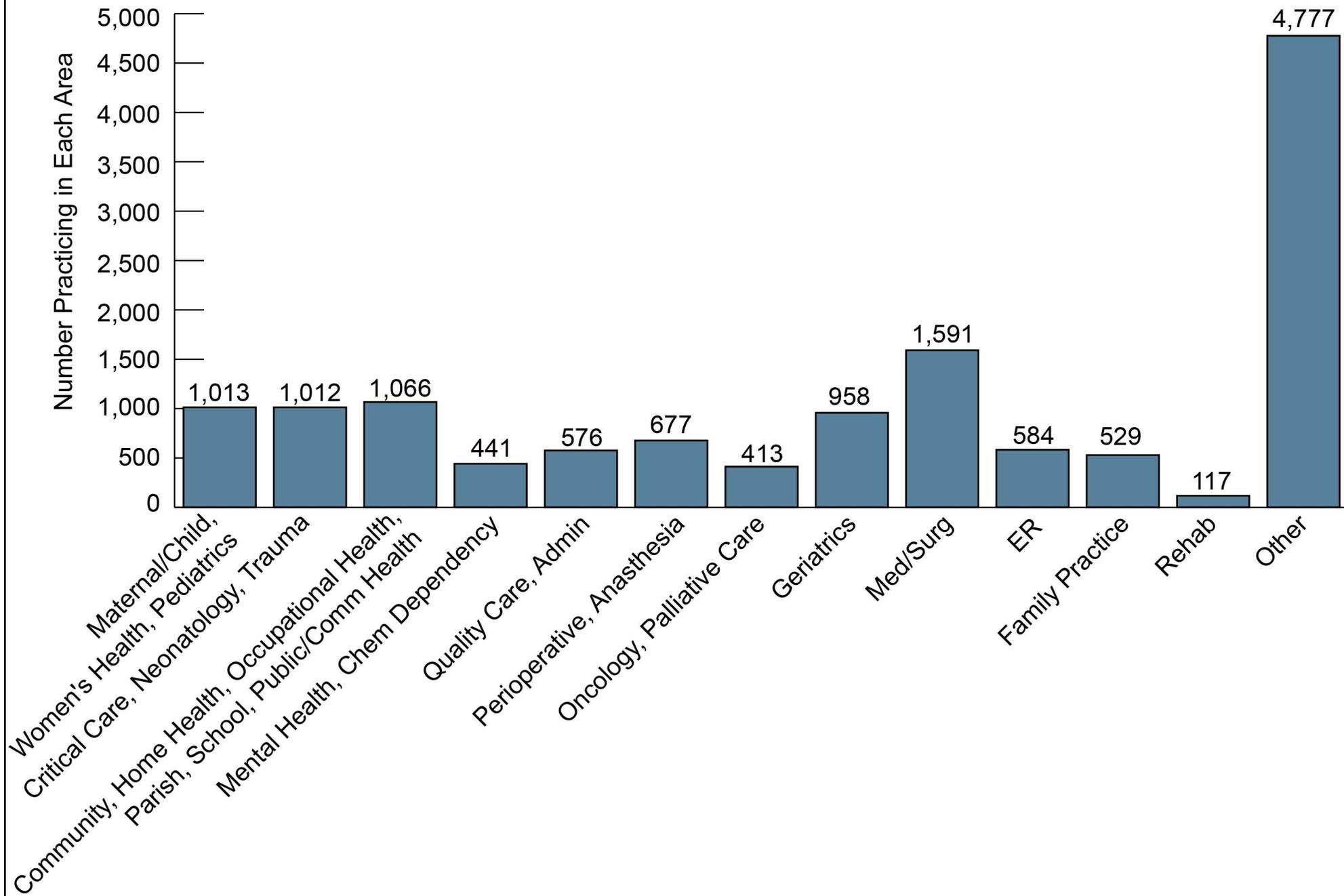


Figure 6.27. RNs' current practice area.¹

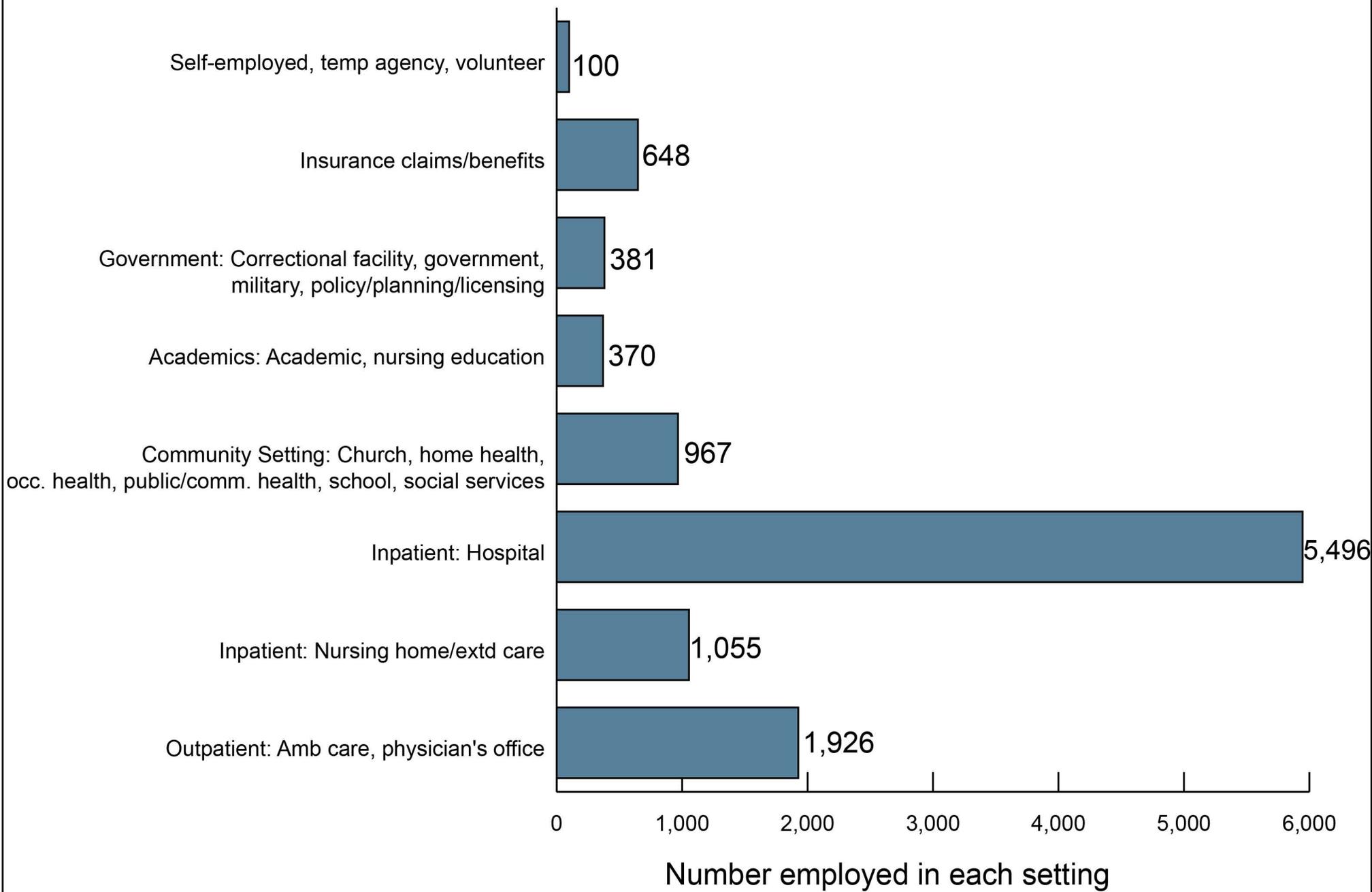


Figure 6.28. RNs' employment settings.¹

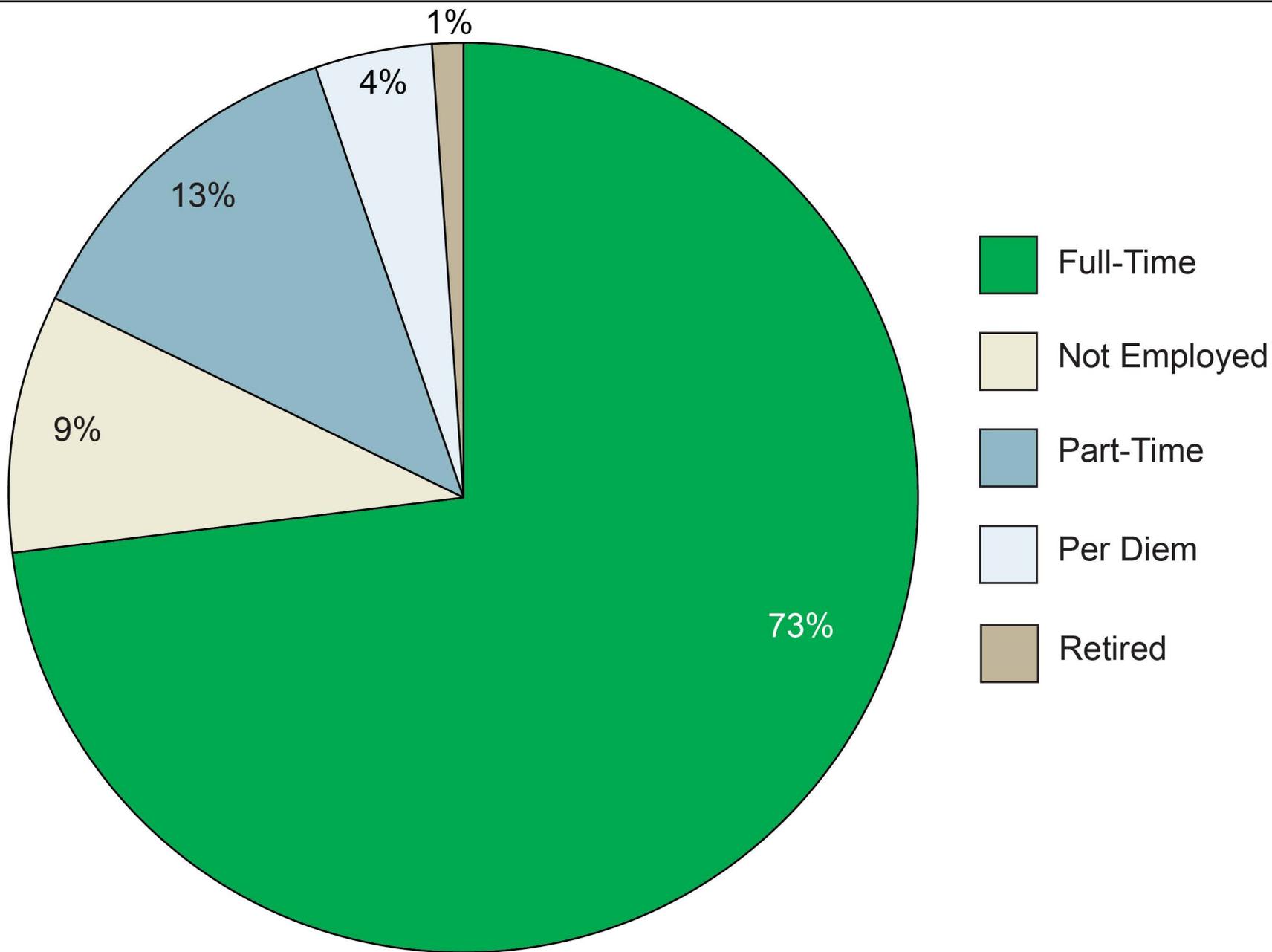


Figure 6.29. RNs' employment status.¹

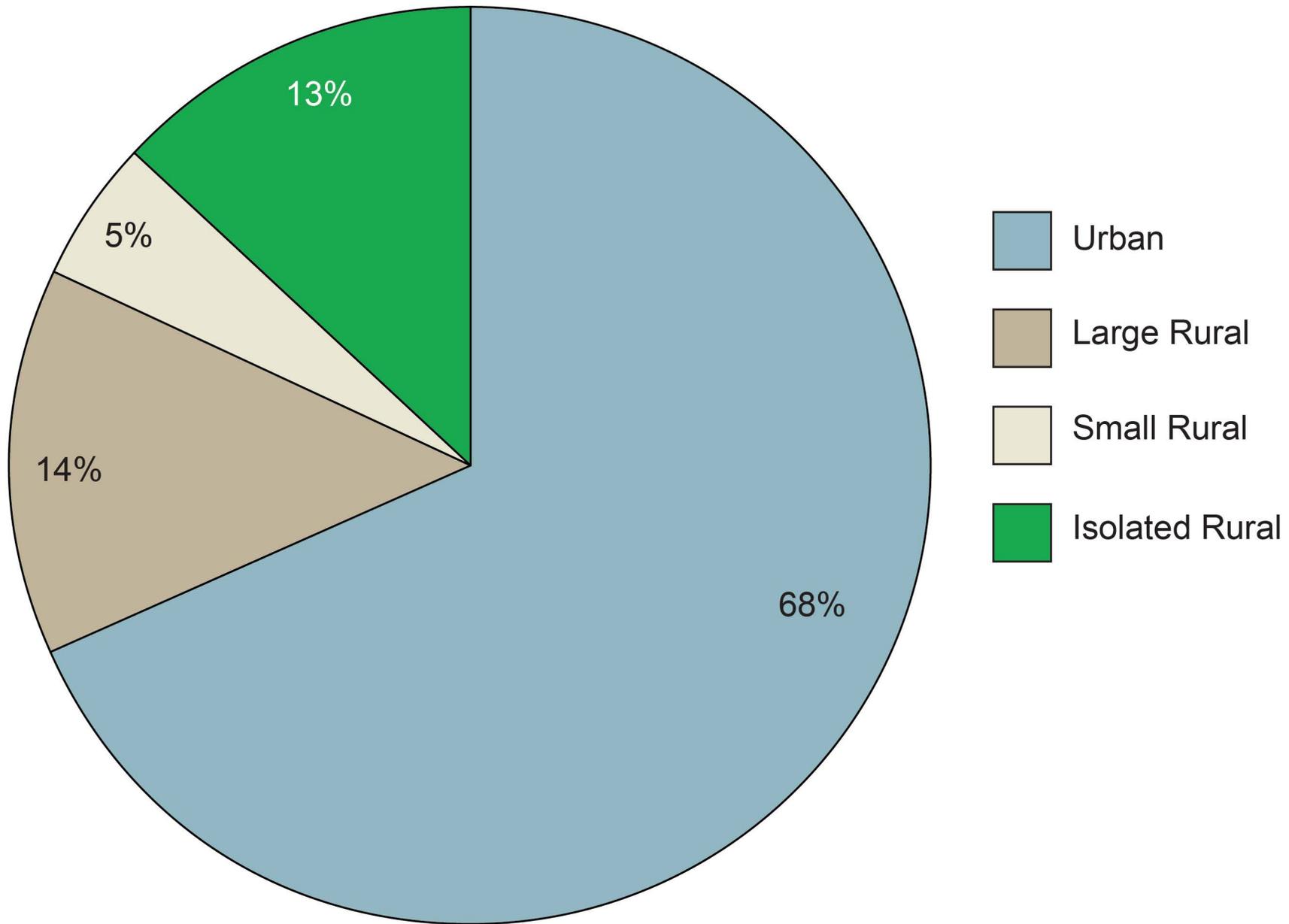


Figure 6.30. RNs' employment based on RUCA code.¹

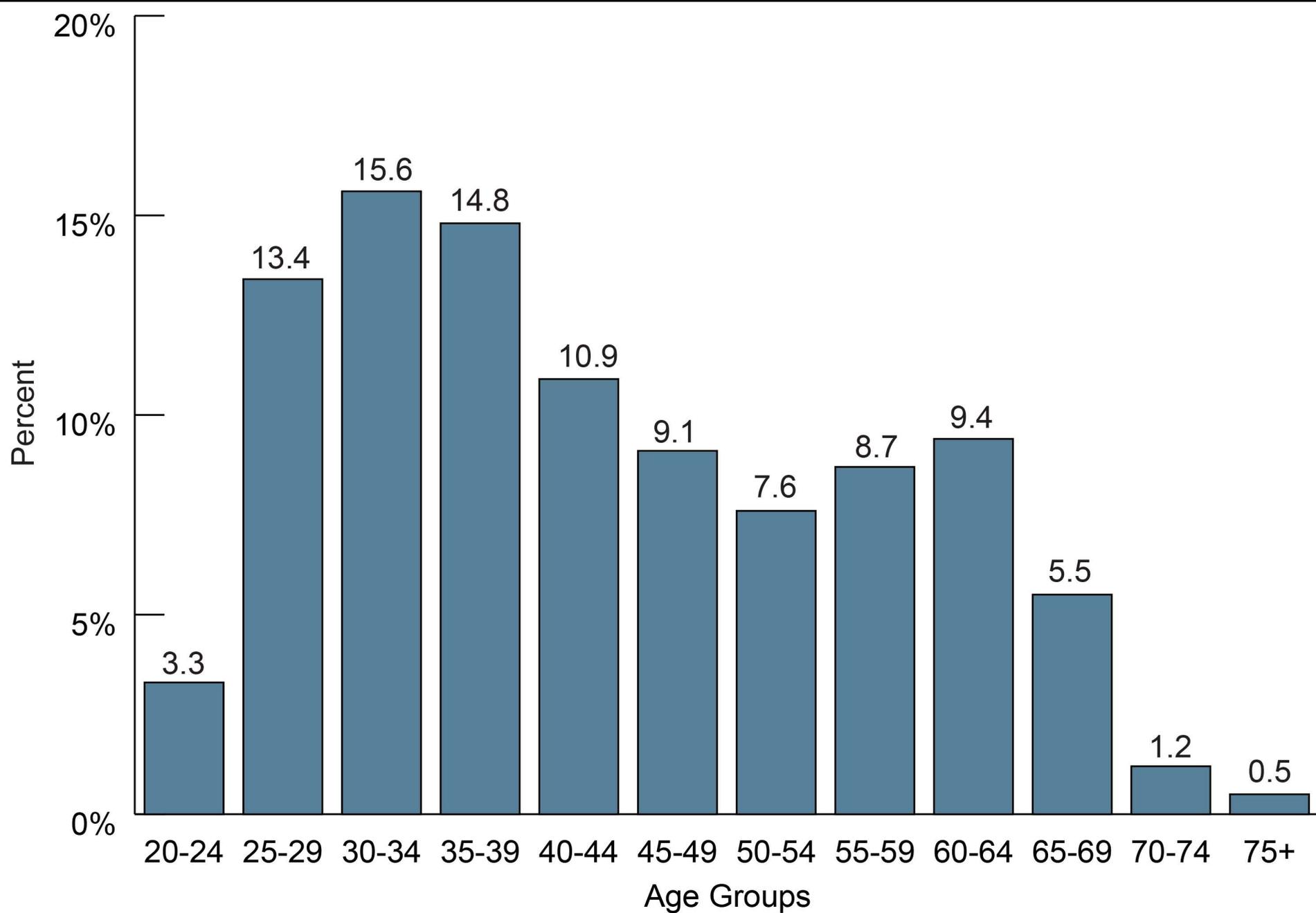


Figure 6.31. Age ranges for RNs.¹

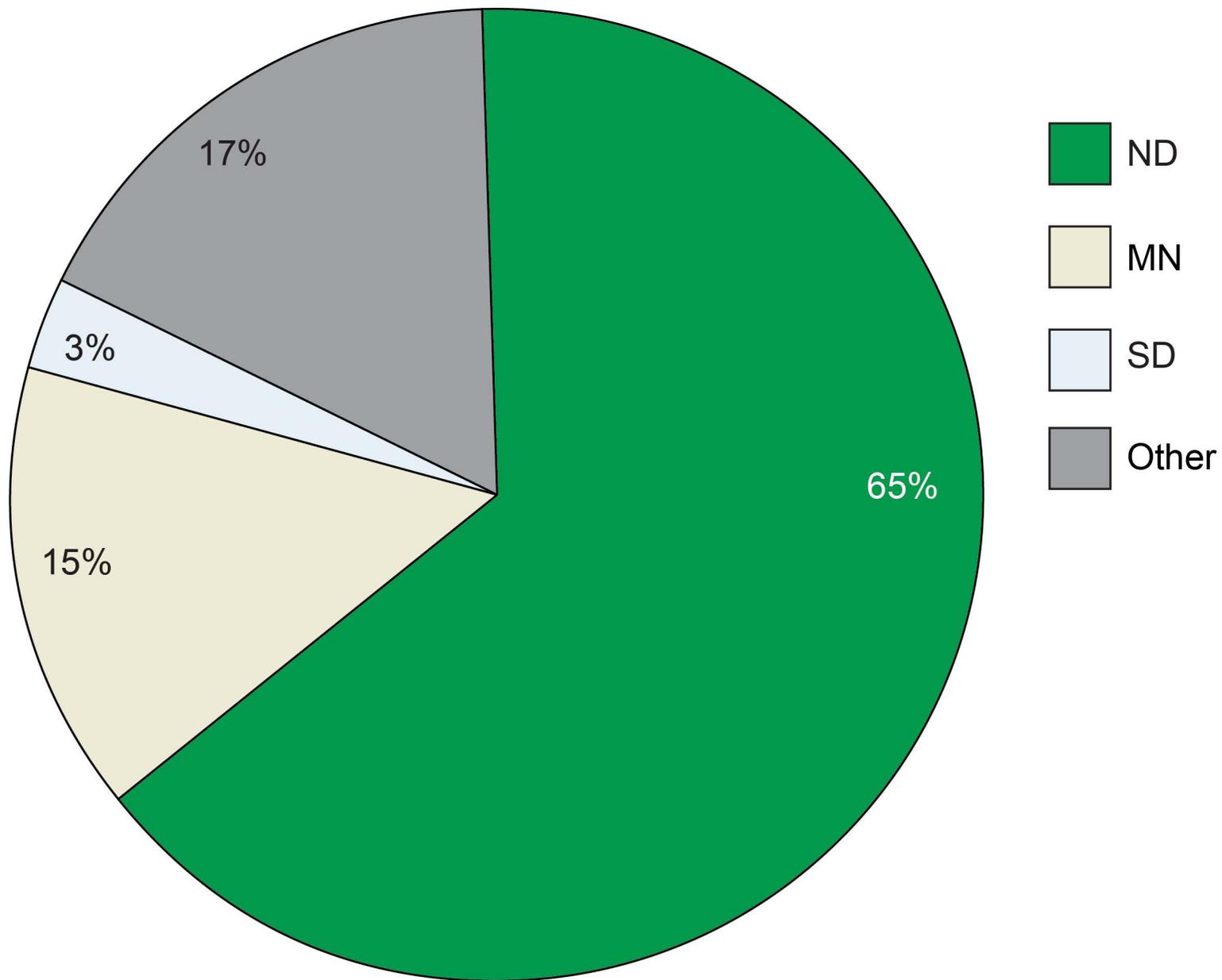


Figure 6.32. States where NPs were educated (Other = n<16).¹

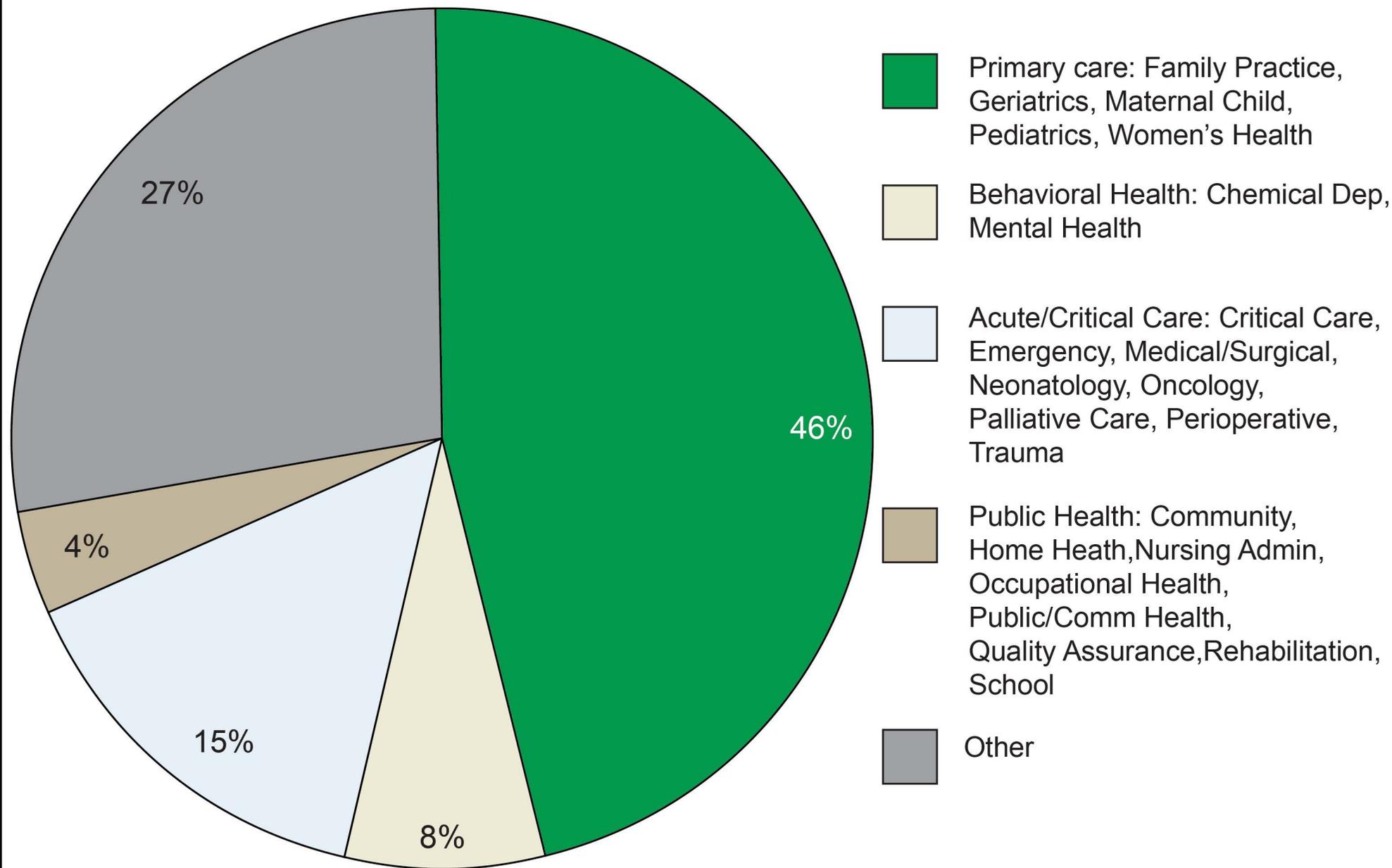


Figure 6.33. NPs' employer practice area.¹

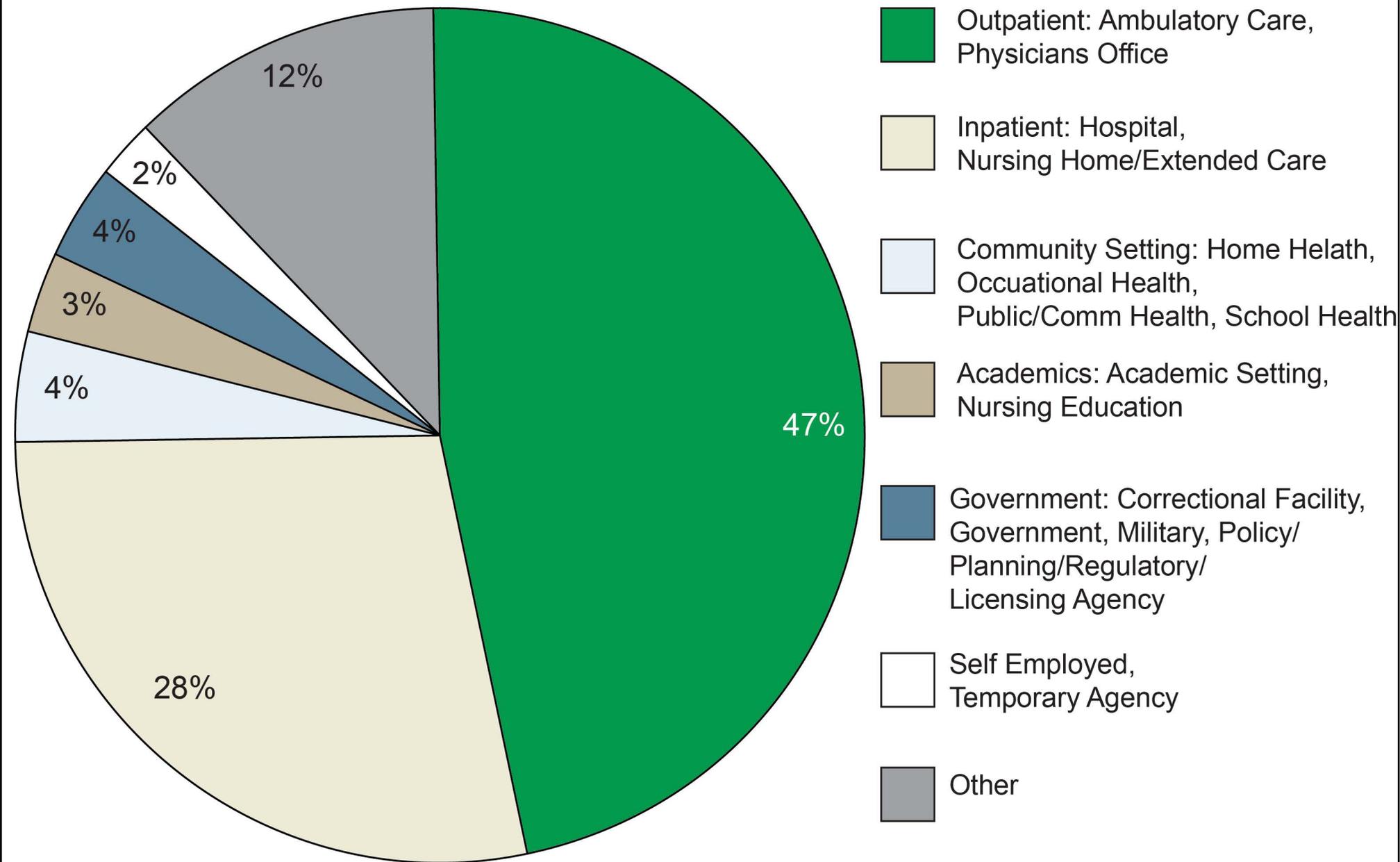


Figure 6.34. NPs' employment settings.¹

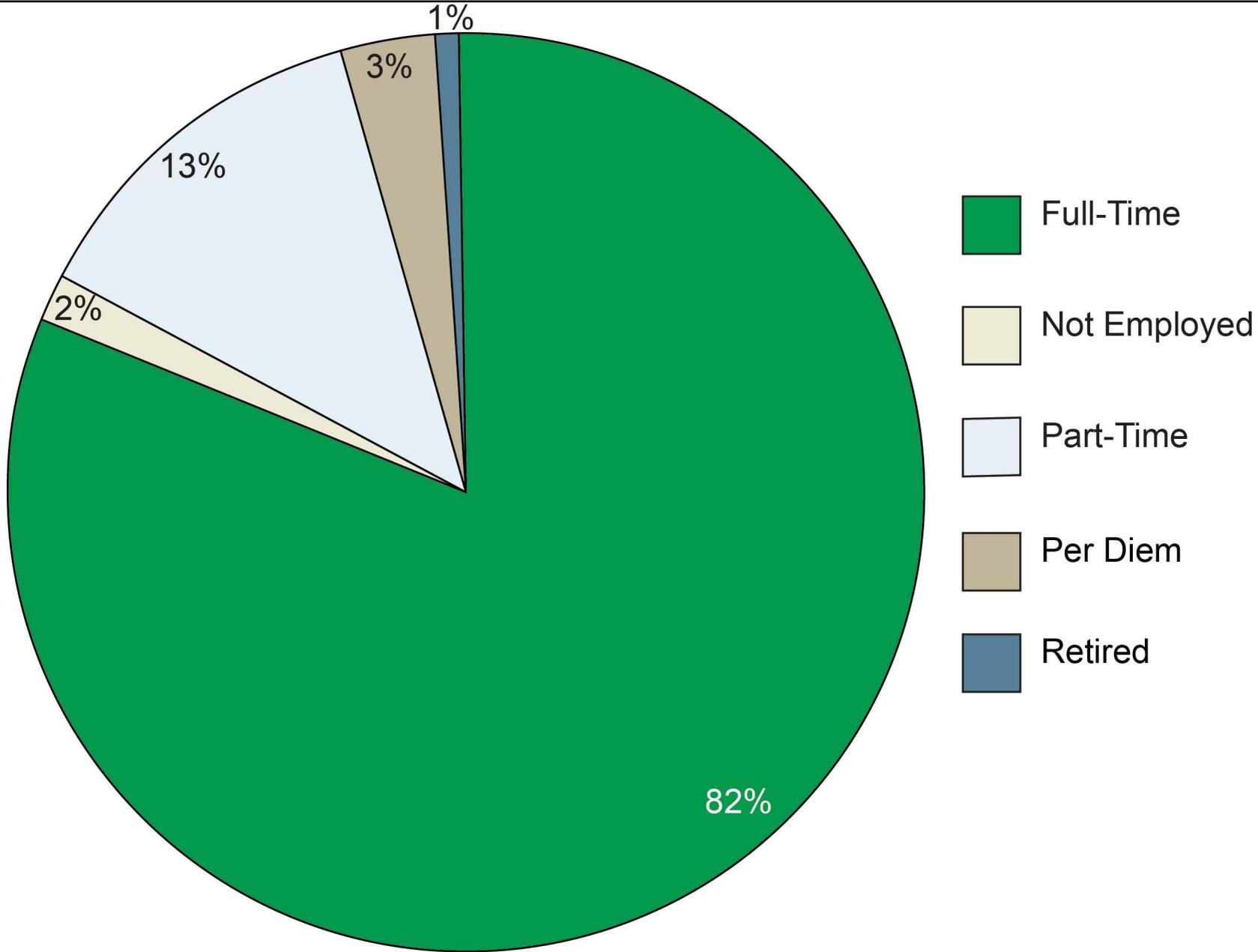


Figure 6.35. NPs' employment status.¹

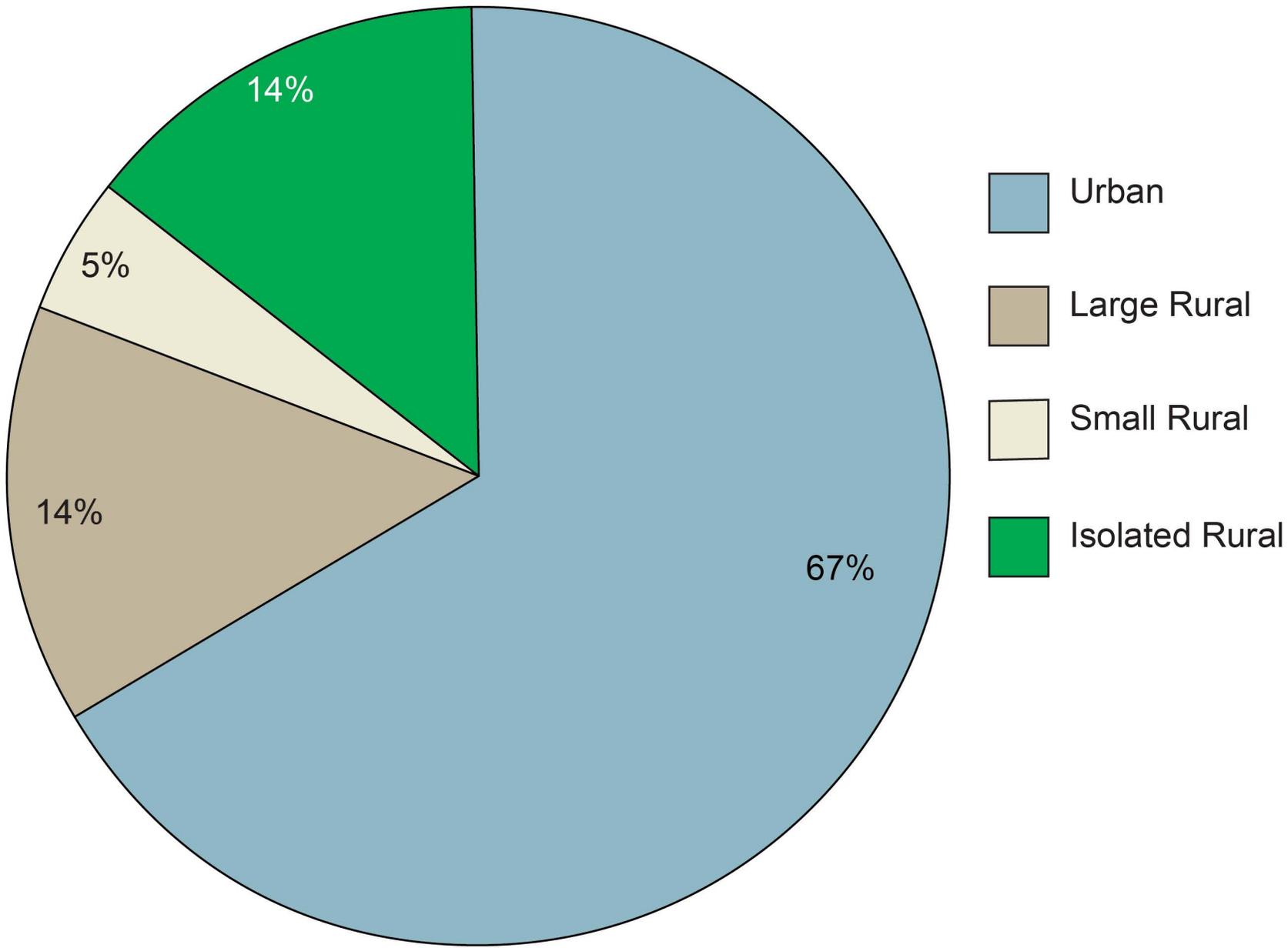


Figure 6.36. NPs' employer location by RUCA.¹

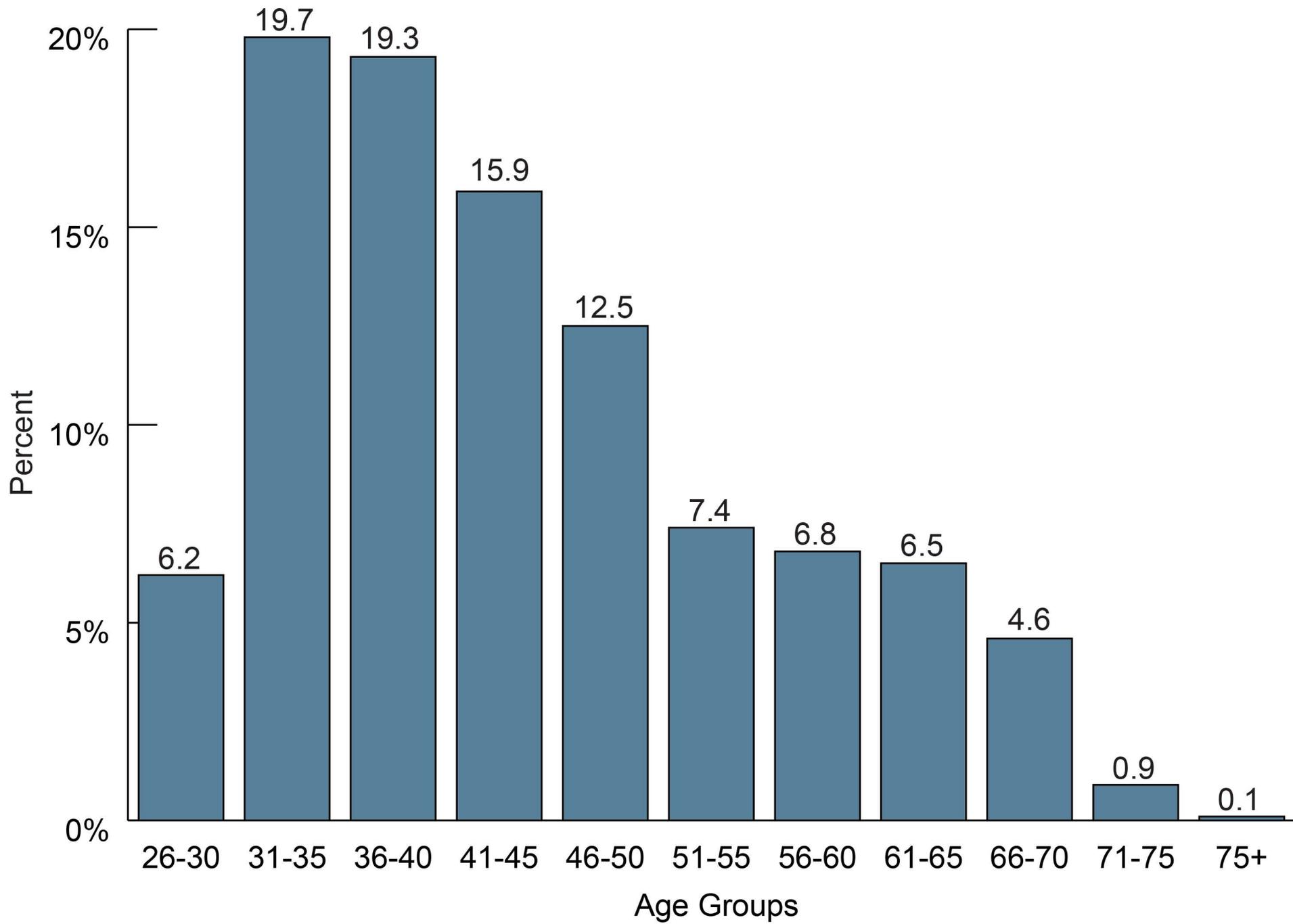


Figure 6.37. Age ranges for NPs.¹

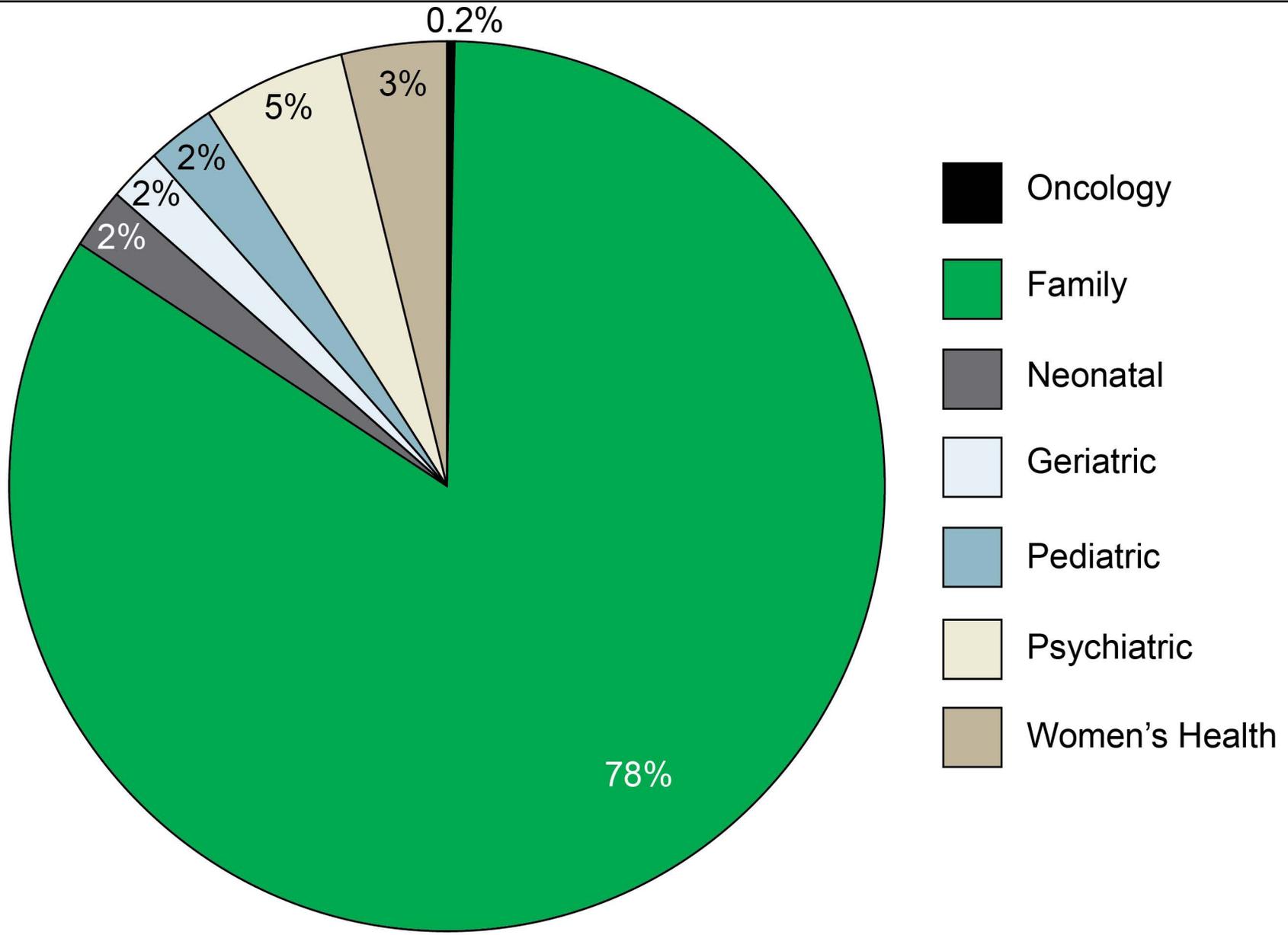


Figure 6.38. NPs' certification types.¹

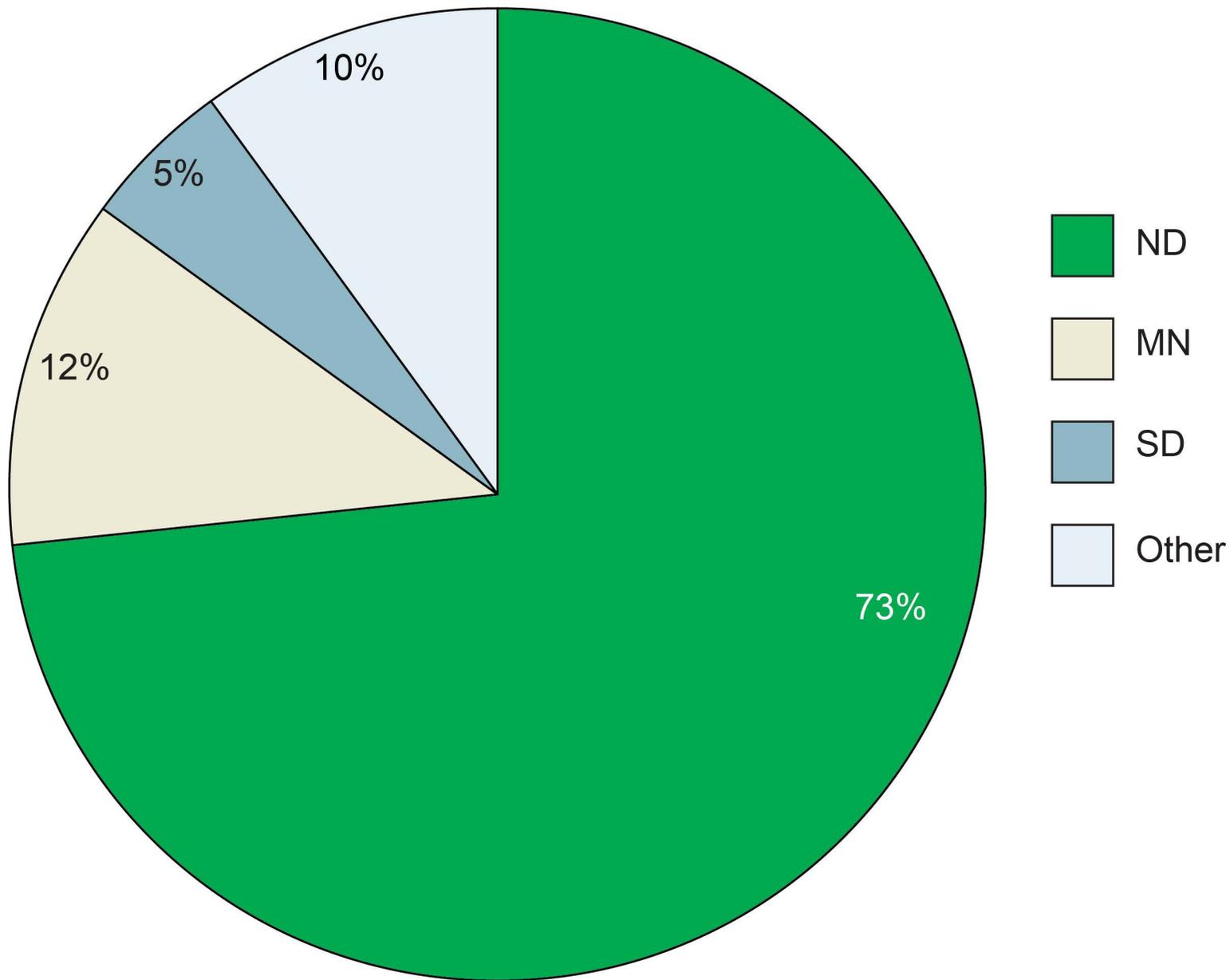


Figure 6.39. States where CNRAs were educated (Other = n<5).¹

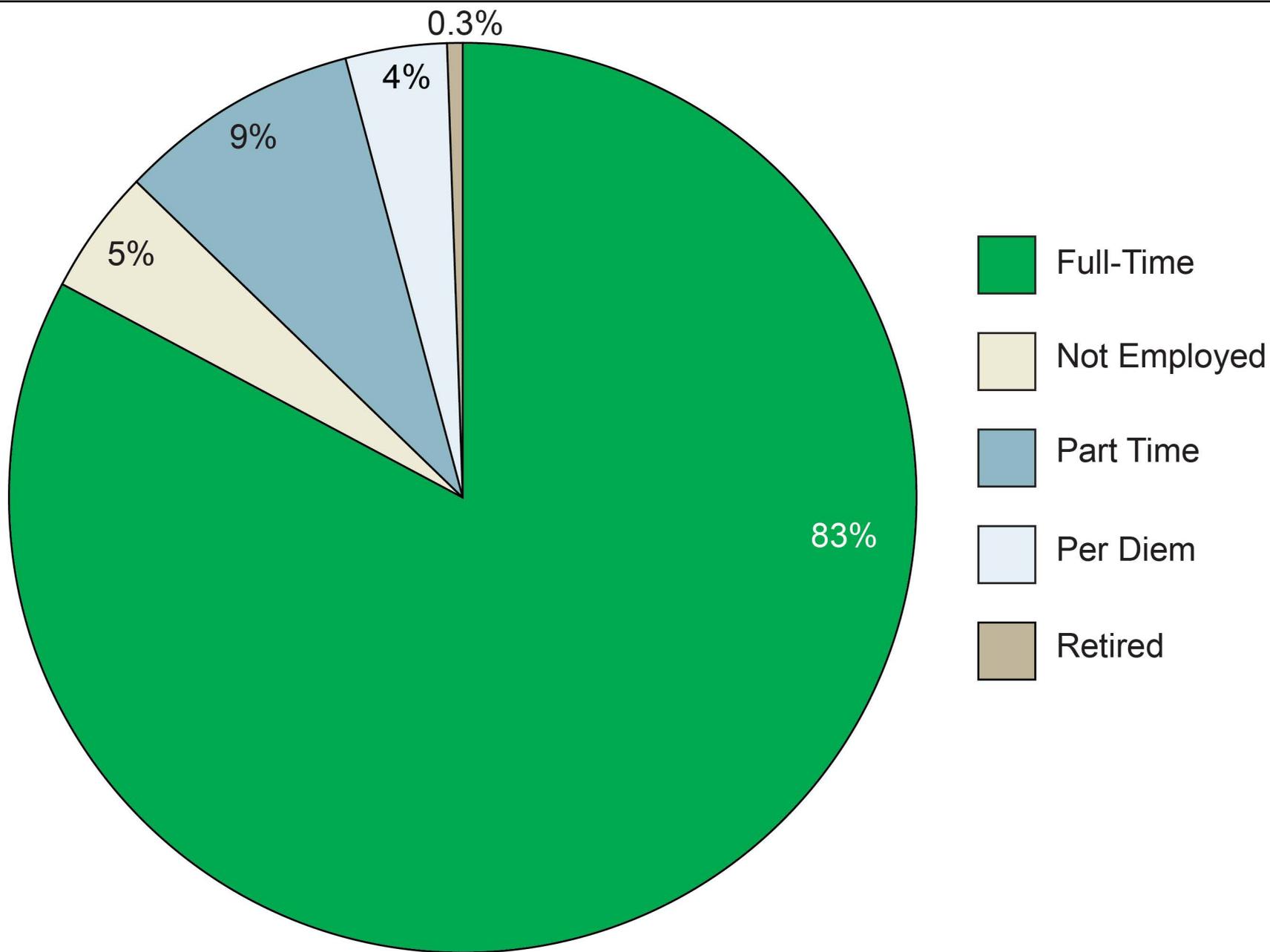


Figure 6.40. CRNAs' employment status.¹

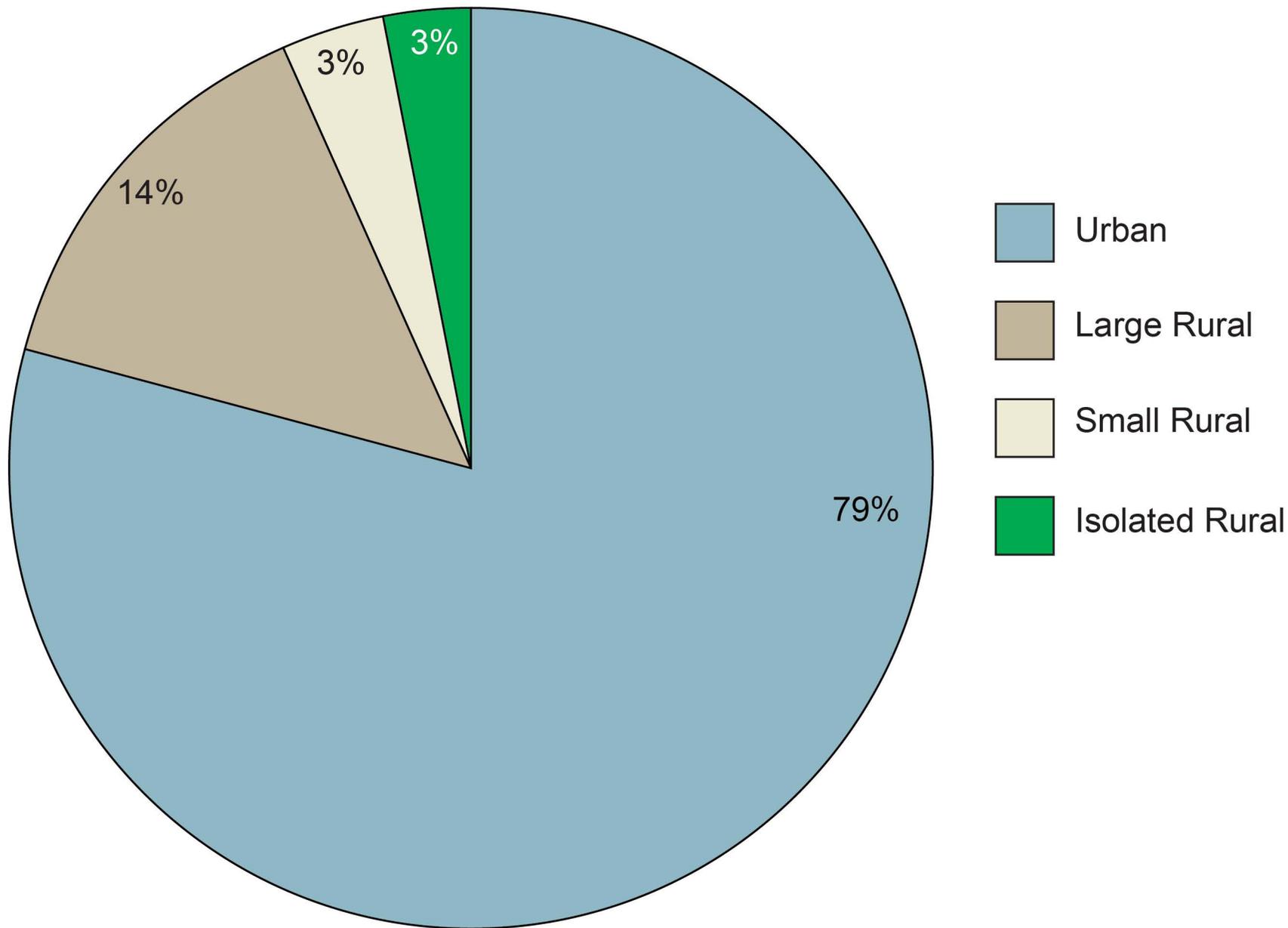


Figure 6.41. CRNAs' employer by RUCA.¹

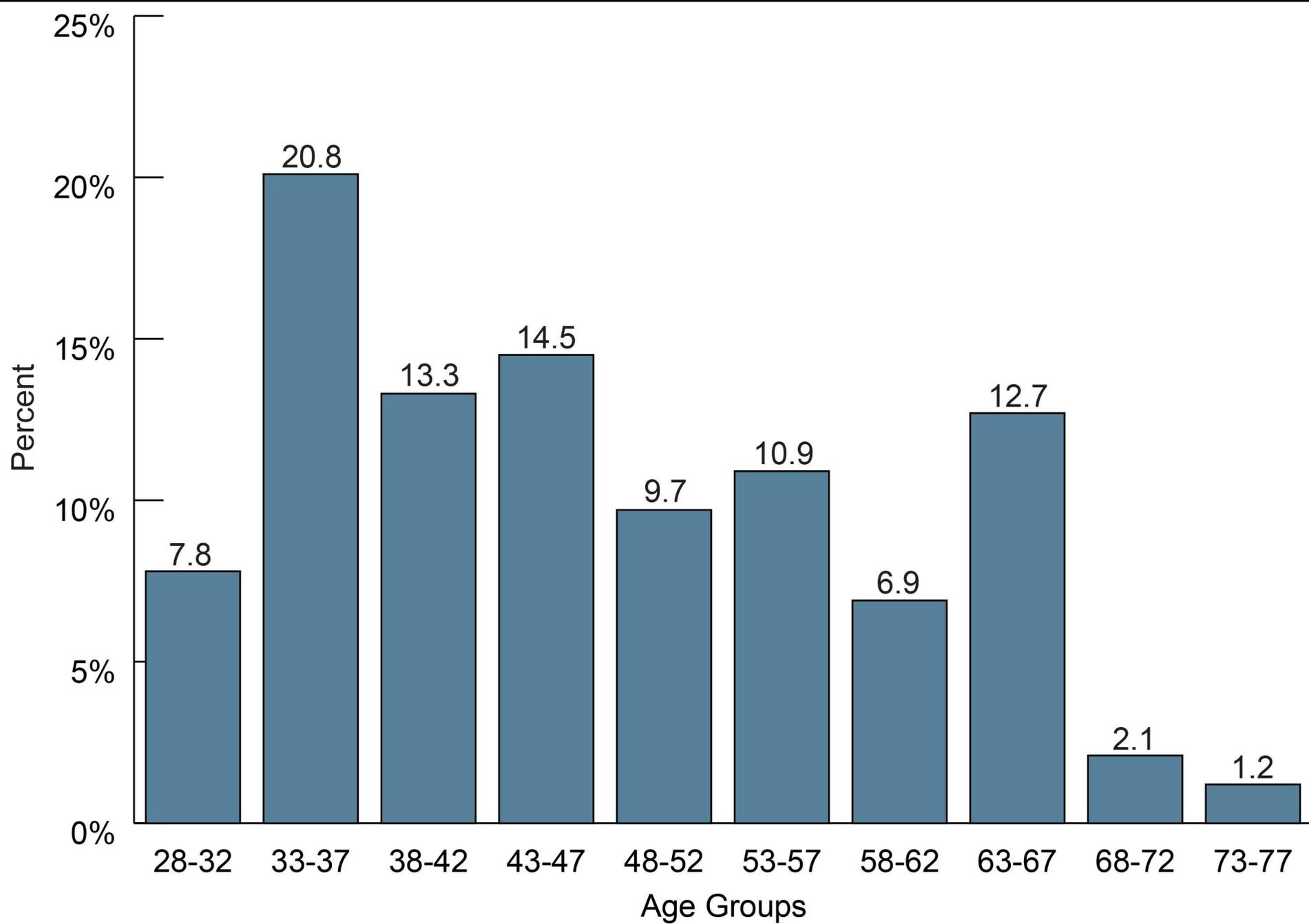


Figure 6.42. Age ranges for CRNAs.¹

Chapter 7: Behavioral Health and Non-Physician Healthcare Workforce

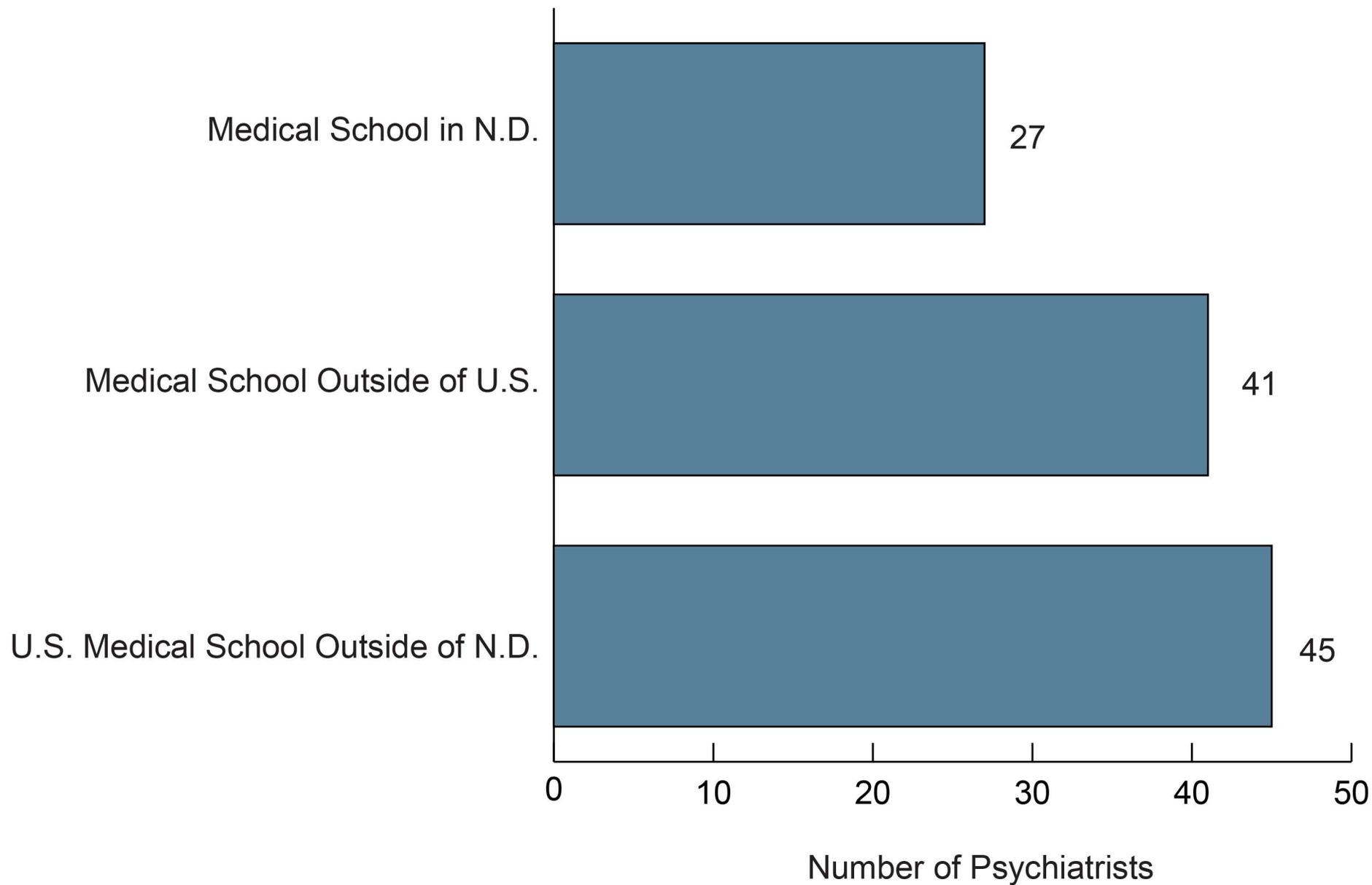
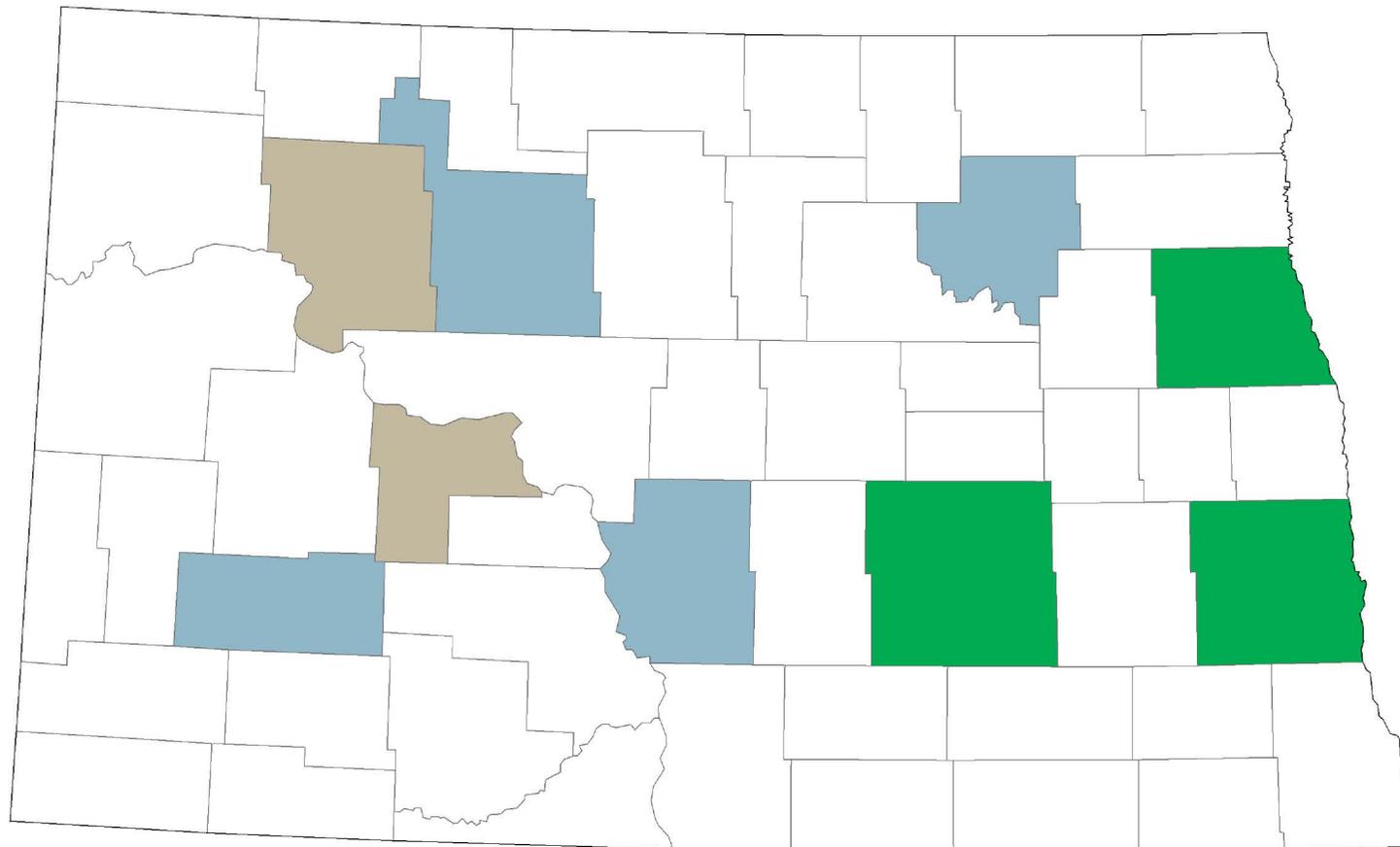


Figure 7.1. Locations of schools attended by psychiatrists in North Dakota, 2019.²



Rate of psychiatrists per 10,000 residents



Figure 7.2. Rate of psychiatrists per 10,000 North Dakota residents, by county, 2019.²

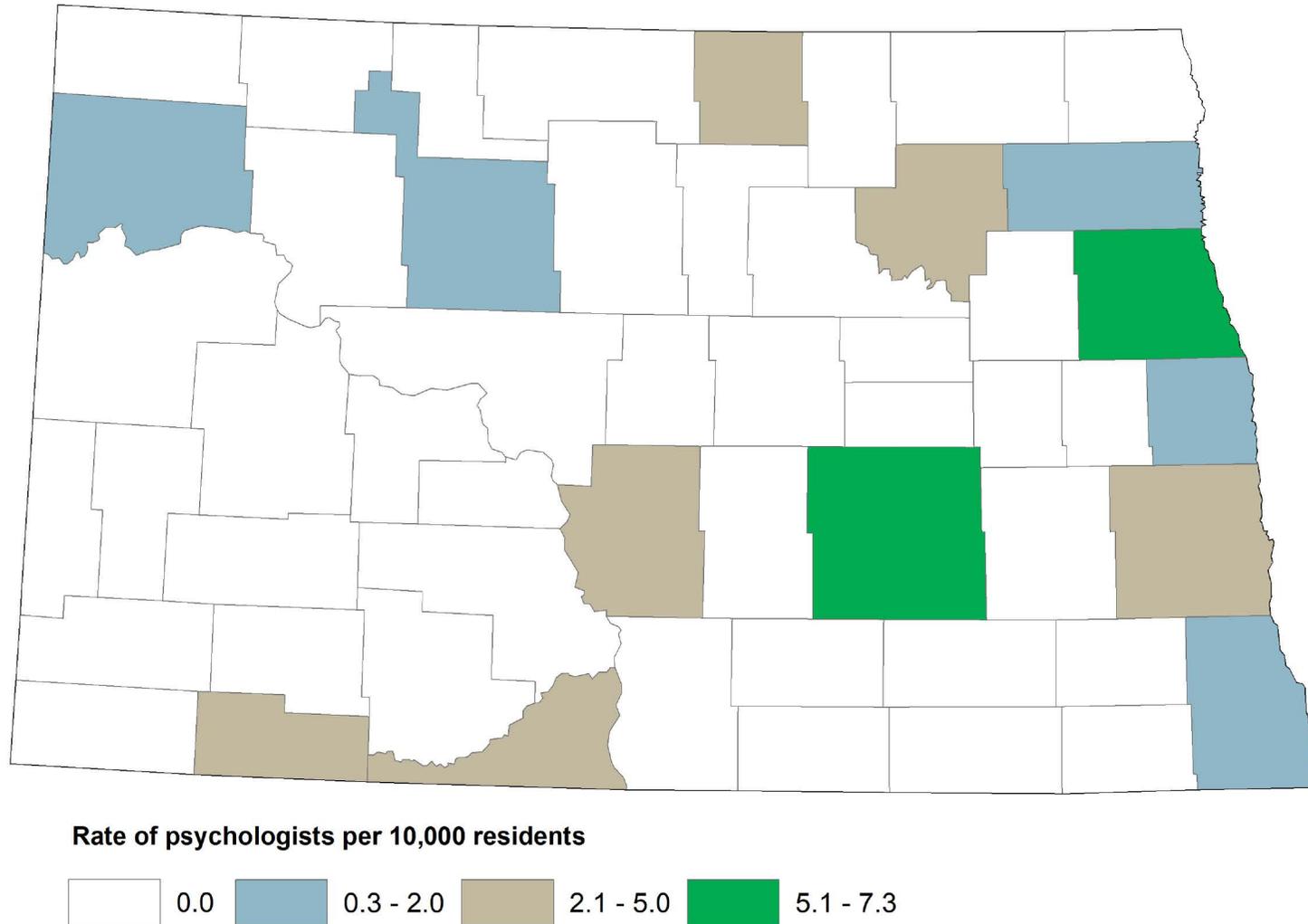


Figure 7.3. Rate of psychologists per 10,000 North Dakota residents, by county, 2019.³

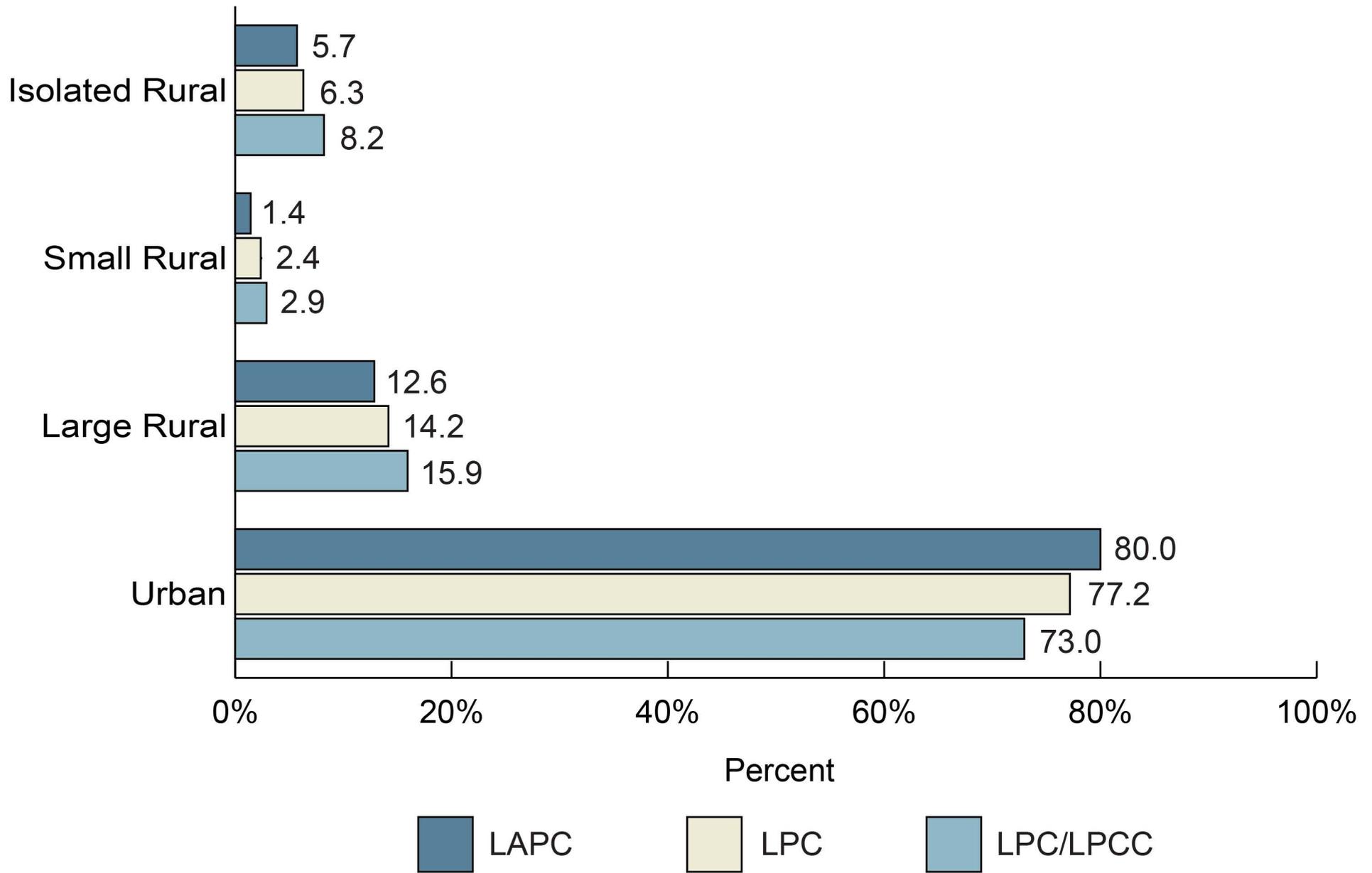


Figure 7.4. Rural-urban designation for counselors in North Dakota, 2019.⁴

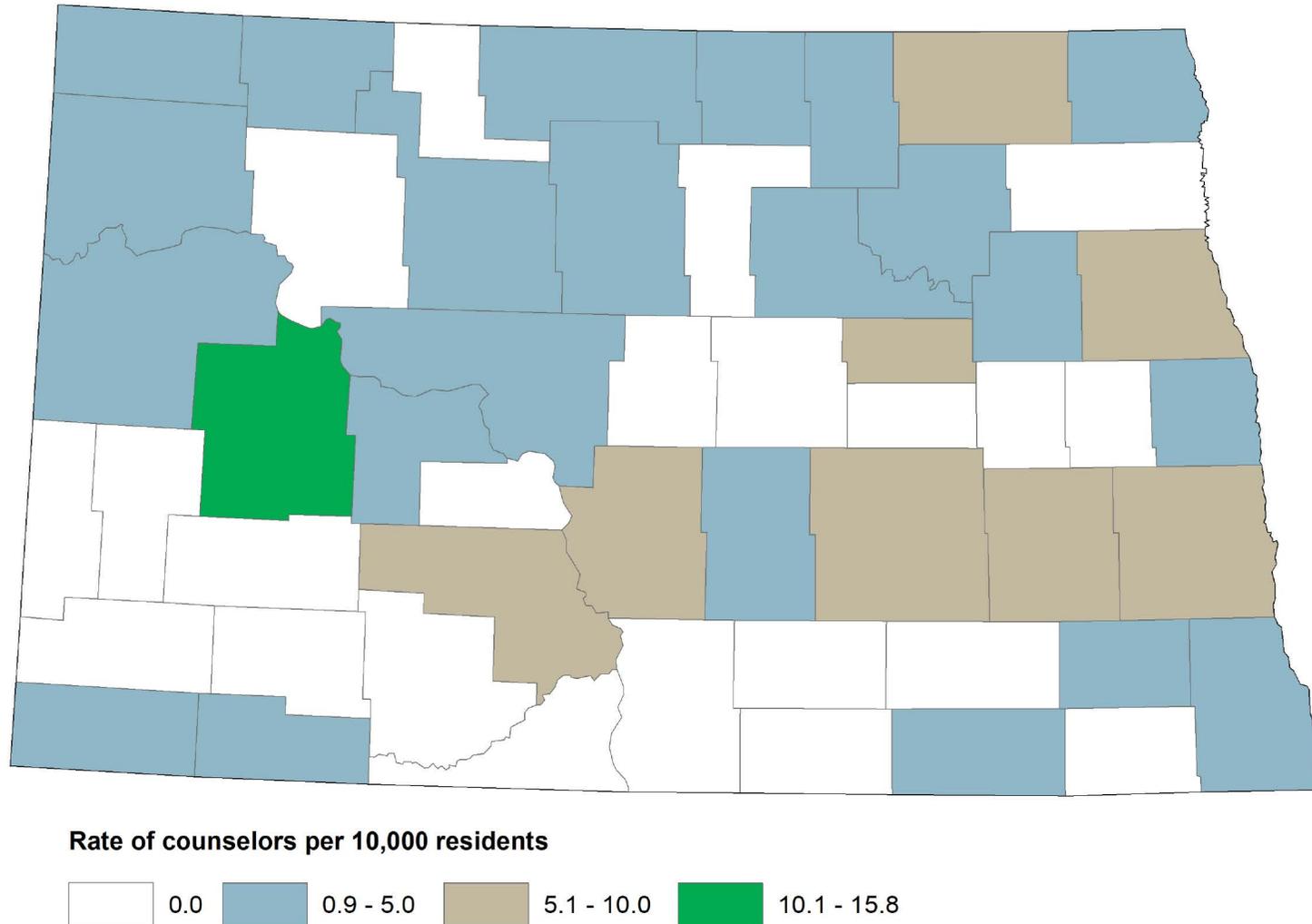
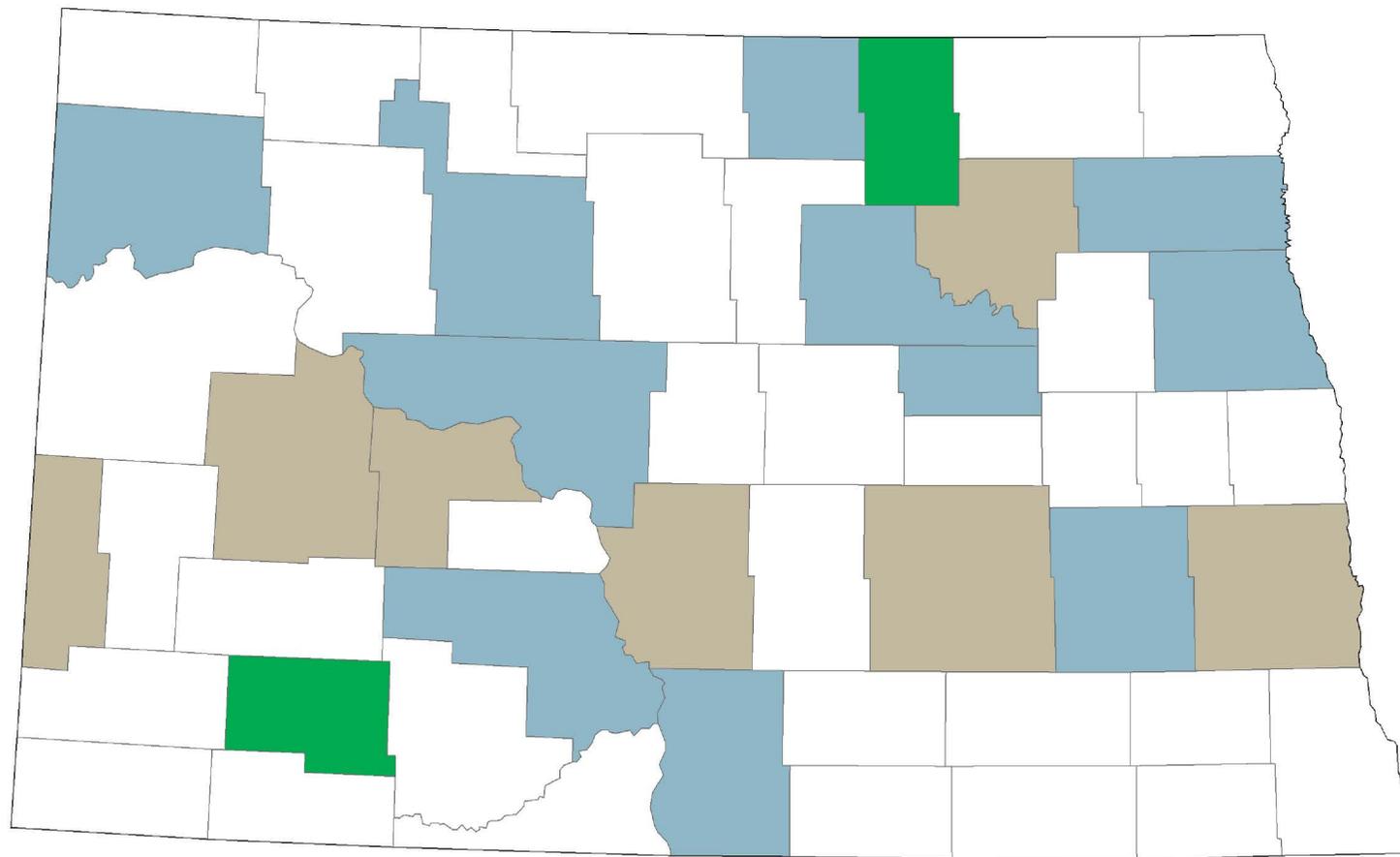


Figure 7.5. Rate of counselors per 10,000 North Dakota residents, by county, 2019.⁴



Rate of licensed addiction counselors per 10,000 residents



Figure 7.6. Rate of licensed addiction counselors per 10,000 North Dakota residents, by county, 2019.⁵

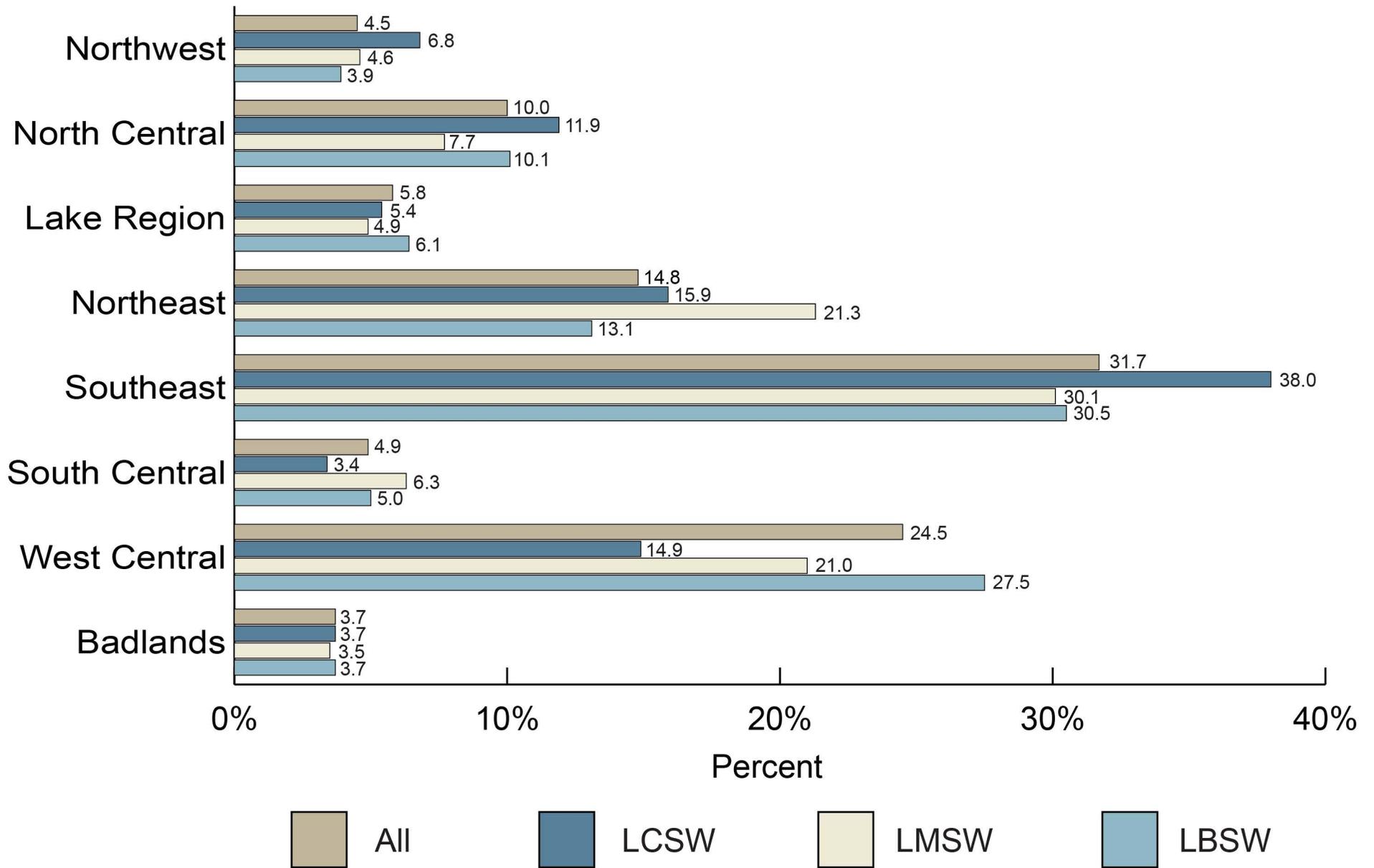


Figure 7.7. DHS region of primary workplace for social workers in North Dakota, 2019.⁷ The titles for the social work licenses changed in 2019. The license titles are now Licensed Clinical Social Worker, Licensed Master Social Worker, and Licensed Baccalaureate Social Worker.

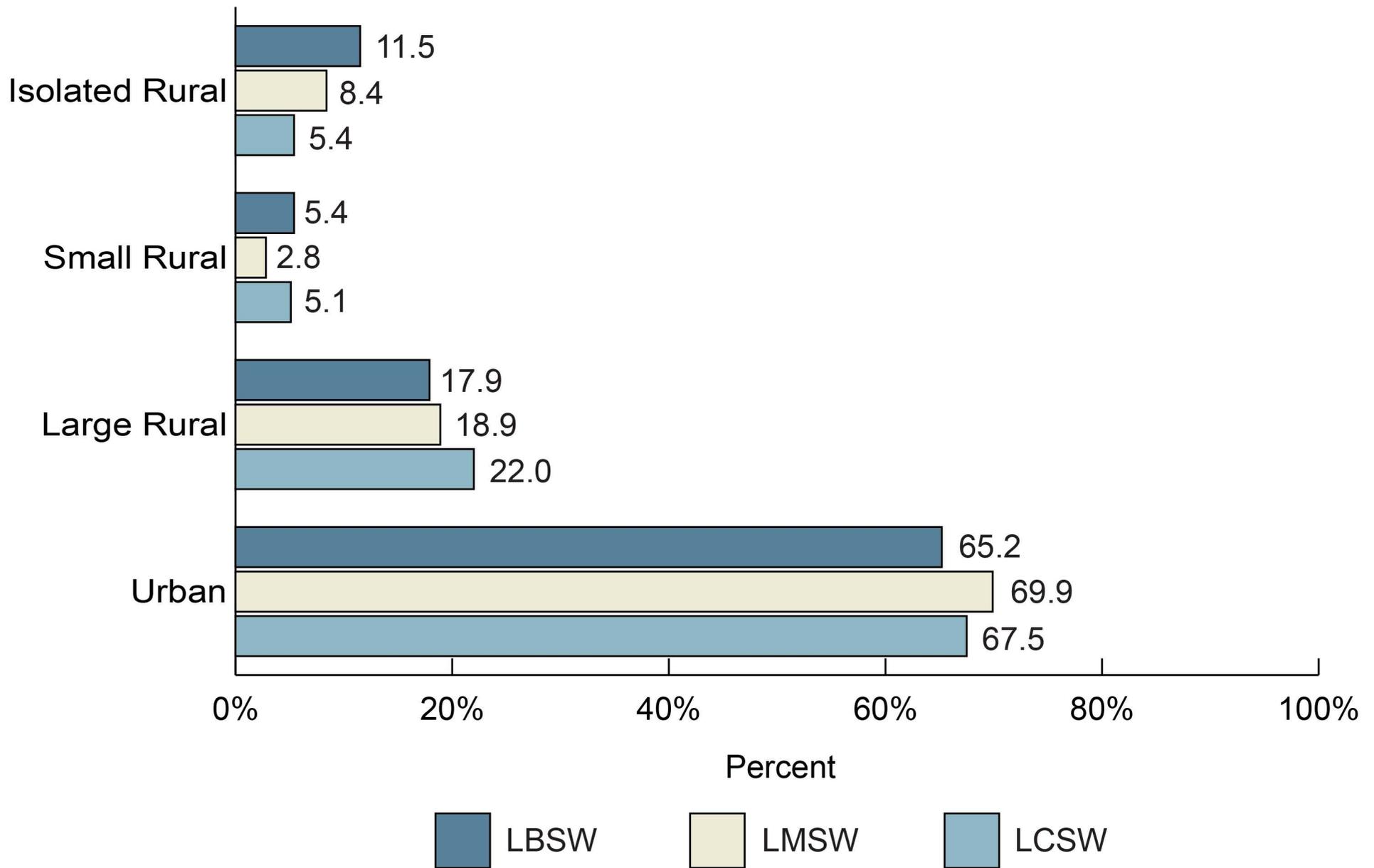
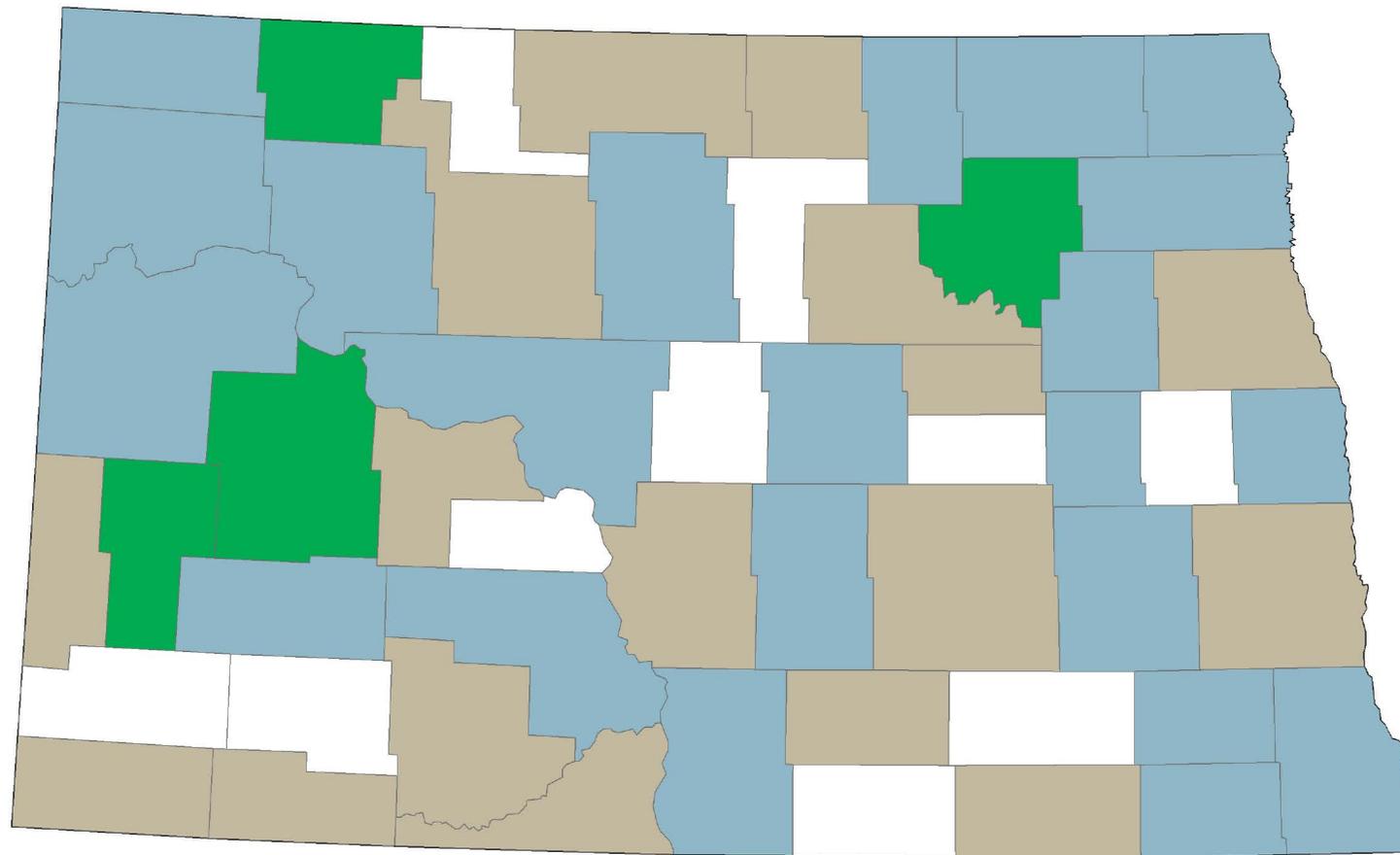


Figure 7.8. Rural-urban designation for social workers in North Dakota, 2019.⁷ The titles for the social work licenses changed in 2019. The license titles are now Licensed Clinical Social Worker, Licensed Master Social Worker, and Licensed Baccalaureate Social Worker.



Rate of social workers per 10,000 residents

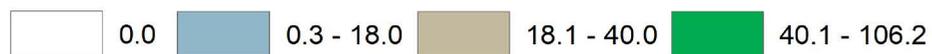


Figure 7.9. Rate of social workers per 10,000 North Dakota residents, by county, 2019.⁷

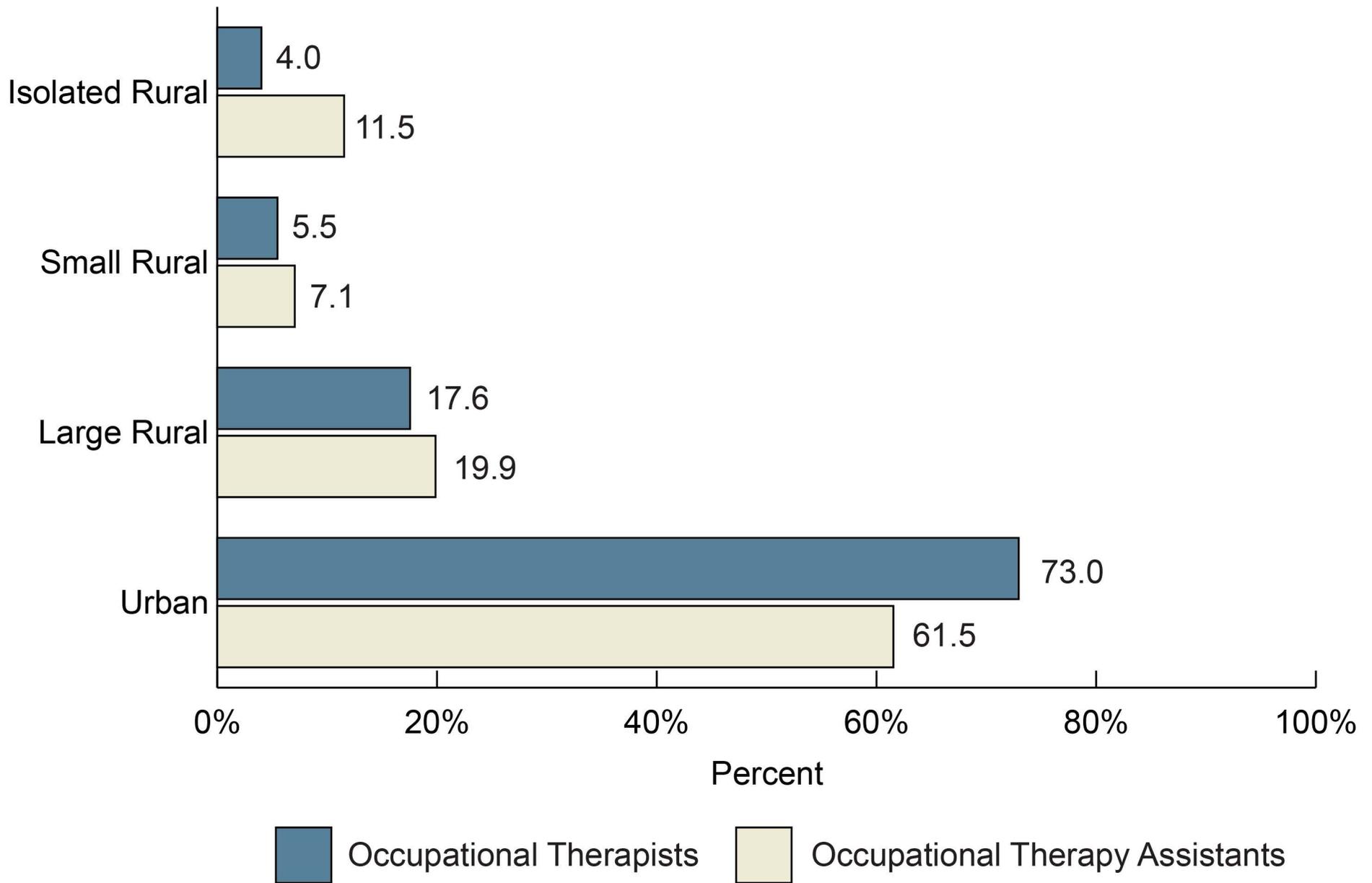


Figure 7.10. Rural-urban designation for occupational therapy professionals in North Dakota, 2019.⁸

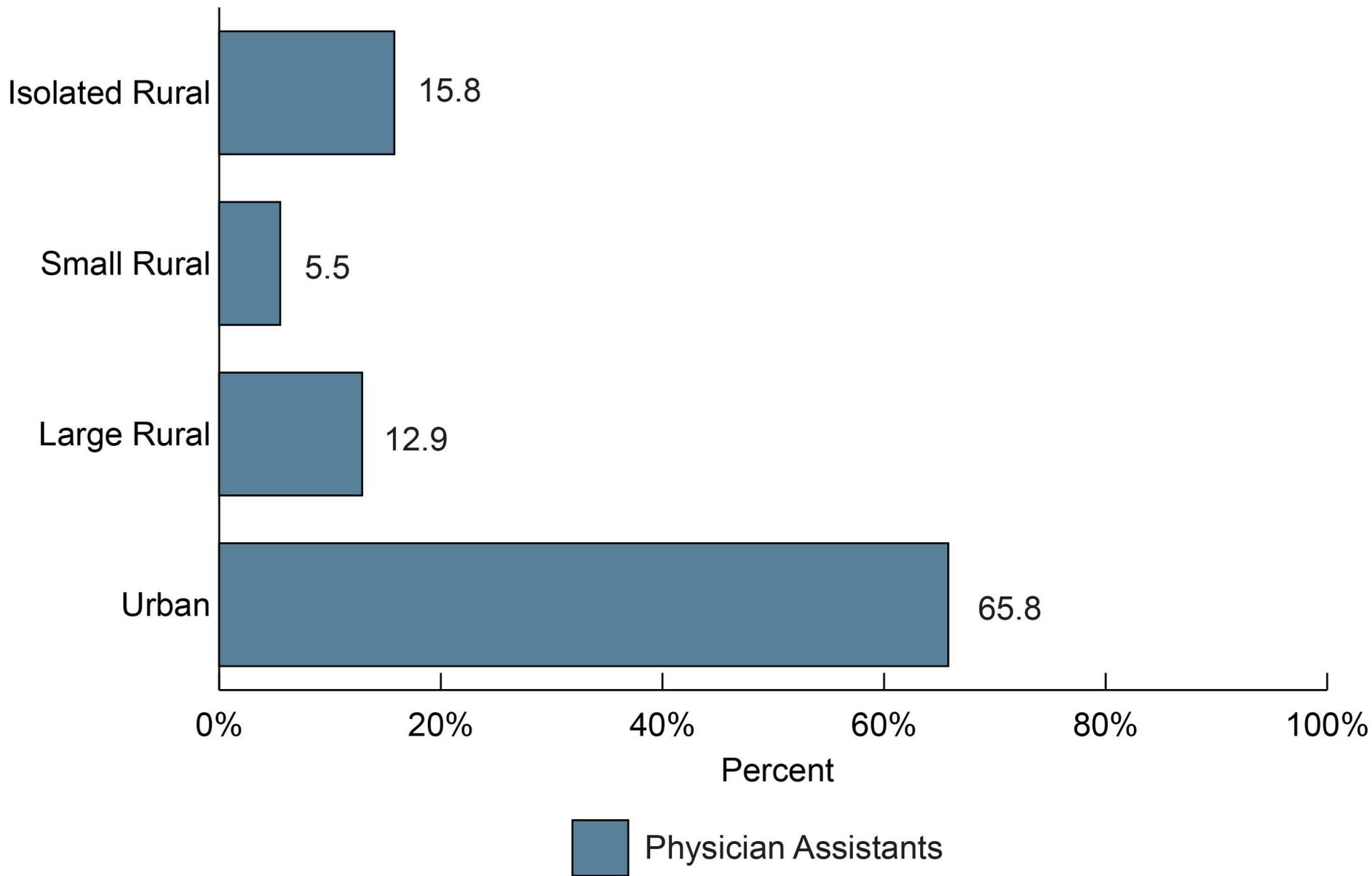
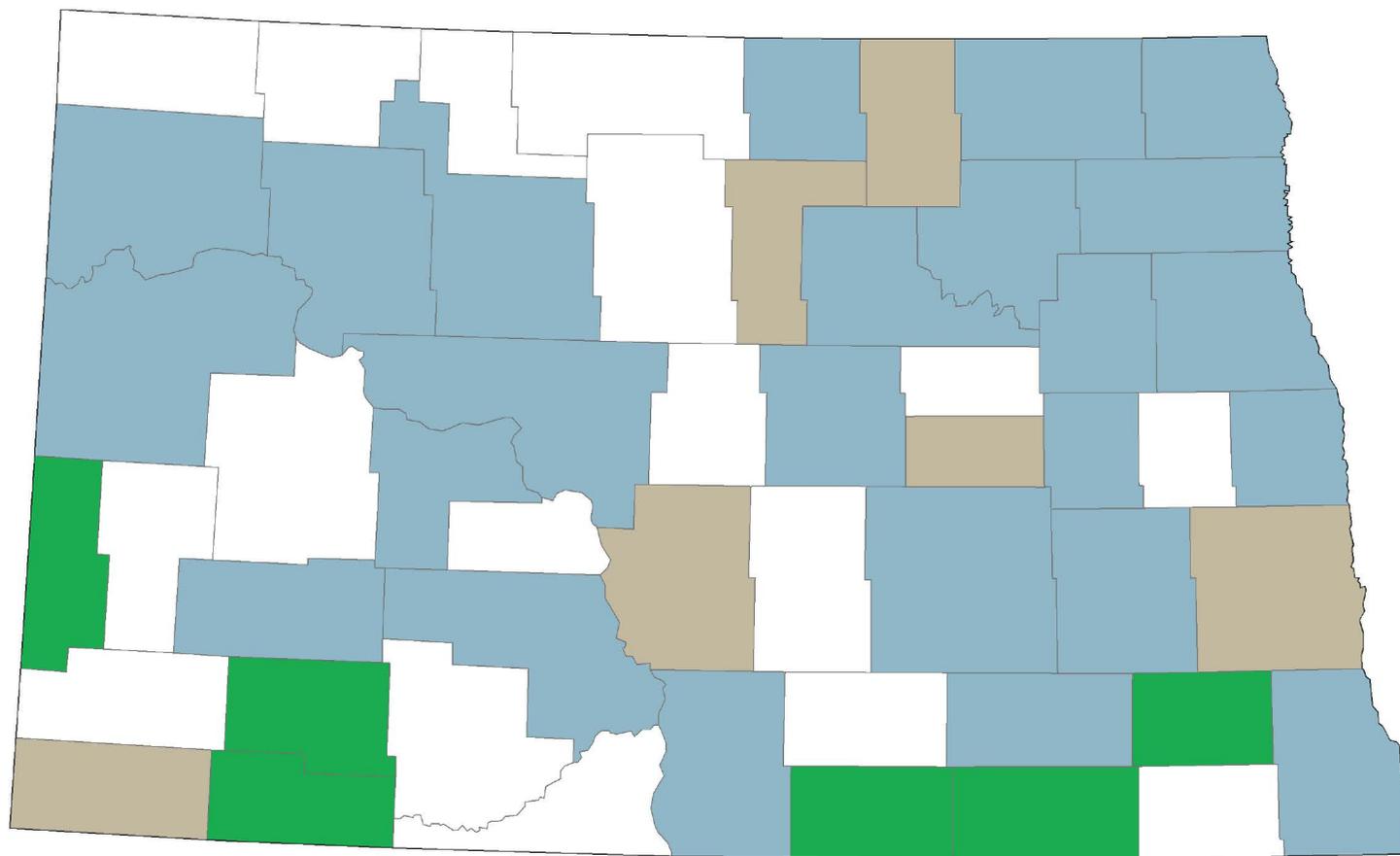


Figure 7.11. Rural-urban designation for physician assistants in North Dakota, 2019.¹¹



Rate of physician assistants per 10,000 residents



Figure 7.12. Rate of physician assistants per 10,000 North Dakota residents, by county, 2019.¹¹

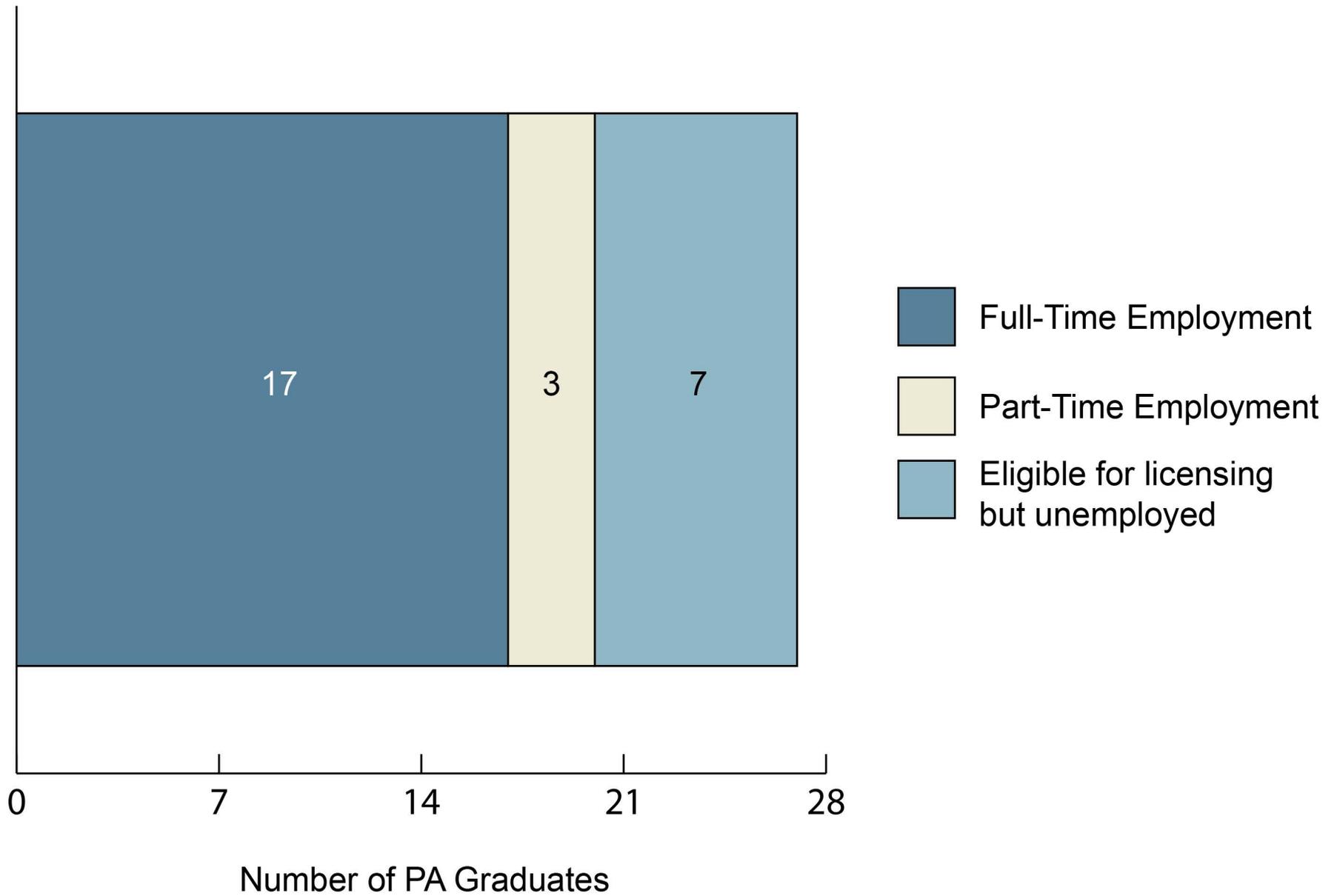


Figure 7.13. Employment status of 2020 physician assistant graduates.¹²

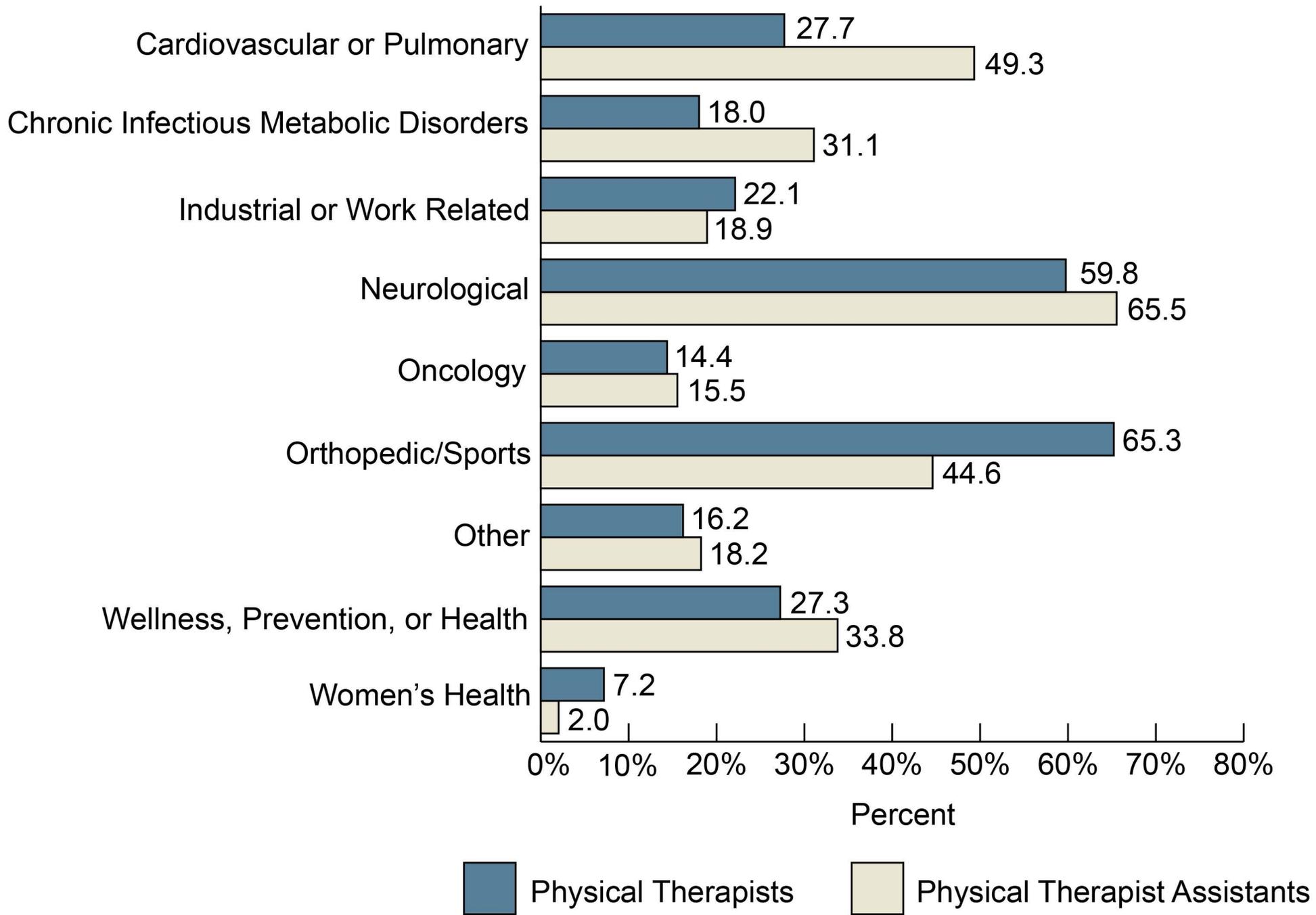


Figure 7.14. Primary injuries or conditions treated by North Dakota physical therapists and physical therapist assistants, 2019.¹³

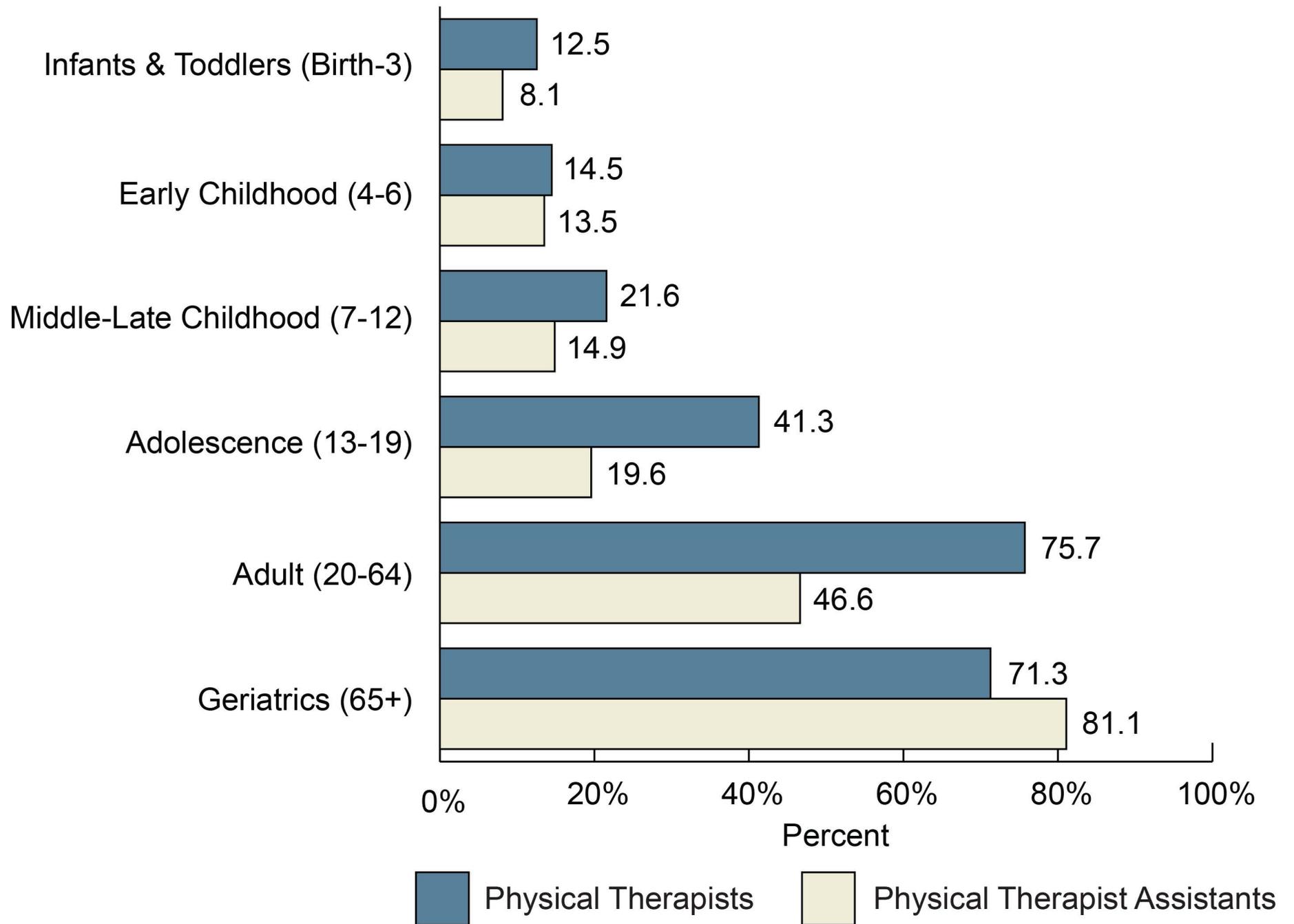


Figure 7.15. Primary patient ages for North Dakota physical therapists and physical therapist assistants, 2019.¹³

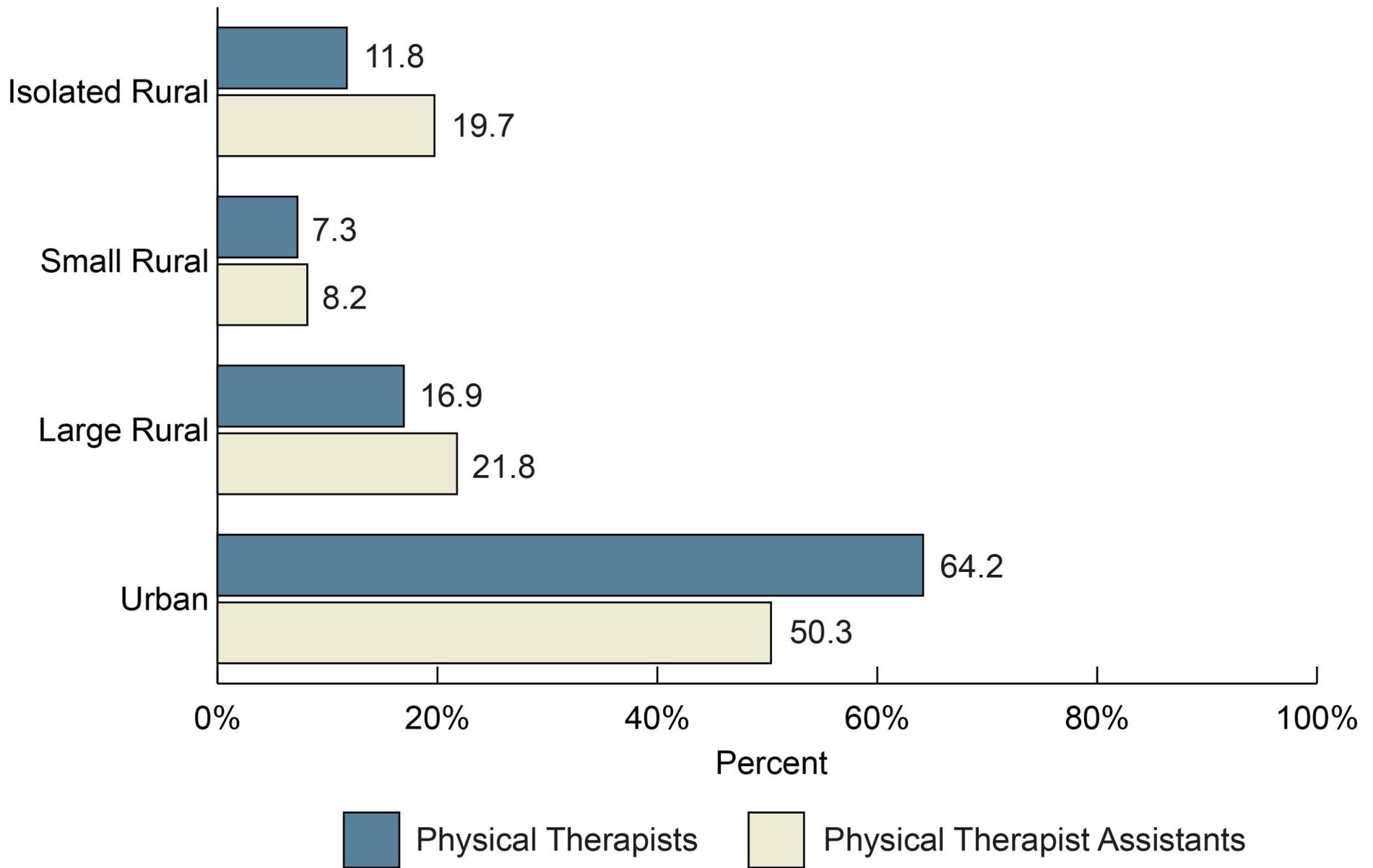
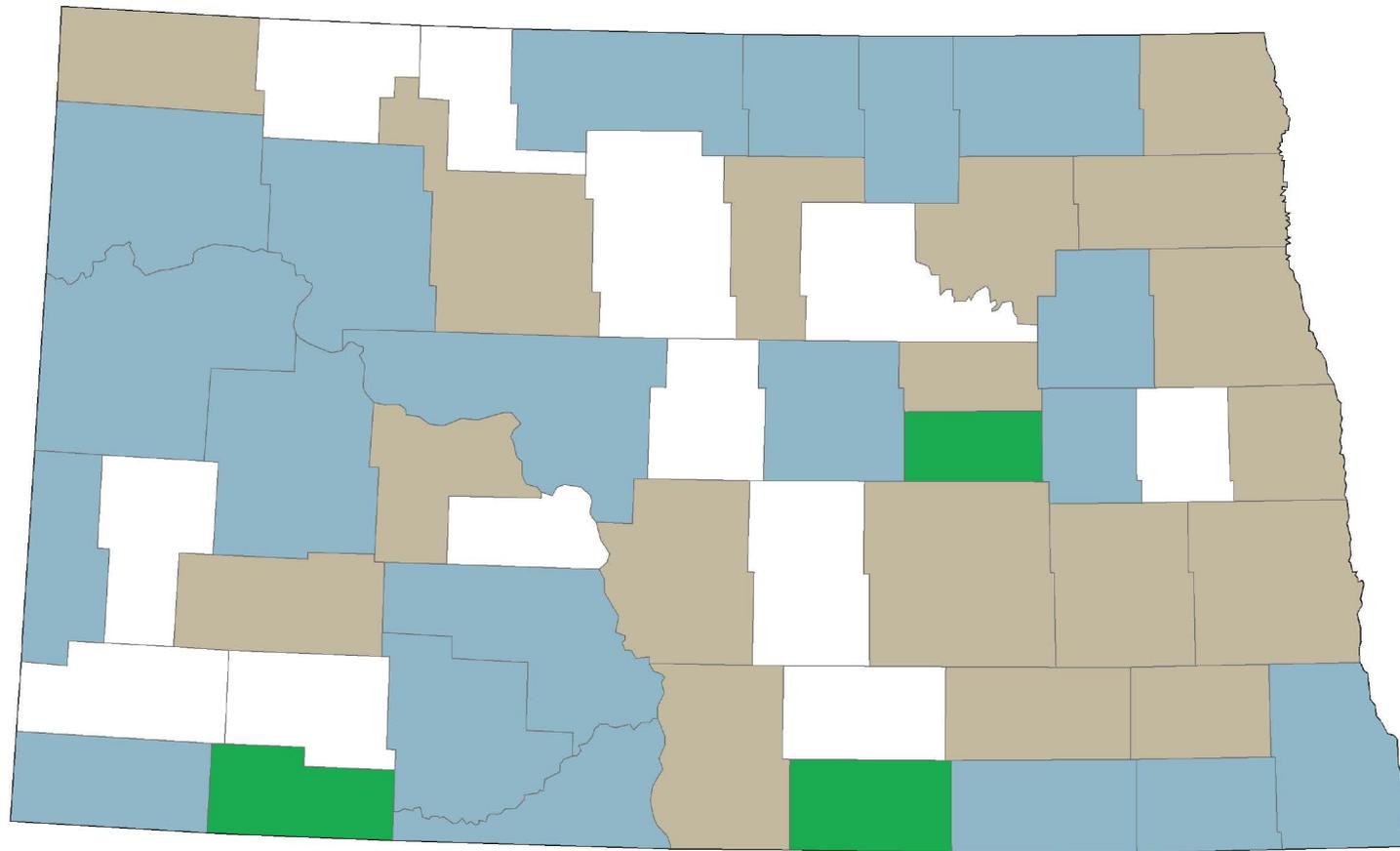


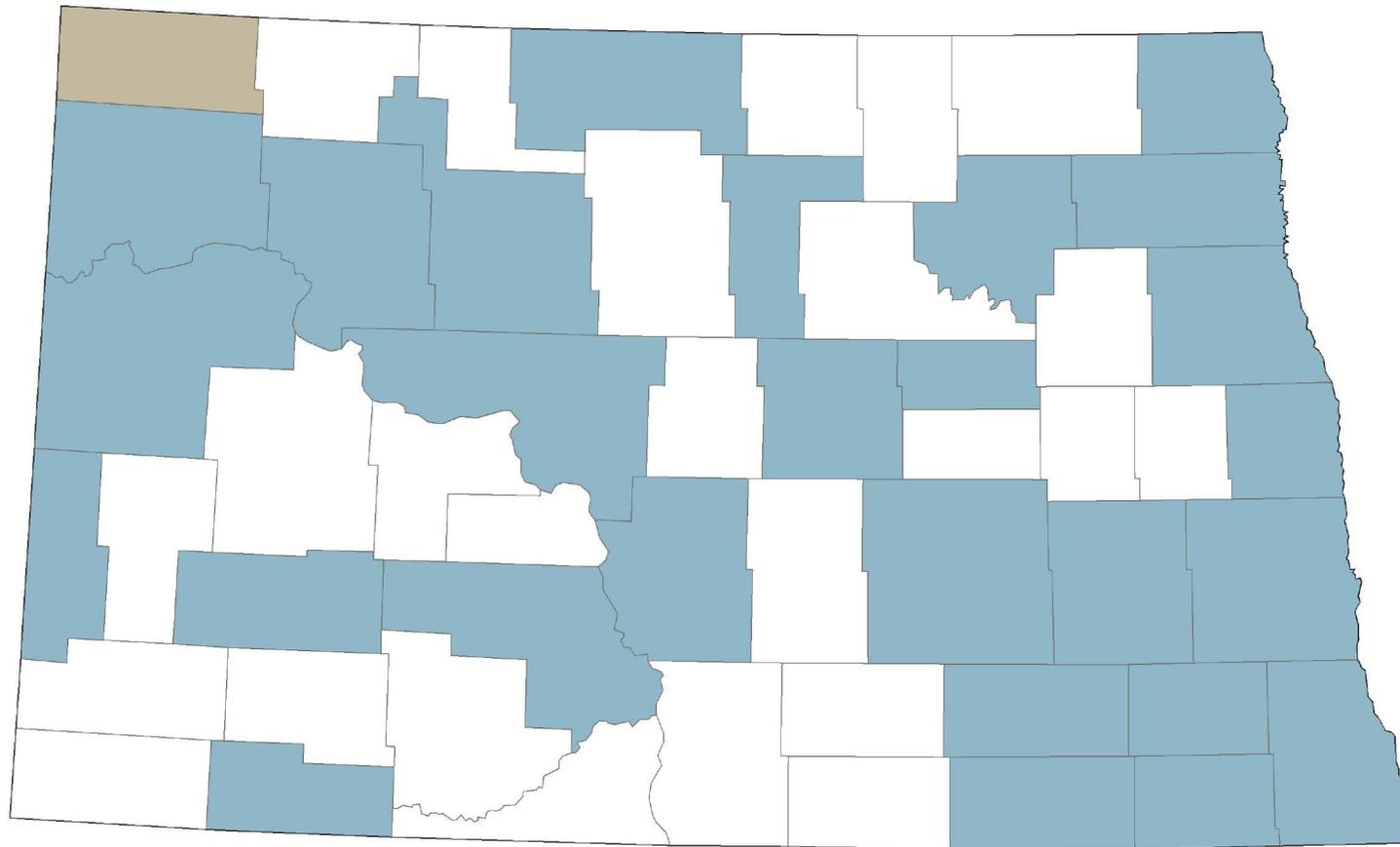
Figure 7.16. Rural-urban designation for physical therapy professionals in North Dakota, 2019.¹³



Rate of physical therapists per 10,000 residents



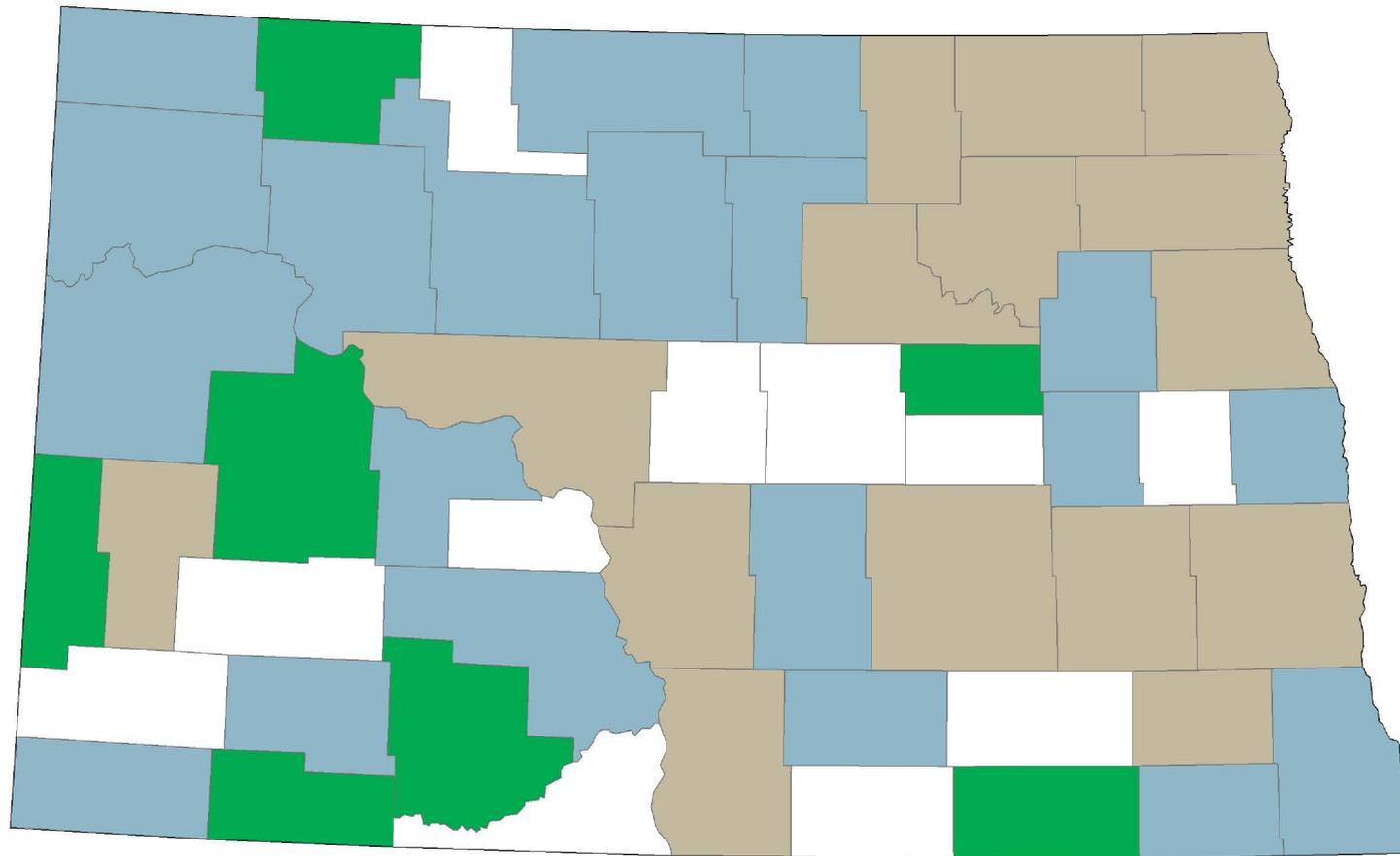
Figure 7.17. Rate of physical therapists per 10,000 North Dakota residents, by county, 2019.¹³



Rate of physical therapist assistant per 10,000 residents



Figure 7.18. Rate of physical therapist assistants per 10,000 North Dakota residents, by county, 2019.¹³



Rate of pharmacy technicians per 10,000 residents

0.0	2.6 - 10.0	10.1 - 20.0	20.1 - 56.5
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Figure 7.19. Rate of pharmacy technicians per 10,000 North Dakota residents, by county, 2019.¹⁶

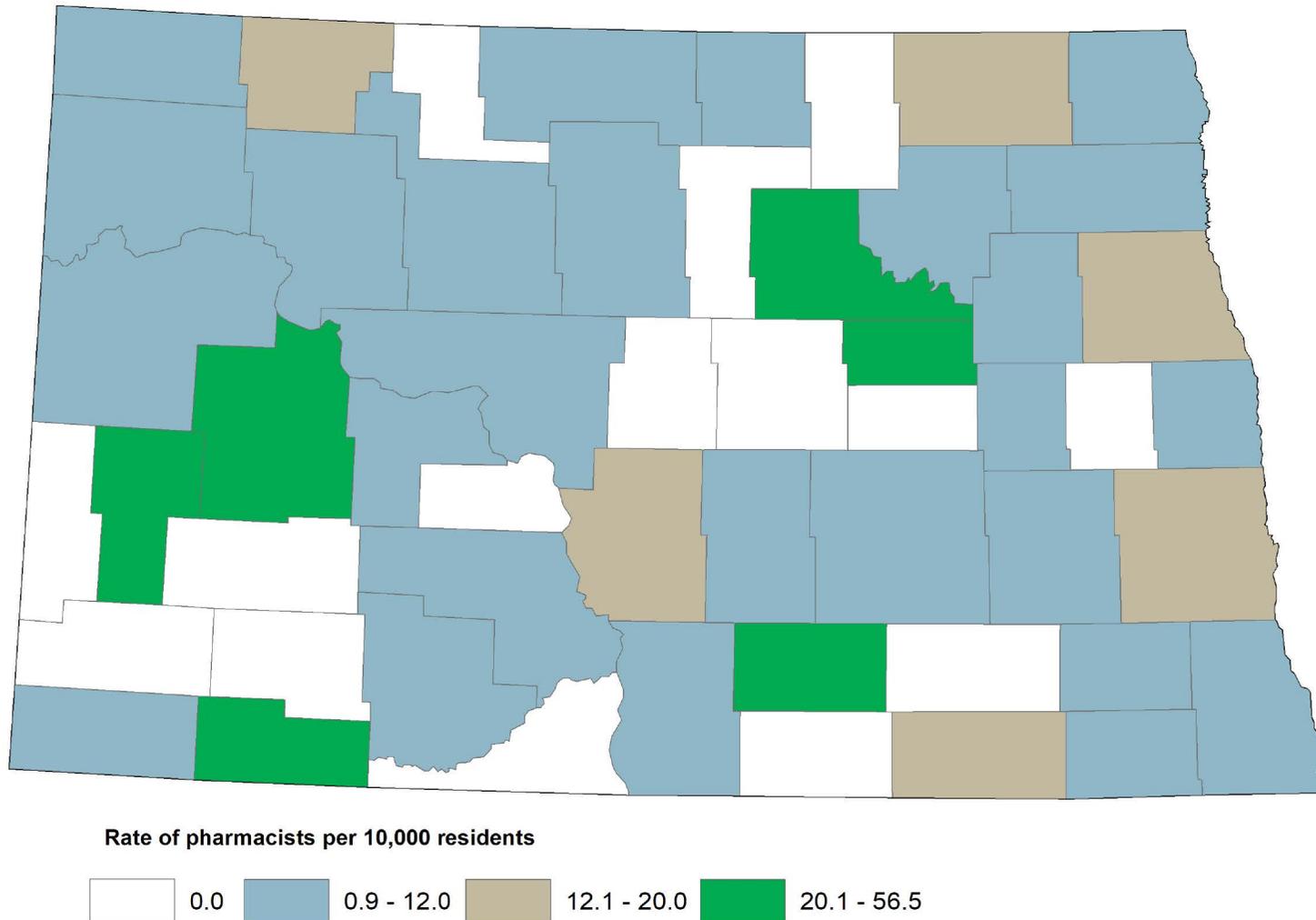


Figure 7.20. Rate of pharmacists per 10,000 North Dakota residents, by county, 2019.¹⁶

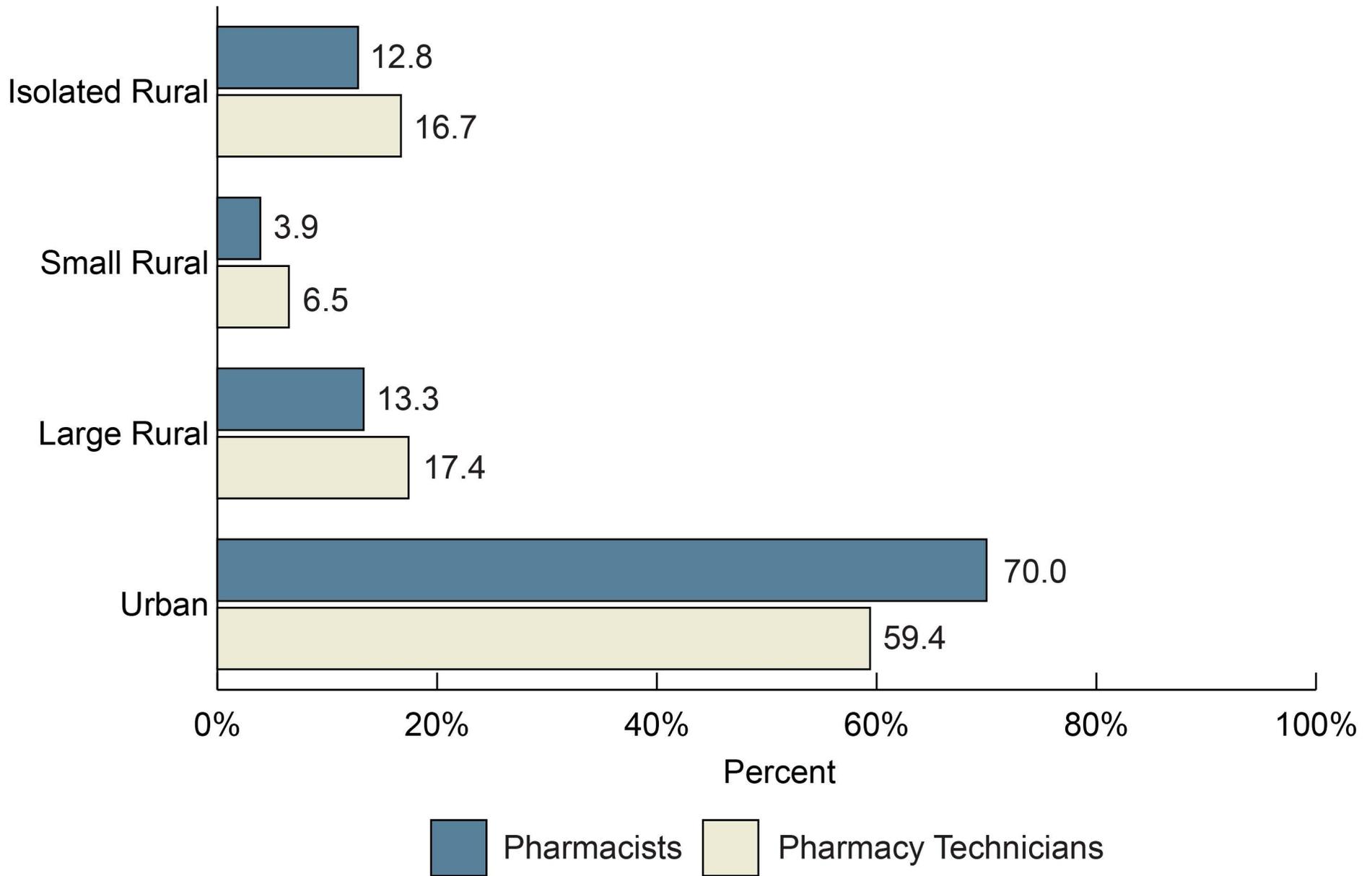
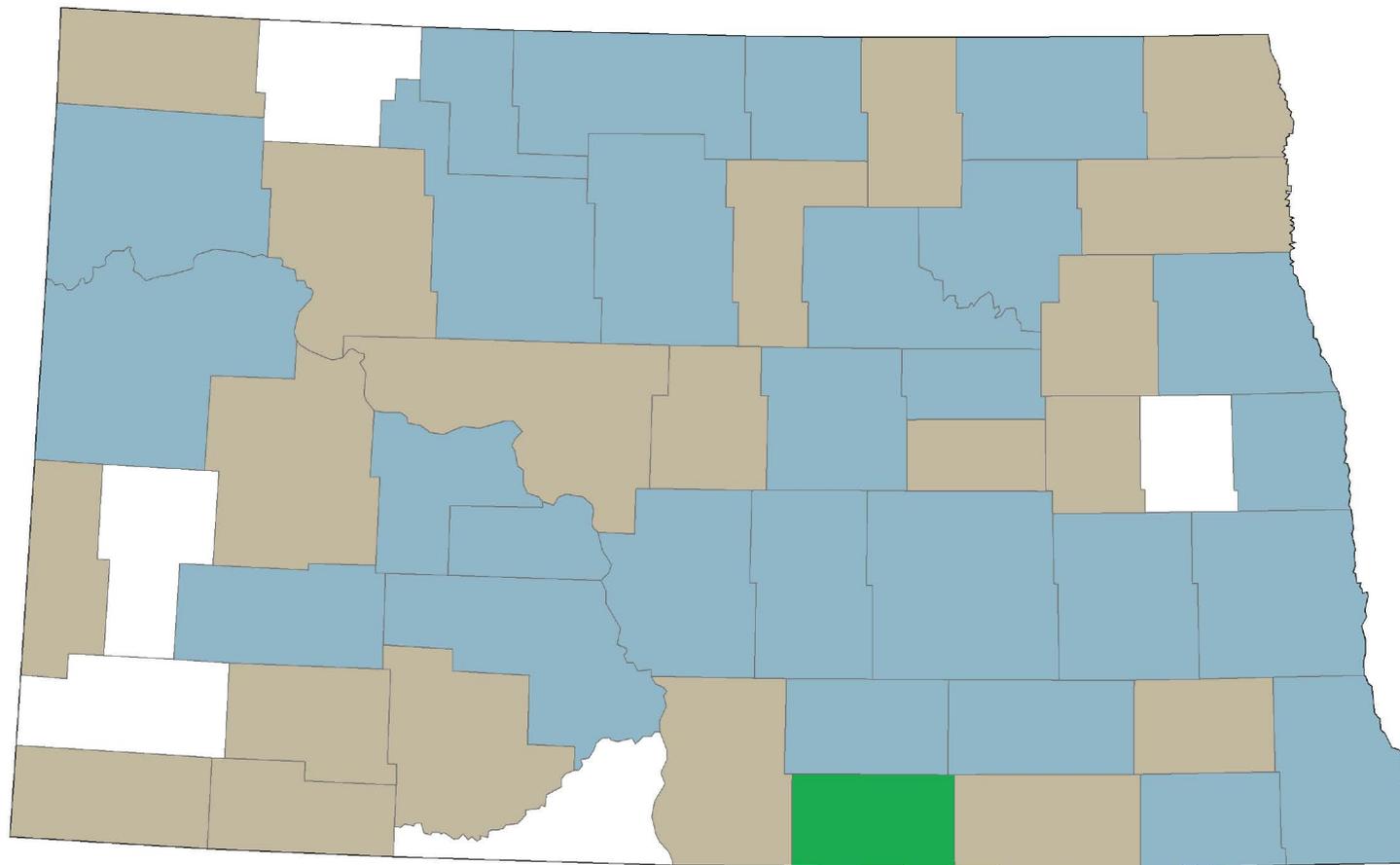


Figure 7.21. Rural-urban designation for pharmacy professionals in North Dakota, 2019.¹⁶



Rate of pharmacies per 10,000 residents

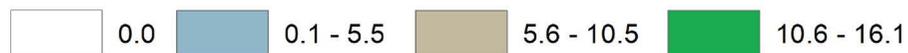


Figure 7.22. Rate of pharmacies per 10,000 North Dakota residents, by county, 2019.¹⁶

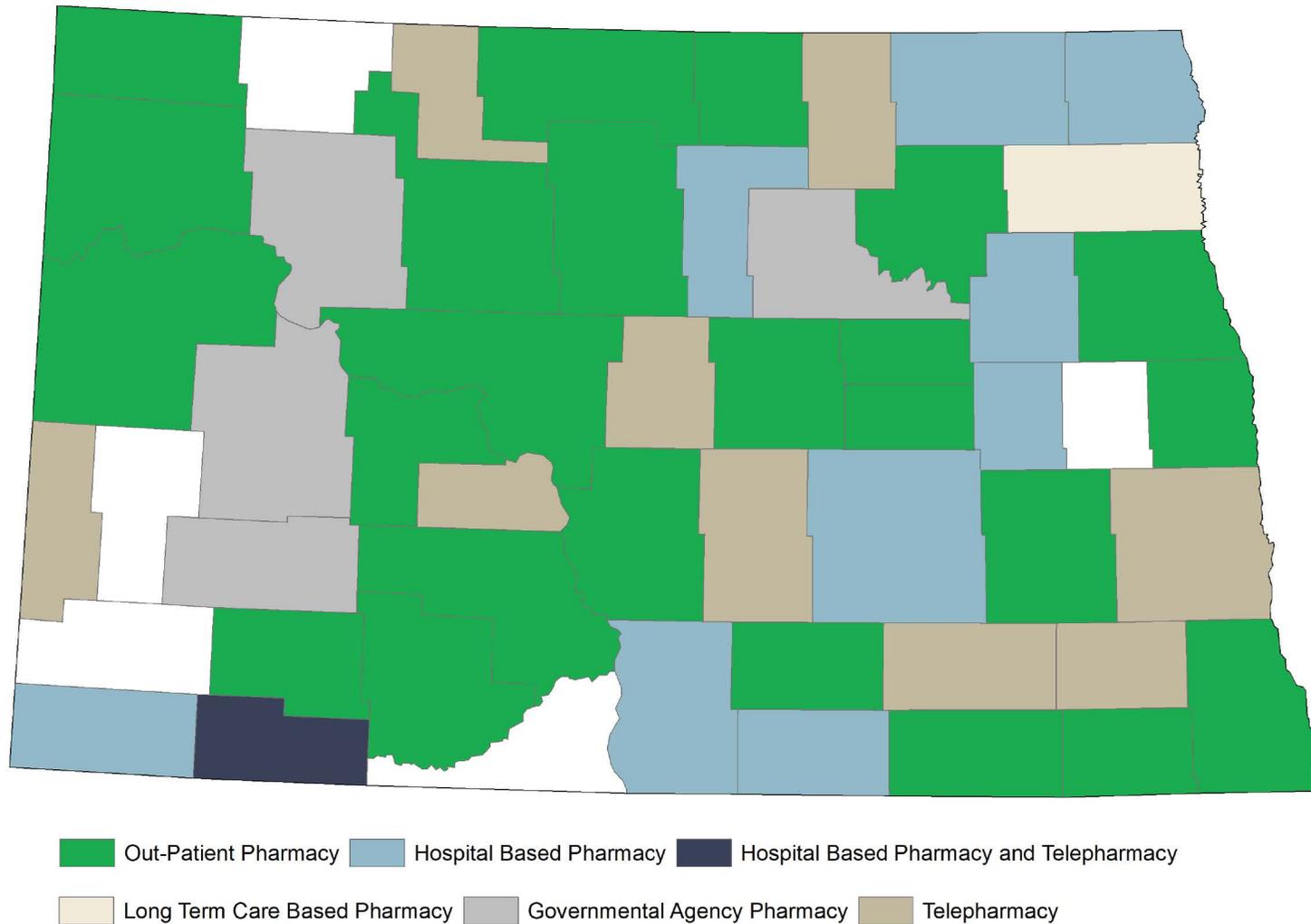


Figure 7.23. Pharmacy classifications per North Dakota county.¹⁶

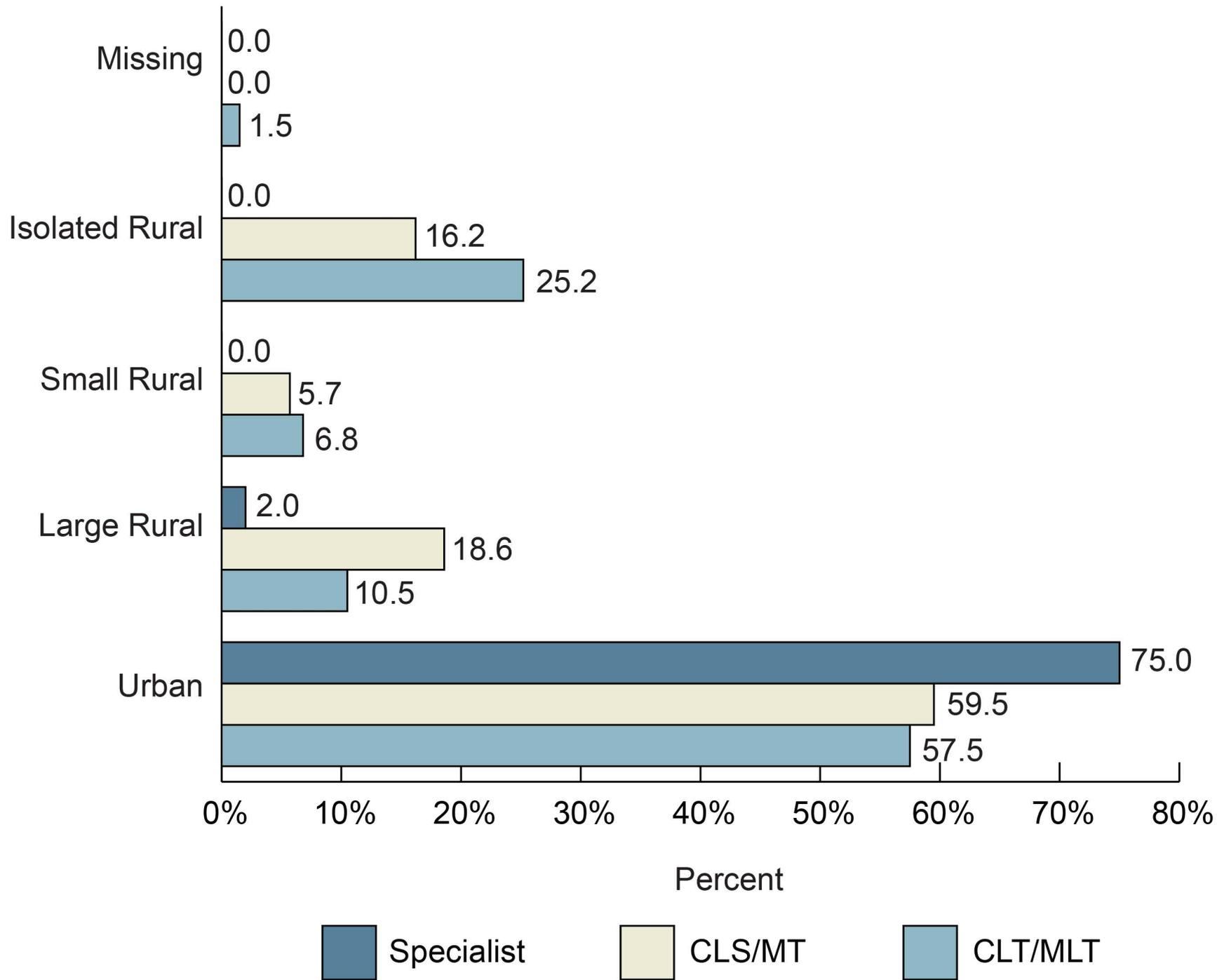


Figure 7.24. Rural-urban designation for medical laboratory scientists in North Dakota.¹⁷

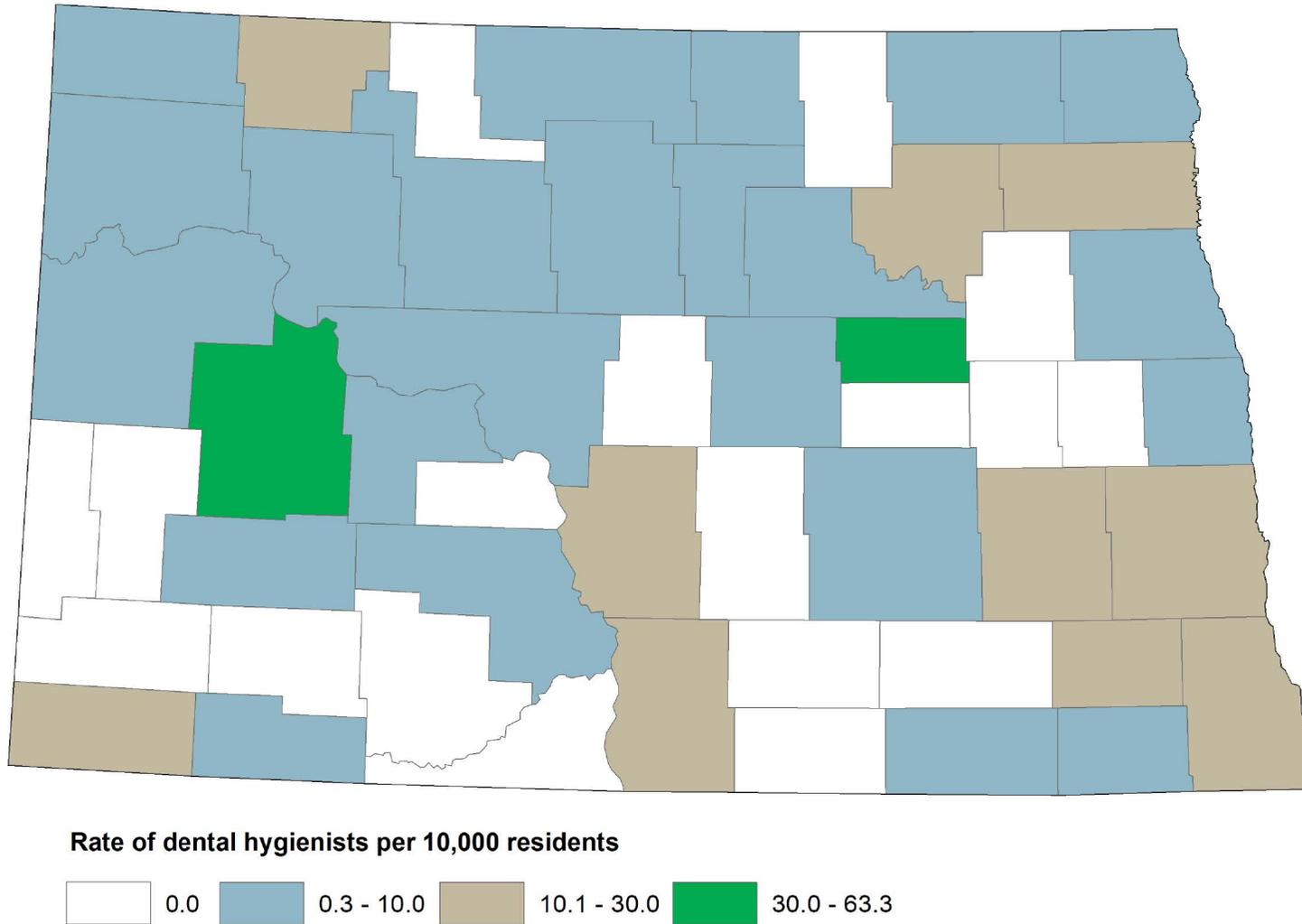
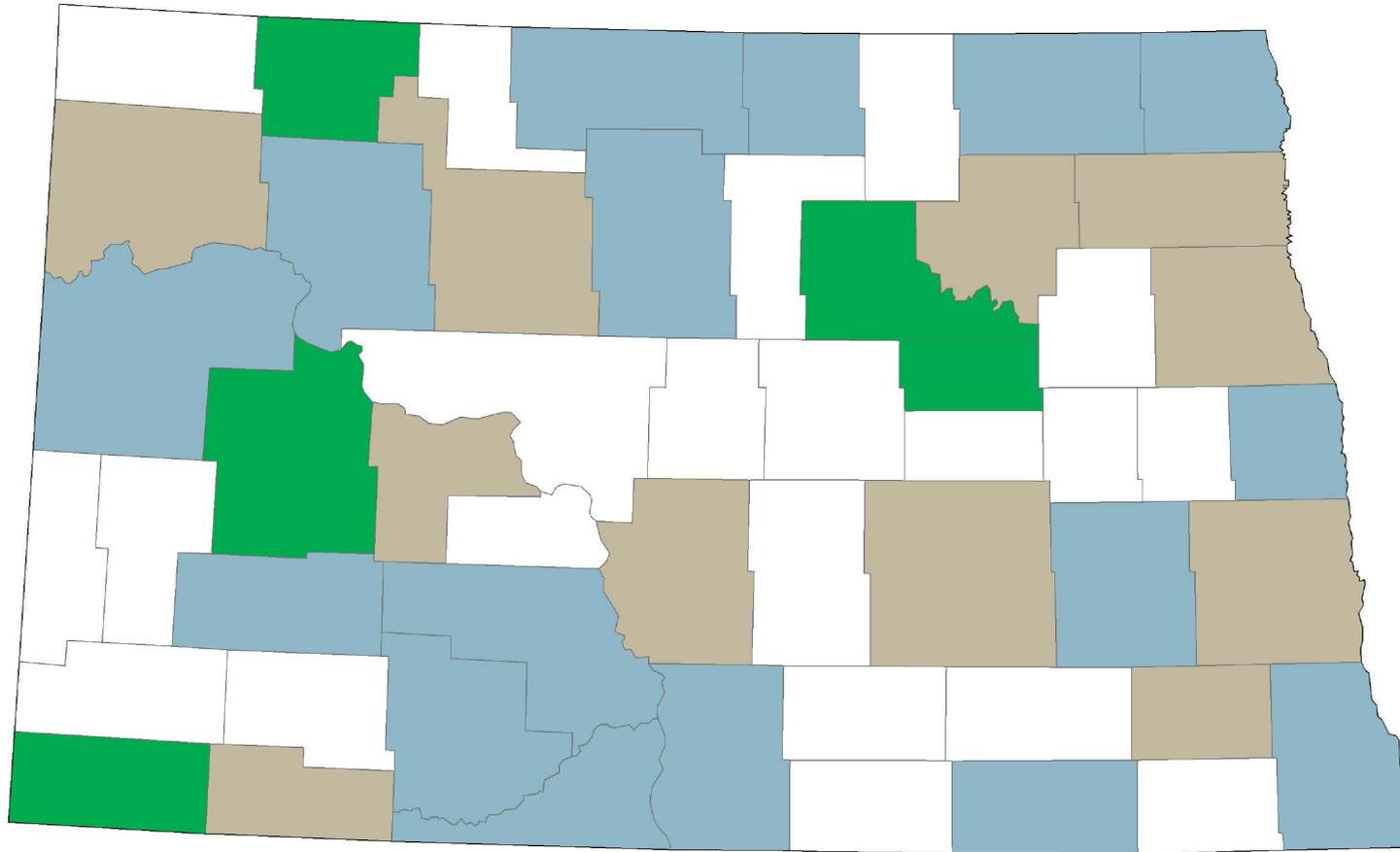


Figure 7.25. Rate of dental hygienists per 10,000 North Dakota residents, by county, 2019.¹⁸



Rate of dentists per 10,000 residents



Figure 7.26. Rate of dentists per 10,000 North Dakota residents, by county, 2019.¹⁸

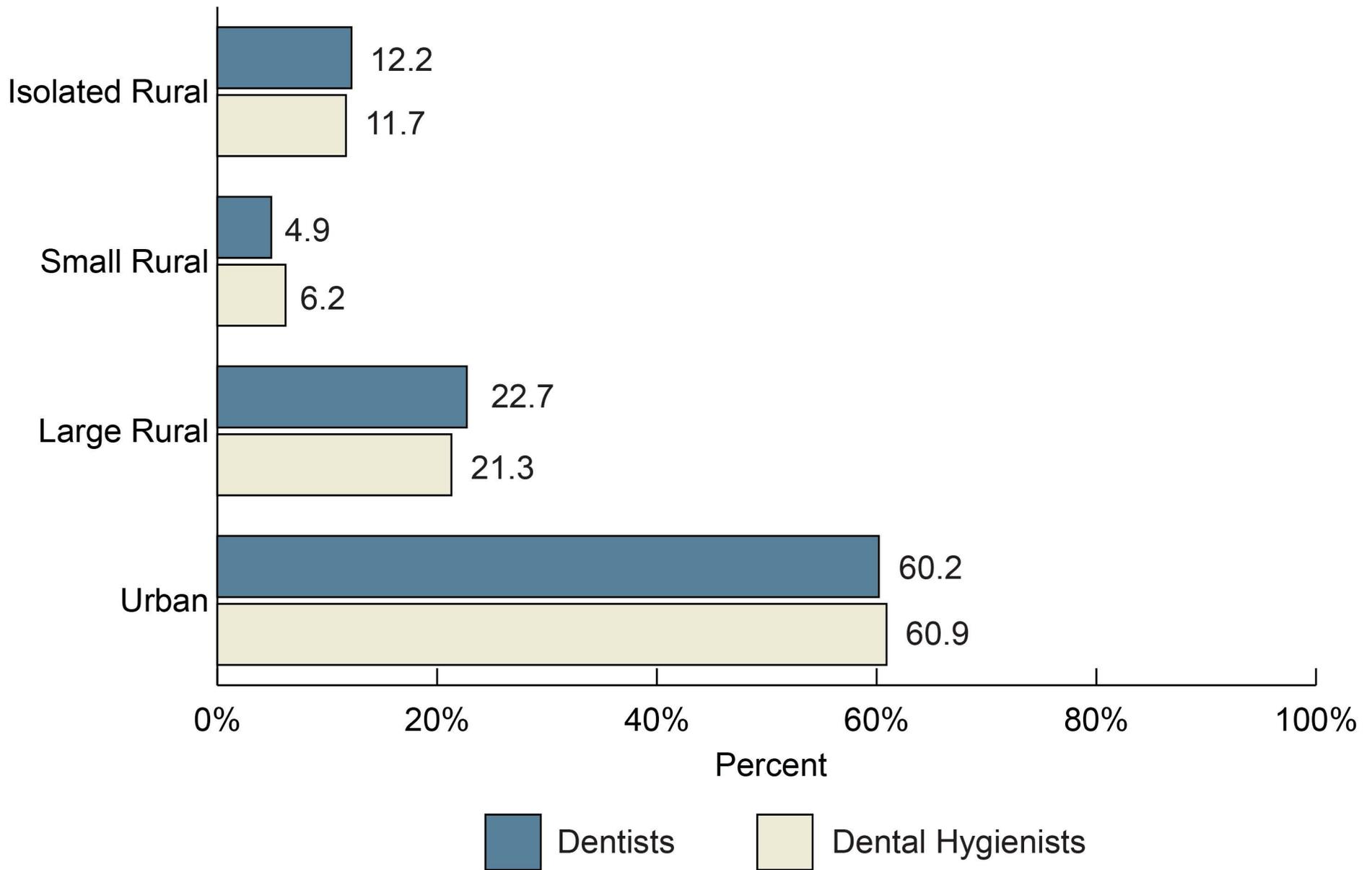


Figure 7.27. Rural-urban designation for dental professionals in North Dakota, 2019.¹⁸

Chapter 8: Healthcare Facility Workforce in North Dakota

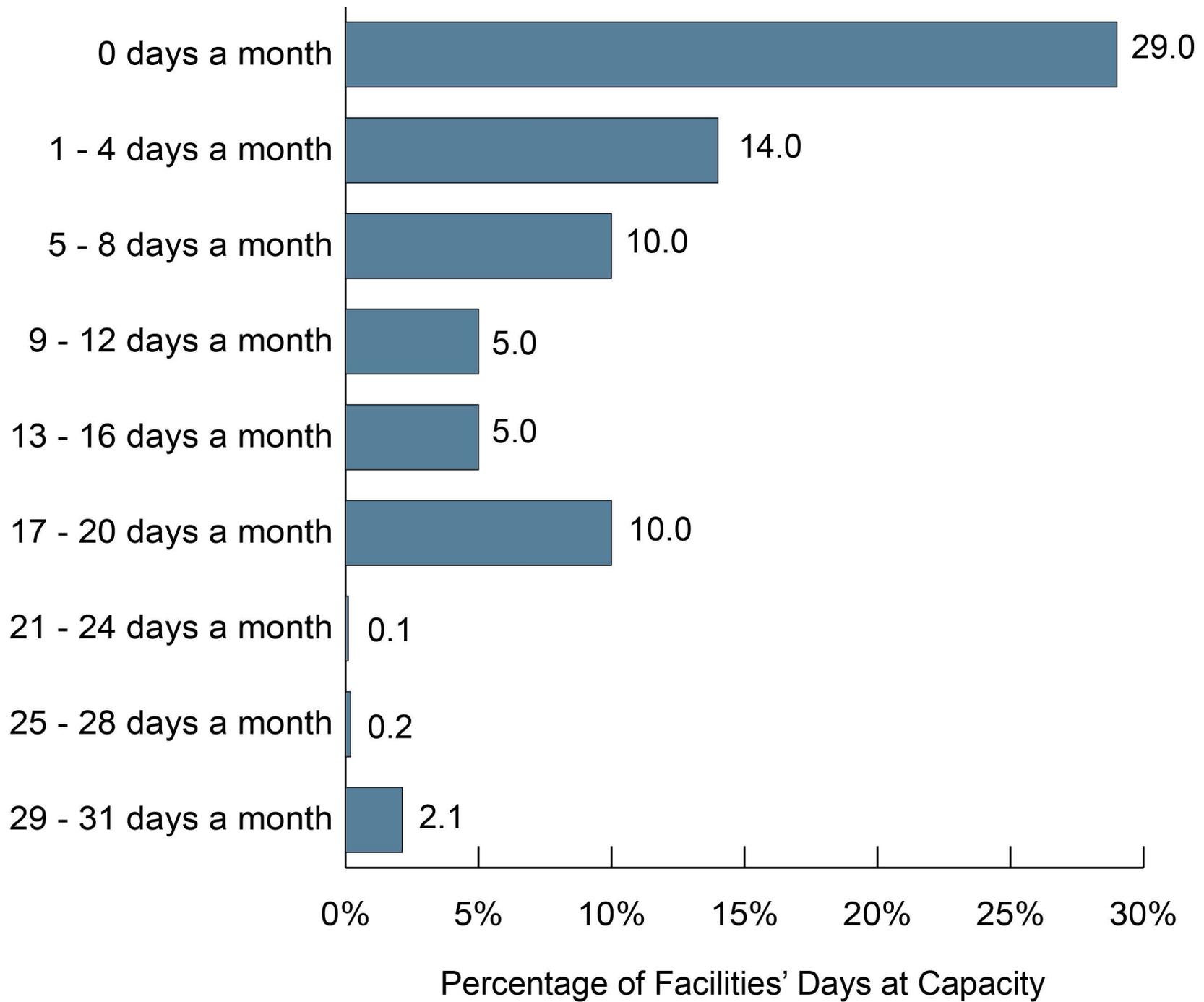


Figure 8.1. Number of days responding BH facilities spent at full capacity, 2020.¹

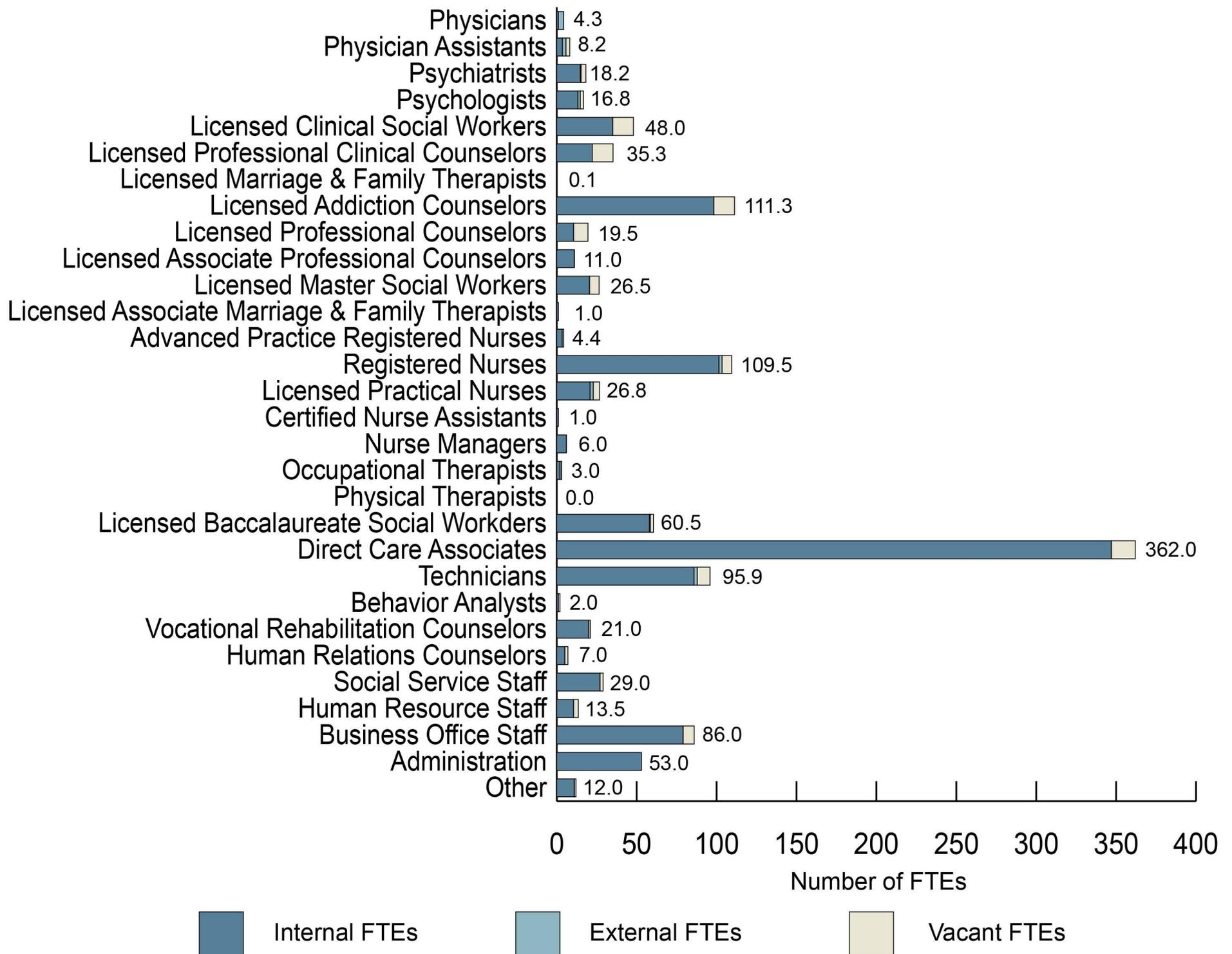


Figure 8.2. Number of internal, external, and vacant FTE for each position type, 2020.¹

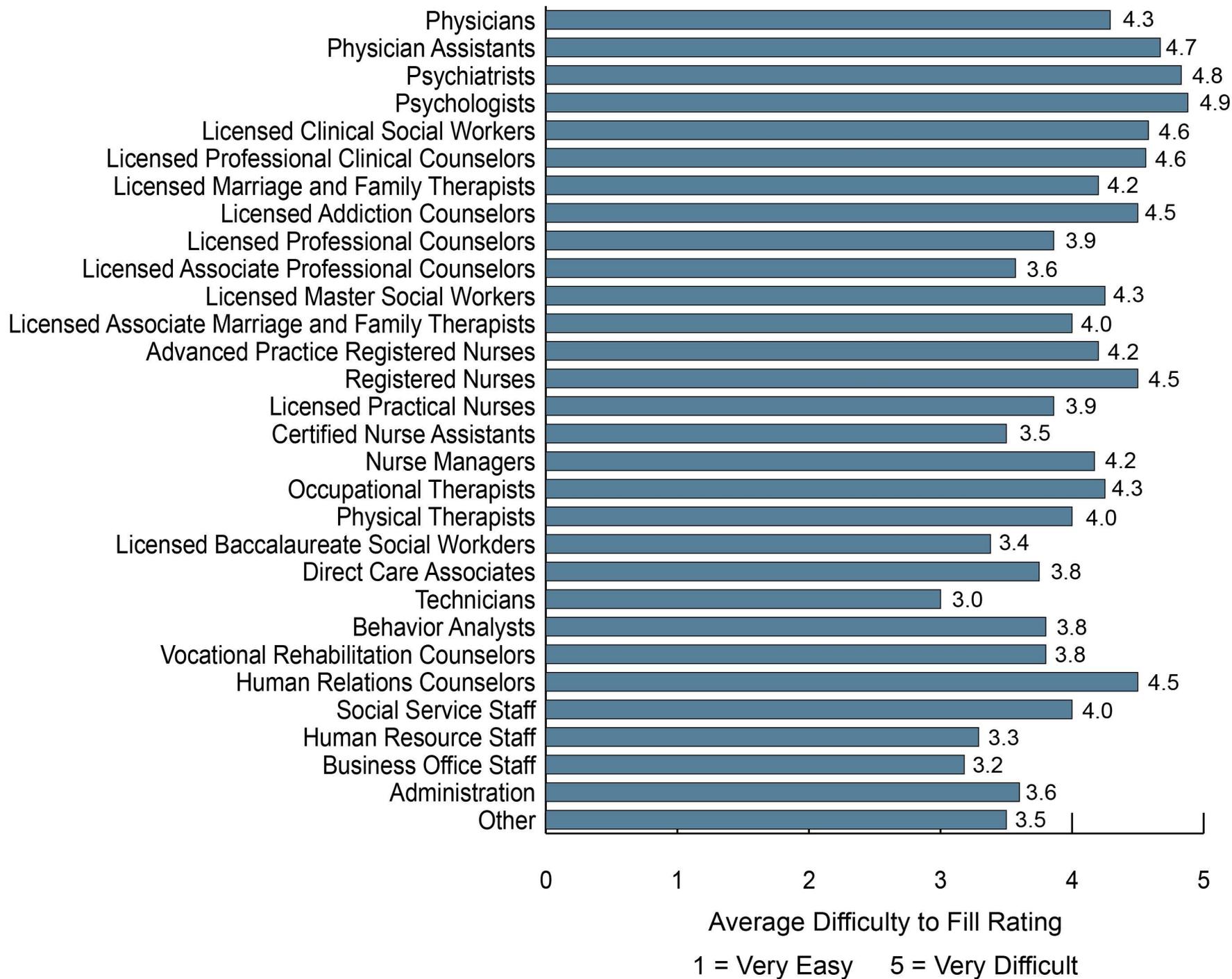


Figure 8.3. Average rated difficulty filing each position type, 2020.¹

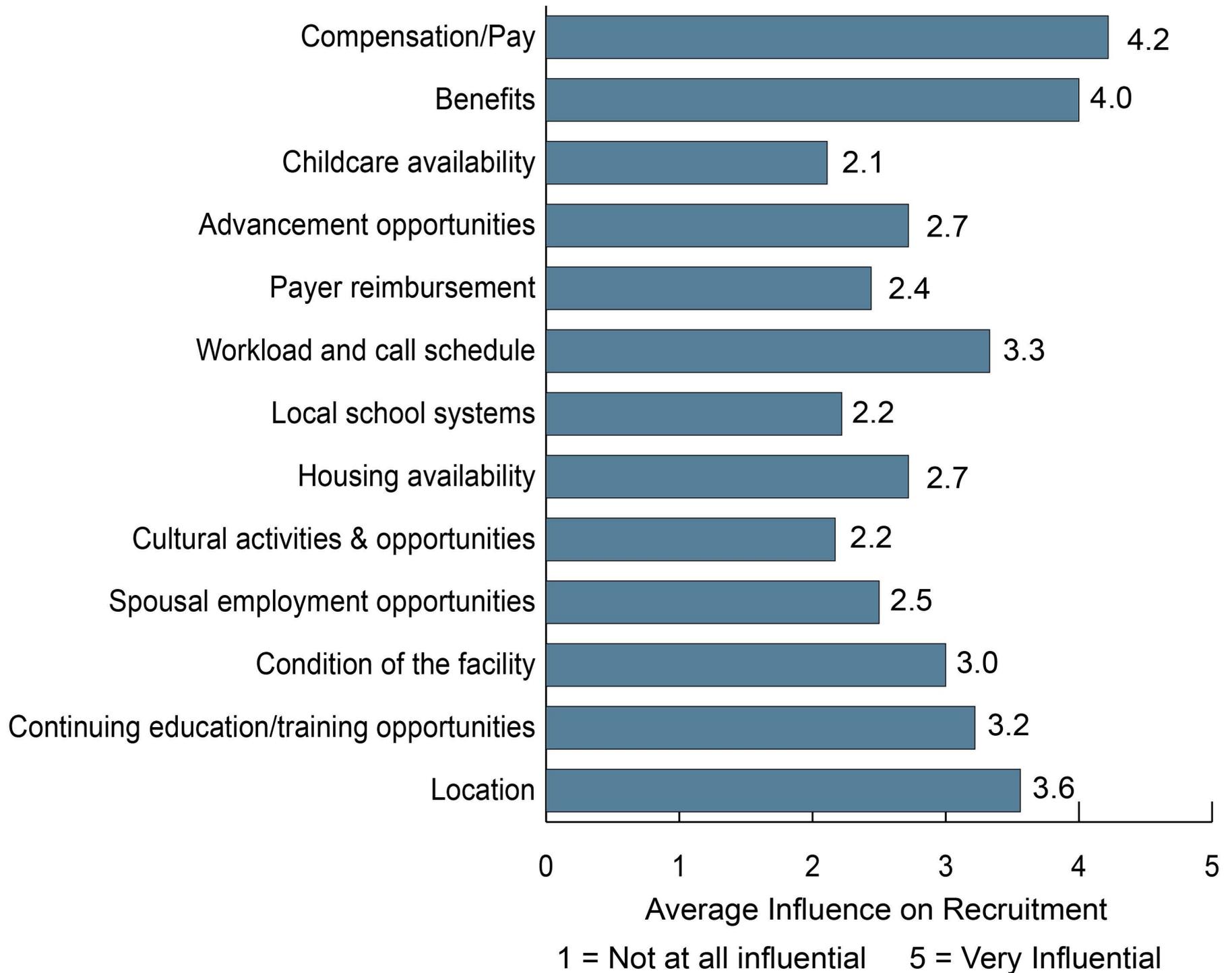


Figure 8.4. Average influence rating for workforce recruiting, 2020.¹

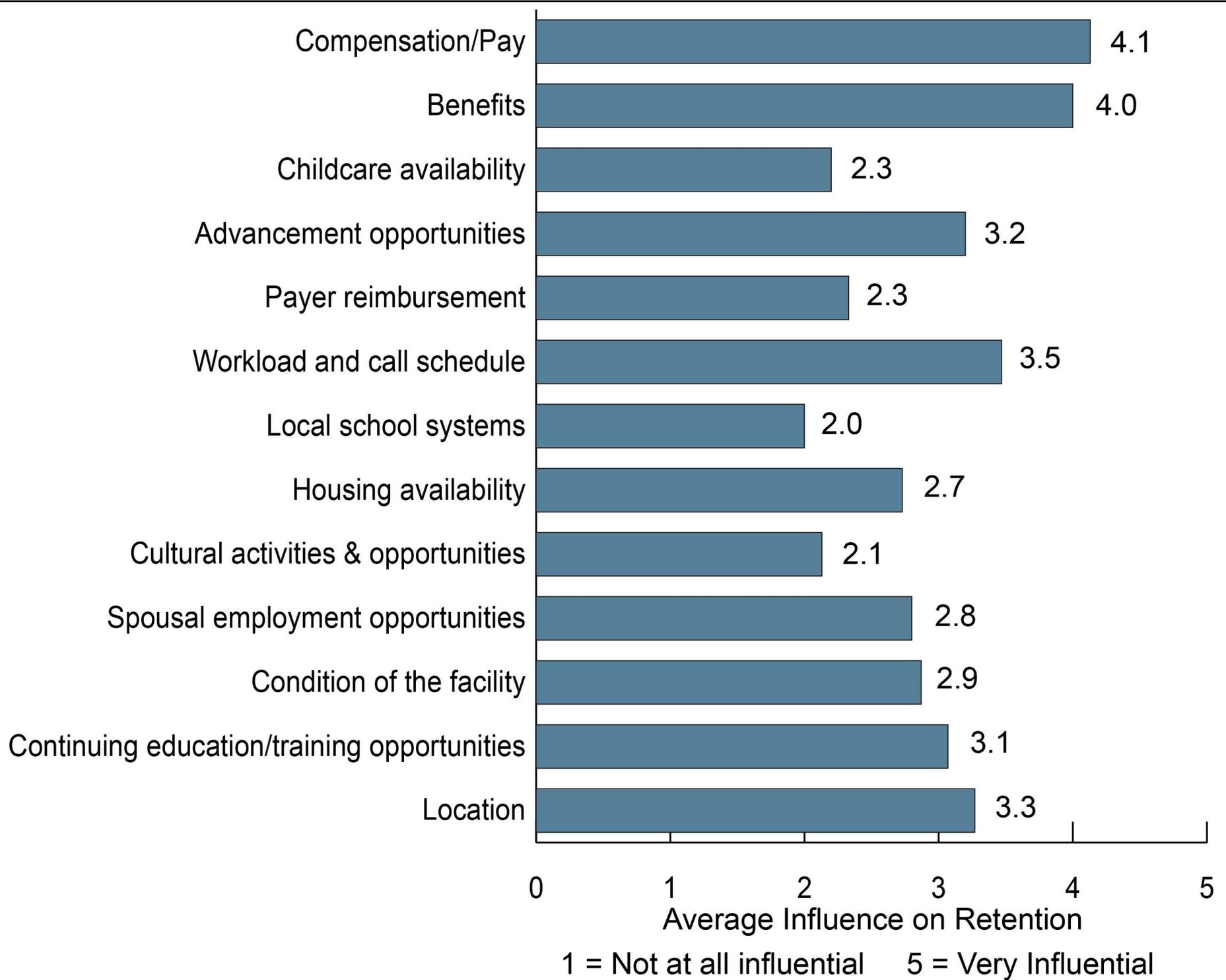


Figure 8.5. Average influence rating for workforce retention, 2020.¹

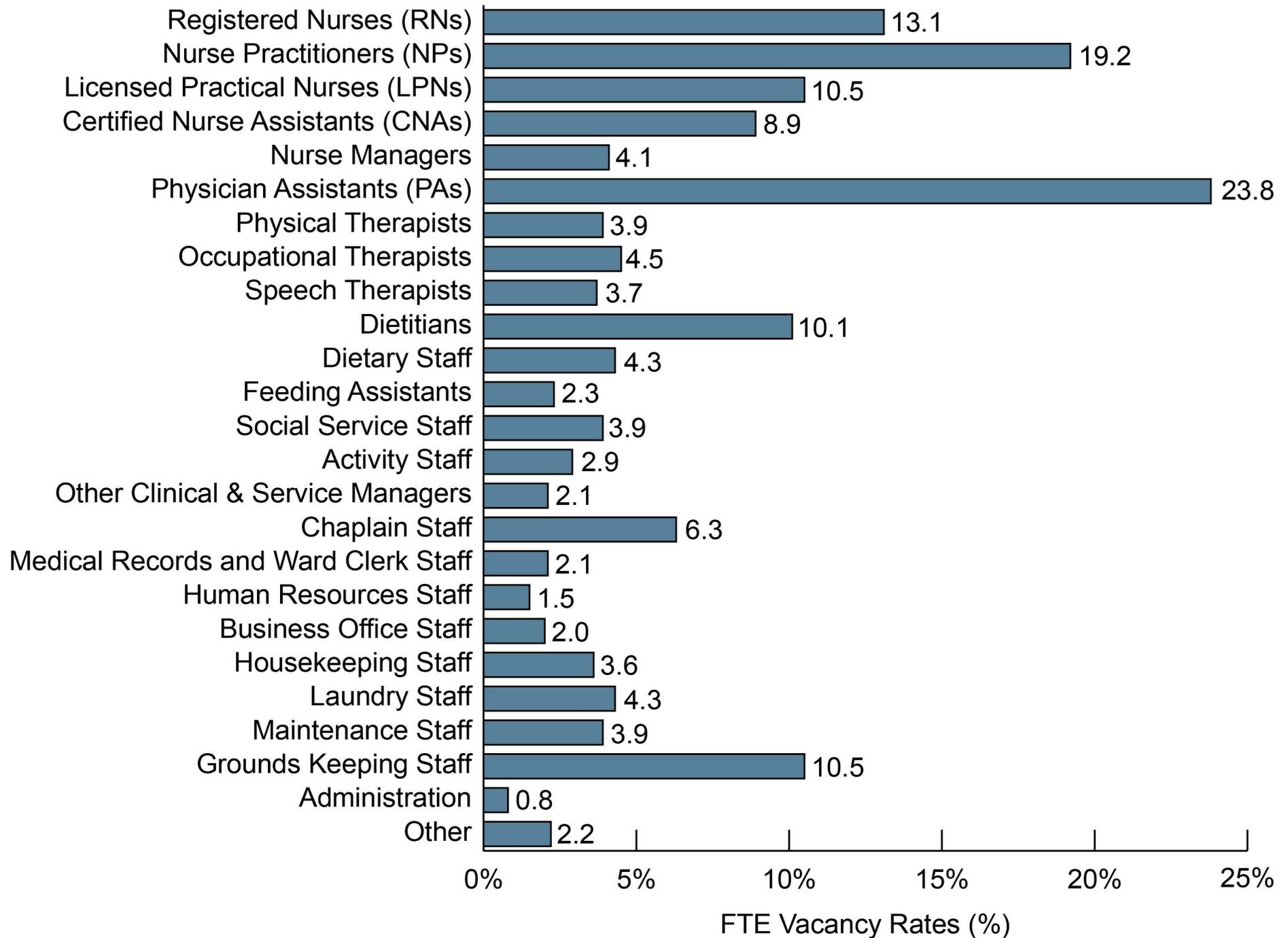


Figure 8.6. Aggregate statewide nursing facility workforce FTE vacancy rates, 2016.⁵

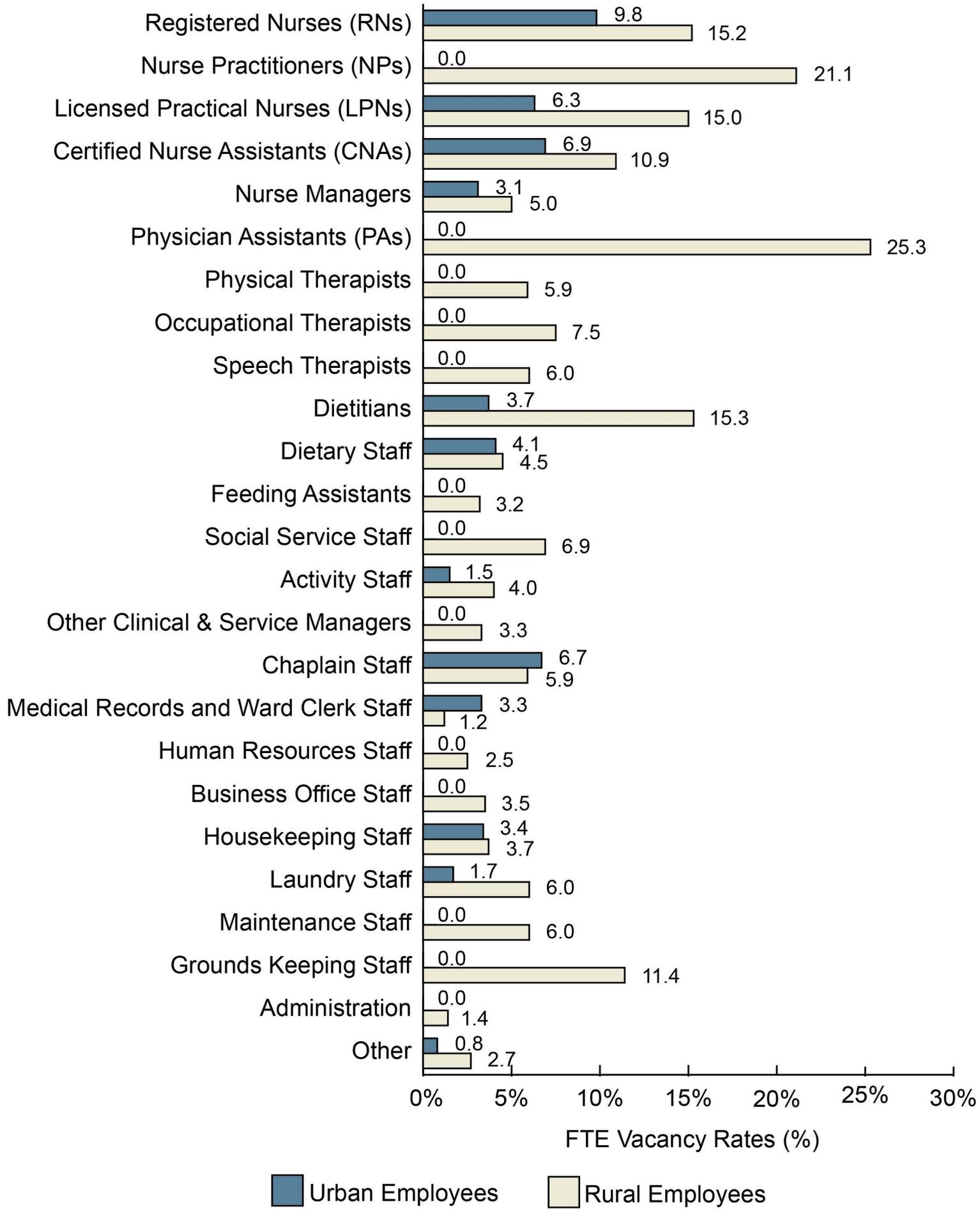


Figure 8.7. Aggregate statewide nursing facility workforce FTE vacancy rates by rural and urban, 2016.⁵

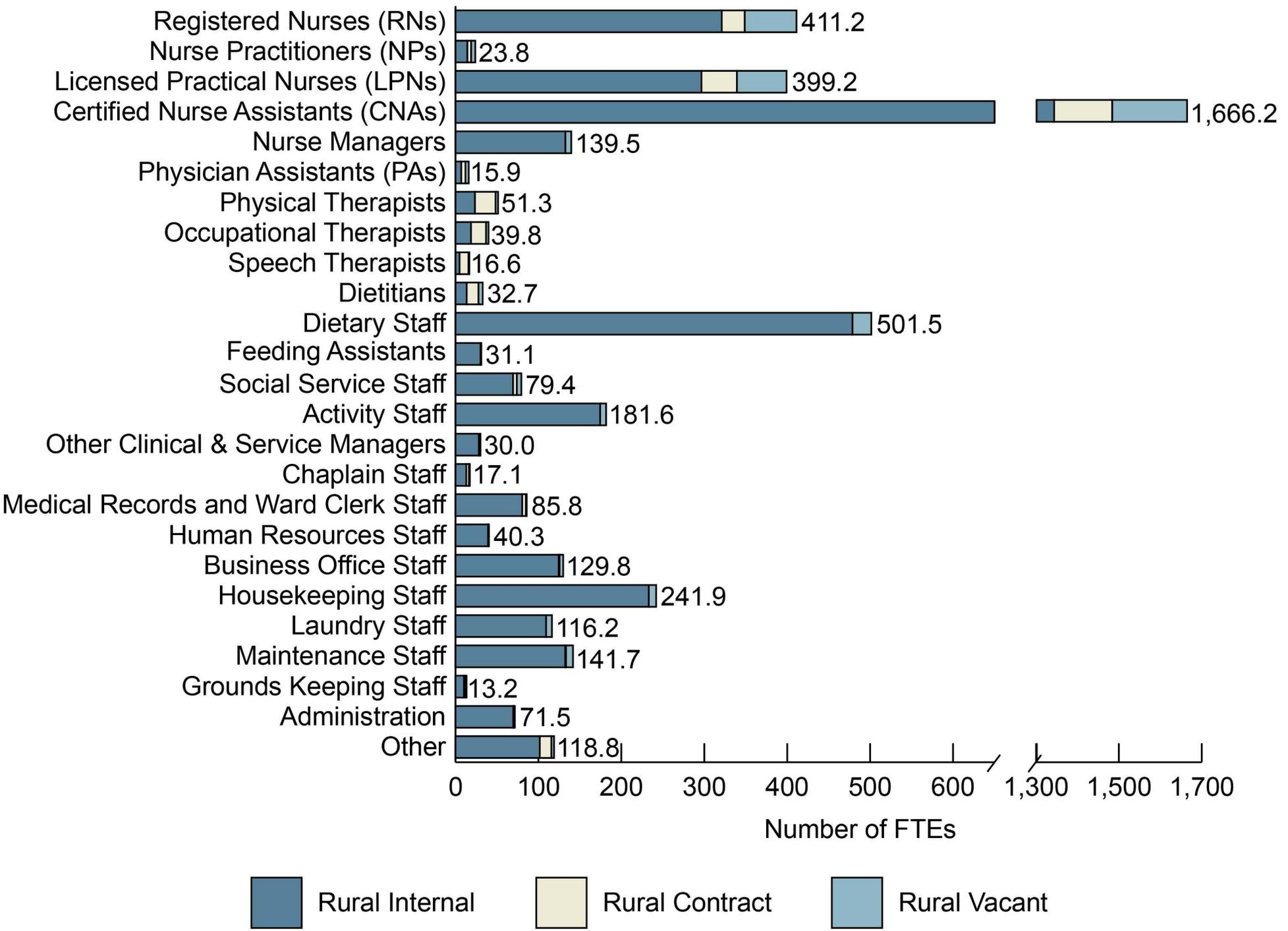


Figure 8.8. Nursing facility workforce FTEs for internal, contract, and vacancy positions in rural areas, 2016.⁵

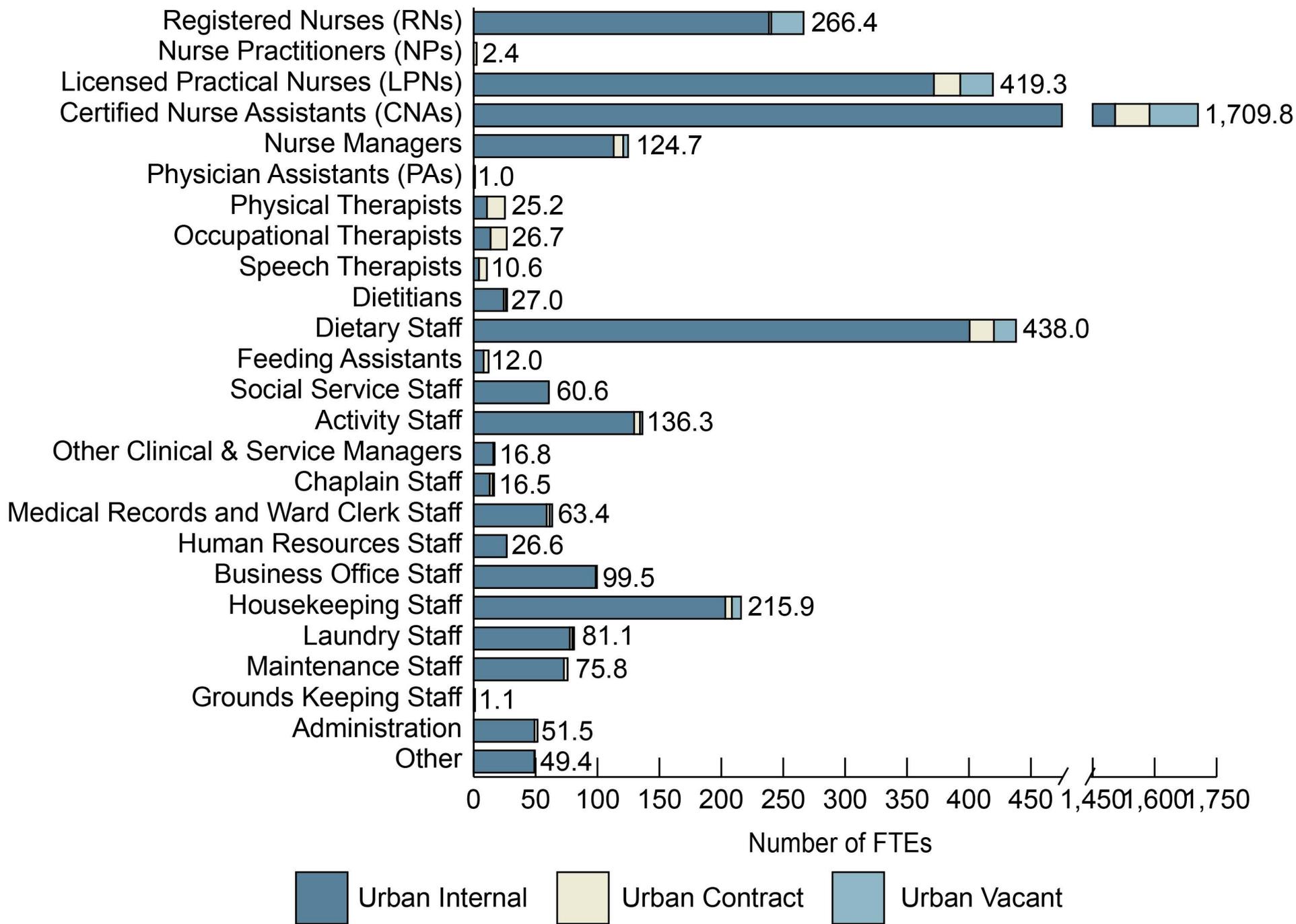


Figure 8.9. Nursing facility workforce FTEs for internal, contract, and vacancy positions in urban areas, 2016.⁵

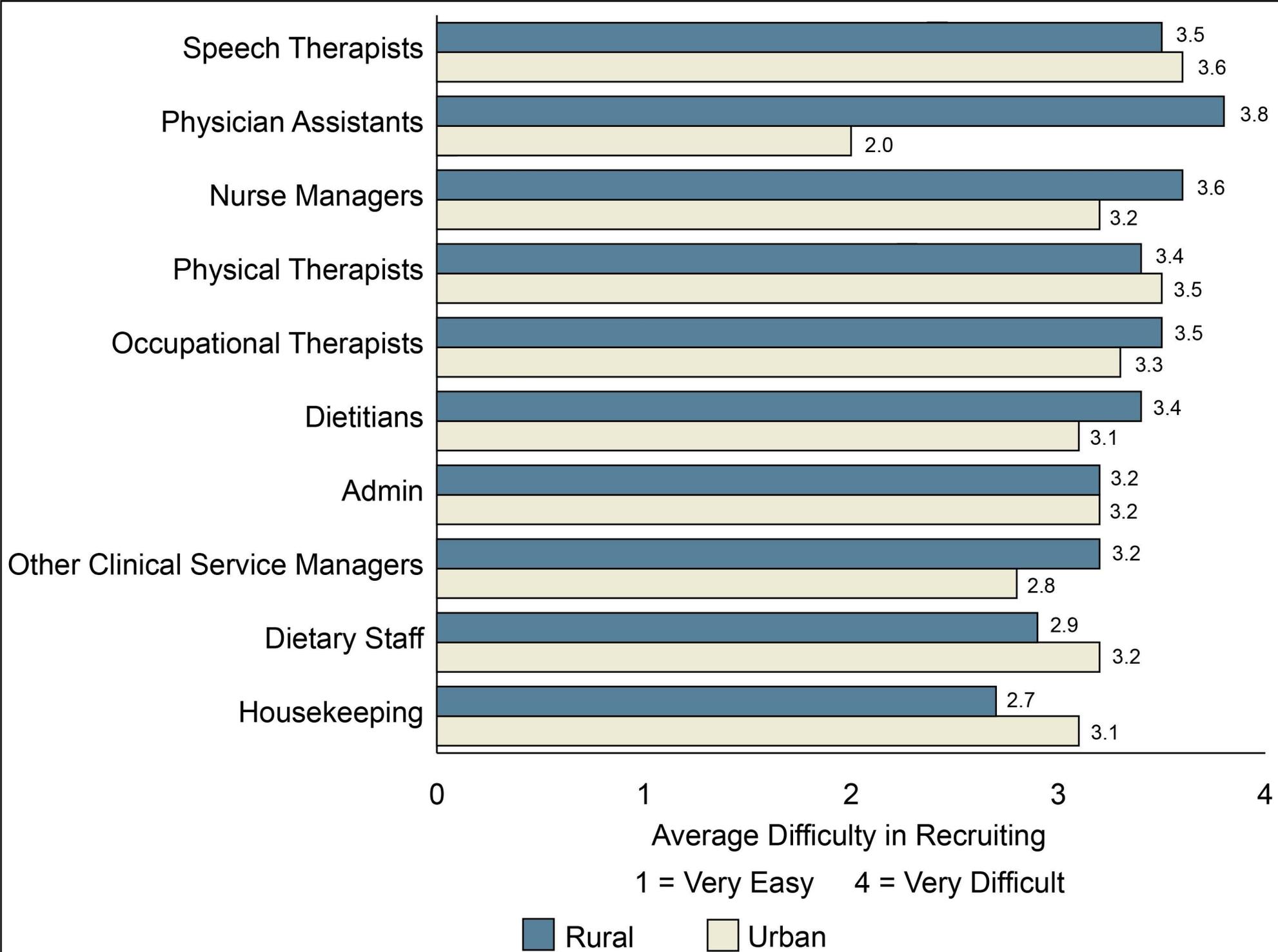


Figure 8.10. Nursing facility CEO ratings of difficulty recruiting by provider type, 2016.⁵

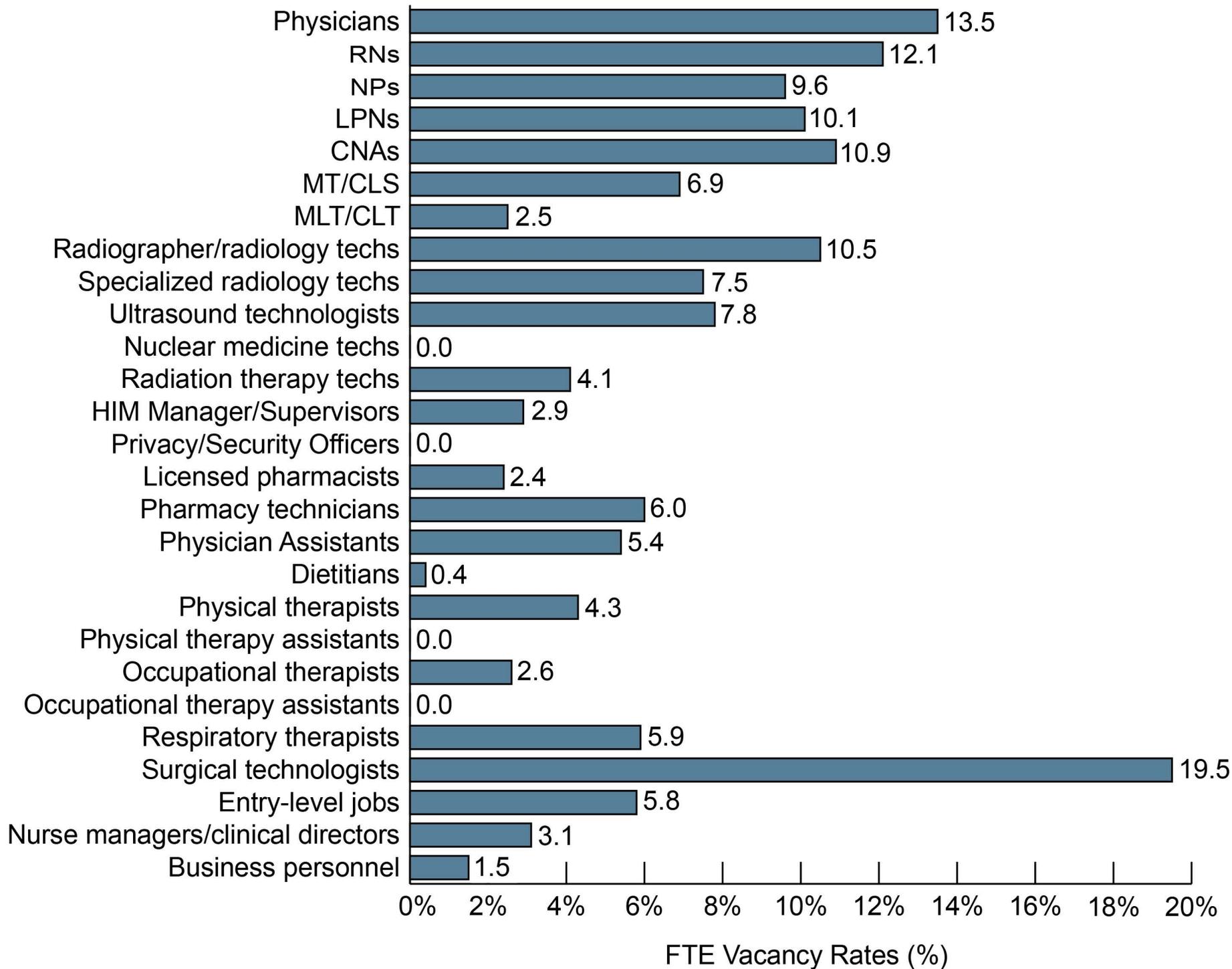


Figure 8.11. Statewide aggregate hospital workforce vacancy rates, 2018.³

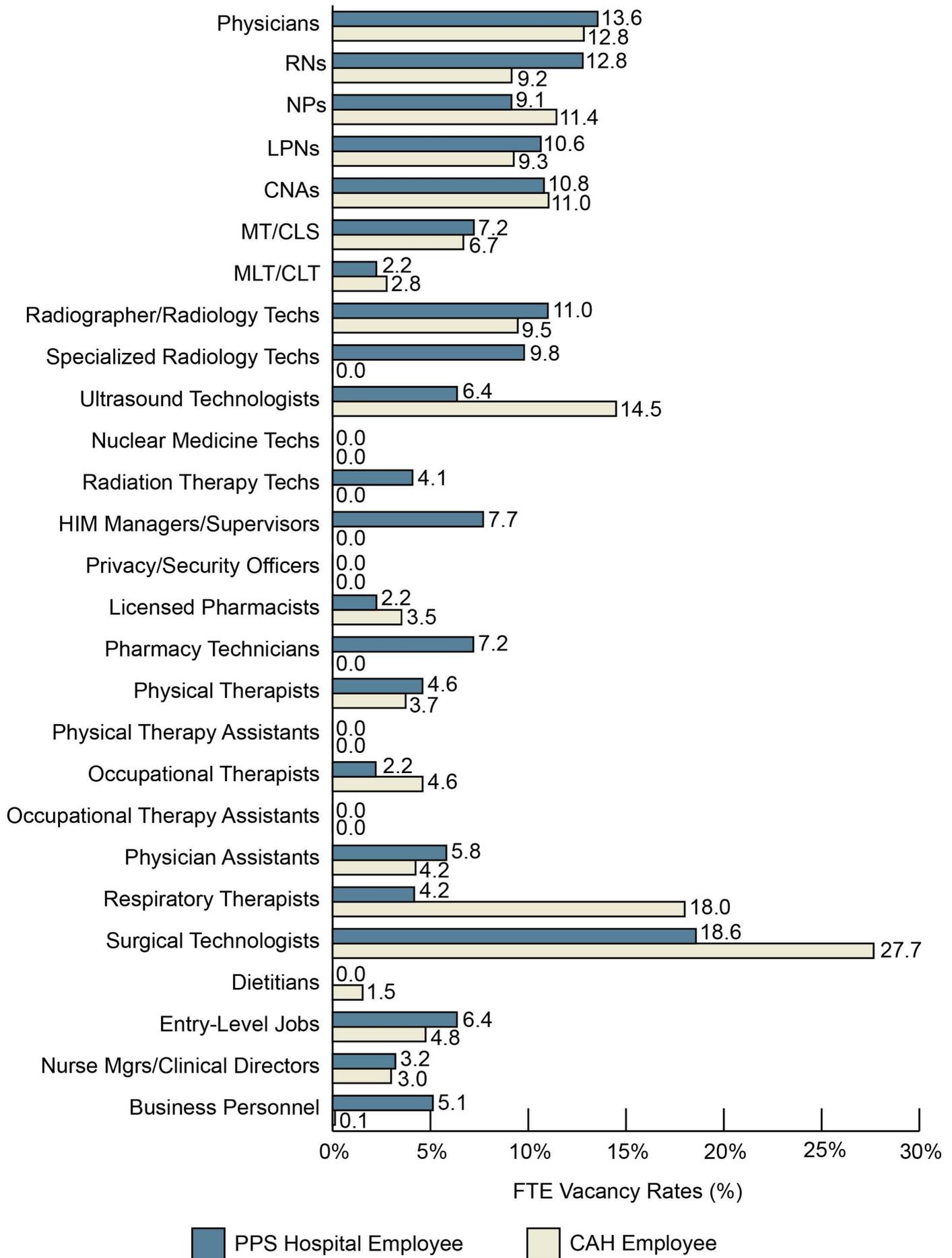


Figure 8.12. Statewide hospital workforce vacancy rates by CAH and PPS hospitals, 2018.³

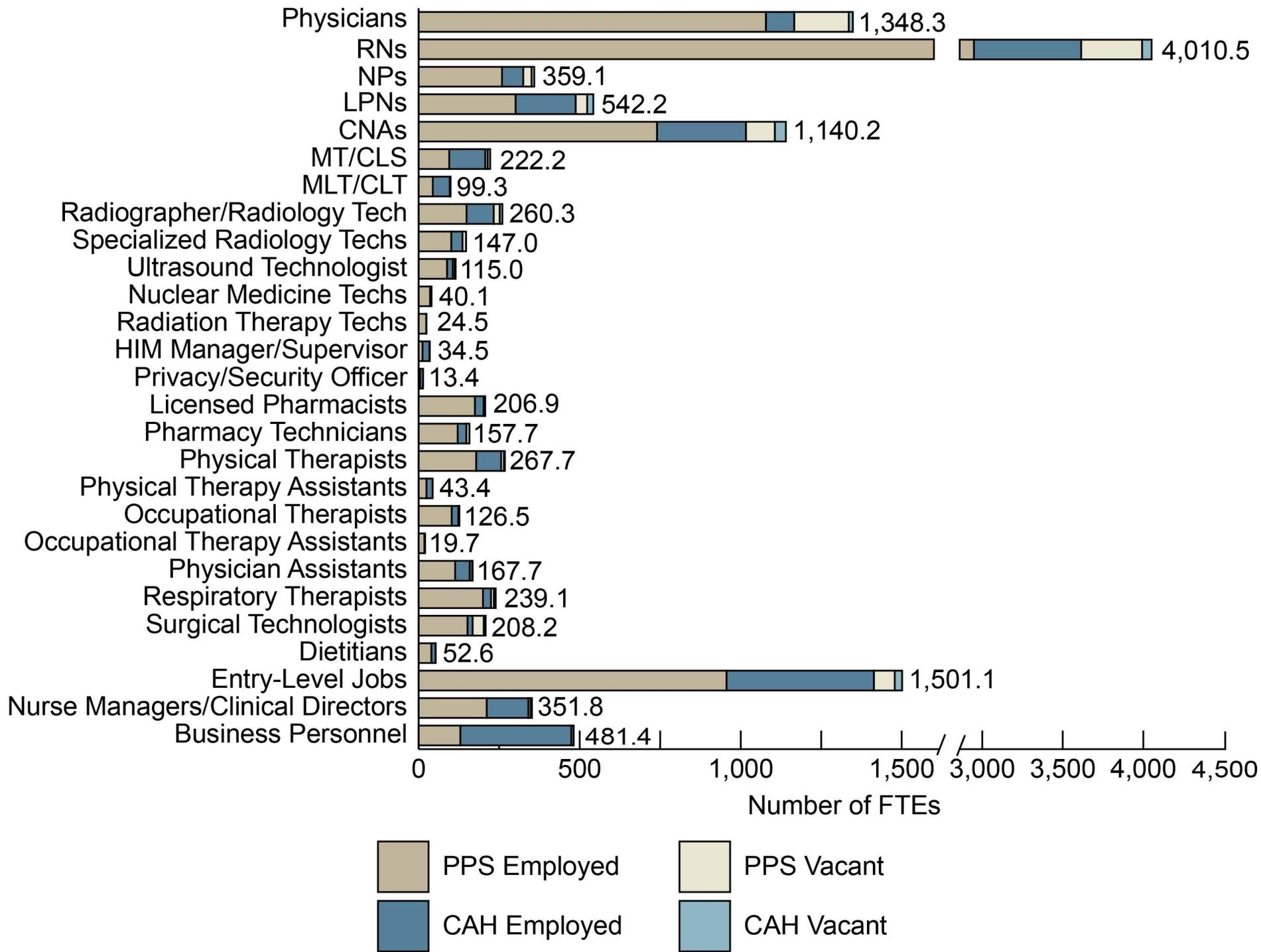


Figure 8.13. Employed and vacant FTEs among CAH and PPS hospitals, 2018.³

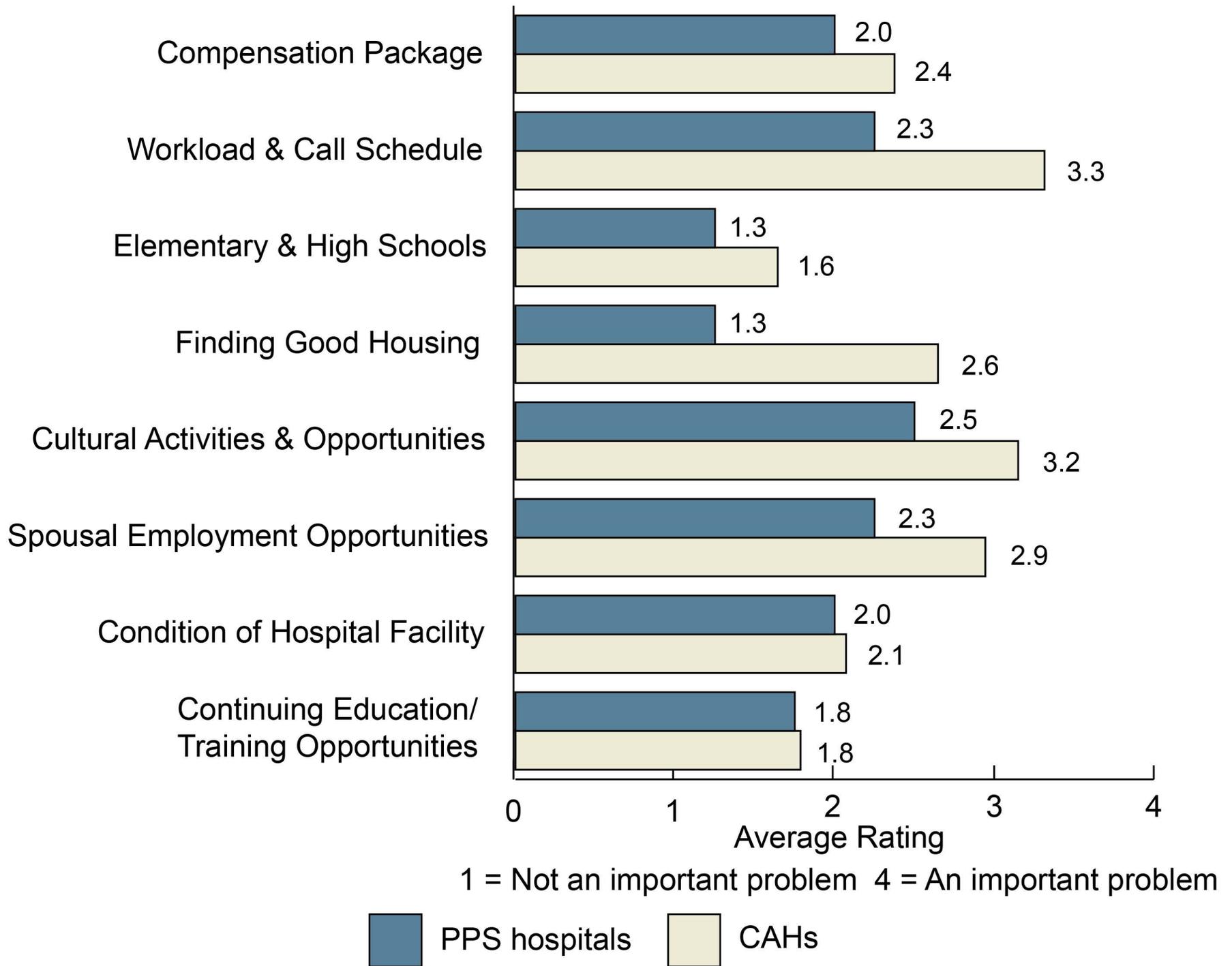


Figure 8.14. Rating of factors that contribute to problems recruiting physicians to CAHs/ PPS hospitals, 2018.³

Chapter 9: Healthcare Organization and Infrastructure in North Dakota

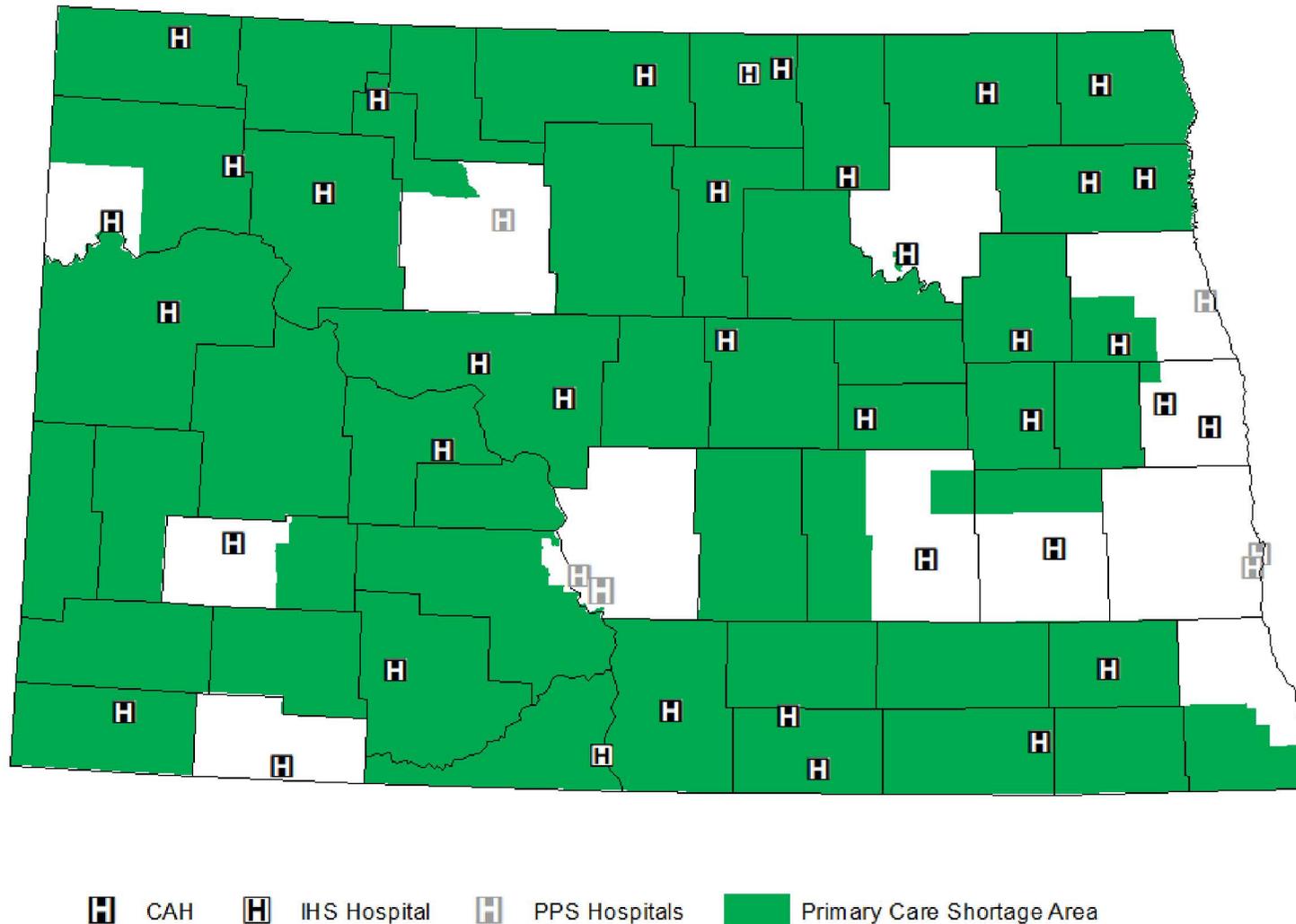
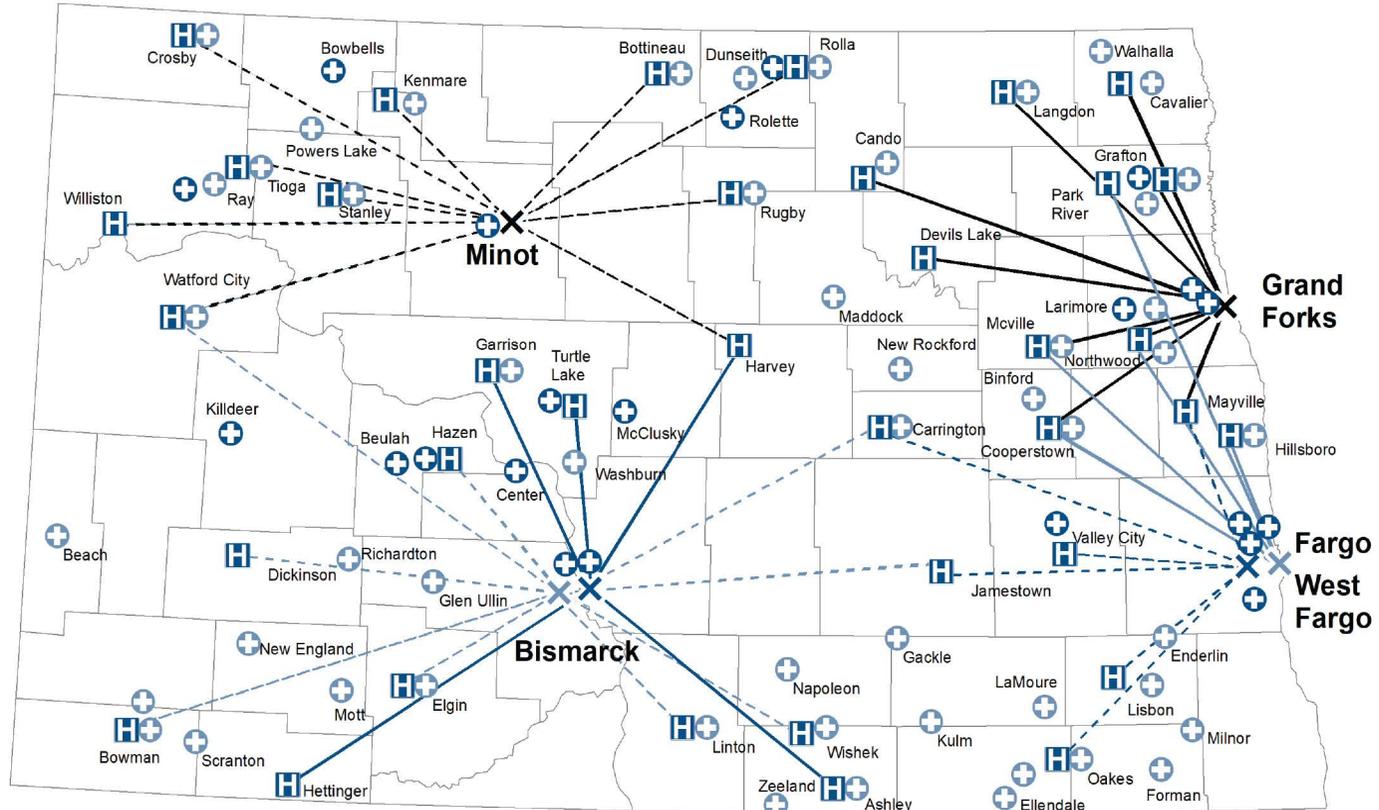


Figure 9.1. Hospitals in North Dakota compared to primary care health professional shortage areas.¹

Critical Access Hospitals, Rural Health Clinics, and Federally Qualified Health Centers North Dakota, 2020



Referral Centers

- Altru Health Systems Grand Forks
- CHI St. Alexius Bismarck
- - - Sanford Health and CHI St. Alexius Bismarck
- Sanford Health Fargo
- - - Sanford Health and Essentia Health Fargo
- - - Trinity Hospital Minot

- ✕ Referral Center
- H Critical Access Hospital
- + Federally Qualified Health Center
- + Rural Health Clinic

The Rural Health Clinic Services Act of 1977 (Public Law 95-210) was enacted to address an inadequate supply of physicians serving Medicare patients in rural areas and to increase the use of non-physician practitioners such as nurse practitioners (NPs) and physician assistants (PAs) in rural areas.

Sources: data.HRSA.gov, March 2020

Created by the North Dakota Healthcare Workforce Group on 3/2020

Figure 9.2. Critical access hospital and tertiary care network service areas.¹

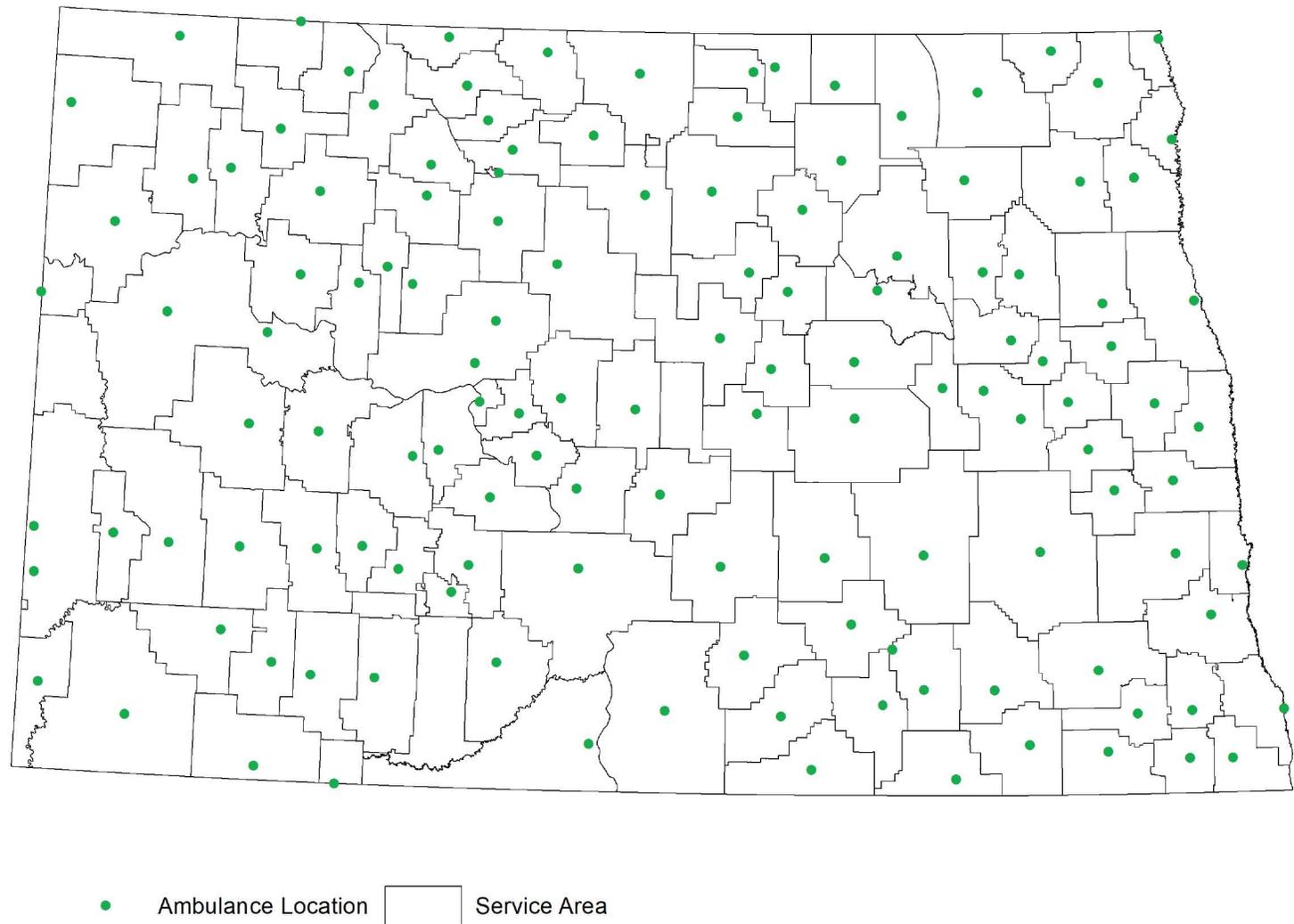


Figure 9.3. Ambulance service locations and service areas in North Dakota.¹²

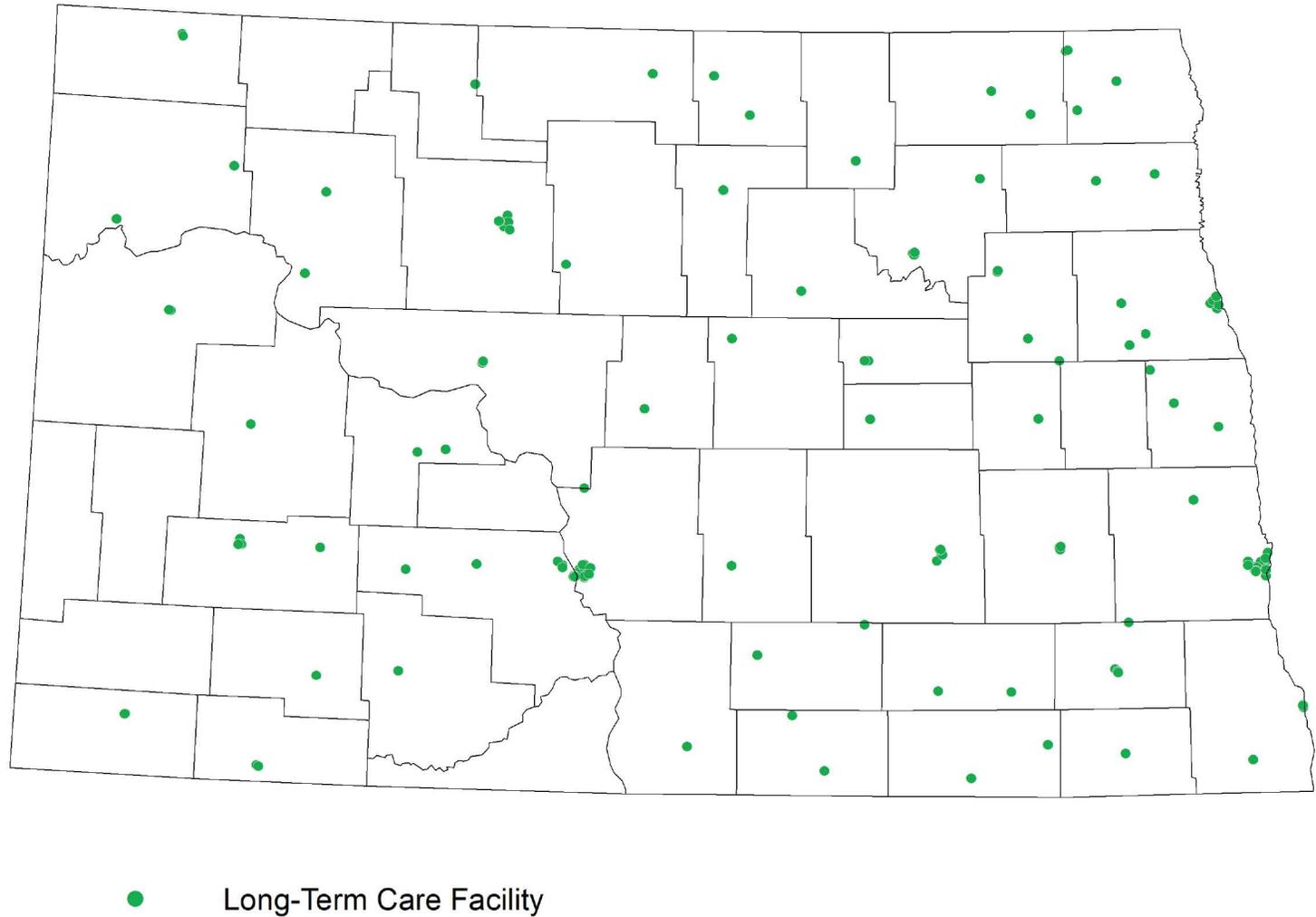
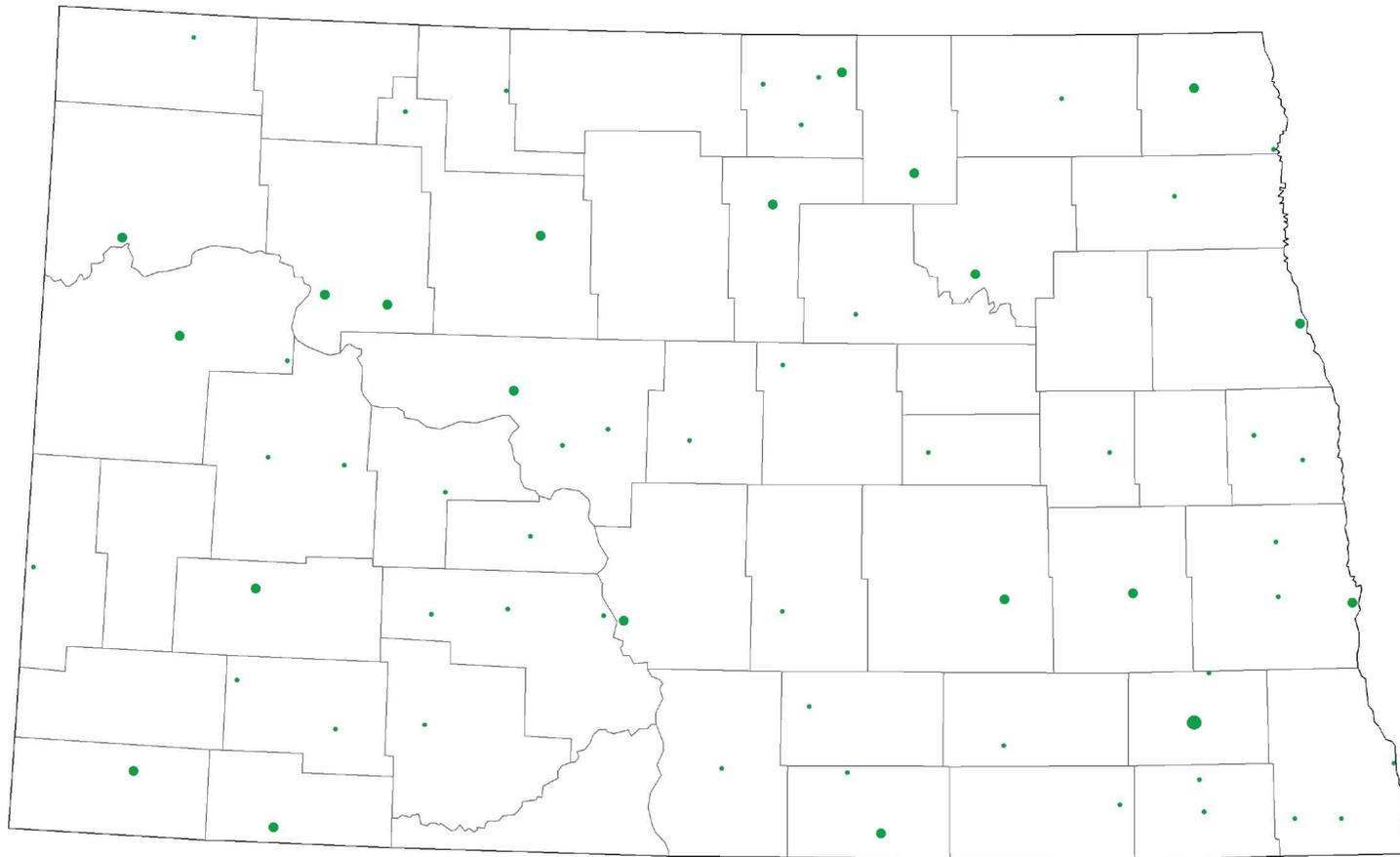


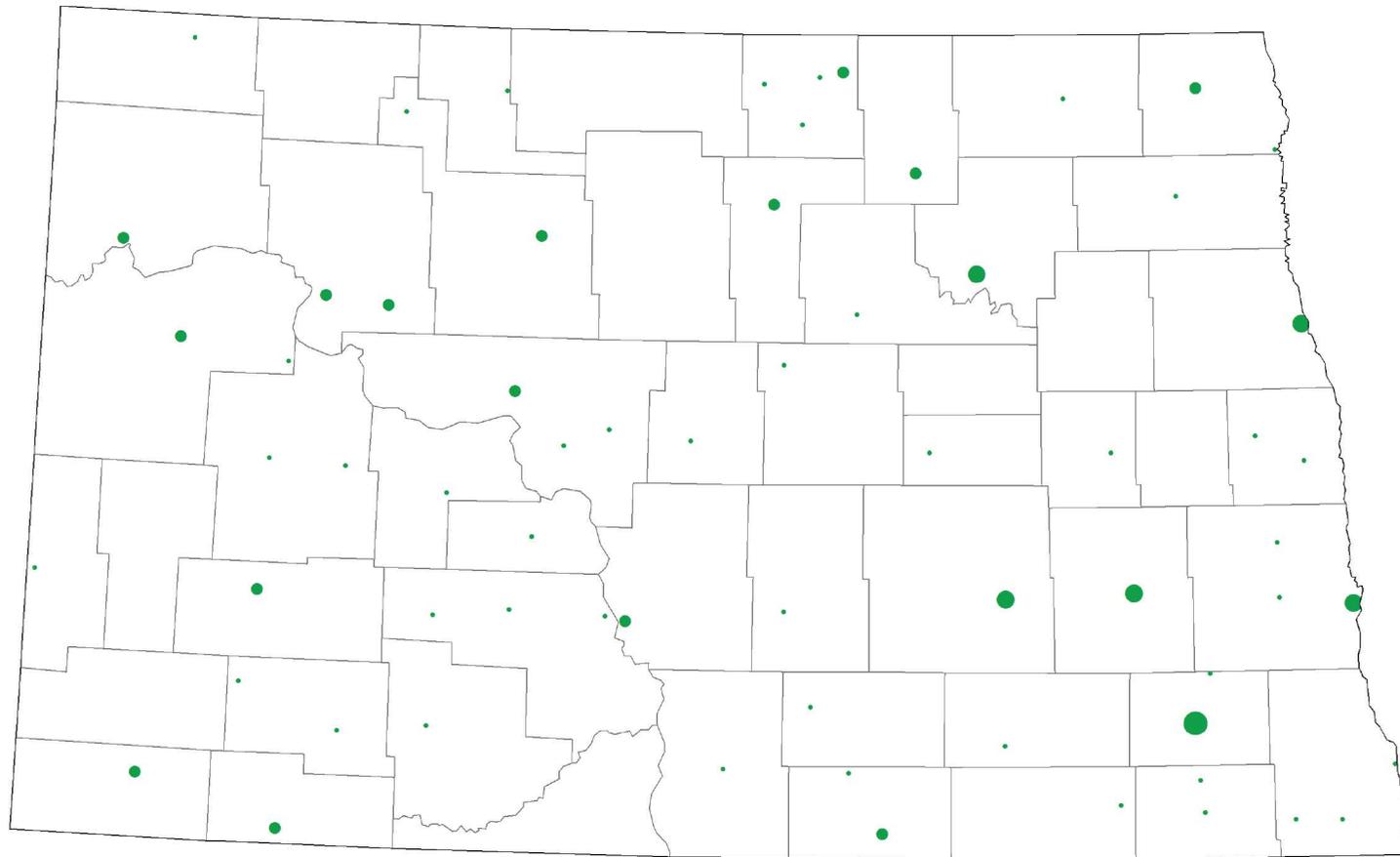
Figure 9.5. Locations of long-term care facilities in North Dakota.⁴²



Pharmacies in North Dakota Cities

- 1
- 2-3
- 4-9
- 10-17
- 18-47

Figure 9.6. Pharmacy locations in North Dakota.⁴⁶



Telepharmacies in North Dakota Cities

- 1 • 2 • 3 • 4

Figure 9.7. Telepharmacy locations in North Dakota.⁴⁶

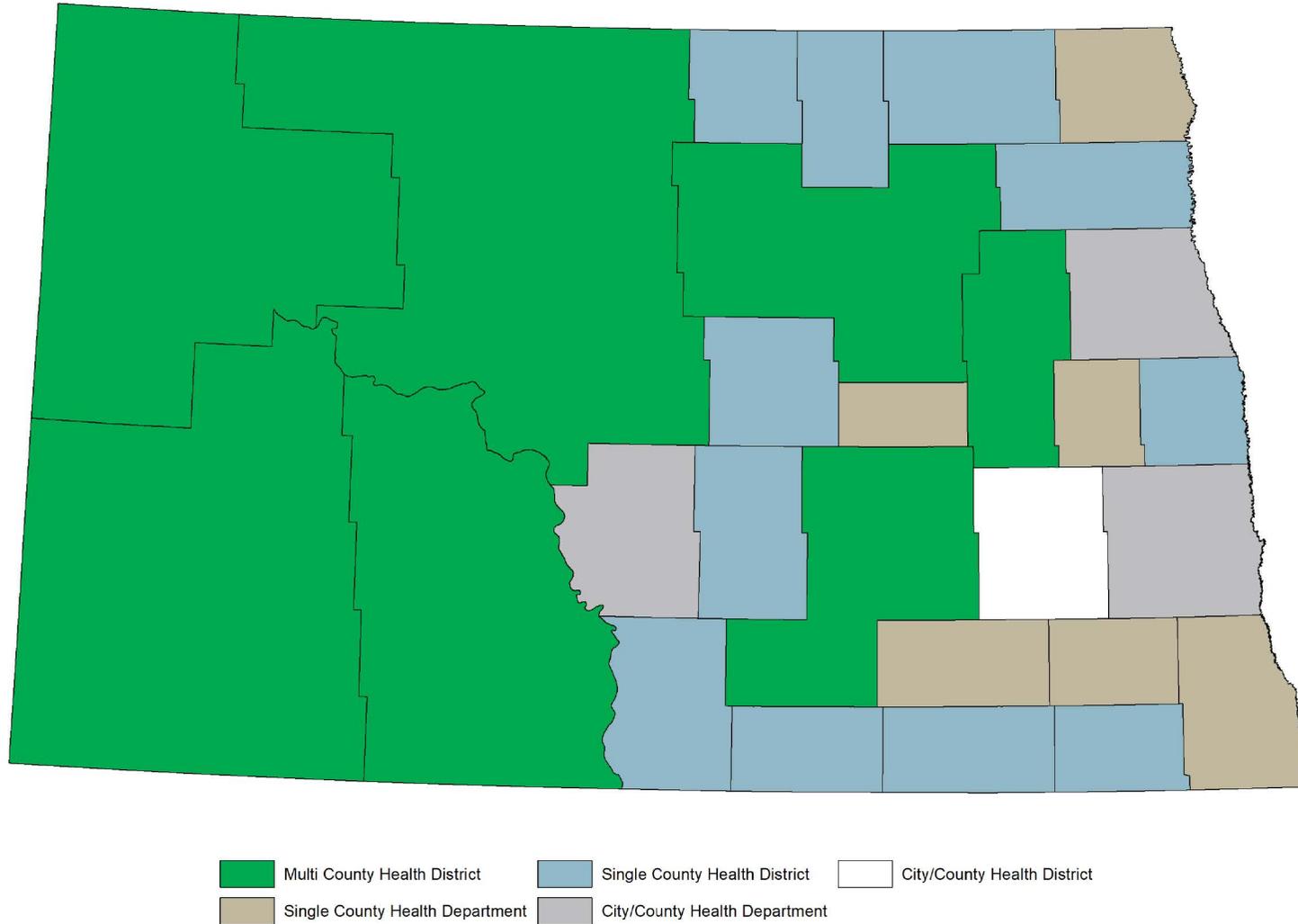


Figure 9.8. Local public health units in North Dakota.⁵³

Chapter 10: Quality and Value of Healthcare

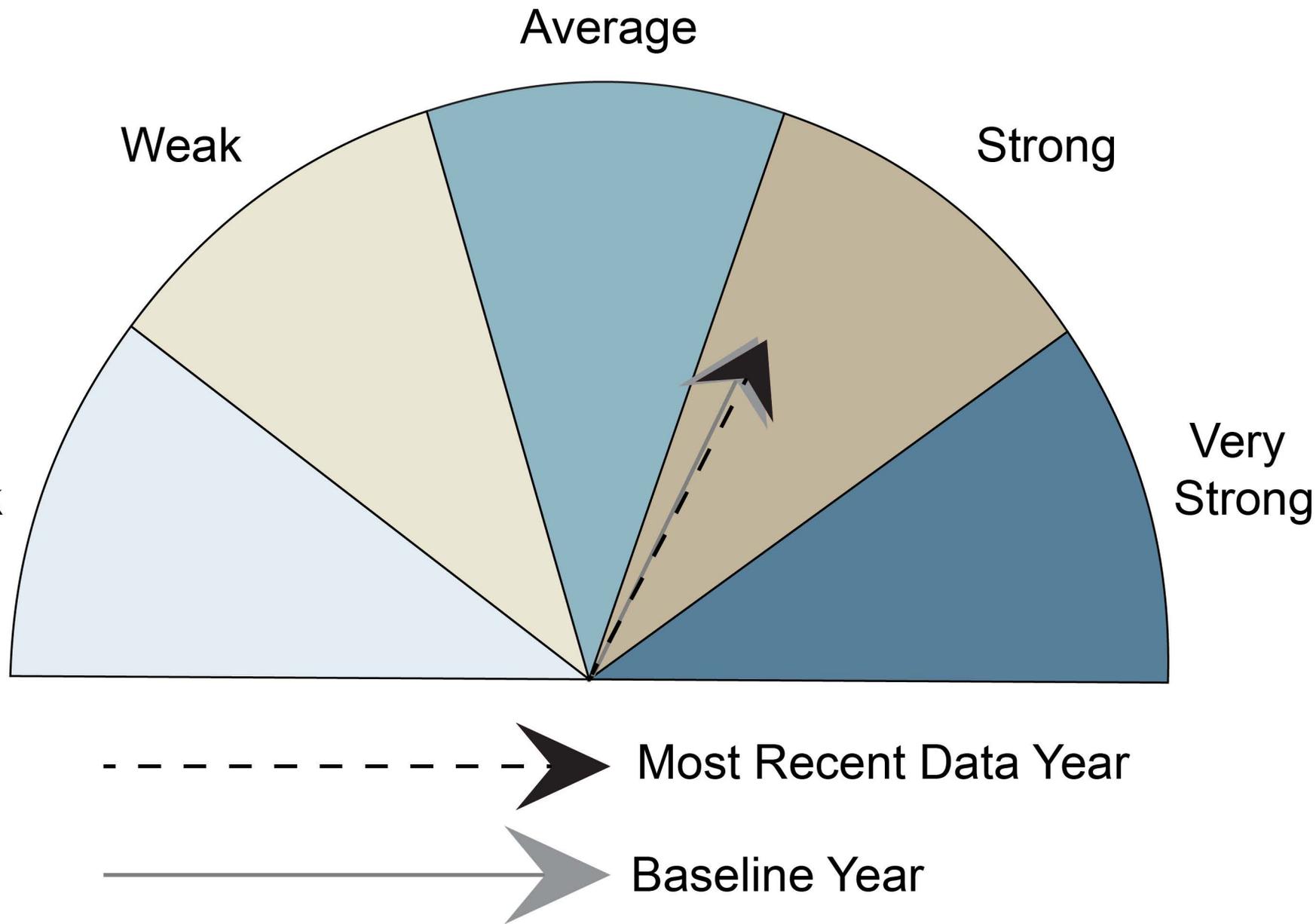


Figure 10.1. AHQR quality measures.⁹

APPENDIX D

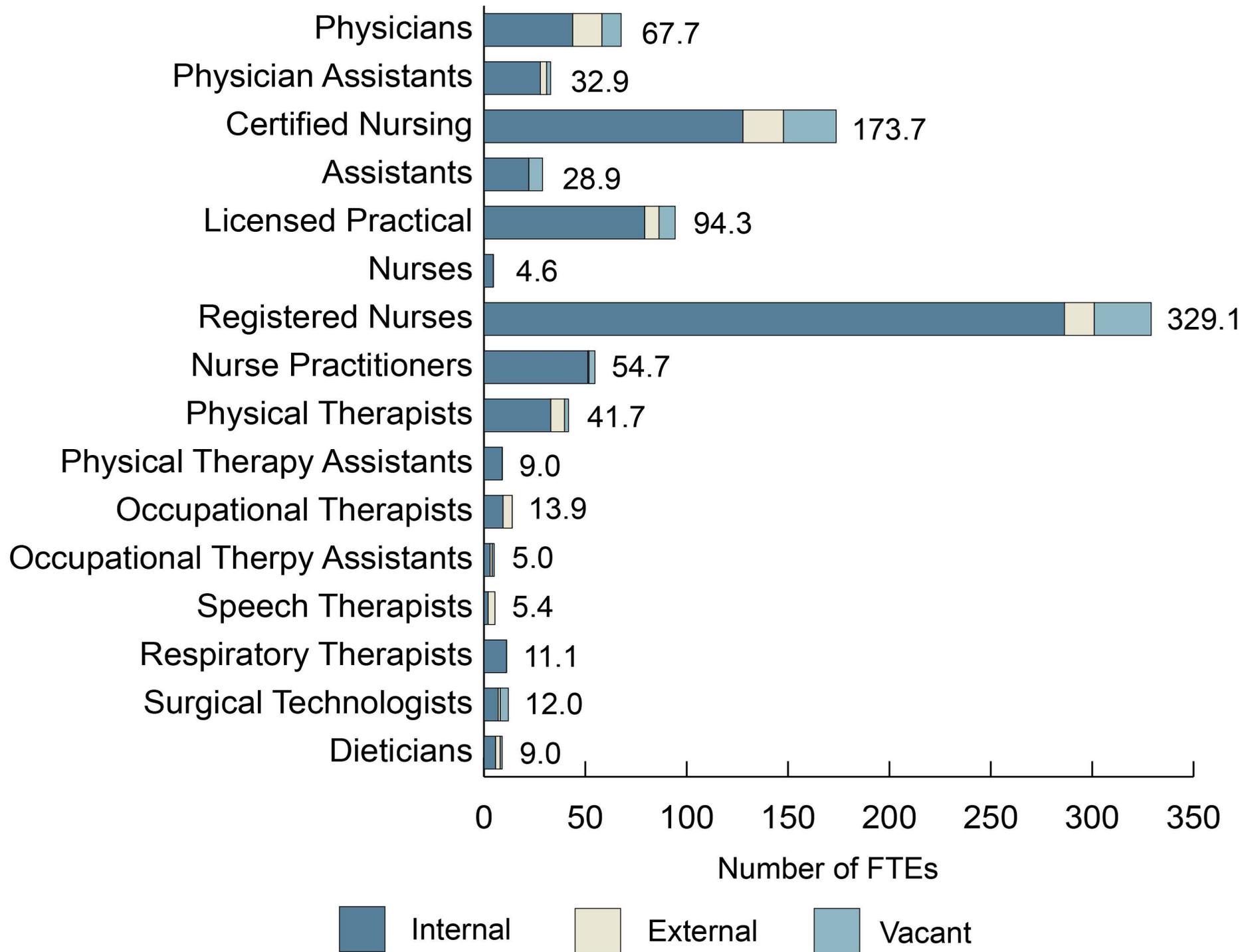


Figure D8.1. Number of internal, external, and vacant FTE for Direct Care Staff positions, 2020.⁴

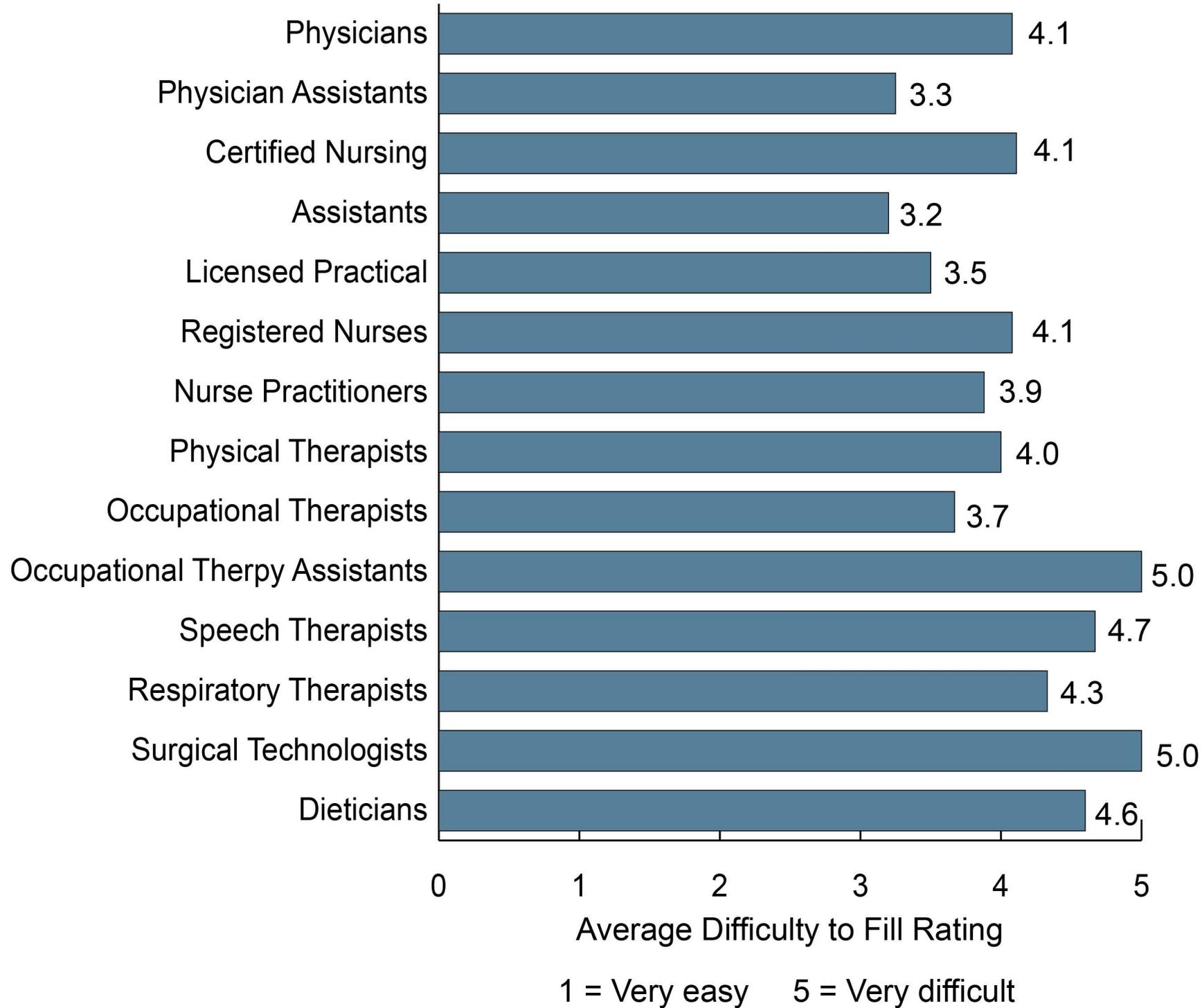


Figure D8.2. Average difficulty to fill rating for Direct Care Staff positions, 2020.⁴

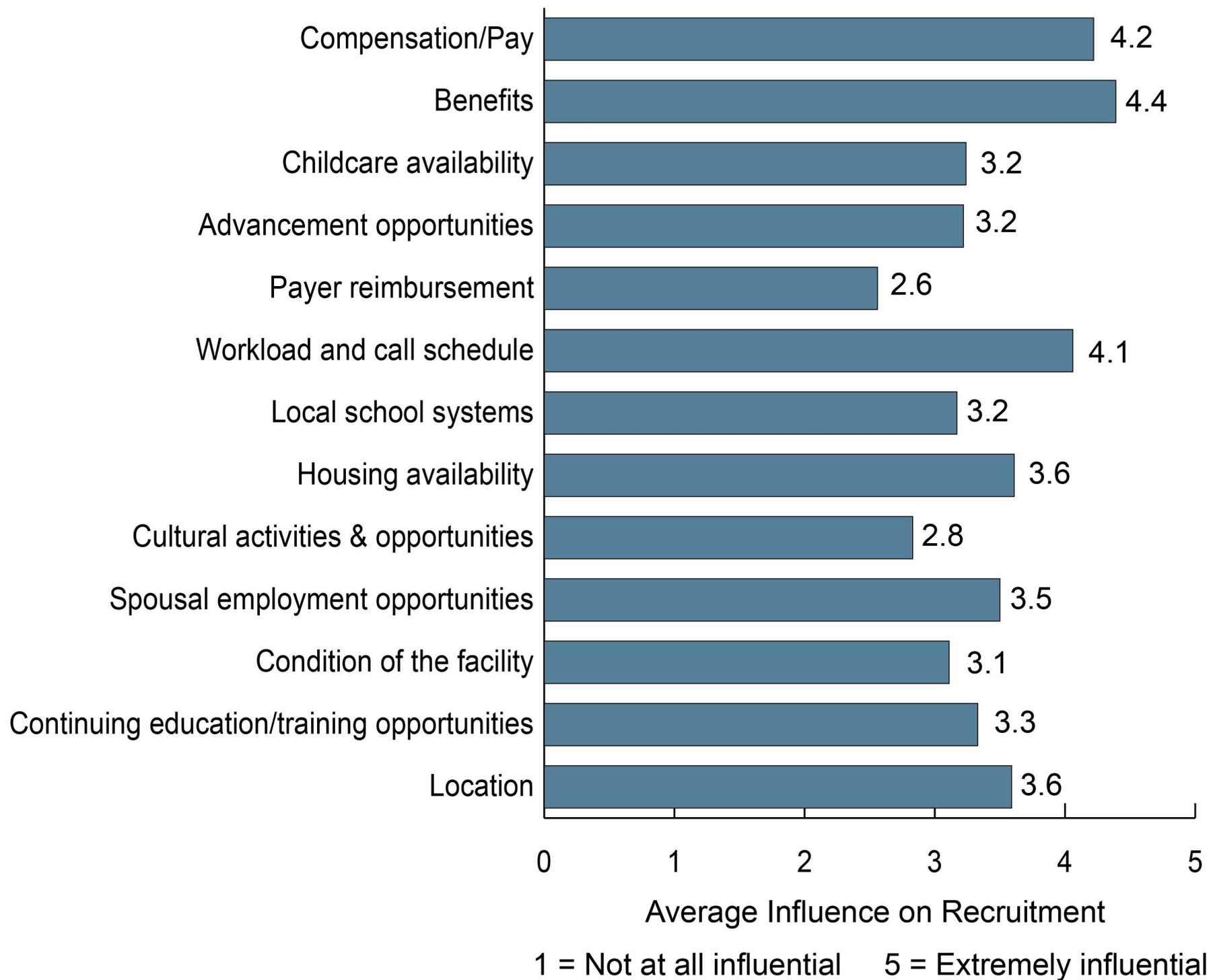


Figure D8.3. Average Influence Rating for Recruiting Workforce, 2020.⁴

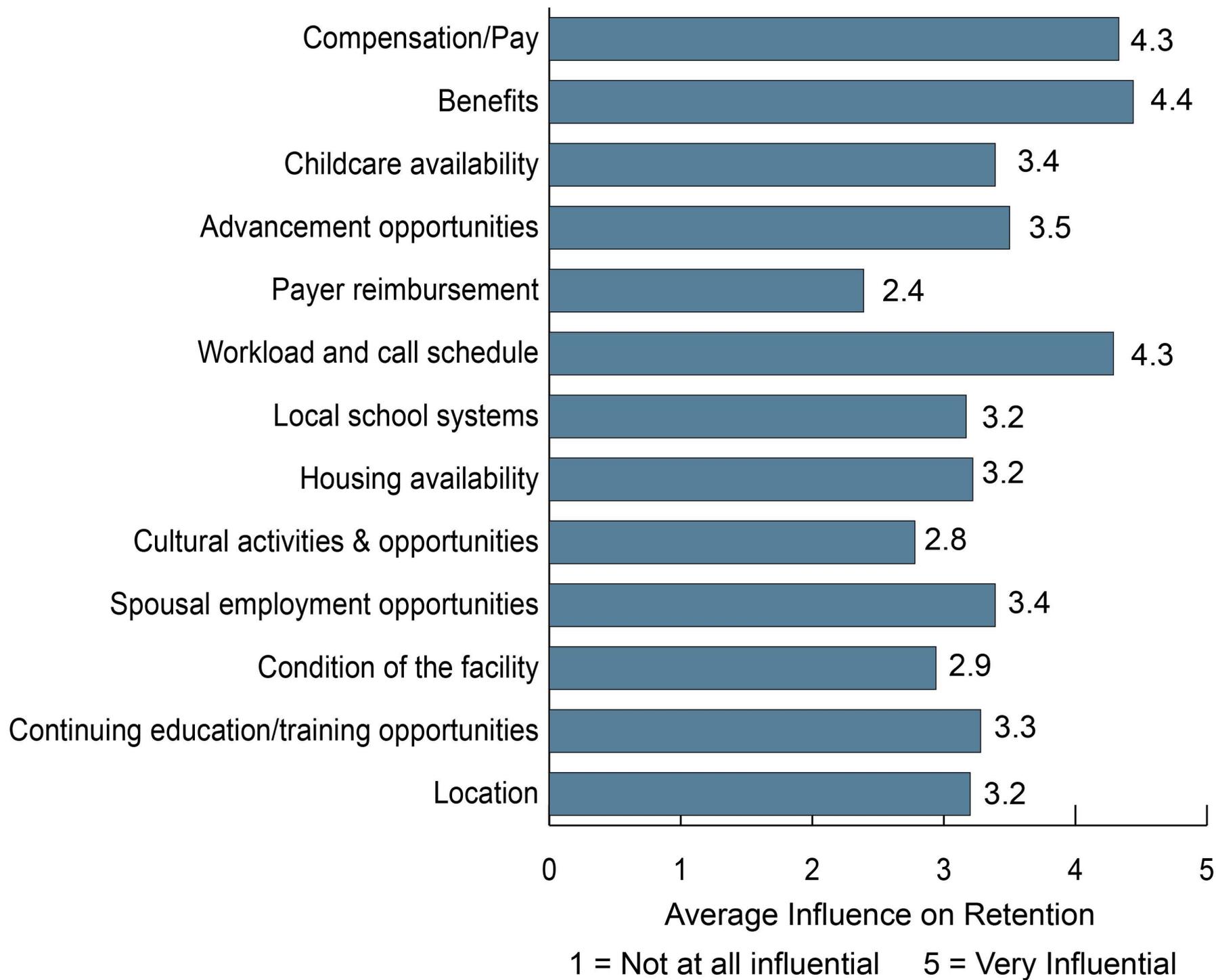


Figure D8.4. Average Influence Rating for Retaining Workforce, 2020.⁴

Table 1.1**Summary of demographics in North Dakota's population by metropolitan, micropolitan, and rural areas.**^{4,9,13}

	Metropolitan		Micropolitan		Rural	
	N	%	N	%	N	%
Total - 2018	380,323	50	182,600	24	199,139	26
Gender - 2018						
Male	192,225	51	95,561	52	102,246	51
Female	188,098	49	87,039	48	96,893	49
Age - 2018						
Under 20	97,339	26	50,003	27	53,435	27
20-39	125,929	33	57,087	31	44,600	22
40-64	103,512	27	49,711	27	60,601	30
65-84	45,415	12	21,503	12	34,114	17
85 and Older	8,128	2	4,296	2	6,389	3
In Poverty - 2018						
Yes	37,590	10	17,381	10	25,310	13
No	341,338	90	162,882	90	173,579	87

Nationally, rural residents tend to be poorer, older, and have less insurance coverage than those residing in non-rural regions. North Dakota data reflects the national data.

Table 3.1*Percent of adults reporting behaviors.*¹⁸

	2013 (558,965)	2014 (583,766)	2015 (590,349)	2016 (591,299)	2017 (588,563)	2018 (580,621)
Smokes	20.7	18.8	17.9	18.9	NA	18.6
Drinks Alcohol	59.0	57.2	57.9	60.2	NA	57.6
Binge Drinks	22.8	22.3	22.6	23.3	NA	21.1
Drinks & Drives	NA	3.2	NA	3.8	NA	2.7
Doesn't Always Wear a Seatbelt	28.6	28.4	25.6	26.2	NA	27.5
No Physical Activity/Exercise Other Than Job	25.8	21.3	24.6	22.1	25.6	22.2

Table 3.2***Percent of adults reporting general health conditions.¹⁸***

	2013 (558,965)	2014 (583,766)	2015 (590,349)	2016 (591,299)	2017 (588,563)	2018 (580,621)
Disabled	16.5	15.4	16.6	17.0	NA	NA
Overweight/Obese	64.3	63.7	61.5	62.8	NA	65.8
General Health Fair/Poor	14.7	14.0	13.9	14.8	15.3	13.9
1+ Days Poor Health	18.1	16.4	19.4	19.0	21.0	20.7
1+ Days Poor Phys. Health	34.1	31.2	34.8	33.1	34.6	33.1
1+ Days Poor Mental Health	30.4	30.5	33.0	32.5	34.3	36.2

Table 3.3***Percent of adults reporting chronic health conditions.¹⁸***

	2013 (558,965)	2014 (583,766)	2015 (590,349)	2016 (591,299)	2017 (588,563)	2018 (580,621)
High Cholesterol	36.1	NA	34.8	NA	26.0	NA
High Blood Pressure	29.6	NA	30.3	NA	29.5	NA
Arthritis	25.9	NA	22.7	23.2	24.1	25.9
Asthma	12.3	12.1	12.7	12.8	12.9	13.0
Cardiovascular Disease	4.0	4.0	3.6	4.1	3.8	4.2
Diabetes	8.9	8.6	8.7	8.6	9.0	9.4

Table 3.4***Percent of youth risk behaviors.²⁷***

	Total (43,385)	Female (21,335)	Male (22,050)
Smokes	15.2	14.4	15.8
Drinks	29.1	31.9	26.4
Drinks & Drives	6.5	4.9	8.1
Doesn't Always Wear a Seat Belt	7.0	2.9	10.6
Doesn't Always Exercise Moderately	48.7	57.1	40.7
Overweight/Obese	28.6	25.2	31.8
Has Long-Term Health Problems	17.1	19.5	14.4

Table 3.5***Cancer rates per 100,000 people.***³³

Age	All North Dakota		Males		Females	
	Rate	Cases Per Year	Rate	Cases Per Year	Rate	Cases Per Year
0-4	22.1	10	-	-	-	-
5-9	-	-	-	-	-	-
10-14	-	-	-	-	0	0
15-19	29.3	14.0	-	-	-	-
20-24	32.7	20.0	36.7	12.0	-	-
25-29	68.2	35.0	54.6	15.0	83.9	20.0
30-34	115.1	50.0	113.1	26.0	117.4	24.0
35-39	140.9	52.0	83.0	16.0	204.4	36.0
40-44	224.1	86.0	101.3	20.0	354.2	66.0
45-49	362.0	160.0	268.9	60.0	356.8	100.0
50-54	638.3	322.0	566.1	144.0	711.7	178.0
55-59	911.8	435.0	950.6	233.0	870.8	202.0
60-64	1,323.1	507.0	1,512.8	297.0	1,123.8	210.0
65-69	2,026.2	545.0	2,289.8	304.0	1,769.2	241.0
70-74	2,007.0	421.0	2,572.5	252.0	1,511.5	169.0
75-79	2,497.5	456.0	3,223.4	260.0	1,923.1	196.0
80-84	2,521.5	387.0	3,386.3	211.0	1,930.5	176.0
85+	2,039.4	350.0	2,577.1	147.0	1,771.7	203.0
All ND	488.2	3,857.0	543.0	2,019.0	449.9	1,838.0

Table 3.6***Most common cancer rates.***³³

Type	All North Dakota		Males		Females	
	Rate	Cases	Rate	Cases	Rate	Cases
Digestive System	80.2	652	93.4	347	67.6	305
Breast	75.8	579	0.0	0	145.1	571
Male Genital System	69.6	566	146.0	566	0.0	0
Prostate	66.7	544	140.2	544	0.0	0
Respiratory System	63.8	506	80.8	292	50.8	214
Lung Bronchus	58.6	466	73.4	264	47.8	202
Colon Rectum	46.1	371	53.0	196	39.4	175

Table 3.7
Screenings.^{18,22}

	2013 (558,965)	2014 (583,766)	2015 (590,349)	2016 (591,299)	2017 (588,563)	2018 (580,621)
Cholesterol	67.8	NA	69.2	NA	77.7	NA
PSA	NA	52.4	NA	52.1	NA	NA
Blood Stool	NA	32.3	NA	29.3	NA	NA
Sigmoid/Colonoscopy	NA	64.6	NA	68.4	NA	NA
Mammogram	NA	62.3	NA	60.7	NA	59.2
Pap	NA	90.3	NA	89.6	NA	84.2
Flu	41.3	40.2	43.6	41.9	NA	38.6
Pneumonia	28.2	27.5	31.5	32.5	32.3	NA

Table 4.1

All medical doctors (MDs) per 10,000 population in North Dakota and the United States by year.^{1,3-5}

	N.D.	U.S.	% ND of U.S.
1985	17.6	22.8	77.2
1990	19.5	24.2	80.6
1995	23.0	27.0	85.2
2000	25.0	28.4	88.0
2012	28.4	32.3	87.9
2017	23.9	28.1	85.1

Table 4.2***Gender of physicians per 10,000 population in North Dakota with comparisons, 2017.^{1,3,6}***

	N.D.	Upper Midwest	U.S.
Women	7.5	9.1	10.4
Metropolitan	11.5	11.9	11.6
Micropolitan	5.2	4.8	3.8
Rural	1.8	2.4	2.0
Men	16.5	16.9	17.9
Metropolitan	25.4	21.0	19.6
Micropolitan	11.2	11.2	9.7
Rural	4.1	5.6	5.0

Table 4.3

Physician primary practice per 10,000 population in North Dakota with comparisons, 2017.^{1,3,6}

	N.D.	Upper Midwest	% diff	U.S.	% diff
Office	15.8	17.2	- 8.9	18.5	-17.1
Metropolitan	23.8	21.0	11.8	20.1	15.5
Micropolitan	10.7	12.4	-15.9	10.3	3.7
Rural	4.3	6.3	-46.5	5.4	-25.6
Hospital	6.9	6.6	4.3	6.7	2.9
Metropolitan	10.6	8.7	17.9	7.5	29.2
Micropolitan	4.7	2.8	40.4	2.5	46.8
Rural	1.4	1.5	-7.1	1.2	14.3

Negative numbers indicate that the N.D. rate is below that of the Midwest or U.S. rate. Positive numbers indicate that the N.D. rate is above the Midwest or U.S. rate.

Table 4.4***Physician age groups per 10,000 population with comparisons, 2017.^{1,3,6}***

	N.D.	Upper Midwest	U.S.
<35	3.8	4.3	4.9
Metropolitan	6.2	6.0	5.6
Micropolitan	2.5	1.4	1.1
Rural	0.7	0.6	0.5
35-44	6.7	6.6	6.8
Metropolitan	11.2	8.6	7.6
Micropolitan	3.9	3.6	2.6
Rural	0.8	1.5	1.2
45-54	5.2	6.2	6.4
Metropolitan	8.2	7.8	7.1
Micropolitan	3.4	4.0	3.3
Rural	1.2	2.0	1.6
55-64	5.5	6.5	6.4
Metropolitan	8.0	7.8	6.9
Micropolitan	4.4	5.0	4.2
Rural	1.7	2.7	2.3
65-74	4.1	4.4	4.8
Metropolitan	5.5	5.0	5.2
Micropolitan	3.6	4.0	3.6
Rural	1.9	2.4	2.2
75+	2.6	3.3	3.9
Metropolitan	3.2	3.8	4.2
Micropolitan	2.2	2.7	2.6
Rural	1.8	1.9	1.8

Table 4.5***Percent of ND physicians who graduated from medical school in different states and where physicians who graduated medical school in ND currently practice, 2019.²***

Region/State	Medical Schools that ND DPC Physicians Graduated From		Where UND SMHS Graduates are Currently Practicing		Net ND Migration Balance
	N	%	N	%	
ND	680	47	679	32	--
MN	106	7	436	21	-330
WI	22	2	102	5	-80
IA	49	3	47	2	+2
MO	67	5	25	1	+42
CA	33	2	54	3	-21
SD	38	3	54	3	-16
MI	28	2	51	2	-23
TX	35	2	34	2	+1
NE	48	3	35	2	+13
IL	44	3	30	1	+14
Other	288	21	445	19	-157
Total	1438	100	2122	100	-684

Table 4.6

Percent of ND physicians who graduated from residencies in different states and where physicians who completed a residency in ND currently practice, 2019.²

Region/State	Where ND Practicing Physicians Completed Their Most Recent Residency		Where Physicians Who Completed At Least One Residency in ND Currently Practice		Migration into ND
	N	%	N	%	
ND	488	28	511	36	--
MN	180	10	224	16	-44
MI	127	7	15	1	+112
CA	47	3	67	5	-20
WI	78	4	47	3	+31
TX	51	3	45	3	+6
NY	113	6	12	1	+101
OH	48	3	19	1	+29
IA	47	3	18	1	+29
IL	63	4	21	1	-42
MO	49	3	19	1	+30
NE	43	2	17	2	+26
Other	438	24	411	29	+27
Total	1772	100	1428	100	344

Table 4.7

Percent of North Dakota specialty physicians who graduated from the UND SMHS and/or completed at least one residency in North Dakota as of 2019.²

Residency	Percent
Family Medicine	74
Internal Medicine	41
Obstetrics & Gynecology	66
Pediatrics	41
Psychiatry	41

Table 4.8***Number of current North Dakota residency slots by type of residency program as of 2019.⁷***

Residency	Number in Residency 2019 - 2020	Duration in Years	Completed Training in 2019 - 2020
Family Medicine	64	3 Years	23
Geriatrics Fellowship	1	1 Year	1
Internal Medicine	25	3 Years	9
Orthopedic Surgery	6	5 Years	N/A
Psychiatry	23	4 Years	6
Preliminary Surgery	3	1 or 2 Years	2
Categorical Surgery	26	5 Years	6

Table 4.9***Rate of IMGs and USMGs with comparisons, 2019^{1,3,6}***

	N.D	Upper Midwest	U.S.
IMG	6.2	4.2	6.4
Metropolitan	9.5	5.4	7.3
Micropolitan	4.9	2.5	2.6
Rural	1.2	1.0	1.2
USMG	16.7	21.3	20.4
Metropolitan	25.7	26.3	22.4
Micropolitan	10.9	14.5	11.9
Rural	4.9	8.0	6.7

Table 4.10**Country of origin of IMG physicians practicing in North Dakota, 2017.²**

Region	Country	Total Number	Per Country
Southern Asia		152	
	India		107
	Pakistan		25
	Nepal		11
	Bangladesh		7
	Iran		2
Caribbean		50	
	Dominica (West Indies)		15
	Grenada (West Indies)		10
	Montserrat (West Indies)		9
	Netherlands Antilles		7
	Nevis		4
	Jamaica		2
	Antigua and Barbuda		1
	Aruba		1
	Dominican Republic		1
Southeastern Asia		40	
	Thailand		7
	Indonesia		1
	Malaysia		1
	Myanmar		1
	Vietnam		1
Western Asia		32	
	Syria		10
	Jordan		9
	Lebanon		7
	Turkey		3
	Israel		2
	United Arab Emirates		1
Western Africa		17	
	Nigeria		14
	Ghana		3
South America		14	
	Brazil		6
	Argentina		4
	Peru		4
Eastern Europe		24	
	Romania		11
	Poland		6
	Bulgaria		4
	Hungary		2
	Czechoslovakia		1
Central America		11	
	Mexico		11
Eastern Asia		10	
	China		6
	Japan		2
	South Korea		1
	Taiwan		1

Table 5.1

Percent of primary care physicians in North Dakota who are female, have hospitable-based practices, and are IMGs, 2019.^{1,4}

	N	Area (%)	Female (%)	Hospital-Based (%)	IMG (%)
Metropolitan	361	57.8	41.2	63.4	52.9
Micropolitan	76	12.1	46.0	10.6	10.8
Rural	188	30.0	38.8	26.0	36.3
Total	625		41.1	40.5	16.3

Table 5.2***Percent of primary care physicians in North Dakota by age and area, 2019.^{1,4}***

	N	<35	35-44	45-54	55-64	65-74	>74
Metropolitan	362	11.9	32.9	19.3	20.7	14.6	0.6
Micropolitan	76	7.9	27.6	15.8	26.3	21.0	1.3
Rural	188	12.2	27.7	20.7	21.8	15.4	2.1
Total	626	11.5	30.7	19.3	21.7	15.7	1.1

Table 5.3***Age and area of primary care physicians per 10,000 population in North Dakota with comparisons, 2017.^{2,3,4}***

	N.D.	Upper Midwest	U.S.
<35	1.9	1.6	1.8
Metropolitan	2.7	2.1	2.0
Micropolitan	1.9	0.8	0.5
Rural	0.6	0.4	0.3
35 - 44	2.9	2.3	2.2
Metropolitan	4.6	2.8	2.4
Micropolitan	1.8	1.5	1.1
Rural	0.6	1.0	0.7
45 - 54	2.3	2.6	2.5
Metropolitan	3.5	3.1	2.7
Micropolitan	1.5	1.9	1.5
Rural	0.8	1.4	1.0
55 - 64	2.1	2.4	2.3
Metropolitan	2.7	2.7	2.4
Micropolitan	2.0	2.1	1.7
Rural	1.1	1.5	1.2
65 - 74	1.0	1.0	1.2
Metropolitan	1.2	1.1	1.3
Micropolitan	0.7	0.9	0.9
Rural	0.8	0.8	0.7
75+	0.1	0.1	0.2
Metropolitan	0.1	0.1	0.2
Micropolitan	0.0	0.1	0.1
Rural	0.1	0.1	0.1

Table 5.4

Practice base and area of primary care physicians per 10,000 population in North Dakota with comparisons, 2017.^{2,3,4}

	N.D.	Upper Midwest	U.S.
Office	11.2	11.0	10.0
Metropolitan	15.0	12.1	10.4
Micropolitan	9.2	9.2	7.3
Rural	5.5	8.1	6.0
Hospital	1.6	1.5	1.1
Metropolitan	2.0	1.6	1.2
Micropolitan	1.2	1.2	0.8
Rural	1.3	1.2	0.8

Table 5.5

Percent of ND primary care physicians who graduated from medical school in different states and where primary care physicians who graduated medical school in ND currently practice, 2019.¹

	Medical Schools that ND Primary Care Physicians Graduated From		Where Primary Care UND SMHS Graduates are Currently Practicing		Net ND Migration Balance
Region/State	N	%	N	%	
ND	251	60	250	41	--
MN	34	8	121	20	-87
WI	5	1	26	4	-21
SD	5	1	18	3	-13
IA	17	4	8	1	+9
MT	0	0	20	3	-3
CA	6	1	20	3	-14
MO	13	3	3	0.5	+10
NE	8	2	6	1	+2
MI	7	2	3	0.5	-4
AZ	6	1	15	2	-9
Other	62	17	117	21	-55
Total	414	100	607	100	-193

Table 5.6***Residency locations for ND primary care physicians and current practice state for physicians who completed a ND residency, 2019.¹***

	Where ND Practicing Physicians Completed Their Most Recent Residency		Where Physicians Who Completed At Least One Residency in ND Currently Practice		Migration into ND
Region/State	N	%	N	%	
ND	304	53	267	43	+37
MN	41	7	101	16	-60
WI	18	3	22	4	-4
CA	8	1	25	4	-17
NY	11	2	2	0.5	+9
SD	6	1	17	3	-11
MI	19	3	5	1	+14
TX	6	1	10	2	-4
NE	12	2	4	1	+8
MO	11	2	5	1	+6
IA	10	2	5	1	+5
Other	88	16	160	23	-72
Missing	40	7	2	0.5	+38
Total	574	100	625	100	-51

Table 5.7

Percent of specialist physicians in North Dakota who are female, have hospital-based practices, and are IMGs, 2019.^{1,4}

	N	Female (%)	Hospital-Based (%)	IMG (%)
General Surgery	121	9.9	33.9	12.4
Metropolitan	94	10.6	33.0	9.6
Micropolitan	17	5.9	35.3	11.8
Rural	10	10.0	40.0	40.0
Psychiatry	62	43.5	25.8	35.5
Metropolitan	50	44.0	24.0	34.0
Micropolitan	11	36.4	27.3	45.5
Rural	2	50.0	50.0	0.0
Gen Peds	82	61.0	22.0	17.1
Metropolitan	61	63.9	23.0	13.1
Micropolitan	18	50.0	11.1	33.3
Rural	3	66.7	66.7	0.0
OB-GYN	71	62.0	19.7	8.5
Metropolitan	51	64.7	23.5	2.0
Micropolitan	18	61.1	11.1	22.2
Rural	2	0.0	0.0	50.0

Table 5.8***Percent of specialists in North Dakota by age and area, 2017.^{3,4}***

	N	<35	35-44	45-54	55-64	65-74
General Surgery	121	1.7	26.4	21.5	29.8	17.4
Metropolitan	94	2.1	27.7	25.5	28.7	14.9
Micropolitan	17	0.0	35.3	5.9	23.5	35.3
Rural	10	0.0	0.0	10.0	50.0	10.0
Psychiatry	63	6.3	19.0	27.0	30.2	15.9
Metropolitan	50	8.0	20.0	24.0	32.0	14.0
Micropolitan	11	0.0	18.2	36.4	18.2	27.3
Rural	2	0.0	0.0	50.0	50.0	0.0
Gen Peds	82	4.9	30.5	26.8	17.1	20.7
Metropolitan	61	4.9	37.7	26.2	11.5	19.7
Micropolitan	18	5.6	5.6	27.8	38.9	22.2
Rural	3	0.0	33.3	33.3	0.0	33.3
OB-GYN	71	1.4	42.3	15.5	19.7	18.7
Metropolitan	51	2.0	43.1	15.7	23.5	15.7
Micropolitan	18	0.0	44.4	16.7	11.1	22.2
Rural	2	0.0	0.0	0.0	0.0	50.0

Table 5.9***Specialty physicians per 10,000 population in North Dakota by area with comparisons, 2019.^{3,4}***

	N.D.	Upper Midwest	U.S.
Surgery	4.8	4.8	5.1
Metropolitan	7.5	5.9	5.6
Micropolitan	3.3	3.5	2.9
Rural	0.7	1.2	1.1
Psychiatry	1.0	1.4	1.7
Metropolitan	1.6	1.1	1.3
Micropolitan	0.6	0.5	0.4
Rural	0.1	0.2	0.2
Gen Peds	1.0	1.4	1.7
Metropolitan	1.5	1.7	1.9
Micropolitan	0.9	0.9	0.8
Rural	0.1	0.2	0.3
OB -GYN	0.9	1.0	1.5
Metropolitan	1.3	1.2	1.3
Micropolitan	1.0	0.8	4.3
Rural	0.1	0.2	0.3

Table 6.1***North Dakota's practical nurse program 5 year trends.⁸***

Practical Nursing Program Trends	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019
Program Admissions	223	267	275	300	305
Total Enrollment	348	358	379	419	417
Graduate Certificate Program Graduates	97	91	92	132	138
Associate Degree Program Graduates	78	79	55	93	61
Total Graduates	175	170	147	225	199

Information provided is from the 2018-2019 NDBON Nursing Education Annual Report

Table 6.2***Number of states in which LPNs are licensed.¹***

Number of States Licensed	Frequency	Percent
1	3,027	94.4
2	159	5.0
3	13	0.4
4	4	0.1
5 or more	5	0.2

Table 6.3***North Dakota's registered nurse program 5 year trends.¹⁰***

Registered Nurse Program Trends	FY 2014 - 2015	FY 2015 - 2016	FY 2016 - 2017	FY 2017 - 2018	FY 2018 - 2019
Associate Degree Program Admissions	122	114	122	161	157
Baccalaureate Degree Program Admissions	587	590	639	612	706
Total Enrollment	1628	1564	1584	1514	1830
Associate Degree Program Graduates	106	100	103	119	151
Baccalaureate (BSN) Program Graduates	471*	489*	488*	553*	570*
Total Graduates	577	589	591	672	721

*Information provided is from the 2018-2019 NDBON Nursing Education Annual Report***Note total includes Basic BSN, LPN to BSN, Diploma to BSN, and ADN to BSN.*

Table 6.4***Number of states in which RNs are licensed.¹***

Number of States Licensed	Frequency	Percent
1	11,816	85.7
2	1,074	7.8
3	203	1.5
4	62	0.5
5 or more	631	4.5

Table 6.5***NP graduates from ND programs.¹***

University	Degree	Program	2016	2017	2018	2019
North Dakota State University	Doctor of Nursing Practice	Family Nurse Practitioner	11	11	16	15
University of Mary	Doctor of Nursing Practice	Family Nurse Practitioner	8	26	22	23
University of North Dakota	Master of Science	Family Nurse Practitioner	26	29	34	35
		Adult-Geriatric Primary Care Nurse Practitioner	13	8	11	17
		Psychiatric & Mental Health Nurse Practitioner	8	10	14	19
Total			66	84	97	109

Table 7.1***Behavioral health degree programs at North Dakota academic institutions.¹***

Degree Program	North Dakota Academic Institutions
Doctor of Medicine (MD)	UND (ACCME, ACGME, & LCME accredited)
PhD Clinical Psychology	UND (APA accredited)
PhD Counseling Psychology	UND (APA accredited)
Doctor of Occupational Therapy	UND (granted candidacy status by ACOTE) & Uni. of Mary (granted candidacy status by ACOTE)
Master of Occupational Therapy	UND (ACOTE accredited)
MA/MS Counseling	UND, Uni. of Mary, & Uni. of Jamestown (not accredited) NDSU (CACREP accredited)
MS Social Work	UND (CSEW accredited)
Behavior Analysis	UND (track within MS in Special Ed. degree)
MA/MS School Psychology	Minot State University (NASP accredited)
Psychiatric-Mental Health Nurse Practitioner	UND (ANCC, NACNS, NONPF accredited)
Addiction Studies	UND, Uni. of Mary, & Uni. of Jamestown (track within degree programs) Minot State University (NASAC accredited)
BS Social Work	UND, Uni. of Mary, & Minot State University (CSWE accredited) Sitting Bull College (candidacy status by CSWE) NDSU (dual degree with Minot State)
Social Work Associate	NDSCS, Cankdeska Cikana Community College, & Nueta Hidatsa Sahnish College
Human Services Associate	Bismarck State College, Dakota College at Bottineau, Nueta Hidatsa Sahnish College, United Tribes Technical College, & Sitting Bull College

Table 7.2**North Dakota academic institutions with behavioral health degree programs.¹**

North Dakota Academic Institution	Degree Programs
University of North Dakota (UND)	Medical school & psychiatry residency program <i>Doctorate:</i> clinical and counseling psy., OT <i>Masters:</i> counseling, OT, psychiatric NP, social work, special ed. w/ behavior analysis <i>Bachelors:</i> psychology, social work
North Dakota State University (NDSU)	<i>Masters:</i> clinical mental health counseling, school counseling <i>Bachelors:</i> human development, psychology
University of Mary	<i>Doctorate:</i> OT <i>Masters:</i> clinical and addiction counseling <i>Bachelors:</i> social work, psychology
Minot State University	<i>Masters:</i> education specialist in school psy. <i>Bachelors:</i> addiction studies, social work, psychology
University of Jamestown	<i>Masters:</i> clinical counseling <i>Bachelors:</i> psychology w/ addiction studies
Bismarck State College	<i>Associates:</i> human services, social work, psychology
Dickinson State University	<i>Bachelors:</i> psychology
Cankdeska Cikana Community College	<i>Associates:</i> social work
Dakota College at Bottineau	<i>Associates:</i> human services, psychology
Nueta Hidatsa Sahnish College	<i>Associates:</i> human services (addiction and social work concentrations)
North Dakota State College of Science (NDSCS)	<i>Associates:</i> social work, psychology, occupational therapy assistant
Valley City State University	<i>Bachelors:</i> human services, psychology
United Tribes Technical College	<i>Associate:</i> human & social services
Sitting Bull College	<i>Bachelors:</i> social work <i>Associates:</i> human services

Table 7.3***Educational attainment for North Dakota physical therapists and physical therapist assistants.¹³***

	PT		PTA		Total	
Degree	N	%	N	%	N	%
Associate's	0	0.0	145	98.0	145	14.1
Bachelor's	135	15.4	2	1.4	137	13.4
Certificate	5	0.6	0	0.0	5	0.5
Master's	208	23.7	0	0.0	208	20.3
Doctor of Physical Therapy	530	60.4	1	0.7	531	51.8
All	878	100.0	148	100.0	1,026	100.0

Table 7.4***Primary workplace for North Dakota physical therapists and physical therapist assistants.¹³***

	PT		PTA		Total	
Primary Workplace	N	%	N	%	N	%
Academic Institution (post secondary)	34	3.9	0	0.0	34	3.3
Acute Care Hospital	63	7.2	9	6.1	72	7.0
Home Care	50	5.7	9	6.1	59	5.8
Inpatient Rehabilitation Facility	21	2.4	5	3.4	26	2.5
Industry	1	0.1	0	0.0	1	0.1
Non-patient care or non-clinical environment related to physical therapy	11	1.3	0	0.0	11	1.1
Outpatient clinic affiliated with a hospital, health system, military or other government agency	307	35.0	27	18.2	334	32.6
Outpatient clinic not affiliated with a hospital, health system, military or other government agency	202	22.9	18	12.2	220	21.4
Pediatric clinic (non-school based)	31	3.5	3	2.0	34	3.3
Skilled Nursing Facility, Long Term Care Facility, Assistive Living Facility or Group Home	80	9.1	65	43.9	145	14.1
School System	30	3.4	8	5.4	38	3.7
Other	48	5.5	4	2.7	52	5.1
All	878	100.0	148	100.0	1,026	100.0

Table 7.5***Future plans for North Dakota physical therapists and physical therapist assistants.¹³***

	PT		PTA		Total	
Future Plans	N	%	N	%	N	%
Decrease my hours in the field of physical therapy	24	2.8	4	2.8	28	2.8
Decrease my hours of direct patient care	17	2.0	1	0.7	18	1.8
Increase my hours in the field of physical therapy	27	3.1	11	7.7	38	3.8
Increase my hours of direct patient care	12	1.4	3	2.1	15	1.5
No planned change	779	90.3	124	86.7	903	89.8
Stop working in the field of physical therapy	4	0.5	0	0.0	4	0.4
All	863	100.0	143	100.0	1,006	100.0

Table 7.6***Specialty areas for dentists in North Dakota, 2019.¹⁸***

ADA Specialty	Frequency	Percent
Endodontics	13	16.7
Oral and Maxillofacial Surgery	22	28.2
Orthodontics	18	23.1
Pediatric Dentistry	16	20.5
Periodontics	5	6.4
Prosthodontics	4	5.1

Frequency Missing = 332

Table 9.1

Tertiary hospital geographic regions related to critical access hospitals.¹

Tertiary Hospital	Square Miles	People per Sq. Mi.	Number of CAHs	Average Distance
Bismarck	26,815	7.3	10	110.5
Fargo	12,492	18.2	5	95.8
Grand Forks	10,955	11.1	10	66.6
Minot	20,419	7.5	11	84.5

Minot and Bismarck hospitals serve the largest areas, although Grand Forks and Fargo have the highest concentrations of people. The Fargo region has the fewest CAHs. The distances between the CAHs and the tertiaries are greatest for Bismarck. The CAH closest to a tertiary hospital is only 36 miles away, while the CAH farthest from a tertiary hospital is 182 miles away.

Table 9.2
Tertiary hospital cities and CAH demographics.¹

Tertiary Hospital	Tertiary Beds	CAH Beds	Tertiary Average Age	CAH Average Age	Tertiary % Male	CAH % Male
Bismarck	510	230	38.2	42.1	49.4	50.5
Fargo	687	120	35.5	38.5	50.6	50.6
Grand Forks	277	187	34.7	41.9	41.4	50.4
Minot	416	233	36.4	50.5	50.7	51.3

Hospitals in the Fargo region have the most beds (807 total); Bismarck has 740, Minot has 649, and Grand Forks has 464. For all regions, the average age of people in the CAH territories is older than those in the four main cities. This places a greater burden on the CAHs for certain types of care. These numbers relate to hospital bed numbers before the current COVID-19 public crisis.

Table 9.3***Number and type of EMS units in North Dakota.¹²***

	Air	Ground	Substation	Total
Advanced Life Support	0	17	-	18
Basic Life Support	0	108	6	114
Critical Care	0	-	-	0

Table 9.4***Public health units by type and number of counties.⁵³***

Type	Counties
City/County Health Department	3
City/County Health District	1
Multicounty Health District	32
Single County Health Department	6
Single County Health District	11

Table 10.1***North Dakota rankings associated with the Commonwealth Fund State Scorecard, 2020.¹³***

Category	2014	2015	2018	2020
Access	9 th	25 th	24 th	23 rd
Prevention and Treatment	17 th	19 th	23 rd	20 th
Avoidable Hospital Use and Costs	1 st	22 nd	9 th	11 th
Equity	18 th	36 th	27 th	-
Health Lives	29 th	27 th	26 th	15 th

Table D8.1***Laboratory Staff FTE Breakdown, 2020.⁴***

Position	Internal	External	Vacant	Total	Rate
Lab Scientist	40.2	4.5	5.0	49.7	10%
Lab Technician	24.5	0.0	3.0	27.5	11%
Phlebotomist	12.8	0.0	2.5	15.3	16%

Table D8.2***Radiology Staff FTE Breakdown, 2020.⁴***

Position	Internal	External	Vacant	Total	Rate
Radiographer	35.0	0.5	3.8	39.3	10%
SpecRadTech	17.7	0.5	2.0	20.2	10%
UltrasoundTech	8.5	2.1	1.0	11.6	9%
NucMedTech	3.9	1.2	0.0	5.1	0
RadTherapyTech	0.0	0.0	0.0	0.0	0

Table D8.3***Health Information Management Staff FTE Breakdown, 2020.⁴***

Position	Internal	External	Vacant	Total	Rate
MgrSuper	10.0	3.3	1.0	14.3	7%
PriSec	5.7	1.0	0.0	6.7	0

Table D8.4***Pharmacy Staff FTE Breakdown, 2020.⁴***

Position	Internal	External	Vacant	Total	Rate
Pharmacists	15.2	1.8	0.0	17.0	0
Pharmacy Techs	13.4	0.0	2.0	15.4	13%

Table D8.5***Management Staff FTE Breakdown, 2020.⁴***

Position	Internal	External	Vacant	Total	Rate
NCDirect	52.7	0.0	0.0	52.7	0
HR	19.4	0.0	0.0	19.4	0
Business	97.1	6.0	3.0	106.1	3%

Table D8.6***Facilities Staff FTE Breakdown, 2020.⁴***

Position	Internal	External	Vacant	Total	Rate
House	60.6	0.0	3.5	64.1	5%
Laundry	27.1	0.0	1.0	28.1	4%
Maint	37.0	1.0	3.5	41.5	8%
Grounds	1.0	0.0	0.0	1.0	0
Enviro	40.0	1.0	0.6	41.6	1%