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1-1-2007

## The Economic Impact of the Arts and Culture (ACE) as Economic Development Grant Program On the Greater Cleveland Regional Economy

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### Repository Citation

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Prepared for:  
**Community Partnership for Arts and Culture**

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**June 2007**  
Revised July 2007

**The Economic  
Impact of the Arts  
and Culture (ACE) as  
Economic  
Development Grant  
Program  
On the Greater  
Cleveland Regional  
Economy**

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**ABSTRACT:** *This report describes the results of a REMI simulation conducted to measure the economic impact of the Cuyahoga County Arts and Culture as Economic Development (ACE) Grants. The results suggest that the grants have likely contributed to an increase in economic activity in Cuyahoga County.*

**KEYWORDS:** Arts and Culture, Economic Impact, Economic Development, Cleveland Ohio

## **EXECUTIVE SUMMARY**

The 2006 Cuyahoga County Arts and Culture as Economic Development Grant Program (ACE), administered by the Cuyahoga County Department of Development, expanded the greater Cleveland (regional) economy by nearly \$7 million and increased employment by 131 jobs. The resultant series of arts events expanded the region's personal income by nearly \$5.2 million and resulted in an increase in payroll taxes, the life-blood of Ohio's local governments, of \$104 thousand. The total Cuyahoga County economic output (the measure of all direct, indirect, and induced spending in the area) resulting from the series of arts and culture events was \$11.5 million.

The city of Cleveland has also experienced expansion of the arts and culture economy, with the nine events contributing more than \$5.7 million and 116 jobs. Personal income expanded by \$3.2 million and payroll taxes grew by \$64 thousand. Economic output resulting from the arts and culture events in Cleveland was \$9.7 million.

The expansion of Gross Regional Product (GRP) resulted from the influx of non-Cuyahoga County visitors to these arts and culture events, as well as employment and total (economic) output. Personal income and wage taxes also increased. The economic impact was felt most strongly in the areas of arts and entertainment, dining, and lodging. While the city of Cleveland displayed the greatest economic activity due to the large presence of cultural and entertainment venues, all of Cuyahoga County benefited from the gain in countywide economic growth.

## **INTRODUCTION**

The Center for Public Management (PM) conducted an analysis of the economic impact of the 2006 Arts and Culture as Economic Development (ACE) Grants funded by the Cuyahoga County Department of Development, at the request of the Community Partnership for the Arts and Culture (CPAC). Data for the project were collected by CPAC at nine county arts and culture events using visitor surveys. The events were a sampling of ACE funded events. The data were then analyzed by Cypress Research, and provided to the PM for impact analysis. Using Regional Economic Modeling, Inc. (REMI) software provided by Team NEO, the PM was able to demonstrate that visitors from outside of Cuyahoga County contributed a significant amount of economic activity to the city of Cleveland and Cuyahoga County as a whole.

The nine events analyzed for the impact study included:

- Intermuseum Conservation Association Arts Preservation Education Program
- Karamu House Gospel! Gospel! Gospel!
- Children's Museum of Art Blast Off
- Cleveland Theatre Collective Night of Free Theatre
- Cleveland Museum of Art's Barcelona and Modernity
- Cleveland Film Society's International Film Festival
- CityMusic Cleveland's Grand Community Concerto
- Height's Arts at the Library
- Jewish Community Center's Batsheva Dance Company

The estimated economic impact of the nine events at which participants were surveyed was modeled by using REMI impact software. The results of the model are presented in three tables: the economic impact on the city of Cleveland, the economic impact on the rest of Cuyahoga County, and the economic impact on Cuyahoga County.

Three technical notes regarding the modeling of the impact deserve mention. First, though local (intra-county) and out-of-town (outside Cuyahoga County) visitors were surveyed at the events, only out-of-town visitors were used in the REMI analysis. The reason for this is two-fold: (1) only imported dollars from visitors outside of the region create an economic impact; and (2) dollars spent by county residents are not new dollars, as they would be spent locally regardless of whether they were spent at arts and culture events. This is called the substitution effect. Additionally, economic impacts are the product of exogenous forces from outside the region, which create a change within the region. When new dollars flow into a region it can positively affect regional wealth as these dollars also create additional rounds of spending from the supply chain and households. The successive rounds of spending are commonly

referred to as multipliers, as each dollar brought in is then re-spent and the impact is “multiplied.” Because most economic activity is a product of regional residents, the phrase economic impact is related largely to economic change.

Second, though separate impact studies were conducted for the city of Cleveland and Cuyahoga County, simply aggregating the two is not simply the sum of the county. By aggregating the two separate REMI simulations for Cleveland and the rest of Cuyahoga County into one for all of Cuyahoga County, the possibility of double counting the economic impact, or trade flows, of the events exists. REMI is a dynamic model that is affected by changes in supply and demand for both product and labor. The REMI model accounts for these various trade flows and allows the two areas to be considered as one.

Finally, the REMI model only allows for the economic impact to be calculated for calendar years or annualized periods. Therefore, though events took place both in 2006 and 2007, all data are presented in 2007 dollars for simplification purposes.

## **ECONOMIC IMPACT ANALYSIS**

The results of the REMI simulation of the impact of the ACE grants on Cuyahoga County show that a noticeable economic impact did occur. To the extent that the grants encouraged non-county visitors to attend these events, either by assisting with or subsidizing the funding, promotion or organization of the event, a link between the grant and the economic impact of non-county visitors can be made.

The primary economic impact of visitors was felt in the areas of arts and entertainment, dining, and lodging. These three activities are important to the economic base of the county, particularly as it pertains to tourism. For purposes of economic development, the ability to capture dollars from visitors outside of Cuyahoga County is one important facet of increasing Gross Regional Product (GRP).

### **Cuyahoga County**

Cuyahoga County received a substantial influx of economic activity from non-county visitors attending arts and culture events, with the largest impact was experienced in the city of Cleveland. This is to be expected due to the presence of major cultural institutions, such as Playhouse Square and the Cleveland Museum of Art. Because of the strong economic link between the city of Cleveland and the remainder of Cuyahoga County, the economic activity that occurred in the city of Cleveland has important spillover effects for the rest of the county.

Table # 1 displays the estimated economic impact of the events surveyed on all of Cuyahoga County. The model estimates that the impact from out-of-town visitors on employment in Cuyahoga County to be 131 new jobs, with a combined personal income of more than \$5 million. GRP was estimated at \$6.92 million. The potential wage tax contribution is estimated at \$103,940. Total output from the events was estimated at \$11.5 million.

**Table 1**

<b>ECONOMIC IMPACT ON ALL OF CUYAHOGA COUNTY</b>	
<b>Employment</b>	<b>131</b>
<b>Gross Regional Product</b>	<b>\$6,928,011</b>
<b>Personal Income</b>	<b>\$5,197,000</b>
<b>Wage Tax (@ 2%)</b>	<b>\$103,940</b>
<b>Output</b>	<b>\$11,544,672</b>

## **City of Cleveland**

Based on the results of the REMI model, it is clear that the events surveyed had a large economic impact on the city of Cleveland. This is due in large part to the majority of the events surveyed being located in the city of Cleveland and attracting visitors from outside of the county. The strong visitor impact, particularly in areas of entertainment and dining, contributed significantly to the economic activity of the city. Visitors from outside Cuyahoga County also contributed significantly to lodging in the city of Cleveland.

Table #2 displays the estimated economic impact of the events surveyed in the city of Cleveland in the year 2007, based on the simulation conducted using the REMI software. The estimated impact from out of town visitors on employment in the city of Cleveland was an additional 116 jobs, with a combined personal income of more than \$3.2 million. GRP was estimated at \$5.74 million. Potential wage tax contributions were estimated at \$64,356. Total output from the events was estimated at \$9.65 million.

**Table 2**

<b>ECONOMIC IMPACT ON THE CITY OF CLEVELAND</b>	
<b>Employment</b>	<b>116</b>
<b>Gross Regional Product</b>	<b>\$5,749,391</b>
<b>Personal Income</b>	<b>\$3,217,800</b>
<b>Wage Tax (@ 2%)</b>	<b>\$64,356</b>
<b>Output</b>	<b>\$9,653,567</b>

## **The Rest of Cuyahoga County**

While the economic impact on the rest of Cuyahoga County (excluding Cleveland) is not as great as the impact on the city of Cleveland, it is still substantial. Given the small number of surveyed events that took place outside of the city of Cleveland, a comparably small impact is expected. Nevertheless, the results of the REMI simulation indicate that the rest of Cuyahoga County felt a noticeable impact, particularly with regard to dining establishments and arts and entertainment.

Table #3 displays the estimated economic impact of the events surveyed on Cuyahoga County, while excluding the city of Cleveland from the analysis. The model



estimates that the impact from out-of-town visitors on employment in the rest of Cuyahoga County to be 15 new jobs, with a combined personal income of nearly \$2 million. GRP was estimated at \$1.18 million. Potential wage tax contributions were estimated at \$39,610. Total output from the events was estimated at nearly \$1.9 million. Note that in this case, personal income appears to be higher than GRP. This is the result of a discrepancy in trade flows, which occurs when workers from outside the county come into the city and give additional weight to the wage figure.

**Table 3**

<b>ECONOMIC IMPACT ON THE REST OF CUYAHOGA COUNTY</b>	
<b>Employment</b>	<b>15</b>
<b>Gross Regional Product</b>	<b>\$1,179,344</b>
<b>Personal Income</b>	<b>\$1,980,500</b>
<b>Wage Tax (@ 2%)</b>	<b>\$39,610</b>
<b>Output</b>	<b>\$1,888,689</b>

## **MEASURING ECONOMIC IMPACTS**

The economic impact study discussed above focused on five variables:

- 1) Employment
- 2) Gross Regional Product (GRP)
- 3) Personal Income
- 4) Wage Tax (2%)
- 5) Output

The employment category refers to the number of jobs estimated to have been created based on the given investment. These are not jobs in the traditional sense of full-time and part-time employment, but are as measured by the Bureau of Economic Analysis (BEA). In this case, employment refers to a broad range of industries that may have been influenced by the investment. For instance, if two firms required two part-time workers, one total unit of employment, commonly called a full time equivalent (FTE) would have been created. The employment impact could have affected employment in industries such as transportation, lodging, dining, or manufacturing.

Gross regional product (GRP) is a measure of the value-added contribution to final products and services. This measure does not include the value of intermediate goods, such as component parts used to manufacture an automobile. Rather, it calculates the contribution of labor to assembling the car, or the value derived from selling the final product.

Personal income measure's the impact of the investment on the income of both residents of the area and commuters to the area.

The wage tax statistic indicates the estimated wages derived from the increase in employment associated with the investment or activity. The wage tax used for this analysis was two percent, though this varies between communities. Many communities also offer a wage tax credit to residents employed outside their home community. The impact model does not take into account these factors when factoring in the wage tax. Therefore, the total estimate figure may be somewhat overstated.

Finally, output is the measure of all direct, indirect and induced spending (essentially sales) in the study area. Direct spending refers to the initial dollar spent on labor or goods in the region. The indirect spending is the interregional effect of consumers and suppliers purchasing from one another. Induced spending is the

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additional increases from output due to household spending.<sup>1</sup> Another way of looking at total output is to view it as the GRP plus the value of intermediary transactions left out in the calculation of the GRP.

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<sup>1</sup> Blair, J. *Local Economic Development: Analysis and Practice*. Sage Publications, 1995, p. 162.

## **APPENDIX A: Methodological Notes**

- 1) Assistance in conducting the simulation was provided by Team NEO.
- 2) In measuring the impact from the category Travel to and from Cleveland, only 50 percent of the total impact was used based on the assumption that 50 percent of the spending will fall outside of the county for return travel.
- 3) The categories retail and other retail were combined for purposes of the model.
- 4) All data have been inflated to 2007 dollars using the Consumer Price Index for May 2007.