



## State and Regional Differences in Arts Participation: A Geographic Analysis of the 2008 SPPA

### Introduction

This Research Note provides a geographic overview of Americans' participation in various types of art forms and activities. Based on results from the 2008 Survey of Public Participation in the Arts (SPPA), this analysis complements the full summary report of the survey (NEA Research Report #49), the NEA research brochure titled *Arts Participation 2008: Highlights from a National Survey*, and *Art-Goers in their Communities: Patterns of Social and Civic Engagement* (NEA Research Note #98).

Of those three publications, only the summary report (December 2009) includes a geographic analysis, although the focus is solely on the nine U.S. regions: New England; Pacific; Middle Atlantic; Mountain; East North Central; West North Central; South Atlantic; East South Central; and West South Central. This Research Note extends the analysis into the 32 states for which adequate data are available.

Whether reviewing arts engagement levels by region or state, this Note applies the metric of "participation rate," defined as the percentage of Americans in a given area that report attending at least one arts event, within a given category, over the 12-month period ending in May 2008. (For more about the SPPA's methodology, please turn to page 18.) Other participation rates stem from the percentage of Americans who said they personally performed or created artworks of a given type in the prior 12 months.<sup>1</sup>

As the Research Note explains, **the relatively small sample sizes of arts participants at the state and regional levels prohibit exact rankings** by percentage. In most cases, the margin of error is simply too wide. Still, we can show, with a reasonable degree of confidence, which states and regions stand out as highly concentrated areas of arts participation, and which areas fall at the other end of the distribution. For each activity

measured, moreover, we can report reliable percentage point estimates for each of the nine regions and 32 states.

The following section conveys the main results of this geographic analysis. A follow-up Research Note will investigate arts engagement by metropolitan area, with an emphasis on comparing urban and rural community participation.

## Summary and Discussion

### Regions

#### *Arts Attendance:*

- In the performing arts category, the Pacific and New England regions rank among the highest in attendance rates. Those arts include jazz and classical music concerts, opera, non-musical plays, and ballet and “other dance” performances.
- The Pacific and New England areas also lead in art museum or gallery attendance (27-30 percent of adults in these regions).
- The Mid-Atlantic region has one of the highest rates of musical play attendance (20 percent of adults).
- Adults from the Mountain and Pacific regions rank high in attending Latin/Spanish/salsa music performances.
- East South Central and West South Central have some of the lowest arts attendance rates in the country.

#### *Personal Performance or Creation of Artworks:*

- The West North Central, Pacific, and New England regions rank among the highest in playing a musical instrument (14-16 percent of adults in each region).
- New England heads the distribution in percentage of adults performing dance (nearly 4 percent of adults).
- East South Central is among the highest-ranked regions in choir-singing (9 percent of adults).
- The Pacific and New England regions rank among the highest in percentage of adults that paint or draw, do creative writing, and create photography, pottery, and ceramics.

## States

### *Arts Attendance:*

- **Oregon** consistently ranks among the highest in attendance of the performing arts, including opera and jazz and classical music concerts. The state also ranks high in art museum attendance.
- **California** is among the highest in attendance at salsa concerts (almost 10 percent of adults). California, along with **Maryland** and **Washington** State, also ranks high in art museum or gallery attendance (30 percent of adults in each state).
- Adults from **Connecticut**, **Minnesota**, and **New York** are among the most likely to attend musical plays (22-27 percent of adults in each state). Minnesota also ranks high in non-musical play attendance (14 percent of adults).
- **Massachusetts** and **Washington** are front-runners in ballet and “other dance” attendance (10 percent of adults in both states).

### *Personal Performance or Creation of Artworks:*

- Connecticut leads the distribution in percentage of adults that play a musical instrument (18 percent of adults).
- **Nebraska** and **Kansas** are front-runners in the percentage of adults doing creative writing (11-12 percent of adults).
- **Maine**, **Nebraska**, and **Kansas** lead in creating paintings/drawings (18 percent of adults in each state).
- **Alabama**, along with **North** and **South Carolina**, lead most other states in choir- singing (9-10 percent of adults). Yet Alabama, with **West Virginia**, has some of the lowest arts attendance rates nationwide.
- **Wyoming** ranks high in the combined category of creating pottery, ceramics, jewelry, leather work, and metal arts (13 percent of adults).
- **Maine** and **Wyoming** head the distribution for weaving and sewing (one in four adults). **Minnesota** and **Ohio** also have comparatively high weaving/sewing rates (nearly 20 percent of adults in both states).

In addition to reporting these findings, and the information in the tables at the end of this Note, we have used correlation analysis to determine the role of certain state-specific factors in influencing arts participation rates. Factors examined include the state's proportion of adults with a college degree or higher level of education; the percentage of adults living below the poverty line; and the number of performing arts organizations, per capita, in each state.

Correlation analysis of arts participation patterns by state reveals, perhaps predictably, that states with high levels of education, low poverty rates, and a high concentration of performing arts centers, generally rank high in arts attendance. States such as California, Connecticut, New York, and Minnesota conform to this trend. (Conversely, West Virginia, one of the nation's poorer states, with low concentrations of college-educated adults *and* performing arts centers, reports some of the lowest arts attendance rates.)

But when we move from arts attendance patterns to an understanding of how many Americans participate via personal performance or creation, the story changes. In choir-singing, as in the creation of pottery, ceramics, jewelry or leather or metal art works, what seems to boost a state's participation is precisely what accounts for low attendance.

Alabama and South Carolina have some of the nation's highest rates for choir-singing—and Wyoming ranks among the highest in creating pottery and doing other crafts—despite having a low concentration of college-educated residents and performing arts organizations. Similarly, Ohio, which has a lower-than-average concentration of performing arts centers, nevertheless shows one of the highest rates of weaving and sewing, nationwide.

What do these anomalies tell us about state and regional arts participation? At a minimum, the data should deter us from assuming that the factors contributing to arts participation are the same for every art form or for every type of participation. Going further, we must realize that no analysis of state-level data in aggregate can fully account for the unique mix of heritage, personal taste, and opportunity that composes a state's cultural milieu. The examples of Alabama and Wyoming suggest that even when deprived of equal footing with other states in terms of access to live arts events, Americans will find art in other forms and formats—many of which are waiting to be discovered by arts administrators and cultural researchers.

## Key to U.S. Regions and Regional Divisions

<b>North East</b>	
<u>New England</u>	
Connecticut	Maine
Massachusetts	Rhode Island
<i>Remainder of New England:</i>	
New Hampshire	Vermont
<u>Mid-Atlantic</u>	
New Jersey	New York
Pennsylvania	

<b>Midwest</b>	
<u>East North Central</u>	
Illinois	Michigan
Ohio	
<i>Remainder of East North Central:</i>	
Indiana	Wisconsin
<u>West North Central</u>	
Iowa	Kansas
Minnesota	Missouri
Nebraska	North Dakota
South Dakota	

<b>South</b>	
<u>South Atlantic</u>	
Florida	Georgia
Maryland	North Carolina
South Carolina	Virginia
West Virginia	
<i>Remainder of South Atlantic:</i>	
Delaware	Washington, D.C.
<u>East South Central</u>	
Alabama	
<i>Remainder of East South Central:</i>	
Kentucky	Tennessee
Mississippi	
<u>West South Central</u>	
Texas	
<i>Remainder of West South Central:</i>	
Arkansas	Louisiana
Oklahoma	

<b>West</b>	
<u>Mountain</u>	
Colorado	Nevada
Wyoming	
<i>Remainder of Mountain:</i>	
Idaho	New Mexico
Arizona	Utah
<u>Pacific</u>	
California	Oregon
Washington	
<i>Remainder of Pacific:</i>	
Alaska	Hawaii

SPPA estimates are unavailable for states listed under “remainder” of regional divisions.

## A Guide to the Tables in this Research Note

The estimates discussed in this Note are shown in the attached Tables 1 and 2, which report, respectively, arts attendance rates and personal performance and creation rates for the nine geographic regions and 32 states for which 2008 SPPA estimates are available.

**Table 1** includes attendance rates at any performing arts event, as well as rates at each individual performing arts activity captured by the survey. For example, the survey shows that almost 4 million people in the New England area attended at least one performing arts event in 2008. More than one million adults from that region attended classical music concerts and 370,000 went to ballet performances.

Table 1 also includes attendance rates at art museums, parks/historical buildings, craft/visual art festivals, and outdoor performing arts festivals. **Among the Great Lake states**, for example, **one in five adults participated in at least one of these activities**. In Illinois, 26 percent of adults visited an art museum; one-quarter of Ohio's adults went to a craft festival; and more than 20 percent of adults in Michigan attended an outdoor performing arts festival.

This Note extends the definition of arts participation to include personal performance or creation of art. For the same geographic areas, **Table 2** tracks the percentage of adults that play a musical instrument, perform dance, sing in choirs, or create artworks through activities such as drawing, creative writing, photography, and pottery.

Table 2 shows that in Kansas, one in five adults played a musical instrument in 2008. In the same state, one in four adults created photographs or videos. In Nebraska, 12 percent of adults did creative writing, and nearly 20 percent of adults in Minnesota did weaving or sewing, an activity that may have included crocheting, quilting, or needlepoint.

For each of the 32 states covered by the 2008 SPPA, **Table 3** lists counts of performing arts organizations, per capita; the percentage of college-educated adults; and poverty rates. These data are used to investigate how access to the arts may be related to participation.

## Difficulty of Ranking Regional and State Participation Levels

Given the sheer number of regional and state attendance rates reported in Tables 1 and 2, the reader may expect to see rankings of those estimates. For example, one might seek a list of the top 10 states by art museum attendance. The sample design of the SPPA, however, largely precludes this type of ranking.

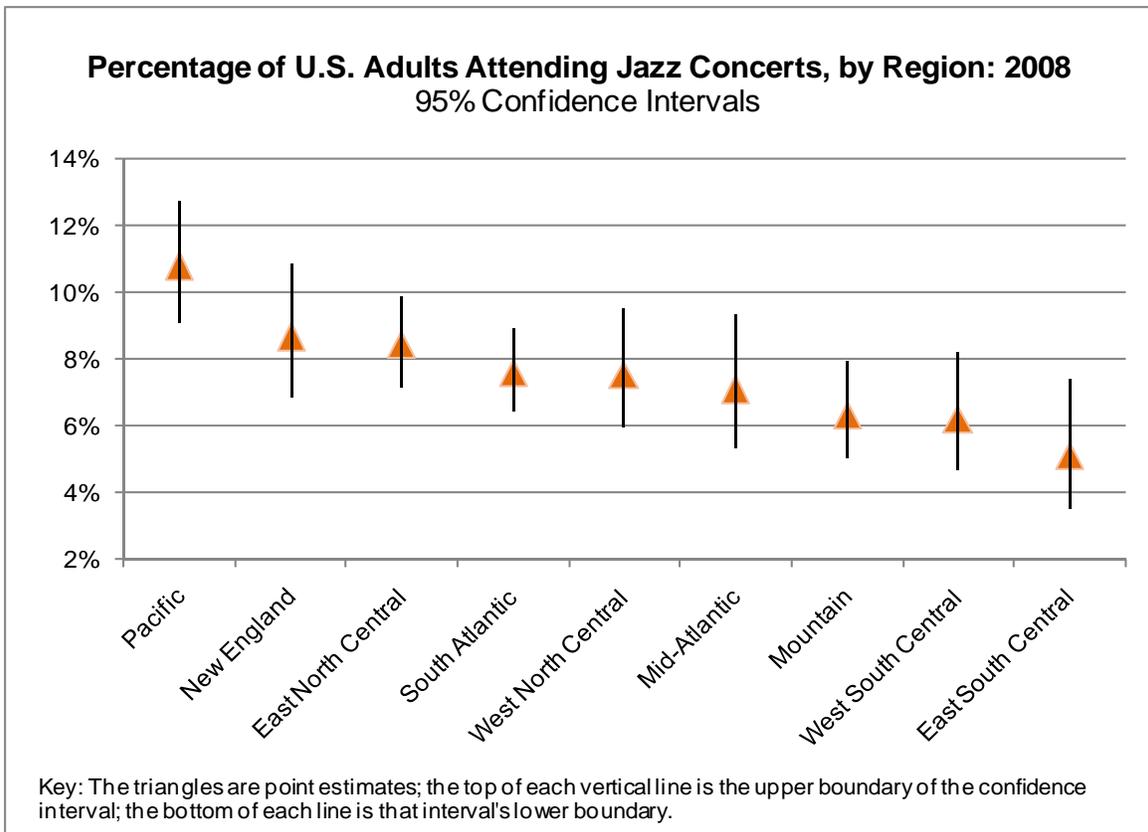
Consider the 10.8 percent jazz attendance rate reported for the Pacific. Among regions, this is the highest jazz attendance rate—more than two percentage points higher than the rates reported for New England or East North Central, the regions that appear to rank second and third, respectively.

However, once the SPPA sample design is factored in (in particular, sample sizes by region), the estimated jazz attendance rate in the Pacific ranges from a low of 9.1 percent to a high of 12.8 percent. The corresponding “confidence intervals” for New England range from 6.9 percent to 10.9 percent, and for East North Central they vary from 7.2

percent to 9.9 percent. **Because the intervals for the three regions overlap, we cannot necessarily conclude that one has a higher jazz-concert attendance rate.**<sup>2</sup>

As the graph below indicates, the confidence intervals show that jazz event attendance is higher in the Pacific than in the South Atlantic, Mountain, West South Central, and East South Central areas. Still, the overlapping intervals among all other regions suggest little variation in regional jazz attendance.

In this way, smaller sample sizes at the regional and state levels—and, therefore, higher sample error—necessarily prevent exact rankings of participation rates. For this Note, confidence intervals for each art form discussed will be used to discover distributional patterns in regional and state arts attendance and in the personal performance or creation of art. For the sake of brevity, this Note does not display the confidence intervals for each activity discussed. Readers interested in obtaining these figures should contact the NEA’s Office of Research & Analysis.



### Regional Analysis

#### Arts Attendance

The Pacific and New England regions head the distribution in jazz concert attendance, while the West South Central and East South Central areas compose the lower end. This regional pattern is generally found in most of the performing arts. There are, however, exceptions. In musical play attendance, for instance, the Mid-Atlantic region is in the front line—almost 20 percent of adults in that area went to a live musical play. Also, with more than 6 percent of its adults attending, the Mountain area is toward the front in salsa concert attendance.

#### Personal Performance or Creation of Artworks

West North Central and Pacific regions rank among the highest in percentage of adults that play a musical instrument—approximately 16 percent of residents in both areas participated in this activity. Although there is much overlap in the confidence intervals for performing dance, the New England region is among the highest in this activity—3.6 percent of its adults performed dance in 2008.

Although **East South Central region** (Alabama, Kentucky, Tennessee, and Mississippi) is often among the lowest in many categories of arts participation, it **leads the distribution in choir- singing**. The SPPA estimates that nearly 9 percent of adults in that area sing in choirs.

For the “arts creation” categories of painting/drawing, creative writing, photography, pottery/ceramics, and for weaving/sewing, the Pacific and New England regions rank consistently among the highest in percentage of adults participating.

**In the painting/drawing category**, however, **the West North Central region joins those two areas at the front of the distribution**.

Approximately 11 percent of adults in that area create paintings or drawings—a rate virtually on par with those reported for the Pacific and New England regions. Moreover, the percentage of adults that create pottery/ceramics in the West North Central area is in line with the rate reported for the Pacific—7 percent.

Similarly, the estimated percentage of adults that create photographs or videos and films in the Mountain region nearly matches the rates for the Pacific and New England areas—18 percent.

### State-Level Analysis

#### Arts Attendance

The smaller sample sizes at the state level contribute to even wider confidence intervals than those exhibited by regional estimates. For example, the jazz concert attendance rate for adults in Oregon is more than 14 percent, seemingly the highest rate among the 32 states for which 2008 SPPA estimates are available. Yet when confidence intervals are calculated, Oregon’s jazz attendance rate exceeds only the rates reported in Florida, Texas, North Carolina, Alabama, and West Virginia. The overlapping confidence intervals suggest that Oregon’s jazz concert attendance rate is similar to the rates in the remaining states.

Although wider confidence intervals at the state level make it more difficult to decipher geographic patterns, the analysis does indicate some notable findings.

**Oregon**, for example, **leads the distribution not only in jazz attendance, but also in classical concert, musical play, and art museum attendance**. Almost 17 percent of Oregon’s adults attended a classical music concert in 2008, a rate that translates into 490,000 people. Moreover, nearly one in three Oregon residents visited an art museum or gallery.

Oregon is not the only state leading in arts attendance. **California**, for example, **has one of the highest art museum attendance**

**rates.** In 2008, 31 percent of its residents—more than 8 million people—visited an art museum or gallery.

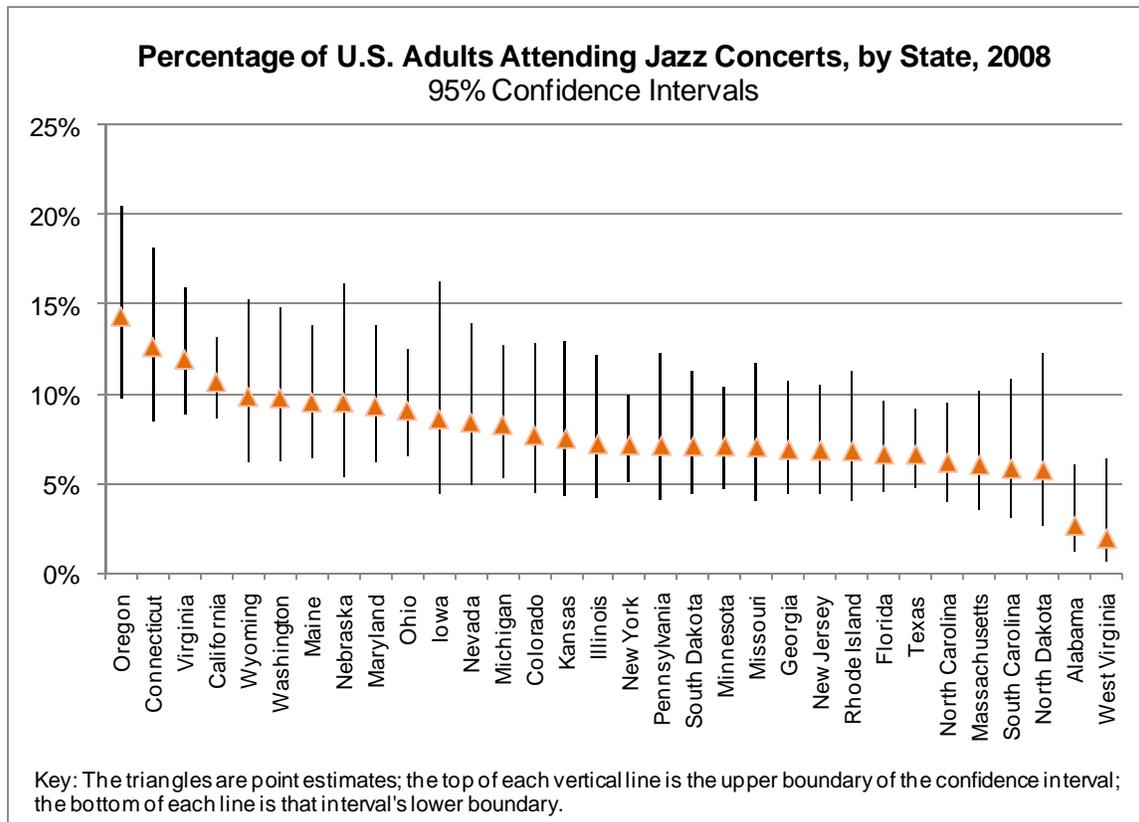
California has a comparatively high rate of jazz attendance, as does Connecticut. Roughly 11-12 percent of adults in both states went to a jazz concert in 2008.

**Massachusetts is a leader in classical music concert attendance** (14.3 percent), and Connecticut, Minnesota, and New York join Oregon at the front of the distribution for musical play attendance. **Minnesota has relatively high non-musical play attendance.** In 2008, 14 percent of Minnesota’s residents—more than 500,000 people—attended a non-musical play.

California, Texas, and New York rank among the highest in salsa concert attendance. In 2008, more than 2.5 million Californians went to a salsa concert. In Texas, the figure was just over 1 million, and in New York it was 790,000.

Opera and dance performances are attended by comparatively few people. At the state level, these smaller attendance rates translate into high sample error, and, consequently, wider confidence intervals than for many other art forms. Even so, Oregon is a state leader in opera attendance.

In addition to Oregon, Massachusetts has comparatively high opera attendance—an estimated 170,000 Massachusetts residents attended opera in 2008. Massachusetts is also among the highest in overall dance attendance—about 10 percent or 500,000 adults went to either a ballet or other dance performance.



Personal Performance or Creation of Artworks

For many of the personal performance or creation activities, **the Plains states of Kansas and Nebraska rank among the highest.** In 2008, for example, 20 percent of adults in Kansas said they played a musical instrument in the last 12 months; in Nebraska, the rate was nearly 18 percent. As the confidence intervals indicate, however, the percentage of adults playing a musical instrument was nearly as high in Connecticut, Minnesota, Washington, and Maine.

Kansas and Nebraska also lead the distribution of creative writing rates, with 11-12 percent engaging in this activity. Other

states with comparably high writing rates are Georgia, Washington, Michigan, California, and Rhode Island, where an estimated 76,000 adults did creative writing.

Kansas is also among the highest in percentage of adults that create paintings/drawings and take photographs or make films for artistic purposes. Yet Maine accompanies Kansas as a state with comparatively high percentages of adults engaged in these activities. In 2008, for example, almost one-quarter of adults in Maine (nearly 240,000 people) created photographs, movies, or videos for artistic purposes.

**Alabama, along with North and South Carolina, has some of the lowest rates of arts participation. Yet these states lead the way in choir-singing.** In 2008, more than 10 percent of Alabama’s adults sang in choirs—a rate that translates into more than 360,000 people. Nine percent of adults in both North and South Carolina reported singing in choirs.

The confidence intervals are wide for state-level participation in pottery/ceramics. Even so, Wyoming has one of the highest rates for this activity—13 percent of adults.

**Wyoming, along with Maine, also ranks among the highest in weaving/sewing.** In 2008, approximately one in four adults in both states engaged in this activity. Other states with comparatively high rates of weaving/sewing include Minnesota and Ohio.<sup>3</sup>

### Arts Engagement in Relation to State-Specific Factors: Access and Opportunity

The preceding section identified individual states that rank among the highest in arts participation. Correlation analysis permits us to examine state-level data in aggregate (i.e., combining results for all 32 states) to reveal factors that may contribute to geographical patterns in arts participation. Our analysis indicates that **attendance at most types of performing arts event (including jazz and classical concerts, opera, plays, and ballet) and visits to art museums or galleries are linked to higher levels of education, greater numbers of arts organizations, and lower poverty rates.**

For other types of arts activities, however, participation appears to be strong even when there are fewer opportunities to attend arts events. Indeed, **certain forms of personal performance or creation of art (singing in choirs, in particular) are more likely to**

**occur in states characterized by lower educational attainment, fewer arts organizations, and higher levels of poverty.**

#### Correlation Modeling

Correlation analysis is used to ascertain whether two variables are related to each other. Interpretation of the “correlation coefficient,” which ranges between 0 and 1, is basic—the closer it is to 1, the stronger is the relationship between the studied variables. Symbolized by “r,” the correlation coefficient can be positive, indicating that the two variables move in the same direction (when one rises, the other rises), or negative, which suggests that two variables are inversely related.

For this state-level analysis, which draws on estimates for the 32 states covered by the 2008 SPPA, the variables considered are several categories of arts participation

(including performing arts and art museum attendance, and selected types of arts creation and performance); the percentage of adults with a bachelor's degree or higher levels of education; the number of performing arts organizations, per capita; and the percentage of Americans living below poverty.<sup>4</sup>

#### Arts Attendance

State-level correlation analysis suggests that arts attendance and education are strongly related. The coefficient relating performing arts attendance and the percentage of the population with at least a bachelor's degree is 0.63. For art museum attendance and education, the relationship is even stronger (0.72).

Both performing arts and art museum attendance are positively related to the number of arts organizations in a state. The coefficients are 0.38 and 0.29 percent, respectively. Poverty, too, serves as a link to arts attendance, but in the opposite direction. The correlation coefficient between performing arts attendance and the percentage of people living below poverty is -0.58. It is nearly the same for art museum attendance (-0.59).

These findings suggest that attendance at performing arts events and art museums is likely higher in states with well-educated populations, ample numbers of arts organizations, and low rates of poverty.

#### Examples

For each state, the correlation analysis used in this Note relates patterns in arts participation to education, proximity to arts organizations, and poverty in order to compute an *aggregate* coefficient. There are undoubtedly factors other than these three that influence arts participation (e.g., the impact of age and parental or cultural influences). Consequently, the correlation results presented in this Note may not apply to a particular state.

For example, as discussed earlier, Oregon ranks among the highest in attendance at classical concerts, opera, and art museums. Yet Oregon is only average in its share of adults with college degrees, number of per-capita arts organizations, and incidence of poverty.<sup>5</sup> Results for other states do, however, fit the pattern. California, for instance, is among the highest in jazz concert and art museum attendance. On a per capita basis, California has about 40 percent more arts organizations than the national average.

Connecticut, New York, and Minnesota rank high in musical play attendance. The percentage of college-educated adults in Connecticut is more than 7 points greater than the U.S. level, and Connecticut's poverty rate is 4.7 points below average. Connecticut also has 12 percent more performing arts organizations, per capita, than the U.S. average.

New York's residents are also well-educated (the share of its population with a college degree is more than 4 percentage points greater than the national average). Compared to the U.S. average, New York has 2.3 times the number of arts organizations, per capita.

In addition to comparatively high musical play attendance, Minnesota ranks near the top in non-musical play-going. Minnesota has 30 percent more performing arts organizations, per capita, than the U.S. average, and it has above-average levels of education and below-average rates of poverty.

Massachusetts is among the states with the highest rates of classical music, opera, and dance attendance. Massachusetts also has a well-educated population—almost 38 percent of its residents have bachelor's degrees or higher levels of education. This rate is more than 10 percentage points greater than the U.S. figure of 27.4 percent.

West Virginia, alternatively, shows some of the lowest rates of arts attendance, including jazz and classical music, musical and non-musical plays, dance, and art museums. Notably, the share of West Virginia's adults with college degrees (17 percent) is more than 10 percentage points below the national average, and the number of per-capita arts organizations in the state is 52 percent lower than the national average. Poverty rates are

comparatively high in West Virginia—about 4 percentage points higher than the U.S. poverty rate.

#### Performance and Creation of Art

Creative writing is also linked to education. The correlation coefficient between the two variables is nearly 0.50—not quite as strong as the relationship between arts attendance and education, but still sizable. Writing is inversely related to poverty ( $r = -.40$ ), but appears to have almost no connection to the number of arts organizations a state has ( $r = 0.06$ ).

Playing a musical instrument and creating paintings/drawings display similar, albeit weaker, patterns. The correlation between these activities and education was 0.25 and 0.20, respectively. They are both negatively linked to poverty and are unrelated to state counts of arts organizations.

Choir-singing, however, displays dramatically different patterns. For one thing, singing in choirs is inversely related to education—the correlation coefficient between the two variables is -0.36. Perhaps even more noteworthy is that choir singing is fairly strongly, but inversely, related to the number of arts organizations a state has ( $r = -0.52$ ). Moreover, choir-singing is positively related to poverty ( $r = 0.40$ ).

Some of these patterns, though weaker, are also seen in creating pottery/ceramics (a catchall category that includes not only creating pottery or ceramics, but also jewelry-making, leather work, and metal arts). While this arts activity is negatively related to education, the correlation coefficient between the two variables is comparatively small (-0.11). Creating pottery/ceramics is positively related to poverty ( $r = 0.23$ ).<sup>6</sup>

### Examples

Taken together, correlation analysis indicates that creative writing, playing a musical instrument, and creating paintings/drawings are linked to high education and low poverty rates. (These activities seem to be unrelated to state counts of arts organizations.)

Illustrating this pattern is Connecticut—its population is well-educated (35 percent of its residents have at least a bachelor's degree) and it has few poor residents (8.5 percent). Connecticut also ranks high among states in playing a musical instrument.

Singing in choirs, on the other hand, is more likely to occur in states where smaller percentages of adults have college degrees, where there are fewer arts organizations, and where poverty is more common.

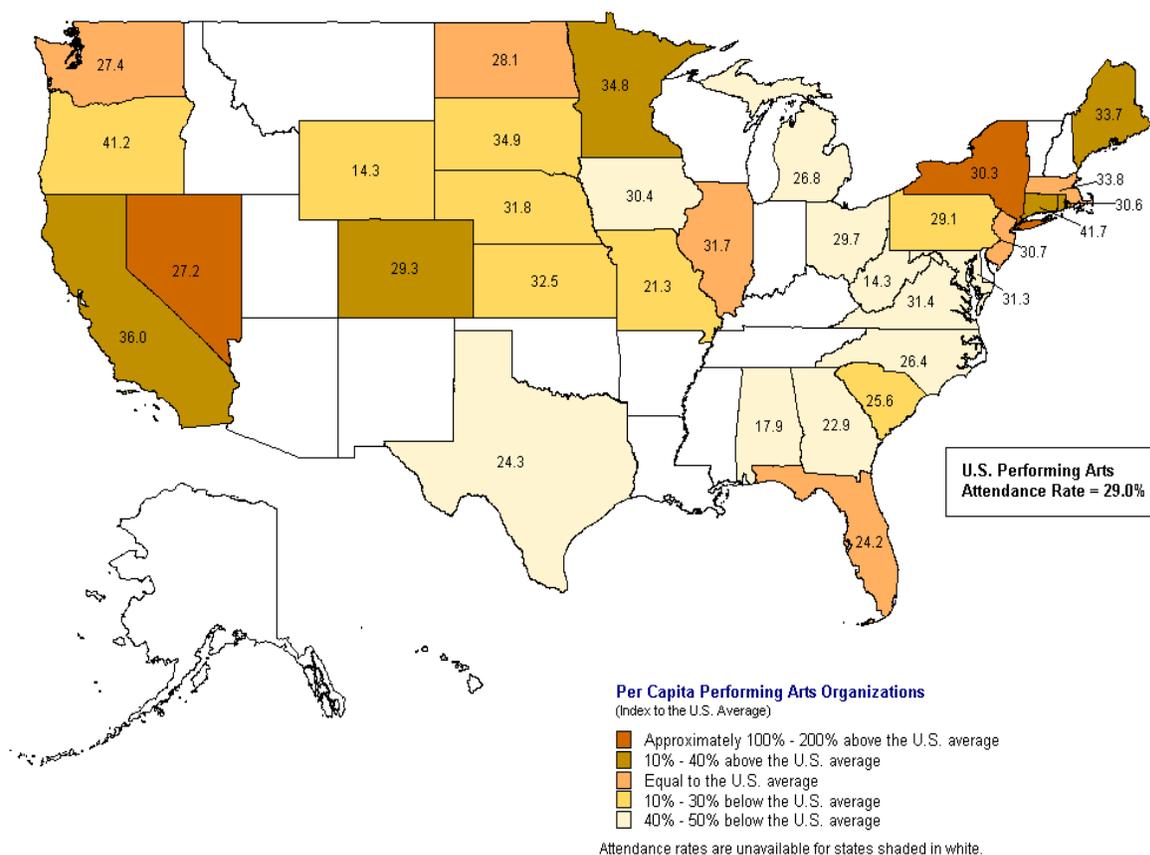
Alabama, for example, is among the highest in choir-singing. Alabama is also well below the U.S. average in educational attainment (almost 6 percentage points lower). It has

fewer per-capita arts organizations (54 percent below average) and more poverty (3 percentage points above average). South Carolina also fits the pattern of higher choir-singing rates coupled with lower levels of education, fewer arts organizations, and higher poverty rates.

Wyoming, to some extent, also conforms to the correlation findings. Although Wyoming's 8.9 percent poverty rate is well below the national average of 13.2 percent, the share of its population with at least a bachelor's degree is 4 percentage points lower than the U.S. rate. Wyoming also ranks highly among states in the combined category of creating pottery, ceramics, jewelry, and leather and metal artworks.

Table 3 lists counts of per-capita performing arts organizations, percentage with college degrees, and poverty rates for each of the 32 states studied.

## Attendance Rates in Relation to the Number of Performing Arts Organizations, Per Capita



Performing arts attendance rates - 2008 SPPA  
Number of performing arts organizations - U.S. Census Bureau, 2007 County Business Patterns

## Technical Notes

### Confidence Intervals

The standard errors used to generate the confidence intervals reported in this Note were generated through a balanced repeated replication (brr) method, which incorporated the replication weights that accompany the 2008 Survey of Public Participation in the Arts.

### Correlation Analysis

The state-level correlation analysis discussed earlier examined relationships between arts participation and three variables that may measure access to the arts: proximity to arts organizations, educational attainment, and poverty.

For each of the 32 states captured by the 2008 SPPA, proximity to arts organizations was measured by counts of performing arts organizations reported in *County Business*

*Patterns 2007*, published by the U.S. Census Bureau.<sup>7</sup> The counts were adjusted for population (per capita), using the Bureau’s estimates of 2007 resident population for states.

Educational attainment was represented by the percentage of a state’s population (age 25 and older) that had a bachelor’s degree or higher levels of training, while poverty was measured as the share of each state’s

population living below poverty levels. Education and poverty estimates were taken from the Census Bureau’s American Community Survey. The most recent ACS estimates are reported as averages from the 2006-2008 surveys.

The following table reports correlation coefficients (“r”) for attending performing arts events and art museums, and for selected arts performance and creation categories:

Arts Participation in Relation to Access to the Arts  
(Correlation Coefficients "r")

	Performing arts organizations, per capita	Education	Poverty
Attendance:			
Performing arts	0.38	0.63	-0.60
Art museum/gallery	0.30	0.72	-0.58
Performance:			
Musical instrument	0.57	0.25	-0.22
Choir/chorus	-0.52	-0.36	0.40
Create:			
Painting/drawing	0.05	0.20	-0.25
Creative writing	0.06	0.50	-0.40
Pottery/ceramics	0.11	-0.12	0.23

## About the Survey of Public Participation in the Arts

The 2008 Survey of Public Participation in the Arts (SPPA) was conducted in May 2008 as a supplement to the U.S. Census Bureau's Current Population Survey, a monthly household survey of employment conditions. Attaining a response rate of 82 percent, the 2008 SPPA drew from a sample of more than 18,000 U.S. adults ages 18 and older.<sup>8</sup>

Employing a modular methodology, the 2008 SPPA asked each respondent a set of "core" questions plus questions from two of four modules. This Research Note, for example,

draws not only on results from the core section of the survey capturing performing arts and art museum attendance, but also on the module capturing personal performance or creation of art.

For more information about the 2008 SPPA's technical design, please see the survey's user's guide available at <http://www.nea.gov/research/SPPA/users-guide.pdf>.

### For Further Reading

National Endowment for the Arts, *2008 Survey of Public Participation in the Arts*, Research Report #49. November 2009, from <http://www.arts.gov/research/2008-SPPA.pdf>

U.S. Census Bureau, About the American Community Survey. Revised September 2009, from <http://www.census.gov/acs/www/SBasics/>

U.S. Census Bureau, Economic Programs Overview, County Business Patterns. Revised April 2009, from <http://www.census.gov/econ/overview/mu0800.html>

The James Irvine Foundation, *Cultural Engagement in California's Inland Regions*. September 2008, from [http://www.irvine.org/assets/pdf/pubs/arts/CulturalEngagement\\_FullReport.pdf](http://www.irvine.org/assets/pdf/pubs/arts/CulturalEngagement_FullReport.pdf)

Indiana University, Center for Urban Policy and the Environment, *Discovering the Arts and Culture Audiences in Central Indiana*. January 2003, from <http://proceedings.esri.com/library/userconf/proc03/p1080.pdf>

National Endowment for the Arts, *The Geography of Participation in the Arts and Culture*, Research Report #41. March 2000, from <http://www.nea.gov/research/GeographyParticipation.pdf>

National Endowment for the Arts, *The Arts Public in the South*, Research Report #17. March 1984, from <http://www.nea.gov/research/reports/NEA-Research-Report-17.pdf>

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#### Endnotes

<sup>1</sup> This Note reports regional and state arts participation through attendance at live arts events and selected forms of personal performance and creation of art. Due to small sample sizes at regional and state levels, performing opera, playing classical or jazz music, and acting in plays were excluded from the analysis.

<sup>2</sup> The confidence intervals are calculated by adding and subtracting approximately two times the standard error from the point estimate. Please see technical section of this Note for an explanation of how the standard errors were derived.

<sup>3</sup> Although personal performance rates for dance are reported in Table 2 for the 32 SPPA states, small sample sizes preclude the reporting of distributional rankings of dance performance by states.

<sup>4</sup> Due to higher sampling error at the state-level, caution is advised in drawing conclusions from state-level participation rates.

The U.S. Census Bureau's County Business Pattern data, which were used in the correlation analysis, do not distinguish art museums from other types of museums. For this analysis, state counts of performing arts organizations are used as a proxy for all arts organizations in a given state.

<sup>5</sup> Please see Table 3.

<sup>6</sup> Correlation analysis showed no meaningful patterns for photography and weaving/sewing.

<sup>7</sup> County Business Patterns include both taxable and tax-exempt establishments.

<sup>8</sup> Rather than attempt to interview all adults in the household, for some questions the 2008 SPPA obtained proxy responses for spouses or partners from the initial adult interview in each household.

**Table 1. Percentage of U.S. Adults Attending Arts Events, 2008**

Area	Adult population (in millions)	Any performing art	Jazz	Latin/ Spanish/ salsa concerts	Classical music	Opera	Musical plays	Non-musical plays	Ballet	Other dance	Art museums/galleries	Historical parks/buildings	Craft/visual arts festivals	Outdoor performing arts festivals
<b>U.S.</b>	<b>224.8</b>	<b>29.0%</b>	<b>7.8%</b>	<b>4.9%</b>	<b>9.3%</b>	<b>2.1%</b>	<b>16.7%</b>	<b>9.4%</b>	<b>2.9%</b>	<b>5.2%</b>	<b>22.7%</b>	<b>24.9%</b>	<b>24.5%</b>	<b>20.8%</b>
<b>New England</b>	<b>10.9</b>	<b>35.8</b>	<b>8.7</b>	<b>4.8</b>	<b>12.4</b>	<b>2.9</b>	<b>21.7</b>	<b>11.6</b>	<b>3.4</b>	<b>8.0</b>	<b>27.3</b>	<b>29.5</b>	<b>29.4</b>	<b>21.3</b>
Connecticut	2.6	41.7	12.6	7.6	9.9	1.7	27.8	12.0	2.7	8.4	28.8	28.1	28.6	22.6
Maine	1.0	33.8	9.5	2.0	13.1	2.0	18.3	15.5	4.5	12.0	27.7	31.3	29.2	26.6
Massachusetts	4.9	33.7	6.1	3.9	14.3	3.5	18.7	9.6	3.9	7.3	27.0	28.4	29.2	18.9
Rhode Island	0.8	30.6	6.8	4.4	10.1	0.8	20.9	15.3	2.9	4.1	21.8	31.4	24.7	20.5
<b>Remainder of New England</b>	<b>1.5</b>	<b>36.7</b>	<b>10.5</b>	<b>3.8</b>	<b>11.4</b>	<b>4.5</b>	<b>23.1</b>	<b>12.8</b>	<b>2.7</b>	<b>9.0</b>	<b>28.3</b>	<b>32.9</b>	<b>34.5</b>	<b>23.4</b>
<b>Mid-Atlantic</b>	<b>30.7</b>	<b>30.4</b>	<b>7.1</b>	<b>4.4</b>	<b>8.6</b>	<b>2.1</b>	<b>19.5</b>	<b>9.5</b>	<b>3.3</b>	<b>4.9</b>	<b>22.3</b>	<b>25.5</b>	<b>24.2</b>	<b>18.7</b>
New Jersey	6.5	31.8	6.9	4.3	7.2	3.1	21.5	9.0	2.9	4.5	22.7	26.7	17.2	13.3
New York	14.7	30.7	7.2	5.4	10.2	2.1	21.7	9.7	3.1	4.9	24.8	25.5	25.4	18.6
Pennsylvania	9.5	29.1	7.1	3.0	7.0	1.5	14.8	9.5	4.0	5.0	18.3	24.5	27.4	22.5
<b>South Atlantic</b>	<b>43.4</b>	<b>26.2</b>	<b>7.6</b>	<b>3.8</b>	<b>9.1</b>	<b>1.8</b>	<b>14.4</b>	<b>9.1</b>	<b>2.8</b>	<b>5.0</b>	<b>19.8</b>	<b>24.0</b>	<b>23.0</b>	<b>19.0</b>
Florida	14.0	24.2	6.7	3.8	6.8	1.4	13.6	7.4	1.8	3.9	17.9	17.6	20.7	15.6
Georgia	6.9	22.9	6.9	5.4	9.0	0.2	12.7	8.4	1.8	3.1	17.0	25.4	20.0	16.1
Maryland	4.2	31.3	9.3	3.6	7.2	2.8	18.0	10.5	2.7	5.6	31.1	31.9	25.7	20.8
North Carolina	6.8	27.2	6.2	5.3	12.2	2.4	14.8	11.2	3.8	6.1	18.0	22.8	28.3	20.7
South Carolina	3.3	25.6	5.9	*	14.0	1.2	15.6	8.5	1.7	8.6	19.7	28.3	29.0	22.9
Virginia	5.7	31.4	11.9	2.6	10.8	3.2	14.9	10.4	5.6	6.7	23.3	31.4	21.6	25.3
West Virginia	1.4	14.3	2.0	0.7	3.4	0.7	8.8	4.3	0.7	1.1	6.0	15.7	19.7	16.3
<b>Remainder of South Atlantic</b>	<b>1.1</b>	<b>36.4</b>	<b>15.2</b>	<b>6.4</b>	<b>11.4</b>	<b>4.6</b>	<b>21.1</b>	<b>16.6</b>	<b>4.7</b>	<b>6.7</b>	<b>31.6</b>	<b>32.4</b>	<b>20.3</b>	<b>20.9</b>
<b>East North Central</b>	<b>34.6</b>	<b>29.7</b>	<b>8.4</b>	<b>3.3</b>	<b>8.8</b>	<b>2.4</b>	<b>18.5</b>	<b>9.8</b>	<b>2.2</b>	<b>4.8</b>	<b>22.6</b>	<b>23.9</b>	<b>27.6</b>	<b>23.1</b>
Illinois	9.5	30.4	6.8	3.2	7.5	3.6	21.2	9.1	2.0	3.1	26.1	24.6	26.9	24.4
Michigan	7.5	26.8	8.3	2.9	7.7	1.7	17.1	9.9	3.0	5.0	21.3	20.0	28.9	22.3
Ohio	8.6	29.7	9.1	1.7	10.5	2.3	16.6	10.6	2.4	6.5	20.2	25.6	25.6	21.2
<b>Remainder of East North Central</b>	<b>8.9</b>	<b>31.4</b>	<b>9.7</b>	<b>5.5</b>	<b>9.8</b>	<b>1.8</b>	<b>18.5</b>	<b>9.9</b>	<b>1.5</b>	<b>4.8</b>	<b>22.2</b>	<b>24.9</b>	<b>29.0</b>	<b>24.0</b>

**Table 1. Percentage of U.S. Adults Attending Arts Events, 2008**  
(continued)

Area	Adult population (in millions)	Any performing art	Jazz	Latin/ Spanish/ salsa concerts	Classical music	Opera	Musical plays	Non-musical plays	Ballet	Other dance	Art museum	Parks/ historical buildings	Craft/ visual arts festivals	Outdoor performing arts festivals
<b>West North Central</b>	15.0	29.2	7.5	3.1	8.7	1.7	17.9	10.0	2.3	5.6	22.8	29.1	26.2	20.5
Iowa	2.2	31.7	8.6	2.2	10.6	0.2	18.3	10.2	3.1	5.6	24.2	29.8	31.0	22.9
Kansas	2.0	32.5	7.5	4.3	9.2	1.8	18.9	12.9	3.2	10.2	26.5	33.3	30.9	25.9
Minnesota	3.9	34.8	7.1	3.8	13.8	2.0	22.4	14.0	2.6	5.9	27.0	31.1	24.7	21.7
Missouri	4.4	21.3	7.0	3.4	3.5	1.7	13.9	4.6	0.8	4.4	16.9	22.4	21.0	13.8
Nebraska	1.3	26.4	9.5	0.9	6.7	3.8	14.1	9.4	2.9	3.0	24.1	31.0	29.1	20.0
North Dakota	0.5	30.3	5.8	3.4	9.6	0.6	18.2	8.5	3.1	2.7	17.4	33.6	32.1	25.5
South Dakota	0.6	34.9	7.1	0.7	8.8	0.5	21.3	13.9	4.6	4.2	21.7	40.5	29.2	31.5
<b>East South Central</b>	13.4	19.9	5.1	1.1	7.4	1.9	11.2	5.9	2.7	2.5	14.9	17.6	18.7	13.6
Alabama	3.5	17.9	2.7	*	6.6	2.4	10.7	4.3	3.2	1.2	12.8	16.8	15.4	10.1
Remainder of East South Central	9.9	20.5	6.0	1.4	7.6	1.8	11.3	6.5	2.5	3.0	15.7	17.9	19.8	14.8
<b>West South Central</b>	25.0	22.6	6.2	5.3	7.3	0.9	12.4	6.3	2.6	3.6	17.0	19.6	18.5	18.0
Texas	17.1	24.3	6.6	6.3	8.4	1.1	13.2	7.2	3.2	4.0	19.4	20.6	19.6	19.3
Remainder of East South Central	7.9	18.9	5.3	3.1	5.0	0.6	10.9	4.6	1.2	2.5	11.9	17.3	16.2	15.1
<b>Mountain</b>	15.8	29.7	6.3	6.4	9.6	2.6	15.1	8.0	2.8	6.9	25.5	27.3	26.9	24.2
Colorado	3.6	29.3	7.7	3.7	10.1	2.3	16.5	8.2	3.4	4.7	28.7	30.2	23.6	24.0
Nevada	1.9	28.1	8.4	4.8	7.8	2.5	18.6	4.7	3.7	5.3	16.2	22.2	24.2	27.0
Wyoming	0.4	27.4	9.9	0.7	9.1	*	12.8	9.3	1.8	3.1	23.5	27.1	31.0	22.6
Remainder of Mountain	9.8	30.3	5.3	7.8	9.7	2.9	14.0	8.6	2.4	8.1	26.2	27.3	28.5	23.8
<b>Pacific</b>	36.1	35.9	10.8	9.0	11.9	3.0	19.2	12.5	4.1	6.3	31.1	28.8	26.8	25.7
California	26.9	36.0	10.7	9.6	11.1	2.8	18.9	12.6	3.7	6.4	31.2	27.8	24.9	24.9
Oregon	2.9	41.2	14.3	9.4	16.9	6.3	23.2	14.3	4.9	6.6	32.5	33.0	34.0	31.3
Washington	4.9	33.3	9.8	7.3	13.4	2.8	18.1	12.5	6.5	5.2	29.4	30.2	31.8	27.5
Remainder of Pacific	1.5	31.7	9.4	3.5	11.3	1.4	20.0	8.2	2.7	8.3	32.0	32.8	31.4	23.4

\* Sample size is too small to determine participation

**Table 2. Percentage of U.S. Adult Population Performing or Creating Art, 2008**

Area	Adult population (in millions)	Play a musical instrument	Dance	Choir/ chorus	Painting/ drawing	Creative writing	Photography	Pottery/ ceramics	Weaving/ sewing
<b>U.S.</b>	<b>224.8</b>	<b>12.7%</b>	<b>2.1%</b>	<b>5.2%</b>	<b>9.0%</b>	<b>6.9%</b>	<b>14.7%</b>	<b>6.0%</b>	<b>13.1%</b>
<b>New England</b>									
Connecticut	10.9	14.8	3.6	5.2	11.5	8.8	20.1	9.4	16.3
Maine	2.6	18.1	3.2	2.6	9.8	8.1	21.9	9.4	13.4
Massachusetts	1.0	17.0	2.9	8.4	17.9	8.1	23.9	9.3	24.9
Rhode Island	4.9	12.1	4.5	7.1	10.7	8.7	19.3	10.5	15.5
Remainder of New England	0.8	10.5	0.6	0.6	12.4	9.5	12.4	3.0	12.9
	1.5	18.4	3.7	3.2	11.7	10.7	20.1	8.7	18.6
<b>Mid-Atlantic</b>									
New Jersey	30.7	11.8	2.9	3.3	7.7	7.4	13.6	5.6	11.3
New York	6.5	6.8	0.9	0.8	8.5	8.9	8.9	3.6	5.5
New York	14.7	13.6	4.0	3.8	8.3	7.1	16.3	6.4	13.8
Pennsylvania	9.5	12.5	2.4	4.4	6.1	6.7	12.4	5.9	11.5
<b>South Atlantic</b>									
Florida	43.4	10.3	1.5	5.6	7.4	6.6	12.2	4.1	10.7
Georgia	14.0	7.5	1.3	3.4	5.9	5.6	11.7	3.9	10.3
Georgia	6.9	12.2	0.6	5.9	7.1	10.8	14.1	3.5	10.2
Maryland	4.2	11.9	3.1	5.8	8.7	8.1	10.5	5.3	11.0
North Carolina	6.8	8.4	0.9	9.2	9.1	4.5	11.0	3.5	9.2
South Carolina	3.3	10.9	1.7	9.0	5.4	5.6	12.4	5.6	12.3
Virginia	5.7	16.2	2.1	3.5	10.4	6.5	12.8	4.4	12.4
West Virginia	1.4	10.0	1.5	8.2	4.8	0.8	14.4	2.2	12.2
Remainder of South Atlantic	1.1	9.4	4.5	4.1	7.4	11.5	13.9	4.8	10.6
<b>East North Central</b>									
Illinois	34.6	12.4	2.7	5.8	9.9	6.8	17.4	6.5	16.8
Michigan	9.5	11.0	3.3	4.3	10.7	5.6	19.4	5.0	14.4
Ohio	7.5	13.3	1.7	8.7	9.8	10.4	19.4	7.6	11.4
Ohio	8.6	12.7	3.5	6.7	9.3	5.2	16.3	8.4	19.6
Remainder of East North Central	8.9	13.4	2.1	4.3	9.4	6.4	13.6	5.9	22.9

**Table 2. Percentage of U.S. Adult Population Performing or Creating Art, 2008**  
(continued)

Area	Adult population (in millions)	Play a musical instrument	Dance	Choir/ chorus	Painting/ drawing	Creative writing	Photography	Pottery/ ceramics	Weaving/ sewing
<b>West North Central</b>									
Iowa	15.0	16.3	2.6	5.4	11.2	7.6	16.4	7.3	16.1
Kansas	2.2	16.5	*	8.7	7.6	8.3	14.7	8.8	18.4
Minnesota	2.0	20.3	4.0	8.5	18.7	10.9	25.2	11.6	18.1
Missouri	3.9	17.3	5.1	5.0	7.1	7.7	17.0	7.3	19.6
Nebraska	4.4	13.6	1.9	3.1	11.5	5.0	13.6	4.1	11.0
North Dakota	1.3	17.9	*	4.4	17.7	12.3	14.2	7.9	14.8
South Dakota	0.5	11.6	2.3	5.2	7.0	1.2	7.1	4.3	16.2
	0.6	14.2	1.3	3.6	10.1	6.4	19.8	8.7	14.7
<b>East South Central</b>									
Alabama	13.4	11.9	1.4	8.8	5.6	2.9	7.5	3.9	12.2
Remainder of East South Central	3.5	13.6	*	10.3	6.9	2.1	5.4	2.9	11.6
	9.9	11.3	2.0	8.3	5.0	3.2	8.3	4.2	12.4
<b>West South Central</b>									
Texas	25.0	10.6	1.7	6.1	7.2	4.3	10.5	4.5	9.9
Remainder of East South Central	17.1	10.9	1.6	5.0	7.3	3.9	10.4	4.1	10.0
	7.9	10.1	1.9	8.1	7.1	5.2	10.8	5.2	9.7
<b>Mountain</b>									
Colorado	15.8	13.5	1.2	4.1	9.4	6.4	18.0	7.1	15.5
Nevada	3.6	16.4	0.9	5.0	8.6	7.5	17.2	6.6	14.6
Wyoming	1.9	10.4	*	*	7.9	3.2	14.5	6.0	10.4
Remainder of Mountain	0.4	11.9	1.1	8.3	11.8	5.2	13.2	13.1	23.2
	9.8	13.2	1.6	4.4	9.8	6.7	19.3	7.3	16.5
<b>Pacific</b>									
California	36.1	15.8	2.1	4.1	11.7	9.8	18.2	7.9	13.6
Oregon	26.9	15.5	2.2	3.7	11.8	10.1	17.7	7.5	12.1
Washington	2.9	14.9	3.0	4.4	14.8	5.9	21.8	12.3	19.3
Remainder of Pacific	4.9	17.2	1.1	5.9	9.7	10.7	16.9	7.0	18.2
	1.5	18.2	2.8	4.3	10.8	8.1	24.4	11.0	12.9

\* Sample size is too small to determine participation

**Table 3. Summary of Performing Arts Organizations, Education, and Poverty**  
(For the 32 States Covered by the 2008 SPPA)

Area	Number of performing arts organizations per 100,000 residents <sup>1</sup>	Number of performing arts organizations (index to the U.S.)	Percentage of population with bachelor's degree or higher <sup>2,3</sup>	Percentage of population below poverty <sup>2</sup>
U.S.	3.1	1.0	27.4%	13.2%
Alabama	1.4	0.46	21.5	16.3
California	4.5	1.42	29.4	12.9
Colorado	3.5	1.11	35.0	11.9
Connecticut	3.5	1.12	34.8	8.5
Florida	3.4	1.07	25.4	12.6
Georgia	2.0	0.65	27.0	14.5
Illinois	3.3	1.04	34.6	12.1
Iowa	2.0	0.64	24.2	11.2
Kansas	2.2	0.70	29.0	11.7
Maine	4.1	1.31	25.9	12.6
Maryland	2.0	0.64	35.1	8.0
Massachusetts	3.0	0.96	37.7	10.0
Michigan	1.7	0.54	24.7	14.0
Minnesota	4.1	1.31	31.1	9.7
Missouri	2.5	0.80	24.5	13.3
Nebraska	2.1	0.68	27.3	11.1
Nevada	6.1	1.95	21.4	10.8
New Jersey	3.0	0.96	34.0	8.7
New York	7.3	2.33	31.6	13.8
North Carolina	2.0	0.62	25.6	14.6
North Dakota	3.3	1.05	26.1	12.1
Ohio	1.8	0.56	23.8	13.2
Oregon	2.9	0.94	28.0	13.4
Pennsylvania	2.6	0.83	25.9	11.9
Rhode Island	3.5	1.12	29.8	11.6
South Carolina	2.2	0.70	23.2	15.5
South Dakota	2.9	0.92	24.8	13.2
Texas	1.7	0.55	25.1	16.3
Virginia	2.0	0.64	33.2	9.9
Washington	3.3	1.07	30.5	11.6
West Virginia	1.5	0.48	17.0	17.2
Wyoming	2.7	0.85	23.3	8.9

<sup>1</sup> Data source: U.S. Census Bureau, 2007 County Business Patterns

<sup>2</sup> Data source: U.S. Census Bureau, 2006-2008 American Community Survey

<sup>3</sup> Adults 25 and older