

3161 FUNDED SITE ANALYSIS AND ECONOMIC SUITABILITY STUDY FOR PORTS

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PORTSFUTURE
IMAGINING THE OPPORTUNITIES, GATHERING YOUR IDEAS
THE FACILITY AT PIKETON, OHIO

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Introduction

The U.S. Department of Energy (DOE) former Portsmouth Gaseous Diffusion Plant (PORTS) near Piketon, Ohio has been an important economic player in the Pike, Scioto, Ross, and Jackson County area for many years and has thus impacted the region's socio-economic well-being. As the PORTS site undergoes decontamination and decommissioning (D&D), the site will present potential economic growth opportunities for the four-county area. PORTS provides numerous assets to leverage in repurposing efforts to attract industries to utilize the site to build businesses and create jobs.

Based upon the Ohio University PORTSfuture outreach project in 2010 and ongoing efforts, community preferences for possible future-uses of the site overwhelmingly favored re-industrialization. This task-site analysis and economic suitability study for PORTS serves to provide data resources that are relevant to site repurposing discussions and end-state configuration planning efforts at the site.

This document summarizes the current condition of the four county region in which the U.S. Department of Energy (DOE) PORTS reservation resides. The four county region consists of Jackson, Pike, Ross, and Scioto counties of the State of Ohio. According to the Appalachian Regional Commission, Pike County is considered economically distressed, and Jackson and Scioto are considered at-risk (OVRDC 2013). In order to determine efforts in the future to minimize the impact from the closure of PORTS on the local population, it is important to characterize the region as it is today.

Dashboards

The report largely summarizes data available, or used, on two web-products developed by the Voinovich School to support the public's interests in the future repurposing activities of the PORTS site. Due to the history of the site and current economic conditions of the region, there is a great deal of public interest about what is going to happen, and what could happen at the PORTS reservation. The dashboards are a small piece of the overall effort to inform the public and provide all stakeholders with useful and usable data in order to assist in informed decision making to best benefit the region. It is recommended that one review these products in addition to this report for full context and applicability to site repurposing efforts.

PORTS Data Dashboard

The PORTS data dashboard can be accessed at:

<http://app.voinovichschool.ohio.edu/datateam/portsdata/>

This dashboard presents many statistics regarding the residents of the 4 county region. This includes, but is not limited to, employment, occupations, population, demographics, and educational attainment. The time to compile, and the impacts of federal sequestration, have resulted in these data-sets having various end-years; thus, several of the sources indicate numbers that end a few years prior to this report being written.

PORTS Assets Map

The PORTS Assets map can be accessed at:

<http://app.voinovichschool.ohio.edu/datateam/portsmap/>

The data displayed in this map was also used to create the summary information below. The map depicts the location and proximity of the PORTS site in relation to major transportation infrastructure. This infrastructure is an asset for future industrial uses of the site and can be used to move material to/from the location and to/from the regional supply chain related to future economic activities at the site.

The People of PORTS

The PORTS region includes four counties in proximity to the facility from which the majority of the site's labor force when the facility was fully operational resided. The facility began its construction and operation in 1952, and there are now several generations of families in the region that have been born and raised with PORTS as a part of their lives. The destiny of the region and its people is thus intertwined with that of the facility.

Population

The region is currently home to 219,502 individuals and is expected to rise to 224,750 by 2040 (Ohio Department of Development 2012a). Approximately $\frac{2}{3}$ of the population resides in Ross or Scioto County, and $\frac{1}{3}$ live in Pike or Jackson (See Table 1). This ratio is not predicted to significantly change in the coming years. The region currently makes up 1.9% of Ohio's population. Pike and Scioto are geographically closest to PORTS, and their economic futures are assumed to be more closely tied to the facility than the other two counties which are home to larger settlements and stronger economies.

Table 1: Population Projections of four county region

County	Population in 2012	Population in 2040
Jackson	33,287	34,200
Pike	28,669	29,970
Ross	78,434	82,920
Scioto	79,111	77,660
Total:	54,875	224,750

Over the past decade, the counties in this region have seen, on average, a net migration of -63 individuals per year (Ohio Department of Development 2012b). Due to the natural flux of people moving in and out of a county, variation is expected year to year. The negative migration has been entirely from Scioto County which averages a net migration of -208 people per year while Jackson, Pike, and Ross see an average of 60, 24, and 60 respectively. While these three counties appear to be undergoing random fluctuations,

Scioto has actually had a consistent increase in its net-migration since the year 2000 (See Figure 1). While the data still indicates that people are leaving the county, every year fewer and fewer do. The past two years Scioto has actually seen a small increase in population according to the migration data. Migration data reflects IRS tax exception filings and will not include those that do not file taxes or may overestimate due to individuals who file multiple returns.

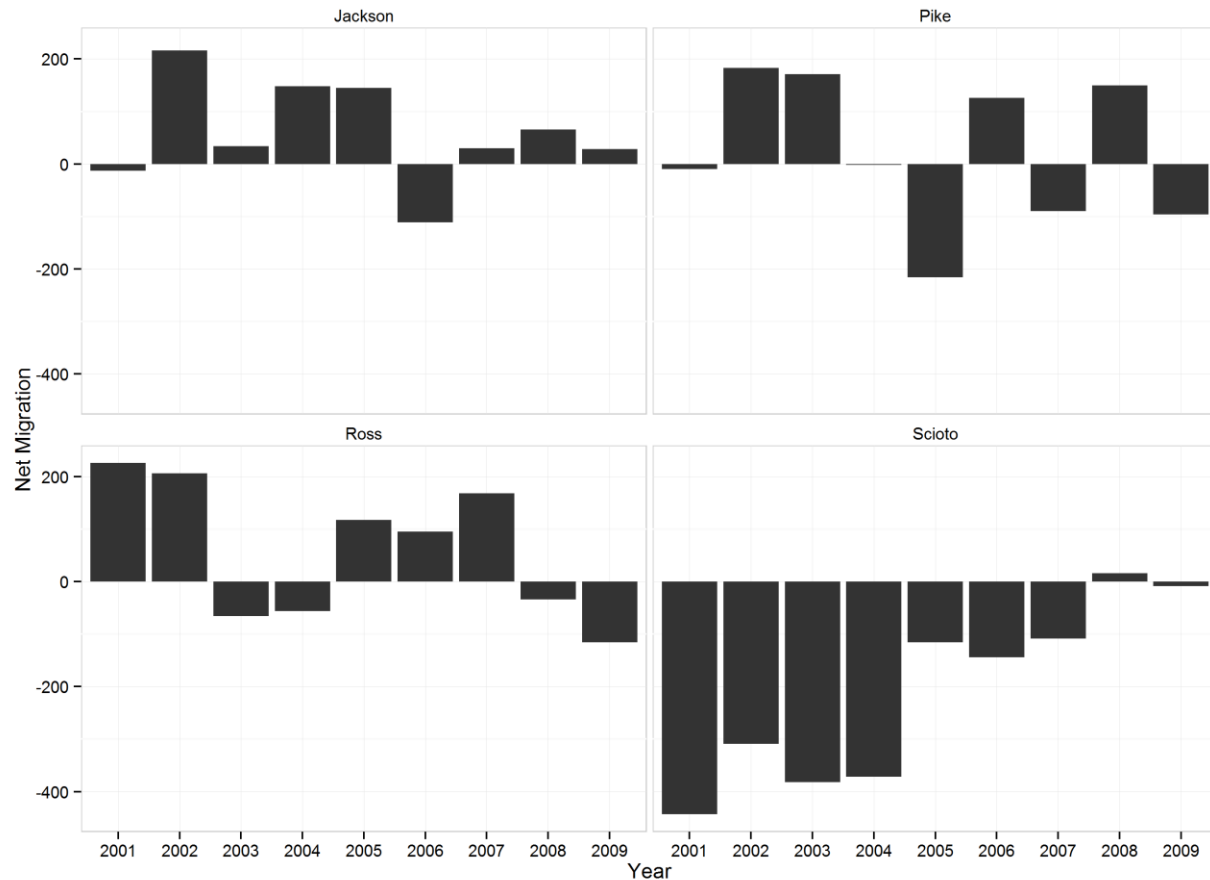


Figure 1: Net Migration in the Four County Region 2001-2009

The four county region is similar to the state in the percent of population within each age bracket. The region is not older or younger than the state (U.S. Census Bureau 2011). The majority of the population is between 25 and 65 years old (See Table 2).

Table 2: Percent of Population by age group in 2011

	Four County Region	Ohio	Jackson	Pike	Ross	Scioto
Population: Under 5 years	6.20	6.25	6.60	6.74	6.00	6.05
Population: 05 to 17 years	17.20	17.56	18.18	18.93	16.59	16.76
Population: 18 to 24 years	8.60	9.48	8.16	8.07	7.82	9.74
Population: 25 to 44 years	26.27	25.43	25.61	25.08	27.71	25.55
Population: 45 to 64 years	27.33	27.33	27.38	26.71	28.46	26.42
Population: 65 years and more	14.40	13.94	14.07	14.47	13.41	15.49

Source: American Community Survey 2011.

The four county region does however have half as many college graduates as compared to State of Ohio rates and more people that did not continue their education beyond high school (See Table 3). The percent of people that do not finish high school is also higher than the state average. Just under 40% of the region's population continues into higher education, whereas in Ohio the average is 52%. Twenty percent, or 1 in 5 people, did not finish high school. These numbers reflect the entire population and do not reflect the current/future trend of educational attainment. To assess what is happening today, we can look at the 18-24 year olds.

Table 3: Percent of population in each education attainment category in 2011.

	Four County Region	Ohio	Jackson	Pike	Ross	Scioto
Education: Less than 9th Grade	5.4	3.2	7.0	7.3	3.7	5.9
Education: 9th - 12th Grade, No Diploma	13.6	9.5	13.9	15.1	12.8	13.8
Education: High School Graduate or Equivalent	41.7	34.9	42.8	43.9	43.6	38.6
Education: Some College, No Degree	19.9	22.9	17.2	16.2	19.8	22.4
Education: Associate's degree	6.9	7.0	6.2	6.0	7.0	7.4
Education: Bachelor's Degree or Higher	12.4	22.5	12.9	11.5	13.0	12.0

In Table 4, among the young adults, 22% of residents in the region did not finish high school, which is higher than Ohio's 16% of 18-24 year olds who did not complete high school.

Table 4: Educational attainment for 18-24 year olds in 2011.

	Four County Region	Ohio	Jackson	Pike	Ross	Scioto
18 to 24 years: Less than 9th grade	2.7	1.9	5.0	4.8	2.0	1.7
18 to 24 years: 9th to 12th grade, no diploma	19.3	14.2	18.1	20.7	16.7	21.3
18 to 24 years: High school graduate, GED, or alternative	41.0	31.5	50.1	44.4	44.7	34.0
18 to 24 years: Some college, no degree	29.4	39.9	21.9	22.1	29.2	34.5
18 to 24 years: Associate's degree	3.9	3.8	0.8	5.1	3.5	5.1
18 to 24 years: Bachelor's Degree or Higher	3.6	8.8	4.1	2.7	3.9	3.4

Labor Force

Labor force is the total number of people that are looking for work in a given area regardless of their age. This includes both those employed and those unemployed but looking for employment. As of 2012 the four county region's labor force included 91,886 persons. (Bureau of Labor Statistics 2014). There were 8,970 (9.7%) unemployed individuals in the same year. The region has experienced a rise in labor force during the 1990's followed by a period of fluctuation since the year 2000 (See Figure 2). The unemployment rate has been around 9% for this time-period. The largest unemployment periods were in 1992-1993 and following the recession of 2008. The region tends to have higher unemployment than exists nationally or state-wide (See Figure 3). On average, the region's unemployment is 2.9 percentage points higher than the entire State of Ohio.

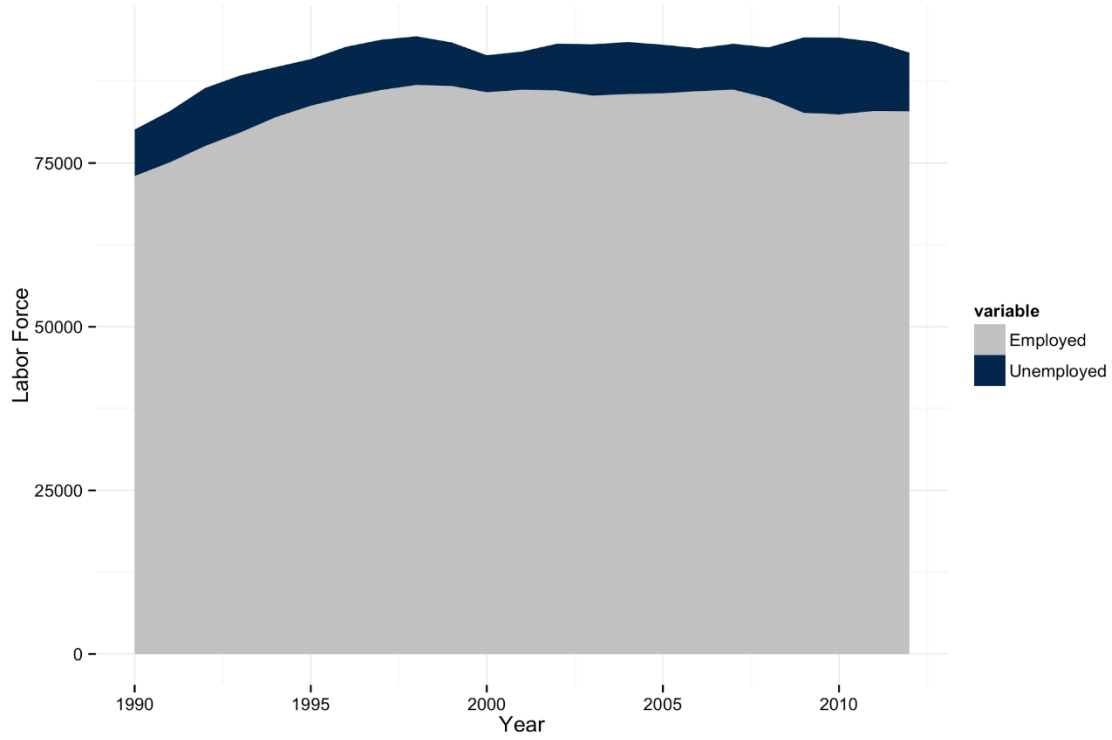


Figure 2: Labor Force from 1990-2010



Figure 3: Unemployment comparison of the four county region with Ohio and the United States 1990-2011.

Employment by Sector

The three largest employment sectors in 2011 are government and government enterprises, health care and social assistance, and manufacturing (U.S Bureau of Economic Analysis 2012). One out of 2 people are employed in one of these industries (See Figure 4). These industries are classified according to their North American Industry Classification (NAICS) codes; the standard used by federal statistic agencies.

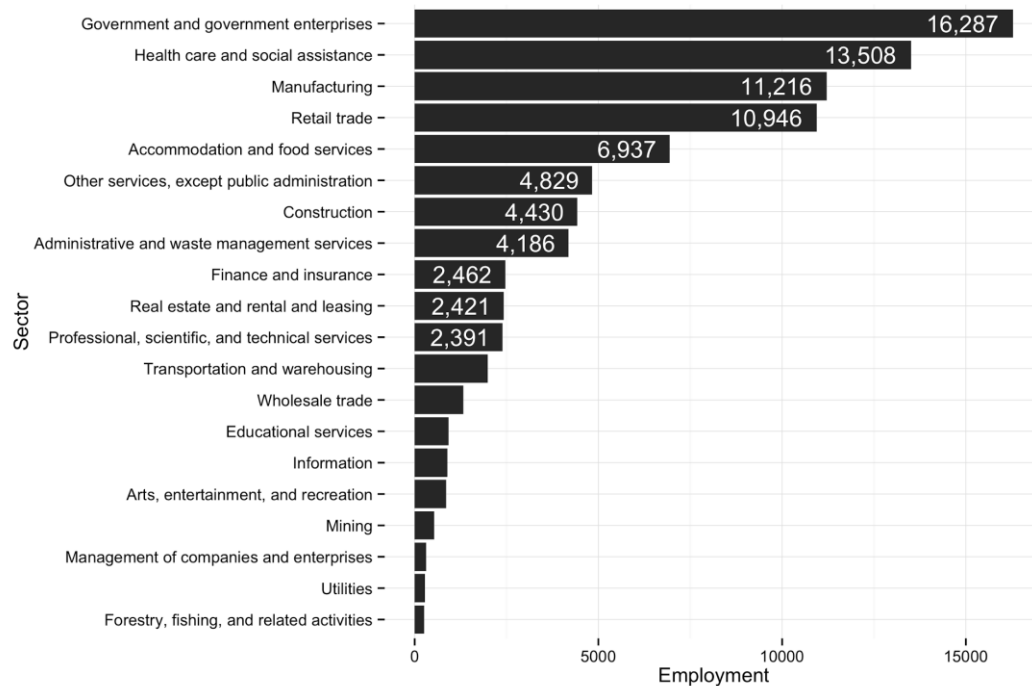


Figure 4: Employment by Industry Sector in 2011

In this section, comparisons to the State of Ohio are performed using location quotients. The location quotient (LQ) is a ratio, which makes it possible to compare regional distribution of employment to that of the reference area. Generally, a location quotient greater than one means that the four-county region has a slightly higher share of its employment in a particular industry than the State of Ohio (our reference or base area).

For example, let's assume that in 2011 manufacturing accounted for 12 percent of all employment in the four-county region. However, at the state level manufacturing accounted for 10 percent. So in this case the location quotient would equal $12/10 = 1.2$ (or 20 percent). This indicates that the four-county region has a larger concentration of manufacturing than the state. In this example, manufacturing in the four-county region can be considered an "exporting" sector - meaning that it exports its goods and services outside of the region.

According to the location quotient, the four county region sees higher than expected employment in Forestry and fishing (1.42), Government and government enterprises (1.40), Manufacturing (1.18), Retail (1.14), Health care (1.12) and Mining (1.10).

Conversely, the region sees lower than expected employment in Management of Companies (0.18), Wholesale Trade (0.39), Educational Services (0.43), and Professional and Scientific Services (0.44) to name a few.

Accommodation and food services

In 2011, employment in this sector was 6,937 following an increase from 6,676 in 2001, a change of 3.9%. Establishments in this sector mainly include restaurants, bars, and hotels. The average wage in 2011 was \$16,644 per year.

The Accommodation and Food Services NAICS sector comprises establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption. (U.S Bureau of Economic Analysis 2014)

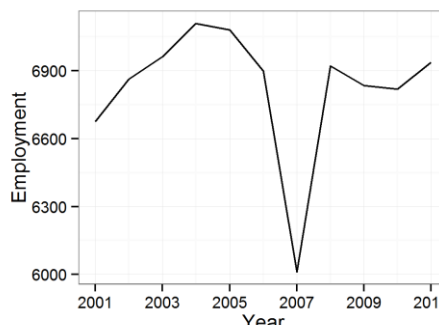


Figure 5: Employment in accommodation and food services. NAICS:72

Many of the employees in this sector are part-time, therefore, wages in this sector may seem low but values are per employment and not per full time equivalent. The location quotient accommodation and food services compared to the State of Ohio is 1.08, meaning that there is slightly more employment within this sector in the four county region than expected.

Administrative and waste management

In 2011, employment in this sector was 4,186 following an increase from 4,042 in 2001, a change of 3.5%. Data indicates a decline may have occurred mid-decade. Establishments in this sector include firms that perform assistance in the day-to-day operation of other companies in situations where these activities are not performed by a company themselves. The average wage in 2011 was \$32,475 per year.

Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services. (U.S Bureau of Economic Analysis 2014)

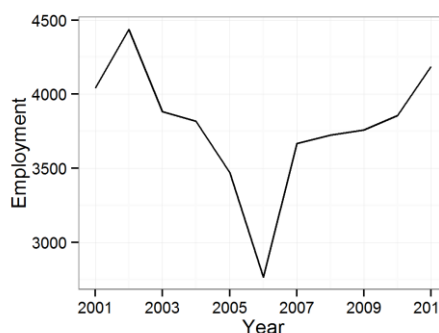


Figure 6: Employment in administrative and waste management services. NAICS:56

The location quotient for administrative and waste management services compared to the State of Ohio was 0.72 in 2011, meaning that there is less employment within this sector in the four county region than expected. This indicates that the administrative and waste services are perhaps more likely to be performed in-house rather than outsourced.

Arts, entertainment, and recreation

In 2011, employment in this sector was 854 following an increase from 819 in 2001, a change of 4%. Establishments in this sector include museums, movie theaters, and other establishments of amusement. The average wage in 2011 was \$7,827 per year.

The Arts, Entertainment, and Recreation NAICS sector includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons. (U.S Bureau of Economic Analysis 2014)

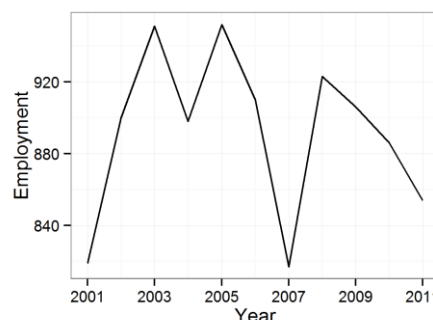


Figure 7: Employment in arts, entertainment, and recreation. NAICS:71

The location quotient for arts, entertainment, and recreation compared to the State of Ohio was 0.49 in 2011, meaning that there is half as many employed within this sector in the four county region than expected.

Construction

In 2011, employment in this sector was 4,430 following decline from 5,288 in 2001, a change of -16.2%. Establishments in this sector include firms involved in the construction of new structures but it can also include also those involved with alterations, repair, excavation, and other construction related activities. The average wage in 2011 was \$37,901 per year.

The Construction (NAICS) sector comprises establishments primarily engaged in the construction of buildings and other structures, heavy construction (except buildings), additions, alterations, reconstruction, installation, and maintenance and repairs. Establishments engaged in demolition or wrecking of buildings and other structures, clearing of building sites, and sale of materials from demolished structures are also included. This sector also includes those establishments engaged in blasting, test drilling, landfill, leveling, earthmoving, excavating, land drainage, and other land preparation. (U.S Bureau of Economic Analysis 2014)

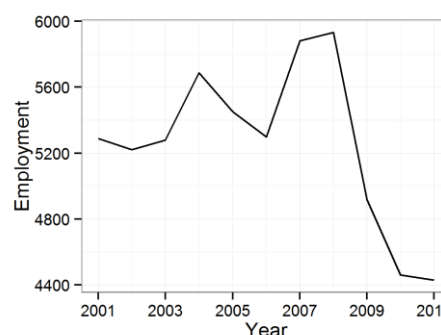


Figure 8: Employment in construction. NAICS:23

The location quotient for construction compared to the State of Ohio was 1.04 in 2011, meaning that there is slightly more employment within this sector in the four county region than expected.

Educational services

In 2011, employment in this sector was 925 following an increase from 549 in 2001, a change of 68%. Establishments are involved in instruction or training in any of its forms. The average wage in 2011 was \$17,350 per year.

This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments may be privately owned and operated for profit or not for profit, or they may be publicly owned and operated. They may also offer food and accommodation services to their students. (U.S Bureau of Economic Analysis 2014)

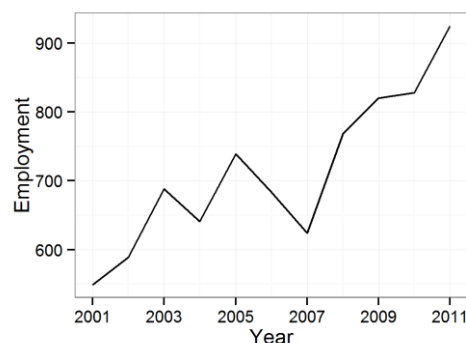


Figure 9: Employment in educational services. NAICS:61

The location quotient for educational services compared to the State of Ohio was 0.43 in 2011, meaning that there are less than half as much employment within this sector in the four county region than expected.

Finance and insurance

In 2011, employment in this sector was 2,462 following an increase from 2,125 in 2001, a change of 15.8%. The average wage in 2011 was \$31,871 per year.

The Finance and Insurance NAICS sector comprises establishments primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or in facilitating financial transactions. (U.S Bureau of Economic Analysis 2014)

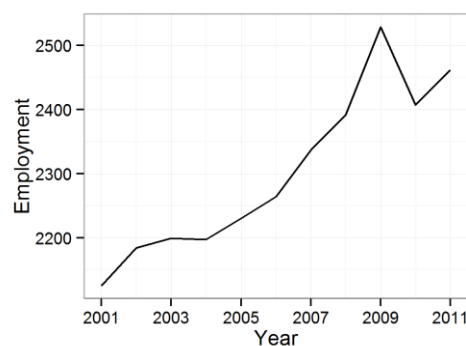


Figure 10: Employment in finance and insurance. NAICS:52

The location quotient for finance and insurance compared to the State of Ohio was 0.52 in 2011, meaning that there is half as much employment within this sector in the four county region than expected.

Forestry, fishing, and related activities

In 2011, employment in this sector was 261 following an increase from 238 in 2001, a change of 9.6%. The average wage in 2011 was \$40,547 per year. This sector grew to a total of 408 employees then started to decrease throughout the time-frame. Due to the small size of this sector, variation may be sole due to data suppression.

The Forestry, fishing, related activities NAICS sector comprises establishments primarily engaged in harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats. (U.S Bureau of Economic Analysis 2014)

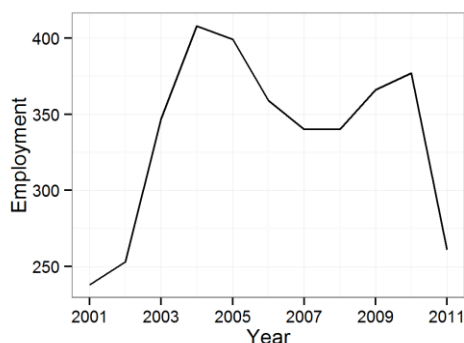


Figure 11: Employment in forestry, fishing, and related. NAICS:11

The location quotient for forestry, fishing, and related activities compared to the State of Ohio was 1.42 in 2011, meaning that there is more employment within this sector in the four county region than expected. In 2004, the location quotient went as high as 2.5.

Government and government enterprises

Government activity makes up the majority of employment in the PORTS region. In 2011, employment in this sector was 16,287 following a decline from 16,496 in 2001, a change of -1.2%. During the decade there was fast increase to 17,100 followed by the decline. The average wage in 2011 was \$56,699 per year.

Government enterprises are government agencies that cover a substantial portion of their operating costs by selling goods and services to the public and that maintain separate accounts. (U.S Bureau of Economic Analysis 2014)

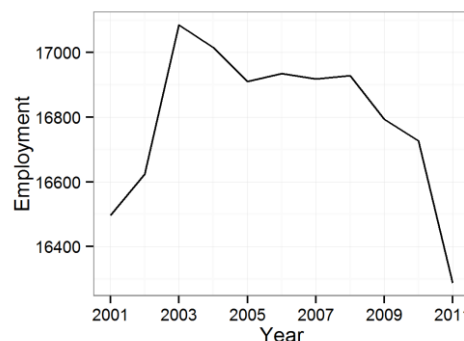


Figure 12: Employment in government and government enterprises. NAICS: 90

The location quotient for government and government enterprises compared to the State of Ohio was 1.4 in 2011, meaning that there is more employment within this sector in the four county region than expected.

Health care and social assistance

Health care has been on the rise in the Appalachian Region of Ohio the past several years. It was in fact one of the few sectors that showed employment growth throughout the recent recession. In 2011, employment in this sector was 13,508 following an increase from 10,802 in 2001, a change of 25%. The average wage in 2011 was \$47,888 per year.

The industries in this sector are arranged on a continuum starting with those establishments providing medical care exclusively, continuing with those providing health care and social assistance, and finally finishing with those providing only social assistance. The services provided by establishments in this sector are delivered by trained professionals. All industries in the sector share this commonality of process, namely, labor inputs of health practitioners or social workers with the requisite expertise. (U.S Bureau of Economic Analysis 2014)

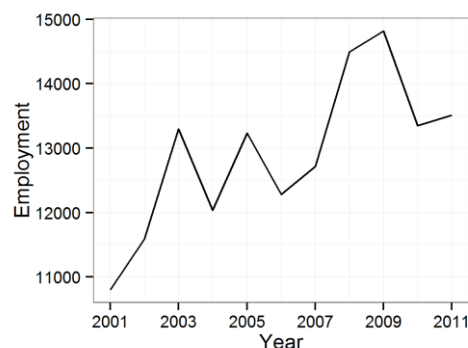


Figure 13: Employment in health care and social assistance. NAICS:62

The location quotient for health care and social assistance compared to the State of Ohio was 1.12 in 2011, meaning that there is more employment within this sector in the four county region than expected.

Information

In 2011, employment in this sector was 888 following a decline from 1310 in 2001, a change of -32%. Establishments in this sector include those that produce, distribute, transmit, or process data. The average wage in 2011 was \$47,059 per year.

The main components of this sector are the publishing industries, including software publishing, and both traditional publishing and publishing exclusively on the Internet; the motion picture and sound recording industries; the broadcasting industries, including traditional broadcasting and those broadcasting exclusively over the Internet; the telecommunications industries; the industries known as Internet service providers and Web search portals; data processing industries; and the information services industries. (U.S Bureau of Economic Analysis 2014)

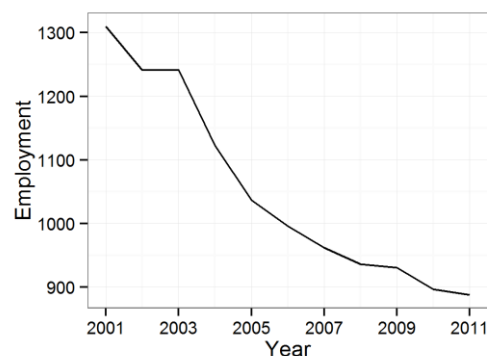


Figure 14: Employment in information. NAICS:51

The location quotient for information compared to the State of Ohio was 0.68 in 2011, meaning that there is less employment within this sector in the four county

region than expected.

Management of companies and enterprises

In 2011, employment in this sector was 309 following an increase from 74 in 2001, a change of 317%. Similar to the administrative and waste services sector, the management of companies and enterprises are establishments that handle the day-to-day activities of other firm's management. Often these activities are performed in-house and not outsourced to other firms. The average wage in 2011 was \$61,333 per year.

...oversee, and manage establishments of the company or enterprise and that normally undertake the strategic or organizational planning and decision-making role of the company or enterprise. (U.S Bureau of Economic Analysis 2014)

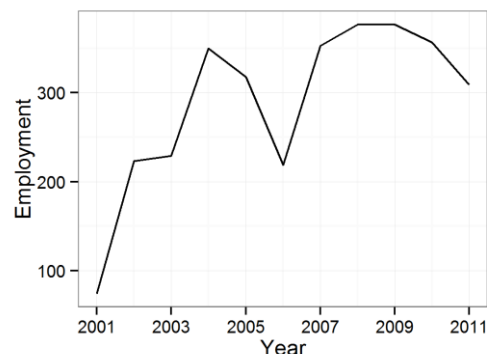


Figure 15: Employment in management of companies and enterprises. NAICS:55

The location quotient for management of companies and enterprises compared to the State of Ohio was 0.18 in 2011, meaning that there is far less employment within this sector in the four county region than expected.

Manufacturing

Manufacturing has been on a decline within the nation, Ohio, and the PORTS region. In 2011, employment in this sector was 11,216 following a decline from 16,439 in 2001, a change of -32%. The average wage in 2011 was \$67,853 per year.

Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this sector. Manufacturing establishments may process materials or may contract with other establishments to process their materials for them. Both types of establishments are included in manufacturing. (U.S Bureau of Economic Analysis 2014)

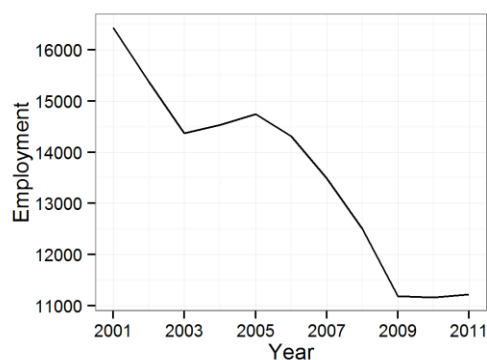


Figure 16: Employment in manufacturing. NAICS:31-33

The location quotient for manufacturing compared to the State of Ohio was 1.18 in 2011, meaning that there is more employment within this sector in the four county region than

expected. Manufacturing is often considered the backbone of the Appalachian economy and this region seems to be consistent with that notion.

Mining

In 2011, employment in this sector was 526 following an increase from 415 in 2001, a change of 26%. Establishments in this sector operate natural resource extraction sites or support these operations directly. The average wage in 2011 was \$26,220 per year.

The Mining sector under NAICS comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas. The term mining is used in the broad sense to include quarrying, well operations, beneficiating (e.g., crushing, screening, washing, and flotation), and other preparation customarily performed at the mine site, or as a part of mining activity. (U.S Bureau of Economic Analysis 2014)

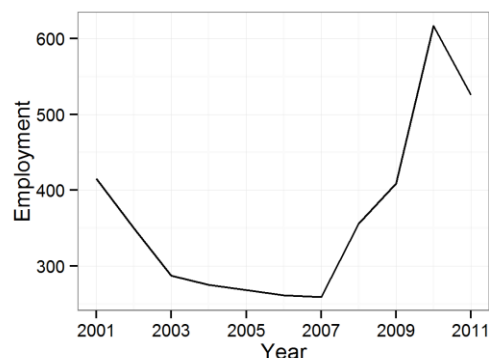


Figure 17: Employment in mining. NAICS:21

The location quotient for mining compared to the State of Ohio was 1.1 in 2011, meaning that there is more employment within this sector in the four county region than expected.

Other services, except public administration

In 2011, employment in this sector was 4,829 following a decrease from 4,921 in 2001, a change of -1.8%. This sector serves as the miscellaneous category for establishments not classified into one of the other sectors. The average wage in 2011 was \$30,308 per year.

Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and providing dry-cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services. (U.S Bureau of Economic Analysis 2014)

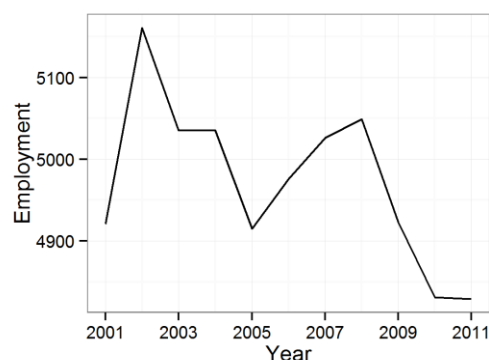


Figure 18: Employment in other services. NAICS:81

The location quotient for other services compared to the State of Ohio was 0.99 in 2011, meaning that there is approximately the same level of employment within this sector in the four county region as expected.

Professional, scientific, and technical services

In 2011, employment in this sector was 2,391 following an increase from 589 in 2001, a change of 305%. This sector is composed of highly-trained personnel that provide advanced services to other establishments. The average wage in 2011 was \$50,755 per year.

Activities performed include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services. (U.S Bureau of Economic Analysis 2014)

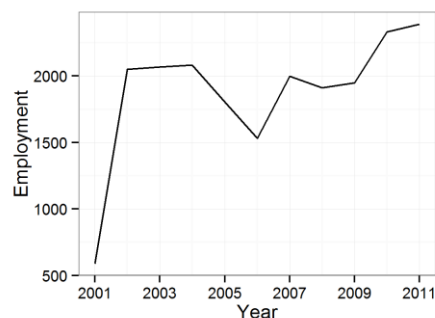


Figure 19: Employment in professional, scientific, and technical services. NAICS:54

The location quotient for professional, scientific, and technical services compared to the State of Ohio was 0.44 in 2011, meaning that there are half as much employment within this sector in the four county region than expected.

Real estate and rental and leasing

In 2011, employment in this sector was 2,421 following an increase from 2,182 in 2001, a change of 10%. The average wage in 2011 was \$11,369 per year.

The major portion of this sector comprises establishments that rent, lease, or otherwise allow the use of their own assets by others. The assets may be tangible, as is the case of real estate and equipment, or intangible, as is the case with patents and trademarks. (U.S Bureau of Economic Analysis 2014)

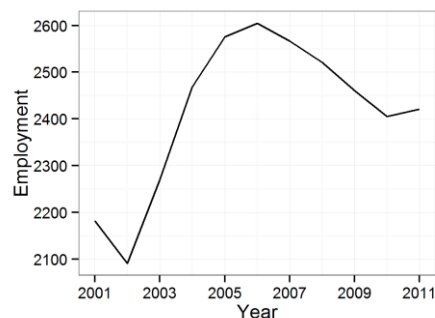


Figure 20: Employment in real-estate, rental, and leasing. NAICS:53

The location quotient for real estate compared to the State of Ohio was 0.68 in 2011, meaning that there are less employment within this sector in the four county region than expected.

Retail trade

In 2011, employment in this sector was 10,946 following decline from 12,284 in 2001, a

change of -10.8%. Retail trade includes establishments involved in point of sale of merchandise. The average wage in 2011 was \$26,617 per year.

In addition to retailing merchandise, some types of store retailers are also engaged in the provision of after-sales services, such as repair and installation. For example, new automobile dealers, electronic and appliance stores, and musical instrument and supply stores often provide repair services. As a general rule, establishments engaged in retailing merchandise and providing after-sales services are classified in this sector. (U.S Bureau of Economic Analysis 2014)

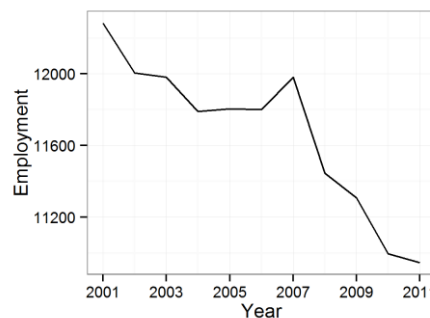


Figure 21: Employment in retail trade. NAICS:44-45

The location quotient for retail trade compared to the State of Ohio was 1.15 in 2011, meaning that there is more employment within this sector in the four county region than expected.

Transportation and warehousing

In 2011, employment in this sector was 19,991 following a decline from 22,061 in 2001, a change of -9.7%. A lot of variation exists in the decade, due to unknown reasons. The transportation and warehousing sector deals with the moving and storage of goods and people for others. The average wage in 2011 was \$53,465 per year.

Establishments in these industries use transportation equipment or transportation related facilities as a productive asset. The type of equipment depends on the mode of transportation. The modes of transportation are air, rail, water, road, and pipeline. (U.S Bureau of Economic Analysis 2014)

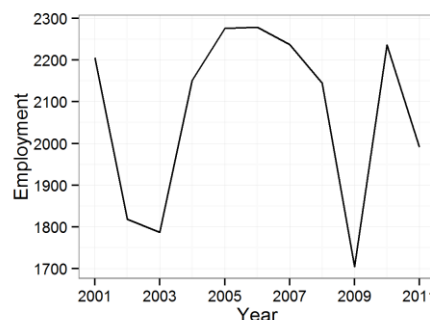


Figure 22: Employment in transportation and warehousing. NAICS:48-49

The location quotient for transportation and warehousing compared to the State of Ohio was 0.63 in 2011, meaning that there is less employment within this sector in the four county region than expected.

Utilities

In 2011, employment in this sector was 285 following a decline from 327 in 2001, a change of -12.8%. The utilities sector is involved with the transmission, and sometimes generation, of supplies used by the public for their day to day needs for energy and water. The average wage in 2011 was \$93,831 per year.

Within this sector, the specific activities associated with the utility services provided vary by utility: electric power includes generation, transmission, and distribution; natural gas includes distribution; steam supply includes provision and/or distribution; water supply includes treatment and distribution; and sewage removal includes collection, treatment, and disposal of waste through sewer systems and sewage treatment facilities. (U.S Bureau of Economic Analysis 2014)

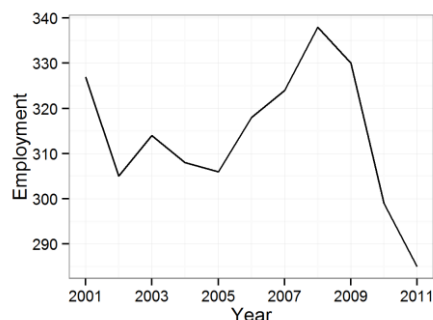


Figure 23: Employment in utilities.
NAICS:22

The location quotient for utilities compared to the State of Ohio was 0.99 in 2011, meaning that there is approximately the same level of employment within this sector in the four county region than expected.

Wholesale trade

In 2011, employment in this sector was 1,327 following an increase from 1,243 in 2001, a change of 6.7%. Establishments in wholesale trade sell merchandise without rendering services incidental to the sale or transformation of those products. The average wage in 2011 was \$45,821 per year.

The merchandise described in this sector includes the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing. (U.S Bureau of Economic Analysis 2014)

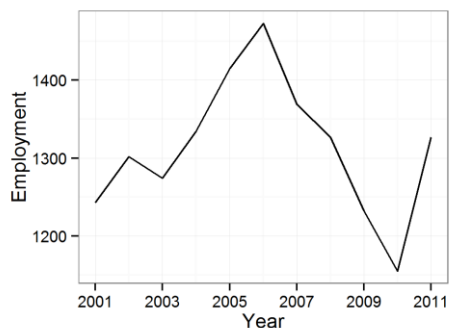


Figure 24: Employment in wholesale trade.
NAICS:42

The location quotient for wholesale trade compared to the State of Ohio was 0.39 in 2011, meaning that there is far less employment within this sector in the four county region than expected.

Occupations

Occupation estimates are calculated from employment by applying ratios for each employment sector for how many individuals are expected to be within each occupation in a given sector. Data and definitions come from the Bureau of Labor Statistics (2012). Do not consider these to be an accurate census, but rather an estimate one can use to gauge the occupational breakdown in the region. The largest occupations in the region are service, office and administrative support, and sales (See Figure 25).

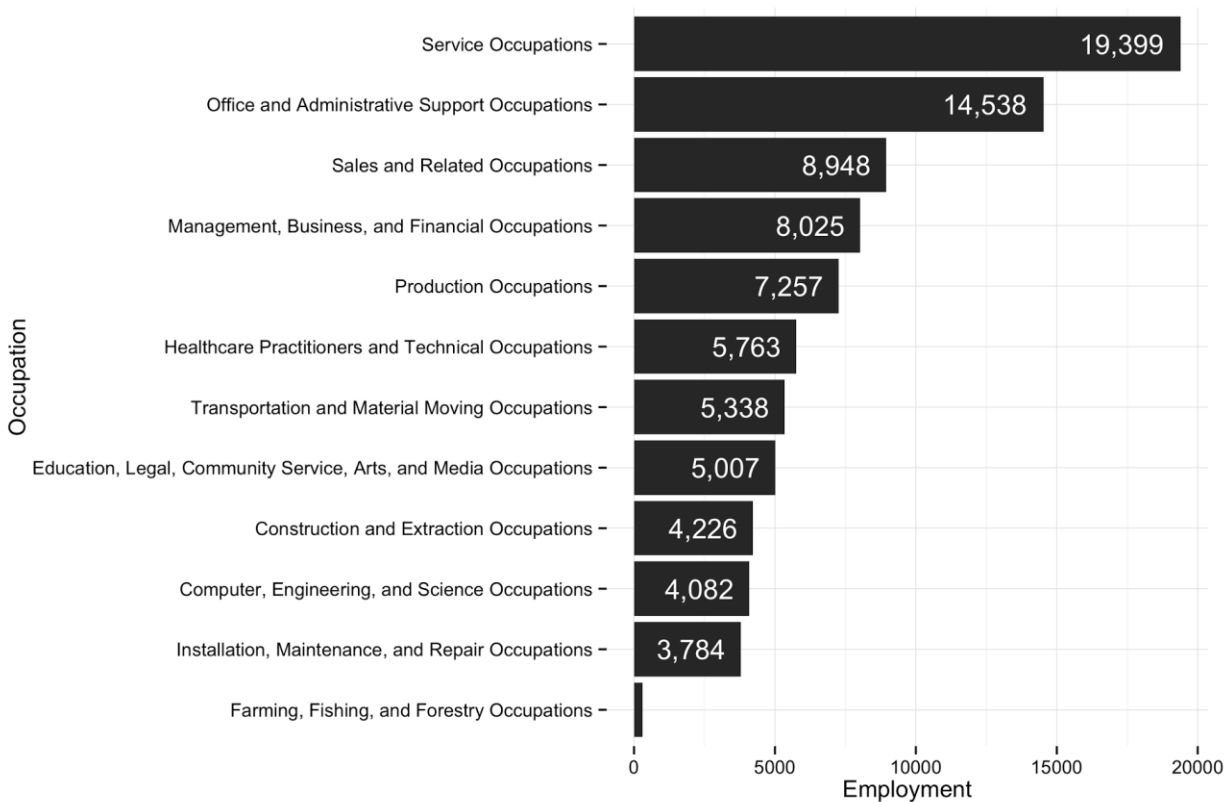


Figure 25: Estimated number of people in each occupation group in 2011.

Computer, Engineering, and Science Occupations

The computer, engineering and science category is composed of three individual classes.

The computer and mathematical occupations consist of computer information scientists, analysts, software developers and programmers, database and system administrators, and other general IT support specialists. Mathematical occupations include actuaries, mathematicians and statisticians.

The architecture and engineering class includes surveyors, cartographers, non-naval architects, engineers

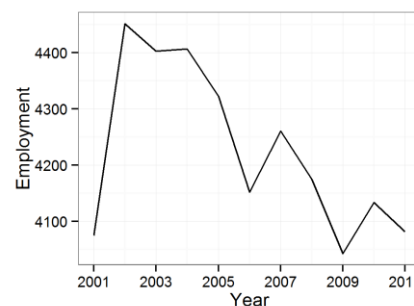


Figure 26: Estimated number of computer, engineering, and science occupations

from a wide-range of fields, and drafters and technicians that support engineers.

The life, physical and social science class consists of life scientists, physical scientists, social scientists and workers, and related technicians. These sciences include scientists in agricultural and food, biological, geological, nuclear, economic, chemistry, atmospheric, astronomy and physics.

It is estimated that in 2011 there were 4,081 in individuals employed in this occupation group. This is a 0.15% change from 2001 when the estimate was 4,075 individuals. The location quotient for computer, engineering, and science occupations was 0.85 in 2011, indicating that region has fewer people in this occupation group than expected.

Construction and Extraction Occupations

These occupations include various construction trade jobs such as carpet, and tile installers, masons, equipment operators, carpenters, plumbers, painters, roofers and solar PV installers. The classification also includes the helpers and inspectors of construction. The extraction occupations are inclusive of quarry, mines, and oil and gas drilling.

It is estimated that in 2011 there were 4,255 in individuals employed in this occupation group. This is an -12.0% change from 2001 when the estimate was 4,804 individuals. The location quotient for construction and extraction occupations was 1.07 in 2011, indicating that region has more people in this occupation group than expected.

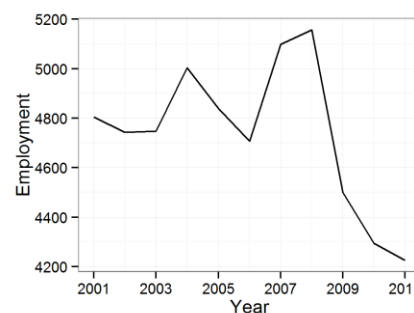


Figure 27: Estimated number of construction and extraction occupations.

Education, Legal, Community Service, Arts, and Media Occupations

This grouping consists of a large variety of occupations. Education is made up of teachers of all levels of education, librarians and curators, as well as those that assist them. The legal group is made up of lawyers, judges, and legal support. The community and social service occupations are counselors, social workers as well as religious workers such as a clergy. Arts, Design, Entertainment, Sports and media includes artists, designers, actors, producers, directors, athletes, coaches, umpires, dancers, musicians, announcers, news reporters, writers, editors, and those that support these professions.

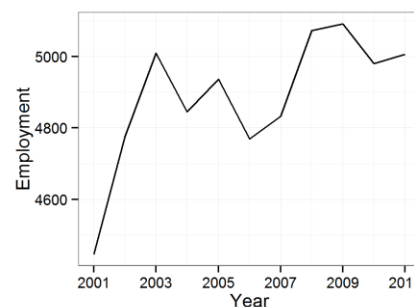


Figure 28: Estimated number of education, legal, community service, arts and media occupations

It is estimated that in 2011 there were 5,006 in individuals employed in this occupation group. This is a 12.6% change from 2001 when the estimate was 4,445 individuals. The location quotient for education, legal, community

service, arts, and media occupations was 0.86 in 2011, indicating that region has fewer people in this occupation group than expected.

Farming, Fishing, and Forestry Occupations

This category includes agricultural work that handle animals, labor, crops, ranching, as well as fishing hunting, trapping. Occupations unique to forestry such as loggers are also included in this demographic.

It is estimated that in 2011 there were 303 individuals employed in this occupation group. This is a 1% change from 2001 when the estimate was 300 individuals. The location quotient for farming, fishing, and forestry occupations was 1.21 in 2011, indicating that region has more people in this occupation group than expected.

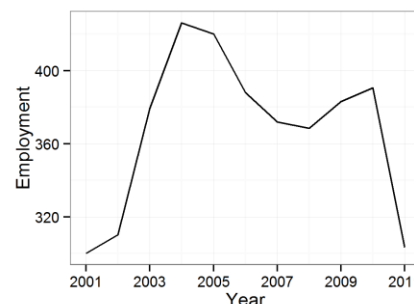


Figure 29: Estimated number of farming, fishing, and forestry occupations.

Healthcare Practitioners and Technical Occupations

Healthcare practitioners are dentists, chiropractors, dietitians, pharmacists, physicians, surgeons, therapists, veterinarians, nurses, midwives to name a few. This occupational category also includes the supporting roles such as lab technicians and other technical workers.

The number of people in these occupations increased by 18% from 2001 to 2011. There are now close to 6,000 people holding one of these occupations in the four county region. The four county region sees slightly higher number of jobs in these occupations than expected.

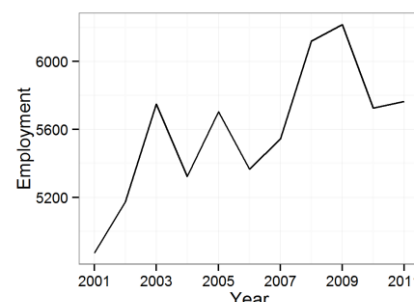


Figure 30: Estimated number of healthcare practitioners and technical occupations.

It is estimated that in 2011 there were 5,763 individuals employed in this occupation group. This is an 18% change from 2001 when the estimate was 4,873 individuals. The location quotient for healthcare practitioners was 1.11 in 2011, indicating that region has more people in this occupation group than expected.

Installation, Maintenance, and Repair Occupations

These occupations consist of those who install or maintain electrical equipment such as avionics and cellular radio, vehicles such as cars, aircraft, and bicycles, and other miscellaneous goods such as garage door openers, fabricated metal machines, locksmiths, and even home appliances. This group also includes supervisors to all of the above.

It is estimated that in 2011 there were 3,783 individuals employed in this occupation group. This is an -9.1% change from 2001 when the estimate was 4,873 individuals. The location quotient for installation, maintenance, and repair occupations was 0.95 in 2011, indicating that region has fewer people in this occupation group than expected.

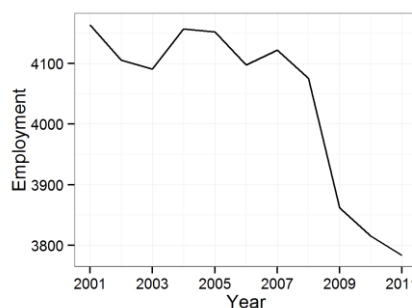


Figure 31: Estimated number of installation, maintenance, and repair occupations.

Management, Business, and Financial Occupations

This group consists of two sub-groups; management and business/finance occupations. Management occupations consist of managers of legislators, advertisers, marketers, sales, administrators, and various others.

It is estimated that in 2011 there were 8,024 individuals employed in this occupation group. This is a 0.01% change from 2001 when the estimate was 8,026 individuals. The location quotient for management, business, and finance occupations was 0.88 in 2011, indicating that region has fewer people in this occupation group than expected.

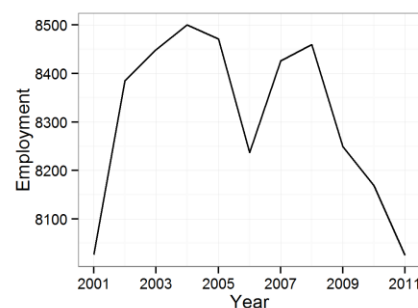


Figure 32: Estimated number of management, business, and financial occupations.

Office and Administrative Support Occupations

These occupations include, but are not limited to, communication operators, financial clerks such as billing and payroll, record clerks, dispatchers and scheduling, administrative assistants, data entry, and typists. It also includes supervisors of these positions.

It is estimated that in 2011 there were 14,538 individuals employed in this occupation group. This is an 0.9% change from 2001 when the estimate was 14,410 individuals. The location quotient for office and administrative support was 0.9 in 2011, indicating that region has fewer people in this occupation group than expected.

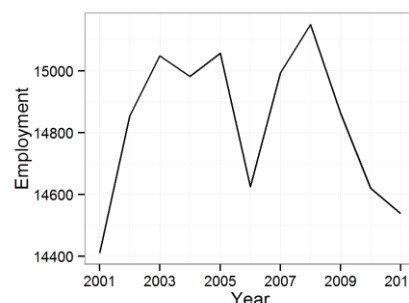


Figure 33: Estimated number of office and administrative support occupations.

Production Occupations

Production occupations are related to the business of manufacturing. These occupations can be assemblers, fabricators, food processors, metal and plastic workers, printers, textile workers, apparel workers, furnishing workers, woodworkers, plant operators, and other miscellaneous workers.

It is estimated that in 2011 there were 7,257 individuals employed in this occupation group. This is an -26% change from 2001 when the estimate was 9,928 individuals. The location quotient for production occupations was 1.11 in 2011, indicating that region has more people in this occupation group than expected.

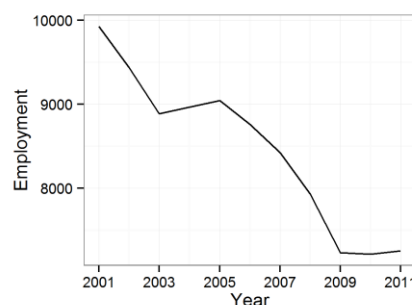


Figure 34: Estimated number of production occupations

Sales and Related Occupations

Sales includes those that work in retail as cashiers or clerks, various sales agents such as travel or insurance agents, representatives for wholesale, and others such as telemarketers or real estate brokers.

It is estimated that in 2011 there were 8,948 individuals employed in this occupation group. This is an -7.8% change from 2001 when the estimate was 9,701 individuals. The location quotient for sales occupations was 0.93 in 2011, indicating that region has fewer people in this occupation group than expected.

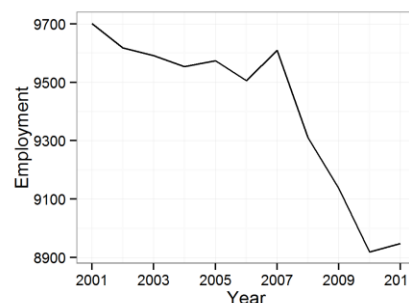


Figure 35: Estimated number of sales and related occupations

Service Occupations

Service occupations include those that fall under health care support, protective, food preparation, building and grounds cleaning or maintenance, and personal care service.

It is estimated that in 2011 there were 19,399 in individuals employed in this occupation group. This is an 5.8% change from 2001 when the estimate was 18,327 individuals. The location quotient for service occupations was 1.04 in 2011, indicating that region has slightly more people in this occupation group than expected.

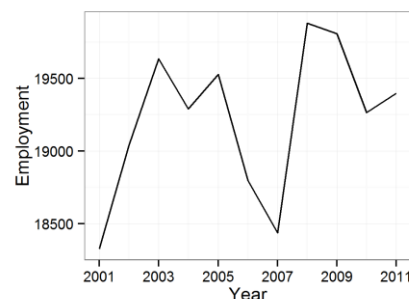


Figure 36: Estimated number of service occupations.

Transportation and Material Moving Occupations

Occupations in this group include the people that operate transportation machinery such as drivers, pilots, locomotive engineers, sailors, and the related support crews such as loaders, flight attendants, air traffic controllers, yard masters, crane and hoist operators, and switch controllers.

It is estimated that in 2011 there were 5,338 in individuals employed in this occupation group. This is an - 10.6% change from 2001 when the estimate was 5,968 individuals. The location quotient for transportation occupations was 0.84 in 2011, indicating that region has fewer people in this occupation group than expected. This could be because the four county region lacks major transportation hubs often found near urban areas.

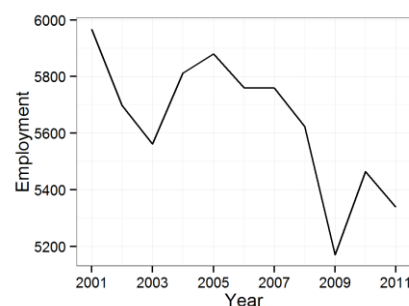


Figure 37: Estimated number of transportation and material moving occupations.

Regional Transportation Infrastructure

The greater southern Ohio region around the PORTS facility is home to various transportation infrastructure (Bureau of Transportation Statistics 2013). Since the area is rural, it is not home to the large intermodal facilities that can move material from boat, truck, and plane. PORTS is however near some of the routes that connect these facilities found in urban centers. Passenger traffic to the area will be by road or air, while freight traffic can travel by truck or rail to nearby water ports.

Air

Within the four counties there are four public-use airstrips. With few exceptions, the aircraft based on these fields are all single engine piston driven light aircraft. Both Ross County airport and Portsmouth Greater Regional have one jet powered aircraft based on field. Annually these fields see 1,678 air taxi (charter) flights, 68,300 local flights, 29,380 non-local and non-air-taxi flights (itinerant), and 1,087 military flights. A flight is defined as a single landing. A majority of this traffic is at Portsmouth. Pike County had the least traffic, with only 2,000 flights of any kind and no air taxi operations. All of these airports are located 10 miles or less from the nearest business district. Portsmouth Greater Regional is the most remote at 10 miles. There are no control towers or customs agents at these airports. As a result many air carriers would be unable to serve the area depending on their operating certificates. These fields do not receive any regularly scheduled commercial service.

Within a two hour drive from the facility there are four airports that have a control tower and a customs agent. These would be the nearest points of entry into the United States for international flights without making special arrangements. These airports are Port Columbus (KCMH), Rickenbacker International (KLCK) in Columbus. Tri-State in Huntington, WV (KHTS), and Lunken Field (KLUK) in Cincinnati.

Table 5: Number of flights each year by category into the major airports within a two hour drive of PORTS.

Name	City	Commercial	Air Taxi	Local	Itinerant	Military	Totals
RICKENBACKER INTL	COLUMBUS	4482	28280	17413	5403	15762	71340
CINCINNATI MUNI AIRPORT LUNKEN FIELD	CINCINNATI	64	14464	12275	44187	646	71636
PORT COLUMBUS INTL	COLUMBUS	60536	71944	4535	26075	894	163984
TRI-STATE/MILTON J. FERGUSON FIELD	HUNTINGTON	1592	7392	9089	10750	1236	30059
	Totals	66674	122080	43312	86415	18538	337019

Annual flights for major airports within two hour drive of PORTS total 337,019. About half of these are into Port Columbus airport, approximately 90 minutes by automobile to the north

of PORTS. Out of the four airports, Port Columbus sees significant commercial operations with various airlines serving Columbus via this point of entry. Lunken sees a large number of Itinerant operations as it is the only remaining relief airport for the city.

Rail

Rail has been a significant part of the facility's transportation infrastructure. It was previously identified as the main asset other than electricity, which makes the location competitive. The facility currently has significant rail infrastructure and, pending D&D activities, it may still exist for use in the future. PORTS has rail lines connecting its on-site facilities to both Norfolk Southern (NS) and CSX rail corridors. The NS line in the Scioto floodplain to the west, carries between 1 and 5 million gross tons annually (mgt) and CSX's nearby line to the east of PORTS carries between 50 and 100 mgt annually. Both lines run through Columbus to the North from which CSX serves the Toledo area and NS serving the ports of Sandusky and Cleveland as their next major directions. To the south both lines serve Portsmouth, Ohio and Huntington WV before taking separate routes to Cincinnati and across the Appalachian Mountains.

Road

Two four lane highways serve the facility as the principal arterials. These are State Route 32 and US Route 23 (See Figure 38). These highways are not limited access as are most interstates and do have road crossings and traffic lights. Using these roads one could reach Columbus Ohio, Cincinnati Ohio, and Huntington WV in under 2 hours. Interstate 75, 71, and 60 are all also accessible in under two hours and serve as hazardous material routes.

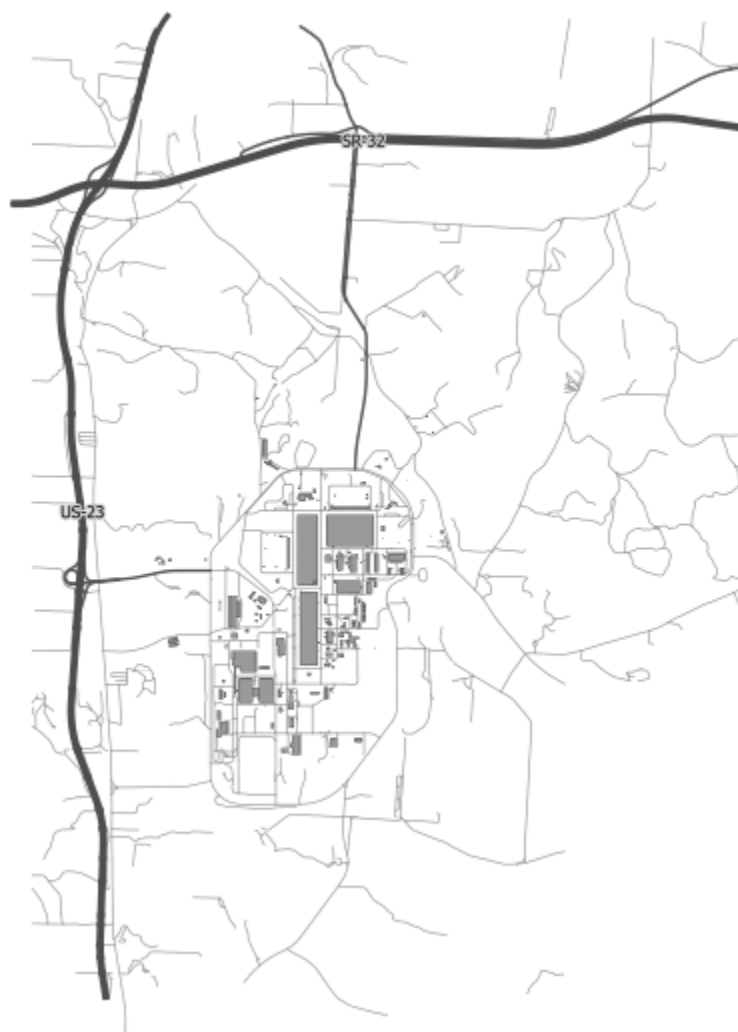


Figure 38: U.S. 23 and S.R. 32 depicted in relation to PORTS. Highlighted roads are primary the access to/from the site. Source: DOE

US-23

According to the Ohio Department of Transportation, the section of US-23 adjacent to PORTS sees the passage of 11,941 cars and 1,405 trucks on average each day (Ohio Department of Transportation 2014). The main entrance for the PORTS facility is an exit from US-23. The off ramp for US-23 South into the facility sees 449 cars and 16 trucks daily, while the off ramp for US-23 North sees 228 cars and 5 trucks daily. The on-ramps see 567 cars and 14 trucks going northbound and 237 cars and 7 trucks going southbound each day.

SR-32

State route 32 sees an average daily count of 6,729 cars and 1,150 trucks. Approximately

3,600 of the car and 200 of the truck traffic takes the US-23 on ramp and the US-23 off ramp each day. Shyville road, the connector from PORTS to SR 32 sees 1,800 unknown vehicles each day. Schuster road also connects Shyville road to SR32 and sees 442 vehicles a day, some of which is likely PORTS destined.

If we assume that most of the traffic via the PORTS two main entrances are employees and staff commuters then we can estimate that about 900-1000 vehicles come and go via SR32 and about 700 via US23.

The residential centers of Chillicothe, Jackson, and Portsmouth are all approximately 30 minutes away from the facilities main entrance and it is expected a majority of current employees live in or near these areas as automobiles will be the primary, if not only, method of arriving to the facility.

Water

There is only one proximate body of water designated as navigable for commerce by the Army Corps of Engineers, this is the Ohio River approximately 30 minutes to the south via road traffic. The nearby Scioto River, which flows north to south within a short distance of PORTS currently does not see commercial activity and is not maintained for commerce by the Army Corps.

Ports

The nearest major water port to the PORTS site location is the Port of Huntington-Tristate in West Virginia. This port is currently the largest inland port in the United States (Huntington District Waterways Association 2013). This port consists of several terminal facilities up and down the Ohio River, including some near the mouth of the Scioto in Portsmouth Ohio. The terminals in Portsmouth are used to transport petroleum products such as gasoline and other petroleum based liquefied gases, coal, and miscellaneous dry-bulk commodities such as fertilizer, gravel, sand and wood.

Intermodal-Facilities

The nearest intermodal facilities to PORTS are in Chillicothe, Ohio. These are operated by ADM/Countrymark, Menasha Services, and Transflow. Each has rail/truck capabilities. Menasha is serviced by CSXT Rail, Transflow by NS, and ADM by both lines. These rail lines can reach other intermodal facilities in nearby or far away urban centers.

Other Regional Industrial Parks

Employees at the Voinovich School assembled a dataset of available industrial parks advertised on State agency websites. Over one thousand locations with availability were identified in the States of Indiana, Kentucky, Ohio, Pennsylvania and West Virginia. This was done to assess both what was out there, and how PORTS would measure up. If a majority of the land inside what is now called Perimeter Road is made available, about 900-1,000 acres, the location would be on-par with the largest of the available parks available today. The largest site in the dataset is in Mount Vernon, Indiana. Ohio's current largest advertised

space is 766 acres; the West Central Ohio Industrial Center off of Interstate 75 in Wapakoneta. Ohio does not have as many large sites (>500 acres) as other states (See Figure 39).

Data was retrieved in August 2013 from the following state-maintained industrial site databases: Ohio Insite (2013), Indiana Economic Development Corp (2013), Pennsylvania Department of Community & Economic Development (2013), West Virginia Department of Commerce (2013), and Select Kentucky (2013). Each state has select criteria that must be met for buildings and sites to be included on their marketing websites. In addition, site conditions, acreage, infrastructure, cost, and other variables for sites available for lease or purchase may vary based on individual state program policy. Due to state-developed protocols, the type and detail of data extracted from the marketing websites may vary. For example, Indiana has the most available acreage and number of locations available (See Table 6). Ohio has the fewest locations and total acreage advertised compared to other States. This could be because Ohio has stricter requirements for listing.

Table 6: Availability of industrial parks in nearby states in 2013.

State	Median Size (Acres)	Total Size (Acres)	Number of Locations
Indiana	105	62673	405
Kentucky	163	30165	134
Ohio	111	13043	87
Pennsylvania	97	41123	286
West Virginia	110	19100	117

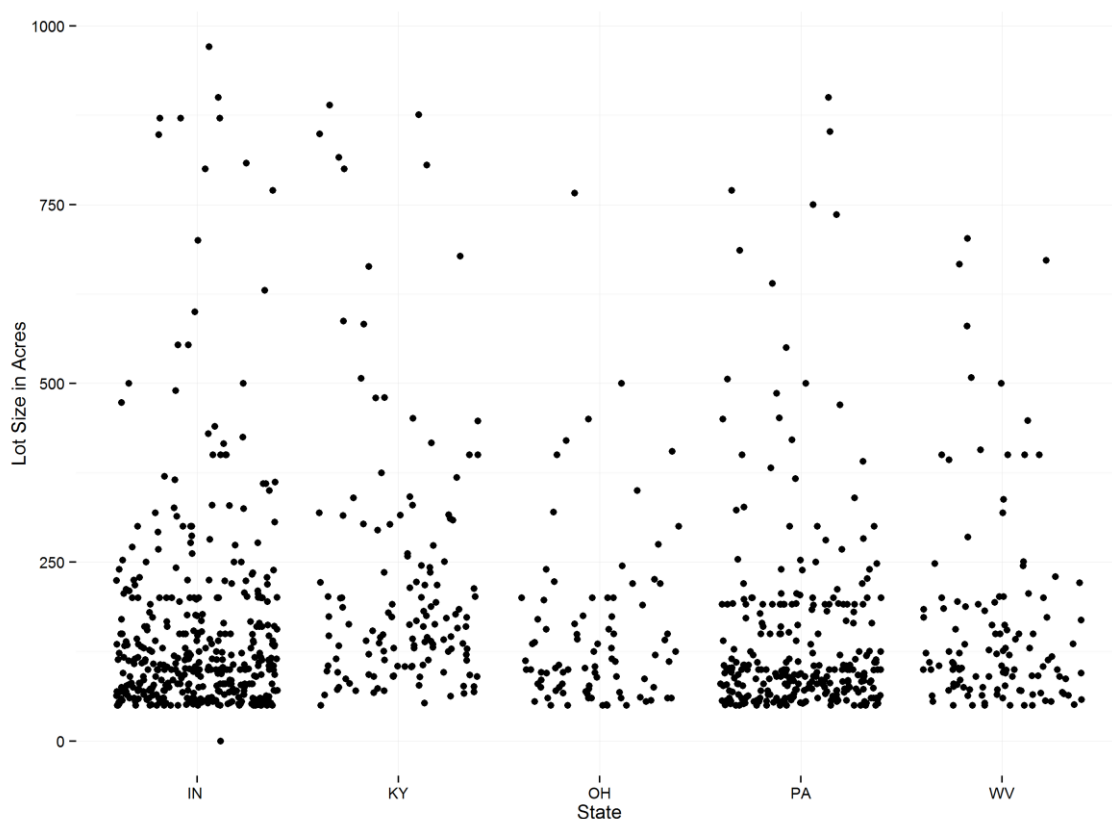


Figure 39: Distribution of sites by state in 2012

Conclusion

The summarized information can be used as the demographic and socioeconomic context, for discussions regarding the repurposing of the PORTS location. In the four country region, we can summarize key points as follows:

1. Higher unemployment rates in the work force than state or national averages.
2. The total population is not predicted to change much by 2040.
3. The region is home to a less educated population compared to the State of Ohio average.
4. Government, healthcare, manufacturing and retail are the largest employing industries. All of these except healthcare show a pattern of decline in recent years.
5. The largest occupation group is service and support based.
6. PORTS' transportation assets are rail and road. There are few intermodal facilities in the region.
7. There are many industrial parks available within Ohio and nearby states. PORTS however would be the largest if a majority of area inside perimeter road was made fully available in a State with few large locations available.

When future uses are considered, this information will assist in determining if the logistics and workforce infrastructure are in place to support a planned operation.

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