

RESEARCH REPORT

# Rental Housing for a 21st Century Rural America 

## A Platform for Production

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## Executive Summary

## Introduction

Many rural communities in the United States face shortages of affordable rental housing, a problem exacerbated by low incomes, diversifying and changing populations, and decreases in federal funding for the production of new units. To understand relative preservation and production needs for affordable rental housing in rural America and to inform future investments, the US Department of Agriculture (USDA) Rural Development mission area commissioned the Housing Assistance Council to conduct a comprehensive assessment of its multifamily housing investments and the markets in which they exist. The Housing Assistance Council contracted the Urban Institute to conduct a systematic assessment of the affordable rental housing production needs of USDA-eligible rural areas.

## Methods

This study focused on the role of housing supply, demand, and affordability to assess future production needs for affordable rental housing in rural areas. Using a comprehensive definition of rural areas-that is, those eligible for USDA housing programs-we analyzed publicly available data at the census-tract level aggregated to every county in the United States. We used seven key indicators to form an index of county-level severity of need for affordable rental housing production:

- Housing supply: (1) A rental housing vacancy rate of less than 5 percent and (2) a share of federally subsidized rental units less than 5 percent
- Housing demand: (3) A rate of population growth greater than 10 percent between 2000 and 2014, (4) greater than 20 percent persistent poverty rate, (5) an unemployment rate persistently higher than the national average, and (6) a share of overcrowded housing greater than 3 percent
- Affordability: (7) A share of severely cost-burdened households greater than 25 percent

Taken together, these indicators highlight those eligible rural areas facing relatively short supply, growing or strong demand, and affordability challenges compared with other areas. Eligible counties scored 1 point for each indicator threshold for severity that they met for a total possible score of 7
points. Based on its index score, each county was sorted into one of three categories: most-severe need (score of 4 through 7), moderately severe need (score of 2 or 3), or less-severe need (score of 0 or 1). A county scoring low on the index may still have high need within some or all of its rural areas.

## Key Findings

Figure ES. 1 provides a national map showing all USDA-eligible counties or portions of counties ranked by their relative need for new construction of affordable rental housing.

## Figure ES. 1

Less-Severe, Moderately Severe, and Most-Severe Need Index Scores


Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

- Rural counties with most-severe rental housing needs: Over 150 counties ranked as having the most-severe need, representing 5 percent of eligible counties and approximately 7 percent of all eligible rural population. There were several geographic concentrations, including in the

Border Region (from Texas to California), the Central Valley of California, parts of the Southern Mississippi Delta region (particularly in Mississippi and Louisiana), and persistent poverty areas of the Southeast including Alabama, Florida, and Georgia. Additional pockets were scattered across the country.

Generally, counties with the most-severe need had larger populations; were faster growing and poorer; and had higher unemployment rates, lower rental vacancy rates, more overcrowding, higher rates of severely cost-burdened renters, and lower shares of federally subsidized rental units than the national average. Furthermore, the populations of the most-severe need counties were on average younger and significantly more ethnically and racially diverse, and the counties tended to have higher reliance on government employment and less on farming, manufacturing, and mining.

- Rural counties with moderate rental housing needs: Thirty-eight percent of eligible counties ranked as having moderately severe rental housing needs, representing around 42 percent of the eligible rural population. These counties were concentrated in the West (particularly California, Oregon, Washington, Nevada, Utah, Wyoming, Idaho, and Montana), the Border Region, the Midwest (particularly Wisconsin, Michigan, and Minnesota), the persistent poverty areas of the Southeast, the Southern Mississippi Delta, Central Appalachia, and along the East Coast from Florida to Connecticut. Moderately severe need counties, on average, had higher poverty rates, higher unemployment rates, lower rental vacancy rates, more overcrowding, and higher rates of renters who were severely housing cost-burdened.
- Rural counties with less-severe rental housing needs: According to the aggregate index, more than half of counties (58 percent) representing over half of the eligible rural population (51 percent) showed less-severe needs for affordable rental housing production. These areas were concentrated in the Great Plains (from Oklahoma to North Dakota), Midwest, and Northeast. Compared with severe and moderately severe counties, these areas tended to have smaller, older populations with larger non-Hispanic white populations. They also had lower poverty and unemployment rates, with higher rates of dependence on farming and manufacturing.


## Implications for Policy and Practice

Study findings can be used by policymakers and developers to more comprehensively understand key factors that drive affordable rental housing needs in rural communities. This research suggests core strategies for improving affordable rental housing production across rural communities:

1. Increase public-sector resources for the production of new affordable rental housing in rural America.
2. Set priorities and preferences, and provide incentives, for development projects in rural communities with the most-severe needs.
3. Minimize risk and attract private-sector investment by using innovative strategies.
4. Improve the capacity of federal agencies to mobilize and coordinate funding to rural communities.
5. Improve developer capacity in underserved rural places and provide incentives.
6. Promote more flexible building types for rental housing in rural communities.
7. Establish, maintain, and provide access to a national and/or statewide database of existing market analyses in diverse types of rural markets.
8. Encourage proactive local planning for rental housing development, prioritizing areas where local infrastructure and services already exist.

## 1. Study Overview

## Introduction

In past decades, there have been extensive efforts to produce affordable rental housing in rural communities. Many of these programs, however, are not now actively producing housing to meet the current needs of rural communities even though the existing affordable rental housing stock has aged significantly. Nonmetropolitan areas represent almost 72 percent of the land area of the United States and about 14 percent of the population (USDA RD 2016); however, the population eligible for rural housing programs administered by US Department of Agriculture (USDA) Rural Development is broader and encompasses 34 percent of the population (HAC 2011). Rural communities provide significant resources for the nation, including agricultural, manufactured, and energy products, while facing a diverse range of social and economic pressures. These pressures can mount slowly over time as demographic and economic situations change, such as young adults moving out and older adults aging, new sources of energy being discovered, or the primary employer closing. Such shifts, whether slow or sudden, have significant implications for rural housing demand and supply.

As the housing needs of rural America change, it is essential to assess the potential need for the construction of additional quality, affordable rental units. To systematically identify the affordable rental housing production needs of USDA-eligible rural areas, the Urban Institute conducted a detailed analysis of supply and demand indicators to determine relative severity of production need across the country. Specifically, the purpose of this analysis was to do the following:

- Assess publicly available demographic, economic, and housing data for rural communities to establish existing conditions and trends affecting affordable rental housing demand and supply.
- Select indicators and develop a composite index to identify USDA-eligible counties and portions of counties with varying severities of production need.
- Combine data analysis results with stakeholder feedback to identify potential policy solutions for addressing the needs of different communities based on their level of production, preservation needs, and demographic, economic, and housing trajectories.

Findings will inform future affordable rental housing investments in rural America by USDA and other federal, state, and local partners by highlighting strategies and policy recommendations targeting production.

## Organization of Report

The next section of this report discusses demographic and economic shifts in rural America, the current state of rental housing in rural communities, and the role of federal financing in affordable rental housing production. Section 3 examines the definition of the term rural in the context of this study and describes the following seven key indicators that were used to assess production need: vacant units, subsidized units, population change, persistent poverty, persistent unemployment, overcrowding, and cost burden. In section 4, we present an analysis of rental housing production need for rural areas by using a composite score to categorize counties based on less-severe, moderately severe, and mostsevere need. The composite score reflects the sum of the scores earned across all seven indicators. Lastly, section 5 offers concrete recommendations for addressing unique challenges to financing and building rental housing in rural communities to ultimately increase production in a strategic and costeffective manner.

## 2. The Context of Affordable Rental Housing in Rural America

Rural areas face significant housing challenges, particularly for renters, including overcrowding, poorquality homes, a shortage of rental units, and a lack of affordable options. Other demographic and socioeconomic factors make it difficult for rural families to afford to rent homes, from an aging population requiring accessible units to changes in industry and employment affecting wages and poverty. The following section summarizes some of these shifting circumstances, the unique situation of rental housing stock and rural renters, and the federal assistance programs that aim to address rural housing issues.

## Population Trends

Rural America-defined in many analyses as nonmetropolitan counties-is experiencing a demographic shift toward an aging population that is exacerbated by the outmigration of young residents and working-age adults and a decline in overall population growth. These trends are geographically uneven, with some rural communities experiencing population growth while others have experienced recent or persistent decline. Population growth rates in nonmetropolitan counties have historically been slower than in urban counties because of slow natural increase and net outmigration (Cromartie 2016). Recently, growth slowed even further, and in 2010, the population in nonmetropolitan counties decreased in absolute numbers for the first time in recorded history (Cromartie 2016; USDA ERS 2016). Historically, nonmetropolitan population growth reflects high population growth in suburbs, rural areas neighboring metropolitan ones, and retirement or recreational areas (Cromartie 2016). Manufacturing jobs also spur growth, while agriculture-dependent areas are experiencing decline (Cromartie 2016; Kusmin 2016). Though the absolute decline in nonmetropolitan population stalled in 2015, the underlying factors of population decline remain central issues for many rural areas.

Two primary demographic patterns drive the aging of rural America: the outmigration of young adults to work centers and the natural aging of existing rural residents (USDA ERS 2016). The combined result is that seniors disproportionately live in rural areas. Though nonmetropolitan areas made up approximately 15 percent of the total population in 2010 , they are home to over 25 percent of the nation's seniors (Pendall et al. 2016). With an aging population come the risks and problems of housing
the elderly in rural communities that are less accessible and are more socially isolated, with fewer services within walking distance, less public transportation, and less access to health care services (JCHS 2014). ${ }^{1}$ Also, most seniors live on fixed incomes, with implications for housing and aging in place. Although 83 percent of rural seniors are homeowners, according to the Housing Assistance Council's (2014a) definition of rural and small town as having less than 64 housing units per acre and a low degree of commuting to a metropolitan area, many aging households find their housing is unable to meet their needs as they age or that it becomes unaffordable to maintain.

## Economic Shifts

As the demographic landscape of rural communities changes, industries that were once major employers are in decline. Though the development of new industries, such as energy technologies, has given a boost to some rural economies, many feel the loss of manufacturing jobs (Pendall et al. 2016). In nonmetropolitan counties, agriculture, manufacturing, and mining make up a higher share of jobs and earnings than in urban areas (USDA ERS 2016). Additionally, in other employment sectors like insurance, real estate, and business management, higher-ranking and higher-paying positions are more likely to be in urban areas, with urban job earnings higher than rural earnings for the same position. In fact, for every employment sector except agriculture and related occupations, earnings in urban areas outstrip those in nonmetropolitan ones (USDA ERS 2016).

Overall, nonmetropolitan areas tend to have lower earnings and higher rates of poverty than urban ones, with earnings highest in mining-, manufacturing-, and agriculture-dependent counties. Between 2007 and 2015, rural median annual earnings were consistently below $\$ 28,000$ while urban earnings hovered around $\$ 32,000$ (USDA ERS 2016). However, rural earnings were more stable over the period of the recession. By 2015, rural earnings had risen by more than 2 percent and surpassed the prerecession level; in contrast, urban earnings remained 7 percent below their prerecession level in 2015 (USDA ERS 2016). Growth in rural earnings has been driven by mining- and farming-dependent counties and their higher earnings, but other types of economies with lower earnings, such as recreation and professional fields, may not be performing as well. Mining- and agriculture-dependent counties' earnings are more than 4 percent above prerecession levels, but counties with any other dominant employment category remain below the 2007 earnings level (USDA ERS 2016). Manufacturing-dependent counties suffered the greatest losses in jobs during the recession. One notable outlier is rural counties with a high prevalence of recreation. These counties have the highest household incomes compared with counties with dominant industries other than recreation, despite
typically low earnings in recreation-dependent economies (USDA ERS 2016). Poverty rates grew between 2007 and 2014 for counties of all employment categories except for mining. Overall, nonmetropolitan counties where government is the largest employment category, as opposed to the private sector, have the highest poverty rates and lowest median household incomes (USDA ERS 2016).

In addition to lower earnings, there is a higher prevalence of persistent poverty in rural areas. Persistent poverty is defined as 20 percent of the population being at or below the federal poverty threshold for three consecutive decades. In 2010, according to the Housing Assistance Council's (2012a) rural and small town definition, of the 429 persistently poor counties, 85 percent were rural. These counties are concentrated in Central Appalachia, the Southern Mississippi Delta, the Persistent Poverty Southeast, the Border Region, and Tribal Areas (HAC 2012a).

During the recent recession, nonmetropolitan counties, especially swaths of the Midwest where agriculture is a dominant industry, were relatively less susceptible to economic setbacks (Hertz et al. 2014). Though manufacturing-dependent economies had severe setbacks, rural areas that had gains in oil and gas mining and the expansion of fracking seemed to avoid the recession (McGranahan 2015). Median incomes remained stable, employment suffered less, and rural counties with large Hispanic populations even added jobs (Hertz et al. 2014). Although rural labor force participation rates have historically been lower than in urban areas, the postrecession nonmetropolitan rate increased in 2015 while the urban rate remained flat (USDA ERS 2016).

## Rental Housing and Renters in Rural America

The strong national value of homeownership is most evident in rural areas, where owner-occupied, single-family homes are the dominant tenure. Although rural homeownership rates declined between 2000 and 2010 along with the national average, in 2013, the rural and small town homeownership rate of 72.1 percent still stood above the national average of 64.9 percent (HAC 2012a). ${ }^{2}$ Mortgage-free homeownership in which a family owns its home outright is also more prevalent in rural areas (HAC 2012a). Nevertheless, 7.1 million rural housing units are renter-occupied, making up 28 percent of the total occupied rural housing stock (HAC 2012a). The 10 states with the highest rural and small town rental housing rates, ranging from 30 to 38 percent, are Hawaii, California, Rhode Island, Alaska, Massachusetts, Oregon, Connecticut, Georgia, Washington, and Kansas (HAC 2013a).

Rental housing in rural communities poses significant challenges in terms of type of housing, age, quality, affordability, and overcrowding. Forty-three percent of rental housing units are single-family
units (HAC 2012a). A higher proportion of the rural housing stock is manufactured housing, a category comprising older mobile homes and trailers and newer US Department of Housing and Urban Development (HUD)-compliant homes that meet higher-quality standards since the 1970s (HAC 2012a; Pendall et al. 2016). Rural housing, especially rental housing, is somewhat old and more likely to have housing issues than housing in urban areas. Thirty-five percent of rural and small town renteroccupied units were built before 1960 and are more than 50 years old (HAC 2012a). In 2010, over 7.3 million rural households had a worst-case housing need-that is, the unit lacked complete plumbing or kitchen facilities or the tenants were cost burdened, (paying more than 30 percent of their income on rent) (HAC 2012a). Over half of rural and small town renter households have multiple housing problems. These households are twice as likely (11 percent) to live in substandard housing than homeowners (5 percent) (HAC 2012a). Though overcrowding, defined as having more than one occupant per room, is less prevalent in rural areas (2.4 percent) than urban ones ( 5.9 percent), American Indian and Hispanic households living in rural and Tribal Areas are more likely to be crowded, with rates approximately three to four times higher than the rural average (HAC 2012a; Pindus et al. 2017).

Low incomes pose another obstacle for rural renters, whose median household income is less than half of what rural homeowners earn: roughly $\$ 21,000$ compared with $\$ 43,000$. Additionally, poverty rates for rural and small town renters are twice that of rural homeowners -20 percent of renters have incomes below the poverty level compared with 10 percent of homeowners (HAC 2012a). Housing cost burden, or paying more than 30 percent of income on rent, is high among rural renter households (HAC 2012a). One of every 4 rural renters is severely cost burdened, or paying more than 50 percent of their income on housing compared with just under 1 of every 10 rural homeowners (HAC 2012a).

Rural areas also struggle with small, and sometimes shrinking, rental housing supply. Some rural areas experienced a significant decrease in rental housing stock between 2001 and 2011, often because of changes in demographics or a loss of housing units. One example of rapid demographic change is in communities where mining activity or natural gas extraction has grown. These communities have difficulty accommodating the influx of population and demand for housing and report a rise in homelessness as a direct result of the fracking boom (HAC 2012a). In other rural communities, 8 percent of the rural low-rent housing stock was lost between 2000 and 2010. In the South and West, which experienced loss rates of 20 percent, the especially high losses were driven by higher rates of mobile home units, which make up more than 10 percent of the rural rental housing stock (JCHS 2013).

## Federal Programs to Build and Support Rental Housing in Rural Communities

Programs that are authorized to produce new units reflect the range of initiatives aimed at addressing housing challenges in rural areas (table 2.1). Federal financing for affordable rental housing production included a mix of direct low-cost loans, below-market interest rate subsidies, loan guarantees, capital equity finance, and operating subsidies (Schwartz 2015). The oldest rural-specific program is the USDA Section 515 Rural Rental Housing Direct Loan program, which provided direct loans from USDA to private and nonprofit entities to build affordable multifamily rental housing. A newer loan guarantee program, the Section 538 Rural Rental Housing Guaranteed Loan program, is also targeted by USDA to promote private-lender investment in eligible rural areas through government-insured loans. Finally, USDA offers Section 521 Rental Assistance to certain properties and units financed by Section 515 and Section 514/516 Farm Labor Housing programs to supplement rents for eligible low-income tenants and help cover the operating costs of buildings.

USDA targets its programs directly to eligible rural areas; however, there are other important contemporary sources of debt, equity, and operating support provided by the federal government for the production of new rental housing regardless of rural location. The most popular source of affordable rental housing finance is the low-income housing tax credit (LIHTC) program, which provides a tax credit to investors in properties that meet program criteria for at least the first 15 years of operation. A second potential source of operating support to promote the production of new units is project-based vouchers (PBVs) administered by local Public Housing Authorities (PHAs) and other local housing choice voucher (HCV) program administrators. Similar to USDA's Section 521 Rental Assistance, HCV supplements rents for eligible low-income households to assist with operating expenses of the property. Although not unique to rural areas, the HUD Section 202 Supportive Housing for the Elderly Program provides both a forgivable capital grant along with project-based rental assistance specifically to house individuals and households headed by someone age 62 or older.

TABLE 2.1

## Select Federal Programs

Includes programs authorized to produce new units in rural areas

| Agency | Program | Type | Target population | Funding for unit production |
| :---: | :---: | :---: | :---: | :---: |
| USDA | Section 515 | Direct loan | VLI, LI, and MI households in rural areas | Few new units have been funded since 2008 |
| USDA | $\begin{aligned} & \text { Section } \\ & 514 / 516 \end{aligned}$ | Direct loan and grants | Farm laborers | $\begin{aligned} & \$ 31 \text { million for FY } \\ & 2016 \end{aligned}$ |
| USDA | Section 538 | Guaranteed Ioan | LI and MI households in rural areas | \$216 million for FY <br> 2016; requires private <br> lenders ${ }^{1}$ |
| IRS/HUD | LIHTC | Tax credit | VLI and LI households | $\$ 8$ billion for FY 2016; requires private investors ${ }^{2}$ |
| USDA | Section 521 | Operating subsidy | Used in conjunction with Section 515 | $\mathrm{n} / \mathrm{a}$ |
| HUD | Project-based vouchers | Operating subsidy | VLI households on Public Housing Authority waitlist | $\mathrm{n} / \mathrm{a}$ |
| HUD | Section 202 | Capital advance and operating subsidy | LI elderly and individuals with a disability | No new units have been funded since 2010 |
| HUD | Section 811 | Operating subsidy | Nonelderly with disabilities | $\mathrm{n} / \mathrm{a}$ |

[^0]State and localities also receive funding through block grants, such as the HOME Investment Partnership program (HOME) or National Housing Trust Fund (HTF). HOME can be used to fund tax credits for building, buying, or rehabilitating properties or to provide tenant-based rent subsidies that are limited to two years of assistance (Schwartz 2015). It can also be used for homeownership. ${ }^{3}$ HOME is the largest federal program to assist low-income households; at least 90 percent of assisted rental households must have incomes under 60 percent of the area median income (AMI). ${ }^{4}$ In FY 2016, Congress appropriated $\$ 950$ million to HOME, a significant drop from FY 2010, when it received $\$ 1.8$ billion. ${ }^{5}$ Implemented in 2016, HTF is the first new federal housing resource in decades and is intended to produce, preserve, rehabilitate, and subsidize housing for low-income households. A majority (90 percent) of funds must be used for the production of rental housing or rental subsidies, and 10 percent can be used for homeownership assistance. HTF is the most targeted federal program. Funds from HTF for rental housing must have 75 percent set aside for extremely low income renters earning less than 30
percent of their AMI. ${ }^{6}$ In FY 2016, $\$ 174$ million was allocated to states. It is less clear how block grant funds are distributed to rural communities for rental housing, but important to know they are a resource to be tapped.

The following sections describe the loans, guarantees, and operating supports authorized for affordable rental housing production to shed light on funding streams for supporting future rural production.

## Direct Loans

SECTION 515
Since 1963, Section 515 has been a mainstay of USDA's efforts to alleviate poverty in rural areas by providing mortgage loans to develop rental housing for very low, low-, and moderate-income households. Operating under statutory authority of Title V, Section 515 of the Housing Act of 1949; 42 USC 1490(c), Section 515 provides direct subsidized interest loans at a 1 percent interest rate to primarily limited-profit and nonprofit developers to construct or renovate affordable rental properties in eligible rural areas.

Section 515 has eligibility requirements for tenants and properties. For tenants, eligibility requirements are income based: all households must be very low, low, or moderate income. ${ }^{7}$ For properties, new developments must have 95 percent of units occupied by very low income renters, and in older properties, 75 percent of new tenants must be very low income (Cowan 2016). Although today Section 515 properties can be found in nonrural (including metropolitan and micropolitan) and rural (outside core-based statistical areas) counties, almost half ( 46 percent) are in the latter, which suggests there is a higher proportion in rural places. The properties are concentrated in the northeast, Midwest, and southern United States (HAC 2012b; Scally and Lipsetz 2017).

Section 515 has funded the development of 533,473 units through the investment of over $\$ 15.7$ billion through 2015 (HAC 2015a). In recent years, however, production has stalled-with only 486 units produced in 2006 compared with 11,542 units a decade earlier-and some properties are beginning to exit the program (HAC 2012b). There have been no new construction loans or new units since 2011 (HAC 2015a). Once USDA loans on properties mature, the properties' owners are no longer obligated to maintain restrictions on their rents or income limits on their tenants. Analysis of recently released USDA data shows that an annual average of 1,788 units, or 556 properties, will exit the program in 2016 and 2017, and this average will increase in the following decades (up to 16,364 units
annually beginning in 2028 and 22,600 units annually beginning in 2032) as more properties' loans mature (HAC 2016).

As owners of older properties are paying off their loans and exiting the Section 515 program, funding for new construction has not increased. At its peak in 1984, annual appropriations reached upward of $\$ 919$ million (HAC 2015a). In FY 2012, Section 515 had $\$ 64.5$ million in allocation funding, which was cut by Congress to $\$ 31.3$ million in FY 2013 (Strauss 2014).

## SECTIONS 514 AND 516

Farm workers who travel seasonally to find employment face some of the worst housing issues in rural areas. Since its enactment through Title V, Section 514 of the Housing Act of 1949, Section 514 and Section 516 have been the only national housing program that serves farm laborers. ${ }^{8}$ Section 514 loans are provided to nonprofits and government bodies, including farm owners, Indian tribes, farmer associations, public bodies, and other nonprofit organizations, to buy, build, improve, or repair housing for farm labor. Section 514 loans have a 1 percent interest rate and a maximum repayment of 33 years. Tenants must earn a majority of their income from farm labor. ${ }^{9}$ Section 516 grants are only available for governments and nonprofits and are used in conjunction with the 514 loans. Funding has fallen $\$ 10$ million in the past decade to $\$ 23.8$ million allocated in FY 2016 for Section 514 direct loans and to $\$ 8.3$ million in Section 516 grants (Cowan 2016).

## Guaranteed Loans

The USDA Section 538 Rural Rental Housing Guaranteed Loan program, enacted in Title V, Section 538 of the Housing Act of 1949; 42 USC 1485 (Cowan 2016), guarantees loans made by commercial lending entities to developers of multifamily rental housing for tenants in eligible rural areas (see definition above under Section 515) with low and moderate incomes. As much as 90 percent of the loan is guaranteed if the loan is made by a qualified lender to provide housing to rural households. These guarantees cover loans for permanent financing or construction or permanent loans, as long as the development is in an eligible rural area and contains at least five units (HAC 2012b). Compared with Section 515 , which has not produced significant new unit construction since the 1990s, Section 538 has financed almost 21,000 newly constructed units over the past 20 years (Scally and Lipsetz 2017).

To be eligible for the loan guarantees, commercial lending entities must first confirm that their borrowers will be capable developers of the project and have the capacity to appropriately manage and maintain the property throughout the life of the loan. The tenants of Section 538 properties are
required to have low to moderate incomes, which the program defines as incomes of no more than 115 percent of the AMI, and lease terms for 12 months or more. These two criteria ensure that tenants are able to retain housing if their income increases during their lease term and that the housing provided under Section 538 is not being used for transient housing, such as health facilities or student housing (Collings and Strauss 2000).

## Tax Credits

The LIHTC program offers the potential to fill in for the production or preservation of affordable rental housing in rural communities. The LIHTC program, authorized in the 1986 Tax Reform Act, is a reduction in the dollar amount of federal taxes owed by an individual or corporation in exchange for an investment in low-income rental housing (Cowan 2016). The investor receives a tax credit for 10 years and is obligated to not withdraw funding for 15 years, although many states require terms as long as 55 years. Property owners can request to be bought out during the last year of the original contract, and if a buyer is found or if the owner will not sell the property, use restrictions extend to 30 years (Rapoza Associates 2013). After the initial investment, the investor hands over the development and management of the property to a nonprofit or private entity. LIHTC properties must guarantee that either 20 percent of the units house tenants whose incomes are less than 50 percent of the AMI or 40 percent of units house tenants whose income is less than 60 percent of the AMI. In practice, tax credit tenants generally earn around 50 percent of AMI, falling at the "low income" threshold (Schwartz 2015). Additionally, tenants cannot pay more than 30 percent of their income to rent, and the units must remain affordable for 15 years. However, because competition for the credits is strong, states generally award credits to projects that target all units to eligible families and have longer affordability terms of up to 55 years (Rapoza Associates 2013).

As of 2013, 22 percent of all existing LIHTC-financed projects were in rural (nonmetropolitan) census tracts (Scally and Lipsetz 2017). In order to reserve funding for rural projects that would not be able to compete with more lucrative urban LIHTC projects, states have created set-asides in their Qualified Allocation Plans. In 2013, 22 states had included rural or tribal set-asides, with 9 states reserving roughly 20 percent of LIHTC for rural projects (Scally, Dabir, and Lipsetz 2018). Additionally, USDA Section 515 loans are often refinanced in conjunction with LIHTC for preservation, and almost all Section 538 guaranteed loans are accompanied by LIHTC financing (Scally and Lipsetz 2017). Though layering the financing of rural housing is beneficial, there are downsides, such as increasing the complexity of adhering to multiple loan requirements from different funders. Adding more funding
sources also decreases USDA's flexibility to negotiate with property owners and protect low-income tenants if a property experiences any difficulty (Scally, Dabir, and Lipsetz 2018).

## Operating Subsidies

## SECTION 521

The Section 521 Rental Assistance Program covers a number of units throughout the Section 515- and Section 514-financed properties to supplement the rent of eligible tenants so they do not pay more than 30 percent of their income (Cowan 2016). The program currently provides operating supports to around 280,000 units (Scally and Lipsetz 2017); Congress appropriated \$1.4 billion in FY 2017 (USDA 2017). The budget has grown over the past few years as multiyear contracts expire that were fully funded years ago and are replaced with new single-year renewals requiring annual obligations (HAC 2013c). In recent years, rental assistance has been the largest allocation in the USDA's budget for ongoing programs. However, once the USDA Section 515 loans on properties have been repaid, the properties' current tenants are no longer eligible to receive USDA's Section 521 Rental Assistance, as the subsidy is linked to the unit and not portable to another property (HAC 2016). Additionally, though property owners used to be guaranteed rental assistance payments through 20-year contracts, because of the switch to one-year terms, owners are subject to annual changes in Congressional appropriations for rental assistance funding (Strauss 2014).

## PROJECT-BASED VOUCHERS

Though loans, guarantees, and equity investments fund the construction of new units, pairing them with Section 8 PBVs at the time of development can further subsidize tenants who rent to reach lowerincome households. PHAs can turn up to 20 percent of allocated HCVs into PBVs and offer such units to families on the waiting list as units become available. Properties serving nonelderly, nondisabled households cannot have more than 25 percent of their units funded with PBVs unless supportive services are provided to residents. For properties serving elderly and/or disabled households only, up to 100 percent of units can receive PBVs (HUD 2011a). PHAs execute individual agreements with property owners through a housing assistance payments contract that guarantees the property owner a reimbursement of the costs to construct or rehabilitate units and promises rent assistance for tenants for a 10-year term. These contracts are renewed depending on the PHA's available funding. ${ }^{10}$ In 2014, the Center on Budget and Policy Priorities estimated fewer than 100,000 units have PBV assistance and that only a fifth of PHAs administer the program even though all are eligible (Sard 2014).

Several requirements make using PBVs for new construction in rural communities challenging. First, PBVs must serve a purpose of deconcentrating poverty and expanding housing and economic opportunities, a condition that may be more challenging to prove in some rural areas experiencing persistent poverty but still having a high need for affordable rental units. Second, PHAs must hold a competitive proposal selection process for new construction projects seeking PBVs, unless a similar local, state, or federal housing award has been awarded to the same project within the past three years. This means PBVs can only be awarded to LIHTC-funded projects after they have been awarded by states, not beforehand (HUD 2011a). Given the challenges in obtaining LIHTC funding for rural projects, this adds another complication. Finally, an environmental review is required for all projects before a housing assistance payments agreement will be signed by HUD, a process that can be costly and time-consuming for smaller rural projects.

## Capital Advance and Operating Subsidy

## SECTION 202 FOR THE ELDERLY AND SECTION 811 FOR PERSONS WITH DISABILITIES

Created by the Housing Act of 1959, HUD's Section 202 program serves very low income seniors and people with disabilities and provides interest-free capital and operating funds to nonprofit organizations that develop and operate housing and related facilities, such as dining halls, community rooms, or outpatient health facilities (HAC 2012b). Section 202 program grants, which are available to private nonprofit groups and for-profit general partnerships, include funding for the construction, rehabilitation, or acquisition of properties. Funding also covers project rental assistance so that seniors pay only 30 percent of their income to rent. Though Section 202 does not pay for supportive services (Medicaid provides funding for services such as housekeeping, meals, assistance with medication administration, and bathing), many facilities have service coordinators who work with residents to connect them with supportive services or layer funding sources to pay for services (HUD 2008). In 2011, Section 202 distributed $\$ 545$ million to 97 projects and provided $\$ 54$ million in rental assistance. ${ }^{11}$

In 1990, Congress established Section 811 to assume the portion of the Section 202 program that provided housing for nonelderly, low-income individuals with disabilities. The Section 811 program functions similarly to Section 202 and also provides incentives for development and funding for supportive services (HUD 2008). In 2012, HUD began offering a Project Rental Assistance program as part of Section 811 in which state housing agencies can enter a partnership with health and human
service agencies or Medicaid and apply for rental assistance for tenants referred through the health care agency. ${ }^{12}$

For rural low-income seniors, programs such as Section 202 have been critical for retaining independence. In the 1970s, Section 202 dedicated 25 percent of loans to be set aside for rural areas; however, in the current funding structure, rural areas are not given a priority, and the construction of new units is less common. This lack of priority is important in rural areas, especially in the South, where rural units are older and in need of rehabilitation. Additionally, only 9 percent of rural facilities have a service coordinator, which may hinder seniors' ability to use the program to retain independence as they age (HUD 2008).

## Conclusion

Identifying the need for producing new affordable rental housing in rural communities is dependent on a tapestry of economic, demographic, and housing market factors. The diversity of rural America-from newly booming mining towns, to aging communities, to underserved rural communities experiencing persistent poverty-makes identifying this need even more challenging. Many federal programs are authorized to provide loans, grants, guarantees, and operating support for affordable rental housing in rural America, but few are actively meeting the need.

The primary funding mechanism for new rental housing in rural communities is the LIHTC program, which often leverages a USDA Section 538 Guaranteed Loan, along with gap financing through stateadministered HOME block grant funds (and potentially the new National HTF) or other state-specific resources such as trust funds. These resources are generally oversubscribed, underfunded, and difficult to win when competing against urban projects. They also lack dedicated operating supports often necessary to make units affordable to the most vulnerable households.

The remainder of this study analyzes some of the key drivers determining the need for new affordable rental housing in diverse types of rural areas and suggests ways to increase the funding and capacity to deliver new units to rural communities with the most-severe needs.

# 3. Supply, Demand, and Affordability Indicators 

## Defining Rural in This Study

## USDA Eligibility

There are many definitions or concepts of rural areas. One of the most commonly used is the Office of Management and Budget's definition, which classifies counties as metropolitan (contains a core urban area of 50,000 or more in population), micropolitan (contains an urban core with a population that is at least 10,000 but less than 50,000 ), or neither based on population size. However, this definition presents challenges, mainly in the western United States, where large counties containing both rural and urban areas are classified as metropolitan because of the large urbanized areas they contain. Failing to adequately identify variation within these counties obfuscates the unique housing needs of rural areas, making it difficult to capture the scope of need in rural America and complicating efforts to address it.

Our study defined rural areas based on USDA eligibility. First, we identified all USDA-eligible tracts, including those in both metropolitan and nonmetropolitan counties. Second, we aggregated all data up to the county level to form partial counties. When we discuss partial counties that are also metropolitan counties (e.g., Los Angeles County), it is important to note that we are only referring to the USDAeligible census tracts within the metropolitan county.

USDA-operated housing programs are exclusive to areas that are eligible based on a definition of rural that includes a population ceiling based on geography as well as a "rural in character" test. For USDA programs, the changing population and definition could be an issue for areas that depend on assisted housing (Strauss 2014). Before 1949, rural areas generally had to be less than 10,000 in population (USDA RD 2013). To account for population changes over time, Congress passed legislation that "grandfathers" in any areas that were designated as eligible rural areas in the 1980s provided the population has stayed under 25,000 for a period of 10 years. In 2014, the new farm bill (see box 1 ) set the period to end in 2020 and increased the population cutoff to 35,000 (Strauss 2014).

BOX 1

## 2014 Farm Bill Definition of Rural Areas Eligible for USDA Housing Programs

Section 520 of the Housing Act of 1949 as amended by the Agricultural Act of 2014 (Farm Bill):
"Any open country, or any place, town, village, or city which is not part of or associated with an urban area and

1. has a population not is excess of 2,500 inhabitants, or
2. has a population is excess of 2,500 but not in excess of 10,000 if it is rural in character, or
3. has a population in excess of 10,000 but not in excess of 20,000 , and
a. is not contained within a standard metropolitan statistical area, and
b. has a serious lack of mortgage credit for lower- and moderate-income families, as determined by the Secretary and the Secretary of Housing and Urban Development.

For purposes of this subsection, any area classified as 'rural' or a 'rural area' before October 1, 1990, and determined not to be 'rural' or a 'rural area' as a result of data received from or after the 1990 , 2000, or 2010 decennial Census, and any area deemed to be a 'rural area' for purposes of this subsection under any other provision of law at any time during the period beginning January 1 , 2000, and ending December 31, 2010, shall continue to be so classified until the receipt of data from the decennial Census in the year 2020, if such area has a population in excess of 10,000 but not in excess of 35,000 , is rural in character, and has a serious lack of mortgage credit for lower- and moderate-income families." ${ }^{\text {a }}$
a "Agricultural Act of 2014," H. R. 2642, January 3, 2014, https://www.gpo.gov/fdsys/pkg/BILLS-113hr2642enr/pdf/BILLS113hr2642enr.pdf.

In the remainder of this report, when specifically discussing the analysis, we refer to all USDAeligible portions of counties as "eligible counties." There are 3,061 eligible counties. In general, eligible counties that are part of metropolitan counties tend to have larger populations than their nonmetropolitan counterparts. The top quintile (the most populous 20 percent) of nonmetropolitan counties ranges from 37,593 to 189,382 residents. By contrast, the top quintile of eligible areas in metropolitan counties ranges from 90,953 to 460,569 residents. Figure 3.1 provides examples of how eligible areas are constructed near four diverse large metropolitan areas (Los Angeles; Pittsburgh, Pennsylvania; Miami; and St. Louis, Missouri). The gray areas in figure 3.1 represent census tracts that are ineligible, and blue areas represent tracts that are eligible based on USDA eligibility classifications. Only eligible census tracts within metropolitan counties were aggregated to create eligible counties in
our study. If a county contained both ineligible and eligible areas it was considered a partial county, and the data were drawn for the summed total of eligible tracts. A county containing only ineligible tracts was excluded from our analysis entirely. For example, in the metropolitan St. Louis area, St. Louis City, and St. Louis County were entirely excluded from our analysis. However, only portions of neighboring Madison, St. Clair, Jefferson, and St. Charles Counties were excluded. The eligible tracts within those counties were aggregated to create eligible county totals. The more distant counties in St. Louis area (e.g., Warren, Franklin, and Monroe) have no ineligible tracts and therefore were included in their entirety.

FIGURE 3.1
USDA-Eligible Census Tracts in Select Metropolitan Areas
Los Angeles


Pittsburgh, PA


Miami


St. Louis, MO


Source: Urban Institute and HAC analysis of USDA-eligible areas.

This definition allowed us to use data from the census to describe the housing needs of USDAeligible areas. However, it also restricted the years of data that we were able to analyze. Our definition of rural requires that all study data be available and robust at the census-tract level. Because the 2000 Decennial Census was the first year in which all census tracts were defined for all counties, our analysis was only able to include data between 2000 and 2014.

## Underserved Rural Regions

When discussing rural geography in this report, we reference specific rural regions that can be considered separately because of their geography, culture, and history: the Southern Mississippi Delta, Central Appalachia, Persistent Poverty Southeast, Tribal Areas, and Border Region. All five areas have been historically underserved and have struggled with persistent poverty, though the causes and implications of economic challenges vary regionally. Though the precise geographic boundaries of these regions vary, when referring to them in this report we will define them according to the boundaries outlined in figure 3.2.

FIGURE 3.2
Underserved Rural Regions


Source: Urban Institute and HAC analysis.

- The Southern Mississippi Delta region includes portions of Arkansas, Louisiana, Mississippi, and Tennessee. The area is distinctive for its unique culture and history, which have fostered tourism to battlefields and plantations, but it also has a complicated racial history. In recent years, economic challenges have been exacerbated in the Delta by natural disasters, including both Hurricane Katrina and the 2010 Gulf oil spill.
- Central Appalachia consists of portions of northern Tennessee, eastern Kentucky, southern West Virginia, and western Virginia. ${ }^{13}$ Known for its natural resources, particularly coal, timber, and natural gas, the region is also notable for its legacy of high poverty rates and limited economic opportunity (HAC 2012b).
- The Persistent Poverty Southeast includes the persistent poverty counties (counties having poverty rates greater than 20 percent in 2000, 2010, and 2014) in Alabama, north Florida, Georgia, Mississippi, North Carolina, and South Carolina. Similar to the Southern

Mississippi Delta, this region also has a complicated racial history as well as a legacy of persistent poverty.

- The Tribal Areas, which include Native American, Alaskan Native, and Native Hawaiian areas, are scattered throughout the United States, with notable concentrations in the Southwest, Oklahoma, and the northern Great Plains states (North Dakota, South Dakota, Montana, and Wyoming). Although reservations vary drastically in terms of size, population, and culture, there are common challenges facing populations in Tribal Areas, including higher poverty rates and lower income, lower employment, and lower educational attainment than national averages (Harvard Project on American Indian Economic Development 2008). Real estate transactions in these areas can also be complicated by issues of sovereignty, because tribes are sovereign nations, and such transactions may involve the specialized situation of dealing with tribal courts and tribes (Listokin et al. 2017).
- The Border Region stretches along the US-Mexico border and includes counties within 150 miles of the border in California, Arizona, New Mexico, and Texas. The region is home to thousands of colonias, distinct rural communities characterized by high rates of extreme poverty and lack of potable water, sewer services, and electricity (HAC 2013b).


## Selecting Indicators

The conceptual framework for this study focused on the role of supply, demand, and affordability to assess future production needs for affordable rental housing in rural communities. Housing supply refers to the quantity and quality of housing units and the factors that influence how many and what type and condition of housing units exist at different price points. Demand-side factors focus on the characteristics of people who need housing, including demographic drivers, such as changes in population growth and migration, age, race or ethnicity, household types, and household formation; and economic drivers, such as income and employment. Affordability measures consider both the price of the existing supply and the ability of a person to pay for housing. This framework is illustrated in figure 3.3, which links the concepts of supply, demand, and affordability to the seven specific areas we assessed in this study.

FIGURE 3.3
Drivers of Affordable Rural Rental Housing Supply, Demand, and Affordability


These indicators were selected to identify rural areas that are facing the most-severe needs for additional affordable rental housing. ${ }^{14}$ Every indicator defines an absolute threshold beyond which an eligible county was rated as experiencing severe distress on that indicator in relation to all other eligible counties. ${ }^{15}$ This threshold varies by each indicator and follows natural patterns that exist in the data as well as thresholds for high need established by the USDA's Economic Research Service (ERS) County Typology Codes (see box 2).

Indicator thresholds attempt to capture between 15 and 20 percent of eligible counties, allowing the indicator to identify those communities facing the most-severe need. Nevertheless, many eligible counties that did not meet a particular threshold still face unmet need for the production of new affordable rental units. This analysis is a relative one, designed to compare one eligible county to another. It is not an absolute measure on which to base a specific funding decision in a specific location. In addition, other indicators not included in this analysis may be important to a given place, or some might argue that one or two indicators presented here are more important than the others selected. Appendix A contains our supplemental analysis, which includes a more detailed discussion of some of the indicators and thresholds that were not selected for inclusion in the final composite index and why they were excluded.

BOX 2

## ERS County Typology

The 2015 County Typology Codes, developed by the USDA Economic Research Service , classify all US counties according to six mutually exclusive categories of economic dependence: farming, mining, manufacturing, federal or state government, recreation, and nonspecialized. In the typology, which was developed to help characterize the socioeconomic diversity of rural America, counties are usually classified as dependent on a certain sector if their share of employment or earnings is markedly above the average for rural counties. The dependence categories in 2015 are set to employment and earnings figures averaged from 2010, 2011, and 2012. The estimations use Bureau of Economic Analysis' Regional Local Area Personal Income and Employment data.

Although ERS coded the typologies for all US counties, most thresholds were set to a nonmetropolitan average (mean) plus one standard deviation. For example, a county qualified as "manufacturing dependent" if the manufacturing industry accounted for an annual average of 23 percent or more of total earnings or 16 percent or more of total employment during 2010-12. If a county did not meet the threshold in any of the categories it was listed as "nonspecialized." However, unlike our index of affordable housing need, the categories are mutually exclusive. If a county qualified for more than one economic type, it was classified in the industry that accounted for the largest percentage of total earnings.

The ERS County Typology Codes have some notable limitations. The six mutually exclusive dependency categories are somewhat general and certainly do not capture the full diversity of economic conditions in rural America. Also, the data used to generate the ERS County Typology Codes were collected at the county level, rather than just from USDA-eligible census tracts as with our index, so they include urban-area employment figures in metropolitan counties. However, the typologies are widely used for analysis in rural areas and can provide important insights into the general economic characteristics of those areas.

In the next section, we discuss each component of our framework-supply, demand, and affordability-first examining the broader components of each driver and then specifying the associated indicators selected for this study. For each indicator, we define the measure and threshold selected, as well as the number of eligible counties that meet each threshold. Table 3.1 describes the seven selected indicators, along with the threshold selected to indicate high need, the number and percentage of eligible counties that met each threshold, and the data sources for each indicator. For historical data from the American Community Survey (ACS) or the Census, this report relied on data from the Neighborhood Change Database. The Neighborhood Change Database reconciles changing neighborhood boundaries (defined as census tracts per their boundaries in 2010) as well as changing
definitions of the variables collected in successive US Census surveys so that we can study the same variables over time in neighborhoods with fixed boundaries.

## TABLE 3.1

## Data Sources and Indicators for Analysis

| Driver | Indicator | Threshold | No. of counties meeting threshold (\%) | Data sources and years of analysis |
| :---: | :---: | :---: | :---: | :---: |
| Supply | Vacant units | Share of vacant rental units $\leq 5 \%$, 2014 | $\begin{gathered} 936 \\ (30.6 \%) \end{gathered}$ | 2010-14 ACS |
|  | Subsidized units | Share of subsidized units $\leq 5 \%$, 2014 | $\begin{gathered} 695 \\ (22.7 \%) \end{gathered}$ | A Picture of Subsidized Households (2015); USDA Rural Development Direct and Guaranteed Loan Program data (2016); LIHTC database (2014) |
| Demand | Population change | $>20,000$ population in 2014 and > $10 \%$ growth in population from 2000 to 2014 | $\begin{gathered} 670 \\ (21.9 \%) \end{gathered}$ | $\begin{gathered} \text { NCDB: } 2000 \text { (Decennial); 2006- } \\ 10 \text { ACS; 2010-14 ACS } \end{gathered}$ |
|  | Persistent poverty | >20\% poverty in 2000, 2010, and 2014 | $\begin{gathered} 354 \\ (11.6 \%) \end{gathered}$ | NCDB: 2000 (Decennial); 200610 ACS; 2010-14 ACS |
|  | Persistent unemployment | Higher unemployment than the national average in 2000, 2010, and 2014 | $\begin{gathered} 649 \\ (21.2 \%) \end{gathered}$ | NCDB: 2000 (Decennial); 200610 ACS; 2010-14 ACS |
|  | Overcrowding | Share of overcrowded (owner- and renter-occupied units with more than 1.0 persons per room) $\geq 3 \%$, 2014 | $\begin{gathered} 655 \\ (24.1 \%) \end{gathered}$ | 2010-14 ACS |
| Affordability | Cost burden | Severely cost-burdened renter households (households paying more than 50\% income in rent) $\geq 25 \%, 2014$ | $\begin{gathered} 413 \\ (13.5 \%) \end{gathered}$ | 2010-14 ACS |

Note: The Neighborhood Change Database (NCDB) was developed by the Urban Institute in collaboration with GeoLytics, Inc. The American Community Survey (ACS) is a statistical survey implemented by the US Census Bureau.

## Housing Supply

Despite efforts to produce affordable rental housing in rural communities in past decades, the existing demand exceeds the current supply. In some places, housing supply shortages have been addressed through new multifamily housing production, along with the conversion of former owner-occupied single-family homes to rental properties (JCHS 2016). However, the increased construction of multifamily rental housing-304,000 new units were built in 2015-has been concentrated in urban areas (JCHS 2016). Many of these new units are also luxury studio and one-bedroom apartments that are unaffordable to lower-income households and unaccommodating for larger families (JCHS 2016; Quigley and Raphael 2004). ${ }^{16}$ The nonluxury rental housing supply is derived mainly from downwardfiltering units that become more affordable as they age. Nationally, the number of low-cost units has only increased 10 percent between 2003 and 2013 because of construction and downward-filtering units.

Affordable rental housing supply in rural communities is further constrained by a lack of capital. Construction and permanent financing for affordable multifamily housing are more challenging to secure because they have more volatile cash flows and are less standardized (Strauss 1999), often requiring project- or tenant-based rental assistance to make operations viable while keeping rents low. Therefore, multifamily loans can be considered risky to lenders, insurers, and secondary markets. For some small, rural multifamily properties, the cost of property development may be higher than the final assessed value of the property, weakening the collateral available to lienholders while further increasing their risk (Rawal, Edelman, and Sanz 2016).

As discussed above, government housing programs, such as LIHTC, are intended to serve as a supply-side intervention to help increase the amount of affordable housing available. Some analysts, however, argue that though subsidies for developers may trigger new investments, they can also make it more expensive and challenging for private-sector producers to compete without subsidies (Glaeser and Gyourko 2008). Furthermore, subsidy-based interventions may not result in lower rents and can lead to production in areas with weak markets that have little demand for additional housing (Glaeser and Gyourko 2008). Finally, smaller rural projects are more difficult to finance because of the high cost of participating in the LIHTC program as well as the inability to achieve economies of scale based on a small number of units being financed (Scally, Dabir, and Lipsetz 2018). To minimize costs and risk, some analysts suggest that rural communities adopt smart growth strategies to develop in economically viable, environmentally responsible, and socially equitable ways. This smart growth includes proactively
identifying specific land areas for preservation and growth, assessing the longer-term fiscal impact of potential development opportunities, and understanding the relationship between wastewater infrastructure and community growth, which is especially key for smaller rural communities (US Environmental Protection Agency 2012).

Low rental housing vacancy rates can indicate a tight market and need for additional supply. In 2015, national rates for vacancy reached a 30-year low of 7.1 percent after dropping steadily since 2010 (JCHS 2016). In general, this tighter market was a response to the foreclosure crisis, with more than 9.4 million homes across the United States (the majority owner occupied) forfeited through foreclosures, short sales, and deeds-in-lieu of foreclosure between 2007 and 2015 (JCHS 2016). The tightening of the mortgage credit market also limited home purchase loans for applicants with subprime credit scores, thus reducing the number of individuals who qualified for home loans (JCHS 2016). As a result, in some places, former homeowners flooded the rental markets, and renters were stymied by rising rents and shrinking credit availability for home purchase (HAC 2014b). Rural vacancy rates vary seasonally, with some units only occupied for seasonal, recreational, or occasional purposes (HAC 2012a). For instance, in some agricultural-based rural communities, rates fluctuate with the harvest cycle.

The availability of subsidized rental housing can augment the supply of affordable housing; conversely, a lack of rental subsidies contributes to the need for rental units. In addition to the LIHTC (discussed above), federal agencies, including USDA and HUD, offer direct loans to encourage the construction of housing and operating and rent subsidies to increase the supply of affordable rental housing. However, in recent years, a lack of increased investment in the production of new units has been coupled with the phasing out of properties whose loans have matured. The number of subsidized units has not kept pace with changes in rural communities and contributes to the need for more units.

To assess the role of supply shortages as driving the need for new affordable rural rental housing production, we used two key indicators: vacant and subsidized units. The vacant units indicator assesses the number of eligible counties with a share of vacant rental units that is less than or equal to 5 percent to determine which counties have a smaller share of vacant units and therefore need a greater supply of affordable units. The indicator for subsidized units sheds light on counties that have a smaller share of federally subsidized units and therefore also have greater need.

## Vacant Units

Low rental vacancy rates are often used as a proxy for tight rental markets, suggesting a greater need for affordable rental housing. ${ }^{17}$ In our analysis, using census tract-level data from the 2010-14 fiveyear ACS estimates, we found that vacancy rates tend to be low in rural areas. On average, 7.4 percent of rental units in eligible counties were vacant. However, almost 12 percent of eligible counties (355) had rental vacancy rates less than 2 percent. Approximately one of every five ( 20.3 percent) eligible counties (621) had rental vacancy rates that exceeded 10 percent.

We set the threshold of severity at a vacancy rate of 5 percent or less for eligible counties, given that many rental housing developers and managers use this as a default vacancy rate for calculating their operation costs. Even at this modest threshold, 936 eligible counties were included, or about 31 percent. Because of the prevalence of tight rental markets in rural America, particularly during the recession and in subsequent years covered by the dataset used, qualifying counties were located throughout the United States, with the exception of Arizona (figure 3.4). Texas had the largest number of qualifying eligible counties (71), followed by Missouri (47), Illinois (42), Kentucky (42), and Nebraska (41). The absolute number of vacant units may vary dramatically, even across areas with similar vacancy rates. For example, eligible counties in both California and South Dakota had similar average vacancy rates: 6.4 and 6.3 percent, respectively. However, the absolute number of vacant units was higher in California because the size of the overall rental market is larger. Eligible counties in California had an average of 11,085 rental units (vacant and occupied) compared with an average 1,135 rental units (vacant and occupied) in South Dakota's eligible counties.

FIGURE 3.4

## Vacant Units

Counties with share of vacant rental units less than or equal to 5percent.


Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

## Subsidized Units

Several key federal programs administered through USDA, HUD, and the Internal Revenue Service via LIHTC significantly contribute to the supply of affordable rental housing in rural America. To estimate the existing supply of federally subsidized affordable housing, we combined data from three public sources: A Picture of Subsidized Households (HUD), USDA Rural Development Direct and Guaranteed Loan Program data, and the LIHTC database. All three programs contribute to the availability of the affordable housing supply. HUD public housing and project-based Section 8 and Section 202 programs have produced 554,707 units in eligible counties and an average of 181.2 units per eligible county. LIHTC has produced an estimated 513,612 units in eligible counties, with an average of 167.8 units per eligible county. USDA Section 515 and 514 programs have produced 426,773 total units, and eligible counties have an average of 156.4 USDA units. ${ }^{18}$ USDA properties tend to be smaller (average is around 30 units) and are strictly targeted to rural areas with smaller populations. This is not the case with the
other two, which typically cluster in higher-population areas and contain more units per property. LIHTC properties have an average of 53 units per property, and public housing has an average of 119 units per property. ${ }^{19}$

Though these unit counts show the total number of units funded by each program, they overestimate the total number of affordable units in rural areas because some housing projects are funded by multiple programs. Our estimate attempted to account for this problem by only counting units once, regardless of how many programs funded them. Our measure therefore consisted of LIHTC units (excluding USDA overlapping units), HUD public housing units, HUD project-based Section 8 units (excluding USDA overlapping units), HUD Section 202 units, and USDA Section 515 and 514 units (excluding duplicates with LIHTC and HUD funding). Though the share of subsidized rental units was as high as 83.1 percent (in Camden County, NJ ), ${ }^{20}$ only about 9.5 percent of eligible counties had a share of subsidized units greater than or equal to 20.0 percent, and 77.2 percent of eligible counties had a share of subsidized units less than 15.0 percent. About 5.7 percent of eligible counties (173) had no subsidized units at all. Eligible counties without federally subsidized housing tend to have smaller populations and a smaller number of renter-occupied units. ${ }^{21}$ Though the average 2014 population for all eligible counties with at least one or more federally subsidized units was 38,093, areas without subsidized units had an average population of $9,565 .{ }^{22}$ Eligible counties without federally subsidized housing also tended to have a smaller number of renter-occupied units (an average of 649 units) compared with eligible counties with subsidized housing (an average of 3651 units). Despite their small populations, many areas without subsidized units have very high poverty rates, and eight met our threshold for persistent poverty; that is, they had a poverty rate that exceeded 20 percent in all three study periods.

We expected the relationship between subsidized housing and the need for affordable housing to be negative, assuming that areas with a larger existing supply of affordable units would have lower demand for affordable rental housing production (all else held constant). Eligible counties with a share of subsidized rental units less than or equal to 5.0 percent qualified for this indicator. This threshold identified 647 counties (roughly 21.1 percent of all eligible counties), which were concentrated in the Western states, as well as in Alaska, Texas, Missouri, Virginia, Maryland, New Jersey, and northern Georgia. Eligible counties were less concentrated in the Upper Midwest, particularly in Minnesota and Wisconsin (figure 3.5). One potential limitation with this threshold is that our estimate of subsidized units does not include HCVs because of data limitations. Consequently, some eligible counties may have shown few subsidized units but may have had a large number of households using HCVs to make their rent more affordable. For these counties, the severity of need for additional affordable units may be overstated.

FIGURE 3.5

## Subsidized Units

Counties with share of subsidized rental units* less than or equal to 5 percent


Source: Urban Institute analysis of census data from A Picture of Subsidized Households (2015), USDA Rural Development Direct Guaranteed Loan Program data, and LIHTC database (2014).

## Housing Demand

The number of renters in the United States has significantly increased over time, heightening the demand for affordable rental housing. In 2015, over 36 percent of households rented, the largest proportion of renters since the 1960s. Over the past decade, the number of renters has increased 9 million individuals-the largest 10-year gain on record (JCHS 2016). Although rural areas are growing at a slower rate than urban areas, there is still demand for affordable rental units in rural areas (Pendall et al. 2016). Rental housing demands are growing and expected to increase as the number of rural renters rises to 5.6 million by 2020 (Pendall et al. 2016).

## Although rural areas are growing at a slower rate than urban areas, there is still demand for affordable rental units in rural areas. Rental housing demands are growing and expected to increase as the number of rural renters rises to 5.6 million by 2020.

Two significant drivers of demand are householder age and the formation of new households. Because of high housing costs, millennials are choosing to live with parents or roommates rather than independently forming their own households (Goodman 2015; JCHS 2016). However, as millennials age, household headship rates are expected to continue rising among this generation, which will likely lead to increased housing needs including rental housing options. Households with heads in their thirties and forties, single persons living independently, and married couples without children have accounted for a great deal of the growth in the rental market over the past decade (JCHS 2016). Recent increase in rental demand also reflects the growth in the number of baby-boomer renters, as homeownership rates among this population continue to decline. Finally, older adults are also moving into the rental market as they downsize their homes and seek more accessible units to meet the needs of growing mobility limitations and other issues (Pendall et al. 2016).

Rental housing demand has increased across households at all income levels, races, and ethnicities. The need for affordable housing has grown as income disparities have increased significantly in recent decades. The fastest-growing income group between 2005 and 2015 was in households earning under $\$ 25,000$ annually; poverty rates across all racial and ethnic groups and ages are higher in rural areas (JCHS 2016). Both low and high incomes drive rental housing demand, with low-income households requiring affordable rents in both high-earning (e.g., recreational amenity) and low-earning (e.g., persistent poverty) counties, as detailed in section 1 of this report.

To assess the demand for rural rental housing we identified population change, persistent poverty, and persistent unemployment indicators, which address demographic characteristics that influence production needs. Additionally, we included a measure of overcrowding to represent stunted household formation because of lack of affordable supply.

## Population Change

To understand population change and trajectory over time, we analyzed population change in eligible counties between 2000 and 2014 by using data from the Decennial Census and the ACS. Though rural areas have been growing, growth has been slow. The average population of eligible counties grew from 33,194 in 2000 to 35,556 in 2010 and to 37,596 in 2014. On average, the population increased 4.2 percent in eligible counties between 2000 and 2010, and most areas that grew during this period continued to grow during the subsequent period (2010 through 2014). Almost 1,800 (58.8 percent) of eligible counties in the analysis experienced positive population growth in both periods ( 2000 through 2010 and 2010 through 2014). Similarly, most eligible counties (1,072, or 35.0 percent) that experienced population loss between 2000 and 2010 continued to lose population in the subsequent period. A minority of eligible counties ( 6.7 percent) experienced changes from population growth to loss or vice versa: 109 eligible counties experienced growth in population in the first period and decline afterwards, and 97 eligible counties experienced population loss in the first period and positive growth afterwards.

For this study, larger and growing eligible counties-those with populations in the eligible area that were larger than 20,000 in 2014 and that experienced over 10 percent growth in population between 2000 and 2014-qualified as having a significant need for additional affordable rental housing units. ${ }^{23}$ About 18.4 percent of eligible counties (562) qualified under this threshold. Qualifying eligible counties tended to be scattered throughout the United States, with some concentration around metropolitan areas and less concentration in the Great Plains (particularly South Dakota and Nebraska) and in the Northeast (especially in Maine, Vermont, and Massachusetts), as shown in figure 3.6. Many of the states in the Northeast and the Great Plains and Tribal Areas may have experienced substantial growth, but they did not qualify because their overall population was below 20,000. ${ }^{24}$ For example, only two of Nebraska's 93 eligible counties qualified for this threshold, even though some have experienced dramatic population change. Eligible tracts within Sarpy County, NE, grew from 8,745 people in 2000 to 14,618 in 2014 (a population change of about 67.2 percent). Though Sarpy County and similar eligible counties may have experienced tremendous growth as a percentage change, absolute growth in these areas was relatively small. Using a population size threshold focuses on both absolute and relative growth. The dual thresholds in this indicator best balance the desire to identify areas that are growing, as well as areas that have experienced significant growth in terms of change in their absolute population.

FIGURE 3.6

## Population Change

Counties with a population greater than 20,000 and over 10 percent growth in population between 2000 and 2014


Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

## Persistent Poverty

Poverty, defined here as the total population living at or below the federal poverty threshold, is an important indicator of affordable housing demand. Data from the 2000 Decennial Census and the ACS (2006-10 and 2010-14) suggest that the percentage of people living at or below the poverty level rose in eligible counties over the study period. The average poverty rate in 2000 was 13.8 percent, but it increased to 14.9 percent in 2010 and to 16.2 percent in 2014. At the same time, the share of counties with high poverty rates also increased. In 2000, 15.6 percent of eligible counties (476) had a poverty rate that exceeded 20 percent. By 2010, this share had increased to 19.7 percent ( 604 eligible counties) and to 25.0 percent ( 766 eligible counties) in 2014.

We hypothesized that counties with persistent levels of poverty across all three study periods would need additional affordable rental housing units. For this study, eligible counties where the poverty rate was greater than 20 percent in all three time periods qualified as high need for rental housing production. This measure is a modified version of the persistent poverty indicator used by the ERS County Typology Codes, which designate those counties having a poverty rate greater than 20 percent over three decades (measured by the 1980, 1990, and 2000 decennial censuses and the ACS five-year estimates for 2007-11) as having persistent poverty. This threshold identified 266 eligible counties, which is about 12.0 percent of all eligible counties. ${ }^{25}$ Qualifying eligible counties tended to be heavily clustered in the Border Region (especially in Texas) and Tribal Areas (in Arizona, New Mexico, and South Dakota), as well as in the Southern Mississippi Delta and the Persistent Poverty Southeast (from Alabama to South Carolina) (figure 3.7).

## FIGURE 3.7

## Persistent Poverty

Over 20 percent poverty rate in 2000, 2006-10, and 2010-14


[^1]
## Persistent Unemployment

Demand for affordable rental housing is also associated with unemployment. We hypothesized that unemployment would be positively associated with demand for affordable rental housing. That is, as unemployment increases, we would expect demand for affordable housing to increase as people are less economically stable. We used data from the 2000 Decennial Census and the ACS (2006-10 and 2010-14) and explored changes over time between 2000 and 2014. In general, our analysis indicated that unemployment has been rising in rural areas over the study period, from 5.7 percent in 2000 to 7.8 percent in 2010 and to 8.4 percent in $2014 .{ }^{26}$ Similarly, the share of eligible counties that have an unemployment rate over 12 percent rose steadily. In 2000, only 3.3 percent of eligible counties (100) had unemployment rates that exceeded 12 percent. By 2010, this share had increased to 10.1 percent ( 309 eligible counties), and it increased to 15.4 percent ( 470 eligible counties) in 2014.

Though many eligible counties experiencing high unemployment most likely have unaddressed affordable housing needs, we selected an indicator of persistently high unemployment across all three data periods as highlighting the counties facing the most-severe shortages of affordable rental units. To qualify as high need for persistent unemployment, eligible counties had to have an unemployment rate that exceeded the average of all eligible counties for all three time periods. This threshold identified 661 eligible counties ( 21.6 percent of all eligible counties). Qualifying eligible counties tended to be heavily concentrated in the Southern Mississippi Delta (particularly in Mississippi), Tribal Areas, Border Region (especially from New Mexico to California) and along the West Coast. The northern part of Michigan also appeared to have many qualifying counties, as illustrated by figure 3.8.

## FIGURE 3.8

## Persistent Unemployment

Higher unemployment than the average of all eligible counties in 2000, 2006-10, and 2010-14


Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

## Overcrowding

Overcrowding can also be an indicator for unmet housing demand. ${ }^{27}$ Our measure for overcrowding used the 2010-14 five-year ACS estimates available at the census-tract level. We defined overcrowding as those households (renter- and owner-occupied) that had more than 1.0 occupant per room. We chose to include all households regardless of tenure as overcrowding in owned homes can often indicate that a family member or friend is staying with the owner because of lack of affordable housing options, including rental housing.

On average, about 2.3 percent of renter- and owner-occupied households were overcrowded in eligible counties. In many areas, overcrowding was quite low; about 19.2 percent of areas (589) had a
share of overcrowded renter- and owner-occupied units less than 1.0 percent. About 6.4 percent of eligible counties (196) had overcrowding rates higher than 5.0 percent, with overcrowding most severe in the West (especially in California), the Southwest (particularly in Arizona, New Mexico, and Texas), and across the Southern Mississippi Delta and the Persistent Poverty Southeast (with notable concentrations in Florida and Georgia) (figure 3.9). Eligible counties with a share of overcrowded units greater than or equal to 3.0 percent were identified as having a severe need for more affordable rental housing production. This threshold identified 655 eligible counties, which was about 21.4 percent of all eligible counties.

## FIGURE 3.9

## Overcrowding

Counties with share of overcrowded (more than 1.0 persons per room) renter-and owner-occupied units greater than or equal to 3 percent, 2010-14


[^2]
## Affordability

Affordability is at the crux of the supply-demand gap, as high rents are driven by lack of supply to meet local demand, which can result in tight and costly rental markets. Since 2000, rent prices have increased while the number of renters who need low-priced housing has also been on the rise (JCHS 2016; Leopold et al. 2015). The number of cost-burdened households-those paying more than 30 percent of income for housing-increased 3.6 million between 2008 and 2014 to 21.3 million households (JCHS 2016). Furthermore, the number of severely cost-burdened households-those paying more than 50 percent of their income for housing-increased from 2.1 million to 11.4 million over the same period (JCHS 2016). Among the nation's 9.6 million renters who earn less than $\$ 15,000$ annually, 72 percent are severely cost burdened (JCHS 2016). In the rural context, almost one of every four rural renters is cost burdened (HAC 2012a). As affordable rental housing becomes scarcer, cost-burden issues are also becoming a challenge for moderate-income households, especially in higher-cost markets (JCHS 2016).

To avoid or reduce cost burdens, households are commonly forced to reduce or cut spending in other areas, such as food and health care costs. Furthermore, cost-burdened households are at a greater risk for homelessness because of their inability to pay for housing along with the costs of other vital needs. Issues of cost burden also reflect the growing gap between rental housing costs and renters' incomes, and they are especially critical as many low-income households eligible for housing assistance do not receive it (Leopold et al. 2015). The lack of housing supports coupled with the limited supply of low-cost housing units will continue to cause major challenges for households to secure affordable housing.

As discussed above, cost burden serves as a measure of affordability by examining the proportion of income that renters spend relative to their total housing cost; thus we used this factor as a key indicator for the analysis of production needs.

## Housing Cost Burden

To understand cost-burdened renter households (households paying more than 30 percent of their income in rent) as an indicator for a shortage of affordable rental housing, we used data from the 201014 five-year ACS estimates at the census-tract level. We found that an average of 37.9 percent of households in eligible counties were cost burdened. At least one in three renter households was cost burdened in over 80 percent $(2,533)$ of all eligible counties. In about 6.9 percent $(211)$ of eligible
counties, half of all renter households were cost burdened, and only 4.2 percent (129) of eligible counties had less than 20 percent of their renter households experiencing cost burden.

Because of the prevalence of cost-burdened renters in so many eligible counties in the analysis, we used severe cost burden, defined as renter households paying 50 percent or more of their income in rent. Eligible counties in the study had an average of 18.5 percent of renter households that were severely cost burdened-nearly one out of every five households. The majority of counties (59.3 percent) had a share of severely cost-burdened households less than 20 percent, and only one area (Watauga County, NC) had a share of severely cost-burdened renter households that exceeded 50 percent. ${ }^{28}$

Similar to overcrowding, we expected severe cost burden to be positively related to increased demand for affordable rental production. Though the presence of any severely cost-burdened renter households can be an indicator of the need for more affordable housing, in order to identify those eligible counties experiencing relatively high needs we set a threshold of 25 percent of all renter households experiencing severe housing cost burden. This threshold identified 413 eligible counties, or about 13.5 percent of all eligible counties. This high incidence of severely cost-burdened renter households was scattered throughout the United States, with notable concentrations in the West (particularly in California and Oregon) and the Northeast (in Maine, New York, and Vermont), as well as in the Persistent Poverty Southeast (especially in Florida and Georgia) (figure 3.10).

FIGURE 3.10

## Cost Burden

Counties with share of severely cost-burdened households (households paying more than 50 percent of income on rent) greater than or equal to 25 percent


Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

## 4. An Index of Rental Production Need

To assess the affordable rental production needs of rural communities, we developed a composite index based on the summed score earned by an eligible county across all seven study indicators, as detailed in section 3 . Eligible counties identified as meeting an indicator threshold receive a score of 1; counties that did not meet the indicator threshold received a score of 0 for that measure. Though the composite score could range from 0 (an eligible county did not meet a threshold for any indicator) to 7 (an eligible county met the threshold for every indicator), no eligible county met the threshold for more than six indicators of rental housing need. The actual index therefore ranges from 0 to 6 . These scores are relative: many rural areas have some severity of need for rental housing. The majority of eligible counties ( 57.9 percent) received a score of 1 or lower on the index and were classified as having a lower severity of need for affordable rental housing production. An additional 36.9 percent received a score of 2 or 3 on the index and were classified as having moderately severe need. The remaining 5 percent of counties received a score between 4 and 6 and were classified as having the most-severe need. These categories are summarized in table 4.1. ${ }^{29}$

Eligible counties identified as meeting an indicator threshold received a score of 1; counties that did not meet the indicator threshold received a score of 0 for that measure. The composite index score for each eligible county is the sum of all the scores earned across all seven indicators.

TABLE 4.1

## Categories of Housing Need Severity and Corresponding Composite Index Scores

| Category | Index score | No. of eligible <br> counties | Percentage of <br> eligible counties |
| :--- | :---: | :---: | :---: |
| Less severe | 0 | 735 | 24.0 |
| Moderately severe | 1 | 1,038 | 33.9 |
| Most severe | 2 | 758 | 24.5 |
|  | 3 | 378 | 12.4 |
|  | 4 | 125 | 4.1 |

Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

The three groups of eligible counties were analyzed to compare differences in demographic, economic, and housing characteristics to understand other factors that may be driving relative production need. We found differences in the profile of most-severe need counties compared with counties with a less-severe or moderately severe need score. The sizable differences across multiple key indicators provided evidence of the severity of affordable rental housing production demand within the most-severe need counties in rural America. There was also variation in characteristics within counties of each of the need categories. No county met the threshold across all indicators and only one, Roosevelt County, NM, met the threshold on six of the seven indicators. Therefore, not all most-severe need counties had the same, or even similar, economic, demographic, and housing characteristics. There was similar diversity among eligible counties showing less-severe or moderately severe rental housing needs.

By design, as discussed in section 3, the number of counties meeting a need threshold averaged around 20 percent, with the rental vacancy threshold being met the most frequently (at 30.6 percent) and the persistent poverty threshold being met the least ( 11.6 percent). Within most-severe need counties, however, the unemployment and overcrowding threshold were most commonly met. Within moderately severe and less-severe need counties, the population change and vacancy thresholds were most common. Table 4.2 below includes counts and percentages of eligible counties that met the threshold for each of the seven thresholds according to their index score.

TABLE 4.2
Index Scores by Indicator Threshold and Qualifying Counties

|  |  | Most severe | Moderately severe | Less severe | All eligible counties |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Indicator | Threshold | Count (\%) | Count (\%) | Count (\%) | Count (\%) |
| Population change | $>20,000$ population in 2014 and $>10 \%$ growth in population from 2000-14 | 77 (50.7\%) | 405 (35.7\%) | 188 (10.6\%) | 670 (21.9\%) |
| Persistent poverty | $>20 \%$ poverty in 2000, 2010, and 2014 | 87 (57.2\%) | 239 (21.0\%) | 28 (1.6\%) | 354 (11.6\%) |
| Persistent unemployment | Higher unemployment than the national average in 2000, 2010, and 2014 | 130 (85.5\%) | 409 (36.0\%) | 110 (6.2\%) | 649 (21.2\%) |
| Vacancy | Share of vacant rental units 55\%, 2014 | 87 (57.2\%) | 501 (44.1\%) | 348 (19.6\%) | 936 (30.6\%) |
| Overcrowding | Share of overcrowded (owner- and renter-occupied units with more than 1.0 persons per room) $\geq 3 \%$, 2014 | 114 (75\%) | 402 (35.4\%) | 139 (7.8\%) | 655 (21.4\%) |
| Cost burden | Severely cost-burdened renter households (households paying more than 50\% income in rent) $\geq 25 \%, 2014$ | 76 (50.0\%) | 266 (23.4\%) | 71 (4.0\%) | 413 (13.5\%) |
| Subsidized units | Share of subsidized units s5\%, 2014 | 65 (42.7\%) | 428 (37.7\%) | 154 (8.7\%) | 647 (21.1\%) |

Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data. Note: Most severe, $N=152$; moderately severe, $N=1,136$; less severe, $N=1,773$; all eligible counties, $N=3,061$.

Table 4.3 provides summary information on the eligible counties within each need category: the number and share of eligible counties, the total count and percentages of population residing in the USDA-eligible portion of those counties, and the share of counties designated as metropolitan counties by the Office of Management and Budget. Fewer counties and smaller percentages of populations were categorized as having the most-severe need for affordable rental housing production, and the majority fell in the less-severe need category. On average about one of three eligible counties was classified as metropolitan; these counties were slightly overrepresented in the moderately severe category of need. Figure 4.1 provides a national map of most-, moderate-, and less-severe need counties. A discussion of each need category is included in the following section.

TABLE 4.3
Characteristics of Most-Severe, Moderately Severe, and Less-Severe Need Counties

| Need | No. of eligible <br> counties | Share of total <br> counties | Total eligible <br> population <br> (ACS 2010-14) | Share of total <br> population <br> (ACS 2010-14) | Metropolitan <br> status |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Most severe | 152 | $5 \%$ | $7,989,133$ | $7 \%$ | $34 \%$ |
| Moderately | 1,136 | $37 \%$ | $46,394,258$ | $42 \%$ | $43 \%$ |
| severe | 1,773 | $58 \%$ | $57,282,813$ | $51 \%$ | $31 \%$ |
| Less severe | 3,061 | $100 \%$ | $111,666,204$ | $100 \%$ | $35 \%$ |
| Total |  |  |  |  |  |

Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

Less-Severe, Moderately Severe, and Most-Severe Need Index Scores for Affordable Rental Housing Production within USDA-Eligible Rural Census Tracts, by County


Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

## Most-Severe Production Need

Most-severe need counties, those that scored a 4 or higher on the index, represented a relatively small group of counties with the highest need for affordable rental housing production in rural communities. ${ }^{30}$ Just over 5 percent of eligible counties ( 152 out of 3,061 ) had this score category, representing approximately 7 percent of all eligible rural population (over 8 million). About a third of most-severe need counties were designated as metropolitan, which was slightly lower than the average for all eligible counties. Similar to the individual threshold maps, the maps showing the most-severe need counties showed some geographic clustering. A number of counties in the Border Region (from Texas to California) met the most-severe need threshold. Nearly all the Central Valley in California qualified as well. There was some concentration of most-severe need counties within the Southern Mississippi Delta (particularly in Mississippi and Louisiana) and in the Persistent Poverty Southeast, with notable concentrations in Alabama, Florida, and Georgia. There was also some overlap with Tribal Areas in the Great Plains and in the Southwest. However, most-severe need counties were not limited to these areas alone as a majority of states had at least one county that qualified.

Unsurprisingly, given the indicators included in the index, high-need counties were faster growing and poorer and had larger populations, lower employment rates, lower rental vacancy rates, more overcrowding, higher rates of rental cost burden, and a lower share of federally subsidized rental units than the national average. Although not used within our index, additional descriptive statistics included in the following section indicate that high-need counties also were on average younger, more ethnically and racially diverse, and tended to have higher reliance on government employment and less on farming, manufacturing, and mining. Figure 4.2 provides a national map of most-severe need counties, and box 3 describes the county profile selection process.


Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

## BOX 3

## County Profile Selection

County profiles were designed to highlight counties experiencing different levels of rental housing production need, as well as the diversity of counties experiencing the same level of severity across this analysis. This report profiles seven counties: Roosevelt County, NM; Fresno County, CA; Marion County, IA; Isabella County, MI; Lee County, SC; Gregg County, TX; and Campbell County, WY. These counties were selected to highlight geographic diversity and a mix of counties with growing, stable, and declining populations. The seven counties also had a diversity of housing need: four had the mostsevere need, two had moderately severe need, and one had less-severe need. Using data from the 2000 and 2010 Decennial Censuses, as well as the 2006-10 and 2011-15 American Community Survey fiveyear estimates, each profile explores population change and the economic and demographic characteristics of each county, as well as the physical characteristics of the housing stock.

## ROOSEVELT COUNTY, NEW MEXICO

According to our index, Roosevelt County (figure 4.3) had the most-severe need for affordable rental housing production, meeting the high-need thresholds across six of the indicators, including population growth, persistent poverty, persistent unemployment, overcrowded households, and severely costburdened households. It was the only county to score this high. Roosevelt County is located on the eastern edge of New Mexico and shares a border with west Texas. Despite its high housing needs, the county is not part of the Border Region, nor is it connected to the Tribal Areas in the upper corner of New Mexico, both of which historically have high housing needs (HAC 2013b).

FIGURE 4.3
Roosevelt County, New Mexico


In 2015, the total population in Roosevelt County was 19,846 with approximately 85 percent of the population living in the county seat, Portales. Since 2000, Roosevelt has been consistent in terms of its total population and age profile. The population increased approximately 2,000 residents between 2000 and 2010, but the county has experienced increasing outmigration in recent years. In the past decade, there has been a slight change is the demographic composition, specifically the growth of the Latino population. In 2000, 33 percent of households were Hispanic and 17 percent were Mexican; in 2015, 40 percent of households were Hispanic and 30 percent were Mexican.

According to the ERS County Typology Index, Roosevelt County is considered to be a farmingdependent county-it is one of five farming counties in New Mexico and is linked to the larger swath of farming-dependent ${ }^{31}$ counties in the neighboring state, Texas. In 2010, the largest industries in

Roosevelt were educational, health care, and social services, which amounted to 33 percent of the labor force, followed by retail (12 percent); agriculture, farming, fishing, and mining (10 percent); and transportation (8 percent). In 2015, the composition remained constant with education, retail, and farming comprising the three largest sectors, and arts, entertainment, and recreation services increasing to 11 percent of jobs held by the labor force. The top three sectors contain the firms that have operated for the longest periods of time; many of these firms have been in business for more than a decade. Agriculture has historically been a large sector, and although it has some of the smallest earnings, it accounts for most of the job creation in the county.

The dependence on agriculture may have had a stabilizing effect on the county's economy during the recession. From 2008 to 2009, Roosevelt County had less unemployment than the rest of New Mexico-most counties had employment rates that rose on an average of 3 percentage points, but Roosevelt's rose by only 2 percentage points. ${ }^{32}$

Compared with the rest of the state, Roosevelt has more renter households-approximately 41 percent as compared with 31 percent for the other counties. This percentage of renter households in Roosevelt County represents an increase from 2000, when the portion of renter-occupied housing was 37 percent. Between 2000 and 2010 the number of vacant units available for rent decreased from 328 to 156. During this time the total number of housing units did not keep pace with population growth. Between 2000 and 2010, the population grew by 10 percent, but the number of housing units grew by only 5 percent.

## FRESNO COUNTY, CALIFORNIA

According to our index, Fresno County (figure 4.4) has a most-severe need score for affordable rental housing production, meeting the threshold for high need across five of six indicators. The drivers of affordable rental housing need included a growing population experiencing persistent poverty and unemployment across all three study periods coupled with a small share of vacant rental units and a large share of overcrowded rental units. Fresno is classified as a metropolitan county and has 46 eligible census tracts ( 23 percent of all census tracts within the county) and a population of 956,749 . Fresno County is located in Northern California just east of Monterey. The majority of the population (54 percent) lives in Fresno City, the county's largest city, and the county is home to portions of four nationally protected areas: the Sierra National Forest, Sequoia National Forest, Kings Canyon National Park, and the Giant Sequoia National Monument.

FIGURE 4.4
Fresno County, California


The population of Fresno County has been growing, but growth has slowed in recent years. Between 2000 and 2010, growth in the county was robust, increasing from 799,407 to 930,450 . This was higher than growth in California and the nation as a whole over the same period; the population increased in Fresno County by 16 percent compared with an increase of 10 percent in California and 10 percent nationally. However, growth in Fresno County has slowed in recent years. By 2015, the population increased to 956,749 (a 3 percent increase since 2010), which is similar to the percentage increase in California and the nation (both about 3 percent). Fresno is racially diverse: more than half (52 percent) the county's population is Hispanic, about 31 percent is white, 10 percent is Asian, and 5 percent is black.

Across a number of indicators, Fresno County is more economically depressed than the rest of the state and has struggled for the past 15 years. Unemployment in Fresno was higher than the state average for all three study periods. Moreover, unemployment has been increasing. In 2000, the unemployment rate was 7 percent, but it increased to 11 percent in 2010 and to 13 percent in 2015. The poverty rate was higher than the state average ( 27 percent compared with 16 percent), and a higher share of households had one or more members who relied on food stamps ( 20 percent compared with 9 percent for the state).

Educational attainment also lags behind the rest of the state; about 74 percent of the population 25 years and over is a high school graduate or higher (compared with 82 percent in California), and 19 percent has a bachelor's degree or higher (compared with 31 percent in California). Nearly one in four people ( 24 percent) over the age of 16 and employed in the civilian labor force is employed in education
services and health care and social sciences. Other large industries include retail trade (11 percent); agriculture, forestry, fishing and hunting, and mining (10 percent); arts, entertainment, and recreation and accommodation and food services (9 percent); and professional, scientific, management, and administrative services (8 percent). According to the ERS County Typology, Fresno County did not qualify for the farming, mining, manufacturing, federal or state government, or recreation county types.

Compared with California as a whole, the housing stock in Fresno County tends to be newer and cheaper and has a larger share of renter-occupied units. About 49 percent of the county's housing units are renter occupied (compared with 45 percent in California). The median home value for owneroccupied units is $\$ 194,600$; California's median home value is nearly twice that amount: $\$ 385,500$. The median year structures were built is 1979, which is slightly newer than the national median year of construction (1977) and the median in California (1974). Approximately one in four households (26 percent) does not have an Internet subscription, and 15 percent do not have a computer, ${ }^{33}$ compared with 23 percent of American households who do not have an Internet subscription and 13 percent of households who do not have a computer. ${ }^{34}$

## LEE COUNTY, SOUTH CAROLINA

Lee County (figure 4.5) also has a most-severe need rating for rural rental housing production, qualifying for four of six possible indicators on our composite index. Only 152 counties (out of a possible 3,061 ) received a score of 4 or higher. Persistent poverty and unemployment coupled with a small share of vacant rental units and a large share of overcrowded rental units were the primary drivers of rural rental housing need in Lee County. Part of the Persistent Poverty Southeast and located toward the center of the state, Lee County is classified as a nonmetropolitan county, and all seven of its census tracts are USDA eligible. The county's largest city, Bishopville, has a population of 3,342 and doubles as the county seat. ${ }^{35}$ Lee County is adjacent to Darlington, Florence, Sumter, and Kershaw Counties.

The population in Lee County has been decreasing over the last 15 years while the overall population in South Carolina has been growing. In 2000 the county population was 20,119, but it fell to 19,220 in 2010 and to 18,461 in 2015 . The population of South Carolina grew over the same period. Between 2000 and 2010 the state population increased 15 percent (compared with 10 percent nationally), and it increased 3 percent between 2010 and 2015, which was equal to the national average for the same period. Today, the majority of Lee County is black ( 63 percent). About 33 percent of the population is white, and 2 percent of the population is Hispanic.

FIGURE 4.5
Lee County, South Carolina


In addition to experiencing population loss, Lee County has also been more economically depressed than the rest of the state for the last 15 years. The unemployment rate was higher than the state average across all three periods and was more than twice the state average in 2010: 19 percent compared with 9 percent in South Carolina. Unemployment has improved slightly since 2010 but remains higher than the state average. In 2015, the unemployment rate fell to 15 percent, compared with 10 percent in South Carolina. The share of the population below the federal poverty level in Lee County is also 10 percentage points higher than the state average ( 28 percent in Lee County compared with 18 percent in South Carolina), and in nearly one-third of households ( 28 percent) one or more members receive food stamps (compared with 15 percent of households in the state).

Educational attainment in Lee County also lags behind the state; about 74 percent of the population 25 years and over is a high school graduate or higher (compared with 86 percent in South Carolina), and 9 percent have a bachelor's degree or higher (compared with 26 percent in South Carolina). About two in five civilian residents over the age of 16 and employed in the civilian labor force are employed in manufacturing (20 percent) or education services, health care, and social assistance industries (22 percent). Other major industries include retail trade (12 percent); arts, entertainment, and recreation and accommodation and food services ( 9 percent); and public administration ( 7 percent). ${ }^{36}$ Agriculture, forestry, and fishing and hunting are relatively small in Lee County; only six establishments are classified in this industry, employing 42 paid employees. ${ }^{37}$ The ERS County Typology classifies Lee as a government county.

Compared with the state as a whole, the housing stock in Lee tends to be cheaper and older, and the county has a comparatively small rental market. About 23 percent of the county's housing units are renter occupied, compared with 31 percent in South Carolina. The median home value ( $\$ 69,800$ ) is
nearly half of South Carolina's, where the median home value is $\$ 139,900$. Housing units also tend to be older; the median year that a structure was built is 1980, compared with 1986 in South Carolina. ${ }^{38}$

## ISABELLA COUNTY, MICHIGAN

Isabella County (figure 4.6) also has a most-severe rating for rural rental housing production, qualifying for four of six possible indicators on our composite index. Only 152 counties (out of a possible 3,061) received a score of 4 or higher. Persistent poverty and unemployment coupled with an increasing population and a growing share of housing cost-burdened households were the primary drivers for rural rental housing need in Isabella County. All 15 census tracts in the county qualify as eligible for USDA housing programs. The county's largest city and county seat is Mount Pleasant, which is home to 37 percent of the county's population.

FIGURE 4.6
Isabella County, Michigan


Although the overall population of Michigan has been relatively stable over the last 15 years, Isabella County has grown from 63,351 in 2000 to 70,311 in 2015. Isabella County is majority white (88 percent), but it also shares land with the Saginaw Chippewa Tribal Nation. Three percent of the county population is American Indian or Alaskan Native.

Isabella County has struggled economically compared with the rest of the state, with an unemployment rate at 12 percent, double the state average. The poverty rate in Isabella County has ranked highest in the state since at least 2000 and grown from 20 percent to 32 percent today, doubling the state average again. Unsurprisingly, the median income in Isabella is lower than the state average (\$39,377 compared with $\$ 49,576$ ).

Educational attainment in Isabella County is slightly higher than the rest of the state, with 91 percent of its population age 25 years or older possessing a high school degree or higher (compared with 89 percent in Michigan); 27 percent have a bachelor's degree or higher (compared with 26 percent in Michigan). Isabella County is a recreation-dependent county according to ERS County Typology. The largest employment sectors are educational services, health care, and social assistance (29 percent) and arts, entertainment, and recreation and accommodation and food services (21 percent). In contrast, the state's primary employment sector is manufacturing ( 17 percent), and the arts, entertainment, recreation, accommodation, and food services sectors comprise only 9 percent of the state's economy overall. Since 2005, the accommodation and food services sector grew from approximately 3,500 employees to 5,500, and it is now the largest employment sector in Isabella County.

Compared with the state as a whole, Isabella County had more renter households (39 percent in Isabella compared with 28 percent in Michigan). The housing values are comparable, with both the state and county average at approximately $\$ 122,500$. Overall, the growth in housing units in Isabella has kept up with the growth in population, with a 10 percent increase in population since 2000 and a 16 percent growth in housing units. However, the portion of renter-occupied housing units has grown since 2000 from 36 to 39 percent.

## Moderately Severe Production Need

Moderately severe production need counties, defined as having a score of 2 or 3 on the need index, were the middle group for housing production need and accounted for 38 percent of eligible counties and around 42 percent of the eligible rural population. As figure 3.3 demonstrates, the geographic distribution of moderately severe need counties generally follows that of the high-need areas: there is a concentration in the West (particularly California, Oregon, Washington, Nevada, Utah, Wyoming, Idaho, and Montana), the Border Region, the Midwest (in Wisconsin, Michigan, and Minnesota), the Persistent Poverty Southeast, the Southern Mississippi Delta, Central Appalachia, and the coastal area of the East Coast (stretching from Florida to Connecticut). Many of the moderately severe need counties ( 57 percent) were nonmetropolitan, but this group did have a higher proportion of counties with metropolitan status than the nation overall ( 35 percent). Although the indicators were not as severe as in high-need counties, moderately severe need counties had, on average, higher poverty rates, higher unemployment rates, lower rental vacancy, more overcrowding, and higher rates of renters who were housing cost burdened than the national rate in eligible areas. Interestingly, the share of
subsidized rental units in moderately severe need areas was, on average, only 1 percentage point lower than the high-need counties. Figure 4.7 provides a national map of moderately severe need counties.

FIGURE 4.7
Moderately Severe Need Index Score


Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

## GREGG COUNTY, TEXAS

According to our index, Gregg County (figure 4.8) had a moderately severe housing need, qualifying for two of a possible six indicators for severe housing need. A large and growing population combined with a large share of overcrowded units were the primary drivers of affordable rental housing need in Gregg County. Located in the eastern part of Texas, the largest city is Longview $(81,590)$, which is also the county seat. Gregg County is classified as a metropolitan county (part of the Longview, TX, metropolitan statistical area), and nine census tracts are USDA eligible (approximately 36 percent of all the county's census tracts).

## FIGURE 4.8

Gregg County, Texas


The population in Gregg County has increased over the last 15 years, but growth has slowed in the last 5 years and has been slower than the state as a whole. Between 2000 and 2010, the population of Gregg County increased about 9 percent (from 111,379 to 121,730), which was slower than growth in Texas as a whole (nearly 21 percent over the same period). Between 2010 and 2015, the pace of growth has slowed even more, increasing by only 2 percent (to 123,178 ), while Texas increased nearly 6 percent. The county is predominantly white (59 percent), but also has large black and Hispanic populations (20 and 18 percent, respectively).

Economically, Gregg County is roughly comparable to the rest of the state. While the unemployment rate increased 3 percentage points between 2000 and 2010 (from 4 to 7 percent), it dipped back to 6 percent 2015, while Texas stayed at 7 percent unemployment. The share of the population living below the federal poverty level in Gregg County is about 18 percent, which is only slightly higher than the share in Texas (17 percent). The share of households with one or more members receiving food stamps in Gregg is about 2 percentage points higher than the share in Texas (15 percent compared with 13 percent).

Compared with the state as a whole, a slightly larger share of Gregg County's population over the age of 25 has a high school degree or higher ( 84 percent compared with 82 percent), and a smaller share of Gregg County residents hold a bachelor's degree or higher (21 percent compared with 28 percent). Approximately one in five ( 22 percent) employed civilians over the age of 16 is employed in educational services and health care and social assistance industries. Other major industries include retail trade (14 percent); manufacturing (13 percent); arts, entertainment, and recreation and accommodation and food services ( 9 percent); and professional, scientific, management, and administrative and waste management services ( 7 percent). Only 5 percent $(2,948$ ) of the civilian employed population over the age of 16 is employed in agriculture, forestry, fishing and hunting, and mining. The ERS classifies Gregg County as a mining county, employing 2,822 people in mining, quarrying, and oil and gas extraction.

Gregg County's housing stock is roughly similar to the state housing stock in terms of median home value and the share of renter-occupied units, though the units tend to be older. About 37 percent of the housing units are renter occupied, compared with 35 percent in Texas. Median home value in Gregg County is $\$ 124,600$, which is slightly lower than the median home value in Texas $(\$ 136,000)$. Housing in Gregg County tends to be older than the rest of the state (the median year of construction is 1977, compared with 1984), though it is on par with the national average. Approximately 33 percent of households do not have an Internet subscription, compared with 25 percent in Texas and 23 percent nationally, and about 13 percent do not have a computer (which is the same as the state and national average). ${ }^{39}$

## CAMPBELL COUNTY, WYOMING

Campbell County (figure 4.9) has moderately severe rental housing need according to our index, qualifying for two of six potential indicators for severe housing need. Primary drivers of housing need in Campbell included a large and growing population coupled with a large share of rental units that were overcrowded. Campbell is classified as a nonmetropolitan county, and the entire county (all seven census tracts) is USDA eligible. Located in the northeastern portion of Wyoming, it is one of the most populous counties in the state. It shares a border with six other counties. The largest city, Gillette, has a population of 31,634 and is also the county seat. ${ }^{40}$ Campbell County is home to portions of the Thunder Basin National Grassland, which spans nearly 2.9 million acres from north central Colorado to northeastern Wyoming. ${ }^{41}$

FIGURE 4.9

## Campbell County, Wyoming



Campbell experienced a large population growth over the last 15 years, and growth has been more robust than either state or national averages. Between 2000 and 2010, Campbell's population increased nearly 37 percent (from 33,698 to 46,113 ), which outpaced population change in both Wyoming (an increase of 14 percent) and the nation (10 percent) over the same period. Growth slowed between 2010 and 2015, but it remained more robust than changes in the state or the country as a whole; Campbell's population increased 4 percent (from 46,113 to 48,013 ), which was a larger percentage increase than Wyoming or the nation as a whole (both experienced an increase of about 3 percent). The vast majority of Campbell County is white (nearly 88 percent). The remainder of the population is predominantly Hispanic (8 percent), about 2 percent of the population identifies as two or more races, and 1 percent is American Indian and Alaskan Native.

Population growth in Campbell Country has been coupled with an economic outlook that tends to be better than the rest of the state across a range of indicators. For the last 15 years, the unemployment rate has been lower than or close to the unemployment rate of the state as a whole. Although national unemployment increased dramatically in the wake of the Great Recession, the unemployment rate in Campbell only increased about 1 percentage point over the last 15 years (from 3 percent in 2000 to 4 percent in 2015). Wyoming's unemployment rate also increased 1 percentage point over the same period, but it remains higher (from 4 percent in 2000 to 5 percent in 2015). The share of the population below the federal poverty level is smaller in Campbell than in the state as a whole ( 7 percent compared with 12 percent in Wyoming), and fewer households have a member who relies on food stamps (2 percent compared with 6 percent in Wyoming).

Educational attainment tends to be slightly lower in Campbell than the state as a whole; 91 percent of Campbell's population 25 years and over is a high school graduate or higher (compared with 92 percent in Wyoming), and 19 percent has earned a bachelor's degree or higher (compared with 26 percent in Wyoming). About one in four ( 26 percent) of the population over the age of 16 and employed in the civilian labor force is employed in agriculture, forestry, fishing and hunting, and mining. Other major industries include educational services, health care, and social assistance (17 percent); retail trade (10 percent); transportation and warehousing and utilities (8 percent); and arts, entertainment, and recreation and accommodation and food services (7 percent). The ERS typology classifies Campbell as a mining county. ${ }^{42}$

A slightly smaller share of the housing units in Campbell County are renter occupied than in Wyoming, and the housing stock tends to be newer and more expensive. ${ }^{43}$ About 26 percent of the housing units are renter occupied in Campbell, compared with nearly 30 percent in Wyoming. The median home value in Campbell is $\$ 212,200$, which is slightly higher than the median home value in Wyoming ( $\$ 194,800$ ). The housing stock tends to be newer as well (the median year of structure build is 1991), which is newer than both Wyoming (1978) and the national average (1977). ${ }^{44}$

## Less-Severe Production Need

Less-severe production need counties, defined as those that scored 0 or 1 on the index, represented the largest group of counties (around 58 percent of eligible counties) and the largest share of the population ( 51 percent of the eligible population). Although there were less-severe need counties in all states except Hawaii, there was a particularly high concentration in the Great Plains, the Midwest, and the Northeast. Less-severe need counties tended to be smaller, older, and slower growing than the national average. They also, on average, had a larger non-Hispanic white population. Average poverty and unemployment rates were persistently lower than national figures, and less-severe need counties had higher rates of dependence on farming and manufacturing. Figure 4.10 provides a national map of lesssevere need counties.

## Less-Severe Need Index Score



Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.

## MARION COUNTY, IOWA

According to our index, Marion County (figure 4.11) had a less-severe need for affordable rental housing production and did not meet the threshold for high need across any of the six indicators. Marion County has relatively stable population and economic conditions and high rates of homeownership. It is classified as a nonmetropolitan county, and all eight tracts are eligible for USDA housing programs. Marion County is located in southeast lowa, and the county seat, Knoxville, is an hour southeast of Des Moines. The majority of the population ( 60 percent) lives in the two largest cities, Pella and Knoxville. Pella is home to Central College, as well as being the base of several manufacturing companies, including Pella Corporation and Vermeer Manufacturing Company.

FIGURE 4.11

## Marion County, Iowa



The population of Marion County remained steady between 2000 and the present, growing 4 percent between 2000 and 2015, with a current population of 33,309 . This growth rate is characteristic of lowa but was less than the national rate of 10 percent over the same period. Marion County is predominantly white (95 percent) in a predominantly white state (91 percent).

Marion County is more economically well-off than the rest of the country. In 2015, unemployment in Marion (4.9 percent) was lower than the national average ( 8.3 percent) and had decreased from the rate in 2010 ( 5.3 percent). The poverty rate of 9 percent is lower than both the state ( 12 percent) and national ( 15.5 percent) averages. In Marion County, 92 percent of people over age 25 have completed high school compared with 86 percent in lowa, with 25 percent having a bachelor's degree or higher. Median earnings for individuals with a high school degree are higher than the national average (approximately $\$ 31,000$ compared with $\$ 28,000$ ).

One reason for the relatively better economic outcomes in Marion County overall, and for those people with a high school degree or less, is that the predominant industry is manufacturing, according to the ERS County Typology. Approximately one in four people in the civilian labor force and over the age of 16 is employed in manufacturing. Manufacturing and education services, health care, and social assistance are the two largest industry sectors, each employing approximately 25 percent of the labor force. Other large industries include retail and accommodation and food services.

Marion County, and lowa as a whole, tend to have large shares of homeowners (74 percent) compared with renters ( 26 percent), higher than the national average. The median home value in Marion County $(\$ 137,000)$ is slightly higher than the average in lowa $(\$ 129,200)$ but is lower the national average ( $\$ 178,600$ ).

## Population Change and Race and Ethnicity

As table 4.4 demonstrates, most-severe need counties were, on average, larger and faster growing than less-severe need counties. The table contains averages (mean) by county need category as well as the standard deviations, which quantify the amount of variation within the need category. A low standard deviation value relative to the mean indicates that the data values tended to be close to the mean, and a high standard deviation indicates that the data values were more spread out (i.e., had a large variation). The most-severe need county average population was over 20,000 higher than the less-severe need average in 2010-14. Most-severe need counties also had nearly a 10 percentage point higher growth rate between 2000 and 2010-14. However, not all most-severe need counties were large and fast growing. Nearly half of most-severe need counties (49 percent) did not meet the population change threshold. Both the population change and the average population indicators varied tremendously across need categories (within the most-severe need counties the standard deviation of population in 2014 was 67,923 , and with population change the standard deviation was 26.3 percent). For example, within the most-severe need counties the total population of eligible areas within counties in 2014 ranged from 460,569 in Riverside County, CA, to 1,279 for Issaquena County, MS.

TABLE 4.4

## Population and Demographics by Need Category

|  | Most Severe |  | Moderately Severe |  | Less Severe |  | All Eligible Counties |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Population, 2014 | 52,560 | 67,923 | 40,840 | 44,638 | 32,308 | 35,600 | 36,480 | 41,601 |
| Population, 2010 | 50,196 | 62,250 | 39,386 | 42,346 | 31,847 | 34,546 | 35,556 | 39,642 |
| Population, 2000 | 43,738 | 49,830 | 35,870 | 37,717 | 30,567 | 32,457 | 33,189 | 35,671 |
| Population change, 2000 and 2014 | 11.8\% | 26.3\% | 10.1\% | 20.6\% | 2.5\% | 13.1\% | 5.8\% | 17.5\% |
| Share 0-17 years, 2014 | 24.7\% | 4.5\% | 23.4\% | 3.4\% | 22.4\% | 2.9\% | 22.9\% | 3.2\% |
| Share 18-44 years, 2014 | 33.9\% | 5.8\% | 31.7\% | 4.7\% | 29.8\% | 3.9\% | 30.7\% | 4.5\% |
| Share 45-64 years, 2014 | 24.7\% | 4.1\% | 27.2\% | 3.4\% | 28.1\% | 2.7\% | 27.6\% | 3.2\% |
| Share 65+ years, 2014 | 13.7\% | 4.4\% | 15.3\% | 4.3\% | 17.4\% | 3.9\% | 16.4\% | 4.2\% |

Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data. Note: SD = standard deviation; most severe, $N=152$; moderately severe, $N=1,136$; less severe, $N=1,773$; all eligible counties, $N=3,061$.

Total county population differed between most-severe to least-severe need counties in each collection year (2000, 2010, and 2014). The population change 2000 and 2010-14 variable, which looked at the percentage change in county population between 2000 and 2010 to 2014 also differed
between these two groups. In general, most-severe need counties tended to have a younger population than moderately severe or less-severe need areas. Most-severe need counties had, on average, a higher proportion (by over 2 percentage points) of the population under 18 than the less-severe need counties and a higher share (by 4 percentage points) of the young working age population ( $18-44$ years). The most-severe need counties also had a lower share (by 3.5 percentage points) of the older working population ( $45-64$ years) and a 3.7 percentage points lower rate of older adults ( 65 years or older).

Most-severe need counties tended to be considerably more ethnically and racially diverse than the other categories. As Table 3.4 demonstrates, severe-need counties had, on average, a higher share of non-Hispanic black, non-Hispanic American Indian and Alaskan Native, and Hispanic residents than moderately severe and less-severe need counties. Notably, the difference between less-severe and most-severe need values for the non-Hispanic white population was nearly 35 percentage points (86 to 52 percent). Table 4.5 presents the average for each need category. The ethnic and racial profiles of counties varied tremendously within need categories, particularly within the most-severe need group (which had large standard deviations relative to the means across variables). There were most-severe need counties that had very little ethnicity and racial diversity as well as less-severe counties that were relatively diverse, but, on average, the most-severe need counties had higher shares of nonwhite populations.

TABLE 4.5

## Racial and Ethnicity Characteristics by Need Category

|  | Moderately <br> Severe |  |  |  |  |  | Less Severe |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data.
Note: SD = standard deviation; most severe, $N=152$; moderately severe, $N=1,136$; less severe, $N=1,773$; all eligible counties, $N=3,061$.

## Poverty and Employment

Persistent unemployment and persistent poverty indicators were included in the index to capture economic conditions from 2000 to 2014. Fifty-seven percent of most-severe need counties met the persistent poverty threshold of having 20 percent or higher poverty rates in each period (compared with only 12 percent of all eligible counties). As table 4.6 indicates, most-severe need counties consistently had higher poverty rates than the national average. Most-severe need counties, on average, had between 9 and 10 percentage point higher poverty rates than the less-severe need counties in each year period and between 7 and 8 percentage points higher than moderately severe need counties in each period.

TABLE 4.6
Poverty and Employment Characteristics by Need Category

|  | Moderately |  |  |  |  | All Eligible |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Most Severe |  | Severe |  | Less Severe |  | Counties |  |
|  | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Poverty, 2014 | $25.0 \%$ | $8.6 \%$ | $17.6 \%$ | $7.9 \%$ | $14.5 \%$ | $4.9 \%$ | $16.2 \%$ | $6.9 \%$ |
| Poverty, 2010 | $22.9 \%$ | $9.4 \%$ | $16.2 \%$ | $7.8 \%$ | $13.4 \%$ | $4.8 \%$ | $14.9 \%$ | $6.7 \%$ |
| Poverty, 2000 | $22.2 \%$ | $10.0 \%$ | $15.2 \%$ | $7.8 \%$ | $12.1 \%$ | $4.8 \%$ | $13.8 \%$ | $6.8 \%$ |
| Unemployment, 2014 | $13.5 \%$ | $4.3 \%$ | $9.4 \%$ | $4.0 \%$ | $7.3 \%$ | $3.1 \%$ | $8.4 \%$ | $3.8 \%$ |
| Unemployment, 2010 | $12.4 \%$ | $5.0 \%$ | $8.5 \%$ | $3.7 \%$ | $6.9 \%$ | $2.8 \%$ | $7.8 \%$ | $3.5 \%$ |
| Unemployment, 2000 | $9.9 \%$ | $4.5 \%$ | $6.3 \%$ | $3.2 \%$ | $4.9 \%$ | $1.9 \%$ | $5.7 \%$ | $2.9 \%$ |

Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data. Notes: $S D=$ standard deviation; most severe, $N=152$; moderately severe, $N=1,136$; less severe, $N=1,773$; all eligible counties, $N=3,061$.

Eighty-five percent of most-severe need counties met the persistent unemployment threshold of having higher than the national average unemployment rate in each period (compared with only 21 percent of total). Most-severe need counties, on average, had between 5 and 6 percentage points higher unemployment rates than the less-severe need average in each year period and between 3 and 4 percentage points higher when compared with moderately severe need counties.

As discussed above, the ERS County Typology Codes classify all US counties according to six mutually exclusive categories of economic dependence: farming, mining, manufacturing, federal or state government, recreation, and nonspecialized. Table 4.7 provides the share of counties that met each economic dependency category separated by need group. Less-severe need counties had 10 percentage point higher rates of farming dependence than most-severe or moderately severe need counties. Less-
severe need counties also had higher rates of mining dependence, manufacturing dependence, and recreation dependence. A greater proportion of most-severe need counties were government dependent and nonspecialized when compared with moderately severe and less-severe need counties.

TABLE 4.7

## ERS County Typologies by Need Category

|  | Moderately <br> Severe |  |  |  |  | Less Severe |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |$⿻$| All Eligible |
| :---: |
| Counties |

Source: US Department of Agriculture Economic Research Service.
Note: SD = standard deviation; most severe, $N=152$; moderately severe, $N=1,136$; less severe, $N=1,773$; all eligible counties, $N=3,061$.

## Housing Characteristics

Table 4.8 includes means for the four explicitly housing-related indicators included in the index: rental vacancy rates, overcrowding (more than 1.0 person per room) in renter- and owner-occupied units, rates of severely cost-burdened rental households (those paying more than 50 percent of income on rent), and share of rental units that are federally subsidized. Most-severe need counties, on average, had a lower vacancy rate than less-severe need counties, although the difference was just under 2 percentage points. Most-severe need counties had rates of overcrowding that were higher by over 4 percentage points. Most-severe need counties also had rates of severely cost-burdened rental households that were around 8 percentage point higher than less-severe need counties. Finally, the share of subsidized rental units was slightly lower (by around 1.5 percentage points) on average for most-severe need counties than those with less-severe production need (though the difference was fairly small).

TABLE 4.8

## Occupancy Characteristics of Housing by Need Category

|  | Moderately <br> Severe |  |  |  |  |  | Less Severe |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Source: Urban Institute tabulations of 2000 Decennial Census and 2006-10 and 2010-14 American Community Survey data. Subsidized housing data were compiled by using A Picture of Subsidized Households (2015), USDA Rural Development Direct and Guaranteed Loan Program data (2016), and LIHTC database (2014).
Notes: SD = standard deviation; most severe, $N=152$; moderately severe, $N=1,136$; less severe, $N=1,773$; all eligible counties, $N=3,061$.

Housing structures in counties with the most-severe need tended to be larger and newer than structures in counties with moderate and less-severe production need. On average, housing structures in eligible counties with the most-severe need tended to have more units. The share of the housing stock with four or fewer units was lower in eligible counties with the most-severe need than in counties in either of the other two categories ( 75.8 percent of structures in counties with the most-severe production need, compared with 78.5 percent of structures in counties with moderately severe need and 82.3 percent of structures in counties with less-severe need). Housing structures in counties with the most-severe need also tended to be newer. About 29.0 percent of structures in counties with the most need were built before 1970, compared with 33.2 percent of structures in counties with moderately severe need and 44.5 percent of structures in counties with less-severe need.

Despite having housing stock that was larger and newer, housing quality tended to be worse in eligible counties with the most-severe need. About 1.7 percent of occupied units in counties with the most-severe need lacked complete plumbing facilities, compared with 0.8 percent of occupied units in counties with moderately severe need and 0.6 percent of units in counties with less-severe need. Occupied units in counties with the most-severe need also had a larger share of units lacking complete kitchen facilities: 1.6 percent, compared with 1.0 percent of occupied units in counties with moderately severe need and 0.9 percent of occupied units in counties with less-severe need. These findings can be partially explained by the comparatively large share of mobile homes in areas with the most-severe need. About 17.7 percent of housing units were mobile homes in most-severe production need counties,
compared with 16.5 percent of units in counties with moderately severe need and 12.5 percent of units in counties with less-severe need. These differences are summarized in table 4.9.

TABLE 4.9
Physical Characteristics of Housing by Need Category

| Category | Description | Most Severe |  | Moderately Severe |  | Less Severe |  | All Eligible Counties |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Housing units by type | Share of total housing units with one to four units in the structure | 75.83\% | 0.84\% | 78.46\% | 0.29\% | 82.28\% | 0.18\% | 80.55\% | 8.94\% |
|  | Share of total housing units that were mobile homes | 17.70\% | 0.78\% | 16.47\% | 0.30\% | 12.45\% | 0.20\% | 14.20\% | 9.31\% |
| Housing units by age | Share of total housing units built before 1970 | 29.02\% | 0.95\% | 33.19\% | 0.42\% | 44.48\% | 0.37\% | 39.52\% | 16.04\% |
| Housing units by quality | Share of occupied units lacking complete plumbing facilities | 1.72\% | 0.39\% | 0.82\% | 0.05\% | 0.57\% | 0.01\% | 0.72\% | 1.56\% |
|  | Share of occupied units lacking complete kitchen facilities | 1.64\% | 0.29\% | 0.98\% | 0.04\% | 0.89\% | 0.02\% | 0.96\% | 1.29\% |

Source: Urban Institute tabulations of 2010-14 American Community Survey data.
Notes: SD = standard deviation; most severe, $N=152$; moderately severe, $N=1,136$; less severe, $N=1,773$; all eligible counties, $N=3,061$.

## Discussion

Rural communities across the United States face shortages in the current stock of affordable rental housing. Drawing from our conceptual model that incorporates supply, demand, and affordability factors, the most-severe counties identified by our composite index have the most extreme production need. They are counties where multiple overlapping housing, demographic, and economic conditions create situations in which the need for preserving and producing affordable rental housing is the greatest. As the summary statistics indicate, these communities tended to be younger, faster growing,
and more ethnically and racially diverse than communities in moderately and less-severe need counties. In terms of housing, they tended to have lower vacancy rates, more overcrowding, more severely costburdened renters, and a lower share of existing federally subsidized units. The most-severe need counties also had higher rates of economic dependency on government employment, which tend to have the highest poverty rates and lowest median household incomes (USDA ERS 2016). Similarly, most-severe need counties had lower rates of dependence on agriculture and mining, industries which, as Hertz and colleagues (2014) suggest, are relatively less susceptible to economic setbacks.

Representing 38 percent of eligible counties and 42 percent of the eligible population, moderately severe need counties make up a far larger share of rural America. These counties, which exist in nearly every state, are communities that did not meet the high threshold set for most indicators, but still met two or three of them. In many ways, they had similar-although less extreme-demographic, housing, and economic characteristics as the most-severe need counties. Moderately severe need counties had the highest proportion of metropolitan-designated counties, but their population growth rates were nearly the same as the most-severe need counties. These counties appear to be primed to experience increasing affordable housing demand as the communities, particularly around metropolitan areas, continue to expand.

The findings suggest that the largest drivers in the conceptual framework for production need were in the "demand" and "affordability" components. Within the supply components, which included the vacancy rates and share of rental units that were subsidized, there were very modest differences in the mean values in both indicators across need groups (see table 4.7). Notably, share of rental units that was subsidized was the only indicator for which the moderately severe need category had a mean value lower than the most-severe need category. The vacancy threshold was, by far, the most common threshold that less-severe and moderately severe counties met, but at 56 percent, it was well below the overcrowding and unemployment thresholds for most-severe counties (see table 3.1). The indicators associated with demand (population change, poverty, employment, and overcrowding) and affordability (cost burden) had differences in mean values that were, in most cases, quite large. The findings suggest that these components appeared to be a much stronger factor in the need index than the supply-side components.

As with the rest of rural America, severe-need counties are not homogenous. They exist in a majority of states that have diverse populations and economies. Similarly, the level of production need-in terms of number of units, location, and housing type-are not the same across counties by need category and should be approached on a community-by-community basis. Just as there may be
high-need communities within overall low-need counties, there may be low-need communities within overall severe-need counties.

Though this research cannot be directly used as inputs for specific project funding decisions or to estimate the exact number of units needed within a given rural community, by highlighting geographies of concentrated, severe need, our analysis provides a valuable tool for policymakers and developers working to preserve and produce new affordable rental housing. Understanding what drives need in these rural communities within their local contexts is an essential step to filling a critical housing gap in rural America by mobilizing resources and tools for encouraging the production of new affordable rental housing. Our final report section focuses on the implications of this analysis on existing policies and programs for expanding the supply of affordable rental housing in diverse rural communities across the country.

## 5. Implications for Policy and Practice

This study affirmed that many rural communities continue to face a shortage of affordable rental housing units despite their growing needs. Particularly, underserved areas such as Central Appalachia, the Southern Mississippi Delta, and Tribal Areas continue to face strong demand and short supply based on the indicators analyzed. Additionally, aggregating USDA-eligible areas in otherwise metropolitandesignated counties for the first time has highlighted eligible rural areas in states like California that have needs often overshadowed by the more urbanized portions of their counties. Over 150 eligible counties showed extremely severe needs, meeting at least four of the seven indicator thresholds. Just over one out of every three (37 percent) eligible counties had a moderately severe need according to the index, meeting between two and three of the indicator thresholds. Though over half ( 58 percent) of USDA-eligible county areas met either none or just one of the thresholds, many of these places still experience unmet demand for affordable rental housing, whether they fell just a few percentage points below each threshold or they scored high on a single threshold, indicating severe distress and need for attention.

There are a variety of challenges to meeting this identified need based on financing limitations and production capacities and processes. Financing is necessary to make new construction of affordable rental housing in rural communities a reality. Low-cost development capital and additional operating support are needed to produce units with low, affordable rents, yet many public financial resources have decreased over the years, and they lack targeting mechanisms to reach markets with the most severe needs. The private sector also has weak participation in affordable rental housing for rural markets.

If funding is half the challenge, the development process and partners are the other half. A developer needs the capacity to construct new affordable rental housing in a rural community at a scale that is financially feasible. A market analysis should confirm the need for new units, including what type of units are needed, how many, and at what price based on current demographic and market conditions. Finally, appropriate land and infrastructure also need to be available for the new units.

Despite such challenges, there are a number of opportunities to enable new affordable rental housing development in rural communities. Targeting, expanding, and coordinating capital and operating support are important ways to facilitate new supply to meet growing needs. A variety of steps
could also be taken to help rural communities prepare to meet the demand by equipping developers, promoting expanded types of rental housing, siting new developments near existing infrastructure, and strengthening market analysis. The rest of this section discusses some of the unique challenges to financing and building rental housing in rural communities and offers concrete recommendations on how to successfully overcome them.

## Increasing Public Funding

As detailed in section 2, the public sources of funding for rental housing construction in rural communities today are few, whether they are direct loans, guaranteed loans, tax credits, operating supports, or combinations of capital grants and operating supports. Two potential sources of direct capital for rental housing that can benefit rural communities have not received funding to finance new construction in a few years, despite their current authorization and large, active portfolios: USDA Section 515 Rural Rental Housing program and HUD Section 202 Supportive Housing for the Elderly. Since FY 2012, new construction has not been funded for either program (GAO 2016).

Guaranteed loans, such as USDA Section 538, and tax credits, such as LIHTC, receive annual funds and allocations, but they are dependent on private-sector participation to capitalize projects. This dependence means they are tied to the economic business cycle. They can attract investors (LIHTC) or lenders (Section 538) more easily when the economy is doing well, but during uncertain times or economic recessions prices and participation can fall, even as the need for affordable rental housing remains high in some places. LIHTC investors can undervalue rural projects and offer less investment per dollar of tax credit feasibility (Scally and Lipsetz 2017). Section 538 also relies heavily on LIHTC equity for financial feasibility (Scally and Lipsetz 2017), exacerbating the challenges of using this program when LIHTC is struggling to raise investor equity.

Operating subsidies are critical to supporting new construction, particularly for poor households and in housing markets in which construction costs are significantly higher than low rents can cover. Section 521 Rental Assistance appropriations have expanded recently, but only to meet the costs of existing contracts. These contracts used to be 20 years in length, but now they must be renewed annually, making long-term funding less secure (Strauss 2014). Similarly, current Section 202 appropriations only cover existing Project Rental Assistance Contracts (a three-year initial contract), although these appropriations declined substantially in 2013 (GAO 2016). LIHTC units also need rental assistance in order to offer units affordably to very low income households. ${ }^{46} \mathrm{PBV}$ s are a potentially
untapped resource for supporting new rental housing development in rural communities, but requirements may be too onerous for smaller projects.

## RECOMMENDATION \#1: INCREASE PUBLIC-SECTOR RESOURCES FOR THE PRODUCTION OF

 NEW AFFORDABLE RENTAL HOUSING IN RURAL AMERICA.1. Increase budget appropriations to finance new units under USDA Sections 515 and 514 and HUD Sections 202 and 811. These programs are already structured to serve rural places and vulnerable people by providing either low-interest, repayable direct loans or forgivable capital advances to limited profit and nonprofit owners to house rural households affordably.
2. Increase the competitiveness of and reduce barriers for rural funding proposals for affordable rental housing construction. The USDA Section 515 program is a critical program for financing affordable rental units in rural communities. There are challenges in the way it is structured, however, that make it difficult to use in today's housing finance environment. USDA could compare their current practices with those of other private and public affordable rental housing finance vehicles and realign Section 515 to work more efficiently with other programs. Non-USDA program rules could be reevaluated for how they work in rural communities and whether they introduce disincentives or barriers for rural applications. Some programs may need to tweak or change regulations to work for rural projects; demonstration projects could be used to test outcomes. For example, a floor for LIHTC tax credit valuation could be suggested or set at the federal or state level for rural developments to ensure that enough equity is raised for the project. For PBVs, state voucher administrators could set aside a certain portion for rural projects or units, or they host a separate competition for rural projects. HUD could also examine the required environmental review to ensure that smaller rural projects are not systematically disadvantaged and provide assistance to help meet the costs of implementation. Both programs could also better leverage USDA Section 538 guaranteed loans.
3. Expand operating supports for extremely low income households when new units are built. Even within properties financed through low- or no-cost capital funding or investments, operating supports are necessary to help extremely low income households afford their rent. This financing necessity means offering USDA Section 521 Rental Assistance to new tenants of newly constructed units built under a recapitalized Section 515 Direct Loan program. It could also include increasing the use of PBVs for new construction in rural communities.
4. Explore and improve how other federal programs are used in rural communities. Rural communities can access federal block grants for housing and community development activities through their state allocations: the Community Development Block grant since 1974, the HOME Investment Partnership Program since 1993, and supplemental Community Development Block Grant Disaster Recovery funds authorized to help communities rebuild after suffering disasters. Unfortunately, it is difficult to assess how much of the funding goes to rural communities, how much is targeted to rental housing in these rural communities, and what the impacts of such investments are (Wiley 2014). These block grants may represent funds that could be better leveraged for affordable rental housing in rural areas, but more research is needed to understand their history in rural America and their future potential.

## Targeting Severe Need

All affordable rental housing development in the United States is reliant on developer-initiated applications, whether that developer is a private, nonprofit, or public entity (e.g., a PHA). Most older capital finance programs have little targeting beyond population served, and sometimes geographical location (e.g., USDA-eligible rural areas). Section 515 and 514/516 resources statutorily target eligible rural areas, eligible population based on income restrictions, and work category restrictions, in the case of Section 514/516 Farm Labor Housing. Section 538 is similarly targeted, allowing slightly higher incomes. Beyond these required targets and the overall financial feasibility of the development project, no other priorities or selection criteria are generally used in allocating and approving developer applications. These general restrictions mean that all applications are treated the same, regardless of overall market characteristics and local needs of the populations and communities and regardless of the existing presence or absence of other federally assisted rental units in the community (see figure 5.1).

HUD Section 202 is also driven by developer application to the appropriate field office. Fifteen percent of annual allocations are reserved for nonmetropolitan areas. Funding is allocated to 18 regional offices and awarded based on the housing approach including service provision for elderly, the developer's capacity, evaluation plan, need for funding in the geographic area, and ability to blend financing (Perl 2010).

The newest finance program, LIHTC, is the only multifamily rental development resource required to set state-level priorities and preferences for allocations using the annual Qualified Allocation Plan process. In 2013, 22 states had rural and tribal set-asides, with 9 states designating at least 20 percent
of their tax credits for rural projects (National Council of State Housing Agencies 2015). It is unclear, however, how these states define rural or include other criteria targeting high-need rural communities. In fact, some LIHTC criteria clearly favor urban areas, such as priorities for transit-oriented development and development in "high-opportunity" neighborhoods that offer strong public services, employment centers, and other valued opportunities for residents. In addition, the fact that LIHTC financing requires larger project sizes to reach economies of scale means rural developers needing smaller-scale projects have a hard time accessing the program.

Because of lack of data on existing PBVs, we do not know how many have been committed to affordable rental housing in rural America. There are currently no federal set-asides for rural areas, and it is unknown if regional and state voucher program administrators include any priorities for allocating units to rural projects within their service areas.

FIGURE 5.1

## Share of Occupied Rental Housing Units that Are Subsidized within USDA-Eligible Counties and Partial Counties



Source: Urban Institute analysis of HUD Picture of Subsidized Households (2015), USDA Rural Development Direct and Guaranteed Loan Program (2016) data, and HUD LIHTC database (2014) within USDA-eligible census tracts.

## RECOMMENDATION \#2: SET PRIORITIES AND PREFERENCES AND PROVIDE INCENTIVES FOR DEVELOPMENT PROJECTS IN RURAL COMMUNITIES WITH THE MOST-SEVERE NEEDS.

These communities could include underserved rural regions, those scoring high on our index or on certain indicators in our index, or places with high affordability gaps (Getsinger et al. 2017).

1. Prioritize rental assistance in areas with the most-severe need. Some type of rental assistance-Section 521 in USDA properties or PBVs-may be required to allow for rents low enough to put them in reach of the poorest households. Developers understand this need and will not submit funding proposals when operating costs are higher than rent revenues unless there is at least the potential to leverage rental assistance for very low income families.
2. Target communities with severe needs and low or declining existing stock of federally assisted rental housing. As figure 5.1 highlights, many eligible counties have a small share of their total occupied rental housing stock subsidized by federal programs. Some of these counties were identified in this study as having severe need. New affordable rental units may make more sense in these places than in other areas where subsidized rental housing already exists and is not at risk of exiting the subsidy program soon.
3. Provide housing for the elderly in communities with a high and/or growing proportion of low-income populations over age 62. If appropriated funds for new construction, Section 202 could be deployed in rural communities with strong need. If ongoing demand for agerestricted units seems questionable in some communities, HUD could consider the possibility of offering the capital advance and operating support for a shorter time frame than 40 years, if financially feasible.
4. Increase LIHTC responsiveness to rural areas with severe housing needs. Adding rural set-asides to the 9 percent LIHTC program would help, but even more changes may be needed to target the neediest people and places. Separate criteria for rural communities may be warranted in some instances. Finding a way to fund smaller, scattered site developments spanning multiple communities in a single state, or even across a multistate region, may be necessary to target small communities needing only a few units to meet their needs while reaching economies of scale.
5. Deploy PBVs for rural production in high-need areas. This recommendation could include a rural target for state use of PBVs, as suggested above, as well as an educational campaign
on how rural-serving regional or local PHAs or other voucher program administrators can effectively mobilize PBVs to meet rural needs for rental housing production.

## Attracting Private Resources

Overall, rural America has fewer and smaller-sized banks and less access to private capital for financing affordable rental housing development than urban areas of the United States. Because of the process of bank consolidation, many banks are now headquartered in urban areas, weakening their relationship with and investments in rural communities (Tolbert et al. 2014). As a consequence, many existing banks do not have Community Reinvestment Act obligations to lend in their communities, and rural areas do not fall in the service areas of larger lenders that do have such requirements (HAC 2015b). Government-insured loans and tax credits provide another potential incentive for private capital to enter rural markets, but there is nothing distinctive about rural-serving products to increase their competitiveness against urban investments.

There are signs that private market regulators are increasingly aware of this gap in serving rural markets. The new Duty to Serve rule issued by the Federal Housing Finance Agency to govern housing investments by Fannie Mae and Freddie Mac in underserved markets may increase private-sector participation in rural housing as well as their desire to offer more innovative financial products for meeting rural housing needs (12 CFR Part 1282). Additionally, bank regulators such as the Office of the Comptroller of the Currency have given support for expanding Community Reinvestment Act investment obligations and activities in rural areas (Curry 2014).

## RECOMMENDATION \#3: MINIMIZE RISK AND ATTRACT PRIVATE-SECTOR INVESTMENT BY USING INNOVATIVE STRATEGIES.

In addition to increasing private-sector confidence in rural market investments by strengthening public support, there may be other innovative private-sector financial products or processes that lessen the perceived risk of rural lending and investing. At a more local scale, lenders may find other ways of reducing risk through innovations such as pooling funds and leveraging other public investments in nonhousing facilities.

1. Leverage Duty to Serve to inspire innovative products for rural markets. At a national scale, Fannie Mae and Freddie Mac can use their loan purchasing power to ask lenders to create new ways of meeting the mortgage credit needs for rural markets based on evidence from their
existing portfolio data. They can also collaborate with public funders to develop, pilot, and evaluate new products to fill identified market gaps.
2. Incentivize pooled private funds administered by community development financial institutions. Community development financial institutions are private financial institutions that provide access to credit to low-income residents, communities, and businesses underserved by traditional financial institutions. Community development financial institutions are capitalized through a variety of small to large investments and grants from multiple sources that they then lend out at lower interest rates for smaller loan sizes than traditional lenders, among other activities. A pooled fund shares the risk between investors while tapping into the expertise of local financial institutions focused on providing access to credit specifically in rural communities. Such investments could count toward a bank's Community Reinvestment Act requirements.
3. Finance colocated projects to minimize risk and diversify funding. Some development projects in rural communities may be complementary and have greater chance of success and less financial risk when financed and built together rather than independently. Rental housing units coupled with a variety of community facilities might make sense in both smaller and larger rural communities by increasing access to essential services. Potential colocated services or businesses might include a health care facility, a public library, or a grocery store. Many public facilities for small communities, as well as business enterprises, may be eligible for funding under other USDA programs that could be used to leverage other housing investments. There are benefits and costs to creating regional hubs for housing and services in rural areas that would need to be carefully considered before committing to a colocation strategy. Decisions should maximize access while minimizing the disruption to other local housing markets and economies.

## Increasing Funder Capacity and Coordination

USDA loan applications are submitted to and processed by state offices, all of which are competing for a limited national pool of funding. Some offices have more capacity than others to process applications, due to differences in leadership, staff experience, and turnover, among other causes. HUD applications are processed through a regional office that may know little about the community targeted by an application, particularly given their weaker rural mandate and exposure. Finally, LIHTC allocations are
based on the ability of staff at a state agency to appropriately assess diverse rural markets throughout their state.

Older financing programs for rental housing production in rural areas consisted of sole-source financing through federal capital grants and loans. The Section 515 and 514 programs were structured to cover the entire development cost through a single USDA loan held and serviced by the agency for the life of the loan. Loan terms originally stretched for 50 years, then 40 years, then 20 to 30 years. Section 521 Rental Assistance covers over 65 percent of current tenants. Section 202 is structured as a 40-year capital advance with an associated rental assistance agreement.

The LIHTC program, along with USDA's newer Section 538 Guaranteed Loan program, are built to layer with other sources of capital and operating funds, but they are still used more often in preserving older units that have original single-source funding, making these deals complicated (Scally, Dabir, and Lipsetz 2018).

## RECOMMENDATION \#4: IMPROVE THE CAPACITY OF FEDERAL AGENCIES TO MOBILIZE AND COORDINATE FUNDING TO RURAL COMMUNITIES.

1. Improve training for housing program staff serving rural communities. Staff would benefit from familiarity with all housing programs that might be layered to facilitate new affordable rental housing construction. This familiarity could foster a more proactive approach enabling them to assist developers in identifying resources that could make new construction feasible, rather than a reactive approach focused on program incompatibilities in developer funding applications.
2. Reduce regulatory barriers to coordination of federal housing programs to serve rural communities. The reduction of regulatory barriers could include aligning terms of assistance (e.g., loan terms and rental assistance contract periods), payment systems, tenant eligibility criteria, building standards and inspections, and monitoring and tracking. There is an existing initiative to improve alignment between housing programs offered by USDA, HUD, and the US Treasury Department (HUD 2011b), but most of the areas moving toward implementation focus on postconstruction monitoring rather than standardizing and streamlining rules and regulations governing upfront program eligibility and financing structures. The "subsidy layering review" is a particularly critical component of facilitating new construction in today's environment of multiple funding streams (HUD 2011b).

## Improving Developer Capacity

In order to produce new units, savvy developers are needed to navigate the local landscape, pull together funding support, and operate new rental housing. Because federal funding for new production has slowed significantly, as noted above, many owners of existing units are focused primarily on maintaining and preserving their current portfolio, a definite challenge given the age of these units. There is also little incentive for new developers to enter an underresourced market, regardless of the market need for new production. For developers not familiar with rural development in general, or with the markets of particular towns and communities, entering a new market presents even greater risk.

## RECOMMENDATION \#5: IMPROVE DEVELOPER CAPACITY AND PROVIDE INCENTIVES FOR DEVELOPERS TO BUILD IN UNDERSERVED RURAL PLACES.

Some rural counties with the most-severe needs for affordable rental housing may not have developers available to build at all or at the scale needed to reach economies of scale. There are several strategies for addressing this dearth of high-capacity rural housing developers.

1. Expand training and technical assistance. Sometimes a little assistance can go a long way in improving the capacity of existing smaller rural housing developers or assisting communities with high needs to form their own development entity to engage in production activities. HUD's Section 4 Capacity Building for Community Development and Affordable Housing has been authorized to fund technical assistance to rural nonprofits since 1997. Past evaluations have found this to be an effective program for reaching rural communities with resources to build their capacity to develop housing (GAO 2003). This program could be reevaluated, strengthened, and expanded.
2. Provide incentives for developers to build in communities with the most severe need. Incentives could be provided for local organizations working on building their capacity, as well as existing higher-capacity organizations that may not be as active in such markets. Incentives could take the form of prioritized layering of capital funding through federal, state, and local channels; providing additional operating support through rental assistance programs; allowing higher management fees; or some other method of minimizing risk and maximizing the financial performance of a new development.

## Diversifying Rental Housing Types

The majority of rental housing in rural America is single-family units. Typically, a multifamily structure is considered small if it has fewer than 40 units, but the average size of a USDA property is smaller than that (USDA RD 2016), and some small communities may only need a few units. Small properties and single-family structures do not fit easily within the existing financing structure for multifamily rental properties. Because of technological advances, manufactured housing can be an affordable alternative for rural housing, particularly when paired with a lower-density single-family, scattered-site approach. Accessible design standards are also important for an aging population.

## RECOMMENDATION \#6: PROMOTE MORE FLEXIBLE BUILDING TYPES FOR RENTAL HOUSING IN RURAL COMMUNITIES.

1. Explore the development of new single-family structures for rental housing. Single-family units, either clustered or scattered throughout a town, may provide a good alternative to multiunit buildings in a number of ways. Depending on the materials used, labor required, and number of units, they may be faster and cheaper to construct. For example, manufactured housing may be a faster, more affordable option than traditional stick-built housing in some circumstances. Single-family units may also be less burdensome on existing infrastructure and utilities than a multiunit structure.
2. Increase accessible housing design for an aging population. Giving the realities of an aging population in some rural communities, new construction is an opportunity to incorporate accessible design standards to support aging in place. Modifications to existing homes and rental units can be costly, and some older adults may prefer rental housing as they age. Unit types, such as single-story units, and design features, such as on-grade entrances, widened doorways and hallways, lowered countertops, and roll-in showers for wheelchair users can make a difference in whether older, low-income adults can continue to age comfortably in their rural community (Lipman, Lubell, and Salomon 2012).

## Strengthening Market Analysis

Techniques used for analyzing urbanized housing markets rely on analyzing trends across large populations and large numbers of housing units. In such an environment, a small change in people, prices, vacancies, or other market indicators can go unnoticed in both absolute and relative measures.

Rural markets are more challenging. For some communities with a small rental supply and low vacancy rates, any growth in population could increase demand for new construction. An unanticipated energy boom or new factory can cause an immediate shortage, and a sudden economic turndown can create an instant surplus. This potential volatility makes it difficult to generate estimates and assumptions that developers and funders rely on to assure them a project is worth pursuing and involves minimal risk.

In rural markets, some costs of building and operating a rental property may be higher if necessary materials and skills are not readily available locally. Housing may cost more to construct if skilled labor has to be imported from a few towns over and materials shipped from the closest large urban center. A building may cost more to manage if a management company does not operate locally.

## RECOMMENDATION \#7: ESTABLISH, MAINTAIN, AND PROVIDE ACCESS TO A NATIONAL AND/OR STATEWIDE DATABASE OF EXISTING MARKET ANALYSES IN DIVERSE TYPES OF RURAL MARKETS.

1. Collect data across diverse rural markets and projects within a centralized database. Data could include appraisals, development costs, and operating costs that can serve as a resource for developers seeking to build new rental properties but lacking local comparables. This database could be organized and maintained by a national housing intermediary or government agency. State USDA offices could also keep market analyses generated within their own states. Personally identifying information (e.g., name, address) could be redacted from files before depositing them in the database and/or sharing them with other development projects.
2. Develop a rigorous method of matching communities to assign comparables. Communities could be paired by using propensity score matching across certain community characteristics or some other matching technique to ensure the closest comparable is selected based on key community and market characteristics (e.g., population age and income) and proposed development characteristics (e.g., number and type of units).

## Developing Land and Infrastructure

Though land may seem abundant in many rural areas, most of it is used for nonresidential purposes, including a considerable amount preserved as federal and state lands and land on which it is topographically impossible to build (see figure 5.2). In other rural communities, an abundance of developable land can result in haphazard growth and development rather than a planned approach that considers the cost of development at different locations.

## RECOMMENDATION \#8: ENCOURAGE PROACTIVE LOCAL PLANNING FOR RENTAL HOUSING

 DEVELOPMENT, PRIORITIZING AREAS WHERE LOCAL INFRASTRUCTURE AND SERVICES ALREADY.Communities can proactively decide where affordable rental housing is most appropriate to locate based on a number of locally important factors such as infrastructure costs. There are several potential strategies for accomplishing this.

1. Identify local need for rental housing through a community process, including suggestions of where such housing could be best located. The USDA Rural Development agency launched Stronger Economies Together in 2009 to help communities across rural regions work together to develop economic development plans that build on regional strengths and address challenges, such as housing quality, quantity, and affordability. Over 90 regions in 32 states have come together to develop plans so far.
2. Analyze the local impact of housing development decisions. Individual towns and counties can look at the fiscal impact of where they decide to allow more housing, including the financial consequences of expanding and maintaining any existing public infrastructure and facilities, such as roads, water, sewer, emergency services, and school facilities and student transportation costs (Smart Growth America 2015).

## Conclusion

Rural America is diverse, and so are its rental housing needs. A lot of communities have been served by older federal programs, but new solutions are needed to build capacity and develop units that provide affordable options at the scale needed. The supply is not keeping up, and affordability issues are growing for households facing persistent poverty and unemployment and for those on fixed incomes. As our index illustrates, many USDA-eligible counties face shortages, but resources are thin. Now is the time to take stock and seek innovative solutions to spur new public and private investments through deeper subsidies, streamlined products, thoughtful development plans and building designs, and strengthened partnerships that leverage local expertise.

## Appendix A. Supplemental Analysis

## Indicator Correlations

Correlation results between the different indicators presented in section 3 of the report (Rural Rental Production Need: Supply, Demand, and Affordability Indicators) are reported in table A.1. To develop a valid index, individual indicators should not be highly correlated to ensure that each indicator is contributing a unique measure to the index. A lot of rural America is aging, and this aging is often associated with a stable or declining population. We therefore considered focusing on a younger working-age population associated more frequently with population growth as a separate indicator: the population aged 0 to 44 years. However, change in the size of the population aged 0 to 44 was highly correlated with overall population growth in numbers and spatially. That is, there was little difference in counties experiencing overall population growth versus population growth in the 0 to 44 age group. Therefore, our analysis included only change in the total population, as this change captured the effect of growth in the population aged 0 to 44 . Poverty rate and the unemployment rate were positively and moderately correlated ( 63.1 percent). Both indicators were included in the final index because of their modest level of correlation and because they had different geographic distributions when mapped, showing a low level of spatial correlation.

## TABLE A. 1

## Correlations between Indicators

|  | Poverty |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Indicator | rate | Unemployment <br> rate | Population <br> change | Youth <br> $(0-44$ <br> years) | Severe <br> cost <br> burden | Overcrowding | Total <br> subsidized <br> units | Vacant <br> rental <br> units |
| Persistent <br> poverty <br> Persistent | 1 |  |  |  |  |  |  |  |
| unemployment <br> Population | 0.631 | 1 |  |  |  |  |  |  |
| change | -0.1868 | 0.012 | 1 |  |  |  |  |  |
| Youth (0-44 <br> years) | -0.1124 | -0.0015 | 0.9413 | 1 |  |  |  |  |
| Severe cost <br> burden | 0.2639 | 0.3662 | 0.1598 | 0.1504 | 1 |  |  |  |
| Overcrowding <br> Renter | 0.356 | 0.3094 | 0.0884 | 0.1137 | -0.0467 | 1 |  |  |
| occupied units <br> Subsidized <br> units | 0.3652 | 0.1762 | -0.039 | 0.077 | 0.1844 | 0.2578 |  |  |
| Vacant units | 0.285 | 0.1563 | -0.2281 | -0.1816 | 0.0649 | -0.0521 | 1 |  |

## Existing Supply of Federally Subsidized Housing

To ensure the robustness of our housing supply data, we compared our national estimates of the total number of HUD units at the program level (including duplicated units) against existing counts in the literature. We chose to look more closely at HUD estimates because of the challenge of eliminating double-counting across programs. The results are summarized in table A.2. Though estimates vary by program, our analysis only uses the total number of units produced by HUD, which is a slightly larger count than the combined estimate in the literature. In general, this method of estimation is sensible as our data come from 2015 estimates and our literature comparison relies primarily on data from 2011 and 2012. We cannot, however, provide a total accounting for the numerical differences by program or geography, as the estimates provided by Schwartz (2015) were generated from unpublished HUD data.

TABLE A. 2

## Comparison of Total Unit Counts by HUD Program

|  | Study calculations | Literature | Difference |
| :--- | :---: | ---: | ---: |
| LIHTC | $2,290,069$ | $2,235,180$ | 54,889 |
| Public housing | $1,119,224$ | $1,286,114$ | $-166,890$ |
| Project-based Section 8 | $1,230,770$ | $1,000,638$ | 230,132 |
| Section 202 | 123,928 | 120,000 | 3,928 |
| Section 811 | 34,285 | 31,000 | 3,285 |
| Total | $4,798,276$ | $4,672,932$ | 125,344 |

[^3]
## Alternative Indicators

We explored a variety of indicators before selecting our final seven indicators for the composite index. The indicators we considered but did not include in the final composite index are described in greater detail below, along with an explanation for why they were not included.

## SIZE OF THE RENTAL HOUSING MARKET

The size of the rental market, measured by the share of housing units that are renter occupied, could also be used as a proxy for housing demand. That is, we could expect that areas with a higher percentage of renter-occupied units would have a positive relationship with the need for affordable rental production. All else held equal (employment, poverty, population size), the need for rental housing could be higher in these communities, and therefore the need for affordable units should be higher in these areas as well. However, we could also hypothesize that the opposite is true. Large rental markets may have an adequate supply of affordable units because of the large size and competitiveness of the existing rental market. Since the relationship between the size of the rental market and the need for affordable rental production is less clear, we chose instead to use the rental vacancy rate as a more precise indicator of the need for affordable rental production.

## POPULATION CHANGE

The population change indicator includes measures for both population size and growth to ensure that small counties with a fast-growing population would not be included in the same category of high need
as would large and growing counties. For example, a county with a population of 2,000 people that gained 500 people would have experienced 25 percent growth, which is very different from a county with a population of 20,000 that experiences 25 percent growth and gains 5,000 people. We had initially set the population threshold at 30,000, but adjusted it down to 20,000 to include growth in slightly smaller counties. Thresholds of greater than 50,000 and greater than 10,000 were also proposed, but after sensitivity testing it was determined that those thresholds were either too restrictive or qualified too many counties. The results of the sensitivity test are included in table A.3.

TABLE A. 3
Population Change Sensitivity Analysis

| Proposed threshold | Number of eligible <br> counties | Share of total |
| :--- | :---: | :---: |
| $>50,000$ population in 2014 and $>10 \%$ growth in population <br> from 2000 to 2014 <br> $>30,000$ population in 2014 and $>10 \%$ growth in population <br> from 2000 to 2014 | 367 | $12 \%$ |
| $>20,000$ population in 2014 and $>10 \%$ growth in population | 550 | $18 \%$ |
| from 2000 to 2014 <br> $>10,000$ population in 2014 and $>10 \%$ growth in population <br> from 2000 to 2014 | 670 | $22 \%$ |

We also tested demographic change in age as an indicator. Though many rural areas are aging, some rural areas are experiencing population growth (absolute or relative) in younger generations who may need affordable rental housing because of their life cycle stage or desire for the improved mobility afforded by renting versus owning housing. We analyzed population change by age cohort between 2000 and 2014 by using data from the Decennial Census and the ACS, looking at growth and decline across young people (ages 0 to 44). We had hypothesized that growth in the share of young people (ages 0 to 44) would grow demand for affordable housing. However, we found that this indicator was highly correlated (94 percent) with our indicator for population change at large, making it redundant in our analysis. ${ }^{47}$ We selected the more general population change variable as both an adequate representation of population growth, regardless of the age group driving it, and as a more standard indicator in the literature on population growth and decline.

## OVERCROWDING

Initially, we looked only at renter-occupied overcrowding, which tended to be worse in eligible counties than overcrowding in renter and owner-occupied housing combined. Using the same definition of overcrowding as above (more than 1.0 occupant per room), an average of 4.2 percent of renteroccupied units were overcrowded (compared with 2.3 percent of all units). Overcrowding in rental housing provides an incomplete picture of rental housing demand on its own, as overcrowded owner-
occupied units can also signal an unmet demand for affordable rental housing. Young adults, for example, may elect to stay in their parents' home longer than they would otherwise because of affordability concerns in the rental housing market. To capture both signals of housing need, our indicator included overcrowded renter- and owner-occupied units.

## Counties with the Most-Severe Production Need

The 152 counties with the most-severe production need are listed in table A.4, which notes whether a county was metropolitan, the total number of census tracts within the county, the number of census tracts that were eligible, and the county's population in 2014.

## Most-Severe Need Counties

| County or parish and state | Metropolitan | Total census tracts | Percentage eligible | 2014 population |
| :---: | :---: | :---: | :---: | :---: |
| Autauga County, Alabama | Yes | 12 | 42\% | 25,863 |
| Bullock County, Alabama | No | 3 | 100\% | 10,693 |
| Dallas County, Alabama | No | 15 | 100\% | 42,743 |
| Perry County, Alabama | No | 3 | 100\% | 10,203 |
| Pike County, Alabama | No | 8 | 100\% | 33,216 |
| Kenai Peninsula Borough, Alaska | No | 13 | 100\% | 56,687 |
| Nome Census Area, Alaska | No | 2 | 100\% | 9,792 |
| Northwest Arctic Borough, Alaska | No | 2 | 100\% | 7,672 |
| Wade Hampton Census Area, Alaska | No | 1 | 100\% | 7,778 |
| Yukon-Koyukuk Census Area, Alaska | No | 4 | 100\% | 5,651 |
| Mohave County, Arizona | Yes | 43 | 53\% | 115,951 |
| Navajo County, Arizona | No | 31 | 100\% | 107,489 |
| Santa Cruz County, Arizona | No | 10 | 100\% | 47,250 |
| Yuma County, Arizona | Yes | 55 | 38\% | 80,568 |
| Colusa County, California | No | 5 | 100\% | 21,424 |
| Del Norte County, California | No | 8 | 88\% | 28,066 |
| Fresno County, California | Yes | 199 | 23\% | 244,349 |
| Humboldt County, California | No | 31 | 97\% | 134,876 |
| Imperial County, California | Yes | 31 | 55\% | 87,697 |
| Kern County, California | Yes | 151 | 34\% | 279,635 |
| Kings County, California | Yes | 27 | 63\% | 90,953 |
| Mendocino County, California | No | 21 | 95\% | 87,612 |
| Riverside County, California | Yes | 453 | 20\% | 460,569 |
| Sacramento County, California | Yes | 317 | 5\% | 67,765 |
| San Benito County, California | Yes | 11 | 100\% | 56,888 |
| San Bernardino County, California | Yes | 369 | 16\% | 261,021 |
| San Joaquin County, California | Yes | 139 | 17\% | 111,387 |
| Siskiyou County, California | No | 14 | 100\% | 44,261 |
| Solano County, California | Yes | 96 | 7\% | 42,520 |
| Stanislaus County, California | Yes | 94 | 29\% | 170,294 |
| Sutter County, California | Yes | 21 | 33\% | 25,174 |
| Tehama County, California | No | 11 | 100\% | 63,284 |
| Tulare County, California | Yes | 78 | 46\% | 217,132 |
| Ventura County, California | Yes | 174 | 13\% | 95,262 |
| Yolo County, California | Yes | 41 | 12\% | 26,830 |
| Boulder County, Colorado | Yes | 68 | 10\% | 39,639 |
| Saguache County, Colorado | No | 2 | 100\% | 6,211 |
| Citrus County, Florida | Yes | 28 | 96\% | 139,771 |
| Hardee County, Florida | No | 6 | 100\% | 27,549 |
| Hendry County, Florida | No | 7 | 86\% | 38,360 |
| Miami-Dade County, Florida | Yes | 519 | 2\% | 33,816 |
| Bulloch County, Georgia | No | 12 | 100\% | 71,940 |
| Coffee County, Georgia | No | 9 | 100\% | 42,947 |
| Crisp County, Georgia | No | 6 | 100\% | 23,403 |
| Gilmer County, Georgia | No | 5 | 100\% | 28,441 |


| County or parish and state | Metropolitan | Total census tracts | Percentage eligible | 2014 population |
| :---: | :---: | :---: | :---: | :---: |
| Hancock County, Georgia | No | 2 | 100\% | 9,043 |
| Jefferson County, Georgia | No | 4 | 100\% | 16,554 |
| Lumpkin County, Georgia | No | 4 | 100\% | 30,719 |
| Mitchell County, Georgia | No | 5 | 100\% | 23,175 |
| Peach County, Georgia | Yes | 6 | 100\% | 27,337 |
| Randolph County, Georgia | No | 2 | 100\% | 7,411 |
| Taliaferro County, Georgia | No | 1 | 100\% | 1,700 |
| Tattnall County, Georgia | No | 5 | 100\% | 25,356 |
| Terrell County, Georgia | Yes | 4 | 100\% | 9,304 |
| Turner County, Georgia | No | 2 | 100\% | 8,491 |
| Warren County, Georgia | No | 2 | 100\% | 5,626 |
| Bonner County, Idaho | No | 9 | 100\% | 40,899 |
| Madison County, Idaho | No | 6 | 100\% | 37,754 |
| Washington County, Idaho | No | 3 | 100\% | 10,068 |
| Bell County, Kentucky | No | 9 | 100\% | 28,234 |
| Carroll County, Kentucky | No | 3 | 100\% | 10,871 |
| Lee County, Kentucky | No | 3 | 100\% | 7,681 |
| Concordia Parish, Louisiana | No | 5 | 100\% | 20,609 |
| East Carroll Parish, Louisiana | No | 3 | 100\% | 7,602 |
| Lincoln Parish, Louisiana | No | 10 | 100\% | 47,243 |
| Natchitoches Parish, Louisiana | No | 9 | 100\% | 39,359 |
| Tangipahoa Parish, Louisiana | Yes | 20 | 100\% | 124,125 |
| West Carroll Parish, Louisiana | No | 3 | 100\% | 11,522 |
| Isabella County, Michigan | No | 15 | 100\% | 70,506 |
| Adams County, Mississippi | No | 9 | 100\% | 32,189 |
| Attala County, Mississippi | No | 6 | 100\% | 19,303 |
| Benton County, Mississippi | Yes | 2 | 100\% | 8,573 |
| Choctaw County, Mississippi | No | 3 | 100\% | 8,399 |
| Copiah County, Mississippi | Yes | 6 | 100\% | 29,028 |
| Issaquena County, Mississippi | No | 1 | 100\% | 1,279 |
| Lafayette County, Mississippi | No | 10 | 100\% | 50,256 |
| Leake County, Mississippi | No | 5 | 100\% | 23,368 |
| Leflore County, Mississippi | No | 8 | 100\% | 31,772 |
| Marion County, Mississippi | No | 6 | 100\% | 26,449 |
| Oktibbeha County, Mississippi | No | 8 | 100\% | 48,639 |
| Sharkey County, Mississippi | No | 2 | 100\% | 4,898 |
| Tunica County, Mississippi | Yes | 3 | 67\% | 10,583 |
| Washington County, Mississippi | No | 19 | 100\% | 50,038 |
| Winston County, Mississippi | No | 5 | 100\% | 18,882 |
| Johnson County, Missouri | No | 9 | 100\% | 53,879 |
| Mississippi County, Missouri | No | 4 | 100\% | 14,276 |
| Warren County, Missouri | Yes | 5 | 100\% | 32,847 |
| Glacier County, Montana | No | 4 | 100\% | 13,641 |
| Thurston County, Nebraska | No | 2 | 100\% | 6,934 |
| Douglas County, Nevada | No | 17 | 94\% | 47,135 |
| Lyon County, Nevada | No | 10 | 100\% | 51,579 |
| Nye County, Nevada | No | 10 | 100\% | 42,938 |
| Washoe County, Nevada | Yes | 112 | 21\% | 94,003 |


| County or parish and state | Metropolitan | Total census tracts | Percentage eligible | 2014 population |
| :---: | :---: | :---: | :---: | :---: |
| Cibola County, New Mexico | No | 7 | 100\% | 27,392 |
| Hidalgo County, New Mexico | No | 2 | 100\% | 4,734 |
| Luna County, New Mexico | No | 6 | 100\% | 24,947 |
| Otero County, New Mexico | No | 16 | 100\% | 65,415 |
| Roosevelt County, New Mexico | No | 5 | 100\% | 20,065 |
| Sandoval County, New Mexico | Yes | 28 | 39\% | 43,516 |
| Torrance County, New Mexico | Yes | 4 | 100\% | 16,037 |
| Valencia County, New Mexico | Yes | 18 | 100\% | 76,480 |
| Schoharie County, New York | Yes | 8 | 100\% | 32,153 |
| Greene County, North Carolina | No | 4 | 100\% | 21,353 |
| Pasquotank County, North Carolina | No | 10 | 100\% | 40,233 |
| Scotland County, North Carolina | No | 7 | 100\% | 36,034 |
| Watauga County, North Carolina | No | 13 | 100\% | 51,903 |
| Wilson County, North Carolina | No | 19 | 100\% | 81,499 |
| Sioux County, North Dakota | Yes | 2 | 100\% | 4,317 |
| Cherokee County, Oklahoma | No | 9 | 100\% | 47,860 |
| Delaware County, Oklahoma | No | 9 | 100\% | 41,415 |
| Columbia County, Oregon | Yes | 10 | 100\% | 49,325 |
| Crook County, Oregon | No | 4 | 100\% | 20,798 |
| Deschutes County, Oregon | Yes | 24 | 54\% | 79,473 |
| Jackson County, Oregon | Yes | 41 | 59\% | 127,712 |
| Polk County, Oregon | Yes | 12 | 75\% | 55,567 |
| Washington County, Oregon | Yes | 104 | 18\% | 86,802 |
| Yamhill County, Oregon | Yes | 17 | 100\% | 100,486 |
| Pike County, Pennsylvania | Yes | 18 | 100\% | 56,883 |
| Lee County, South Carolina | No | 7 | 100\% | 18,708 |
| Sumter County, South Carolina | Yes | 23 | 43\% | 53,041 |
| Buffalo County, South Dakota | No | 1 | 100\% | 2,013 |
| Corson County, South Dakota | No | 2 | 100\% | 4,122 |
| Dewey County, South Dakota | No | 2 | 100\% | 5,510 |
| Jackson County, South Dakota | No | 2 | 100\% | 3,180 |
| Mellette County, South Dakota | No | 1 | 100\% | 2,084 |
| Shannon County, South Dakota | No | 3 | 100\% | 14,005 |
| Ziebach County, South Dakota | No | 1 | 100\% | 2,837 |
| Coffee County, Tennessee | No | 12 | 100\% | 53,151 |
| Johnson County, Tennessee | No | 5 | 100\% | 18,089 |
| Bexar County, Texas | Yes | 366 | 14\% | 280,347 |
| Culberson County, Texas | No | 1 | 100\% | 2,325 |
| Duval County, Texas | No | 3 | 100\% | 11,644 |
| El Paso County, Texas | Yes | 161 | 17\% | 147,344 |
| Hidalgo County, Texas | Yes | 113 | 47\% | 397,662 |
| Hudspeth County, Texas | Yes | 1 | 100\% | 3,344 |
| Kleberg County, Texas | No | 6 | 83\% | 32,142 |
| Maverick County, Texas | No | 9 | 100\% | 55,821 |
| Moore County, Texas | No | 4 | 100\% | 22,172 |
| Rockwall County, Texas | Yes | 11 | 36\% | 38,483 |
| Smith County, Texas | Yes | 41 | 46\% | 128,317 |
| Starr County, Texas | No | 15 | 100\% | 62,040 |


|  |  | Total <br> census <br> tracts | Percentage <br> eligible | 2014 <br> population |
| :--- | :---: | ---: | ---: | ---: |
| Webb County, Texas | Mestropolitan | Yes | 61 | $16 \%$ |
| Zavala County, Texas | No | 4 | $100 \%$ | 12,204 |
| Utah County, Utah | Yes | 128 | $16 \%$ | 92,949 |
| Buchanan County, Virginia | No | 7 | $100 \%$ | 23,683 |
| Nottoway County, Virginia | No | 4 | $100 \%$ | 15,756 |
| Mason County, Washington | No | 14 | $100 \%$ | 60,728 |
| Thurston County, Washington | Yes | 50 | $40 \%$ | 97,690 |
| Wahkiakum County, Washington | No | 1 | $100 \%$ | 4,016 |
| Whitman County, Washington | No | 10 | $100 \%$ | 46,003 |
| Menominee County, Wisconsin | No | 2 | $100 \%$ | 4,382 |
| Albany County, Wyoming | No | 10 | $100 \%$ | 37,220 |

## Appendix B. Resources for Rural Communities

The following programs and organizations provide technical assistance, research and data, advocacy, and funding opportunities for local governments, community organizations, and developers who wish to increase the supply of affordable rental housing in rural areas. Provided below each heading is a brief description of the organization or program and resources for learning more. The list was curated to include programs and organizations with a specific focus on affordable rental housing in rural areas as opposed to rural development generally.

## USDA Resources

## Promise Zones in Rural and Tribal Communities

The federal Promise Zones program allows federal agencies to engage with local communities by pairing federal government partners with local leaders to streamline resources. President Obama announced the first round of Promise Zones in 2014 and finished the third round in 2016. Each location selected will retain the designation for 10 years and will receive a mix of the following benefits depending on funding allocations and agency policies: opportunity to engage five AmeriCorps VISTA members in their work, a federal liaison to help navigate federal programs, a preference for certain federally competitive grant programs, and a Promise Zone tax incentive.

For more information: http://www.usda.gov/wps/portal/usda/usdahome?navid=promisezones

## USDA Rural Housing Service

USDA's Rural Housing Services Multifamily Housing division provides loans to develop rental housing for very low, low-, and moderate-income households and elderly or disabled households. It runs the Section 515 and Section 514 direct loan programs, the Section 538 Guaranteed Loan Program, and the Section 521 Rental Assistance program.

For more information: https://www.rd.usda.gov/about-rd/agencies/rural-housing-service

For contact information for USDA National and State Offices: https://www.rd.usda.gov/contact-us

## USDA StrikeForce for Rural Growth and Opportunity

USDA StrikeForce is part of the Obama administration's effort to address persistent poverty; it identifies census tracts with over 20 percent poverty and then works with state, local, and community officials to spread the word about USDA programs and help build program participation. Currently 25 states and Puerto Rico participate in StrikeForce. In general, USDA Rural Development programs provided by USDA are grouped into categories (housing and community facilities, business and cooperative programs, and rural utility programs), and individual programs provide land or buildings, machinery or equipment, working capital, infrastructure, or technical assistance.

For more information: http://www.usda.gov/wps/portal/usda/usdahome?navid=STRIKE_FORCE

## HUD Resources

## HUD's Rural Housing Stability Assistance Program

As part of the McKinney-Vento Homeless Assistance Act, HUD's Rural Housing Stability Assistance program provides grants for rent, mortgage, utility assistance, deposits, relocation assistance, and emergency lodging. The organization also funds the construction of transitional or permanent housing units; rehabilitation of emergency, transitional, and permanent housing units; and payments for the operating costs related to these types of housing units. The purpose of the program is to provide housing for homeless individuals and families, stability for households in danger of losing their housing, and assistance for low-income households to afford their current housing.

For more information: https://portal.hud.gov/hudportal/HUD?src=/hudprograms/rural-housing

## HUD Section 202

HUD's Section 202 program grants are available to private nonprofit groups and for-profit general partnerships in which the sole general partner is a nonprofit organization that serves seniors and/or disabled persons. The grant provides capital and operating funds to nonprofit organizations that develop and operate housing for these populations. The facilities are often designed to accommodate the supportive services of the residents and have services.

## For more information:

https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/mfinfo/sec202pt|

## Project-Based Vouchers

Project-based vouchers are a component of a PHA's HCV program. Voucher program administrators can turn up to 20 percent of allocated HCVs into PBVs and offer PBVs to families on the HCV waiting list as units become available. PHAs execute individual agreements with property owners through a housing assistance payments contract that guarantees the property owner a reimbursement of the costs to construct or rehabilitate units and promises rent assistance for tenants for a 10-year term.

## For more information:

https://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/systems/pic/hapr ofiles

## Rural Gateway

Rural Gateway on the HUD Exchange is a source of information providing technical assistance, trainings, workshops, resource sharing, and peer-to-peer learning to support rural housing and economic development. These housing resources share information on federal programs that help fund affordable housing in rural American, including Section 202, Section 811, Section 502 Direct Homeownership Loans and Guaranteed Rural Housing Loans, low-income housing tax credit, Small Community Development Block Grants, HOME, Section 504, and Section 515.

## For more information:

https://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/economicdevelopment/ programs/rhed/gateway

# Nonfederal Resources (in alphabetical order) 

## Council of Affordable and Rural Housing

The Council of Affordable and Rural Housing is a national nonprofit trade organization that represents the interests of the entire rural housing industry, including builders, owners, developers, managers, nonprofits, housing authorities, syndicators, accountants, architects, attorneys, bankers, and other related companies. It serves to coordinate the industry perspective on proposed regulations, legislation, and funding, in addition to providing information to its members.

For more information: http://www.carh.org/

## Enterprise Rural Housing Program

The Enterprise Rural Housing Program focuses on helping rural communities attain affordable, green housing for their residents by rehabilitating Rural Rental Housing 515 projects; advocating for rental assistance support and other funding streams; promoting and researching the development of safe, affordable, and green homes for farm workers; and providing training and technical assistance in permanent supportive housing communities nationwide.

For more information: http://www.enterprisecommunity.org/solutions-and-innovation/rural-and-native-american-housing

## Housing Assistance Council

The Housing Assistance Council is a national nonprofit organization that provides local solutions to rural housing challenges by offering data, research, technical assistance, and loans and grants to public, nonprofit, and private organizations throughout the rural United States.

For more information: http://www.ruralhome.org

## National Housing Trust

The National Housing Trust protects and improves existing affordable rental homes by engaging policymakers at all levels of government to devote resources toward the revitalization of affordable homes, working with investors to raise capital to buy and renovate affordable homes, and providing loans to encourage developers to purchase and renovate these homes.

For more information: http://www.nhtinc.org

## National Rural Housing Coalition

The National Rural Housing Coalition is a nonprofit housing development corporation involved in advocacy, research, construction, and the operation of housing and community development projects in order to help very low and low-income families improve their living conditions.

For more information: http://ruralhousingcoalition.org/

## NeighborWorks Rural Initiative

The NeighborWorks Rural Initiative focuses on housing and community economic development in rural regions, directly assisting families with financial counseling and home repairs and purchases. In addition, it provides over \$1 billion dollars in investment for building and improving affordable rental housing and community facilities.

For more information: http://www.neighborworks.org/Community/Rural

## Rural LISC

Rural LISC partners with community development organizations and financial institutions to promote housing and economic development in rural communities. They provide training, technical assistance, and financial support to nonprofits serving rural needs.

For more information: http://programs.lisc.org/rural_lisc/

## Smart Growth America's Rural Development Program

Smart Growth America's Rural Development program helps local leaders apply smart growth approaches that encourage a mix of building types and uses, diverse housing and transportation options, development within existing neighborhoods, and community engagement to bolster local economies. They offer consultations, technical assistance, and workshops for rural communities and leaders in need of economic development and smart growth land use tactics.

For more information: https://smartgrowthamerica.org/work-with-us/workshop-types/ruraldevelopment/

## Stronger Economies Together

Stronger Economies Together is a program launched in 2009 in collaboration with the USDA's four Regional Rural Development Centers that aims to have communities work together to develop economic blueprints that build on the current and emerging strengths of their regions. Its goals are to create, attract, and retain jobs by providing curriculum and technical assistance to help regions develop their own blueprints for job growth.

For more information: http://srdc.msstate.edu/set/about

## Notes

1. Paula Span, "Alone on the Range, Seniors Often Lack Access to Health Care," New York Times, April 8, 2016, https://www.nytimes.com/2016/04/12/health/alone-on-the-range-seniors-often-lack-access-to-healthcare.html?_r=0.
2. "The Rural Data Portal: Housing Data," Housing Assistance Council, 2013,
http://www.ruraldataportal.org/search.aspx.
3. "National Housing Trust Fund," National Low Income Housing Coalition, 2017, http://nlihc.org/issues/nhtf.
4. "HOME Investment Partnerships Program," US Department of Housing and Urban Development, 2017, https://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/programs/h ome/.
5. "HOME Investment Partnership Program," National Low Income Housing Coalition, 2017, http://nlihc.org/issues/other/HOME.
6. "Section 811 Supportive Housing for Persons with Disabilities," US Department of Housing and Urban Development, 2017,
https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdesc/disab811.
7. Very low income is defined as 50 percent of the area median income (AMI), low income is between 50 and 80 percent of the AMI, and moderate income is capped at \$5,500 above the low-income limit.
8. Domestic farm laborers, including those working on fish and oyster farms and on-farm processing, may live in Section 514 Rental Housing. A domestic farm laborer is a person who receives a portion of his or her income from farm labor employment, and may include the immediate family members residing with such a person. See "Farm Labor Housing Direct Loans and Grants," US Department of Agriculture Rural Development, 2017, https://www.rd.usda.gov/programs-services/farm-labor-housing-direct-loans-grants.
9. As these units are restricted to a certain employment category, and a majority of these units are either single units built on-farm or larger multifamily properties built off-farm in more urban areas (the only USDA housing program to allow construction outside of traditional eligible rural areas), this program is not a focus of this study.
10. "Project-Based Vouchers: Frequently Asked Questions," US Department of Housing and Urban Development, 2017, https://portal.hud.gov/hudportal/documents/huddoc?id=DOC_9157.pdf.
11. "Obama Administration Announces $\$ 749$ Million to Fund Housing for Very Low Income Seniors and Persons with Disabilities," US Department of Housing and Urban Development, November 16, 2011, https://portal.hud.gov/hudportal/HUD?src=/press/press_releases_media_advisories/2011/HUDNo.11-266.
12. "Section 811 Supportive Housing for Persons with Disabilities," US Department of Housing and Urban Development, 2017, https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/progdesc/disab811.
13. This definition builds off the Appalachian Region Commission's (ARC) subregion system. The ARC divides counties located in the entire Appalachian region into five subregions (Northern, North Central, Central, South Central, and Southern). They provide, as of the writing of this description on March 13, 2017, the data in a downloadable file in Excel HAC's definition of Central Appalachia, which selects cases from the North Central, Central, and South Central subregions and considers them to be Central Appalachia. Central Appalachia then consists of 239 county and county-equivalent jurisdictions located in seven states. See "Subregions in Appalachia," Appalachian Regional Commission, November 2009, https://www.arc.gov/research/MapsofAppalachia.asp?MAP_ID=31.
14. Note that this study's definition of rural areas relies on USDA's current definition of eligible areas, which may change over time.
15. Detailed information on correlations between indicators can be found in appendix $A$.
16. Laurie Goodman and Rolf Pendall, "Housing Supply Falls Short of Demand by 430,000 Units," Urban Wire (blog), Urban Institute, June 21, 2016, http://www.urban.org/urban-wire/housing-supply-falls-short-demand-430000-units.
17. Information on an alternative measure for this indicator can be found in appendix A.
18. National total unit counts (including duplicated units) by program for LIHTC and HUD programs are compared to similar estimates that exist in the literature in appendix $A$.
19. Urban Institute analysis of the average size of LIHTC and USDA properties at the national level using data from the LIHTC database and USDA Rural Development Direct and Guaranteed Loan Program data. Average public housing development size can be found at Schwartz (2015, 165-67).
20. Camden, $N J$, has one of the largest supplies of USDA affordable units (416 units, excluding overlapping subsidized units), but a relatively small total number of renter-occupied units (554). On average, eligible counties have about 43 USDA units (excluding overlapping units). Less than 1 percent of eligible counties (18 areas) have more USDA units than Camden (excluding overlapping units). By contrast, eligible counties have an average of 3,481 renter-occupied units, compared to the 554 in Camden. Only 12.5 percent of eligible counties have fewer renter-occupied units.
21. Population and subsidized units are about 70.2 percent correlated. The number of renter-occupied units and the total number of subsidized units are highly correlated (about 78.4 percent correlated).
22. Note that these population estimates are aggregate population estimates for all census tracts in USDA-eligible areas throughout the entire country, and they should not be confused with the population criteria USDA used to determine the eligibility of a specific place for the development of USDA housing.
23. See appendix $A$ for a discussion around the population threshold and alternative indicators.
24. 1,357 eligible counties ( 44.3 percent) have populations that are less than 20,000.
25. Persistent poverty is a conservative measure for poverty, requiring an area to demonstrate a high and sustained rate of poverty for 15 years. Unsurprisingly, this indicator qualifies the smallest share of counties.
26. We calculated the unemployment rate as the number of persons 16 years old and over who are in the civilian labor force and unemployed, divided by the total number of persons 16 years old and up in the civilian labor force.
27. Information on an alternative measure for this indicator can be found in appendix A.
28. In addition to having the highest share of severely cost-burdened households, Watauga County, NC, also qualified for three additional indicators of affordable housing need (unemployment, population change, and the share of total subsidized units), suggesting that the need in this county was among the most severe in the country. Although the size of the rental market was slightly larger than the average ( 26.5 percent compared to 21.1 percent), the share of subsidized units was considerably lower than the average ( 3.0 percent compared to 10.3 percent), and the unemployment rate exceeded the average of all eligible counties in all three study periods. Moreover, Watauga only narrowly failed to qualify for our indicator for persistent poverty (a poverty rate exceeding 20 percent in all three study periods): the poverty rate was 17.9 percent in 2000, but it increased to 24.8 percent in 2010 and to 32.1 percent in 2014.
29. Indicators were checked for high correlations to ensure each one clearly represented a different component of production need severity. The results are presented in appendix A.
30. A list of the 152 counties with the most severe production need can be found in appendix $A$.
31. Farming dependency is defined as having 25 percent or more of annual earnings from farming or 16 percent or more of employment in the farming industry.
32. "Local Area Unemployment Statistics Map," US Bureau of Labor Statistics, last updated March 2017, https://data.bls.gov/map/.
33. Some households may not have a computer but may have an Internet subscription through mobile broadband.
34. Urban Institute analysis of data from the 2000 and 2010 decennial Censuses, as well as data from the 20062010 and 2011-2015 American Community Survey 5-year estimates and the 2015 American Community Survey 1-ear estimates.
35. Urban Institute analysis of data from the 2011-2015 American Community Survey 5-year estimates.
36. Urban Institute analysis of data from the 2000 and 2010 decennial Censuses, as well as data from the 20062010 and 2011-2015 American Community Survey 5-year estimates and the 2015 American Community Survey 1-year estimates.
37. Urban Institute analysis of County Business Patterns 2014 data.
38. Estimates for computers and Internet availability in Lee County were not available.
39. Urban Institute analysis of data from the 2000 and 2010 decennial Censuses, as well as data from the 20062010 and 2011-2015 American Community Survey 5-year estimates and the 2015 American Community Survey 1-Year estimates.
40. Urban Institute analysis of data from the 2011-2015 American Community Survey 5-year estimates.
41. "Medicine Bow-Routt National Forests \& Thunder Basin National Grassland," USDA Forest Service, https://www.fs.usda.gov/wps/portal/fsinternet/cs/main/!ut/p/z0/04_Sj9CPykssy0xPLMnMzOvMAfljo8zijQw gwNHCwN_DI8zPwBcqYKBfkO2oCADIwpjl/?position=BROWSEBYSUBJECT\&pname=Medici\&navtype=BR OWSEBYSUBJECT\&ss=110206\&pnavid=null\&navid=091000000000000\&ttype=main\&cid=FSE_003853.
42. Urban Institute analysis of data from the 2000 and 2010 decennial Censuses, as well as data from the 20062010 and 2011-2015 American Community Survey 5-year estimates, and the 2015 American Community Survey 1-year estimates.
43. Estimates for computers and Internet availability in Lee County were not available.
44. Urban Institute analysis of data from the 2000 and 2010 decennial Censuses, as well as data from the 20062010 and 2011-2015 American Community Survey 5-year estimates and the 2015 American Community Survey 1-year estimates.
45. Pamela Blumenthal, Reed Jordan, Amy Clark, Ethan Handleman, and Rebekah King, "The Cost of Affordable Housing: Does it Pencil Out?" Urban Institute and National Housing Center, July 2016, http://apps.urban.org/features/cost-of-affordable-housing/.
46. None of the other indicators of housing need were strongly correlated, with the exception of poverty and unemployment, which was 63.1 percent correlated but still below a reasonable threshold for multicollinearity. Correlation results between the final indicators (as well as some of the indicators that were not included in the final index) can be found in appendix $A$.

## References

Collings, Art, and Strauss, Leslie. 2000. "Rural Housing Service's Section 538 Guaranteed Rural Housing Program: A Guide for Developers." Washington, DC: Housing Assistance Council.

Cowan, Tadlock. 2016. "An Overview of USDA Rural Development Programs." Washington, DC: Congressional Research Service.

Cromartie, John. 2016. "Panel Session: Realities of Rural America." Presentation given at the Federal Reserve Board, Rural Housing Policy Forum, Washington, DC, May 10.

Curry, Thomas. 2014. Remarks by Thomas J. Curry Comptroller of the Currency, before the 2014 National Interagency Community Reinvestment Conference, Washington, DC, March 12.
GAO (Government Accountability Office). 2003. "Capacity Building: Section 4 Program Has Expanded and Evolved." Washington, DC: GAO.
---. 2016. "Housing for Special Needs: Funding for HUD's Supportive Housing Programs." Publication No. GAO-16-424. Washington, DC: GAO.

Getsinger, Liza, Lily Posey, Graham MacDonald, and Josh Leopold. 2017. "The Housing Affordability Gap for Extremely Low Income Renters in 2014." Washington, DC: Urban Institute.

Glaeser, Edward Ludwig, and Joseph E. Gyourko. 2008. "Rethinking Federal Housing Policy: How to Make Housing Plentiful and Affordable." Washington, DC: American Enterprise Institute Press.

HAC (Housing Assistance Council). 2011. "Rural Research Brief: Rurality in the United States." Washington, DC: HAC.
---. 2012a. "Taking Stock: Rural People, Poverty, and Housing in the 21st Century." Washington, DC: HAC.
---. 2012b. "Taking Stock: High Poverty Rural Areas and Population in the United States. Washington, DC: HAC.
---. 2013a. "Rental Housing in Rural America." Washington, DC: HAC.
---. 2013b. "Housing in the Border Colonias." Washington, DC: HAC.
---. 2013c. "Rural Research Note: As Overall Program Funding for USDA/Rural Development Shrinks, the Need for Rental Assistance Has Grown." Washington, DC: HAC.
---. 2014a. "Housing an Aging Rural America: Rural Seniors and Their Homes." Washington, DC: HAC.
---. 2014b. "Is the Housing Crisis Over? And How Did It Impact Rural America?" Washington, DC: HAC.
---. 2015a. "USDA RD Historic Activity through FY 2015." Washington, DC: HAC.
---. 2015b. "The Community Reinvestment Act and Mortgage Lending in Rural Communities." Washington, DC: HAC.
---. 2016. "Maturing USDA Rural Rental Housing Loans: An Update." Washington, DC: HAC.
Harvard Project on American Indian Economic Development. 2008. The State of Native Nations: Conditions Under US Policies of Self-Determination. New York: Oxford University Press.

Hertz, Tom, Lorin Kusmin, Alex Marré, and Tim Parker. 2014. "Rural Employment Trends in Recession and Recovery." Washington, DC: USDA Economic Research Service.

HUD (US Department of Housing and Urban Development). 2008. "Section 202 Supportive Housing for the Elderly: Program Status and Performance Measurement." Washington, DC: HUD Office of Policy Development and Research.
---. 2011a. "Notice PIH 2011-54 (HA) Guidance on the Project-Based Voucher Program." Washington, DC: HUD.
---. 2011b. "Federal Rental Alignment: Administrative Proposals." Washington, DC: HUD.
JCHS (Joint Center for Housing Studies). 2013. "America's Rental Housing: Evolving Markets and Needs." Cambridge, MA: Harvard University.
--- . 2014. "Housing America's Older Adults: Meeting the Needs of an Aging Population." Cambridge, MA: Harvard University.
---. 2016. "Projections and Implications for Housing a Growing Population." Cambridge, MA: Harvard University.
Kusmin, Lorin. 2016. "Using the ERS County Economic Types to Explore Demographic and Economic Trends in Rural Areas." Washington, DC: USDA Economic Research Service.

Leopold, Josh, Liza Getsinger, Pamela Blumenthal, Katya Abazajian, and Reed Jordan. 2015. "The Housing Affordability Gap for Extremely Low Income Renters in 2013." Washington, DC: Urban Institute.

Lipman, Barbara, Jeffrey Lubell, and Emily Salomon. 2012. "Housing an Aging Population: Are We Prepared?" Washington, DC: Center for Housing Policy.

Listokin, David, Kenneth Temkin, Nancy M. Pindus, and David Stanek. 2017. "Mortgage Lending on Tribal Land." Washington, DC: Urban Institute.
McGranahan, David. 2015. "Understanding the Geography of Growth in Rural Child Poverty." Washington, DC: USDA Economic Research Service AmberWaves.

National Council of State Housing Agencies. 2015. State HFA Factbook: 2013 NCSHA Annual Survey Results. Washington, DC: National Council of State Housing Agencies.

Pendall, Rolf, Laurie Goodman, Jun Zhu, and Amanda Gold. 2016. "The Future of Rural Housing." Washington, DC: Urban Institute.

Perl, Libby. 2010. "Section 202 and Other HUD Rental Housing Programs for Low-Income Elderly Residents." Washington, DC: Congressional Research Service.

Pindus, Nancy, G. Thomas Kingsley, Jennifer Biess, Diane K. Levy, Jasmine Simington, and Christopher R. Hayes. 2017. "Housing Needs of American Indians and Alaska Natives in Tribal Areas." Washington, DC: Urban Institute.

Quigley, John M., and Steven Raphael. 2004. "Is Housing Unaffordable? Why Isn't It More Affordable?" Journal of Economic Perspectives 18 (1): 191-214.

Rapoza Associates. 2013. "The Low-Income Housing Tax Credit: Overcoming Barriers to Affordable Housing in Rural America." Washington, DC.

Rawal, Shiv, Sarah Edelman, and Gerado Sanz. 2016. "Opportunities for Promoting Credit for Affordable Housing in Rural America." Washington, DC: Center for American Progress.

Sard, Barbara. 2014. "Vouchers: Project-Based Vouchers." Washington, DC: Center on Budget and Policy Priorities.
Scally, Corianne Payton, Surabhi Dabir, and David Lipsetz. 2018. "National Rural Housing Policy and Programs: Opportunities and Challenges." In Rural Housing and Economic Development, edited by Don Albrecht, S. Loveridge, S. Goetz, and Rachel Welborn, 88-107 . New York: Routledge.
Scally, Corianne Payton, and David Lipsetz. 2017. "New Public Data Available on USDA Rural Housing Service's Single-Family and Multifamily Programs." Cityscape 19 (1): 295-304.

Schwartz, Alex. 2015. Housing Policy in the United States, 3rd ed. New York: Routledge.

Smart Growth America. 2015. "The Fiscal Implications of Development Patterns: Macon, GA." Washington, DC: Smart Growth America.

Strauss, Leslie. 2014. "USDA Rural Rental Housing Programs." Washington, DC: Housing Assistance Council.
Strauss, Leslie. 1999. "The Prepayment Problem in RHS's Section 515 Program Credit and Capital Needs for Affordable Rural Housing." In Housing in rural America: building affordable and inclusive communities, edited by Joseph Belden and Robert Weiner. Thousand Oaks: Sage Publications.

Tolbert, Charles M., F. Carson Mencken, T. Lynn Riggs, and Jing Li. 2014. "Restructuring of the Financial Industry: The Disappearance of Locally Owned Traditional Financial Services in Rural America." Journal of Rural Sociology 79 (3): 355-79.

US Environmental Protection Agency. 2012. "Essential Smart Growth Fixes for Rural Planning, Zoning, and Development Codes." Washington, DC: US Environmental Protection Agency.

USDA ERS (US Department of Agriculture Economic Research Service). 2016. "Rural America at a Glance." Washington, DC: USDA Economic Research Service.
---. 2017. "FY 2017 Budget Summary. Washington, DC: USDA Economic Research Service.
USDA RD (US Department of Agriculture Rural Development). 2013. Report on the Definition of "Rural." Washington, DC: USDA Rural Development.
---. 2016. "USDA Rural Development Multifamily Housing Comprehensive Property Assessment." Washington, DC: USDA Rural Development.

Wiley, Keith. 2014. "The Role of the CDBG Program in Rural America." Housing Policy Debate 24 (1): 238-57.

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## STATEMENT OF INDEPENDENCE

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[^0]:    Sources: Subsequent sections; https://www.rd.usda.gov/programs-services/all-programs; Schwartz 2015;
    https://www.rd.usda.gov/files/538_NOFA_Responses.pdf\%20https:/www.huduser.gov/portal/datasets/lihtc.html.
    Notes: VLI = very low income; LI = low income; $\mathrm{MI}=$ moderate income; HUD = US Department of Housing and Urban Development; USDA = US Department of Agriculture; IRS = Internal Revenue Service; LIHTC = low-income housing tax credit; $\mathrm{n} / \mathrm{a}=$ funding data not relevant. Very low income is defined as 50 percent of the area median income (AMI), low income is between 50 and 80 percent of the AMI , and, for these USDA programs, moderate income is capped at $\$ 5,500$ above the low-income limit.

[^1]:    Source: Urban Institute tabulations of 2000 Decennial Census, 2006-10 and 2010-14 American Community Survey data.

[^2]:    Source: Urban Institute tabulations of 2000 Decennial Census, 2006-10 and 2010-14 American Community Survey data.

[^3]:    Sources: For LIHTC, public housing, and project-based Section 8: Schwartz (2015, 165-67); for Sections 202 and 811: GAO (2016).

    Notes: Some of the decrease in public housing units and increase in project-based Section 8 can be attributed to refinancing through HUD's Rental Assistance Demonstration program. Although the Section 202 units from the recent GAO report cited in table A. 2 align closely with the estimate calculated for this study, Schwartz's estimate using 2012 data was significantly larger (270,000-360,000).

