Why It Is Difficult to Rank State Participation Levels

For each estimate provided in the tables in this profile, there is an associated standard error of the estimate which translates into lower and upper-boundary confidence intervals. These boundaries indicate the range of the estimate after considering the sample designs of the Annual Arts Basic Survey (AABS) and Survey of Public Participation in the Arts (SPPA).

For example, the 2015 art exhibit attendance rate for Arizona is 20 percent, a rate greater than the figure reported for Illinois, which is 15.3 percent. However, the confidence interval for Arizona's art exhibit attendance rate ranges from a high of 26.9 percent to a low of 14.5 percent. This interval crosses the range estimated for Illinois, which spans 20.7 percent to 11.1 percent.

Because the intervals for the two states overlap, we cannot necessarily conclude that Arizona's art exhibit attendance rate is significantly greater than the rate for Illinois.

The graph below shows that the confidence intervals associated with art exhibit attendance overlap among many states. However, art exhibit attendance is significantly greater than the U.S. average in the following states: District of Columbia; Vermont; Utah; Colorado; Alaska; Virginia; Oregon; Wyoming; and Maryland.

Conversely, attendance is below average in: Florida; North Carolina; Nevada; Louisiana; North Dakota; West Virginia; Georgia; and Mississippi.

Calculating Confidence Intervals for SPPA Estimates

As a supplement to the Current Population Survey, the AABS and SPPA are complex surveys that employ stratification, weighting, and "clustering," a sampling technique in which the population is divided into groups, or clusters, and a sample of these groups is selected.

The 95 percent confidence intervals reported in this Profile were generated by adding (upper limit) or subtracting (lower limit) 1.96 times the estimated standard errors. The standard errors, in turn, were estimated using a balanced repeated replication (brr) method, which incorporated the replication weights that accompany the AABS and SPPA. Further, the brr method applied a "Fay" adjustment of 0.50 percent.

Percent of U.S. Adults Who Attend Art Exhibits, by State: 2015
(95 Percent Confidence Intervals)
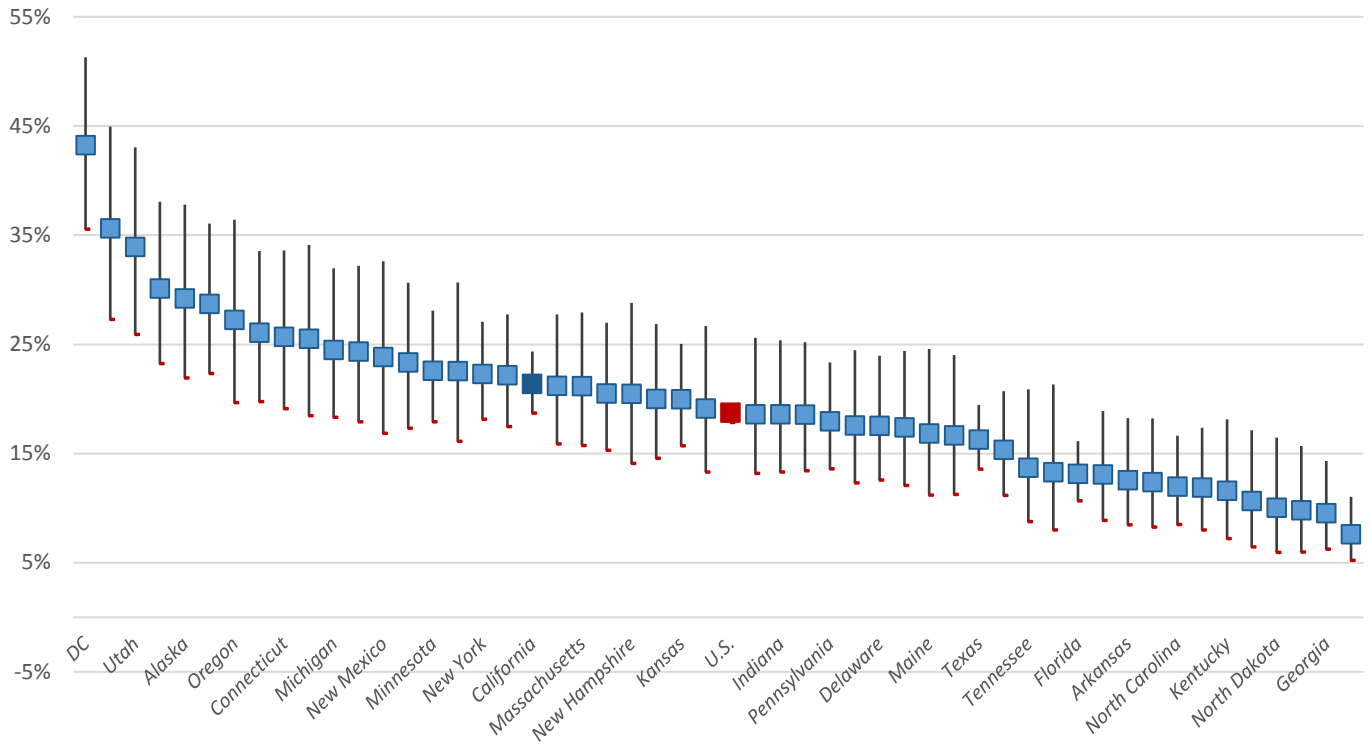
Data source: 2015 Annual Arts Basic Survey (AABS), National Endowment for the Arts