

MARKET ANALYSIS
and
INDUSTRY ANALYSIS

...

Prepared for the
Erie Port Authority
Master Development Plan

October 1, 2017

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MARKET ANALYSIS

Section A

Subarea Strategies

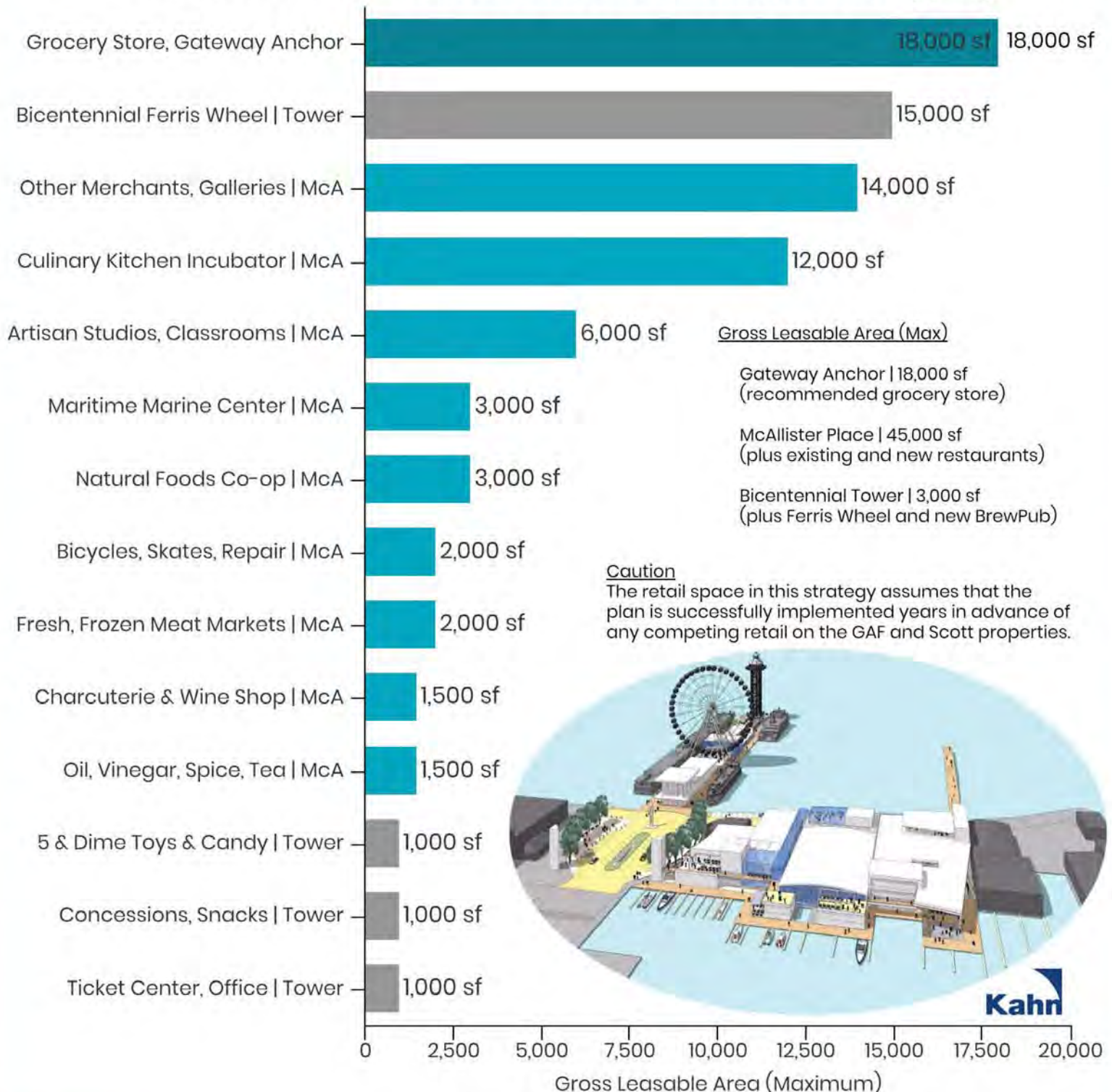
Dobbins District | Retail

A Guide to Revenue-Generating Land Use Strategies for the Master Plan

Gross Leasable Area by Category

Tangible Revenue-Generators

Focus on Destination Entertainment, Boating, and Shopping



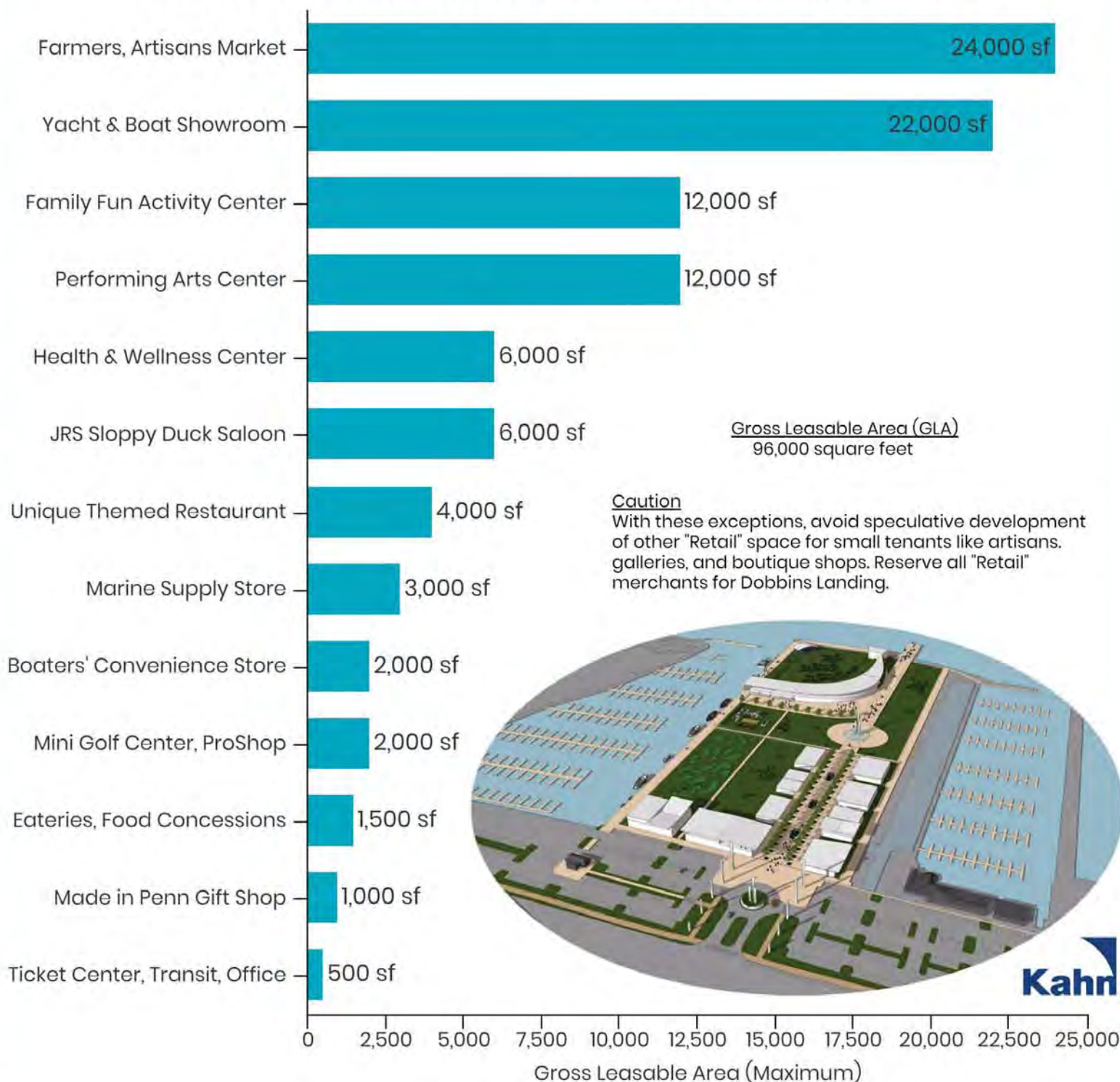
Marina District | All Venues

A Guide to Revenue-Generating Land Use Strategies for the Master Plan

Gross Leasable Area by Specific Category

Tangible Revenue-Generators

Focus on Arts, Entertainment, Recreation, Boating, and Marinas



Recommended strategies, maximum square footages, and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.

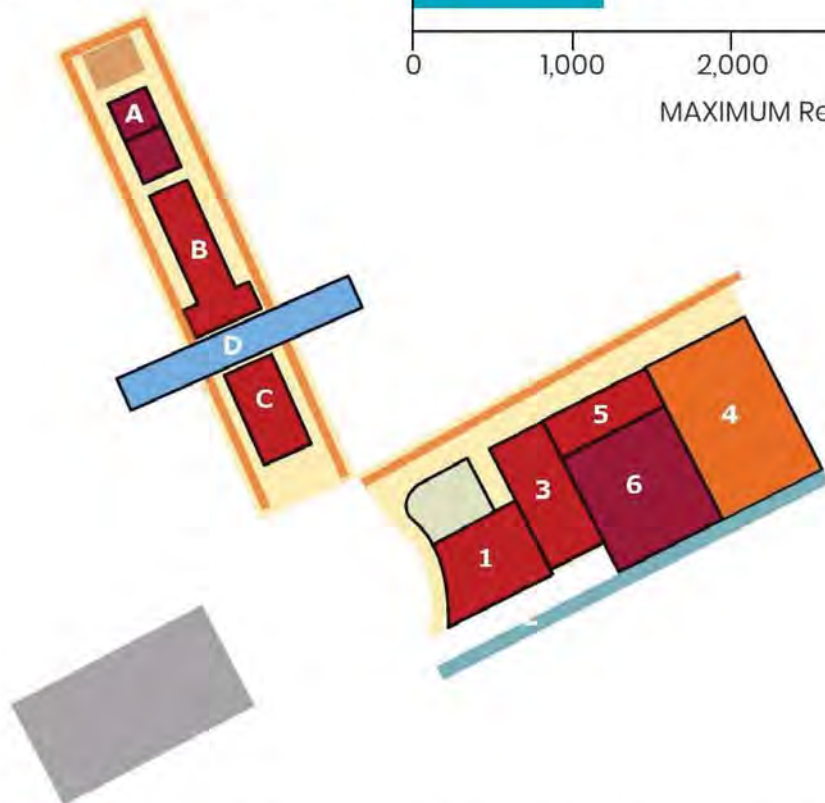
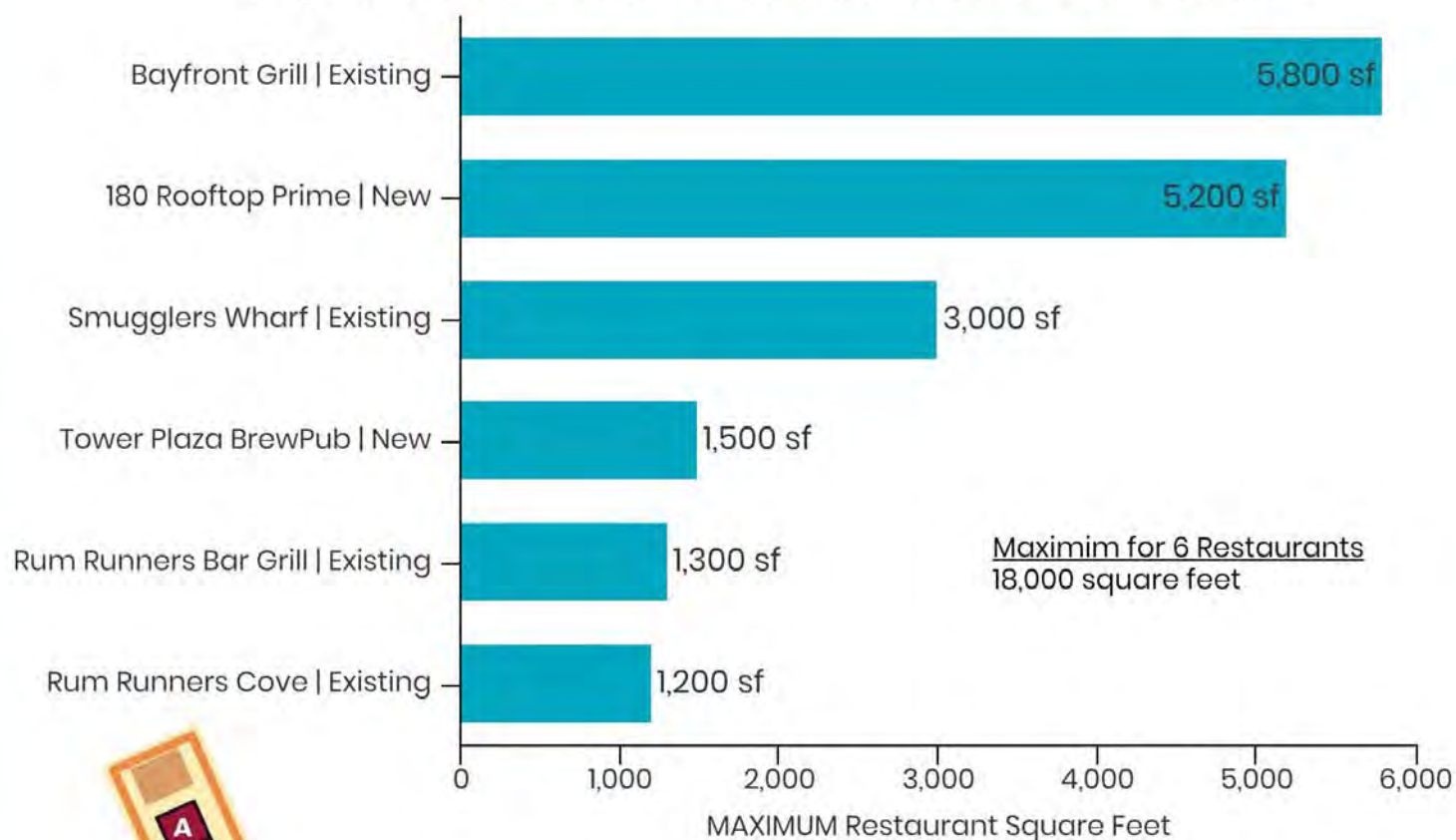
Dobbins District | Restaurants

A Guide to Revenue-Generating Land Use Strategies for the Master Plan

Maximum Square Footage for Restaurants

Focus on Destination Dining

Unique, Themed Restaurants with Entertainment Value



Caution

The restaurant space in this strategy assumes that the plan is successfully implemented years in advance of any competing restaurants on the GAF and Scott properties.



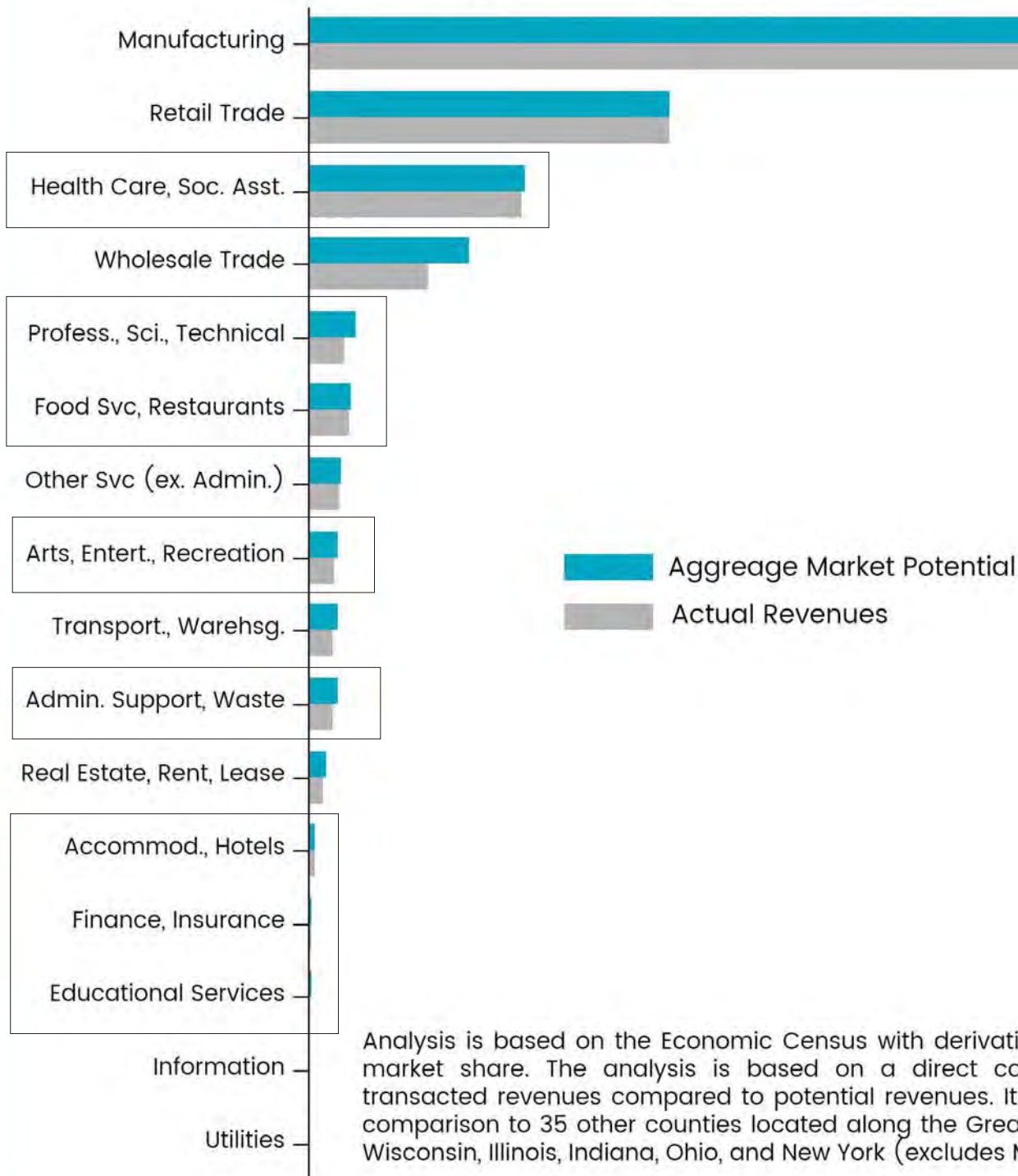
Recommended strategies, maximum square footages, and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.

Economic Growth Opportunities

A study of transacted revenues and market potential by NAICS category.

Overview of Potential by Industry

For Erie County, Pennsylvania
Market Potential v. Actual Revenues



Analysis is based on the Economic Census with derivations of county-wide market share. The analysis is based on a direct comparison between transacted revenues compared to potential revenues. It is also based on a comparison to 35 other counties located along the Great Lakes shoreline, in Wisconsin, Illinois, Indiana, Ohio, and New York (excludes Minnesota).



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

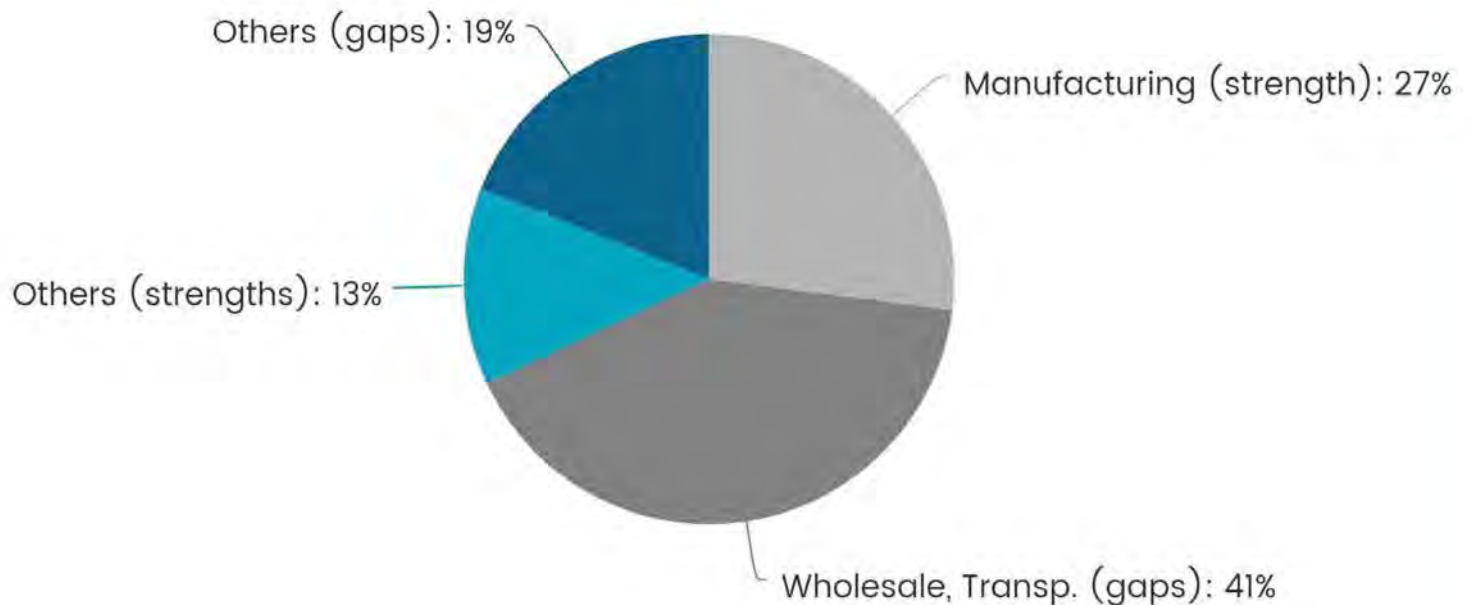
Economic Growth Opportunities

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Share of Aggregate Market Potential For Erie County, Pennsylvania

County-Wide Strengths

31-22 | Manufacturing (27%)
ALL OTHERS LISTED BELOW (13%)
62 | Health Care, Social Assist. (3%)
71 | Arts, Entertainment, Rec. (3%)
81 | Other Services excl. Public Admin (2%)
722 | Food Services, Restaurants (2%)
52 | Finance, Insurance (1%)
61 | Educational Services (1%)
44-45 | Retail Trade (1%)
22 | Utilities (0%)

County-Wide Gaps

42 | Wholesale Trade (37%)
48-49 | Transportation, Warehousing (4%)
ALL OTHERS LISTED BELOW (19%)
54 | Professional, Scientific, Technical (11%)
56 | Admin. Support, Waste Mngmt. (4%)
53 | Real Estate, Rental, Leasing (3%)
51 | Information (1%)
721 | Overnight Accommodations, Hotels (0%)

Numbers left of category names are NAICS codes (North American Industrial Classification System).



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

MARKET ANALYSIS

Section B

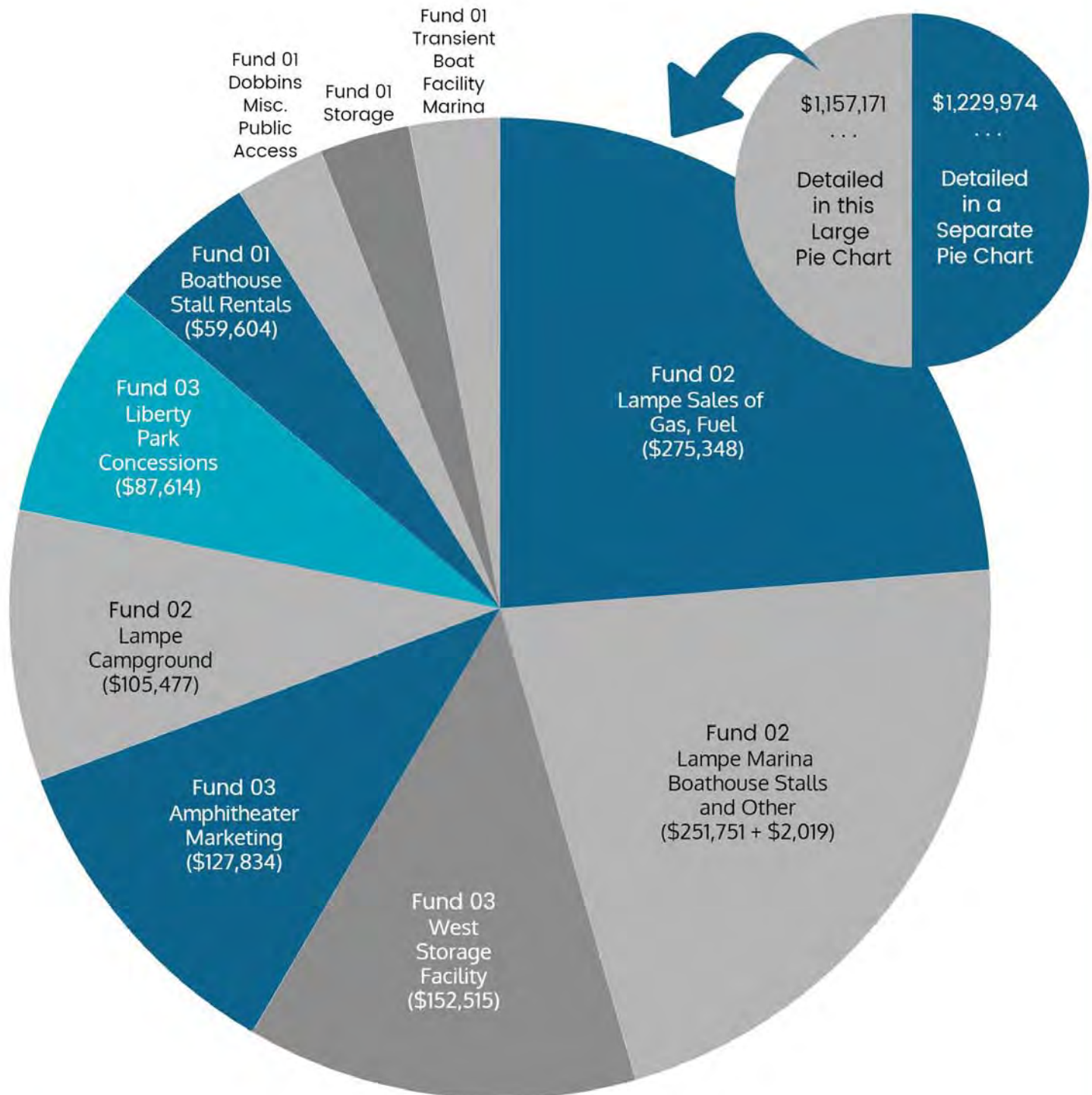
Existing Revenues

Port of Erie | Financial Overview

A study of the Port of Erie's operating revenues over time.

2016 Other Revenue Sources

Without Commercial Rents or Operating Leases



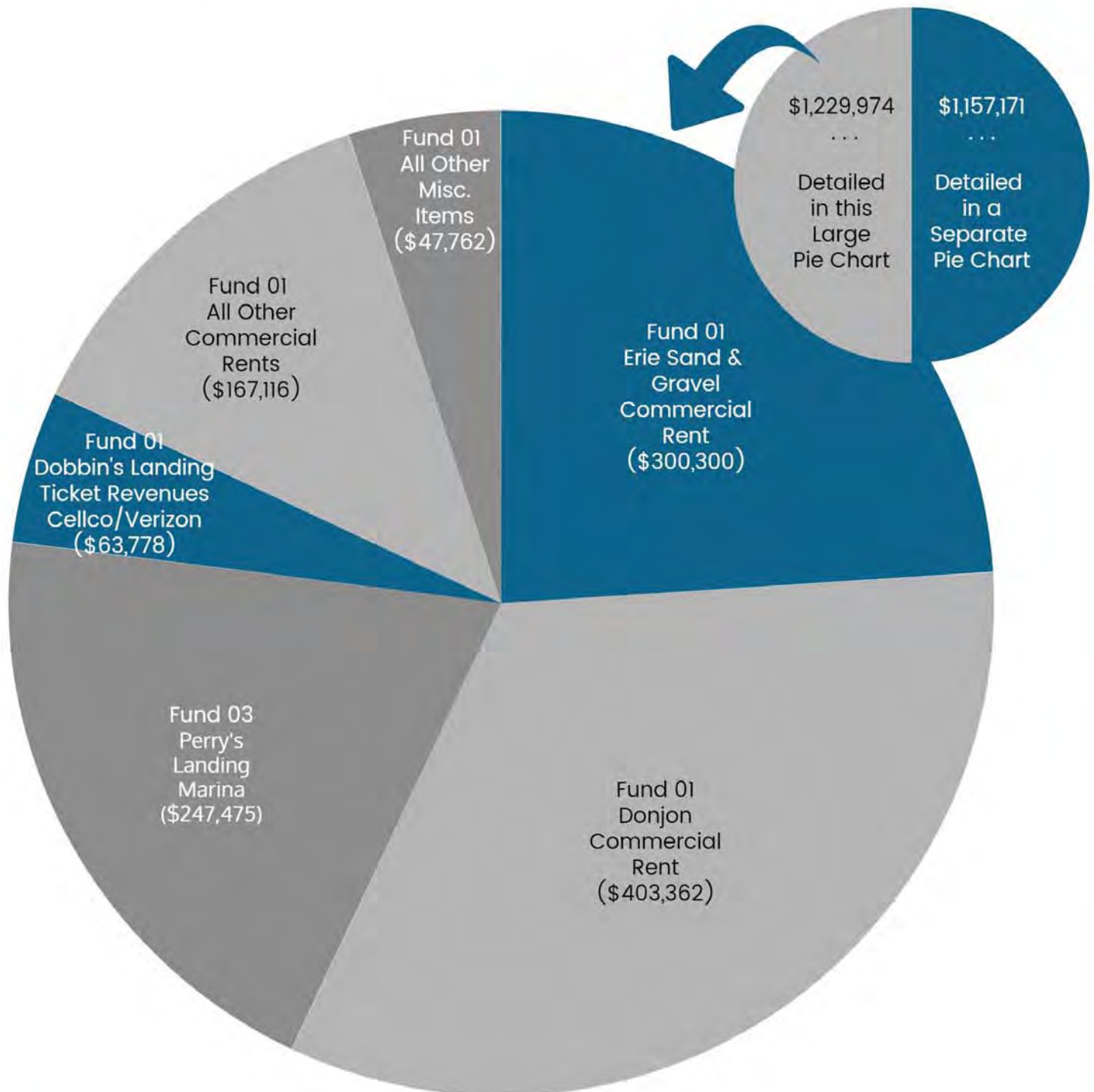
Source: Underlying data as documented in the Port of Erie financial files, 2017.

Port of Erie | Financial Overview

A study of the Port of Erie's operating revenues over time.

2016 Operating Revenues

Includes \$870,778 in Commercial Rents



Source: Underlying data as documented in the Port of Erie financial files, 2017.

Port of Erie | Financial Overview

A study of the Port of Erie's operating revenues over time.

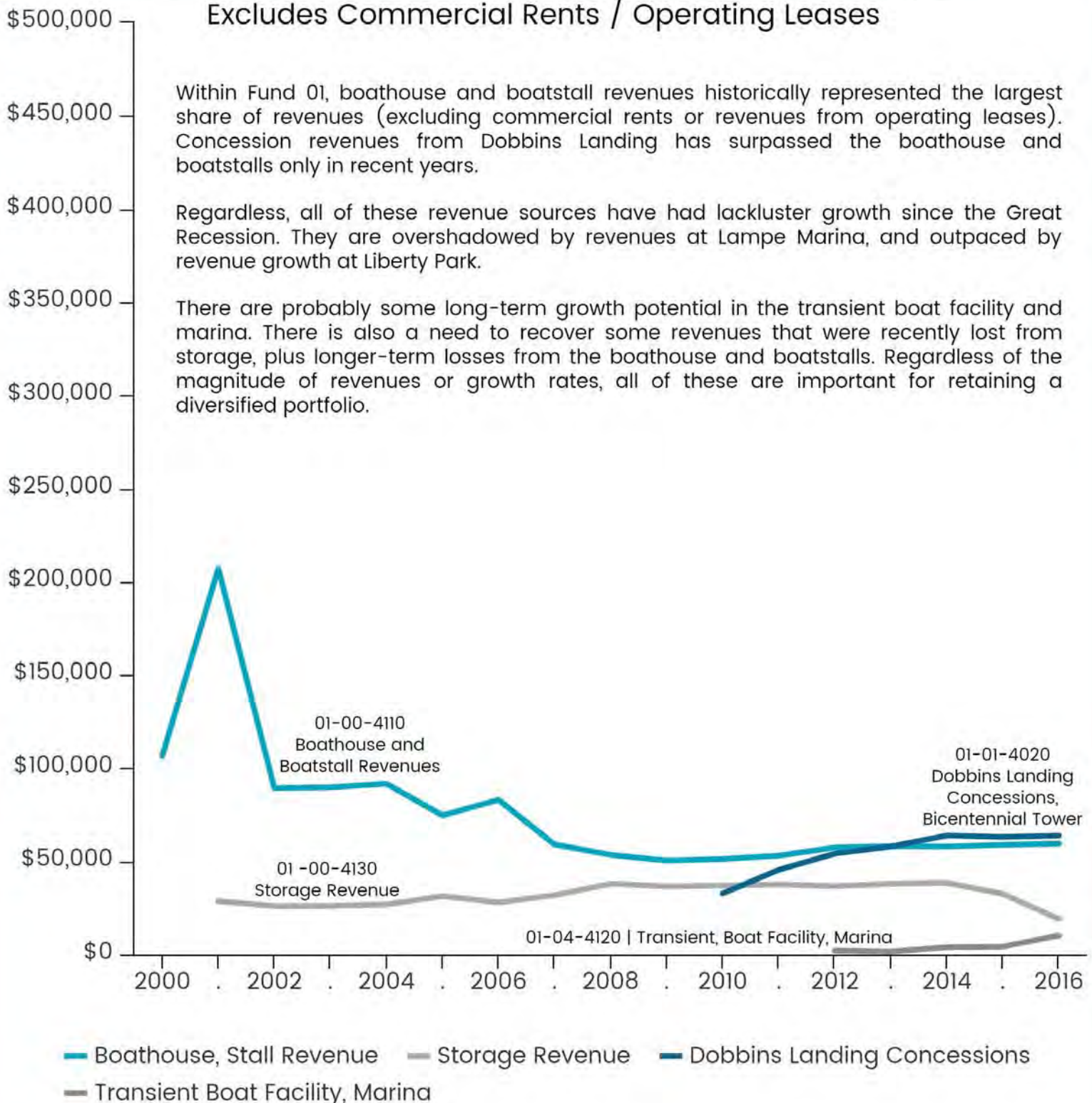
Fund 01 – Dobbins Landing

Excludes Commercial Rents / Operating Leases

Within Fund 01, boathouse and boatstall revenues historically represented the largest share of revenues (excluding commercial rents or revenues from operating leases). Concession revenues from Dobbins Landing has surpassed the boathouse and boatstalls only in recent years.

Regardless, all of these revenue sources have had lackluster growth since the Great Recession. They are overshadowed by revenues at Lampe Marina, and outpaced by revenue growth at Liberty Park.

There are probably some long-term growth potential in the transient boat facility and marina. There is also a need to recover some revenues that were recently lost from storage, plus longer-term losses from the boathouse and boatstalls. Regardless of the magnitude of revenues or growth rates, all of these are important for retaining a diversified portfolio.



Source: Underlying data as documented in the Port of Erie financial files, 2017.

Port of Erie | Financial Overview

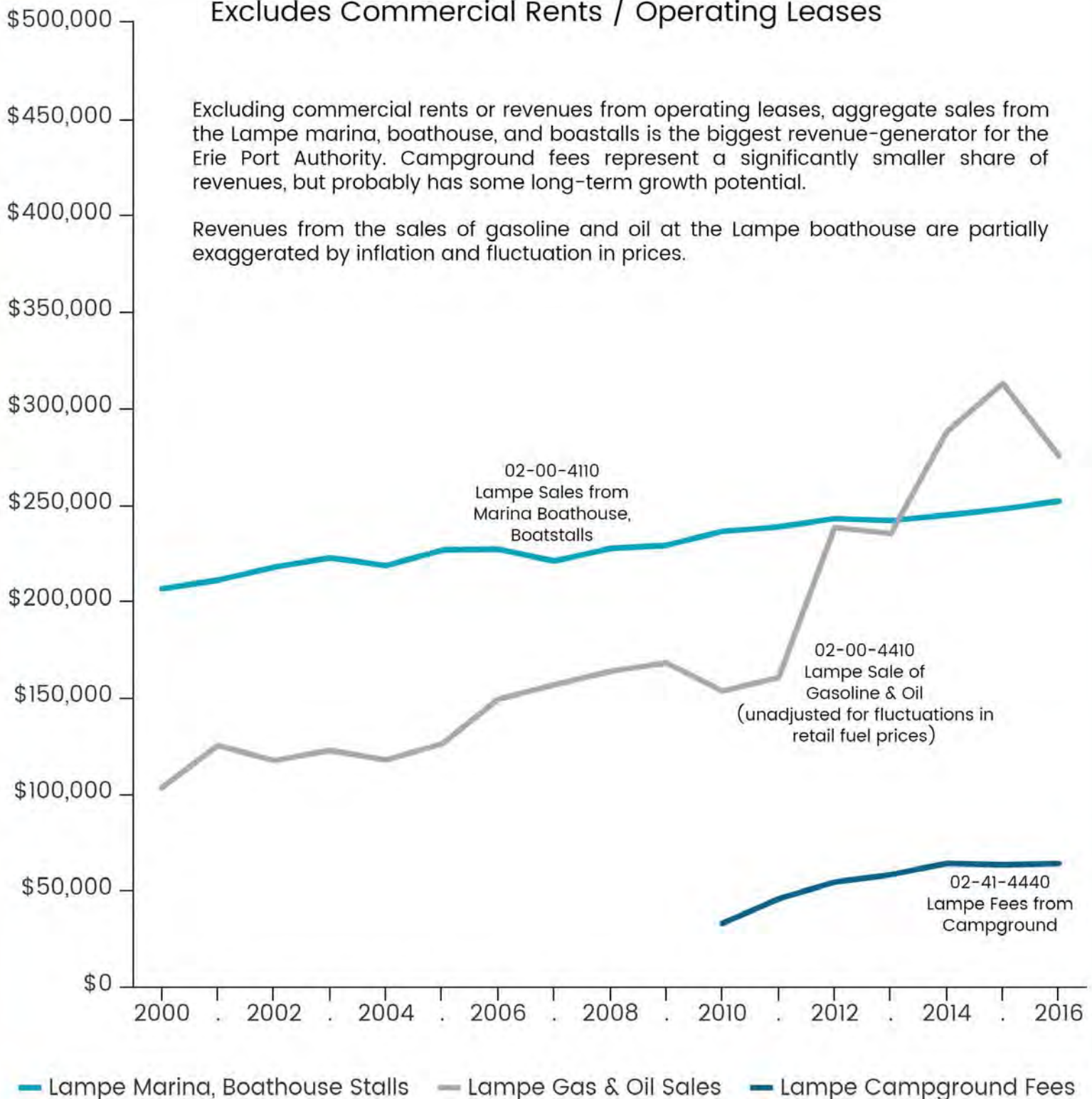
A study of the Port of Erie's operating revenues over time.

Fund 02 - Lampe Marina

Excludes Commercial Rents / Operating Leases

Excluding commercial rents or revenues from operating leases, aggregate sales from the Lampe marina, boathouse, and boatstalls is the biggest revenue-generator for the Erie Port Authority. Campground fees represent a significantly smaller share of revenues, but probably has some long-term growth potential.

Revenues from the sales of gasoline and oil at the Lampe boathouse are partially exaggerated by inflation and fluctuation in prices.



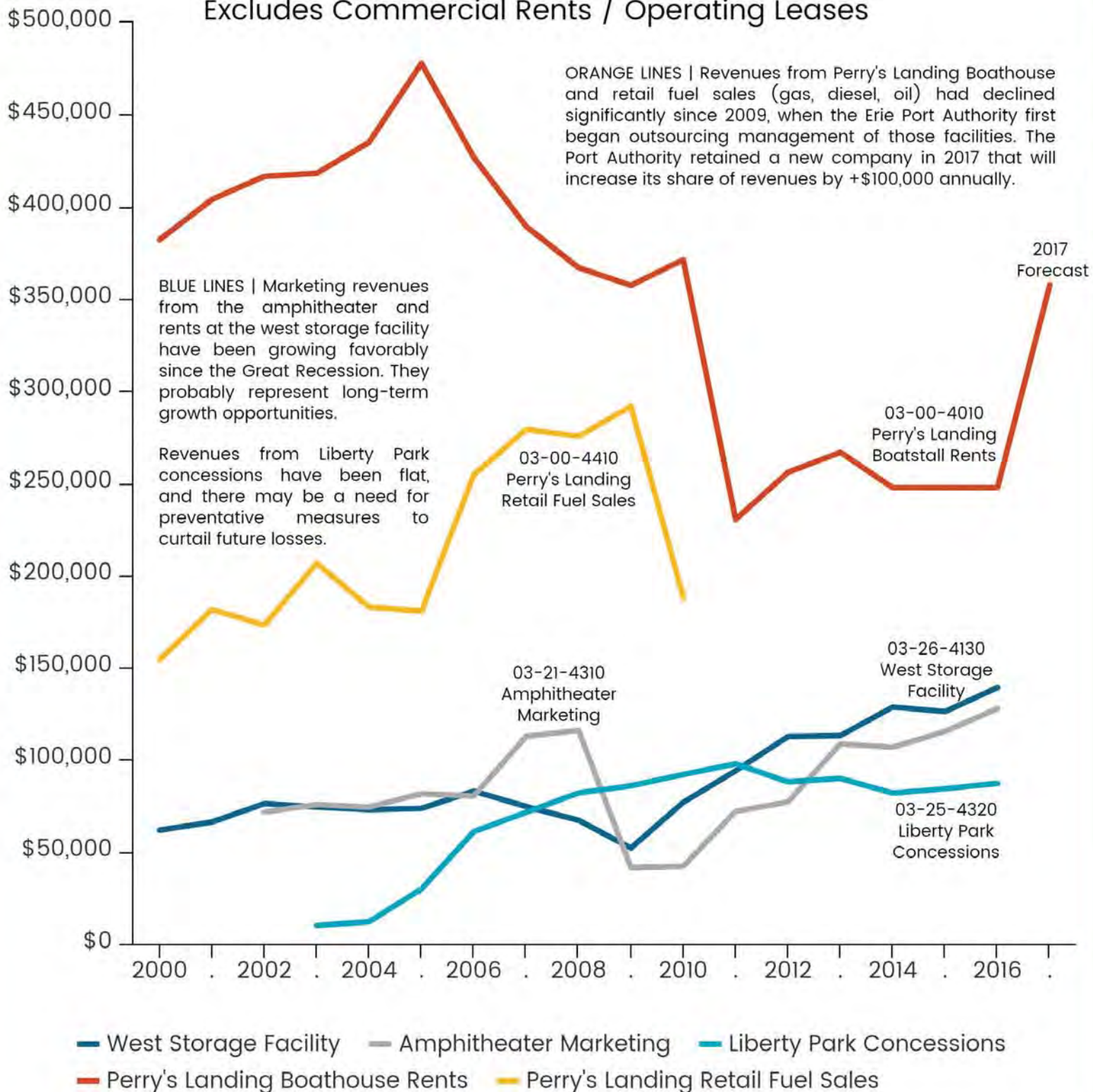
Source: Underlying data as documented in the Port of Erie financial files, 2017.

Port of Erie | Financial Overview

A study of the Port of Erie's operating revenues over time.

Fund 03 | West End

Excludes Commercial Rents / Operating Leases



Source: Underlying data as documented in the Port of Erie financial files, 2017.

MARKET ANALYSIS

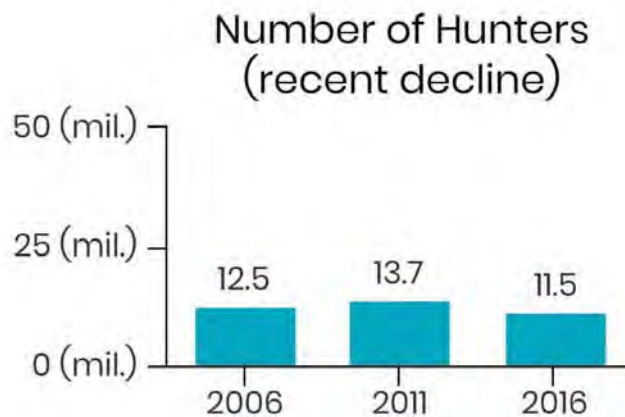
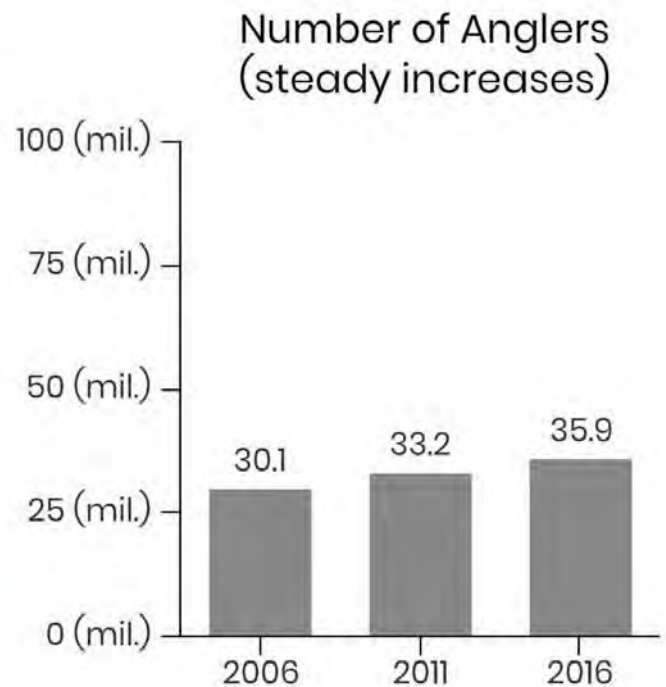
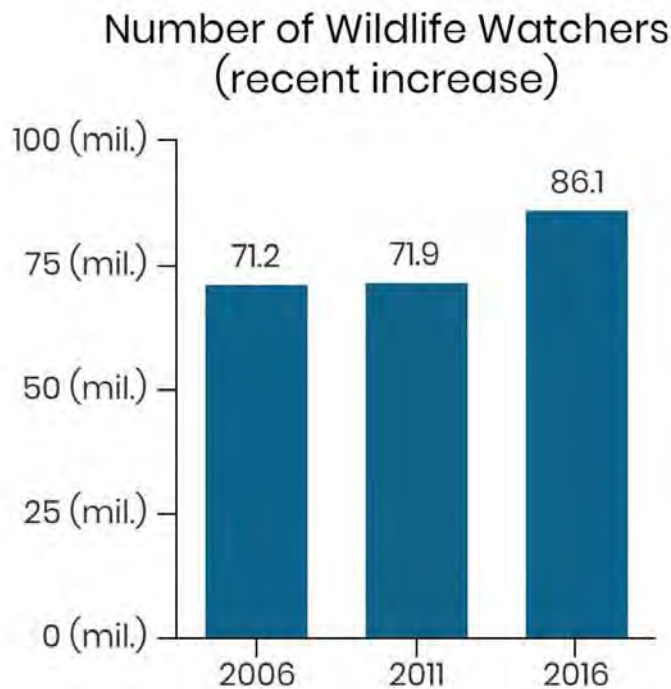
Section C

Boating Trends

Participation in Wildlife Recreation

An assessment of USA trends among anglers, wildlife watchers, & hunters.

Anglers, Hunters, Wildlife Watchers 2006–2016



Observation: Nationwide, there appears to be an increase in participation rates among wildlife watchers and anglers; with a recent decline in hunting. Wildlife watching overshadows the other two categories in participation.

Implication: Recent gains in participation among wildlife watchers should be leveraged through new amenities at Liberty Park, Perry's Landing, Dobbin's Landing, and Lampe Marina. Charters, cruising, and guided excursions should include opportunities for wildlife watching as well as fishing. Activities should include guided excursions for sailing, skiing, diving/snorkeling, and wildlife watching.

Source: Data reported by the United States Fish & Wildlife Service, 2017.

Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.

Expenditures for Wildlife-Related Recreation, Excluding Retail Boat Sales United States Totals and Averages, 2016

	Spenders Engaged in Fishing			Spenders Engaged in Wildlife Watching		
	Aggregate Spent by Anglers (\$000)	Total Number of Anglers (000)	Average Spent per Angler (\$)	Aggregate Spent by Participants (\$000)	Total Number of Participants (000)	Average Spent per Participant (\$)
Sums, Averages (2 pages)	\$45,115,118.0	32,511	\$1,418	\$75,867,134.0	63,578	\$1,193
Food, Restaurants	\$4,759,403.0	26,867	\$177	\$3,809,811.0	16,955	\$225
Lodging	\$3,089,591.0	8,625	\$358	\$2,258,320.0	6,331	\$357
Boat Service Fees	\$4,536,646.0	5,876	\$772	\$283,150.0	1,704	\$166
Total Transportation	\$5,048,606.0	.	.	\$4,228,568.0	.	.
Public Transit	\$542,917.0	2,852	\$190	\$1,232,678.0	3,052	\$404
Private Transp.	\$4,505,689.0	25,622	\$176	\$2,995,890.0	17,766	\$169
Total Recreation	\$28,680,874.0	.	.	\$65,343,724.0	.	.
Boat, Rec. Vehicle Rental	\$10,483,401.0	2,291	\$4,576	\$41,933,623.0	3,037	\$13,808
Boats, Accessory Rental	.	.	.	\$1,526,530.0	900	\$1,696
Rec, Camper Vehicle Rental	.	.	.	\$35,684,266.0	1,843	\$19,362

Other Trip Costs include guides, trips and packages, land use, equipment, boating, bait, ice, and heating/cooking fuel. Among the Other Trip Costs, Boat Service Fees includes launching, mooring, storage, maintenance, insurance, pumpouts, and boat fuel. Special Equipment includes rental of boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATV's, 4-wheelers, snowmobiles, pickups, travel and tent trailers, motor homes, house trailers, recreational vehicles, and similar. Auxiliary (Aux.) equipment includes camping equipment, special fishing and hunting clothing, foul weather gear, boots, waders, binoculars, telescopes, and electronic equipment (GPS devices), and game processing, taxidermy,

Source: 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, August 2017.

Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.

Expenditures for Wildlife-Related Recreation, Excluding Retail Boat Sales United States Totals and Averages, 2016

	Spenders Engaged in Fishing			Spenders Engaged in Wildlife Watching		
	Aggregate Spent by Anglers (\$000)	Total Number of Anglers (000)	Average Spent per Angler (\$)	Aggregate Spent by Participants (\$000)	Total Number of Participants (000)	Average Spent per Participant (\$)
Other Trip Costs	\$3,643,688.0	.	.	\$1,045,109.0	.	.
Guides, Charters	\$924,974.0	3,431	\$270	\$108,341.0	1,876	\$58
Equipment Rentals	\$308,162.0	3,045	\$101	\$274,867.0	2,814	\$98
Bait	\$1,517,912.0	20,681	\$73	.	.	.
Ice	\$585,384.0	13,535	\$43	.	.	.
Heating/Cooking Fuel	\$159,791.0	4,187	\$38	\$425,205.0	2,985	\$142
Books, Magaz., DVDs	\$147,465.0	3,142	\$47	\$236,696.0	7,022	\$34
Non-Boat Retail Sales	\$10,594,237.0	.	.	\$13,206,116.0	.	.
Sports Equipment	\$7,430,662.0	22,393	\$332	\$12,105,745.0	50,302	\$241
Auxiliary Equipment	\$3,163,575.0	4,522	\$700	\$1,043,932.0	6,669	\$157
Other Equipment	.	.	.	\$56,439.0	281	\$201
Specialty Fees	\$3,959,548.0	.	.	\$9,158,876.0	.	.
Land Leases (not fees)	\$2,358,811.0	1,016	\$2,322	\$4,196,305.0	1,195	\$3,512
Public Land Use Fees	\$305,360.0	6,304	\$48	\$169,750.0	5,461	\$31
Private Land Use Fees	\$493,951.0	2,901	\$170	\$29,857.0	1,515	\$20
Membership Dues	\$214,485.0	1,741	\$123	\$3,817,276.0	10,076	\$379
Licenses, Tags, Permits	\$586,941.0	15,647	\$38	.	.	.
Plantings	.	.	.	\$945,688.0	7,289	\$130

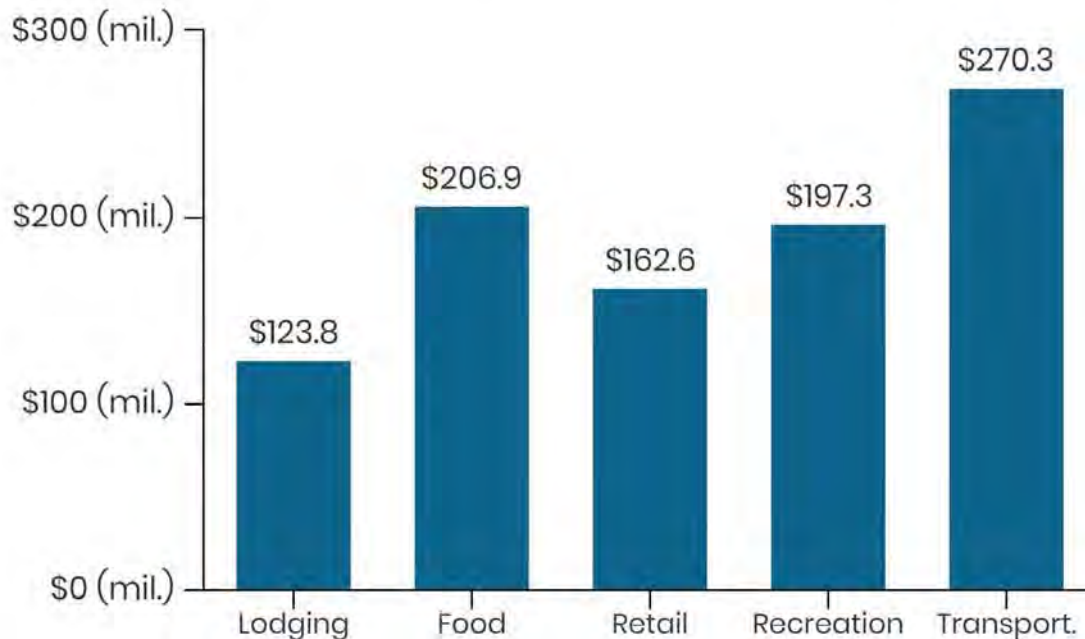
Footnotes: see Page 1.

Source: 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, August 2017.
Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.

Traveler Spending

An assessment of business & leisure traveler spending by general category.

Erie County, Pennsylvania
Aggregate Spending | Business & Leisure Travelers - 2016



The State of Pennsylvania
Average Total Spending per Traveler - 2016



Observation: In Erie County and the State of Pennsylvania, travelers (business and leisure combined) spend more on food and recreation than they spend on retail and shopping. Food includes groceries (consumables) plus food services, such as restaurants, hotel room service, eateries, drinking establishments, and refreshment stands.

Implication: For the Erie Port Authority's plan, it will be important to provide travelers with diverse choices in food categories, including convenient groceries and a variety of restaurants and drinking establishments. New establishments should have themes, unique menus, and an element of entertainment (live music, karaoke, visible ovens, interactive grills, billiards, lottery machines, etc.)

Notes: Transportation includes private vehicle rentals, private fuel sales, fees for public transit, and fees for air travel.

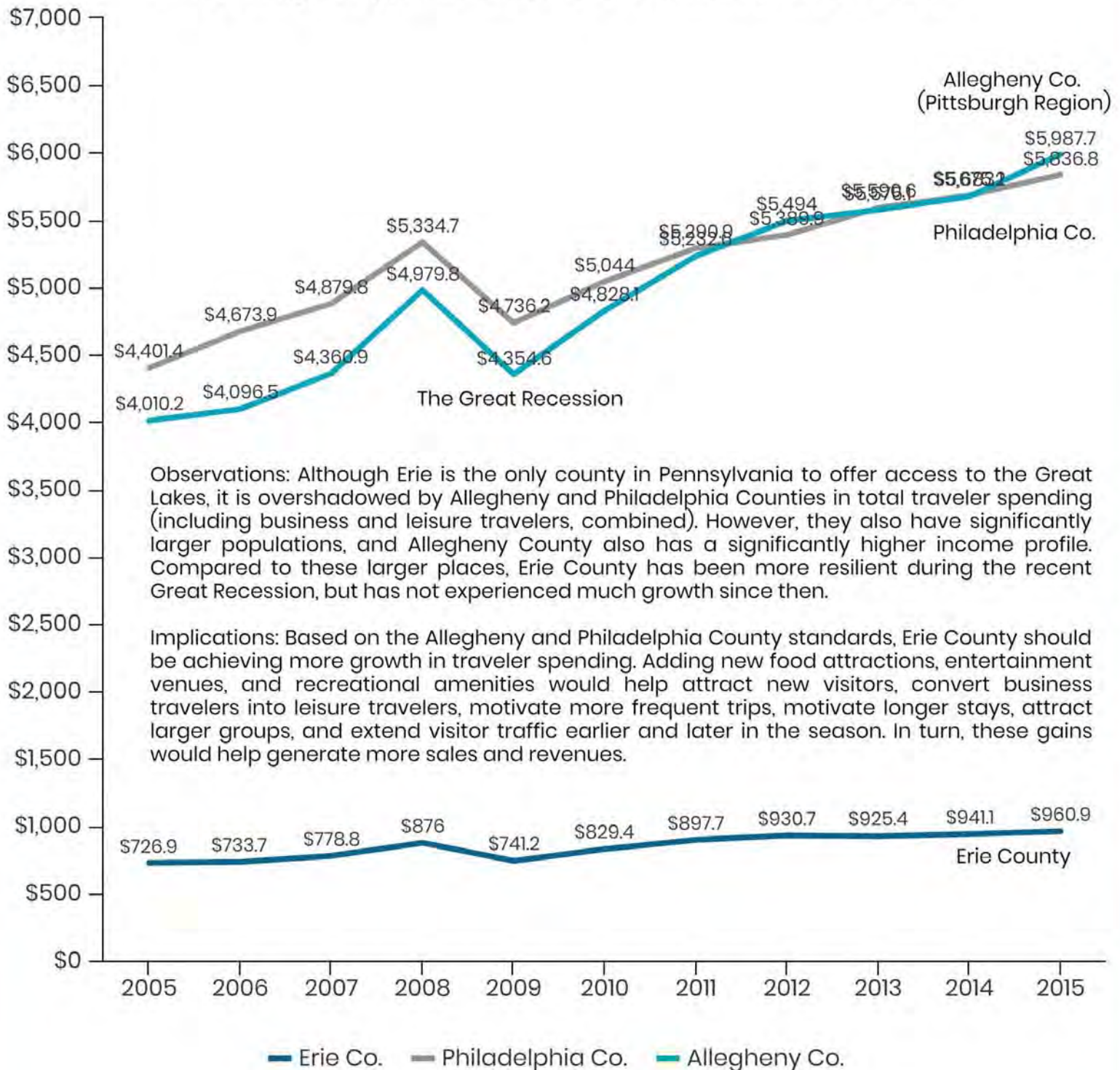
Source: "The Economic Impact of Travel in Pennsylvania" with underlying data provided by Longwoods International and reported by Tourism Economics, 2016.
Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.



Traveler Spending over Time

An assessment of traveler spending over time | Largest PA Counties

Total Traveler Spending (Business & Leisure) Erie, Allegheny, Philadelphia Counties | 2005 - 2015



Source: "The Economic Impact of Travel in Pennsylvania" with underlying data provided by Longwoods International and reported by Tourism Economics, 2016. Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.

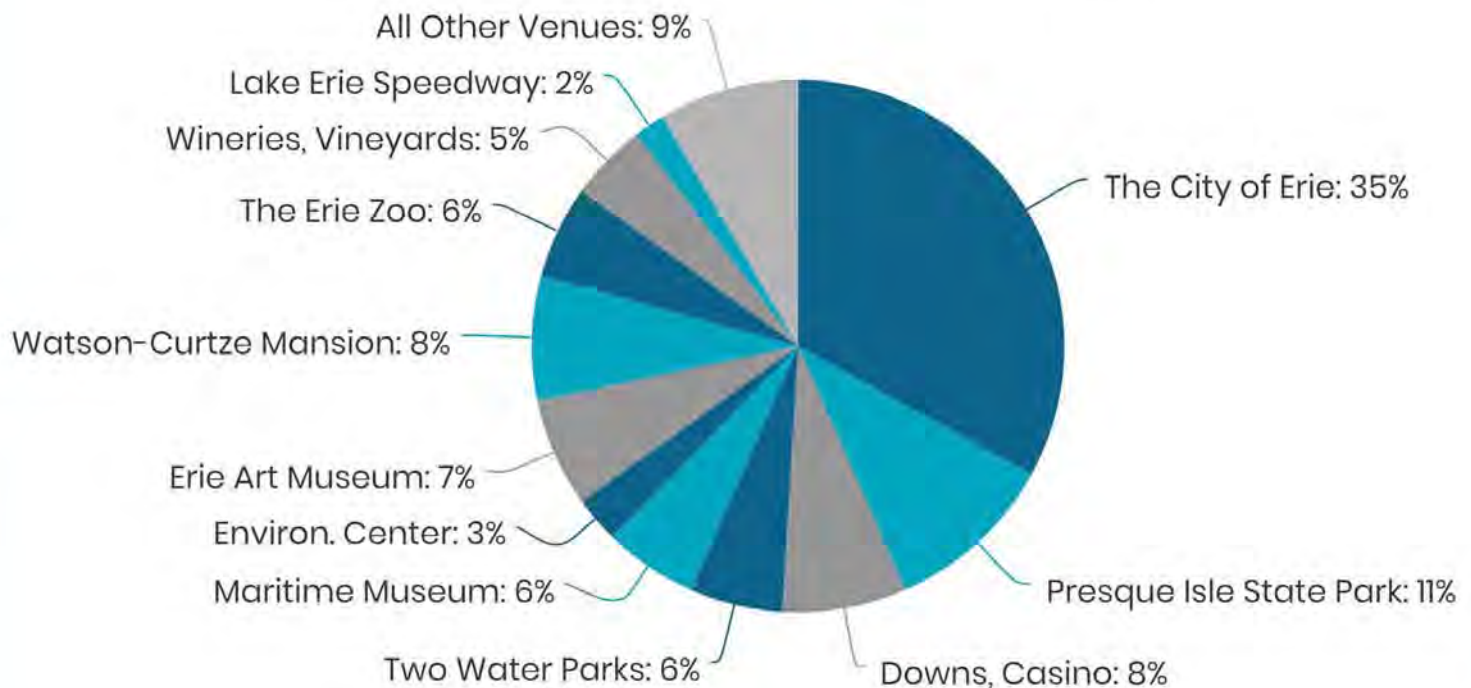


Traveler Destinations

A summary of overnight traveler destinations to the PA Great Lakes Region

All Overnight Travelers (business & leisure) – 2015

Destinations in the Great Lakes Region
(Erie, Crawford, Mercer, and Venango Counties)



Observations: Among all surveyed, overnight travelers visiting four counties in Pennsylvania's Great Lakes Region, over one-third reported the City of Erie as their primary destination. They probably includes many business travelers visiting the city's anchor institutions, such as Gannon University, UPMC health care network, county courthouse, federal buildings, major employers like Erie Insurance, new waterfront convention center, etc.

In addition, 11% of surveyed overnight travelers identified Presque Isle State Park as their primary destination. A number of other recreational venues were also listed as favorites, including the Splash Lagoon and Waldameer Park & Water World (6% of respondents, combined); the Erie Zoo (6%); and the Tom Ridge Environmental Center (3%).

Near downtown Erie and its waterfront, travelers also favor the Watson-Curtze Mansion and Museum (8%), Erie Art Museum (7%), and Maritime Museum (6%). However, these involve relatively passive activities compared to water parks and zoos. It is important to note that other waterfront recreational attractions located along the waterfront were either not mentioned, or were not listed as options in the survey. The waterfront marinas, fishing charters, cruising, boat rentals, Liberty Park, Perry's Landing, Dobbins Landing, and Lampe Campground were not reported as responses in the survey.

Implications: The Erie Port Authority's land use plan should include several significant and impactful attractions that help enhance and diversify choices for all travelers. In particular, there is a need for prominent recreational venues that engage visitors in fishing, boating, skiing, sailing, and wildlife watching. There is an opportunity to convert the city's business travelers into leisure travelers, and need to generate more frequent visits; longer stays; larger group sizes; visits earlier and later in the seasons; and more spending overall. A survey of visitors to the City's 8 Great Tuesdays events could be useful for understanding their awareness of existing amenities, and preferences among new attractions.

Source: "The Economic Impact of Travel in Pennsylvania" with underlying data provided by Longwoods International and reported by Tourism Economics, 2016.

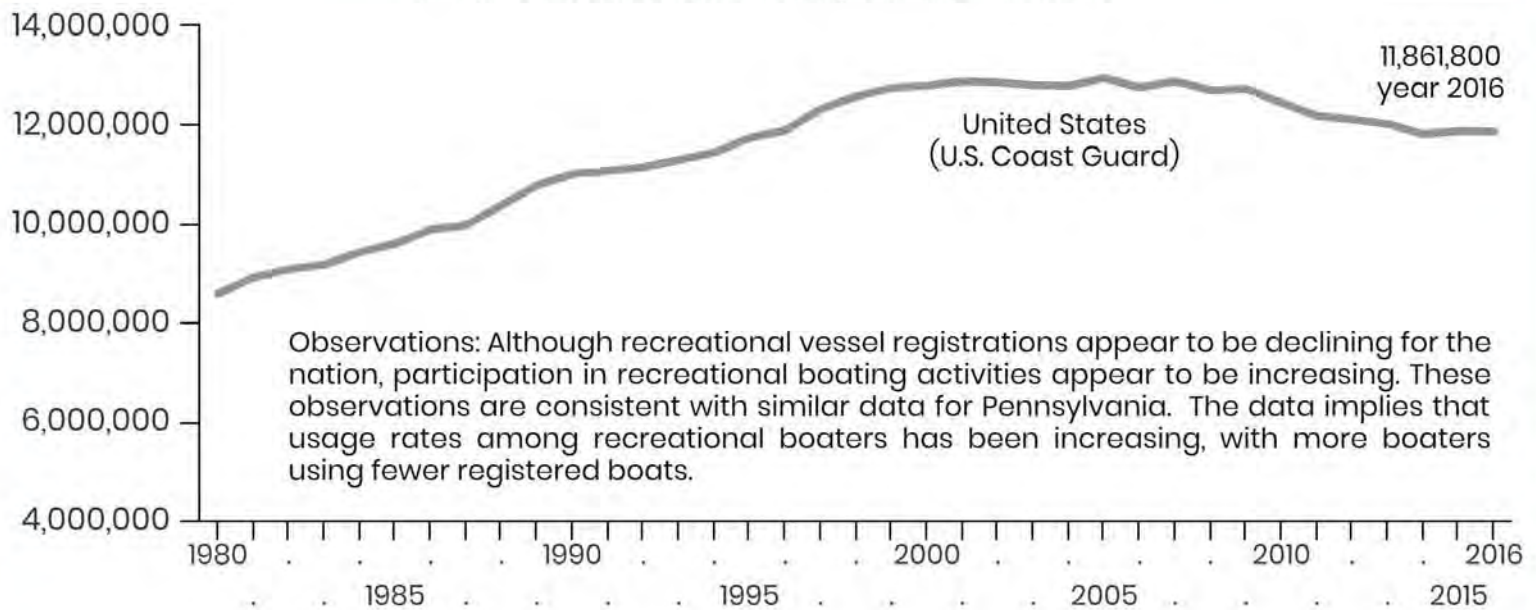
Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.



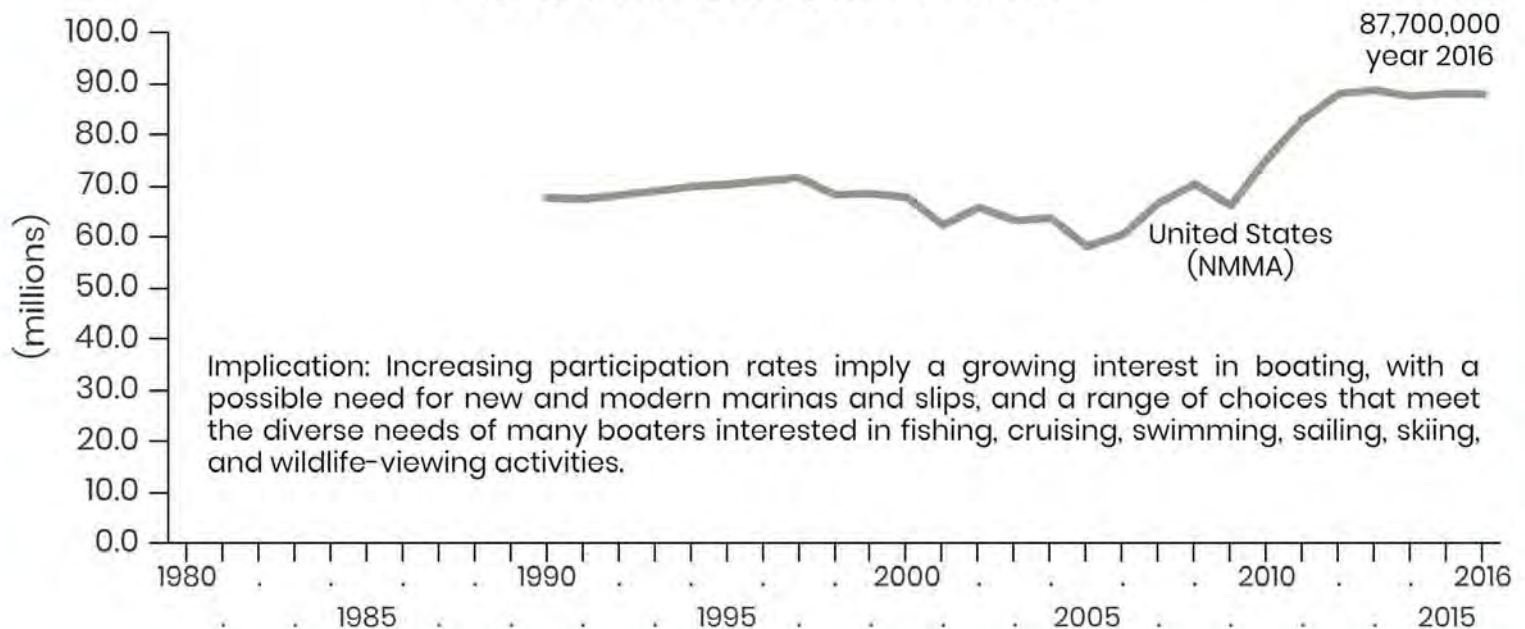
USA Vessel Registrations, Boating

A study of trends in the number of boat registrations and sales over time.

Recreational Vessel Registrations The United States | 1980 - 2016



Adults 18+ who Participated in Recreational Boating United States | 1990 - 2016



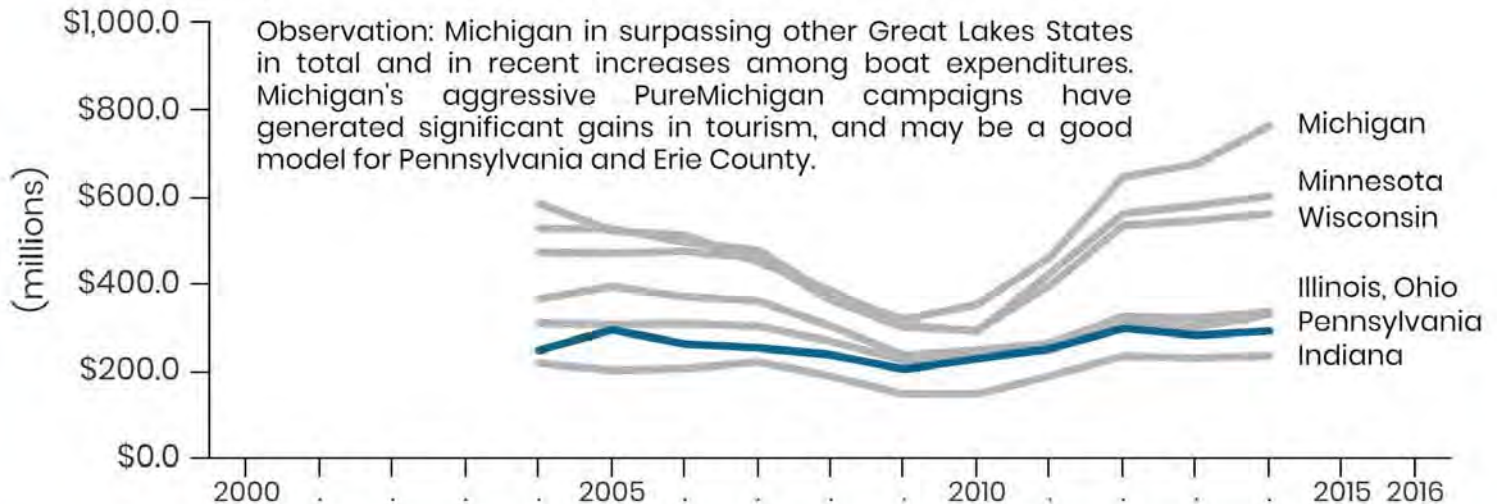
Source: National vessel registrations reported by the U.S. Department of Homeland Security, U.S. Coast Guard, 2017. National participation in recreational boating reported by the National Marine Manufacturer's Association (NMMA), with 2015-2016 estimates by LandUseUSA. Exhibit and analysis prepared by LandUseUSA in collaboration with the Albert Kahn planning team.



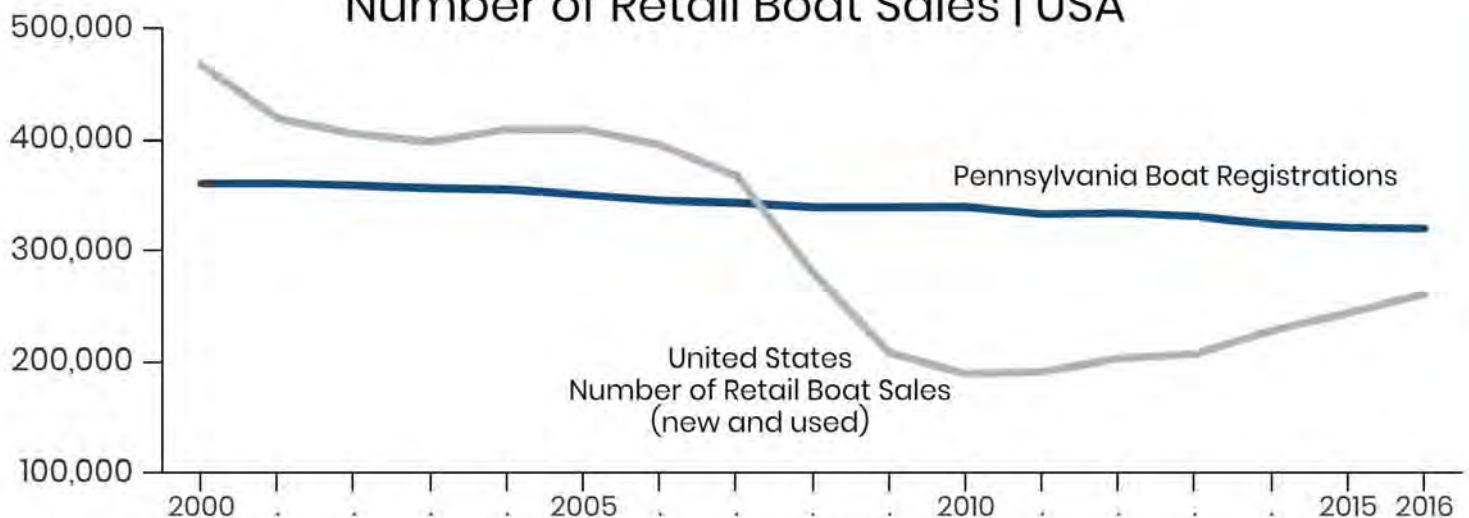
Retail Boat Sales

An assessment of trends in the retail boat sales over time.

New Powerboat, Engine, Trailer, Accessory Expenditures Great Lakes States 2004 – 2014



Total Boat Registrations | Pennsylvania Number of Retail Boat Sales | USA



Observation: Nationwide, boat retail sales have been slow to recover from the recent Great Recession. Boat registrations in the State of Pennsylvania appear to have been more resilient to the recession, but have been slowing declining.

Implications: There is an opportunity and need to increase boat retail sales and expenditures on related equipment in Pennsylvania. If new marinas and slips are added in Erie County (and bolstered by aggressive marketing), this could help motivate expenditures. This would eventually generate some increases in boat registrations for the State of Pennsylvania.

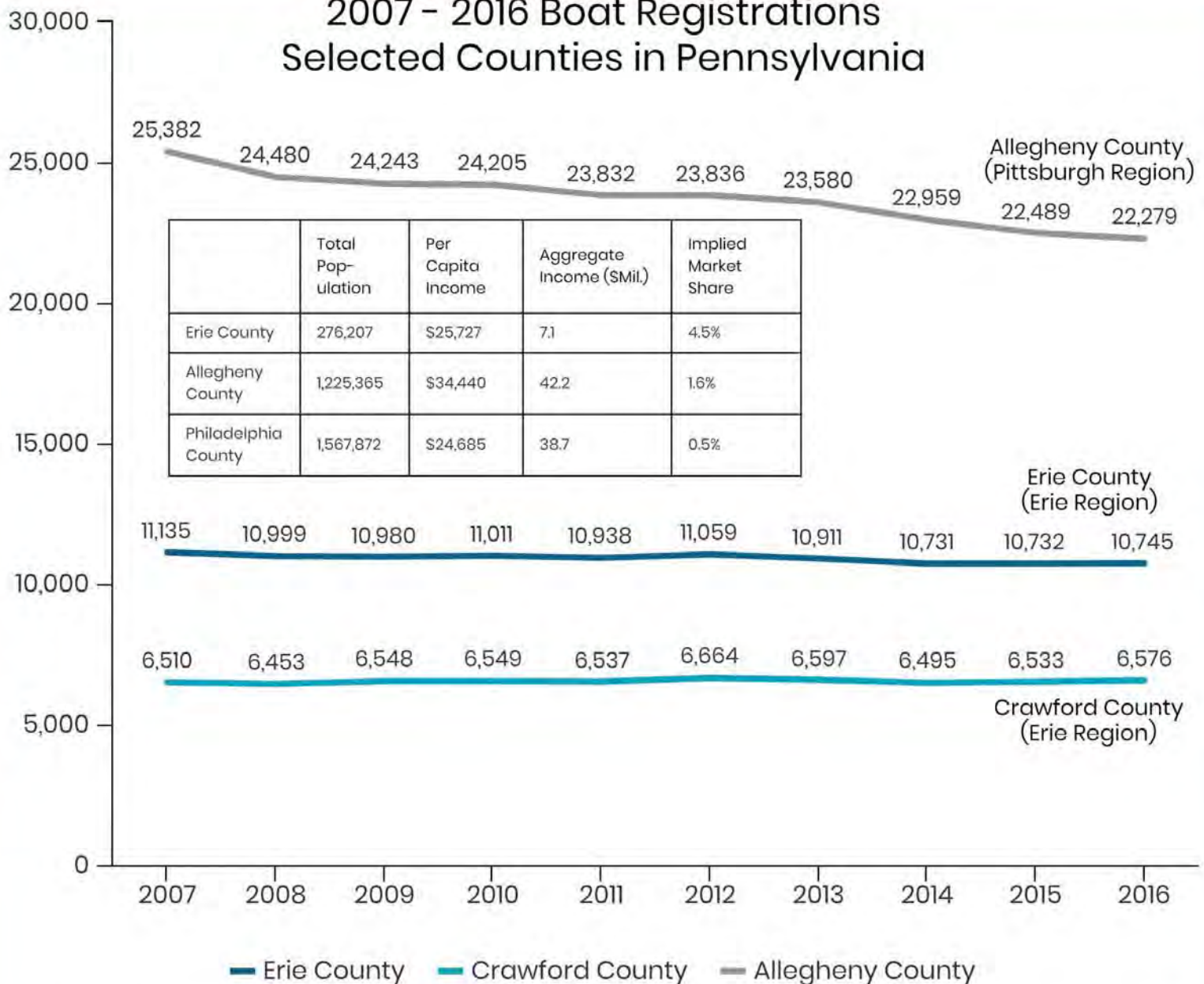
Source: National boat registrations reported by the U.S. Department of Homeland Security, U.S. Coast Guard, 2017. State boat registrations reported by the Pennsylvania Fish & Boat Commission, 2017. United States boat retail sales reported by the National Marine Manufacturer's Association (NMMA) with some projections, 2015. Exhibit and analysis prepared by LandUseUSA in collaboration with the Albert Kahn planning team.



Boat Registrations by County

An assessment of trends in the number of boat registrations over time.

2007 - 2016 Boat Registrations Selected Counties in Pennsylvania



Observations: Households register boats in their county-of-residence, rather than the where they go boating. Erie County is Pennsylvania's only county with frontage along the Great Lakes, yet its boat registrations appear to be low compared to Allegheny County. However, this is only because Allegheny County has a significantly larger population with significantly higher incomes.

Assuming that the average registered boat is valued at \$30,000, this implies that Erie County actually has a respectable market share of 4.5%, compared to just 1.6% for Allegheny County, and 0.5% for Crawford County. [Erie County's market share = $(10,745 \text{ registrations} \times \$30,000 \text{ each}) / (\$7.1 \text{ billion aggregate household income}) = 4.5\%$]

Boat registrations in Erie and Crawford County have been stable throughout and since the Great Recessions, whereas registrations in Allegheny County have been declining. For Erie County, this could be viewed as a positive indication of its ability to be resilient to economic shifts - and as a need to offset losses and possible impacts on boater import from Allegheny County.

Source: Underlying data reported by the Pennsylvania Fish & Boat Commission, 2017.
Exhibit and analysis prepared by LandUseUSA in collaboration with the Albert Kahn planning team.

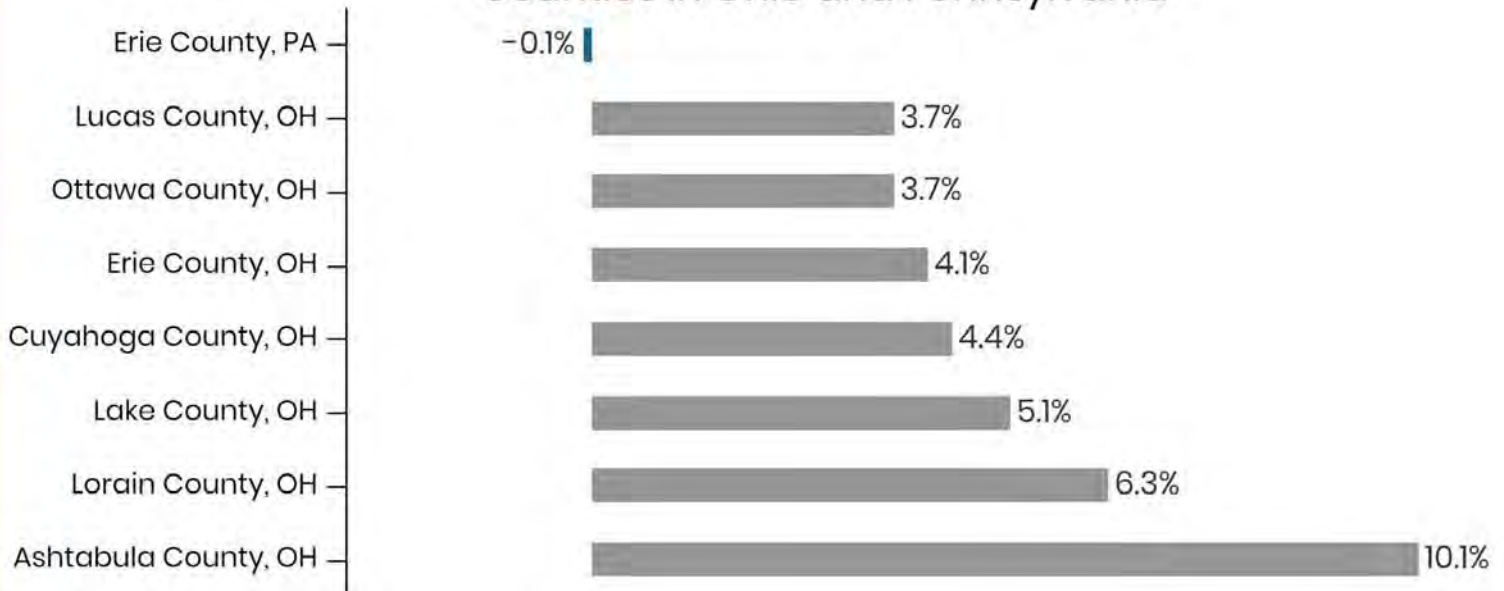


Change in Boat Registrations

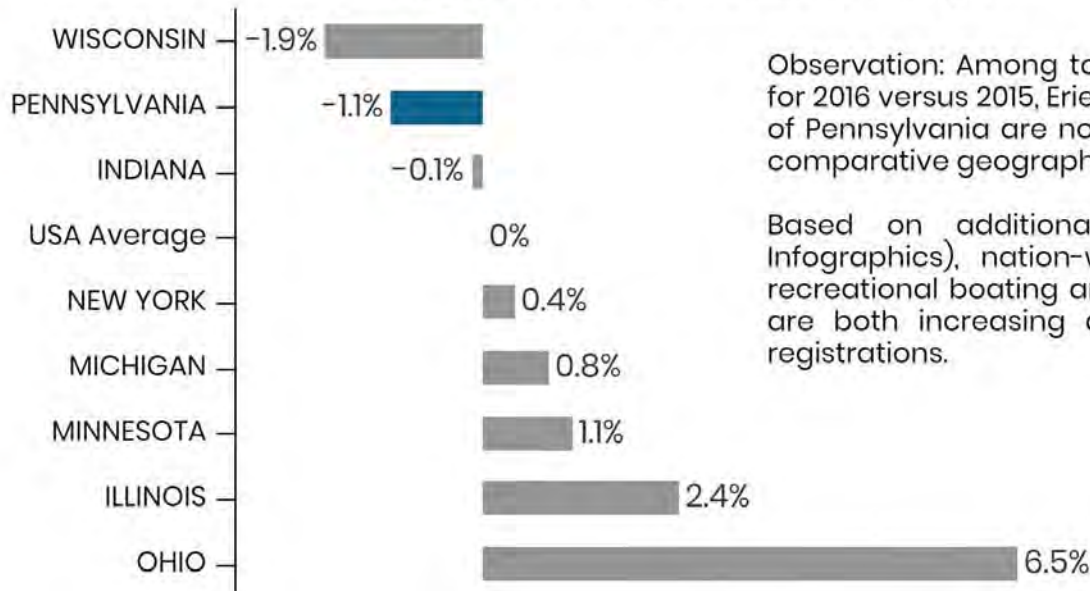
An assessment of recent change in boat registrations (in the past year).

Change in Boat Registrations 2015–2016

Counties in Ohio and Pennsylvania



States in the Great Lakes Region



Observation: Among total boat registrations for 2016 versus 2015, Erie County and the State of Pennsylvania are not keeping up with the comparative geographies.

Based on additional data (see other Infographics), nation-wide participation in recreational boating and in retail boat sales are both increasing and surpassing boat registrations.

Implications: This data should not be used to refute the need, demand, or opportunity for new boating and recreational amenities along the Presque Isle Bay and waterfront. If anything, nation-wide increases in recreational boating (and boat retail sales) indicate a need for more amenities, which could include marinas, charter boats, cruising, guided tours (skiing, sailing, diving, wildlife watching, etc.), and related boating amenities. In increased boating-related activities will gradually be reflected in state-wide increases in boat registrations.

Source: National data reported by the U.S. Department of Homeland Security, U.S. Coast Guard; and state data reported by the Pennsylvania Fish & Boat Commission, and the Ohio Department of Natural Resources. Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.



Boating and Related Recreational Amenities Erie County, Pennsylvania - 2017

Count	Marina	Port Authority	Member Format	Number of Slips	Max Boat Length	Mailing Address	Phone	Website
1	Bay Harbor Marina - East	.	Public	233	45	8050 Hamot Road	(814) 456-9415	bayharbormarinaerie.com
2	Bay Harbor Marina - West	.	Public	231	55	8050 Hamot Road	(814) 456-9415	bayharbormarinaerie.com
3	Commodore Perry Yacht Club	.	Members	168	40	664 W. Bayfront Parkway	(814) 454-9106	commodoreperryyachtclub.com
4	Gem City Marina	.	.	.	66	26 W Front St	(814) 461-0883	.
5	Lampe Marina	Yes	Public	252	30	17 W Dobbins Landing	(814) 452-2371	porterie.org/lampe-marina
6	Perry's Landing Marina	Yes	Public	226	45	One Lawrence Pier	(814) 455-1313	perryslandingsmarina.com
7	Presque Isle State Park Marina	.	Public	<500	42	P.O. Box 8510	(814) 871-4251	stateparks.com/presque_isle_erie
8	Presque Isle Yacht Club	.	.	.	.	P.O. Box 1075	(814) 454-9164	piyc.com/
9	Wolverine Park Marine	.	Transient	40	.	34 State Street	(814) 874-0698	lakeshoretowing.com
10	North East Marina (North East)	.	Combo	220	32	11950 East Lake Rd.	(814) 725-8244	northeastmarina.com
11	East Canal Basin - commercial	Yes	.	.	60	State Street (east side)	.	.

Source: Pennsylvania Fish and Boat Commission, 2017; supplemented with internet research by LandUseUSA in collaboration with the Albert Kahn planning team, 2017. Exhibit prepared by LandUseUSA.

FORECAST Slip Rental Prices

LandUseUSA has searched for primary data on the occupancy rates among existing marinas, and prices among their existing slips. This data is not available online, indicating a need for improved advertising and marketing to ease the process for new boaters, generate more demand, and help justify future price increases that match inflation rates. Unless the Erie Port Authority has data to share, we would need to make phone calls to each marina to obtain their slip availability and prices.

Based on 2017 prices listed online by the North East and Bay Harbor Marinas, LandUseUSA estimates that any new marinas would command annual rents of at least \$40, and up to \$60 per linear foot of boat. Transient slips can be used to improve occupancy rates, and could command nightly rents of at least \$2 per linear foot of boat. In other words, a 30' boat would generate rents of \$1,200 and \$1,800 for an annual slip, or \$60 nightly for a transient slip.

FORECAST Marina and Related Revenues

Assuming a competitive number and quality of slips, a new marina should generate annual sales (revenues or receipts) of \$100,000 per employee. An average marina with five (5) employees should be able to achieve gross annual sales of \$500,000. In comparison, a service, retail, or maintenance repair shop should achieve higher sales of \$150,000 per employee - but it is more likely to have 4 rather than 5 employees, for annual sales of about \$600,000.

Boating and Related Recreational Amenities Erie County, Pennsylvania - 2017

Count	Entertainment, Recreation	Port Authority?	Member Format	Number of Slips	Max Boat Length	Mailing Address	Phone	Description
1	Presque Isle Boat Livery	.	Venue	.	.	1 Peninsula Drive	(814) 838-3938	Small boat rentals
2	Water Taxi	Yes	Venue	.	.	.	(814) 455-7557	Dobbins Landing, Liberty Park to Pr
3	Presque Isle State Park	.	Venue	.	.	.	(814) 838-3938	Pontoon boat rides and tours, cano
4	Port Erie Sports	.	Venue	.	.	.	(814)-452-2628	Fish, ski, tube, jet boats, canoes, ka
5	The Victorian Princess	.	Venue	.	.	.	(814) 459-9696	Cruising via paddle wheeler boat
6	The Edward John	.	Venue	.	.	.	(814) 881-7611	Fishing, cruising, 40 passengers, 52'
7	Bayfront Maritime Center	.	Venue	.	.	.	(814) 456-4077	Boat building and sail training scho
8	Presque Isle Parasail	.	Venue	.	.	1 East Dobbins Landing	(814) 453-2359	Lake Erie
9	Presque Isle Boat Rental	.	Venue	.	.	P.O. Box 8510	(814) 833-7424	Lake Erie
10	P.I. Boat Tours, Lady Kate	.	Venue	.	.	1 Presque Isle State Park	(814) 836-0201	Cruising
11	Erie Yacht Club	.	Members	.	.	1 Ravine Drive	(814) 453-4931	Members only yacht club
12	Reyburn Sailing School	.	Members	.	.	1 Ravine Drive	(814) 453-4931	Sailing School

Source: Pennsylvania Fish and Boat Commission, 2017; supplemented with internet research by LandUseUSA in collaboration with the Albert Kahn planning team, 2017. Exhibit prepared by LandUseUSA.

Boating and Related Recreational Amenities Erie County, Pennsylvania - 2017

Count	Service, Repair, and Retail	Mailing Address	Phone	Description
1	RCR Yachts of Erie	960 W Bayfront Pkwy	(814) 455-6800	rcryachts.com
2	Alek's Powersports	1501 Peninsula Drive	(814) 833-3861	.
3	Michalak Marine Inc	1540 West 26th St	(814) 459-0666	.
4	Seagull Marine LLC	640 West 15th St	(814) 454-2628	.
5	Whaling Marine Svc	3954 Wood Street	(814) 860-3379	.
6	Nason Marine Mgmt Inc	1175 Amy Avenue	(305) 804-0631	.
7	Ship Shape Marine Inc	3511 West 12th St	(419) 734-1554	shipshapemarine.biz
8	Eds Garage Marine Svc	3411 East Avenue	(814) 453-5111	.
9	North Coast Marine Svc	1903 West 8th St # 169	(814) 893-4070	.
10	Erie Angler Inc	84 Port Access Road	(814) 452-2222	.
11	J & S Dive Shop	4203 Alvin St	(814) 825-7000	.
12	Anchor Marine Ltd	5 State St, Dobbins Landin	(814) 452-1717	anchormarineltd.com
13	Bayshore Marine Svc	26 W. Front Street	(814) 455-1588	.
14	Northcoast Power Sports	2642 West 16th St	(814) 838-2627	northcoastpower.com
15	Sports, Nascar Obsession	Mill Creek Mall Unit 410	(814) 868-8969	sportsobsession.biz
16	Surf N Turf Marine	2240 Powell Avenue	(814) 838-8639	.
17	Octane Power Sports (North East)	11550 East Main Road	(814) 397-7300	.
18	Bs Bob Power Sports (North East)	8701 Union Amity Rd	(814) 438-7420	.

Source: Pennsylvania Fish and Boat Commission, 2017; supplemented with internet research by LandUseUSA in collaboration with the Albert Kahn planning team, 2017. Exhibit prepared by LandUseUSA.

MARKET ANALYSIS

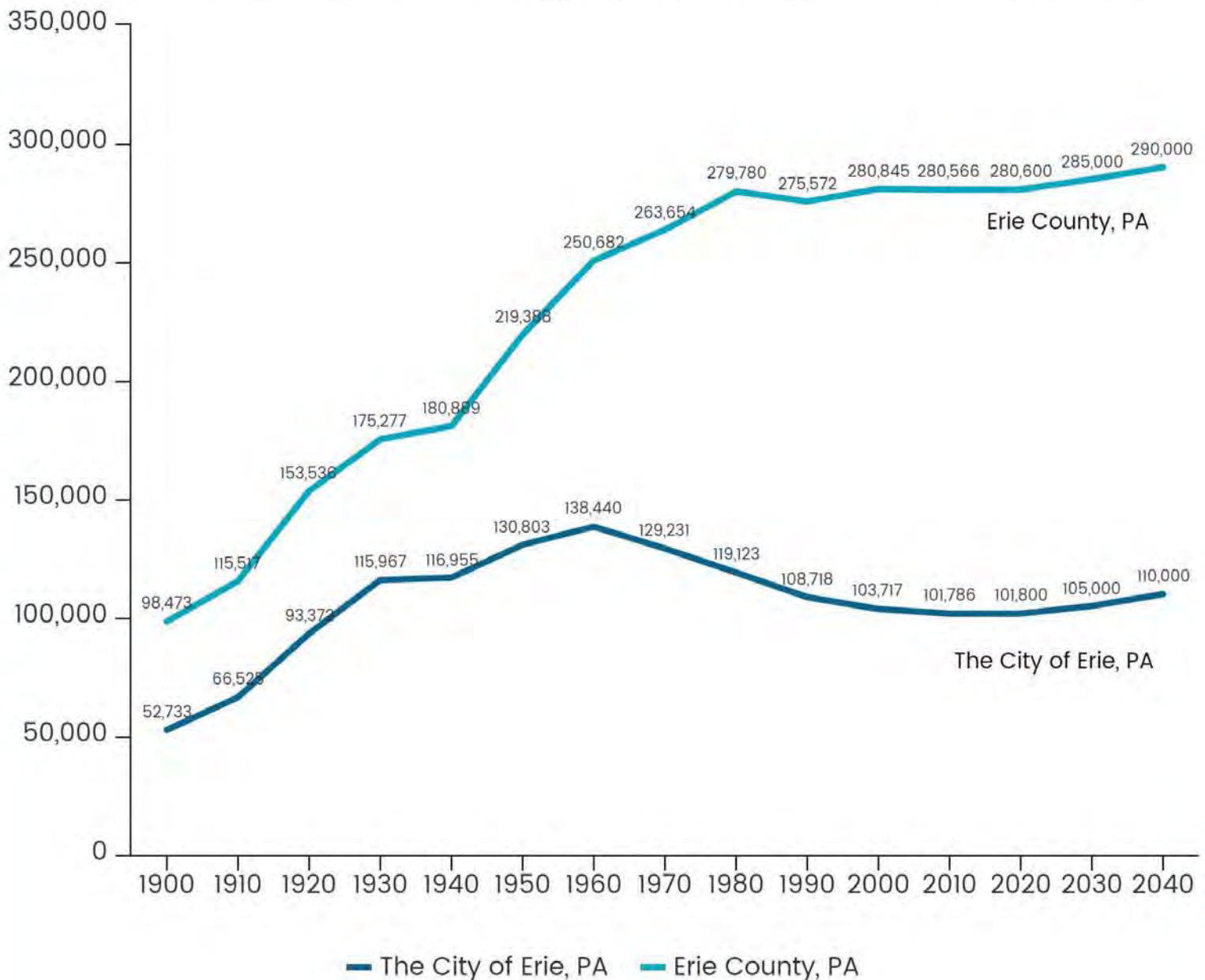
Section D

Demographics

Demographic Assessment

A study of population growth over time, as one measure of economic growth.

1900 – 2040 Population Forecasts



Erie County and the City of Erie have continued to lose population since the Great Recession. There is a need to intercept more migrating populations (particularly single renters) seeking attached housing choices with for-lease and lease-to-own options. Some of these target markets can be intercepted by adding Missing Middle Housing formats (townhouses, row houses, and flats/lofts) with vista views, glimpses, or breezes along Presque Isle Bay and Lake Erie. There is also a need to create good-paying jobs that will help attract new talent and a skilled labor force.

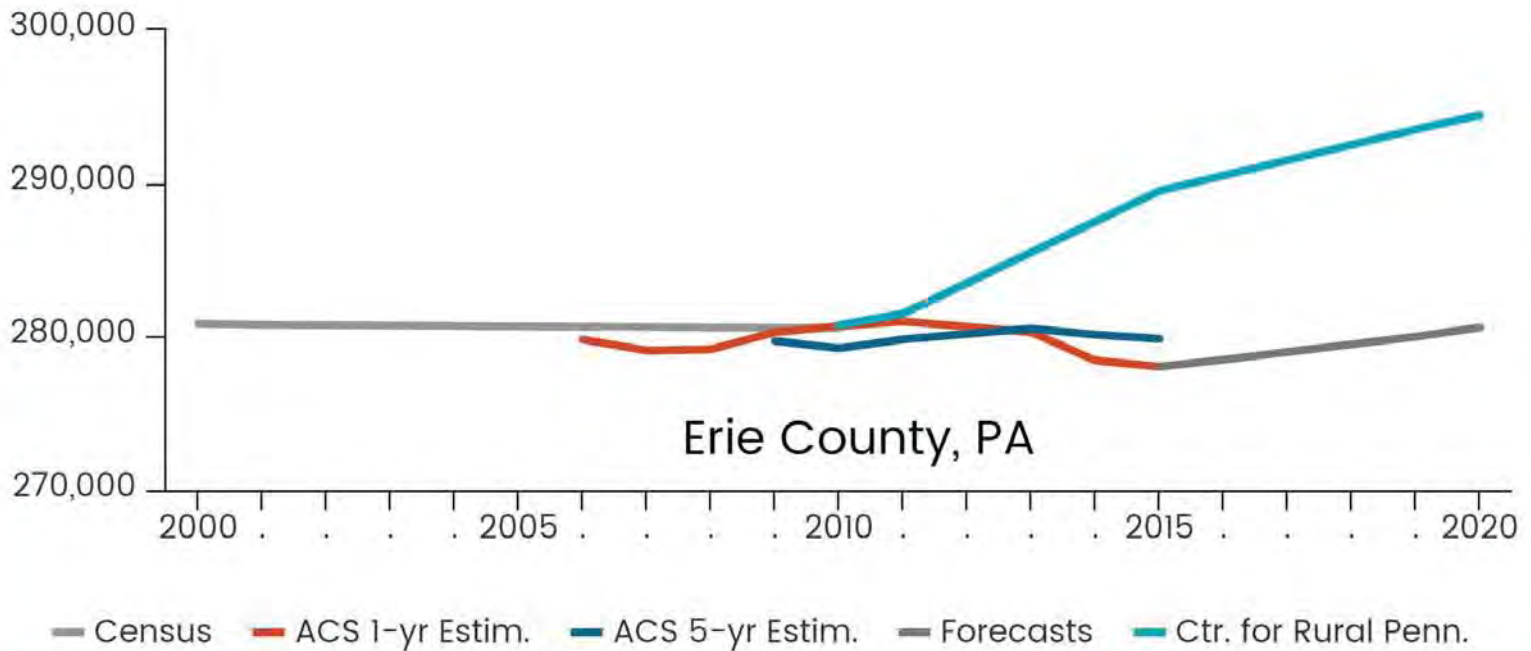
Source: Underlying data includes exact numbers as reported by the Decennial Census (1900 – 2010). Tempered population forecasts are provided by LandUseUSA, June 2017. Forecasts reflect interim trends as reported by the American Community Survey with 1-yr and 5-yr estimates through 2015.



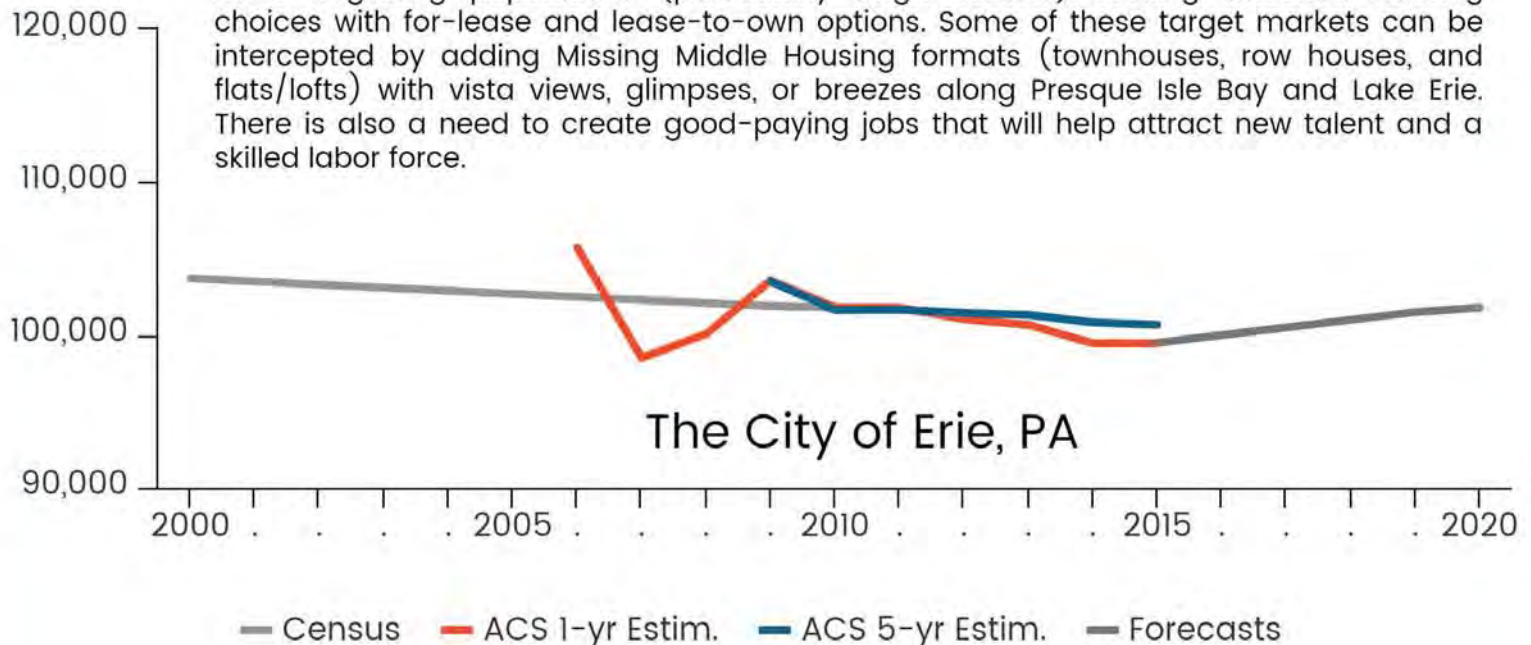
Demographic Assessment

A study of population growth over time, as one measure of market size.

2000 - 2020 Population Forecasts



Erie County and the City of Erie have continued to lose population since the Great Recession, and the state has been too bullish in its forecasts. There is a need to intercept more migrating populations (particularly single renters) seeking attached housing choices with for-lease and lease-to-own options. Some of these target markets can be intercepted by adding Missing Middle Housing formats (townhouses, row houses, and flats/lofts) with vista views, glimpses, or breezes along Presque Isle Bay and Lake Erie. There is also a need to create good-paying jobs that will help attract new talent and a skilled labor force.



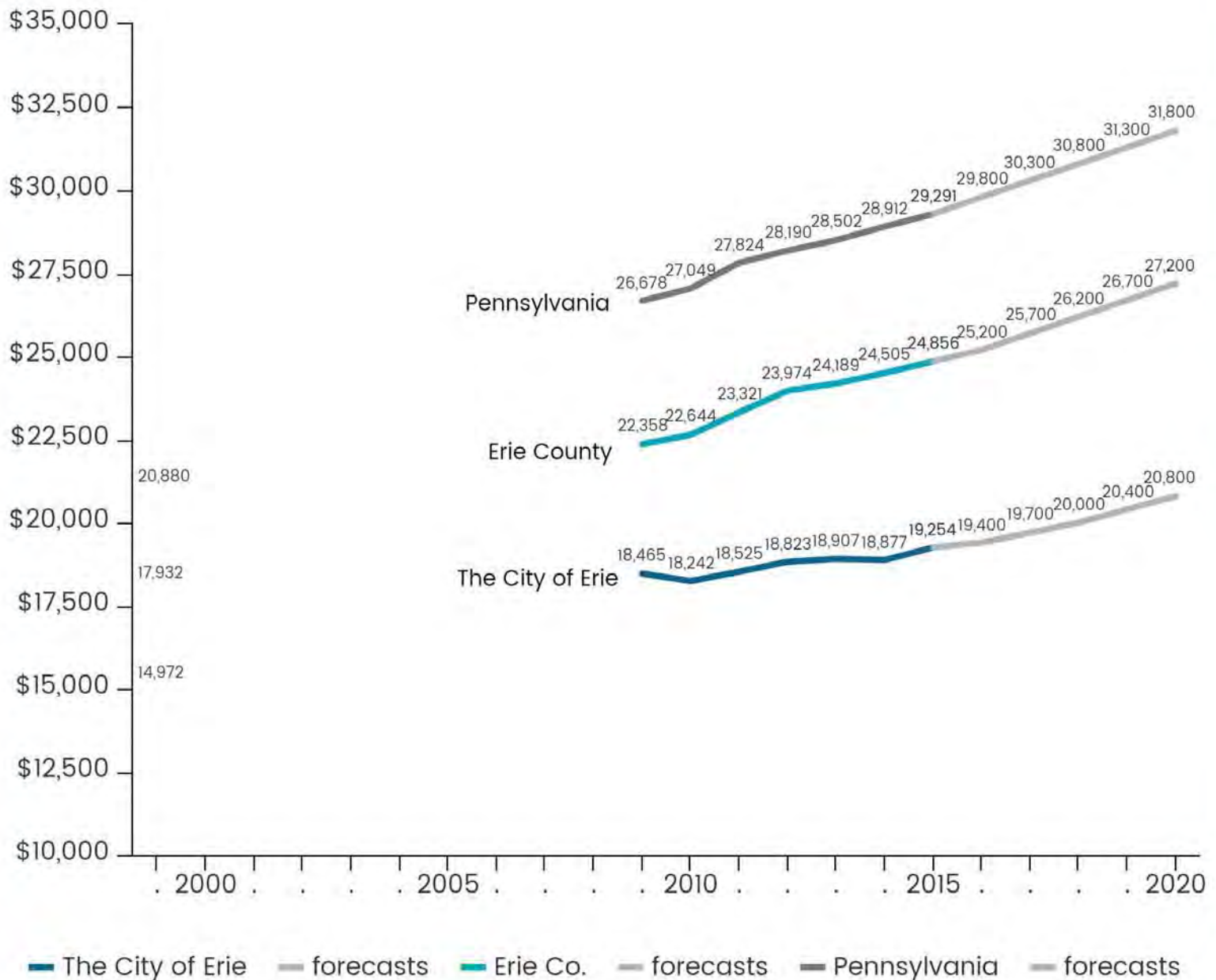
Source: Underlying data includes exact numbers as reported by the Decennial Census (2010) and American Community Survey (ACS) with 1-yr and 5-year estimates through 2015.. Aggressive population forecasts for Erie County were provided by the Center for Rural Pennsylvania, March 2014. Tempered population forecasts are provided by LandUseUSA, June 2017.



Demographic Assessment

A study of population growth over time, as one measure of economic growth.

1999 - 2020 Per Capita Income Forecasts



The City of Erie is not keeping pace with the county and state in income growth, which is an important variable in calculating expenditure potential for retail, entertainment, and recreational venues. There is a need for good-paying jobs that will help attract new talent and skilled workers. There is also a need for development of "Missing Middle Housing" formats, and implementation of a Placemaking process that creates new amenities and attractions - particularly along the Presque Isle Bay and Lake Erie shorelines. The Port Authority's new Master Plan will be a critical tool for planning an economic catalyst that could be transformative for the entire city.

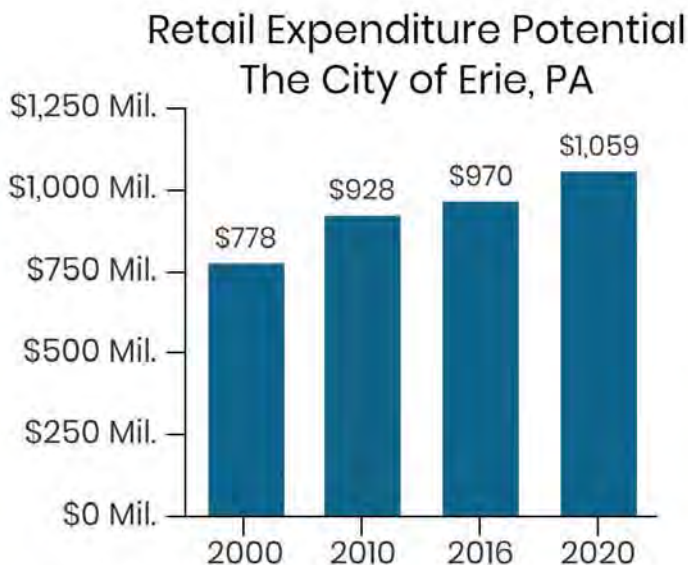
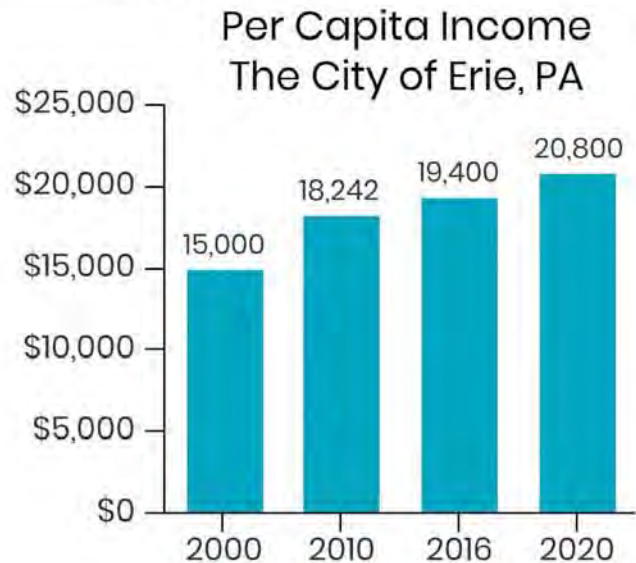
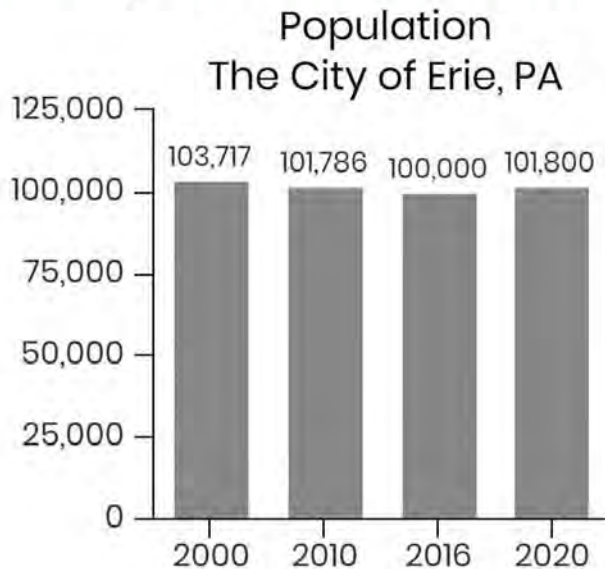
Source: Underlying data includes exact numbers as reported by the Decennial Census (1900 - 2010). Tempered population forecasts are provided by LandUseUSA, June 2017. Forecasts reflect interim trends as reported by the American Community Survey with 1-yr and 5-yr estimates through 2015.



Retail Expenditure Potential

A study of growth in population, income, and expenditure potential.

Population and Per Capita Income



Although the City of Erie has been losing population, this could stabilize with modest growth to about 101,800 residents by 2020. Meanwhile, per capita income has been increasing (albeit at a slower rate than the county or state). Stabilized population combined with income growth will generate a city-wide retail expenditure potential that surpasses \$1 billion (i.e., \$1,059 million) by 2020.

Assuming an average retail productivity of \$350 per square foot, there will be a market-wide capacity for about 3 million square feet by the year 2020. This is roughly equivalent to three conventional, regional shopping centers.

Most of the city's market potential has previously been captured by existing establishments, including department store anchors (Macy's, JCP, and Bon-Ton) at the Millcreek Mall; plus numerous freestanding big-box and national chains along Peach Street. However, both Macy's and Kmart will be closing their Erie stores by year-end 2017, and other closures will probably follow. At-risk brands are diverse and could include stores like Bon-Ton, JCPenney, Pier 1, OfficeMax, and/or Dick's Sporting Goods. As these and other companies contract nationwide, they will leave behind opportunities for independent merchants and proprietors at other locations. However, new retail projects will thrive only if they have direct visibility to drive-by-traffic; offer direct vehicular access that is seamless with adjacent uses; and offer easy and free (or low-cost) parking. They must also deliver a complete shopping experience with unique merchandise; exemplary service; and engaging settings that include entertainment venues (such as the historic downtown or waterfront) and other Placemaking amenities.



Source: Underlying data by the 2000 and 2010 Decennial Census, with forecasts and analysis by LandUseUSA.

Demographics Profile | Census, Estimates, Projections
The City of Erie, Pennsylvania | 2000 - 2021

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Population by Gender											
Male Gender	49,179	47.4%	49,060	48.3%	48,661	48.4%	48,011	48.5%	0.0%	-0.1%	-0.3%
Female Gender	54,569	52.6%	52,594	51.7%	51,786	51.6%	50,899	51.5%	-0.4%	-0.3%	-0.3%
Total Population	103,748	100.0%	101,653	100.0%	100,447	100.0%	98,910	100.0%	-0.2%	-0.2%	-0.3%
Density per Square Mile	5,431.30	.	5,345.93	.	5,258.47	.	5,178.01	.	-0.2%	-0.3%	-0.3%
Per Capita Income	\$14,436	.	\$18,888	.	\$19,347	.	\$22,606	.	2.7%	0.4%	3.2%

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Population by Age											
0 to 4	7,217	7.0%	7,647	7.5%	7,410	7.4%	7,086	7.2%	0.6%	-0.5%	-0.9%
5 to 14	15,053	14.5%	12,721	12.5%	12,872	12.8%	12,786	12.9%	-1.7%	0.2%	-0.1%
15 to 19	7,549	7.3%	7,977	7.8%	6,919	6.9%	6,523	6.6%	0.6%	-2.3%	-1.2%
20 to 24	8,570	8.3%	10,313	10.1%	9,124	9.1%	8,550	8.6%	1.9%	-2.0%	-1.3%
25 to 34	14,486	14.0%	14,345	14.1%	15,745	15.7%	15,646	15.8%	-0.1%	1.6%	-0.1%
35 to 44	14,962	14.4%	11,616	11.4%	11,304	11.3%	11,587	11.7%	-2.5%	-0.5%	0.5%
45 to 54	12,075	11.6%	13,158	12.9%	12,008	12.0%	10,703	10.8%	0.9%	-1.5%	-2.3%
55 to 64	7,782	7.5%	10,790	10.6%	11,773	11.7%	11,648	11.8%	3.3%	1.5%	-0.2%
65 to 74	7,476	7.2%	6,014	5.9%	6,618	6.6%	7,690	7.8%	-2.2%	1.6%	3.0%
75 to 84	6,307	6.1%	4,588	4.5%	4,170	4.2%	4,298	4.3%	-3.1%	-1.6%	0.6%
85+	2,272	2.2%	2,483	2.4%	2,503	2.5%	2,393	2.4%	0.9%	0.1%	-0.9%
Total Population	103,748	100.0%	101,653	100.0%	100,447	100.0%	98,910	.	-0.2%	-0.2%	-0.3%
Average Age	34.3	.	33.2	.	33.6	.	34.2	.	-0.3%	0.2%	0.3%

Source Experian Decision Analytics and the 2000 and 2010 Decennial Census, powered by Alteryx Gallery.
Exhibit and analysis prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team.

Demographics Profile | Census, Estimates, Projections
The City of Erie, Pennsylvania | 2000 - 2021

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Population by Race											
White	83,724	80.7%	76,238	75.0%	73,508	73.2%	71,251	72.0%	-0.9%	-0.6%	-0.6%
Black	14,402	13.9%	17,107	16.8%	17,295	17.2%	17,176	17.4%	1.7%	0.2%	-0.1%
Amer. Indian, Alaska Native	293	0.3%	291	0.3%	325	0.3%	326	0.3%	-0.1%	1.9%	0.1%
Asian, Native Hawaii, Pacific Isl.	577	0.6%	1,567	1.5%	1,977	2.0%	2,106	2.1%	10.5%	4.0%	1.3%
Some Other Race	2,019	2.0%	2,494	2.5%	2,804	2.8%	3,005	3.0%	2.1%	2.0%	1.4%
Two or More Races	2,733	2.6%	3,958	3.9%	4,539	4.5%	5,046	5.1%	3.8%	2.3%	2.1%

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Population by Ethnicity											
Hispanic	4,693	4.5%	6,995	6.9%	7,925	7.9%	8,496	8.6%	4.1%	2.1%	1.4%
Not Hispanic or Latino	99,055	95.5%	94,659	93.1%	92,522	92.1%	90,414	91.4%	-0.5%	-0.4%	-0.5%

Source Experian Decision Analytics and the 2000 and 2010 Decennial Census, powered by Alteryx Gallery.
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Demographics Profile | Census, Estimates, Projections
The City of Erie, Pennsylvania | 2000 - 2021

Employment Categories	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Civilian, Employed	44,754	91.9%	43,420	87.6%	46,662	92.0%	45,839	91.7%	-0.3%	1.2%	-0.4%
In Armed Forces	43	0.1%	0	0.0%	0	0.0%	0	0.0%	.	.	.
Civilian, Unemployed	3,925	8.1%	6,142	12.4%	4,054	8.0%	4,164	8.3%	4.6%	-6.7%	0.5%
Total Labor Force	48,721	60.8%	49,562	61.9%	50,716	64.2%	50,003	64.2%	0.2%	0.4%	-0.3%
Not In Labor Force	31,467	39.2%	30,476	38.1%	28,236	35.8%	27,850	35.8%	-0.3%	-1.3%	-0.3%
Total Population 16+	80,188	100.0%	80,038	100.0%	78,952	100.0%	77,853	100.0%	0.0%	-0.2%	-0.3%

Employed Workers	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Blue Collar	19,806	44.3%	19,384	44.6%	21,036	45.1%	20,671	44.3%	-0.2%	1.4%	-0.3%
White Collar	24,926	55.7%	24,036	55.4%	25,626	54.9%	25,168	53.9%	-0.4%	1.1%	-0.4%
Total Employed Workers	44,732	100.0%	43,420	100.0%	46,662	100.0%	45,839	98.2%	-0.3%	1.2%	-0.4%

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Demographics Profile | Census, Estimates, Projections
The City of Erie, Pennsylvania | 2000 - 2021

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Population Marital Status											
Married, Spouse Present	32,890	40.4%	25,001	30.8%	25,753	32.1%	25,179	31.9%	-2.7%	0.5%	-0.4%
Married, Spouse Absent	4,872	6.0%	5,659	7.0%	3,872	4.8%	3,834	4.9%	1.5%	-6.1%	-0.2%
Divorced	8,739	10.7%	10,477	12.9%	9,153	11.4%	9,030	11.4%	1.8%	-2.2%	-0.3%
Widowed	7,177	8.8%	5,807	7.1%	5,655	7.1%	5,518	7.0%	-2.1%	-0.4%	-0.5%
Never Married	27,727	34.0%	34,341	42.3%	35,731	44.6%	35,477	44.9%	2.2%	0.7%	-0.1%
Age 15+ Population	81,479	100.0%	81,285	100.0%	80,165	100.0%	79,038	100.0%	0.0%	-0.2%	-0.3%

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Educational Attainment											
Grade K - 8	2,985	4.6%	1,781	2.8%	1,698	2.6%	1,676	2.6%	-5.0%	-0.8%	-0.3%
Grade 9 - 11	9,495	14.5%	5,859	9.3%	5,919	9.2%	5,874	9.2%	-4.7%	0.2%	-0.2%
High School Graduate	27,168	41.6%	27,817	44.2%	27,610	43.1%	27,417	42.9%	0.2%	-0.1%	-0.1%
Some College, No Degree	10,656	16.3%	10,568	16.8%	10,356	16.2%	10,306	16.1%	-0.1%	-0.3%	-0.1%
Associates Degree	3,025	4.6%	4,359	6.9%	4,445	6.9%	4,428	6.9%	3.7%	0.3%	-0.1%
Bachelor's Degree	7,328	11.2%	7,440	11.8%	8,645	13.5%	8,809	13.8%	0.2%	2.5%	0.4%
Graduate Degree	4,006	6.1%	4,471	7.1%	4,629	7.2%	4,627	7.2%	1.1%	0.6%	0.0%
No Schooling Completed	628	1.0%	700	1.1%	819	1.3%	827	1.3%	1.1%	2.7%	0.2%
Age 25+ Population	65,291	100.0%	62,995	100.0%	64,122	100.0%	63,965	100.0%	-0.4%	0.3%	0.0%

Source Experian Decision Analytics and the 2000 and 2010 Decennial Census, powered by Alteryx Gallery.
Exhibit and analysis prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team.

Demographics Profile | Census, Estimates, Projections
The City of Erie, Pennsylvania | 2000 - 2021

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Households by Tenure											
Owner Occupied	n/a	.	21,383	52.4%	20,872	51.8%	20,767	51.7%	.	-0.4%	-0.1%
Owner - Mortgage	n/a	.	13,970	34.2%	12,831	31.8%	12,664	31.5%	.	-1.4%	-0.3%
Owner - Fully Owned	n/a	.	7,413	18.2%	8,041	19.9%	8,103	20.2%	.	1.4%	0.2%
Renter Occupied	n/a	.	19,428	47.6%	19,456	48.2%	19,391	48.3%	.	0.0%	-0.1%
Total Occupied Units	.	.	40,811	100.0%	40,328	100.0%	40,158	100.0%	.	-0.2%	-0.1%
Total Vacant Units	3,997	8.9%	3,862	8.6%	4,165	9.4%	4,152	9.4%	-0.3%	1.3%	-0.1%
Total Occupied and Vacant	44,900	100.0%	44,673	100.0%	44,492	100.0%	44,309	100.0%	-0.1%	-0.1%	-0.1%

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Vehicles Available											
0 Vehicles Available	7,409	18.1%	9,644	23.6%	8,959	22.2%	8,816	22.0%	2.7%	-1.2%	-0.3%
1 Vehicle Available	18,167	44.4%	17,586	43.1%	17,466	43.3%	17,383	43.3%	-0.3%	-0.1%	-0.1%
2+ Vehicles Available	15,328	37.5%	13,582	33.3%	13,903	34.5%	13,959	34.8%	-1.2%	0.4%	0.1%
Vehicles Per Household	1.20	100.0%	1.57	100.0%	1.56	100.0%	1.56	100.0%	2.7%	-0.1%	0.0%

Source Experian Decision Analytics and the 2000 and 2010 Decennial Census, powered by Alteryx Gallery.
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Demographics Profile | Census, Estimates, Projections
The City of Erie, Pennsylvania | 2000 - 2021

	Census 2000		Census 2010		Estimates 2016		Projections 2021		Compound Annual Change		
	Number	Share	Number	Share	Number	Share	Number	Share	2000-10	2010-16	2016-21
Households by Income											
\$0 - \$15,000	10,441	25.5%	8,788	21.5%	8,399	20.8%	7,076	17.6%	-1.7%	-0.8%	-3.4%
\$15,000 - \$24,999	7,484	18.3%	6,671	16.3%	6,673	16.5%	6,051	15.1%	-1.1%	0.0%	-1.9%
\$25,000 - \$34,999	6,309	15.4%	5,434	13.3%	5,309	13.2%	4,917	12.2%	-1.5%	-0.4%	-1.5%
\$35,000 - \$49,999	7,037	17.2%	6,532	16.0%	6,288	15.6%	5,814	14.5%	-0.7%	-0.6%	-1.6%
\$50,000 - \$74,999	6,286	15.4%	7,280	17.8%	7,208	17.9%	7,748	19.3%	1.5%	-0.2%	1.5%
\$75,000 - \$99,999	2,042	5.0%	3,113	7.6%	3,216	8.0%	3,950	9.8%	4.3%	0.5%	4.2%
\$100,000 - \$149,999	809	2.0%	2,111	5.2%	2,212	5.5%	3,180	7.9%	10.1%	0.8%	7.5%
\$150,000 +	439	1.1%	881	2.2%	1,022	2.5%	1,421	3.5%	7.2%	2.5%	6.8%
Households Reported	40,847	100.0%	40,811	100.0%	40,327	100.0%	40,158	100.0%	0.0%	-0.2%	-0.1%
Total Households	40,903	100.0%	40,811	100.0%	40,328	100.0%	40,158	100.0%	0.0%	-0.2%	-0.1%
Average Hhld Income	\$36,616	.	\$45,473	.	\$46,598	.	\$54,083	.	2.2%	0.4%	3.0%
Median Hhld Income	\$28,514	.	\$34,071	.	\$34,557	.	\$39,583	.	1.8%	0.2%	2.8%

Source Experian Decision Analytics and the 2000 and 2010 Decennial Census, powered by Alteryx Gallery.
Exhibit and analysis prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team.

INDUSTRY ANALYSIS

Section E

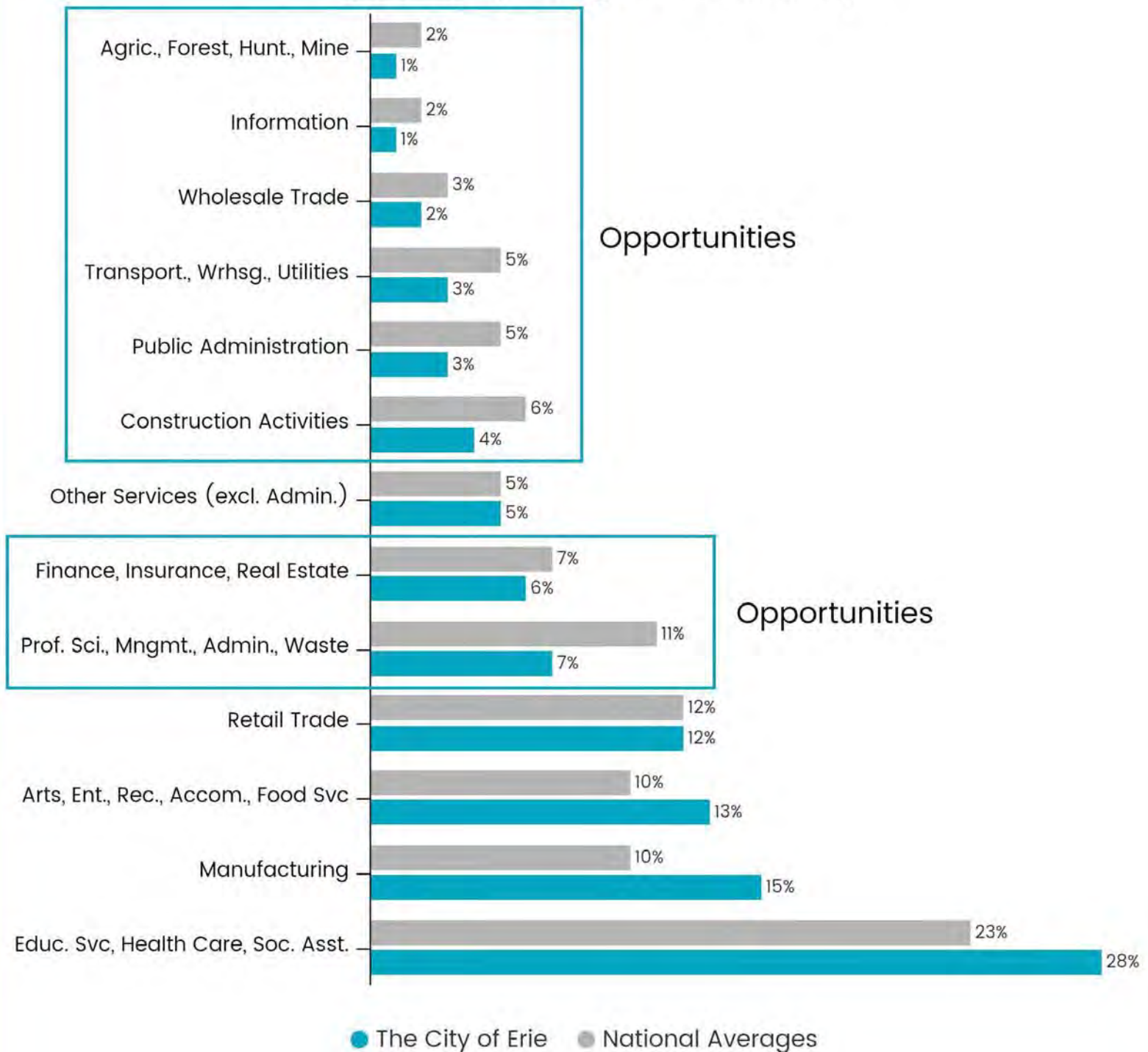
American Community Survey

Employment by Industry Sector

A study of employer-filled jobs (share) by industry sector.

The City of Erie v. National Averages

Share of Total Filled Jobs
(With Many Categories Combined)



Data source: The American Community Survey (ACS) with 5-yr estimates through 2015.

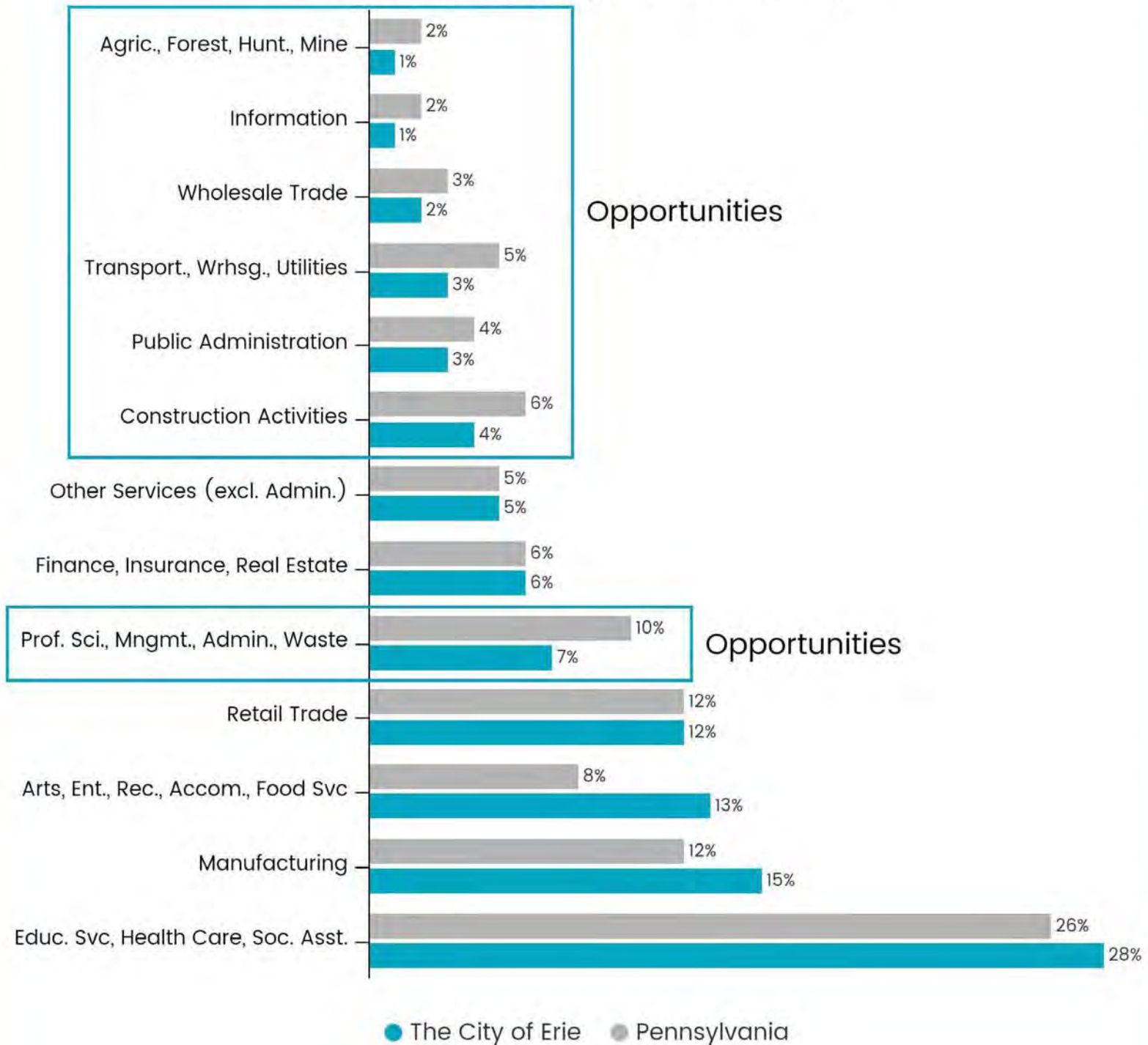
Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

Employment by Industry Sector

A study of employer-filled jobs (share) by industry sector.

The City of Erie v. Pennsylvania

Share of Total Filled Jobs
(With Many Categories Combined)



Data source: The American Community Survey (ACS) with 5-yr estimates through 2015.

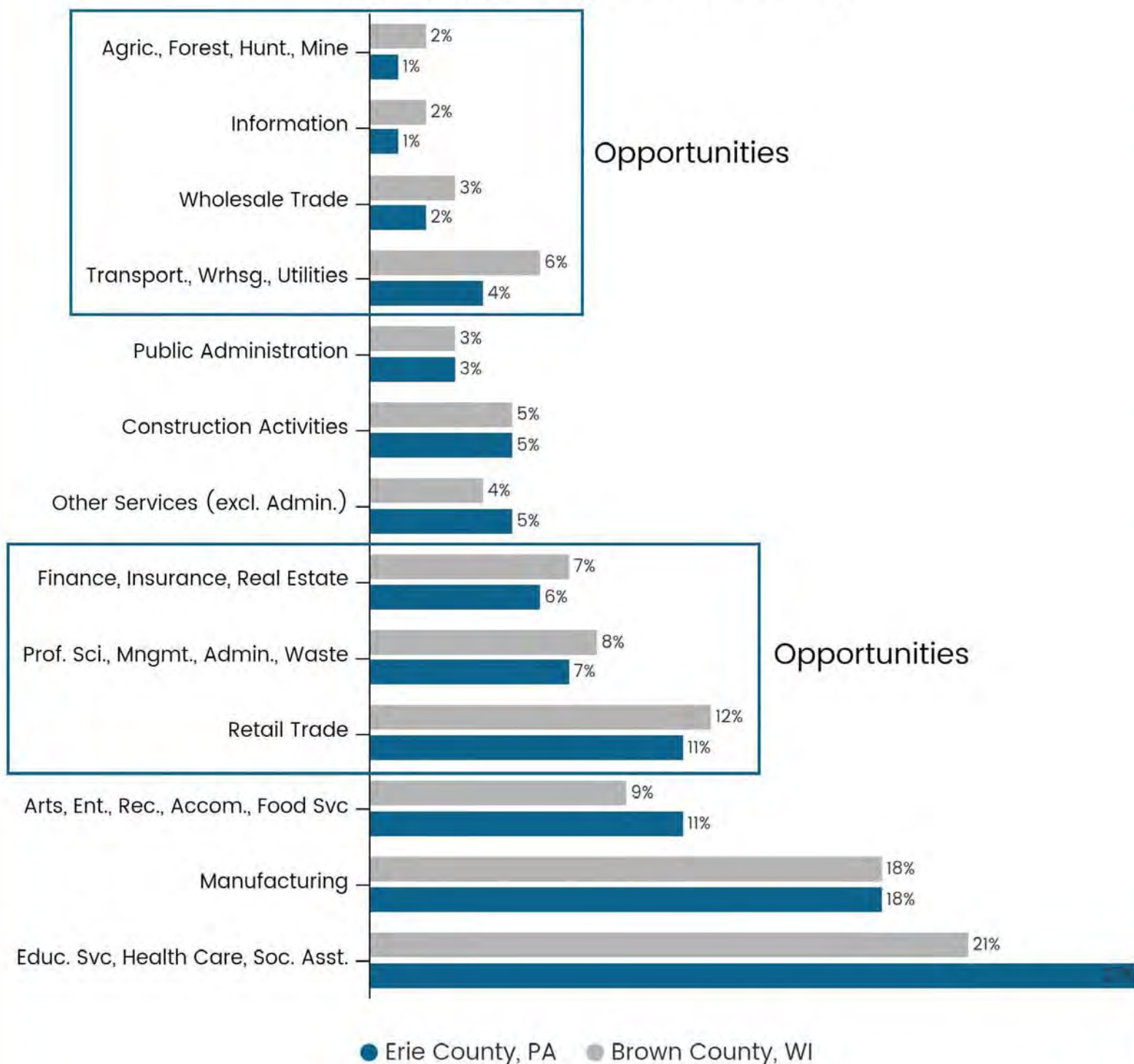
Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

Employment by Industry Sector

A study of employer-filled jobs (share) by industry sector.

Erie County, PA v. Brown County, WI

Share of Total Filled Jobs
(With Many Categories Combined)



Data source: The American Community Survey (ACS) with 5-yr estimates through 2015.
Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

Share of Employer Filled Positions by Industry Sector
City of Erie with Comparative Geographies | 2010 - 2015

	2015 NATION USA	2015 CITY Erie, PA	2015 STATE Pennsylvania	2015 COUNTY Erie, PA	2015 COUNTY Brown, WI
Industry Sector					
Educ. Serv., Health Care, Soc. Asst.	23.1%	28.2%	25.9%	27.3%	20.9%
Manufacturing	10.4%	14.9%	12.2%	17.5%	18.3%
Arts, Ent., Rec., Accom., Food Serv.	9.6%	13.3%	8.4%	10.8%	9.1%
Retail Trade	11.6%	12.1%	11.7%	11.3%	11.7%
Prof., Sci., Mngmt., Admin, Waste	11.0%	6.8%	9.9%	6.5%	7.6%
Finance, Insurance, Real Estate	6.6%	5.7%	6.4%	6.0%	7.0%
Other Services (excl. Public Admin.)	4.9%	5.2%	4.7%	4.8%	4.1%
Construction	6.2%	3.9%	5.7%	4.5%	5.3%
Public Administration	4.8%	3.3%	4.1%	3.2%	3.3%
Transpo., Warehousing, Utilities	5.0%	3.0%	5.1%	3.5%	6.1%
Wholesale Trade	2.7%	1.9%	2.8%	2.2%	3.2%
Information	2.1%	1.2%	1.7%	1.5%	1.6%
Agric., Forest, Fish., Hunt., Mining	2.0%	0.4%	1.5%	1.1%	1.8%
Total Employees by Industry	100.0%	100.0%	100.0%	100.0%	100.0%
Industry Sector					
Educ. Serv., Health Care, Soc. Asst.	33,739,126	12,305	1,552,124	35,042	27,295
Manufacturing	15,171,260	6,503	729,883	22,432	23,834
Arts, Ent., Rec., Accom., Food Serv.	13,984,957	5,787	504,468	13,826	11,875
Retail Trade	16,835,942	5,274	703,923	14,493	15,282
Prof., Sci., Mngmt., Admin, Waste	16,074,502	2,977	594,714	8,416	9,948
Finance, Insurance, Real Estate	9,578,175	2,509	383,079	7,671	9,123
Other Services (excl. Public Admin.)	7,198,201	2,289	279,735	6,141	5,372
Construction	9,027,391	1,692	341,409	5,773	6,895
Public Administration	6,996,990	1,426	245,740	4,151	4,247
Transpo., Warehousing, Utilities	7,226,063	1,309	306,822	4,442	7,986
Wholesale Trade	3,968,627	844	168,873	2,825	4,124
Information	3,094,143	541	102,919	1,908	2,087
Agric., Forest, Fish., Hunt., Mining	2,852,402	188	88,200	1,421	2,286
Total Employees by Industry	145,747,779	43,644	6,001,889	128,541	130,354
Unemployment Rates					
2017 - BLS	.	6.9%	5.0%	6.2%	3.4%
2016 - BLS	.	7.1%	5.5%	6.6%	3.8%
2015 - BLS	.	10.0%	7.9%	8.0%	6.1%
2012 - ACS	.	11.5%	8.5%	9.1%	6.9%
2010 - ACS	.	9.8%	7.3%	7.9%	6.3%

Source: American Community Survey with 5-year estimates; and the Bureau of Labor Statistics.

Includes some unemployment rates reported by the Bureau of Labor Statistics, not seasonally adjusted.

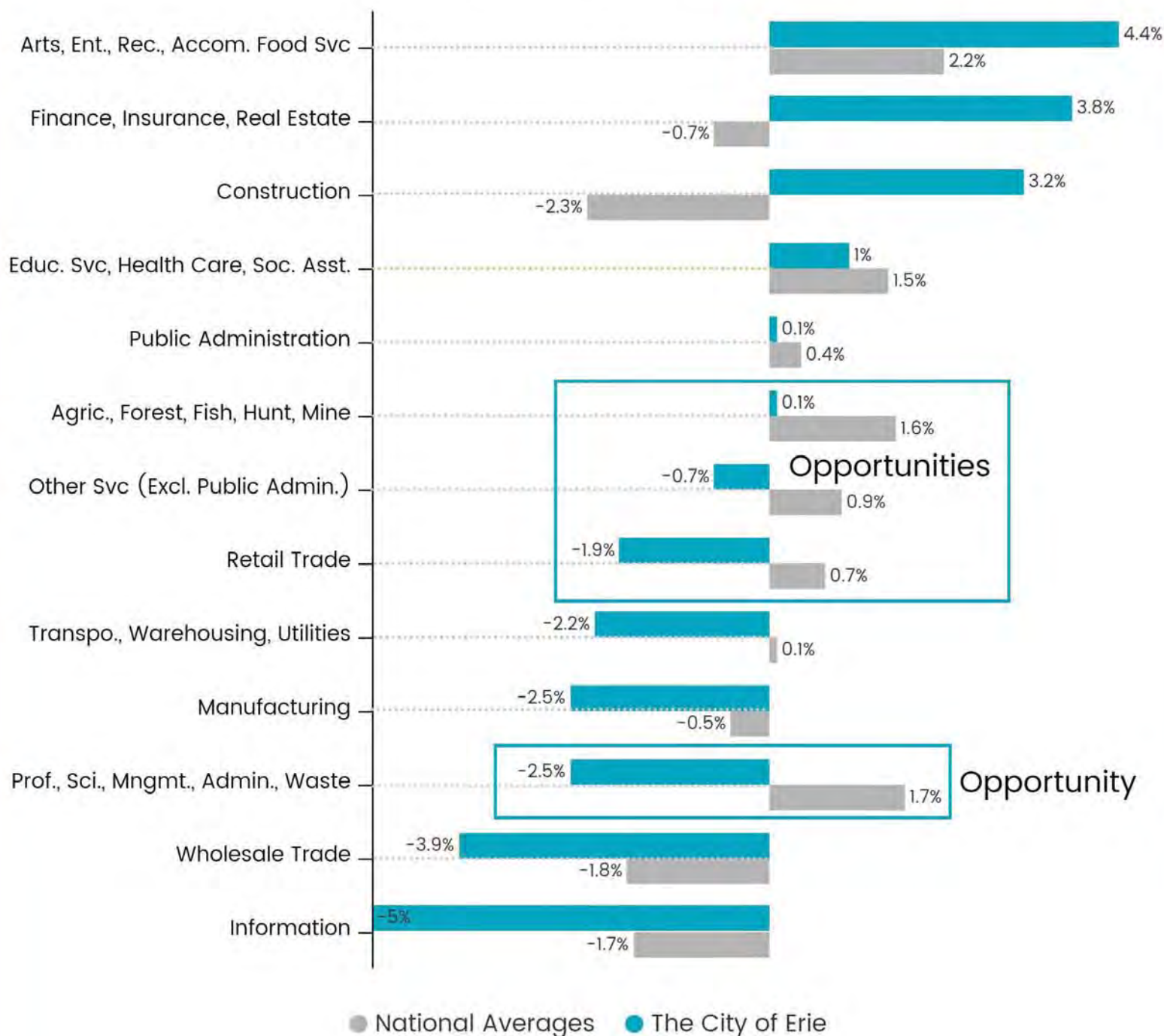
Exhibit and analysis prepared by LandUseUSA in collaboration with Albert Kahn Assoc., 2017.

Industry Gains & Losses 2010 – 2015

A study of employer-filled jobs (gains and losses) by industry sector.

The City of Erie v. National Averages

Annual Gains and Losses in Employment by Category
(With Many Categories Combined)



Data source: The American Community Survey (ACS) with 5-yr estimates for 2010 and 2015.

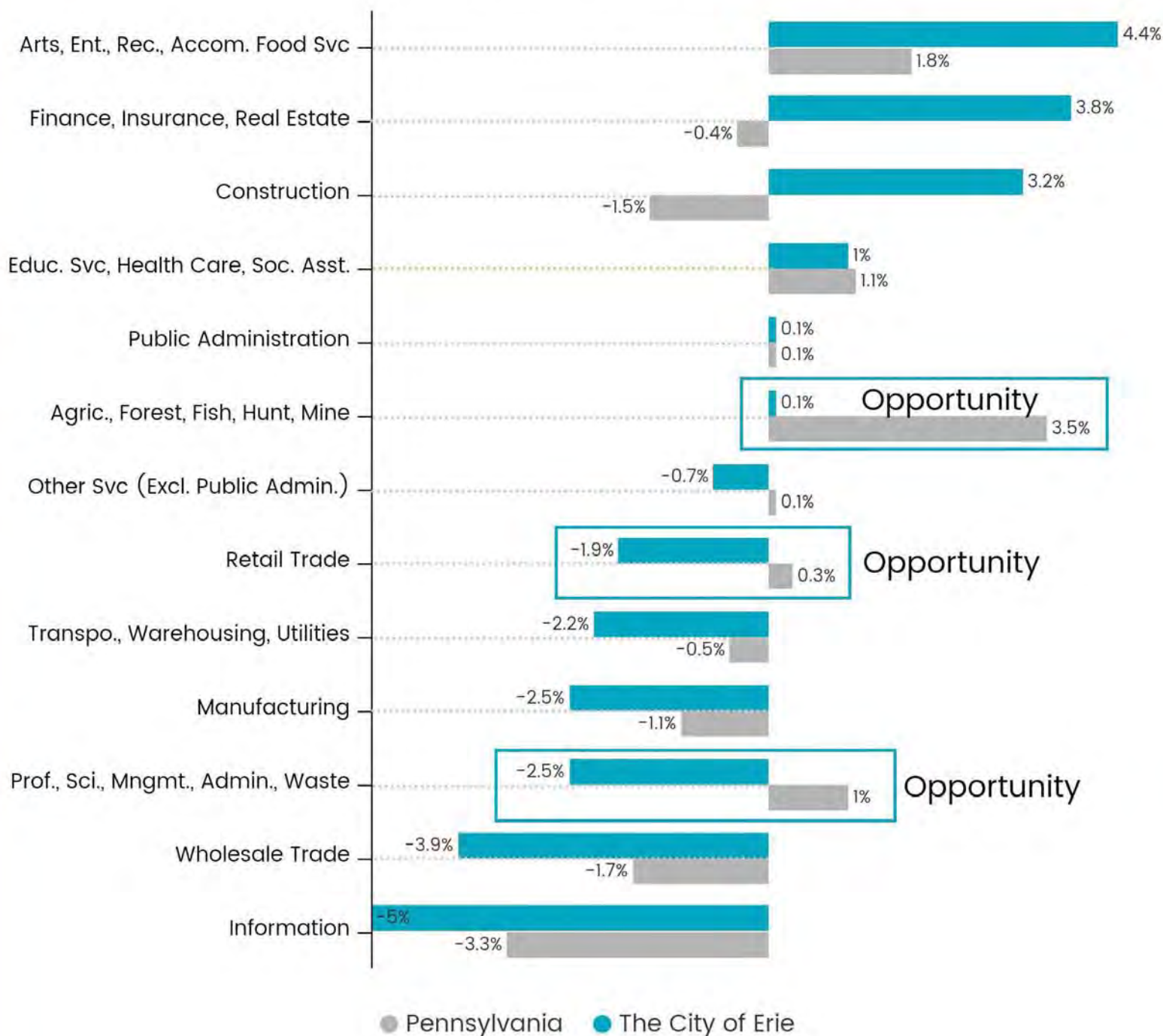
Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

Industry Gains & Losses 2010 – 2015

A study of employer-filled jobs (gains and losses) by industry sector.

The City of Erie v. Pennsylvania

Annual Gains and Losses in Employment by Category
(With Many Categories Combined)



Data source: The American Community Survey (ACS) with 5-yr estimates for 2010 and 2015.

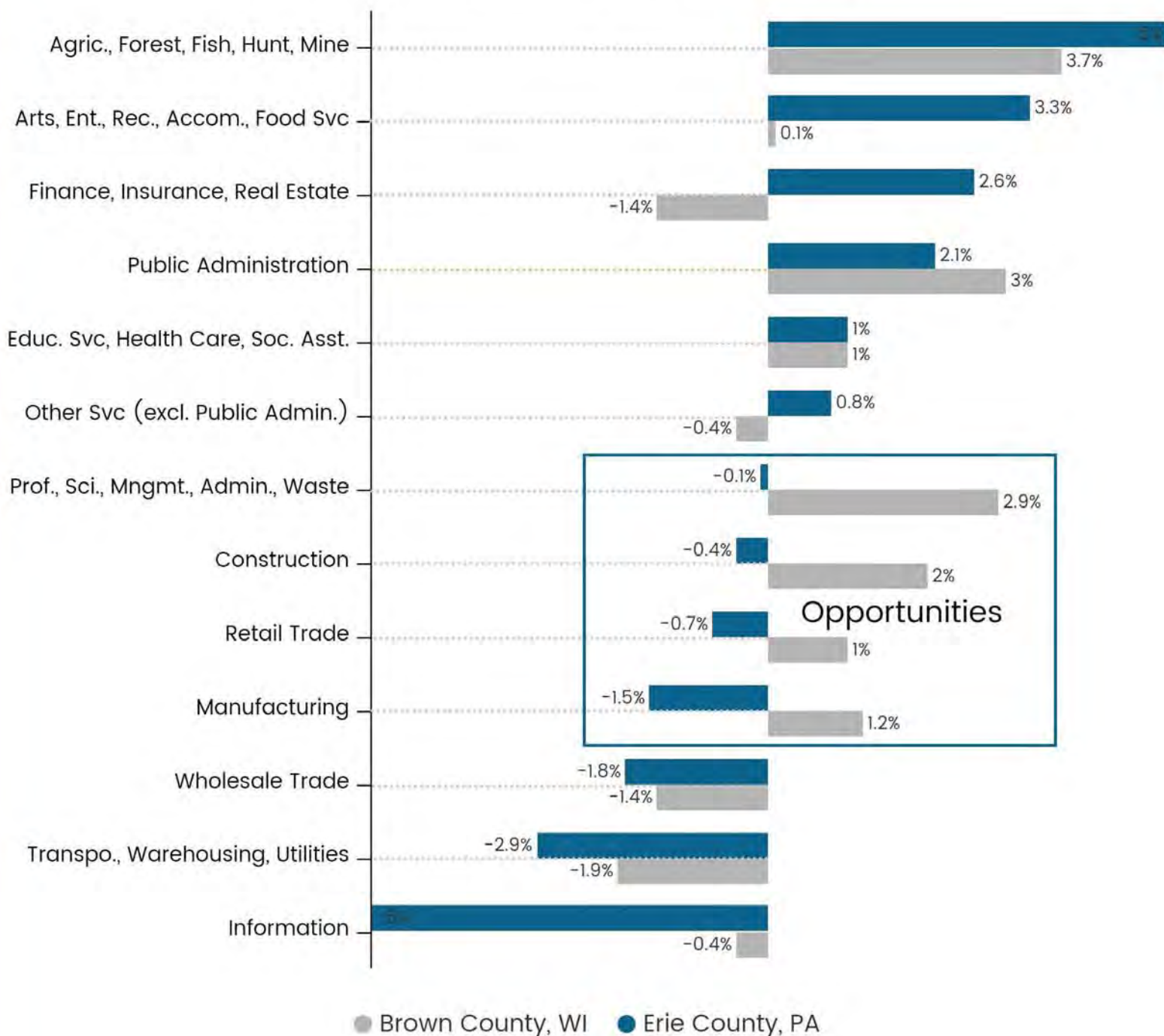
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Industry Gains & Losses 2010 – 2015

A study of employer-filled jobs (gains and losses) by industry sector.

Erie County, PA v. Brown County, WI

Annual Gains and Losses in Employment by Category
(With Many Categories Combined)



Data source: The American Community Survey (ACS) with 5-yr estimates for 2010 and 2015.

Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

Change in Employer Filled Positions by Industry Sector City of Erie with Comparative Geographies | 2010 - 2015

Industry Sector	2015		2015		2010		2010-15		2010-15		2010-15		2010-15	
	CITY	COUNTY	CITY	COUNTY	CITY	COUNTY	NATION	CITY	STATE	COUNTY	C.a.r.	C.a.r.	COUNTY	C.a.r.
	Erie, PA	Erie, PA	Brown, WI	Erie, PA	Erie, PA	Brown, WI	USA	Erie, PA	Penn.	Erie, PA			Brown, WI	
Educ. Serv., Health Care, Soc. Asst.	12,305	35,042	27,295		11,707	33,372	1.5%	1.0%	1.1%	1.0%			1.0%	1.0%
Manufacturing	6,503	22,432	23,834		7,382	24,222	-0.5%	-2.5%	-1.1%	-1.5%			-1.5%	1.2%
Arts, Ent., Rec., Accom., Food Serv.	5,787	13,826	11,875		4,662	11,775	2.2%	4.4%	1.8%	3.3%			3.3%	0.1%
Retail Trade	5,274	14,493	15,282		5,819	15,026	0.7%	-1.9%	0.3%	-0.7%			-0.7%	1.0%
Prof., Sci., Mngmt., Admin, Waste	2,977	8,416	9,948		3,380	8,439	1.7%	-2.5%	1.0%	-0.1%			-0.1%	2.9%
Finance, Insurance, Real Estate	2,509	7,671	9,123		2,079	6,755	-0.7%	3.8%	-0.4%	2.6%			2.6%	-1.4%
Other Services (excl. Public Admin.)	2,289	6,141	5,372		2,368	5,914	0.9%	-0.7%	0.1%	0.8%			0.8%	-0.4%
Construction	1,692	5,773	6,895		1,446	5,886	-2.3%	3.2%	-1.5%	-0.4%			-0.4%	2.0%
Public Administration	1,426	4,151	4,247		1,417	3,746	0.4%	0.1%	0.1%	2.1%			2.1%	3.0%
Transpo., Warehousing, Utilities	1,309	4,442	7,986		1,463	5,147	0.1%	-2.2%	-0.5%	-2.9%			-2.9%	-1.9%
Wholesale Trade	844	2,825	4,124		1,030	3,093	-1.8%	-3.9%	-1.7%	-1.8%			-1.8%	-1.4%
Information	541	1,908	2,087		1,142	2,875	-1.7%	-13.9%	-3.3%	-7.9%			-7.9%	-0.4%
Agric., Forest, Fish., Hunt., Mining	188	1,421	2,286		187	1,074	1.6%	0.1%	3.5%	5.8%			5.8%	3.7%
Total Employees by Industry	43,644	128,541	130,354		44,082	127,324								

Source: American Community Survey with 5-year estimates; and the Bureau of Labor Statistics.
Includes some unemployment rates reported by the Bureau of Labor Statistics, not seasonally adjusted.
Exhibit and analysis prepared by LandUseUSA in collaboration with Albert Kahn Assoc., 2017.

INDUSTRY ANALYSIS

Section F

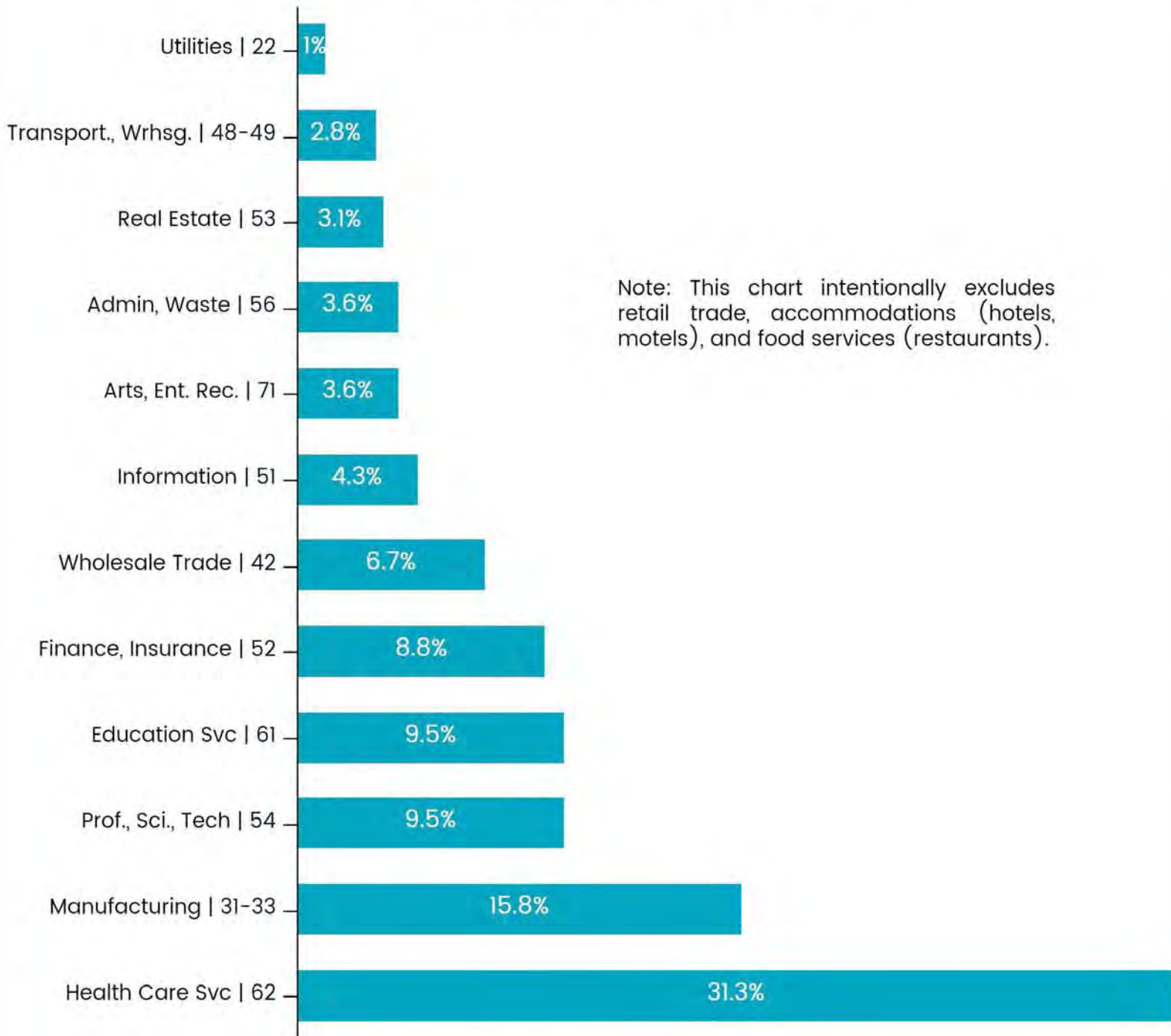
Pennsylvania State Database

Summary by Industry Sector

A study of employer-filled positions (share) by industry sector.

NAICS 22 - 71 (ALL)

The City of Erie | Zip Codes 16501 - 16511



Two-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

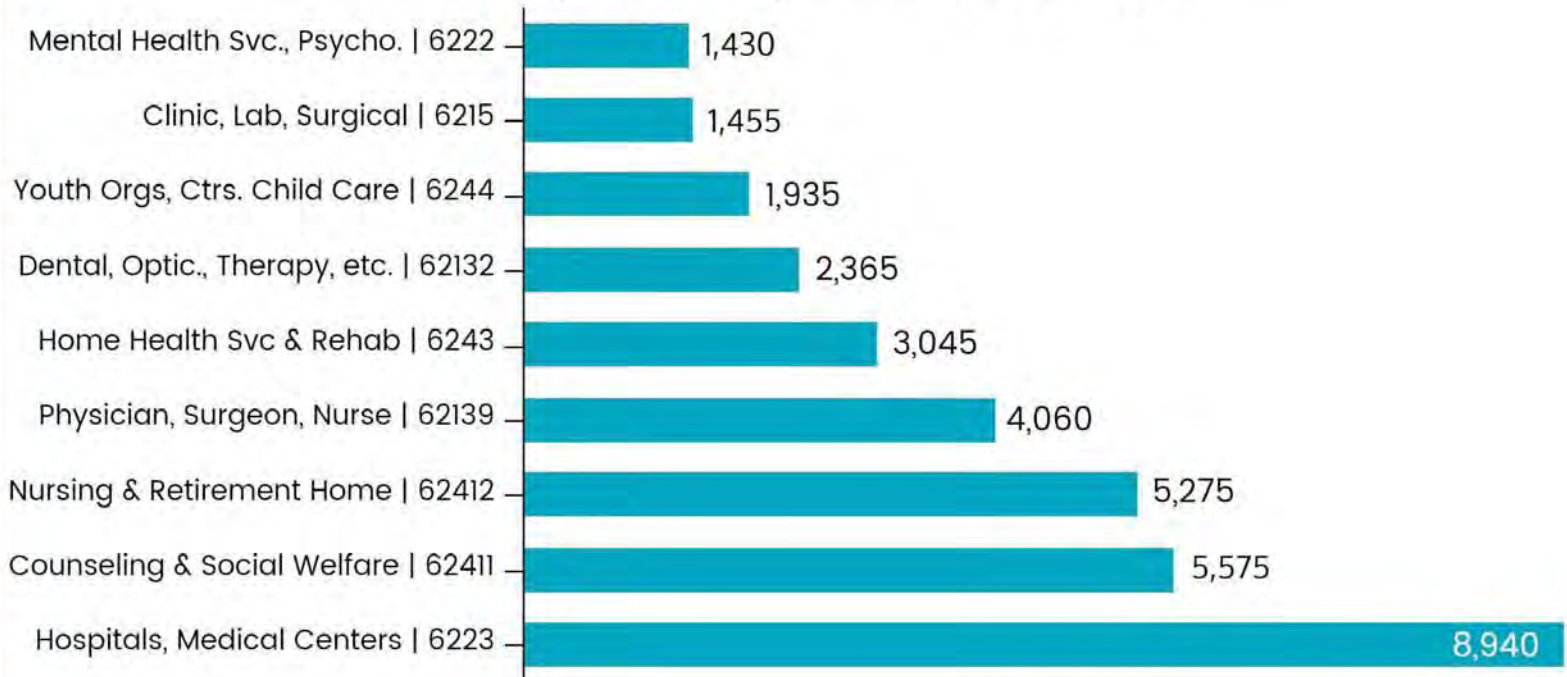
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Health Care & Social Services

A study of employer-filled positions within selected industries.

NAICS 62

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511



Top Employers Zip Code 16507 Only

6241 | Dr Gertrude A Barber Ctr Inc (~2,100)
6221 | Health South Rehab Hospital (<500)
6233 | Soldiers' & Sailors' Home (<250)
6211 | Medicor Associates Inc (<100)
6211 | Ob-Gyn Assoc of Erie P C (<100)
6219 | UPMC Hamot Surgery Ctr (<100)
6233 | Sunrise of Presque Isle Bay (<100)
6241 | Gaudenzia Crossroads (<100)

Top Employers Other City Zip Codes

62211 | St Vincent Health Ctr (~3,000)
62211 | UPMC Hamot (~3,000)
62211 | Mill Creek Comm. Hospital (<1,000)
62161 | Medicare Equipment Co (<500)
62419 | Greater Erie Community (<500)
62211 | US Veterans Medical Ctr (<500)
62311 | St Mary's Home of Erie (<500)
62419 | Paul Carpenedo Commons (<500)
62331 | Springhill Resid. Home (<500)

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

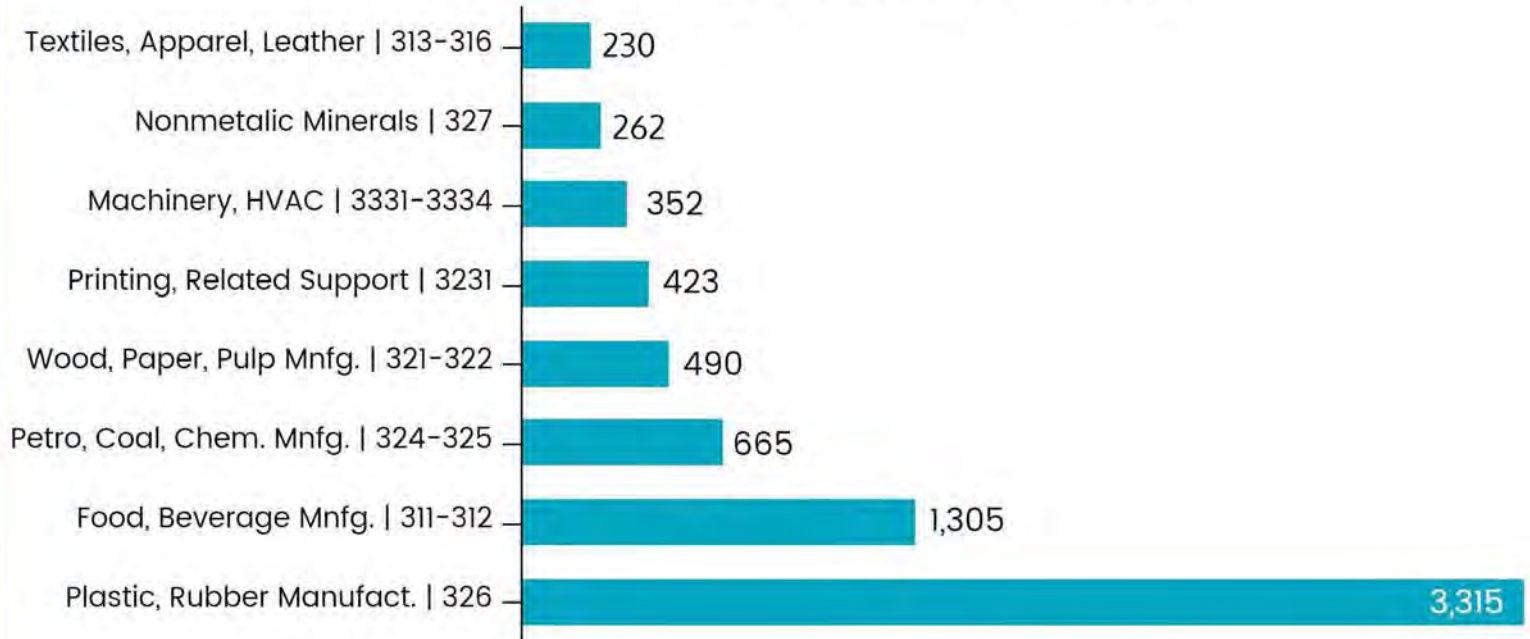
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Manufacturing

A study of employer-filled positions within selected industries.

NAICS 31 & 32

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511



Top Employers Zip Code 16507 Only

3279 | Carmeuse Lime & Stone - Facility 1 (<50)
3279 | Carmeuse Lime & Stone - Facility 2 (<20)

Top Employers Other Zips Codes

3261 | Plastek Group (<1,000 filled positions)

Each with 250 or fewer filled positions

3115 | Meadow Brook Dairy
3118 | JTM Foods
3121 | Coca-Cola Bottling
3221 | International Paper
3259 | BASF-Chemical
3261 | Caplugs
3261 | CPS Keystone
3261 | Haysite Reinforced Plastics
3261 | Micro Mold & Plastikos

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

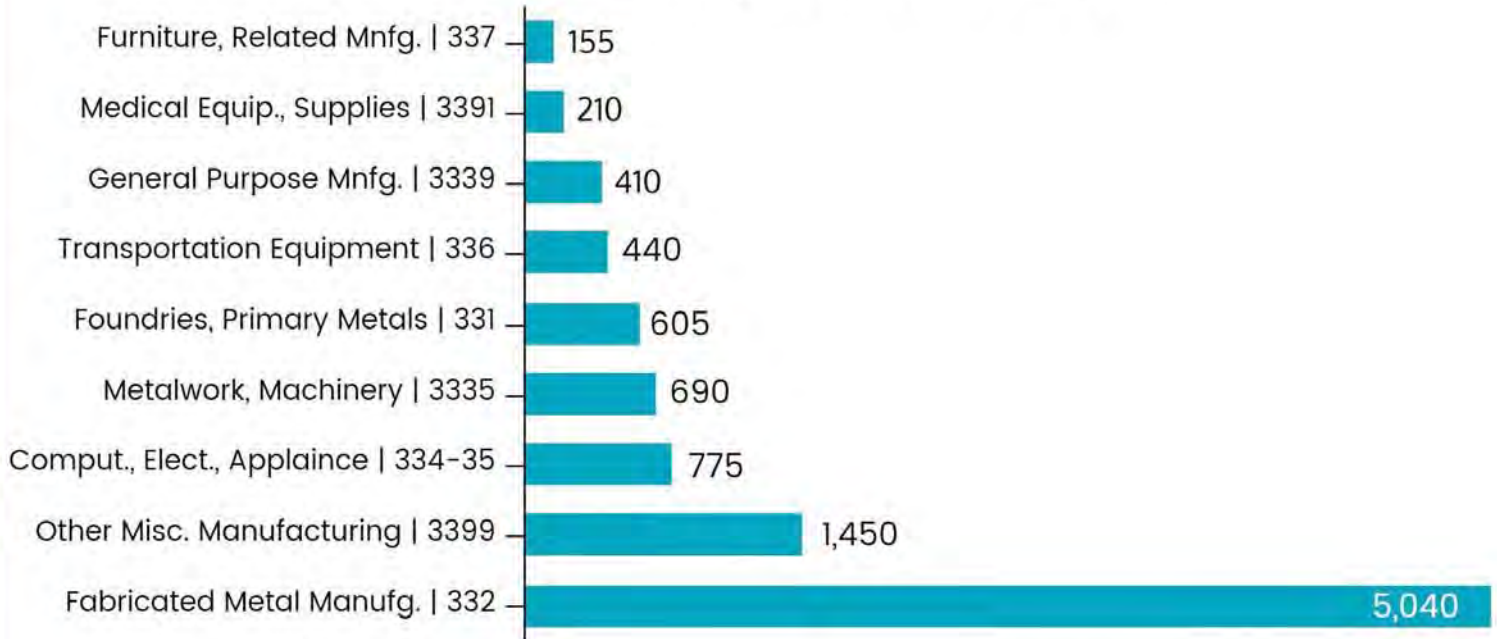
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Manufacturing

A study of employer-filled positions within selected industries.

NAICS 33

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 – 16511



Top Employers Zip Code 16507 Only

- 3311 | Foundries - Erie Coke Corp. (<250)
- 3366 | Erie Ship Building LLC (<100)
- 3366 | Donjon Shipbuilding, Repair (<10)
- 3323 | McShane Welding Co. (<50)
- 3353 | Great Lakes Electrical Service (<5)

Top Employers Other City Zip Codes

- 3329 | Parker Autoclave Engineers (<500)
- Between 100 and 250 employees each:
 - 3323 | Custom Engineering Co
 - 3323 | PSB Industries Inc
 - 3323 | Warren Co
 - 3327 | Industrial Sales & Mfg Inc
 - 3328 | Erie Plating Co
 - 3329 | Ameridrives Couplings
 - 3329 | Zurn Industries LLC
 - 3344 | Accu Spec Electronics
 - 3344 | Bliley Technologies Inc
 - 3363 | Accuride Wheel End Solutions
 - 3399 | FMC Tech Measurement Solutions
- 3399 | Seaway Manufacturing Corp. (<50)

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

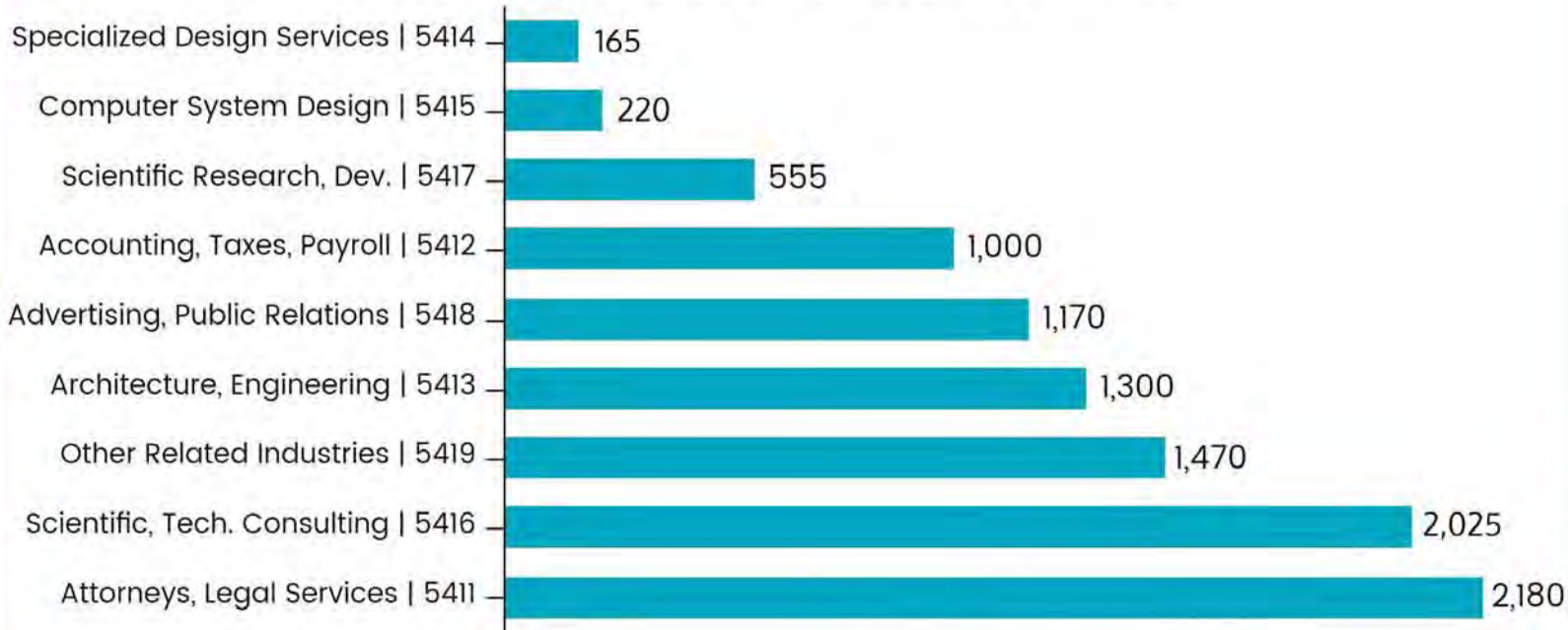
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Professional, Scientific, Technical

A study of employer-filled positions within selected industries.

NAICS 54

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 – 16511



Top Employers Zip Code 16507 Only

5411 | Attorneys, Legal Services
McDonald Lliag Jones, Britto (<250)
Mcelrath Legal Holdings (<100)
Shapira Law (<50)
Marsh, Spaeder, Baur (<50)
Mcdonald Group (<50)
Miller Daniel M OFC (<20)
Talarico & Niebauer (<2)
Carney & Good (<20)
Dickie Mc Camey, Chilcote (<20)

5417 | Environmental Reclamtn. Svc (<250)
5417 | Sunburst Elect. Research, Dev. (<100)
5417 | Erie Community Found., Research (<20)
5416 | Mcmanis, Mousalve - Bus. Mngmt. (<20)
5418 | Erie Fine Dining - Restaurant Ads (<20)
5418 | Birdguard Advert., Computer Ads (<20)

Top Employers Other City Zip Codes

5416 | Agility Marketing (<1,000)
5416 | Field Technologies Mktg. (<100)
5416 | Moore Research, Mktg. (<100)
5416 | Fisher Security System Consult. (<100)
5418 | UPS Mailing, Shipping (<250)
5418 | Erie Metro Transit Advert. (<250)
5418 | Gohrs Promotional Products (<100)

5411 | Knox McLaughlin Gornall Attorn. (<250)
5419 | Bonded Services, Legal (<500)

5412 | St Vincent Med Group Billing (<100)
5412 | BKD Accountants (<100)
5412 | Eccca Payroll Prep. Svc (<100)

5413 | C M I Energy Engineering (<250)
5413 | Modern Industries Labs, Tests (<250)
5413 | Urban Engineers, Civil (<100)

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

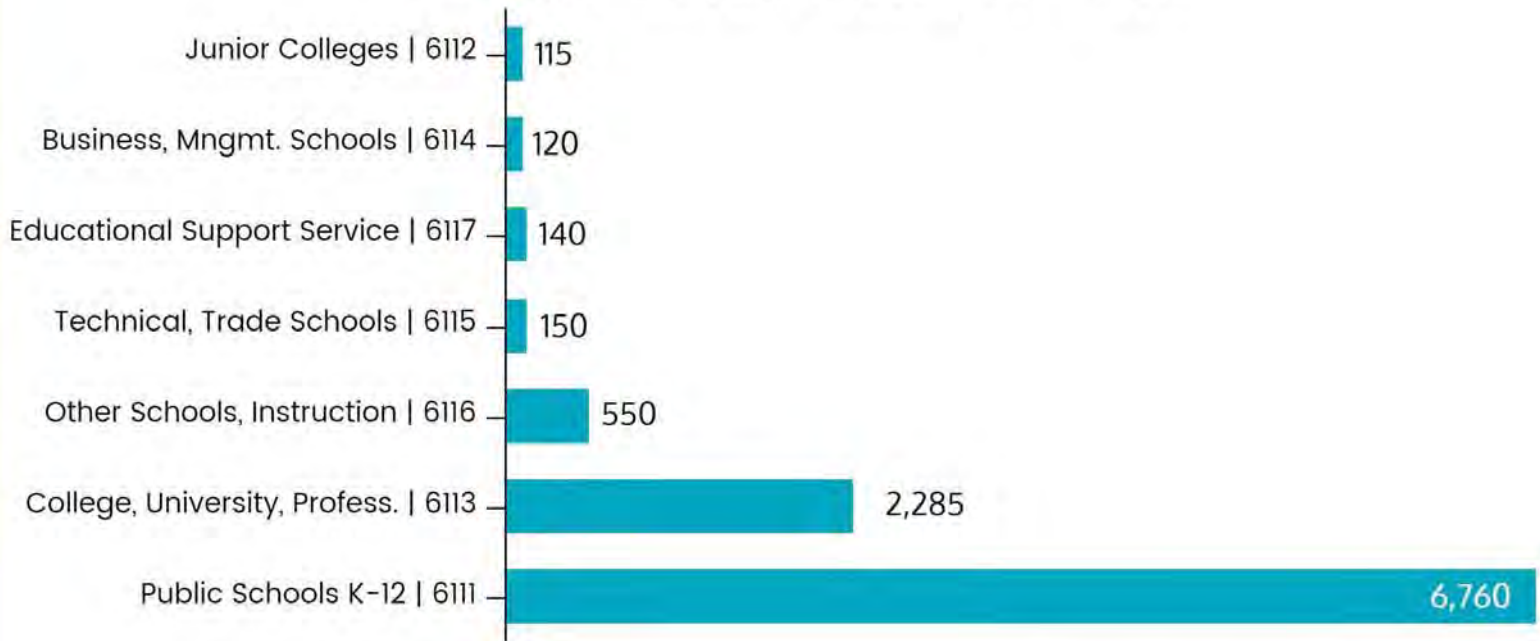
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Educational Services

A study of employer-filled positions within selected industries.

NAICS 61

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 – 16511



Top Employers Zip Code 16507 Only

6113 | Gannon University (<1,000 filled jobs)

6111 | Secondary, Elementary Public Schools

Robert Benjamin Wiley Charter (<100)

Penn View Christian Academy (<50)

Elizabeth Lee Black School (<50)

The City of Erie School District (<50)

6116 | Aum Plasha Yoga-Discovery Sq. (<10)

6115 | Bayfront Center-Maritime Trade School (<10)

6116 | Ultimate Warrior Martial Arts School (<5)

Top Employers Other City Zip Codes

6113 | Mercyhurst College (<1,000 filled jobs)

Others with 50 Employees or Less

6112 | Erie Business, tech. institute (<49)

6112 | Great Lakes Institute of Tech (<49)

6113 | Triangle Tech School (<49)

6114 | Erie Business, Business Sch (<49)

6114 | Fortis Institute, Business Sch (<49)

6116 | Gecac Educational Program (<49)

6116 | St Benedict Education Ctr (<49)

6117 | Dui Program, Educ. Center (<49)

6111 | The list above excludes Public Schools

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

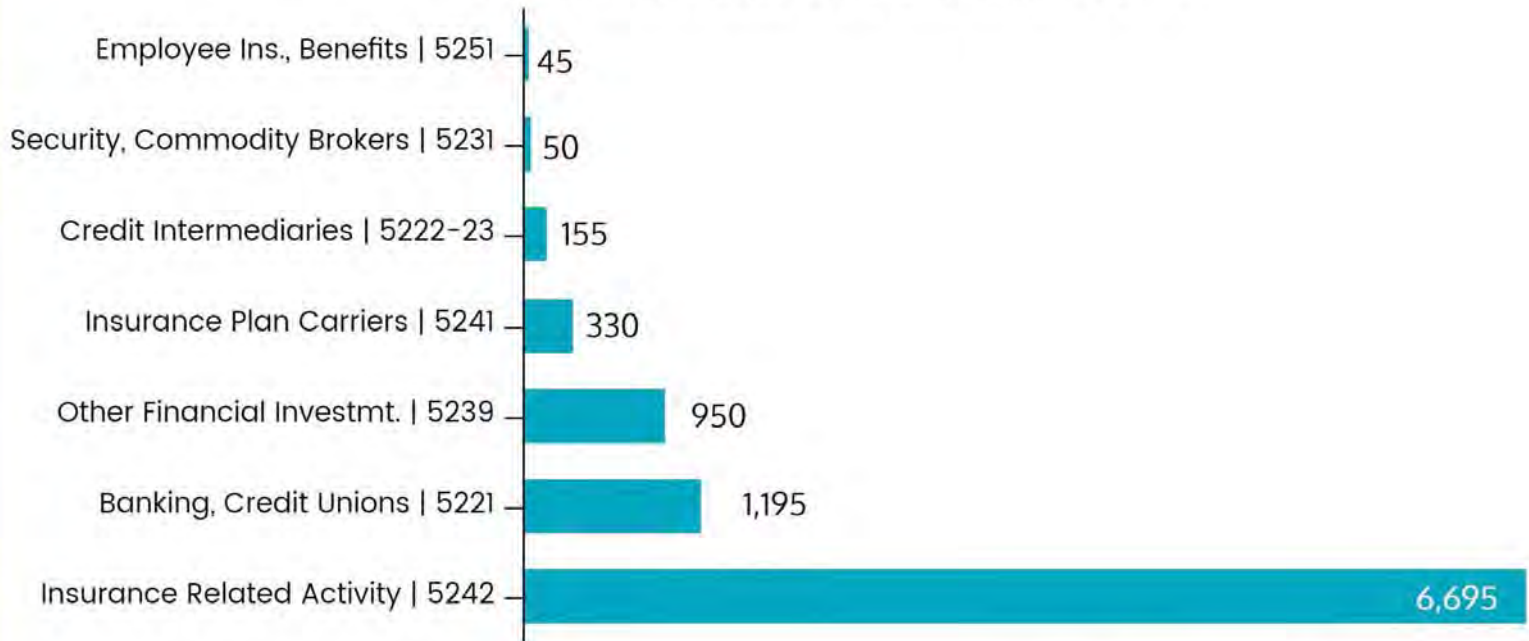
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Finance & Insurance

A study of employer-filled positions within selected industries.

NAICS 52

Number of Employer Filled Positions
North of Interstate 90 | Erie County, PA



Top Employers Zip Code 16507 Only

- 5241 | Coventry Health Care Plans (<250 filled jobs)
- 5239 | Financial, Investmt. Advisory Services
 - UBS Financial Advisory Svc (<50)
 - B K Sorce Financial Investmt. (<20)
 - Hbk S Wealth Advisors - Investmt. (<20)
 - BNY Mellon Wealth Mngmt. (<20)
 - Merrill Lynch Wealth Mngmt. (<20)
 - Wells Fargo - Financial Advisor (<20)
 - Kingdom Financial Group (<20)
 - AXA Advisors - Financial Planning (<20)
 - Waddell & Reed - Financial Planning (<20)
- 5242 | Lillis Mc Kibben Bongiovanni - Ins. (<20)
- 5242 | Northwestern Mutual Financ, - Ins. (<20)
- 5251 | C H Reams - Employee Benefits (<20)

Top Employers Other City Zip Codes

- 5242 | Erie Insurance Group (<5,000 filled jobs)
- 5242 | Highmark Blue Cross Blue Shield (<250)
- 5239 | Erie Management Group (<100)
- 5239 | Legend Group Inc (<100)
- 5221 | Northwest Savings Bank (<100)

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



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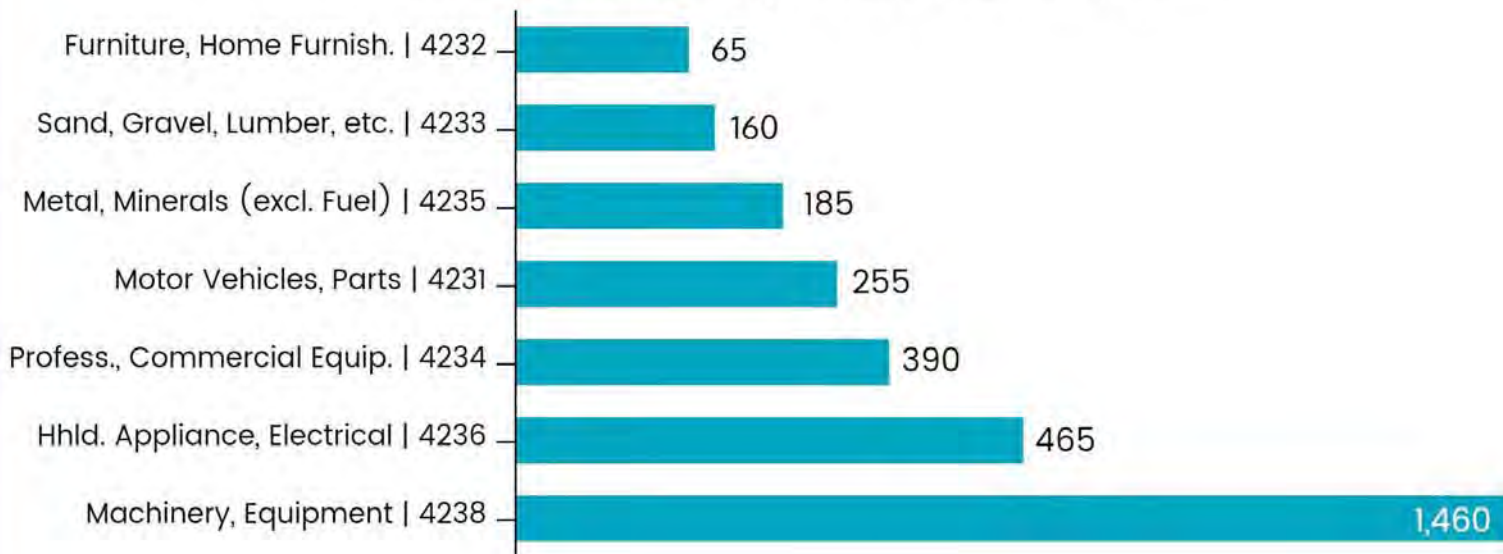
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Wholesale Trade

A study of employer-filled positions within selected industries

NAICS 423

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511



Top Employers Zip Code 16507 Only

4233 | Erie Sand & Gravel (<50)
4238 | Janitors Supply Co. (<50)
4238 | Niagara Machine - Sweepers (<20)
4236 | Knoll Security - Control Equipment (<20)
4235 | Sidehill Copper Works (<10)
4239 | Fireline Group - Fire Extinguishers (<10)
4238 | Laser Calibration Systems - Inspection (<5)

Top Employers Other City Zip Codes

4239 | Bush Industries Inc Logistics (<500)
4239 | Eriez Manufacturing (<500)
4238 | Erie Strayer (<250)
4251 | Kold-Draft Refrigeration (<100)
4238 | Cleveland Brothers Equipment (<100)
4238 | GE Transportation (<100)
4239 | Liberty Iron & Metal (<100)

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

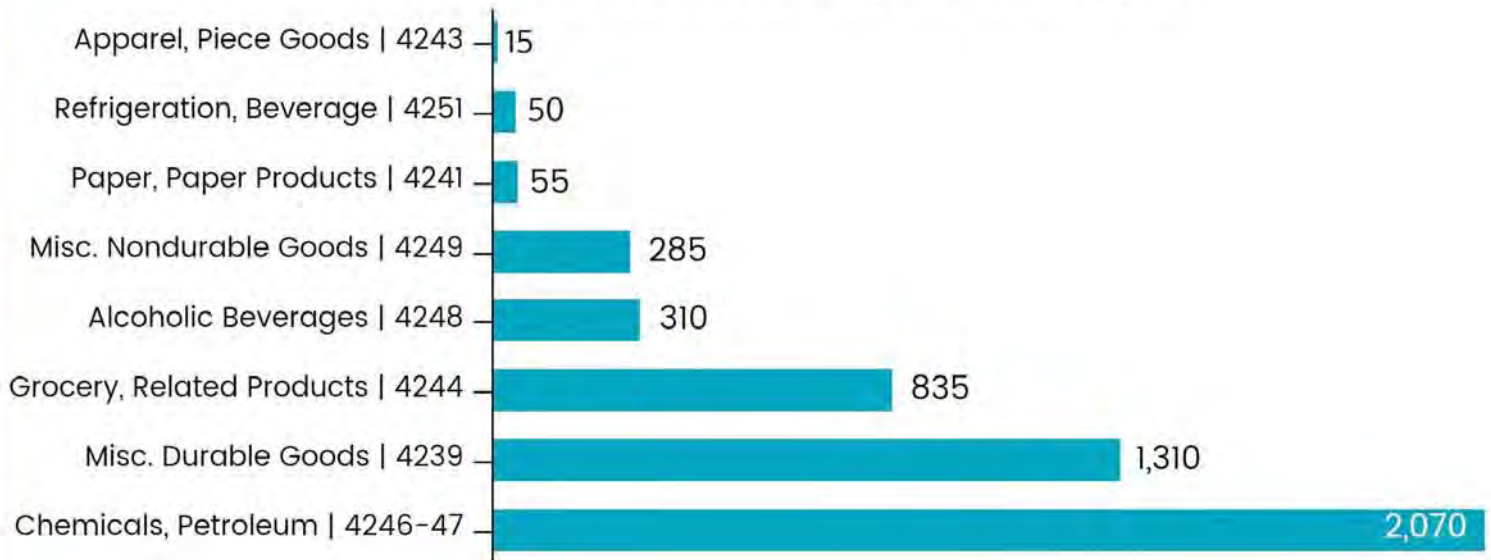
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Wholesale Trade

A study of employer-filled industries within selected industries.

NAICS 424 & 425

Number of Employer Filled Positions
North of Interstate 90 | Erie County, PA



Top Employers Zip Code 16507 Only

4248 | Gerboth - Beer & Ale (<5 filled jobs)
4248 | Crystal Bottling Works - Beer & Ale (<5)
4251 | Slush Puppie - Bev. Dispense Equip. (<10)

Top Employers Other City Zip Codes

4246 | Lord Corp. (<1,000 filled jobs)
4244 | C A Curtze Food Service (<500)
4244 | Specialty Steak (<100)
4248 | Erie Beer Co. (<100)
4248 | Glenwood Beer Distributors (<100)
4249 | Ashby Co Publishers (<100)
4251 | Kold-Draft Refrigeration (<100)

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

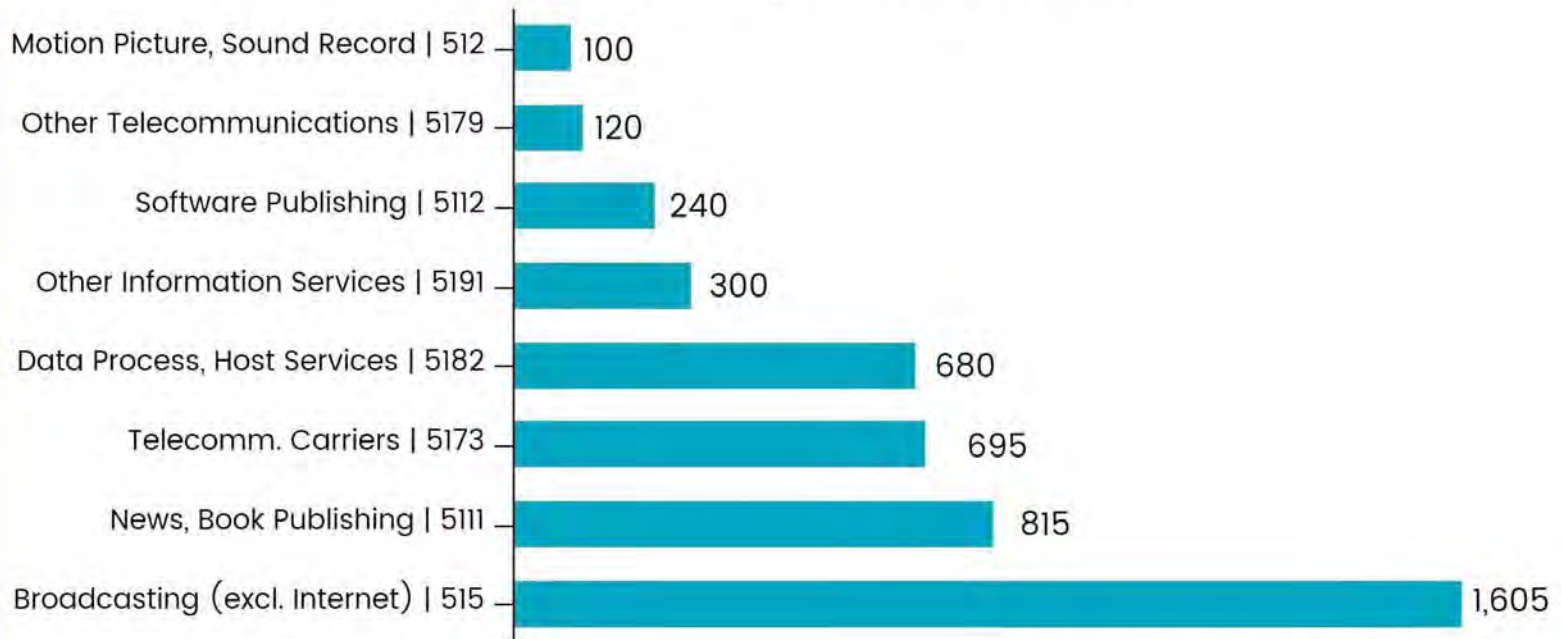
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Information

A study of employer-filled positions within selected industries.

NAICS 51

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511



Top Employers Zip Code 16507 Only

5191 | Profess. Messaging Svc (<100 filled jobs)
5191 | Erie County Public Library (<50)
5182 | Stargate Industries - Internet Service (<10)
5182 | Time Warner Cable - Internet Service (<10)
5179 | Info Systems - Information Brokers (<5)
5191 | Executivepulse - Info. & Referral Svc (<5)

Top Employers Other City Zip Codes

5173 | Verizon Wireless (<500 filled jobs)
Between 100 and 250 filled job positions
5111 | Erie Times-News
5182 | Fiserv Data Output Solutions
5151 | Jet Radio
5182 | Local Net Internet Svc
5111 | Times Publishing Co
5151 | WJET

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

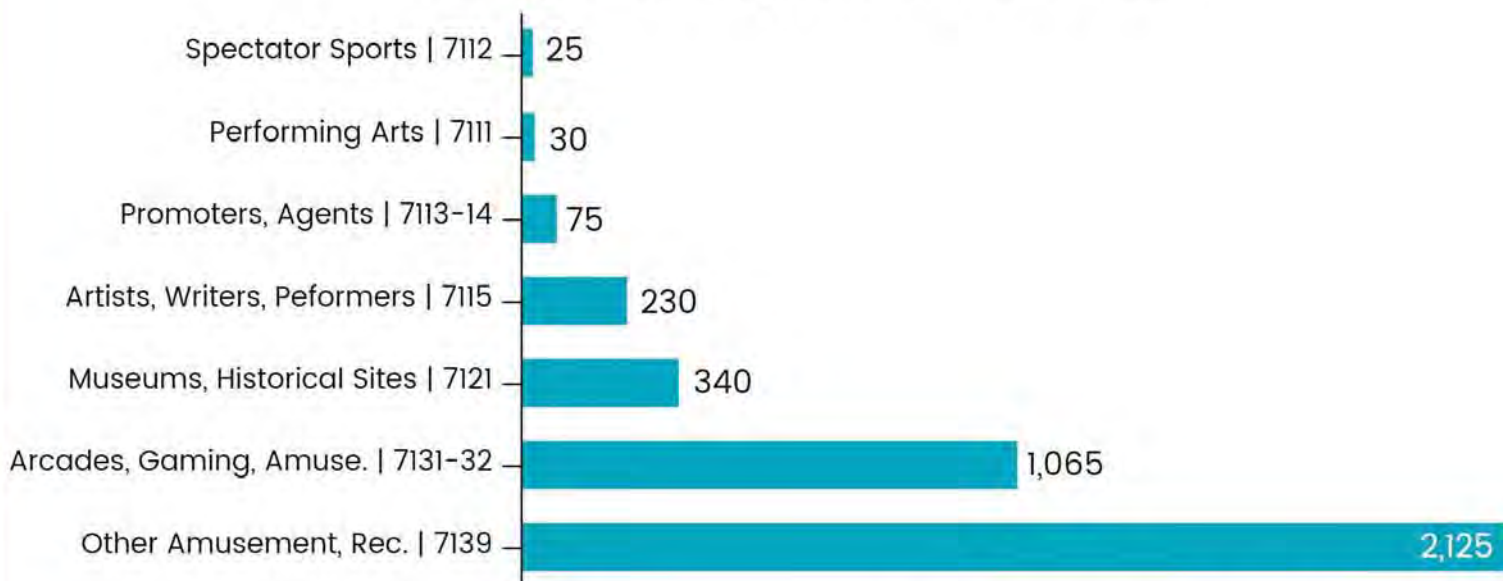
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Arts, Entertainment, Recreation

A study of employer-filled positions within selected industries.

NAICS 71

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511



Top Employers | Zip 16507 North of Bayfront Pkwy

7139 | Marinas and Related
Perry's Landing Marina (<20)
Wolverine Park Marina (<5)
Bay Harbor Marina Svc (<5)

Other Venues

7139 | Harbor View Mini Golf (<10)
7139 | Hirt Auditorium (<5)
7121 | Niagara Concession (<10)
7121 | Erie Maritime Museum (<10)
7121 | Flagship Niagara League (<5)

Top Employers | Zip 16507 South of Bayfront Pkwy

7121 | Museums
Erie County History Society (<20)
Firefighters Historical Museum (<10)
Experience Childrens Museum (<10)
Watson Curtze Mansion (<5)

7121 | Arts Erie - Information (<10)
7115 | Music Dynamics - Live (<5)

Other City Zip Codes

7131 | Waldameer Park (<500)
7132 | Presque Isle Downs, Casino (<500)
7139 | Erie Insurance Arena (<250)
7139 | Pennbriar Tennis, Health (<250)
7139 | Metro Dance Club (<50)
7121 | Millcreek Parks, Rec. (<50)
7121 | Erie Zoo (<50)
7121 | Presque State Park (<50)
7115 | In All Seriousness (<50)

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



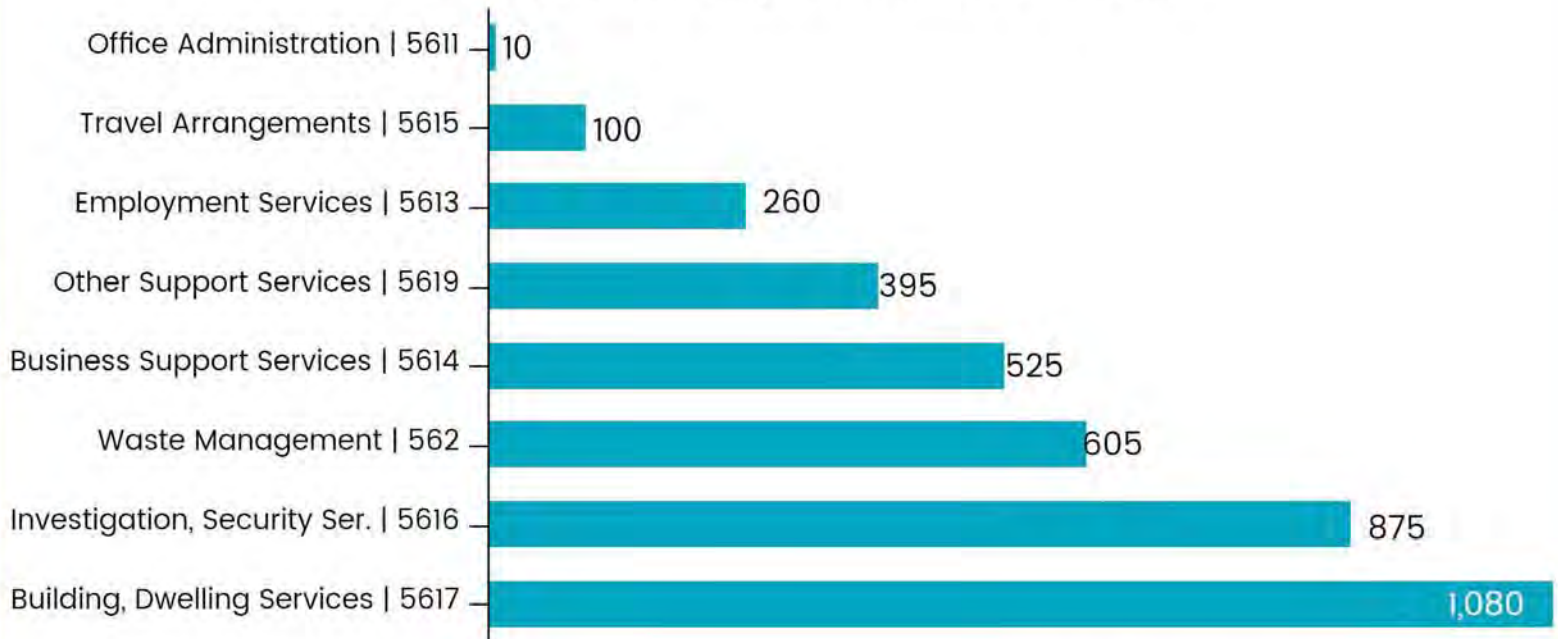
Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

Admin. Support, Waste Mngmt.

A study of employer-filled positions within selected industries.

NAICS 56

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511



Top Employers Zip Code 16507 Only

5617 | Building and Dwelling Services
Pro Floor Care - Janitors (<50)
Abolish Pest Management (<5)
Garnica Landscaping (<5)
Everclean Fire Damage Restore (<5)

5615 | Visit Erie - Tourist Information (<20)
5615 | Tell No Tales Charters (<5)
5615 | Presque Boat Tours (<5)

5614 | Ferguson, Holdnack Reporting (<10)
5619 | Mid Amer. Nat. Resource (<10)
5621 | AAAA 4 Star Garbage Haul (<5)

Top Employers Other City Zip Codes

5614 | Dial America Call Center (<250)
5614 | Key Stone Research, Bus. Dev. (<50)
5614 | Teleplex Call Center (<50)
5613 | PA Careerlink Temp. Emplmt. (<100)
5613 | Career Concepts Staffing (<50)
5619 | RGIS Inventory Specialists (<100)
5619 | Hagan Business Machines (<50)
5619 | Menasha Packaging Svc. (<50)

5616 | Securitas Guards, Patrols (<500)
5616 | ADT Home Security Systems (<50)
5617 | Apex Cleaning Service (<100)
5617 | Dahlkemper Landscp Archtcts (<50)
5617 | Kunco Landscape Design (<50)
5621 | Waste Mngmt. of Erie (<250)
5629 | Liberty Iron, Metal Recycling (<100)

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

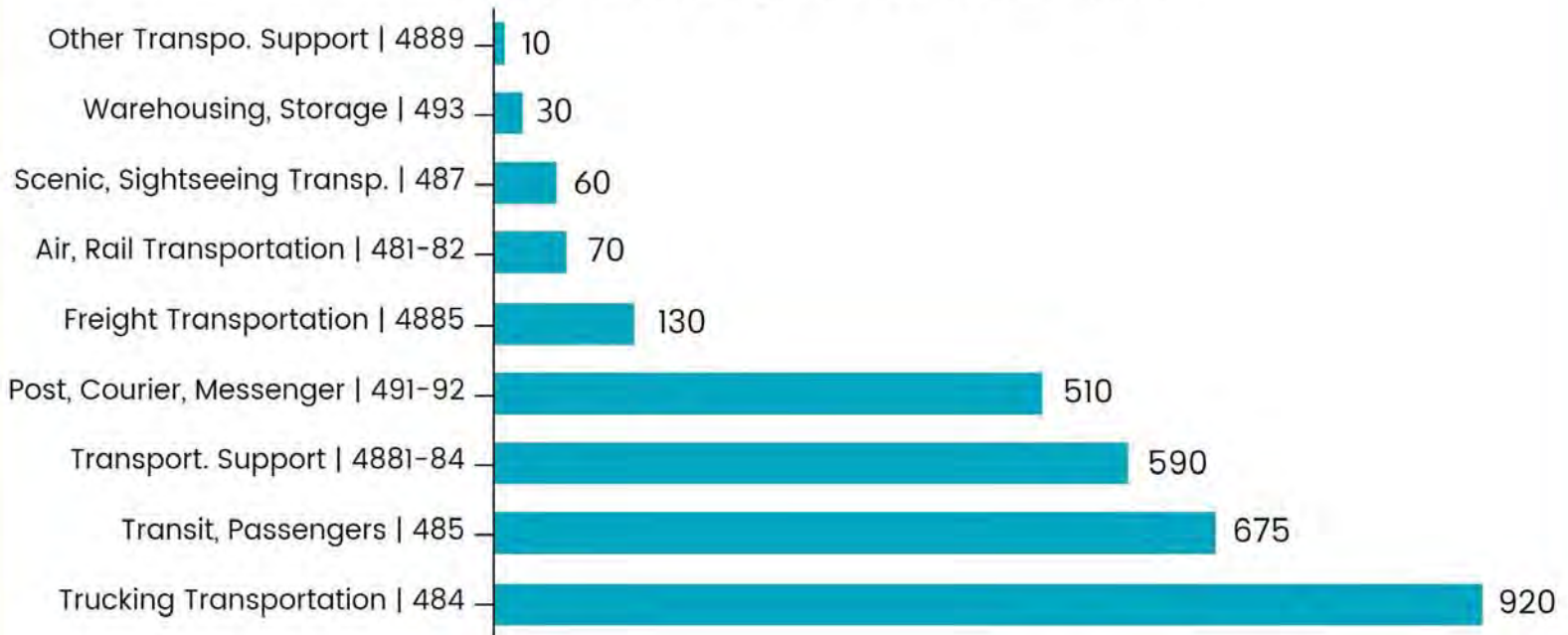
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Transportation & Warehousing

A study of employer-filled positions within selected industries.

NAICS 48 & 49

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 – 16511



Top Employers Zip Code 16507 Only

4884 | Lakeshore Towing (<20 employees)
4883 | Port of Erie – Marine Cargo Handling (<10)
4872 | Port Erie Sports – Boats Rental, Charter (<5)
4841 | Greyhound Package Xpress, Delivery (<5)
4852 | Greyhound Lines – Bus Lines (<5)

Top Employers Other City Zip Codes

4911 | US Post Office (<500)
4842 | UPS Freight (<50)
4842 | Presque Isle Trucking (<250)
4842 | ABF Freight System (<50)
4842 | XPO Logistics (<50)
4842 | Central Transport (<50)
4842 | US Bulk Transport (<50)
4821 | CSX Rail Transportation (<20)
4859 | Chat-Mi Crating Handling (<50)
4872 | Presque Isle Boat Tours (<20)
4882 | Solvedt Enterprises (<100)
4882 | Lift Transportation Program (<100)
4885 | Logistics Plus (<50)

The list on the right side of this page excludes aviation-related transportation; bus services (charter, rental, and school); limousine services; wrecker towing; and moving companies.

Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Utilities

A study of employer-filled positions within selected industries.

NAICS 22

Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511

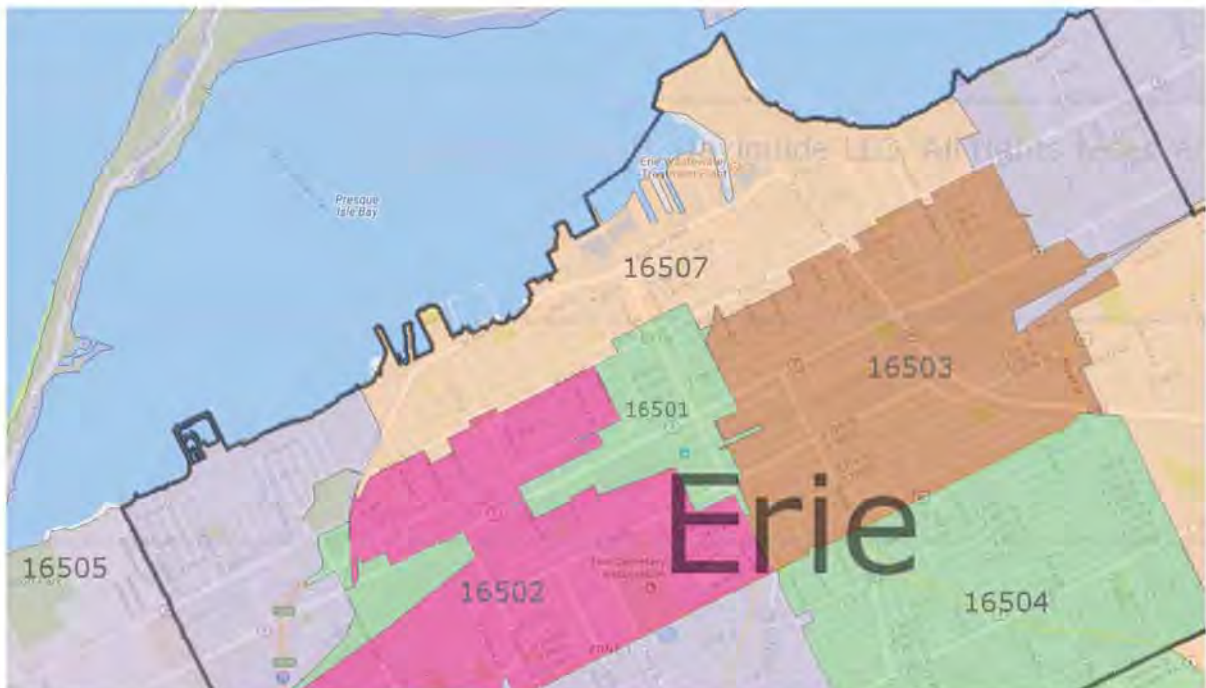


Top Employers Zip Code 16507 Only

2211 | Erie Coke Corporation (<250 filled jobs)
2212 | National Fuel Gas Distrib. Corp. (<250)
2213 | Erie Water Works (<100)

Top Employers Other Zip Codes

2211 | Lewis Getz Electric Company (<20)
2212 | Mid American Natural Gas (<20)
2213 | Millcreek Twp. Water Authority (<20)



Four-digit numbers represent NAICS Codes as defined by the U.S. Census' North American Industrial Classification System. Underlying data is provided by Infogroup and powered by the Pennsylvania Department of Labor and Industry, 2017.

INDUSTRY ANALYSIS

Section G

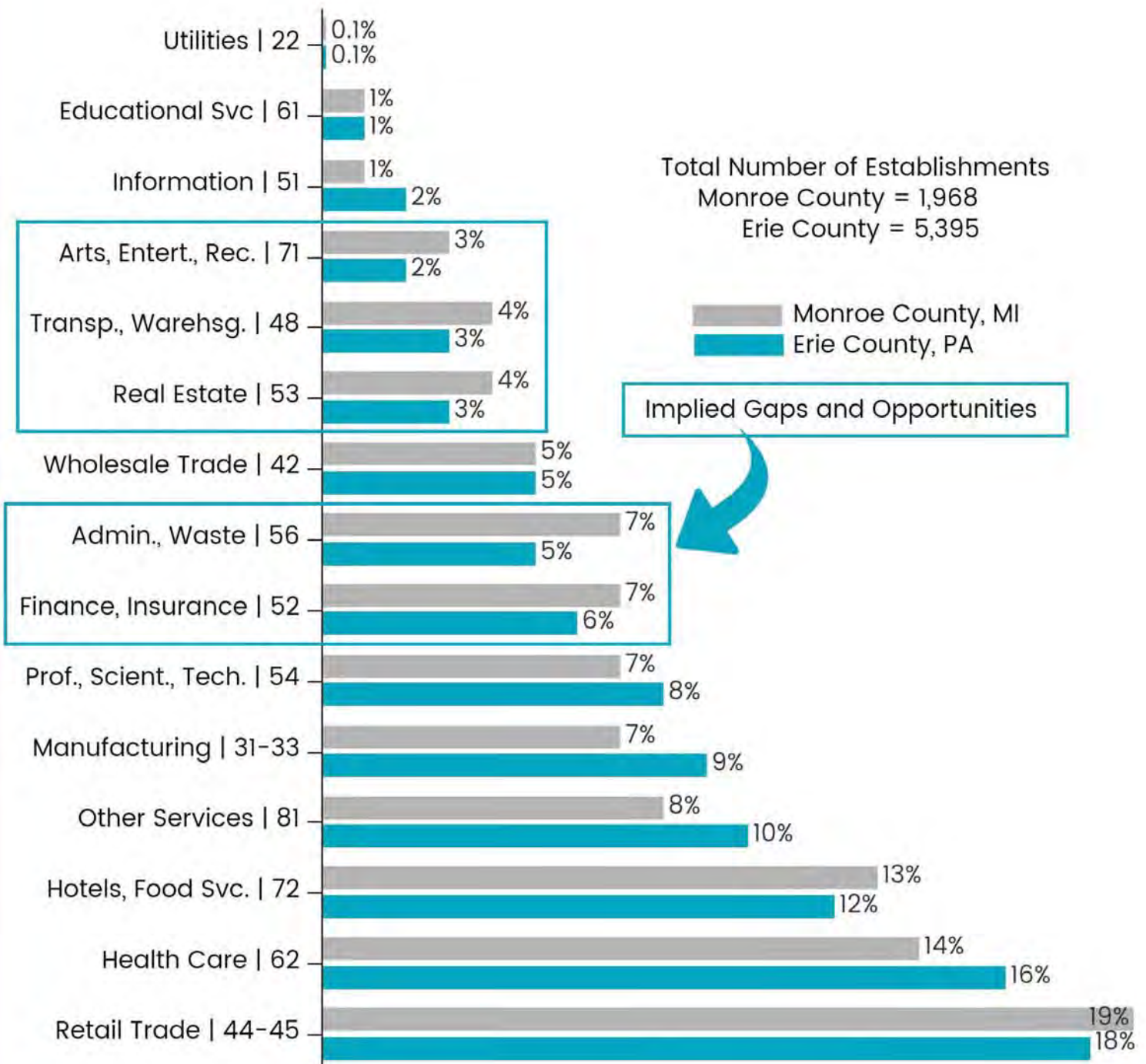
Economic Census | Histograms

Summary of All Categories

A study of existing establishments (share) by industry sector.

NAICS 22 - 81 (ALL)

Erie County v. Monroe County



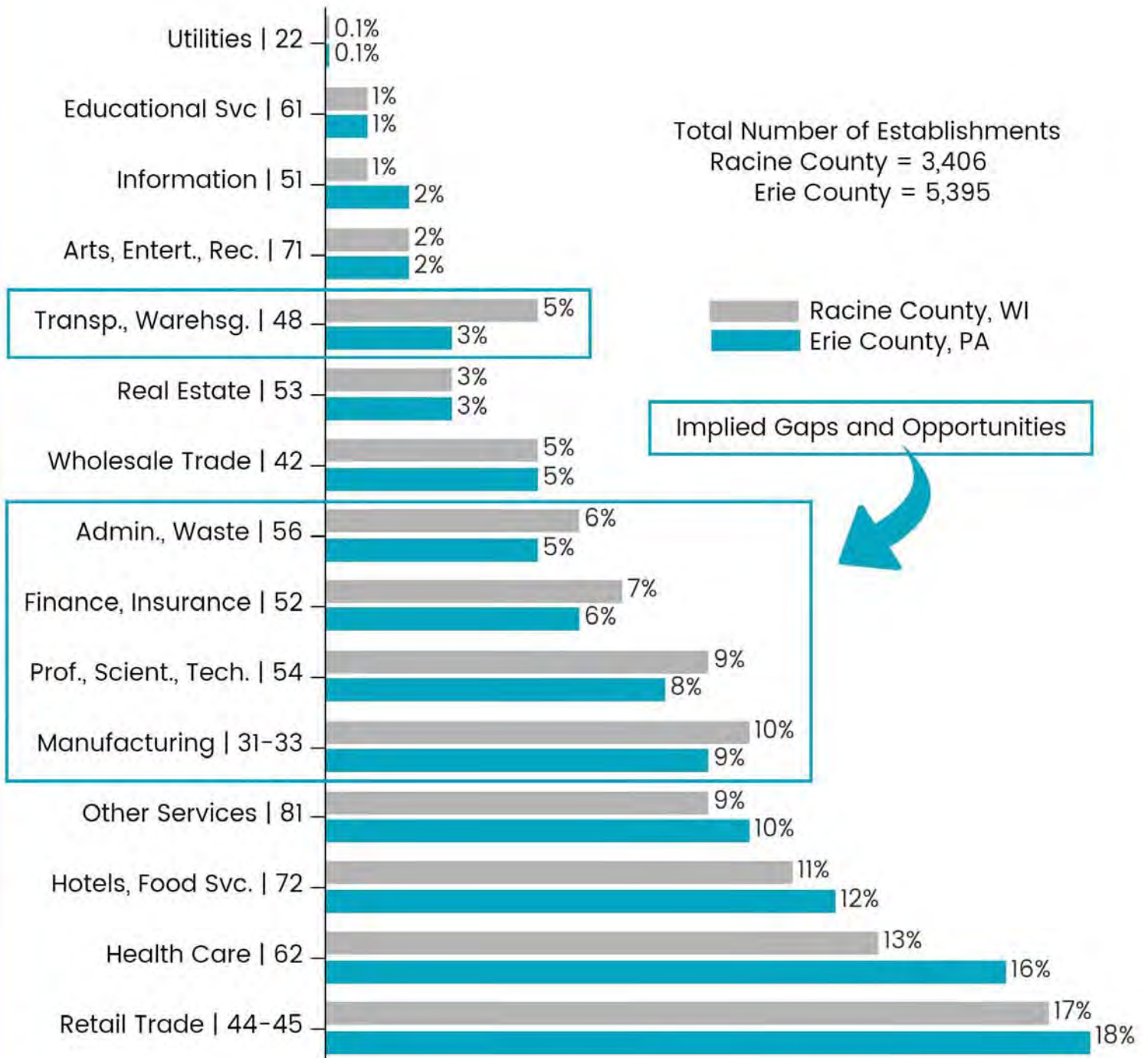
Source: Underlying data provided by the 2012 Economic Census. Results from the 2017 Economic Census will become available in 2019, and an update is recommended at that time.

Summary of All Categories

A study of existing establishments (share) by industry sector.

NAICS 22 - 81 (ALL)

Erie County v. Racine County



Source: Underlying data provided by the 2012 Economic Census. Results from the 2017 Economic Census will become available in 2019, and an update is recommended at that time.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

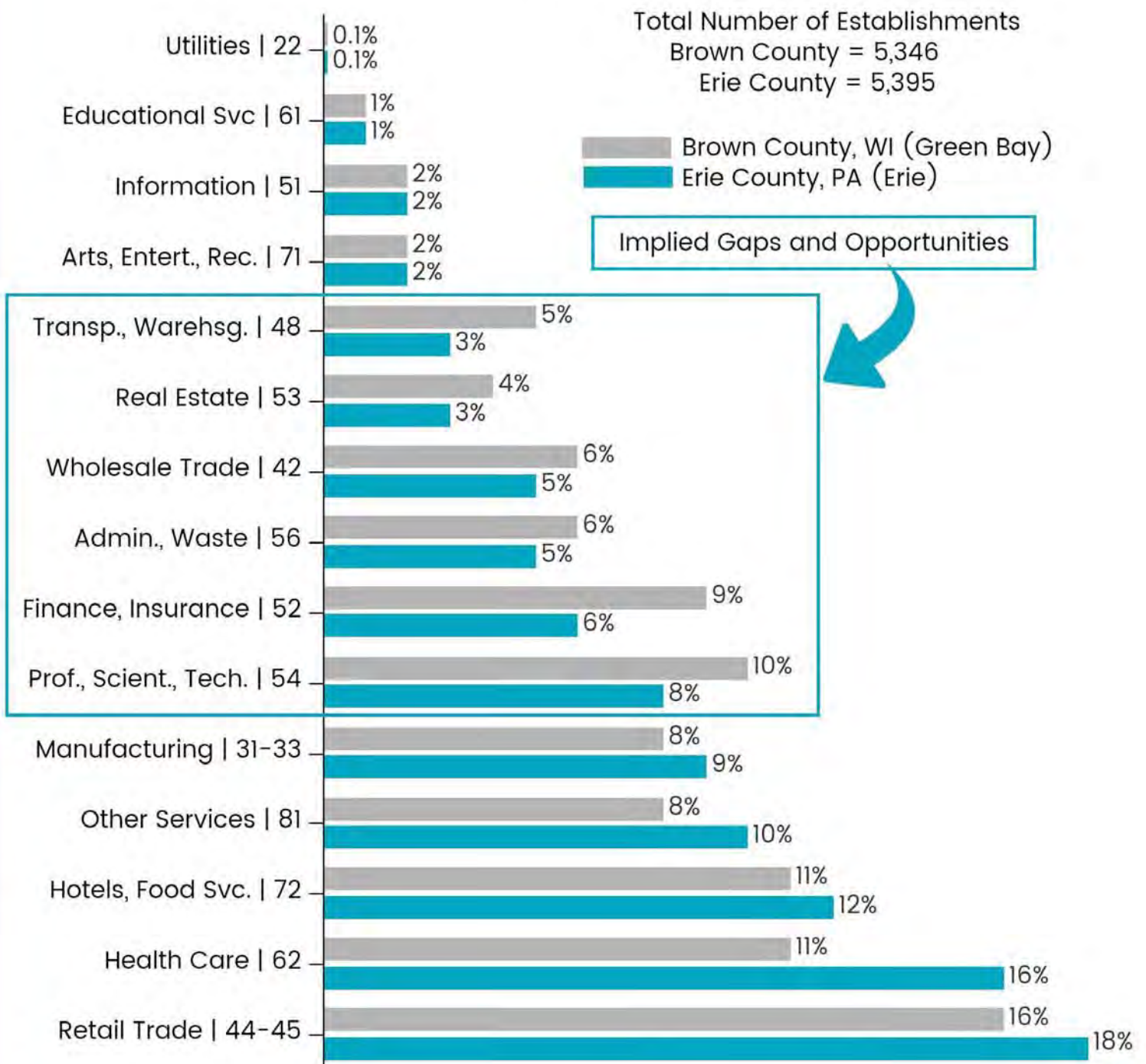
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Summary of All Categories

A study of existing establishments (share) by industry sector.

NAICS 22 - 81 (ALL)

Erie County v. Brown County



Source: Underlying data provided by the 2012 Economic Census. Results from the 2017 Economic Census will become available in 2019, and an update is recommended at that time.



Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.

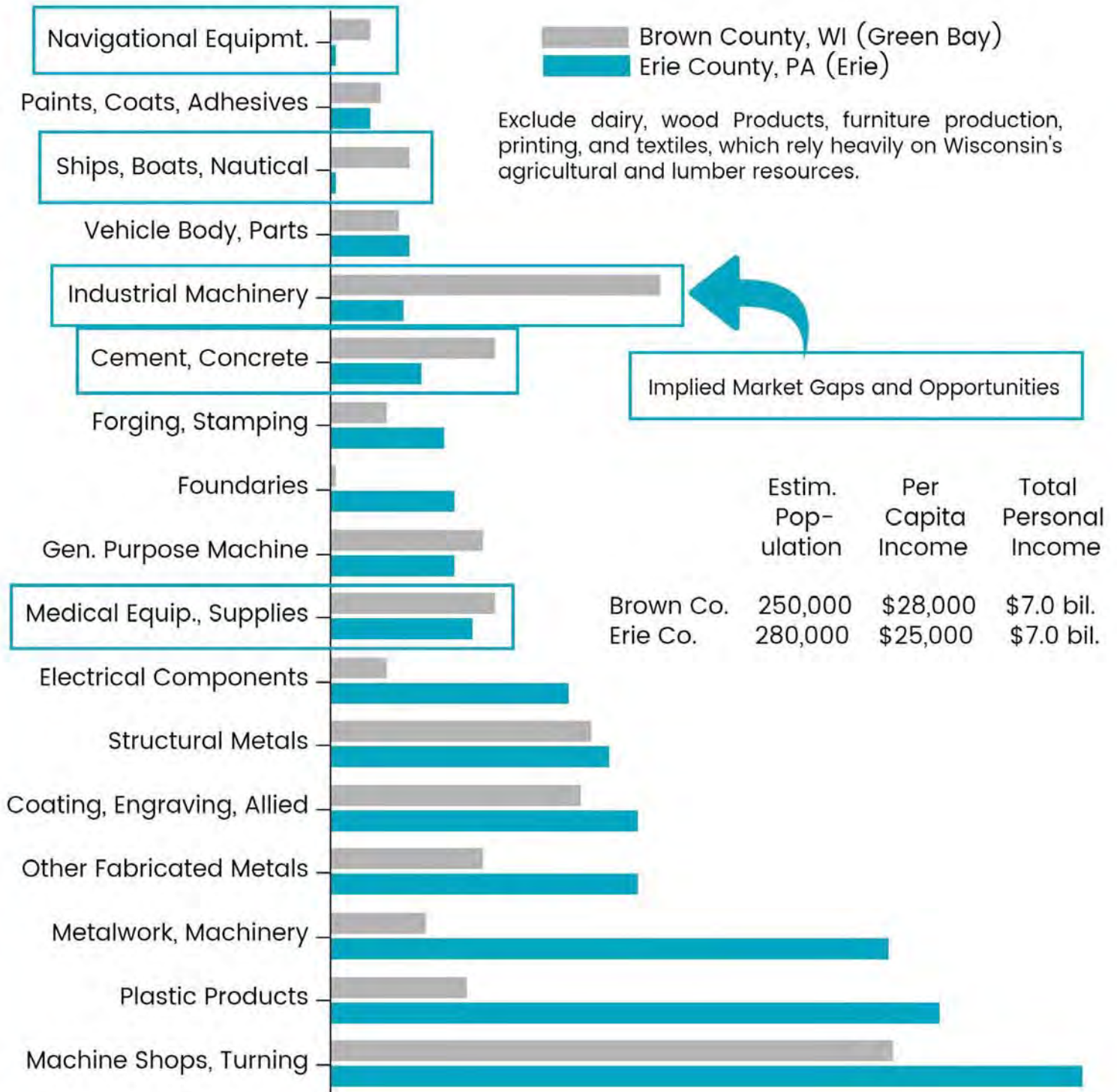
Erie-Western Pennsylvania Port Authority Master Development Plan | 2017

Manufacturing

A study of existing establishments (share) within selected industries.

NAICS 31-33

Erie County v. Brown County



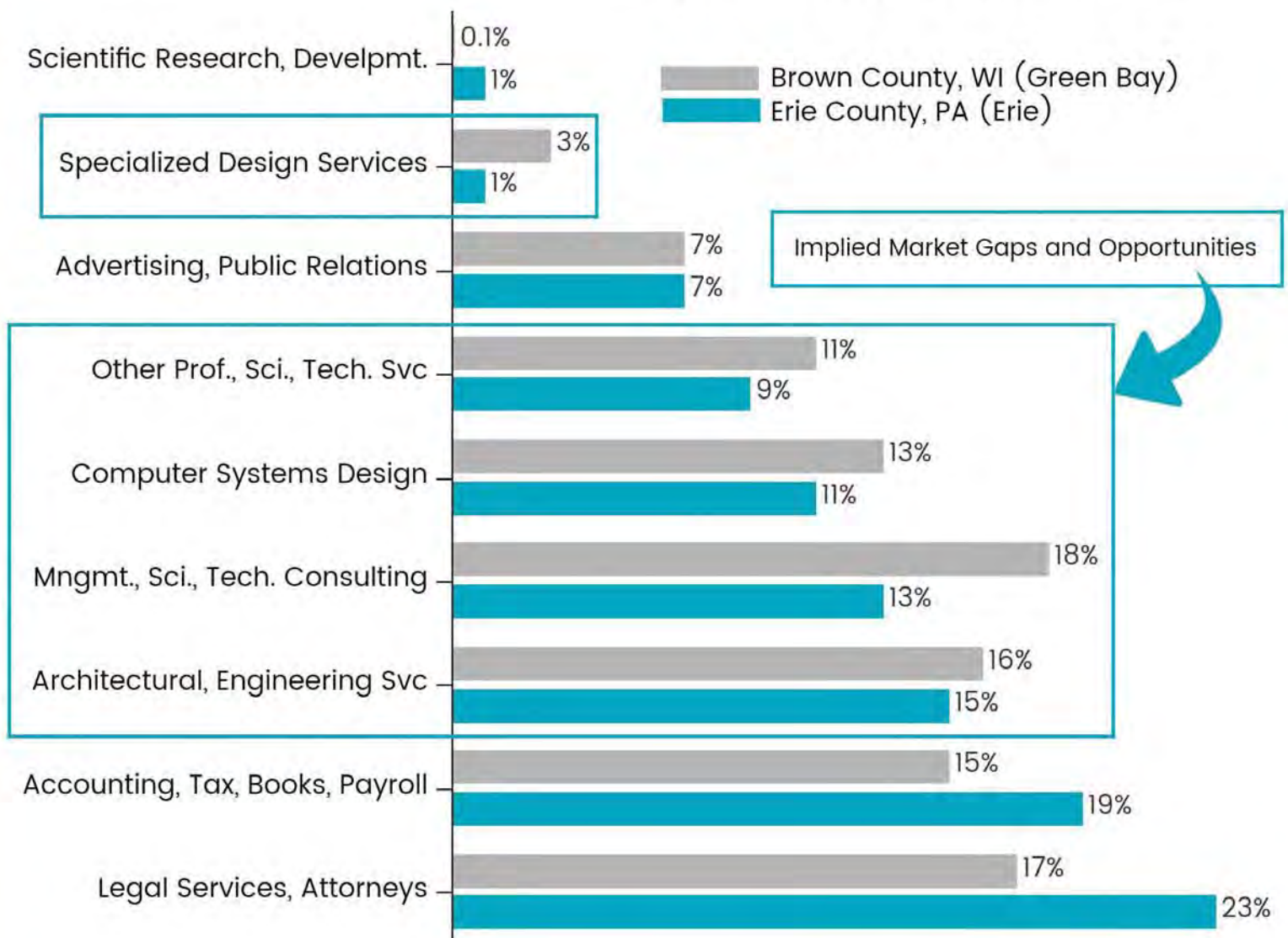
Professional, Scientific, Technical

A study of existing establishments (share) within selected industries.

NAICS 54

Erie County v. Brown County

	Estim. Pop- ulation	Per Capita Income	Total Personal Income
Brown Co.	250,000	\$28,000	\$7.0 bil.
Erie Co.	280,000	\$25,000	\$7.0 bil.



Source: Underlying data provided by the 2012 Economic Census. Results from the 2017 census will become available in 2019, and an update is recommended at that time.

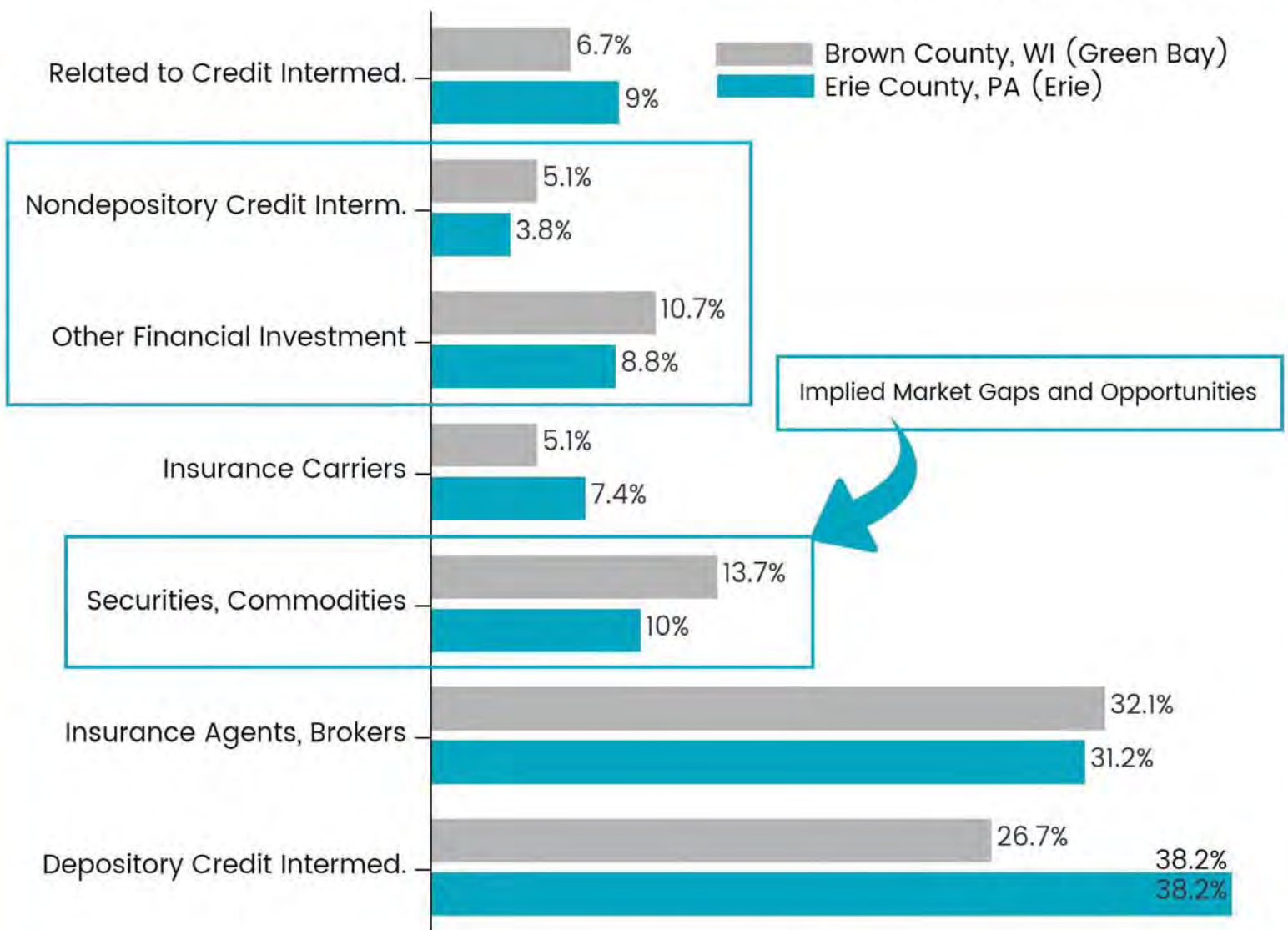
Finance & Insurance

A study of existing establishments (share) within selected industries.

NAICS 52

Erie County v. Brown County

	Estim. Pop- ulation	Per Capita Income	Total Personal Income
Brown Co.	250,000	\$28,000	\$7.0 bil.
Erie Co.	280,000	\$25,000	\$7.0 bil.



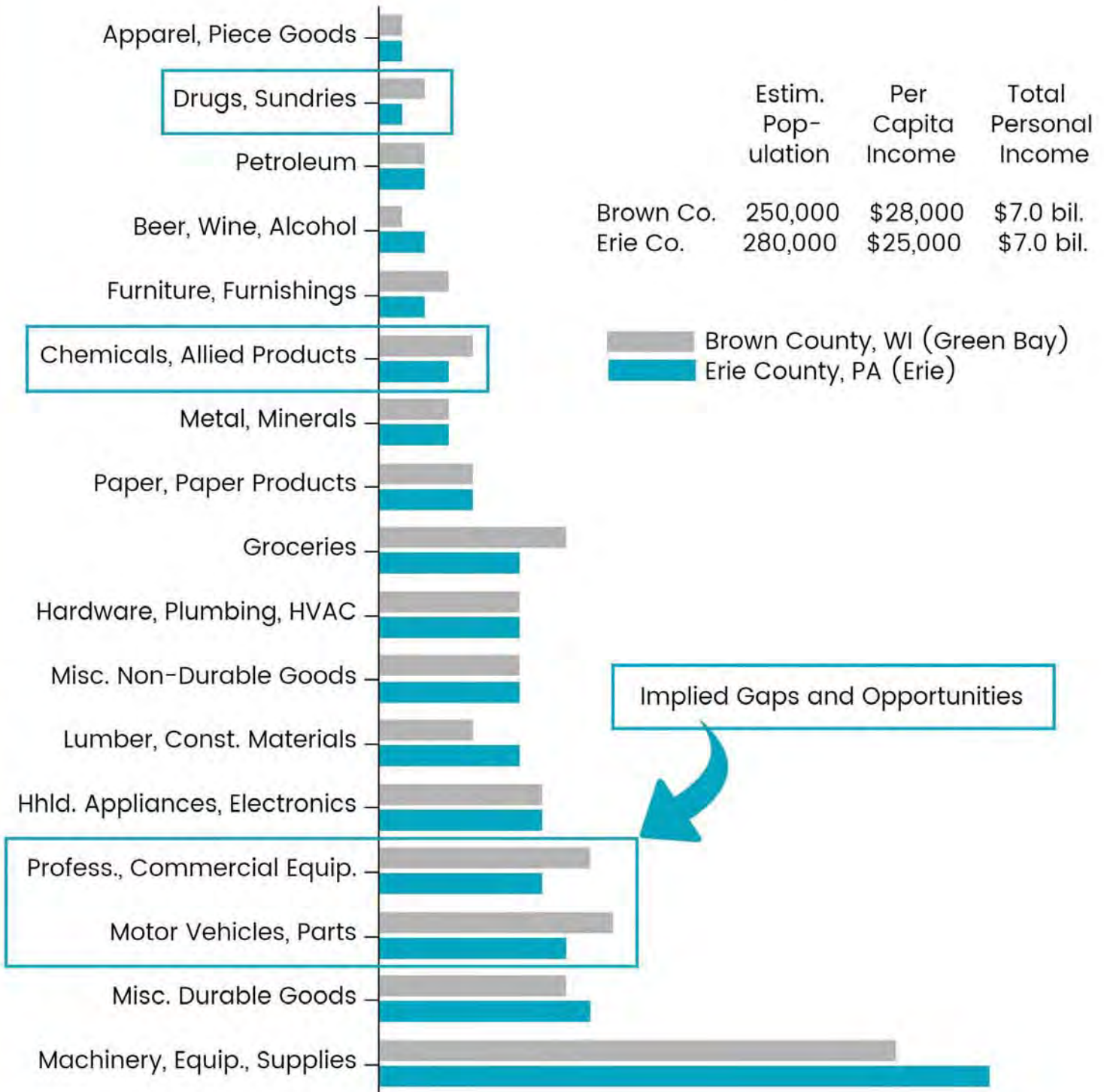
Source: Underlying data provided by the 2012 Economic Census. Results from the 2017 census will become available in 2019, and an update is recommended at that time.

Wholesale Trade

A study of existing establishments (share) within selected industries.

NAICS 42

Erie County v. Brown County



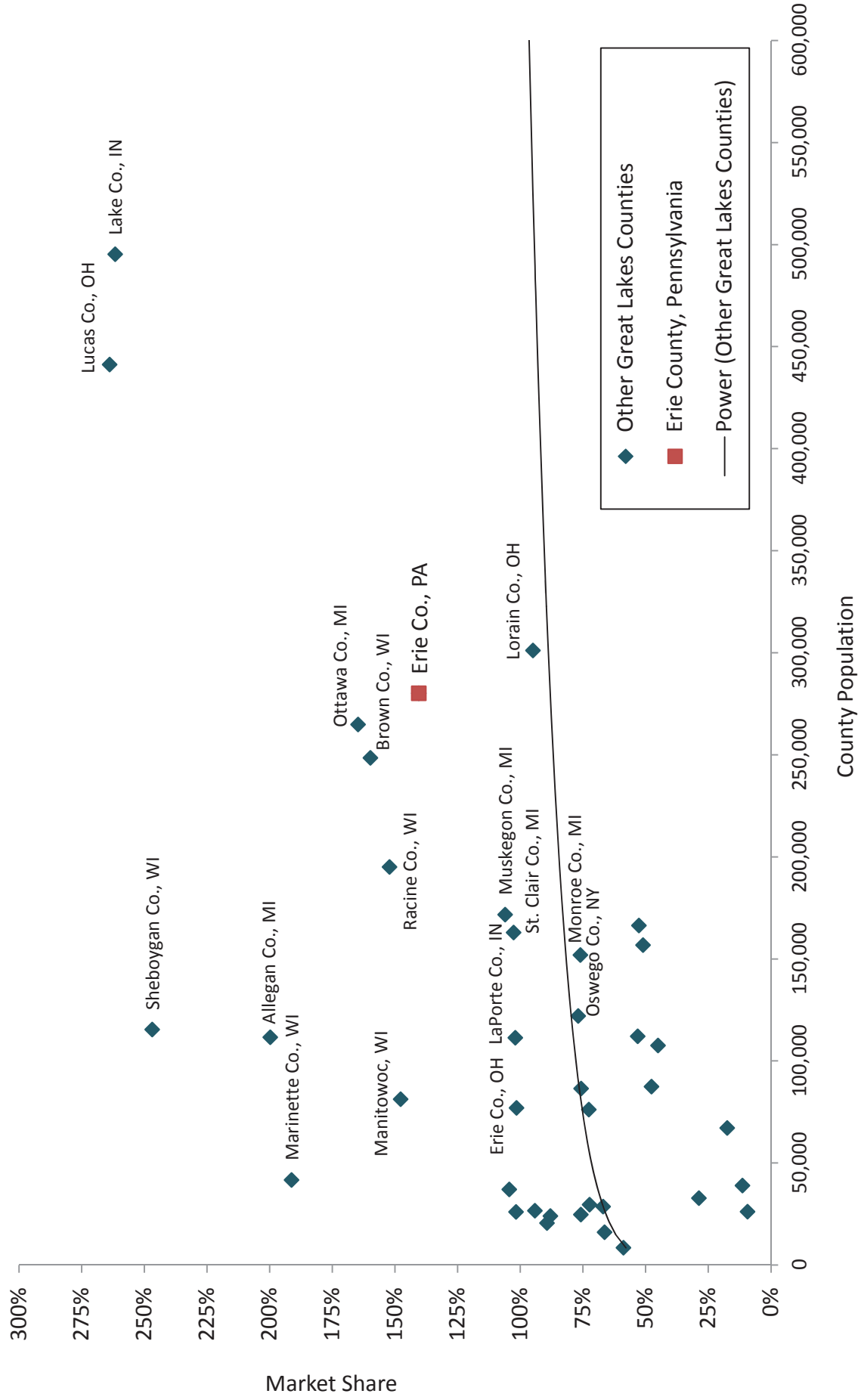
INDUSTRY ANALYSIS

Section H

Economic Census | Scatter Plots

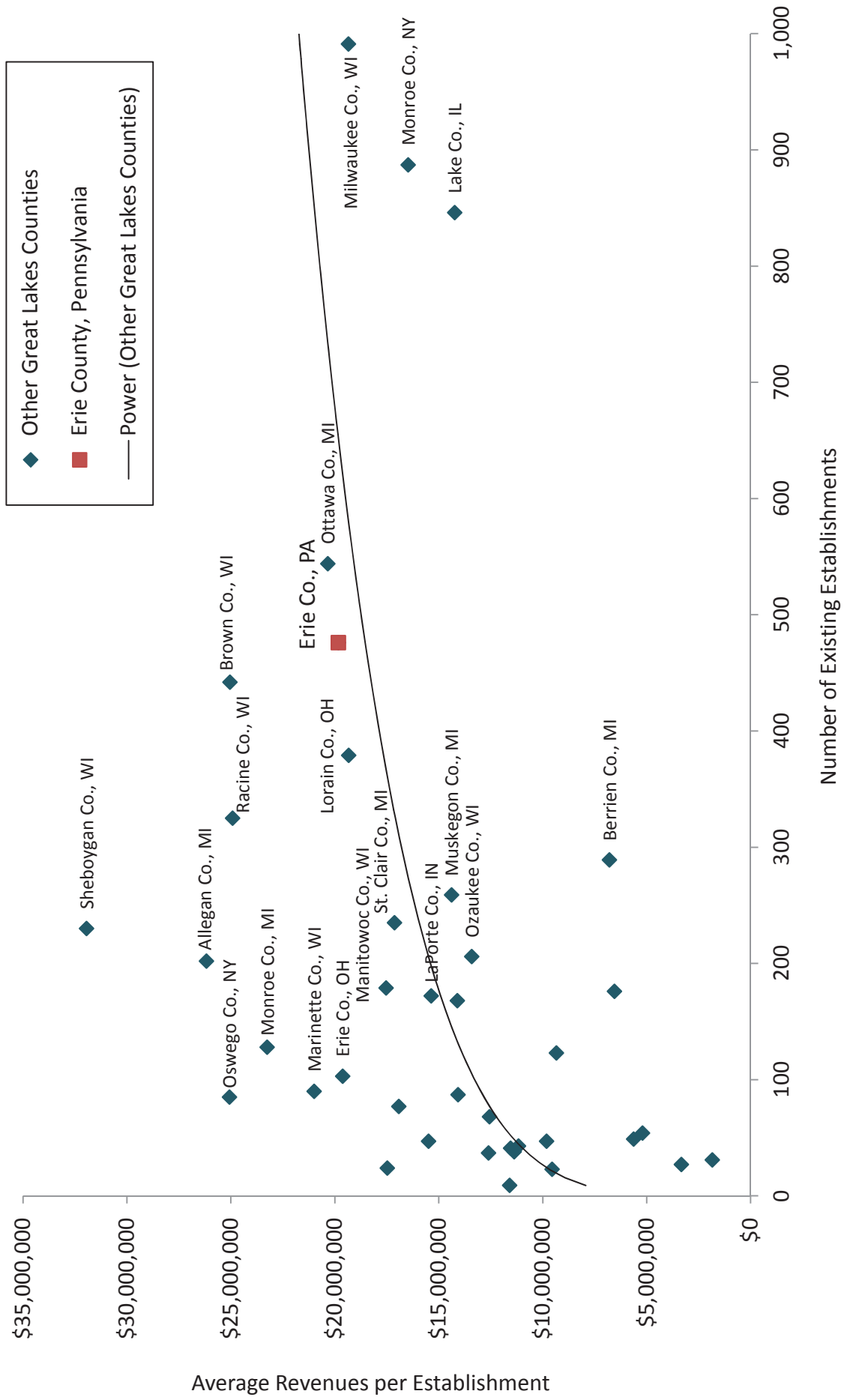
Market Share | Manufacturing

Erie County, Pennsylvania v. Other Great Lakes Counties



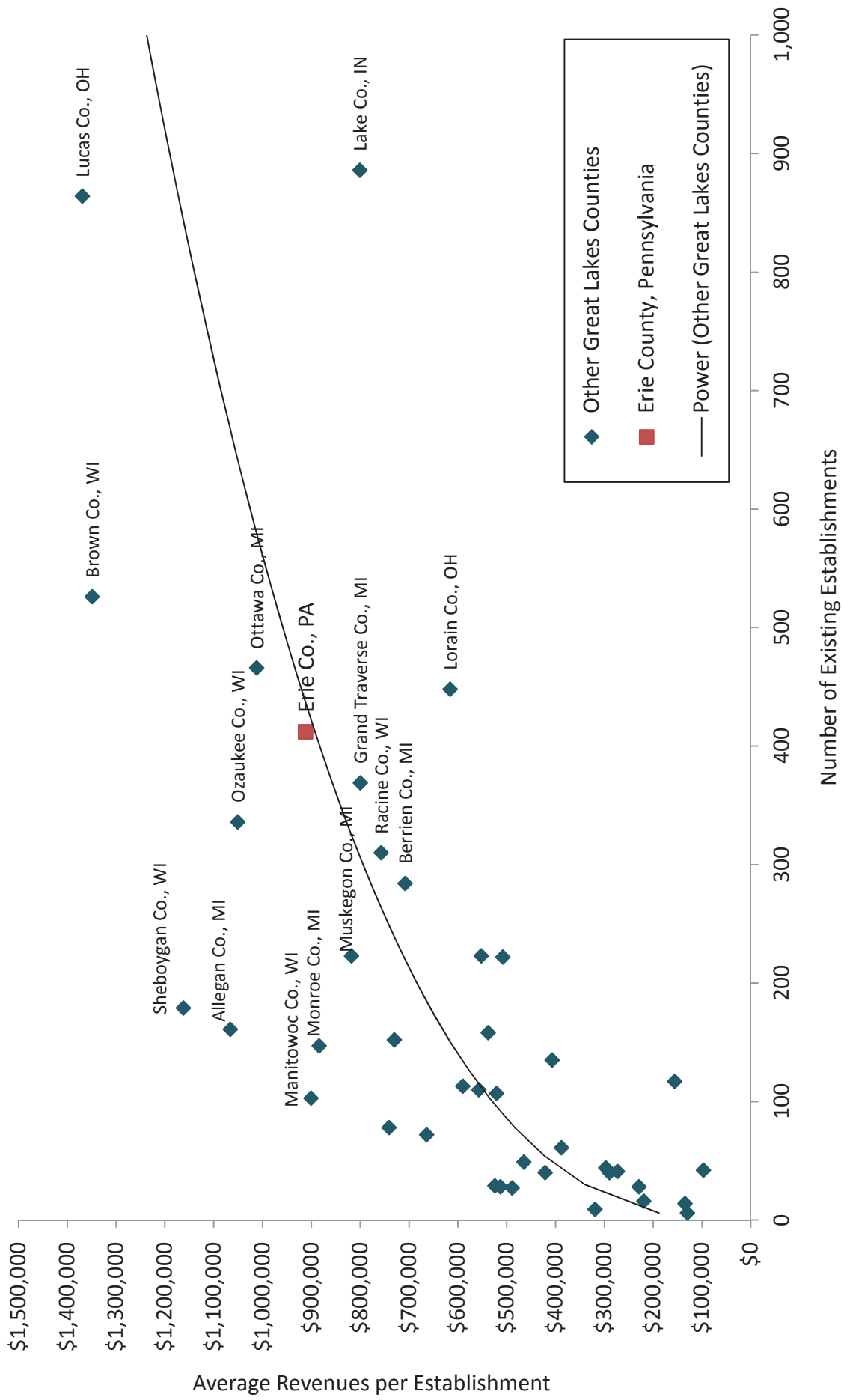
Market share is a measure of transacted sales or revenues compared to total personal income within the respective county. Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017. Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

Average Revenues per Establishment | Manufacturing Erie County, Pennsylvania v. Other Great Lakes Counties



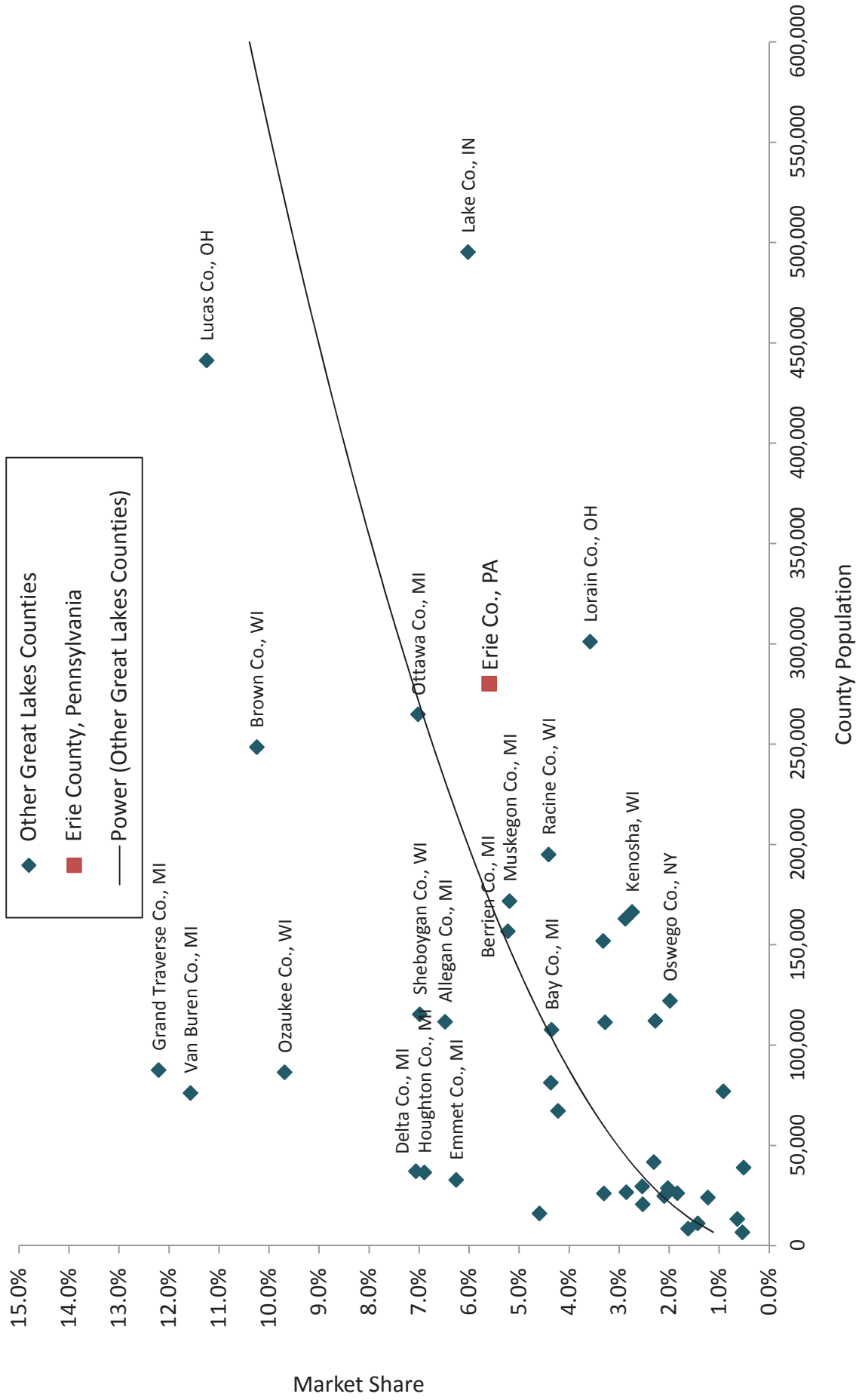
Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017.
Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

Average Revenues per Establishment | Professional, Scientific, Technical
Erie County, Pennsylvania v. Other Great Lakes Counties



Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017.
Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

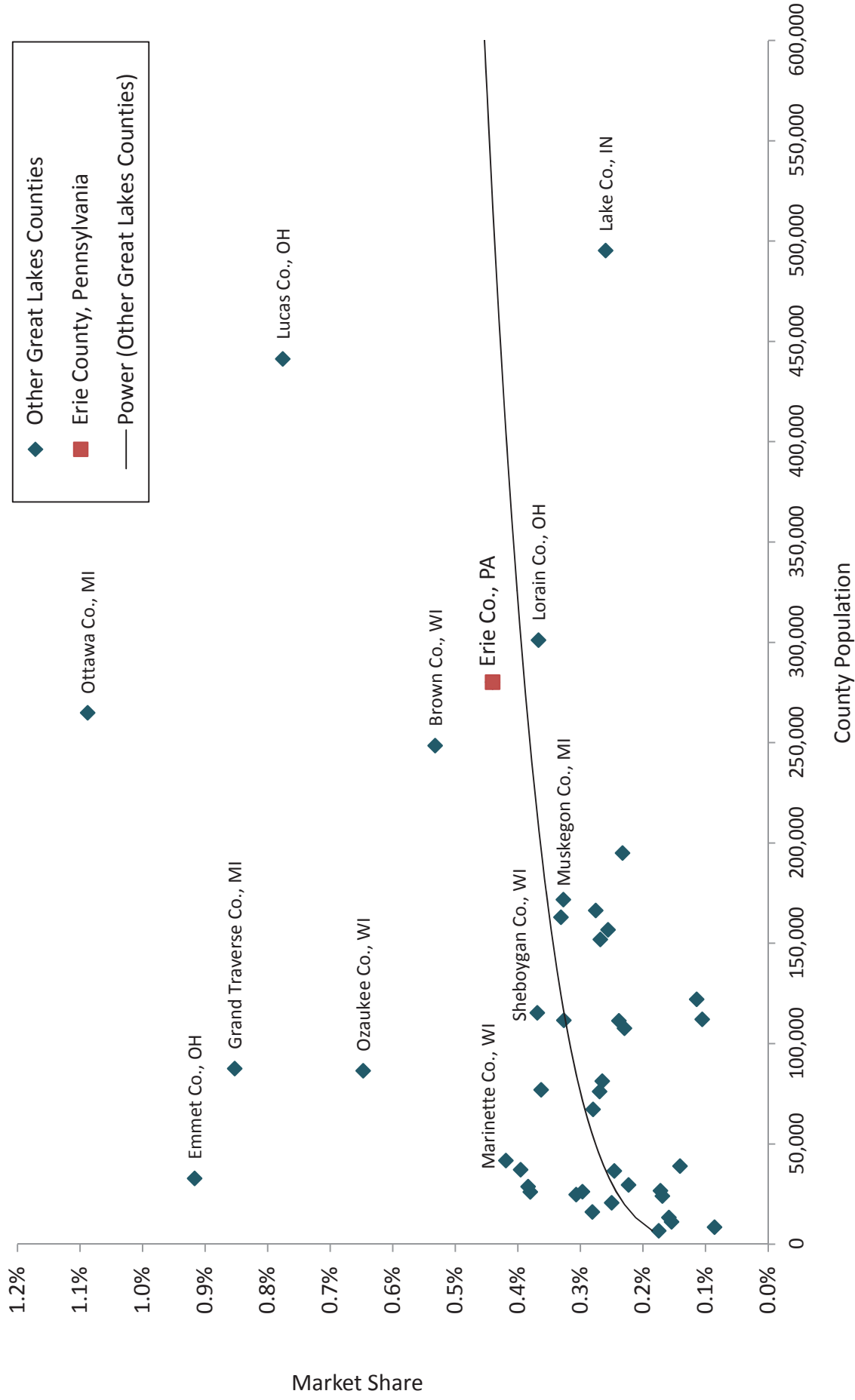
Market Share | Professional, Scientific, Technical Erie County, Pennsylvania v. Other Great Lakes Counties



Market share is a measure of transacted sales or revenues compared to total personal income within the respective county. Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017. Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

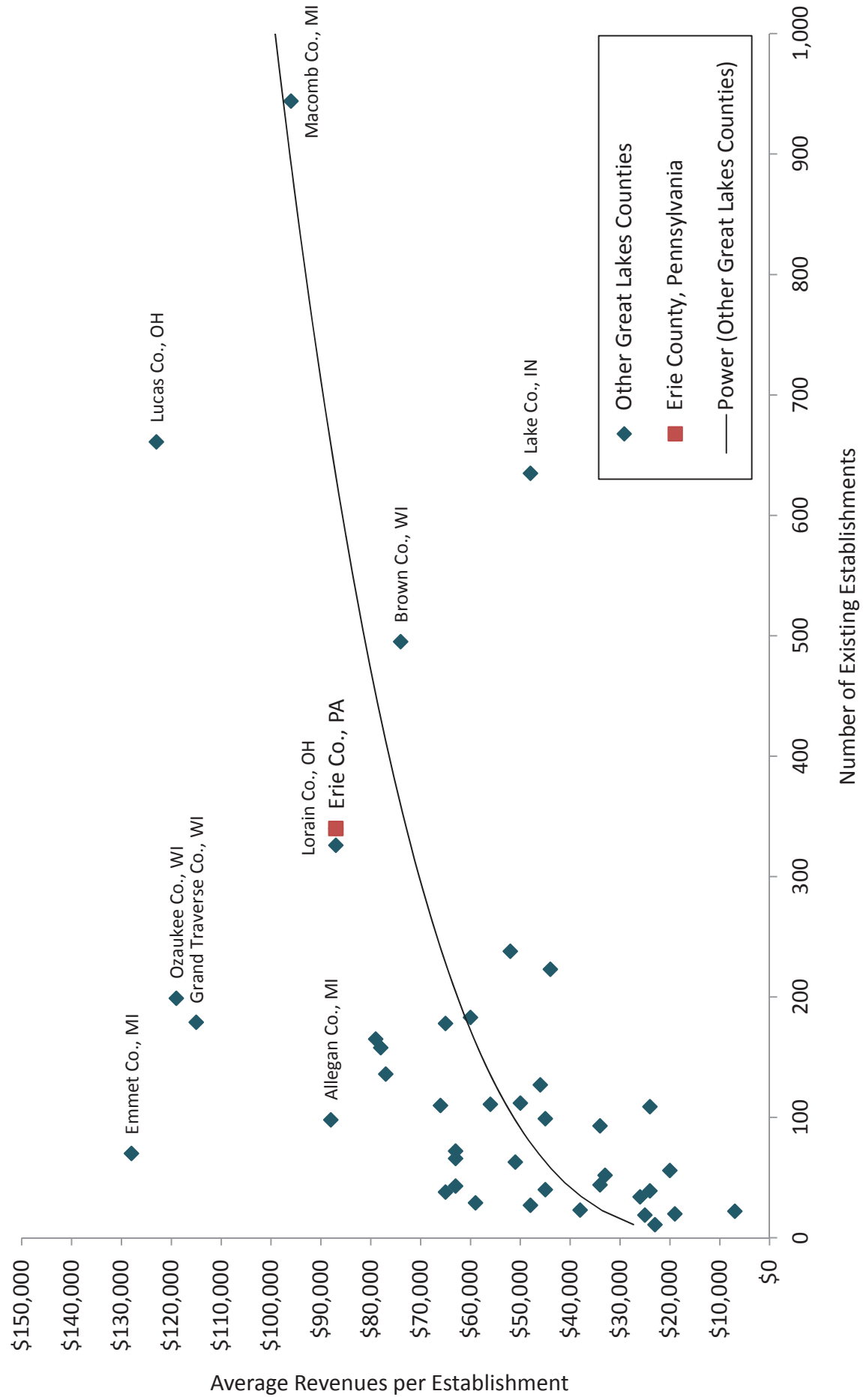
Market Share | Finance and Insurance

Erie County, Pennsylvania v. Other Great Lakes Counties



Market share is a measure of transacted sales or revenues compared to total personal income within the respective county. Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017. Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

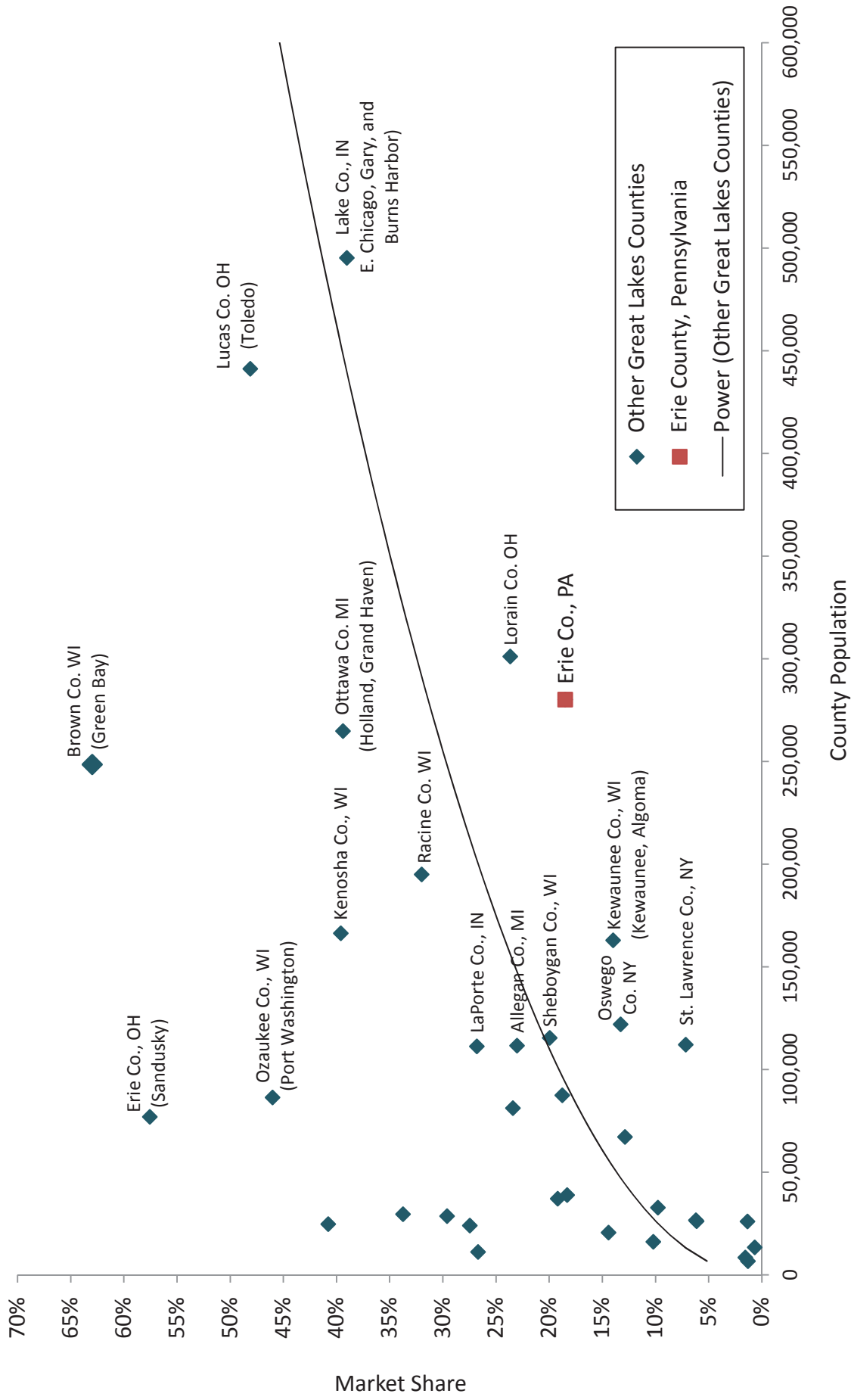
Average Revenues per Establishment | Finance and Insurance Erie County, Pennsylvania v. Other Great Lakes Counties



Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017.
 Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

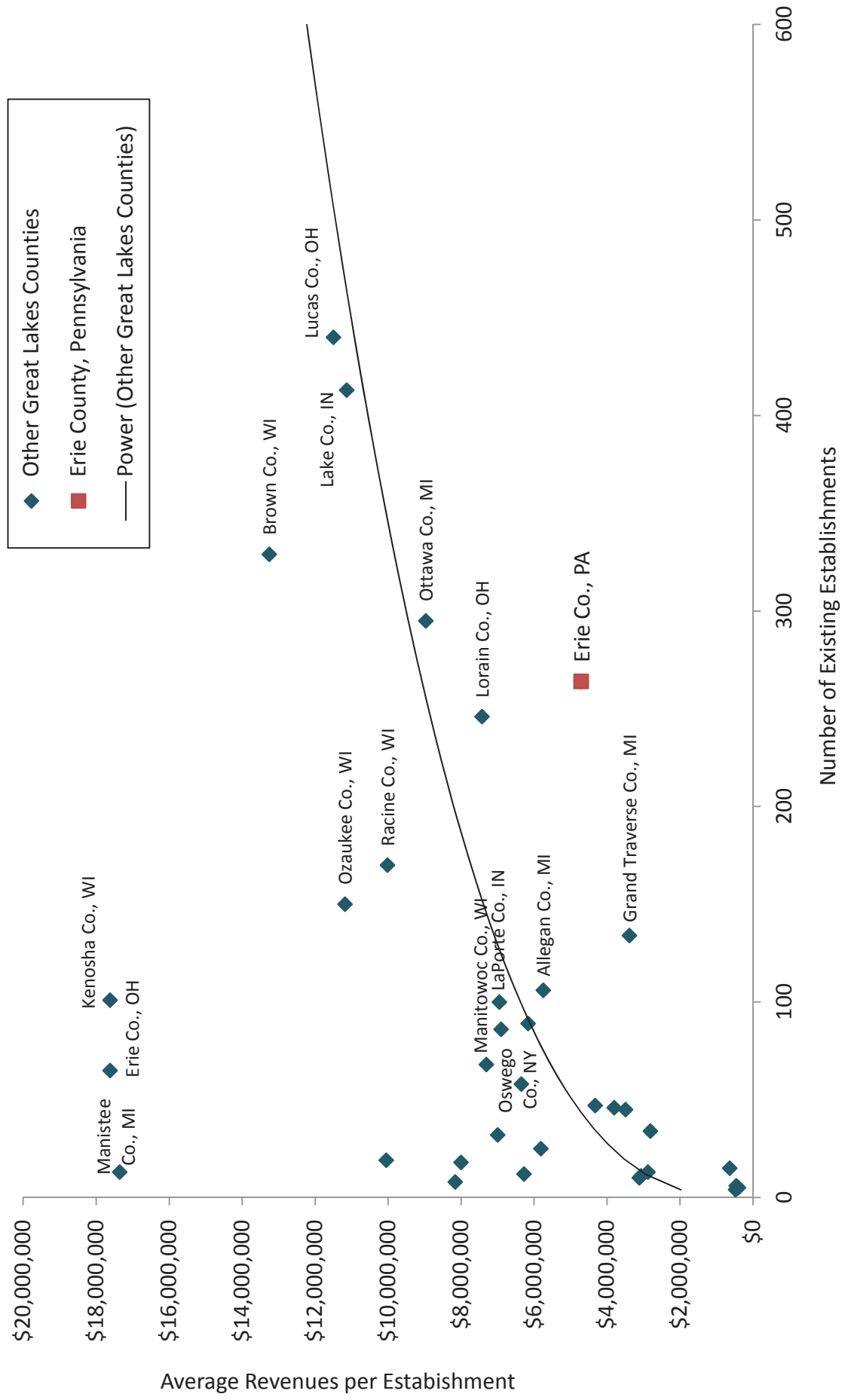
Market Share | Wholesale Trade

Erie County, Pennsylvania v. Other Great Lakes Counties



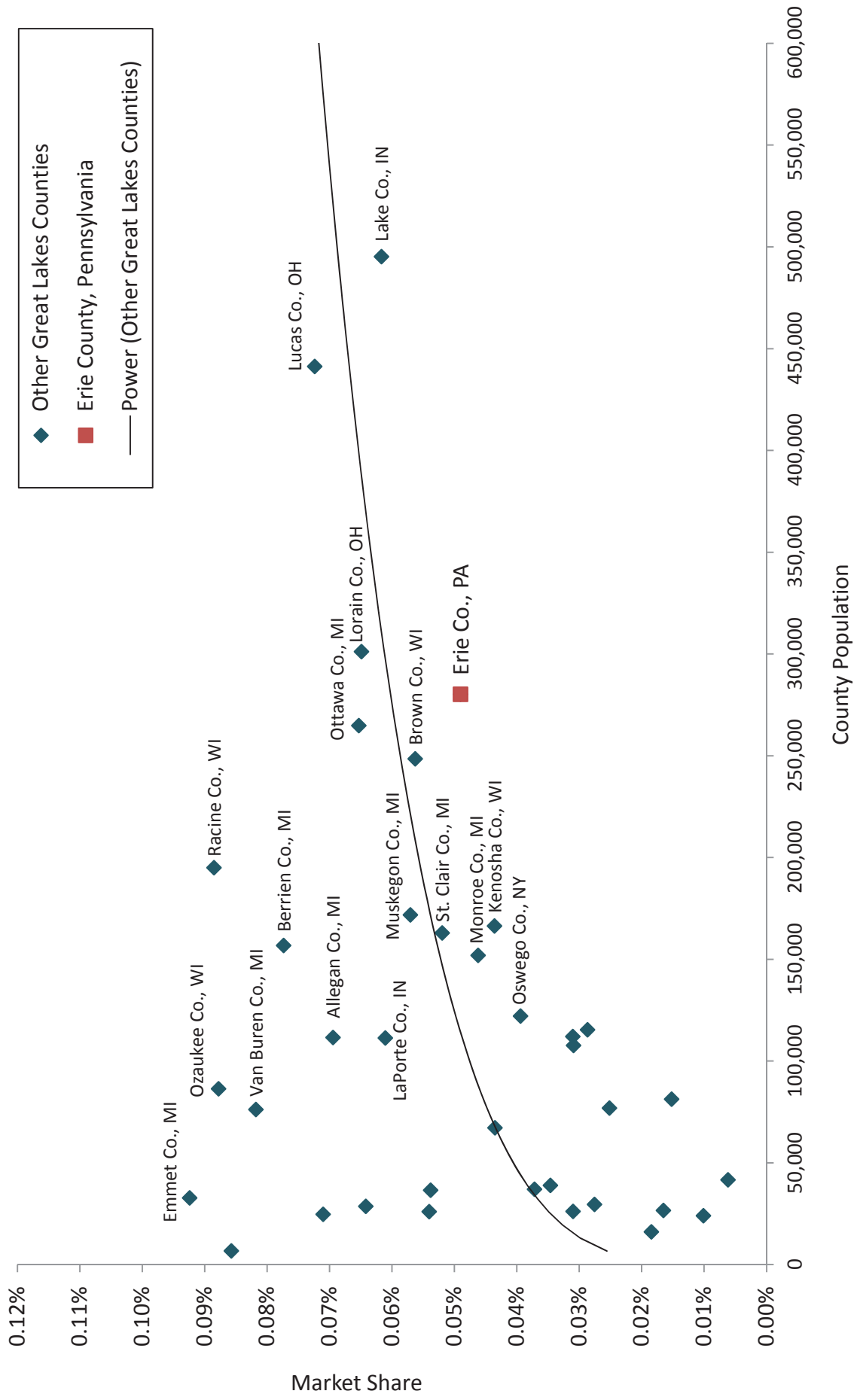
Market share is a measure of transacted sales or revenues compared to total personal income within the respective county. Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017. Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

Revenues per Establishment | Wholesale Trade Erie County, Pennsylvania v. Other Great Lakes Counties



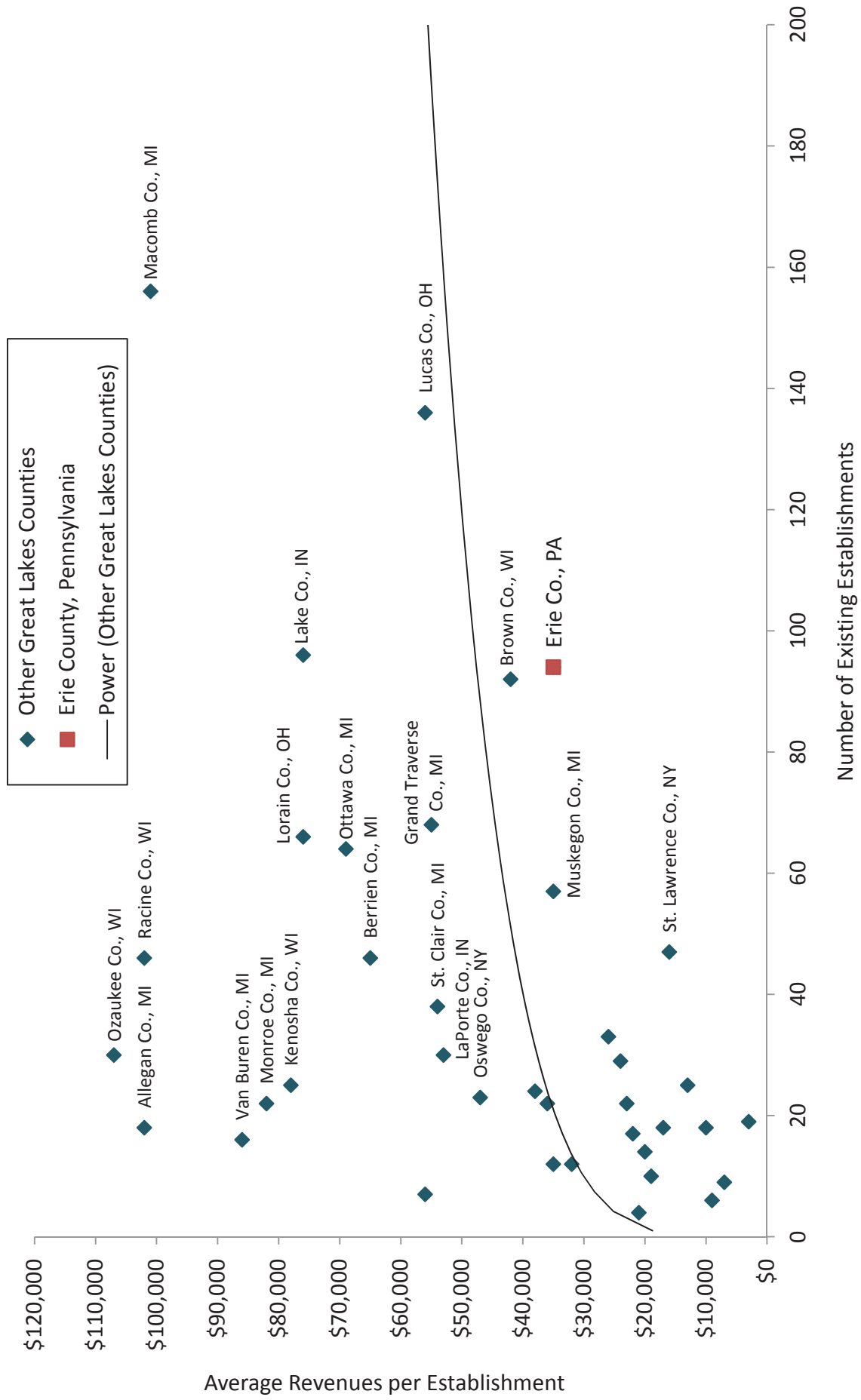
Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017.
Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

Market Share | Information Erie County, Pennsylvania v. Other Great Lakes Counties



Market share is a measure of transacted sales or revenues compared to total personal income within the respective county. Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017. Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

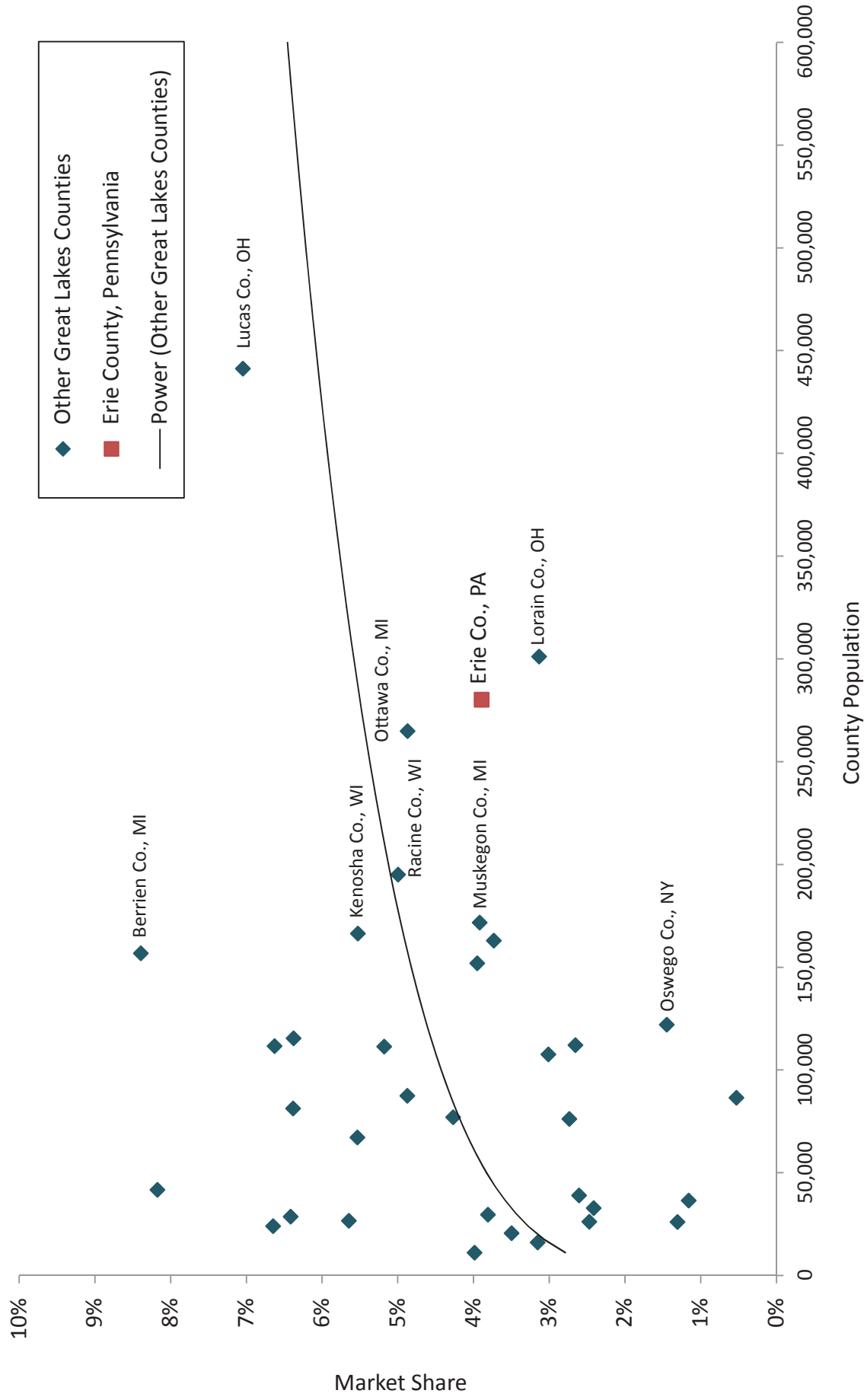
Average Revenues per Establishment | Information Erie County, Pennsylvania v. Other Great Lakes Counties



Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017.
 Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

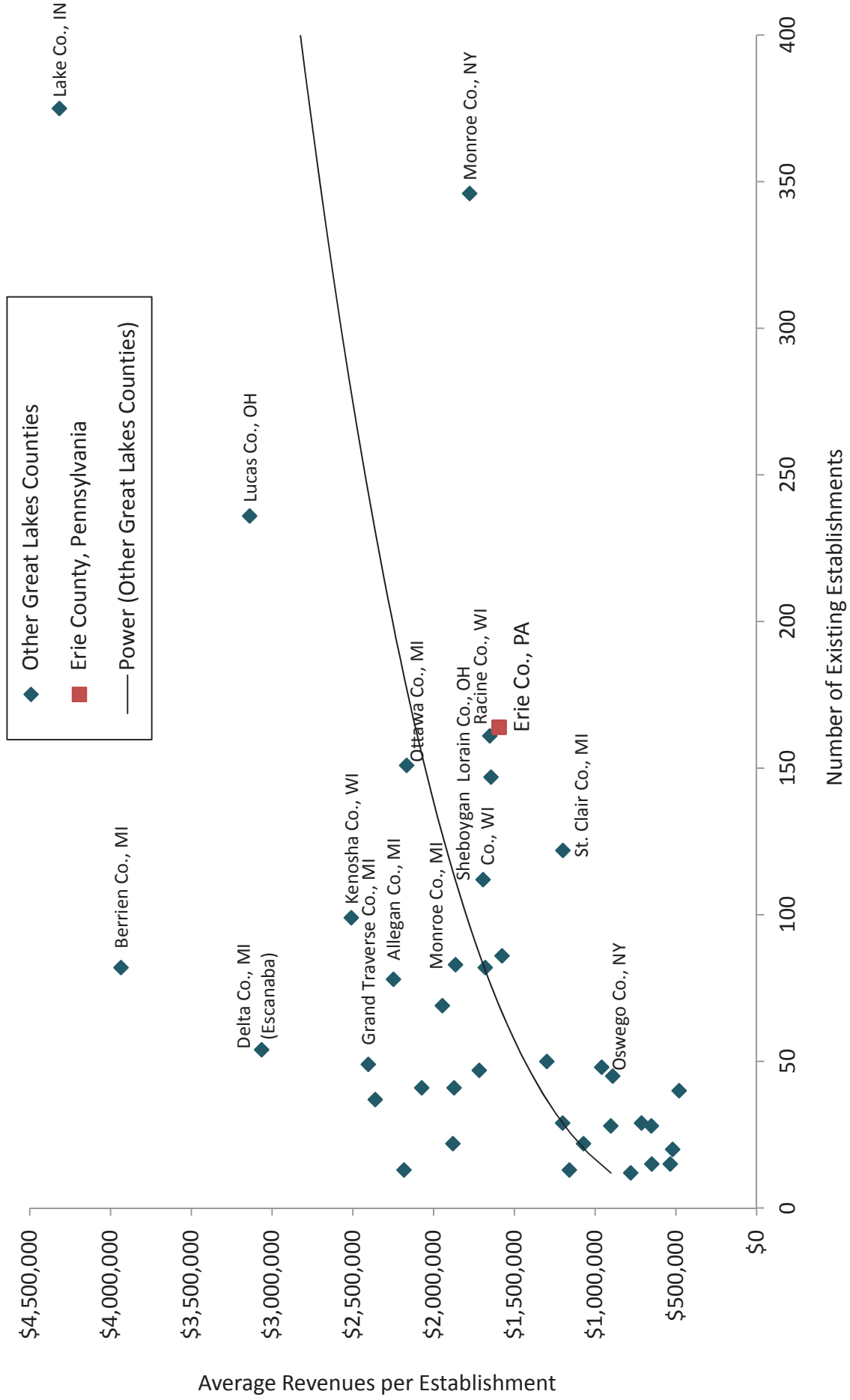
Market Share | Transportation, Warehousing

Erie County, Pennsylvania v. Other Great Lakes Counties



Market share is a measure of transacted sales or revenues compared to total personal income within the respective county. Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017. Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

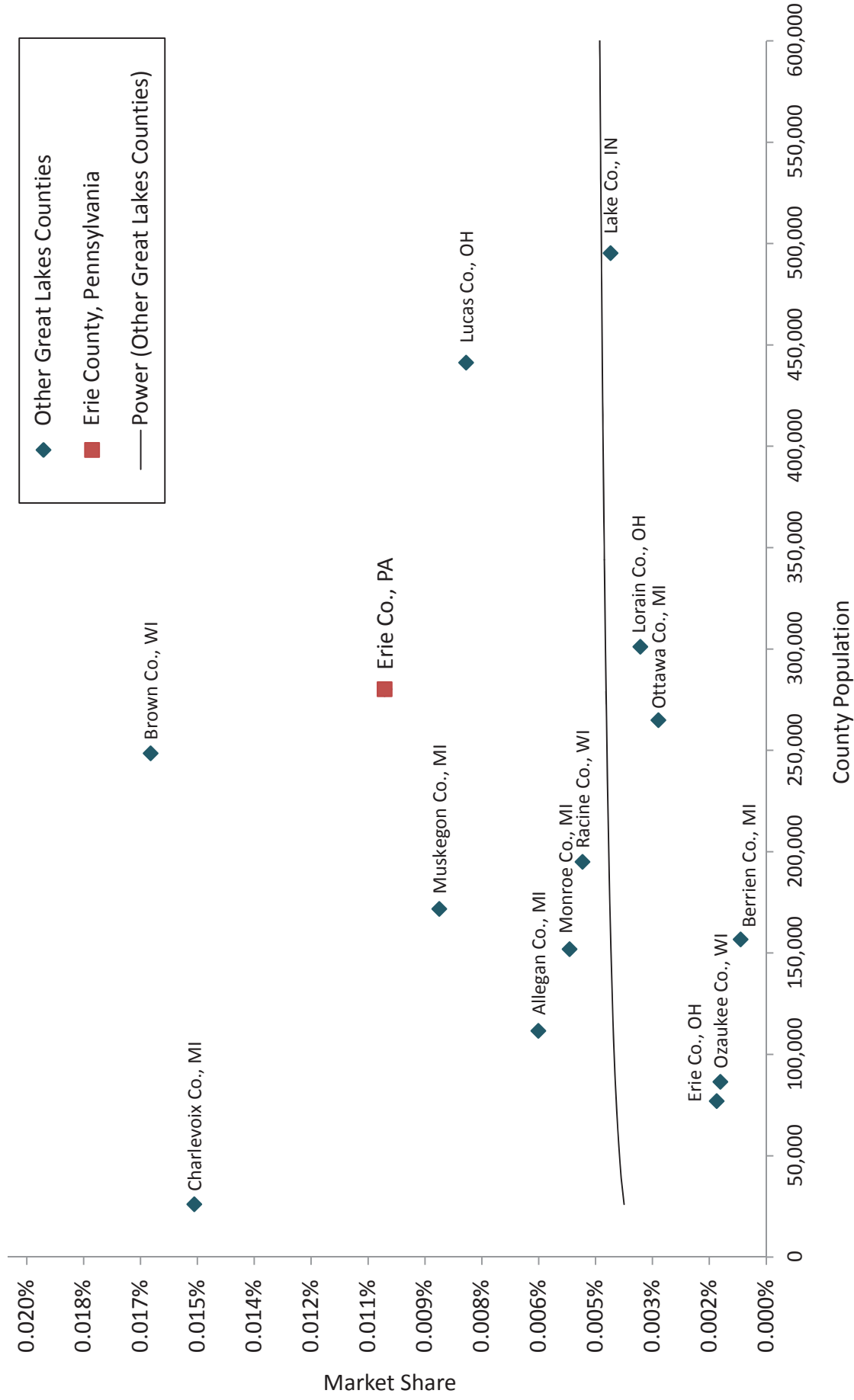
Average Revenues per Establishment | Transportation, Warehousing Erie County, Pennsylvania v. Other Great Lakes Counties



Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017.
Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

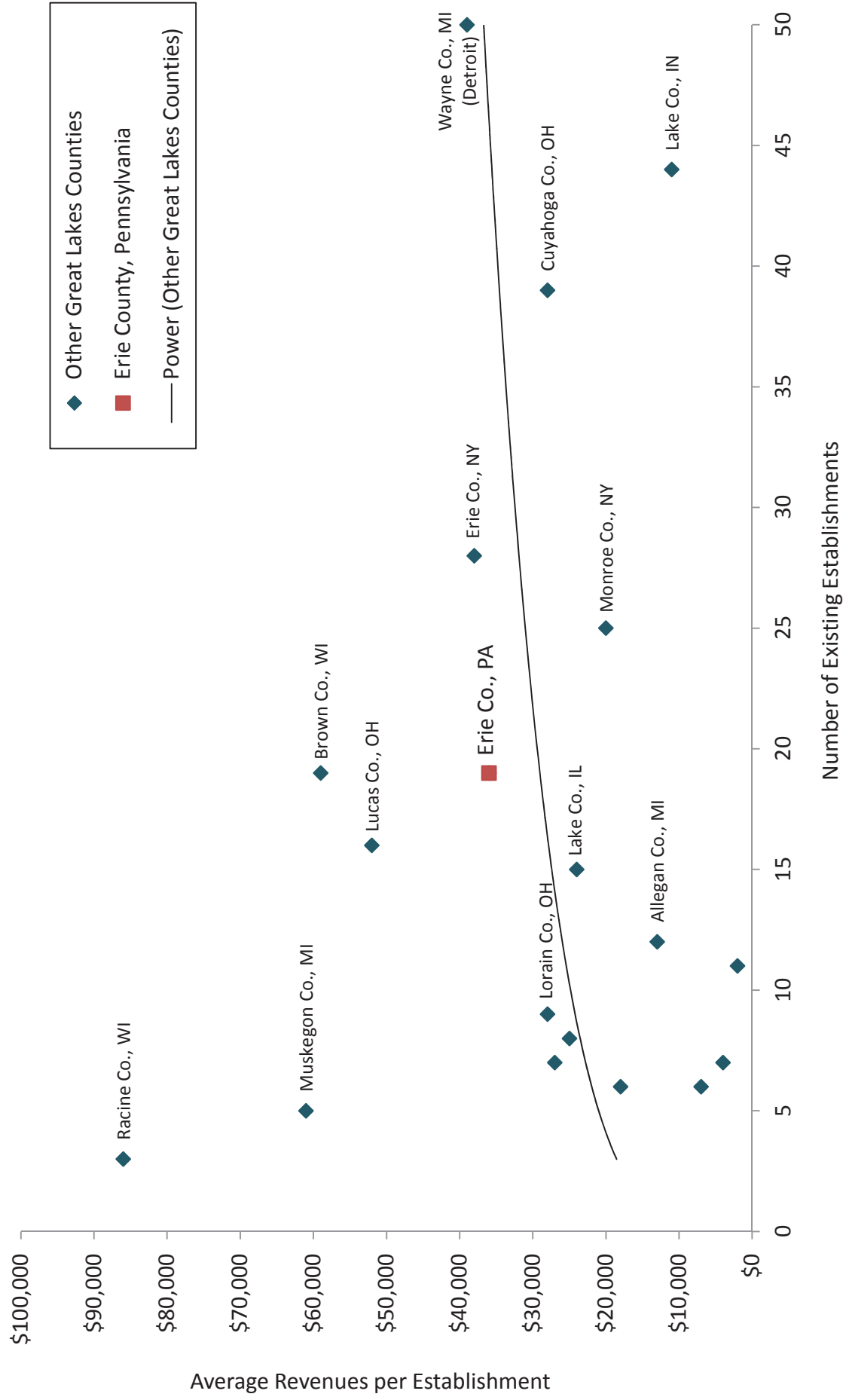
Market Share | Utilities

Erie County, Pennsylvania v. Other Great Lakes Counties



Market share is a measure of transacted sales or revenues compared to total personal income within the respective county. Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017. Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

Average Revenues per Establishment | Utilities Erie County, Pennsylvania v. Other Great Lakes Counties



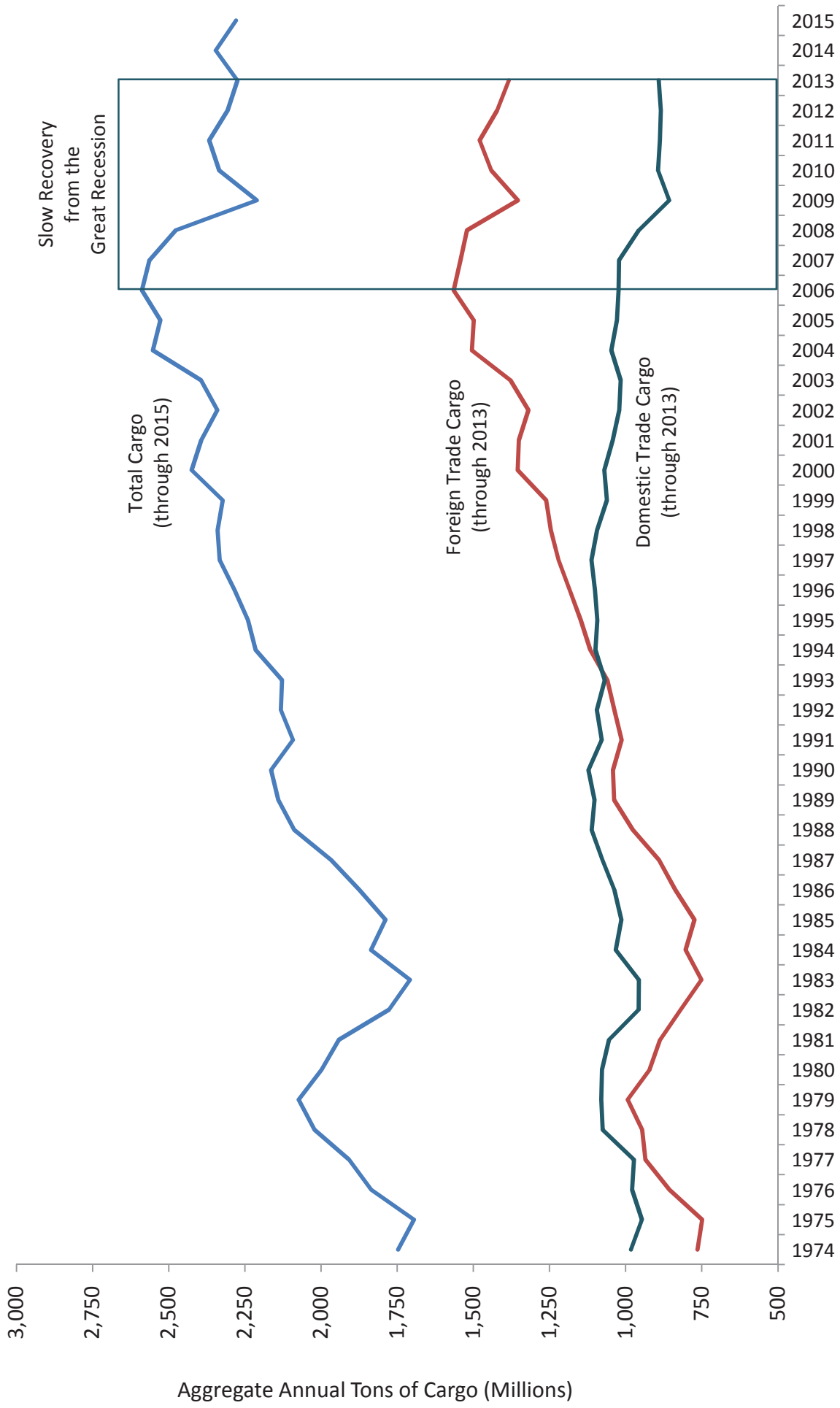
Underlying data provided by the 2012 Economic Census, with analysis and by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team; 2017.
 Note: The 2017 Economic Census results will be available in the year 2019, and an update is recommended at that time.

INDUSTRY ANALYSIS

Section I

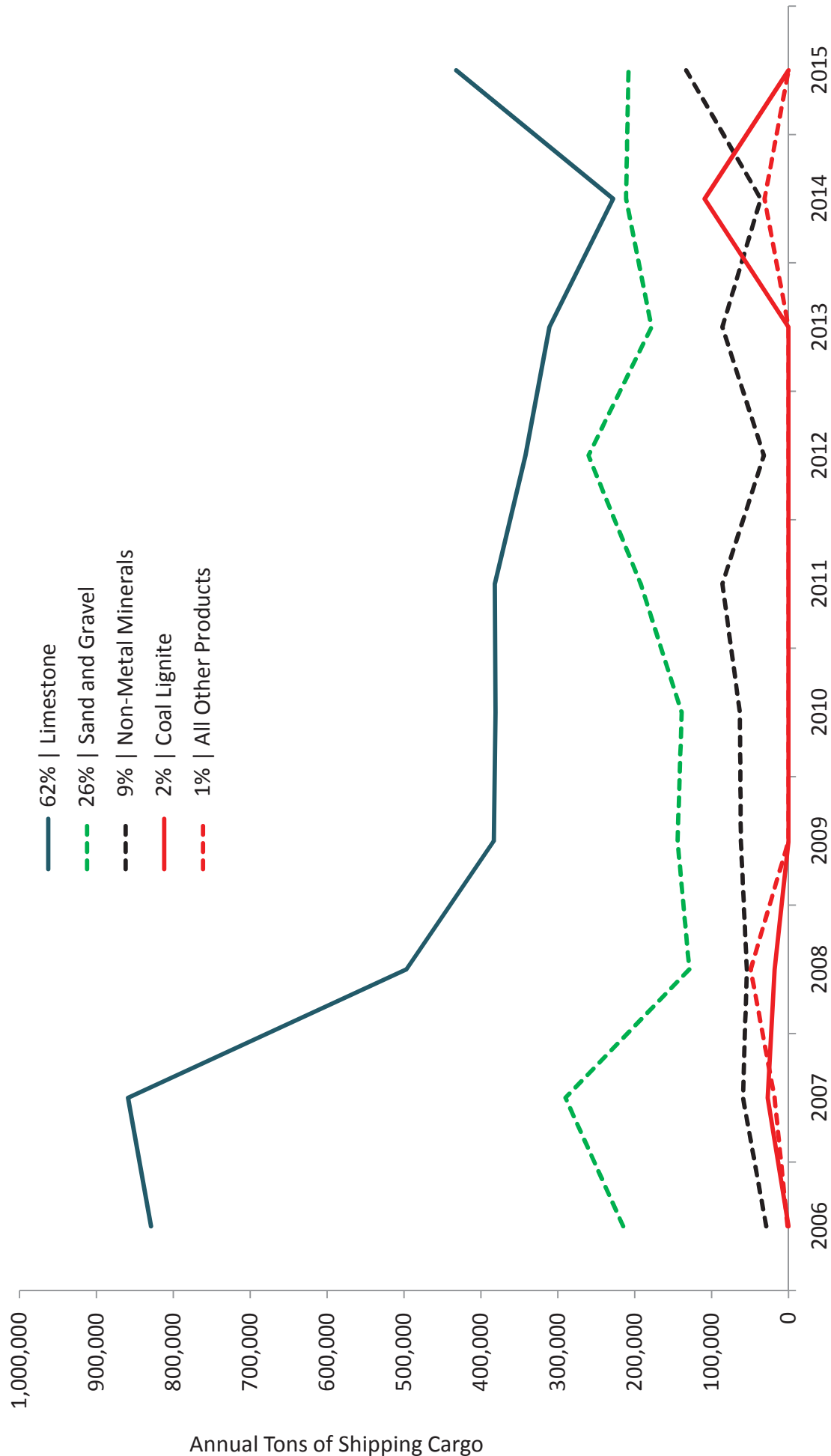
Great Lakes Cargo Tonnage

Aggregate Tons of Cargo in Waterborne Commerce All United States Seaways | 1974 - 2015



Source: Underlying data provided by the Waterborne Commerce of the United States, U.S. Army Corps of Engineers' Navigation Data Center, March 2017. Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team, 2017.

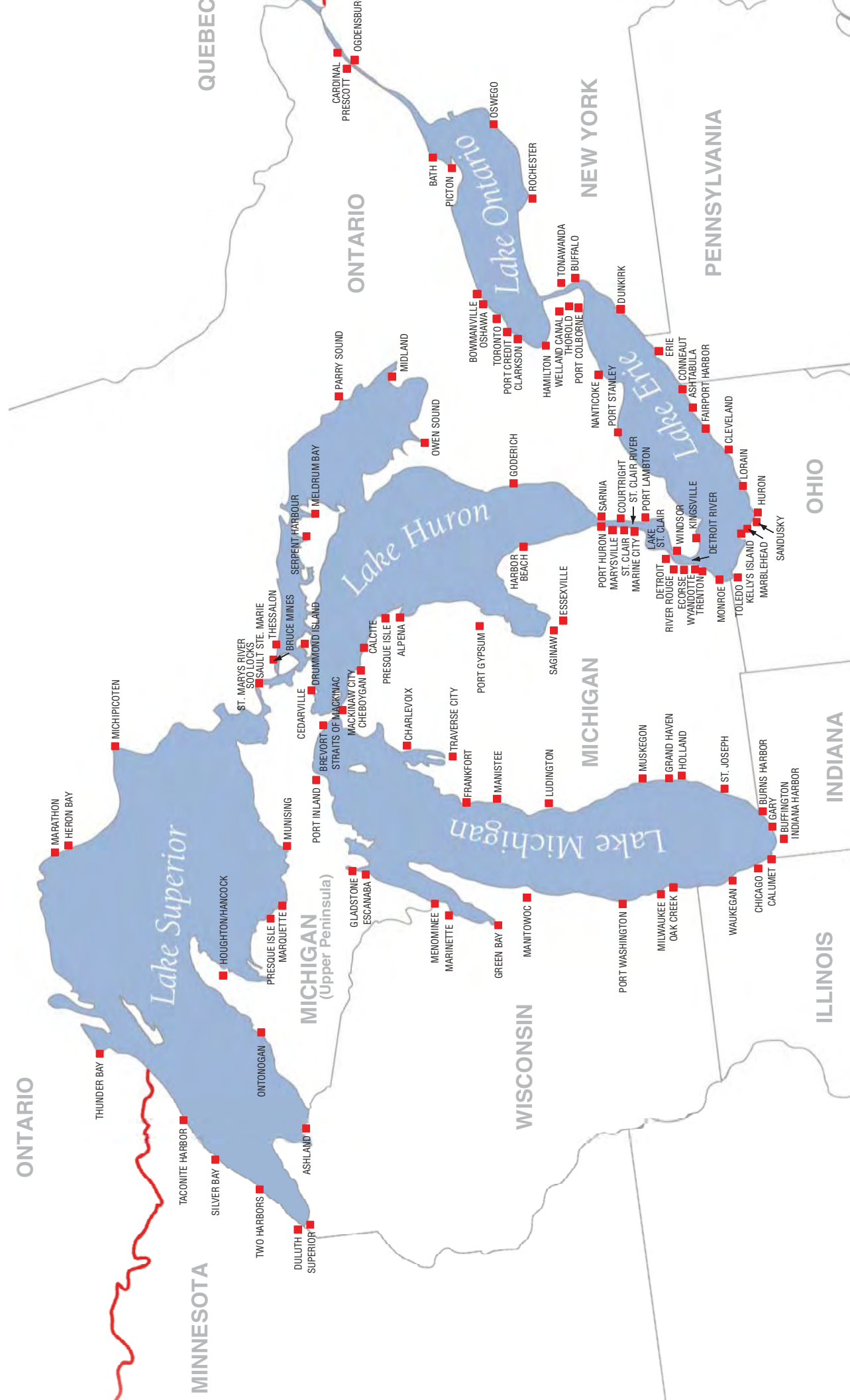
Commercial Operations at the Port of Erie, Pennsylvania
Annual Tons of Cargo by Category | 2006 - 2015



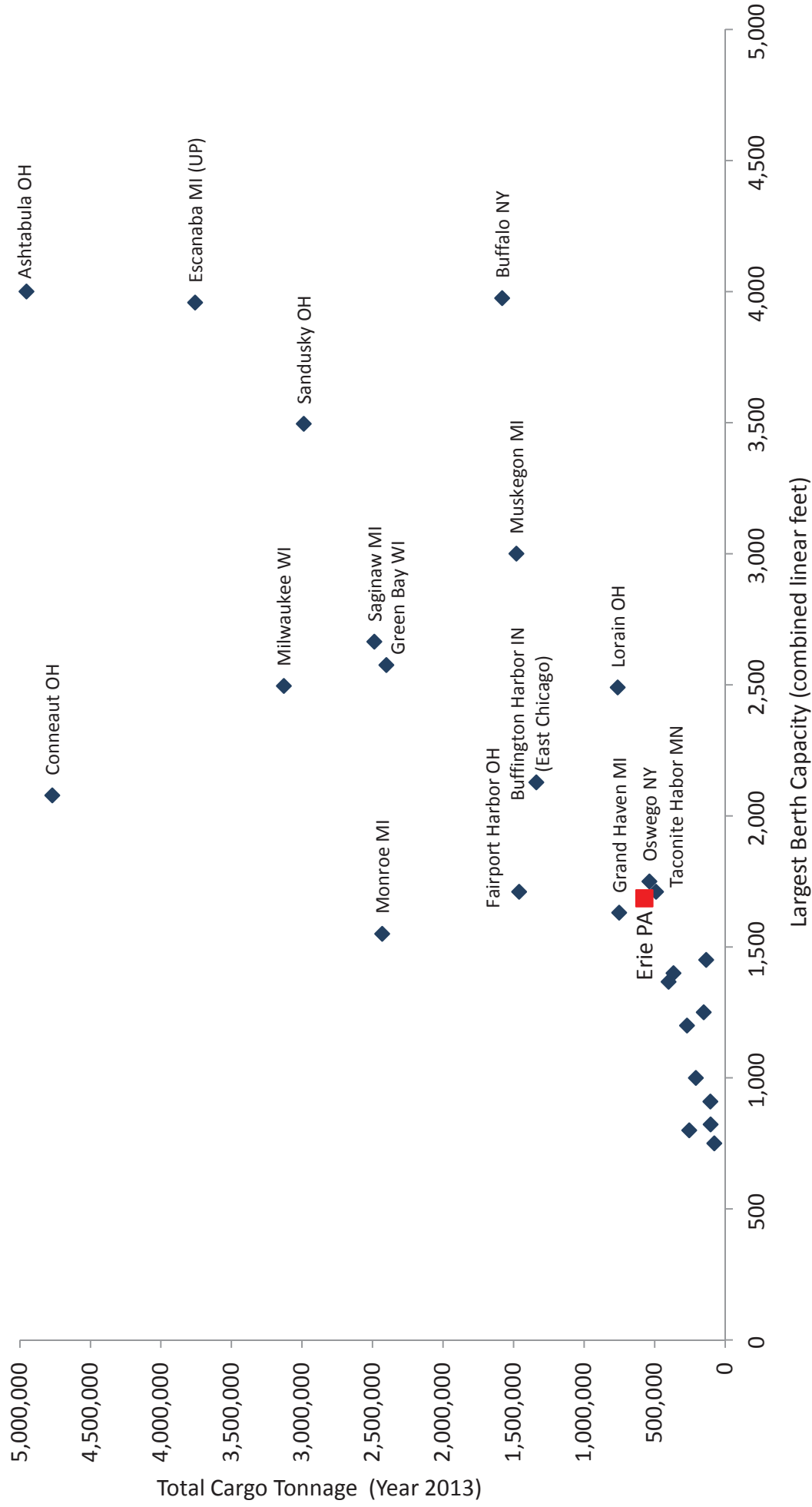
Source: Underlying data provided by the Waterborne Commerce of the United States, March 2017.
Analysis and exhibit prepared by Kurre Economic Consulting in collaboration with the Albert Kahn Associates planning team, 2017.
Percents in the legend indicate the share of aggregate tonnage over the 10-year term (2006 - 2015).

Great Lakes St. Lawrence Seaway System (partial)

Locations of Major Ports

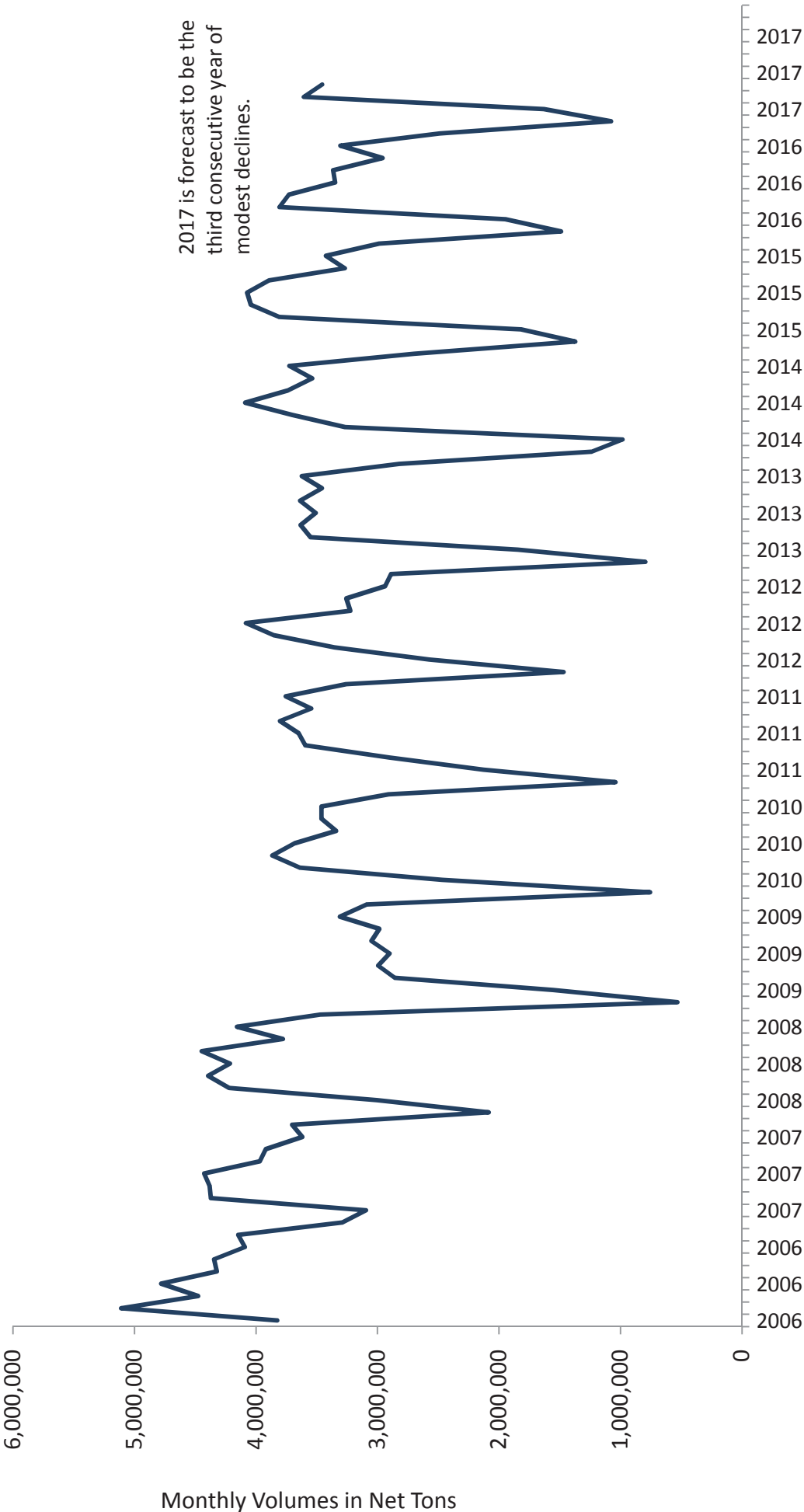


Total Shipping Cargo in Tons | Year 2013 v. Largest Berth Capacity in Combined Linear Feet (excludes 4 outliers)



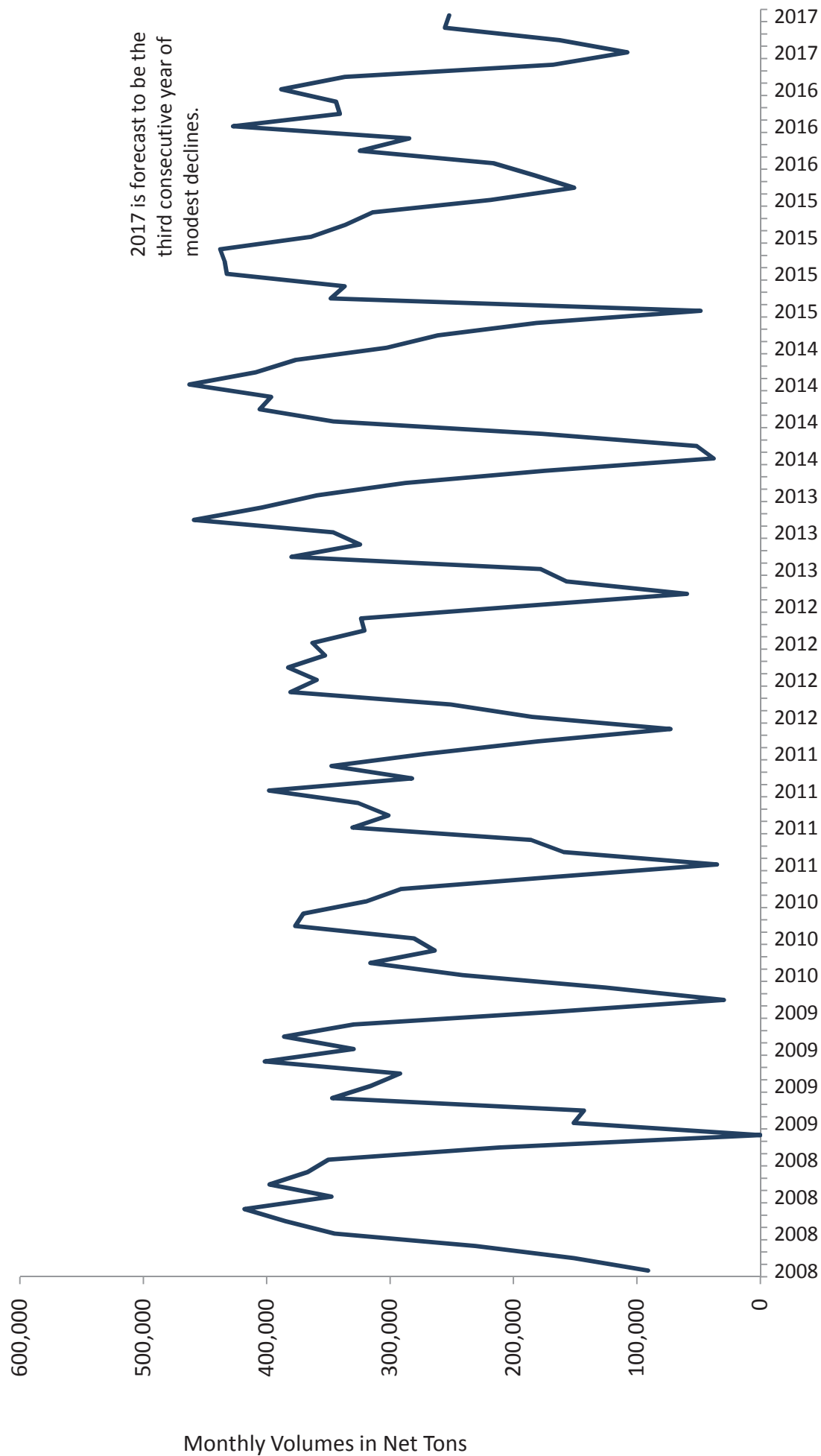
Source: Tonnage data provided by the Waterborne Commerce of the United States, Part III, USACE, Current Year 2013. Berth data provided by the U.S. Army Corps of Engineers - Navigation Data Center, 2017. Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team, 2017.

Limestone Trade through Eleven Great Lakes Ports
Monthly Volumes (Net Tons) | 2006 - 2017
With Seasonal Fluctuations



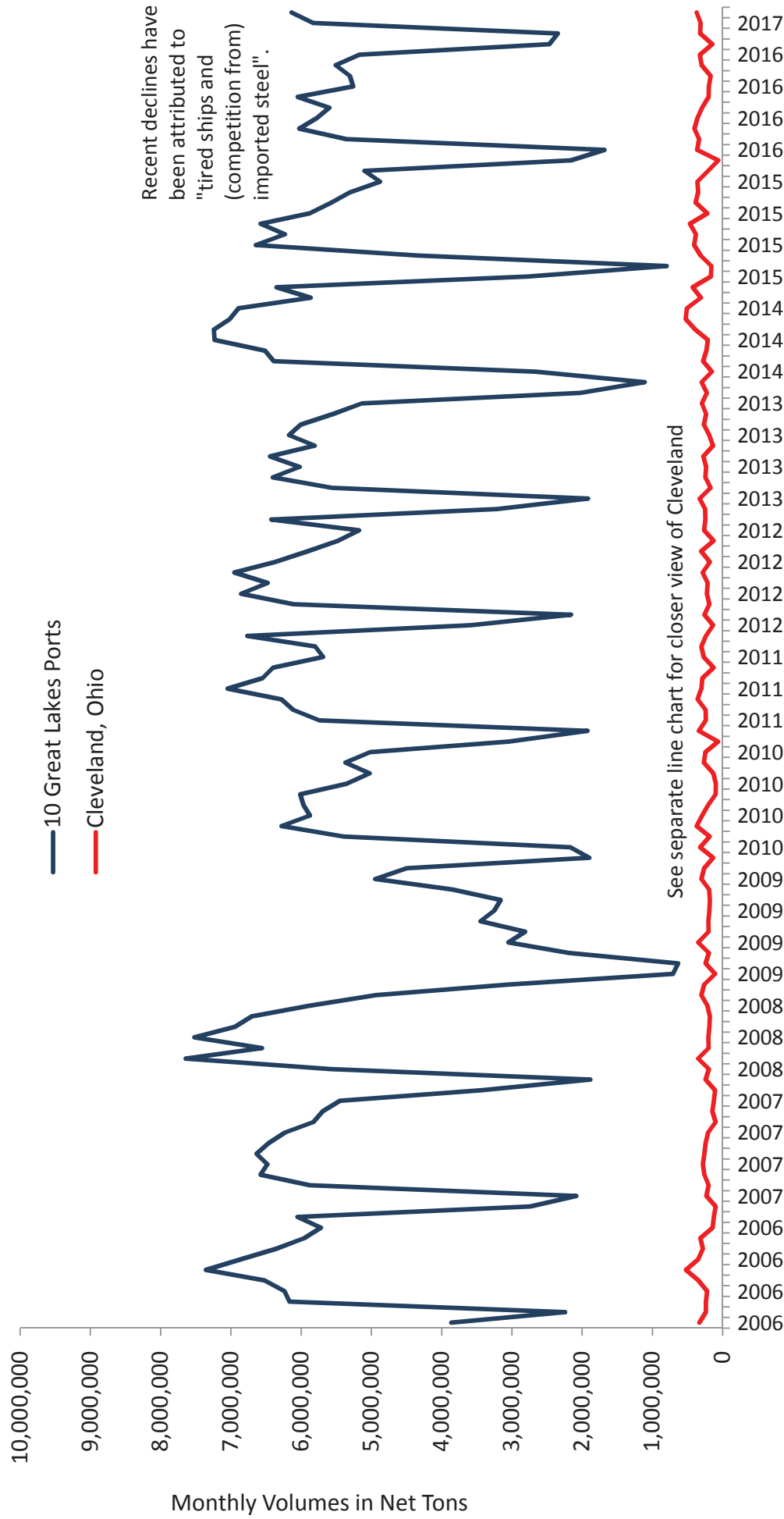
Source: The Lake Carriers' Association contributed the underlying data only. Comments were contributed by LandUseUSA. Data includes five ports in Michigan Ports; two ports in Ohio (Kelly's Island and Marblehead); and four ports in Ontario, Canada. Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team.

Cement Dry-Bulk Carriage on U.S. Flag Great Lakes Freighters
Monthly Volumes (Net Tons) | 2006 - 2017
With Seasonal Fluctuations



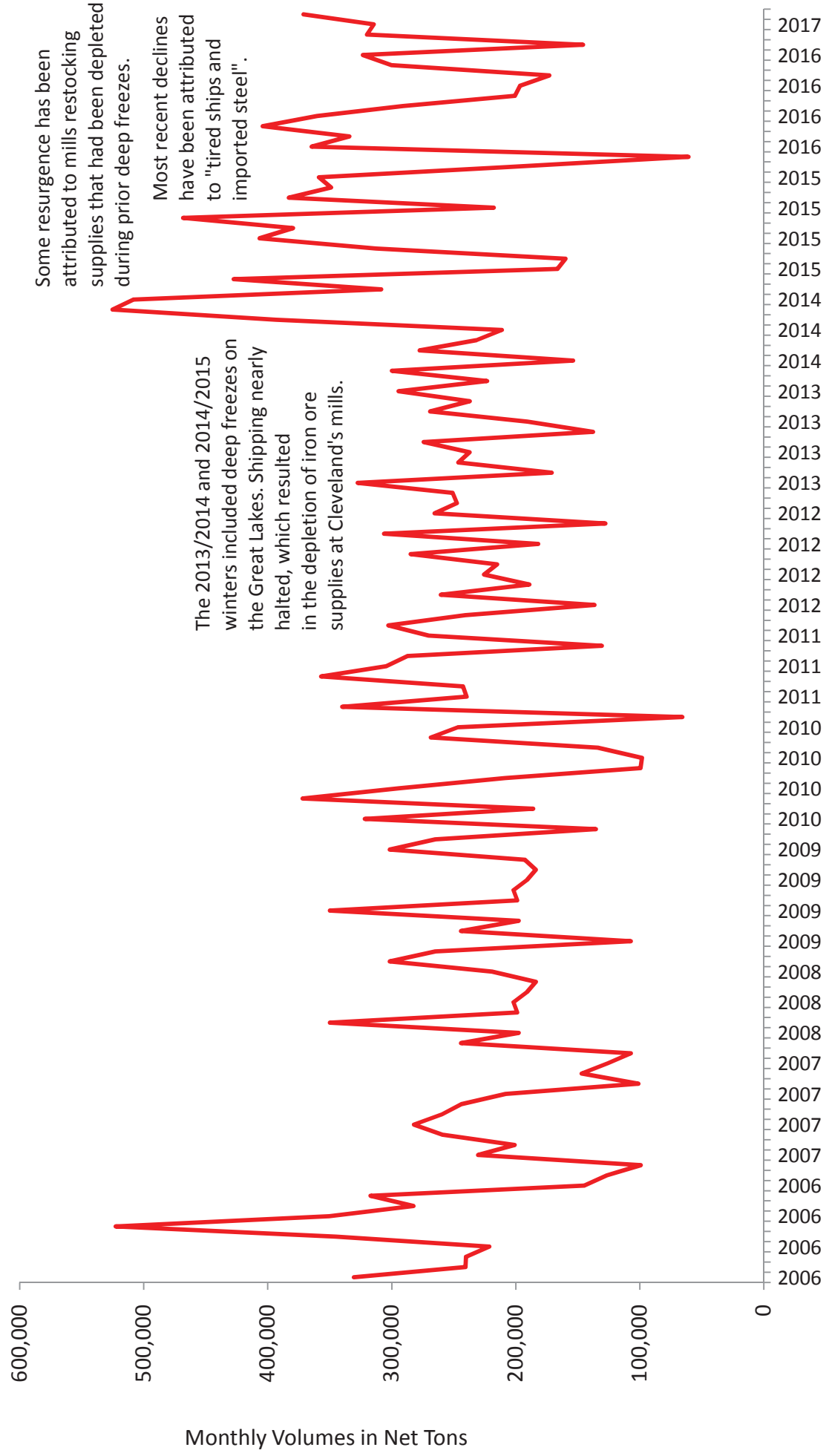
Source: The Lake Carriers' Association contributed the underlying data only. Comments contributed by LandUseUSA. Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team.

Iron Ore Shipments from Ten (10) Great Lakes and Seaway Ports Monthly Volumes (Net Tons) | 2006 - 2017 With Seasonal Fluctuations



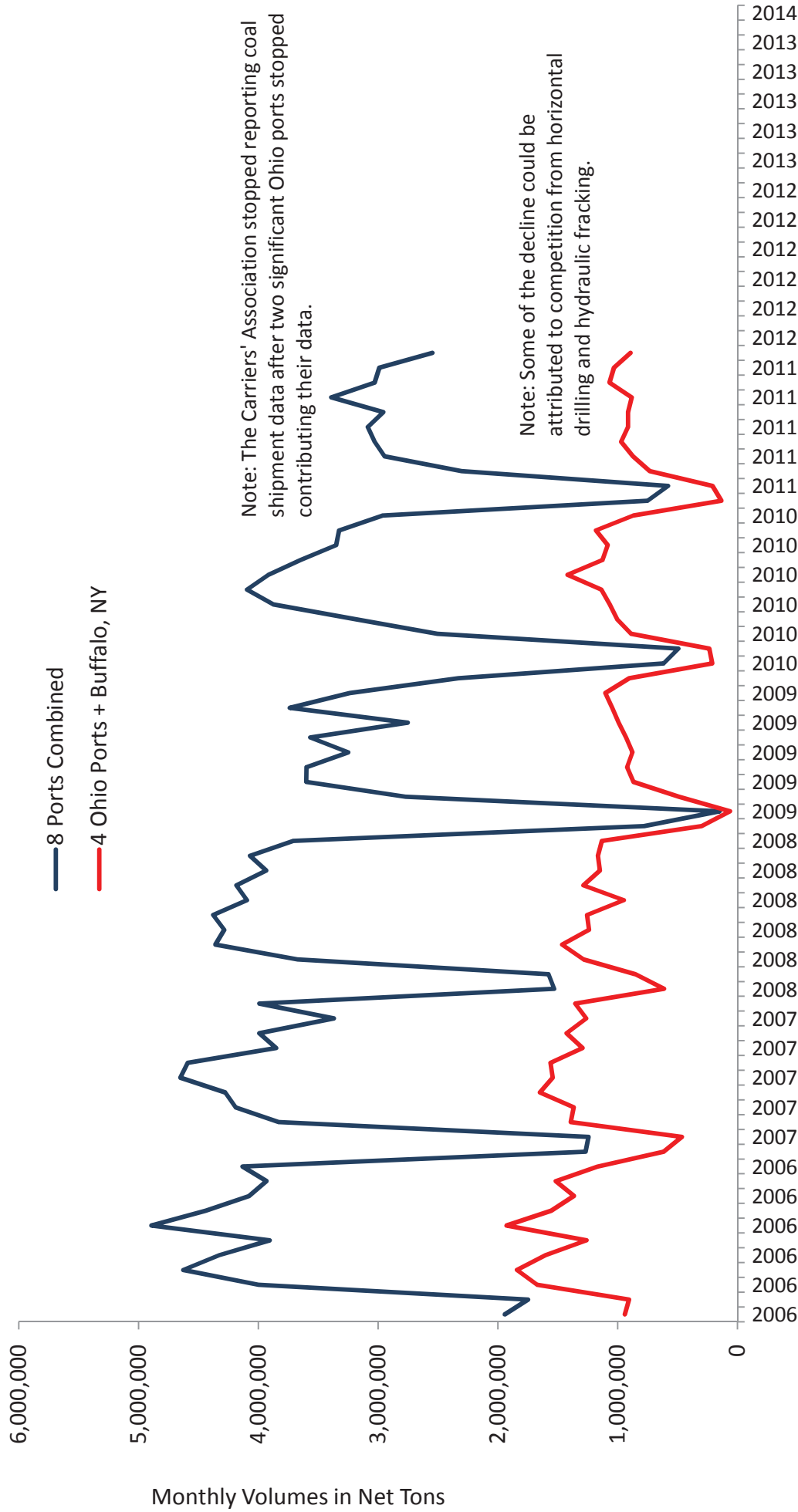
Source: The Lake Carriers' Association contributed the underlying data only. Comments were contributed by LandUseUSA. Data includes three ports in Minnesota (Duluth, Two Harbors, and Silver Bay); one port in Wisconsin (Superior); two ports in Michigan (Presque Isle and Escanaba); three ports in Quebec, Canada (Pointe Noire, Port Cartier, and Sept Iles); and one port in Ohio (Cleveland). Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team.

Iron Ore Shipments from Cleveland, Ohio Monthly Volumes (Net Tons) | 2006 - 2017 With Seasonal Fluctuations



Source: The Lake Carriers' Association contributed the underlying data only. Comments were contributed by LandUseUSA. Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team.

Coal Shipments through 8 Great Lakes Ports Monthly Volumes (Net Tons) | 2006 - 2011 With Seasonal Fluctuations



Source: The Lake Carriers' Association contributed the underlying data only. Comments were contributed by LandUseUSA. Data includes one port in Wisconsin (Superior); one port in Ontario (Thunder Bay); one port in Illinois (Chicago); one port in New York (Buffalo); and four ports in Ohio (Toledo, Sandusky, Ashtabula, and Conneaut). Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Associates planning team.

INDUSTRY ANALYSIS

Section J

Miscellaneous Assessments

The Port Erie Strategic Plan

An objective summary of the strategic plan for the Erie Port Authority.



Strategic Themes

- Maximizing condition and value of infrastructure
- Attaining financial stability for core businesses
- Supporting continuing Bayfront development
- Improving the perception of the Port in the community
- Strengthening relationships with major tenants
- Improving multimodal access and connectivity for both people and goods movement
- Reducing the effect of seasonality (e.g., winter) on revenue
- Attracting additional customers and tenants
- Ensuring sufficient talent in key positions
- Improving Board oversight and engagement



Port of Erie Strategic Plan

November 2016

Regional Trends

Positive

- New hotel businesses along the Bayfront
- Onboard boat living/storage– more people are keeping boats at marina
- Tourism, particularly in the fishing industry, is gaining popularity
- Renewed interest in multimodal activities/movement of goods

Negative

- Financial uncertainty (both capital and operating)
- Demographics (declining population in the city, stable population in the region)
- Perception of urban violence and crime
- Risk of losing top tenants with little notice

	Opportunities	Threats
Strengths	<i>Capitalize</i> • Improve brand/message • Maximize assets/property value • Promote development • Expand grant monies • Promote tourism opportunities • Promote shipyard/terminal	<i>Turnaround</i> • Expand revenue/customer opportunities • Ensure proper asset management tracking • Attain financial break-even position
Weaknesses	<i>Improve</i> • Ensure the organization is properly staffed • Improve economic impact of the Port • Integrate Port with multimodal activities • Connect Bayfront with downtown	<i>Defend</i> • Reduce seasonal influence on revenue • Increase local partnerships • Strengthen existing tenant relationships • Improve appearance of Bayfront • Diversify revenue base/enterprises

Supply Chain Overview

Definitions as provided by the Bureau of Labor Statistics and U.S. Census.

Provided for the Erie Port Authority

Example: Trade services aiding the movement of food goods from manufacturers to consumers.



Diagram above provided by the U.S. Bureau of Labor Statistics, 2017.

Exhibit prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.



Conceptual Study by AECOM

A objective summary of speculated land uses at the Mountfort Terminal.

Mountfort Terminal

Prepared for the Erie Port Authority



The Mountfort terminal includes two existing docks with 1,400 and 1,200 feet; and CSX freight trains also access the terminal site. The terminal's current imports and exports include an estimated 1.0 million tons annually of crushed stone, salt, pig iron, and gypsum.

Below: Dry bulk conveyor system as speculated by AECOM.



Mountfort Terminal - Speculated future activities from the AECOM Conceptual Study

1. EXPORTS - Wood pellet and chip as biomass exports, and with the primary goal of improving the utilization of rail freight infrastructure.
2. IMPORTS - Shale gas commodities, including sand, pipe, and chemicals to support fracking. AECOM indicates that the region's two shale formations are transforming the energy industry.
3. IMPORTS - Barite ore, which is a weighting agent in oil, gas drilling fluids or drilling mud.
4. IMPORTS & EXPORTS - Break-bulk cargo, which typically includes pre-cast concrete sections; large steel fabrications; construction materials; and pipe, oil, and gas industry modules and machinery.
5. IMPORTS & EXPORTS - Containerized cargo, which most of the global markets are converting to. The containers can usually hold break-bulk cargo as well as dry bulk material. They are usually used in terminals that are handling high volumes.
6. EXPORTS - On-dock heavy industrial manufacturing of large products like tanks, silo assemblies, large metal fabrications, precast concrete highway beams, and off-shore wind energy products. All intended to leverage the existing rail infrastructure. Location on the waterfront is intended to minimize costs of transporting products to the port for export by water transportation. This also allows for the manufacture of larger end-products that are difficult to move by truck or rail.