

Art-Goers in Their Communities: Patterns of Civic and Social Engagement

Recent attempts to study arts participation as a factor in strengthening the lives of communities have focused on quantifying economic or social impacts of artists and arts organizations. For its own part, the National Endowment for the Arts has contributed to such research with a series of reports about artists in the U.S. workforce.¹ Since 2006, however, NEA researchers have examined civic benefits associated with arts activity through the lens of the participant.

The NEA's periodic Survey of Public Participation in the Arts (SPPA) allows researchers to study the correlations between U.S. adults' self-reported levels of arts engagement and a range of positive civic and social behaviors. This Research Note incorporates data from the 2008 SPPA.

In keeping with previous NEA research, our analysis finds that Americans who attend arts performances, visit art museums or galleries, or read literature are particularly active members of their communities. In 2008, for example, **more than half of all adults who attended art museums or live arts events said they had volunteered at least once in the past year.** For the general adult

population, by contrast, the volunteer rate was much lower—32 percent of all Americans 18 and older.

Although this Note draws conclusions similar to those of previous NEA reports, it examines a wider range of civic and social activities.² Besides analyzing volunteer rates among arts participants, the Note tracks civic activities captured by two new questions in the SPPA: attending community meetings and voting in a presidential election. Also new to the 2008 survey are questions concerning arts attendance at schools and places of worship, as well as questions about taking children to out-of-school arts experiences.

Analyses of these activities, alongside sports participation and the creation or performance of art, yield three main conclusions:

1. American adults who attend art museums, art galleries, or live arts performances are far **more likely than non-attendees to vote**, volunteer, or take part in community events.

2. Their relatively **high rates of volunteerism** continue to prevail, even after adjusting for the effects of education, gender, age, parental status, and other demographic factors.
3. Arts participants and literary readers show a greater likelihood of **community involvement in a variety of other ways**, including sports participation, collaborative art-making, and taking their children to out-of-school performances.

Mounting evidence of a tight correlation between arts-going and civic engagement has many implications for artists, arts organizations, civic leaders, educators, and the general public. The personal decision to engage with arts events or literature appears, in many cases, to reflect a larger drive toward civic and social involvement—a hypothesis supported by other studies that have focused on motivational factors guiding arts participation.³ This research suggests that arts, literary, sports, and civic organizations may benefit from the creation of innovative partnerships to reach a potentially shared audience, one larger than usually supposed.

Civic Engagement: Voting, Volunteering, and Community Involvement

Arts participants volunteer, attend community meetings, and vote in presidential elections at rates considerably higher than those of Americans who do not participate in

the arts. In 2008, for example, 57 percent of *performing arts attendees* volunteered or did charity work at least once over a 12-month period.⁴ This rate was more than 35 percentage points greater than the volunteer rate for adults who did not attend arts performances.

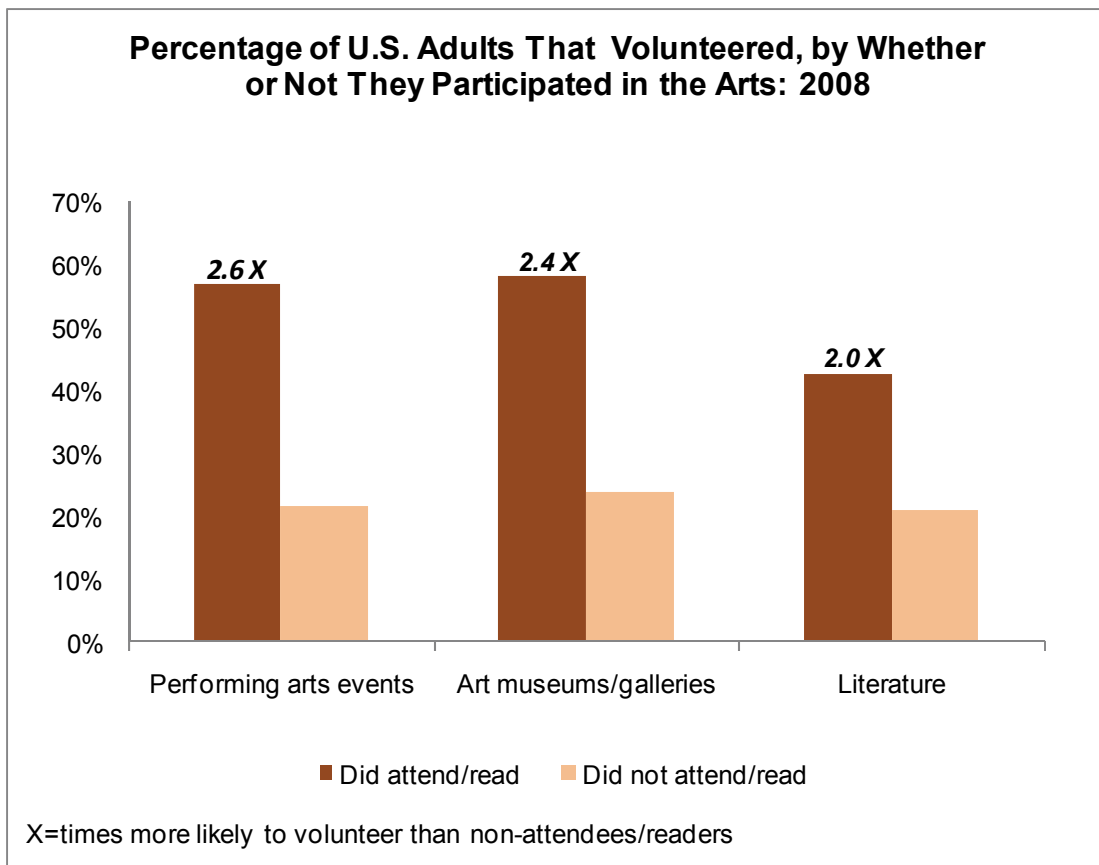
Similarly, the volunteer rate for *art museum visitors* was 58 percent—a rate more than double that of adults who did not visit art museums.⁵ Even for *literary readers*, the volunteer rate (43 percent) was higher than for non-readers of literature—by 22 points.⁶

In addition to volunteer rates, levels of civic engagement can be measured by asking adults if they vote in national elections and/or attend neighborhood meetings. Two questions newly added to the NEA’s Survey of Public Participation in the Arts allow us to investigate participation by art-goers in these activities.

In 2008, the share of performing arts attendees and art museum-goers participating in community/neighborhood events exceeded 50 percent—a rate roughly three times higher than that reported for Americans not attending arts events or art museums.

Voting too is more prevalent among art-goers than among non-art-goers. The survey indicates that 63 percent of U.S. adults voted in the prior presidential election (2004). Among literary readers, however, the voting

rate rises to almost 73 percent—10 percentage points greater than the national average and 20 points more than the voting rate of adults who did not read literature.



Percentage of U.S. Adults that Volunteered, Attended Community Meetings, or Voted in the Last Presidential Election, by Whether or Not They Participated in the Arts: 2008

	Volunteered or did charity work	Attended community meetings	Voted in the prior presidential election
All adults	32.0%	22.8%	63.1%
<i>Performing arts events</i>			
Attended	56.8%	52.8%	78.0%
Did not attend	21.5%	17.2%	56.7%
<i>Art museums/galleries</i>			
Visited	58.3%	54.5%	80.1%
Did not visit	24.0%	19.6%	57.9%
<i>Literature</i>			
Read	42.6%	37.5%	72.8%
Did not read	20.9%	17.5%	52.9%

Art and Sports Participation

Since 1982, the NEA’s Survey of Public Participation in the Arts has asked U.S. adults about their engagement in a variety of arts and non-arts leisure activities. The 2008 data confirm previous NEA research showing that, on average, arts participants are highly engaged in sports. In 2008, more than half of all adults who attended performing arts events or art museums also attended a sporting event. By contrast, sports attendance rates were roughly 30 percentage points lower for adults who did not attend performing arts events or art museums.

The sports attendance rate for literary readers was 38 percent. Although not as high as the rate reported for performing arts attendees and art museum-goers, sports attendance by literary readers surpassed the national rate of

sports attendance by 7 percentage points. The sports-going rate for literary readers was almost 15 points higher than for Americans who did not read literature.

In addition to attending sports events, arts participants are more likely to play sports.⁷ In 2008, 26 percent of all U.S. adults played sports. Among performing arts attendees and art museum-goers, however, that rate was roughly 44 percent; for literary readers it was 33 percent. As a group, arts participants (attendees and readers) are about twice as likely as non-arts participants to play sports.

Participation in Collaborative Art Forms

For arts attendees and literary readers, broader engagement does not end with civic and sports activities. An analysis of art-goers and literary readers suggests they are more likely to engage in performing art activities that may involve more than one person.⁸

In 2008, nearly 13 percent of Americans played a musical instrument—whether solo or in groups. That proportion, however, was more than 20 percent among both performing arts attendees and art museum visitors, and it was 17 percent among literary readers. By contrast,

only 8 to 9 percent of adults not attending arts events or reading literature played a musical instrument.

Of all adults who played a musical instrument, 28 percent had performed either jazz or classical music. But that percentage was roughly five to 10 points greater for art-goers and literary readers.

Personal performance of dance is an uncommon activity—only 2 percent of American adults performed dance. Yet art-goers and literary readers perform dance at rates almost twice as high as the U.S. average and three to four times higher than do non-arts participants.

Percentage of U.S. Adults Who Played Music, Sang in a Choir, or Performed Dance, by Whether or Not They Attended the Performing Arts, Visited Art Museums, or Read Literature: 2008

	Played a musical instrument	Played jazz or classical music ¹	Sang in choir	Performed dance
All adults	12.7%	28.3%	5.2%	2.1%
<i>Performing arts</i>				
Attended	21.5%	38.4%	8.8%	4.6%
Did not attend	8.9%	17.8%	3.6%	1.1%
<i>Art museums/galleries</i>				
Visited	23.8%	39.4%	8.6%	4.1%
Did not visit	9.2%	19.4%	4.1%	1.5%
<i>Literature</i>				
Read	16.9%	33.0%	7.1%	3.2%
Did not read	8.3%	18.1%	3.3%	1.1%

¹ Reported as a percentage of all adults that played a musical instrument

Civic Engagement Patterns for Creators and Performers

Although this Research Note largely defines arts participation as attending performing arts events, visiting art museums, and reading literature, the SPPA has historically investigated a wide variety of ways to participate in the arts. Chief among these is personal creation or performance, such as creating photographs or paintings, singing in choirs, or playing musical instruments.

Analysis shows that Americans who create or perform art are more civically active than the general U.S. adult population. For example, 32 percent of the U.S. adult population volunteered in 2008; 23 percent attended community

meetings. But in the case of adults who did filmmaking or photography, those rates climbed above 50 percent.

Above-average civic engagement is also reported for adults who created paintings, did creative writing, played a musical instrument, or performed dance. Even so, the stand-out among those who create or perform art seems to be choir-singers. More than 65 percent of adults who sang in choirs did volunteer or charity work and a full 60 percent attended community meetings. These rates not only exceed the national averages, but they also surpass the volunteer and community-meeting rates reported by performing arts and art museum attendees.

Percentage of U.S. Adults that Volunteered, Attended Community Meetings, or Voted in the Last Presidential Election, by Whether They Created or Performed Art: 2008

	Did volunteer/ charity work	Attended community events	Voted in the 2004 presidential election
All adults	32.0%	22.8%	63.1%
Created photography ¹	55.1%	52.3%	72.5%
Created paintings/drawings ²	54.1%	52.3%	67.0%
Did creative writing	60.6%	53.6%	68.3%
Played a musical instrument	53.1%	48.5%	67.7%
Sang in choir	65.5%	60.0%	73.3%
Performed dance	60.2%	56.5%	70.8%

¹ Includes the creation of photographs, movies, and video tapes for artistic purposes

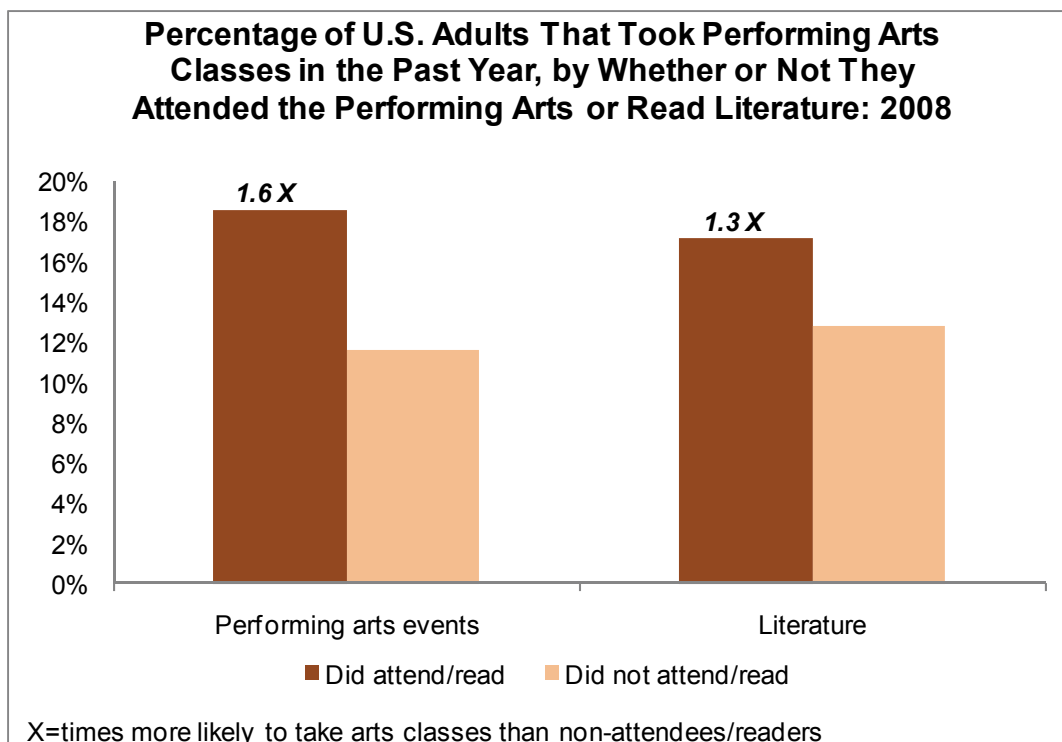
² Includes painting, drawing, sculpture, and printmaking

Art-Going in Educational and Religious Venues

As another form of social or community-level engagement, one might consider participation in arts activities at places of learning or worship. With regard to learning in the arts, the 2008 SPPA data show that performing arts attendees, art museum visitors, and literary readers make up greater percentages of adults who have recently taken art classes than non-art-goers and non-literary readers. For example, 17 to 18 percent of performing arts attendees and literary readers took music, acting, or dance classes in the past year. Those rates were five to six percentage points higher than for those who did not attend the performing arts or read literature.

The percentage of art museum-goers taking performing arts classes was nearly the same as for those who did not frequent art museums (16 percent). Perhaps not surprisingly, though, art museum-goers attended visual arts classes at higher rates than non-art-museum-goers. In 2008, 20 percent of art museum-goers took sculpting, painting, graphic design, or photography classes in the past 12 months. By contrast, little more than 13 percent of adults who did not visit art museums recently took such classes.

In addition, all three categories of arts participants outpaced both national averages and the rates for non-arts participants in attending in-school performances and arts events at places of worship.⁹



Percentage of Arts Participants Attending Music, Theater, or Dance Performances at Schools or Places of Worship: 2008

	Arts performance at a school	Arts performance at a place of worship
All adults	23.7%	19.1%
<i>Performing arts events</i>		
Attended	39.4%	31.7%
Did not attend	17.0%	13.8%
<i>Art museums/galleries</i>		
Visited	39.3%	32.8%
Did not visit	18.9%	14.9%
<i>Literature</i>		
Read	31.3%	24.9%
Did not read	15.4%	13.2%

Art-Going Parents and Their Children:
Out-of-School Arts Experiences

Results from the 2008 NEA survey also show that many arts participants introduce their children to the arts by enrolling them in private art classes and by taking them to performances. For example, nearly 30 percent of parents who visited art museums said their school-age children had taken private (outside of school) art classes.¹⁰ Among parents who did not frequent art museums, that rate was only 8 percent.

Of all U.S. parents with school-age children (27 percent of adults), 38 percent took their kids to a live music, theater, or dance performance. **Performing arts attendees took their school-age children to performances at a rate topping 65 percent**—32 points higher than the rate for all parents and a full 46 points greater than for parents who did not attend performing arts events at all in the entire year.

*Young Adult Civic, Sports,
and Leisure Activities*

The 2002 and 2008 Surveys of Public Participation in the Arts both revealed sharp declines in the percentage of young adults attending traditional arts events. In 2008, for example, the proportion of adults 18 to 34 years of age who had attended at least one “benchmark” arts activity fell to 35 percent—down nine points from 1982. (Benchmark activities are: classical music or jazz concerts; plays or musicals; ballet or opera performances; and art museums/galleries attendance.) In the prior survey period (2002), young adults not only showed lower rates of arts attendance than in previous years; they also cut back on participation in sports and leisure activities.

As the NEA reported in *The Arts and Civic Engagement: Involved in Arts, Involved in Life* (2006), young adults had reduced their levels of exercise, playing or attending sports, and doing outdoor activities such as camping, hiking, or canoeing. In the case of volunteering, the 2002 participation rate for young adults remained largely unchanged from 1982 (26 percent of all 18-34-year-olds), although it had declined from the 1992 level.

The NEA’s most recent research brochure, *Arts Participation 2008: Highlights from a National Survey* (2009), illustrated the long-term trend of reduced arts participation

among young adults, and an accompanying surge in the median age of U.S. arts audiences. But what about young adult levels of engagement in non-arts leisure activities?

The following table shows that, in 2008, Americans 18 to 34 years of age continued their downward trend for exercise, sports participation, and doing outdoor activities. But their volunteer rates present a different picture. In 2008, the young adult rate of volunteering (nearly 29 percent of all 18-34-year-olds) regained the three points it had lost from 1992 to 2002—and now stands slightly above the 1982 rate.

One cannot use the NEA survey data alone to postulate a reason for the rise in volunteering among young adults, and their simultaneous reduction of arts and sports attendance and participation in physical activity. The growth in volunteering may reflect partly the proliferation of service learning programs—often integrated with high school, college, or community college course requirements—that encourage young people to serve in their communities. Similarly, the change might involve a generational factor, attesting to the social behavior patterns of a specific cohort of Americans.

Whatever the reason, the positive trend in young adult volunteerism is worth noting by arts administrators as they seek to understand factors shaping broader participation habits of an age group that will be critical to the

preservation of traditional art forms. In this context, another development deserves special mention.

Not surprisingly, young adults are more active with online media than other age groups; but in 2008 they also showed the greatest rise in literary reading relative to other age groups. (See the NEA's *Reading on*

the Rise: A New Chapter in American Literacy, 2009.) Further, as the NEA and others have demonstrated in prior research, frequent reading is closely correlated with a host of civic and social activities.

Percentage of Adults Ages 18-34 That Volunteered or Participated in Sporting or Outdoor Activities: 2008

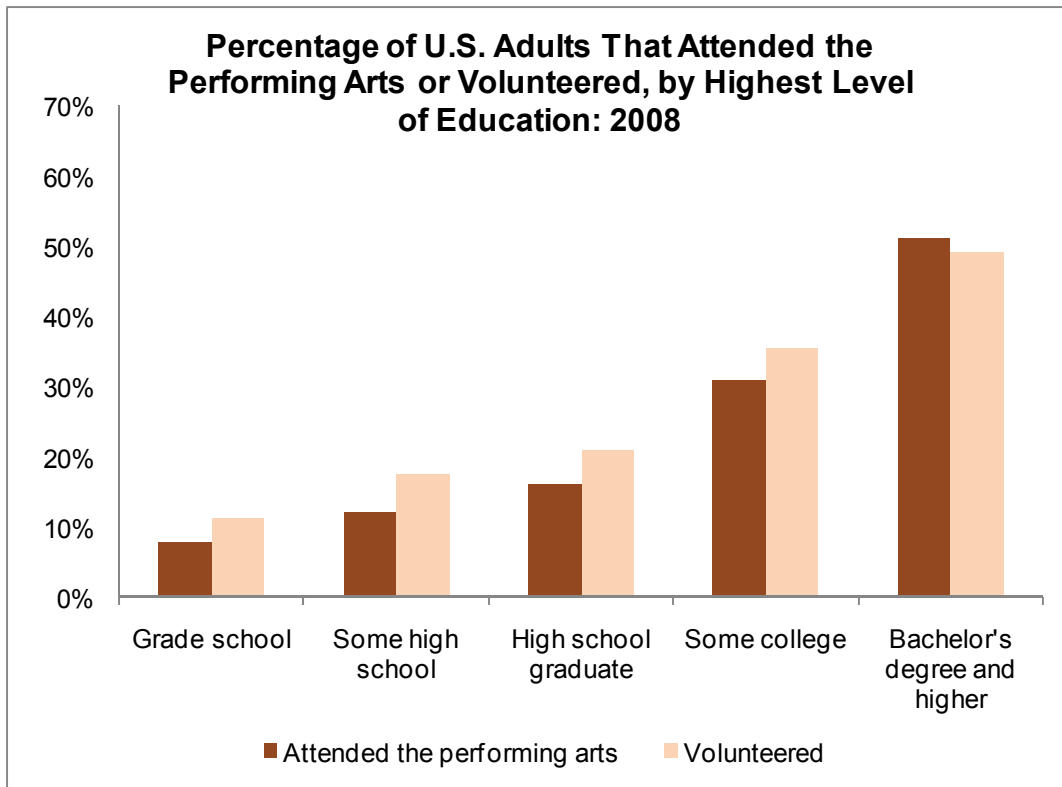
	1982	1992	2002	2008	Change (pp)	
					(2002-2008)	(1982-2008)
<i>Volunteered or did charity work</i>	26.1%	28.9%	25.5%	28.5%	3.0	2.4
Attended sporting event	62.3%	48.4%	43.2%	37.3%	-5.9	-25.0
Played sports	59.7%	55.0%	43.4%	37.9%	-5.5	-21.8
Did outdoor activities	49.5%	42.0%	38.0%	35.3%	-2.7	-14.2
Exercised	66.7%	66.6%	60.2%	57.5%	-2.7	-9.2

Percentage points (pp)

A Closer Look: Regression Analysis

As discussed earlier, more than half of all performing arts attendees volunteered, attended community meetings, or went to a sporting event in 2008. Yet these descriptive statistics raise an important question: do arts participants engage in activities such as volunteering and sports attendance even after we control for demographic traits? After all, arts participants and volunteers share key

background variables. For example, performing arts attendance and volunteerism rates rise with education. Also, women are more likely than men to attend the arts and/or volunteer. Could it be that education and gender contribute to higher volunteer rates among performing arts attendees than would be observed in the absence of those factors?



A regression model relates a dependent variable—in this example, volunteering—to one or more independent variables such as education, gender, and the key variable in question, performing arts attendance. For our purposes, a logit regression was used to model this relationship and estimate the odds of volunteering for each variable, *independently*. (Technical details about this model are provided later in this Note.)

According to the model, the odds that performing arts attendees will volunteer are 3.8 times greater than for non-attendees, regardless of their educational attainment, gender, and other selected demographic traits.¹¹ Moreover, similar models show comparable results for participating in

community meetings and sporting events—indeed, the odds of doing these activities are three to four times better for performing arts attendees than for non-attendees.

Of all the demographic traits considered, only education rivals performing arts attendance as a predictor of civic or sports involvement. All three models show that the odds of volunteering, participating in community meetings, or attending sporting events rise with education. For example, the odds of attending a sporting event are 3.2 times greater for those with a bachelor's degree or higher levels of education, compared with people who have less formal training.

Most of the other demographic variables are “statistically significant,” but their correlations with civic and sports involvement are weaker.¹² Part-time workers, for instance, have better odds of volunteering than full-time workers (or those not in the labor force), but only by 1.5 times. Having school-age children increases the chances of volunteering and of attending sporting events (by 1.3 and 1.5 times, respectively). In the case of attending community/neighborhood meetings, however, parenthood seems to have little impact on this activity—the coefficient used to generate that odds ratio was statistically insignificant.

The controls entailed by the regression models show that women are only slightly more likely than men to volunteer and attend community meetings. Yet they are less likely to attend sports events.

The odds of volunteering and attending community events are also less for adults living in metropolitan areas.¹³ These results suggest that people living in non-metro, lower-population areas are more likely to volunteer or participate in community events. On the other hand, the odds of attending sporting events are greater for those living in metro areas—1.2 times greater.

Odds Ratios of Volunteering, Attending Community Meetings, and Attending Sporting Events in 2008

Characteristics	Odds ratios:		
	Volunteering	Attending community meetings	Attending sporting events
Attend performing arts	3.8	4.4	3.3
Education			
High school diploma	1.3	1.4	1.8
Some college	2.3	2.2	2.7
Bachelor's degree or higher	3.1	3.1	3.2
Work part-time	1.5	1.3	1.3
Have school-aged children	1.3	Insignificant	1.5
Married	1.3	1.3	0.8
Female	1.2	1.1	0.6
Age 35-54	1.2	1.3	Insignificant
Live in metropolitan area	0.7	0.6	1.2

Technical Notes

The odds ratios reported in this Research Note were generated by regression models. Due to the complex sample design of the 2008 SPPA, the coefficients were estimated by a balanced repeated replication (brr) method, which incorporated the replication weights that accompany the 2008 SPPA.

Income is correlated with education (and possibly with age as well).¹⁴ Because regression models assume independent covariates, income was excluded as a predictor variable in the regression models reported in this Research Note.¹⁵

The following tables show results for the three regression models discussed earlier.

The Odds of Volunteering as a Function of Performing Arts Attendance and Selected Demographic Variables

	Odds ratio	Standard error	t	P>t	95% confidence interval	
	Attended performing arts	3.83	0.25	20.89	0.00	3.37
High school diploma	1.28	0.14	2.25	0.03	1.03	1.60
Some college	2.32	0.25	7.79	0.00	1.87	2.87
Bachelor's degree or higher	3.09	0.35	9.87	0.00	2.47	3.88
Female	1.23	0.25	4.76	0.00	1.13	1.34
Live in metro area	0.72	0.05	-4.36	0.00	0.62	0.83
Married	1.23	0.09	3.49	0.00	1.11	1.45
Age 35-54	1.24	0.08	3.13	0.00	1.08	1.42
Employed part-time	1.52	0.13	4.76	0.00	1.28	1.80
Have school-age children	1.28	0.10	3.14	0.00	1.10	1.49

The Odds of Attending Community Meetings as a Function of Performing Arts Attendance and Selected Demographic Variables

	Odds ratio	Standard error	t	P>t	95% confidence interval	
	Attended performing arts	4.40	0.31	21.22	0.00	3.83
High school diploma	1.36	0.14	2.91	0.00	1.10	1.68
Some college	2.17	0.24	6.92	0.00	1.74	2.71
Bachelor's degree or higher	3.06	0.33	10.28	0.00	2.47	3.80
Female	1.08	0.05	1.69	0.09	0.99	1.19
Live in metro area	0.59	0.05	-6.26	0.00	0.50	0.70
Married	1.31	0.10	3.64	0.00	1.13	1.51
Age 35-54	1.33	0.09	4.32	0.00	1.17	1.52
Employed part-time	1.28	0.11	2.83	0.01	1.08	1.51
Have school-age children	1.12	0.08	1.55	0.12	0.97	1.29

The Odds of Attending Sporting Events as a Function of Performing Arts Attendance and Selected Demographic Variables

	Odds ratio	Standard error	t	P>t	95% confidence interval	
	Attended performing arts	3.25	0.25	15.19	0.00	2.79
High school diploma	1.79	0.20	5.08	0.00	1.43	2.24
Some college	2.66	0.31	8.31	0.00	2.11	3.35
Bachelor's degree or higher	3.20	0.41	9.18	0.00	2.49	4.11
Female	0.56	0.02	-13.60	0.00	0.52	0.61
Live in metro area	1.24	0.11	2.31	0.02	1.03	1.48
Married	0.84	0.06	-2.34	0.02	0.73	0.97
Age 35-54	1.12	0.07	1.87	0.06	0.99	1.26
Employed part-time	1.31	0.12	2.97	0.00	1.09	1.56
Have school-age children	1.49	0.13	4.68	0.00	1.26	1.76

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.¹⁶

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 volunteering and 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

In addition to the sources cited previously, please see the following:

National Endowment for the Arts, *Arts Participation 2008: Highlights from a National Survey*. June 2009, from <http://www.nea.gov/research/NEA-SPPA-brochure.pdf>

Department of Labor, Bureau of Labor Statistics, *Volunteering in the United States, 2008*. January 2009, from <http://www.bls.gov/news.release/volun.nr0.htm>

Chorus America, *How Children, Adults, and Communities Benefit from Choruses: The Chorus Impact Study*. June 2009 from http://www.chorusamerica.org/about_choralsinging.cfm

U.S. Census Bureau, *Current Population Survey, May 2008 Public Participation in the Arts Supplement File, Technical Documentation*. July 2009, from <http://www.census.gov/apsd/techdoc/cps/cpsmay08.pdf>

National Endowment for the Arts, *Arts and Civic Engagement: Involved in Arts, Involved in Life*, November 2006, from <http://www.nea.gov/pub/CivicEngagement.pdf>

National Endowment for the Arts, *Arts and Leisure Activities: Evidence from the 2002 Survey of Public Participation in the Arts*. June 2005, from <http://www.nea.gov/research/Notes/89.pdf>

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Endnotes

¹ See National Endowment for the Arts, *Artists in the Workforce: 1990-2005*. June 2008, from <http://www.nea.gov/research/ArtistsInWorkforce.pdf>

² See National Endowment for the Arts, *Volunteering and Performing Arts Attendance: More Evidence from the SPPA*. March 2007, from <http://www.nea.gov/research/Notes/94.pdf>

³ See, for example, *Assessing the Intrinsic Impacts of a Live Performance* (2007), by Alan S. Brown and Jennifer L. Novak, and *Motivations Matter: Findings and Practical Implications of a National Survey of Cultural Participation* (2005), by Francie Ostrower.

⁴ Performing arts attendance is defined as attending one or more of the following live performing arts in the past 12 months: Latin/Spanish/salsa concerts; jazz or classical concerts; opera; musical or non-musical plays; ballet or other dance.

⁵ Art museum visitors are adults who visited art museums or galleries in the past 12 months.

⁶ Literary reading is defined as reading novels, short stories, poetry, or plays in the past 12 months.

⁷ The SPPA cites softball, basketball, golf, bowling, skiing, and tennis as examples of sports played. Regarding live sports attendance, the survey includes professional and amateur sports, but excludes “youth sports.”

⁸ For this Research Note, those activities include playing a musical instrument, playing jazz or classical music (among all adults who played a musical instrument), singing in a choir, and performing dance. Performing opera and acting in a musical or non-musical play were excluded due to inadequate sample sizes for these activities.

⁹ The SPPA question pertaining to school performances asked if respondents attended an elementary, middle, or high school music, theater, or dance performance in the last 12 months. The place-of-worship question asked if respondents attended a music, theater, or dance performance at a church, synagogue, or other religious institution in the last 12 months.

¹⁰ For the purpose of this survey, school-age children are ages 5 to 17.

¹¹ Results are interpreted by comparing the odds ratios to the value of 1. For example, the odds ratio of volunteering among married adults is shown as 1.3. This means that the odds of volunteering among married people are 30 percent better than the odds for unmarried adults (e.g., single, divorced, etc.) Similarly, the odds ratio of women attending sports is 0.6. In other words, they are 40 percent less likely to attend sports than men are.

¹² Unless otherwise noted, all estimates shown are statistically significant at 95 percent or high levels of confidence.

¹³ The general concept of a metropolitan area is one of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. For more information about metro definitions, please see the U.S. Census Bureau's glossary of terms from <http://www.census.gov/population/www/cps/cpsdef.html>.

¹⁴ For more information, see National Endowment for the Arts, *Volunteering and Performing Arts Attendance: More Evidence from the SPPA*. March 2007, from <http://www.nea.gov/research/Notes/94.pdf>

¹⁵ For more information about the multicollinearity between income and education, see *Attendance and Public Participation in the Performing Arts: A Review of the Empirical Literature* (2005), by Bruce A. Seaman.

¹⁶ 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.