Table 5. Non-Manufacturing Industries Identified by Total Industry Expenditures for Electricity

	NAICS	Industry Name	Total Industry Expenditures for Electricity in OH
2-digit NAICS	23	Construction	$103,084,857
	42	Wholesale Trade	$165,244,919
	55	Management of Companies and Enterprises	$91,376,320
3-digit NAICS	531	Real Estate	$385,969,940
	722	Food Services and Drinking Places	$342,473,541
	622	Hospitals	$304,688,721
	611	Educational Services	$124,426,390
	623	Nursing and Residential Care Facilities	$115,215,073
	621	Ambulatory Health Care Services	$90,999,878
	721	Accommodation	$71,800,729
	493	Warehousing and Storage	$50,096,107
	713	Amusement, Gambling, and Recreation Industries	$44,469,557
	813	Religious, Grant making, Civic, Professional, and Similar Organizations	$43,985,471
4-digit NAICS	5415	Computer Systems Design and Related Services	$80,921,712
	1111	Oilseed and Grain Farming	$26,859,565
	8121	Personal Care Services	$26,797,682
	2123	Nonmetallic Mineral Mining and Quarrying	$22,850,089
	8111	Automotive Repair and Maintenance	$18,308,483
	5417	Scientific Research and Development Services	$17,613,731
	2121	Coal Mining	$15,592,757
	5111	Newspaper, Periodical, Book, and Directory Publishers	$15,106,413

Eleven (11) non-manufacturing industries and sectors were identified as large consumers of electricity due both to their significant size in Ohio and the high electricity intensity of their products and services (Table 6). Eight (8) 3-digit NAICS sectors and three 4-digit NAICS industries were the largest electricity consumers and most electricity-intensive non-manufacturing industries in Ohio.

Table 6. Electricity-Intensive, Large Non-Manufacturing Consumers

NAICS	Industry Name
721	Accommodation
2123	Nonmetallic Mineral Mining and Quarrying
611	Educational Services
713	Amusement, Gambling, and Recreation Industries
2121	Coal Mining
722	Food Services and Drinking Places
531	Real Estate
493	Warehousing and Storage
623	Nursing and Residential Care Facilities
8121	Personal Care Services
622	Hospitals

Note: Ranked by unit expenses on electricity

Defining Ohio's Economic Base Industries

To identify Ohio's economic base, we researched the Location Quotient (LQ) of Gross State Product (GSP), the growth of GSP, and industries' productivity over three time periods: 2000-2010, 2007-2010 and 2009-2010. According to GSP LQ, 52 4-digit NAICS manufacturing industries represented the economic base of Ohio's economy in 2010.[14] The manufacturing industries presented in Table 7 are ranked by 2010 GSP LQ.

Table 7. Ohio's Manufacturing Industries

NAICS	Description	GSP LQ, 2010
3352	Household Appliance Manufacturing	4.954
3363	Motor Vehicle Parts Manufacturing	3.722
3321	Forging and Stamping	3.703
3255	Paint, Coating, and Adhesive Manufacturing	3.601
3324	Boiler, Tank, and Shipping Container Manufacturing	3.351
3271	Clay Product and Refractory Manufacturing	3.233
3361	Motor Vehicle Manufacturing	3.200
3312	Steel Product Manufacturing from Purchased Steel	3.198
3322	Cutlery and Handtool Manufacturing	3.186
3328	Coating, Engraving, Heat Treating, and Allied Activities	3.069
3335	Metalworking Machinery Manufacturing	3.017
3262	Rubber Product Manufacturing	2.985
3279	Other Nonmetallic Mineral Product Manufacturing	2.931
3369	Other Transportation Equipment Manufacturing	2.829
3329	Other Fabricated Metal Product Manufacturing	2.802
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	2.617
3272	Glass and Glass Product Manufacturing	2.518
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	2.490
3315	Foundries	2.449
3311	Iron and Steel Mills and Ferroalloy Manufacturing	2.441
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing	2.349
3261	Plastics Product Manufacturing	2.278
3351	Electric Lighting Equipment Manufacturing	2.276
3339	Other General Purpose Machinery Manufacturing	2.112
3115	Dairy Product Manufacturing	2.085
3353	Electrical Equipment Manufacturing	2.001
3332	Industrial Machinery Manufacturing	1.968
3251	Basic Chemical Manufacturing	1.941

[14] Location Quotient measures the specialization of an industry in a region by comparing it to data in a larger region. For our analysis: $LQ = \frac{\frac{g_i}{g}}{\frac{G_i}{G}}$ where g_i = The Ohio Gross Product in industry i; g = Total Gross Product in Ohio; G_i= US Gross Product in industry i; G = Total US Gross Product. A GSP LQ above 1.00 indicates that the share of an industry's gross state product in the total regional gross product exceeds the share of this industry's GDP in the total U.S. GDP. This disproportionally large production of GSP denotes an industry as a potential part of the regional economic base.

Table 7. Ohio's Manufacturing Industries (cont.)

NAICS	Description	GSP LQ, 2010
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	1.825
3111	Animal Food Manufacturing	1.815
3326	Spring and Wire Product Manufacturing	1.809
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments	1.775
3359	Other Electrical Equipment and Component Manufacturing	1.726
3259	Other Chemical Product and Preparation Manufacturing	1.692
3314	Nonferrous Metal (except Aluminum) Production and Processing	1.671
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	1.518
3362	Motor Vehicle Body and Trailer Manufacturing	1.496
3323	Architectural and Structural Metals Manufacturing	1.482
3118	Bakeries and Tortilla Manufacturing	1.480
3231	Printing and Related Support Activities	1.466
3274	Lime and Gypsum Product Manufacturing	1.438
3325	Hardware Manufacturing	1.398
3313	Alumina and Aluminum Production and Processing	1.397
3119	Other Food Manufacturing	1.389
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration E	1.374
3222	Converted Paper Product Manufacturing	1.343
3219	Other Wood Product Manufacturing	1.309
3169	Other Leather and Allied Product Manufacturing	1.242
3121	Beverage Manufacturing	1.226
3241	Petroleum and Coal Products Manufacturing	1.167
3113	Sugar and Confectionery Product Manufacturing	1.054
3149	Other Textile Product Mills	1.026

Source: Moody's Economy.com

As shown in Table 7, Ohio's economic base is heavily represented by the following manufacturing industries:

- ✓ Food manufacturing (NAICS 311)
- ✓ Chemical manufacturing (NAICS 325)
- ✓ Nonmetallic mineral product manufacturing (NAICS 327)
- ✓ Primary metal manufacturing (NAICS 331)
- ✓ Fabricated metal product manufacturing (NAICS 332)
- ✓ Machinery manufacturing (NAICS 333)
- ✓ Electrical equipment, appliance, and component manufacturing (NAICS 335)
- ✓ Transportation equipment manufacturing (NAICS 336)

Twenty-eight manufacturing industries in Ohio (26 of these industries are displayed in Table 8) experienced positive GSP growth (at least 1%) between 2007 and 2010.[15] GSP of the *Petroleum and Coal Products Manufacturing* industry (NAICS 3241) increased by 51% over the last 3 years (2007-2010); by 136% from 2000 to 2010. The *Other Electrical Equipment and Component Manufacturing* (NAICS 3359) and *Pharmaceutical and Medicine Manufacturing* (NAICS 3254)

[15] Two very small industries, the Leather and Hide Tanning and Finishing (NAICS 3161) and the Tobacco Manufacturing (NAICS 3122) are removed from the analysis due to data confidentiality.

industries grew by 31% between 2007 and 2010. The *Pesticide and Other Chemical Manufacturing* (NAICS 3253) industry showed a large growth in GSP from 2009 to 2010. However, the size of the industry is too small to influence the overall economy in Ohio.

Table 8. GSP Growth of Ohio's Manufacturing Industries

NAICS	Description	Employment, 2010	2010 GSP (in 2010 dollars)	% GSP change, 2000-2010	% GSP change, 2007-2010	% GSP change, 2009-2010
3241	Petroleum and Coal Products Manufacturing	3,964	$4,963,152	136%	51%	9%
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	966	$585,050	66%	46%	17%
3359	Other Electrical Equipment and Component Manufacturing	6,280	$1,019,356	7%	31%	9%
3254	Pharmaceutical and Medicine Manufacturing	5,793	$1,883,134	131%	31%	11%
3116	Animal Slaughtering and Processing	8,768	$1,061,118	21%	25%	8%
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	11,684	$1,834,442	33%	20%	11%
3115	Dairy Product Manufacturing	8,179	$1,409,510	20%	19%	9%
3346	Manufacturing and Reproducing Magnetic and Optical Media	1,180	$27,903	-66%	18%	19%
3352	Household Appliance Manufacturing	4,533	$1,515,133	-7%	18%	9%
3324	Boiler, Tank, and Shipping Container Manufacturing	8,045	$1,102,876	13%	18%	4%
3369	Other Transportation Equipment Manufacturing	1,386	$332,151	30%	18%	0%
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	10,231	$1,761,906	59%	17%	10%
3119	Other Food Manufacturing	6,196	$1,217,421	9%	17%	12%
3353	Electrical Equipment Manufacturing	7,091	$1,423,332	-6%	16%	-2%
3279	Other Nonmetallic Mineral Product Manufacturing	6,171	$708,435	-11%	16%	11%
3111	Animal Food Manufacturing	2,333	$502,929	-5%	12%	8%
3118	Bakeries and Tortilla Manufacturing	9,856	$1,570,680	6%	12%	7%
3255	Paint, Coating, and Adhesive Manufacturing	6,305	$1,363,263	26%	11%	10%
3274	Lime and Gypsum Product Manufacturing	592	$83,441	-30%	10%	10%
3251	Basic Chemical Manufacturing	8,737	$2,832,472	37%	10%	8%
3121	Beverage Manufacturing	6,870	$1,126,952	16%	8%	6%
3113	Sugar and Confectionery Product Manufacturing	1,488	$321,315	66%	4%	7%
3391	Medical Equipment and Supplies Manufacturing	9,034	$1,107,998	21%	4%	6%
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments	5,307	$1,286,891	54%	3%	6%
3112	Grain and Oilseed Milling	2,029	$335,240	-21%	2%	7%
3272	Glass and Glass Product Manufacturing	7,685	$750,979	-43%	1%	6%

Source: Moody's Economy.com

Industries that were growing from 2007 to 2010 were likely to have high productivity[16] in 2010 (Table 9):

- ✓ Petroleum and coal products manufacturing
- ✓ Pesticide, fertilizer, and other agricultural chemical manufacturing
- ✓ Household appliance manufacturing
- ✓ Pharmaceutical and medicine manufacturing
- ✓ Basic chemical manufacturing

Table 9. Ohio Manufacturing Industries with High Productivity, 2010

NAICS	Description	Employment, 2010	2010 GSP (in 2010 dollars)	Productivity, 2010 ($ per employee)
3241	Petroleum and Coal Products Manufacturing	3,964	$4,963,152	**$1,252,056**
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing	966	$585,050	**$605,642**
3352	Household Appliance Manufacturing	4,533	$1,515,133	**$334,245**
3254	Pharmaceutical and Medicine Manufacturing	5,793	$1,883,134	**$325,071**
3251	Basic Chemical Manufacturing	8,737	$2,832,472	**$324,193**
3252	Resin, Synthetic Rubber,& Artificial Synthetic Fibers & Filaments	5,307	$1,286,891	**$242,489**
3369	Other Transportation Equipment Manufacturing	1,386	$332,151	**$239,647**
3255	Paint, Coating, and Adhesive Manufacturing	6,305	$1,363,263	**$216,219**
3113	Sugar and Confectionery Product Manufacturing	1,488	$321,315	**$215,938**
3111	Animal Food Manufacturing	2,333	$502,929	**$215,572**
3353	Electrical Equipment Manufacturing	7,091	$1,423,332	**$200,724**
3119	Other Food Manufacturing	6,196	$1,217,421	**$196,485**
3259	Other Chemical Product and Preparation Manufacturing	5,482	$1,004,093	**$183,162**
3361	Motor Vehicle Manufacturing	16,968	$3,027,235	**$178,408**
3115	Dairy Product Manufacturing	8,179	$1,409,510	**$172,333**
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing	10,231	$1,761,906	**$172,213**
3112	Grain and Oilseed Milling	2,029	$335,240	**$165,224**
3351	Electric Lighting Equipment Manufacturing	2,768	$456,119	**$164,783**

[16] Manufacturing industries' productivity is calculated as industry manufacturing GSP divided by industry's employment for the same time period.

Ohio's Electricity-Intensive Base Manufacturing Industries

Twelve (12) of the 14 manufacturing industries that produce electricity-intensive products and are large consumers of electricity in Ohio are part of the state's economic base (Table 10). These industries have a location quotient (LQ) of gross state product (GSP) above 1. Seven (7) of these industries' LQs exceed 2. The largest electricity consumer in this group is NAICS 3329, *Other Fabricated Metal Product Manufacturing* (LQ 1.4), which spends about $56 million per year on the supply of electricity. Other industries in this group include those that manufacture steel products, converted paper products, glass, nonmetallic minerals, motor vehicles, and specialty food.

Table 10. Economic Base Industries: Electricity-intensive and Large Consumers of Electricity in Ohio

NAICS	Definition	Electricity Intensity (per $, total $)	GSP LQ, 2010
3313	Alumina and Aluminum Production and Processing	H, H	1.397
3311	Iron and Steel Mills and Ferroalloy Manufacturing	H, H	2.441
3251	Basic Chemical Manufacturing	H, H	1.941
3272	Glass and Glass Product Manufacturing	H, M	2.518
3315	Foundries	H, H	2.449
3279	Other Nonmetallic Mineral Product Manufacturing	H, M	2.931
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manuf	H, H	1.825
3252	Resin, Synthetic Rubber,& Artificial Synthetic Fibers & Filaments	M, H	1.775
3312	Steel Product Manufacturing from Purchased Steel	M, M	3.198
3115	Dairy Product Manufacturing	M, H	2.085
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	M, M	2.490
3314	Nonferrous Metal (except Aluminum) Production and Processing	M, M	1.671

Note: Ranked by per dollar expense on electricity.
The first letter in the Electricity Intensity column indicates the group of the electricity-intense industries (High (H) or Moderate (M)); the second letter indicates the group of the high (H) or Moderate (M) consumer of electricity in Ohio.

Data Centers

Data Centers are defined as "Industries [...] that provide the infrastructure for hosting and/or data processing services" by U.S. Census Bureau. Those industries are classified under 2007 NAICS 518/5182: *Data Processing, Hosting, and Related Services*.[17] There are seven types of data centers classified by Brown, et al. (2001)[18] as followed:

[17] Data Centers classified under 1997 NAICS (Darrow & Hedman, 2009):
- ✓ NAICS 514191: *Online Information Services*
- ✓ NAICS 5142: *Data Processing Services*

[18] ACEEE: Overview of Data Centers and Their Implications for Energy Demand, Elizabeth Brown, R. Neal Elliott, and Anna Shipley, American Council for an Energy-Efficient Economy, Washington, DC, Sep. 2001.

- ✓ Telecoms
- ✓ Internet Service Providers (ISP's)
- ✓ Co-located Server Hosting Facilities (CoLos)
- ✓ Server Farms
- ✓ Internet Hotels
- ✓ Corporate Data Centers
- ✓ University, National Laboratory

The site selection of data centers are affected by several factors. Places which have the regional characteristics and economic environment described below are favorable to attract data centers to the location.

- ✓ Less Natural Disasters
- ✓ Favorable Business Climate
  - Workforce – computer science, information technology, and facility management
  - Union rules – a "right to work" state
  - Financial Considerations
    - Tax breaks, incentives, costs of doing business
    - Insurance costs in the area
    - Cost of land
  - Easy access to a fiber network
  - Lower power costs

In Ohio, however, no establishments exist in the *Data Processing, Hosting, and Related Services* industry (NAICS 5182), according to data of the Quarterly Census of Employment and Wages (QCEW). The broader industry where the data centers fit has very low unit electricity intensity in Ohio. Per dollar expenses of electricity for NAICS 518 industry was 0.00044 in 2009 data for the IMPLAN model; the average per dollar expense of electricity for a manufacturing industry was 0.00971. Total expenditure of electricity for the NAICS 518 industry was $473,337. The average total expenditure of electricity for a manufacturing industry was $32,559,567. The data centers industry in Ohio does not belong to the state's economic base. The GSP LQ for NAICS 518 was 0.291 in 2010.

There are three Lexis-Nexis establishments in Ohio. LexisNexis' world headquarters is located in Dayton, Ohio.[19]

- ✓ NAICS 5179 – All Other Telecommunications – Cleveland (Cuyahoga County)
- ✓ NAICS 5411 – Offices of Lawyers – Miamisburg (Montgomery County)
- ✓ Unclassified – Springboro (Warren County)

[19] Source: Reference USA

Summary

Twelve Ohio industries manufacture highly electricity-intensive products and, at the same time, are a significant part of the state's economic base.
These industries belong to four broader sectors:

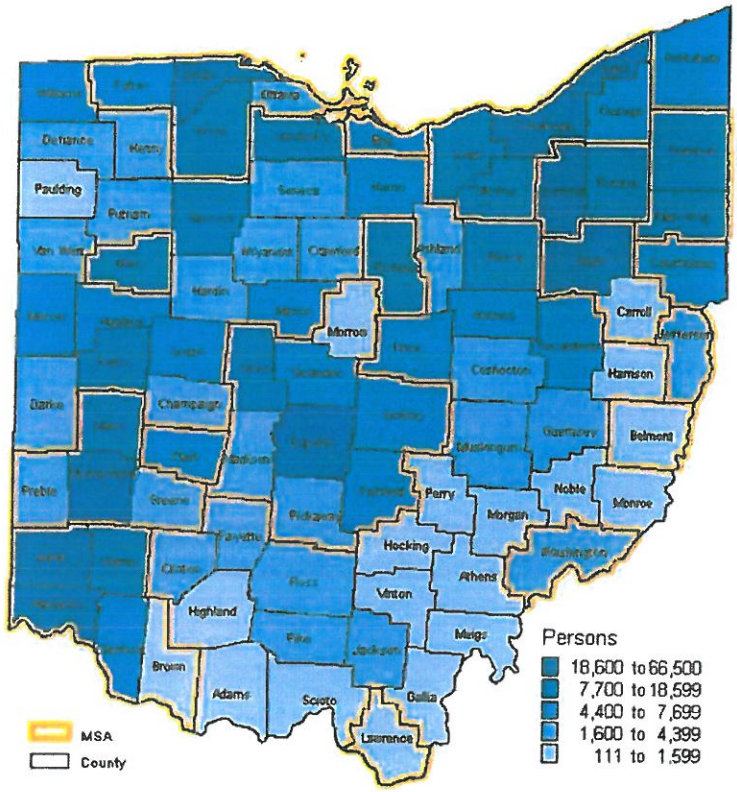
- ✓ NAICS 311: Two industries in *Food Manufacturing* had a total employment over 20,000 and were growing since 2000.[20] Average GSP growth of these industries in 2009-2010 was 10%.
- ✓ NAICS 325: Three industries in *Chemical Manufacturing* experienced GSP growth since 2000. Two of these three industries (NAICS 3251 & 3252) were also among the industries with high productivity in Ohio. Together, these three industries employed almost 15,000 people in Ohio in 2010.
- ✓ NAICS 327: Two industries in *Nonmetallic Mineral Product Manufacturing* experienced GSP growth since 2007.[21] These two industries employed almost 14,000 people in Ohio in 2010.
- ✓ NAICS 331: Five industries in *Primary Metal Manufacturing* sector were not among those with GSP growth or high productivity. However, this industry sector employed 37,297 people in Ohio in 2010.[22]

[20] This statement implies that the industry was growing from 2000 to 2010, from 2007 to 2010, and from 2009 to 2010.
[21] This statement implies that the industry was growing from 2007 to 2010 and from 2009 to 2010.
[22] See additional industry statistics in Appendix Table1.

Mapping the Geographic Distribution of Electricity-Intensive Manufacturing Industries in Ohio

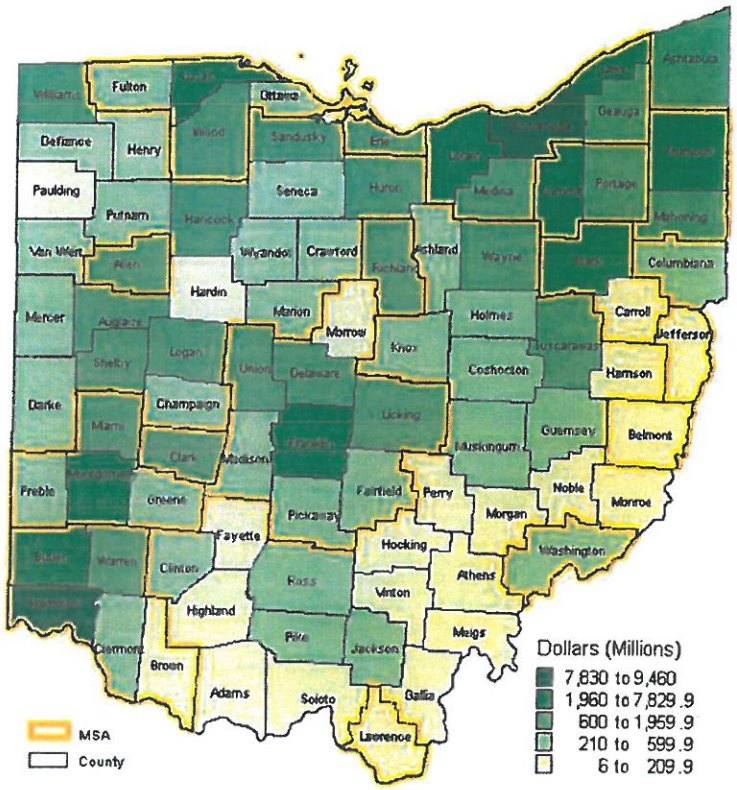
Northeast and Southwest Ohio have relatively dense populations of manufacturing employment (Figure 3). In Northeast Ohio, manufacturing employees are concentrated in Cuyahoga, Lake, Summit, and Stark counties. In Southwest Ohio, Montgomery, Butler, and Hamilton counties have a high concentration of manufacturing employment. Manufacturing employees are also concentrated in Lucas County (Northwest Ohio) and Franklin County (Central Ohio). Manufacturing employment tends to locate in urban areas; counties with large cities are more likely to have a greater number of manufacturing employees: Cuyahoga (Cleveland), Hamilton (Cincinnati), Franklin (Columbus), Lucas (Toledo), and Stark (Canton).

Figure 3. Total Manufacturing Employment



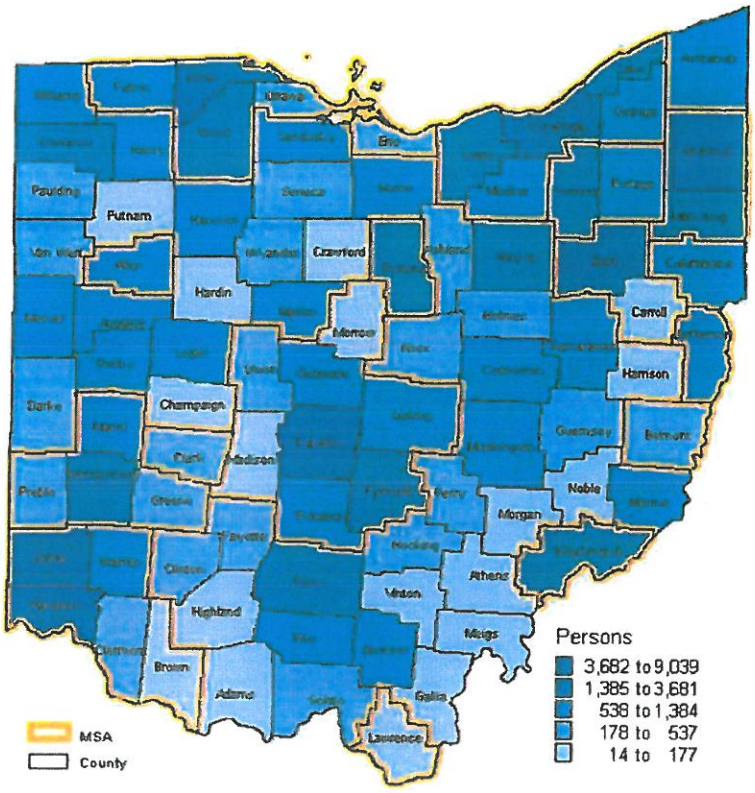
Northeast Ohio shows relatively high levels of the gross state product (GSP). Manufacturing GSP is highest in Cuyahoga County (Northeast Ohio). Hamilton County in Southwest Ohio also has a manufacturing GSP between $7,830 and $9,460 million in 2010 (Figure 4).

Figure 4. Total GSP of Manufacturing Industries



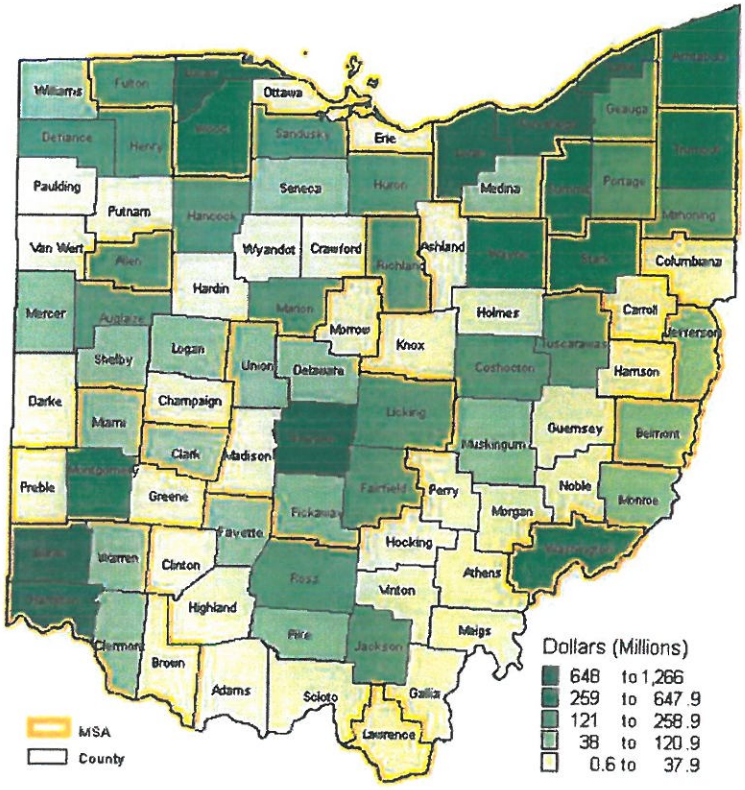
Companies in electricity-intensive manufacturing industries are located primarily in Northeast Ohio (Figure 5). Cuyahoga, Stark, and Trumbull counties each have more than 3,680 employees in electricity-intensive manufacturing. Other counties in the Northeast also have relatively large electricity-intensive manufacturing employment. Other counties with a high concentration of electricity-intensive manufacturing employment include Franklin County in Central Ohio, Hamilton and Butler counties in Southwest Ohio, and Lucas County in Northwest Ohio.

Figure 5. Employment in Electricity-Intensive Manufacturing Industries



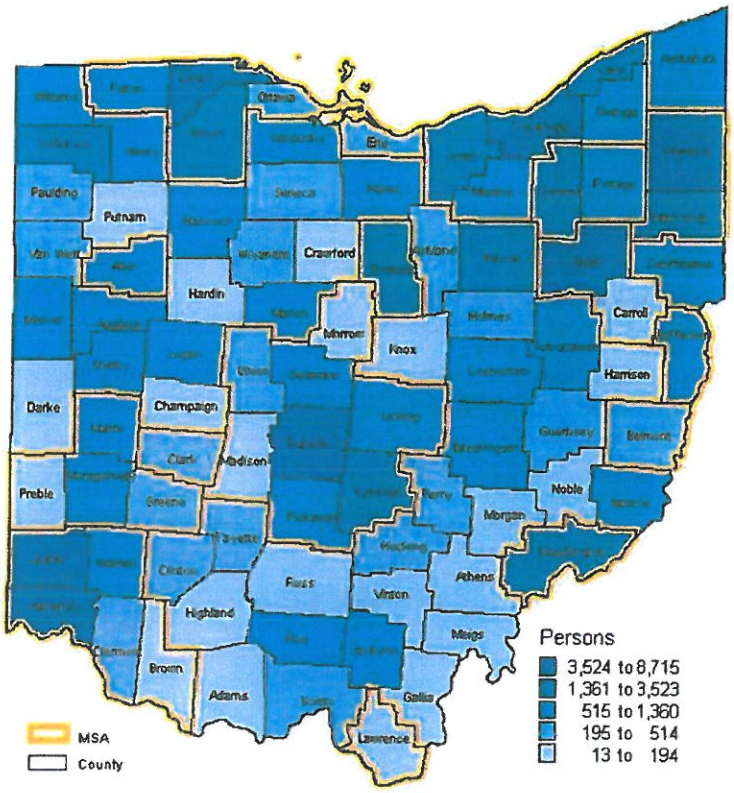
Northeast Ohio counties — Cuyahoga, Lake, and Lorain counties —have higher GSP in electricity-intensive manufacturing industries than other counties in Ohio (Figure 6). Electricity-intensive manufacturing industries also generate high GDP in Franklin County (Central Ohio), Butler and Hamilton counties (Southwest Ohio), and Lucas County (Northwest Ohio).

Figure 6. GSP of Electricity-Intensive Manufacturing Industries



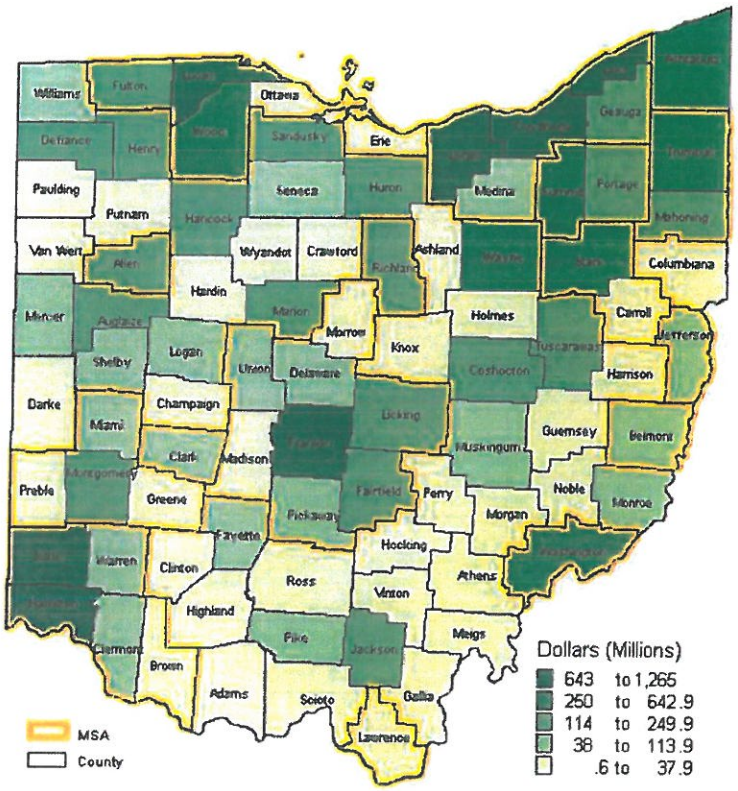
Northeast Ohio has relatively high employment in companies that belong to Ohio's economic base industries (Figure 7). Other regions tend to have companies with high employment in manufacturing economic base industries only within counties with large urban centers: Franklin, Butler, Hamilton, and Lucas counties.

Figure 7. Employment in Manufacturing Base Industries



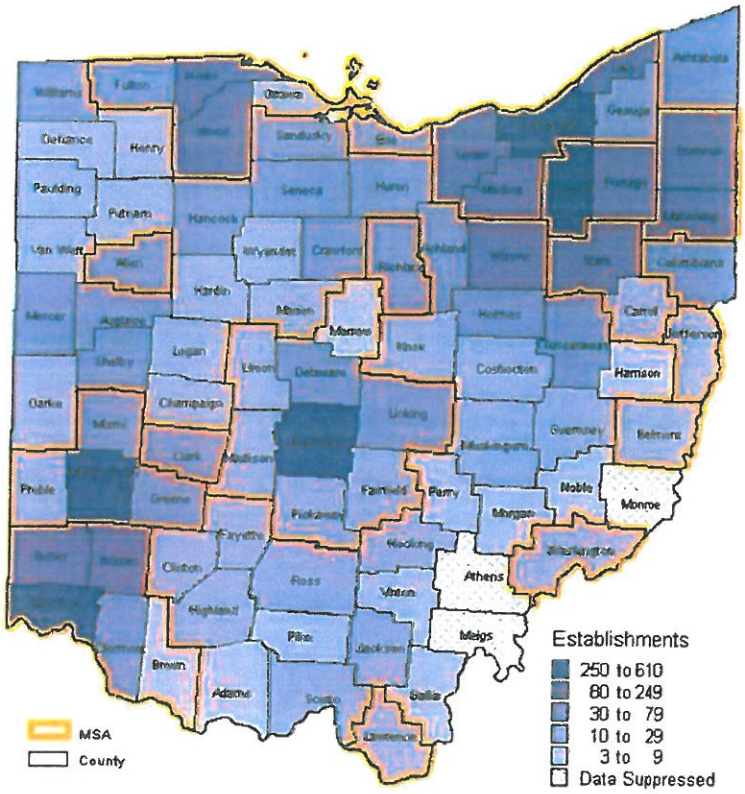
Counties in Northeast Ohio show high GSP in manufacturing base industries (Figure 8). Cuyahoga, Lake, and Lorain counties produce more than $643 million in manufacturing economic base industries. Other counties in the Northeast also have relatively high GSP in manufacturing economic base industries. GSP in manufacturing base industries is high in Franklin County (Central Ohio), Butler and Hamilton counties (Southwest Ohio), and Lucas County (Northwest Ohio).

Figure 8. GSP in Manufacturing Base Industries



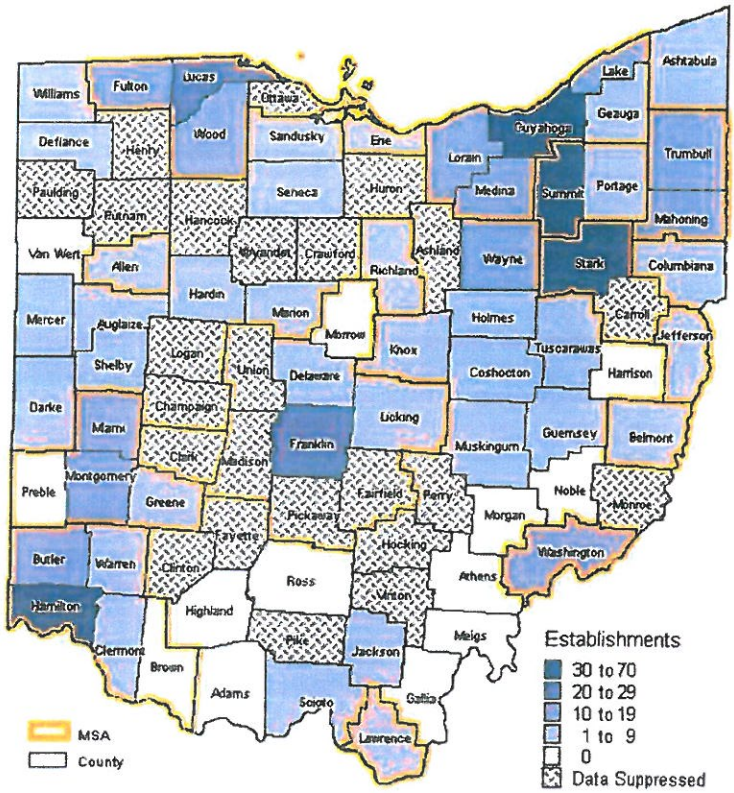
Establishments of all manufacturing industries are concentrated in Northeast and Southwest Ohio (Figure 9). In the Northeast, Cuyahoga and Summit are the most populous counties in terms of number of manufacturing establishments industries. Manufacturing establishments are also highly concentrated in surrounding counties. Hamilton and Montgomery counties in Southwest Ohio have a large number of manufacturing establishments. Franklin County in Central Ohio shows a heavy concentration of manufacturing establishments.

Figure 9. Number of Establishments in All Manufacturing Industries



Electricity-intensive manufacturing base establishments are heavily concentrated in Northeast Ohio (Figure 10), especially among Cuyahoga, Summit, and Stark counties, which are parts of the traditional Cleveland industrial belt. Another county with a large number of electricity-intensive manufacturing establishments is Hamilton County (Southwest Ohio), which has Cincinnati at its core.

Figure 10. Number of Establishments in Electricity-Intensive Manufacturing Base Industries



Part 2: Effects of Electricity Pricing Changes on Manufacturers in Ohio

This part of the study explores the industrial electricity price model through a regression analysis addressing the productivity of the manufacturing sector and industrial electricity pricing. This analysis pursued two research questions: (1) How does industrial electricity pricing influence the productivity of the manufacturing sector; and (2) What are the influences of electricity market deregulation on the industrial electricity market and the productivity of the manufacturing sector? The results of this analysis were applied to a simulation of how Ohio manufacturing productivity responds to changes in industrial electricity pricing and deregulation of Ohio electricity market.

Methodology

The geographic area used for statistical modeling in this study is defined as the state of Ohio and neighboring states Indiana, Kentucky, Michigan, and Pennsylvania. Each of these states is located within the reach of the same industrial electricity market. These states also have similar economic structures and comparable electricity customers, among which are electricity-intensive manufacturing users.

Because the five selected states are located in close geographic proximity and manufacturing represents a significant share of each state's economy, we assume that the data used in the statistical model are homogeneous. Any variation in the data can be explained by different state public policies and other specific factors relevant to industrial electricity pricing and manufacturing productivity.

We analyzed the productivity of the manufacturing industry and industrial electricity rates in Ohio, Indiana, Kentucky, Michigan, and Pennsylvania between 1990 and 2010. The latest year for which industrial electricity pricing data was available was 2010.

This study is based on a total of 105 points of observation, including, for each state, 21 years of history in industrial electricity pricing, manufacturing productivity, electricity market deregulation, and other factors relevant to electricity pricing and manufacturing.

Influence of industrial electricity price on manufacturing productivity

In the model, we hypothesized an inverse relationship between industrial electricity price and performance in the state manufacturing sector over time. To measure the performance of manufacturing, several variables were tested in the model, including manufacturing employment, manufacturing gross state product, and employment and gross state product of electricity-intensive subsectors within the states' manufacturing industries. Due to the short history of statistical data included in the model, none of the proposed variables demonstrated statistical relationships to industrial electricity pricing.

Summary: Exhibit Attachment EWH-2, Part II electronically filed by Ms. Rebecca L Hussey on behalf of OMAEG