

# The Geography of Participation in the Arts and Culture

A Research Monograph Based on  
the 1997 Survey of Public Participation in the Arts

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J. Mark Schuster

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## Table of Contents

Executive Summary . . . . .	1
1. The Basics of Participation Rates . . . . .	9
2. Confidence Intervals. . . . .	42
3. Participation by Region . . . . .	58
4. Other forms of Participation. . . . .	61
5. The Relationship Between Participation Rates—Regions . . . . .	71
6. The Relationship Between Participation Rates—States . . . . .	77
7. Explaining Variation in Participation Rates Across Regions . . . . .	83
8. Explaining Variations in Participation Rates Across States . . . . .	95
9. How to Change Participation Rates . . . . .	105
10. The Demographics of Audiences. . . . .	115
11. In Summary. . . . .	168
Notes . . . . .	173

# **The Geography of Participation in the Arts and Culture**

**J. Mark Schuster**

Recent debates over the budget for the National Endowment for the Arts, coupled with calls for increasingly large proportions of that budget to be distributed through the states, as well as significant changes in the state arts agencies' own budgets, are all factors that are increasing analytic attention on geographic patterns in American cultural life. Moreover, as renewed emphasis is placed on understanding what has worked and what has not worked in American cultural policy, it is only natural to want to observe variation in cultural support and policies in order to extract lessons from that variation. The natural place to turn is to the regions, the states, and to local communities in order to understand that variation and to enlist that understanding in a more nuanced consideration of cultural policies. Thus, it seems inevitable that analytic attention will focus much more attention on the role of the states and regions in cultural policy, making it increasingly necessary to understand key variations in these patterns.

This monograph focuses on participation rates in the arts and culture, exploring variations in those participation rates through an explicitly geographic lens. In some sections, the emphasis will be on the variation in participation rates in various art forms across ten of the largest American states and across various demographic groups of individuals. In other sections, the emphasis will be on the variation in participation rates in various art forms across the nine regions of the country. Each of these approaches has advantages and disadvantages; by moving back and forth between them, it is my hope that a fuller and more responsible view of the geographic variation in participation rates can be developed.

The key data source for this analysis is the 1997 Survey of Public Participation in the Arts, conducted on behalf of the National Endowment for the Arts. This survey is one of a wave of such surveys that have been conducted in the last fifteen to twenty years throughout the world. These surveys document the arts and cultural behavior patterns of various populations and develop a base line of statistics to which future change and evolution can be compared. Since 1982, the National Endowment for the Arts has commissioned four such

surveys. Once each SPPA has been completed and the data checked and cleaned, the Endowment has commissioned a set of research monographs exploring themes of interest to the field using the latest round of data.

A report summarizing the main results of the 1997 Survey of Public Participation and the Arts and discussing its methodology, as well as offering tips on how to interpret the results, has been published by the Endowment, and readers of the current monograph may wish to consult that document for more detailed background information:

National Endowment for the Arts, *1997 Survey of Public Participation in the Arts: Summary Report*, Research Division Report #39 (Washington, D.C.: National Endowment for the Arts, December 1998).

In this monograph, I have attempted to convey a wealth of information about participation in various forms of the arts and culture and to begin to explain how and why that participation varies across states and regions. In an attempt to be as comprehensive as possible, I have included a large number of tables summarizing the results of the various analyses we have conducted. Because of the sheer volume of information presented in those tables, it has become nearly impossible to discuss it in a comprehensive way in the text. Each reader will bring his or her own interests to bear on this material; perhaps a particular state or a particular art form will be of more importance than others will. It is my hope that we have provided sufficient detail in this monograph so that, in these pages, you will be able to find the information that most concerns you with respect to geographic variation. Yet, as with any such dataset, there are many ways in which one might choose to manipulate and analyze the data in order to test and reveal interesting patterns that lie within. Thus, the choices I have made should be seen as a first step in mining these data for a clearer geographic understanding.

One of the factors with which researchers in the arts and culture have had to grapple is the poor quality of many of the datasets that are currently available in the field. The Surveys of Public Participation in the Arts are a tremendous step forward toward rectifying this problem, but, as will be seen in later parts of this monograph, other data sources have yet to catch up. For the moment, this is something we have to live with, making our analyses and our conclusions much more tentative than we would like, but that is beginning to change.

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Cambridge, Massachusetts

## **Acknowledgements**

In preparing this monograph I received invaluable assistance from my Research Assistant, Ming Zhang, who performed miracles with the data. I am also grateful to Kelly Barsdate of the National Assembly of State Arts Agencies, who through lengthy conversations helped shaped much of the content and format of this monograph. Several staff members at the National Endowment for the Arts including Tom Bradshaw, Andi Mathis, and Bonnie Nichols read drafts of the monograph and made many useful suggestions. Thank you, one and all.

## Executive Summary

With the new attention on cultural policy and cultural funding at the regional and state levels in the United States, it is becoming increasingly important to collect basic information on the arts and culture on a geographic basis. This monograph explores the geographic variation in the participation of the American adult population in arts and cultural activities. It is based primarily on data from the 1997 Survey of Public Participation in the Arts, the latest in a sequence of participation studies commissioned by the National Endowment for the Arts as a way of documenting the cultural consumption patterns of the American adult population.

The primary goals of this monograph are twofold:

- to establish a baseline of results on the geographic variation of participation in the arts and cultural activities in the United States, and
- to provide some preliminary analyses that suggest possible explanations for the observed geographic variations.

The 1997 Survey of Public Participation in the Arts was conducted at a scale sufficient to allow the consideration of participation levels as well as the construction of a series of profiles of the audiences for various art forms and cultural activities across all nine regions of the country. The data are such that they also allow an analysis at the state level for ten of the largest states: California, Florida, Illinois, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Texas. Analyses at both the regional level and state level are reported in this monograph.

The Survey of Public Participation in the Arts focuses on attendance at eight key art forms: jazz, classical music, opera, musical stage plays or operettas, non-musical stage plays, ballet, dance other than ballet, and art museums or art galleries. The data also allow a consideration of participation in three other cultural activities: reading literature, visiting historic parks or monuments, and visiting art or crafts fairs or festivals. A wide variety of ancillary analyses are possible as well, and several are reported in this monograph.

It is rather difficult to summarize briefly all of the findings and results of the many analyses that we have conducted, given that they consider eleven art forms and cultural activities over nine regions and ten states in relationship to a wide variety of other variables. In this summary we report some selected findings, hoping that they will encourage the reader to dig deeper into the following pages.



## Selected Findings

The basic findings concerning participation rates are presented in Sections 1 and 2. These results include:

- Generally speaking, these ten states have higher than average participation rates across all eight key art forms.
- Some art forms (art museums and musical plays) enjoy high participation rates across the board, while others (opera and ballet, in particular) have much lower participation rates.
- Certain states, most notably New York, Massachusetts, and New Jersey, stand out from the other six as states with generally high participation rates. Pennsylvania and Texas, on the other hand, systematically have lower than average participation rates.
- Nevertheless, there is more variation across art forms than there is variation across states, i.e., participation levels for a particular art form are quite similar across states while participation levels for each state vary quite widely across art forms.
- Participation in the three other cultural activities is quite a bit higher than participation in the eight key art forms.
- The data suggest that there may be some substitution among types of cultural participation, with the citizens of a particular state trading off participation in one art form with participation in another. The possibility of substitution is particularly strong when considering the tradeoff between the eight key art forms and the other three types of cultural activities, which are more popular in their appeal.
- At a regional level, the highest participation rates can be found in New England, the Middle Atlantic region, and the Pacific region. New England has the highest participation rate for five of the eight key art forms and the second highest rate for two others. The East South Central region, on the other hand, reports the lowest participation rates for six of the eight art forms. The pattern differs somewhat for the three other cultural activities, but the East South Central region still reports the lowest participation rates by a considerable margin.

The SPPA also allows the measurement of participation in the arts and culture through various media. These results are discussed in Section 3.

- Nearly seven out of ten American adults report having participated in at least one of the eight key art forms through the medium of television or

video in the previous year. Among the ten states, this rate is highest in California and lowest in Pennsylvania.

- Participation via radio is at a somewhat lower level; slightly less than six out of ten American adults report having participated in at least one of the eight key art forms via radio in the previous twelve months. Massachusetts and California show the highest levels of participation via radio broadcasts, and Ohio and Pennsylvania report the lowest levels.
- Participation via listening to records, compact discs, or tape cassettes is lower still; slightly less than half of the adult population reports participation via one of these media. New Jersey has the highest participation rate, followed by California.

Section 4 of the monograph uses the SPPA data to gauge a more direct form of participation: participation through direct personal involvement in artistic creation or performance.

- Five out of nine American adults report having been involved in one or another form of direct artistic creation in the previous twelve months. Higher than average levels of participation in creation are reported for Massachusetts and New Jersey; a lower than average level is reported in Pennsylvania.
- Approximately four out of every ten American adults report participation in one or another art form through personal performance. Of the ten states considered here, Florida has the highest rate of participation in performance followed by Massachusetts. Ohio reports the lowest rate of participation in personal performance and California the second lowest.

Sections 5 and 6 of the monograph ask what the relationship is between participation rates across art forms. Is relatively high participation in one art form accompanied by relatively high participation in another art form? Or does it tend to be accompanied by a relatively low participation rate? Or does there seem to be no relationship? Section 5 looks at this question from the perspective of regions and Section 6 from the perspective of the ten states.

- At the regional level, all of the participation rates are positively correlated with one another, whether they are for the eight key art forms or for the additional three cultural activities, and many of these correlations are quite high. Thus, at the regional level participation rates tend to parallel one another. High participation in one art form or cultural activity will be an indicator of high participation in another.

- At the state level, however, a slightly different pattern emerges. While the correlation coefficients for the eight key art forms are, with one exception, positive, they are not as strong as they are at the regional level. This is not too surprising because one would expect to observe more nuance and variation at the lower geographic aggregation. When this analysis is extended to other cultural activities, however, negative correlations appear with respect to attendance at historic parks or monuments and attendance at art or crafts fairs or festivals, suggesting that at the state level there is some degree of substitution between participation in the eight key art forms and participation in these cultural activities.

Sections 7 and 8 of the monograph begin to explore possible explanations for the observed geographic variations in participation rates. Section 7 looks at this question from the perspective of regions, Section 8 from the perspective of the ten states. In each section, two sets of independent variables are considered: ones that measure socio-economic characteristics of the area's population and ones that measure the presence of cultural organizations of various types.

**At the regional level:**

- Education, particularly as measured by the percentage of the adult population with a bachelor's degree, is an excellent predictor of participation rates in all of the art forms as well as in the three other cultural activities.
- Median household income is positively correlated with participation in all of the art forms, while percentage below the poverty level is negatively correlated with ten of the eleven art forms and cultural activities. Median household income is the better predictor.
- The percentage of the population that is minority has mixed value as a predictor of participation. The strongest correlations are with attendance at historic parks or monuments and attendance at fairs or festivals, suggesting that these cultural activities may be less attractive to minority audiences.
- The density of the population as measured by persons per square mile is not a particularly good predictor of participation rates, but two other indicators of urbanization—"percentage non-metropolitan" and "percentage rural"—are both strongly negatively correlated with participation in each of the art forms, as one might expect.

- The density of arts and cultural organizations when measured per capita is strongly and positively correlated with participation rates when the boundaries of the sectors for which the data have been collected are comparable. When density is measured per square mile it is generally not as good a predictor.

At the state level:

- Education, at least as measured by the percentage of high school graduates, is not a particularly good predictor of participation rates for these ten states. Percentage of the adult population with a bachelor's degree, on the other hand, is a much better predictor.
- Median household income is positively correlated with participation in nine of the eleven art forms and cultural activities. Percentage below the poverty level is negatively correlated with participation in seven of the eleven art forms and cultural activities.
- Percentage minority is once again a mixed predictor of participation rates.
- Population per square mile is a very good predictor of participation rates in a number of art forms. Percentage non-metropolitan is a reasonably good predictor as well. Percentage rural is generally a less useful predictor.
- At the state level, the density of arts and cultural organizations when measured per capita is moderately and positively correlated with participation rates when the boundaries of the sectors for which the data have been collected are comparable. When density is measured per square mile, however, the correlation coefficients increase and a number of very strong correlations are observed, particularly with respect to attendance at both musical and non-musical plays.

Do responses to the SPPA suggest points of leverage or particular policy instruments that might be particularly important in increasing participation rates? Section 9 explores this question by looking at three other sets of questions asked in the survey: questions concerning interest in increased participation, questions concerning perceived barriers to increased participation, and questions concerning various socialization experiences that might affect later participation in the arts and culture.

- Nearly two-thirds of the American adult population would like to attend art museums and galleries more often. Over half the population would like to attend both musical plays and non-musical plays more often. There is less interest in increased participation in the other art forms.
- Residents of California, New York and New Jersey report more interest in increased participation for all of the eight key art forms than do the residents of the United States on average. Because these three states generally turn up as high participation states in many of the analyses reported here, this might be due to a concentration of cultural institutions in these states raising the population's expectations or the demand of a population that, socio-economically, is particularly inclined toward these forms of cultural consumption.
- Residents of Pennsylvania and Ohio, on the other hand, show less interest than average in increased participation.
- What is most important to notice, however, is that an interest in increased participation is expressed much more often by those who have attended a particular art form in the previous twelve months than by those who have not, and this is true irrespective of the state under consideration.
- With respect to barriers to increased attendance, the most often cited reason, cited by nearly two-thirds of those who would like to attend more often, is a broad one: "It is difficult to make time to go out." Roughly half of those who would like to attend more often cite "Tickets are too expensive," "There are not many performances held at art museums or galleries in my area," and "The location is usually not convenient." These reasons are more susceptible to policy intervention.
- Nearly half of American adults report having had lessons or classes in music at one time or another in their lives. Roughly one-quarter reports having taken lessons or a class in each of the following: the visual arts, creative writing, art appreciation or art history, and music appreciation. Lower percentages have had acting or dance lessons.
- California, Florida, Massachusetts and New Jersey have higher than average levels of socialization for all of the eight key art forms. Texas, on the other hand, has lower than average socialization levels.

Finally, Section 10 of this monograph, uses the SPPA data to construct demographic profiles of the audiences for various art forms, facilitating comparisons

across art forms as well as across states. The analyses reported in this section consider four important demographic variables: education level, income level, race/ethnicity, and gender. A careful distinction is drawn in this section between an audience profile of *visitors* (separately identifiable individuals making no adjustment for their relative frequency of attendance) and an audience profile of *visits* (adjusting for the fact that some visitors attend more frequently than others).

- Visitors are more highly distributed toward upper educational levels than the overall population, clearly indicating the importance of education in predicting whether someone will be a visitor to any of the art forms.
- Because individuals with higher educational levels also have higher frequencies of attendance, the distribution of visits by educational level is even more highly skewed toward individuals with higher levels of education.
- Upper income individuals are over-represented among visitors to each of the art forms.
- Weighting individuals by their frequency of attendance and constructing an income distribution of visits results in a more complicated picture because frequency of attendance does not necessarily rise with household income and the pattern differs for different art forms.
- With respect to race and ethnicity, the patterns become more complex. According to the SPPA data, members of certain minority groups are under-represented among visitors to some art forms, while they are over-represented among visitors to others. The same is true of the profile of visits to various art forms.
- Women are over-represented among visitors to all of the eight key art forms except jazz. With respect to visits, however, they are under-represented in the audiences for jazz, classical music, and dance forms other than ballet.

## **Caveats**

While these are the main findings of this monograph, they only begin to scratch the surface of the detail contained in these pages. Before encouraging the reader to wade into the main text, however, it is necessary to add a few words of caution to aid in the interpretation of the findings.

- Because the SPPA data are the result of sampling, all of the estimates of participation rates in this monograph are subject to random sampling error. Because of that error many of the observed differences in participation rates may be attributable, at least in part, to random sampling error rather than to any real differences in participation rates. Only very large observed differences are likely to be immune from this complication. This issue is discussed at some length in Section 2 of the monograph, but is very much present in the other sections as well.
- Each of the correlation analyses that looks at all of the ten identified states simultaneously needs to be understood in a rather modest manner. Because these ten states are not a simple random sample of the fifty states, the results of these analyses cannot be generalized to all of the states. They simply measure the correlation that one observes when looking at various pairs of variables across this particular set of ten states.

These caveats notwithstanding, it is our hope that with the analyses contained in these pages we have begun a fruitful inquiry into the geographic variation in participation across the United States. Perhaps the SPPA does not afford the ability to produce the definitive analysis that might be desirable, but it does provide a solid base of data on which future research and inquiry can be developed.

## 1. The Basics of Participation Rates

This monograph is based on an analysis of participation rates in various arts and cultural activities by the American adult population eighteen years of age or older. Simply put, the participation rate for a particular activity is the percentage of the adult population that, when asked whether he or she has participated in that activity in the previous twelve months, answers “Yes.” As participation studies have joined (and perhaps even eclipsed) audience studies as a mode of studying the cultural behavior of populations, participation rates have become an important benchmark, indicating the level of cultural activity of a population and offering a profile of engagement in the various cultural activities that are investigated.

### **Eight Key Questions**

The 1997 Survey of Public Participation in the Arts contained eight key questions that will command most of our attention:

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#### **The Eight Key Participation Questions**

- With the exception of elementary, middle, or high school performances, did *you* go to a live jazz performance during the *last twelve months*?
- With the exception of elementary, middle, or high school performances, did *you* go to a live classical music performance such as symphony, chamber, or choral music during the *last twelve months*?
- With the exception of elementary, middle, or high school performances, did *you* go to a live opera during the *last twelve months*?
- With the exception of elementary, middle, or high school performances, did *you* go to a live musical stage play or an operetta during the *last twelve months*?
- With the exception of elementary, middle, or high school performances, did *you* go to a live performance of a non-musical stage play during the *last twelve months*?



- With the exception of elementary, middle, or high school performances, did *you* go to a live ballet performance during the *last twelve months*?
- With the exception of elementary, middle, or high school performances, did *you* go to a live dance performance other than ballet, such as modern, folk, or tap during the *last twelve months*?
- During the *last twelve months*, did you visit an *art* museum or gallery?

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Source: 1997 Survey of Public Participation in the Arts.

As you read this monograph, you may find it useful to refer back to this list of questions from time to time in order to remind yourself just what is being measured through the various participation rates. Throughout the analysis that follows, a shorthand method to identify each of these eight art forms has been adopted, referring to them simply as “jazz,” “classical music,” “opera,” “ballet,” “other dance,” “musical play,” “non-musical play,” and “art museum/gallery.” While this shorthand method neglects some of the nuances in the original questions, arguably, the essential differences among the art forms delineated in the eight separate questions are maintained.

### **Ten States and Nine Regions**

The goal of this monograph is to document and explore geographical differences in participation rates across the United States. Particular attention will be paid to participation rates at the state level, but at several points in the analysis attention will shift to the more highly aggregated regional level.

One’s ability to use the SPPA to explore differences across states is limited by the mathematics of sampling. Because the Survey of Public Participation in the Arts is based on a sample of the American adult population, one needs to be wary about the extent to which the conclusions that can be drawn from the data are affected by relative sample sizes. This particularly becomes a concern as one begins to disaggregate the overall sample into smaller geographic units (as well as according to the values of other variables of interest). Even though the SPPA sample ultimately included some 12,349 responses drawn from throughout the United States, only ten states have sufficient responses to be able to draw conclusions with a sufficient degree of confidence. Thus, any analysis of the SPPA data by state must perforce be restricted to these ten states.

Nine of the ten states for which there are sufficient data to justify separate attention are, as one would expect, the nine states with the largest populations: California, Florida, Illinois, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Texas. These nine are joined by the state of Massachusetts, which is actually the thirteenth state by population size. The sample size for Massachusetts was increased to allow for a sufficient number of cases in the final dataset so that participation in the Boston metropolitan area could be compared to participation in other major metropolitan areas in the United States.

Why are these technical points important? As we consider differences in participation rates across states in the pages that follow, it will be necessary to remember, first of all, that we are not able to draw conclusions about differences or relationships across the fifty United States. We will be measuring differences and relationships for only a particular subset of the fifty states, and the extent to which we can argue that the findings would likely apply to all fifty states—if viewed simultaneously—is limited. Moreover, though it may be tempting to say that the analysis that we have conducted applies to the largest states, even that simple statement is not technically correct. Because it will become tedious to constantly caveat the discussions that follow with these points, let it suffice to say at the outset that the conclusions that are drawn here with respect to participation rates at the state level apply to these ten states and to these ten states alone. (This is why, for example, that these ten states are not treated in this analysis as though they are a simple random sample of the fifty states.)

At certain points in the analysis it will be advantageous to look at the entire country and that requires moving up to the regional level of aggregation because only at the regional level are the sample sizes sufficient to allow complete coverage of the country. The regional definitions that are used here are the following:<sup>1</sup>

New England:	Massachusetts, Maine, New Hampshire, Vermont, Connecticut and Rhode Island
Mid-Atlantic:	New York, Pennsylvania, and New Jersey
South Atlantic:	Florida, Georgia, South Carolina, North Carolina, Virginia, West Virginia, District of Columbia, Maryland, and Delaware
East North Central:	Ohio, Michigan, Illinois, Wisconsin, and Indiana
West North Central:	North Dakota, South Dakota, Minnesota, Iowa, Nebraska, Kansas, and Missouri
East South Central:	Kentucky, Tennessee, Mississippi, and Alabama
West South Central:	Texas, Oklahoma, Arkansas, and Louisiana

Mountain:	Montana, Idaho, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico
Pacific:	California, Alaska, Hawaii, Oregon, and Washington

Yet, a regional analysis may come at the cost of losing important variation in participation rates that may only be revealed at lower levels of geographic aggregation. Thus, the decision to conduct a geographic analysis of participation rates by state as opposed to region involves an analytical trade-off that it will be important for us to remain aware of in later chapters.

With these caveats in mind, I turn first to a consideration of participation rates by art form and by state.

### **Base Participation Rates**

Table 1.1 summarizes the participation rates for the eight key art forms by state and is probably the most important table in this monograph. This table forms the basic reference point back to which much of the later analysis will refer.

This table is constructed to facilitate a number of different comparisons of interest. Scanning across the rows of Table 1.1, one can make comparisons within states across art forms. Considering the data in this way leads to the first important observation. The eight forms can be roughly separated into three groups by virtue of their participation levels. Relatively speaking, high participation rates are reported for attendance at art museums and galleries and for attendance at musical plays.<sup>2</sup> Overall, slightly more than a third of the American adult population reports having attended an art museum or gallery in the previous year; one-quarter of the American adult population reports having attended a musical play over the same period. At the other extreme, quite low participation rates are reported for opera—4.7 percent—and for ballet—5.8 percent. The other four art forms fall in between at what might be called moderate levels: jazz at 11.9 percent, dance other than ballet at 12.4 percent, classical music at 15.6 percent, and plays other than musicals at 15.8 percent. This overall pattern is repeated for each state: art museums and galleries and musical plays have the highest participation rates, and opera and ballet have the lowest participation rates, irrespective of the state under consideration. It must be noted, of course, that some of the differences in participation rates may be attributable primarily to the narrowness or broadness of the definition used for each art form; one would expect, for example, that the participation rate for other dance would be higher than the participation rate for ballet because of the number of possible dance forms subsumed under “other” dance.

One can also make comparisons down the columns of Table 1.1, constituting a comparison by art form. At the bottom of each column of Table 1.1, an aggregate participation rate in each art form for the entire United States is reported, so that one can easily tell whether a particular state falls above or below the national average for that art form. An aggregate participation rate for all of the other states (minus these ten) is also reported, giving a sense of how each state compares to the average of the rest of the United States.

**Table 1.1:  
Participation Rates by State and by Art Form, 1997**

State	Jazz	Classical Music	Opera	Ballet	Other Dance	Musical Play	Non-Musical Play	Art Museum/Gallery
California	13.7%	15.9%	6.4%	5.5%	15.2%	25.6%	16.8%	39.5%
Florida	15.4%	16.7%	3.7%	6.8%	13.1%	22.4%	17.4%	35.5%
Illinois	12.5%	16.4%	4.9%	4.8%	16.0%	27.2%	17.7%	37.5%
Massachusetts	14.6%	24.3%	4.9%	9.4%	14.8%	30.6%	21.2%	48.1%
Michigan	14.6%	18.6%	5.6%	5.8%	11.6%	30.2%	15.4%	35.3%
New Jersey	13.7%	17.8%	5.7%	5.3%	13.2%	32.9%	22.2%	40.3%
New York	13.8%	18.9%	7.2%	9.0%	14.4%	33.1%	18.7%	41.5%
Ohio	13.6%	17.1%	5.1%	7.0%	10.7%	24.8%	11.6%	30.4%
Pennsylvania	10.5%	15.5%	5.0%	6.0%	9.9%	25.6%	14.5%	34.0%
Texas	11.2%	15.6%	3.2%	7.9%	13.2%	21.5%	15.9%	34.9%
All Other States	10.4%	13.9%	3.9%	4.9%	11.2%	22.1%	14.7%	32.1%
United States	11.9%	15.6%	4.7%	5.8%	12.4%	24.5%	15.8%	34.9%

Source: 1997 Survey of Public Participation in the Arts.

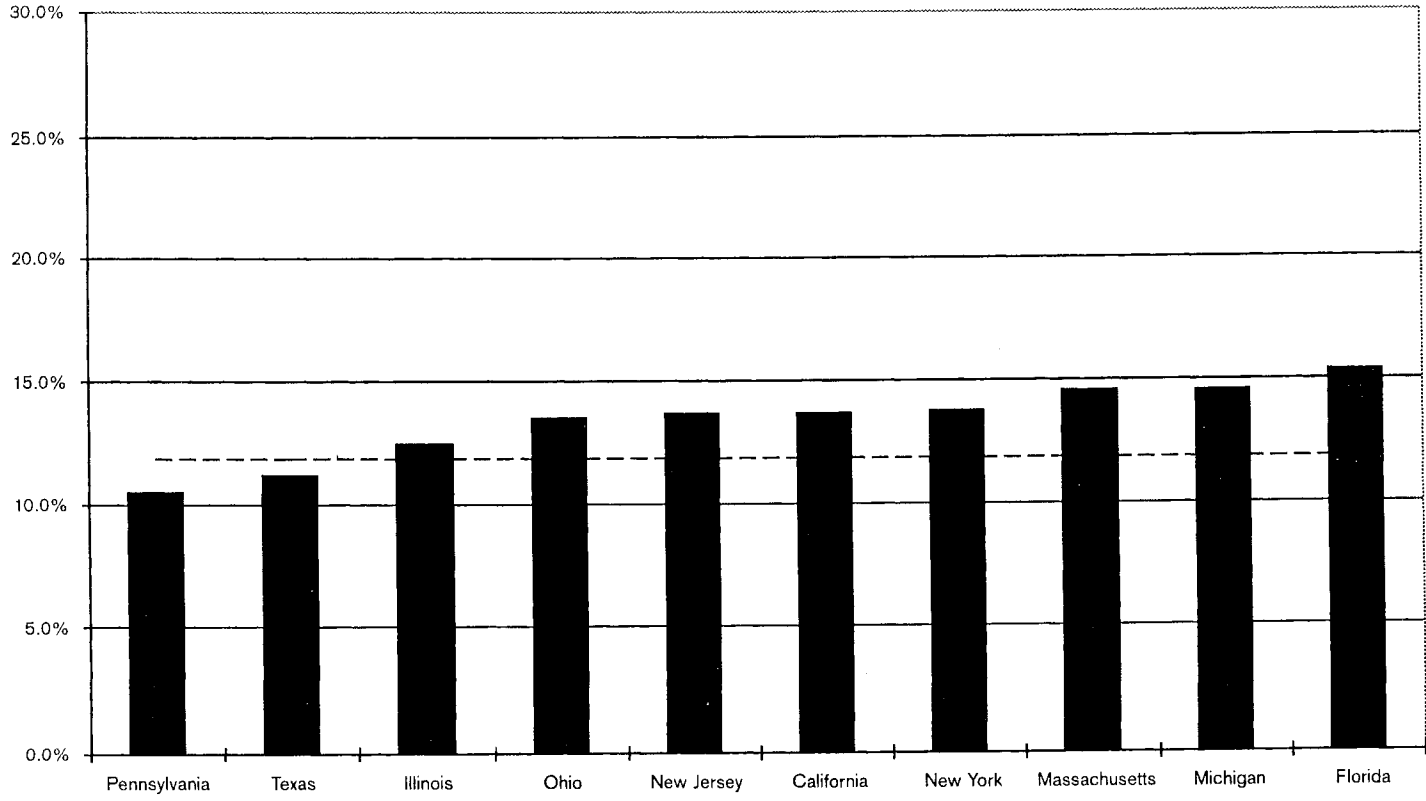
Generally speaking, these 10 states show higher than average participation rates across the art forms. For each art form either seven or eight of these ten states have participation rates that are equal to or higher than the national average. What is particularly interesting is that even though the states that fall below the national average vary from art form to art form, there is considerable overlap, suggesting that it might be worthwhile exploring why that is the case. What is it that leads some states to have lower participation rates than others and why does this vary by art form? This will be addressed from a variety of perspectives in later sections of this monograph.

Figures 1.1 through 1.8 provide a graphical presentation of the participation rates for these ten states for each of the eight art forms. In each case, the states are ordered from the lowest participation rate to the highest participation rate for that art form, and a horizontal line indicates the overall participation rate for the United States. In comparing these figures, note that Figures 1.6 and 1.8 have different vertical scales from the others. This is to allow a clear presentation of the higher participation rates experienced for musical plays and for art museums and galleries.

Pennsylvania and Texas fall below the national average for participation in jazz (Figure 1.1). These same states fall right at the national average for participation in classical music, while Massachusetts has an unusually high participation rate (Figure 1.2). With respect to opera, Texas and Florida are the states in this study that are identifiable as falling below the national average (Figure 1.2). With respect to ballet, however, it is Illinois, New Jersey, and California among this group who fall below the national average (Figure 1.4). Pennsylvania, Ohio, and Michigan have participation rates that are lower than average for other dance forms (Figure 1.5). Florida and Texas fall below the national average for participation at musical plays (Figure 1.6), while Ohio, Pennsylvania, and Michigan fall below the national average for participation at non-musical plays (Figure 1.7). Finally, Ohio and Pennsylvania have participation rates that fall below the national average for art museums and galleries, while Massachusetts' participation rate is conspicuously higher than all the others (Figure 1.8).

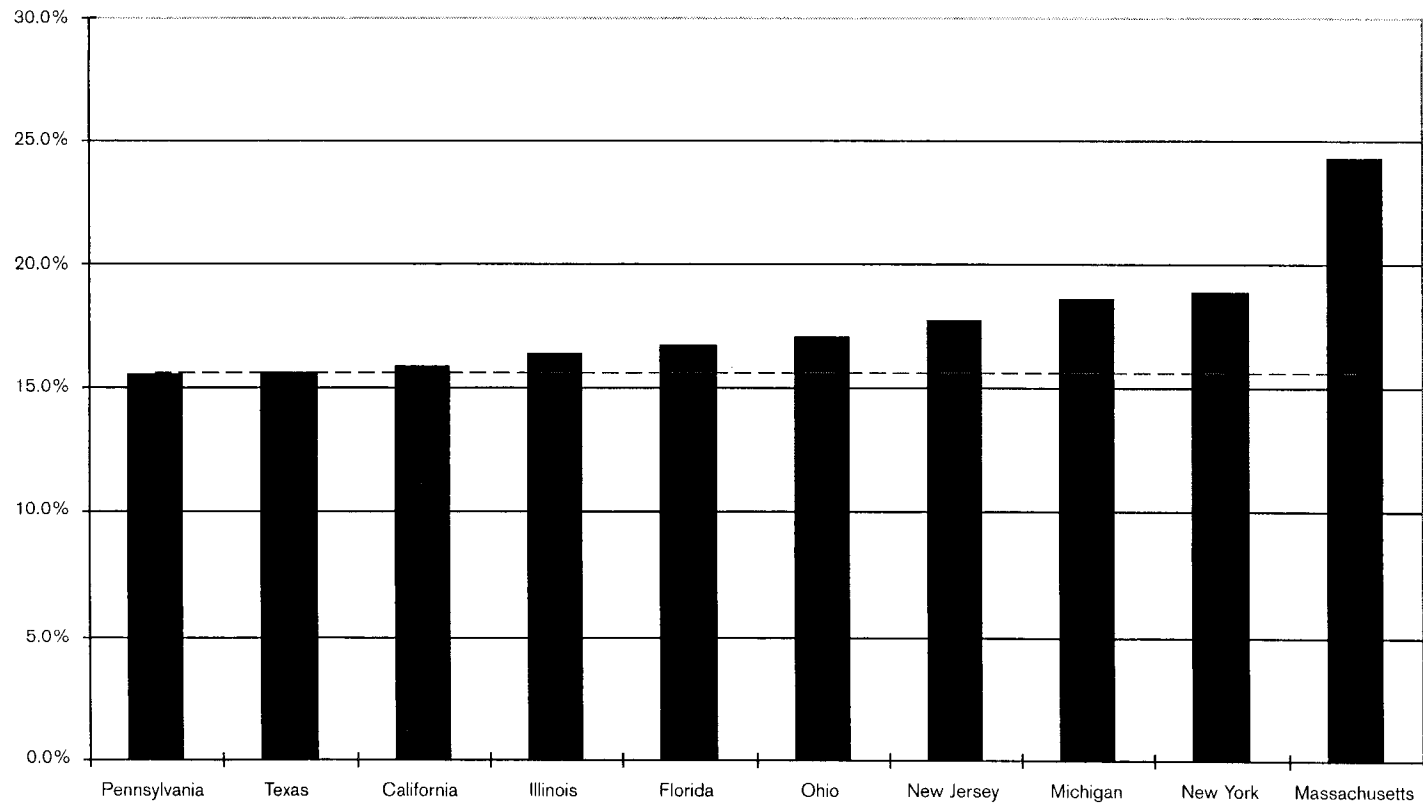
While it is tempting, of course, to interpret a state's success (or failure) by *the number of times* it falls above or below the respective national averages (a topic that is discussed later in this section), it is also tempting to consider *the degree* to which it falls above or below the national average for each art form. Figures 1.1 through 1.8 call for such a comparison.

**Figure 1.1: Participation Rates for Jazz by State**  
(dotted line represents the overall participation rate for the United States)



Source: 1997 Survey of Public Participation in the Arts

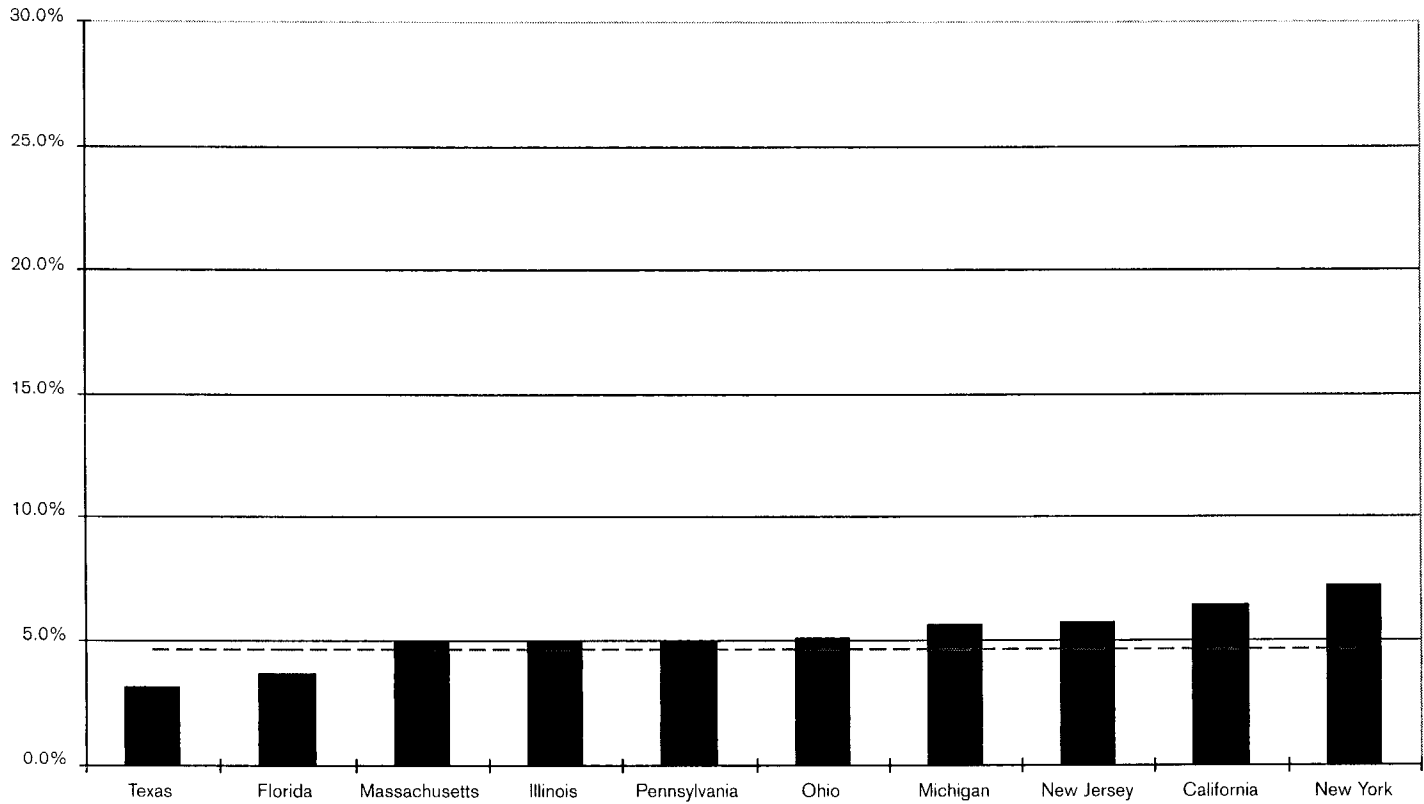
**Figure 1.2: Participation Rates for Classical Music by State**  
(dotted line represents the overall participation rate for the United States)



Source: 1997 Survey of Public Participation in the Arts

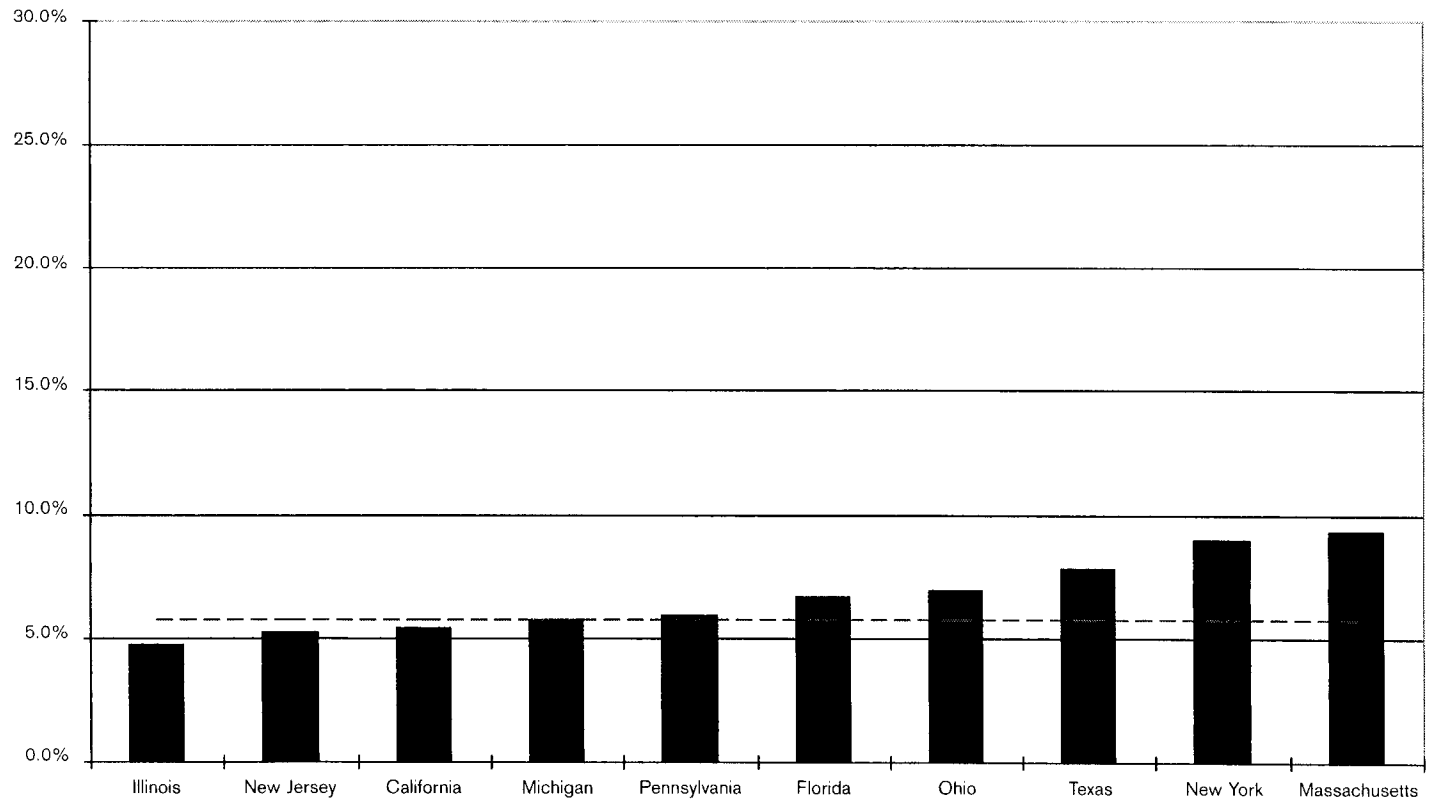


**Figure 1.3: Participation Rates for Opera by State**  
(dotted line represents the overall participation rate for the United States)



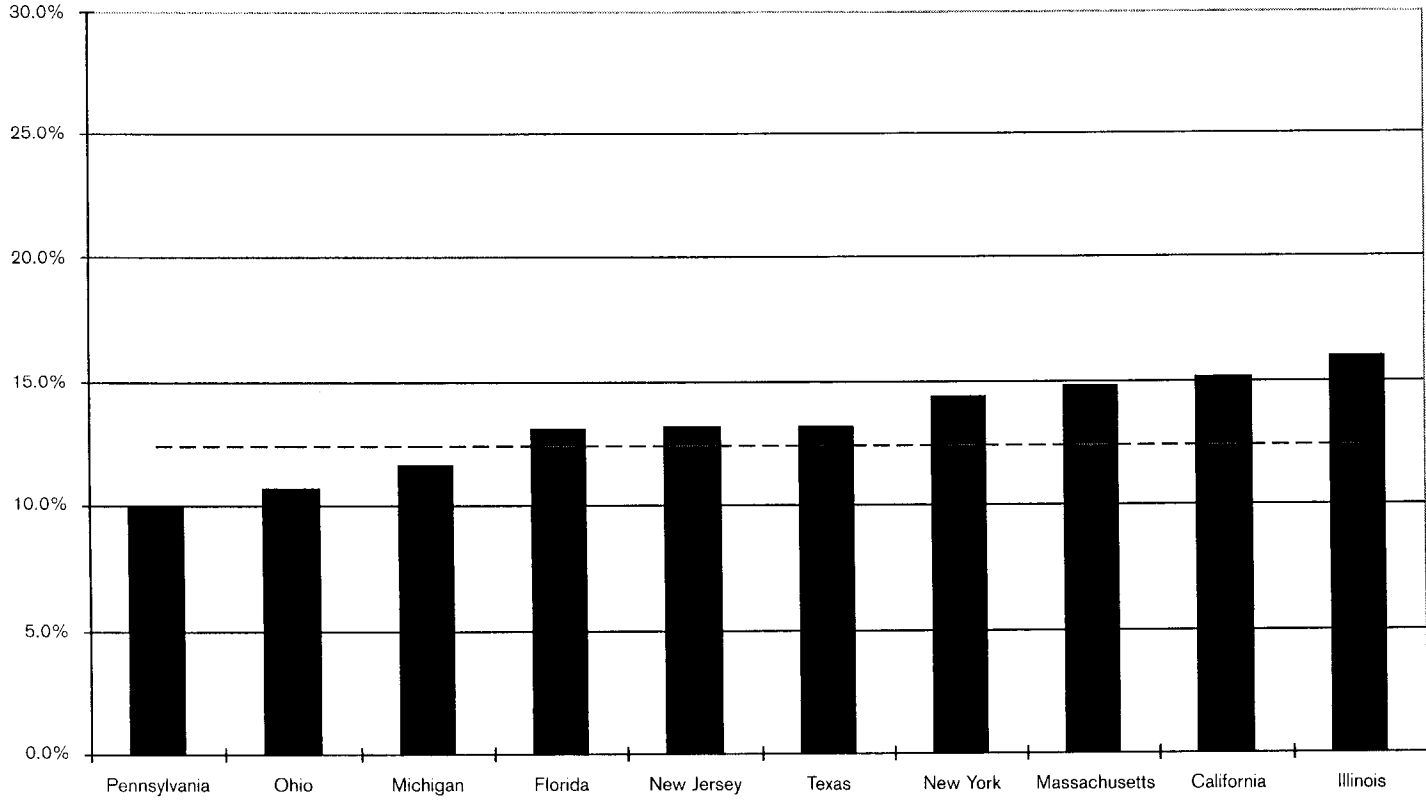
Source: 1997 Survey of Public Participation in the Arts

**Figure 1.4: Participation Rates for Ballet by State**  
(dotted line represents the overall participation rate for the United States)



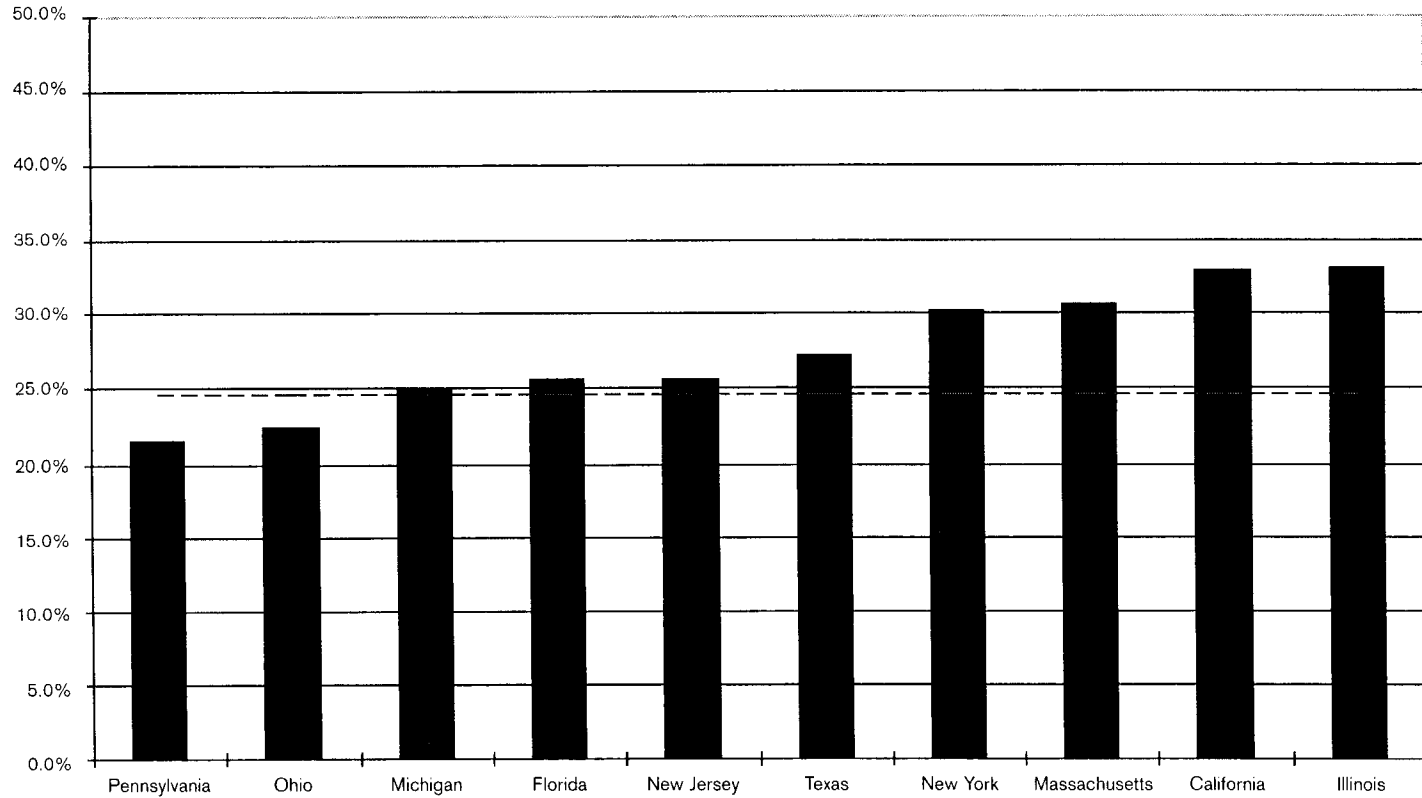
Source: 1997 Survey of Public Participation in the Arts

**Figure 1.5: Participation Rates for Other Dance by State**  
(dotted line represents the overall participation rate for the United States)



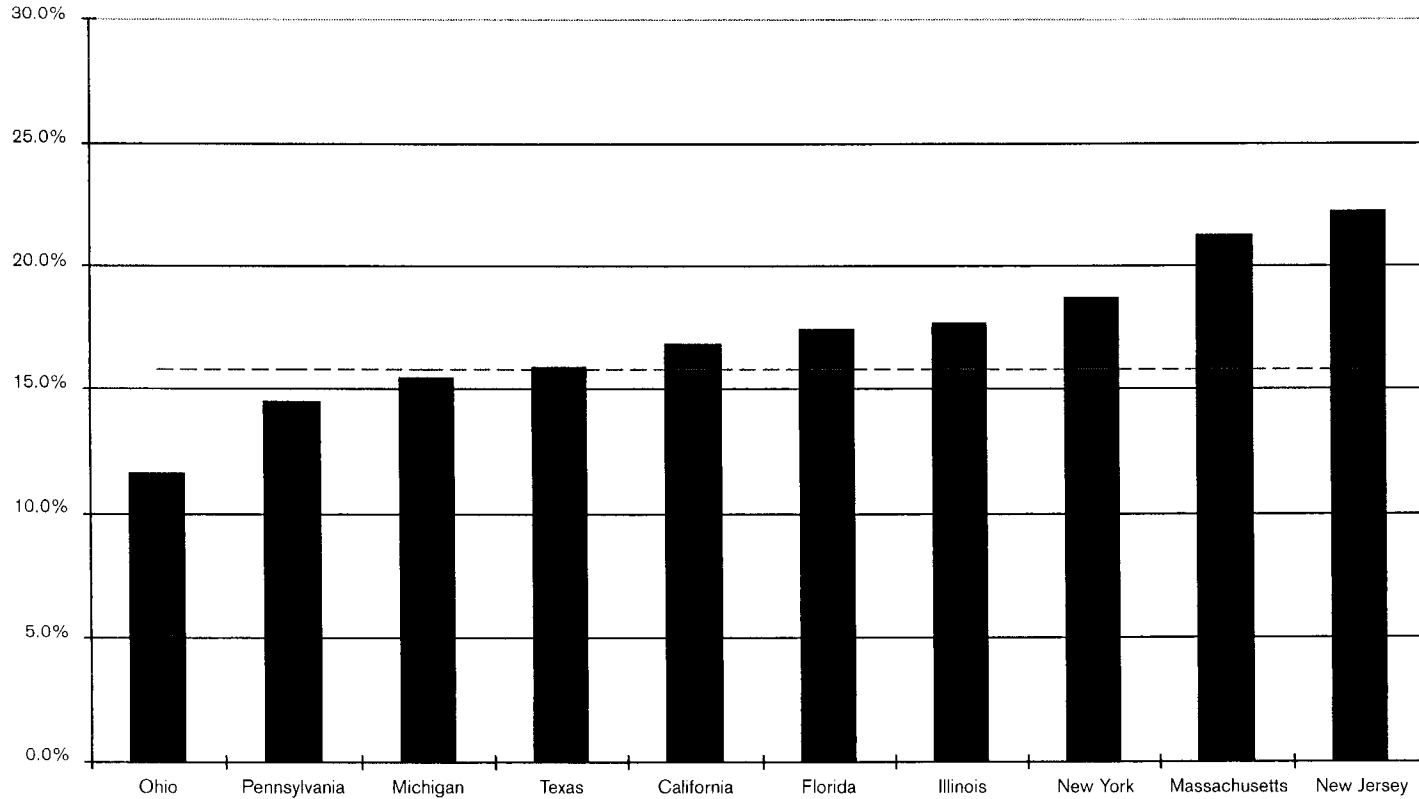
Source: 1997 Survey of Public Participation in the Arts

**Figure 1.6: Participation Rates for Musical Plays by State**  
(dotted line represents the overall participation rate for the United States)



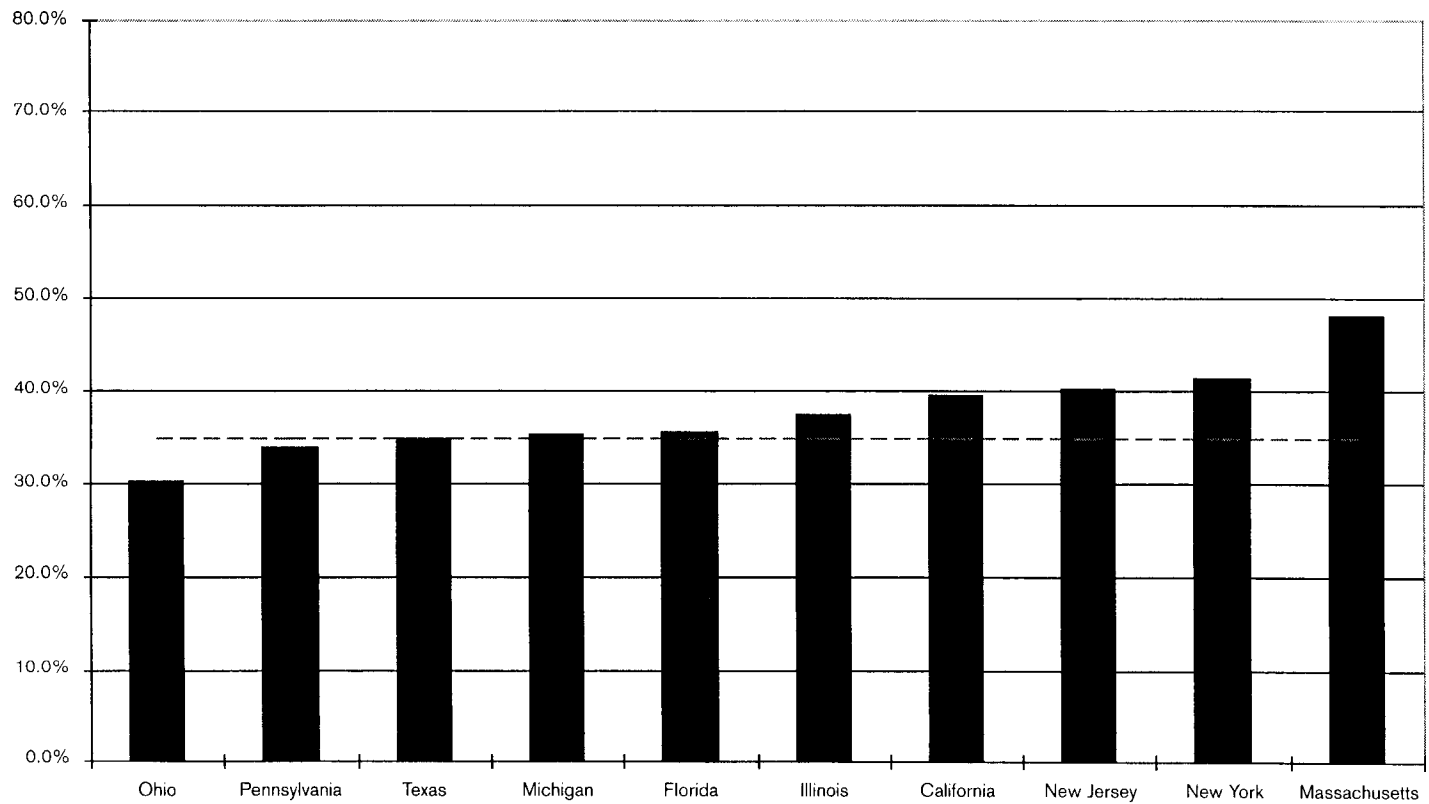
Source: 1997 Survey of Public Participation in the Arts

**Figure 1.7: Participation Rates for Non-Musical Plays by State**  
(dotted line represents the overall participation rate for the United States)



Source: 1997 Survey of Public Participation in the Arts

**Figure 1.8: Participation Rates for Art Museums or Galleries by State**  
(dotted line represents the overall participation rate for the United States)



Source: 1997 Survey of Public Participation in the Arts

Two ways of making such a comparison are summarized in Tables 1.2a and 1.2b. Table 1.2a makes the simplest such comparison; for each art form it takes the participation rate for each state and subtracts from it the average participation rate for the entire United States. Thus, the entries in this table are the number of percentage points that each state is higher than (positive signs) or lower than (negative signs) the respective national average. Arbitrarily setting a difference of  $\pm$  five percentage points as worthy of note, one finds relatively few such variations. Participation rates in Massachusetts are 8.7 percentage points higher than the national average for classical music, 6.1 percentage points higher for musical plays, 5.4 percentage points higher for non-musical plays, and 13.2 percentage points higher for art museums and galleries. In New Jersey, participation rates are 8.4 percentage points higher than the national average for musical plays, 6.4 percentage points higher for non-musical plays, and 5.4 percentage points higher for art museums and galleries. In New York, they are 8.6 percentage points higher than the national average for musical plays and 6.6 percentage points higher for art museums and galleries. Finally, in Michigan, the participation rate in musical plays is 5.7 percentage points higher than the national average. It is interesting to note that the major differences are noted with respect to attendance at the theater and at art museums and art galleries, suggesting, perhaps, that part of the explanation of differences in participation rates across states may be related to the geographic distribution of arts institutions.

Focusing on the other side of the ledger, none of these states shows a participation rate that is more than five percentage points lower than the corresponding national average (though there may well be states among the remaining forty with such participation rates).

Table 1.2b, on the other hand, compares participation rates in each state with the overall participation rate by using a different metric. It is based on the reasonable assertion that a given percentage point difference is relatively more important for a low participation rate art form than for a high participation rate art form, e.g. a difference of one or two percentage points in participation rates for art museums and galleries, which enjoy participation rates in the high thirty percent range, is less significant than a difference of one or two percentage points in participation rates for opera, whose overall participation rate is less than five percent to begin with. Accordingly, Table 1.2b takes the participation rate for each state, subtracts from it the average participation rate for the entire United States, and then divides by the average participation rate for the entire United States, resulting in a figure that represents each state's participation rate as a percentage of the national average.

To make sense of Table 1.2b, let me once again adopt an arbitrary benchmark— $\pm 30$  percent—and use it to identify unusually large deviations from the national average. Seen through the perspective of this indicator, Massachusetts evidences the most extreme behavior. Its participation rate for classical music is nearly 56 percent higher than the national average and its participation rate for ballet is over 62 percent higher than the national average. Its participation rates for non-musical plays and for art museums are, respectively, 34 percent and nearly 38 percent higher than the corresponding national averages. In New York, the participation rate for opera is 53 percent higher than the national average; the participation rate for ballet is 55 percent higher; and the participation rate for musical plays is 35 percent higher. Similarly, in New Jersey the participation rate for musical plays is 34 percent higher than the national average, and the participation rate in non-musical plays is more than 40 percent higher. In California, the participation rate for opera is 36 percent higher than the national average, while in Texas, that participation rate is nearly 32 percent *lower* than the national average. Yet, in Texas the participation rate for ballet is more than 36 percent higher than the national average. Note that, seen from this perspective, opera and ballet join the theater and art museums as sectors that enjoy quite a bit higher than average participation rates among these ten states. But remember, there may well be other states whose participation rates are just as high or as low as the participation rates in the included states but are not reported separately because of the relatively small sample size for that state.



**Table 1.2a:  
Comparison of Participation Rates for Each State with Overall Participation Rates by Art Form, 1997  
(percentage point differences)**

State	Jazz	Classical Music	Opera	Ballet	Other Dance	Musical Play	Non-Musical Play	Art Museum/Gallery
California	+1.8	+0.3	+1.7	-0.3	+2.8	+1.1	+1.0	+4.6
Florida	+3.5	+1.1	-1.0	+1.0	+0.7	-2.1	+1.6	+0.6
Illinois	+0.6	+0.8	+0.2	-1.0	+3.6	+2.7	+1.9	+2.6
Massachusetts	+2.7	+8.7	+0.2	+3.6	+2.4	+6.1	+5.4	+13.2
Michigan	+2.7	+3.0	+0.9	+0.0	-0.8	+5.7	-0.4	+0.4
New Jersey	+1.8	+2.2	+1.0	-0.5	+0.8	+8.4	+6.4	+5.4
New York	+1.9	+3.3	+2.5	+3.2	+2.0	+8.6	+2.9	+6.6
Ohio	+1.7	+1.5	+0.4	+1.2	-1.7	+0.3	-4.2	-4.5
Pennsylvania	-1.4	-0.1	+0.3	+0.2	-2.5	+1.1	-1.3	-0.9
Texas	-0.7	+0.0	-1.5	+2.1	+0.8	-3.0	+0.1	+0.0
All Other States	-1.5	-1.7	-0.8	-0.9	-1.2	-2.4	-1.1	-2.8

Note: Each entry in this table is the number of percentage points each state's participation rate is higher or lower than the corresponding overall participation rate for the United States. For example, the California participation rate in jazz is 1.8 percentage points higher than the participation rate in jazz in the United States as a whole.

Source: 1997 Survey of Public Participation in the Arts.

**Table 1.2b:**  
**Comparison of Participation Rates for Each State with Overall Participation Rates by Art Form, 1997**  
**(difference as a percentage of overall participation rate)**

State	Jazz	Classical Music	Opera	Ballet	Other Dance	Musical Play	Non-Musical Play	Art Museum/Gallery
California	+15.1%	+1.9%	+36.2%	-5.2%	+22.6%	+4.5%	+6.3%	+13.2%
Florida	+29.4%	+7.1%	-21.3%	+17.2%	+5.6%	-8.6%	+10.1%	+1.7%
Illinois	+5.0%	+5.1%	+4.3%	-17.2%	+29.0%	+11.0%	+12.0%	+7.4%
Massachusetts	+22.7%	+55.8%	+4.3%	+62.1%	+19.4%	+24.9%	+34.2%	+37.8%
Michigan	+22.7%	+19.2%	+19.1%	+0.0%	-6.5%	+23.3%	-2.5%	+1.1%
New Jersey	+15.1%	+14.1%	+21.3%	-8.6%	+6.5%	+34.3%	+40.5%	+15.5%
New York	+16.0%	+21.2%	+53.2%	+55.2%	+16.1%	+35.1%	+18.4%	+18.9%
Ohio	+14.3%	+9.6%	+8.5%	+20.7%	-13.7%	+1.2%	-26.6%	-12.9%
Pennsylvania	-11.8%	-0.6%	+6.4%	+3.4%	-20.2%	+4.5%	-8.2%	-2.6%
Texas	-5.9%	+0.0%	-31.9%	+36.2%	+6.5%	-12.2%	+0.6%	+0.0%
All Other States	-12.6%	-10.9%	-17.0%	-15.5%	-9.7%	-9.8%	-7.0%	-8.0%

Note: Each entry in this table is the percentage that each state's participation rate is higher or lower than the corresponding overall participation rate for the United States. For example, the California participation rate in jazz is 15.1 percent higher than the participation rate in jazz in the United States as a whole.

Source: 1997 Survey of Public Participation in the Arts.

## League Tables

With all of these results it is tempting to ask whether one can conclude that the citizens of one state participate more in the arts than the citizens of another. Is it possible to construct one league table to summarize that overall level of participation? Despite all of the caveats in the interpretation of these data that we have accumulated already, not the least of which is the possible unrepresentativeness of these ten states, constructing a couple of different league tables might help tease out some of the essential differences in participation rates, at least among these ten states.

Table 1.3 offers one quick way of constructing such a league table. The procedure used to construct this table is the following: First, the participation rates for each art form were converted to ranks. Thus, the state with the highest participation rate for that art form was assigned a rank of 1, the state with the second highest participation rate was assigned a rank of 2, and so on. Then, for each state a mean rank was calculated across the eight art forms, and the rows of the table were sorted so that the state with the highest average rank appears first. Finally, the standard deviation in ranks for each state was also calculated. It is important to note a couple of the mathematical properties of this procedure: (1) the replacement of participation rates with ranks replaces a metric measure with an ordinal measure thereby losing the more detailed mathematical information contained in the actual participation rates but focusing, instead, on order alone; and (2) averaging the ranks across the eight art forms treats them as mathematical equivalents—no weights are used to value certain art forms more highly than others.

Several findings of note can be extracted from Table 1.3. New York and Massachusetts are the two states with the highest average participation rankings and they are quite clearly separated from the rest. At the other end, Pennsylvania, Texas, and Ohio are the three states with the lowest average participation rankings. Whatever else is true concerning the details of the participation rates for particular states in specified art forms, these states stand out among these ten as having, respectively, the highest or the lowest participation rates. The standard deviations are also of considerable interest here. The fact that the standard deviation in rankings is so much less for New York and for Pennsylvania than it is for any of the other states indicates that there is very little variation in these states' rankings. In other words, among these ten states New York's participation rate rankings are high and they tend to be high across all the art forms, whereas Pennsylvania's are low and they tend to be low across all the art forms.