

Impact of the Arts on Individual Contributions to U.S. Civil Society

Working Paper

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Abstract

Many studies have examined the impact of the arts on educational outcomes, physical and mental health outcomes, local economies, and community well-being. Yet considerably less attention has been given to the impact that participation in the arts has on civil society. This study seeks to remedy this gap in the literature by examining the effect that audience-based arts participation and direct arts participation have on three measures of civil society. We rely on data from the General Social Survey, which offers information on the arts participation behavior as well as person contributions to civil society of a random sample of adults living in the U.S. (n=2,765). Multivariate analysis is used to estimate the effects of audience-based arts participation, as well as direct participation in the arts on three dimensions of civil society: civic engagement, social tolerance, and other-regarding behavior. We find strong evidence that the arts enhance civil society; individuals who have both direct and indirect exposure to the arts are more engaged in civic activities within their communities, have higher levels of social tolerance on some dimensions of the measure, and demonstrate higher rates other-regarding behavior. The importance of this research is that it demonstrates the unique contribution of the arts in predicting individual-level social outcomes and its importance to the health of civil society.

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Introduction

In the context of rising deficits and insufficient revenues, U.S. policy makers at all levels of government are confronted with difficult decisions about funding for public goods and services. As a result of this fiscal stress, “non-essential” services are increasingly scrutinized and subject to budget cuts. The arts, perhaps more than any other area of public spending have been targeted for such cuts. Despite the tendency of some policy makers to discount the importance of the arts, a growing body of evidence suggests that the arts indeed matter, often impacting society in tangible ways.

This study seeks to contribute to the growing body of empirical evidence on the impact of the arts. Whereas many previous studies have focused on the economic impact of arts (Singer, 2000; Art and Economic Prosperity IV, 2012), improved educational outcomes and cognitionⁱ (Brewer, 2002, 2005; Dorn, 1999; Eisner, 2004; Heid, 2005; Catterall, 2009; Brice Heath, 1999; DiMaggio, 1982; Deasy, 2002; Ruppert, 2006) health and physical wellbeing (Castora-Binkley, et al 2010; Noice and Noice, 2009), and community wellbeing (Jackson et al. 2003, Jackson, 2006; Goldbard, 2006) we pursue a slightly different line of inquiry by investigating the impact of the arts on American citizens’ contributions to community life. Following Sievers’ (2009) argument that arts have the capacity “to advance pluralism, promote voluntary action, accommodate diversity, and champion individual visions of the public good”, we focus on examining the relationship between arts participation and individual-level social outcomes. While previous studies find strong correlation between arts participation and civic engagement (National Endowment for the Arts, 2007), limited evidence exists about the impact of arts

participation on civic behaviors and attitudes. Similarly, much of existing arts impact research explores social outcomes of participation in community arts projects, while the social outcomes of audience-based participation and direct participation in the arts remain underexplored. Our study is designed to fill these gaps by answering the following questions: First, to what extent does audience-based arts participation impact a person's contributions to civil society? Second, to what extent does direct participation in the arts influence a person's contributions to civil society?

While there is no single agreed-upon definition of civil society, voluntary behavior and civic engagement are consistent themes in the civil society literature (Anheier, 2005; Jones, 2006). While civic engagement is certainly one expression of civil society (Putnam, 1995; Newton, 2001; Foley and Edwards, 1996; Kwak, Shah and Holbert, 2004), the term is derived in part from the notion of civility, which is defined as "courtesy, politeness, or polite actions or expressions; the act of showing regard for others" (Merriam Webster Dictionary, 2011). Thus, civil society also encompasses the expression of social norms and customs of 'other-regarding' behavior. We therefore ascribe to a definition of civil society that includes voluntary action and behavior that occurs outside of the market and state, but shares similarities with Anheier's (2005) conception, in that we view civil society as also encompassing norms and customs that make society a better place to live. Specifically, we define civil society as encompassing various forms of civic engagement, high levels of tolerance for social differences, and the expression of acts that more often place the interests of others over the interests of self.ⁱⁱ

To address our research questions, we rely on public data from the General Social Survey. Multivariate analysis is used to estimate the effects of audience-based arts participation, as well as direct participation in the arts on three dimensions of civil society: civic engagement,

social tolerance, and other-regarding behavior. We find strong evidence that the arts enhance civil society; individuals who have both direct and indirect exposure to the arts are more engaged in civic activities within their communities, have higher levels of social tolerance on some dimensions of the measure, and demonstrate higher rates other-regarding behavior. The importance of this research is that it demonstrates the unique contribution of the arts in predicting individual-level social outcomes and its importance to the health of civil society.

In the next section we examine the literature on social impacts of the arts, and propose a set of hypotheses based on this literature. Following a description of our data and methodology, we empirically test our hypotheses and examine the results. We conclude the paper by discussing the implications of our findings, and identifying questions for further research.

Social Impact of the Arts

The first systematic studies of the social impact of the arts appeared in mid-late 1990s (Landry et al, 1996; Matarasso 1997; Stern, 2001). The interest of researchers was sparked by the concerns of arts practitioners about the tendency of funding agencies to measure the value of artistic projects by quantifying their economic outputs rather than acknowledging its aesthetic and social value. These early works sought to add a social dimension to the economic and aesthetic rationales for the arts by looking for the evidence of the social benefits of the arts and identifying the ways in which arts can be linked to social virtues of tolerance, inclusion, honesty, self-confidence and respect.

To bring the evidence in support of these arguments researchers conducted extensive studies in Western Europe and in the U.S. to show how arts positively affect both individuals and

communities.ⁱⁱⁱ Most claims about social impacts of arts come from studies that examine participation in community and informal arts projects (Wali, Severson and Longoni, 2002).^{iv} These studies suggest that community arts projects due to their accessibility and inclusiveness lead to increased social cohesion, improved intergenerational and interracial communication, and enhanced sense of community among dispersed individuals. Community arts projects that typically bring people together for a prolonged period of time serve as natural venues in which friendships, partnerships and cooperation can develop. Such activities can also nurture local democracy by encouraging people to become more active citizens, teaching them valuable community building skills, and helping them to learn about complex political and social ideas.

It is believed that civic outcomes of community arts projects much like the civic outcomes of religious activities are achieved through learning skills necessary for participation in civic and political life, such as negotiating, public speaking, planning, and decision making (Verba, Schlozman, and Brady, 1995). Common interest and passion for arts, and desire to sustain arts in the community motivate community members to learn how to engage with local government, community groups, businesses and funding agencies. As a result, individuals participating in community-based arts have higher rates of participation in civic activities that include advocating for arts and community causes, voting in elections and joining voluntary organizations (Wali et al. 2002).

While the studies examining the social impacts of community arts projects are based on the premise of civic skill building, the studies that look into social benefits of audience-based participation are grounded in the belief that arts have the ability to contribute to “a stable, confident and creative society” due to their inherent “creativity, openness and elasticity” (Matarasso, 1997, p. 79). As Matarasso argued, “it is in the act of creativity that empowerment

lies, and through sharing creativity that understanding and social inclusiveness are promoted”
(Ibid)

Although this claim proved to be much harder to support due to both theoretical and methodological limitations (Guetzkow, 2002; McCarthy, Zakaras, Ondaatje and Brooks, 2004), several studies offered empirical evidence about the social benefits of audience-based arts participation. The findings from the Urban Institute’s Cultural Participation Survey provide evidence that participants in arts and culture tend to be active in community life (Walker, Fleming and Sherwood, 1998).^v Similarly, NEA’s study “The Arts and Civic Engagement” (2007) found a positive correlation between arts and social behaviors of individuals. As stated in the report, those Americans “who read books, visit museums, attend theater, and engage in other arts are more active in community life than those who do not.” The study found a strong correlation between individuals’ participation in the arts and their levels of charity work, sports participation and outdoor activities thus breaking the stereotype that arts participants are prone to passive behavior. Based on this evidence, we propose and test the following hypothesis:

H1: Individuals who engage in higher levels of audience-based arts participation and who engage directly in artistic activity will demonstrate higher rates of civic engagement.

Growing evidence shows that arts can promote and advance social inclusion (Matarasso, 1997; Wali et al 2002; Stern, 2002; Stern and Seifert, 2010). Wali et al (2002) study documents the “bridging differences” effects of community arts. Due to their accessibility and inherent

inclusiveness, community arts serve as a vehicle for bringing together individuals from diverse social, racial and economic backgrounds, thus breaking barriers of social isolation.

When investigating the role of nonprofit arts and culture in Philadelphia's immigrant communities, Stern and Seifert (2010) found that arts serve as an effective venue for social dialogue, help resolve community conflicts and mitigate racial tensions. Artistic projects such as story telling were found to be particularly useful for both cultivating the sense of belonging to a new culture among immigrants and honoring their own heritage.

Although arts practice is abundant with examples of organizations and projects that promote homosexual tolerance, research that links arts and attitudes towards gay individuals has been scarce. To our knowledge, no study exists that provides conclusive evidence of the effects of arts on increased gay tolerance. The exception is Petty's (1997) case study that documents the role arts projects played in increasing early awareness of the AIDS/HIV epidemic and promoting more tolerant attitude to sexual minorities affected by the disease. Thus, we propose the following hypothesis:

H2: Individuals who engage in higher levels of audience-based arts participation and who engage directly in artistic activity will demonstrate greater levels of social tolerance.

Perhaps the most limited evidence exists about the beneficial effects of arts participation on the development of individuals' civic identity defined as the propensity of individuals to express a responsibility, political-moral awareness and other-regarding behaviors (Youniss,

McLellan, Yates, 1997). As McCarthy points out, behavioral outcomes have a longitudinal dimension making it difficult for researchers to determine their causes.

Several studies have been conducted to examine long-term beneficial impact of arts education on social behaviors of young adults (Brice Heath, 1999; Catterall, 2009). Using longitudinal data of more than 12,000 students Catterall (2009) found that young adults who were actively involved in visual and performing arts programs in middle and high school demonstrate higher propensity for volunteering and voting in the national election and are more likely than their peers to engage in school and neighborhood politics and community service activities (see also Catterall et al. 2012). Not only did Catterall find an association between students' active involvement in arts and their propensity for pro-social behaviors, but he also suggested a positive spillover effect of arts-rich schools on those students who are not themselves involved in artistic activities. Based on this logic, we propose the following hypothesis:

H3: Individuals who engage in higher levels of audience-based arts participation and who engage directly in artistic activity will demonstrate greater levels of other-regarding behavior.

Data and Methods

To test the hypotheses described above, we employ a cross-sectional analysis using data from the 2002 General Social Survey (GSS). The GSS is a full probability sample of adults living in households in the United States, and had a response rate of 70.1% in 2002,^{vi} yielding a total number of 2,765 individual respondents to be examined in this study. The General Social

Survey (GSS) is a publicly available dataset that is based on surveys of the American public collected every other year since 1972, by the National Opinion Research Center (NORC) at the University of Chicago. According NORC, “altogether the GSS is the single best source for sociological and attitudinal trend data covering the United States.” (NORC, 2011). Despite the richness of the GSS data for demonstrating the impact of audience-based arts participation and personal arts participation on various dimensions of civil society, these data have not been previously used to examine these relationships.

The GSS is a valuable source of data for examining how audience-based participation in the arts and personal arts participation impact individuals’ contributions to U.S. civil society, because it contains a variety of measurable indicators about respondents’ exposure to and participation in arts activities, as well as measures of attitudes and behaviors that make up civil society, including civic engagement, social tolerance, and altruism. The dataset also contains a variety of demographic data for each respondent, allowing us to control for individual, person-level attributes in our analysis.

Variables

Individual expressions of civil society are thought to be a function of arts participation as well as a series of individual-level personal attributes. In this study, we use four dependent variables, all of which are constructed from empirical measures of either behavioral or attitudinal expression of civil society. The first dependent variable measuring individual contributions to civil society is an index of civic engagement, measuring respondents’ frequency of participation in a variety of community and civic activities. The second dimension of civil society we examine is social tolerance, and we use two dependent variables to capture this. The first is an index

measuring tolerance toward gay and lesbian persons, and the second is an index measuring attitudes toward racial and ethnic minorities. The fourth dependent variable we examine (and third dimension of civil society) is an index of altruism, measuring respondents' frequency of engaging in selfless, other-regarding behavior toward friends and family as well as strangers.

Each dimension of civil society described above is thought to be a function of arts participation, as well as series of individual-level personal attributes, and region of the country in which the person lives. The four key independent variables of interest in this study measure audience- based arts participation and direct arts participation (NEA, 2008).^{vii} Audience-based arts participation is measured through an index capturing respondents' attendance at fine arts and music performances, as well as visits to arts museums in the last year. Direct arts participation is measured through three separate independent variables each capturing whether or not in the last year the respondent made art, played a musical instrument, or engaged in a dance or theatrical performance.^{viii}

Several person-level attributes may also help to explain civic engagement, social tolerance, and altruism, and therefore included in each analysis as controls. Age, education, and income have all been positively linked to higher levels of civic engagement and altruism (Putnam, 2000), and education and income associated with higher levels of social tolerance (Verba et al. 1995; Uslaner, 2003; Persell, Green, and Gurevich, 2001). The analyses also control for respondents' sex and race. There is some evidence to suggest women are more civically active and engage in more altruistic behavior than men (Persell et al 2001), so it is important to include this measure in our study. While there is less research examining the differences in civic engagement and altruistic behavior based on race, we assume that racial minorities exhibit more

accepting attitudes toward other minorities which is a key measure of social tolerance in our study, so therefore it is also important to control for race in our analysis.

Each of our analyses also controls for the region of the country in which the respondent lives. Nine dummy variables are used to capture whether the respondent lives in the New England, Mid-Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, or Pacific region of the United States. Since the North Atlantic region is the largest category by a slight amount this is the omitted category, and the other nine region variables are thus interpreted with reference to this omitted category (Hamilton, 2009). Controlling for respondents' region is important as U.S. southern states are characterized by a history of racism, and more conservative political and social values that would suggest lower levels of tolerance towards gay and lesbian individuals. Moreover, previous studies have found that civic engagement is lower in west north central and most southern states (Putnam, 2000).

Table 1 provides a detailed description of the measurement for each dependent variable, as well as the explanatory independent variables. Descriptive statistics for each measure are also reported in the table.

[Table 1 about here]

Method of Analysis

The impact of arts exposure and artistic expression on civil society (civic engagement, social tolerance, and altruism) is estimated in sixteen separate models using Ordinary Least Squares (OLS) regression. OLS is the appropriate method of estimation since each of our

dependent variables is measured as a scale. All models are estimated using robust standard errors to correct for heteroskedasticity that is common in cross-sectional analyses.

Results

The first question we set out to answer in this study is whether arts participation impact the dimension of civil society reflected by civic engagement. Indeed, we find evidence of a strong link between all forms of arts participation and civic engagement, confirming our first hypothesis. The results of this analysis are displayed in Table 2.

[Table 2 about here]

As the first model indicates, audience-based arts participation has a positive and statistically significant effect on civic engagement, producing an increase of 1.256 ($p < .01$) on our civic engagement index for each additional form of audience-based arts participation engaged in within the last year. This provides strong evidence that persons who engage in audience-based arts participation have higher levels of civic engagement, but does direct arts participation and arts creation have the same effect? As models 2, 3, and 4 in Table 2 suggest, civic engagement is indeed enhanced by all three forms of direct arts participation. The practice of making art increases civic engagement by 1.734 on the civic engagement index ($p < .01$), while performing dance or theatre increases civic engagement by 1.082 ($p < .10$), and playing music increases civic engagement by 1.057 ($p < .05$). A number of our control variables are statistically significant and consistent across the civic engagement models. As all four models indicate, civic engagement activities increase not only with various forms of arts participation, but also with age and

education level, while those living in the Mid-Atlantic region display lower levels of civic engagement.

The next dimension of civil society we examine is social tolerance; specifically attitudes toward gay and lesbian persons and attitudes toward racial and ethnic minorities. Do audience-based arts participation and direct participation increase tolerance of homosexuality? The results displayed in Table 3 help to shed some light on this question.

[Table 3 about here]

The second model indicates that audience-based arts participation has a positive, although more modest, effect on tolerance toward homosexuals, producing an increase of 0.111 ($p < .01$) on the civic engagement index for each additional form of audience-based arts participation engaged in within the last year. The same positive result is found when we examine the effect of direct participation in the arts. Making art increases gay tolerance by 0.130 on the gay tolerance index ($p < .10$) and playing music increases gay tolerance by 0.202 ($p < .05$), while performing dance or theatre does not appear to have a statistically significant effect. Also, several personal attributes are significantly related to gay tolerance. In each of the four models, education appears to have a positive and statistically significant effect on gay tolerance while age has a negative and statistically significant effect. These results are consistent with previous studies that suggest an increase in gay tolerance due to positive educational effects on young people (Persell et al, 2001). Indeed, as our models demonstrate, young respondents appear to be more tolerant toward homosexuals than older respondents, with those residing in New England, the Mid-Atlantic and Pacific regions demonstrating higher levels of tolerance. The results indicate that respondents

residing in the East South Central region demonstrate negative attitudes towards homosexuals which is consistent with previous findings about non-Southern residents being more gay tolerant. As to possible gender differences in attitudes towards homosexuals, our models suggest that women demonstrate more positive attitudes towards homosexual populations than men.

The next dimension of civil society we examine is social tolerance measured as attitudes toward racial and ethnic minorities. Table 4 reports the effects of arts participation on racial attitudes.

[Table 4 about here]

Consistent with our hypothesis we found that audience-based arts participation enhances racial tolerance of individuals. Attendance of arts events increases racial tolerance by 0.709 on the racial tolerance index ($p < .01$); however none of the forms of direct arts participation has a statistically significant effect. In the three models that examine the relationship between direct arts participation and racial tolerance respondents' demographic attributes of individuals such as race, gender, education, age and the region of residence determine their attitudes toward racial minorities. The results provide evidence that younger and more educated individuals who belong to minority groups are more likely to express racial tolerance than older and less educated whites; also the residents of non-Southern regions (excluding the West South Central region) are more likely to be tolerant to minorities than those residing in the Southern states.

Finally, we are interested in seeing whether arts participation affects other-regarding behaviors. Table 5 presents the effects of arts participation on respondents' frequency of engaging in selfless, other-regarding behavior toward friends and family as well as strangers.

[Table 5 about here]

The results show that audience based participation and all three forms of direct participation in the arts have a positive and statistically significant effect on other-regarding behaviors. Audience based participation produces an increase of 1.693 ($p < .01$) on the altruism index; the practice of making arts increases the frequency of other regarding behaviors by 2.908 ($p < .01$), performing dance or theater produces an increase by 2.730 ($p < .01$), and playing music increases produces an increase by 1.788 ($p < .01$). This provides strong evidence that persons who engage in audience-based and direct arts participation have a higher frequency of other regarding behaviors. In this model, much like in the models discussed above, education appear to be a modest, but statistically significant predictor of other regarding behaviors; however unlike in the previous models respondents' age does not have an effect on their propensity to engage in selfless, other-regarding acts towards family and strangers. When respondents' region of residence is concerned, those living in the Mid-Atlantic region engage in other-regarding behaviors more frequently. Finally, contrary to our proposition, in all our models income has no statistically significant impact on individuals' propensity for civic engagement, tolerance and altruism. A summary of our hypotheses and results are presented in Table 6.

[Table 6 about here]

Implications and Conclusions

This study offers quantitative evidence in support of the argument that arts have the capacity “to advance pluralism, promote voluntary action, accommodate diversity, and champion individual visions of the public good” (Sievers, 2009). Specifically, we found that even after controlling for socio-demographic variables such as age, race and education audience-based participation and in most cases direct participation in the arts are unique significant predictors of an individual’s propensity for civic engagement, tolerance and other-regarding behaviors. Based on our analysis, those individuals who attend arts events at least once a year are more likely to participate in various civic associations, exhibit greater tolerance towards racial minorities and homosexuals, and behave in a manner which regards the interests of others above those of oneself. Our findings, particularly with regard to the arts-altruism link, suggests that there is something about the creative process that puts people more in touch with their emotions, which manifests in helpful, caring, nurturing, types of actions.

Our analysis adds confirmatory evidence to the previous studies that establish the relationship between arts participation and individual-level social outcomes. More importantly, it takes a step further in arguing that not only participation in community and informal arts but also audience-based participation in high arts may result in higher rates of an individual’s participation in civic life.

Unlike audience-based participation that appears to be statistically significant in all models, direct participation in the arts has mixed effects on the outcome variable that captures tolerance towards racial minorities and homosexuals. Performing dance or theater, playing music and making art do not appear to have a statistically significant association with racial tolerance, yet making art and playing music has a positive and statistically significant association with gay tolerance. Obviously, more research is needed to produce conclusive evidence about possible

links between participation in specific arts forms and the propensity of individuals for racial and gay tolerance.

In addition to the main variables of interest, several background variables were included in the models in order to account for their possible effects on the outcome variables.

Although education appears statistically significant in all models, proving previous assumptions that educated people are more socially and politically active, it accounts for a smaller proportion of the variance than arts participation. Under all assumptions audience-based arts participation remains a unique significant predictor of all three outcomes variables.

We found younger people to display higher levels of social tolerance than older individuals. Younger respondents appear to exhibit much more positive attitudes towards racial minorities and homosexuals, confirming earlier findings. Another result that provides confirmatory evidence to previous research relates to the existing regional divide in attitudes towards racial minorities and homosexuals. Residents of the New England, Mid-Atlantic and in some cases Pacific regions appear to exhibit more tolerance than those residing in Southern and Central states. Finally, contrary to previous findings about higher rates of participation of wealthy individuals in political and civic life (Verba et al. 1995) we did not find income to be statistically significant in predicting civic engagement, behaviors and attitudes. This may indicate that, as Uslaner (2003) suggested, income matters more for those activities that require significant effort, for example participating in and donating to political campaigns.

Although overall our analysis supports the claim that arts participation is a significant predictor of civic engagement, tolerance and other regarding behaviors, a few limitations must be noted. First, using pooled cross sectional data precludes us from making causal claims in regard to the impact of arts participation on individual-level civic outcomes. Second, such complex

phenomena as civic engagement, tolerance and other-regarding behaviors cannot be fully explained by arts participation and a handful of demographic variables. In our models, various modes of arts participation and selected demographic characteristics explain between 7 and 17 percent of the variance, suggesting that in future studies personality traits and other background variables may need to be explored more carefully. Finally, in the absence of underlying theory, it is unclear *how* arts participation, in particular audience-based participation and direct participation, works to produce social outcomes. While a number of plausible explanations have been offered for the mechanisms that link community arts projects and civic engagement, the causal mechanism through which social benefits of audience-based and direct arts participation are achieved remains obscure. Qualitative and mixed methods analysis using longitudinal data is needed to better understand how these modes of arts participation produce individual level social outcomes.

Despite the limitations, this analysis moves us one step further in understanding the potential of the arts to foster various manifestations of civil society. It also has important research and policy implications. The research contribution is in adding quantitative evidence of the “instrumental” benefits of arts participation achieved at the individual level and showing that arts make a unique contribution to the prediction of civic behaviors and attitudes. The finding about social benefits of audience-based participation may have a significant practical implication for philanthropic initiatives targeting the arts as it challenges the notion that only sustained involvement in the arts (participation over a long period of time) typically associated with community arts project may produce socially desirable effects. Ultimately, this analysis underscores the importance of arts as another strategy for securing citizen engagement. If a

decline in associational life in the U.S. is a concern of modern public policymaking, the arts should not be disregarded as a means of promoting active citizenry.

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**Table 1:
Variables and Measures**

Variables	Median/SD	Min/Max	Measures
Civic Engagement Index	12.48/4.72	7/28	An index variable constructed from 7 questions indicating the frequency of respondents' participation in church, neighborhood associations, other associations, sports groups, charitable organization, political party, trade union in the last year, each measured on a 1-4 scale, with 1 indicating non-participation and 4 indicating the most frequent participation. Index ranges from 7 to 28. 0.8
Gay Tolerance Index	2.42/1.007	0/3	An index constructed from 3 questions asking respondents whether or not they would allow homosexuals to 1) speak in their community 2) to teach, and 3) whether or not they would be opposed to having homosexual books in the library. For each item, 0 indicates a "no" response and 1 indicates a "yes" response. The index ranges from 0 to 3 with higher values indicating greater tolerance.
Racial Tolerance Index*	19.24/5.6	3/27	An index constructed from 3 questions asking respondents how they feel towards each of the following racial/ethnic groups: African-Americans, Hispanics, and Asian Americans.. For each racial groups respondents are asked to indicate on a scale of 1-9 how warm they feel toward each group, with 1=very cool and 9= very warm. Index therefore ranges from 3 to 27. 0.87
Altruism Index	23.81/6.29	11/50	An index variable is constructed by summing 11 questions asking respondents how often they had demonstrated "other-regarding" behaviors in the last year: allowed a stranger to go ahead of them in line, carried a stranger's belongings, donated blood, gave directions to a stranger, loaned someone an item of value, looked after a neighbor's plants, mail or pets, returned money when given too much change, volunteered for a charity, donated money to a charity, offered seat to a stranger, given food or money to a homeless person.
Audience-Based Arts Participation Index	1.50/1.56	0/6	An index variable constructed from 3 questions asking respondents whether they had attended an artistic event in the last year, including , live drama, dance performance, or museum or arts gallery, with 0 indicating that they have not attended any of these events and 3 indicating that they have attended all of the events.
Personal Art Practice (Perform Drama)	.10/.30	0/1	A dichotomous variable is constructed from a question asking whether respondents had performed music, dance, or theater in the last year, coded 1 if they have performed and 0 if they have not performed.
Personal Art Practice (Play Music)	.20/.40	0/1	A dichotomous variable is constructed from a question asking whether respondents had played a musical instrument in the last year, coded 1 if they have played and 0 if they have not played.
Personal Art Practice (Make Art)	.41/.49	0/1	A dichotomous variable is constructed from a question asking whether respondents had

			made an object of art, coded 1 if they have made and 0 if they have not made.
Age	46.30/17.39	18/89	An interval variable measuring respondents' age.
Education	13.36/2.97	0/20	An interval variable measuring respondents' highest year of school completed, ranging from 0 (no schooling) to 20.
Income	13.72/5.64	1/23	An interval variable measuring respondents' income, ranging from 1 (<1,000) to 23 (> 110,000).
Gender	.55/.49	0/1	A dichotomous variable, coded 1 if respondent is female and 0 if respondents are male.
Race	.20/.40	0/1	A dichotomous variable, coded 1 if respondent is a racial minority and 0 if respondents are Caucasian.
New England	.05/.22	0/1	A dichotomous variable, coded 1 if respondents are from New England, and 0 if not.
Middle Atlantic	.15/.36	0/1	A dichotomous variable, coded 1 if respondents are from the Middle Atlantic region, and 0 if not.
East North Central	.17/.38	0/1	A dichotomous variable, coded 1 if respondents are from the East North Central region, and 0 if not.
West North Central	.08/.27	0/1	A dichotomous variable, coded 1 if respondents are from the West North Central region, and 0 if not.
South Atlantic	.17/.38	0/1	A dichotomous variable, coded 1 if respondents are from the South Atlantic region, and 0 if not.
East South Central	.072/.25	0/1	A dichotomous variable, coded 1 if respondents are from the East South Central region, and 0 if not.
West South Central	.08/.28	0/1	A dichotomous variable, coded 1 if respondents are from the West South Central region, and 0 if not.
Mountain	.060/.23	0/1	A dichotomous variable, coded 1 if respondents are from the Mountain region, and 0 if not.
Pacific	.13/.34	0/1	A dichotomous variable, coded 1 if respondents are from the Pacific region, and 0 if not.

**Table 2:
Does Arts Participation Increase Civic Engagement?**

	Model 1		Model 2		Model 3		Model 4	
	B	t-value	B	t-value	B	t-value	B	t-value
Audience-based arts participation	1.256*** (.187)	6.70	--	---	---	---	---	---
Personal participation (make art)	---	---	1.734*** (336)	5.16	---	---	---	---
Personal participation (perform dance or theatre)	---	---	--	---	1.082* (.586)	1.85	---	---
Personal participation (play music)	---	---	--	---	---	---	1.057** (.418)	2.53
Age	.031*** (.012)	2.62	.038 (.012)	3.06	.037*** (.012)	2.94	.037*** (.012)	2.95
Education	.238*** (.076)	3.13	.375 (.075)	4.99	.386*** (.076)	5.02	.373*** (.077)	4.82
Income	.008 (.032)	0.25	.022 (.034)	0.64	.013 (.034)	0.40	.017 (.034)	0.51
Sex (female)	-.266 (.331)	-0.80	-.332 (.333)	-1.00	-.041 (.340)	-0.12	.018 (.340)	0.05
Race (minority)	-.163 (.412)	-0.40	.086 (.428)	0.20	-.252 (.429)	-0.59	-.165 (.426)	-0.39
Region New England	-.434 (.838)	-0.52	-.132 (.816)	-0.16	-.024 (.840)	-0.03	-.049 (.862)	-0.06
Region Mid-Atlantic	-1.638*** (.566)	-2.89	-1.662 (.570)	-2.91	-1.531*** (.586)	-2.61	-1.564*** (.588)	-2.66
Region East North Central	-.231 (.555)	-0.42	-.301 (.556)	-0.54	-.175 (.566)	-0.31	-.218 (.568)	-0.39
Region West North Central	-.144 (.673)	-0.21	-.319 (.700)	-0.46	.013 (.704)	0.02	.001 (.705)	0.01
Region East South Central	-.713 (.683)	-1.04	-.981 (.712)	-1.38	-.867 (.730)	-1.19	-.925 (.735)	-1.26
Region West South Central	-.521 (.734)	-0.71	-.525 (.752)	-0.70	-.417 (.759)	-0.55	-.412 (.756)	-0.55
Region Mountain	-.846 (.800)	-1.06	-.789 (.785)	-1.00	-.558 (.786)	-0.71	-.563 (.796)	-0.71
Region Pacific	-.697 (.590)	-1.18	-.824 (.593)	-1.39	-.648 (.613)	-1.06	-.663 (.605)	-1.10
Constant	7.556*** (1.178)	6.41	5.554 (1.140)	4.87	6.020*** (1.195)	5.04	6.007*** (1.183)	5.07

R^2	.148		.124		.098		.101	
F	9.24***		7.59***		5.01***		5.43***	
Root MSE	4.376		4.435		4.5015		4.4931	
n (observations)	759		760		760		760	
***p<.01, **p<.05, *p<.10; Robust standard errors are reported in parentheses								

**Table 3:
Does Arts Participation Increase Social Tolerance (Attitudes toward homosexual population)?**

	Model 1		Model 2		Model 3		Model 4	
	B	t-value	B	t-value	B	t-value	B	t-value
Audience-based arts participation	.111*** (.040)	2.76	---	---	---	---	---	---
Personal participation (make art)	----	----	.130* (.078)	1.66	---	---	---	---
Personal participation (perform dance or theatre)	----	----	---	---	.133 (.097)	1.37	---	---
Personal participation (play music)	----	----	---	---	---	---	.202** (.079)	2.55
Age	-.007** (.002)	-2.36	-.006** (.002)	-2.05	-.006** (.002)	-2.09	-.006** (.002)	-2.08
Education	.072*** (.017)	4.15	.085*** (.016)	5.29	.086*** (.016)	5.27	.081*** (.016)	4.87
Income	.004 (.007)	0.57	.005 (.007)	0.74	.004 (.007)	0.62	.005 (.007)	0.74
Sex (female)	.180** (.075)	2.39	.183** (.075)	2.43	.204*** (.074)	2.75	.217*** (.074)	2.92
Race (minority)	-.080 (.104)	-0.77	-.065 (.106)	-0.62	-.087 (.105)	-0.83	-.083 (.104)	-0.80
Region New England	.419*** (.127)	3.29	.0424*** (.127)	3.34	.436*** (.129)	3.37	.429*** (.128)	3.33
Region Mid-Atlantic	.338** (.131)	2.57	.318** (.131)	2.42	.341** (.131)	2.59	.330** (.132)	2.50
Region East North Central	.317** (.131)	2.42	.298** (.130)	2.29	.317** (.130)	2.43	.300** (.130)	2.30
Region West North Central	.279 (.149)	1.87	.253* (.149)	1.70	.276* (.148)	1.86	.271* (.147)	1.85
Region East South Central	-.453** (.207)	-2.19	-.495** (.206)	-2.40	-.486** (.209)	-2.33	-.485** (.207)	-2.34
Region West South Central	.079 (.188)	0.42	.072 (.193)	0.38	.070 (.191)	0.37	.074 (.190)	0.39
Region Mountain	.272 (.183)	1.49	.274 (.185)	1.48	0.304 (.185)	1.65	.289 (.184)	1.57
Region Pacific	.264* (.134)	1.96	.244* (.135)	1.81	.256* (.135)	1.89	.265** (.134)	1.97
Constant	1.398*** (.273)	5.11	1.207*** (.263)	4.59	1.242*** (.262)	4.74	1.255*** (.265)	4.73

R^2	.178		.172		.169		.175	
F	7.55***		6.77***		6.47***		7.00***	
Root MSE	.88575		.88931		.89051		.88759	
n (observations)	576		576		576		576	
***p<.01, **p<.05, *p<.10; Robust standard errors are reported in parentheses								

**Table 4:
Does Arts Participation Increase Social Tolerance (Attitudes towards Racial/Ethnic Minorities)?**

	Model 1		Model 2		Model 3		Model 4	
	B	t-value	B	t-value	B	t-value	B	t-value
Audience-based arts participation	.709*** (.202)	3.51	---	---	---	---	---	---
Personal participation (make art)	---	---	.493 (.381)	1.29	---	---	---	---
Personal participation (perform dance or theatre)	---	---	---	---	.900 (.591)	1.52	---	---
Personal participation (play music)	---	---	---	---	---	---	.670 (.458)	1.46
Age	-.034** (.014)	-2.47	-.029** (.014)	-2.11	-.029** (.014)	-2.10	-.029** (.014)	-2.08
Education	.169* (.078)	2.16	.245*** (.076)	3.20	.239*** (.076)	3.12	.234*** (.077)	3.04
Income	.050 (.038)	1.32	.055 (.039)	1.43	.056 (.039)	1.44	.056 (.039)	1.44
Sex (female)	.915** (.384)	2.38	.975** (.388)	2.51	1.065*** (.383)	2.78	1.092*** (.385)	2.83
Race (minority)	1.437*** (.494)	2.91	1.443*** (.500)	2.88	1.335*** (.497)	2.69	1.392*** (.496)	2.80
Region New England	1.135 (.793)	1.43	1.300 (.812)	1.60	1.341* (.808)	1.66	1.323 (.805)	1.64
Region Mid-Atlantic	.739 (.675)	1.09	0.771 (.678)	1.14	.834 (.676)	1.23	.813 (.678)	1.20
Region East North Central	1.033 (.630)	1.64	1.076* (.637)	1.69	1.130* (.636)	1.77	1.090* (.636)	1.71
Region West North Central	-.167 (.674)	-0.25	-.145 (.696)	-0.21	-.033 (.690)	-0.05	-.041 (.695)	-0.06
Region East South Central	-.336 (.853)	-0.39	-.487 (.857)	-0.56	-.432 (.854)	-0.51	-.458 (.848)	-0.54
Region West South Central	1.851** (.793)	2.33	1.894** (.788)	2.40	1.896** (.788)	2.40	1.908** (.788)	2.42
Region Mountain	1.202 (.801)	1.50	1.29 (.815)	1.59	1.390* (.804)	1.73	1.357* (.812)	1.67
Region Pacific	1.351** (.645)	2.09	1.341** (.645)	2.08	1.403** (.646)	2.17	1.395** (.647)	2.16
Constant	15.33*** (1.294)	11.85	14.364 (1.297)	11.07	14.485*** (1.298)	11.16	14.474*** (1.296)	11.17

R^2	0.076		0.064		0.065		0.065	
F	4.78***		3.94***		4.02***		3.91***	
Root MSE	5.2973		5.3335		5.3313		5.3319	
n (observations)	858		859		859		859	

**Table 5:
Does Arts Participation Increase 'Other-Regarding' Behavior?**

	Model 1		Model 2		Model 3		Model 4	
	B	t-value	B	t-value	B	t-value	B	t-value
Audience-based arts participation	1.693*** (.230)	7.35	---	---	---	---	---	---
Personal participation (make art)	---	---	2.908*** (.430)	6.75	---	---	---	---
Personal participation (perform dance or theatre)	---	---	---	---	2.730*** (.687)	3.97	---	---
Personal participation (play music)	---	---	---	---	---	---	1.788*** (.512)	3.49
Age	.001 (.015)	0.08	.011 (.015)	0.72	.011 (.016)	0.69	.010 (.016)	0.63
Education	.169** (.081)	2.07	.337*** (.078)	4.32	.347*** (0.81)	4.26	.337*** (.082)	4.11
Income	-.044 (.042)	-1.04	-.023 (.042)	-0.54	-.031 (.042)	-0.74	-.028 (.043)	-0.65
Sex (female)	-.582 (.417)	-1.39	-.785 (.420)	-1.87	-.282 (.421)	-0.67	-.220 (.423)	-0.52
Race (minority)	.145 (.548)	0.27	.450 (.559)	0.81	-.083 (.564)	-0.15	.075 (.562)	0.13
Region New England	-.456 (.827)	-0.55	-.164 (.872)	-0.19	.043 (.866)	0.05	.014 (.883)	0.02
Region Mid-Atlantic	-1.778** (.714)	-2.49	-1.795** (.725)	-2.47	-1.513** (.742)	-2.04	-1.600** (.742)	-2.16
Region East North Central	-.629 (.683)	-0.92	-.811 (.685)	-1.18	-.506 (.696)	-0.73	-.614 (.692)	-0.89
Region West North Central	1.007 (.813)	1.24	.744 (.810)	0.92	1.341* (.801)	1.67	1.324 (.811)	1.63
Region East South Central	-.833 (.923)	-0.90	-1.204 (.906)	-1.33	-1.012 (.959)	-1.06	-1.071 (.951)	-1.13
Region West South Central	.379 (.852)	0.44	.358 (.863)	0.42	.423 (.883)	0.48	.506 (.899)	0.56
Region Mountain	.467 (1.027)	0.46	.415 (1.027)	0.40	.957 (1.021)	0.94	.858 (1.033)	0.83
Region Pacific	.397 (.744)	0.53	.231 (.747)	0.31	.536 (.769)	0.70	.518 (.770)	0.67
Constant	21.808*** (1.417)	15.39	19.126*** (1.332)	14.35	19.690*** (1.404)	14.02	19.721*** (1.404)	14.04

R^2	0.110		0.102		0.070		0.065	
F	7.06***		7.34***		4.49***		4.19***	
Root MSE	5.8486		5.881		5.9858		6.0018	
n (observations)	855		856		856		856	
***p<.01, **p<.05, *p<.10; Robust standard errors are reported in parentheses								

**Table 6:
Summary of Hypotheses and Results**

H1 (a) Individuals who engage in higher levels of audience-based arts participation will demonstrate higher rates of civic engagement.	Confirmed
H1 (b) Individuals who engage directly in artistic activity will demonstrate higher rates of civic engagement.	Confirmed
H2 (a) Individuals who engage in higher levels of audience-based arts participation will demonstrate greater levels of social tolerance.	Confirmed
H2 (b) Individuals who engage directly in artistic activity will demonstrate greater levels of social tolerance.	Partially confirmed
H3 (a) Individuals who engage in higher levels of audience-based arts participation will demonstrate greater levels of other-regarding behavior.	Confirmed
H3 (b) Individuals who engage directly in artistic activity will demonstrate greater levels of other-regarding behavior.	Confirmed

ⁱ Although cognitive scientists remain skeptical about the direct effects of arts learning on academic performance, they nevertheless acknowledge the links between aesthetics and “higher order cognition” involved in analysis, interpretation and problem solving.

ⁱⁱ While some scholars argue that civil society includes all non-state actors: “the good, the bad, and outright bizarre” (Carothers and Barndt 1999-2000, p. 20), we subscribe to the notion that civil society is “good” society (Edwards 2003, p.37-53) which excludes violence and in which positive norms and behaviors are enhanced and promoted.

ⁱⁱⁱ Landry (1996) and Matarasso (1997) do not separate individual level effects and community impacts of the arts in their studies while Guetzkow (2002) argue that some “individual level impacts, such as ‘personal enjoyment,’ may not have any consequence on community life” (p. 4). McCarthy and Zakaras draw a distinct line between instrumental (educational, economic and social) and intrinsic (aesthetic) benefits of the arts.

^{iv} Informal arts are defined as popular creative activities that fall outside traditional nonprofit and commercial arts experiences (Wali et al. 2002).

^v The study examines the four forms of participation in arts and culture - attendance, amateur art-making, socialization of children, and financial or volunteer support - and their relationship to to one another and to participation in civic, religious, and community activities.

^{vi} The GSS contains a standard core of demographic, behavioral, and attitudinal questions, plus topics of special interest. Audience-based arts participation and personal arts participation questions, as well as some of the civic engagement questions are classified as ‘topics of special interest’ and thus have not been collected every year. Our analysis employs the 2002 dataset because this is the most recent year in which NORC collected data on audience-based participation in the arts, and personal arts participation.

^{vii} Novak-Leonard and Brown (2008) advance a “multi-modal” definition of arts participation that includes participation across three modes – audience based attendance of arts events, direct participation in artistic activities and creation of arts, and media based participation. Due to missing data in the 2002 GSS dataset related to media-based participation, we include only audience-based and direct participation variables in our models. We assume that in 2002 media based arts participation was not yet widespread.

^{viii} Whereas there was high inter-item correlation among the audience-based arts participation measures to justify a scale, personal arts participation were not highly correlated. The alpha for the three personal arts participation variables was .303, suggesting that individuals who personally participate in one of these art forms are not especially likely to participate in the other forms of personal artistic activity. Therefore, it was more appropriate to examine the impacts of each of these personal arts participation measures individually on the various dependent variables, rather than construct an index of these items.