

Arts Data Profile: State-Level Estimates of Arts Participation Patterns: 2017-2018

Research Brief #7: Why Some States Exhibit Higher (or Lower) Estimates of Arts Participation

Variations in arts participation patterns by state naturally raise questions about reasons for such differences. According to the National Endowment for the Arts' surveys, for example, residents of Colorado and Washington participate in many types of arts activities at relatively high rates, while residents of Mississippi and West Virginia are less likely to attend arts events, read literature, or participate through other means.

This research brief examines the degree to which state-level arts participation correlates with selected socioeconomic variables. Key findings include:

- Educational attainment is positively associated with reading literature, and with attending performing arts events and art exhibits. Nevertheless, education is only modestly associated with using electronic media to watch or listen to arts programming, and it appears to be unrelated to the share of each state's residents who personally perform or create art.
- Poverty status is a good predictor of performing arts attendance, but only a modest predictor of personally performing or creating art.
- A state's economic production of arts and cultural goods and services is poorly correlated with arts participation.

In the National Endowment for the Arts' surveys, the following arts activities are captured if they were done in the preceding 12 months:

Attending live performing arts: Going to music performances; musicals or plays; dance performances; events featuring a poet or writer; or other kinds of performances such as storytelling, standup or improv comedy, puppetry, or circus performances.

Attending art exhibits: Going to exhibits featuring paintings, sculpture, pottery, photography, or digital art.

Reading literature: Reading novels or short stories; poems; or plays.

Using electronic media to consume art: Watching or listening to jazz music; Latin, Spanish, or salsa music; classical music or opera; other kinds of music such as rock, pop, country, folk, rap, or hip-hop; theater productions such as musicals or plays; dance; the visual arts¹; or programs about books or writers.

Personally performing or creating art: Playing a musical instrument; doing acting; performing or practicing dance or singing; taking photographs or creating films/videos as an artistic activity; creating other visual artworks such as paintings, sculpture; or graphic designs; doing creative writing; working with pottery, ceramics, or jewelry; do leatherwork, metalwork, or woodwork; doing weaving, crocheting, knitting, or other textile art.

¹ Includes watching or listening to programs about the visual arts or using devices to view paintings, sculpture, pottery, or other visual arts.

Pearson Correlation Coefficient

This analysis applies the Pearson correlation coefficient (symbolized by “r”) to investigate associations between arts participation and: the percentage of residents who hold a bachelor’s degree or higher level of education; the percentage who are classified as living below the poverty level; and value added from production of arts and cultural goods and services.¹

The coefficient measures the strength and direction of the relationship between two variables, ranging between 0 and 1. It can be either positive or negative.

The state data for this analysis were drawn from the 2017 Survey of Public Participation in the Arts (SPPA), the 2018 Arts Basic Survey (ABS), the 2013-2017 American Community Survey (ACS), and 2016 estimates from the U.S. Arts and Cultural Production Satellite Account (ACPSA).²

Performing Arts Attendance

Of the socioeconomic variables considered for this analysis, performing arts attendance was most strongly associated with the share of each state’s population (25 and older) holding a bachelor’s degree or higher level of education. The correlation coefficient was 0.58.

Performing arts attendance was also correlated, though inversely, with poverty status. For that association, the coefficient was -0.59.

At the state level, the relationship between attending performing arts events and economic production of arts and cultural goods and services was not statistically significant.

Art Exhibit Attendance

Socioeconomic associations with art exhibit attendance are similar to those seen in performing arts attendance. For instance, the correlation coefficient between higher education and art exhibit attendance is strong: 0.63.

Poverty is negatively correlated with attendance at art exhibits. The “r” is -0.48.

Reading Literature

Of the socioeconomic variables considered as possible predictors of literary reading, educational attainment proved best. The correlation coefficient between the share of a state’s population with a bachelor’s degree (or higher level of education) and the share of the state’s residents who reported reading literature was 0.61.

The coefficient between literary reading and poverty was -0.50.

Finally, although positive and statistically significant, the correlation between reading literature and arts and cultural production in a state was a modest 0.34.

Using Electronic Media to Consume Art

Higher education is not as strongly correlated with consuming art through media as it is with attending arts events or reading literature. The correlation coefficient between the share of a state’s population with a college degree and the share of adults using electronic devices to watch or listen to artworks or art programs was 0.37.

Poverty was also moderately and negatively correlated with electronic consumption of art (“r”=-0.37). By contrast, the state’s arts economy appears unrelated to the rate of participation via media.

Personally Performing or Creating Art

While higher education was shown to be a good predictor of attending arts events and reading literature, it was not linked with personal performance or creation of art. The correlation coefficient between the percentage of state residents with college degrees and the percentage playing a musical instrument, taking photographs, or other types of personal performance/creation was small (0.23) and not statistically significant.

Poverty status is correlated with personal performance/creation of art, but only modestly ($r=-0.35$).

A Note on Metropolitan Status

Greater percentages of adults living in metropolitan areas (an area containing a large population nucleus and adjacent communities that have a high degree of economic and social integration with that nucleus) attend performing arts events or see art exhibits than those living outside metro areas.

The Survey of Public Participation in the Arts shows that nearly 50 percent of urban/metropolitan dwellers attended the performing arts in 2017. Among rural/non-metro residents, 41 percent attended.

That same year, 24 percent of adults in metro areas went to art exhibits, while the share in rural/non-metro areas was 16 percent.

Urban primacy in arts participation recedes, however, when it comes to personal performance and creation of art.

According to the 2018 Arts Basic Survey (a short-form version of the SPPA), 35 percent of adults living outside metropolitan areas played a musical instrument, practiced singing, took photographs, or engaged in other forms of personal performance/creation. The share of metro residents performing or creating was virtually the same—33 percent.

In fact, state-level correlation analysis suggests that metropolitan living is moderately, and negatively, correlated with personal performance and creation of art; the coefficient was -0.40. In other words, personal performance/creation leans more toward rural/non-metropolitan living.

(Correlational analysis of the share of a state's population that is metropolitan and the share attending performing arts or art exhibits indicated no statistically significant association.)

Illustrations

As discussed above, attending art exhibits is strongly correlated with holding a bachelor's degree (or higher level of education).

SPPA results for Colorado illustrate this relationship. In 2017, 42 percent of Colorado's residents (aged 18 and older) went to an art exhibit. That share was 19 percentage points greater than the overall U.S. share of adults attending art exhibits.

The 2013-2017 American Community Survey shows that 39 percent of Colorado's residents (aged 25 and older) held a bachelor's degree or more educational training. The U.S. share was 8 percentage points lower.

Of the types of arts participation considered here, poverty status was most strongly (and negatively) associated with performing arts attendance. For example, in Alabama and Mississippi—two states witnessing higher-than-average poverty—performing arts attendance rates in 2017 were 32.2 percent and 36.2 percent, respectively. By contrast, the overall U.S. rate was 48.5 percent.

And yet, poverty status is only a modest predictor of personal performance or creation of art. The share of adults who personally performed/created in both Alabama and Mississippi was about 30 percent, a rate not statistically different from the U.S. rate of 33 percent, once the ABS sample design is considered.

According to the Arts Basic Survey, 50 percent of Montana's residents personally performed or created art in 2018. Moreover, 65 percent of Montana's population is rural/non-metropolitan. (For the U.S. as a whole, 14 percent of the population is non-metro.)³

**State-level relationships between selected forms of arts participation and selected variables
(Correlation coefficient, "r")**

	Performing arts attendance	Art exhibit attendance	Literary reading	Using electronic media to consume art	Personally performing or creating art
Percent of population with a bachelor's degree or higher level of education ¹	0.58*	0.63*	0.61*	0.37*	0.23
Percent of population below poverty	-0.59*	-0.48*	-0.50*	-0.37*	-0.35*
Per capita value added to the state economy from arts and cultural production	0.24	0.27	0.34*	0.01	0.05

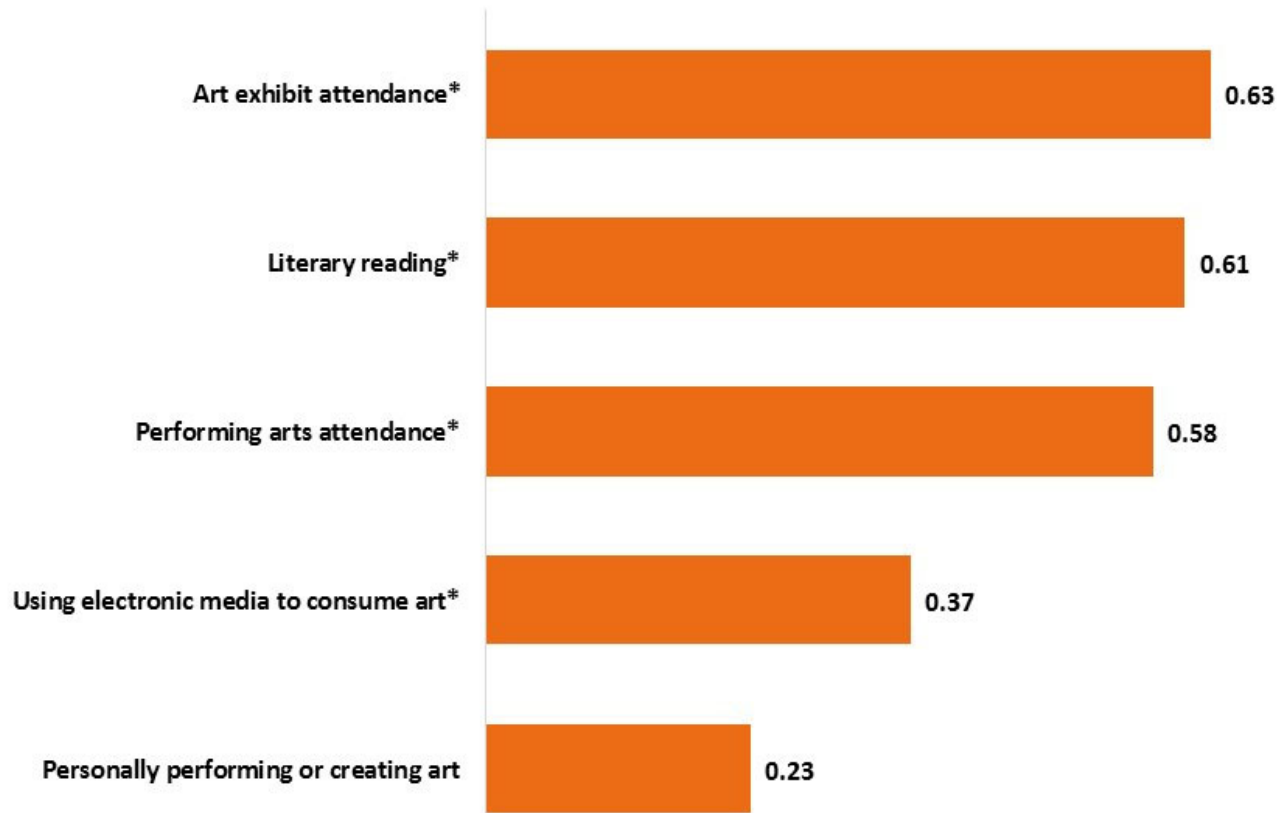
Unless otherwise noted, all correlation coefficients are statistically significant at 90 percent confidence.

* Statistically significant at 90 percent confidence.

Excludes outlying data for the District of Columbia

¹ Ages 25 and older

**State-level relationships
between educational attainment and selected forms of arts participation: 2017**
(Pearson correlation coefficient = "r")

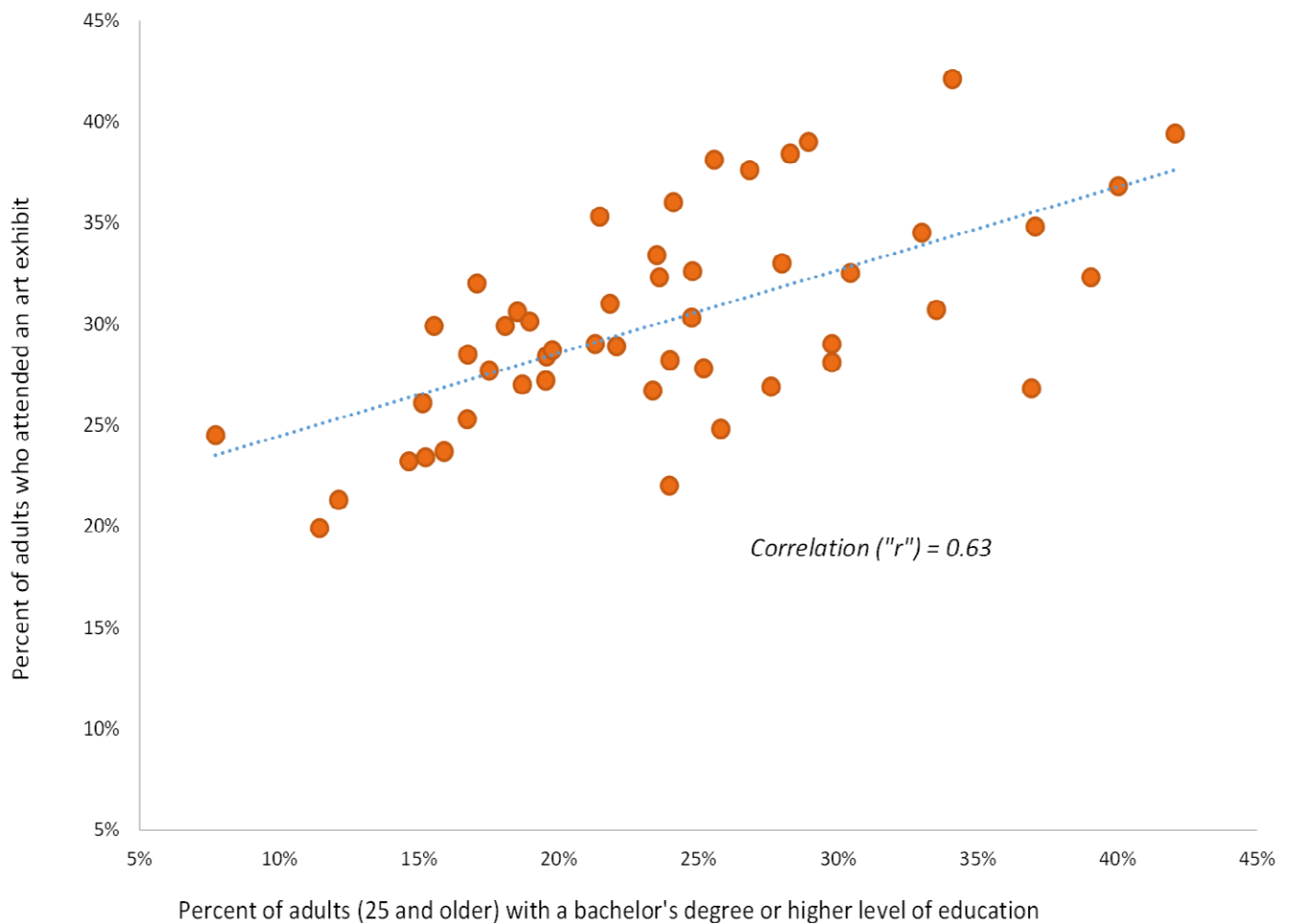


*Statistically significant at 90 percent confidence.

Note: Educational attainment is reported for adults aged 25 and older.

Data sources: 2017 Survey of Public Participation in the Arts and 2018 Arts Basic Survey, National Endowment for the Arts; 2013-2017 American Community Survey, U.S. Census Bureau.

State-level relationship between attending art exhibits and educational attainment: 2017



Note: Excludes outlying data for the District of Columbia; "r" refers to the Pearson correlation coefficient.
Data sources: 2017 Survey of Public Participation in the Arts, National Endowment for the Arts;
2013-2017 American Community Survey, U.S. Census Bureau.

Endnotes

¹ This correlation analysis excludes outlying data points for the District of Columbia. ² See Background for more information.

³ Refers to 2017 resident population.