

What is Rural? A Pennsylvania Perspective

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Abstract

One of the biggest challenges in studying rural policy is defining the term “rural.” This article details the history of the Center for Rural Pennsylvania’s definition of “rural” and “urban,” and how this definition is applied in the context of counties, school districts, and municipalities in Pennsylvania. The county and school district definitions are based on population density. If an area is below the statewide average population density, it is classified as “rural,” otherwise it is classified as “urban.” A municipality is classified as “rural” if its population density is below the statewide average, or if the municipality has fewer than 2,500 residents and is located in a rural county. All classifications are based on data from the decennial Census.

Keywords: rural definition; rural policy; population

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Introduction

One of the biggest challenges in studying rural Pennsylvania – or any rural community for that matter – is understanding, and defining, what is rural. While a rural area may be easy to imagine, quantifying where rural stops and urban begins is a consistent challenge in public policy data analysis. At the federal level, many different agencies that provide data on rural communities (Housing and Urban Development, Census Bureau, the Department of Agriculture, the Office of Management and Budget, etc.) all have separate ways of identifying rural and urban areas. While these areas often overlap, there are differences, which can lead to varied results and conclusions when evaluating data.

For the past several decades, the Center for Rural Pennsylvania has maintained its own, Commonwealth-specific definition of rural, which has provided several advantages relative to federal offerings:

- **A focus on local government:** Relative to other states, Pennsylvania has many local governments, including counties, municipalities, and school districts, that are responsible for implementing a wide range of state and federal programs. This makes rural areas look and behave slightly different than rural areas in other states, which often have a larger number of counties with fewer municipal governments. Federal definitions need to be generalizable, and thus often ignore municipal boundaries in favor of federal boundaries, like Census Blocks. A definition that identifies specific units of local government as either rural or urban allows Commonwealth policymakers to better tailor programs and policies to the government entity responsible for their implementation.
- **Flexibility:** Federal definitions are often rooted in complex quantitative methods that can be slow to be updated. This makes them unintuitive, and unresponsive to demographic change. A Pennsylvania-specific definition enables policymakers to identify population shifts, demonstrate changing community needs, and communicate the nuances of how regions are connected in a timelier fashion.
- **Stability:** Unlike the Census Bureau and the Office of Management and Budget, a Pennsylvania-specific definition does not rely on the federal government for methodological updates. For example, over the past 20 years, the U.S. Census Bureau has made two significant changes to its definition of rural and urban. A consistent definition of rural and urban allows state policymakers to have a consistent yardstick to measure change in both rural and urban areas.

The purpose of this article is to explore the history of the limitations of applying the federal definitions in Pennsylvania, describe how the Center for Rural Pennsylvania developed its definition, and to explain the Center's definitions of rural and urban.

Why No Suburbs?

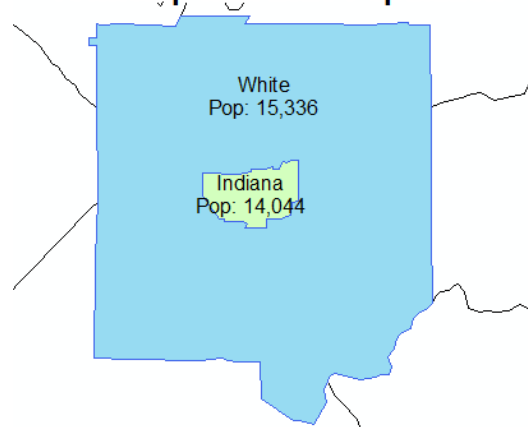
The Center (and many federal definitions) do not distinguish “suburban” areas as separate from urban or rural. There are two primary reasons for this. First, adding a third category adds significantly more complexity to data analysis. While adding a third group may seem like a small change, it is already difficult to determine where rural areas end, and urban areas begin. Adding a third category to that unclear, semi-developed area would double the number of borders that would need to be defined, making all the data more confusing. Second, and more importantly, suburban areas are, as the name suggests, linked to the urban areas they adjoin. They may not have as much traffic or housing density, but suburban infrastructure and life is often tied to urban centers. Because of this close connection, many areas that are thought of as suburban are identified as urban for statistical purposes.

History of the Center’s Rural Definition

The Center for Rural Pennsylvania’s rural and urban definition has historically been informed by the Census Bureau’s urban definition. As the Census Bureau’s definition has changed over time, the Center has developed its own methodology to use Census data, but not rely on Census methodologies.

Prior to 2000, the Census Bureau identified urban areas by population, identifying any incorporated place as urban if it had greater than 2,500 population. Incorporated places (or simply places) are a Census designation of discrete, recognized clusters of population. They include cities and boroughs, like Pittsburgh and State College, which fall neatly into Pennsylvania municipal boundaries. However, places also include villages, like Hershey, which are part of larger townships and don’t have a municipal government separate from the areas outside their state-recognized borders. Townships weren’t places, and thus could not be considered urban. This led to several strange occurrences at the local level. Consider Indiana, Pennsylvania, the county seat of Indiana County. Indiana is a borough that sits neatly within White Township. They have comparable population and level of development, but because Indiana is a “place” and White Township was not, Indiana Borough was considered urban while the surrounding township was rural. The Center’s initial definition accepted this unusual premise, and identified a municipality, school district, or county as rural or urban by the proportion of its population that met the Census definition of urban. If more than half of the population of the geography was rural, the geography was classified as rural. Otherwise, the jurisdiction was urban.

Map 1: Indiana Borough and White Township with 2020 Population



Census definition change

In 2000, the Census Bureau fundamentally changed its definition of rural and urban. Instead of focusing on place, the bureau used Census Blocks as the unit of analysis. Census Blocks are the smallest geographic areas designated by the Census Bureau. In a city, a Census Block is often built from city blocks and bordered by streets. In rural areas, Census Blocks tend to be larger, and their borders can be streams, rivers, or transmission lines in addition to roadways. The Census Bureau also changed the definition to be based on population density, the number of people per square land mile, rather than total population. In Pennsylvania, the new definition reclassified several very rural areas as urban for Census purposes.

Recognizing the new Census definition limitations, the Center began searching for a more workable definition of rural and urban for Pennsylvania. In 2002, Center staff conducted five public workshops around the state to gather input for a new definition. At these workshops, most participants agreed a definition should be based on population density. The Center consulted with faculty at The Pennsylvania State University's Department of Agricultural Economics, Sociology, and Education to help determine the cut-off points for low- and high-density areas.

The final determination was that statewide population density would be used for the county and school district definitions: counties and school districts with population densities below the statewide rate would be defined as rural and those with population densities at or above the statewide rate would be urban.

Municipal definition challenges

The municipal definition presented a different set of challenges. Many municipalities have very small populations (fewer than 1,000 residents) and are very small geographically. This could lead to very small, remote boroughs being identified as urban by population density, even with low population counts. Therefore, the municipal definition included an additional provision: a municipality would be defined as rural if its population density was below the statewide rate, or if it had fewer than 2,500 residents and was less than 50 percent urbanized as defined by the Census Bureau. This definition wasn't adjusted after the 2010 Decennial Census, but the average population density was updated with the new decennial data from 274 to 284 people per square mile.

In 2020, the Census Bureau again changed the way it defined rural and urban by changing from population density to housing density and simplifying its urbanized definition. These changes, plus the delay in releasing the results of the decennial data, compelled the Center to reexamine its municipal definition. The Center's Board of Directors decided not to change the county and school district definitions, other than to use the new density threshold of 291 people per square mile.

For the municipal definition, the Center formed an advisory group, made up of geographers, practitioners, data experts, and a rural economist. The task force developed a process to define rural/urban municipalities, as follows:

- Municipalities with a population density below the statewide rate are rural.
- Municipalities with a population density above the statewide rate but have fewer than 2,500 residents and are in a rural county, are rural.
- All municipalities not defined as rural are urban.

This definition was adopted by the Center Board in May 2022 and will be updated again following the release of the 2030 Census.¹

Definition of Pennsylvania Rural and Urban Counties²

In 2020, the decennial Census showed that Pennsylvania had a population of 13.0 million residents and a land area of 44,743 square miles. Therefore, Pennsylvania has a population density of 291 people per square mile.

According to the Center's rural/urban county definition, Pennsylvania has 48 counties with a population density below 291 (rural) and 19 at or above this rate (urban).

Since 1990, none of Pennsylvania's 67 counties have switched from rural-to-urban or vice versa. The last county to change was Lawrence in 1990, when it changed from urban to rural due to population decline. From 1980 to 1990, Lawrence County's population decreased by more than 10,900 residents or 10 percent.

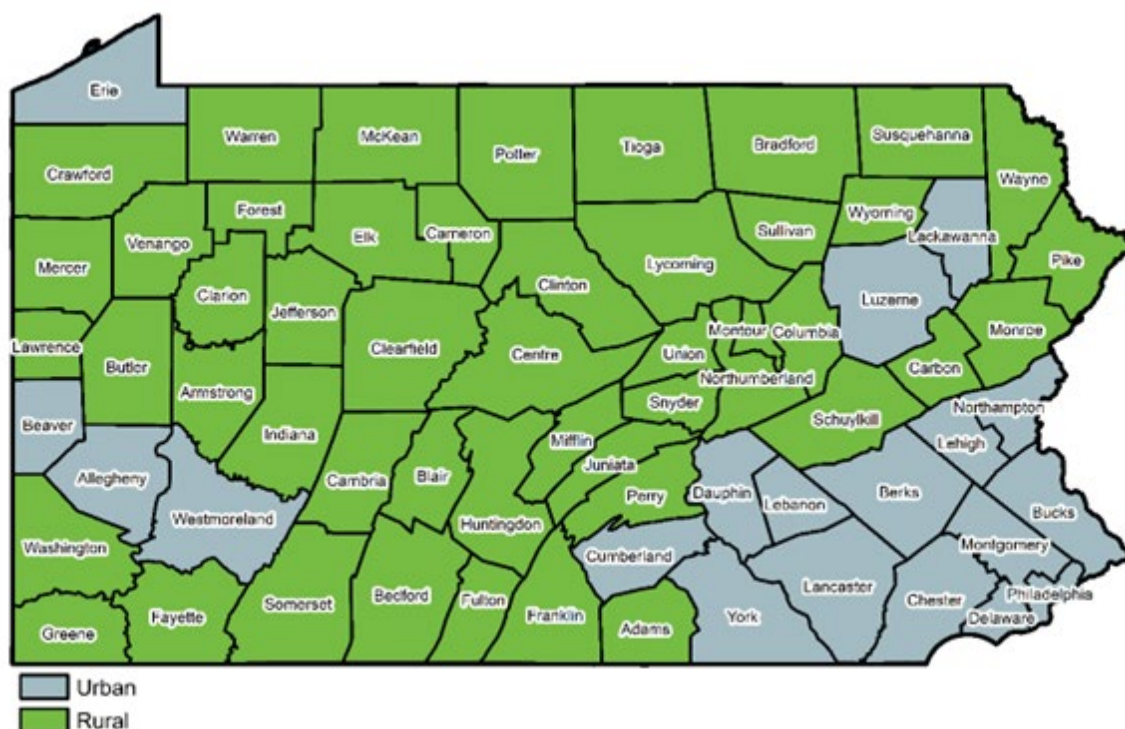
Data from the 2020 Census indicated that Pennsylvania's 48 rural counties had a total population of 3.38 million and a land area of 33,394 square miles. The population density is 101 people per square mile. Approximately 26 percent of Pennsylvania's total population live in its 48 rural counties. These counties comprise 74 percent of the Commonwealth's total land area.

Among the 19 urban counties, the total population in 2020 was 9.62 million people and the land area was 11,348 square miles. The population density was 848 people per square mile. Approximately 74 percent of Pennsylvania's total population live in its 19 urban counties. These counties comprise 25 percent of the Commonwealth's total land area.

¹ PL 94-171 Redistricting Data <https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files.html>

² A rural school district can be located in an urban county and vice versa.

Map 2: Pennsylvania Rural and Urban Counties



Data source: U.S. Census Bureau.

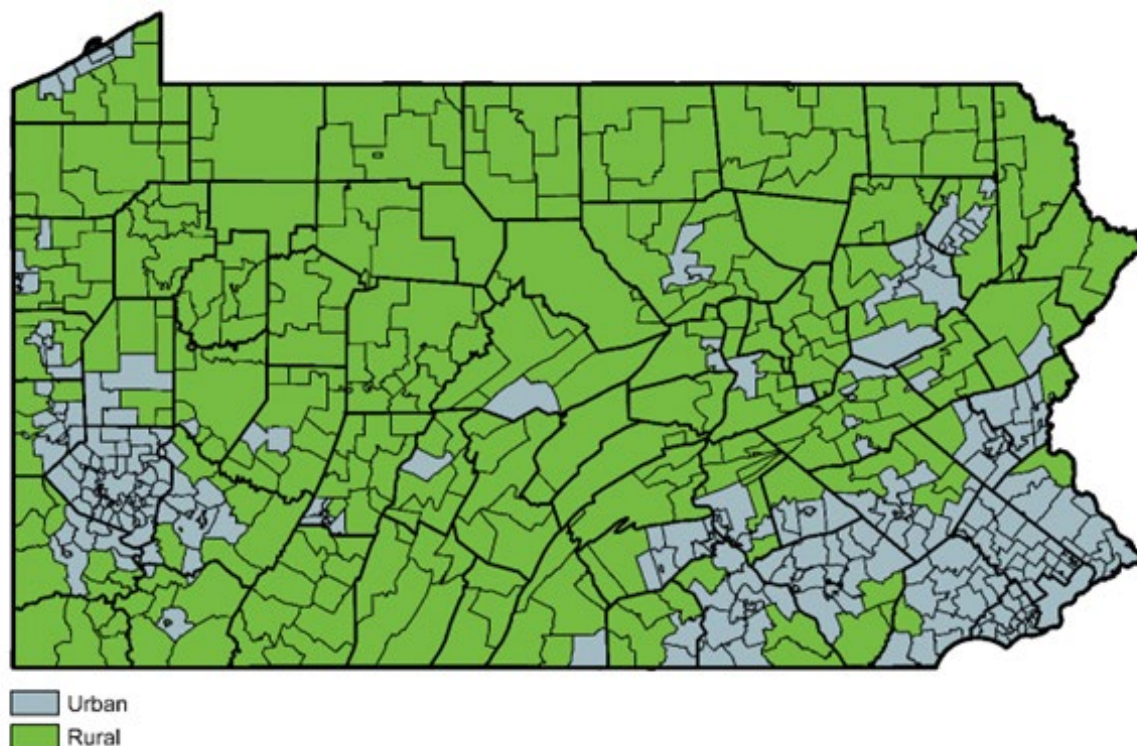
Definition of Pennsylvania Rural and Urban School Districts

In 2020, Pennsylvania had a population density of 291 people per square land mile. Among the Commonwealth's 500 school districts, 238 have a population density below the statewide rate and 262 have a density at or above the statewide rate.

From 2010 to 2020, four districts switched from urban to rural and one district switched from rural to urban.

Data from the 2020 Census indicated that Pennsylvania's 238 rural districts had a total population of 3.13 million and a land area of 35,781 square miles. The population density is 87 people per square mile. Approximately 24 percent of Pennsylvania's total population live in its 238 rural school districts. These districts comprise 80 percent of the Commonwealth's total land area. During the 2020-2021 school year, approximately 374,700 public school students attended a rural school, or 25 percent of all public school students.

The 262 urban school districts contained a total population of 9.87 million people in 2020 and cover 35,781 square miles. The population density was 1,102 people per square mile. Approximately 76 percent of Pennsylvania's total population live in its 262 urban school districts. These districts comprise 20 percent of the Commonwealth's total land area. During the 2020-2021 school year, approximately 1.41 million public school students attended an urban school, or 75 percent of all public school students.

Map 3: Pennsylvania Rural and Urban Counties

Data source: U.S. Census Bureau.

Definition of Pennsylvania Rural and Urban Municipalities³

For a municipality to be considered rural it must meet one of two criteria: Have a population density below the statewide rate or have fewer than 2,500 residents and be in a rural county. All municipalities not defined as rural are considered urban.

Applying this definition, in 2020, Pennsylvania has 1,649 rural municipalities and 911 urban municipalities.

Based on the definition, from 2010 to 2020, 14 municipalities switched from urban to rural, and 12 municipalities switched from rural to urban.

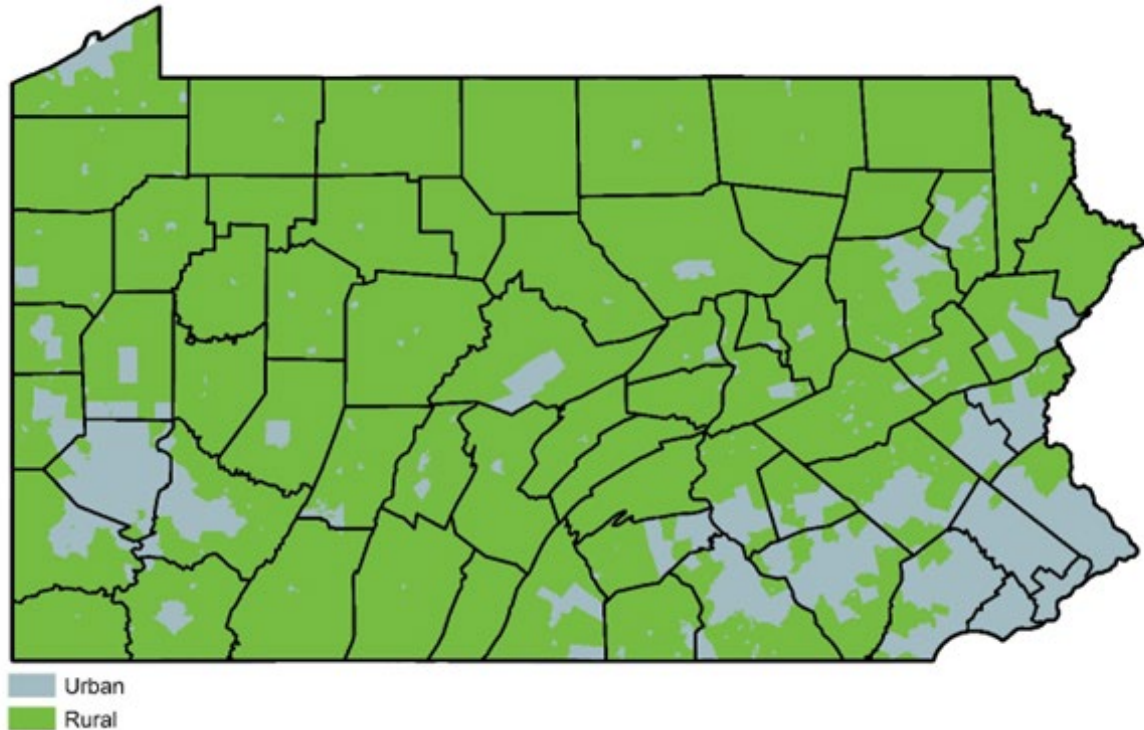
Data from the 2020 Census show that Pennsylvania's 1,649 rural municipalities had a total population of 2.91 million people and a land area of 37,913 square miles. The population density is 77 people per square mile. Approximately 22 percent of

³ In Pennsylvania, there are no unincorporated areas. All land areas are incorporated as a township, borough, town, or city. In 2020, there were 2,560 municipalities. According to U.S. Census Bureau, 12 of these municipalities straddle the border of two counties. In determining the rural/urban status of these municipalities, the Center calculated the combined population and land area of the entire municipalities. The Center used the Governor's Center for Local Government Services' data to determine the county in which these combined municipalities were located. A rural municipality may be located in an urban county and vice versa.

Pennsylvania's total population live in a rural municipality. These municipalities comprise 85 percent of the Commonwealth's total land area.

Among the 911 urban municipalities, the total population in 2020 was 10.09 million people and the land area was 6,830 square miles. The population density is 1,478 people per square mile. Approximately 78 percent of Pennsylvania's total population live in an urban municipality. These municipalities comprise 15 percent of the Commonwealth's total land area.

Map 4: Pennsylvania Rural and Urban Municipalities



Data source: U.S. Census Bureau.

Conclusion

Statistical definitions are inherently subjective, and no one way of classifying a concept as nuanced as rurality can fully capture the experiences and expectations of everyone. While federal definitions are valuable for general programs that move slowly and must provide insight across an entire nation, they lack clarity at local geographies in the context of state policy. Developing and maintaining a set of Pennsylvania-centered rural definitions has enabled the Center for Rural Pennsylvania to provide state policymakers with timely and specific insights into matters affecting Pennsylvanians. In doing so, they enable policy that targets resources to meet the needs of rural and urban communities alike.

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