

# ARTS & CULTURE ORGANIZATIONS

---

A Study of their Occupations

For: **COMMUNITY  
PARTNERSHIP  
FOR ARTS AND  
CULTURE**

By: **Jim Robey, Ph.D., and  
Chad Hamman**  
Economic Research Dept.,  
The Greater Cleveland  
Growth Association

— — — — —  
**Jack Kleinhenz, Ph.D.**  
Kleinhenz and Associates

January 2004

*With support from*  
**THE CLEVELAND FOUNDATION and GEORGE GUND FOUNDATION**  
*and additional support from*  
**THE KULAS FOUNDATION and JOHN P. MURPHY FOUNDATION**

## INTRODUCTION

The Community Partnership for Arts and Culture (The Partnership) requested that The Greater Cleveland Growth Association (Growth) provide research support in determining the types of occupations employed by arts & culture organizations in the Cleveland region, particularly in Cuyahoga County.

Four views of the labor force for arts & culture organizations were created and are discussed later in this document. The intent of the research was to look beyond the obvious occupations, such as musician, artist or actor, and find the types of occupations that organizations and their patrons depend on for daily operations, including trade, clerical, transportation, and maintenance workers. The outcomes generally were not listed as numerical findings, but were intended to display the variation of occupations used within the arts & culture sector.

**SECTION I LOOKS AT FINDINGS FROM DATA PROVIDED BY THE LABOR MARKET INFORMATION (LMI) DIVISION AT OHIO DEPARTMENT OF JOBS AND FAMILY SERVICES (ODJFS).** This data was derived from the U.S. industry-occupation matrix.

When data from Section I was reviewed, it was clear that some occupations, due to the data coming from a national source rather than an Ohio-based source, were not applicable to the Northeast Ohio region. To better understand the demand for occupations from arts & culture organizations in this region, A QUALITATIVE STUDY WAS UNDERTAKEN VIA A SERIES OF INTERVIEWS CONDUCTED AT ARTS & CULTURE ORGANIZATIONS IN CUYAHOGA COUNTY ABOUT HOW (AND BY WHOM) SERVICES WERE PROVIDED AND/OR PURCHASED. THESE FINDINGS ARE REPORTED IN SECTION II.

**SECTION III RELIES ON DATA FROM A STUDY FOR THE PARTNERSHIP OF THE ECONOMIC IMPACT OF SELECTED ARTS & CULTURE ORGANIZATIONS ON CUYAHOGA COUNTY.** The economic impact study was done concurrently with this occupational study and provides estimates of employment created by visitor-patron spending at selected arts venues. In the economic impact study, only patrons who resided outside of Cuyahoga County were included in the estimates. Therefore, the findings will indicate occupations from visitor spending at various locations such as hotels, restaurants, and retail locations.

**SECTION IV LOOKS AT THE PREVALENCE OF ARTS & CULTURE OCCUPATIONS IN INDUSTRIES ACROSS NORTHEAST OHIO.** This data, from LMI at ODJFS, suggests that two out of three workers in the region are in firms that employ arts & culture-related workers.

## SECTION I: STATE OF OHIO ESTIMATES OF OCCUPATIONS WITHIN ARTS & CULTURE ORGANIZATIONS

---

The first step in assessing how arts & culture dollars impact employment across the region was to access the Labor Market Information (LMI) division Web site<sup>1</sup>, provided by the Ohio Division of Jobs and Family Services (ODJFS). This Web site allows access to the industry-occupation matrix for the State of Ohio. This matrix provides information about what occupations are needed for individual 4-digit Standard Industrial Classification (SIC) codes.

The industries that make up the “Arts and Culture” cluster were identified by finding SIC codes assigned to a range of arts & culture venues from a list provided by The Partnership. Industries used with the industry-occupation matrix were:

- 7911—Dance Studios, Schools and Halls
- 7922—Theatrical Producers (Except Motion Picture), and Miscellaneous Theatrical Services
- 7929—Bands, Orchestras, Actors and Other Entertainers and Entertainment Groups
- 8412—Museums and Art Galleries
- 8422—Arboreta and Botanical or Zoological Gardens

The initial review of the LMI site using the matrix for Ohio was unproductive, as many of the industries under review did not contain sufficient data to indicate staffing patterns for Ohio industries.

The LMI Web site contained not only the Ohio matrix, but also the U.S. industry-occupation matrix. A review of the industries contained in the U.S. matrix indicated that it could be used to identify occupations employed by arts & culture organizations. The one caveat for this matrix, of course, is that the industry hiring behavior and staffing patterns are based on national patterns, which may, due to the geographic and product scope, include a more varied set of occupations than would the same industry at Ohio or Northeast Ohio levels.

The U.S. staffing patterns for each industry were downloaded and combined, with multiple observations of occupations being removed. The combined industry-occupation matrix yielded almost 250 unique<sup>2</sup> occupations that may be employed by the arts & culture industry in Northeast Ohio. While individual occupations are too numerous to list here (see Appendix A for a complete listing), major occupational categories are:

- Management
- Business and financial operations
- Computer and mathematics
- Architecture and engineering
- Life, physical, and social science
- Community and social services
- Legal
- Education, training, and library
- Arts, design, entertainment, sports, and media

- Health care practitioners and technicians
- Health care support
- Food preparation and serving
- Building and grounds cleaning and maintenance
- Personal care and service
- Sales
- Office and administration support
- Farming, fishing, and forestry
- Construction and extraction
- Installation, maintenance, and repair
- Production
- Transportation and material moving

As you can see, a wide range of occupations are part of the staffing pattern, even at the major categories level. At first glance, some occupational categories may seem out of place, such as “Farming, fishing and forestry.”

Remember that while the main product of these industries is art & culture, and in some cases displaying horticulture (Cleveland Botanical Garden), operation of the businesses requires significant inputs from labor, including the movement of goods, maintenance of buildings and grounds, construction, reconstruction and renovation, providing services to guests/patrons (including first aid), and many other aspects of managing a business, such as financial and executive management.

<sup>1</sup> <http://www.ohioworkforceinformer.com/>

<sup>2</sup> Although they were counted as unique, some occupations were variants on a theme, such as cooks, short-order cooks, restaurant cooks, and institutional cooks.

## SECTION II: INTERVIEWS WITH ARTS & CULTURE ORGANIZATIONS

The arts & culture industry in Northeast Ohio is populated by a large number of nonprofit organizations, small businesses and self-employed professionals. Although many factors affect the competitive advantage of this and other industries, none is as important as the competencies of the workforce they embody. The arts & culture industry may best be defined as a cluster of occupations (and the skills that comprise them) needed to operate the industry at various locations and venues. Upon reviewing arts & culture occupations within these industry sectors, it was determined that several workers were not readily identifiable as part of “major industry sectors.”

Beyond the thinkers and doers trained and employed in this industry, there are other professionals who are embedded in the base of the industry and play an important part of the arts & culture industry in Northeast Ohio.

To understand the extent of these hidden or embedded individuals, a series of interviews were conducted with representatives from performing, musical and visual arts organizations. The Partnership selected the firms to be interviewed. Interviews focused on the types, quantity and compensation of employees contracted or employed

at the various venues. Interviews were not intended to complete a census of individuals, but rather to provide examples of how and where these individuals add to the economic assets of this industry — and presumably its growth.

**OPERATIONS:** Outside of Northeast Ohio’s administrative, artistic, professional and scholarly services, and technical production and support, the arts industry employs a significant number of individuals who are independent contractors and highly entrepreneurial. These independent contractors — particularly artists and performers for limited one-time events — are a regular component of the nonprofit arts & culture workforce.

We found that arts & culture organizations generally own and operate their own facilities and have many logistical, technical, and operational needs when it comes to running their buildings. Many smaller organizations employ a few full-time artists and managers to run their programs and facilities. Most employees at small organizations are cross-trained to act as CEO, artist, teacher, carpenter, and ticket taker. Thus, we did not see much reported employment of occupations such as electricians, carpenters, custodians, stagehands, teamsters, etc.

This prompted several questions that were pursued during our interviews. As suspected, these organizations do indeed employ a variety of these labor functions and in varying capacities.

**USE OF ORGANIZED LABOR:** Union labor is employed directly and indirectly at many of the arts & culture venues. Large organizations and venues, such as Playhouse Square, employ union labor in the form of teamsters, stagehands, electricians, ticket takers, other maintenance workers, and wardrobe workers. This type of employment usually varies from show to show, based on changing needs and size of the show.

These large organizations also hire contract companies for caterers, cleaners, parking attendants, and off-duty police and firemen for security and code enforcement. Several of these functions are outsourced to private companies that operate under union agreements, including janitorial and cleaning services (Services Employees International Union) and food services (Hotel Employees and Restaurant Employees Union). These labor and service workers are not included in any of the organizations’ employment counts because they are not direct employees of the organizations.

# SECTION II: INTERVIEWS WITH ARTS & CULTURE ORGANIZATIONS (CONT.)

**VOLUNTEERS:** The arts & culture industry sectors are able to function and compete with commercial entertainment because of the large number of individuals who volunteer. The uniqueness of the volunteer and the number of volunteers indicates strong community support for arts & culture in this region. The Cleveland Opera uses between 300 and 500 volunteers providing a range of services including education and home hospitality for guest artists. Near West Theatre, first established as a summer youth theatre and now offering year-round theatre activities focusing on serving the youth, has its entire operation staffed by over 1,000 volunteers who produce five shows annually.

**EDUCATIONAL PROGRAMMING:** There are a significant number of arts & culture organizations that provide education to children and adults. Many of these organizations reach out to communities, especially to the needy, as part of their normal operations. For example, Young Audiences contracts between 75 and 125 independent musicians, dancers, poets, dramatists, literary

artists, and visual artists that reach 325,000 students in a six-county area. Larger organizations dedicate educational divisions (e.g., The Cleveland Orchestra and The Cleveland Museum of Art) and also engage independent artists and performers.

**COMMUNITY DEVELOPMENT:** At the other end of the size spectrum, smaller community organizations, who see their mission as driving positive change in the community by promoting cultural tolerance (Art House, Inc.), spurring local renovation and investment (Cleveland Public Theatre), creating places in Cleveland's urban landscape (Cleveland Public Art), or creating opportunities for developing and experimenting artists (SPACES), operate with small staffs but often spend significant funds on projects that employ independent professionals in the arts & culture workforce.

The spectrum of occupations examined in this section indicates that many labor occupations, not just artists and management, are contributing to the production and output of arts & culture.

Having a large pool of skilled labor/professionals not only means venues do not have to look far to find the talent needed, but that individuals in the industry have a deep market of opportunities in which to seek employment. **NORTHEAST OHIO'S VIBRANT AND FLEXIBLE LABOR MARKET CLEARLY CONTRIBUTES TO THE SUSTAINABILITY OF ARTS & CULTURE ENTERPRISES. MORE IMPORTANTLY, IT DISTINGUISHES THIS INDUSTRY AS ONE, LIKE OTHER BUSINESS SECTORS, THAT CREATES CONSIDERABLE ECONOMIC ACTIVITY AND JOBS.**

*Note: Appendix B summarizes the types of employment at the venues selected for interviews. Appendix C provides supporting information to the table in Appendix B.*

## SECTION III: STAFFING PATTERNS FROM THE ECONOMIC IMPACT ANALYSIS

The Partnership requested that Growth conduct an economic impact of arts & culture in Cuyahoga County in research done concurrently with this study. The estimates of impact were based on spending patterns by visitor-patrons who resided outside of Cuyahoga County. Using “out of county” residency as a condition for inclusion in the study is based on the assumption that only dollars imported into the county for services exported create an actual “economic” impact. Any spending by local residents on arts & culture is considered substitution. In the latter case, purchases represent a choice among alternatives within the county, and while we acknowledge that these choices have an impact, it is not an economic impact by definition.

Based on the export-base model for impacts, only visitor spending data was collected from patrons. Spending categories for this study included the value of:

- Hotel rooms
- Car rental
- Meals
- Arts & entertainment
- Retail purchases
- Local transportation
- Travel from Cleveland<sup>3</sup>

The estimates of spending were derived using a survey-based sample of patrons at nine arts & culture venues in Cuyahoga County and estimates based on extrapolations from attendance at another 15 venues in Cuyahoga County. Impact estimates were created using the survey data, which was put into a Cuyahoga-centric REMI economic impact model<sup>4</sup> for analysis. Note that the analysis was based completely on visitor spending and that the value of ongoing operations of the venues was not included.

The analysis revealed that for the 24 arts & culture venues there were an additional 3,626 jobs created from visitor spending in Cuyahoga County. Similar to the results in the earlier section, jobs were not only in the arts & culture industry, but also in industries including<sup>5</sup>:

- Management
- Business and financial operations
- Computer and mathematics
- Architecture and engineering
- Life, physical, and social science
- Community and social services
- Legal
- Education, training, and library
- Arts, design, entertainment, sports, and media

- Health care practitioners and technicians
- Health care support
- Food preparation and serving
- Building and grounds cleaning and maintenance
- Personal care and service
- Sales
- Office and administration support
- Farming, fishing, and forestry
- Construction and extraction
- Installation, maintenance, and repair
- Production
- Transportation and material moving

<sup>3</sup> Only the expenses for travel from Cleveland to zip code of residence was used. This splits the costs and benefits of travel between origin and destination.

<sup>4</sup> Regional Economic Models, Inc., Amherst, MA, [www.remi.com](http://www.remi.com).

<sup>5</sup> For a complete listing of all job estimates, see Appendix D.

## SECTION IV: STATE OF OHIO ESTIMATES OF EMPLOYMENT WITHIN ARTS & CULTURE ORGANIZATIONS

This section reviews how arts & culture occupations are present in industries within the region. These occupations were determined by using the Ohio Department of Jobs and Family Services “Inform” database. Industries identified as employing arts & culture occupations were:

- Radio & television broadcasting
- Motion pictures
- Performing arts
- Photographic studios
- Portrait, museums
- Botanical & zoological gardens
- Printing & publishing
- Miscellaneous amusement
- Recreation
- Individual and family services
- Civic & social organizations
- Membership organizations not elsewhere classified

It is important that arts & culture occupations are found in a variety of industries in Northeast Ohio. Having this large, diverse base of occupations

to draw from helps make the arts & culture industry in Northeast Ohio more viable and vibrant.

The results of this study show that there are more than 3.96 million employees in Ohio and more than 1.08 million employees<sup>6</sup> in the Cleveland-Akron CMSA who work in industries that utilize arts & culture occupations. Of these totals, there are approximately

With approximately 68.8 percent of all employees in the Cleveland CMSA and 67.5 percent of all employees in Ohio working in industries that utilize arts & culture workers as an input to complete production of final goods and services, arts & culture occupations can potentially have a very deep impact on products across all industry sectors. Table 1 shows the total employment.

TABLE 1

Area	Total Employment	Total Employment in Industries Employing Arts-Related Occupations	Number of Employees Working in an Arts-Related Occupation
OHIO	5,877,811	3,965,551	80,922
CLEVELAND CMSA	1,574,742	1,083,654	21,680

80,922 arts & culture workers in Ohio and 21,680 arts & culture workers in the Cleveland CMSA. While arts & culture workers in the Cleveland CMSA and Ohio make up only 1.38 percent of all workers, they are found in a wide variety of industries and more than half of all establishments.

<sup>6</sup> This is the total employment for all industries that have workers in arts & culture organizations.

## SECTION IV: STATE OF OHIO ESTIMATES OF EMPLOYMENT WITHIN ARTS & CULTURE ORGANIZATIONS (CONT.)

Most of the rapidly growing industries that employ arts & culture occupations are in the services sector. Some of these industries include:

- Museums, botanical & zoological gardens
- Engineering & management services
- Business services
- Social services
- Miscellaneous retail

Arts & culture employment in manufacturing sectors are seeing the slowest growth rates in:

- Chemicals & allied products
- Electronic & other electronic equipment
- Apparel & accessory stores
- Instruments & related products
- Industrial machinery & equipment

While the slow growth on the manufacturing side is not as encouraging as the increasing growth in the services arena, there are obviously many diverse sectors that employ arts & culture occupations and the many products that these occupations influence. Table 2 shows the fastest and slowest growing sectors employing arts & culture occupations.

TABLE 2

Industry	Annual Growth Rate	Establishments in Cleveland CMSA (2003)	Employment in Cleveland CMSA (2003)
Museums, Botanical & Zoological Gardens	5.00%	127	1,388
Engineering & Management Services	4.13%	6,659	75,643
Business Services	3.69%	9,554	78,716
Social Services	3.62%	2,821	41,352
Miscellaneous Retail	3.20%	6,645	45,139
Industrial Machinery & Equipment	0.07%	2,135	50,059
Instruments & Related Products	0.00%	364	11,726
Apparel & Accessory Stores	-0.28%	1,760	12,656
Electronic & Other Electronic Equipment	-0.32%	482	22,185
Chemicals & Allied Products	-1.05%	497	29,076

The growth in service-providing industries has caused the bulk of workers in arts & culture occupations to be employed in positions crucial to the products and marketing of service

providers. The occupations where most arts & culture workers are employed are in the positions of writers & editors, including technical; designers, except interior; artists & commercial artists;

writers & editors; and photographers. (See Table 3.)

TABLE 3

Occupation	Employment in Cleveland CMSA	Annual Growth Rate
Writers & Editors, Including Technical	18,635	1.70%
Designers, Except Interior	3,884	2.21%
Artists & Commercial Artists	3,378	2.00%
Writers & Editors	2,194	1.97%
Photographers	1,629	0.00%



## SECTION IV: STATE OF OHIO ESTIMATES OF EMPLOYMENT WITHIN ARTS & CULTURE ORGANIZATIONS (CONT.)

Twelve of the 20 occupations identified as arts & culture-related for this study are growing faster than the 1.25 annual percentage increase that is the average for all occupations in the State of Ohio. Only two occupations, reporters and radio & TV announcers are expected to experience a decline in numbers. Table 4 lists the fastest-growing occupations.

TABLE 4

Occupation	Annual Growth Rate	2003 Employment in Cleveland CMSA	2008 Employment in Cleveland CMSA
Technical Writers & Editors	3.57%	530	624
Camera Operators, TV & Motion Pictures	3.00%	133	153
Producers, Directors, Actors & Entertainers	2.53%	578	651
Dancers & Choreographers	2.22%	216	240
Designers (Except Interior)	2.21%	3884	4314

The industries demanding the highest proportion of arts & culture occupations in the Cleveland CMSA are diverse, but are mostly in the services sector. Industries employing the largest amount of arts & culture occupations are printing & publishing, business services, communications, membership organizations, and miscellaneous retail. (See Table 5.)

TABLE 5

Industry	2003 Arts Workers in Cleveland CMSA	Percentage of 2003 Arts Workers in Cleveland CMSA	2008 Projected Employment for Arts Workers in Cleveland CMSA	Annual Growth Rate
Printing & Publishing	3,652	16.85%	3,772	0.60%
Business Services	2,819	13.00%	3,340	3.69%
Communications	2,777	12.81%	2,862	0.61%
Membership Organizations	2,215	10.22%	2,359	1.30%
Miscellaneous Retail	1,730	7.98%	2,007	3.20%

The industries in Northeast Ohio that employ arts & culture occupations produce more than \$1.8 billion in sales, which account for 57.1 percent of the region's total sales and 14.6 percent of all sales in Ohio. This means that somewhere in the process of production or marketing of products, someone in an arts & culture occupation influenced the end product or sale of the product.

These large percentages of total sales indicate that arts & culture occupations have a deep impact in many of the region's and Ohio's products. Table 6 details these percentages.

TABLE 6

Sales for Arts Employing Industries in Cleveland CMSA (Millions)	Cleveland CMSA Total Sales (Millions)	Ohio Total Sales (Millions)	Percent of Cleveland CMSA Total Sales	Percent of Ohio Total Sales
\$188,339.2	\$329,899.9	\$1,292,568.5	57.1%	14.6%

## SUMMARY & CONCLUSIONS

This research has discussed some interesting and important findings. Prior to the start of the work, it was assumed that when most people thought of “arts & culture” occupations, they immediately thought of musicians, painters, singers, and other performance, visual and literary artists. This research has found that the arts & culture industry utilizes nearly 250 unique occupations, based not only on the product, but also on the process of running the venue.

Any business requires a wide range of staff members, including managerial, trade, clerical, transportation, and grounds/maintenance workers. In some cases (as described in Section II), these services may be staffed internally to the organization, and in other cases, may be staffed through unions and contracts with specialized firms.

In Section III, we reviewed the staffing patterns from a separate piece of research conducted on behalf of The Partnership. This work estimated the impact of visitor-patrons to arts & culture venues in Cuyahoga County. While the finding of more than 3,600 jobs in Cuyahoga County was significant, the occupations generated by visitors was equally interesting. A wide range of occupations, similar to the findings in Section I, were needed to support visitors to the county.

In Section IV, we investigated how widespread arts & culture occupations are in various industries in Northeast Ohio. It was found that these occupations were deeply embedded in a number of non-arts & culture industries. It would appear that, given the breadth of arts & culture occupations in the region, they have a significant impact on the region and its firms.

IN SUMMARY, IT IS CLEAR THAT THE ARTS & CULTURE COMMUNITY AND ITS VENUES ARE SOURCES OF A WIDE RANGE OF OCCUPATIONS BEYOND THOSE TRADITIONALLY THOUGHT OF AS SUPPORTED BY THE ARTS. EQUALLY, IT IS CLEAR THAT ARTS & CULTURE OCCUPATIONS ARE EMBEDDED IN A WIDE RANGE OF INDUSTRIES WITHIN THE REGION AND PROVIDE AN IMPORTANT INPUT FOR THESE INDUSTRIES.

## APPENDIX A — ARTS & CULTURE OCCUPATION MATRIX

<u>Code</u>	<u>Occupation</u>
<b>MANAGEMENT OCCUPATIONS</b>	
1110110016	Chief executives
1110210035	General and operations managers
1113000002	Management, business, and financial occupations
1120000005	Advertising, marketing, promotions, public relations
1120200007	Marketing and sales managers
1120210008	Marketing managers
1130110004	Administrative services managers
1130210017	Computer and information systems managers
1130310031	Financial managers
1130400036	Human resources managers
1190100011	Agricultural managers
1190110012	Farm, ranch, and other agricultural managers
1190300022	Education administrators
1190410027	Engineering managers
1190510032	Food service managers
1190710034	Gaming managers
1190810042	Lodging managers
1191980053	All other managers
<b>BUSINESS AND FINANCIAL OPERATIONS OCCUPATIONS</b>	
1300000055	Business and financial operations occupations
1310000056	Business operations specialists
1310110057	Agents and business managers of artists, performers, and athletes
1310200058	Buyers and purchasing agents
1310410065	Compliance officers, except agriculture, construction, health
1310710070	Employment, recruitment, and placement specialists
1310720069	Compensation, benefits, and job analysis specialists
1310900068	Human resources, training, and labor relations specialists
1311110072	Management analysts
1311210073	Meeting and convention planners
1311980074	All other business operations specialists
1320000078	Financial specialists
1320110079	Accountants and auditors
1320510083	Financial analysts
1320990092	All other financial specialists

## APPENDIX A — ARTS & CULTURE OCCUPATION MATRIX (CONT.)

<u>Code</u>	<u>Occupation</u>
<b>COMPUTER AND MATHEMATICAL OCCUPATIONS</b>	
1510000095	Computer specialists
1510210096	Computer programmers
1510300106	Computer software engineers
1510310107	Computer software engineers, applications
1510410109	Computer support specialists
1510510102	Computer systems analysts
1510610110	Database administrators
1510990113	All other computer specialists
1511000100	Computer scientists and systems analysts
<b>ARCHITECTURE AND ENGINEERING OCCUPATIONS</b>	
1720000132	Engineers
1720510137	Civil engineers
1720700139	Electrical and electronics engineers
1720710140	Electrical engineers
1720810142	Environmental engineers
1721410148	Mechanical engineers
1721990152	All other engineers
1730000156	Drafters, engineering, and mapping technicians
1730230164	Electrical and electronic engineering technicians
1730500161	Engineering technicians, except drafters
1730990170	All other drafters, engineering, and mapping technicians
<b>LIFE, PHYSICAL, AND SOCIAL SCIENCE OCCUPATIONS</b>	
1910000176	Life scientists
1910100177	Agricultural and food scientists
1910300186	Conservation scientists and foresters
1910600192	All other life scientists
1930200215	Market and survey researchers
1930210216	Market research analysts
1940000237	Life, physical, and social science technicians
<b>COMMUNITY AND SOCIAL SERVICES OCCUPATIONS</b>	
2110120254	Educational, vocational, and school counselors
2110300253	Counselors
2120210268	Directors, religious activities and education
2190990273	All other counselors, social, and religious workers
<b>LEGAL OCCUPATIONS</b>	
2310110283	Lawyers

## APPENDIX A — ARTS & CULTURE OCCUPATION MATRIX (CONT.)

<u>Code</u>	<u>Occupation</u>
<b>EDUCATION, TRAINING, AND LIBRARY OCCUPATIONS</b>	
2520120335	Kindergarten teachers, except special education
2520200336	Elementary and middle school teachers
2520210337	Elementary school teachers, except special education
2530110348	Adult literacy, remedial education, and GED teachers and instructors
2539990350	All other teachers, primary, secondary, and adult
2540100353	Archivists, curators, and museum technicians
2540100353	Archivists, curators, and museum technicians
2540210357	Librarians
2540310358	Library technicians
2541000352	Library, museum, training, and other education occupations
2590310363	Instructional coordinators
2591990364	All other library, museum, training, and other education workers
<b>ARTS, DESIGN, ENTERTAINMENT, SPORTS, AND MEDIA OCCUPATIONS</b>	
2710000367	Art and design occupations
2710110369	Art directors
2710130370	Fine artists, including painters, sculptors, and illustrator
2710220374	Fashion designers
2710230375	Floral designers
2710240376	Graphic designers
2710250377	Interior designers
2710260378	Merchandise displayers and window trimmers
2710990380	All other art and design workers
2711100368	Artists and related workers
2711200372	Designers
2720000384	Entertainers and performers, sports and related occupations
2720100385	Actors, producers, and directors
2720110386	Actors
2720200388	Athletes, coaches, umpires, and related workers
2720210389	Athletes and sports competitors
2720220390	Coaches and scouts
2720300392	Dancers and choreographers
2720310393	Dancers
2720320394	Choreographers
2730000399	Media and communication occupations
2730100400	Announcers
2730910412	Interpreters and translators
2730990413	All other media and communication workers
2740000414	Media and communication equipment occupations
2740100415	Broadcast and sound engineering technicians and radio operators
2740110416	Audio and video equipment technicians
2740120417	Broadcast technicians
2740310422	Camera operators, television, video, and motion picture
2740320423	Film and video editors
2740990424	All other media and communication equipment workers

## APPENDIX A — ARTS & CULTURE OCCUPATION MATRIX (CONT.)

<u>Code</u>	<u>Occupation</u>
<b>HEALTH CARE PRACTITIONERS AND TECHNICAL OCCUPATIONS</b>	
2910000426	Health diagnosing and treating practitioners
2910310434	Dietitians and nutritionists
2911980473	All other health diagnosing and treating practitioners
2920500487	Health diagnosing and treating practitioner support technicians
2920510488	Dietetic technicians
2991980503	All other health practitioners and technical workers
<b>HEALTH CARE SUPPORT OCCUPATIONS</b>	
3190800520	Medical assistants and other healthcare support occupations
3190990526	All other healthcare support workers
3310990532	First-line supervisors/managers of protective service worker
3390950553	All other protective service workers
<b>FOOD PREPARATION AND SERVING-RELATED OCCUPATIONS</b>	
3510110558	Chefs and head cooks
3510120559	First-line supervisors/managers of food preparation and servers
3520110562	Cooks, fast food
3520120563	Cooks, institution and cafeteria
3520140565	Cooks, restaurant
3520150566	Cooks, short order
3520210567	Food preparation workers
3521000560	Cooks and food preparation workers
3530000568	Food and beverage serving workers
3530110569	Bartenders
3530210570	Combined food preparation and serving workers
3530220571	Counter attendants, cafeteria, food concession, and coffee shop
3530410572	Food servers, non-restaurant
3590110575	Dining room and cafeteria attendants and bartender helpers
3590210576	Dishwashers
3590310577	Hosts and hostesses, restaurant, lounge, and coffee shop
3590980578	All other food preparation and serving related workers
<b>BUILDING AND GROUNDS CLEANING AND MAINTENANCE OCCUPATIONS</b>	
3710110583	First-line supervisors/managers of housekeeping and janitorial
3710120584	First-line supervisors/managers of landscaping, lawn service
3720110586	Janitors and cleaners, except maids and housekeeping cleaner
3720120587	Maids and housekeeping cleaners
3721000585	Building cleaning workers
3730110592	Landscaping and groundskeeping workers
3731000591	Grounds maintenance workers
3790990596	All other building and grounds cleaning and maintenance work

## APPENDIX A — ARTS & CULTURE OCCUPATION MATRIX (CONT.)

<u>Code</u>	<u>Occupation</u>
<b>PERSONAL CARE AND SERVICE OCCUPATIONS</b>	
3910210600	First-line supervisors/managers of personal service workers
3920000601	Animal care and service workers
3920110602	Animal trainers
3930210608	Motion picture projectionists
3930800610	Miscellaneous entertainment attendants and related workers
3930880612	Costume, locker room and other attendants
3930910611	Amusement and recreation attendants
3931000607	Entertainment attendants and related workers
3950120630	Hairdressers, hairstylists, and cosmetologists
3950900631	Miscellaneous personal appearance workers
3990310637	Fitness trainers and aerobics instructors
3990980650	All other personal care and service workers
<b>SALES AND RELATED OCCUPATIONS</b>	
4110110675	First-line supervisors/managers of retail sales workers
4110120676	First-line supervisors/managers of non-retail sales workers
4120100655	Cashiers
4120210658	Counter and rental clerks
4130110654	Advertising sales agents
4190980679	All other sales and related workers
<b>OFFICE AND ADMINISTRATION SUPPORT OCCUPATIONS</b>	
4310110683	First-line supervisors/managers of office and administrative
4320000684	Communications equipment operators
4320990687	All other communications equipment operators
4330000689	Financial clerks
4330110690	Bill and account collectors
4330210691	Billing and posting clerks and machine operators
4330310692	Bookkeeping, accounting, and auditing clerks
4340000697	Information and record clerks
4340510702	Customer service representatives
4340710704	File clerks
4340810705	Hotel, motel, and resort desk clerks
4341610706	Human resources assistants, except payroll and timekeeping
4349990714	All other financial, information, and record clerks
4350000716	Material recording, scheduling, dispatching, and distributing
4350210718	Couriers and messengers
4350300719	Dispatchers
4350320720	Dispatchers, except police, fire, and ambulance
4351990731	All other material recording, scheduling, dispatching, and distributing
4360110744	Executive secretaries and administrative assistants
4370000688	Financial, information, and record clerks
4390110733	Computer operators
4390200734	Data entry and information processing workers
4390210735	Data entry keyers
4390510739	Mail clerks and mail machine operators, except postal service
4399990749	All other secretaries, administrative assistants, and other

## APPENDIX A — ARTS & CULTURE OCCUPATION MATRIX (CONT.)

<u>Code</u>	<u>Occupation</u>
<b>FARMING, FISHING, AND FORESTRY OCCUPATIONS</b>	
4510100752	First-line supervisors/managers/contractors of farming, fishing and forestry
4520800757	Farm workers
4521000755	Agricultural workers
4591000771	All other farming, fishing, and forestry workers
<b>CONSTRUCTION AND EXTRACTION OCCUPATIONS</b>	
4710110779	First-line supervisors/managers of construction trades and extraction
4720000780	Construction trades and related workers
4720200782	Brickmasons, blockmasons, and stonemasons
4720310785	Carpenters
4720610794	Construction laborers
4720700795	Construction equipment operators
4721110802	Electricians
4730000817	Helpers, construction trades
4740950833	All other construction and related workers
<b>INSTALLATION, MAINTENANCE, AND REPAIR OCCUPATIONS</b>	
4910110856	First-line supervisors/managers of mechanics, installers, and repairers
4920000857	Electrical and electronic equipment mechanics, installers, and repairers
4920110859	Computer, automated teller, and office machine repairers
4920800862	Electrical and electronics repairers, industrial and utility
4920920860	Electric motor, power tool, and related repairers
4920940863	Electrical and electronics repairers, commercial and industrial
4920990871	All other electrical and electronic equipment mechanics
4930210876	Automotive body and related repairers
4930230878	Automotive service technicians and mechanics
4930310879	Bus and truck mechanics and diesel engine specialists
4930400880	Heavy vehicle and mobile equipment service technicians
4930420882	Mobile heavy equipment mechanics, except engines
4930800888	Miscellaneous vehicle and mobile equipment mechanics
4930910889	Bicycle repairers
4930990892	All other vehicle and mobile equipment mechanics, installers
4990210898	Heating, air conditioning, and refrigeration mechanics
4990420906	Maintenance and repair workers, general
4990430907	Maintenance workers, machinery
4990880917	All other installation, maintenance, and repair workers
4990910894	Coin, vending, and amusement machine servicers and repairers
4990980899	Helpers—installation, maintenance, and repair workers



## APPENDIX A — ARTS & CULTURE OCCUPATION MATRIX (CONT.)

<u>Code</u>	<u>Occupation</u>
PRODUCTION OCCUPATIONS	
5110110924	First-line supervisors/managers of production and operating
5120000925	Assemblers and fabricators
5120310931	Engine and other machine assemblers
5120900933	Miscellaneous assemblers and fabricators
5120910934	Fiberglass laminators and fabricators
5120990937	All other assemblers and fabricators
5130000938	Food processing occupations
5130110939	Bakers
5140000948	Metal workers and plastic workers
5140310952	Cutting, punching, and press machine setters, operators,
5140410960	Machinists
5160111003	Laundry and dry-cleaning workers
5160991018	All other textile, apparel, and furnishings workers
5191931034	Cooling and freezing equipment operators and tenders
5191981045	Helpers—production workers
5191991064	All other production workers
TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS	
5310211068	First-line supervisors/managers of helpers, laborers
5310311069	First-line supervisors/managers of transportation
5330201080	Bus drivers
5330211082	Bus drivers, transit and intercity
5330301083	Driver/sales workers and truck drivers
5330311084	Driver/sales workers
5330991088	All other motor vehicle operators
5370001113	Material moving occupations
5370321117	Excavating and loading machine and dragline operators
5370511119	Industrial truck and tractor operators
5370611114	Cleaners of vehicles and equipment
5370621120	Laborers and freight, stock, and material movers
5370981129	All other material moving workers

## APPENDIX B — VENUES SELECTED FOR INTERVIEW PROCESS

	FULL-TIME EMPLOYEES	PART-TIME EMPLOYEES	VOLUNTEERS	USE CONTRACTORS	USE LABOR UNIONS	ANNUAL BUDGET
Cleveland Orchestra	35		Hundreds		I,M,S	
Cleveland Opera	25		300–500	300	T,I,M,S	\$4mm
Playhouse Square Foundation	106	213		54	T,I,M,S	\$34.6mm
Beck Center	23	159	100+	Yes	No	\$2.2mm
Karamu House	20	5	75	Yes	No	\$1.5mm
Young Audiences	7			75–125	No	\$1.6mm
Near West Theater	6	1	1200		No	
Cleveland Playhouse	80	70	150	470K	Yes	\$8.5mm
Cleveland Public Theater	11	5	Yes	283	No	
Cleveland Museum of Art	269	145	900	\$2.4mm	Service Emps Int'l	
Cleveland Museum of Natural History	100	50	80	No	No	\$10mm
Museum of Contemporary Art	15	5	6–8	25	No	\$1.4mm
SPACES Gallery	2	4		60–70	No	\$400,000
Rock and Roll Hall of Fame	86	14	44	Yes	S	\$20mm
Cleveland Public Art	3	4	5	5–15	No	\$500–800,000
Art House	1	1	50–70	6–10	No	\$200,000

T = Teamsters  
I = Ticket Takers  
M = Musicians  
S = Stagehands

## APPENDIX C — SUPPORTING INFORMATION FOR APPENDIX B

- One exception to the rule of using labor unions was the Beck Center for the Arts in Lakewood. Beck Center employs all people who work under the roof of their building. The only contracts they listed were for snow removal, lawn care, and maintenance on their computer systems. Volunteers also provide a vital backbone of support to Beck Center's many productions.
- The Rock and Roll Hall of Fame and Museum relies heavily on IATSE labor and contracts for the many shows, concerts and special displays they bring in each year. Also relying on contracts for building services, the Rock Hall is able to limit its total employment to 100.
- The Cleveland Museum of Natural History employs relatively few union employees, usually just for construction projects, as needed. They rely heavily on contracts to fulfill needs such as exterior maintenance, HVAC, Web site design, equipment maintenance, and plumbing. They do, however, employ full-time janitorial and maintenance staff.
- The Cleveland Opera manages Severance Hall along with the Opera, so being able to limit their full-time employment to 25 people is dependent on five full-time union stagehands, seven members of the ticket takers union, four maintenance staff from the service employees union, and three union security staff members.
- Playhouse Square was the hardest to quantify, but they did identify the many unions that they draw employment from. Besides IATSE, ticket takers and Teamsters, Playhouse Square hires employees from actors, musicians, electricians, service employees, and wardrobe unions. They also directly hire policemen and firemen to provide security and building code enforcement. Playhouse Square contracts for catering, cleanup and parking services.
- Karamu House, one of the smaller venues, employs 20 full-time and five part-time staff, while maintaining a non-union shop. They contract with Labor Ready to provide temporary employment on a show-by-show basis.
- The Near West Theatre employs six full-time and one part-time employee. They rely on 1,200 volunteers annually to produce shows, run classes, and manage their building.
- Cleveland Public Theater employs 11 full-time and five part-time staff. They rely heavily on students and volunteers to provide most of the services they require.
- SPACES Gallery has two full-time and four part-time employees. They use no union labor, but they contract with many private businesses to provide services such as carpentry, electrical, advertising, marketing, cleaning and maintenance.
- Art House has one full-time and one part-time employee. They use no union labor and rely on six to 10 contractors to provide other services as needed, also heavily relying on 50 to 75 volunteers for most of their needs.

## APPENDIX D — STAFFING IMPACTS FROM REMI ANALYSIS

<b><u>Occupation</u></b>	<b><u>2003</u></b>
Food and beverage serving workers	579
Motor vehicle operators	328
Cooks and food preparation workers	223
Building cleaning workers	194
All other sales and related workers	191
Management occupations	191
Other food preparation and serving	152
Information and record clerks	138
Secretaries, administrative assistant	128
Construction trades and related workers	98
Retail salespersons	89
Other health professionals and technicians	84
Supervisors, food preparation	73
Material recording, scheduling,	71
Financial clerks	69
Material moving occupations	69
Other installation, maintenance...	58
First-line supervisors/managers	55
Other protective service workers	53
Computer specialists	51
Vehicle and mobile equipment mechanics	43
Entertainment attendants and related	41
Grounds maintenance workers	39
Gaming occupations	38
Entertainers and performers, sports	37
Business operations specialists	34
Supervisors, sales workers	34
Recreation and fitness workers	32
Financial specialists	30
Other production occupations	29
Transportations, tourism, and lodging	20
Textile, apparel, and furnishings	19
Metal workers and plastic workers	18
Primary, secondary, and special education	16
Supervisors, building and grounds	16
Assemblers and fabricators	16
Healthcare support occupations	15
Child care workers	14
Engineers	14
Health diagnosing and treating practices	13
Food processing occupations	13
Drafters, engineering, and mapping	10
Personal appearance workers	10
Media and communications occupations	10
Related transportation occupations	10

## APPENDIX D — STAFFING IMPACTS FROM REMI ANALYSIS

<u>Occupation</u>	<u>2003</u>
Supervisors, transportation and material movers	9
Art and design occupations	9
Communications equipment operators	9
Other teachers and instructors	9
Agricultural workers	9
Electrical and electronic equipment	9
Lawyers	8
Library, museum, training and other	8
All other personal care and service	8
Printing occupations	6
Media and communication equipment	6
Pest control workers and all other	6
All other and misc. legal and related	5
Post-secondary teachers	5
Law enforcement workers	5
All other and misc. counselors	4
All other financial, information, etc.	3
Animal care and service workers	3
Life, physical and social science	3
Real estate brokers and sales agent	3
Personal and home care aides	3
Social scientists and related occupations	3
Architects, surveyors, and cartographers	3
Religious workers	3
Counselors	2
Plant and system operators	2
Social workers	2
Physical scientists	2
Woodworkers	2
Fire fighters and inspectors	2
All other farming, fishing, etc.	1
Life scientists	1
Water transportation occupations	1
Other education, training, library	1
Air transportation occupation	1
Mathematical science occupations	1
Extraction workers	1
Funeral service workers	1
Residential advisors	1
<b>Total jobs impact</b>	<b>3,626</b>

## APPENDIX E — METHODOLOGY FOR SECTION IV

The first step in identifying employment numbers was to find the industries that include arts & culture-related occupations. This was done using the “Inform” database from the Ohio Department of Jobs and Family Services, Bureau of Labor Market Information (LMI).

Occupation descriptions and industry information embedded in the “Inform” database were the basis for this analysis.

LMI was able to give us the number of arts & culture occupations employed in each industry in the State of Ohio by two-digit SIC code. From these figures, we could arrive at the percent of total employment in each industry for Ohio. In order to arrive at numbers for the Cleveland CMSA, we used industry employment figures provided by Dun & Bradstreet’s (D&B) Marketplace database to create a matrix of employment by industry. The matrix works by first finding the quotient of the total number of Ohio arts & culture-related workers in each industry divided by the total number of employees. We then took this percentage and multiplied it by the total labor force for the Cleveland CMSA. The product is an estimate of the number of workers employed in an arts & culture-related occupation in the Cleveland CMSA.

Having the estimate of the number employed in arts & culture-related occupations allowed us to estimate future employment by industry. Future employment was calculated by annualizing the 10-year growth rate for each industry (obtained from LMI) and applying this rate to the number of workers employed in each industry. This allowed us to project employment from 2003 to 2008.

The number of establishments in each industry also was obtained from D&B, and the same growth rate for employment was applied to these figures to get an estimate for 2008.

Employment by occupation in the State of Ohio was obtained from LMI. The percent of state employment for each occupation was applied to D&B’s employment figures to get an estimate of the number of workers in each occupation for the Cleveland CMSA. LMI also provided a 10-year projected employment figure, which was again annualized and applied to the 2003 employment levels, enabling an estimate for 2008 employment by occupation for the Cleveland CMSA.

Sales figures were taken from D&B for each industry employing arts & culture occupations. This figure was then divided by the total sales for the Cleveland CMSA and Ohio to get the percentage of each.

It is important to note some possible errors in our methodology. The LMI data used 1998 employment figures, which is the most current year available for occupational employment data. The D&B data used 2003 figures. This could cause a problem in calculating the percentage of arts & culture-related occupational employment in an industry since there has been six years of growth in one part of the equation. We expect this to minimally impact the study.

Another area where small errors may develop is in using statewide data to calculate percentages for the Cleveland-Akron CMSA. Unfortunately, there are no data available at the CMSA level that show the number of workers by occupation in each industry. We are confident that the methodology used in this study is the best estimate, since the Cleveland-Akron CMSA represents well over a third of Gross State Product and a quarter of total employment. With such a large portion of economic activity, the Cleveland-Akron CMSA’s industry makeup should closely mirror the statewide distribution, minimizing any error.