

HOUSING NEEDS ASSESSMENT

Firelands Region
of Ohio



BOWEN
NATIONAL
RESEARCH

2023

TABLE OF CONTENTS

I.	Introduction	I-1 to 4
II.	Executive Summary	II-1 to 26
III.	Community Overview and Study Areas.....	III-1 to 7
IV.	Demographic Analysis	IV-1 to 62
V.	Economic Analysis	V-1 to 21
VI.	Housing Supply Analysis	VI-1 to 61
VII.	Other Housing Market Factors	VII-1 to 80
VIII.	Housing Gap Estimates	VIII-1 to 12
IX.	Community Input Results and Analysis	IX-1 to 30
X.	Community Comparisons	X-1 to 10
	<i>The Addendums are not included in this bound study</i>	
	<i>Addendum A – Field Survey of Conventional Rentals</i>	<i>A-1 to 22</i>
	<i>Addendum B – Non-Conventional Rentals & Vacation Rental Surveys ..</i>	<i>B-1 to 13</i>
	<i>Addendum C – Community Input Survey Results</i>	<i>C-1 to 100</i>
	<i>Addendum D – Erie County Overview</i>	<i>D-1 to 16</i>
	<i>Addendum E – Huron County Overview</i>	<i>E-1 to 15</i>
	<i>Addendum F – Ottawa County Overview</i>	<i>F-1 to 15</i>
	<i>Addendum G – Qualifications</i>	<i>G-1 to 3</i>
	<i>Addendum H – Glossary</i>	<i>H-1 to 5</i>
	<i>Addendum I – Sources</i>	<i>I-1</i>

Note: For-Sale housing data may be provided upon request

I. INTRODUCTION

A. PURPOSE

Firelands Forward retained Bowen National Research in July of 2022 for the purpose of conducting a Housing Needs Assessment of the Firelands Region in Ohio, which includes Erie, Huron and Ottawa counties.

With changing demographic and employment characteristics and trends expected over the years ahead, it is important for the local government, stakeholders and its citizens to understand the current market conditions and projected changes that are anticipated to occur that will influence future housing needs. Toward that end, this report intends to:

- Provide an overview of present-day Firelands Region.
- Present and evaluate past, current and projected detailed demographic characteristics.
- Present and evaluate employment characteristics and trends, as well as the economic drivers impacting the area.
- Determine current characteristics of all major housing components within the market (for-sale/ownership and rental housing alternatives).
- Evaluate ancillary factors that affect housing market conditions and development (e.g., commuting/migration patterns, transportation analysis, development opportunities, development costs and government regulations, identification of potential development/investment partners, cost of living analysis, university/college overview, and special needs populations).
- Provide housing gap estimates by tenure (renter or owner) and income segment.
- Collect input from community members including area stakeholders, employers, and residents/commuters in the form of online surveys.
- Provide a community comparison of the Firelands Region with other selected Ohio communities to identify similarities and differences regarding characteristics and trends of key demographic, economic, and housing data.

By accomplishing the study's objectives, government officials, area stakeholders, and area employers can: (1) better understand the region's evolving housing market, (2) establish housing priorities, (3) modify or expand local government housing policies, and (4) enhance and/or expand the region's housing market to meet current and future housing needs.

B. METHODOLOGIES

The following methods were used by Bowen National Research:

Study Area Delineation

The primary geographic scope of this study is the Firelands Region of Ohio, which is comprised of Erie, Huron and Ottawa counties. Additionally, at the client's request, we have evaluated seven submarkets within the region. A full description of all market areas and corresponding maps are including in Section III.

Demographic Information

Demographic data for population, households, and housing was secured from ESRI, the 2000, 2010 and 2020 U.S. Census, the U.S. Department of Commerce, and the American Community Survey. This data has been used in its primary form and by Bowen National Research for secondary calculations. All sources are referenced throughout the report and in Addendum I. Estimates and projections of key demographic data for 2022 and 2027 were also provided.

Employment Information

Employment information was obtained and evaluated for various geographic areas that were part of this overall study. This information included data related to wages by occupation, employment by job sector, total employment, unemployment rates, identification of top employers, and identification of large-scale job expansions or contractions. Most information was obtained through the U.S. Department of Labor, Bureau of Labor Statistics. Bowen National Research also conducted numerous interviews with local stakeholders familiar with the area's employment characteristics and trends.

Housing Component Definitions

This study focuses on rental and for-sale housing components. Rentals include multifamily apartments (generally five+ units per building), non-conventional rentals (single-family homes, duplexes, units over storefronts, etc.), and vacation rental properties. For-sale housing includes individual homes, mobile homes, and projects within subdivisions.

Housing Supply Documentation

Between October of 2022 and February of 2023, Bowen National Research conducted telephone research, as well as online research, of the area's housing supply. Additionally, market analysts from Bowen National Research traveled to the area in December 2022, conducting research on the housing properties identified in this study, as well as obtaining other on-site information relative to this analysis.

The following data was collected on each multifamily rental property:

1. Property Information: Name, address, total units, and number of floors
2. Owner/Developer and/or Property Manager: Name and telephone number
3. Population Served (i.e., seniors vs. family, low-income vs. market-rate, etc.)
4. Available Amenities/Features: Both in-unit and within the overall project
5. Years Built and Renovated (if applicable)
6. Vacancy Rates
7. Distribution of Units by Bedroom Type
8. Square Feet and Number of Bathrooms by Bedroom Type
9. Gross Rents or Price Points by Bedroom Type
10. Property Type
11. Quality Ratings
12. GPS Locations

For-Sale housing data included details on home price, year built, location, number of bedrooms/bathrooms, price per-square-foot, and other property attributes. Data was analyzed for both historical transactions and currently available residential units.

Other Housing Factors

We evaluated other factors that impact housing, including employee commuting patterns, resident mobility patterns, analysis of the cost and accessibility of public transportation, cost of living analysis, residential development opportunities (potential sites), local development costs and government regulations, identification of development/investment partners, university/college overview, and special needs populations (e.g., persons with a disability, persons with a mental illness, persons with substance abuse disorder). This data was provided for each of the three counties (Erie, Huron, and Ottawa) within the Firelands Region and, when applicable, compared with state and national data.

Housing Demand

Based on the demographic data for both 2022 and 2027 and taking into consideration the housing data from our field survey of area housing alternatives, we are able to project the potential number of new housing units the Firelands Region can support. The following summarizes the metrics used in our demand estimates.

- Rental Housing – We included renter household growth, the number of units required for a balanced market, the need for replacement housing, commuter/external market support and step-down support as the demand components in our estimates for new rental housing units. As part of this analysis, we accounted for vacancies reported among all rental alternatives. We concluded this analysis by providing the number of units that the market can support by different income segments and rent levels.

- For-Sale Housing – We considered potential demand from owner household growth, the number of units required for a balanced market, the need for replacement housing, commuter/external market support and step-down support in our estimates for new for-sale housing. As part of this analysis, we accounted for vacancies reported among all surveyed for-sale alternatives. We concluded this analysis by providing the number of units that the market can support by different income segments and price points.

Community Engagement

Bowen National Research conducted online surveys to solicit input from a wide range of people and organizations within the Firelands Region. Three surveys were conducted that included stakeholders, employers, and residents/commuters. Overall, nearly 650 people participated in the surveys, providing valuable local insight on the housing challenges, issues and opportunities in the region. The aggregate results from these surveys are presented and evaluated in this report in Section IX. The questions used in the surveys and corresponding results are shown in Addendum C.

Community Comparison

Bowen National Research compared key data sets of demographics, economics and housing in the subject study region with the Ohio communities of Lorain, Elyria and Mansfield and discuss any notable differences or similarities of these communities and the subject study region. Such analysis will provide context for key data sets and trends of the subject study region and help provide insight on competitive strengths and weaknesses of the subject region.

C. REPORT LIMITATIONS

The intent of this report is to collect and analyze significant levels of data for the Firelands Region in Ohio. Bowen National Research relied on a variety of data sources to generate this report (see Addendum I). These data sources are not always verifiable; however, Bowen National Research makes a concerted effort to assure accuracy. While this is not always possible, we believe that our efforts provide an acceptable standard margin of error. Bowen National Research is not responsible for errors or omissions in the data provided by other sources.

We have no present or prospective interest in any of the properties included in this report, and we have no personal interest or bias with respect to the parties involved. Our compensation is not contingent on an action or event resulting from the analyses, opinions, or use of this study. Any reproduction or duplication of this study without the expressed approval of Firelands Forward or Bowen National Research is strictly prohibited.

II. EXECUTIVE SUMMARY

The purpose of this report is to evaluate the housing needs of the Firelands Region of Ohio (includes Erie, Huron and Ottawa counties) and to recommend priorities and strategies to address such housing needs. To that end, we have conducted a comprehensive Housing Needs Assessment that considered the following:

- Demographic Characteristics and Trends
- Economic Conditions and Initiatives
- Existing Housing Supply Costs, Performance, Conditions and Features
- Various Other Housing Factors (commuting/migration patterns, transportation analysis, development opportunities, development costs and government regulations, identification of potential development/investment partners, cost of living analysis, university/college overview, and special needs populations)
- Input from the Community (Surveys of Stakeholders, Employers and Residents/Commuters)

Based on these metrics and input, we were able to identify housing needs by affordability and tenure (rental vs. ownership). Using these findings, we developed an outline of strategies that should be considered for implementation by the community. This Executive Summary provides key findings and recommended strategies. Detailed data analysis is presented within the individual sections of this Housing Needs Assessment.

Geographic Study Areas

This report focuses on the Primary Study Area (PSA), which consists of the Firelands Region of north central Ohio and includes the counties of Erie, Huron and Ottawa, and multiple submarkets within the counties. The following table summarizes the various market areas included in this report.

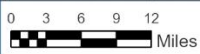
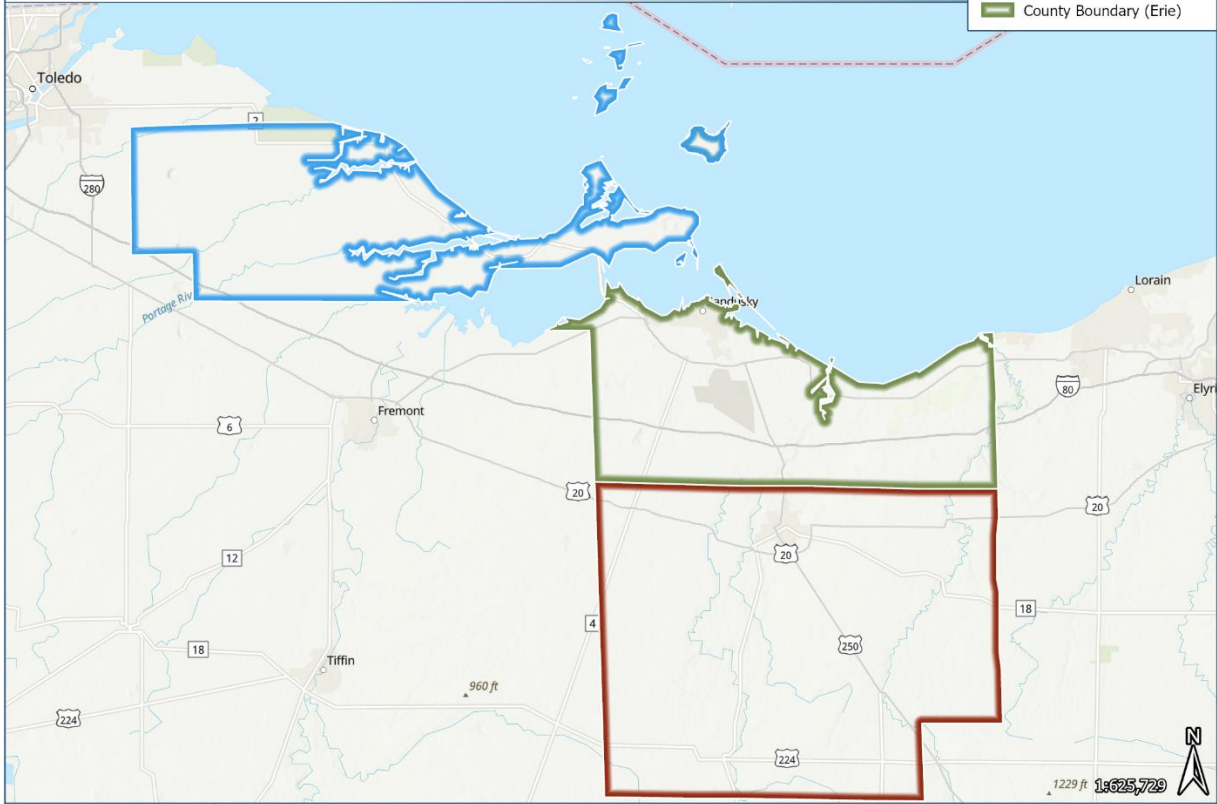
Firelands Region Study Areas	
Study Area	Description
Primary Study Area (PSA)	Firelands Region (Counties of Erie, Huron & Ottawa)
Secondary Study Areas and Submarkets	Erie County
	<ul style="list-style-type: none"> • Erie North • Erie East • Erie West
	Huron County
	<ul style="list-style-type: none"> • Huron North • Huron South
	Ottawa County
	<ul style="list-style-type: none"> • Ottawa East (Includes Kelley’s Island) • Ottawa West

A map of the PSA (Firelands Region) and its counties is provided on the following page. Maps of individual submarkets are provided in Section III.



Primary Study Area
Firelands Region, OH

- County Boundary (Ottawa)
- County Boundary (Huron)
- County Boundary (Erie)



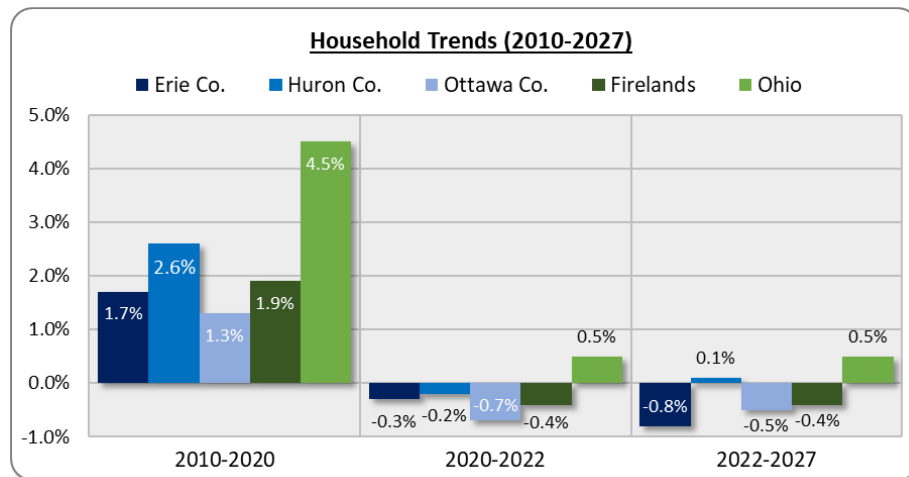
Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
Additional Source(s): Bowen National Research

Demographics

Overall household growth in the PSA was positive between 2010 and 2020 but is projected to decline slightly through 2027. Between 2010 and 2020, the number of households within the PSA (Firelands Region) increased by 1,350 (1.9%). This represents a smaller rate of increase compared to the state of Ohio (4.5%) during this time period. In 2022, there is an estimated total of 73,251 households in the PSA, which represents a slight decrease of 0.4% in the number of households compared to 2020. Between 2022 and 2027, the number of households in the PSA is projected to decrease by 303 (0.4%), at which time the estimated total number of households in the PSA will be 72,948. The projected decrease in households for the PSA over the next five years contrasts the 0.5% increase in households for the state during this time period. While the numbers of households in most of the submarkets are expected to either remain unchanged or experience slight declines through 2027, all submarkets have demographic shifts during this time that will impact housing needs.

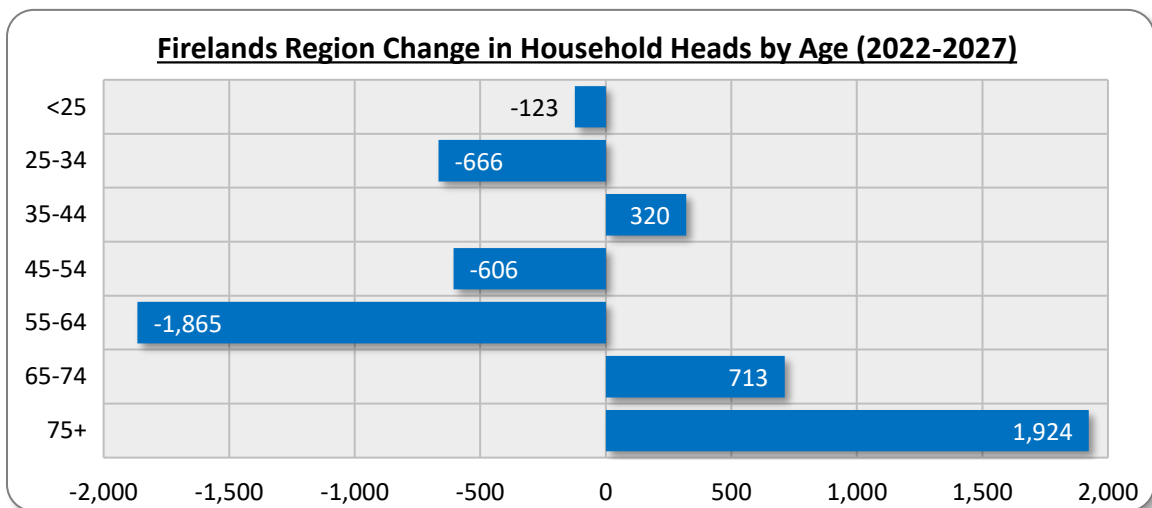
	Total Households									
	2010 Census	2020 Census	Change 2010-2020		2022 Estimated	Change 2020-2022		2027 Projected	Change 2022-2027	
			Number	Percent		Number	Percent		Number	Percent
Erie North	15,882	15,999	117	0.7%	15,948	-51	-0.3%	15,825	-123	-0.8%
Erie East	11,123	11,444	321	2.9%	11,382	-62	-0.5%	11,269	-113	-1.0%
Erie West	4,683	4,778	95	2.0%	4,792	14	0.3%	4,784	-8	-0.2%
Erie County	31,688	32,221	533	1.7%	32,121	-100	-0.3%	31,879	-242	-0.8%
Huron North	15,044	15,608	564	3.7%	15,584	-24	-0.2%	15,609	25	0.2%
Huron South	7,776	7,798	22	0.3%	7,780	-18	-0.2%	7,787	7	0.1%
Huron County	22,820	23,406	586	2.6%	23,364	-42	-0.2%	23,396	32	0.1%
Ottawa East	8,116	8,267	151	1.9%	8,230	-37	-0.4%	8,207	-23	-0.3%
Ottawa West	9,540	9,620	80	0.8%	9,536	-84	-0.9%	9,466	-70	-0.7%
Ottawa County	17,657	17,887	230	1.3%	17,766	-121	-0.7%	17,673	-93	-0.5%
Firelands Region	72,164	73,514	1,350	1.9%	73,251	-263	-0.4%	72,948	-303	-0.4%
Ohio	4,603,431	4,808,766	205,335	4.5%	4,831,456	22,690	0.5%	4,856,138	24,682	0.5%

Source: 2010, 2020 Census; ESRI; Urban Decision Group; Bowen National Research



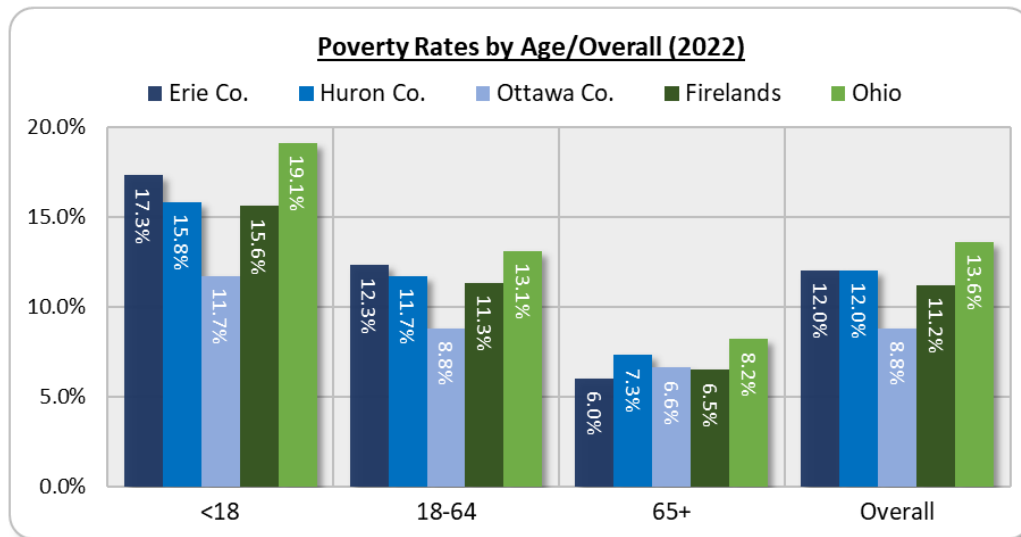
The PSA has a large and growing base of senior households that is expected to experience significant growth over the next several years, while smaller but notable growth is also projected for older millennials households. In 2022, household heads between the ages of 55 and 64 within the PSA (Firelands Region) comprise the largest share of all households in the PSA (21.1%). Household heads between the ages of 65 and 74 (19.4%) and those between the ages of 45 and 54 (15.9%) comprise the next largest shares of the total households in the PSA. As such, senior households (age 55 and older) constitute well over half (54.9%) of all households within the PSA, which is a larger share than the state (49.1%). Between 2022 and 2027, projections indicate significant household growth in the PSA among household heads ages 75 and older (18.3%). Households between the ages of 65 and 74 (5.0%) and 35 and 44 (3.1%) are also projected to experience moderate growth. All other age cohorts are projected to experience declines (between 5.2% and 12.1%) during this time period. As such, it is likely that demand for senior-oriented housing in the region will increase over the next five years.

Within the three counties of the PSA, Ottawa County has the largest share of household heads ages 55 and older (60.1%). Erie County has the second largest share of senior households (55.6%), followed by Huron County (49.8%). Conversely, Huron County has the largest share of households under the age of 35 (17.6%), followed by Erie County (15.2%) and Ottawa County (12.4%). Household heads between the ages of 25 and 44 years comprise 30.1% of all households in Huron County, which represents the largest share of such households among the three counties in the PSA. Between 2022 and 2027, all household growth within the three counties is projected to occur among the age cohorts of 35 to 44 years and 65 years and older. The most significant growth will occur among households ages 75 and older, with the largest percentage increase of 19.2% occurring in Huron County. Erie County will experience the second largest growth (18.3%) within this age cohort, followed by Ottawa County (17.3%).



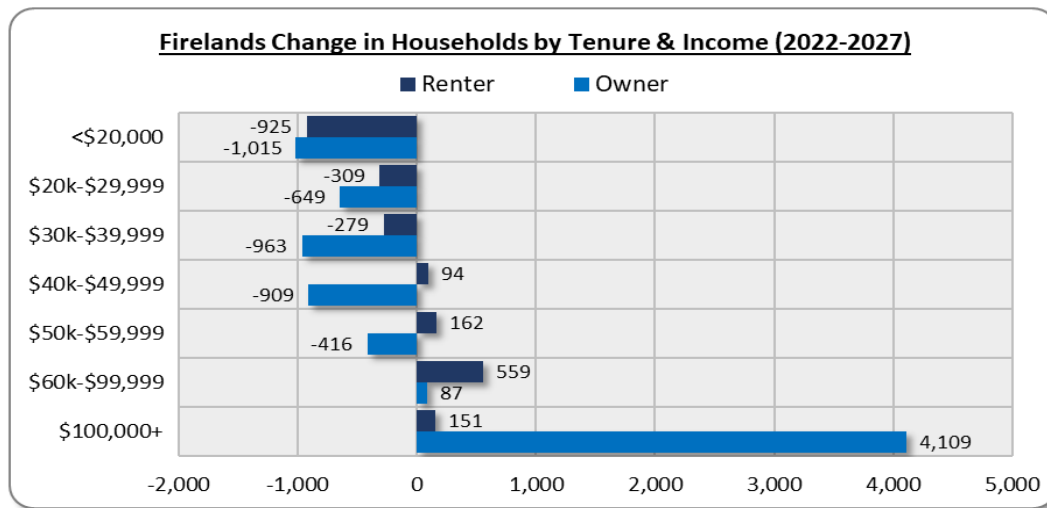
While the PSA has a lower poverty rate among its overall population compared with the state, over 19,000 people in the region live in poverty. Approximately 11.2% of the population in the PSA (Firelands Region) suffers from poverty, which reflects a lower poverty rate than the state (13.6%) overall. Among the three age cohorts considered in this analysis, people less than 18 years of age have the highest poverty rate (15.6%) in the PSA, which reflects a lower rate for this cohort than the corresponding rate for the state (19.1%). Adults, ages 18 to 64 years, have the second highest poverty rate (11.3%) in the PSA, which is also lower than the rate for the state (13.1%). Those age 65 and older have the lowest poverty rate among the three age cohorts in the PSA (6.5%) and also have a poverty rate below that of the state (8.2%). Overall, the data suggests that the population of the PSA is less affected by poverty, regardless of age, than the state. Regardless, 19,162 individuals live in poverty in the Firelands Region, and as such, affordable housing should continue to be a consideration for future housing developments in the region. It should be pointed out that based on the survey of area multifamily rentals, all surveyed Tax Credit rentals and most government-subsidized rentals in the PSA are occupied and most have wait lists. This poses a significant obstacle for persons living in poverty that are seeking affordable rental alternatives.

Among the three counties in the region, Erie County and Huron County have the highest overall poverty rates (12.0% each), while Ottawa County has the lowest overall poverty rate (8.8%). All three counties have rates below the rate for the state (13.6%). Overall, Erie County has the largest population (8,739) living below poverty level, followed by Huron County (6,898). A total of 3,525 people in Ottawa County live in poverty.



Most renter and owner household growth in the PSA is projected to occur among moderate- and higher-income households, while lower income households (earning less than \$30,000 annually) will continue to comprise relatively large shares of area households. In 2022, *renter* households earning less than \$30,000 annually comprise nearly two-fifths of renter households in the PSA, while those earning between \$30,000 and \$59,999 (34.2%) and \$60,000 or more (25.6%) comprise comparably smaller shares. Between 2022 and 2027, all renter household income cohorts earning \$40,000 or more in the PSA are projected to increase, while all income cohorts earning less than \$40,000 are projected to decline. The largest increase in the region over the next five years is projected among those earning between \$60,000 and \$99,999 (16.4%). In 2022, over three-fifths (62.9%) of *owner* households in the PSA (Firelands Region) earn \$60,000 or more annually, which represents a slightly smaller share compared to the state (64.4%). Nearly one-fourth (24.3%) of owner households in the PSA earn between \$30,000 and \$59,999, and the remaining 12.7% earn less than \$30,000. As such, the overall distribution of owner households by income in the PSA is very comparable to that within the state. Between 2022 and 2027, owner households earning \$100,000 or more annually are projected to increase by 22.0%, while households earning between \$60,000 and \$99,999 are projected to experience a very moderate increase of 0.6%. All income cohorts of owner households in the PSA earning less than \$60,000 are projected to decline over the next five years, with the largest decrease of 33.2% projected in the income cohort of \$10,000 to \$19,999. The distribution and projected growth of renter households by income are very similar between the three subject counties. The details of households by income and tenure (renters and owners) are provided in Section IV of this report, starting on page 46.

Based on these findings, it appears that growth among moderate- and higher-income households will drive demand for more market-rate housing alternatives, while the large bases of lower income renter and owner households and limited availability of housing product will contribute to the ongoing need for affordable housing alternatives.



Additional demographic data and analysis are included in Section IV of this report.

Economy & Workforce

Key economic metrics in the Firelands Region have been positive or stable over the past decade and each of the three subject counties have essentially returned to pre-COVID levels, contributing to the area’s demographic growth and ongoing housing demand. Excluding the COVID-influenced economic characteristics of 2020, most of the key economic trends of the Firelands Region economy have been positive since 2012, with the employment base generally growing and the unemployment rate declining or remaining stable in most of the past 11 years. While total employment in each county still remains slightly below the respective 2019 levels, the PSA counties have recovered to within 98.6% (Ottawa County), 98.9% (Erie County), and 99.8% (Huron County) of the total 2019 employment, which represent recovery rates above that for the state of Ohio (98.2%).

Due to the prevalence of tourism-influenced jobs (e.g., accommodations & food service and retail trade), the market is likely more vulnerable to economic volatility. The labor force within the PSA (Firelands Region) is based primarily in five sectors: Accommodation & Food Services (21.6%), Arts, Entertainment & Recreation (10.8%), Retail Trade (10.5%), Health Care & Social Assistance (10.4%), and Manufacturing (10.1%). Combined, these five job sectors represent over three-fifths (63.4%) of the PSA employment base. This represents a greater concentration of employment within the top five sectors compared to the top five sectors in the state (56.7%). Areas with a heavy concentration of employment within a limited number of industries can be more vulnerable to economic downturns with greater fluctuations in unemployment rates and total employment. While Health Care & Social Assistance (10.4%) is one of the largest sectors by employment in the PSA, and is generally less susceptible to economic fluctuations, the other four top sectors in the PSA can be more likely influenced by economic declines. It is important to point out that some of the region’s largest employment sectors are associated with jobs that align with the tourism industry, which plays an important role in the area. Many jobs associated with the tourism sector are service industry positions which typically pay lower wages. The prevalence of such jobs drives the demand for more affordable housing alternatives.

Many of the most common occupations in the market do not pay adequate wages that enable people to afford typical housing offered in the market. Median blue-collar salaries in Erie County range from \$21,190 to \$63,315, while white-collar jobs, such as those related to professional positions, management, and medicine, have an average salary of \$66,959. Within Huron County, blue-collar median salaries range from \$24,716 to \$55,375, while white-collar salaries average \$56,607. White-collar professions in Ottawa County have the highest average salary (\$73,804) of the three PSA counties, while blue-collar occupations in the county have the widest range of median salaries (\$19,483 to \$73,804). Overall, average median wages in Huron County (\$45,650) are the lowest among the three PSA counties, averaging 14.4% less than the state (\$53,307). Wages in Erie County, which has the second highest average median wages (\$50,990) in the PSA, average 4.3% less than the state. Ottawa County, which has average median wages 4.4% higher than the state, is the only

county in the PSA with average median wages (\$55,647) higher than those for the state. Within Erie and Huron counties, occupations related to food preparation and serving have the lowest median wages (\$21,190 and \$24,716, respectively), while personal care and service occupations in Ottawa County have the lowest median wage (\$19,483).

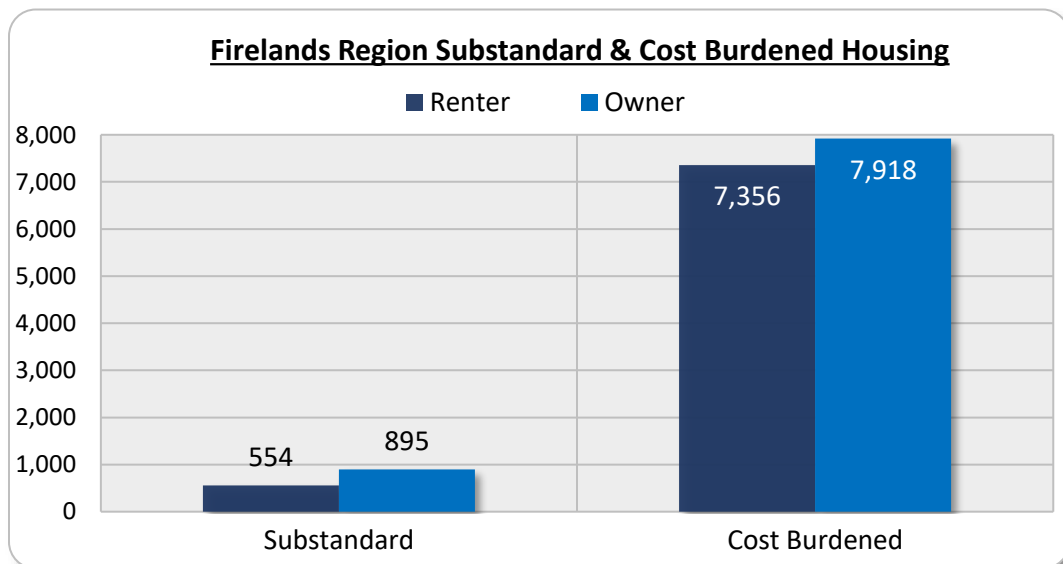
As shown on page V-8 of this report, a number of occupations within the sales, food preparation, healthcare, and building/grounds maintenance sectors cannot reasonably afford the Fair Market Rent (FMR) of \$756 at their respective median wages. When the lower quartile of wage earners is considered, the FMR of \$756 is unaffordable to many more occupations in the PSA, which includes occupations within the office and administrative support, transportation, and manufacturing sectors. While this FMR is affordable to a majority of the workers earning median wages or above within these common occupations, the data illustrates that affordability is likely an issue for the lowest wage earners in a variety of occupational sectors in the PSA. An examination of the maximum affordable purchase price reveals that a vast majority of the occupations within the PSA cannot afford the typical for-sale home priced at \$170,000 or above at their respective median wages. Among the occupations with the necessary median wage to afford a typical home in the PSA, most occupations likely require some type of post-secondary degree or specialized certification in connection with their employment. Despite the higher median wages of these occupations, the lower quartile of earners within many of these occupations cannot afford the typical for-sale home in the PSA. It is important to understand that the listed wages represent the income of individuals, not households. As such, households with multiple income sources likely have a significantly higher level of affordability. Conversely, it is also important to note that the FMR and median home prices used as the basis of affordability are the lowest among the three counties of the region. Regardless, this illustrates the difficulty that many single-income households within the most common occupations of the region likely have in locating affordable housing.

Public and private sector investment have been positive, with significant investment planned that will contribute to the expanding economy and ongoing housing demand. With hundreds of millions of dollars in both private and public sector investment planned or underway within the Firelands Region, a large number of new jobs are expected to be created over the next few years. While some of these may be filled by regional residents, it is likely that many of these jobs will be filled by non-residents. It is anticipated many of these non-residents represent potential support for additional housing within the subject market. A list of notable economic investments within the region is provided starting on page V-20.

Additional economic data and analysis is included in Section V of this report.

Housing Supply

Nearly 1,450 occupied housing units in the PSA are considered “substandard,” while 15,274 occupied housing units are housing “cost burdened.” For the purposes of this analysis, substandard housing is considered overcrowded (1.01+ persons per room) or lacks complete indoor kitchens or bathroom plumbing. Based on American Community Survey 2020 estimates, over 600 occupied housing units are overcrowded and nearly 800 units lack complete kitchens or plumbing facilities within the PSA. The largest number (570) of substandard housing units are within Erie County, representing nearly 40% of all substandard housing in the PSA. As a result, it is clear that many households are living in housing conditions that are considered to be below modern-day housing standards and/or unaffordable to many households. Cost burdened households pay over 30% of income toward housing costs, while Severe Cost Burdened households pay over 50% of income toward housing costs. Nearly two-fifths (37.2%) of renter households in the PSA are cost burdened, while 15.0% of owner households are cost burdened. Moreover, one-fifth (19.1%) of renter households in the PSA are severe housing cost burdened (paying over 50% of income toward housing). Overall, the PSA has an estimated 7,356 renter households and 7,918 owner households that are housing cost burdened. Of the renter households, approximately 3,783 are severe cost burdened while 3,229 owner households are severe cost burdened. Renter cost burdened households are most frequent in Erie County (39.0% renter cost burdened share), while owner cost burdened households are most frequent in Huron County (16.0% owner cost burdened share). As such, affordable housing alternatives should be part of future housing solutions. Housing policies and strategies for the PSA should include efforts to remedy such housing quality and affordability issues.

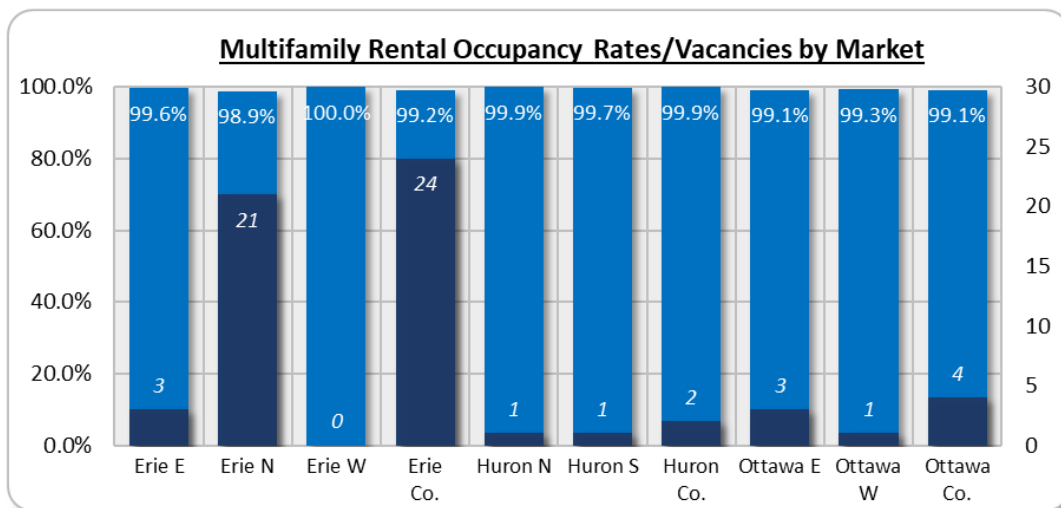


There is limited available inventory among multifamily rentals and pent-up demand for housing serving lower-income renter households. A total of 83 multifamily apartment properties containing 4,697 units were surveyed within the Firelands Region. Of these projects, 40 (48.2%) were in Erie County, 28 (33.7%) were in Huron County, and 15 (18.1%) were in Ottawa County. The surveyed rentals within the PSA have a combined occupancy rate of 99.4%, an extremely high rate for multifamily rental housing. Typically, healthy, well-balanced markets have rental housing occupancy rates generally between 94% and 96%. As such, the PSA’s multifamily rental market is operating at an exceedingly high occupancy level, and vacancies in the overall county are very limited, with only 30 vacancies identified in the entire region during the survey. There does not appear to be many vacancies, regardless of the program type (e.g., market-rate, Tax Credit, government subsidized or some combination of these program types), in the three PSA counties. All three counties have overall occupancy rates that exceed 99%, with Huron County having the highest occupancy rate (99.9%) and only two vacancies. While Erie County has the greatest number of total vacancies with 24, it should be noted that this county also has the largest number of total surveyed units (2,848), which results in the second highest occupancy rate (99.2%) among the three counties. It is also noteworthy that all of the vacancies within Erie County are among market-rate properties as there are no vacancies in the Tax Credit or government-subsidized properties within the county. In total, there are only two vacancies in the entirety of the PSA within government-subsidized projects and no vacancies among Tax Credit projects, which suggests that affordable housing options are in extremely high demand in the Firelands Region. This illustrates that, regardless of program type, demand for multifamily rental housing is exceptionally high in the PSA. The lack of available multifamily rental housing represents a development opportunity for such product.

Multifamily Supply by Product Type				
Project Type	Projects Surveyed	Total Units	Vacant Units	Occupancy Rate
Erie County				
Market-Rate	27	2,201	24	98.9%
Market-Rate/Tax Credit	1	18	0	100.0%
Tax Credit	2	80	0	100.0%
Tax Credit/Government-Subsidized	1	100	0	100.0%
Market-Rate/Tax Credit/Government-Subsidized	1	117	0	100.0%
Government-Subsidized	8	332	0	100.0%
Total	40	2,848	24	99.2%
Huron County				
Market-Rate	13	793	1	99.9%
Tax Credit	2	100	0	100.0%
Tax Credit/Government-Subsidized	3	144	0	100.0%
Government-Subsidized	10	356	1	99.7%
Total	28	1,393	2	99.9%
Ottawa County				
Market-Rate	5	113	3	97.3%
Tax Credit	1	40	0	100.0%
Tax Credit/Government-Subsidized	1	50	0	100.0%
Government-Subsidized	8	253	1	99.6%
Total	15	456	4	99.1%

The limited vacancies among the multifamily supply appears to span each submarket within each county and among all program types, particularly affordable rentals (Tax Credit and government subsidized). The occupancy rate within each county of the PSA (Firelands Region) exceeds 99%. This likely indicates a housing shortage among multifamily rentals within the entirety of the PSA. The lowest occupancy rate among the individual submarkets in the PSA is within the Erie North Submarket (98.9%), yet this is still considered to be an extremely high occupancy rate. As such, it appears that demand is very strong in each of the submarkets and counties of the PSA, with no weaknesses in any particular submarket. The Erie West Submarket is currently fully occupied with no vacancies, and six other submarkets have three or fewer vacancies. As shown in the table below, there are very few vacant units within the individual submarkets, regardless of the program type. With only 30 vacant units identified among the 4,697 apartment units included in the survey, the PSA has a very small base of available multifamily rental alternatives from which prospective renters can choose.

Overall Market Performance by Program Type by Area										
Data Set	Erie East	Erie North	Erie West	Erie County	Huron North	Huron South	Huron County	Ottawa East	Ottawa West	Ottawa County
Market-Rate										
Projects	7	19	3	29	10	3	13	5	0	5
Total Units	693	1,326	201	2,220	649	144	793	113	0	113
Vacant Units	3	21	0	24	1	0	1	3	0	3
Occupancy Rate	99.6%	98.4%	100.0%	98.9%	99.8%	100.0%	99.9%	97.3%	-	97.3%
Tax Credit (Non-Subsidized)										
Projects	1	3	0	4	2	0	2	1	0	1
Total Units	43	144	0	187	100	0	100	40	0	40
Vacant Units	0	0	0	0	0	0	0	0	0	0
Occupancy Rate	100.0%	100.0%	-	100.0%	100.0%	-	100.0%	100.0%	-	100.0%
Government Subsidized										
Projects	1	9	0	10	7	6	13	4	5	9
Total Units	26	415	0	441	272	228	500	165	138	303
Vacant Units	0	0	0	0	0	1	1	0	1	1
Occupancy Rate	100.0%	100.0%	-	100.0%	100.0%	99.6%	99.8%	100.0%	99.3%	99.7%



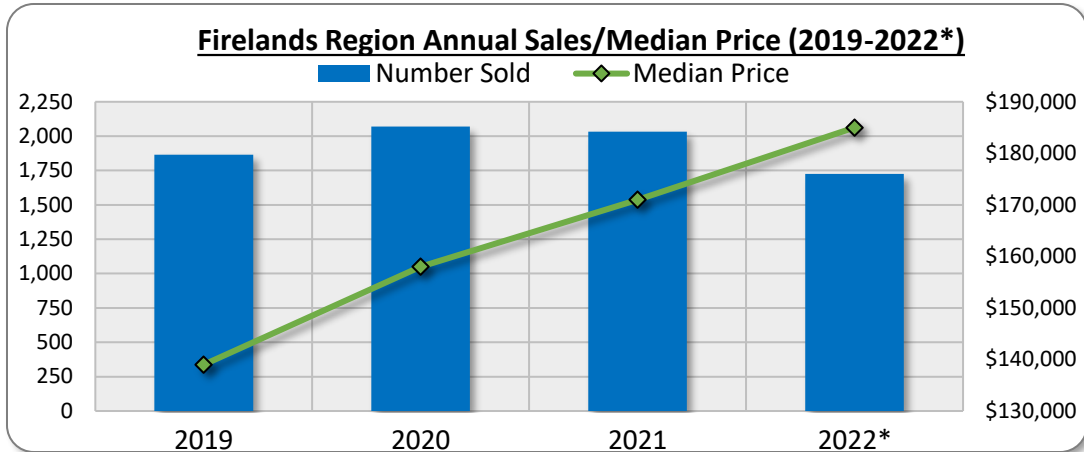
Regardless of program type, significant wait lists for multifamily rentals are maintained in the region, which indicates a very strong level of pent-up demand for multifamily rental housing in the PSA. Of the 83 properties surveyed within the PSA, 51 (61.4%) maintain wait lists. Among the market-rate projects (MRR), 44.4% maintain wait lists, which total 425 households. Over three-fourths (76.9%) of government-subsidized projects (GSS) maintain wait lists, totaling 165 households with an estimated length of wait time ranging from six to 36 months. All five Tax Credit projects (TAX) maintain wait lists, which total 100 households and a noted wait time for one property of approximately six months. Among the mixed-income properties containing Tax Credit and government-subsidized units (TGS), all properties maintain wait lists, totaling 119 households. While the only surveyed mixed-income market-rate and Tax Credit property (MRT) did not maintain a wait list, the mixed-income property consisting of market-rate, Tax Credit, and government-subsidized units (TMG) maintains a wait list of 11 households.

The market has an unusually high number of multifamily projects currently operating under HUD contracts that are scheduled to expire within the next three years that pose a risk to the local housing market if the contracts are not renewed. A total of 21 properties in the Firelands Region operate as subsidized projects under current HUD contracts. Because these contracts have a designated renewal date, it is important to understand if these projects are at risk of an expiring contract in the near future that could result in the reduction of affordable rental housing stock. While all HUD supported projects are subject to annual appropriations by the federal government, it appears that 14 projects in the Firelands Region have overall renewal dates within the next three years and are at *potential* risk of losing their government assistance in the near future. This is a relatively high number properties with pending HUD contract expiration dates in the near future. Given the high occupancy rates and wait lists among the market's surveyed subsidized properties, it will be important for the area's low-income residents that the projects with pending expiring HUD contracts be preserved in order to continue to house some of the market's most economically vulnerable residents.

While there are nearly 1,800 people waiting for a Housing Choice Voucher (HCV), over a third (nearly 900) HCV holders in the region are unable to use their voucher. A Housing Choice Voucher is issued by a local housing authority to assist eligible lower income residents by subsidizing a portion of their monthly rent payment. According to local housing authority representatives for the three subject counties in the region, there are approximately 2,496 Housing Choice Vouchers issued within the housing authority's jurisdiction. The wait lists for such vouchers have 1,783 households, reflective of the significant pent-up demand for housing assistance. Despite the number of HCVs issued, it was also revealed by housing authority representatives that approximately 874 issued vouchers are currently going unused, representing over one-third of voucher recipients. According to local sources, voucher holders cannot locate quality housing that is income-appropriate and offers the number of bedrooms needed. Future housing plans should consider exploring ways to increase voucher use and acceptance.

While vacation rentals & seasonal/recreational housing represent a large segment of the regional housing stock, particularly in the lake front counties, the number of such units is steadily increasing and has a growing influence on the local housing market. Based on American Community Survey data in 2021, an estimated 9,180 units or nearly one-third (32.2%) of the total housing units in Ottawa County were classified as seasonal/recreational. Erie County had the second largest number (3,113) and share (8.1%) of such units, followed by Huron County (127, 0.5%). From 2011 to 2021, the number of seasonal/recreational units in Ottawa County increased by 12.8%, or 1,039 housing units. Within Erie County during this time period, seasonal/recreational units increased by 23.0%, or 583 units. Between 2011 and 2021, the share of such units in Erie County increased from 6.7% to 8.1%. It is also noteworthy that the shares of seasonal/recreational units compared to the total vacant units in 2021 in Ottawa County (86.5%) and Erie County (49.9%) are exceptionally high. Given the fact that the number of seasonal/recreational units have outpaced the increase in overall housing units within Erie and Ottawa counties, it is clear that seasonal/recreational units have absorbed some of the housing inventory available for permanent occupancy. Overall, the preceding data suggests that seasonal/recreational properties have become an increasingly significant share of the housing market in Erie County and Ottawa County since 2011. Additionally, any level of permanent housing shortages that may exist in the markets are likely, at least in part, the result of the absorption of some permanent residences to accommodate increased demand for short-term rentals and second homes in the area.

While home sales activity in the PSA appears to have slowed in 2022, the region's median sale price increased in each of the past three years and increased by 33.1% since 2019 – The volume of home sales within the PSA (Firelands Region) increased by 11.0% between 2019 and 2020, but declined in each of the past two years, likely due to a lack of supply in the housing market (both existing homes for sale and new construction) coupled with the significant increase in mortgage interest rates that started in 2022. Meanwhile, the median sale price for the overall region increased in each of the past three years, with an overall increase of \$46,000 between 2019 and 2022, representing an increase of 33.1% (approximately 11.0% annually). Of the three counties in the region, Ottawa County experienced the largest increase in median sale price (\$88,000, 51.2%) since 2019. While not at the same degree, home prices of product sold over the past four years within Erie County increased by \$47,000 (34.8%) and Huron County had an increase of \$31,645 (25.7%). The rapid escalation of home prices is likely making homebuying a greater challenge for many area households, particularly lower-income households.



Overall, there is a relatively limited amount of for-sale housing available for purchase in the PSA, and while a notable portion of available housing is affordable to lower-income households, these homes are generally over 70 years old and likely have additional costs associated with repairs or improvements that many households cannot afford. A total of 217 housing units were identified within the PSA (Firelands Region) that were listed as *available* for purchase as of January 2023. Based on the local historical sales trends of a monthly absorption rate of 160 homes, the region’s 217 homes listed as available for purchase represent approximately 1.4 months of supply. Typically, healthy and well-balanced markets have an available supply that should take about four to six months to absorb (if no other units are added to the market). The PSA’s inventory is considered low and indicates limited available supply. When comparing the 217 available units with the overall inventory of 54,667 owner-occupied units, the PSA has a vacancy/availability rate of 0.4%, which is well below the normal range of 2.0% to 3.0% for a well-balanced for-sale/owner-occupied market and reflective of a shortage of for-sale supply. To further highlight housing availability in the PSA, we have conducted a more refined analysis of available supply by price point.

The following table summarizes the distribution of available for-sale residential units by *price point* for the PSA (Firelands Region):

Available For-Sale Housing by Price (As of January 27, 2023)			
List Price	Number Available	Percent of Supply	Average Days on Market
Erie County			
Up to \$99,999	15	21.1%	134
\$100,000 to \$149,999	16	22.5%	77
\$150,000 to \$199,999	9	12.7%	61
\$200,000 to \$249,999	6	8.5%	50
\$250,000 to \$299,999	6	8.5%	59
\$300,000+	19	26.8%	79
Total	71	100.0%	84

Source: Realtor.com & Bowen National Research

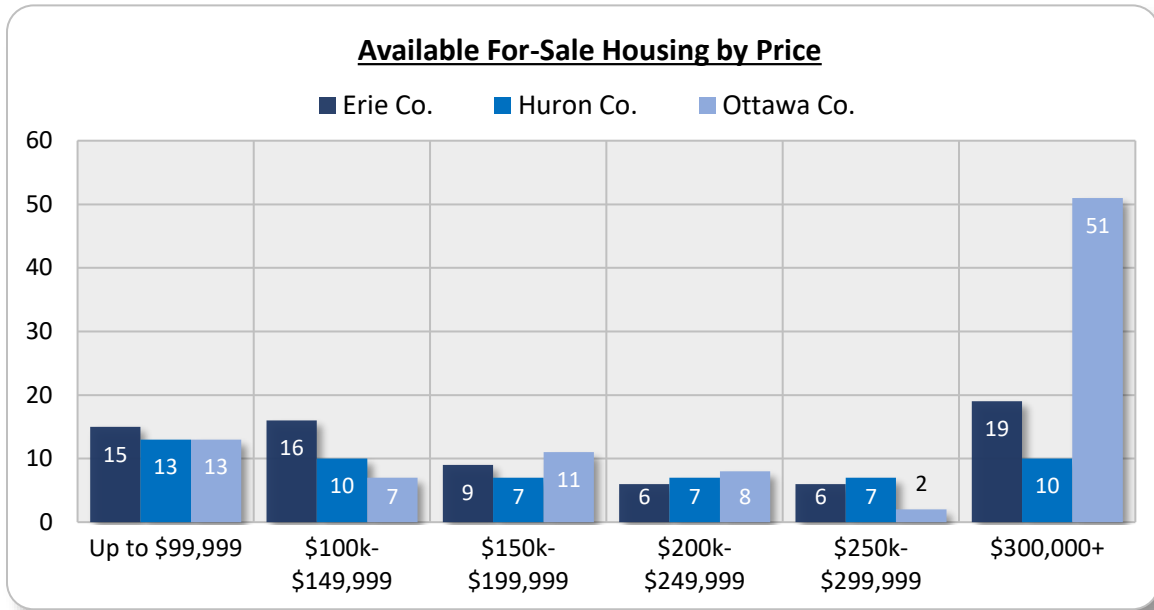
Available For-Sale Housing by Price (As of January 27, 2023)			
List Price	Number Available	Percent of Supply	Average Days on Market
Huron County			
Up to \$99,999	13	24.1%	93
\$100,000 to \$149,999	10	18.5%	53
\$150,000 to \$199,999	7	13.0%	79
\$200,000 to \$249,999	7	13.0%	94
\$250,000 to \$299,999	7	13.0%	60
\$300,000+	10	18.5%	110
Total	54	100.0%	83
Ottawa County			
Up to \$99,999	13	14.1%	90
\$100,000 to \$149,999	7	7.6%	53
\$150,000 to \$199,999	11	12.0%	53
\$200,000 to \$249,999	8	8.7%	58
\$250,000 to \$299,999	2	2.2%	37
\$300,000+	51	55.4%	143
Total	92	100.0%	108
Firelands Region (PSA)			
Up to \$99,999	41	18.9%	99
\$100,000 to \$149,999	33	15.2%	102
\$150,000 to \$199,999	27	12.4%	72
\$200,000 to \$249,999	21	9.7%	64
\$250,000 to \$299,999	15	6.9%	89
\$300,000+	80	36.9%	105
Total	217	100.0%	94

Source: Realtor.com & Bowen National Research

The largest share (36.9%) of available housing units in the PSA is priced at \$300,000 or above. These higher-priced homes have been on the market for an average of 105 days, which is slightly above the overall average of 94 days for homes at all price points in the PSA. Among the three counties in the Firelands Region, Ottawa County has the largest number of these higher-priced homes available for sale. Note that homes priced above \$300,000 in Ottawa County are on the market for an average of 143 days. It appears many of these homes may be targeting vacation and/or second-home buyers.

The Firelands Region also has a notable share (34.1%) of available homes priced below \$150,000. These housing units are primarily older single-family homes that typically have only one bathroom and a large portion of these homes were built prior to 1950. Therefore, given the age of much of the lower priced available supply, it is likely that much of this product is lower quality and requires substantial investment to repair, weatherize and modernize such product. There appears to be a region-wide shortage of homes priced between \$200,000 and \$300,000, a price point typically in demand by middle-class households. Available housing units between \$200,000 and \$300,000 only accounted for 16.6% of all available housing units in the PSA. In most cases, the average number of days on market for homes within this price range was below the overall PSA average of 94 days, reflective of the high level of demand for such product.

The distribution of available homes in the PSA by *price point* is illustrated in the following graph:



The region has more than 200 sites that can potentially support residential development. A total of 239 properties were identified as potential sites for residential development within the Firelands Region. Most of these properties were vacant or undeveloped parcels of land that could potentially support residential development, though some sites consisted of existing structures that could be repurposed into housing. Of these properties, a total of 58 properties are comprised of two or more acres, while the remaining 181 smaller properties are comprised of less than two acres. The 58 larger properties represent approximately 1,100 total acres of land. Note that 22 of the 58 larger identified properties consist of over 10 acres of land each, providing the ability to develop larger residential projects that may include a single-family home subdivision or multifamily housing. The 181 additional properties (parcels of less than two acres) represent a combined land area of 97.64 acres, which represents approximately 8% of the total acreage identified as part of this survey. Note that many of these smaller properties represent infill development opportunities for single-family homes or smaller multifamily buildings in the Firelands Region. While numerous factors influence the development potential of a particular site, such as proximity to community services, access to public utilities, zoning or flood plain designation, and site marketability and surrounding land uses, the feasibility of each site is beyond the scope of this study. Details of the 58 largest sites are included on pages VII-41 and 42 of this report. Based on this analysis, it appears there is a sufficient number of potential housing development sites within the PSA (Firelands Region) to support an increase of residential development. These sites should be leveraged to support local housing efforts.

Community Input

To gain information, perspective and insight about the Fireland Region’s housing issues and the factors influencing housing decisions by its residents, developers and others, Bowen National Research conducted targeted surveys of three specific groups: Stakeholders, Employers, and Residents/Commuters. In total, nearly 650 survey responses were received from a broad cross section of the community. The following is a summary of **key** responses from the three surveys conducted by our firm. It should be noted that some responses required respondents to provide a level or degree of response. In such cases, we provided a weighted score that is denoted by an asterisk. Lastly, it should be noted that the following table only summarizes the more notable findings and only those of the overall Firelands Region. All responses, including those from the individual counties, are provided in Section IX.

Summary of Stakeholder Survey Results Firelands Region, Ohio		
Category	Top Needs / Issues	Consensus
Housing Needs by Price Point	<ul style="list-style-type: none"> For-Sale Housing (Less than \$150,000) Rental Housing (\$500-\$999/month) Rental Housing (Less than \$500/month) 	85.3* 82.4* 80.9*
Housing Needs by Population	<ul style="list-style-type: none"> Low-Income Workforce (<\$30k) Moderate Income Workforce (\$30k-\$60k) 	94.1* 94.1*
Housing Needs by Style	<ul style="list-style-type: none"> Traditional Two-Story Single-Family Homes Ranch Homes/Single Floor Plan Units 	79.4* 77.9*
Housing Issues Experienced	<ul style="list-style-type: none"> Rent Affordability Limited Availability 	88.2% 82.4%
Priority by Construction Type	<ul style="list-style-type: none"> Repair/Renovation/Revitalization of Existing Housing 	77.9*
Common Residential Barriers	<ul style="list-style-type: none"> Cost of Labor/Materials Development Costs Cost of Infrastructure 	82.4% 76.5% 64.7%
Best Options to Reduce Barriers	<ul style="list-style-type: none"> Collaboration Between Public and Private Sectors Educate Public on Importance of Diff. Types of Housing Build Consensus Among Communities/Advocates Educate Public on Importance of Housing 	64.7% 47.1% 41.2% 41.2%
Areas of Focus	<ul style="list-style-type: none"> Develop New Housing Improve Public Transportation Renovate/Repurpose Buildings for Housing 	70.6% 41.2% 41.2%
Renter Assistance Priorities	<ul style="list-style-type: none"> Credit Repair Assistance Housing Placement Service 	52.9% 52.9%
Homeowner/Buyer Assistance Priorities	<ul style="list-style-type: none"> Property Maintenance Education Home Repair Assistance 	82.4% 70.6%
Housing Types for Special Needs Populations	<ul style="list-style-type: none"> <i>Permanent Supportive Housing</i> ranked as the highest need for all three special needs populations Persons with a Disability Persons with a Mental Illness Persons with Substance Abuse/Addiction 	56.3* 75.0* 75.0*

*Denotes weighted score

Summary of Employer Survey Results Firelands Region, Ohio		
Category	Top Needs / Issues	Consensus
Housing Issues for Employees	<ul style="list-style-type: none"> Lack of Available Housing Unaffordable Rental Housing Unaffordable For-Sale Housing 	45.2% 42.9% 35.7%
Impacts for Employers	<ul style="list-style-type: none"> Difficulty Attracting Employees Difficulty Retaining Employees Unable to Grow/Expand Business 	35.9% 28.2% 20.5%
Effects of Adequate Housing Supply for Employers	<ul style="list-style-type: none"> Much More or Somewhat More Likely to Hire New Employees Additional Employees Hired 	52.3% 120 to 140
Current Employer Provided Housing Assistance	<ul style="list-style-type: none"> Do Not Currently Provide Housing Assistance to Employees Provide Some Type of Housing Assistance to Employees 	80.0% 20.0%
Housing Assistance Program Consideration	<ul style="list-style-type: none"> Provide Housing Relocation Services/Assistance Housing Relocation Reimbursement Rental Security Deposit Assistance 	20.5% 13.6% 11.4%
Housing Programs or Policy Importance	<ul style="list-style-type: none"> New Housing Development/Redevelopment Renter Assistance Homebuyer Assistance 	56.3* 47.6* 46.3*
Employee Housing Needs by Product Pricing	<ul style="list-style-type: none"> Entry Level/Workforce For-Sale Housing (Below \$200,000) Affordable Rental Housing (Under \$750/Month) Moderate Market-Rate Rental Housing (\$750-\$1,250/Month) 	72.7% 70.5% 52.3%
Employee Housing Needs by Product Type	<ul style="list-style-type: none"> Single-Family Homes (Owner) Single Family Homes (Rental) Multifamily Apartments 	86.4% 59.1% 29.6%

*Denotes weighted score

Summary of Resident/Commuter Survey Results Firelands Region, Ohio		
Category	Top Needs / Issues	Consensus
Housing Issues Experienced	<ul style="list-style-type: none"> Cost Burdened (30% or more of income toward housing cost) Credit score not high enough for a lease/mortgage Did not have sufficient deposit/down payment 	24.3% 8.0% 7.6%
Housing Market Rating	<ul style="list-style-type: none"> Good, No Issues Fair, Some Issues Poor, Many Issues No Opinion 	4.0% 42.5% 47.7% 5.8%
Difficulty Locating Suitable Housing	<ul style="list-style-type: none"> Very Difficult Somewhat Difficult Not Difficult 	59.2% 36.5% 4.3%
Issues Negatively Impacting Housing Market	<ul style="list-style-type: none"> High Prices/Rents Not Enough Housing/Rental Options (Few Vacancies) Mismatch Between Jobs/Wages and Housing Costs Housing Being Converted to Short-Term/Vacation Rentals 	72.1% 45.5% 25.1% 24.6%
Housing Types Needed	<ul style="list-style-type: none"> Rental Housing (\$500-\$1,000/Month) For-Sale Housing (\$100,000-\$200,000) For-Sale Housing (Less than \$100,000) 	68.9% 48.3% 47.3%
Housing Styles Needed	<ul style="list-style-type: none"> Apartments Modern Move-In Ready Single-Family Homes Ranch Homes/Single Floor Plan Units 	65.3* 64.7* 61.2*
Non-Resident Interest in Relocating to Region	<ul style="list-style-type: none"> Non-Resident Respondents Willing to Relocate 	45.0%

*Denotes a weighted score

Key findings illustrated the general consensus from *all* surveyed groups that housing affordability and availability were the greatest housing challenges the area experienced. Most respondents indicated that housing with rents of less than \$1,000 and home prices less than \$200,000 were most needed. Some of the most commonly cited housing-related issues include rent and purchase affordability, the lack of down payment or security deposit, and credit scores. The consensus among respondents indicated local employers are also being impacted by housing, most notably by creating a difficulty in attracting employees. More than half of employer respondents indicated they would be at least somewhat likely to hire more employees if adequate housing were available. Most stakeholders believed that priorities should be placed on providing homebuyer property maintenance education, home repair assistance, renter credit repair assistance, and housing placement services. The most common barriers to residential development cited by stakeholders included cost of labor/materials, development costs, and cost of infrastructure. Meanwhile most common solutions to reducing barriers to development include collaboration between various parties and educating the public on various housing issues. Additional results of the various community surveys are in Section IX: Community Input Results and Analysis.

Housing Gap Estimates

The PSA has an overall housing gap of 10,428 units for rental and for-sale product at a variety of affordability levels - It is projected that the Firelands Region has a five-year **rental** housing gap of 4,166 units and a **for-sale** housing gap of 6,262 units. While there are housing gaps among all affordability levels of both rental and for-sale product, the rental housing gap is distributed most heavily among the lower priced product (rents of \$1,430 or less) and the for-sale housing gap is primarily for product priced at \$197,000 or higher. Details of this analysis, including our methodology and assumptions, are included in Section VIII.

The following table summarizes the approximate rental housing gap within each county in the PSA (Firelands Region) over the next five years.

Overall Rental Housing Gaps		
Area	Housing Gap (Units)	Share of Region's Gap
Erie County	1,637	39.3%
Huron County	1,699	40.8%
Ottawa County	830	19.9%
Firelands Region	4,166	100.0%

Overall, there is a housing gap of 4,166 rental units in the region over the five-year projection period. The Firelands Region's largest rental gap is in Huron County with a gap of 1,699 units (representing 40.8% of the region's overall gap), followed closely by Erie County's gap of 1,637 units (representing 39.3% of the region's gap). Ottawa County has a rental housing gap of 830 units (representing 19.9% of the region's overall gap). The largest gaps within these counties are primarily for rental units targeting households with incomes of up to 80% of Area Median Household Income, which generally have rents under \$1,700. Despite the

large need for more affordable rentals, all three markets also have noteworthy gaps for higher-end rentals, particularly within Erie and Huron counties. Without the notable addition of new rental product, the area will not meet the housing needs of its current residents or the growing and changing housing needs of the market.

The following table summarizes the approximate for-sale housing gap within each county in the PSA (Firelands Region) over the next five years.

Overall For-Sale Housing Gaps		
Area	Housing Gap (Units)	Share of Region's Gap
Erie County	2,734	43.7%
Huron County	2,094	33.4%
Ottawa County	1,434	22.9%
Firelands Region	6,262	100.0%

The overall for-sale housing gap in the PSA (Firelands Region) is for approximately 6,262 units over the five-year projection period. The largest for-sale housing gap is within Erie County, with a gap of 2,734 units (representing 43.7% of the overall region's gap). Huron County has a for-sale housing gap of 2,094 units (representing 33.4% of the overall region's gap) and Ottawa County has a gap of 1,434 for-sale housing units (representing 22.9% of the overall region's gap). While all home price segments and affordability levels have some level of need, it appears some of the greatest gaps within the three counties are for product generally priced between \$197,000 and \$283,000, which generally serves households earning between 81% and 100% of Area Median Household Income. Although this segment has relatively large gaps, there are also notable gaps for housing that is affordable to lower income households, including first-time homebuyers, as well as for high-end product priced well over \$300,000. The limited inventory of for-sale product limits opportunities for renters seeking to enter the homebuyer market, homebuyers coming from outside the region, or seniors seeking to downsize. The region will miss various growth opportunities and be unable to meet the needs of its current residents without additional housing.

The preceding estimates are based on current government policies and incentives, recent and projected demographic trends, current and anticipated economic trends, and available and planned residential units. Numerous factors impact a market's ability to support new housing product. This is particularly true of individual housing projects or units. Certain design elements, pricing structures, target market segments (e.g., seniors, workforce, families, etc.), product quality and location all influence the actual number of units that can be supported. Demand estimates could exceed those shown in the preceding table if the community changes policies or offers incentives to encourage people to move into the market or for developers to develop new housing product.

Recommended Housing Strategies

The following summarizes key strategies that should be considered to address housing issues and needs of the market. These strategies do not need to be done concurrently, nor do all strategies need implemented to create an impact. Instead, the following housing strategies should be used as a guide by the local government, stakeholders, developers and residents to help inform housing decisions.

Set realistic/attainable short-term housing goals, outline long-term objectives and monitor progress. Using the housing needs estimates and recommendations provided in this report as a guide, each county should set realistic short-term (two to three years) housing development goals along with long-term (five years or longer) objectives to support housing. Short-term goals should be focused on establishing an Action Plan that outlines priorities for the county, such as broad housing policies, initiatives, and incentives that support the preservation and development of residential units. The findings and recommendations included in this report should serve as a guide for developing an Action Plan. Long-term objectives should include establishing a goal for the number of housing units that should be built or repaired and broadly outline the types of housing that should be considered, such as rentals and for-sale housing, as well as possible geographical locations (e.g., within walkable communities, along public transit corridors, selected neighborhoods, municipalities, townships, etc.). The goals should also broadly outline affordability (e.g., income levels) objectives and market segments (e.g., families, seniors, and disabled) that should be served. From such goals, interested parties should periodically collect key metrics (e.g., vacancy rates, changes in rents/prices, reassess cost burdened and overcrowded housing, evaluate housing cost increases relative to income/wage growth, etc.) so that they can monitor progress and adjust efforts to support stated goals.

Develop community-/neighborhood-specific and regional-level housing plans. As shown throughout this report, the selected submarkets and each county in the Firelands Region each have some unique demographic characteristics and trends, along with different housing characteristics and challenges. Efforts should be made to develop specific housing plans for each targeted submarket as well as for individual communities and downtown areas. It is also clear from this report that the each of the three counties have many similar attributes and challenges, along with an interdependence with each respective county. It will be important that the county governments work together with other municipalities and townships to address mutual housing issues whenever possible. This may be in the form of joint grant applications, agreements over infrastructure, holding joint strategic housing planning sessions and/or work groups, supporting capacity building through the pairing of city-county resources, and increasing the impact of development incentives through the use of complementary policy tools. Additional discussion and examples of such strategies can be found on the Local Housing Solutions website at: www.Localhousingsolutions.org

Consider capacity building through organizational efforts and/or hiring professionals to spearhead housing efforts. A critical element to achieving housing goals is to have a person or organization with the capacity to take the lead on local housing efforts. This may involve community leaders and local housing advocates creating a more permanent volunteer-based housing coalition or a more formal HOME consortium that involves joint efforts of local governments. The coalition would serve as the entity that would investigate and discuss housing issues and devise possible solutions and advise local government on possible housing initiatives, while the HOME consortium would be collaboration between local governments that would be eligible to apply for federal HOME Program funding and develop a regional approach for housing (See: <https://www.hudexchange.info/resource/2426/establishing-and-managing-a-successful-home-consortium/>). It could also involve hiring/retaining a housing specialist that would be responsible for facilitating housing initiatives on a regular basis. This can be an individual already working for a local municipal or county government, or someone that works for a nonprofit group, the regional housing authority, or other housing advocacy group, or it can be a newly retained housing specialist with knowledge and experience in housing.

Develop strategies to attract people that currently commute into the Firelands Region to live in the region. As shown in the Personal Mobility portion of Section VII of this report, there are 68,264 persons employed within the Firelands Region, of which 33,996 commute into the region for work but do not live there. These 33,996 non-residents account for one-half (49.8%) of the people employed in the region and represent a notable base of potential support for future residential development. While the socioeconomic profile of these in-commuters consists of a variety of people, most are between the ages of 30 and 54 years and earn \$3,333 or more per month (\$40,000 or more annually). Over 20% of the in-commuters have typical commutes of 25 or more miles and may represent the most likely commuters to consider moving to the Firelands Region. As shown in Section IX: Community Input (starting on page IX-20), 45% of non-county residents indicated they would consider a move to the Firelands Region. While the sample size of the non-resident survey was small, the 45% share expressing interest in moving to the subject region is in line with numerous surveys Bowen National Research has conducted of non-resident commuters. As a result, it is anticipated that as additional housing is added to the PSA (Fireland Region), the area will have a greater probability of attracting these commuters as permanent residents. Area stakeholders should support efforts to develop product that will appeal to commuters and help to promote the benefits of living in the Firelands Region, such as the overall cost of living, affordability of housing, higher education attainment, lower poverty rates, overall quality of life and numerous other attributes and assets the area has to offer. Housing product preferences of residents and commuters are provided on pages IX-27 and 28.

Market the Fireland Region's housing needs and development opportunities to potential residential development partners. The Firelands Region has many assets and attributes that can be promoted, including various quality of life attributes (e.g., lower cost of living, recreational opportunities, etc.), residential development potential for several thousand housing units, and more than 50 possible developable sites. As shown starting on page VII-71, over 40 organizations were identified that represent potential development partners for the subject region. Local stakeholders should attempt to market the region to the residential developers (both for-profit and nonprofit), real estate investors, lending institutions, housing advocacy groups and others active in the region and state. Marketing of the community through trade publications, direct solicitation or public venues (e.g., housing and economic conferences) should be considered. The promotion of market data (including this Housing Needs Assessment), development opportunities, housing programs and incentives should be the focus of such efforts.

Consider developing a centralized housing resource center. While housing information for the subject region can be found through a variety of organizations and online sources, there does not appear to be a single online housing source for the region or for any of the three individual counties. The development of an online resource center should be considered that includes or directs people to development and housing resources (potential sites, building and zoning information, incentives, housing data, Housing Choice Vouchers, housing placement or counseling services, etc.) that can help both developers and residents.

Implement/modify policies to encourage or support the development of new residential units, with possible emphasis on affordable workforce housing and senior-oriented housing. As shown in this report, there appears to be very few available rental units that are affordable to households earning less than 80% of Area Median Household Income (household income of up to around \$60,000 for a family of four) within the region and relatively long wait lists for such housing. Meanwhile, although over one-third (34.1%) of the homes *available* to purchase in the region are priced under \$150,000 and could be affordable to many lower-income households, most of these homes are well over 70 years old and likely require additional financial resources for repairs, modernization and weatherization that many low-income households cannot afford. In an effort to support the development and preservation of more affordable housing alternatives, local governments should consider supporting projects being developed/preserved with affordable housing development programs (e.g., Tax Credit and HUD programs), providing pre-development financial assistance, waiving or lowering government permitting/development fees, implementing inclusionary zoning (requiring market-rate developers to include some affordable housing units), supporting a Housing Trust Fund, or supporting/expanding the three counties' existing land banks and their Community Housing Impact and Preservation (CHIP) Programs. Code compliance/enforcement efforts should continue to be an integral part of the region's efforts to ensure housing is brought up to code and maintained at expected standards. For properties that are not targets for local land bank acquisition, the region may also want to consider the removal of liens or reduction of fines on abandoned/vacant properties to encourage residential

transactions of such properties, increasing the likelihood that such housing would be remedied or removed. Ultimately, housing initiatives should focus on those programs that support low-income households (seniors and families), workforce households, and first-time homebuyers. Additional housing is needed in order to have a healthy housing market, which will ultimately contribute to the local economy, quality of life and overall prosperity of the Firelands Region.

Preservation of existing affordable housing alternatives and increasing rental opportunities for Housing Choice Voucher holders should be areas of focus.

Housing Choice Vouchers (HCVs) are issued by local housing authorities to very low-income households (those earning up to 50% of Area Median Household Income) that help to subsidize rents that tenants pay. Within the Firelands Region, there are nearly 1,800 households waiting for a Housing Choice Voucher, illustrating the pent-up demand for this type of direct government housing assistance. It is reported that over a third (nearly 900) HCV holders in the region are unable to use their voucher. According to local sources, the inability of HCV holders to use their vouchers is most often attributed to the inability of voucher holders to find *available* housing units whose owners accept such vouchers or due to the fact that the units that they do locate do not meet their household's specific needs (e.g., bedroom type, location, etc.). Area housing advocates should consider developing a strategy to increase the opportunities for voucher holders to find housing that will accept the vouchers. This can be done through increasing housing inventory, educating landlords on the process and benefits of the HCV program, providing enhanced resources for voucher holders to find rental alternatives, and incentivizing landlords to accept vouchers. Additionally, 14 of the 21 multifamily projects in the region that operate under HUD contracts have expiration dates between late-2022 and mid-2024. Given the lack of available government-subsidized housing in the market and the long wait lists for such units, it is critical that such housing is preserved. Local housing advocates should consider reaching out to owners of properties with upcoming expiring contracts (see page VI-23 for full list) to see if there is a role for local housing advocates to play in the preservation of such housing.

Support efforts to develop residential units along or near public transportation corridors and/or within walkable downtowns/communities to accommodate the housing needs of seniors and to appeal to younger households.

The demographic analysis of the Firelands Region revealed that the region's base of younger households (between the ages of 25 and 34) is diminishing while the base of seniors (ages 65 and older) is increasing. Although many factors contribute to households by age characteristics and trends, factors such as housing product type, location and design aspects play roles in housing decisions made by certain household age cohorts. The development of multifamily housing near public transit routes and/or within walkable downtowns or neighborhoods often serves to attract younger households and support the needs of senior households. As part of this study, we evaluated the availability of public transit service, local drive times, and the walkability of selected communities and downtowns within the subject counties. Based on this review, it would appear that walkable or accessible areas in or near the downtown areas such

as Sandusky, Norwalk, Bellevue, Port Clinton, and to a lesser degree, Vermilion, Willard, Oak Harbor and Huron, all serve as potential areas which may be conducive to supporting multifamily rentals and condominium for-sale product. Additionally, there are several corridors (e.g., Grand Army of the Republic Highway, also known as U.S. Highway 6 and Milan Road, also known as U.S. Highway 250) in Sandusky that are well served by public transportation and numerous community services and may be conducive to supporting new housing. Local stakeholders should consider these various areas for potential residential development.

Consideration should be given to evaluating approaches to regulating/managing vacation rentals. Seasonal/recreational rentals, aka “vacation rentals” make up significant portions of the local housing stock in the two northern-most counties within the Firelands Region (Erie and Ottawa counties) and pose challenges to the overall permanent housing supply that is encountering availability and affordability issues. However, given that such rentals play an important role within the tourism industry that contributes significantly to the subject region’s economy, it will be important that local stakeholders find a balance between addressing local housing issues and being supportive of a housing segment that contributes to the local economy. There is no single solution to addressing the impact vacation rentals have on a market, as differences between communities (e.g., the level of influence vacation rentals have on a market, the housing priorities and goals of local communities, the influences and interests of local property owners, etc.) will ultimately dictate the directions that individual communities may take. While state legislation may guide limitations of vacation rentals in Ohio, local communities may still have decisions to make on how they treat this unique housing segment. Potential approaches could include, for example, vacation rental registrations, placing a limit on the number of vacation licenses issued, requiring home safety inspections, having local agent requirements, allowing exemptions during certain events or time periods, or implementing zoning modifications that limit vacation rentals in specific zoning districts (e.g., maximum number of occupants per dwelling unit, minimum number of parking spaces provided, etc.). Some possible examples of local level initiatives to consider include those implemented in:

- Sandusky, Ohio (https://www.cityofsandusky.com/departments/code_compliance/transient_rental.php)
- New Buffalo, Michigan (<https://cityofnewbuffalo.org/departments/short-term-rentals/>)
- Holland, Michigan (<https://www.cityofholland.com/848/Rental-Certification-Licensing-Guide>)
- Charlevoix, Michigan (<https://www.cityofcharlevoix.org/427/Short-Term-Rentals>)
- North Royalton, Ohio (https://codelibrary.amlegal.com/codes/northroyalton/latest/noroyal_oh/0-0-0-67297)

Communities may also want to consider an outright ban on vacation rentals by reviewing policies in places like Park Township, Michigan (https://parktownship.org/our_offices/short_term_rentals.php). A community like Steamboat Springs, Colorado used the combination of a partial ban on vacation rentals within selected zoning districts (<https://www.steamboatsprings.net/1361/Rules-Regulations>) along with passing a publicly approved ballot initiative for a short-term rental housing tax to raise revenues to help support affordable housing initiatives (<https://steamboatsprings.net/119/Municipal-Tax>). While communities may ultimately put certain vacation rental requirements in place, they may want to consider establishing a pilot program of various approaches to better evaluate their selected methods before making more permanent decisions on how to address the vacation rental market.

Develop next-steps plans. Using the findings and recommendations of this report, local stakeholders should begin to prioritize housing objectives and refine housing strategies that best fit the overarching goals of the region and its communities. Input from stakeholders and residents should be solicited. From these efforts a specific Action Plan could be put together with measurable goals and a timeline to follow.

III. COMMUNITY OVERVIEW AND STUDY AREAS

A. FIRELANDS REGION (ERIE, HURON, & OTTAWA COUNTIES)

This report focuses on the housing needs of the Firelands Region, which includes Erie, Huron, and Ottawa counties in Ohio. The Firelands Region is located on the northern border of Ohio, with Erie and Ottawa counties on the coast of Lake Erie, and Huron County located directly south of Erie County. Originally part of the Western Reserve of Connecticut in the Northwest Territory, this land was allocated to citizens whose land had been burned by the British during the American Revolution. The area was referred to as the Fire Sufferers' Lands and eventually shortened to the Firelands. The Firelands Region contains approximately 1,132 square miles and an estimated 173,055 people reside in the region in 2022. Erie County has the largest population with an estimated 74,753 people. The city of Sandusky serves as the county seat and is a leading port on the Great Lakes. Huron County has an estimated population of 58,139 and Norwalk is the county seat. The Ottawa County population is the smallest of the three counties with an estimated 40,163 residents in 2022 and the city of Port Clinton serves as the county seat. Other cities and towns within the region include Bellevue, Huron, Vermilion, and Willard, along with several other townships and villages. Some of the major arterials that serve the region include Interstate 80/90 (Ohio Turnpike), U.S. Highways 6, 20, 224 and 250, and State Routes 2, 4, 13, 51, 60, 61, and 163. Notable waterways include Lake Erie and its various tributaries.

The Firelands Region has an employment base of nearly 100,000 people within a broad range of employment sectors. The largest employment sectors include Accommodation and Food Services (21.6%), Arts, Entertainment, and Recreation (10.8%), and Retail Trade (10.5%). The region is significantly influenced by the tourism industry and there are several notable attractions in the area. Cedar Point, an amusement park known as the rollercoaster capital of the world, is located in Sandusky (Erie County). Both Ottawa and Erie counties are along the northern border of Ohio and Lake Erie, the fourth largest of the Great Lakes, and offer a variety of water-based lake activities. The Firelands Region serves as a historical and cultural center and is known for its expansive shoreline along Lake Erie, Port Clinton Lighthouse, Perry's Monument, numerous museums, hiking trails, and approximately 20 parks. Due to its shallow waters, Lake Erie is considered the most biologically diverse and productive of the five Great Lakes. Additionally, the area offers a variety of regional tours including Sandusky's Underground Railroad, the Haunted Sandusky Tour, and wine tastings.

Based on 2022 estimates, existing households in the Firelands Region primarily consist of one-person and two-person households. Nearly three-fourths (74.6%) of households in the Firelands Region are owner occupied with over two-thirds (67.3%) of these owner-occupied households consisting of two or fewer

persons. The remaining share (25.4%) of renter-occupied households in the Firelands Region primarily consist of one-person (43.4%) and two-person (28.6%) households. Nearly 75% of rental units are within structures of four or fewer units (including mobile homes), while nearly 90% of owner-occupied units consist of single-family detached homes. As shown in Section VI of this report, the market offers housing at a wide variety of price points and rents, though availability is very limited at most affordability levels. Additional information regarding the demographic characteristics and trends, economic conditions, housing supply, and other factors that impact housing in the Firelands Region are included throughout this report.

B. STUDY AREA DELINEATIONS

This report addresses the residential housing needs of the Firelands Region in Ohio (Erie, Huron, and Ottawa counties). To this end, we focused our evaluation of the demographic and economic characteristics, as well as the existing housing stock, on the Firelands Region and areas within the three counties. Additionally, because of the unique characteristics that exist within certain areas of the Firelands Region, we provided supplemental analysis for seven submarkets within the three county limits to understand trends and attributes that affect these designated areas. The following summarizes the various study areas used in this analysis.





Primary Study Area – The Primary Study Area (PSA) includes the entirety of the Firelands Region which is comprised of Erie, Huron, and Ottawa counties combined.

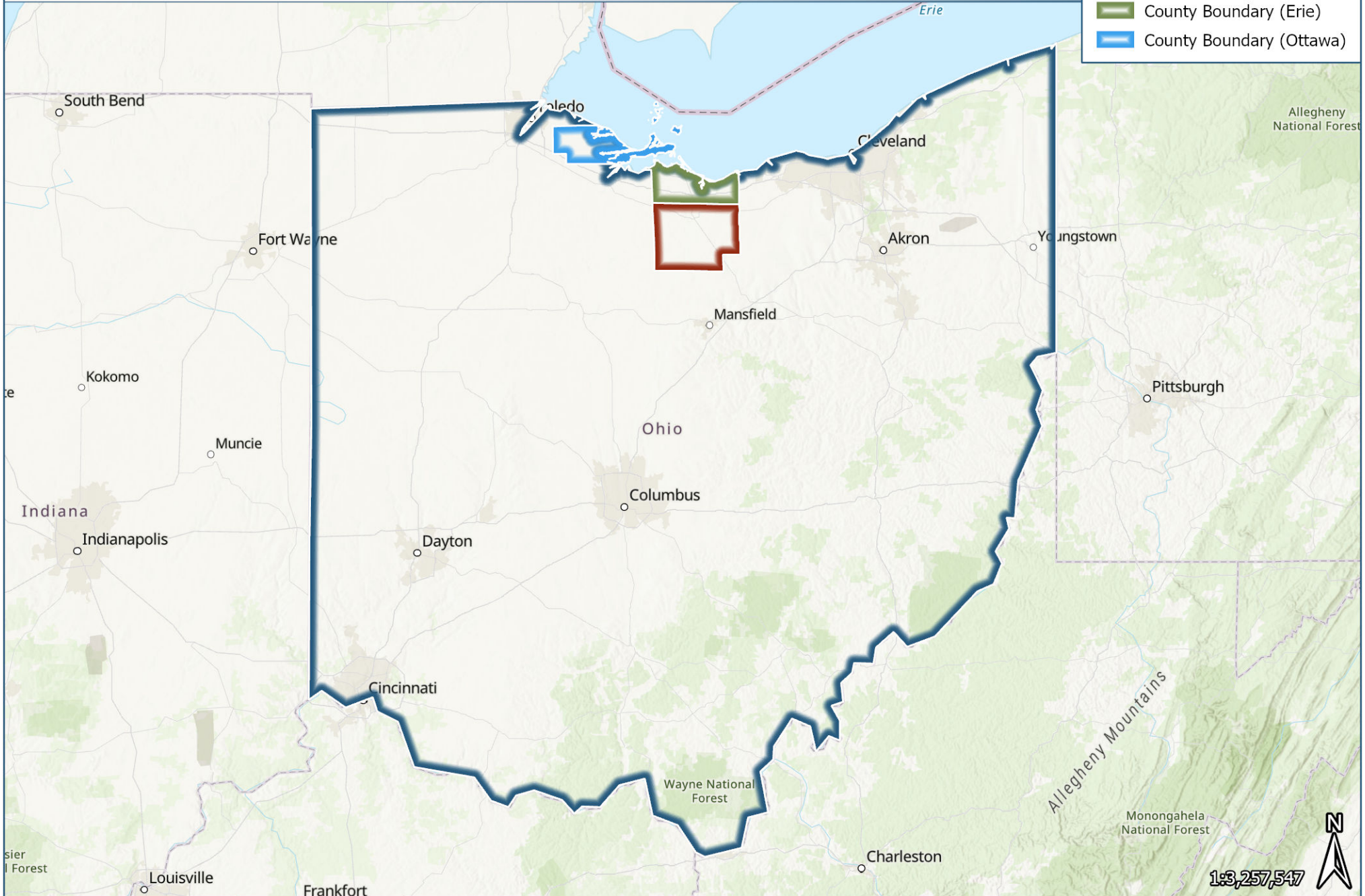
Secondary Study Areas– Erie County, Huron County, and Ottawa County (with all islands, including Kelley’s Island in Erie County) individually. Note that an overview analysis of each individual county is included in this study as a separate addendum (Addendums D, E and F).


Submarkets – The Primary Study Area has been divided into seven submarkets. These submarkets are as follows:

- Erie North
- Erie East
- Erie West
- Huron North
- Huron South
- Ottawa East (with islands)
- Ottawa West

Maps delineating the boundaries of the various study areas are shown on the following pages.




-  State Boundary
-  County Boundary (Huron)
-  County Boundary (Erie)
-  County Boundary (Ottawa)

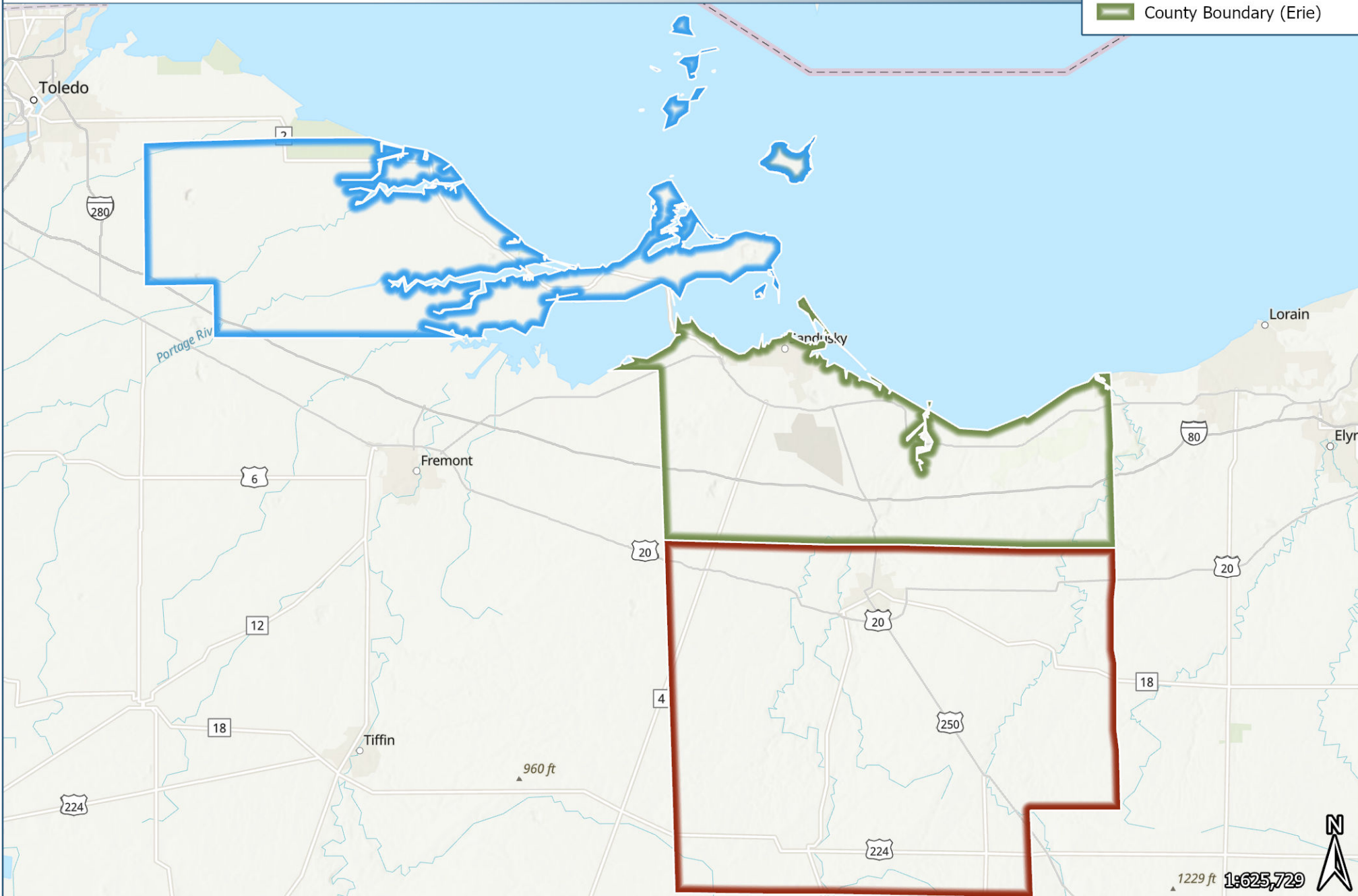


0 10 20 30 40
 Miles

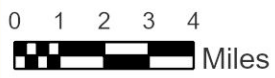
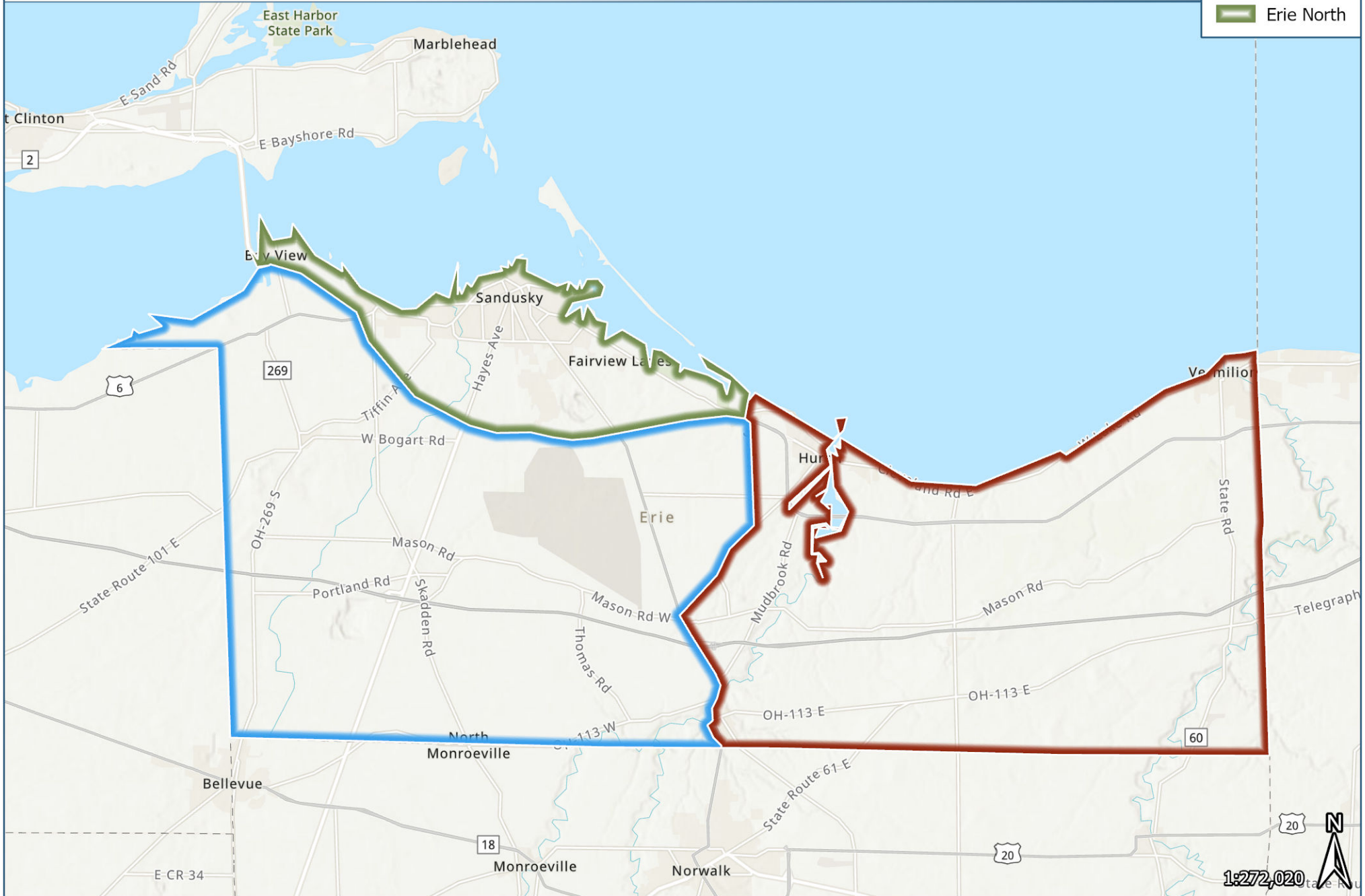
Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, Esri, USGS
Additional Source(s): Bowen National Research

1:3,257,547 

-  County Boundary (Ottawa)
-  County Boundary (Huron)
-  County Boundary (Erie)

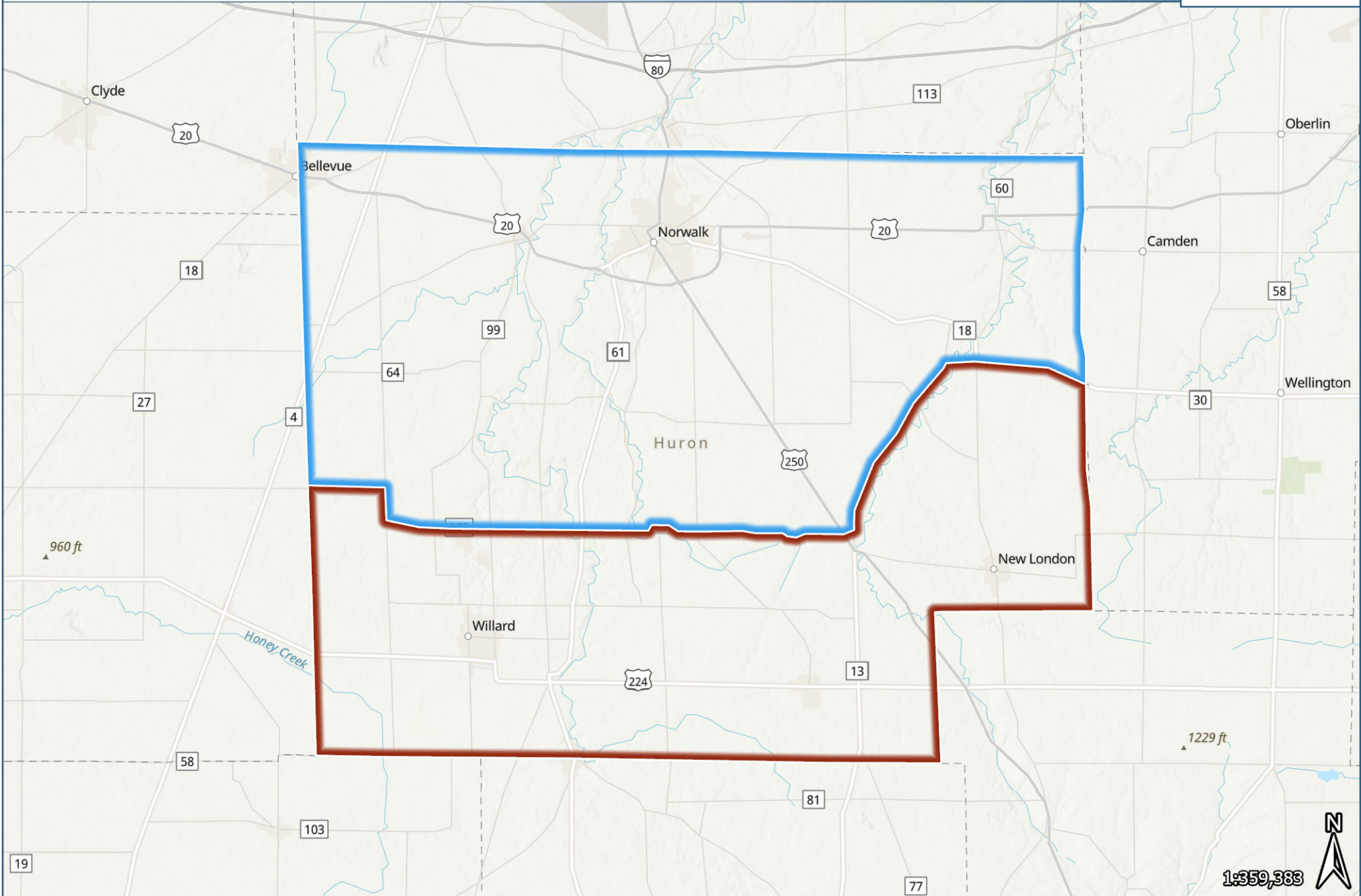


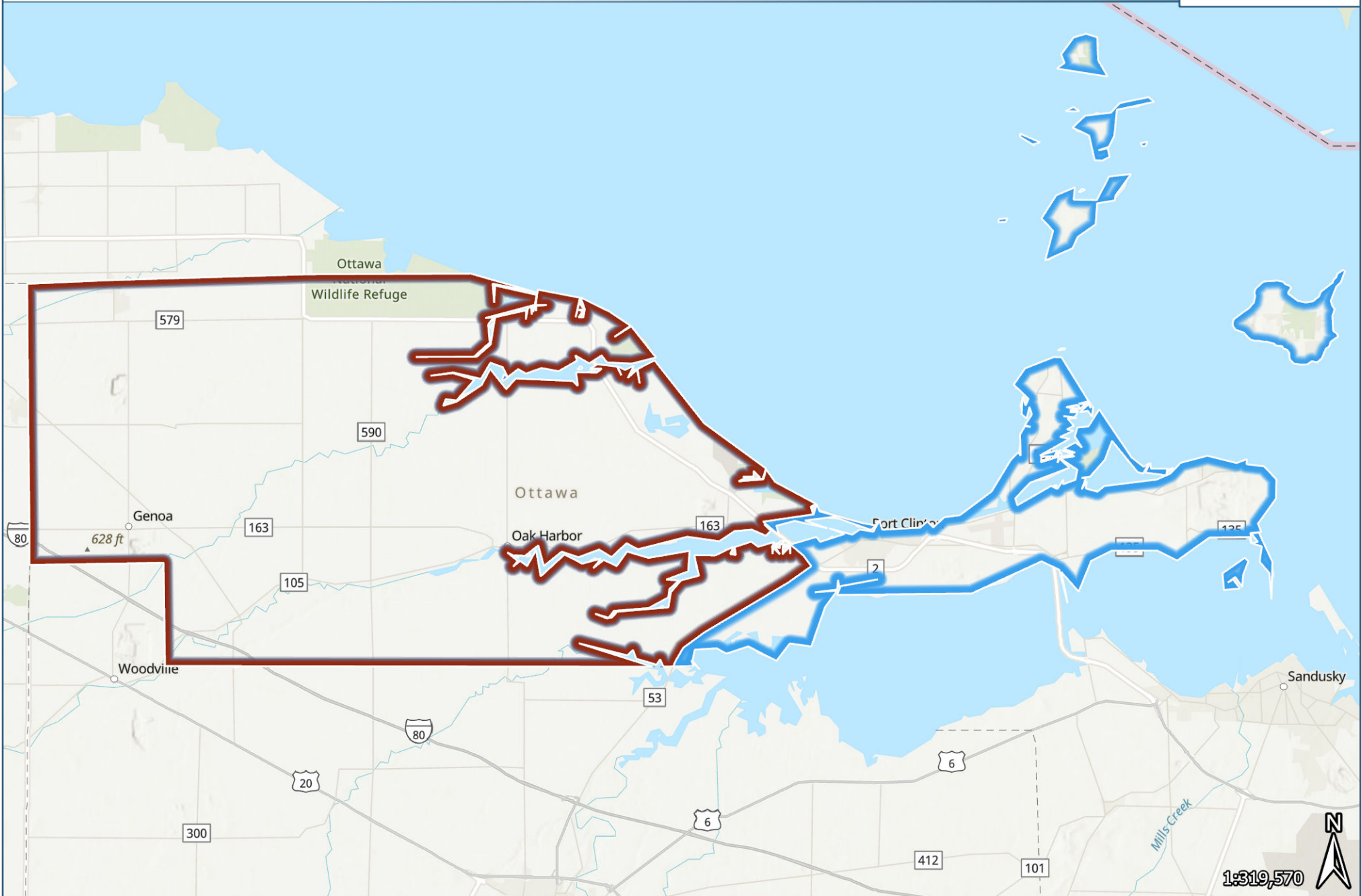
-  Erie West
-  Erie East
-  Erie North



Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Esri, CGIAR, USGS
Additional Source(s): Bowen National Research







IV. DEMOGRAPHIC ANALYSIS

A. INTRODUCTION

This section of the report evaluates key demographic characteristics for the Primary Study Area (PSA, Firelands Region), the three counties within the region (Erie, Huron, and Ottawa counties), and seven submarkets contained within their respective counties. Note that a portion of Erie County (Kelley's Island) is included within Ottawa County for the purposes of this study. Through this analysis, unfolding trends and unique conditions are often revealed regarding populations and households residing in the selected geographic areas. Demographic comparisons between these geographies and the state of Ohio provide insights into the human composition of housing markets. Critical questions, such as the following, can be answered with this information:

- Who lives in the Firelands Region and what are these people like?
- In what kinds of household groupings do Firelands Region residents live?
- What share of people rent or own their Firelands Region residence?
- Are the number of people and households living in the Firelands Region increasing or decreasing over time?
- How do Firelands Region residents, county residents, submarket residents, and residents of the state compare with each other?

This section is comprised of three major parts: population characteristics, household characteristics, and demographic theme maps. Population characteristics describe the qualities of individual people, while household characteristics describe the qualities of people living together in one residence. Demographic theme maps graphically show varying levels (low to high concentrations) of a demographic characteristic across a geographic region.

It is important to note that 2010 and 2020 demographics are based on U.S. Census data (actual count), while 2022 and 2027 data are based on calculated estimates provided by ESRI, a nationally recognized demography firm. These estimates and projections are adjusted using the most recent available data from the 2020 Census count, when available. The accuracy of these estimates depends on the realization of certain assumptions:

- Economic projections made by secondary sources materialize.
- Governmental policies with respect to residential development remain consistent.
- Availability of financing for residential development (i.e., mortgages, commercial loans, subsidies, Tax Credits, etc.) remains consistent.
- Sufficient housing and infrastructure are provided to support projected population and household growth.

Significant unforeseen changes or fluctuations among any of the preceding assumptions could have an impact on demographic estimates/projections.

B. POPULATION CHARACTERISTICS

Population by numbers and percent change (growth or decline) for selected years is shown in the following table. It should be noted that some total numbers and percentages may not match the totals within or between tables in this section due to rounding.

	Total Population									
	2010 Census	2020 Census	Change 2010-2020		2022 Estimated	Change 2020-2022		2027 Projected	Change 2022-2027	
			Number	Percent		Number	Percent		Number	Percent
Erie North	37,857	37,375	-482	-1.3%	36,975	-400	-1.1%	36,452	-523	-1.4%
Erie East	27,394	26,744	-650	-2.4%	26,507	-237	-0.9%	26,043	-464	-1.8%
Erie West	11,491	11,247	-244	-2.1%	11,271	24	0.2%	11,197	-74	-0.7%
Erie County	76,742	75,366	-1,376	-1.8%	74,753	-613	-0.8%	73,692	-1,061	-1.4%
Huron North	38,843	38,395	-448	-1.2%	38,073	-322	-0.8%	37,798	-275	-0.7%
Huron South	20,783	20,170	-613	-2.9%	20,066	-104	-0.5%	19,926	-140	-0.7%
Huron County	59,626	58,565	-1,061	-1.8%	58,139	-426	-0.7%	57,724	-415	-0.7%
Ottawa East	17,727	17,287	-440	-2.5%	17,147	-140	-0.8%	16,975	-172	-1.0%
Ottawa West	24,013	23,333	-680	-2.8%	23,016	-317	-1.4%	22,619	-397	-1.7%
Ottawa County	41,740	40,620	-1,120	-2.7%	40,163	-457	-1.1%	39,594	-569	-1.4%
Firelands Region	178,108	174,551	-3,557	-2.0%	173,055	-1,496	-0.9%	171,010	-2,045	-1.2%
Ohio	11,536,479	11,799,423	262,944	2.3%	11,820,882	21,459	0.2%	11,829,060	8,178	0.1%

Source: 2010, 2020 Census; ESRI; Urban Decision Group; Bowen National Research

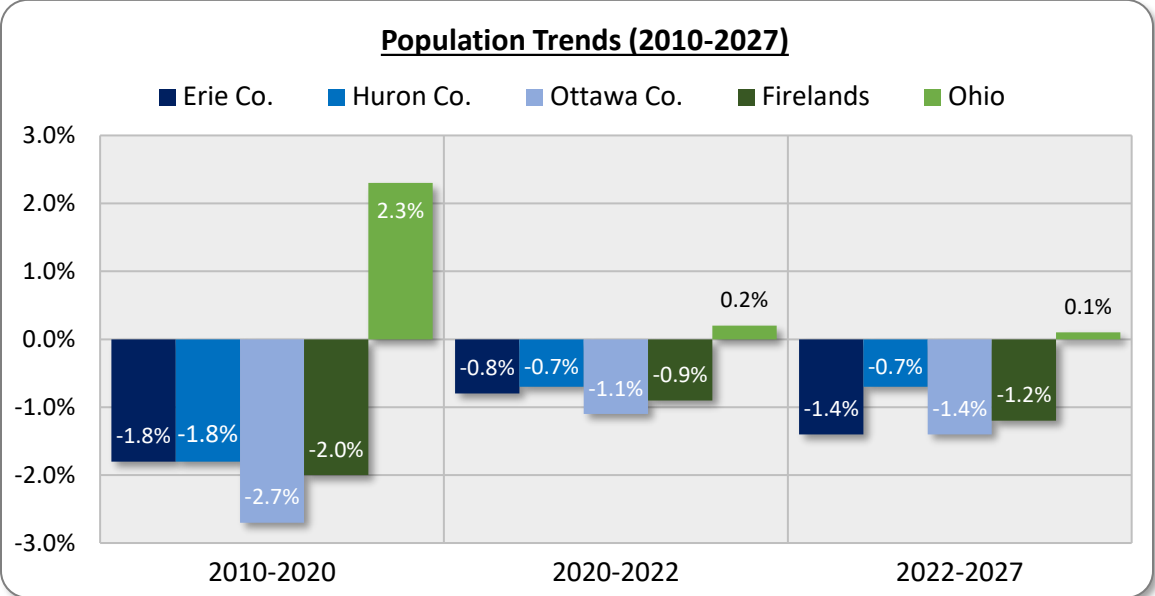
Between 2010 and 2020, the population within the PSA (Firelands Region) decreased by 3,557 (2.0%). This decline in population for the PSA contrasts the 2.3% population growth within the state of Ohio during this time period. In 2022, the estimated total population of the PSA is 173,055, which represents a 0.9% decrease in population from 2020. Between 2022 and 2027, the population of the PSA is projected to decline by an additional 2,045 people, or 1.2%, at which time the estimated total population of the PSA will be 171,010. This 1.2% decrease in population for the PSA over the next five years contrasts the slight 0.1% increase in population for the state during this time period. It is critical to point out that *household* changes, as opposed to population, are more material in assessing housing needs and opportunities. As illustrated later in this section on page IV-23, all submarkets within the PSA experienced positive *household* growth between 2010 and 2020, despite population declines during this time period.

Among the three counties in the PSA, all three experienced population declines between 2010 and 2020. The largest decrease by *percentage* occurred in Ottawa County (2.7%), while both Erie County and Huron County experienced declines of 1.8% during this time period. In 2022, Erie County has the largest

population base (74,753) of the three counties in the Firelands Region, followed by Huron County (58,139) and Ottawa County (40,163). Between 2022 and 2027, it is projected that all three counties will experience population declines. Over the next five years, the populations of Erie and Ottawa County are both projected to decline by 1.4%, while the population of Huron County is projected to have a more moderate decline (0.7%). Overall, this will result in a population decline of 2,045 (1.2%) for the PSA.

Within the individual submarkets of each county in the PSA, the largest population decreases between 2010 and 2020 occurred within the Erie East Submarket (2.4%), Huron South Submarket (2.9%), and Ottawa West Submarket (2.8%). In 2022, the Erie North Submarket (36,975), Huron North Submarket (38,073), and Ottawa West Submarket (23,016) have the largest population bases within their respective counties. Although all county submarkets in the PSA are projected to experience population declines between 2022 and 2027, the largest declines by *percentage* are projected to occur in the Erie East Submarket (1.8%), Ottawa West Submarket (1.7%), and Erie North Submarket (1.4%).

The following graph compares the percent change in population since 2010 and projected through 2027.



Population by age cohorts for selected years is shown in the following table.
 Note that five-year projected declines for each age cohort are in red:

		Population by Age							Median Age
		<25	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75+	
Erie North	2010	11,766 (31.1%)	4,444 (11.7%)	4,292 (11.3%)	5,684 (15.0%)	5,165 (13.6%)	3,057 (8.1%)	3,449 (9.1%)	41.3
	2022	10,300 (27.9%)	4,604 (12.5%)	4,257 (11.5%)	4,188 (11.3%)	5,311 (14.4%)	4,552 (12.3%)	3,763 (10.2%)	43.3
	2027	10,195 (28.0%)	4,248 (11.7%)	4,410 (12.1%)	4,104 (11.3%)	4,517 (12.4%)	4,753 (13.0%)	4,225 (11.6%)	43.6
	Change 2022-2027	-105 (-1.0%)	-356 (-7.7%)	153 (3.6%)	-84 (-2.0%)	-794 (-15.0%)	201 (4.4%)	462 (12.3%)	N/A
Erie East	2010	7,903 (28.8%)	2,468 (9.0%)	3,537 (12.9%)	4,504 (16.4%)	4,358 (15.9%)	2,728 (10.0%)	1,896 (6.9%)	44.5
	2022	6,551 (24.7%)	2,776 (10.5%)	2,912 (11.0%)	3,429 (12.9%)	4,299 (16.2%)	3,894 (14.7%)	2,646 (10.0%)	48.1
	2027	6,059 (23.3%)	2,688 (10.3%)	2,988 (11.5%)	3,164 (12.1%)	3,864 (14.8%)	3,956 (15.2%)	3,324 (12.8%)	49.1
	Change 2022-2027	-492 (-7.5%)	-88 (-3.2%)	76 (2.6%)	-265 (-7.7%)	-435 (-10.1%)	62 (1.6%)	678 (25.6%)	N/A
Erie West	2010	3,162 (27.5%)	1,049 (9.1%)	1,420 (12.4%)	1,975 (17.2%)	1,822 (15.9%)	1,154 (10.0%)	909 (7.9%)	45.6
	2022	2,582 (22.9%)	1,246 (11.1%)	1,235 (11.0%)	1,429 (12.7%)	1,927 (17.1%)	1,644 (14.6%)	1,208 (10.7%)	49.3
	2027	2,458 (22.0%)	1,161 (10.4%)	1,353 (12.1%)	1,336 (11.9%)	1,670 (14.9%)	1,781 (15.9%)	1,438 (12.8%)	49.8
	Change 2022-2027	-124 (-4.8%)	-85 (-6.8%)	118 (9.6%)	-93 (-6.5%)	-257 (-13.3%)	137 (8.3%)	230 (19.0%)	N/A
Erie County	2010	22,831 (29.8%)	7,961 (10.4%)	9,249 (12.1%)	12,163 (15.8%)	11,344 (14.8%)	6,940 (9.0%)	6,254 (8.1%)	43.3
	2022	19,432 (26.0%)	8,627 (11.5%)	8,403 (11.2%)	9,046 (12.1%)	11,538 (15.4%)	10,090 (13.5%)	7,617 (10.2%)	46.0
	2027	18,712 (25.4%)	8,096 (11.0%)	8,752 (11.9%)	8,604 (11.7%)	10,051 (13.6%)	10,490 (14.2%)	8,987 (12.2%)	46.5
	Change 2022-2027	-720 (-3.7%)	-531 (-6.2%)	349 (4.2%)	-442 (-4.9%)	-1,487 (-12.9%)	400 (4.0%)	1,370 (18.0%)	N/A
Huron North	2010	13,076 (33.7%)	4,613 (11.9%)	5,113 (13.2%)	5,915 (15.2%)	4,879 (12.6%)	2,827 (7.3%)	2,420 (6.2%)	38.6
	2022	11,390 (29.9%)	4,943 (13.0%)	4,638 (12.2%)	4,773 (12.5%)	5,337 (14.0%)	4,203 (11.0%)	2,789 (7.3%)	40.8
	2027	11,077 (29.3%)	4,651 (12.3%)	4,703 (12.4%)	4,488 (11.9%)	4,939 (13.1%)	4,579 (12.1%)	3,361 (8.9%)	41.7
	Change 2022-2027	-313 (-2.7%)	-292 (-5.9%)	65 (1.4%)	-285 (-6.0%)	-398 (-7.5%)	376 (8.9%)	572 (20.5%)	N/A
Huron South	2010	7,249 (34.9%)	2,408 (11.6%)	2,621 (12.6%)	3,083 (14.8%)	2,585 (12.4%)	1,570 (7.6%)	1,267 (6.1%)	37.8
	2022	6,208 (30.9%)	2,600 (13.0%)	2,370 (11.8%)	2,395 (11.9%)	2,794 (13.9%)	2,199 (11.0%)	1,500 (7.5%)	40.3
	2027	6,031 (30.3%)	2,472 (12.4%)	2,349 (11.8%)	2,403 (12.1%)	2,545 (12.8%)	2,339 (11.7%)	1,787 (9.0%)	41.2
	Change 2022-2027	-177 (-2.9%)	-128 (-4.9%)	-21 (-0.9%)	8 (0.3%)	-249 (-8.9%)	140 (6.4%)	287 (19.1%)	N/A

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research; N/A – Not Applicable

(Continued)

		Population by Age							
		<25	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75+	Median Age
Huron County	2010	20,325 (34.1%)	7,021 (11.8%)	7,734 (13.0%)	8,998 (15.1%)	7,464 (12.5%)	4,397 (7.4%)	3,687 (6.2%)	38.3
	2022	17,598 (30.3%)	7,543 (13.0%)	7,008 (12.1%)	7,168 (12.3%)	8,131 (14.0%)	6,402 (11.0%)	4,289 (7.4%)	40.6
	2027	17,108 (29.6%)	7,123 (12.3%)	7,052 (12.2%)	6,891 (11.9%)	7,484 (13.0%)	6,918 (12.0%)	5,148 (8.9%)	41.5
	Change 2022-2027	-490 (-2.8%)	-420 (-5.6%)	44 (0.6%)	-277 (-3.9%)	-647 (-8.0%)	516 (8.1%)	859 (20.0%)	N/A
Ottawa East	2010	4,153 (23.4%)	1,524 (8.6%)	1,817 (10.2%)	2,825 (15.9%)	3,308 (18.7%)	2,297 (13.0%)	1,803 (10.2%)	50.4
	2022	3,490 (20.4%)	1,534 (8.9%)	1,609 (9.4%)	2,098 (12.2%)	3,295 (19.2%)	3,107 (18.1%)	2,014 (11.7%)	54.3
	2027	3,426 (20.2%)	1,422 (8.4%)	1,656 (9.8%)	2,011 (11.8%)	2,914 (17.2%)	3,190 (18.8%)	2,356 (13.9%)	54.9
	Change 2022-2027	-64 (-1.8%)	-112 (-7.3%)	47 (2.9%)	-87 (-4.1%)	-381 (-11.6%)	83 (2.7%)	342 (17.0%)	N/A
Ottawa West	2010	7,194 (30.0%)	2,276 (9.5%)	3,010 (12.5%)	4,233 (17.6%)	3,425 (14.3%)	2,154 (9.0%)	1,721 (7.2%)	43.5
	2022	5,866 (25.5%)	2,731 (11.9%)	2,538 (11.0%)	2,996 (13.0%)	3,872 (16.8%)	2,985 (13.0%)	2,028 (8.8%)	46.3
	2027	5,609 (24.8%)	2,348 (10.4%)	2,799 (12.4%)	2,780 (12.3%)	3,350 (14.8%)	3,321 (14.7%)	2,412 (10.7%)	47.1
	Change 2022-2027	-257 (-4.4%)	-383 (-14.0%)	261 (10.3%)	-216 (-7.2%)	-522 (-13.5%)	336 (11.3%)	384 (18.9%)	N/A
Ottawa County	2010	11,347 (27.2%)	3,800 (9.1%)	4,827 (11.6%)	7,058 (16.9%)	6,733 (16.1%)	4,451 (10.7%)	3,524 (8.4%)	46.3
	2022	9,356 (23.3%)	4,265 (10.6%)	4,147 (10.3%)	5,094 (12.7%)	7,167 (17.8%)	6,092 (15.2%)	4,042 (10.1%)	49.9
	2027	9,035 (22.8%)	3,770 (9.5%)	4,455 (11.3%)	4,791 (12.1%)	6,264 (15.8%)	6,511 (16.4%)	4,768 (12.0%)	50.5
	Change 2022-2027	-321 (-3.4%)	-495 (-11.6%)	308 (7.4%)	-303 (-5.9%)	-903 (-12.6%)	419 (6.9%)	726 (18.0%)	N/A
Firelands Region	2010	54,503 (30.6%)	18,782 (10.5%)	21,810 (12.2%)	28,219 (15.8%)	25,541 (14.3%)	15,788 (8.9%)	13,465 (7.6%)	42.4
	2022	46,386 (26.8%)	20,435 (11.8%)	19,558 (11.3%)	21,308 (12.3%)	26,836 (15.5%)	22,584 (13.1%)	15,948 (9.2%)	45.1
	2027	44,855 (26.2%)	18,989 (11.1%)	20,259 (11.8%)	20,286 (11.9%)	23,799 (13.9%)	23,919 (14.0%)	18,903 (11.1%)	45.7
	Change 2022-2027	-1,531 (-3.3%)	-1,446 (-7.1%)	701 (3.6%)	-1,022 (-4.8%)	-3,037 (-11.3%)	1,335 (5.9%)	2,955 (18.5%)	N/A
Ohio	2010	3,830,238 (33.2%)	1,409,957 (12.2%)	1,479,829 (12.8%)	1,742,188 (15.1%)	1,452,261 (12.6%)	850,231 (7.4%)	771,775 (6.7%)	38.7
	2022	3,550,183 (30.0%)	1,536,238 (13.0%)	1,444,671 (12.2%)	1,434,379 (12.1%)	1,618,153 (13.7%)	1,294,844 (11.0%)	942,414 (8.0%)	40.6
	2027	3,485,264 (29.5%)	1,470,063 (12.4%)	1,499,309 (12.7%)	1,390,198 (11.8%)	1,469,165 (12.4%)	1,401,840 (11.9%)	1,113,221 (9.4%)	41.3
	Change 2022-2027	-64,919 (-1.8%)	-66,175 (-4.3%)	54,638 (3.8%)	-44,181 (-3.1%)	-148,988 (-9.2%)	106,996 (8.3%)	170,807 (18.1%)	N/A

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research; N/A – Not Applicable

In 2022, the median age for the population of the PSA (Firelands Region) is 45.1 years, which represents a considerably older median age when compared to the median age of 40.6 years for the state. Nearly two-fifths (37.8%) of the PSA population are 55 years of age or older, which represents a larger share when compared to the state (32.7%). Conversely, only slightly over one-fourth (26.8%) of the PSA population is less than 25 years of age, while the share of this population in the state (30.0%) is notably larger. By 2027, the median age of the population in the PSA is projected to increase to 45.7 years (1.3% increase), which is slightly less than the increase in median age for the state (1.7%) during this time period. Although a moderate increase is projected for the population between the ages of 35 and 44 (3.6%) in the PSA over the next five years, more significant increases are projected for the age cohorts of 75 and older (18.5%) and 65 to 74 (5.9%). As such, the PSA has a relatively older population when compared to the state, and both are projected to age similarly over the next five years.

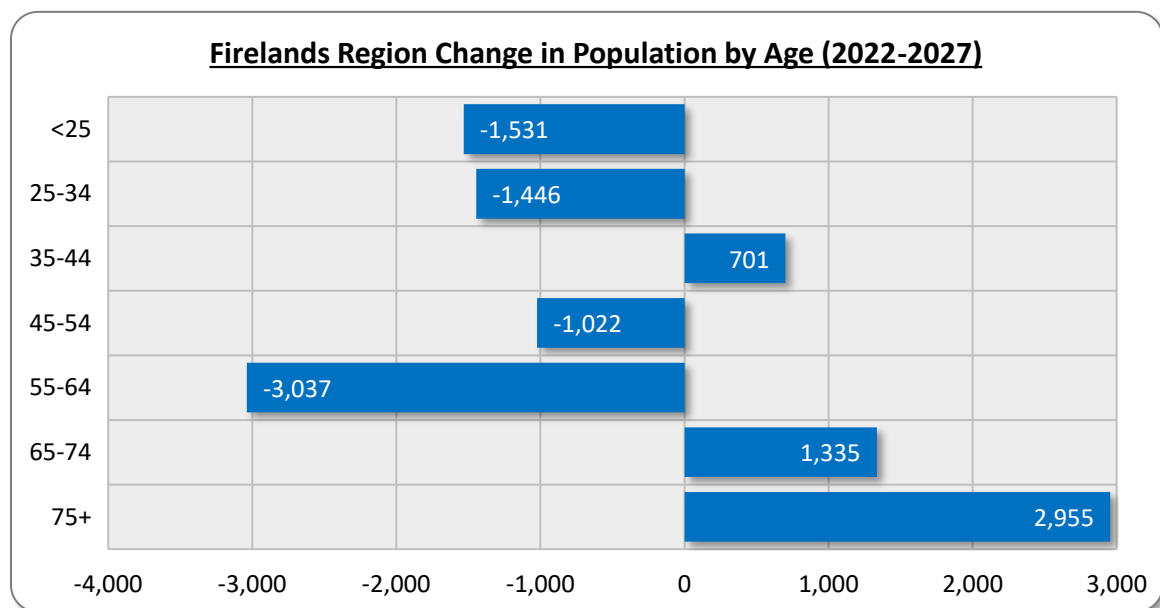
In 2022, and within individual counties of the PSA, Ottawa County has the oldest median age (49.9 years), while Huron County has the youngest (40.6 years). Over two-fifths (43.1%) of the population of Ottawa County are 55 years of age or older, while the shares of this older population in the counties of Erie (39.1%) and Huron (32.4%) are considerably less. Among the younger population cohort, Huron County has the largest share of the population under the age of 25 (30.3%), while Ottawa has the smallest share (23.3%). Between 2022 and 2027, all three counties are projected to have increases in the cohorts of 35 to 44 years and 65 and older. The most significant increase is projected to occur within the age cohort of 75 years and older in Huron County (20.0%). Similarly, this age cohort is projected to increase by 18.0% in both Erie and Ottawa counties. While the projected increase within the age cohort of 35 to 44 years is significant in both Erie (4.2%) and Ottawa (7.4%) County over the next five years, the corresponding increase in Huron County (0.6%) is much more moderate. It is notable that decreases are projected in the PSA for all age cohorts under the age of 35 and between the ages of 45 to 64 years, regardless of county, between 2022 and 2027.

In 2022, and among the individual submarkets of the PSA, the Ottawa East Submarket has the oldest median age (54.3 years), while the Huron South Submarket has the youngest median age (40.3 years). Nearly half (49.0%) of the population in the Ottawa East Submarket is 55 years of age or older in 2022, which is a much higher share when compared to the PSA overall (37.8%). Conversely, nearly one-third (30.9%) of the Huron South Submarket is less than 25 years of age in 2022, which represents the largest share of such population in any submarket. Between 2022 and 2027, all submarkets in the PSA are projected to experience increases in the age cohorts of 65 and older, with the largest individual increase of 25.6% occurring in the Erie East Submarket among the population cohort of 75 years and older. Decreases in the age cohorts of less than 35 years are also projected in each of the submarkets, with the

largest decrease of 14.0% projected in the Ottawa West Submarket among those 25 to 34 years of age. It is interesting to note that all submarkets, with the exception of the Huron South Submarket (0.9% decrease), are projected to have increases in the age cohort of 35 to 44 years. Conversely, the Huron South Submarket is projected to have a slight increase (0.3%), in the age cohort of 45 to 54 years while all other submarkets are projected to decline within this cohort.

While the overall population of the PSA and each of the submarkets is projected to decline between 2022 and 2027, the previous analysis illustrates that certain age cohorts, specifically those between the ages of 35 and 44 and ages 65 and older, are projected to increase in nearly every submarket of the PSA. As a result, this change in the composition of the PSA population by age will have an effect on demand for specific types of housing in each submarket over the next five years.

The following graph compares the projected change in population by age cohort between 2022 and 2027.



Population by race for 2020 is shown in the following table:

		Population by Race					
		White Alone	Black or African American Alone	Asian Alone	Some Other Race Alone	Two or More Races	Total
Erie North	Number	26,658	6,529	297	663	3,228	37,375
	Percent	71.3%	17.5%	0.8%	1.8%	8.6%	100.0%
Erie East	Number	24,852	140	106	237	1,409	26,744
	Percent	92.9%	0.5%	0.4%	0.9%	5.3%	100.0%
Erie West	Number	10,367	138	73	121	548	11,247
	Percent	92.2%	1.2%	0.6%	1.1%	4.9%	100.0%
Erie County	Number	61,877	6,807	476	1,021	5,185	75,366
	Percent	82.1%	9.0%	0.6%	1.4%	6.9%	100.0%
Huron North	Number	34,645	427	159	786	2,377	38,394
	Percent	90.2%	1.1%	0.4%	2.0%	6.2%	100.0%
Huron South	Number	17,767	178	62	894	1,270	20,171
	Percent	88.1%	0.9%	0.3%	4.4%	6.3%	100.0%
Huron County	Number	52,412	605	221	1,680	3,647	58,565
	Percent	89.5%	1.0%	0.4%	2.9%	6.2%	100.0%
Ottawa East	Number	15,903	250	101	206	827	17,287
	Percent	92.0%	1.4%	0.6%	1.2%	4.8%	100.0%
Ottawa West	Number	21,617	108	78	361	1,169	23,333
	Percent	92.6%	0.5%	0.3%	1.5%	5.0%	100.0%
Ottawa County	Number	37,520	358	179	567	1,996	40,620
	Percent	92.4%	0.9%	0.4%	1.4%	4.9%	100.0%
Firelands Region	Number	151,809	7,770	876	3,268	10,828	174,551
	Percent	87.0%	4.5%	0.5%	1.9%	6.2%	100.0%
Ohio	Number	9,080,664	1,478,781	298,509	260,098	681,371	11,799,423
	Percent	77.0%	12.5%	2.5%	2.2%	5.8%	100.0%

Source: 2020 Census; ESRI; Urban Decision Group; Bowen National Research

In 2020, well over four-fifths (87.0%) of residents within the PSA (Firelands Region) identified as “White Alone,” which is a much higher share than the state overall (77.0%). Only 4.5% of PSA residents identified as “Black or African American Alone,” which represents a much smaller share when compared to the state (12.5%). It is notable that 6.2% of PSA residents identified as “Two or More Races,” which is a slightly larger share than the state (5.8%), overall. Based on this data, the population of the PSA is comparably less diverse than the state of Ohio.

Among the three counties of the PSA, Erie County appears to be the most diverse, where 82.1% of residents identified as “White Alone,” 9.0% identified as “Black or African American Alone,” and 6.9% identified as “Two or More Races.” By comparison, Ottawa County appears to be the least diverse, where over nine-tenths (92.4%) of the population identified as “White Alone.”

While Erie County, overall, has the most diverse population by race, this is due primarily to the diversity present in the Erie North Submarket, in which 71.3% of the population identified as “White Alone,” 17.5% identified as “Black or African American Alone,” and 8.6% identified as “Two or More Races.” The Erie East Submarket and Erie West Submarket are comparably less diverse as over nine-tenths (92.9% and 92.2%, respectively) identified as “White Alone.” This high share of the population that identified as “White Alone” is also present in the Huron North (90.2%), Ottawa East (92.0%) and Ottawa West (92.6%) submarkets. It is also notable that 4.4% of the population within the Huron South Submarket identified as “Some Other Race,” which represents double the share of the state (2.2%).

Population by marital status for 2022 is shown in the following table:

		Population by Marital Status				
		Not Married			Married	Total
		Never Married	Divorced	Widowed		
Erie North	Number	9,992	4,534	2,496	13,657	30,679
	Percent	32.6%	14.8%	8.1%	44.5%	100.0%
Erie East	Number	5,086	3,028	1,355	13,203	22,672
	Percent	22.4%	13.4%	6.0%	58.2%	100.0%
Erie West	Number	2,273	834	705	5,942	9,754
	Percent	23.3%	8.5%	7.2%	60.9%	100.0%
Erie County	Number	17,352	8,396	4,556	32,802	63,106
	Percent	27.5%	13.3%	7.2%	52.0%	100.0%
Huron North	Number	7,807	3,746	2,058	17,467	31,078
	Percent	25.1%	12.1%	6.6%	56.2%	100.0%
Huron South	Number	4,850	1,835	1,026	8,512	16,223
	Percent	29.9%	11.3%	6.3%	52.5%	100.0%
Huron County	Number	12,657	5,581	3,084	25,979	47,301
	Percent	26.8%	11.8%	6.5%	54.9%	100.0%
Ottawa East	Number	2,938	1,677	1,589	8,809	15,013
	Percent	19.6%	11.2%	10.6%	58.7%	100.0%
Ottawa West	Number	4,765	1,956	1,386	11,349	19,456
	Percent	24.5%	10.1%	7.1%	58.3%	100.0%
Ottawa County	Number	7,703	3,633	2,975	20,158	34,469
	Percent	22.3%	10.5%	8.6%	58.5%	100.0%
Firelands Region	Number	37,712	17,610	10,615	78,939	144,876
	Percent	26.0%	12.2%	7.3%	54.5%	100.0%
Ohio	Number	3,165,552	1,134,725	616,779	4,845,845	9,762,901
	Percent	32.4%	11.6%	6.3%	49.6%	100.0%

Source: ESRI; Urban Decision Group; Bowen National Research

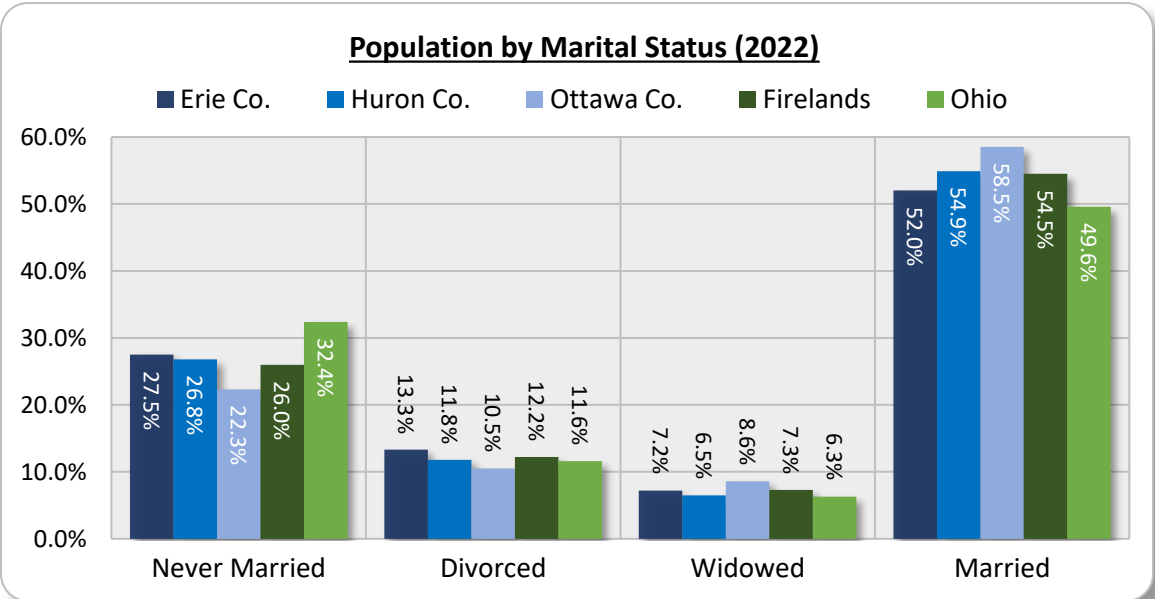
Over half (54.5%) of the population in the PSA (Firelands Region) is married, which is a much higher share than the state (49.6%). This relatively high share of the population that is married is indicative of the comparably older population of the PSA. While the share of the PSA population that has never married (26.0%) is much lower than the corresponding share for the state (32.4%), the shares of the PSA population that are divorced (12.2%) and

widowed (7.3%) are higher than the shares for the state (11.6% and 6.3%, respectively). Overall, the share of unmarried individuals in the PSA (45.5%) is less than the share in the state (50.3%), which increases the likelihood that households in the PSA have more than one income source and can positively affect housing affordability.

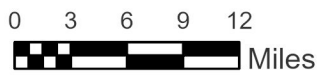
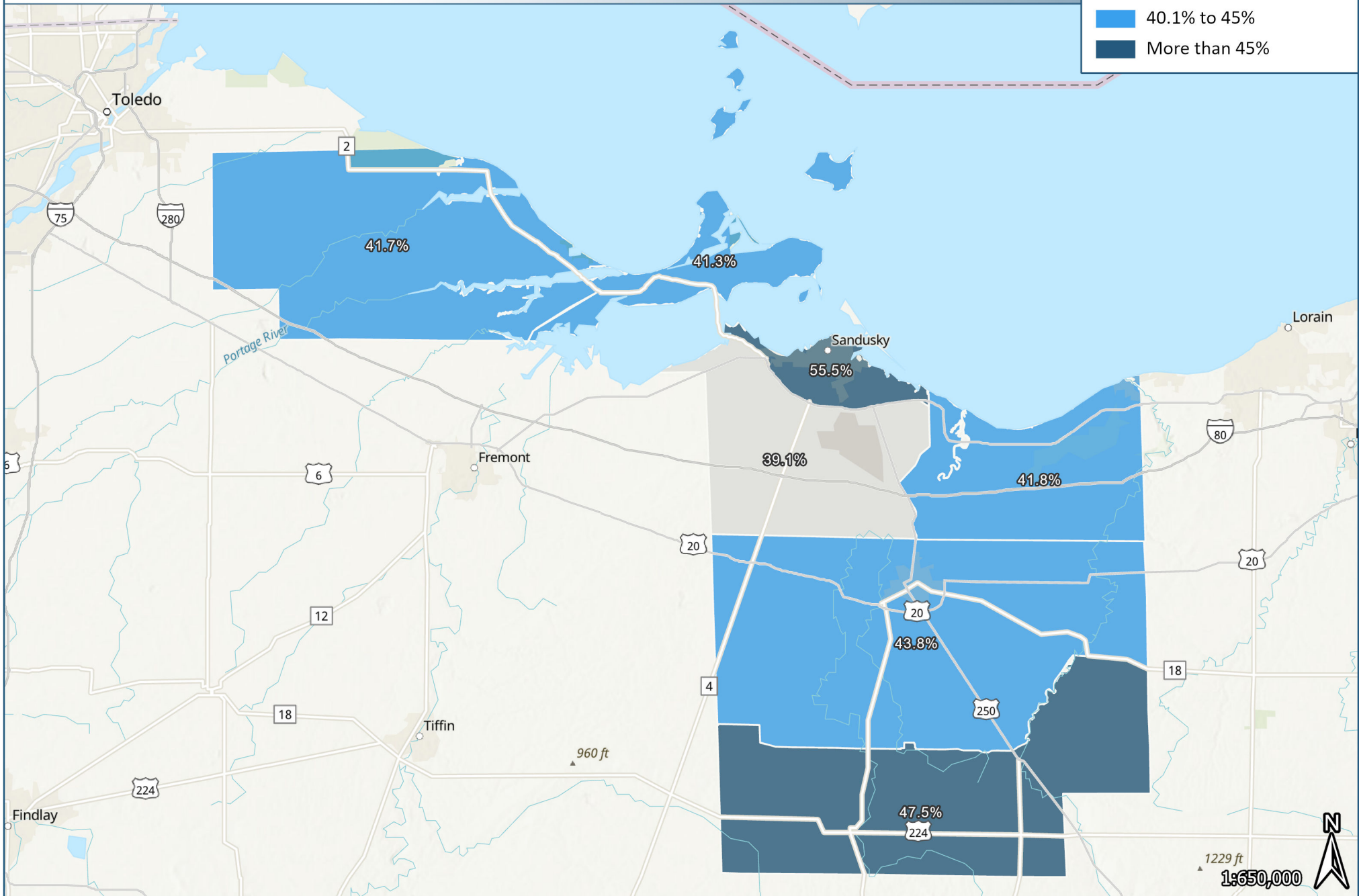
Among the three counties in the PSA, Ottawa County has the largest share of the population that is married (58.5%), while Erie County has the smallest share (52.0%). Additionally, Erie County has the largest share of the population that has never married (27.5%) and the largest share of the population that is divorced (13.3%), while Ottawa County has the largest share of the population that is widowed (8.6%).

Within the individual submarkets of the PSA, the Erie West Submarket has the largest share of the population that is married (60.9%), while the Erie North Submarket has the lowest share (44.5%) by a considerable amount. This comparably high share the population that is unmarried in the Erie North Submarket is primarily driven by the share of the population that has never married (32.6%), which represents the largest share of such population among all submarkets in the PSA. In addition, the Erie North Submarket has the largest share of divorced population in the PSA (14.8%). Among all submarkets, the Ottawa East Submarket has the largest share of its population that is widowed (10.6%), which is likely driven by the oldest median age (54.3 years) of all submarkets in the PSA.

The following graph compares the shares of the population by marital status for 2022.



- 40% or Less
- 40.1% to 45%
- More than 45%



Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
Additional Source(s): Bowen National Research

Population by highest educational attainment for 2022 is shown in the following table:

		Population by Highest Educational Attainment		
		No High School Diploma	High School Diploma Some College (No Degree)	Post-Secondary (College) Degree
Erie North	Number	2,483	15,200	8,993
	Percent	9.3%	56.9%	33.7%
Erie East	Number	1,027	10,801	8,129
	Percent	5.1%	54.1%	40.8%
Erie West	Number	396	5,055	3,239
	Percent	4.6%	58.1%	37.4%
Erie County	Number	3,906	31,055	20,360
	Percent	7.1%	56.1%	36.9%
Huron North	Number	2,268	16,705	7,710
	Percent	8.5%	62.6%	28.9%
Huron South	Number	1,774	9,178	2,906
	Percent	12.8%	66.3%	21.0%
Huron County	Number	4,042	25,883	10,616
	Percent	10.0%	63.9%	26.3%
Ottawa East	Number	922	7,358	5,377
	Percent	6.8%	53.8%	39.4%
Ottawa West	Number	1,258	9,877	6,015
	Percent	7.3%	57.6%	35.1%
Ottawa County	Number	2,180	17,235	11,392
	Percent	7.1%	56.0%	37.0%
Firelands Region	Number	10,128	74,173	42,368
	Percent	8.0%	58.5%	33.4%
Ohio	Number	679,905	4,229,036	3,361,758
	Percent	8.2%	51.1%	40.7%

Source: ESRI; Urban Decision Group; Bowen National Research

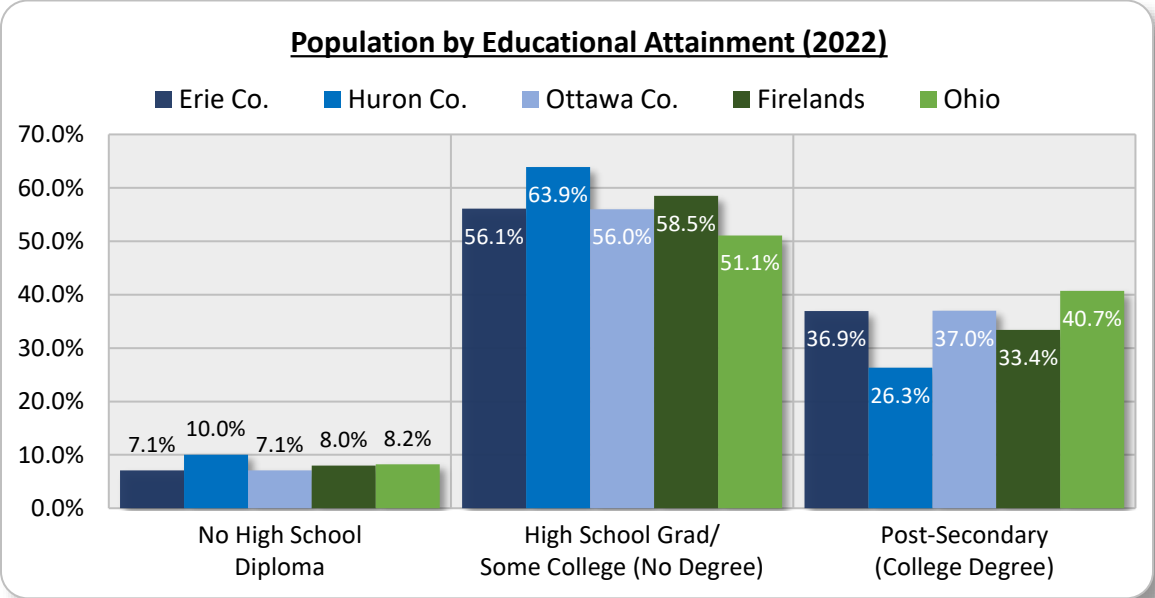
Within the PSA (Firelands Region), the 33.4% share of individuals with a post-secondary degree is considerably lower than the 40.7% share within the state. The share of individuals within the PSA lacking a high school diploma (8.0%) is slightly lower than the corresponding share for the state (8.2%). As earning capacity has a high correlation to educational attainment, a low share of post-secondary degrees and/or a high share of individuals lacking high school diplomas can limit the incomes and affect the affordability of housing for the population within an area. Overall, the PSA population has a lower share of post-secondary degrees and a comparable share of individuals lacking a high school diploma compared to the state, which may indicate a notable level of demand for affordable and workforce housing options within the market compared to the state.

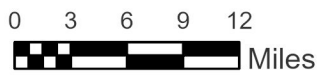
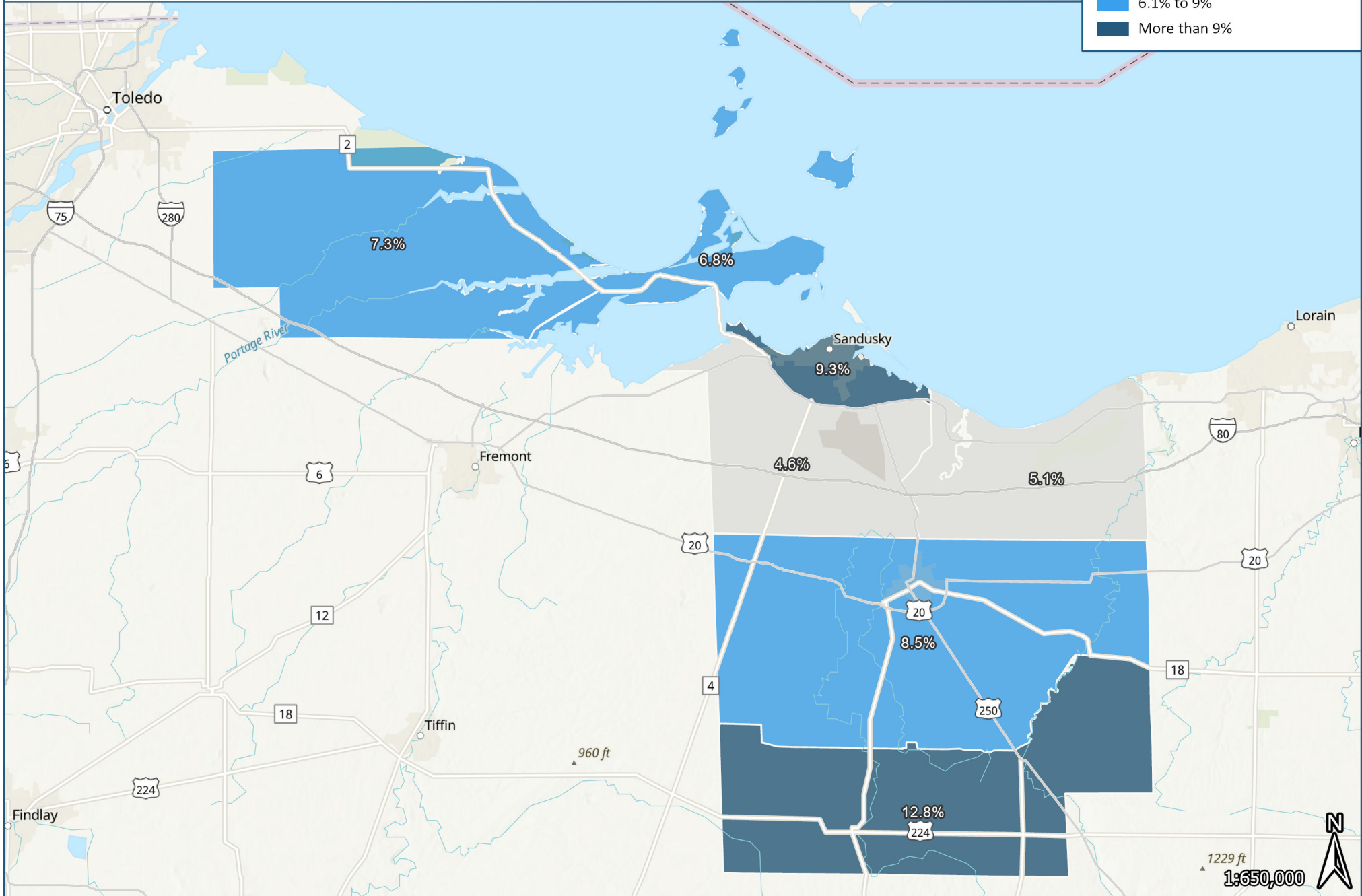
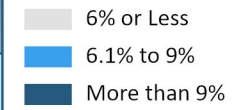
While Erie County (36.9%) and Ottawa County (37.0%) have shares of their respective populations with post-secondary degrees only slightly lower than the state (40.7%), the share of such individuals within Huron County (26.3%) is

significantly less. In addition, Huron County has the highest share of individuals without a high school diploma (10.0%). As such, the demand for more moderately priced housing options that is affordable to lower- and moderate-income households is likely highest in Huron County.

A comparison of the individual submarkets within each county reveals that the share of the population with a post-secondary degree is highest within the Erie East Submarket (40.8%), while the lowest share of such individuals is within the Huron South Submarket (21.0%). Conversely, the submarket with the highest share of individuals lacking a high school diploma is the Huron South Submarket (12.8%), while the submarket with the lowest share of such individuals is the Erie West Submarket (4.6%). As such, it appears that the Huron South Submarket, specifically, is likely the submarket with the highest share of residents with constrained income potential due to education. It should be noted that many other factors such as the type of employment present in the local market, the share of households with multiple incomes, and the overall available supply of housing in a market also affect housing affordability.

The following graph compares the shares of population by educational attainment.





Poverty status by age cohort is shown in the following table:

		Population and Share Below Poverty Level by Age Cohort			
		<18	18 to 64	65+	Overall
Erie North	Number	1,819	3,632	477	5,928
	Percent	24.0%	16.7%	7.2%	16.5%
Erie East	Number	438	977	308	1,723
	Percent	8.7%	6.6%	5.0%	6.6%
Erie West	Number	316	640	137	1,093
	Percent	14.0%	10.5%	5.1%	9.9%
Erie County	Number	2,572	5,246	921	8,739
	Percent	17.3%	12.3%	6.0%	12.0%
Huron North	Number	1,295	2,370	460	4,125
	Percent	14.0%	10.6%	7.4%	10.9%
Huron South	Number	891	1,633	249	2,773
	Percent	19.5%	13.9%	7.3%	14.0%
Huron County	Number	2,186	4,003	709	6,898
	Percent	15.8%	11.7%	7.3%	12.0%
Ottawa East	Number	424	937	291	1,652
	Percent	16.9%	10.5%	5.2%	9.7%
Ottawa West	Number	431	1,068	373	1,872
	Percent	9.0%	7.7%	8.3%	8.1%
Ottawa County	Number	855	2,006	664	3,525
	Percent	11.7%	8.8%	6.6%	8.8%
Firelands Region	Number	5,613	11,255	2,294	19,162
	Percent	15.6%	11.3%	6.5%	11.2%
Ohio	Number	486,835	900,767	158,409	1,546,011
	Percent	19.1%	13.1%	8.2%	13.6%

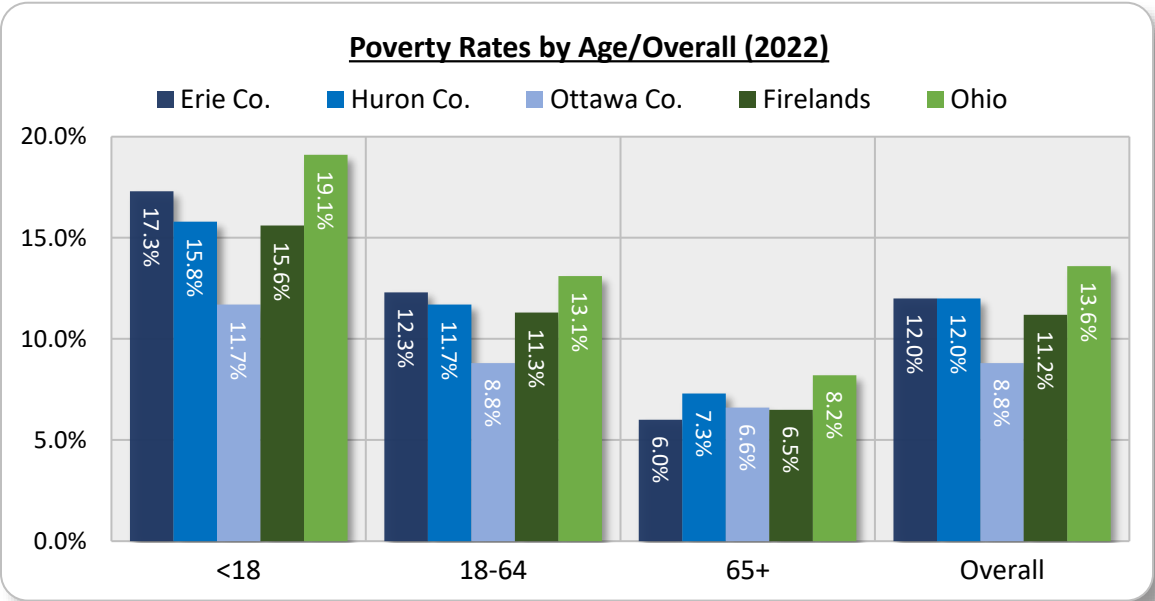
Source: U.S. Census Bureau, 2016-2020 American Community Survey; Urban Decision Group; Bowen National Research

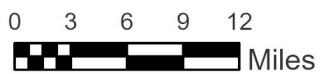
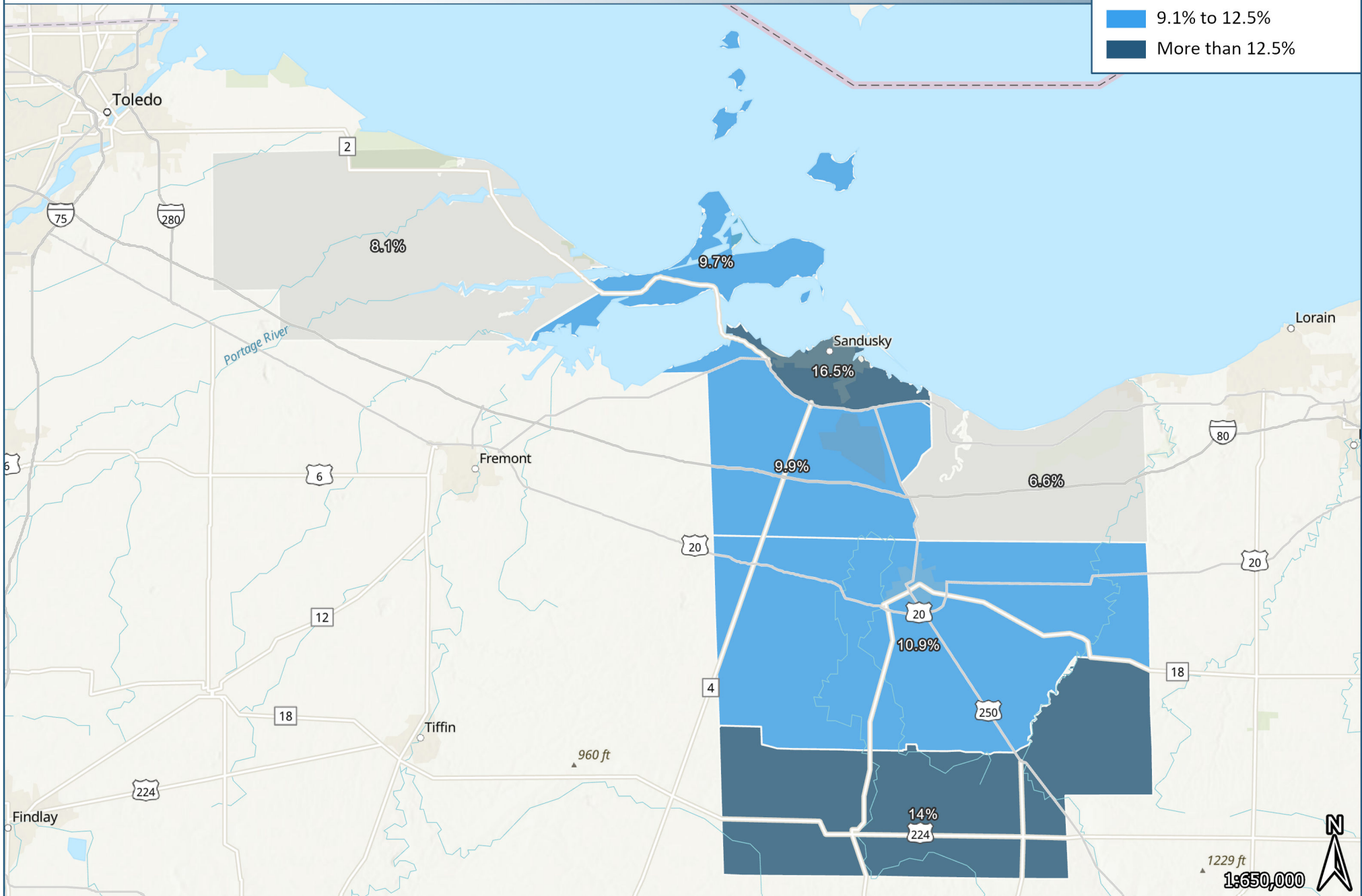
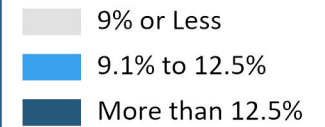
Approximately 11.2% of the population in the PSA (Firelands Region) suffers from poverty, which reflects a lower poverty rate than the state (13.6%) overall. Among the three age cohorts illustrated in the preceding table, people less than 18 years of age have the highest poverty rate (15.6%) in the PSA, which reflects a lower rate for this cohort than the corresponding rate for the state (19.1%). Adults, ages 18 to 64 years, have the second highest poverty rate (11.3%) in the PSA, which is also lower than the rate for the state (13.1%). Those age 65 and older have the lowest poverty rate among the three age cohorts in the PSA (6.5%) and also have a poverty rate below that of the state (8.2%). Overall, the data suggests that the population of the PSA is less affected by poverty, regardless of age, than the state. Regardless, over 19,000 individuals live in poverty in the Firelands Region, and as such, affordable housing should continue to be a consideration for future housing developments in the region.

Among the three counties in the region, Erie County and Huron County have the highest overall poverty rates (12.0% each), while Ottawa County has the lowest overall poverty rate (8.8%). All three counties have rates below the rate for the state (13.6%). The poverty rate for the population less than 18 years of age is highest in Erie County (17.3%), followed by Huron County (15.8%). Among the population between the ages of 18 and 64 years, Erie County has the highest poverty rate (12.3%), while Ottawa County has the lowest (8.8%). Huron County has the highest poverty rate (7.3%) among seniors, ages 65 and older, while Erie County (6.0%) has the lowest rate for this cohort. Overall, Erie County has the largest population (8,739) living below poverty level, followed by Huron County (6,898).

Within the individual submarkets of the PSA, Erie North has the highest overall poverty rate (16.5%), while Erie East (6.6%) has the lowest. Two submarkets in the PSA have poverty rates among the population less than 18 years of age that exceed the state rate (19.1%). These include the Erie North Submarket (24.0%) and the Huron South Submarket (19.5%). Similarly, the Erie North Submarket and Huron South Submarket also have poverty rates (16.7% and 13.9%, respectively) among the population ages 18 to 64 years that exceed the corresponding state rate (13.1%). The only submarket in the PSA in which seniors (ages 65 and older) are disproportionately affected by poverty compared to the state is the Ottawa West Submarket, which has a poverty rate for this group of 8.3%.

The following graph compares area poverty rates.





Population by migration (previous residence one year prior to survey) for years 2016-2020 is shown in the following table:

		Population by Migration					
		Same House	Different House in Same County	Different County In Same State	Different State	Moved from Abroad	Total
Erie North	Number	32,058	2,574	1,216	293	33	36,174
	Percent	88.6%	7.1%	3.4%	0.8%	0.1%	100.0%
Erie East	Number	23,359	942	1,104	693	21	26,119
	Percent	89.4%	3.6%	4.2%	2.7%	0.1%	100.0%
Erie West	Number	9,821	546	589	82	10	11,048
	Percent	88.9%	4.9%	5.3%	0.7%	0.1%	100.0%
Erie County	Number	65,237	4,062	2,909	1,068	64	73,340
	Percent	89.0%	5.5%	4.0%	1.5%	0.1%	100.0%
Huron North	Number	34,219	1,892	1,263	542	29	37,945
	Percent	90.2%	5.0%	3.3%	1.4%	0.1%	100.0%
Huron South	Number	17,451	1,334	668	144	138	19,735
	Percent	88.4%	6.8%	3.4%	0.7%	0.7%	100.0%
Huron County	Number	51,670	3,226	1,931	686	167	57,680
	Percent	89.6%	5.6%	3.3%	1.2%	0.3%	100.0%
Ottawa East	Number	15,600	578	594	377	4	17,153
	Percent	90.9%	3.4%	3.5%	2.2%	0.0%	100.0%
Ottawa West	Number	21,049	1,123	924	290	19	23,405
	Percent	89.9%	4.8%	3.9%	1.2%	0.1%	100.0%
Ottawa County	Number	36,649	1,701	1,518	667	23	40,558
	Percent	90.4%	4.2%	3.7%	1.6%	0.1%	100.0%
Firelands Region	Number	153,556	8,989	6,358	2,421	254	171,578
	Percent	89.5%	5.2%	3.7%	1.4%	0.1%	100.0%
Ohio	Number	9,924,171	988,606	391,422	194,754	41,906	11,540,859
	Percent	86.0%	8.6%	3.4%	1.7%	0.4%	100.0%

Source: U.S. Census Bureau, 2016-2020 American Community Survey; ESRI; Urban Decision Group; Bowen National Research

As the preceding illustrates, nearly nine-tenths (89.5%) of PSA (Firelands Region) residents remained in the same house year over year. This represents a slightly less transient population than the state, where 86.0% of the population remained in the same house year over year. Among all Firelands Region residents, 5.2% moved within the county, 3.7% moved from a different county within the state, and 1.4% moved from a different state. Among the three counties in the region, Ottawa County is the least transient as 90.4% of residents remained in the same house year over year. By comparison, Erie County is the most transient with 89.0% of the population remaining in the same house. As such, it appears the population of the PSA, regardless of county, is comparably less transient than residents of the state, overall.

Among the individual submarkets in the PSA, the Ottawa East Submarket and Huron North Submarket have the highest shares (90.9% and 90.2%, respectively) of residents that remained in the same house year over year, while the Huron South Submarket has the lowest share (88.4%). The data also illustrates that the Erie West Submarket has the highest share of the population that moved from a different Ohio county in the previous year (5.3%), while the Erie East Submarket has the highest share from a different state (2.7%). It is also interesting to note that the Huron South Submarket appears to have the largest share of its respective population that moved from abroad (0.7%). While a very high share of individuals remaining in the same house year over year and a limited amount of migration into an area may indicate a lack of housing options or job opportunities within a market, an unusually high share of transiency in an area can also indicate potential housing and economic issues within a market. The housing supply of the PSA is examined in detail in Section VI of this report and additional migration data and analysis are provided starting on page VII-20.

Population densities for selected years are shown in the following table:

		Population Densities			
		2010	2020	2022	2027
Erie North	Population	37,857	37,375	36,975	36,452
	Area in Square Miles	28.19	28.19	28.19	28.19
	Density	1,342.7	1,325.6	1,311.5	1,292.9
Erie East	Population	27,394	26,744	26,507	26,043
	Area in Square Miles	107.88	107.88	107.88	107.88
	Density	253.9	247.9	245.7	241.4
Erie West	Population	11,491	11,247	11,271	11,197
	Area in Square Miles	115.15	115.15	115.15	115.15
	Density	99.8	97.7	97.9	97.2
Erie County	Population	76,742	75,366	74,753	73,692
	Area in Square Miles	251.22	251.22	251.22	251.22
	Density	305.5	300.0	297.6	293.3
Huron North	Population	38,843	38,395	38,073	37,798
	Area in Square Miles	285.15	285.15	285.15	285.15
	Density	136.2	134.6	133.5	132.6
Huron South	Population	20,783	20,170	20,066	19,926
	Area in Square Miles	209.72	209.72	209.72	209.72
	Density	99.1	96.2	95.7	95.0
Huron County	Population	59,626	58,565	58,139	57,724
	Area in Square Miles	494.87	494.87	494.87	494.87
	Density	120.5	118.3	117.5	116.6
Ottawa East	Population	17,727	17,287	17,147	16,975
	Area in Square Miles	146.24	146.24	146.24	146.24
	Density	121.2	118.2	117.3	116.1
Ottawa West	Population	24,013	23,333	23,016	22,619
	Area in Square Miles	214.68	214.68	214.68	214.68
	Density	111.9	108.7	107.2	105.4
Ottawa County	Population	41,740	40,620	40,163	39,594
	Area in Square Miles	360.93	360.93	360.93	360.93
	Density	115.6	112.5	111.3	109.7
Firelands Region	Population	178,108	174,551	173,055	171,010
	Area in Square Miles	1,132.62	1,132.62	1,132.62	1,132.62
	Density	157.3	154.1	152.8	151.0
Ohio	Population	11,536,479	11,799,423	11,820,882	11,829,060
	Area in Square Miles	41,260.90	41,260.90	41,260.90	41,260.90
	Density	279.6	286.0	286.5	286.7

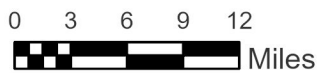
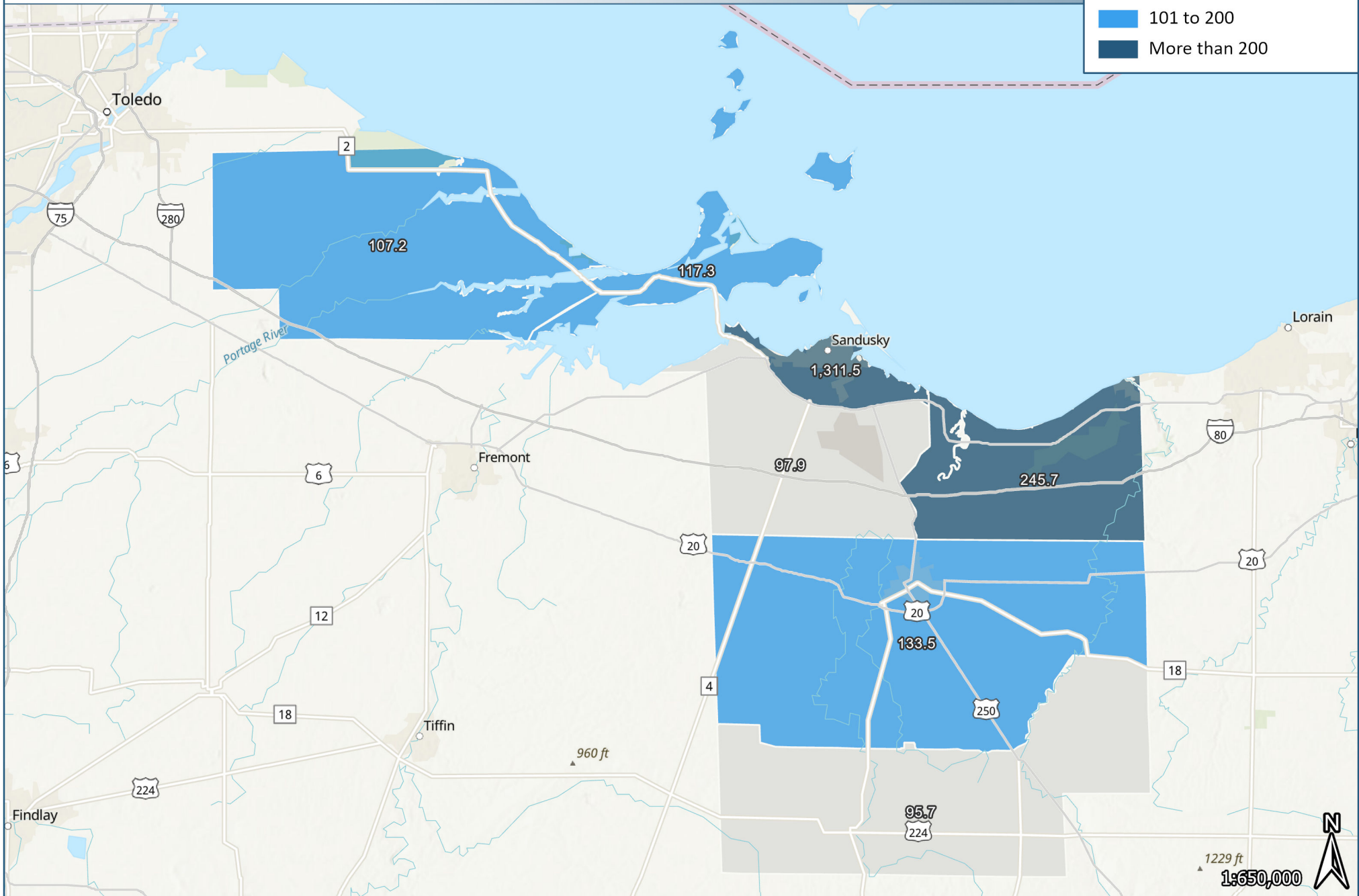
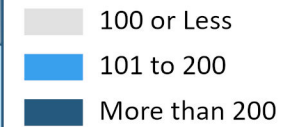
Source: 2010, 2020 Census; ESRI; Urban Decision Group; Bowen National Research

With a population density of 152.8 persons per square mile in 2022, the PSA (Firelands Region) is significantly less densely populated than the state (286.5 persons per square mile), overall. The population density of the PSA decreased by 2.9% between 2010 and 2022, and it is projected that the density will decrease by an additional 1.2% over the next five years, which contrasts the very slight density increase (less than 0.1%) for the state during this time period.

Among the three counties in the PSA, Erie County is the most densely populated county in the region (297.6 persons per square mile) in 2022. Although population densities for all three counties declined between 2010 and 2022, the largest decline occurred in Ottawa County (3.7%). Between 2022 and 2027, density declines between 0.8% and 1.4% are projected for all three counties.

In 2022, the most densely populated submarket in the PSA is the Erie North Submarket (1,311.5 persons per square mile), which includes the city of Sandusky. The least densely populated submarkets are the Huron South Submarket (95.7 persons per square mile) and Erie West Submarket (97.9 persons per square mile). Between 2022 and 2027, all submarkets in the PSA are projected to experience moderate declines in density, with the largest decrease of 1.8% occurring in the Erie East Submarket. Considering the range of population densities that exist in the PSA, this data illustrates the degree to which different submarkets in the PSA likely require a variety of housing options to meet the individual needs of their respective areas.

The following map illustrates the population density in the Firelands Region.



C. HOUSEHOLD CHARACTERISTICS

Households by numbers and percent change (growth or decline) for selected years are shown in the following table. Note that declines are illustrated in red text, while increases are illustrated in green text:

	Total Households									
	2010 Census	2020 Census	Change 2010-2020		2022 Estimated	Change 2020-2022		2027 Projected	Change 2022-2027	
			Number	Percent		Number	Percent		Number	Percent
Erie North	15,882	15,999	117	0.7%	15,948	-51	-0.3%	15,825	-123	-0.8%
Erie East	11,123	11,444	321	2.9%	11,382	-62	-0.5%	11,269	-113	-1.0%
Erie West	4,683	4,778	95	2.0%	4,792	14	0.3%	4,784	-8	-0.2%
Erie County	31,688	32,221	533	1.7%	32,121	-100	-0.3%	31,879	-242	-0.8%
Huron North	15,044	15,608	564	3.7%	15,584	-24	-0.2%	15,609	25	0.2%
Huron South	7,776	7,798	22	0.3%	7,780	-18	-0.2%	7,787	7	0.1%
Huron County	22,820	23,406	586	2.6%	23,364	-42	-0.2%	23,396	32	0.1%
Ottawa East	8,116	8,267	151	1.9%	8,230	-37	-0.4%	8,207	-23	-0.3%
Ottawa West	9,540	9,620	80	0.8%	9,536	-84	-0.9%	9,466	-70	-0.7%
Ottawa County	17,657	17,887	230	1.3%	17,766	-121	-0.7%	17,673	-93	-0.5%
Firelands Region	72,164	73,514	1,350	1.9%	73,251	-263	-0.4%	72,948	-303	-0.4%
Ohio	4,603,431	4,808,766	205,335	4.5%	4,831,456	22,690	0.5%	4,856,138	24,682	0.5%

Source: 2010, 2020 Census; ESRI; Urban Decision Group; Bowen National Research

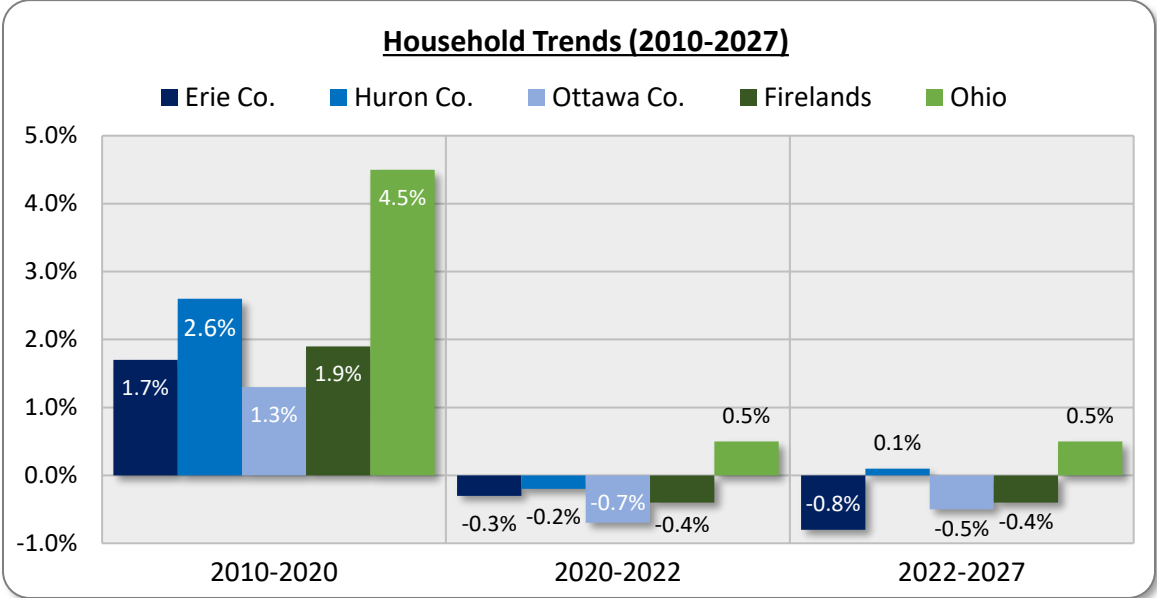
Between 2010 and 2020, the number of households within the PSA (Firelands Region) increased by 1,350 (1.9%). This represents a smaller rate of increase compared to the state of Ohio (4.5%) during this time period. In 2022, there is an estimated total of 73,251 households in the PSA, which represents a slight decrease of 0.4% in the number of households compared to 2020. Between 2022 and 2027, the number of households in the PSA is projected to decrease by 303 (0.4%), at which time the estimated total number of households in the PSA will be 72,948. The projected decrease in households for the PSA over the next five years contrasts the 0.5% increase in households for the state during this time period.

Among the three counties within the PSA, all experienced increases in households between 2010 and 2020, with the largest increase of 2.6% occurring in Huron County. Between 2020 and 2022, all three counties within the PSA experienced nominal household declines, ranging between 0.2% (Huron County) and 0.7% (Ottawa County). In 2022, Erie County accounts for 43.9% (32,121) of the total households in the PSA. Huron County, with a total of 23,364 households, contains the second largest share of households in the PSA (31.9%), followed by Ottawa County with 24.3% (17,766) of the overall region's share. Between 2022 and 2027, projections indicate moderate household declines in Ottawa County (0.5%) and Erie County (0.8%), while an increase in households is projected for Huron County (0.1%).

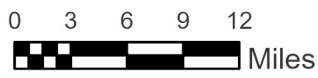
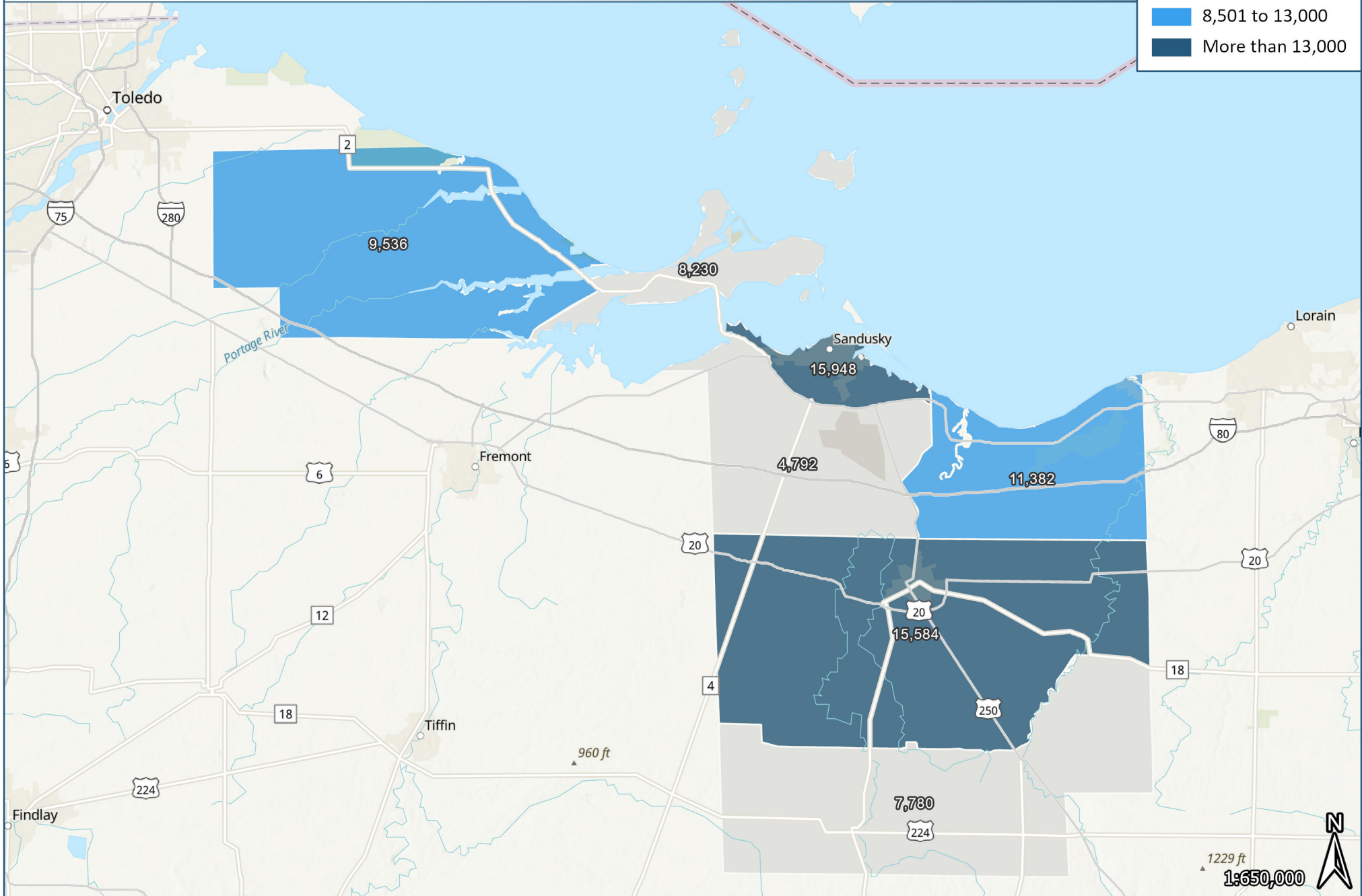
Between 2010 and 2020, households increased in all submarkets within the PSA. During this time period, the largest increases occurred in the Huron North Submarket (3.7%), Erie East Submarket (2.9%), and Erie West Submarket (2.0%). Between 2020 and 2022, the Erie West Submarket was the only submarket that increased in households by 0.3%, while the remaining submarkets experienced household declines ranging between 0.2% and 0.9%. In 2022, the two largest submarkets, in terms households, account for over two-fifths (43.1%) of the total households in the overall PSA. These include the Erie North Submarket (21.8%) and the Huron North Submarket (21.3%). Between 2022 and 2027, an increase in households is projected for the Huron North Submarket (0.2%) and Huron South Submarket (0.1%). The remaining five submarkets are projected to experience a decline in households ranging between 0.2% (Erie West Submarket) and 1.0% (Erie East Submarket).

It should be noted that household growth alone does not dictate the total housing needs of a market. Factors such as households living in substandard or cost-burdened housing, people commuting into the county for work, pent-up demand, availability of existing housing, and product in the development pipeline all affect housing needs. These factors are addressed throughout this report.

The following graph compares the percent change in households between 2010 and 2027.



- 8,500 or Less
- 8,501 to 13,000
- More than 13,000



Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
 Additional Source(s): Bowen National Research



Household heads by age cohorts for selected years are shown in the following table. Note that five-year declines are in red, while increases are in green:

		Household Heads by Age						
		<25	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75+
Erie North	2010	754 (4.7%)	2,216 (14.0%)	2,358 (14.8%)	3,334 (21.0%)	3,145 (19.8%)	1,994 (12.6%)	2,080 (13.1%)
	2022	613 (3.8%)	2,279 (14.3%)	2,286 (14.3%)	2,381 (14.9%)	3,205 (20.1%)	2,949 (18.5%)	2,235 (14.0%)
	2027	609 (3.8%)	2,110 (13.3%)	2,391 (15.1%)	2,350 (14.8%)	2,728 (17.2%)	3,086 (19.5%)	2,551 (16.1%)
	Change 2022-2027	-4 (-0.7%)	-169 (-7.4%)	105 (4.6%)	-31 (-1.3%)	-477 (-14.9%)	137 (4.6%)	316 (14.1%)
Erie East	2010	239 (2.1%)	1,052 (9.5%)	1,802 (16.2%)	2,461 (22.1%)	2,565 (23.1%)	1,704 (15.3%)	1,300 (11.7%)
	2022	221 (1.9%)	1,192 (10.5%)	1,522 (13.4%)	1,840 (16.2%)	2,442 (21.5%)	2,390 (21.0%)	1,775 (15.6%)
	2027	185 (1.6%)	1,127 (10.0%)	1,542 (13.7%)	1,673 (14.8%)	2,156 (19.1%)	2,386 (21.2%)	2,200 (19.5%)
	Change 2022-2027	-36 (-16.3%)	-65 (-5.5%)	20 (1.3%)	-167 (-9.1%)	-286 (-11.7%)	-4 (-0.2%)	425 (23.9%)
Erie West	2010	99 (2.1%)	435 (9.3%)	737 (15.7%)	1,047 (22.4%)	1,030 (22.0%)	685 (14.6%)	650 (13.9%)
	2022	78 (1.6%)	496 (10.4%)	607 (12.7%)	732 (15.3%)	1,077 (22.5%)	988 (20.6%)	814 (17.0%)
	2027	66 (1.4%)	459 (9.6%)	656 (13.7%)	672 (14.0%)	921 (19.3%)	1,055 (22.1%)	955 (20.0%)
	Change 2022-2027	-12 (-15.4%)	-37 (-7.5%)	49 (8.1%)	-60 (-8.2%)	-156 (-14.5%)	67 (6.8%)	141 (17.3%)
Erie County	2010	1,091 (3.4%)	3,704 (11.7%)	4,893 (15.4%)	6,845 (21.6%)	6,740 (21.3%)	4,385 (13.8%)	4,028 (12.7%)
	2022	911 (2.8%)	3,967 (12.4%)	4,415 (13.7%)	4,953 (15.4%)	6,724 (20.9%)	6,327 (19.7%)	4,824 (15.0%)
	2027	861 (2.7%)	3,696 (11.6%)	4,589 (14.4%)	4,695 (14.7%)	5,805 (18.2%)	6,527 (20.5%)	5,706 (17.9%)
	Change 2022-2027	-50 (-5.5%)	-271 (-6.8%)	174 (3.9%)	-258 (-5.2%)	-919 (-13.7%)	200 (3.2%)	882 (18.3%)
Huron North	2010	599 (4.0%)	2,127 (14.1%)	2,718 (18.1%)	3,288 (21.9%)	2,846 (18.9%)	1,818 (12.1%)	1,648 (11.0%)
	2022	486 (3.1%)	2,278 (14.6%)	2,457 (15.8%)	2,664 (17.1%)	3,079 (19.8%)	2,709 (17.4%)	1,911 (12.3%)
	2027	470 (3.0%)	2,139 (13.7%)	2,478 (15.9%)	2,486 (15.9%)	2,825 (18.1%)	2,918 (18.7%)	2,293 (14.7%)
	Change 2022-2027	-16 (-3.3%)	-139 (-6.1%)	21 (0.9%)	-178 (-6.7%)	-254 (-8.2%)	209 (7.7%)	382 (20.0%)
Huron South	2010	278 (3.6%)	1,059 (13.6%)	1,367 (17.6%)	1,704 (21.9%)	1,506 (19.4%)	1,021 (13.1%)	841 (10.8%)
	2022	246 (3.2%)	1,121 (14.4%)	1,199 (15.4%)	1,280 (16.5%)	1,569 (20.2%)	1,364 (17.5%)	1,001 (12.9%)
	2027	225 (2.9%)	1,064 (13.7%)	1,183 (15.2%)	1,281 (16.5%)	1,418 (18.2%)	1,438 (18.5%)	1,178 (15.1%)
	Change 2022-2027	-21 (-8.5%)	-57 (-5.1%)	-16 (-1.3%)	1 (0.1%)	-151 (-9.6%)	74 (5.4%)	177 (17.7%)

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

(Continued)

		Household Heads by Age						
		<25	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75+
Huron County	2010	879 (3.9%)	3,185 (14.0%)	4,085 (17.9%)	4,998 (21.9%)	4,347 (19.0%)	2,837 (12.4%)	2,489 (10.9%)
	2022	732 (3.1%)	3,399 (14.5%)	3,656 (15.6%)	3,944 (16.9%)	4,648 (19.9%)	4,073 (17.4%)	2,912 (12.5%)
	2027	695 (3.0%)	3,203 (13.7%)	3,661 (15.6%)	3,767 (16.1%)	4,243 (18.1%)	4,356 (18.6%)	3,471 (14.8%)
	Change 2022-2027	-37 (-5.1%)	-196 (-5.8%)	5 (0.1%)	-177 (-4.5%)	-405 (-8.7%)	283 (6.9%)	559 (19.2%)
Ottawa East	2010	220 (2.7%)	700 (8.6%)	977 (12.0%)	1,570 (19.3%)	1,920 (23.7%)	1,459 (18.0%)	1,270 (15.6%)
	2022	174 (2.1%)	708 (8.6%)	868 (10.5%)	1,164 (14.1%)	1,920 (23.3%)	1,982 (24.1%)	1,414 (17.2%)
	2027	163 (2.0%)	665 (8.1%)	894 (10.9%)	1,121 (13.7%)	1,690 (20.6%)	2,023 (24.6%)	1,651 (20.1%)
	Change 2022-2027	-11 (-6.3%)	-43 (-6.1%)	26 (3.0%)	-43 (-3.7%)	-230 (-12.0%)	41 (2.1%)	237 (16.8%)
Ottawa West	2010	197 (2.1%)	980 (10.3%)	1,545 (16.2%)	2,300 (24.1%)	1,968 (20.6%)	1,363 (14.3%)	1,188 (12.5%)
	2022	159 (1.7%)	1,152 (12.1%)	1,278 (13.4%)	1,588 (16.7%)	2,150 (22.5%)	1,839 (19.3%)	1,370 (14.4%)
	2027	134 (1.4%)	996 (10.5%)	1,393 (14.7%)	1,460 (15.4%)	1,839 (19.4%)	2,028 (21.4%)	1,616 (17.1%)
	Change 2022-2027	-25 (-15.7%)	-156 (-13.5%)	115 (9.0%)	-128 (-8.1%)	-311 (-14.5%)	189 (10.3%)	246 (18.0%)
Ottawa County	2010	416 (2.4%)	1,681 (9.5%)	2,522 (14.3%)	3,871 (21.9%)	3,884 (22.0%)	2,822 (16.0%)	2,461 (13.9%)
	2022	333 (1.9%)	1,860 (10.5%)	2,146 (12.1%)	2,752 (15.5%)	4,070 (22.9%)	3,821 (21.5%)	2,784 (15.7%)
	2027	297 (1.7%)	1,661 (9.4%)	2,287 (12.9%)	2,581 (14.6%)	3,529 (20.0%)	4,051 (22.9%)	3,267 (18.5%)
	Change 2022-2027	-36 (-10.8%)	-199 (-10.7%)	141 (6.6%)	-171 (-6.2%)	-541 (-13.3%)	230 (6.0%)	483 (17.3%)
Firelands Region	2010	2,389 (3.3%)	8,571 (11.9%)	11,502 (15.9%)	15,705 (21.8%)	14,978 (20.8%)	10,042 (13.9%)	8,977 (12.4%)
	2022	1,976 (2.7%)	9,226 (12.6%)	10,217 (13.9%)	11,649 (15.9%)	15,442 (21.1%)	14,221 (19.4%)	10,520 (14.4%)
	2027	1,853 (2.5%)	8,560 (11.7%)	10,537 (14.4%)	11,043 (15.1%)	13,577 (18.6%)	14,934 (20.5%)	12,444 (17.1%)
	Change 2022-2027	-123 (-6.2%)	-666 (-7.2%)	320 (3.1%)	-606 (-5.2%)	-1,865 (-12.1%)	713 (5.0%)	1,924 (18.3%)
Ohio	2010	216,123 (4.7%)	669,041 (14.5%)	795,398 (17.3%)	984,274 (21.4%)	870,285 (18.9%)	542,408 (11.8%)	525,902 (11.4%)
	2022	191,243 (4.0%)	709,733 (14.7%)	766,915 (15.9%)	790,852 (16.4%)	944,600 (19.6%)	807,474 (16.7%)	620,639 (12.8%)
	2027	188,142 (3.9%)	676,611 (13.9%)	788,330 (16.2%)	762,358 (15.7%)	849,534 (17.5%)	864,932 (17.8%)	726,231 (15.0%)
	Change 2022-2027	-3,101 (-1.6%)	-33,122 (-4.7%)	21,415 (2.8%)	-28,494 (-3.6%)	-95,066 (-10.1%)	57,458 (7.1%)	105,592 (17.0%)

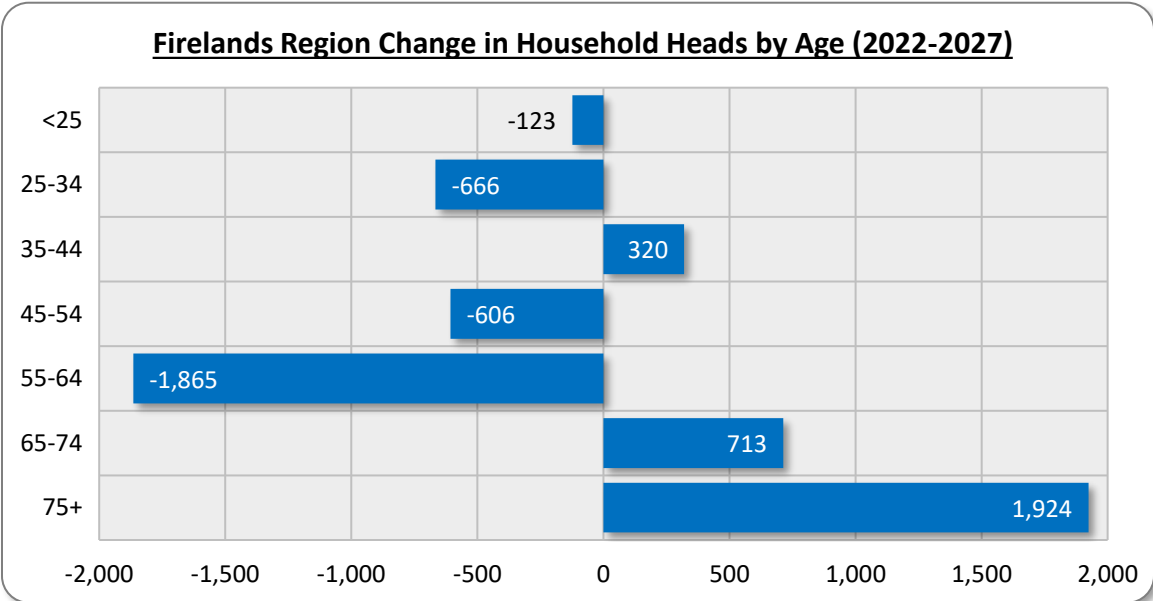
Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

In 2022, household heads between the ages of 55 and 64 within the PSA (Firelands Region) comprise the largest share of all households in the PSA (21.1%). Household heads between the ages of 65 and 74 (19.4%) and those between the ages of 45 and 54 (15.9%) comprise the next largest shares of the total households in the PSA. As such, senior households (age 55 and older) constitute well over half (54.9%) of all households within the PSA. This represents a larger overall share of senior households when compared to the state (49.1%). Household heads under the age of 35, which are typically more likely to be renters or first-time homebuyers, comprise 15.3% of PSA households, which represents a slightly smaller share of such households when compared to the state (18.7%). It is also noteworthy that household heads between the ages of 25 and 44, which are typically more likely to establish families, account for 26.5% of household heads in the PSA. This represents a smaller share of such households compared to the state (30.6%), and this combined with the significant share of households over the age of 54 likely contributes to the projected decline in population and households for the PSA in the next five years. Between 2022 and 2027, projections indicate significant household growth in the PSA among household heads ages 75 and older (18.3%). Households between the ages of 65 and 74 (5.0%) and 35 and 44 (3.1%) are also projected to experience moderate growth. All other age cohorts are projected to experience declines (between 5.2% and 12.1%) during this time period. As such, it is likely that demand for senior-oriented housing in the region will increase over the next five years.

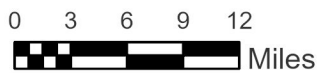
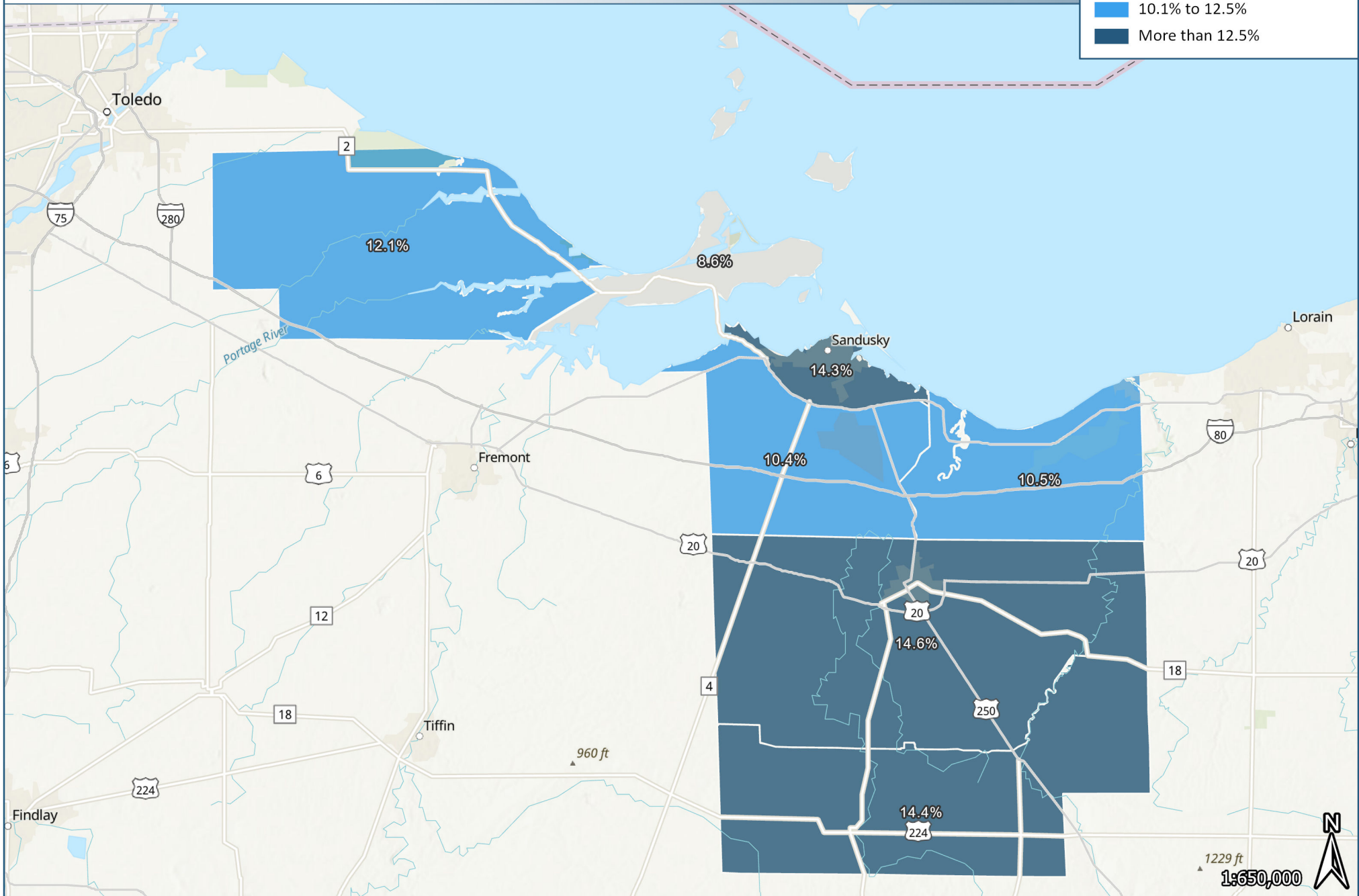
Within the three counties of the PSA, Ottawa County has the largest share of household heads ages 55 and older (60.1%). Erie County has the second largest share of senior households (55.6%), followed by Huron County (49.8%). Conversely, Huron County has the largest share of households under the age of 35 (17.6%), followed by Erie County (15.2%) and Ottawa County (12.4%). Household heads between the ages of 25 and 44 years comprise 30.1% of all households in Huron County, which represents the largest share of such households among the three counties in the PSA. While these households represent over one-fourth (26.1%) of Erie County households, Ottawa County contains a notably smaller share (22.6%). Between 2022 and 2027, all household growth within the three counties is projected to occur among the age cohorts of 35 to 44 years and 65 years and older. The most significant growth will occur among households ages 75 and older, with the largest percentage increase of 19.2% occurring in Huron County. Erie County will experience the second largest growth (18.3%) within this age cohort, followed by Ottawa County (17.3%). While households under the age of 35 and between the ages of 45 and 64 are projected to decline in all three counties over the next five years, the largest percentage decline in each county is projected for the age cohort of 55 to 64 years. The largest decrease of 13.7% within this cohort is projected to occur in Erie County.

In 2022, and among the individual submarkets in the PSA, the age cohort of 55 to 64 years represents the largest share of households in six of the seven submarkets. The only exception is within the Ottawa East Submarket, where the largest share of households is within the age cohort of 65 to 74 years (24.1%). The largest shares of senior households (ages 55 and older) are within the Erie West Submarket (60.1%) and Ottawa East Submarket (64.6%), while the largest share of households under the age of 35 is within the Erie North Submarket (18.1%). Between 2022 and 2027, nearly all submarkets in the PSA are projected to experience growth in the age cohorts of 35 to 44 years and 65 and older, which follows the projected trend for the PSA, with a couple notable exceptions. Within the Erie East Submarket, a moderate decline of 0.2% is projected for the age cohort of 65 to 74 years, which is the only submarket with a projected decline of this cohort. It is notable, however, that this submarket has the largest projected growth (23.9%) among households age 75 and older. The Huron South Submarket is the only submarket in the PSA with a projected decline of 1.3% among households between the ages of 35 and 44, and experience a moderate increase of 0.1% in households between the ages of 45 and 54. The largest growth over the next five years among households between the ages of 35 and 44 is projected to occur within the Ottawa West Submarket (9.0%) and Erie West Submarket (8.1%). Overall, the considerable growth among senior households (age 65 and older) and the more moderate growth among middle-aged households (between the ages of 35 and 44) will likely have an effect on demand in the housing market of the PSA.

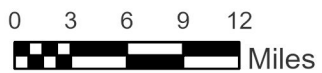
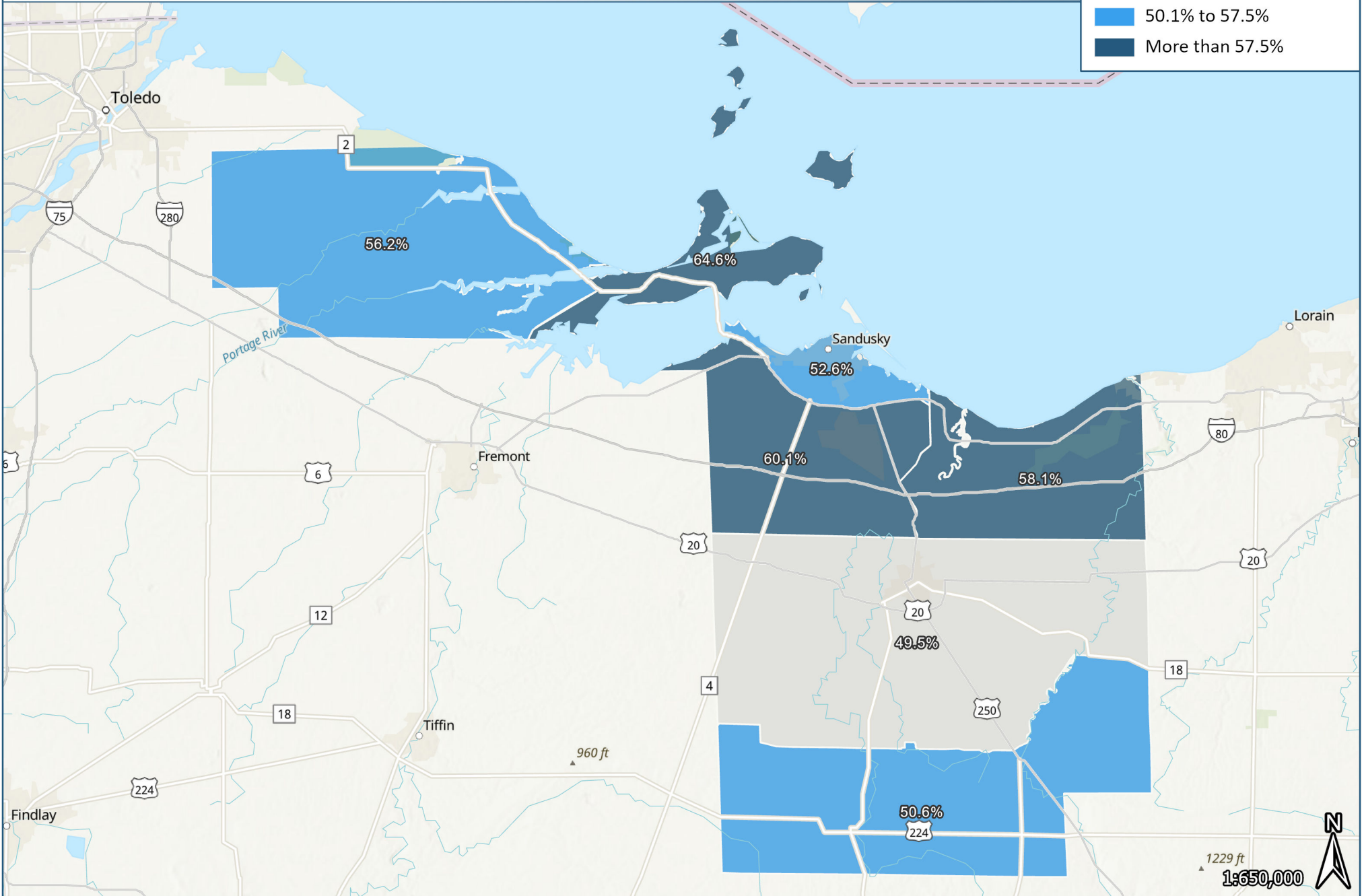
The following graph illustrates the projected change in households by age.



- 10% or Less
- 10.1% to 12.5%
- More than 12.5%



- 50% or Less
- 50.1% to 57.5%
- More than 57.5%



Households by tenure (renters and owners) for selected years are shown in the following table. Note that 2027 numbers which represent a decrease from 2022 are illustrated in red text, while increases are illustrated in green text. It is important to point out that household changes by tenure for 2027 likely did not account for recent (2022) rapid increases in home mortgage rates, which influence the home buying market.

		Households by Tenure								
		Household Type	2000		2010		2022		2027	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent
Erie North	Owner-Occupied	10,599	64.3%	9,778	61.6%	10,445	65.5%	10,511	66.4%	
	Renter-Occupied	5,897	35.7%	6,103	38.4%	5,503	34.5%	5,314	33.6%	
	Total	16,496	100.0%	15,881	100.0%	15,948	100.0%	15,825	100.0%	
Erie East	Owner-Occupied	8,613	79.9%	8,667	77.9%	9,285	81.6%	9,277	82.3%	
	Renter-Occupied	2,171	20.1%	2,456	22.1%	2,097	18.4%	1,993	17.7%	
	Total	10,784	100.0%	11,123	100.0%	11,382	100.0%	11,270	100.0%	
Erie West	Owner-Occupied	3,477	81.7%	3,685	78.7%	3,942	82.3%	3,977	83.1%	
	Renter-Occupied	777	18.3%	998	21.3%	849	17.7%	807	16.9%	
	Total	4,254	100.0%	4,683	100.0%	4,791	100.0%	4,784	100.0%	
Erie County	Owner-Occupied	22,690	72.0%	22,130	69.8%	23,672	73.7%	23,765	74.5%	
	Renter-Occupied	8,845	28.0%	9,557	30.2%	8,449	26.3%	8,114	25.5%	
	Total	31,535	100.0%	31,687	100.0%	32,121	100.0%	31,879	100.0%	
Huron North	Owner-Occupied	10,356	72.0%	10,618	70.6%	11,160	71.6%	11,257	72.1%	
	Renter-Occupied	4,028	28.0%	4,426	29.4%	4,424	28.4%	4,352	27.9%	
	Total	14,384	100.0%	15,044	100.0%	15,584	100.0%	15,609	100.0%	
Huron South	Owner-Occupied	5,742	72.5%	5,563	71.5%	5,639	72.5%	5,691	73.1%	
	Renter-Occupied	2,181	27.5%	2,213	28.5%	2,141	27.5%	2,096	26.9%	
	Total	7,923	100.0%	7,776	100.0%	7,780	100.0%	7,787	100.0%	
Huron County	Owner-Occupied	16,098	72.2%	16,181	70.9%	16,799	71.9%	16,948	72.4%	
	Renter-Occupied	6,209	27.8%	6,639	29.1%	6,565	28.1%	6,448	27.6%	
	Total	22,307	100.0%	22,820	100.0%	23,364	100.0%	23,396	100.0%	
Ottawa East	Owner-Occupied	5,888	77.0%	6,190	76.3%	6,398	77.7%	6,424	78.3%	
	Renter-Occupied	1,757	23.0%	1,926	23.7%	1,833	22.3%	1,783	21.7%	
	Total	7,645	100.0%	8,116	100.0%	8,231	100.0%	8,207	100.0%	
Ottawa West	Owner-Occupied	7,546	83.7%	7,890	82.7%	7,798	81.8%	7,773	82.1%	
	Renter-Occupied	1,466	16.3%	1,651	17.3%	1,737	18.2%	1,693	17.9%	
	Total	9,012	100.0%	9,541	100.0%	9,535	100.0%	9,466	100.0%	
Ottawa County	Owner-Occupied	13,434	80.7%	14,080	79.7%	14,196	79.9%	14,197	80.3%	
	Renter-Occupied	3,223	19.3%	3,577	20.3%	3,570	20.1%	3,476	19.7%	
	Total	16,657	100.0%	17,657	100.0%	17,766	100.0%	17,673	100.0%	
Firelands Region	Owner-Occupied	52,222	74.1%	52,391	72.6%	54,667	74.6%	54,910	75.3%	
	Renter-Occupied	18,277	25.9%	19,773	27.4%	18,584	25.4%	18,038	24.7%	
	Total	70,499	100.0%	72,164	100.0%	73,251	100.0%	72,948	100.0%	
Ohio	Owner-Occupied	3,072,479	69.1%	3,111,051	67.6%	3,239,799	67.1%	3,289,904	67.7%	
	Renter-Occupied	1,373,228	30.9%	1,492,380	32.4%	1,591,657	32.9%	1,566,233	32.3%	
	Total	4,445,707	100.0%	4,603,431	100.0%	4,831,456	100.0%	4,856,137	100.0%	

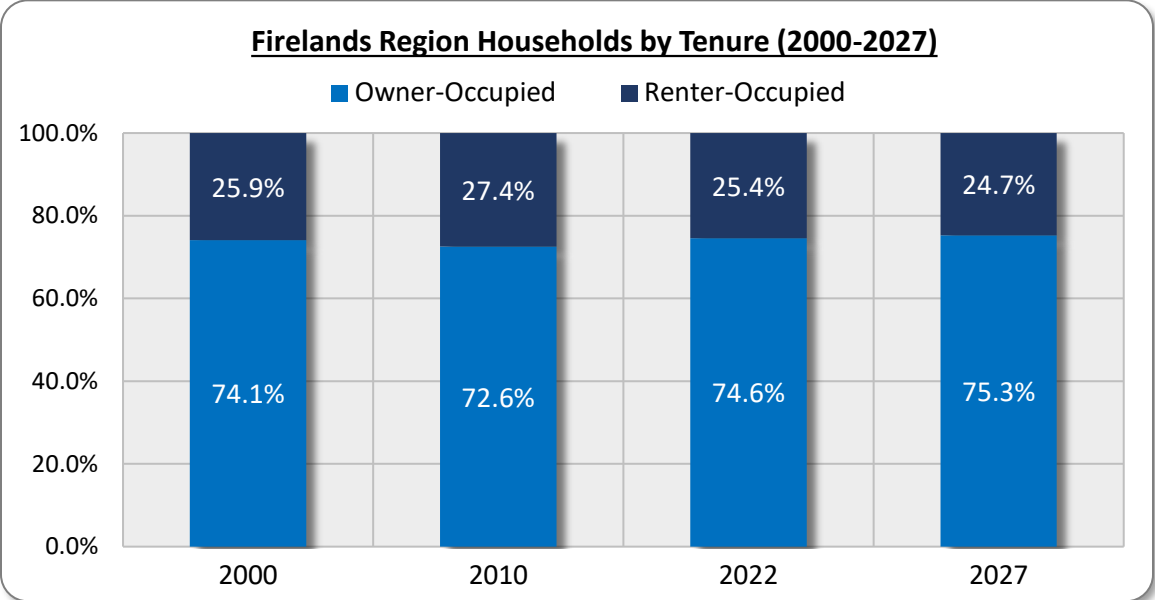
Source: 2000 Census; 2010 Census; ESRI; Urban Decision Group; Bowen National Research

The share of owner households in the PSA (Firelands Region) increased slightly from 72.6% in 2010 to 74.6% in 2022. This represents a much higher share of owner households compared to the state (67.1%). Although the total number of households in the PSA is projected to decline by 303 (0.4%) between 2022 and 2027, the number of owner households is projected to increase by 243 (0.4%). This will result in slightly over three-fourths (75.3%) of PSA households being owner households by 2027. This represents a much higher share of such households compared to the projected share in the state (67.7%). The increase among owner households in the PSA will likely contribute to an increase in demand within the for-sale housing market over the next five years. As stated earlier, home mortgage interest rates, as well as home construction costs, will play a key role in the level of interest and demand in home buying.

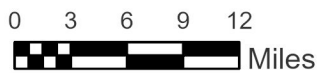
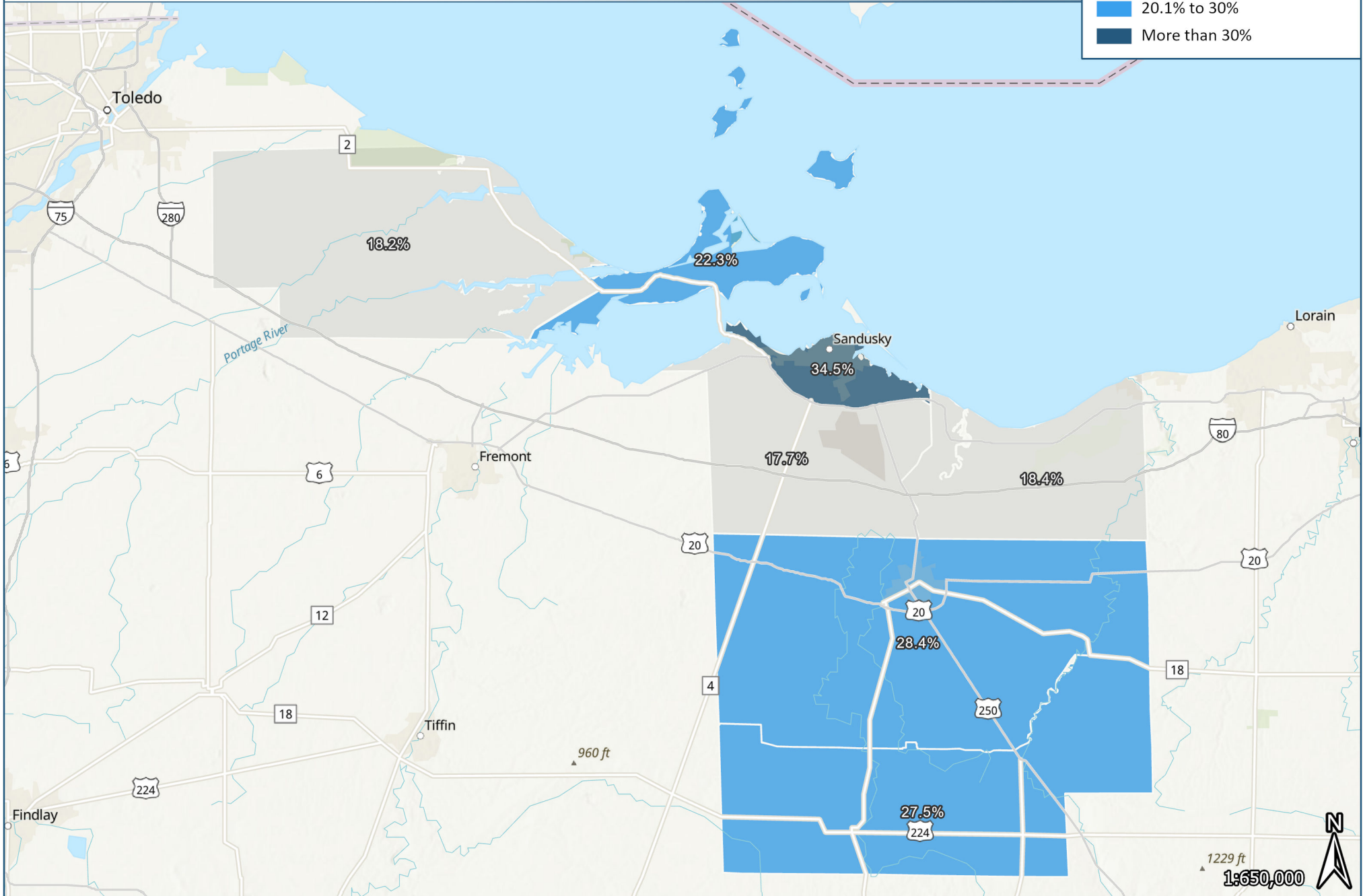
In 2022, Ottawa County has the largest share of owner households (79.9%), while Huron County has the largest share of renter households (28.1%). Between 2022 and 2027, the number of owner households in each county of the PSA is projected to increase, while the number of renter households is projected to decrease. The number of owner households in Huron County is projected to increase by 149 (0.9%), which represents the largest increase of the three counties in the PSA. Erie County (0.4%) and Ottawa County (less than 0.1%) are projected to have more moderate increases, although it is notable that this equates to an additional 93 owner households in Erie County over the next five years. While all three counties are projected to experience declines in the number of renter households between 2022 and 2027, the largest decrease is projected to occur in Erie County (4.0%), which will result in a decline of 335 renter households for the county by 2027. As such, the share of owner households is projected to increase for each county, with the largest respective share occurring in Ottawa County (80.3%).

Among the PSA submarkets, three submarkets have shares of owner households that exceed four-fifths of the total households in 2022. These include the submarkets of Erie East (81.6%), Erie West (82.3%), and Ottawa West (81.8%). By contrast, over one-third (34.5%) of households in the Erie North Submarket are renter households in 2022, which is the highest share of such households among all PSA submarkets. Between 2022 and 2027, the number of owner households is projected to increase in five submarkets, with the largest increase in number occurring in the Huron North Submarket (97 households, or 0.9%) and Erie North Submarket (66 households, or 0.6%). The two submarkets with projected declines in owner households over the next five years include the Erie East Submarket (less than 0.1%) and Ottawa West Submarket (0.3%). Although the number of renter households in all PSA submarkets is projected to decrease over the next five years, the largest decrease in *number* is projected in the Erie North Submarket (189 households), while the largest *percentage* decrease (5.0%) is projected in the Erie East Submarket. These aforementioned changes of households by tenure in each submarket should be considered when evaluating new housing developments within each respective submarket in the future.

The following graph illustrates households by tenure.



- 20% or Less
- 20.1% to 30%
- More than 30%



Renter households by size for selected years are shown in the following table for the PSA (Firelands Region), the three PSA counties, and the state of Ohio. Note: persons per renter household data is not available for geographies smaller than the county level.

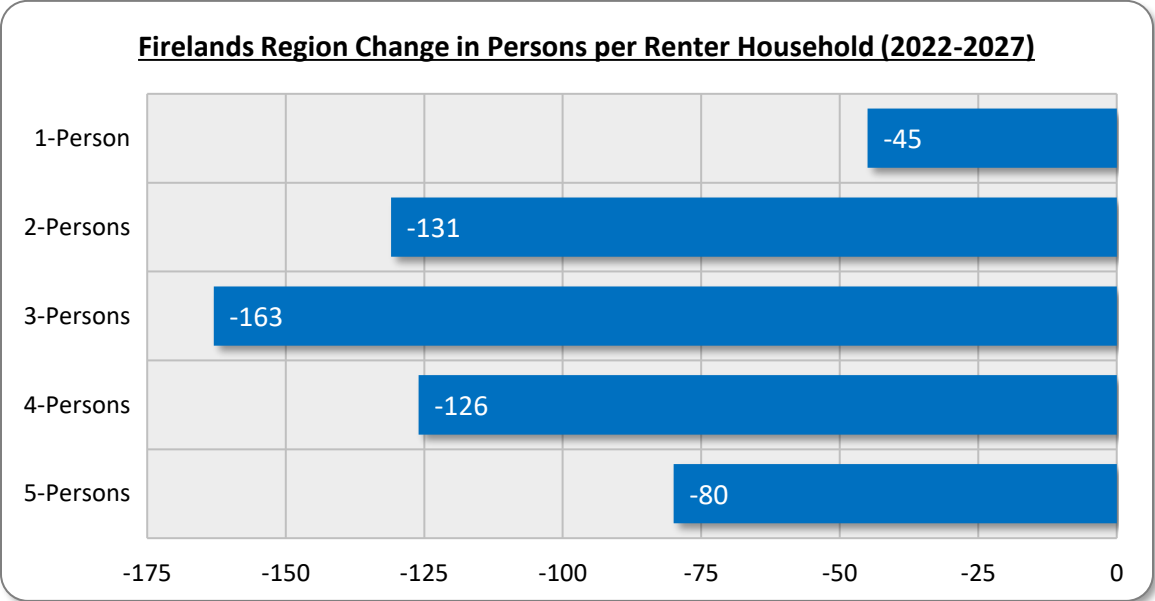
		Persons Per Renter Household						Average H.H. Size
		1-Person	2-Person	3-Person	4-Person	5-Person	Total	
Erie County	2010	3,940 (41.2%)	2,449 (25.6%)	1,444 (15.1%)	961 (10.1%)	762 (8.0%)	9,557 (100.0%)	2.18
	2022	3,487 (41.3%)	2,489 (29.5%)	1,210 (14.3%)	575 (6.8%)	689 (8.1%)	8,449 (100.0%)	2.08
	2027	3,330 (41.0%)	2,443 (30.1%)	1,123 (13.8%)	515 (6.3%)	704 (8.7%)	8,114 (100.0%)	2.08
Huron County	2010	2,308 (34.8%)	1,706 (25.7%)	1,152 (17.4%)	738 (11.1%)	735 (11.1%)	6,639 (100.0%)	2.39
	2022	2,580 (39.3%)	1,836 (28.0%)	924 (14.1%)	700 (10.7%)	524 (8.0%)	6,565 (100.0%)	2.20
	2027	2,609 (40.5%)	1,809 (28.1%)	869 (13.5%)	660 (10.2%)	500 (7.8%)	6,448 (100.0%)	2.17
Ottawa County	2010	1,442 (40.3%)	1,080 (30.2%)	544 (15.2%)	312 (8.7%)	199 (5.6%)	3,577 (100.0%)	2.10
	2022	1,668 (46.7%)	1,040 (29.1%)	452 (12.7%)	246 (6.9%)	165 (4.6%)	3,570 (100.0%)	1.93
	2027	1,673 (48.1%)	1,006 (28.9%)	420 (12.1%)	228 (6.6%)	149 (4.3%)	3,476 (100.0%)	1.89
Firelands Region	2010	7,874 (39.8%)	4,827 (24.4%)	3,116 (15.8%)	2,045 (10.3%)	1,912 (9.7%)	19,773 (100.0%)	2.26
	2022	8,069 (43.4%)	5,322 (28.6%)	2,605 (14.0%)	1,386 (7.5%)	1,201 (6.5%)	18,584 (100.0%)	2.05
	2027	8,024 (44.5%)	5,191 (28.8%)	2,442 (13.5%)	1,260 (7.0%)	1,121 (6.2%)	18,038 (100.0%)	2.02
Ohio	2010	629,337 (42.2%)	385,929 (25.9%)	218,484 (14.6%)	145,806 (9.8%)	112,824 (7.6%)	1,492,380 (100.0%)	2.15
	2022	684,094 (43.0%)	432,135 (27.1%)	217,580 (13.7%)	144,045 (9.1%)	113,803 (7.1%)	1,591,657 (100.0%)	2.10
	2027	676,507 (43.2%)	428,153 (27.3%)	211,448 (13.5%)	139,625 (8.9%)	110,501 (7.1%)	1,566,233 (100.0%)	2.09

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research; H.H. - Households

With an average renter household size of 2.05 in 2022, one- and two-person households comprise 72.0% of all renter households within the PSA (Firelands Region). This is a nearly equal share of such households compared to those within the state overall (70.1%). Conversely, four- and five-person households only account for 14.0% of all renter households in the PSA, which is a smaller share than the state (16.2%). While the number of renter households in the PSA, regardless of size, is projected to decrease over the next five years, the largest decrease in terms of *number* is projected to occur among three-person renter households (163), while the largest decrease by *percentage* is among four-person renter households (9.1% decrease). The significant decreases among larger household sizes in the PSA will result in an average renter household size of 2.02 persons in the PSA by 2027.

Among the three counties in the PSA, Huron County has the largest average renter household size (2.20 persons per household), followed by Erie County (2.08 persons per household) and Ottawa County (1.93 persons per household). Ottawa County has the largest share of one- and two-person households (75.8%), while Huron County has the largest share of four- and five-person households (18.7%). Between 2022 and 2027, the only renter household size projected to increase in number in Erie County is five-person households (15 households, or 2.2%). Conversely, one-person renter households are the only household size projected to increase over the next five years in Huron County (29 households, or 1.1%) and Ottawa County (five households, or 0.3%).

The following graph shows the projected change in persons per *renter* household between 2022 and 2027:



Owner households by size for the PSA (Firelands Region), the three PSA counties, and the state of Ohio for selected years are shown in the following table. Note: persons per owner household data is not available for geographies smaller than the county level.

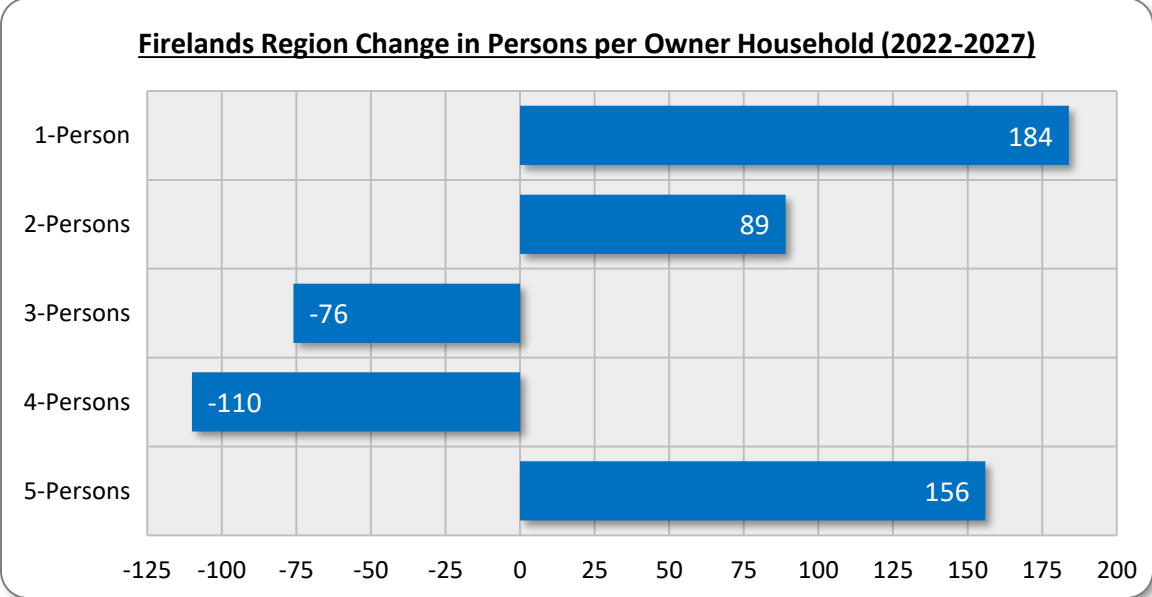
		Persons Per Owner Household						Average H.H. Size
		1-Person	2-Person	3-Person	4-Person	5-Person	Total	
Erie County	2010	5,134 (23.2%)	9,224 (41.7%)	3,160 (14.3%)	2,844 (12.8%)	1,768 (8.0%)	22,130 (100.0%)	2.40
	2022	5,511 (23.3%)	10,352 (43.7%)	3,212 (13.6%)	2,803 (11.8%)	1,794 (7.6%)	23,672 (100.0%)	2.36
	2027	5,448 (22.9%)	10,464 (44.0%)	3,186 (13.4%)	2,871 (12.1%)	1,797 (7.6%)	23,765 (100.0%)	2.37
Huron County	2010	3,150 (19.5%)	6,733 (41.6%)	2,490 (15.4%)	2,272 (14.0%)	1,536 (9.5%)	16,181 (100.0%)	2.54
	2022	4,052 (24.1%)	6,589 (39.2%)	2,673 (15.9%)	1,989 (11.8%)	1,497 (8.9%)	16,799 (100.0%)	2.43
	2027	4,156 (24.5%)	6,579 (38.8%)	2,790 (16.5%)	1,931 (11.4%)	1,492 (8.8%)	16,948 (100.0%)	2.42
Ottawa County	2010	3,298 (23.4%)	5,887 (41.8%)	2,140 (15.2%)	1,771 (12.6%)	984 (7.0%)	14,080 (100.0%)	2.36
	2022	3,786 (26.7%)	5,951 (41.9%)	1,926 (13.6%)	1,478 (10.4%)	1,055 (7.4%)	14,196 (100.0%)	2.29
	2027	3,838 (27.0%)	5,911 (41.6%)	1,916 (13.5%)	1,429 (10.1%)	1,103 (7.8%)	14,197 (100.0%)	2.29
Firelands Region	2010	11,374 (21.7%)	22,188 (42.3%)	7,764 (14.8%)	6,900 (13.2%)	4,165 (8.0%)	52,391 (100.0%)	2.43
	2022	13,792 (25.2%)	23,015 (42.1%)	7,172 (13.1%)	6,030 (11.0%)	4,658 (8.5%)	54,667 (100.0%)	2.36
	2027	13,976 (25.5%)	23,104 (42.1%)	7,096 (12.9%)	5,920 (10.8%)	4,814 (8.8%)	54,910 (100.0%)	2.35
Ohio	2010	729,541 (23.5%)	1,197,132 (38.5%)	489,368 (15.7%)	425,281 (13.7%)	269,728 (8.7%)	3,111,051 (100.0%)	2.46
	2022	802,174 (24.8%)	1,258,338 (38.8%)	486,618 (15.0%)	415,018 (12.8%)	277,651 (8.6%)	3,239,799 (100.0%)	2.42
	2027	820,160 (24.9%)	1,277,027 (38.8%)	491,143 (14.9%)	418,856 (12.7%)	282,718 (8.6%)	3,289,904 (100.0%)	2.41

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research
H.H. – Household

With an average owner household size of 2.36 in 2022, one- and two-person owner households comprise 67.3% of the owner households in the PSA (Firelands Region). This is a larger share of such households compared to the state (63.6%), which has an average owner household size of 2.42 persons. Over the next five years, one-, two-, and five-person households in the PSA are projected to increase in number. The largest overall quantity increase will be among one-person owner households with 184 (1.3%) additional households, followed by five-person households with an increase of 156 (3.3%) households. The projected overall increase in owner households (243, or 0.4%), regardless of size, likely indicates an increased demand for a variety of for-sale housing within the Firelands Region over the next five years.

Among the three counties in the PSA, Huron County has the largest average owner household size (2.43 persons per household), followed by Erie County (2.36 persons per household) and Ottawa County (2.29 persons per household). As such, Ottawa County has the largest share of one- and two-person owner households (68.6%), while Huron County has the largest share of four- and five-person households (20.7%). Between 2022 and 2027, two-, four-, and five-person owner households are projected to increase in Erie County, with the largest increase of 112 households, or 1.1%, occurring among two-person households. A notable increase of 68 households, or 2.4%, among four-person owner households in Erie County is also projected over the next five years. In Huron County, one- and three-person owner households are projected to increase between 2022 and 2027. This will result in an increase of 104 (2.6%) one-person owner households and 117 (4.4%) three-person owner households in Huron County over the next five years. Within Ottawa County, increases are projected among one-person owner households (52 households, or 1.4%) and five-person owner households (48 households, or 4.5%) between 2022 and 2027. These changes in the number of owner households of various sizes in each of the PSA counties is likely to impact demand within the for-sale housing market of the region over the next five years.

The following graph illustrates the projected change in persons per *owner* household between 2022 and 2027:



The distribution of households by income is illustrated in the following table. Note that declines between 2022 and 2027 are in red, while increases are in green:

		Households by Income							
		<\$10,000	\$10,000 - \$19,999	\$20,000 - \$29,999	\$30,000 - \$39,999	\$40,000 - \$49,999	\$50,000 - \$59,999	\$60,000 - \$99,999	\$100,000+
Erie North	2010	1,619 (10.2%)	2,692 (17.0%)	1,912 (12.0%)	2,066 (13.0%)	1,887 (11.9%)	1,082 (6.8%)	2,888 (18.2%)	1,735 (10.9%)
	2022	1,293 (8.1%)	1,329 (8.3%)	1,503 (9.4%)	1,566 (9.8%)	1,667 (10.4%)	1,218 (7.6%)	4,227 (26.5%)	3,151 (19.8%)
	2027	1,118 (7.1%)	912 (5.8%)	1,330 (8.4%)	1,414 (8.9%)	1,609 (10.2%)	1,120 (7.1%)	4,471 (28.3%)	3,851 (24.3%)
	Change 2022-2027	-175 (-13.5%)	-417 (-31.4%)	-173 (-11.5%)	-152 (-9.7%)	-58 (-3.5%)	-98 (-8.0%)	244 (5.8%)	700 (22.2%)
Erie East	2010	600 (5.4%)	1,091 (9.8%)	944 (8.5%)	1,282 (11.5%)	1,271 (11.4%)	1,055 (9.5%)	2,909 (26.2%)	1,971 (17.7%)
	2022	368 (3.2%)	403 (3.5%)	529 (4.6%)	732 (6.4%)	967 (8.5%)	908 (8.0%)	3,212 (28.2%)	4,265 (37.5%)
	2027	280 (2.5%)	236 (2.1%)	386 (3.4%)	482 (4.3%)	718 (6.4%)	758 (6.7%)	3,283 (29.1%)	5,127 (45.5%)
	Change 2022-2027	-88 (-23.9%)	-167 (-41.4%)	-143 (-27.0%)	-250 (-34.2%)	-249 (-25.7%)	-150 (-16.5%)	71 (2.2%)	862 (20.2%)
Erie West	2010	259 (5.5%)	481 (10.3%)	409 (8.7%)	487 (10.4%)	449 (9.6%)	438 (9.4%)	1,327 (28.3%)	833 (17.8%)
	2022	139 (2.9%)	163 (3.4%)	252 (5.3%)	305 (6.4%)	370 (7.7%)	427 (8.9%)	1,465 (30.6%)	1,670 (34.9%)
	2027	110 (2.3%)	106 (2.2%)	187 (3.9%)	197 (4.1%)	306 (6.4%)	395 (8.3%)	1,519 (31.7%)	1,965 (41.1%)
	Change 2022-2027	-29 (-20.9%)	-57 (-35.0%)	-65 (-25.8%)	-108 (-35.4%)	-64 (-17.3%)	-32 (-7.5%)	54 (3.7%)	295 (17.7%)
Erie County	2010	2,466 (7.8%)	4,252 (13.4%)	3,255 (10.3%)	3,835 (12.1%)	3,605 (11.4%)	2,580 (8.1%)	7,141 (22.5%)	4,552 (14.4%)
	2022	1,796 (5.6%)	1,897 (5.9%)	2,284 (7.1%)	2,602 (8.1%)	3,000 (9.3%)	2,552 (7.9%)	8,904 (27.7%)	9,086 (28.3%)
	2027	1,507 (4.7%)	1,255 (3.9%)	1,901 (6.0%)	2,097 (6.6%)	2,632 (8.3%)	2,271 (7.1%)	9,273 (29.1%)	10,943 (34.3%)
	Change 2022-2027	-289 (-16.1%)	-642 (-33.8%)	-383 (-16.8%)	-505 (-19.4%)	-368 (-12.3%)	-281 (-11.0%)	369 (4.1%)	1,857 (20.4%)
Huron North	2010	823 (5.5%)	1,833 (12.2%)	1,854 (12.3%)	1,809 (12.0%)	1,552 (10.3%)	1,482 (9.9%)	3,685 (24.5%)	2,006 (13.3%)
	2022	687 (4.4%)	1,058 (6.8%)	1,216 (7.8%)	1,433 (9.2%)	1,580 (10.1%)	1,599 (10.3%)	4,140 (26.6%)	3,871 (24.8%)
	2027	560 (3.6%)	801 (5.1%)	973 (6.2%)	1,250 (8.0%)	1,278 (8.2%)	1,607 (10.3%)	4,479 (28.7%)	4,661 (29.9%)
	Change 2022-2027	-127 (-18.5%)	-257 (-24.3%)	-243 (-20.0%)	-183 (-12.8%)	-302 (-19.1%)	8 (0.5%)	339 (8.2%)	790 (20.4%)
Huron South	2010	617 (7.9%)	1,205 (15.5%)	1,029 (13.2%)	952 (12.2%)	819 (10.5%)	734 (9.4%)	1,801 (23.2%)	619 (8.0%)
	2022	430 (5.5%)	614 (7.9%)	677 (8.7%)	762 (9.8%)	812 (10.4%)	760 (9.8%)	2,005 (25.8%)	1,722 (22.1%)
	2027	355 (4.6%)	455 (5.8%)	551 (7.1%)	705 (9.1%)	713 (9.2%)	711 (9.1%)	2,080 (26.7%)	2,219 (28.5%)
	Change 2022-2027	-75 (-17.4%)	-159 (-25.9%)	-126 (-18.6%)	-57 (-7.5%)	-99 (-12.2%)	-49 (-6.4%)	75 (3.7%)	497 (28.9%)

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

(Continued)

		Households by Income							
		<\$10,000	\$10,000 - \$19,999	\$20,000 - \$29,999	\$30,000 - \$39,999	\$40,000 - \$49,999	\$50,000 - \$59,999	\$60,000 - \$99,999	\$100,000+
Huron County	2010	1,434 (6.3%)	3,034 (13.3%)	2,882 (12.6%)	2,764 (12.1%)	2,368 (10.4%)	2,217 (9.7%)	5,490 (24.1%)	2,631 (11.5%)
	2022	1,117 (4.8%)	1,672 (7.2%)	1,891 (8.1%)	2,198 (9.4%)	2,391 (10.2%)	2,360 (10.1%)	6,142 (26.3%)	5,593 (23.9%)
	2027	914 (3.9%)	1,258 (5.4%)	1,524 (6.5%)	1,955 (8.4%)	1,990 (8.5%)	2,316 (9.9%)	6,559 (28.0%)	6,880 (29.4%)
	Change 2022-2027	-203 (-18.2%)	-414 (-24.8%)	-367 (-19.4%)	-243 (-11.1%)	-401 (-16.8%)	-44 (-1.9%)	417 (6.8%)	1,287 (23.0%)
Ottawa East	2010	670 (8.3%)	1,120 (13.8%)	930 (11.5%)	888 (10.9%)	760 (9.4%)	721 (8.9%)	1,602 (19.7%)	1,425 (17.6%)
	2022	341 (4.1%)	613 (7.4%)	786 (9.5%)	862 (10.5%)	903 (11.0%)	694 (8.4%)	1,751 (21.3%)	2,281 (27.7%)
	2027	288 (3.5%)	503 (6.1%)	599 (7.3%)	734 (8.9%)	821 (10.0%)	711 (8.7%)	1,782 (21.7%)	2,769 (33.7%)
	Change 2022-2027	-53 (-15.5%)	-110 (-17.9%)	-187 (-23.8%)	-128 (-14.8%)	-82 (-9.1%)	17 (2.4%)	31 (1.8%)	488 (21.4%)
Ottawa West	2010	563 (5.9%)	964 (10.1%)	847 (8.9%)	950 (10.0%)	924 (9.7%)	914 (9.6%)	2,382 (25.0%)	1,997 (20.9%)
	2022	290 (3.0%)	564 (5.9%)	796 (8.3%)	863 (9.1%)	816 (8.6%)	914 (9.6%)	2,256 (23.7%)	3,036 (31.8%)
	2027	238 (2.5%)	427 (4.5%)	589 (6.2%)	742 (7.8%)	753 (7.9%)	903 (9.5%)	2,157 (22.8%)	3,664 (38.7%)
	Change 2022-2027	-52 (-17.9%)	-137 (-24.3%)	-207 (-26.0%)	-121 (-14.0%)	-63 (-7.7%)	-11 (-1.2%)	-99 (-4.4%)	628 (20.7%)
Ottawa County	2010	1,233 (7.0%)	2,083 (11.8%)	1,774 (10.0%)	1,836 (10.4%)	1,684 (9.5%)	1,633 (9.2%)	3,986 (22.6%)	3,428 (19.4%)
	2022	630 (3.5%)	1,178 (6.6%)	1,586 (8.9%)	1,722 (9.7%)	1,717 (9.7%)	1,607 (9.0%)	4,009 (22.6%)	5,317 (29.9%)
	2027	528 (3.0%)	931 (5.3%)	1,186 (6.7%)	1,475 (8.3%)	1,574 (8.9%)	1,612 (9.1%)	3,934 (22.3%)	6,433 (36.4%)
	Change 2022-2027	-102 (-16.2%)	-247 (-21.0%)	-400 (-25.2%)	-247 (-14.3%)	-143 (-8.3%)	5 (0.3%)	-75 (-1.9%)	1,116 (21.0%)
Firelands Region	2010	5,133 (7.1%)	9,369 (13.0%)	7,911 (11.0%)	8,435 (11.7%)	7,657 (10.6%)	6,430 (8.9%)	16,617 (23.0%)	10,611 (14.7%)
	2022	3,543 (4.8%)	4,747 (6.5%)	5,761 (7.9%)	6,522 (8.9%)	7,108 (9.7%)	6,519 (8.9%)	19,055 (26.0%)	19,996 (27.3%)
	2027	2,949 (4.0%)	3,444 (4.7%)	4,611 (6.3%)	5,527 (7.6%)	6,196 (8.5%)	6,199 (8.5%)	19,766 (27.1%)	24,256 (33.3%)
	Change 2022-2027	-594 (-16.8%)	-1,303 (-27.4%)	-1,150 (-20.0%)	-995 (-15.3%)	-912 (-12.8%)	-320 (-4.9%)	711 (3.7%)	4,260 (21.3%)
Ohio	2010	401,424 (8.7%)	581,493 (12.6%)	541,222 (11.8%)	516,170 (11.2%)	467,337 (10.2%)	394,335 (8.6%)	988,852 (21.5%)	712,598 (15.5%)
	2022	268,157 (5.6%)	378,111 (7.8%)	422,929 (8.8%)	422,788 (8.8%)	391,246 (8.1%)	392,143 (8.1%)	1,157,297 (24.0%)	1,398,785 (29.0%)
	2027	208,244 (4.3%)	291,792 (6.0%)	357,595 (7.4%)	368,287 (7.6%)	353,206 (7.3%)	381,728 (7.9%)	1,190,398 (24.5%)	1,704,887 (35.1%)
	Change 2022-2027	-59,913 (-22.3%)	-86,319 (-22.8%)	-65,334 (-15.4%)	-54,501 (-12.9%)	-38,040 (-9.7%)	-10,415 (-2.7%)	33,101 (2.9%)	306,102 (21.9%)

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

The PSA (Firelands Region) has a diverse mix of households by income level in 2022. Over half (53.3%) of PSA households earn \$60,000 or more annually, 27.5% earn between \$30,000 and \$59,999, and nearly one-fifth (19.2%) earn less than \$30,000 annually. This is a similar distribution of households by income compared to the state, where 53.0% earn \$60,000 or more, 25.0% earn between \$30,000 and \$59,999, and 22.2% earn less than \$30,000 annually. Between 2022 and 2027, households earning \$60,000 or more annually are projected to increase in the PSA, with most of the increase occurring among households earning \$100,000 or more (21.3%, or 4,260 households). While households earning between \$60,000 and \$99,999 are projected to experience a moderate increase of 3.7%, all income cohorts earning less than \$60,000 are projected to decrease. The largest decrease is projected in the income cohort of \$10,000 to \$19,999 (27.4%). While this may signal a shift in housing oriented toward higher-income households over the next five years in the PSA, the need for affordable housing will remain critical as approximately 11,004 households in the PSA will continue to earn less than \$30,000 annually by 2027.

While the distribution of households by income in the PSA is generally reflected within the three counties of the PSA, this distribution varies slightly among the counties. In 2022, Erie County has the largest share of households earning \$60,000 or more annually (56.0%), followed by Ottawa County (52.5%) and Huron County (50.2%). Conversely, Huron County has the largest share of households earning less than \$30,000 annually (20.1%), while Ottawa County (19.0%) and Erie County (18.6%) have slightly smaller shares of such households. While projections indicate growth of 14.5% in Huron County and 12.4% in Erie County among households earning \$60,000 or more between 2022 and 2027, the 11.2% growth of such households in Ottawa County is comparably less due to the slight decrease of 1.9% among households earning between \$60,000 and \$99,999. While much more moderate, it is notable that households earning between \$50,000 and \$59,999 are also projected to increase by 0.3% in Ottawa County over the next five years. Regardless of county, all income cohorts earning less than \$50,000 annually are projected to decline between 2022 and 2027.

Among the individual submarkets in the PSA, there is a much wider variation of household income in 2022 compared to the countywide numbers. While the shares of households earning \$60,000 or more annually in the Erie East (65.7%), Erie West (65.5%), and Ottawa West (55.5%) submarkets represent well over half of their respective households, the shares of such households in the Erie North (46.3%), Huron South (47.9%), and Ottawa East (49.0%) submarkets are less than half. Conversely, over one-fourth of households in the Erie North Submarket (25.8%), and over one-fifth of households in the Huron South (22.1%) and Ottawa East (21.0%) submarkets, earn less than \$30,000 annually in 2022. These are much larger shares of such households compared to the Erie East (11.3%) and Erie West (11.6%) submarkets. Between 2022 and 2027, projections indicate growth in all submarkets of the PSA for households earning \$100,000 or more annually, with the largest percentage increase

occurring in the Huron South Submarket (28.9%). In addition, six of the seven submarkets have projected growth among households earning between \$60,000 and \$99,999 over the next five years, with the largest increase projected for the Huron North Submarket (8.2%). The only exception occurs within the Ottawa West Submarket, which has a projected decrease in households of 4.4% within this income cohort. Aside from the Ottawa East and Huron North submarkets, which have projected growth of 2.4% and 0.5%, respectively, within the income cohort of \$50,000 to \$59,999, all income cohorts earning less than \$60,000 annually are projected to decline over the next five years in PSA submarkets.

Median household income for selected years is shown in the following table:

	Median Household Income				
	2010 Census	2022 Estimated	% Change 2010-2022	2027 Projected	% Change 2022-2027
Erie North	\$38,313	\$55,082	43.8%	\$63,764	15.8%
Erie East	\$53,540	\$82,154	53.4%	\$94,088	14.5%
Erie West	\$55,856	\$79,529	42.4%	\$88,396	11.1%
Erie County	\$45,645	\$68,370	49.8%	\$78,853	15.3%
Huron North	\$47,751	\$61,804	29.4%	\$70,965	14.8%
Huron South	\$41,038	\$57,842	40.9%	\$67,749	17.1%
Huron County	\$45,473	\$60,297	32.6%	\$70,006	16.1%
Ottawa East	\$45,921	\$58,797	28.0%	\$69,083	17.5%
Ottawa West	\$55,717	\$67,609	21.3%	\$77,914	15.2%
Ottawa County	\$51,338	\$63,700	24.1%	\$73,690	15.7%
Firelands Region	\$46,838	\$64,741	38.2%	\$74,796	15.5%
Ohio	\$45,594	\$64,148	40.7%	\$73,834	15.1%

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

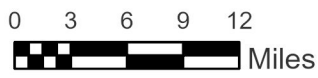
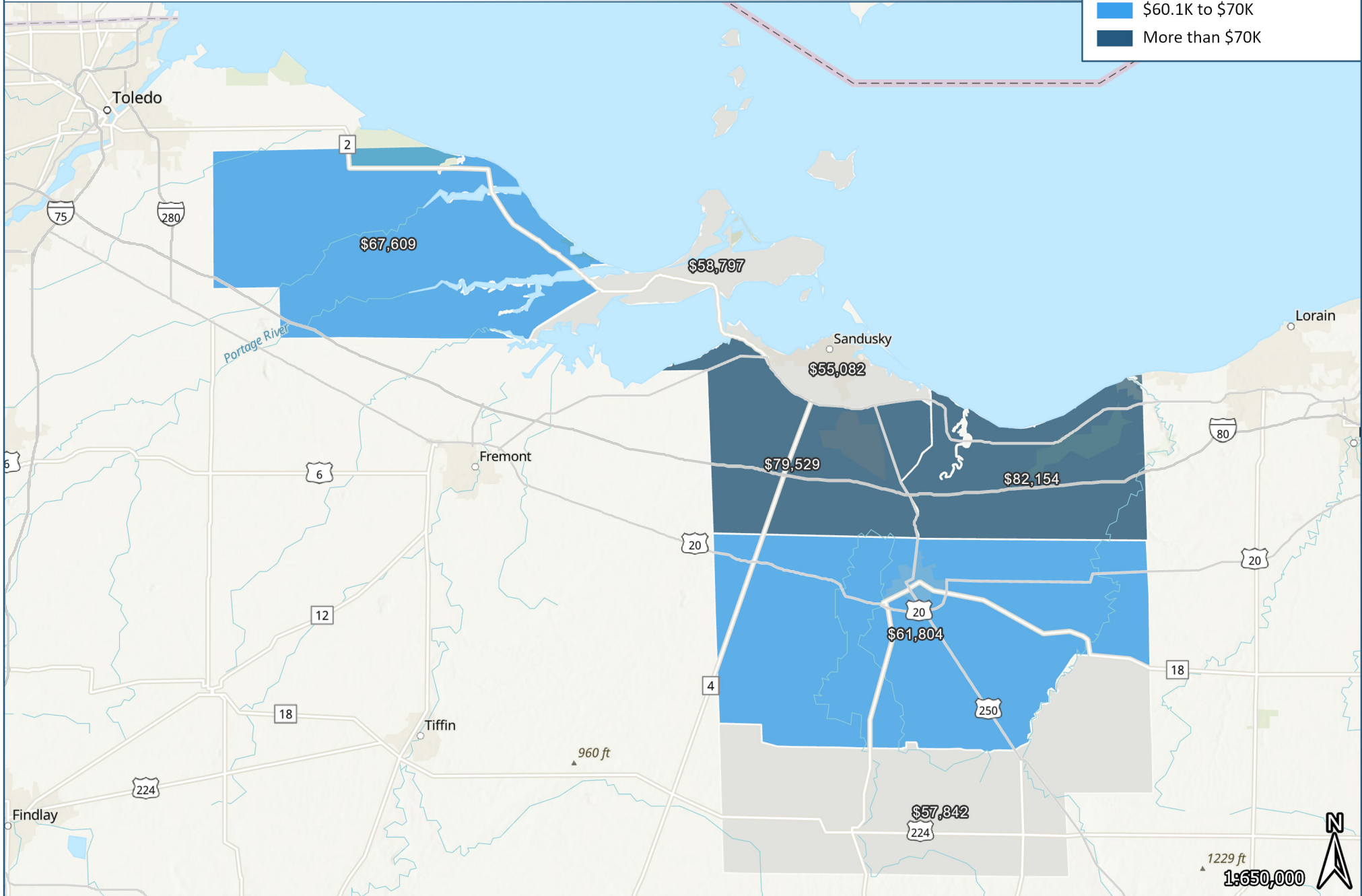
As the preceding table illustrates, the median household income for the PSA (Firelands Region) in 2022 is \$64,741, which represents an increase of 38.2% over the median household income in 2010. The increase for the PSA during this time period was slightly less than the increase for the state (40.7%). Regardless, the median household income of the PSA is slightly higher than the median household income for the state (\$64,148). Between 2022 and 2027, it is projected that the median household income in the PSA will increase by 15.5%, at which time the median household income in the PSA will be \$74,796.

Among the three counties of the PSA in 2022, Erie County (\$68,370) has the highest median household income, followed by Ottawa County (\$63,700) and Huron County (\$60,297). While Ottawa County (24.1%) and Huron County (32.6%) had notable increases in median household income between 2010 and 2022, Erie County (49.8%) experienced a significant increase in median household income. While all three counties have projected increases in median household income consistent with the increase in the PSA between 2022 and 2027, the largest increase is projected for Huron County (16.1%).

While the median household income in 2022 in the Erie East (\$82,154), Erie West (\$79,529), and Ottawa West (\$67,609) submarkets is considerably more than that of the PSA (\$64,741), the median household income in the Erie North (\$55,082), Huron South (\$57,842), Ottawa East (\$58,797), and Huron North (\$61,804) submarkets is notably less than that of the PSA. Between 2010 and 2022, the largest increase in median household income occurred in the Erie East Submarket (53.4%), while the smallest increase was within the Ottawa West Submarket (21.3%). Projections between 2022 and 2027 indicate median household income growth in the PSA submarkets range between 11.1% (Erie West) and 17.5% (Ottawa East). The changes in the median household income for each submarket, and the PSA as a whole, over the next five years illustrate the continued importance of having an adequate supply of income-appropriate rental and for-sale housing available to allow for residential mobility.

The following map illustrates median household income in the Firelands Region.

- \$60K or Less
- \$60.1K to \$70K
- More than \$70K



Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, Esri, USGS
Additional Source(s): Bowen National Research



The distribution of *renter* households by income is illustrated in the following table. Note that declines between 2022 and 2027 are in **red**, while increases are in **green**:

		Renter Households by Income							
		<\$10,000	\$10,000 - \$19,999	\$20,000 - \$29,999	\$30,000 - \$39,999	\$40,000 - \$49,999	\$50,000 - \$59,999	\$60,000 - \$99,999	\$100,000+
Erie North	2010	1,115 (18.3%)	1,596 (26.2%)	898 (14.7%)	853 (14.0%)	671 (11.0%)	250 (4.1%)	548 (9.0%)	173 (2.8%)
	2022	865 (15.7%)	810 (14.7%)	785 (14.3%)	700 (12.7%)	688 (12.5%)	352 (6.4%)	953 (17.3%)	350 (6.4%)
	2027	750 (14.1%)	571 (10.7%)	721 (13.6%)	653 (12.3%)	709 (13.3%)	369 (6.9%)	1,084 (20.4%)	459 (8.6%)
	Change 2022-2027	-115 (-13.3%)	-239 (-29.5%)	-64 (-8.2%)	-47 (-6.7%)	21 (3.1%)	17 (4.8%)	131 (13.7%)	109 (31.1%)
Erie East	2010	343 (14.0%)	521 (21.2%)	339 (13.8%)	373 (15.2%)	326 (13.3%)	157 (6.4%)	332 (13.5%)	66 (2.7%)
	2022	206 (9.8%)	204 (9.7%)	223 (10.6%)	230 (11.0%)	308 (14.7%)	190 (9.0%)	496 (23.7%)	240 (11.5%)
	2027	160 (8.0%)	127 (6.4%)	176 (8.8%)	182 (9.1%)	227 (11.4%)	195 (9.8%)	588 (29.5%)	338 (17.0%)
	Change 2022-2027	-46 (-22.3%)	-77 (-37.7%)	-47 (-21.1%)	-48 (-20.9%)	-81 (-26.3%)	5 (2.6%)	92 (18.5%)	98 (40.8%)
Erie West	2010	146 (14.6%)	226 (22.7%)	144 (14.4%)	138 (13.8%)	113 (11.3%)	63 (6.3%)	143 (14.3%)	26 (2.6%)
	2022	75 (8.8%)	80 (9.4%)	102 (12.0%)	101 (11.9%)	100 (11.7%)	84 (9.9%)	213 (25.1%)	95 (11.2%)
	2027	59 (7.3%)	53 (6.6%)	79 (9.8%)	68 (8.5%)	100 (12.4%)	77 (9.5%)	246 (30.5%)	125 (15.5%)
	Change 2022-2027	-16 (-21.3%)	-27 (-33.8%)	-23 (-22.5%)	-33 (-32.7%)	0 (0.0%)	-7 (-8.3%)	33 (15.5%)	30 (31.6%)
Erie County	2010	1,580 (16.5%)	2,319 (24.3%)	1,371 (14.3%)	1,347 (14.1%)	1,116 (11.7%)	490 (5.1%)	1,070 (11.2%)	263 (2.8%)
	2022	1,112 (13.2%)	1,065 (12.6%)	1,086 (12.9%)	1,038 (12.3%)	1,106 (13.1%)	639 (7.6%)	1,692 (20.0%)	710 (8.4%)
	2027	939 (11.6%)	730 (9.0%)	949 (11.7%)	880 (10.8%)	1,052 (13.0%)	664 (8.2%)	1,948 (24.0%)	951 (11.7%)
	Change 2022-2027	-173 (-15.6%)	-335 (-31.5%)	-137 (-12.6%)	-158 (-15.2%)	-54 (-4.9%)	25 (3.9%)	256 (15.1%)	241 (33.9%)
Huron North	2010	555 (12.5%)	1,026 (23.2%)	769 (17.4%)	588 (13.3%)	427 (9.7%)	297 (6.7%)	623 (14.1%)	142 (3.2%)
	2022	442 (10.0%)	571 (12.9%)	561 (12.7%)	604 (13.7%)	588 (13.3%)	452 (10.2%)	805 (18.2%)	401 (9.1%)
	2027	377 (8.7%)	441 (10.1%)	470 (10.8%)	582 (13.4%)	542 (12.5%)	518 (11.9%)	905 (20.8%)	516 (11.9%)
	Change 2022-2027	-65 (-14.7%)	-130 (-22.8%)	-91 (-16.2%)	-22 (-3.6%)	-46 (-7.8%)	66 (14.6%)	100 (12.4%)	115 (28.7%)
Huron South	2010	379 (17.1%)	607 (27.4%)	376 (17.0%)	267 (12.1%)	192 (8.7%)	120 (5.4%)	246 (11.1%)	25 (1.1%)
	2022	262 (12.2%)	312 (14.6%)	293 (13.7%)	300 (14.0%)	281 (13.1%)	198 (9.2%)	347 (16.2%)	149 (7.0%)
	2027	227 (10.8%)	236 (11.3%)	251 (12.0%)	309 (14.7%)	284 (13.5%)	213 (10.1%)	369 (17.6%)	209 (9.9%)
	Change 2022-2027	-35 (-13.4%)	-76 (-24.4%)	-42 (-14.3%)	9 (3.0%)	3 (1.1%)	15 (7.6%)	22 (6.3%)	60 (40.3%)

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

(Continued)

		Renter Households by Income							
		<\$10,000	\$10,000 - \$19,999	\$20,000 - \$29,999	\$30,000 - \$39,999	\$40,000 - \$49,999	\$50,000 - \$59,999	\$60,000 - \$99,999	\$100,000+
Huron County	2010	938 (14.1%)	1,638 (24.7%)	1,146 (17.3%)	854 (12.9%)	619 (9.3%)	417 (6.3%)	867 (13.1%)	160 (2.4%)
	2022	705 (10.7%)	884 (13.5%)	854 (13.0%)	906 (13.8%)	869 (13.2%)	649 (9.9%)	1,149 (17.5%)	549 (8.4%)
	2027	605 (9.4%)	679 (10.5%)	722 (11.2%)	892 (13.8%)	826 (12.8%)	728 (11.3%)	1,271 (19.7%)	724 (11.2%)
	Change 2022-2027	-100 (-14.2%)	-205 (-23.2%)	-132 (-15.5%)	-14 (-1.5%)	-43 (-4.9%)	79 (12.2%)	122 (10.6%)	175 (31.9%)
Ottawa East	2010	331 (17.2%)	463 (24.0%)	283 (14.7%)	238 (12.4%)	208 (10.8%)	125 (6.5%)	201 (10.4%)	77 (4.0%)
	2022	172 (9.4%)	259 (14.1%)	286 (15.6%)	297 (16.2%)	288 (15.7%)	134 (7.3%)	280 (15.3%)	116 (6.3%)
	2027	150 (8.4%)	206 (11.5%)	230 (12.9%)	285 (16.0%)	298 (16.7%)	142 (8.0%)	305 (17.1%)	167 (9.4%)
	Change 2022-2027	-22 (-12.8%)	-53 (-20.5%)	-56 (-19.6%)	-12 (-4.0%)	10 (3.5%)	8 (6.0%)	25 (8.9%)	51 (44.0%)
Ottawa West	2010	246 (14.9%)	351 (21.3%)	221 (13.4%)	200 (12.1%)	217 (13.2%)	128 (7.8%)	225 (13.6%)	62 (3.8%)
	2022	137 (7.9%)	220 (12.7%)	266 (15.3%)	258 (14.8%)	237 (13.6%)	157 (9.1%)	323 (18.6%)	139 (8.0%)
	2027	117 (6.9%)	162 (9.5%)	210 (12.4%)	253 (14.9%)	253 (14.9%)	162 (9.6%)	333 (19.7%)	204 (12.1%)
	Change 2022-2027	-20 (-14.6%)	-58 (-26.4%)	-56 (-21.1%)	-5 (-1.9%)	16 (6.8%)	5 (3.2%)	10 (3.1%)	65 (46.8%)
Ottawa County	2010	573 (16.0%)	809 (22.6%)	500 (14.0%)	449 (12.5%)	428 (12.0%)	254 (7.1%)	430 (12.0%)	134 (3.7%)
	2022	307 (8.6%)	478 (13.4%)	554 (15.5%)	558 (15.6%)	522 (14.6%)	293 (8.2%)	606 (17.0%)	251 (7.0%)
	2027	267 (7.7%)	366 (10.5%)	439 (12.6%)	541 (15.6%)	550 (15.8%)	305 (8.8%)	639 (18.4%)	369 (10.6%)
	Change 2022-2027	-40 (-13.0%)	-112 (-23.4%)	-115 (-20.8%)	-17 (-3.0%)	28 (5.4%)	12 (4.1%)	33 (5.4%)	118 (47.0%)
Firelands Region	2010	3,091 (15.6%)	4,766 (24.1%)	3,017 (15.3%)	2,650 (13.4%)	2,163 (10.9%)	1,161 (5.9%)	2,367 (12.0%)	557 (2.8%)
	2022	2,124 (11.4%)	2,427 (13.1%)	2,494 (13.4%)	2,502 (13.5%)	2,497 (13.4%)	1,581 (8.5%)	3,447 (18.6%)	1,510 (8.1%)
	2027	1,811 (10.0%)	1,775 (9.8%)	2,110 (11.7%)	2,313 (12.8%)	2,428 (13.5%)	1,697 (9.4%)	3,858 (21.4%)	2,044 (11.3%)
	Change 2022-2027	-313 (-14.7%)	-652 (-26.9%)	-384 (-15.4%)	-189 (-7.6%)	-69 (-2.8%)	116 (7.3%)	411 (11.9%)	534 (35.4%)
Ohio	2010	269,773 (18.1%)	337,900 (22.6%)	242,715 (16.3%)	187,297 (12.6%)	148,566 (10.0%)	85,265 (5.7%)	172,646 (11.6%)	48,218 (3.2%)
	2022	183,588 (11.5%)	234,450 (14.7%)	221,488 (13.9%)	191,422 (12.0%)	162,544 (10.2%)	126,182 (7.9%)	312,472 (19.6%)	159,511 (10.0%)
	2027	139,690 (8.9%)	180,107 (11.5%)	191,887 (12.3%)	175,045 (11.2%)	156,774 (10.0%)	134,770 (8.6%)	361,171 (23.1%)	226,787 (14.5%)
	Change 2022-2027	-43,898 (-23.9%)	-54,343 (-23.2%)	-29,601 (-13.4%)	-16,377 (-8.6%)	-5,770 (-3.5%)	8,588 (6.8%)	48,699 (15.6%)	67,276 (42.2%)

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

In 2022, *renter* households by income within the PSA (Firelands Region) are well distributed among income cohorts. The largest share of renter households in the PSA earns between \$60,000 and \$99,999 annually (18.6%). Renter households earning less than \$30,000 annually comprise 37.9% of renter households in the PSA, while those earning between \$30,000 and \$59,999 (35.4%) and \$60,000 or more (26.7%) comprise comparably smaller shares. The share of middle-income households (earning between \$30,000 and \$59,999) is a slightly greater concentration of households compared to the state (30.1%). Between 2022 and 2027, all renter household income cohorts earning \$50,000 or more in the PSA are projected to increase, while all income cohorts earning less than \$50,000 are projected to decline. The largest increase over the next five years is projected among renter households earning over \$100,000 (35.4%), while the largest decrease is projected for those earning between \$10,000 and \$19,999 (26.9%).

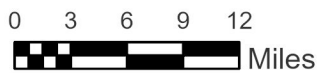
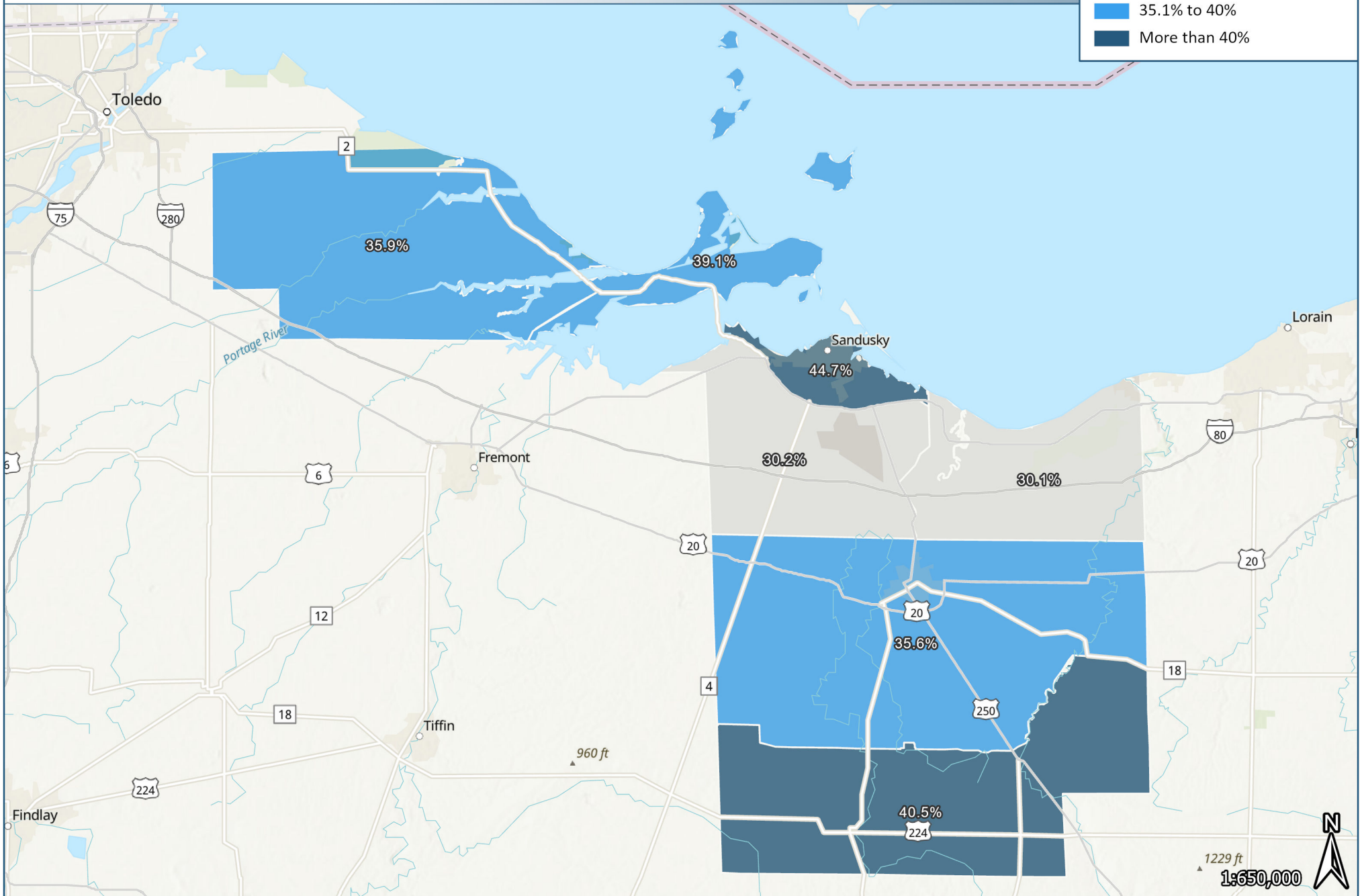
Within all three counties of the PSA in 2022, over one-third of all renter households earn less than \$30,000 annually. Erie County has the highest share of renter households earning less than \$30,000 (38.7%), followed by Ottawa County (37.5%) and Huron County (37.2%). It is interesting to note that Erie County also has the highest share of renter households that earn \$60,000 or more annually (28.4%), followed by Huron County (25.9%) and Ottawa County (24.0%). In 2022, the single largest renter income cohort in each county earns between \$60,000 and \$99,999. This is partially due to the larger range of incomes contained within this cohort; however, this is noteworthy. Between 2022 and 2027, renter household growth in Erie County is projected to occur within households earning \$50,000 or more, with the largest increase of 33.9% occurring among households earning \$100,000 or more. While the largest growth (31.9%) among renter households in Huron County is projected to occur in the cohort earning \$100,000 or more, there is also considerable growth projected among households earning between \$50,000 and \$59,999 (12.2%) and between \$60,000 and \$99,999 (10.6%). Within Ottawa County, households earning \$100,000 or more are projected to increase by 47.0% over the next five years, which is the largest increase among any income cohort in the county. In addition to projected growth among all cohorts earning \$50,000 or more, Ottawa County also has moderate projected growth of 5.4% among renter households earning between \$40,000 and \$49,999 between 2022 and 2027. Overall, the most significant decline in each county is projected to occur among renter households earning between \$10,000 and \$19,999, with county declines ranging from 23.2% (Huron County) to 31.5% (Erie County).

In 2022, the largest share of renter households in the Ottawa East Submarket has incomes between \$30,000 and \$39,999 (16.2%). In all other submarkets in the PSA, the largest respective share of renter households has incomes between \$60,000 and \$99,999, with individual submarket shares in this income cohort ranging from 16.2% (Huron South Submarket) to 25.1% (Erie West Submarket). Among the seven submarkets of the PSA, the largest shares of

renter households earning less than \$30,000 annually are within the Erie North (44.7%) and Huron South (40.5%) submarkets. Conversely, the largest shares of renter households earning \$60,000 or more annually are within the Erie West (36.3%) and Erie East (35.2%) submarkets. Between 2022 and 2027, all submarkets in the PSA have projected growth among households earning \$60,000 or more, and nearly all submarkets have projected declines among households less than \$40,000. The only exception is within the Huron South Submarket, where a moderate increase of 3.0% among households earning between \$30,000 and \$39,999 is projected over the next five years. Although all submarkets have significant projected increases of households earning \$100,000 or more, the largest increase is projected to occur in the Ottawa West Submarket (46.8%), followed by the Ottawa East Submarket (44.0%). Other notable growth between 2022 and 2027 is projected among households earning between \$50,000 and \$59,999 in the Huron North Submarket (14.6%) and households earning between \$60,000 and \$99,999 in the Erie East Submarket (18.5%). These projected changes of renter households by income level within each submarket will likely have an impact on demand for rental housing for a variety of affordability levels.

The following map illustrates the percent of households earning less than \$30,000 annually.

- 35% or Less
- 35.1% to 40%
- More than 40%



The following table shows the distribution of *owner* households by income. Note that declines between 2022 and 2027 are in **red**, while increases are in **green**:

		Owner Households by Income							
		<\$10,000	\$10,000 - \$19,999	\$20,000 - \$29,999	\$30,000 - \$39,999	\$40,000 - \$49,999	\$50,000 - \$59,999	\$60,000 - \$99,999	\$100,000+
Erie North	2010	504 (5.2%)	1,096 (11.2%)	1,014 (10.4%)	1,213 (12.4%)	1,216 (12.4%)	832 (8.5%)	2,340 (23.9%)	1,562 (16.0%)
	2022	428 (4.1%)	519 (5.0%)	718 (6.9%)	866 (8.3%)	979 (9.4%)	866 (8.3%)	3,274 (31.3%)	2,801 (26.8%)
	2027	368 (3.5%)	341 (3.2%)	609 (5.8%)	761 (7.2%)	900 (8.6%)	751 (7.1%)	3,387 (32.2%)	3,392 (32.3%)
	Change 2022-2027	-60 (-14.0%)	-178 (-34.3%)	-109 (-15.2%)	-105 (-12.1%)	-79 (-8.1%)	-115 (-13.3%)	113 (3.5%)	591 (21.1%)
Erie East	2010	257 (3.0%)	570 (6.6%)	605 (7.0%)	909 (10.5%)	945 (10.9%)	898 (10.4%)	2,577 (29.7%)	1,905 (22.0%)
	2022	162 (1.7%)	199 (2.1%)	306 (3.3%)	502 (5.4%)	659 (7.1%)	718 (7.7%)	2,716 (29.2%)	4,025 (43.3%)
	2027	120 (1.3%)	109 (1.2%)	210 (2.3%)	300 (3.2%)	491 (5.3%)	563 (6.1%)	2,695 (29.1%)	4,789 (51.6%)
	Change 2022-2027	-42 (-25.9%)	-90 (-45.2%)	-96 (-31.4%)	-202 (-40.2%)	-168 (-25.5%)	-155 (-21.6%)	-21 (-0.8%)	764 (19.0%)
Erie West	2010	113 (3.1%)	255 (6.9%)	265 (7.2%)	349 (9.5%)	336 (9.1%)	375 (10.2%)	1,184 (32.1%)	807 (21.9%)
	2022	64 (1.6%)	83 (2.1%)	150 (3.8%)	204 (5.2%)	270 (6.9%)	343 (8.7%)	1,252 (31.8%)	1,575 (40.0%)
	2027	51 (1.3%)	53 (1.3%)	108 (2.7%)	129 (3.2%)	206 (5.2%)	318 (8.0%)	1,273 (32.0%)	1,840 (46.3%)
	Change 2022-2027	-13 (-20.3%)	-30 (-36.1%)	-42 (-28.0%)	-75 (-36.8%)	-64 (-23.7%)	-25 (-7.3%)	21 (1.7%)	265 (16.8%)
Erie County	2010	886 (4.0%)	1,933 (8.7%)	1,884 (8.5%)	2,488 (11.2%)	2,489 (11.2%)	2,090 (9.4%)	6,071 (27.4%)	4,289 (19.4%)
	2022	684 (2.9%)	832 (3.5%)	1,198 (5.1%)	1,564 (6.6%)	1,894 (8.0%)	1,913 (8.1%)	7,212 (30.5%)	8,376 (35.4%)
	2027	568 (2.4%)	525 (2.2%)	952 (4.0%)	1,217 (5.1%)	1,580 (6.6%)	1,607 (6.8%)	7,325 (30.8%)	9,992 (42.0%)
	Change 2022-2027	-116 (-17.0%)	-307 (-36.9%)	-246 (-20.5%)	-347 (-22.2%)	-314 (-16.6%)	-306 (-16.0%)	113 (1.6%)	1,616 (19.3%)
Huron North	2010	268 (2.5%)	807 (7.6%)	1,085 (10.2%)	1,221 (11.5%)	1,125 (10.6%)	1,185 (11.2%)	3,062 (28.8%)	1,864 (17.6%)
	2022	245 (2.2%)	487 (4.4%)	655 (5.9%)	829 (7.4%)	992 (8.9%)	1,147 (10.3%)	3,335 (29.9%)	3,470 (31.1%)
	2027	183 (1.6%)	360 (3.2%)	503 (4.5%)	668 (5.9%)	736 (6.5%)	1,089 (9.7%)	3,574 (31.7%)	4,145 (36.8%)
	Change 2022-2027	-62 (-25.3%)	-127 (-26.1%)	-152 (-23.2%)	-161 (-19.4%)	-256 (-25.8%)	-58 (-5.1%)	239 (7.2%)	675 (19.5%)
Huron South	2010	238 (4.3%)	598 (10.7%)	653 (11.7%)	685 (12.3%)	627 (11.3%)	614 (11.0%)	1,555 (28.0%)	594 (10.7%)
	2022	168 (3.0%)	302 (5.4%)	384 (6.8%)	462 (8.2%)	531 (9.4%)	562 (10.0%)	1,658 (29.4%)	1,573 (27.9%)
	2027	128 (2.2%)	219 (3.8%)	300 (5.3%)	396 (7.0%)	429 (7.5%)	498 (8.8%)	1,711 (30.1%)	2,010 (35.3%)
	Change 2022-2027	-40 (-23.8%)	-83 (-27.5%)	-84 (-21.9%)	-66 (-14.3%)	-102 (-19.2%)	-64 (-11.4%)	53 (3.2%)	437 (27.8%)

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

(Continued)

		Owner Households by Income							
		<\$10,000	\$10,000 - \$19,999	\$20,000 - \$29,999	\$30,000 - \$39,999	\$40,000 - \$49,999	\$50,000 - \$59,999	\$60,000 - \$99,999	\$100,000+
Huron County	2010	496 (3.1%)	1,396 (8.6%)	1,736 (10.7%)	1,910 (11.8%)	1,749 (10.8%)	1,800 (11.1%)	4,623 (28.6%)	2,471 (15.3%)
	2022	412 (2.5%)	788 (4.7%)	1,037 (6.2%)	1,292 (7.7%)	1,522 (9.1%)	1,711 (10.2%)	4,993 (29.7%)	5,044 (30.0%)
	2027	309 (1.8%)	579 (3.4%)	802 (4.7%)	1,063 (6.3%)	1,164 (6.9%)	1,588 (9.4%)	5,288 (31.2%)	6,156 (36.3%)
	Change 2022-2027	-103 (-25.0%)	-209 (-26.5%)	-235 (-22.7%)	-229 (-17.7%)	-358 (-23.5%)	-123 (-7.2%)	295 (5.9%)	1,112 (22.0%)
Ottawa East	2010	339 (5.5%)	657 (10.6%)	647 (10.5%)	650 (10.5%)	552 (8.9%)	596 (9.6%)	1,401 (22.6%)	1,348 (21.8%)
	2022	169 (2.6%)	354 (5.5%)	500 (7.8%)	565 (8.8%)	615 (9.6%)	560 (8.7%)	1,471 (23.0%)	2,165 (33.8%)
	2027	138 (2.1%)	297 (4.6%)	369 (5.7%)	449 (7.0%)	523 (8.1%)	569 (8.9%)	1,477 (23.0%)	2,602 (40.5%)
	Change 2022-2027	-31 (-18.3%)	-57 (-16.1%)	-131 (-26.2%)	-116 (-20.5%)	-92 (-15.0%)	9 (1.6%)	6 (0.4%)	437 (20.2%)
Ottawa West	2010	317 (4.0%)	613 (7.8%)	626 (7.9%)	750 (9.5%)	707 (9.0%)	786 (10.0%)	2,157 (27.3%)	1,935 (24.5%)
	2022	153 (2.0%)	344 (4.4%)	530 (6.8%)	605 (7.8%)	579 (7.4%)	757 (9.7%)	1,933 (24.8%)	2,897 (37.2%)
	2027	121 (1.6%)	265 (3.4%)	379 (4.9%)	489 (6.3%)	500 (6.4%)	741 (9.5%)	1,824 (23.4%)	3,460 (44.5%)
	Change 2022-2027	-32 (-20.9%)	-79 (-23.0%)	-151 (-28.5%)	-116 (-19.2%)	-79 (-13.6%)	-16 (-2.1%)	-109 (-5.6%)	563 (19.4%)
Ottawa County	2010	660 (4.7%)	1,274 (9.1%)	1,274 (9.0%)	1,387 (9.9%)	1,256 (8.9%)	1,379 (9.8%)	3,556 (25.3%)	3,294 (23.4%)
	2022	323 (2.3%)	700 (4.9%)	1,032 (7.3%)	1,164 (8.2%)	1,195 (8.4%)	1,314 (9.3%)	3,403 (24.0%)	5,066 (35.7%)
	2027	261 (1.8%)	565 (4.0%)	747 (5.3%)	934 (6.6%)	1,024 (7.2%)	1,307 (9.2%)	3,295 (23.2%)	6,064 (42.7%)
	Change 2022-2027	-62 (-19.2%)	-135 (-19.3%)	-285 (-27.6%)	-230 (-19.8%)	-171 (-14.3%)	-7 (-0.5%)	-108 (-3.2%)	998 (19.7%)
Firelands Region	2010	2,042 (3.9%)	4,603 (8.8%)	4,894 (9.3%)	5,785 (11.0%)	5,494 (10.5%)	5,269 (10.1%)	14,250 (27.2%)	10,054 (19.2%)
	2022	1,419 (2.6%)	2,320 (4.2%)	3,267 (6.0%)	4,020 (7.4%)	4,611 (8.4%)	4,938 (9.0%)	15,608 (28.6%)	18,486 (33.8%)
	2027	1,138 (2.1%)	1,669 (3.0%)	2,501 (4.6%)	3,214 (5.9%)	3,768 (6.9%)	4,502 (8.2%)	15,908 (29.0%)	22,212 (40.5%)
	Change 2022-2027	-281 (-19.8%)	-651 (-28.1%)	-766 (-23.4%)	-806 (-20.0%)	-843 (-18.3%)	-436 (-8.8%)	300 (1.9%)	3,726 (20.2%)
Ohio	2010	131,651 (4.2%)	243,593 (7.8%)	298,507 (9.6%)	328,873 (10.6%)	318,771 (10.2%)	309,070 (9.9%)	816,206 (26.2%)	664,380 (21.4%)
	2022	84,569 (2.6%)	143,661 (4.4%)	201,441 (6.2%)	231,366 (7.1%)	228,702 (7.1%)	265,961 (8.2%)	844,825 (26.1%)	1,239,274 (38.3%)
	2027	68,554 (2.1%)	111,685 (3.4%)	165,708 (5.0%)	193,242 (5.9%)	196,432 (6.0%)	246,958 (7.5%)	829,227 (25.2%)	1,478,100 (44.9%)
	Change 2022-2027	-16,015 (-18.9%)	-31,976 (-22.3%)	-35,733 (-17.7%)	-38,124 (-16.5%)	-32,270 (-14.1%)	-19,003 (-7.1%)	-15,598 (-1.8%)	238,826 (19.3%)

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

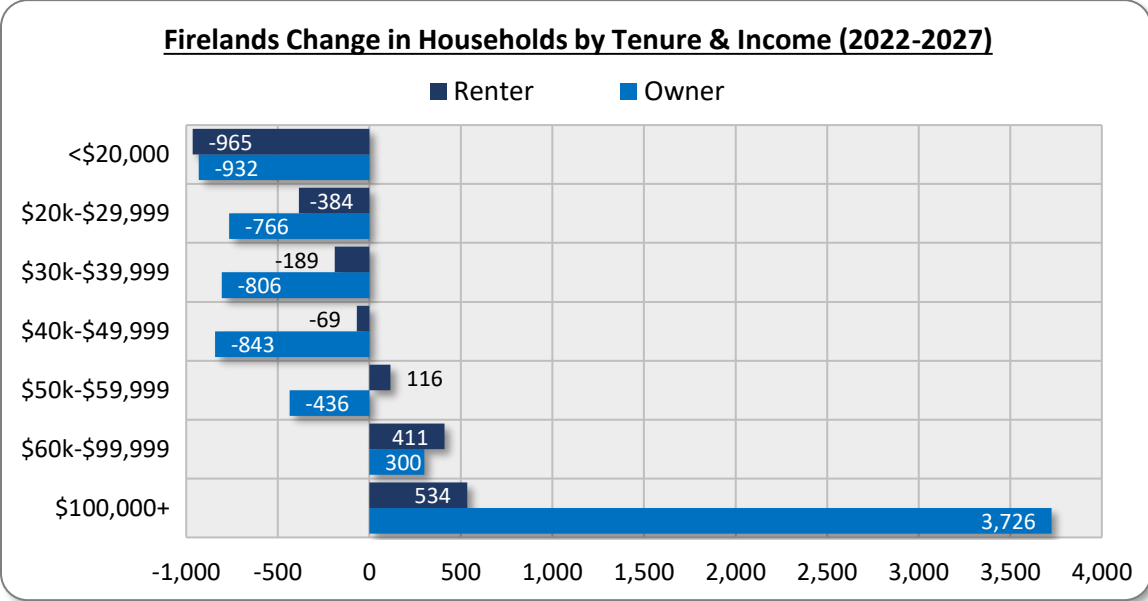
In 2022, over three-fifths (62.4%) of *owner* households in the PSA (Firelands Region) earn \$60,000 or more annually, which represents a slightly smaller share compared to the state (64.4%). Nearly one-fourth (24.8%) of owner households in the PSA earn between \$30,000 and \$59,999, and the remaining 12.8% earn less than \$30,000. As such, the overall distribution of owner households by income in the PSA is very comparable to that within the state. Between 2022 and 2027, owner households earning \$100,000 or more annually are projected to increase by 20.2%, while households earning between \$60,000 and \$99,999 are projected to experience a much more moderate increase of 1.9%. All income cohorts of owner households in the PSA earning less than \$60,000 are projected to decline over the next five years, with the largest decrease (28.1%) projected in the income cohort of \$10,000 to \$19,999.

Among the three counties of the PSA in 2022, Ottawa County has the largest share of owner households earning less than \$30,000 (14.5%), followed by Huron County (13.4%) and Erie County (11.5%). In regard to households earning \$60,000 or more annually, Erie County has the largest share of such households in 2022 (65.9%), followed by Huron County and Ottawa County with 59.7% in each respective county. Huron County has the largest share of households earning between \$30,000 and \$59,999 (27.0%), followed by Ottawa County (25.9%) and Erie County (22.7%). Between 2022 and 2027, most owner household growth is projected to occur among households earning \$100,000 or more annually. The largest increase of this income cohort is projected in Huron County (22.0%), while Ottawa County (19.7%) and Erie County (19.3%) also have significant projected increases within this income cohort. It is notable that this is the only income cohort among owner households projected to increase in Ottawa County over the next five years, as all other income cohorts within the county are projected to decline in number. While the most significant decrease of 27.6% in Ottawa County is projected among households earning between \$20,000 and \$29,999, the largest decrease in Erie County (36.9%) and Huron County (26.5%) is projected to occur in households earning between \$10,000 and \$19,999.

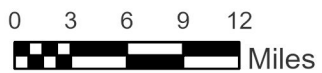
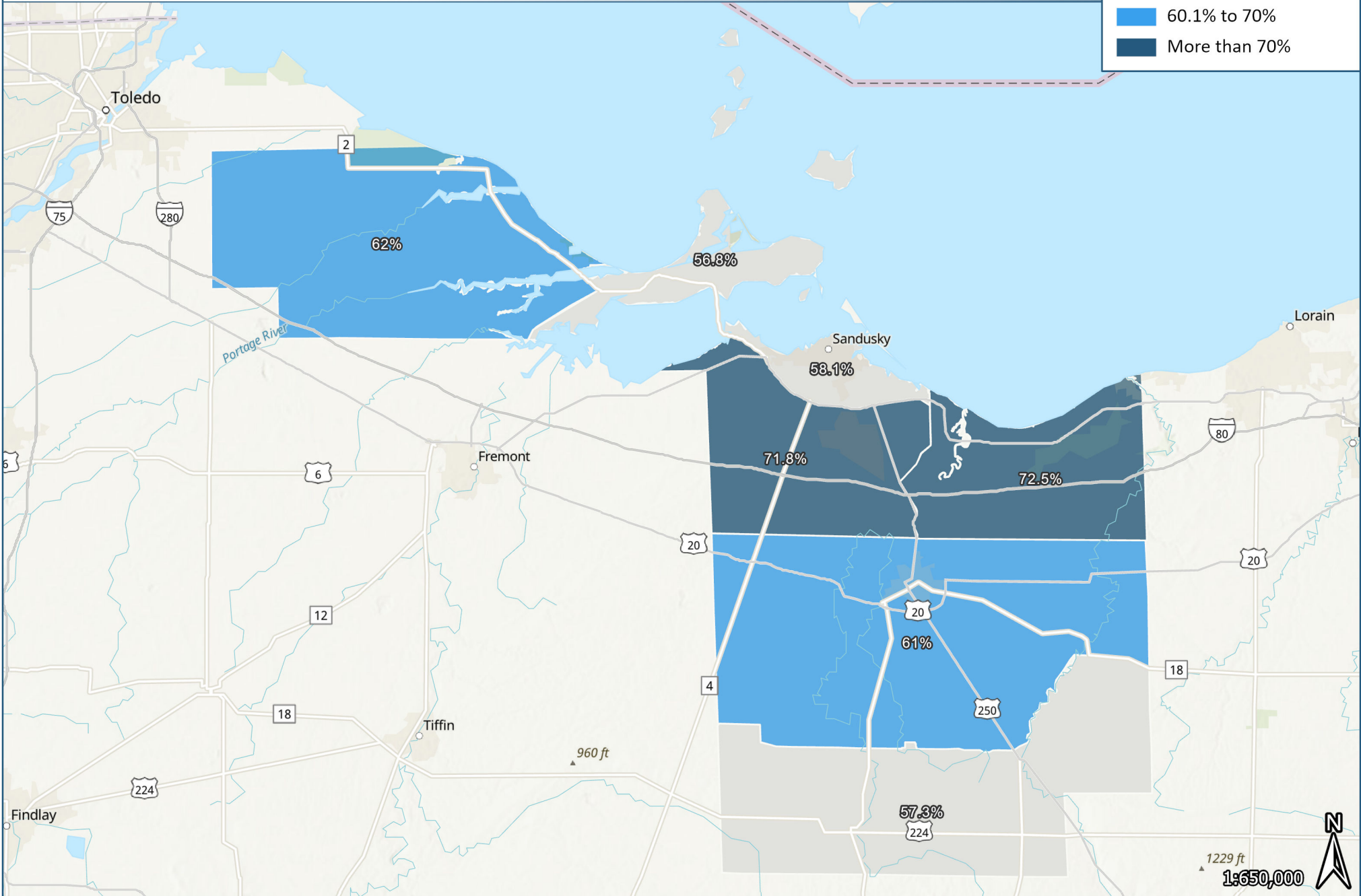
In 2022, the share of owner households earning \$60,000 or more annually is highest within the Erie East (72.5%) and Erie West (71.8%) submarkets, while the Ottawa East (56.8%) and Huron South (57.3%) submarkets have the smallest share of such households. Conversely, the share of owner households earning less than \$30,000 annually is highest within the Erie North (16.0%) and Ottawa East (15.9%) submarkets, while the share of these low-income households is the smallest in the Erie East (7.1%) and Erie West (7.5%) submarkets. The Huron South (27.6%) and Ottawa East (27.1%) submarkets have the largest shares of middle-income owner households (earning between \$30,000 and \$59,999). Between 2022 and 2027, all submarkets in the PSA have projected growth among owner households earning \$100,000 or more, with the largest increases of this cohort occurring in the Huron South (27.8%) and Erie North (21.1%) submarkets. In addition, five submarkets have projected growth

among households earning between \$60,000 and \$99,999. The largest increase of 7.2% for this income cohort is projected to occur in the Huron North Submarket. It is also noteworthy that there is a moderate projected increase of 1.6% among households earning between \$50,000 and \$59,999 in the Ottawa East Submarket over the next five years. Other than this increase in the Ottawa East Submarket, households earning less than \$60,000 are projected to decrease in each submarket of the PSA between 2022 and 2027. The three largest percentage decreases are projected to occur among households earning between \$10,000 and \$19,999 in the Erie East Submarket (45.2%) and among households earning between \$30,000 and \$39,999 in the Erie East (40.2%) and Erie West (36.8%) submarkets. While these represent the largest percentage decreases within individual income cohorts, it should be noted that a number of income cohorts in multiple submarkets are projected to experience significant declines in the number of low-income owner households over the next five years.

The following graph illustrates household income growth by tenure between 2022 and 2027.



- 60% or Less
- 60.1% to 70%
- More than 70%



D. DEMOGRAPHIC THEME MAPS

The following demographic theme maps for the study areas (counties only) are presented after this page:

- Median Household Income
- Renter Household Share
- Owner Household Share
- Older Adult Population Share (55 years and older)
- Younger Adult Population Share (20 to 34 years)
- Population Density

The demographic data used in these maps is based on U.S. Census, American Community Survey (ACS) and ESRI data sets.



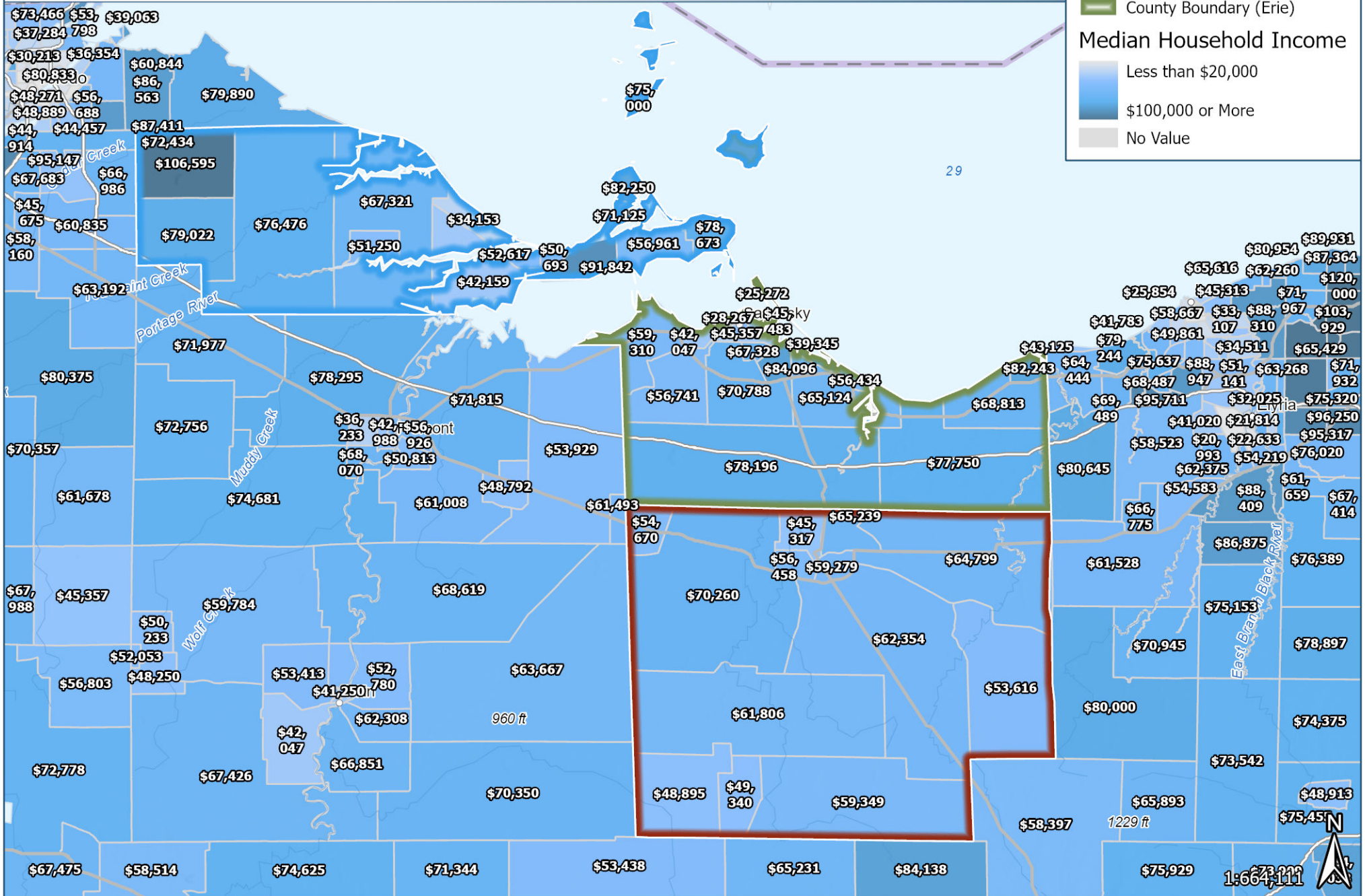
Median Household Income

Firelands Region, OH

- County Boundary (Ottawa)
- County Boundary (Huron)
- County Boundary (Erie)

Median Household Income

- Less than \$20,000
- \$100,000 or More
- No Value



Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
 Additional Source(s): Bowen National Research





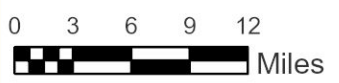
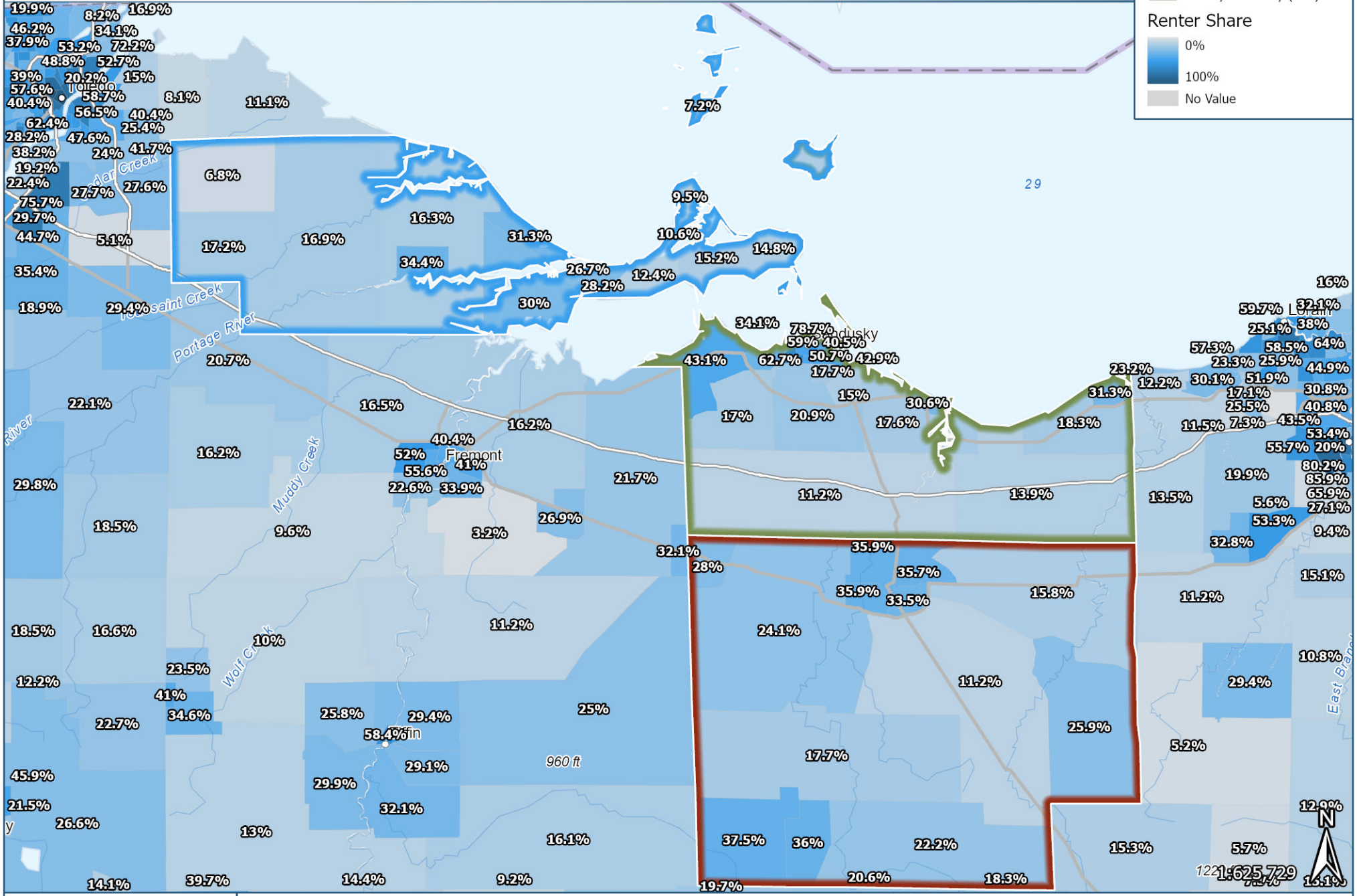
Share of Renter-Occupied Housing Units

Firelands Region, OH

County Boundary (Ottawa)
County Boundary (Huron)
County Boundary (Erie)

Renter Share

0%
100%
No Value



Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
Additional Source(s): Bowen National Research



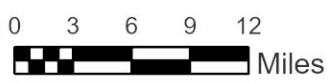
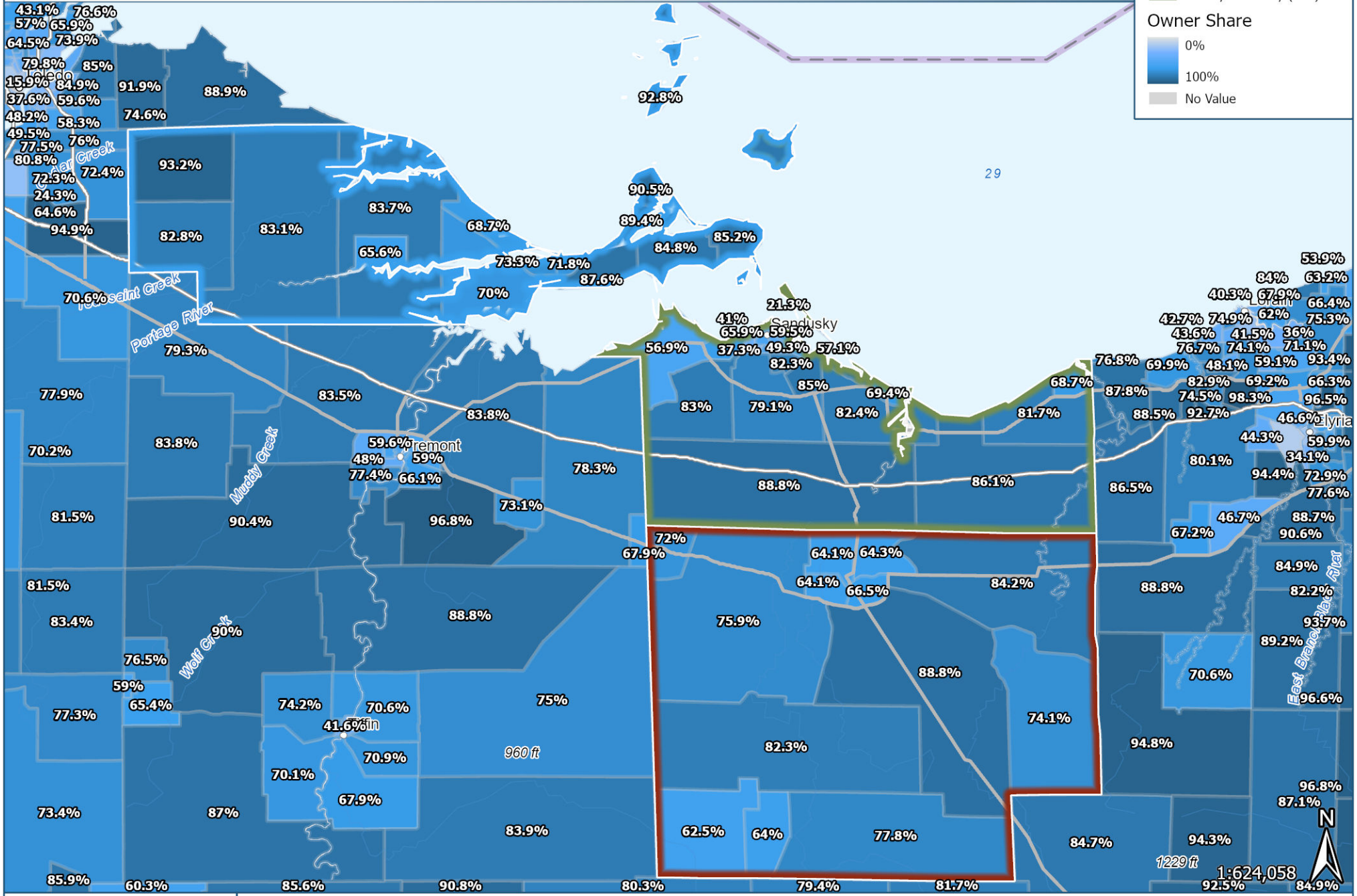
Share of Owner-Occupied Housing Units

Firelands Region, OH

County Boundary (Ottawa)
County Boundary (Huron)
County Boundary (Erie)

Owner Share

0%
100%
No Value



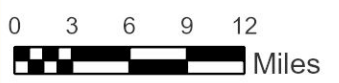
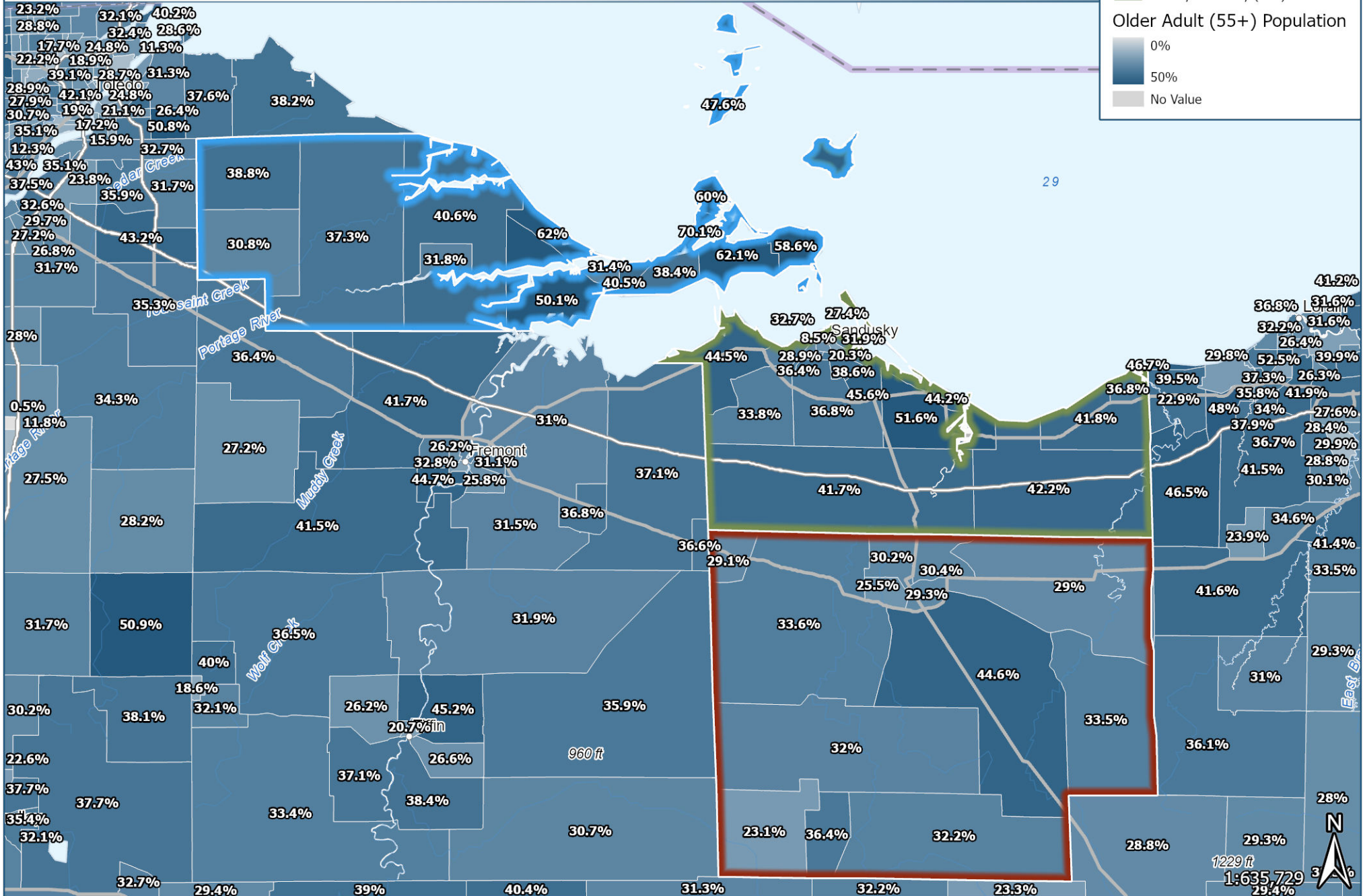
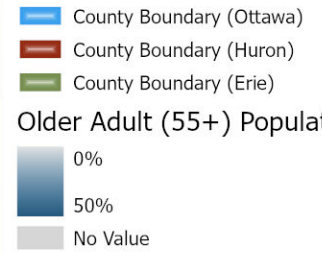
Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
Additional Source(s): Bowen National Research



1229 ft
1:624,058
92.5% 84.9%



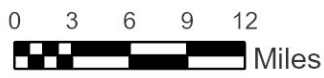
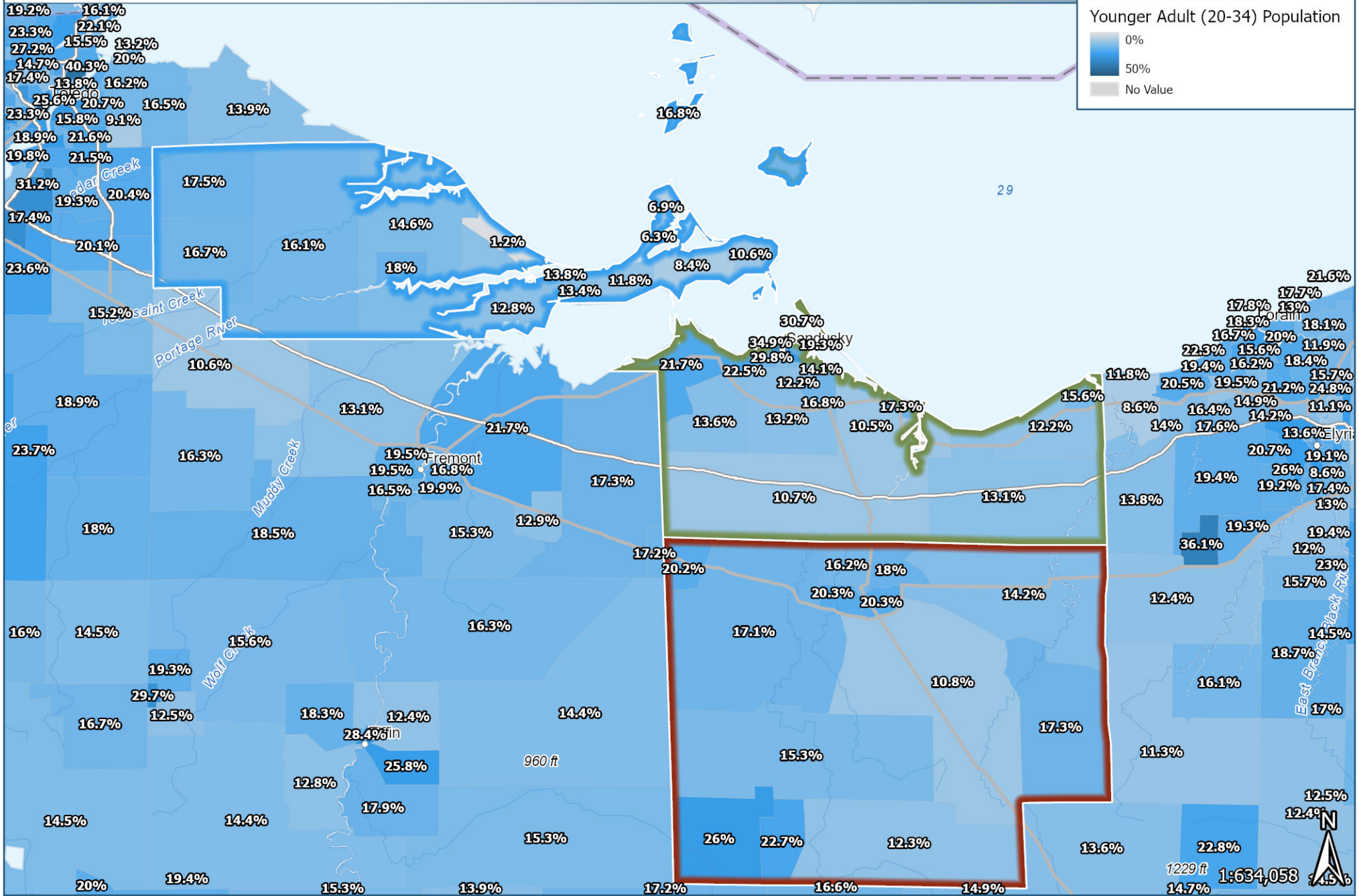
Older Adult (55+) Population
Firelands Region, OH



Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
Additional Source(s): Bowen National Research

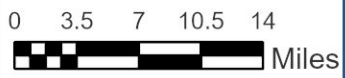
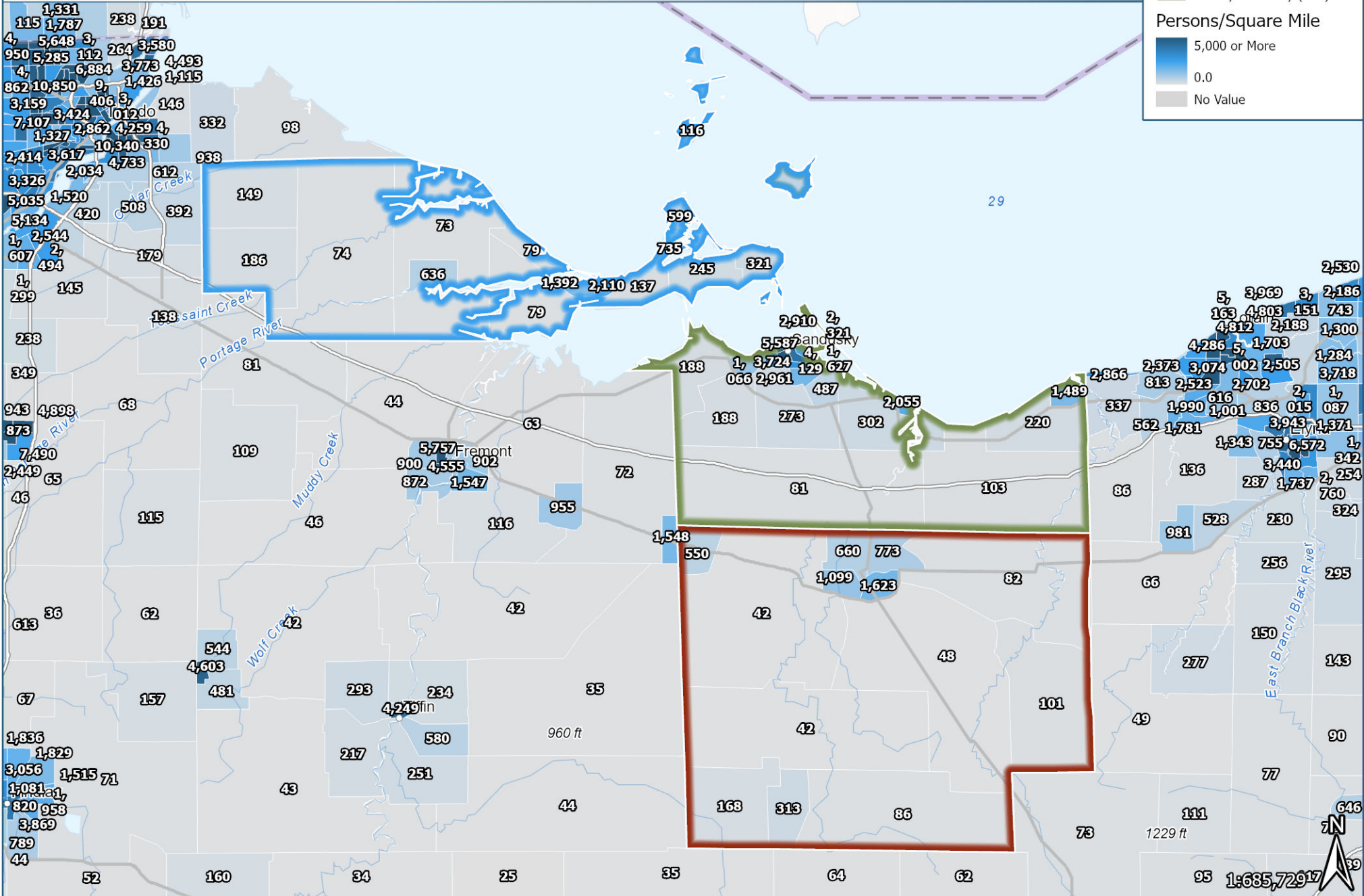
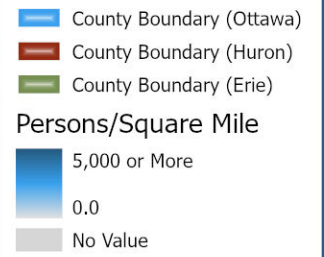
■ County Boundary (Ottawa)
■ County Boundary (Huron)
■ County Boundary (Erie)

Younger Adult (20-34) Population
■ 0%
■ 50%
■ No Value



Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
 Additional Source(s): Bowen National Research

1229 ft
 1:634,058
 14.5°



V. ECONOMIC ANALYSIS

A. INTRODUCTION

The need for housing within a given geographic area is influenced by the number of households choosing to live there. Although the number of households in the subject area at any given time is a function of many factors, one of the primary reasons for residency is job availability. In this section, the workforce and employment trends that affect the PSA (Firelands Region), the three PSA counties, and the seven PSA submarkets are examined and compared to the state of Ohio and the United States.

An overview of the Firelands Region workforce is provided through several overall metrics: employment by industry, wages by occupation, total employment, unemployment rates and in-place employment trends. We also evaluated the area's largest employers, economic and infrastructure developments, and the potential for significant closures or layoffs in the area (WARN Notices).

B. WORKFORCE ANALYSIS

The PSA has an employment base of nearly 100,000 individuals within a broad range of employment sectors. The primary industries of significance within the PSA include accommodation & food services, arts, entertainment & recreation, retail trade, health care & social assistance, and manufacturing. Each industry within the PSA requires employees of varying skill and education levels. There is a broad range of typical wages within the PSA based on occupation. The following evaluates key economic metrics within the Firelands Region. It should be noted that based on the availability of various economic data metrics, some information is presented only for select geographic areas, which may include the PSA (Firelands Region), the three PSA counties, the seven PSA submarkets, the North Northeastern Ohio Nonmetropolitan Statistical Area (Noncontiguous) and/or the state of Ohio, depending upon the availability of such data.

Employment by Industry

The following tables illustrate the distribution of employment by industry sector for the various study areas (note that the top five industry groups by share for each area are in **red**):

NAICS Group	Employment by Industry							
	Erie North		Erie East		Erie West		Erie County	
	Employees	Percent	Employees	Percent	Employees	Percent	Employees	Percent
Agriculture, Forestry, Fishing & Hunting	29	0.1%	57	0.7%	134	2.5%	221	0.4%
Mining	13	0.0%	0	0.0%	0	0.0%	13	0.0%
Utilities	13	0.0%	20	0.3%	0	0.0%	33	0.1%
Construction	625	1.4%	302	3.9%	128	2.3%	1,055	1.8%
Manufacturing	1,502	3.4%	1,200	15.3%	1,160	21.2%	3,861	6.6%
Wholesale Trade	873	1.9%	174	2.2%	364	6.7%	1,411	2.4%
Retail Trade	4,722	10.5%	704	9.0%	223	4.1%	5,650	9.7%
Transportation & Warehousing	313	0.7%	150	1.9%	196	3.6%	659	1.1%
Information	490	1.1%	184	2.3%	132	2.4%	806	1.4%
Finance & Insurance	538	1.2%	353	4.5%	66	1.2%	957	1.6%
Real Estate & Rental & Leasing	354	0.8%	122	1.6%	74	1.4%	550	0.9%
Professional, Scientific & Technical Services	622	1.4%	214	2.7%	97	1.8%	933	1.6%
Management of Companies & Enterprises	30	0.1%	0	0.0%	0	0.0%	30	0.1%
Administrative, Support, Waste Management & Remediation Services	438	1.0%	112	1.4%	71	1.3%	622	1.1%
Educational Services	1,305	2.9%	865	11.0%	577	10.6%	2,748	4.7%
Health Care & Social Assistance	4,488	10.0%	566	7.2%	571	10.4%	5,625	9.7%
Arts, Entertainment & Recreation	9,258	20.7%	355	4.5%	54	1.0%	9,667	16.6%
Accommodation & Food Services	15,445	34.5%	1,062	13.6%	793	14.5%	17,300	29.8%
Other Services (Except Public Administration)	1,561	3.5%	648	8.3%	274	5.0%	2,482	4.3%
Public Administration	2,150	4.8%	734	9.4%	537	9.8%	3,421	5.9%
Non-classifiable	44	0.1%	13	0.2%	17	0.3%	73	0.1%
Total	44,813	100.0%	7,835	100.0%	5,468	100.0%	58,117	100.0%

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

Note: Since this survey is conducted of establishments and not of residents, some employees may not live within each market. These employees, however, are included in our labor force calculations because their places of employment are located within each market.

NAICS Group	Employment by Industry							
	Huron North		Huron South		Huron County		Ottawa East	
	Employees	Percent	Employees	Percent	Employees	Percent	Employees	Percent
Agriculture, Forestry, Fishing & Hunting	99	0.6%	67	0.7%	166	0.7%	75	0.7%
Mining	0	0.0%	0	0.0%	0	0.0%	11	0.1%
Utilities	20	0.1%	45	0.5%	65	0.3%	10	0.1%
Construction	1,483	9.6%	149	1.6%	1,632	6.7%	304	2.8%
Manufacturing	1,823	11.8%	3,573	39.0%	5,396	22.0%	281	2.6%
Wholesale Trade	637	4.1%	891	9.7%	1,528	6.2%	176	1.6%
Retail Trade	1,831	11.9%	778	8.5%	2,609	10.6%	1,641	15.1%
Transportation & Warehousing	815	5.3%	241	2.6%	1,056	4.3%	299	2.7%
Information	113	0.7%	83	0.9%	196	0.8%	134	1.2%
Finance & Insurance	538	3.5%	120	1.3%	658	2.7%	223	2.0%
Real Estate & Rental & Leasing	258	1.7%	135	1.5%	393	1.6%	366	3.4%
Professional, Scientific & Technical Services	656	4.3%	104	1.1%	760	3.1%	311	2.9%
Management of Companies & Enterprises	47	0.3%	2	0.0%	49	0.2%	3	0.0%
Administrative, Support, Waste Management & Remediation Services	278	1.8%	35	0.4%	313	1.3%	156	1.4%
Educational Services	1,004	6.5%	574	6.3%	1,578	6.4%	962	8.8%
Health Care & Social Assistance	2,089	13.6%	1,064	11.6%	3,153	12.8%	1,059	9.7%
Arts, Entertainment & Recreation	251	1.6%	40	0.4%	291	1.2%	662	6.1%
Accommodation & Food Services	995	6.5%	480	5.2%	1,475	6.0%	2,281	21.0%
Other Services (Except Public Administration)	1,102	7.2%	326	3.6%	1,428	5.8%	637	5.9%
Public Administration	1,300	8.5%	450	4.9%	1,750	7.1%	1,246	11.5%
Non-classifiable	45	0.3%	0	0.0%	45	0.2%	42	0.4%
Total	15,384	100.0%	9,157	100.0%	24,541	100.0%	10,879	100.0%

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

Note: Since this survey is conducted of establishments and not of residents, some employees may not live within each market. These employees, however, are included in our labor force calculations because their places of employment are located within each market.

NAICS Group	Employment by Industry							
	Ottawa West		Ottawa County		Firelands Region		Ohio	
	Employees	Percent	Employees	Percent	Employees	Percent	Employees	Percent
Agriculture, Forestry, Fishing & Hunting	68	1.1%	143	0.8%	530	0.5%	14,205	0.2%
Mining	5	0.1%	16	0.1%	29	0.0%	8,395	0.1%
Utilities	36	0.6%	46	0.3%	144	0.1%	22,378	0.4%
Construction	268	4.2%	572	3.3%	3,259	3.3%	227,474	3.8%
Manufacturing	562	8.8%	843	4.9%	10,100	10.1%	681,500	11.2%
Wholesale Trade	320	5.0%	496	2.9%	3,435	3.4%	246,772	4.1%
Retail Trade	582	9.1%	2,223	12.9%	10,482	10.5%	708,502	11.7%
Transportation & Warehousing	206	3.2%	505	2.9%	2,220	2.2%	146,044	2.4%
Information	58	0.9%	192	1.1%	1,194	1.2%	129,172	2.1%
Finance & Insurance	210	3.3%	433	2.5%	2,048	2.0%	239,027	3.9%
Real Estate & Rental & Leasing	76	1.2%	442	2.6%	1,385	1.4%	129,406	2.1%
Professional, Scientific & Technical Services	226	3.5%	537	3.1%	2,230	2.2%	437,333	7.2%
Management of Companies & Enterprises	60	0.9%	63	0.4%	142	0.1%	14,998	0.2%
Administrative, Support, Waste Management & Remediation Services	107	1.7%	263	1.5%	1,198	1.2%	139,545	2.3%
Educational Services	582	9.1%	1,544	8.9%	5,870	5.9%	482,284	8.0%
Health Care & Social Assistance	598	9.3%	1,657	9.6%	10,435	10.4%	1,058,302	17.5%
Arts, Entertainment & Recreation	158	2.5%	820	4.7%	10,778	10.8%	127,923	2.1%
Accommodation & Food Services	539	8.4%	2,820	16.3%	21,595	21.6%	504,017	8.3%
Other Services (Except Public Administration)	744	11.6%	1,381	8.0%	5,291	5.3%	333,475	5.5%
Public Administration	974	15.2%	2,220	12.8%	7,391	7.4%	376,476	6.2%
Non-classifiable	36	0.6%	78	0.5%	196	0.2%	31,811	0.5%
Total	6,415	100.0%	17,294	100.0%	99,952	100.0%	6,059,039	100.0%

Source: 2010 Census; ESRI; Urban Decision Group; Bowen National Research

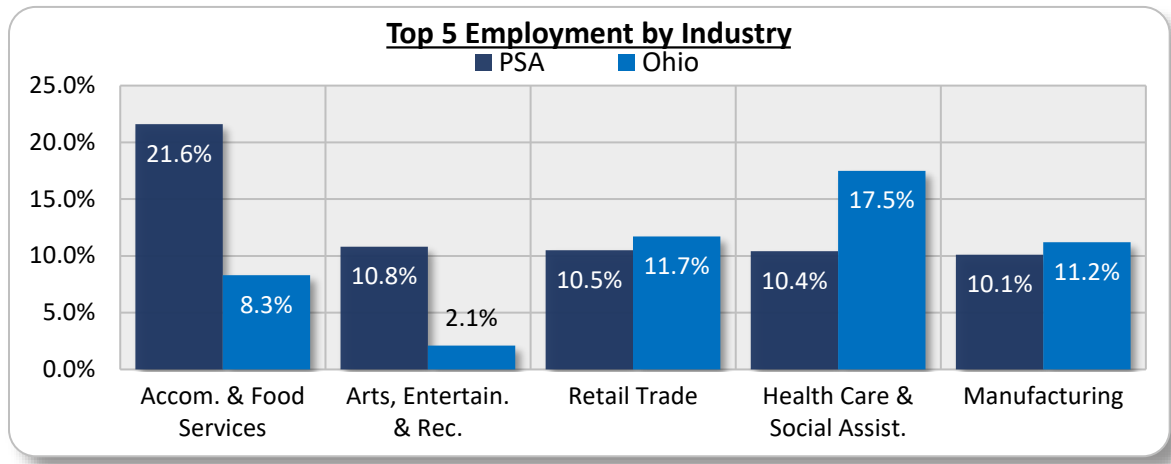
Note: Since this survey is conducted of establishments and not of residents, some employees may not live within each market. These employees, however, are included in our labor force calculations because their places of employment are located within each market.

The labor force within the PSA (Firelands Region) is based primarily in five sectors: Accommodation & Food Services (21.6%), Arts, Entertainment & Recreation (10.8%), Retail Trade (10.5%), Health Care & Social Assistance (10.4%), and Manufacturing (10.1%). Combined, these five job sectors represent over three-fifths (63.4%) of the PSA employment base. This represents a greater concentration of employment within the top five sectors compared to the top five sectors in the state (56.7%). Areas with a heavy concentration of employment within a limited number of industries can be more vulnerable to economic downturns with greater fluctuations in unemployment rates and total employment. While Health Care & Social Assistance (10.4%) is one of the largest sectors by employment in the PSA, and is generally less susceptible to economic fluctuations, the other four top sectors in the PSA can be more likely influenced by economic declines. It is important to point out that some of the region's largest employment sectors are associated with jobs that align with the tourism industry, which plays an important role in the area. Many jobs associated with the tourism sector are service industry positions which typically pay lower wages. The prevalence of such jobs drives the demand for more affordable housing alternatives.

Within Erie County, the labor force is based primarily in the sectors of Accommodation & Food Services (29.8%) and Arts, Entertainment & Recreation (16.6%). While these two sectors comprise 46.4% of the labor force in Erie County, the top five sectors combined account for 72.4%, which is a much heavier concentration of employment compared to the PSA (63.4%). Huron County has the lowest concentration (59.2%) of the labor force within the top five industries, despite over one-fifth (22.0%) of its respective workers employed in the manufacturing sector. Health Care & Social Assistance (12.8%) and Retail Trade (10.6%) also account for notable shares of the Huron County labor force. As the top five sectors of employment account for 60.5% of the labor force within Ottawa County, the distribution of labor is only slightly more concentrated than that within Huron County. Accommodation & Food Services (16.3%), Retail Trade (12.9%), and Public Administration (12.8%) employ the largest shares of the Ottawa County labor force. Overall, the distribution of the labor force is the most concentrated within the top five sectors in Erie County, while Huron County and Ottawa County have concentrations considerably less than that of Erie County.

Among the individual submarkets in the PSA, manufacturing accounts for the largest share of the respective labor forces in the Huron South (39.0%), Erie West (21.2%), and Erie East (15.3%) submarkets. Accommodation & Food Services comprises the largest share of the labor force in the Erie North (34.5%) and Ottawa East (21.0%) submarkets, while Health Care & Social Assistance is the largest sector in the Huron North Submarket (13.6%), and Public Administration is the largest sector in the Ottawa West Submarket (15.2%). These variations in top labor sectors and corresponding shares among the PSA submarkets illustrates the unique labor composition of each submarket in the region, which are often influenced by the presence of a hospital or medical center, a retail corridor, or industrial park. With regard to labor concentration among the top five sectors in each submarket, the Erie North (80.5%) and Huron South (75.1%) have the highest concentration of their respective labor forces, while the Ottawa West (54.3%) and Huron North (55.4%) submarkets have the lowest concentration. Of the remaining three submarkets in the PSA, the Erie East Submarket (58.3%) has a lower concentration of employment by sector compared to the PSA overall, while the Ottawa East (66.1%) and Erie West (66.5%) have higher concentrations compared to the PSA.

The following graph illustrates the distribution of employment by job sector for the five largest employment sectors in the PSA (Firelands Region) and the state of Ohio:



Employment Characteristics and Trends

The following table illustrates median wage by occupation type for the PSA counties and state of Ohio according to 2021 American Community Survey estimates:

Median Wage by Occupation Type				
Occupation Type	Erie County	Huron County	Ottawa County	Ohio
Management Occupations	\$66,400	\$66,417	\$77,143	\$77,704
Business and Financial Occupations	\$75,758	\$47,903	\$71,250	\$68,981
Computer and Mathematical Occupations	\$58,629	\$65,197	\$75,833	\$81,290
Architecture and Engineering Occupations	\$92,000	\$54,309	\$93,077	\$83,066
Life, Physical, and Social Science Occupations	\$46,570	\$56,607	\$55,263	\$64,896
Community and Social Service Occupations	\$48,825	\$48,173	\$44,293	\$46,916
Legal Occupations	\$63,164	\$38,194	\$95,481	\$83,246
Educational Instruction and Library Occupations	\$64,893	\$51,028	\$60,592	\$57,597
Art, Design, Entertainment and Sports Medicine Occupations	\$38,333	\$45,625	\$27,147	\$52,909
Healthcare Practitioners and Technical Occupations	\$68,261	\$73,200	\$61,793	\$73,299
Healthcare Support Occupations	\$35,659	\$31,507	\$31,250	\$30,508
Firefighting Occupations	\$55,691	\$40,909	\$83,462	\$53,617
Law Enforcement Occupations	\$63,315	\$49,231	\$64,003	\$63,784
Food Preparation and Serving Related Occupations	\$21,190	\$24,716	\$26,201	\$24,940
Building and Grounds Cleaning and Maintenance Occupations	\$31,964	\$33,047	\$36,003	\$33,623
Personal Care and Service Occupations	\$30,516	\$29,554	\$19,483	\$28,952
Sales and Related Occupations	\$52,898	\$35,809	\$51,250	\$50,025
Office and Administrative Support Occupations	\$34,594	\$41,039	\$38,902	\$40,305
Farming, Fishing, and Forestry Occupations	\$33,333	\$31,544	-	\$33,918
Construction and Extraction Occupations	\$56,250	\$55,375	\$73,553	\$50,890
Installation, Maintenance and Repair Occupations	\$48,465	\$43,574	\$47,353	\$52,325
Production Occupations	\$41,747	\$40,735	\$46,734	\$43,240
Transportation Occupations	\$56,168	\$52,950	\$55,573	\$48,925
Material Moving Occupations	\$39,125	\$38,946	\$44,250	\$34,415

Source: U.S. Census Bureau, 2017-2021 American Community Survey (S2412); Bowen National Research

As the preceding illustrates, median blue-collar salaries in Erie County range from \$21,190 to \$63,315, while white-collar jobs, such as those related to professional positions, management, and medicine, have an average salary of \$66,959. Within Huron County, blue-collar median salaries range from \$24,716 to \$55,375, while white-collar salaries average \$56,607. White-collar professions in Ottawa County have the highest average salary (\$73,804) of the three PSA counties, while blue-collar occupations in the county have the widest range of median salaries (\$19,483 to \$73,804). Overall, average median wages in Huron County (\$45,650) are the lowest among the three PSA counties, averaging 14.4% less than the state (\$53,307). Wages in Erie County, which has the second highest average median wages (\$50,990) in the PSA, average 4.3% less than the state. Ottawa County, which has average median wages 4.4% higher than the state, is the only county in the PSA with average median wages (\$55,647) higher than those for the state. Within Erie and Huron counties, occupations related to food preparation and serving have the lowest median wages (\$21,190 and \$24,716, respectively), while personal care and service occupations in Ottawa County have the lowest median wage (\$19,483) within Ottawa County.

In an effort to better understand how area wages by occupation affect housing affordability, the following table illustrates the median and lower quartile (often comparable to entry level position wages) annual wages for the top 35 occupations by share of total employment within the North Northeastern Ohio Nonmetropolitan Statistical Area (Noncontiguous). While Erie, Huron, and Ottawa counties only represent three of the 14 counties contained within this statistical area, the wages by occupation illustrated in this table are considered typical of this region and are useful in determining housing affordability by occupation. While this data does not include every possible occupation and wage within each sector, the occupations included in this table represent nearly half (49.9%) of the total employment in the statistical area in 2021. Based on the lower quartile and median annual wages, the maximum affordable monthly rent and home price for each occupation was calculated. It should be noted that the affordable rents or home prices shown in the following table that are *at or below* the two-bedroom Fair Market Rent (FMR) of \$756 for Huron County and the median overall home price (\$170,000) for the available for-sale homes within Erie County are shown in red text, indicating that certain lower-wage earning households cannot reasonably afford a typical housing unit in the market. It is important to understand that this represents the lowest FMR and lowest median available for-sale price of the three counties in the region.

**Wages and Housing Affordability for Top 35 Occupations by Share of Labor Force
(North Northeastern Ohio Nonmetropolitan Statistical Area)**

Occupation Sector, Title & Wages*		Housing Affordability**						
Sector Group (Code)	Labor Force Share	Occupation Title	Annual Wages		Max. Monthly Rent		Max. Purchase Price	
			Lower Quartile	Median	Lower Quartile	Median	Lower Quartile	Median
Sales and Related Occupations (41)	3.2%	Cashiers	\$21,470	\$22,340	\$537	\$559	\$71,567	\$74,467
	2.4%	Retail Salespersons	\$22,300	\$24,130	\$558	\$603	\$74,333	\$80,433
	0.9%	First-Line Supervisors, Retail	\$29,080	\$37,000	\$727	\$925	\$96,933	\$123,333
	1.1%	Sales Reps, Wholesale/Mfg.	\$45,060	\$59,480	\$1,127	\$1,487	\$150,200	\$198,267
Food Preparation/ Serving (35)	1.4%	Waiters and Waitresses	\$18,520	\$20,100	\$463	\$503	\$61,733	\$67,000
	2.6%	Fast Food and Counter Workers	\$20,330	\$21,460	\$508	\$537	\$67,767	\$71,533
	1.1%	Cooks, Restaurant	\$22,280	\$27,280	\$557	\$682	\$74,267	\$90,933
	0.9%	First-Line Supervisors, Food Prep	\$28,260	\$29,720	\$707	\$743	\$94,200	\$99,067
Office and Administrative Support (43)	1.8%	Office Clerks	\$27,780	\$35,040	\$695	\$876	\$92,600	\$116,800
	1.1%	Customer Services Reps.	\$28,820	\$35,930	\$721	\$898	\$96,067	\$119,767
	1.1%	Secretaries/Administrative Assts.	\$28,920	\$36,170	\$723	\$904	\$96,400	\$120,567
	0.8%	Shipping/Inventory Clerks	\$29,780	\$36,800	\$745	\$920	\$99,267	\$122,667
	1.2%	Bookkeeping/Auditing Clerks	\$29,840	\$37,290	\$746	\$932	\$99,467	\$124,300
Transportation Material Moving (53)	1.5%	Stockers/Order Fillers	\$24,180	\$28,350	\$605	\$709	\$80,600	\$94,500
	1.8%	Laborers/Material Movers	\$28,440	\$34,640	\$711	\$866	\$94,800	\$115,467
	0.8%	Industrial Truck Operators	\$31,760	\$38,380	\$794	\$960	\$105,867	\$127,933
	2.1%	Heavy/Tractor Trailer Drivers	\$37,960	\$47,340	\$949	\$1,184	\$126,533	\$157,800
Production/ Manufacturing (51)	0.8%	Packaging Machine Operators	\$29,020	\$35,510	\$726	\$888	\$96,733	\$118,367
	2.9%	Misc. Assemblers/Fabricators	\$29,210	\$36,810	\$730	\$920	\$97,367	\$122,700
	0.8%	Molding/Casting Operators	\$29,750	\$36,580	\$744	\$915	\$99,167	\$121,933
	0.8%	Cutting/Press Operators	\$29,820	\$37,630	\$746	\$941	\$99,400	\$125,433
	0.9%	Inspectors/Testers/Samplers	\$31,600	\$37,630	\$790	\$941	\$105,333	\$125,433
	1.0%	Machinists	\$36,020	\$38,700	\$901	\$968	\$120,067	\$129,000
	1.1%	First-Line Supervisors, Mfg.	\$47,500	\$60,520	\$1,188	\$1,513	\$158,333	\$201,733
Education, Training, and Library (25)	2.2%	Elementary School Teachers	\$38,400	\$60,900	\$960	\$1,523	\$128,000	\$203,000
	1.0%	Secondary School Teachers	\$48,470	\$60,900	\$1,212	\$1,523	\$161,567	\$203,000
Healthcare (29, 31)	1.6%	Home Health/Personal Aides	\$22,720	\$23,380	\$568	\$585	\$75,733	\$77,933
	1.3%	Nursing Assistants	\$28,410	\$28,940	\$710	\$724	\$94,700	\$96,467
	1.0%	Licensed Nurses	\$37,500	\$46,590	\$938	\$1,165	\$125,000	\$155,300
	1.7%	Registered Nurses	\$60,370	\$61,790	\$1,509	\$1,545	\$201,233	\$205,967
Management (11)	1.7%	General/Operations Managers	\$48,790	\$77,430	\$1,220	\$1,936	\$162,633	\$258,100
Installation/ Maintenance/ Repair (49)	1.7%	Maintenance/Repair Workers	\$35,470	\$46,330	\$887	\$1,158	\$118,233	\$154,433
Bldg./Grounds Maintenance (37)	1.4%	Janitors and Cleaners	\$23,190	\$28,990	\$580	\$725	\$77,300	\$96,633
	0.9%	Landscaping/Groundskeeping	\$24,300	\$29,940	\$608	\$749	\$81,000	\$99,800
Construction/ Extraction (47)	1.1%	Construction Laborers	\$35,910	\$43,520	\$898	\$1,088	\$119,700	\$145,067

Source: Ohio Department of Job and Family Services, 2021 Occupational Employment and Wage Statistics (OEWS)

*Annual wages listed are at the lower 25th percentile (quartile) and median level for each occupation

**Housing Affordability is the maximum monthly rent or total for-sale home price a household can reasonably afford based on stated wages.

As the preceding table illustrates, many people with occupations within the sales, food preparation, healthcare, and building/grounds maintenance sectors likely cannot reasonably afford the Fair Market Rent (FMR) of \$756 at their respective median wages. When the lower quartile of wage earners (often comparable to entry level positions) is considered, the FMR of \$756 is unaffordable to many more occupations in the PSA, which includes occupations within the office and administrative support, transportation, and manufacturing sectors. While this FMR is affordable to a majority of the workers earning median wages or above within these common occupations, the data illustrates that affordability is likely an issue for the lowest wage earners in a variety of occupational sectors in the PSA. An examination of the maximum affordable purchase price reveals that a vast majority of the occupations within the PSA cannot afford the typical for-sale home priced at \$170,000 or above at their respective median wages. Among the occupations with the necessary median wage to afford a typical home in the PSA, most occupations likely require some type of post-secondary degree or specialized certification in connection with their employment. Despite the higher median wages of these occupations, the lower quartile of earners within many of these occupations cannot afford the typical for-sale home in the PSA. It is important to understand that the listed wages represent the income of individuals, not households. As such, households with multiple income sources likely have a significantly higher level of affordability. Conversely, it is also important to note that the FMR and median home prices used as the basis of affordability are the lowest among the three counties of the region. Regardless, this illustrates the difficulty that many single-income households within the most common occupations of the region likely have in locating affordable housing.

A full analysis of the area housing supply, which includes multifamily apartments, current and historical for-sale product, and non-conventional rentals (typically four units or less within a structure), is included in Section VI of this report. Because a significant share of the occupations in the region have median wages of less than \$30,000 annually, it is important to understand the overall availability of affordable rentals and for-sale product for these employees. A lack of affordable workforce housing in a market can limit the ability of employers to retain and attract new employees, and impact household growth for the region.

Employment Base and Unemployment Rates

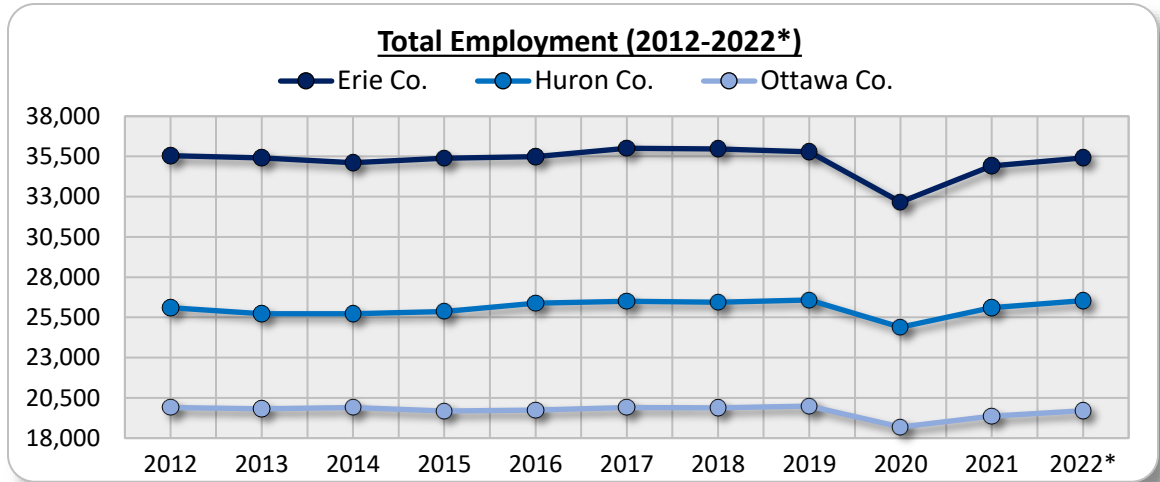
Total employment reflects the number of employed persons who live within an area regardless of where they work. The following illustrates the total employment base for the PSA counties, the state of Ohio and the United States for the various years listed.

Year	Total Employment									
	Erie County		Huron County		Ottawa County		Ohio		United States	
	Total Number	Percent Change	Total Number	Percent Change	Total Number	Percent Change	Total Number	Percent Change	Total Number	Percent Change
2012	35,554	-	26,096	-	19,910	-	5,290,392	-	143,548,588	-
2013	35,408	-0.4%	25,718	-1.4%	19,828	-0.4%	5,281,459	-0.2%	144,904,568	0.9%
2014	35,106	-0.9%	25,723	0.0%	19,902	0.4%	5,381,787	1.9%	147,293,817	1.6%
2015	35,388	0.8%	25,869	0.6%	19,691	-1.1%	5,427,850	0.9%	149,540,791	1.5%
2016	35,494	0.3%	26,380	2.0%	19,744	0.3%	5,464,097	0.7%	151,934,228	1.6%
2017	36,009	1.5%	26,499	0.5%	19,898	0.8%	5,529,479	1.2%	154,721,780	1.8%
2018	35,970	-0.1%	26,449	-0.2%	19,873	-0.1%	5,553,767	0.4%	156,709,685	1.3%
2019	35,782	-0.5%	26,582	0.5%	19,991	0.6%	5,626,326	1.3%	158,806,263	1.3%
2020	32,666	-8.7%	24,892	-6.4%	18,690	-6.5%	5,263,034	-6.5%	149,192,714	-6.1%
2021	34,918	6.9%	26,108	4.9%	19,371	3.6%	5,441,879	3.4%	154,178,982	3.3%
2022*	35,401	1.4%	26,535	1.6%	19,709	1.7%	5,527,113	1.6%	159,361,297	3.4%

Source: Department of Labor; Bureau of Labor Statistics

*Through November

From 2012 to 2019, the largest increase of employment base among the three counties occurred in Huron County (486 employees, or 1.9%), followed by Erie County (228 employees, or 0.6%) and Ottawa County (81 employees, or 0.4%). The increase in each county during this time period was significantly less than that of the state (6.3%). In 2020, which was largely impacted by the economic effects related to COVID-19, total employment decreased in Erie (8.7%), Huron (6.4%), and Ottawa (6.5%) counties at rates that were generally comparable to that of the state (6.5%). In 2021, total employment for each county increased at a rate above that for the state (3.4%), with the largest increase occurring in Erie County (6.9%). As of November 2022, total employment in the PSA counties increased between 1.4% (Erie County) and 1.7% (Ottawa County) year over year, which are increases comparable to that of the state (1.6%) during this time. The significant increases in total employment for each county in the PSA over the last two years are positive signs that the local economies in each county are recovering from the effects of the COVID-19 pandemic. While total employment in each county still remains slightly below the respective 2019 levels, the PSA counties have recovered to within 98.6% (Ottawa County), 98.9% (Erie County), and 99.8% (Huron County) of the total 2019 employment, which represent recovery rates above that for the state of Ohio (98.2%).



*Through November

Unemployment rates for the PSA counties, the state of Ohio, and the United States are illustrated as follows:

Year	Unemployment Rate				
	Erie County	Huron County	Ottawa County	Ohio	United States
2012	8.0%	9.9%	9.6%	7.4%	8.1%
2013	8.1%	10.2%	9.7%	7.5%	7.4%
2014	6.4%	8.0%	7.7%	5.8%	6.2%
2015	5.7%	6.6%	6.7%	5.0%	5.3%
2016	5.6%	6.6%	6.6%	5.1%	4.9%
2017	6.1%	6.4%	6.8%	5.0%	4.4%
2018	5.6%	5.9%	6.4%	4.5%	3.9%
2019	5.0%	5.8%	5.8%	4.2%	3.7%
2020	10.5%	9.5%	9.2%	8.3%	8.1%
2021	6.4%	5.9%	6.2%	5.1%	5.4%
2022*	4.9%	5.0%	5.2%	4.2%	3.7%

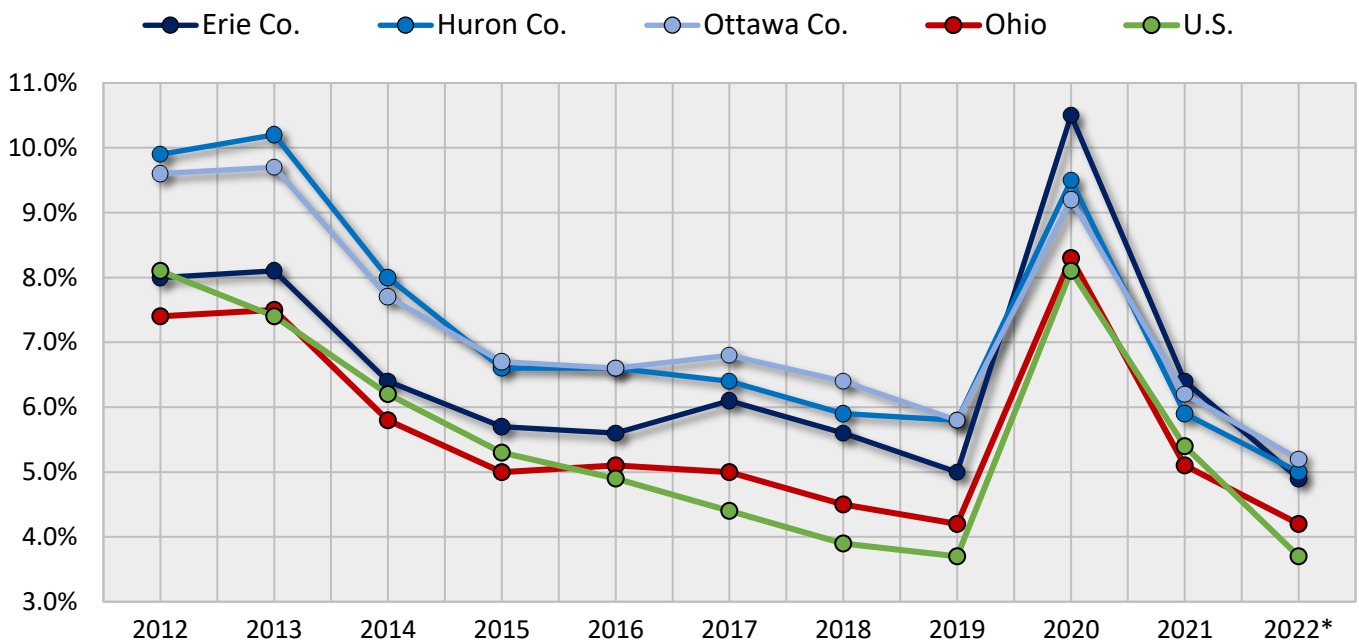
Source: Department of Labor; Bureau of Labor Statistics

*Through November

Between 2012 and 2019, annual unemployment rates in each county of the PSA (Firelands Region) declined, overall. The largest decrease in unemployment rate during this period occurred in Huron County, which had a decrease of 4.1 percentage points (9.9% to 5.8%). While the unemployment rates in Huron and Ottawa counties were both 5.8% in 2019, the lowest unemployment rate during this time was within Erie County (5.0%). Regardless, the unemployment rate in each county from 2012 to 2019 was at a level above the corresponding rate for the state in each year. As such, workers in the PSA have been comparably more prone to unemployment compared to workers in the state, overall. During 2020, the unemployment rate for each PSA county increased significantly, with rates ranging from 9.2% (Ottawa County) to 10.5% (Erie County). At this time, the rates for each county were higher than the unemployment rate for the state of Ohio (8.3%) and the United States (8.1%). Following the release of many of the restrictions associated with COVID-19, the unemployment rates for the PSA

counties decreased to between 5.9% (Huron County) and 6.4% (Erie County) in 2021, which represents higher rates than the state (5.1%) and the nation (5.4%). As of November 2022, the unemployment rate in each county has decreased further, with rates ranging from 4.9% (Erie County) to 5.2% (Ottawa County). Although these represent higher rates than the state (4.2%) and nation (3.7%), it is notable that the unemployment rate for each county is below the respective county rate in 2019. As such, it is apparent that each of the counties in the PSA continue to recover from the effects of the COVID-19 pandemic and are well poised to benefit from additional economic opportunities in the future.

Unemployment Rate (2012-2022*)



*Through November

We evaluated monthly unemployment rates in order to get a better sense of the initial impact the COVID-19 pandemic had on the local economies and the subsequent recoveries. The following table illustrates the monthly unemployment rates from January 2020 to November 2022 for the PSA counties.

Unemployment Rate			
Month	Erie County	Huron County	Ottawa County
January 2020	6.9%	8.9%	9.2%
February 2020	6.0%	8.1%	8.4%
March 2020	6.6%	8.8%	8.9%
April 2020	24.5%	19.9%	17.6%
May 2020	20.6%	15.1%	13.5%
June 2020	12.9%	11.1%	10.2%
July 2020	10.4%	9.5%	8.6%
August 2020	8.1%	7.2%	6.8%
September 2020	8.0%	6.6%	6.6%
October 2020	7.0%	5.6%	5.8%
November 2020	7.0%	5.8%	6.7%
December 2020	7.6%	7.5%	7.7%
January 2021	9.0%	8.9%	9.4%
February 2021	8.1%	8.3%	9.0%
March 2021	7.1%	7.1%	7.4%
April 2021	7.4%	6.3%	6.5%
May 2021	6.8%	5.6%	5.5%
June 2021	7.5%	6.4%	6.0%
July 2021	5.9%	5.4%	5.4%
August 2021	4.9%	4.7%	4.7%
September 2021	4.9%	4.3%	4.4%
October 2021	4.4%	3.9%	4.2%
November 2021	5.7%	4.4%	5.7%
December 2021	4.6%	4.9%	5.7%
January 2022	7.1%	7.4%	7.7%
February 2022	7.0%	7.3%	7.4%
March 2022	6.4%	6.4%	6.4%
April 2022	4.2%	4.0%	4.6%
May 2022	4.0%	3.6%	3.6%
June 2022	4.4%	4.4%	4.2%
July 2022	4.8%	5.5%	4.3%
August 2022	4.5%	4.4%	4.6%
September 2022	4.0%	4.0%	4.2%
October 2022	4.2%	4.1%	4.6%
November 2022	3.7%	3.5%	5.1%

Source: Department of Labor, Bureau of Labor Statistics

Prior to April 2020, which was the month when COVID-19 stay-at-home orders began to impact many non-essential businesses, the unemployment rates for the counties in the PSA ranged between 6.6% (Erie County) and 8.9% (Ottawa County). In April 2020, the rates for each county increased sharply, with the highest rate (24.5%) occurring in Erie County, followed by Huron County (19.9%) and Ottawa County (17.6%). Over the next few months, the unemployment rates in each county decreased significantly, and by August 2020,

the rate in each county had decreased to levels comparable to, or below (Huron and Ottawa counties), the rates in March 2020. While some of this rapid recovery can be attributed to already high unemployment rates during the first quarter of 2020 due to seasonality, the speed of recovery following the COVID-19 stay-at-home orders illustrates the resilient nature of the local economies in each of the counties of the Firelands Region. While seasonal increases occurred in each county over the past two years, typically in January and February, unemployment rates have steadily been trending downward. As of November 2022, the most recent month for which data is available, the unemployment rate for Huron County was 3.5%, followed by Erie County (3.7%) and Ottawa County (5.1%).

In-place employment reflects the total number of *jobs within an area* regardless of the employee's county of residence. The following table illustrates the total in-place employment base for each of the PSA counties.

Year	In-Place Employment					
	Erie County		Huron County		Ottawa County	
	Total Number	Percent Change	Total Number	Percent Change	Total Number	Percent Change
2012	36,312	-	20,379	-	13,545	-
2013	36,597	0.8%	20,136	-1.2%	13,649	0.8%
2014	36,471	-0.3%	20,125	-0.1%	13,718	0.5%
2015	36,848	1.0%	20,300	0.9%	13,531	-1.4%
2016	36,970	0.3%	21,036	3.6%	13,630	0.7%
2017	37,403	1.2%	21,032	0.0%	13,772	1.0%
2018	37,417	0.0%	21,199	0.8%	13,842	0.5%
2019	36,615	-2.1%	21,292	0.4%	13,828	-0.1%
2020	32,928	-10.1%	19,807	-7.0%	12,962	-6.3%
2021	35,451	7.7%	20,660	4.3%	13,342	2.9%
2022*	35,304	-0.4%	20,789	0.6%	13,171	-1.3%

Source: Department of Labor; Bureau of Labor Statistics

*Through June

The preceding table illustrates the largest percentage growth of in-place employment (people working within county) between 2012 and 2019 occurred in Huron County (913 jobs, or 4.5%), followed by Ottawa County (283 jobs, or 2.1%) and Erie County (303 jobs, or 0.8%). While Erie County and Ottawa County both experienced decreases (2.1% and 0.1%, respectively) of in-place employment in 2019, Huron County experienced an increase of 0.4%. This is notable because these numbers represent the last full year of data prior to the economic effects of COVID-19. In 2020, substantial decreases of in-place employment occurred in each of the PSA counties, which can be largely attributed to the COVID-19 pandemic. Declines during 2020 ranged from 6.3% (Ottawa County) to 10.1% (Erie County). In 2021, all three counties had increases of in-place employment, which ranged between 2.9% (Ottawa County) and 7.7% (Erie County). As of June 2022, in-place employment in Huron County recovered to 97.6% of the level in 2019, while Erie County (96.4%) and Ottawa County (95.2%) have recovered to a slightly smaller degree. While this illustrates that each of the counties in the PSA have been actively recovering from the pandemic in 2020, some weakness in the local labor markets persist in the PSA.

Based on the recent and steady improvement of total employment, the unemployment rate, and in-place employment in each of the counties in the PSA, the data indicates the economy in each of the counties will likely continue to improve in the near future. This comparably longer delay in a full economic recovery is similar to other markets with a high share of tourism-based occupations (entertainment, recreation, and accommodation) and significant seasonal employment.

Employment Outlook

The Worker Adjustment and Retraining Notification (WARN) Act requires advance notice of qualified plant closings and mass layoffs. WARN notices were reviewed on January 26, 2023. According to the Ohio Department of Job and Family Services, there have been no WARN notices reported for Erie County, Huron County, or Ottawa County over the past 12 months.

The 10 largest employers of each county within the Firelands Region are summarized in the following table:

Firelands Region Largest Employers		
Employer Name	Business Type	Total Employed
Erie County		
Wings of Vermillion Liquidation, Incorporated	Food Services	1,712
Firelands Regional Health System	Healthcare	1,300
NASA/Glenn Research Center	Technology	840
Hanson Aggregates East, LLC	Manufacturer	628
Cedar Fair, L.P.	Amusement Park	600
Meijer, Incorporated	Grocery	352
Great Bear Lodge of Sandusky, LLC	Entertainment	300
Fisher - Titus Affiliated Services	Healthcare	300
J. H. Routh Packing Company	Distributor	300
County of Erie	Government	228
	Erie County Total	6,560
Huron County		
Stanley Black & Decker, Incorporated	Manufacturer	1,600
Fisher Titus Health	Healthcare	1,300
Campbell's Soup	Manufacturer	670
LSC Communications, Incorporated	Technology	630
New Horizons Baking Company, LLC	Manufacturer	431
Berry Global	Manufacturer	371
Bogers Ohio, Incorporated	Manufacturer	330
Norwalk Furniture	Manufacturer	300
Janotta & Herner	Construction	160
Fabriweld	Manufacturer	135
	Huron County Total	5,927

Erie County Source: Team NEO, D&B Hoovers 1/2023

Huron County Source: Norwalk Economic Development Corporation; 2022

(Continued)

Firelands Region Largest Employers		
Employer Name	Business Type	Total Employed
Ottawa County		
Materion Corporation	Manufacturer	N/A
Davis-Besse Nuclear Power Station	Nuclear Energy	N/A
Magruder Hospital	Healthcare	N/A
United States Gypsum	Manufacturer	N/A
Luther Home of Mercy	Healthcare	N/A
LogistiQ	Manufacturer	N/A
Bassett's Markets	Grocery	N/A
Avery Dennison	Manufacturer	N/A
Northern Manufacturing Company	Manufacturer	N/A
Riverview Industries, Incorporated	Healthcare	N/A

Ottawa County Source: Ottawa County Improvement Corporation

N/A – Not Available

Major employers in Erie County are primarily engaged in food services, healthcare, recreation/entertainment, manufacturing, and public administration. As four of the 10 largest employers are involved in food services, recreation, and entertainment, which typically have occupations with lower wages, affordable housing in Erie County is likely important to a significant number of local workers. In addition, a number of top employers offer occupations with competitive compensation, such as those related to healthcare, manufacturing, and technology. As such, there is likely a need for a variety of housing types at various price points within Erie County. The availability of such housing is critical to ensure the employers of the area have the ability to retain and attract employees to maintain their current level of production and provide for potential future expansions.

Major employers in Huron County are primarily engaged in manufacturing, healthcare, technology, and construction, which typically offer occupations with competitive compensation. As such, the demand for middle-income, workforce housing for the employees of the major employers is likely significant in Huron County. However, it should be noted that many support occupations within these industries have lower wages, which contributes to the need for more affordable housing options. While many manufacturers were adversely affected by supply chain issues and the availability of employees following the COVID-19 pandemic, it is notable that total employment in Huron County has returned to 99.8% of the 2019 level, while in-place employment is at 97.6% of the 2019 level. This suggests that future employment expansions by these top employers may increase the need for additional housing options in the county to maximize their recruitment efforts.

Major employers in Ottawa County are primarily engaged in manufacturing, energy production, healthcare, and food services. There is likely significant demand for affordable housing and middle-income workforce housing for the employees in Ottawa County. In addition, a number of the major employers in Ottawa County are engaged in critical services (healthcare, energy, groceries), which helps insulate the local economy from economic downturns. As total employment and in-place employment still remain notably below their 2019 levels, it is important that adequate housing options for a variety of income levels are available within Ottawa County to maximize the potential of total employment (residents of the county regardless of their place of employment) and in-place employment (the ability of employers to attract employees to work within the county).

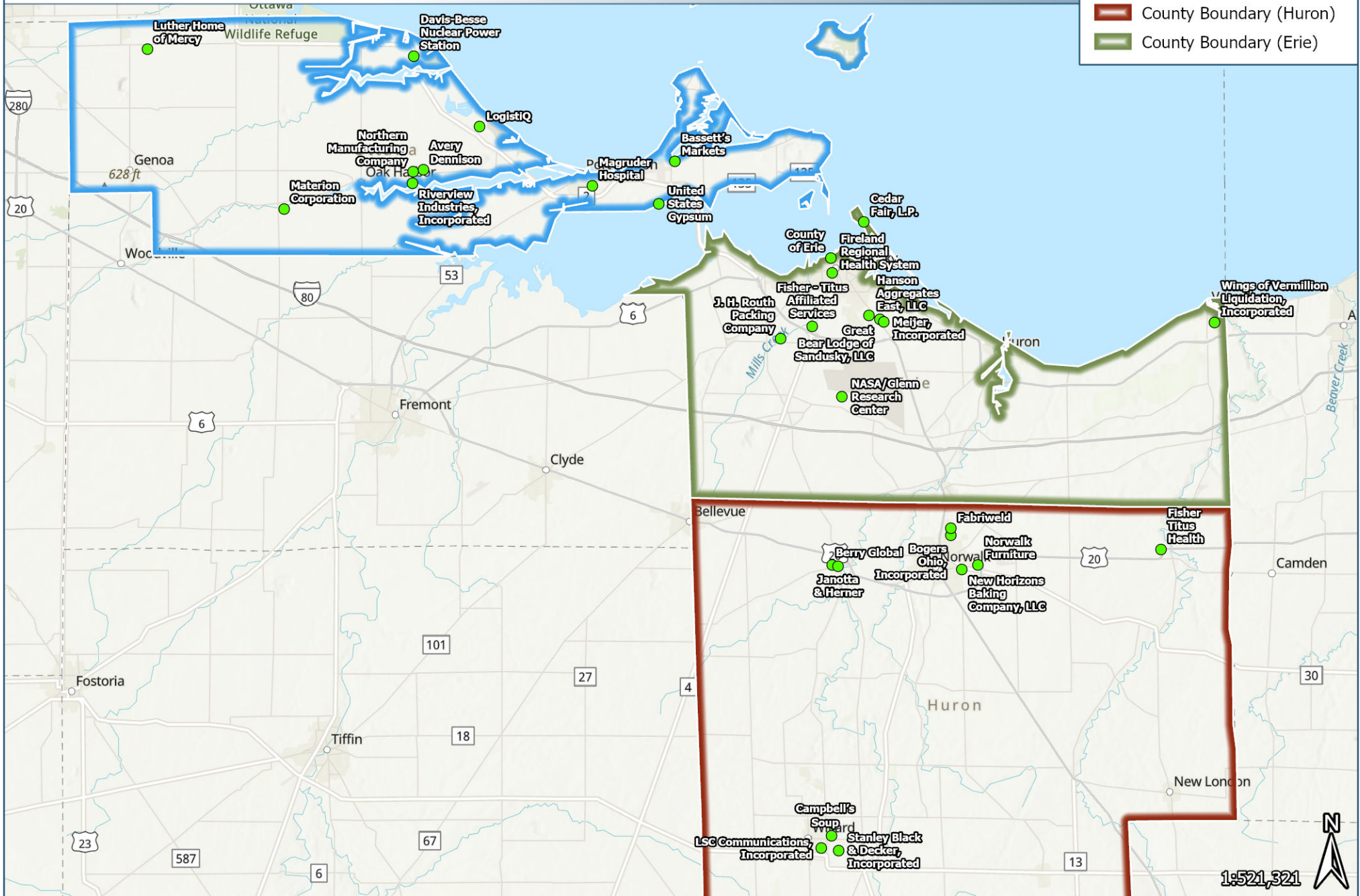
According to projections published by the Ohio Department of Job and Family Services (January 2021), total employment for the state of Ohio is projected to increase by 2.4% between 2018 and 2028. Within the JobsOhio Northwest Region, which includes Ottawa County, projections indicate that there will be a slight decrease of approximately 215 jobs (less than 0.1%) between 2018 and 2028. Within the JobsOhio Northeast Region, which includes Erie and Huron counties, job growth of 0.2% (3,671 jobs) is projected between 2018 and 2028. While the preceding data does not provide information related to specific counties in each region, the overall increase in employment for the state and the Northeast Region, in particular, will likely have a positive influence on the three counties of the PSA (Firelands Region).

In addition, data provided by Lightcast, which is a labor market analytics firm, projects job growth within the three PSA counties of 3.5% (2,654 jobs) between 2022 and 2027. This increase will result in a total of 79,053 jobs within the PSA by 2027, and represents positive job growth for the Firelands Region in the coming years. Based on our research of recent economic development in the three counties, which is detailed later in this section, approximately 272 new jobs were created in Erie County in 2021 and 2022 from major investments and expansions. Similarly, one investment in Huron County in 2021 resulted in the creation of 50 additional jobs. As this only includes job creation from major investments identified during our research, it is likely that a number of additional jobs were created in connection with these investments, as well as outside these investments.

Overall, the positive economic trends for the three counties following the COVID-19 pandemic in 2020, the projected increases in employment for the PSA counties, the Northeast Region, and the state, as a whole, and the identified recent investments made by employers in the counties will likely position the Firelands Region to benefit from future economic growth in the coming years and contribute to demand for housing in the region.

A map delineating the location of the largest employers for the Firelands Region is included on the following page.

- Largest Employers
- County Boundary (Ottawa)
- County Boundary (Huron)
- County Boundary (Erie)



Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
 Additional Source(s): Bowen National Research

Economic Development

Economic development can improve the economic well-being and quality of life for a region or community by building local wealth, diversifying the economy, and creating and retaining jobs. Local perspective on the economy as well as several notable developments in each of the PSA counties are summarized as follows.

The location of Erie County is ideal for economic development due to its proximity to Cleveland, Toledo, and the Akron/Canton metropolitan areas. The county attracts millions of tourists yearly due to its location along Lake Erie and by offering several recreational attractions and educational institutions.

Huron County offers more than 800 farms and approximately 240,000 acres of farmland which makes agriculture the leading industry in the area. Other thriving industries include manufacturing, construction, healthcare, and retail. Several arterial roadways provide quick access to major interstates and the Ohio Turnpike and several rail yards in Norwalk also add to the benefit of economic development.

According to a representative with the Ottawa County Improvement Corporation, Ottawa County is a diverse economy with prominence in agricultural, energy, manufacturing, and hospitality/tourism sectors. The economy has grown over the past several years and continues to grow. However, like most areas, that growth has put a strain on the available workforce. Consequently, employers have to increase wages to remain competitive. The representative also noted that a lack in county population growth over the past 40 years impacts the workforce. Several of the larger employers in Ottawa County have added jobs in the past year, are currently hiring, or plan to do so in 2023. As a result, these employers have increased their employee base by 10% or more and plan to expand their facilities accordingly in the near future. The representative indicated that the combination of a tight labor market and lack of housing influences employers to hire employees who reside outside Ottawa County. Local sources indicate that there simply are not enough homes to satisfy the demand.

The following table summarizes recent economic development projects in Erie County, Huron County, and Ottawa County that are proposed, under construction, or completed.

Firelands Region Economic Development Activity			
Project Name	Investment	Job Creation	Scope of Work/Details
Erie County			
Sandusky Mall Complex Sandusky	\$40 million+	N/A	Completed: Redevelopment of the mall was completed in 2022
Hogrefe Building Sandusky	\$6.5 million	N/A	Completed: Redevelopment of Hogrefe Building; Includes apartments, retail, and office space
Ardagh Metal Packaging Huron	\$411 million	200	Completed: A leading global supplier of recyclable, sustainable, aluminum beverage cans opened a 600,000 square-foot facility in early 2022
American Colors, Inc. Sandusky	N/A	22	Completed: In 2022, completed a 12,500 square-foot expansion project
The Villas at Sandy Creek Sandusky	\$10 million+	N/A	Under Construction: Next to Sandusky Mall; Multifamily housing development will consist of 100+ apartments; ECD 2023
Sandusky State Theater Sandusky	\$30 million	N/A	Under Construction: Rebuild of theater due to storm damage in 2020
Cedar Fair, L.P. (Cedar Point)	N/A	N/A	Under Construction/Completed: Wild Mouse roller coaster scheduled to open in spring 2023; The Grand Pavilion estimated completion in spring 2023; Plans include restaurants, bar and outdoor seating
ConAgra Site Redevelopment Huron	\$30 million	N/A	Approved: Rezoned in 2022; A mixed-use development consisting of 11 acres of waterfront property; Plans include housing, retail space, commercial space, dock space, space for public events
Redevelopment of former KBI Site Perkins Township	\$19 million	N/A	Approved: Awarded a \$6 million Brownfield Grant for improvement of the 129-acre site that has been abandoned since 2017
Battery Park Sandusky	\$200 million	N/A	Proposed: Plans include upgrades at the park and developing underused waterfront space
Cedar Point Esports Arena Sandusky	\$28 million	N/A	Proposed: Plans include 200 gaming stations; Ability to host gaming tournaments; If approved can begin construction in 2023
Huron County			
Tip Products New London	N/A	50	Completed: New 30,000 square-foot manufacturing business completed in 2021; Moved from Cleveland, Ohio to New London, Ohio
H2A Housing Cline Avenue, Norwalk	\$8 million	N/A	Completed: In 2022, Green Circle Growers completed 85 apartments for migrant workers
Avient Corporation Norwalk	\$2.5 million	N/A	Under Construction: No estimated completion date available at the time of this study
Ploger Transportation, LLC Norwalk	\$620,000	N/A	Expansion
Goodlevel Enterprises, LLC Norwalk	N/A	6	Expansion
Huron County Senior Center Norwalk	\$3 million	N/A	Proposed: A 15,000 square-foot facility; No time frame of construction available at the time of this study
Ottawa County			
No projects found at time report issued			

N/A - Not available

ECD - Estimated completion date

Infrastructure

The following table summarizes recent infrastructure projects within Erie County, Huron County and Ottawa County:

Firelands Region Infrastructure Projects			
Project Name	Investment	Scope of Work	Status
Erie County			
Cedar Point Causeway Wetlands Sandusky	\$96 million	A 30-acre project; New causeway between the mainland and the entrance to Cedar Point; Plans include a pedestrian lane, a new water taxi system, new recreation center, parks, and streets	Under Construction: ECD 2027 followed by 10 years of monitoring
U.S. Route 6 Huron and Sandusky	\$25 million	Improve safety along U.S. Route 6; Five intersections will be replaced with roundabouts; Add walking and bike paths; Improve railroad crossings	Approved: Construction to begin 2026; ECD 2027
Huron County			
Whittlesey Road Norwalk	\$400,000	Culvert replacement and slope stabilization	Approved: Bids out in winter 2023
Edwards Road/Dublin Road/Moriah Road Bronson Township	\$150,000	Pavement improvements	Under Construction: To be completed 2023
New State Road Various locations in county	\$950,000	48 miles of chip and seal repair	Under Construction: To be completed 2023
Remaining Townships Various locations in county	\$1.4 million	90 miles of chip and seal repair	Under Construction: To be completed 2023
Ottawa County			
Transit Canal Put-in-Bay	\$30 million	Rebuilt seawall to resolve road flooding; Constructed a new toll bridge	Completed: 2022
State Route 163 & North Shore Roundabout Lakeside/Marblehead	\$2 million	Roundabout added to reduce traffic accidents	Completed: 2022
State Route 163 Genoa	\$560,000	Bridge replacement	Completed: 2022
State Route 105 Elmore	\$1.28 million	Bridge replacement	Approved: Construction to begin 2023
State Route 53 & State Route 2 Port Clinton	\$12.3 million	Road widening	Approved: Construction to begin 2023

ECD – Estimated Completion Date

With hundreds of millions of dollars in both private and public sector investment planned or underway within the Firelands Region, a large number of new jobs are expected to be created over the next few years. While some of these may be filled by regional residents, it is likely that many of these jobs will be filled by non-residents. It is anticipated many of these non-residents represent potential support for additional housing within the subject market.

VI. HOUSING SUPPLY ANALYSIS

This housing supply analysis considers both rental and for-sale housing. Understanding the historical trends, market performance, characteristics, composition, and current housing choices provide critical information as to current market conditions and future housing potential. The housing data presented and analyzed in this section includes primary data collected directly by Bowen National Research and secondary data sources including American Community Survey (ACS), U.S. Census housing information, and data provided by various government entities and real estate professionals.

While there are a variety of housing alternatives offered in the PSA (Firelands Region), we focused our analysis on the most common alternatives. The housing structures included in this analysis are:

- **Rental Housing** – Rental properties consisting of multifamily apartments (generally with five or more units within a structure) were identified and surveyed. An analysis of non-conventional rentals (typically with four or less units within a structure) was also conducted. In addition, a survey of short-term (recreational/seasonal) rentals was completed to analyze the effect this housing segment has on the overall rental market.
- **For-Sale Housing** – For-sale housing alternatives, both recent sales activity and currently available supply, were inventoried. This data includes single-family homes, condominiums, mobile homes, and other traditional housing alternatives. It includes stand-alone product as well as homes within planned developments or projects.

For the purposes of this analysis, most of the housing supply information is presented for the PSA and the three counties (Erie, Huron, and Ottawa) of the PSA. However, we do provide some data on the individual submarkets in this section. Note that a portion of Erie County (Kelley’s Island) is included within Ottawa County for the purposes of this study. This analysis includes secondary Census housing data (renter- and owner-occupied), Bowen National Research’s survey of area rental alternatives, and for-sale housing data (both historical sales and available housing alternatives) obtained from secondary data sources (Multiple Listing Service/Realtor.com). Planned or proposed housing was also considered for its potential impact on housing market conditions and demand. Please note, the totals in some charts may not equal the sum of individual columns or rows or may vary from the total reported in other tables due to rounding.

Maps illustrating the location of various housing types are included throughout this section.

A. OVERALL HOUSING SUPPLY (SECONDARY DATA)

This section of area housing supply is based on secondary data sources such as the U.S. Census, American Community Survey and ESRI, and is provided for the PSA (Firelands Region), the counties that comprise the PSA, the selected submarkets, and the state of Ohio, when applicable.

Housing Characteristics

The estimated distribution of the area housing stock by tenure (renter and owner) for each study area for 2022 is summarized in the following table:

		Occupied and Vacant Housing Units by Tenure 2022 Estimates				
		Total Occupied	Owner Occupied	Renter Occupied	Vacant	Total
Erie North	Number	15,948	10,445	5,503	2,734	18,682
	Percent	85.4%	65.5%	34.5%	14.6%	100.0%
Erie East	Number	11,382	9,285	2,097	2,257	13,639
	Percent	83.5%	81.6%	18.4%	16.5%	100.0%
Erie West	Number	4,792	3,942	849	384	5,176
	Percent	92.6%	82.3%	17.7%	7.4%	100.0%
Erie County	Number	32,121	23,672	8,449	5,375	37,496
	Percent	85.7%	73.7%	26.3%	14.3%	100.0%
Huron North	Number	15,584	11,160	4,424	1,225	16,809
	Percent	92.7%	71.6%	28.4%	7.3%	100.0%
Huron South	Number	7,780	5,639	2,141	922	8,702
	Percent	89.4%	72.5%	27.5%	10.6%	100.0%
Huron County	Number	23,364	16,799	6,565	2,147	25,511
	Percent	91.6%	71.9%	28.1%	8.4%	100.0%
Ottawa East	Number	8,230	6,398	1,833	9,949	18,179
	Percent	45.3%	77.7%	22.3%	54.7%	100.0%
Ottawa West	Number	9,536	7,798	1,737	1,966	11,502
	Percent	82.9%	81.8%	18.2%	17.1%	100.0%
Ottawa County	Number	17,766	14,196	3,570	11,915	29,681
	Percent	59.9%	79.9%	20.1%	40.1%	100.0%
Firelands Region	Number	73,251	54,667	18,584	19,437	92,688
	Percent	79.0%	74.6%	25.4%	21.0%	100.0%
Ohio	Number	4,831,456	3,239,799	1,591,657	444,008	5,275,464
	Percent	91.6%	67.1%	32.9%	8.4%	100.0%

Source: 2020 Census; ESRI; Urban Decision Group; Bowen National Research

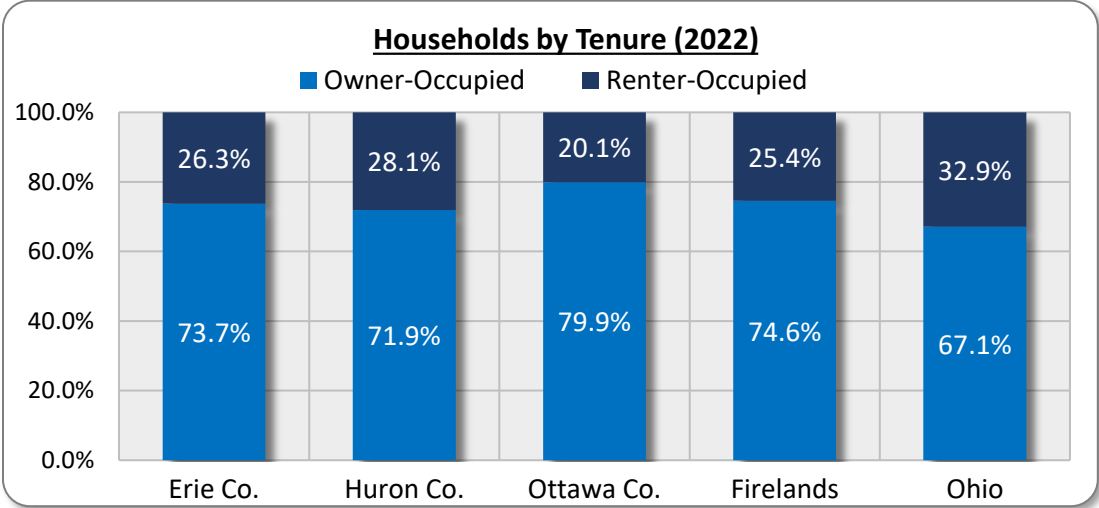
In total, there are an estimated 92,688 housing units within the PSA (Firelands Region) in 2022. Based on ESRI estimates and 2020 Census data, of the 73,251 total *occupied* housing units in the PSA, 74.6% are owner occupied, while the remaining 25.4% are renter occupied. As such, the PSA has a higher share of owner-occupied housing units when compared to the state (67.1%). Approximately 21.0% of the housing units within the PSA are classified as vacant, which represents a significantly higher share than that of the state (8.4%). Vacant units are comprised of a variety of units including abandoned properties, unoccupied rentals, for-sale homes, and seasonal housing units. Seasonal/recreational units play a significant role in the local housing market.

Among the three counties of the PSA, Erie County accounts for the largest share (40.5%) of the total housing units in the PSA, followed by Ottawa County (32.0%) and Huron County (27.5%). In regard to the distribution of tenure among the occupied housing units in each county, Ottawa County has the largest share (79.9%) of owner-occupied housing units, while Huron County has the largest share (28.1%) of renter-occupied housing units. Among the three counties, Ottawa County has an extraordinarily high share (40.1%) of vacant housing units. While Erie County also has a relatively high share (14.3%) of vacant units, the share of vacant units in Huron County (8.4%) is equal to the share for the state (8.4%). Given the influence that the tourism industry has on the local market, it is not surprising that vacancy rates are high in the area as such units include seasonal/recreational housing units.

The submarkets within the PSA that contain the largest total number of housing units include Erie North (18,682), Ottawa East (18,179), and Huron North (16,809). While the Erie West Submarket has the largest share of owner-occupied units (82.3%), the Erie North Submarket has the largest share of renter-occupied units (34.5%). The submarkets with the highest shares of vacant housing units include Ottawa East (54.7%), Ottawa West (17.1%), and Erie East (16.5%). This is likely due to the number of seasonal/recreational units present within Ottawa and Erie counties, which is analyzed later in the report.

Overall, the distribution of tenure and share of vacant housing units within the PSA varies greatly between the three counties and the individual submarkets. This suggests that the housing market in each study area of the PSA likely has its own unique circumstances that should be considered when analyzing the current and future housing needs of the respective area.

The following graph compares occupied units by tenure.



The following table compares key housing age and conditions of each study area and the state based on 2016-2020 American Community Survey data. Housing units built over 50 years ago (pre-1970), overcrowded housing (1.01+ persons per room), or housing that lacks complete indoor kitchens or bathroom plumbing are illustrated for each study area by tenure. It is important to note that some occupied housing units may have more than one housing issue.

	Housing Age and Conditions											
	Pre-1970 Product				Overcrowded				Incomplete Plumbing or Kitchen			
	Renter		Owner		Renter		Owner		Renter		Owner	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Erie North	4,012	64.3%	6,506	66.5%	12	0.2%	13	0.1%	12	0.2%	110	1.1%
Erie East	1,042	44.4%	4,110	48.5%	31	1.3%	121	1.4%	64	2.7%	110	1.3%
Erie West	323	40.1%	1,670	47.4%	10	1.2%	62	1.8%	0	0.0%	23	0.7%
Erie County	5,377	57.3%	12,287	56.4%	53	0.6%	197	0.9%	76	0.8%	244	1.1%
Huron North	2,080	44.5%	5,631	51.6%	76	1.6%	109	1.0%	73	1.6%	30	0.3%
Huron South	952	51.5%	3,741	66.5%	27	1.5%	51	0.9%	20	1.1%	41	0.7%
Huron County	3,032	46.5%	9,372	56.7%	103	1.6%	160	1.0%	93	1.4%	71	0.4%
Ottawa East	855	48.6%	3,483	50.9%	16	0.9%	38	0.6%	84	4.8%	35	0.5%
Ottawa West	1,021	48.7%	4,174	54.3%	10	0.5%	74	1.0%	119	5.7%	76	1.0%
Ottawa County	1,875	48.6%	7,658	52.7%	26	0.7%	112	0.8%	203	5.3%	111	0.8%
Firelands Region	10,284	52.0%	29,317	55.4%	182	0.9%	469	0.9%	372	1.9%	426	0.8%
Ohio	816,653	51.4%	1,586,092	50.7%	40,729	2.6%	23,672	0.8%	37,171	2.3%	21,941	0.7%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

In the PSA (Firelands Region), over half of the renter-occupied (52.0%) and owner-occupied (55.4%) housing units were built prior to 1970. As such, the housing stock in the PSA appears to be slightly older than housing within the state, where 51.4% of the renter-occupied housing units and 50.7% of the owner-occupied units were built prior to 1970. While the share of renter households in the PSA that experience overcrowding (0.9%) is considerably less than that of the state (2.6%), the share of overcrowded owner households in the PSA (0.9%) is slightly greater than the state (0.8%). The share of renter-occupied households in the PSA with incomplete plumbing or kitchens (1.9%) is less than that of the state (2.3%), while the share of owner-occupied households (0.8%) in the PSA experiencing these issues is only slightly higher than the state (0.7%). Overall, over 600 occupied housing units are overcrowded and nearly 800 units lack complete kitchens or plumbing facilities.

Among the counties of the PSA, Erie County has the largest share of renter-occupied housing built prior to 1970 (57.3%), while Huron and Ottawa counties have similar shares of owner-occupied housing built prior to 1970 (56.7% and 52.7%, respectively). Huron County has the largest shares of overcrowded renter-occupied (1.6%) and overcrowded owner-occupied (1.0%) housing in the PSA. With regard to incomplete plumbing or kitchens, Ottawa County has the largest share (5.3%) of renter-occupied housing with these issues, while Erie County has the largest share (1.1%) of owner-occupied housing with incomplete plumbing or kitchens. Other than the share of renter-occupied

housing in Ottawa County with incomplete plumbing or kitchens (5.3%), which is considerably higher than the share for the state (2.3%), the prevalence of housing conditions in the three counties are reasonably comparable to the conditions within the state.

The notable age and condition issues that exist within the PSA submarkets include the share of renter-occupied housing built prior to 1970 in the Erie North Submarket (64.3%), the shares of owner-occupied housing built prior to 1970 in the Erie North and Huron South submarkets (66.5%, each), the share of overcrowded owner-occupied housing in the Erie West Submarket (1.8%), and the share of renter-occupied housing with incomplete plumbing or kitchens in the Ottawa West Submarket (5.7%). Although there appears to be some isolated instances of condition issues within individual submarkets in the PSA, the condition of the housing inventory in the PSA, overall, appears to be very comparable to housing in the state of Ohio, and does not appear to have any major age or condition issues. Regardless, the subject region has over 1,400 occupied substandard (overcrowded or lacking complete kitchen or plumbing) housing units.

The following table compares key household income, housing cost, and housing affordability metrics of each study area and the state. It should be noted that cost burdened households pay over 30% of income toward housing costs, while severe cost burdened households pay over 50% of income toward housing.

Household Income, Housing Costs and Affordability							
	Median Household Income	Estimated Median Home Value	Average Gross Rent	Share of Cost Burdened Households*		Share of Severe Cost Burdened Households**	
				Renter	Owner	Renter	Owner
Erie North	\$55,082	\$141,021	\$775	45.1%	15.4%	26.3%	7.2%
Erie East	\$82,154	\$195,481	\$900	22.7%	13.1%	11.9%	5.4%
Erie West	\$79,529	\$188,925	\$896	39.2%	14.6%	25.7%	4.1%
Erie County	\$68,370	\$174,158	\$816	39.0%	14.4%	22.7%	6.0%
Huron North	\$61,804	\$166,485	\$729	36.6%	15.8%	15.9%	6.5%
Huron South	\$57,842	\$142,867	\$717	32.7%	16.4%	13.3%	8.4%
Huron County	\$60,297	\$159,696	\$726	35.5%	16.0%	15.2%	7.1%
Ottawa East	\$58,797	\$211,686	\$749	36.5%	15.6%	25.7%	5.8%
Ottawa West	\$67,609	\$168,784	\$773	35.1%	14.0%	10.2%	4.6%
Ottawa County	\$63,700	\$185,870	\$762	35.8%	14.8%	17.3%	5.2%
Firelands Region	\$64,741	\$172,235	\$776	37.2%	15.0%	19.1%	6.1%
Ohio	\$64,148	\$189,226	\$889	40.9%	17.4%	20.3%	6.6%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

*Paying more than 30% of income toward housing costs

**Paying more than 50% of income toward housing costs

The median household income of \$64,741 within the PSA (Firelands Region) is slightly higher than the median household income for the state (\$64,148). The estimated median home value in the PSA of \$172,235 is 9.9% lower than the median home value for the state (\$189,226). The average gross rent in the PSA (\$776) is 14.6% lower than average gross rent for the state (\$889). The higher median household income of the PSA, combined with a lower median home value and lower average gross rent, results in lower shares of cost burdened and severe cost burdened households in the Firelands Region compared to the state.

Regardless, nearly two-fifths (37.2%) of renter households in the PSA are cost burdened, while 15.0% of owner households are cost burdened. Moreover, one-fifth (19.1%) of renter households in the PSA are severe housing cost burdened (paying over 50% of income toward housing). Overall, the PSA has an estimated 7,356 renter households and 7,918 owner households that are housing cost burdened. Of the renter households, approximately 3,783 are severe cost burdened while 3,229 owner households are severe cost burdened. As such, affordable housing alternatives should be part of future housing solutions.

Among the three counties of the PSA, Erie County has the highest median household income (\$68,370), followed by Ottawa County (\$63,700) and Huron County (\$60,297). The median home value within Ottawa County (\$185,870) is the highest of the three counties, followed by Erie County (\$174,158) and Huron County (\$159,696). Despite having the lowest median home value of the three counties, the share of cost burdened owner households in Huron County (16.0%) is slightly higher than the shares in Erie County (14.4%) and Ottawa County (14.8%), which is the result of Huron County having the lowest median household income. Among the PSA counties, Erie County has the highest average gross rent (\$816), followed by Ottawa County (\$762) and Huron County (\$726). The significantly higher average gross rent in Erie County results in the largest share of cost burdened (39.0%) and severe cost burdened (22.7%) households in the PSA.

The individual submarkets with the highest shares of cost burdened renter households are Erie North (45.1%), Erie West (39.2%), and Huron North (36.6%). While these submarkets have the highest shares of cost burdened renter households in the PSA, the largest shares of cost burdened owner households are within the Huron South (16.4%), Huron North (15.8%), and Ottawa East (15.6%) submarkets. As such, the Huron North Submarket ranks in the top three for both cost burdened renter and owner households in the PSA. Overall, each submarket in the PSA has a unique combination of incomes, home values, and gross rents which results in varying degrees of housing cost burden among owners and renters in each area. As such, future housing developments should consider the unique housing needs for each submarket in the PSA.

B. HOUSING SUPPLY ANALYSIS (BOWEN NATIONAL SURVEY)

1. Multifamily Rental Housing

Between October and December of 2022, Bowen National Research surveyed (both by telephone and in-person) numerous multifamily rental housing projects within the PSA (Firelands Region). While these rentals do not represent all multifamily rental housing projects in the market, they provide significant insight as to the market conditions of commonly offered multifamily rental product. We believe this survey represents a good base from which characteristics and trends of multifamily rental housing can be evaluated and from which conclusions can be drawn.

Projects identified, inventoried, and surveyed operate under a number of affordable housing programs including the Low-Income Housing Tax Credit (LIHTC), HUD Sections 8 and 202 and Public Housing programs, as well as market-rate. Definitions of each housing program are included in Addendum H: Glossary.

Managers and leasing agents at each project were surveyed to collect a variety of property information including vacancies, rental rates, design characteristics, amenities, utility responsibility, and other features. Each project was also rated based on quality and upkeep. Each surveyed property was photographed and mapped as part of this survey. Data collected during our survey is presented in aggregate format for the various study areas.

We identified and personally surveyed 83 multifamily apartment properties containing a total of 4,697 units within the Firelands Region. Of these projects, 40 (48.2%) were in Erie County, 28 (33.7%) were in Huron County, and 15 (18.1%) were in Ottawa County. The survey was conducted to establish the overall strength of the PSA multifamily rental market and to identify potential housing needs within each county and county submarket. The surveyed rentals within the PSA have a combined occupancy rate of 99.4%, an extremely high rate for multifamily rental housing. Typically, healthy, well-balanced markets have rental housing occupancy rates generally between 94% and 96%. As such, the PSA's multifamily rental market is operating at an exceedingly high occupancy level, and vacancies in the overall county are very limited, with only 30 vacancies identified in the entire region during the survey.

The following table summarizes the surveyed multifamily rental supply.

Multifamily Supply by Product Type				
Project Type	Projects Surveyed	Total Units	Vacant Units	Occupancy Rate
Erie County				
Market-Rate	27	2,201	24	98.9%
Market-Rate/Tax Credit	1	18	0	100.0%
Tax Credit	2	80	0	100.0%
Tax Credit/Government-Subsidized	1	100	0	100.0%
Market-Rate/Tax Credit/Government-Subsidized	1	117	0	100.0%
Government-Subsidized	8	332	0	100.0%
Total	40	2,848	24	99.2%
Huron County				
Market-Rate	13	793	1	99.9%
Tax Credit	2	100	0	100.0%
Tax Credit/Government-Subsidized	3	144	0	100.0%
Government-Subsidized	10	356	1	99.7%
Total	28	1,393	2	99.9%
Ottawa County				
Market-Rate	5	113	3	97.3%
Tax Credit	1	40	0	100.0%
Tax Credit/Government-Subsidized	1	50	0	100.0%
Government-Subsidized	8	253	1	99.6%
Total	15	456	4	99.1%

Overall, demand for multifamily rental housing in the PSA (Firelands Region) is very strong, as there does not appear to be many vacancies, regardless of the program type (e.g., market-rate, Tax Credit, government subsidized or some combination of these program types), in the three PSA counties. All three counties have overall occupancy rates that exceed 99%, with Huron County having the highest occupancy rate (99.9%) and only two vacancies. While Erie County has the greatest number of total vacancies with 24, it should be noted that this county also has the largest number of total surveyed units (2,848), which results in the second highest occupancy rate (99.2%) among the three counties. It is also noteworthy that all of the vacancies within Erie County are among market-rate properties as there are no vacancies in the Tax Credit or government-subsidized properties. In total, there are only two vacancies in the entirety of the PSA within government-subsidized projects and no vacancies among Tax Credit projects, which suggests that affordable housing options are in extremely high demand in the Firelands Region. Despite 28 total vacancies among the market-rate properties, the occupancy rate for such property types in the PSA is 99.1%. This illustrates that, regardless of program type, demand for multifamily rental housing is exceptionally high in the PSA.

The following table summarizes the surveyed multifamily rental housing for each of the study areas (submarkets and counties), including the seven submarkets within the PSA (Firelands Region).

Overall Market Performance by Area										
Data Set	Erie East	Erie North	Erie West	Erie County	Huron North	Huron South	Huron County	Ottawa East	Ottawa West	Ottawa County
Projects	9	28	3	40	19	9	28	10	5	15
Total Units	762	1,885	201	2,848	1,021	372	1,393	318	138	456
Vacant Units	3	21	0	24	1	1	2	3	1	4
Occupancy Rate	99.6%	98.9%	100.0%	99.2%	99.9%	99.7%	99.9%	99.1%	99.3%	99.1%

As previously stated, healthy, well-balanced rental housing markets have occupancy levels generally between 94% and 96%. Typically, a market occupancy level over 97% is an indication of a possible housing shortage, which can lead to housing problems such as unusually rapid rent increases, people forced to live in substandard housing, households living in rent overburdened situations, residents living in overcrowded housing situations, or residents leaving the area to seek housing elsewhere. Conversely, occupancy rates below 94% may indicate some softness or weakness in a market, which may be the result of a saturated or overbuilt market, or one that is going through a decline due to economic downturns and corresponding demographic declines.

As the preceding illustrates, the occupancy rate within each county of the PSA (Firelands Region) exceeds 99%. This likely indicates a housing shortage among multifamily rentals within the entirety of the PSA. The lowest occupancy rate among the individual submarkets in the PSA is within the Erie North Submarket (98.9%), yet this is still considered to be an extremely high occupancy rate. As such, it appears that demand is very strong in each of the submarkets and counties of the PSA, with no weaknesses in any particular submarket. The Erie West Submarket is currently fully occupied with no vacancies, and six other submarkets have three or fewer vacancies. With only 30 vacant units identified among the 4,697 apartment units included in the survey, the PSA has a very small base of available multifamily rental alternatives from which prospective renters can choose.

The following table illustrates the distribution of units and occupancy levels by the *different housing programs* in each study area. It should be noted that the total number of projects shown in this table does not match the totals from other portions of this section, as some projects operate under multiple program types and were counted multiple times in the table below.

Overall Market Performance by Program Type by Area										
Data Set	Erie East	Erie North	Erie West	Erie County	Huron North	Huron South	Huron County	Ottawa East	Ottawa West	Ottawa County
Market-Rate										
Projects	7	19	3	29	10	3	13	5	0	5
Total Units	693	1,326	201	2,220	649	144	793	113	0	113
Vacant Units	3	21	0	24	1	0	1	3	0	3
Occupancy Rate	99.6%	98.4%	100.0%	98.9%	99.8%	100.0%	99.9%	97.3%	-	97.3%
Tax Credit (Non-Subsidized)										
Projects	1	3	0	4	2	0	2	1	0	1
Total Units	43	144	0	187	100	0	100	40	0	40
Vacant Units	0	0	0	0	0	0	0	0	0	0
Occupancy Rate	100.0%	100.0%	-	100.0%	100.0%	-	100.0%	100.0%	-	100.0%
Government Subsidized										
Projects	1	9	0	10	7	6	13	4	5	9
Total Units	26	415	0	441	272	228	500	165	138	303
Vacant Units	0	0	0	0	0	1	1	0	1	1
Occupancy Rate	100.0%	100.0%	-	100.0%	100.0%	99.6%	99.8%	100.0%	99.3%	99.7%

Without exception, the occupancy levels by program type by submarket are extremely high, operating at occupancy rates of 97.3% (Ottawa East, Market-Rate) or higher, with many operating at full occupancy. Regardless of submarket, all affordable rental options operating under Tax Credit programs are fully occupied. In addition, only two vacancies were identified among the government-subsidized units. This indicates there are virtually no affordable housing options available to low-income households within the multifamily apartment inventory of the region. As such, these households likely have to seek housing options from the inventory of non-conventional rentals and for-sale housing, which are typically unaffordable to many low-income households.

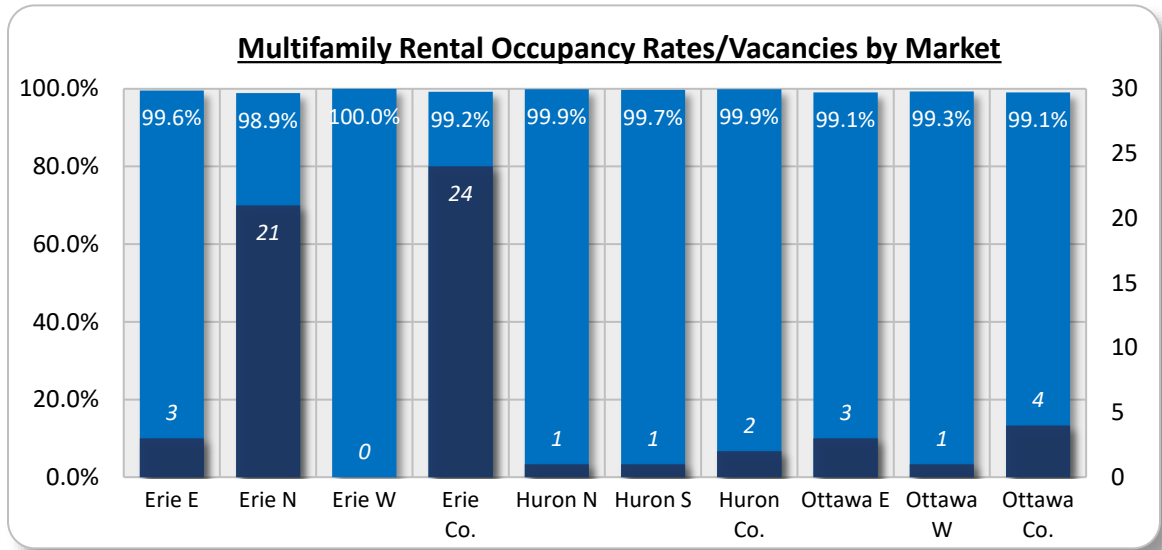
The following table summarizes the number of properties that maintain wait lists and the current length of wait lists within each of the PSA counties. Note that some households may be contained on multiple wait lists, and while some properties indicated they maintain a wait list, they did not provide a specific number of households or estimated length of time.

	Wait List Information by Property Type					
	MRR	GSS	TAX	MRT	TGS	TMG
Erie County						
Properties w/ Wait List	9	7	2	0	1	1
Total Properties	27	8	2	1	1	1
Share of Properties	32.3%	87.5%	100.0%	0.0%	100.0%	100.0%
Number of Households	322	124	10	-	12	11
Number of Months	-	-	6	-	-	-
Huron County						
Properties w/ Wait List	11	9	2	-	3	-
Total Properties	13	10	2	-	3	-
Share of Properties	84.6%	90.0%	100.0%	-	100.0%	-
Number of Households	103	41	80	-	87	-
Number of Months	-	12-36	-	-	-	-
Ottawa County						
Properties w/ Wait List	0	4	1	-	1	-
Total Properties	5	8	1	-	1	-
Share of Properties	0.0%	50.0%	100.0%	-	100.0%	-
Number of Households	-	-	10	-	20	-
Number of Months	-	6-36	-	-	-	-
Firelands Region						
Properties w/ Wait List	20	20	5	0	5	1
Total Properties	45	26	5	1	5	1
Share of Properties	44.4%	76.9%	100.0%	0.0%	100.0%	100.0%
Number of Households	425	165	100	-	119	11
Number of Months	-	6-36	6	-	-	-

MRR (market-rate), GSS (subsidized), TAX (Tax Credit), MRT=MRR+TAX, TGS=TAX+GSS, TMG=MRT+TAX+GSS

Of the 83 properties surveyed within the PSA, 51 (61.4%) maintain wait lists. Among the market-rate projects (MRR), 44.4% maintain wait lists, which total 425 households. Over three-fourths (76.9%) of government-subsidized projects (GSS) maintain wait lists, totaling 165 households with an estimated length of wait time ranging from six to 36 months. All five Tax-Credit projects (TAX) maintain wait lists, which total 100 households and a noted wait time for one property of approximately six months. Among the mixed-income properties containing Tax Credit and government-subsidized units (TGS), all properties maintain wait lists, totaling 119 households. While the only surveyed mixed-income market-rate and Tax Credit property (MRT) did not maintain a wait list, the mixed-income property consisting of market-rate, Tax Credit, and government-subsidized units (TMG) maintains a wait list of 11 households. The preceding table illustrates that, regardless of program type, significant wait lists for multifamily rentals are maintained in the region, which indicates a very strong level of pent-up demand for multifamily rental housing in the PSA.

The following graph illustrates the occupancy rates and total vacancies by submarket.



The remainder of the multifamily apartment analysis on the following pages is evaluated by product type (e.g., market-rate, Tax Credit, and government subsidized) for each county within the PSA (Firelands Region). This analysis includes characteristics such as the number of bedrooms, year built, and quality rating.

Market-Rate Housing

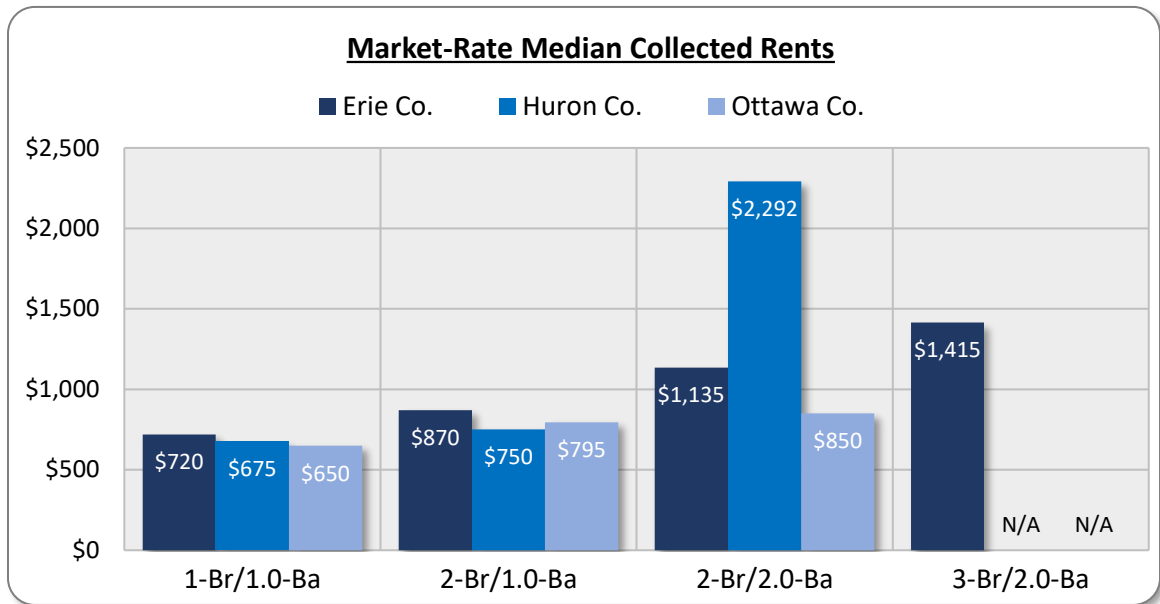
A total of 47 multifamily projects with at least some market-rate units were surveyed in the PSA (Firelands Region). Overall, these properties contain 3,126 market-rate units. The following table summarizes the units by bedroom/bathroom type.

Market-Rate Multifamily Rentals by Bedroom/Bathroom						
Bedroom	Baths	Units	Distribution	Vacancy	% Vacant	Median Collected Rent
Erie County						
Studio	1.0	90	4.1%	0	0.0%	\$640
One-Bedroom	1.0	809	36.4%	8	1.0%	\$720
Two-Bedroom	1.0	575	25.9%	11	1.9%	\$870
Two-Bedroom	1.5	147	6.6%	2	1.4%	\$850
Two-Bedroom	2.0	482	21.7%	1	0.2%	\$1,135
Three-Bedroom	1.0	51	2.3%	0	0.0%	\$960
Three-Bedroom	1.5	12	0.5%	0	0.0%	\$985
Three-Bedroom	2.0	50	2.3%	0	0.0%	\$1,415
Four-Bedroom	1.0	4	0.2%	2	50.0%	\$1,049
Total Market-Rate		2,220	100.0%	24	1.1%	-
Huron County						
Studio	1.0	35	4.4%	0	0.0%	\$535
One-Bedroom	1.0	303	38.2%	0	0.0%	\$675
Two-Bedroom	1.0	277	34.9%	0	0.0%	\$750
Two-Bedroom	1.5	49	6.2%	0	0.0%	\$750
Two-Bedroom	2.0	119	15.0%	1	0.8%	\$2,292
Three-Bedroom	1.0	2	0.3%	0	0.0%	\$700
Three-Bedroom	1.5	8	1.0%	0	0.0%	\$963
Total Market-Rate		793	100.0%	1	0.1%	-
Ottawa County						
One-Bedroom	1.0	40	35.4%	2	5.0%	\$650
Two-Bedroom	1.0	65	57.5%	1	1.5%	\$795
Two-Bedroom	2.0	8	7.1%	0	0.0%	\$850
Total Market-Rate		113	100.0%	3	2.7%	-

The market-rate units in the PSA are 99.1% occupied with a total of 28 vacancies. This represents a very high occupancy rate for market-rate rentals. PSA vacancy rates by bedroom and bathroom type are low among most unit types, particularly among the most common bedroom types including one-bedroom/one-bathroom units (0.9% vacant), two-bedroom/one-bathroom units (1.3% vacant) and two-bedroom/two-bathroom units (0.3% vacant). Median collected rents for these same common unit types range from \$650 (Ottawa County) to \$720 (Erie County) for a one-bedroom/one-bathroom unit, \$750 (Huron County) to \$870 (Erie County) for a two-bedroom/one-bathroom unit, and \$850 (Ottawa County) to \$2,292 (Huron County) for a two-bedroom/two-bathroom unit. It is worth pointing out that the rent premium for the two-bedroom/two-bathroom units in Huron County can be attributed to one newer property (Redwood Norwalk, 104 units, build date of 2008), which offers high-end rentals in a condominium-like configuration with amenities such as a private garage,

premium appliances and countertops, and a dog park/pet care. While Erie County offers the largest total numbers (2,220 units) of market-rate multifamily rentals of the three PSA counties, which accounts for 71.0% of the surveyed market-rate units in the PSA, rents in Erie County for most bedroom types are typically higher than they are within Huron and Ottawa counties. Most two-bedroom or larger market-rate rentals in Erie County have median rents of \$870 and higher and would require a minimum annual household income of nearly \$35,000 to be affordable. This indicates that approximately 45% of renter households in Erie County, or nearly 3,800 renter households, would not be able to afford the typical two-bedroom or larger multifamily market-rent unit in this market.

The following graph illustrates median market-rate rents among common bedroom types offered in the PSA counties.



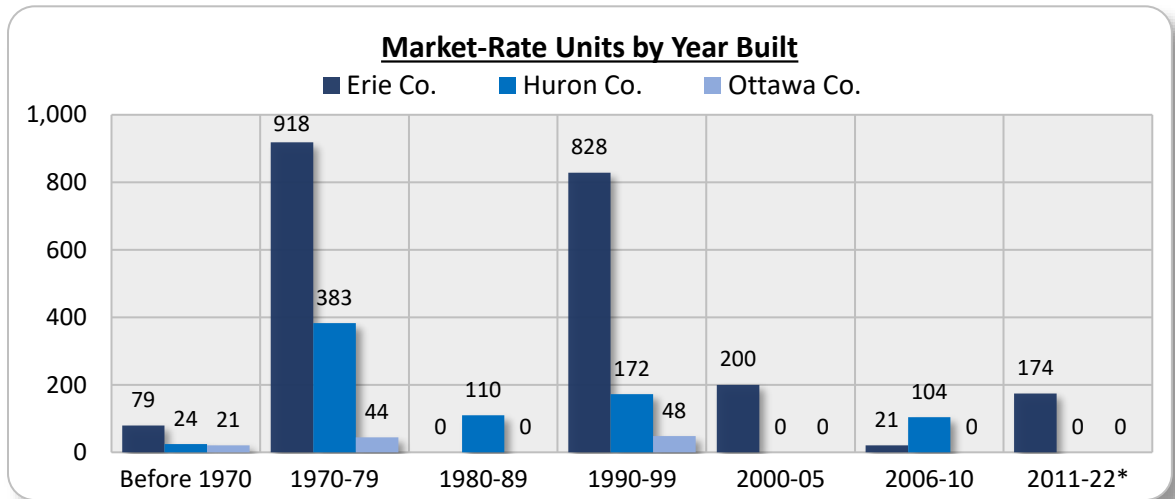
The following is a distribution of market-rate product surveyed by year built for the PSA counties:

Year Built	Market-Rate Apartments by Year Built								
	Erie County			Huron County			Ottawa County		
	Projects	Units	Vacancy Rate	Projects	Units	Vacancy Rate	Projects	Units	Vacancy Rate
Before 1970	2	79	0.1%	1	24	0.0%	1	21	4.8%
1970 to 1979	12	918	1.4%	8	383	0.0%	3	44	4.5%
1980 to 1989	0	0	-	2	110	0.0%	0	0	-
1990 to 1999	7	828	0.4%	1	172	0.0%	1	48	0.0%
2000 to 2005	1	200	0.0%	0	0	-	0	0	-
2006 to 2010	1	21	0.0%	1	104	1.0%	0	0	-
2011 to 2022*	6	174	4.0%	0	0	-	0	0	-

*As of December

Overall, the largest share (43.0%) of the surveyed market-rate product in the PSA was built between 1970 and 1979, with 1,345 of the total 3,126 units developed during this time period. Slightly over one-third (33.5%) of the market-rate units (1,048) were built between 1990 and 1999. With the exception of Erie County, the region has seen minimal market-rate product introduced since 2000. Regardless of year built, the overall occupancy rate for the surveyed market-rate rentals within the PSA is exceptionally high (99.1%). While the vacancy rate for the market-rate rentals in Ottawa County built before 1970 (4.8%) and those built between 1970 and 1970 (4.5%) are the highest within the PSA, it is important to understand that this only represents a total of three vacancies combined. Similarly, the vacancy rate among the market-rate rentals in Erie County built since 2011 (4.0%) is comparably higher than most of the other year built cohorts within the PSA; however, this only represents a total of seven vacant units. Overall, there are very few vacancies among the market-rate multifamily units in the PSA, regardless of year-built, and the age of any particular project does not appear to affect the occupancy rate of the market-rate multifamily units within the three counties of the PSA.

The distribution of surveyed market-rate units within the three PSA counties by development period is shown in the following graph.



*As of December

Representatives of Bowen National Research personally visited the surveyed multifamily rental projects within each county of the PSA and rated the exterior quality of each property on a scale of "A" (highest) through "F" (lowest). All properties were rated based on quality and overall appearance (i.e., aesthetic appeal, building appearance, landscaping and grounds appearance). The following is a distribution of the surveyed market-rate supply by quality rating.

Market-Rate Multifamily Rental Housing by Quality Level								
Quality Rating	Projects	Total Units	Vacancy Rate	Studio	One-Br.	Two-Br.	Three-Br.	Four+-Br.
Market-Rate Properties				Median Collected Rent				
Erie County								
A-	2	221	0.0%	-	-	\$1,200	-	-
B+	6	528	1.9%	\$915	\$750	\$1,135	-	-
B	7	489	0.0%	-	\$875	\$1,135	\$1,415	-
B-	9	664	1.2%	\$640	\$700	\$825	\$1,050	-
C+	3	244	1.2%	\$515	\$660	\$775	\$955	-
C	2	74	4.1%	-	\$725	\$840	\$980	\$1,049
Huron County								
A	1	104	1.0%	-	-	\$2,330	-	-
B	1	172	0.0%	-	\$715	\$860	-	-
B-	4	147	0.0%	-	\$575	\$625	\$700	-
C+	6	286	0.0%	\$625	\$749	\$875	\$963	-
C	1	84	0.0%	\$415	\$535	\$655	-	-
Ottawa County								
B+	2	69	1.4%	-	\$725	\$850	-	-
B	1	8	0.0%	-	-	\$850	-	-
B-	2	36	5.6%	-	\$638	\$715	-	-

Over three-fourths (78.0%) of the surveyed market-rate supply in the PSA consists of product with a rating of “B-” or higher. While vacancies are generally low among all quality levels, it is interesting to note that the two highest vacancy rates occur within projects with the lowest quality rating in their respective counties. These include projects with a quality rating of “C” in Erie County (4.1% vacancy rate) and those with a quality rating of “B-” in Ottawa County (5.6% vacancy rate). Regardless, despite their lower quality levels, these projects still operate at relatively low vacancy rates. While not perfectly correlated, it is also worth pointing out that units with a higher quality rating generally achieve a higher median collected rent within each bedroom type. Overall, most of the market-rate product in the PSA is in good or very good condition with high occupancy rates. This indicates that demand is strong among market-rate rentals, regardless of quality; however, a rent premium can likely be achieved in the PSA among higher-end quality product and still operate at a very high occupancy level.

Tax Credit Housing

Tax Credit housing is developed under the Low-Income Housing Tax Credit (LIHTC) program. Typically, these projects serve households with incomes of up to 60% of Area Median Household Income (AMHI), though legislation in 2017 now allows for some units to target households with incomes of up to 80% of AMHI. A total of seven surveyed multifamily projects in the PSA (Firelands Region) offer a total of 327 Tax Credit units. Of these, nearly three-fifths (57.2%) are within Erie County, 30.6% are within Huron County, and 12.2% are within Ottawa County. Some projects operate as a mixed-income property with market-rate units. It should be noted that this section focuses only on the non-subsidized Tax Credit units,

while the Tax Credit units operating with concurrent subsidies are discussed in the government-subsidized housing section of this report (starting on page VI-20).

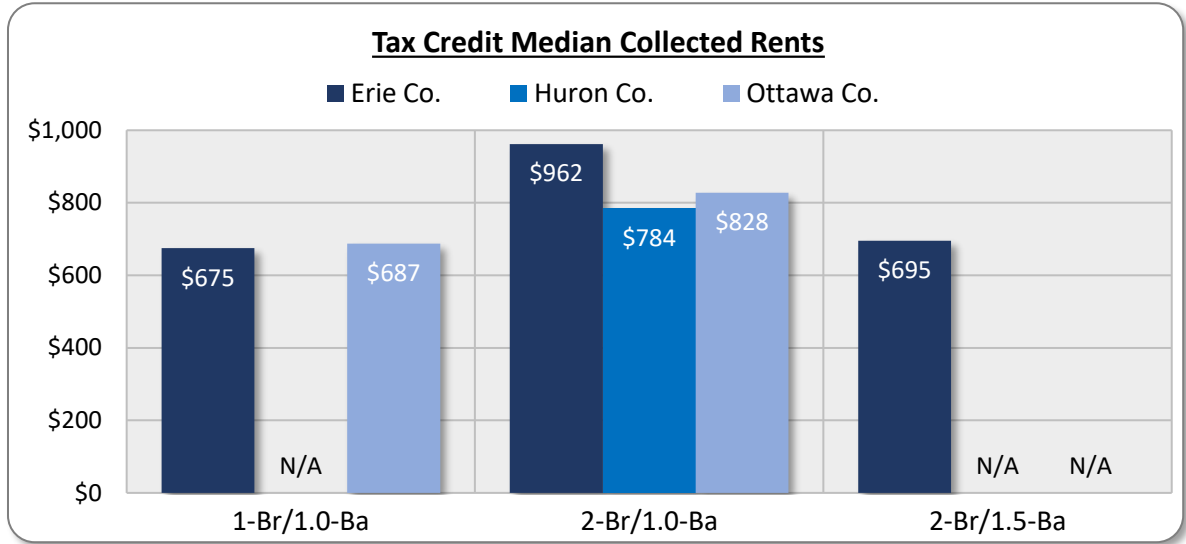
The following table illustrates the distribution of non-subsidized Tax Credit units surveyed within the three counties of the PSA.

Tax Credit (Non-Subsidized) Multifamily Rentals by Bedroom/Bathroom						
Bedroom	Baths	Units	Distribution	Vacancy	% Vacant	Median Collected Rent
Erie County						
Studio	1.0	1	0.5%	0	0.0%	\$849
One-Bedroom	1.0	133	71.1%	0	0.0%	\$675
Two-Bedroom	1.0	10	5.3%	0	0.0%	\$962
Two-Bedroom	1.5	43	23.0%	0	0.0%	\$695
Total Tax Credit		187	100.0%	0	0.0%	-
Huron County						
Two-Bedroom	1.0	100	100.0%	0	0.0%	\$784
Total Tax Credit		100	100.0%	0	0.0%	-
Ottawa County						
One-Bedroom	1.0	16	40.0%	0	0.0%	\$687
Two-Bedroom	1.0	24	60.0%	0	0.0%	\$828
Total Tax Credit		40	100.0%	0	0.0%	-

The non-subsidized Tax Credit units are 100.0% occupied within the PSA (Firelands Region), regardless of bedroom type, which is evidence of the local market’s strong demand for affordable rental housing. All five of the projects that operate exclusively under a Tax Credit program maintain a wait list, which as a collective contains approximately 100 households.

Nearly all of the 327 Tax Credit units in the PSA are one-bedroom (45.6%) or two-bedroom (54.1%) units. It is noteworthy that no three-bedroom units were identified during the survey and that only one studio unit was identified. While three-bedroom units usually do not comprise a large share of the Tax Credit housing product in most markets, a number of well-balanced markets typically offer at least some (approximately 10%-15%) units in this configuration. Within Huron County, all of the 100 units surveyed were two-bedroom units. As such, there is a limited variety of bedroom options among the Tax Credit units in the PSA, particularly within Huron County. Within the PSA, the one-bedroom Tax Credit units have median rents ranging from \$675 (Erie County) to \$687 (Ottawa County), while most two-bedroom units have median rents ranging from \$695 (Erie County) to \$784 (Huron County). It should be noted that some two-bedroom units within Ottawa and Erie counties have significantly higher median rents (\$828 to \$962, respectively). Regardless, the median rents of the Tax Credit supply in the PSA counties are typically below most of the median rents of the comparable market-rate multifamily supply in their respective counties. As such, Tax Credit housing is a value in the market, which is likely contributing to its strong level of demand.

The following graph illustrates median Tax Credit rents among common bedroom types offered in the three PSA counties.



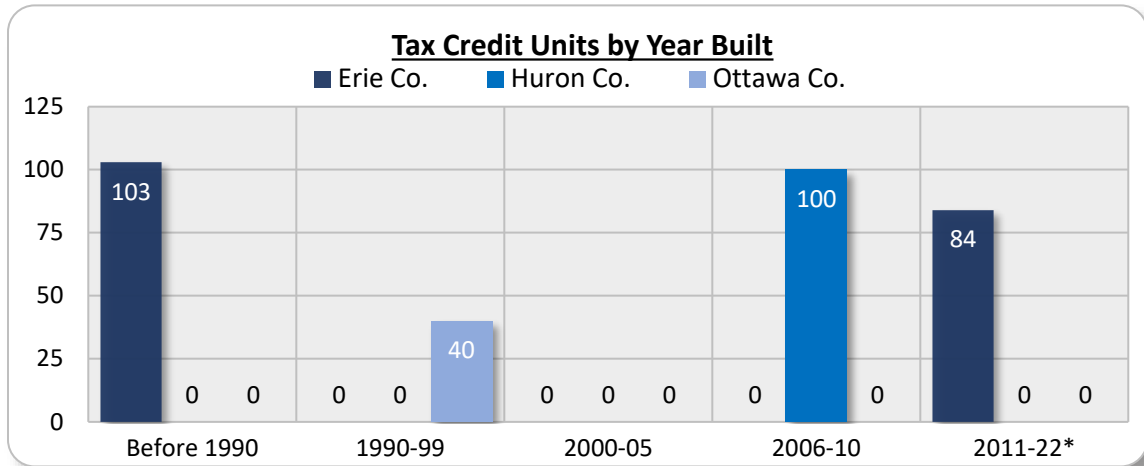
The following is a distribution of Tax Credit product surveyed by year built for the three PSA counties (Note: The Tax Credit program started in 1986):

Year Built	Tax Credit (Non-Subsidized) Apartments by Year Built								
	Erie County			Huron County			Ottawa County		
	Projects	Units	Vacancy Rate	Projects	Units	Vacancy Rate	Projects	Units	Vacancy Rate
Before 1990	1	103	0.0%	0	0	-	0	0	-
1990 to 1999	0	0	-	0	0	-	1	40	0.0%
2000 to 2005	0	0	-	0	0	-	0	0	-
2006 to 2010	0	0	-	2	100	0.0%	0	0	-
2011 to 2022*	3	84	0.0%	0	0	-	0	0	-

*As of December

In Erie County, three Tax Credit projects were built since 2010, which represents 44.9% of the overall supply in the county. All of the Tax Credit supply within Huron County (100 units) was built between 2006 and 2010, while the only Tax Credit project in Ottawa County (Concord Apartments in Port Clinton) was built in 1994. It is notable that despite a 100% occupancy rate among the Tax Credit product in the PSA, no new Tax Credit projects were identified in development at the time of our research.

The distribution of Tax Credit units in the PSA counties by year built is shown in the following graph:



*As of December

Representatives of Bowen National Research personally visited the surveyed rental projects within the market and rated the exterior quality of each property on a scale of "A" (highest) through "F" (lowest). All properties were rated based on quality and overall appearance (i.e., aesthetic appeal, building appearance, landscaping and grounds appearance). The following is a distribution of the Tax Credit properties by quality rating.

Tax Credit (Non-Subsidized) by Quality Rating			
Quality Rating	Projects	Total Units	Vacancy Rate
Erie County			
B+	1	4	0.0%
B	3	183	0.0%
Huron County			
B+	2	100	0.0%
Ottawa County			
B+	1	40	0.0%

All of the surveyed Tax Credit projects have a quality rating of "B" or better, with 44.0% having a rating of "B+." This is not surprising given that a significant number of the Tax Credit projects in the PSA were built after 2005. Regardless of the quality of housing, all Tax Credit product is operating at full occupancy, which demonstrates the level of need for affordable housing alternatives in each of the PSA counties.

Government-Subsidized Housing

A total of 32 projects were surveyed within the PSA (Firelands Region) that offer at least some units that operate with a government subsidy. Of these, 10 projects (31.3%) are within Erie County, 13 (40.6%) are within Huron County, and nine (28.1%) are within Ottawa County. Government-subsidized housing typically requires residents to pay 30% of their adjusted gross income toward rent and generally qualifies households with incomes of up to 50% of Area Median Household Income (AMHI). The 32 projects with a subsidy that were surveyed include a total of 1,244 units.

The government-subsidized units surveyed within the PSA are summarized as follows.

Subsidized by Bedroom/Bathroom					
Bedroom	Baths	Units	Distribution	Vacancy	% Vacant
Erie County					
Subsidized Tax Credit					
One-Bedroom	1.0	99	99.0%	0	0.0%
Two-Bedroom	1.0	1	1.0%	0	0.0%
Total Subsidized Tax Credit		100	100.0%	0	0.0%
Government-Subsidized					
Studio	1.0	49	14.4%	0	0.0%
One-Bedroom	1.0	195	57.2%	0	0.0%
Two-Bedroom	1.0	77	22.6%	0	0.0%
Three-Bedroom	1.0	17	5.0%	0	0.0%
Four-Bedroom	1.0	3	0.9%	0	0.0%
Total Subsidized		341	100.0%	0	0.0%
Huron County					
Subsidized Tax Credit					
One-Bedroom	1.0	48	33.3%	0	0.0%
Two-Bedroom	1.0	72	50.0%	0	0.0%
Three-Bedroom	1.0	24	16.7%	0	0.0%
Total Subsidized Tax Credit		144	100.0%	0	0.0%
Government-Subsidized					
One-Bedroom	1.0	238	66.9%	1	0.4%
Two-Bedroom	1.0	106	29.8%	0	0.0%
Two-Bedroom	2.0	12	3.4%	0	0.0%
Total Subsidized		356	100.0%	1	0.3%
Ottawa County					
Subsidized Tax Credit					
Two-Bedroom	1.5	50	100.0%	0	0.0%
Total Subsidized Tax Credit		50	100.0%	0	0.0%
Government-Subsidized					
One-Bedroom	1.0	174	68.8%	1	0.6%
Two-Bedroom	1.0	61	24.1%	0	0.0%
Three-Bedroom	1.5	12	4.7%	0	0.0%
Four-Bedroom	2.0	6	2.4%	0	0.0%
Total Subsidized		253	100.0%	1	0.4%

In the PSA (Firelands Region), the government-subsidized units are 99.8% occupied, which represents only two vacancies. Given that most subsidized projects have long wait lists, some of which are estimated to be up to 36 months, very low-income renter households (earning 50% or less of AMHI) have limited options available and likely must choose from either the non-subsidized multifamily housing options or non-conventional housing options, such as single-family homes and duplexes, or even mobile homes. Based on this analysis, it is clear that there is a tremendous amount of pent-up demand for subsidized housing in the PSA, regardless of county.

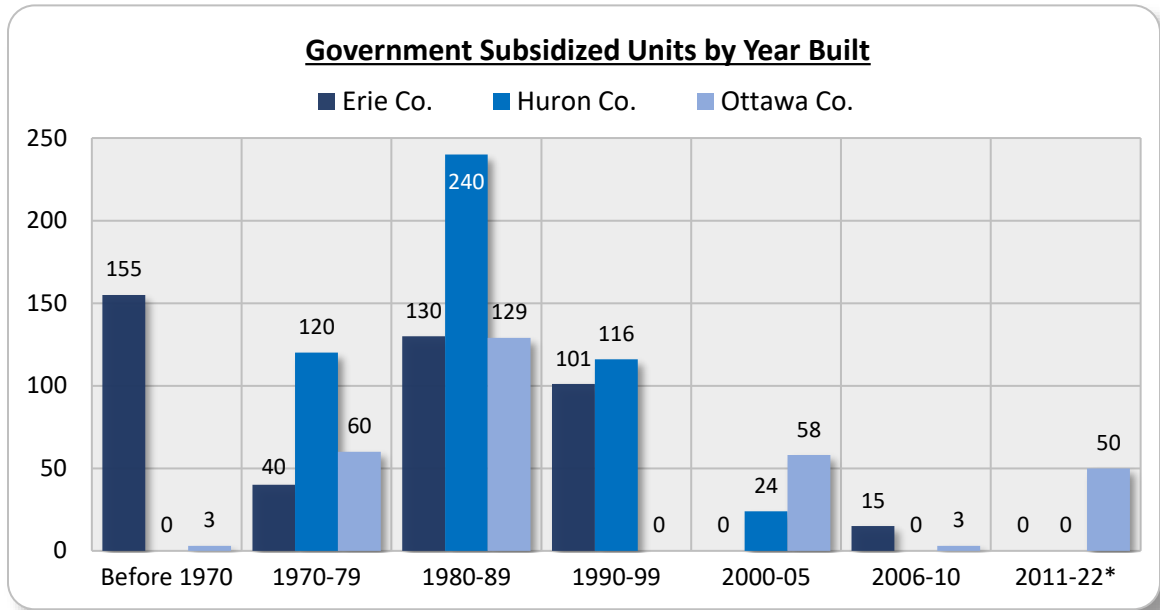
The following table illustrates the distribution of government-subsidized product surveyed by year built for the three PSA counties:

Year Built	Government-Subsidized by Year Built								
	Erie County			Huron County			Ottawa County		
	Projects	Units	Vacancy Rate	Projects	Units	Vacancy Rate	Projects	Units	Vacancy Rate
Before 1970	3	155	0.0%	0	0	-	1	3	0.0%
1970 to 1979	1	40	0.0%	3	120	0.0%	1	60	0.0%
1980 to 1989	2	130	0.0%	6	240	0.0%	3	129	0.8%
1990 to 1999	3	101	0.0%	3	116	0.9%	0	0	-
2000 to 2005	0	0	-	1	24	0.0%	2	58	0.0%
2006 to 2010	1	15	0.0%	0	0	-	1	3	0.0%
2011 to 2022*	0	0	-	0	0	-	1	50	0.0%

*As of December

The development of government-subsidized product in the PSA primarily occurred prior to 1990, with 73.7% of the units in Erie County, 72.0% of the units in Huron County, and 63.4% of the units in Ottawa County built during this time. Of the six newer subsidized projects surveyed that were built in the PSA since 2000, four were built in Ottawa County, while one project each was built in Erie and Huron counties. There were no subsidized projects in development identified in the PSA at the time of our research.

The distribution of the government-subsidized units in the PSA counties by year built is shown in the following graph:



*As of December

Representatives of Bowen National Research personally visited the surveyed rental projects within each county and rated the exterior quality of each property on a scale of "A" (highest) through "F" (lowest). All properties were rated based on quality and overall appearance (i.e., aesthetic appeal, building appearance, landscaping and grounds appearance). The following is a distribution of the subsidized housing supply by quality rating.

Government-Subsidized by Quality Rating			
Quality Rating	Projects	Total Units	Vacancy Rate
Erie County			
B+	1	15	0.0%
B	3	138	0.0%
B-	3	176	0.0%
C+	3	112	0.0%
Huron County			
B	3	88	0.0%
B-	4	152	0.7%
C+	5	188	0.0%
C	1	72	0.0%
Ottawa County			
A-	1	10	0.0%
B+	2	98	0.0%
B	3	30	3.3%
B-	3	165	0.0%

Most of the subsidized product in the PSA is considered to have a quality rating of “B-” or better. However, there are 372 units (29.9%) rated “C+” or lower, indicating that lower quality product exists in the market. This is not unusual among government-subsidized housing in most markets as a notable share of the overall supply typically consists of older product. Regardless of condition, the very high occupancy rate among the subsidized product in the PSA illustrates the high level of demand that exists for affordable housing options in the market.

We also evaluated the potential number of existing subsidized affordable housing units that are at risk of losing their affordable status. A total of 21 properties in the Firelands Region operate as subsidized projects under current HUD contracts. Because these contracts have a designated renewal date, it is important to understand if these projects are at risk of an expiring contract in the near future that could result in the reduction of affordable rental housing stock.

The following table summarizes the current HUD expiration status for the subsidized projects in the PSA (Note: Properties with HUD contract renewal or expiration dates within three years are shown in red).

Expiring HUD Contracts					
Property Name	Total Units	Assisted Units	Expiration Date	Program Type	Target Population
Erie County					
Erie Community Plaza	29	29	7/31/2023	PRAC/202	Senior
Erie Village	46	46	10/31/2022	515/8 NC	Family
Harborview	100	100	3/31/2028	202/8 NC	Senior
Milan Road Apartments/Leisure Apartments	41	40	7/31/2024	Sec 8 NC	Senior
Woodlawn Court	21	20	4/30/2023	PRAC/811	Disabled
Sunnyside Acres	30	30	1/31/2030	Sec 8 NC	Family
Viewpoint Apartments	117	54	7/31/2027	LMSA	Senior
Echo Duplexes	12	12	11/30/2022	PRAC/811	Disabled
Northwest Ohio VOA Living Center/Corason Place	15	14	7/31/2023	PRAC/811	Disabled
Huron County					
Family Initiative	5	5	2/28/2023	PRAC/811	Disability
Luther Oaks Apartments	45	45	5/31/2034	202/8 NC	Senior
Norwalk North	72	72	3/31/2029	LMSA	Family
Windy Acres	36	36	11/30/2022	PRAC/202	Senior
Ottawa County					
Perry’s Glen	60	60	11/30/2033	HFDA/8 NC	Family
Lakeview Estates	105	105	2/29/2024	Sec 8 NC	Family & Senior
Covenant Harbor/Lutheran Housing Services #12	14	14	3/31/2023	PRAC/202	Senior
Rose Acre Manor	10	10	2/28/2023	PRAC/811	Family
Mercy Outreach Ministries II	12	12	12/31/2022	PRAC/811	Disabled
Lutheran Housing Services #13	24	24	1/31/2023	PRAC/202	Family & Senior
Mercy Outreach Ministries III	12	12	11/30/2022	PRAC/811	Disabled
Shepard Crossing	50	2	6/14/2039	811 PRA DEMO	Family

Source: HUDUser.gov Assistance & Section 8 Contracts Database (Updated 10.31.22); Bowen National Research

While all HUD supported projects are subject to annual appropriations by the federal government, it appears that 14 projects in the Firelands Region have overall renewal dates within the next three years and are at *potential* risk of losing their government assistance in the near future. This is a relatively high number properties with pending HUD contract expiration dates in the near future. Given the high occupancy rates and wait lists among the market's surveyed subsidized properties, it will be important for the area's low-income residents that the projects with pending expiring HUD contracts be preserved in order to continue to house some of the market's most economically vulnerable residents.

Housing Choice Vouchers (Erie County)

According to a representative with the Erie Metropolitan Housing Authority, there are approximately 1,097 Housing Choice Vouchers issued within the housing authority's jurisdiction. However, it was also revealed by housing authority representatives that approximately 190 issued vouchers are currently going unused, likely due to holders of these vouchers unable to locate/obtain a quality affordable rental housing unit that will accept the voucher. There is a total of 495 households currently on the waiting list for additional vouchers. The waiting list is closed and is expected to reopen in approximately six months. Annual turnover within the voucher program is estimated at 133 households. This reflects the continuing need for affordable housing alternatives and/or Housing Choice Voucher assistance.

According to a representative at the Erie Metropolitan Housing Authority, clients cannot locate quality housing that is income-appropriate and offers the number of bedrooms needed. The representative noted that these issues need to be addressed.

Housing Choice Vouchers (Huron County)

According to a representative with the Huron Metropolitan Housing Authority, there are approximately 1,093 Housing Choice Vouchers issued within the housing authority's jurisdiction. However, it was also revealed by housing authority representatives that approximately 58% of issued vouchers are currently going unused, likely due to holders of these vouchers unable to locate/obtain a quality affordable rental housing unit that will accept the voucher. There is a total of 524 households currently on the waiting list for additional vouchers. The waiting list is open. Annual turnover within the voucher program is estimated at eight households. This reflects the continuing need for affordable housing alternatives and/or Housing Choice Voucher assistance.

According to a representative at the Huron Metropolitan Housing Authority, Huron County is in enormous need of affordable housing. In the past 27 years, the representative noted that Huron County always utilized at least 98% of vouchers and/or 98% of funding. The representative further stated that the lack of available units is mainly due to owners asking for large rent increases. Also, an owner with numerous housing units in the county recently sold their properties, which accounted for approximately half of the supply in the affordable housing program. The new owners are either not maintaining the units to pass inspection or are asking very high rental prices that the housing authority cannot afford to lease.

Housing Choice Vouchers (Ottawa County)

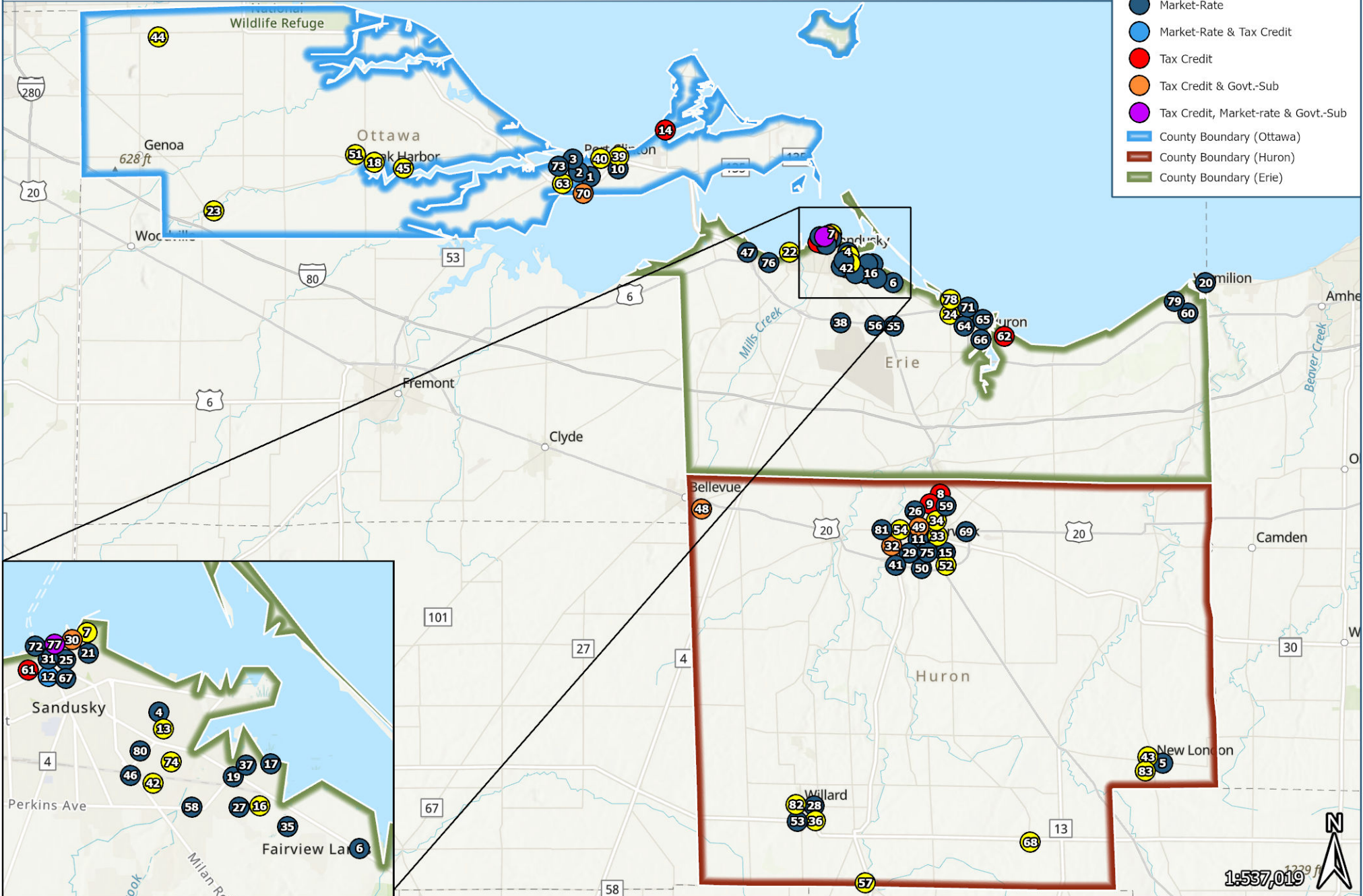
According to a representative with the Sandusky Metropolitan Housing Authority, there are approximately 306 Housing Choice Vouchers issued within the housing authority's jurisdiction. However, it was also revealed by housing authority representatives that approximately 50 issued vouchers are currently going unused, likely due to holders of these vouchers unable to locate/obtain a quality affordable rental housing unit that will accept the voucher. There is a total of 764 households currently on the waiting list for additional vouchers. The waiting list is closed and is expected to reopen in spring of 2023. Annual turnover within the voucher program is estimated at 46 households. This reflects the continuing need for affordable housing alternatives and/or Housing Choice Voucher assistance.

According to a representative at Ottawa Residential Services and the Sandusky Metropolitan Housing Authority, local residents are having to move out of the area due to the cost of rent and clients are struggling to find adequate housing in the community.

A map illustrating the location of all multifamily apartments surveyed within the market is included on the following page.

Apartment Type

- Government-Subsidized
- Market-Rate
- Market-Rate & Tax Credit
- Tax Credit
- Tax Credit & Govt.-Sub
- Tax Credit, Market-rate & Govt.-Sub
- County Boundary (Ottawa)
- County Boundary (Huron)
- County Boundary (Erie)



2. Non-Conventional Rental Housing

Non-conventional rentals are considered rental units typically consisting of single-family homes, duplexes, units over store fronts, mobile homes, etc. For the purposes of this particular inventory and analysis, we have assumed that rental properties consisting of four or less units within a structure or mobile homes are non-conventional rentals. The following table illustrates the distribution of renter-occupied housing by the number of units in the structure for the various study areas.

		Renter-Occupied Housing by Units in Structure			
		1 to 4 Units	5 or More Units	Mobile Homes/Boats/RVs	Total Units
Erie North	Number	4,372	1,827	44	6,243
	Percent	70.0%	29.2%	0.7%	100.0%
Erie East	Number	1,591	728	28	2,347
	Percent	67.8%	31.0%	1.2%	100.0%
Erie West	Number	596	186	21	803
	Percent	74.2%	23.1%	2.6%	100.0%
Erie County	Number	6,559	2,741	96	9,393
	Percent	69.8%	29.2%	1.0%	100.0%
Huron North	Number	3,140	1,225	308	4,673
	Percent	67.2%	26.3%	6.6%	100.0%
Huron South	Number	1,344	347	157	1,848
	Percent	72.8%	18.8%	8.5%	100.0%
Huron County	Number	4,484	1,572	465	6,521
	Percent	68.7%	24.1%	7.1%	100.0%
Ottawa East	Number	1,139	513	109	1,761
	Percent	64.6%	29.2%	6.2%	100.0%
Ottawa West	Number	1,506	275	314	2,095
	Percent	71.9%	13.1%	15.0%	100.0%
Ottawa County	Number	2,645	788	423	3,856
	Percent	68.5%	20.5%	11.0%	100.0%
Firelands Region	Number	13,688	5,101	981	19,770
	Percent	69.2%	25.8%	5.0%	100.0%
Ohio	Number	936,901	611,951	40,201	1,589,053
	Percent	58.9%	38.5%	2.5%	100.0%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

Renter-occupied units within structures with one to four units represent 69.2% of all rental units in the PSA (Firelands Region), which is a higher share of such units when compared to the state (58.9%). Renter-occupied mobile homes, boats, and RVs represent 5.0% of all renter-occupied housing units in the PSA, which is double the share for the state (2.5%). As such, non-conventional rentals account for nearly three-fourths (74.2%) of the total rental units in the PSA. Ottawa County has the largest share (79.5%) of non-conventional rentals, followed by Huron County (75.8%) and Erie County (70.8%). Because a vast majority of the rental housing stock in the PSA is comprised of non-conventional rentals, it is clear that this housing segment is significant and warrants additional analysis.

The following summarizes monthly gross rents for area rental alternatives based on American Community Survey estimates. These rents are for all rental product types including apartments, non-conventional rentals, and mobile homes. Since nearly three-fourths (74.2%) of all rentals in the PSA are considered non-conventional rentals, the rents below provide insight as to likely rents for non-conventional rentals in the PSA.

		Estimated Gross Rents by Market								
		< \$300	\$300-\$500	\$500-\$750	\$750-\$1,000	\$1,000-\$1,500	\$1,500-\$2,000	\$2,000+	No Cash Rent	Total
Erie North	Number	227	626	2,090	2,021	919	37	8	313	6,241
	Percent	3.6%	10.0%	33.5%	32.4%	14.7%	0.6%	0.1%	5.0%	100.0%
Erie East	Number	26	44	771	577	631	73	12	212	2,346
	Percent	1.1%	1.9%	32.9%	24.6%	26.9%	3.1%	0.5%	9.0%	100.0%
Erie West	Number	25	15	235	213	199	31	7	80	805
	Percent	3.1%	1.9%	29.2%	26.5%	24.7%	3.9%	0.9%	9.9%	100.0%
Erie County	Number	278	685	3,096	2,812	1,749	141	27	606	9,394
	Percent	3.0%	7.3%	33.0%	29.9%	18.6%	1.5%	0.3%	6.5%	100.0%
Huron North	Number	208	667	1,477	1,383	523	22	0	394	4,674
	Percent	4.5%	14.3%	31.6%	29.6%	11.2%	0.5%	0.0%	8.4%	100.0%
Huron South	Number	105	183	736	457	206	11	0	149	1,847
	Percent	5.7%	9.9%	39.8%	24.7%	11.2%	0.6%	0.0%	8.1%	100.0%
Huron County	Number	313	850	2,213	1,840	729	33	0	543	6,521
	Percent	4.8%	13.0%	33.9%	28.2%	11.2%	0.5%	0.0%	8.3%	100.0%
Ottawa East	Number	75	201	521	503	178	7	26	250	1,761
	Percent	4.3%	11.4%	29.6%	28.6%	10.1%	0.4%	1.5%	14.2%	100.0%
Ottawa West	Number	50	232	592	766	196	23	14	222	2,095
	Percent	2.4%	11.1%	28.3%	36.6%	9.4%	1.1%	0.7%	10.6%	100.0%
Ottawa County	Number	125	433	1,114	1,267	374	30	40	472	3,855
	Percent	3.2%	11.2%	28.9%	32.9%	9.7%	0.8%	1.0%	12.2%	100.0%
Firelands Region	Number	716	1,968	6,423	5,919	2,852	204	67	1,621	19,770
	Percent	3.6%	10.0%	32.5%	29.9%	14.4%	1.0%	0.3%	8.2%	100.0%
Ohio	Number	82,254	111,435	409,117	453,300	353,383	68,204	29,875	81,486	1,589,054
	Percent	5.2%	7.0%	25.7%	28.5%	22.2%	4.3%	1.9%	5.1%	100.0%

Source: American Community Survey (2016-2020); ESRI; Urban Decision Group; Bowen National Research

As the preceding table illustrates, over two-thirds (62.4%) of rental units in the PSA (Firelands Region) have rents that are between \$500 and \$1,000. Nearly one-third (32.5%) of rental units have rents between \$500 and \$750, which is a higher share compared to the state (25.7%). In addition, 10.0% of rental units have rents between \$300 and \$500, which is a slightly higher share compared to the state (7.0%). In total, 46.1% of PSA rental units have rents less than \$750, which is a considerably larger share compared to the state (37.9%). Among the three counties, Huron County has the largest share of rental units with rents less than \$750 (51.7%), while Erie County has the greatest share of rental units with rents of \$1,000 or more (20.4%). Among individual submarkets, Huron North (50.4%) and Huron South (55.4%) have the largest shares of rental units with rents less than \$750. Conversely, the Erie East (30.5%) and Erie West (29.5%) submarkets have

the largest shares of rental units with rents over \$1,000. While a majority of rental units within each submarket typically have rents between \$500 and \$750, this data illustrates that the distribution of rents among the lowest and highest rent ranges varies by submarket. As such, premium rents for non-conventional rentals are more likely to be obtained in some submarkets, while other submarkets likely warrant more affordable rent ranges.

Bowen National Research conducted an online survey during January and February 2023 and identified 69 non-conventional rentals that were listed as *available* for rent in the PSA (Firelands Region). When the 69 identified available rentals in the region are compared with the estimated 14,669 non-conventional rentals, the overall occupancy rate is an extremely high 99.5%. Among the three subject counties, occupancy rates are also very high at 99.4% in Erie County, 99.6% in Huron County, and 99.7% in Ottawa County. While these rentals do not represent all non-conventional rentals, they are representative of common characteristics of the various non-conventional rental alternatives available in the market. As a result, these rentals provide a good baseline to compare the rental rates, number of bedrooms, number of bathrooms, and other characteristics of non-conventional rentals.

The following table summarizes the sample survey of *available* non-conventional rentals identified in the PSA, by county.

Surveyed Non-Conventional Rental Supply				
Bedroom	Vacant Units	Rent Range	Median Rent	Median Rent Per Square Foot
Erie County				
Studio	1	\$650	\$650	\$1.30
One-Bedroom	7	\$775 - \$1,500	\$804	\$1.70
Two-Bedroom	12	\$575 - \$2,500	\$925	\$1.08
Three-Bedroom	14	\$850 - \$3,000	\$1,314	\$1.11
Four-Bedroom+	5	\$1,000 - \$1,600	\$1,350	\$1.04
Total	39			
Huron County				
Studio	1	\$1,500	\$1,500	\$1.15
One-Bedroom	2	\$510 - \$700	\$605	\$0.76
Two-Bedroom	9	\$600 - \$895	\$725	\$0.85
Three-Bedroom	8	\$875 - \$1,100	\$980	\$0.73
Four-Bedroom+	0	-	-	-
Total	20			
Ottawa County				
Studio	0	-	-	-
One-Bedroom	3	\$675 - \$1,500	\$1,400	\$1.89
Two-Bedroom	5	\$750 - \$2,000	\$875	\$1.07
Three-Bedroom	1	\$1,650	\$1,650	\$1.33
Four-Bedroom+	1	\$2,200	\$2,200	\$1.40
Total	10			

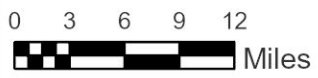
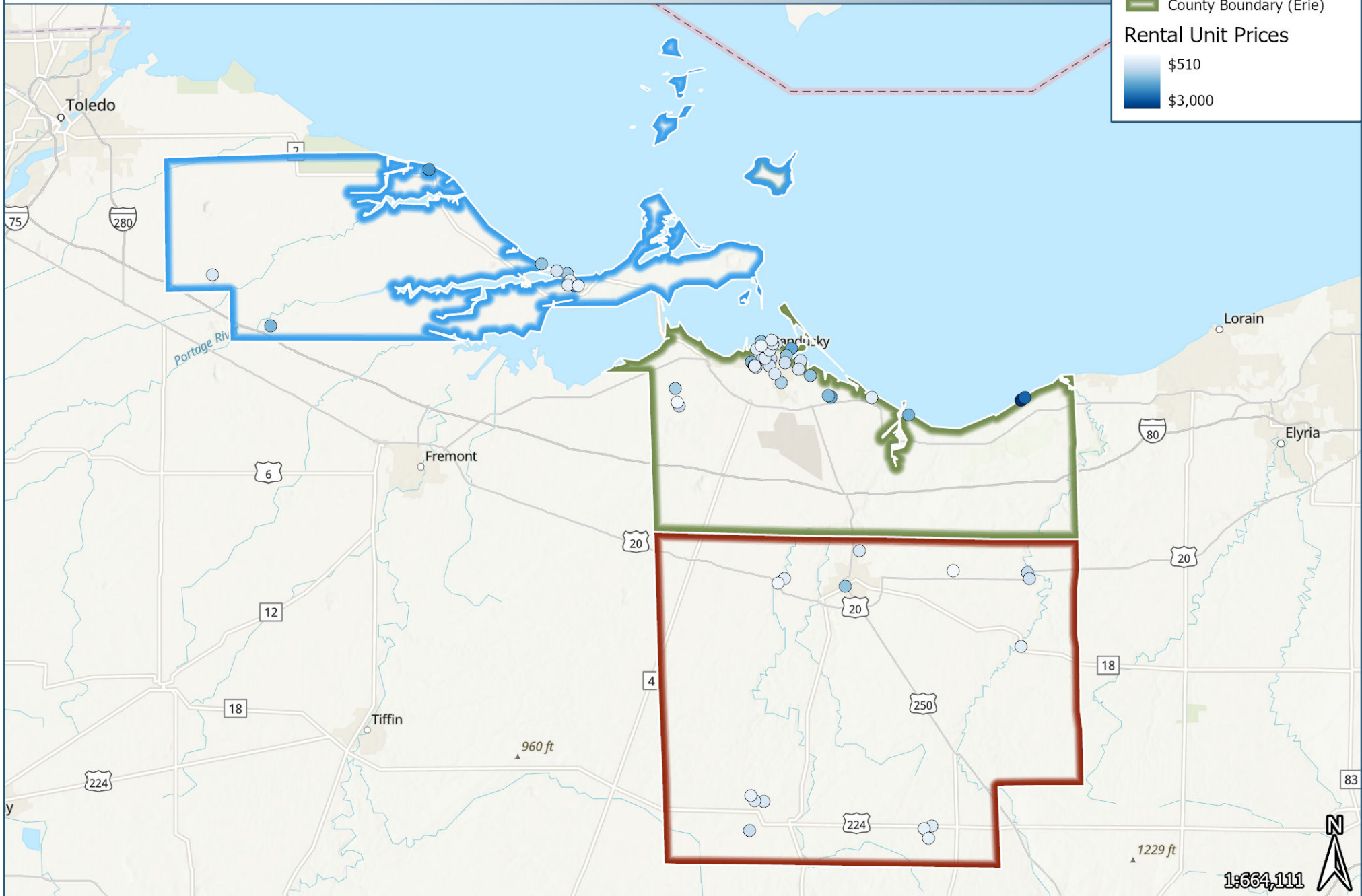
Source: Zillow; Apartmenthomeliving; Apt.com; Trulia; Rent.com; Facebook; Apartmentguide

The identified non-conventional rentals in the PSA (Firelands Region) primarily consist of two-bedroom (37.7%) and three-bedroom (33.3%) units. Overall, the available non-conventional supply in the PSA is reasonably well-balanced by bedroom type. While most units surveyed were apartments, several duplexes were identified, as well as a few single-family homes. Over half (56.5%) of the total available supply is within Erie County, while 29.9% is within Huron County and 14.5% is within Ottawa County. Overall, median rents for the surveyed non-conventional units range from \$605 to \$2,200 in the PSA. Among the most common bedroom types, median rents range from \$725 (Huron County) to \$925 (Erie County) for a two-bedroom unit and \$980 (Huron County) to \$1,650 (Ottawa County) for a three-bedroom unit. When typical tenant utility costs (at least \$200, conservatively) are also considered, the inventoried non-conventional two-bedroom units have an average gross rent range of approximately \$925 (Huron County) to \$1,125 (Erie County). This is a considerably higher gross rent when compared to the two-bedroom Tax Credit units (\$784 to \$962) in their respective counties. In addition, the non-conventional rentals in the PSA are typically older (mostly pre-1960). Based on this analysis, it is unlikely that many low-income residents would be able to afford non-conventional rental housing in the area.

A map delineating the location of identified non-conventional rentals currently available to rent in the area is on the following page.

- County Boundary (Ottawa)
- County Boundary (Huron)
- County Boundary (Erie)

Rental Unit Prices



3. Vacation Rental Housing

The counties within the PSA (Firelands Region) are a popular tourist destination due to the proximity to Lake Erie as well as other regional attractions. As such, short-term vacation rentals and second homes comprise a significant share of the overall housing market within the PSA, and therefore, warrant additional analysis. This section of analysis attempts to estimate the impact of short-term rentals and second homes on the housing market of each PSA county, and how this dynamic has changed over time.

In an effort to estimate the share of the overall housing market that is comprised of seasonal, recreational, and second homes, as well as how this share has changed over time, data from the American Community Survey is provided in the following table. This data illustrates the number of homes classified as “Seasonal or Recreational Units,” and while this data does not specifically identify whether a housing unit is a short-term rental or a second home, it provides a reasonably accurate estimate for the number of homes that are not readily available for long-term occupancy (rental or for-sale) in each market.

		Seasonal/Recreational Units by County (Percent Change from Prior Period)				
		Seasonal/ Recreation Units	Total Housing Units	Vacant Housing Units	Seasonal/ Recreational % of Total Housing Units	Seasonal/ Recreational % of Vacant Housing Units
Erie County	2011	2,530 (N/A)	37,848 (N/A)	6,206 (N/A)	6.7% (N/A)	40.8% (N/A)
	2016	3,007 (18.9%)	37,715 (-0.4%)	5,984 (-3.6%)	8.0% (19.4%)	50.3% (23.3%)
	2021	3,113 (3.5%)	38,225 (1.4%)	6,241 (4.3%)	8.1% (1.3%)	49.9% (-0.8%)
Huron County	2011	190 (N/A)	25,152 (N/A)	2,468 (N/A)	0.8% (N/A)	7.7% (N/A)
	2016	257 (35.3%)	25,099 (-0.2%)	2,578 (4.5%)	1.0% (25.0%)	10.0% (29.9%)
	2021	127 (-50.6%)	25,459 (1.4%)	2,171 (-15.8%)	0.5% (-50.0%)	5.8% (-42.0%)
Ottawa County	2011	8,141 (N/A)	27,807 (N/A)	9,798 (N/A)	29.3% (N/A)	83.1% (N/A)
	2016	9,066 (11.4%)	28,012 (0.7%)	10,628 (8.5%)	32.4% (10.6%)	85.3% (2.6%)
	2021	9,180 (1.3%)	28,540 (1.9%)	10,610 (-0.2%)	32.2% (-0.6%)	86.5% (1.4%)

Source: American Community Survey 5-Year Estimates (2011, 2016, 2021) B25004; Bowen National Research

In 2021, a total of 9,180 units representing nearly one-third (32.2%) of the total housing units in Ottawa County were classified as seasonal/recreational, which represents the largest number and share of such

homes among the three counties of the PSA (Firelands Region). Erie County had the second largest number of units (3,113) and share (8.1%), followed by Huron County (127, 0.5%). From 2011 to 2021, the number of seasonal/recreational units in Ottawa County increased by 12.8%, or 1,039 housing units. Within Erie County during this time period, seasonal/recreational units increased by 23.0%, or 583 units. Of the three counties, Huron County is the only county in which the number of seasonal/recreational units decreased between 2011 and 2021 (decrease of 33.2%, or 63 units). As such, the share of seasonal/recreational units compared to the total number of housing units increased in Ottawa County from 29.3% to 32.2% between 2011 and 2021. During this time, the share of such units in Erie County also increased from 6.7% to 8.1%. It is also noteworthy that the shares of seasonal/recreational units compared to the total vacant units in 2021 in Ottawa County (86.5%) and Erie County (49.9%) are exceptionally high. While this illustrates the growth of the tourism industry in the region, particularly within Erie and Ottawa counties, it also illustrates the extent to which seasonal/recreational units have absorbed some of the housing inventory available for permanent occupancy.

Overall, the preceding data suggests that seasonal/recreational properties have become an increasingly significant share of the housing market in Erie County and Ottawa County since 2011. Additionally, any level of housing shortages that may exist in the markets are likely, at least in part, the result of the absorption of some permanent residences to accommodate increased demand for short-term rentals and second homes in the area.

A significant portion of seasonal/recreational units are typically rented as short-term or vacation rentals when they are not occupied by the owners. While short-term rentals produce direct and substantial income for owners and brokerage services, as well as for those who maintain and repair such units, there are many other indirect economic benefits of this tourism that positively affect the surrounding area. Many markets with a high level of tourism have had a significant increase in short-term rentals in recent years, in part, due to the convenience to book or rent out rooms or entire housing units through various online services. In order to assess the degree to which the short-term rental market has changed in recent years, data from AllTheRooms was compiled. AllTheRooms, which is a short-term rental analytics firm, provides a variety of market data for short-term rental properties, specifically Airbnb and Vrbo listed properties, across the country. For the purposes of our analysis, we limited this data to Airbnb properties only. While this excludes independently listed properties and properties listed through Vrbo exclusively, Airbnb is considered one of the leading companies in short-term rentals, and as such, we believe this data provides an accurate assessment of the short-term rental market in the PSA.

The following table illustrates the changes in key short-term rental market (Airbnb only) data between 2019 and 2022 for each PSA county. In addition, data for three comparable markets (regional lakeshore tourist areas) are supplied for comparison purposes. It is important to note that this data illustrates average available units identified through a single source and is not representative of all vacation rentals. However, it does provide valuable insight, particular in the growth of such rentals and the revenues they generate.

Short-Term Rental Market Data by County by Year (Airbnb Properties Only)				
Area	Metric	Year		% Change 2019-2022
		2019	2022	
PSA (Firelands Region)				
Erie County	Average Available Supply in Units	158.5	284.9	79.7%
	% of Total Housing Units	0.4%	0.8%	100.0%
	Average Monthly Market Revenue	\$318,717	\$779,445	144.6%
	Peak Month Market Revenue (Month)	\$781,166 (Aug)	\$1,721,255 (July)	120.3%
Huron County	Average Available Supply in Units	15.1	17.1	13.2%
	% of Total Housing Units	<0.1%	<0.1%	0.0%
	Average Monthly Market Revenue	\$16,355	\$32,663	99.7%
	Peak Month Market Revenue (Month)	\$31,408 (Aug)	\$62,708 (July)	99.7%
Ottawa County	Average Available Supply in Units	204.8	319.9	56.2%
	% of Total Housing Units	0.7%	1.1%	57.1%
	Average Monthly Market Revenue	\$365,880	\$797,779	118.0%
	Peak Month Market Revenue (Month)	\$870,490 (Aug)	\$1,855,763 (July)	113.2%
Comparison Counties				
Muskegon County, MI	Average Available Supply in Units	122.4	225.0	83.8%
	% of Total Housing Units	0.2%	0.3%	50.0%
	Average Monthly Market Revenue	\$172,269	\$559,632	224.9%
	Peak Month Market Revenue (Month)	\$357,792 (Aug)	\$1,253,165 (July)	250.2%
Mason County, MI	Average Available Supply	120.2	168.3	40.0%
	% of Total Housing Units	0.7%	1.0%	42.9%
	Average Monthly Market Revenue	\$138,782	\$330,528	138.2%
	Peak Month Market Revenue	\$337,839 (Aug)	\$848,500 (July)	151.2%
Oceana County, MI	Average Available Supply	80.6	110.3	36.8%
	% of Total Housing Units	0.5%	0.7%	40.0%
	Average Monthly Market Revenue	\$120,888	\$361,542	199.1%
	Peak Month Market Revenue	\$292,634 (Aug)	\$734,582 (July)	151.0%

Source: AllTheRooms.com; 2020 Census; American Community Survey (2015-2019); ESRI; Urban Decision Group; Bowen National Research

As the preceding illustrates, the average number of *available* short-term Airbnb rental units in Erie County increased by 79.7% between 2019 and 2022, which is the largest percentage increase among the three PSA counties. Ottawa County had the second largest increase (56.2%), followed by Huron County (13.2%). Within both Erie and Ottawa counties, short-term rental units increased as a percentage of the total housing units (increases of 100.0% and 57.1%, respectively) in each county during this time period, while this share went virtually unchanged in Huron County. From 2019 to 2022, the average monthly market revenue in each of the three PSA counties increased significantly, with the largest percentage increase

occurring in Erie County (144.6%). Similarly, all three counties experienced increases in market revenue during the *peak month* for each year (August in 2019/July in 2022), which ranged from an increase of 99.7% (Huron County) to an increase of 120.3% (Erie County). It is important to remember that the data illustrated within this table is only reflective of Airbnb listed rentals, and as such, the true number of short-term rental units and monthly market revenue for each county is likely significantly higher than what is listed. Regardless, the data illustrates that the short-term rental industry within the PSA, particularly within Erie and Ottawa counties, has grown significantly between 2019 and 2022. In addition, the comparison counties that are included within the table show that this level of growth is not uncommon in similar lakeshore tourist counties within the Great Lakes region. As such, it is obvious that short-term rentals are a critical component of the tourism industry in the PSA, and this role is likely to continue to increase in the future.

The following table illustrates the average daily rate for short-term rentals in each area from 2019 to 2022, the percentage change in average daily rate, and the monthly equivalent rental based on the 2022 daily rate.

Short Term Average Daily Rate by Year and Monthly Equivalent Rental						
County	Year				% Change 2019-2022	Equivalent Monthly Rental*
	2019	2020	2021	2022		
PSA (Firelands Region)						
Erie County	\$191	\$189	\$229	\$263	37.7%	\$7,890
Huron County	\$96	\$108	\$142	\$173	80.2%	\$5,190
Ottawa County	\$198	\$169	\$222	\$236	19.2%	\$7,080
Comparison Counties						
Muskegon County, MI	\$142	\$164	\$201	\$221	55.6%	\$6,630
Mason County, MI	\$161	\$174	\$197	\$214	32.9%	\$6,420
Oceana County, MI	\$188	\$234	\$316	\$435	131.4%	\$13,050

Source: AllTheRooms.com; Bowen National Research

*Monthly equivalent rental = 2022 average daily rate x 30 days

As the preceding illustrates, daily rates for the short-term rentals in the PSA have increased between 19.2% (Ottawa County) and 80.2% (Huron County) since 2019. In 2022, the average daily rate for a short-term rental in Erie County was \$263, which is the highest average daily rate among the three PSA counties. At this daily rate, a typical short-term rental in Erie County has a monthly rental equivalent of \$7,890. This provides insight to the financial incentive for owners to rent their seasonal/recreational homes as short-term rentals when they are unoccupied by the owners. This data also illustrates the primary reason why these vacation homes are not viable options as permanent rentals for area residents. Overall, it is apparent that short-term rentals will persist as an element within the housing market in each PSA county, and it is likely that additional permanent residences will be converted to short-term rentals in the future. As such, it is critical that adequate permanent housing is preserved or additional housing is built to meet the demands of area residents.

In addition to data provided by secondary sources such as the U.S. Census Bureau, the American Community Survey, and AllTheRooms, Bowen National Research conducted a review of *advertised* vacation rentals that were listed as *available* at points in time during January and February of 2023. It is important to keep in mind that the number of listings provided at specific times fluctuates throughout the year, as do their rates. As such, this analysis provides a snapshot of products available during winter 2023. It should be noted that, based on historical data, the peak season for vacation rentals in the PSA typically runs from June through August each year, during which time the daily rates are typically much higher.

A total of 154 available and marketed vacation rentals were identified through services such as Airbnb and Vrbo. The daily rental rates for the identified vacation rental units range from \$59 to \$537, which is equivalent to approximately \$1,795 to \$16,334 per month. Additionally, the time period we ran the query for was during weekdays, which are typically less expensive than the daily rates for weekends and excluded the week of New Year’s Eve. While the calculated monthly equivalent would require each property to be rented every day during the month, which is not typical of short-term rentals, this still illustrates that vacation rentals do not represent a viable or affordable permanent housing option for most households. These rates do, however, illustrate the premiums that such rentals can achieve and indicate the likely motivation to build vacation rentals and/or convert existing housing stock into a vacation rental. This is not unusual for a market that is heavily influenced by tourism like the PSA (Firelands Region).

The following table illustrates the equivalent *monthly* rent ranges and median rents by *number of bedrooms* for the surveyed vacation units.

Surveyed Vacation Rental Supply by Bedroom Type (January 2023 and February 2023)			
Bedroom	Vacant Units	Rent Range	Median Rent
Erie County			
Studio	0	-	-
One-Bedroom	11	\$3,407 - \$6,844	\$4,167
Two-Bedroom	19	\$2,281 - \$9,460	\$4,988
Three-Bedroom	24	\$3,346 - \$9,460	\$4,958
Four-Bedroom+	17	\$3,893 - \$9,733	\$6,935
Total	71		

Source: Airbnb




(Continued)

Surveyed Vacation Rental Supply by Bedroom Type (January 2023 and February 2023)			
Bedroom	Vacant Units	Rent Range	Median Rent
Huron County			
Studio	0	-	-
One-Bedroom	1	\$1,795 - \$1,795	\$1,795
Two-Bedroom	3	\$2,494 - \$4,836	\$2,707
Three-Bedroom	5	\$2,403 - \$6,053	\$3,924
Four-Bedroom+	0	-	-
Total	9		
Ottawa County			
Studio	2	\$5,658 - \$6,661	\$6,159
One-Bedroom	21	\$2,616 - \$6,661	\$3,346
Two-Bedroom	21	\$3,194 - \$6,844	\$4,836
Three-Bedroom	19	\$3,042 - \$8,669	\$5,110
Four-Bedroom+	11	\$5,475 - \$16,334	\$7,604
Total	74		






Source: Airbnb

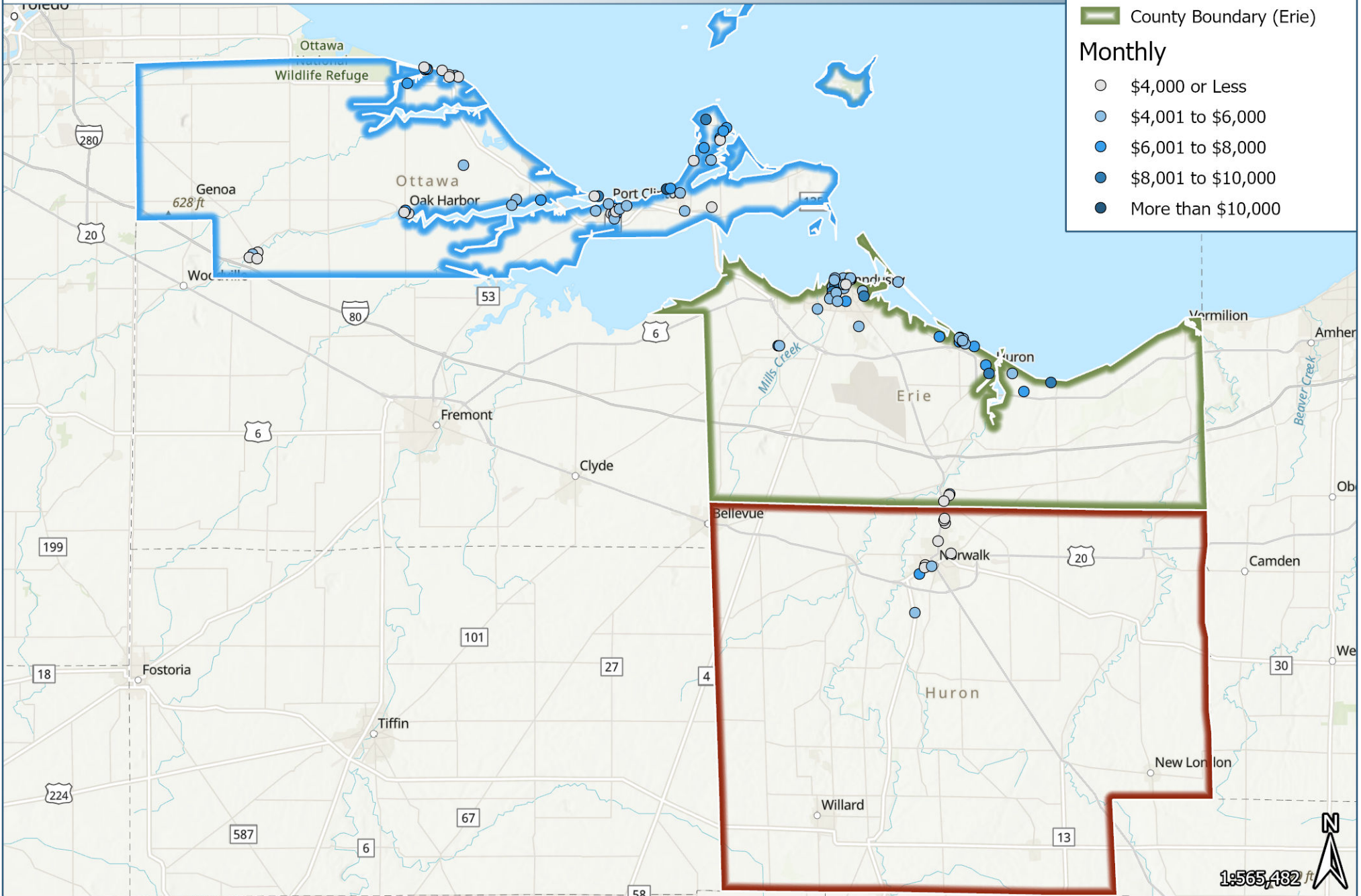
Overall, as this analysis has shown, seasonal/recreational housing is prominent in Erie and Ottawa counties and this segment of the market continues to grow. The growth of seasonal/recreational housing in the subject market is typical of similar markets within the larger region. With average daily rates and overall annual revenues for short-term rentals increasing in recent years, the motivation to build vacation housing or convert existing housing into vacation rentals will likely increase for the foreseeable future. In a market already lacking available permanent rental and for-sale alternatives, particularly product affordable to low- and moderate-income households, the growing influence of the seasonal/recreational housing market will continue to impact overall housing market conditions.

A map delineating the location of identified short-term/vacation rentals in the Firelands Region is on the following page.

-  County Boundary (Ottawa)
-  County Boundary (Huron)
-  County Boundary (Erie)

Monthly

-  \$4,000 or Less
-  \$4,001 to \$6,000
-  \$6,001 to \$8,000
-  \$8,001 to \$10,000
-  More than \$10,000



C. FOR-SALE HOUSING SUPPLY

1. Introduction

Bowen National Research obtained for-sale housing data from the Multiple Listing Service (MLS) and Realtor.com for the three counties in the Firelands Region. This included historical for-sale residential data and currently available for-sale housing stock. While this sales data does not include all for-sale residential transactions or supply in the Firelands Region, it does consist of the majority of such product and therefore, it is representative of market norms for for-sale housing product for the area.

The following table summarizes the available (as of January 2023) and recently sold (between January 2019 and December 2022) housing stock for the Firelands Region.

Sold/Currently Available For-Sale Housing Supply		
Status	Homes	Median Price
Erie County		
Sold*	3,117	\$159,900
Available**	71	\$170,000
Huron County		
Sold*	2,070	\$139,000
Available**	54	\$177,400
Ottawa County		
Sold*	2,429	\$210,000
Available**	92	\$409,000
Firelands Region (PSA)		
Sold*	7,616	\$163,000
Available**	217	\$237,400

Source: MLS (Multiple Listing Service)/Realtor.com & Bowen National Research

*Sales from Jan. 1, 2019 to Dec. 14, 2022

**As of Jan. 27, 2023

The available for-sale housing stock in the PSA (Firelands Region) as of January 2023 consists of 217 total units with a median list price of \$237,400. Median list prices for available homes range from \$170,000 in Erie County to \$409,000 in Ottawa County. Historical sales ranging from January 2019 to December 2022 for the overall region consisted of 7,616 homes and had a median sale price of \$163,000. The 217 available homes represent only 0.4% of the estimated 54,667 owner-occupied units in the region. Typically, in healthy, well-balanced markets, approximately 2% to 3% of the for-sale housing stock should be available for purchase to allow for inner-market mobility and to enable the market to attract households. As such, the PSA appears to have a disproportionately low number of housing units available to purchase.

2. Historical For-Sale Analysis

The following table illustrates the annual sales activity from 2019 to 2022 for the PSA (Firelands Region).

Sales History by Year (January 1, 2019 through December 14, 2022)				
Year	Number Sold	Percent Change	Median Sale Price	Percent Change
Erie County				
2019	756	-	\$135,000	-
2020	809	7.0%	\$159,000	17.8%
2021	862	6.6%	\$165,000	3.8%
2022*	690 (722)	(-16.2%)	\$182,000	10.3%
Huron County				
2019	528	-	\$123,355	-
2020	580	9.8%	\$134,000	8.6%
2021	535	-7.8%	\$149,000	11.2%
2022*	427 (446)	(-24.2%)	\$155,000	4.0%
Ottawa County				
2019	581	-	\$172,000	-
2020	681	17.2%	\$198,000	15.1%
2021	635	-6.8%	\$217,500	9.8%
2022*	532 (557)	(-18.5%)	\$260,000	19.5%
Firelands Region (PSA)				
2019	1,865	-	\$139,000	-
2020	2,070	11.0%	\$158,000	12.0%
2021	2,032	-1.8%	\$171,000	7.6%
2022*	1,649 (1,725)	(-15.1%)	\$185,000	7.6%

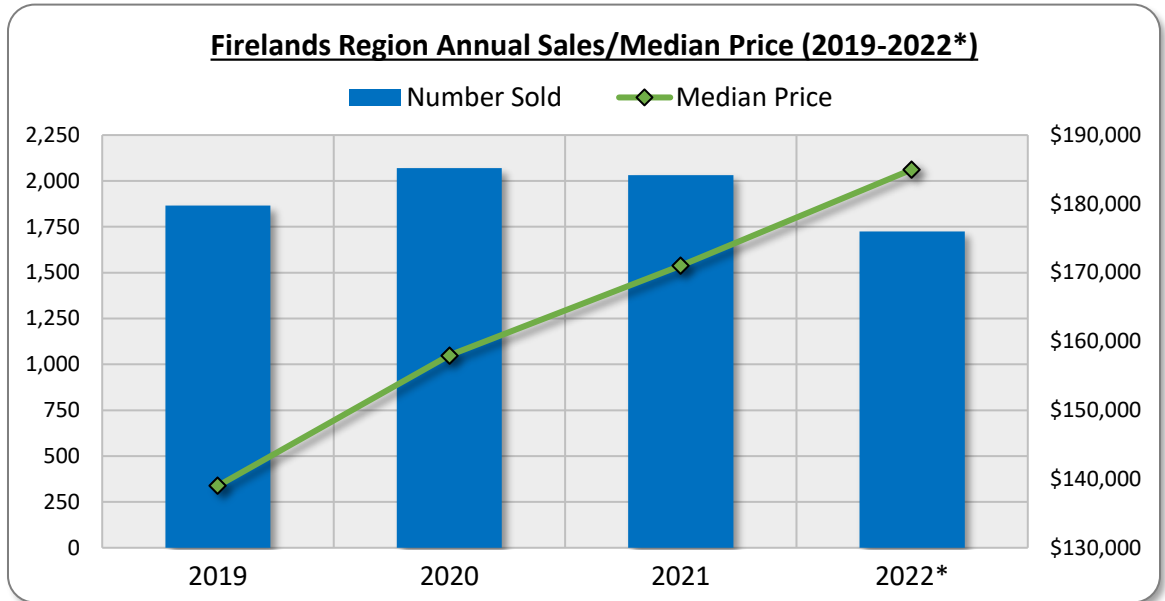
Source: MLS (Multiple Listing Service)

*As of Dec. 14, 2022

2022 figures in parenthesis reflect projections for entire year

As the preceding table illustrates, the volume of home sales within the PSA (Firelands Region) increased by 11.0% between 2019 and 2020, but declined in each of the past two years, likely due to a lack of supply in the housing market (both existing homes for sale and new construction) coupled with the significant increase in mortgage interest rates that started in 2022. Meanwhile, the median sale price for the overall region increased in each of the past three years, with an overall increase of \$46,000 between 2019 and 2022, representing an increase of 33.1% (approximately 11.0% annually). Of the three counties in the region, Ottawa County experienced the largest increase in median sale price (\$88,000, 51.2%) since 2019. While not at the same degree, home prices of product sold over the past four years within Erie County increased by \$47,000 (34.8%) and Huron County had an increase of \$31,645 (25.7%). The rapid escalation of home prices is likely making homebuying a greater challenge for many area households, particularly lower-income households.

The following graph illustrates the annual sales activity from 2019 to 2022.



*As of Dec. 14, 2022

The distribution of homes recently sold between January 2019 and December 2022 by *price point* within the PSA is summarized in the following table.

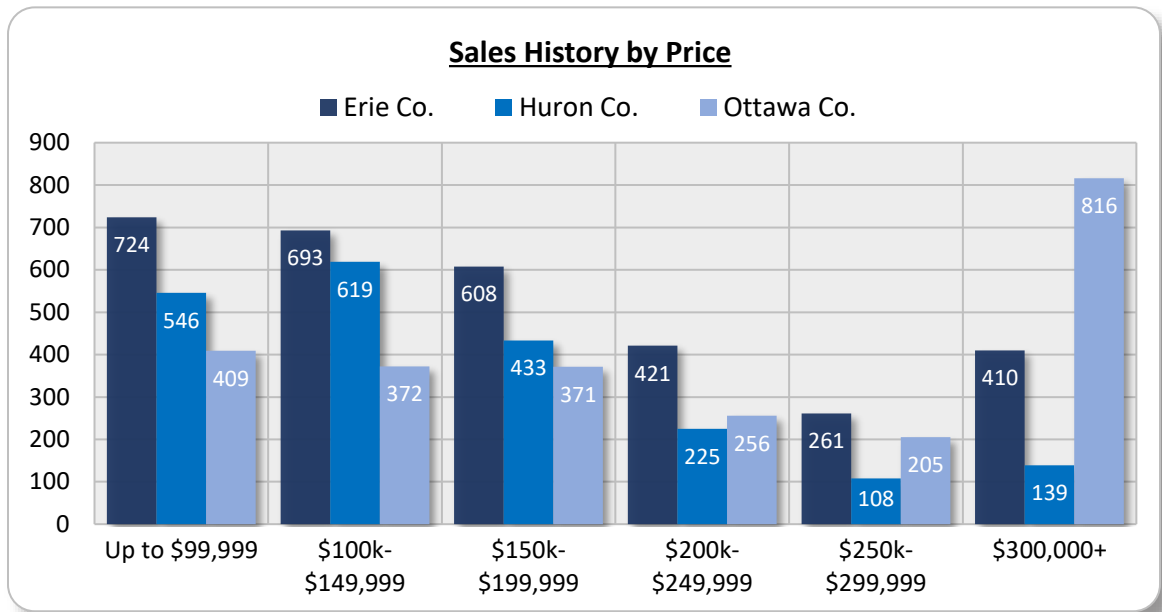
Sales History by Price (January 1, 2019 to December 14, 2022)			
Sale Price	Number Available	Percent of Supply	Average Days on Market
Erie County			
Up to \$99,999	724	23.2%	63
\$100,000 to \$149,999	693	22.2%	58
\$150,000 to \$199,999	608	19.5%	62
\$200,000 to \$249,999	421	13.5%	71
\$250,000 to \$299,999	261	8.4%	69
\$300,000+	410	13.2%	80
Total	3,117	100.0%	66
Huron County			
Up to \$99,999	546	26.4%	79
\$100,000 to \$149,999	619	29.9%	64
\$150,000 to \$199,999	433	20.9%	59
\$200,000 to \$249,999	225	10.9%	72
\$250,000 to \$299,999	108	5.2%	65
\$300,000+	139	6.7%	72
Total	2,070	100.0%	68
Ottawa County			
Up to \$99,999	409	16.8%	88
\$100,000 to \$149,999	372	15.3%	72
\$150,000 to \$199,999	371	15.3%	74
\$200,000 to \$249,999	256	10.5%	74
\$250,000 to \$299,999	205	8.4%	93
\$300,000+	816	33.6%	100
Total	2,429	100.0%	87
Firelands Region (PSA)			
Up to \$99,999	1,679	22.0%	77
\$100,000 to \$149,999	1,684	22.1%	64
\$150,000 to \$199,999	1,412	18.5%	64
\$200,000 to \$249,999	902	11.8%	73
\$250,000 to \$299,999	574	7.5%	83
\$300,000+	1,365	17.9%	92
Total	7,616	100.0%	74

Source: MLS (Multiple Listing Service)

As the preceding table illustrates, nearly 45% of homes sold in the PSA (Firelands Region) between 2019 and 2022 were priced below \$150,000. By comparison, less than 20% of homes sold in the PSA were priced between \$200,000 and \$299,000, a price point popular with middle-class homebuyers. Among the counties in the Firelands Region, both Erie (45.4%) and Huron (56.3%) counties had a significant share of home sales below \$150,000, while Ottawa County had approximately one-third of home sales priced at \$300,000 or above. Nearly all price points in the Firelands Region had an average days on market figure of below 90 days, which indicates a high demand for homes at all price points. In fact, the

overall average days on market figure was below 90 days for all three counties as well as the Firelands Region as a whole, which is reflective of a high level of demand. This is to be expected with so few homes available to purchase.

The distribution of recent home sales by *price point* for the PSA (Firelands Region) is shown in the following graph.



The following table illustrates recent home sales for the PSA (Firelands Region) by *bedroom type*.

Sales History by Bedroom Type (January 1, 2019 to December 14, 2022)								
Bedrooms	Number Sold	Average Baths	Average Square Feet	Average Year Built*	Price Range	Median Sale Price	Median Price per Sq. Ft.	Average Days on Market
Erie County								
One-Br.	67	1.0	837	1972	\$11,500 - \$260,000	\$132,000	\$163.07	72
Two-Br.	560	1.5	1,201	1960	\$8,000 - \$575,000	\$120,000	\$103.04	65
Three-Br.	1,645	1.75	1,585	1959	\$15,000 - \$1,200,000	\$154,000	\$104.44	60
Four-Br.	733	2.25	2,275	1959	\$16,000 - \$1,585,000	\$221,000	\$101.16	73
Five+-Br.	112	3.0	3,122	1947	\$23,000 - \$2,000,000	\$258,700	\$96.47	105
Total	3,117	1.75	1,717	1959	\$8,000 - \$2,000,000	\$159,900	\$103.75	66
Huron County								
One-Br.	13	1.0	1,013	1940	\$12,000 - \$220,600	\$62,900	\$65.28	61
Two-Br.	277	1.5	1,183	1963	\$10,000 - \$362,000	\$100,000	\$93.46	65
Three-Br.	1,221	1.75	1,553	1959	\$7,000 - \$745,000	\$139,000	\$94.59	64
Four-Br.	475	2.0	2,089	1950	\$7,500 - \$770,000	\$168,000	\$89.91	72
Five+-Br.	84	2.75	2,832	1939	\$20,000 - \$850,000	\$183,000	\$75.43	121
Total	2,070	1.75	1,675	1956	\$7,000 - \$850,000	\$139,000	\$92.39	68
Ottawa County								
One-Br.	170	1.0	656	1976	\$15,000 - \$430,000	\$119,500	\$176.45	75
Two-Br.	660	1.5	1,116	1974	\$10,000 - \$950,000	\$155,000	\$145.60	73
Three-Br.	1,134	2.0	1,637	1971	\$10,000 - \$1,900,000	\$227,500	\$142.09	87
Four-Br.	383	2.5	2,363	1967	\$15,000 - \$2,700,000	\$340,000	\$151.08	103
Five+-Br.	82	3.25	2,953	1951	\$55,000 - \$2,800,000	\$495,000	\$168.14	137
Total	2,429	2.0	1,586	1971	\$10,000 - \$2,800,000	\$210,000	\$147.10	87
Firelands Region (PSA)								
One-Br.	250	1.0	713	1974	\$11,500 - \$430,000	\$117,125	\$166.01	80
Two-Br.	1,497	1.5	1,173	1967	\$8,000 - \$950,000	\$125,000	\$112.71	69
Three-Br.	4,000	2.0	1,593	1963	\$7,000 - \$1,900,000	\$160,000	\$108.27	69
Four-Br.	1,591	2.25	2,248	1958	\$7,500 - \$2,700,000	\$220,000	\$103.29	81
Five+-Br.	278	3.0	3,090	1945	\$20,000 - \$2,800,000	\$276,000	\$102.35	129
Total	7,616	2.0	1,674	1963	\$7,000 - \$2,800,000	\$163,000	\$108.59	74

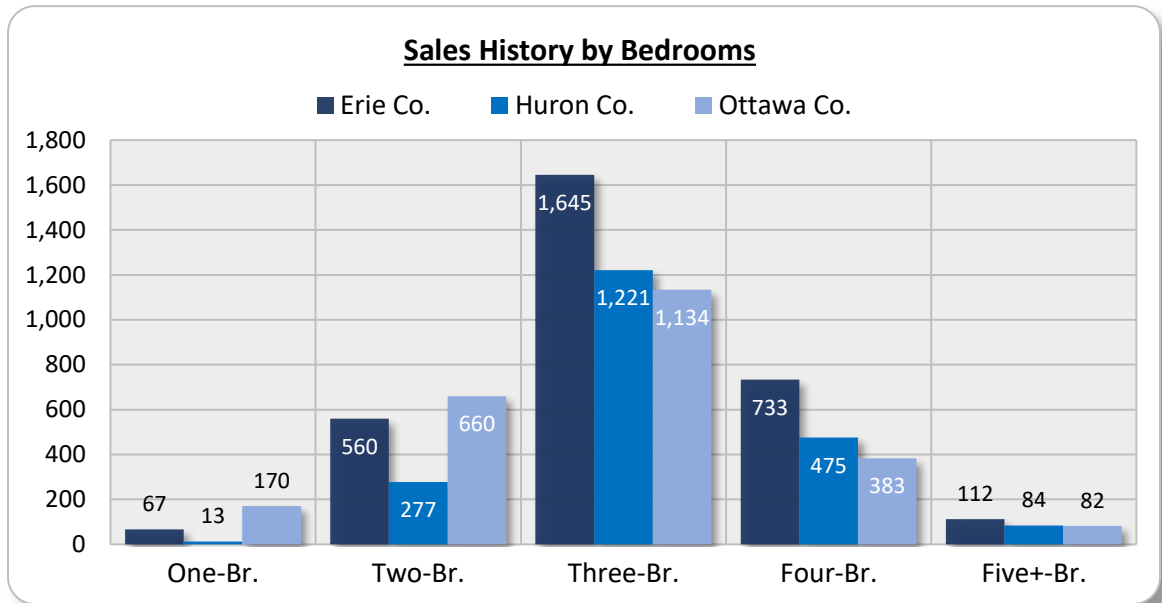
Source: MLS (Multiple Listing Service)

*Excludes the following number of listings with no year built information (Erie – 73; Huron – 362; Ottawa – 72)

The largest share of homes sold by bedroom type in the PSA primarily consists of three-bedroom housing units, which represents over half of all homes sold in the PSA between January 2019 and December 2022. Three-bedroom units represent at least half of all recent home sales in each of the three counties in the Firelands Region. This is considered typical. Note that three-bedroom and four-bedroom homes recently sold in Ottawa County have much higher median sale prices compared to three- and four-bedroom homes in both Erie and Huron counties. These higher median sale prices may indicate newer units targeting vacation and/or second home buyers.

The median sale price (\$160,000) for three-bedroom homes in the PSA is also slightly below the median sale price of \$163,000 for all homes recently sold in the Firelands Region. The average year built for homes in the PSA is 1963, while the median price per square foot of recently sold homes is below \$110. These factors are indicative of an older, mature housing market with fewer new construction alternatives. As shown on the following pages, newer homes have been selling at much higher prices. However, homes have sold fairly quickly in the PSA regardless of age, as nearly all bedroom types in the Firelands Region have an average days on market figure of below 90 days.

The distribution of recent home sales by bedroom type for counties within the PSA (Firelands Region) is shown in the following graph.



Recent home sales by *year built* in the PSA (Firelands Region) are illustrated in the following table:

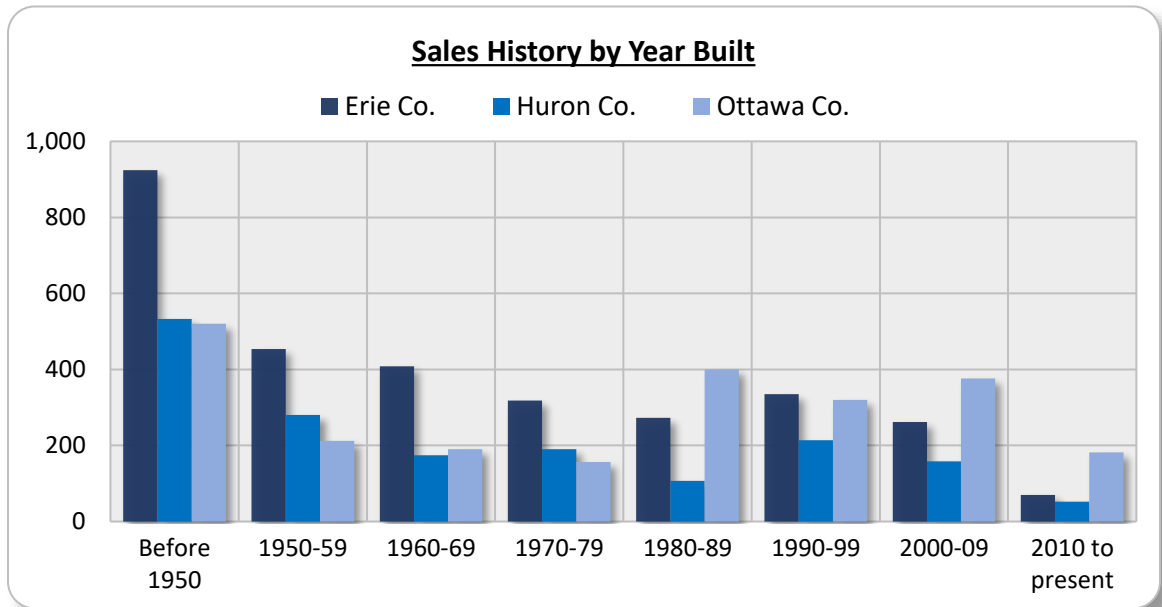
Sales History by Year Built (Sales from Jan. 1, 2019 to Dec. 14, 2022)							
Year Built	Number Sold*	Average Beds/Baths	Average Square Feet	Price Range	Median Sale Price	Median Price per Sq. Ft.	Average Days on Market
Eric County							
Before 1950	924	3/1.5	1,567	\$11,500 - \$1,750,000	\$107,851	\$74.43	62
1950 to 1959	454	3/1.5	1,372	\$16,500 - \$639,000	\$133,950	\$101.49	57
1960 to 1969	408	3/1.75	1,599	\$25,000 - \$772,000	\$157,500	\$105.70	56
1970 to 1979	318	3/2.0	1,762	\$17,500 - \$940,000	\$169,950	\$101.03	66
1980 to 1989	273	3/2.0	1,752	\$12,000 - \$1,662,500	\$213,250	\$119.02	71
1990 to 1999	335	3/2.5	2,242	\$61,000 - \$1,585,000	\$244,000	\$118.95	65
2000 to 2009	262	3/2.5	2,159	\$55,000 - \$2,000,000	\$266,000	\$140.67	84
2010 to present	70	3/2.5	2,178	\$85,000 - \$675,000	\$307,613	\$153.02	80
Total	3,044	3/1.75	1,718	\$11,500 - \$2,000,000	\$160,000	\$103.87	64
Huron County							
Before 1950	533	3/1.5	1,738	\$7,500 - \$850,000	\$118,000	\$72.16	79
1950 to 1959	280	3/1.5	1,361	\$20,000 - \$450,000	\$125,000	\$103.01	57
1960 to 1969	174	3/1.75	1,655	\$16,100 - \$399,000	\$166,000	\$103.88	67
1970 to 1979	190	3/2.0	1,661	\$10,900 - \$555,000	\$159,900	\$103.36	63
1980 to 1989	107	3/2.25	2,030	\$10,000 - \$700,000	\$189,900	\$105.94	65
1990 to 1999	214	3/2.5	1,919	\$32,500 - \$685,000	\$195,000	\$111.07	56
2000 to 2009	158	3/2.25	1,811	\$10,000 - \$705,000	\$217,250	\$117.83	58
2010 to present	52	3/2.25	1,943	\$132,900 - \$770,000	\$249,950	\$141.04	83
Total	1,708	3/2.0	1,713	\$7,500 - \$850,000	\$149,900	\$98.05	67
Ottawa County							
Before 1950	520	3/1.5	1,485	\$13,500 - \$1,900,000	\$154,500	\$109.51	86
1950 to 1959	212	3/1.5	1,497	\$32,000 - \$1,575,000	\$174,000	\$126.02	86
1960 to 1969	190	3/1.75	1,531	\$10,000 - \$875,000	\$193,500	\$132.04	74
1970 to 1979	157	3/1.75	1,514	\$15,000 - \$1,825,000	\$200,000	\$138.39	103
1980 to 1989	400	2/1.75	1,205	\$10,000 - \$2,200,000	\$160,000	\$163.45	66
1990 to 1999	320	3/2.25	1,683	\$25,000 - \$2,656,800	\$230,000	\$145.02	78
2000 to 2009	376	3/2.25	1,916	\$16,000 - \$2,050,000	\$315,000	\$164.87	87
2010 to present	182	3/2.5	1,975	\$47,880 - \$2,800,000	\$420,000	\$247.93	108
Total	2,357	3/2.0	1,578	\$10,000 - \$2,800,000	\$205,000	\$146.23	84
Firelands Region (PSA)							
Before 1950	1,977	3/1.5	1,605	\$7,500 - \$1,900,000	\$120,010	\$80.74	75
1950 to 1959	946	3/1.5	1,407	\$16,500 - \$1,575,000	\$140,000	\$106.22	65
1960 to 1969	772	3/1.75	1,599	\$10,000 - \$875,000	\$165,000	\$108.93	63
1970 to 1979	665	3/2.0	1,674	\$10,900 - \$1,825,000	\$170,000	\$106.83	74
1980 to 1989	780	3/2.0	1,520	\$10,000 - \$2,200,000	\$187,050	\$130.40	69
1990 to 1999	869	3/2.5	1,927	\$10,000 - \$2,656,800	\$229,000	\$123.28	69
2000 to 2009	796	3/2.25	2,015	\$25,000 - \$2,050,000	\$267,750	\$144.69	83
2010 to present	304	3/2.5	2,002	\$47,880 - \$2,800,000	\$349,950	\$181.21	96
Total	7,109	3/2.0	1,682	\$7,500 - \$2,800,000	\$163,000	\$108.59	74

Source: MLS (Multiple Listing Service)

*Excludes the following number of listings with no year built information (Erie – 73; Huron – 362; Ottawa – 72)

Median sale prices in the PSA (Firelands Region) tend to correlate with the year housing was built. Generally, product in the PSA built prior to 1960 (representing over 40% of recently sold homes) had median sale prices under \$150,000, while product built in 2000 or later had median sale prices ranging from \$267,750 to \$349,950 (depending upon the decade). With the exception of homes built since 2010, homes in the PSA typically sell in under 90 days. All three counties within the PSA have a significant supply of older housing stock. However, Ottawa County has a larger supply of newer housing (built since 2000) compared to both Erie and Huron counties. The newer supply of housing product is reflected in Ottawa County’s higher median prices for newer housing, ranging from \$315,000 to \$420,000 for each of the last two decades.

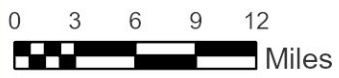
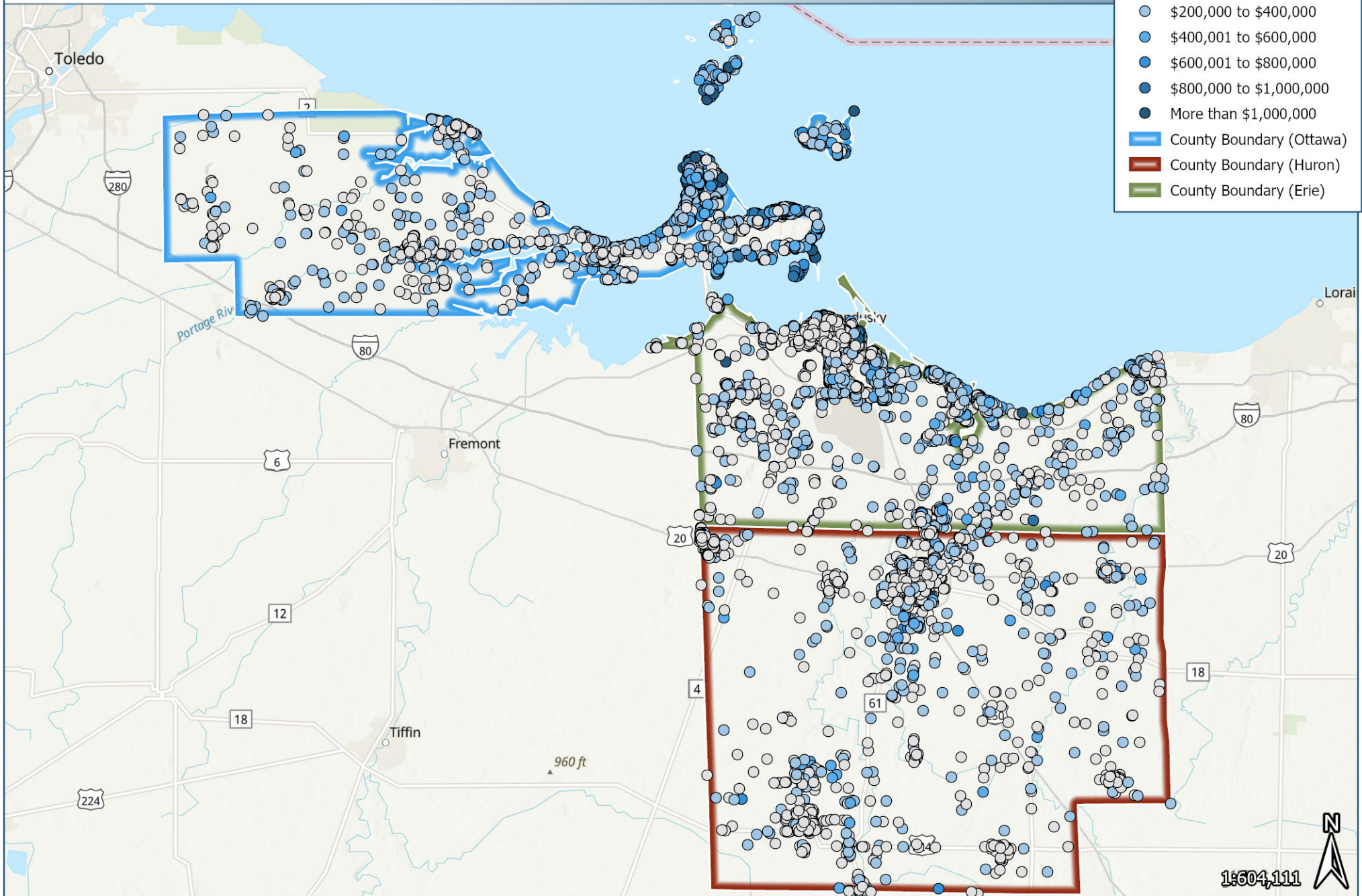
The distribution of recent home sales by *year built* in the PSA (Firelands Region) is shown in the following graph:



A map illustrating the location of all homes sold between January 2019 and December 2022 within the PSA (Firelands Region) is included on the following page.

Sold Price

- \$200,000 or Less
- \$200,000 to \$400,000
- \$400,001 to \$600,000
- \$600,001 to \$800,000
- \$800,000 to \$1,000,000
- More than \$1,000,000
- ▬ County Boundary (Ottawa)
- ▬ County Boundary (Huron)
- ▬ County Boundary (Erie)



3. Available For-Sale Housing Supply

Based on information provided by Realtor.com, we identified 217 housing units within the PSA (Firelands Region) that were listed as *available* for purchase as of January 2023. Most of the product we evaluated (over 80%) consisted of single-family home listings, while the remaining share of available product consisted of condominium units, manufactured/mobile homes, and townhouses. While there are likely additional for-sale residential units available for purchase, such homes were not identified during our research due to the method of advertisement or simply because the product was not actively marketed. Regardless, the available inventory of for-sale product identified in this analysis provides a good baseline for evaluating the for-sale housing alternatives offered in the Firelands Region.

There are two inventory metrics most often used to evaluate the health of a for-sale housing market. These metrics include *Months Supply of Inventory* (MSI) and availability rate. The MSI for the Firelands Region was calculated based on sales history occurring between January 1, 2019 and December 14, 2022. A total of 7,616 homes were sold within the Firelands Region during this period. Accounting for the 47.5 month sales period, the overall absorption rate during this period is approximately 160 homes per month. Overall, based on the monthly absorption rate of 160 homes, the region's 217 homes listed as available for purchase represent approximately 1.4 months of supply. Typically, healthy and well-balanced markets have an available supply that should take about four to six months to absorb (if no other units are added to the market). The PSA's inventory is considered low and indicates limited available supply. When comparing the 217 available units with the overall inventory of 54,667 owner-occupied units, the PSA has a vacancy/availability rate of 0.4%, which is well below the normal range of 2.0% to 3.0% for a well-balanced for-sale/owner-occupied market and reflective of a shortage of for-sale supply. To further highlight housing availability in the PSA, we have conducted a more refined analysis of available supply by price point.

The following table summarizes the distribution of available for-sale residential units by *price point* for the PSA (Firelands Region):

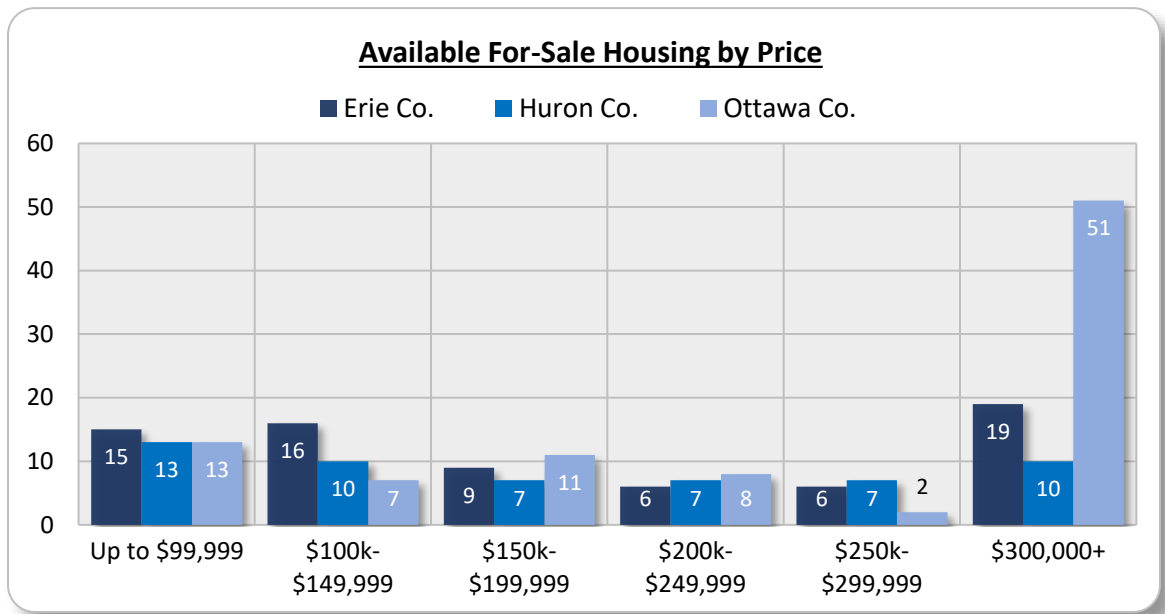
Available For-Sale Housing by Price (As of January 27, 2023)			
List Price	Number Available	Percent of Supply	Average Days on Market
Erie County			
Up to \$99,999	15	21.1%	134
\$100,000 to \$149,999	16	22.5%	77
\$150,000 to \$199,999	9	12.7%	61
\$200,000 to \$249,999	6	8.5%	50
\$250,000 to \$299,999	6	8.5%	59
\$300,000+	19	26.8%	79
Total	71	100.0%	84
Huron County			
Up to \$99,999	13	24.1%	93
\$100,000 to \$149,999	10	18.5%	53
\$150,000 to \$199,999	7	13.0%	79
\$200,000 to \$249,999	7	13.0%	94
\$250,000 to \$299,999	7	13.0%	60
\$300,000+	10	18.5%	110
Total	54	100.0%	83
Ottawa County			
Up to \$99,999	13	14.1%	90
\$100,000 to \$149,999	7	7.6%	53
\$150,000 to \$199,999	11	12.0%	53
\$200,000 to \$249,999	8	8.7%	58
\$250,000 to \$299,999	2	2.2%	37
\$300,000+	51	55.4%	143
Total	92	100.0%	108
Firelands Region (PSA)			
Up to \$99,999	41	18.9%	99
\$100,000 to \$149,999	33	15.2%	102
\$150,000 to \$199,999	27	12.4%	72
\$200,000 to \$249,999	21	9.7%	64
\$250,000 to \$299,999	15	6.9%	89
\$300,000+	80	36.9%	105
Total	217	100.0%	94

Source: Realtor.com & Bowen National Research

The largest share (36.9%) of available housing units in the PSA is priced at \$300,000 or above. These higher-priced homes have been on the market for an average of 105 days, which is slightly above the overall average of 94 days for homes at all price points in the PSA. Among the three counties in the Firelands Region, Ottawa County has the largest number of these higher-priced homes available for sale. Note that homes priced above \$300,000 in Ottawa County are on the market for an average of 143 days. It appears many of these homes may be targeting vacation and/or second-home buyers.

The Firelands Region also has a notable share (34.1%) of available homes priced below \$150,000. These housing units are primarily older single-family homes that typically have only one bathroom. There appears to be a region-wide shortage of homes priced between \$200,000 and \$300,000, a price point typically in demand by middle-class households. Available housing units between \$200,000 and \$300,000 only accounted for 16.6% of all available housing units in the PSA. In most cases, the average number of days on market for homes within this price range was below the overall PSA average of 94 days.

The distribution of available homes in the PSA by *price point* is illustrated in the following graph:



The available for-sale housing by *bedroom type* in the PSA (Firelands Region) is summarized in the following table.

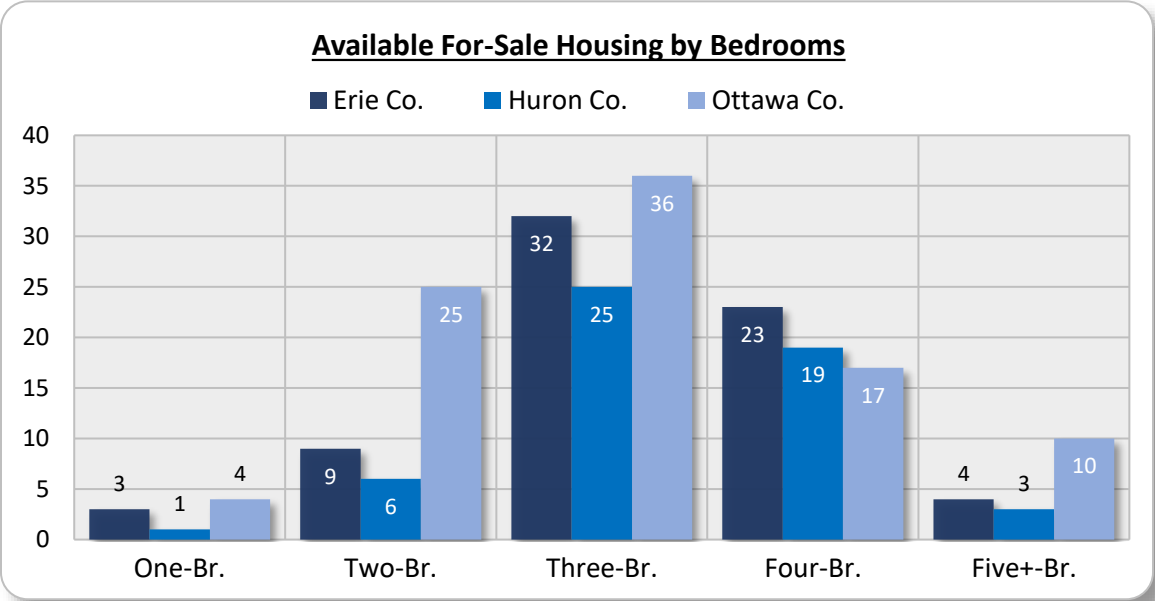
Available For-Sale Housing by Bedroom Type (As of January 27, 2023)								
Bedrooms	Number Available	Average Baths	Average Square Feet	Average Year Built	Price Range	Median List Price	Median Price per Sq. Ft.	Average Days on Market
Erie County								
One-Br.	3	1.75	1,203	1962	\$31,000 - \$449,900	\$79,900	\$56.03	39
Two-Br.	9	1.5	1,302	1965	\$59,900 - \$399,000	\$157,500	\$109.38	92
Three-Br.	32	1.5	1,476	1951	\$39,999 - \$699,900	\$144,450	\$117.65	89
Four-Br.	23	2.25	2,118	1948	\$55,000 - \$679,900	\$234,900	\$124.07	68
Five+-Br.	4	3.5	3,861	1971	\$139,500 - \$3,200,000	\$824,450	\$199.46	144
Total	71	2.0	1,785	1953	\$31,000 - \$3,200,000	\$170,000	\$113.56	84
Huron County								
One-Br.	1	1.0	493	1943	\$49,000	\$49,000	\$99.39	78
Two-Br.	6	1.25	1,180	1922	\$70,000 - \$259,900	\$114,450	\$104.71	54
Three-Br.	25	1.75	1,657	1939	\$57,900 - \$480,000	\$165,000	\$122.77	99
Four-Br.	19	2.25	2,321	1942	\$80,000 - \$495,000	\$245,000	\$110.68	74
Five+-Br.	3	2.25	3,066	1931	\$135,000 - \$349,900	\$185,000	\$67.13	61
Total	54	2.0	1,894	1938	\$49,000 - \$495,000	\$177,400	\$106.88	83
Ottawa County								
One-Br.	4	1.0	599	1986	\$109,000 - \$249,999	\$181,450	\$289.83	21
Two-Br.	25	1.25	1,020	1970	\$74,000 - \$740,000	\$177,500	\$173.91	83
Three-Br.	36	2.0	1,966	1971	\$52,900 - \$5,995,000	\$364,000	\$189.81	96
Four-Br.	17	2.5	2,549	1956	\$125,000 - \$6,000,000	\$649,000	\$198.20	160
Five+-Br.	10	4.25	4,016	1987	\$420,000 - \$2,650,000	\$1,224,993	\$305.94	163
Total	92	2.0	1,980	1970	\$52,900 - \$6,000,000	\$409,000	\$195.96	108
Firelands Region (PSA)								
One-Br.	8	1.25	813	1972	\$31,000 - \$449,000	\$113,450	\$200.02	8
Two-Br.	40	1.5	1,115	1961	\$59,900 - \$740,000	\$158,750	\$161.49	41
Three-Br.	93	2.0	1,732	1957	\$39,999 - \$5,995,000	\$197,450	\$128.30	40
Four-Br.	59	2.5	2,312	1951	\$55,000 - \$6,000,000	\$289,450	\$130.03	60
Five+-Br.	17	3.5	3,893	1974	\$135,000 - \$3,200,000	\$914,500	\$269.99	265
Total	217	2.0	1,917	1958	\$31,000 - \$6,000,000	\$237,400	\$133.04	94

Source: Realtor.com & Bowen National Research

The available for-sale supply in the PSA primarily consists of three-bedroom and four-bedroom units, which represents approximately 70% of available supply. Homes available for sale in the PSA were primarily built in the 1950s and 1960s. The average unit size of available product in the PSA is over 1,900 square feet. While the range of price points for available supply in the PSA is relatively wide, ranging from \$31,000 to \$6,000,000, the median list price is \$237,400. Among individual counties that make up the Firelands Region, median list prices range from \$170,000 in Erie County to \$409,000 in Ottawa County. The average number of days on market for the 217 available housing units is 94 days, which is a longer period than the 74 days on market average for homes that sold in the PSA between 2019 and 2022. Note that larger homes (five-bedrooms or larger) in both Erie and Ottawa counties have been on the market for an average of

144 to 163 days. Several of these larger homes for sale may be vacation homes that may not be selling as quickly due to the recent increase in mortgage interest rates. However, smaller units appear to be selling quickly in the PSA.

The distribution of available homes by *bedroom type* in the PSA (Firelands Region) is shown in the following graph:



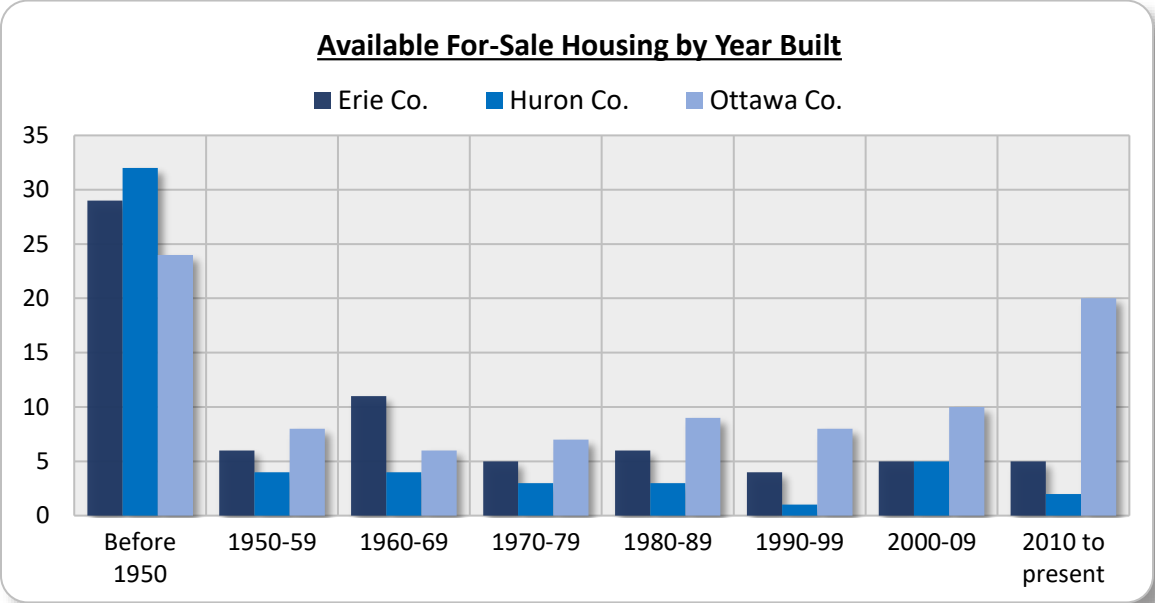
The distribution of available homes by *year built* for the PSA (Firelands Region) is summarized in the following table.

Available For-Sale Housing by Year Built (As of January 27, 2023)							
Year Built	Number Available	Average Beds/Baths	Average Square Feet	Price Range	Median List Price	Median Price per Sq. Ft.	Average Days on Market
Erie County							
Before 1950	29	3/1.5	1,583	\$49,900 - \$599,900	\$124,500	\$82.51	107
1950 to 1959	6	3/1.75	2,025	\$31,000 - \$1,349,000	\$178,700	\$115.56	94
1960 to 1969	11	3/1.5	1,528	\$39,999 - \$429,000	\$159,900	\$127.37	67
1970 to 1979	5	3/1.75	1,386	\$59,900 - \$475,000	\$299,900	\$227.93	79
1980 to 1989	6	3/2.25	1,786	\$179,000 - \$360,000	\$252,400	\$178.77	50
1990 to 1999	4	3/2.0	1,720	\$57,400 - \$699,900	\$184,950	\$112.81	55
2000 to 2009	5	3/3.0	2,441	\$369,500 - \$679,900	\$519,000	\$185.52	42
2010 to present	5	4/3.0	3,026	\$314,900 - \$3,200,000	\$399,000	\$153.30	86
Total	71	3/2.0	1,785	\$31,000 - \$3,200,000	\$170,000	\$113.56	84
Huron County							
Before 1950	32	3/1.75	1,746	\$49,900 - \$439,900	\$136,450	\$92.76	78
1950 to 1959	4	3/1.5	1,264	\$70,000 - \$215,000	\$159,950	\$115.80	87
1960 to 1969	4	3/2.0	1,606	\$165,000 - \$480,000	\$255,000	\$138.38	49
1970 to 1979	3	4/2.75	2,365	\$80,000 - \$279,000	\$189,000	\$104.49	50
1980 to 1989	3	4/2.5	2,559	\$275,000 - \$354,900	\$349,900	\$109.28	114
1990 to 1999	1	4/4.5	2,192	\$325,000	\$325,000	\$148.27	125
2000 to 2009	5	3/2.0	2,255	\$98,000 - \$429,000	\$274,999	\$130.64	117
2010 to present	2	4/3.25	3,357	\$479,900 - \$495,000	\$487,450	\$145.20	111
Total	54	3/2.0	1,894	\$49,000 - \$495,000	\$177,400	\$106.88	83
Ottawa County							
Before 1950	24	3/1.75	1,961	\$52,900 - \$6,000,000	\$192,450	\$113.13	107
1950 to 1959	8	3/1.5	1,164	\$74,000 - \$5,995,000	\$214,900	\$170.00	69
1960 to 1969	6	4/2.0	2,647	\$84,000 - \$1,399,990	\$334,500	\$159.48	59
1970 to 1979	7	3/1.5	1,453	\$75,000 - \$879,000	\$177,500	\$166.51	80
1980 to 1989	9	2/1.5	1,151	\$85,000 - \$740,000	\$245,000	\$212.89	47
1990 to 1999	8	3/3.0	2,907	\$117,900 - \$2,650,000	\$459,450	\$264.68	113
2000 to 2009	10	3/2.25	1,753	\$189,900 - \$1,599,000	\$418,500	\$233.69	109
2010 to present	20	4/3.0	2,430	\$125,000 - \$2,499,000	\$639,900	\$288.64	176
Total	92	3/2.0	1,980	\$52,900 - \$6,000,000	\$409,000	\$195.96	108
Firelands Region (PSA)							
Before 1950	85	3/1.75	1,770	\$49,000 - \$6,000,000	\$140,000	\$99.39	100
1950 to 1959	18	3/1.75	1,573	\$31,000 - \$5,995,000	\$179,900	\$130.06	79
1960 to 1969	21	3/1.75	1,862	\$39,999 - \$1,399,990	\$249,000	\$131.70	76
1970 to 1979	15	3/2.0	1,668	\$59,900 - \$879,000	\$234,000	\$154.64	84
1980 to 1989	18	3/2.0	1,597	\$85,000 - \$740,000	\$262,000	\$178.77	101
1990 to 1999	13	3/2.75	2,642	\$57,400 - \$2,650,000	\$406,950	\$209.29	117
2000 to 2009	20	3/2.5	2,050	\$98,000 - \$1,599,000	\$429,000	\$185.85	87
2010 to present	27	3/2.5	2,613	\$125,000 - \$3,200,000	\$550,900	\$240.16	100
Total	217	3/2.0	1,917	\$31,000 - \$6,000,000	\$237,400	\$133.04	94

Source: Realtor.com & Bowen National Research

As shown in the preceding table, the largest share (39.2%) of the available for-sale housing product in the PSA was built before 1950. These older homes have a median list price of \$140,000 and typically have less than two full bathrooms. A notable share (21.7%) of the available supply was built in the year 2000 or later. These newer homes are generally priced above \$400,000, have at least 2,000 square feet, and include three-bedrooms with two and one-half bathrooms. Note that most of the available housing product offered for sale in Erie and Huron counties was built before 1950, while over one-third of available housing units in Ottawa County were built in the year 2000 or later. This difference in era of construction is evident in the median list prices in each of the three counties. Erie County and Huron County each have median list prices below \$180,000, while the median list price in Ottawa County is over \$400,000.

The distribution of available homes in the PSA (Firelands Region) by *year built* is shown in the following graph:



The following table summarizes key available for-sale supply information by submarket.

Available For-Sale Housing by Submarket					
Submarket	Available Homes	Share of All Available Homes	Average Year Built	Median List Price	Average List Price
Erie East	22	10.5%	1973	\$277,400	\$330,673
Erie North	39	18.7%	1943	\$129,900	\$167,903
Erie West	6	2.9%	1931	\$225,950	\$276,883
Huron North	24	11.5%	1939	\$212,450	\$235,417
Huron South	30	14.4%	1943	\$144,450	\$183,860
Ottawa East	63	30.1%	1975	\$550,000	\$857,799
Ottawa West	25	12.0%	1949	\$160,000	\$163,780
Total	209	100.0%			

Source: Realtor.com & Bowen National Research

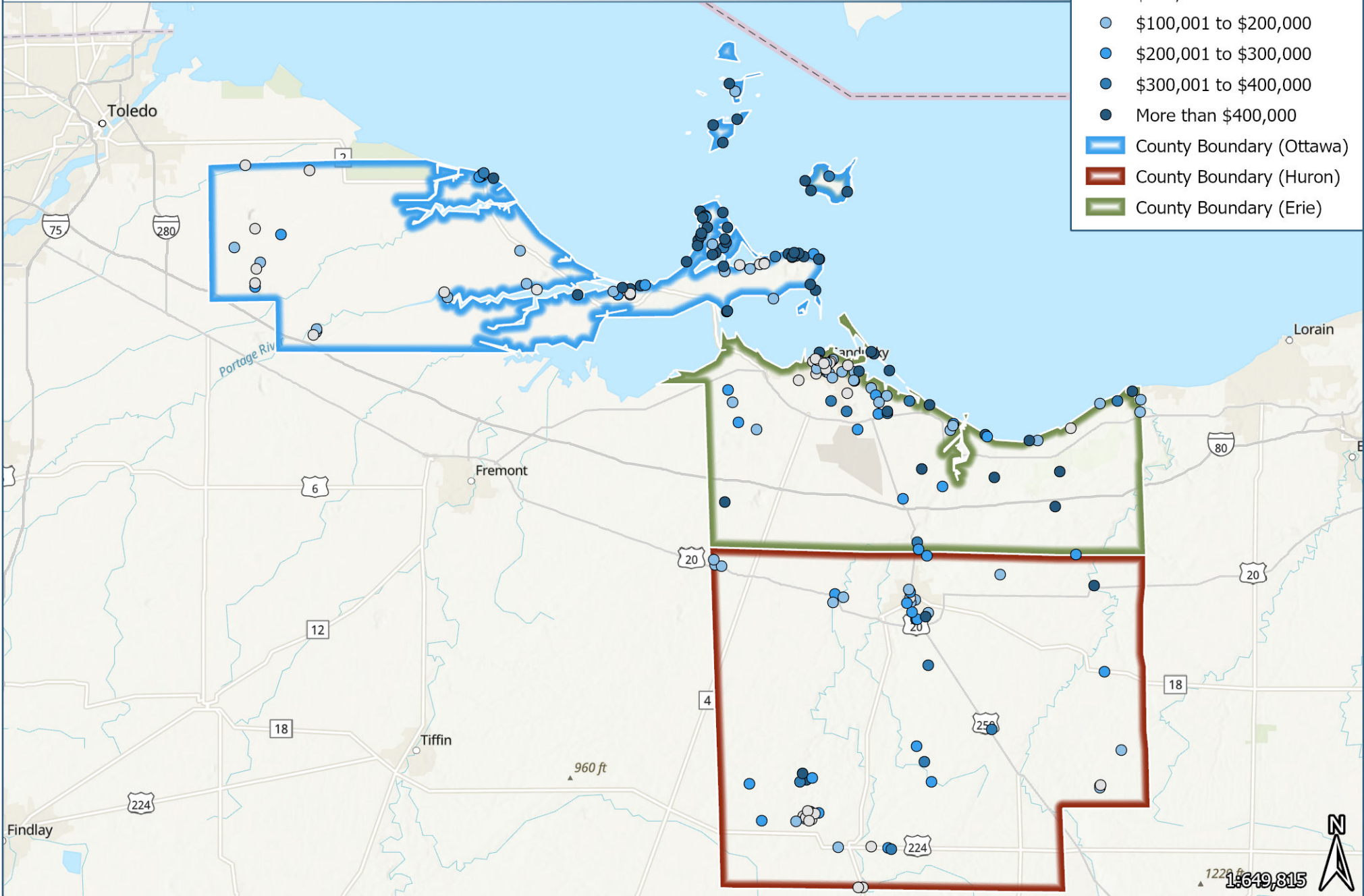
Note: Eight (8) available for-sale properties could not be located by submarket and were not included in the table above.

The Ottawa East submarket, which includes Lakeside Marblehead and Catawba Island, has the largest share (30.1%) of available properties on the market. Note that the Ottawa East submarket has a large number of seasonal/second homes situated along or near Lake Erie, accounting for its higher median list price (\$550,000) and average list price (\$857,799) relative to other submarkets. The Erie North submarket, which includes Sandusky and Perkins Township, accounts for nearly 20% of available homes listed for sale in the Firelands Region.

A map illustrating the location of available for-sale homes in the PSA (Firelands Region) is included on the following page.

List Price

- \$100,000 or Less
- \$100,001 to \$200,000
- \$200,001 to \$300,000
- \$300,001 to \$400,000
- More than \$400,000
- ▬ County Boundary (Ottawa)
- ▬ County Boundary (Huron)
- ▬ County Boundary (Erie)



D. PLANNED & PROPOSED

In order to assess housing development potential, we evaluated recent residential building permit activity and identified residential projects in the development pipeline within the three counties of the Firelands Region. Understanding the number of residential units and the type of housing being considered for development in the market can assist in determining how these projects are expected to meet the housing needs of the region.

The following table illustrates single-family and multifamily building permits issued within Erie, Huron, and Ottawa counties for the past 10 years from 2012 to 2021 (2022 data was not available):

Housing Unit Building Permits										
Permits	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Erie County										
Multifamily Permits	4	0	0	8	36	10	0	14	29	148
Single-Family Permits	40	80	57	77	96	86	71	87	99	141
Total Units	44	80	57	85	132	96	71	101	128	289
Huron County										
Multifamily Permits	0	76	0	15	7	6	4	2	2	99
Single-Family Permits	23	35	41	41	46	33	35	30	34	43
Total Units	23	111	41	56	53	39	39	32	36	142
Ottawa County										
Multifamily Permits	0	6	5	50	0	0	54	6	10	24
Single-Family Permits	114	111	89	88	135	114	114	130	129	148
Total Units	114	117	94	138	135	114	168	136	139	172
Firelands Region (PSA)										
Multifamily Permits	4	82	5	73	43	16	58	22	41	271
Single-Family Permits	177	226	187	206	277	233	220	247	262	332
Total Units	181	308	192	279	320	249	278	269	303	603

Source: SOCDs Building Permits Database at <http://socds.huduser.org/permits/index.html>

As the preceding table illustrates, residential permit activity in the PSA (Firelands Region) reflects an average of 298 residential units permitted per year over the past decade (2012 through 2021). Note that residential permit activity in 2021, which reflected a total of 603 permits issued, far exceeded PSA averages during the most recent ten year period. The number of single-family permits issued per year also exceeded the number of multifamily permits issued in each of the ten years reflected in the preceding table. Ottawa County has the highest annual average number of residential permits issued (133) among counties in the Firelands Region, followed by Erie County (108). By comparison, Huron County averaged 57 residential permits issued per year between 2012 and 2021. The notable increase of residential building permits issued in 2021 may be a reflection of pent-up demand in the housing construction sector due to COVID-19 regulations coupled with a market response to ongoing housing availability shortages in the PSA. While 2022 data was not available, it is possible 2022 residential permit activity slowed due to rapidly rising interest rates.

We conducted interviews with representatives of building and permitting departments in the Firelands Region and conducted extensive online research to identify residential projects either planned for development or currently under construction within the three counties that make up the Firelands Region. All identified projects are summarized on the following tables.

Multifamily Housing

From interviews with planning representatives that responded to our inquiries, and from extensive online research it was determined there are four rental housing projects planned or under construction within the Firelands Region. All four projects identified are located within Erie County. There were no rental housing projects planned within Huron or Ottawa counties. These developments are summarized as follows (Note: The status of these projects may have changed since the information was collected):

Firelands Region				
Project Name & Address	Type	Units	Developer	Status/Details
Erie County				
Villas at Sandy Creek 4314 Milan Road Sandusky	Market-rate	126	Cafaro Company	Under Construction: ECD spring 2023; Rents starting at \$1,575 for two-bedroom
Feick Building 156 East Market Street Sandusky	Market-rate	62	Marous Development Group	Under Construction: ECD spring 2023; Rents starting at \$950 for studio unit
Redwood Sandusky East Perkins Avenue Sandusky	Market-rate	135	Redwood	Planned: Two-bedrooms; Estimated rents \$1,600 to \$2,100; Plan to break ground summer 2023
Battery Park 701 East Water Street Sandusky	Market-rate	172	Marous Development Group	Planned: Studio to two-bedrooms; Predevelopment stage
Huron County				
No planned projects				
Ottawa County				
No planned projects				

ECD – Estimated completion date

For-Sale Housing

There are currently 11 for-sale housing projects proposed, planned or under construction within the PSA (Firelands Region). A total of six projects are in Erie County, three projects are in Huron County, and two projects are in Ottawa County. These projects are summarized in the table that follows. (Note: The status of these projects may have changed since the information was collected):

Firelands Region				
Subdivision Name & Address	Product Type	Units/Lots	Developer	Status/Details
Erie County				
Courtyards at Plum Brook 4079 Coventry Lane Huron	Single-family & Duplex	59	Marblewood Homes	Under Construction: Adult 55+ community; Two- and three-bedrooms; Square feet from 1,232 to 3,000; From \$325,000 \$460,000; Within Sanctuary at Plum Brook development
Battery Park 701 East Water Street Sandusky	Condominium	68	Marous Development Group	Planned: In predevelopment stage
Cold Creek Venice Road Sandusky	Single-family	24	Paraprin Construction	Planned: Predevelopment stage
Name Unknown 41 Cleveland Road East Huron	Townhome & Condominium	Up to 70	Ridgestone Builders	Proposed: Presented preliminary plan layout in late 2022; Mixed-use with dock space; Three-bedrooms; From 1,952 to 3,089 square feet; Starting \$500,000 to \$800,000; Potential for long-term rentals; Waterfront; Could begin construction in 2023
Two Rivers I & II Sheltered Brook Drive Huron	Condominium	27	Jim Murray	Planned: Three- and four-bedrooms; From 3,500 square feet; Starting \$450,000 to \$700,000; Waterfront
North Main Street Townhouses Main Street and South Street Huron	Townhomes	14	Ralph Ruta	Planned: Three-bedrooms; From 2,700 square feet; Starting \$300,000 to \$500,000
Huron County				
River Bend 5 Foxwood Circle Wakeman	Single-family	40	N/A	Under Construction: Builder of your choice; One completed that is a four-bedroom; 3,400 square-feet; \$495,000; Lots from \$25,000 to \$84,400
Eagle View Peru Center Road Sandusky Street Monroeville Ridgefield Township	Single-family & Duplex	20 to 30	Kenneth Shaffer	Planned: Infrastructure completed
N/A 113 Prairie Road Bellevue	N/A	90	Whikel Brothers	Planned: Soil samples
Ottawa County				
Fairway Cottages at Catawba Island Club 2663 Northwest Catawba Road Port Clinton	Single-family	44 to 60	Sunshine Estate Builders	Under Construction: Three- to five-bedrooms; Up to 3,200 square feet; Homes from \$520,000; Lots \$80,000 to \$90,000
Estates at Lighthouse 404 Lighthouse Oval Marblehead	Single-family	48	Windridge Homes	Under Construction: Three- and four-bedrooms; Starting 1,980 to 3,267 square feet, Homes from \$455,000; Possible phase IV

N/A – Not Available

In addition to the projects in the preceding table, the City of Sandusky (Erie County) posted a Request for Proposal (RFP) in November of 2022. The proposal requests that interested and qualified developers purchase land located between East Washington and Warren Streets and construct multifamily housing or townhomes within the next few years.

In 2022, the former ConAgra Mill property located in Huron (Erie County), was rezoned from industrial to mixed-use. In December 2022, the site plan was presented and includes the potential for 70 for-sale homes that will consist of townhouses and condominiums. No timeline has been determined due to the project being delayed.

Based on the preceding tables, there are approximately four multifamily rental projects and 11 for-sale housing projects within some level of planning or development within the Firelands Region. We have included the units either under construction or likely to be developed within these projects in the housing gap estimates included in Section VIII of this report.

VII. OTHER HOUSING MARKET FACTORS

INTRODUCTION

Factors other than demography, employment, and supply (all analyzed earlier in this study) can affect the strength or weakness of a given housing market. The following additional factors influence a housing market's performance, and are discussed relative to the PSA (Firelands Region) and compared with the state and national data, when applicable:

- Personal Mobility
- Migration Patterns
- Transportation Analysis
- Cost of Living Analysis
- Development Opportunities
- Housing Policies and Regulations
- Development Costs
- Developer/Investor Identification
- University/College Overview
- Special Needs Populations

A. PERSONAL MOBILITY

The ability of a person or household to travel easily, quickly, safely, and affordably throughout a market influences the desirability of a housing market. If traffic jams create long commuting times or public transit service is not available for carless people, their quality of life is diminished. Factors that lower resident satisfaction weaken housing markets. Typically, people travel frequently outside of their residences for three reasons: 1) to commute to work, 2) to run errands or 3) to recreate.

Commuting Mode and Time

The following tables show two commuting pattern attributes (mode and time) for the PSA (Firelands Region), the PSA counties, the PSA submarkets, and the state of Ohio.

		Commuting Mode						
		Drove Alone	Carpooled	Public Transit	Walked	Other Means	Worked at Home	Total
Erie North	Number	14,075	1,640	308	141	451	396	17,011
	Percent	82.7%	9.6%	1.8%	0.8%	2.7%	2.3%	100.0%
Erie East	Number	11,272	990	40	134	64	533	13,033
	Percent	86.5%	7.6%	0.3%	1.0%	0.5%	4.1%	100.0%
Erie West	Number	4,324	307	27	27	39	117	4,841
	Percent	89.3%	6.3%	0.6%	0.6%	0.8%	2.4%	100.0%
Erie County	Number	29,672	2,936	374	302	554	1,046	34,884
	Percent	85.1%	8.4%	1.1%	0.9%	1.6%	3.0%	100.0%
Huron North	Number	15,729	1,459	51	289	116	591	18,235
	Percent	86.3%	8.0%	0.3%	1.6%	0.6%	3.2%	100.0%
Huron South	Number	7,167	819	17	242	183	212	8,640
	Percent	83.0%	9.5%	0.2%	2.8%	2.1%	2.5%	100.0%
Huron County	Number	22,896	2,278	68	531	299	803	26,875
	Percent	85.2%	8.5%	0.3%	2.0%	1.1%	3.0%	100.0%
Ottawa East	Number	6,136	454	25	163	163	342	7,283
	Percent	84.3%	6.2%	0.3%	2.2%	2.2%	4.7%	100.0%
Ottawa West	Number	9,891	450	116	95	192	391	11,135
	Percent	88.8%	4.0%	1.0%	0.9%	1.7%	3.5%	100.0%
Ottawa County	Number	16,027	904	141	258	355	733	18,418
	Percent	87.0%	4.9%	0.8%	1.4%	1.9%	4.0%	100.0%
Firelands Region	Number	68,595	6,118	583	1,091	1,208	2,582	80,177
	Percent	85.6%	7.6%	0.7%	1.4%	1.5%	3.2%	100.0%
Ohio	Number	4,481,327	417,967	79,191	118,884	66,193	332,961	5,496,523
	Percent	81.5%	7.6%	1.4%	2.2%	1.2%	6.1%	100.0%

Source: U.S. Census Bureau, 2016-2020 American Community Survey

		Commuting Time						Worked at Home	Total
		Less Than 15 Minutes	15 to 29 Minutes	30 to 44 Minutes	45 to 59 Minutes	60 or More Minutes			
Erie North	Number	8,379	5,354	1,766	382	733	396	17,010	
	Percent	49.3%	31.5%	10.4%	2.2%	4.3%	2.3%	100.0%	
Erie East	Number	3,610	4,998	2,281	686	925	533	13,033	
	Percent	27.7%	38.3%	17.5%	5.3%	7.1%	4.1%	100.0%	
Erie West	Number	1,779	2,195	379	132	239	117	4,841	
	Percent	36.7%	45.3%	7.8%	2.7%	4.9%	2.4%	100.0%	
Erie County	Number	13,769	12,548	4,426	1,199	1,897	1,046	34,885	
	Percent	39.5%	36.0%	12.7%	3.4%	5.4%	3.0%	100.0%	
Huron North	Number	6,251	6,152	3,417	885	939	591	18,235	
	Percent	34.3%	33.7%	18.7%	4.9%	5.1%	3.2%	100.0%	
Huron South	Number	3,469	2,136	1,517	745	561	212	8,640	
	Percent	40.2%	24.7%	17.6%	8.6%	6.5%	2.5%	100.0%	
Huron County	Number	9,720	8,288	4,934	1,630	1,500	803	26,875	
	Percent	36.2%	30.8%	18.4%	6.1%	5.6%	3.0%	100.0%	
Ottawa East	Number	2,928	1,889	924	395	805	342	7,283	
	Percent	40.2%	25.9%	12.7%	5.4%	11.1%	4.7%	100.0%	
Ottawa West	Number	2,798	4,359	2,546	685	356	391	11,135	
	Percent	25.1%	39.1%	22.9%	6.2%	3.2%	3.5%	100.0%	
Ottawa County	Number	5,725	6,248	3,470	1,080	1,161	733	18,417	
	Percent	31.1%	33.9%	18.8%	5.9%	6.3%	4.0%	100.0%	
Firelands Region	Number	29,214	27,084	12,830	3,909	4,558	2,582	80,177	
	Percent	36.4%	33.8%	16.0%	4.9%	5.7%	3.2%	100.0%	
Ohio	Number	1,474,877	2,085,310	1,005,737	326,492	271,146	332,961	5,496,523	
	Percent	26.8%	37.9%	18.3%	5.9%	4.9%	6.1%	100.0%	

Source: U.S. Census Bureau, 2016-2020 American Community Survey

Noteworthy observations from the preceding tables follow:

- Within the PSA (Firelands Region), 93.2% of commuters either drive alone or carpool to work. This represents a higher share of such commuting modes when compared to the state of Ohio (89.1%). While the shares of PSA commuters that utilize public transportation (0.7%) or walk to work (1.4%) are slightly less than the corresponding shares for the state (1.4% and 2.2%, respectively), the share of PSA commuters that work from home (3.2%) is considerably less than the share for the state (6.1%).
- Among the three PSA counties, the share of commuters who drive alone or carpool to work is highest in Huron County (93.7%), while Ottawa County has the lowest share (91.9%) of such commuters. Erie County has the largest share of commuters that utilize public transportation (1.1%), with Huron County having the smallest share (0.3%). Huron County has the largest share of commuters that walk to work (2.0%), while Erie County has the smallest share (0.9%). While Ottawa County has the largest share of individuals that work from home (4.0%), both Erie County and Huron County have respective shares (3.0%) less than the PSA, overall.
- Within the individual PSA submarkets, the share of commuters that drive alone or carpool (95.6%) is highest in the Erie West Submarket, while the Ottawa East Submarket has the lowest share (90.5%) of such commuters. The shares of commuters that carpool (9.6%) and utilize public transit (1.8%) are highest within the Erie North Submarket, both of which represent shares higher than those within the state (7.6% and 1.4%, respectively). The Huron South Submarket also has a notable share of commuters that carpool to work (9.5%). The shares of commuters that walk to work are highest in the Huron South (2.8%) and Ottawa East (2.2%) submarkets and represent the only two PSA submarkets with shares equal to, or higher than, that of the state (2.2%). While less than the share for the state, the most significant shares of individuals that work from home in the PSA are within the Ottawa East (4.7%) and Erie East (4.1%) submarkets.
- Generally, commute times to work in the PSA are shorter than those on the statewide level. Over one-third (36.4%) of commuters in the region have commute times of less than 15 minutes. Overall, 70.2% of PSA workers have commute times less than 30 minutes to work, which is a notably higher share of short commute times when compared to the state (64.7%). While 5.7% of PSA workers have commute times of 60 minutes or more, and only 3.2% of individuals work from home, a vast majority of PSA workers benefit from comparably short commute times when compared to the state.

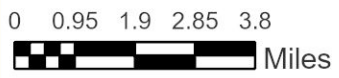
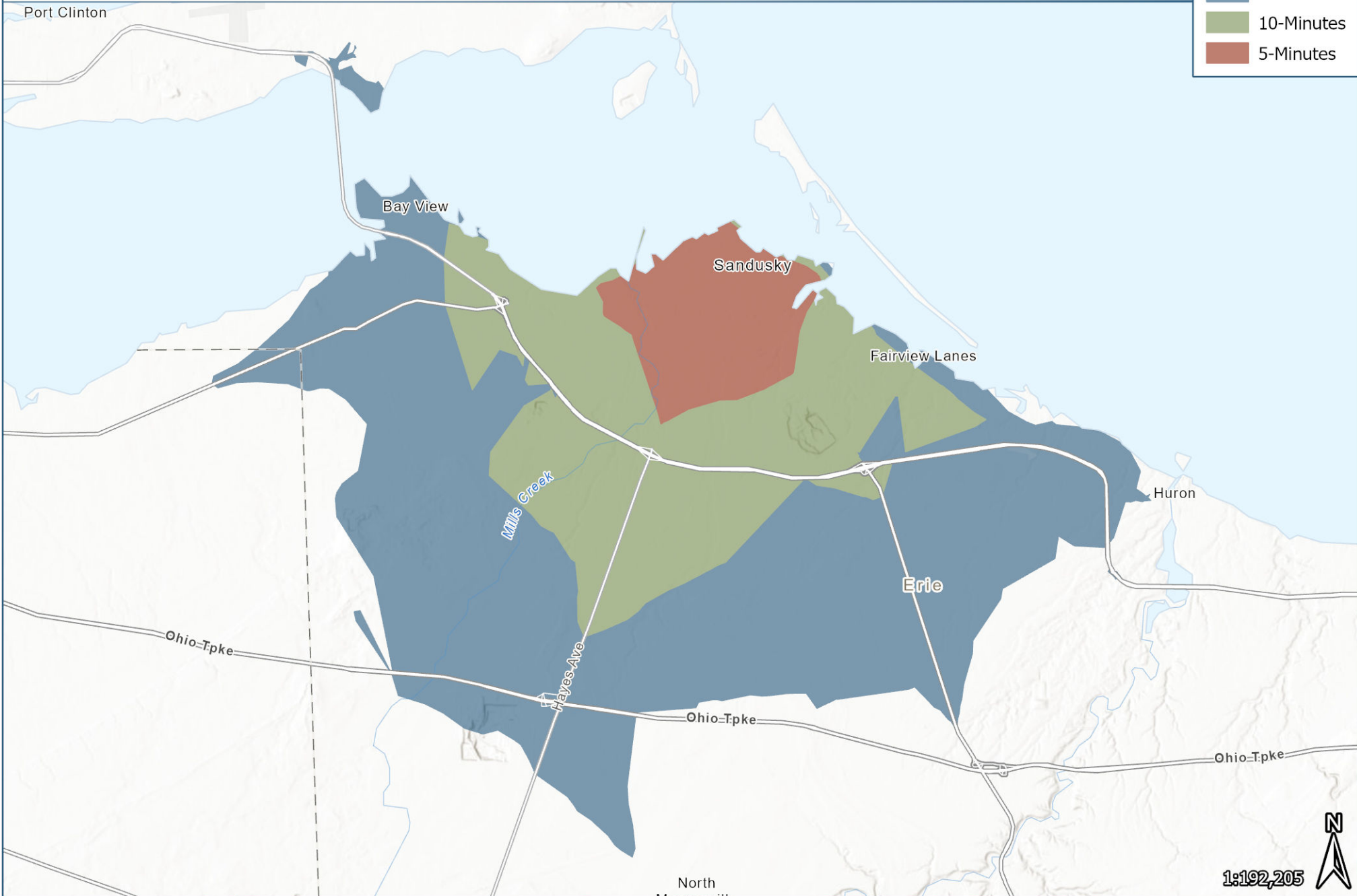
- Among the three PSA counties, Erie County has the largest share of workers with commute times less than 30 minutes (75.5%), followed by Huron County (67.0%) and Ottawa County (65.0%). Conversely, Ottawa County has the largest share of workers with commute times of 60 minutes or more (6.3%), followed by Huron County (5.6%) and Erie County (5.4%). As such, it appears that Erie County workers, on average, have the shortest commute times while workers in Ottawa County have the longest commutes in the PSA.
- Among the individual PSA submarkets, commuters in the Erie West and Erie North submarkets have the shortest average commute times. A total of 82.0% of commuters in the Erie West Submarket have commute times less than 30 minutes, while only 4.9% have commute times of 60 minutes or more. Similarly, 80.8% of commuters in the Erie North Submarket commute less than 30 minutes, while 4.3% commute 60 minutes or more. Conversely, 11.1% of commuters in the Ottawa East Submarket have commute times of 60 minutes or more, and only 66.1% commute less than 30 minutes. Individuals in the Erie East Submarket also have notably long commute times, with only 66.0% commuting less than 30 minutes and 7.1% commuting 60 minutes or more.

Based on the preceding analysis, a vast majority of PSA commuters utilize their own vehicles or carpool to work. On average, commute times in the PSA are relatively short compared to the state but vary among individual submarkets in the region.

Drive-time maps illustrating travel times from the county seat for each county within the PSA (Firelands Region) are included on the following pages.

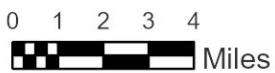
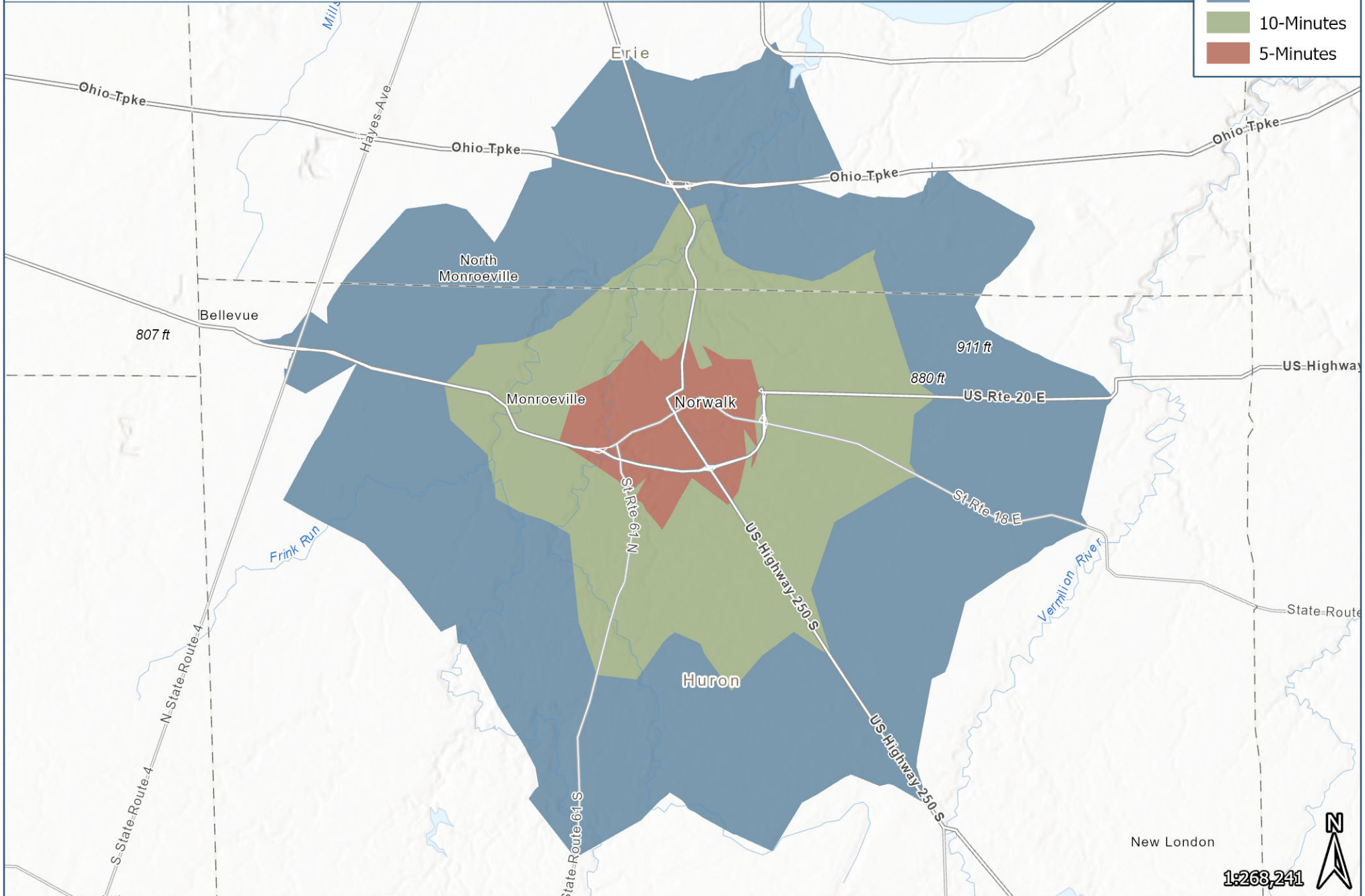
Drive Time

- 15-Minutes
- 10-Minutes
- 5-Minutes



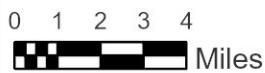
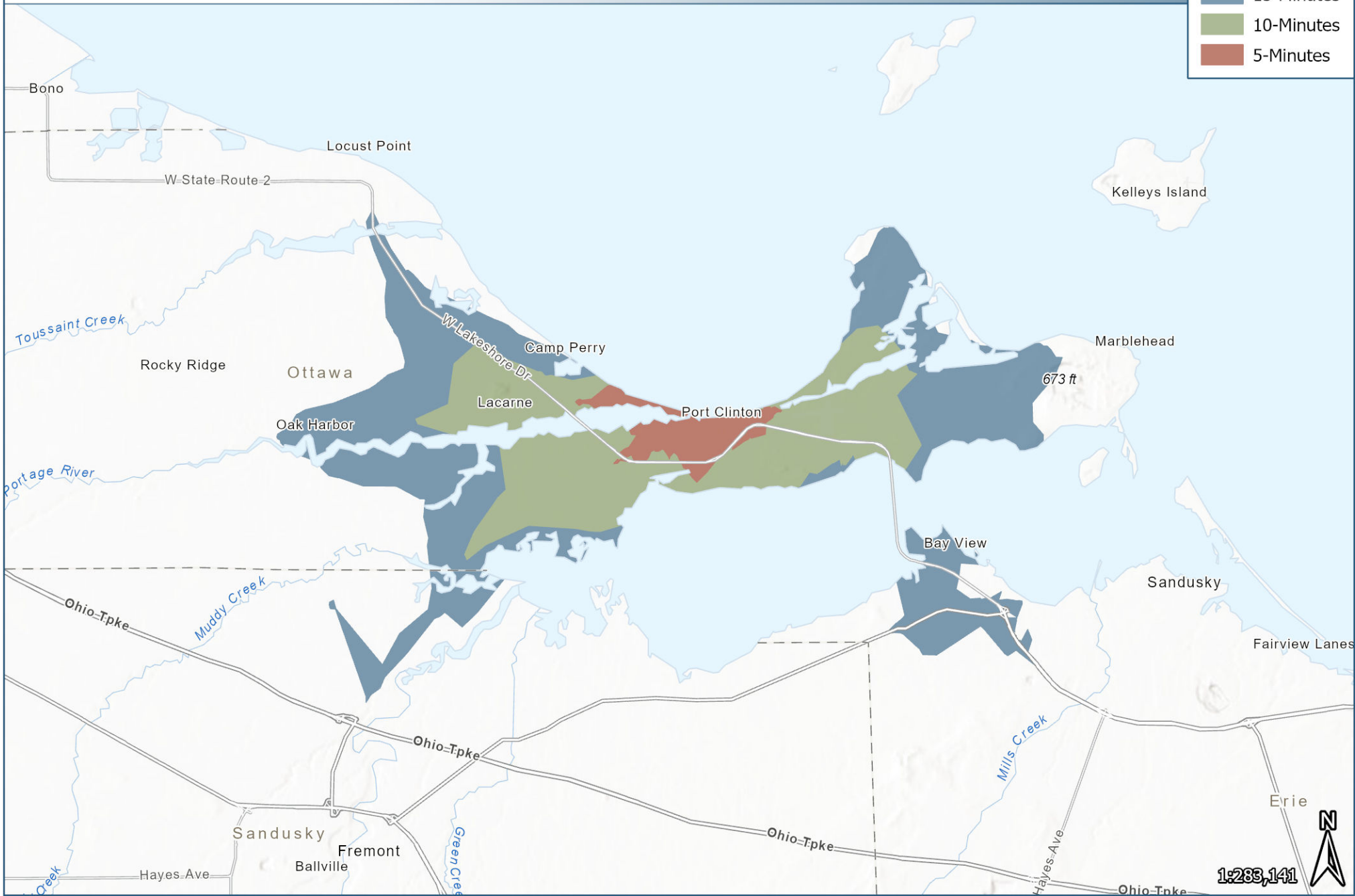
Drive-Time

- 15-Minutes
- 10-Minutes
- 5-Minutes



Drive-Time

- 15-Minutes
- 10-Minutes
- 5-Minutes



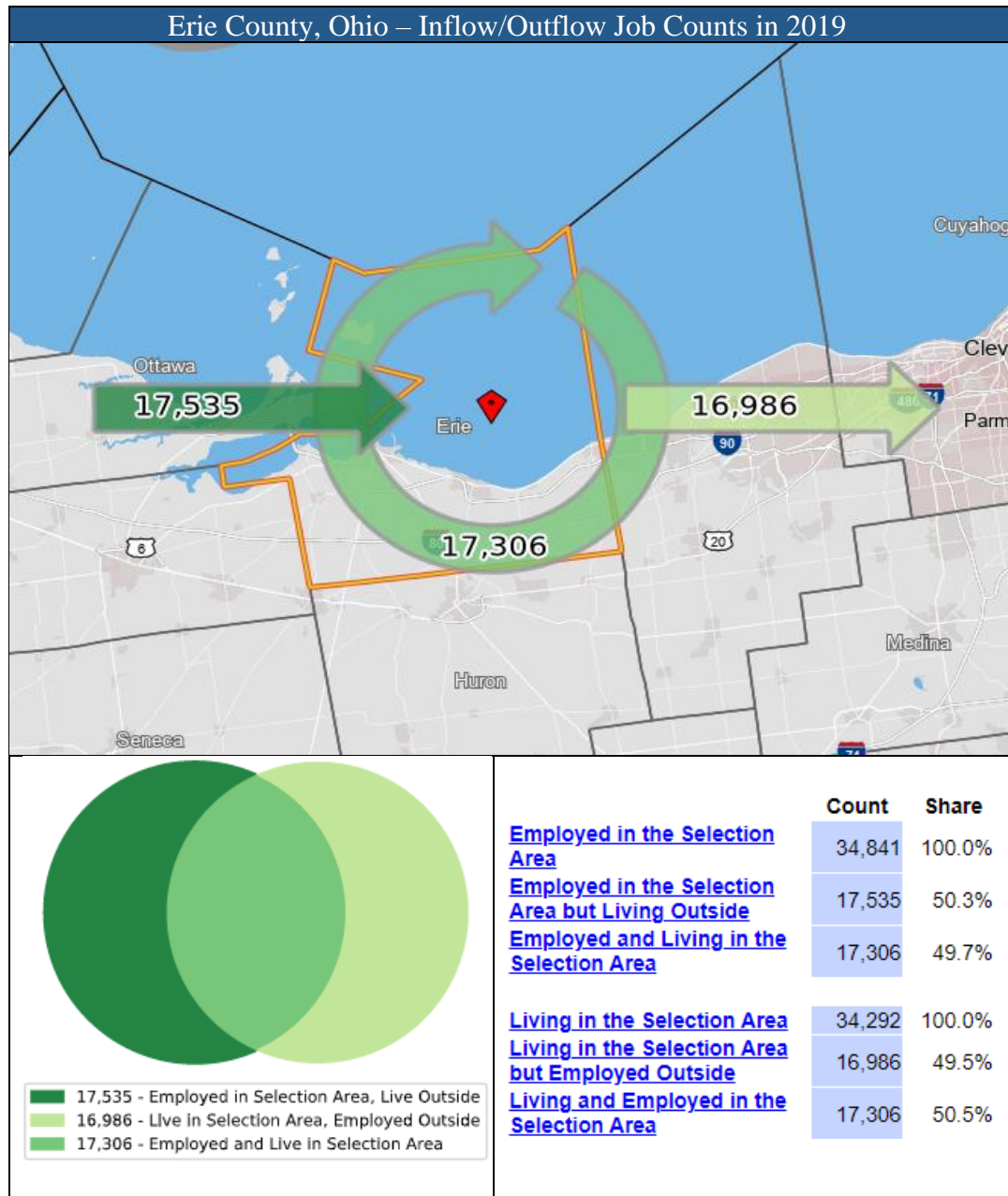
Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Esri, CGIAR, USGS
 Additional Source(s): Bowen National Research

1:233,141



Erie County Commuting Patterns

According to 2019 U.S. Census Longitudinal Origin-Destination Employment Statistics (LODES), of the 34,292 employed residents of Erie County, 17,306 (50.5%) are employed within the county, while the remaining 16,986 (49.5%) are employed outside of Erie County. In addition, 17,535 people commute into Erie County from surrounding areas for employment. These 17,535 non-residents account for slightly over half (50.3%) of the people employed in the county and represent a notable base of potential support for future residential development. The following illustrates the number of jobs filled by in-commuters and residents, as well as the number of resident out-commuters.



Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Characteristics of the Erie County commuting flow in 2019 are illustrated in the following table.

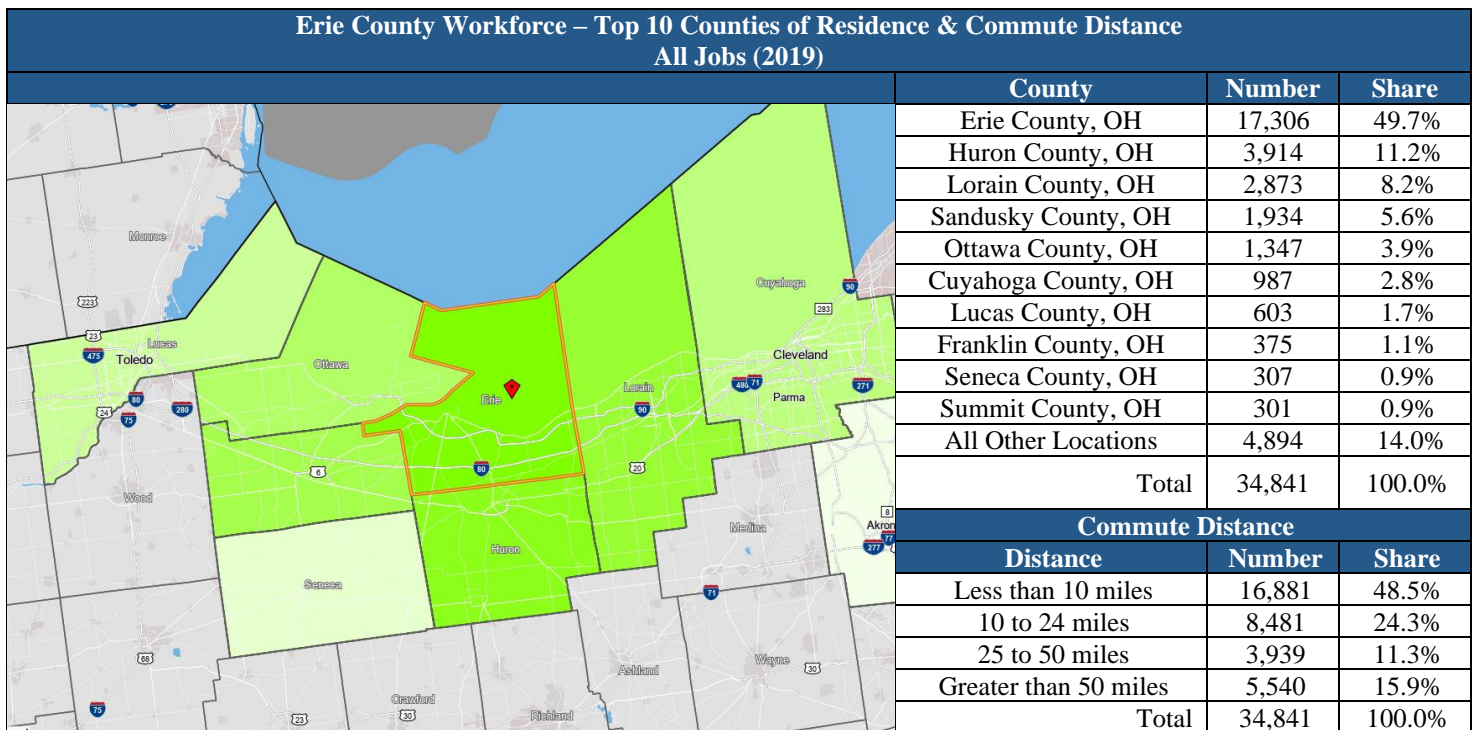
Erie County, OH: Commuting <i>Flow</i> Analysis by Earnings, Age and Industry Group (2019, All Jobs)						
Worker Characteristics	Resident Outflow		Workers Inflow		Resident Workers	
	Number	Share	Number	Share	Number	Share
Ages 29 or younger	4,072	24.0%	4,804	27.4%	3,886	22.5%
Ages 30 to 54	8,575	50.5%	8,645	49.3%	8,349	48.2%
Ages 55 or older	4,339	25.5%	4,086	23.3%	5,071	29.3%
<i>Earning <\$1,250 per month</i>	4,268	25.1%	4,509	25.7%	4,251	24.6%
<i>Earning \$1,251 to \$3,333</i>	5,455	32.1%	6,386	36.4%	6,596	38.1%
<i>Earning \$3,333+ per month</i>	7,263	42.8%	6,640	37.9%	6,459	37.3%
Goods Producing Industries	3,958	23.3%	3,303	18.8%	4,208	24.3%
Trade, Transportation, Utilities	4,091	24.1%	4,210	24.0%	1,989	11.5%
All Other Services Industries	8,937	52.6%	10,022	57.2%	11,109	64.2%
Total Worker Flow	16,986	100.0%	17,535	100.0%	17,306	100.0%

Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Note: Figures do not include contract employees and self-employed workers

Based on the preceding data, people that commute into Erie County for employment are more likely to be middle-aged (30 to 54 years), earn higher wages (\$3,333 or more per month), and work primarily in the other services industries. Of the county's 17,535 in-commuters, nearly half (49.3%) are between the ages of 30 and 54 years, well over one-third (37.9%) earn \$3,333 or more per month (\$40,000 or more annually), and nearly three-fifths (57.2%) work in the other services industries. Resident outflow workers, by comparison, tend to be slightly older than inflow workers, earn higher wages, and are more likely than inflow workers to work in the goods producing industries, although a majority (52.6%) work in the other services industries. Of the three worker flow types, resident workers have the highest share (29.3%) of workers ages 55 and older, the greatest share (38.1%) of workers earning moderate wages (between \$15,000 and \$40,000 annually), and a vast majority work in the other services industries (64.2%).

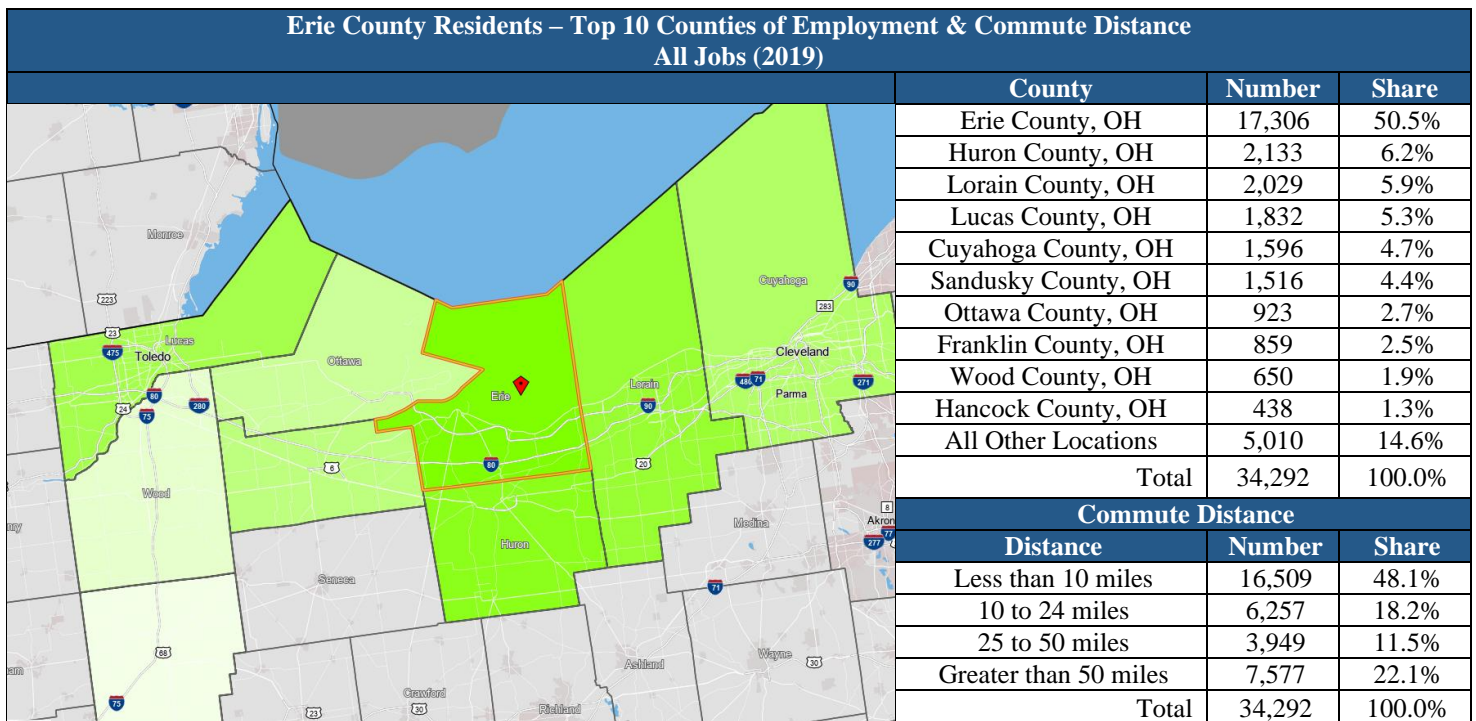
The following map and corresponding tables illustrate the physical *home* location (county) of people working in Erie County, as well as the distribution of commute distances for the Erie County workforce.



Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Statistics provided by LODES indicate that nearly half (49.7%) of the Erie County workforce are residents of the county. Huron County (11.2%), Lorain County (8.2%), and Sandusky County (5.6%) contribute the next largest shares of Erie County workers. This is not surprising since these three counties border Erie County. Ottawa County, which is part of the PSA (Firelands Region), also contributes a notable share (3.9%) of the Erie County workforce. In terms of commute distances, 72.8% of the Erie County workforce has commute distances less than 25 miles, while 11.3% have commutes between 25 and 50 miles. Approximately 15.9% of Erie County workers, or 5,540 individuals, have commutes in excess of 50 miles. These inflow workers, especially those with lengthy commutes, represent a base of potential support for future residential development.

The following map and corresponding tables illustrate the physical *work* location (county) of Erie County residents, as well as the commute distances for these workers.

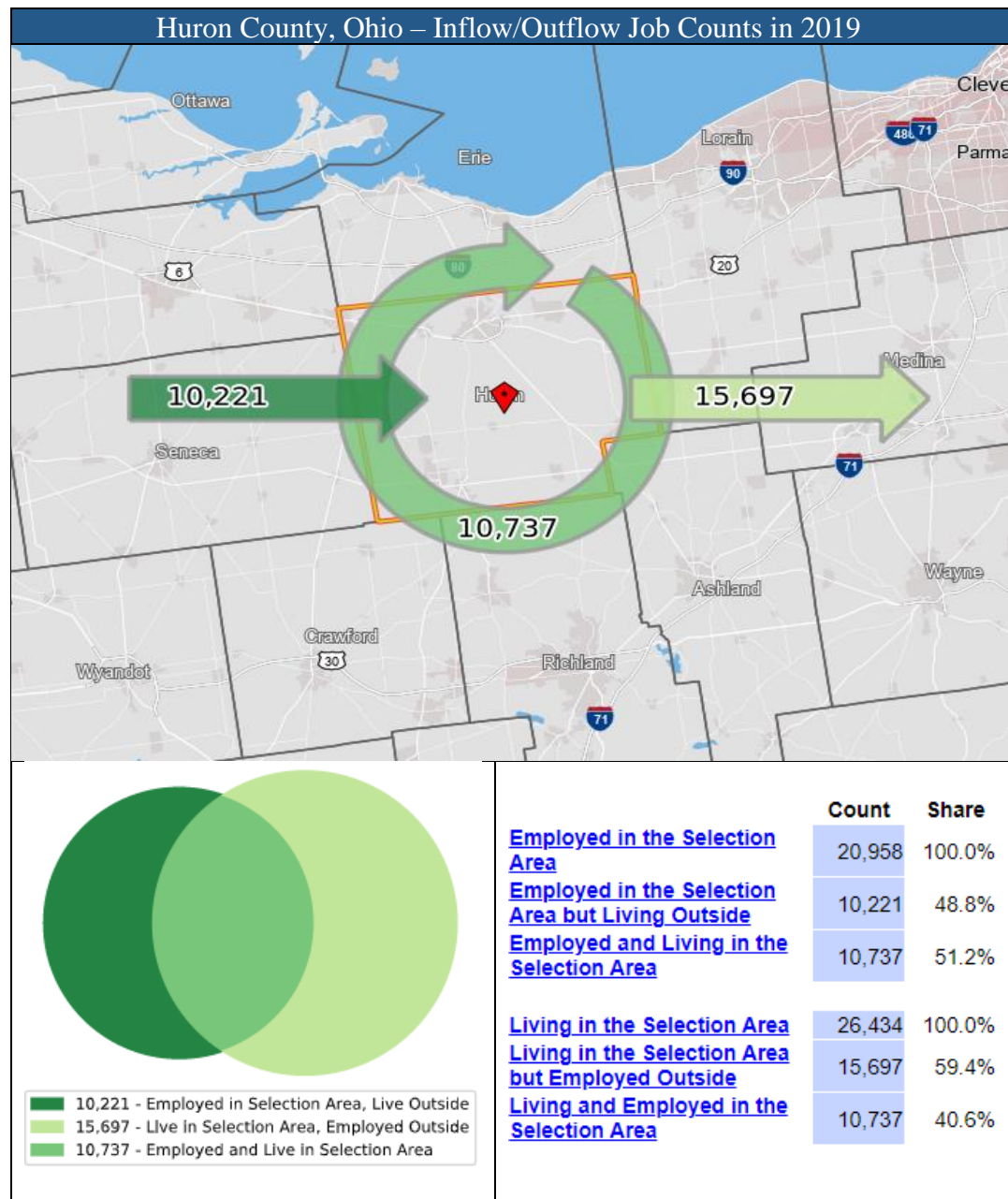


Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Of the 34,292 employed residents of Erie County, slightly over half (50.5%) are employed within Erie County. Huron County (6.2%), Lorain County (5.9%), and Lucas County (5.3%) employ the next largest shares of Erie County residents. In total, the three counties of the PSA (Erie, Huron, and Ottawa) employ 59.4% of the employed Erie County residents. While a number of the top 10 employment counties are within proximity or border Erie County, the larger metropolitan areas of Toledo (Lucas County), Cleveland (Cuyahoga County), and Columbus (Franklin County) employ a significant share (12.5%) of the Erie County employed residents. As the data illustrates, nearly two-thirds (66.3%) of Erie County residents commute less than 25 miles to work, while 11.5% have commutes between 25 and 50 miles. Over one-fifth (22.1%) of Erie County residents, or 7,577 individuals, commute more than 50 miles to work. This represents a larger number of outflow workers with lengthy commute distances (over 50 miles) when compared to the inflow workers for the county. Although a number of factors contribute to where an individual chooses to reside, lengthy commute times can increase the likelihood of relocation if superior housing options are present closer to an individual's place of employment.

Huron County Commuting Patterns

According to 2019 U.S. Census Longitudinal Origin-Destination Employment Statistics (LODES), of the 26,434 employed residents of Huron County, 10,737 (40.6%) are employed within the county, while nearly two-thirds (59.4%), or 15,697 individuals, are employed outside Huron County. In addition, 10,221 people commute into Huron County from surrounding counties for employment. These 10,221 non-residents account for nearly half (48.8%) of the people employed in the county and represent a notable base of potential support for future residential development. The following illustrates the number of jobs filled by in-commuters and residents, as well as the number of resident out-commuters.



Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Characteristics of the Huron County commuting flow in 2019 are illustrated in the following table.

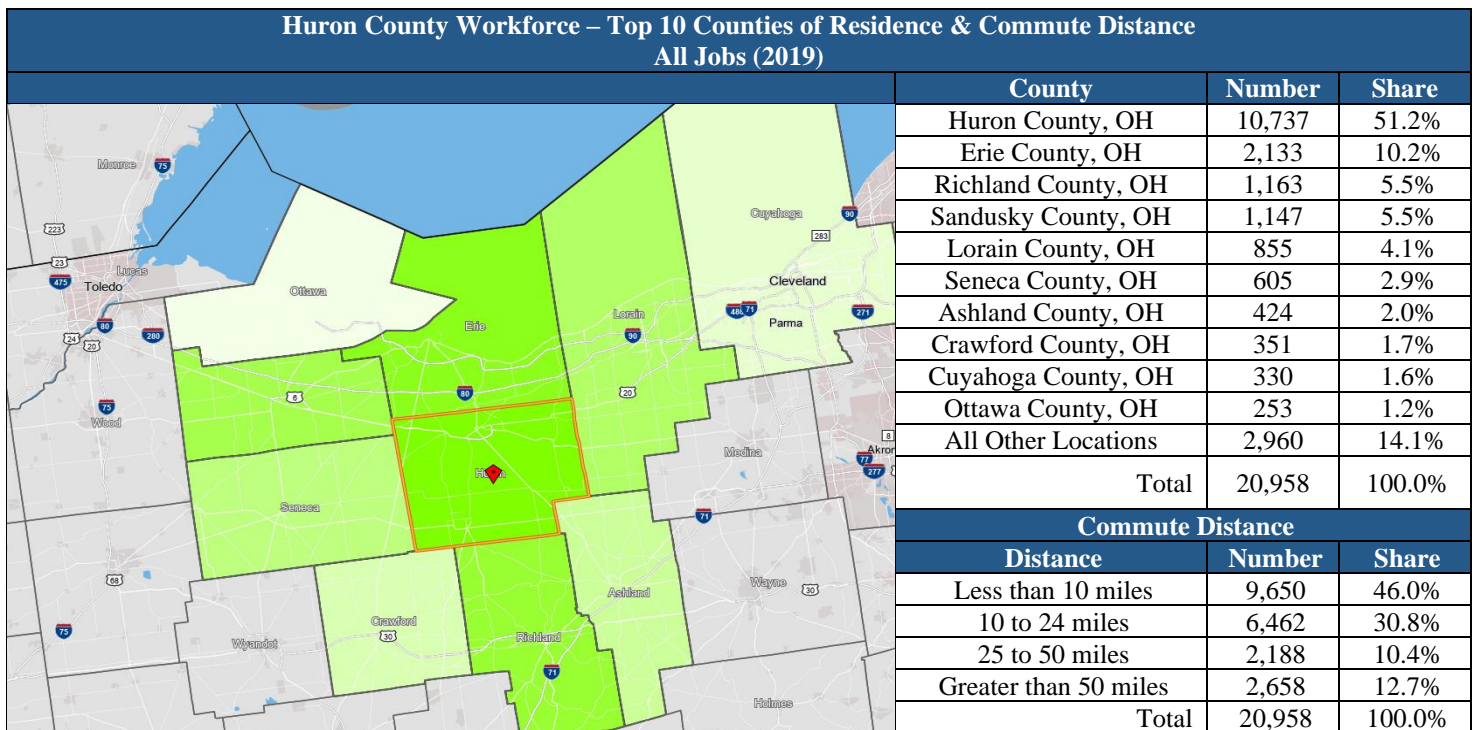
Huron County, OH: Commuting <i>Flow</i> Analysis by Earnings, Age and Industry Group (2019, All Jobs)						
Worker Characteristics	Resident Outflow		Workers Inflow		Resident Workers	
	Number	Share	Number	Share	Number	Share
Ages 29 or younger	4,084	26.0%	2,301	22.5%	2,302	21.4%
Ages 30 to 54	8,018	51.1%	5,325	52.1%	5,482	51.1%
Ages 55 or older	3,595	22.9%	2,595	25.4%	2,953	27.5%
<i>Earning <\$1,250 per month</i>	3,741	23.8%	2,336	22.9%	2,473	23.0%
<i>Earning \$1,251 to \$3,333</i>	5,711	36.4%	3,392	33.2%	3,838	35.7%
<i>Earning \$3,333+ per month</i>	6,245	39.8%	4,493	44.0%	4,426	41.2%
Goods Producing Industries	3,964	25.3%	3,411	33.4%	4,204	39.2%
Trade, Transportation, Utilities	3,455	22.0%	2,474	24.2%	1,541	14.4%
All Other Services Industries	8,278	52.7%	4,336	42.4%	4,992	46.5%
Total Worker Flow	15,697	100.0%	10,221	100.0%	10,737	100.0%

Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Note: Figures do not include contract employees and self-employed workers

Based on the preceding data, people that commute into Huron County for employment are more likely to be middle-aged (30 to 54 years), earn higher wages (\$3,333 or more per month), and work primarily in the other services industries. Of the county's 10,221 in-commuters, over half (52.1%) are between the ages of 30 and 54 years, over two-fifths (44.0%) earn \$3,333 or more per month (\$40,000 or more annually), and 42.4% work in the other services industries. Resident outflow workers, by comparison, tend to be slightly younger than inflow workers, earn more moderate wages, and are more likely than inflow workers to work in the other services industries. Of the three worker flow types, resident workers have the highest share (27.5%) of workers ages 55 and older, the largest share (35.7%) of workers earning moderate wages (between \$15,000 and \$40,000 annually), and the largest share (39.2%) of workers employed in the goods producing industries.

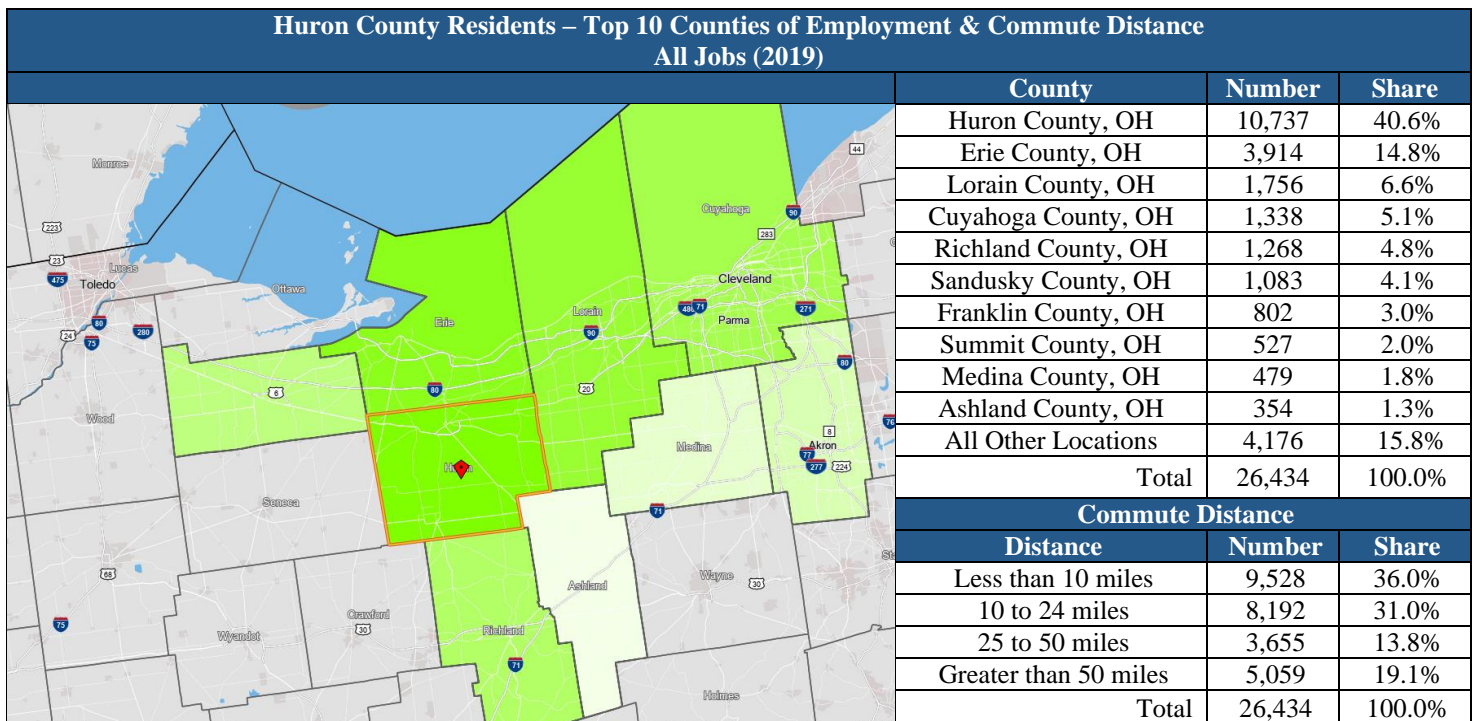
The following map and corresponding tables illustrate the physical *home* location (county) of people working in Huron County, as well as the distribution of commute distances for the Huron County workforce.



Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Statistics provided by LODES indicate that 51.2% of the Huron County workforce are residents of the county. Erie County (10.2%), Richland County (5.5%), and Sandusky County (5.5%) contribute the next largest shares of Huron County workers. This is not surprising since these three counties border Huron County. Additionally, seven out of the top 10 counties of residence border Huron County. In total, the three counties of the PSA (Huron, Erie, and Ottawa) account for 62.6% of the Huron County workforce. In terms of commute distances, over three-fourths (76.8%) of the Huron County workforce has commute distances less than 25 miles, while 10.4% have commutes between 25 and 50 miles. Approximately 12.7% of Huron County workers, or 2,658 individuals, have commutes in excess of 50 miles. These inflow workers, especially those with lengthy commutes, represent a base of potential support for future residential development.

The following map and corresponding tables illustrate the physical *work* location (county) of Huron County residents, as well as the commute distances for these workers.

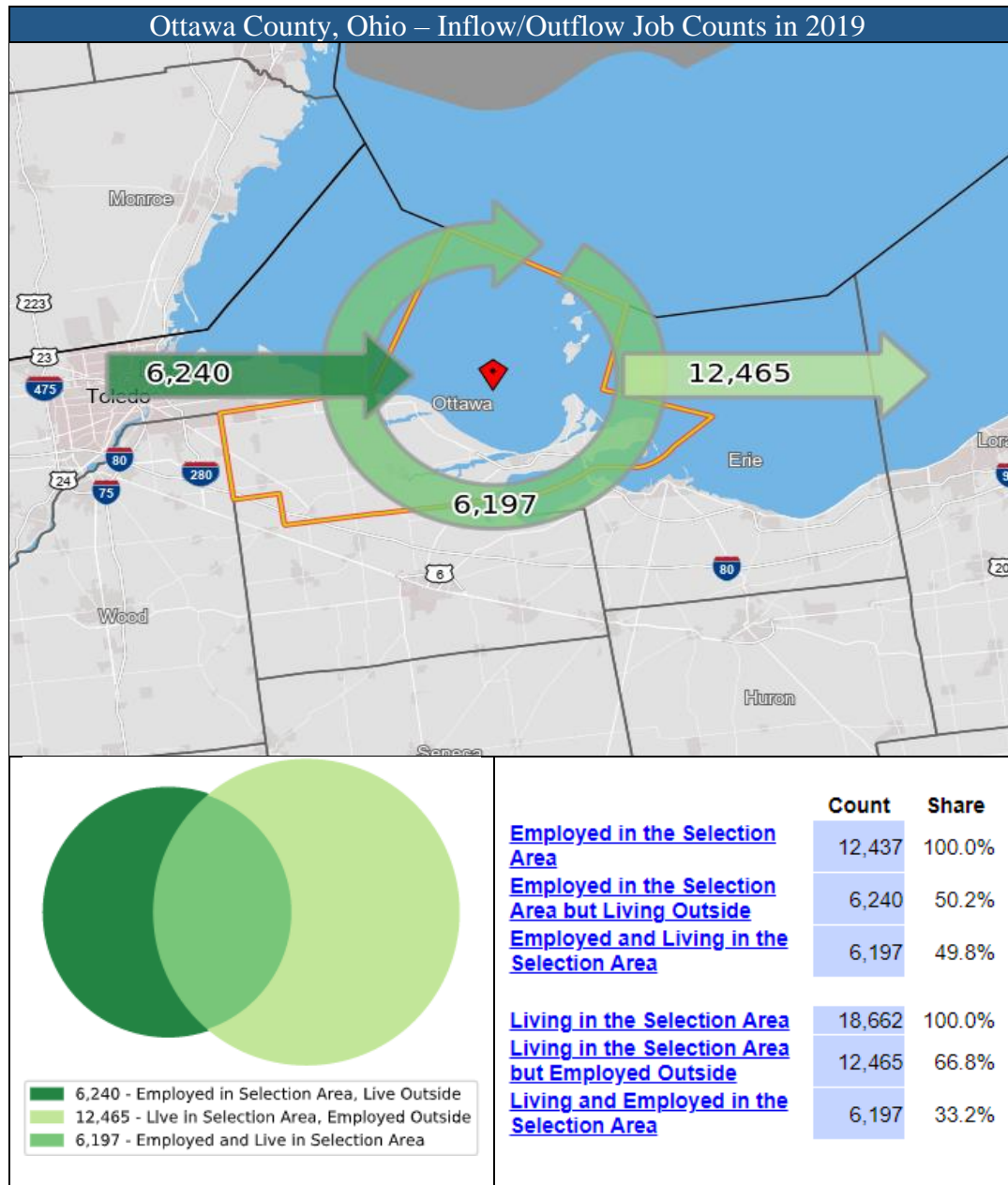


Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Of the 26,434 employed residents of Huron County, slightly more than two-fifths (40.6%) are employed within the county. Erie County (14.8%), Lorain County (6.6%), and Cuyahoga County (5.1%) employ the next largest shares of Huron County residents. It is notable that Ottawa County, which is part of the PSA (Firelands Region), is not one of the top 10 counties of employment for Huron County residents. However, Huron and Erie counties employ well over half (55.4%) of the employed Huron County residents. As the data illustrates, over two-thirds (67.0%) of Huron County residents commute less than 25 miles to work, while 13.8% have commutes between 25 and 50 miles. Nearly one-fifth (19.1%) of Huron County residents, or 5,059 individuals, commute more than 50 miles to work. This represents a larger number of outflow workers with lengthy commute distances (over 50 miles) when compared to the inflow workers (2,658) for the county.

Ottawa County Commuting Patterns

According to 2019 U.S. Census Longitudinal Origin-Destination Employment Statistics (LODES), of the 18,662 employed residents of Ottawa County, 12,465 (66.8%) are employed outside the county, while the remaining 6,197 (33.2%) are employed within Ottawa County. In addition, 6,240 people commute into Ottawa County from the surrounding counties for employment. These 6,240 non-residents account for slightly over half (50.2%) of the people employed in the county and represent a notable base of potential support for future residential development. The following illustrates the number of jobs filled by in-commuters and residents, as well as the number of resident out-commuters.



Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Characteristics of the Ottawa County commuting flow in 2019 are illustrated in the following table.

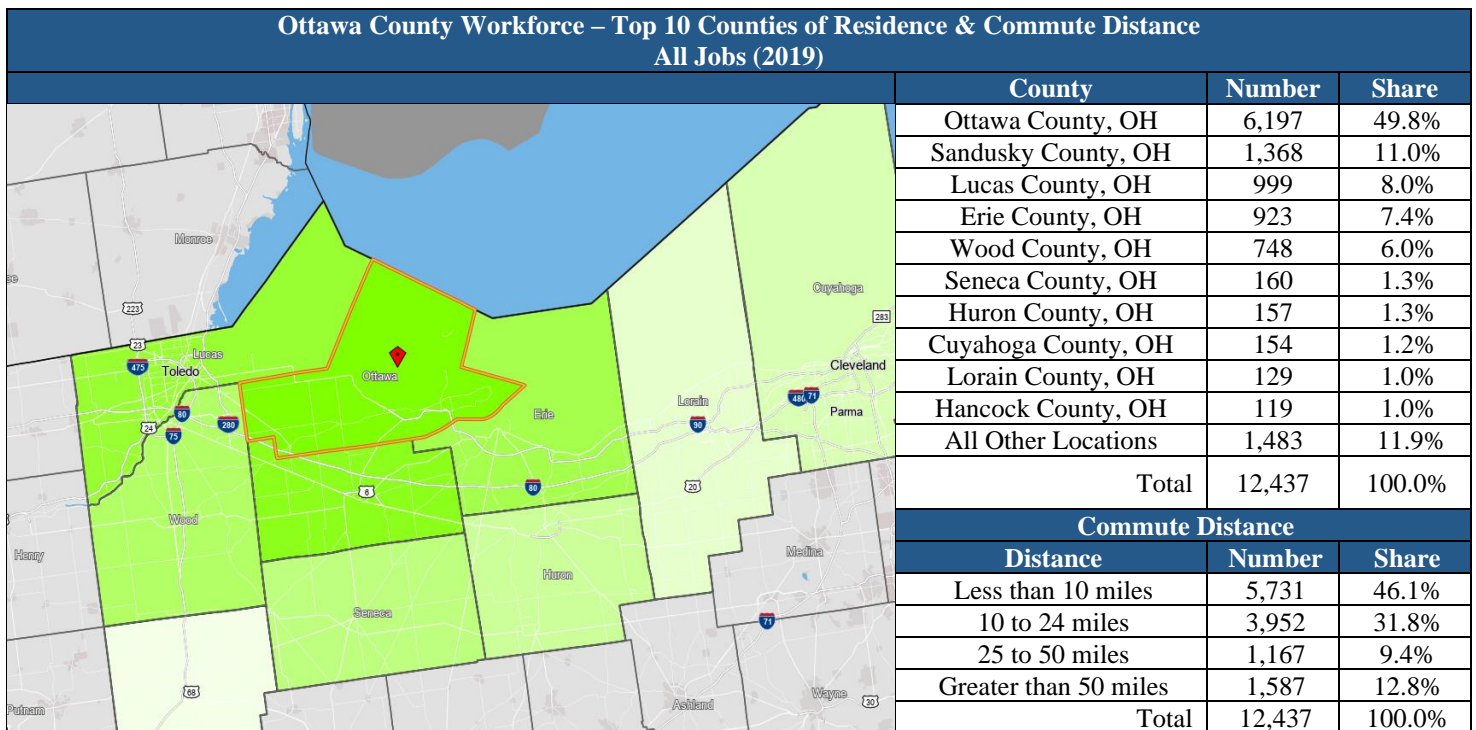
Ottawa County, OH: Commuting <i>Flow</i> Analysis by Earnings, Age and Industry Group (2019, All Jobs)						
Worker Characteristics	Resident Outflow		Workers Inflow		Resident Workers	
	Number	Share	Number	Share	Number	Share
Ages 29 or younger	2,728	21.9%	1,470	23.6%	1,176	19.0%
Ages 30 to 54	6,459	51.8%	3,074	49.3%	3,069	49.5%
Ages 55 or older	3,278	26.3%	1,696	27.2%	1,952	31.5%
<i>Earning <\$1,250 per month</i>	2,586	20.7%	1,396	22.4%	1,627	26.3%
<i>Earning \$1,251 to \$3,333</i>	3,839	30.8%	1,949	31.2%	2,088	33.7%
<i>Earning \$3,333+ per month</i>	6,040	48.5%	2,895	46.4%	2,482	40.1%
Goods Producing Industries	3,279	26.3%	1,592	25.5%	1,357	21.9%
Trade, Transportation, Utilities	2,706	21.7%	1,569	25.1%	900	14.5%
All Other Services Industries	6,480	52.0%	3,079	49.3%	3,940	63.6%
Total Worker Flow	12,465	100.0%	6,240	100.0%	6,197	100.0%

Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Note: Figures do not include contract employees and self-employed workers

Based on the preceding data, people that commute into Ottawa County for employment are more likely to be middle-aged (30 to 54 years), earn higher wages (\$3,333 or more per month), and work primarily in the other services industries. Of the county's 6,240 in-commuters, nearly half (49.3%) are between the ages of 30 and 54 years, well over two-fifths (46.4%) earn \$3,333 or more per month (\$40,000 or more annually), and nearly half (49.3%) work in the other services industries. Resident outflow workers, by comparison, are also likely to be middle-aged, are slightly more likely to earn higher wages, and a majority also work in the other services industries, although they are slightly more likely to work in the goods producing industries compared to inflow workers. Of the three worker flow types, resident workers have the highest share (31.5%) of senior workers (ages 55 and older), the largest shares of low-income (26.3%) and moderate-income (33.7%) workers, and have the largest share (63.6%) of workers employed in the other services industries.

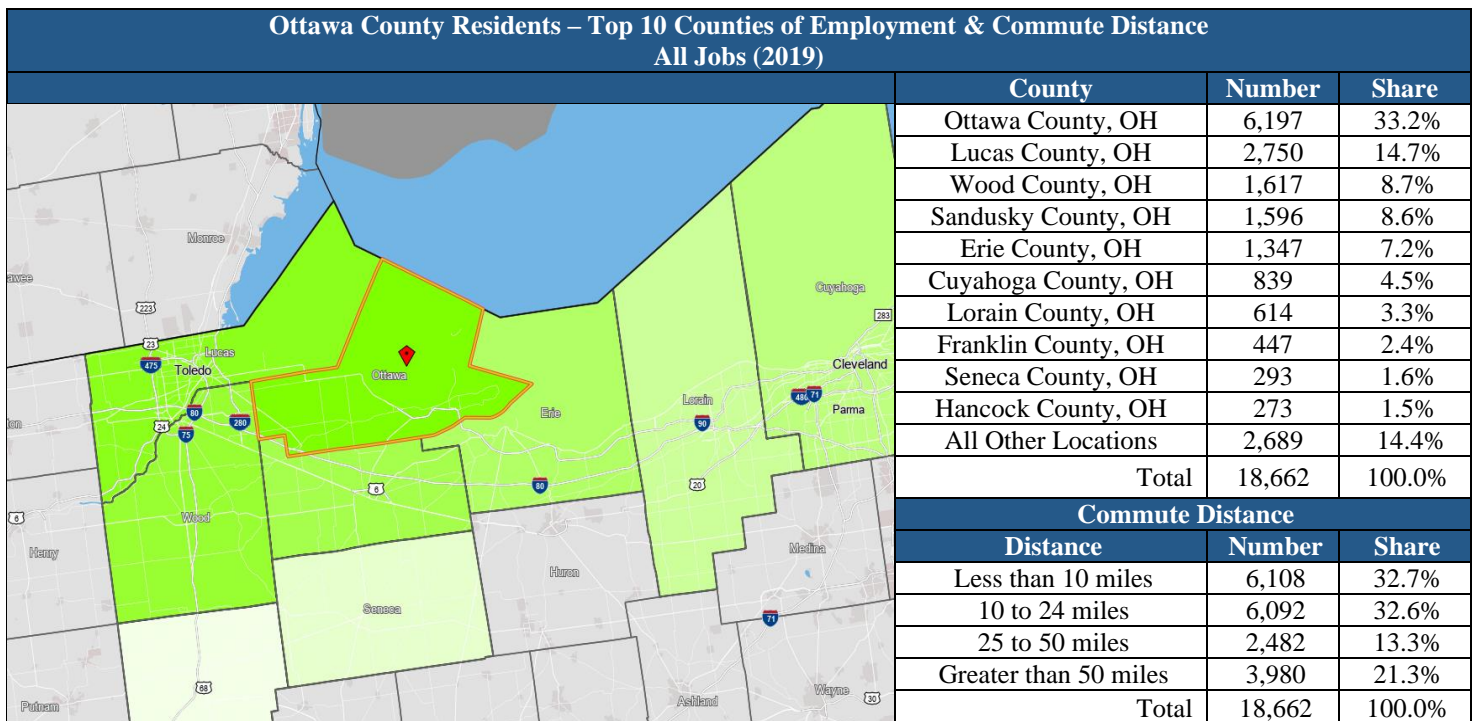
The following map and corresponding tables illustrate the physical *home* location of people working in Ottawa County as well as the distribution of commute distances for the Ottawa County workforce.



Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Statistics provided by LODES indicate that 49.8% of the Ottawa County workforce are residents of the county. Sandusky County (11.0%), Lucas County (8.0%), Erie County (7.4%), and Wood County (6.0%) contribute the next largest shares of Ottawa County workers. This is not surprising since these four counties immediately border Ottawa County. In terms of commute distances, over three-fourths (77.9%) of the county workforce has commute distances less than 25 miles, while 9.4% have commutes between 25 and 50 miles. Approximately 12.8% of workers, or 1,587 individuals, have commutes in excess of 50 miles. These inflow workers, especially those with lengthy commutes, represent a base of potential support for future residential development. It is notable that approximately 9,683 workers have commute distances less than 25 miles, which illustrates the regional composition of employment in the county.

The following map and corresponding tables illustrate the physical *work* location (county) of Ottawa County residents, as well as the commute distances for these workers.



Source: U.S. Census, Longitudinal Origin-Destination Employment Statistics (LODES)

Of the 18,662 employed residents of Ottawa County, over one-third (33.2%) are employed within the county. Lucas County (14.7%), Wood County (8.7%), Sandusky County (8.6%), and Erie County (7.2%) employ the next largest shares of Ottawa County residents. In addition to the previously mentioned counties, which all directly border Ottawa County, a notable share of Ottawa County residents is employed in Cuyahoga County (4.5%), Lorain County (3.3%), and Franklin County (2.4%), which include the major metropolitan areas of Cleveland and Columbus. Huron County, which is one of the three PSA counties and employs 1.4% of Ottawa County residents, ranks as number 11 for the top counties of employment for Ottawa County residents. As the data illustrates, nearly two-thirds (65.3%) of Ottawa County residents commute less than 25 miles to work, while 13.3% have commutes between 25 and 50 miles. Over one-fifth (21.3%) of Ottawa County residents, or 3,980 individuals, commute more than 50 miles to work. This represents a larger number of outflow workers with lengthy commute distances (over 50 miles) when compared to the inflow workers (1,587) for the county.

B. MIGRATION PATTERNS

Unlike the preceding section that evaluated workers' commuting patterns, this section addresses where people *move* to and from, referred to as migration patterns. For the purposes of this analysis, the Census Bureau's Population Estimates Program (PEP) is considered the most reliable source for the total *volume* of domestic migration. To evaluate migration *flows* between counties and mobility patterns by age and income at the county level, we use the U.S. Census Bureau's migration estimates published by the American Community Survey (ACS) for 2021 (latest year available). It is important to note that while county administrative boundaries are likely imperfect reflections of commuter sheds, moving across a county boundary is often an acceptable distance to make a meaningful difference in a person's local housing and labor market environment. The data provided by the PEP is intended to provide general insight regarding the contributing factors of population change (natural increase, domestic migration, and international migration), and as such, gross population changes within this data should not be compared among other tables which may be derived from alternate data sources such as the Decennial Census or American Community Survey (ACS).

The following table illustrates the cumulative change in total population for the three counties of the PSA (Firelands Region) between April 2010 and July 2020.

Estimated Components of Population Change by County for the PSA (Firelands Region) April 1, 2010 to July 1, 2020								
Area	Population		Change*		Components of Change			
	2010	2020	Number	Percent	Natural Increase	Domestic Migration	International Migration	Net Migration
Erie County	77,063	73,719	-3,344	-4.3%	-1,629	-1,904	233	-1,671
Huron County	59,625	57,979	-1,646	-2.8%	1,317	-3,167	187	-2,980
Ottawa County	41,433	40,253	-1,180	-2.8%	-1,601	418	41	459
Firelands Region	178,121	171,951	-6,170	-3.5%	-1,913	-4,653	461	-4,192

Source: U.S. Census Bureau, Population Division, October 2021

*Includes residuals of -44 (Erie County), 17 (Huron County), -38 (Ottawa County), -65 (Region) representing the change that cannot be attributed to any specific demographic component

Based on the preceding data, the population decline within Erie County from 2010 to 2020 was the result of both natural decrease (more deaths than births) and negative net domestic migration. While Huron County appears to have benefited from natural increase during this time period, negative domestic migration resulted in an overall decrease in population of the county. Conversely, Ottawa County, which appears to have benefited from positive domestic migration from 2010 to 2020, had a natural decrease which resulted in an overall population decline during this time period. The data also illustrates that all three counties benefit from international migration to varying degrees. While natural increase is a function of multiple demographic factors such as population age, domestic migration is typically affected by housing and economic factors such as the availability and quality of housing and employment opportunities. As such, areas can increase net migration by improving the housing market and employment opportunities.

The following table details the *shares* of domestic in-migration by three select age cohorts for each county of the PSA (Firelands Region) from 2012 to 2021.

PSA (Firelands Region) by County Domestic County Population In-Migrants by Age, 2012 to 2021						
Age	Erie County		Huron County		Ottawa County	
	2012-2016	2017-2021	2012-2016	2017-2021	2012-2016	2017-2021
1 to 24	37.9%	34.2%	34.2%	42.0%	30.4%	31.9%
25 to 64	55.5%	52.5%	58.2%	53.7%	55.2%	51.3%
65+	6.6%	13.3%	7.6%	4.4%	14.5%	16.8%
Median Age (In-state migrants)	30.0	30.2	27.7	29.3	31.3	38.3
Median Age (Out-of-state migrants)	28.9	28.0	33.5	26.2	41.3	40.9
Median Age (County Population)	44.9	45.1	39.8	40.2	48.1	49.8

Source: U.S. Census Bureau, 2012 & 2016 and 2017 & 2021 5-Year ACS Estimates (S0701); Bowen National Research

The ACS five-year estimates from 2012 to 2016 in the preceding table illustrates that 55.5% of in-migrants in Erie County were between the ages of 25 and 64, while 37.9% were less than 25 years of age. The shares of these two age cohorts decreased during the time period between 2017 and 2021 (34.2% and 52.5%, respectively), while the share of in-migrants ages 65 and older increased from 6.6% to 13.3%. Within Huron County, nearly three-fifths (58.2%) of in-migrants were between the ages of 25 and 64 during the time period between 2012 and 2016. From 2017 to 2021, this share decreased to 53.7%, while the share of in-migrants less than 25 years of age increased from 34.2% (2012 to 2016) to 42.0% (2017 to 2021). The data suggests that this was primarily driven by the influence of younger out-of-state in-migrants, which had a median age of 26.2 years (decreased from 33.5 years). The overall composition of in-migrants by age to Ottawa County from 2012 to 2021 remained relatively unchanged, although there were slight increases in the age cohorts of less than 25 years (30.4% to 31.9%) and 65 and older (14.5% to 16.8%) between the two time periods illustrated. The increase among the younger cohort appears to be influenced by out-of-state migrants (decrease in median age from 41.3 years to 40.9 years), while the increase in the older cohort was likely influenced by in-state migrants (increase in median age from 31.3 years to 38.3 years). Overall, the data suggests that in-migrants to Ottawa County, regardless of in-state or out-of-state, are typically older than the in-migrants to Erie and Huron counties.

To further illustrate migration patterns for the counties within the PSA (Firelands Region), the following table summarizes the top 10 counties from which each PSA county both attracts and loses residents. Note that the table only lists regional counties contained within Ohio and bordering states.

**County-to-County Population Migration
Top 10 Origin and Destination Counties (Regional Only)**

Erie County					
In-Migration			Out-Migration		
Importing County	Number	Percent	Exporting County	Number	Percent
Lorain County, OH	506	14.0%	Huron County, OH	425	12.0%
Huron County, OH	468	12.9%	Franklin County, OH	312	8.8%
Sandusky County, OH	259	7.1%	Lucas County, OH	305	8.6%
Magoffin County, KY	174	4.8%	Lorain County, OH	300	8.5%
Ingham County, MI	169	4.7%	Cuyahoga County, OH	237	6.7%
Ottawa County, OH	150	4.1%	Wood County, OH	147	4.1%
Franklin County, OH	138	3.8%	Seneca County, OH	106	3.0%
Cuyahoga County, OH	131	3.6%	Sandusky County, OH	101	2.8%
Lucas County, OH	119	3.3%	Ashland County, OH	85	2.4%
Seneca County, OH	85	2.3%	Allen County, OH	75	2.1%
All Other Counties	1,424	39.3%	All Other Counties	1,456	41.0%
Total In-Migration	3,623	100.0%	Total Out-Migration	3,549	100.0%
Huron County					
In-Migration			Out-Migration		
Importing County	Number	Percent	Exporting County	Number	Percent
Erie County, OH	425	16.6%	Erie County, OH	468	13.5%
Richland County, OH	302	11.8%	Lucas County, OH	226	6.5%
Lorain County, OH	244	9.5%	Lorain County, OH	172	5.0%
Seneca County, OH	203	7.9%	Richland County, OH	169	4.9%
Sandusky County, OH	91	3.6%	Cuyahoga County, OH	169	4.9%
Crawford County, OH	71	2.8%	Sandusky County, OH	132	3.8%
Greene County, OH	45	1.8%	Jackson County, OH	126	3.6%
Wood County, OH	39	1.5%	Seneca County, OH	123	3.6%
Lucas County, OH	31	1.2%	Crawford County, OH	119	3.4%
Medina County, OH	29	1.1%	Ashland County, OH	100	2.9%
All Other Counties	1,076	42.1%	All Other Counties	1,653	47.8%
Total In-Migration	2,556	100.0%	Total Out-Migration	3,457	100.0%
Ottawa County					
In-Migration			Out-Migration		
Importing County	Number	Percent	Exporting County	Number	Percent
Wood County, OH	299	15.5%	Lucas County, OH	276	16.9%
Lucas County, OH	239	12.4%	Sandusky County, OH	254	15.6%
Sandusky County, OH	94	4.9%	Wood County, OH	231	14.2%
Cuyahoga County, OH	86	4.5%	Erie County, OH	150	9.2%
Franklin County, OH	63	3.3%	Franklin County, OH	88	5.4%
Ashland County, OH	63	3.3%	Cuyahoga County, OH	58	3.6%
Erie County, OH	58	3.0%	Allen County, OH	48	2.9%
Washtenaw County, MI	50	2.6%	Richland County, OH	36	2.2%
Marion County, OH	47	2.4%	Marion County, OH	28	1.7%
Summit County, OH	36	1.9%	Defiance County, OH	28	1.7%
All Other Counties	890	46.2%	All Other Counties	434	26.6%
Total In-Migration	1,925	100.0%	Total Out-Migration	1,631	100.0%

Source: U.S. Census Bureau, 2019 5-Year American Community Survey; Bowen National Research

As the preceding table illustrates, the top 10 in-migration counties account for 60.7% of the total inflow for Erie County, while the top 10 out-migration counties account for 59.0% of the outflow. In total, Huron County (12.9%) and Ottawa County (4.1%) account for 17.0% of the in-migration for Erie County. While Huron County receives the largest share (12.0%) of Erie County residents who migrate from the county, Ottawa County is not included within the top 10 out-migration counties for Erie County. Overall, this means that Erie County benefits from intra-PSA (Firelands Region) migration. It is also important to note that net migration for Erie County in the preceding table shows positive net domestic migration for the American Community Survey period (2015-2019), whereas the components of population change data (2010-2020) showed negative net domestic migration. This likely indicates that net domestic migration for Erie County has improved significantly in recent years.

Within Huron County, the top 10 in-migration counties account for 57.9% of the total domestic migration into the county, while the top 10 out-migration counties account for 52.2% of the total out-migration. Erie County, which is the top county for both in- and out-migration for Huron County, receives more Huron County residents than it exports to Huron County. Ottawa County, which does not appear in the top 10 in- or out-migration counties for Huron County, also receives more Huron County residents than it exports to Huron County. As such, Huron County typically loses residents to intra-PSA (Firelands Region) migration. Overall, net migration for Huron County for the time period illustrated (2015-2019) is negative (901), however, the data suggests that the trend of negative domestic migration for Huron County has slowed in recent years.

Within Ottawa County, the top 10 in-migration counties represent over half (53.8%) of the total domestic in-migration for the county, while the top 10 out-migration counties account for nearly three-fourths (73.4%) of the total out-migration. This means that Ottawa County generally draws residents from a larger number of counties compared to the number of counties to which it exports residents. In Ottawa County, the top counties for in-migration include Wood County (15.5%) and Lucas County (12.4%), while the top counties for out-migration include Lucas County (16.9%), Sandusky County (15.6%), and Wood County (14.2%). Although Erie County appears in the top 10 in- and out-migration counties, Ottawa County typically loses more residents to Erie County than it gains. Huron County, which is outside the top 10 migration counties for Ottawa County, typically exports more residents to Ottawa County than it attracts and has a positive effect on migration for Ottawa County. Regardless, it appears that Ottawa County loses more residents to intra-PSA migration than it attracts. Overall, Ottawa County has benefited from domestic migration in recent years, and the data suggests that net migration within the county may be increasing.

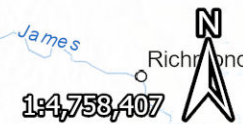
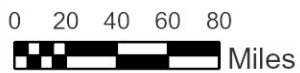
Maps illustrating immigration flow by county to the Firelands Region and emigration flow by county from the Firelands Region for 2019 are shown on the following pages.

— County Boundary (Ottawa)
— County Boundary (Huron)
— County Boundary (Erie)

Number

85

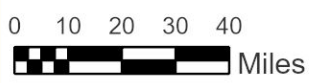
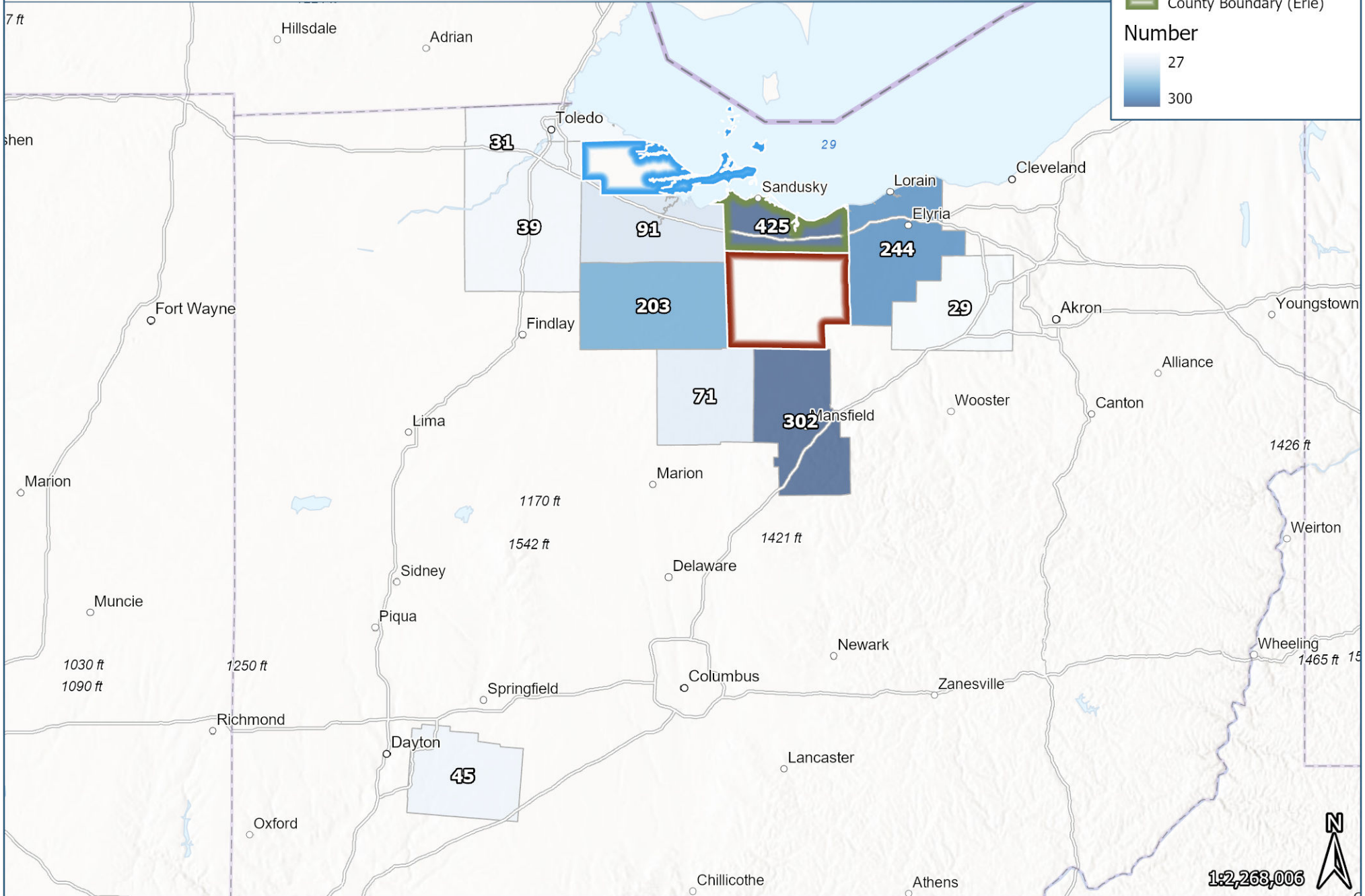
510



— County Boundary (Ottawa)
— County Boundary (Huron)
— County Boundary (Erie)

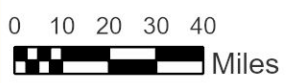
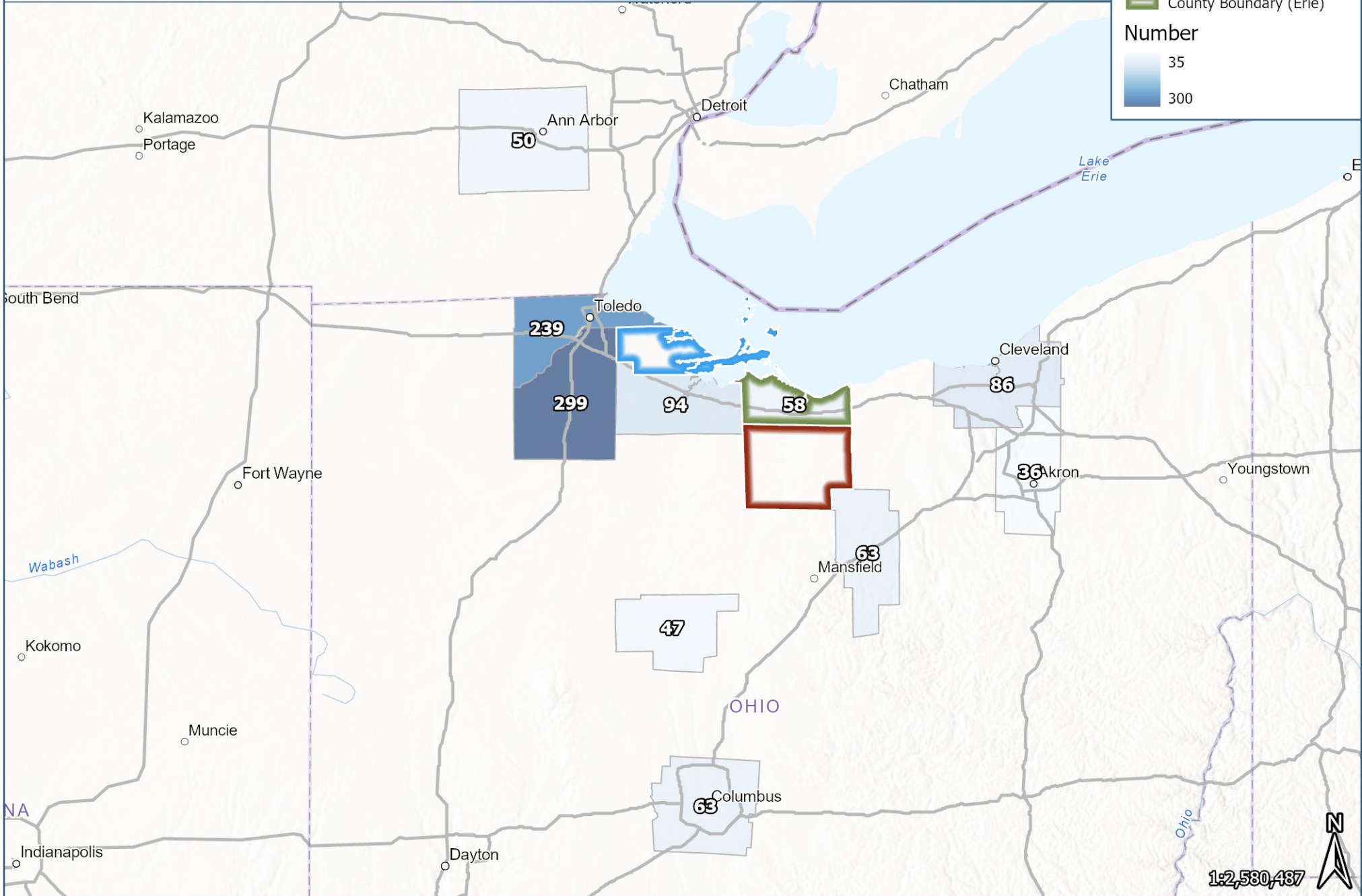
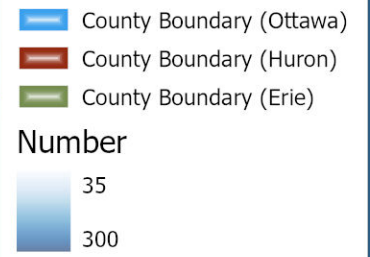
Number

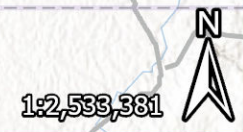
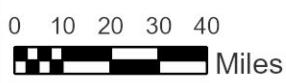
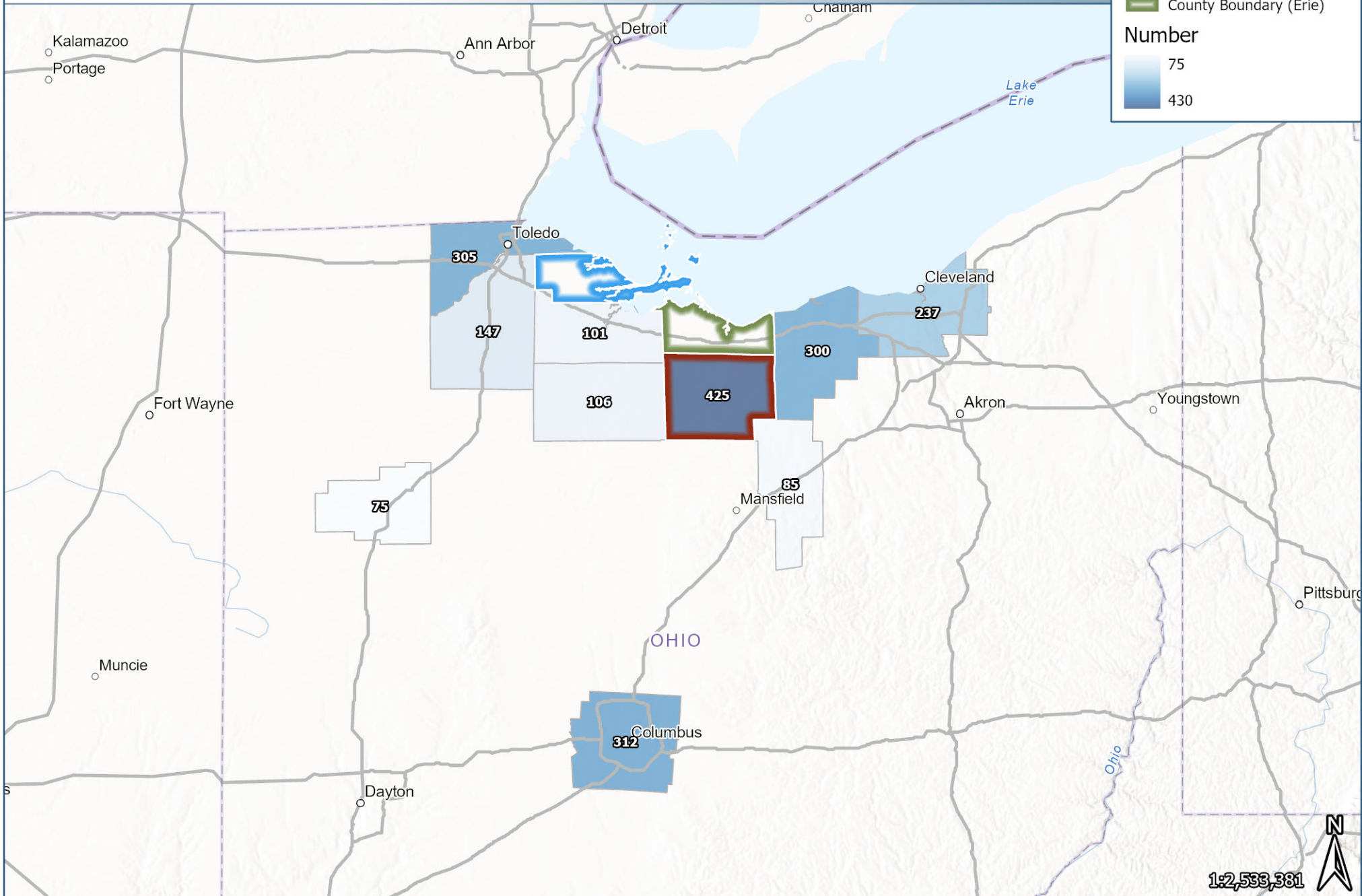
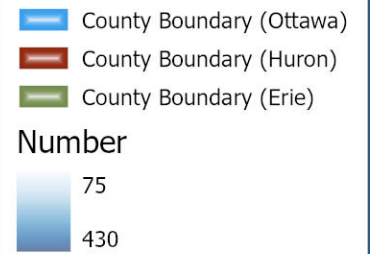
27
 300



Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, Esri, USGS
 Additional Source(s): Bowen National Research

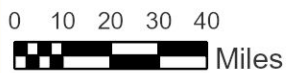
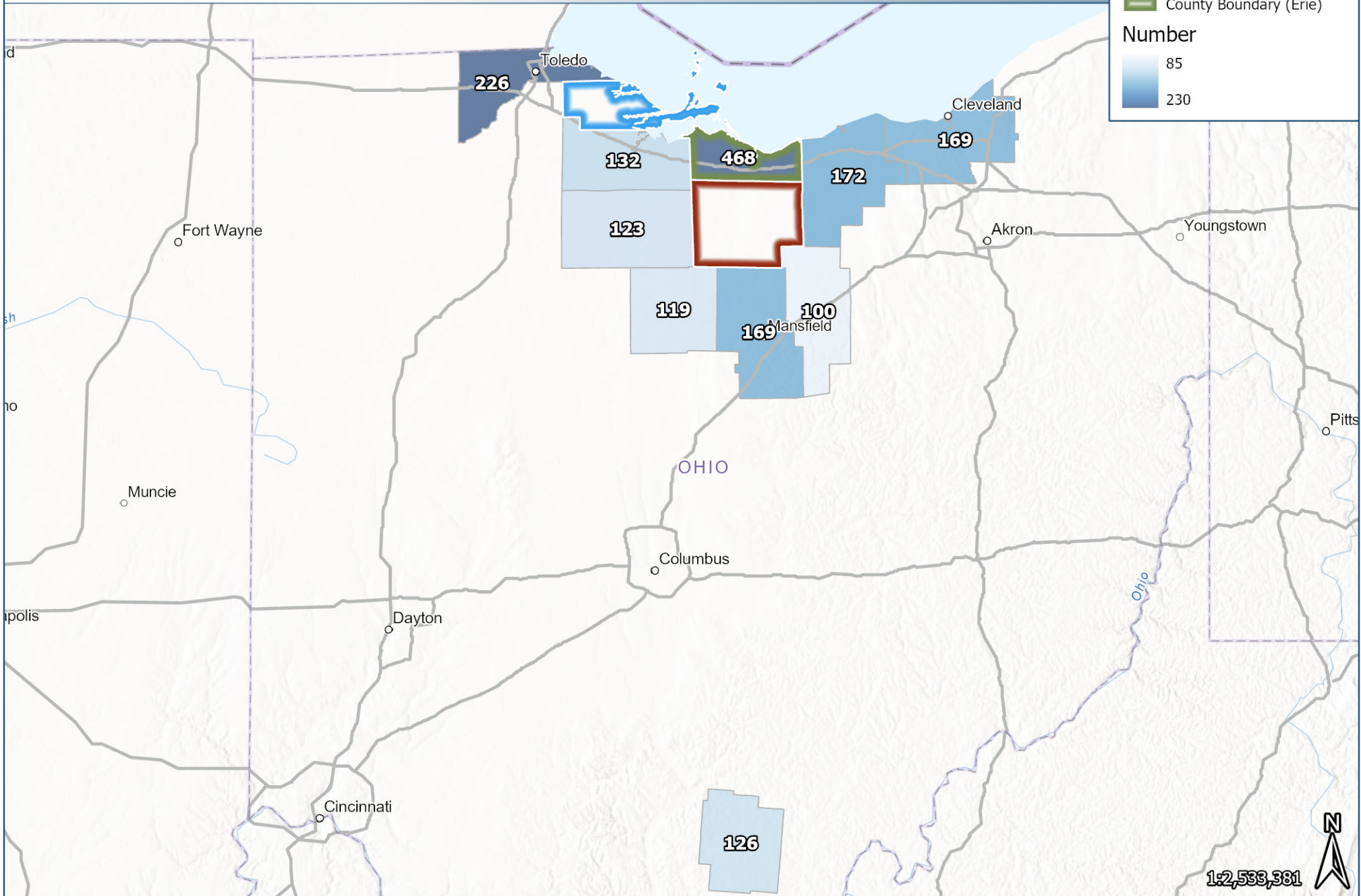









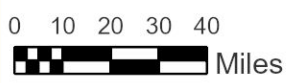
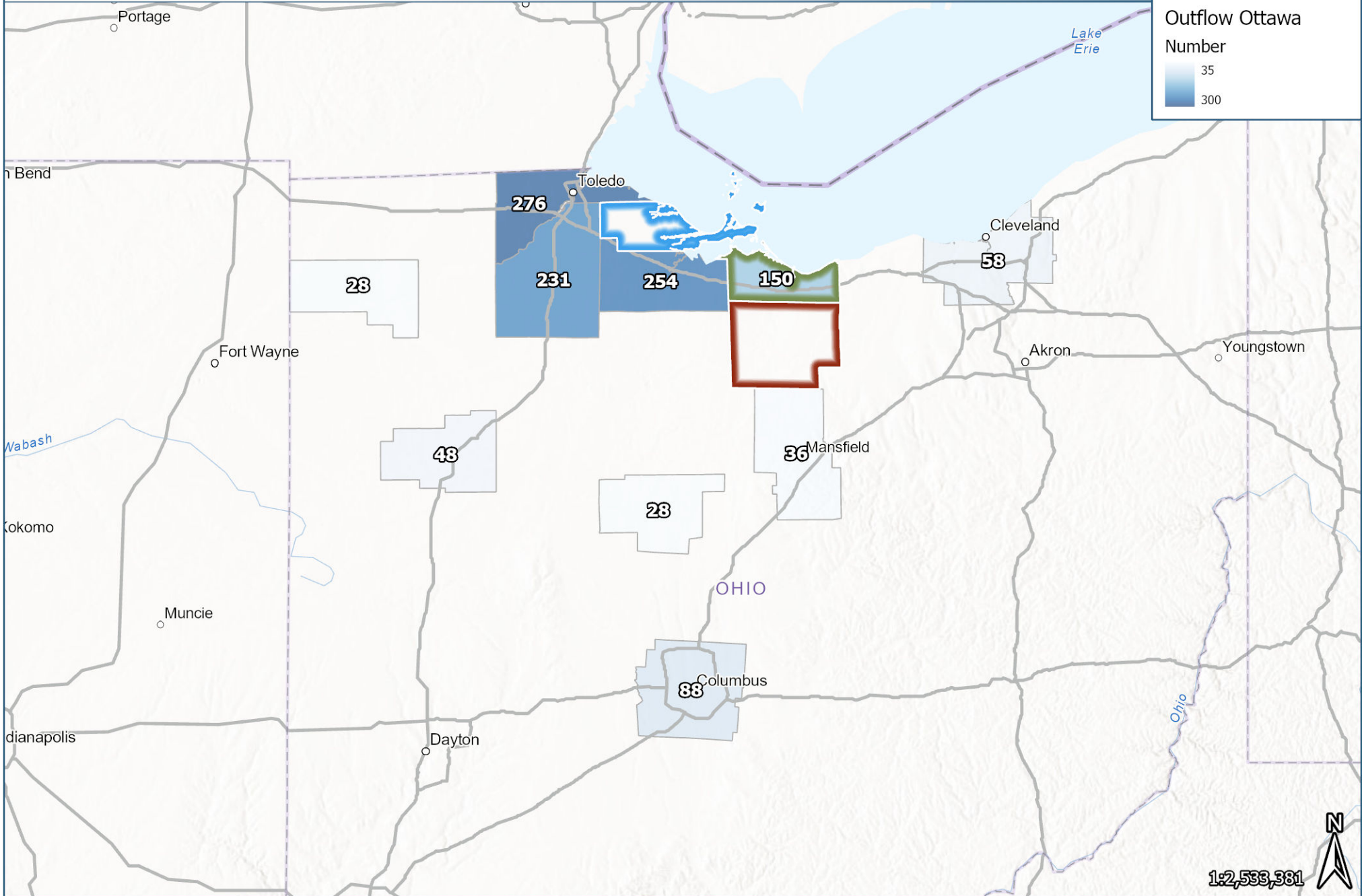
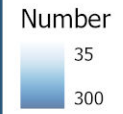
- County Boundary (Ottawa)
- County Boundary (Huron)
- County Boundary (Erie)

Number



-  County Boundary (Ottawa)
-  County Boundary (Huron)
-  County Boundary (Erie)

Outflow Ottawa



While the data contained in the previous pages illustrates the overall net migration trends of the three counties of the PSA (Firelands Region) and gives perspective about the general location where these individuals migrate to and from, it is also important to understand the income levels of in-migrants as it directly relates to affordability of housing. The following table illustrates the income distribution by mobility status for Erie County, Huron County, and Ottawa County in-migrants.

Geographic mobility by *per-person* income is distributed as follows (Note that this data was provided for the county *population*, not households, ages 15 and above):

Income Distribution by Mobility Status for Population Age 15 Years+ by County PSA (Firelands Region)								
2020 Inflation Adjusted Individual Income	Same House		Moved Within Same County		Moved From Different County, Same State		Moved From Different State	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Erie County								
<\$10,000	8,035	14.2%	677	20.4%	296	14.3%	256	27.0%
\$10,000 to \$14,999	3,877	6.9%	501	15.1%	171	8.2%	92	9.7%
\$15,000 to \$24,999	7,652	13.5%	434	13.1%	320	15.4%	90	9.5%
\$25,000 to \$34,999	7,799	13.8%	449	13.6%	247	11.9%	117	12.3%
\$35,000 to \$49,999	8,563	15.1%	468	14.1%	275	13.3%	81	8.5%
\$50,000 to \$64,999	6,001	10.6%	200	6.0%	192	9.3%	63	6.6%
\$65,000 to \$74,999	2,882	5.1%	75	2.3%	75	3.6%	83	8.8%
\$75,000+	7,174	12.7%	226	6.8%	234	11.3%	39	4.1%
No Income	4,553	8.1%	281	8.5%	263	12.7%	127	13.4%
Total	56,536	100.0%	3,311	100.0%	2,073	100.0%	948	100.0%
Huron County								
<\$10,000	5,568	13.2%	310	12.5%	198	12.3%	139	22.6%
\$10,000 to \$14,999	3,679	8.7%	229	9.2%	102	6.3%	100	16.3%
\$15,000 to \$24,999	6,152	14.6%	445	17.9%	165	10.3%	81	13.2%
\$25,000 to \$34,999	5,331	12.7%	348	14.0%	250	15.5%	65	10.6%
\$35,000 to \$49,999	7,022	16.7%	363	14.6%	275	17.1%	26	4.2%
\$50,000 to \$64,999	4,489	10.7%	184	7.4%	158	9.8%	37	6.0%
\$65,000 to \$74,999	1,574	3.7%	102	4.1%	59	3.7%	20	3.3%
\$75,000+	4,347	10.3%	179	7.2%	108	6.7%	80	13.0%
No Income	3,908	9.3%	321	12.9%	293	18.2%	66	10.7%
Total	42,070	100.0%	2,481	100.0%	1,608	100.0%	614	100.0%
Ottawa County								
<\$10,000	3,960	12.7%	380	25.1%	90	7.1%	101	28.3%
\$10,000 to \$14,999	2,371	7.6%	96	6.4%	64	5.0%	23	6.4%
\$15,000 to \$24,999	4,109	13.1%	280	18.5%	141	11.1%	15	4.2%
\$25,000 to \$34,999	3,818	12.2%	235	15.6%	101	7.9%	25	7.0%
\$35,000 to \$49,999	4,457	14.3%	88	5.8%	275	21.6%	118	33.1%
\$50,000 to \$64,999	3,583	11.5%	30	2.0%	173	13.6%	4	1.1%
\$65,000 to \$74,999	1,687	5.4%	92	6.1%	38	3.0%	0	0.0%
\$75,000+	5,030	16.1%	143	9.5%	203	16.0%	40	11.2%
No Income	2,255	7.2%	167	11.1%	187	14.7%	31	8.7%
Total	31,270	100.0%	1,511	100.0%	1,272	100.0%	357	100.0%

Source: U.S. Census Bureau, 2021 5-Year American Community Survey (B07010); Bowen National Research

According to data provided by the American Community Survey, nearly two-fifths (37.9%) of the population that moved to Erie County from a different county within Ohio earned less than \$25,000 per year. This is a smaller share of such individuals when compared to the share (46.2%) of individuals migrating from outside the state that earn less than \$25,000 per year. By comparison, the share of individuals earning \$50,000 or more per year is much smaller for both in-migrants from a different county within Ohio (24.2%) and those from outside the state (19.5%). Although it is likely that a significant share of the population earning less than \$25,000 per year consists of children and young adults considered to be dependents within a larger family, this illustrates that affordable housing options are likely important for a significant portion of in-migrants to Erie County.

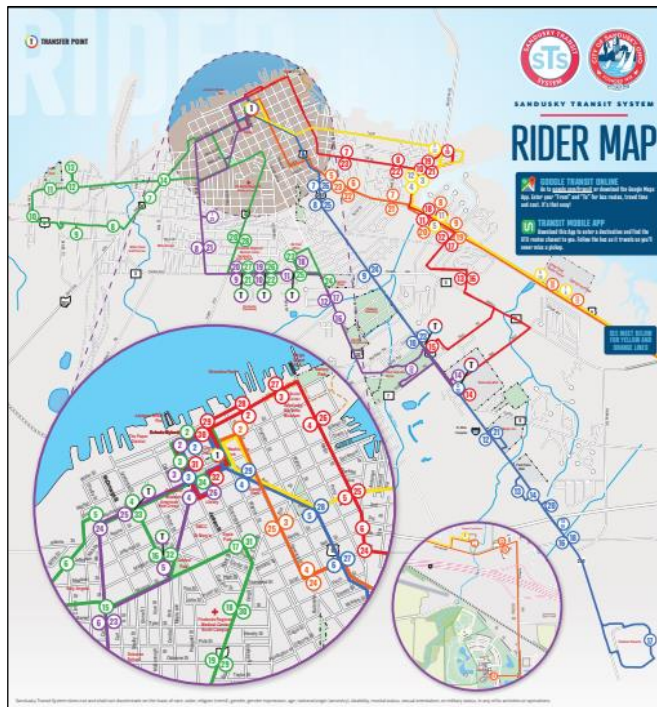
Within Huron County, the share (28.9%) of in-migrants to the county from a different Ohio county who earn less than \$25,000 per year is much less than the share for Erie County. Conversely, the share (52.1%) of in-migrants to the county from a different state that earn less than \$25,000 per year is slightly higher than that of Erie County. Approximately one-fifth (20.2%) of in-migrants to Huron County from different county in Ohio earn \$50,000 or more per year, while a slightly larger share (22.3%) of in-migrants from another state earn this amount.

Among the three counties of the PSA, Ottawa County has the smallest shares of in-migrants that earn less than \$25,000 per year from a different Ohio county (23.2%) and from another state (38.9%). In addition, nearly one-third (32.6%) of in-migrants from a different county in the state earn \$50,000 or more per year, which represents the highest share of such individuals among the three PSA counties. By comparison, only 12.3% of in-migrants to Ottawa County from another state earn \$50,000 or more. It should be noted, however, that Ottawa County also has the lowest total number (357) of in-migrants originating from another state among the three PSA counties.

In summary, based on our evaluation of the components of population change between 2010 and 2020, Erie and Huron counties experienced overall net declines from domestic migration, while Ottawa County benefited from migration. More recent ACS data indicates that, while Ottawa County continues to experience positive migration numbers, Erie County has also had positive migration recently. Among the three counties of the PSA, in-migrants to Erie and Huron counties are comparably younger than those who migrate to Ottawa County, regardless of place of origin. The data also illustrates that, while a significant portion of in-migrants to each county earns less than \$25,000 per year, the shares of low-income migrants to Erie and Huron counties are comparably higher than that of Ottawa County. Overall, migration flows for the three counties are primarily based within the regional counties of northern Ohio, although there appears to be somewhat limited inter-county migration among the three counties. These factors should all be considered when addressing the housing needs of the PSA (Firelands Region) to ensure adequate and appropriate housing is available to promote household growth within the region.

C. TRANSPORTATION ANALYSIS

Public transit, including its accessibility, geographic reach, and rider fees can affect the connectivity of a community and influence housing decisions. As a result, we have evaluated public transportation that serves the Firelands Region (Erie, Huron, and Ottawa counties).



The Sandusky Transit System (STS) is the primary public transportation service in **Erie County**. STS offers fixed routes along with a curb-to-curb assisted transportation service called Dial-A-Ride within county limits, which is available Monday through Saturday from 6:00 a.m. to 10:00 p.m. Seniors age 65 and up receive a discounted fare. Riders may transfer from one fixed route to another at no additional cost as long as they ask the driver for a transfer pass. The Red (6:00 a.m. to 10:00 p.m.), Blue (5:00 a.m. to 12:30 a.m.), and Yellow

(5:15 a.m. to 12:15 a.m.) Lines run seven days a week while the Purple (6:00 a.m. to 10:00 p.m.) and Green (6:00 a.m. to 10:00 p.m.) Lines run Monday through Saturday. The Orange Line (6:30 a.m. to 10:30 p.m.) runs Monday through Friday. General transportation and route fares may be purchased the same day on the Ezfare phone application, at the Sandusky transit offices, or at Sandusky City Hall. The curb-to-curb service reservations must be made two to 15 days in advance. The following table illustrates the fee schedule for STS based on trip type.

Sandusky Transit System Fee Schedule	
Type of Trip	Cost
General Single Trip Cash Fares	\$1.50
Single Trip Cash Reduced Fares (Age 65+ or Disabled)	\$0.75
31-Day Pass (Unlimited Rides)	\$50.00
31-Day Pass (Unlimited Rides) Reduced Fares (Age 65+ or Disabled)	\$25.00
Punch Card (10 rides)	\$15.00
Dial-A-Ride Scheduled Curb-to-Curb One-Way Fare	\$5.00
Dial-A-Ride Scheduled Curb-to-Curb One-Way Fare (Age 65+ or Disabled)	\$2.50

Sources: https://www.cityofsandusky.com/residents/sandusky_transit_system/fares.php and <https://areaofficeonaging.com/provider/3728>

A one-way fare within Erie County with no deviations from the routes costs \$1.50, although a reduced fare is available for seniors age 65 and older and for persons with a disability. Dial-A-Ride trips must be within Erie County as well and generally cost \$5.00. A reduced fee of \$2.50 is also applicable to this type of trip and handicap-accessible vehicles are available if necessary.

Huron County Transit is the primary public transportation service in **Huron County** and is run by Enrichment Center for Huron County. While no fixed-route service throughout the county is available, Huron County Transit offers demand-response van service within county limits as well as to areas outside of the county. This service operates Monday through Friday between the hours of 7:00 a.m. and 6:30 p.m. in the county, and Monday through Friday between the hours of 8:00 a.m. and 3:00 p.m. for out of county trips. Out of country trips are reserved for trips to medical facilities only.

Reservations are required for all transportation services. The in-county one-way fares cost \$3.00 and out-of-county one-way fares are determined by the destination (up to 50 miles outside the county line) and generally cost between \$4.00 and \$40.00. Fare quotes are determined by the transit office and out-of-county trips, which are for medical facility trips only, require a 72-hour notice in advance.

The Ottawa County Transportation Agency (OCTA) Public Transit is the lone curb-to-curb public transportation service in **Ottawa County**, and also provides transportation for Erie, Huron, Lucas, Sandusky, and Wood counties. While no fixed-route service throughout the county is available, OCTA offers demand-response van service within county limits as well as to areas outside of the county for medical purposes. This service operates Monday through Friday from 5:00 a.m. to 9:00 p.m., Saturday from 6:00 a.m. to 9:00 p.m., and Sunday from 7:00 a.m. to 5:00 p.m. within the county. In-county trips must be scheduled 24 hours in advance while trips outside of Ottawa County must be scheduled at least seven days in advance. The following table illustrates the fee schedule for OCTA Public Transit based on trip type.

OCTA Public Transit Fee Schedule	
Type of Trip	Cost
Ottawa County One-Way Fare	\$4.00
Erie County One-Way Fare	\$6.00
Sandusky County One-Way Fare	\$6.00
Wood County One-Way Fare	\$6.00
Huron County One-Way Fare	\$12.00
Lucas County One-Way Fare	\$12.00

Source: <https://octapublictransit.online/>

An in-county round trip costs \$4.00 in Ottawa County with rates increasing based on the distance for travel outside of Ottawa County, as evidenced in the table above. These rates can rise to \$6.00 for trips in Erie, Wood, and Sandusky counties and rise as high as \$12.00 for trips within Lucas and Huron counties. A fare discounted by 50% is available to people with a disability or seniors age 60 and older.

Other methods of transportation assistance in the Firelands Region include rideshare services such as Uber and Lyft, as well as private companies that operate throughout the PSA and in surrounding northern Ohio. Local ride-share availability increases during peak tourism seasons.

Based on the preceding information, a form of public transportation is accessible for PSA (Firelands Region) residents who can afford the transportation rates and provided that trips are prescheduled. For PSA residents without reliable access to a personal vehicle, public transportation may be required based on proximity to community services and other necessities. Some consideration should be given to exploring residential development along or near Erie County’s fixed bus routes. Given the relatively low rider fees and both the flexibility and geographical reach of the public transportation services, we do not believe the existing transit systems are deterring or influencing residential choices.

Walkability

The ability to perform errands or access community amenities conveniently by walking, rather than driving, contributes favorably to personal mobility. A person whose residence is within walking distance of major neighborhood services and amenities will most likely find their housing market more desirable. Conversely, residents who are not within a reasonable walking distance of major community services or employment are often adversely impacted by the limited walkability of their neighborhood, which could impact their quality of life and/or limit the appeal of residing within the less walkable areas.

The online service “Walk Score” was used to evaluate walkability within some of the more populated areas of the Firelands Region. Walk Score analyzes a specific location’s proximity to a standardized list of community attributes. It assesses not only distance but also the number and variety of neighborhood amenities. A Walk Score can range from a low of zero to a high of 100 (the higher the score, the more walkable the community). The table to the right illustrates the Walk Score ranges and corresponding descriptors. Walk Score addresses were selected to the best of our ability by focusing on cities and villages as a whole, as well as downtown areas in each city or village. Downtown locations were selected for either a high population or a high level of traffic/interest.

Walk Score®	Description
90–100	Walker's Paradise Daily errands do not require a car.
70–89	Very Walkable Most errands can be accomplished on foot.
50–69	Somewhat Walkable Some amenities are within walking distance.
25–49	Car-Dependent A few amenities are within walking distance.
0–24	Very Car-Dependent Almost all errands require a car.

According to Walk Score, the city of Bellevue has the highest overall score in the Firelands Region with a Walk Score of 79, which indicates that the overall city is “Very Walkable” as most errands can be accomplished on foot. Port Clinton (Walk Score of 72) achieved the second-highest score in the Firelands Region followed by Willard (65). Port Clinton is deemed “Very Walkable” while Willard is “Somewhat Walkable,” which indicates that a vehicle is not generally required for most errands. The village of Put-In-Bay (Walk Score 18) was the only location as a whole that scored below 25, indicating that this village is “Very Car-Dependent.” However, it should be noted that Put-In-Bay’s downtown area has a Walk Score of 54. Certainly, some areas in this region are more walkable than others. Residents living in less walkable areas likely experience some challenges accessing certain community services, particularly lower-income residents that do not have access to a vehicle. Conversely, residential development should be considered in or near some of the more walkable towns or downtowns, particularly product targeting seniors, empty nesters (age 55+) and young adults.

The following tables illustrate various cities, villages, and downtown areas within the Firelands Region as well as their corresponding Walk Scores.

Cities/Villages (As a Whole)	County	Walk Score	Walk Score Descriptor
Bellevue	Erie and Huron	79	Very Walkable
Port Clinton	Ottawa	72	Very Walkable
Willard	Huron	65	Somewhat Walkable
Vermilion	Erie	64	Somewhat Walkable
Huron	Erie	56	Somewhat Walkable
Oak Harbor	Ottawa	54	Somewhat Walkable
Sandusky	Erie	50	Somewhat Walkable
Norwalk	Huron	38	Car-Dependent
Put-In-Bay	Ottawa	18	Very Car-Dependent

Source: WalkScore.com

Downtown Areas	County	Walk Score	Walk Score Descriptor
Sandusky (614 Columbus Ave.)	Erie	84	Very Walkable
Norwalk (50 N. Prospect St.)	Huron	82	Very Walkable
Bellevue (116 E. Main St.)	Erie and Huron	79	Very Walkable
Port Clinton (128 W. 2nd St.)	Ottawa	73	Very Walkable
Vermilion (555 Main St.)	Erie	64	Somewhat Walkable
Willard (21 E. Maple St.)	Huron	63	Somewhat Walkable
Oak Harbor (131 W. Water St.)	Ottawa	56	Somewhat Walkable
Put-In-Bay (240 Delaware Ave.)	Ottawa	54	Somewhat Walkable
Huron (417 Main St.)	Erie	52	Somewhat Walkable

Source: WalkScore.com

Transportation and Housing Cost Burden

While household income is usually allocated to a variety of areas, housing and transportation costs typically comprise two of the largest expenses for most households. In an effort to better understand the extent to which PSA households allocate income to these two categories, the following table illustrates the share of households by income for renter and owner households that are transportation and housing severe cost-burdened (paying 75% or more of household income toward transportation and housing, *combined*) for each county in the PSA (Firelands Region).

		2022 Combined Transportation and Housing Severe Cost-Burdened Share of Households by Income Cohort by Tenure						
		<\$20,000	\$20,000 - \$39,999	\$40,000 - \$59,999	\$60,000 - \$99,999	\$100,000 - \$150,000	\$150,000+	Overall
Erie County	Renters	61.4%	23.4%	11.8%	9.3%	4.0%	4.1%	25.9%
	Owners	59.7%	22.9%	11.4%	9.1%	4.0%	4.1%	12.3%
Huron County	Renters	64.1%	20.2%	10.0%	8.0%	4.1%	3.7%	24.4%
	Owners	61.6%	19.8%	10.0%	7.0%	4.1%	3.7%	12.1%
Ottawa County	Renters	32.9%	12.8%	9.7%	6.5%	4.1%	3.7%	14.5%
	Owners	30.9%	12.7%	9.6%	6.0%	4.1%	3.7%	8.7%
Firelands Region	Renters	68.2%	24.3%	11.8%	7.7%	4.1%	3.7%	27.9%
	Owners	65.7%	23.8%	11.4%	7.1%	4.1%	3.7%	12.6%

Source: Urban Decision Group; Bowen National Research

As the preceding illustrates, the share of transportation and housing severe cost-burdened households increases significantly as income decreases, regardless of tenure. Overall, 27.9% of renter households in the PSA (Firelands Region) are transportation and housing severe cost-burdened, which is a significantly higher share compared to the share of owner households (12.6%) in the region. Among the three counties of the region, Erie County (25.9%) and Huron County (24.4%) have the largest shares of *renter* households that are combined severe cost-burdened, while the share (14.5%) of such households in Ottawa County is significantly less. Among *owner* households, the share of combined severe cost-burdened households is highest within Erie (12.3%) and Huron (12.1%) counties, while Ottawa County (8.7%) has a notably smaller share of such owner households. While the share of owner households experiencing combined severe cost-burden within each income cohort is generally less than the corresponding share of renter households, the shares are typically within 2% of each other. This indicates that although renters are slightly more likely to experience combined severe cost-burden than owners, the issue is more closely correlated to income rather than tenure.

Within the region, nearly one-fourth of renter (24.3%) and owner households (23.8%) earning less than \$40,000 annually are combined transportation and housing severe cost-burdened. This means that a significant share of the low-income households within the region have less than 25% of their income available for other needs such as food and clothing after accounting for housing and transportation costs. When comparing the overall combined shares of severe cost-burdened renter households (27.9%) and owner households (12.6%) in the region

to the shares of households that are severe cost burdened based on *housing costs only* (19.1% of renter households and 6.1% of owner households – page VI-5), the preceding data illustrates the additional financial strain that transportation costs create for households in the Firelands Region, most notably for low- to middle-income households. While many of the factors associated with transportation costs are elements of the larger regional and national economies (vehicle purchase prices, fuel costs, interest rates), factors such as the proximity of employment opportunities to residence, the availability of local services, and reduced housing costs can lower the combined transportation and housing cost burden for area residents.

D. COST OF LIVING ANALYSIS

As part of this study, we evaluated the cost of living for typical household expenses in the Firelands Region using a variety of sources. The intent of this section is to demonstrate the cost of living for typical expenses incurred by households within the subject counties and to determine how this may relate to area wages and ultimately how it impacts housing affordability. Depending upon the source, this data was broken out by county level and/or for some of the larger municipalities within the subject region. As a base of comparison, state of Ohio data was also provided.

The following table compares estimated cost of living indices for a variety of household expenses for counties within the Firelands Region along with state of Ohio averages. As an additional data point of comparison, it should be noted that the *national index* for each category in the following table is 100. This data was provided by Sperling’s Best Places.

Cost of Living Index by County Firelands Region				
Expense Category	Firelands Region			Ohio
	Erie County	Huron County	Ottawa County	
Food/Grocery	97.3	95.9	93.8	96.1
Medical/Health	81.3	82.0	81.1	88.7
Housing	56.0	44.8	66.8	61.6
Utilities	94.8	96.2	97.4	100.0
Transportation	68.1	71.7	73.8	83.9
Other/Miscellaneous	102.1	82.2	106.1	89.3
Overall	77.0	73.7	81.6	82.7

Source: Sperling’s Best Places (<https://www.bestplaces.net/docs/datasource.aspx>) (Updated August 2021)

The overall cost of living indices for each of the three subject counties range from a low of 73.7 in Huron County to 81.6 in Ottawa County. Each of the county’s overall indices appear to be notably lower than the national average of 100 and slightly below, but comparable to, the state of Ohio averages. The highest indices by category within the subject counties appear to be among Food/Grocery costs and Utilities costs, all of which are above 93.0 but below 100. It is important to point out that the *housing* cost indices for the subject counties are very low, ranging from 44.8 in Huron County to 66.8 in Ottawa County.

The following table illustrates the cost of living indices for larger communities (Sandusky, Norwalk and Port Clinton) within the Firelands Region.

Cost of Living Index by Principal City – Firelands Region				
Expense Category	Principal Cities (County Seats)			Ohio
	Sandusky	Norwalk	Port Clinton	
Food/Grocery	94.5	96.2	93.7	96.1
Medical/Health	81.3	82.0	81.1	88.7
Housing	25.2	50.4	64.7	61.6
Utilities	92.7	96.1	94.3	100.0
Transportation	62.3	67.2	65.5	83.9
Other/Miscellaneous	102	81.6	106.3	89.3
Overall	65.8	74.3	78.9	82.7

Source: Sperling's Best Places (<https://www.bestplaces.net/docs/datasource.aspx>) (Updated August 2021)

Just as they were on a county level, the overall costs of living indices for the selected municipalities within the Firelands Region are well below the national average of 100 and lower than the state average of 82.7. The city of Sandusky has the lowest index of 65.8, while the city of Port Clinton has the highest index of 78.9. Therefore, even in larger municipalities, the costs of living are relatively modest and should be considered positive attributes of these areas. The indices for housing are also well below the national average with Sandusky's index at an extremely low 25.2 and the other two communities with housing indices below 65.0. As a result, housing costs appear to be low when compared to national averages.

Based on this analysis, it appears that the cost of living, particularly the cost of housing, for households within the Firelands Region is relatively modest. General household expenses within the region do not appear to be high and could be an asset to the community. This attribute should be promoted to prospective residents or businesses considering locating to the area.

While the cost of living indices help to understand how area household expenses compare on a scale with nation and with Ohio, we also included an analysis based on the [MIT Living Wage Model](#) that considers estimated annual household expenses in 2022 dollars. This living wage model is defined as an *alternative measure of basic needs* that estimates the cost of necessities based on expenditure data for a variety of household formations. This analysis, which assumes a household of three persons (two working adults and one child), compares annual household expenses for each of the three counties in the Firelands Region with state of Ohio estimates.

The following table summarizes the estimated household expenses by county and compares the estimated income required to meet such expenses.

MIT Living Wage Model - Estimated Annual Household Expenses by County				
Expense Category	Firelands Region			Ohio
	Erie County	Huron County	Ottawa County	
Food	\$9,159	\$9,159	\$9,159	\$9,159
Child Care	\$7,041	\$9,118	\$9,118	\$10,688
Medical	\$8,614	\$8,614	\$8,614	\$8,614
Housing	\$9,954	\$9,313	\$9,670	\$10,825
Transportation	\$11,780	\$11,780	\$11,780	\$11,780
Civic	\$6,565	\$6,565	\$6,565	\$6,565
Other Necessities*	\$9,905	\$9,905	\$9,905	\$9,905
Total Expenses (excluding taxes)	\$63,018	\$64,454	\$64,811	\$67,536
Required Gross Income	\$73,170	\$74,931	\$75,368	\$78,708

Source: MIT Living Wage Model created by Dr. Amy K. Glasmeier (Updated December 2022)

Living Wage Calculator: <https://livingwage.mit.edu/>

*Other necessities include apparel, personal care products, reading materials, and miscellaneous items as defined by the Bureau of Labor Statistics Consumer Expenditure Survey.

As demonstrated in the preceding table, the total estimated annual household expenses by county range from \$63,018 in Erie County to \$64,811 in Ottawa County. All three subject counties have average annual household expenses that are at least 4.0% below the state average. Therefore, typical household expenses within the subject counties are lower when compared to the overall state. As shown at the bottom of the preceding table, the required gross income (including estimated taxes) to meet such expenses within the subject counties ranges from \$73,170 in Erie County to \$75,368 in Ottawa County. Based on the demographics section of this study, only 42.5% of households in the Firelands Region have gross incomes of \$75,000 or higher. Therefore, many of the region’s households do not have sufficient incomes to pay typical annual housing expenses, often leading to housing cost burdened situations and other financial challenges.

E. DEVELOPMENT OPPORTUNITIES

Housing markets expand when the number of households increase, either from in-migration or from new household formations. In order for a given market to grow, households must find acceptable and available housing units (either newly created or pre-existing). If acceptable units are not available, households will not enter the housing market and the market may stagnate or decline. Rehabilitation of occupied units does not expand housing markets, although it may improve them. For new housing to be created, land and/or existing buildings (suitable for residential use) must be readily available, properly zoned, and feasibly sized for development. The absence of available residential real estate can prevent housing market growth unless unrealized zoning densities (units per acre) are achieved on existing properties.

Market growth strategies that recommend additional or newly created housing units should have one or more of the following real estate options available: 1) land without buildings, including surface parking lots (new development), 2) unusable buildings (demolition-redevelopment), 3) reusable non-residential buildings (adaptive-reuse), and 4) vacant reusable residential buildings (rehabilitation). Reusable residential buildings should be unoccupied prior to acquisition and/or renovation, in order for their units to be newly created within the market. In addition to their availability, these real estate offerings should be zoned for residential use (or capable of achieving same) and of a feasible size for profitability.

Through online research conducted by the client in January of 2023, numerous sites that could support potential residential development in the Firelands Region were identified. Real estate listings and information from county tax auditors were also used to supplement information collected for this report. It should be noted that these potential housing development properties were selected without complete knowledge of availability, price, or zoning status and that the vacancy and for-sale status was not confirmed. Although this search was not exhaustive, it does represent a list of some of the most obvious real estate opportunities in the PSA (Firelands Region). The investigation resulted in 239 properties being identified with a combined land area of nearly 1,200 acres. The 239 total properties were primarily vacant or undeveloped parcels of land that could potentially support residential development. Note that some properties may contain at least one existing building that is not necessarily vacant and may require demolition. It should be noted that this survey of potential development opportunities in the Firelands Region primarily consists of properties that were actively marketed for sale at the time of this report as well as those identified by the client using other sources.

Properties identified as part of this search are categorized as follows:

- A total of 58 properties comprised of two or more acres are summarized in the following table.
- The remaining 181 smaller properties comprised of less than two acres are summarized in narrative format.

It is important to note that three of the identified properties are located just outside the Firelands Region. These properties (Map Codes 5, 23 and 28) are located in the city of Vermilion, which is within portions of Erie (part of the Firelands Region) and Lorain counties.

Information on housing development opportunity sites (two acres or larger) in the Firelands Region is presented in the following table.

Potential Housing Development Sites – Firelands Region					
Map Code	Street Address	City/Town	County	Land Size (Acres)	Zoning
1	4714 Hayes Avenue	Sandusky	Erie	93.00	Agricultural
2	Venice Road/Cold Creek Boulevard	Sandusky	Erie	76.00	Single-Family Residential
3	Route 2 By-pass/Strub Road	Sandusky	Erie	54.20	General Commercial
4	U.S. Route 250	Sandusky	Erie	45.58	General Commercial
5*	Woodland Drive	Vermilion	Erie	45.46	General Commercial
6	U.S. Route 250	Sandusky	Erie	43.69	General Commercial
7	State Route 60	Vermilion	Erie	37.54	General Commercial
8	Bogart Road	Sandusky	Erie	29.52	General Commercial
9	West Perkins Avenue	Sandusky	Erie	20.32	General Commercial
10	Old Rail Road	Sandusky	Erie	15.53	General Commercial
11	Boos Road	Huron	Erie	12.00	General Commercial
12	701 E. Water Street	Sandusky	Erie	11.22	Downtown Business
13	Quarry Lakes Drive	Sandusky	Erie	9.47	General Commercial
14	W. Strub Road/Old Railroad Road	Sandusky	Erie	8.00	Planned Unit Development
15	Cold Creek Boulevard	Sandusky	Erie	7.34	Single Family
16	Monroe Street	Sandusky	Erie	6.83	General Commercial
17	Overlook Road	Vermilion	Erie	6.47	Highway Commercial
18	Darrow Road	Huron	Erie	5.01	Agricultural
19	676 Salem Drive	Huron	Erie	4.85	One-Family Residential
20	Westwood Way	Sandusky	Erie	4.68	Single Family
21	State Route 101	Sandusky	Erie	4.39	General Commercial
22	1575 Cleveland Road	Sandusky	Erie	3.00	General Business
23*	Jerusalem Road	Vermilion	Erie	2.93	Estate Residence
24	6300 Milan Road	Sandusky	Erie	2.58	General Commercial
25	5007 Hayes Avenue	Sandusky	Erie	2.50	General Commercial
26	Crossings Road	Sandusky	Erie	2.50	General Commercial
27	2501 Perkins Avenue	Sandusky	Erie	2.44	Single Family
28*	Baumhart Road	Vermilion	Erie	2.14	Single Family
29	Biglow Parkway	New London	Huron	115.93	Not Zoned
30	State Route 18	Norwalk	Huron	100.66	Not Zoned
31	State Route 18/Furniture Parkway	Norwalk	Huron	84.23	Heavy Manufacturing
32	431 Old State Road South	Norwalk	Huron	30.00	Not Zoned
33	Old State Road	Norwalk	Huron	23.00	Single Family
34	Ward Avenue	Norwalk	Huron	13.00	Multifamily
35	Farm field behind 117 Woodlawn Avenue	Norwalk	Huron	11.50	Single Family
36	2775 Liles Road	Collins	Huron	7.91	No Zoning
37	3851 Everingin Road	Monroeville	Huron	6.12	Agricultural
38	Chapel Drive/Sycamore Circle	Norwalk	Huron	3.20	General Business
39	4936 U.S. Highway 250 N.	Norwalk	Huron	2.84	Not Zoned
40	Washington Street	Norwalk	Huron	2.40	Multifamily
41	State Route 163	Port Clinton	Ottawa	29.50	General Commercial
42	State Route 269	Marblehead	Ottawa	25.50	General Commercial
43	State Route 269	Marblehead	Ottawa	12.03	General Commercial
44	West State Road 163	Oak Harbor	Ottawa	9.34	Single Family
45	Benton Street	Oak Harbor	Ottawa	7.97	Single Family
46	3655 NW Catawba Road	Port Clinton	Ottawa	7.60	Agricultural
47	43 E. Water Street	Oak Harbor	Ottawa	7.07	Single Family

*Located outside the Firelands Region, within city of Vermilion

(Continued)

Potential Housing Development Sites – Firelands Region					
Map Code	Street Address	City/Town	County	Land Size (Acres)	Zoning
48	East State Road	Port Clinton	Ottawa	6.80	General Commercial
49	Niagara	Put-in-Bay	Ottawa	6.41	General Commercial
50	21821 W. Trowbridge Road	Genoa	Ottawa	5.16	Single Family
51	C Parcel Trowbridge	Millbury	Ottawa	4.92	Single Family
52	1 Lake Front Street	Port Clinton	Ottawa	4.11	Not Zoned
53	3975 E. Kirk Road	Port Clinton	Ottawa	4.03	General Commercial
54	4223 N. Graytown Road	Graytown	Ottawa	2.50	Single Family
55	19180 W. Walbridge East Road	Martin	Ottawa	2.45	Single Family
56	15760 W. Yeasting Road	Elmore	Ottawa	2.27	Single Family
57	West Walbridge East Road Lot 2	Martin	Ottawa	2.20	Single Family
58	2006 E. Harbor Road	Port Clinton	Ottawa	2.13	Single Family

In summary, the availability of potential residential development sites (properties capable of delivering new housing units) within the Firelands Region does not appear to be a significant obstacle to increasing the number of housing units. The cursory investigation for sites within the PSA identified 58 properties larger than two acres that are potentially capable of accommodating future residential development via new construction or adaptive reuse. The 58 identified properties listed in the preceding table represent approximately 1,100 acres of land. Note that 22 of the 58 identified properties consist of over 10 acres of land each, providing the ability to develop larger residential projects that may include a single-family home subdivision or multifamily housing.

This region-wide survey of potential development opportunities includes 181 *additional* properties that are smaller parcels of less than two acres. These 181 properties represent a combined land area of 97.64 acres, which represents approximately 8% of the total acreage identified as part of this survey. Note that many of these smaller properties represent infill development opportunities for single-family homes or smaller multifamily buildings in the Firelands Region.

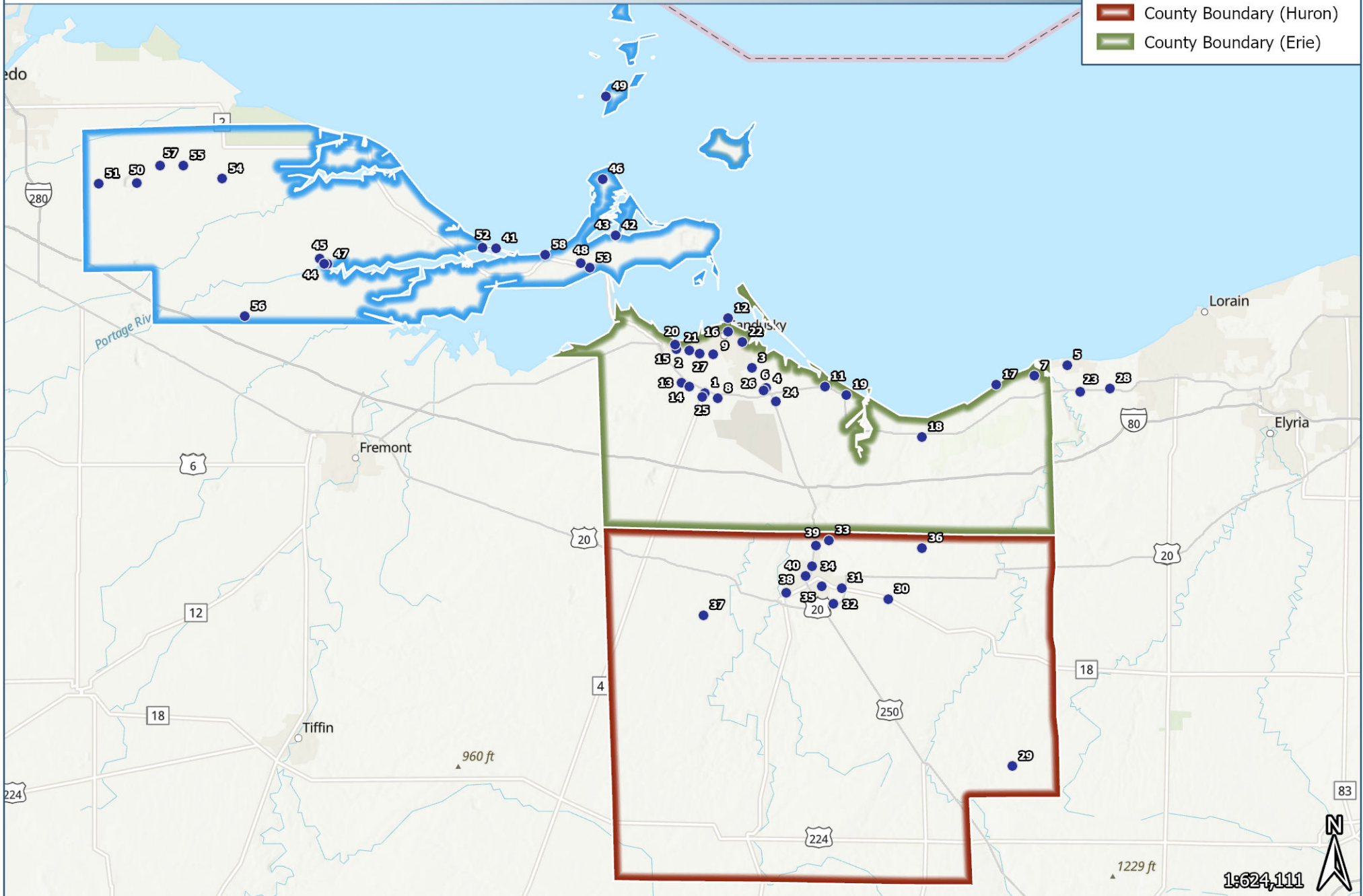
Given that it appears there are sufficient housing development sites within the PSA (Firelands Region) to support an increase of residential development, the location within the PSA where new residential units will have the greatest chance of success is the next critical question. The desirability of a particular neighborhood or location is generally influenced by proximity to work, school, entertainment venues, recreational amenities, retail services, dining establishments, and major roadways. The vacant or undeveloped parcels identified for potential residential development sites are primarily located within Erie County, most notably the city of Sandusky and surrounding areas. As such, sites within this area are likely most conducive to new residential development due to the proximity of area services.

Additionally, the availability of infrastructure, including water, sewer, roads, electric power, natural gas, and broadband, is a critical factor in determining where real estate development occurs. As higher population densities and taller, multistory structures are directly correlated with lower housing costs, communities in the

Firelands Region with municipal sewer utilities have a unique opportunity to accommodate housing that is affordable and attainable. For example, developers of Low-Income Housing Tax Credit properties are generally unwilling to submit applications for projects that are not served by public water and sewer utilities, which generally limits multifamily development in areas outside of towns and cities. Access to public utilities and the area's utility capacity were not considered as part of this study and would require engineering services to assess public utility factors that ultimately impact the viability of a site to support residential development.

A map illustrating the location of the 58 potential housing development opportunity properties that are two acres or larger is on the following page. The Map Code number in the summary table on page VII-41 is used to locate each property.

- Dev. opps.
- ▬ County Boundary (Ottawa)
- ▬ County Boundary (Huron)
- ▬ County Boundary (Erie)



F. HOUSING POLICIES AND REGULATIONS

Housing policies and regulations within city, town, village and county jurisdictions greatly influence residential development, housing choices, and market strength. As part of this report, a review of government policies and land use controls was conducted to determine if there were any notable barriers to residential development within the Firelands Region. A summary of regulatory factors influencing housing development decisions in the region is provided in this section.

The following topics will be covered within this section:

Residential Zoning

According to the Centers for Disease Control and Prevention (CDC) Housing Reference Manual, *zoning is essentially a means of ensuring that a community's land uses are compatible with the health, safety, and general welfare of the community.* In the Firelands Region, there are 57 government entities that have a residential zoning code, including cities, villages, and townships. For the purpose of this analysis, we have selected the eight largest municipalities by population in an effort to study and highlight zoning ordinances. These eight municipalities are as follows:

Erie County
City of Huron Perkins Township City of Sandusky City of Vermilion*
Huron County
City of Bellevue* City of Norwalk City of Willard
Ottawa County
City of Port Clinton

County seat in bold type.

*Portion of city or village is in adjacent counties outside the Firelands Region

Note that Ohio, as a home rule state, allows cities and villages to establish zoning regulations without having a comprehensive plan. However, home rule does not apply to county and township governments in Ohio, as each must submit a comprehensive plan in order to establish zoning regulations. An examination of residential zoning districts for each of the eight highlighted communities in the Firelands Region will be included as part of this report.

Residential Building and Maintenance Codes

The state of Ohio establishes code enforcement of buildings and structures via the [Board of Building Standards](#), which pertains to *building, mechanical, plumbing, elevator, boiler, and pressure piping codes*. According to the Ohio Department of Commerce, one function of the Board of Building Standards is to *certify municipal, county, and township building departments to exercise enforcement authority and to accept and approve plans and specifications* for buildings and structures constructed in each respective jurisdiction. The Board of Building Standards also has the authority to conduct hearings and investigations as part of its duties. All county, city, village, and township jurisdictions in the Firelands Region adhere to Board of Building Standards regulations.

The Residential Code of Ohio pertains to one-, two-, and three-family dwellings containing three or fewer stories. According to Chapter 4101, Section 101 of the Ohio Administrative Code, the Residential Code of Ohio *shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every one-, two-, or three-family dwelling*. Note that multifamily dwellings containing four or more units are regulated under requirements set forth in the Ohio Building Code.

Review of Previously Completed Studies

County and township jurisdictions in Ohio must maintain a comprehensive plan in order to adopt or enforce zoning regulations. As part of this report, we will review previously completed comprehensive plans or land use plans for each major jurisdiction within the Firelands Region (if available). This review will be limited to reports that have been completed within the last 10 years.

Note that information obtained for cities, villages, townships, and counties within this section was primarily obtained through online information sources, most notably municipal and county government websites. These jurisdictions vary in the amount of published information each has on respective websites. In addition, some jurisdictions follow building and zoning regulations at the local level, while others follow building regulations at the county and/or state level. Therefore, the amount and type of information obtained varies by jurisdiction.

ERIE COUNTY

This section will highlight zoning regulations for the four largest communities by population in Erie County. These communities are the city of Huron, Perkins Township, city of Sandusky, and city of Vermilion.

Zoning Districts – City of Huron

City of Huron – Zoning Districts – Codified Ordinances	
Zoning District	Description
R-1 One-Family Residence District	One-family detached dwellings, licensed adult family homes, and transient rentals of residential property are permitted within the R-1 and R-1-A zoning districts. Planned development projects are conditionally permitted in both zoning districts.
R-1-A One-Family Residence District	
R-2 One- and Two-Family Residence District	One- and two-family detached dwellings, licensed adult family homes, and transient rentals of residential property are permitted within this zoning district. Planned development projects, dwelling groups, and multifamily dwellings in specified areas are conditionally permitted.
R-3 Multifamily Residence District	One- and two-family detached dwellings, multifamily dwellings, licensed adult family homes, and transient rentals of residential property are permitted within this zoning district. Planned development projects, boarding houses, nursing homes, group retirement homes, tourist homes along primary throughfares, dwelling groups, attached single-family dwellings, and patio homes are conditionally permitted.
B-1 Neighborhood Business District	Principal permitted uses include retail business or service establishments primarily for neighborhood residents. Planned development projects allowed as a conditionally permitted use. Residential land uses permitted on properties adjacent to a residential zoning district.
B-2 Downtown Business District	Principal permitted uses include most retail businesses and service establishments permitted in the B-1 zoning district. Permitted uses also include, but are not limited to office buildings, commercial studios, and hotels. Residential land uses permitted on properties adjacent to a residential zoning district.
B-3 General Business District	Principal permitted uses include businesses and establishments permitted in the B-2 zoning district. Permitted uses also include, but are not limited to, storage and warehousing businesses, automotive establishments, commercial recreation, sheet metal shops, and freight terminals. Residential land uses permitted on properties adjacent to a residential zoning district. Planned development projects are conditionally permitted.

Source: Codified Ordinances of Huron (Part Eleven – Planning and Zoning Code)

Note: Zoning districts that do not permit residential development not included in table above.

The City of Huron zoning code allows residential development to some degree in both residential and commercial zoning districts. Residential districts have separate designations for single-family and multifamily dwellings, while commercial zoning districts primarily govern which types of retail, office, and warehouse establishments can be placed in specific districts. Note that planned development projects, which allow for greater flexibility for proposed residential and/or mixed-use projects, are permitted in all residential zoning districts and most commercial zoning districts. Commercial zoning districts in Huron also permit residential development for properties that are adjoining a residential district.

In September 2021, Huron released an [update to its comprehensive plan](#) (Vision 2020) that was originally published in 2012. The updated plan noted changes that occurred in the community since 2012, which included implementation of goals stated in the original plan. One of the Vision 2020 Plan goals was to *transform the City's underutilized waterfront, once dominated by industry and manufacturing, into a first-class destination and focal point of the community where mixed-use*

development and recreational facilities come together. Priority initiatives for the city were also outlined as part of the original 2012 plan, including a goal to diversify and expand the community’s housing options. One of the focus areas for new housing is the 11-acre former ConAgra site. As of December 2022, a preliminary site plan for this waterfront site notes that approximately 70 for-sale residential units could be built along with a mixed-use building, a parking structure, and dock space (Source: [Sandusky Register](#)).

Zoning Districts – Perkins Township

Perkins Township – Zoning Districts – Zoning Resolution	
Zoning District	Description
A Agricultural District	Principal permitted uses include agriculture and single-family residential dwellings. Bed and breakfast homestays and tourist homes are a conditionally permitted land use within this zoning district.
R-R Rural Residential	Primary purpose of this zoning district is to ensure compatibility of non-farm dwellings within rural surroundings. Principal permitted uses include agriculture and single-family residential dwellings. Bed and breakfast homestays between one and three guest rooms are a conditionally permitted land use.
R-1 Single-Family Residential District	Purpose of these zoning districts is to provide single-family residential development in areas served by public water and sewer facilities. Single-family dwellings are permitted in these zoning districts.
R-1A Single-Family Residential District	
R-1B Single-Family Residential District	
R-2 Two-Family Residential District	Designed to provide for one- and two-family residential development on relatively small lots. Single-family and two-family dwellings are permitted in this zoning district.
R-3 Multi-Family Residential District	Designed to provide for a multiple housing environment primarily consisting of townhouse and apartment units. Principal permitted uses in this zoning district include multiple-family dwelling units, housing for the elderly, convalescent and/or nursing homes, and boarding/rooming houses.
C-1 Local Commercial District	Intended for retail business and service uses which are needed to serve nearby residential areas. Residential use in conjunction with commercial use (e.g., mixed-use) is conditionally permitted, provided that such use is limited to one dwelling unit that is occupied by the owner/operator of the commercial business.
C-2 General Commercial District	Designed to accommodate types of businesses including, but not limited to, businesses that serve passing motorists, those requiring large sites, and major shopping centers. Residential use in conjunction with commercial use (e.g., mixed-use) is conditionally permitted, provided that such use is limited to one dwelling unit that is occupied by the owner/operator of the commercial business.
REC Recreational District	Purpose of this zoning district is to encourage planned development of recreation facilities in the community. Seasonal residences, RV trailer parks, and campgrounds are conditionally permitted uses within this zoning district.
PUD Planned Unit Development	Defined as a development which may integrate residential, commercial and industrial facilities in a pre-planned environment under more flexible standards than restrictions that would normally apply under these zoning regulations. Residential, commercial, manufacturing, public, and quasi-public uses may be separate or combined within a PUD district. Final development plan subject to review and approval by Township Trustees.
FFW Floodplain, Floodway, & Wetland Overlay District	Designed to protect lands subject to predictable inundations of water at frequent intervals. Residential development is not permitted within any floodway. Residential development is permitted within a <i>floodplain</i> if the lowest floor (including basement) is elevated to or above the base flood level. Zoning permits for new development in this district subject to plan review to ensure that buildings and structures are constructed with materials that are resistant to flood damage. Applications for a floodplain permit are also required by the Erie County Regional Planning Commission.

Source: Perkins Township Zoning Resolution (Article 10 – Zoning Districts & Boundary Interpretations)

The Perkins Township zoning code has a variety of districts devoted to agricultural, recreational, residential, and commercial uses. Several zoning districts in the township allow for some form of residential development. The Agricultural and Rural Residential zoning districts aim to preserve agricultural and rural environments while allowing single-family residential housing. Two-family dwellings, multifamily dwellings and housing for elderly persons is permitted in higher-density residential zoning districts. Residential development options are limited to one unit in mixed-use buildings within the C-1 and C-2 zoning districts. The Planned Unit Development (PUD) district does allow for flexible standards that are generally not available in residential and commercial zoning districts. The PUD district does allow mixed-use development that includes residential uses subject to review and approval by Perkins Township Trustees. Although the PUD district does allow mixed-use development, the lack of options for residential development in commercial districts may need to be reevaluated in order to allow increased housing opportunities in the township.

Perkins Township published its most recent [Comprehensive Plan](#) in 2020. This plan analyzes existing conditions and future development pertaining to land use and housing in the township. This plan also outlines goals pertaining to residential development along with recommendations to allow stated goals to be reached. Among the stated goals of this plan is to *encourage attractive new mixed-use development in appropriate areas*. Note that a significant portion of current land use in Perkins Township is devoted to commercial enterprises due to the township's location along U.S. Highway 250, a major commercial arterial in the Firelands Region. Residential land uses are primarily devoted to single-family units in subdivisions. A future land use map included in the Comprehensive Plan highlights areas devoted to mixed-use development near U.S. Highway 250. This plan recommends that the Planned Unit Development zoning district be utilized for medium-density projects. Based on a review of the PUD District earlier in this section, it appears that regulations and guidelines outlined in the PUD zoning district can aid in achieving this development goal.

The city of Sandusky is the principal city in Erie County and the Firelands Region. Sandusky is also the seat of government for Erie County. A summary of zoning districts, residential building codes, and associated policies for Sandusky is listed as follows:

Zoning Districts – City of Sandusky

City of Sandusky – Zoning Districts – Code of Ordinances	
Zoning District	Description
AG Agricultural	Established to preserve quality farmland and to encourage agricultural related occupations. Single-family dwellings are permitted within this zoning district.
RS Suburban Residential	Single-family dwellings are permitted within these zoning districts. Renting of rooms and accessory living accommodations are permitted for accessory/subordinate use.
R1-75 One-Family-75 Residential	
R1-60 One-Family-60 Residential	
R1-50 One-Family-50 Residential	
R1-40 One-Family-40 Residential	Manufactured homes are permitted within this zoning district. Renting of rooms and accessory living accommodations are permitted for accessory/subordinate use.
R2F Two-Family Residential	Two-family dwellings and manufactured homes are permitted within this zoning district. Rooms for tourists are permitted for accessory/subordinate use.
RMF Multi-Family Residential	Apartments, row houses, two-family dwellings and manufactured homes are permitted within this zoning district. Rooms for tourists are permitted for accessory/subordinate use.
RRB Residential-Business	Apartments, apartment hotels, rooming houses, row houses, two-family dwellings and manufactured homes are permitted within this zoning district. Rooms for tourists are permitted for accessory/subordinate use.
P Automobile Parking District	Permitted uses include parking areas, accessways, and storage garages for passenger automobiles. Dwellings permitted in the least restrictive contiguous district are also permitted in the Automobile Parking District.
LB Local Business District	Permitted uses include retail stores and services wholly within enclosed buildings devoted to supplying neighborhood needs. Dwellings permitted in the least restrictive contiguous district are also permitted in the Local Business District.
RB Roadside Business District	Permitted uses include retail stores and services either wholly within enclosed buildings or adjoining and operating in connection with other enclosed buildings. Hotels, motels, and transient occupancy dwellings permitted in this zoning district.
DB Downtown Business District	Purpose of this district is to allow for a variety of business, commercial, and residential mixed uses with an emphasis on tourism related activities. Single-family, two-family, and multifamily residential uses permitted in buildings above the first floor. Transient occupancy units are also permitted within this zoning district.
CR Commercial Recreation District	Single-family dwellings, two-family dwellings, boathouses, motels, and transient occupancy units are all permitted within this zoning district.
CA Commercial Amusement District	Principal land uses include amusement establishments such as Ferris wheels, roller coasters, merry-go-rounds and similar midway attractions. Hotels, motels, and transient occupancy units permitted within this zoning district. No residential units shall be constructed or maintained unless secondary or incidental to principal land uses permitted within this zoning district.
CS Commercial Services District	Hotels, motels, and transient occupancy units permitted within this zoning district. Multifamily residences within structures listed on the National Register of Historic Places permitted as a conditional use.
LM Limited Manufacturing District	Established to provide sufficient areas for manufacturing to promote employment and to strengthen the local economy. A conditional use permit is required for new construction of dwellings and accessory buildings under the guidelines of the Residential-One-Family-40 zoning district. Any new residential building must be located not more than one lot away from an existing residential use or more than 50% of the lots on the same side of the street must be existing residential land uses.

Source: Sandusky Code of Ordinances (Part Eleven – Planning and Zoning Code)

Sandusky has structured its residential and commercial zoning districts to acknowledge its tourism industry. Residential zoning districts allow accessory living accommodations and room rentals, while commercial zoning districts generally allow transient occupancy dwellings. Multifamily dwellings are permitted in the RMF (Residential Multi-Family) District and the RRB (Residential-Business) District. Note that the DB (Downtown Business) District permits mixed-use development that limits residential units to the upper floors of buildings, therefore allowing ground floor units to remain as retail/commercial uses. The Sandusky zoning code also allows residential uses within commercial properties that are adjacent to a residential district. Manufactured homes are conditionally permitted in the LM (Light Manufacturing) District based on the guidelines of the R1-40 zoning district.

The City of Sandusky established a [Residential Tax Abatement Program](#) within its city-wide Community Reinvestment Area (CRA). This tax abatement program is for new residential construction and rehabilitation projects. As part of this program, homeowners are eligible for a 10-year 75% tax abatement based on overall home value (new construction) or increased home value (rehabilitation). Single-family, two-family, and three-family residential structures within the CRA are eligible for this program. The minimum investment amount is \$2,500 for single-family and two-family structures and \$5,000 for three-family structures. Post-construction and post-renovation property values are determined by the Erie County Auditor for tax abatement purposes.

The City of Sandusky also administers a [Housing Development and Beautification Program](#) for residential properties in the city consisting of three or fewer units. Program guidelines state that funding is available for substantial redevelopment (including new construction), exterior repairs, and home purchase assistance. Maximum fund amounts per property range from \$3,000 for exterior repairs to \$7,500 for new construction. Applications are accepted by the City on a first-come, first-served basis. Residential structures eligible for this program must be occupied by primary residents (e.g., homeowners or long-term tenants) and renovation activity must not permanently displace residents. The City of Sandusky is currently accepting applications for 2023.

Note that the city of Vermilion is located in both Erie and Lorain counties. Although Lorain County is outside the boundaries of the Firelands Region as defined in this report, we have included the Lorain County portion of the city in our regulatory analysis.

Zoning District – City of Vermilion

City of Vermilion – Zoning Districts – Codified Ordinances	
Zoning District	Description
A-1 Agricultural District	Designed for use in areas of the city in which land is primarily agricultural or undeveloped. Farms, agriculture, and single-family residences are permitted within this zoning district.
R-1 Estate Residence District	Created specifically for use in areas in which there are residences located on larger than average sized lots and in areas of the city where low residential density is desired. Farms, agriculture, single-family residences and cluster subdivisions are permitted within this zoning district.
R-2 Rural Residence District	Provides for areas of low residential density and to stabilize and protect areas where low residential densities exist. Single-family residences are permitted within this zoning district. Cluster subdivisions are permitted as a conditional use.
R-3 Suburban Residence District	Provides for areas of medium residential density in the city. Single-family residences are permitted in this zoning district. Cluster subdivisions are permitted as a conditional use.
R-4 Urban Residence District	Provides for high-density residential areas in the city. Single-family residences are permitted in this zoning district. Cluster subdivisions are permitted as a conditional use.
R-4a Two-Family Urban Residence District	Provides for high-density residential areas that include two-family residential structures. Single-family and two-family residences are both permitted in this zoning district. Cluster subdivisions are permitted as a conditional use.
R-5 Apartment Residence District	Provides a set of reasonable standards for the development of apartments in the city while including a variety of housing types in suitable locations. Two-family duplex buildings and multiple-family dwellings are permitted uses within this zoning district. Cluster subdivisions are permitted as a conditional use.
R-6 Special Family Residence District	Created to provide for areas of medium residential density including townhouses, three-family dwellings, and four-family dwellings, all of which are permitted uses within this zoning district. Single-family residences are also permitted based on rules regarding the development of cluster subdivisions.
RS Special Residence District	Created to provide reasonable regulations for development of areas of the city with less than average lot sizes. The Special Residence District is only applicable within specific subdivisions, allotments, and streets in the city as described in the zoning ordinance. Single-family residences are permitted within this zoning district. Bed and breakfast establishments in the Harbour Town Historic District are permitted as a conditional use.
RL-1 Existing Lagoon District	Created to provide reasonable regulations for the development of special flood hazard areas per current Flood Insurance Study data for the city. The Existing Lagoon District is only applicable within specific subdivisions in the city as described in the zoning ordinance. Single-family residences are permitted within this zoning district. Development in the Existing Lagoon District shall comply with flood damage reduction requirements set forth in the zoning ordinance.
B-1 Neighborhood Business District	Created to provide for the retailing of convenience goods and the furnishing of personal services that satisfy household and personal needs of abutting residential neighborhoods. Single-family residences are permitted as a conditional use within this zoning district.
B-2 Central Business District	Created to provide retailing, parking, personal services, and business services to satisfy the needs of city residents and those residing in the surrounding trade area. Residential uses are permitted as conditional uses upon favorable recommendation by the Planning Commission.
PUD Planned Unit Development	Provides for the regulation of orderly developments by offering a greater choice of living environments to include a complimentary blending of land uses in the city. The PUD District designation may be applied to any residential, commercial, or industrial developments subsequent to approval by Vermilion City Council. Residential, commercial, manufacturing, public, and quasi-public uses may be separate or combined within PUD Districts.

Source: City of Vermilion Codified Ordinances (Part Twelve – Planning and Zoning Code)

Note: Zoning districts that do not allow residential development were not included in the table above

The City of Vermilion zoning code includes several residential districts that permit a variety of residential land uses, including single-family zoning districts that permit low-, medium-, and high-density uses. Note that cluster subdivisions, which allow for dense single-family development while preserving open space, are permitted by right in the R-1 Estate Residential District and conditionally permitted in several other residential districts. Multifamily development is primarily permitted in the R5 and R6 zoning districts. The zoning code also includes the RL-1 Existing Lagoon District, which provides regulations for the development of single-family dwellings within flood hazard areas. Commercial zoning districts conditionally permit residential development that includes single-family dwellings. The Planned Unit Development (PUD) District allows for residential development either independent of or mixed with other land uses.

HURON COUNTY

The cities of Bellevue, Norwalk, and Willard are the three largest municipalities in Huron County. A summary of zoning districts, residential building codes, and associated policies for each of the three municipalities are listed as follows:

Note that portions of the city of Bellevue are located in Erie, Huron, Sandusky, and Seneca counties. Residential areas of the city are located in Huron and Sandusky counties, while much smaller portions of the city limits are located in Erie and Seneca counties. Although Sandusky and Seneca counties are outside the boundaries of the Firelands Region as defined in this report, we have included the entire city in our regulatory analysis.

Zoning Districts – City of Bellevue

City of Bellevue – Zoning Districts – Codified Ordinances	
Zoning District	Description
R-S Residential Suburban	Provide for areas of very low density residential development. Single-family detached dwellings and permanently sited manufactured homes are permitted uses within this zoning district. Nursing homes are permitted as a conditional use.
R-1 Single-Family Residential	Provide for areas of low to medium density residential development. Single-family detached dwellings and permanently sited manufactured homes are permitted uses within this zoning district.
R-2 Mixed Residential District	Purpose of this zoning district is to permit a variety of residential development types, including single-family, two-family, and three-family dwellings. Single-family dwellings, two-family dwellings, and permanently sited manufactured homes are permitted in this zoning district. Three-family dwellings are permitted by conditional use.
R-H Residential Historic District	Purpose of this zoning district is to allow professional offices and other low impact, compatible land uses within a residential district through adaptive re-use of existing structures. Single-family detached, two-family, and three-family dwellings are permitted in this zoning district. Boarding houses and dwellings in mixed-use buildings are permitted as a conditional use.
R-3 Multiple-Family Residential District	Provide for areas of multiple-family residential development including apartment buildings, condominiums, and manufactured home parks, which are all permitted uses. Single-family attached and detached dwellings, two-family dwellings, three-family dwellings, multifamily dwellings, boarding houses, and permanently sited manufactured homes are also permitted within this zoning district.
B-1 Central Business District	Encourage the viability of the commercial core of the city by locating more intensive commercial land uses near each other. Dwelling units in mixed-use buildings and nursing homes are permitted within this zoning district. Boarding houses are permitted as a conditional use.
B-2 General Commercial District	Accommodate commercial uses that require large lots and/or highway oriented businesses that require frontage along a major thoroughfare. Nursing homes are permitted within this zoning district. Dwelling units in mixed-use buildings and boarding houses are permitted as a conditional use.
PUD Planned Unit Development District	Purpose of the PUD District is to establish a permissive zoning procedure for residential development in accordance with an approved development plan. A variety of residential uses are permitted in a PUD District, including single-family attached/detached dwellings, two-family dwellings, three-family dwellings, multi-family dwellings, permanently sited manufactured homes, dwelling units in mixed-use buildings, and manufactured home parks.

Source: City of Bellevue Codified Ordinances (Parts Eleven and Twelve – Planning and Zoning Code)

The City of Bellevue zoning code allows single-family dwellings in all residential zoning districts. In addition, the zoning code has a Mixed Residential Zoning District (R-2) that allows a variety of residential structure types up to three units. The R-H (Residential Historic) District was created to allow adaptive re-use of older structures to include mixed-use dwellings. Note that mixed-use dwellings are permitted in the Central Business District and conditionally permitted in the General Commercial District. Lastly, the Planned Unit Development District permits a wide variety of residential use types in accordance with an approved development plan. Overall, it appears that the City of Bellevue zoning code has flexibility to allow various types of residential development.

The City of Bellevue offers a [tax exemption program](#) for new residential construction and rehabilitation of existing residential structures within its city-wide Community Reinvestment Area (CRA). Residential new construction in the CRA is eligible for a 15-year, 100% tax exemption. Residential remodeling of a one-unit or two-unit structure with a minimum investment of \$2,500 is eligible for a 10-year, 100% tax exemption, while remodeling of a three-unit residential structure with a minimum investment of \$5,000 is eligible for a 12-year, 100% tax exemption. There are no individual or household income-level restrictions to qualify for tax exemptions. These tax exemptions also transfer with the property if sold during the stated tax exemption period.

Zoning Districts – City of Norwalk

City of Norwalk – Zoning Districts – Codified Ordinances	
Zoning District	Description
R-1 One-Family Residence District	Encourage the establishment of single-family residences with a maximum density of six dwelling units per acre. Single-family dwellings and adult group residential facilities are permitted within this zoning district. Bed and breakfast operations along state or federal highways and elderly housing utilizing an existing non-residential structure are permitted as conditional uses.
R-2 One- and Two-Family Residence District	Established to provide a district containing single-family and two-family dwellings with a density of approximately 11 units per acre. Single-family dwellings, two-family dwellings, and adult group residential facilities are permitted within this zoning district. Conversion of existing homes to two-family dwellings is permitted as a conditional use, provided that lot area and yard requirements for two-family dwellings are met.
R-3 Multi-Family Residence District	Established for the purpose of providing a multi-family district along with small lot sizes for single-family housing. Density within this zoning district is 17 units per acre. Single-family dwellings, two-family dwellings (including zero lot line units), multiple-family dwellings and adult group residential facilities are permitted within this zoning district.
MHP Manufactured Park District	Purpose of this district is to provide for the location and regulation of manufactured home parks in the community. Manufactured home parks and retail sales establishments for manufactured homes are permitted in this zoning district. Enlargement of pre-existing manufactured home parks is permitted as a conditional use.
B-1 Local Business District	Purpose of this district is to encourage the establishment of areas for convenience business uses meeting the needs of the immediate neighborhood. Single-family dwellings, two-family dwellings (including zero lot line units), multiple-family dwellings and adult group residential facilities are permitted within this zoning district.
B-2 Downtown Business District	Established to provide and encourage further expansion and renewal in the historic core business area of the community. Single-family dwellings, two-family dwellings (including zero lot line units), multiple-family dwellings and adult group residential facilities are permitted within this zoning district.
B-3 Outlying Business District	Purpose of this district is to encourage the establishment of business and commercial uses compatible with adjoining residential areas in outlying areas of the city. Single-family dwellings, two-family dwellings (including zero lot line units), multiple-family dwellings and adult group residential facilities are permitted within this zoning district.
B-4 General Business District	Purpose of this zoning district is to encourage the establishment of business uses along arterial throughfares to meet the needs of a regional market area. Single-family dwellings, two-family dwellings (including zero lot line units), multiple-family dwellings and adult group residential facilities are permitted within this zoning district.
MB Manufacturing-Business District	Purpose of this zoning district is to provide a mixture of manufacturing and business uses. Residential uses are also permitted in this zoning district, which include single-family dwellings, two-family dwellings (including zero lot line units), multiple-family dwellings and adult group residential facilities.
PUD Planned Unit Development District	Purpose of the PUD District is to achieve land development that is responsive to natural and environmental assets and liabilities of a given site. Provides an alternative zoning category intended to encourage imaginative design of development. PUDs consists of two types: PUD-RS (predominately residential development) and PUD-MX (mixed-use development). Both types of PUDs are permitted uses within this zoning district.

Source: City of Norwalk Codified Ordinances (Part Eleven – Planning and Zoning Code)

Zoning districts that do not permit residential development were not included in the table above.

The City of Norwalk zoning code permits a wide variety of residential uses within numerous zoning districts. Single-family dwellings are permitted in the R-1, R-2, and R-3 zoning districts, while commercial districts and the Manufacturing-Business mixed-use district allow single-family, two-family, and multifamily dwellings. The zoning code also includes a Manufactured Park District (MHP) specifically for manufactured housing, which is not permitted in any other zoning district. The zoning code also includes a Planned Unit Development District for both predominately residential projects and mixed-use projects.

Zoning Districts – City of Willard

City of Willard – Zoning Districts – Codified Ordinances	
Zoning District	Description
R-1 Single-Family Residence District	Purpose is to create living areas of low population density for single-family dwellings. Single-family dwellings are permitted within this zoning district.
R-2 Single-Family Residential	Purpose is to provide a location for medium-sized residential lots. Single-family dwellings are permitted within this zoning district.
R-3 Single-Family Residential	Purpose is to recognize existing conditions of housing stock in older residential sections of the city. Single-family dwellings are permitted within this zoning district. Construction of or conversion to a two-family dwelling is permitted as a conditional use.
R-4 Multi-Family Residential	Purpose is to create living areas of moderate density consisting of two-family and multiple-family dwellings. This zoning district should be near collector/arterial streets and community support facilities such as public transportation, shopping, schools, and parks. Single-family dwellings, two-family dwellings, apartment buildings, group homes, condominiums and townhouses are all permitted uses within this zoning district. Nursing homes, rest homes, and homes for the aged are permitted as a conditional use.
B-2 Central Business District	This zoning district comprises the downtown section of the city, primarily containing stores, business services, banks, offices, and government buildings. Multiple-family structures (including mixed-use structures), tourist homes, and rooming/boarded houses are permitted uses within this zoning district.
B-3 Office Commercial	Purpose is to provide for uses that are primarily professional or office-based institutions in a neighborhood with lower intensity uses compared with other commercial districts. Nursing, assisted living, or convalescent facilities are permitted in this zoning district. Multiple-family dwellings are permitted as a conditional use.

Source: City of Willard Codified Ordinances (Part Eleven – Planning and Zoning Code)

The City of Willard zoning code includes residential districts specifically for single-family and multifamily dwellings. The Multi-Family Residential (R-4) District allows for a wide range of residential structures, including single-family dwellings, apartments, townhouses, and condominiums. Structures housing the elderly population are permitted in the R-4 District as a conditional use. Multifamily structures are also permitted by right in the Central Business District and permitted by conditional use in the Office Commercial District.

The City of Willard established a city-wide [Community Reinvestment Area \(CRA\)](#) in 2017. New construction of one-unit and two-unit residential properties in the CRA are eligible for a 15-year, 100% tax exemption. Single-family homes and condominium units are eligible. Note that these residential units must be owner occupied according to the terms of this program. Renter-occupied units are not eligible for this program.

Huron County last revised its [Comprehensive Land Use Plan](#) in 2017. A section of this plan is devoted to residential land use in the county. This plan notes that new residential development in the county has largely been driven by households originating from urban areas outside of the county, resulting in several communities in the county experiencing increases in housing development. Rural areas of Huron County have also experienced single-family development on acreage formerly used for agricultural purposes. The plan noted that development of single-family homes on acreage formerly utilized for agricultural purposes, open space, or forest land is *perhaps the most significant trend that is impacting land use issues in the county*. To help promote orderly development in the future, the plan recommended having uniform zoning regulations in all townships as well as preserving prime agricultural areas.

OTTAWA COUNTY

Port Clinton is the largest city in Ottawa County and also serves as the county seat of government. A summary of zoning districts, residential building codes, and associated policies for Port Clinton is listed as follows:

Zoning Districts – City of Port Clinton

City of Port Clinton – Codified Ordinances	
Zoning District	Description
R-1 Low Density Residential District	Purpose is to promote the orderly development of low-density single-family residential uses. Single-family dwellings permitted in this zoning district.
R-3 Medium High Density Residential District	Purpose is to promote the orderly development of medium high density single- and two-family residential uses. Single-family dwellings and two-family dwellings are permitted in this zoning district. Nursing homes and assisted living facilities are permitted as a special use.
R-4 High Density Residential District	Purpose is to promote the orderly development of high-density single-family, two-family, and multiple-family residential uses. Single-family dwellings and multiple-family dwellings are permitted within this zoning district. Two-family dwellings, manufactured home parks, manufactured home subdivisions, owner-occupied residential condominiums, nursing homes and assisted living facilities are permitted as a special use.
LB Local Business District	Purpose is to encourage the development of commercial uses near residential areas for shopping and service needs. Single-family dwellings, two-family dwellings, multiple-family dwellings, nursing homes and assisted living facilities are permitted as a special use.
GB General Business District	Purpose is to encourage the development of commercial uses that serve the larger community. Single-family dwellings, two-family dwellings, multiple-family dwellings, residential condominiums (owner-occupied and mixed-occupancy), nursing homes and assisted living facilities are permitted as a special use.
CB Central Business District	Purpose is to encourage the development of those commercial uses which serve the larger community while guiding growth and development of the core business district. Single-family dwellings, two-family dwellings, multiple-family dwellings, residential condominiums (owner-occupied and mixed-occupancy), nursing homes and assisted living facilities are permitted as a special use.
WB Waterfront Business District	Purpose is to provide areas for development of commercial uses along waterfront areas. Single-family dwellings, two-family dwellings, multiple-family dwellings, floating dwellings/floating dwelling communities, residential condominiums (owner-occupied and mixed-occupancy), nursing homes and assisted living facilities are permitted as a special use.
AB Accommodation Business District	Purpose is to provide areas for development of commercial uses that serve the motoring public. Single-family dwellings, two-family dwellings, multiple-family dwellings, nursing homes and assisted living facilities are permitted as a special use.
PB Professional Business District	Purpose is to allow for specific professional businesses to develop within designated residential neighborhoods. Single-family and two-family dwellings are permitted within this zoning district.
M-1 Light Manufacturing District	Purpose is to encourage but regulate the development of limited nuisance manufacturing enterprises. Single-family dwellings, two-family dwellings, multiple-family dwellings, residential condominiums (owner-occupied and mixed-occupancy), nursing homes and assisted living facilities are permitted as a special use.
M-2 Heavy Manufacturing District	Purpose is to encourage but regulate the development of heavy manufacturing enterprises. Single-family dwellings, two-family dwellings, multiple-family dwellings, residential condominiums (owner-occupied and mixed-occupancy), nursing homes and assisted living facilities are permitted as a special use.
PUD Planned Unit Development	The intent and purpose of a Planned Unit Development is to allow a variety of housing and complementary commercial uses while preserving overall density objectives set by zoning regulations. PUD regulations are also meant to allow a more efficient use of land than is generally achieved through conventional development. Detached single-family dwellings, zero lot lines units, attached twin single units, townhouses, condominium units, and other residential-oriented uses approved by the Planning Commission. Commercial uses in a PUD must be complementary to any residential uses proposed.

Source: City of Port Clinton Codified Ordinances (Part Eleven – Planning and Zoning Code)

Note: Zoning districts that do not permit residential land uses were excluded from this analysis

Residential zoning districts in the Port Clinton zoning code permit several unit types either by right or by special use. Residential unit types permitted in these zoning districts include single-family dwellings, two-family dwellings, multifamily structures, nursing homes and assisted-living facilities. Note that commercial and industrial zoning districts in Port Clinton also permit a variety of residential properties as a special use, which allows the City flexibility in its zoning code in case the highest and best use of properties in these zoning districts changes to less-intensive uses. The Planned Unit Development (PUD) District established by Port Clinton favors residential development, as any commercial use proposed must be complementary to proposed residential use. Unit types permitted in the PUD District include single-family attached and detached dwellings, townhouses, and condominiums.

Conclusion

Based the review of regulatory provisions of selected communities within the Firelands Region, it appears that zoning designations permit a wide range of residential uses, while also providing some flexibility through conditional use permits. While the actual language and permitted residential uses vary between communities, it appears that all communities have zoning in place to allow for single-family, multifamily, permanently sited manufactured homes, and various senior-oriented housing property types. Some communities appear to have specific language either in zoning ordinances or through land use plans to encourage specific uses (e.g., waterfront community residential development, senior care housing along state or federal highways, etc.) and at least one community has language within its zoning ordinances that supports adaptive reuse projects (the repurposing of non-residential structures into residential uses). Several communities acknowledge the role short-term vacation rentals play in their respective market by establishing zoning districts that allow some form of boarding houses, homestays, tourist homes, or room rentals. Other communities have specific language that permits residential units in conjunction with commercial uses, though at least one community appears to have limited residential options in its commercial districts. Overall, while there is some inconsistency between the language and residential uses permitted between communities, it appears that zoning districts within the areas studied in the subject region allow for a broad mix of residential uses and do not appear to serve as barriers to residential development. Communities will want to continue to periodically review their zoning codes to ensure they meet the growing or changing housing needs of their respective communities.

G. DEVELOPMENT COSTS

This section evaluates potential financial barriers to residential development in counties that make up the Firelands Region. For the purposes of this analysis, potential barriers to development include land costs, labor costs, utility installation costs, and taxes and assessments, all of which can affect development costs and impact whether or not a residential project is built. A summary of financial factors influencing residential development in the Firelands Region is provided in this section.

Land costs, including acquisition costs and taxes, factor into the development of real estate and could be a potential barrier to development. When land costs are bundled into construction costs, a greater picture emerges of overall development costs. Availability of land suitable for development, which typically includes access to utilities and municipal water and sewer, also affects land costs.

A search for vacant land for sale on Realtor.com indicated 314 active listings within the Firelands Region as of January 2023. The following table lists active land listings by county and acreage.

Vacant Land Listings by Acreage Range – Firelands Region				
Number of Land Listings (Share of Listings)				
	< 1 acre	1 to 10 acres	> 10 acres	Total
Erie County	75 (48.4%)	60 (38.7%)	20 (12.9%)	155 (100.0%)
Huron County	49 (74.2%)	12 (18.2%)	5 (7.6%)	66 (100.0%)
Ottawa County	59 (63.4%)	23 (24.7%)	11 (11.8%)	93 (100.0%)
Firelands Region	183 (58.3%)	95 (30.3%)	36 (11.5%)	314 (100.0%)

Source: Realtor.com

Nearly 60% of vacant land listings in the Firelands Region are less than one acre in size. These smaller parcels are, in most cases, infill lots in established cities or individual lots within active residential subdivisions. Individual smaller lots are not suitable for large-scale residential development. A notable share (30.3%) of vacant land available for sale in the region is between one and 10 acres. Residential land at the lower end of this size range may be suitable for smaller multifamily developments consisting of duplexes and fourplexes, while residential land at the upper end of this size range may be suitable for a complex of larger apartment buildings. Note that only 11.5% of vacant land available for sale in the region is over 10 acres in size, which is suitable for large apartment complexes and/or mixed-use developments with a residential component. The preceding table is only meant to portray an overall picture of vacant land available in the Firelands Region. It is possible that many of these available parcels may not be suitable for development due to a lack of acreage, access to utilities, or may not be zoned for residential development. Any or all of these factors would likely reduce the viability of a parcel for residential development.

Note that lots located in subdivisions with access to all utilities and premium views (e.g., lakeview) tend to have the highest prices per acre. By comparison, land in unincorporated areas of each county without access to public utilities tends to have a much lower price per acre. Vacant residential lots in lower price ranges generally require substantial site work (i.e., removal of trees, land grading) in order to be ready for development.

A common barrier to development is the *lack of available land* within a municipality or county for a large-scale residential project. The type of vacant parcel needed for a large-scale residential project typically has to meet several criteria, including availability of water and sewer lines, generally level topography, a location outside of a designated flood zone, and proximity to community services. Once taking these factors into account, the number of available parcels suitable for development greatly diminishes. This in turn drives up prices for land that meets most or all of these criteria.

A search for land sales between August 2002 and January 2023 in the Firelands Region of parcels that could potentially support multifamily residential development yielded few suitable parcels. Several properties consisting of vacant acreage were uncovered as part of our analysis. However, many of these properties were classified as agricultural or industrial by local or county government. Note that agricultural properties are typically located away from cities and major development areas and may not have access to utilities necessary for higher-density development. In addition, industrial acreage may be surrounded by other industrial properties that would not be conducive for residential development.

A total of five recent land sales of over 10 acres each were found at locations classified as residential or commercial by county auditor’s offices in the Firelands Region. A summary of these recent land sales is illustrated in the following table:

Firelands Region - Recent Land Sales (Sales from August 2022 to January 2023)						
Property Address	City/Area	County	Sale Date	Sale Price	Acres	Price per Acre
Toussaint Road South	Oak Harbor	Ottawa	1/10/2023	\$157,900	23.26	\$6,788
East State Route 163	Marblehead	Ottawa	12/30/2022	\$1,755,000	82.23	\$21,343
East Harbor Road	Marblehead	Ottawa	9/1/2022	\$429,228	22.10	\$19,422
Berlin Road	Huron	Erie	8/18/2022	\$650,000	29.70	\$21,886
Bauer Road	Bellevue	Huron	9/9/2022	\$80,000	10.37	\$7,715

Source: Realtor.com, Erie County Auditor, Huron County Auditor, Ottawa County Auditor

The land sales displayed in the preceding table range from \$6,788 to \$21,886 per acre. The 82.23-acre parcel of land sold at East State Route 163 in Marblehead (Ottawa County) was marketed as a waterfront development opportunity. Note that only 25 acres of the 82.23-acre parcel is tillable land with the remaining portion consisting of water acreage. Considering land area only, the price per acre is higher than the \$21,343 figure in the table above. The Berlin Road parcel that sold in Huron is adjacent to State Route 2, a major arterial in the Firelands Region. The

Bauer Road parcel in Bellevue qualifies for a 15-year tax abatement for new construction, in which the lot owner only pays taxes on the land (not improvements).

A search for active land *listings* in the Firelands Region that could potentially support multifamily residential development was also conducted. This search uncovered the following relevant land listings:

Firelands Region - Current Land Listings (As of Jan. 27, 2023)					
Property Address	City/Area	County	List Price	Acres	Price per Acre
4714 Hayes Avenue	Sandusky	Erie	\$2,591,400	93.00	\$27,865
State Route 2 Bypass	Sandusky	Erie	\$1,517,600	54.20	\$28,000
U.S. Highway 250 (Milan Road)	Sandusky	Erie	\$2,950,000	45.58	\$64,721
Hoover Road	Milan	Erie	\$990,000	44.00	\$22,500
East Perkins Avenue	Sandusky	Erie	\$1,200,000	38.05	\$31,537
U.S. Highway 250 (Milan Road)	Milan	Erie	\$550,000	22.53	\$24,412
West Perkins Avenue	Sandusky	Erie	\$519,000	20.32	\$25,541
Biglow Parkway	New London	Huron	\$915,000	115.93	\$7,893
East State Route 163	Marblehead	Ottawa	\$2,475,000	29.50	\$83,898
State Route 269	Marblehead	Ottawa	\$675,000	25.50	\$26,471
Northwest Catawba Road	Port Clinton	Ottawa	\$960,000	21.08	\$45,541

Source: Realtor.com

Asking prices at the properties listed for sale in the Firelands Region range from \$7,893 to \$83,898 per acre, within a median land cost of \$27,865 per acre. Recent land sales previously illustrated are within the low end of this range. Note that asking prices for land listings over 10 acres in adjacent counties comparable to the Firelands Region are within this price range with an approximate average of \$35,000 per acre among these comparable land listings. Based on this analysis, it appears that prices for available land are not impacting development decisions when compared with nearby areas outside of the region.

Labor costs and availability of skilled and qualified labor are also important factors for development costs. The three counties that make up the Firelands Region (Erie County, Huron County, and Ottawa County) are part of the North Northeastern Ohio Nonmetropolitan Area according to the Bureau of Labor Statistics (BLS). For comparison purposes, labor cost data is also provided for the Cleveland-Elyria MSA, Toledo MSA, and the state of Ohio. According to BLS data, the median annual wage for construction and extraction occupations in the North Northeastern Ohio Nonmetropolitan Area is \$51,660. This is a lower mean annual wage for these occupations than the mean annual wage offered in the Cleveland-Elyria MSA, Toledo MSA, and the state of Ohio. Median annual wages for construction and extraction occupations in the North Northeastern Ohio Nonmetropolitan Area range from \$32,100 for Helpers of Electricians to \$65,620 for First-Line Supervisors. Note that Construction and Extraction Occupations only account for approximately 45 out of every 1,000 jobs in the North Northeastern Ohio Nonmetropolitan Area and also account for a lower share (approximately 33 out of every 1,000 jobs)

statewide. The Construction sector accounts for a very low share of the area and state job market, likely contributing to a shortage of skilled and qualified workers for construction projects. This shortage of skilled and qualified workers can often result in increased costs for construction projects, which in turn can result in higher home prices for buyers. This labor shortage in the construction sector appears to be an ongoing trend impacting much of the United States.

The following table illustrates the employment number, share, and corresponding typical annual wages for detailed occupations within the Construction & Extraction sector by nonmetropolitan area, MSA, and state. Note that only data for detailed occupational groups available for each area are shown in the following table. The three counties in the Firelands Regions are part of the North Northeastern Ohio Nonmetropolitan Area.

Typical Wages by Detailed Construction & Extraction Occupations

Occupation Type	North Northeastern Ohio Nonmetropolitan Area (Includes Erie, Huron & Ottawa counties)			Cleveland-Elyria MSA			Toledo MSA			Ohio		
	Employment		Mean Wage	Employment		Mean Wage	Employment		Mean Wage	Employment		Mean Wage
	Number	Share		Number	Share		Number	Share		Number	Share	
First-Line Supervisors of Construction Trades and Extraction Workers	1,240	8.8%	\$65,620	2,630	9.8%	\$68,520	870	8.9%	\$72,800	16,160	9.4%	\$69,570
Brickmasons & Blockmasons	170	1.2%	\$54,440	580	2.2%	\$61,710	120	1.2%	\$62,180	2,620	1.5%	\$60,110
Carpenters	1,250	8.9%	\$48,230	2,500	9.3%	\$54,940	1,130	11.6%	\$53,860	16,960	9.9%	\$51,600
Cement Masons and Concrete Finishers	480	3.4%	\$50,230	780	2.9%	\$54,030	270	2.8%	\$54,550	4,470	2.6%	\$52,280
Construction Laborers	3,300	23.5%	\$45,850	5,050	18.8%	\$50,440	1,550	15.9%	\$48,840	32,330	18.8%	\$48,060
Paving, Surfacing, and Tamping Equipment Operators	150	1.1%	\$51,100	180	0.7%	\$55,130	100	1.0%	\$48,690	1,350	0.8%	\$50,470
Operating Engineers and Other Construction Equipment Operators	1,460	10.4%	\$56,510	1,860	6.9%	\$63,750	810	8.3%	\$61,580	13,520	7.9%	\$59,770
Electricians	1,790	12.7%	\$56,520	3,540	13.2%	\$60,460	1,560	16.0%	\$65,370	23,980	13.9%	\$58,120
Painters, Construction and Maintenance	240	1.7%	\$42,110	1,290	4.8%	\$45,030	360	3.7%	\$48,690	5,500	3.2%	\$45,210
Plumbers, Pipefitters, and Steamfitters	780	5.6%	\$62,150	2,060	7.7%	\$64,110	700	7.2%	\$67,790	12,430	7.2%	\$62,780
Roofers	380	2.7%	\$41,980	720	2.7%	\$46,780	200	2.0%	\$46,100	4,840	2.8%	\$46,270
Sheet Metal Workers	280	2.0%	\$49,340	470	1.8%	\$59,050	150	1.5%	\$58,690	3,490	2.0%	\$56,540
Structural Iron and Steel Workers	220	1.6%	\$61,450	330	1.2%	\$63,760	440	4.5%	\$60,640	3,320	1.9%	\$61,570
Helpers-Electricians	110	0.8%	\$32,100	160	0.6%	\$34,170	40	0.4%	\$39,090	1,320	0.8%	\$33,970
Construction and Building Inspectors	170	1.2%	\$58,440	550	2.0%	\$68,180	110	1.1%	\$64,610	3,260	1.9%	\$63,550
Total	14,050	100.0%	\$51,660	26,830	100.0%	\$56,670	9,760	100.0%	\$57,940	171,950	100.0%	\$54,830

Source: Bureau of Labor Statistics (BLS) – May 2021

Total reflects all Construction and Extraction occupations.

Note that Construction and Extraction occupations not related to building construction excluded from table.

Based on a competitive analysis of wages in the construction sector depicted in the preceding table, the North Northeastern Ohio Nonmetropolitan Area (which includes counties in the Firelands Region) typically has slightly lower wages for construction occupations than the nearby Toledo MSA, Cleveland-Elyria MSA, and the state of Ohio. Lower median wages for construction occupations allow residential development costs to be competitive with nearby metropolitan areas.

Utility costs for natural gas and electric service, specifically the cost to tap into or run utility service at a specific location, also factors into overall development costs. Fees paid by the developer or contractor to establish natural gas and electric service are typically passed on to the buyer upon completion of a single-family house, condominium unit, or townhouse. The total price of a new residential home or unit often includes tap fees for water, sewer, electric and natural gas utilities, which can vary by location. In the Firelands Region, electric service is provided by several utility providers, as outlined in the following table:

Electric Utility Providers in Firelands Region		
Electric Utility Provider	Coverage Territory	Cities & Villages in Coverage Territory
Ohio Edison	Erie County Huron County (northern portion) Ottawa County (eastern portion)	Sandusky, Milan, Bellevue, Port Clinton, Marblehead
Firelands Electric	Huron County (southern portion)	New London, Greenwich
Lorain-Medina Rural Electric	Huron County (eastern portion) Erie County (far eastern portion)	Unincorporated areas
AEP Ohio	Huron County (far southern portion)	Willard
North Central Electric	Huron County (western and southwestern portions)	Unincorporated areas
Toledo Edison	Ottawa County (western portion)	Oak Harbor, Genoa

Source: Public Utilities Commission of Ohio (PUCO)

Natural gas utilities are provided by Columbia Gas of Ohio in all three counties of the region. Huron County is also served by two gas cooperatives: Consumers Gas Cooperative and Village Energy Cooperative. Both cooperatives require approval for membership before gas service begins.

Several cities and villages in the Firelands Region operate their own water and sewer systems within each corporation's limits. Sandusky, which is the largest city in the region by population, has a fee schedule for water tap connections to its system. Connection charges range from \$1,107.69 for a 5/8-inch water meter and 3/4-inch water tap to \$17,422.10 for a 12-inch water meter and 12-inch water tap. Sewer connection fees range from \$270.53 to \$2,164.24 based on water tap size. Sandusky also requires developers of property within a floodplain to submit a flood damage prevention development permit. The permit fee for residential properties is \$100 per lot and \$500 per site or structure for non-residential properties.

A table comparing water/sewer rates, tap fees, and connection fees for communities in the Firelands Region is below:

Tap Fees and Minimum Monthly Water/Sewer Fees and Rates Firelands Region (Resident Rates)						
Location	Water Tap Fee (3/4-inch)	Sewer Tap Fee (3/4-inch)	Minimum Monthly Water Fee	Water Base Rate	Minimum Monthly Sewer Fee	Sewer Base Rate
Sandusky	\$1,107.69	\$270.53	\$7.72	\$3.58/CCF	\$18.36	\$8.90/CCF
Erie County (District A)	\$1,500.00	\$1,500.00	\$19.25	\$4.69/CCF	\$18.23	\$6.14/CCF
Vermilion*	\$1,843.00	\$900.00	\$5.00	\$7.76/CCF	\$18.23	\$9.41/CCF
Huron*	\$1,050.00	\$900.00	\$17.37**	\$2.73/CCF	\$18.23	\$9.41/CCF
Norwalk	N/A	N/A	\$4.50	\$0.90/100 gal	\$6.00	\$1.20/100 gal
Bellevue	\$2,000.00	\$1,910.00	\$23.90	\$0.063001/CF	\$26.40	\$0.088034/CF
Willard	\$1,850.00	\$850.00^	\$20.40	\$8.90/first 1,000 gal	\$22.15	\$8.50/1,000 gal
Port Clinton	\$1,465.00	\$310.00	\$31.15^^	\$6.23/CCF	\$39.81^^	\$13.27/CCF

N/A – Information not available or could not be verified

CF = 1 cubic foot; gal = gallons; 1 CCF = 748 gallons

Water tap fee includes meter fees (3/4-inch), administrative fees, impact fees and labor fees where applicable.

Sewer tap fees include administrative fees and impact fees where applicable.

Water minimum monthly fee includes billing, capital, commodity, and/or availability charges/surcharges where applicable.

Sewer minimum monthly fee includes U.S. EPA fee where applicable.

*Vermilion and Huron sewer service provided by Erie County

**Huron issues water bills quarterly. Monthly fee reflects prorated minimum charge.

^Willard sewer tap fee does not include labor/materials charges for installation.

^^Water/sewer minimum fees in Port Clinton do not include a \$12.50 infrastructure fee.

Norwalk sewer tap fee does not include road excavation fee ranging from \$500 to \$1,000.

Water and sewer tap fees and rates vary by city and county throughout the Firelands Region. Water tap fees range from \$1,050 to \$2,000 based on location. Note that the listed water tap fees can include a number of additional fees and charges, including meter fees, administrative fees, and labor charges. Some jurisdictions include the cost of installation in the fee, while others charge market rates for this service in addition to the listed tap fee. The city of Bellevue has the highest water and sewer tap fees among listed jurisdictions in the Firelands Region, which reflects the inclusion of impact fees. Minimum monthly water fees range from \$4.50 to \$31.15 based on jurisdiction. Note that higher priced minimum water and sewer fees often include usage up to a certain amount (i.e., two or three CCF). Port Clinton, which has the highest minimum water and sewer fees among all jurisdictions surveyed, includes the first three CCF of water usage in the minimum fees. Note that water/sewer rates and fees in the Firelands Region are generally higher than corresponding fees in comparable communities outside the region. Although water/sewer tap fees and usage rates appear to be wide ranging within the Firelands Region, it does not appear that these fees and usage rates are significantly impacting development decisions.

Government Development Fees in the form of permit fees charged by village, city, or county governments also factor into development costs. The following table summarizes overall development fees for a residential structure within the most populated jurisdictions in the Firelands Region.

Permit Fees for a \$300,000 Structure with 2,000 Square Feet (Firelands Region)				
Location (County)	Building Permit Fee	Electrical Permit Fees	Mechanical Permit Fees	Plumbing Permit Fees
Huron (Erie)	\$770	\$200	--	--
Perkins Township (Erie)	\$485	\$405	\$405	--
Sandusky (Erie)	\$350	\$60	\$100	\$60
Vermilion (Erie*)	\$370	\$225	\$150	\$150
Bellevue (Huron*)	\$75	\$10	--	--
Norwalk (Huron)	\$75	\$25	--	--
Willard (Huron)	\$85	\$45	\$25	\$40
Ottawa County	\$284	\$69	\$129	\$100

*Portion of city located in counties outside of Firelands Region

-- Indicates that fee is not levied within jurisdiction or could not be verified

Permit fees levied by jurisdictions may be subject to additional administrative fees and fees per fixture or circuit (not listed in table above).

Among communities in the Firelands Region, Erie County communities have higher permit fees for new construction compared to Huron and Ottawa counties. However, permit fees are generally lower than comparable jurisdictions outside the Firelands Region. In addition to building permit fees listed in the preceding table, new construction projects in the Firelands Region are also assessed fees for plan review as well as additional building/structure reviews. Based on our review of the residential building permit process and fees, it does not appear that these factors represent deterrents or barriers to residential development.

Taxes and assessments applied to the development of real estate can also factor into overall development costs. Property taxes vary by county in Ohio. Each county treasurer establishes taxes and assessments based on municipality, school district location, and special tax districts (if applicable).

A comparison of property tax millage rates for cities and townships in the Firelands Region is listed in the following table:

Tax Millage Rates (2022) for Select Locations and School Districts - Firelands Region				
Location	County	School District	Tax Millage Rate (Full)	Tax Millage Rate (Residential/Agricultural)
Huron City	Erie County	Huron City SD	\$92.390	\$45.757
Perkins Township	Erie County	Perkins Local SD	\$104.600	\$61.592
Sandusky City	Erie County	Sandusky City SD	\$99.460	\$55.555
Vermilion City	Erie County	Vermilion Local SD	\$93.905	\$52.717
Bellevue City	Erie County	Bellevue City SD	\$62.350	\$49.430
Bellevue City	Huron County	Bellevue City SD	\$62.230	\$48.835
Norwalk City	Huron County	Monroeville SD	\$59.330	\$46.552
Norwalk City	Huron County	Norwalk SD	\$68.730	\$44.626
Norwalk City	Huron County	Edison SD	\$87.200	\$47.444
Willard City	Huron County	Willard SD	\$66.705	\$42.755
Port Clinton City	Ottawa County	Port Clinton City SD	\$81.950	\$43.633

Source: Erie County Treasurer, Huron County Treasurer, Ottawa County Treasurer, Ohio Department of Taxation

Tax millage rates per \$1,000 of assessed property valuation.

Tax millage rates for residential/agricultural properties rounded to nearest three decimal places.

Tax millage rates do not include the 10% rollback rate for non-business properties and the 2.5% tax reduction for principal place of residence.

Note that taxing jurisdictions in the Firelands Region have a full (undiscounted) tax millage rate and a lower tax millage rate for residential and agricultural properties (commercial property tax rates were not studied as part of this Housing Needs Assessment). The lower rate for residential and agricultural properties is what homeowners within their primary residence pay. Tax millages rates for residential and agricultural properties range from a low of \$42.755 per \$1,000 of *assessed* property value in Willard (Huron County) to a high of \$61.592 per \$1,000 of *assessed* property value in Perkins Township (Erie County). Residential and agricultural property millage rates in the Firelands Region are generally lower than rates in comparable communities outside the region. Assessed value of a property for tax purposes represents 35% of the appraised value (100% value) of a property. Using a \$300,000 home as an example (assessed value of \$105,000), the annual base property tax bill (excluding rollbacks and reductions that homeowners living in a primary residence are eligible for) would range from \$4,489 in Willard to \$6,467 in Perkins Township. Note that taxpayers eligible for a 10% rollback and a 2.5% tax reduction offered statewide would pay lower amounts. Considering the lower overall tax rates for residential and agricultural properties and available tax rollbacks and reductions for primary homeowners, we do not believe property taxes in the Firelands Region are high and these property tax rates likely do not have a significant influence on residential development.

New Construction Costs

In order to make a valid and accurate comparison between the cost of construction and sale prices of completed homes in the Firelands Region, it is necessary to look at the differences between the two figures. One way to make this comparison is by looking at the sales market for recently built residential homes. According to MLS data for home sales and listings in the Firelands Region between January 2022 and December 2022, median list prices, median sale prices, median list price/sale price ratio, and the average number of days on market for all three counties in the Firelands Region is listed in the following table:

Listing And Sales Activity by County – Firelands Region (2022)				
	Median List Price	Median Sale Price	Median List/Sale Price Ratio	Average Days on Market
Erie County	\$181,900	\$184,000	101.2%	45 days
Huron County	\$150,000	\$155,000	103.3%	53 days
Ottawa County	\$259,000	\$250,000	96.5%	67 days

Source: MLS (Multiple Listing Service)

Median home sale prices during 2022 range from \$155,000 in Huron County to \$250,000 in Ottawa County. Note that both Erie County and Ottawa County had median list to sales price ratios that exceeded 100%, meaning that homes listed in these counties typically sold for above list price. The average number of days on market ranged from 45 to 67, indicative of a housing market that favors sellers. Note that these median listing and sales figures include all homes sold in the county regardless of age or condition.

As part of this analysis, recent MLS data for newer homes built within the last 10 years was also considered.

Sales Activity of Homes Built in the Last 10 Years by County Firelands Region (2022)				
	Median Sale Price of Newer Home	Median Bedroom/Bath Count	Median Square Footage	Median Price Per Square Foot
Erie County	\$305,000	3/2.0	1,914	\$159.35
Huron County	\$267,000	3/2.0	1,629	\$163.90
Ottawa County	\$477,000	3/2.0	1,415	\$337.10

Source: MLS (Multiple Listing Service)

Note: Sales activity reflects recently sold homes built between 2013 and 2022.

The median sale price for a newer home sold in 2022 was \$305,000 in Erie County, \$267,000 in Huron County, and \$477,000 in Ottawa County. Note that the higher median sale prices and median price per square foot in Ottawa County reflects new construction of waterfront condominium units, which typically command higher sale prices in the housing market. By comparison, median sale prices in both Erie and Huron counties reflect single-family homes. Using a range of recently sold newer homes in the region, the typical newer home is a one-story, three-bedroom/2.0-bath home that is approximately 1,800 square feet in size.

According to RSMMeans construction data, it costs approximately \$250,000 (\$131.46 per square foot) to build a new, average-quality, one-story, three-bedroom/2.0-bath, 1,800 square-foot, single-family dwelling with a basement. This cost, which has been adjusted to reflect regional attributes, includes average interior finishes, a wood frame exterior, an attached garage, site work, central air conditioning, and contractor fees. The \$250,000 cost does not include the cost of land, city fees, financing, insurance, architecture fees, or profit. The inclusion of any or all of these additional features significantly increases the overall cost of a new home. Note that the median price of recently sold newer homes in the market ranged between \$267,000 and \$477,000 based on county location. In addition, the *lowest* current list price for a recently built single-family home in the Firelands Region is \$314,900. The estimated cost to *build* a new home is below the range of median-priced homes recently sold and currently listed on the market. However, newer homes listed for sale include the price of land, additional fees, and developer profit. Based on this analysis, it would appear a new entry-level single-family home would need to be priced above \$300,000 to make it financially viable for a developer to construct such housing in the region.

Note that residential construction throughout the United States is currently affected by cost of materials, labor shortages, and the significant increase in mortgage interest rates due in part to the COVID-19 pandemic. Data supplied by RS Means for residential construction costs may not be reflective of current materials and labor shortages. A [CBRE report](#) published in August 2022 estimated that construction costs are forecasted to increase approximately 14% year-over-year nationwide. In addition, significant increases in mortgage interest rates have increased borrowing costs for prospective home buyers, which leaves homebuilders and developers with a reduced pool of income-qualified buyers to purchase homes. The combination of increased borrowing costs for prospective homebuyers and increasing costs of materials and labor for building homes make construction of entry-level homes more difficult to achieve. For these reasons, the price of a new home or apartment building may not be reflective of current conditions. Therefore, estimated costs for construction of residential buildings and homes should be depicted as being on the low end given these recent materials costs and labor shortages.

Conclusion

In conclusion, based on the preceding analysis, it does not appear that residential development costs associated with labor costs, utility costs, government fees, or taxes/assessments are significantly different or higher than nearby areas or within the overall state of Ohio. While costs associated with the items evaluated in this section ultimately add to the overall development costs of residential product, likely making it difficult for developers to construct housing that is affordable to low- or moderate-income households, we do not believe such costs serve as a major deterrent to residential development in the Firelands Region.

H. DEVELOPER/INVESTOR IDENTIFICATION

Given the scope and variety of housing challenges that exist in the Firelands Region, the community would benefit from encouraging the involvement of both public and non-public entities to develop and invest in the numerous housing development opportunities that exist in the region and its municipalities. To that end, we have compiled a list of various residential developers, philanthropic organizations, investors/lenders, and federal and state housing finance organizations that are active in Northern Ohio and the surrounding regions. In some cases, we have provided links to membership directories given the extensive list of organization members that could be included. Each organization's name, website (or phone number) and type of entity are provided in the following table.

Entity Name	Website
Housing Developer	
Buckeye Community Hope Foundation	http://buckeyehope.org/
Cafaro Company	https://www.cafarocompany.com/
CMS Housing	www.cms-results.com
Community Builders	https://tcbinc.org
Flaherty and Collins Properties	https://flco.com
Frontier Community Services	www.frontiercommunity.com
GreyStar Real Estate Partners	https://www.greystar.com/
Kittle Property Group	https://kittleproperties.com
LEADS	https://leaddeveloper.com/
Marous Development Group	https://www.marous-dg.com/
McCormack Baron Salazar	www.mccormackbaron.com
Millennia Housing Development	https://themillenniacompanies.com/
Homebuilders Association Greater Cleveland	https://www.hbacleveland.com/
National Church Residences	https://www.nationalchurchresidences.org/
NRP Group	https://www.nrpgroup.com/
PIRHL	www.pirhl.com
Pivotal Housing Partners (FKA MVAH Development)	https://www.pivotal-communities.com/
Provident Management, Inc.	https://www.providentunited.com/
Spire Development, Inc.	www.livespired.com
St. Mary Development Corporation	www.stmarydevelopment.org
TWG Development, LLC	https://twgdev.com
Wallick Construction Midwest	https://www.wallick.com/
Woda Cooper Companies	www.wodagroup.com
Housing Investor/Lender	
Atlantic Bay Mortgage Group	www.atlanticbay.com
Churchill Mortgage Corp.	https://www.churchillmortgage.com/
Churchill Stateside Group	https://csgfirst.com
Community Bank	https://www.communitybank.tv/
Housing Lenders (list of many)	https://www.wvhdf.com/lenders
HUD Lenders (list of all)	www.hud.gov/program_offices/housing/sfh/lender/lenderlist
Ohio Capital Corporation for Housing (OCCH)	https://www.occh.org/
PNC Bank	www.pnc.com
United States Department of Agriculture (USDA)	www.rd.usda.gov/wv
Wells Fargo	www.wellsfargo.com
Qualified Opportunity Zone Investors	
CRE Models	www.cremodels.com
Economic Innovation Group	https://eig.org/opportunityzones/resources
Enterprise Community	www.enterprisecommunity.org/opportunity360
Reonomy	www.reonomy.com
Smart Growth America	https://Smartgrowthamerica.org
Foundations/Nonprofits	
Philanthropy Ohio	https://www.philanthropyohio.org/housing
Firelands Habitat for Humanity	https://firelandshabitat.org/
Foundation For Firelands	https://www.foundationforfirelands.com/foundation/about-us/
United Way Alliance of the Mid-Ohio Valley	www.uwamov.com

The preceding list of over 40 organizations representing potential residential development partners in the area is not exhaustive, as there are certainly other organizations that could be participants in supporting residential development projects in the Firelands Region. The community may want to research other resources to identify developers and investors, such as contacting real estate brokers, Ohio Development Services, The Ohio Housing Finance Agency (OHFA), and Affordable Housing Investors Council.

I. UNIVERSITY/COLLEGE OVERVIEW

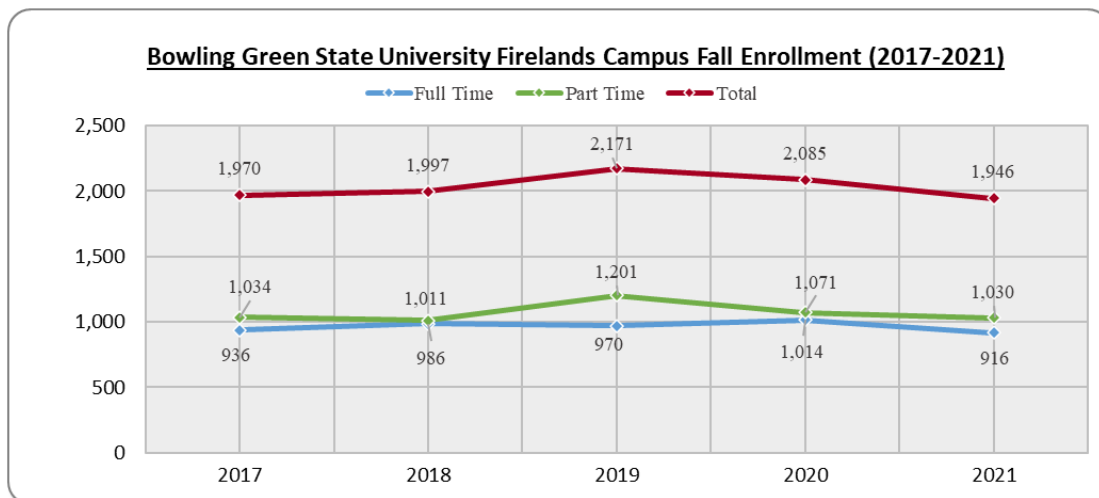
Considering that institutions of higher education and the corresponding student population can influence a local housing market, it is an important component to evaluate. A brief overview of Bowling Green State University Firelands satellite campus is below.

Bowling Green State University Firelands

Bowling Green State University Firelands (BGSU Firelands), located in the city of Huron in Erie County, is a satellite four-year and two-year public university founded in 1968. The school offers both undergraduate and graduate programs and the academic calendar year is based on fall and spring semesters (four months each) and a summer session. The following table and graph illustrate student enrollment from 2017 to 2021.

BGSU Firelands Student Enrollment (Share of Student Population)					
Student Classification	2017	2018	2019	2020	2021
Full Time	936 (47.5%)	986 (49.4%)	970 (44.7%)	1,014 (48.6%)	916 (47.1%)
Part Time	1,034 (52.5%)	1,011 (50.6%)	1,201 (55.3%)	1,071 (51.4%)	1,030 (52.9%)
Total	1,970 (100.0%)	1,997 (100.0%)	2,171 (100.0%)	2,085 (100.0%)	1,946 (100.0%)

Source: BGSU Firelands



From 2017 to 2021, the average overall enrollment at BGSU Firelands for fall semester was approximately 2,034 students. Since 2017, overall enrollment at BGSU Firelands has been consistent. It appears the decline in enrollment from fall of 2019 to the fall of 2021 (a difference of 225 enrolled) is likely attributed to a variety of issues including the impact of COVID-19, students opting to work instead of taking classes, fewer high school graduates, and the high costs of tuition and related student debt issues.

As the preceding table illustrates, 47.1% of people enrolled for the 2021 term were full-time students, while 52.9% of students had a part-time enrollment status. By comparison, the national averages of student enrollment status among large four-year universities are around 70% for full-time students and 30% for part-time students. As such, BGSU Firelands students are more likely to be part-time students.

BGSU Firelands does not offer on-campus housing but does offer assistance to students in finding housing options through the Resort and Attraction Management program in downtown Sandusky, Ohio. While the university students have some influence on the local housing market, the size of the school’s enrollment likely limits its impact on local housing market conditions.

J. SPECIAL NEEDS POPULATIONS

As part of this analysis, we collected and evaluated data relative to a variety of special needs populations in the PSA (Firelands Region) which includes Erie, Huron and Ottawa counties. The following table summarizes the various special needs populations that were considered in this report.

Special Needs Populations	
Group	Number
Physically Disabled	25,275
Mental Illness	10,072*
Substance Abuse Disorder	17,950**

Source: 2016-2020 American Community Survey Table S1810 (ACS)

*Note: Cognitive Difficulty for 2021 from American Community Survey Supplemental Estimates Table K201803 for years 2017, 2018, 2019, and 2021 (2020 numbers were not available for this table at time of study)

**Firelands Region share determined by Bowen National Research from Substance Abuse and Mental Health Services Administration (SAMHSA) data

Based on the preceding table, the largest number of special needs persons evaluated in the Firelands Region is among the population of persons with a physical disability which consists of over 25,000 people. Over 10,000 people with a mental illness were identified in the region and nearly 18,000 people were identified as having a substance abuse disorder. Although the various special needs populations that were evaluated are not equal in size, the challenges experienced by these groups are equally unique and severe. As a result, all of these special needs populations should be kept in mind as policies, programs and incentives are developed to meet the overall housing needs of the Firelands Region. These groups are evaluated further in the following narratives.

Persons with a Disability

Persons with a disability, particularly those within the typical range of working ages, are vulnerable to becoming homeless due to the fact that such persons often cannot find housing to meet their specific needs. It can also be difficult to secure housing that is affordable as persons with a disability often experience limited earning capacity. Based on 2016-2020 American Community Survey (ACS) data, the rate of disabilities among the Firelands Region's population was an estimated 14.8% which reflects an estimated 25,275 people with at least one disability. An individual with a disability is defined by the Americans with Disabilities Act (ADA) as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment. The ADA does not specifically name all of the impairments that are covered. Although the ACS data does not identify persons with disabilities as defined by the ADA Amendments Act, the ACS data provides the most current estimates of the population with self-reported disabilities. Its sample size is also large enough to enable state and county estimates.

The American Community Survey (ACS) identifies people with disabilities by asking questions pertaining to six different areas of functionality. The following table summarizes the number of persons with a disability in the three counties within the Firelands Region by age group.

Noninstitutionalized Population with a Disability by Age – Firelands Region			
Age	Total Population	Number of Population With At Least One Type of Disability	Share of Population With At Least One Type of Disability
Erie County			
Under 5 years	3,985	2	0.1%
5 to 17 years	11,126	690	6.2%
18 to 34 years	14,360	987	6.9%
35 to 64 years	28,425	4,526	15.9%
65 to 74 years	8,997	1,936	21.5%
75 years and older	6,549	2,671	40.8%
Total	73,442	10,812	14.7%
Huron County			
Under 5 years	3,683	0	0.0%
5 to 17 years	10,336	578	5.6%
18 to 34 years	11,663	992	8.5%
35 to 64 years	22,383	3,500	15.6%
65 to 74 years	5,976	1,367	22.9%
75 years and older	3,672	1,783	48.6%
Total	57,713	8,220	14.2%

Source: 2016-2020 American Community Survey Table S1810 (ACS)

(Continued)

Noninstitutionalized Population with a Disability by Age – Firelands Region			
Age	Total Population	Number of Population With At Least One Type of Disability	Share of Population With At Least One Type of Disability
Ottawa County			
Under 5 years	1,596	0	0%
5 to 17 years	5,898	270	4.6%
18 to 34 years	6,273	424	6.8%
35 to 64 years	16,350	1,866	11.4%
65 to 74 years	5,915	1,572	26.6%
75 years and older	4,069	2,111	51.9%
Total	40,101	6,243	15.6%
Firelands Region (PSA)			
Under 5 years	9,264	2	0%
5 to 17 years	27,360	1,538	5.6%
18 to 34 years	32,296	2,403	7.4%
35 to 64 years	67,158	9,892	14.7%
65 to 74 years	20,888	4,875	23.3%
75 years and older	14,290	6,565	45.9%
Firelands Region Total	171,256	25,275	14.8%

Source: 2016-2020 American Community Survey Table S1810 (ACS)

The overall share of the population with at least one disability in the PSA (Firelands Region) correlates significantly with age. Note that among the region’s population ages 75 and older, over 45% of this population group has at least one type of disability, while 23.3% of the PSA’s population between 65 and 74 years of age has at least one type of disability.

People with a disability may have limits on their education, employment opportunities, and often their quality of life. As the earning potential of some individuals with a disability could be limited, the access to affordable housing alternatives and certain services are important to this special needs population. Persons that are blind, disabled, or over age 65 can qualify for Supplemental Security Income (SSI). In Ohio, a total of 297,360 persons received SSI in 2021, with over 94% of recipients being disabled. In the Firelands Region, a total of 3,375 (1,548 in Erie County, 1,268 in Huron County, and 559 in Ottawa County) people received SSI as of December 2021. Of the 3,375 SSI recipients in the Firelands Region, 3.1% (106) of recipients were aged 65 and older and nearly 96.9% (3,269) of recipients were blind or had a disability. As of January 2022, the federal SSI monthly benefit for individuals in Ottawa County is \$841, which is an *annual* payment of \$10,092. According to Priced Out – Technical Assistance Collaborative (see table below), the \$10,092 annual figure is only 17.0% of the estimated median income for Ottawa County. As such, the cost of a typical one-bedroom rental unit is approximately 84% of the monthly SSI payment in Ottawa County, making such housing unaffordable to most people receiving such benefits. Note that Ohio also pays a state supplement to persons that receive a federal SSI payment if they reside in an Adult Care Facility. Note that while Ottawa County is one of three counties within the Firelands Region, it was the best available data from Priced Out - Technical Assistance Collaborative at the time of this study.

Rental housing affordability by persons on a fixed SSI income is shown in the following table for select areas:

Rental Housing Affordability for Persons on a Fixed Income by Housing Market Area (2022)				
Housing Market Area	SSI Monthly Payment	SSI as Percent of Median Income	Percent SSI for One-Bedroom Apartment	Percent SSI for Efficiency Apartment
Ottawa County	\$841	17.0%	84%	74%
Ohio	\$841	17.3%	84%	74%
National	\$875.41	16.7%	141%	129%

Source: Priced Out - Technical Assistance Collaborative (<https://www.tacinc.org/resources/priced-out/>)

Note: Ottawa County was best option for Firelands Region found on this source's website

In addition to federal SSI payments, persons with a disability in Ottawa County are eligible also for housing assistance from the U.S. Department of Housing and Urban Development (HUD) and local housing authorities. Persons with a disability in Ottawa County, as well as the Firelands Region in general, can also receive assistance and treatment from mental health advocacy and rehabilitation organizations based in the area.

Based on research and analysis of the housing supply in the Firelands Region, approximately nine properties were identified that contain at least some units specifically designated for persons with disabilities. Although more than 250 housing units were identified, all of which are occupied, it appears that the overall supply of affordable housing specifically designated for persons with a disability in the Firelands Region is extremely limited.

Note that several programs exist at the state and federal level that could potentially create additional housing opportunities for persons with a disability. A Targeting Program through the Ohio Department of Health and Human Services requires 10% of all the rental units developed using the Low-Income Housing Tax Credit (LIHTC) program be reserved for persons with a disability. The Ohio 811 Program provides affordable housing for “extremely low income” individuals (ages 18 to 61) who qualify for Medicaid and have a disability. Estimated to assist over 480 individuals, this program created by the Ohio Department of Medicaid, the Ohio Department of Mental Health and Addiction Services, and the Ohio Department of Developmental Disabilities is for people with a disability looking to live independently in an apartment.

Persons with Mental Illness

To understand the overall prevalence of persons with a mental illness within the Firelands Region, data from the Firelands Counseling and Recovery Services Erie County location illustrating the number (unduplicated) of patients receiving services in each fiscal year is provided in the following table:

Year	Number of Unduplicated Mental Health Clients Served Annually
2020	2,918
2021	2,774
2022	2,458

Source: Firelands Counseling and Recovery Services

As the preceding illustrates, an average of approximately 2,717 adults received mental health services at the Firelands Counseling and Recovery Services Erie County location each year from 2020 to 2022. The number of clients generally decreased each year, with the greatest number of clients served occurring in 2020 (2,918). The decrease in the number of patients served shown in the preceding table over the three years is likely due to the decrease in staffing combined with an influx of service providers from other agencies. Note that Bowen National Research was not able to obtain additional unduplicated client lists from other service providers in the Firelands Region. As the number of unduplicated clients is from an office in Erie County specifically, these numbers are used as an estimate for a portion of the Firelands Region and not an exact count for the Firelands Region as a whole. However, it is important to keep in mind that clients may include individuals from Huron and Ottawa counties as well.

Persons with a mental illness in the Firelands Region may receive treatment from Firelands Counseling and Recovery Services through the Firelands Regional Medical Center. The service area for this facility includes Huron, Seneca, Sandusky, Erie, and Ottawa counties. Firelands Counseling and Recovery Services is funded jointly by Huron County Board of Mental Health and Addiction Services, Alcohol, Drug Addiction, and Mental Health Services Board of Erie County, and Addiction Services and the Mental Health and Recovery Services Board of Seneca, Ottawa and Sandusky counties.

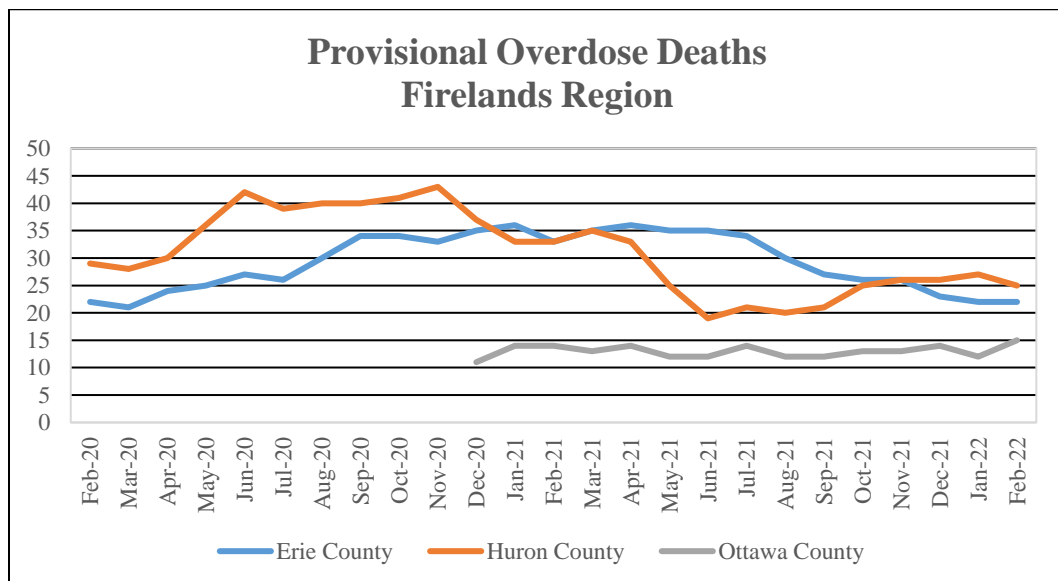
Major treatment centers in the Firelands Region include the Erie County Community Health Center, Huron County Board of Developmental Disabilities, and the Mental Health and Recovery Services Board. Erie County Community Health Center offers behavioral health services that focus on emotional and mental health along with addiction and substance abuse with treatment including support and social services, case management, clinical counseling, and medication-assisted treatment. The Huron County Board of Developmental Disabilities offers multiple services for children and adults in Huron County who are developmentally disabled. Services for adults include community integration, education, and connection and employment opportunities, while services for children include early childhood developmental evaluations, home visits, the Christie Lane School (ages six through 21), and services for transitioning youth (from school to work life). The Mental Health and Recovery Services Board (MHR SB), serves Ottawa, Sandusky, Seneca, and Wyandot counties. MHR SB services for mental health include special mental health housing, recovery housing, treatment for addiction cases, outpatient treatment for behavioral health, and support and education for individuals and their families with brain disorders or mental health conditions.

Substance Abuse Disorder

Substance abuse is often a primary contributor to issues that eventually leads to an individual's housing challenges, including homelessness. This section of the report provides data and corresponding details regarding individuals with a substance use disorder. National statistics provided by the National Center of Drug Abuse Statistics in 2020 indicated that 20.4% of persons that consume alcohol reported having an alcohol use disorder, 25.4% of illegal drug users have a drug use disorder, and approximately 50% of people ages 12 and older reported to have illicitly used drugs in their lifetime.

According to the Centers for Disease Control and Prevention (CDC), 91,799 people died in 2020 from drug overdoses in the United States, with 5,204 overdose deaths occurring in Ohio (accounting for 5.7% of overdose deaths in the United States in 2020). With 47.2 deaths per 100,000 people, Ohio had the fourth highest rate of drug overdose deaths in 2020. The CDC also publishes monthly statistics for provisional drug overdose deaths by county.

The following graph illustrates provisional monthly overdose deaths in Erie, Huron, and Ottawa counties. Monthly overdose deaths are reported between February 2020 and February 2022 for Erie and Huron counties and between December 2020 and February 2022 for Ottawa County.



Source: Center for Disease Control and Prevention (<https://www.cdc.gov/nchs/nvss/vsrr/prov-county-drug-overdose.htm>)

Note: Provisional Counts of Drug Overdose Deaths not found for Ottawa County before November 2020

As the preceding graph illustrates, overdose deaths in the three counties within the Firelands Region generally number between 11 and 43 per month with Erie and Huron counties having a notably higher number (particularly Huron County) of deaths reported than Ottawa County. Overall overdose-related deaths in the Firelands Region have decreased since 2020.

According to the [Substance Abuse and Mental Health Services Administration \(SAMHSA\)](#) an estimated 1,193,000 persons ages 18 and older in Ohio used illicit drugs in 2020, representing 13.14% of the statewide adult population (9,081,287 persons via 2020 Census American Community Survey five-year estimates). Applying this share to the Firelands Region's adult population ages 18 and older (136,603 persons) yields an estimated 17,950 adult residents in the Firelands Region that could potentially have a substance use disorder. While this likely does not reflect all persons with a substance abuse disorder, it provides some scale of the prevalence of substance abuse in the region.

There are 11 Oxford Houses (community-based approach to addiction recovery offering a sober-living home often run by residents) as well as 22 healthcare facilities that can treat individuals with substance abuse disorders in Ohio (according to FindTreatment.gov). Although Erie, Huron, and Ottawa counties do not have any Oxford House locations, three Oxford Houses are in Toledo, Ohio, which is located in Lucas County (adjacent to Ottawa County). The Firelands Regional Medical Center, located in Sandusky, Ohio (Erie County), has an established drug and detox rehab center that helps individuals struggling with addiction to alcohol, opioids, and benzodiazepines. This rehab center provides mental health treatment as well as alcohol and drug abuse treatment. The Erie County Detox Center, a state-operated public treatment facility, is located in the city of Sandusky. This facility serves residents in and outside the state of Ohio and provides withdrawal management, inpatient and outpatient services, and medication assisted treatment. Firelands Counseling and Recovery Services of Ottawa County, located in Port Clinton, offers day treatment services during select afternoon hours.

The MHR SB and Firelands Counseling and Recovery Services centers mentioned previously in the Persons with Mental Illness section also provide planning services and treatment for the counties they serve and help connect individuals to detox and medication assistance treatment (such as Firelands Regional Medical Center) in the region.

Based on this research, the Firelands Region as a whole appears to have access to treatment facilities and housing for special needs populations, but individual counties lack certain resources. For example, Ottawa County has the majority of government-subsidized housing for the population with a disability and Erie County has notable programs for persons with a mental illness. The lack of support depending on the needs of the people in each county may pose a problem for those who do not have access to transportation. Though resources are available in neighboring counties, individuals who reside in the Firelands Region who do not have access to a car or transportation may have difficulty obtaining care and housing specific to their special needs. Excluding government-subsidized housing that is for the disabled population (which is typically fully occupied), there do not appear to be any long-term or permanent housing alternatives in the region that specifically serve person's with mental illness or have substance abuse disorders. Such housing should be a consideration for future housing plans in the region.

VIII. HOUSING GAP ESTIMATES

INTRODUCTION

This section of our report provides five-year housing gap estimates for both rental and for-sale housing within each of the three counties within the PSA (Firelands Region). The assessment includes demand from a variety of sources and focuses on the housing demand potential of the region, though consideration is given to potential support that may originate from outside the region.

Housing to meet the needs of both current and future households in the market will most likely involve multifamily, duplex, and single-family housing alternatives. There are a variety of financing mechanisms that can support the development of housing alternatives such as federal and state government programs, as well as conventional financing through private lending institutions. These different financing alternatives often have specific income and rent/price restrictions, which affect the market they target.

We evaluated the market's ability to support rental and for-sale housing based on six levels of income/affordability. While there may be overlap among these levels due to program targeting and rent/price levels charged, we have established specific income stratifications that are exclusive of each other in order to eliminate double counting demand. We used HUD's published income and rent limits for each county.

The table on the following page summarizes the income segments used in this analysis to estimate potential housing demand, as well as rents and home prices affordable at each income level.

Household Income/Wage & Affordability Levels				
Percent AMHI	Income Range*	Hourly Wage**	Affordable Rents***	Affordable Prices^
Erie County				
≤30%	≤ \$23,490	≤ \$11.29	≤ \$587	≤ \$78,300
31%-50%	\$23,491-\$39,150	\$11.30-\$18.82	\$588-\$979	\$78,301-\$130,500
51%-80%	\$39,151-\$62,640	\$18.83-\$30.11	\$980-\$1,566	\$130,501-\$208,800
81%-100%	\$62,641-\$78,300	\$30.12-\$37.64	\$1,567-\$1,958	\$208,801-\$261,000
101%-120%	\$78,301-\$93,960	\$37.65-\$45.17	\$1,959-\$2,349	\$261,001-\$313,200
121%+	\$93,961+	\$45.18+	\$2,350+	\$313,201+
Huron County				
≤30%	≤ \$22,230	≤ \$10.69	≤ \$556	≤ \$74,100
31%-50%	\$22,231-\$37,050	\$10.70-\$17.81	\$557-\$926	\$74,101-\$123,500
51%-80%	\$37,051-\$59,280	\$17.82-\$28.50	\$927-\$1,482	\$123,501-\$197,600
81%-100%	\$59,281-\$74,100	\$28.51-\$35.63	\$1,483-\$1,853	\$197,601-\$247,000
101%-120%	\$74,101-\$88,920	\$35.64-\$42.75	\$1,854-\$2,223	\$247,001-\$296,400
121%+	\$88,921+	\$42.76+	\$2,224+	\$296,401+
Ottawa County				
≤30%	≤ \$25,470	≤ \$12.25	≤ \$637	≤ \$84,900
31%-50%	\$25,471-\$42,450	\$12.26-\$20.41	\$638-\$1,061	\$84,901-\$141,500
51%-80%	\$42,451-\$67,920	\$20.42-\$32.65	\$1,062-\$1,698	\$141,501-\$226,400
81%-100%	\$67,921-\$84,900	\$32.66-\$40.82	\$1,699-\$2,123	\$226,401-\$283,000
101%-120%	\$84,901-\$101,880	\$40.83-\$48.98	\$2,124-\$2,547	\$283,001-\$339,600
121%+	\$101,881+	\$48.99+	\$2,548+	\$339,601+

AMHI – Area Median Household Income

* Based on HUD limits for each respective county (4-person limit)

** Assumes full-time employment 2,080 hours/year (Assumes one wage earner household)

*** Based on assumption tenants pay up to 30% of income toward rent

^Based on assumption homebuyer can afford to purchase home priced three times annual income after 10% down payment

While different state and federal housing programs establish income and rent restrictions for their respective programs, in reality, there is potential overlap between windows of affordability between the programs. Further, those who respond to a certain product or program type vary. This is because housing markets are highly dynamic, with households entering and exiting by tenure (renter or owner) and economic profile. Further, qualifying policies of property owners and management impact the households that may respond to specific project types. As such, while a household may prefer a certain product, ownership/management qualifying procedures (i.e., review of credit history, current income verification, criminal background checks, etc.) may affect housing choices that are available to households.

Regardless, we have used the preceding income segmentations as the ranges that a typical project or lending institution would use to qualify residents, based on their household income. Ultimately, any new product added to the market will be influenced by many decisions made by the developer and management. This includes eligibility requirements, design type, location, rents/prices, amenities, and other features. As such, our estimates assume that the rents/prices, quality, location, design, and features of new housing product are marketable and will appeal to most renters and homebuyers.

1. Rental Housing Gap Estimates

The primary sources of demand for new rental housing include the following:

- Household Growth
- Units Required for a Balanced Market
- Replacement of Substandard Housing
- External (Outside County) Commuter Support
- Replacement of Severe Cost Burdened Housing
- Step-Down Support

The preceding metrics for each individual county were used to derive the housing gaps for the respective counties.

New Renter Household Growth

In this report, renter household growth projections from 2022 to 2027 are based on ESRI estimates. This projected growth was evaluated for each of the targeted income segments. It should be noted that changes in the number of households within a specific income segment do not necessarily mean that households are coming to or leaving the market, but instead, many of these households are likely to experience income growth or loss that would move them into a higher or lower income segment. Furthermore, should additional rental housing become available, demand for new rental housing could increase through new household formations or people relocating to the area.

Units Required for a Balanced Market

The second demand component considers the number of units a market requires to offer balanced market conditions, including some level of vacancies. Healthy markets require approximately 4% to 6% of the rental market to be available in order to allow for inner-market mobility and encourage competitive rental rates. Markets with vacancy rates below a healthy rate often suffer from rapid rent increases, minimal tenant turnover (which may result in deferred maintenance), and residents being forced into housing situations that do not meet their housing needs. Markets with low vacancy rates often require additional units, while markets with high vacancy rates often indicate a surplus of rental housing. The vacancy rates by program type and/or affordability level used to determine if there is a deficit or surplus of rental units are based on our survey of area rental alternatives. We used a vacancy rate of 5% to establish balanced market conditions.

Replacement of Substandard Housing

Demand for new units as replacement housing takes into consideration that while some properties are adequately maintained and periodically updated, a portion of the existing stock reaches a point of functional obsolescence over time and needs to be replaced. This comes in the form of either units that are substandard (lacking complete plumbing and/or are overcrowded) or units expected to be removed from the housing stock through demolitions. American Community Survey 2016-2020 five-year estimates of renter households living in substandard housing were used in our analysis. Lower income households more often live in substandard housing conditions than higher income households, which we have accounted for in our gap estimates.

External Commuter Support

Market support can originate from households not currently living in the market. This is particularly true for people who work in the Firelands Region but commute from outside of the area and would consider moving to the area, if adequate and affordable housing that met residents' specific needs was offered. Currently, there are few *available* rental housing options in the market. As such, external market support will likely be created if new housing product is developed in the region. Based on our experience in evaluating rental housing in markets throughout the country, it is not uncommon for new product to attract as much as 30% to 40% of its support from outside the city or county limits. As a result, we have assumed that a portion of the demand for new housing will originate from the commuters traveling into the respective markets from areas outside of each county.

Severe Cost Burdened Households

Households paying in excess of 50% of their income toward housing costs are considered severe housing cost burdened. This is considered an excessive cost to households, requiring replacement housing that is more affordable to the most affected households. We have used American Community Survey 2016-2020 five-year estimates of severe cost burdened households in our analysis.

Step-down Support

It is not uncommon for households of a certain income level (typically higher income households) to rent a unit at a lower rent despite the fact they can afford a higher rent unit. Using housing cost and income data reported by American Community Survey (ACS), we have applied a portion of this step-down support to lower income demand estimates.

Note: In terms of the development pipeline, we only included residential rental units that are confirmed as planned or under construction. Conversely, we have excluded projects that have not secured financing, are under

preliminary review, or have not established a specific project concept (e.g., number of units, rents, target market, etc.). Any vacant housing units are accounted for in the “Balanced Market” portion of our demand estimates.

The following tables summarize the rental housing gaps by affordability level for each of the three counties within the overall PSA (Firelands Region).

Eric County, Ohio						
Rental Housing Gap Estimates (2022-2027)						
Percent of Median Income	≤ 30%	31%-50%	51%-80%	81%-100%	101%-120%	121%+
Household Income Range	≤\$23,490	\$23,491-\$39,150	\$39,151-\$62,640	\$62,641-\$78,300	\$78,301-\$93,960	\$93,961+
Monthly Rent Range	≤\$587	\$588-\$979	\$980-\$1,566	\$1,567-\$1,958	\$1,959-\$2,349	\$2,350+
Household Growth	-556	-234	-25	101	100	279
Balanced Market*	128	46	78	28	33	46
Replacement Housing**	61	30	23	4	2	1
External Market Support^	279	181	212	109	108	158
Severe Cost Burdened^^	384	230	153	0	0	0
Step-Down Support	51	82	-60	74	145	-291
Less Pipeline Units	0	-5	-50	-193	-75	0
Overall Units Needed	347	330	331	123	313	193
Huron County, Ohio						
Rental Housing Gap Estimates (2022-2027)						
Percent of Median Income	≤ 30%	31%-50%	51%-80%	81%-100%	101%-120%	121%+
Household Income Range	≤\$22,230	\$22,231-\$37,050	\$37,051-\$59,280	\$59,281-\$74,100	\$74,101-\$88,920	\$88,921+
Monthly Rent Range	≤\$556	\$557-\$926	\$927-\$1,482	\$1,483-\$1,853	\$1,854-\$2,223	\$2,224+
Household Growth	-334	-114	28	48	45	209
Balanced Market*	87	51	82	22	20	43
Replacement Housing**	213	117	104	14	6	7
External Market Support^	156	114	152	59	56	114
Severe Cost Burdened^^	200	120	80	0	0	0
Step-Down Support	58	76	-91	34	147	-224
Less Pipeline Units	0	0	0	0	0	0
Overall Units Needed	380	364	355	177	274	149
Ottawa County, Ohio						
Rental Housing Gap Estimates (2022-2027)						
Percent of Median Income	≤ 30%	31%-50%	51%-80%	81%-100%	101%-120%	121%+
Household Income Range	≤\$25,470	\$25,471-\$42,450	\$42,451-\$67,920	\$67,921-\$84,900	\$84,901-\$101,880	\$101,881+
Monthly Rent Range	≤\$637	\$638-\$1,061	\$1,062-\$1,698	\$1,699-\$2,123	\$2,124-\$2,547	\$2,548+
Household Growth	-215	-62	40	21	7	116
Balanced Market*	54	38	37	18	5	12
Replacement Housing**	98	67	47	17	3	3
External Market Support^	76	66	57	40	12	26
Severe Cost Burdened^^	124	74	49	0	0	0
Step-Down Support	37	32	-40	-18	68	-79
Less Pipeline Units	0	0	0	0	0	0
Overall Units Needed	174	215	190	78	95	78

*Based on Bowen National Research’s survey of area rentals

**Based on ESRI/ACS estimates of units lacking complete indoor plumbing or are overcrowded

^Based on Bowen National Research proprietary research and ACS migration patterns for each county

^^Based on ACS estimates of households paying in excess of 50% of income toward housing costs

Overall Rental Housing Gaps		
Area	Housing Gap (Units)	Share of Region's Gap
Erie County	1,637	39.3%
Huron County	1,699	40.8%
Ottawa County	830	19.9%
Firelands Region	4,166	100.0%

Based on the preceding demand estimates, it is clear that there is some level of rental housing demand among all household income levels within the PSA (Firelands Region). **Overall, there is a housing gap of 4,166 rental units in the region over the five-year projection period.** The Firelands Region's largest rental gap is in Huron County with a gap of 1,699 units (representing 40.8% of the region's overall gap), followed closely by Erie County's gap of 1,637 units (representing 39.3% of the region's overall gap). Ottawa County has a rental housing gap of 830 units (representing 19.9% of the region's overall gap). The largest gaps within these counties are primarily for rental units targeting households with incomes of up to 80% of Area Median Household Income, which generally have rents under \$1,700. Despite the large need for more affordable rentals, all three markets also have noteworthy gaps for higher-end rentals, particularly within Erie and Huron counties. Without the notable addition of new rental product, the area will not meet the housing needs of its current residents or the growing and changing housing needs of the market.

Based on the demographics of the market, including projected household growth estimates and projected changes in household compositions (e.g., household size, ages, etc.), it appears that approximately one-quarter to one-third of the demand for new rental housing could be specifically targeted to meet the needs of area seniors (age 65 and older), though a project could be built to meet the housing needs of both seniors and families concurrently. For general-occupancy projects, a unit mix of around 25% to 35% one-bedroom units, 40% to 60% two-bedroom units, and 10% to 20% three-bedroom units should be the *general* goal for future rental housing. Given the lack of three-bedroom rental units in this market, there may be an opportunity to develop a larger share of these units. Senior-oriented projects should consider unit mixes closer to 50% for both one- and two-bedroom units each. Additional details of the area's rental housing supply are included in Section VI and may serve as a guide for future rental housing development design decisions.

It is critical to understand that these estimates represent potential units of demand by targeted income level. The actual number of rental units that can be supported will ultimately be contingent upon a variety of factors including the location of a project, proposed features (i.e., rents, amenities, bedroom type, unit mix, square footage, etc.), product quality, design (i.e., townhouse, single-family homes, or garden-style units), management and marketing efforts. As such, each targeted segment outlined in the table on page VIII-5 may be able to support more or less than the number of units shown in the table. The potential number of units of support should be considered a general guideline to residential development planning.

2. For-Sale Housing Gap Estimates

This section of the report addresses the gap for for-sale housing alternatives in the PSA (Firelands Region). Like the rental housing demand analysis, the for-sale housing analysis considers individual household income segments and corresponding housing price ranges.

Naturally, there are cases where a household can afford a higher down payment to purchase a more expensive home. There are also cases in which a household purchases a less expensive home although they could afford a higher purchase price. The actual support for new housing will ultimately be based on a variety of product factors such as price points, square footages, amenities, design, quality of finishes, and location. Considering these variations, this broad analysis provides the basis in which to estimate the *potential* demand of new for-sale housing within the PSA.

There are a variety of market factors that impact the demand for new homes within an area. In particular, area and neighborhood perceptions, quality of school districts, socioeconomic characteristics, mobility patterns, demolition and revitalization efforts, and availability of existing homes all play a role in generating new home sales. Support can be both internal (households moving within the market) and external (households new to the market).

Overall, we have considered the following specific sources of demand for new for-sale housing in each of the three subject counties in the PSA (Firelands Region).

- Household Growth
- Units Required for a Balanced Market
- Replacement of Substandard Housing
- External (Outside County) Commuter Support
- Replacement of Severe Cost Burdened Housing
- Step-Down Support

New Household Growth

In this report, owner household growth projections from 2022 to 2027 are based on ESRI estimates. This projected growth was evaluated for each of the targeted income segments. It should be noted that changes in the number of households within a specific income segment do not necessarily mean that households are coming to or leaving the market, but instead, many of these households are likely to experience income growth or loss that would move them into a higher or lower income segment. Furthermore, should additional for-sale housing become available, either through new construction or conversion of rental units, demand for new for-sale housing could increase.

Units Required for a Balanced Market

Typically, healthy for-sale housing markets should have approximately 2% to 3% of its inventory vacant or available for purchase. Such vacancies allow for inner-market mobility, such as households upsizing or downsizing due to changes in family composition or income, and for people to move into the market. When markets have too few vacancies, housing prices often escalate at an abnormal rate, homes can get neglected, and potential homebuyers can leave a market. Conversely, an excess of homes can lead to stagnant or declining home prices, property neglect, or lead to such homes being converted to rentals. For the purposes of this analysis, we have assumed up to a 3.0% vacancy rate for a balanced market and accounted for for-sale housing units currently available for purchase in the market.

Replacement of Substandard Housing

Demand for new units as replacement housing takes into consideration that while some properties are adequately maintained and periodically updated, a portion of the existing stock reaches a point of functional obsolescence over time and needs to be replaced. This comes in the form of either units that are substandard (lacking complete plumbing or are overcrowded) or units expected to be removed from the housing stock through demolitions. American Community Survey 2016-2020 estimates of owner households living in substandard housing were used in our analysis. This share has been adjusted among lower and higher income households.

External Market Support

Market support can originate from households *not* currently living in the market but that commute into it for work on a regular basis. As a result, we have considered potential support for housing in the subject market from people commuting into the subject counties from outside the counties. These people represent potential future residents that may move to the market if adequate, desirable, and marketable housing was developed in the area. For

the purposes of this analysis, we have used a conservative demand ratio of up to 30% to estimate the demand that could originate from outside of the market (e.g., county).

Severe Cost Burdened Households

Households paying in excess of 50% of their income toward housing costs are considered severe housing cost burdened. This is considered an excessive cost to households, requiring replacement housing that is more affordable to the most affected households. We have used American Community Survey 2016-2020 five-year estimates of severe cost burdened households in our analysis.

Step-Down Support

It is not uncommon for households of a certain income level (typically higher income households) to purchase a home at a lower price point despite the fact they can afford a higher priced home. Using housing cost and income data reported by American Community Survey (ACS), we have applied a portion of this step-down support to lower income demand estimates.

Note: In terms of the development pipeline, we only included for-sale residential units currently in the development pipeline that are planned or under construction and do not have a confirmed buyer, such as a condominium unit or a spec home, in our demand estimates. Conversely, we have excluded single-family home lots that may have been platted or are being developed, as such lots do not represent actual housing *units* that are available for purchase. Any vacant housing units are accounted for in the “Balanced Market” portion of our demand estimates.

The following table summarizes the for-sale housing gaps by affordability level for each of the three counties.

Erie County, Ohio						
For-Sale Housing Gap Estimates (2022-2027)						
Percent of Median Income	≤ 30%	31%-50%	51%-80%	81%-100%	101%-120%	121%+
Household Income Range	≤\$23,490	\$23,491-\$39,150	\$39,151-\$62,640	\$62,641-\$78,300	\$78,301-\$93,960	\$93,961+
Price Point	≤\$78,300	\$78,301-\$130,500	\$130,501-\$208,800	\$208,801-\$261,000	\$261,001-\$313,200	\$313,201+
Household Growth	-509	-477	-642	44	44	1,633
Balanced Market*	47	53	115	78	81	265
Replacement Housing**	116	99	132	42	21	35
External Market Support^	158	181	362	154	77	129
Severe Cost Burdened^^	293	234	59	0	0	0
Step-Down Support	9	-1	87	668	485	-1,238
Less Pipeline Units	0	0	0	0	-4	-96
Overall Units Needed	114	89	113	986	704	728
Huron County, Ohio						
For-Sale Housing Gap Estimates (2022-2027)						
Percent of Median Income	≤ 30%	31%-50%	51%-80%	81%-100%	101%-120%	121%+
Household Income Range	≤\$22,230	\$22,231-\$37,050	\$37,051-\$59,280	\$59,281-\$74,100	\$74,101-\$88,920	\$88,921+
Price Point	≤\$74,100	\$74,101-\$123,500	\$123,501-\$197,600	\$197,601-\$247,000	\$247,001-\$296,400	\$296,401+
Household Growth	-364	-345	-539	95	110	1,193
Balanced Market*	38	43	89	50	48	182
Replacement Housing**	80	72	98	26	13	23
External Market Support^	125	150	305	82	40	70
Severe Cost Burdened^^	205	123	82	0	0	0
Step-Down Support	4	-4	76	491	314	-881
Less Pipeline Units	0	0	0	0	0	0
Overall Units Needed	88	39	111	744	525	587
Ottawa County, Ohio						
For-Sale Housing Gap Estimates (2022-2027)						
Percent of Median Income	≤ 30%	31%-50%	51%-80%	81%-100%	101%-120%	121%+
Household Income Range	≤\$25,470	\$25,471-\$42,450	\$42,451-\$67,920	\$67,921-\$84,900	\$84,901-\$101,880	\$101,881+
Price Point	≤\$84,900	\$84,901-\$141,500	\$141,501-\$226,400	\$226,401-\$283,000	\$283,001-\$339,600	\$339,601+
Household Growth	-353	-401	-158	-46	-21	978
Balanced Market*	40	47	73	36	38	100
Replacement Housing**	64	58	58	14	7	12
External Market Support^	112	135	152	51	24	44
Severe Cost Burdened^^	185	111	74	0	0	0
Step-Down Support	-5	85	-63	352	311	-680
Less Pipeline Units	0	0	0	0	0	0
Overall Units Needed	43	35	136	407	359	454

*Based on Bowen National Research's survey of area rentals

**Based on ESRI/ACS estimates of units lacking complete indoor plumbing or are overcrowded

^Based on Bowen National Research proprietary research and ACS migration patterns for each county

^^Based on ACS estimates of households paying in excess of 50% of income towards housing costs

Overall For-Sale Housing Gaps		
Area	Housing Gap (Units)	Share of Region's Gap
Erie County	2,734	43.7%
Huron County	2,094	33.4%
Ottawa County	1,434	22.9%
Firelands Region	6,262	100.0%

The overall for-sale housing gap in the PSA (Firelands Region) is for approximately 6,262 units over the five-year projection period. The largest for-sale housing gap is within Erie County, with a gap of 2,734 units (representing 43.7% of the overall region's gap). Huron County has a for-sale housing gap of 2,094 units (representing 33.4% of the overall region's gap) and Ottawa County has a gap of 1,434 for-sale housing units (representing 22.9% of the overall region's gap). While all home price segments and affordability levels have some level of need, it appears some of the greatest gaps within the three counties are for product generally priced between \$197,000 and \$283,000, which generally serves households earning between 81% and 100% of Area Median Household Income. Although this segment has relatively large gaps, there are still notable gaps for housing that is affordable to lower income households, including first-time homebuyers, as well as for high-end product priced well over \$300,000. The limited inventory of for-sale product limits opportunities for renters seeking to enter the homebuyer market, homebuyers coming from outside the region or seniors seeking to downsize. The region will miss out on various growth opportunities and be unable to meet the needs of its current residents without additional housing.

In most markets, if there is support for new housing at a particular price point or concept and such product is not offered in a specific area, households may leave the area and seek this housing alternative elsewhere, defer their purchase decision, or seek another housing alternative. Additionally, households considering relocation to the PSA (Firelands Region) may not move to the PSA if the housing product offered does not meet their needs in terms of pricing, quality, product design, or location. As such, the PSA housing stock may not be able to meet current or future demand, which may limit the market's ability to serve many of the households seeking to purchase a home in the PSA, particularly moderate and higher income households. Regardless, we believe opportunities exist to develop a variety of product types at a variety of price points. The addition of such housing will better enable the PSA to attract and retain residents (including local employees), as well as seniors, families, and younger adults.

In terms of product design, we believe a variety of product could be successful in the Firelands Region. Based on current and projected demographics, as well as the available inventory of for-sale housing, we believe a combination of one- and two-bedroom condominium units could be successful, particularly if they are located in or near the more walkable neighborhoods or downtowns within the region (e.g., Port Clinton, Oak Harbor, Sandusky, Huron, Vermilion, Milan and Norwalk). Additionally, detached or attached single-story cottage-style condominium product, primarily consisting of two-bedroom units, could be successful in attracting/serving area seniors, particularly those seeking to downsize from their single-family homes. Such product could also benefit from being located in the previously noted walkable downtowns and neighborhoods. Both Erie and Huron counties have very few one- and two-bedroom units available for purchase, which may represent a development opportunity in these particular areas. Larger, traditional detached single-family homes catering to families could be successful in this market, particularly product serving moderate and higher income households, though affordable for-sale housing product for lower income and first-time homebuyer households would also do well in this market. Such product should primarily consist of three-bedroom units, with a smaller share of four-bedroom units. The for-sale housing supply within the Firelands Region is summarized in Section VI and can provide additional details of project concept considerations for future for-sale product in the market.

Overall, there is potential support for a variety of residential development alternatives in the PSA (Firelands Region). It is important to understand that the housing demand estimates shown in this report assume no major changes occur in the local economy and that the demographic trends and projections provided in this report materialize. As such, our demand estimates should be considered conservative and serve as a baseline for development potential. Should new product be developed, it is reasonable to believe that people will consider moving to the Firelands Regions, assuming the housing is aggressively marketed throughout the region and beyond.

IX. COMMUNITY INPUT RESULTS AND ANALYSIS

A. INTRODUCTION

To gain information, perspective and insight about Firelands Region housing issues and the factors influencing housing decisions by its residents, developers and others, Bowen National Research conducted targeted surveys of three specific groups: Stakeholders, Employers and Residents/Commuters. These surveys were conducted during December of 2022 and January of 2023 and questions were customized to solicit specific information relative to each segment of the market that was surveyed.

The surveys were conducted through the SurveyMonkey.com website. In total, 646 survey responses were received from a broad cross section of the community. The following is a summary of the three surveys conducted by our firm.

Stakeholder Survey – A total of 22 respondents representing community leaders (stakeholders) from a broad field of expertise participated in a survey that inquired about common housing issues, housing needs, barriers to development, and possible solutions or initiatives that could be considered to address housing on a local level.

Employer Survey – A total of 45 respondents representing some of the region’s largest employers participated in a survey that inquired about general employee composition, housing situations and housing needs. The survey also identified housing issues and the degree housing impacts local employers.

Resident/Commuter Survey – A total of 558 residents and 21 non-resident commuters participated in a survey that inquired about current housing conditions and needs, the overall housing market, and factors that influence the interest level of non-residents to move to the counties within the Firelands Region.

The survey instruments used for community input are included in Addendum C.

Key findings from the surveys are included on the following pages.

B. STAKEHOLDER SURVEY RESULTS

A total of 22 area stakeholders from a broad range of organization types participated in the housing survey with the following results. Note that percentages may not add up to 100.0% due to rounding or because respondents were able to select more than one answer.

Stakeholder respondents were asked to provide the type of organization they represent. A total of 21 respondents provided input to this question with the following distribution. Note: Respondents were able to select more than one organization type.

Stakeholder Respondents by Organization Type					
Type	Number	Share	Type	Number	Share
Local Government/Municipal Official	8	38.1%	Housing Organization	2	9.5%
Elected Official/Municipal Contact	7	33.3%	Business/Employer/Private Sector	1	4.8%
Landlord/Property Management	4	19.1%	Economic Development Organizations	1	4.8%
Nonprofit Organization	4	19.1%	Education/Higher Education/University	1	4.8%
Housing Authority	2	9.5%	Realtor (Association/Board of Realtors/Etc.)	1	4.8%
Housing Developer	2	9.5%	Other	2	9.5%

Stakeholder respondents were asked which area they primarily serve. A total of 22 respondents provided feedback to this question with the following results.

Stakeholder Respondents by Area Served		
County/Area	Number	Share
Erie County	8	36.4%
Huron County	6	27.3%
Ottawa County	4	18.2%
Firelands Region	4	18.2%

As the preceding illustrates, eight stakeholder respondents (36.4%) serve Erie County, six (27.3%) serve Huron County, four (18.2%) serve Ottawa County, and four (18.2%) serve the entire PSA (Firelands Region). For the balance of this survey, stakeholder responses for each question are tabulated by their respective counties of service. Responses from stakeholders that serve the entire region are included within the regionwide totals.

Stakeholder respondents were asked to provide the degree that certain housing types are needed in the area they serve. A total of 17 respondents provided feedback to this question with the following results. Note that the top rated needs for each area are in red text.

Housing Needs by Price Point by Area				
Housing Type	Area Weighted Score*			
	Erie County	Huron County	Ottawa County	Firelands Region
Rental Housing (Less than \$500/month)	67.9	87.5	100.0	80.9
Rental Housing (\$500-\$999/month)	85.7	75.0	83.3	82.4
Rental Housing (\$1,000-\$1,499/month)	60.7	43.8	41.7	48.5
Rental Housing (\$1,500 or more/month)	39.3	31.3	33.3	33.8
For-Sale Housing (Less than \$150,000)	71.4	100.0	100.0	85.3
For-Sale Housing (\$150,000-\$199,999)	78.6	68.8	83.3	77.9
For-Sale Housing (\$200,000-\$249,999)	64.3	50.0	50.0	57.4
For-Sale Housing (\$250,000-\$349,999)	64.3	37.5	25.0	46.9
For-Sale Housing (\$350,000 or more)	35.7	31.3	25.0	30.9
Senior Care (incomes/assets <\$25,000)	67.9	87.5	66.7	71.9
Senior Care (incomes/assets >\$25,000)	67.9	62.5	66.7	62.5

*High Need = 100.0, Moderate Need = 50.0, Minimal Need = 25.0

Stakeholder respondents were asked to provide the need for housing for specific populations within the area they serve. A total of 17 respondents provided insight to this question with the following results. Note that the top rated needs for each area are in red text.

Housing Needs by Population Served by Area				
Population	Area Weighted Score*			
	Erie County	Huron County	Ottawa County	Firelands Region
Senior Living (Independent Living)	71.4	75.0	58.3	68.8
Senior Living (Assisted Living, Nursing Care)	57.1	50.0	33.3	50.0
Single-Person (Studio/One-Bedroom)	64.3	81.3	41.7	61.8
Family Housing (2+ Bedrooms)	85.7	100.0	83.3	82.4
Housing for Millennials (Ages 25-39)	71.4	100.0	83.3	82.4
Rentals that Accept Housing Choice Voucher Holders	78.6	75.0	66.7	76.5
Low-Income Workforce (<\$30k)	92.9	87.5	100.0	94.1
Moderate Income Workforce (\$30k-\$60k)	92.9	100.0	100.0	94.1
Higher Income Workforce (\$60k+)	67.9	68.8	66.7	66.2

*High Need = 100.0, Moderate Need = 50.0, Minimal Need = 25.0

Stakeholder respondents were asked to provide the level of demand for specific housing styles within the area they serve. A total of 17 respondents provided feedback to this question with the following results. Note that the top rated needs for each area are in red text.

Housing Needs by Housing Style by Area				
Housing Style	Area Weighted Score*			
	Erie County	Huron County	Ottawa County	Firelands Region
Multifamily Apartments	60.7	87.5	41.7	64.7
Duplex/Triplex/Townhomes	71.4	87.5	50.0	76.5
Condominiums	60.7	68.8	25.0	54.4
Manufactured/Mobile Homes	28.6	56.3	25.0	35.3
Ranch Homes/Single Floor Plan Units	71.4	68.8	100.0	77.9
Traditional Two-Story Single-Family Homes	67.9	81.3	83.3	79.4
Low Cost Fixer-Uppers (Single-Family Homes)	53.6	87.5	66.7	63.2
Single-Room Occupancy (SRO)	39.3	68.8	33.3	48.5
Mixed-Use/Units Above Retail (Downtown Housing)	50.0	43.8	33.3	41.2
Accessory Dwelling Units/Tiny Houses	35.7	37.5	25.0	38.2

*High Need = 100.0, Moderate Need = 50.0, Minimal Need = 25.0

In addition to the responses in the preceding table, two respondents noted through an open-ended response that there was a need for *additional second homes/vacation homes* (Erie County) and that *most renters want a single-family home for \$650 or less per month* (Ottawa County).

Stakeholder respondents were asked to identify the five most common housing issues experienced in the area they serve. A total of 17 respondents provided insight to this question with the following distribution. Note that the top issues for each area are in red text.

Most Common Housing Issues by Area				
Issue	Share of Area Respondents			
	Erie County	Huron County	Ottawa County	Firelands Region
Foreclosure	14.3%	0.0%	0.0%	5.9%
Limited Availability	85.7%	75.0%	100.0%	82.4%
Overcrowded Housing	14.3%	0.0%	0.0%	11.8%
Rent Affordability	85.7%	100.0%	66.7%	88.2%
Home Purchase Affordability	57.1%	75.0%	100.0%	64.7%
Substandard Housing (quality/condition)	28.6%	0.0%	66.7%	35.3%
Lack of Access to Public Transportation	14.3%	50.0%	33.3%	35.3%
Lack of Down Payment for Purchase	42.9%	25.0%	0.0%	35.3%
Lack of Rental Deposit (or First/Last Month Rent)	14.3%	50.0%	0.0%	29.4%
Failed Background Checks	14.3%	50.0%	0.0%	23.5%
High Cost of Renovation	28.6%	0.0%	0.0%	29.4%
High Cost of Maintenance/Upkeep	28.6%	25.0%	0.0%	23.5%
Absentee Landlords	28.6%	50.0%	66.7%	47.1%
Investors Buying Properties and Increasing Rents/Prices	71.4%	50.0%	66.7%	70.6%

Stakeholder respondents were asked to rank the priority that should be given to specific construction types of housing in the area they serve. A total of 17 respondents provided insight to this question with the following results. Note that the top rated priority for each area is in red text.

Priority of Housing Construction Types				
Construction Type	Area Weighted Score*			
	Erie County	Huron County	Ottawa County	Firelands Region
Adaptive Reuse (i.e., Warehouse Conversion to Residential)	53.6	56.3	41.7	47.1
Repair/Renovation/Revitalization of Existing Housing	67.9	87.5	83.3	77.9
New Construction	75.0	75.0	66.7	73.5
Mixed-Use	53.6	62.5	58.3	52.9
Clear Blighted/Unused Structures for New Development	64.3	62.5	58.3	63.2

*High Priority = 100.0, Moderate Priority = 50.0, Low Priority = 25.0

Stakeholder respondents were asked to identify common barriers or obstacles that exist in the area they serve that limit residential development. A total of 17 respondents provided feedback to this question. Note that the most commonly cited barriers/obstacles for each area are in red text.

Common Barriers/Obstacles to Residential Development				
Barrier/Obstacle	Share of Area Respondents			
	Erie County	Huron County	Ottawa County	Firelands Region
Availability of Land	85.7%	0.0%	33.3%	47.1%
Cost of Infrastructure	71.4%	100.0%	33.3%	64.7%
Cost of Labor/Materials	100.0%	100.0%	0.0%	82.4%
Cost of Land	42.9%	25.0%	0.0%	29.4%
Community Support	57.1%	25.0%	66.7%	52.9%
Crime/Perception of Crime	28.6%	0.0%	0.0%	11.8%
Development Costs	85.7%	75.0%	66.7%	76.5%
Financing	57.1%	25.0%	0.0%	35.3%
Housing Converting to Short-Term/Vacation Rentals	42.9%	25.0%	33.3%	41.2%
Lack of Community Services	0.0%	0.0%	0.0%	5.9%
Lack of Buildable Sites	57.1%	0.0%	0.0%	29.4%
Lack of Infrastructure	42.9%	50.0%	0.0%	41.2%
Lack of Parking	0.0%	0.0%	0.0%	0.0%
Lack of Public Transportation	14.3%	25.0%	33.3%	23.5%
Land/Zoning Regulations	28.6%	25.0%	33.3%	23.5%
Local Government Regulations ("red tape")	28.6%	0.0%	0.0%	17.6%
Neighborhood Blight	42.9%	0.0%	0.0%	17.6%
Tap Fees	0.0%	0.0%	0.0%	0.0%
Other Government Fees	0.0%	0.0%	0.0%	0.0%

In addition to the feedback illustrated in the previous table, three stakeholder respondents provided open-ended feedback related to common barriers/obstacles in their area. Topics within Ottawa County include *the lack of qualified builders and developers, and the prevalence of seasonal employment*. Within Huron County, topics cited include *the general lack of desire to build and the incentive to rent properties rather than selling*.

Stakeholder respondents were asked to identify what they believe represent the best options to reduce or eliminate barriers to residential development in the area they serve. A total of 17 respondents provided insight to this question with the following results. Note that the most commonly cited responses for each area are in red text.

Best Options to Reduce Barriers/Obstacles to Residential Development				
Initiative to Reduce Barriers/Obstacles	Share of Area Respondents			
	Erie County	Huron County	Ottawa County	Firelands Region
Accessory Dwelling Unit Opportunities	0.0%	0.0%	0.0%	5.9%
Build Consensus among Communities/Advocates	57.1%	0.0%	66.7%	41.2%
Collaboration between Public and Private Sectors	85.7%	50.0%	66.7%	64.7%
Educate the Public on Importance of Housing	42.9%	25.0%	66.7%	41.2%
Educate the Public on Importance of Different Types of Housing	71.4%	25.0%	66.7%	47.1%
Establishment of a Housing Trust Fund (Focuses on Preservation/Development of Affordable Housing)	28.6%	25.0%	0.0%	17.6%
Establish Centralized Developer/Builder Resource Center	42.9%	0.0%	0.0%	17.6%
Establish Rental Inspection Program	14.3%	25.0%	0.0%	17.6%
Establish Rental Registry	14.3%	25.0%	0.0%	17.6%
Establishment of Land Banks	0.0%	0.0%	0.0%	0.0%
Expand Grant Seeking Efforts	0.0%	50.0%	0.0%	11.8%
Housing Gap/Bridge Financing	28.6%	25.0%	0.0%	17.6%
Government Assistance with Infrastructure	14.3%	50.0%	0.0%	29.4%
Government Sale of Public Land/Buildings at Discount or Donated	28.6%	0.0%	0.0%	17.6%
Issuance of Local Housing Bond	0.0%	0.0%	0.0%	0.0%
Pooling of Public, Philanthropic, and Private Resources	42.9%	50.0%	0.0%	35.3%
Removal of City Fines/Fees/Liens on Existing Homes to Encourage Transactions	0.0%	0.0%	0.0%	0.0%
Revisit/Modify Zoning (e.g., density, setbacks, etc.)	0.0%	0.0%	33.3%	5.9%
Secure Additional Housing Choice Vouchers	14.3%	0.0%	0.0%	11.8%
Support/Expand Code Enforcement	0.0%	0.0%	33.3%	11.8%
Tax Abatements	28.6%	0.0%	0.0%	29.4%
Tax Credits	14.3%	25.0%	0.0%	23.5%
Waive/Lower Development Fees	0.0%	0.0%	0.0%	5.9%

In addition to the feedback illustrated in the previous table, two respondents provided insight in the form of an open-ended response. Topics cited by the respondents included *reducing the incentive for investors to rent properties and increase home ownership in the area (Huron County), and increasing the number of housing units with rents less than \$650, which will likely require solutions outside of new construction (Ottawa County).*

Stakeholder respondents were given a list of initiatives and asked to identify three that should be areas of focus for the area they serve. A total of 17 respondents provided insight to this question with the following results. Note that the most commonly cited responses for each area are in red text.

Areas of Focus				
Initiative	Share of Area Respondents			
	Erie County	Huron County	Ottawa County	Firelands Region
Accessibility To Key Community Services (e.g., Healthcare, Childcare, Etc.)	14.3%	50.0%	0.0%	23.5%
Accessibility to Recreational Amenities	14.3%	25.0%	33.3%	29.4%
Address Crime	0.0%	0.0%	0.0%	5.9%
Address Parking	14.3%	0.0%	0.0%	5.9%
Critical Home Repair	14.3%	25.0%	33.3%	29.4%
Develop New Housing	71.4%	75.0%	66.7%	70.6%
Improve Public Transportation	14.3%	75.0%	33.3%	41.2%
Removal/Mitigation of Residential Blight	28.6%	0.0%	33.3%	29.4%
Renovate/Repurpose Buildings for Housing	71.4%	25.0%	0.0%	41.2%
Unit Modifications to Allow Aging In Place	14.3%	0.0%	33.3%	11.8%

In addition to the areas of focus identified in the previous table, one respondent noted in an open-ended response that *accessible units for mobility impairments* (Ottawa County) should be an area of focus for the county.

Stakeholder respondents were asked to approximate the degree that housing impacts local residents in the area they serve. A total of 17 respondents provided insight to this question with the following results. Note that the top impact per stakeholders for each area is in red text.

Housing Impacts on Local Residents				
Impact	Area Weighted Score*			
	Erie County	Huron County	Ottawa County	Firelands Region
Causes People to Live In Housing They Cannot Afford	57.1	81.3	50.0	69.1
Causes People to Live In Substandard Housing	64.3	81.3	50.0	72.1
Causes People to Live In Unsafe Housing or Neighborhoods	42.9	81.3	25.0	54.4
Limits The Ability of Families to Grow/Thrive	53.6	100.0	50.0	67.6
Prevents Seniors from Living In Housing That Fits Their Needs	57.1	81.3	75.0	62.5

*Significant Impact = 100.0, Minor Impact = 50.0, No Impact = 0.0

In addition to the responses in the previous table, one respondent noted that area housing issues *cause potential new residents and home buyers to look elsewhere for housing* (Erie County).

Stakeholder respondents were asked to identify which options should become priorities to assist *renters* in the area they serve. A total of 17 respondents provided feedback to this question with the following results. Note that the most commonly cited responses for each area are in **red** text.

Renter Assistance Priorities				
Assistance Priority	Share of Area Respondents			
	Erie County	Huron County	Ottawa County	Firelands Region
Renter Security Deposit Assistance	42.9%	75.0%	33.3%	47.1%
Landlord/Tenant Conflict Resolution	57.1%	75.0%	0.0%	47.1%
Renter Eviction Prevention	0.0%	0.0%	33.3%	11.8%
Credit Repair Assistance	28.6%	75.0%	33.3%	52.9%
Background Check Resolution	14.3%	25.0%	33.3%	23.5%
Housing Resource Center	42.9%	50.0%	0.0%	41.2%
Housing Counselor	28.6%	25.0%	33.3%	35.3%
Housing Placement Service	42.9%	50.0%	33.3%	52.9%
Rental Housing Inspection Program	57.1%	25.0%	0.0%	47.1%
Rental Housing Registry	28.6%	0.0%	33.3%	29.4%
Legal Aid Services for Housing	14.3%	50.0%	33.3%	29.4%
Properties that Meet Code/Life Safety Compliance	42.9%	25.0%	66.7%	47.1%

In addition to the feedback provided in the previous table, two respondents provided additional insight in the form of an open-ended response. One key topic included *more emphasis on the importance of credit repair assistance for individuals with poor credit history* (Erie County).

Stakeholder respondents were asked to identify which options should become priorities to assist *homeowners* or buyers in the area they serve. A total of 17 respondents provided feedback to this question. The following table summarizes the responses from stakeholders. Note that the most commonly cited responses for each area are in **red** text.

Homeowner/Buyer Assistance Priorities				
Assistance Priority	Share of Area Respondents			
	Erie County	Huron County	Ottawa County	Firelands Region
Homebuyer Downpayment Assistance	57.1%	75.0%	33.3%	52.9%
Homebuyer/Homeowner Education	71.4%	50.0%	66.7%	52.9%
Credit Repair Assistance	28.6%	50.0%	66.7%	52.9%
Background Check Resolution	14.3%	50.0%	0.0%	23.5%
Housing Counselor	42.9%	50.0%	33.3%	47.1%
Legal Aid Services for Housing	0.0%	0.0%	0.0%	5.9%
Home Repair Assistance	71.4%	50.0%	66.7%	70.6%
Home Modification Assistance	14.3%	25.0%	33.3%	29.4%
Home Weatherization Assistance	28.6%	0.0%	0.0%	23.5%
Foreclosure Avoidance Education	14.3%	50.0%	33.3%	29.4%
Property Maintenance Education	71.4%	75.0%	100.0%	82.4%

Stakeholder respondents were asked to provide any additional information about housing challenges in the area they serve in the form of an open-ended response. A total of five respondents provided additional insight. Some key points from the responses are summarized below.

- It is difficult for young families to purchase homes. Investors purchase properties before individuals with less established credit have a chance to buy a home.
- VRBO's have consumed a lot of the competitive inventory in the area that would be attractive to potential new residents.
- Conversion to Airbnb/seasonal rentals has decimated the housing/rental stock. Local governments need to review zoning regulations, issue a limited number of licenses for short-term rentals, and use the money collected for the licenses to assist efforts in housing local residents.
- Local residents do not have sufficient income for housing due to the seasonality of the area. Costs for landlords are high due to property taxes, unit turn arounds, and lack of available contractors, and these costs are passed on to the renters. Many residents cannot afford the HUD Fair Market Rent of \$785 for a two-bedroom unit.
- The gap between the housing choice voucher amount and Fair Market Rent is not sustainable for property managers in the area.

Stakeholder respondents were asked if they are knowledgeable of the homeless population or other special needs populations with regards to housing in their area. A total of 17 respondents provided feedback with the following distribution.

Knowledgeable of Homeless/Special Needs Populations					
Response	Number (Share) of Area Respondents				
	Erie County	Huron County	Ottawa County	Firelands Region	Total All
Yes	3 (42.9%)	1 (25.0%)	2 (66.6%)	1 (33.3%)	7 (41.2%)
No	4 (57.1%)	3 (75.0%)	1 (33.3%)	2 (66.6%)	10 (58.8%)

Stakeholder respondents were then asked to rank the need for specialized housing types (emergency shelters, group homes, permanent supportive housing, and traditional housing) for specific special needs populations in the area they serve. A total of nine respondents provided feedback to this question. Note that due to the low number of responses provided for this question, the following table illustrates the results for the entirety of the PSA (Firelands Region) only. The highest rated specialized housing type needed for each population group is in red text.

Need for Housing Types Among Special Needs Populations PSA (Firelands Region)			
Housing Type	Target Population (Weighted Score*)		
	Physically Disabled	Mental Illness	Substance Abuse/Addiction
Emergency Shelter	47.2	66.7	66.7
Group Homes	43.8	53.1	53.1
Permanent Supportive Housing	56.3	75.0	75.0
Transitional Housing	40.6	59.4	65.6

*High Need = 100.0, Moderate Need = 50.0, Minimal Need = 25.0, No Need = 0.0

Based on the survey results, permanent supportive housing is the highest rated need among all three special needs populations listed in the PSA (Firelands Region). In addition to permanent supportive housing, individuals with a mental illness appear to be in relatively high need of emergency shelters (weighted score of 66.7). Individuals with a substance abuse or addiction disorder would also benefit from emergency shelters (66.7) as well as transitional housing (65.6). Because these results are for the entirety of the PSA, it is likely that the specific needs within the three counties differ, and as such, further research should be conducted to determine the types of specialized housing that would most benefit the special needs populations in each county of the region.

Stakeholder respondents were asked to provide, in their opinion, the obstacles to the development of housing for homeless and/or special needs populations in the area they serve. A total of nine respondents provided insight to this question. Some key obstacles cited by stakeholders included topics related to the following.

- Lack of funding
- Available land/locations to build
- Public perception/stigma
- Need for organization to take leadership role/cooperation among agencies
- Accurate determination of the extent of need
- Shortage of workforce support personnel for the disabled

Stakeholder respondents were then asked to provide recommendations to address the needs of the homeless population and/or special needs populations in the area they serve. A total of six respondents provided additional insight to this question. Some key recommendations from stakeholders included the following.

- Publishing of statistics and best practices (success stories)
- Reduce certain documentation requirement practices which impede cooperation and efficiency between groups (acceptance of digital copies of documents)
- Recruitment of direct support professionals
- Collaboration between public and private sectors to identify barriers and implement solutions
- Additional educational and advocacy resources

Stakeholder Summary

Firelands Region, Ohio Summary of Stakeholder Survey Results

Category	Area	Top Needs / Issues	Consensus
Housing Needs by Price Point	Erie County	<ul style="list-style-type: none"> • Rental Housing (\$500-\$999/month) • For-Sale Housing (\$150,000-\$199,999) 	85.7* 78.6*
	Huron County	<ul style="list-style-type: none"> • For-Sale Housing (Less than \$150,000) • Rental Housing (Less than \$500/month) • Senior Care (incomes/assets <\$25,000) 	100.0* 87.5* 87.5*
	Ottawa County	<ul style="list-style-type: none"> • Rental Housing (Less than \$500/month) • For-Sale Housing (Less than \$150,000) 	100.0* 100.0*
	Firelands Region	<ul style="list-style-type: none"> • For-Sale Housing (Less than \$150,000) • Rental Housing (\$500-\$999/month) • Rental Housing (Less than \$500/month) 	85.3* 82.4* 80.9*
Housing Needs by Population	Erie County	<ul style="list-style-type: none"> • Low-Income Workforce (<\$30k) • Moderate Income Workforce (\$30k-\$60k) 	92.9* 92.9*
	Huron County	<ul style="list-style-type: none"> • Family Housing (2+ Bedrooms) • Housing for Millennials (Ages 25-39) • Moderate Income Workforce (\$30k-\$60k) 	100.0* 100.0* 100.0*
	Ottawa County	<ul style="list-style-type: none"> • Low-Income Workforce (<\$30k) • Moderate Income Workforce (\$30k-\$60k) 	100.0* 100.0*
	Firelands Region	<ul style="list-style-type: none"> • Low-Income Workforce (<\$30k) • Moderate Income Workforce (\$30k-\$60k) 	94.1* 94.1*
Housing Needs by Style	Erie County	<ul style="list-style-type: none"> • Duplex/Triplex/Townhomes • Ranch Homes/Single Floor Plan Units 	71.4* 71.4*
	Huron County	<ul style="list-style-type: none"> • Multifamily Apartments • Duplex/Triplex/Townhomes • Low Cost Fixer-Uppers (single-family homes) 	87.5* 87.5* 87.5*
	Ottawa County	<ul style="list-style-type: none"> • Ranch Homes/Single Floor Plan Units • Traditional Two-Story Single-Family Homes 	100.0* 83.3*
	Firelands Region	<ul style="list-style-type: none"> • Traditional Two-Story Single-Family Homes • Ranch Homes/Single Floor Plan Units 	79.4* 77.9*
Housing Issues Experienced	Erie County	<ul style="list-style-type: none"> • Limited Availability • Rent Affordability 	85.7% 85.7%
	Huron County	<ul style="list-style-type: none"> • Rent Affordability • Limited Availability • Home Purchase Affordability 	100.0% 75.0% 75.0%
	Ottawa County	<ul style="list-style-type: none"> • Limited Availability • Home Purchase Affordability 	100.0% 100.0%
	Firelands Region	<ul style="list-style-type: none"> • Rent Affordability • Limited Availability 	88.2% 82.4%
Priority by Construction Type	Erie County	<ul style="list-style-type: none"> • New Construction 	75.0*
	Huron County	<ul style="list-style-type: none"> • Repair/Renovation/Revitalization of Existing Housing 	87.5*
	Ottawa County	<ul style="list-style-type: none"> • Repair/Renovation/Revitalization of Existing Housing 	83.3*
	Firelands Region	<ul style="list-style-type: none"> • Repair/Renovation/Revitalization of Existing Housing 	77.9*

*Denotes weighted score

(Continued)

Firelands Region, Ohio Summary of Stakeholder Survey Results			
Category	Area	Top Needs / Issues	Consensus
Common Residential Barriers	Erie County	<ul style="list-style-type: none"> • Cost of Labor/Materials • Availability of Land • Development Costs 	100.0% 85.7% 85.7%
	Huron County	<ul style="list-style-type: none"> • Cost of Infrastructure • Cost of Labor/Materials 	100.0% 100.0%
	Ottawa County	<ul style="list-style-type: none"> • Community Support • Development Costs 	66.7% 66.7%
	Firelands Region	<ul style="list-style-type: none"> • Cost of Labor/Materials • Development Costs • Cost of Infrastructure 	82.4% 76.5% 64.7%
Best Options to Reduce Barriers	Erie County	<ul style="list-style-type: none"> • Collaboration Between Public and Private Sectors • Educate Public on Importance of Diff. Types of Housing • Build Consensus Among Communities/Advocates 	85.7% 71.4% 57.1%
	Huron County	<ul style="list-style-type: none"> • Collaboration Between Public and Private Sectors • Expand Grant Seeking Efforts • Government Assistance with Infrastructure • Pooling of Public, Philanthropic, and Private Resources 	50.0% 50.0% 50.0% 50.0%
	Ottawa County	<ul style="list-style-type: none"> • Build Consensus Among Communities/Advocates • Collaboration Between Public and Private Sectors • Educate Public on Importance of Housing • Educate Public on Importance of Diff. Types of Housing 	66.7% 66.7% 66.7% 66.7%
	Firelands Region	<ul style="list-style-type: none"> • Collaboration Between Public and Private Sectors • Educate Public on Importance of Diff. Types of Housing • Build Consensus Among Communities/Advocates • Educate Public on Importance of Housing 	64.7% 47.1% 41.2% 41.2%
Areas of Focus	Erie County	<ul style="list-style-type: none"> • Develop New Housing • Renovate/Repurpose Buildings for Housing 	71.4% 71.4%
	Huron County	<ul style="list-style-type: none"> • Develop New Housing • Improve Public Transportation 	75.0% 75.0%
	Ottawa County	<ul style="list-style-type: none"> • Develop New Housing 	66.7%
	Firelands Region	<ul style="list-style-type: none"> • Develop New Housing • Improve Public Transportation • Renovate/Repurpose Buildings for Housing 	70.6% 41.2% 41.2%
Renter Assistance Priorities	Erie County	<ul style="list-style-type: none"> • Landlord/Tenant Conflict Resolution • Rental Housing Inspection Program 	57.1% 57.1%
	Huron County	<ul style="list-style-type: none"> • Renter Security Deposit Assistance • Landlord/Tenant Conflict Resolution • Credit Repair Assistance 	75.0% 75.0% 75.0%
	Ottawa County	<ul style="list-style-type: none"> • Properties That Meet Code/Life Safety Compliance 	66.7%
	Firelands Region	<ul style="list-style-type: none"> • Credit Repair Assistance • Housing Placement Service 	52.9% 52.9%

*Denotes weighted score

(Continued)

Firelands Region, Ohio Summary of Stakeholder Survey Results			
Category	Area	Top Needs / Issues	Consensus
Homeowner/Buyer Assistance Priorities	Erie County	<ul style="list-style-type: none"> Homebuyer/Homeowner Education Home Repair Assistance Property Maintenance Education 	71.4% 71.4% 71.4%
	Huron County	<ul style="list-style-type: none"> Homebuyer Downpayment Assistance Property Maintenance Education 	75.0% 75.0%
	Ottawa County	<ul style="list-style-type: none"> Property Maintenance Education 	100.0%
	Firelands Region	<ul style="list-style-type: none"> Property Maintenance Education Home Repair Assistance 	82.4% 70.6%
Housing Types for Special Needs Populations	Firelands Region	<ul style="list-style-type: none"> <i>Permanent Supportive Housing</i> ranked as the highest need for all three special needs populations Persons with a Disability Persons with a Mental Illness Persons with Substance Abuse/Addiction 	56.3* 75.0* 75.0*

*Denotes weighted score

C. EMPLOYER SURVEY RESULTS

A total of 45 representatives from area employers responded to the housing survey with the following results. Note that percentages may not add up to 100.0% due to rounding or because respondents were able to select more than one answer.

Employer respondents were asked to provide the location (county) of their primary place of business. A total of 45 employers provided an answer to this question with the following distribution.

Employer Respondents by Location of Primary Business		
County/Area	Number	Share
Erie County	10	22.2%
Huron County	4	8.9%
Ottawa County	31	68.9%
Firelands Region	45	100.0%

Employer respondents were asked to describe the primary business activity of their business. A total of 45 employers provided a response to this question with the following results.

Employer Respondents by Primary Business Type					
Business Type	Number	Share	Business Type	Number	Share
Manufacturing	10	22.2%	Recreation	2	4.4%
Public/Government	7	15.6%	Education	1	2.2%
Professional (Accounting, Legal, Etc.)	4	8.9%	Hospitality/Lodging	1	2.2%
Construction	4	8.9%	Tourism	1	2.2%
Retail	3	6.7%	Technology	0	0.0%
Healthcare	3	6.7%	Utilities	0	0.0%
Restaurant	2	4.4%	Other	7	15.6%

Among the employers that selected “Other” as their business type, primary activities included contract services, personal services, banking, alcohol distillation, entertainment, and nonprofit services.

Employer respondents were asked to approximate the number of people they employ locally. A total of 44 employers provided feedback to this question. Based on the survey responses, approximately 6,074 individuals are employed by these companies with the following distribution by county.

Number of Employees by County of Employer		
County/Area	Number	Share
Erie County	2,187	36.0%
Huron County	99	1.6%
Ottawa County	3,788	62.4%
Firelands Region	6,074	100.0%

Employer respondents were asked to approximate the number of employees by employment status (part-time, full-time, seasonal). A total of 45 respondents provided feedback to this question with the following distribution.

Share of Employees by Employment Status by Area				
Employment Status	Erie County	Huron County	Ottawa County	Firelands Region
Part-Time	35.0%	1.6%	10.4%	18.2%
Full-Time	64.6%	20.5%	82.0%	70.4%
Seasonal	0.5%	77.8%	7.6%	11.4%
Total	100.0%	100.0%	100.0%	100.0%

Employer respondents were asked to approximate the percentage of their employees who reside within each county of the region. A total of 45 respondents provided feedback to this question. The following table illustrates the share of employees by county of residence for the employers in each county of the region.

Share of Employees by County of Employment by County of Residence			
County of Employment	County of Residence		
	Erie County	Huron County	Ottawa County
Erie County	81.2%	8.4%	8.7%
Huron County	17.2%	57.6%	24.2%
Ottawa County	10.8%	4.0%	77.1%

As the preceding illustrates, over four-fifths (81.2%) of employees who work for an Erie County employer reside within Erie County. Within Huron County, 57.6% of individuals employed by the Huron County employer respondents live within Huron County, while nearly one-fourth (24.2%) of the employees reside in Ottawa County. Over three-fourths (77.1%) of the individuals employed by the Ottawa County employer respondents reside in Ottawa County, while 10.8% reside within Erie County. Although these are estimates based on the responses of the employers surveyed, the data illustrates that a vast majority of employees typically reside within the county of their employment or commute from a county within the region.

Employer respondents were asked to approximate the number of *new jobs by annual wages* that their company will create over the next three years. A total of 37 respondents provided insight to this question. The following table summarizes the number of new jobs by salary range by county.

Estimated New Jobs Created by Annual Salary by County (Next Three Years)				
Annual Salary	Erie County	Huron County	Ottawa County	Firelands Region Total
Less than \$25,000	2	0	30	32
\$25,000 to \$50,000	12	9	93	114
\$51,000 to \$75,000	8	5	369	382
\$76,000 to \$100,000	1	3	56	60
Over \$100,000	0	1	28	29
Total	23	18	576	617

As the preceding table illustrates, employer respondents estimate the creation of approximately 617 new jobs in the Firelands Region over the next three years. A total of 93.3% of these jobs are within Ottawa County, with the largest share (64.1%) of the new jobs expected to earn between \$51,000 and \$75,000 annually. It should be noted that 25 of the 37 respondents (67.6%) to this question are located in Ottawa County. Nonetheless, this represents considerable job creation with substantial wages in the county over the next three years. It is also important to note, however, that these are estimates provided by respondents based on current economic conditions, and these estimates can change for variety of reasons at any point in time.

Employer respondents were asked if they have had difficulty attracting or retaining employees due to housing related issues in the past couple of years. A total of 45 respondents provided feedback to this question with the following distribution.

Difficulty Attracting/Retaining Employees by County								
Difficulty Attracting/ Retaining Employees	Erie County		Huron County		Ottawa County		Firelands Region Total	
	Number	Share	Number	Share	Number	Share	Number	Share
Yes	1	10.0%	0	0.0%	10	32.3%	11	24.4%
No	6	60.0%	4	100.0%	11	35.5%	21	46.7%
Unknown	3	30.0%	0	0.0%	10	32.3%	13	28.9%
Total	10	100.0%	4	100.0%	31	100.0%	45	100.0%

Employer respondents were asked to identify the three most common housing issues or challenges experienced by their respective employees. Employers could select options from a list of common housing issues that was provided. A total of 42 respondents (nine from Erie County, three from Huron County, and 30 from Ottawa County) provided feedback to this question with the following distribution of responses. Note that the top responses for each area are in red text.

Housing Issues/Challenges Experienced by Employees by County								
Housing Issue	Erie County		Huron County		Ottawa County		Firelands Region Total	
	Number	Share	Number	Share	Number	Share	Number	Share
Housing is Far from Work	2	22.2%	0	0.0%	8	26.7%	10	23.8%
Lack of Available Housing	4	44.4%	1	33.3%	14	46.7%	19	45.2%
Unaffordable Rental Housing	3	33.3%	0	0.0%	15	50.0%	18	42.9%
Unaffordable For-Sale Housing	4	44.4%	1	33.3%	10	33.3%	15	35.7%
Lack of Quality Housing	1	11.1%	1	33.3%	5	16.7%	7	16.7%
Lack of Modern Housing	1	11.1%	2	66.7%	5	16.7%	8	19.0%
Housing Doesn't Meet Employee's Needs	4	44.4%	1	33.3%	3	10.0%	8	19.0%
Housing is Not Near Community Services	0	0.0%	0	0.0%	1	3.3%	1	2.4%
Housing is Not Near Transit	0	0.0%	0	0.0%	1	3.3%	1	2.4%
Housing is Flood-Prone	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Evictions	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Residential Foreclosure	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Difficulty Accessing Financing/Credit	0	0.0%	0	0.0%	4	13.3%	4	9.5%
Lack of Deposit/Down Payment	1	11.1%	0	0.0%	4	13.3%	5	11.9%
Renovation/Repair Costs	1	11.1%	1	33.3%	4	13.3%	6	14.3%
High Renter/Homeowner Insurance Costs	0	0.0%	0	0.0%	1	3.3%	1	2.4%
Other	2	22.2%	1	33.3%	5	16.7%	8	19.0%

Employer respondents were then asked how the housing issues that their employees or prospective employees experience are impacting the company. Employers could select from a list of impact options that was provided. A total of 39 respondents (eight from Erie County, three from Huron County, and 28 from Ottawa County) provided feedback to this question. The following table illustrates the distribution of responses. Note that the top responses for each area are in red text.

Impacts for Employers Resulting from Housing Issues by County								
Impact	Erie County		Huron County		Ottawa County		Firelands Region Total	
	Number	Share	Number	Share	Number	Share	Number	Share
Difficulty Attracting Employees	3	37.5%	1	33.3%	10	35.7%	14	35.9%
Difficulty Retaining Employees	3	37.5%	1	33.3%	7	25.0%	11	28.2%
Adds to Company Costs	1	12.5%	0	0.0%	4	14.3%	5	12.8%
Adversely Impacts Company Morale	2	25.0%	0	0.0%	3	10.7%	5	12.8%
Adversely Impacts Productivity	1	12.5%	1	33.3%	3	10.7%	5	12.8%
Difficult to Stay in Business	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Unable to Grow/Expand Business	3	37.5%	1	33.3%	4	14.3%	8	20.5%
Unknown	4	50.0%	0	0.0%	11	39.3%	15	38.5%
Other	0	0.0%	1	33.3%	2	7.1%	3	7.7%

Employer respondents were then asked if additional housing were provided in the region that adequately served the needs of employees, to what degree would this increase the likelihood that their company would employ more people over the next three years. A total of 44 respondents (10 from Erie County, three from Huron County, and 31 from Ottawa County) supplied answers to this question with the following distribution.

Likelihood of Increasing Number of Employees if Adequate Housing Available								
Likelihood	Erie County		Huron County		Ottawa County		Firelands Region Total	
	Number	Share	Number	Share	Number	Share	Number	Share
Much More Likely	0	0.0%	0	0.0%	5	16.1%	5	11.4%
Somewhat Likely	3	30.0%	1	33.3%	14	45.2%	18	40.9%
Not Likely/No Impact	2	20.0%	1	33.3%	2	6.5%	5	11.4%
Unknown	5	50.0%	1	33.3%	10	32.3%	16	36.4%

Employer respondents were asked how many additional employees their company would hire in the next three years if housing were not an issue. A total of 45 respondents provided insight to this question. Twenty-five respondents, or 55.6% of the respondents, indicated that they “did not know” the effect. Six respondents, or 13.3%, indicated there would be no additional employees hired, and **14** respondents, or **31.1%**, indicated that they would hire more staff, totaling between **120 and 140** additional employees in the region.

Employer respondents were asked if their company currently provides any type of housing assistance to employees and to specify the type provided. A total of 45 respondents provided feedback to this question with the following insight.

- **36 of the 45** respondents (**80.0%**) indicated that they do not provide any type of housing assistance.
- **Nine** respondents (**20.0%**) indicated they provide some type of housing assistance to employees. Assistance types cited by respondents include *rental assistance, down payment assistance, personal loans, financial education, relocation assistance, and workforce housing.*

Employer respondents were then asked what type of assistance, if any, would they *consider providing* to their employees to assist with housing. A total of 44 respondents provided insight to this question with the following distribution. Note that employers could select more than one type of program. Of those respondents willing to offer assistance, the top responses are shown in **red**.

Employer Provided Housing Assistance Programs	
Program	Share*
Homebuyer Downpayment Assistance	6.8%
Rental Security Deposit Assistance	11.4%
Rental Assistance/Subsidy	9.1%
Housing Counseling/Placement Services	9.1%
Housing Relocation Services/Assistance	20.5%
Housing Relocation Reimbursement	13.6%
Partnering In/Developing Employee Housing	2.3%
None	61.4%
Unknown	2.3%

*Share of employer respondents that indicated they would consider providing the program.

Employer respondents were asked to indicate the level of importance of future government housing programs, policies or initiatives that could be implemented to assist employees with housing, or addressing the market’s housing issues. A total of 41 respondents provided feedback to this question. The following table provides a weighted summary of the responses.

Housing Programs, Policies, and Initiatives by Degree of Importance (Per Employer Respondents)	
Program	Weighted Score*
New Housing Development/Redevelopment	56.3
Renter Assistance	47.6
Homebuyer Assistance	46.3
Housing Assistance for Public Employees (Police, Fire, Teachers, Etc.)	38.8
Development of More Public Housing	36.2
Direct Government Investment in Land for Workforce Housing (Land Banking)	34.2

*Most Important = 100.0, Somewhat Important = 50.0, Least Important = 25.0

Employer respondents were asked to rank the degree of need for housing for their employees in terms of product pricing. A total of 44 respondents provided insight to this question with the following distribution of responses.

Employee Housing Needs by Product Pricing (Per Employer Respondents)	
Type of Housing Product (Price)	Share of Respondents
Entry Level/Workforce For-Sale Housing (Below \$200,000)	72.7%
Affordable Rental Housing (Under \$750/month)	70.5%
Moderate Market-Rate Rental Housing (\$750-\$1,250/month)	52.3%
Moderate For-Sale Housing (\$200,000-\$300,000)	36.4%
Higher-End For-Sale Housing (Above \$300,000)	6.8%
Higher-End Market-Rate Rental Housing (Above \$1,250/month)	0.0%

Employer respondents were asked to rank the degree of need for housing for their employees in terms of product type. A total of 44 respondents provided insight to this question with the following distribution of responses.

Employee Housing Needs by Product Type (Per Employer Respondents)	
Type of Housing Product	Share of Respondents
Single-Family Homes (Owner)	86.4%
Single-Family Homes (Rental)	59.1%
Multifamily Apartments	29.6%
Condominiums (Owner)	20.5%
Duplex/Townhome (Rental)	15.9%
Duplex/Townhome (Owner)	13.6%
Condominiums (Rental)	6.8%
Mobile Homes	4.6%
Short-Term/Seasonal Housing	4.6%
Dormitories/Shared Living	2.3%

Employer respondents were asked to provide any additional comments regarding housing issues and needs that impact employees within the tri-county area (Firelands Region). A total of nine respondents provided feedback in the form of an open-ended response. Feedback from respondents included topics related to a *lack of available supply, the need for more modern mid-level priced housing, the abundance of short-term rentals, the financial incentive of owners to rent housing through the short-term market, the mismatch of wages to the cost of housing, and the lack of affordable rental housing (under \$1,000 per month).*

Employer Summary

**Firelands Region, Ohio
Summary of Employer Survey Results**

Category	Area	Top Needs / Issues	Consensus
Housing Issues for Employees	Erie County	<ul style="list-style-type: none"> Lack of Available Housing Unaffordable For-Sale Housing Housing Does Not Meet Employee’s Needs 	44.4% 44.4% 44.4%
	Huron County	<ul style="list-style-type: none"> Lack of Modern Housing 	66.7%
	Ottawa County	<ul style="list-style-type: none"> Unaffordable Rental Housing Lack of Available Housing Unaffordable For-Sale Housing 	50.0% 46.7% 33.3%
	Firelands Region	<ul style="list-style-type: none"> Lack of Available Housing Unaffordable Rental Housing Unaffordable For-Sale Housing 	45.2% 42.9% 35.7%
Impacts for Employers	Erie County	<ul style="list-style-type: none"> Difficulty Attracting and/or Retaining Employees Unable to Grow/Expand Business 	37.5% 37.5%
	Huron County	<ul style="list-style-type: none"> Difficulty Attracting and/or Retaining Employees Adversely Impacts Productivity Unable to Grow/Expand Business 	33.3% 33.3% 33.3%
	Ottawa County	<ul style="list-style-type: none"> Difficulty Attracting Employees Difficulty Retaining Employees 	35.7% 25.0%
	Firelands Region	<ul style="list-style-type: none"> Difficulty Attracting Employees Difficulty Retaining Employees Unable to Grow/Expand Business 	35.9% 28.2% 20.5%
Effects of Adequate Housing Supply for Employers	Firelands Region	<ul style="list-style-type: none"> Much More or Somewhat More Likely to Hire New Employees Additional Employees Hired 	52.3% 120 to 140
Current Employer Provided Housing Assistance	Firelands Region	<ul style="list-style-type: none"> Do Not Currently Provide Housing Assistance to Employees Provide Some Type of Housing Assistance to Employees 	80.0% 20.0%
Housing Assistance Program Consideration	Firelands Region	<ul style="list-style-type: none"> Provide Housing Relocation Services/Assistance Housing Relocation Reimbursement Rental Security Deposit Assistance 	20.5% 13.6% 11.4%
Housing Programs or Policy Importance	Firelands Region	<ul style="list-style-type: none"> New Housing Development/Redevelopment Renter Assistance Homebuyer Assistance 	56.3* 47.6* 46.3*
Employee Housing Needs by Product Pricing	Firelands Region	<ul style="list-style-type: none"> Entry Level/Workforce For-Sale Housing (Below \$200,000) Affordable Rental Housing (Under \$750/Month) Moderate Market-Rate Rental Housing (\$750-\$1,250/Month) 	72.7% 70.5% 52.3%
Employee Housing Needs by Product Type	Firelands Region	<ul style="list-style-type: none"> Single-Family Homes (Owner) Single Family Homes (Rental) Multifamily Apartments 	86.4% 59.1% 29.6%

*Denotes weighted score

D. RESIDENT/COMMUTER SURVEY RESULTS

A total of 558 residents and 21 commuters responded to the housing survey with the following results. Note that percentages may not add up to 100.0% due to rounding or because respondents were able to select more than one answer.

Current Housing Situation

Respondents were asked which county they currently live in or if they commute to one of the counties in the region. A total of 579 respondents provided feedback to this question.

County of Residence/Commuter Status		
County	Number of Respondents	Share of Respondents
Erie County	411	71.0%
Huron County	84	14.5%
Ottawa County	63	10.9%
Non-Resident Commuter	21	3.6%

Resident respondents were asked whether they rent or own their current home (tenure). A total of 514 residents provided feedback to this question with the following distribution.

Resident Respondents by Housing Tenure by Area								
Tenure Type	Erie County		Huron County		Ottawa County		Firelands Region	
	Number	Share	Number	Share	Number	Share	Number	Share
Rent	76	20.2%	7	9.1%	5	8.2%	88	17.1%
Own	277	73.7%	64	83.1%	54	88.5%	395	76.8%
Caretaker (No Rent)	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Live With Family/Friends	17	4.5%	6	7.8%	1	1.6%	24	4.7%
Other	6	1.6%	0	0.0%	1	1.6%	7	1.4%
Total	376	100.0%	77	100.0%	61	100.0%	514	100.0%

Resident respondents were asked to select the housing structure type that best describes their current residence. A total of 514 residents provided feedback to this question with the following results.

Resident Respondents by Housing Structure Type by Area								
Structure Type	Erie County		Huron County		Ottawa County		Firelands Region	
	Number	Share	Number	Share	Number	Share	Number	Share
Single-Family Home	306	81.4%	68	88.3%	51	83.6%	425	82.7%
Duplex/Triplex/Townhome	15	4.0%	3	3.9%	0	0.0%	18	3.5%
Condominium	9	2.4%	3	3.9%	3	4.9%	15	2.9%
Apartment Building	34	9.0%	3	3.9%	2	3.3%	39	7.6%
Senior Care	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Room Rental	1	0.3%	0	0.0%	0	0.0%	1	0.2%
Mobile Home	2	0.5%	0	0.0%	1	1.6%	3	0.6%
Accessory Dwelling Unit	3	0.8%	0	0.0%	1	1.6%	4	0.8%
Other	6	1.6%	0	0.0%	3	4.9%	9	1.8%
Total	376	100.0%	77	100.0%	61	100.0%	514	100.0%

Resident respondents were asked to indicate the number of people (including the respondent) that live in their current residence. A total of 514 residents provided feedback to this question with the following distribution.

Resident Respondents by Household Size by Area								
Household Size	Erie County		Huron County		Ottawa County		Firelands Region	
	Number	Share	Number	Share	Number	Share	Number	Share
1 Person	66	17.6%	11	14.3%	6	9.8%	83	16.1%
2 Person	144	38.3%	24	31.2%	30	49.2%	198	38.5%
3 Person	52	13.8%	15	19.5%	5	8.2%	72	14.0%
4 Person	70	18.6%	18	23.4%	11	18.0%	99	19.3%
5+ Person	44	11.7%	9	11.7%	9	14.8%	62	12.1%
Total	376	100.0%	77	100.0%	61	100.0%	514	100.0%

Resident respondents were asked to approximate their total monthly housing expenses (including rent/mortgage costs, utilities, taxes, insurance, etc.). A total of 514 residents provided insight to this question with the following distribution.

Resident Respondents by Monthly Housing Expenses by Area								
Total Monthly Housing Expense	Erie County		Huron County		Ottawa County		Firelands Region	
	Number	Share	Number	Share	Number	Share	Number	Share
No Expense (\$0)	4	1.1%	2	2.6%	1	1.6%	7	1.4%
Up to \$250	3	0.8%	0	0.0%	1	1.6%	4	0.8%
\$251 - \$500	19	5.1%	8	10.4%	5	8.2%	32	6.2%
\$501 - \$750	41	10.9%	8	10.4%	6	9.8%	55	10.7%
\$751 - \$1,000	48	12.8%	10	13.0%	3	4.9%	61	11.9%
\$1,001 - \$1,250	60	16.0%	13	16.9%	4	6.6%	77	15.0%
\$1,251 - \$1,500	58	15.4%	12	15.6%	7	11.5%	77	15.0%
\$1,501 - \$1,750	47	12.5%	6	7.8%	8	13.1%	61	11.9%
\$1,751 - \$2,000	39	10.4%	6	7.8%	13	21.3%	58	11.3%
Over \$2,000	57	15.2%	12	15.6%	13	21.3%	82	16.0%
Total	376	100.0%	77	100.0%	61	100.0%	514	100.0%

A list of common housing issues was supplied and resident respondents were asked to specify whether they have experienced, or are currently experiencing, any of the issues in their place of residence. A total of 514 residents provided feedback to this question with the following distribution. Note that the top three housing issues for each area are in red text.

Housing Issues Experienced by Area								
Housing Issue	Erie County		Huron County		Ottawa County		Firelands Region	
	Number	Share	Number	Share	Number	Share	Number	Share
Overcrowded Housing	23	6.1%	6	7.8%	0	0.0%	29	5.6%
Cost Burdened (Paying More Than 30% of Income Toward Housing Cost)	106	28.2%	12	15.6%	7	11.5%	125	24.3%
Substandard Housing (Landlord Did Not Maintain)	19	5.1%	5	6.5%	0	0.0%	24	4.7%
Substandard Housing (I Couldn't Afford to Maintain)	16	4.3%	1	1.3%	0	0.0%	17	3.3%
Foreclosure	2	0.5%	2	2.6%	0	0.0%	4	0.8%
Expiring Lease or Eviction	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Homelessness	8	2.1%	0	0.0%	0	0.0%	8	1.6%
Had to Move In with Family and/or Friends	27	7.2%	2	2.6%	3	4.9%	32	6.2%
Credit Score Was Not High Enough for a Lease and/or Mortgage	37	9.8%	3	3.9%	1	1.6%	41	8.0%
Housing or Lending Discrimination	4	1.1%	0	0.0%	0	0.0%	4	0.8%
Landlords Won't Accept Housing Choice Vouchers	9	2.4%	1	1.3%	0	0.0%	10	1.9%
Did Not Have Sufficient Deposit or Down Payment	36	9.6%	2	2.6%	1	1.6%	39	7.6%
None	233	62.0%	57	74.0%	52	85.2%	342	66.5%
Total Respondents	376	100.0%	77	100.0%	61	100.0%	514	100.0%

Current Housing Market

Resident respondents of each county were asked to describe the overall housing market in their respective county of the region. A total of 398 residents provided insight to this question with the following results.

Housing Market Rating by County								
Rating	Erie County		Huron County		Ottawa County		Firelands Region	
	Number	Share	Number	Share	Number	Share	Number	Share
Good, No Issues	10	3.4%	2	3.6%	4	7.7%	16	4.0%
Fair, Some Issues	123	42.4%	21	37.5%	25	48.1%	169	42.5%
Poor, Many Issues	143	49.3%	28	50.0%	19	36.5%	190	47.7%
No Opinion	14	4.8%	5	8.9%	4	7.7%	23	5.8%
Total	290	100.0%	56	100.0%	52	100.0%	398	100.0%

Resident respondents of each county were asked if they believe it is difficult for people to find suitable housing in their respective county of the region. A total of 397 residents provided feedback to this question with the following distribution.

Degree of Difficulty to Locate Suitable Housing by County								
Degree of Difficulty	Erie County		Huron County		Ottawa County		Firelands Region	
	Number	Share	Number	Share	Number	Share	Number	Share
Very Difficult	173	59.7%	31	56.4%	31	59.6%	235	59.2%
Somewhat Difficult	103	35.5%	22	40.0%	20	38.5%	145	36.5%
Not Difficult	14	4.8%	2	3.6%	1	1.9%	17	4.3%
Total	290	100.0%	55	100.0%	52	100.0%	397	100.0%

Resident respondents were asked, based on their county of residence, to identify the top three issues that negatively impact their county's housing market. A total of 398 residents (290 in Erie County, 56 in Huron County, and 52 in Ottawa County) provided feedback to this question. Note that the top five cited issues for each area are in red text.

Issues Negatively Impacting Housing Market by Area				
Issue	Share of Area Respondents			
	Erie County	Huron County	Ottawa County	Firelands Region
High Prices or Rents	74.1%	62.5%	71.2%	72.1%
Owners Unable to Afford Home Maintenance/Upkeep	13.8%	21.4%	9.6%	14.3%
Inconvenient/Lack of Community Services (Healthcare, Pharmacies, Shopping, Etc.)	2.1%	7.1%	5.8%	3.3%
Neglected/Blighted Properties/Neighborhood (Poor Condition)	18.6%	28.6%	13.5%	19.3%
Lack of Housing to Meet Specific Needs (Beds, Baths, Etc.)	13.1%	14.3%	21.2%	14.3%
Lack of Features/Amenities (Playground, Street Trees, Well-Maintained Sidewalks, Etc.)	4.1%	0.0%	3.8%	3.5%
Lack of Advertising/Resources to Find Available Housing	1.4%	5.4%	0.0%	1.8%
Lack of Down Payment or Rental Deposit	10.3%	10.7%	9.6%	10.3%
Landlords Not Accepting Housing Choice Vouchers (Section 8)	5.2%	8.9%	0.0%	5.0%
Property/Income Taxes	12.1%	21.4%	19.2%	14.3%
Not Enough Housing/Rental Options (Few Vacancies)	44.8%	39.3%	55.8%	45.5%
Housing Being Converted to Short-Term/Vacation Rentals	28.6%	7.1%	21.2%	24.6%
Excessive/Rising Utility Costs	15.2%	23.2%	11.5%	15.8%
Housing Discrimination	0.7%	1.8%	0.0%	0.8%
Mismatch Between Local Jobs/Wages and Housing Costs	26.2%	23.2%	21.2%	25.1%
Mismatch Between Local Jobs and Location of Housing	3.8%	0.0%	3.8%	3.3%
High Crime	3.1%	3.6%	0.0%	2.8%
Lack of Quality Schools	1.0%	0.0%	0.0%	0.8%
Lack of Jobs	2.1%	1.8%	5.8%	2.5%
Lack of Financing Options	0.3%	0.0%	0.0%	0.3%
Lack of Public Transportation	2.8%	5.4%	3.8%	3.3%
Limited Social Services/Assistance Programs	1.7%	1.8%	0.0%	1.5%
No Opinion	0.7%	1.8%	0.0%	0.8%
Other	3.4%	1.8%	1.9%	3.0%

Resident respondents were asked, based on their county of residence, to identify the top five housing types most needed in their respective county. A total of 389 residents provided insight to this question with the following results. Note that the top five housing types most needed, per resident respondents, for each area are in red text.

Housing Types Most Needed by County				
Housing Type	Share of Area Respondents			
	Erie County	Huron County	Ottawa County	Firelands Region
Rental Housing (Less than \$500/month)	40.6%	51.9%	26.9%	40.4%
Rental Housing (\$500-\$1,000/month)	71.4%	70.4%	53.8%	68.9%
Rental Housing (\$1,001-\$1,500/month)	7.4%	5.6%	9.6%	7.5%
Rental Housing (Over \$1,500/month)	1.4%	0.0%	0.0%	1.0%
For-Sale Housing (Less than \$100,000)	49.1%	48.1%	36.5%	47.3%
For-Sale Housing (\$100,000-\$200,000)	46.3%	51.9%	55.8%	48.3%
For-Sale Housing (\$200,001-\$300,000)	11.0%	13.0%	30.8%	13.9%
For-Sale Housing (Over \$300,000)	3.2%	1.9%	5.8%	3.3%
Senior Apartments (Independent Living)	27.2%	44.4%	28.8%	29.8%
Senior Care Facilities (Assisted Living/Nursing Care)	7.8%	22.2%	9.6%	10.0%
Senior Condominiums (For-Sale Housing)	17.3%	16.7%	25.0%	18.3%
Single-Person (Studio/One-Bedroom)	19.8%	22.2%	13.5%	19.3%
Family Housing (2+ Bedrooms)	42.4%	46.3%	50.0%	44.0%
Housing for Ages 25-40	33.2%	25.9%	32.7%	32.1%
Communal Housing (Shared Living Space)	6.7%	5.6%	3.8%	6.2%
Rentals that Accept Housing Choice Vouchers	17.0%	16.7%	9.6%	15.9%
Other	4.9%	3.7%	7.7%	5.1%

Resident respondents were asked to rate the degree of need (High, Moderate, Minimal, No Need) for certain *housing styles* in their county. A total of 388 residents provided feedback to this question. The following table provides a *weighted* summary of respondent feedback by county.

Degree of Need for Housing Styles by County				
Housing Style	Area Weighted Score*			
	Erie County	Huron County	Ottawa County	Firelands Region
Apartments	64.4	67.9	67.5	65.3
Duplex/Triplex/Townhomes	50.9	53.9	52.6	51.5
Condominiums	33.9	40.5	40.1	35.6
Ranch Homes/Single Floor Plan Units	60.3	66.2	60.7	61.2
Low Cost Fixer-Uppers (Single-Family Homes)	47.9	44.9	44.4	47.0
Modern Move-In Ready Single-Family Homes	62.2	72.1	70.5	64.7
Single-Room Occupancy (SRO)	31.9	37.5	33.5	32.9
Accessory Dwelling Unit (Above Garage, Income Suite, Etc.)	30.6	31.4	25.0	30.0

*High Need = 100.0, Moderate Need = 50.0, Minimal Need = 25.0, No Need = 0.0

Respondents were given an opportunity to provide, in their opinion, the most significant housing issue experienced in their respective county and the region, as a whole. A total of 308 Firelands Region residents provided feedback in the form of an open-ended response to this question. Among some of the most commonly cited issues by *Erie County* residents were *the high prices of for-sale and rental housing, the limited availability of rentals and for-sale housing, the abundance of short-term rentals and second homes, the lack of options to suit particular housing needs, the condition of housing and neighborhoods, crime and safety, the lack of landlords that accept housing vouchers, the mismatch of wages and housing costs, the lack of income-based housing for seniors, and high taxes.*

While many responses from *Huron County* residents also included the topics of *affordability, availability, and the quality of housing in the county, some unique topics cited by these resident respondents included deficiencies in the number of qualified contractors in the area, childcare options, public transportation, and retail/shopping options.* Additionally, one respondent noted that the lack of housing options in the county *impedes the ability of employers to attract new employees.*

Among residents of *Ottawa County*, the most commonly cited issues involved *availability, affordability, and the prevalence of short-term rentals.* Additional topics raised by the resident respondents included *high property taxes and utilities, the lack of recently constructed homes and homes priced under \$200,000, the lack of options for first-time homebuyers and seniors, and the lack of shelters and treatment centers for the homeless and persons with a substance abuse disorder.*

Resident respondents were asked to provide any other comments or concerns related to housing in their respective counties. A total of 138 residents provided additional feedback. Although many respondents cited *availability, affordability, and the increased presence of vacation homes and short-term rentals in the market,* some specific issues noted by residents included the *long wait list for Housing Choice Vouchers, the high cost of repairs and renovations for existing housing, and the lack of parks, green space, and bike trails in the area.*

Interest in Living in the Firelands Region

Respondents were asked to which county they commute to work. A total of 20 non-resident commuters (those who do not live in the Firelands Region) and 341 resident commuters responded to this question. The following table illustrates the commute destination county for non-residents and residents of the region.

Commuters by County of Destination							
Home Area/County	Erie County		Huron County		Ottawa County		Total Respondents
	Number	Share	Number	Share	Number	Share	
Non-Resident Commuter	17	85.0%	3	15.0%	0	0.0%	20
Erie County Resident	242	95.3%	8	3.1%	4	1.6%	254
Huron County Resident	28	60.9%	17	37.0%	1	2.2%	46
Ottawa County Resident	7	17.1%	1	2.4%	33	80.5%	41

As the preceding illustrates, 85.0% of non-resident, commuter respondents that work within the Firelands Region commute to Erie County, with the balance (15.0%) commuting to Huron County. While the majority of Erie County (95.3%) and Ottawa County (80.5%) residents commute within their respective counties for work, it is interesting to note that slightly over three-fifths (60.9%) of Huron County residents commute to Erie County daily for employment. Overall, a total of 69 respondents did not work in the same county they resided and 20 of these respondents live outside the Firelands Region.

Respondents were then asked if they would have any interest in moving to one of the three counties of the region (or relocating within a county of current residence) if housing were available. A total of 20 non-resident commuters and 338 residents responded to this question. The following table illustrates the interest in relocating to three counties of the region according to respondents.

Interest in Relocating by County of Interest									
Home Area/County	No Interest in Relocating		County Interested in Relocating To						Total Respondents
			Erie County		Huron County		Ottawa County		
	Number	Share	Number	Share	Number	Share	Number	Share	
Non-Resident Commuter	11	55.0%	6	30.0%	3	15.0%	0	0.0%	20
Erie County Resident	216	85.7%	28	11.1%	4	1.6%	4	1.6%	252
Huron County Resident	36	85.7%	5	11.9%	1	2.4%	0	0.0%	42
Ottawa County Resident	43	97.7%	1	2.3%	0	0.0%	0	0.0%	44

While the sample size (20 respondents) of non-residents was small, nearly half (45.0%) of non-resident commuters responding to this question expressed an interest in relocating to the region if suitable housing were available. This is in line with dozens of community surveys we have conducted in other markets, where roughly 20% to 60% of non-residents indicate that they have interest in moving to the county where they work. Out of the 20 non-resident commuters, nearly one-third (30.0%) indicated they would be interested in moving to Erie County, while 15.0% indicated they would be interested in living in Huron County.

Among current residents of the region who responded to the question, a vast majority (85.7% or more in each county) indicated they had no interest in moving. However, it is noteworthy that 11.1% of Erie County resident respondents indicated they have an interest in relocating within Erie County. In addition, 11.9% of Huron County resident respondents also indicated they have interest in relocating to Erie County if suitable housing were available.

Respondents were asked to provide the ZIP code of their current residence. A total of 104 respondents provided an answer to this question with the following distribution.

Respondents by ZIP Code (City) of Residence		
ZIP Code (City)	Number of Respondents	Share of Respondents
44870 (Sandusky, OH)	52	50.0%
44839 (Huron, OH)	10	9.6%
44857 (Norwalk, OH)	9	8.7%
44811 (Bellevue, OH)	6	5.8%
43449 (Oak Harbor, OH)	3	2.9%
All Other ZIP Codes	24	23.1%
Total	104	100.0%

Respondents were asked if they would prefer to rent or own housing in the region. A total of 101 respondents (93 residents and eight non-residents) responded to this question with the following distribution.

Preferred Tenure of Residence		
Tenure Preference	Number of Respondents	Share of Respondents
Rent	14	13.9%
Own	77	76.2%
Either Rent or Own (No Preference)	10	9.9%
Total	101	100.0%

As the preceding illustrates, over three-fourths (76.2%) of respondents indicated that they would prefer to own their residence, while 13.9% would prefer to rent, and 9.9% did not have a preference.

Resident and non-resident respondents were then asked what style of housing they would prefer living in within the region. A total of 100 respondents provided feedback to this question with the following distribution. Note that respondents could select more than one answer.

Preferred Housing Style		
Housing Style	Number of Respondents	Share of Respondents
Ranch Homes or Single Floor Plan Unit	54	54.0%
Modern, Move-In Ready Single-Family Home	46	46.0%
Condominium	33	33.0%
Apartment	23	23.0%
Duplex/Triplex/Townhome	23	23.0%
Low-Cost Fixer-Upper	20	20.0%
Senior Living	20	20.0%
Accessory Dwelling Unit (income suite)	5	5.0%
Single-Room Occupancy	2	2.0%
Other	5	5.0%

Resident and non-resident respondents were then asked how many bedrooms they would require if living within the region. A total of 99 respondents provided insight to this question with the following results.

Bedrooms Required to Live in the Firelands Region		
Number of Bedrooms	Number of Respondents	Share of Respondents
Studio	0	0.0%
One-Bedroom	10	10.1%
Two-Bedroom	33	33.3%
Three-Bedroom	41	41.4%
Four-Bedroom+	15	15.2%

Resident and non-resident respondents were then asked what they would be willing to pay per month, including all utility costs, to live within the region. A total of 94 respondents provided feedback to this question with the following distribution.

Monthly Housing Expenses Willing to Pay to Live in the Firelands Region		
Total Housing Expenses	Number of Respondents	Share of Respondents
No Expense	1	1.1%
Up to \$500	5	5.3%
\$501 - \$750	15	16.0%
\$751 - \$1,000	28	29.8%
\$1,001 - \$1,250	18	19.2%
\$1,251 - \$1,500	15	16.0%
\$1,501 - \$2,000	7	7.5%
Over \$2,000	5	5.3%

The respondents were asked if anything, besides housing, could be addressed, added, or changed in the region to increase the likelihood of individuals relocating to the region. A total of 32 respondents provided feedback to this question. Topics included *more grocery stores and restaurants, better employment opportunities, additional activities for the youth of the region, increased safety of neighborhoods and a reduction in crime, improvement of school systems and community spaces, more/better medical care options, street improvement, reduction of traffic, and inter-county transit options.*

Demographic Distribution

Respondents were asked to provide their age. A total of 387 respondents provided feedback to this question with the following results.

Survey Respondent Age Distribution		
Age Range	Number of Respondents	Share of Respondents
17 years or less	0	0.0%
18 to 22 years	6	1.6%
23 to 29 years	34	8.8%
30 to 39 years	95	24.6%
40 to 49 years	72	18.6%
50 to 59 years	69	17.8%
60 to 75 years	100	25.8%
76 years or older	10	2.6%
Prefer Not to Answer	1	0.3%

Respondents were asked to provide their ethnicity. A total of 385 respondents provided feedback to this question with the following results.

Survey Respondent Ethnicity Distribution		
Ethnicity	Number of Respondents	Share of Respondents
American Indian/Alaskan Native	4	1.0%
Asian/Pacific Islander	1	0.3%
Black/African American	9	2.3%
Hispanic/Latino	7	1.8%
White/Caucasian	332	86.2%
Prefer not to Answer	28	7.3%
Other	4	1.0%

Respondents were asked to estimate the gross annual income of all residents living in their household. A total of 388 respondents provided feedback to this question with the following results.

Survey Respondent Household Income Distribution		
Income Range	Number of Respondents	Share of Respondents
Less than \$15,000	4	1.0%
\$15,000 to \$24,999	22	5.7%
\$25,000 to \$39,999	40	10.3%
\$40,000 to \$59,999	42	10.8%
\$60,000 to \$74,999	44	11.3%
\$75,000 to \$99,999	57	14.7%
\$100,000 to \$149,999	76	19.6%
\$150,000 to \$199,999	39	10.1%
\$200,000 or more	27	7.0%
Prefer Not to Answer	37	9.5%

Resident/Commuter Summary

**Firelands Region, Ohio
Summary of Resident/Commuter Survey Results**

Category	Area	Top Needs / Issues	Consensus
Housing Issues Experienced	Erie County	• Cost Burdened (30% or more of income toward housing cost)	28.2%
	Huron County	• Cost Burdened (30% or more of income toward housing cost)	15.6%
	Ottawa County	• Cost Burdened (30% or more of income toward housing cost)	11.5%
	Firelands Region	• Cost Burdened (30% or more of income toward housing cost) • Credit score not high enough for a lease/mortgage • Did not have sufficient deposit/down payment	24.3% 8.0% 7.6%
Housing Market Rating	Erie County	• Poor, Many Issues	49.3%
	Huron County	• Poor, Many Issues	50.0%
	Ottawa County	• Fair, Some Issues	48.1%
	Firelands Region	• Good, No Issues • Fair, Some Issues • Poor, Many Issues • No Opinion	4.0% 42.5% 47.7% 5.8%
Difficulty Locating Suitable Housing	Erie County	• Very Difficult	59.7%
	Huron County	• Very Difficult	56.4%
	Ottawa County	• Very Difficult	59.6%
	Firelands Region	• Very Difficult • Somewhat Difficult • Not Difficult	59.2% 36.5% 4.3%
Issues Negatively Impacting Housing Market	Erie County	• High Prices/Rents	74.1%
	Huron County	• High Prices/Rents	62.5%
	Ottawa County	• High Prices/Rents	71.2%
	Firelands Region	• High Prices/Rents • Not Enough Housing/Rental Options (Few Vacancies) • Mismatch Between Jobs/Wages and Housing Costs • Housing Being Converted to Short-Term/Vacation Rentals	72.1% 45.5% 25.1% 24.6%
Housing Types Needed	Erie County	• Rental Housing (\$500-\$1,000/Month)	71.4%
	Huron County	• Rental Housing (\$500-\$1,000/Month)	70.4%
	Ottawa County	• For-Sale Housing (\$100,000-\$200,000)	55.8%
	Firelands Region	• Rental Housing (\$500-\$1,000/Month) • For-Sale Housing (\$100,000-\$200,000) • For-Sale Housing (Less than \$100,000)	68.9% 48.3% 47.3%
Housing Styles Needed	Erie County	• Apartments	64.4*
	Huron County	• Modern Move-In Ready Single-Family Homes	72.1*
	Ottawa County	• Modern Move-In Ready Single-Family Homes	70.5*
	Firelands Region	• Apartments • Modern Move-In Ready Single-Family Homes • Ranch Homes/Single Floor Plan Units	65.3* 64.7* 61.2*
Non-Resident Interest in Relocating to Region	Firelands Region	• Non-Resident Respondents Willing to Relocate	45.0%

*Denotes a weighted score

X. COMMUNITY COMPARISONS

A. INTRODUCTION

As part of this study, we conducted a comparison of numerous demographic, economic and housing supply metrics of the subject region (and its three individual counties) with three other selected communities in northern Ohio. The purpose of this section is to illustrate how the subject study areas compare and compete with other communities in northern Ohio in terms of the people that live there (and their attributes), the economic conditions, trends and workforce wages, and housing characteristics including availability of housing, housing costs, home values, and the typical age and quality of housing. By understanding these characteristics and trends, area stakeholders and residents can better understand the region's competitive strengths that can be leveraged and weaknesses that may need to be addressed that could enhance the subject region's competitive position.

The following tables compare key demographic, economic and housing data characteristics and trends for the three counties within the subject region, and the region as a whole, with the selected comparable communities of Lorain, Elyria, and Mansfield. The comparable communities, as opposed to counties, were all selected based on population size, socioeconomic similarities with the subject region, and the regional commuting and migration trends of these areas. It should be noted that some data was not available for the overall Firelands Region, which was denoted by "N/A" in the tables. In addition, some data for the comparable communities was only available at the county level, which was denoted by "(c)" next to the applicable data. Unless otherwise noted in parenthesis next to the data set, the data supplied for each metric is for 2022.

B. DEMOGRAPHIC COMPARISON

Various demographic metrics are compared in the following table:

Demographic Community Comparisons							
Data Set	Firelands Region			Firelands Region Overall	Comparable Communities		
	Erie County	Huron County	Ottawa County		Lorain	Elyria	Mansfield
Population	74,753	58,139	40,163	173,055	66,096	52,822	47,425
Households	32,121	23,364	17,766	73,251	26,819	23,240	19,232
Household Growth % (2010-2020)	1.7%	2.6%	1.3%	1.9%	4.4%	2.0%	2.9%
Projected Household Growth % (2022-2027)	-0.8%	0.1%	-0.5%	-0.4%	1.2%	1.6%	0.3%
Poverty Rate (2020)	12.0%	12.0%	8.8%	11.2%	26.3%	20.3%	25.4%
Education – No H.S. Diploma %	7.1%	10.0%	7.1%	8.0%	16.2%	12.2%	14.6%
Marriage – Share Unmarried	48.0%	45.1%	41.5%	45.5%	61.5%	60.5%	66.5%
Households Age 65+ %	34.7%	29.9%	37.2%	33.8%	29.8%	29.5%	33.9%
Households Age 65+ Growth (2022-2027)	9.7%	12.1%	10.8%	10.7%	10.6%	10.4%	9.5%
Households Ages 25-34 %	12.4%	14.5%	10.5%	12.6%	15.7%	15.4%	13.8%
Households Ages 25-34 % Growth (2022-2027)	-6.8%	-5.8%	-10.7%	-7.2%	2.8%	-4.3%	-8.2%
Median Household Income	\$68,370	\$60,297	\$63,700	\$64,741	\$39,963	\$46,425	\$42,167
Renter Household Share <\$30k	38.7%	37.2%	37.5%	37.9%	54.2%	51.8%	57.9%
Owner Household Share > \$60k	65.9%	59.7%	59.7%	62.4%	43.5%	44.7%	36.4%
Net Domestic Migration (2010-2020)	-1,904	-3,167	418	-4,653	3,614 (c)		-3,612 (c)

Sources: American Community Survey (2017-2021); U.S. Census Bureau (Population Division); Urban Decision Group ESRI; Bowen National Research
(c) Denotes countywide data (Lorain and Richmond counties) for comparison community

Key demographic findings include the following:

- Between 2010 and 2020, households within the subject region generally increased at a lower rate than the comparable communities. Between 2022 and 2027, households within the subject region are projected to decline by 0.4%, which contrasts the moderate increases (between 0.3% and 1.6%) within the comparable communities during this time. The lack of household growth in the subject region may be influenced by the lack of available and affordable housing in the region.
- The overall poverty rate (11.2%) of the subject region is considerably lower than the poverty rates of the comparable communities (20.3% to 26.3%). Erie and Huron counties have the highest poverty rates (12.0% each) in the subject region, while Ottawa County has the lowest poverty rate (8.8%).
- The subject region's adult population share (8.0%) *without* a high school diploma is lower than the comparable communities (12.2% to 16.2%). Within the subject region, Huron County has the largest population share (10.0%) lacking a high school diploma. As earning capacity is typically correlated to educational attainment, the ability to afford housing can be impacted by education level.

- The subject region's share (45.5%) of unmarried people is lower than the comparable communities (60.5% to 66.5%). The comparably higher shares of unmarried population within the comparison communities are typical of more densely populated urban areas with a younger population base. Within the subject region, Erie County has the greatest share (48.0%) of unmarried people. A significant share of unmarried people may result in fewer dual-income households and greater financial challenges that can impact housing affordability.
- The share (33.8%) of households ages 65 and older within the subject region is generally higher than the comparable communities (29.5% to 33.9%). Ottawa County has the largest share (37.2%) of households ages 65 and older within the subject region. This senior household base is expected to increase by 10.7% within the subject region between 2022 and 2027, which is generally similar to the growth rate in the comparable communities (9.5% to 10.6%).
- Younger millennial households (ages 25 to 34) represent 12.6% of all households within the subject region, which is a smaller share compared to the comparable communities (13.8% to 15.7%). This younger adult household base is expected to decrease by 7.2% within the subject region between 2022 and 2027, which appears to also be a challenge among most of the selected comparable communities. With the exception of Lorain, which is projected to experience 2.8% growth within this age cohort, all other areas included within this analysis have projected declines during this time period.
- Median household income (\$64,741) within the subject region is considerably higher than the comparable communities (\$39,963 to \$46,425). As a result, workforce and premium housing may be in comparably higher demand within the subject region, in addition to the need for affordable housing options for low-income residents of the region.
- The share (37.9%) of renters earning less than \$30,000 annually within the subject region is less than the selected communities (51.8% to 57.9%). Regardless, this represents a significant share of the renters earning less than \$30,000 annually within the subject region, and as such, the subject region likely has a significant level of demand for affordable rental options.
- The share (62.4%) of owners earning more than \$60,000 annually within the subject region is higher than the selected communities (36.4% to 44.7%). As such, the subject region likely has a comparably greater level of demand for higher end for-sale product than the comparable communities.

- Between 2010 and 2020, the subject region, as a whole, experienced *negative* net domestic migration of 4,653 people, while Ottawa County benefited from domestic migration (net increase of 418 people). Net migration is the difference between the number of individuals migrating into an area and the number of individuals migrating out of an area. While Mansfield (Richland County) also experienced significant negative domestic migration (3,612 people) during this time, Lorain and Elyria (Lorain County) had positive net migration (3,614 people). Therefore, it appears that most of the subject region is not attracting residents to the area to the degree that the selected comparable communities in Lorain County are attracting residents. This may be a function of the lack of housing, lack of affordable housing, limited job opportunities, lower wages or other factors that diminish the area’s appeal from prospective residents.

C. ECONOMIC COMPARISON

Various economic metrics are compared in the following table:

Economic Community Comparisons							
Data Set	Firelands Region			Firelands	Comparable Communities		
	Erie County	Huron County	Ottawa County	Region Overall	Lorain	Elyria	Mansfield
Total Employment*	35,401	26,535	19,712	81,648	25,423	25,504	16,095
• % of 2019 (COVID Recovery Rate)	98.9%	99.8%	98.6%	99.1%	95.4%	95.5%	96.8%
Labor Force*	37,231	27,920	20,773	85,924	27,534	27,028	16,977
Employment Participation Rate	64.7%	64.1%	64.8%	64.5%	56.5%	68.2%	52.5%
Unemployment Rate*	4.9%	5.0%	5.1%	5.0%	7.7%	5.6%	5.2%
In-Place Employment**	35,304	20,789	13,171	69,264	95,088 (c)		48,008 (c)
• % of 2019 (COVID Recovery Rate)	96.4%	97.6%	95.2%	96.6%	96.1% (c)		95.9% (c)
In-Place Employment Growth % 2012-2022	-2.8%	2.0%	-2.8%	-1.4%	0.8% (c)		-5.0% (c)
Commuter Inflow/Outflow Ratio	1.03	0.65	0.50	N/A	0.40	0.98	1.52
• Distance 50+ Miles	0.73	0.53	0.40		0.57	0.90	0.82
Employment % by Job Sector							
• Retail	9.7%	10.6%	12.9%	10.5%	10.3%	10.1%	8.9%
• Manufacturing	6.6%	22.0%	4.9%	10.1%	5.4%	16.2%	10.7%
• Accommodations/Food Service	29.8%	6.0%	16.3%	21.6%	7.1%	6.7%	5.8%
• Education	4.7%	6.4%	8.9%	5.9%	10.0%	9.5%	5.2%
• Health Care & Social Assistance	9.7%	12.8%	9.6%	10.4%	24.5%	13.3%	16.4%
Median Wages by Occupation Type							
• Sales and Related	\$52,898	\$35,809	\$51,250	N/A	\$40,236	\$39,507	\$33,986
• Production	\$41,747	\$40,735	\$46,734		\$40,000	\$47,064	\$36,658
• Food Preparation/Serving	\$21,190	\$24,716	\$26,201		\$22,977	\$21,940	\$22,344
• Educational and Library	\$64,893	\$51,028	\$60,592		\$33,449	\$44,792	\$41,528
• Healthcare Support	\$35,659	\$31,507	\$31,250		\$31,105	\$29,337	\$24,481

Sources: Bureau of Labor Statistics, Local Area Unemployment Statistics (LAUS), Quarterly Census of Employment and Wages (QCEW); U.S. Census Bureau, 2017-2021 American Community Survey (S2412); Urban Decision Group; ESRI; Bowen National Research

*Through November 2022

**Through June 2022

(c) Denotes countywide data (Lorain and Richmond counties) for the comparison communities

N/A – Not Applicable

Notable findings from the preceding economic metrics are summarized below:

- The employment bases within the comparable communities are generally smaller than the subject counties. It should be noted, however, that the total employment for the comparison communities is for each city only, while the data for the subject counties includes the entirety of the respective county. Among the three subject counties, Erie County has the largest employment base (35,401).
- Total employment within the subject region has recovered to 99.1% of the 2019 level (pre-COVID). This represents a greater recovery rate when compared to the selected communities of Lorain, Elyria and Mansfield which have recovery rates that range from 95.4% to 96.8%. Among the subject counties, Huron County has the greatest total employment recovery rate (99.8%).
- The labor force, which is the sum of the employed and unemployed workers, is larger in most of the subject counties than in the comparison communities. Of the three subject counties, Erie County has the largest total labor force (37,231).
- The employment participation rates (share of the non-institutionalized population ages 20 and older that is part of the labor force) within the subject counties in 2022 range from 64.1% in Huron County to 64.8% in Ottawa County. These rates are generally higher than the comparable communities, with the exception of Elyria (68.2%). The employment participation rates within the subject counties are considered typical and only slightly higher than the rates for the state of Ohio (62.0%) and nationwide (62.2%) as of June 2022.
- The annualized 2022 unemployment rates within the subject counties range from 4.9% in Erie County to 5.1% in Ottawa County, which are slightly higher than the annual rate (4.1%) for Ohio in 2022. The rates in the subject counties are lower than the rates in the selected comparable communities, which range from 5.2% to 7.7%.
- In-place employment, which reflects the total number of jobs within an area regardless of the employee's area of residence, decreased by 2.8% from 2012 to 2022 within two of the subject counties (Erie and Ottawa). Conversely, in-place employment in Huron County increased by 2.0% during this time period. This variation in growth of in-place employment is similar to the trends in the comparison communities, which ranged from a decline of 5.0% in Richland County (Mansfield) to growth of 0.8% in Lorain County (Lorain/Elyria). The trends of in-place employment are likely contributing to the subject region's relatively slow demographic growth and projections.

- In-place employment within the subject region has recovered to 96.6% of the 2019 level (pre-COVID). This represents a slightly higher rate of recovery when compared to the counties of the comparison communities, which have recoveries rates of 95.9% and 96.1%. Among the subject counties, Huron County has the largest in-place employment recovery rate (97.6%), while Ottawa County has the smallest recovery rate (95.2%).
- The commuter inflow/outflow ratio is the proportion of commuters entering an area versus those who commute outside their residence area for work. A number above 1.0 indicates that more non-residents commute into an area each day than there are residents who commute outside the area for work. The inflow/outflow ratios for the counties in the subject region range from 0.50 in Ottawa County to 1.03 in Erie County. The overall inflow/outflow ratios within the subject counties are similar to those within the comparable communities.
- The commuter inflow/outflow ratios for workers with commute distances of 50 miles or more range between 0.40 in Ottawa County to 0.73 in Erie County. Individuals with lengthy commute distances are more likely to relocate to their area of employment than individuals with short commute distances if appropriate housing is available in their employment area. Most of the comparison communities have higher inflow/outflow ratios for commutes of 50 or more miles (0.57 to 0.90) compared to the subject counties, which results in an increased likelihood of commuters relocating to those areas.
- Employment within the subject region appears to be most concentrated among the sectors of accommodations and food services (21.6%), retail (10.5%), and health care (10.4%). Typically, accommodations and food services are considered somewhat vulnerable to economic volatility, while health care is generally more stable. The subject region has a much higher share of employment within the accommodations and food services compared to the comparison communities (5.8% to 7.1%), and a smaller share of employment within the health care sector compared to the comparison communities (13.3% to 24.5%). Regardless, the economy in the subject region has recovered from the COVID-19 pandemic to a greater degree than comparison communities.
- Typical wages among some of the more common occupation types within the subject region range from \$21,190 to \$64,893, which are similar, or slightly higher, than the typical wages paid in the comparable communities that range from \$21,940 to \$47,064. Overall, wages in the subject region do not appear to create any obvious disadvantages for employers in attracting or retaining employees, when compared with the selected comparable communities.

D. HOUSING COMPARISON

Various housing supply and household metrics are included in the following table:

Housing Community Comparisons							
Data Set	Firelands Region			Firelands Region Overall	Comparable Communities		
	Erie County	Huron County	Ottawa County		Lorain	Elyria	Mansfield
Total Occupied Housing Units	32,121	23,364	17,766	73,251	26,819	23,240	19,232
Vacancy Rate	14.3%	8.4%	40.1%	21.0%	10.2%	7.7%	10.2%
Seasonal/Recreational Housing % (2021)	8.1%	0.5%	32.2%	13.5%	<0.1%	0.5%	0.2%
Renter Household %	26.3%	28.1%	20.1%	25.4%	40.2%	37.4%	47.2%
Average Gross Rent	\$816	\$726	\$762	\$776	\$765	\$799	\$727
Renter Cost Burden % (2020)	39.0%	35.5%	35.8%	37.2%	48.5%	51.0%	44.3%
Owner Household %	73.7%	71.9%	79.9%	74.6%	59.8%	62.6%	52.8%
Median Housing Value	\$174,158	\$159,696	\$185,870	\$172,235	\$108,796	\$127,058	\$102,067
Owner Cost Burden % (2020)	14.4%	16.0%	14.8%	15.0%	19.2%	17.4%	19.4%
Median Year Built	1964	1966	1969		1960	1965	1958
• Owner Occupied	1965	1964	1968	N/A	1960	1963	1955
• Renter Occupied	1963	1971	1970		1960	1967	1965
Substandard Renter Housing % (2020)**	1.4%	3.0%	6.0%	2.8%	5.1%	5.6%	5.1%
Substandard Owner Housing % (2020)**	2.0%	1.4%	1.6%	1.7%	0.8%	0.6%	1.1%

Sources: 2016-2020 American Community Survey (B25014, B25037, B25049, B25053, B25070, B25091), Urban Decision Group, ESRI, and Bowen National Research

**Includes ACS reported shares of overcrowded housing and housing lacking completed kitchens and/or plumbing

Key findings associated with housing and households are summarized below:

- Of the three subject counties in the region, Erie County has the largest number (32,121) of occupied housing units. The number of occupied housing units in Huron County is generally comparable to those in the comparison community of Elyria (23,240), and Ottawa County has a comparable, although somewhat smaller, number of occupied housing units (17,766) than the city of Mansfield (19,232).
- The vacancy rates for the subject counties range from 8.4% in Huron County to 40.1% in Ottawa County. The vacancy rates in Erie County, and particularly Ottawa County, are generally higher than the comparable communities, but this is not surprising given the subject counties are more heavily influenced by tourism and seasonal/recreational housing. Because Huron County is less influenced by seasonal/recreational housing, the vacancy rate within this county is more comparable to the comparison communities.
- Seasonal/recreational housing represents 13.5% of the subject region's overall housing stock, with significant shares within the individual counties of Erie (8.1%) and Ottawa (32.2%). This type of housing is much less frequent in the comparable communities, with no area having a share greater than 0.5%. As such, seasonal/recreation housing plays a much more

significant role in the two lakefront counties of the subject region and is likely contributing to some of the housing challenges (e.g., availability and affordability) these communities face.

- The share of renter households in the overall region is 25.4%, with the highest share in Huron County (28.1%), followed by Erie County (26.3%). When compared with the selected comparable communities, the subject region has a larger share of owner-occupied housing. Given that the comparable communities are much more densely populated and urban than the subject counties, the higher shares of renter households in the comparison communities are considered typical.
- Average gross rents within the subject region range from \$726 in Huron County to \$816 in Erie County. While the average gross rent in Erie County is notably higher than comparable communities, which range from \$727 to \$799, average gross rents in the subject region are generally similar to those within the comparable communities. It appears rental housing within subject region has a similar level of affordability compared to the comparison communities.
- The overall share of cost burdened renter households (paying 30% or more of household income toward housing costs) in the subject region is 37.2%. Shares within the subject counties range from 35.5% in Huron County to 39.0% in Erie County. Shares of such households in the comparable communities range from 44.3% to 51.0%, which represents notably higher shares of cost burdened renter households compared to the subject counties.
- Median housing values within the subject counties range from \$159,696 in Huron County to \$185,870 in Ottawa County. Generally, these values are much higher than the median values of homes in the comparable communities, which range from \$102,067 to \$127,058. While this does not compare actual home prices of housing units currently on the market, this illustrates that the estimated values of homes in the subject region are generally higher and, in theory, likely less affordable to lower income households in the subject counties.
- The share of housing cost burdened owner households in the region ranges from 14.4% in Erie County to 16.0% in Huron County. This represents a slightly lower share of cost burdened owner households compared to those within the comparable communities, which have shares ranging from 17.4% to 19.4%. While estimated home values in the subject region are typically higher than the comparable communities, the higher median household incomes of the subject counties result in comparably lower shares of cost burdened owner households. It should be noted, however, that among the lowest earning residents of the subject region, these higher home values likely lead to significant levels of cost burden, or the inability to pursue home ownership.

- The median year built of housing within the subject counties ranges from 1964 in Erie County to 1969 in Ottawa County. The comparable communities have a median year built ranging from 1958 to 1965. Overall, it appears homes in the subject region are generally slightly newer than homes in the comparable communities.
- Substandard housing is generally considered housing that either lacks complete kitchens and/or plumbing or is housing that is overcrowded (1.01 or more persons per room). The shares of substandard renter-occupied housing in the subject counties range from 1.4% to 6.0%. While most renter housing in the region is less likely to be substandard compared to the comparable communities (5.1% to 5.6%), renters in Ottawa County (6.0%) are the most likely to be affected by substandard housing. The shares of substandard owner-occupied housing in the subject counties range from 1.4% in Huron County to 2.0% in Erie County, which are higher than the comparable communities (0.6% to 1.1%). Based on the preceding comparisons, owners within the subject region are more likely to be affected by substandard housing than owners in the comparable communities.

E. CONCLUSIONS

The following conclusions are based on the comparison of key demographic, economic, and housing supply metrics of the subject counties within the Firelands Region with the selected comparable communities (Elyria, Lorain, and Mansfield).

Demographic trends indicate the Firelands Region has a large senior household base (age 65 and older) which is growing at a similar rate to the comparable communities. However, the subject region and most of the comparable communities are experiencing challenges retaining younger adult households (ages 25 to 34). Although the subject region has a comparably lower share (40.2%) of renter households earning less than \$30,000 annually than the comparable communities (51.8% to 57.9%), it is still a significant portion of the renter households in the Firelands Region that have relatively low incomes. While the average gross rent (\$776) in the subject region is within the range of the average gross rents (\$727 to \$799) for the comparable communities, the median home value (\$172,235) in the subject region is well above the range (\$102,067 to \$127,058) of median home values in the comparable communities. As such, many low income households in the region likely do not have sufficient incomes to afford the purchase of a typical home within the region. Overall, the median household income within the region (\$64,741) is significantly higher than the range of median household incomes for the comparable communities (\$39,963 to \$46,425), which leads to a lower overall share of cost burdened households in the region.

Economic data illustrates that wages among the most common occupations within the region are competitive, and in many instances higher, than the wages in the comparable communities. This likely could be an advantage for the region in attracting new residents. While the overall inflow/outflow ratio of commuters within the region is similar to the comparable communities, the ratio for workers with lengthy commutes (50 miles or more) in the region is generally lower than that of the comparable communities. The workers with longer commutes are typically the most likely to relocate to the area where they are employed if appropriate housing were available. This may be a contributing factor to the recent deficit in domestic migration for most of the subject counties. It is notable that the recovery rate for both total employment and in-place employment, which compares pre-COVID employment levels in 2019 to current 2022 levels, shows that the subject region has generally recovered at a faster rate than the comparable communities. This is a positive sign for the economy of the region and the subject counties will likely benefit from future economic growth. However, because the subject region is heavily influenced by tourism and has a much higher share of seasonal/recreational homes (13.5%) compared to the comparable communities (0.1% to 0.5%), it will be critical that adequate permanent housing is available for the subject region to maximize future growth potential.

The subject region faces challenges with a large and growing base of seniors, having difficulty with holding onto younger millennials (ages 25 to 34), an economy relying more heavily on certain industries (e.g., Accommodations and Manufacturing) that are more susceptible to economic downturns, a greater influence from short-term rentals, and a greater degree of substandard owner-occupied housing. Regardless, the overall findings appear to indicate that the subject region has many competitive advantages over the comparable communities. It is important that an adequate supply of income appropriate housing is available for the region to fully leverage these advantages.