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Resident Valuation of Kentucky's Extension Fine Arts Program

Abstract

Since 2005, the Kentucky Cooperative Extension Service has supported agents and programming exclusively dedicated to the development and promotion of the fine arts. This article presents an estimation of the perceived value of the Kentucky Extension Fine Arts (EFA) Program by county residents. While controlling for several factors, we find that residents were more likely to support a tax increase to enhance their county's EFA Program if residents were aware that their county employed an EFA agent and/or participated in EFA programming. We hope this finding encourages other state Extension programs to consider EFA programs.

James E. Allen IV
Research Director
james.allen4@uky.edu

Sarah Frank Bowker
Program Coordinator
sarah.frank@uky.edu

Charles E. Stamper
Extension Program Leader
cstamper@email.uky.edu

Emmanuel Owusu-Amankwah
Graduate Assistant
emmanowusu@gmail.com

Alison Davis
Executive Director and Associate Extension Professor
alison.davis@uky.edu

Community and Economic Development Initiative of Kentucky (CEDIK)
University of Kentucky
Lexington, Kentucky

Introduction

The mission of Kentucky Cooperative Extension Service (KY CES)—a joint effort between University of Kentucky and Kentucky State University—is to make a difference in the lives of Kentucky citizens through research-based education (KY CES, 2013). In addition to its traditional programming, KY CES is unique in having programs and agents exclusively dedicated to the development and promotion of the fine arts. Since 2005, five agents have served the Kentucky Extension Fine Arts (EFA) Program and have been responsible for developing and promoting support for arts education and development in five Kentucky counties.

The work of EFA agents varies based on community ambitions. One Kentucky county's EFA Program has developed a community-based theater company, which delivers 128 performances per year and offers free youth programming. In a second county, the EFA Program recently hosted a Smithsonian traveling art exhibit at a remodeled Community Arts Center. Finally, another county's EFA Program is currently co-sponsoring an annual music festival that celebrates a local blues guitarist.

While these three projects involve different mediums of fine arts—theatre, visual art, and music, respectively—a common theme among them is the development of human capital and other assets that were already present in the community. These projects not only foster a sense of community pride and identity, but can also translate into economic impacts that help the area to develop by bringing in tourists, revitalizing downtown areas, and providing enriching entertainment and a higher quality of life for residents.

Because their experience may serve as a potential model for other states and counties considering a fine arts agent or Extension program, this article presents an estimation of the perceived value of the Kentucky Extension Fine Arts (EFA) Program by residents of counties where EFA agents work. The example of Kentucky's EFA Program can illustrate how this specialized Extension program can be effective at advancing community and economic development with support from county residents.

Background

When the idea of an EFA program was introduced, it was incorporated into KY CES community and economic development programming. This alignment was based on the assumption, supported in the literature, that the arts are an effective tool for fostering individual, community, and economic growth.

While acknowledging the difficulty of measuring the impact of arts on communities, Guetzkow (2002) highlights claims made about the arts. Participation in the arts has been linked to physical and psychological well-being and certain types of cognitive development. At the community level, the arts have been attributed to revitalizing neighborhoods, creating social capital, and advancing attainment of community goals. Others argue, albeit less scientifically, that the arts can expand horizons, foster creativity, and develop pride within a community (Smith, 2009; Florida, 2002), all of which are desirable outcomes for educational programming.

Easier to measure, the economic benefits of the arts are significant. Every year, it is estimated that the non-profit arts industry, between organizational spending and events, generates $135.2 billion in economic activity in the United States (Americans for the Arts, 2012). Moreover, a statewide report for Florida estimated economic multiplier effects that more than doubled the value generated by direct spending in their arts/cultural sector (Stronge, 2004). Thus, it is no wonder that the arts are incorporated into public policy (e.g., see National Governor's Association, 2012) for their ability to advance community and economic development.

The study reported here is not the first that attempts to measure the perceived value of the arts by Kentucky residents. To accompany an economic impact study of the arts in Kentucky, Thompson, Berger, Blomquist, and Allen (2002) used a payment-card contingent valuation approach to find that Kentucky residents in 1998 were willing to pay about $12 annually to avoid a 25% decrease in arts performances and exhibits. These findings suggest that the arts are valued in Kentucky, which lends to the hypothesis that the EFA Program, if effective, will be valued as well. Using a dichotomous-choice contingent valuation approach, the study focused on determining resident valuation of the EFA program to see if it has been successful thus far.

Methodology

In order to determine whether Kentucky residents value their county EFA Programs, a survey was conducted in Fall 2011 in the five counties where EFA agents were active. The following section describes the data provided by the survey instrument and outlines the analysis methodology.

Survey Instrument

Data were gathered through a six-page survey that asked respondents a range of questions on household demographics, involvement in arts-related activities, and awareness of their county's EFA program. Furthermore, respondents were asked in a dichotomous-choice contingent valuation scenario whether they would be willing to increase their property taxes an additional $20 to enhance or expand EFA programming in their county (they currently pay $10). The paper surveys and information leading to the online survey were mostly distributed by the EFA agents themselves, not at events or in locations where a bias in favor of fine arts would be obvious (e.g., theatre, art gallery, or EFA-sponsored events). However, because the survey's distribution was not strictly random, it is important to examine some statistics that describe the survey sample.

Data Description

In total, 390 surveys were completed and returned. Table 1 provides some descriptive information about each county and the number of surveys returned from each. Descriptive information does not come from the survey data but from third-party data source Esri (2012), in order to better compare the survey sample to the average county resident.

Table 1.
Characterization of Counties with EFA Programming

County	Surveys Returned	Population, 2012*	Average Household Size, 2012*	Median Household Income, 2012*
Boyd	59	49,468	2.4	$37,346
Greenup	137	37,232	2.5	$39,569
Muhlenberg	52	31,461	2.5	$35,193
Pike	87	65,160	2.4	$31,731
Whitley	55	35,654	2.5	$26,866
*Source: Esri (2012)				

Of the 390 completed surveys, the average household contained 2.6 members, a figure not much higher than the county-wide averages in Table 1. However, the median household income in the sample was estimated to be between $50,000 and $75,000—higher than that estimated by the median household income given in Table 1 by Esri (2012). Respondents may have reported their

incomes inaccurately, or, more likely, the survey was distributed more frequently to those with higher incomes.

Respondents were asked several questions relating to their interest and participation in the arts. For example, 87.3% of the respondents indicated having watched a fine arts performance in the past 12 months. Moreover, 48.2% of respondents claimed to have at least one household member who produces or performs art.

Most important, questions were asked regarding awareness of and participation in the EFA Program that were customized by county, naming the EFA agent and listing the titles of specific programming offered. The results found that 81.3% of respondents indicated that they were aware that their county employed an EFA agent. Furthermore, 32.1% of households claimed to have participated in an Extension program that had been organized by their county EFA agent. Again, because surveys were not randomly distributed, these numbers cannot be said to accurately represent each county (though we hope they are close). Rather, these statistics describe the survey sample and can help inform decisions made by Kentucky residents in the analysis.

Analysis

To analyze how residents value EFA programming in their counties, the survey data were fit to a model (specifically, a multiple logistic regression) suitable for predicting a binary outcome given the effect of multiple variables. In this case, the model can help explain how involvement in EFA programming, fine arts preferences, and various individual and household characteristics affect the likelihood that a respondent agreed to a $20 increase in property taxes in order to expand EFA programming in their counties.

A model such as this can estimate the effect of one variable on the outcome *with all other included variables held equal*. Thus, including all factors that potentially affect a respondent's likelihood to agree to an EFA tax increase is important in order *to isolate the effect* of the variables-of-interest. Therefore, several factors were included in the model. First, the primary variables-of-interest—awareness of and participation in EFA programming—were included with the expectation that both would be strongly associated with a greater probability of agreeing to the EFA tax increase. Such a correlation would indicate that these individuals value the EFA Program and are, therefore, willing to support it. Additionally, it was determined that the respondent's traits, household's characteristics, and the household's preference toward the arts would also strongly factor into the respondent's decision to accept an EFA tax increase and thus needed to be controlled for in the model. Table 2 presents the full list of explanatory variables included in the model.

As previously discussed, the survey asked respondents if they were aware that their county employed an EFA agent and also if anyone in the household participated in EFA programming. The answers to these two questions form the basis for the four variables in Table 2 under "EFA Involvement," each of which represent one of four possible answer combinations. First, 18% of respondents were neither aware of the EFA agent nor had participated in EFA programming. Second, 50% of respondents were aware that their county employed an EFA agent but had not participated in any EFA programming. Third, a scant 1% of respondents indicated that the household had

participated in EFA programming, but the respondent was not aware that their county employed an EFA agent. Fourth, 31% of respondents claimed to be both aware of the EFA agent and had participated in EFA programming. Relative to those who were neither aware nor had participated, we expect that each of the other variables—*Aware*, *Participate*, and *Both*— will be associated with a greater likelihood of accepting the EFA tax increase.

In order to better isolate the effect of awareness and participation on the likelihood of accepting the EFA tax increase, other variables must be included that will factor into the respondent's decision. Thus, several explanatory variables are listed to serve this purpose, which collectively describe "Respondent Traits," "Household Traits," and the household's "Arts Preference." These include respondent education, age, and sex, household income, family size, and county of residence, as well as household attendance, spending, and donations for the arts. All variables measured in dollar amounts received a natural logarithm transformation before estimation to normalize the skewed distribution of values.

Table 2.

List of Explanatory Variables

Variable	Description
1. EFA Involvement	
Neither	Base: Indicates if neither aware nor participated in EFA programming
Aware	Indicates if aware of but had NOT participated in EFA programming
Participate	Indicates if had participated in but NOT aware of EFA programming
Both	Indicates if aware of and had participated in EFA programming
2. Respondent Traits	
Education	Years of education beyond 8th grade for respondent
Age	Age in years of respondent
Male	Indicates if respondent is male
3. Household Traits	
Income	Natural logarithm of $ estimate of annual household income
Hh_adults	Number of adults (18 & over) in household
Hh_youth	Number of youth (under 18) in household
Hh_performers	Number of artists or performers in household

County	Indicates county of residence for household
4. Arts Preference	
Events_attendance	Number of county art events attended in last year
Events_spending	Natural logarithm of $ spending on county art events in last year
Donations_time	Indicates if household donated time to supporting the arts in last year
Donations_value	Natural logarithm of $ donations to county arts groups in last year

Results and Discussion

The results of the model are presented in Table 3 after being transformed into average marginal effects, so that each number represents the percent change in the likelihood that a household agreed to the EFA tax increase as a result of a one-unit increase in the explanatory variable, averaged across all 390 observations. Specifically for variables under "EFA Involvement," each average marginal effect represents the increased likelihood that a household in that category agreed to the EFA tax increase relative to those in the *Neither* category, which served as the base and is thus excluded from Table 3. For example, households in the *Aware* category were 13.8% more likely to agree to the EFA tax increase than those in the *Neither* category.

In additional to the average marginal effect, Table 3 shares the estimate's margin of error, which was calculated at a 95% confidence interval, meaning that we estimate that there is a 95% chance that the real-world average marginal effect is within the interval created by the given average marginal effect, plus or minus the given margin of error. For example, we estimate that there is a 95% chance that the true average marginal effect of *Aware* lays somewhere between 1.5% (13.8% - 12.3% = 1.5%) and 26.1% (13.8% + 12.3% = 26.1%). Where the interval is entirely positive or negative—that is, greater than or less than 0%—then it can be said with some confidence that the variable has a significantly positive or negative effect on the outcome.

Table 3's column of statistical significance indicates the strength of the estimated relationship. One asterisk indicates greater than 95% confidence, and two asterisks indicate greater than 99% confidence. However, no asterisk signifies what is considered a statistically insignificant estimate, meaning that the results are inconclusive about the effect of that variable on the likelihood of accepting an EFA tax increase.

Table 3.

Average Marginal Effects of Logit Regression on Tax Increase

Variable	Average Marginal Effect	Margin of Error with 95% Confidence Interval	Statistical Significance

1. EFA Involvement			
Neither	Base	--	--
Aware	13.8%	+/- 12.3%	*
Participate	23.3%	+/- 42.9%	
Both	25.4%	+/- 13.8%	**
2. Respondent Traits			
Education	2.2%	+/- 2.0%	*
Age	0.0%	+/- 0.3%	
Male	8.5%	+/- 9.9%	
3. Household Traits			
Income	6.4%	+/- 5.6%	*
Hh_adults	4.2%	+/- 5.5%	
Hh_youth	-4.8%	+/- 6.2%	
Hh_performers	-3.3%	+/- 5.6%	
4. Arts Preference			
Events_attendance	0.1%	+/- 0.5%	
Events_spending	1.9%	+/- 2.4%	
Donations_time	6.3%	+/- 11.4%	
Donations_value	3.9%	+/- 2.1%	**
Obs: 390 Pseudo R^2 = 0.2337 Significance Legend: ** = P < .01 * = P < .05			

Based on 390 observations, the results indicate that awareness of and participation in the county's EFA Program—all other factors held equal—are strongly correlated with a higher likelihood of agreeing to an EFA tax increase for the arts. Starting with *Aware*, the model estimates that respondents who are aware of their county's EFA agent but had not participated in any EFA programming were nearly 14% more likely to accept the EFA tax increase compared to those who were neither aware of nor had participated in their county's EFA Program. Next, while the coefficient for *Participate* is positive, as expected, the estimate is statistically insignificant because only four responses comprise this group, as was noted previously. However, *Both* provides a very statistically dependable estimate that has significant implications. According to the model, respondent awareness of their EFA agent and household participation in EFA programming was associated with over a 25% increase in the likelihood that the respondent would accept the EFA tax increase relative to those who were neither aware nor had participated.

Other results from the survey indicated that among of those who accepted the $20 EFA tax increase, 18% offered to pay more, ranging from an additional $5-150 in annual property tax. Similarly, of those who did not accept the EFA tax increase, 48% stated they were willing to pay somewhere between an additional $1-19. Among those not willing to pay any additional taxes for the EFA Program, their reasons were mostly uncategorized (44%) but included not believing that people should be asked to donate to the arts (12%) and valuing the arts but not willing or able to contribute more (28%).

Among the other factors, the model predicts that education, income, and donations to the arts are all directly correlated with a greater willingness to accept an EFA tax increase, which was expected. However, other estimated coefficients, including spending and attendance at arts events or the number of household performers, were not statistically significant. Thus, we are reluctant to draw conclusions from these findings as they are less likely to represent definite trends.

Conclusion & Implications

Together, the model's coefficients under "EFA Involvement" provide strong evidence that Kentucky's EFA Program is valued in these counties. If residents thought the fine arts Extension programming was damaging or even without worth, then they would not be more likely to support it than the average resident who cannot say if the program is good or bad. Rather, after controlling for education, income, household composition, arts spending, and arts donations, we find that if residents know of their EFA agent or participate in EFA programming, they are more likely to willingly accept additional taxes to support the program.

This finding alone does not necessarily justify an EFA tax increase in these counties. While 51% of respondents agreed to the $20 increase, recall that the survey was not randomly distributed. However, we can still extract some policy recommendations from these results. First, the Kentucky EFA Program is definitely valued within these counties and thus should be maintained. Second, the EFA Program and the agents themselves should work to inform and educate residents about their work, rather than remaining the county's "best kept secret." Marketing the EFA Program is also a key step in gaining support for an EFA tax increase because, as the results show, residents are more likely to see value in the program once they are aware of it or participate in its programming.

We hope that a key implication of the study for other state Extension programs is that it demonstrates the potential success of any beginner EFA Program. Those interested in learning more about the Kentucky EFA Program are invited to http://cedik.ca.uky.edu/, which shares the EFA Program's mission and vision statements, or to contact the Community and Economic Development Initiative of Kentucky (CEDIK).

Setting up an EFA "pilot-program" can be a daunting task. The first step is to conduct focus groups and individual interviews at the county level to determine if there is local interest in an EFA program. If interest exists, the next step is to establish a support structure that incorporates the agents into the Extension system. As fine arts was most associated with the traditional KY CES program area of community and economic development (CED), the existing Extension Program Leader for CED became responsible for the EFA Program. The position entails providing statewide

direction for the agents and coordinating bi-annual meetings.

When a county decides to support an EFA agent, a unique position description should be developed to meet local needs. We hired our agents through the same process used for other KY CES agents. Similarly, EFA agents follow the same rules and guidelines as other KY CES agents (e.g., reporting directly to their District Director). Additionally, EFA agents are also required to follow a tiered training and professional development program, which has been supported with help from the University of Kentucky's College of Fine Arts as well as other arts-focused organizations. In short, the primary start-up costs of any EFA Program are setting up a structure for new EFA agents to receive professional training, work within their counties and fit into the existing CES system.

One persistent challenge is communicating the scope of the EFA Program's work given its unique approach to county-level Extension. For EFA agents, it can be difficult to collaborate on projects with other KY CES agents who do not understand EFA programming. Administratively, maintaining funding can be difficult—particularly in this economy—when the EFA Program is competing with traditional KY CES programs that are more familiar to community members. Therefore, from program inception, EFA agents and leaders must prioritize outreach within their counties and at various levels of the KY CES system.

The example offered by the Kentucky EFA Program is an encouraging one for those considering developing an EFA Program of their own. The program's current work has demonstrated how fine arts can serve as an avenue for agents to address issues related to community and economic development. Furthermore, the findings of the analysis confirm that EFA's programming is indeed valued within their counties. While the success of any county-level Extension program will vary based on the local needs and the efforts of the Extension agent, we believe that an EFA program may be successful elsewhere given the right interest and resources.

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