

Access to Culture and Arts Policy:

Does Arts Funding Promote Access to Cultural Consumption in the US?

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Abstract

One of the main stated goals of agencies funding the arts is improving the access to cultural consumption. The promotion of access implies a disconnect between cultural consumption and individual attributes such as income and geographical location that are a function of social stratification and known to affect consumption. This paper presents an empirical study of the effect of arts funding on access to cultural consumption in the US. Access to cultural consumption is analyzed by measuring the effect of public funding of the arts on the strength of the link between individual attributes and cultural consumption. Using cultural consumption data from the Survey of Public Participation in the Arts (SPPA) in 2002, 2008 and 2012 and arts funding data from the National Endowment for the Arts (NEA) and the National Assembly of State Arts Agencies (NASAA), I estimate the interaction between funding levels and specific factors linked to barriers to consuming culture such as income, geographical location, education and race. The interactions in a logistic regression model show that arts funding does have a positive effect on access in some cases. However, in other cases such funding may have the opposite effect and benefit the groups that are already involved in cultural consumption, thereby reducing access rather than increasing it.

1 Introduction

One of the goals of cultural policy is increasing the availability and accessibility of culture through various means such as public arts funding on the national and local levels (Katz-Gerro 2011). Cultural policy that is directed specifically towards the field of artistic production, and therefore referred to frequently as *arts policy*, is meant to bring about concrete outcomes such as influencing the way art is produced and consumed (Mulcahy 2006). However, the attempt to balance the sometimes conflicting goals of providing access and supporting excellence, and different governmental roles with respect to the arts makes these outcomes difficult to predict (Craik, McAllister, and Davis 2003). Moreover, the outcomes of arts policy are also difficult to measure, be it for lack of adequate data or the absence of accepted indicators (O'Hagan 1998). In this paper I study the link between public arts funding and the main policy goal of providing access to arts. As part of this examination, I suggest a method with which to assess the implications of arts funding on access empirically. To do so, I use data from federal and state arts funding agencies in the US and information about the levels of cultural consumption between 2002 and 2012.

2 Background

2.1 Access to art

Access to art has long been a main goal of arts funding agencies, particularly in the US (Wyszomirski 2000). In 1965, Senator Jacob Javits, one of the key figures in the establishment of the National Endowment for the Arts said that, “The proposed [NEA] foundation would encourage the growth of arts throughout the United States; by

promoting equal opportunity for all Americans to view art, it would democratize *access* to high culture [emphasis added]” (Binkiewicz 2004). In a more recent statement, the National Assembly of State Arts Agencies gave the following answer to the question of what state arts agencies do: “State arts agencies increase public *access* to the arts... [emphasis added]”.¹

O’Hagan (1998) examines the issue of access to cultural consumption in the general framework of equality in cultural consumption. He distinguishes among three levels of equality of access that are related to cultural consumption. First, *equality of rights* pertains to the “absence of legal and institutionalized barriers to entry in a given institution or system” (ibid., 54). This minimal level of accessibility exists in most contemporary Western countries where explicit discriminatory practices are not legitimate. Second, *equality of opportunity* involves facilitating and encouraging the cultural consumption and participation of sectors in society that tend to be under-represented in consumption activities. Promoting equality of opportunity involves active measures such as lowering entry charges, advertising and education, all of which require resources that often come from public funding. Third, *equality of participation* is the outcome of the first two levels of equality and is manifested in the actual rate of consumption of cultural activities. Given that the complete equality of participation is improbable, we should not think of access as a binary concept of yes/no, of complete access or lack of access. Rather, access should be operationalized as a continuous measure that can take several values and range from low to high. What is lacking in O’Hagan’s useful formulation of access is a more detailed account of the various forms

of participation and the barriers to access that are related to the cultural disposition to consume the arts and appreciate them.

Eisentraut (2012) disaggregates the term “access to art,” differently from O’Hagan’s formulation, and emphasizes other dimensions of access. His book focuses on the accessibility of music, but his general approach is applicable to other types of performing arts as well. He defines *Level I accessibility* as the physical exposure to art, namely, the ability to choose to be exposed to it. This involves having the opportunity to find art, and the financial wherewithal to afford it and gain physical access to it, which depends on factors such as local supply, individual income and the price of art. *Level II accessibility* relates to personal receptivity to the art and the individual’s ability to enjoy it or decode it in a meaningful way. This ability is linked to cultural aesthetic dispositions, which are related to different ethnic and racial backgrounds and to education in the arts. Finally, *Level III accessibility*, which Eisentraut calls “participation,” is defined as the ability to take part in the actual performance or creation of art.² Eisentraut’s and O’Hagan’s accounts of access complement each other. While O’Hagan describes different levels of structural obstacles that must be overcome before engaging in the act of cultural consumption, Eisentraut presents various dimensions of engagement with the performing arts themselves. As Figure 1 illustrates, having rights and opportunity are preconditions for the consumption of culture or active participation in the arts. It should be noted, that even though Eisentraut refers to active participation as a higher level of accessibility than mere consumption, the two are actually separate. For example, in traditional communities women may have fewer rights or opportunities to actively participate in arts performance (as exemplified in the ban on women singing in a mixed setting in ultra-Orthodox

Judaism or the small number of women jazz and rock instrumentalists) without this being associated with reduced access to cultural consumption (Buscatto 2007). Consumption of art is, by definition, a prerequisite for the reception of art, but that ability, meaning tolerating, enjoying and understanding it, also affects the actual consumption of art. Thus, the ability to be receptive to art is also a determinant of the access to cultural consumption.

--- FIGURE 1 ABOUT HERE ---

The notion of access is built on the premise that cultural consumption would be more widespread if it were not for barriers that prevent it. Increasing access actually means removing the barriers that prevent potential art consumers from realizing their desires or preferences. A recent study in Europe found that the main barriers to cultural consumption were lack of time and lack of money. Lack of interest, lack of information and limited choice were also mentioned as barriers to consumption (Eurostat 2011). Based on these findings, I develop a theoretical framework that focuses on the main variables linked to individual access to arts. For example, the *lack of interest* barrier is a case where access is limited by one's *receptiveness to art*. This ability is linked to cultural dispositions that may stem from one's ethnic, racial or educational background. Other barriers such as *lack of money* or *limited choice* are linked to *opportunity* structures arising from factors such as level of income or geographical location. Accordingly, my proposed framework considers race, education, income and geographical location as the primary indicators of the link between public funding and access to arts.

Unfortunately, the academic literature pays limited attention to measures and studies of access to arts even though access has been, and still remains, one of the primary goals for arts funding providers. The examination of the impact of funding on access merits special attention and leads to my main research question: Does arts funding affect access to cultural consumption? In the next section I present some of the prior attempts to study the impact of arts funding on various aspects of cultural consumption and production.

2.2 Research on the impact of arts funding

Even though one might expect that the tendency towards ‘evidence-based’ policy would result in studies evaluating arts funding, the scarcity, poor quality and non-uniformity of cultural data have impeded the creation of such a body of literature (Madden 2005). Prior research that tried to use quantitative analysis to study the impact of arts subsidies on the production and consumption of arts is either limited in application and outdated (Netzer 1978; Throsby and Withers 1979) or focused on the production side, not on consumption (Madden 2011; O’Hagan and Neligan 2005; Neligan 2006).

However, we can speculate that different organizational outcomes may influence access to art. Neligan and O’Hagan (Neligan 2006; O’Hagan and Neligan 2005) find that public funding affects the conventionality of the repertoire of theaters in Germany and England. Theaters that receive higher levels of public funding tend to make less conventional repertory decisions. Conventionality in art is, of course, relative, but we can assume that the *reception* of non-conventional theater pieces is more difficult and that their consumption may be less accessible to a wider public. A similar conclusion can be drawn from Frey and Pommerehne’s (1990) claim that public funding may encourage arts organization to raise the quality of their performance to a level undesired by their

audiences. However, as an analysis of the repertoire of opera companies in the US shows, this effect depends on the source of the funding (Pierce 2000). While federal funding from the NEA (see below) encourages opera companies to make more “risky” repertory decisions, local funding promotes conventionality. A similar study conducted on symphony orchestras did not yield definite results (Luksetich and Hughes 2008). However, given the results of these studies, I will analyze separately public funding allocated by different levels of government.

Other studies take a more general look at arts organizations as a specific type of non-profit organization. As such, these studies stress the importance of external funding sources and the fact that a decline in or shortage of one source of income may promote attempts to increase revenue from other sources (Brooks 2000; Rosenstein 2010; Hughes and Luksetich 1999). Some scholars claim that increasing ticket prices may offset a decline in public funding (Hager 2001; Frey and Pommerehne 1990). Similarly, an increase in public funding will allow arts organization to reduce ticket prices, improving the *opportunity* for cultural consumption and raising the level of access.

To conclude, there are only a few studies that have empirically assessed the effect of public funding on arts organizations. These studies do not deal directly with the topic of access, but they describe behaviors generated by public funding that may influence the level of access to the arts. Instead of examining the myriad ways in which different organizational behaviors can affect access, I assess how levels of public funding are linked to different indicators of access by looking at broad categories of art.

Arts funding in the US provides an interesting case study of the impact of public arts funding on access for two main reasons. First, the level of arts funding varies considerably among states, providing a good basis for comparison. Second, a thorough Survey of Public Participation in the Arts (SPPA) is conducted every few years, which provides detailed information about the distribution of cultural consumption. The following section describes the ways in which art is publicly funded in the US on the federal and state levels.

2.3 Public arts funding in the US

Unlike the situation in most European countries, public arts funding in the US is a minor source of external funding for arts organizations. In the US, the majority of external revenues of arts organizations come in the form of private funding, either from corporate, foundation or individual donations. Still, public arts funding is an important and substantial source of money for American arts organizations, reaching more than \$1 billion dollars in 2012.³ Such funds are allocated on three governmental and geographical levels: (1) the federal level by the National Endowment of the Arts (NEA), (2) the state level by State Arts Agencies (SAA) and (3) the local level by various local agencies (Mulcahy 2002).

2.3.1 The NEA

The National Endowment for the Arts (NEA) was founded in 1965 by the American Congress and President Lyndon B. Johnson as part of The Great Society's social reforms that also included health and welfare programs (Blanchard 2006). The NEA was created from a juxtaposition of several declared goals: "Achieving social uplift, expressing the benefits of American freedom and democracy, and increasing access to artistic

excellence...” (Binkiewicz 2004, 94). Despite the fact that it is a federal agency, it functions independently from the government itself, which does not guide the allocation of grants but does control the size of its total budget. The NEA’s budget suffered heavy cutbacks in the 1990s after the Republican Party gained control of Congress. This trend was reversed in 2008 after the Democratic Party recouped its power. The NEA allocates grants mainly to professional arts organizations all over the United States and to a smaller extent provides direct grants to artists (Lewis and Rushton 2007).

2.3.2 State arts agencies (SAAs)

State art agencies began appearing in the 1960s, and by 1974 all of the states had their own state agency in one form or another (Noonan 2007).⁴ Today, 28 state art agencies are independent, 11 are a part of the state’s department of cultural affairs and the rest are located elsewhere in the state’s government organizational structure . The state art agencies get their funding mostly from legislative appropriations but also receive some money from the NEA’s budget and other state funds (Mulcahy 2002). The state art agencies give out thousands of grants (e.g., 22,305 grants in 2011) that are directed mostly to arts organizations. However, they do fund individual artists and art education organizations (National Assembly of State Arts Agencies 2012).

In the 1970s the SAA’s joint appropriations for arts were smaller than those of the NEA, but as the former grew larger and the latter gradually declined, the balance shifted. Since 1985, the state arts agencies together have spent substantially more than the NEA (Lowell 2008). In 2002-2007, for instance, SAAs spent \$2,030 million dollars, three times more than the \$722 million dollars spent by the NEA in the same period.

When founded, the main objectives of the state arts agencies were to ensure access to arts experiences for all Americans, maintain local control over the public funding of the arts, and promote political support for their public funding (Lowell 2004). According to the website of the State Art Agencies, “State arts agencies increase *public access* to the arts and work to ensure that every community in America enjoys ... [the] benefits of a thriving arts sector [emphasis added].”⁵

2.3.3 Other funding sources

Other sources of external funding for arts organizations in the US include money from local arts organizations and private sources. Local arts agencies (LAAs) all over the US are the largest source of public funding for arts organizations. There are about 4,000 local art agencies operating either at the city or county level (National Endowment for the Arts 2004). For example, the 2007 Washington State Local Arts Agency Directory lists 56 such agencies (Van Hollebeke 2008). The average appropriations of these agencies are very low relatively to the NEA and the SAAs, but totaled together, their appropriations are substantially larger than the grants from these other two sources combined together. Nevertheless, in most cases previous research did not find a consistent, significant correlation between local and state and federal arts funding. Therefore, excluding the levels of LAA funding from the models should not bias the results obtained for other sources of funding (Hughes and Luksetich 1999).

Private donations are another income source, which in the US account for the major source of revenue for arts organizations. Studies show that in the US, the level of public funding generally has a positive effect on the level of private donations (Borgonovi 2006;

Smith 2007; Brooks 1999). For the purpose of this paper, this link can be regarded as another possible mechanism that mediates the effect of funding on access.

2.4 Operationalization of access

I suggest a new approach for the operationalization of the concept of access. To study the effect of funding on access, I propose estimating the interaction between funding levels and specific factors linked to barriers to the consumption of arts such as income, geographical location, income and race. The interaction between the level of funding and the barrier variables indicates whether funding moderates the constraining effect that the barrier has on consumption. For example, income is a barrier that limits access to art. Individuals with lower income levels are less likely to attend or participate in art activities, *ceteris paribus* (Chan 2010; Katz-Gerro 2011; Peterson, Hull, and Kern 2000). Indeed, some consumers of art attest to the fact that their economic situation is an obstacle to the consumption of art (Kirchberg 1998; Eurostat 2011). Hence if we regress the level of consumption on the level of income, controlling for other relevant variables, we expect to find a significant positive effect. In addition, in the regression I also include an interaction term between funding and income. This interaction term indicates whether the effect of income on consumption differs depending on funding levels. If we find that there is a negative interaction between funding and income, it follows that higher levels of funding attenuate the positive effect of income on cultural consumption (see Figure 2). Hence, funding increases the *opportunity* to access art, which is linked to the income barrier. In such a situation, we could conclude that arts funding influences the effect that income has on consumption.

--- FIGURE 2 ABOUT HERE ---

Based on the model of access presented in section 2.1, I also explore the effect of public arts funding on two barriers to access that are linked to the *opportunity* structure--income and geographical location--and two access barriers that are linked to the *consumption/reception* type of access: race and education. Previous research has determined that these variables affect cultural consumption (Katz-Gerro 2011; Bourdieu 1984; DiMaggio and Ostrower 1990; Eurostat 2011).

3 Research Questions

Based on the literature review, this paper investigates whether arts funding affects access to cultural consumption. To determine an answer, I ask the following specific questions:

1. Does arts funding influence the effect of income on cultural consumption?
2. Does arts funding influence the effect of race on cultural consumption?
3. Does arts funding influence the effect of geographical location on cultural consumption?
4. Does arts funding influence the effect of education on cultural consumption?

4 Method

4.1 Data

4.1.1 Data about cultural consumption

The data about cultural consumption in this paper come from the 2002, 2008 and 2012 surveys of public participation in the arts (SPPA), which was administered as a supplement to the Current Population Survey (CPS) conducted by the US Census Bureau of Labor Statistics. Households in the CPS survey were selected by a multistage,

stratified, statistical sampling scheme, and a randomly selected one-quarter of them were also given the SPPA survey. For example, the response rates for the 2008 and 2002 SPPA surveys were 81.6% and 69.6% respectively.

4.1.2 Data about arts funding

Data about funding for the arts from the NEA come from the NEA's research department and include the sums of money that were apportioned to art organizations and artists in various states in the past decades. Data about funding for the arts from the SAA come from the National Assembly of State Arts Agencies (NASAA), which publishes the *State Arts Agency Public Funding Sourcebook* listing the legislative appropriations of all of the American state art agencies.

4.1.3 Additional data

Additional data on the states' population were obtained from the US Census Bureau's website. Information about the states' GDP comes from the Bureau of Economic Analysis for all of the relevant years.

4.2 Analysis method

I use a logistic regression to study how individual level characteristics and state arts funding affect the odds of participating in different cultural consumption activities. The logistic regression method allows researchers to isolate the specific effect of each characteristic and determine whether it promotes or impedes the chances of being involved in various sorts of cultural consumption activities. Since the models contain both individual and state level predictor variables, I use state clustered standard errors adjustments. The number of states in the data is large enough for a reliable inference

using clustered standard errors adjustments (Angrist and Pischke 2008). I do not use a multi-level regression model because the cultural consumption variables exhibit a very low intra-class correlation – between 2% and 4% (except opera, which is still at a low 9%). Washington D.C. has its own state arts agency and receives funding from the SAA. However, due to its special status as a state capital jurisdiction and not a state, and due to its small number of inhabitants, it exhibits extreme values of funding per capita. In order not to bias the results with outliers stemming from the data pertaining to Washington, D.C., I excluded it from the models.

4.3 Variables

4.3.1 Dependent variables: Cultural consumption

The dependent variables are indicators related to the consumption of 11 different cultural consumption items: jazz, salsa music, classical music, opera, musicals, plays, ballet, other dance forms, art museums, art fairs and festivals. The festivals and salsa items appear only starting with the 2008 survey. The variables are yes/no questions indicating whether the respondent participated in or attended any of the arts activities anytime in the previous 12 months.

4.3.2 Exploratory factor analysis

I use exploratory factor analysis to identify content dimensions within the cultural consumption items. The factor analysis is based on a tetrachoric correlation matrix, because the variables are binary variables that stem from questions in the format, “In the last 12 months did you attend a <specific item> performance/event?”

I first conducted an exploratory factor analysis of the entire sample of three different surveys from three different years. The factor analysis uses the pairwise computed tetrachoric correlation matrix. The number of observations in each pair ranges from N=27,334 (and similar numbers for items that were included in only some of the surveys) to N=52,757 (and similar numbers for items included in all of the surveys). The number of factors was determined by eigenvalue criteria (eigenvalue greater than one). The results yielded a two-factor solution.

The general structure that emerges from the results of the exploratory analysis consists of two main categories--highbrow items such as classical music, opera, musicals, plays, ballet and art museums--and popular outdoor popular activities such as arts and crafts fairs and art festivals. Three of the consumption items--dance (not ballet), salsa and jazz--did not fit in either category. To determine whether these three items could form a third group, I ran the exploratory factor analysis again imposing a three-factor solution.

--- TABLE 1 ABOUT HERE ---

Table 1 presents the results of this analysis and provides some support for the contention that jazz, salsa and dance could be treated as a third category. Running the exploratory factor analysis with an imposed three-factor solution on the years separately lends further support for including these items together as a third category.

I labeled these three categories:

Highbrow classical - classical music, opera, musicals, plays, ballet and art museums

Contemporary performance – dance (not ballet), salsa and jazz

Popular outdoor - arts and crafts fairs, and art festivals

In constructing the factor variables, I retained the binary structure of the single items of which they are composed. I coded each factor as 0 if the respondent did not participate in any of the activities included in the category, and 1 if she participated in at least one of these activities.

4.3.3 Independent variables: Individual level

A set of independent variables was used in the models as predictors of cultural consumption (Peterson, Hull, and Kern 2000). While these independent variables are the main determinants of cultural consumption, they have secondary importance in this study and serve as control variables. Given that the focus of this study is on the impact of arts funding, including the following independent variables in the models is meant to ensure that the variance explained by the levels of federal and state arts funding is not alternatively explained by other individual factors. The following individual level variables are included in the models:

Income –measured as a range of family income. The 2008 and 2012 questionnaires contain a detailed set of income categories. They were collapsed to comply with the less detailed 2002 survey income categories.

Education –measured as six categories of educational level ranging from 1=Less than 9th grade and moving through Some high school, High school graduate (or GED), Some college, College graduate, to 6=Advanced or graduate degree.

Gender – male/female (0/1)

Marital status – married/other (0/1)

Race – white/black/other

Age – measured in years

Type of residence locality – metropolitan /non-metropolitan

Household size – number of residents in the household

4.3.4 Independent variables: State level

Two variables measure the level of arts funding on the state level: NEA and SAA funding per capita.

NEA per capita– This variable measures the sum of the direct grants allocated to artists and art organizations within each state, divided by the state’s population. This total does not include the subset of NEA expenditures that are granted to the different SAAs. In order not to double-count the NEA appropriation to the SAAs, those portions are excluded from the NEA variable and included in the SAA variable. The expenditure is expressed in per capita form.

SAA per capita – This variable measures the sum of legislative appropriations of the different state arts agencies divided by the state’s population. This total also includes the portion of the SAA’s budget that comes from the NEA. The sum is expressed in per capita form.

The dependent variables are based on questions that pertain to attendance at art activities in the year prior to the interview date. Hence, I chose to use the lagged predictors of the NEA and SAA sums for FY2001, FY2007 and FY2011.

In addition, I included *GDP per capita* as a state level control variable to control for the general economic situation in the state.

5 Findings

Table 2 presents a model predicting arts consumption of the three consumption categories according to individual and state level characteristics. The findings of the regression models confirm the presence of known barriers to cultural consumption. Income has a positive significant effect on the probability of being a consumer of all the cultural activities types, implying that individuals from lower income categories are less likely to be art consumers. The findings also confirm that the cultural background of minority groups is a factor that reduces the odds of being a cultural consumer. Compared to whites (the omitted category), blacks and other races are less likely to be cultural consumers. Nevertheless, not surprisingly, for the contemporary performance category that includes jazz and salsa, we can see the opposite situation – blacks are more likely than whites to be consumers of these forms of art, which are associated with ethnic minorities in the US. One's place of residence also plays a decisive role with regard to access to cultural consumption. Residents of urban metropolitan areas are more likely to be cultural consumers than residents of peripheral geographical locations. This probability is higher by 37% for highbrow culture and 34% for the contemporary performance category. However, there is no significant difference between metropolitan and periphery residents in the likelihood of participating in outdoor cultural activities. The proximity of centrally located cultural venues makes the highbrow and contemporary forms of art more accessible, but place of residence does not affect the consumption of outdoor activities, which require open spaces that are in abundance near non-urbanized localities. This

finding also suggests that differences between the center and periphery in cultural consumption stem primarily from the different opportunity structure, not from differences in the cultural preferences of center and periphery residents as such.

The results also show that other factors affect cultural consumption. Being married and having more people in the household reduce the probability of being a cultural consumer. However, net of these factors, women are more likely than men to consume all types of art. Furthermore, younger and more educated individuals also have a greater probability of consuming culture.

Funding from the state arts agency is found to have a significant effect on the probability of consuming contemporary performing arts. In other words, individuals who live in states where the local state arts agency is spending more on arts and culture are more likely to consume contemporary performing arts than those who live in states where there is less funding coming from the state arts agency. However, the state arts agency's funding has no significant effect on the consumption of other types of art. NEA appropriations has no significant effect on the probability of cultural consumption and neither do GDP per capita levels.

--- TABLE 2 ABOUT HERE ---

The models presented in Table 3 tap the link between access and funding as presented earlier in this paper. Significant interactions between arts funding levels and the individual barrier variables indicate that funding influences the access to cultural

consumption. The interpretation of interactions, especially in binary regression models like those presented here, is not straightforward (Jaccard 2001). Therefore, I will first present the findings regarding interactions in the model in general and then proceed to interpret the meaning of those interactions.

I did not find any significant interactions between education and the funding variable, so I will not present the model that includes the education variable. The analysis also did not find any significant interaction between funding and the black race variable, meaning that there is no evidence that funding affects the access of blacks to cultural consumption in comparison to whites. The same result emerged whether the funding came from the federal level or the state level. In addition, there was no significant interaction between NEA funding and the other race variable. However, the analysis found a significant negative interaction between SAA funding and the *other* race variable in the case of highbrow art.

No significant interaction between NEA funding and income emerged, suggesting that the former does not have a discernible effect on access, which is related to the income barrier. However, I found a significant positive interaction between SAA funding and the contemporary performance variable. significant interaction between SAA funding and income for the other consumption categories.

The analyses also show that while there is a significant negative interaction between NEA funding and the metropolitan variable, there is no significant interaction between

NEA funding and the metropolitan variable for the other art categories. A significant negative interaction was evident between SAA funding and the metropolitan variable for the contemporary performance variables but not for the other art types. In the next section I will elaborate of the interaction effects that were found significant.

--- TABLE 3 ABOUT HERE ---

5.1 Interpretations of the interactions

*NEA * metropolitan interaction for highbrow classical art* – The negative interaction between the NEA funding and the metropolitan variables indicates that higher levels of NEA funding moderate the positive advantageous effect of living in a metropolitan area on the probability of cultural consumption of highbrow types of art. Figure 3 illustrates the implications of this moderation effect, demonstrating the difference in the predicted probabilities of consuming highbrow art between metropolitan areas and the periphery as a function of NEA funding per capita. The graph shows that the probability difference in favor of the metropolitan area declines with the increase in NEA funding per capita. At higher levels of NEA funding per capita, the difference becomes practically insignificant.

--- FIGURE 3 ABOUT HERE ---

*SAA * metropolitan interaction for contemporary performance art* – The negative interaction between the SAA funding and the metropolitan variables indicates that higher levels of SAA funding moderate the positive advantageous effect of living in a metropolitan area on the probability of the cultural consumption of contemporary performance art types. As SAA funding level increases, the discrepancy between the

probability of consuming contemporary performance art for those living in centrally located areas and those living in the periphery decreases. Thus, when the SAA funding level is higher, the access of non-metropolitan residents to contemporary performance art increases.

*NEA * income interaction for contemporary performance art* – There is a significant interaction between the level of SAA funding and income level. The main effect of income level on the odds of consuming contemporary performance art is positive. Therefore, the positive effect of income increases even more with the increase in NEA funding levels. NEA funding exaggerates the discrepancy in contemporary performing arts consumption between different income levels. In other words, in the presence of higher levels of NEA funding, individuals with higher incomes tend to consume more contemporary performance art, thereby reducing the equality of access between income levels and accentuating, rather than moderating, the barrier effect of income.

*SAA * other race interaction for highbrow classical art*– There is a significant negative interaction between the level of SAA funding and the other race variables for highbrow classical art. The main effect of the other race variable on highbrow classical is negative too. Therefore, in this case, the negative interaction effect means that the negative effect of other race declines even more. In interpreting this finding we must acknowledge that it refers not to actual probabilities of consumption but to a comparison with the omitted category – whites. Thus, the negative interaction here means that with higher levels of SAA funding, the advantage in access to highbrow cultural consumption that white

individuals have over individuals of other non-black races increases and is even more marked.

6 Discussion

In this paper I explore whether there is empirical evidence that public arts funding in the US affects access to cultural consumption for minority races, lower income groups, lower education groups and residents of the periphery. These social categories are among the main target populations mentioned when access to culture is brought up as the goal or the rationale for public arts funding. The models here confirm that, in the US, belonging to a minority group, having a low income and educational level or residing outside metropolitan areas negatively affects one's level of cultural consumption.

The empirical results suggest that public funding does affect access to cultural consumption in some cases. However, in other cases it has no discernible effect on access and may even have the opposite effect of reducing access for disadvantaged social groups, making art more accessible to those who already consume more culture and already have more access to arts.

Nevertheless, public arts funding is successful in providing more access to cultural consumption for populations living in non-metropolitan areas. The level of public arts funding by the NEA (in the case of highbrow classical art) and the SAA (in the case of contemporary performance art) moderates the negative effect of living in the periphery on the level of cultural consumption. Given that the supply of arts activities in the periphery is considerably smaller than in urban centers, public funding probably helps increase the

number of such activities in the periphery, making art more accessible to those who live there (Feder and Katz-Gerro 2015).

However, in two other cases we find the opposite effect – public arts funding aggravates the negative effect of consumption barriers. Funding exacerbates differences in access to cultural consumption, which are linked to income and race, as evidenced in the cases of NEA funding and highbrow classical art and SAA funding and contemporary performance art. In the former case, NEA funding actually raises the barriers to highbrow culture that are linked to race. Given that race is an indicator of cultural dispositions, we can posit that public funding allows the arts organizations to be less conventional and to cater to elitist taste that is linked to the dominant white racial group.

Public arts funding is not allocated in a way that allows funding agencies to supervise closely and control how the recipient art organizations use it. Consequently, it may be hard to ensure that the goal of access is fulfilled adequately. Arts organizations themselves may want to boost access to their productions but are not always sure how to do so. Even with good intentions, attempts to improve access can fail or even achieve the opposite result. Attempts to boost consumption and attendance may be successful in attracting more people, but in effect may serve the population that is already consuming cultural events, making the discrepancy between advantaged and disadvantaged groups even more marked and actually reducing access even more.

7 Conclusion

Policymaking is a thorny field where actions taken do not always produce the intended or desired results. Arts policy is no exception, and arts funding is a specific example of this

dictum. The need to justify their existence in difficult economic times might lead funding agencies to accentuate the policy objectives related to access rather than those related to excellence, but the empirical evidence suggests that these goals are still in competition.

In this research I use the total sum of arts support granted by the NEA and the SAAs. Therefore, I overcome the problem of having only aggregated sums of funding by looking at the effect of funding on aggregated data about different types of art. Using more detailed information that tracks the specific amount of funding granted to different types of art such as opera and theater, and looking at the effect of funding on these specific items of cultural consumption can lend more robustness to the findings of this paper. Further research in this field should also look more closely at the mechanisms by which art organizations that receive funding are using it to increase access.

This paper does not claim that funding may impair access to arts more than it asserts that it can enhance it. Hence, direct policy implications cannot be derived from this study. Rather, the study calls upon us to rethink how funding affects access, to be aware of the social undercurrents that drive cultural consumption, and to enhance our knowledge and understanding of the link between the two.

¹ <http://www.nasaa-arts.org/About/About-State-Arts-Agencies.php>

² It should be noted that O'Hagan and Eisentraut use the term "participation" differently. For O'Hagan, it usually refers to the consumption of art, whereas for Eisentraut it describes participating in the making of or performing of art.

³ http://www.americansforthearts.org/pdf/get_involved/advocacy/research/2012/govt_funding12.pdf

⁴ Only the state of Utah had an art agency before 1960.

⁵ <http://www.nasaa-arts.org/About/About-State-Arts-Agencies.php>

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Table 1. Factor loadings based on a principal components analysis with varimax rotation for 11 cultural consumption items (9 items in 2002); (N=27,334-52,757).

Item	Factor 1 - <i>Highbrow classical</i>	Factor 2 – <i>Popular outdoor</i>	Factor 3 – <i>Contemporary performance</i>
Jazz	0.42	0.39	0.53
Salsa			0.89
Classical	0.77		
Opera	0.78		
Musicals	0.72	0.38	
Plays	0.67	0.41	
Ballet	0.73		0.30
Dance	0.50		0.52
Art museums	0.62	0.52	
Craft fairs		0.88	
Festivals		0.86	

Notes: A three-factor solution is imposed. Factor loadings less than .3 are not displayed.

Factor loadings higher than .6 are in bold.

Table 2. Estimates from logistic regression models with state clustered standard errors of the probability of consuming highbrow classical, contemporary performance and outdoor popular art types on individual factors and state level variables.

	Highbrow classical	Contemporary performance	Popular outdoor
Income	1.099*** (19.94)	1.037*** (7.23)	1.073*** (15.90)
Education	1.853*** (49.30)	1.255*** (17.94)	1.424*** (28.09)
Female	1.464*** (21.07)	1.127*** (7.97)	1.629*** (18.14)
Married	0.949 (-1.92)	0.864*** (-4.27)	0.993 (-0.24)
Black	0.691*** (-7.11)	1.136* (2.10)	0.656*** (-8.35)
Other (race)	0.638*** (-6.52)	0.814* (-2.43)	0.601*** (-6.21)
Age	0.998* (-2.07)	0.995*** (-4.80)	0.992*** (-10.94)
Metropolitan	1.376*** (7.55)	1.336*** (8.57)	1.000 (0.00)
Household size	0.898*** (-8.43)	0.932*** (-5.34)	0.923*** (-6.83)
GDP [†]	0.756 (-0.07)	0.000 (-1.43)	29.740 (0.73)
NEA funding [†]	0.977 (-0.13)	1.603 (1.07)	1.395 (1.15)
SAA funding [†]	0.994 (-0.34)	1.047* (2.37)	0.997 (-0.10)
Year 2002	1.299*** (5.89)	0.136*** (-24.97)	1.143* (2.15)
Year 2012	0.880*** (-3.30)	0.143*** (-35.90)	0.928* (-2.02)
Constant	0.020*** (-13.60)	0.712 (-0.71)	0.065*** (-8.48)
<i>N</i>	48917	48917	48862
<i>BIC</i>	54459.79	49142.41	57883.72
LL	-27154.31	-24495.62	-28866.28
McFadden's R ²	0.16	0.16	0.08

Notes: Exponentiated coefficients. t values in parentheses.

State dummies omitted from the table.

[†] Per capita, 1 year lag.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3. Estimates from logistic regression models with state clustered standard errors of the probability of consuming highbrow classical, contemporary performance and outdoor popular art types on individual and state level variables with interactions between funding levels and race, income and residence location.

	Highbrow classical	Contemporary performance	Popular outdoor
Income	1.095 ^{***} (15.40)	1.014 [*] (1.99)	1.082 ^{***} (11.81)
Education	1.854 ^{***} (48.97)	1.254 ^{***} (17.93)	1.425 ^{***} (28.09)
Female	1.464 ^{***} (21.00)	1.130 ^{***} (8.21)	1.628 ^{***} (18.15)
Married	0.948 (-1.95)	0.864 ^{***} (-4.22)	0.992 (-0.27)
Black	0.630 ^{***} (-5.24)	1.069 (0.71)	0.599 ^{***} (-6.50)
Other (race)	0.728 ^{**} (-3.02)	0.898 (-0.92)	0.657 ^{***} (-3.32)
Age	0.998 [*] (-2.04)	0.995 ^{***} (-4.77)	0.992 ^{***} (-10.92)
Metropolitan	1.506 ^{***} (6.87)	1.472 ^{***} (9.10)	1.043 (0.62)
Household size	0.898 ^{***} (-8.46)	0.932 ^{***} (-5.42)	0.923 ^{***} (-6.85)
GDP [†]	0.489 (-0.17)	0.000 (-1.42)	26.304 (0.68)
NEA funding [†]	1.047 (0.18)	1.212 (0.40)	2.040 [*] (2.12)
SAA funding [†]	1.017 (0.36)	0.957 (-0.69)	1.028 (0.49)
Black*NEA [†]	1.004 (0.02)	0.996 (-0.02)	1.218 (0.89)
Black*SAA [†]	1.067 (1.52)	1.046 (1.06)	1.034 (0.95)
Other*NEA [†]	0.819 (-0.73)	0.706 (-1.39)	0.798 (-1.08)
Other*SAA [†]	0.947 [*] (-2.21)	0.994 (-0.15)	0.978 (-0.58)
Income*NEA [†]	1.014 (0.76)	1.026 (0.89)	0.982 (-0.85)
Income*SAA [†]	1.000 (-0.07)	1.013 ^{**} (2.72)	0.997 (-1.09)

Metropolitan*NEA [†]	0.750 [*]	1.003	0.793
	(-1.97)	(0.01)	(-1.59)
Metropolitan*SAA [†]	0.976	0.922 ^{**}	1.005
	(-0.87)	(-3.19)	(0.15)
Year 2002	1.295 ^{***}	0.138 ^{***}	1.140 [*]
	(5.76)	(-24.96)	(2.10)
Year 2012	0.879 ^{***}	0.143 ^{***}	0.929 [*]
	(-3.34)	(-35.56)	(-2.00)
Constant	0.020 ^{***}	0.818	0.058 ^{***}
	(-13.27)	(-0.42)	(-8.92)
<i>N</i>	48917	48917	48862
<i>BIC</i>	54530.87	49184.44	57956.19
<i>LI</i>	-27146.66	-24473.44	-28859.33
McFadden's R ²	0.16	0.16	0.08

Notes: Exponentiated coefficients. t values in parentheses.

State dummies omitted from the table.

[†] Per capita, 1 year lag.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 1. An integral model of the stages and levels of cultural access according to O'Hagan (1996) and Eisentraut (2012).

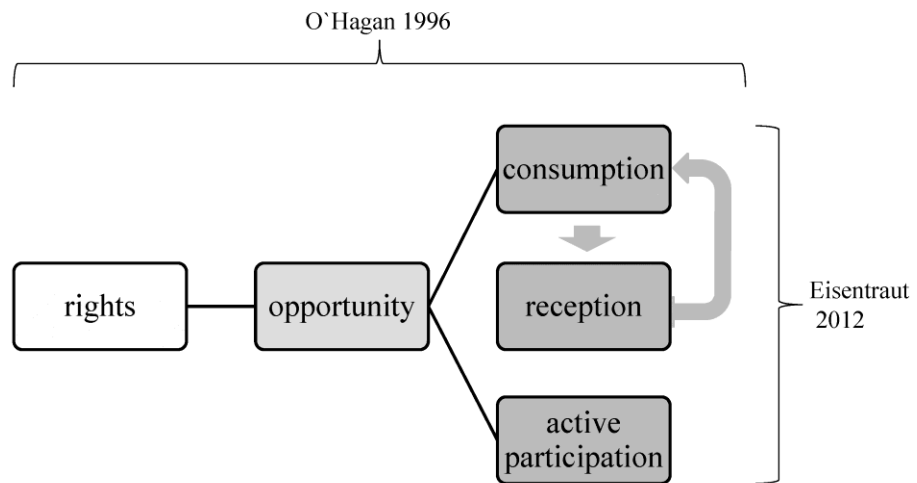


Figure 2. The interaction between income and funding reveals the moderating effect of funding on the association between income and cultural consumption. Reduced effect of income on consumption means that access is increased.

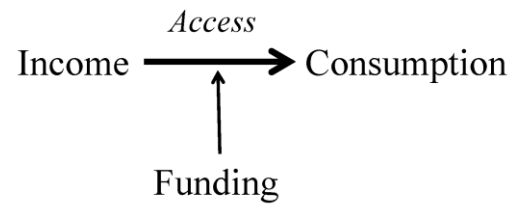


Figure 3. Difference between metropolitan and peripheral area residents in the predicted probabilities of consuming highbrow types art as a function of NEA funding per capita with 95% confidence interval.

