

## RESEARCH MEMORANDUM

**TO:** Northwest Ohio Arts Exchange  
**FROM:** Michael C. Carroll, Ph.D., Director  
**SUBJECT:** Arts and Regional Prosperity: Economic Impact of the Creative Industries  
In Northwest Ohio  
**DATE:** September 29, 2007

### Research Statement

The purpose of this memorandum is to identify and measure the annual economic impact created by the “creative industries” in Northwest Ohio. The baseline data used in this report is from Federal and State sources such as the Bureau of Labor Statistics, Economic Development Administration, Internal Revenue Service, and the Ohio Department of Development. All of the economic forecasts were based on reported data. No forecasts were begun with an assumed or estimated parameter. The agency information was taken as datum and no attempt was made to verify or audit financial systems and procedures of the data reporting agencies. Every attempt was made to accurately measure and spatially place the relevant, “real” economic impacts. It should be noted that this memorandum contains only openly reported activities and no attempt was made to estimate “off the books” activity.



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Michael C. Carroll, Ph.D

## **EXECUTIVE SUMMARY**

The purpose of this study is to demonstrate the economic impact the “creative industries” has on the twenty-seven county Northwest Ohio region’s economy. The basis of the study was to examine the economic impact of the creative industries in terms of direct, indirect and induced activity within the region. The study was commissioned by Northwest Ohio Arts Exchange (NWoAX). The NWoAX group is a collaboration of artists, arts educators, arts administrators, arts advocates and supporters. There are nineteen primary industries that were chosen and based on the definition of creative industries provided by the Americans for the Arts.

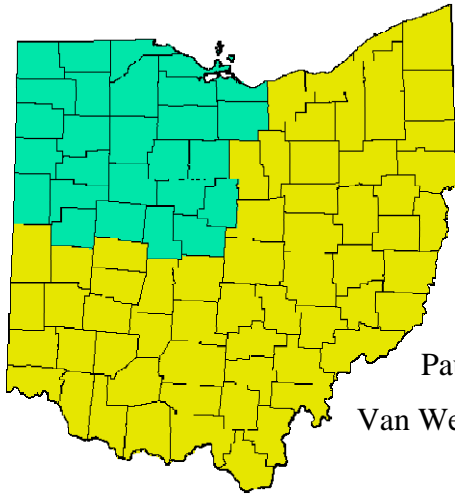
### *Selected Highlights*

- The creative industries create an annual economic impact of \$2.4 billion annually in Northwest Ohio.
- Creative industries support 33,426 jobs annually in Northwest Ohio.
- Creative industries generate \$96,960,484 in state and local tax revenue annually.
- Creative industries generate \$150,976,684 in federal tax revenues annually.
- Creative industries create \$781,332,212 in labor income.
- Creative industries wages are higher than the state average.
- Creative industries display the same infrastructure as other knowledge-based industries.

The study examined the economic impact in terms of direct, indirect and induced output by the creative industries. The direct output for the industries represents the actual value of the goods or services produced or performed. The indirect output represents the business to business purchasing and the induced encompasses the employee spending by the employees of those industries.

**STUDY AREA:**

The study area coincides with the 27 county region of the Center for Regional



Development. CRD is a State of Ohio Rural University Center and serves the Northwest Ohio region. The counties included are: Allen, Auglaize, Crawford, Defiance, Delaware, Erie, Fulton, Hancock, Hardin, Henry, Huron, Logan, Lucas, Marion, Mercer, Morrow, Ottawa, Paulding, Putnam, Sandusky, Seneca, Shelby, Union, Van Wert, Williams, Wood, and Wyandot.

**INDUSTRIES SELECTED:**

Much has been written as to which industries should be labeled “Creative.” To simplify the analysis and give the study as sense of continuity, the industries selected are those identified by the Americans for The Arts. The industries generally fall into six main classifications:

- Museums and Collections
- Performing Arts
- Visual Arts/Photography
- Film, Radio, and Television
- Design and Publishing
- Schools and Services

Given limitations in the available data, Architectural services and retail were not included in this study. There was no appropriate way of separating the subcategories and hence were eliminated from the study.

**Table 1**  
Americans for the Arts  
Definition of the *Creative Industries*:  
The Standard Industrial Classification (SIC) Codes  
of the Nation's Arts-Related Businesses

**Museums and Collections**

- Museums
- Zoos and Botanical
- Historical Society
- Planetarium

**Performing Arts**

- Music Groups
- Orchestras
- Composing and Arranging
- Recording/Playback Equipment
- Recorded Music Sales
- Studios
- Concert Management
- Instruments (manufacturing/distribution)
- Professional Companies
- Amateur Companies
- Dance Companies
- Opera Companies
- Costume/Scenery Rental
- Theatrical Productions
- Casting and Booking Agents
- Ticket Agencies
- Performing Arts Centers
- Dance Halls and Studios
- Theatrical Equipment
- Entertainers
- Actors

**Visual Arts/Photography**

- Stone, Clay, and Glass
- Jewelry
- Stained Glass
- Textiles
- Home Furnishing Crafts
- Artist Studios
- Art Galleries
- Studios
- Commercial Photography

Photo Finishing Labs  
Photography Equipment  
Retail Stores  
Services and Supplies

**Film, Radio, and Television**

Production  
Distribution  
Services  
Equipment  
Theaters  
Video Tape Rentals  
Television Stations  
Radio Stations  
Producers  
Disk Jockeys

**Design and Publishing**

Architects  
Architecture Supplies  
Commercial and Industrial  
Interior  
House  
Art Periodicals  
Arts Publishing  
Books  
Book Clubs  
Advertising Agencies  
Display Products

**Schools and Services**

Arts Councils  
Art Schools  
Arts and Crafts Instruction  
Dance Schools and Instruction  
Music and Drama Schools  
Agents and Brokers  
Patents and licensing

The estimates were made using the IMPLAN model and the specific IMPLAN industrial classifications are given below.

**IMPLAN Sectors**

- Radio and television broadcasting
- Advertising and related services
- Specialized design services

- Ornamental and architectural metal work manufacturing
- Motion picture and video industries
- Museums
- Photographic services
- Video tape and disc rental
- Sign manufacturing
- Promoters of performing arts
- Independent artists- writers- and performers
- Performing arts companies
- Sound recording industries
- Book publishers and newspapers
- Custom architectural woodwork and millwork
- Musical instrument manufacturing
- Cable networks and program distribution
- Audio and video media reproduction

## **METHODOLOGY**

This section outlines the general methodology used to calculate the economic impact. A brief discussion of the models employed is followed by a description of the pertinent data used in the economic calculations. The primary data which includes industry employment levels and local demographic characteristics are taken from state and national data sources.

### ***General Economic Forecasting Model Specification***

This study employed an Input\Output model to make the primary economic forecasts. Input\Output methodology allows the examination of forward and backward linkages that are present in any regional economy. The model measures the total annual economic activity that results from inter- and intra-industry transactions. The model breaks the economy into approximately 500 separate sectors with each sector representing an individual industry. It then uses a sectoring scheme developed by the IMPLAN Group and is closely related to the Bureau of Economic Analysis (BEA) REIS model. The model is a approximate 500X500 (row x column) matrix that shows all the economic activity between the individual sectors. The entries in the matrix are based on the dollar amount that each industry sells to (and purchases from) other industries in the Ohio

economy. It measures the amount of final consumption by the residents of the region as well as how much each industry exports from the area. The model uses data collected at the county level, which are obtained from the IMPLAN Group and the BEA. County data are in turn aggregated or “rolled-up” to form service areas such as local areas, states or larger geographic regions such as the Midwest.

Input\Output models estimate economic impacts by taking advantage of the relatively stable patterns in the flow of goods and services within the economy. Predictions can be made of an industry’s total economic impact by examining the purchasing patterns of the individual sectors. The BEA collects extensive data on these regional trade flows and reports their findings annually.

Spatial patterns are then defined through a Geographical Information System (GIS) interface. This GIS interface affords the ability to spatially locate and describe the economic phenomena under consideration. It further allows the forecasting model to accurately describe (+-30 ft from a centroid location) the physical location of any economic activity reported. Economic activity, once accurately defined, can be tracked through to its ultimate destination. Any degradation of the economic impact is assumed to be a function of distance decay or information/transportation infrastructure inadequacies.

### ***Primary Data***

Once the primary (direct) impact is identified, it is necessary to estimate the ultimate impact on the economy. This study’s forecasting model utilizes variables from a variety of national data sets. To reduce potential confusion, a specific definition of the major variables may be of use.

### ***Industry Output***

Industry output represents the value of the industry’s total production. Industry output can be thought of as the value of industry sales plus or minus inventory changes. It should be emphasized that industry output is not a measure of an industry’s income and,

therefore, cannot be directly compared to the Gross State Product (GSP) numbers reported by the BEA. The value of industry output is typically higher than GSP. It is a more comprehensive measure and, therefore, is a better measure of true economic impacts. The IMPLAN model estimates the industry output data, which are derived from the Bureau of Economic Census, the Annual Survey of Manufacturers, and the Bureau of Labor Statistics growth model.

### ***Employment***

Employment is the total number of full-time wage and salary employees, plus the number of self-employed workers within a particular industry. Part-time workers' hours are aggregated into full-time equivalents (2,080 hours), and reported with the full-time workers. In our process, each year's activity is computed separately so that the employment effects are computed each year.

No single source of employment data is adequate for accurately estimating employment impacts. Due to nondisclosure rules, the employment figure reported by government agencies often underestimates true employment in a given county. In accordance with U.S. Code Title 13, Section 9, no datum is published that would disclose the operations of an individual employer or put an individual employer at an unfair disadvantage. In this study, as we narrow our focus to the county level, the number of firms representing an industry inevitably decreases. It is not uncommon for a single business establishment to be the sole operator in that industry in a particular county. If this is the case, the employment numbers are not disclosed and the employment in that region is understated. Fortunately, it is possible to reconstruct a region's employment by combining data from a variety of sources. Non-disclosure rules require that the individual reporting agency not reveal confidential information. However, other government agencies may report the missing data in another form. For example, the U.S. Department of Labor collects labor data as part of the Unemployment Insurance ES-202 program. These data are for "covered employees" of the Unemployment Insurance Program. Workers not "covered," such as self-employed workers, would not be included in the data. However, "not covered" workers would be included in the employment figures captured by the

Department of Census County Business Patterns. By carefully combining the employment figures reported in the ES-202 data set, the County Business Patterns, the REIS data and the Internal Revenue Service Quarterly Payroll File (FICA), a fairly comprehensive employment figure can be reconstructed. The raw data are then “sectored” into the appropriate SICs and, in turn, combined into the necessary industry vectors and IMPLAN matrices.

## **RESULTS**

The economic impact of the creative industries in northwest Ohio is quite significant. Generating more than \$2.4 billion dollars in economic activity and supporting 33,426 jobs annually. Further, the fiscal impacts are also significant. The creative industries generate nearly \$97 million dollars for state and local government and in excess of \$150 million annually for the Federal government.

### *Highlights*

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The economic impacts for specific industries are contained in Table 2 below.

**Table 2**  
**Economic Impact by Industry**

<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
1	Oilseed farming	78,825	0.9
2	Grain farming	199,542	3.6
3	Vegetable and melon farming	467,501	2.6
4	Tree nut farming	16	0
5	Fruit farming	17,460	0.1
6	Greenhouse and nursery production	271,318	2.1
7	Tobacco farming	0	0
8	Cotton farming	0	0
9	Sugarcane and sugar beet farming	499	0
10	All other crop farming	141,240	0.5
11	Cattle ranching and farming	2,065,538	13.2
12	Poultry and egg production	874,522	1.6
13	Animal production- except cattle and poultry and e	1,186,522	31.7
14	Logging	261,161	0.9
15	Forest nurseries- forest products- and timber trac	0	0
16	Fishing	21,608	0.8
17	Hunting and trapping	100,254	0.7
18	Agriculture and forestry support activities	158,102	4.8
19	Oil and gas extraction	1,108,650	3.8
20	Coal mining	2,237	0
21	Iron ore mining	0	0
22	Copper- nickel- lead- and zinc mining	0	0
23	Gold- silver- and other metal ore mining	0	0
24	Stone mining and quarrying	12,607	0.1
25	Sand- gravel- clay- and refractory mining	175	0
26	Other nonmetallic mineral mining	98	0
27	Drilling oil and gas wells	762	0
28	Support activities for oil and gas operations	1,333	0
29	Support activities for other mining	1	0
30	Power generation and supply	16,373,554	31.3
31	Natural gas distribution	2,507,179	3.9
32	Water- sewage and other systems	184,599	1.3
33	New residential 1-unit structures- all	0	0
34	New multifamily housing structures- all	0	0
35	New residential additions and alterations- all	0	0
36	New farm housing units	0	0
37	Manufacturing and industrial buildings	0	0
38	Commercial and institutional buildings	0	0
39	Highway- street- bridge- and tunnel construction	0	0
40	Water- sewer- and pipeline construction	0	0
41	Other new construction	0	0

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**Economic Impact by Industry**

<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
42	Maintenance and repair of farm and nonfarm residen	1,204,065	9.8
43	Maintenance and repair of nonresidential buildings	7,898,544	81
44	Maintenance and repair of highways- streets- bridg	0	0
45	Other maintenance and repair construction	1,105,526	15.4
46	Dog and cat food manufacturing	44,391	0
47	Other animal food manufacturing	26,876	0
48	Flour milling	37,160	0.1
49	Rice milling	0	0
50	Malt manufacturing	0	0
51	Wet corn milling	0	0
52	Soybean processing	48,662	0
53	Other oilseed processing	0	0
54	Fats and oils refining and blending	0	0
55	Breakfast cereal manufacturing	130,566	0.1
56	Sugar manufacturing	0	0
57	Confectionery manufacturing from cacao beans	0	0
58	Confectionery manufacturing from purchased chocola	16,829	0.1
59	Nonchocolate confectionery manufacturing	93,983	0.3
60	Frozen food manufacturing	62,253	0.2
61	Fruit and vegetable canning and drying	350,168	0.8
62	Fluid milk manufacturing	1,376,318	2.5
63	Creamery butter manufacturing	61,070	0.1
64	Cheese manufacturing	313,977	0.4
65	Dry- condensed- and evaporated dairy products	892,160	1.2
66	Ice cream and frozen dessert manufacturing	624,648	1.5
67	Animal- except poultry- slaughtering	1,998,426	5.5
68	Meat processed from carcasses	2,867,961	6.8
69	Rendering and meat byproduct processing	504,836	1.1
70	Poultry processing	1,232,702	6.4
71	Seafood product preparation and packaging	143,397	0.6
72	Frozen cakes and other pastries manufacturing	0	0
73	Bread and bakery product- except frozen- manufactu	2,000,403	15.7
74	Cookie and cracker manufacturing	1,032,206	3.1
75	Mixes and dough made from purchased flour	408,830	1.1
76	Dry pasta manufacturing	15,079	0
77	Tortilla manufacturing	131,391	0.9
78	Roasted nuts and peanut butter manufacturing	5,135	0
79	Other snack food manufacturing	1,134,789	2.1
80	Coffee and tea manufacturing	34,597	0.1
81	Flavoring syrup and concentrate manufacturing	0	0
82	Mayonnaise- dressing- and sauce manufacturing	107,292	0.3

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<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
83	Spice and extract manufacturing	32,026	0.1
84	All other food manufacturing	768,875	3
85	Soft drink and ice manufacturing	63,794	0.1
86	Breweries	20,289	0
87	Wineries	10,317	0
88	Distilleries	0	0
89	Tobacco stemming and redrying	0	0
90	Cigarette manufacturing	0	0
91	Other tobacco product manufacturing	0	0
92	Fiber- yarn- and thread mills	0	0
93	Broadwoven fabric mills	8,607	0.1
94	Narrow fabric mills and schiffli embroidery	664	0
95	Nonwoven fabric mills	37,731	0.1
96	Knit fabric mills	0	0
97	Textile and fabric finishing mills	25,438	0.1
98	Fabric coating mills	34,130	0.1
99	Carpet and rug mills	0	0
100	Curtain and linen mills	21,616	0.1
101	Textile bag and canvas mills	9,225	0.1
102	Tire cord and tire fabric mills	0	0
103	Other miscellaneous textile product mills	4,414	0
104	Sheer hosiery mills	0	0
105	Other hosiery and sock mills	0	0
106	Other apparel knitting mills	1,081	0
107	Cut and sew apparel manufacturing	956,747	6.9
108	Accessories and other apparel manufacturing	1,329	0
109	Leather and hide tanning and finishing	325	0
110	Footwear manufacturing	0	0
111	Other leather product manufacturing	40,904	0.3
112	Sawmills	134,331	0.6
113	Wood preservation	52,228	0.2
114	Reconstituted wood product manufacturing	622,932	3.2
115	Veneer and plywood manufacturing	450,156	2.5
116	Engineered wood member and truss manufacturing	284,560	1.9
117	Wood windows and door manufacturing	375,959	2.2
118	Cut stock- resawing lumber- and planing	129,901	1
119	Other millwork- including flooring	348,739	2
120	Wood container and pallet manufacturing	251,224	2.4
121	Manufactured home- mobile home- manufacturing	0	0
122	Prefabricated wood building manufacturing	3,040	0
123	Miscellaneous wood product manufacturing	18,406	0.2

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**Economic Impact by Industry**

<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
124	Pulp mills	0	0
125	Paper and paperboard mills	4,803	0
126	Paperboard container manufacturing	50,727	0.2
127	Flexible packaging foil manufacturing	0	0
128	Surface-coated paperboard manufacturing	0	0
129	Coated and laminated paper and packaging materials	60,684	0.2
130	Coated and uncoated paper bag manufacturing	4,018	0
131	Die-cut paper office supplies manufacturing	43	0
132	Envelope manufacturing	572	0
133	Stationery and related product manufacturing	0	0
134	Sanitary paper product manufacturing	91,567	0.2
135	All other converted paper product manufacturing	157	0
136	Manifold business forms printing	233,771	1.7
137	Books printing	464,925	3.5
138	Blankbook and looseleaf binder manufacturing	1,752	0
139	Commercial printing	5,175,955	69.8
140	Tradebinding and related work	26,821	0.4
141	Prepress services	578,717	5.4
142	Petroleum refineries	16,832,566	3.4
143	Asphalt paving mixture and block manufacturing	184,889	0.3
144	Asphalt shingle and coating materials manufacturin	619,334	1
145	Petroleum lubricating oil and grease manufacturing	106,884	0.2
146	All other petroleum and coal products manufacturin	0	0
147	Petrochemical manufacturing	226,080	0
148	Industrial gas manufacturing	429,095	0.5
149	Synthetic dye and pigment manufacturing	124,234	0.3
150	Other basic inorganic chemical manufacturing	527,279	1.1
151	Other basic organic chemical manufacturing	535,824	0.6
152	Plastics material and resin manufacturing	44,610	0
153	Synthetic rubber manufacturing	8,394	0
154	Cellulosic organic fiber manufacturing	0	0
155	Noncellulosic organic fiber manufacturing	3,437	0
156	Nitrogenous fertilizer manufacturing	295,620	0.2
157	Phosphatic fertilizer manufacturing	0	0
158	Fertilizer- mixing only- manufacturing	99,091	0.2
159	Pesticide and other agricultural chemical manufact	29,692	0
160	Pharmaceutical and medicine manufacturing	687,268	0.9
161	Paint and coating manufacturing	28,339	0
162	Adhesive manufacturing	60,408	0.1
163	Soap and other detergent manufacturing	1,603,331	1.8
164	Polish and other sanitation good manufacturing	3,495,715	4.2

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<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
165	Surface active agent manufacturing	77,678	0.1
166	Toilet preparation manufacturing	0	0
167	Printing ink manufacturing	2,764,555	7.4
168	Explosives manufacturing	2,563	0
169	Custom compounding of purchased resins	838,484	2.3
170	Photographic film and chemical manufacturing	240,768	0.6
171	Other miscellaneous chemical product manufacturing	248,247	0.6
172	Plastics packaging materials- film and sheet	1,399,677	4.4
173	Plastics pipe- fittings- and profile shapes	1,414,590	4.9
174	Laminated plastics plate- sheet- and shapes	79,546	0.3
175	Plastics bottle manufacturing	341,852	1.2
176	Resilient floor covering manufacturing	83,143	0.2
177	Plastics plumbing fixtures and all other plastics	5,208,424	30.3
178	Foam product manufacturing	1,370,760	5.7
179	Tire manufacturing	1,535	0
180	Rubber and plastics hose and belting manufacturing	41,895	0.2
181	Other rubber product manufacturing	141,445	0.7
182	Vitreous china plumbing fixture manufacturing	27,443	0.1
183	Vitreous china and earthenware articles manufactur	13,946	0.2
184	Porcelain electrical supply manufacturing	426	0
185	Brick and structural clay tile manufacturing	1,697	0
186	Ceramic wall and floor tile manufacturing	27,660	0.1
187	Nonclay refractory manufacturing	50	0
188	Clay refractory and other structural clay products	83	0
189	Glass container manufacturing	3,483	0
190	Glass and glass products- except glass containers	1,386,309	5.5
191	Cement manufacturing	321	0
192	Ready-mix concrete manufacturing	1,223	0
193	Concrete block and brick manufacturing	441	0
194	Concrete pipe manufacturing	10	0
195	Other concrete product manufacturing	497	0
196	Lime manufacturing	1,759	0
197	Gypsum product manufacturing	4,716	0
198	Abrasive product manufacturing	5,247	0
199	Cut stone and stone product manufacturing	62,025	0.6
200	Ground or treated minerals and earths manufacturin	10	0
201	Mineral wool manufacturing	40,278	0.1
202	Miscellaneous nonmetallic mineral products	19,775	0
203	Iron and steel mills	1,070,650	1.5
204	Ferroalloy and related product manufacturing	0	0
205	Iron- steel pipe and tube from purchased steel	749,914	1.8

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**Economic Impact by Industry**

<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
206	Rolled steel shape manufacturing	65,684	0.1
207	Steel wire drawing	23,445	0.1
208	Alumina refining	0	0
209	Primary aluminum production	0	0
210	Secondary smelting and alloying of aluminum	4,742	0
211	Aluminum sheet- plate- and foil manufacturing	0	0
212	Aluminum extruded product manufacturing	34,503	0.1
213	Other aluminum rolling and drawing	55,155	0.1
214	Primary smelting and refining of copper	0	0
215	Primary nonferrous metal- except copper and alumin	29,365	0.1
216	Copper rolling- drawing- and extruding	36,299	0.1
217	Copper wire- except mechanical- drawing	0	0
218	Secondary processing of copper	0	0
219	Nonferrous metal- except copper and aluminum- shap	0	0
220	Secondary processing of other nonferrous	698	0
221	Ferrous metal foundaries	801	0
222	Aluminum foundries	7,416	0
223	Nonferrous foundries- except aluminum	4,732	0
224	Iron and steel forging	12,685	0.1
225	Nonferrous forging	1,512	0
226	Custom roll forming	785	0
227	All other forging and stamping	55,185	0.3
228	Cutlery and flatware- except precious- manufacturi	57,827	0.2
229	Hand and edge tool manufacturing	75,991	0.4
230	Saw blade and handsaw manufacturing	11,050	0.1
231	Kitchen utensil- pot- and pan manufacturing	0	0
232	Prefabricated metal buildings and components	749	0
233	Fabricated structural metal manufacturing	180,453	0.9
234	Plate work manufacturing	14,035	0.1
235	Metal window and door manufacturing	48,189	0.3
236	Sheet metal work manufacturing	48,105	0.3
237	Ornamental and architectural metal work manufactur	106,074,288	653.5
238	Power boiler and heat exchanger manufacturing	164	0
239	Metal tank- heavy gauge- manufacturing	2,493	0
240	Metal can- box- and other container manufacturing	134,199	0.3
241	Hardware manufacturing	43,776	0.2
242	Spring and wire product manufacturing	45,844	0.3
243	Machine shops	1,469,134	13
244	Turned product and screw- nut- and bolt manufactur	504,263	3.1
245	Metal heat treating	112,393	0.6
246	Metal coating and nonprecious engraving	515,291	3.1

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<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
247	Electroplating- anodizing- and coloring metal	250,596	1.6
248	Metal valve manufacturing	71,489	0.3
249	Ball and roller bearing manufacturing	55,708	0.2
250	Small arms manufacturing	6,162	0
251	Other ordnance and accessories manufacturing	0	0
252	Fabricated pipe and pipe fitting manufacturing	28,758	0.2
253	Industrial pattern manufacturing	2,772	0
254	Enameled iron and metal sanitary ware manufacturin	86	0
255	Miscellaneous fabricated metal product manufacturi	5,938	0
256	Ammunition manufacturing	613	0
257	Farm machinery and equipment manufacturing	75,288	0.2
258	Lawn and garden equipment manufacturing	115,415	0.3
259	Construction machinery manufacturing	5,147	0
260	Mining machinery and equipment manufacturing	34	0
261	Oil and gas field machinery and equipment	0	0
262	Sawmill and woodworking machinery	2,938	0
263	Plastics and rubber industry machinery	22,286	0.1
264	Paper industry machinery manufacturing	5,273	0
265	Textile machinery manufacturing	109	0
266	Printing machinery and equipment manufacturing	476,292	2.4
267	Food product machinery manufacturing	30,527	0.2
268	Semiconductor machinery manufacturing	1,410	0
269	All other industrial machinery manufacturing	24,521	0.1
270	Office machinery manufacturing	0	0
271	Optical instrument and lens manufacturing	5,540	0
272	Photographic and photocopying equipment manufactu	0	0
273	Other commercial and service industry machinery ma	57,023	0.2
274	Automatic vending- commercial laundry and dryclean	39,859	0.2
275	Air purification equipment manufacturing	721	0
276	Industrial and commercial fan and blower manufactu	0	0
277	Heating equipment- except warm air furnaces	0	0
278	AC- refrigeration- and forced air heating	1	0
279	Industrial mold manufacturing	11,291	0.1
280	Metal cutting machine tool manufacturing	5,500	0
281	Metal forming machine tool manufacturing	5,765	0
282	Special tool- die- jig- and fixture manufacturing	94,207	0.7
283	Cutting tool and machine tool accessory manufactur	127,835	1
284	Rolling mill and other metalworking machinery	10,158	0.1
285	Turbine and turbine generator set units manufactur	21,371	0
286	Other engine equipment manufacturing	734	0
287	Speed changers and mechanical power transmission e	14,470	0.1

**Table 2**  
**Economic Impact by Industry**

<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
288	Pump and pumping equipment manufacturing	2	0
289	Air and gas compressor manufacturing	10,879	0
290	Measuring and dispensing pump manufacturing	0	0
291	Elevator and moving stairway manufacturing	0	0
292	Conveyor and conveying equipment manufacturing	17,850	0.1
293	Overhead cranes- hoists- and monorail systems	910	0
294	Industrial truck- trailer- and stacker manufacturi	6,564	0
295	Power-driven handtool manufacturing	126,089	0.6
296	Welding and soldering equipment manufacturing	30,305	0.1
297	Packaging machinery manufacturing	1,558	0
298	Industrial process furnace and oven manufacturing	3,113	0
299	Fluid power cylinder and actuator manufacturing	3,352	0
300	Fluid power pump and motor manufacturing	1,215	0
301	Scales- balances- and miscellaneous general purpos	105,668	0.5
302	Electronic computer manufacturing	784,879	0.8
303	Computer storage device manufacturing	0	0
304	Computer terminal manufacturing	0	0
305	Other computer peripheral equipment manufacturing	2,713	0
306	Telephone apparatus manufacturing	34,793	0
307	Broadcast and wireless communications equipment	44,670	0.1
308	Other communications equipment manufacturing	0	0
309	Audio and video equipment manufacturing	16,781	0
310	Electron tube manufacturing	33,212	0.1
311	Semiconductors and related device manufacturing	538,581	1.4
312	All other electronic component manufacturing	466,519	2.4
313	Electromedical apparatus manufacturing	8,723	0
314	Search- detection- and navigation instruments	425	0
315	Automatic environmental control manufacturing	1,264	0
316	Industrial process variable instruments	125,954	0.6
317	Totalizing fluid meters and counting devices	1,992	0
318	Electricity and signal testing instruments	11,599	0.1
319	Analytical laboratory instrument manufacturing	0	0
320	Irradiation apparatus manufacturing	0	0
321	Watch- clock- and other measuring and controlling	33,683	0.2
322	Software reproducing	0	0
323	Audio and video media reproduction	751,985	2.1
324	Magnetic and optical recording media manufacturing	0	0
325	Electric lamp bulb and part manufacturing	80	0
326	Lighting fixture manufacturing	330	0
327	Electric housewares and household fan manufacturin	3,905	0
328	Household vacuum cleaner manufacturing	0	0

**Table 2**  
**Economic Impact by Industry**

<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
329	Household cooking appliance manufacturing	43	0
330	Household refrigerator and home freezer manufactur	33,950	0.1
331	Household laundry equipment manufacturing	226,685	0.5
332	Other major household appliance manufacturing	63,756	0.2
333	Electric power and specialty transformer manufactu	309,497	1.4
334	Motor and generator manufacturing	27,382	0.1
335	Switchgear and switchboard apparatus manufacturing	98,537	0.4
336	Relay and industrial control manufacturing	74,872	0.3
337	Storage battery manufacturing	152,976	0.6
338	Primary battery manufacturing	0	0
339	Fiber optic cable manufacturing	0	0
340	Other communication and energy wire manufacturing	0	0
341	Wiring device manufacturing	19,842	0.1
342	Carbon and graphite product manufacturing	12,638	0.1
343	Miscellaneous electrical equipment manufacturing	3,366	0
344	Automobile and light truck manufacturing	5,935,328	4.6
345	Heavy duty truck manufacturing	606	0
346	Motor vehicle body manufacturing	96,373	0.3
347	Truck trailer manufacturing	487	0
348	Motor home manufacturing	0	0
349	Travel trailer and camper manufacturing	279,637	1.5
350	Motor vehicle parts manufacturing	3,871,536	11.2
351	Aircraft manufacturing	0	0
352	Aircraft engine and engine parts manufacturing	8,712	0
353	Other aircraft parts and equipment	741	0
354	Guided missile and space vehicle manufacturing	0	0
355	Propulsion units and parts for space vehicles and	0	0
356	Railroad rolling stock manufacturing	3,245	0
357	Ship building and repairing	128	0
358	Boat building	4,596	0
359	Motorcycle- bicycle- and parts manufacturing	147,577	0.3
360	Military armored vehicles and tank parts manufactu	4,567	0
361	All other transportation equipment manufacturing	5,060	0
362	Wood kitchen cabinet and countertop manufacturing	701,204	5.7
363	Upholstered household furniture manufacturing	627,293	4.9
364	Nonupholstered wood household furniture manufactur	1,740,595	12.3
365	Metal household furniture manufacturing	0	0
366	Institutional furniture manufacturing	69,313	0.5
367	Other household and institutional furniture	19,017	0.1
368	Wood office furniture manufacturing	5,715	0
369	Custom architectural woodwork and millwork	8,476,340	82.8

**Table 2**  
**Economic Impact by Industry**

<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
370	Office furniture- except wood- manufacturing	1,940	0
371	Showcases- partitions- shelving- and lockers	104,679	0.8
372	Mattress manufacturing	10,873	0
373	Blind and shade manufacturing	0	0
374	Laboratory apparatus and furniture manufacturing	0	0
375	Surgical and medical instrument manufacturing	149,094	0.7
376	Surgical appliance and supplies manufacturing	445,348	2.2
377	Dental equipment and supplies manufacturing	0	0
378	Ophthalmic goods manufacturing	114,828	0.7
379	Dental laboratories	216,070	2.6
380	Jewelry and silverware manufacturing	117,229	0.7
381	Sporting and athletic goods manufacturing	14,345	0.1
382	Doll- toy- and game manufacturing	133,709	0.6
383	Office supplies- except paper- manufacturing	6,532	0
384	Sign manufacturing	70,933,472	749.7
385	Gasket- packing- and sealing device manufacturing	33,212	0.3
386	Musical instrument manufacturing	2,638,909	17.4
387	Broom- brush- and mop manufacturing	24,914	0.2
388	Burial casket manufacturing	834	0
389	Buttons- pins- and all other miscellaneous manufac	29,155	0.3
390	Wholesale trade	5,465,624	41.1
391	Air transportation	903,803	4.4
392	Rail transportation	3,004,331	11.7
393	Water transportation	360,552	0.7
394	Truck transportation	15,021,843	126.3
395	Transit and ground passenger transportation	441,101	12.2
396	Pipeline transportation	875,177	1.3
397	Scenic and sightseeing transportation and support	1,784,774	29.4
398	Postal service	7,371,256	121.8
399	Couriers and messengers	4,516,911	78.9
400	Warehousing and storage	3,526,243	50.7
401	Motor vehicle and parts dealers	13,092,750	147.9
402	Furniture and home furnishings stores	2,590,938	33.7
403	Electronics and appliance stores	2,160,182	36.3
404	Building material and garden supply stores	6,837,447	86.4
405	Food and beverage stores	9,205,310	185.7
406	Health and personal care stores	4,412,119	77.1
407	Gasoline stations	4,475,560	62.4
408	Clothing and clothing accessories stores	3,457,574	65.2
409	Sporting goods- hobby- book and music stores	1,801,484	48.9
410	General merchandise stores	9,668,320	195.9

**Table 2**  
**Economic Impact by Industry**

<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
411	Miscellaneous store retailers	3,329,733	110.7
412	Nonstore retailers	7,634,884	152.8
413	Newspaper publishers	301,753,760	2,995.30
414	Periodical publishers	1,902,245	9.5
415	Book publishers	4,469,465	19.7
416	Database- directory- and other publishers	3,239,009	10.6
417	Software publishers	159,061	0.6
418	Motion picture and video industries	117,576,528	978.9
419	Sound recording industries	6,780,754	31.3
420	Radio and television broadcasting	256,383,824	1,715.30
421	Cable networks and program distribution	993,679	1.9
422	Telecommunications	27,378,234	85.8
423	Information services	9,156,677	38.2
424	Data processing services	1,182,279	8.4
425	Nondepository credit intermediation and related a	4,715,461	37.6
426	Securities- commodity contracts- investments	7,997,312	65.8
427	Insurance carriers	16,988,292	85
428	Insurance agencies- brokerages- and related	3,941,450	43.6
429	Funds- trusts- and other financial vehicles	1,771,092	6.3
430	Monetary authorities and depository credit interme	22,376,686	105.8
431	Real estate	44,482,772	397
432	Automotive equipment rental and leasing	5,950,961	27.3
433	Video tape and disc rental	68,485,608	1,349.20
434	Machinery and equipment rental and leasing	3,923,696	12.1
435	General and consumer goods rental except video tap	1,773,323	25.7
436	Lessors of nonfinancial intangible assets	4,185,136	3.5
437	Legal services	8,397,732	99.3
438	Accounting and bookkeeping services	9,572,981	118.4
439	Architectural and engineering services	5,715,464	54.4
440	Specialized design services	108,048,264	941.8
441	Custom computer programming services	2,072,835	27
442	Computer systems design services	1,323,323	20.7
443	Other computer related services- including facilit	593,392	3.4
444	Management consulting services	5,858,339	56.9
445	Environmental and other technical consulting servi	817,583	5.2
446	Scientific research and development services	2,609,432	25.5
447	Advertising and related services	181,392,768	1,826.10
448	Photographic services	90,710,440	1,204.40
449	Veterinary services	1,204,489	20.1
450	All other miscellaneous professional and technical	19,439,770	57.2
451	Management of companies and enterprises	13,417,963	74.9

**Table 2**  
**Economic Impact by Industry**

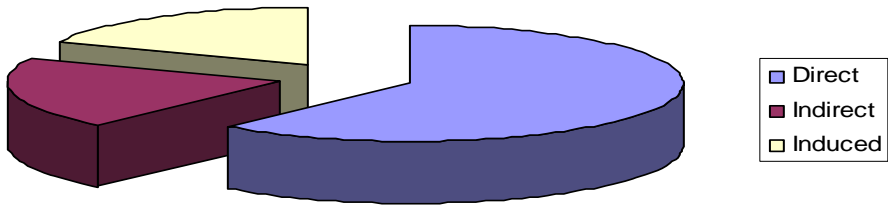
<b>ID #</b>	<b>Industry</b>	<b>Dollars</b>	<b>Employment</b>
452	Office administrative services	7,759,816	58.6
453	Facilities support services	167,767	3.5
454	Employment services	12,153,847	565.5
455	Business support services	4,567,401	84.3
456	Travel arrangement and reservation services	1,180,313	12.7
457	Investigation and security services	2,459,734	80.2
458	Services to buildings and dwellings	8,277,133	182.7
459	Other support services	4,320,156	37.8
460	Waste management and remediation services	2,131,556	14.2
461	Elementary and secondary schools	1,677,486	62.8
462	Colleges- universities- and junior colleges	3,278,839	60.5
463	Other educational services	4,405,757	103.5
464	Home health care services	1,926,617	50.7
465	Offices of physicians- dentists- and other health	28,087,760	281.5
466	Other ambulatory health care services	6,944,937	60.3
467	Hospitals	25,770,924	274
468	Nursing and residential care facilities	7,941,003	189.3
469	Child day care services	1,887,612	56.9
470	Social assistance- except child day care services	3,228,127	99.5
471	Performing arts companies	44,453,704	2,987.30
472	Spectator sports	18,279,020	1,212.20
473	Independent artists- writers- and performers	80,700,336	1,888.90
474	Promoters of performing arts and sports and agents	88,475,048	5,209.40
475	Museums- historical sites- zoos- and parks	107,680,984	1,693.50
476	Fitness and recreational sports centers	1,421,963	45.5
477	Bowling centers	193,269	4.9
478	Other amusement- gambling- and recreation industri	5,077,072	75
479	Hotels and motels- including casino hotels	2,866,215	55.9
480	Other accommodations	493,289	6
481	Food services and drinking places	36,059,904	871.4
482	Car washes	1,343,817	37.2
483	Automotive repair and maintenance- except car wash	7,442,090	102
484	Electronic equipment repair and maintenance	1,663,006	15.6
485	Commercial machinery repair and maintenance	3,529,138	38.2
486	Household goods repair and maintenance	2,089,007	14.3
487	Personal care services	2,863,204	65.1
488	Death care services	781,634	12.6
489	Drycleaning and laundry services	1,611,213	36.8
490	Other personal services	4,728,512	35.6
491	Religious organizations	3,014,447	29.1
492	Grantmaking and giving and social advocacy organiz	1,348,131	40.4

**Table 2**  
**Economic Impact by Industry**

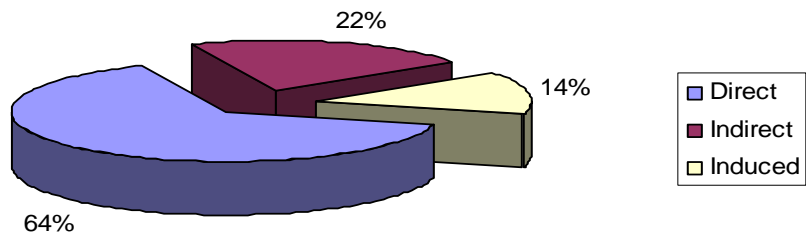
ID #	Industry	Dollars	Employment
493	Civic- social- professional and similar organizati	4,700,159	171.7
494	Private households	527,986	107.2
495	Federal electric utilities	0	0
496	Other Federal Government enterprises	27,905	0.9
497	State and local government passenger transit	481,636	7.5
498	State and local government electric utilities	1,254,927	3.9
499	Other State and local government enterprises	11,292,494	56.6
500	Noncomparable imports	0	0
501	Scrap	0	0
502	Used and secondhand goods	0	0
503	State & Local Education	0	0
504	State & Local Non-Education	0	0
505	Federal Military	0	0
506	Federal Non-Military	0	0
507	Rest of the world adjustment to final uses	0	0
508	Inventory valuation adjustment	0	0
509	Owner-occupied dwellings	66,265,252	0
25001	Foreign Trade	0	0
28001	Domestic Trade	0	0
	<b>Totals:</b>	<b>\$2,428,883,838</b>	<b>33,426.50</b>

# Chart Gallery

## Output Impact



## Employment Numbers



## Tax Impact

