MARKET ANALYSIS
and
INDUSTRY ANALYSIS

Prepared for the
Erie Port Authority
Master Development Plan

October 1, 2017
# TABLE OF CONTENTS

**MARKET ANALYSIS**

A Subarea Strategies  
B Existing Revenues  
C Boating Trends  
D Demographics  

...  

**INDUSTRY ANALYSIS**

E American Community Survey  
F Pennsylvania State Database  
G Economic Census | Histograms  
H Economic Census | Scatter Plots  
I Great Lakes Cargo Tonnage  
J Miscellaneous Assessments
MARKET ANALYSIS

Section A

Subarea Strategies
Gross Leasable Area by Category

Tangible Revenue-Generators
Focus on Destination Entertainment, Boating, and Shopping

- Grocery Store, Gateway Anchor: 18,000 sf
- Bicentennial Ferris Wheel | Tower: 15,000 sf
- Other Merchants, Galleries | McA: 14,000 sf
- Culinary Kitchen Incubator | McA: 12,000 sf
- Artisan Studios, Classrooms | McA: 6,000 sf
- Maritime Marine Center | McA: 3,000 sf
- Natural Foods Co-op | McA: 3,000 sf
- Bicycles, Skates, Repair | McA: 2,000 sf
- Fresh, Frozen Meat Markets | McA: 2,000 sf
- Charcuterie & Wine Shop | McA: 1,500 sf
- Oil, Vinegar, Spice, Tea | McA: 1,500 sf
- 5 & Dime Toys & Candy | Tower: 1,000 sf
- Concessions, Snacks | Tower: 1,000 sf
- Ticket Center, Office | Tower: 1,000 sf

Gross Leasable Area (Max)
- Gateway Anchor | 18,000 sf (recommended grocery store)
- McAllister Place | 45,000 sf (plus existing and new restaurants)
- Bicentennial Tower | 3,000 sf (plus Ferris Wheel and new BrewPub)

Caution
The retail space in this strategy assumes that the plan is successfully implemented years in advance of any competing retail 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.
Gross Leasable Area by Specific Category

Tangible Revenue-Generators
Focus on Arts, Entertainment, Recreation, Boating, and Marinas

- Farmers, Artisans Market: 24,000 sf
- Yacht & Boat Showroom: 22,000 sf
- Family Fun Activity Center: 12,000 sf
- Performing Arts Center: 12,000 sf
- Health & Wellness Center: 6,000 sf
- JRS Sloppy Duck Saloon: 6,000 sf
- Unique Themed Restaurant: 4,000 sf
- Marine Supply Store: 3,000 sf
- Boaters' Convenience Store: 2,000 sf
- Mini Golf Center, ProShop: 2,000 sf
- Eateries, Food Concessions: 1,500 sf
- Made in Penn Gift Shop: 1,000 sf
- Ticket Center, Transit, Office: 500 sf

Gross Leasable Area (GLA): 96,000 square feet

Caution:
With these exceptions, avoid speculative development of other "Retail" space for small tenants like artisans, galleries, and boutique shops. Reserve all "Retail" merchants for Dobbins Landing.

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

Focus on Destination Dining
Unique, Themed Restaurants with Entertainment Value

- Bayfront Grill | Existing: 5,800 sf
- 180 Rooftop Prime | New: 5,200 sf
- Smugglers Wharf | Existing: 3,000 sf
- Tower Plaza BrewPub | New: 1,500 sf
- Rum Runners Bar Grill | Existing: 1,300 sf
- Rum Runners Cove | Existing: 1,200 sf

Maximum for 6 Restaurants
18,000 square feet

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.
Overview of Potential by Industry

For Erie County, Pennsylvania
Market Potential v. Actual Revenues

- Manufacturing
- Retail Trade
- Health Care, Soc. Asst.
- Wholesale Trade
- Profess., Sci., Technical
- Food Svc, Restaurants
- Other Svc (ex. Admin.)
- Arts, Entert., Recreation
- Transport, Warehsg.
- Admin. Support, Waste
- Real Estate, Rent, Lease
- Accommod., Hotels
- Finance, Insurance
- Educational Services
- Information
- Utilities

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.
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. 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).

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 Mgmt. (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
2016 Other Revenue Sources
Without Commercial Rents or Operating Leases

- Fund 02 Lampe Sales of Gas, Fuel ($275,348)
- Fund 03 Amphitheater Marketing ($127,834)
- Fund 03 West Storage Facility ($152,515)
- Fund 02 Lampe Marina Boathouse Stalls and Other ($251,751 + $2,019)
- Fund 02 Lampe Campground ($105,477)
- Fund 01 Transient Boat Facility Marina
- Fund 01 Storage
- Fund 01 Dobbins Misc. Public Access
- Fund 01 Boathouse Stall Rentals ($59,604)

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

Erie-Western Pennsylvania Port Authority Master Development Plan | 2017
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.

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 boastalls 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.
Fund 03 | West End
Excludes Commercial Rents / Operating Leases

Orange Lines | Revenues from Perry's Landing Boathouse and retail fuel sales (gas, diesel, oil) had declined significantly since 2009, when the Erie Port Authority first began outsourcing management of those facilities. The Port Authority retained a new company in 2017 that will increase its share of revenues by +$100,000 annually.

Blue Lines | Marketing revenues from the amphitheater and rents at the west storage facility have been growing favorably since the Great Recession. They probably represent long-term growth opportunities.

Revenues from Liberty Park concessions have been flat, and there may be a need for preventative measures to curtail future losses.

2017 Forecast

Orange Lines: Perry's Landing Boatstall Rents

Blue Lines: Perry's Landing Retail Fuel Sales

03-00-4410

03-26-4130
West Storage Facility

03-00-4010
Perry's Landing Boathouse Rents

03-21-4310
Amphitheater Marketing

03-25-4320
Liberty Park Concessions

MARKET ANALYSIS

Section C

Boating Trends
Participation in Wildlife Recreation
An assessment of USA trends among anglers, wildlife watchers, & hunters.


Number of Wildlife Watchers (recent increase)

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>71.2 mil.</td>
<td>71.9 mil.</td>
<td>86.1 mil.</td>
</tr>
</tbody>
</table>

Number of Anglers (steady increases)

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>30.1 mil.</td>
<td>33.2 mil.</td>
<td>35.9 mil.</td>
</tr>
</tbody>
</table>

Number of Hunters (recent decline)

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>12.5 mil.</td>
<td>13.7 mil.</td>
<td>11.5 mil.</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th></th>
<th><strong>Spenders Engaged in Fishing</strong></th>
<th></th>
<th><strong>Spenders Engaged in Wildlife Watching</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aggregate Spent by Anglers ($000)</td>
<td>Total Anglers (000)</td>
<td>Average Spent per Angler ($)</td>
</tr>
<tr>
<td><strong>Sums, Averages (2 pages)</strong></td>
<td>$45,115,118.0</td>
<td>32,511</td>
<td>$1,418</td>
</tr>
<tr>
<td>Food, Restaurants</td>
<td>$4,759,403.0</td>
<td>26,867</td>
<td>$177</td>
</tr>
<tr>
<td>Lodging</td>
<td>$3,089,591.0</td>
<td>8,625</td>
<td>$358</td>
</tr>
<tr>
<td>Boat Service Fees</td>
<td>$4,536,646.0</td>
<td>5,876</td>
<td>$772</td>
</tr>
<tr>
<td><strong>Total Transportation</strong></td>
<td>$5,048,606.0</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Public Transit</td>
<td>$542,917.0</td>
<td>2,852</td>
<td>$190</td>
</tr>
<tr>
<td>Private Transp.</td>
<td>$4,505,689.0</td>
<td>25,622</td>
<td>$176</td>
</tr>
<tr>
<td><strong>Total Recreation</strong></td>
<td>$28,680,874.0</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Boat, Rec. Vehicle Rental</td>
<td>$10,483,401.0</td>
<td>2,291</td>
<td>$4,576</td>
</tr>
<tr>
<td>Boats, Accessory Rental</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Rec, Camper Vehicle Rental</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Spenders Engaged in Fishing</th>
<th>Spenders Engaged in Wildlife Watching</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aggregate Spent by Anglers (000)</td>
<td>Total Number of Anglers (000)</td>
</tr>
<tr>
<td>Other Trip Costs</td>
<td>$3,643,688.0</td>
<td>.</td>
</tr>
<tr>
<td>Guides, Charters</td>
<td>$924,974.0</td>
<td>3,431</td>
</tr>
<tr>
<td>Equipment Rentals</td>
<td>$308,162.0</td>
<td>3,045</td>
</tr>
<tr>
<td>Bait</td>
<td>$1,517,912.0</td>
<td>20,681</td>
</tr>
<tr>
<td>Ice</td>
<td>$585,384.0</td>
<td>13,535</td>
</tr>
<tr>
<td>Heating/Cooking Fuel</td>
<td>$159,791.0</td>
<td>4,187</td>
</tr>
<tr>
<td>Books, Magaz., DVDs</td>
<td>$147,465.0</td>
<td>3,142</td>
</tr>
<tr>
<td>Non-Boat Retail Sales</td>
<td>$10,594,237.0</td>
<td>.</td>
</tr>
<tr>
<td>Sports Equipment</td>
<td>$7,430,662.0</td>
<td>22,393</td>
</tr>
<tr>
<td>Auxiliary Equipment</td>
<td>$3,163,575.0</td>
<td>4,522</td>
</tr>
<tr>
<td>Other Equipment</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Specialty Fees</td>
<td>$3,959,548.0</td>
<td>.</td>
</tr>
<tr>
<td>Land Leases (not fees)</td>
<td>$2,358,811.0</td>
<td>1,016</td>
</tr>
<tr>
<td>Public Land Use Fees</td>
<td>$305,360.0</td>
<td>6,304</td>
</tr>
<tr>
<td>Private Land Use Fees</td>
<td>$493,951.0</td>
<td>2,901</td>
</tr>
<tr>
<td>Membership Dues</td>
<td>$214,485.0</td>
<td>1,741</td>
</tr>
<tr>
<td>Licenses, Tags, Permits</td>
<td>$586,941.0</td>
<td>15,647</td>
</tr>
<tr>
<td>Plantings</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>

Footnotes: see Page 1.


Analysis and exhibit prepared by LandUseUSA in collaboration with the Albert Kahn planning team, 2017.
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.
Total Traveler Spending (Business & Leisure)

Observations: Although Erie is the only county in Pennsylvania to offer access to the Great Lakes, it is overshadowed by Allegheny and Philadelphia Counties in total traveler spending (including business and leisure travelers, combined). However, they also have significantly larger populations, and Allegheny County also has a significantly higher income profile. Compared to these larger places, Erie County has been more resilient during the recent Great Recession, but has not experienced much growth since then.

Implications: Based on the Allegheny and Philadelphia County standards, Erie County should be achieving more growth in traveler spending. Adding new food attractions, entertainment venues, and recreational amenities would help attract new visitors, convert business travelers into leisure travelers, motivate more frequent trips, motivate longer stays, attract larger groups, and extend visitor traffic earlier and later in the season. In turn, these gains would help generate more sales and revenues.

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 Vernango 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 (5%). 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 Lakeview Park 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.
Recreational Vessel Registrations
The United States | 1980 - 2016

Observations: Although recreational vessel registrations appear to be declining for the nation, participation in recreational boating activities appear to be increasing. These observations are consistent with similar data for Pennsylvania. The data implies that usage rates among recreational boaters has been increasing, with more boaters using fewer registered boats.

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

Implication: Increasing participation rates imply a growing interest in boating, with a possible need for new and modern marinas and slips, and a range of choices that meet the diverse needs of many boaters interested in fishing, cruising, swimming, sailing, skiing, and wildlife-viewing activities.

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

Observation: Michigan in surpassing other Great Lakes States in total and in recent increases among boat expenditures. Michigan’s aggressive PureMichigan campaigns have generated significant gains in tourism, and may be a good model for Pennsylvania and Erie County.

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.
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 registrations x $30,000 each)/(7.1 billion aggregate household income) = 4.5%].

Boat registrations in Erie and Crawford County have been stable throughout and since the Great Recession, 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

<table>
<thead>
<tr>
<th>County</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erie County, PA</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Lucas County, OH</td>
<td>3.7%</td>
</tr>
<tr>
<td>Ottawa County, OH</td>
<td>3.7%</td>
</tr>
<tr>
<td>Erie County, OH</td>
<td>4.1%</td>
</tr>
<tr>
<td>Cuyahoga County, OH</td>
<td>4.4%</td>
</tr>
<tr>
<td>Lake County, OH</td>
<td>5.1%</td>
</tr>
<tr>
<td>Lorain County, OH</td>
<td>6.3%</td>
</tr>
<tr>
<td>Ashtabula County, OH</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

States in the Great Lakes Region

<table>
<thead>
<tr>
<th>State</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wisconsin</td>
<td>-1.9%</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Indiana</td>
<td>-0.1%</td>
</tr>
<tr>
<td>USA Average</td>
<td>0%</td>
</tr>
<tr>
<td>New York</td>
<td>0.4%</td>
</tr>
<tr>
<td>Michigan</td>
<td>0.8%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>1.1%</td>
</tr>
<tr>
<td>Illinois</td>
<td>2.4%</td>
</tr>
<tr>
<td>Ohio</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

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

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

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

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

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

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

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
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, PA

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.

The City of Erie, PA

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.
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.
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.

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.

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Share</td>
<td>Number</td>
<td>Share</td>
<td>Number</td>
</tr>
<tr>
<td><strong>Population by Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male Gender</td>
<td>49,179</td>
<td>47.4%</td>
<td>49,060</td>
<td>48.3%</td>
<td>48,661</td>
</tr>
<tr>
<td>Female Gender</td>
<td>54,569</td>
<td>52.6%</td>
<td>52,594</td>
<td>51.7%</td>
<td>51,786</td>
</tr>
<tr>
<td><strong>Total Population</strong></td>
<td>103,748</td>
<td>100.0%</td>
<td>101,653</td>
<td>100.0%</td>
<td>100,447</td>
</tr>
<tr>
<td><strong>Density per Square Mile</strong></td>
<td>5,431.30</td>
<td>.</td>
<td>5,345.93</td>
<td>.</td>
<td>5,258.47</td>
</tr>
<tr>
<td><strong>Per Capita Income</strong></td>
<td>$14,436</td>
<td>.</td>
<td>$18,888</td>
<td>.</td>
<td>$19,347</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Share</td>
<td>Number</td>
<td>Share</td>
<td>Number</td>
</tr>
<tr>
<td><strong>Population by Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 4</td>
<td>7,217</td>
<td>7.0%</td>
<td>7,647</td>
<td>7.5%</td>
<td>7,410</td>
</tr>
<tr>
<td>5 to 14</td>
<td>15,053</td>
<td>14.5%</td>
<td>12,721</td>
<td>12.5%</td>
<td>12,872</td>
</tr>
<tr>
<td>15 to 19</td>
<td>7,549</td>
<td>7.3%</td>
<td>7,977</td>
<td>7.8%</td>
<td>6,919</td>
</tr>
<tr>
<td>20 to 24</td>
<td>8,570</td>
<td>8.3%</td>
<td>10,313</td>
<td>10.1%</td>
<td>9,124</td>
</tr>
<tr>
<td>25 to 34</td>
<td>14,486</td>
<td>14.0%</td>
<td>14,345</td>
<td>14.1%</td>
<td>15,745</td>
</tr>
<tr>
<td>35 to 44</td>
<td>14,962</td>
<td>14.4%</td>
<td>11,616</td>
<td>11.4%</td>
<td>11,304</td>
</tr>
<tr>
<td>45 to 54</td>
<td>12,075</td>
<td>11.6%</td>
<td>13,158</td>
<td>12.9%</td>
<td>12,008</td>
</tr>
<tr>
<td>55 to 64</td>
<td>7,782</td>
<td>7.5%</td>
<td>10,790</td>
<td>10.6%</td>
<td>11,773</td>
</tr>
<tr>
<td>65 to 74</td>
<td>7,476</td>
<td>7.2%</td>
<td>6,014</td>
<td>5.9%</td>
<td>6,618</td>
</tr>
<tr>
<td>75 to 84</td>
<td>6,307</td>
<td>6.1%</td>
<td>4,588</td>
<td>4.5%</td>
<td>4,170</td>
</tr>
<tr>
<td>85+</td>
<td>2,272</td>
<td>2.2%</td>
<td>2,483</td>
<td>2.4%</td>
<td>2,503</td>
</tr>
<tr>
<td><strong>Total Population</strong></td>
<td>103,748</td>
<td>100.0%</td>
<td>101,653</td>
<td>100.0%</td>
<td>100,447</td>
</tr>
<tr>
<td><strong>Average Age</strong></td>
<td>34.3</td>
<td>.</td>
<td>33.2</td>
<td>.</td>
<td>33.6</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Share</td>
<td>Number</td>
<td>Share</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2000-10</td>
<td>2010-16</td>
<td>2016-21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population by Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>83,724</td>
<td>80.7%</td>
<td>76,238</td>
<td>75.0%</td>
<td>-0.9% -0.6% -0.6%</td>
</tr>
<tr>
<td>Black</td>
<td>14,402</td>
<td>13.9%</td>
<td>17,107</td>
<td>16.8%</td>
<td>1.7% 0.2% -0.1%</td>
</tr>
<tr>
<td>Amer. Indian, Alaska Native</td>
<td>293</td>
<td>0.3%</td>
<td>291</td>
<td>0.3%</td>
<td>-0.1% 1.9% 0.1%</td>
</tr>
<tr>
<td>Asian, Native Hawaii, Pacific Isl.</td>
<td>577</td>
<td>0.6%</td>
<td>1,567</td>
<td>1.5%</td>
<td>10.5% 4.0% 1.3%</td>
</tr>
<tr>
<td>Some Other Race</td>
<td>2,019</td>
<td>2.0%</td>
<td>2,494</td>
<td>2.5%</td>
<td>2.1% 2.0% 1.4%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>2,733</td>
<td>2.6%</td>
<td>3,958</td>
<td>3.9%</td>
<td>3.8% 2.3% 2.1%</td>
</tr>
<tr>
<td>Population by Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>4,693</td>
<td>4.5%</td>
<td>6,995</td>
<td>6.9%</td>
<td>4.1% 2.1% 1.4%</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>99,055</td>
<td>95.5%</td>
<td>94,659</td>
<td>93.1%</td>
<td>-0.5% -0.4% -0.5%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilian, Employed</td>
<td>44,754</td>
<td>43,420</td>
<td>46,662</td>
<td>45,839</td>
<td>-0.3%</td>
<td>1.2%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>In Armed Forces</td>
<td>43</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Civilian, Unemployed</td>
<td>3,925</td>
<td>6,142</td>
<td>4,054</td>
<td>4,164</td>
<td>4.6%</td>
<td>-6.7%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Total Labor Force</td>
<td>48,721</td>
<td>49,562</td>
<td>50,716</td>
<td>50,003</td>
<td>0.2%</td>
<td>0.4%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Not in Labor Force</td>
<td>31,467</td>
<td>30,476</td>
<td>28,236</td>
<td>27,850</td>
<td>-0.3%</td>
<td>-1.3%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Total Population 16+</td>
<td>80,188</td>
<td>80,038</td>
<td>78,952</td>
<td>77,853</td>
<td>0.0%</td>
<td>-0.2%</td>
<td>-0.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Collar</td>
<td>19,806</td>
<td>19,384</td>
<td>21,036</td>
<td>20,671</td>
<td>-0.2%</td>
<td>1.4%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>White Collar</td>
<td>24,926</td>
<td>24,036</td>
<td>25,626</td>
<td>25,168</td>
<td>-0.4%</td>
<td>1.1%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Total Employed Workers</td>
<td>44,732</td>
<td>43,420</td>
<td>46,662</td>
<td>45,839</td>
<td>-0.3%</td>
<td>1.2%</td>
<td>-0.4%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Married, Spouse Present</td>
<td>32,890</td>
<td>25,801</td>
<td>25,753</td>
<td>25,179</td>
<td>-2.7%</td>
<td>0.5%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Married, Spouse Absent</td>
<td>4,872</td>
<td>5,659</td>
<td>3,872</td>
<td>3,834</td>
<td>1.5%</td>
<td>-6.1%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Divorced</td>
<td>8,739</td>
<td>10,477</td>
<td>9,153</td>
<td>9,030</td>
<td>1.8%</td>
<td>-2.2%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Widowed</td>
<td>7,177</td>
<td>5,807</td>
<td>5,655</td>
<td>5,518</td>
<td>-2.1%</td>
<td>-0.4%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Never Married</td>
<td>27,727</td>
<td>34,341</td>
<td>35,731</td>
<td>35,477</td>
<td>2.2%</td>
<td>0.7%</td>
<td>-0.1%</td>
</tr>
</tbody>
</table>

| Age 15+ Population         | 81,479      | 81,285      | 80,165         | 79,038           | 0.0%                          | -0.2%   | -0.3%   |

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade K - 8</td>
<td>2,985</td>
<td>1,781</td>
<td>1,698</td>
<td>1,676</td>
<td>-5.0%</td>
<td>-0.8%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Grade 9 - 11</td>
<td>9,495</td>
<td>5,859</td>
<td>5,919</td>
<td>5,874</td>
<td>-4.7%</td>
<td>0.2%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>27,168</td>
<td>27,817</td>
<td>27,610</td>
<td>27,417</td>
<td>0.2%</td>
<td>-0.1%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Some College, No Degree</td>
<td>10,656</td>
<td>10,568</td>
<td>10,356</td>
<td>10,306</td>
<td>-0.1%</td>
<td>-0.3%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>3,025</td>
<td>4,359</td>
<td>4,445</td>
<td>4,428</td>
<td>3.7%</td>
<td>0.3%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>7,328</td>
<td>7,440</td>
<td>8,645</td>
<td>8,809</td>
<td>0.2%</td>
<td>2.5%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>4,006</td>
<td>4,471</td>
<td>4,629</td>
<td>4,627</td>
<td>1.1%</td>
<td>0.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td>No Schooling Completed</td>
<td>628</td>
<td>700</td>
<td>819</td>
<td>827</td>
<td>1.1%</td>
<td>2.7%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

| Age 25+ Population         | 65,291      | 62,995      | 64,122         | 63,965           | -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**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>Share</td>
<td>Share</td>
<td>Share</td>
<td>Share</td>
</tr>
<tr>
<td><strong>Households by Tenure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>n/a</td>
<td>21,383</td>
<td>20,872</td>
<td>20,767</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52.4%</td>
<td>51.8%</td>
<td>51.7%</td>
</tr>
<tr>
<td>Owner - Mortgage</td>
<td>n/a</td>
<td>13,970</td>
<td>12,831</td>
<td>12,664</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34.2%</td>
<td>31.8%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Owner - Fully Owned</td>
<td>n/a</td>
<td>7,413</td>
<td>8,041</td>
<td>8,103</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.2%</td>
<td>19.9%</td>
<td>20.2%</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>n/a</td>
<td>19,428</td>
<td>19,456</td>
<td>19,391</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47.6%</td>
<td>48.2%</td>
<td>48.3%</td>
</tr>
<tr>
<td><strong>Total Occupied Units</strong></td>
<td>39,811</td>
<td>40,328</td>
<td>40,158</td>
<td>40,309</td>
</tr>
<tr>
<td><strong>Total Vacant Units</strong></td>
<td>3,997</td>
<td>3,862</td>
<td>4,165</td>
<td>4,152</td>
</tr>
<tr>
<td><strong>Total Occupied and Vacant</strong></td>
<td>44,900</td>
<td>44,673</td>
<td>44,492</td>
<td>44,309</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>Share</td>
<td>Share</td>
<td>Share</td>
<td>Share</td>
</tr>
<tr>
<td><strong>Vehicles Available</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 Vehicles Available</td>
<td>7,409</td>
<td>9,644</td>
<td>8,959</td>
<td>8,816</td>
</tr>
<tr>
<td></td>
<td>18.1%</td>
<td>23.6%</td>
<td>22.2%</td>
<td>22.0%</td>
</tr>
<tr>
<td>1 Vehicle Available</td>
<td>18,167</td>
<td>17,586</td>
<td>17,466</td>
<td>17,383</td>
</tr>
<tr>
<td></td>
<td>44.4%</td>
<td>43.1%</td>
<td>43.3%</td>
<td>43.3%</td>
</tr>
<tr>
<td>2+ Vehicles Available</td>
<td>15,328</td>
<td>13,582</td>
<td>13,903</td>
<td>13,959</td>
</tr>
<tr>
<td></td>
<td>37.5%</td>
<td>33.3%</td>
<td>34.5%</td>
<td>34.8%</td>
</tr>
<tr>
<td><strong>Vehicles Per Household</strong></td>
<td>1.20</td>
<td>1.57</td>
<td>1.56</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $15,000</td>
<td>10,441</td>
<td>8,788</td>
<td>8,399</td>
<td>7,076</td>
<td>-1.7%</td>
<td>-0.8%</td>
<td>-3.4%</td>
</tr>
<tr>
<td>$15,000 - $24,999</td>
<td>7,484</td>
<td>6,671</td>
<td>6,673</td>
<td>6,051</td>
<td>-1.1%</td>
<td>0.0%</td>
<td>-1.9%</td>
</tr>
<tr>
<td>$25,000 - $34,999</td>
<td>6,309</td>
<td>5,434</td>
<td>5,309</td>
<td>4,917</td>
<td>-1.5%</td>
<td>-0.4%</td>
<td>-1.5%</td>
</tr>
<tr>
<td>$35,000 - $49,999</td>
<td>7,037</td>
<td>6,532</td>
<td>6,288</td>
<td>5,814</td>
<td>-0.7%</td>
<td>-0.6%</td>
<td>-1.6%</td>
</tr>
<tr>
<td>$50,000 - $74,999</td>
<td>6,286</td>
<td>7,280</td>
<td>7,208</td>
<td>7,748</td>
<td>1.5%</td>
<td>-0.2%</td>
<td>1.5%</td>
</tr>
<tr>
<td>$75,000 - $99,999</td>
<td>2,042</td>
<td>3,113</td>
<td>3,216</td>
<td>3,950</td>
<td>4.3%</td>
<td>0.5%</td>
<td>4.2%</td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>809</td>
<td>2,111</td>
<td>2,212</td>
<td>3,180</td>
<td>10.1%</td>
<td>0.8%</td>
<td>7.5%</td>
</tr>
<tr>
<td>$150,000+</td>
<td>439</td>
<td>881</td>
<td>1,022</td>
<td>1,421</td>
<td>7.2%</td>
<td>2.5%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Households Reported</td>
<td>40,847</td>
<td>40,811</td>
<td>40,327</td>
<td>40,158</td>
<td>0.0%</td>
<td>-0.2%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Total Households</td>
<td>40,903</td>
<td>40,811</td>
<td>40,328</td>
<td>40,158</td>
<td>0.0%</td>
<td>-0.2%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Average Hhld Income</td>
<td>$36,616</td>
<td>$45,473</td>
<td>$46,598</td>
<td>$54,083</td>
<td>2.2%</td>
<td>0.4%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Median Hhld Income</td>
<td>$28,514</td>
<td>$34,071</td>
<td>$34,557</td>
<td>$39,583</td>
<td>1.8%</td>
<td>0.2%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

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)

- Agric., Forest, Hunt., Mine: 2% (1%)
- Information: 2% (1%)
- Wholesale Trade: 3% (2%)
- Transport., Wrhsg., Utilities: 5% (3%)
- Public Administration: 3% (5%)
- Construction Activities: 4% (6%)
- Other Services (excl. Admin.): 5% (5%)
- Finance, Insurance, Real Estate: 7% (6%)
- Prof. Sci., Mngmt., Admin., Waste: 11% (7%)
- Retail Trade: 12% (12%)
- Arts, Ent., Rec., Accom., Food Svc: 10% (13%)
- Manufacturing: 10% (15%)
- Educ. Svc, Health Care, Soc. Asst: 23% (28%)

Opportunities

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.

Erie–Western Pennsylvania Port Authority Master Development Plan | 2017
The City of Erie v. Pennsylvania

Share of Total Filled Jobs
(With Many Categories Combined)

Opportunities

- Agric., Forest, Hunt., Mine: 2% (The City of Erie), 1% (Pennsylvania)
- Information: 2% (The City of Erie), 1% (Pennsylvania)
- Wholesale Trade: 3% (The City of Erie), 2% (Pennsylvania)
- Transport, Wrhsg., Utilities: 5% (The City of Erie), 3% (Pennsylvania)
- Public Administration: 4% (The City of Erie), 3% (Pennsylvania)
- Construction Activities: 4% (The City of Erie), 6% (Pennsylvania)
- Other Services (excl. Admin.): 5% (The City of Erie), 5% (Pennsylvania)
- Finance, Insurance, Real Estate: 6% (The City of Erie), 6% (Pennsylvania)
- Prof. Sci., Mngmt., Admin., Waste: 7% (The City of Erie), 10% (Pennsylvania)
- Retail Trade: 12% (The City of Erie), 12% (Pennsylvania)
- Arts, Ent., Rec., Accom., Food Svc: 8% (The City of Erie), 13% (Pennsylvania)
- Manufacturing: 12% (The City of Erie), 15% (Pennsylvania)
- Educ. Svc, Health Care, Soc. Asst.: 26% (The City of Erie), 28% (Pennsylvania)

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)

Opportunities

- Agric., Forest, Hunt, Mine: 2%
- Information: 1%
- Wholesale Trade: 2%
- Transport, Wrhsg, Utilities: 6%
- Public Administration: 3%
- Construction Activities: 3%
- Other Services (excl. Admin.): 5%
- Finance, Insurance, Real Estate: 7%
- Prof. Sci., Mngmt., Admin., Waste: 8%
- Retail Trade: 12%
- Arts, Ent., Rec., Accom., Food Svc: 9%
- Manufacturing: 18%
- Educ. Svc, Health Care, Soc. Asst: 21%

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

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>2015 NATION USA</th>
<th>2015 CITY Erie, PA</th>
<th>2015 STATE Pennsylvania</th>
<th>2015 COUNTY Erie, PA</th>
<th>2015 COUNTY Brown, WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educ. Serv., Health Care, Soc. Asst.</td>
<td>23.1%</td>
<td>28.2%</td>
<td>25.9%</td>
<td>27.3%</td>
<td>20.9%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>10.4%</td>
<td>14.9%</td>
<td>12.2%</td>
<td>17.5%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Arts, Ent., Rec., Accom., Food Serv.</td>
<td>9.6%</td>
<td>13.3%</td>
<td>8.4%</td>
<td>10.8%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>11.6%</td>
<td>12.1%</td>
<td>11.7%</td>
<td>11.3%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Prof., Sci., Mngmt., Admin, Waste</td>
<td>11.0%</td>
<td>6.8%</td>
<td>9.9%</td>
<td>6.5%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Finance, Insurance, Real Estate</td>
<td>6.6%</td>
<td>5.7%</td>
<td>6.4%</td>
<td>6.0%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Other Services (excl. Public Admin.)</td>
<td>4.9%</td>
<td>5.2%</td>
<td>4.7%</td>
<td>4.8%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Construction</td>
<td>6.2%</td>
<td>3.9%</td>
<td>5.7%</td>
<td>4.5%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Public Administration</td>
<td>4.8%</td>
<td>3.3%</td>
<td>4.1%</td>
<td>3.2%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Transpo., Warehousing, Utilities</td>
<td>5.0%</td>
<td>3.0%</td>
<td>5.1%</td>
<td>3.5%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>2.7%</td>
<td>1.9%</td>
<td>2.8%</td>
<td>2.2%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Information</td>
<td>2.1%</td>
<td>1.2%</td>
<td>1.7%</td>
<td>1.5%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Agric., Forest, Fish., Hunt., Mining</td>
<td>2.0%</td>
<td>0.4%</td>
<td>1.5%</td>
<td>1.1%</td>
<td>1.8%</td>
</tr>
<tr>
<td><strong>Total Employees by Industry</strong></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>2015 NATION USA</th>
<th>2015 CITY Erie, PA</th>
<th>2015 STATE Pennsylvania</th>
<th>2015 COUNTY Erie, PA</th>
<th>2015 COUNTY Brown, WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educ. Serv., Health Care, Soc. Asst.</td>
<td>33,739,126</td>
<td>12,305</td>
<td>1,552,124</td>
<td>35,042</td>
<td>27,295</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>15,171,260</td>
<td>6,503</td>
<td>729,883</td>
<td>22,432</td>
<td>23,834</td>
</tr>
<tr>
<td>Arts, Ent., Rec., Accom., Food Serv.</td>
<td>13,984,957</td>
<td>5,787</td>
<td>504,468</td>
<td>13,826</td>
<td>11,875</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>16,835,942</td>
<td>5,274</td>
<td>703,923</td>
<td>14,493</td>
<td>15,282</td>
</tr>
<tr>
<td>Prof., Sci., Mngmt., Admin, Waste</td>
<td>16,074,502</td>
<td>2,977</td>
<td>594,714</td>
<td>8,416</td>
<td>9,948</td>
</tr>
<tr>
<td>Finance, Insurance, Real Estate</td>
<td>9,578,175</td>
<td>2,509</td>
<td>383,079</td>
<td>7,671</td>
<td>9,123</td>
</tr>
<tr>
<td>Other Services (excl. Public Admin.)</td>
<td>7,198,201</td>
<td>2,289</td>
<td>279,735</td>
<td>6,141</td>
<td>5,372</td>
</tr>
<tr>
<td>Construction</td>
<td>9,027,391</td>
<td>1,692</td>
<td>341,409</td>
<td>5,773</td>
<td>6,895</td>
</tr>
<tr>
<td>Public Administration</td>
<td>6,996,990</td>
<td>1,426</td>
<td>245,740</td>
<td>4,151</td>
<td>4,247</td>
</tr>
<tr>
<td>Transpo., Warehousing, Utilities</td>
<td>7,226,063</td>
<td>1,309</td>
<td>306,822</td>
<td>4,442</td>
<td>7,986</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>3,968,627</td>
<td>844</td>
<td>168,873</td>
<td>2,825</td>
<td>4,124</td>
</tr>
<tr>
<td>Information</td>
<td>3,094,143</td>
<td>541</td>
<td>102,919</td>
<td>1,908</td>
<td>2,087</td>
</tr>
<tr>
<td>Agric., Forest, Fish., Hunt., Mining</td>
<td>2,852,402</td>
<td>188</td>
<td>88,200</td>
<td>1,421</td>
<td>2,286</td>
</tr>
<tr>
<td><strong>Total Employees by Industry</strong></td>
<td>145,747,779</td>
<td>43,644</td>
<td>6,001,889</td>
<td>128,541</td>
<td>130,354</td>
</tr>
</tbody>
</table>

### Unemployment Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>BLS</th>
<th>ACS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>6.9%</td>
<td>6.2%</td>
</tr>
<tr>
<td>2016</td>
<td>7.1%</td>
<td>6.6%</td>
</tr>
<tr>
<td>2015</td>
<td>10.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>2012</td>
<td>11.5%</td>
<td>9.1%</td>
</tr>
<tr>
<td>2010</td>
<td>9.8%</td>
<td>7.9%</td>
</tr>
</tbody>
</table>

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)

- Arts, Ent., Rec., Accom. Food Svc: 4.4% gain, 2.2% city
- Finance, Insurance, Real Estate: 3.8% gain, -0.7% city
- Construction: 3.2% gain, -2.3% city
- Educ. Svc, Health Care, Soc. Asst.: 1.5% gain, 1% city
- Public Administration: 0.1% gain, -0.4% city
- Agric., Forest, Fish, Hunt, Mine: 1.6% gain, 0.1% city
- Other Svc (Excl. Public Admin.): 0.9% gain, -0.7% city
- Retail Trade: 0.7% gain, -1.9% city
- Transpo., Warehousing, Utilities: 0.1% gain, -2.2% city
- Manufacturing: -0.5% city, -2.5% gain
- Prof., Sci., Mngmt., Admin., Waste: 1.7% gain, -2.5% city
- Wholesale Trade: -1.8% city, -3.8% gain
- Information: -1.7% city, -5% gain

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.
The City of Erie v. Pennsylvania
Annual Gains and Losses in Employment by Category
(With Many Categories Combined)

- Arts, Ent., Rec., Accom. Food Svc: 4.4% gain for Pennsylvania, 1.8% loss for Erie
- Finance, Insurance, Real Estate: 3.8% gain for Pennsylvania, -0.4% loss for Erie
- Construction: 3.2% gain for Pennsylvania, -1.5% loss for Erie
- Educ. Svc, Health Care, Soc. Asst.: 1% gain for Pennsylvania, 1.1% loss for Erie
- Public Administration: 0.1% gain for Pennsylvania, 0.1% loss for Erie
- Agric., Forest, Fish, Hunt, Mine: 0.1% gain for Pennsylvania, 3.5% loss for Erie (Opportunity)
- Other Svc (Excl. Public Admin.): 0.1% gain for Pennsylvania, -0.7% loss for Erie
- Retail Trade: 0.3% gain for Pennsylvania, -1.9% loss for Erie
- Transpo., Warehousing, Utilities: -0.5% gain for Pennsylvania, -2.2% loss for Erie
- Manufacturing: -1.1% gain for Pennsylvania, -2.5% loss for Erie
- Prof., Sci., Mngmt., Admin., Waste: 1% gain for Pennsylvania, -2.5% loss for Erie
- Wholesale Trade: -1.7% gain for Pennsylvania, -3.9% loss for Erie
- Information: -3.3% gain for Pennsylvania, -5% loss for Erie

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.
Erie County, PA v. Brown County, WI

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

- Agric., Forest, Fish, Hunt, Mine: -3.7%
- Arts, Ent., Rec., Accom., Food Svc: -3.3%
- Finance, Insurance, Real Estate: -1.4%
- Public Administration: -2.1%
- Educ. Svc, Health Care, Soc. Asst.: 1%
- Other Svc (excl. Public Admin.): 0.8%
- Prof., Sci., Mngmt., Admin., Waste: 2.9%
- Construction: 2%
- Retail Trade: 1%
- Manufacturing: 1.2%
- Wholesale Trade: -1.8%
- Transpo., Warehousing, Utilities: -2.9%
- Information: -0.4%

Brown County, WI □ Erie County, PA

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**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Educ. Serv., Health Care, Soc. Asst.</td>
<td>12,305</td>
<td>27,295</td>
<td>11,707</td>
<td>25,965</td>
<td>1.5%</td>
<td>1.1%</td>
<td>1.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>6,503</td>
<td>23,834</td>
<td>7,382</td>
<td>22,456</td>
<td>-0.5%</td>
<td>-1.1%</td>
<td>-1.5%</td>
<td>-2.5%</td>
<td>-1.2%</td>
<td></td>
</tr>
<tr>
<td>Arts, Ent., Rec., Accom., Food Serv.</td>
<td>5,787</td>
<td>11,875</td>
<td>4,662</td>
<td>11,815</td>
<td>2.2%</td>
<td>1.8%</td>
<td>3.3%</td>
<td>4.4%</td>
<td>0.1%</td>
<td></td>
</tr>
<tr>
<td>Retail Trade</td>
<td>5,274</td>
<td>15,282</td>
<td>5,819</td>
<td>14,506</td>
<td>0.7%</td>
<td>-0.7%</td>
<td>-1.9%</td>
<td>0.3%</td>
<td>-0.7%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Prof., Sci., Mngmt., Admin, Waste</td>
<td>2,977</td>
<td>9,948</td>
<td>3,380</td>
<td>8,628</td>
<td>1.7%</td>
<td>-2.5%</td>
<td>1.0%</td>
<td>-0.1%</td>
<td>2.9%</td>
<td></td>
</tr>
<tr>
<td>Finance, Insurance, Real Estate</td>
<td>2,509</td>
<td>9,123</td>
<td>2,079</td>
<td>9,806</td>
<td>-0.7%</td>
<td>3.8%</td>
<td>-2.5%</td>
<td>-0.4%</td>
<td>2.6%</td>
<td>-4.0%</td>
</tr>
<tr>
<td>Other Services (excl. Public Admin.)</td>
<td>2,289</td>
<td>5,372</td>
<td>2,368</td>
<td>5,477</td>
<td>0.9%</td>
<td>0.1%</td>
<td>0.8%</td>
<td>-0.7%</td>
<td>1.0%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Construction</td>
<td>1,692</td>
<td>6,895</td>
<td>1,446</td>
<td>6,233</td>
<td>-2.3%</td>
<td>3.2%</td>
<td>-1.5%</td>
<td>-0.4%</td>
<td>2.0%</td>
<td></td>
</tr>
<tr>
<td>Public Administration</td>
<td>1,426</td>
<td>4,247</td>
<td>1,417</td>
<td>3,664</td>
<td>0.4%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>2.1%</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>Transpo., Warehousing, Utilities</td>
<td>1,309</td>
<td>7,986</td>
<td>1,463</td>
<td>8,776</td>
<td>0.1%</td>
<td>-2.2%</td>
<td>-0.5%</td>
<td>-2.9%</td>
<td>-1.9%</td>
<td></td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>844</td>
<td>4,124</td>
<td>1,030</td>
<td>4,420</td>
<td>-1.8%</td>
<td>3.9%</td>
<td>-1.7%</td>
<td>-1.8%</td>
<td>-1.4%</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>541</td>
<td>2,087</td>
<td>1,142</td>
<td>2,125</td>
<td>-1.7%</td>
<td>13.9%</td>
<td>-3.3%</td>
<td>-7.9%</td>
<td>-0.4%</td>
<td></td>
</tr>
<tr>
<td>Agric., Forest, Fish., Hunt., Mining</td>
<td>188</td>
<td>2,286</td>
<td>187</td>
<td>1,904</td>
<td>1.6%</td>
<td>0.1%</td>
<td>3.5%</td>
<td>5.8%</td>
<td>3.7%</td>
<td></td>
</tr>
<tr>
<td><strong>Total Employees by Industry</strong></td>
<td><strong>43,644</strong></td>
<td><strong>130,354</strong></td>
<td><strong>44,082</strong></td>
<td><strong>125,775</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Utilities | 22 | 1%
Transport., Wrhsg. | 48-49 | 2.8%
Real Estate | 53 | 3.1%
Admin, Waste | 56 | 3.6%
Arts, Ent. Rec. | 71 | 3.6%
Information | 51 | 4.3%
Wholesale Trade | 42 | 6.7%
Finance, Insurance | 52 | 8.8%
Education Svc | 61 | 9.5%
Prof., Sci., Tech | 54 | 9.5%
Manufacturing | 31-33 | 15.8%
Health Care Svc | 62 | 31.3%

Note: This chart intentionally excludes retail trade, accommodations (hotels, motels), and food services (restaurants).

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.
# NAICS 62

## Number of Employer Filled Positions

### The City of Erie | Zip Codes 16501 - 16511

<table>
<thead>
<tr>
<th>Service Type</th>
<th>NAICS Code</th>
<th>Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health Svc., Psycho.</td>
<td>6222</td>
<td>1,430</td>
</tr>
<tr>
<td>Clinic, Lab, Surgical</td>
<td>6215</td>
<td>1,455</td>
</tr>
<tr>
<td>Youth Orgs, Ctrs. Child Care</td>
<td>6244</td>
<td>1,935</td>
</tr>
<tr>
<td>Dental, Optic., Therapy, etc.</td>
<td>62132</td>
<td>2,365</td>
</tr>
<tr>
<td>Home Health Svc &amp; Rehab</td>
<td>6243</td>
<td>3,045</td>
</tr>
<tr>
<td>Physician, Surgeon, Nurse</td>
<td>62139</td>
<td>4,060</td>
</tr>
<tr>
<td>Nursing &amp; Retirement Home</td>
<td>62412</td>
<td>5,275</td>
</tr>
<tr>
<td>Counseling &amp; Social Welfare</td>
<td>62411</td>
<td>5,575</td>
</tr>
<tr>
<td>Hospitals, Medical Centers</td>
<td>6223</td>
<td>8,940</td>
</tr>
</tbody>
</table>

## 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)

### 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)
- 62331 | 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.
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

Textiles, Apparel, Leather | 313-316  230
Nonmetallic Minerals | 327  262
Machinery, HVAC | 3331-3334  352
Printing, Related Support | 3231  423
Wood, Paper, Pulp Mfg. | 321-322  490
Petro, Coal, Chem. Mfg. | 324-325  665
Food, Beverage Mfg. | 311-312  1,305
Plastic, Rubber Manufact. | 326  3,315

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.
### NAICS 33

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

<table>
<thead>
<tr>
<th>Industry</th>
<th>Employer Filled Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furniture, Related Mfg.</td>
<td>337</td>
</tr>
<tr>
<td>Medical Equip., Supplies</td>
<td>3391</td>
</tr>
<tr>
<td>General Purpose Mfg.</td>
<td>3339</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>336</td>
</tr>
<tr>
<td>Foundries, Primary Metals</td>
<td>331</td>
</tr>
<tr>
<td>Metalwork, Machinery</td>
<td>3335</td>
</tr>
<tr>
<td>Comput., Elect., Appliance</td>
<td>334-35</td>
</tr>
<tr>
<td>Other Misc. Manufacturing</td>
<td>3399</td>
</tr>
<tr>
<td>Fabricated Metal Manufg.</td>
<td>332</td>
</tr>
</tbody>
</table>

### 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.
NAICS 54
Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511

<table>
<thead>
<tr>
<th>Industry</th>
<th>Employer Filled Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialized Design Services</td>
<td>165</td>
</tr>
<tr>
<td>Computer System Design</td>
<td>220</td>
</tr>
<tr>
<td>Scientific Research, Dev.</td>
<td>555</td>
</tr>
<tr>
<td>Accounting, Taxes, Payroll</td>
<td>1,000</td>
</tr>
<tr>
<td>Advertising, Public Relations</td>
<td>1,170</td>
</tr>
<tr>
<td>Architecture, Engineering</td>
<td>1,300</td>
</tr>
<tr>
<td>Other Related Industries</td>
<td>1,470</td>
</tr>
<tr>
<td>Scientific, Tech. Consulting</td>
<td>2,025</td>
</tr>
<tr>
<td>Attorneys, Legal Services</td>
<td>2,180</td>
</tr>
</tbody>
</table>

Top Employers
Zip Code 16507 Only
5411 | Attorneys, Legal Services
    | McDonald Lilag 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 | Ecca Payroll Prep. Svc (<100)
5413 | CM 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
NAICS 61
Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511

- Junior Colleges | 6112 - 115
- Business, Mngmt. Schools | 6114 - 120
- Educational Support Service | 6117 - 140
- Technical, Trade Schools | 6115 - 150
- Other Schools, Instruction | 6116 - 550
- College, University, Profess. | 6113 - 2,285
- Public Schools K-12 | 6111 - 6,760

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.
NAICS 52

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

- Employee Ins., Benefits | 5251 - 45
- Security, Commodity Brokers | 5231 - 50
- Credit Intermediaries | 5222-23 - 155
- Insurance Plan Carriers | 5241 - 330
- Other Financial Investmt. | 5239 - 950
- Banking, Credit Unions | 5221 - 1,195
- Insurance Related Activity | 5242 - 6,695

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 | Lillie 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.

Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.
NAICS 423
Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511

<table>
<thead>
<tr>
<th>Industry Description</th>
<th>Zip Code</th>
<th>Employer Filled Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furniture, Home Furnish.</td>
<td>4232</td>
<td>65</td>
</tr>
<tr>
<td>Sand, Gravel, Lumber, etc.</td>
<td>4233</td>
<td>160</td>
</tr>
<tr>
<td>Metal, Minerals (excl. Fuel)</td>
<td>4235</td>
<td>185</td>
</tr>
<tr>
<td>Motor Vehicles, Parts</td>
<td>4231</td>
<td>255</td>
</tr>
<tr>
<td>Profess., Commercial Equip.</td>
<td>4234</td>
<td>390</td>
</tr>
<tr>
<td>Hhld. Appliance, Electrical</td>
<td>4236</td>
<td>465</td>
</tr>
<tr>
<td>Machinery, Equipment</td>
<td>4238</td>
<td>1,460</td>
</tr>
</tbody>
</table>

Top Employers
Zip Code 16507 Only

<table>
<thead>
<tr>
<th>Employer Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erie Sand &amp; Gravel (≤50)</td>
</tr>
<tr>
<td>Janitors Supply Co. (≤50)</td>
</tr>
<tr>
<td>Niagara Machine - Sweepers (≤20)</td>
</tr>
<tr>
<td>Knoll Security - Control Equipment (≤20)</td>
</tr>
<tr>
<td>Sidehill Copper Works (≤10)</td>
</tr>
<tr>
<td>Fireline Group - Fire Extinguishers (≤10)</td>
</tr>
<tr>
<td>Laser Calibration Systems - Inspection (≤5)</td>
</tr>
</tbody>
</table>

Top Employers
Other City Zip Codes

<table>
<thead>
<tr>
<th>Employer Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bush Industries Inc Logistics (≤500)</td>
</tr>
<tr>
<td>Eriez Manufacturing (≤500)</td>
</tr>
<tr>
<td>Erie Strayer (≤250)</td>
</tr>
<tr>
<td>Kold-Draft Refrigeration (≤100)</td>
</tr>
<tr>
<td>Cleveland Brothers Equipment (≤100)</td>
</tr>
<tr>
<td>GE Transportation (≤100)</td>
</tr>
<tr>
<td>Liberty Iron &amp; Metal (≤100)</td>
</tr>
</tbody>
</table>

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.
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

<table>
<thead>
<tr>
<th>Industry</th>
<th>Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel, Piece Goods 4243</td>
<td>15</td>
</tr>
<tr>
<td>Refrigeration, Beverage 4251</td>
<td>50</td>
</tr>
<tr>
<td>Paper, Paper Products 4241</td>
<td>55</td>
</tr>
<tr>
<td>Alcoholic Beverages 4248</td>
<td>310</td>
</tr>
<tr>
<td>Grocery, Related Products 4244</td>
<td>835</td>
</tr>
<tr>
<td>Misc. Durable Goods 4239</td>
<td>1,310</td>
</tr>
<tr>
<td>Chemicals, Petroleum 4246-47</td>
<td>2,070</td>
</tr>
</tbody>
</table>

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.
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

<table>
<thead>
<tr>
<th>Industry</th>
<th>Employer Filled Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion Picture, Sound Record</td>
<td>100</td>
</tr>
<tr>
<td>Other Telecommunications</td>
<td>120</td>
</tr>
<tr>
<td>Software Publishing</td>
<td>240</td>
</tr>
<tr>
<td>Other Information Services</td>
<td>300</td>
</tr>
<tr>
<td>Data Process, Host Services</td>
<td>680</td>
</tr>
<tr>
<td>Telecomm. Carriers</td>
<td>695</td>
</tr>
<tr>
<td>News, Book Publishing</td>
<td>815</td>
</tr>
<tr>
<td>Broadcasting (excl. Internet)</td>
<td>1,605</td>
</tr>
</tbody>
</table>

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
NAICS 71

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

- Spectator Sports | 7112 - 25
- Performing Arts | 7111 - 30
- Promoters, Agents | 7113-14 - 75
- Artists, Writers, Performers | 7115 - 230
- Museums, Historical Sites | 7121 - 340
- Arcades, Gaming, Amuse. | 7131-32 - 1,065
- Other Amusement, Rec. | 7139 - 2,125

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)

- Other Venues
  - 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.
NAICS 56
Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Employer Filled Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Administration</td>
<td>10</td>
</tr>
<tr>
<td>Travel Arrangements</td>
<td>100</td>
</tr>
<tr>
<td>Employment Services</td>
<td>260</td>
</tr>
<tr>
<td>Other Support Services</td>
<td>395</td>
</tr>
<tr>
<td>Business Support Services</td>
<td>525</td>
</tr>
<tr>
<td>Waste Management</td>
<td>605</td>
</tr>
<tr>
<td>Investigation, Security Ser.</td>
<td>875</td>
</tr>
<tr>
<td>Building, Dwelling Services</td>
<td>1,080</td>
</tr>
</tbody>
</table>

Top Employers
Zip Code 16507 Only

5617 | Building and Dwelling Services
   | Pro Floor Care - Janitors (<5)
   | 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, Holdnak 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. Emplymnt. (<100)
5613 | Career Concepts Staffing (<50)
5619 | RGIS Inventory Specialists (<50)
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 Mgmt. 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.
NAICS 48 & 49
Number of Employer Filled Positions
The City of Erie | Zip Codes 16501 - 16511

Other Transpo. Support | 4889 | 10
Warehousing, Storage | 493 | 30
Scenic, Sightseeing Transp. | 487 | 60
Air, Rail Transportation | 481-82 | 70
Freight Transportation | 4885 | 130
Post, Courier, Messenger | 491-92 | 510
Transport. Support | 4881-84 | 590
Transit, Passengers | 485 | 675
Trucking Transportation | 484 | 920

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.
NAICS 22

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

Water, Sewer Systems | 2213 — 120
Natural Gas Distribution | 2212 — 270
Electric Power, Transmission | 2211 — 275

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.

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

Utilities | 22  0.1%
Educational Svc | 61  1%
Information | 51  2%
Arts, Entert., Rec. | 71  3%
Transp., Warehsg. | 48  4%
Real Estate | 53  3%
Wholesale Trade | 42  5%
Admin., Waste | 56  7%
Finance, Insurance | 52  6%
Prof., Scient., Tech. | 54  7%
Manufacturing | 31-33  7%
Other Services | 81  8%
Hotels, Food Svc. | 72  13%
Health Care | 62  14%
Retail Trade | 44-45  19%

Total Number of Establishments
Monroe County = 1,968
Erie County = 5,395

Monroe County, MI
Erie County, PA

Implied Gaps and Opportunities

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

NAICS 22 - 81 (ALL)
Erie County v. Racine County

Utilities | 22 | 0.1% 0.1%
Educational Svc | 61 | 1% 1%
Information | 51 | 1% 2%
Arts, Entert., Rec. | 71 | 2% 2%
Transp., Warehsg. | 48 | 3% 5%
Real Estate | 53 | 3% 3%
Wholesale Trade | 42 | 5% 5%
Admin., Waste | 56 | 5% 6%
Finance, Insurance | 52 | 6% 7%
Prof., Scient., Tech. | 54 | 8% 9%
Manufacturing | 31-33 | 9% 10%
Other Services | 81 | 9% 10%
Hotels, Food Svc. | 72 | 11% 12%
Health Care | 62 | 13% 16%
Retail Trade | 44-45 | 17% 18%

Total Number of Establishments
Racine County = 3,406
Erie County = 5,395

Racine County, WI
Erie County, PA

Implied Gaps and Opportunities

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Erie County</th>
<th>Brown County</th>
<th>Total Number of Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>0.1%</td>
<td>0.1%</td>
<td></td>
</tr>
<tr>
<td>Educational Svc</td>
<td>1%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>2%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Arts, Entert., Rec.</td>
<td>2%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Transp., Warehsg.</td>
<td>5%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>3%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>5%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Admin., Waste</td>
<td>5%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Finance, Insurance</td>
<td>6%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Prof., Scient., Tech.</td>
<td>8%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Other Services</td>
<td>8%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Hotels, Food Svc.</td>
<td>11%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Health Care</td>
<td>11%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Retail Trade</td>
<td>16%</td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>

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

NAICS 31-33
Erie County v. Brown County

Excluding dairy, wood products, furniture production, printing, and textiles, which rely heavily on Wisconsin's agricultural and lumber resources.

 implied Market Gaps and Opportunities

<table>
<thead>
<tr>
<th>Industry</th>
<th>Brown Co.</th>
<th>Erie Co.</th>
<th>Per Capita Income</th>
<th>Total Personal Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Equip., Supplies</td>
<td>250,000</td>
<td>280,000</td>
<td>$28,000</td>
<td>$7.0 bil.</td>
</tr>
</tbody>
</table>

Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.
NAICS 54
Erie County v. Brown County

<table>
<thead>
<tr>
<th>Service</th>
<th>Brown Co.</th>
<th>Erie Co.</th>
<th>Estim. Population</th>
<th>Per Capita Income</th>
<th>Total Personal Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Research, Devlpmt.</td>
<td>250,000</td>
<td>280,000</td>
<td></td>
<td>$28,000</td>
<td>$7.0 bil.</td>
</tr>
<tr>
<td>Specialized Design Services</td>
<td></td>
<td></td>
<td></td>
<td>$25,000</td>
<td>$7.0 bil.</td>
</tr>
<tr>
<td>Advertising, Public Relations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Prof., Sci., Tech. Svc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Systems Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mngmt., Sci., Tech. Consulting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architectural, Engineering Svc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting, Tax, Books, Payroll</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal Services, Attorneys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

Implied Market Gaps and Opportunities

Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.
Finance & Insurance
A study of existing establishments (share) within selected industries.

NAICS 52
Erie County v. Brown County

<table>
<thead>
<tr>
<th>Category</th>
<th>Estim. Population</th>
<th>Per Capita Income</th>
<th>Total Personal Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown Co.</td>
<td>250,000</td>
<td>$28,000</td>
<td>$7.0 bil.</td>
</tr>
<tr>
<td>Erie Co.</td>
<td>280,000</td>
<td>$25,000</td>
<td>$7.0 bil.</td>
</tr>
</tbody>
</table>

- Related to Credit Intermed. 6.7% Brown County, WI (Green Bay) 9% Erie County, PA (Erie)
- Nondepository Credit Interm. 5.1% 3.8%
- Other Financial Investment 10.7% 8.8%
- Insurance Carriers 5.1% 7.4%
- Securities, Commodities 13.7% 10%
- Insurance Agents, Brokers 32.1% 31.2%
- Depository Credit Intermed. 26.7% 38.2%

Implied Market Gaps and Opportunities

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.

Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.
Wholesale Trade
A study of existing establishments (share) within selected industries.

NAICS 42
Erie County v. Brown County

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimated Population</th>
<th>Per Capita Income</th>
<th>Total Personal Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel, Piece Goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drugs, Sundries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beer, Wine, Alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture, Furnishings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals, Allied Products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal, Minerals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper, Paper Products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groceries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardware, Plumbing, HVAC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc. Non-Durable Goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lumber, Const. Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hhld. Appliances, Electronics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profess., Commercial Equip.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor Vehicles, Parts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc. Durable Goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machinery, Equip., Supplies</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Brown Co. 250,000 $28,000 $7.0 bil.
Erie Co. 280,000 $25,000 $7.0 bil.

Market analysis prepared by LandUseUSA in collaboration with the Albert Kahn Assoc. planning team.
Erie–Western Pennsylvania Port Authority Master Development Plan | 2017

Implied Gaps and Opportunities
INDUSTRY ANALYSIS

Section H

Economic Census | Scatter Plots
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 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 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 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 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 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.
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 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 Waterbone Commerce
All United States Seaways | 1974 - 2015

Total Cargo (through 2015)
Foreign Trade Cargo (through 2013)
Domestic Trade Cargo (through 2013)

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

- 62% | Limestone
- 26% | Sand and Gravel
- 9% | Non-Metal Minerals
- 2% | Coal Lignite
- 1% | All Other Products

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

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

2017 is forecast to be the third consecutive year of modest declines.

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

2017 is forecast to be the third consecutive year of modest declines.

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

Recent declines have been attributed to "tired ships and (competition from) imported steel".

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

The 2013/2014 and 2014/2015 winters included deep freezes on the Great Lakes. Shipping nearly halted, which resulted in the depletion of iron ore supplies at Cleveland's mills.

Some resurgence has been attributed to mills restocking supplies that had been depleted during prior deep freezes.

Most recent declines have been attributed to "tired ships and imported steel".

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

8 Ports Combined
4 Ohio Ports + Buffalo, NY

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.

Note: The Carriers' Association stopped reporting coal shipment data after two significant Ohio ports stopped contributing their data.

Note: Some of the decline could be attributed to competition from horizontal drilling and hydraulic fracking.
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

## 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

### Strengths
- Capitalize
  - Improve brand/message
  - Maximize assets/property value
  - Promote development
  - Expand grant monies
  - Promote tourism opportunities
  - Promote shipyard/terminal

### Weaknesses
- Improve
  - Ensure the organization is properly staffed
  - Improve economic impact of the Port
  - Integrate Port with multimodal activities
  - Connect Bayfront with downtown

## Threats

### Turnaround
- Expand revenue/customer opportunities
- Ensure proper asset management tracking
- Attain financial break-even position

### Defend
- 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.

Manufacturer
... Acquires agricultural products from farmers, processes them, and sells the new products in bulk to Wholesalers.

Wholesaler
... Bundles the foods into assortments, adds specialty packaging, and resells them to Retailers.

Retailer
... Displays the products in the stores, and sells them to Consumers.

Consumer
... Buys the end products from retailers, and takes them to a home or business for consumption.

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.

Erie-Western Pennsylvania Port Authority Master Development Plan | 2017
Mountford 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.