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The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis

This state-level analysis of the supply and distribution of the obstetrical care workforce extends the work published by the WWAMI Rural Health Research Center titled "The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S." (https://depts.washington.edu/fammed/rhrc/wp-content/uploads/sites/4/2020/06/RHRC_PB168_Patterson.pdf). These state-level data briefs provide descriptions of the supply and geographic distribution of Obstetricians, Advanced Practice Midwives, Midwives, and Family Physicians who deliver babies.

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DATA AND METHODS

This study used the National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data downloaded April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire from 2014 through 2018, and the 2019 Claritas U.S. population data.

We categorized all U.S. counties into one of three geographic categories using the Economic Research Service Urban Influence Codes grouped as follows: Metropolitan (UIC 1,2), Micropolitan (UIC 3,5,8), and Non-Core (UIC 4,6,7,9-12). We used NPPES NPI data for analyses of obstetricians, advanced practice midwives, midwives, and family medicine physicians according to the following NPPES taxonomy descriptions and codes:

- Obstetrician Physicians: Obstetrics & Gynecology - 207V00000X, Obstetrics - 207VX0000X, Maternal & Fetal Medicine - 207VM0101X, Reproductive Endocrinology - 207VE0102X
- Advanced Practice Midwife: 367A00000X
- Midwife: Midwife - 176B00000X
- Family Medicine Physicians: Family Medicine - 207Q00000X, Adult Medicine - 207QA0505X, General Practice - 208D00000X

We calculated obstetrician, advanced practice midwife, and midwife counts and the number of each provider type per 100,000 women of child-bearing age (defined as 15-49 years old) for each U.S. county using providers' practice addresses from the NPPES file. We calculated comparable estimates for family physicians providing obstetric services using the NPPES and data from ABFM Family Medicine Certification Examination Registration Questionnaire surveys for the years 2014 through 2018. The survey asks all ABFM-certified physicians if they deliver babies, and the ABFM provided the number of family physicians responding to the 2014-2018 surveys and the number who reported delivering babies by county. For each county with no family physicians responding to the survey from 2014 through 2018, we estimated the percentage delivering babies.

To derive this estimate, we pooled data from all counties within the state in the same UIC category and calculated the overall percentage of physicians in that UIC category who reported delivering babies on the 2014-2018 surveys. We multiplied this estimated county-specific percentage of family physicians who delivered babies by the number of family physicians in each county to yield the estimated number of family physicians providing OB services. This number was used to calculate the ratio of family physicians to 100,000 women of child-bearing age. Further details on methods are available from the authors. The NPPES NPI data have some limitations. Individuals in a group practice may obtain either an individual NPI and/or a group NPI, depending on how their practice is structured. Time lags can occur between when recent graduates appear at their new practice addresses rather than their training sites, and though providers are required to update changes in status or location, the extent to which providers comply is unknown. NPPES data also do not indicate whether providers are clinically active. For these reasons, NPPES NPI data may miscount the total numbers of individual providers. Nonetheless, the NPI data should provide a reasonably accurate picture of the relative availability of providers across various geographic classifications.

ABFM data limitations include the fact that family physicians who are not board-certified are not surveyed, resulting in an undercount that disproportionately excludes osteopathic physicians, an important type of physician in rural areas. The imputation of values in counties with no board-certified family physicians who responded to the survey between 2014-2018, means that the data on family physicians are also best viewed as estimates of relative rural versus urban availability of obstetric services rather than precise numbers of providers in each county.

ACKNOWLEDGMENTS Produced by John Kearney, BS.

FUNDING This study was supported by the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) under cooperative agreement #U1CRH03712. The information, conclusions and opinions expressed in the publication are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.

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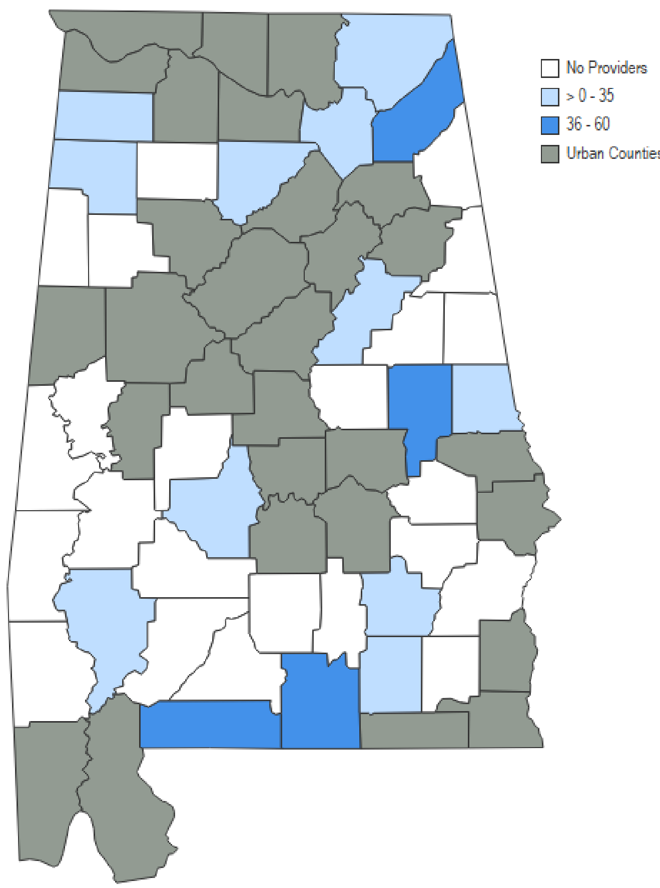
Alabama Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Alabama as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Alabama Counties



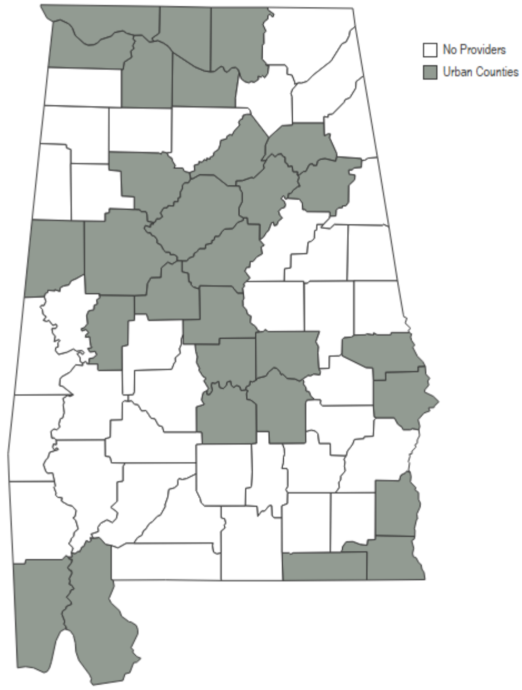
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Alabama Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Alabama	43.6 (482)	2.1 (23)	1.0 (11)	3.5 (38)
Metropolitan	50.2 (435)	2.7 (23)	0.9 (8)	3.0 (26)
Non-Metro	19.6 (47)	0 (0)	1.3 (3)	5.3 (13)
Micropolitan	23.3 (27)	0 (0)	2.6 (3)	8.1 (9)
Non-core	16.2 (20)	0 (0)	0 (0)	2.6 (3)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Alabama Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Alabama Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Alabama (67 counties)	34 (51%)	59 (88%)	58 (87%)	53 (79%)	26 (39%)
Metropolitan (29 counties)	11 (38%)	21 (72%)	22 (76%)	22 (76%)	8 (28%)
Non-Metro (38 counties)	23 (61%)	38 (100%)	36 (95%)	31 (82%)	18 (47%)
Micropolitan (10 counties)	2 (20%)	10 (100%)	8 (80%)	8 (80%)	2 (20%)
Non-core (28 counties)	21 (75%)	28 (100%)	28 (100%)	23 (82%)	16 (57%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

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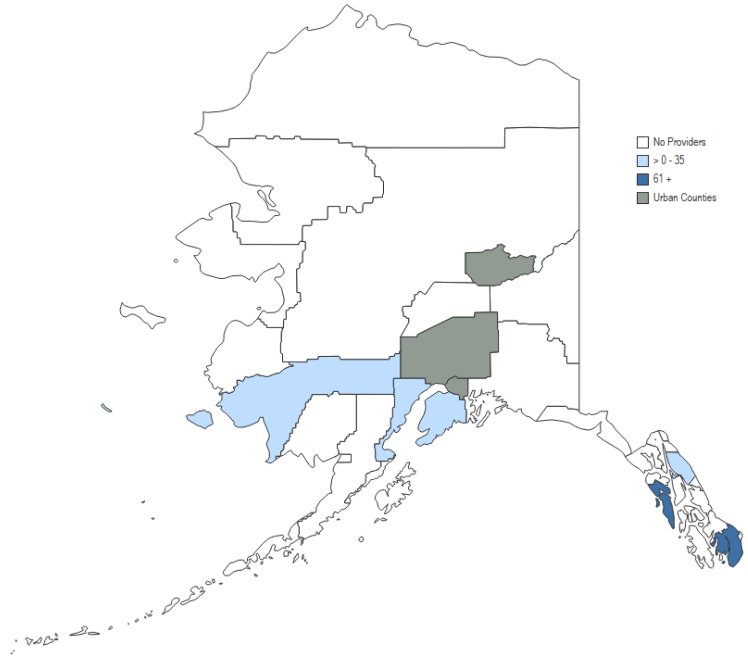
Alaska Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Alaska as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Alaska Counties



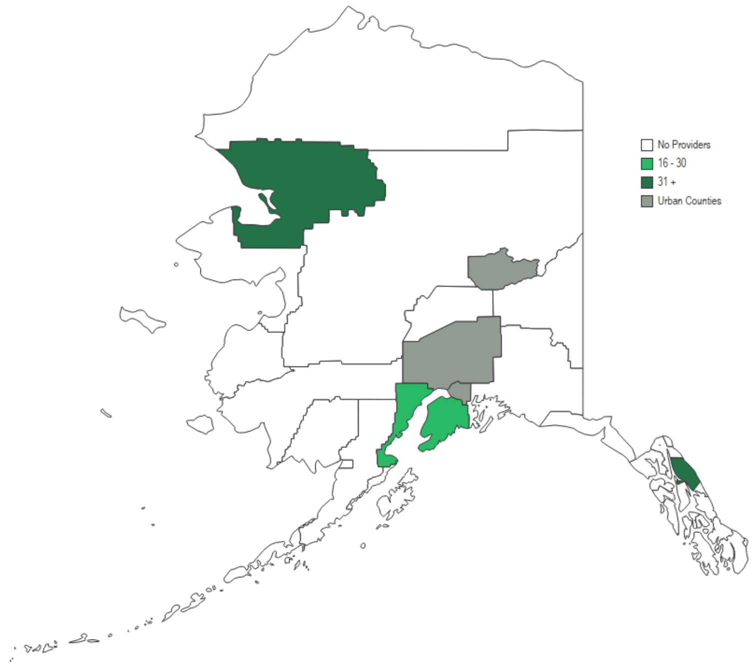
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Alaska Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Alaska	61.1 (102)	41.3 (69)	34.2 (57)	95.4 (159)
Metropolitan	77.6 (91)	50.3 (59)	33.3 (39)	42.8 (50)
Non-Metro	22.2 (11)	20.2 (10)	36.3 (18)	219.9 (109)
Micropolitan	38.9 (4)	38.9 (4)	77.9 (8)	194.7 (20)
Non-core	17.8 (7)	15.3 (6)	25.4 (10)	226.5 (89)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Alaska Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Alaska Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Alaska (29 counties)	21 (72%)	23 (79%)	21 (72%)	12 (41%)	11 (38%)
Metropolitan (3 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Non-Metro (26 counties)	21 (81%)	23 (88%)	21 (81%)	12 (46%)	11 (42%)
Micropolitan (2 counties)	0 (0%)	1 (50%)	0 (0%)	1 (50%)	0 (0%)
Non-core (24 counties)	21 (88%)	22 (92%)	21 (88%)	11 (46%)	11 (46%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

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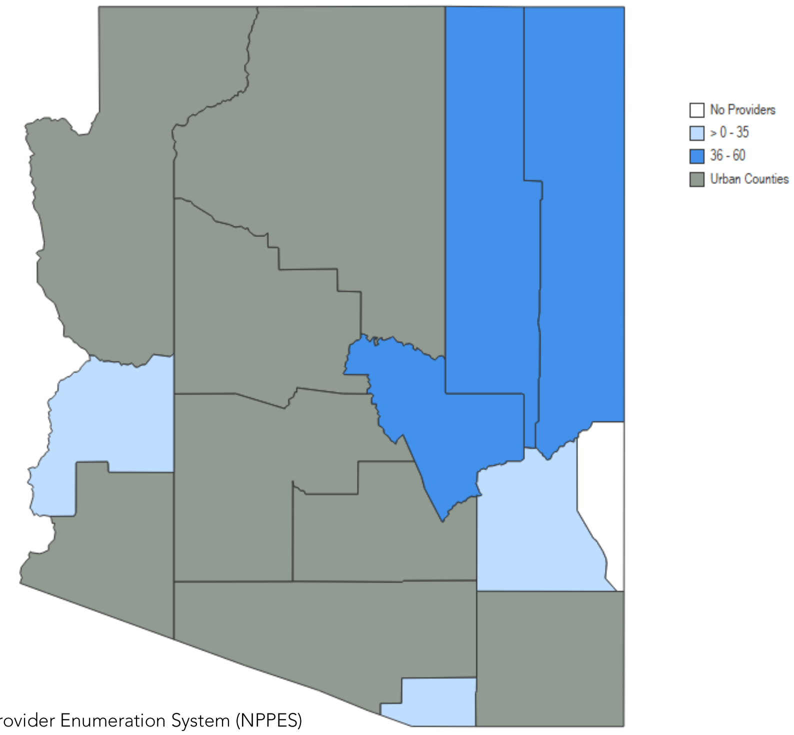
Arizona Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Arizona as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Arizona Counties



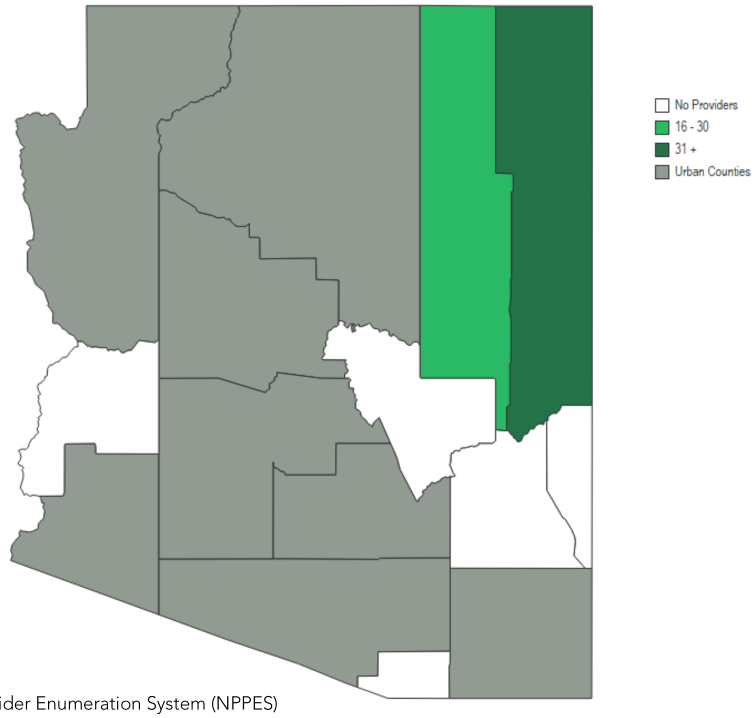
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Arizona Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Arizona	47.6 (764)	10.0 (160)	6.6 (106)	7.7 (123)
Metropolitan	48.1 (739)	8.9 (136)	6.6 (102)	4.1 (63)
Non-Metro	36.0 (25)	34.5 (24)	5.8 (4)	85.8 (60)
Micropolitan	32.5 (16)	12.2 (6)	0 (0)	116.7 (57)
Non-core	44.3 (9)	88.5 (18)	19.7 (4)	11.2 (2)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Arizona Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Arizona Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Arizona (15 counties)	1 (7%)	5 (33%)	6 (40%)	8 (53%)	1 (7%)
Metropolitan (8 counties)	0 (0%)	0 (0%)	0 (0%)	6 (75%)	0 (0%)
Non-Metro (7 counties)	1 (14%)	5 (71%)	6 (86%)	2 (29%)	1 (14%)
Micropolitan (4 counties)	0 (0%)	3 (75%)	4 (100%)	0 (0%)	0 (0%)
Non-core (3 counties)	1 (33%)	2 (67%)	2 (67%)	2 (67%)	1 (33%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
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Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

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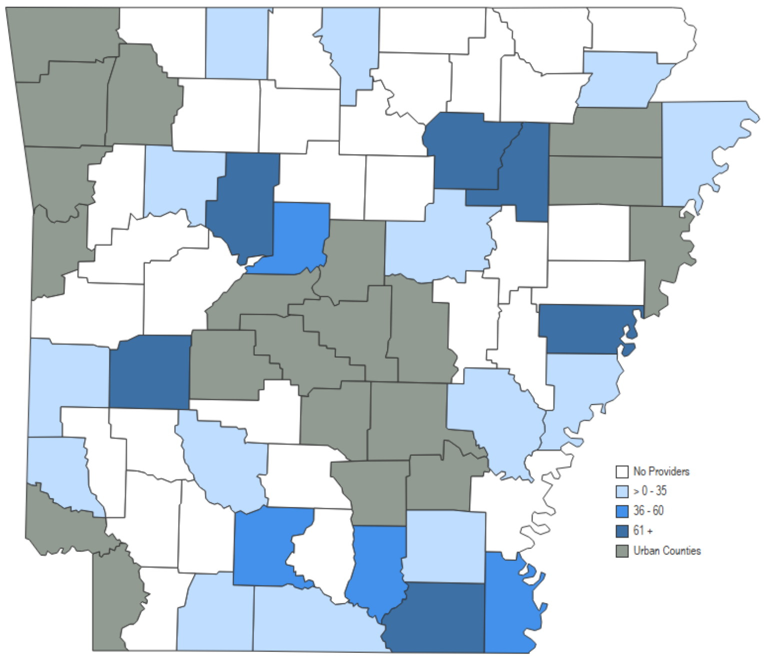
Arkansas Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Arkansas as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Arkansas Counties



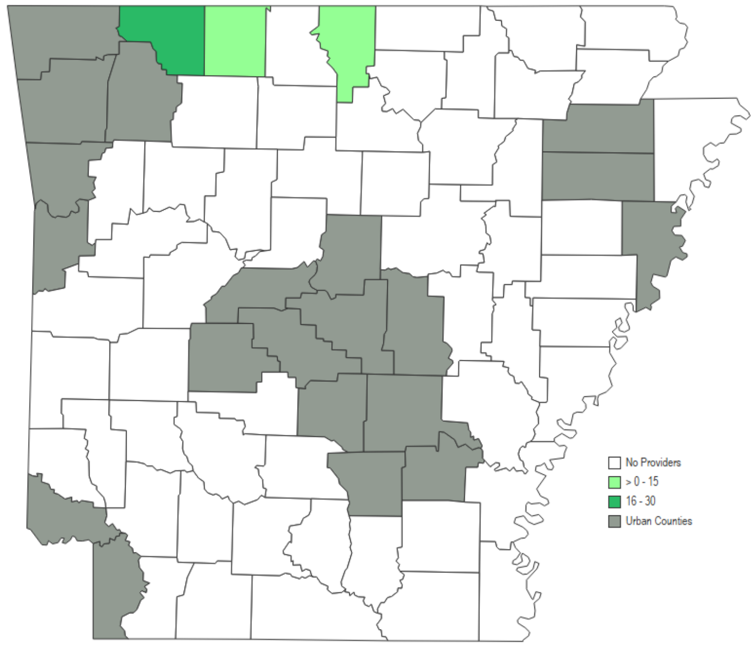
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Arkansas Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Arkansas	37.6 (253)	1.9 (13)	3.0 (20)	12.6 (85)
Metropolitan	45.2 (200)	2.3 (10)	3.6 (16)	5.7 (25)
Non-Metro	22.9 (53)	1.3 (3)	1.7 (4)	25.9 (60)
Micropolitan	27.9 (34)	1.6 (2)	1.6 (2)	37.2 (45)
Non-core	17.4 (19)	0.9 (1)	1.8 (2)	13.3 (15)

Data Sources: National Plan and Provider Enumeration System National Provider Identifier data (April 2019), the U.S. Department of Agriculture Economic Research Service Urban Influence Codes 2013 Edition, the 2019 Claritas U.S. population data, and the American Board of Family Medicine Certification Examination Registration Questionnaire (2014-2018).
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Arkansas Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Arkansas Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Arkansas (75 counties)	40 (53%)	68 (91%)	64 (85%)	47 (63%)	24 (32%)
Metropolitan (20 counties)	9 (45%)	16 (80%)	13 (65%)	14 (70%)	7 (35%)
Non-Metro (55 counties)	31 (56%)	52 (95%)	51 (93%)	33 (60%)	17 (31%)
Micropolitan (17 counties)	5 (29%)	15 (88%)	15 (88%)	7 (41%)	2 (12%)
Non-core (38 counties)	26 (68%)	37 (97%)	36 (95%)	26 (68%)	15 (39%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

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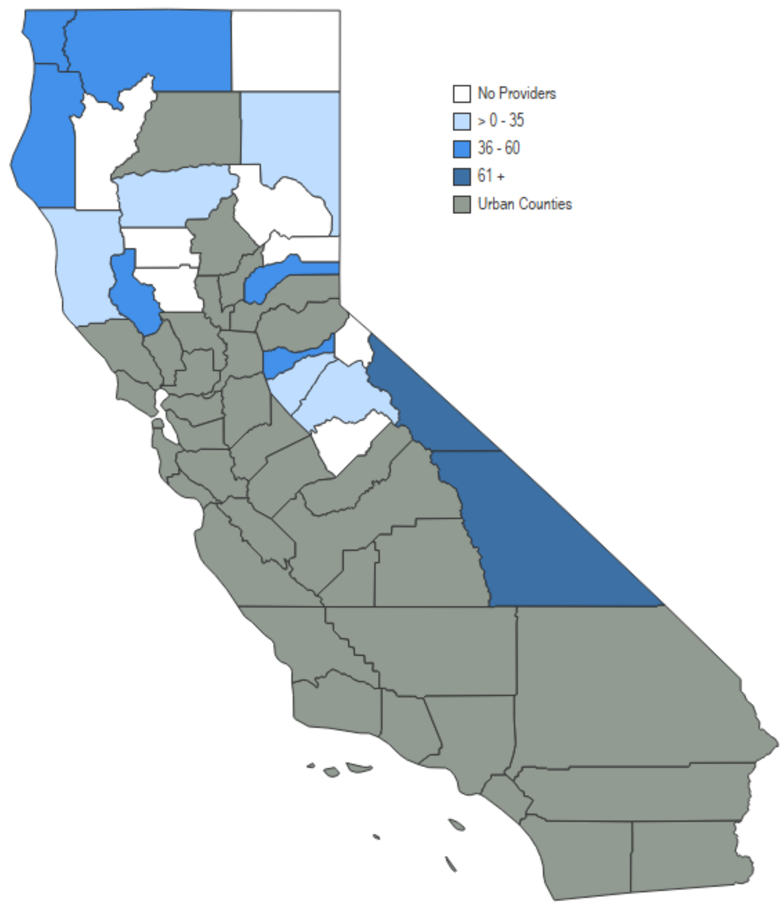
California Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in California as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural California Counties



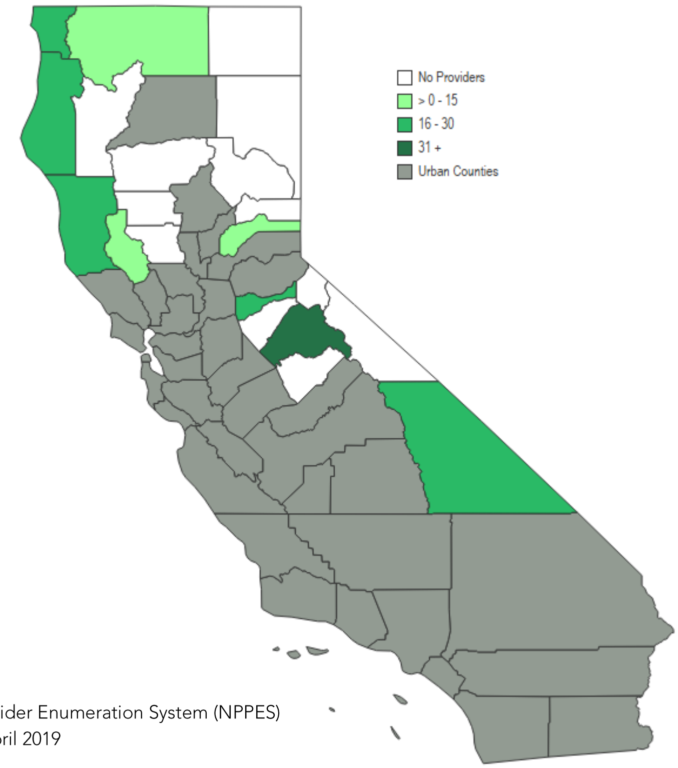
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in California Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
California	50.9 (4,875)	6.8 (654)	5.0 (481)	7.1 (682)
Metropolitan	51.2 (4,817)	6.7 (633)	4.7 (438)	6.9 (645)
Non-Metro	36.4 (58)	13.2 (21)	27.0 (43)	23.3 (37)
Micropolitan	37.9 (42)	16.2 (18)	36.1 (40)	12.3 (14)
Non-core	33.0 (16)	6.2 (3)	6.2 (3)	48.5 (23)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural California Counties



Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

California Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
California (58 counties)	9 (16%)	17 (29%)	13 (22%)	21 (36%)	4 (7%)
Metropolitan (37 counties)	1 (3%)	5 (14%)	2 (5%)	8 (22%)	0 (0%)
Non-Metro (21 counties)	8 (38%)	12 (57%)	11 (52%)	13 (62%)	4 (19%)
Micropolitan (8 counties)	0 (0%)	2 (25%)	1 (13%)	6 (75%)	0 (0%)
Non-core (13 counties)	8 (62%)	10 (77%)	10 (77%)	7 (54%)	4 (31%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

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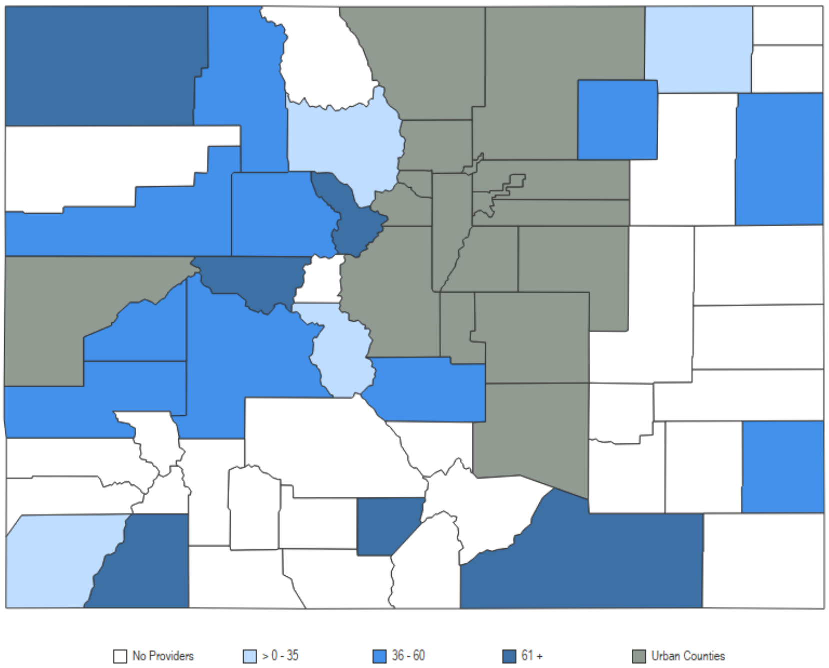
Colorado Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Colorado as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Colorado Counties



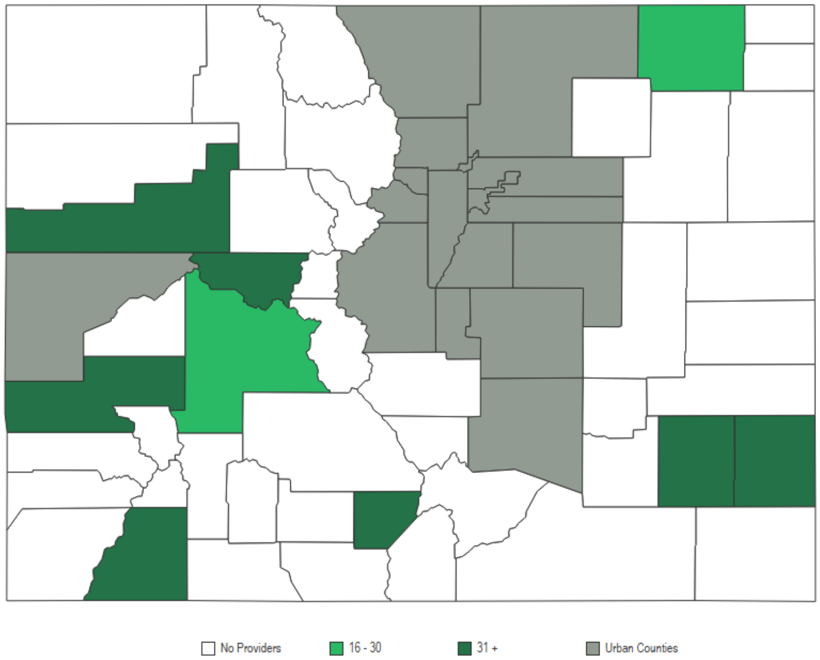
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Colorado Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Colorado	59.1 (791)	21.4 (286)	9.9 (132)	27.8 (371)
Metropolitan	60.8 (726)	22.3 (266)	9.0 (107)	22.8 (272)
Non-Metro	45.6 (65)	14.0 (20)	17.5 (25)	69.4 (99)
Micropolitan	58.4 (49)	17.9 (15)	17.9 (15)	18.7 (16)
Non-core	27.3 (16)	8.5 (5)	17.0 (10)	142.0 (83)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Colorado Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Colorado Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Colorado (64 counties)	32 (50%)	42 (66%)	40 (63%)	24 (38%)	12 (19%)
Metropolitan (17 counties)	5 (29%)	4 (24%)	5 (29%)	3 (18%)	1 (6%)
Non-Metro (47 counties)	27 (57%)	38 (81%)	35 (74%)	21 (45%)	11 (23%)
Micropolitan (11 counties)	0 (0%)	6 (55%)	6 (55%)	6 (55%)	0 (0%)
Non-core (36 counties)	27 (75%)	32 (89%)	29 (81%)	15 (42%)	11 (31%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

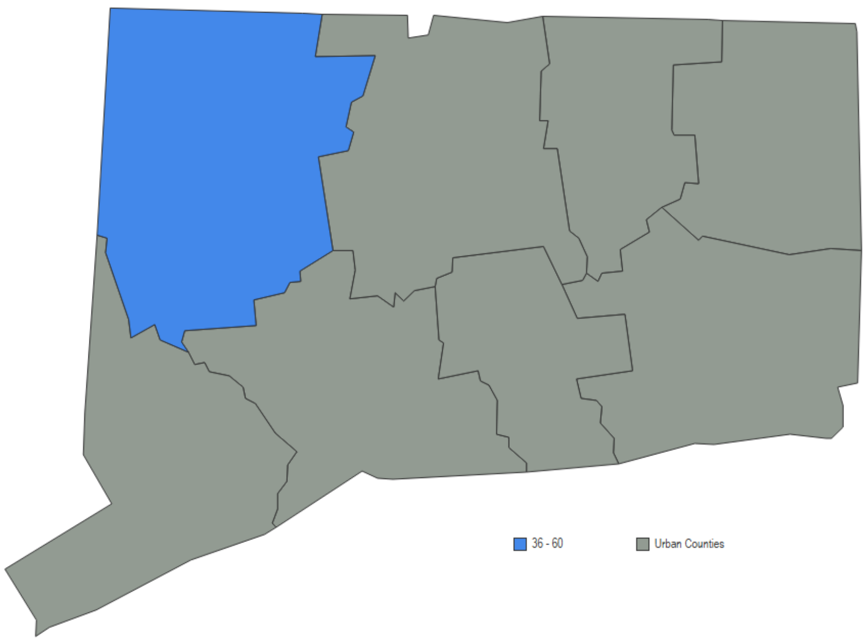
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of “core-based” metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Connecticut Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Connecticut as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Connecticut Counties



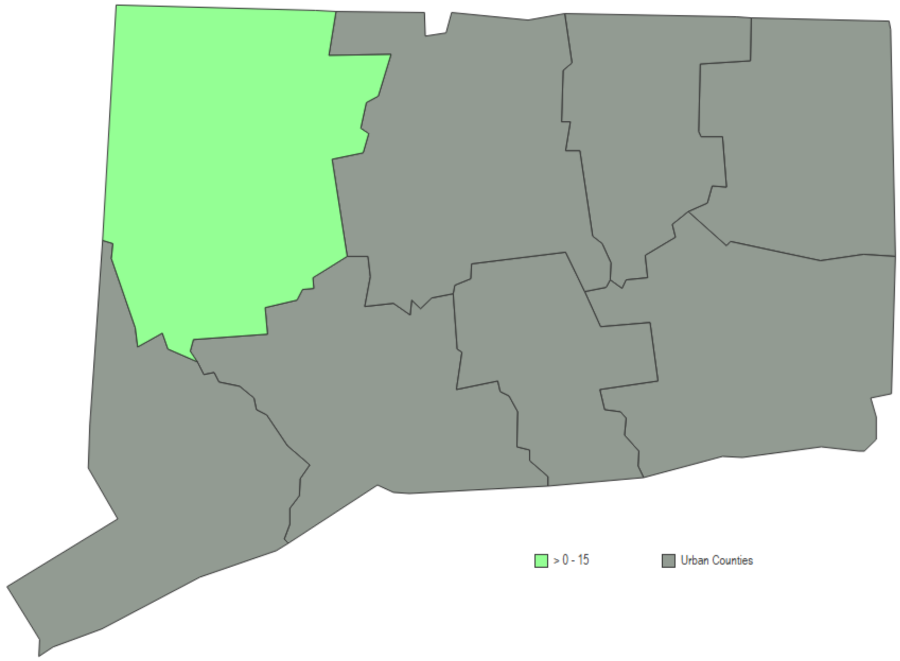
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Connecticut Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Connecticut	82.9 (661)	20.8 (166)	4.5 (36)	4.4 (35)
Metropolitan	84.8 (647)	21.4 (163)	4.7 (36)	3.7 (28)
Non-Metro	40.7 (14)	8.7 (3)	0 (0)	19.0 (7)
Micropolitan	40.7 (14)	8.7 (3)	0 (0)	19.0 (7)
Non-core	0 (0)	0 (0)	0 (0)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Connecticut Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Connecticut Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Connecticut (8 counties)	0 (0%)	0 (0%)	1 (13%)	2 (25%)	0 (0%)
Metropolitan (7 counties)	0 (0%)	0 (0%)	0 (0%)	2 (29%)	0 (0%)
Non-Metro (1 county)	0 (0%)	0 (0%)	1 (100%)	0 (0%)	0 (0%)
Micropolitan (1 county)	0 (0%)	0 (0%)	1 (100%)	0 (0%)	0 (0%)
Non-core (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

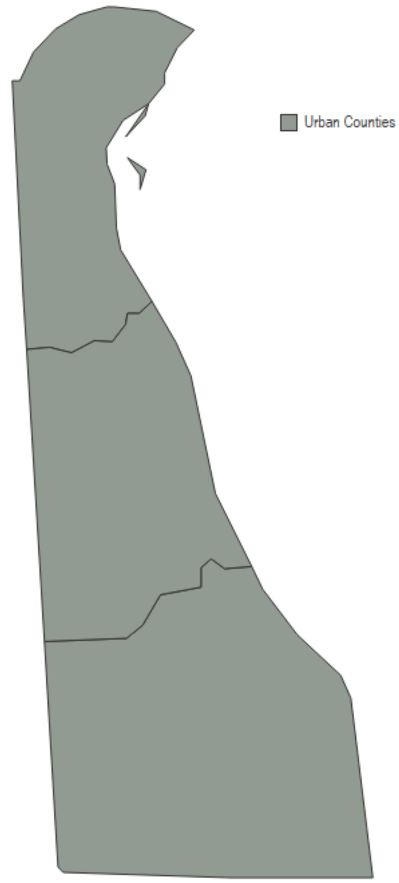
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Delaware Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Delaware as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Delaware Counties



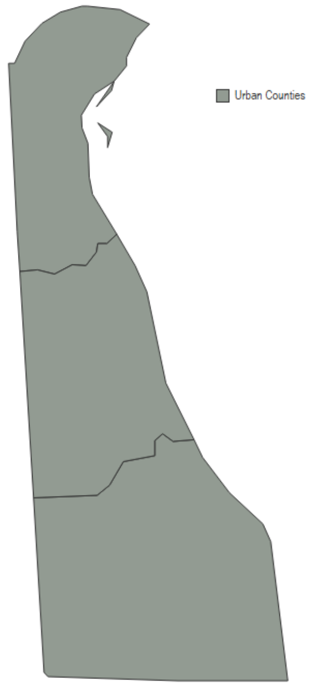
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Delaware Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Delaware	68.4 (146)	15.0 (32)	5.2 (11)	1.5 (3)
Metropolitan	68.4 (146)	15.0 (32)	5.2 (11)	1.5 (3)
Non-Metro	0 (0)	0 (0)	0 (0)	0 (0)
Micropolitan	0 (0)	0 (0)	0 (0)	0 (0)
Non-core	0 (0)	0 (0)	0 (0)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Delaware Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Delaware Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Delaware (3 counties)	0 (0%)	0 (0%)	0 (0%)	2 (67%)	0 (0%)
Metropolitan (3 counties)	0 (0%)	0 (0%)	0 (0%)	2 (67%)	0 (0%)
Non-Metro (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Micropolitan (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Non-core (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

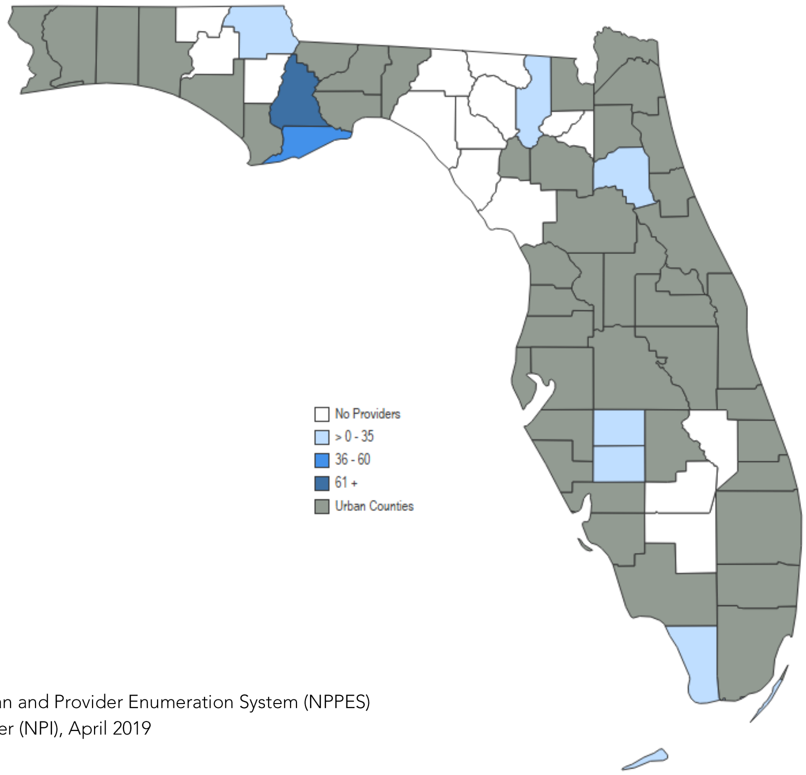
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Florida Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Florida as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Florida Counties



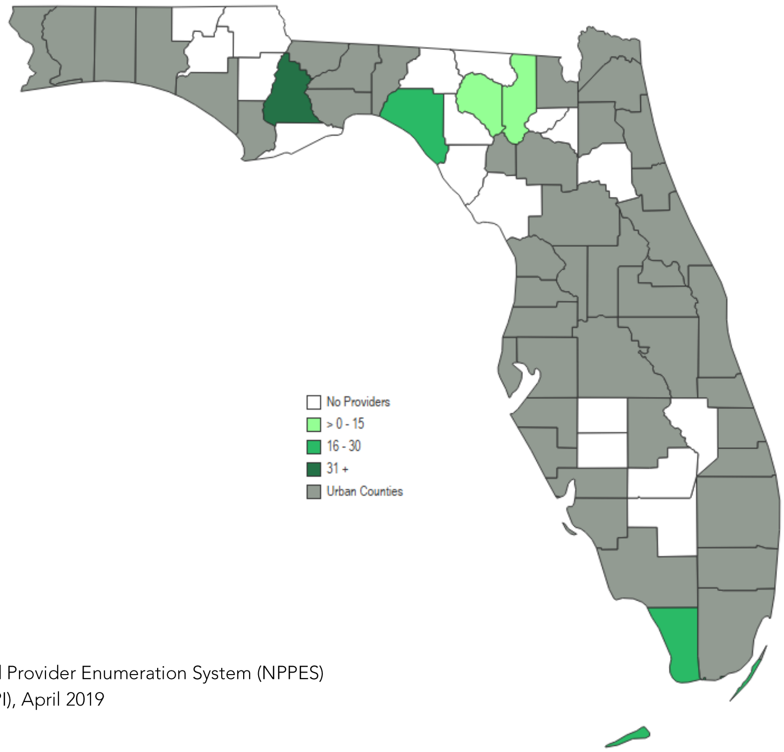
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Florida Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Florida	49.9 (2,283)	10.5 (481)	5.3 (241)	3.9 (180)
Metropolitan	51.1 (2,269)	10.7 (474)	5.4 (239)	3.7 (166)
Non-Metro	10.6 (14)	5.3 (7)	1.5 (2)	10.6 (14)
Micropolitan	14.9 (11)	5.4 (4)	1.4 (1)	0 (0)
Non-core	5.1 (3)	5.1 (3)	1.7 (1)	24.0 (14)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Florida Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Florida Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Florida (67 counties)	21 (31%)	25 (37%)	34 (51%)	40 (60%)	10 (15%)
Metropolitan (44 counties)	6 (14%)	7 (16%)	13 (30%)	24 (55%)	2 (5%)
Non-Metro (23 counties)	15 (65%)	18 (78%)	21 (91%)	16 (70%)	8 (35%)
Micropolitan (7 counties)	2 (29%)	5 (71%)	6 (86%)	7 (100%)	2 (29%)
Non-core (16 counties)	13 (81%)	13 (81%)	15 (94%)	9 (56%)	6 (38%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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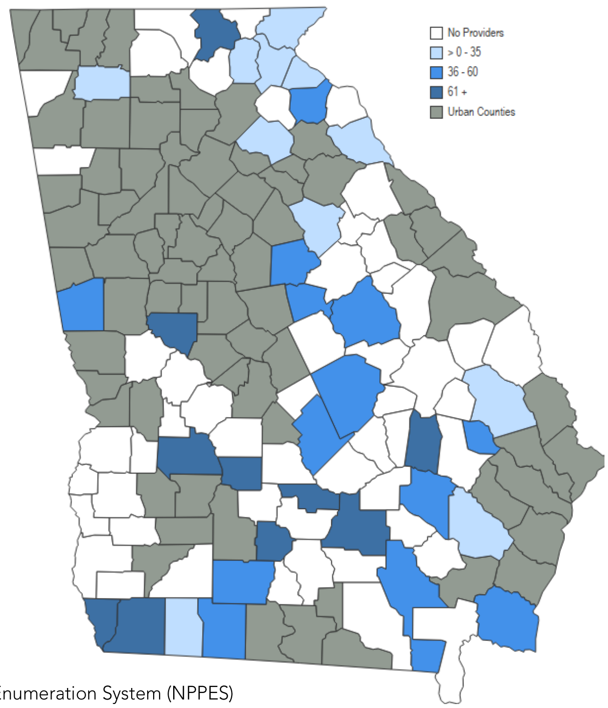
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis.* Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Georgia Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Georgia as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Georgia Counties



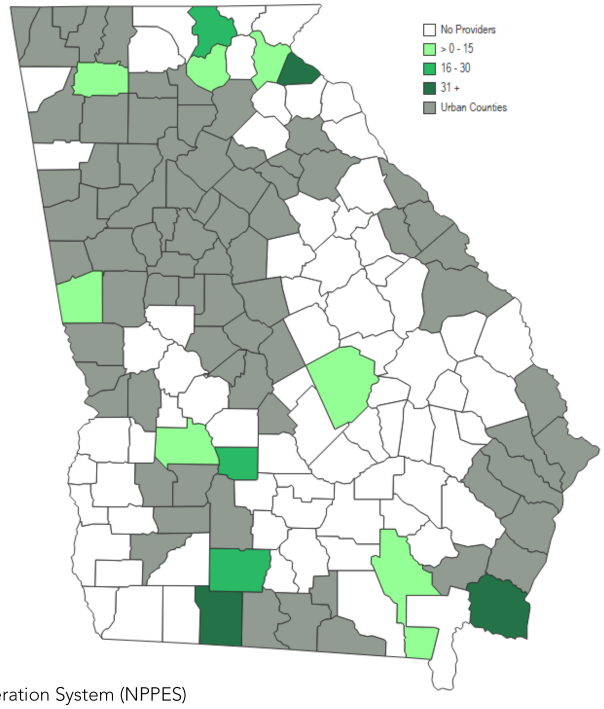
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Georgia Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Georgia	51.1 (1,291)	14.7 (371)	2.8 (71)	5.4 (135)
Metropolitan	54.8 (1,172)	16.1 (345)	2.9 (61)	5.4 (115)
Non-Metro	30.7 (119)	6.7 (26)	2.6 (10)	5.2 (20)
Micropolitan	41.3 (97)	10.2 (24)	4.3 (10)	4.8 (11)
Non-core	14.4 (22)	1.3 (2)	0 (0)	5.7 (9)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Georgia Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Georgia Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Georgia (159 counties)	84 (53%)	110 (69%)	133 (84%)	118 (74%)	56 (35%)
Metropolitan (74 counties)	33 (45%)	38 (51%)	54 (73%)	56 (76%)	22 (30%)
Non-Metro (85 counties)	51 (60%)	72 (85%)	79 (93%)	62 (73%)	34 (40%)
Micropolitan (28 counties)	7 (25%)	17 (61%)	22 (79%)	25 (89%)	6 (21%)
Non-core (57 counties)	44 (77%)	55 (96%)	57 (100%)	37 (65%)	28 (49%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
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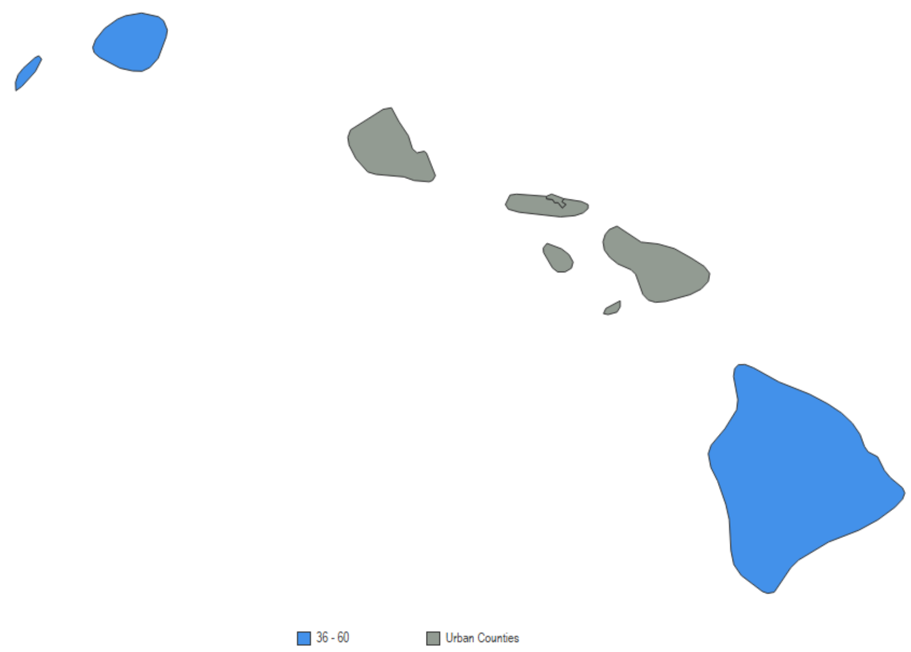
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Hawaii Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Hawaii as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Hawaii Counties



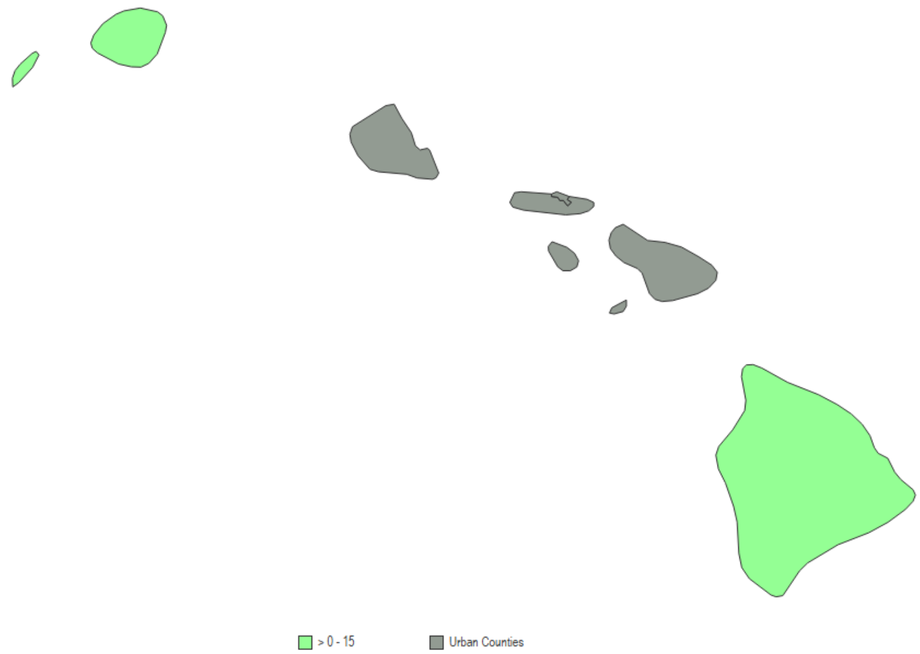
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Hawaii Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Hawaii	80.0 (246)	9.8 (30)	2.9 (9)	7.6 (23)
Metropolitan	86.5 (218)	9.5 (24)	2.0 (5)	4.6 (12)
Non-Metro	50.5 (28)	10.8 (6)	7.2 (4)	21.3 (12)
Micropolitan	50.5 (28)	10.8 (6)	7.2 (4)	21.3 (12)
Non-core	0 (0)	0 (0)	0 (0)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Hawaii Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Hawaii Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Hawaii (5 counties)	1 (20%)	1 (20%)	2 (40%)	2 (40%)	1 (20%)
Metropolitan (3 counties)	1 (33%)	1 (33%)	2 (67%)	2 (67%)	1 (33%)
Non-Metro (2 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Micropolitan (2 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Non-core (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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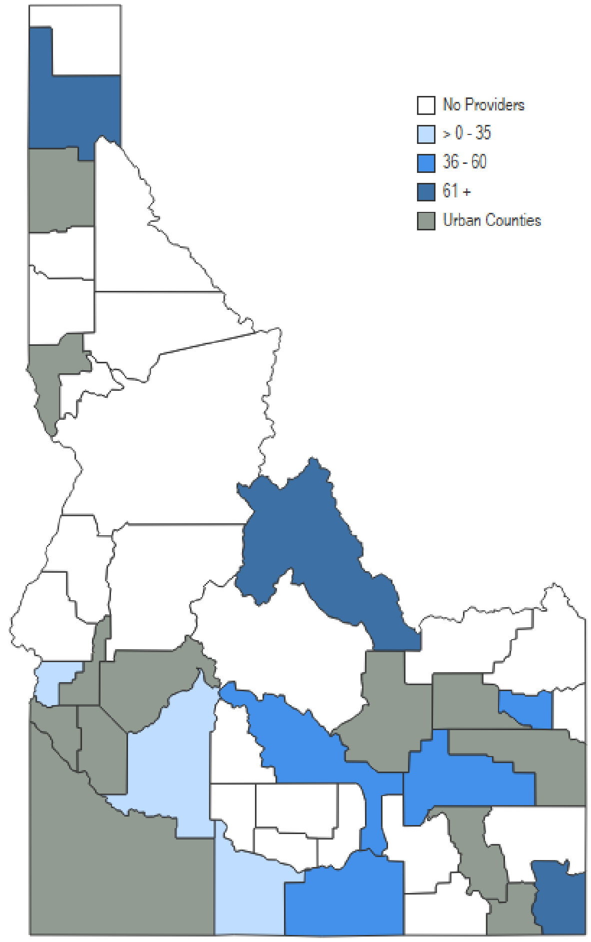
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Idaho Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Idaho as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Idaho Counties



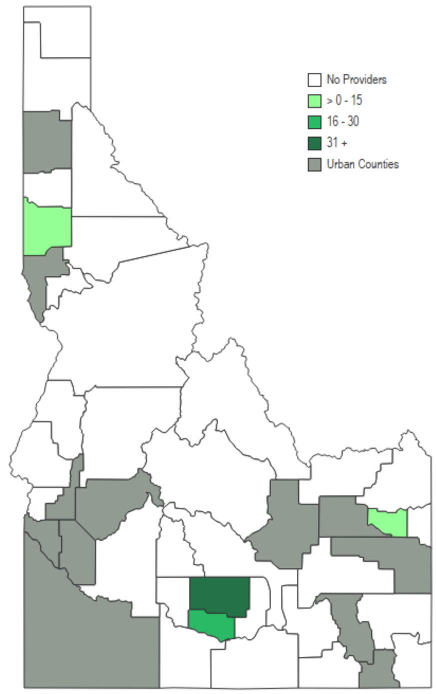
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Idaho Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Idaho	42.1 (164)	10.0 (39)	20.0 (78)	57.8 (225)
Metropolitan	48.5 (130)	13.1 (35)	22.8 (61)	47.3 (127)
Non-Metro	28.0 (34)	3.3 (4)	14.0 (17)	80.9 (98)
Micropolitan	32.1 (31)	4.1 (4)	10.4 (10)	65.6 (63)
Non-core	12.0 (3)	0 (0)	28.1 (7)	140.0 (35)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Idaho Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Idaho Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Idaho (44 counties)	28 (64%)	33 (75%)	29 (66%)	15 (34%)	9 (20%)
Metropolitan (12 counties)	6 (50%)	5 (42%)	6 (50%)	3 (25%)	1 (8%)
Non-Metro (32 counties)	22 (69%)	28 (88%)	23 (72%)	12 (38%)	8 (25%)
Micropolitan (15 counties)	7 (47%)	11 (73%)	9 (60%)	5 (33%)	3 (20%)
Non-core (17 counties)	15 (88%)	17 (100%)	14 (82%)	7 (41%)	5 (29%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

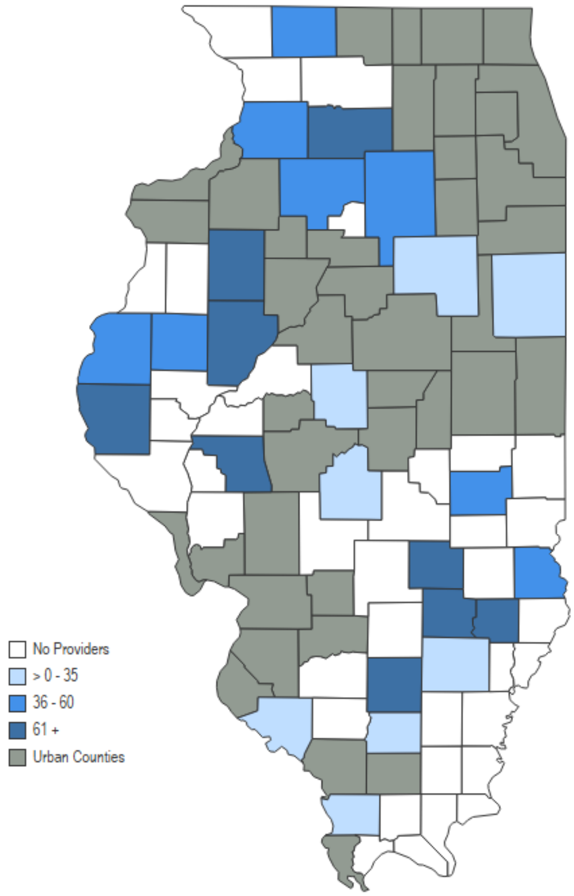
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Illinois Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Illinois as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Illinois Counties



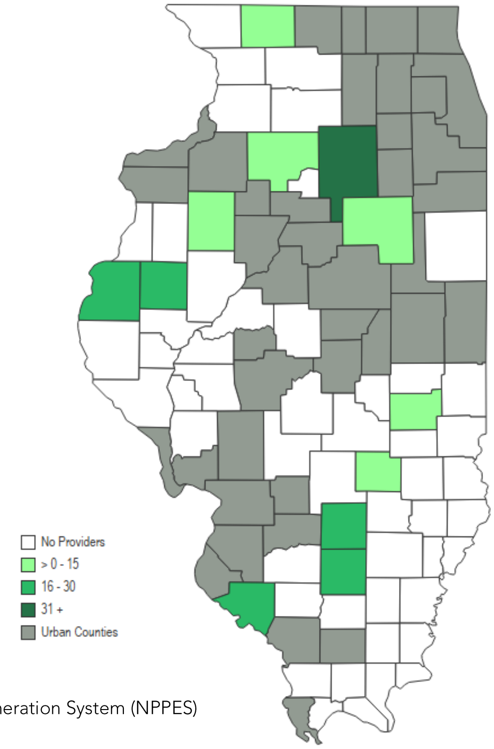
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Illinois Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Illinois	67.5 (1,991)	11.6 (343)	1.7 (49)	11.3 (335)
Metropolitan	71.5 (1,903)	12.1 (322)	1.7 (46)	10.8 (288)
Non-Metro	30.4 (88)	7.3 (21)	1.0 (3)	15.9 (46)
Micropolitan	42.8 (75)	11.4 (20)	1.7 (3)	18.1 (32)
Non-core	11.4 (13)	0.9 (1)	0 (0)	12.6 (14)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Illinois Counties



Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Illinois Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Illinois (102 counties)	49 (48%)	68 (67%)	85 (83%)	60 (59%)	25 (25%)
Metropolitan (40 counties)	12 (30%)	18 (45%)	26 (65%)	22 (55%)	6 (15%)
Non-Metro (62 counties)	37 (60%)	50 (81%)	59 (95%)	38 (61%)	19 (31%)
Micropolitan (24 counties)	7 (29%)	13 (54%)	21 (88%)	14 (58%)	1 (4%)
Non-core (38 counties)	30 (79%)	37 (97%)	38 (100%)	24 (63%)	18 (47%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

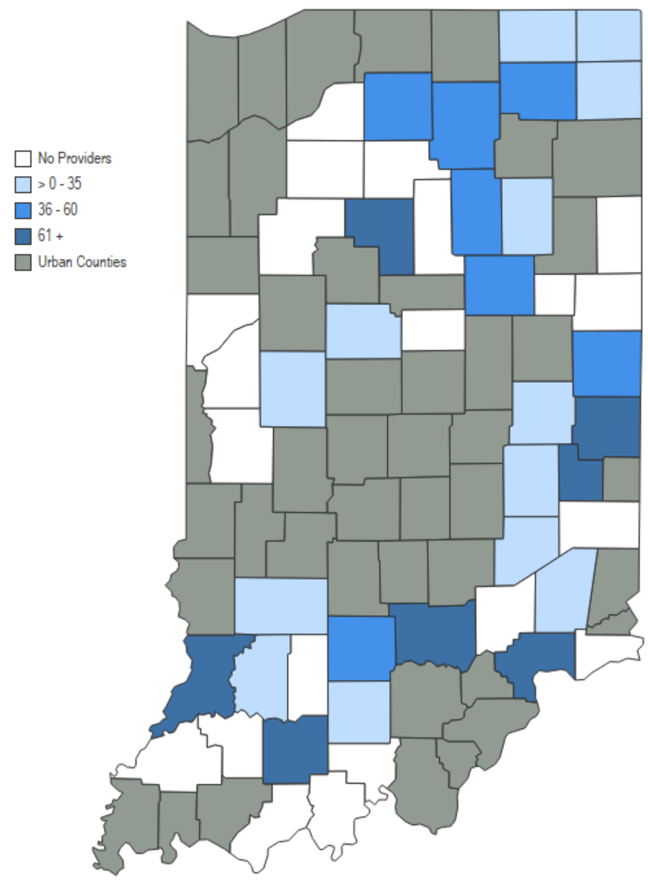
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Indiana Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Indiana as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Indiana Counties



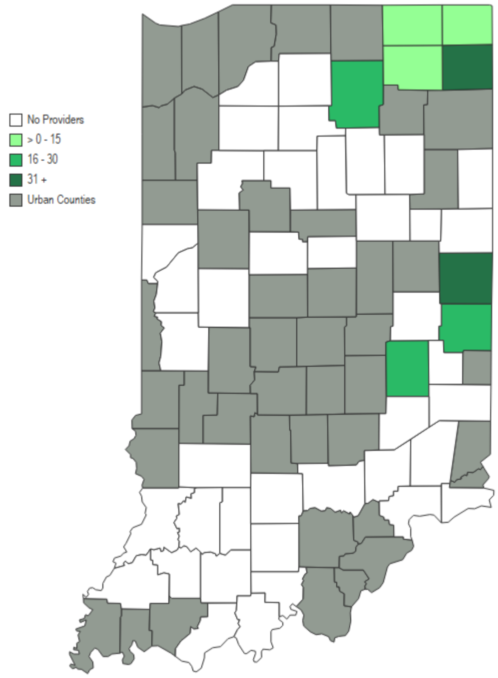
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Indiana Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Indiana	53.4 (806)	9.8 (148)	1.5 (22)	21.6 (326)
Metropolitan	58.7 (710)	10.9 (132)	1.5 (18)	19.4 (235)
Non-Metro	32.0 (96)	5.3 (16)	1.3 (4)	30.3 (91)
Micropolitan	42.7 (89)	5.8 (12)	1.4 (3)	31.4 (65)
Non-core	7.7 (7)	4.4 (4)	1.1 (1)	27.7 (25)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Indiana Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Indiana Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Indiana (92 counties)	33 (36%)	62 (67%)	74 (80%)	42 (46%)	17 (18%)
Metropolitan (44 counties)	12 (27%)	22 (50%)	30 (68%)	18 (41%)	5 (11%)
Non-Metro (48 counties)	21 (44%)	40 (83%)	44 (92%)	24 (50%)	12 (25%)
Micropolitan (25 counties)	4 (16%)	20 (80%)	22 (88%)	10 (40%)	2 (8%)
Non-core (23 counties)	17 (74%)	20 (87%)	22 (96%)	14 (61%)	10 (43%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

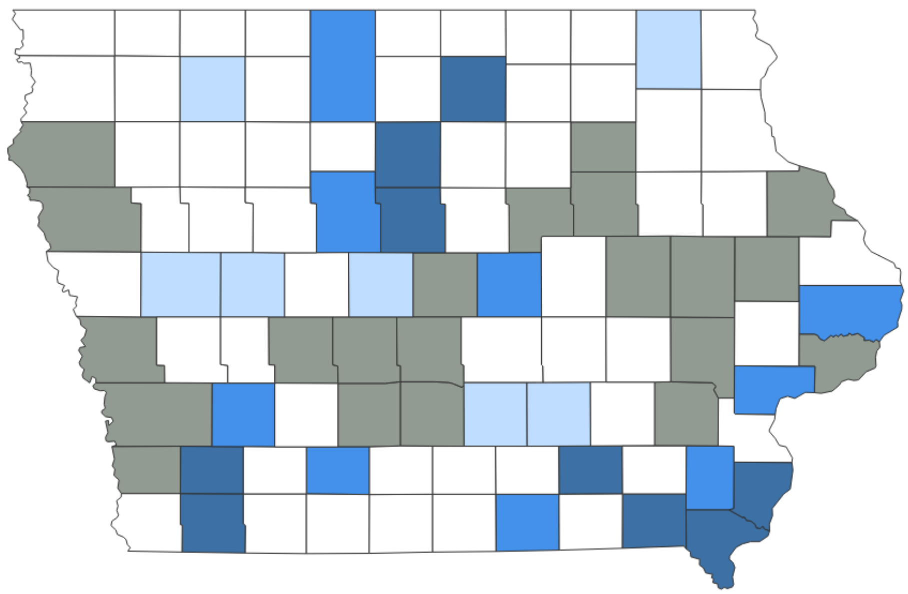
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Iowa Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Iowa as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Iowa Counties



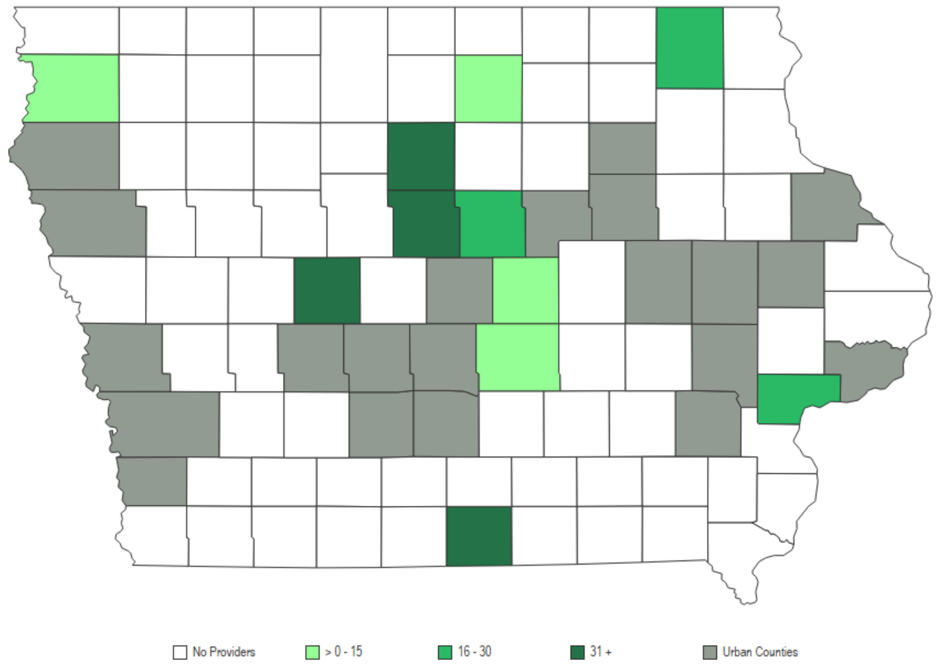
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Iowa Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Iowa	51.7 (355)	11.4 (78)	2.0 (14)	55.0 (378)
Metropolitan	64.1 (284)	14.7 (65)	2.5 (11)	31.0 (137)
Non-Metro	29.1 (71)	5.3 (13)	1.2 (3)	98.7 (240)
Micropolitan	49.0 (47)	5.2 (5)	1.0 (1)	52.1 (50)
Non-core	16.3 (24)	5.4 (8)	1.4 (2)	129.0 (190)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Iowa Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Iowa Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Iowa (99 counties)	62 (63%)	78 (79%)	89 (90%)	46 (46%)	29 (29%)
Metropolitan (21 counties)	9 (43%)	11 (52%)	14 (67%)	12 (57%)	5 (24%)
Non-Metro (78 counties)	53 (68%)	67 (86%)	75 (96%)	34 (44%)	24 (31%)
Micropolitan (17 counties)	6 (35%)	13 (76%)	16 (94%)	8 (47%)	2 (12%)
Non-core (61 counties)	47 (77%)	54 (89%)	59 (97%)	26 (43%)	22 (36%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

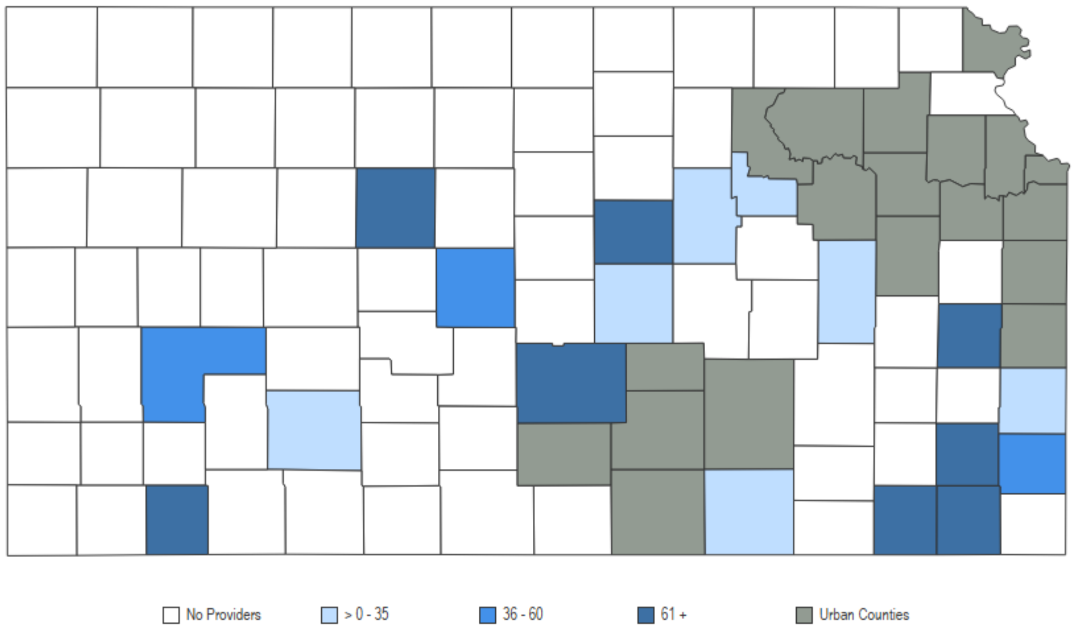
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Kansas Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Kansas as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Kansas Counties



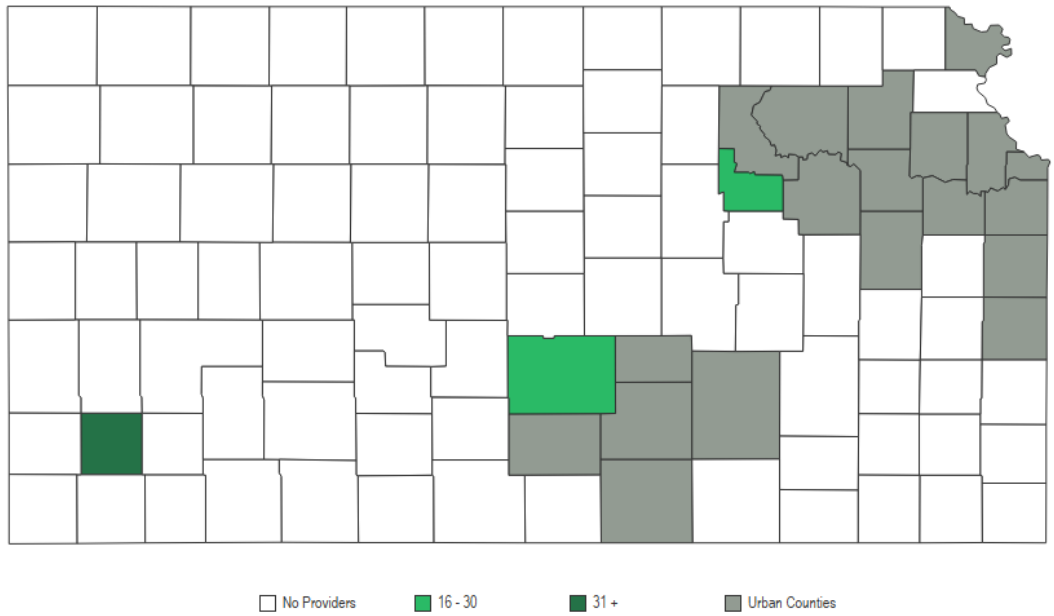
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Kansas Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Kansas	51.2 (331)	7.0 (45)	3.9 (25)	56.0 (362)
Metropolitan	58.2 (268)	8.9 (41)	4.6 (21)	37.4 (172)
Non-Metro	33.9 (63)	2.1 (4)	2.1 (4)	102.0 (190)
Micropolitan	50.4 (58)	2.6 (3)	3.5 (4)	65.1 (75)
Non-core	7.0 (5)	1.4 (1)	0 (0)	161.9 (115)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Kansas Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Kansas Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Kansas (105 counties)	78 (74%)	96 (91%)	96 (91%)	34 (32%)	25 (24%)
Metropolitan (19 counties)	10 (53%)	13 (68%)	13 (68%)	7 (37%)	6 (32%)
Non-Metro (86 counties)	68 (79%)	83 (97%)	83 (97%)	27 (31%)	19 (22%)
Micropolitan (18 counties)	4 (22%)	16 (89%)	15 (83%)	7 (39%)	1 (6%)
Non-core (68 counties)	64 (94%)	67 (99%)	68 (100%)	20 (29%)	18 (26%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

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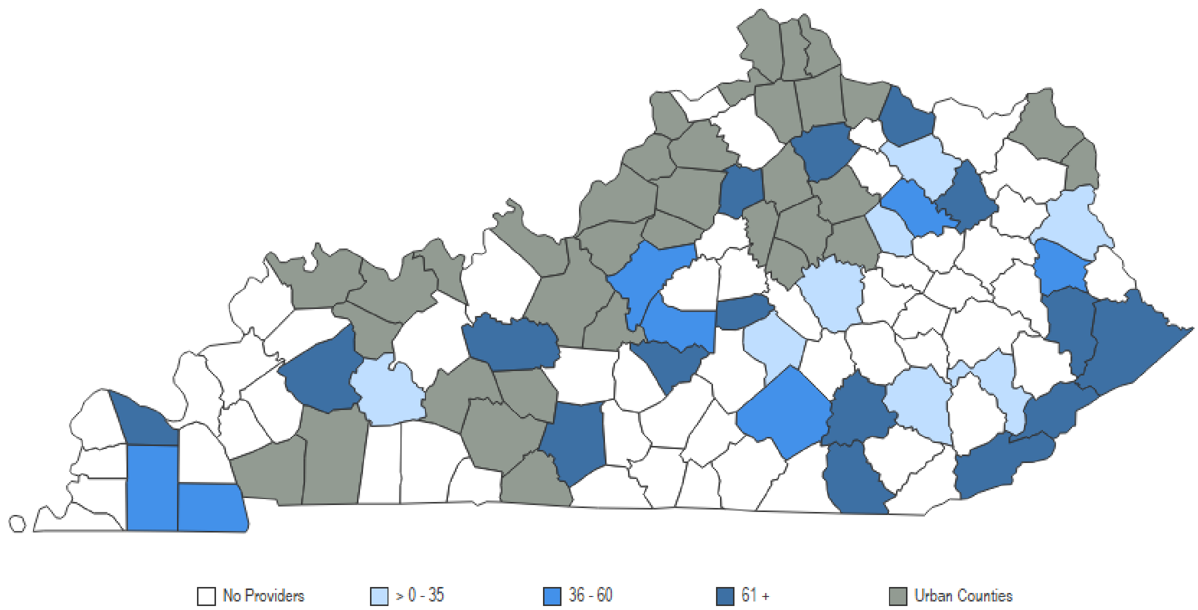
Kentucky Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Kentucky as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Kentucky Counties



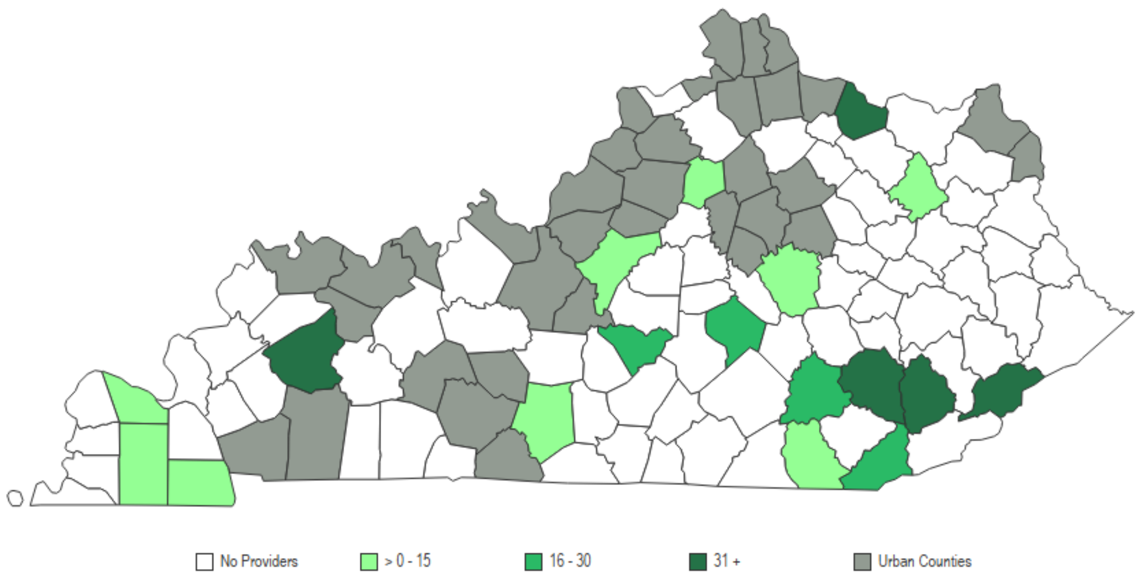
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Kentucky Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Kentucky	52.9 (525)	8.3 (82)	2.0 (20)	6.5 (65)
Metropolitan	62.8 (380)	8.4 (51)	1.7 (10)	5.0 (30)
Non-Metro	37.5 (145)	8.0 (31)	2.6 (10)	8.8 (34)
Micropolitan	51.6 (98)	12.6 (24)	2.1 (4)	11.1 (21)
Non-core	23.8 (47)	3.5 (7)	3.0 (6)	6.7 (13)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Kentucky Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Kentucky Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Kentucky (120 counties)	73 (61%)	92 (77%)	107 (89%)	84 (70%)	47 (39%)
Metropolitan (35 counties)	19 (54%)	25 (71%)	30 (86%)	26 (74%)	14 (40%)
Non-Metro (85 counties)	54 (64%)	67 (79%)	77 (91%)	58 (68%)	33 (39%)
Micropolitan (26 counties)	9 (35%)	12 (46%)	23 (88%)	15 (58%)	3 (12%)
Non-core (59 counties)	45 (76%)	55 (93%)	54 (92%)	43 (73%)	30 (51%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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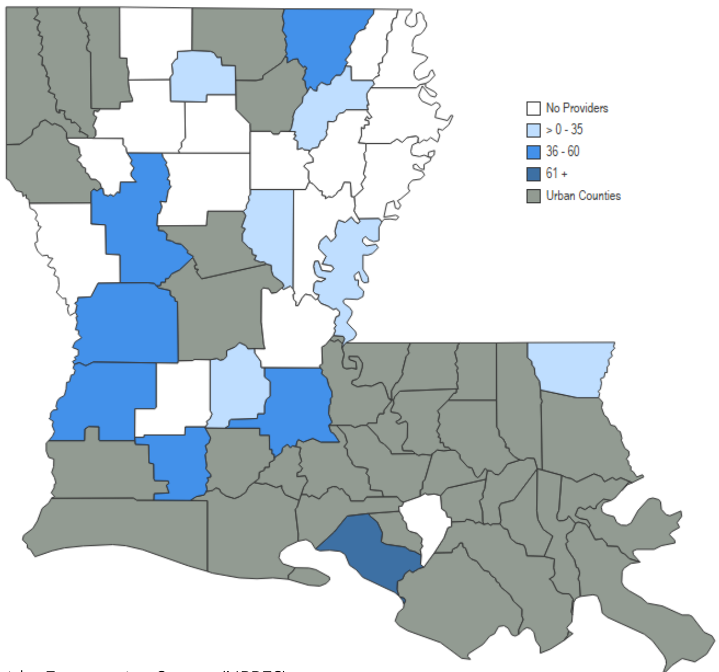
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Louisiana Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Louisiana as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Louisiana Counties



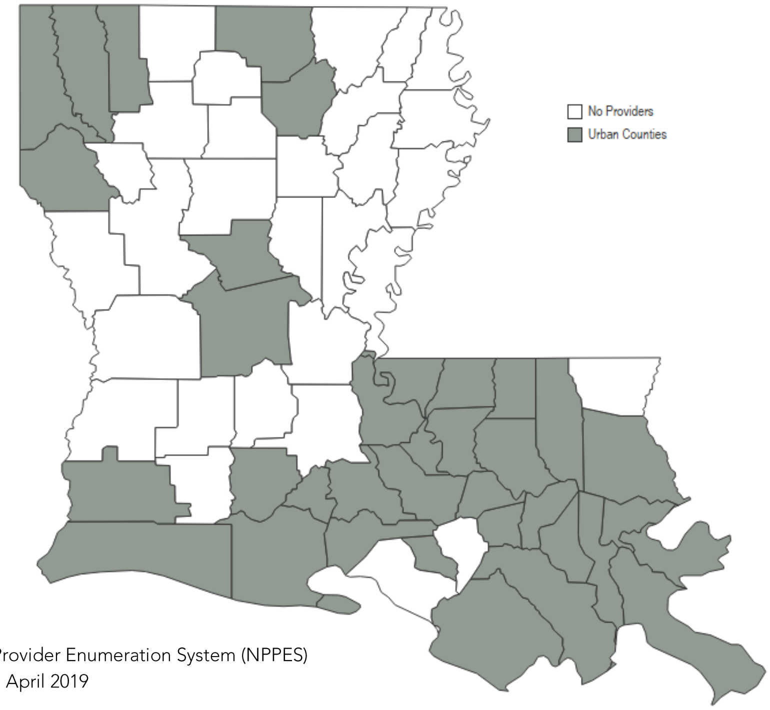
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Louisiana Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Louisiana	55.3 (597)	3.2 (35)	2.4 (26)	3.0 (32)
Metropolitan	59.6 (548)	3.8 (35)	2.7 (25)	2.4 (22)
Non-Metro	30.6 (49)	0 (0)	0.6 (1)	6.3 (10)
Micropolitan	46.1 (42)	0 (0)	1.1 (1)	8.6 (8)
Non-core	10.1 (7)	0 (0)	0 (0)	3.3 (2)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Louisiana Counties



Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Louisiana Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Louisiana (64 counties)	30 (47%)	55 (86%)	52 (81%)	43 (67%)	19 (30%)
Metropolitan (35 counties)	14 (40%)	26 (74%)	24 (69%)	23 (66%)	7 (20%)
Non-Metro (29 counties)	16 (55%)	29 (100%)	28 (97%)	20 (69%)	12 (41%)
Micropolitan (9 counties)	0 (0%)	9 (100%)	8 (89%)	6 (67%)	0 (0%)
Non-core (20 counties)	16 (80%)	20 (100%)	20 (100%)	14 (70%)	12 (60%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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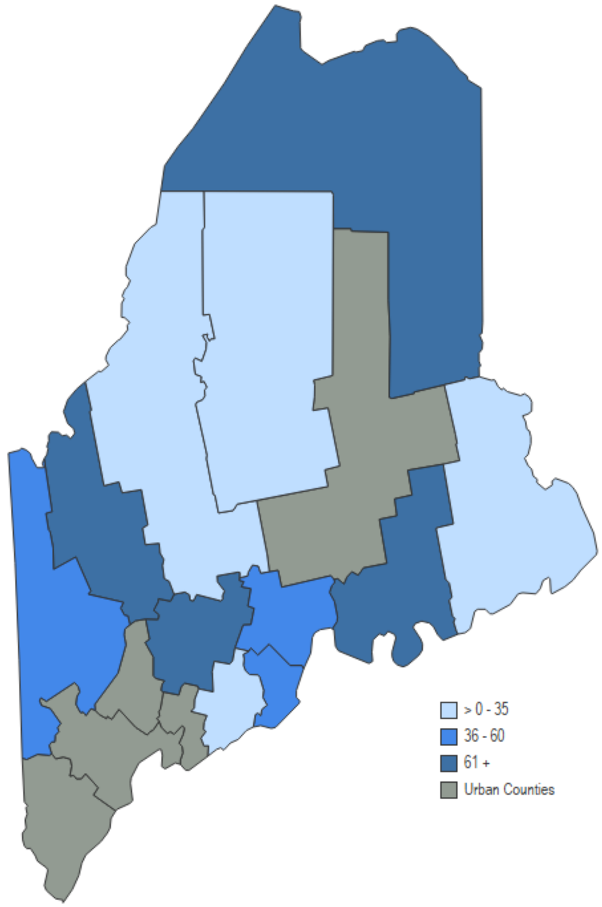
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Maine Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Maine as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Maine Counties



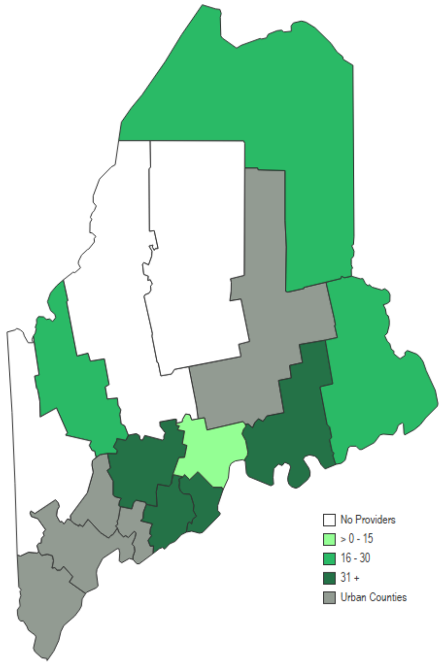
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Maine Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Maine	59.9 (164)	25.6 (70)	18.3 (50)	46.3 (127)
Metropolitan	59.4 (101)	22.3 (38)	13.5 (23)	35.8 (61)
Non-Metro	60.8 (63)	30.9 (32)	26.1 (27)	63.5 (66)
Micropolitan	82.8 (21)	31.5 (8)	15.8 (4)	78.1 (20)
Non-core	53.7 (42)	30.7 (24)	29.4 (23)	58.7 (46)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Maine Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Maine Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Maine (16 counties)	1 (6%)	3 (19%)	3 (19%)	4 (25%)	0 (0%)
Metropolitan (5 counties)	1 (20%)	0 (0%)	1 (20%)	1 (20%)	0 (0%)
Non-Metro (11 counties)	1 (9%)	3 (27%)	2 (18%)	3 (27%)	0 (0%)
Micropolitan (1 county)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Non-core (10 counties)	0 (0%)	3 (30%)	2 (20%)	3 (30%)	0 (0%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

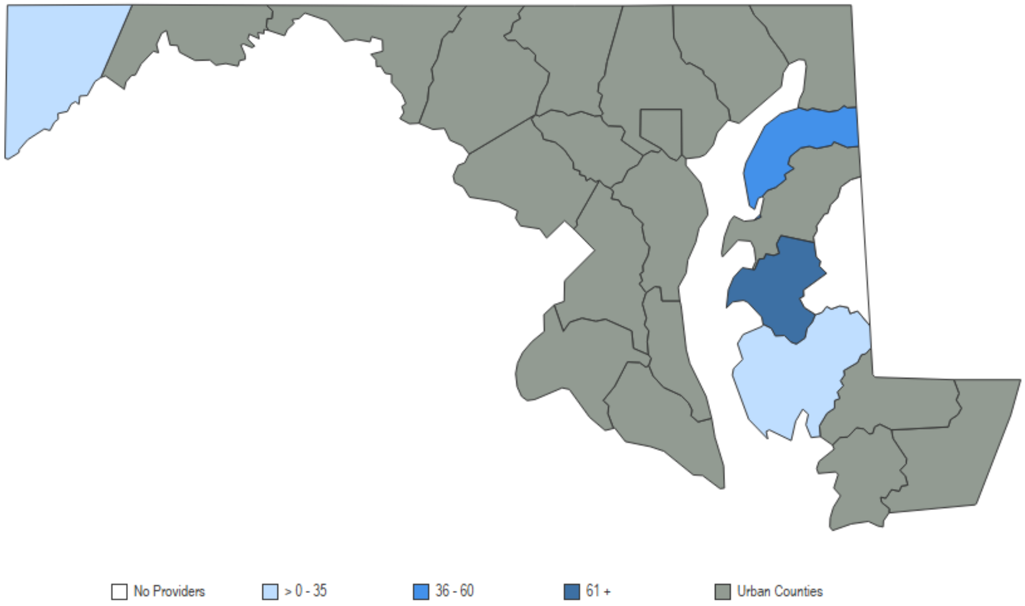
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Maryland Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Maryland as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Maryland Counties



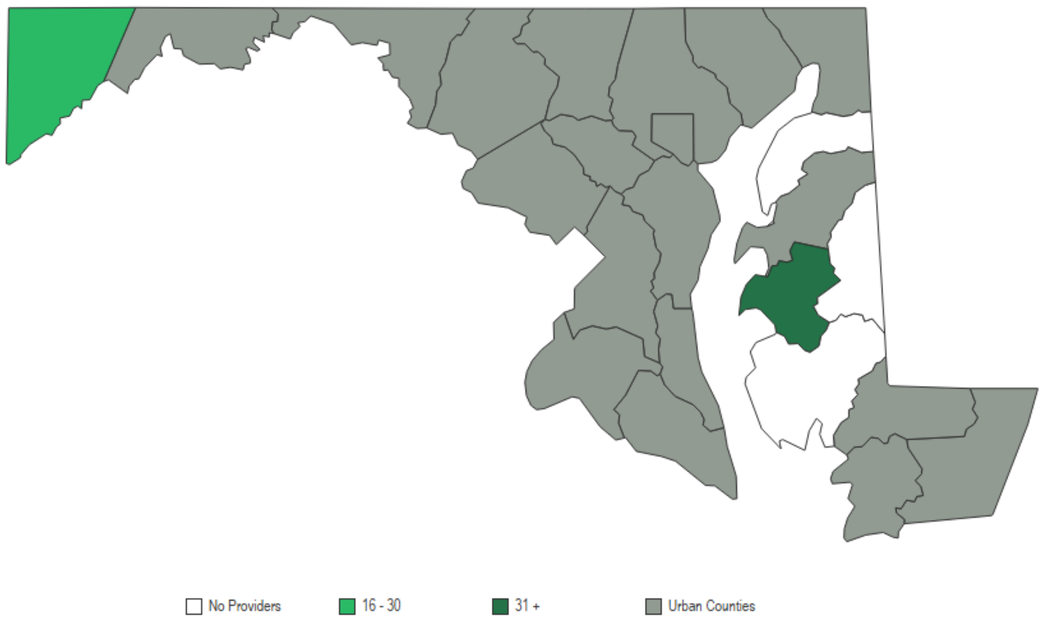
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Maryland Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Maryland	68.5 (961)	16.4 (230)	3.7 (52)	4.0 (56)
Metropolitan	68.8 (945)	16.0 (220)	3.5 (48)	3.6 (49)
Non-Metro	54.3 (16)	33.9 (10)	13.6 (4)	23.4 (7)
Micropolitan	102.0 (13)	70.6 (9)	31.4 (4)	(0) (0)
Non-core	17.9 (3)	6.0 (1)	0 (0)	41.3 (7)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Maryland Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Maryland Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Maryland (24 counties)	2 (8%)	8 (33%)	11 (46%)	17 (71%)	1 (4%)
Metropolitan (19 counties)	1 (5%)	5 (26%)	7 (37%)	13 (68%)	0 (0%)
Non-Metro (5 counties)	1 (20%)	3 (60%)	4 (80%)	4 (80%)	1 (20%)
Micropolitan (2 counties)	0 (0%)	1 (50%)	1 (50%)	2 (100%)	0 (0%)
Non-core (3 counties)	1 (33%)	2 (67%)	3 (100%)	2 (67%)	1 (33%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

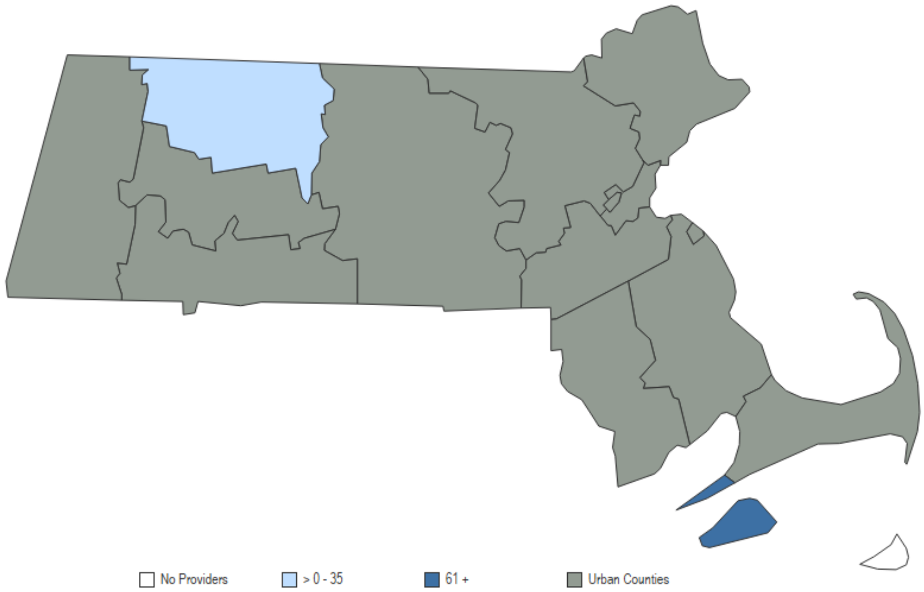
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis.* Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Massachusetts Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Massachusetts as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Massachusetts Counties



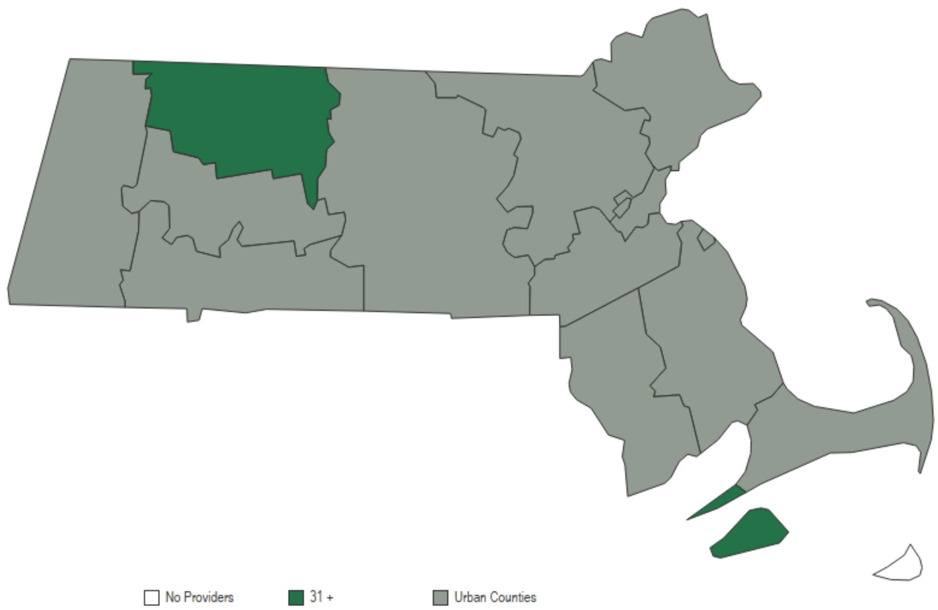
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Massachusetts Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Massachusetts	73.4 (1,182)	21.7 (350)	7.4 (119)	6.6 (106)
Metropolitan	73.8 (1,173)	21.2 (337)	7.1 (113)	6.7 (106)
Non-Metro	46.3 (9)	66.9 (13)	30.9 (6)	0 (0)
Micropolitan	53.1 (9)	76.6 (13)	35.4 (6)	0 (0)
Non-core	0 (0)	0 (0)	0 (0)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Massachusetts Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Massachusetts Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Massachusetts (14 counties)	1 (7%)	1 (7%)	1 (7%)	8 (57%)	1 (7%)
Metropolitan (11 counties)	0 (0%)	0 (0%)	0 (0%)	5 (45%)	0 (0%)
Non-Metro (3 counties)	1 (33%)	1 (33%)	1 (33%)	3 (100%)	1 (33%)
Micropolitan (2 counties)	0 (0%)	0 (0%)	0 (0%)	2 (100%)	0 (0%)
Non-core (1 county)	1 (100%)	1 (100%)	1 (100%)	1 (100%)	1 (100%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

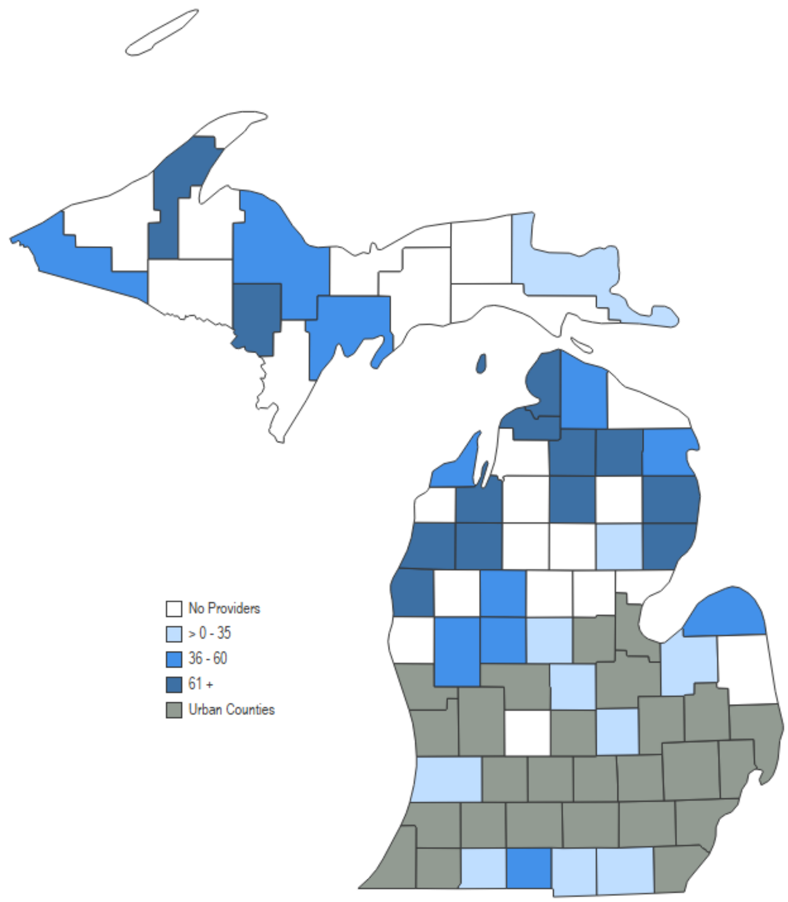
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Michigan Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Michigan as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Michigan Counties



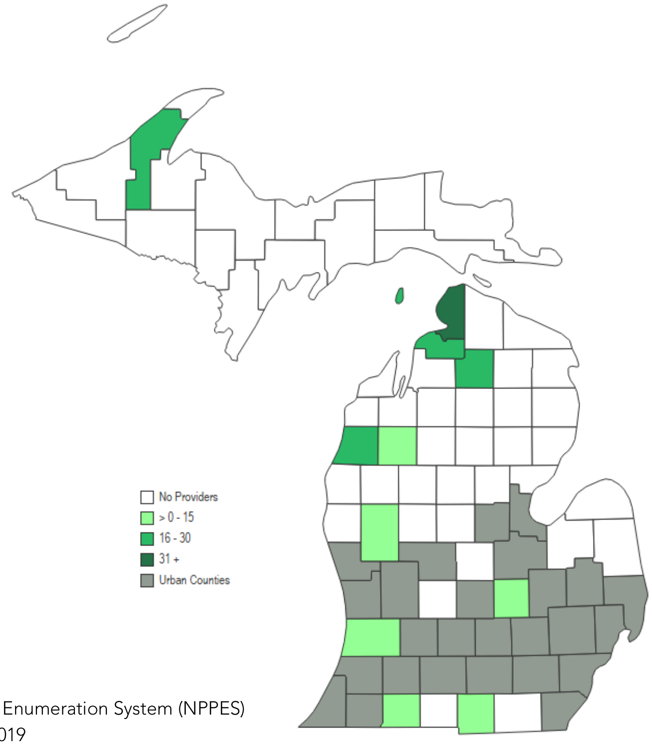
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Michigan Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Michigan	79.4 (1,740)	13.0 (286)	4.1 (89)	14.9 (327)
Metropolitan	87.2 (1,609)	14.7 (272)	4.1 (76)	13.3 (245)
Non-Metro	37.7 (131)	4.0 (14)	3.7 (13)	23.5 (82)
Micropolitan	38.9 (90)	3.0 (7)	3.9 (9)	28.5 (66)
Non-core	35.4 (41)	6.0 (7)	3.5 (4)	13.4 (16)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Michigan Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Michigan Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Michigan (83 counties)	24 (29%)	52 (63%)	54 (65%)	53 (64%)	16 (19%)
Metropolitan (26 counties)	1 (4%)	6 (23%)	7 (27%)	14 (54%)	0 (0%)
Non-Metro (57 counties)	23 (40%)	46 (81%)	47 (82%)	39 (68%)	16 (28%)
Micropolitan (25 counties)	6 (24%)	19 (76%)	19 (76%)	17 (68%)	5 (20%)
Non-core (32 counties)	17 (53%)	27 (84%)	28 (88%)	22 (69%)	11 (34%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

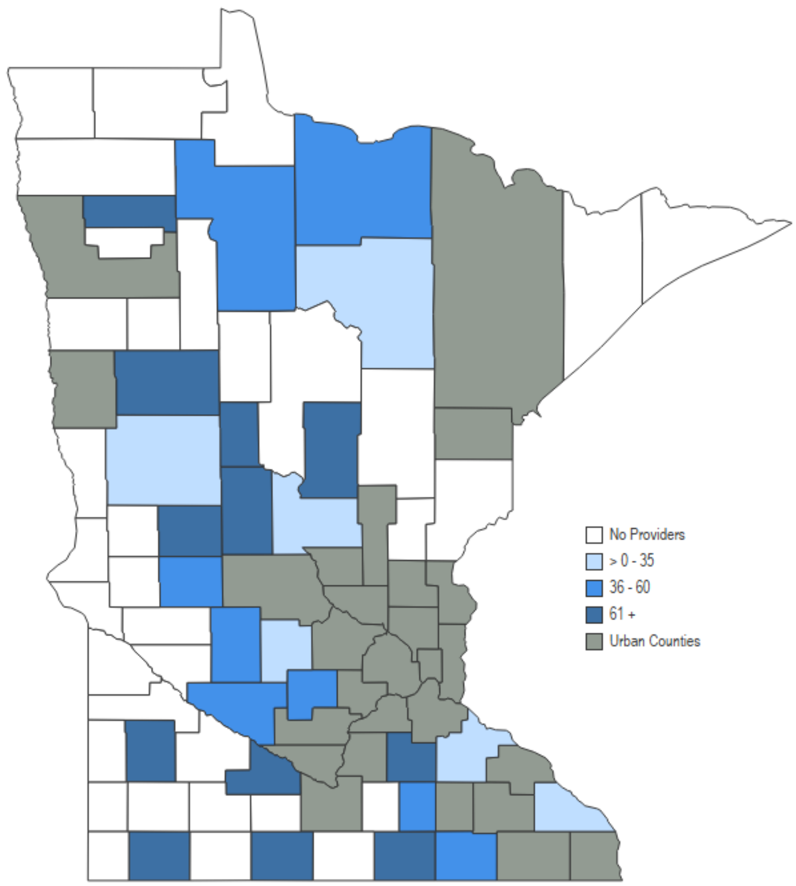
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Minnesota Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Minnesota as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Minnesota Counties



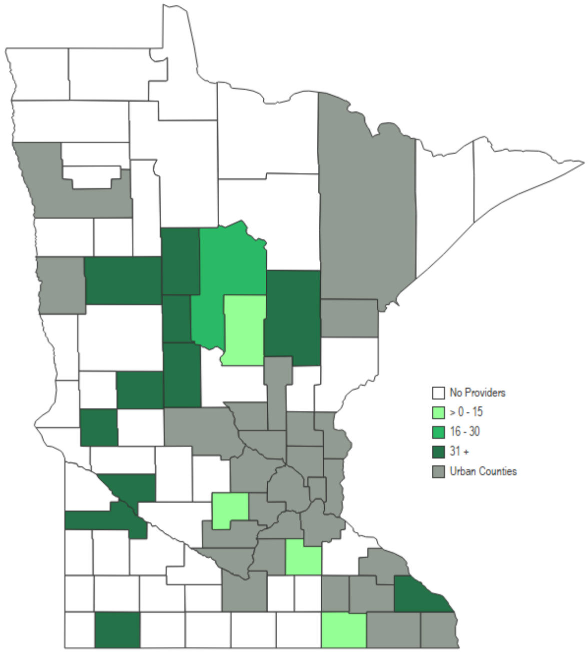
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Minnesota Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Minnesota	62.8 (781)	20.1 (250)	6.1 (76)	54.5 (678)
Metropolitan	67.3 (675)	21.4 (215)	6.7 (67)	38.0 (381)
Non-Metro	44.2 (106)	14.6 (35)	3.7 (9)	123.7 (297)
Micropolitan	59.4 (80)	14.1 (19)	3.0 (4)	82.6 (111)
Non-core	24.7 (26)	15.2 (16)	4.7 (5)	176.4 (186)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Minnesota Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Minnesota Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Minnesota (87 counties)	42 (48%)	56 (64%)	62 (71%)	19 (22%)	12 (14%)
Metropolitan (27 counties)	8 (30%)	12 (44%)	10 (37%)	6 (22%)	3 (11%)
Non-Metro (60 counties)	34 (57%)	44 (73%)	52 (87%)	13 (22%)	9 (15%)
Micropolitan (17 counties)	2 (12%)	9 (53%)	14 (82%)	4 (24%)	1 (6%)
Non-core (43 counties)	32 (74%)	35 (81%)	38 (88%)	9 (21%)	8 (19%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
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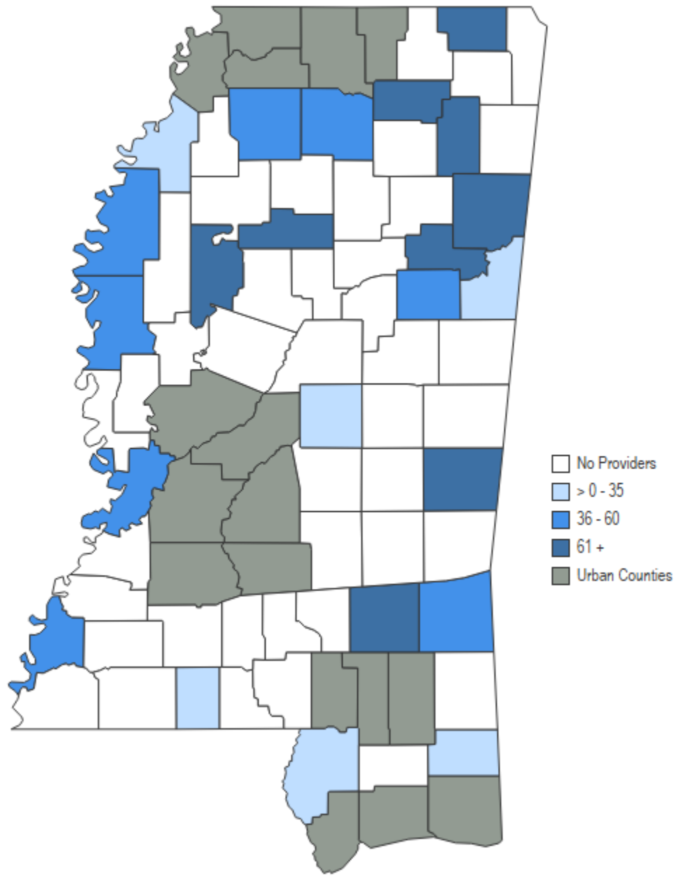
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Mississippi Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Mississippi as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Mississippi Counties



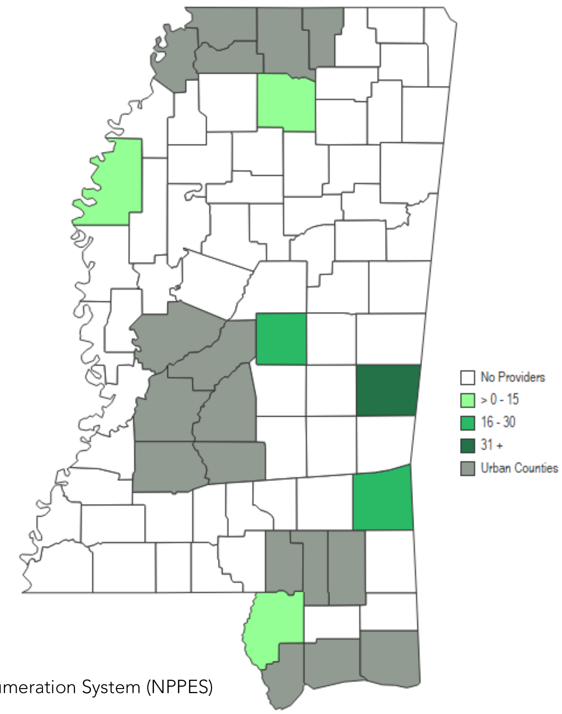
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Mississippi Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Mississippi	45.7 (313)	3.6 (25)	1.0 (7)	4.2 (29)
Metropolitan	56.4 (186)	3.3 (11)	0.6 (2)	1.5 (5)
Non-Metro	35.7 (127)	3.9 (14)	1.4 (5)	6.8 (24)
Micropolitan	47.7 (101)	5.7 (12)	1.9 (4)	7.8 (17)
Non-core	18.1 (26)	1.4 (2)	0.7 (1)	5.3 (8)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Mississippi Counties



Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Mississippi Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Mississippi (82 counties)	49 (60%)	71 (87%)	78 (95%)	63 (77%)	35 (43%)
Metropolitan (17 counties)	7 (41%)	12 (71%)	15 (88%)	13 (76%)	5 (29%)
Non-Metro (65 counties)	42 (65%)	59 (91%)	63 (97%)	50 (77%)	30 (46%)
Micropolitan (26 counties)	10 (38%)	22 (85%)	25 (96%)	21 (81%)	6 (23%)
Non-core (39 counties)	32 (82%)	37 (95%)	38 (97%)	29 (74%)	24 (62%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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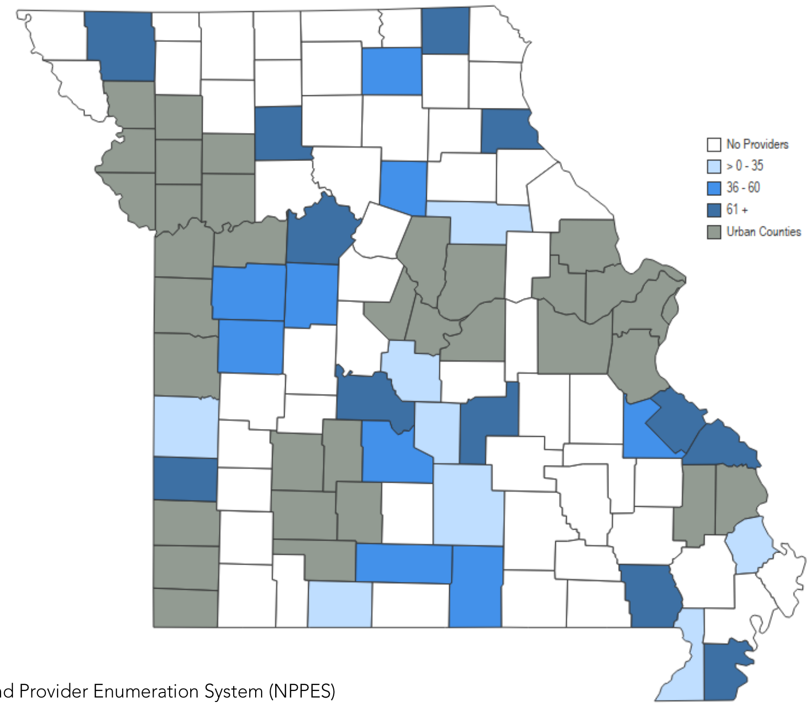
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Missouri Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Missouri as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Missouri Counties



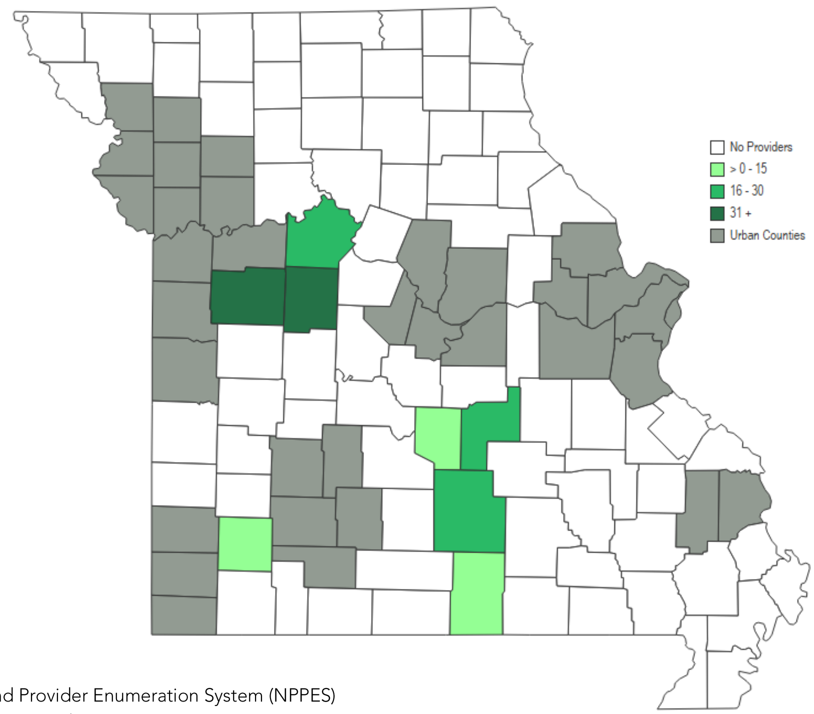
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Missouri Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Missouri	66.6 (906)	5.1 (70)	3.2 (44)	17.7 (240)
Metropolitan	77.0 (808)	5.2 (55)	3.4 (36)	13.4 (140)
Non-Metro	31.5 (98)	4.8 (15)	2.6 (8)	32.1 (100)
Micropolitan	45.7 (71)	8.4 (13)	1.9 (3)	42.3 (66)
Non-core	17.3 (27)	1.3 (2)	3.2 (5)	22.0 (34)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Missouri Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Missouri Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Missouri (115 counties)	67 (58%)	96 (83%)	96 (83%)	64 (56%)	37 (32%)
Metropolitan (34 counties)	15 (44%)	23 (68%)	22 (65%)	20 (59%)	10 (29%)
Non-Metro (81 counties)	52 (64%)	73 (90%)	74 (91%)	44 (54%)	27 (33%)
Micropolitan (22 counties)	5 (23%)	16 (73%)	19 (86%)	10 (45%)	2 (9%)
Non-core (59 counties)	47 (80%)	57 (97%)	55 (93%)	34 (58%)	25 (42%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

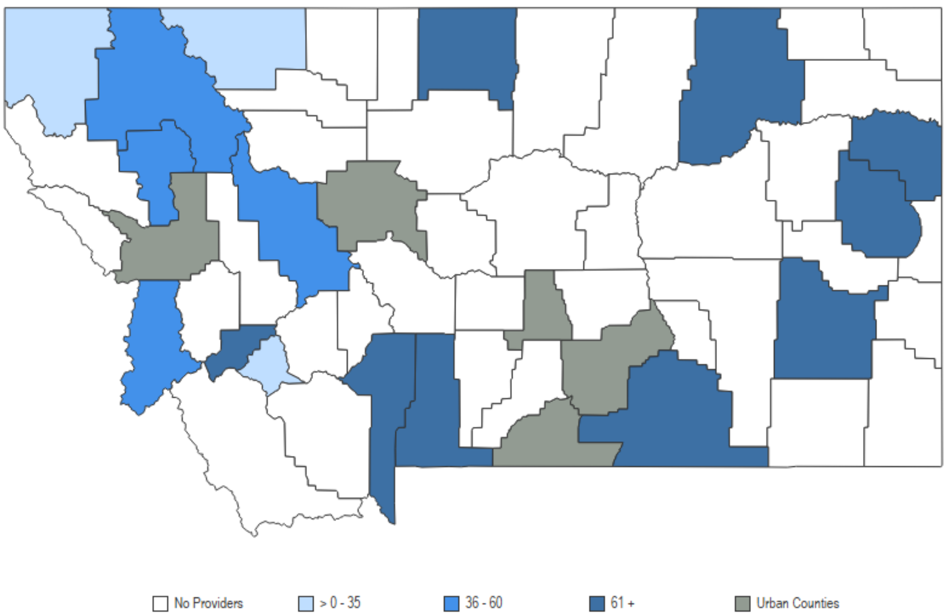
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Montana Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Montana as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Montana Counties



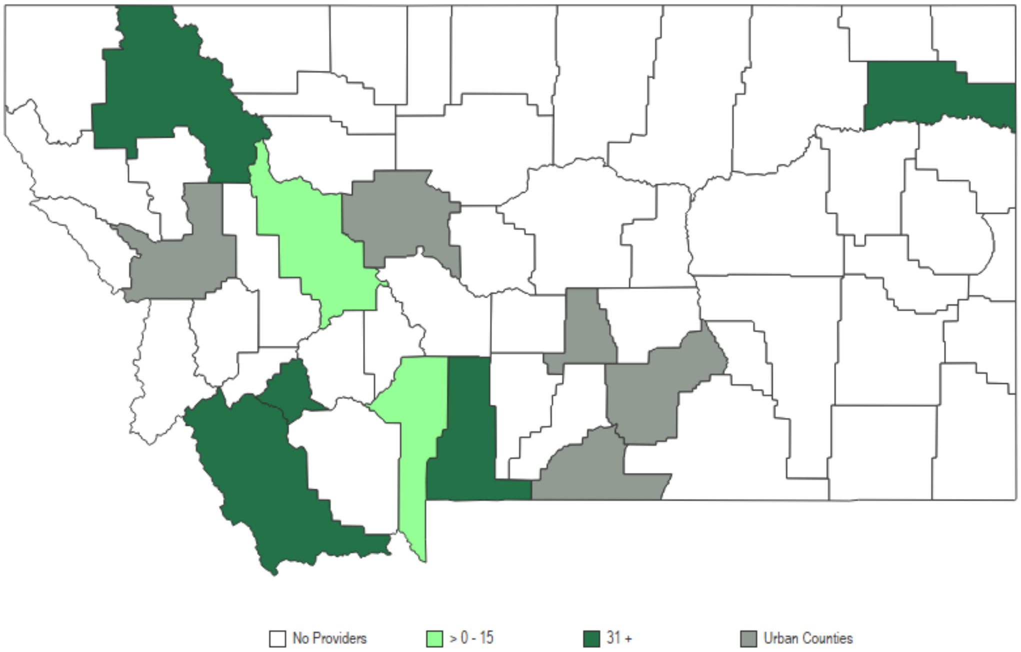
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Montana Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Montana	60.6 (134)	16.3 (36)	18.1 (40)	57.7 (128)
Metropolitan	82.1 (68)	21.7 (18)	18.1 (15)	34.6 (29)
Non-Metro	47.7 (66)	13.0 (18)	18.1 (25)	71.5 (99)
Micropolitan	51.1 (37)	20.7 (15)	23.5 (17)	22.0 (16)
Non-core	44.1 (29)	4.6 (3)	12.2 (8)	126.0 (83)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Montana Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Montana Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Montana (56 counties)	37 (66%)	46 (82%)	42 (75%)	25 (45%)	20 (36%)
Metropolitan (5 counties)	2 (40%)	2 (40%)	2 (40%)	3 (60%)	2 (40%)
Non-Metro (51 counties)	35 (69%)	44 (86%)	40 (78%)	22 (43%)	18 (35%)
Micropolitan (5 counties)	1 (20%)	1 (20%)	1 (20%)	0 (0%)	0 (0%)
Non-core (46 counties)	34 (74%)	43 (93%)	39 (85%)	22 (48%)	18 (39%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

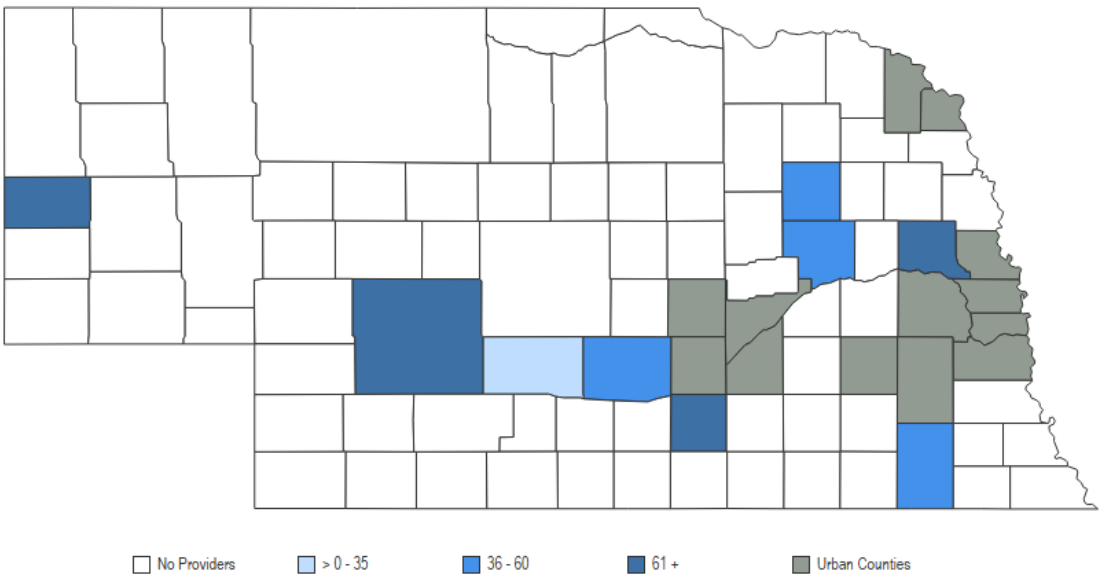
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Nebraska Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Nebraska as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Nebraska Counties



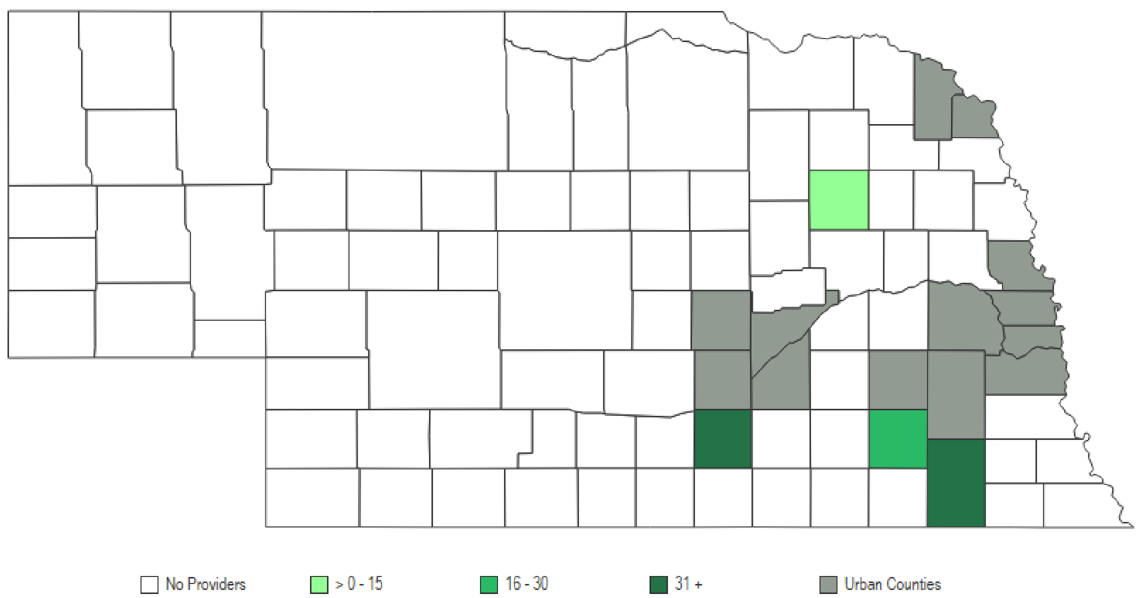
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Nebraska Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Nebraska	62.1 (267)	7.7 (33)	1.6 (7)	71.9 (309)
Metropolitan	75.4 (224)	9.1 (27)	2.0 (6)	43.2 (128)
Non-Metro	32.5 (43)	4.5 (6)	0.8 (1)	136.2 (180)
Micropolitan	62.1 (43)	7.2 (5)	1.4 (1)	55.7 (39)
Non-core	0 (0)	1.6 (1)	0 (0)	224.3 (142)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Nebraska Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Nebraska Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Nebraska (93 counties)	80 (86%)	86 (92%)	90 (97%)	39 (42%)	35 (38%)
Metropolitan (13 counties)	9 (69%)	10 (77%)	11 (85%)	2 (15%)	2 (15%)
Non-Metro (80 counties)	71 (89%)	76 (95%)	79 (99%)	37 (46%)	33 (41%)
Micropolitan (17 counties)	8 (47%)	14 (82%)	16 (94%)	11 (65%)	7 (41%)
Non-core (63 counties)	63 (100%)	62 (98%)	63 (100%)	26 (41%)	26 (41%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

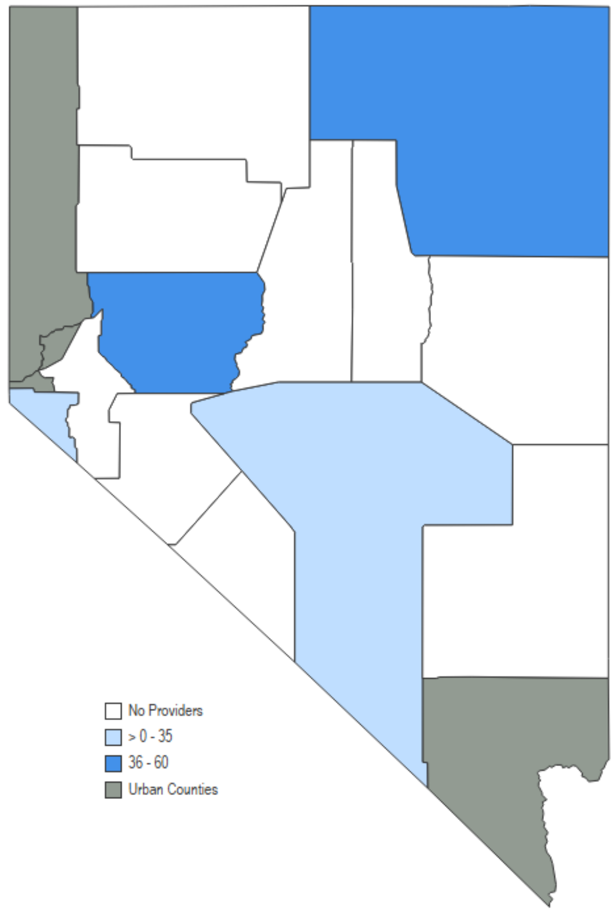
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Nevada Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Nevada as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Nevada Counties



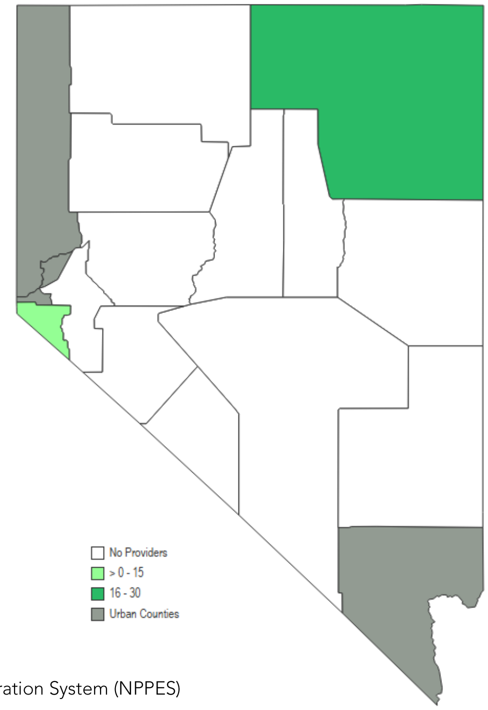
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Nevada Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Nevada	41.0 (290)	5.2 (37)	4.5 (32)	4.9 (35)
Metropolitan	42.6 (279)	5.2 (34)	4.6 (30)	5.0 (33)
Non-Metro	21.4 (11)	5.8 (3)	3.9 (2)	4.0 (2)
Micropolitan	23.8 (11)	6.5 (3)	4.3 (2)	4.5 (2)
Non-core	0 (0)	0 (0)	0 (0)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Nevada Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Nevada Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Nevada (17 counties)	10 (59%)	13 (76%)	13 (76%)	14 (82%)	8 (47%)
Metropolitan (4 counties)	1 (25%)	2 (50%)	2 (50%)	3 (75%)	1 (25%)
Non-Metro (13 counties)	9 (69%)	11 (85%)	11 (85%)	11 (85%)	7 (54%)
Micropolitan (7 counties)	3 (43%)	5 (71%)	5 (71%)	5 (71%)	1 (14%)
Non-core (6 counties)	6 (100%)	6 (100%)	6 (100%)	6 (100%)	6 (100%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
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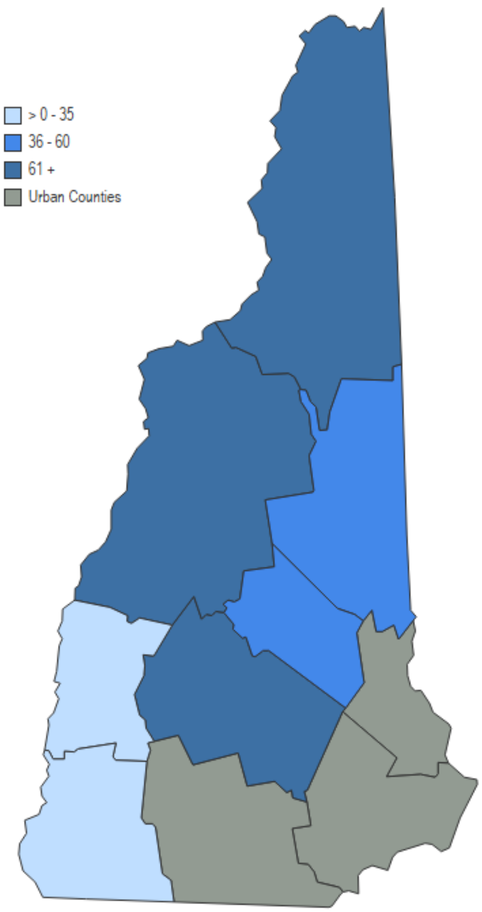
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

New Hampshire Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in New Hampshire as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural New Hampshire Counties



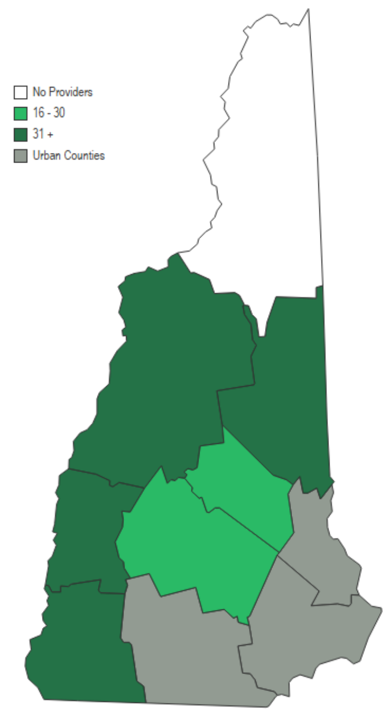
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in New Hampshire Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
New Hampshire	71.8 (206)	31.7 (91)	13.6 (39)	10.6 (30)
Metropolitan	61.3 (114)	27.4 (51)	11.8 (22)	8.9 (17)
Non-Metro	91.2 (92)	39.7 (40)	16.9 (17)	13.5 (14)
Micropolitan	94.7 (88)	36.6 (34)	17.2 (16)	14.7 (14)
Non-core	50.4 (4)	75.6 (6)	12.6 (1)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural New Hampshire Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

New Hampshire Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
New Hampshire (10 counties)	0 (0%)	1 (10%)	2 (20%)	5 (50%)	0 (0%)
Metropolitan (3 counties)	0 (0%)	0 (0%)	0 (0%)	1 (33%)	0 (0%)
Non-Metro (7 counties)	0 (0%)	1 (14%)	2 (29%)	4 (57%)	0 (0%)
Micropolitan (6 counties)	0 (0%)	1 (17%)	2 (33%)	3 (50%)	0 (0%)
Non-core (1 county)	0 (0%)	0 (0%)	0 (0%)	1 (100%)	0 (0%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
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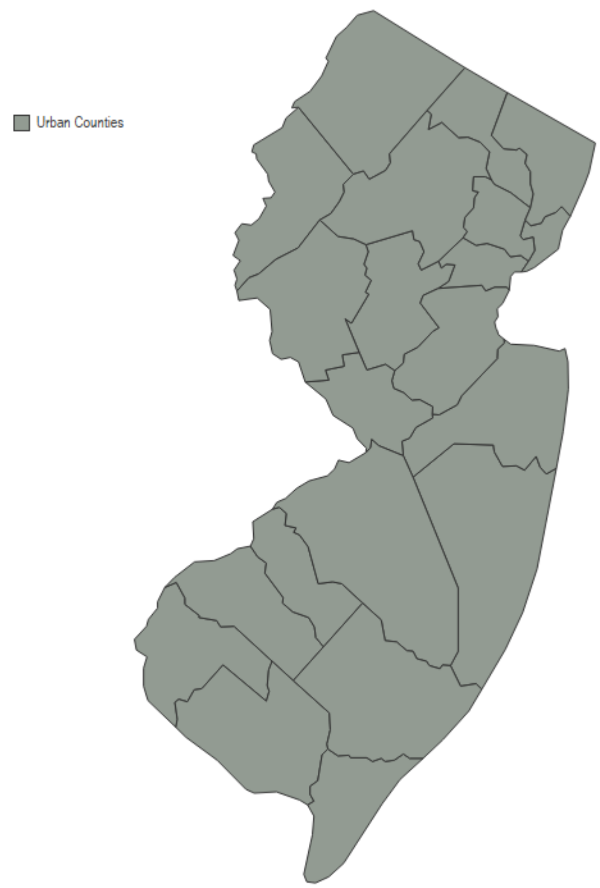
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

New Jersey Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in New Jersey as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural New Jersey Counties



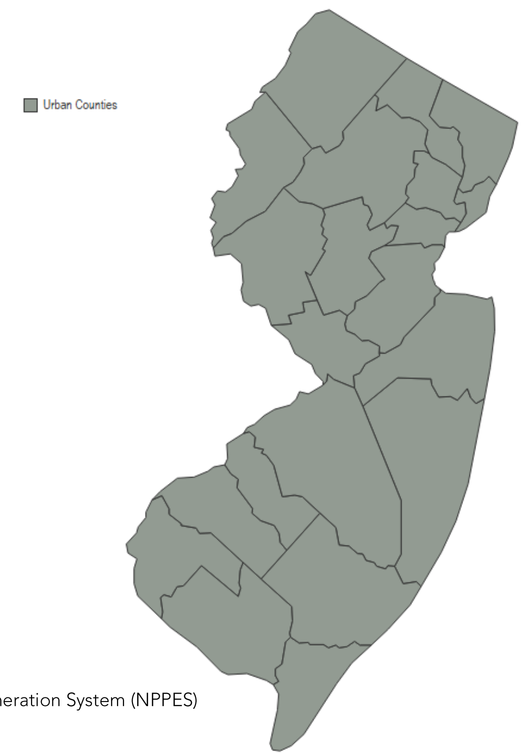
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in New Jersey Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
New Jersey	65.5 (1,332)	9.3 (188)	4.2 (85)	2.3 (47)
Metropolitan	65.5 (1,332)	9.3 (188)	4.2 (85)	2.3 (47)
Non-Metro	0 (0)	0 (0)	0 (0)	0 (0)
Micropolitan	0 (0)	0 (0)	0 (0)	0 (0)
Non-core	0 (0)	0 (0)	0 (0)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural New Jersey Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

New Jersey Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
New Jersey (21 counties)	0 (0%)	3 (14%)	2 (10%)	14 (67%)	0 (0%)
Metropolitan (21 counties)	0 (0%)	3 (14%)	2 (10%)	14 (67%)	0 (0%)
Non-Metro (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Micropolitan (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Non-core (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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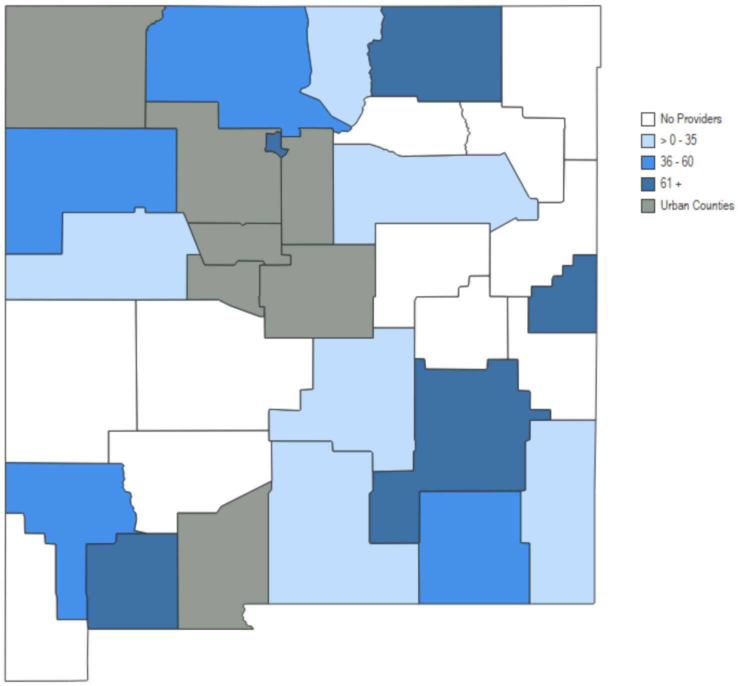
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

New Mexico Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in New Mexico as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural New Mexico Counties



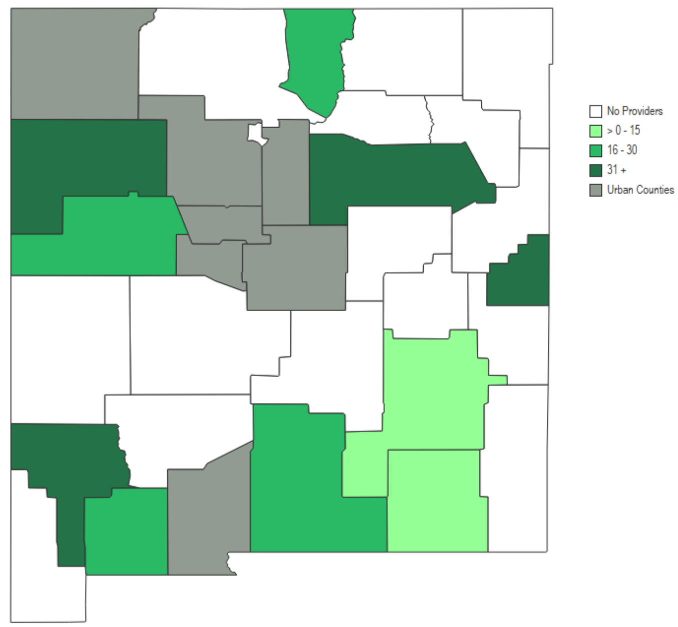
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in New Mexico Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
New Mexico	55.7 (259)	31.2 (145)	21.9 (102)	33.1 (154)
Metropolitan	62.2 (197)	35.7 (113)	24.3 (77)	22.7 (72)
Non-Metro	41.8 (62)	21.6 (32)	16.9 (25)	55.4 (82)
Micropolitan	43.7 (58)	24.1 (32)	18.1 (24)	57.5 (76)
Non-core	25.9 (4)	0 (0)	6.5 (1)	37.4 (6)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural New Mexico Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

New Mexico Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
New Mexico (33 counties)	12 (36%)	17 (52%)	18 (55%)	14 (42%)	6 (18%)
Metropolitan (7 counties)	1 (14%)	1 (14%)	2 (29%)	2 (29%)	0 (0%)
Non-Metro (26 counties)	11 (42%)	16 (62%)	16 (62%)	12 (46%)	6 (23%)
Micropolitan (14 counties)	1 (7%)	4 (29%)	5 (36%)	6 (43%)	1 (7%)
Non-core (12 counties)	10 (83%)	12 (100%)	11 (92%)	6 (50%)	5 (42%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

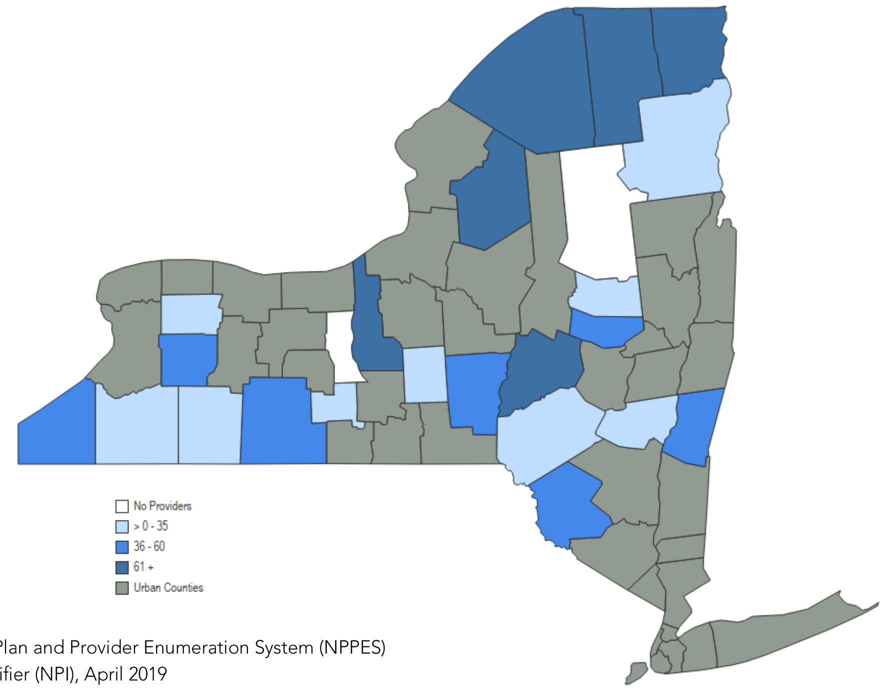
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

New York Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in New York as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural New York Counties



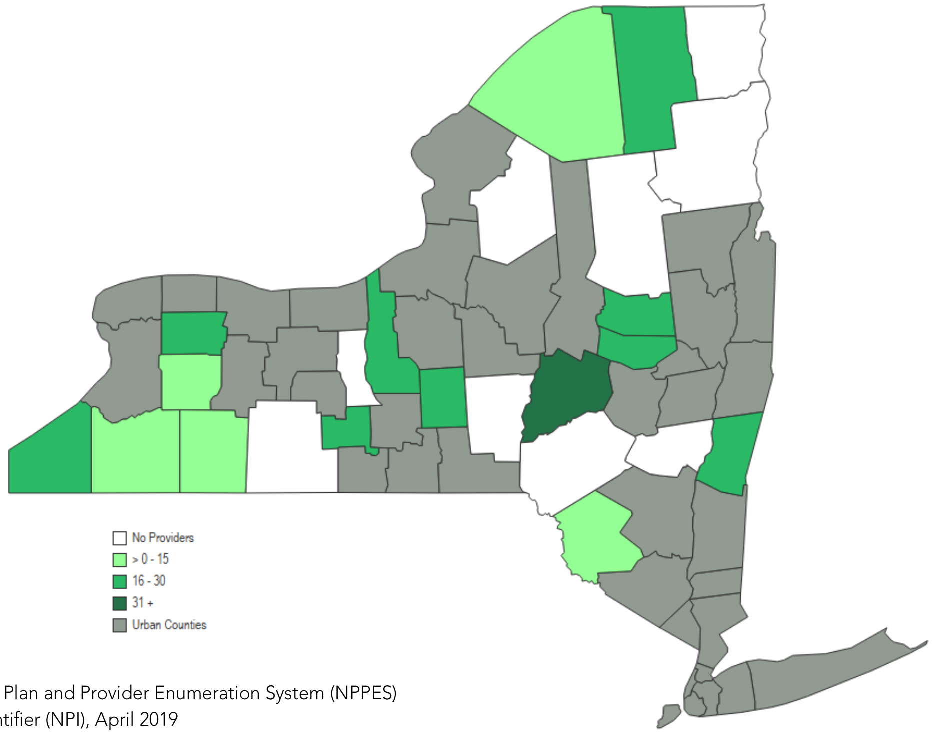
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in New York Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
New York	69.4 (3,241)	11.8 (549)	8.2 (381)	4.4 (206)
Metropolitan	70.4 (3,095)	11.6 (511)	8.1 (357)	4.2 (185)
Non-Metro	53.4 (146)	13.9 (38)	8.8 (24)	7.9 (21)
Micropolitan	58.4 (117)	17.0 (34)	11.0 (22)	7.2 (14)
Non-core	39.7 (29)	5.5 (4)	2.7 (2)	9.8 (7)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural New York Counties



Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

New York Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
New York (62 counties)	4 (6%)	16 (26%)	20 (32%)	32 (52%)	2 (3%)
Metropolitan (38 counties)	2 (5%)	7 (18%)	8 (21%)	14 (37%)	0 (0%)
Non-Metro (24 counties)	2 (8%)	9 (38%)	12 (50%)	18 (75%)	2 (8%)
Micropolitan (14 counties)	1 (7%)	3 (21%)	4 (29%)	10 (71%)	1 (7%)
Non-core (10 counties)	1 (10%)	6 (60%)	8 (80%)	8 (80%)	1 (10%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

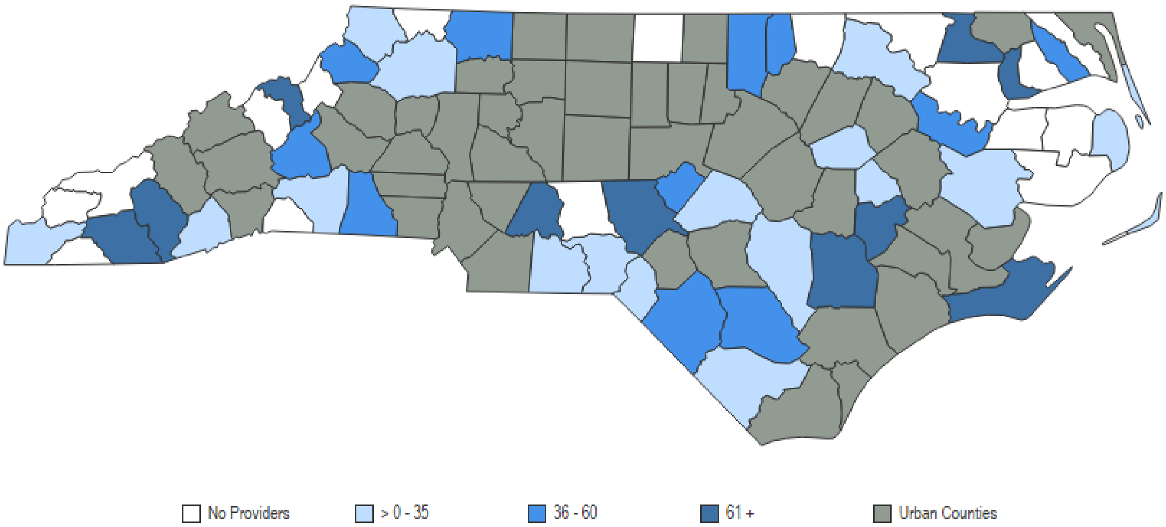
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

North Carolina Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in North Carolina as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural North Carolina Counties



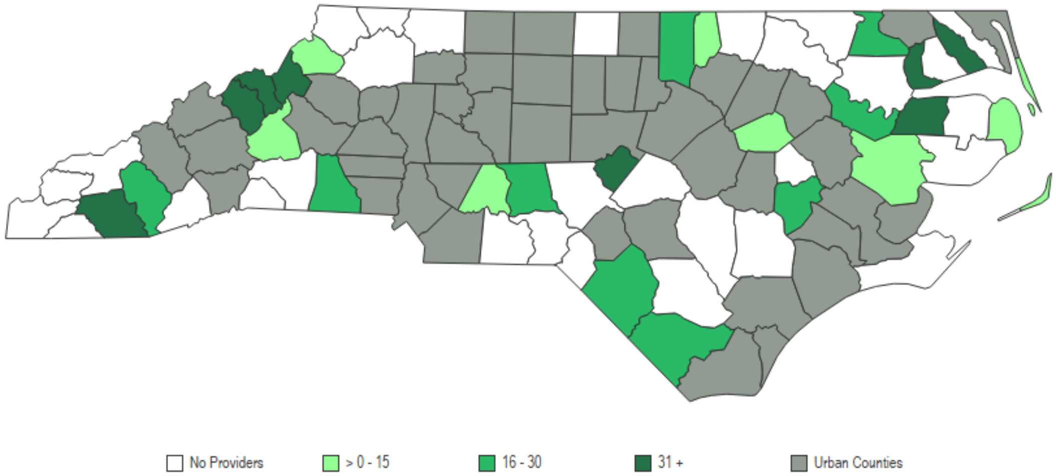
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in North Carolina Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
North Carolina	54.2 (1,294)	13.6 (324)	2.1 (51)	7.6 (181)
Metropolitan	57.6 (1,110)	14.2 (274)	2.3 (44)	7.9 (152)
Non-Metro	39.8 (184)	10.8 (50)	1.5 (7)	6.1 (28)
Micropolitan	43.2 (149)	10.7 (37)	1.2 (4)	2.9 (10)
Non-core	29.8 (35)	11.1 (13)	2.6 (3)	15.7 (18)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural North Carolina Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

North Carolina Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
North Carolina (100 counties)	28 (28%)	45 (45%)	78 (78%)	74 (74%)	15 (15%)
Metropolitan (46 counties)	11 (24%)	15 (33%)	30 (65%)	31 (67%)	5 (11%)
Non-Metro (54 counties)	17 (31%)	30 (56%)	48 (89%)	43 (80%)	10 (19%)
Micropolitan (28 counties)	4 (14%)	14 (50%)	25 (89%)	23 (82%)	3 (11%)
Non-core (26 counties)	13 (50%)	16 (62%)	23 (88%)	20 (77%)	7 (27%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

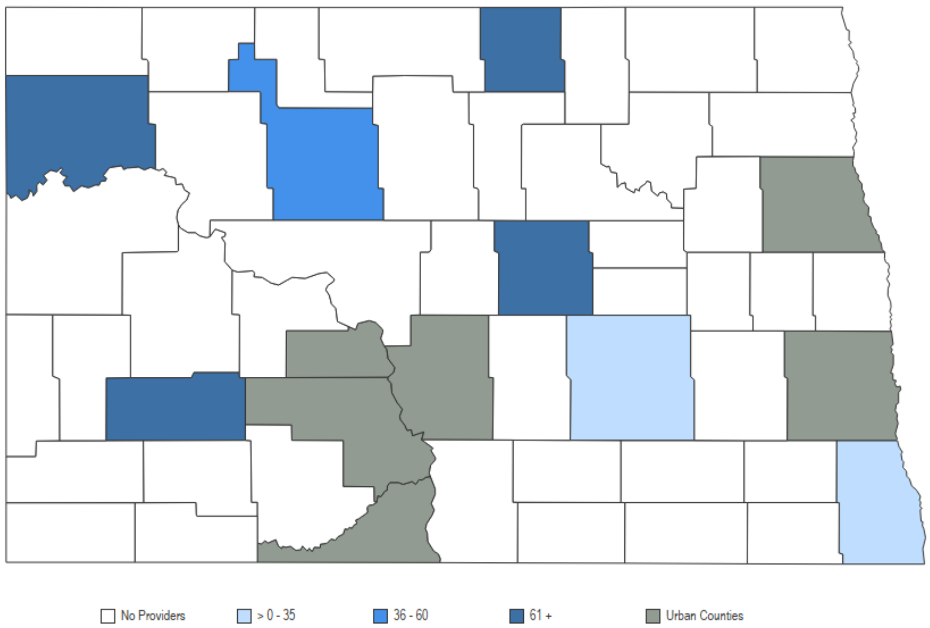
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

North Dakota Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in North Dakota as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural North Dakota Counties



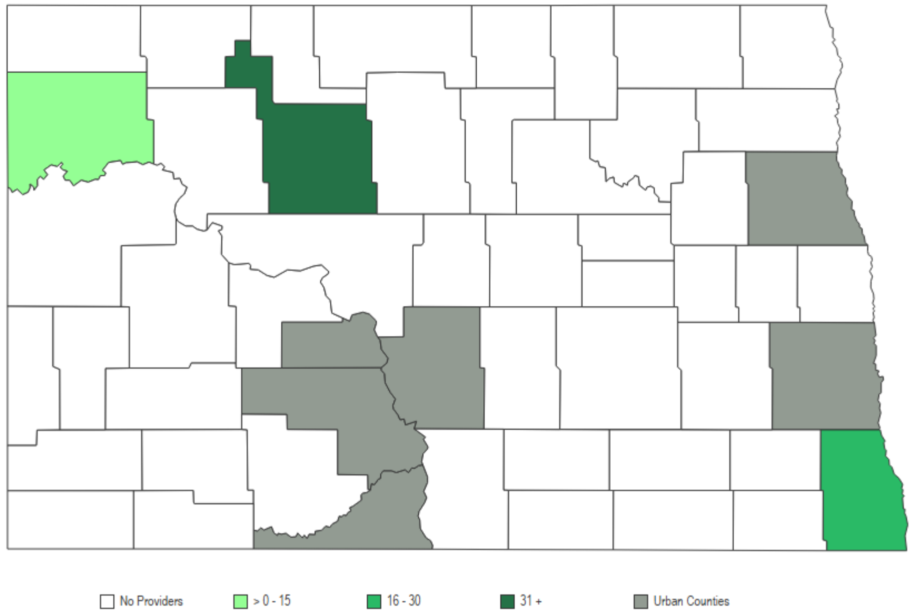
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in North Dakota Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
North Dakota	51.7 (86)	12.0 (20)	0.6 (1)	54.2 (90)
Metropolitan	65.8 (61)	14.0 (13)	1.1 (1)	47.9 (44)
Non-Metro	34.0 (25)	9.5 (7)	0 (0)	62.1 (46)
Micropolitan	55.0 (21)	18.3 (7)	0 (0)	65.5 (25)
Non-core	11.3 (4)	0 (0)	0 (0)	58.4 (21)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural North Dakota Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

North Dakota Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
North Dakota (53 counties)	43 (81%)	48 (91%)	52 (98%)	35 (66%)	31 (58%)
Metropolitan (6 counties)	3 (50%)	4 (67%)	5 (83%)	2 (33%)	2 (33%)
Non-Metro (47 counties)	40 (85%)	44 (94%)	47 (100%)	33 (70%)	29 (62%)
Micropolitan (7 counties)	2 (29%)	4 (57%)	7 (100%)	4 (57%)	2 (29%)
Non-core (40 counties)	38 (95%)	40 (100%)	40 (100%)	29 (73%)	27 (68%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

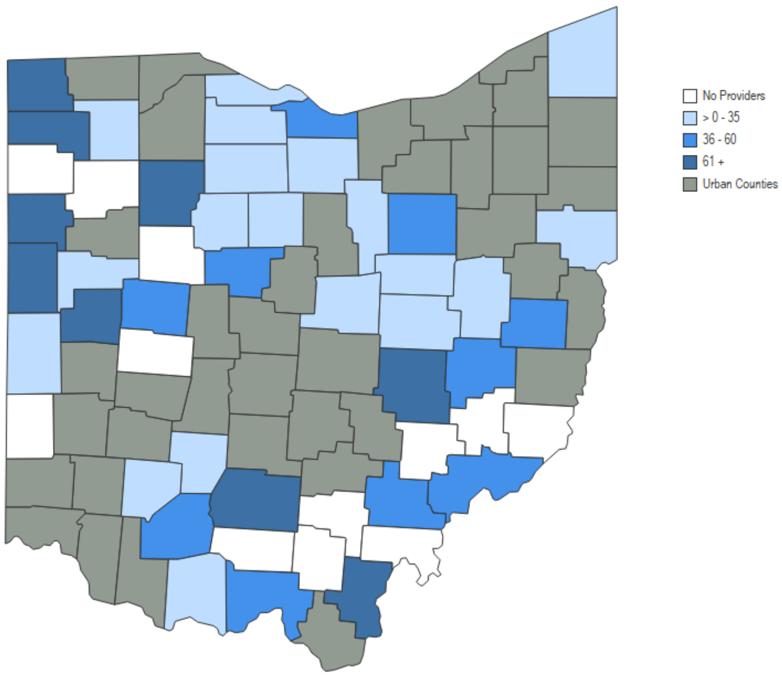
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Ohio Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Ohio as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Ohio Counties



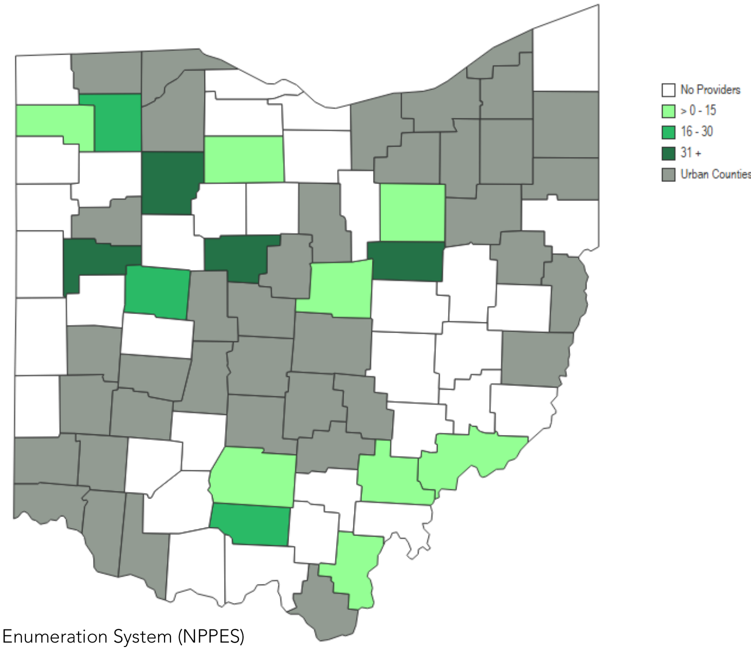
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Ohio Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Ohio	57.8 (1,483)	10.2 (261)	3.5 (89)	7.2 (185)
Metropolitan	62.6 (1,299)	11.1 (231)	3.6 (75)	6.5 (135)
Non-Metro	37.5 (184)	6.1 (30)	2.9 (14)	10.3 (51)
Micropolitan	42.4 (170)	6.2 (25)	3.0 (12)	6.9 (28)
Non-core	15.6 (14)	5.6 (5)	2.2 (2)	25.3 (23)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Ohio Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Ohio Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Ohio (88 counties)	17 (19%)	49 (56%)	59 (67%)	56 (64%)	10 (11%)
Metropolitan (38 counties)	5 (13%)	14 (37%)	21 (55%)	24 (63%)	4 (11%)
Non-Metro (50 counties)	12 (24%)	35 (70%)	38 (76%)	32 (64%)	6 (12%)
Micropolitan (33 counties)	2 (6%)	21 (64%)	23 (70%)	24 (73%)	1 (3%)
Non-core (17 counties)	10 (59%)	14 (82%)	15 (88%)	8 (47%)	5 (29%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
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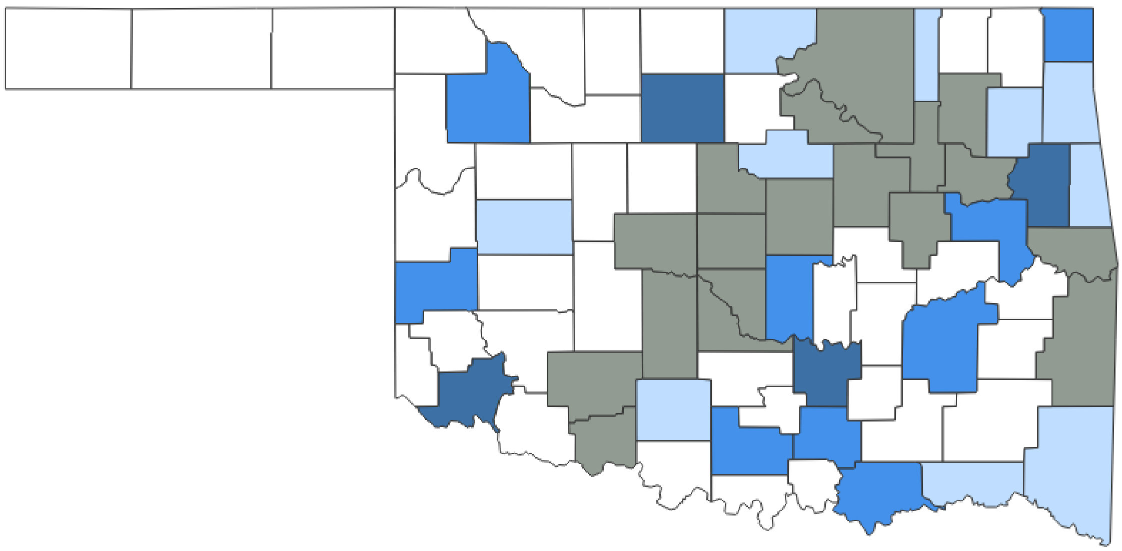
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Oklahoma Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Oklahoma as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Oklahoma Counties



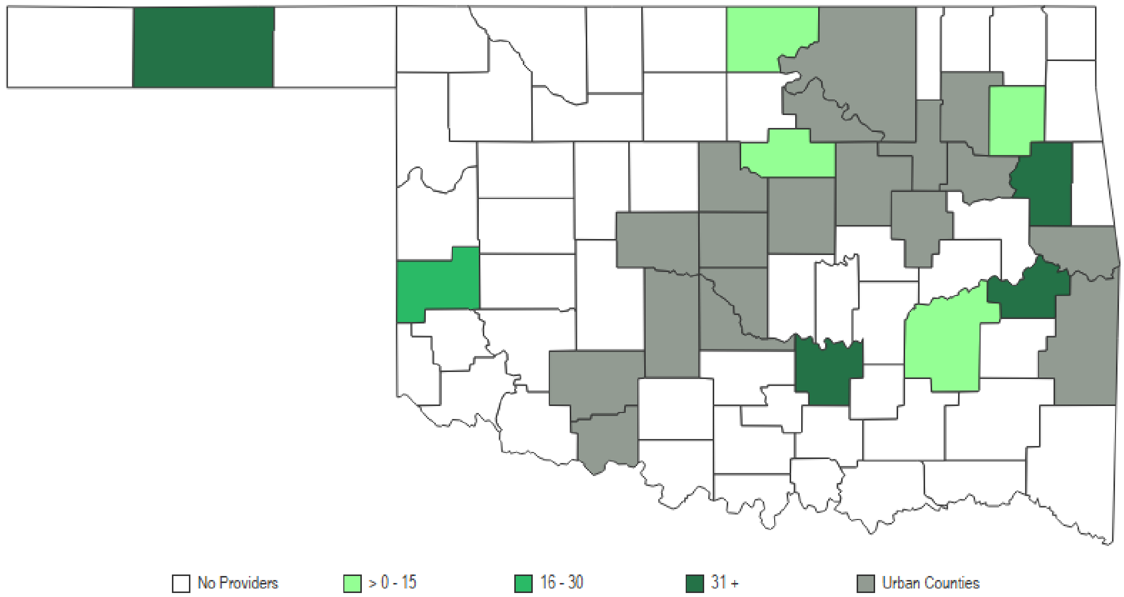
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Oklahoma Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Oklahoma	47.4 (422)	6.2 (55)	3.1 (28)	21.3 (189)
Metropolitan	55.3 (334)	4.6 (28)	3.3 (20)	19.3 (116)
Non-Metro	30.8 (88)	9.4 (27)	2.8 (8)	25.6 (73)
Micropolitan	45.1 (80)	14.1 (25)	3.4 (6)	33.1 (59)
Non-core	7.4 (8)	1.8 (2)	1.8 (2)	13.3 (14)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Oklahoma Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Oklahoma Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Oklahoma (77 counties)	44 (57%)	62 (81%)	62 (81%)	39 (51%)	21 (27%)
Metropolitan (18 counties)	8 (44%)	12 (67%)	10 (56%)	8 (44%)	2 (11%)
Non-Metro (59 counties)	36 (61%)	50 (85%)	52 (88%)	31 (53%)	19 (32%)
Micropolitan (18 counties)	1 (6%)	11 (61%)	13 (72%)	7 (39%)	0 (0%)
Non-core (41 counties)	35 (85%)	39 (95%)	39 (95%)	24 (59%)	19 (46%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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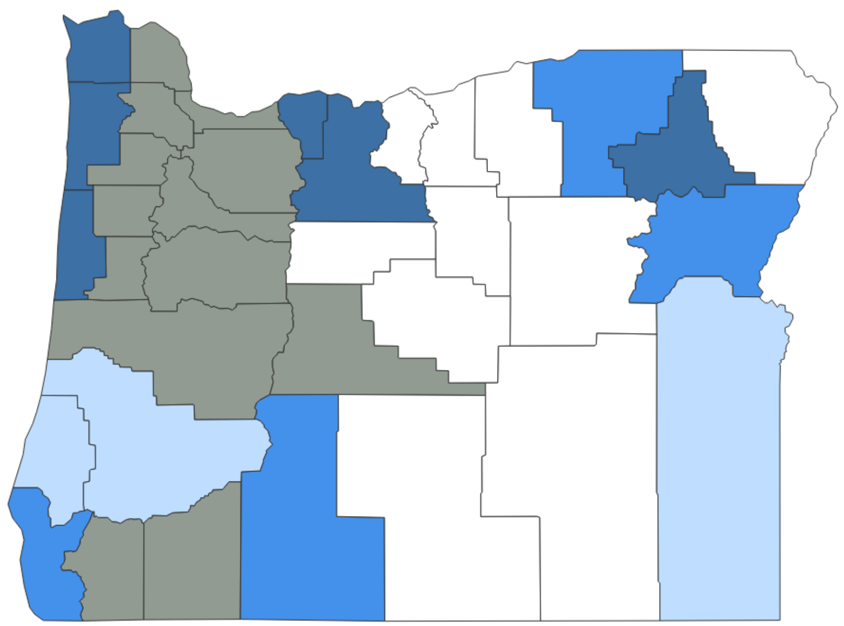
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Oregon Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Oregon as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Oregon Counties



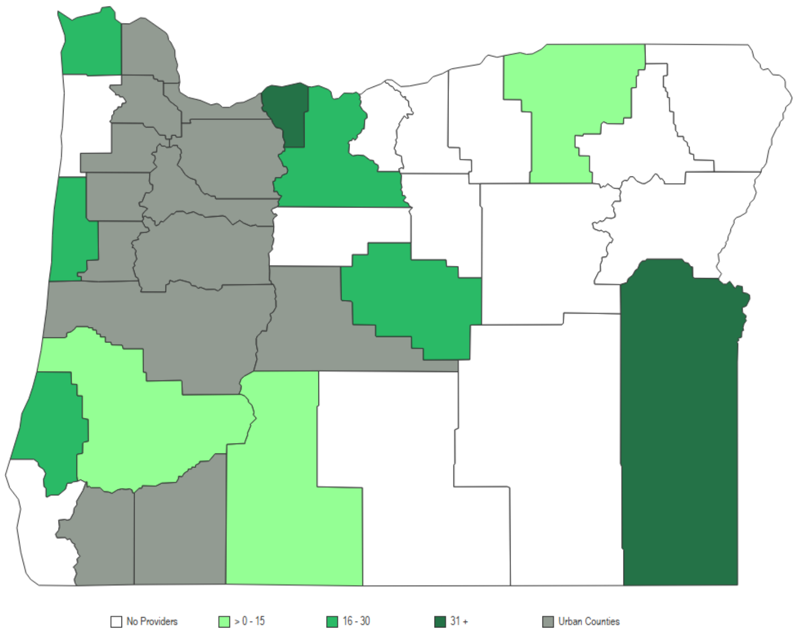
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Oregon Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Oregon	61.1 (579)	26.4 (250)	17.1 (162)	23.6 (223)
Metropolitan	63.5 (520)	28.3 (232)	17.6 (144)	15.7 (129)
Non-Metro	46.0 (59)	14.0 (18)	14.0 (18)	73.5 (94)
Micropolitan	50.1 (55)	16.4 (18)	15.5 (17)	51.3 (56)
Non-core	21.7 (4)	0 (0)	5.4 (1)	206.1 (38)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Oregon Counties



Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Oregon Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Oregon (36 counties)	12 (33%)	13 (36%)	15 (42%)	15 (42%)	4 (11%)
Metropolitan (13 counties)	2 (15%)	0 (0%)	1 (8%)	4 (31%)	0 (0%)
Non-Metro (23 counties)	10 (43%)	13 (57%)	14 (61%)	11 (48%)	4 (17%)
Micropolitan (13 counties)	2 (15%)	3 (23%)	5 (38%)	7 (54%)	1 (8%)
Non-core (10 counties)	8 (80%)	10 (100%)	9 (90%)	4 (40%)	3 (30%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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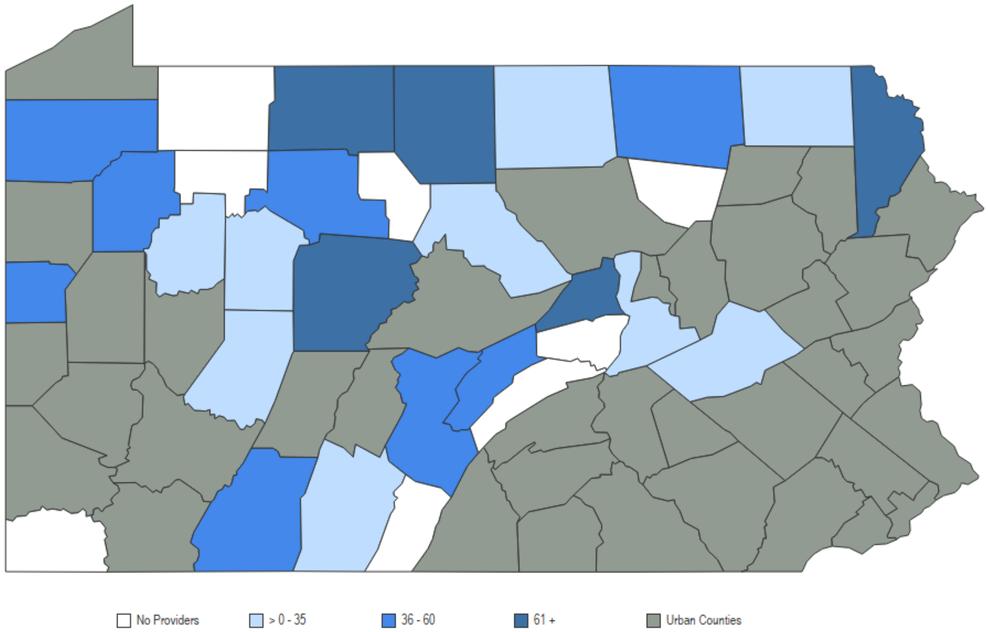
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Pennsylvania Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Pennsylvania as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Pennsylvania Counties



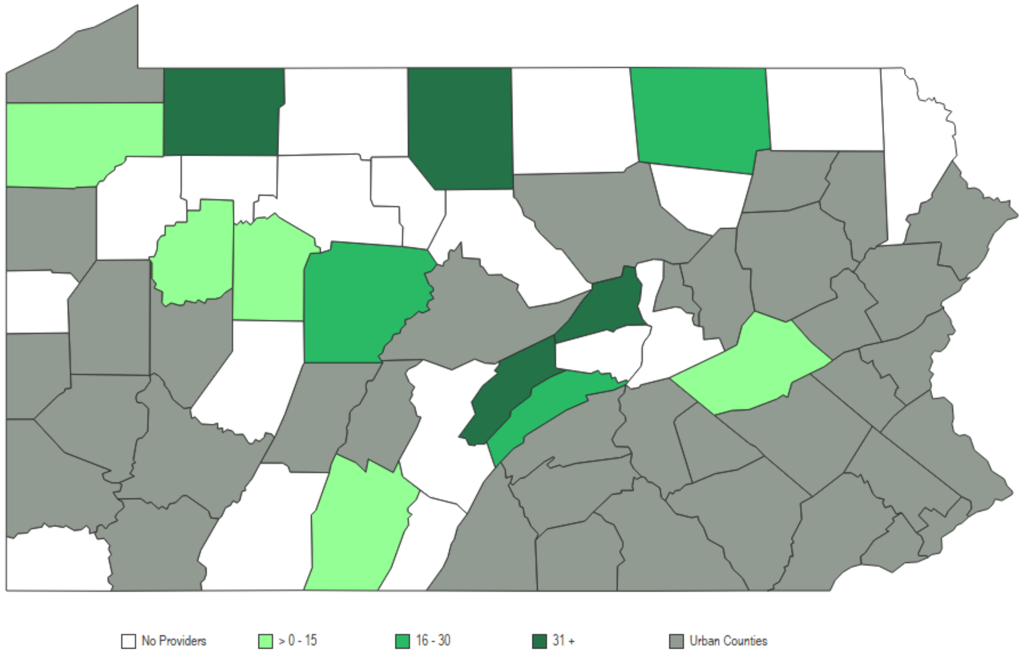
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Pennsylvania Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Pennsylvania	72.8 (2,024)	10.9 (302)	4.7 (132)	8.5 (235)
Metropolitan	76.7 (1,919)	10.8 (271)	4.9 (122)	7.8 (196)
Non-Metro	37.6 (105)	11.1 (31)	3.6 (10)	14.2 (40)
Micropolitan	41.5 (85)	12.7 (26)	2.4 (5)	4.0 (8)
Non-core	26.9 (20)	6.7 (5)	6.7 (5)	42.2 (31)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Pennsylvania Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Pennsylvania Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Pennsylvania (67 counties)	10 (15%)	27 (40%)	43 (64%)	41 (61%)	6 (9%)
Metropolitan (37 counties)	2 (5%)	9 (24%)	17 (46%)	20 (54%)	2 (5%)
Non-Metro (30 counties)	8 (27%)	18 (60%)	26 (87%)	21 (70%)	4 (13%)
Micropolitan (16 counties)	2 (13%)	9 (56%)	13 (81%)	13 (81%)	1 (6%)
Non-core (14 counties)	6 (43%)	9 (64%)	13 (93%)	8 (57%)	3 (21%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

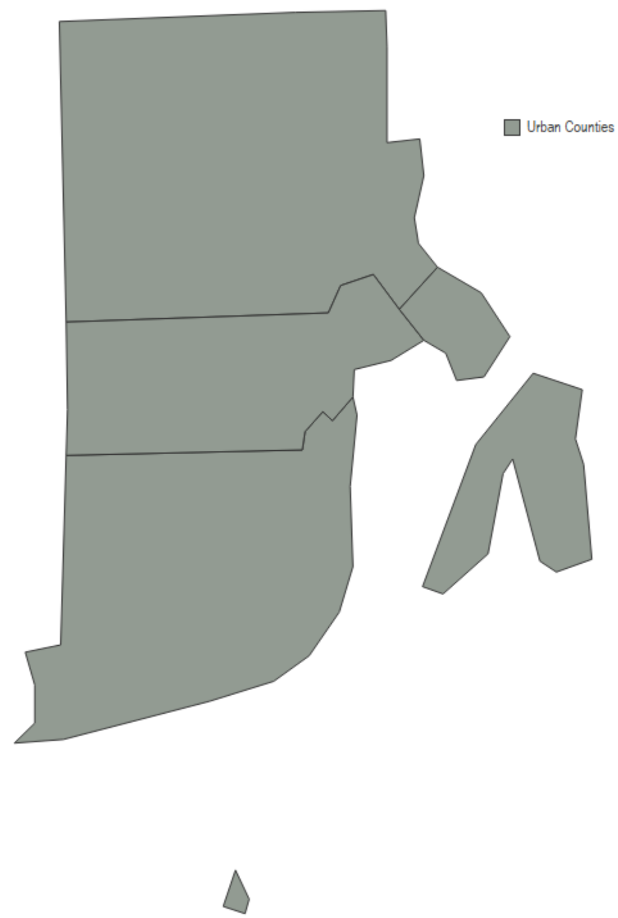
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Rhode Island Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Rhode Island as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Rhode Island Counties



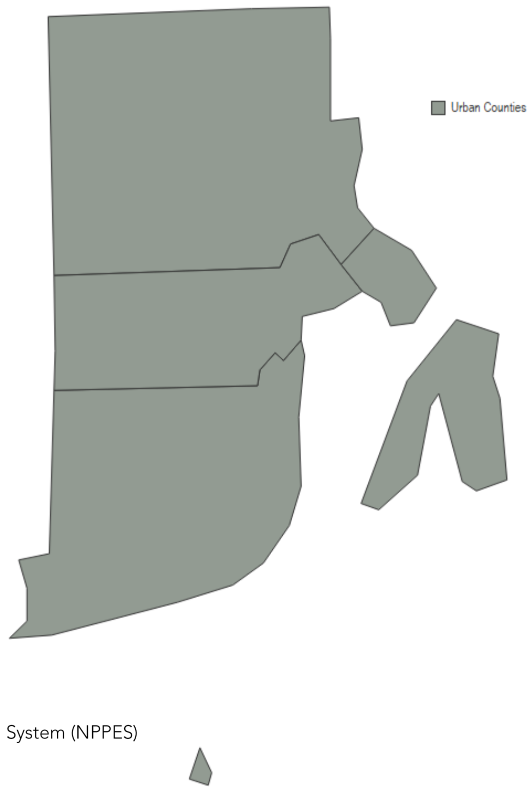
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Rhode Island Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Rhode Island	80.1 (195)	19.7 (48)	7.4 (18)	7.3 (18)
Metropolitan	80.1 (195)	19.7 (48)	7.4 (18)	7.3 (18)
Non-Metro	0 (0)	0 (0)	0 (0)	0 (0)
Micropolitan	0 (0)	0 (0)	0 (0)	0 (0)
Non-core	0 (0)	0 (0)	0 (0)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Rhode Island Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Rhode Island Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Rhode Island (5 counties)	1 (20%)	1 (20%)	2 (40%)	3 (60%)	1 (20%)
Metropolitan (5 counties)	1 (20%)	1 (20%)	2 (40%)	3 (60%)	1 (20%)
Non-Metro (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Micropolitan (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Non-core (0 counties)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

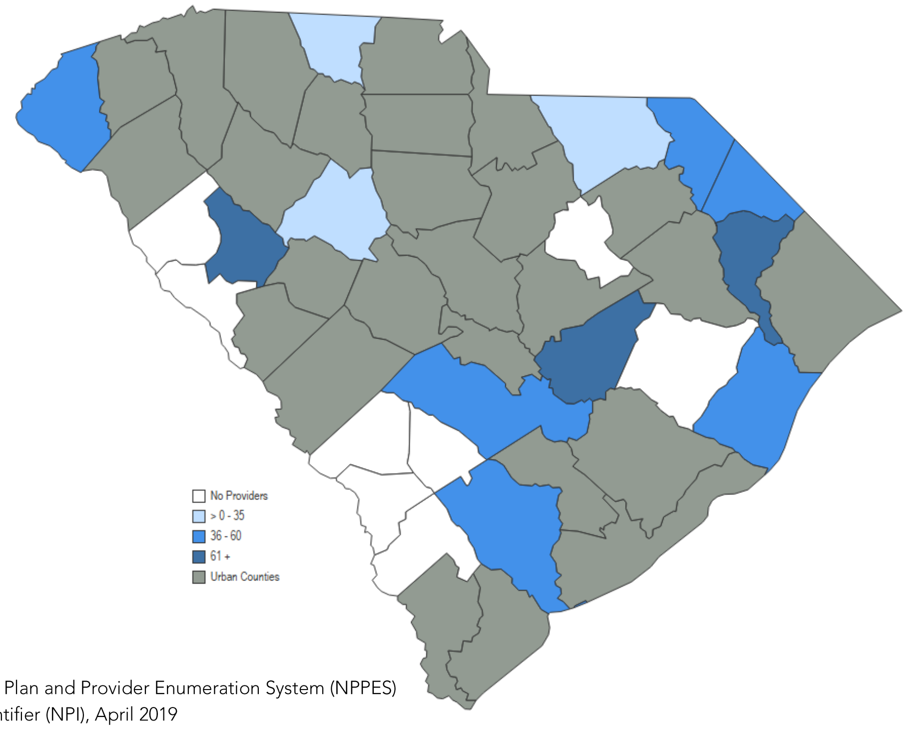
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

South Carolina Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in South Carolina as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural South Carolina Counties



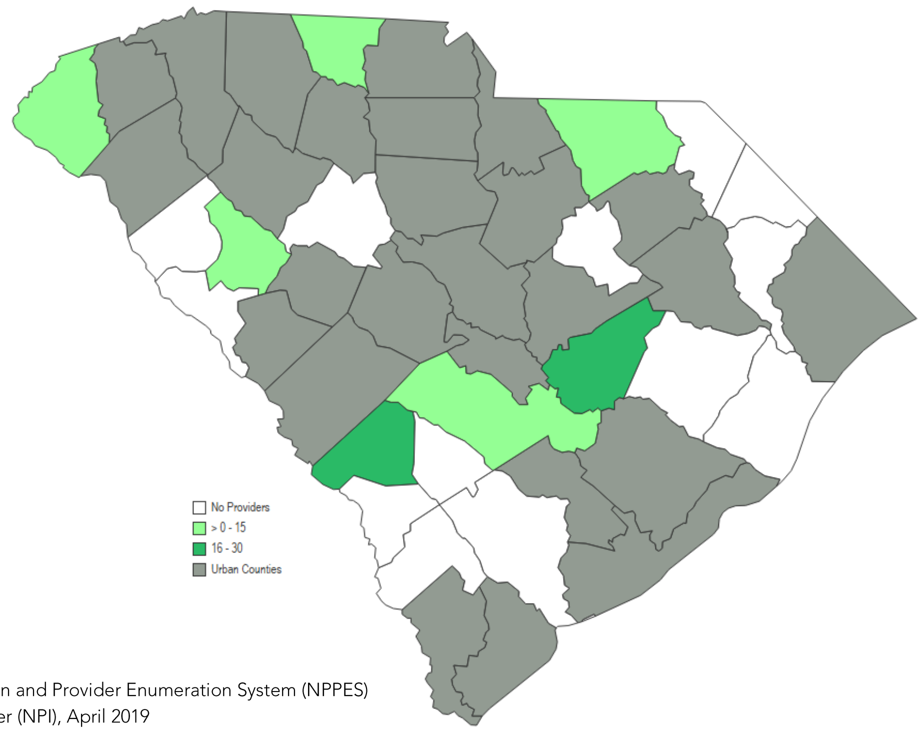
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in South Carolina Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
South Carolina	57.8 (660)	7.0 (80)	3.5 (40)	6.8 (78)
Metropolitan	60.8 (603)	7.3 (72)	3.5 (35)	5.5 (55)
Non-Metro	38.0 (57)	5.3 (8)	3.3 (5)	15.2 (23)
Micropolitan	43.0 (39)	5.5 (5)	3.3 (3)	20.7 (19)
Non-core	30.5 (18)	5.1 (3)	3.4 (2)	6.8 (4)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural South Carolina Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

South Carolina Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
South Carolina (46 counties)	14 (30%)	29 (63%)	31 (67%)	31 (67%)	8 (17%)
Metropolitan (26 counties)	6 (23%)	16 (62%)	15 (58%)	16 (62%)	3 (12%)
Non-Metro (20 counties)	8 (40%)	13 (65%)	16 (80%)	15 (75%)	5 (25%)
Micropolitan (8 counties)	1 (13%)	4 (50%)	5 (63%)	5 (63%)	1 (13%)
Non-core (12 counties)	7 (58%)	9 (75%)	11 (92%)	10 (83%)	4 (33%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

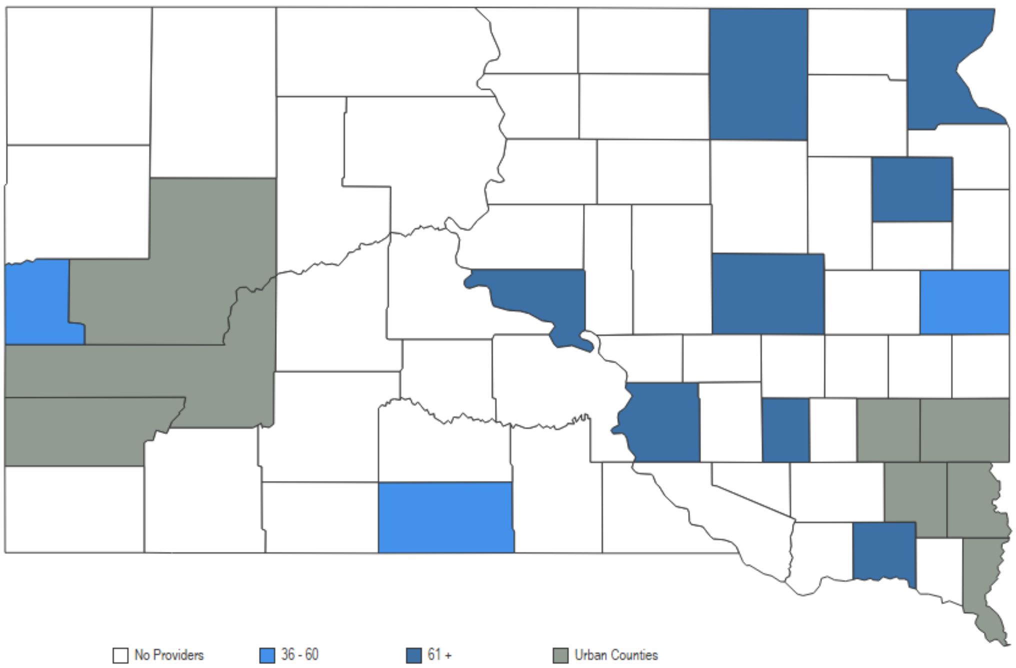
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

South Dakota Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in South Dakota as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural South Dakota Counties



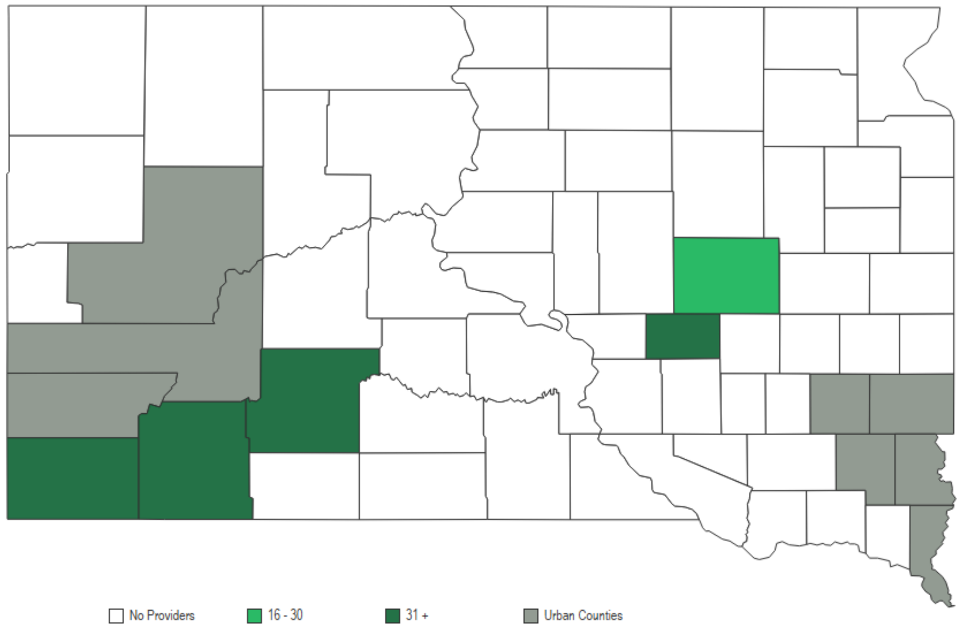
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in South Dakota Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
South Dakota	53.7 (99)	15.2 (28)	2.2 (4)	54.7 (101)
Metropolitan	61.3 (57)	19.4 (18)	4.3 (4)	56.3 (52)
Non-Metro	46.0 (42)	10.9 (10)	0 (0)	53.1 (49)
Micropolitan	68.9 (35)	2.0 (1)	0 (0)	30.3 (15)
Non-core	17.3 (7)	22.2 (9)	0 (0)	81.8 (33)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural South Dakota Counties



Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

South Dakota Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
South Dakota (66 counties)	53 (80%)	59 (89%)	64 (97%)	36 (55%)	27 (41%)
Metropolitan (8 counties)	6 (75%)	6 (75%)	6 (75%)	3 (38%)	3 (38%)
Non-Metro (58 counties)	47 (81%)	53 (91%)	58 (100%)	33 (57%)	24 (41%)
Micropolitan (13 counties)	5 (38%)	12 (92%)	13 (100%)	8 (62%)	3 (23%)
Non-core (45 counties)	42 (93%)	41 (91%)	45 (100%)	25 (56%)	21 (47%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

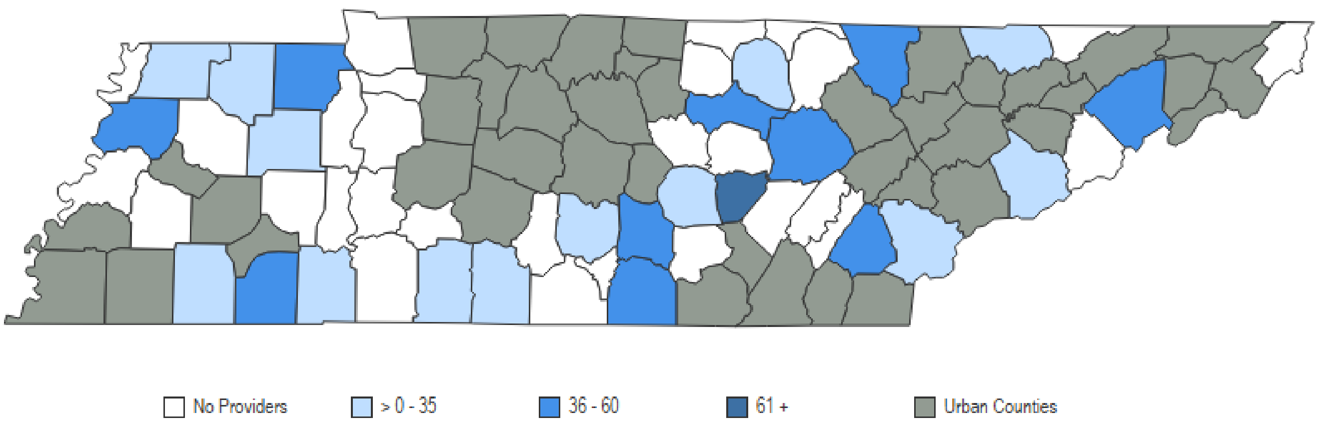
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Tennessee Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Tennessee as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Tennessee Counties



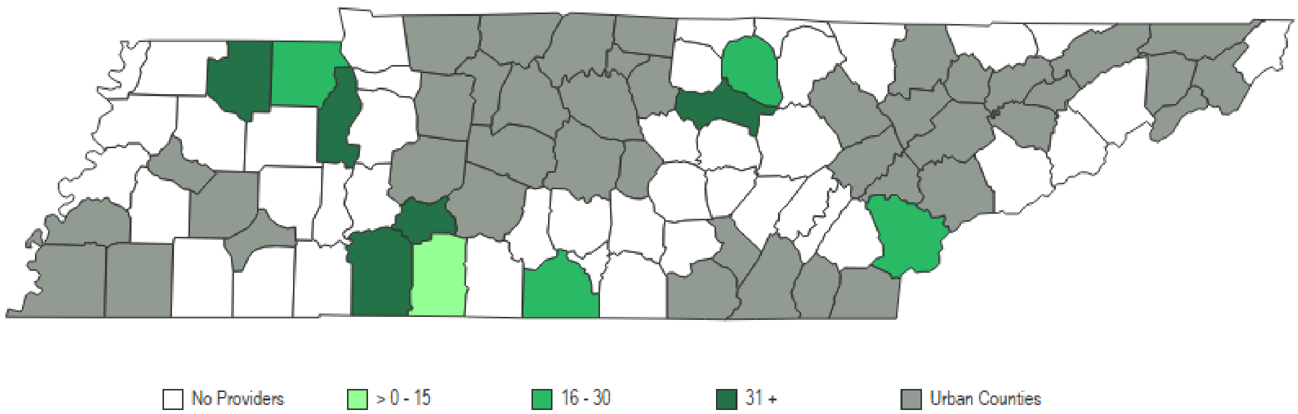
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Tennessee Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Tennessee	48.4 (743)	10.5 (162)	3.6 (56)	9.5 (146)
Metropolitan	54.8 (671)	11.6 (142)	3.3 (40)	9.1 (111)
Non-Metro	23.2 (72)	6.4 (20)	5.2 (16)	11.3 (35)
Micropolitan	30.4 (55)	7.2 (13)	6.1 (11)	8.5 (15)
Non-core	13.1 (17)	5.4 (7)	3.9 (5)	15.3 (20)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Tennessee Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Tennessee Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Tennessee (95 counties)	47 (49%)	71 (75%)	68 (72%)	58 (61%)	25 (26%)
Metropolitan (42 counties)	18 (43%)	28 (67%)	24 (57%)	25 (60%)	11 (26%)
Non-Metro (53 counties)	29 (55%)	43 (81%)	44 (83%)	33 (62%)	14 (26%)
Micropolitan (20 counties)	5 (25%)	15 (75%)	15 (75%)	14 (70%)	2 (10%)
Non-core (33 counties)	24 (73%)	28 (85%)	29 (88%)	19 (58%)	12 (36%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
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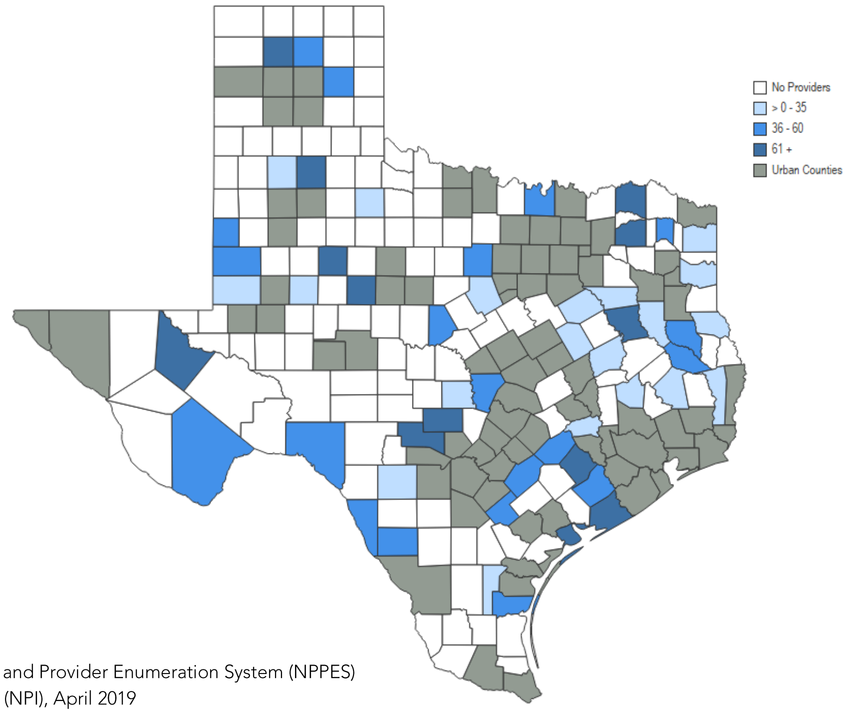
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Texas Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Texas as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Texas Counties



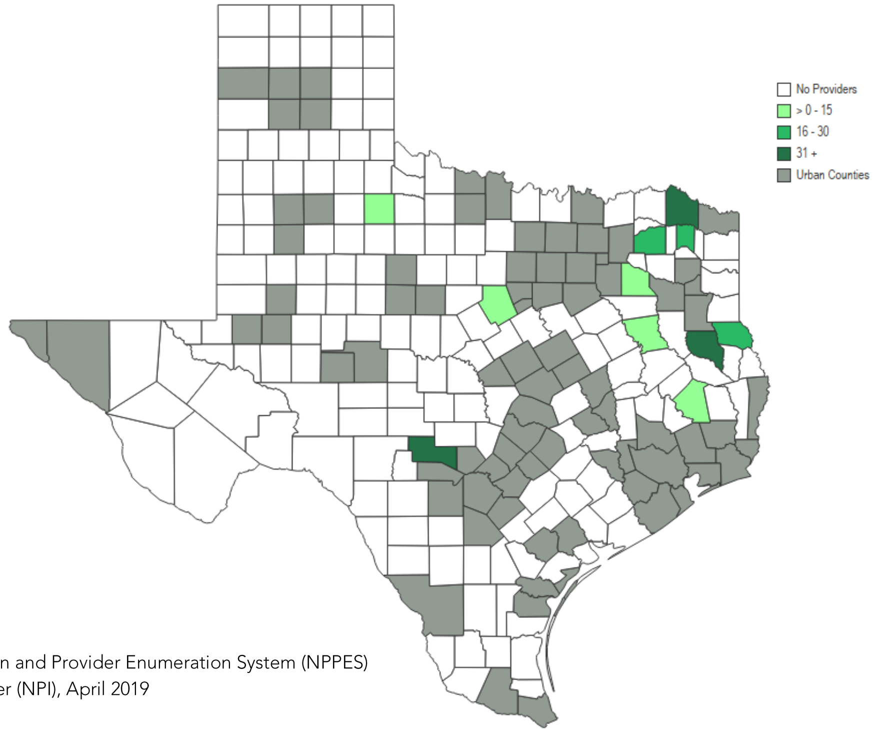
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Texas Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Texas	47.5 (3,300)	5.5 (383)	4.3 (299)	7.7 (535)
Metropolitan	49.6 (3,134)	5.7 (362)	4.5 (286)	5.4 (342)
Non-Metro	26.6 (166)	3.4 (21)	2.1 (13)	31.0 (194)
Micropolitan	39.9 (140)	4.8 (17)	1.4 (5)	24.4 (86)
Non-core	9.5 (26)	1.5 (4)	2.9 (8)	39.5 (108)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Texas Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Texas Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Texas (253 counties)	150 (59%)	206 (81%)	199 (79%)	130 (51%)	79 (31%)
Metropolitan (82 counties)	31 (38%)	45 (55%)	36 (44%)	38 (46%)	15 (18%)
Non-Metro (171 counties)	119 (70%)	161 (94%)	163 (95%)	92 (54%)	64 (37%)
Micropolitan (46 counties)	11 (24%)	40 (87%)	43 (93%)	28 (61%)	7 (15%)
Non-core (125 counties)	108 (86%)	121 (97%)	120 (96%)	64 (51%)	57 (46%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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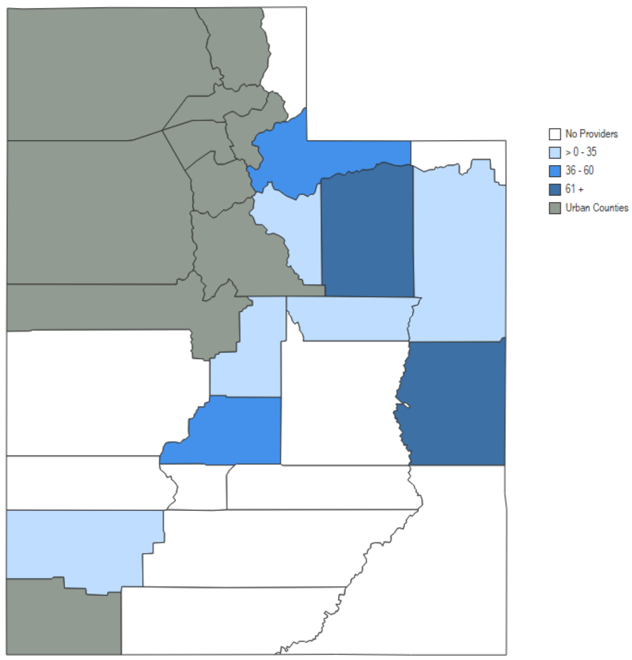
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Utah Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Utah as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Utah Counties



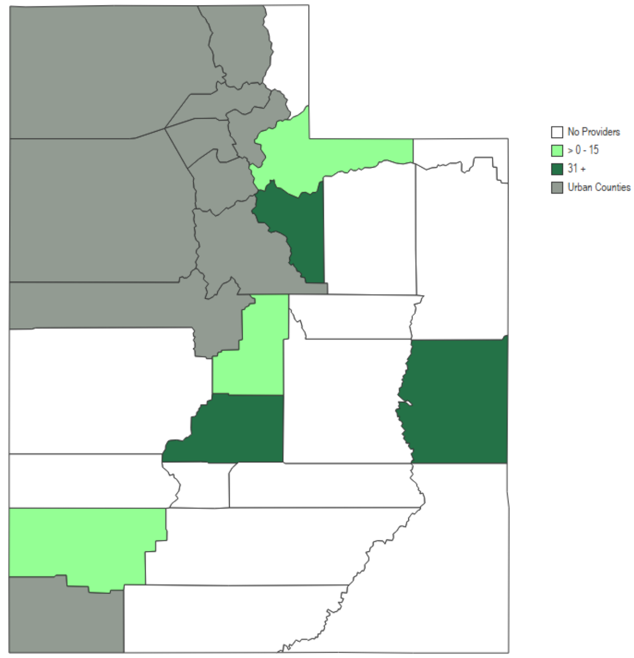
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Utah Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Utah	44.3 (344)	13.3 (103)	9.4 (73)	26.3 (204)
Metropolitan	46.2 (325)	13.1 (92)	9.9 (70)	19.3 (135)
Non-Metro	25.9 (19)	15.0 (11)	4.1 (3)	93.7 (69)
Micropolitan	26.4 (11)	16.8 (7)	7.2 (3)	38.9 (16)
Non-core	25.2 (8)	12.6 (4)	0 (0)	165.8 (53)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Utah Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Utah Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Utah (29 counties)	11 (38%)	16 (55%)	19 (66%)	9 (31%)	5 (17%)
Metropolitan (10 counties)	1 (10%)	3 (30%)	2 (20%)	3 (30%)	1 (10%)
Non-Metro (19 counties)	10 (53%)	13 (68%)	17 (89%)	6 (32%)	4 (21%)
Micropolitan (5 counties)	0 (0%)	2 (40%)	3 (60%)	1 (20%)	0 (0%)
Non-core (14 counties)	10 (71%)	11 (79%)	14 (100%)	5 (36%)	4 (29%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

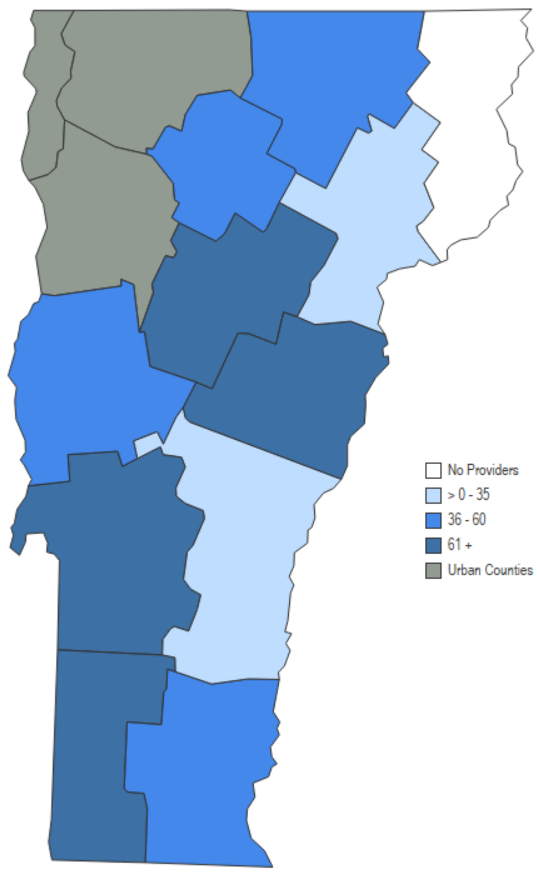
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Vermont Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Vermont as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Vermont Counties



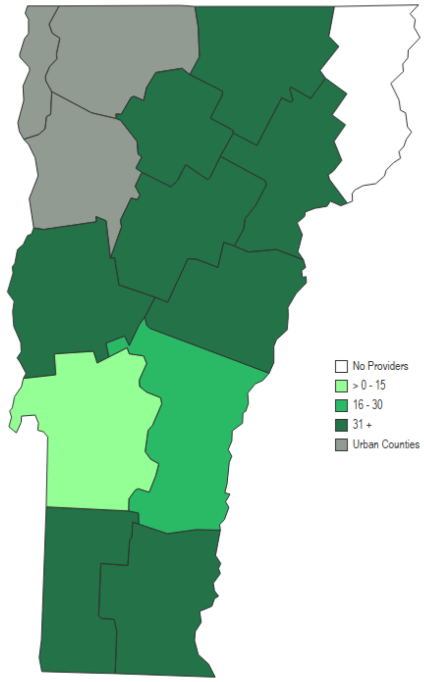
Data Source: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Vermont Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Vermont	74.1 (98)	37.8 (50)	21.2 (28)	15.9 (21)
Metropolitan	103.9 (55)	30.2 (16)	7.6 (4)	22.6 (12)
Non-Metro	54.2 (43)	42.8 (34)	30.2 (24)	11.5 (9)
Micropolitan	59.1 (28)	31.7 (15)	25.3 (12)	19.3 (9)
Non-core	46.9 (15)	59.4 (19)	37.5 (12)	0 (0)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Vermont Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Vermont Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Vermont (14 counties)	2 (14%)	3 (21%)	5 (36%)	9 (64%)	1 (7%)
Metropolitan (3 counties)	1 (33%)	2 (67%)	2 (67%)	0 (0%)	0 (0%)
Non-Metro (11 counties)	1 (9%)	1 (9%)	3 (27%)	9 (82%)	1 (9%)
Micropolitan (6 counties)	1 (17%)	1 (17%)	2 (33%)	4 (67%)	1 (17%)
Non-core (5 counties)	0 (0%)	0 (0%)	1 (20%)	5 (100%)	0 (0%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

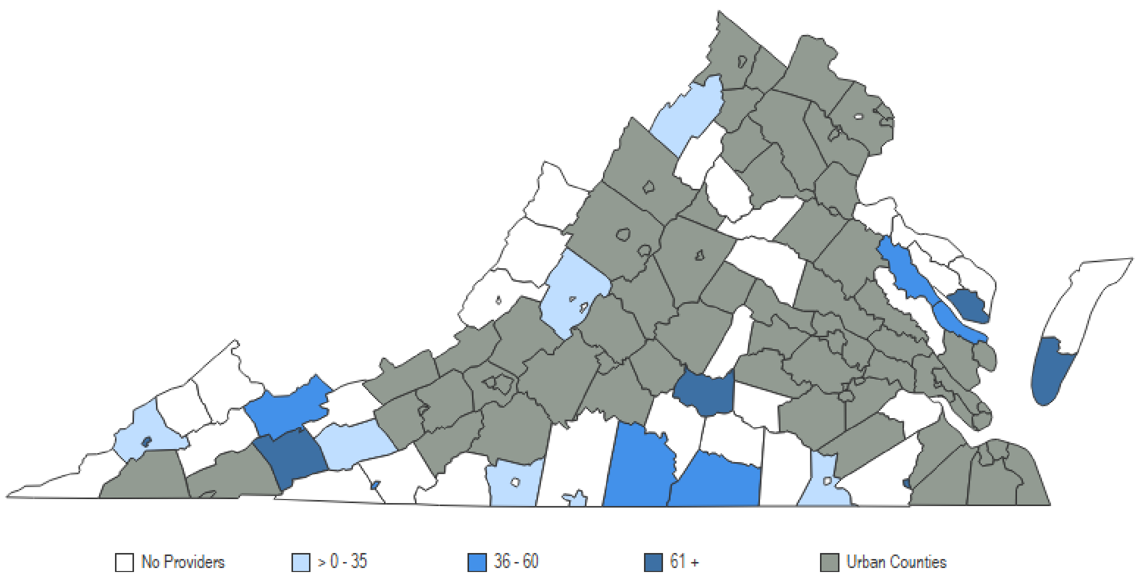
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Virginia Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Virginia as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Virginia Counties



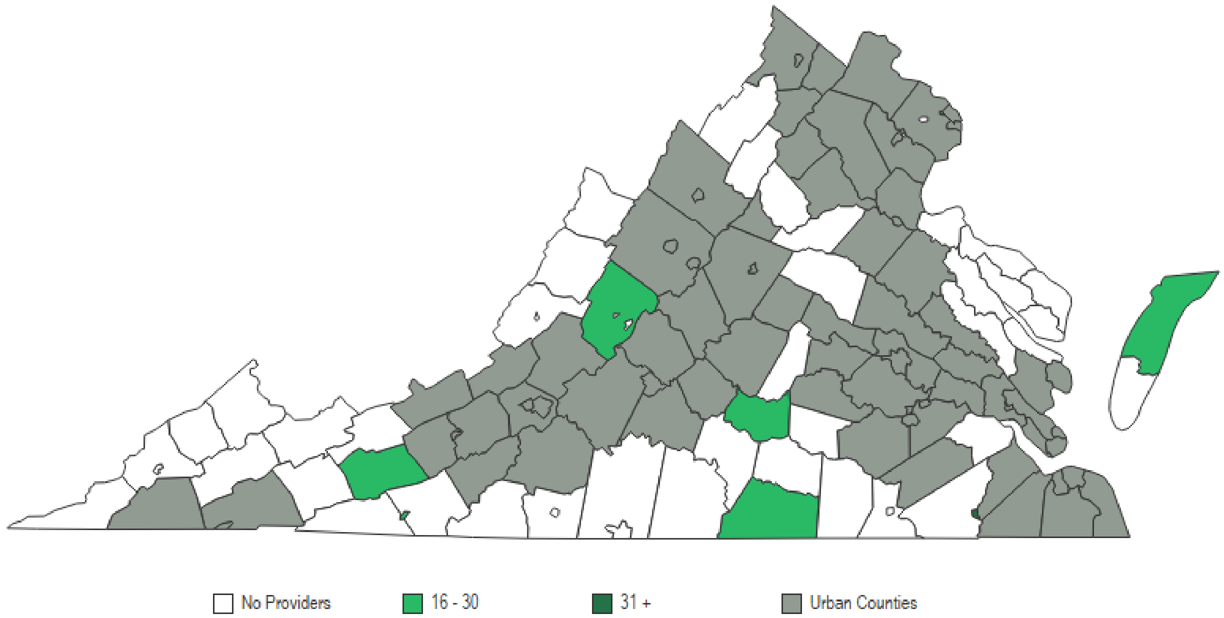
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Virginia Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Virginia	54.2 (1,065)	9.0 (177)	5.0 (98)	5.2 (102)
Metropolitan	57.4 (1,014)	9.6 (170)	4.8 (85)	4.7 (83)
Non-Metro	25.7 (51)	3.5 (7)	6.6 (13)	9.4 (19)
Micropolitan	32.3 (17)	0 (0)	1.9 (1)	0 (0)
Non-core	23.3 (34)	4.8 (7)	8.2 (12)	12.7 (19)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Virginia Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Virginia Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Virginia (127 counties)	60 (47%)	88 (69%)	85 (67%)	92 (72%)	35 (28%)
Metropolitan (78 counties)	30 (38%)	46 (59%)	44 (56%)	57 (73%)	17 (22%)
Non-Metro (49 counties)	30 (61%)	42 (86%)	41 (84%)	35 (71%)	18 (37%)
Micropolitan (7 counties)	2 (29%)	7 (100%)	6 (86%)	7 (100%)	2 (29%)
Non-core (42 counties)	28 (67%)	35 (83%)	35 (83%)	28 (67%)	16 (38%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

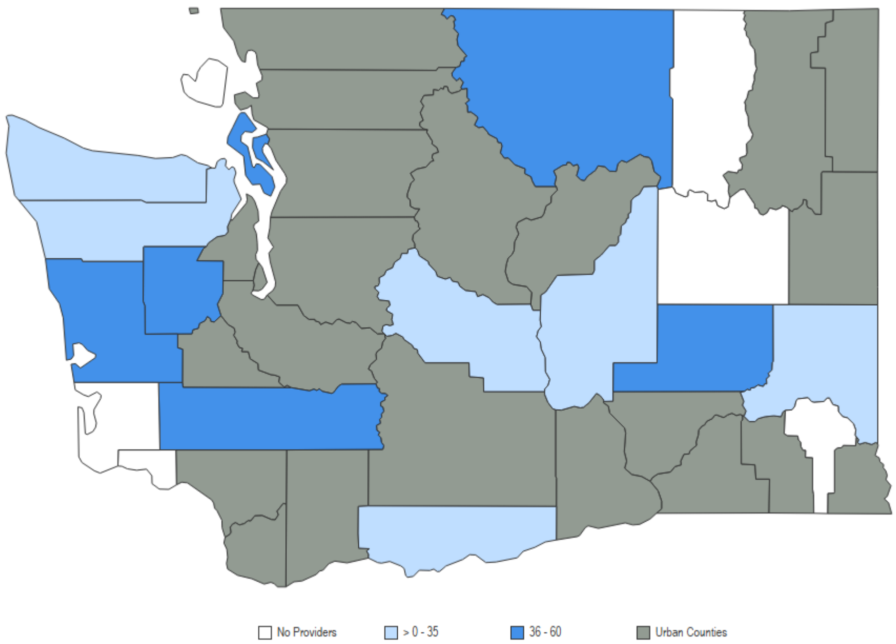
County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Washington Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Washington as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Washington Counties



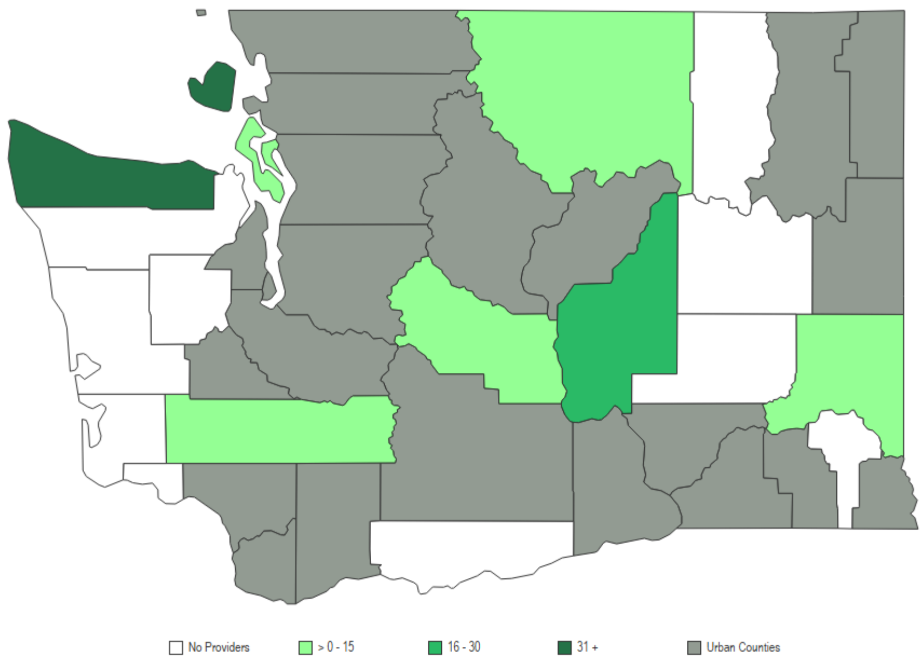
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Washington Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Washington	52.9 (907)	16.0 (275)	11.1 (191)	40.5 (695)
Metropolitan	55.0 (862)	16.5 (258)	10.7 (167)	38.4 (602)
Non-Metro	30.1 (45)	11.4 (17)	16.0 (24)	62.4 (93)
Micropolitan	31.6 (39)	12.2 (15)	10.5 (13)	48.8 (60)
Non-core	22.8 (6)	7.6 (2)	41.7 (11)	126.2 (33)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Washington Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Washington Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Washington (39 counties)	10 (26%)	15 (38%)	15 (38%)	11 (28%)	4 (10%)
Metropolitan (21 counties)	4 (19%)	5 (24%)	7 (33%)	4 (19%)	2 (10%)
Non-Metro (18 counties)	6 (33%)	10 (56%)	8 (44%)	7 (39%)	2 (11%)
Micropolitan (9 counties)	0 (0%)	3 (33%)	3 (33%)	3 (33%)	0 (0%)
Non-core (9 counties)	6 (67%)	7 (78%)	5 (56%)	4 (44%)	2 (22%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
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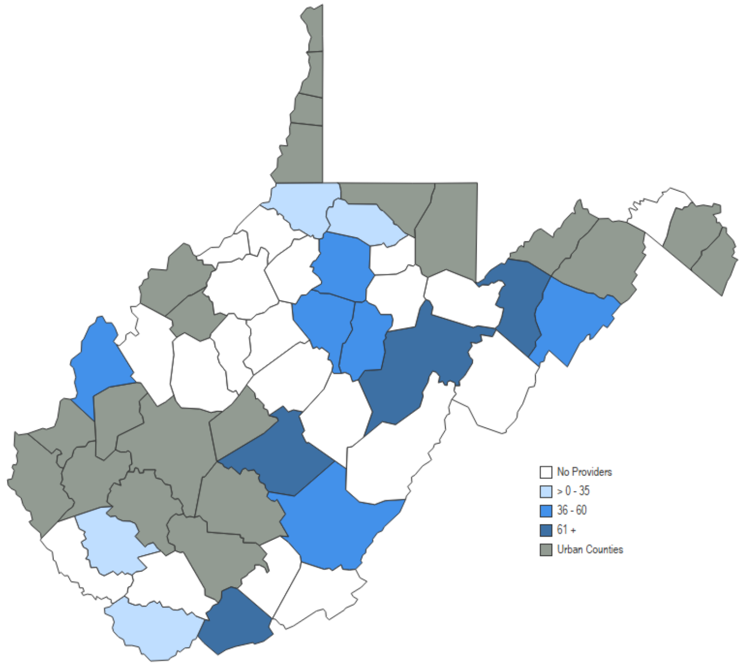
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

West Virginia Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in West Virginia as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural West Virginia Counties



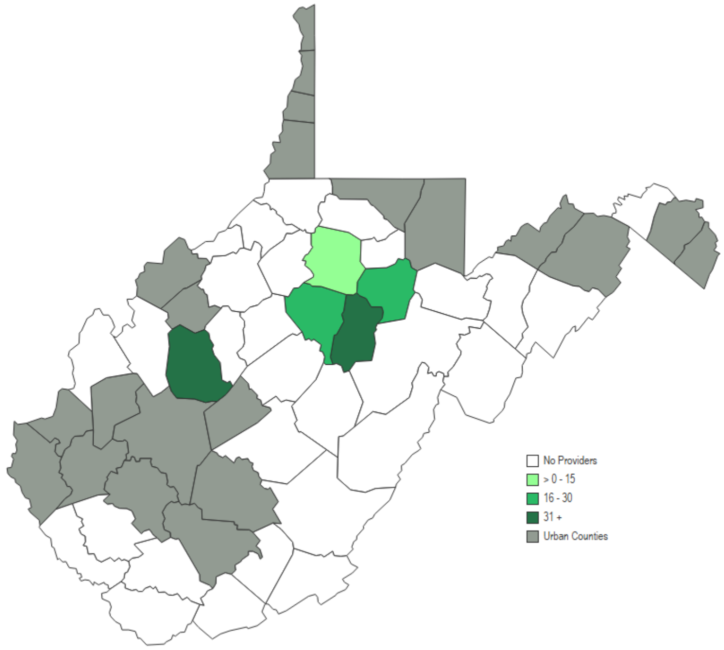
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in West Virginia Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
West Virginia	52.3 (196)	9.9 (37)	8.0 (30)	9.0 (34)
Metropolitan	62.7 (150)	12.1 (29)	10.0 (24)	12.4 (30)
Non-Metro	33.8 (46)	5.9 (8)	4.4 (6)	3.2 (4)
Micropolitan	46.1 (28)	1.6 (1)	1.6 (1)	0 (0)
Non-core	23.9 (18)	9.3 (7)	6.6 (5)	5.7 (4)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural West Virginia Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

West Virginia Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
West Virginia (55 counties)	27 (49%)	42 (76%)	42 (76%)	38 (69%)	14 (25%)
Metropolitan (21 counties)	7 (33%)	13 (62%)	12 (57%)	11 (52%)	3 (14%)
Non-Metro (34 counties)	20 (59%)	29 (85%)	30 (88%)	27 (79%)	11 (32%)
Micropolitan (8 counties)	2 (25%)	7 (88%)	7 (88%)	8 (100%)	2 (25%)
Non-core (26 counties)	18 (69%)	22 (85%)	23 (88%)	19 (73%)	9 (35%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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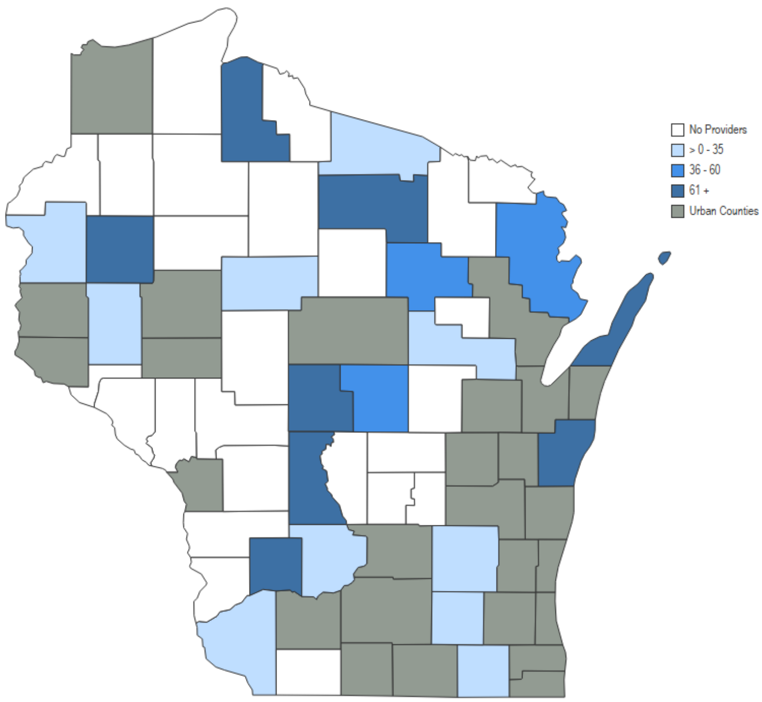
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Wisconsin Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Wisconsin as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Wisconsin Counties



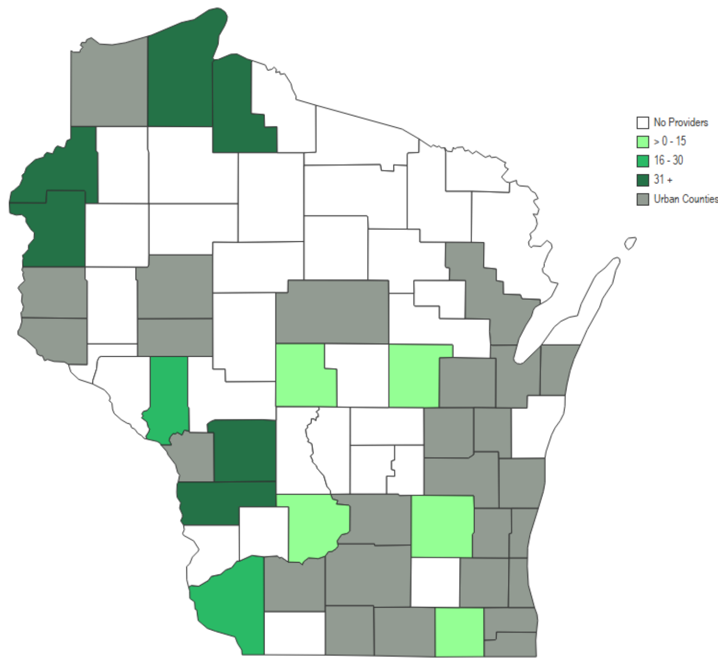
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Wisconsin Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Wisconsin	56.5 (714)	13.4 (169)	6.6 (84)	40.1 (506)
Metropolitan	63.8 (621)	15.1 (147)	5.1 (50)	26.2 (255)
Non-Metro	32.1 (93)	7.6 (22)	11.7 (34)	86.8 (251)
Micropolitan	35.8 (58)	3.7 (6)	8.0 (13)	60.0 (97)
Non-core	27.4 (35)	12.5 (16)	16.4 (21)	120.7 (154)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Wisconsin Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Wisconsin Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Wisconsin (72 counties)	26 (36%)	45 (63%)	35 (49%)	27 (38%)	7 (10%)
Metropolitan (26 counties)	1 (4%)	12 (46%)	8 (31%)	10 (38%)	1 (4%)
Non-Metro (46 counties)	25 (54%)	33 (72%)	27 (59%)	17 (37%)	6 (13%)
Micropolitan (14 counties)	3 (21%)	9 (64%)	6 (43%)	4 (29%)	0 (0%)
Non-core (32 counties)	22 (69%)	24 (75%)	21 (66%)	13 (41%)	6 (19%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

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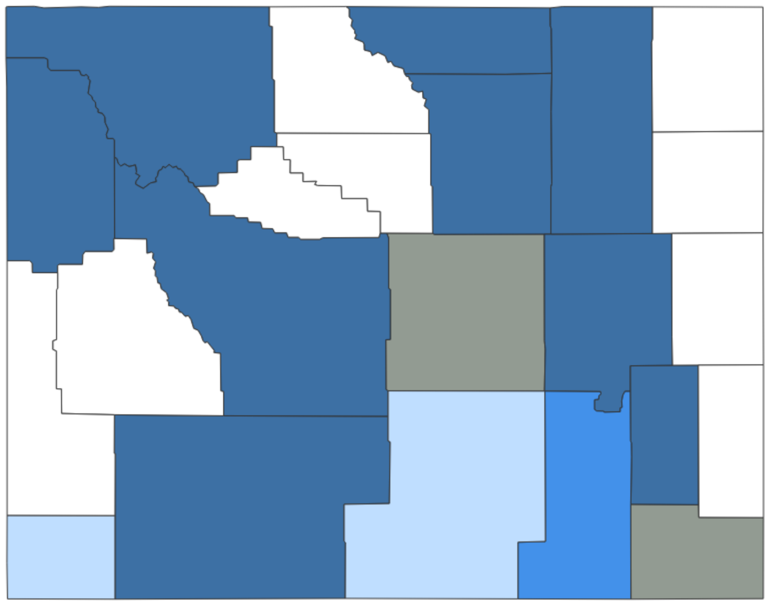
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

Suggested Citation: Patterson DG, Andrilla CHA, Garberson LA. *The Supply and Rural-Urban Distribution of the Obstetrical Care Workforce in the U.S.: A State-Level Analysis*. Data Brief #168. WWAMI Rural Health Research Center, University of Washington; June 2020.

Wyoming Obstetrical Workforce: 2019

The maps and tables show obstetrical professionals, including obstetricians, advanced practice midwives, midwives (see [https://npidb.org/taxonomy/] for full definitions), and family physicians who deliver babies in Wyoming as of April 2019. Counties were categorized using the U.S. Department of Agriculture Economic Research Service Urban Influence Codes (UICs). For detailed county category designations, see the following page.

Obstetricians per 100,000 Women of Childbearing Age* in Rural Wyoming Counties



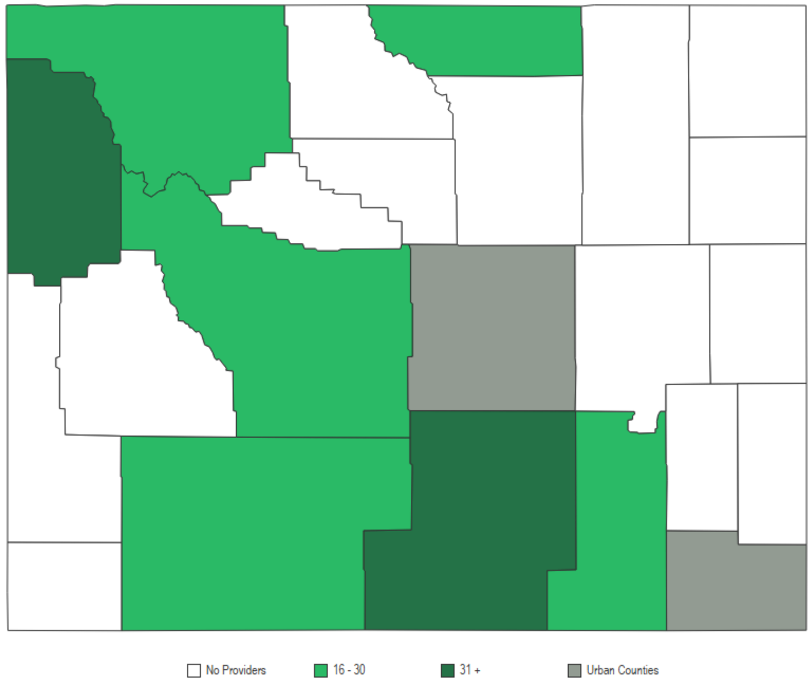
Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Obstetrical Service Clinicians per 100,000 Women of Childbearing Age* in Wyoming Counties by Urban Influence Category

	Obstetricians/100,000 Women of Childbearing Age (Count)	Advanced Practice Midwives/100,000 Women of Childbearing Age (Count)	Midwives/100,000 Women of Childbearing Age (Count)	Family Physicians Who Deliver Babies/100,000 Women of Childbearing Age (Count)
Wyoming	54.8 (68)	12.1 (15)	6.4 (8)	39.7 (49)
Metropolitan	51.2 (20)	7.7 (3)	2.6 (1)	70.7 (28)
Non-Metro	56.4 (48)	14.1 (12)	8.2 (7)	25.5 (22)
Micropolitan	71.4 (39)	18.3 (10)	7.3 (4)	6.8 (4)
Non-core	29.5 (9)	6.6 (2)	9.8 (3)	58.9 (18)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.
*Ages 15-49

Advanced Practice Midwives per 100,000 Women of Childbearing Age* in Rural Wyoming Counties



Data Source: National Plan and Provider Enumeration System (NPPES)
National Provider Identifier (NPI), April 2019
*Ages 15-49

Wyoming Counties Without Obstetrical Service Clinicians by Urban Influence Category

	Counties without Obstetricians (Percent)	Counties without Advanced Practice Midwives (Percent)	Counties without Midwives (Percent)	Counties without Family Physicians Who Deliver Babies (Percent)	Counties without Any Obstetrical Providers (Percent)
Wyoming (23 counties)	9 (39%)	14 (61%)	16 (70%)	14 (61%)	6 (26%)
Metropolitan (2 counties)	0 (0%)	0 (0%)	1 (50%)	0 (0%)	0 (0%)
Non-Metro (21 counties)	9 (43%)	14 (67%)	15 (71%)	14 (67%)	6 (29%)
Micropolitan (7 counties)	0 (0%)	2 (29%)	4 (57%)	6 (86%)	0 (0%)
Non-core (14 counties)	9 (64%)	12 (86%)	11 (79%)	8 (57%)	6 (43%)

Data Sources: National Plan and Provider Enumeration System (NPPES) National Provider Identifier (NPI) data, April 2019, the U.S. Department of Agriculture Economic Research Service (ERS) Urban Influence Codes, 2013, the 2019 Claritas U.S. population data, and the American Board of Family Medicine (ABFM) Certification Examination Registration Questionnaire, 2014-2018.

County Category Designations
Metropolitan: counties with an urban core with a population of at least 50,000, UIC 1-2.
Micropolitan: counties with an urban core of at least 10,000, but less than 50,000 population, UIC 3, 5, 8.
Non-core: counties not part of "core-based" metro or micro areas, UIC 4, 6, 7, 9-12.

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