

CHAPTER 4. REGIONAL PROFILE

Introduction: Since the next US Census will not be completed until 2020, much of the data reported in this and other sections of the document are from the 2010 US Census. However, in some cases more recent data was found through the American Community Survey (ACS) which is a nationwide survey completed by the Census Bureau. Unless otherwise noted the 2010 Census and the 2012 American Community Survey (ACS) five year survey were utilized when referring to the Census or ACS. It is also important to note, the Ohio Department of Development (ODOD) county level population control totals will be reflected in the final adopted Transportation Plan and air quality conformity determination and associated travel demand modeling procedures. Any variation from the ODOD county level population control totals, for the Transportation Plan and Conformity Determination will require substantial documentation, including interagency consultation. ODOD population control totals are not required for transportation and land use alternatives scenario planning.

4.1 Existing Conditions

Geography: Erie County is one of eight coastal counties situated on the eastern border of the Northwestern Ohio region. Erie County is bounded by Lorain County to the East, Huron County to the South, Sandusky and Ottawa Counties to the West and Lake Erie to the North. Erie County has a land area of 255 square miles with a population density of 301 people per square mile.¹ In addition, the county has a water area of 371 square miles with 65 miles of shoreline along the lake and Sandusky Bay.² The majority of the county consists of cropland (53%) and forest (16%).³ The transportation network in Erie County consists of 26 interstate highway miles, 42 US highway miles and 114 state highway miles.⁴ There are 622 county, township and municipal road miles, two small commercial airports, two shipping ports and 95 miles of rail line.⁵ The City of Sandusky, incorporated in 1824, is the largest city in Erie County and serves as the county seat.

Population: Since the last Census in 2000 there has been a decrease in population within the MPO planning area of 8.3%, with the current population totaling 82,991 people in 2013 according to the five year ACS. Staff noted that eight of the ten urban areas were estimated to have lost population between the years 2000 and 2010. Although population was less than reported in the 2000 Census it was noted that Berlin, Milan and Florence Townships lost less than 60 residents each overall. Two urban areas, Huron and Vermilion Townships, gained population during this same time period.

Population projections were also examined. These projections help determine the expectations of the population that can be used for future planning. They help to determine the ability of Erie County to capture its fair share of public/private grants and government loans. County level population forecasts were prepared by the Ohio Office of Policy, Research and Strategic Planning (OPRSP) through the year 2040. The 2013 ACS estimated that Erie County's population will be 76,048.

¹ http://www.city-data.com/county/Erie_County-OH.html

² <http://thebeacon.net/local-news/ottawa-outdoors/item/5106-celebrating-lake-erie-on-earth-day> ODNR

³ Ohio Office of Policy, Research and Strategic Planning, 2013

⁴ Erie County 2013 Freight Plan

⁵ http://www.city-data.com/county/Erie_County-OH.html

Figure 4-1: Population Changes Per Jurisdiction

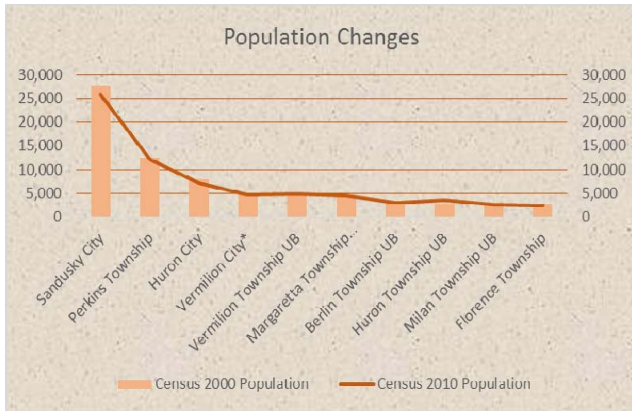
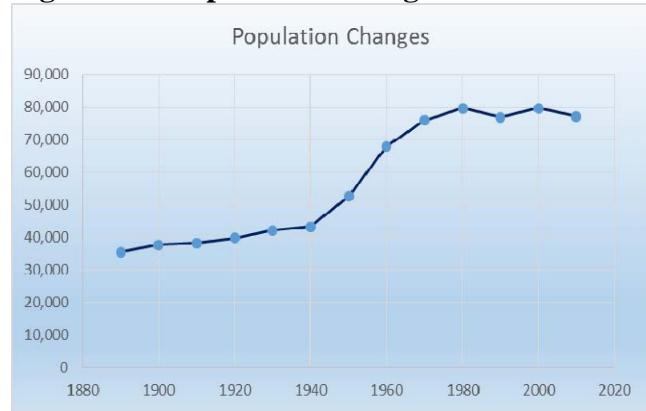


Figure 4-2: Population Changes Over Time



Sex and Age: Overall the largest population cohorts in the county consist of those aged 50-54, 55-59 and 60-64. It was noted that the cohort of those aged 65 years and older have slightly decreased since 2000 to 18.4%. Despite of this residents as a whole are aging, as the median age has increased to 43 years old. About one out of every four 65-year-olds today will live past age 90, and one out of 10 will live past age 95.⁶ It can be assumed that by the time of the next LRTP update Erie County’s population will have a larger percent of citizens aged 65 or older. Staff noted that the highest concentration of those 18 or older were located in the City of Sandusky as reflected in the map below. With the population in Erie County getting older it can be assumed that public transportation will be vital for the population to remain mobile in the future. Another important demographic characteristic of the population is gender structure. The majority of females are located within the urban areas of the county. Gender can be used as an indicator of population and as a future planning tool as females typically live longer than males. According to data compiled by the Social Security Administration: A man reaching age 65 today can expect to live, on Average, until age 84. A woman turning age 65 today can expect to live, on Average, until age 86. The ACS lists the female population of the area at 39,240 which is slightly higher than the number of males which was 37,712.

Household Types: The majority of households within the MPO area consist of husband-wife families followed by non-family households. In Erie County the Average household size is 2.58 persons per household which is an increase from 2000 as reported in the Census. It was also recorded that there was an increase in households with no children.⁷ As a result of this it can be assumed that there are more people living together in the area that are not traditionally families.

Density: The majority of the county’s population is located within the urban areas as identified in the map below. Population by census block group for the Erie County area is shown below. Nearly three-fourths of the population lives within urbanized areas or in urban clusters. Outside the urbanized areas, census block groups are quite large. Therefore, the population map may be mistakenly interpreted suggesting a greater concentration of people in the rural areas. Housing density information is a useful consideration in the evaluation of various transportation facilities. Transportation improvements that serve more households per unit of improvement will generally produce greater utility, all else being equal. For example, public

⁶ <http://www.ssa.gov/planners/lifeexpectancy.htm>

⁷ 2010 Census

transit service in a higher density residential area can serve more households per vehicle mile of service than transit service in a lower density residential area. Similarly, a mile of sidewalk or trails in a high-density area can serve more people than in a low-density area.

Homeownership: According to the ACS home ownership has decreased 73% from 2000 to 65% of homes in Erie County being owner occupied. This is on par with the State of Ohio’s Average which was 66%. The median housing value according to the ACS is \$138,600. Median value of an owner occupied home is \$138,000.⁸ The majority of owner occupied mortgages cost between \$1,000-\$1,499 per month with a median costs of \$1,199. Staff also discovered that the majority of rental units costs between \$500-\$749 with a median cost of \$668 a month. Home sales have widely fluctuated over the last few years most likely due to the Recession.

Unemployment: According to the 2014 Ohio Labor Market Information, 36,000 are employed in Erie County with 3,000 people unemployed. In July of 2014 Erie County was ranked #45 out of 88 counties in Ohio for unemployment rates according to the Ohio Department of Jobs and Family Services. Unfortunately something to consider is that unreliable transportation can be huge barrier to employment. For example, historically, low-income residents across the country live near urban centers, while the majority of the jobs they qualify for are in the suburbs. Public transit is often designed to take suburban residents from a central point outside the city into various areas within the city- but more often than not, city residents aren’t able to take public transit to jobs in the suburbs.⁹ Erie County is fortunate to have the Sandusky Perkins Area Ride Connection, or SPARC, which may actually be assisting with keeping the unemployment rate low since it covers a large area of the county.

Table 4-1: Unemployment

Year	Unemployment % in Erie County
As of 9/1/2014	4.60%
2012	7.50%
2011	8.80%
2010	10.40%
2009	11.90%

⁸ <http://www.city-data.com/county/ErieCounty-OH.html>

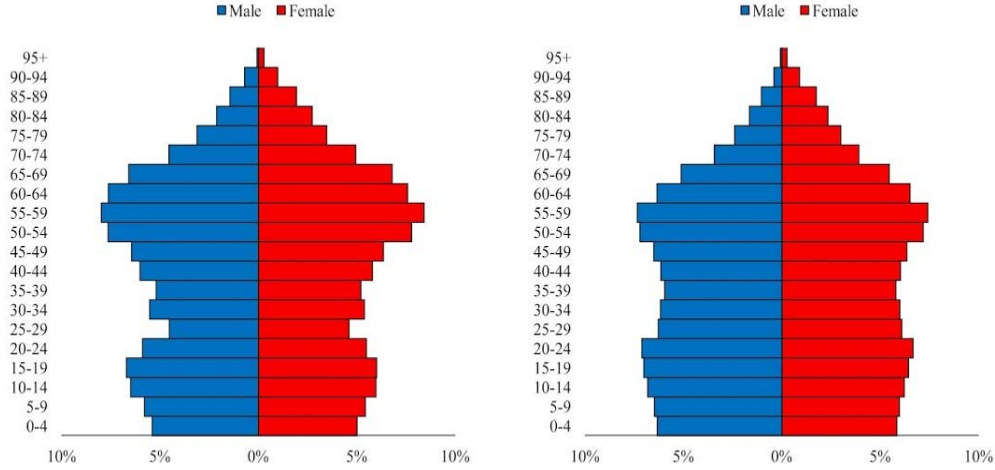
⁹ <http://www.vehiclesforchange.org/unemployment-problem-complicated-by-public-transit/>

Figure 4-3: Population Pyramids

Population Pyramids of Ohio by County

Erie County Projected Population Pyramid, 2015

Ohio Projected Population Pyramid, 2015



Go to: <http://scripps.muohio.edu/content/population-pyramids-ohio-county-2010-2050> to download individual population pyramids (PDF, J-PEG, TIFF formats available).

Note: Population pyramids display % of populations by 5 years age groups.

Citation: Mehdizadeh, S., Ritchey, P. N., Tipsuk, P., & Yamashita, T. (2012). Population Pyramids of Ohio by County. Scripps Gerontology Center, Miami University, Oxford, OH.

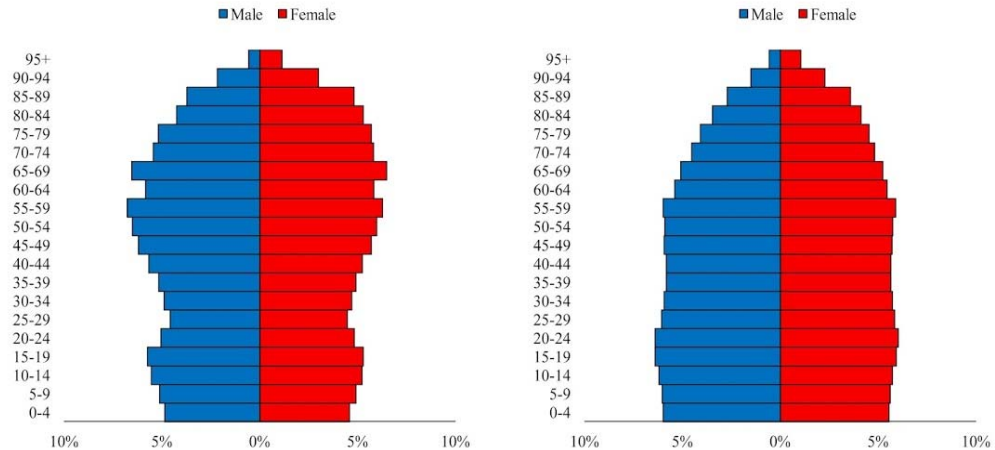
Data Sources: U.S. Census Bureau. (2012). U.S. Census 2010 data; Ritchey, P. N., Mehdizadeh, S., & Yamashita, T. (2012). Projections of Ohio's Population. Scripps Gerontology Center, Miami University, Oxford, OH.

Figure 4-4: Population Pyramids

Population Pyramids of Ohio by County

Erie County Projected Population Pyramid, 2050

Ohio Projected Population Pyramid, 2050

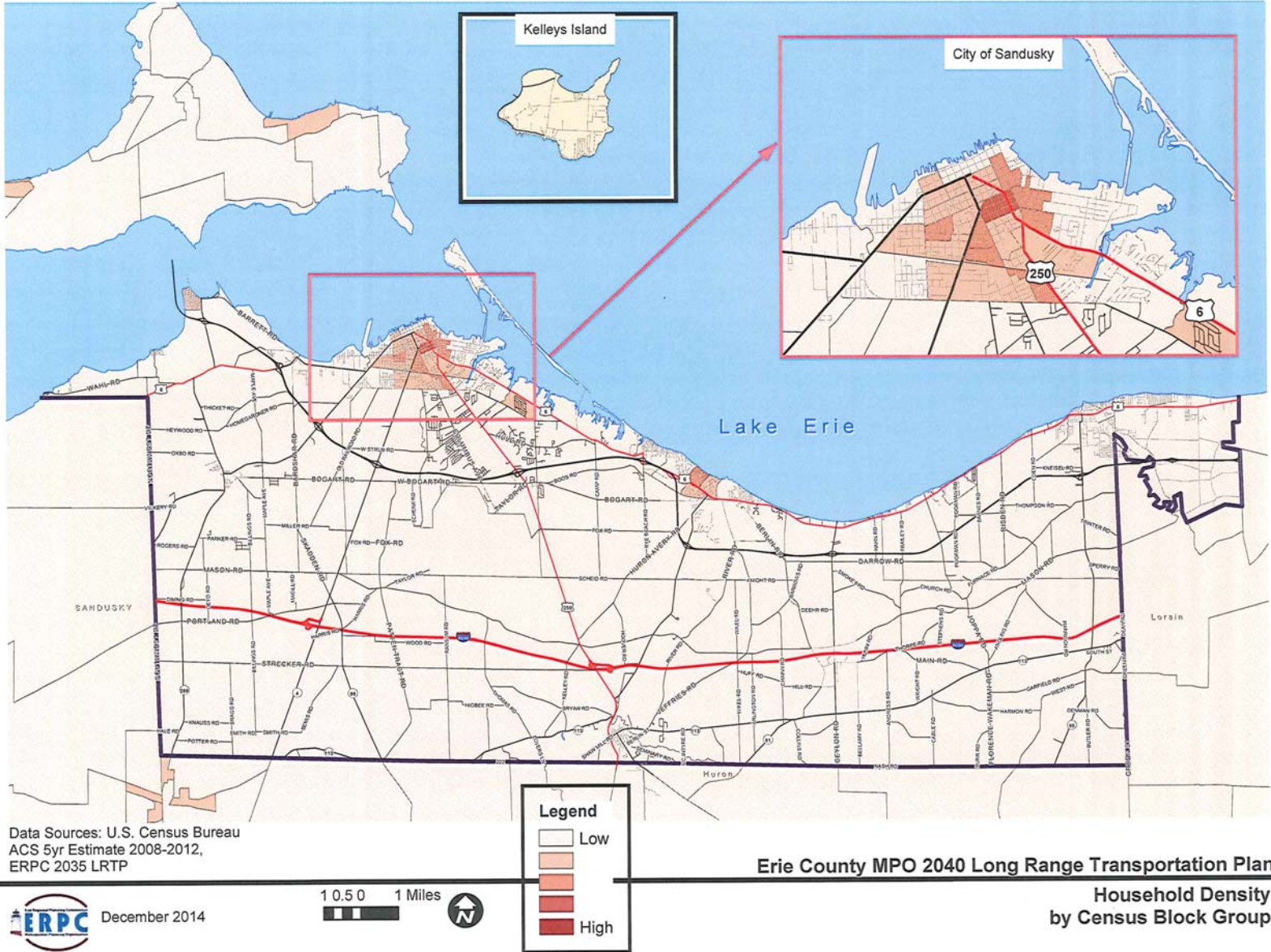


Go to: <http://scripps.muohio.edu/content/population-pyramids-ohio-county-2010-2050> to download individual population pyramids (PDF, J-PEG, TIFF formats available).

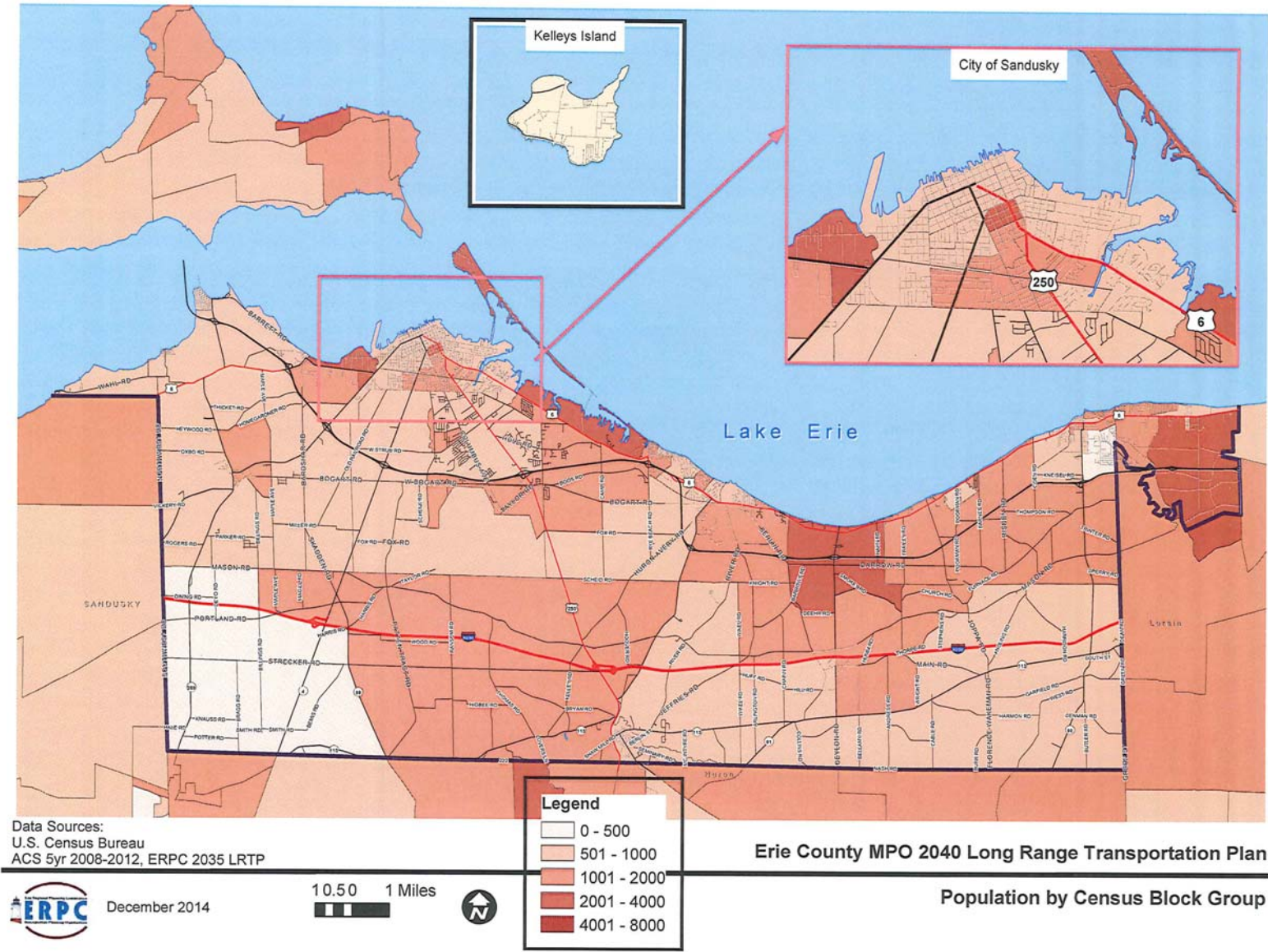
Note: Population pyramids display % of populations by 5 years age groups.

Citation: Mehdizadeh, S., Ritchey, P. N., Tipsuk, P., & Yamashita, T. (2012). Population Pyramids of Ohio by County. Scripps Gerontology Center, Miami University, Oxford, OH.

Data Sources: U.S. Census Bureau. (2012). U.S. Census 2010 data; Ritchey, P. N., Mehdizadeh, S., & Yamashita, T. (2012). Projections of Ohio's Population. Scripps Gerontology Center, Miami University, Oxford, OH.



Map 4-1: Density by Block Groups



Map 4-2: Population by Block Groups

Figure 4-5: Mortgage Costs

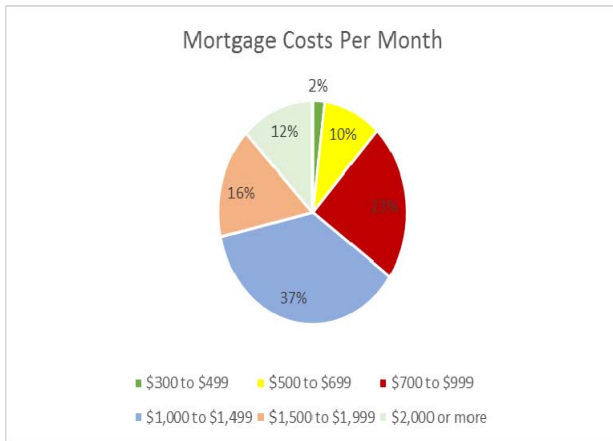


Figure 4-6: Rent Costs

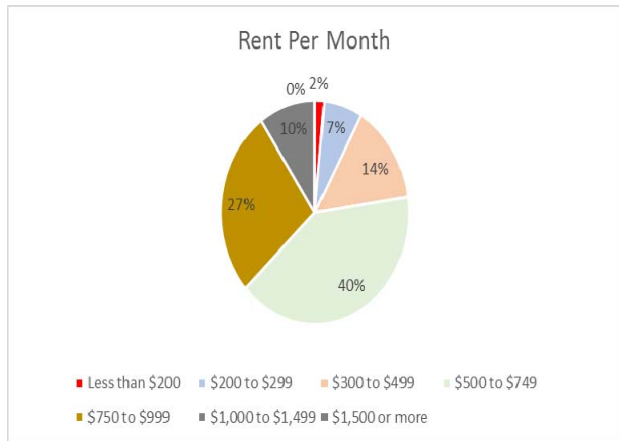
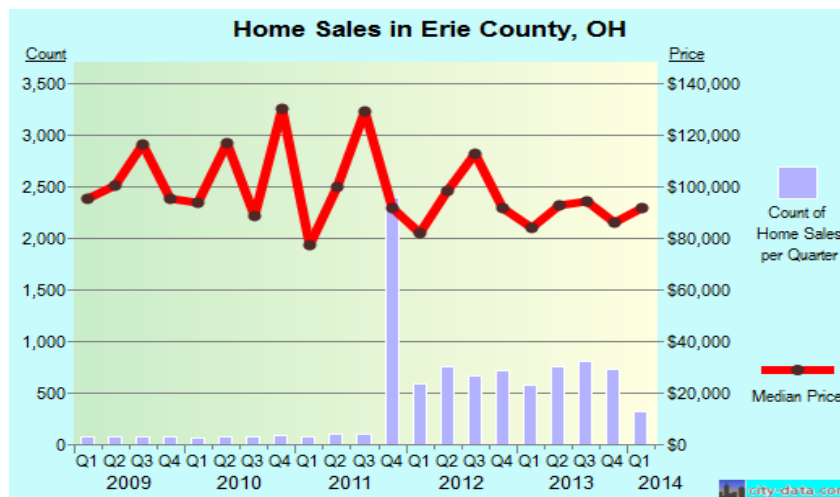


Figure 4-7: Home Sales



Employment: Erie County enjoys a diverse economic base. Staff found that 39% of the population is active in the labor force according to the three year 2013 ACS. In addition staff discovered that manufacturing, retail trade, construction, finance/insurance and real estate/rental/leasing are the top industries in Erie County. Industries include automotive parts, plastics, paints/colorants, packaging materials, food processing, mining and metal products. Businesses such as UPS, CCX, Sierra Lobo, Wolfe Hardware and LEWCO have chosen to grow within the County. Major manufacturing employers within the County include International Automotive Components Inc., KyKlos Bearing Inc. and International Automotive Components.¹⁰ Service jobs associated with tourism also account for a number of jobs in the area as reflected below with Cedar Point, Firelands Regional and Kalahari providing the majority of jobs. The ACS also identifies the most common occupations as: management, professional, and related occupations; sales and office occupations; and service occupations. When reviewing those who are employed 81% of workers were private wage and salary workers; 13% were federal, state, or local

¹⁰ Erie County Economic Development Corporation

government workers; and 6% were self-employed. Areas with large amounts of employees serve as guides as to which areas transportation planners may need to be examined more thoroughly. Staff found that US 250, SR 4, SR 6, SR 13 and SR 2 are major corridors in which employers are located.

Income: According to the ACS between 2008-2012 the median family income in Erie County was \$49,977. Additionally staff found that 37% of households received Social Security. The Average income from Social Security was \$15,967. Staff also discovered that 73% of households received earnings. These income sources are not mutually exclusive; that is, some households received income from more than one source. With relationship to transportation something to consider is that transportation is the second largest expense for most households after housing. Residents living in auto-dependent locations spend 25% of their income on transportation costs. Housing that is located closer to employment, shopping, restaurants and other amenities can reduce household transportation costs up to 9%. Living closer to a workplace allows for greater disposable income which can improve the quality of life. In places with fewer transportation choices, savings on housing costs can be more than offset by increased transportation expenses. When applying this concept to transportation and land use planning more compact development could be explored. Compact, connected communities also allow residents to use less energy and spend less money to get around by making fewer or shorter car trips, or using other less expensive modes of transportation like bicycling, walking or transit.¹¹

Low-Income Populations: Low-income populations are defined as a person whose household income is at or below the US Department of Health and Human Services poverty guidelines. These numbers can be found at <http://aspe.hhs.gov/poverty/14computations.cfm>. The Brookings Institute conducted a study in which low-income families who participated in federal housing voucher programs were examined. The study focused on the correlation between these groups and transportation availability. The end result of the study was that much of the opportunities that come with better schools, lower poverty and less crime still require a car to be successful even with other methods of federal assistance being provided. It was suggested that a car-sharing services to low-income populations, or an expansion in federal programs be designed to help the poor which could facilitate car ownership helping those with lower incomes improve their quality of life. It was also found that those with access to cars were twice as likely to find a job and four times as likely to remain employed.¹² The highest concentration of those in poverty in the MPO area are located in the City of Sandusky and parts of Perkins Township according to the 2010 Census.

No Vehicle Households: Within Erie County 6.2% of households do not have a vehicle available. This percentage is lower than the State of Ohio's Average which is 8.6%.

Minority Population: According to the ACS, 13% of the total population in the MPO area consists of minorities. The largest group is identified as black, or African American at 9%. The majority of minorities are located within the City of Sandusky and Perkins Township. When conducting an environmental justice analysis these areas should be examined for any possible negative environmental impacts when undergoing any transportation projects.

Elderly Populations: The elderly population is defined as individuals' aged 65 years and older. According to the ACS, the 65 and over population was 16.

¹¹ http://www.fhwa.dot.gov/livability/fact_sheets/transandhousing.pdf

¹² Brookings Institution, 2005

Figure 4-8: Vehicles Per Household¹³

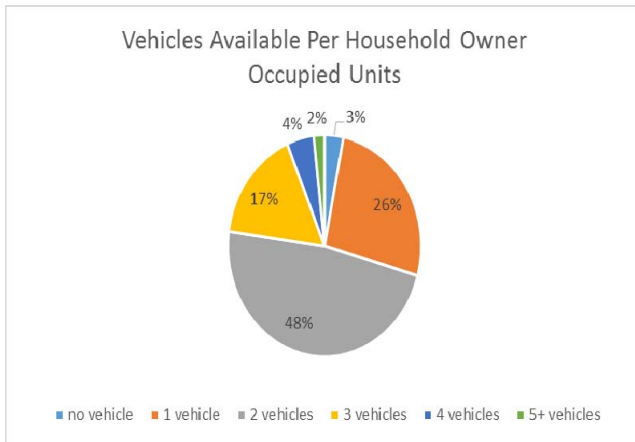


Figure 4-9: Vehicles Per Rental Household

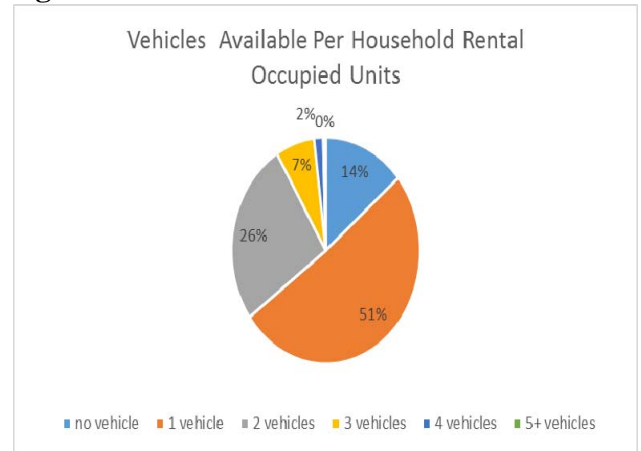


Figure 4-10: Educational Attainment

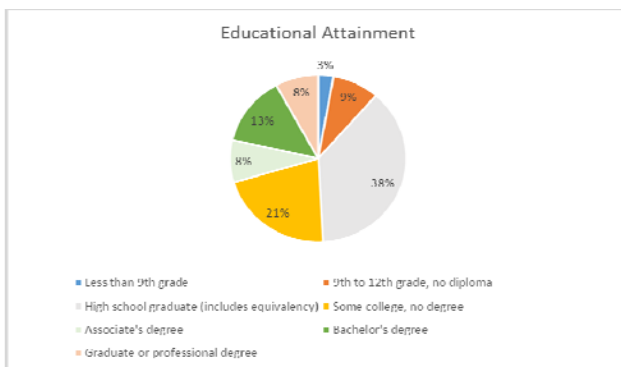


Figure 4-11: Household Type

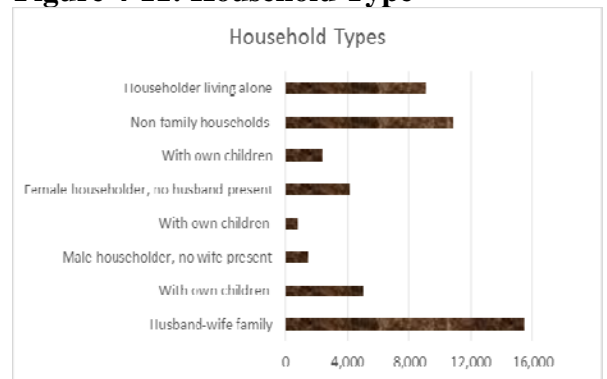


Figure 4-12: Poverty

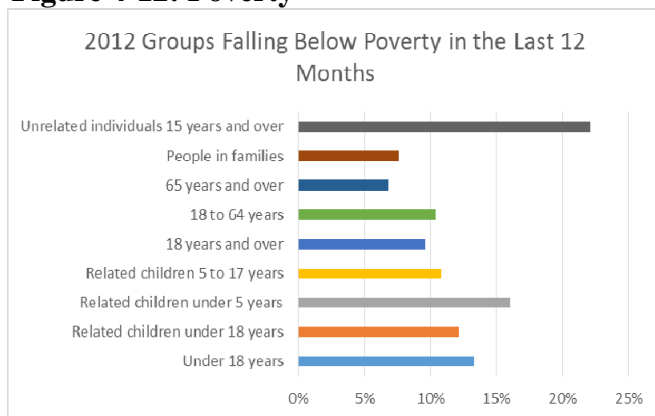
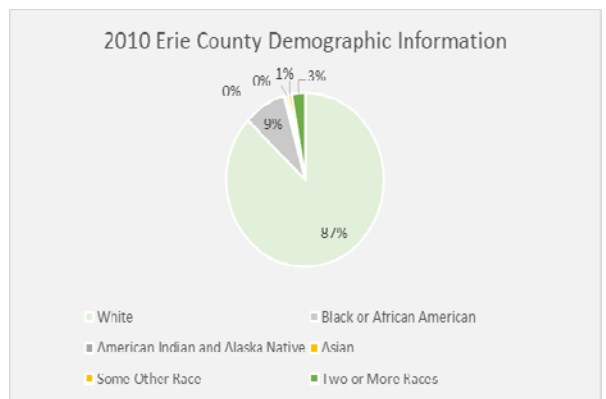
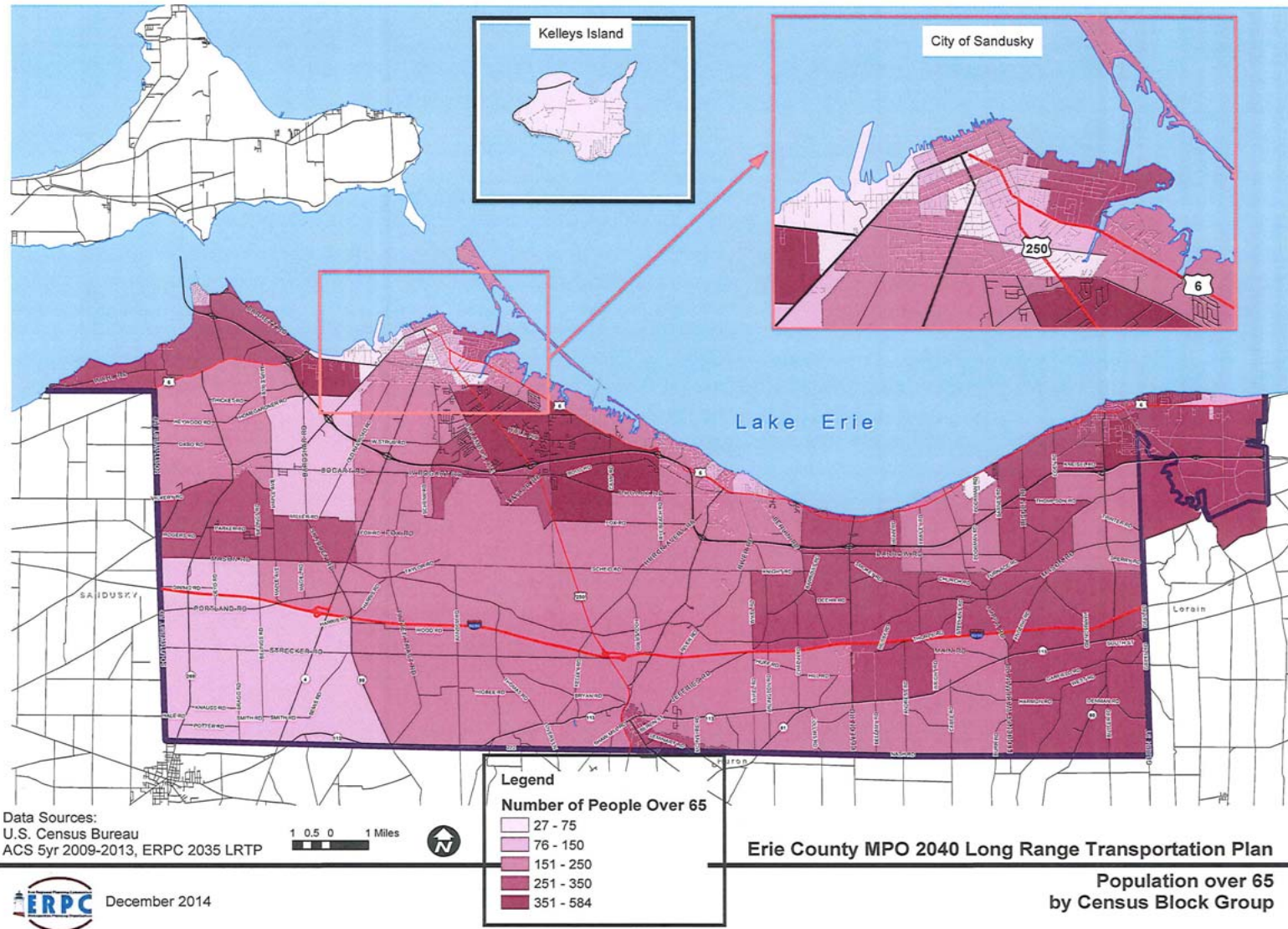


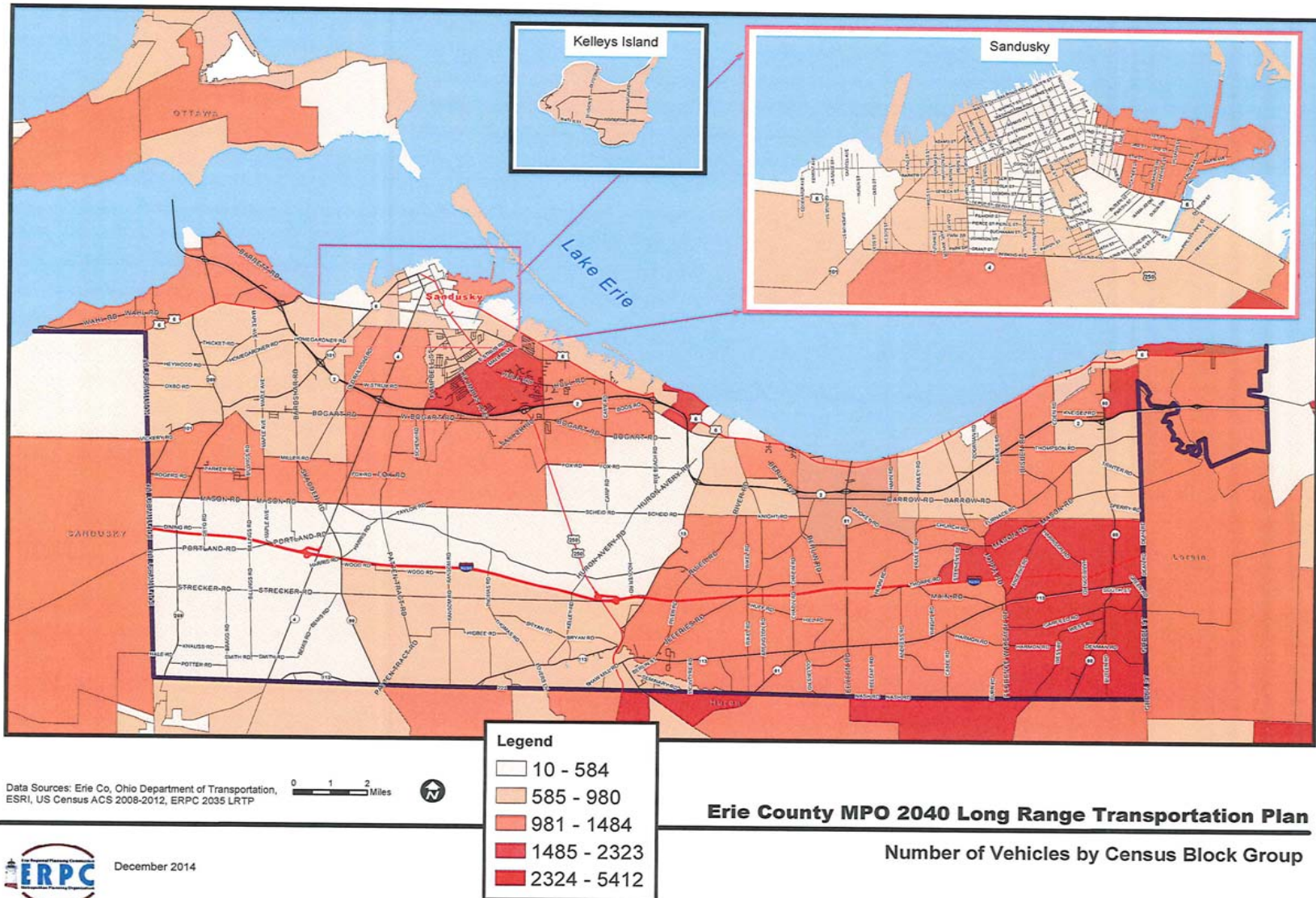
Figure 4-13: Demographic Information



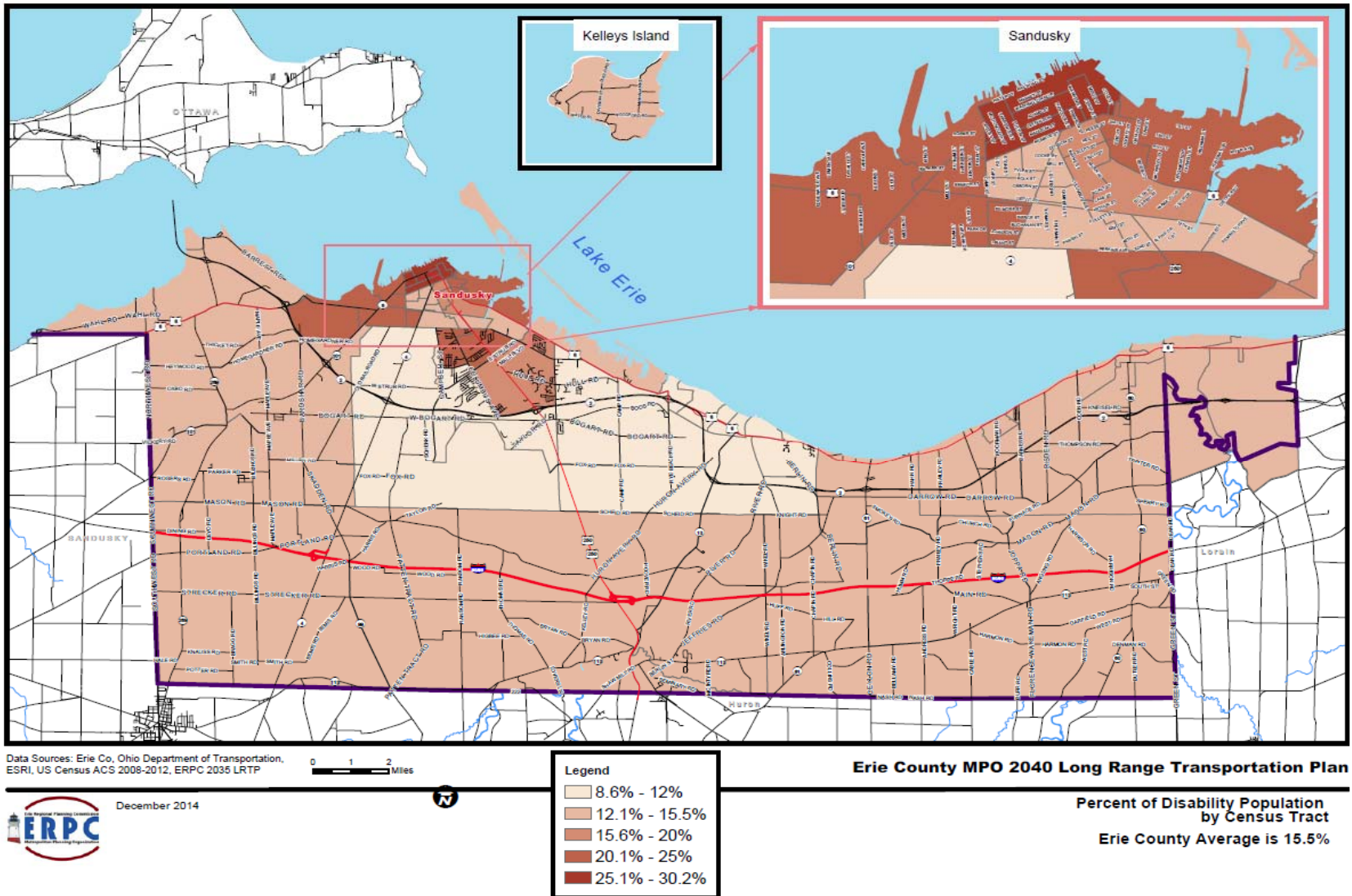
¹³ http://www.city-data.com/county/Erie_County-OH.html



Map 4-3: Population Over 65 by Block Groups



Map 4-4: Vehicles by Block Groups



Map 4-5: Disability Populations by Census Tracts

Figure 2012 Industry Sector 4-14¹⁴

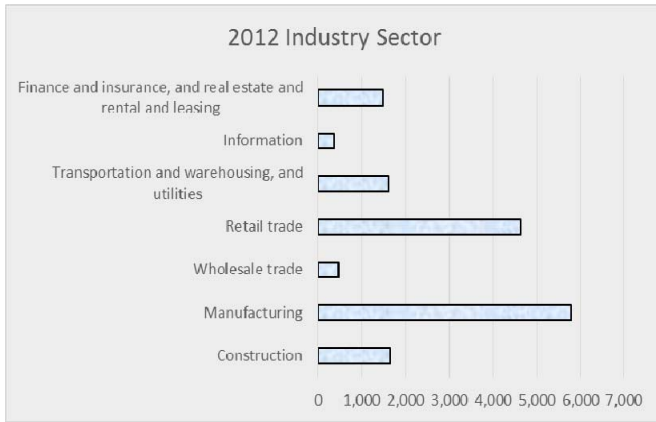


Figure 4-15: Top 2014 Non-Manufacturing Employers¹⁵

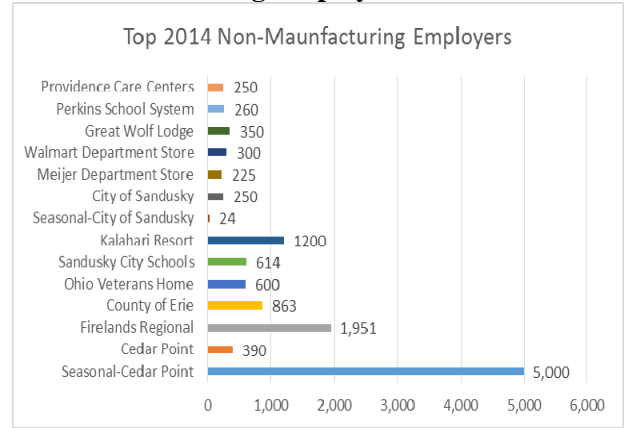
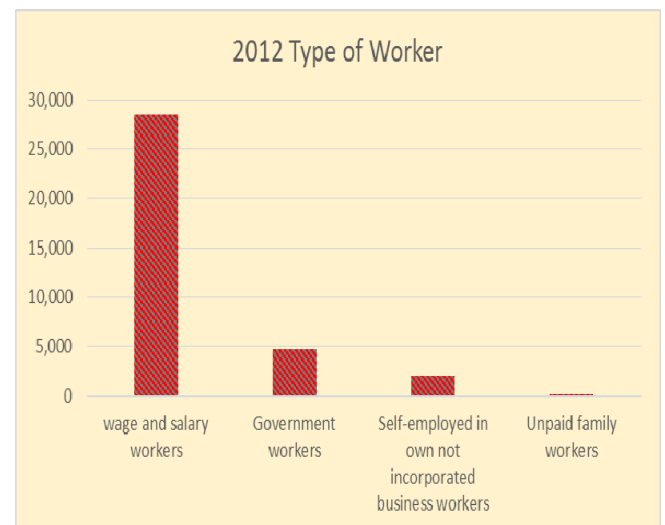


Figure 4-16: Top 2014 Manufacturing Employers¹⁶



Figure 4-17: 2012 Worker Types¹⁷



¹⁴ <http://www.eriecountydev.com/major-employers.html>

¹⁵ Erie County Economic Development Corporation

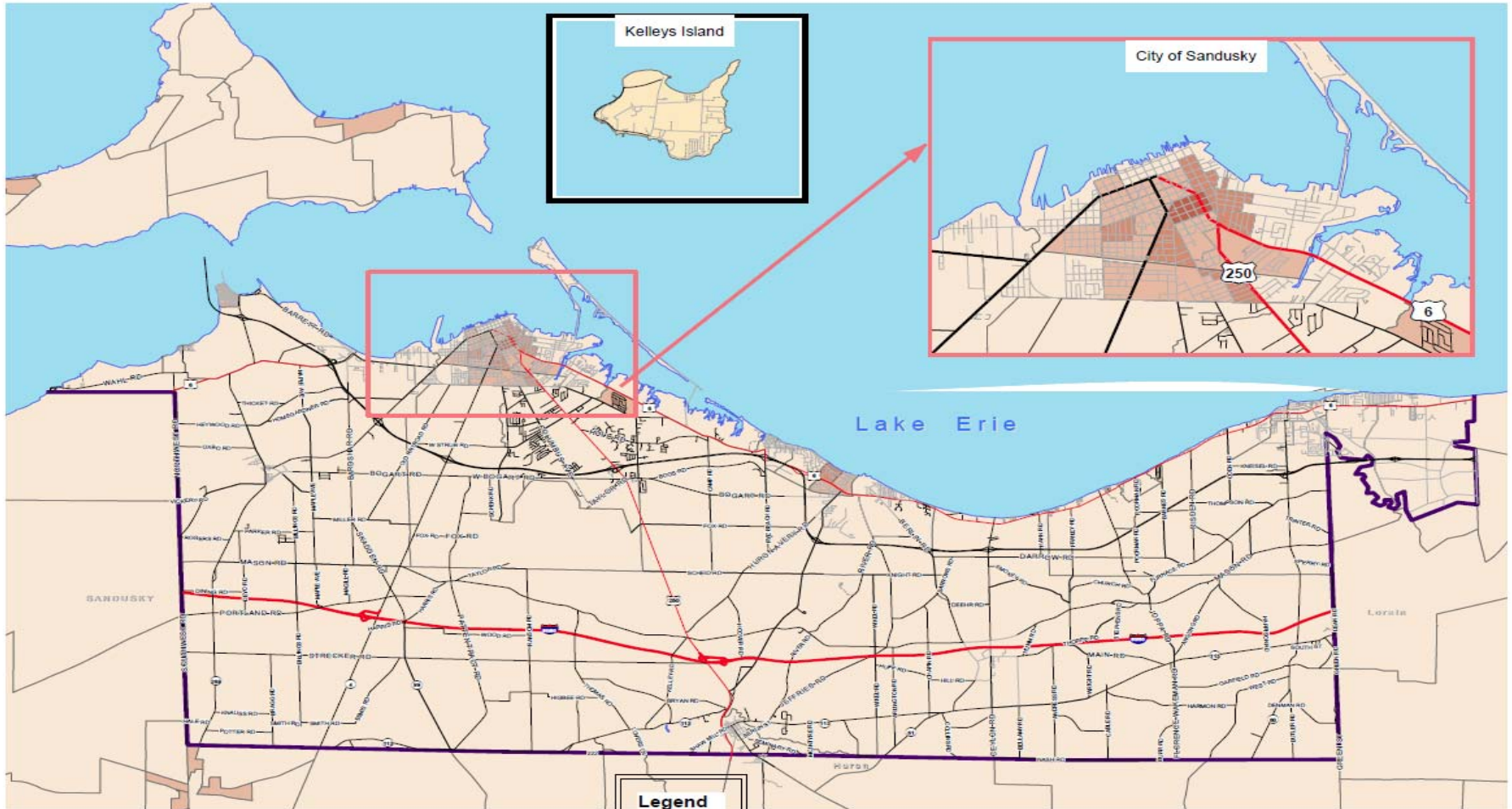
¹⁶ Erie County Economic Development Corporation

¹⁷ US Department of Commerce. 2014. Census Bureau, County Business Patterns, Washington, D.C.

Table 4-2: Industries in Erie County, 2012¹⁸

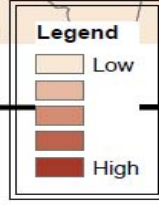
NAICS code description	Paid employees for pay period including March 12 (number)	First-quarter payroll (\$1,000)	Annual payroll (\$1,000)	Total establishments
Total for all sectors	29,297	235,708	1,060,623	1,877
Agriculture, Forestry, Fishing and Hunting	a	D	D	3
Mining, Quarrying, and Oil and Gas Extraction	b	1,193	6,477	4
Utilities	b	D	D	7
Construction	900	8,549	41,690	148
Manufacturing	5,600	75,513	302,766	102
Wholesale Trade	853	8,882	40,566	70
Retail Trade	4,633	24,743	108,163	309
Transportation and Warehousing	583	5,544	24,029	41
Information	386	3,037	12,416	22
Finance and Insurance	646	7,506	28,891	110
Real Estate and Rental and Leasing	307	1,972	8,803	75
Professional, Scientific, and Technical Services	636	7,060	31,926	117
Management of Companies and Enterprises	176	1,475	5,175	10
Administrative and Support and Waste Management and Remediation Services	657	4,076	19,041	87
Educational Services	343	1,507	6,005	22
Health Care and Social Assistance	5,198	47,920	235,808	207
Arts, Entertainment, and Recreation	1,079	12,728	79,956	68
Accommodation and Food Services	5,973	17,095	80,722	267
Other Services (except Public Administration)	1,157	5,112	21,634	208

¹⁸ <http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl>



Data Sources: U.S. Census Bureau
 ACS 5yr Estimate 2008-2012,
 ERPC 2035 L RTP

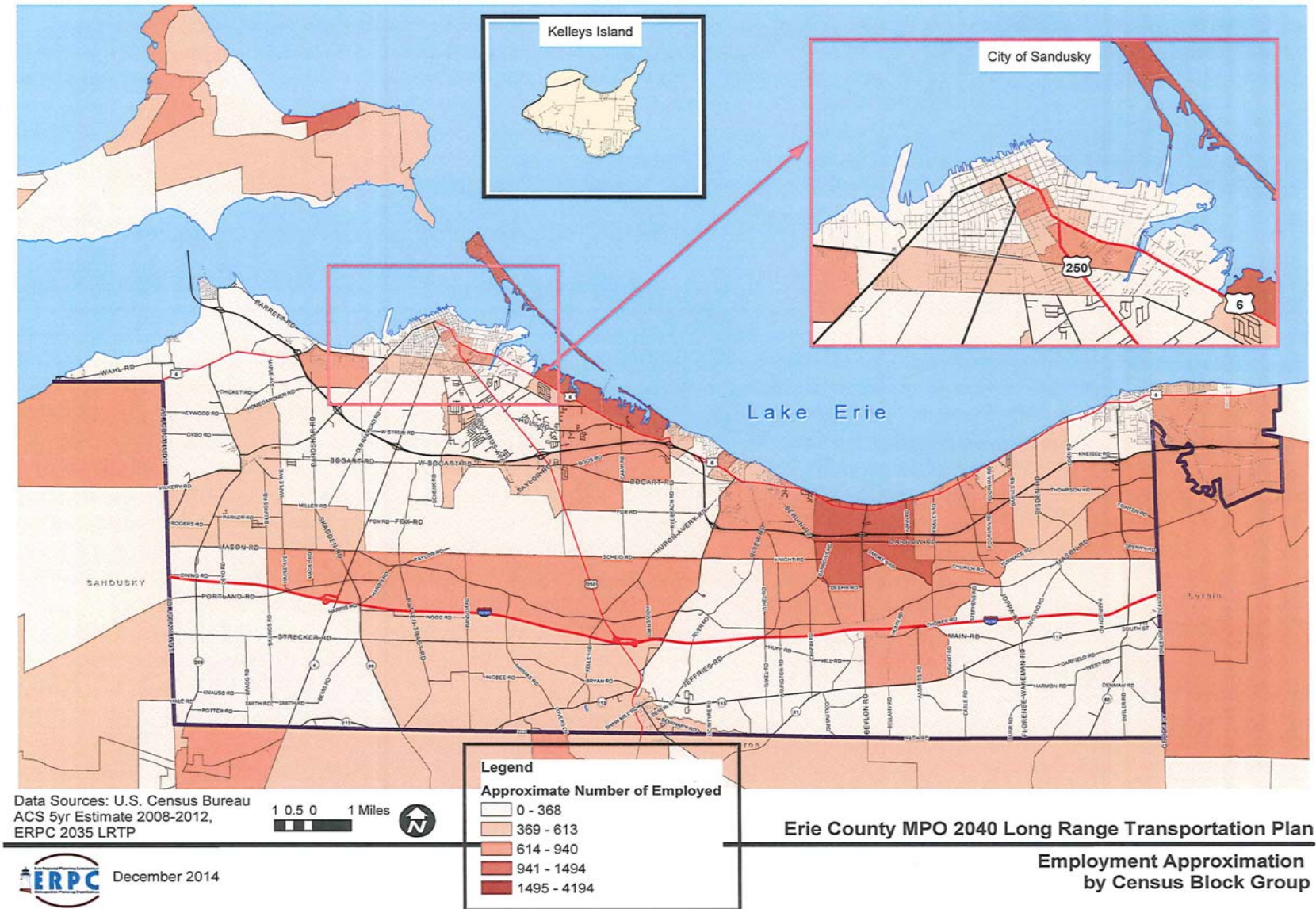
0 0.5 1 Miles



Erie County MPO 2040 Long Range Transportation Plan

Household Density
 by Census Block Group

Map 4-6: Household Density by Block Groups



Map 4-7: Erie County Employment by Block Groups

Disabled Population: The US Census defines a disability as a long-lasting physical, mental or emotional condition. This condition can make it difficult for a person to do activities such as walking, climbing stairs, dressing, bathing, learning or remembering. This condition can also impede a person from being able to go outside the home alone or to work at a job or business. According to the ACS, 15.5% of the population is disabled in Erie County. Of those with go outside disabilities those aged 75 and older are the most common group for females followed by those aged 21 to 64 for males.

Limited English Speaking Ability: A person with Limited English Proficiency (LEP) is one who does not speak English as their primary Language and who has a limited ability to read, speak, write or understand English. ERPC strives to reach out to all sectors of the population including those who do not have the ability to speak English very well. On ERPC’s website there is translation software available. It is noted that the rural areas have a higher population of residents who do not speak English well. ERPC is currently updating its public involvement policy to address this segment of the population.

Figure 4-18: Disability by Age

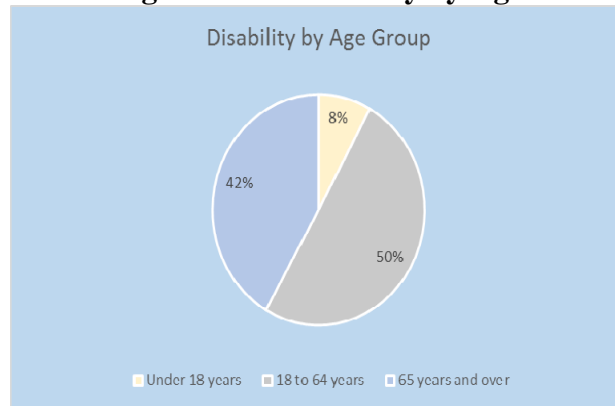


Figure 4-19: Females With Disabilities

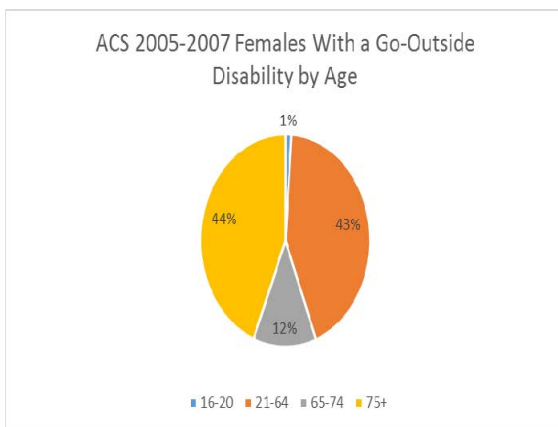
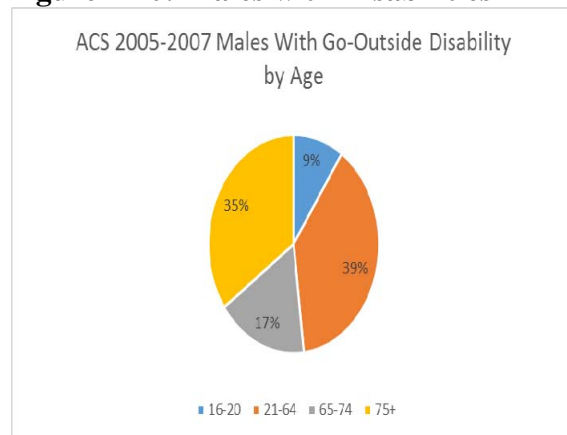
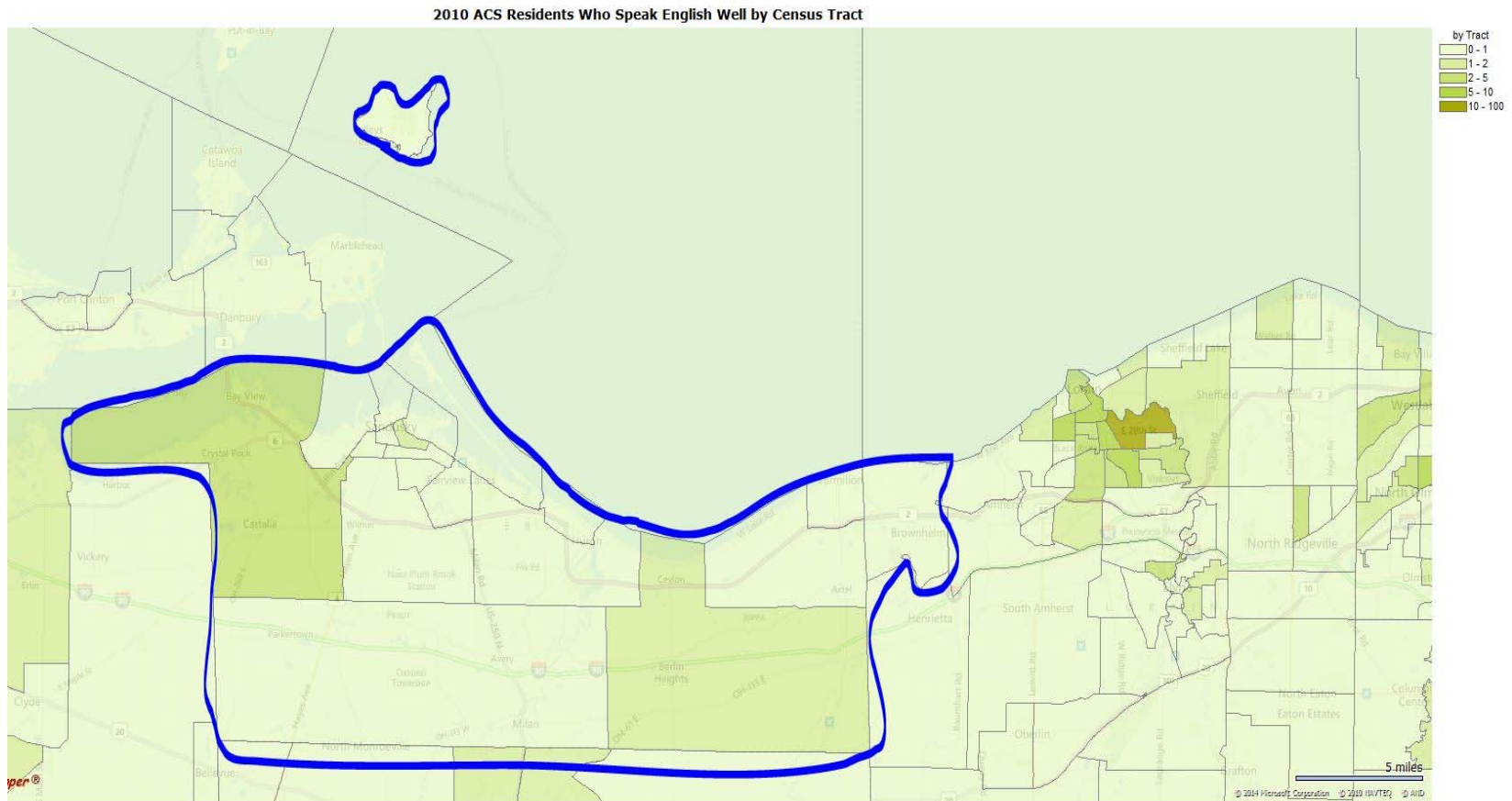


Figure 4-20: Males with Disabilities





Map 4-8: English Speaking Ability by Census Tract¹⁹

¹⁹ Enviromapper 2012 ACS

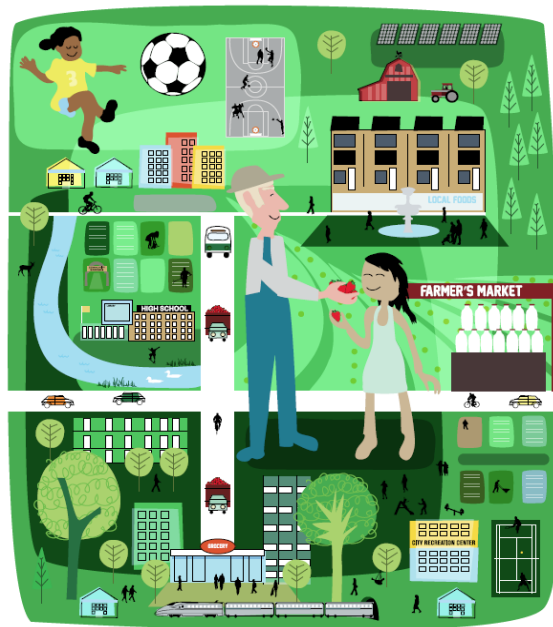
Environmental Justice Analysis: Environmental Justice (EJ) is the fair treatment of individuals regardless of their race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations or policies. It is ERPC’s intent to not adversely affect any specific population of our community. To assure this, we have evaluated all the Transportation Improvement Program (TIP) projects that the MPO helps fund. The identification of targeted population areas was completed by assessing poverty and minority levels in the county based on regional Averages (12.6% and 13% respectively). Demographic information was compiled from the 2010 Census and the 2007-2011 American Community Survey Census data. To calculate poverty levels with the available data, demographic data on a census tract level was utilized. The data was reviewed to identify areas where the targeted populations were significantly higher than the county Average. These target areas have been mapped along with capacity expansion projects, maintenance projects, and transportation enhancement projects to aid in the impact analysis. Subjective analysis for each project includes completing an environmental justice analysis matrix considering potential impacts that a project could have on an identified environmental justice area.

In order to analyze EJ impacts for the Long Range Plan Projects, staff reviewed the projects using the Travel Demand Model for the Sandusky Urbanized Area that was developed for this plan by ODOT’s Office of Technical Services. The model aided in quantitatively evaluating the effectiveness of the projects and their impact potential to the targeted populations. The MPO region was divided into over 400 traffic analysis zones (TAZs) based on the review of census data, residential patterns, employment, education, recreational locations, and travel characteristics. Travel times were used to then analyze the results of project implementation in order to assess accessibility to the generator zones for both targeted and non-targeted populations. The analysis included selecting ten TAZs where both the minority and poverty levels were two times higher than the region’s Average and those were then compared to ten other TAZs where the Average minority and poverty levels were below the region’s Average. Of the ten TAZs identified, eight zones showed a slight increase in travel time to the destination zones with an Average increase of 3.93 seconds. All ten of the non-target area zones also showed an increase in travel time with an Average of .21 seconds. MPO staff believes that since the additional travel time added to the zones is very small the increases will not greatly impact travel times and will not disproportionately impact the target groups. 83% of projects listed in the TIP for FY 2014-2017 for the ERPC MPO region can be considered system preservation projects where these projects include resurfacing, culvert replacement, signal projects and overall general maintenance of the transportation system. These types of projects have little or no adverse impact on the population. The factors listed below were considered upon review of the projects to measure the impact upon the targeted areas.

- | | |
|--|--|
| ✚ Bodily impairment, infirmity, illness or death | ✚ Destruction or diminution of aesthetic values |
| ✚ Air, noise and water pollution and soil contamination | ✚ Destruction or disruption of community cohesion |
| ✚ Destruction or disruption of man-made or natural resources | ✚ Destruction or disruption of community’s economic vitality |
| | ✚ Destruction/disruption of the availability of public/private facilities and services |

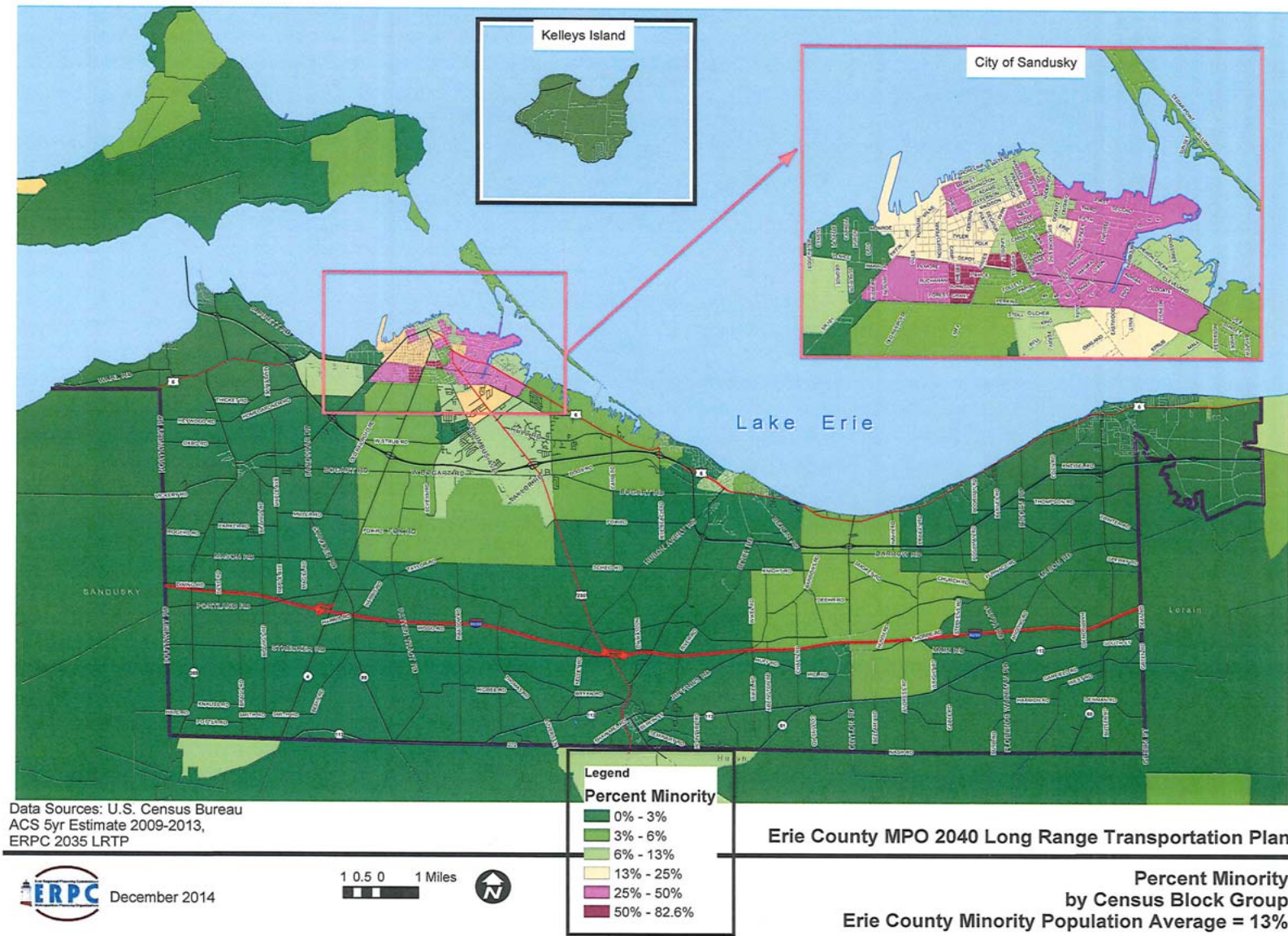
- ✚ Vibration
- ✚ Adverse employment effects
- ✚ Displacement of persons, businesses, farms or nonprofit organizations
- ✚ Increased traffic congestion
- ✚ Isolation
- ✚ Exclusion/separation of minority or low-income individuals within a given community, or from the broader community
- ✚ The denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies or activities

In summary, the MPO’s various committees and staff are dedicated to identifying any adverse or negative impacts to a population as a result of a project, and will consider possible alternatives should disproportionately high and adverse human health or environmental effects be of concern. The committees and staff are dedicated to identifying any adverse or negative impacts to a population as a result of a project, and will consider possible alternatives should ‘disproportionately high and adverse human health or environmental effects’ be of concern.

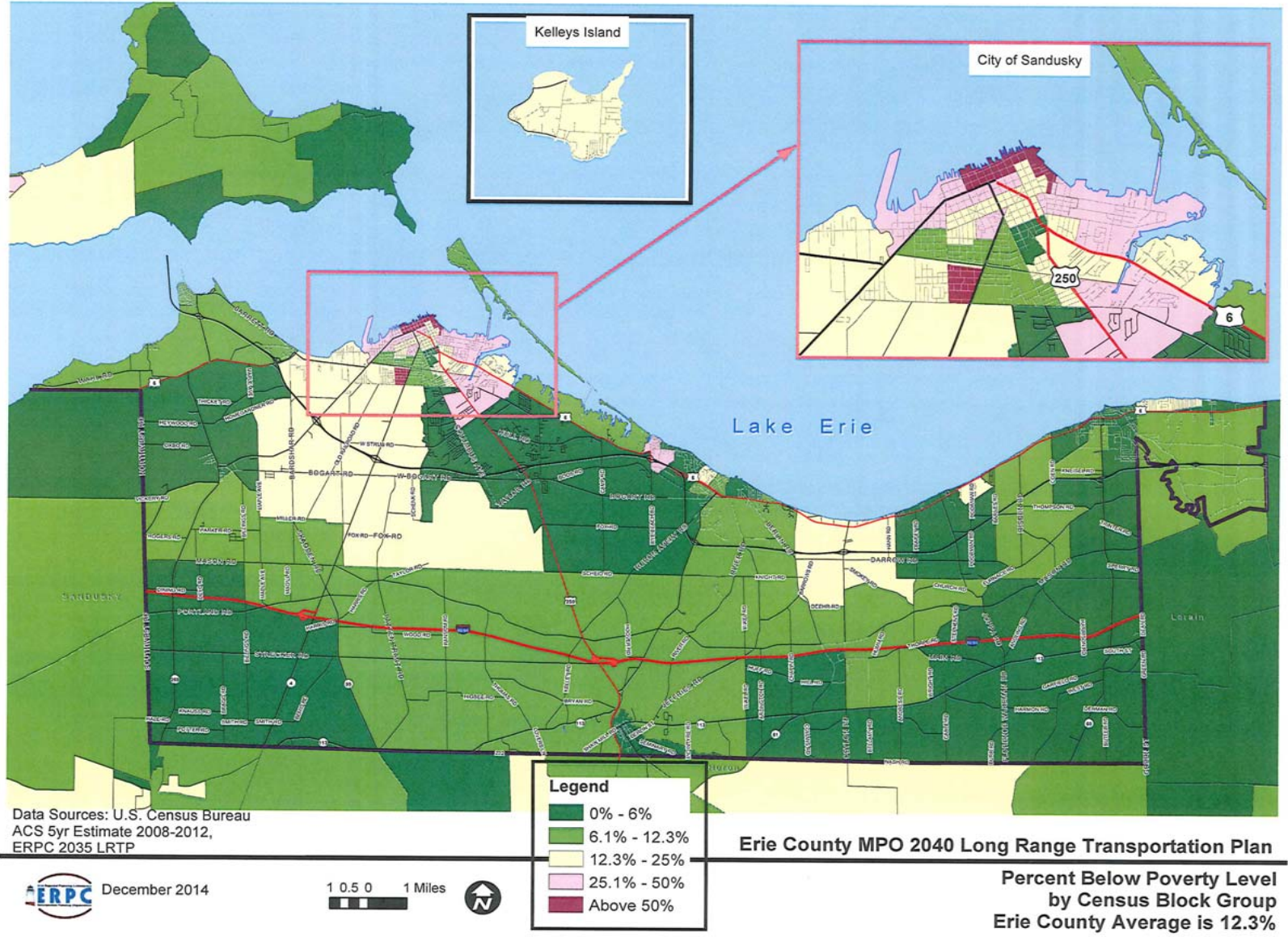


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²⁰ Are we There Yet? Creating Complete Communities for the 21st Century America



Map 4-9: Minorities by Block Groups



Map 4-10: Poverty by Block Groups

Economic Conditions:

Tourism: Erie County's location on the southern shores of Lake Erie makes it an attractive destination for both tourists and residents. Annually, more than 7.5 million trips are made to Lake Erie Shores and Islands making it one of the most popular tourist destinations in the Midwest.²¹ Erie County is home to many attractions including: Cedar Point, Thomas A. Edison's Birthplace, Maritime Museum, Glacial Grooves and Inscription Rock at Kelleys Island State Park, Merry-Go-Round Museum and Follett House Museum. The Lake Erie Islands, via boat, plane or ferry, offer a variety of attractions as well. Lake Erie's coastline and the park facilities offer natural areas and historic resources for tourists and residents to enjoy. Other destinations include the Kalahari Resort home to the nation's largest indoor water park. The 173, 000 square foot Kalahari Resort includes 215,000 square feet of convention space as well as 890 rooms. Other attractions in the area include the Great Wolf Lodge on US 250, Castaway Bay, Quality Inn & Suites Rainwater Park, Lodge Sawmill Creek Resort and Maui Sands on US 6.

Tourists destined for Erie County primarily arrive by automobile as indicated by a survey conducted by Lake Erie Shores and Islands. Other available modes of transportation include rail service to Sandusky provided by Amtrak and bus service provided by Greyhound. According to the Lake Erie Shores and Islands "2013 Visitor Survey", the top five reasons for visiting Erie County were: Lake Erie Islands, beaches, lighthouses, historic sites and Cedar Point. The survey stated that the majority of tourists are between the ages of 35 to 54. It was also reported that the majority of visitors come from Generation X (those born between the early 1960's-1980's) and the Baby Boomers (those born between the 1940's to 1960's).

- ✚ Most (74%) have children, with an Average of about 2.5 children, most of which are living with them now.
- ✚ Many Gen X's are also grandparents.
- ✚ The most common wellness activities they incorporate in their daily life are exercise/sports and special dietary habits.
- ✚ Traveling, spending time with family and relaxing are the three most cited activities among Gen Xers' top priorities for spending their time during retirement.

Baby Boomers:

- ✚ They're active, identify with being young at heart, are inclined to adventure and have a continued desire to learn.
- ✚ Boomers are the most traveled generation in history.
- ✚ According to an AARP survey, they place travel higher in importance than everything else, including spending time with family, health and working out.

²¹ <http://www.shoresandislands.com/media/research.aspx>

- ✚ They have more disposable income as a result of reduced child-raising responsibilities as they begin to retire and downsize making more time to travel.²²

Economic Impact of Tourism in Erie County: Tourism is an integral and driving component for the Erie County economy. There is a diverse composite of economic activities, including transportation, recreation, retail, lodging and the food and beverage sectors. According to the *Economic Impact of Tourism in Erie County, Ohio*, completed in 2013 by Tourism Economics, tourism supports over 10,000 employees in Erie County and generating over 183 million in taxes and sales. Tourism is an integral and driving component of the Erie County economy. It sustains 26% of salaried employment and supports one in every four jobs in Erie County.

Table 4-3: Tourism Employment²³

Tourism Employment				
	Direct	Indirect	Induced	Total
Agriculture, Fishing, and Forestry	-	71	24	95
Construction and Utilities	-	41	8	49
Manufacturing	-	97	40	137
Wholesale Trade	-	7	5	13
Air Transport	-	1	1	2
Other Transport	1,190	106	54	1,351
Retail Trade	378	74	296	748
Communications	-	46	16	61
Finance, Insurance & Real Estate	247	205	122	575
Business Services	-	417	129	546
Education and Health	-	2	367	370
Recreation and Entertainment	2,685	79	48	2,812
Lodging	2,248	15	12	2,275
Food & Beverage	1,287	58	163	1,508
Personal Services	-	54	130	184
Government	-	21	12	33
TOTAL	8,035	1,295	1,427	10,757

²² <http://www.babyboomerstrAvenueling.com/who-are-the-baby-boomers/why-are-baby-boomers-important-to-tourism/>

²³ Tourism Economics, 2013



Examples of a Tourist Friendly Alternative Transportation Designs²⁴

To maintain and expand these economic benefits, the MPO will need to plan for an increased numbers of travelers in the coming years. How well the future transportation network will serve destinations will play an important role in maintaining or expanding tourism. To make Erie County a destination of choice, the county's recreational sites must be accessible. If the transportation network is insufficient or inconvenient to travelers, travelers may choose to go elsewhere. Therefore, it is important to consider all modes of transportation. For example, enhancing rail and transit networks would create additional travel options that would allow for travelers once here or traveling to the area to reduce their dependence on the automobile. Expansion of alternative transportation methods may be beneficial when catering to these groups as they are large supporters of being active. This is reiterated in the Bicycle and Pedestrian Plan Update which was completed in 2013. Statewide, the Division of Travel and Tourism markets the Ohio tourism experience through the following categories: Arts and Culture, Culinary, Family Fun, Festivals, Heritage, Shopping, Sports and Recreation and Wineries which appeals to both the Gen X and Baby Boomer populations. The ERPC area is fortunate to have many of these activities located within it. Some of the considerations on enhancing the transportation networks that should be examined include:

- ✚ How well are Erie County's current transportation facilities serving recreational travel and tourism needs? What new facilities are needed, if any?
- ✚ How convenient is recreational travel within the County and how accessible is Erie County from the region and elsewhere?
- ✚ Where will growth in recreational travel and tourism occur, and what existing and future transportation conditions may limit that growth? What investments need to be made to accommodate growth?
- ✚ What role can public transportation play in recreational travel and tourism?
- ✚ Are there better ways to manage existing facilities and demand to reduce congestions on weekends and holidays and during peak seasons?

²⁴ <http://www.sfbike.org/our-work/street-campaigns/jfk-drive/>

**Figure 4-21: Surrounding Areas
Approximate Distance of Cities Near ERPC**



Table 4-4: Erie County Motel Growth²⁵

Erie County Hotel/Motel Growth			
YEAR	# OF PROPERTIES	# OF ROOMS	ADDED PROPERTIES
1985-1986		2,576	
1987		2,593	
1988		2,925	
1989		3,056	
1990		3,224	
1991		3,324	
1992		3,502	
1993	56	3,591	
1994	58	3,680	Comfort Inn Sandusky, San Marino
1995	60	3,976	Hampton Inn, Holiday Inn Express Sandusky (Comfort Inn Sandusky, Best Budget Inn, Colonial Inn, Comfort Inn Maingate, Mecca Motel & Quality Inn & Suites added rooms) (Rodeway Inn & Baywinds Motel deleted rooms) (Crafts Lakeview Lane newly added to chart)
1996	64	4,247	Twine House Inn, Sleep Inn, Ramada Limited
1997	64	4,261	Holiday Inn Express Vermilion (Sanduskian closed)
1998	65	4,266	Motel 6 (Hotel Breakers renovates, losing 60 rooms)
1999	63	4,524	Red Roof Inn (Homestead Inn North, Melrose Motel and Bay View Motel closed) (Motel 6, Hotel Breakers & Rodeway Inn added rooms)
2000	64	4,873	Breakers Express (350 rooms)
2001-2002	66	5,228	Great Bear Lodge (271 rooms), Microtel (84 rooms)
2003	65	5,169	Melrose Motel re-opened, Homestead Inn & Midway Motel closed
2004	63	5,096	Kelleys Mansion Inn closed, Quality Inn & Suites temporarily closed for renovation
2005	65	5,880	Kalahari Resort (598 rooms), Comfort Suites (90 rooms), La Quinta (62 rooms - formerly Quality Inn & Suites), Bay View Motel (7 rooms), Fairfield Inn (added 28 rooms)
2006	64	5,839	Dusk to Dawn Motel (41 rooms) closed
2007	62	5,694	Clarion Inn (142 rooms) closed, Tudor Inn (12 rooms) closed, Kalahari Resort (added 228 rooms)
2008	63	5,850	Maui Sands Resort (125 new rooms - added to former Holiday Inn Holidome), Kelleys Island Venture Inn (31 rooms)
2009	61	5,510	Maui Sands Resort and Holiday Inn Express closed (340 rooms)
2010	61	5,510	
2011	58	5,583	(adjustments made per travel planner reported numbers)
2012	58	5,719	Maui Sands Hotel opens 136 rooms
2013	58	5,889	Maui Sands opens additional 170 rooms
2014	60	5,963	Hampton Inn Milan (70 rooms) opens Aug 2014 plus adjustments made per travel planner reported numbers

²⁵ Erie Shores and Island

4.2 Historic Conditions, Comprehensive Plans and Land Use

Erie County History: Originally part of the Firelands, Erie County was formed in 1838 when the Legislature split the land to create Huron and Erie Counties. Erie County can trace its heritage to the Revolutionary War. During the war, numerous Connecticut residents were burned out of their homes by British soldiers and as compensation, the Connecticut Assembly awarded the citizens 500,000 acres in the western most portion of the Western Reserve, which became known as the Firelands. The area is now Erie and Huron Counties, as well as Ruggles Township in Ashland County and Danbury Township in Ottawa County. Erie County quickly became a transportation center through the creation of the Mad River and Lake Erie Railroad in 1835 and the Milan Canal in 1839. The City of Sandusky, the county seat, was uniquely platted in the shape of the Masonic symbol in 1818. Because of its location on Lake Erie and the number of railroad lines that went through the city, Sandusky was a major terminal on the Underground Railroad. Similarly, the City of Huron also became an active terminal along the Underground Railroad. The City of Vermilion became established as a major ship building port due to its location on the Vermilion River, which flows into Lake Erie. With the opening of the man-made Milan Canal, the inland Village of Milan became a canal town with a link to the Huron River and Great Lakes. For a time, Milan was a leading Great Lakes port, however, with the advent of the railroad, Milan's canal and warehouses were eventually abandoned. Today, the Lake Erie Ports of Huron and Sandusky provide access to Great Lakes shipping and to world ports through the St. Lawrence Seaway.¹⁴

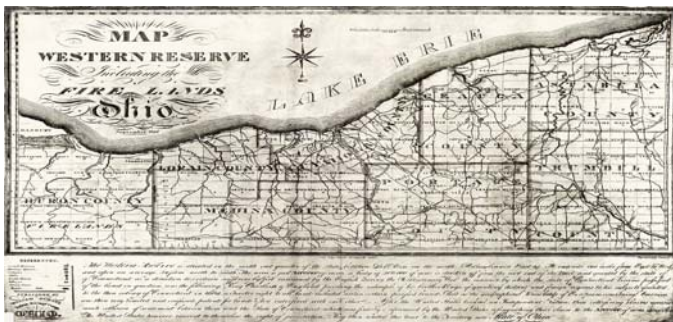
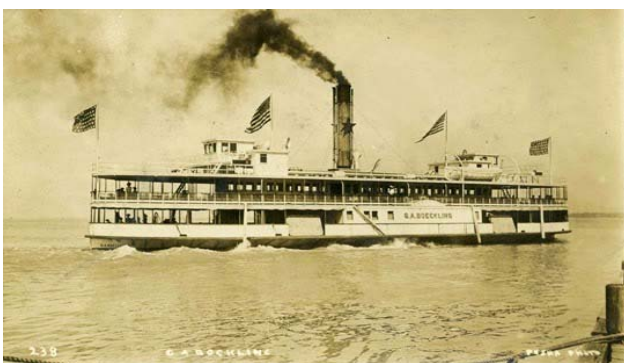


Diagram of the Firelands Circa 1826 and Historical Plaque^{26,27}



GA Boeckling²⁸



Columbus Avenue Sandusky, OH 1910²⁹

¹⁴ Erie County MPO 2030 Long Range Transportation Plan

²⁶ Cleveland Library

²⁷ <http://www.thehuronhistoricalsociety.org/historical-markers/the-firelands-of-ohio/>



Lake Erie Railroad (Liberty Avenue) in Vermilion and Ferry Boat Service³⁰

Relationship Between Transportation and Land Use: The organization of daily life has created a demand for travel. The demand for publicly accessible transportation connections between geographic locations grew into a desire for faster and more comfortable travel. The result of this demand has been the development of extensive transportation networks and technological advances in the means of transportation. These transportation improvements in turn have impacted daily activities, where geographic distances are less of an impediment than in the past. Not long ago, walking distances defined the geographic relationship between daily activities. The destination of one's work, shopping, social and religious institutions needed to be within a reasonable walking distance of one's home. These distances were a function of time and the location of one's home and one's daily destinations were tied to how much time people were willing to take to travel between destinations. These "time budgets," were defined by the transportation system and the transportation modes available. Households still make travel decisions based on time budgets. However, the development of automobiles and the corresponding roadway infrastructure, has made it possible to travel much greater distances within an allotted time, allowing daily activities to be located much farther from one's home.

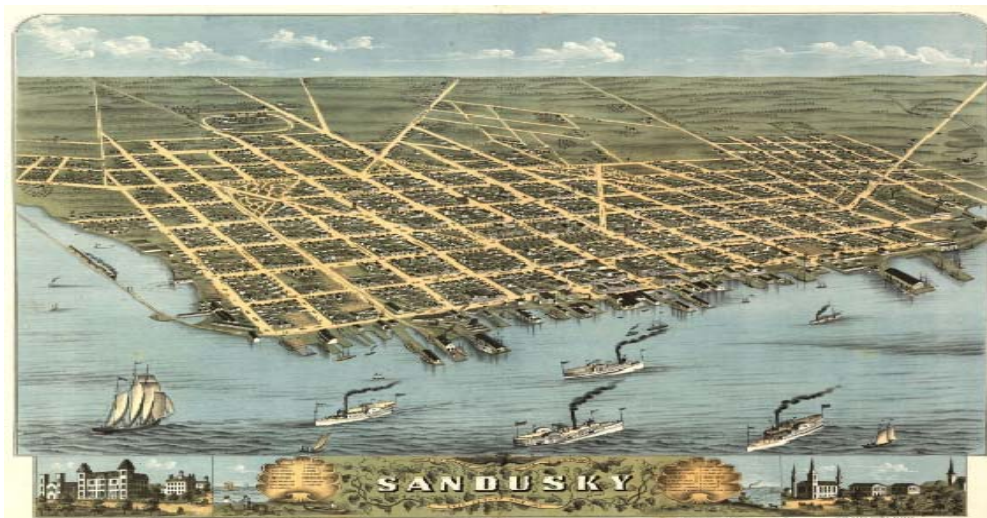
Just as the transportation system impacts location and destination decisions the mix and design of destinations greatly impact the demand for the transportation system. Improved transportation systems allow greater accessibility between dispersed land uses. In turn, dispersed land uses require more travel and thus more demand for transportation infrastructure. The importance between land use and transportation should not be underestimated. Land use patterns and development decisions are often seen as controlled solely by market forces, leaving public agencies to respond to the transportation demand created in their wake. However, public land use policies directly affect private land use decisions such as zoning regulations and minimum parking requirements. Therefore, land use policies need to be considered in relation to the impact of transportation just as transportation policies need to be considered in relation to land use. Transportation systems and land use patterns have a well-documented reciprocal relationship. As communities have grown, the demands for transportation system improvements have also grown. However, these transportation improvements have also provided more convenient access to land farther

²⁸ <http://sanduskyhistory.blogspot.com/>

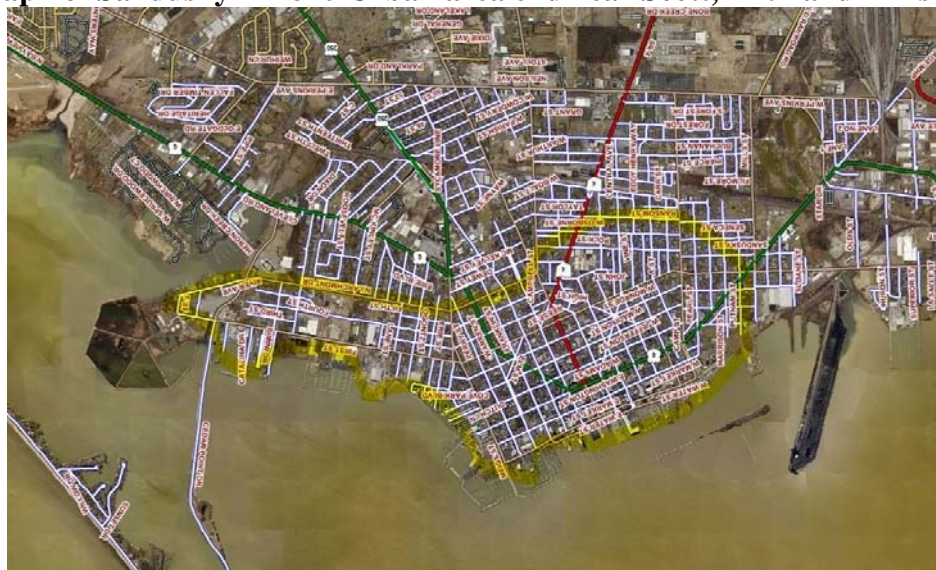
²⁹ <http://sanduskyhistory.blogspot.com/>

³⁰ <http://www.vermilionohio.org/vermhispix.html>

out, thus spurring further growth. The automobile has impacted land use patterns more than any other transportation system over the past half-century.

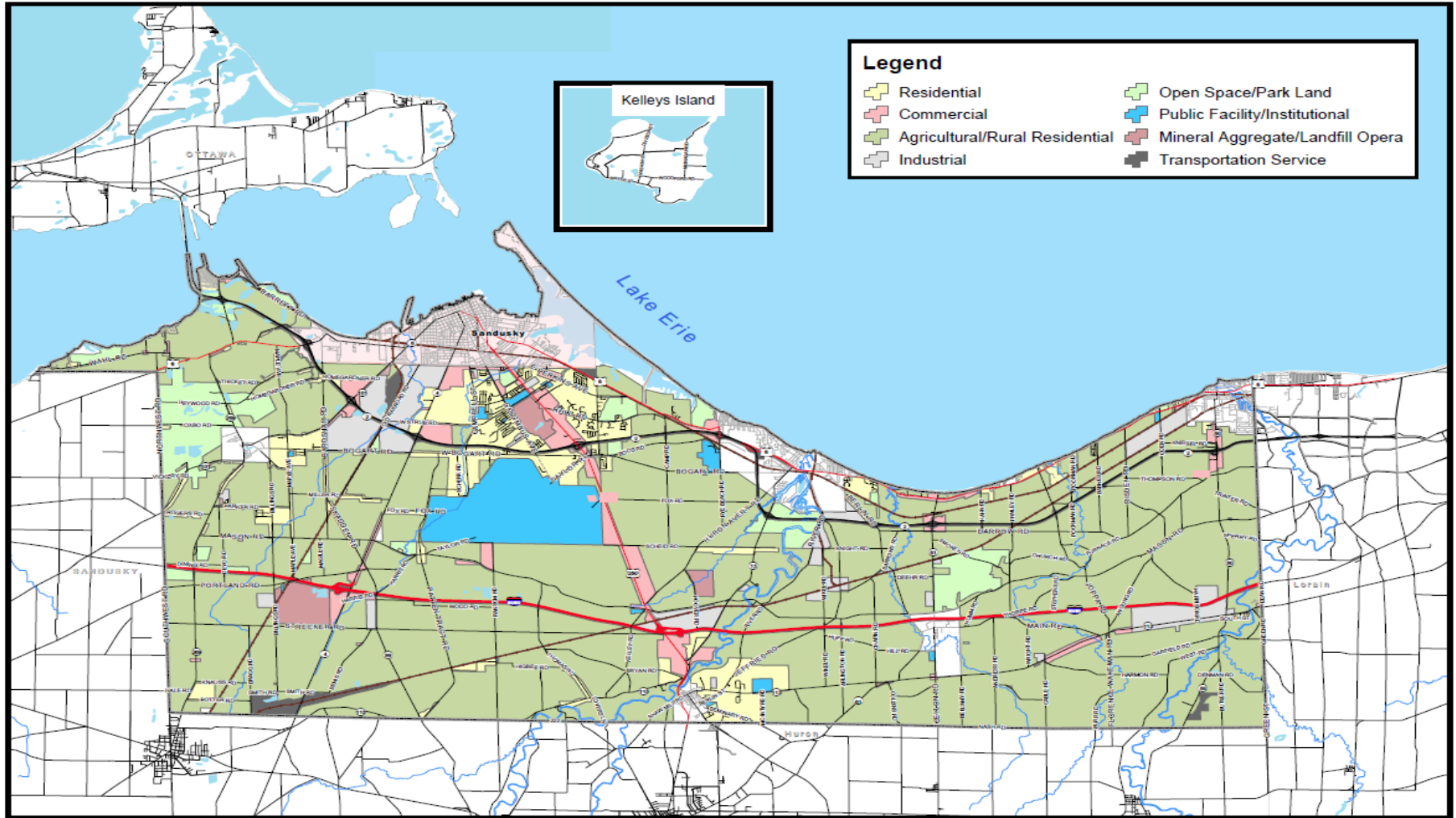


Lithograph of Sandusky in 1870-Urban area end near Scott, Fifth and Mills Streets³¹



Same Area Present Day-Yellow Lines show the Approximate 1870 Urban Boundaries

³¹ <http://www.bigmapblog.com/2012/rugers-map-of-sandusky-ohio-1870/>



Data Sources: Erie Co, Ohio Department of Transportation, ESRI, USGS

1 0.5 0 1 Miles

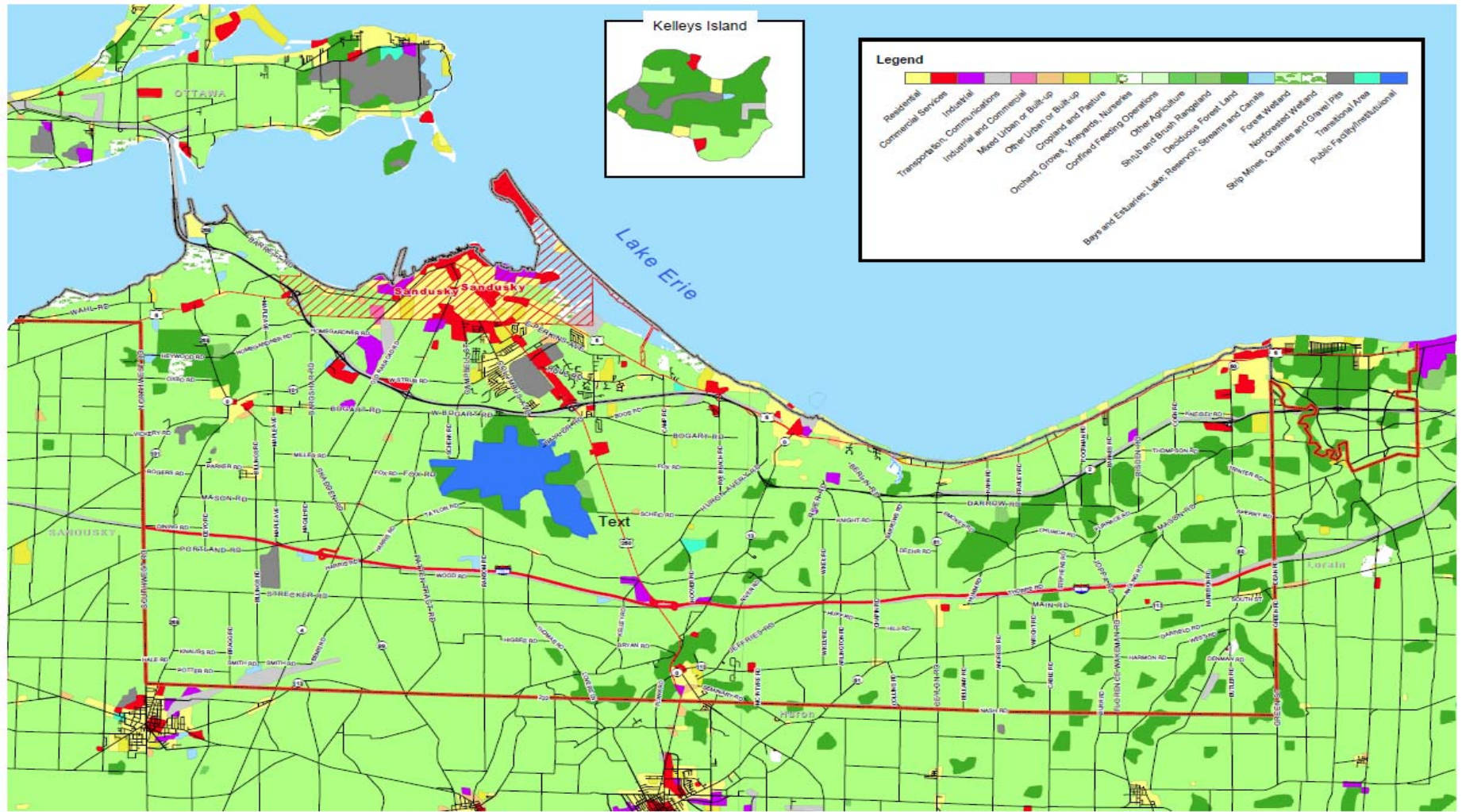
Erie County MPO 2040 Long Range Transportation Plan

Future Landuse



October 2014

Map 4-11: ERPC Future Land Use Map



Data Sources: Erie Co, Ohio Department of Transportation, ESRI, USGS

1 0.5 0 1 Miles



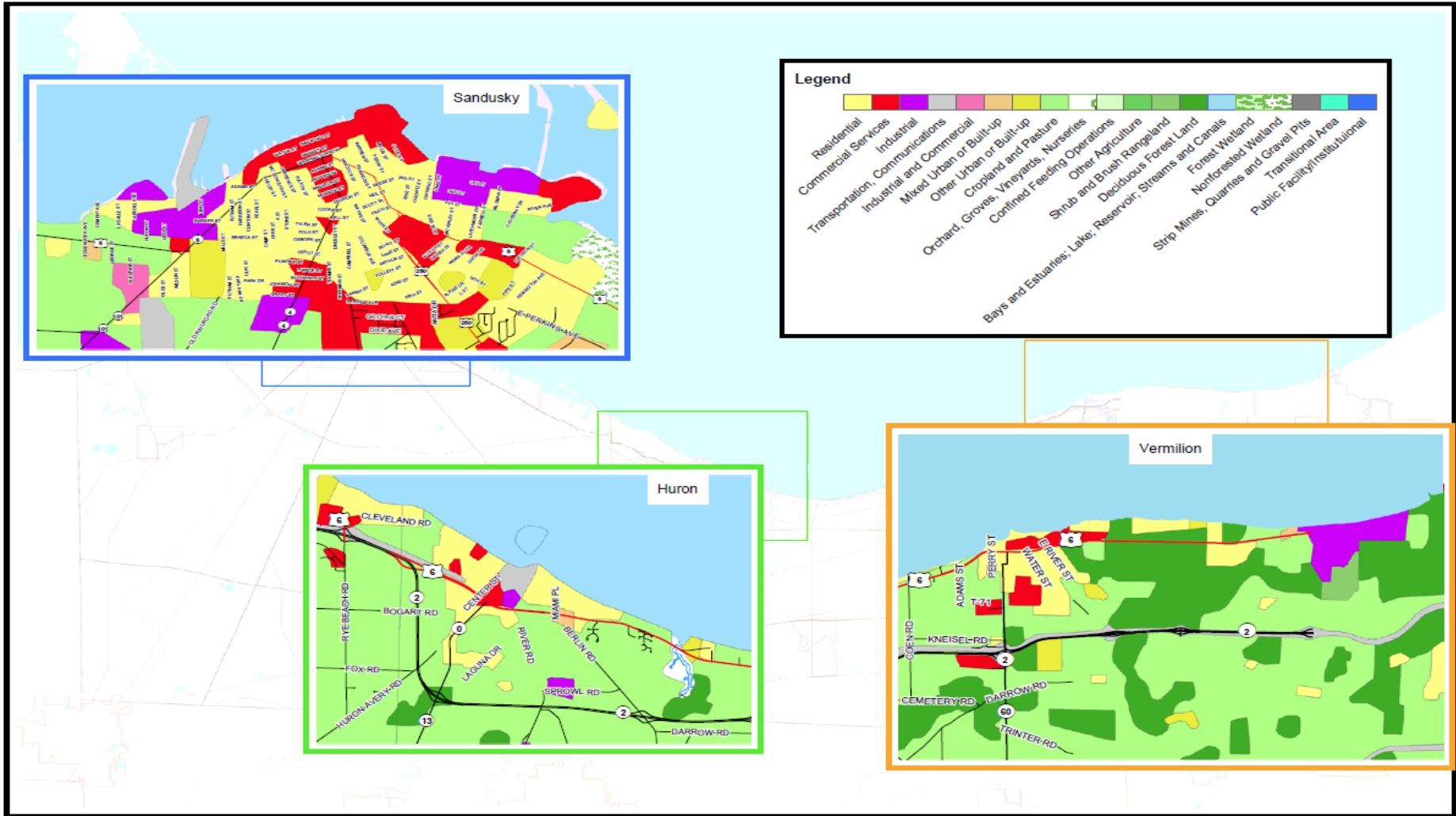
Erie County MPO 2040 Long Range Transportation Plan



October 2014

Existing Land Cover

Map 4-12: ERPC Existing Land Cover Map



Data Sources: Erie Co., State of Ohio, ESRI, USGS

Erie County MPO 2040 Long Range Transportation Plan



October 2014

Existing Land Cover - Insets

Map 4-13: ERPC Existing Land Cover Map

Figure 4-22: Land Cover³²

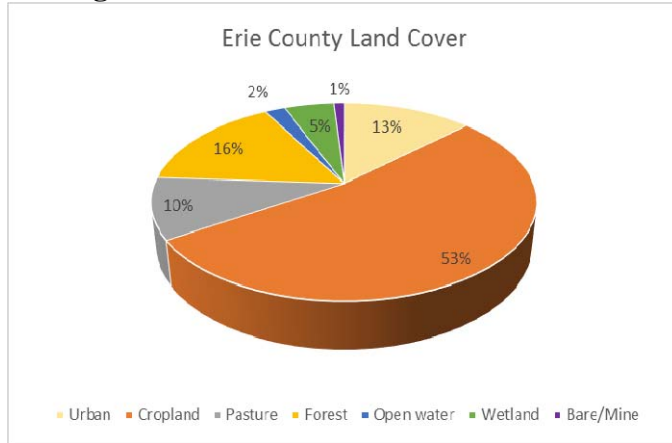


Table 4-23: Farms³³

Number of Farms	345
Land in Farms (acres)	83,330
Average Farm Size	242

Figure 24-: Land Ownership³⁴

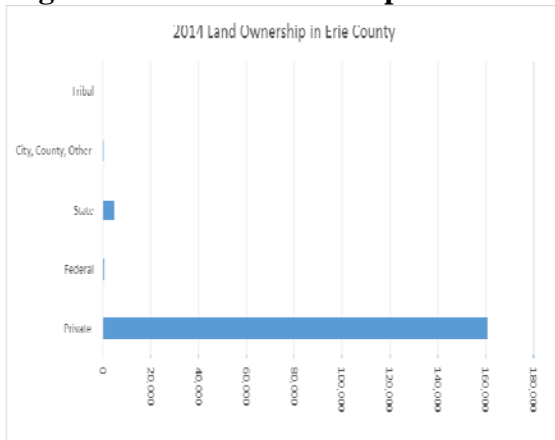
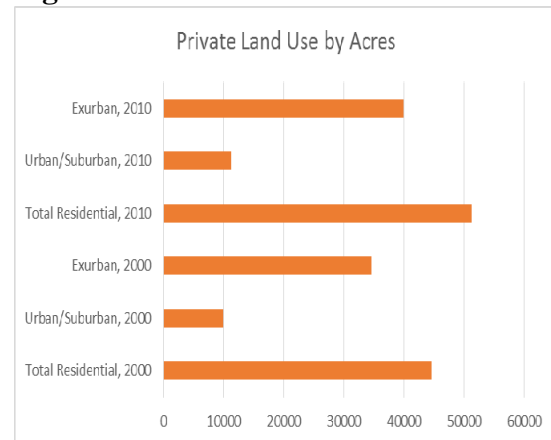


Figure 4-25: Private Land³⁵



Comprehensive Plans: Planning for growth is important in helping a community understand and meet its needs, and implementing improvements on an incremental basis instead of having to react to sporadic and haphazard growth. As a result, Erie Regional Planning has been involved in completing comprehensive plans to identify future land uses as well as appropriate transportation improvements for political subdivisions throughout Erie County.

- + **Erie County’s 1995 Comprehensive Plan:** Erie County’s Comprehensive plan indicates that in some cases the increase of single-family homes along rural roads not designed to function for residential uses and the growth of frontage commercial development with numerous curb cuts has compounded problems in previously underdeveloped areas. Land use patterns in Erie County indicate that development is not contiguous. In general, jurisdictions have their distinct areas of both residential and commercial development. Underdeveloped land separates communities.

³² US Department of Agriculture. 2014. National Agricultural Statistics Service


³³ Office of Policy, Research and Strategic Planning


³⁴ 2014 Summary Profile, Economic Profile of System Human-Dimensions Toolkit Erie County

³⁵Theobald, DM. 2013. Land use classes for ICLUS/SERGoM v2013


- 2030 LRTP:** According to the Erie County Farmland Preservation Study, a majority of the development in Erie County has been single-family detached housing with several re-zonings in Perkins Township and Vermilion for multi-family condominiums and apartments. The 2030 LRTP indicated a continued demand for multi-family housing and senior housing in the county over the next decade as well as a market for strong upscale waterfront condominiums in places like Vermilion and Huron Townships, Sawmill Creek and Mariner Village. The City of Sandusky continues to seek housing development in the historic downtown and along the waterfront. Housing on the upper floors in the downtown with retail/office at street level is the projected reuse of many of the buildings in that area.
- 2035 LRTP:** The 2035 LRTP also reported that residential development is the greatest growth segment in the County. Although there is not a large degree of land consumption expected from residential uses, there are larger implications of the existing development patterns. As development in Cleveland and Toledo increases, suburban and exurban growth will enter Erie County, and sporadic or leapfrog residential and commercial development may surround large agricultural areas. There may be additional issues associated with the urban/rural interface. Specific areas of growth in Erie County include US 250 near the Turnpike, and the SR 4 corridor. The SR 4 corridor may experience increased highway-oriented development.
- 2005 Perkins Township Comprehensive Plan:** The Perkins Township Comprehensive Plan was completed in 2005. Major land use clusters of residential, commercial and industrial development define the current physical character of the Township. Generally, the commercial/retail development of the Township is concentrated along Perkins Avenue and US 250 (Milan Road). Industrial development areas were identified on Hayes Avenue and Perkins Avenue, the small industrial park on Columbus Avenue immediately north of SR 2, the Triple Crown/Norfolk and Southern Railroad facility on Old Rail Road, the Wagner Quarry facility and the Bechtel-McLaughlin facility on US 250. The remainder of the Township north of SR 2 is largely occupied by residential land uses. The portion of the Township south of SR 2 is a mixture of single-family development, the NASA facility and agricultural or undeveloped lands. Entry points in Perkins Township, they are located off of SR 2 at US 250 and SR 4. US 250 is the commercial focal point of Erie County. Located between SR 2 and Perkins Avenue is a regional shopping center, a number of community centers as well as strip commercial development. This roadway is also the main access point at the entrance to the N. Coast Vacationland. Traffic on the US 250 Corridor includes a mix of traffic that requires the roadway to serve multiple purposes. The mix of traffic includes the following: A large influx of seasonal tourist traffic; Local traffic from residential/retail/commercial areas; Commercial traffic from a large quarry; Traffic from a multitude of businesses; and Pedestrian/bicycle traffic. It should be noted that the corridor between Bogart Rd and Cleveland Rd has been identified by the Ohio Department of Transportation's (ODOT) Highway Safety Program (HSP) as a Non-Freeway Hotspot. The consulting firm Mannik and Smith has been hired by ODOT to complete a US 250 Corridor Study and to develop alternatives to address safety issues created by this heavily used roadway. This study will be reflected in the Transportation Section of the Comprehensive Plan. The second major access to Perkins Township is SR 4 (Hayes Avenue) at SR 2. Hayes Avenue has potential for future development with the northern portion recently developing as a location for health care providers. Major approaches to a city encompass different modes of transportation such as railroads, major streets and highways. They also provide visual impressions of a community. In Perkins Township,


the major approaches/corridors include SR 6, SR 4, SR 2, Perkins Avenue and Columbus Avenue. A major rail line, Norfolk and Southern Railroad, which runs north and south along Old Railroad Road, is also a major corridor through the Township. The following major activity centers in Perkins Township are as follows: The commercial corridor on US 250, which includes major commercial development, and a number of hotels including Great Wolf Lodge and water Park, Sandusky Mall, Park Place Center, Outback Plaza, strip commercial development, and the Meijers Center, government services that include the Perkins Township Building, Ohio Soldier's and Sailor's Home, Township Fire Station and recreation facilities consisting of Pelton Park, ball fields. SR 4, which includes health care providers, major commercial Foster's Chevrolet-Olds-Cadillac, and major industrial Delphi Automotive. Campbell St-government facilities, Fire Station, Perkins High School, and commercial. Perkins Avenue west of US 250 strip commercial south side of Perkins Avenue includes Matthews Ford/Lincoln Mercury Inc., and Perkins Plaza. Perkins Plaza east of US 250 is also developed as strip commercial, residential, and office (includes Pharm Plaza).

 **2008 Vermilion Township:** The Vermilion Township Comprehensive Plan was completed in 2008. A general description of the major land use clusters begins with much of the commercial development residing along SR 60. Other pockets of commercial development can be found along US 6 as well as in the city along Liberty Avenue and the Vermilion River. Residential development can also be found along SR 60, US 6 and throughout the township on the north and south sides of SR 2. In Vermilion Township the key entry point is US 6, which runs east and west along the waterfront. US 6 Corridor encompasses Liberty Avenue through the City of Vermilion. In addition, SR 2 runs east and west through the middle of the township. North/south entry points include SR 60, Dean and Baumhart Roads. The major Corridors in Vermilion Township include US 6 and SR 2. Other east/west corridors that carry traffic through the township include Darrow, Mason and Kneisel Roads. The main north/south corridor is SR 60, which runs north and south from SR 2. Other north/south corridors include Baumhart, Dean, Poorman, Risdien, Frailey, Joppa, Barnes and Coen Roads. The major approaches in Vermilion Township include US 6, SR 60 and SR 2. Other major approaches by water include Lake Erie and the Vermilion River. The two major approaches by rail line are the Penn Central and Norfolk and Western Railroads, which run east and west through the township between US 6 and SR 2. The following major activity centers in Vermilion Township include the SR 60 Corridor where the Vermilion Township Hall is located which houses the Township Hall, Fire Department and serves as an Erie County Sheriff's Sub Station. There are a number of other commercial/retail uses along the SR 60 Corridor as well as residential with the Edson Creek multi-family residential development and the Vineyards of Vermilion mixed-use project. It should also be noted that the Willow's Golf Course is located off the SR 60 Corridor. The US 6 Corridor is also the location of a number of mixed land uses including commercial/retail and scattered residential housing. The main activity center in the City of Vermilion is located along the US 6 on Liberty Avenue between Grand Street and Baumhart Road with commercial/retail and some marina uses along the corridor. A recreational activity center can be found in Sherod Park.

 **2005 Sandusky Comprehensive Plan:** The City of Sandusky's Comprehensive Plan was updated in 2005. The update identifies four planning attributes that will influence future development and revitalization efforts. The planning area structure includes: major land use clusters, activity centers, entry points and major approaches. Residential land uses encompass the largest percentage

of the city's area with 48.6%. Major land use clusters within a mile of the City's central business district. Major open space is located throughout the western area of the City at Mills Creek Golf Course and along Sandusky Bay. Commercial development is concentrated around three areas: the central business district, Perkins Avenue, and Cleveland Road near Causeway Drive Sandusky has four industrial land use clusters which are concentrated along the City's east and west waterfront. In addition, two industrial clusters are located in the area of Superior Street and Venice Road and West Monroe Street and Olds Street. Major activity centers in Sandusky include: Cedar Point Amusement park, waterfront and central business district, Firelands Community Hospital, Sandusky Plaza and the Old Foodtown Plaza. Major approaches of a city include: Cleveland Road (SR 6), Columbus Avenue, Hayes Avenue (SR 4), Milan Road (US 250), Venice Road (SR 6), Sandusky Griffing Airport and Sandusky Bay. In addition, two railways run east-west and north-south respectively through Sandusky. Entry points are located at the intersections: Cleveland Road (US 6) at the City Limits, Columbus Avenue and Perkins Avenue, Fremont Avenue (SR 6) and SR 2, Hayes Avenue (SR 4) and Perkins Avenue, Milan Road (US 250) and Perkins Avenue, Venice Road (SR 6) and Tiffin Avenue (SR 101) and Tiffin Avenue (SR 101) at the City Limits.

 **City of Huron-** The City of Huron's Comprehensive Plan was completed in 2012. The update identifies three planning areas in which future development and revitalization efforts will be focused. Major activity centers in Huron include: downtown businesses, east side businesses, the Huron waterfront and the Port of Huron. Major land use clusters in the City of Huron consist of residential, commercial, industrial and open space. Residential land use primarily extends east and west along the coast, north of US 6 for approximately four miles. Commercial areas include the central business district and the northwest quadrant of SR 2 and Rye Beach Road. Industrial areas are located west of the central business district in the city and in the southeast portion of the city east of River Rd and north of Sprowl Road. The Sawmill Industrial park and Huron Corporate Park are located west of the city on the north side and south side of the railroad tracks, respectively. Major open spaces include the Thunderbird Golf Course and Sawmill Creek Golf Course. In Huron, major approaches include: Cleveland Road (US 6), SR 2, Berlin Road, SR 13 and Huron-Avery Road. In addition, two railways run east-west and north-south through Huron. Major activity centers in Huron include the waterfront and the central business district.

 **City of Vermilion-** Vermilion's 2000 Comprehensive plan nine districts: South Brownhelm District, North Brownhelm District, Sunnyside District, West Lakefront District, East Lakefront District, Valleyview Planning District, Lagoon Planning District, Downtown/Harbour Town 1837 District and Vermilion West Planning District. Major activity centers in Vermilion include the waterfront and the downtown Harbour Town district. Major land use clusters in the City of Vermilion consist of residential, commercial, industrial and open space. As a lakeside community, residential land use primarily extends east and west along the coast and also within the Erie County portion of the city. Commercial areas are primarily located along US 6. SR 60 has developed with a mixed use of residential/commercial north of SR 2 and farmland/residential south of SR 2. Industrial areas are located in the northwest portion of the City of Vermilion. The New Harbour Point Business Park is located north of SR2 and west of Baumhart Road. Major open spaces include Mill Hollow Bacon Woods Park, Willow Creek Golf Course, Vermilion Golf Course, and agricultural land in the southeastern portion of the city. In Vermilion, major approaches include: US 6, SR 2 and SR 60. In addition, two railways run east-west through the city.

Traffic Improvement Recommendations: When considering all these plans the following Traffic improvement recommendations were derived:

- # Completion of all recommendations in the Mannik and Smith US 250 Safety and Congestion Study
- # Widening of SR 4 throughout the study corridor from Harris Road northward to Perkins Avenue. A three lane (two travel lanes with a center, two-way left turn lane) is recommended
- # Northbound and southbound turn lanes at: Bogart, Portland, Strub Roads and SR 2
- # Merge lanes at: SR 2 onto SR 4
- # Full traffic signals at: Portland, Skadden, Bogart and Strub Roads
- # Preserve and expand two lane road from SR 4 to Old Rail Road
- # Widening Perkins Avenue by adding a third lane between US 250 and Mall Boulevard
- # Intersection improvements at Bogart Road
- # East-west connecting road through NASA Plum Brook facility
- # Re-alignment of Darrow Road for a length of 0.6 miles east of Furnace Road near Bridge V-324
- # Providing for improvement in east-west cross-town travel in Sandusky through capacity improvements and utilization of multiple streets
- # Prioritize the improvement of key intersections, street segments and railroad crossings in Sandusky and improve when funding is available
- # Improve access to Cedar Point Butler Street Ramp improvements and work with Cedar Point to improve access
- # Improve Warren Street in Sandusky north of Monroe Street as “the gateway to the waterfront”

- # Repair underpasses to improve structural safety and appearance as gateways to the City of Sandusky
- # Examine the possibility of creating overpasses or underpasses for vehicle/rail conflicts with emphasis on Remington and Pipe Streets and throughout the entire City of Sandusky

- ✚ Improve the street system in Vermilion especially for east-west and north-south travel by exploring potential grade separations and bridge projects
- ✚ Improve directional street signage and public transportation for Vermilion residents
- ✚ Encourage the preservation of the transportation network by expansion and adaptation of existing facilities to meet transportation needs, as opposed to the creation of new facilities
- ✚ Encourage the creation and implementation of access management regulations for municipalities and villages
- ✚ Encourage the implementation of access management regulations for municipalities and villages
- ✚ Deployment of ITS technology and implementation of access management techniques along major corridors in the MPO, including US 250 and SR 4
- ✚ Support rail line projects that include a hub in Vermilion and Sandusky
- ✚ Conduct Access Management Plan on the SR 60 Corridor
- ✚ Construction of a new interchange on SR 2 between SR 61 and SR 60
- ✚ Realignment of Darrow Road for a length of 0.6 miles east of Furnace Road near Bridge V-24
- ✚ Grade separation on SR 60 and railroad crossing approximately 1,500 feet of structured roadway
- ✚ SR 60 expansion to three (3) lanes
- ✚ Work cooperatively with the MPO to fund projects that will reduce congestion on US 250, SR 4 and Perkins Avenue and to improve other congested roads throughout the township (Perkins)
- ✚ Monitor and improve the roadway system in township (Perkins) areas that have additional traffic due to the increased freight or railway activity
- ✚ Expand bike path along the SR 60 Corridor between SR 2 and US 6
- ✚ Construction of bike path along US 6
- ✚ Implement the Erie County Bicycle and Pedestrian Plan as it applies to the City of Vermilion
- ✚ Encourage the widening of all roads to recommended widths based on ODOT design guidelines

- ✚ Create a marketing campaign to increase awareness of existing bicycling, walking and recreational facilities in Erie County and the City of Vermilion
- ✚ In conjunction with the awareness campaign, conduct an information campaign to educate the public about share-the-road safety topics
- ✚ Continue bicycle and pedestrian safety programs provided through Erie Metro Parks, the local school districts, and other local groups
- ✚ Encourage municipalities and the townships to consider requiring the installation of sidewalks in new residential and commercial developments
- ✚ Encourage the municipalities to develop and implement plans to improve sidewalk conditions and complete gaps in the sidewalk network
- ✚ Ensure that widened/paved shoulders are maintained and kept free of debris
- ✚ Include enhancements that increase public safety for bicyclists and pedestrians when roadways already listed as components of the existing County Bicycle and Pedestrian Plan are improved
- ✚ Include consideration of bike lanes, sidewalk improvement enhancements where routes exist
- ✚ Support the advancement of Intermodal facilities to foster the growth of a multimodal transportation system
- ✚ Bike Paths-expand bike paths throughout Vermilion Township
- ✚ Construct sidewalks between Kneisel and Haber Roads on the west side of SR 60 Corridor
- ✚ Bike Paths-expand bike path along the SR 60 Corridor between SR 2 and US 6
- ✚ Expand Transit service throughout Vermilion Township
- ✚ Promoting transit use to tourist attractions and offering employee incentives to use transit for everyday travel
- ✚ Improve coordination of transit and transportation related services throughout MPO Planning Area
- ✚ Expanded transit service throughout the MPO Planning Area

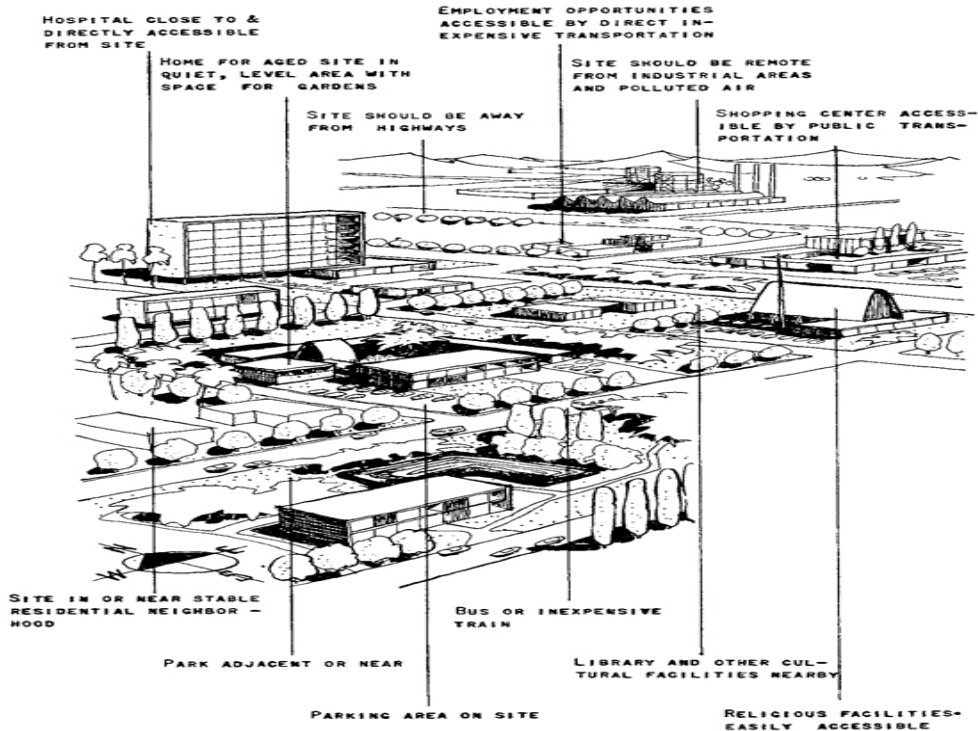
- ✚ Develop Intermodal Connections to transit options that allow for travel to areas outside the County and region
- ✚ Develop further fixed-route corridors that are viable
- ✚ Continue support of transit services for seasonal needs (tourism).
- ✚ Within the next ten years, develop corridor level fixed-route transit service in the US 6 corridor between downtown Sandusky, the City of Huron and the City of Vermilion
- ✚ Transit-expand service throughout Vermilion Township
- ✚ Work cooperatively with the local transit system to expand public transportation throughout the township (Perkins)

4.3 A Glimpse Into the Year 2040

Population and Households: By the year 2040, the Ohio Department of Development projects that the population in Erie County will struggle to grow. This assumption is based on the loss of manufacturing jobs in the Erie County area, which will minimize in-migration while maximizing out-migration to areas with job growth. Erie County currently has a large middle-aged population and a smaller younger population beneath it. By 2040 this difference will be even more evident. As a result, the ERPC transportation system will have many of its users coming from an older demographic and will require a different approach than what has traditionally been done in the past. It is predicted that this change will be more pronounced in Erie County than in the State of Ohio.

Elderly Population: While limited population growth is projected for Erie County, a number of different services will emerge as a result of an aging population. The population pyramid projected for 2050 depicts an inverted pyramid with a high proportion of aged persons at the top of the pyramid. The projected population pyramid provides an indication of how the populations will grow and; therefore, provides an indication of what types of community needs the different age groups may have. These changing demographics challenge the conventional solutions of more buses, light rail service, and para-transit vans. While such traditional modes of transportation will surely be needed, there is a limit to how much the region can afford. Improved coordination among existing services, innovative ways of delivering services, and a regional commitment to placing public facilities and social services at locations served by public transit will also be needed.³⁶

³⁶ <http://trimet.org/pdfs/publications/elderly-and-disabled-plan.pdf>



Suggestions for Elderly Planning³⁷

Housing: Housing needs will also change. Older persons, on the whole, require different kinds of living arrangements both in cost and design than younger families. These living arrangements typically include low-priced, small dwelling unit with specially designed interiors, sometimes existing within a compound that provides common eating, medical and recreational facilities. Low-priced facilities reflect their meager financial resources. Smaller dwelling units comprised of one- or two-person households will become increasingly common. Additionally specially designed interiors which include grab bars, non-slip floors and bathtubs, one-floor layouts, increased illumination, and so on will also increase in popularity. A combination of factors loneliness, the desire for companionship, and greater susceptibility to illness may also account for the common-shared service facilities.³⁸



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Compassionate People, Exceptional Service

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³⁷ <https://www.planning.org/pas/at60/report148.htm>

³⁸ <https://www.planning.org/pas/at60/report148.htm>

³⁹ <http://www.sahahomes.org/properties/merritt-crossing-senior-apartments>

⁴⁰ <http://www.blueharborseniorliving.com/>

Employment and Impacts on the Transportation System: Projections were examined from the Ohio Department of Job and Family Services (ODJFS) Bureau of Labor Market information (BLMI). These projections are widely used for studying long-range economic and employment trends, planning education and training programs, and developing career information. 2010 data was used and is projected out ten years to 2020.¹⁸ Only sectors with major employment gains or losses were analyzed. ERPC is located in the northeast district of the Ohio Jobs Network, but is located right on the border next to the northwest district. As a result of this both districts were analyzed.

Table 4-5: Employment Projections⁴¹

JobsOhio Network - Toledo (Northwest Ohio)				
Industry Employment Projection Report: 2010-2020				
Description	Employment		Projected Change	
	2010	2020	in Employment	
	Annual	Projected	2010-2020	Percent
Specialty trade contractors	11,800	14,500	2,700	22.9%
Wood product manufacturing	1,000	1,200	200	20.0%
Miscellaneous manufacturing	2,000	1,600	-400	-20.0%
Electronic markets & agents and brokers	900	1,400	500	55.6%
Truck transportation	7,400	9,000	1,600	21.6%
Computer systems design & related services	1,100	1,500	400	36.4%
Management & technical consulting services	1,400	2,100	700	50.0%
Employment services	11,000	13,500	2,500	22.7%
Ambulatory health care services	24,400	32,800	8,400	34.4%
Social assistance	7,300	10,200	2,900	39.7%
Postal Service	2,500	1,800	-700	-28.0%
Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information.				
JobsOhio Network - Cleveland (Northeast Ohio)				
Industry Employment Projection Report: 2010-2020				
Description	Employment		Projected Change	
	2010	2020	in Employment	
	Annual	Projected	2010-2020	Percent
Oil & gas extraction	500	800	300	60.0%
Support activities for mining	800	1,000	200	25.0%
Construction of buildings	13,700	17,000	3,300	24.1%
Specialty trade contractors	41,400	51,100	9,700	23.4%
Apparel manufacturing	600	400	-200	-33.3%
Petroleum & coal products manufacturing	1,300	1,000	-300	-23.1%
Truck transportation	20,800	25,200	4,400	21.2%
Specialized design services	1,200	1,600	400	33.3%
Computer systems design & related services	12,900	18,100	5,200	40.3%
Advertising, PR, & related services	3,900	4,700	800	20.5%
Other professional & technical services	6,300	7,700	1,400	22.2%
Office administrative services	4,200	5,100	900	21.4%
Facilities support services	1,700	2,100	400	23.5%
Employment services	39,200	49,800	10,600	27.0%
Ambulatory health care services	89,300	120,300	31,000	34.7%
Social assistance	34,300	47,900	13,600	39.7%
Postal Service	9,800	7,000	-2,800	-28.6%
Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information.				

¹⁸ The Ohio Department of Job and Family Services, 2020 Ohio Job Outlook Employment Projections

⁴¹ Jobs Ohio

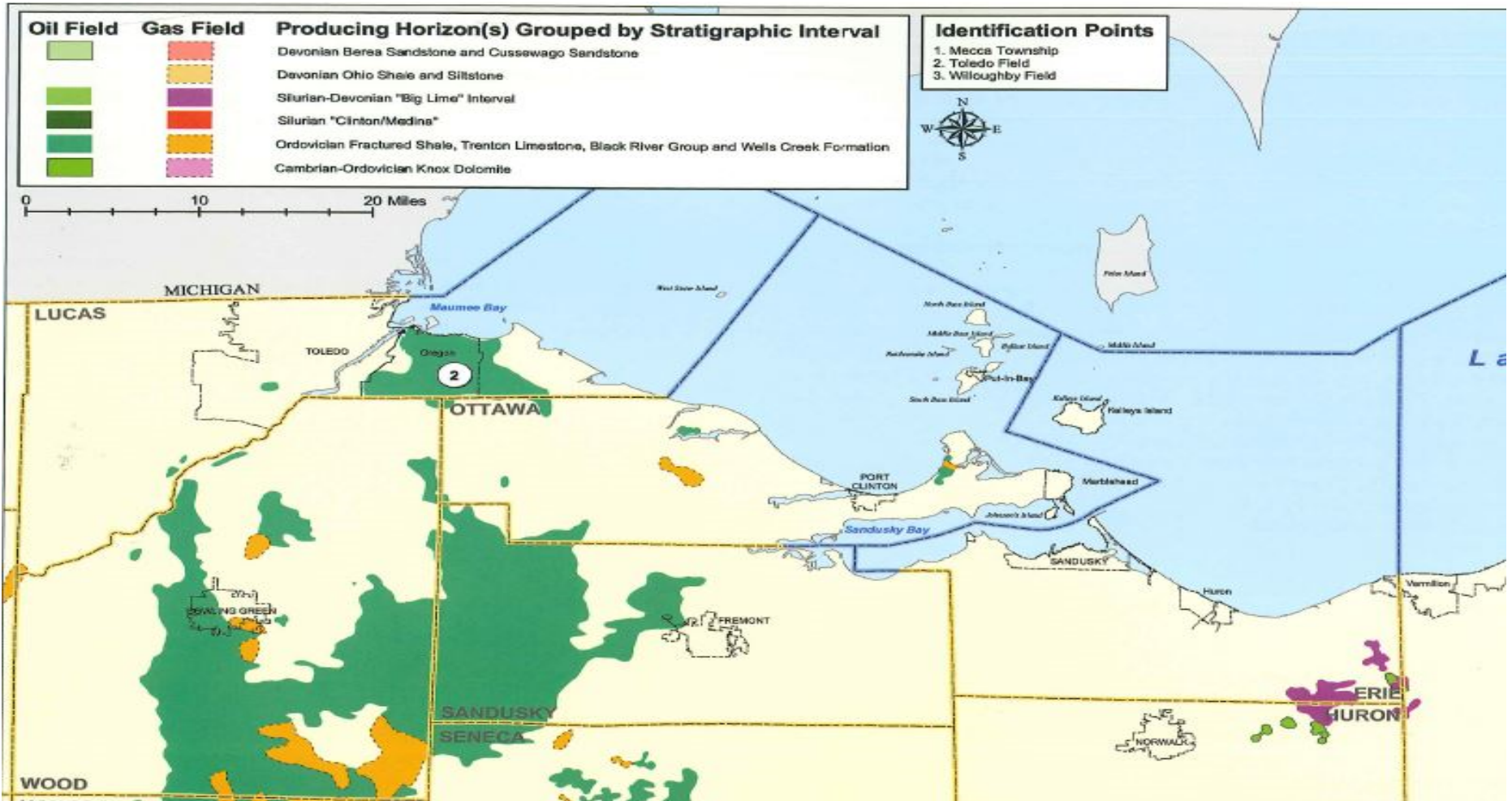
Oil and gas extraction is projected to grow the fastest in northeast Ohio. Economist, Environmental Science and Protection Technicians, as well as Astronomers and Physicists are more likely to increase.⁴² Natural gas and oil extraction is described in the following process:⁴³

- ✚ Primary recovery first relies on underground pressure to drive fluids to the surface. When the pressure falls, artificial lift technologies, such as pumps, are used help bring more fluids to the surface. In some situations, natural gas is pumped back down the well underneath the oil. The gas expands, pushing the oil to the surface. Gas lift technology is often used in offshore facilities. Primary recovery often taps only 10% of the oil in a deposit.
- ✚ Secondary recovery is the most widely applied enhanced recovery technique. Water that is produced and separated from the oil in the initial phase of drilling is injected back into the oil-bearing formation to bring more oil to the surface. In addition to boosting oil recovery, it also disposes of the wastewater, putting it back where it came from. This can bring an additional 20% of the oil in place to the surface.
- ✚ Enhanced recovery techniques are used to mobilize the remaining oil. There are three common approaches: thermal recovery, gas injection or chemical flooding.
- ✚ Thermal recovery entails injecting steam into the formation. The heat from the steam makes the oil flow more easily, and the increased pressure forces it to the surface.
- ✚ Gas injection uses either miscible or immiscible gases. Miscible gasses dissolve CO₂, propane, methane or other gasses in the oil to lower its viscosity and increase flow. Immiscible gasses do not mix with the oil, but increase pressure in the “gas cap” in a reservoir to drive additional oil to the well bore.
- ✚ Chemical flooding involves mixing dense, water-soluble polymers with water and injecting the mixture into the field. The water pushes the oil out of the formation and into the well bore.

As a result of the above process typically trucks and other heavy equipment are utilized in this process. There are gas and oil fields located in the south-western portion of the county (an illustration of this is located below). These areas in particular will need to be able to handle the associated equipment. Petroleum and coal manufacturing is expected to decrease. As a result it is expected that although raw materials are being extracted locally they are expected to be processed elsewhere. Areas that may be shipping or transportation the extracted materials may also need improvement. Ports that are closest to this area include the Port of Vermilion. Major roads include SR 60, SR 113, 80/90 and Mason Road. Wakefield Airport is also located in the vicinity.

⁴² http://www.bls.gov/oes/current/naics4_211100.htm

⁴³ <http://www.adventuresinenergy.org/exploration-and-production/Extracting-Oil-and-Natural-Gas.html>



Map 4-14: Oil and Gas Fields in Erie County⁴⁴

⁴⁴ Lake Erie Coastal Atlas

Computer system design and related services is also projected to grow. Credit authorizers, checkers and clerks as well as mathematicians and industrial engineering technicians are expected to increase.⁴⁵

Providing a wide array of information services to clients requires a diverse and well-educated workforce. The majority of workers in the computer systems design and related services industry are professional and related workers.⁴⁶ It is anticipated that this will not put as much stress on the transportation system as oil and gas extraction. It is anticipated that office parks will grow. These types of parks are generally located on the outskirts of urban areas near freeways or other areas where commuter access is convenient. Areas that could grow include the Huron River Port Industrial Park, Huron Corporate Park, Sandusky Bay Side Park, and Quarry Lake Business Park.⁴⁷ In northwest Ohio electric **markets brokers and agents and management and consulting services** are projected to grow fastest. Installation, maintenance and repair workers as well as vending machine repairers as well as molders and machine setters are expected to also increase.⁴⁸ It is anticipated that trucks and rail will continue to be utilized to move goods and equipment. Much of this work will most likely occur in the urban areas since there is a higher concentration of people. The Cities of Huron, Sandusky and Vermilion may experience this increase. Oil and gas extraction were not listed in the projection report for northwest Ohio.

Land Use and Transportation: During the year 2040 it is predicted that the urban areas will begin to once again retain population. Gains in population for cities have indicated that young people, as well as would-be retirees are seeking quieter locales and are playing it safe for a while longer in dense urban cores, where jobs may be easier to find and keep. Prior to 2011, suburbs had consistently outpaced big cities since 1920, with the rise of the automobile. It is predicted that the division between city and suburbs will continue to blur. There's no longer a clear line between an economic center where people work and suburban bedroom communities. Both can be home to major companies and residences. Census data show that many closer-in suburbs linked to a city with public transit or well-developed roadways are benefiting from strong city growth, while far-flung areas near the metropolitan edge are fizzling after heady growth during the mid-decade housing boom.⁴⁹ What could this mean for Erie County? As far as zoning a more mixed use approach within the urban residential and commercial areas could emerge. In the urban areas land may revert back to its natural state or be converted into agriculture as more open space becomes available. Roads in the urban areas will remain concentrated and at lower speeds to accommodate the influx of population. Transit and alternative transportation methods may increase. Roads outside the urban areas will cease to expand and those that do remain will be most likely be higher speed roads connecting urban areas.

⁴⁵ http://www.bls.gov/oes/current/naics4_541500.htm#00-0000

⁴⁶ <https://collegegrad.com/industries/profb02>

⁴⁷ <http://uac.utoledo.edu/Publications/CEDS-final-rpt/IndParkProfile.pdf>

⁴⁸ http://www.bls.gov/oes/current/naics4_425100.htm

⁴⁹ <http://news.yahoo.com/urban-renewal-big-us-cities-showing-strong-growth-040147793.html>