



Arts Data Profile: Rural Arts, Design, and Innovation: 2014

Research Brief #2: Exploring Rural Communities by the Presence of Performing Arts Organizations

An accompanying research report from the National Endowment for the Arts draws a correlation between rural businesses' use of "integrated design" and the presence of performing arts organizations in rural areas.¹ The report is based on results from a research partnership between the NEA and the U.S. Department of Agriculture's Economic Research Service (ERS). The analysis itself avails of ERS' Rural Establishment Innovation Survey (REIS).

Given the NEA/ERS project's emphasis on the arts in rural areas, the present brief reports key characteristics of rural U.S. counties that host performing arts companies. The source in this case is the U.S. Census Bureau's County Business Patterns (CBP) data (i.e., for companies with paid employees). Although relatively few rural counties (19 percent versus 60 percent of urban counties) host performing arts organizations, several factors distinguish the rural counties that do.²

Summary

- 1. Rural counties that host performing arts organizations often provide scenic and recreational amenities.**

- 43 percent of rural counties with performing arts companies are located in or near a national park or forest.
 - ◇ In 2015, roughly 16 percent of all U.S. rural counties were designated as "recreation-dependent" by the ERS;
 - ◇ By contrast, 33 percent of rural counties overlapping with national parks or forests have economies that rely on recreation, including the arts, entertainment, and accommodation industries.
- The odds that a rural county will contain a performing arts company are nearly 60 percent greater if the county intersects with a national park or forest.
- 2. In rural counties with performing arts companies, population growth is greater than the average for rural counties nationwide.**
- Between 2004 and 2014, rural counties that are home to performing arts companies witnessed an average population gain of 1,200 people.
- In all rural counties, the average increase was just below 400 people.

3. Residents of rural counties that host performing arts organizations are better educated and earn higher incomes than is typical of rural populations.

- In U.S. rural counties as a whole, the share of adults aged 25 to 44 who have bachelor's degrees or higher levels of education is 19 percent.
- In rural counties with two or more performing arts companies, this share rises to 25 percent.
- The average annual income in rural counties hosting the performing arts is nearly \$3,500 higher, on average, than the average income in rural U.S. counties as a whole.

4. Rural counties known for theme parks or arts schools/colonies tend to host large numbers of performing arts organizations.

- Taney County, in rural Missouri, is home to the largest number of performing arts companies—40 in 2014.

◇ Taney County includes Branson, Missouri, an area that presents themed amusements such as the Titanic Museum Attraction and the Silver Dollar City amusement park.

- Sauk County, Wisconsin, (home to Frank Lloyd Wright's Taliesin studio and school) tallies six performing arts establishments.

5. Over a decade (2004-2014), 136 rural U.S. counties gained one or more performing arts organizations.

- Lincoln County, Maine, and Rice County, Minnesota, witnessed the strongest growth rates in number of performing arts establishments.

◇ Both counties went from having one organization in 2004 to five in 2014.

6. Ninety-eight rural U.S. counties were "emerging rural performing arts counties," meaning they had no performing arts companies in 2004, but one or more in 2014.

- Willacy County, Texas, reported the greatest gain as an emerging rural performing arts county. During the 2004-14 period, Willacy County went from having no companies to having three.
- Other emerging rural counties include: Randolph County, West Virginia; Delta County, Michigan; and Laclede County, Missouri. These counties, and nine others, gained two performing arts organizations.

7. Although many rural counties gained performing arts organizations, rural America experienced a net decline of 90 companies between 2004 and 2014.

- By state, North Carolina lost the largest number of performing arts organizations in rural areas—a net decline of 20 companies.
- Still, some states rallied a net increase in rural arts—notably, Missouri, Mississippi, and Tennessee.

◇ Between 2004 and 2014, Missouri experienced a net gain of nine performing arts companies within the state's rural counties.

◇ Mississippi's rural areas netted a gain of six companies.

Why the Performing Arts?

The production of arts and culture contributes more than \$700 billion to the U.S. economy, or 4.2 percent of GDP. In addition to its sheer size, the arts economy is diverse. Besides covering the performing arts, it includes museum exhibits; design and architectural services; arts-related publishing such as books and art prints; and sound recording and motion picture production. The arts economy even includes selected manufacturing (e.g., musical instruments) and retail trade (e.g., art galleries) segments, as well as parts of other sectors (e.g., advertising).

Although arts industries are diverse, this analysis emphasizes the location of rural performing arts companies. While both museums and performing arts organizations are relatively rare in rural areas, only the latter demonstrate a strong association with the design orientation of local firms. Also, the performing arts are more prevalent in rural areas than are many other types of arts establishments, such as architectural and design firms and arts-related publishers.

The performing arts are only one industry in the larger arts economy. Yet they serve as a direct and measurable proxy for the arts overall, and for the arts' connections to design and innovation in rural areas.

Performing Arts Organizations Captured by County Business Patterns

This research brief presents findings from an analysis of performing arts organizations captured by County Business Patterns (CBP), a dataset that enumerates business establishments with paid employees. CBP data thus exclude voluntary organizations.

Produced by the U.S. Census Bureau, CBP is an annual series that provides subnational economic data by industry. CBP basic data items are extracted from the Business Register (BR), a database of all known single and multi-establishment employer companies maintained and updated by the U.S. Census Bureau.

The BR, in turn, is a multi-relational database that contains a record for each known employer establishment located in the United States or Puerto Rico. An establishment is a single physical location where business transactions take place and for which payroll and employment records are kept.

The performing arts here considered are: theaters and opera companies; dance companies; music groups and artists (including symphony orchestras and chamber groups); and "other" performing arts organizations such as circuses, magic acts, and ice-skating shows. These companies are classified by the North American Industry Classification System as "NAICS 7111."

Recreational and Entertainment Amenities

More than half of the 3,142 U.S. counties are non-metropolitan or rural.³ Of these, 366 (18.5 percent) are home to one or more “employer” performing arts organizations.

Rural counties containing performing arts organizations include well-known artist enclaves and entertainment spots. For example, Chautauqua County, New York, is known for its Institute art classes and lectures; Taos County, New Mexico, has counted many famed artists among its residents, including D.H. Lawrence, Georgia O’Keefe, and Mark Rothko.

Taos and Chautauqua counties host two and three performing arts companies, respectively.

Sauk County, Wisconsin, (home to Frank Lloyd Wright’s Taliesin studio and school) contains six establishments.

However, the U.S. rural county with far and away the largest number of performing arts companies is Taney County, Missouri. In 2014, Taney County was home to 40 performing arts companies. Branson, Missouri, which hosts a variety of thematic amusements such as the Titanic Museum Attraction and the Silver Dollar City amusement park, is located in this area and accounts for much of Taney’s large tally of performing arts establishments.

Taney County is also characterized by what is perhaps the most distinguishing feature of rural counties hosting performing arts organizations: it is located in or near a national park or forest—in this case, the Ozark Mountains.

The Economic Research Service notes that recreational activities have long been a driving economic force in non-metropolitan counties.⁴ Of rural U.S. counties with performing arts

organizations, one-third are classified by the ERS as “recreation-dependent.”⁵

In addition, geographic analysis shows that while 34 percent of all U.S. rural counties intersect with a national park or forest, 43 percent of rural counties with performing arts companies are in these locations. (Nearly half of rural counties with two or more arts troupes are in or near parks and forests.)

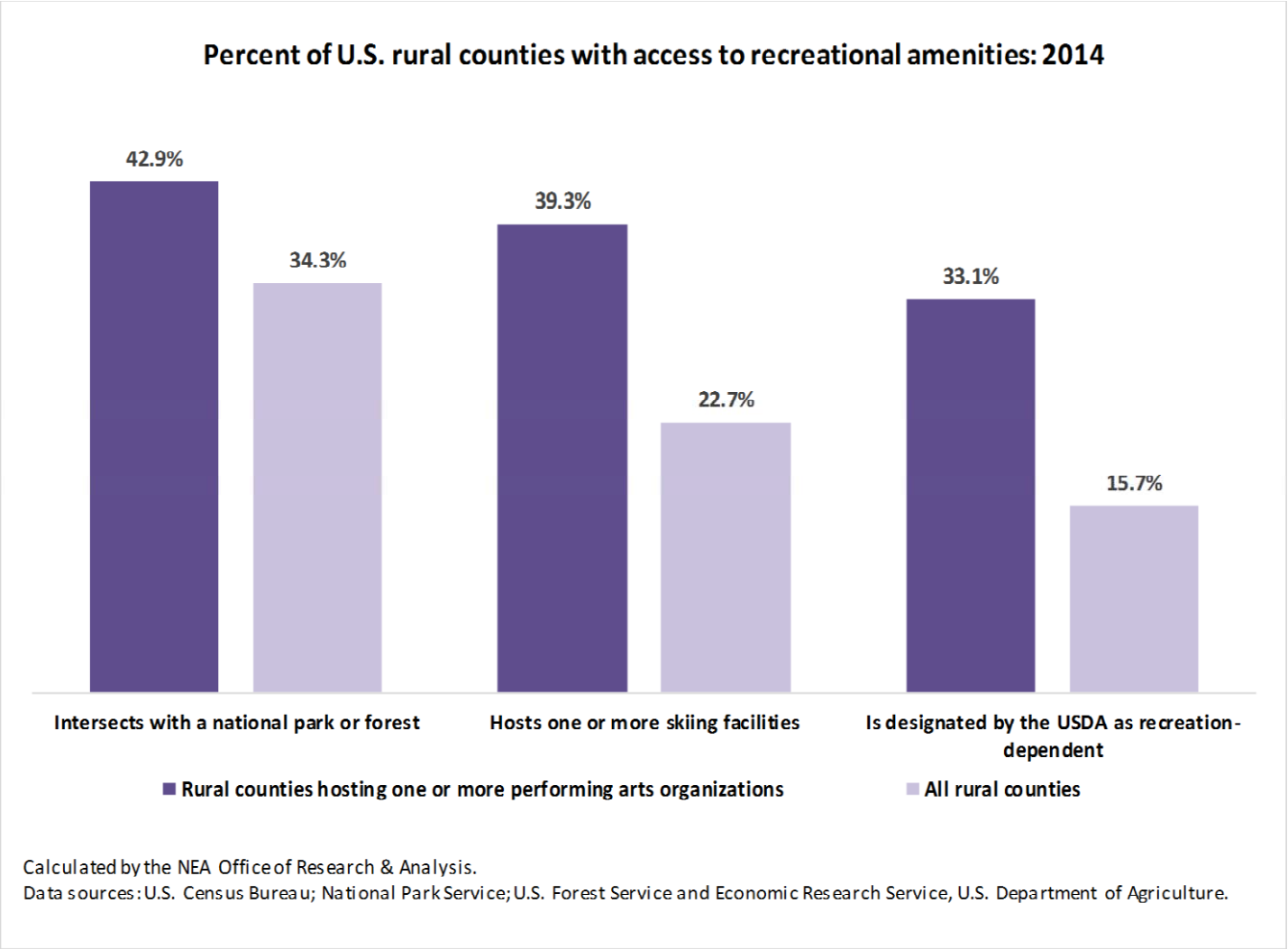
A logistic regression underscores this pattern: the unconditional probability that a rural county will contain an “employer” performing arts establishment is nearly 60 percent better if the rural county intersects with a national park or forest.

Examples of rural counties that host performing arts companies and are in or near parks and forests include:

- Monroe County, Florida, which had 10 employer performing arts companies in 2014 and is the mainland to Key West and Dry Tortugas National Park;
- Sevier County, Tennessee, which had 13 companies and is home to parts of the Great Smoky Mountains National Park;
- Eagle County, Colorado, which had eight performing arts organizations and includes parts of White River National Park and Forest; and
- Gallatin County, Montana, which also tallied eight companies and which encompasses parts of Yellowstone Park.

Sevier, Eagle, and Gallatin counties, to pick just a few, feature yet another recreational attraction common to many rural counties that contain performing arts companies—skiing facilities. Of the 366 rural U.S. counties that host performing arts organizations, 144 (39 percent) also provide skiing. Additional examples include Columbia

County, New York (six performing arts companies); Grafton County, New Hampshire (eight companies); and Litchfield County, Connecticut (11 performing arts organizations).



Clustering of Counties

The presence of performing arts organizations in rural counties is uncommon—only 366 rural counties are home to the performing arts. Among those counties, very few host large numbers of performing arts companies; examples include Taney County in Missouri (containing Branson) and Sevier County in Tennessee (containing Gatlinburg). Of the 366 rural U.S. counties that host performing arts companies, nearly 86 percent are home to just one or two establishments.

Therefore, one might expect the geographic distribution of rural counties hosting such companies to be random or idiosyncratic. Yet this is not the case. Rather, the distribution exhibits a clustering pattern.

A “nearest neighbor ratio” can be used to express the relationship between the observed mean distance to an expected mean difference (this latter term describes the average distance between neighbors in a hypothetical random distribution). The nearest neighbor ratio among rural counties that host performing arts organizations is 0.515, with an associated p value of 0.000—results that suggest clustering.

Examples of clustered rural counties that host performing arts companies include: Chaves, Lincoln, and Eddy counties in New Mexico (in or near Lincoln National Forest); Flathead, Lewis and Clark, and Jefferson counties in Montana (an area rich in forests and parks, including Yellowstone National Park); Beltrami, Aitkin, and Pine counties in Minnesota (in or near Chippewa National Forest); and Grafton, Merrimack, and Carroll counties in New Hampshire, New York, and Vermont (counties in or around White Mountain and Green Mountain national forests).

Urban metro areas display apparent patterns of arts agglomeration economies—which refer to the savings that occur when firms engaged in the same or similar enterprises concentrate in particular areas, e.g., art districts common in downtown U.S. cities. In rural areas that contain performing arts companies, the typically small number of arts establishments would not appear to encourage traditional agglomeration economies.

Nevertheless, instead of exhibiting random patterns of location, county clustering of the rural performing arts suggests an affinity for the particular regions that can support them.

Economic Dependence in Rural Counties

As discussed above, rural counties that host performing arts companies tend to cluster near national parks and forests. But do other types of rural establishments also locate in areas offering recreational amenities? Analysis by the Economic Research Service (ERS) suggests that rural counties near parks and forests are far more “recreation-dependent” than are rural counties overall.

Using earnings and employment data, the ERS classifies rural counties by economic dependence on five major sectors: farming, mining, manufacturing, federal/state government, and recreation. (Counties not exhibiting economic dependence on any one of these sectors are classified as “nonspecialized.”⁶)

For example, ERS reports that in 2015, nearly 20 percent of all rural counties were “farming-dependent,” referring to counties in which farm earnings accounted for an annual average of 25 percent or more of total county earnings or in which farm employment accounted for 16 percent or more of total employment.

A similar share of rural counties, nearly 18 percent, were classified by ERS as manufacturing-dependent.

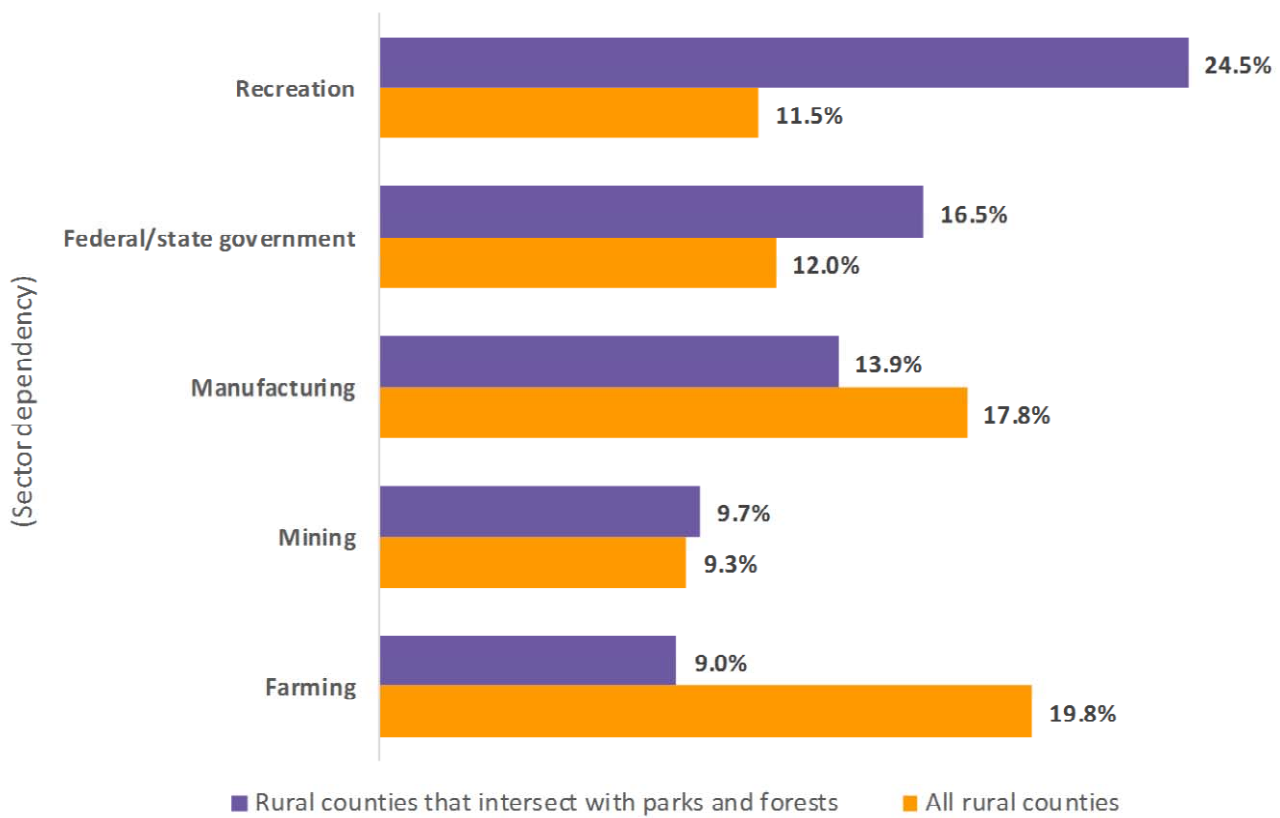
However, rural counties that intersect with a national park or forest rely less on farming and manufacturing. In 2015, just 9 percent were farming-dependent, and 14 percent were manufacturing-dependent.

The ERS economic dependence categories indicate that rural counties intersecting with parks and forests are far more likely to be recreation-dependent—a classification based on an index derived from data on earnings and income from recreation industries (including arts, entertainment, and accommodation and eating places), as well as a county’s share of seasonal housing.

In 2015, nearly 25 percent of rural counties intersecting with parks or forests were designated by the ERS as recreation-dependent. Among all rural counties, just under 12 percent were economically dependent on recreation.

As an interesting aside, rural counties near parks or forests are just as likely to be mining-dependent as are all rural counties. In 2015, roughly 9 percent of all rural counties and of rural counties near parks and forests relied economically on mining—on extraction of mineral solids such as coal, liquid minerals such as oil, and gases such as natural gas.

Percent of rural counties that are economically dependent, by sector: 2015



Note: Remaining shares of counties are "nonspecialized," or not dependent on a particular sector of the economy.

Population Growth, Education, and Income

Population growth in rural U.S. counties that contain employer performing arts organizations is greater than the average for all rural areas.

Between 2010 and 2014, the average population increase in rural counties was just 391.2 people. During the same period, however, rural counties with performing arts companies gained an average of 1,213.7 people. (For rural counties home to two or more companies, the average population increase was 2,096.5.)

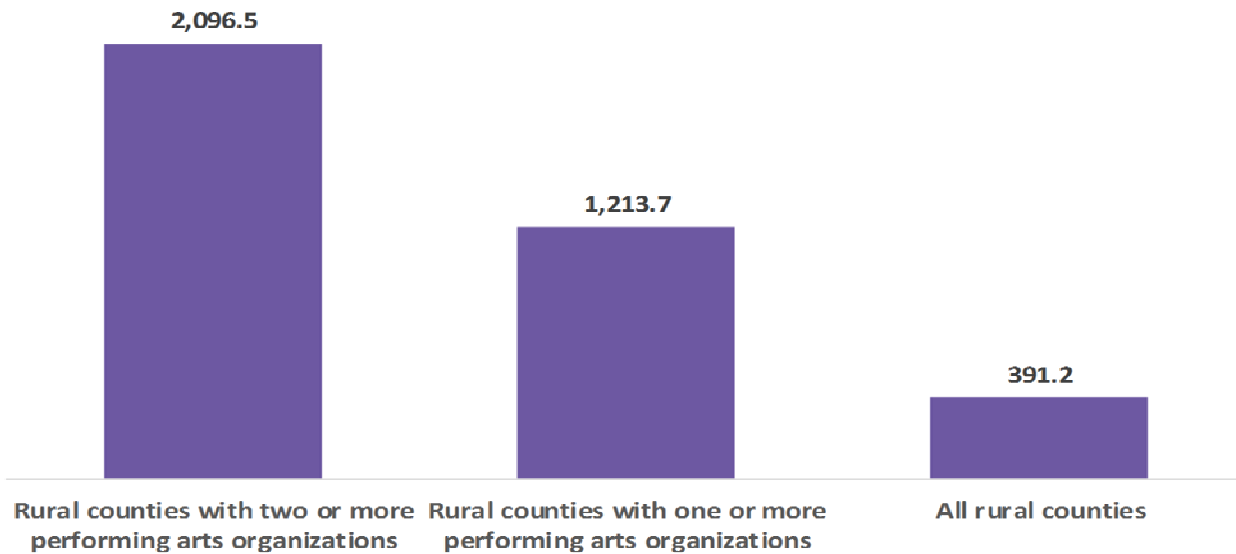
Rural counties containing performing arts organizations also attract well-educated young adults and provide residents with higher incomes than do rural counties that lack performing arts organizations.

In rural U.S. counties as a whole, the share of young adults aged 25 to 44 with bachelor's degrees or higher levels of education is 19 percent. In rural counties with at least one performing arts organization, the share rises slightly to 23 percent; it further increases to 25 percent in rural counties with two or more performing arts companies.

As for income, it is nearly \$3,500 greater, on average, in rural counties containing the performing arts, compared with rural U.S. counties as a whole. (The premium rises to \$6,000 in rural counties containing two or more performing arts groups.)

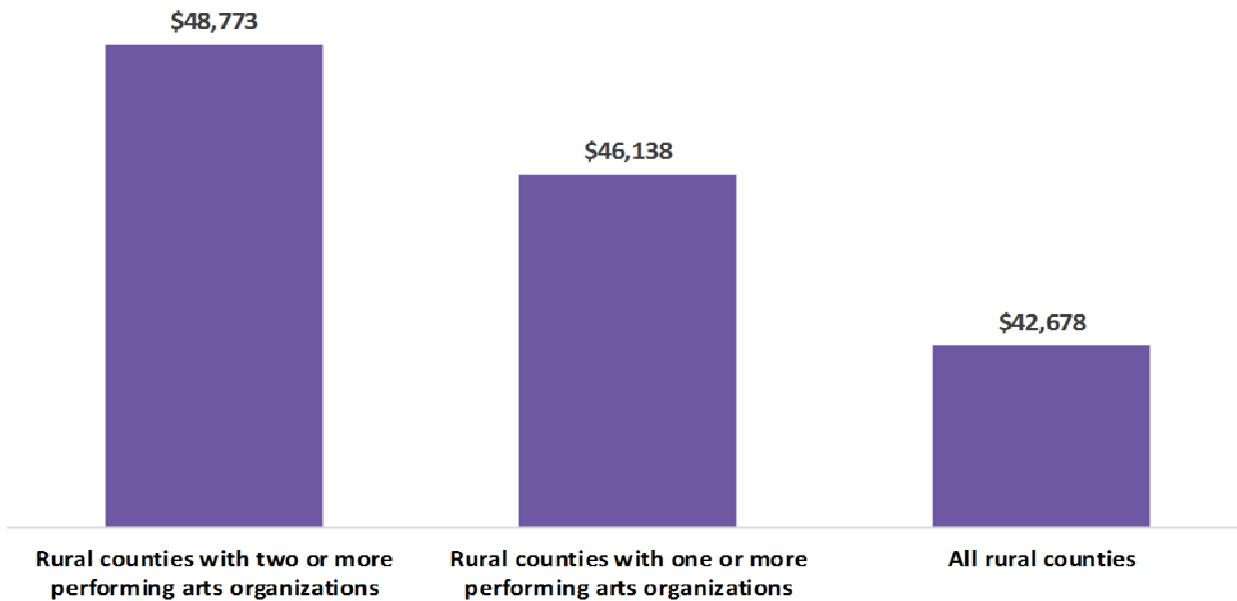
Natural amenities may go a long way in explaining why rural counties hosting performing arts organizations exhibit these economic advantages. As discussed above, access to parks and forests, as well as to skiing facilities, is common in rural counties hosting performing arts organizations, relative to those without the arts. According to ERS research, natural amenities are highly correlated with population and employment growth.⁷

**Average population increase in rural U.S. counties,
by presence of performing arts organizations: 2004-2014**



Data sources: County Business Patterns and Annual Estimates of Resident Population, U.S. Census Bureau

**Average income in rural U.S. Counties, by presence of performing arts organizations:
2010-2014**



Notes: Estimate is average of median income for counties. Differences are statistically significant at 95 percent confidence.

Data sources: County Business Patterns and 2010-2014 American Community Survey, U.S. Census Bureau

Rural Counties Gaining Performing Arts Organizations

Just as Taney County, Missouri (pop. 54,100), tallies the largest number of performing arts organizations in a rural county, it also witnessed the largest gain in number of establishments. Between 2004 and 2014, Taney County gained eight performing arts companies.

Although gaining a large number of companies, Taney is not the rural county with the greatest growth *rate* in performing arts. That title goes equally to Lincoln County, Maine (pop. 34,150), and Rice County, Minnesota (pop. 65,140). Both

counties went from having one organization in 2004 to five in 2014. Lincoln County, Maine, and Rice County, Minnesota—both of which, incidentally, provide scenic and recreational amenities—increased their counts of performing arts organizations by a factor of 4.

While Rice County's performing arts growth is recent, Lincoln County jumped to having five companies as early as 2007.

In total, 136 rural U.S. counties gained one or more performing arts companies between 2004 and 2014.

Number of Performing Arts Companies in Lincoln County, Maine, and Rice County, Minnesota: 2004-2014



Data source: County Business Patterns, U.S. Census Bureau

Emerging Rural Performing Arts Counties

CBP data reveal 98 “emerging” rural performing-arts counties—i.e., rural counties that had no performing arts companies in 2004, but that housed one or more in 2014.

Willacy County, Texas (pop. 21,900), reported the greatest gain as an emerging rural performing arts county. During the 2004-14 period, Willacy County gained three performing arts companies. (See text box below.)

Other emerging counties included: Randolph County, West Virginia (pop. 29,300); Delta County, Michigan (pop. 36,600); and Laclede County, Missouri (pop. 35,500). These rural counties, and nine others, gained two performing arts organizations.

Willacy County, in southeastern Texas (bordering the Gulf of Mexico), contains parts of Padre Island National Park and the Laguna Atascosa National Wildlife Refuge. Randolph County, in the Appalachian Mountains of West Virginia, is home to amenities provided by the Monongahela National Forest and the Dolly Sods Scenic Area.

Recreational and scenic amenities are also abundant in Michigan’s Delta County, located in the state’s Upper Peninsula, and in Missouri’s Laclede County, which contains parts of the Mark Twain National Forest.

Conversely, CBP data show that 126 rural U.S. counties contained one or more performing arts organizations in 2004, but housed none in 2014. During that period, Watauga County in North Carolina (pop. 52,400) experienced the greatest rural loss of performing arts companies—five establishments. (Between 2004 and 2014, Watauga County also witnessed an overall loss of 48 business establishments.)

Also in North Carolina, Cleveland County (pop. 97,000), along with Logan County in Colorado (pop. 22,000), McKinley County in New Mexico (pop. 74,800), and Ward County in North Dakota (pop. 69,500) each had three organizations in 2004; a decade on, each had none.⁸

In Cleveland, Logan, and McKinley counties, declining numbers of performing arts companies paralleled declining numbers of all business establishments in those counties. In North Dakota’s Ward County, however, the drop in number of performing arts companies occurred as the total number of business establishments rose—from 1,632 in 2004 to 2,148 in 2014.

Willacy County, Texas: An Emerging Arts County

As discussed above, Willacy County is home to parts of the Padre Island National Park. The park, along with the area's birding activities and ecotourism, provides recreational amenities common to rural counties that host performing arts organizations.

In addition to the county's recreational assets, Willacy is part of the Rio Grande Valley, which, according to the Greater Mission Chamber of Commerce, is one of the fastest growing regions in Texas.⁹

Moreover, El Paseo Arts Foundation has increasingly sponsored performing arts events in Willacy County.

Each of these factors—proximity to a national park and nature amenities, regional economic growth, and access to performing arts events—have likely contributed to Willacy County's top rank as an emerging rural arts county.



Net Change in Rural Performing Arts Companies, by State

Although more than 100 rural counties have gained employer performing arts establishments, CBP data reveal that rural America witnessed an overall decline in rural performing arts. Between 2004 and 2014, there was a net decline of 90 performing arts companies in rural U.S. counties.

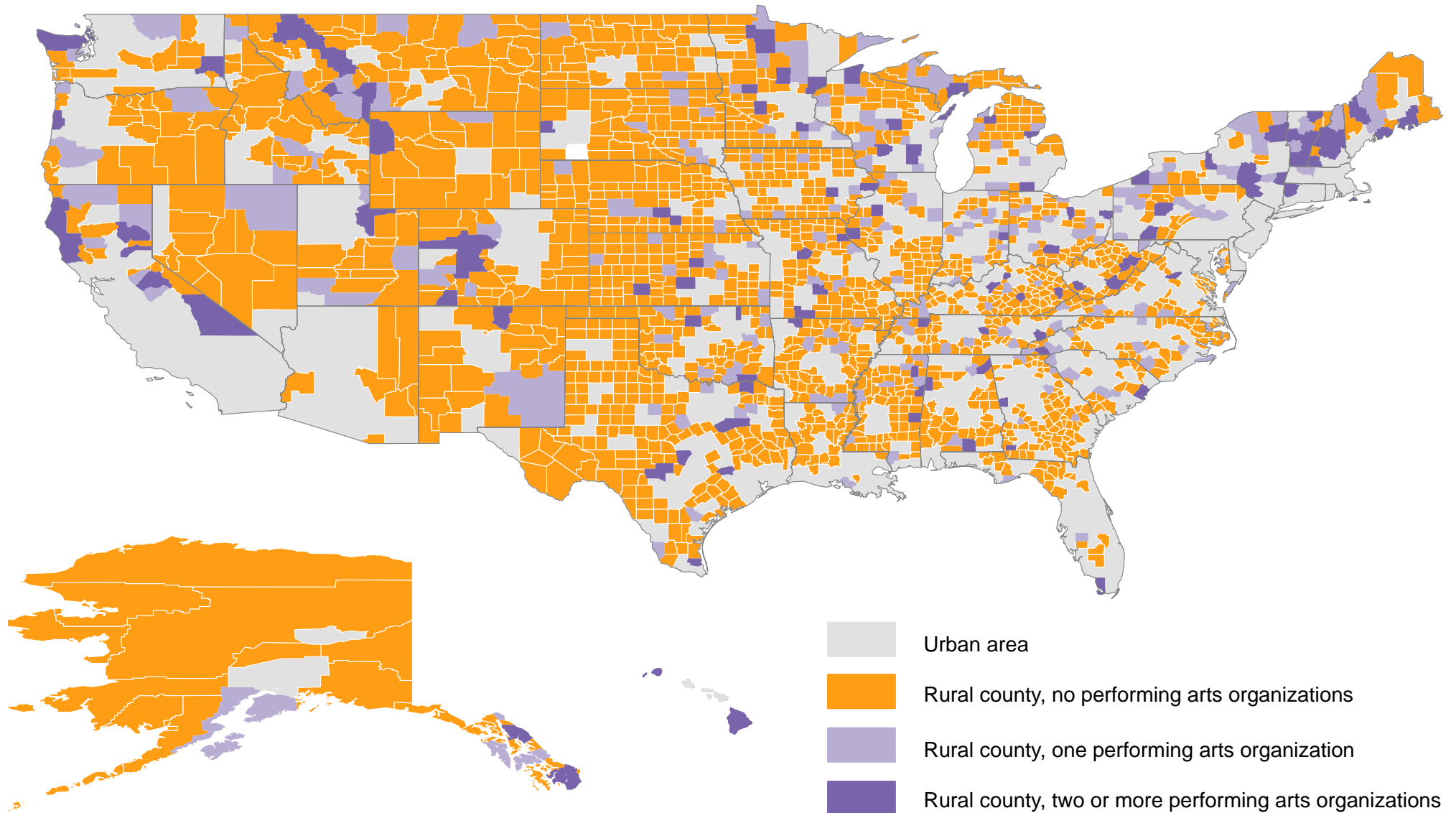
By state, the brunt of this decline was borne by New Mexico, Colorado, and North Carolina.¹⁰ Between 2004 and 2014, the number of performing arts establishments in these three states dropped by 20, 14, and 12 establishments, respectively.

Between 2004 and 2014, Kentucky gained six performing arts companies. But the state lost eight organizations, resulting in a net loss of two for the period. Minnesota tops the list of states that gained arts organizations in rural areas—14 between 2004 and 2014. However, Minnesota lost as many rural companies as it gained, resulting in zero net gain.

Texas gained 10 rural performing arts organizations between 2004 and 2014, led by Willacy County. Despite that sizable addition, Texas, as a state, lost nine rural companies, which reduced the state's net gain to just one organization.

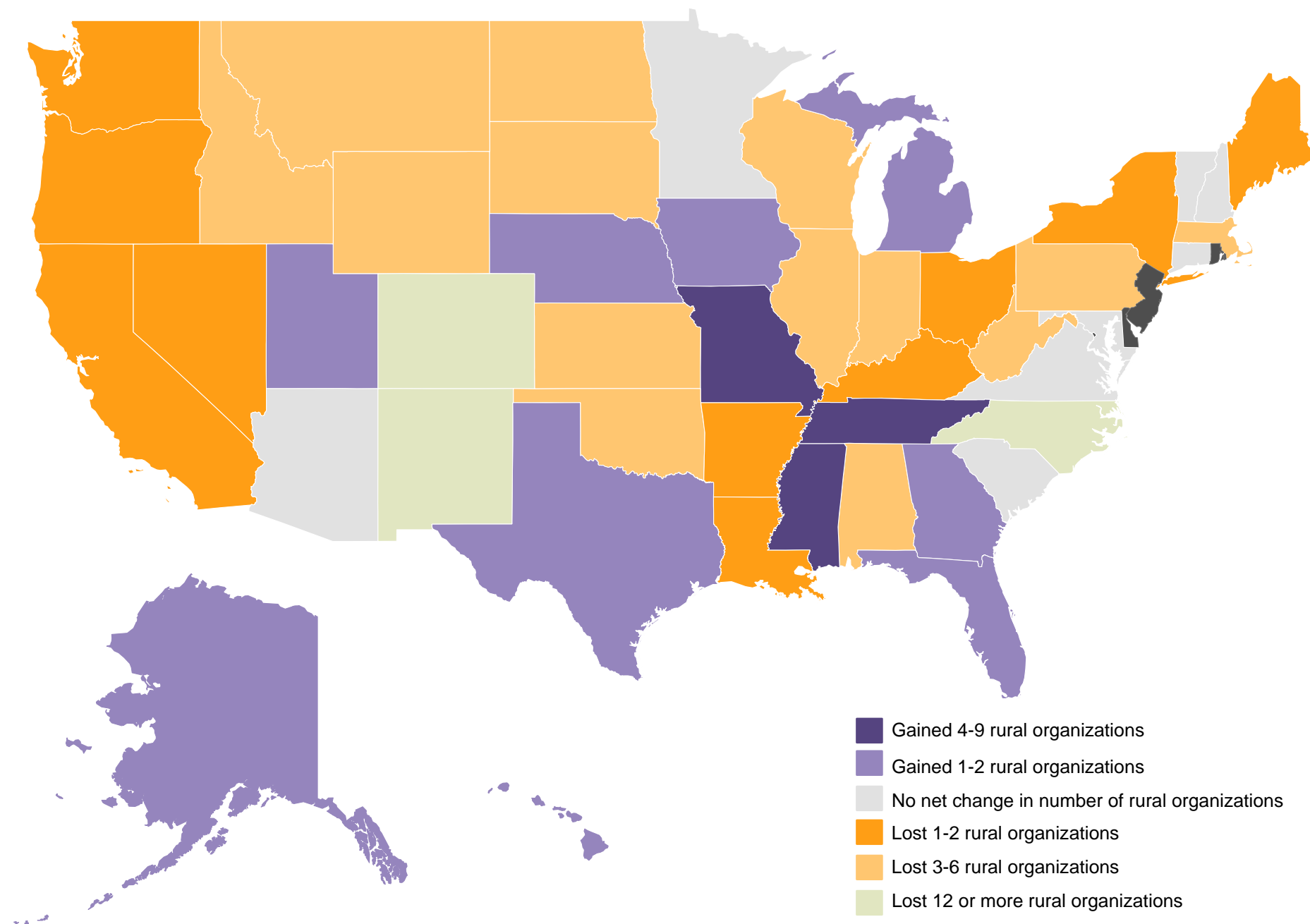
Still, some states tallied net increases in rural performing arts companies. Notably, Missouri, with a net gain of nine companies, tops the list, followed by Mississippi and Tennessee, which posted net gains of six and four organizations, respectively.

Performing Arts Organizations in Rural U.S. Counties: 2014



Data source: County Business Patterns, U.S. Census Bureau

Net Change in Number of Rural Performing Arts Organizations by State: 2004-2014



Note: New Hampshire, New Jersey, Delaware, and the District of Columbia have no non-metro counties.
Data source: County Business Patterns, U.S. Census Bureau

Endnotes

¹Please see *Rural Arts, Design, and Innovation in America*.

²The information presented in this brief builds on an analysis by Timothy Wojan, Dayton M. Lambert, & David A. McGranahan. (August 2007). "Emoting with Their Feet: Bohemian Attraction to Creative Milieu." *Journal of Economic Geography*, 7, pp. 711-736.

³Please see Definitions.

⁴See Economic Research Service, Parker, Timothy. *Updated ERS County Economic Types Show a Changing Rural Landscape*. October 2016.

⁵The ERS determines "recreation dependent" by: the share of county employment and income related to recreation and associated businesses, and the share of housing units intended for occasional use only. See ERS, Documentation: Non-Metro-Based Thresholds.

⁶See endnote #4

⁷See David McGranahan and Patrick Sullivan. (February 2005). "Farm Programs, Natural Amenities, and Rural Development." *Amber Waves*. See also, David McGranahan, Timothy Wojan, and Dayton Lambert (2010). "The Rural Growth Trifecta: Outdoor Amenities, Creative Class and Entrepreneurial Context." *Journal of Economic Geography*, 11 (2011) pp. 529–557.

⁸Although Cleveland County's population exceeds 50,000, it is part of the Shelby, North Carolina, micropolitan statistical area and the Charlotte-Concord combined statistical area. Ward County, North Dakota, is part of the Minot micropolitan statistical area.

⁹See Greater Mission Chamber of Commerce.

¹⁰Some states have few if any rural counties. Connecticut has only one rural county (Litchfield, pop. 184,900, part of the Torrington micropolitan statistical area), while Rhode Island, Delaware, New Jersey, and the District of Columbia are entirely urban, i.e., they contain no non-metro counties.