



CHALLENGING CONDITIONS, AFFORDABLE SOLUTIONS

A Housing Plan for Crawford County

2019 • 4ward Planning + Crawford County Planning



We would like to thank all those who participated in the development of Crawford County's Housing Plan. The content in this Plan reflects the insight gathered by speaking with local professionals, municipalities, community members, and housing stakeholders who served on the Planning Commission, Project Steering Committee, and participated in focus groups, and interviews.

The Plan was further shaped by 599 survey responses from those working at a top 20 employer in Crawford County. We recognize that this level of engagement is extraordinary.

PROJECT FUNDING

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PROJECT CONSULTANT

4WARD PLANNING

4ward Planning is the consulting firm for the Crawford County Housing Plan. 4ward Planning is a professional consulting firm specializing in land-use and economics. As an expert in housing and redevelopment of communities that works with the public and private sector, 4ward Planning's approach to the project is grounded in reality. Their rigorous data driven approach, which analyzed qualitative and quantitative information sources, enabled them to obtain the best, most accurate picture of Crawford County's housing market.

4ward Planning coordinates with communities to examine senior and affordable housing, housing accessibility to labor markets and redevelopment strategies related to underutilized residential real estate. Their approach at examining the economic and market demands that influence housing help to create an implementable strategy consisting of interventions appropriate for public and private entities.

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C&J Industries, Inc.
Wesbury United Methodist Community
Allegheny College
The Arc of Crawford, Warren, and Forest Counties
Titusville Area School District
Acutec Precision Aerospace, Inc.
Meadville Medical Center

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HOW TO READ THE PLAN

Crawford County is not one singular economic and housing market, but rather a series of 14 unique submarkets. A community in northwest Crawford County has different housing problems than communities in the central or eastern portions of the county. Thus, the County's Housing Plan needed to address trends, market impacts, and potential solutions at the submarket level. To create a logical and reader-friendly package, this Plan is divided into six (6) sections: Background Information, County-wide Trends, three regional sections (Eastern Region Trends, Central Region Trends, and Western Region Trends), and the Appendix.

STEP-BY-STEP PROCESS

- 1 Review the concept of the Housing Ecosystem within the County-wide Trends section on pages 10 through 12.
- 2 Use the map shown in the County-wide Trends section on page 6 to determine the region and submarket in which your municipality is located.
- 3 Learn about housing trends and conditions for your municipality's submarket in the appropriate regional section.

TO...

Learn about how and why this Plan was created review the section on Background Information.

Learn about housing trends and conditions impacting multiple submarkets review the section on County-wide Trends.

Learn about housing trends and conditions impacting your submarket review the appropriate regional section.



Section 1: Background Information

- PLAN OVERVIEW
- PLAN OBJECTIVES
- PLANNING PROCESS

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BACKGROUND INFORMATION

PLAN OVERVIEW

PLAN OBJECTIVES

PLANNING PROCESS

PLAN OVERVIEW

In late 2017, Crawford County undertook an effort to identify and research the current and future housing trends impacting our citizens. Due to the complexity of housing issues across the County, a professional consultant, 4ward Planning, was hired to conduct the study. The resulting study and this Plan outline actions the County, local municipalities, and the private sector can take to help local communities and citizens address housing needs.

PLAN OBJECTIVES

The Housing Plan was developed to achieve four primary objectives:

1. Identify housing market trends that will affect Crawford County over the next 15 to 20 years, as well as strategies to favorably leverage these trends;
2. Collect information on existing and available funding sources or tools that the County can use to address current and future housing needs;
3. Examine the need for county-wide assistance or interventions on behalf of local municipalities with respect to housing abandonment, uniform construction code violations, property maintenance concerns, and blight issues; and
4. Collect information regarding housing agencies and organizations across Crawford County to determine gaps and overlaps in services provided to specific populations, so funding and technical resources can be more effectively and economically delivered.

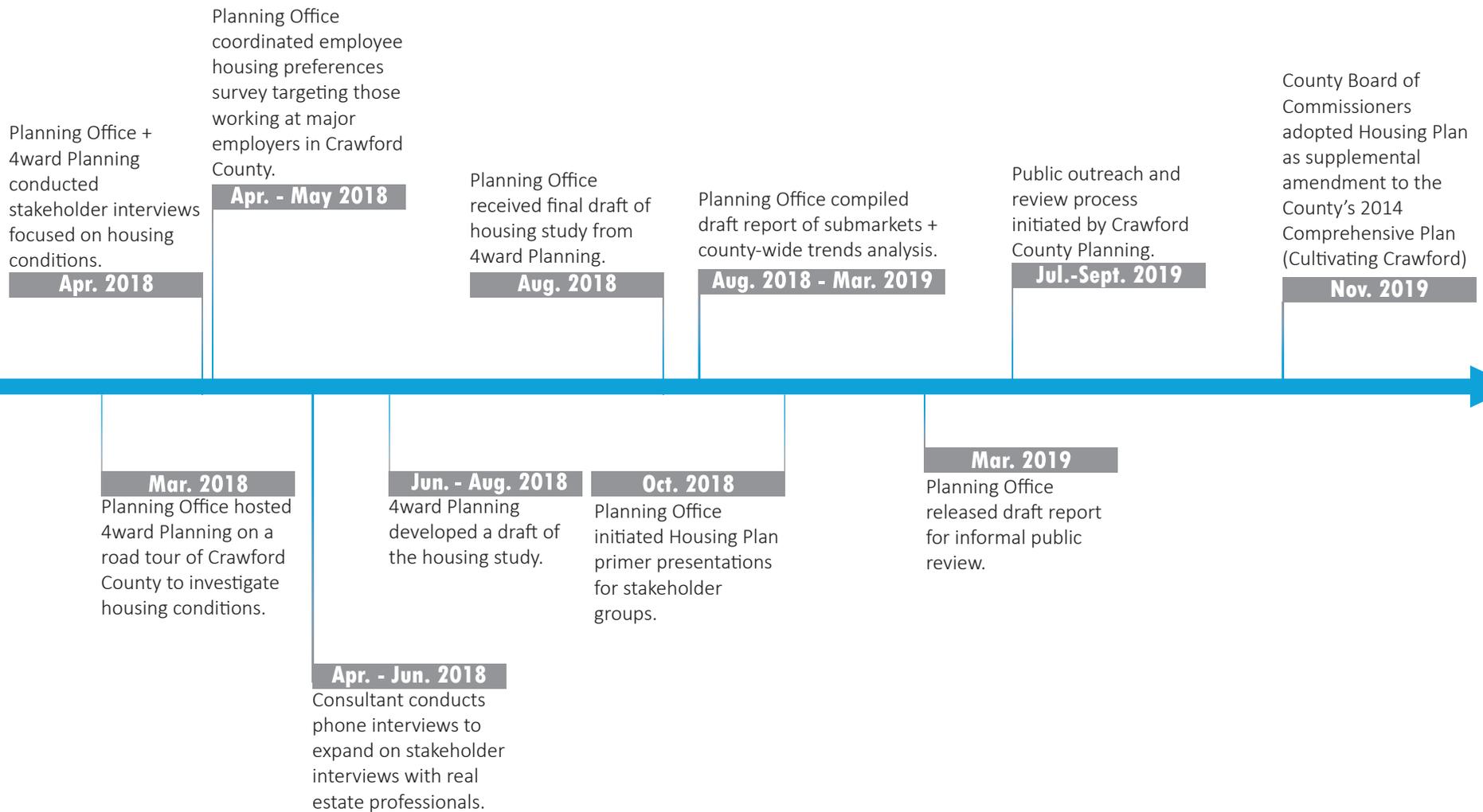
PLANNING PROCESS

Planning is an art and science. It requires the examination of both quantitative and qualitative information, along with the ability to collaborate, communicate, and coordinate with communities about the future. The key to a successful planning process is stakeholder participation.

The Crawford County Housing Plan was crafted through a process that engaged a spectrum of individuals and entities who are affected by housing problems. These include, but are not limited to, municipal officials, realtors, local developers, housing providers, major employers within Crawford County, and the general public.

The adjacent timeline illustrates how the planning process advanced which includes key stakeholder engagement events.





BACKGROUND

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COUNTY-WIDE TRENDS

REGIONS + SUBMARKETS

KEY FINDINGS

HOUSING DRIVERS

INTERVENTIONS + STRATEGIES

REGIONS + SUBMARKETS

Crawford County is a rural county in northwest Pennsylvania. Located approximately 35 miles south of the City of Erie, it is situated between three major economic markets: Pittsburgh, PA., Cleveland, OH., and Buffalo, NY. Crawford County is one of the six counties comprising the Northwest Workforce Development Area (WDA), which also includes Clarion, Erie, Forest, Venango, and Warren counties.

While the county consists of 51 municipal governments (35 townships, 14 boroughs, and two cities), housing markets are not limited to the confines of political jurisdictions. Therefore, to more accurately understand trends that impact housing decisions in Crawford County, a series of “submarkets” were identified based on housing characteristics and commuting patterns.

Fourteen submarkets were identified. To organize these submarkets, three regions (west, central, and east) were defined. The map on the next page identifies the municipalities and submarkets within each region. While no two submarkets are the same, it is likely that multiple submarkets face similar problems resulting in the ability to benefit from similar solutions.

KEY FINDINGS

This study produced several key findings. These findings are organized into categories: Demographics, Housing, Economy, Cost and Affordability, and Financial Strengths and Challenges.

DEMOGRAPHIC KEY FINDINGS

POPULATION IN THE COUNTY IS PROJECTED TO DECLINE FURTHER

Crawford County and the Northwest WDA have declined in population since 2000, and projections forecast further decline. Since 2010, Crawford County’s population has dropped by nearly 1,370 people and is projected to lose another estimated 1,450 residents by 2022.

Data provided by the U.S. Census Bureau between 2011 to 2015 shows that the largest emigration of residents from Crawford County (408 persons) is to neighboring Erie County, likely for purposes of securing employment.

Population decline is often accompanied by a rise in residential vacancy rates, flat-to-declining housing values, and increases in blight – all characteristics currently observed throughout Crawford County.

GROWTH IN SENIOR POPULATION MAY PRESENT CHALLENGES

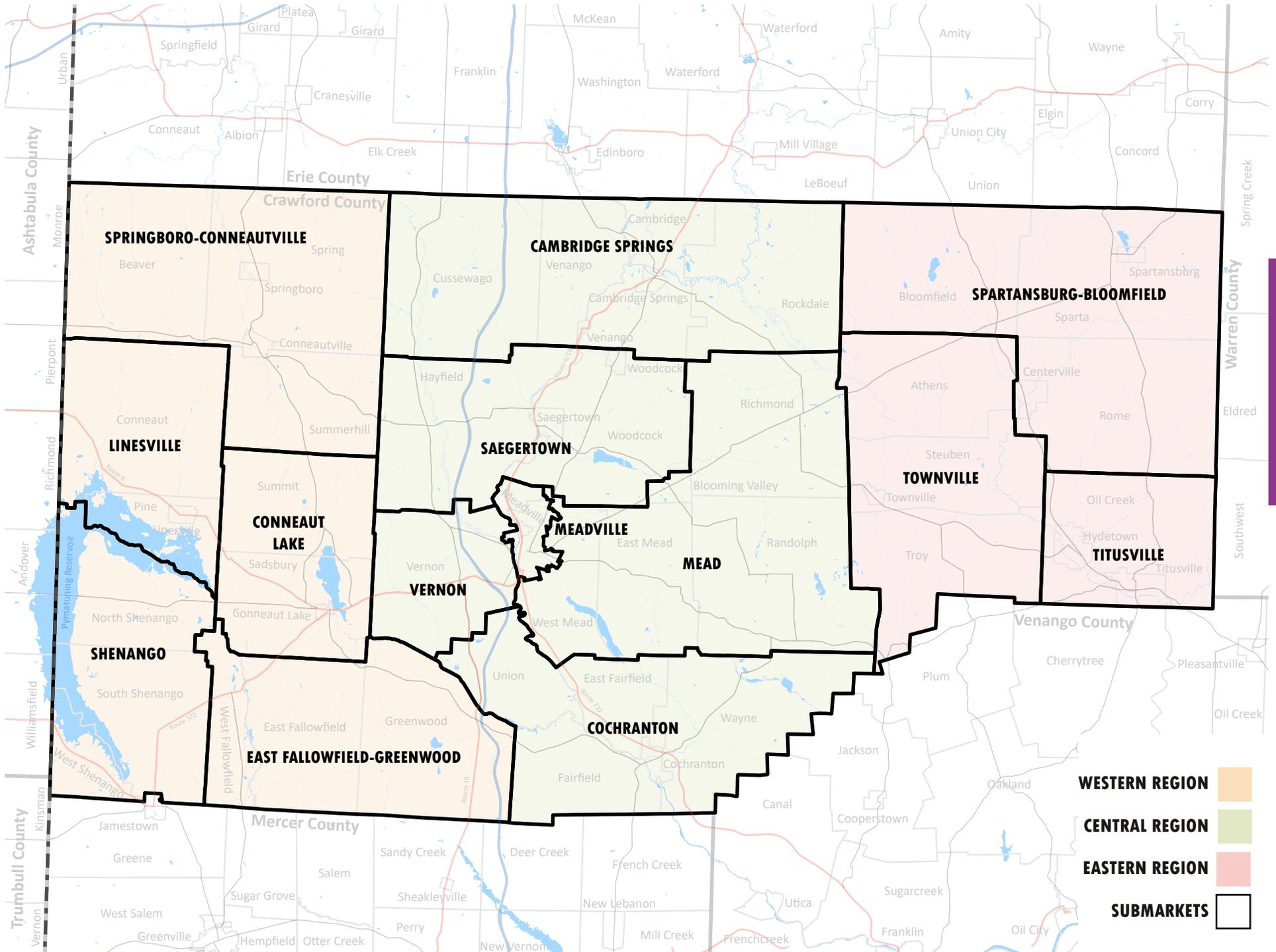
Despite population decline, the number of persons ages 65 to 84 (representing the older empty-nester and mostly retired age cohorts) is projected to increase significantly within the county and WDA (ESRI, 4ward Planning, 2018) – creating increased demand for senior-type housing.

A higher share of Crawford County residents ages 65 to 84 both live alone and have a disability that may affect their housing situation when compared to Pennsylvania as a whole.

Furthermore, the combination of aging populations and older housing stocks in some submarkets will make accessible housing an important issue for the future. Some of these households may have limited financial resources to draw upon to meet housing maintenance and repair costs, which if left unaddressed can lead to neighborhood blight.

A growing senior population will also increase demand on local and county services (e.g., transportation-related, emergency-related, and welfare-related services), placing fiscal strains on the County and local government.

POPULATION IS **PROJECTED**
TO **FURTHER DECLINE**
BY **1,450** PERSONS
OVER THE
NEXT 5 YEARS



MUNICIPALITIES, REGIONS, + SUBMARKETS IN CRAWFORD COUNTY

KEY FINDINGS

HOUSING KEY FINDINGS

SHORTAGE OF SMALL HOUSING UNITS RELATIVE TO HOUSEHOLD SIZE

An analysis of the composition of households and housing units by size suggests that Crawford County has a shortage of one-bedroom housing units. Furthermore, there appears to be a surplus of housing units comprised of two, three, four, or five-or-more bedrooms. In other words, any mismatch between housing unit size and household size is most likely to occur among small households. With the average household size in the county expected to remain constant at 2.4 persons through 2022 (ESRI, 4ward Planning, 2018), a shortage of small housing units relative to household size will likely continue.

HIGH VACANCY RATES DUE TO SEASONAL AND “OTHER” VACANT UNITS

The county’s relatively high average housing vacancy rate (22.2%) results from a number of factors (2016 ACS 5-year est., 4ward Planning, 2017). The county contains a large number of seasonal, recreational, or occasional use homes that the Census Bureau classifies under overall vacancy. Additionally, many housing units have been abandoned due to physical obsolescence and others sit vacant due to lack of qualified renters or buyers.

THERE IS A **SHORTAGE OF SMALL HOUSING UNITS** RELATIVE TO **HOUSEHOLD SIZE** 

ECONOMY KEY FINDINGS

DECLINING MANUFACTURING SECTOR, GROWING HEALTH CARE SECTOR

The manufacturing sector, the county’s top employment industry (comprising 26% of all jobs in the county), experienced the greatest loss of jobs among Crawford County industries since 1998 but is projected to remain stable through 2022 (U.S. Census Center for Economic Studies). In contrast, the health care and social assistance sector, the county’s second largest industry by total employment (comprising 20% of all jobs in the county), experienced the greatest job growth among Crawford County industries during the same time frame and is expected to continue growing at the fastest rate through 2022. With an average annual wage just below \$40,000 (CWIA, 4ward Planning, 2018), this sector will provide mid-wage job opportunities.

A FEW SUBMARKETS APPEAR TO DRIVE THE BULK OF THE COUNTY’S ECONOMY

The Meadville Submarket contains the greatest number of jobs out of all submarkets within Crawford County. The Submarket alone accounts for around one-third of all employment in the county. The Vernon Submarket, though not officially a job center according to our analysis, shows signs of soon rising to such status and already contains a prominent concentration of employment. Together, these submarkets contain more than half of all employment in Crawford County. Additionally, the Saegertown and Titusville submarkets contain notable local concentrations of employment (U.S. Census Bureau, OnTheMap, 4ward Planning, 2018).

HIGHEST BUSINESS VACANCIES IN TITUSVILLE AND MEADVILLE

According to HUD’s Aggregated U.S. Postal Service (USPS) Administrative data, over the past five years, the Titusville and Meadville submarkets have had the highest business vacancies in the county. As of the fourth quarter of 2017, business vacancies in the Titusville and Meadville submarkets were 14.8% and 8.7%, respectively. Business vacancy rates, particularly in Titusville Submarket, are relatively high.

HEALTH CARE AND SOCIAL ASSISTANCE IS THE FASTEST GROWING INDUSTRY BY 2022

COST AND AFFORDABILITY KEY FINDINGS

DEFERRED HOUSING MAINTENANCE MAY BE A GROWING CHALLENGE

Crawford County's median household income (\$44,790) is lower than the larger WDA's (\$47,260) and well below Pennsylvania's (\$56,180) (2010 ACS 5-year est., BLS, ESRI, 2018). The fine architectural details and materials commonly present in older homes as well as the relatively large size and inefficiency of such housing units typically result in higher maintenance and operation expenses. Deferred maintenance and repairs paired with the general inefficiency of older homes may be a growing challenge among lower-income and senior households as they may lack the financial means or physical ability to perform necessary upkeep. This may be especially relevant in places like the Titusville Submarket, which has a relatively old housing stock and low median household incomes (\$37,245) (2010 ACS 5-year est., BLS, ESRI, 2018), or the Saegertown Submarket, which also has a relatively old housing stock paired with projections that show a large increase in the population over age 55 (175 new persons over age 55 by 2022, representing a 7% increase) (ESRI, 4ward Planning, 2018).

HIGH SHARES OF COST-BURDENED RENTER HOUSEHOLDS

On average, Crawford County households allocate 30% of household expenditures to housing costs (ESRI, 4ward Planning, 2018). Nevertheless, in 2015, 41% of the county's renter households reported housing related expenditures exceeding 30% of their household income. Such renter households are considered to be cost-burdened according to the definition used by the Department of Housing and Urban Development (HUD). Additionally, during the same year, 21% of the county's renter households reported housing related expenditures exceeding 50% of their household income. Renter households allocating more than half of their household income to cover housing related expenses are considered to be severely cost-burdened according to the definition used by HUD. The Meadville and Titusville submarkets have particularly high shares of cost-burdened renter households (53% and 49%, respectively) (2015 ACS 5-year est., 4ward Planning, 2018).

MEDIAN HOME VALUES GROWING FASTER THAN MEDIAN HOUSEHOLD INCOMES

The median home value in Crawford County (\$119,900) is relatively low compared to Pennsylvania as a whole (\$182,730). However, in Crawford County, the median home value has increased at a faster rate than median household income over recent years. Between 2010 and 2017, the median inflation-adjusted home value in the county increased 2.0% annually while the median adjusted household income remained relatively flat, rising just 0.7% annually (2010 ACS 5-year est., BLS, ESRI, 2018).

41% of renter households in Crawford County are **COST-BURDENED**



FINANCIAL STRENGTHS AND CHALLENGES KEY FINDINGS

FORECLOSURES HAVE BEEN INCREASING

Interviews with residential real estate professionals revealed that financial distress among homeowners is leading to foreclosure and the abandonment of non-foreclosed properties. Such trends are increasing overall vacancy rates in Crawford County. Although the county reported a lower foreclosure rate between 2013 and 2017 than that observed for Pennsylvania and the U.S., the county's rate has increased slightly while the national rate has declined (ATTOM Data Solutions, 2018).

SHARE OF SUCCESSFUL LOAN APPLICATIONS HAS BEEN INCREASING

Although the overall number of housing loan applications in Crawford County has dropped over the past decade, the rate of successful loan applications resulting in loan originations has increased. This finding was based on Home Mortgage Disclosure Act (HMDA) data provided via the Consumer Financial Protection Bureau (CFPB).

Within Crawford County, successful loan originations as a share of total loan applications increased from 40% to 58% between 2007 to 2016. This trend outpaces an increase from 39% to 51% observed across the whole U.S. over the same period (CFPB, 2018). Accompanying the county's trend of an increased rate of successful loan originations, its rejected application rate has declined from 36% in 2007 to 23% in 2016. Despite outpacing a similar national trend, whereby the rate of rejected home loan applications decreased from 22% to 16% over the same time, the overall rejected application rate in Crawford County still sits above the U.S. rate (CFPB, 2018).

UNUSUAL LOAN REQUIREMENTS MAY BE IMPACTING HOMES SALES

Between 2007 and 2016, applicants' poor credit histories were cited as the top reason for loan application denial (2,424 applications). Insufficient collateral and prohibitively high debt-to-income ratios were the second and third top reasons for loan denial (1,708 and 1,485 incidents, respectively). Interviews with residential real estate professionals suggest that unusually stringent loan application requirements are diverting many home sales in the county. Interviewees also revealed that some of their clients were denied housing loans but were still qualified for comparable rental payments.

RISING VACANCIES ARE LARGELY **DUE** TO **FORECLOSURES** + **ABANDONED PROPERTIES**

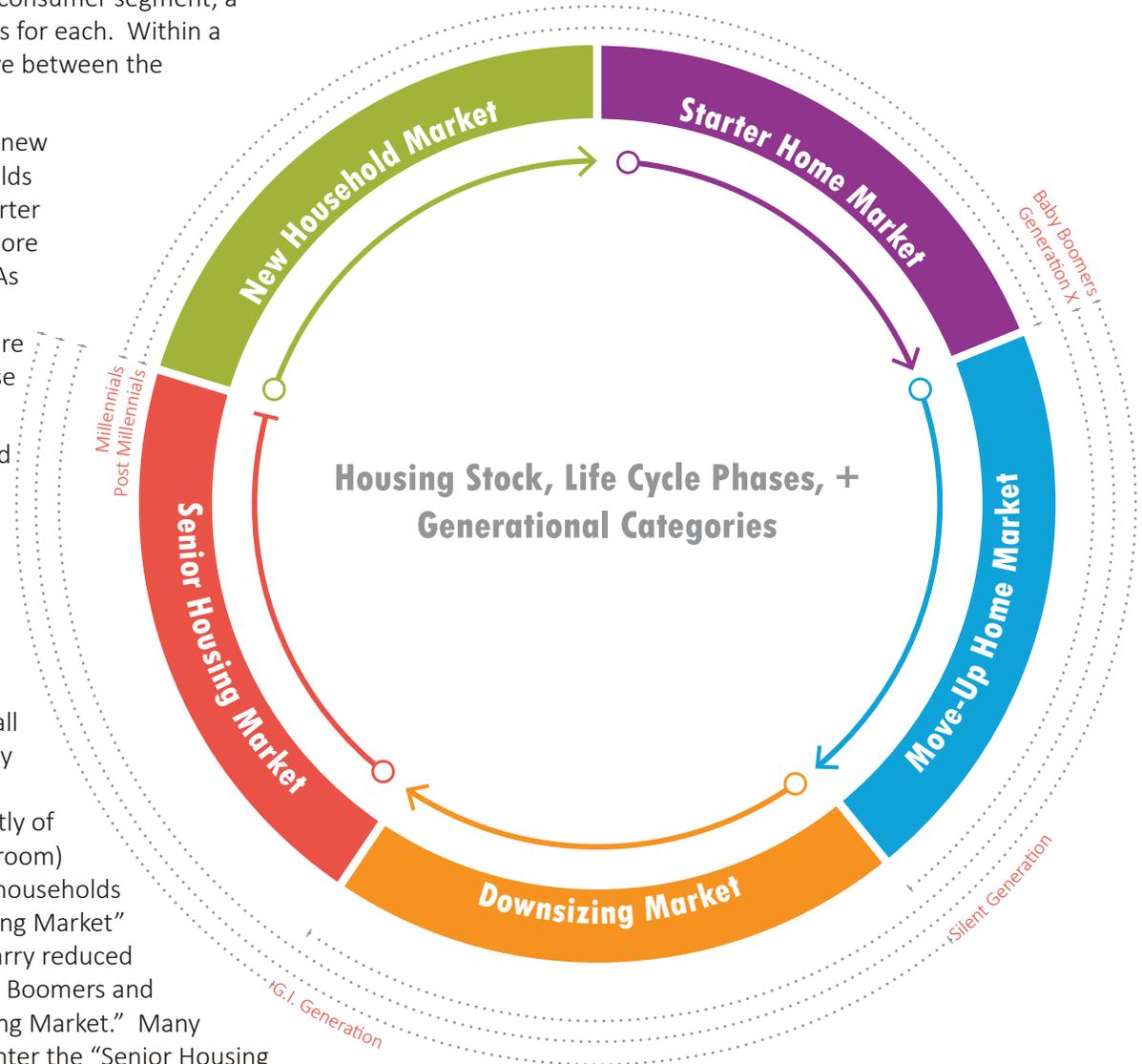
HOUSING MARKET ECOSYSTEM

The series of housing transactions occurring within a community over time produces a housing market ecosystem reflecting such exchanges. This ecosystem contains five phases that households typically traverse. Each phase represents a consumer segment; a community's housing stock should provide opportunities for each. Within a healthy housing ecosystem, households are able to move between the phases of consumption necessary to meet their needs.

For the cycle to function, rents should be affordable for new household market participants such that these households can more easily build the wealth needed to secure a starter home. In turn, starter homes should be affordable to more established households in the new household market. As households continue through the cycle of the housing ecosystem, each phase should present conditions that are suitable for the household to transition to the next phase of consumption.

The housing ecosystem begins with the "New Household Market," which is formed when individuals and families create new households by moving away from their guardians or institutional arrangements to consume market housing. Such households are typically comprised of Millennials or Post-Millennials seeking rental accommodations. More established households within this consumer segment may transition into the "Starter Home Market." Starter homes are typically small (1-2 bedroom) housing units with basic amenities. Many households within this consumer segment will go on to enter the "Move-Up Home Market" which consists mostly of Millennials and Generation Xers seeking larger (3-5 bedroom) family-sized homes with greater amenities. Over time, households consuming move-up homes may resettle into "Downsizing Market" accommodations as such units are smaller in size and carry reduced maintenance needs and overall liability. Currently, Baby Boomers and the Silent Generation primarily comprise this "Downsizing Market." Many households in the downsizing segment will ultimately enter the "Senior Housing Market." Currently, this segment consists of Baby Boomers, Silent Generation, and G.I. Generation consumers inhabiting a wide variety of dwelling units. Such dwelling units may include senior living communities, assisted living quarters, nursing homes, or other arrangements geared towards elderly individuals and couples.

HOUSING MARKET ECOSYSTEM



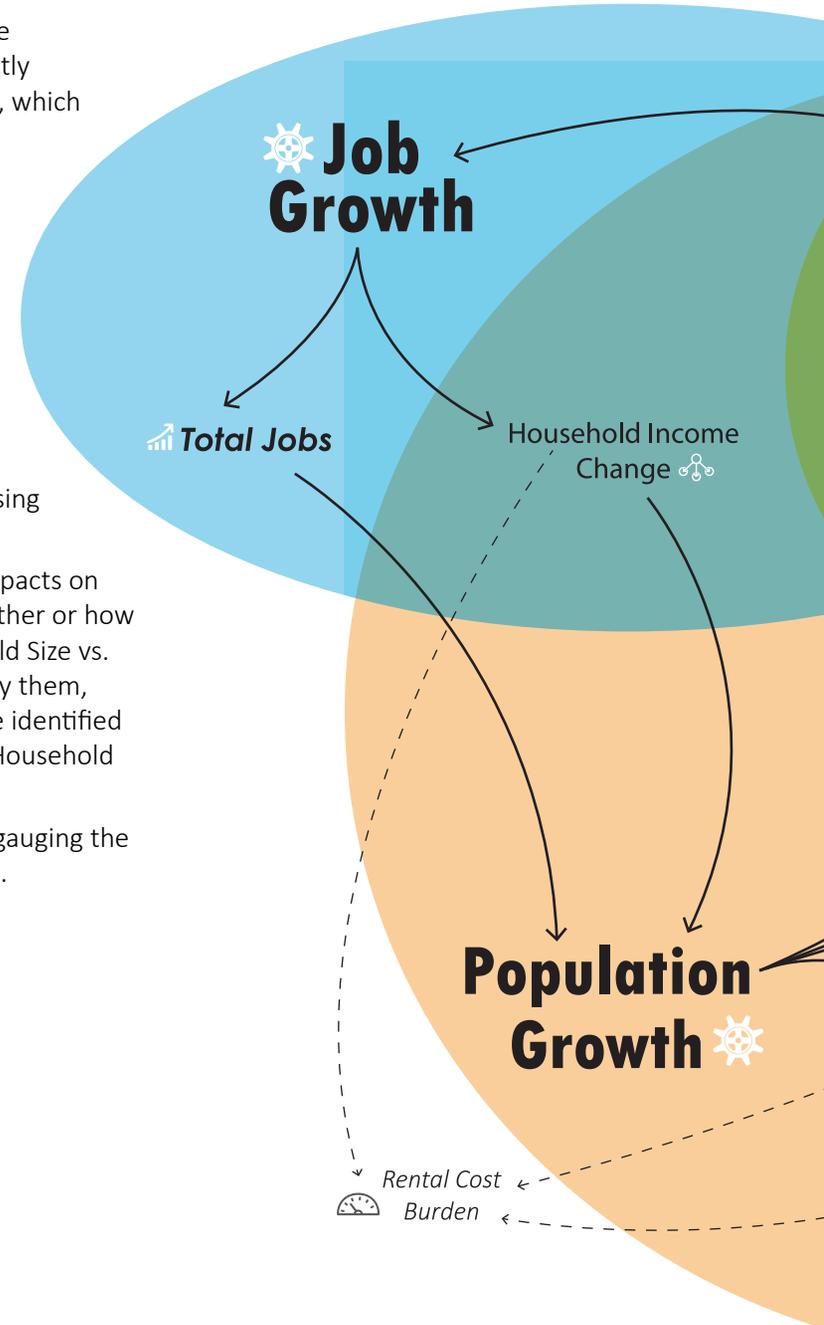
DRIVING FACTORS OF THE HOUSING MARKET ECOSYSTEM

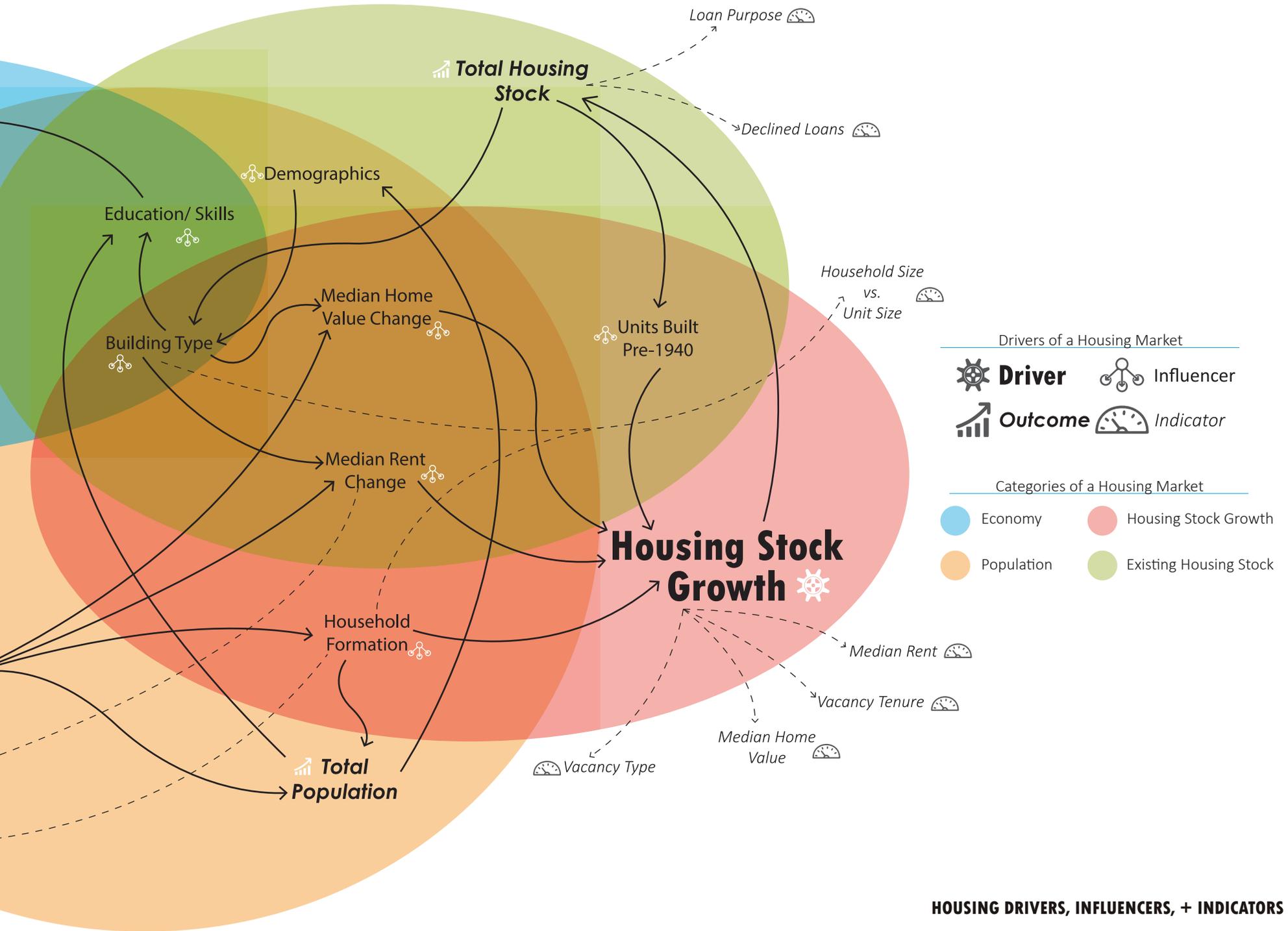
The County’s Housing Plan explores factors that drive, influence, and indicate the productivity of the interactions that support a well-functioning housing marketplace. **Drivers** are the factors that directly contribute to the growth of a community’s total housing stock. Our analysis identifies three drivers, which are called-out in the graphic on the right. Additionally, the Plan looks at the **outcomes** caused by these drivers. These outcomes include the “Total Jobs,” “Population,” and “Housing Stock” within a community. Such outcomes contain subsets, like the demographics of a community’s total population, which influence the function of a housing marketplace.

The next set of factors, **influencers**, are comprised of items that are caused by one driver that may effect another. For example, the influencer of “Household Income Change” may result from an increase in the driver of “Job Growth” and presents implications for another driver, “Population Growth.” Eight influencers are analyzed in this Plan. The influencer under “Job Growth” is “Household Income Change.” Influencers under “Population Growth” include “Median Home Value Change,” “Median Rent Change,” “Household Formation,” “Education,” and “Demographics.” The influencers under “Housing Stock Growth” include “Building Type” and “Housing Units Built Pre-1940.”

Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. These indicators generally gauge how well parts of the market are responding to each other or how households are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gages whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may negatively impact the community. Useful indicators we have identified in our analysis include “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

By reviewing variations in each driver, outcome, influencer, and indicator, we produced an analysis gauging the overall functionality of the consumer segments that comprise each submarket’s housing ecosystem.





JOB GROWTH ANALYSIS:

It may seem sporadic to start analyzing housing conditions by first exploring the county's economy; however, these two subjects are strongly interrelated. Therefore, we begin our analysis of Crawford County's economy by examining the total number of jobs, employment projections, educational attainment, income, workforce commuter patterns, and the influence of employment centers. Our analysis aims to understand what housing options are affordable to residents in Crawford County and the economic factors that impact the housing market.

The Bureau of Labor and Statistics (BLS) reports, as of the third-quarter of 2017, approximately 195,780 jobs in the Northwest Workforce Development Area (WDA) with around 15% of these (28,935 jobs) located in Crawford County. Between the third-quarters of 2010 and 2017, the WDA lost about 4,110 jobs, 250 (6%) of which were lost from Crawford County. The manufacturing sector is the top employer in Crawford County, representing around 7,300 jobs or 26% of the county's total employment. The county's second largest employer is the health care and social assistance sector which represents around 5,670 jobs or 20% of the county's total employment.

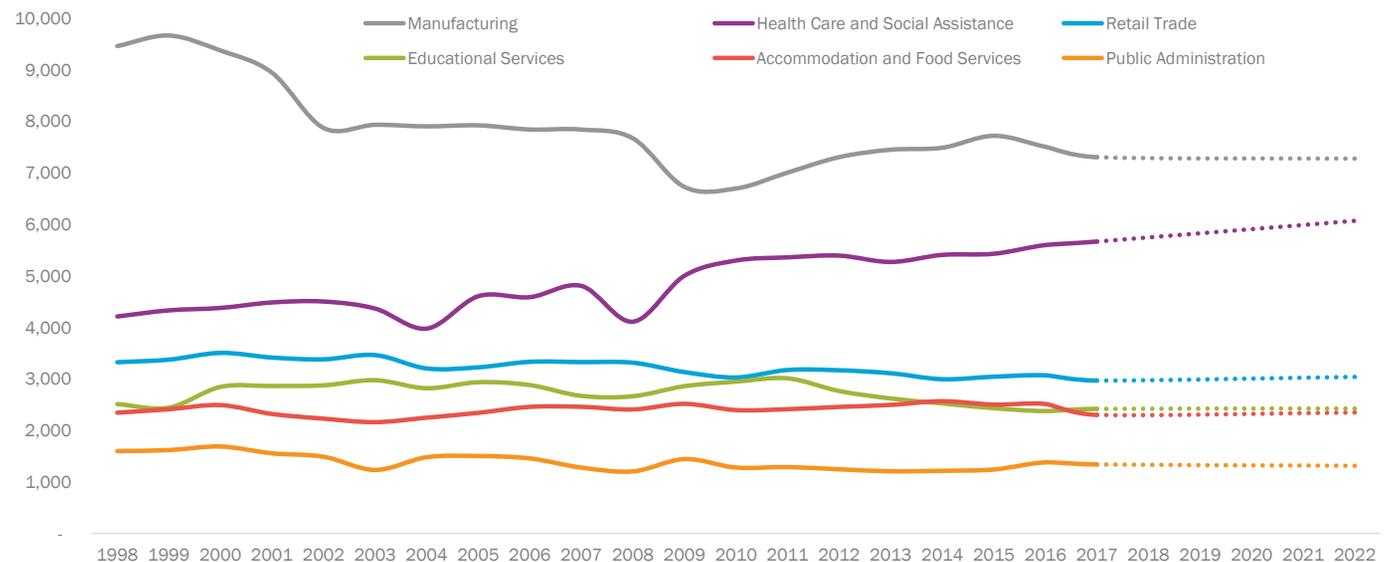
Examining job growth trends and projections across Crawford County's six largest employment industries reveals that the manufacturing sector has declined the most by losing around 2,160 jobs from 1998 to 2017. Jobs lost in the manufacturing sector generally represent higher-wage employment opportunities. Furthermore, projections forecast flat job growth in the manufacturing sector going into 2022. Since 1998, the county's health care and social assistance sector has grown overall, and is projected to add around 450 jobs by 2022 with around 36% of this growth anticipated to occur within the Meadville Submarket. With an average annual wage of \$39,870, the health care and social assistance sector will provide mid-wage job opportunities. Other top employment sectors forecasted to add jobs in Crawford County include the retail trade, construction, and other services adding about 104, 100, and 87 jobs by 2022 respectively.

The combination of losing higher-wage manufacturing jobs while gaining mid-wage health care and social assistance positions presents a material factor relating to the health of housing submarkets.

1 OUT OF **4** JOBS
IN CRAWFORD COUNTY IS IN
MANUFACTURING

**HEALTH CARE/
SOCIAL ASSISTANCE**
MAKES UP **54%**
OF ALL JOB GROWTH
PROJECTED BY 2022

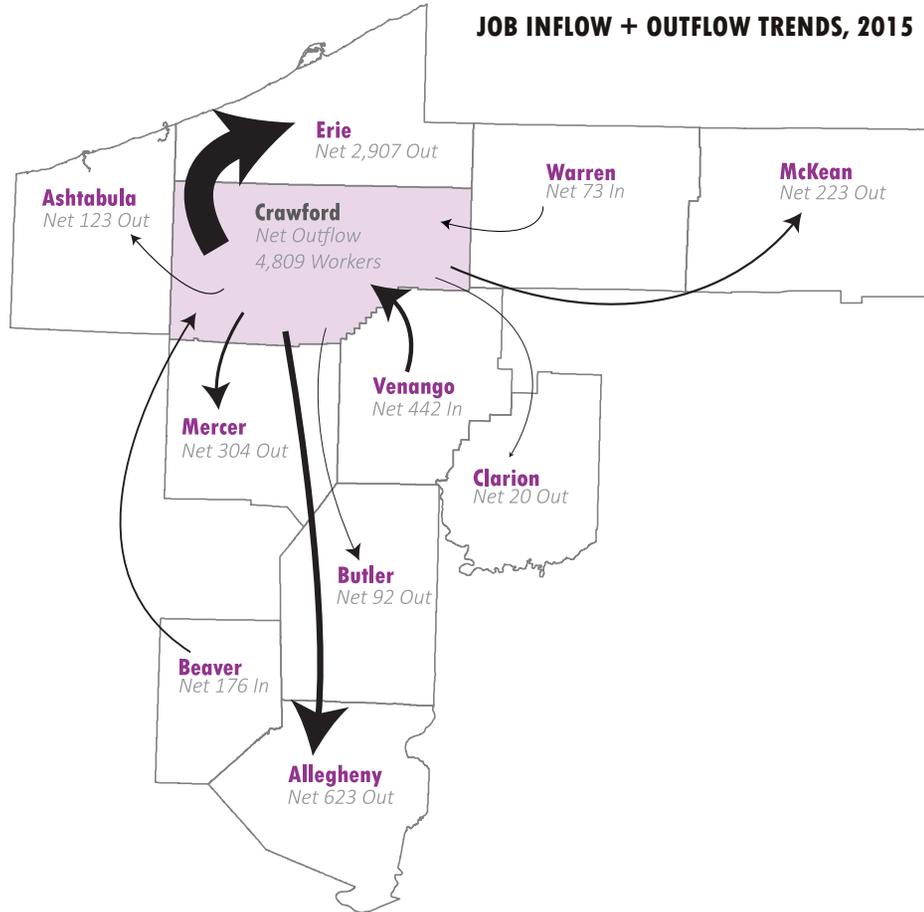
EMPLOYMENT TRENDS (1998-2017) + PROJECTIONS (2018-2022)





NET OUTFLOW OF **4,809** WORKERS

JOB INFLOW + OUTFLOW TRENDS, 2015



U.S. Census Bureau, OnTheMap, 4ward Planning, 2018

EDUCATION + INCOME LEVELS, 2016



2016 ACS 5-year estimates

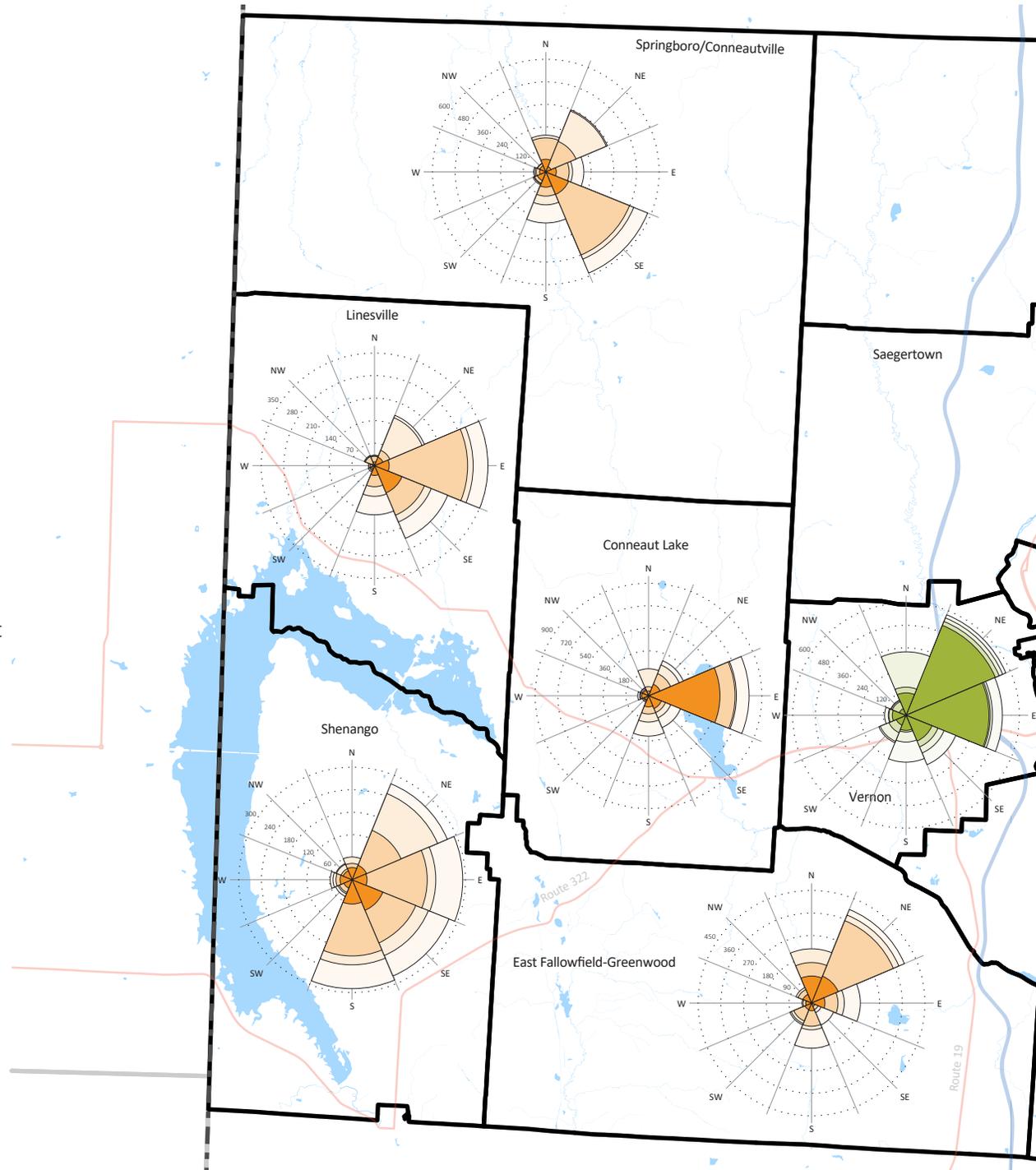
Twenty-one percent of county residents over age 25 hold a bachelor's degree or higher. Higher educational attainment is a favorable trend as earnings typically increase with one's level of formal education. Post-secondary educational attainment is not limited to college degrees, but includes trade schooling and workforce training. BLS data from the first-quarter of 2017 reveals that the average worker within Crawford County earns \$40,750 annually, an amount slightly less than those across the WDA (\$41,760) and much lower than those throughout all of Pennsylvania (\$56,720). In the first-quarter of 2017, the Pennsylvania Center for Workforce Information and Analysis (CWIA) reported that the county's health care and social assistance sector is projected to grow the fastest among all other sectors by 2022. With an average annual wage of \$39,870, the health care and social assistance sector will provide mid-wage job opportunities. Forecasted as the county's second fastest growing industry by employment, the retail sector, will provide lower-wage job opportunities (\$28,104 per year).

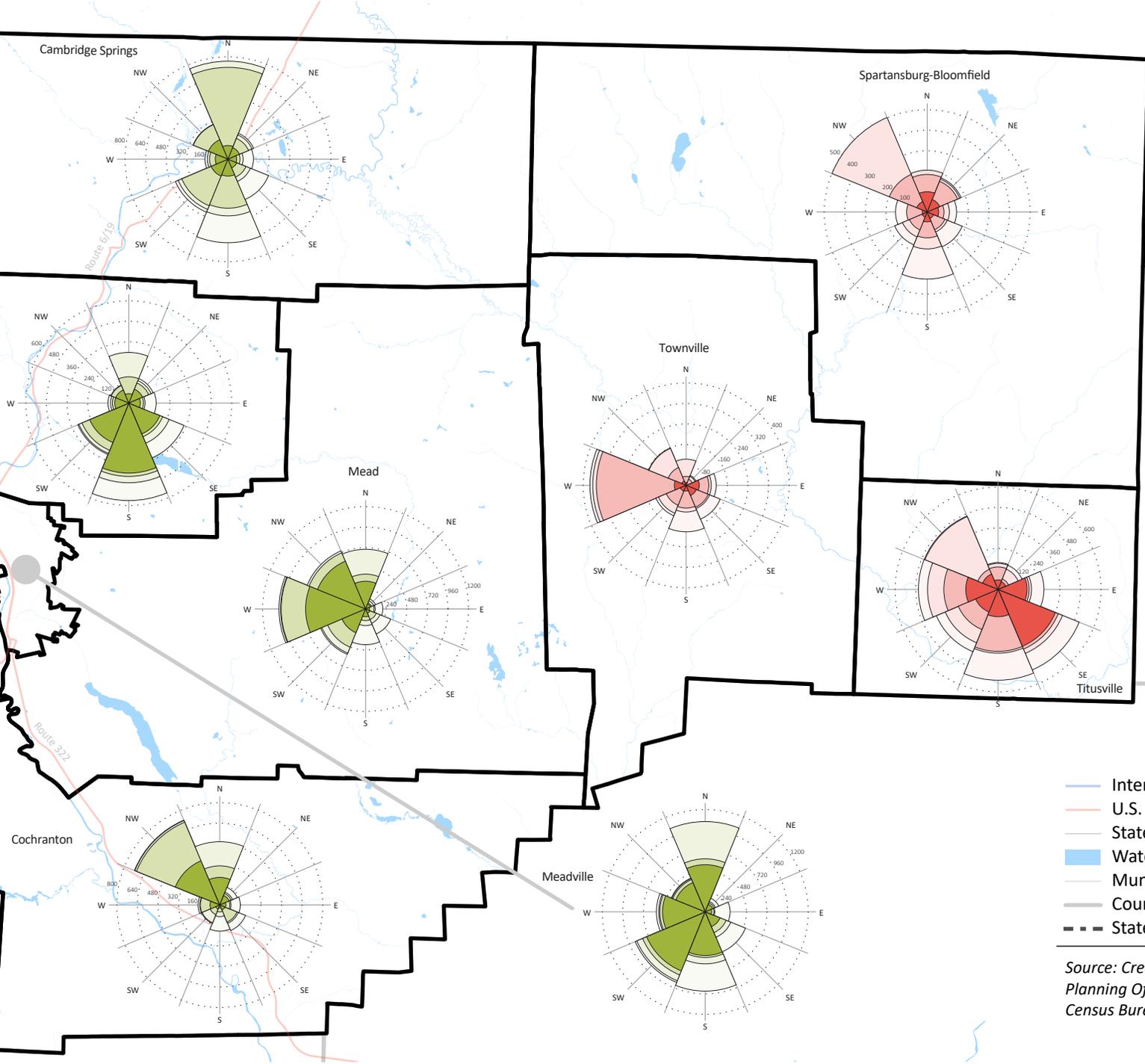
Over the past decade, unemployment in Crawford County has remained higher than Pennsylvania overall. In February 2018, Crawford County's unemployment rate was 6.1%. This rate demonstrates a significant improvement over 2010 reported observations (when unemployment reached as high as 10.6%) and is comparable to pre-recession levels (BLS).

Observations of job inflow and outflow commuter patterns are important for building an understanding of Crawford County's economy. In 2015, approximately 9,470 workers were employed inside the county but resided elsewhere while 14,275 employed residents of Crawford County worked in another county. This resulted in a net outflow of around 4,810 workers. Though significant, this trend is an improvement over the net outflow of around 5,810 workers reported in 2002 (U.S. Census Bureau, OnTheMap, 4ward Planning, 2018). The increase in those commuting to work in Crawford County from other counties is favorable for the county's housing market as a fraction of these workers may eventually relocate closer to their places of employment.

To further examine commuter patterns in Crawford County, data from the U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) program was mapped. The City of Meadville is the most common work destination among Crawford County residents (20.2%). Other concentrations of employment in Crawford County include the City of Titusville, Kerrtown Census-Designated Place (CDP), Saegertown Borough, Cambridge Springs Borough, and the Fredericksburg CDP. Beyond local concentrations of employment, many residents commute across the county line to reach jobs located in the City of Corry and the Borough of Edinboro, both in Erie County. To the north, approximately 5.2% of county residents commute as far as Erie City (Erie County). Another 1.2% of Crawford County residents commute as far south as Pittsburgh (Allegheny County) for work. Although the aforementioned employment areas are significant, they only account for around 39% of the county's workforce, demonstrating that employment is fairly dispersed.

In terms of where Crawford County's workforce lives, the City of Meadville is the most significant home location for workers (11%). Other common places of residence among the county's workforce include the City of Titusville, Conneaut Lakeshore CDP, Kerrtown CDP, Cambridge Springs Borough, Pymatuning Central CDP, Cochranon Borough, Saegertown Borough, and Linesville Borough. Approximately 1.2% of Crawford County workers live as far north as Erie City (Erie County) and 0.7% of those working in the county live as far south as Oil City (Venango County). Overall, these top ten home destinations account for 22.6% of Crawford County workers (U.S. Census Bureau, OnTheMap, 4ward Planning, 2018).





The radar graphs shown on this map display both the distance and direction of where residents holding jobs within each submarket work.

- Less than 10 Miles*
- 10 - 24 Miles*
- 25 - 50 Miles*
- 50 + Miles*

Source: U.S. Census Bureau Center for Economic Studies- Local Employment Dynamics Partnership

- Interstate Highways
- U.S. Routes
- State Routes Class 1
- Water
- Municipal Boundaries
- County Boundaries
- State Boundary



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

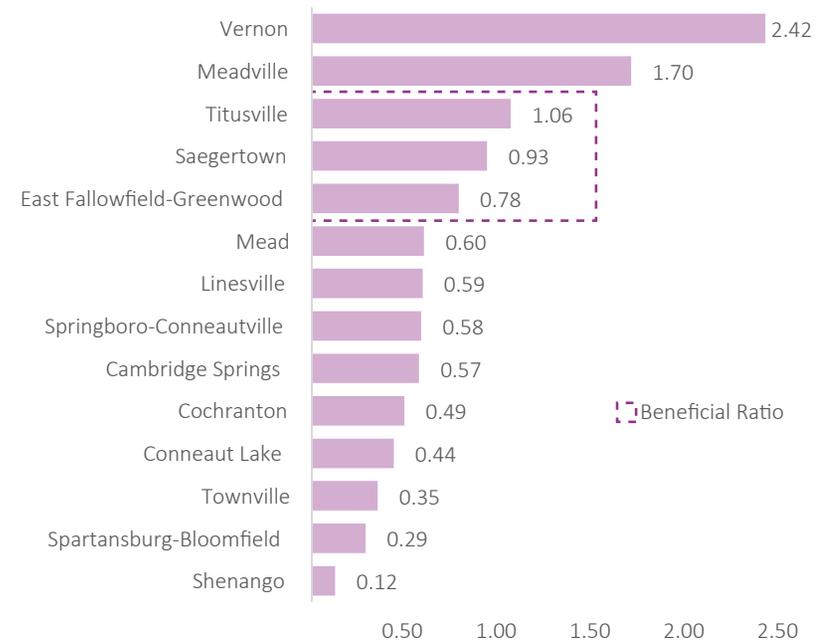
The Meadville, Vernon, and Titusville submarkets are Crawford County's three largest employment submarkets by total employment share, and together represent 66% of the county's total employment according to the U.S. Census in 2015. Located in central Crawford County, the Meadville Submarket contains around one-third of the county's total jobs making it the county's most significant employment center. The adjacent Vernon Submarket contains the county's second largest employment share, accounting for 18.3% of all jobs in the county. Located in the county's southeast corner, the Titusville Submarket rounds off the top three submarkets by employment share, containing 11.4% of all jobs in the county.

A submarket's job-to-housing ratio provides one method to measure if the submarket contains enough jobs to buttress housing market stability. Typically, a job-to-housing ratio between 0.75 to 1.5 is considered beneficial for promoting housing market stability. Ratios higher than 1.5 potentially indicate that there may be more workers commuting into the area because of lack of local housing options. Conversely, a job-to-housing ratio below 0.75 potentially indicates that a community lacks the employment opportunities necessary to maintain stability in its housing market. An imbalance between jobs and housing creates longer commute times, more single driver commutes, loss of job opportunities for local workers without vehicles, traffic congestion, and poor air quality. The graphic on the right illustrates the job-to-housing ratio for each submarket.

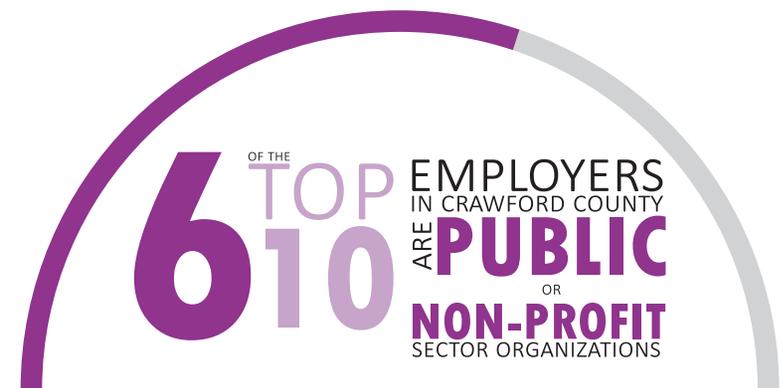
Vacant sites and buildings (business vacancies) provide potential opportunities for accommodating growth and spurring economic development through redevelopment and infill, and ultimately the generation of additional tax revenues. According to HUD's Aggregated U.S. Postal Service (USPS) Administrative data, over the past five years, Titusville and Meadville submarkets have had the highest business vacancies in the county. As of the fourth-quarter 2017, business vacancies in the Titusville and Meadville submarkets were 14.8% and 8.7%, respectively.

4ward Planning identified the county's 50 largest employers, of which public and non-profit sector employers comprise 6 of the top 10. When private sector industries shrink, as they have in Crawford County, what's left, typically, are government, educational and non-profit employers. To understand the housing needs of employees working for the county's largest employers, 4ward Planning conducted an employee survey. The County reached out to the top 20 employers at the recommendation of 4ward Planning. After significant outreach, 11 employers participated in the survey (see purple highlights in the table on the next page). The survey instrument asked 24 mostly multiple choice questions but a few open-response opportunities were given. A strong sampling of 599 employees responded with around a quarter of respondents providing informative written feedback.

JOB TO HOUSING RATIO, 2017



OnTheMap, ESRI, 4ward Planning, 2018



TOP 50 EMPLOYERS, 2ND QUARTER 2017

Rank	Employer	Rank	Employer
1	Meadville Medical Center	26	Universal Well Services Inc
2	State Government	27	J M Manufacturing CO. Inc
3	Crawford County	28	Park Avenue Rehab Center
4	Wal-Mart Associates Inc	29	Career Concepts Staffing
5	Crawford Central School District	30	Home Depot USA Inc
6	Ainsworth Pet Nutrition LLC	31	MacLean-Fogg Company
7	Allegheny College	32	Molded Fiber Glass Co.
8	Acutec Precision Machining Inc	33	BSI Financial Services
9	Wesbury United Methodist	34	City of Meadville
10	Penncrest School District	35	Prism Plastics Inc
11	Greenleaf Services Corporation	36	YMCA of Meadville
12	Channelock Inc	37	Bethesda Children's Home
13	Meadville Forging Company Inc	38	Fast Food Enterprises 3
14	C&J Industries Inc	39	AC School Services Inc
15	Lord Corporation	40	CBOCS Pennsylvania LLC
16	Titusville Area School District	41	Eat'n Park Hospitality Group
17	Conneaut School District	42	Leech Industries Inc
18	Federal Government	43	Dolgencorp LLC
19	ARC Crawford Warren & Forest	44	Meadville Giant Eagle #675
20	Pittsburgh Glass Works LLC	45	Sheetz Inc
21	Rolling Fields Inc	46	Baillie Lumber Co L P
22	Titusville Hospital	47	Chipblaster Inc
23	Advanced Cast Products Inc	48	Conneaut Lake Park
24	Viking Tool & Gage Inc	49	RTI
25	Pipeline Systems Inc	50	Harrington Management Inc

Employers who participated in employee survey.

Survey respondents provided the following key insights:

- Approximately 59% of participants responded as living, and 76% of participants responded as working, within Meadville or a neighboring Township;
- Though well-employed, half of respondents live in cost-burdened households;
- When asked if participants were to move, where within Crawford County would they choose to relocate - 48% chose Meadville and 9% chose Titusville;
- Repairs, mortgage/rent, services/utilities expenses, and high taxes are the greatest sources of housing dissatisfaction;
- Lack of economic opportunity is the top reason for wanting to leave Crawford County; and
- Blight and high rents prevent some from finding affordable housing that meets their needs.

Ultimately, the employee survey provided a detailed profile of a significant cross-section of the county's workforce. The insight provided by survey respondents should be considered when addressing housing needs in Crawford County. Overall, housing disrepair and the lack of affordable, quality rental housing in cities (particularly Meadville) define the two overarching takeaways Crawford County can and should address.

POPULATION GROWTH ANALYSIS:

POPULATION CHANGE + PROJECTIONS -

Crawford County had around 87,400 residents in 2017 according to the U.S. Census. Similar to the Northwest WDA, Crawford County's population has declined since 2000. Furthermore, the county is projected to lose approximately another 1,450 persons by 2022 (ESRI, 4ward Planning, 2018). Declining population is often accompanied by a rise in residential vacancy rates, flat-to-declining housing values, and increased blight, all of which are observed throughout Crawford County.

For planners, economic development professionals, and municipal officials, it is important to know not only if the area's population is changing, but also the underlying reasons for such change. Population change is directly influenced by births, deaths, in-migration, immigration, and emigration. Census data recorded between April 2010 and July 2017 for Crawford County reports that the number of deaths (7,119) was greater than the number of births (6,845), resulting in a natural population decline (births minus deaths) of 274 persons. Additionally, the county has had a negative migration rate since 2010 driven by the loss of domestic residents to other counties.

MIGRATION TRENDS -

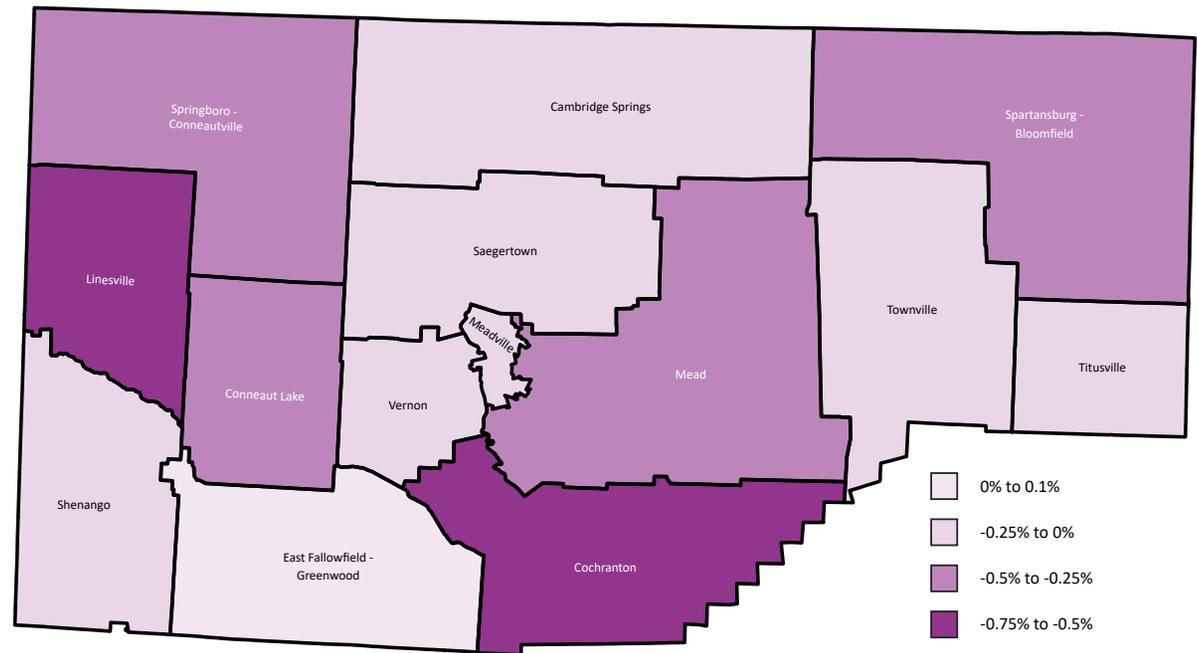
Understanding where people are in-migrating from has important implications for land regulations and tax policies. Randomized longitudinal surveys have shown that the primary reason for moving is often related to employment. Meaning, people typically relocate from one county to another to secure work.

Census data observed between 2015 and 2016 showed that 88% of Crawford County residents reported not moving over the last year, eight percent (8%) moved within the county, two percent (2%) moved from elsewhere within Pennsylvania, two percent (2%) moved from another state, and less than one percent (1%) moved from abroad. Overall, residents relocating to Crawford County were more likely to have no income (25%), compared to residents who remained in the same house during the past 12 months (12%).

CRAWFORD COUNTY
↓
LOST 1.5%
OF OUR POPULATION
BETWEEN
2010 - 2017

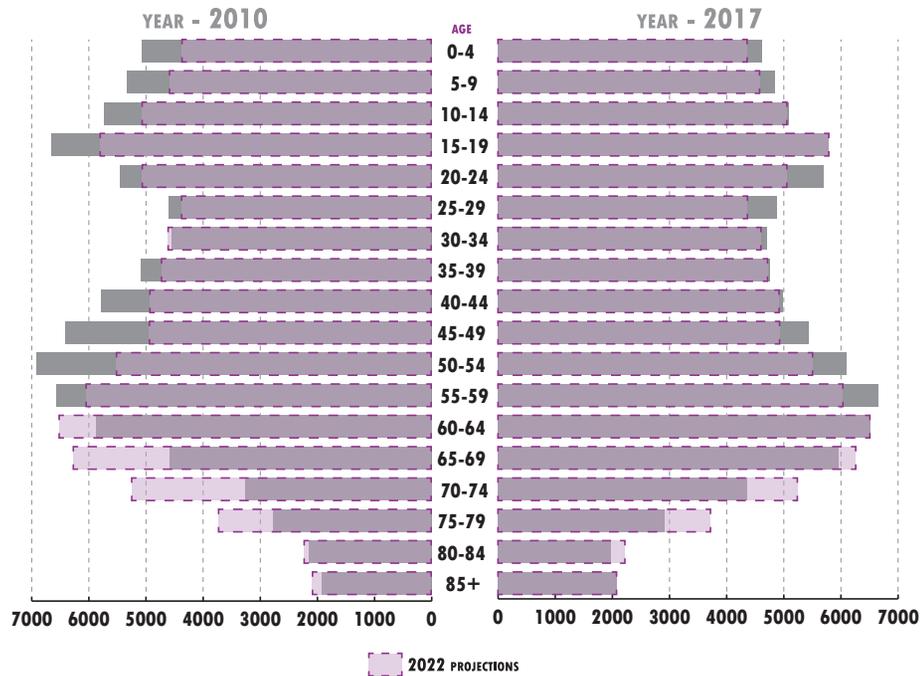
U.S. Census Bureau, 2018

ANNUALIZED POPULATION CHANGE BY SUBMARKET, 2010-2017



ESRI, 2018

CRAWFORD COUNTY POPULATION BY AGE COHORT, 2010-2022



2016 ACS 5-year est., 4ward Planning, 2017

NON-TRADITIONAL HOUSING POPULATIONS -

There are three population groups in Crawford County that do not contribute traditional demand to the local housing market: university students, federal inmates, and Amish/Old Order Mennonites. Student dormitories and correctional facilities are both classified as “group quarters” by the U.S. Census Bureau. Group quarters also include other institutional and non-institutional settings such as nursing homes, mental hospitals, military barracks, group homes, missions, and shelters. In 2016, there were 3,855 residents of group quarters in the county comprising about 4.4% of its total population. The largest shares of Crawford County’s group quarters population live in the Meadville (43.7%), Cambridge Springs (28.4%), Saegertown (10.9%), and Titusville submarkets (10.6%). In 2010, Ohio State University reported that the Spartansburg-Bloomfield Submarket and East Fallowfield-Greenwood Submarket contained the highest concentrations of Amish residents at 23.2% and 20.7% of their total populations respectively.

AGE COHORT TRENDS -

Crawford County is getting older at a faster rate than the WDA and Pennsylvania. In 2017, the county’s median age was 43.3 years compared to the WDA and Pennsylvania at 41.7 and 41.3 years respectively (U.S. Census, 2018). While Crawford County’s population is projected to decline through 2022, its senior population between ages 65-to-84 is expected to increase (ESRI, 4ward Planning, 2018). This trend will produce demand for senior housing and present larger implications for the county’s housing stock, economy, and tax base. The Crawford County Population pyramid illustrates age cohorts in 2010, 2017, and projections for 2022. A graphic showing annualized population change projections on the following page illustrates the aging of Crawford County.

Projections show that seniors between ages 65-to-84 will be the only age group to gain in population through 2022. All other age groups are projected to either stagnate or decline over the same time including workforce aged individuals. This forecast suggests that approximately 37% of the county’s population will be over age 65 (senior dependent) by 2022. While important members of our community, seniors often require more assistance from government, healthcare, and social services. Additionally many seniors are no longer part of the county’s labor force. The projected increase in senior citizens paired with the decline in working age individuals, if realized, may create fiscal challenges for the County and municipal governments.

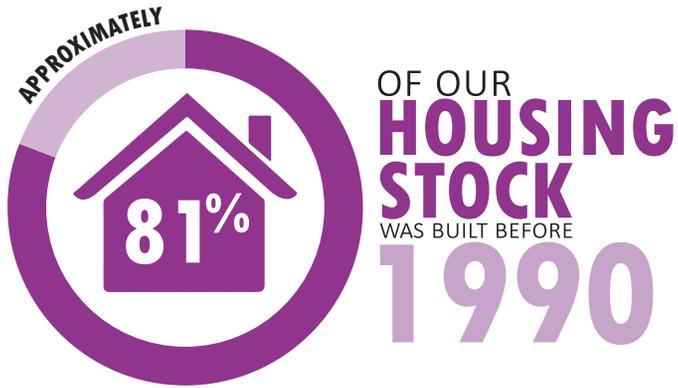
INDIVIDUALS
65 TO 84
 ARE THE
ONLY
 POPULATION
 PROJECTED TO INCREASE
 BY 2022

37
 OUT OF EVERY
100
 CITIZENS
 WILL BE A
SENIOR DEPENDENT
 BY 2022

ANNUALIZED POPULATION PERCENT CHANGE PROJECTIONS, 2017-2022

HOUSING DRIVERS





POPULATION WITH DISABILITIES -

Approximately 81% of Crawford County’s housing stock was built prior to 1990 when the Americans with Disabilities Act (ADA) was enacted (2015 ACS, ESRI, 4ward Planning, 2018). Over 13,680 residents in Crawford County have a disability that could affect their housing situations (16% of the population) (2016 ACS 5-year est., 2018). Persons with disabilities often require accessible housing features such as ramps, wide doorways, large bathrooms, and grab bars. In Crawford County, roughly 42% of those with disabilities are between the ages of 35 and 64, which represents prime working-age cohorts. Additionally, 21% of those with disabilities are age 75 and older, which comprises residents most likely to have ambulatory disabilities. Ambulatory disabilities are correlated with increasing age, and with projections that show an increase in senior citizens, the demand for accessible housing units will likely increase. As a result, the combination of an older housing stock and aging population in Crawford County will make accessible housing an important area of concern.



HOUSEHOLDS, HOUSING UNITS + HOUSING STOCK -

An often confusing subject is the difference between household, housing stock, and housing units. Using HUD definitions, a housing unit is a house, apartment, group of rooms, or single room occupied or intended for occupancy as separate living quarters. A household is all of the people who occupy a housing unit including related family members and all unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roommates, is also counted as a household. For purposes of this Housing Plan, the County defines housing stock as the number of existing housing units in a community based on data compiled at a given point in time.

HOMELESS POPULATION -

Crawford County’s total homeless population consisted of 55 people (less than 0.1% of the total population) as of the 2017 Point-In-Time Count (PIT Count) of homelessness. This compares to the Northwest region, comprised of Clarion, Crawford, Erie, Forest, Mercer, Venango, and Warren Counties, which reported less than 0.2% of its population as homeless in 2017. For Crawford County, its 55 homeless individuals made up 29 households. Of these households, 11 were composed of at least one adult and one child with the balance (18) comprised of individuals. For Crawford County’s overall homeless population, 45% noted as having a disability, 29% reported being victims of domestic violence, 20% were severely mentally ill, 18% stated having chronic substance abuse, and 5% identified as veterans. During the same count, only one individual was counted as being chronically homeless. Between 2015 and 2017, homelessness in Crawford County declined by 8.3%.

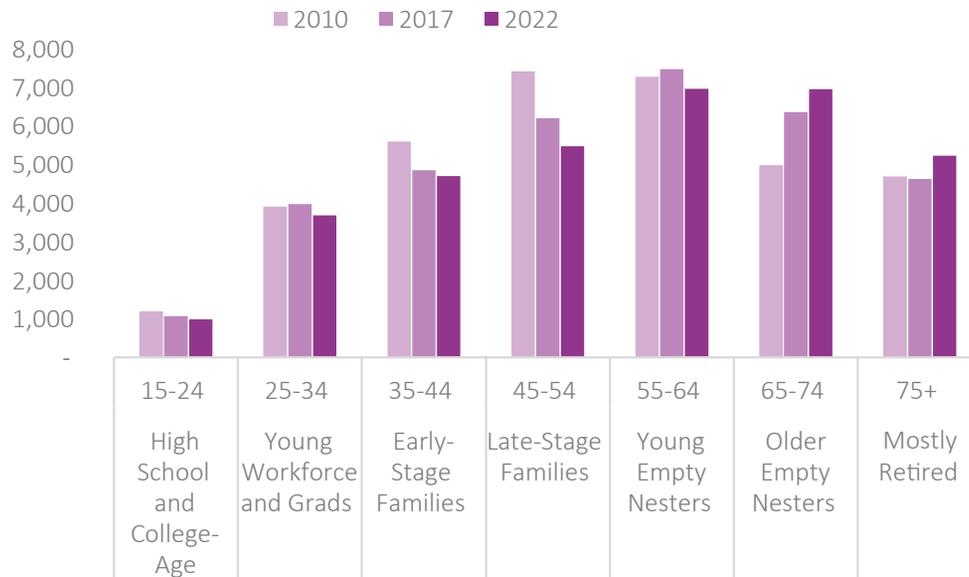


HOUSEHOLD TRENDS -

Crawford County had approximately 33,960 households in 2017 (U.S. Census). Household formation within Crawford County and the WDA has been flat since 2000. However, the number of households has declined in Crawford County by around 500 since 2010, and is forecast to further decline by about 570 by 2022. Crawford County's average household size (2.4 persons) is comparable to the WDA's and Pennsylvania's, but it is below the national average (2.6 persons). Additionally, projections show that the county's average household size will remain relatively stable through 2022. One takeaway from the county's relatively small household size is that new housing units (whether rental or for-sale) will likely need to be smaller.

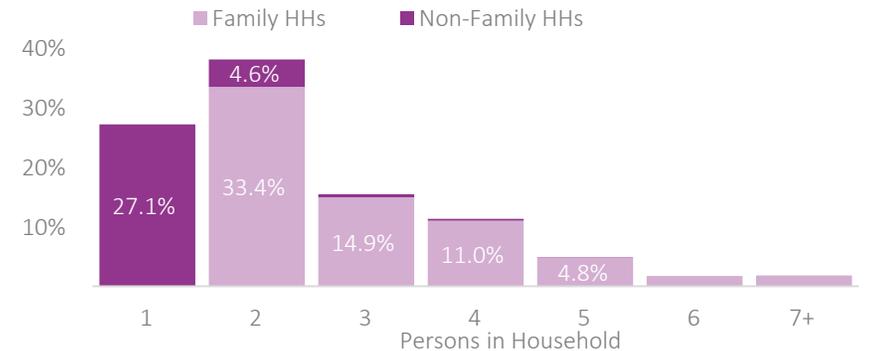
For non-family households in Crawford County, an estimated 27% are comprised of a single-person with another 5% constituting households composed of at least two unrelated persons sharing the housing unit. Family households (those composed of at least two persons related by birth, marriage, or adoption) account for 66% of all Crawford County households. Within this category, two-person family households are most represented and account for about a third (33%) of all households in the county (U.S. Census, ACS). Recently, the share of family households in Crawford County has declined while the share of non-family households has grown. In the context of declining household formation forecasted through 2022, the share of non-family households is expected to increase to 35% from 32% over the same time frame. This projection provides critical insight for policy makers attempting to ensure adequate housing stock for each household type and workforce housing.

TOTAL HOUSEHOLDS BY HOUSEHOLDER AGE, 2018



ESRI, 4ward Planning, 2018

HOUSEHOLDS BY TYPE AND SIZE, 2011-2015



U.S. Census 2015 ACS

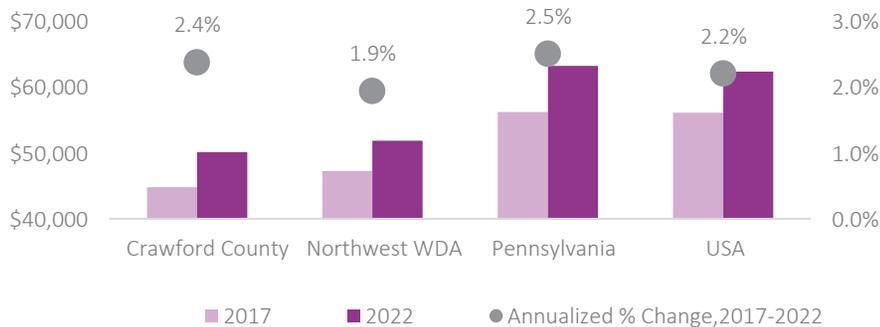
Growth in non-family households, a national trend, is due to a variety of demographic, cultural, and economic factors including the aging of the American population and high divorce rates. Additionally, trends show younger adults increasingly delay or decline marriage, and rising housing costs paired with sluggish income growth are enticing more non-relatives (e.g., unmarried partners or roommates) to share housing. These trends demonstrate useful information for any entity looking to target specific demographics to relocate to Crawford County.

While the share of single-person households in Crawford County (27%) is lower than the share within the WDA and Pennsylvania (29% and 28.6%, respectively), the share of non-family households headed by a person 65 years-or-older is slightly higher in the county (12.2%) than in the WDA and state (11.9 and 11.6%, respectively) (U.S. Census 2015 ACS). While seniors living alone isn't necessarily cause for concern, some of these households may have limited financial resources to draw upon to meet housing maintenance and repair costs which, if left unaddressed, lead to neighborhood blight. Further, a growing senior population will likely increase demand on local and County services (e.g., transportation-, emergency-, and welfare-related services), placing fiscal strains on municipal governments. Additionally in 2016, 55.4% of married couples with children under 18 years old in Crawford County were dual-income households (both parents are employed). While the share of dual-income married households with children throughout Pennsylvania and the U.S. has increased since 2009, the share of dual-income married households with children in the WDA and the county has declined (ACS 5-year est., 2018). The decline in dual-income family households in the region may be linked to the decline in employment opportunities that provide living wages for families.

COST + AFFORDABILITY TRENDS -

Affordability is an issue for many households across Crawford County, and understanding the affordability of the current housing supply is a critical component for determining housing need. Since household income is often correlated with educational attainment, it is not surprising that the 2017 median household income in Crawford County (\$44,790) is lower than the WDA (\$47,260) and Pennsylvania (\$56,180) which have higher educational attainment rates. Nevertheless, from 2010 to 2017, after adjusting for inflation, the median household income in Crawford County increased by just 0.7% per year. While this increase was greater than that observed across Pennsylvania over the same period (0.3% per year), changes in median household income within the county varied by submarket. For example, the median household income in the Conneaut Lake Submarket increased by 3.6% per year while it declined in both the Saegertown and Meadville submarkets by -0.8% per year, over the same period (U.S. Census 2016 ACS 5-year est.).

PROJECTED MEDIAN HOUSEHOLD INCOME, 2017-2022



ESRI, 2018

While median household income levels are expected to increase across all geographies by 2022, the county's median household income is forecast to remain comparatively low. According to Environmental Systems Research Institute (ESRI), the median household income in Crawford County is expected to increase by 2.4% per year, an annualized growth rate faster than that expected for the WDA (1.9% per year), but comparable to that expected for Pennsylvania (2.5% per year). The county's projected annualized income growth is anticipated to continue to be stronger than the historical inflation rate in the Northwest WDA, which has averaged 1.6% per year over the past decade according to the Bureau of Labor Statistics. In terms of household income by tenure (i.e. owner-occupied or renter-occupied), the 2016 median household income among owner-occupied households in Crawford County was \$52,950 per year while the median household income among renter-occupied households was \$27,160 per year (a difference of \$25,790).

LIVING WAGE CALCULATOR -

According to an MIT Living Wage Calculator, “in many American communities, families working in low-wage jobs make insufficient income to live locally given the local cost of living.” This calculator computes the real cost of living in a region, accounting for food, housing, childcare (for families with two working parents), and other major spending categories to determine the bare minimum needed to live there. Before taxes, the annual living wage in Crawford County ranges from about \$20,605 for a single adult, to a little under \$72,000 for two working adults with three children.

INCOME LIMITS FOR ASSISTANCE -

HUD sets income limits to determine eligibility for assisted housing and community development programs. State programs often adopt these income limit thresholds to determine eligibility for their funding sources. Some of these federal or state programs include Public Housing, Section 8 Project-Based, Section 8 Housing Choice Voucher, Section 202 housing for the elderly, Section 811 housing for persons with disabilities, Community Development Block Program (CDBG), Neighborhood Assistance Program (NAP), and tax credit programs to name a few. HUD develops income limits based on Median Family Income (MFI) estimates and Fair Market Rent (FMR) area definitions. According to HUD’s MFI (\$58,900) and income limit estimates for Crawford County, the annual household income threshold for a low-income household ranges from \$33,900 annually for a one person household to \$63,900 annually for an eight-person household. The table on income limits identifies income limits for low, very-low, and extremely low income households.

Crawford County’s housing stock is only beneficial if local residents can find affordable homes. HUD defines cost-burdened families as those “who pay more than 30% of their incomes for housing” and “may have difficulty affording necessities such as food, clothing, transportation, and medical care.” A severely cost-burdened household is defined as one paying more than 50% of it’s income on rent. In 2015, HUD considered 41% of renter households in Crawford County as cost-burdened with 21% being severely rent-burdened. The Meadville and Titusville submarkets have the highest share of cost-burdened households.

MIT LIVING WAGE, 2016

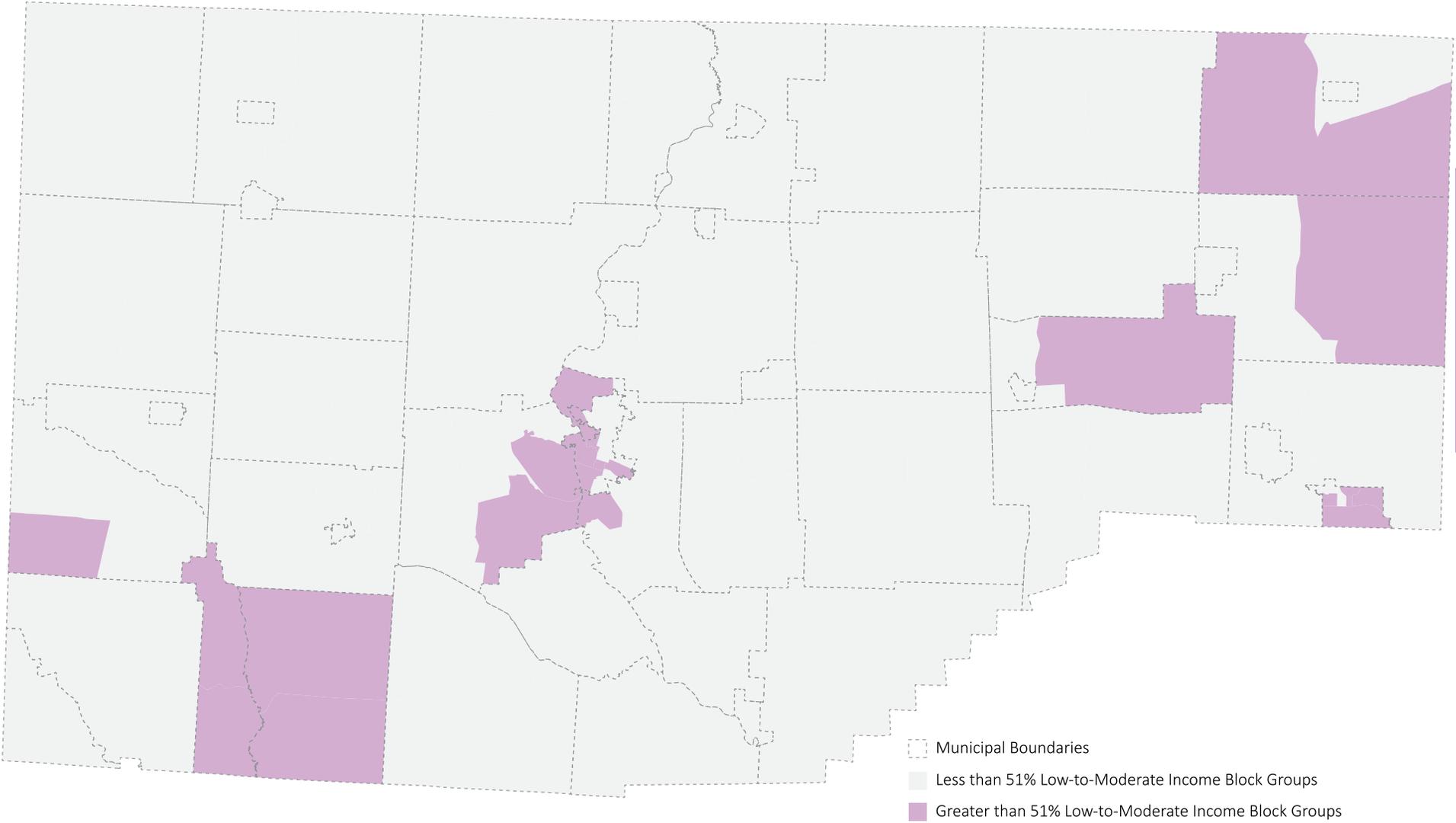
HOUSEHOLD MAKE-UP	ANNUAL INCOME REQUIRED BEFORE TAXES
1 Adult	\$20,605
2 Adults	\$33,297
2 Adults- (1 Working) + 1 Child	\$41,777
1 Adult + 1 Child	\$43,952
2 Adults - (1 Working) + 2 Children	\$46,763
2 Adults + 1 Child	\$50,055
2 Adults - (1 Working) + 3 Children	\$51,295
1 Adult + 2 Children	\$55,995
2 Adults + 2 Children	\$61,244
1 Adult + 3 Children	\$70,153
2 Adults + 3 Children	\$71,976

HUD FEDERAL INCOME LIMITS, 2018

Family Size	Low Income (80% of MFI)	Very Low Income (50% of MFI)	Extremely Low Income (30% of MFI)
1	\$33,900	\$21,200	\$12,750
2	\$38,750	\$24,200	\$16,460
3	\$43,600	\$27,250	\$20,780
4	\$48,400	\$30,250	\$25,100
5	\$52,300	\$32,700	\$29,420
6	\$56,150	\$35,100	\$33,740
7*	\$60,050	\$37,550	\$37,550
8*	\$63,900	\$39,950	\$39,950

* Extremely low income limits equal the very low income limits.

INCOME ELIGIBLE CENSUS BLOCK GROUPS, 2015



HOUSING GROWTH ANALYSIS:

A community's housing stock in itself both serves as a driver and contains influencers that impact housing demand. To gain a complete picture of Crawford County's housing growth, this report examines the physical characteristics of housing (stock, age, condition, etc.), dynamics impacting supply and demand of housing units, financial factors which influence housing choice, circumstances leading to vacancy, and potential redevelopment opportunities.

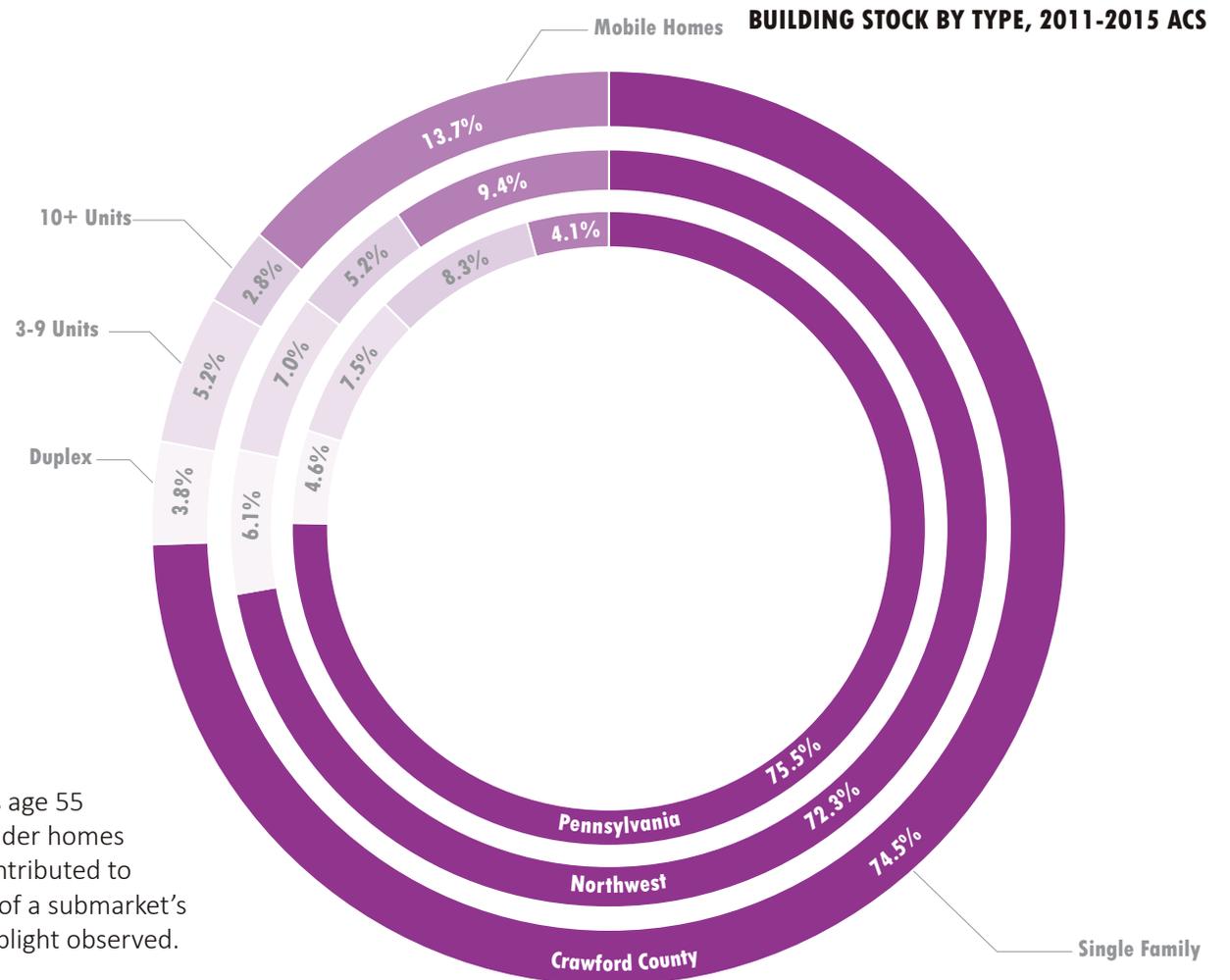
RESIDENTIAL BUILDING STOCK -

Single-family homes comprise nearly three-quarters (74.5%) of Crawford County's residential building stock (U.S. Census 2015 ACS). Of the county's single-family home building stock, 98% are single-unit detached structures with the balance (2%) being attached (i.e. townhomes). Mobile homes comprise more than one out of every eight (13.7%) housing structures in the county and provide a more affordable option for low- and moderate-income households. Beyond mobile homes, duplexes (two-unit housing structures) account for 3.8% of the county's residential building stock. Additionally, a limited supply of 10-or-more unit housing structures are concentrated primarily in the county's urban areas.

In terms of housing stock, the Meadville, Mead, Conneaut Lake, Shenango, and Titusville submarkets contain almost half of the county's overall number of housing units. However, living quarters including dormitories, bunkhouses, barracks, transient hotels or motels, institutional quarters, hospitals, prisons, and military installations are not counted as part of the housing unit inventory.

UNITS BUILT PRE-1940 -

Nearly half (44%) of Crawford County's housing stock was built before 1940 (U.S. Census 2015 ACS). Although older homes are often of quality construction and contain fine architectural details, they often require more costly and intensive maintenance and update. The higher maintenance expenses for older homes may present a challenge for lower-income or senior households who may lack the financial means or physical ability to repair older homes. Older housing stocks in some areas may further compound existing challenges, such as in the Titusville Submarket with its comparably low median household income, or interact negatively with observed trends in others, such as the significant population growth expected among residents age 55 and older in the Saegertown Submarket. Additionally, older homes may spend more days on the sales market which can contribute to higher vacancy rates in some areas. Ultimately, the age of a submarket's housing stock may account for a portion of the housing blight observed.



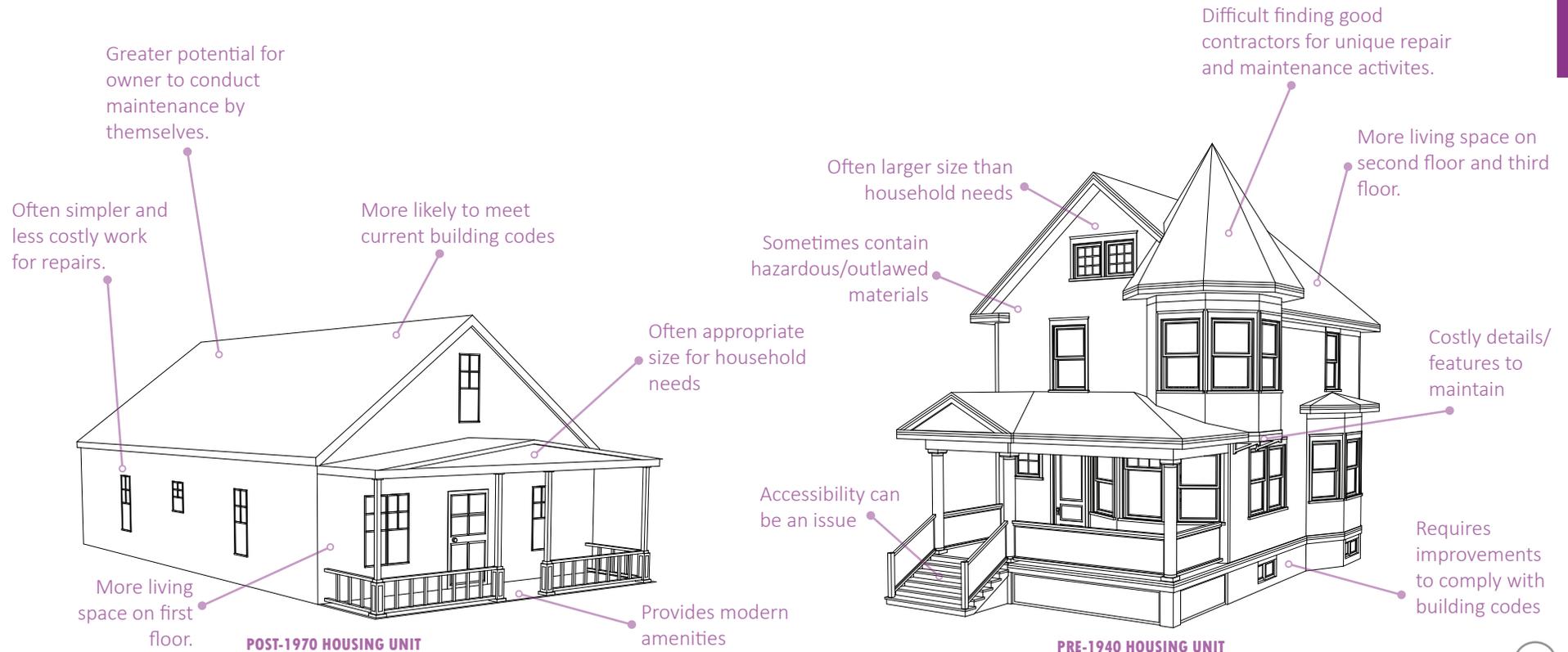
BUILDING STOCK ACCOMMODATIONS -

Nearly two-percent (1.8%) of Crawford County’s housing stock consists of units without complete kitchen facilities and just over one-percent of homes (1.3%) lack full plumbing facilities (U.S. Census). The proportions of homes in Crawford County lacking complete kitchen and plumbing facilities is greater than those observed for Pennsylvania and the whole U.S. The East Fallowfield-Greenwood and Spartansburg-Bloomfield submarkets have the highest shares of homes lacking complete kitchen and plumbing facilities among the county’s submarkets. This observation likely results from the relatively high population of Amish settlers present within these areas.

BUILDING PERMITS -

Between 2000 and 2017, 2,508 housing units were permitted for construction in Crawford County (U.S. Census Building Permits Survey, 2018). This finding explains the near 5% increase (2,030 units) in the county’s housing stock during the same period. Interestingly, the county’s housing stock increased while it’s population declined (U.S. Census). This observation may suggest that some housing consumers may view the county’s existing residential building stock as either undesirable or obsolete, deciding to build new homes as a result. Another possibility may be that a significant portion of the county’s existing housing stock has become physically defunct; encouraging new construction. Both possible explanations are consistent with the observation that 92% of residential construction permits issued between 2000 and 2017 were for single-family homes (U.S. Census Building Permits Survey, 2018).

CONSIDERATIONS OF OLDER + NEWER HOUSING



ASSISTED HOUSING INVENTORY -

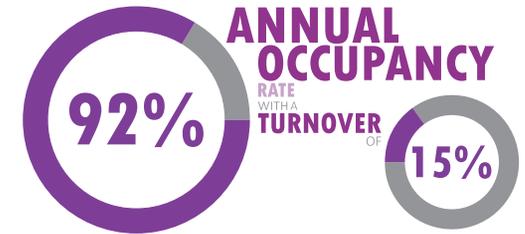
Beyond traditional housing stock, Crawford County contains 725 assisted housing units. Assisted housing refers to units that were originally developed or currently operate with a public source of financing. Generally, these housing units require tenants to be income-eligible, meaning that their annual incomes must be at or below a certain amount in order to qualify to live there. County-wide, approximately 14.5% of residents live below the poverty level, which can be an indicator of being eligible for assisted housing. However, only 2% of housing units in Crawford County are assisted housing units.

According to HUD's 2017 Picture of Subsidized Households (PSH) database, 2,070 people were provided housing by subsidized units in Crawford County. The County's average subsidized unit household contains 1.8 persons and has a household income of approximately \$12,637 per year. These units have an annual occupancy of 92% and an annual turnover of 15%. The average household waited an average of ten months to access a housing unit and has received housing benefits for six years and nine months.

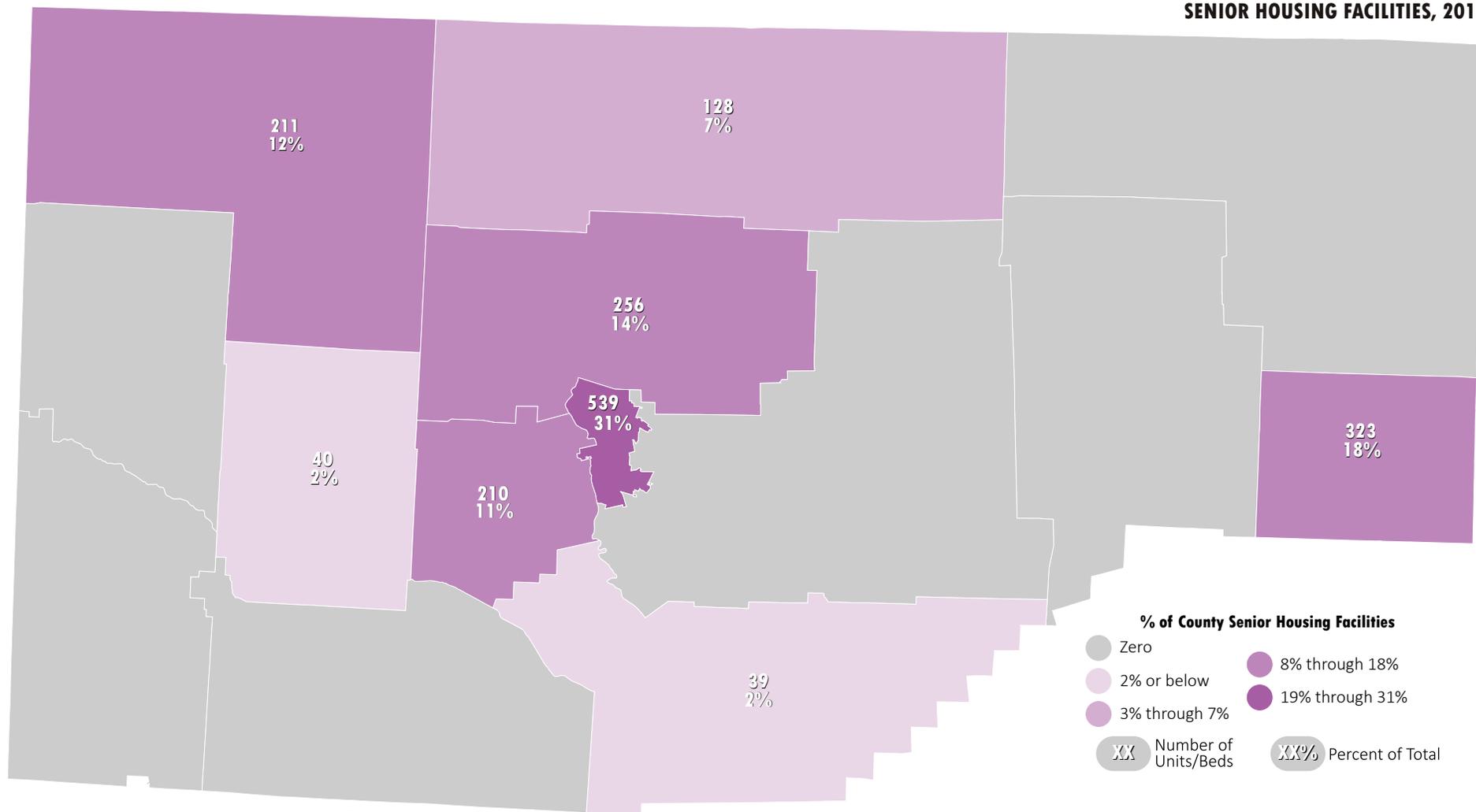
The Housing Authority of the City of Meadville (HACM) and Titusville Housing Authority together provide 88% of Crawford County's assisted housing in their 639 units combined, which include both public housing and a tenant-based Section 8 program. HACM owns and manages 347 units within four facilities and 15 scattered sites in Meadville, and manages the 11-unit Snodgrass Apartments. The Titusville Housing Authority owns and manages 216 units within two facilities and 61 Family Units among three sites in Titusville.

Crawford County contains approximately 1,776 units/beds dedicated to seniors, with approximately 531 affordable senior apartment units/independent living facility units, 498 assisted living beds, and 566 nursing facility beds, and 181 Continuum of Care units. The Meadville, Titusville, and Saegertown submarkets contain the three largest shares of senior housing in Crawford County, with 44.5% of the total. Currently, there are four senior housing developments underway or recently constructed within Crawford County. In the Meadville and Vernon submarkets, there are two senior housing complexes being planned, including the conversion of a 163-room former motel into independent living apartments for residents age 50 and older, and the construction of a 128-unit Pine Street Commons Active Living complex. Hudson Companies recently completed construction of Evans Square, a 40-unit senior housing complex in the Conneaut Lake Submarket and is developing Adams Place, a 39-unit senior housing complex in the Cochranon Submarket.

According to The Caring Institute, an online provider of information on senior housing options, the average cost of assisted living in Crawford County is \$2,885 per month, equivalent to 83% of average cost within the nation (\$3,460) overall. Pennsylvania does not provide financial assistance or care services funded by Medicaid to residents that live in assisted living communities. However, there is a non-Medicaid program called PA Dom Care (Domiciliary Care Program). Additionally, Pennsylvania offers a supplement to Supplemental Security Income (SSI) to persons who are living in non-nursing residential care. A comprehensive listing of senior and affordable rental housing is provided in the appendix to this plan.

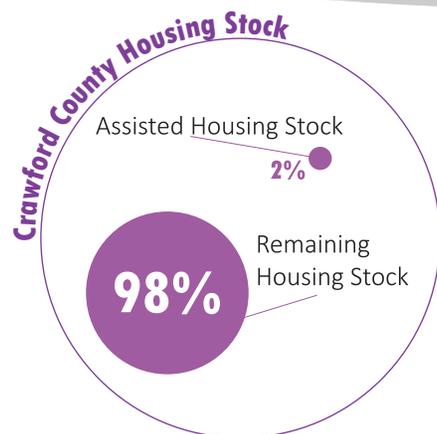
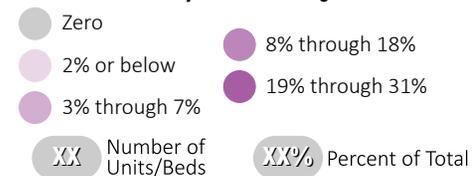


SENIOR HOUSING FACILITIES, 2018



HOUSING DRIVERS

% of County Senior Housing Facilities



HUD, PHFA, Internet, Award Planning, 2018

WORKFORCE HOUSING -

During the development of this study it became evident there is a need to address workforce housing in Crawford County. Workforce housing, for this study, refers to housing options that are economical for households with an earned income regardless of their income level.

Crawford County's average household size is approximately two people, which requires a minimum living wage of approximately \$33,500 (MIT Living Wage, 2016). This two-person household at \$33,500 can spend no more than \$840 per month on housing-related costs, including utilities, before becoming cost burdened. They would not be able to afford a median value home in Crawford County (\$120,000) without becoming cost burdened, facing around \$1,020 per month – 37% of annual income – in housing-related costs, even after a 20% down payment, on a typical 30-year mortgage. The inability of many typical Crawford County households to afford the typical Crawford County house demonstrates a demand for more economical options that isn't being served by the large detached single-family homes that now populates most of its stock.

Additionally, in the national market, single individuals, childless couples, and empty nesters are a growing population segment and desire housing that is non-traditional. These consumers are seeking options within walking distance of amenities and entertainment other than detached single-family housing or large multi-unit apartments. Seventy-seven percent (77%) of Millennials, who make up about 25% of the current population in the United States, are looking to live in walkable neighborhoods. Furthermore, baby boomers, who make up about 20% of the current national population, often don't want to live in traditional retirement communities (U.S. Census). Americans are living longer and staying active longer, but many don't want to be dependent on their family members to get around even though age may eventually take away their ability to drive.

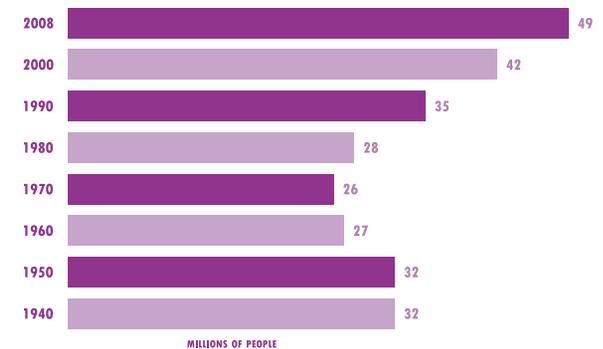
A housing trend that reflects the national demand for workforce housing is called Missing Middle Housing. Missing Middle Housing refers to a range of multi-unit or clustered housing types compatible in scale with single-family homes that help meet the growing demand for walkable living amenities. These housing types include duplexes, fourplexes, and bungalow courts close to local retail and transportation options, which provide diverse housing options along a spectrum of households, lifestyles, and incomes. Even though smaller homes and apartments cost less to rent or purchase and maintain, which bolsters the affordability of such units, the failure of the market to provide enough of these types in Crawford County at the right price for consumers suggests the need for policy interventions to support opportunities for Missing Middle Housing development.

The images on the following page provide a visual example of Missing Middle Housing types, including duplex, bungalow court, carriage house, townhouse, live/work, and a fourplex. Additionally, the illustration of Missing Middle Housing created by Opticos Design, Inc. shows the gap between large scale apartments or development and detached single-family housing.

WHAT ARE THE CHARACTERISTICS OF MISSING MIDDLE HOUSING?

- Walkable context
- Small-Footprint Buildings
- Lower Perceived Density
- Smaller, Well-Designed Units
- Fewer Off-street Parking Spaces
- Simple Construction
- Creates Community
- Marketable

U.S. POPULATION LIVING IN MULTIGENERATIONAL HOUSING, 1940-2008



Pew Research Center, retrieved 2018.



DUPLEX: SIDE-BY-SIDE



CARRIAGE HOUSE



BUNGALOW COURT



TOWNHOUSE



LIVE/WORK



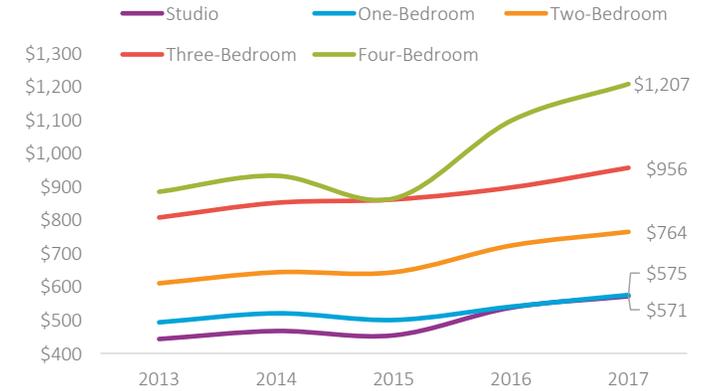
FOURPLEX



FAIR MARKET RENT -

Fair Market Rent (FMR) is a standard used by HUD to set payment amounts for federal housing assistance programs. FMR includes the base rent, as well as any essential utilities that the tenant would be responsible for paying, such as gas or electric. It does not account for non-essential utilities, such as telephone, television, or the internet. In 2017, FMR in Crawford County ranged from \$571 per month for a studio apartment to \$1,207 for a four-bedroom apartment. Between 2013 and 2017, the FMR for a four-bedroom apartment in the county has increased the most (9.1% per year). While FMRs across Crawford County are very low compared to the U.S. average (the county's FMRs are less expensive than 71% of other FMR areas nation-wide), they are comparable with other counties in the Northwest WDA. From 2013 to 2017, the FMR for a two-bedroom apartment in Crawford County increased by 6.1% annually.

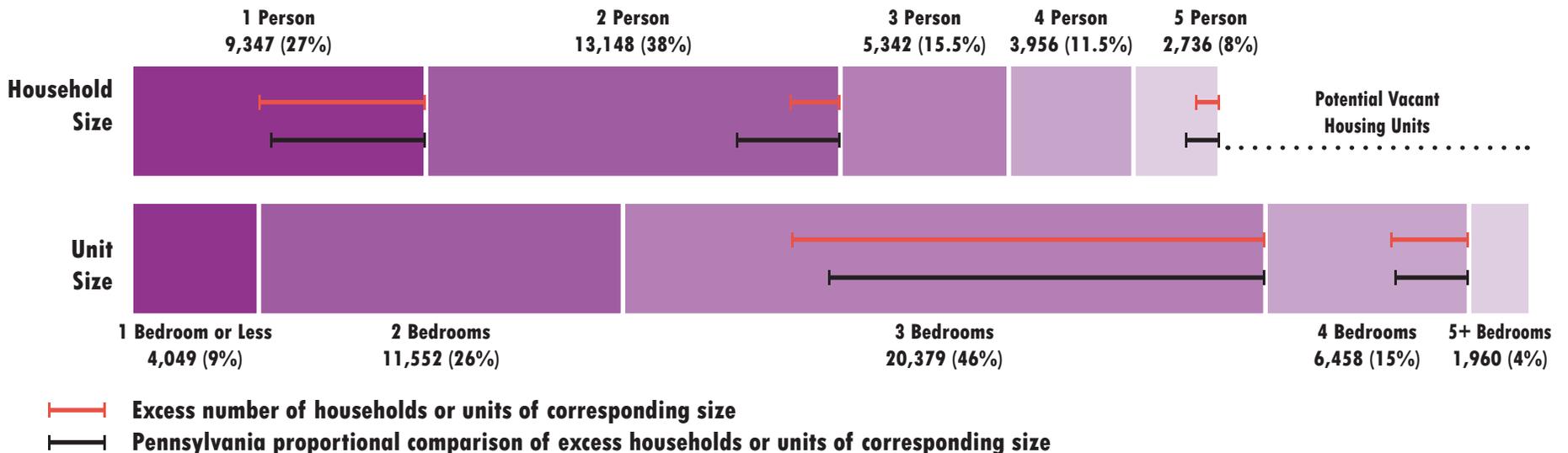
CRAWFORD COUNTY FAIR MARKET RENT, 2018



HUD, 4ward Planning, 2018

HOUSEHOLD SIZE VS UNIT SIZE -

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between the county's available housing stock and the needs of its population. The bar graphs below represent the composition of households and housing units by size within Crawford County. The red lines within the bars show either the excess of households or housing units of corresponding size within the county. The black lines show the same corresponding mismatch for the whole Commonwealth, scaled down to the size of the county's figures for comparison purposes. When compared to proportional mismatches between the composition of households and housing units by size seen across Pennsylvania, Crawford County exhibits a shortage of one-bedroom housing units, but relative surpluses are present for two-, three-, four-, and five-or-more-bedroom housing units. The mismatch is particularly notable for two-bedroom housing units as the county exhibits a much smaller excess of two-person households against two-bedroom housing units compared to Pennsylvania's proportional mismatch. The surplus in three-, four-, and five or more-bedroom units is reminiscent of historic development patterns reflecting the larger household sizes of the past. While the bar graphs below illustrate county-wide trends, each submarket exhibits unique comparisons. A disproportionate stock of larger housing units may present physical and financial challenges for households, and this mismatch may be compounded by vacancy issues in certain areas.



Source: U.S. Census, Retrieved 2018

VACANCY RATES -

Although a healthy housing vacancy rate is considered to be around 5%, naturally occurring vacancy rates can range from 2% to 7% (4ward Planning, 2018). Typically, a vacancy rate over 7% reflects a surplus of available housing whereas one below 2% indicates a shortage. Crawford County's overall housing vacancy rate was high at 22.2% in 2016 (ACS). The county's relatively high rate can be attributed to the presence of seasonal homes and units vacant due to "other" reasons, such as physical obsolescence. However, when seasonal housing units are removed, the county's housing vacancy rate is still unhealthy at 7.1%.

Although Crawford County gained approximately 2,030 housing units from 2000 to 2017, it lost approximately 150 households over the same time. Consistent with these observations, the county's vacancy rate has increased moderately from 18.2% in 2000 to around 23% in 2017 (U.S. Census, retrieved 2018). A detailed examination of vacancy rates at the submarket level is provided within the regional chapters.

HOUSING SALES -

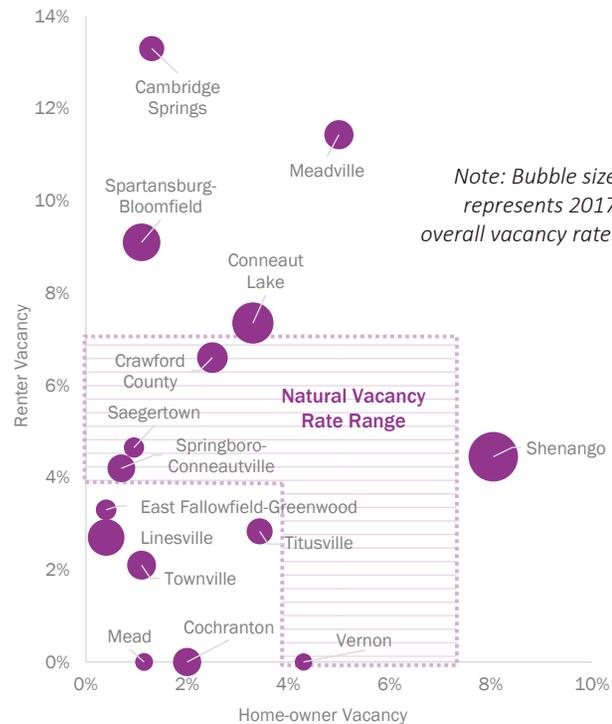
According to data from the National Association of Realtors (NAR) between March and April of 2018, the median list price in the county ranges from \$92,050 for a two-bedroom home to \$299,050 for a home with five or more bedrooms. On a per-square-foot basis, the median list price ranges from \$90 per square foot for a one-bedroom home to \$49 per square foot for a home with five-or-more bedrooms. In February 2018, the average home sale list price in Crawford County was \$111,000, a \$9,500 price increase from the home sale list price in February 2013. Since February 2013, the number of days on market and total listings have decreased, a potential sign of a strengthening market.

HOME SALE LISTING BY BEDROOM, 2018



NAR; realtor.com residential listings database, 2018

DETAILED HOUSING VACANCY BY SUBMARKET, 2017



2016 ACS 5-year est., 4ward Planning, 2017

HOUSING VALUES -

In 2017, the median home value for owner-occupied homes in Crawford County was \$119,900, \$62,850 lower than Pennsylvania's median home value (\$182,730). Between 2010 and 2017, the county's median home value increased by 2% per year after adjusting for inflation. Median home values increased the fastest in the Springboro-Conneautville and Cochranon submarkets during that timeframe.

RENT COSTS -

Since 2010, inflation-adjusted rents in Crawford County and Pennsylvania have remained flat. In 2016, the median gross rent (which includes monthly utilities) in the county was \$633 per month, compared to an inflation-adjusted rent of \$609 in 2010, equivalent to an increase of 0.7% per year. Nevertheless, changes in average median gross rents have varied across submarkets.

LOANS -

A high rate of housing loan application declinations can serve as an early warning sign that a particular housing market may begin to experience challenges (e.g., due to an economic downturn affecting borrowers' credit). Conversely, a relatively high rate of home loan and refinancing approvals may be an indicator of a healthy housing market. Consequently, identifying and understanding home loan-related activity will lend insight into current or potential housing market challenges.

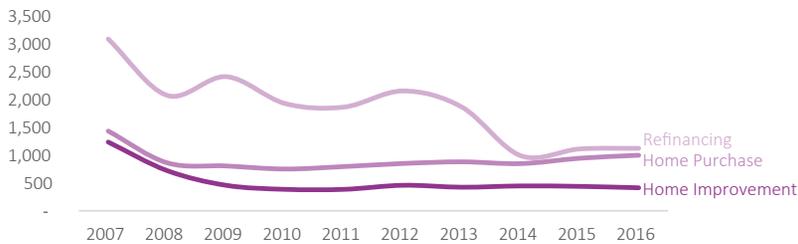
The Home Mortgage Disclosure Act of 1975 (HMDA) requires many financial institutions to maintain, report, and publicly disclose information about mortgages. Based on HMDA data provided via the Consumer Financial Protection Bureau (CFPB), the number of loan applications (for home refinancing, home purchase, and home improvement) in Crawford County has decreased in recent years. In 2007, there were a total of 5,733 loan applications, compared to just 2,523 in 2016. In 2016, 55% of loans were for refinancing purposes, another 28% for home purchases, and 17% for home improvement.

In 2016, the Mead, Conneaut Lake, and Meadville submarkets had the most loan applications at 320, 260, and 250 respectively.

Although the annual number of loan applications in Crawford County has decreased over the past decade, the rate of successful loan originations has improved. This rate increased from 40% in 2007 to 58% in 2016. The county's rate of successful loan originations outpaced improvement seen across the U.S., which increased from 39% to 51% over the same period. Conversely, Crawford County's rate of declined loan applications fell from 36% in 2007 to 23% in 2016 outpacing the national trend which also fell from 22% to 16% over the same time.

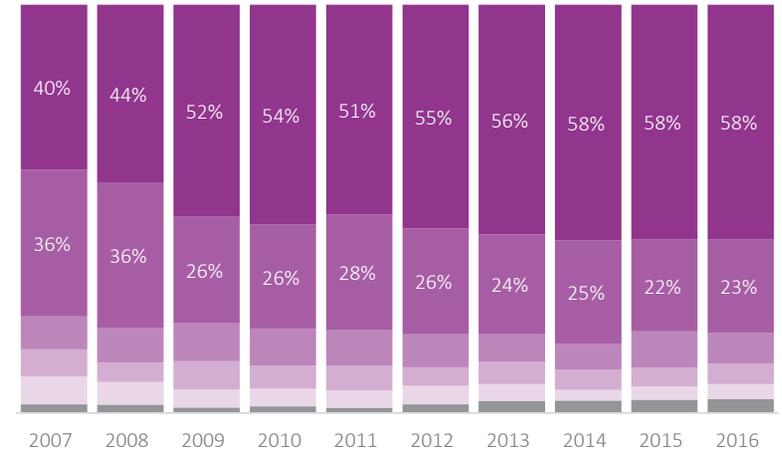
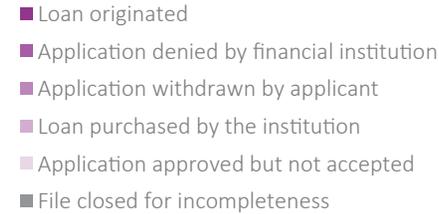
Between 2007 and 2016, 2,424 applications were denied on the grounds of the applicant's poor credit history. Insufficient collateral resulted in 1,708 denied loan applications between 2007 and 2016, and a high debt-to-income ratio led to nearly 1,485 rejected loan applications.

LOAN APPLICATION TRENDS BY PURPOSE, 2007-2016



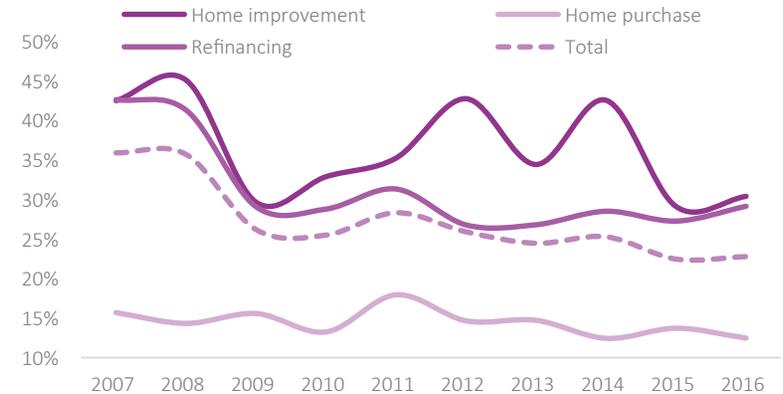
Consumer Financial Protection Bureau, 2018

LOAN APPLICATION TRENDS BY PURPOSE, 2007-2016



Consumer Financial Protection Bureau, 2018

SHARE OF TOTAL APPLICATIONS DENIED BY FINANCIAL INSTITUTIONS, 2007-2016



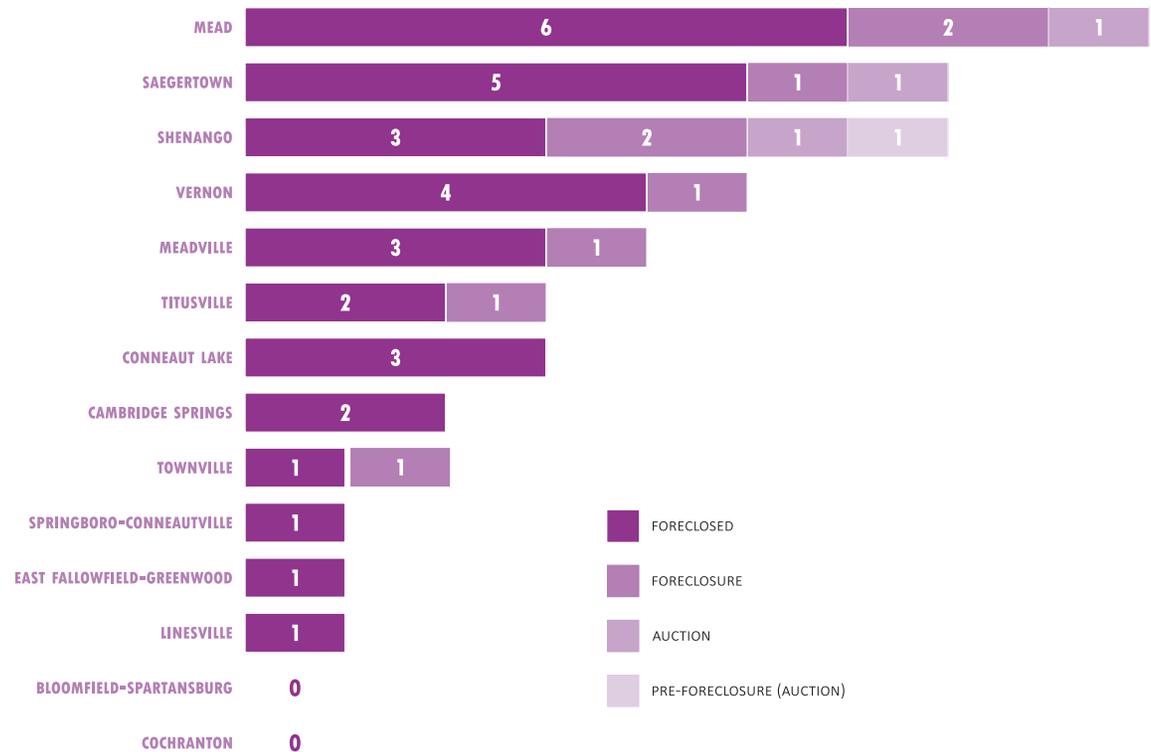
Consumer Financial Protection Bureau, 2018

Interviews with residential real estate professionals suggest that many home sales in Crawford County are diverted due to unusually stringent loan application requirements. While some of their clients were denied housing loans, the same clients qualified for comparable rental payments. Most of the realtors interviewed believe that encouraging partnerships with local banks to find lending solutions for potential homeowners would be beneficial to the health of the county’s housing market.

FORECLOSURES -

A foreclosure, the legal process a lender must follow to take possession of a property after an owner defaults on a mortgage, is costly and undesirable for families, neighborhoods, lenders, and the housing market. Forming an understanding of pre-foreclosure and foreclosure data can help communities target policy initiatives aimed at preventing the financial losses associated with foreclosures. A May 2018 snapshot of Crawford County provided by Zillow revealed 30 homes currently listed as foreclosed with another 15 homes in some stage of the foreclosure process. Approximately 56% of these foreclosed and pre-foreclosure properties are located within the Meadville, Vernon, Saegertown, and Mead submarkets. The number of homes in foreclosure represent just a portion of the relatively high number of “other vacant” housing units within these submarkets. Interviews with residential real estate professionals suggest that rising vacancies in Crawford County are largely due to foreclosures and abandoned (though not foreclosed) properties, spurred by personal and financial distress.

HOMES BY FORECLOSURE STAGE AND SUBMARKET, 2018



Zillow, May 2018

TAX FORECLOSURES -

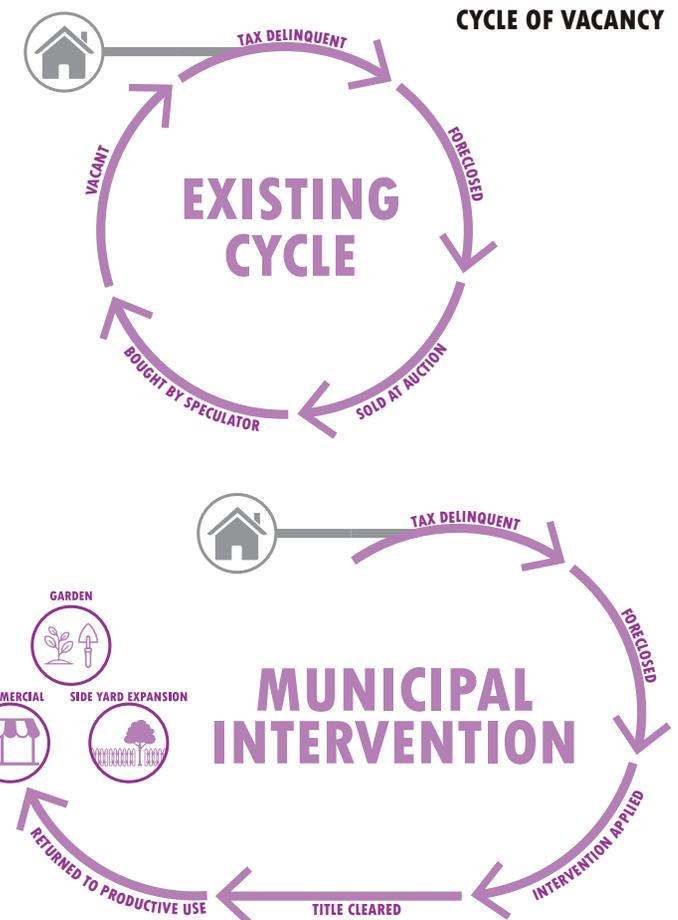
Owner-occupied households that fall behind on their property taxes can end up in tax foreclosure. Tax foreclosure is when real estate is sold by the government to raise money to pay off delinquent taxes. In Crawford County, this occurs when property or real estate taxes have gone unpaid for three consecutive years. Crawford County has the authority to sell a delinquent taxpayer's property subject to the requirements under a foreclosure proceeding. The tax foreclosure process requires notice to the property owner in advance of the sale, advertisement of the property, and the auction of the property among other important steps. The tax upset sale process does not remove any liens that have been placed against the property, a circumstance which sometimes results in properties going unpurchased and remaining in tax claim.

Properties that remain in tax claim after an upset sale are placed into a pool of candidate properties for a judicial sale. The judicial sale process removes all local and state liens from each property, which is thought to entice prospective buyers. After a judicial sales auction occurs, unsold properties are placed in the County's repository. Repository is a listing of tax delinquent properties that can be purchased through negotiation with the County's Tax Claim Bureau. Often, such properties are undevelopable or have other unique issues.

Many tax upset and judicial sale properties are bought by speculators who capitalize on the low acquisition cost of the property with the intention to either redevelop or "flip" the property at a profit. Absent a longer term commitment in the property, the ultimate result too often is continued vacancy and ongoing tax delinquency- causing the cycle to repeat (see "cycle of vacancy" on the right).

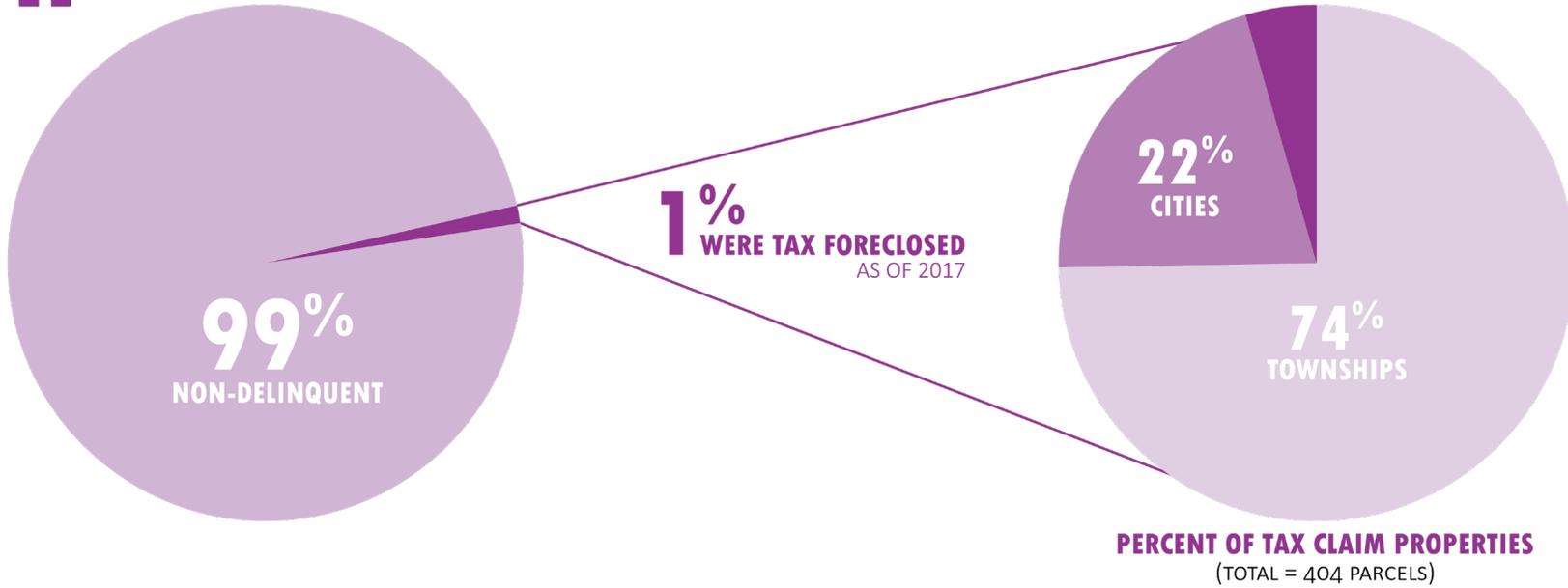
In December of 2017, a snap shot of Crawford County's tax foreclosed properties was examined. At this time, 404 property parcels were in one stage of tax foreclosure. Seventy-four percent (73.5%) of these properties were located in townships, followed by another 21.8% located in cities, then boroughs at 4.7%. Combined, these properties owed \$833,065 in back taxes at the time of foreclosure. Even though the accumulation of back taxes technically ceases at foreclosure; total lost taxes are much higher. To better understand tax revenue losses, the County studied back taxes on foreclosed properties since 2010. From a local government standpoint, a property that was foreclosed in 2013 and still remains in foreclosure not only had back taxes due at that time but has not been paying taxes over the last four years. Therefore, tax losses are actually much greater than what foreclosure rolls recognize. Since 2010, cumulative tax losses on the 404 properties that were in some stage of foreclosure in December 2017 amounted to \$968,855. Of this amount, 52% would have gone to townships, 41% to cities, and 7% to boroughs. Looking at the issue from another angle, the average tax revenue loss for properties in cities was \$4,500, in boroughs \$3,600, and \$1,700 for properties in townships since 2010. If interest and inflation were considered, this amount would be even higher.

From our analysis, proposed interventions to address the cycle of vacancy should prioritize cities before boroughs and the townships. This Plan does not bypass the potential for the County to assist any community in addressing tax delinquency, but recognizes that the more urban areas in Crawford County present the highest rate of return on expended resources.



TAX FORECLOSED PARCELS BY LOCATION, 2017

BY 



HOUSING DRIVERS

BY 

LOSS OF REVENUE FROM TAX FORECLOSED PARCEL BY LOCATION, 2017



IMPROVEMENT - TO - LAND VALUE ANALYSIS -

An Improvement-to-Land Value (ILV) analysis of properties within the county's two cities was conducted by 4ward Planning. To complete this analysis, assessed land and improvement (buildings/structures/fixtures on land) values from the Crawford County Assessment Office were used. However, these assessments are calculated through a replacement cost formula rather than methods that consider market rates. This limitation, though not insignificant, was not determined to be prohibitive of conducting the ILV analysis, since it still reflects the level of investment a property owner or developer has placed into a property. Therefore, an ILV analysis can identify potential redevelopment parcels (or sites) based on their ratio of improvement value to land value (each parcel's relative development intensity). ILV analysis takes the ratio of the assessed value of a property's improvements over its assessed land value (e.g. \$2,000 of improvement value over \$1,000 of land value comes to an ILV of 2.0). Properties with an ILV ratio no more than half of the median ILV ratio of all other properties within its land use category (single-family, multi-family, and commercial) located inside its city were considered as potential redevelopment sites (target low ILV). Essentially, ILV analysis locates parcels with generally healthy land values on which higher and better uses could be supported. Higher density housing and mixed-use development opportunities identified by the ILV analysis are mapped as generalized clusters in this section.

MEADVILLE ANALYSIS -

Residential properties are scattered throughout Meadville with the predominant typology being single-family detached housing units. There are several large commercial properties close to the northern edges of the city, but the bulk of commercial uses fall to the south. Developers are likely to target large or contiguous parcels of underutilized land for residential development. There are 17 low ILV parcels larger than two acres in Meadville totaling approximately 146 acres.

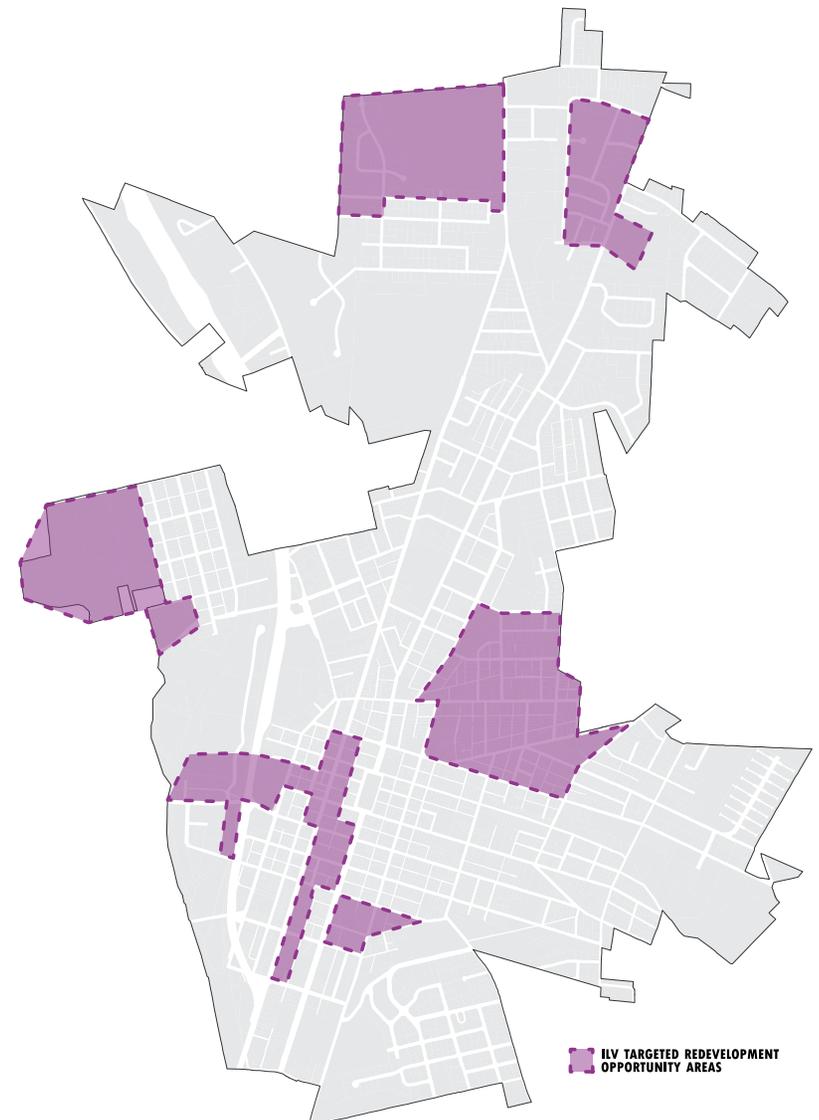
Residential

Meadville contains 2,885 single-family residential parcels, covering 817 acres. The target low-ILV ratio for these properties is 3.75. Just over two-hundred (204) single-family residential parcels produce lower ILV ratios than this target.

Meadville contains 89 residential duplex parcels. The target low-ILV ratio for these properties is 4.0. Thirteen residential duplex parcels produce lower ILV ratios than this target. Additionally, there are 43 multi-family residential parcels in Meadville. The target low-ILV ratio for these properties is 4.3. Three multi-family residential parcels produce lower ILV ratios than this target.

Commercial

There are 635 commercial parcels in Meadville. The target low-ILV ratio for these properties is 2.1. Just over two-hundred (205) commercial parcels totaling just under 153 acres produce lower ILV ratios than this target.



TITUSVILLE ANALYSIS -

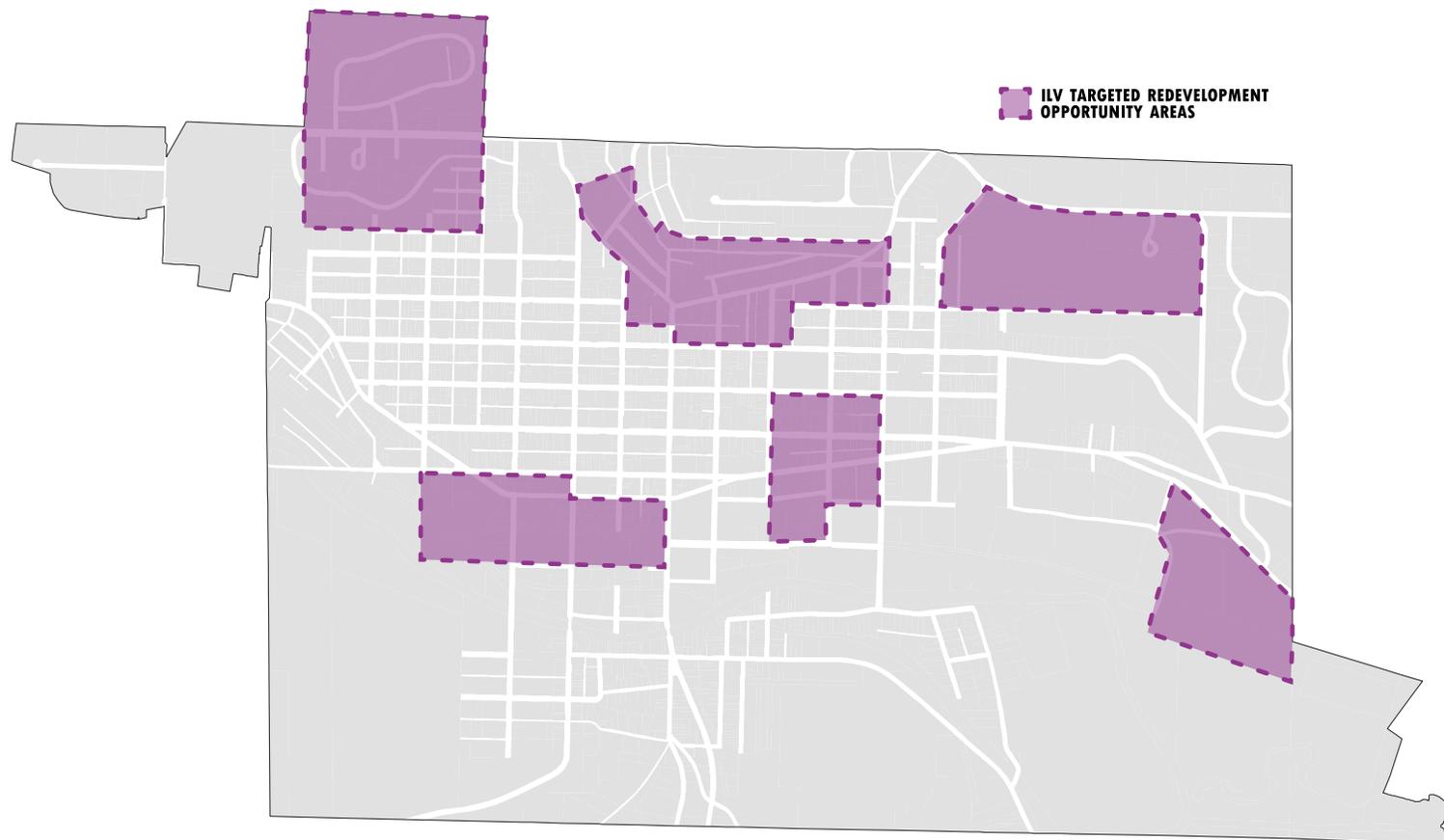
In Titusville, commercial uses are concentrated between Central Avenue and Oil Creek. There are large tracts of vacant land in the southwest of the city as well as publicly owned land in the southeast. Residential properties are scattered throughout, with single-family homes being the prevailing typology. There are 11 low ILV parcels over two acres in size in Titusville, totaling approximately 65 acres.

Residential

Titusville contains 1,664 single-family residential parcels comprising 396 acres. The target low-ILV ratio for these properties is 5.0. One-hundred-and-sixty-two (162) single-family residential parcels produce lower ILV ratios than this target. While many of these parcels are small, making them unlikely candidates for large-scale redevelopment, such an event isn't necessarily unfeasible. No duplexes or multi-family residential properties produced ILV ratios below the target low.

Commercial

Titusville contains 356 commercial parcels covering 219 acres. The target low-ILV ratio of these properties is 2.7. One-hundred-and-sixteen (116) commercial parcels produce lower ILV ratios than this target totaling nearly 94 acres.



INTERVENTIONS + STRATEGIES

Through the outreach and research conducted for the Housing Plan, a series of recommendations were generated aimed at addressing the issues identified county-wide and in various submarkets. The following is a systematic grouping of those recommendations into interventions and strategies.

INTERVENTION #1 — ADOPT UNIFORM COUNTY-WIDE POLICIES

STRATEGY #1 — CREATE A COUNTY-WIDE RESOURCE DATABASE

To address the key issue of vacancy and blight in our communities, Crawford County should look into becoming a clearing house for information on behalf of the municipalities. It could create and maintain a database system across municipal boundaries that relies on receiving accurate and updated data from local communities. The resource database could include registering abandoned, blighted, rental, and vacant properties. Crawford County would offset the financial and human capacity required while enabling municipal leaders and local organizations, who partner through an intergovernmental agreement, the power of analytics and organization of information.

ACTION STEPS: INVENTORY EXISTING RECORDS; SURVEY INTERESTED PARTIES; BUILD A GIS-BASED DATABASE SYSTEM; COORDINATE WITH LOCAL ENTITIES ON DATA CREATION, MANAGEMENT, AND SHARING.

STRATEGY #2 — DEVELOP A SYSTEM FOR OPT-IN COUNTY-WIDE OR REGIONAL PROPERTY MAINTENANCE + UNIFORM CONSTRUCTION CODE ENFORCEMENT

Current enforcement of property maintenance and uniform construction codes in the county is managed via the “patch quilt” approach. Each municipality handles enforcement practices differently, where some hire personnel or third-party agencies while many others do not. This approach results in many methods for handling code enforcement, causing developers, property owners, and small businesses excess work to figure out how to maneuver through each community’s methods to build, expand, or maintain investments in Crawford County.

Inefficient code enforcement or confusing code enforcement that inhibits development can cause housing decline in neighborhoods, often characterized by increased vacancy rates, high turnover in occupancy, and abandonment of properties. To ensure that code enforcement services are available and consistent throughout Crawford County, it is recommended that a uniform county-wide code enforcement policy be adopted. An inter-local services agreement between Crawford County’s Planning Office and municipalities, who may lack the personnel or resources for code enforcement, should be created.

ACTION STEPS: SURVEY MUNICIPALITIES TO DETERMINE DESIRE FOR MULTI-MUNICIPAL CODE ENFORCEMENT; INVESTIGATE METHODS OF COUNTY-WIDE OR REGIONAL CODE ENFORCEMENT; ADOPT A COUNTY-WIDE OR REGIONAL ENFORCEMENT PROGRAM IF FEASIBLE.

STRATEGY #3 — DEVELOP COUNTY-WIDE MODEL ORDINANCES AND RESOURCE GUIDES

Crawford County’s Planning Commission and Planning Office are dedicated personnel working on community development and planning subjects for municipalities across Crawford County. One approach to address the “patch quilt” of regulations to support business and residential development could be to develop reference materials. Historically, the County worked one municipality at a time on adopting, amending, or updating ordinances and plans. In order to continue this model, Crawford County would need to increase human capacity within the Planning Office. Therefore, to continue assisting communities with land use ordinances and best practices, the County Planning Commission and Planning Office should prioritize multi-municipal projects, county-wide plans, or resources guides.

ACTION STEPS: SURVEY MUNICIPALITIES TO IDENTIFY GUIDANCE TOPICS OF INTEREST, RESEARCH AND DRAFT MODEL ORDINANCES OR RESOURCE GUIDES.

INTERVENTION #2 – RETOOL ZONING REGULATIONS

STRATEGY #1 – PROVIDE FLEXIBILITY IN LAND USE ORDINANCES TO ACCOMMODATE MARKET CONDITIONS

The discussion of burdensome regulations arose multiple times during focus groups hosted by 4ward Planning. 4ward Planning concluded that even though Crawford County's cities are best positioned to accommodate potential demand for denser residential and mixed-use developments, existing land use ordinances appear to stifle such developments through prohibitive or outdated regulations. Land use ordinances should accommodate emerging consumer preferences that favor a broader range of denser housing types. Crawford County should encourage local municipalities to accommodate multi-family housing through land use ordinances that provide clarity, certainty, and consistency.

ACTION STEPS: UPDATE LAND USE ORDINANCES TO ENABLE MARKET CONDITIONS THAT SUPPORT COUNTY AND LOCAL GOALS; SIMPLIFY ORDINANCES TO CLEARLY STATE COMMUNITY DESIRES FOR FUTURE GROWTH AND REDEVELOPMENT.

STRATEGY #2 – ENCOURAGE INFILL OR REDEVELOPMENT WITHIN BOROUGHES AND CITIES

High business vacancy rates in the county's cities paired with population projections that forecast growth in the number of senior citizens highlight the need to support infill and redevelopment opportunities. The traditional main street, a symbolic community center and economic engine, can be found in both of the county's cities and many of its boroughs. Revised land use regulations can both allow and encourage main street revitalization. Such a practice may make our communities more attractive for all residents, especially younger and older households alike, and ultimately produce the benefit of strengthened and more resilient municipal tax bases.

ACTION STEPS: DEVELOP ORDINANCES THAT PLACE DENSER RESIDENTIAL AND MIXED-USE LAND-USES IN BOROUGHES AND CITIES; COORDINATE WITH ECONOMIC ENTITIES AND MUNICIPALITIES TO IDENTIFY A CATALYTIC INFILL OR REDEVELOPMENT PROJECT.

INTERVENTION #3 – CONVENE QUARTERLY MEETINGS OF PUBLIC SECTOR LAND-USE PROFESSIONALS

STRATEGY #1 – HOST QUARTERLY MEETINGS ON BLIGHT, ENFORCEMENT ISSUES, AND COUNTY-WIDE TRENDS AND POLICIES

Information is a critical tool for success the field of community planning and development. Crawford County Planning should act as a clearing house of information to local municipal land-use professionals and representatives by providing a quarterly meeting on subjects of county-wide concern such as blight, code enforcement, and best management practices via a round-table discussion. Crawford County Planning should host these meetings to share successful land-use practices that could be employed in many communities while also gathering input on other related issues.

ACTION STEPS: DEVELOP A CONTACT LIST OF PLANNING AND DEVELOPMENT PROFESSIONALS; IDENTIFY DATES, TIMES, AND LOCATIONS FOR A MEETING; CREATE A PROCESS FOR INFORMATION SHARING AND GATHERING TO DETERMINE MEETING TOPICS; IMPLEMENT THE INFORMATIONAL MEETINGS.

INTERVENTION #4— LEVERAGE FEDERAL AND STATE RESOURCES

STRATEGY #1 — WORK WITH MUNICIPALITIES TO BUILD A PROACTIVE BLIGHT PREVENTION AND MANAGEMENT PROGRAM

Crawford County must use its limited financial resources strategically in order to address daunting abandonment, blight, foreclosure, and vacancy issues. Simply investing in remediation is not enough. Blight needs to be prevented before it happens. The County should encourage local municipalities to adopt and consistently administer property code enforcement and blight prevention strategies; the County cannot “throw good money after bad.” If municipal support exists, a County or multi-municipal property code enforcement effort should be investigated. Additionally, municipalities should consider a quality-of-life ticketing ordinance for its benefit in allowing for more flexible enforcement of common blight issues.

Municipalities have been empowered to deny municipal permits to property owners with unappealable tax delinquencies, existing municipal claims, or who are currently in poor standing with a “serious code violation” anywhere in the Commonwealth under the Neighborhood Blight Reclamation and Revitalization Act (Act 90 of 2010, P.L. 875, No. 90). Such legislation, if applied on the local level, can prevent property owners from operating new housing units in a community until they resolve existing issues with properties they already own. Essentially, this practice can encourage property investors and speculators to resolve issues that often lead to blight in our communities. Similar interventions can also be applied through Pennsylvania’s Real Estate Tax Sale Law which includes provisions for prohibiting the transfer of tax sale properties to property owners who are tax delinquent or have outstanding code violations. Additionally, the County could investigate the enactment of a blight demolition fee as authorized under Act 152 of 2016 which amended Pennsylvania’s Recorder of Deeds Fee Law to allow counties to establish a demolition fund aimed at addressing blighted properties in local communities.

ACTION STEPS: INVESTIGATE THE SUPPORT FOR MULTI-MUNICIPAL OR COUNTY CODE ENFORCEMENT; ASSIST COMMUNITIES DEVELOPING BLIGHT DEMOLITION STRATEGIES; DEVELOP A COUNTY BLIGHT POLICY; FUND BLIGHT POLICY BY ADOPTING A BLIGHT DEMOLITION FEE; AND EDUCATE ON METHODS AND RESOURCES TO COMBAT BLIGHT.

STRATEGY #2 — INVESTIGATE A HOME REHABILITATION PROGRAM AND FACADE IMPROVEMENT PROGRAM

In order to address blighted properties across the county, Crawford County should investigate developing a low-interest loan or grant program that targets home rehabilitation and facade improvements to stabilize neighborhoods and commercial districts for municipalities that have developed blight strategies and intervention programs. Formalization of a partnership between the County and municipalities would be through an intergovernmental agreement.

ACTION STEPS: SURVEY MUNICIPALITIES TO DETERMINE INTEREST; DEVELOP A PILOT PROGRAM WITH A LOCAL MUNICIPALITY; DRAFT AN INTERGOVERNMENTAL AGREEMENT.

STRATEGY #3 — INVESTIGATE CREATING A NEIGHBORHOOD INTERVENTION PROGRAM THROUGH A PUBLIC-PRIVATE PARTNERSHIP

As previously outlined, Crawford County’s demographics and workforce are projected to shift over the next five to ten years. The County should investigate a public-private partnership for the submarkets that are employment centers to inject resources into specific neighborhoods or properties to support workforce housing. Resources could include specialized loans held by local financial institutions and reduced closing cost fees by local law firms, assistance for repairs or renovations to address code violations and safety concerns, and participation in the Pennsylvania Housing Finance Authority’s Employer Assisted Housing Initiative (PHFA EAH).

ACTION STEPS: SURVEY MUNICIPALITIES AND PRIVATE SECTOR PARTNERS TO DETERMINE INTEREST; IDENTIFY NEIGHBORHOODS AND PROPERTIES FOR TARGETED INTERVENTION; DRAFT A PHASED APPROACH TO THE INTERVENTION PROGRAM; SECURE PARTNERSHIPS FOR FUNDING APPLICATIONS; IMPLEMENT PROGRAM AND REPEAT AS NEEDED.

STRATEGY #4 — ESTABLISH A SYSTEM FOR THE ACQUISITION OF RURAL PROPERTIES WITH FAILING SEWAGE SYSTEMS TO PROMOTE RURAL RESOURCE PRESERVATION

Many rural properties across Crawford County rely solely upon the use of private septic systems or private community systems for the disposal of sewage. Although many of these systems have functioned well for decades or remain functional, observations brought forward by local real-estate professionals have suggested that a growing share of rural properties may soon face the financial challenges imposed by the failure of these private individual or community sewage systems. Failed individual or community sewage disposal systems present significant challenges for all homeowners and can be especially burdensome for low-income households or fixed-income senior citizens. If left unaddressed, failing septic or private community sewage disposal systems can greatly encumber the ability of properties owners to sell their properties. Such an encumbrance may contribute to abandonment and blight in

some cases. To prevent the emergence of blighted or abandoned properties resulting from failing septic systems, Crawford County should investigate the establishing of a mechanism such as a land bank (PA Land Bank Law P.L. 1239, No. 153) or redevelopment authority (Urban Redevelopment Law P.L. 991, No. 385) for the acquisition, clean up, holding, and conveyance of such properties to new owners for the purpose of promoting agriculture, forestry, or expanded residential accommodations. Such properties may be reserved solely for the purpose of advancing agriculture and forestry throughout Crawford County.

ACTION STEPS: INVESTIGATE ACQUISITION NEEDS, ESTABLISH PROPERTY ACQUISITION MECHANISM AND DEDICATED FUNDING STREAM FOR RURAL BLIGHT MITIGATION, FORMALIZE A MANAGEMENT AND OPERATIONAL STRUCTURE FOR PROPERTY ACQUISITIONS ON A ROLLING BASIS.

INTERVENTION #5 – PRIORITIZE COUNTY PLANNING STAFF AND FINANCIAL RESOURCES

STRATEGY #1 – ALLOCATE RESOURCES TO EFFORTS THAT SUPPORT THE COUNTY’S COMPREHENSIVE PLAN

Because local economies and housing markets are inextricably linked, Crawford County should prioritize staff time and financial resources in areas that yield high returns on investment. Crawford County should apply the algorithm supplied by 4ward Planning to determine the allocation of staff resources along with project selection and funding. Algorithm variables should be reviewed from time-to-time and can include:

- Land Use
- Employment Center Proximity
- Housing Density
- Property Type
- Presence of Blight
- Inter-local Agreement in Place
- Requested Action

ACTION STEPS: REVIEW PRIORITY METRICS BI-ANNUALLY; REVISE PRIORITY ALGORITHM TO ALIGN WITH COUNTY PRIORITIES; IMPLEMENT USE OF THE PRIORITY ALGORITHM

STRATEGY #2 - RESEARCH A COUNTY-WIDE LAND BANK PROGRAM

To address Crawford County’s tax-foreclosed properties and other properties with unmet redevelopment or infill potential, as identified in the land-to-improvement value analysis, it is recommended that a county-wide land bank be investigated. Land banks can be used to efficiently hold, manage, and transform vacant, abandoned, tax-foreclosed, and under-performing properties back to a productive use. Act 153 of 2012, known as the PA Land Bank Act, provides a powerful tool that Crawford County can leverage to return tax parcels to productive uses, expand workforce housing opportunities, act as a catalyst for economic activity, and improve the health, safety, and welfare of our citizens.

ACTION STEPS: INVESTIGATE ACT 153 AND METHODS OF STRUCTURING A LAND BANK; OBTAIN ASSISTANCE FROM A CONSULTANT TO DEVELOP A PLAN FOR IMPLEMENTING A LAND BANK; INVESTIGATE FUNDING SOURCES AND FINANCIAL STRUCTURE; BUILD SUPPORT FOR A COUNTY-WIDE LAND BANK; APPLY FOR FUNDING AND ADOPT A COUNTY-WIDE LAND BANK ORDINANCE; IMPLEMENT THE PROGRAM.

STRATEGY #3 - SUPPORT SPECIAL POPULATIONS THROUGH FEDERAL AND STATE PROGRAMS

To ensure the needs of special populations are being met, the County should research and support applications for federal and state programs that directly benefit the homeless, the impoverished, individuals transitioning into housing, and those seeking emergency assistance. Programs such as the Emergency Solutions Grant (ESG) and Shelter Plus Care can help to provide resources for these efforts.

ACTION STEPS: INVESTIGATE FEDERAL AND STATE RESOURCES; IDENTIFY APPROPRIATE COUNTY AGENCY TO OVERSEE THE PROGRAMS; COORDINATE WITH SUPPORT AGENCIES IN CRAWFORD COUNTY TO DEVELOP PROGRAMS AND APPLY FOR FUNDING.

INTERVENTION #6 — ADDRESS REAL PROPERTY TAX INEQUITY

STRATEGY #1 — INVESTIGATE HOW TO ADDRESS TAX INEQUALITY BETWEEN URBAN AND NON-URBAN AREAS

A recurring theme throughout speaking with stakeholders was how real property tax levies, specifically in urban areas like the City of Meadville, are extremely onerous and have led to disinvestment. High property tax rates within certain local jurisdictions can influence the location of housing, commercial, and industrial investment activity. This issue is exacerbated by the ability to escape high property taxes by simply relocating across municipal boundaries. In order to address this concern, it is strongly recommended that Crawford County examine methods in which real property tax disparities between the county's urban and non-urban areas can be rectified.

ACTION STEPS: INVESTIGATE THE COST AND POTENTIAL IMPACT OF A COUNTY REASSESSMENT.

STRATEGY #2 — INVESTIGATE TAX RELIEF METHODS TO SPUR REINVESTMENT IN URBAN AREAS

The County should encourage infill and redevelopment projects to restore aging buildings and make current employment areas more resilient to shifts in the regional economy. Some of the county's significant employment areas are also subject to relatively high tax rates. To offset this barrier and encumbrance, the County, in coordination with Economic Progress Alliance, area redevelopment authorities, and local governments, should investigate the following tax incentives, credits, and programs.

- Tax Increment Financing
- Neighborhood Improvement Zone (NIZ) Program
- Federal Historic Tax Credits
- City Revitalization and Improvement Zone (CRIZ) Program
- Local Economic Revitalization Tax Assistance (LERTA)
- Innovate in Pennsylvania Tax Credit Program
- Mixed-Use Development Tax Credit Program
- Research & Development (R&D) Tax Credit
- Neighborhood Assistance Program
- Enterprise Zone (EZ) Program

ACTION STEPS: CONNECT FUNDING OPPORTUNITIES FOR URBAN AREAS WITH COMMUNITY DEVELOPMENT AND PRIVATE DEVELOPMENT PROJECTS; SUPPORT PROJECTS THAT AIM TO REVITALIZE URBAN AREAS.

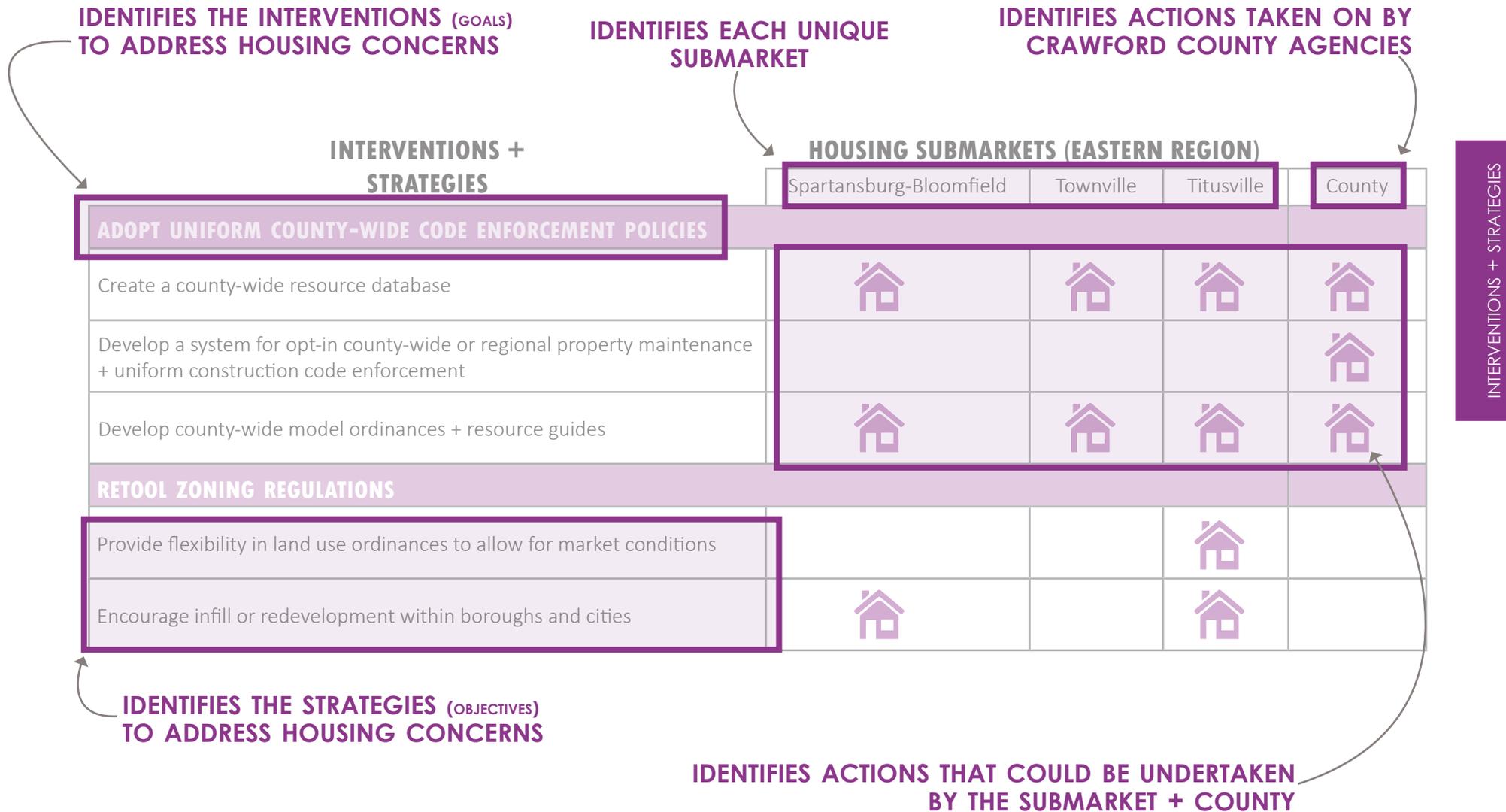
STRATEGY #3 — PARTNER WITH PUBLIC, PRIVATE, AND NON-PROFIT ENTITIES TO ADDRESS TAX-FORECLOSED AND REDEVELOPMENT-POTENTIAL PROPERTIES

With the increases in residential foreclosures, Crawford County should actively work to restore long-term tax-foreclosed properties, which are unproductive assets, back on the tax rolls. Properties that are a part of the "cycle of vacancy" or have a low improvement-to-land value are prime targets for redevelopment. Crawford County should work with local communities and the private sector to develop policies and programs that break the cycle of vacancy and support redevelopment.

ACTION STEPS: MAP THE LOCATION OF FORECLOSED PROPERTIES; COORDINATE WITH PARTNERS ON ROLES THROUGHOUT THE REDEVELOPMENT PROCESS; IDENTIFY NEIGHBORHOODS/ PROPERTIES WITH REDEVELOPMENT POTENTIAL.

IMPLEMENTATION MATRICES

The implementation matrices shown over the next few pages break down the interventions and strategies proposed within this Plan at the submarket level to illustrate which submarkets would most likely benefit from a particular strategy. The representation shown below demonstrates how to read each implementation matrix.



INTERVENTIONS + STRATEGIES

HOUSING SUBMARKETS (EASTERN REGION)

	Spartansburg-Bloomfield	Townville	Titusville	County
ADOPT UNIFORM COUNTY-WIDE CODE ENFORCEMENT POLICIES				
Create a county-wide resource database				
Develop a system for opt-in county-wide or regional property maintenance + uniform construction code enforcement				
Develop county-wide model ordinances + resource guides				
RETOOL ZONING REGULATIONS				
Provide flexibility in land use ordinances to allow for market conditions				
Encourage infill or redevelopment within boroughs and cities				
CONVENE QUARTERLY MEETINGS OF PUBLIC SECTOR LAND-USE PROFESSIONALS				
Host quarterly meetings on blight, enforcement issues, and county-wide trends + policies				
LEVERAGE FEDERAL AND STATE RESOURCES				
Work with municipalities to build a proactive blight prevention + management program				
Investigate a home rehabilitation program + facade improvement program				
Investigate creating a neighborhood intervention program through a public-private partnership				
Establish a system for the acquisition of rural properties with failing sewage systems to promote rural resource preservation				

INTERVENTIONS + STRATEGIES

HOUSING SUBMARKETS (EASTERN REGION)

	Spartansburg-Bloomfield	Townville	Titusville	County
PRIORITIZE COUNTY FINANCIAL AND PLANNING STAFF RESOURCES				
Allocate resources to efforts that support the county’s long-range plan				
Research a county-wide land bank program				
Support special populations through federal and state programs				
ADDRESS REAL PROPERTY TAX INEQUITY				
Investigate how to address tax inequality between urban and non-urban areas				
Investigate tax relief methods to spur reinvestment in urban areas				
Partner with public, private, and non-profit entities to address tax-foreclosed and redevelopment-potential properties				

INTERVENTIONS + STRATEGIES

HOUSING SUBMARKETS (CENTRAL REGION)

	Cambridge Springs	Cochranton	Mead	Meadville	Saegertown	Vernon	County
ADOPT UNIFORM COUNTY-WIDE CODE ENFORCEMENT POLICIES							
Create a county-wide resource database							
Develop a system for opt-in county-wide or regional property maintenance + uniform construction code enforcement							
Develop county-wide model ordinances + resource guides							
RETOOL ZONING REGULATIONS							
Provide flexibility in land use ordinances to allow for market conditions							
Encourage infill or redevelopment within boroughs and cities							
CONVENE QUARTERLY MEETINGS OF PUBLIC SECTOR LAND-USE PROFESSIONALS							
Host quarterly meetings on blight, enforcement issues, and county-wide trends + policies							
LEVERAGE FEDERAL AND STATE RESOURCES							
Work with municipalities to build a proactive blight prevention + management program							
Investigate a home rehabilitation program + facade improvement program							
Investigate creating a neighborhood intervention program through a public-private partnership							
Establish a system for the acquisition of rural properties with failing sewage systems to promote rural resource preservation							

INTERVENTIONS + STRATEGIES

INTERVENTIONS + STRATEGIES

HOUSING SUBMARKETS (CENTRAL REGION)

	Cambridge Springs	Cochranton	Mead	Meadville	Saegertown	Vernon	County
PRIORITIZE COUNTY FINANCIAL AND PLANNING STAFF RESOURCES							
Allocate resources to efforts that support the county's long-range plan							
Research a county-wide land bank program							
Support special populations through federal and state programs							
ADDRESS REAL PROPERTY TAX INEQUITY							
Investigate how to address tax inequality between urban and non-urban areas							
Investigate tax relief methods to spur reinvestment in urban areas							
Partner with public, private, and non-profit entities to address tax-foreclosed and redevelopment-potential properties							

INTERVENTIONS + STRATEGIES

HOUSING SUBMARKETS (WESTERN REGION)

	Conneaut Lake	Greenwood	Linesville	Shenango	Springboro	County
ADOPT UNIFORM COUNTY-WIDE CODE ENFORCEMENT POLICIES						
Create a county-wide resource database						
Develop a system for opt-in county-wide or regional property maintenance + uniform construction code enforcement						
Develop county-wide model ordinances + resource guides						
RETOOL ZONING REGULATIONS						
Provide flexibility in land use ordinances to allow for market conditions						
Encourage infill or redevelopment within boroughs and cities						
CONVENE QUARTERLY MEETINGS OF PUBLIC SECTOR LAND-USE PROFESSIONALS						
Host quarterly meetings on blight, enforcement issues, and county-wide trends + policies						
LEVERAGE FEDERAL AND STATE RESOURCES						
Work with municipalities to build a proactive blight prevention + management program						
Investigate a home rehabilitation program + facade improvement program						
Investigate creating a neighborhood intervention program through a public-private partnership						
Establish a system for the acquisition of rural properties with failing sewage systems to promote rural resource preservation						

INTERVENTIONS + STRATEGIES

**INTERVENTIONS +
STRATEGIES**

HOUSING SUBMARKETS (WESTERN REGION)

	Conneaut Lake	Greenwood	Linesville	Shenango	Springboro	County
PRIORITIZE COUNTY FINANCIAL AND PLANNING STAFF RESOURCES						
Allocate resources to efforts that support the county’s long-range plan						
Research a county-wide land bank program						
Support special populations through federal and state programs						
ADDRESS REAL PROPERTY TAX INEQUITY						
Investigate how to address tax inequality between urban and non-urban areas						
Investigate tax relief methods to spur reinvestment in urban areas						
Partner with public, private, and non-profit entities to address tax-foreclosed and redevelopment-potential properties						

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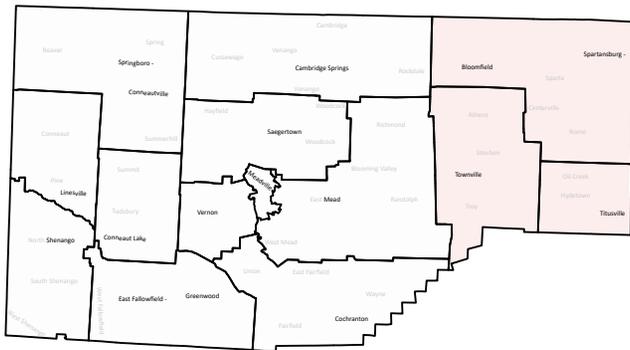


EASTERN REGION

SPARTANSBURG-BLOOMFIELD SUBMARKET

TOWNVILLE SUBMARKET

TITUSVILLE SUBMARKET



THE SPARTANSBURG-BLOOMFIELD SUBMARKET

Comprising the northeastern corner of Crawford County, the Spartansburg-Bloomfield Submarket includes five municipalities – Bloomfield, Sparta, and Rome townships as well as Centerville and Spartansburg Boroughs. The Spartansburg-Bloomfield Submarket is adjacent to the Titusville, Townville, and Cambridge Springs submarkets within Crawford County and shares a border with both Erie and Warren counties.

A HOUSING ECOSYSTEM ANALYSIS OF THE SPARTANSBURG-BLOOMFIELD SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

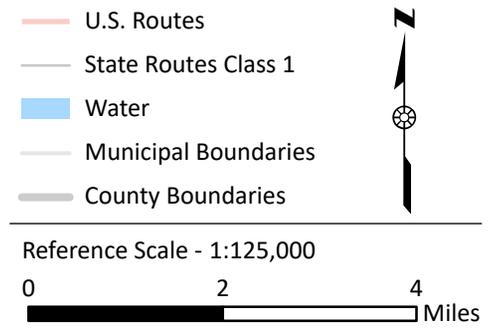
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚡). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

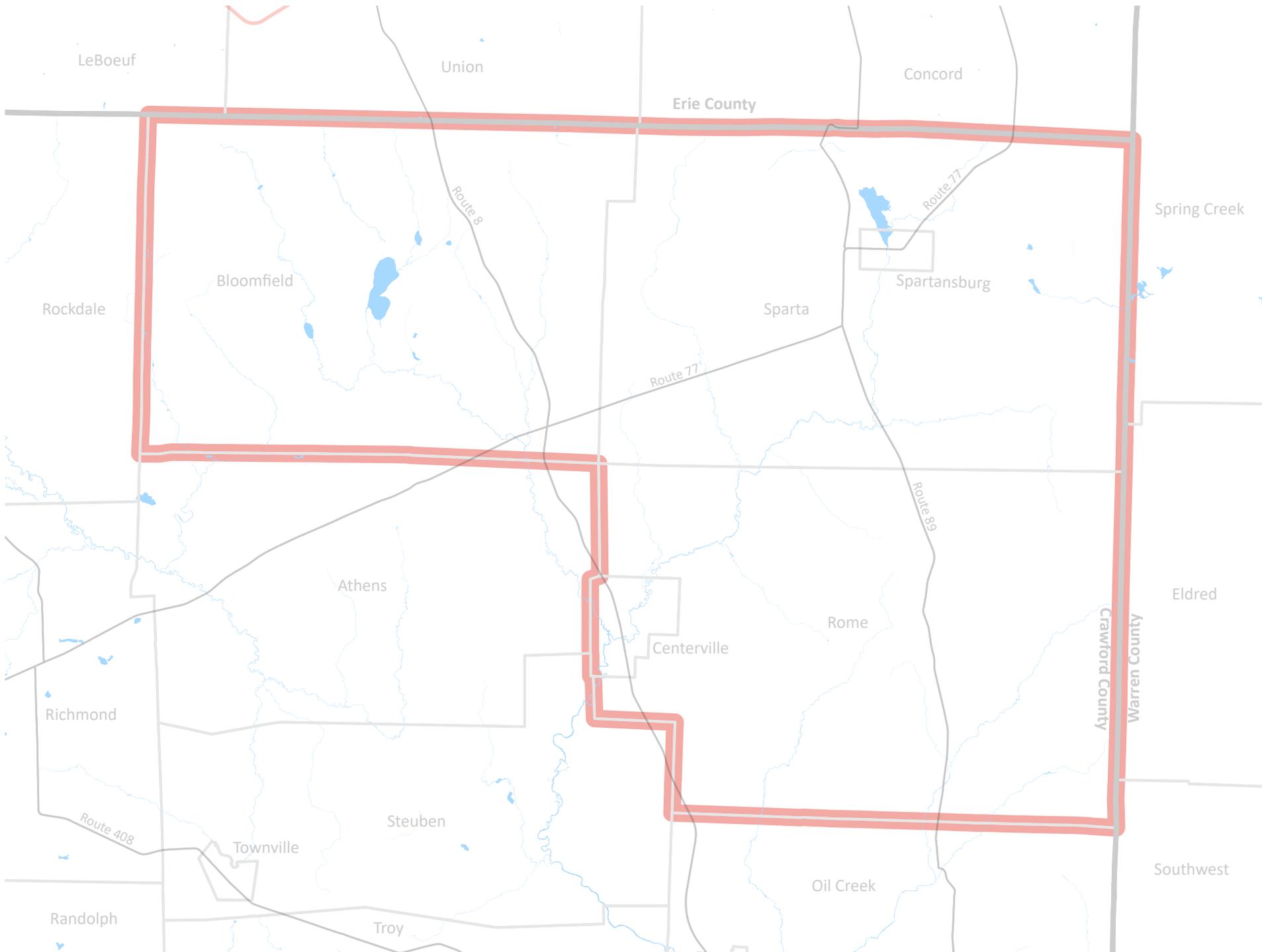
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Spartansburg-Bloomfield Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



**SPARTANSBURG-BLOOMFIELD
SUBMARKET**

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and the relationships between its influencers, which lead to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends for residents living within the Spartansburg-Bloomfield Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE SPARTANSBURG-BLOOMFIELD SUBMARKET —

The map on the next page uses dots to represent where residents living within the Spartansburg-Bloomfield Submarket work. From this map, it is apparent that many Spartansburg-Bloomfield Submarket residents work at locations outside the Submarket. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Spartansburg-Bloomfield Submarket produces a job-to-housing ratio of 0.29, well below the beneficial range which may indicate instability in its housing market.

The radar graph on the bottom left displays the distance and direction of where Spartansburg-Bloomfield Submarket residents work. The dark red wedges of the graph demonstrate those commuting less than ten miles; however, a larger share of residents travel beyond ten miles to reach work. Live-work observations within the Spartansburg-Bloomfield Submarket demonstrate that most workers leave the Submarket each day for work. The break down of commuter trends presented on the bottom right paired with the map on the next page demonstrates that many Spartansburg-Bloomfield Submarket residents travel to jobs in Erie County.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries

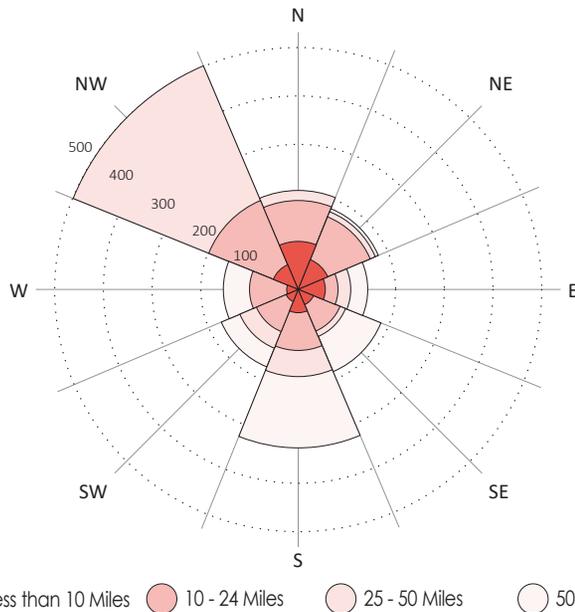


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE SPARTANSBURG-BLOOMFIELD SUBMARKET RESIDENTS WORK



14.4%

of Spartansburg-Bloomfield Submarket residents work at a location **inside the submarket**.

32%

of Spartansburg-Bloomfield Submarket residents work inside **Crawford County**.

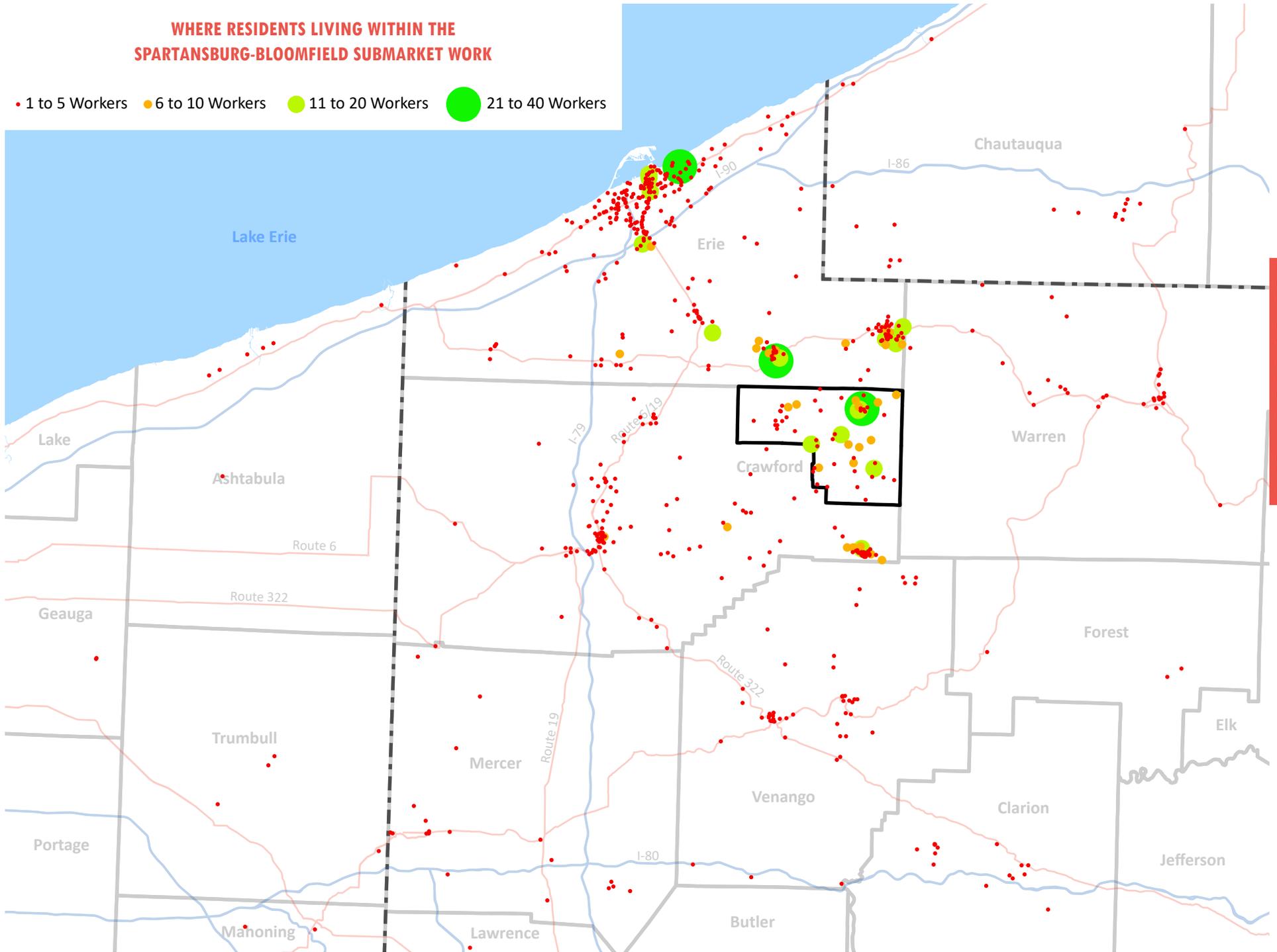
68%

of Spartansburg-Bloomfield Submarket residents work outside **Crawford County**.

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

WHERE RESIDENTS LIVING WITHIN THE SPARTANSBURG-BLOOMFIELD SUBMARKET WORK

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



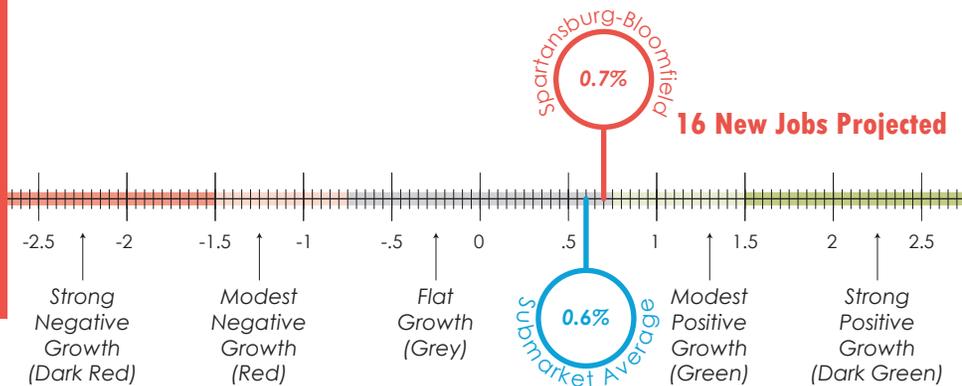
SPARTANSBURG-BLOOMFIELD
SUBMARKET

JOB GROWTH ANALYSIS:

JOB GROWTH —

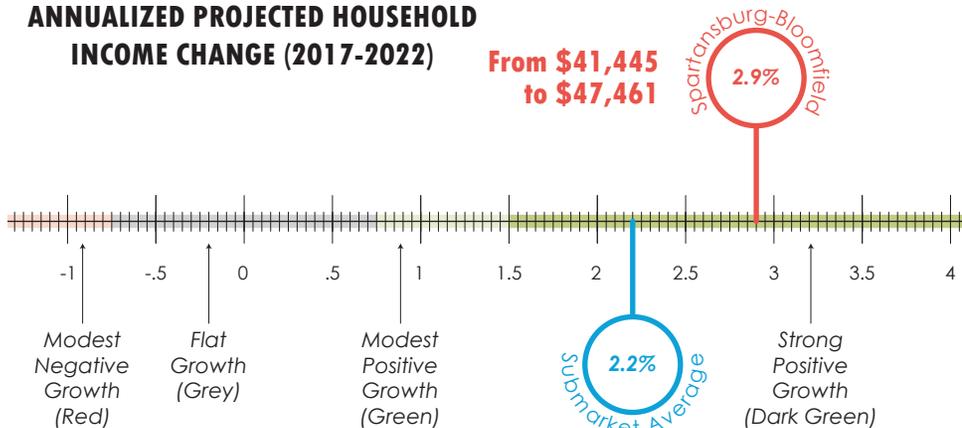
From the graph below, the Spartansburg-Bloomfield Submarket's 0.7% projected annual job growth rate is similar to the submarket average of 0.6%. However, it is important to recognize that this rate lies within the "flat growth" range. Recognizing this, it is likely that projected job growth within the Spartansburg-Bloomfield Submarket will not provide workers additional employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)



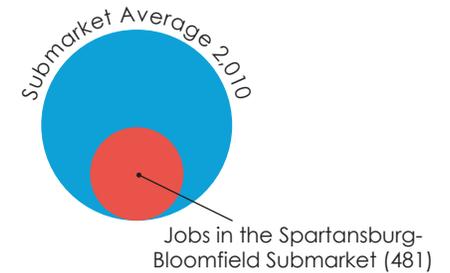
Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

HOUSEHOLD INCOME CHANGE —

Despite flat job growth trends, from the projected change in household income displayed in the graph on the bottom left, the Spartansburg-Bloomfield Submarket is expected to experience a strong rate of household income growth. An increase in household income may bolster the stability of existing households while opening up new housing opportunities for others.

TOTAL JOBS —

To explore the magnitude of the Spartansburg-Bloomfield Submarket's employment base, we compared the number of jobs inside the Submarket to the average number of jobs located within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average value of jobs present within a submarket. If the Spartansburg-Bloomfield Submarket contained more jobs than two standard deviations above the submarket average, then it is considered as a job center. From the graphic above, the Spartansburg-Bloomfield Submarket is not a job center. Although jobs within the Submarket provide important opportunities for local residents, the Spartansburg-Bloomfield Submarket is currently more reliant on the growth and stability of nearby job centers.

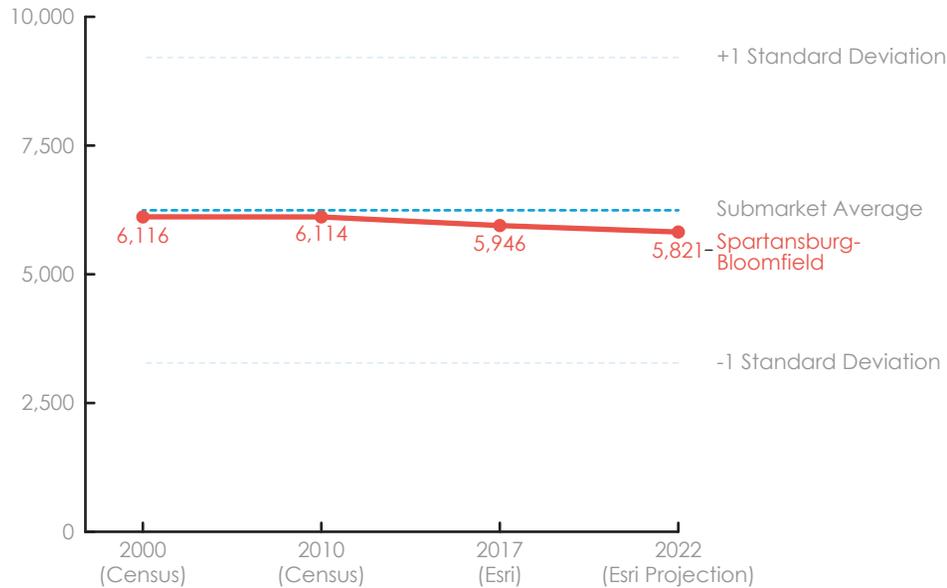


Source: U.S. Census 2011-2015 ACS

In summary, although a flat job growth rate is projected for the Spartansburg-Bloomfield Submarket, household income within the Submarket is expected experience strong growth. Such household income growth may bolster housing market stability. However, at present, the Submarket is a bedroom community and appears to rely on the productivity and growth of its surrounding region.

POPULATION GROWTH ANALYSIS:

SPARTANSBURG-BLOOMFIELD SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers which lead to a submarket's total population. Population growth within the Spartansburg-Bloomfield Submarket would directly lead to household formation and increased housing demand. Conversely, stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

Population growth will increase local housing demand. As demonstrated within the graph on the left, the population of the Spartansburg-Bloomfield Submarket has declined since 2000. This decline suggests that population growth is not driving the demand for housing within the Submarket.

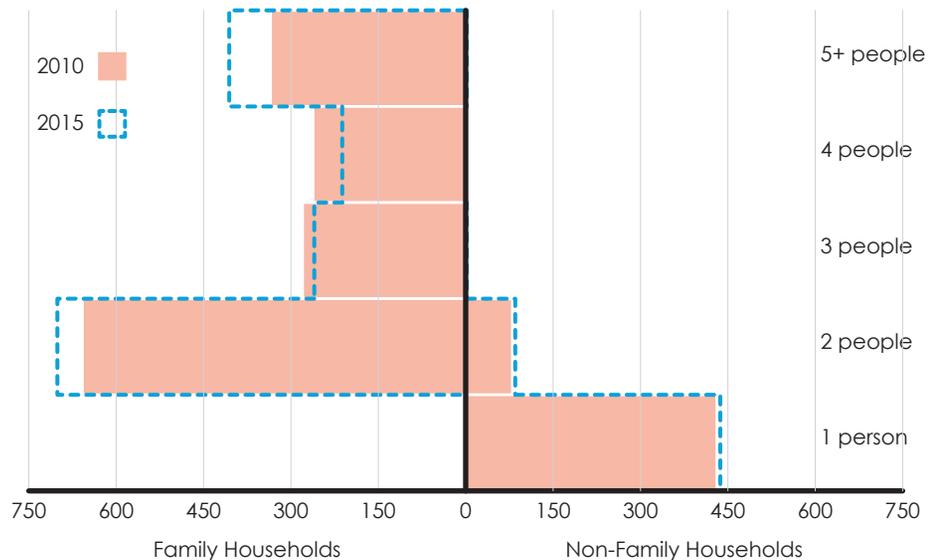
HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Spartansburg-Bloomfield Submarket households by size between 2010 and 2015. The Spartansburg-Bloomfield Submarket experienced a decline in three- and four-person family households between 2010 and 2015 while simultaneously seeing an increase in two- and five-plus-person family households. During the same time, non-family households held relatively flat. Such household formation trends suggest an internal increase in the demand for starter homes with a decline in the local demand for move-up housing. Given the Submarket's significant Amish and Old Order Mennonite population, it should be assumed that growth in the number of households comprised of at least five people will be supported by local housing construction and additions to the existing stock rather than conventional real-estate activity.

SPARTANSBURG-BLOOMFIELD SUBMARKET HOUSEHOLD FORMATION TRENDS



Source: U.S. Census

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

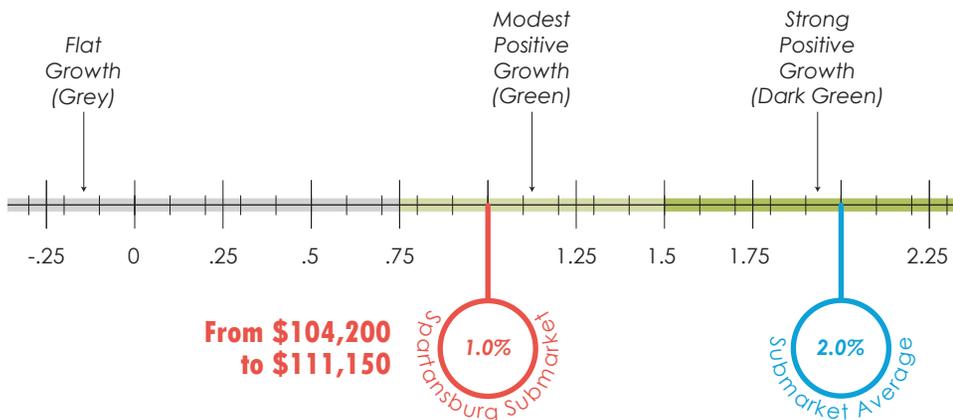
The line graphs below demonstrate how the Spartansburg-Bloomfield Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Home values have increased moderately while rent prices have experienced strong growth. An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. However, increases in rent price and home values may counteract this dynamic by encouraging the new construction of housing units.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30% of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Spartansburg-Bloomfield Submarket with comparisons to Crawford County and the submarket average. Fortunately, the Spartansburg-Bloomfield Submarket fares better than the submarket average and the whole county with a significantly lower portion of cost-burdened renters.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



29.8% of Spartansburg-Bloomfield Submarket Renters (108 HHs)

41.3% of Crawford County Renters

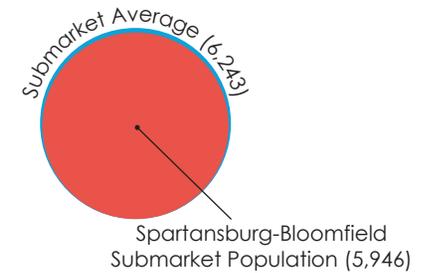
34.3% Submarket Average

Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

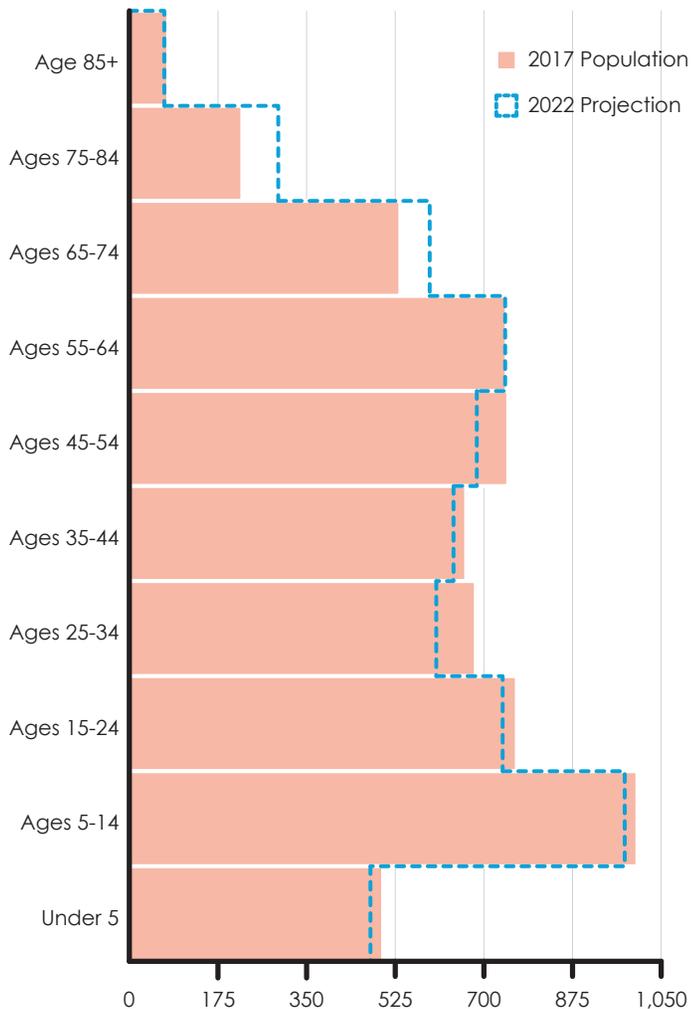
POPULATION GROWTH ANALYSIS: TOTAL POPULATION —

The cycling of households between different homes creates some of the housing demand within a Submarket. Comparing the population of the Spartansburg-Bloomfield Submarket to the average Crawford County submarket population can provide insight into the nature and potential magnitude of such internal housing demand. To benchmark this analysis, if the Spartansburg-Bloomfield Submarket contained more residents than the submarket average it is considered as a local population center. From the graphic shown on the right, the Spartansburg-Bloomfield Submarket is slightly less populated than the submarket average. By this standard, the Spartansburg-Bloomfield Submarket is not a local



Source: Esri, Retrieved 2017

SPARTANSBURG-BLOOMFIELD SUBMARKET POP. PYRAMID



Source: Esri, Retrieved 2018

population center but a rural population area instead. Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the Submarket's relative population size, it can be inferred that the Spartansburg-Bloomfield Submarket does not have the gravity to attract new residents on a speculative basis. Such inference implies that those moving into the Submarket are likely anchored in some personal manner, such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION —

Whether the type or quantity of housing within a community meets the needs of its residents is largely influenced by the population's age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional "starter home" housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Spartansburg-Bloomfield Submarket in 2017 with a projection to 2022. The population within the Spartansburg-Bloomfield Submarket is projected to decline over both childhood cohorts comprising those ages under 5-to-14 years old and also across the working age brackets consisting of individuals ages 15-to-54 with a somewhat larger drop for those ages 25-to-34 and 45-to-54. These demographic changes may negatively impact the internal demand for smaller rental units (1-2 bedroom rentals- with the exception of senior friendly units), starter homes, and move-up (family-sized- 3-5 bedrooms). However, projected population increases for those ages 65-to-84 may positively influence the locally generated demand for downsizing units and senior living accommodations.

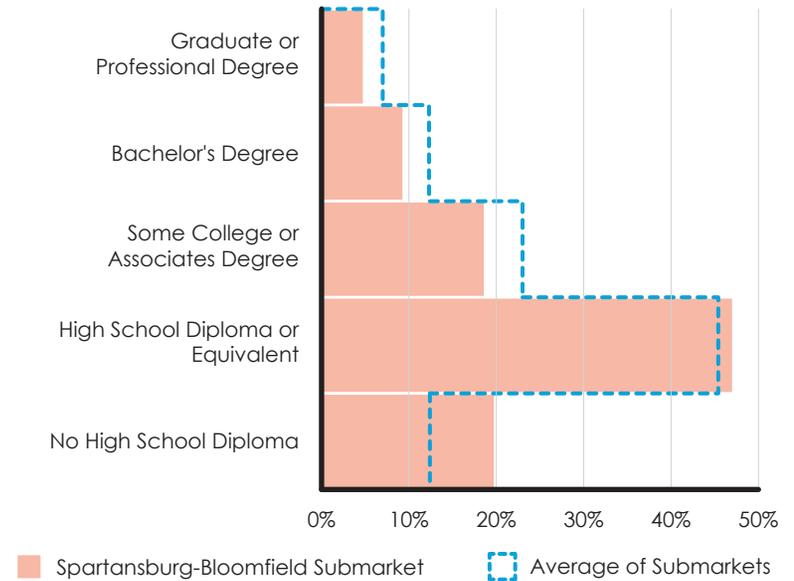
POPULATION GROWTH ANALYSIS:

The combination of demographic trends and household formation trends addressed earlier suggest increased local pressure on the market for both starter and downsizing homes as well as senior living accommodations. This is partially due to growth in older age brackets suggesting that many new two-person family households within the Submarket may be formed by seniors after their children have moved out.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community creates a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Spartansburg-Bloomfield Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Spartansburg-Bloomfield Submarket is less educated than the submarket average with a higher portion of those not holding a high school diploma and lower portions of those having completed some level of a higher education. The Submarket's lower level of overall educational attainment may make it less economically competitive over the long run.

SPARTANSBURG-BLOOMFIELD SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

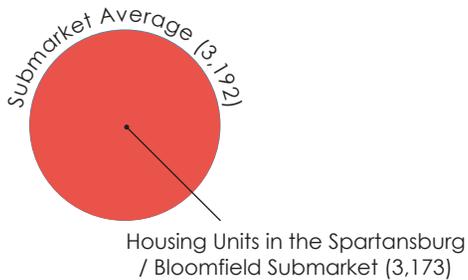
In summary, the Spartansburg-Bloomfield Submarket contains less population than the submarket average and is therefore considered as a rural population area. The Spartansburg-Bloomfield Submarket has been experiencing a decline in population, which is projected to continue into 2022, leaving housing demand largely to the cycling of existing residents. Household formation trends within the Submarket suggest declining local demand for move-up homes, stable local demand for rental units, and an increase in the internal demand for starter homes, downsizing units, and senior living accommodations. However, demographic projections suggest that most new two-person family households will consist of older couples seeking downsizing homes rather than younger couples looking for their first home. Although the Spartansburg-Bloomfield Submarket has seen considerable growth in the number of households comprised of more than five people, such growth is likely contained within the Submarket's Amish and Old Order Mennonite population which often do not consume housing in a conventional manner. Demographic projections forecasting an increase in the population over age 65 resonate with observed household formation trends, which suggest an increase in local demand for downsizing. The same projections show declines across working age cohorts, which may reduce local pressure on the market for starter and move-up homes. Household formation trends and demographic projections within the Spartansburg-Bloomfield Submarket have contributed to moderate gains in home values and strong growth in rent prices. In terms of affordability, Submarket renters are less burdened by the costs of housing than the submarket average as well as those renting across Crawford County.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and the relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph on the right presents the projected housing stock growth rate for the Spartansburg-Bloomfield Submarket. Although flat, the Submarket's rate is similar to the submarket average.

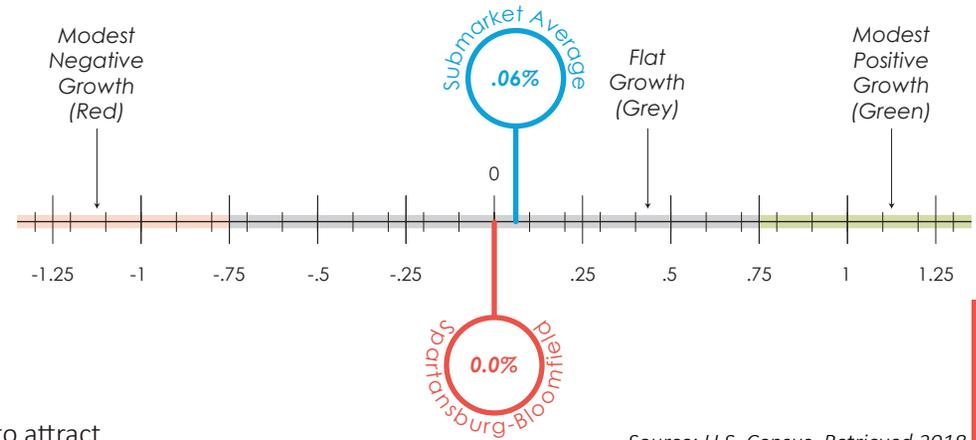


Source: Esri, Retrieved 2018

TOTAL HOUSING STOCK —

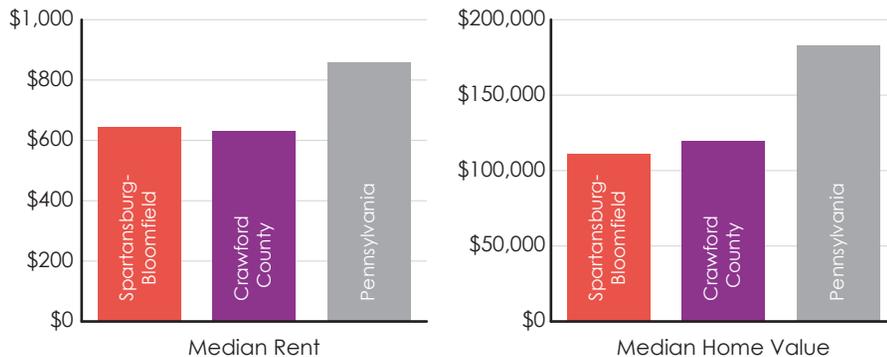
Larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Spartansburg-Bloomfield Submarket's housing stock, we compared the number of housing units located within the Submarket to the average number of housing units within a Crawford County submarket. From the graphic on the left, we see that the Spartansburg-Bloomfield Submarket contains nearly as many housing units as the submarket average. Since the average of the 14 submarkets within Crawford County amounts to a relatively rural environment, it can be safely concluded that any new housing development within the Spartansburg-Bloomfield Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

ANNUALIZED PROJECTED HOUSING STOCK GROWTH THROUGH 2022



Source: U.S. Census, Retrieved 2018

SPARTANSBURG-BLOOMFIELD SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the right, the Spartansburg-Bloomfield Submarket has a median rent price similar to Crawford County but much lower than Pennsylvania on the whole. For home values, the median Spartansburg-Bloomfield Submarket home value is slightly below Crawford County but far below the whole of Pennsylvania. Though unlikely to spark interest in new housing development on its own, the Submarket's performance in both rent prices and home values holds up to the rest of Crawford County.

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 —

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that just over a quarter of the Spartansburg-Bloomfield Submarket housing stock was built prior to 1940. This demonstrates that the Submarket may carry a good mixture of both older homes as well as newer construction. Some renovation activity will still be necessary to bring older homes, which are often of quality construction but require modern upgrades, into the marketplace for seniors and those with disabilities. The need for such renovations will likely increase in the future as the Submarket's population continues to age.

SPARTANSBURG-BLOOMFIELD SUBMARKET HOUSING UNITS BUILT PRE-1940

26.4%



Homes Built Pre-1940

73.6%



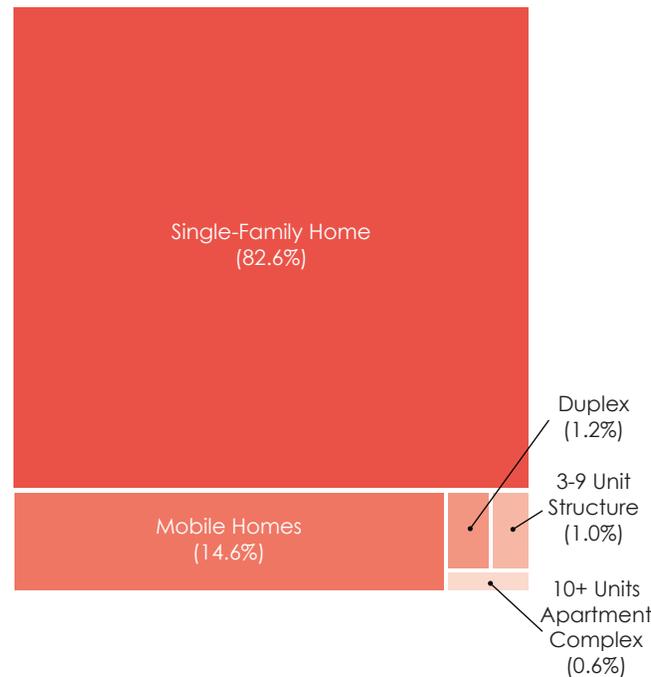
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

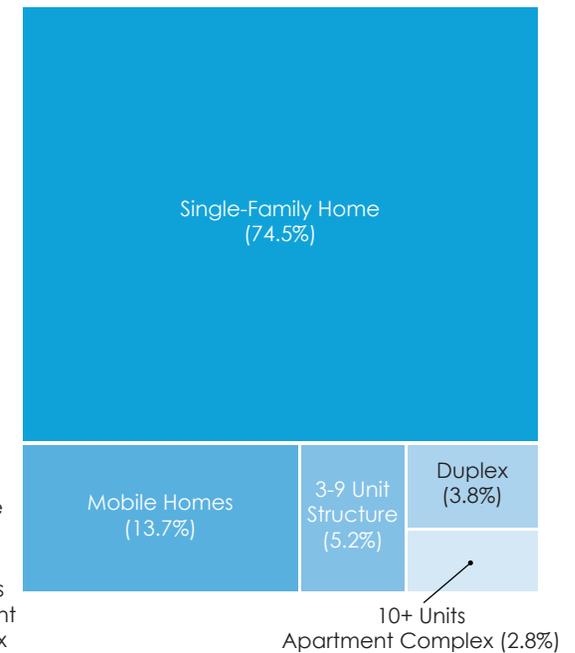
HOUSING BUILDING TYPES —

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Spartansburg-Bloomfield Submarket contains a higher portion of single-family homes as well as mobile homes than the submarket average. Additionally, the Submarket contains fewer multi-unit structures than the submarket average, a finding which potentially demonstrates that its housing stock may offer less flexibility for accommodating various living arrangements.

SPARTANSBURG-BLOOMFIELD SUBMARKET



SUBMARKET AVERAGE

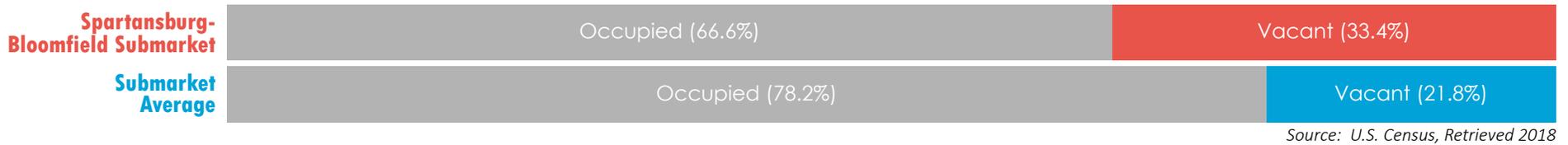


Source: U.S. Census, Retrieved 2018

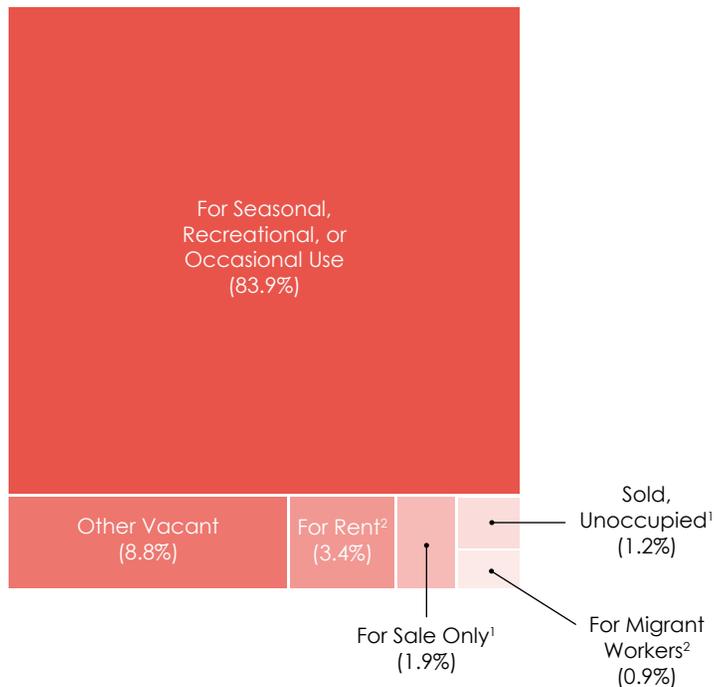
HOUSING STOCK GROWTH ANALYSIS:

🍷 OVERALL VACANCY & VACANCY BY TYPE —

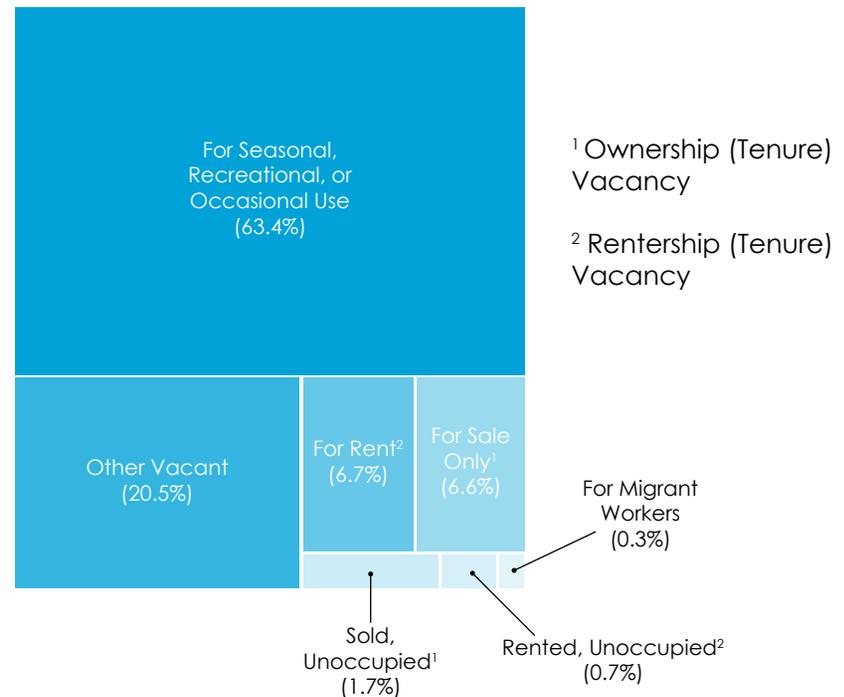
The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Spartansburg-Bloomfield Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. Vacancy within the Spartansburg-Bloomfield Submarket is substantial with one-third of all housing units sitting vacant. Under conventional circumstances, the Submarket’s high vacancy rate would be alarming; however, nearly 84% of all vacancy within the Submarket can be reduced by housing units allocated for seasonal, recreational, or occasional use. Less than 9% of vacancy within the Spartansburg-Bloomfield Submarket arises from “other” reasons which may be an indicator of abandonment, condemnation, dilapidation, or otherwise off-market homes. Vacancy arising from “other” reasons is often unintentional, and a high concentration of such vacancy might indicate substantial problems. However, the Spartansburg-Bloomfield Submarket contains relatively little “other” vacancy with all other vacancy types falling within a healthy range.



SPARTANSBURG-BLOOMFIELD SUBMARKET



SUBMARKET AVERAGE



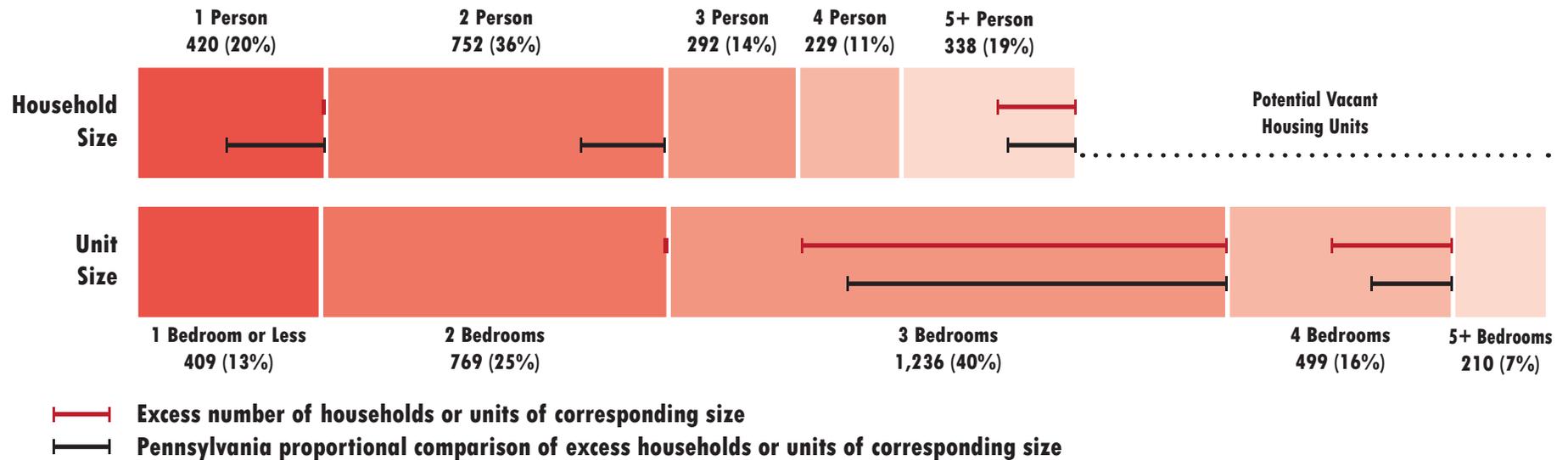
¹ Ownership (Tenure) Vacancy
² Rentership (Tenure) Vacancy

Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Spartansburg-Bloomfield Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scale down to the size of the Submarket figures for comparison purposes. From comparing these graphs, the Spartansburg-Bloomfield Submarket appears to have a surplus of one-, two-, three-, and four-bedroom housing units but a minor shortage of homes that contain five-or-more bedrooms. This finding likely reflects the Submarket's high concentration of seasonal and recreation homes.



Source: U.S. Census, Retrieved 2018

THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The graphic on the right demonstrates the purpose of loan activity within the Spartansburg-Bloomfield Submarket. From this graphic, it appears that loan activity within the Spartansburg-Bloomfield Submarket has been more investment oriented in terms of home improvements, at least in 2016, than activity reported across the submarket average. However, home purchase activity during the same year lagged which resulted in the proportion of loans for refinancing activities nearly identical to the submarket average.

SPARTANSBURG-BLOOMFIELD SUBMARKET LOANS BY PURPOSE (2016)

Spartansburg-Bloomfield Submarket



Submarket Average



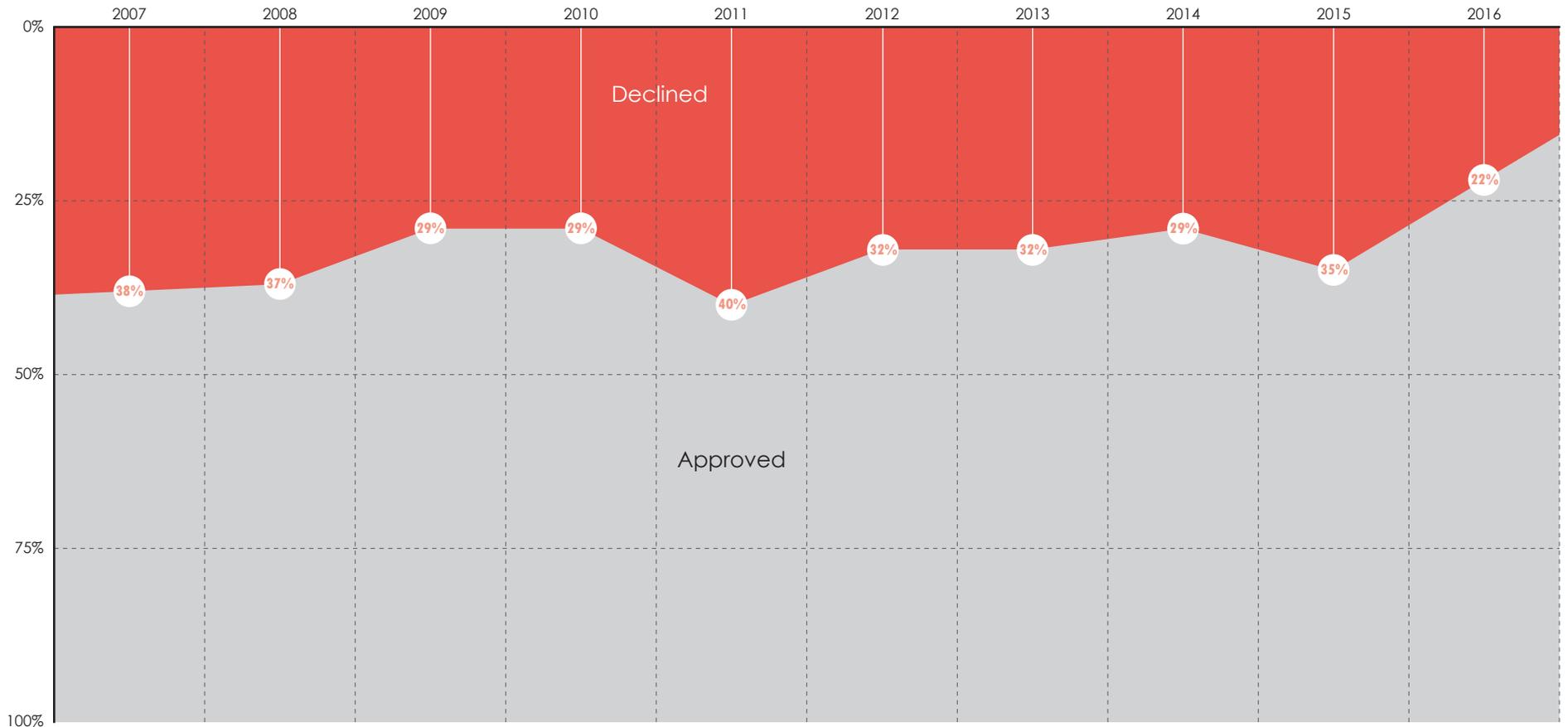
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Spartansburg-Bloomfield Submarket, the rate of declined loans has hovered in the mid-thirties since 2007 (see below) and appears to show slight improvement only very recently.

SPARTANSBURG-BLOOMFIELD SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, housing stock growth within the Spartansburg-Bloomfield Submarket has been flat. Median rent prices and home values are aligned with Crawford County's figures; however, they may not be a signal for new development. The Spartansburg-Bloomfield Submarket has a modern housing stock with nearly three-quarters of its inventory constructed after 1940. Even though the Spartansburg-Bloomfield Submarket exhibits a much higher vacancy rate than the submarket average, an impressive 84% of its vacancy comes from the presence of seasonal, recreational, or occasional use homes rather than from "other" reasons, which may signify more abandonment and dilapidation. Despite loan originations showing a stronger focus on home improvements when compared to the submarket average, overall originations within the Submarket have not been more investment oriented than the submarket average. The Submarket has a surplus of housing units of most sizes, a finding likely resulting from the presence of seasonal homes.

OVERALL STATUS OF THE SPARTANSBURG-BLOOMFIELD HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

The Spartansburg-Bloomfield Submarket is not a job center within Crawford County. Live-work observations show that nearly 86% of the Submarket's workforce relies on employment opportunities in nearby job centers. Specifically, many workers living within the Spartansburg-Bloomfield Submarket commute to jobs located in Erie County. Such observations are unlikely to change in the near future given projections that show flat job growth in the Submarket. Consistent with these observations, the Submarket's 0.29 job-to-housing ratio lies below the beneficial range. This finding suggests that residents within the Spartansburg-Bloomfield Submarket may be more likely to move away in order to relocate closer to their place of employment.

The overall educational attainment of residents living in the Spartansburg-Bloomfield Submarket is below the submarket average. This finding suggests that its labor force the Submarket is less economically competitive than other submarkets within Crawford County. Fortunately, recent projections forecast strong household income growth within the Submarket, which may support housing market stability in the future. However, such projections are not yet reflected in real-estate related loan activity reported within the Submarket, which has been less investment oriented than the submarket average overall despite producing a much higher proportion of originations for home improvements.

POPULATION TRENDS —

The Spartansburg-Bloomfield Submarket is a rural population area within Crawford County and its total population has declined since 2000. Given this observation, it appears that population growth is not driving housing demand. Instead, much of the demand for housing within the Spartansburg-Bloomfield Submarket may come from the cycling of existing households. Within the context of declining population, demographic projections forecast an overall decline in the population of youth and working age individuals within the Submarket but an increase in the population of senior citizens. In terms of household formation, the number of non-family households comprised of either one or two members has held steady. Two-person family households have increased in number, and a slight increase has been observed in the overall number of family households comprised of more than three members.

THE HOUSING MARKET GENERALLY —

The Spartansburg-Bloomfield Submarket contains a similar overall quantity of housing units as the submarket average. Yet, recent projections forecast that the development of new homes will be flat. However, such projections are inconsistent with observations of modest growth in median home values and strong growth in rent prices. Overall, median rent prices within the Spartansburg-Bloomfield Submarket are slightly ahead of those observed county-wide, but median home values are below the county's figure. In terms of affordability, the overall rate of cost-burdened renter households within the Submarket is below the submarket average but still reflects that nearly 30% of renter households pay too much for housing based on their income. This finding suggests that renter households within the Spartansburg-Bloomfield Submarket may have a more difficult time overall putting aside the savings necessary to make a down payment on a starter home.

More than a quarter of the Spartansburg-Bloomfield Submarket's housing stock was built prior to 1940, a finding which may translate into financial and physical challenges for all homeowners. Given the characteristics often associated with old homes, such as expensive renovation needs and limited accessibility for those with disabilities, the Submarket's concentration of older housing units may particularly burden consumers in the starter and downsizing home markets. Comparisons between the composition of households and housing units by size suggest that the Spartansburg-Bloomfield Submarket has a minor shortage of five-or-more-bedroom homes but a surplus of housing units with one-, two-, three, and four-bedrooms. The surplus of homes comprised of less than five bedrooms is likely to be due to the presence of many seasonal and recreational homes within the Submarket. Even though the Spartansburg-Bloomfield Submarket's overall vacancy rate is well above the submarket average, nearly 84% of its vacancy results from homes used of seasonal, recreational, or occasional use. Vacancy of this type is less concerning overall, but the presence of too many seasonal homes may present other community problems.

THE SPARTANSBURG-BLOOMFIELD SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Spartansburg-Bloomfield Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Spartansburg-Bloomfield Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment which constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — The Spartansburg-Bloomfield Submarket's new household market will benefit from household formation trends that show a stable overall number of non-family households. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market, as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggests that the consumer demand within the new household housing market is in decline.

Projections that forecast that household income will increase at a strong rate provide a sign for supporting the stability of the new household market. Comparisons between the composition of households and housing units by size suggest that the Spartansburg-Bloomfield Submarket has a surplus of one- and two-bedroom housing units. Although such surplus is encouraging since smaller homes are often best suited for the needs of those within the new household market, it is possible that many of these units could be set aside for seasonal use only. Additionally, the Spartansburg-Bloomfield Submarket contains a lesser share of multi-unit housing structures when compared to the submarket average. The lack of multi-unit housing structures may place stress on the Submarket's new household market, as such buildings are often more accommodating to the needs of those participating within this consumer segment.

Median rent prices just above those observed county-wide along with the strong growth of such prices both provide positive signs for suppliers participating in the Spartansburg-Bloomfield Submarket's new household market. On the consumer end, the Submarket's overall rate of cost-burdened renter households is below the submarket average. Such observations indicate stability within the Submarket's new household marketplace.

Overall, the Spartansburg-Bloomfield Submarket's new household market is considered adequate largely due to a combination of household formation trends and demographic projections suggesting stable consumer demand. Additionally, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is considered adequate because of the Submarket's relatively low rate of cost-burdened renter households paired with projections that forecast strong household income growth.

STARTER HOME & DOWNSIZING MARKETS — The Spartansburg-Bloomfield Submarket's starter and downsizing markets will likely be positively impacted by household formation trends that show an increase in the overall number of two-person family households. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 may translate into reduced consumer demand for starter homes, as residents within this age range are mostly likely to constitute those within this consumer segment. However, an increase in the population of those over age 65 is a sign for growing consumer demand in the downsizing market.

The healthy share of single-family homes within the Spartansburg-Bloomfield Submarket will benefit both the starter and downsizing markets since consumers within these segments often prefer this type of home. However, the Submarket lacks accessible multi-unit structures of quality construction, which are also attractive to many senior couples looking to downsize. Comparisons between the composition of households and housing units by size suggests that the Submarket has a surplus of two- and three-bedroom homes. The Submarket's supply of two- and three-bedroom homes is critical for supporting the needs of most consumers within the starter and downsizing market segments. However, consumers within the starter and downsizing home segments will have to be content with the Submarket's relatively old housing stock, of which just over one-quarter was built prior to 1940. This significant concentration of older homes

THE SPARTANSBURG-BLOOMFIELD SUBMARKET'S HOUSING ECOSYSTEM:

could present either financial or physical burdens on younger and older buyers alike.

Projections that forecast household income will increase at a strong rate provide support for consumer stability within both the starter and downsizing markets. Less optimistically, the Submarket's median home value is well below the county-wide figure, but appreciation has occurred at a modest rate over recent years. The combination of relatively low median home values and household income projections does not appear to be reflected in real-estate loan activity across the Spartansburg-Bloomfield Submarket, which has been about as investment oriented overall as a submarket average despite containing a higher portion of originations for home improvements.

Overall, the Spartansburg-Bloomfield Submarket's starter home market is considered adequate largely as the result of household formation trends suggesting an increase in consumer demand. However, if demographic projections hold true, starter home demand could decline with dwindling numbers of individuals between the ages of 15 and 34. Additionally, projections showing an increase in household income paired with relatively low median home values suggest that the ability of a household participating in the Submarket's starter home market to transition into the move-up segment may be adequate. Household formation trends also suggest an increase in the demand for downsizing homes with demographic projections that show gains in the number of senior citizens indicating that future demand for this housing segment may be strong. Therefore, the Submarket's downsizing market segment is adequate, and the ability to transition from this segment and into a senior living accommodation is also adequate.

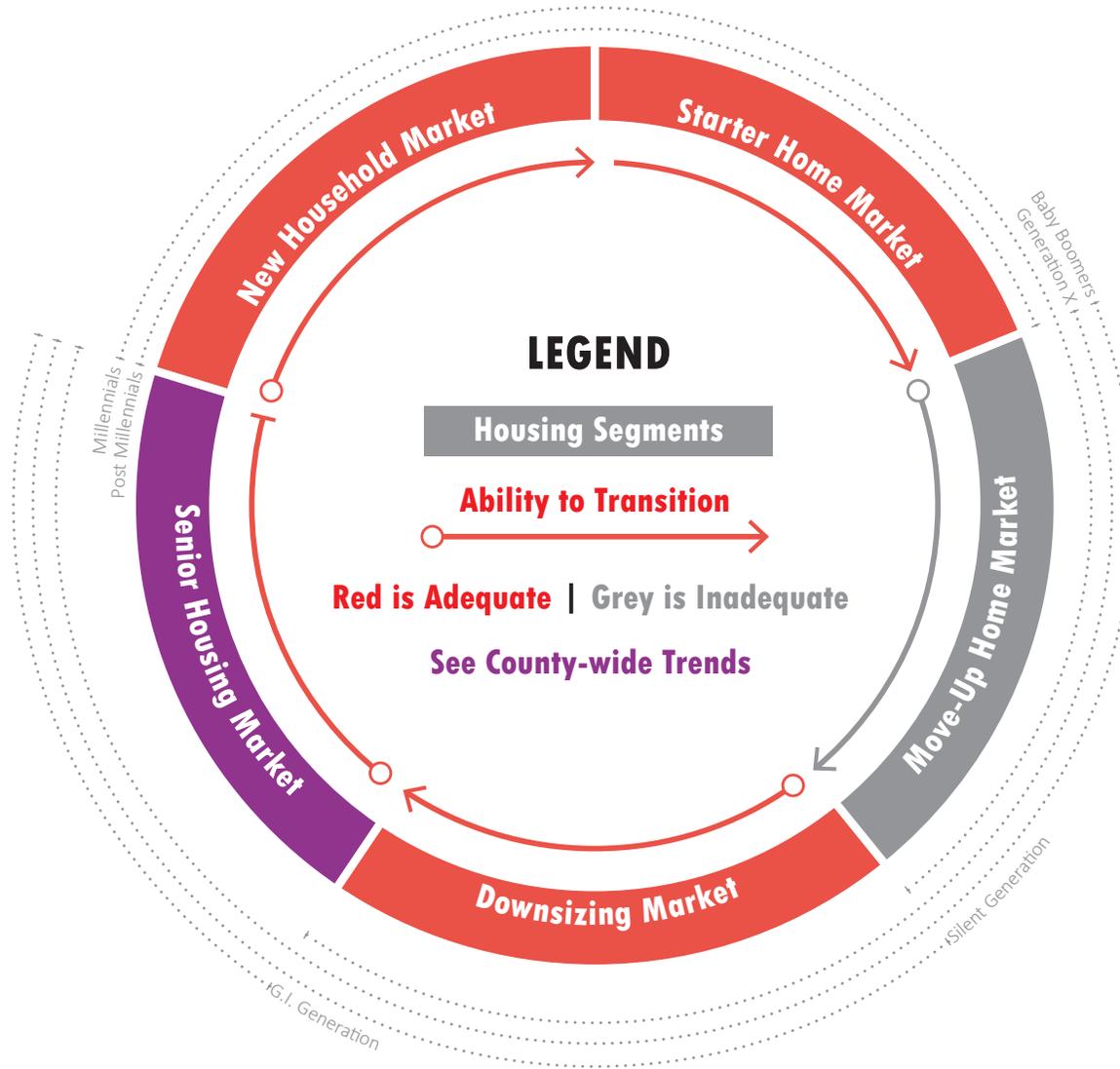
MOVE-UP MARKET – The move-up housing market within the Spartansburg-Bloomfield Submarket will likely benefit from household formation trends that show stability in the overall number of family households comprised of at least three members. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range may translate into reduced consumer demand for move-up homes, as residents within this age block are mostly likely to constitute those within this consumer segment. The combination of household formation trends and population projections suggest that the demand for move-up housing will be stagnant.

Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by strong gains in household income if such projections hold up. Real-estate loan originations have been about as investment oriented as the submarket average overall, even as the Submarket's median home value lags behind the county-wide figure. Comparisons between the composition of households and housing units by size suggest that the Submarket has a surplus of three- and four-bedroom homes but a minor shortage of five-or-more-bedroom houses. However, consumers must contend with the Submarket's relatively old housing stock, of which more than a quarter was built prior to 1940.

Overall, the Spartansburg-Bloomfield Submarket's move-up market is considered inadequate largely due to a combination of household formation trends and demographic projections that suggests stagnant consumer demand. Despite real-estate loan origination activity similar to the submarket average, limited consumer demand may make it difficult for households currently participating in the move-up market to transition into the downsizing segment. As a result, this transition is considered inadequate.

SENIOR HOUSING MARKET – Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE SPARTANSBURG-BLOOMFIELD SUBMARKET'S HOUSING ECOSYSTEM:



THE TOWNVILLE SUBMARKET

Introducing travelers coming from the west to eastern Crawford County, the Townville Submarket includes four municipalities – Athens, Steuben, and Troy townships and the Borough of Townville. The Townville Submarket is adjacent to the Cochran, Mead, Cambridge Springs, Spartansburg-Bloomfield, and Titusville submarkets within Crawford County and shares its southern border with Venango County.

A HOUSING ECOSYSTEM ANALYSIS OF THE TOWNVILLE SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

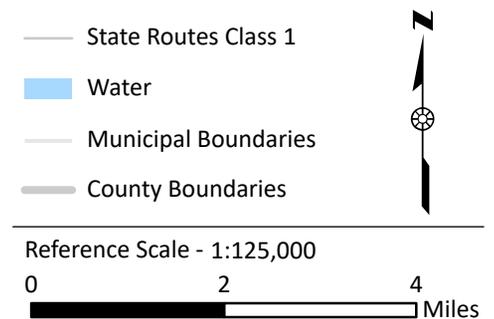
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚡). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

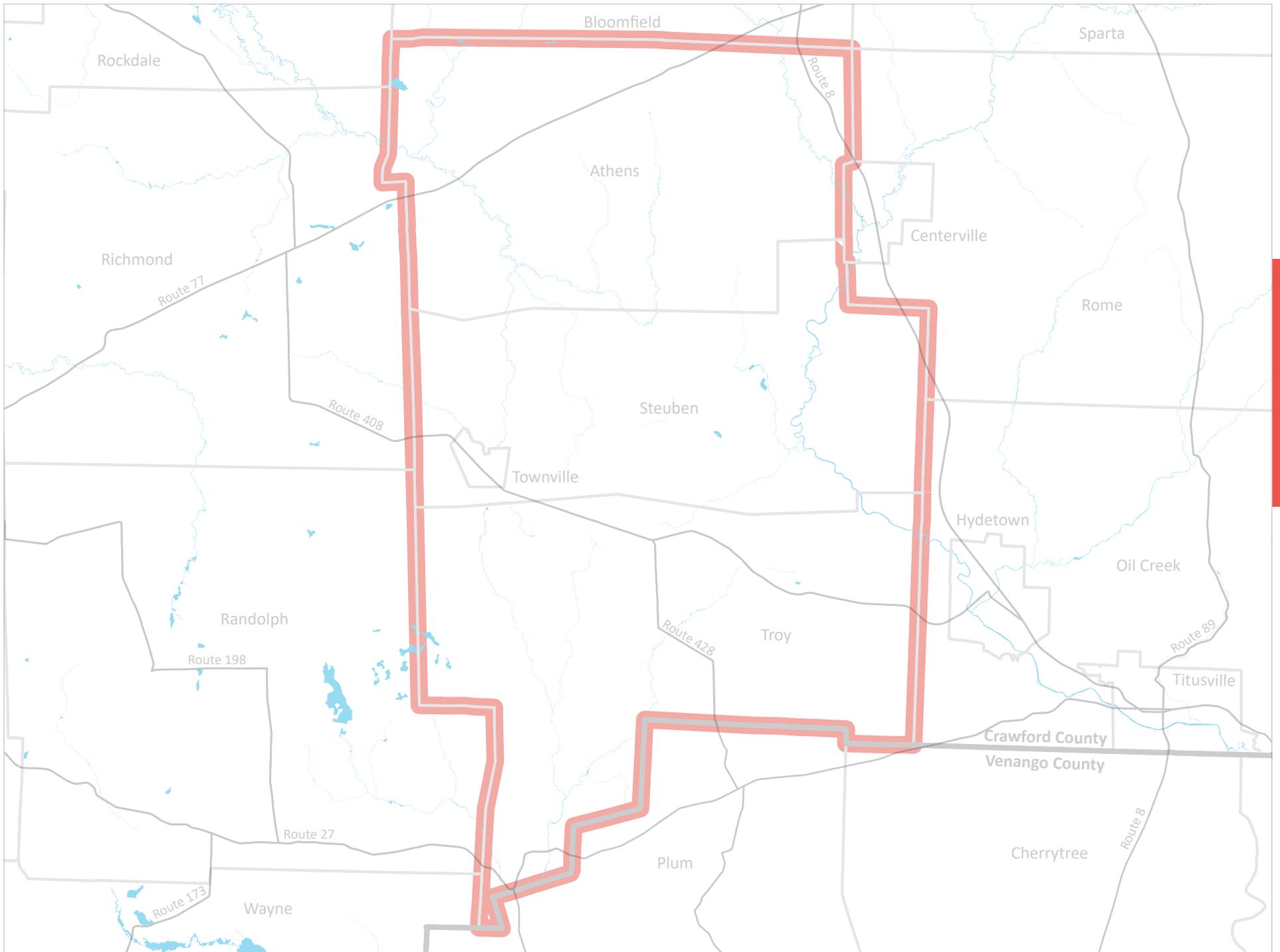
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates the presence of inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Townville Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



JOB GROWTH ANALYSIS:

This section explores job growth as a driver and the relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends for residents living within the Townville Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE TOWNVILLE SUBMARKET —

The map on the next page uses dots to represent where residents living within the Townville Submarket work. From this map, it is apparent that the vast majority of Townville Submarket residents work outside the Submarket. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Townville Submarket produces a job-to-housing ratio of 0.35, lying well below the beneficial range.

The radar graph on the bottom left displays the distance and direction of where Townville Submarket residents work. The dark red wedges of the graph demonstrate those commuting less than ten miles; however, a much larger share of residents travel beyond ten miles to reach work. Live-work observations within the Townville Submarket demonstrate that it is a “bedroom community” whereby its residents overwhelmingly commute to jobs located outside the Submarket. A break down of such commuter trends is presented on the bottom right and the map on the next page shows that just over 93% of the Submarket’s residents work elsewhere with a majority occupied inside Crawford County and many commuting to the Meadville area for work.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries

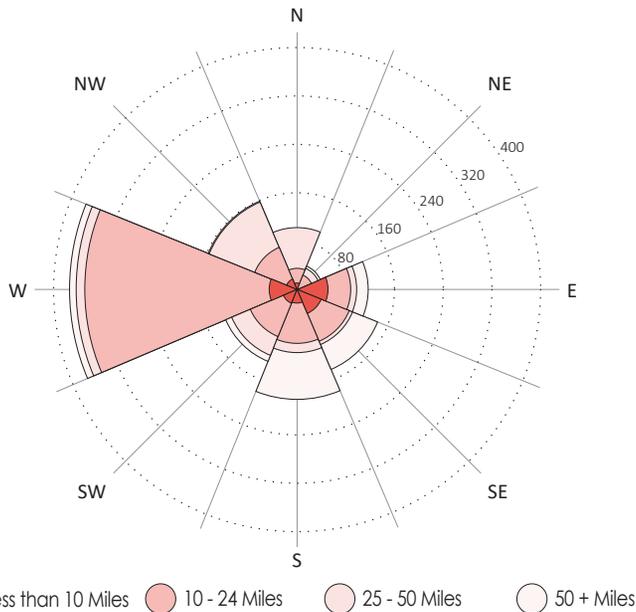


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE TOWNVILLE SUBMARKET RESIDENTS WORK



6.8%

of Townville Submarket residents work at a location **inside the submarket.**

56%

of Townville Submarket residents work inside **Crawford County.**

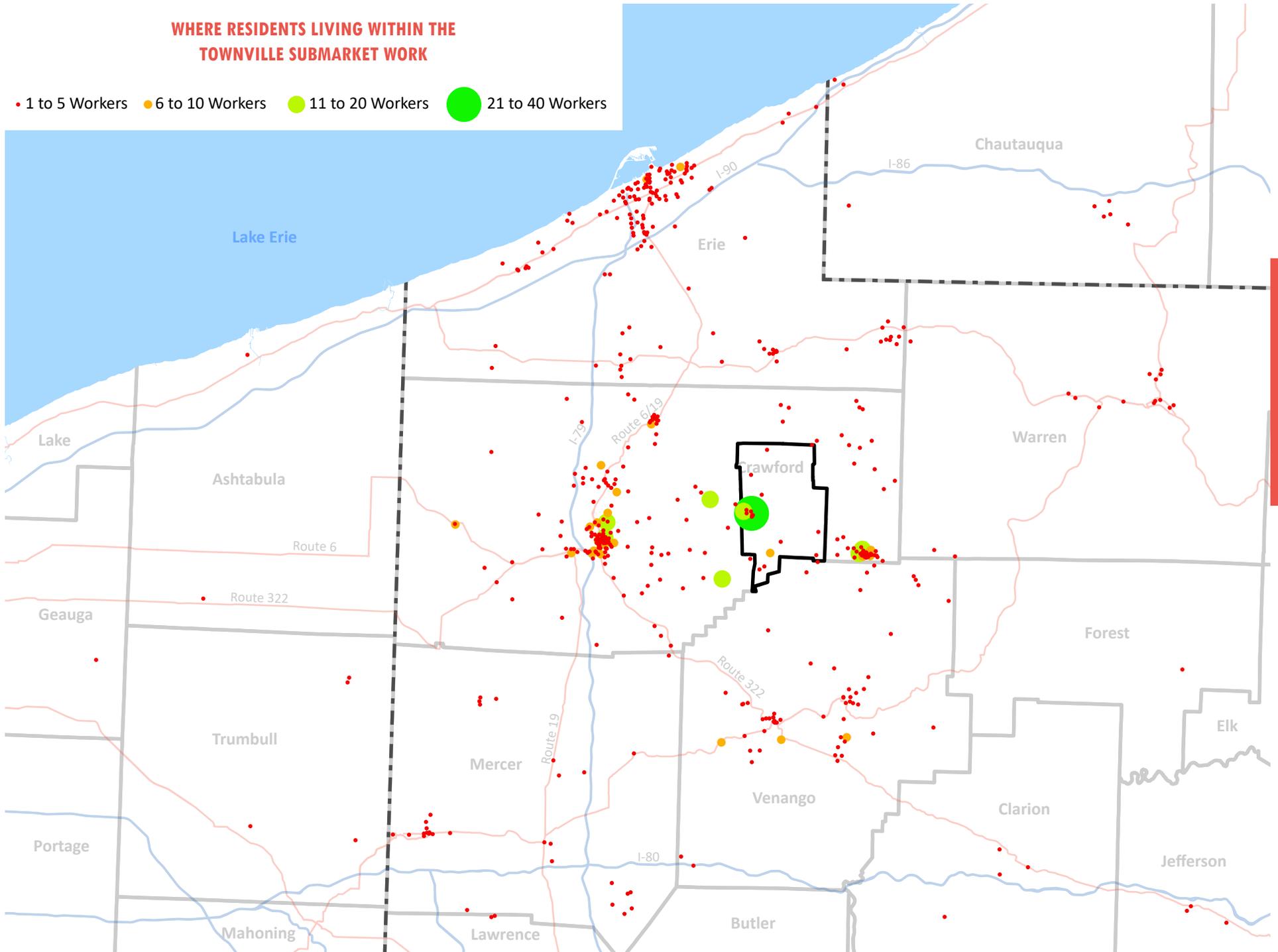
44%

of Townville Submarket residents work outside **Crawford County.**

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

WHERE RESIDENTS LIVING WITHIN THE TOWNVILLE SUBMARKET WORK

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



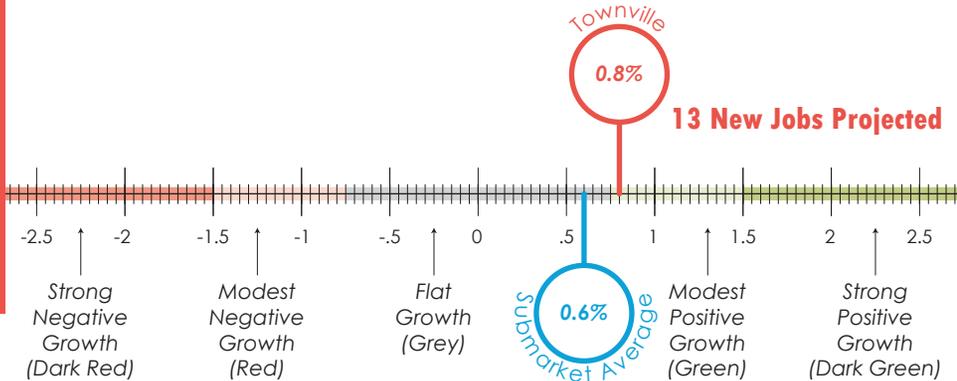
TOWNVILLE SUBMARKET

JOB GROWTH ANALYSIS:

JOB GROWTH —

From the graph below, the Townville Submarket's 0.8% projected annual job growth rate out-paces the submarket average of 0.6% and lies within the modest positive growth range. Despite the benefits of modest job growth, given the size of the Submarket's job base, such growth is unlikely to provide its workers with the potential employment options necessary to leverage for increased compensation.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

HOUSEHOLD INCOME CHANGE —

Consistent with modest positive job growth trends, from the projected change in household income displayed in the graph on the bottom left, the Townville Submarket is projected to experience a strong rate of household income growth. An increase in household income will bolster the stability of existing households while opening up new housing opportunities for others.

TOTAL JOBS —

To explore the magnitude of the Townville Submarket's employment base, we compared the number of jobs inside the Submarket to the average number of jobs located within a Crawford County submarket. From the graphic below, the Townville Submarket has far fewer jobs than the submarket average. This finding aligns with our earlier conclusion that the Townville Submarket is a rural bedroom community and not a job center. Although jobs within the Submarket provide important opportunities for local residents, the Townville Submarket is considerably more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

In summary, job growth within the Townville Submarket is projected to grow at a modest rate and household income is projected to increase at a strong rate. Household income growth within the Submarket may bolster housing market stability. The Townville Submarket is a bedroom community with the overwhelming majority of its residents commuting to nearby job centers which play a fundamental role in its economic stability.

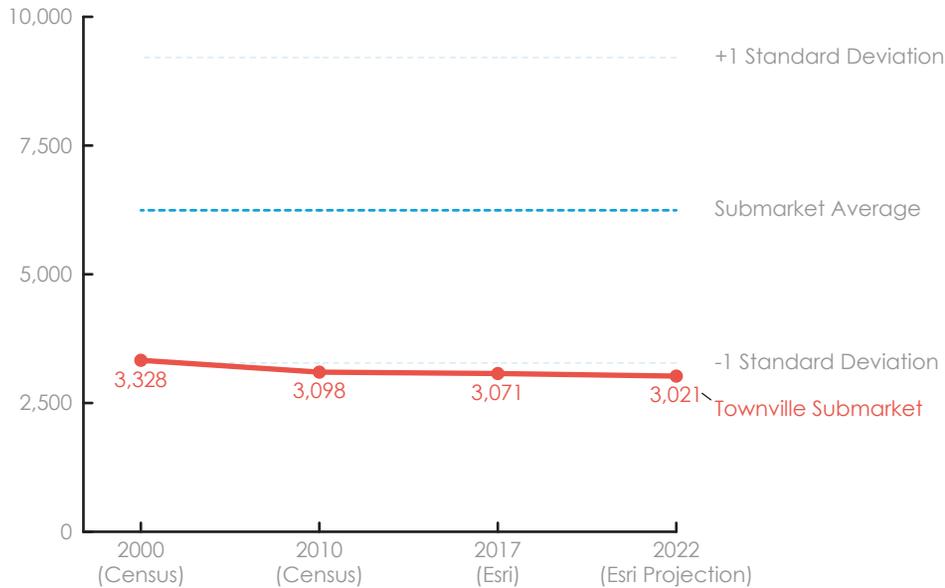
ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)



Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

POPULATION GROWTH ANALYSIS:

TOWNVILLE SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers, which leads to a submarket's total population. Population growth within the Townville Submarket would directly lead to household formation and increased housing demand. Conversely, stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

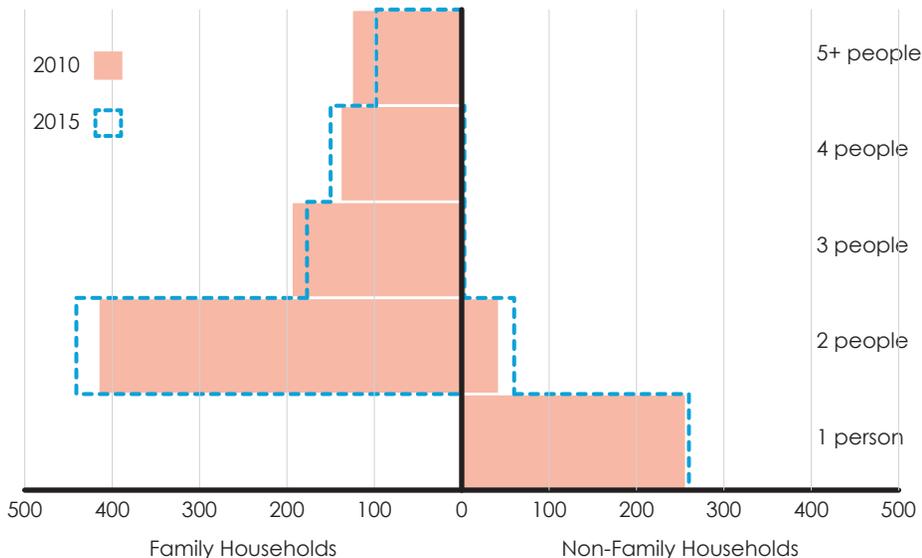
Population growth will increase local housing demand. As demonstrated within the graph on the left, the population of the Townville Submarket has declined since 2000 but is projected to level off. This decline suggests that population growth is not driving the demand for housing within the Submarket.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

TOWNVILLE SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Townville Submarket households by size between 2010 and 2015. Both family and non-family households comprised of two people within the Townville Submarket increased between 2010 and 2015 along with a simultaneous gain in the number of four-person family households. Conversely, three-person and five-or-more person family households decreased between 2010 and 2015. Such household formation trends suggest an increase in the local demand for starter homes and a potential decline in the internal demand for move-up housing.

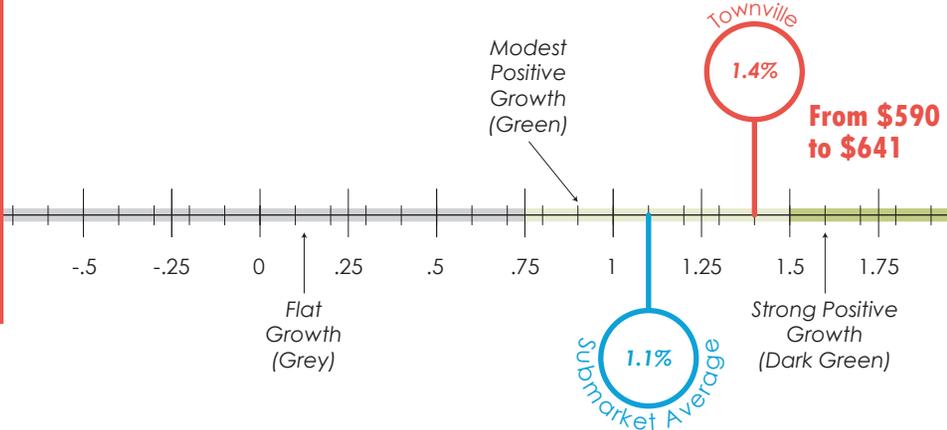
Source: U.S. Census

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

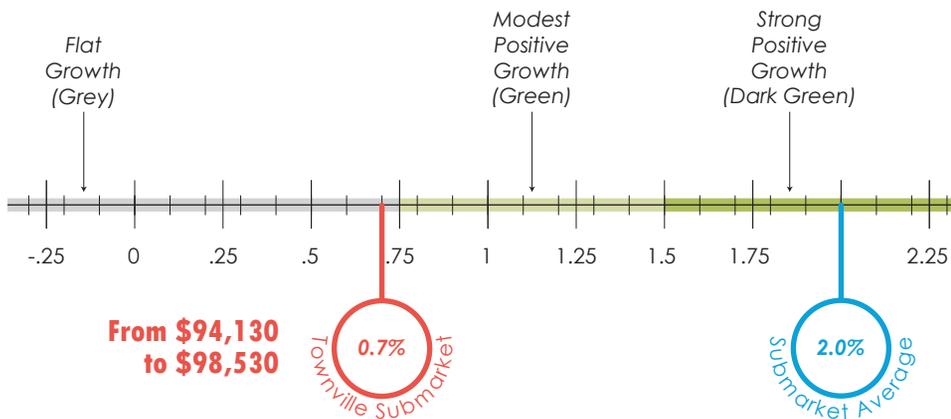
An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Townville Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Despite flat home values, rent prices have increased at a modest rate.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30% of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Townville Submarket with comparisons to Crawford County and the submarket average. We see that renters within the Townville Submarket are about as cost-burdened as the submarket average but faring better than those across the whole of Crawford County.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



34.6% of Townville Submarket Renters
(80 Households)

41.3% of Crawford County Renters

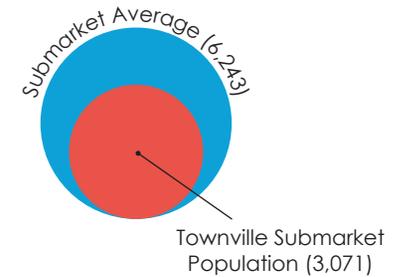
34.3% Submarket Average

Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

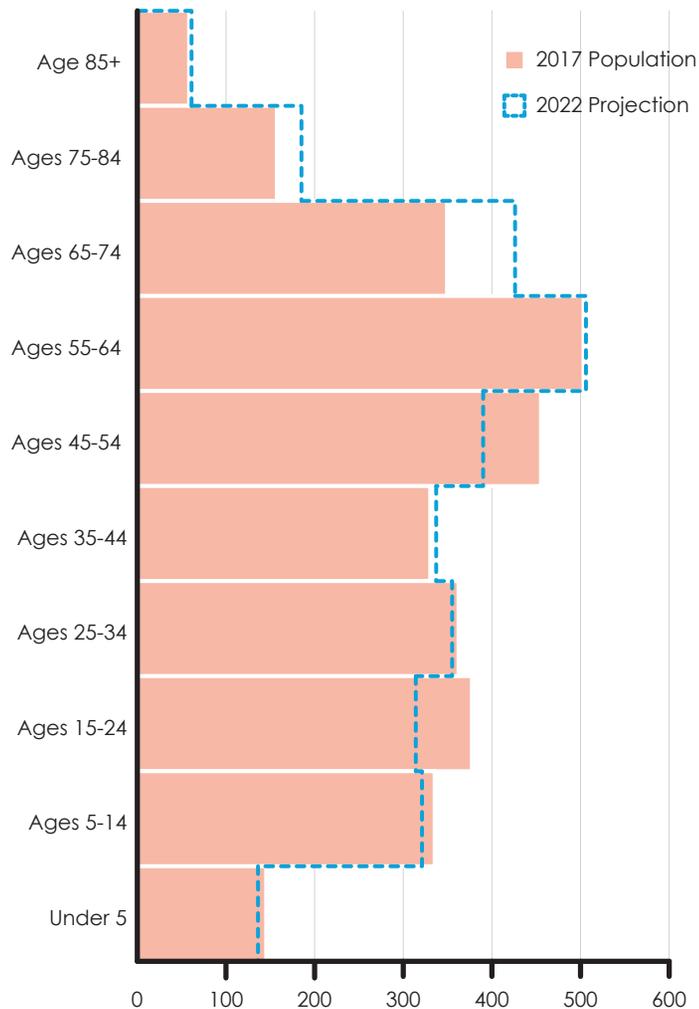
TOTAL POPULATION –

The cycling of households between different homes creates some of the housing demand within a community. To understand this type of housing demand, we established whether the Townville Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. From the graphic shown on the right, we see that the Townville Submarket’s population is less than the submarket average. By this standard, the Townville Submarket is a rural population center. Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a magnitude large enough to



Source: Esri, Retrieved 2017

TOWNVILLE SUBMARKET POPULATION PYRAMID & PROJECTION



Source: Esri, Retrieved 2018

drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the Submarket’s relative population size, it can be inferred that the Townville Submarket does not have the gravity to attract new residents on a speculative basis. Such inference implies that those moving into the Submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION –

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population’s age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional starter homes. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Townville Submarket in 2017 with a projection to 2022. Age cohorts within the Townville Submarket are projected to decline across the younger brackets comprising individuals below age 34 with a more significant drop for those ages 15 to 24. Additionally, the population of individuals ages 45 to 54 is projected to decline going into 2022. These demographic changes may reduce the internal demand for both move-up (family-sized- 3-5 bedrooms) and smaller rental units (1-2 bedroom rentals- with the exception of senior friendly units). However, significant increases projected among seniors ages 65 to 84 may generate local demand for downsizing homes.

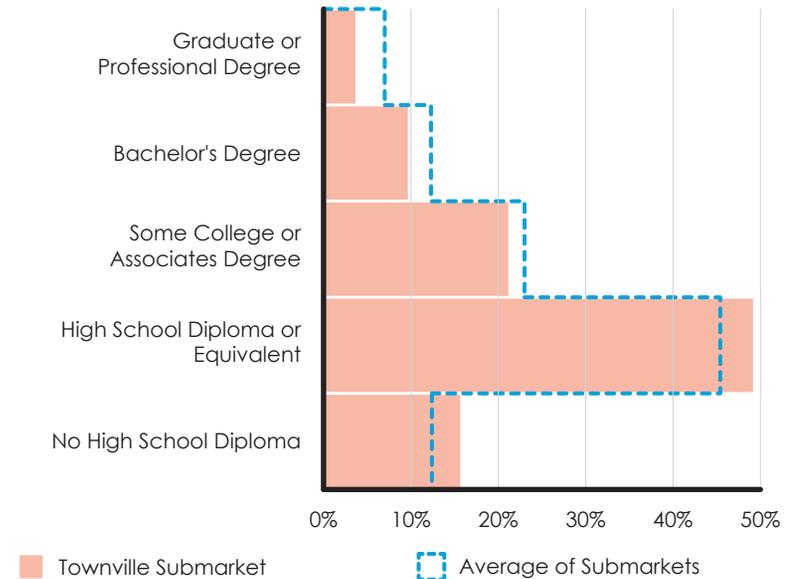
POPULATION GROWTH ANALYSIS:

The demographic projections and household formation trends addressed earlier suggest increased local pressure on the market for both starter and downsizing homes. Furthermore, growth in older age brackets suggest that many new two person households within the Submarket may be formed by seniors after their children have moved out.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Townville Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Townville Submarket is less educated than the submarket average in that it has a smaller proportion of individuals holding some type of college degree. The Submarket's lower level of overall educational attainment may make it less economically competitive over the long run.

TOWNVILLE SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

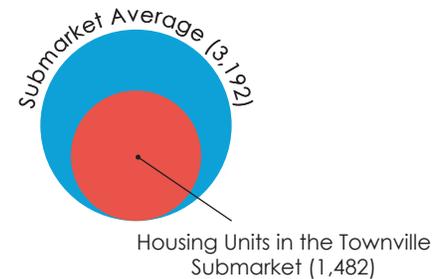
In summary, the Townville Submarket is a rural population center which is projected to slightly decline into 2022 and thus leaving housing demand largely to the cycling of existing residents. Household formation trends within the Submarket suggest a decline in the demand for move-up homes along with an increase in demand for starter and downsizing units. This trend is also supported by projected variations in age demographics within the Submarket. Rent prices within the Townville Submarket have experienced modest growth while home values have remained flat. Despite observations of increases in rent prices, renters within the Submarket are less cost-burdened, on the whole, than those across Crawford County. Overall, the Townville Submarket is less educated than the average of other submarkets.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and the relationships between its influencers, which leads to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph on the right presents the projected housing stock growth rate for the Townville Submarket. Although flat, the Submarket's rate is similar to the submarket average.

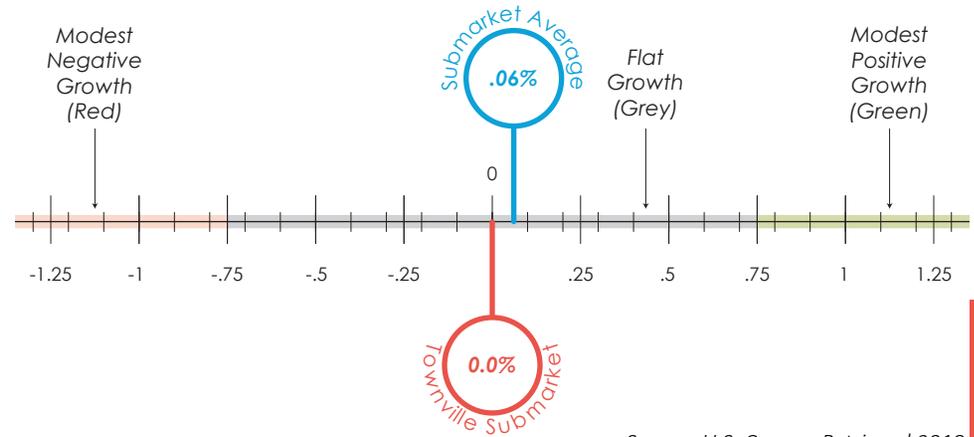


Source: Esri, Retrieved 2018

TOTAL HOUSING STOCK —

Larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of market demand. To study the relative size of the Townville Submarket's housing stock, we compared the number of housing units located within the Submarket to the average number of housing units within a Crawford County submarket. From the graphic on the left, we see that the Townville Submarket has far less housing units than the submarket average. Based on this analysis, it can be safely suggested that housing development within the Townville Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

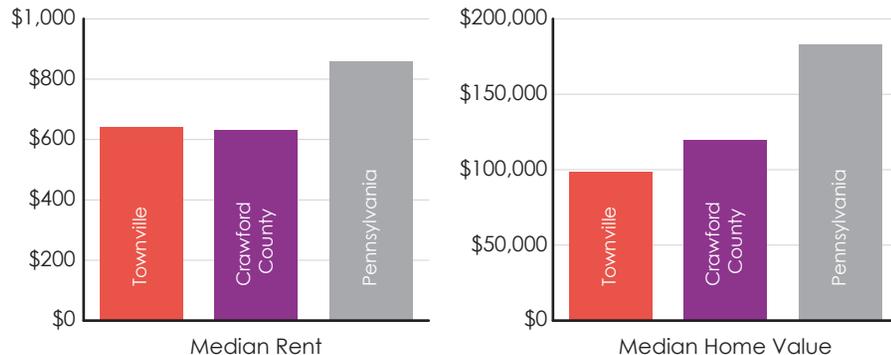
ANNUALIZED PROJECTED HOUSING STOCK GROWTH THROUGH 2022



Source: U.S. Census, Retrieved 2018

TOWNVILLE SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)

MEDIAN RENT & HOME VALUES —



Source: U.S. Census, Esri - Retrieved 2018

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, the Townville Submarket has a median rent price similar to Crawford County but much lower than Pennsylvania on the whole. For home values, the Townville Submarket has lower home values than both Crawford County and Pennsylvania. These figures alone will likely not encourage new housing investment in the Submarket.

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 —

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that nearly 28% of the Townville Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. From this observation, the Townville Submarket does contain its fair share of historical homes but does not seem burdened with an out-sized portion of such residences. Given the Submarket's aging population, opportunities to encourage accessibility upgrades should be considered from time to time.

TOWNVILLE SUBMARKET HOUSING UNITS BUILT PRE-1940

27.7%



Homes Built Pre-1940

72.3%



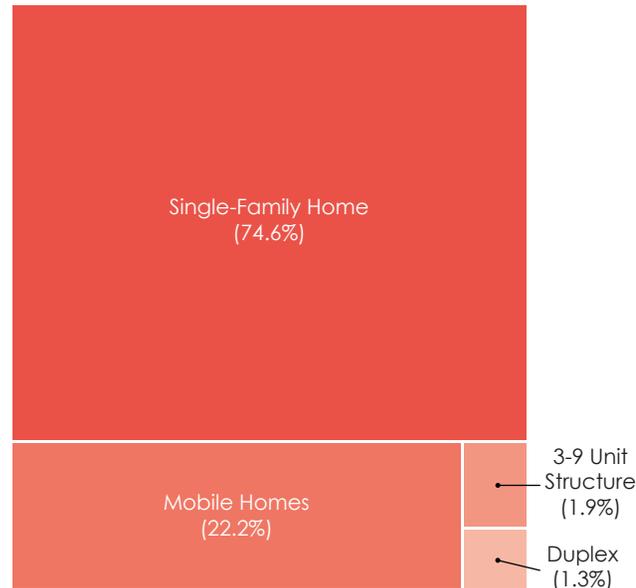
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

HOUSING BUILDING TYPES —

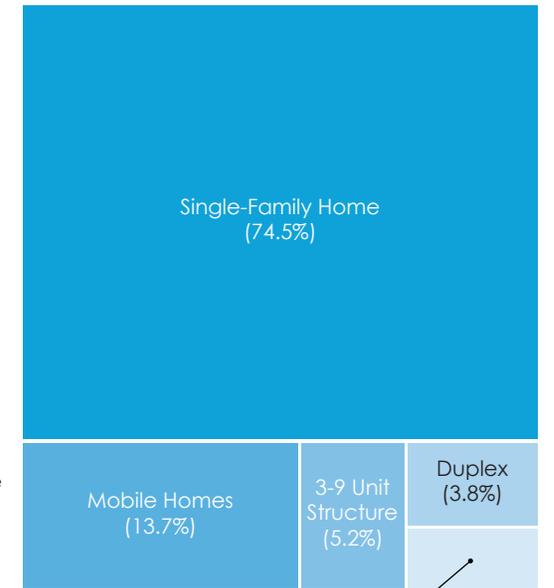
The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Townville Submarket varies from the submarket average in that it contains a larger portion of mobile homes and smaller portions of multi-unit structures. Mobile homes comprise close to a quarter of housing structure types within the Submarket and there appear to be no 10-plus unit apartment complexes. Such findings align with our earlier observation that the Townville Submarket is a rural population area.

TOWNVILLE SUBMARKET



2 housing units in the Townville Submarket consist of either a boat, RV, or Van.

SUBMARKET AVERAGE

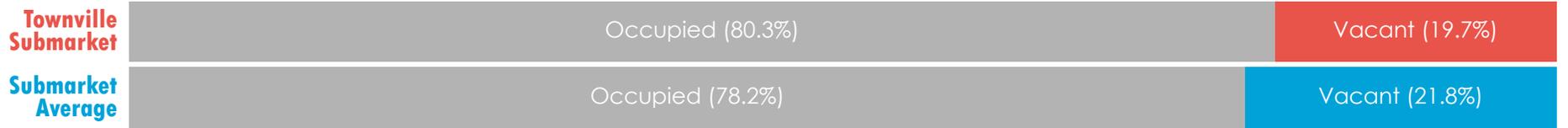


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

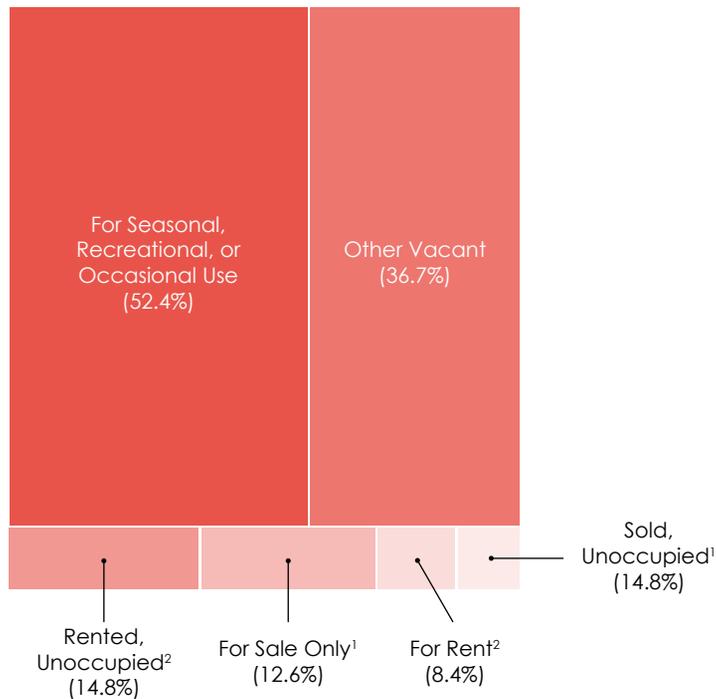
🍷 OVERALL VACANCY & VACANCY BY TYPE –

The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Townville Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. Although still substantial at nearly 20%, the Townville Submarket reported a lower vacancy rate than the submarket average. However, more than one-third (almost 37%) of the Submarket’s vacancy results from “other” reasons, marking a substantial deviation from the submarket average. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market. Implications stemming from this observation are serious in that an out-sized portion of vacancy within the Townville Submarket is unintentional. Such unintended vacancy may demonstrate a significant cycle of disinvestment as landlords struggle to profit from their properties and owners abandon them.

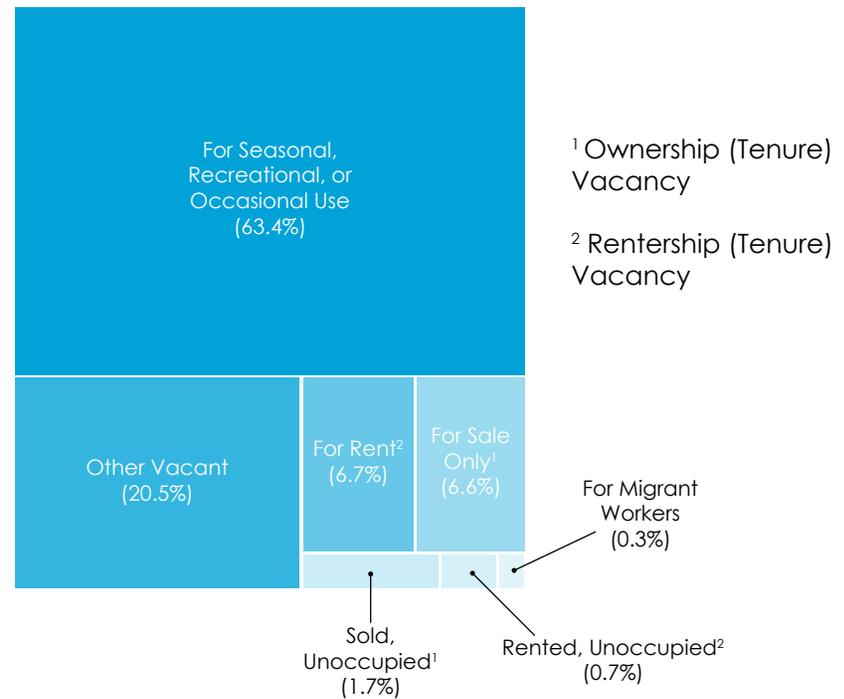


Source: U.S. Census, Retrieved 2018

TOWNVILLE SUBMARKET



SUBMARKET AVERAGE

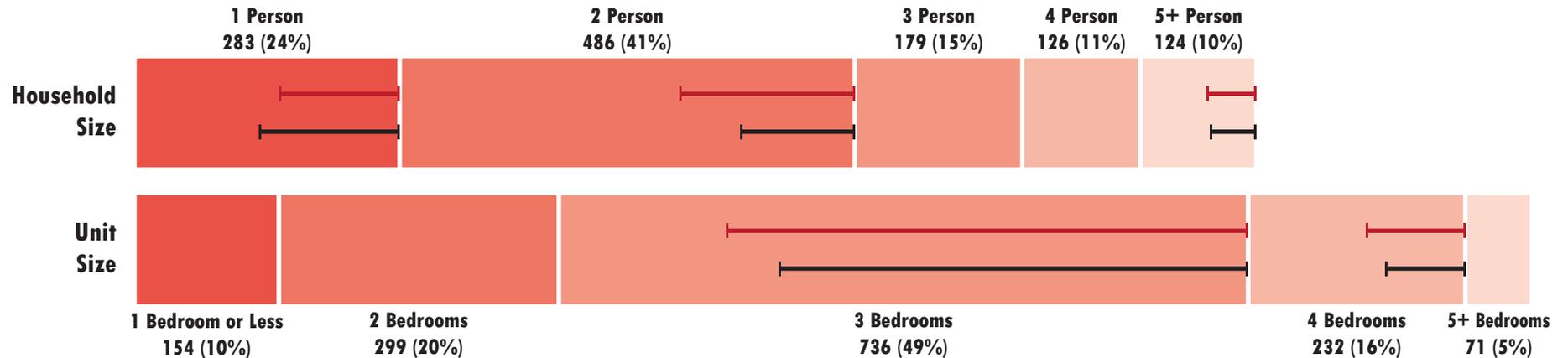


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Townville Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket's figures for comparison purposes. The Townville Submarket exhibits a minor surplus of one-, three-, and four-bedroom housing units, along with a relatively adequate supply of five-or-more-bedroom homes units. However, the Submarket appears to lack two-bedroom homes which is a concern when considering the increase in all two-person households observed within the Townville Submarket.



THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right demonstrate the purpose of loan activity within the Townville Submarket. From this graphic, it appears that loan activity within the Townville Submarket has been more investment oriented, at least in 2016, than activity reported across the submarket average. A very strong showing of loan originations for home purchases builds upon a lesser rate of home improvement activity to produce an overall portion of investment-oriented financial activity that is greater than the submarket average.

TOWNVILLE SUBMARKET LOANS BY PURPOSE (2016)

Townville Submarket



Submarket Average



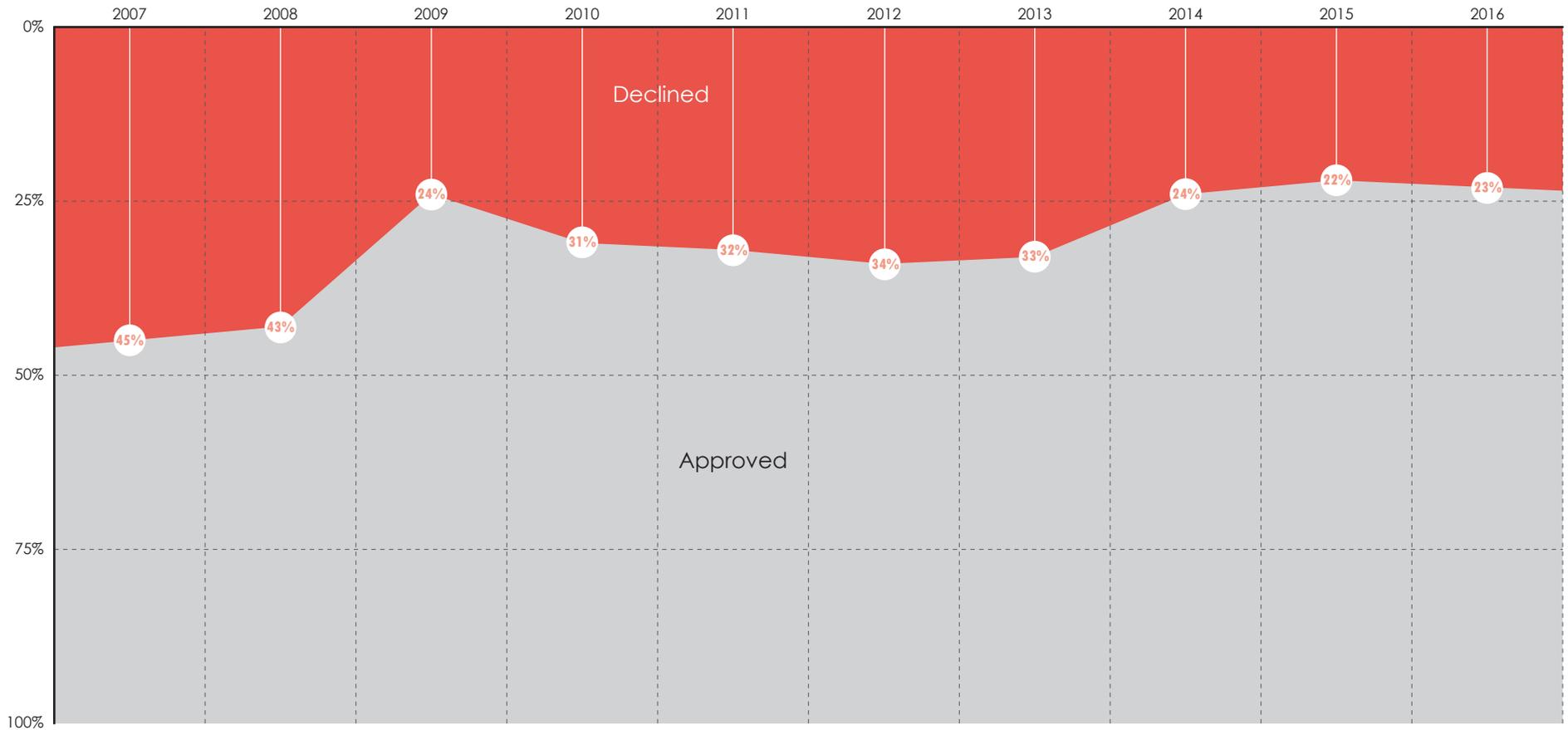
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Townville Submarket, the rate of declined loans has hovered in the mid-twenties in recent years (see below) and appears to show improvement since 2007.

TOWNVILLE SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, housing stock growth within the Townville Submarket has been flat. Median rent is generally aligned with Crawford County while home prices lagged behind the county's figures. Both rent prices and home values do not seem to suggest that developers will be particularly motivated to supply new housing units. This observation is backed up by vacancy trends showing that more vacancy within the Submarket is attributable to "other" reasons than the submarket average. Although the Townville Submarket contains many older homes nearly three-quarters of its housing stock was built after 1940. Comparisons between the composition of household and housing unit sizes demonstrate that the Townville Submarket's housing stock may not adequately provide for households comprised of one or two people. Loan origination activity within the Submarket shows a more investment oriented trend than the submarket average and the rate of declined home loans has improved slightly in recent years.

OVERALL STATUS OF THE TOWNVILLE HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

The Townville Submarket is not a job center within Crawford County. Live-work observations show that around 93% of the Submarket's workforce relies on employment opportunities in nearby job centers. Specifically, many workers living within the Townville Submarket commute to jobs located in the Meadville area. Such observations are unlikely to change in the near future given projections that show job growth in the Submarket will occur at a modest rate. Consistent with these observations, the Submarket's 0.35 job-to-housing ratio lies below the beneficial range. This finding suggests that residents within the Townville Submarket may be more likely to move away in order to relocate closer to their place of employment.

The overall educational attainment of residents living in the Townville Submarket is below the submarket average. Such finding suggests that its labor force may be less economically competitive than other submarkets within Crawford County. Fortunately, recent projections forecast strong household income growth within the Submarket, which may support housing market stability in the future. Such projections may already be playing out on the ground as overall real-estate related loan originations within the Townville Submarket have been more investment oriented than the submarket average with a much higher proportion of originations for home purchases.

POPULATION TRENDS —

The Townville Submarket is a rural population area within Crawford County and its total population has declined since 2000. Given this observation, it appears that population growth is not driving housing demand. Instead, much of the demand for housing within the Townville Submarket may come from the cycling of existing households. Within the context of declining population, demographic projections forecast an overall decline in the population of youth and working age individuals within the Submarket but an increase in the population of senior citizens. In terms of household formation, non-family households comprised of either one or two members have increased in number as have two-person family households, but the overall number of family households comprised of more than three members has decreased.

THE HOUSING MARKET GENERALLY —

The Townville Submarket contains a smaller overall quantity of housing units than the submarket average, and recent projections forecast that the development of new homes will be flat. Such projections are consistent with observations that growth in median home values has been flat with rent prices faring better and seeing modest growth. Overall, median rent prices within the Townville Submarket are similar to those observed county-wide, but median home values are well below the county's figure. In terms of affordability, the overall rate of cost-burdened renter households within the Submarket is similar to the submarket average, which shows that just over one-third of renter households pay too much for housing based on their income. This finding suggests that renter households within the Townville Submarket may have a more difficult time overall putting aside the savings necessary to make a down payment on a starter home.

More than a quarter of the Townville Submarket's housing stock was built prior to 1940, a finding which may translate into financial and physical challenges for all homeowners. Given the characteristics often associated with old homes, such as expensive renovation needs and limited accessibility for those with disabilities, the Submarket's concentration of older housing units may particularly burden consumers in the starter and downsizing home markets. Comparisons between the composition of households and housing units by size suggest that the Townville Submarket has a shortage of two-bedroom homes but a surplus of housing units with either one-, three- or four-bedrooms. The surplus of one-bedroom units may indicate troubles for the Submarket's rental market while its shortage of two-bedroom housing units may place stress on the market for starter and downsizing homes. Additionally, the surplus of homes containing three- and four-bedrooms could be problematic in the future given the overall decline in the Submarket's number of family households comprised of three-or-more members. Despite having an overall vacancy rate below the submarket average, the share of vacancy related to "other" reasons within the Townville Submarket is disproportionately higher than the submarket average. Other vacancy is often unintentional, and a disproportionate presence of vacancy for other reasons within the Submarket is a sign of disinvestment.

THE TOWNVILLE SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Townville Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Townville Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment that constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — The Townville Submarket's new household market will likely be positively impacted by household formation trends that show an increase in the overall number of non-family households. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggest that the consumer demand within the new household housing market has increased.

Projections that forecast that household income will increase at a strong rate provide a sign for supporting the stability of the new household market. Comparisons between the composition of households and housing units by size suggests that the Townville Submarket has a minor surplus of one-bedroom housing units but a clear shortage of two-bedroom homes. Since household formation trends show that most of the increase in the number of non-family households within the Submarket will come from those comprised of two-people, its existing housing stock mismatches may result in even more stress placed upon consumers in the new household market. Additionally, the Townville Submarket contains a lesser share of multi-unit housing structures when compared to the submarket average. The lack of multi-unit housing structures may place stress on the Submarket's new household market as such buildings are often more accommodating to the needs of those participating within this consumer segment.

Median rent prices just above those observed county-wide along with the modest growth of such prices both provide positive signs for suppliers participating in the Townville Submarket's new household market. Unfortunately similar relief is not observed on the consumer end as the Submarket's overall rate of cost-burdened renter households is similar to the relatively high submarket average. Such observations provide mixed indications over the stability of the Submarket's new household marketplace.

Overall, the Townville Submarket's new household market is considered adequate largely due to a combination of household formation trends and demographic projections suggesting an increase in consumer demand. However, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is considered inadequate because of the Submarket's relatively high rate of cost-burdened renter households.

STARTER HOME & DOWNSIZING MARKETS — The Townville Submarket's starter and downsizing markets will likely be positively impacted by household formation trends that show an increase in the overall number of two-person family households. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 may translate into reduced consumer demand for starter homes, as residents within this age range are mostly likely to constitute those within this consumer segment. However, an increase in the population of those over age 65 is a sign for growing consumer demand in the downsizing market.

The healthy share of single-family homes within the Titusville Submarket will benefit both the starter and downsizing markets since consumers within these segments often prefer this type of home. However, the Submarket lacks accessible multi-unit structures of quality construction, which are also attractive to many senior couples looking to downsize. Comparisons between the composition of households and housing units by size suggests that the Submarket has a shortage of two-bedroom homes but an abundance of three-bedroom housing units. The Submarket's supply of two- and three-bedroom homes is critical for supporting the needs of most consumers within the starter and downsizing market segments. However, consumers within the starter and downsizing home segments will have to be content with the Submarket's relatively old housing stock, of which just over one-quarter was built prior to 1940. This significant concentration of

THE TOWNVILLE SUBMARKET'S HOUSING ECOSYSTEM:

older homes could present either financial or physical burdens on younger and older buyers alike. Another challenge may come from the Townville Submarket's proportionally larger share of homes vacant from "other" reasons when compared against the submarket average as the presence of such structures may be a sign of disinvestment issues.

Projections that forecast household income will increase at a strong rate provide support for consumer stability within both the starter and downsizing markets. Less optimistically, the Submarket's median home value is well below the county-wide figure and appreciation has been flat over recent years. The combination of relatively low median home values and household income projections may be reflected in real-estate loan activity across the Townville Submarket, which has been more investment oriented than the submarket average overall with higher portion of originations for home purchases.

Overall, the Townville Submarket's starter home market is considered adequate largely as the result of household formation trends suggesting an increase in consumer demand. However, if demographic projections hold true, starter home demand could decline with dwindling numbers of individuals between the ages of 15 and 34. Additionally, projections showing an increase in household income paired with relatively low median home values suggest that the ability of a household participating in the Submarket's starter home market to transition into the move-up segment may be adequate. Household formation trends also suggest an increase in the demand for downsizing homes, with demographic projections that show gains in the number of senior citizens indicating that future demand for this housing segment may be strong. Therefore, the Submarket's downsizing market segment is adequate, and the ability to transition from this segment and into a senior living accommodation is also adequate.

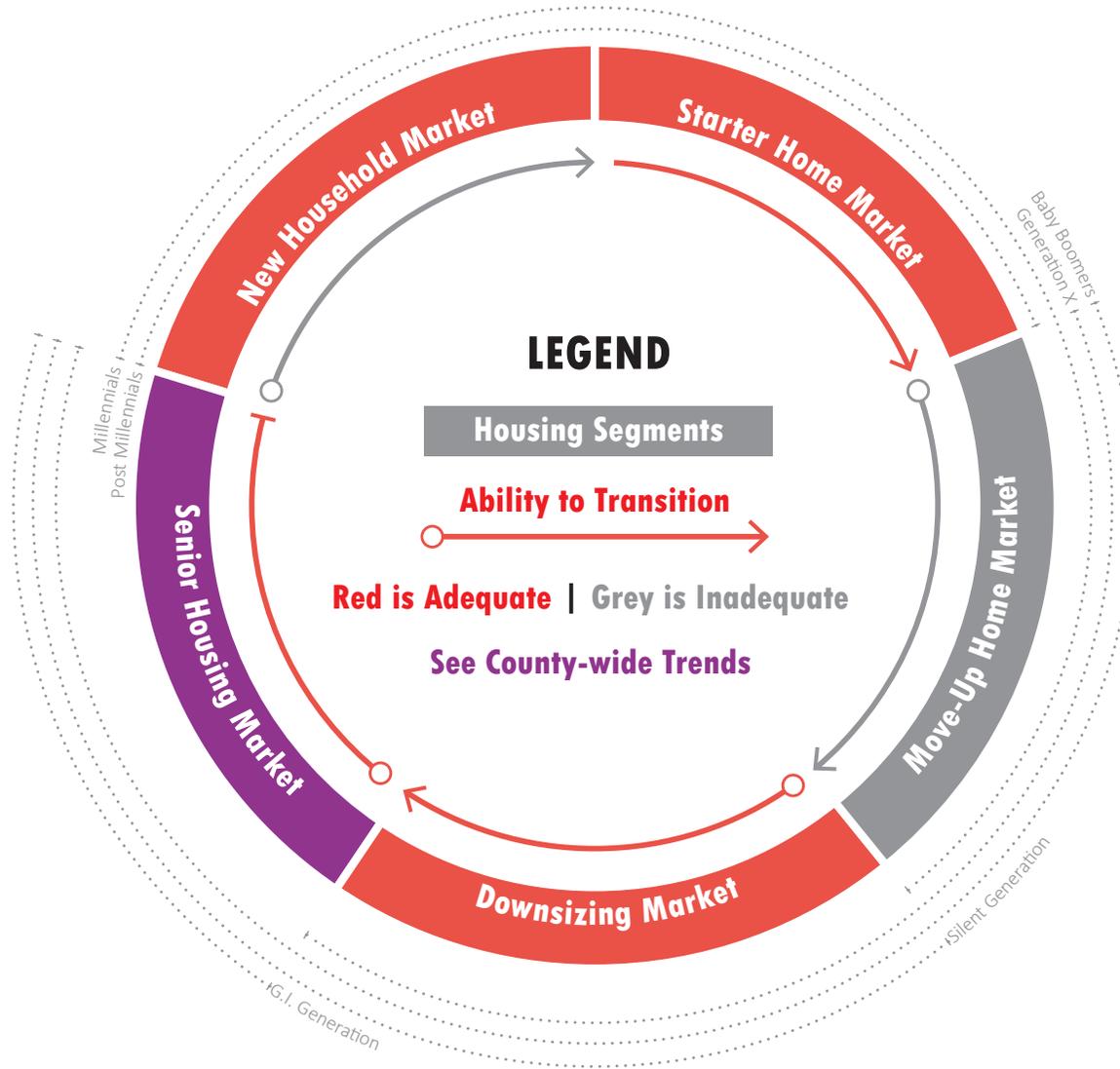
MOVE-UP MARKET – The move-up housing market within the Townville Submarket will likely be negatively impacted from household formation trends that show a decline in overall number of family households comprised of at least three members. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range may translate into reduced consumer demand for move-up homes, as residents within this age block are mostly likely to constitute those within this consumer segment. The combination of household formation trends and population projections suggest that the demand for move-up housing will decline.

Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by strong gains in household income if such projections hold up. Real-estate loan originations have been more investment oriented overall even as the Submarket's median home value lags behind the county's overall figure. Comparisons between the composition of households and housing units by size suggests that the Submarket has an abundance of three- and four-bedroom homes along with an adequate stock of five-or-more-bedroom houses. However, consumers must contend with the Submarket's relatively old housing stock, of which more than a quarter was built prior to 1940.

Overall, the Townville Submarket's move-up market is considered inadequate largely due to a combination of household formation trends and demographic projections that suggest a decline in consumer demand. Despite more investment oriented real-estate loan originations, limited consumer demand may make it difficult for households currently participating in the move-up market to transition into the downsizing segment. As a result, this transition is considered inadequate.

SENIOR HOUSING MARKET – Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE TOWNVILLE SUBMARKET'S HOUSING ECOSYSTEM:



THE TITUSVILLE SUBMARKET

Comprising much of the southeastern corner of Crawford County, the Titusville Submarket includes three municipalities – Oil Creek Township, Hydetown Borough, and the City of Titusville. The Titusville Submarket is adjacent to the Townville and Spartansburg submarkets within Crawford County and shares a border with Venango and Warren Counties.

A HOUSING ECOSYSTEM ANALYSIS OF THE TITUSVILLE SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

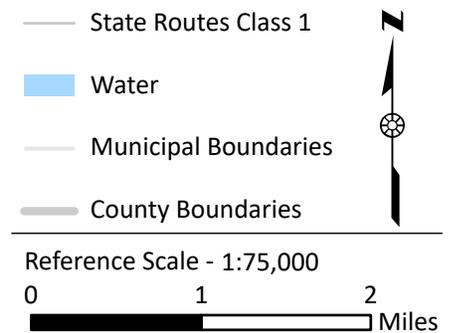
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚡). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

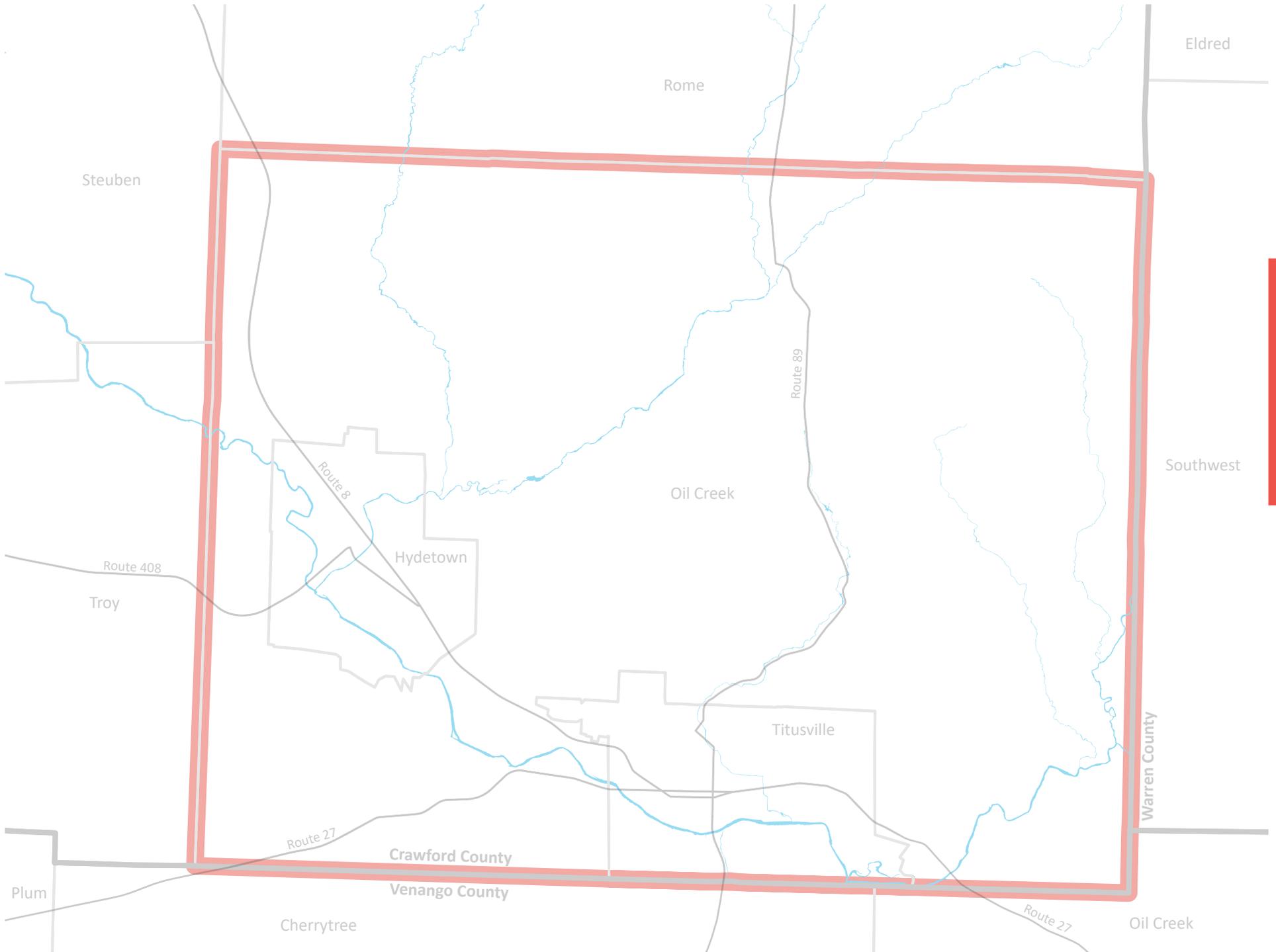
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Titusville Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



TITUSVILLE SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and the relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends for residents living within the Titusville Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE TITUSVILLE SUBMARKET —

The map on the next page uses dots to represent where residents living within the Titusville Submarket work. From this map, it is apparent that the City of Titusville contains a significant portion of jobs that are filled by local residents. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Titusville Submarket produces a job-to-housing ratio of 1.06, which lies nicely within the beneficial range.

The radar graph on the bottom left displays the distance and direction of where Titusville Submarket residents work. The dark red wedges of the graph demonstrate those commuting less than ten miles; however, a larger share of residents travel beyond ten miles to reach work. Live-work observations within the Titusville Submarket demonstrate somewhat split commuter trends with more residents leaving the Submarket for work than those both living and working inside. Many Titusville Submarket residents travel to jobs in Venango and Erie counties.

-  Interstate Highways
-  U.S. Routes
-  County Boundaries
-  State Boundaries

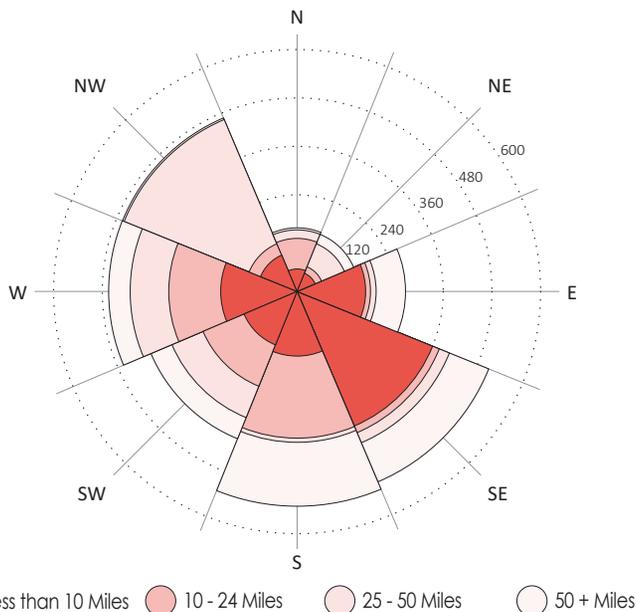


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE TITUSVILLE SUBMARKET RESIDENTS WORK



38.2%

of Titusville Submarket residents work at a location **inside the submarket.**

47.3%

of Titusville Submarket residents work inside **Crawford County.**

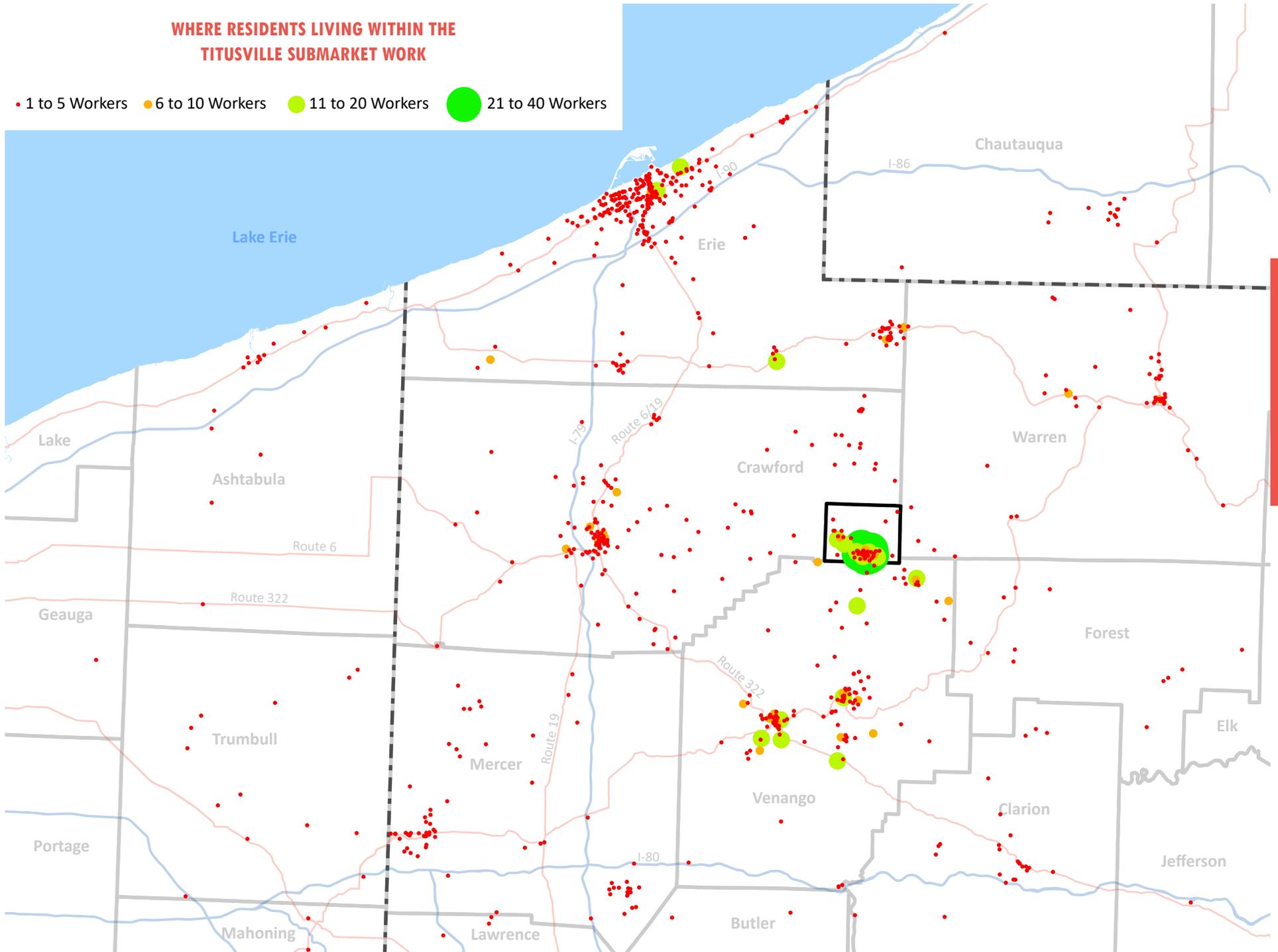
52.7%

of Titusville Submarket residents work outside **Crawford County.**

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

WHERE RESIDENTS LIVING WITHIN THE TITUSVILLE SUBMARKET WORK

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



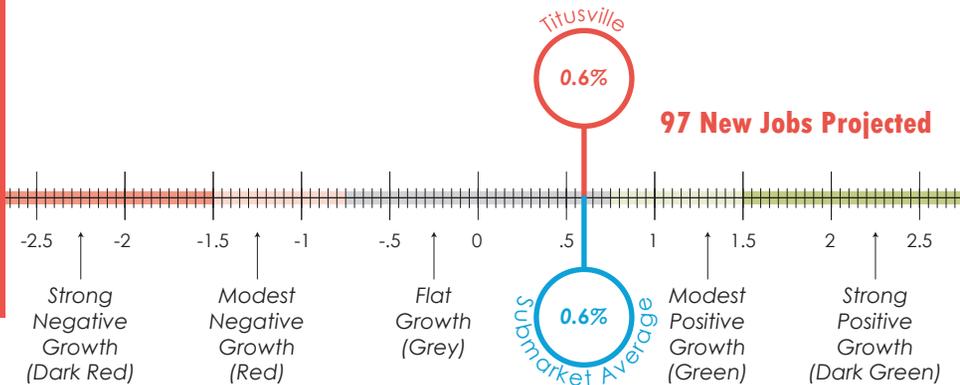
TITUSVILLE SUBMARKET

JOB GROWTH ANALYSIS:

🔧 JOB GROWTH —

From the graph below, the Titusville Submarket’s 0.6% projected annual job growth rate is equal to the submarket average of 0.6%. However, it is important to recognize that this rate lies within the “flat growth” range. Recognizing this, it can be assumed that projected job growth alone within the Titusville Submarket will not provide workers additional employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



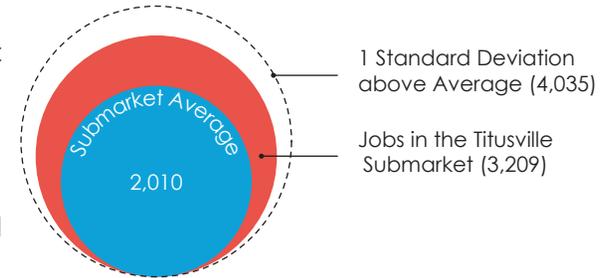
Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

👤 HOUSEHOLD INCOME CHANGE —

Despite flat job growth trends, from the projected change in household income displayed in the graph on the bottom left, the Titusville Submarket is expected to experience a modest-to-strong rate of household income growth. An increase in household income will bolster the stability of existing households while opening up new housing opportunities for others.

📊 TOTAL JOBS —

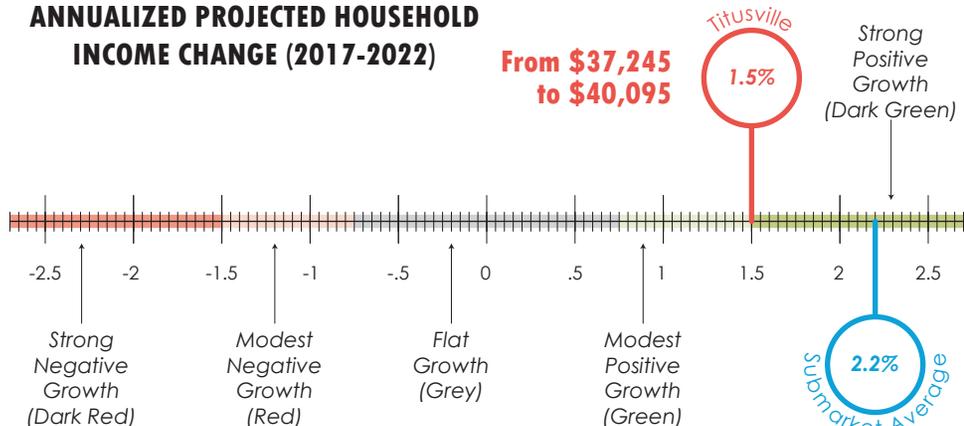
To explore the magnitude of the Titusville Submarket’s employment base, we compared the number of jobs inside the Submarket to the average number of jobs located within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average value of jobs present within a submarket. If the Titusville Submarket contained more jobs than two standard deviations above the submarket average, then it was considered as a job center. From the graphic above, the Titusville Submarket contains more jobs than the submarket average but doesn’t deviate significantly above the average. Although jobs within the Submarket provide important opportunities for local residents, the Titusville Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

In summary, although the Titusville Submarket is projected to have a flat job growth rate, it is expected to experience a moderate-to-strong household income growth rate. Such household income growth may bolster housing market stability. Commuter trends show that Submarket residents are split between working within the Submarket and working elsewhere. Additionally, the Titusville Submarket alone is not a job center and therefore relies significantly on the productivity and growth of its surrounding region.

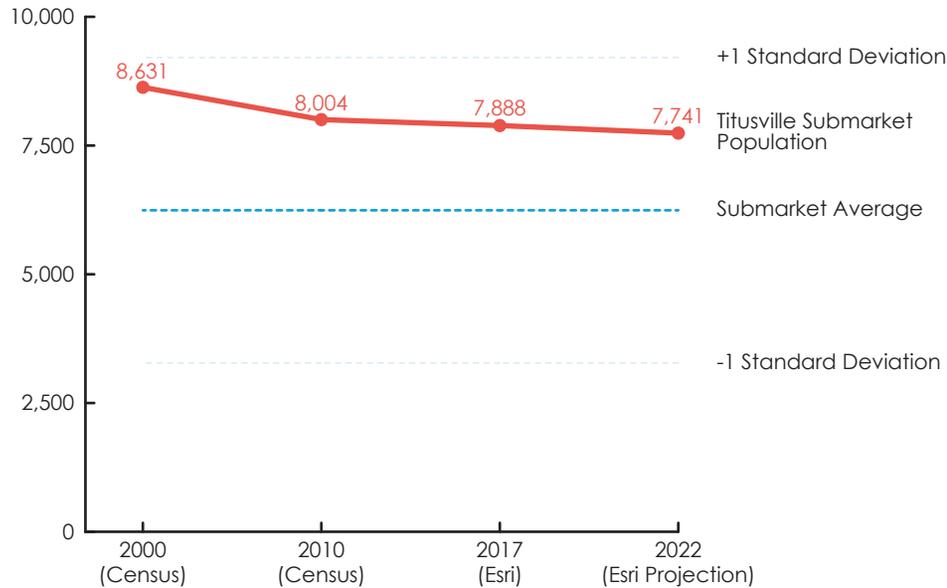
ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)



Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

POPULATION GROWTH ANALYSIS:

TITUSVILLE SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers, which leads to a submarket’s total population. Population growth within the Titusville Submarket would directly lead to household formation and increased housing demand. Conversely, stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH –

As demonstrated within the graph on the left, the population of the Titusville Submarket has declined since 2000. This decline suggests that population growth is not driving the demand for housing within the Submarket.

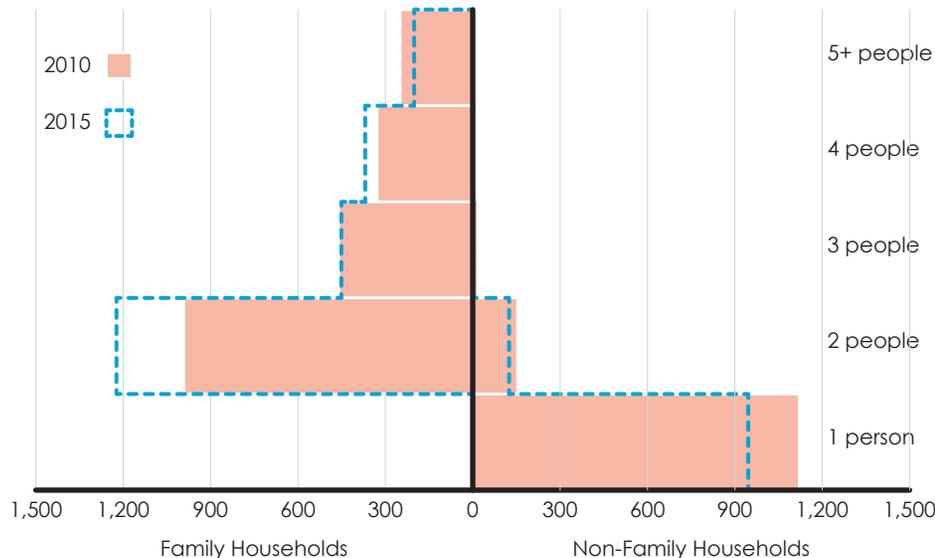
HOUSEHOLD FORMATION –

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed, demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Titusville Submarket households by size between 2010 and 2015. The Titusville Submarket experienced a decline in one- and two-person non-family households between 2010 and 2015 while simultaneously seeing an increase in two- and four-person family households. Such household formation trends suggest a decline in the demand for rental units, since one-person households are less likely to be homeowners, with a potential increase in the demand for starter homes and move-up housing.

TITUSVILLE SUBMARKET HOUSEHOLD FORMATION TRENDS



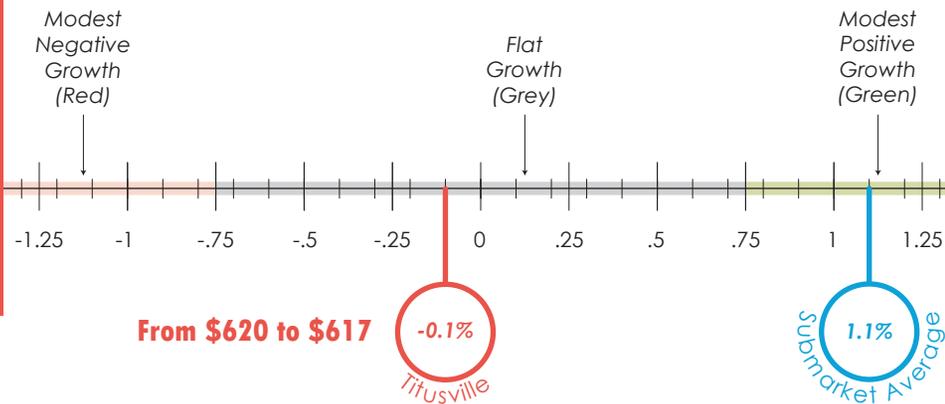
Source: U.S. Census

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Titusville Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Despite slight fluctuations in rent prices and home values, both represent flat growth.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden, or “affordability,” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30% of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Titusville Submarket with comparisons to Crawford County and the submarket average. We see that the Titusville Submarket struggles with more cost-burdened renter households than other submarkets and the county.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



48.7% of Titusville Submarket Renters
(730 Households)

41.3% of Crawford County Renters

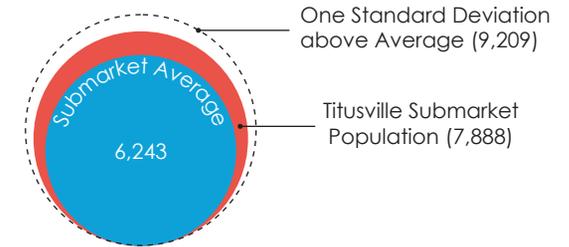
34.3% Submarket Average

Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

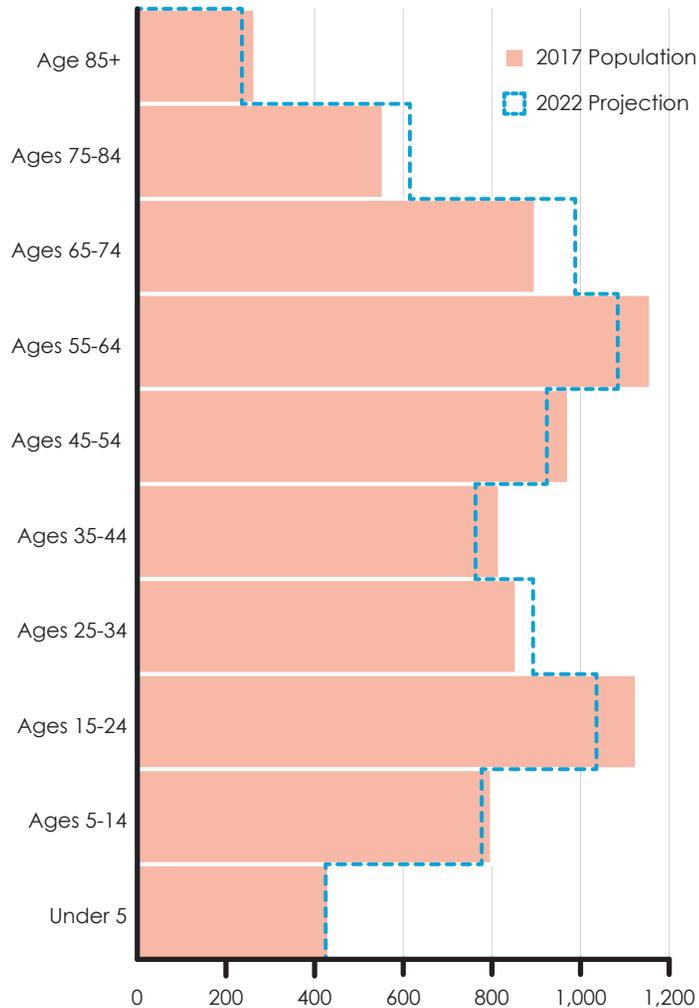
TOTAL POPULATION –

The cycling of households between different homes creates some of the housing demand within a community. To understand this type of housing demand, we established whether the Titusville Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average population living within a submarket. If the Titusville Submarket contained more residents than one standard deviation above the submarket average, then it was considered a regional population center.



Source: Esri, Retrieved 2017

TITUSVILLE SUBMARKET POPULATION PYRAMID & PROJECTION



Source: Esri, Retrieved 2018

From the graphic shown on the right, although the Titusville Submarket is more populated than the submarket average, its population is less than one standard deviation above the submarket average. By this standard, the Titusville Submarket is not a regional population center but a local population center instead.

Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the Submarket's relative population size, it can be inferred that the Titusville Submarket does not have the gravity to attract new residents on a speculative basis. Those moving into the Submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION –

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by its age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family-age residents will likely produce demand for additional "starter home" housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Titusville Submarket in 2017 with a projection to 2022. Age cohorts within the Titusville Submarket are projected to decline across the working age brackets comprising individuals ages 35-to-64 with a somewhat larger drop for those ages 15-to-24. These demographic changes may negatively impact the internal demand for both move-up (family-sized- 3-5 bedrooms) and smaller rental units (1-2 bedroom rentals- with the exception of senior friendly units). However, the slight increase projected for those ages 25-to-34 and among seniors ages 65-to-84 may produce local demand for both starter homes and downsizing homes.

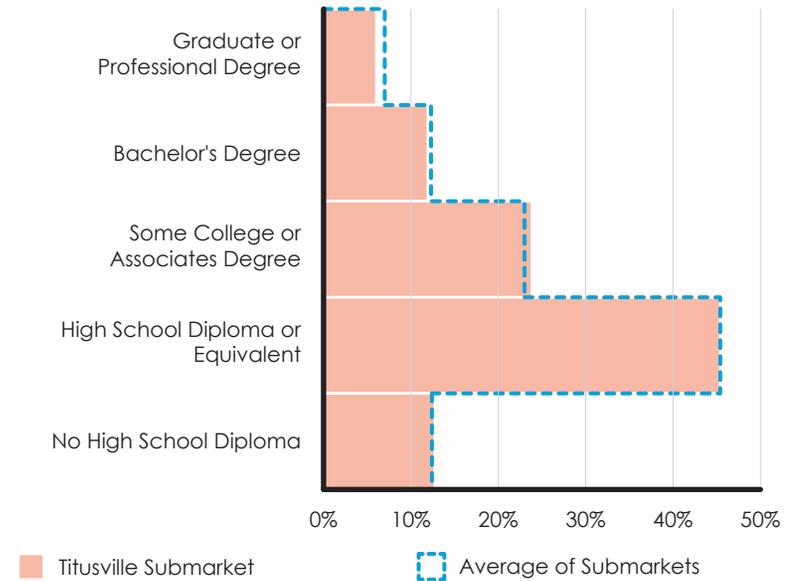
POPULATION GROWTH ANALYSIS:

The demographic trends and household formation trends addressed earlier suggest increased local pressure on the market for both starter and downsizing homes. Furthermore, growth in older age brackets suggest that many new two-person households within the Submarket may be formed by seniors after their children have moved out. The combination of these trends appear consistent with the rough finding that rental prices have slightly declined while home values have fared better.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Titusville Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Titusville Submarket is about as educated as the submarket average with the minor exception that the area contains a lesser proportion of those holding a bachelor's degree or higher. The Titusville Submarket also contains a slightly higher proportion of individuals holding associates level degrees. Due to the Titusville Submarket's similar educational attainment to the submarket average, no unique conclusions can be gathered.

TITUSVILLE SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

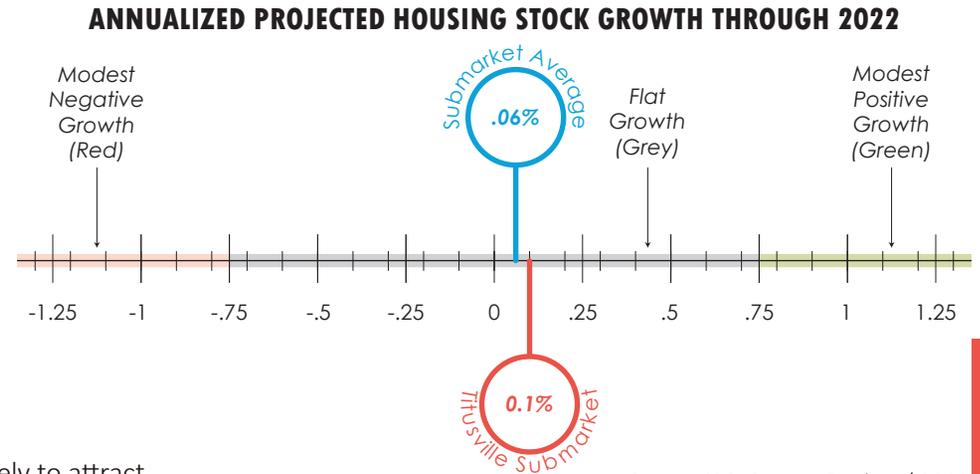
In summary, although the Titusville Submarket contains a higher population than the submarket average, it is only a local population center. The Titusville Submarket has been experiencing a decline in population, which is projected to continue into 2022, leaving housing demand largely to the cycling of existing residents. Household formation trends within the Submarket suggest a decline in the demand for one- and two-bedroom rental units along with an increase in demand for starter and downsizing home units. This trend is also supported by projected variations in age demographics within the Submarket. Titusville Submarket household formation trends are also reflected in fluctuations observed in rent prices, which have slightly declined, and home values, which have increased only barely. However, it should be noted that changes in both rent prices and home values have lied within the “flat growth” range since 2010. Despite flat rent prices and a projected modest-to-strong household income growth rate, nearly half of all Titusville Submarket renters are cost burdened - a barrier that might inhibit home ownership. Overall, the Titusville Submarket is about as educated as the average of other submarkets.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and the relationships between its influencers, which leads to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

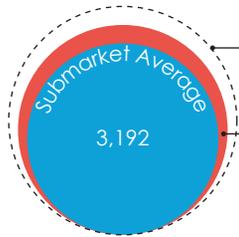
The graph on the right presents the projected housing stock growth rate for the Titusville Submarket. Although within the flat growth range, the Submarket's rate is similar to the submarket average.



Source: U.S. Census, Retrieved 2018

TOTAL HOUSING STOCK —

Larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of observable market demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Titusville Submarket's housing stock, we compared the number of housing units located within the Submarket to the average number of housing units within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average number of housing units within a submarket. From the graphic on the left, we see that the Titusville Submarket has more housing units than the submarket average but does not deviate significantly above the average. Based on this analysis, it can be safely assumed that housing development within the Titusville Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

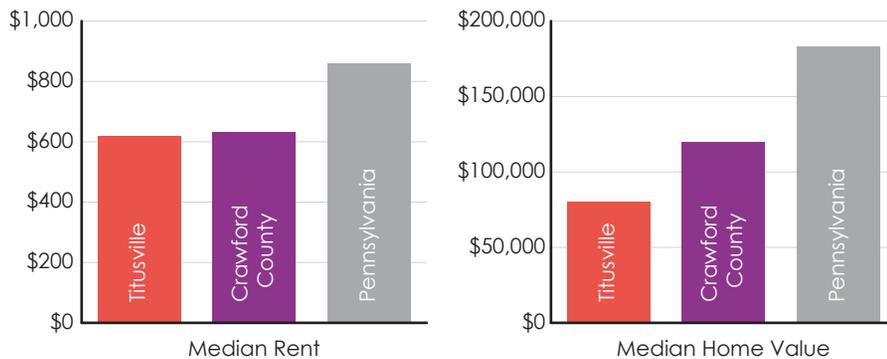


One Standard Deviation above Average (4,541)

Housing Units in the Titusville Submarket (3,836)

Source: Esri, Retrieved 2018

TITUSVILLE SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, the Titusville Submarket has a median rent price similar to Crawford County but much lower than Pennsylvania on the whole. For home values, the Titusville Submarket has lower home values than Crawford County and Pennsylvania. These figures alone will likely not encourage new housing investment in the Submarket.

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 —

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that nearly half of the Titusville Submarket housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. This finding is concerning given that the Titusville Submarket is projected to see growth in its population over the age of 65. In addition to the challenges older units present for seniors, many historic homes contain four or more bedrooms in response to past demographic and wealth trends, which may make them inadequate for many two-person family households- a growth consumer housing segment in the Titusville Submarket.

TITUSVILLE SUBMARKET HOUSING UNITS BUILT PRE-1940

47.3%



Homes Built Pre-1940

52.7%



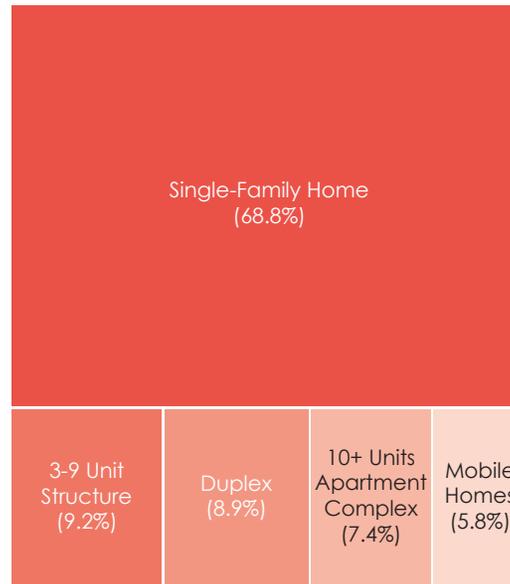
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

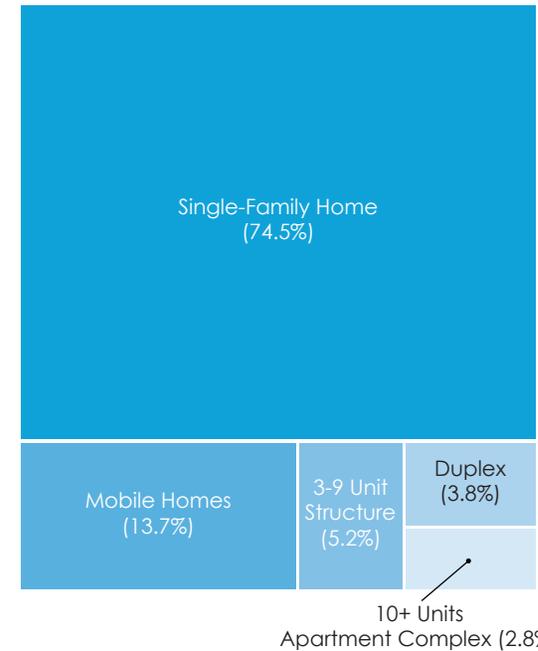
HOUSING BUILDING TYPES —

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Titusville Submarket is similar to the submarket average except that single-family homes make up a smaller proportion of the housing stock whereas duplex and apartment style structures are more represented. Significantly, mobile homes and associated types of housing structures comprise less than 6% of housing units within the Titusville Submarket, whereas this type of housing structure is the second most represented within the submarket average at nearly 14%.

TITUSVILLE SUBMARKET



SUBMARKET AVERAGE

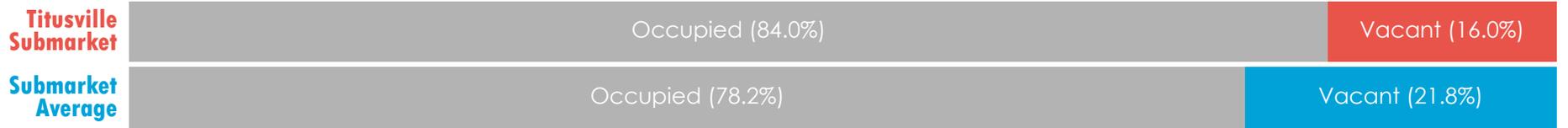


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

🍷 OVERALL VACANCY & VACANCY BY TYPE –

The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Titusville Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. Although still substantial at 16%, the Titusville Submarket reported a lower vacancy rate than the submarket average. However, nearly half of the Submarket’s vacancy results from “other” reasons, marking a substantial deviation from the submarket average. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market. This observation may indicate serious problems within the Titusville Submarket’s housing stock in that nearly half of all vacancy is unintentional. Such unintended vacancy may demonstrate a significant cycle of disinvestment as landlords struggle to profit from their properties and owners abandon them.

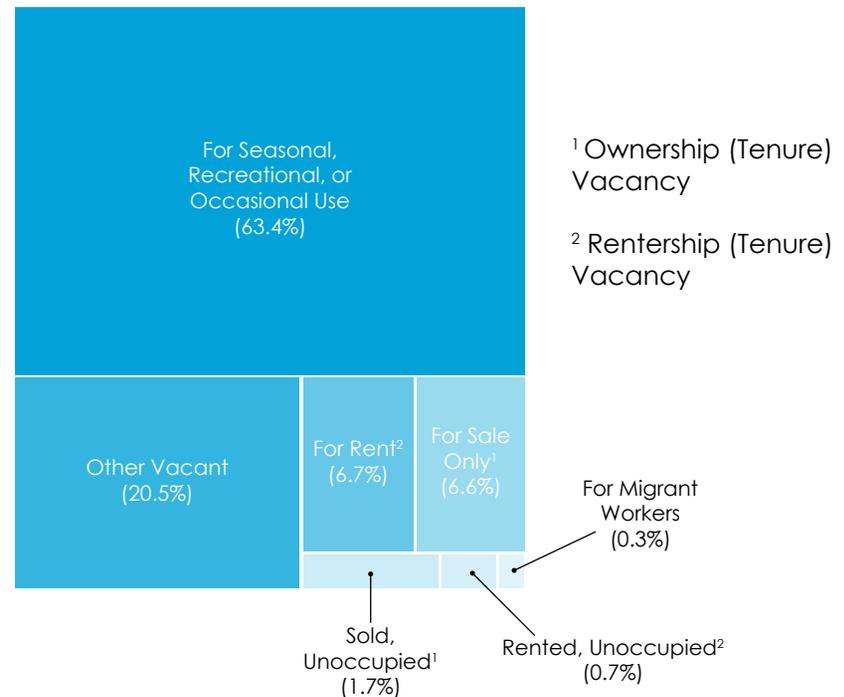


Source: U.S. Census, Retrieved 2018

TITUSVILLE SUBMARKET



SUBMARKET AVERAGE

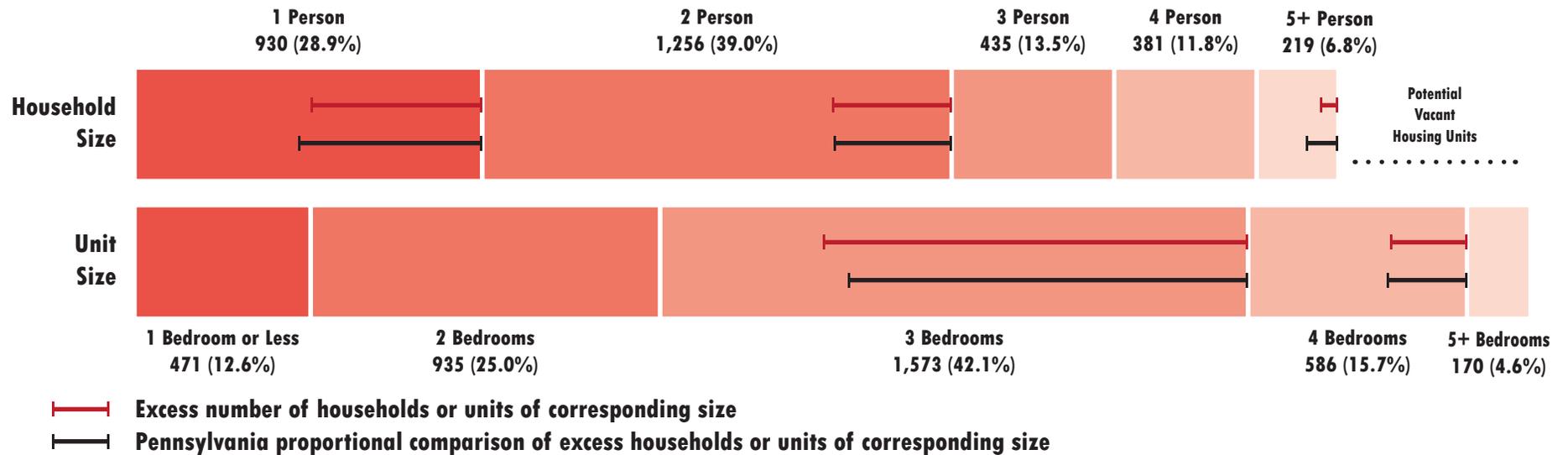


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

🍷 HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Titusville Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket's figures for comparison purposes. The Titusville Submarket exhibits a minor surplus of one-, three-, and five-or-more-bedroom housing units, along with relatively adequate supplies of two- and four-bedroom housing units. The Submarket's surplus of five-or-more-bedroom homes is a concern when considering household formation trends which show a decline in the number of family households composed of at least five members.



Source: U.S. Census, Retrieved 2018

TITUSVILLE SUBMARKET LOANS BY PURPOSE (2016)

🍷 THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right demonstrate the purpose of loan activity within the Titusville Submarket. From this graphic, it appears that loan activity within the Titusville Submarket has been more investment oriented, at least in 2016, than activity reported across the submarket average. This is apparent from a relatively large portion of loans for home improvement and purchase activities.

Titusville Submarket



Submarket Average



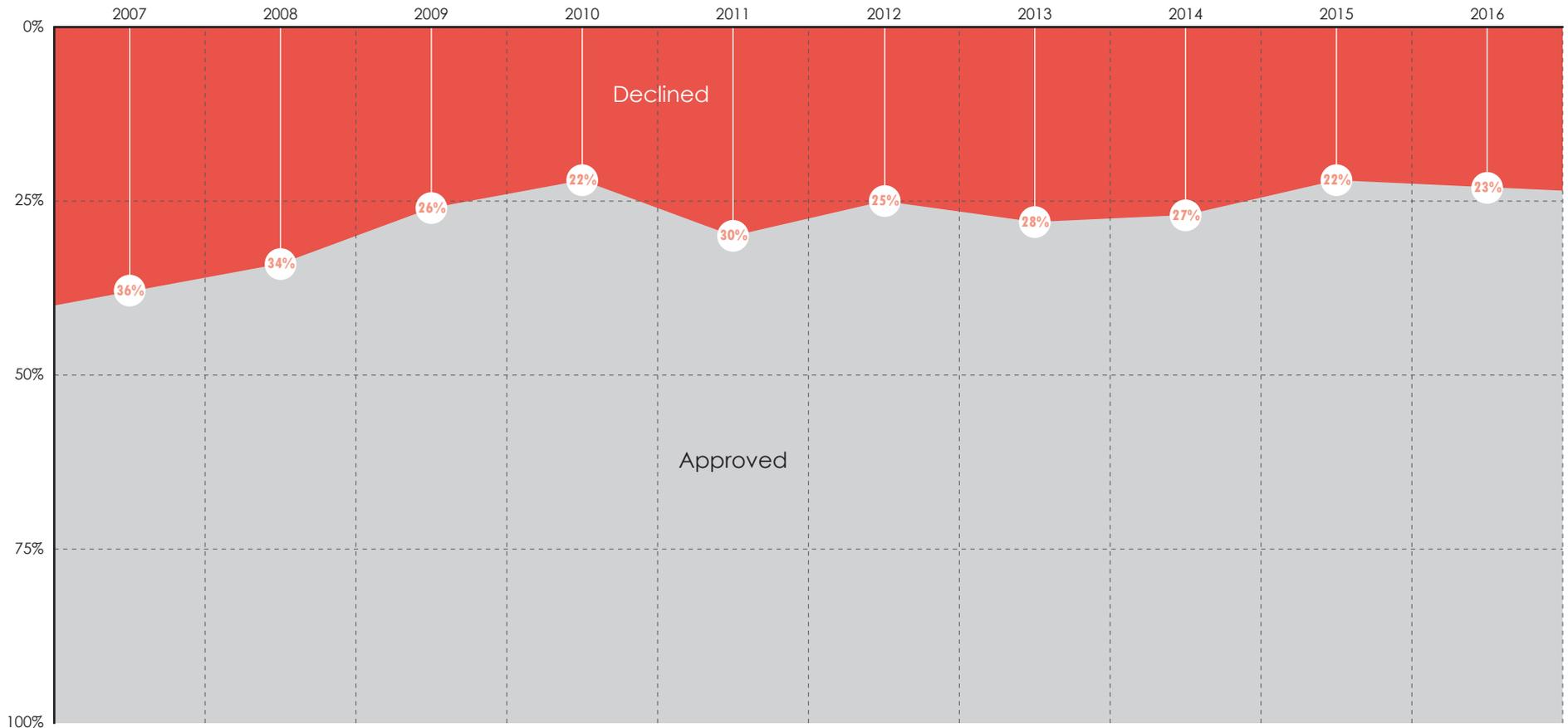
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Titusville Submarket, the rate of declined loans has hovered in the mid-twenties in recent years (see below) and appears to show slight improvement since 2007.

TITUSVILLE SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Titusville Submarket has a larger housing stock than the submarket average despite projections showing that housing development will be flat. Such projections are consistent with the finding that nearly half of all homes were built before 1940. The abundance of older homes may present challenges particularly for cost-burdened households and aging residents. Median rent prices are similar to those observed county-wide but median home values are well below the county's figure. The Titusville Submarket is experiencing a lower level of vacancy than the submarket average but with a much higher proportion of its vacancy coming from "other" reasons which signifies more abandonment and dilapidation. However, loan origination activity does show a more investment oriented trend than the submarket average and the rate of declined home loans has improved slightly. Comparisons between the composition of household and housing unit by size suggest that the Submarket has a surplus of homes containing five-or-more bedrooms.

OVERALL STATUS OF THE TITUSVILLE HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

Despite containing more jobs than the submarket average, live-work observations show that the majority of the Titusville Submarket's workforce relies on employment opportunities in nearby job centers. Specifically, many workers living within the Submarket commute to jobs located in Erie and Venango counties. Such observations are unlikely to change given projections that show a flat job growth rate in the Titusville Submarket. Despite these observations, the Submarket's job-to-housing ratio is relatively balanced at 1.06, which lies within the beneficial range. This finding suggests that the Titusville Submarket contains a significant enough concentration of job opportunities such that it is not overly reliant on other job centers.

The overall educational attainment of residents living in the Titusville Submarket is comparable to the submarket average. This finding suggests that its labor force is economically competitive relative to other submarkets within Crawford County. Additionally, recent projections forecast modest-to-strong household income growth within the Submarket, which may support housing market stability in the future. Such projections may already be playing out on the ground as overall real-estate related loan originations within the Titusville Submarket have been more investment oriented than the submarket average, with higher proportions of overall originations for home improvements and purchases.

POPULATION TRENDS —

The Titusville Submarket is a local population center within Crawford County. However, the Submarket's total population has declined since 2000. Given this observation, it appears that population growth is not driving housing demand. Instead, much of the demand for housing within the Titusville Submarket may come from the cycling of existing households. Within the context of declining population, demographic projections forecast an overall decline in the population of youth and working age individuals within the Submarket but an increase in the population of senior citizens. In terms of household formation, non-family households comprised of either one or two members have declined in number while two-person family households have increased and those family households comprised of more than three members have remained flat.

THE HOUSING MARKET GENERALLY —

The Titusville Submarket contains a larger overall quantity of housing units than the submarket average. However, recent projections forecast that the development of new homes will be flat. Such projections are consistent with observations that growth in median rent prices and home values has been flat as well. Overall, median rent prices within the Titusville Submarket are similar to those observed county-wide, but median home values are well below the county's figure. In terms of affordability, the overall rate of cost-burdened renter households within the Submarket is much higher than the submarket average and even the combined rate for all of Crawford County. This finding suggests that renter households within the Titusville Submarket may have a more difficult time overall putting aside the savings necessary to make a down payment on a starter home.

Nearly half of the Titusville Submarket's housing stock was built prior to 1940, a finding that may translate into financial and physical challenges for all homeowners. Given the characteristics often associated with old homes, such as expensive renovation needs and limited accessibility for those with disabilities, the Submarket's concentration of older housing units may particularly burden consumers in the starter and downsizing home markets. Comparisons between the composition of households and housing units by size suggest that the Titusville Submarket has a surplus of homes with either three- or five-or-more-bedrooms. This surplus of larger housing units within the Submarket may also present both physical and financial challenges for two-person households, a growth segment, who may be faced with maintaining more space than what their needs require. Despite having an overall vacancy rate below the submarket average, the share of vacancy related to "other" reasons within the Titusville Submarket is disproportionately higher than the submarket average. "Other" vacancy is often unintentional, and a disproportionate presence of vacancy for other reasons within the Submarket is a sign of disinvestment.

THE TITUSVILLE SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Titusville Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Titusville Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment that constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — The Titusville Submarket's new household market will likely be negatively impacted by household formation trends that show a decline in the overall number of non-family households. This trend is accompanied by demographic projections that forecast a decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggests that the consumer demand within the new household housing market is in decline.

Projections that forecast that household income will increase at a modest-to-strong rate provide a sign for supporting the stability of the new household market. Comparisons between the composition of households and housing units by size suggests that the Titusville Submarket has a minor surplus of one-bedroom housing units along with an adequate supply of two-bedroom units. Such finding may benefit consumers entering the new household market as smaller housing units are typically suitable for those participating in this segment. Fortunately, the Titusville Submarket contains a higher share of multi-unit housing structures when compared to the submarket average. An abundance of multi-unit housing structures will support the Submarket's new household market as such buildings are often more accommodating to the needs of those participating within this consumer segment.

The combination of median rent prices just below those observed county-wide along with the flat growth of such prices both provide negative signs for suppliers participating in the Titusville Submarket's new household market. Furthermore, relatively lower rent prices do not appear to have translated into affordability for consumers, as the Submarket's overall rate of cost-burdened renter households is much higher than the already relatively high submarket average, which suggests that many renters are struggling to afford housing based on their income. Such observation indicates instability within the Submarket's new household marketplace.

Overall, the Titusville Submarket's new household market is considered inadequate largely due to a combination of household formation trends and demographic projections suggesting a decline in consumer demand. Additionally, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is also considered inadequate because of the Submarket's relatively high rate of cost-burdened renter households.

STARTER HOME & DOWNSIZING MARKETS — The Titusville Submarket's starter and downsizing markets will likely be positively impacted by household formation trends that show an increase in the overall number of two-person family households. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 may translate into reduced consumer demand for starter homes as residents within this age range are mostly likely to constitute those within this consumer segment. However, an increase in the population of those over age 65 is a sign for growing consumer demand in the downsizing market.

The healthy share of single-family homes within the Titusville Submarket will benefit both the starter and downsizing markets since consumers within these segments often prefer this type of home. However, accessible multi-unit structures of quality construction are also attractive to many downsizing senior couples, of which the Submarket may also have an abundant supply. Comparisons between the composition of households and housing units by size suggests that the Submarket has an adequate supply of two-bedroom homes along with a surplus of three-bedroom houses, which will likely support the needs of most consumers within the starter and downsizing market segments. However, consumers within the starter and downsizing home segments will have to content with the

THE TITUSVILLE SUBMARKET'S HOUSING ECOSYSTEM:

Submarket's relatively old housing stock, of which nearly half was built prior to 1940. This significant concentration of older homes could present either financial or physical burdens on younger and older buyers alike. Another challenge may come from the Titusville Submarket's proportionally larger share of homes vacant from "other" reasons when compared against the submarket average as the presence of such structures may be an indicator of disinvestment issues.

Projections that forecast household income will increase at a modest-to-strong rate provide support for consumer stability within both the starter and downsizing markets. Less optimistically, the Submarket's median home value is well below the county-wide figure and appreciation has been flat over recent years. The combination of relatively low median home values and household income projections may be reflected in real-estate loan activity across the Titusville Submarket, which has been more investment oriented than the submarket average overall with higher portions of originations for home improvements and purchases.

Overall, the Titusville Submarket's starter home market is considered adequate largely as the result of household formation trends suggesting an increase in consumer demand. However, if demographic projections hold true, starter home demand could decline with dwindling numbers of individuals between the ages of 15 and 34. Additionally, the combination of projections showing an increase in household income suggest that the ability of a household participating in the Submarket's starter home market to transition into the move-up segment may be adequate. Household formation trends also suggest an increase in the demand for downsizing homes, with demographic projections that show gains in the number of senior citizens indicating that future demand for this housing segment may be strong. Therefore, the Submarket's downsizing market segment is adequate, and the ability to transition from this segment and into a senior living accommodation is also adequate.

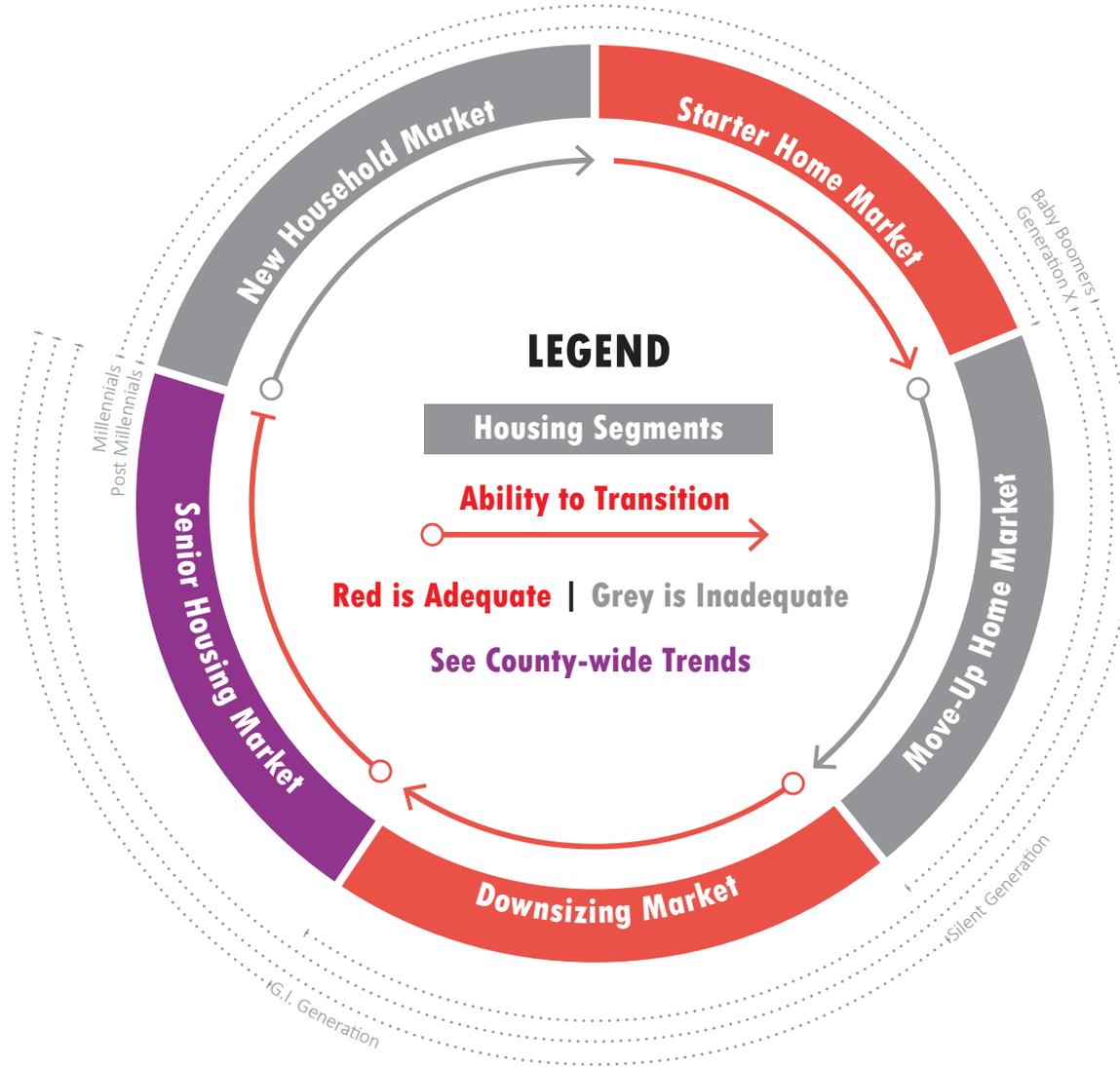
MOVE-UP MARKET – The move-up housing market within the Titusville Submarket will likely benefit from household formation trends that show a stable overall number of family households comprised of at least three members. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range is problematic for the move-up market as these residents are mostly likely to participate in this consumer segment. The combination of household formation trends and population projections suggest that the demand for move-up housing will be stagnant.

Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by modest-to-strong gains in household income if such projections hold up. Real-estate loan originations have been more investment oriented overall even as the Submarket's median home value lags behind the county's overall figure. Comparisons between the composition of households and housing units by size suggests that the Submarket has an abundance of three-bedroom homes, an adequate stock of four-bedroom houses, and a surplus of five-or-more-bedroom homes. However, consumers must contend with the Submarket's relatively old housing stock, of which nearly half was built prior to 1940.

Overall, the Titusville Submarket's move-up market is considered inadequate largely due to a combination of household formation trends and demographic projections that suggests stagnant consumer demand. Despite more investment oriented real-estate loan originations, limited consumer demand may make it difficult for households currently participating in the move-up market to transition into the downsizing segment. As a result, this transition is considered inadequate.

SENIOR HOUSING MARKET – Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE TITUSVILLE SUBMARKET'S HOUSING ECOSYSTEM:





CENTRAL REGION

CAMBRIDGE SPRINGS

COCHRANTON

MEAD

MEADVILLE

SAEGERTOWN

VERNON

THE CAMBRIDGE SPRINGS SUBMARKET

Comprising the northern reaches of central Crawford County, the Cambridge Springs Submarket contains six municipalities including Cussewago, Venango, Cambridge, and Rockdale townships and the broughs of Venango and Cambridge Springs. The Cambridge Springs Submarket is adjacent to the Springboro-Conneautville, Saegertown, Mead, and Spartansburg-Bloomfield Submarkets within Crawford County and shares its northern border with Erie County.

A HOUSING ECOSYSTEM ANALYSIS OF THE CAMBRIDGE SPRINGS SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

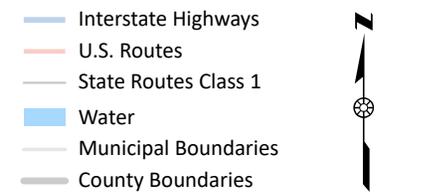
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚙️). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

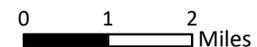
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (📊). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Cambridge Springs Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

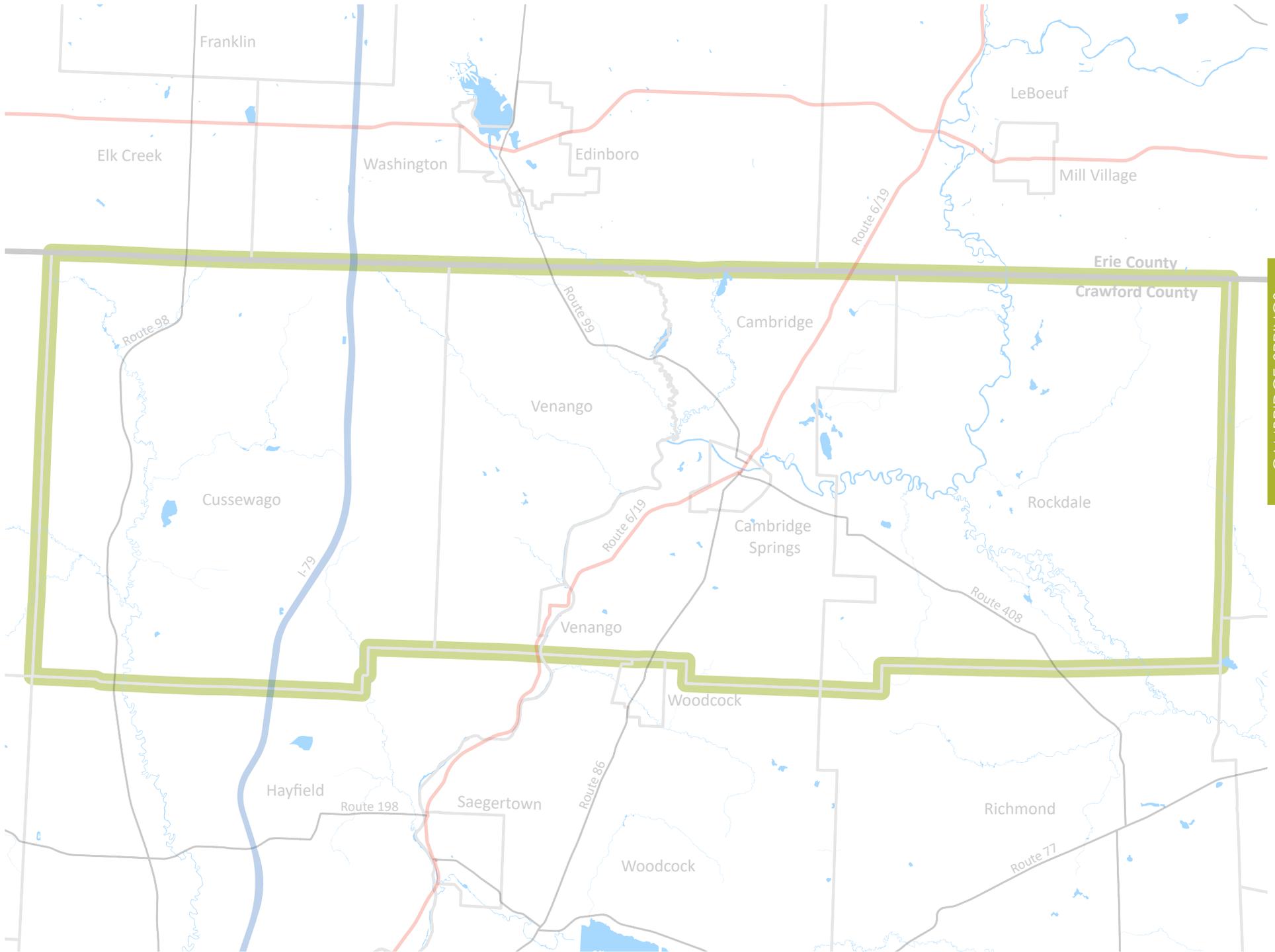
A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Reference Scale - 1:125,000



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



CAMBRIDGE SPRINGS
SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends for residents living within the Cambridge Springs Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE CAMBRIDGE SPRINGS SUBMARKET —

The map on the next page uses dots to represent where residents living within the Cambridge Springs Submarket work. From this map, it is apparent that many workers living within the Submarket work at locations outside the Submarket. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Cambridge Springs Submarket produces a job-to-housing ratio of 0.57, which lies below the beneficial range.

The radar graph on the bottom left displays the distance and direction of where Cambridge Springs Submarket residents work. The dark green wedges of the graph demonstrate those commuting less than ten miles. A great majority of residents travel beyond ten miles to reach work. Live-work observations within the Cambridge Springs Submarket demonstrate that most residents treat the Submarket as a bedroom community and commute to work elsewhere. The radar graph also shows a clear north-and-south commuter pattern which highlights the importance of the Meadville and Erie job markets in the lives of Submarket residents. A breakdown of such commuter trends is presented on the bottom right, and the map on the next page shows that many Cambridge Springs Submarket residents rely heavily on locations off Interstate-79 and State Routes 6 and 19 for employment.

-  Interstate Highways
-  U.S. Routes
-  County Boundaries
-  State Boundaries

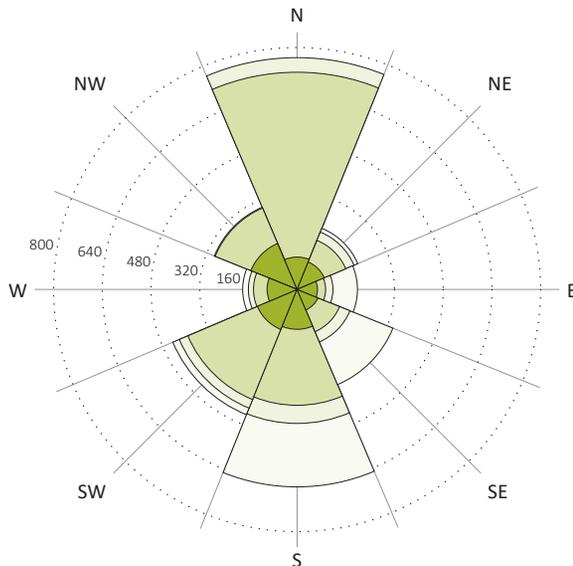


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE CAMBRIDGE SPRINGS SUBMARKET RESIDENTS WORK



-  Less than 10 Miles
-  10 - 24 Miles
-  25 - 50 Miles
-  50 + Miles

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

13.6%

of Cambridge Springs Submarket residents work at a location **inside the submarket.**

40.7%

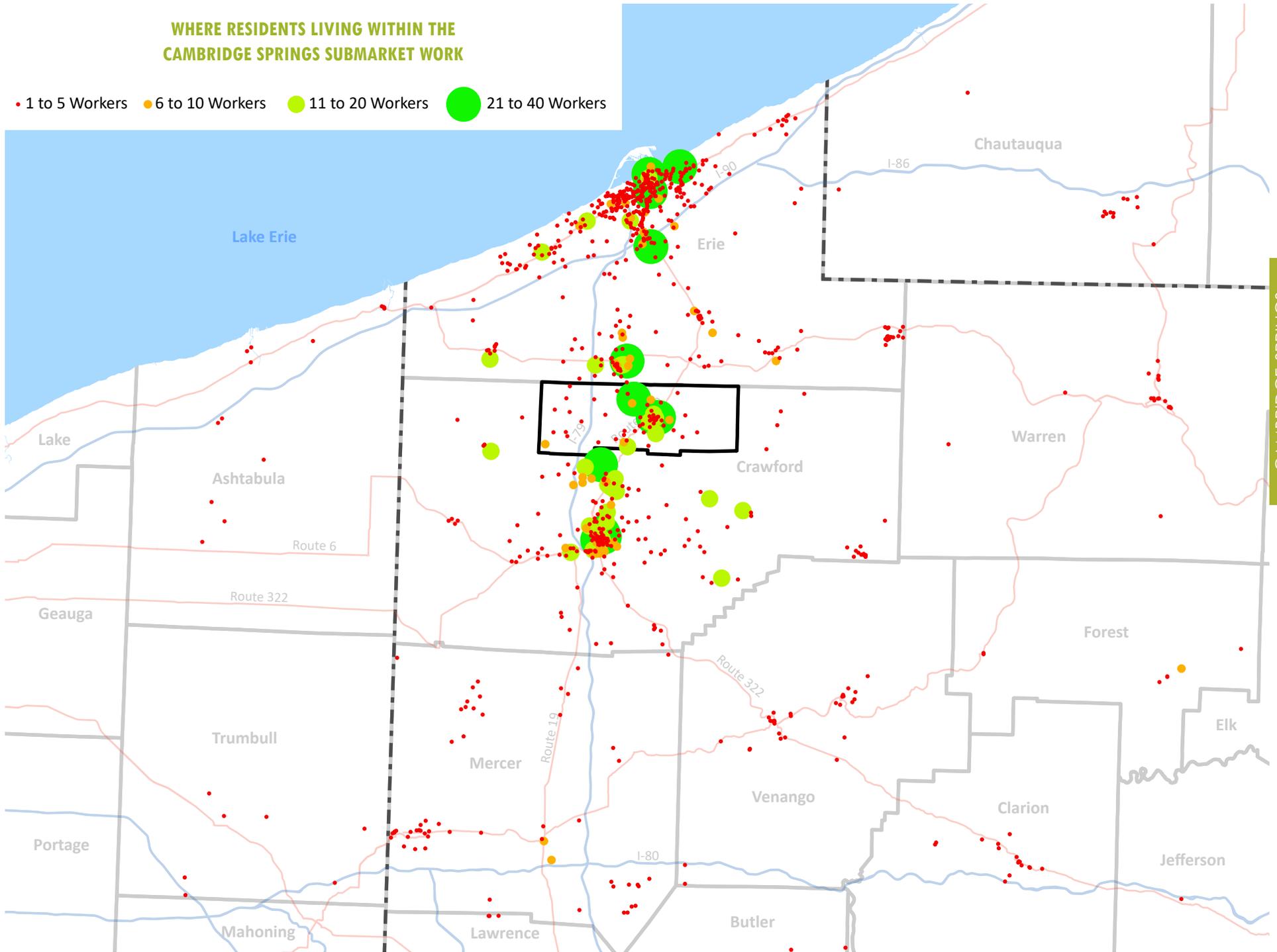
of Cambridge Springs Submarket residents work inside **Crawford County.**

59.3%

of Cambridge Springs Submarket residents work outside **Crawford County.**

**WHERE RESIDENTS LIVING WITHIN THE
CAMBRIDGE SPRINGS SUBMARKET WORK**

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



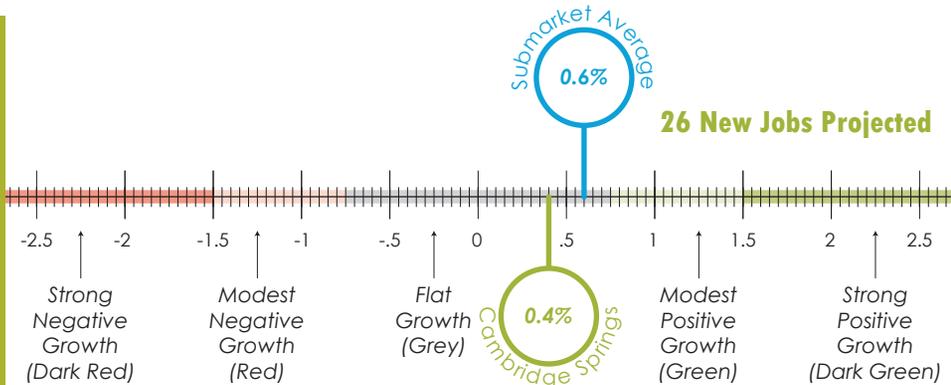
CAMBRIDGE SPRINGS
SUBMARKET

JOB GROWTH ANALYSIS:

⚙️ JOB GROWTH —

From the graph below, the Cambridge Springs Submarket's 0.4% projected annual job growth rate is below the submarket average of 0.6% and lies within the "flat growth" range. Recognizing this, it is unlikely that projected job growth within the Submarket will provide workers the extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



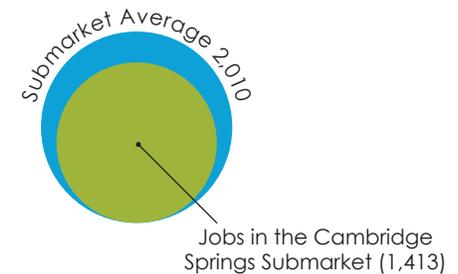
Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

👤 HOUSEHOLD INCOME CHANGE —

Despite flat job growth projections, from the graph on the bottom left, household income within the Cambridge Springs Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

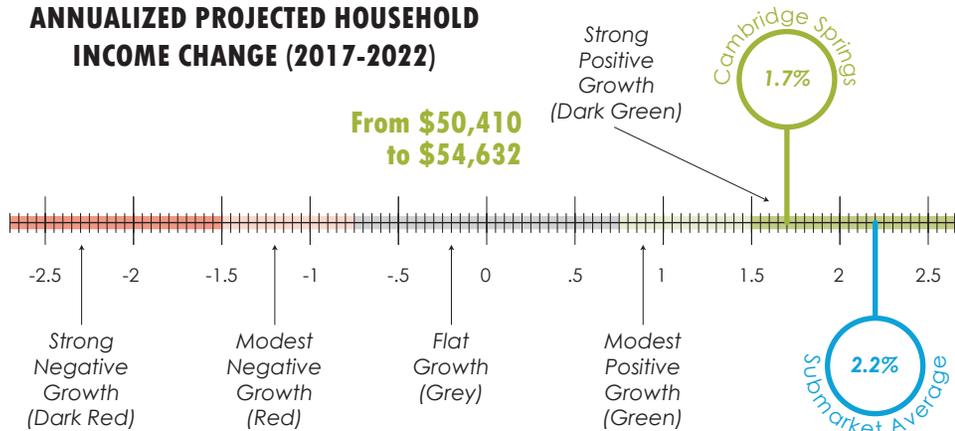
📈 TOTAL JOBS —

To explore the magnitude of the Cambridge Springs Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. From the graphic on the right, the Cambridge Springs Submarket contains fewer jobs than even the submarket average. This finding aligns with our earlier conclusion that the Cambridge Springs Submarket is more of a bedroom community than a job center. Although jobs within the submarket provide important opportunities for local residents, the Cambridge Springs Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)

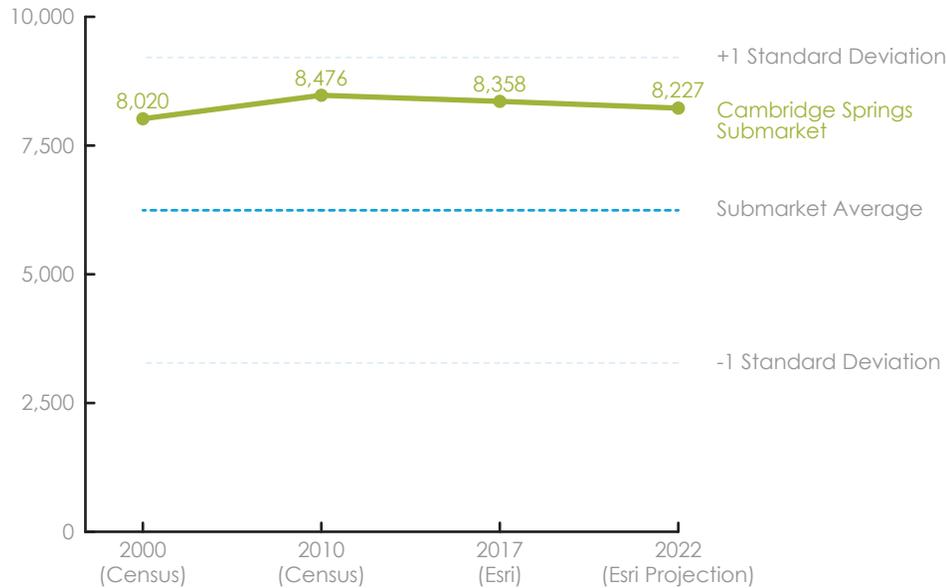


Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

In summary, although the Cambridge Springs Submarket is projected to have a flat job growth rate, it is expected to experience a strong household income growth rate. Such growth in household income may bolster housing market stability. However, the submarket is a bedroom community and therefore relies substantially on the productivity and growth of its surrounding region.

POPULATION GROWTH ANALYSIS:

CAMBRIDGE SPRINGS SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the Cambridge Springs Submarket would directly lead to household formation and increase housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

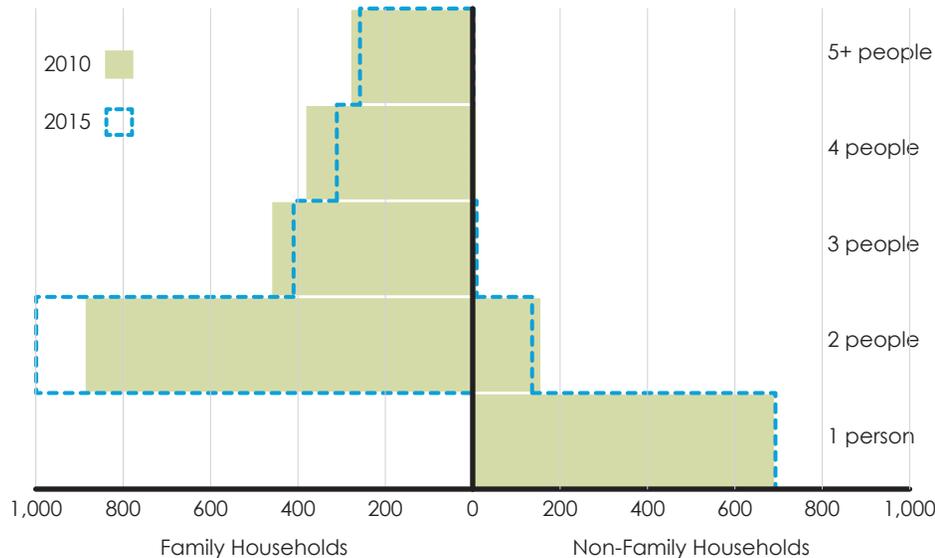
As demonstrated within the graph on the left, the population of the Cambridge Springs Submarket has increased since 2000. However, reports that show an increase in the Submarket's inmate population account for the difference. As such, population growth does not appear to be driving housing demand.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

CAMBRIDGE SPRINGS SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed, demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Cambridge Springs Submarket households by size between 2010 and 2015. In terms of non-family households, those comprised of a single individual held flat while those with two-people declined slightly. For family households, which constitute the bulk of the Submarket's household composition, those with two people saw a considerable increase while three, four, and five-or-more person households all declined. Such household formation trends suggest that the demand for small rental units should be stable while the demand for starter and downsizing homes may increase. Additionally, these trends suggest a decline in the demand for move-up housing.

Source: U.S. Census

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

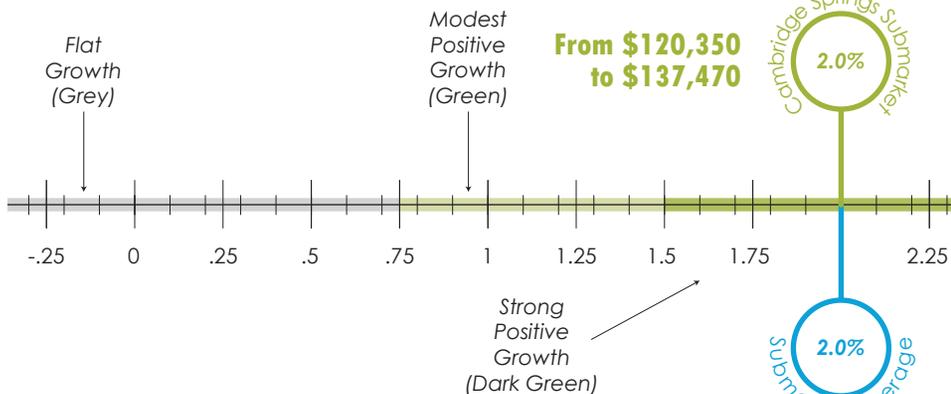
An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Cambridge Springs Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rent prices have held flat while home values have experienced strong positive growth.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Cambridge Springs Submarket with comparisons to Crawford County and the submarket average. We see that the Cambridge Springs Submarket has a similar proportion of cost-burdened renters to the submarket average and performs better than Crawford County on the whole.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



35.6% of Cambridge Springs Submarket Renters (200 Households)

41.3% of Crawford County Renters

34.3% Submarket Average

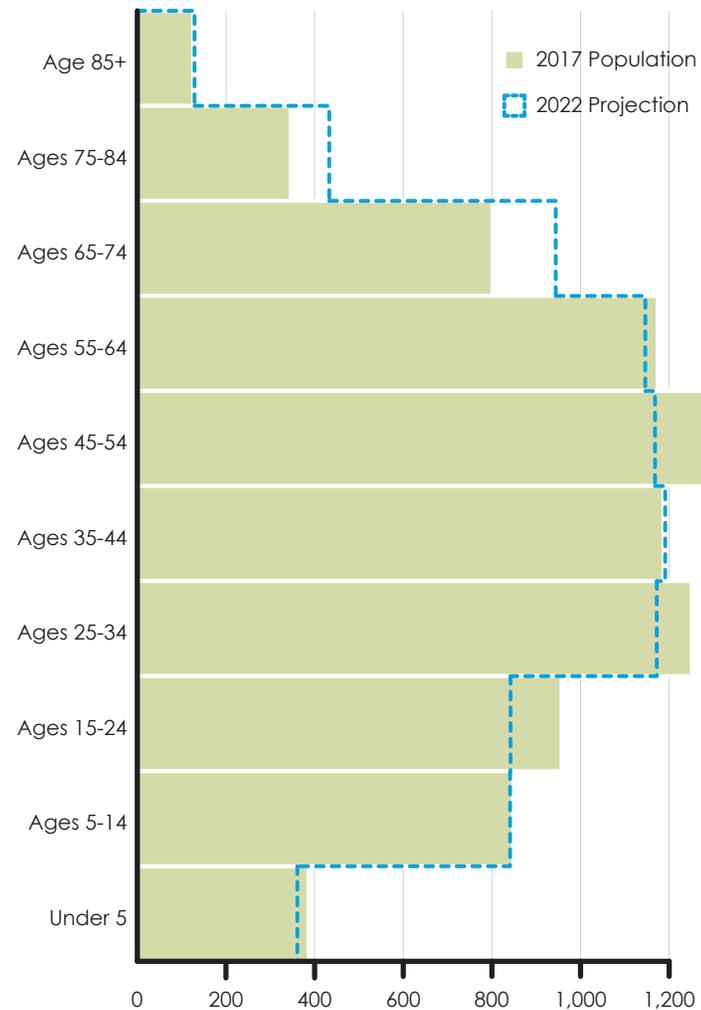
Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

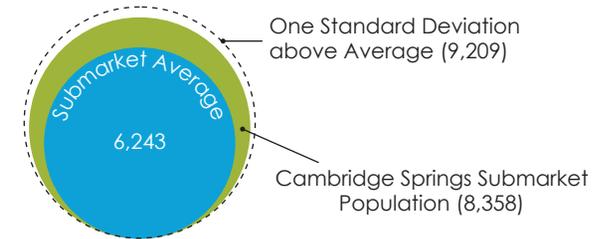
TOTAL POPULATION –

The cycling of households between different homes creates some of the housing demand within a community. To attempt to understand this type of housing demand, we established whether the Cambridge Springs Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average population living within a submarket. If the Cambridge Springs Submarket contained more residents than one standard deviation above the submarket average, then it was considered a regional population center.

CAMBRIDGE SPRINGS SUBMARKET POPULATION PYRAMID



Source: Esri, Retrieved 2018



Source: Esri, Retrieved 2017

From the graphic on the right, although the Cambridge Springs Submarket is more populated than the submarket average, its population is less than one standard deviation above the submarket average. By this standard, the Cambridge Springs Submarket is not a regional population center but a local population center instead. Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the Submarket's relative population size, it can be assumed that it does not have the gravity to attract new residents on a speculative basis. This assumption infers that those moving into the Submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION –

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by its age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional "starter home" housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Cambridge Springs Submarket in 2017 with a projection to 2022. Age cohorts within the Submarket are projected to decline across the working age brackets comprising individuals ages 15-to-64 with larger drops for those ages 15-to-34 and 45-to-54. Such projections suggest a decline in the demand for rental units, starter homes, and move-up housing. The population in age brackets 65-to-84 is projected to increase which may translate into demand for downsizing homes and senior living accommodations.

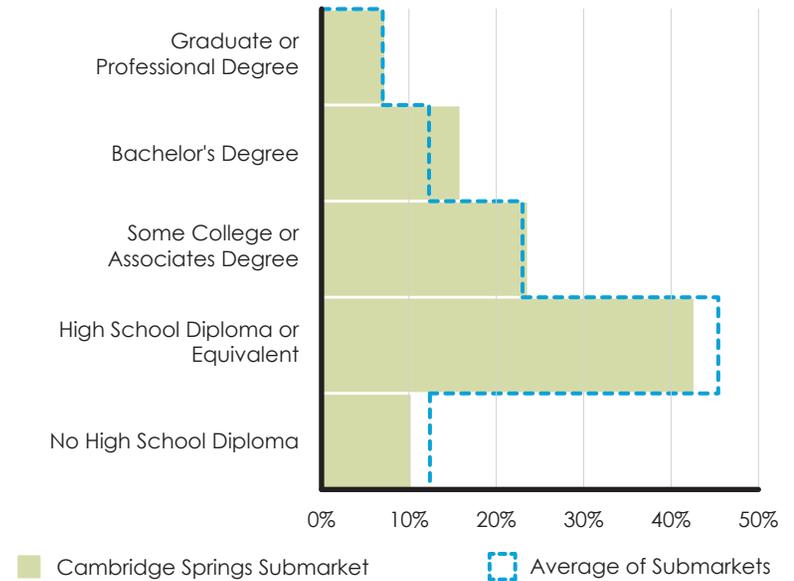
POPULATION GROWTH ANALYSIS:

The household formation trends addressed earlier suggest increased pressure on the market for both starter and downsizing homes. However, demographic projections that show growth in older age brackets suggest that many new two-person households within the Submarket may be formed by seniors after their children have moved out. The combination of these trends appear consistent with the rough finding that rental prices have been flat while home values have fared better.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Cambridge Springs Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Cambridge Springs Submarket is more educated than the submarket average with a higher portion of individuals holding bachelor's degrees along with a lower representation of those with only high school diplomas or no diploma. The Submarket's higher level of overall educational attainment may make it more economically competitive over the long run.

CAMBRIDGE SPRINGS SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

In summary, the Cambridge Springs Submarket is a local population center in Crawford County. The population of the Cambridge Springs Submarket has grown slightly on the aggregate since 2000, but its population growth rate still represents flat growth. Further research has uncovered that the number of state prisoners within the Cambridge Springs Submarket has doubled since 2000 which more than accounts for all observed overall population growth. When the Submarket's prisoner population is removed, it is actually losing population. The Submarket has seen a significant increase in two-person family households while family households with three or more people have declined. In terms of non-family households, those consisting of just a single person have held steady while those comprised of two people have declined slightly. Demographic trends within the Cambridge Springs Submarket show an overall decline across the working age population brackets along with an increase in the senior age population. The combination of household formation trends and demographic projections suggest that much of the new formation of two-person family households results from senior couples remaining at home after their children have moved out. In terms of educational attainment, the Cambridge Springs Submarket is significantly more educated than the submarket average.

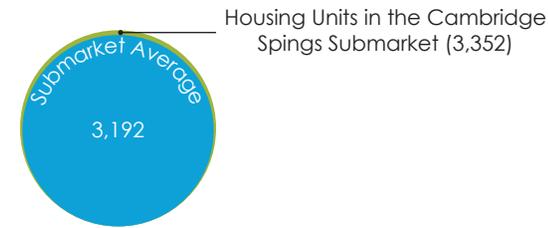
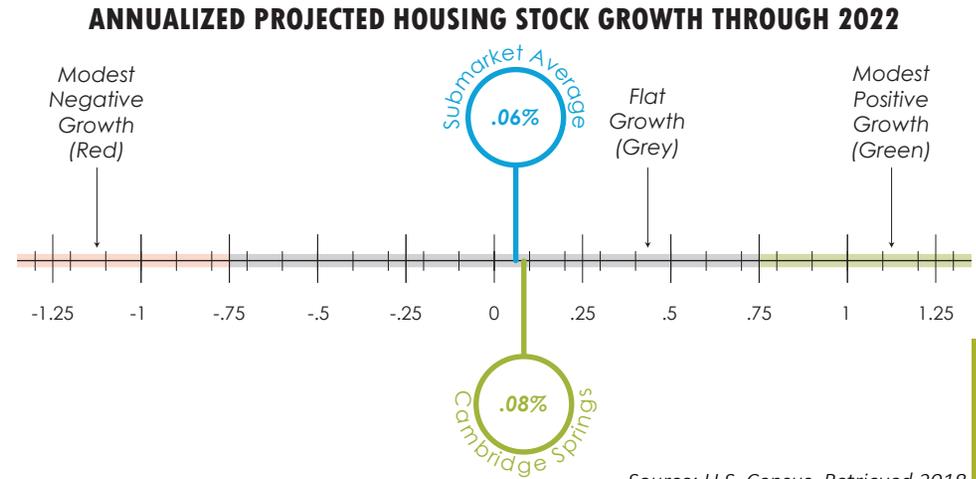
Rent prices within the Cambridge Springs Submarket have been flat and its median rent is below Crawford County's overall figure. Such finding is consistent with trends and projections showing a decline in non-family households and the population comprising younger age brackets. Renter households within the Cambridge Springs Submarket are about as cost-burdened overall as the submarket average and less adverse rate of renter cost-burdened than the county on the whole. Home values have increased at a strong rate and median home values within the Submarket are well above the county's overall figure.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph on the right presents the housing stock growth rate for the Cambridge Springs Submarket. Although housing stock growth within the Submarket has been flat, its rate is similar to the submarket average.



Source: Esri, Retrieved 2018

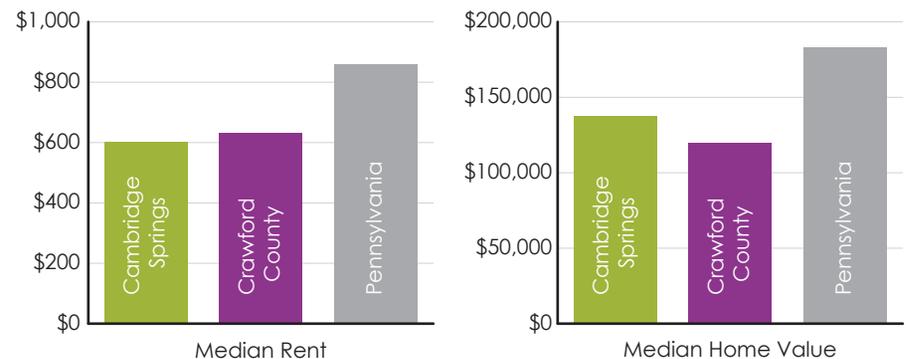
TOTAL HOUSING STOCK —

It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Cambridge Springs Submarket's housing stock, we compared the number of housing units located within the Submarket to the average number of housing units within a Crawford County submarket. From the graphic on the left, we see that the Cambridge Springs Submarket has more housing units than the submarket average but does not deviate significantly above the average. Based on this analysis, it can be safely assumed that housing development within the Cambridge Springs Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, the Cambridge Springs Submarket has a median rent price just below that of Crawford County and much lower than Pennsylvania on the whole. For home values, the Cambridge Springs Submarket significantly out performs Crawford County but falls shy of Pennsylvania. These figures suggest that the Submarket's rental marketplace doesn't show signs of elevated activity but its home ownership market is among the more desirable within Crawford County.

CAMBRIDGE SPRINGS SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 –

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that more than one-third of the Cambridge Springs Submarket housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. This finding is mildly concerning given that the Cambridge Springs Submarket is projected to see growth in its population over the age of 65. In addition to the challenges older units present for seniors, many historic homes contain four-or-more bedrooms in response to past demographic and wealth trends which may make them inadequate for many two-person family households- a growth consumer housing segment in the Cambridge Springs Submarket.

HOUSING BUILDING TYPES –

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Cambridge Springs Submarket is similar to the submarket average in the proportions of its building stock comprised of single-family homes and mobile homes. However, the Submarket contains a larger share of its building stock in duplexes and has a lesser share of 3-9 unit structures and 10-or-more unit complexes.

CAMBRIDGE SPRINGS SUBMARKET HOUSING UNITS BUILT PRE-1940

35.7%



Homes Built Pre-1940

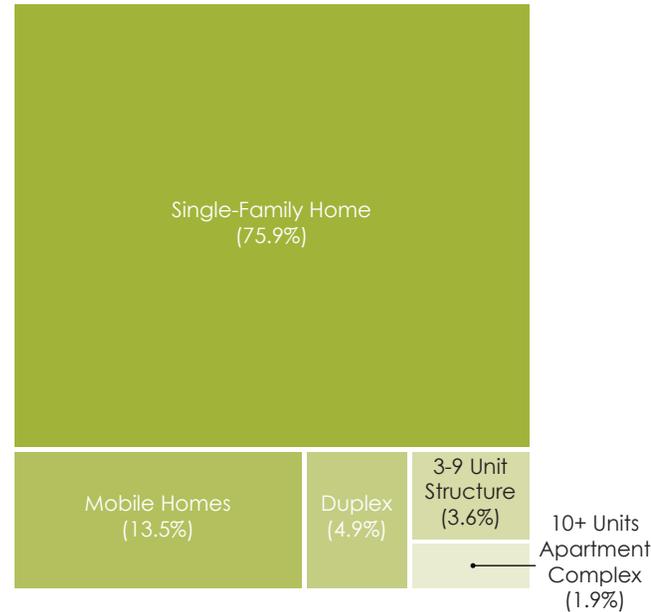
64.3%



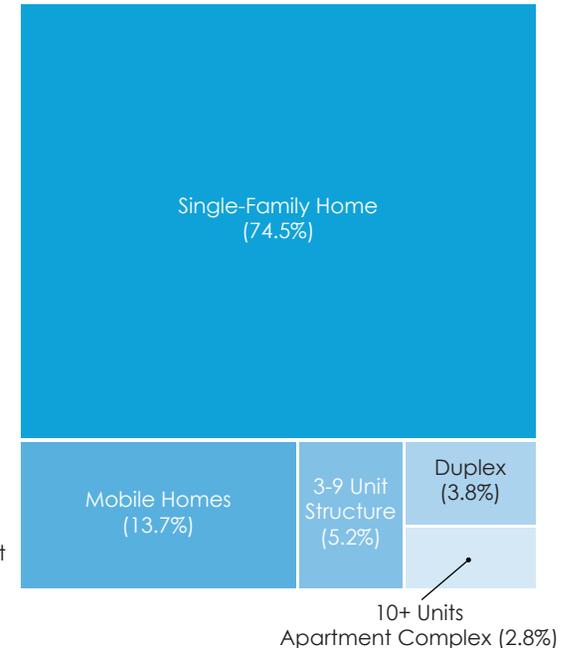
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

CAMBRIDGE SPRINGS SUBMARKET



SUBMARKET AVERAGE

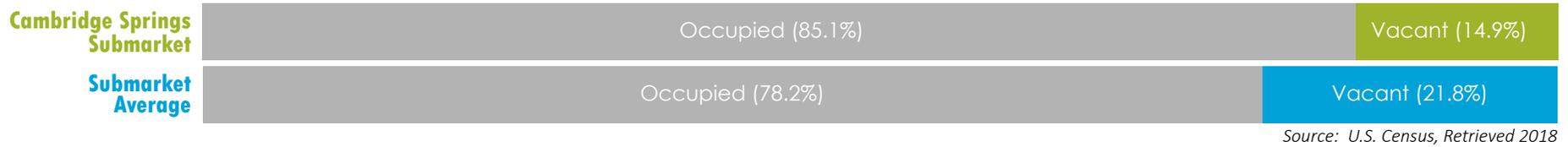


Source: U.S. Census, Retrieved 2018

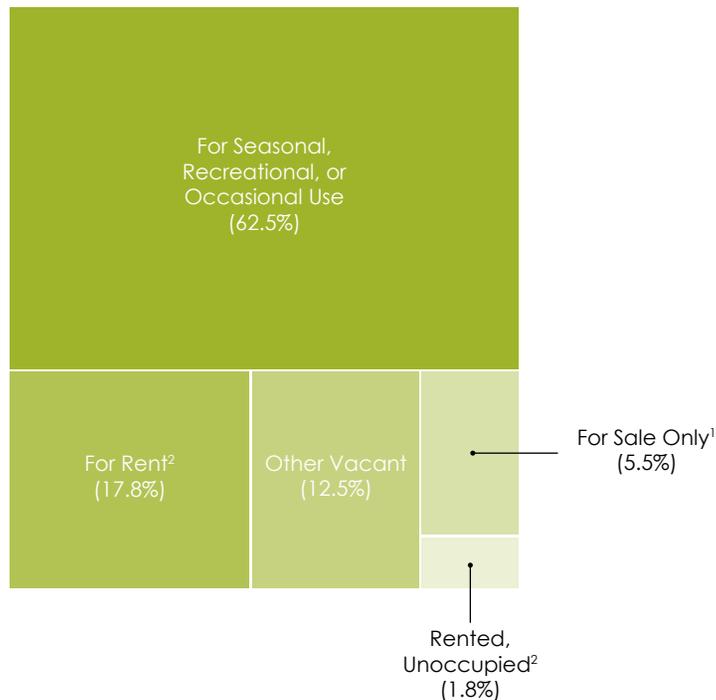
HOUSING STOCK GROWTH ANALYSIS:

OVERALL VACANCY & VACANCY BY TYPE –

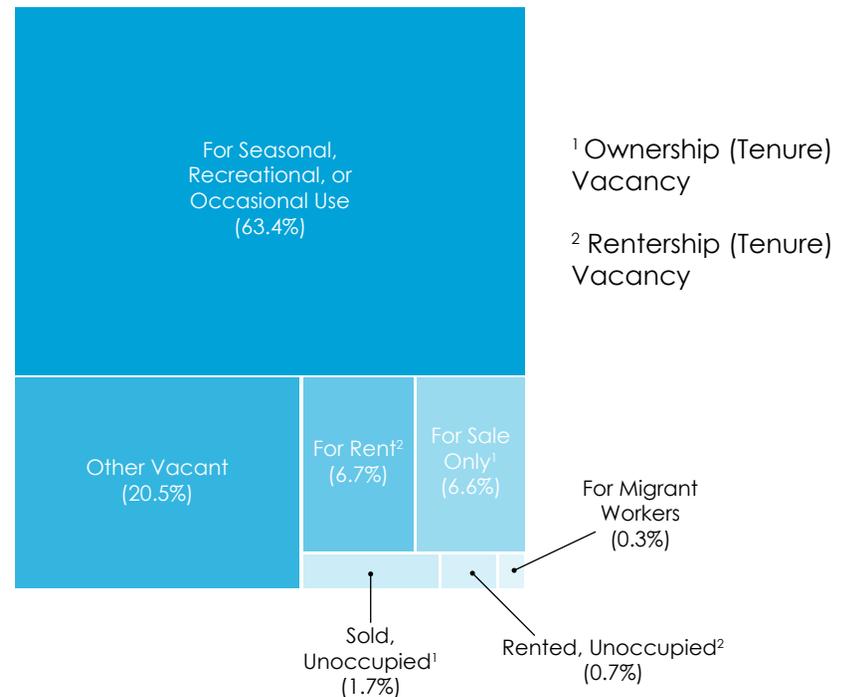
The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Cambridge Springs Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. Although still substantial at 15%, the Cambridge Springs Submarket reported a lower vacancy rate than the submarket average. The composition of vacancy reduced from seasonal, recreational, or occasional use purposes was nearly identical to the submarket average while vacancy stemming from “other” reasons was well below its corresponding submarket average. Consistent with earlier observations of rent prices lagging behind county-wide observations while home values within the Submarket exceed those reported across Crawford County, housing units currently for rent account for almost one-fifth of all vacancy within the Cambridge Springs Submarket. This observation indicates the existence of a potential problem within the Submarket’s rental marketplace such as an over-supply of units or the presence of poor quality units.



CAMBRIDGE SPRINGS SUBMARKET



SUBMARKET AVERAGE



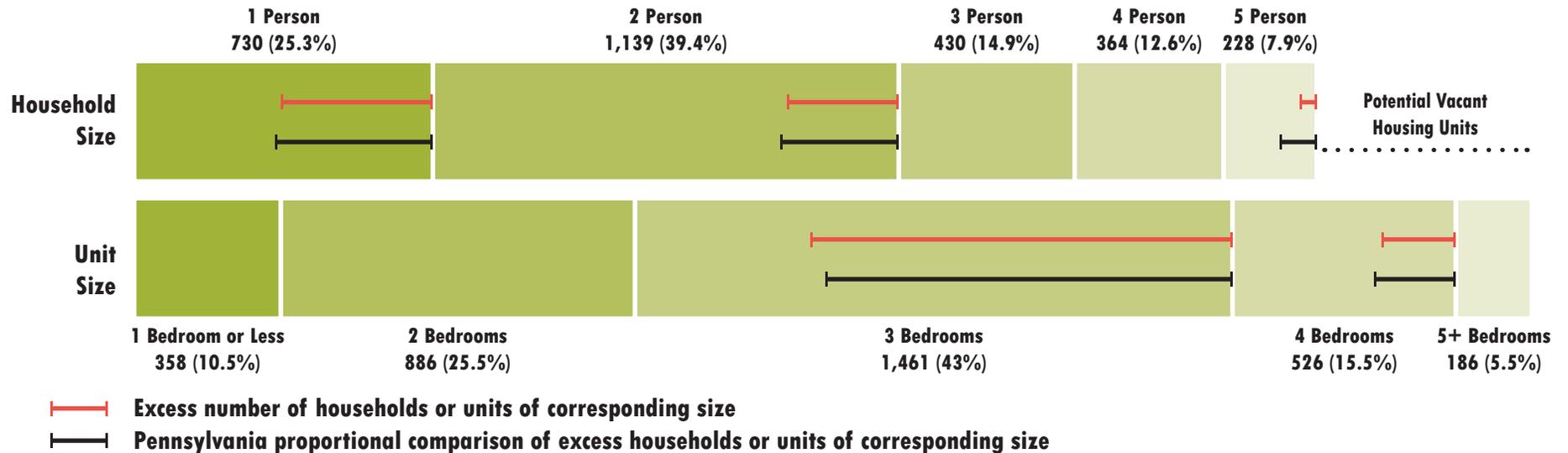
¹ Ownership (Tenure) Vacancy
² Rentership (Tenure) Vacancy

Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Cambridge Springs Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket figures for comparison purposes. From comparing these graphs, it is clear that the Cambridge Springs Submarket does not exhibit household to housing unit size mismatches that are greatly out of alignment with Pennsylvania on the whole except in that it contains a larger portion of housing units with three bedrooms. Such a finding suggests that the Submarket's housing stock is comprised of units which are a little larger on average than the needs of its households.

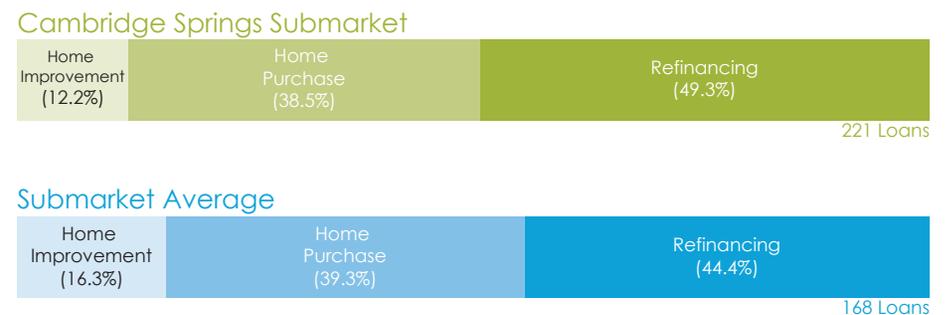


Source: U.S. Census, Retrieved 2018

THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right demonstrate the purpose of loan origination activities within the Cambridge Springs Submarket. From these graphs, it appears that loan activity within the Cambridge Springs Submarket has been less investment oriented, at least in 2016, than activity reported across the submarket average. This observation potentially indicates struggles within the Submarket's housing marketplace particularly for home improvements.

CAMBRIDGE SPRINGS SUBMARKET LOANS BY PURPOSE (2016)



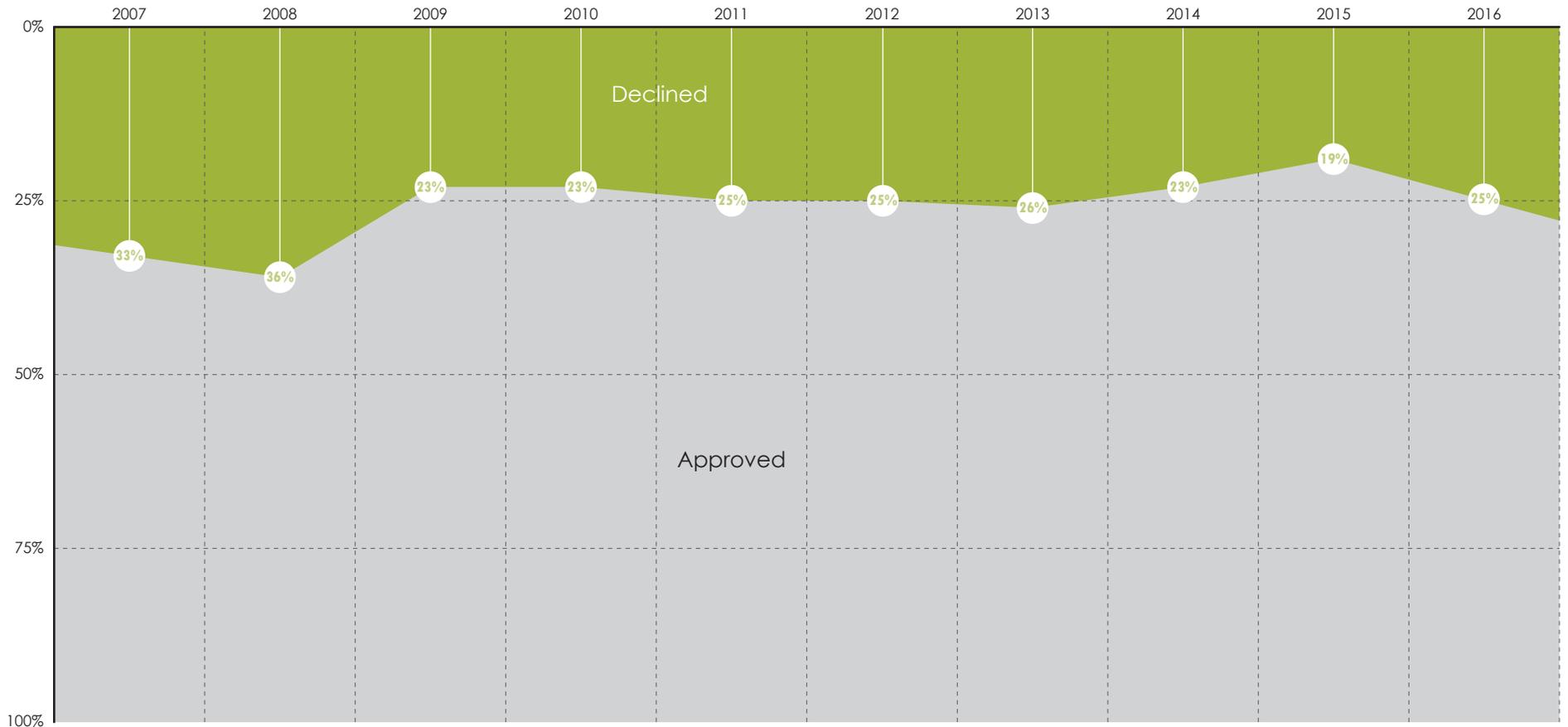
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Cambridge Springs Submarket, the rate of declined loans has hovered in the mid-twenties in recent years (see below) and does not appear to be showing significant improvement.

CAMBRIDGE SPRINGS SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Cambridge Springs Submarket's housing stock is not expanding and more than one-third of its existing inventory was constructed prior to 1940. Comparisons between housing unit and household sizes show that the Submarket contains more larger homes than its population needs, but that such mismatch is not critical. Demographic projections showing an increase in seniors and household formation trends projecting an increase in two-person family households suggest that the average age and size of the Submarket housing stock may become a significant accessibility and affordability challenge for residents in the future. The Cambridge Springs Submarket's vacancy rate is still high despite being lower than the submarket average and housing units listed for rent comprise an oversized role of the Submarket's vacancy. This observation paired with flat growth in rent prices suggest that the Submarket's rental marketplace may be struggling. Loan activity within the Cambridge Springs Submarket has been less investment oriented than the submarket average, with a smaller proportion of originations for home improvement activities, and the approval rate for all originations has hovered around 75%.

OVERALL STATUS OF THE CAMBRIDGE SPRINGS SUBMARKET'S HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW –

The Cambridge Springs Submarket contains fewer jobs than the submarket average and does not represent a job center when compared to other submarkets within Crawford County. The Submarket currently supports a job-to-housing ratio of 0.57, which indicates that its residents rely heavily on job opportunities found within neighboring regions and that its housing marketplace is relatively less stable than that of job centers within proximity. Live-work observations of residents within the Cambridge Springs Submarket show that more than 86% of residents living within the Submarket work outside it, with a substantial 59% of residents commuting to jobs outside Crawford County. Our live-work map shows that many of those commuting to jobs outside the Submarket and Crawford County travel north towards the City of Erie and surrounding areas in order to reach work. Currently, economic conditions within the Cambridge Springs Submarket are unlikely to change drastically into the near future as the Submarket's annualized job growth rate is flat. Despite having a flat job growth rate, the Submarket is projected to see an increase in household income into 2022. Residents within the Cambridge Springs Submarket have an overall higher level of educational attainment than the submarket average which along with projections showing household income growth provide indications of housing market stability. In terms of real estate related loan originations, financial activity within the Cambridge Springs Submarket was less investment-oriented in 2016, with a lower share of originations for home improvement activities than the submarket average, and overall loan applications have around a 75% approval rate.

POPULATION TRENDS –

The Cambridge Springs Submarket is a local population center. Although the Cambridge Springs Submarket has experienced a slight increase in population since 2000, such an increase is so small that it represents a flat growth rate. Additionally, further research suggests that the increase in the Submarket's population since 2000 can be accounted for by the increase in the number of prisoners housed in the Cambridge Springs State Correctional Institution. In 2000, about 655 prisoners were housed in the Cambridge Springs State Correctional Institution with this figure nearly doubling to 1,233 by 2018. As a result, the increase in the number of prisoners living within the Submarket since 2000 more than accounts for its population gain of around 340 residents over the same period. In terms of household formation, the Submarket has experienced a significant increase in two-person family households while those comprised of three-or-more people have declined. For non-family households, single person households have remained stable while those consisting of two people have declined slightly. When considering demographic projections, the Cambridge Springs Submarket is expected to see an increase in its senior age population while experiencing a decline across all youth and working age population brackets. The combination of household formation trends and demographic projections suggest that most of the increase in two-person family households will come from senior couples living together after their children have moved out.

THE HOUSING MARKET GENERALLY –

The Cambridge Springs Submarket is not adding new housing units at a significant rate. Such finding is consistent with observations of rent prices, which have been flat and remain below the corresponding county-wide figure, but not in alignment with home value trends, which have seen a strong increase in price and lie well above the corresponding county-wide figure. At present, the Submarket's existing stock of older homes may place accessibility and affordability challenges on seniors and households comprised of only two members. Consistent with common expectations of communities with older housing stocks, the Submarket's housing units trend larger in terms of generally having more bedrooms. Despite the possibility of emerging challenges, the rate of cost burdened rental households within the Submarket is similar to the submarket average with just over one-third of all renter households paying more than 30% of their gross income on housing-related costs. Vacancy trends within the Submarket are high, albeit lower than the submarket average. When exploring the composition of vacancy within the Cambridge Springs Submarket, it is clear that housing units currently listed for rent comprise a higher than expected portion of all vacancy when compared to the submarket average. This trend may continue to worsen when considering that the Submarket has experienced a slight decline in the number of non-family households and that demographic projections show a decline across both youth and working age population brackets. The Cambridge Springs Submarket's composition of the housing units by size generally matches up nicely with its composition of households by number of members with the exception that the Submarket appears to have a surplus of homes containing five-or-more bedrooms.

THE CAMBRIDGE SPRINGS SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Cambridge Springs Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Cambridge Springs Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment that constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — Demographic projections within the Cambridge Springs Submarket forecast a decline in the population of individuals ages 15-to-24 and 25-to-34. This projection is a negative sign for the new household market since many households within this consumer segment fall within those age brackets. Despite the projected population decline within these age brackets, observations between 2010 and 2015 show that the number of non-family households within the Cambridge Springs Submarket will remain stable. In terms of consumer demand, population projections and household formation trends do not suggest particularly hard times for the Submarket's new household market, but these observations are not optimistic. Fortunately, comparisons within the Submarket between the composition of households and housing units by size suggest that its housing stock contains an adequate supply of smaller homes.

Median rent prices within the Cambridge Springs Submarket are slightly below the county-wide figure. This finding suggests that the Submarket's rental marketplace isn't as elevated as other locations within Crawford County. In terms of affordability, the cost-burdened rate for renter households within the Submarket is similar to the submarket average across the county — a relatively high rate. Even with median rents slightly below those observed across the county and observations of flat rent price growth, the rate of cost-burdened renter households within the Submarket is relatively high.

A final indicator of instability within the Cambridge Springs Submarket's new household market is that housing units either listed for rent or as rented but unoccupied comprise a much larger portion of overall vacancy than observed within the submarket average. This observation suggests that many landlords might be struggling to rent their properties.

The above trends and projections suggest that the new household consumer segment within the Cambridge Springs Submarket is inadequate. Additionally, projections showing a strong increase in household income do not appear to have eased renter cost-burdened rates within the Submarket, leaving the ability to transition from the new household market into the starter home market as inadequate.

STARTER HOME & DOWNSIZING MARKETS — Household formation trends which show gains in the number of two-person family households within the Cambridge Springs Submarket suggest an increase in the demand for either starter or downsizing homes. When this trend is paired with demographic projections, it appears that most of the new formation of two-person family households within the Submarket will occur due to an increase of empty nesters. This conclusion arises from projections which show a stable population among individuals ages 25-to-34 and 35-to-44, who often participant in the starter home market, but which also show an increase in the population of those over the age of 65, who often downsize their living accommodations. From these trends and projections, it can be concluded downsizing homes within the Cambridge Springs Submarket are in demand while the demand for starter homes is less clear.

Homes values have been increasing at a strong rate within the Cambridge Springs Submarket and the Submarket's median value is higher than that observed across Crawford County. Despite strong home value growth, real-estate related loan originations within the Submarket have been less oriented towards home purchases than the submarket average. When comparing the composition of household and housing units by size, it appears that the Cambridge Springs Submarket has an adequate supply of both two- and three-bedroom housing units. Two- and three-bedroom housing units typically represent the size of housing unit commonly considered by those participating in either the starter home or downsizing market segments. However, despite the apparent abundance of starter and downsizing homes, many housing units within the Submarket are of old construction which may present either maintenance issues or renovation challenges for existing residents and new buyers.

Based on the above findings, the starter homes consumer segment within the Cambridge Springs Submarket is inadequate primarily as the result of apparently

THE CAMBRIDGE SPRINGS SUBMARKET'S HOUSING ECOSYSTEM:

stagnant demand. The ability to transition out of the starter home segment and into the move-up housing segment is adequate, despite the stagnant demand for starter homes, due to observations showing potentially weak demand for move-up housing. If the relatively low demand for move-up housing is reflected in the price of such homes, then the ability to transition into this segment should be in good order. For downsizing homes, demand appears stronger and therefore this consumer segment is adequate. The ability to transition into the senior household market is adequate given the strong and seemingly stable demand for downsizing homes, which should be able to retain their value as a result.

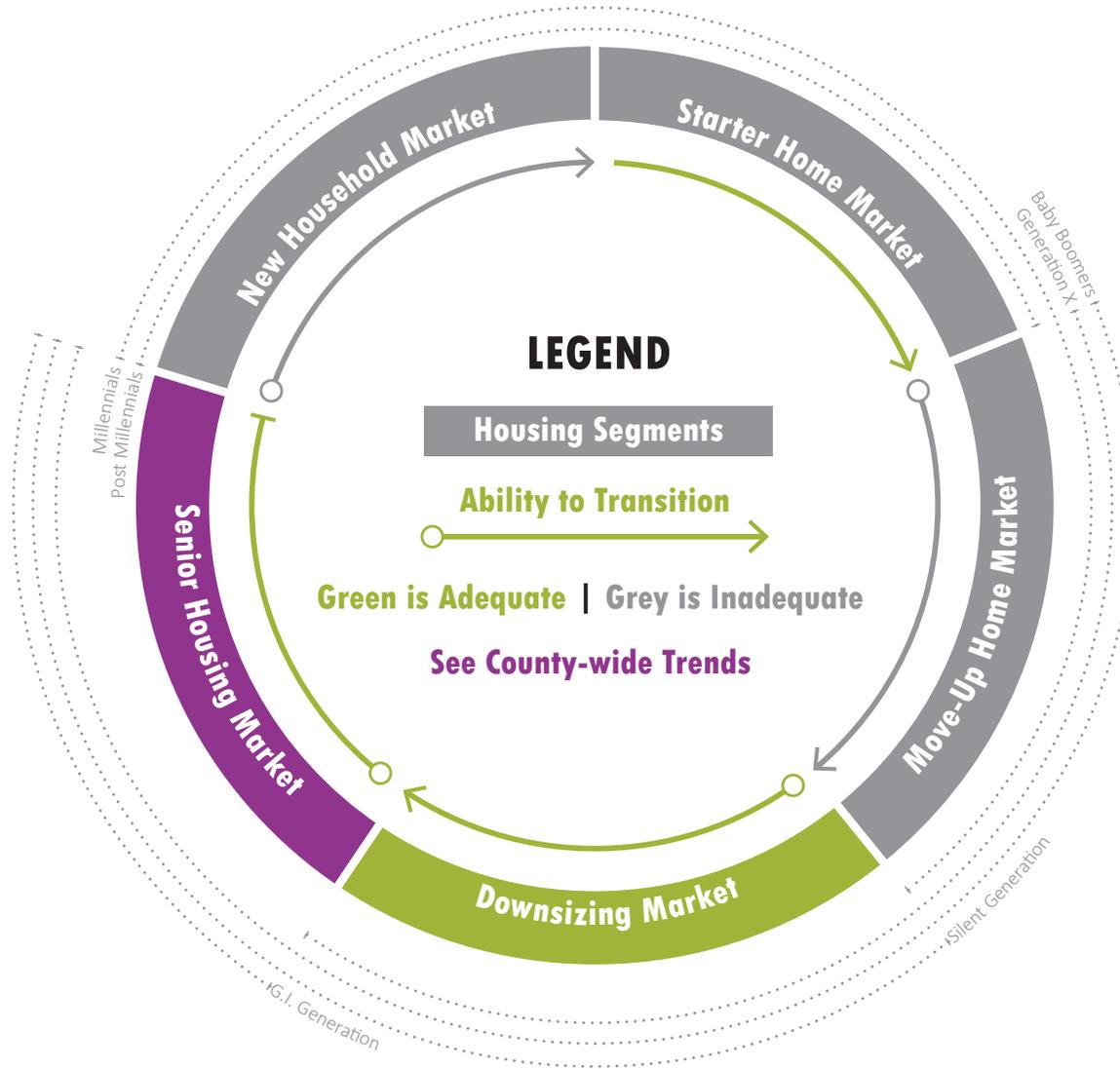
MOVE-UP MARKET — The move-up housing consumer segment within the Cambridge Springs Submarket may be negatively impacted by trends showing a decline in the number of three- and four-person family households. These trends are supported by demographic projections showing an overall decline in the population between the ages of 45 and 64. This decline suggests that the Submarket is losing a key demographic of consumers who commonly comprise the move-up housing market.

Despite a potential drop in demand for move-up housing, the Cambridge Springs Submarket's relatively high median home value along with strong submarket-wide appreciation in home values should translate to move-up homes within the Submarket to some degree. For buyers seeking move-up homes within the Cambridge Springs Submarket, the Submarket's abundant supply of single-family houses should provide a significant range of options. Additionally, after comparing the compositions of household and housing units by size, it is apparent that the Submarket has an abundant stock of three-, four-, and five-or-more-bedroom homes, that often constitute move-up housing.

Overall, the move-up housing segment is inadequate as the result of weak demand. Additionally, those currently holding move-up homes within the Cambridge Springs Submarket may have difficulty transitioning into the downsizing market as the result of the potentially weak demand for move-up housing. The final result of this observation is that the ability to transition out of the move-up housing segment is considered inadequate.

SENIOR HOUSING MARKET — Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE CAMBRIDGE SPRINGS SUBMARKET'S HOUSING ECOSYSTEM:



COCHRANTON SUBMARKET

Comprising much of the south portion of central Crawford County, the Cochranon Submarket contains five municipalities including Union, Fairfield, East Fairfield, and Wayne townships along with the Borough of Cochranon. The Cochranon Submarket is adjacent to the Townville, Mead, Vernon, and East Fallowfield-Greenwood submarkets within Crawford County and shares its southern border between Mercer and Venango counties.

A HOUSING ECOSYSTEM ANALYSIS OF THE COCHRANTON SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

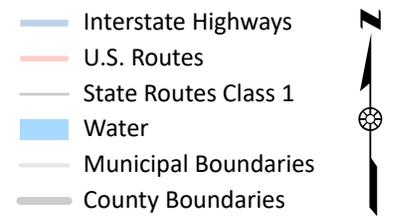
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (🌱). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

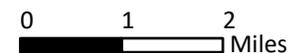
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Cochranon Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

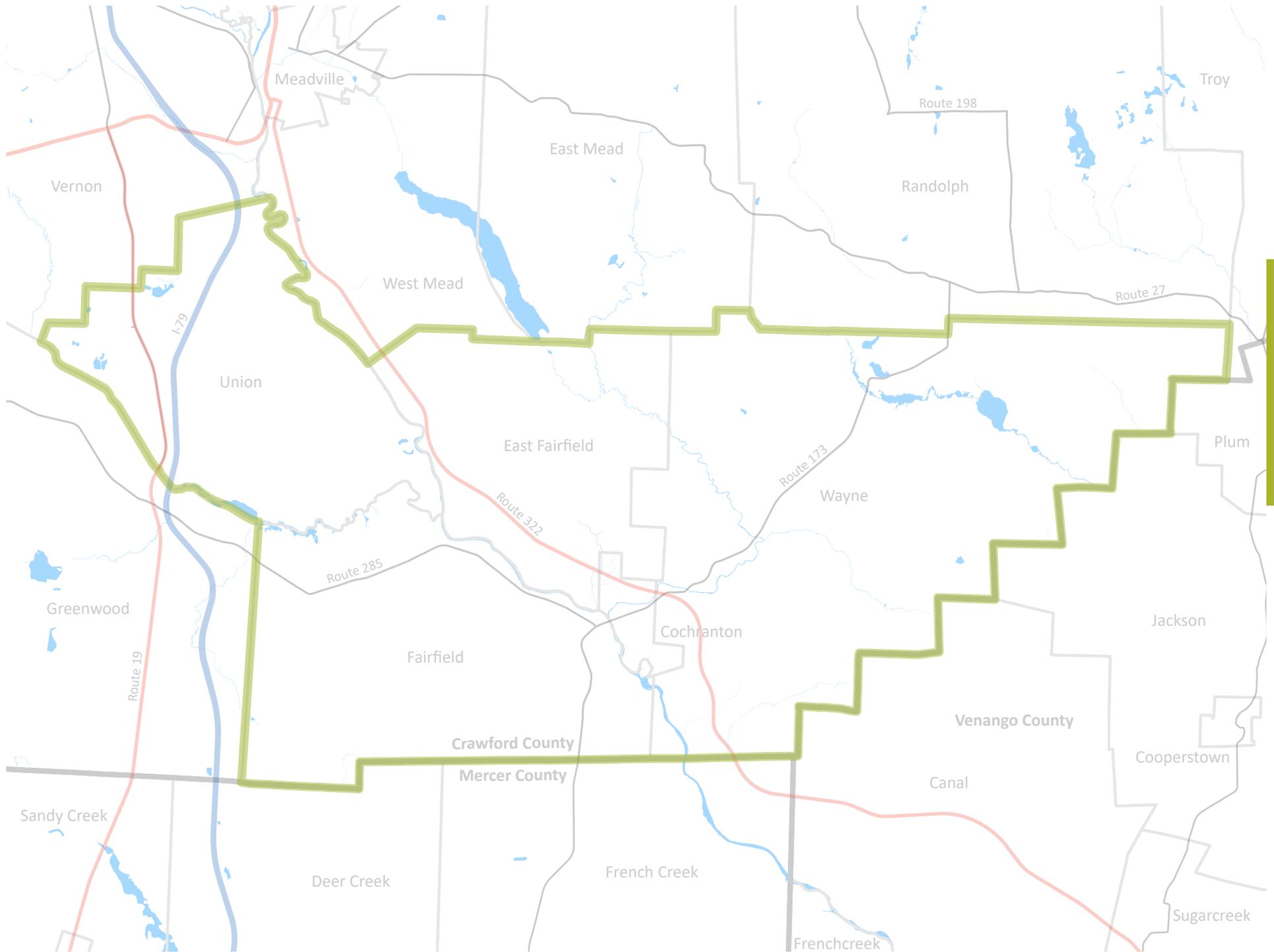
A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Reference Scale - 1:120,000



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



COCHRANTON SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends of residents living within the Cochranon Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE COCHRANTON SUBMARKET —

The map on the next page uses dots to represent where residents living within the Cochranon Submarket work. From this map, it is apparent that many of the Submarket's residents work in and around the Meadville and Saegertown areas and north outside of Crawford County around Erie. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Cochranon Submarket produces a job-to-housing ratio of 0.49, which lies below the beneficial range and potentially indicates instability.

The radar graph on the bottom left displays the distance and direction of where Cochranon Submarket residents work. The dark green wedges of the graph demonstrate those commuting less than ten miles. A large share of residents travel beyond ten miles to reach work. Live-work observations within the Cochranon Submarket demonstrate that it is more of a bedroom community with the vast majority of residents commuting outside the Submarket for work. A breakdown of such commuter trends is presented on the bottom right and the map on the next page shows that Venango and Erie counties are common workplace locations for Cochranon Submarket residents who travel to work outside Crawford County.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries

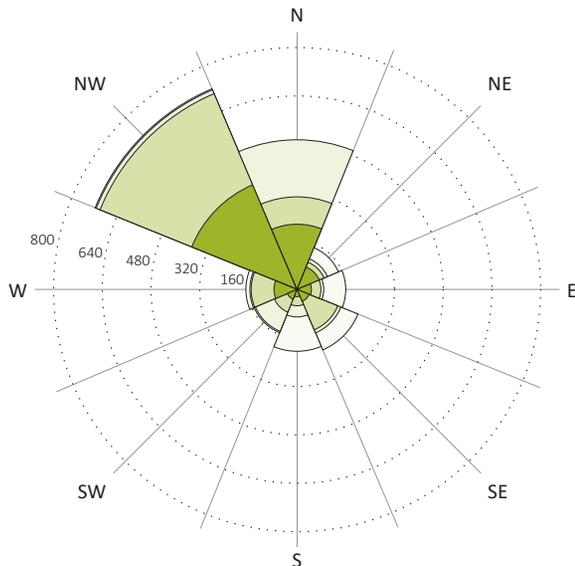


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE COCHRANTON SUBMARKET RESIDENTS WORK



- Less than 10 Miles
- 10 - 24 Miles
- 25 - 50 Miles
- 50 + Miles

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

12.1%

of Cochranon Submarket residents work at a location **inside the submarket.**

62%

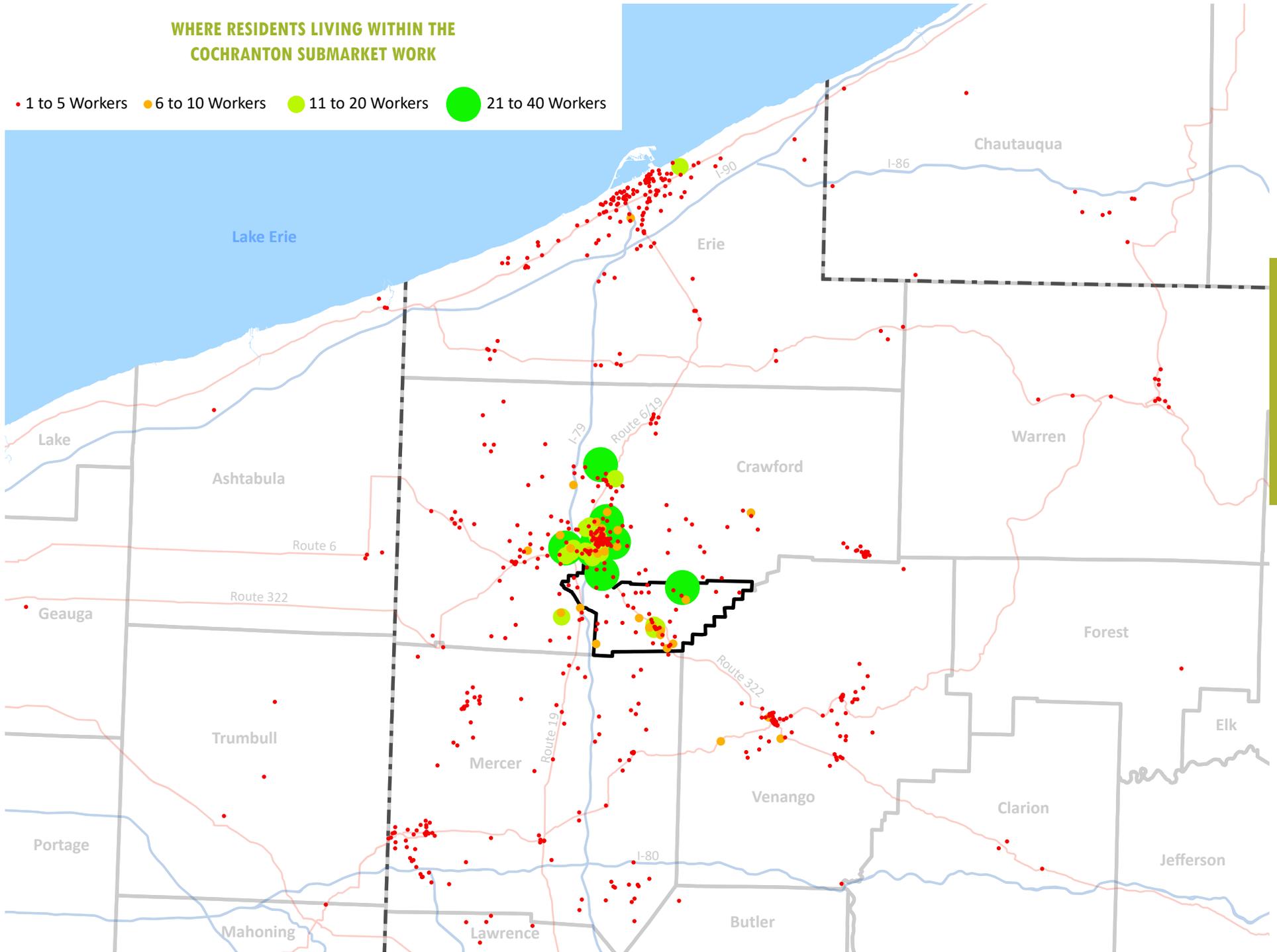
of Cochranon Submarket residents work inside **Crawford County.**

38%

of Cochranon Submarket residents work outside **Crawford County.**

WHERE RESIDENTS LIVING WITHIN THE COCHRANTON SUBMARKET WORK

• 1 to 5 Workers • 6 to 10 Workers • 11 to 20 Workers • 21 to 40 Workers



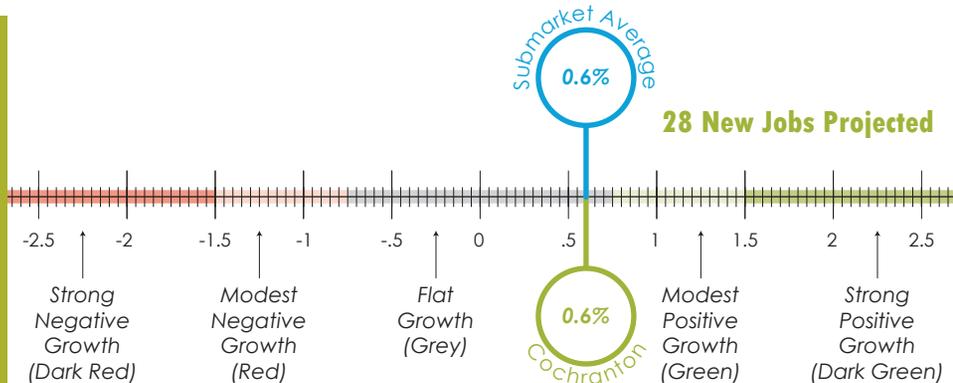
COCHRANTON SUBMARKET

JOB GROWTH ANALYSIS:

⚙️ JOB GROWTH —

From the graph below, the Cochranon Submarket's 0.6% projected annual job growth rate is the same as the submarket average and lies within the "flat growth" range. Recognizing this, it is unlikely that projected job growth within the Submarket will provide workers the extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)

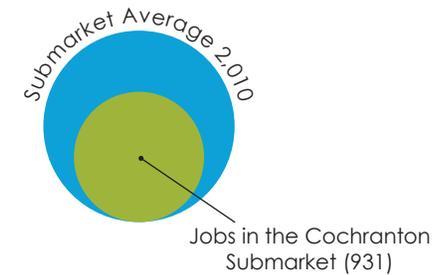


👤 HOUSEHOLD INCOME CHANGE —

Despite flat job growth projections, from the graph on the bottom left, household income within the Cochranon Submarket is projected to grow at a modest-to-strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

📊 TOTAL JOBS —

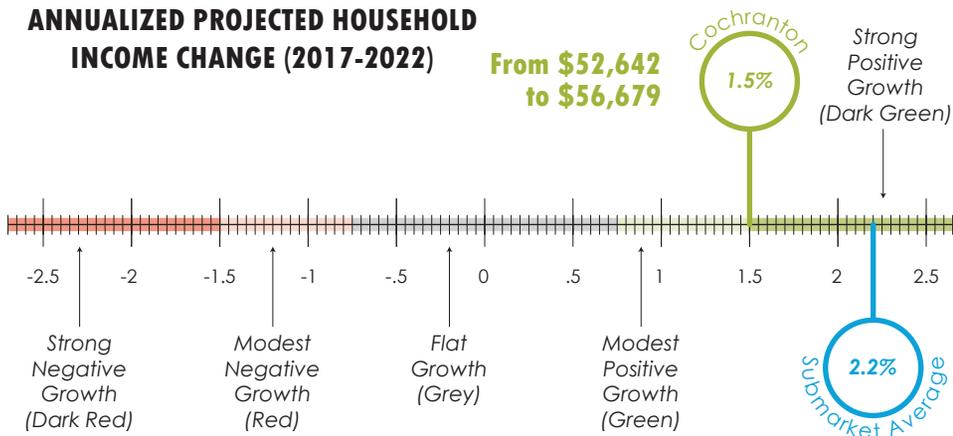
To explore the magnitude of the Cochranon Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. From the graphic on the right, the Cochranon Submarket contains fewer jobs than the submarket average. This finding aligns with our earlier conclusion that the Cochranon Submarket is not a job center and primarily functions as a bedroom community. Although jobs within the submarket provide important opportunities for local residents, the Cochranon Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

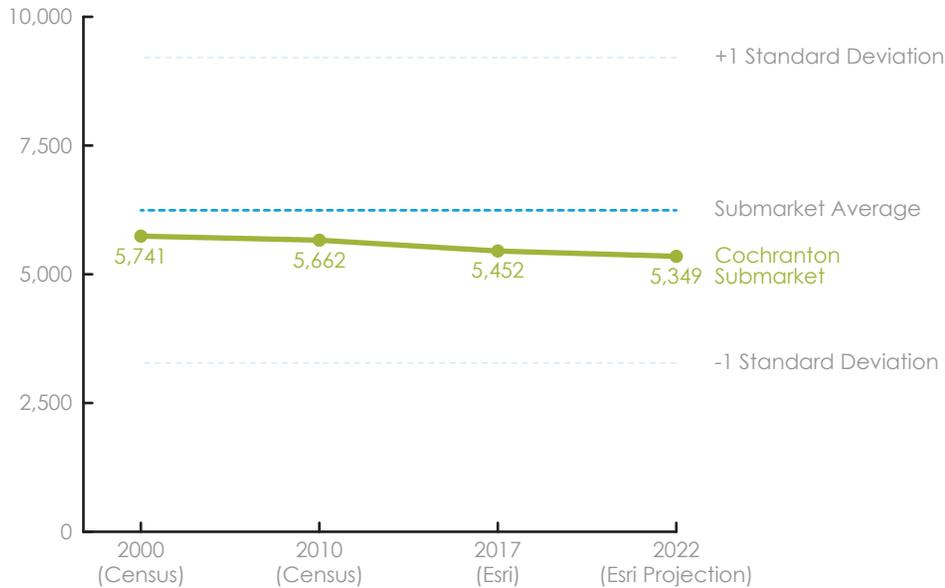
In summary, the Cochranon Submarket is generally treated as a bedroom community as many of its residents commute to jobs in other communities throughout the larger region, especially in the Meadville area. Although the Submarket is projected to have a flat job growth rate, it is expected to experience a modest-to-strong household income growth rate. Such household income growth may bolster housing market stability.

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)



POPULATION GROWTH ANALYSIS:

COCHRANTON SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the Cochranon Submarket would directly lead to household formation and increased housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

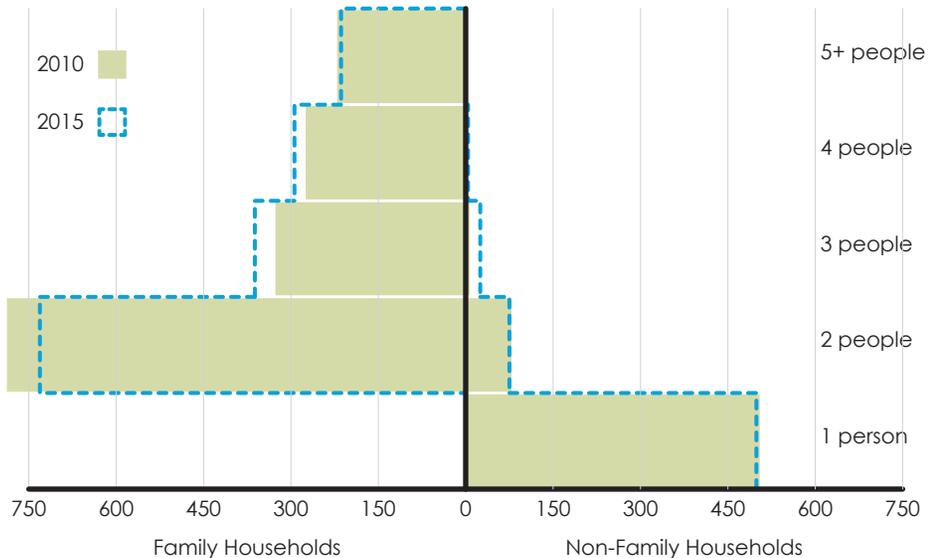
An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, the population of the Cochranon Submarket has declined since 2000. This decline suggests that population growth is not driving the demand for housing within the Submarket.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

COCHRANTON SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Cochranon Submarket households by size between 2010 and 2015. For non-family households, one- and two-person households remained stable while those with three-people increased substantially. In terms of family households, two-person family households declined while those comprised of three or four people increased over the same time frame. Interestingly, family households with five-or-more people have remained stable, an observation which deviates from county-wide trends.

Household formation trends seen within the Cochranon Submarket suggest a stable rental market, decline in local demand for starter and downsizing homes, and an increase in the internal demand for move-up housing.

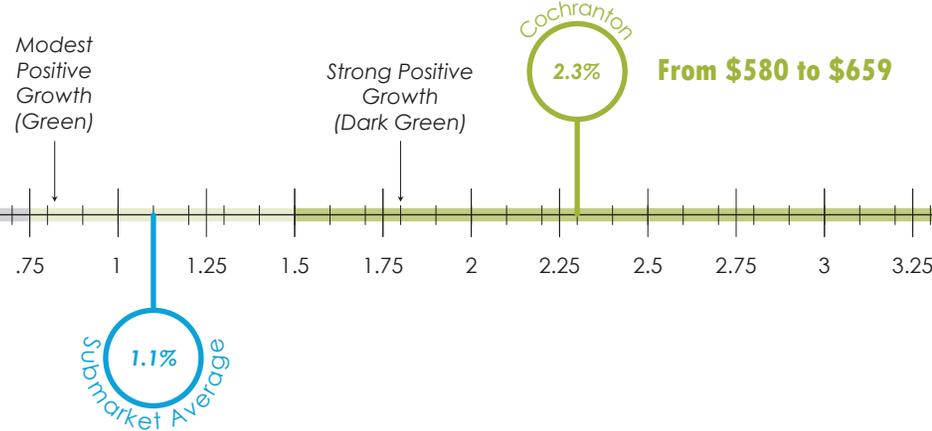
Source: U.S. Census

POPULATION GROWTH ANALYSIS:

🏠 RENT PRICE & HOME VALUE CHANGES —

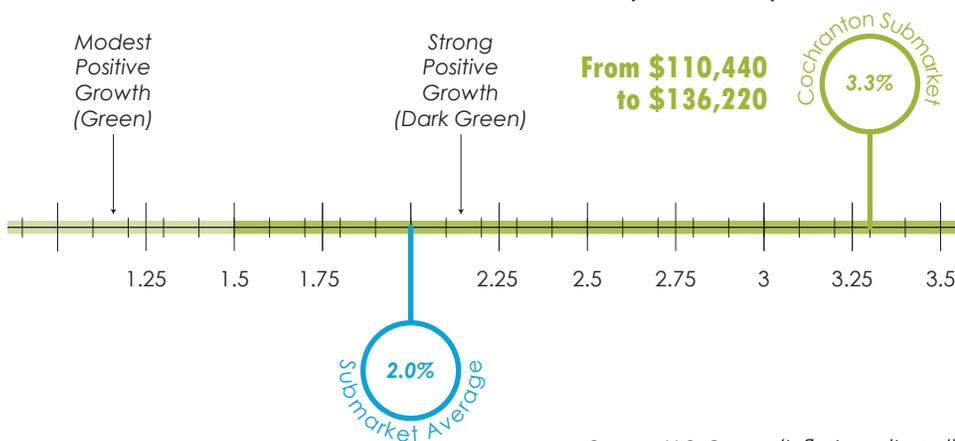
An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Cochranon Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Both have seen strong growth outpacing the submarket average.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

🏠 RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Cochranon Submarket with comparisons to Crawford County and the submarket average. We see that renter households within the Cochranon Submarket are far less cost-burdened overall than other submarkets and the county.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



24% of Cochranon Submarket Renters
(93 Households)

41.3% of Crawford County Renters

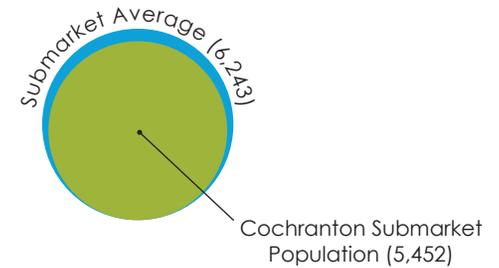
34.3% Submarket Average

Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

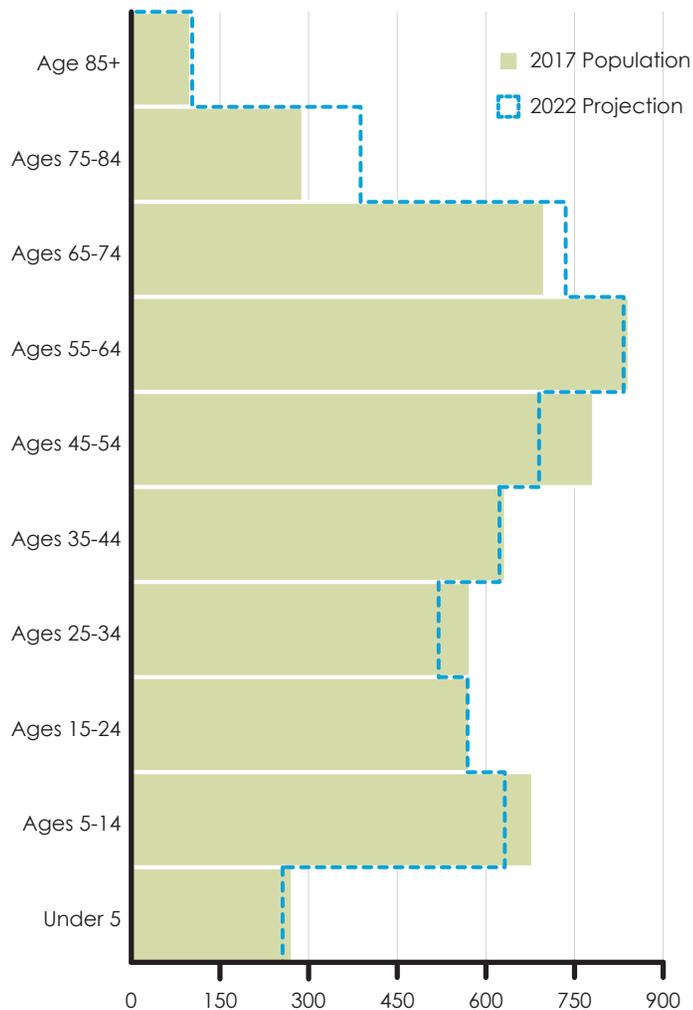
POPULATION GROWTH ANALYSIS: TOTAL POPULATION —

The cycling of households between different homes creates some of the housing demand within a community. To understand this type of housing demand, we established whether the Cochranon Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. From the graphic shown on the right, the Cochranon Submarket contains less population than the submarket average. By this standard, the Cochranon Submarket is a rural population area. Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist



Source: Esri, Retrieved 2017

COCHRANTON SUBMARKET POP. PYRAMID & PROJECTION



Source: Esri, Retrieved 2018

at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the submarket's relative population size, it can be assumed that the Cochranon Submarket does not have the gravity to attract new residents on a speculative basis. This assumption infers that those moving into the submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION —

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population's age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional "starter home" housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph at left demonstrates the age composition of the Cochranon Submarket in 2017 with a projection to 2022. Age cohorts within the Cochranon Submarket are projected to decline across both the youth and working age brackets which together constitute all individuals under the age of 64. Such projected declines are most pronounced for the 5-to-14, 25-to-34, and 45-to-54 age brackets with other brackets representing those under age 64 holding relatively steady. Conversely, population is projected to increase across the age brackets comprising individuals ages 65-to-84. Such demographic projections suggest a decline in the local demand for rental units, starter homes, and move-up housing while also suggesting an increase in the internal demand for downsizing homes and senior living accommodations.

POPULATION GROWTH ANALYSIS:

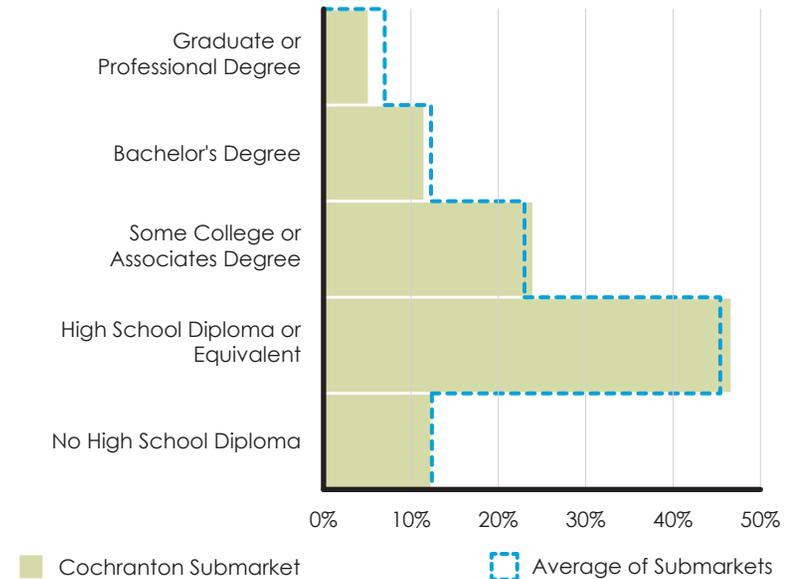
The demographic trends and household formation trends addressed earlier suggest increased pressure on the market for both move-up and downsizing homes. Demographic projections show an increase in the senior population within the Submarket but do not provide clues into trends showing an increase in the number of households comprised of three and four people. Trends suggesting an increase in the local demand for both move-up and downsizing homes are supported by observations of home value growth.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Cochranon Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Cochranon Submarket is about as educated as the submarket average with the minor exception that the area contains a lesser proportion of those holding a bachelor's degree or higher. The Cochranon Submarket also contains a slightly higher proportion of individuals holding high school diplomas and associate level degrees. Due to the Cochranon Submarket's similar educational attainment to the submarket average, no unique conclusions can be gathered.

In summary, the Cochranon Submarket is not a population center and its population has steadily declined since 2000, which suggests that most of the demand for housing within the Submarket will come from the cycling of existing households. In terms of household formation trends, non-family households comprised of one to two people have remained stable while those with three people have increased. For family households, those composed of two people have declined, three and four person households have increased, and the number of those with five or more people have been stable. Despite population declines, household formation trends appear to have translated into strong gains in both rent prices and home values. Even though rents have increased, the Cochranon Submarket has a much lower rate of cost burdened renters than the submarket average and Crawford County on the whole. Demographic projections within the Submarket show declines across both the youth and working age cohorts while showing an increase in the population of seniors. In terms of educational attainment, the Cochranon Submarket is slightly less educated than the submarket average.

COCHRANTON SUBMARKET EDUCATIONAL ATTAINMENT (2017)



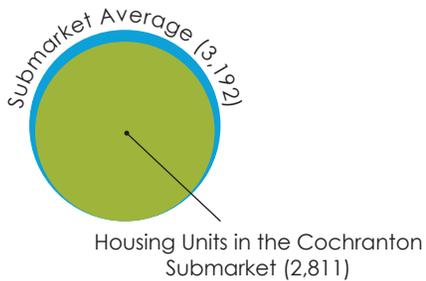
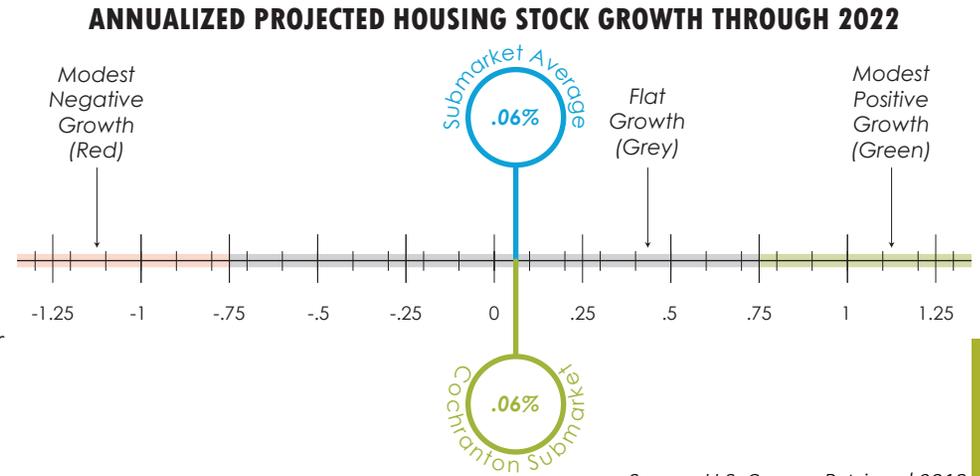
Source: Esri, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph at right presents the housing stock growth rate for the Cochranon Submarket. Although flat, the Submarket's housing stock growth rate is similar to the submarket average.



TOTAL HOUSING STOCK —

It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Cochranon Submarket's housing stock, we compared the number of housing units located within the submarket to the average number of housing units within a Crawford County submarket. From the graphic on the left, we see that the Cochranon Submarket has fewer housing units than even the submarket average. Based on this analysis, it can be safely assumed that housing development within the Cochranon Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

Source: Esri, Retrieved 2018

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, the Cochranon Submarket has a median rent price slightly above Crawford County but much lower than Pennsylvania on the whole. For home values, the Cochranon Submarket has higher home values than Crawford County but still lower than Pennsylvania. These figures suggest that both the Submarket's rental home ownership markets show signs of being among the more desirable with the county.

COCHRANON SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 –

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that nearly one quarter of the Cochranon Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. From this observation, the Cochranon Submarket does contain its fair share of historical homes but does not seem burdened with an out-sized portion of such residences. Given the Submarket's aging population, opportunities to encourage accessibility upgrades should be considered from time to time.

COCHRANTON SUBMARKET HOUSING UNITS BUILT PRE-1940

23%



Homes Built Pre-1940

77%



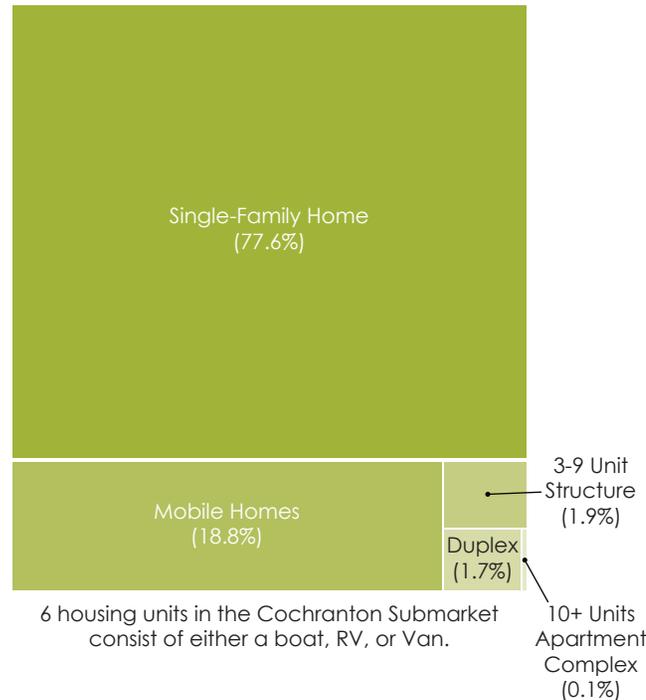
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

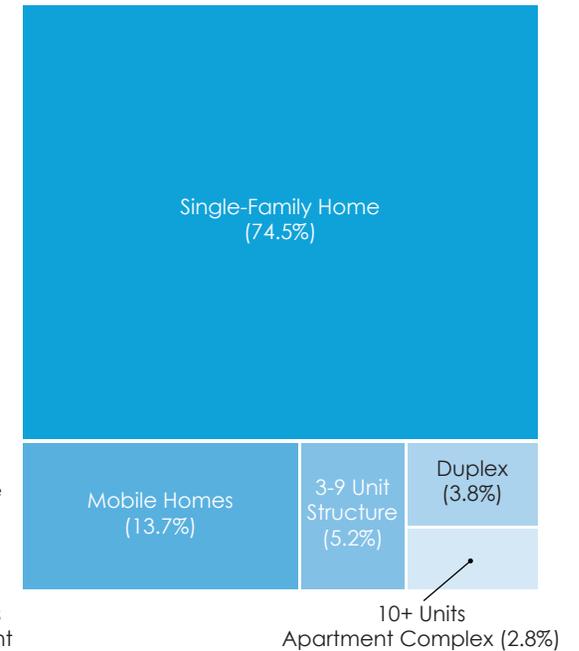
HOUSING BUILDING TYPES –

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Cochranon Submarket is somewhat comparable to the submarket average in that single-family and mobile homes dominate its housing building stock. The Submarket contains larger shares of both single-family and mobile homes (more than 96% combine) than the submarket average. Conversely, multi-unit structures constitute a smaller portion of the Cochranon Submarket's housing building stock than the submarket average.

COCHRANTON SUBMARKET



SUBMARKET AVERAGE

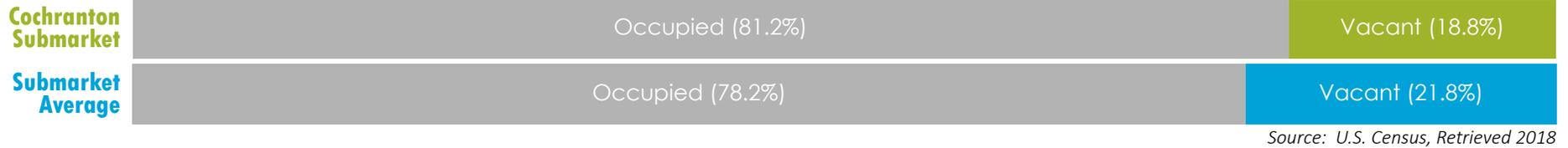


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

OVERALL VACANCY & VACANCY BY TYPE –

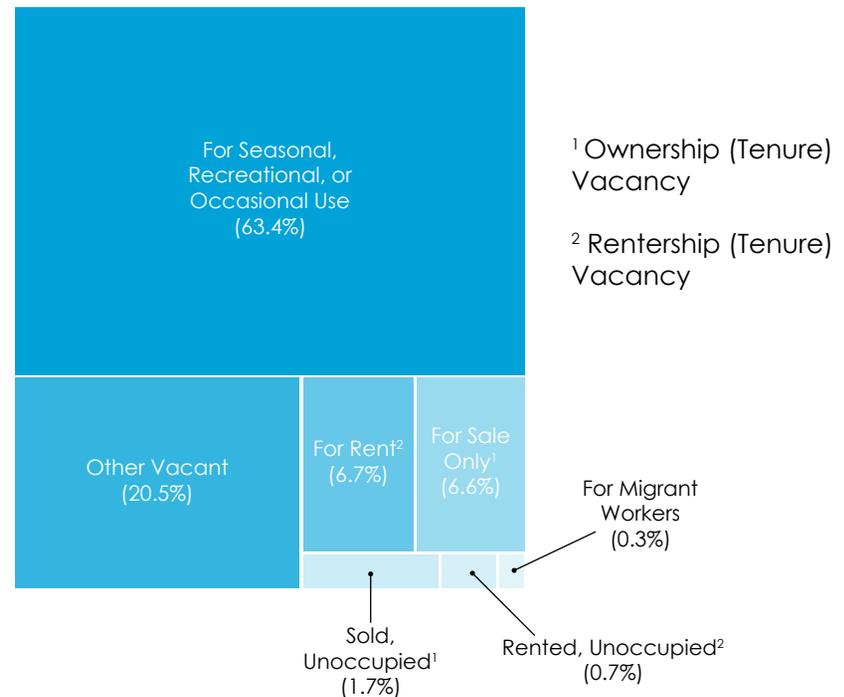
The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Cochranon Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. Although still substantial at nearly 19%, the Cochranon Submarket reported a lower vacancy rate than the submarket average. Despite its lower overall rate, the portion of housing vacancy attributable for “other” reasons is somewhat higher than the submarket average. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market. This observation indicates that the Cochranon Submarket’s housing marketplace may be experiencing problems which can result in unintentional vacancy to a greater extent than most submarkets across Crawford County. Such unintended vacancy may demonstrate a significant cycle of disinvestment as landlords struggle to profit from their properties and owners abandon them.



COCHRANTON SUBMARKET



SUBMARKET AVERAGE



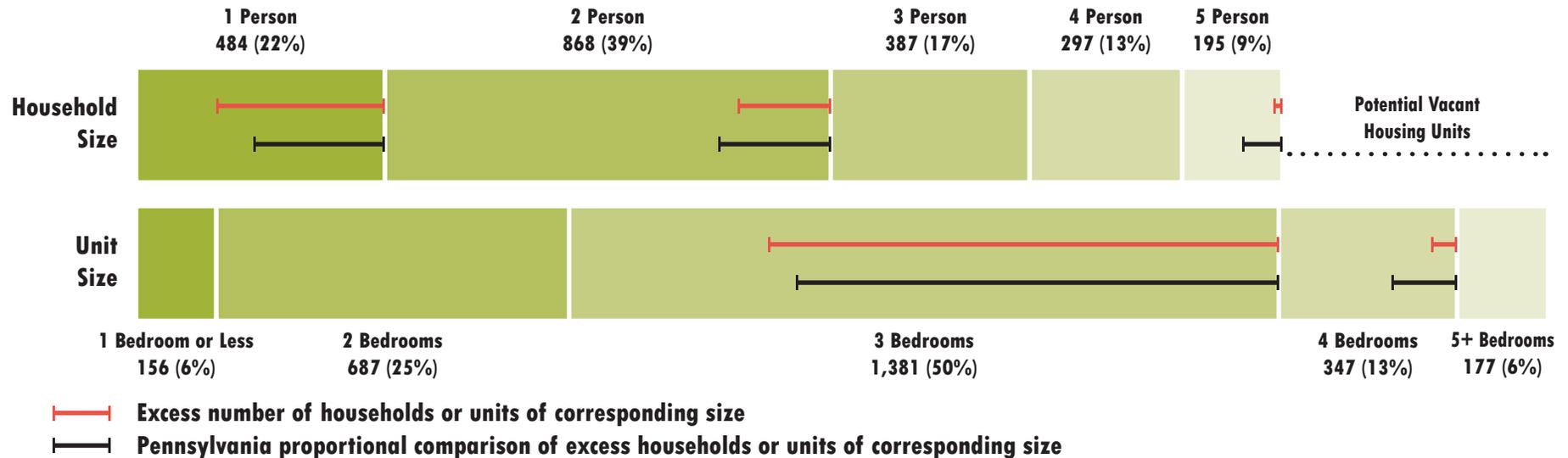
¹ Ownership (Tenure) Vacancy
² Rentership (Tenure) Vacancy

Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Cochranon Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scale down to the size of the Submarket figures for comparison purposes. From comparing these graphs, it is clear that the Cochranon Submarket exhibits a shortage of one- and four-bedroom housing units. Additionally, the Submarket contains a proportionally larger share of two-, three-, and five-or-more-bedroom housing units than Pennsylvania as a whole.



Source: U.S. Census, Retrieved 2018

THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The graphic on the right, demonstrates the purpose of loan activity within the Cochranon Submarket. From these graphs, it appears that loan activity within the Cochranon Submarket has been less investment oriented, at least in 2016, than activity reported across the submarket average. This is apparent from a stronger showing of the portion of loans for refinancing activities.

COCHRANTON SUBMARKET LOANS BY PURPOSE (2016)

Cochranon Submarket



Submarket Average



Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Cochranon Submarket, the rate of declined loans has hovered in the mid-twenties since the end of the Great Recession (see below) without signs of improvement.

COCHRANTON SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Cochranon Submarket contains a lesser concentration of housing units than the submarket average and its housing stock isn't growing at a significant rate. This finding is consistent with observations of median rent and home values, which are above those observed across Crawford County but below Pennsylvania's figures. The lack of new housing construction leaves around 23% of the Submarket's stock as having been constructed prior to 1940. Single-family structures and mobile homes are proportionally more represented within the Cochranon Submarket than across the submarket average. In terms of vacancy, the Submarket's vacancy rate is lower than the submarket average, but a larger composition of its vacancy is due to "other" reasons. When assessing how well the Cochranon Submarket's housing stock meets the needs of its residents, it is clear that its current supply of homes are a little bit larger than necessary. Loan activity within the Submarket has been less investment oriented than the submarket average and the rate of approved loans has hovered around 75% and does not appear to be showing much improvement.

OVERALL STATUS OF THE COCHRANTON HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

The Cochranton Submarket contains fewer jobs than the submarket average and does not represent a job center when compared to other submarkets within Crawford County. The Submarket currently supports a job-to-housing ratio of 0.49, which indicates that its residents rely heavily on employment opportunities found in job centers throughout the greater northwest Pennsylvania region. Its job-to-housing ratio is also an indicator of potential instability within the Submarket's housing market due to the area's dependence on employment opportunities located elsewhere. Live-work observations of residents within the Cochranton Submarket show that nearly 88% of residents living within the Submarket commute to jobs located outside the Submarket. Our live-work map shows that many of those commuting to jobs outside the Submarket travel northwest towards the Meadville area with others traveling to points further north including Saegertown, Cambridge Springs, and the City of Erie. Current economic conditions within the Cochranton Submarket are unlikely to change drastically into the near future as the Submarket's annualized job growth rate has been flat. Despite having a flat job growth rate, households within the Submarket are projected to experience modest-to-strong household income growth over the next five years. Household income growth may contribute to the stability of the Cochranton Submarket's housing marketplace. The educational attainment of residents within the Submarket is similar to the submarket average but with a smaller portion of those holding college degrees. In terms of real estate related loan originations, financial activity within the Cochranton Submarket was less investment oriented overall in 2016 than the submarket average and the success rate for loan applications has remained stable at around 75%.

POPULATION TRENDS —

The Cochranton Submarket can be considered as a rural population area when compared against other submarkets within Crawford County. This observation is likely to remain unchanged into the foreseeable future as the Submarket's population has been in decline since 2000. Within the context of a declining population, household formation trends showing an increase in the number of households comprised of more members. For non-family households, those within one or two members have remained stable while those comprised of three members have increased. When considering family households, those composed of two people have declined, three or four person households have increased, and five person households have remained stable. Demographic projections for the Cochranton Submarket show an overall decline in population across the youth and working age cohorts while the number of senior citizens is expected to increase. Given the projected increase in the senior citizen population, it is surprising to observe that two-person family households declined between 2010 and 2015 as this figure often rises with the presence of empty nesters. Furthermore, both family and non-family households comprised of three or four people are increasing even though population projections do not suggest gains in the age cohorts most likely to form households of such size.

THE HOUSING MARKET GENERALLY —

The supply of housing units within the Cochranton Submarket is not currently increasing at a significant rate. However, an oncoming development known as Adams Place will soon supply around 40 additional units of senior housing. This development, alone, will increase the Submarket's overall housing stock by 1.4% once the units are supplied. The Adams Place development will target seniors with accessible accommodations which should ease potential complications resulting from the presence of a significant portion of older homes within the Submarket. Observations showing increases in rent prices and home values paired with the Submarket's relatively low rate of cost-burdened renter households suggest that the Cochranton Submarket's housing marketplace isn't as distressed as other submarkets across the county. Despite signs of economic stability, the Submarket has a vacancy rate just slightly below the submarket average and its vacancy is more comprised of that resulting from "other" reasons than the same average. The Submarket's higher presence of vacancy attributed to "other" reasons is a potential indicator of distress or other problems within its housing market. The nature of "other" vacancy within the Cochranton Submarket can't be identified from the observations within this study especially since common sources of "other" vacancy, such as an oversupply of homes which are too large for household consumers, do not seem present within the Submarket. Housing units within the Submarket trend larger, in terms of the number of bedrooms, than the expected statewide proportion, yet four-bedroom homes appear to be in short supply.

THE COCHRANTON SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Cochranton Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Cochranton Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment that constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — The number of one- and two-person non-family households within the Cochranton Submarket held steady between 2010 and 2015. Additionally, three-person non-family households increased slightly during the same period of time. Such stability is a good sign for the Cochranton Submarket's new household consumer segment since non-family households comprise the vast majority of participants within that market. Unfortunately, demographic projections within the Cochranton Submarket show an overall decline in the population of individuals between the ages of 15 and 34. Since many of the individuals within this age range will form independent households for the first time, the Cochranton Submarket's new household market could lose demand if such projections are correct. Ultimately, it can be concluded that consumer demand within the new household market segment is not growing within the Cochranton Submarket.

Despite signs of flat demand within the new household market segment, observations of rent prices within the Cochranton Submarket show strong price growth. This trend paired with the observation that median rent prices are slightly above the county-wide figure suggests that the Submarket's rental marketplace isn't performing poorly. High median rent prices and strong price growth suggest that landlords on the whole aren't struggling to lease their properties to new tenants which may be a sign that the new household market segment is doing well. This finding paired with the Cochranton Submarket's significantly lower rate of cost-burdened renter households suggests that consumers within the new household segment are living comfortably while property owners seem to be getting by as well.

When comparing the composition of households and housing units by size within the Cochranton Submarket there appears to be a shortage of one-bedroom homes. Since many participants in the new household market may be seeking smaller housing units, this mismatch within the housing stock could present challenges for consumers within this segment. Additionally, despite having an overall vacancy rate similar to the submarket average, vacancy for "other" reasons within the Cochranton Submarket might exist in a manner that could place stress on its new household market. However, since trends and projections presented within this report suggest that demand in the Submarket's new household market has held steady, it may be safe to conclude that vacancy attributed to "other" reasons might not be negatively impacting the new household market.

Given signs showing steady demand within the Cochranton Submarket's new household market, this consumer segment is believed to be performing adequately. Additionally, since household income has increased at a modest-to-strong rate and the overall rate of renter cost-burdened households within the Submarket is relatively low, the ability to transition out of the new household market and into the starter home market is considered to be adequate.

STARTER HOME & DOWNSIZING MARKETS — Both the starter & downsizing home consumer segments within the Cochranton Submarket may be negatively impacted by the Submarket's decline in the number of two-person family households. This may be the case because many of the participants looking for either a starter home or downsizing unit are likely to comprise two-person family households. When considering demographic projections, more information on the nature of the Submarket's declining number of two-person family households seems apparent. Demographic projections show an overall decline in the population of individuals between the ages of 15 and 34, which often comprise those seeking starter homes. However, the same projections show an increase in the population of individuals within the Submarket over the age of 65. Therefore, demographic projections suggest that the decline in the number of two-person family households within the Cochranton Submarket may only negatively impact consumer demand for starter homes but not downsizing units.

The Cochranton Submarket is projected to experience strong growth in household income and the Submarket maintains home values that are well above county-

THE COCHRANTON SUBMARKET'S HOUSING ECOSYSTEM:

wide figures. In addition to already having high median home values, such values have increased at a strong rate over recent years. These trends have been observed despite observations showing that nearly a quarter of the Submarket's housing stock was built prior to 1940 and that real-estate loan originations have been less oriented towards home purchases relative to activity observed across all submarkets in the county.

Comparisons between the composition of households and housing units by size show that the Cochranton Submarket appears to have an adequate supply of both two- and three-bedroom homes for the needs of its population. When considering the building types of housing units present within the Submarket, its abundance of single-family homes relative to the submarket average suggest that participants within the starter home and downsizing consumer segments may have a reasonable number of options.

Trends and projections within the Cochranton Submarket show that the demand for starter homes may be flat or even declining, and the performance of starter home consumer segment is inadequate as a result. However, the same projections show that the demand for downsizing homes may be increasing despite the decline in the number of two-person family households. As a result, the downsizing consumer segment within the Submarket is considered to be performing adequately. For both the starter home and downsizing consumer segments, the ability to transition into either the move-up housing segment or senior housing market is considered to be adequate given the Submarket's relative economic health. The ability to transition into the next housing consumer segment may be best for those living in homes that can cater to both the starter and downsizing housing segments.

MOVE-UP MARKET — Trends showing an increase in the number of both family and non-family households comprised of three or four people suggest that there will be an increase in the demand for move-up housing within the Cochranton Submarket. However, these household formation trends are contradicted by demographic projections showing an overall decline in the population of individuals between the ages of 35 and 64. If such projections hold true, consumer demand for move-up housing could decline as people between the ages of 35 and 64 are likely to constitute households participating in that market segment.

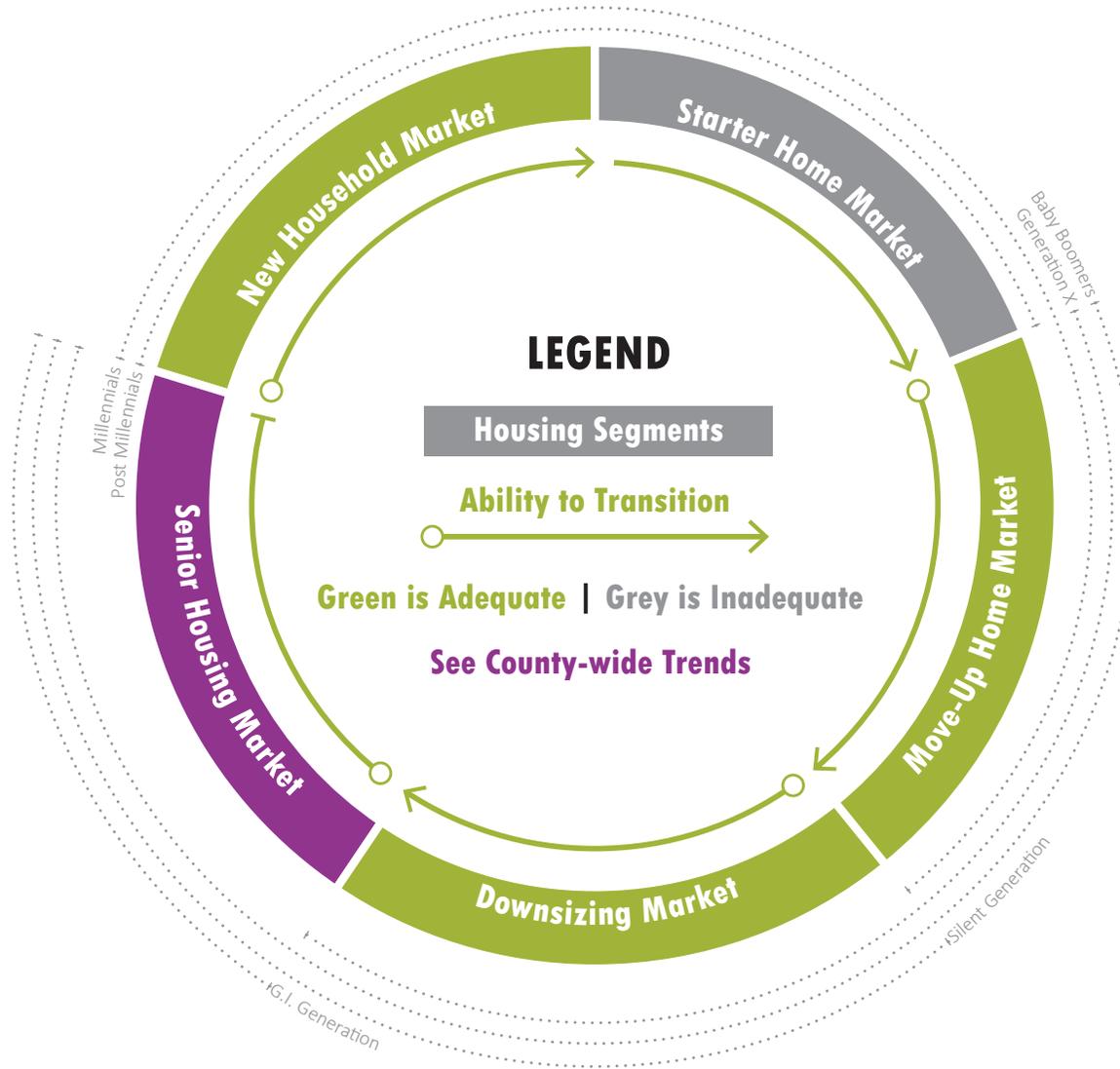
Despite contradictions between household formation trends and demographic projections, modest-to-strong household income growth within the Cochranton Submarket should lend stability to the move-up consumer segment. Providing further stability, modest-to-strong gains in household income have been accompanied by median home values well above county-wide figures which have also seen strong increases in value over recent years.

Participants within the move-up consumer segment have an abundance of housing options in the form of detached single-family homes. Comparisons between the composition of households and housing units by size suggest that the Cochranton Submarket has a lesser proportion of four-bedroom homes and a potential oversupply of five-or-more bedroom homes when compared relatively to statewide proportions. Although there are potential mismatches in the Submarket's supply of move-up housing, the extent of such mismatches does not appear significant enough to cause issues. However, the Cochranton Submarket's higher proportional composition of vacancy attributed to "other" reasons might present problems for the move-up housing market if such vacancy is concentrated among homes commonly considered as part of this consumer segment. Additionally, the Submarket reported a smaller proportion of its overall real-estate loan origination activity for home purchases when compared to the submarket average but a higher proportion of such activity for home improvements. The larger share of loan originations for home improvement activities may suggest that buyers and property owners are more confident in their investments.

The Cochranton Submarket's move-up housing consumer segment is considered adequate due primarily to the Submarket's increase in the number of three- and four-person households. Since home values within the Submarket are well above county-wide figures, its increase in the number of three- and four-person households leaves the ability to transition out of the move-up consumer segment and into a downsizing home as adequate.

SENIOR HOUSING MARKET — Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE COCHRANTON SUBMARKET'S HOUSING ECOSYSTEM:



THE MEAD SUBMARKET

Comprising much of central Crawford County just east of Meadville, the Mead Submarket contains five municipalities including most of West Mead, East Mead, Randolph, and Richmond townships along with the Borough of Blooming Valley. The Mead Submarket lies entirely inside Crawford County and is adjacent to the Cambridge Springs, Saegertown, Meadville, Vernon, Cochranon, and Townville submarkets.

A HOUSING ECOSYSTEM ANALYSIS OF THE MEAD SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

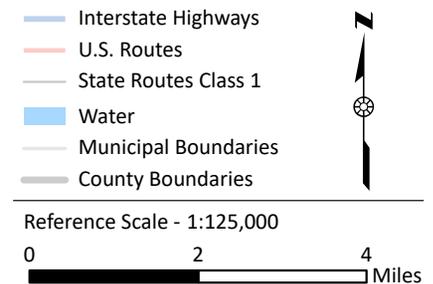
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚙️). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

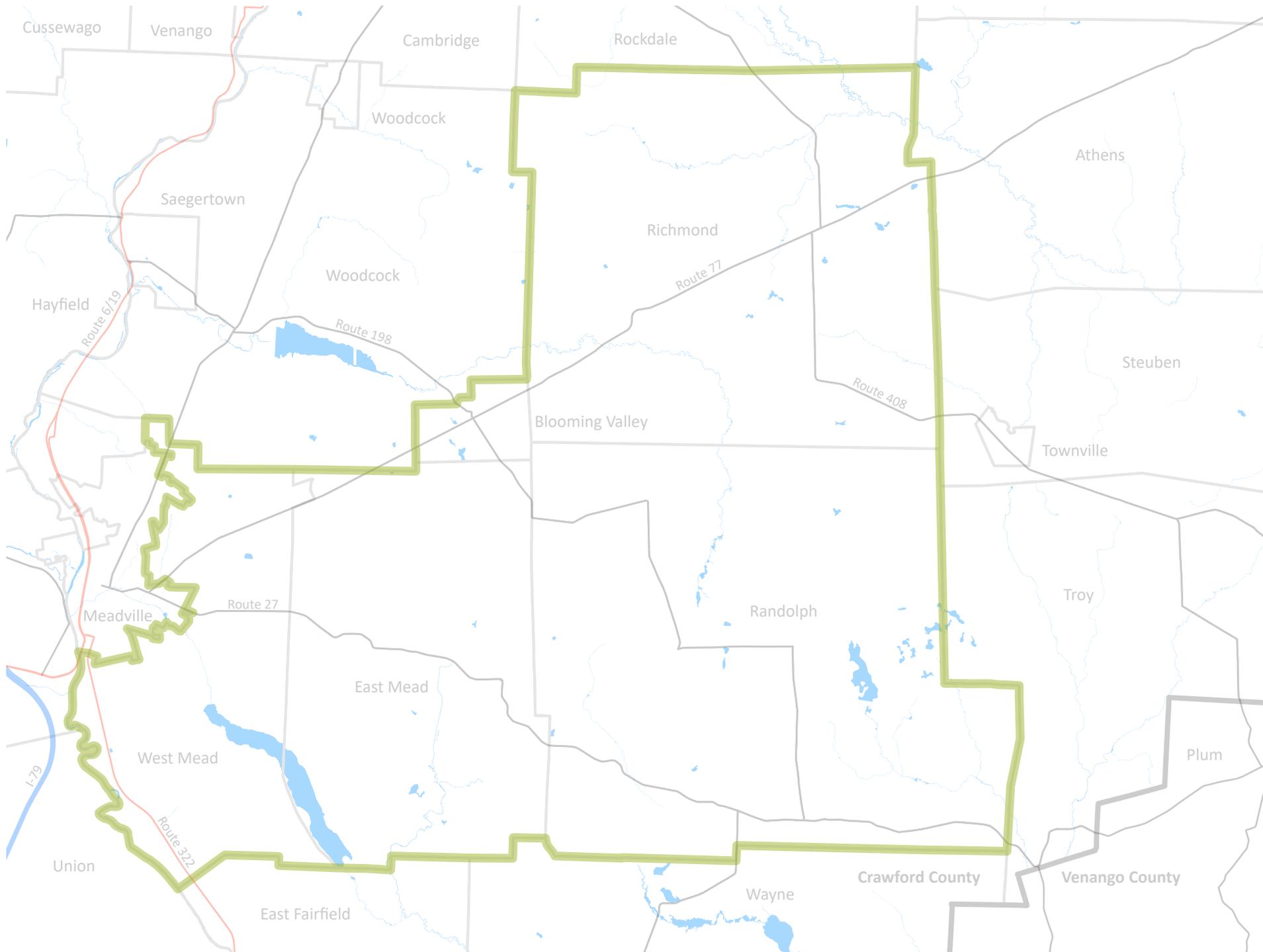
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (📊). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Mead Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



MEAD SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends of residents living within the Mead Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE MEAD SUBMARKET —

The map on the next page uses dots to represent where residents living within the Mead Submarket work. From this map, it is apparent that many Submarket residents find work in and near Meadville with a considerable number commuting north to the Erie area to reach their jobs. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Mead Submarket produces a job-to-housing ratio of 0.60, which lies below the beneficial range and potentially indicates instability.

The radar graph on the bottom left displays the distance and direction of where Mead Submarket residents work. The dark green wedges of the graph demonstrate those commuting less than ten miles which appears to define the commuting distance for about half of the Submarket's workers. Given this observation, the Mead Submarket may be resilient enough to suffice on a lower job-to-housing ratio. However, these live-work observations also show that the Submarket functions as a bedroom community with very few Mead Submarket residents also working inside the area. A breakdown of such commuter trends is presented on the bottom right and the map on the next page shows the spatial distribution of workers leading to the observations shown below.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries

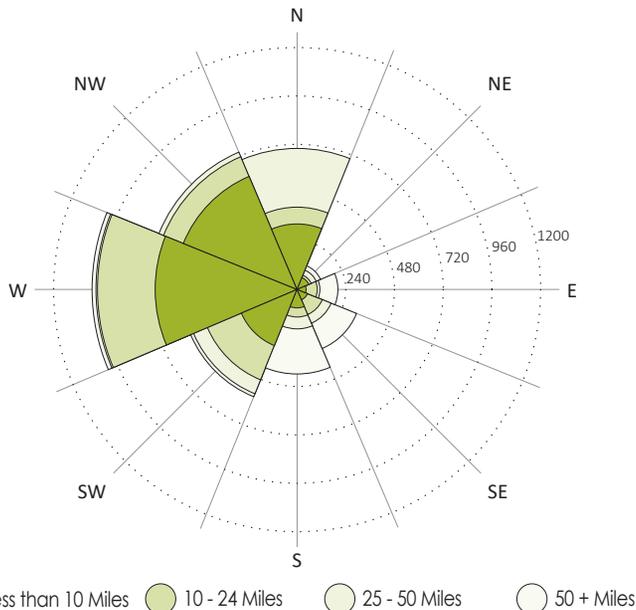


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE MEAD SUBMARKET RESIDENTS WORK



8.7% of Mead Submarket residents work at a location **inside the submarket**.

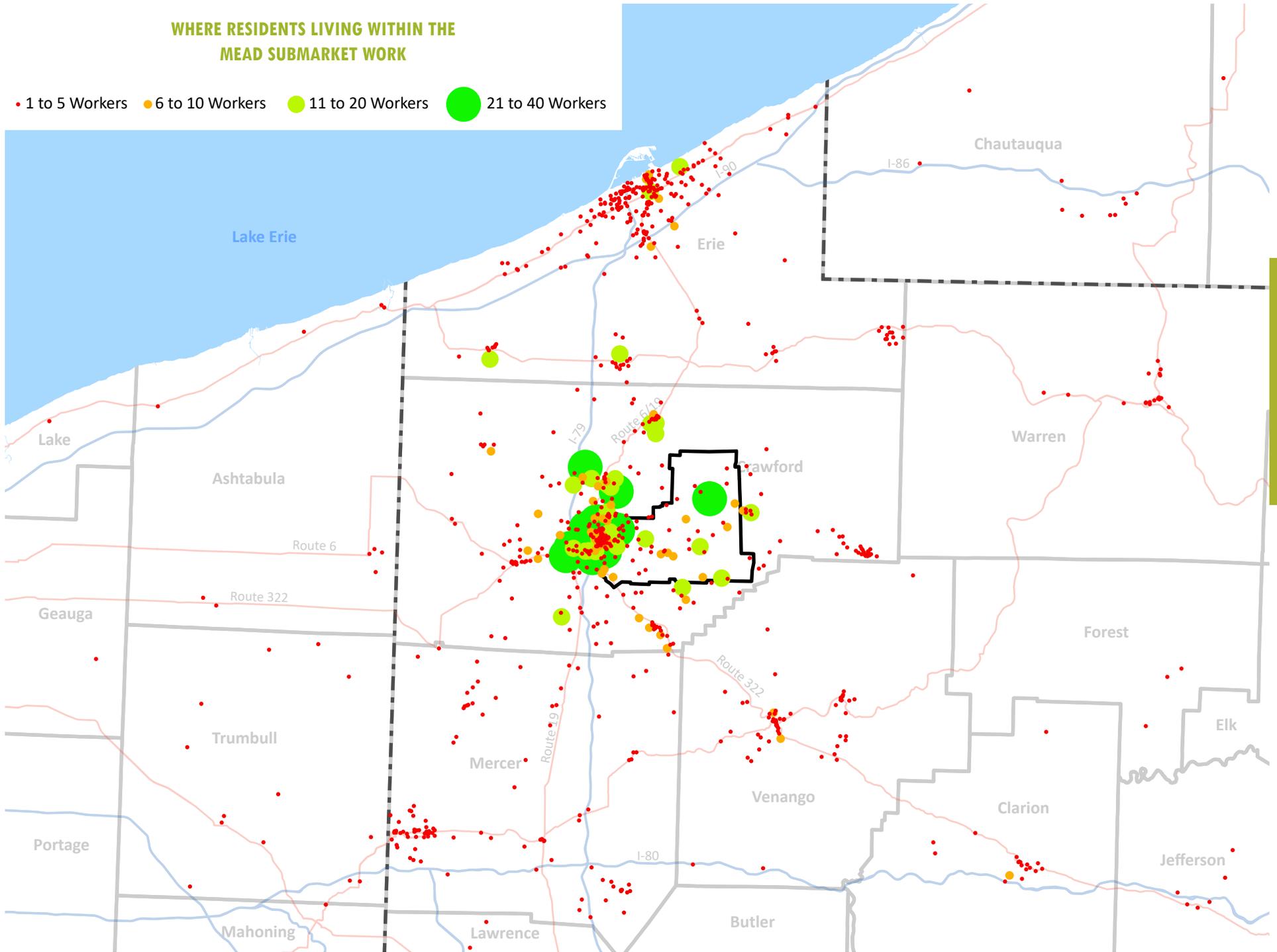
69.4% of Mead Submarket residents work inside **Crawford County**.

30.6% of Mead Submarket residents work outside **Crawford County**.

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

WHERE RESIDENTS LIVING WITHIN THE MEAD SUBMARKET WORK

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



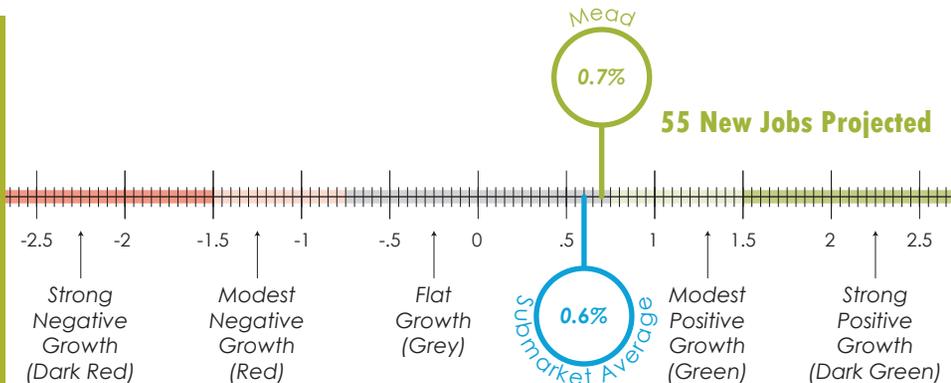
MEAD SUBMARKET

JOB GROWTH ANALYSIS:

☀️ JOB GROWTH —

From the graph below, the Mead Submarket's 0.7% projected annual job growth rate is just above the submarket average of 0.6% and at the upper end of the "flat growth" range. Recognizing this, it is unlikely that projected job growth within the Submarket will provide workers the extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

🏠 HOUSEHOLD INCOME CHANGE —

Despite flat job growth projections, from the graph on the bottom left, household income within the Mead Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new dwellings.

📊 TOTAL JOBS —

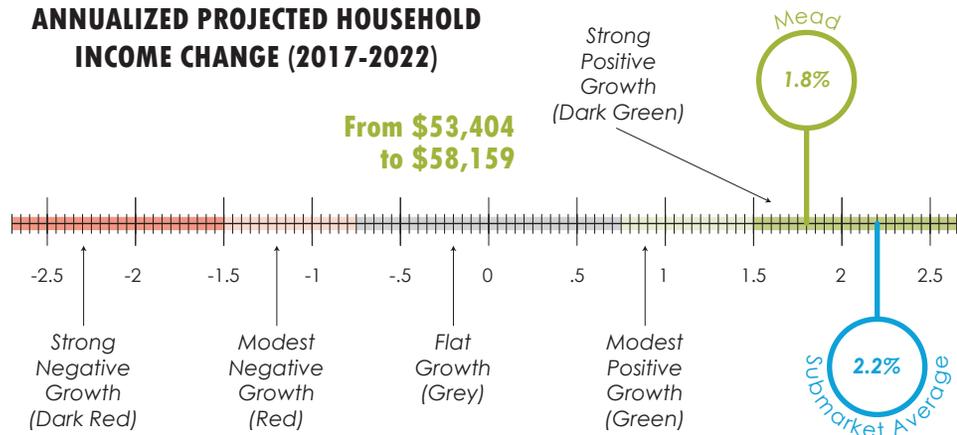
To explore the magnitude of the Mead Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. From the graphic below, the Mead Submarket contains fewer jobs than the submarket average. This finding aligns with our earlier conclusion that the Mead Submarket is a bedroom community and not a job center. Although jobs within the submarket provide important opportunities for local residents, the Mead Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

In summary, the Mead Submarket functions as a suburban bedroom community as many of its residents commute to jobs located either in Meadville or other accessible job centers. Although the Submarket is projected to have a flat job growth rate, it is expected to experience a strong household income growth rate. Such household income growth may bolster housing market stability.

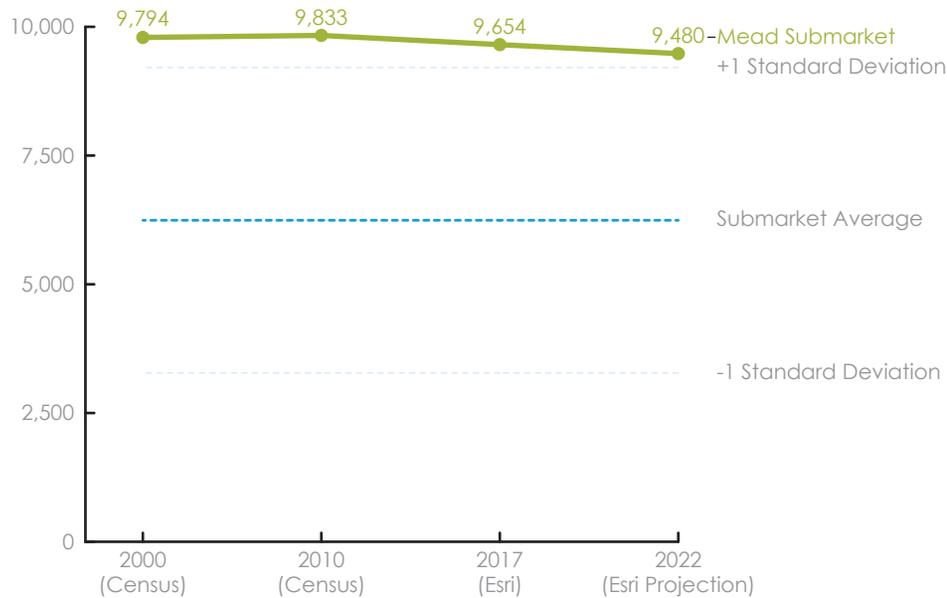
ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)



Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

POPULATION GROWTH ANALYSIS:

MEAD SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the Mead Submarket would directly lead to household formation and increased housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

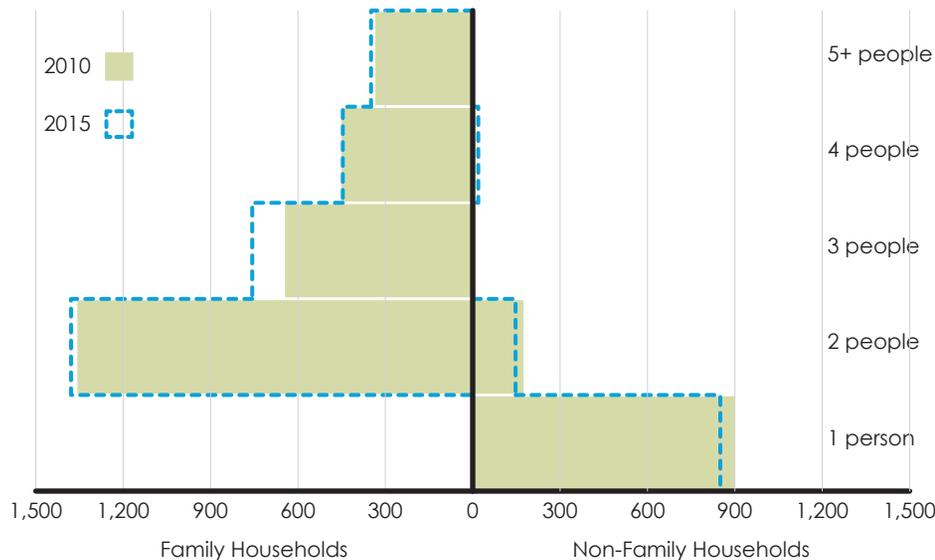
An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, the population of the Mead Submarket has declined slightly since 2000. This decline suggests that population growth is not driving the demand for housing within the Submarket.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

MEAD SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Mead Submarket households by size between 2010 and 2015. One- and two-person non-family households declined slightly during this time frame while those with four people increased marginally. In terms of family households, the Mead Submarket experienced a slight increase in two-person households while seeing a significant gain in the number of family households comprised of three people. Additionally, four- and five-or-more person households remained stable.

Household formation trends observed within the Mead Submarket suggest a decline in the internal demand for rental units, a slight increase in the local demand for starter and downsizing homes, and an increase in the internal demand for move-up homes.

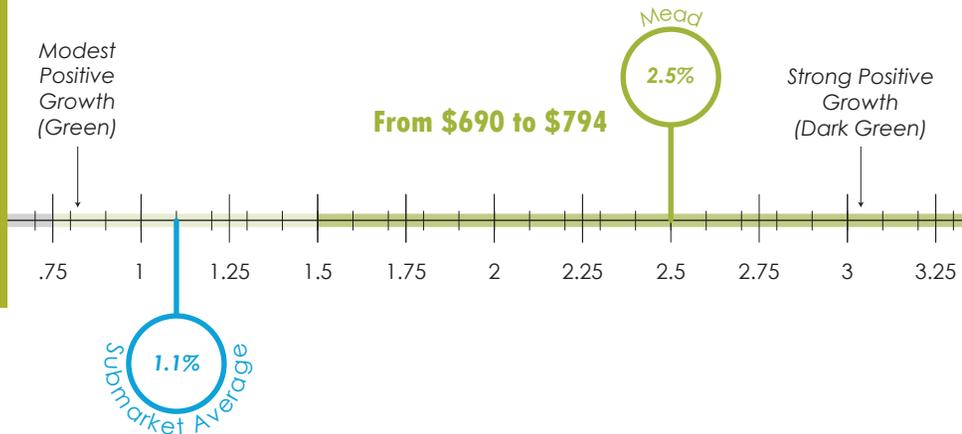
Source: U.S. Census

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Mead Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rents have seen strong growth outpacing the submarket average while home values have increased at a slower, modest-to-strong rate.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Mead Submarket with comparisons to Crawford County and the submarket average. We see that renter households within the Mead Submarket are about as cost-burdened overall as the submarket average but faring better than Crawford County as a whole.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



35.3% of Mead Submarket Renters
(240 Households)

41.3% of Crawford County Renters

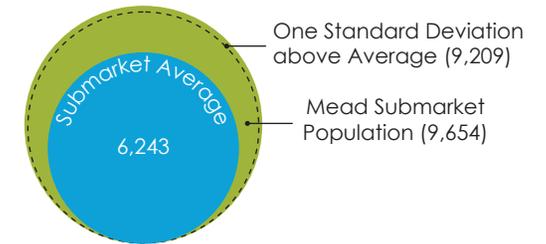
34.3% Submarket Average

Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

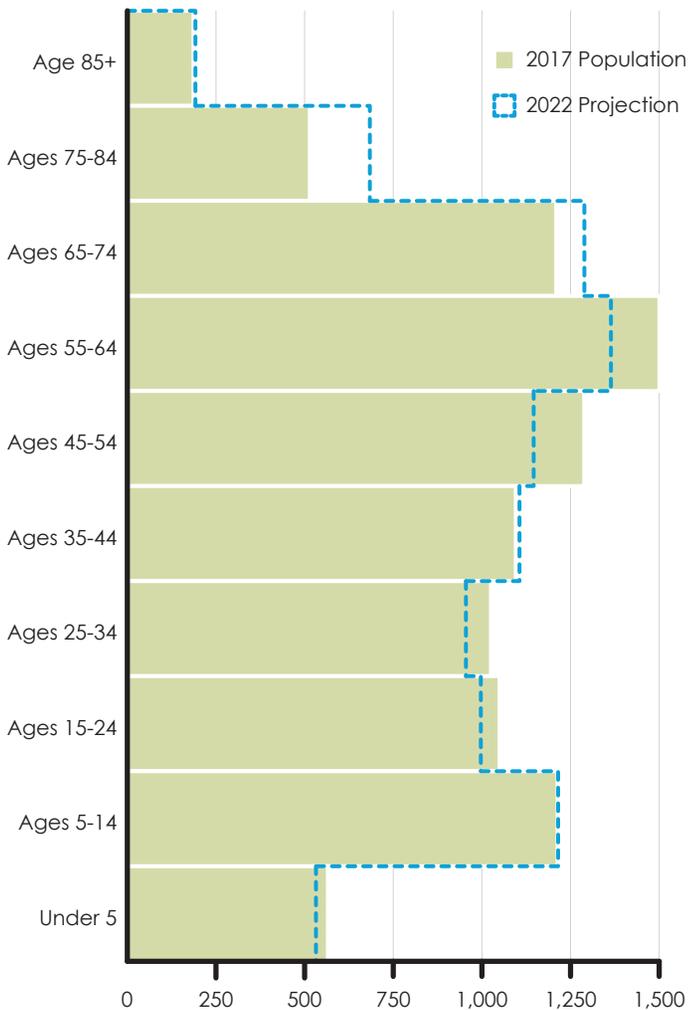
TOTAL POPULATION – The cycling of households between different homes creates some of the housing demand within a community. To understand this type of housing demand, we established whether the Mead Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average population living within a submarket. If the Mead Submarket contained more residents than one standard deviation above the submarket average, then that submarket was considered a population center.

From the graphic shown on the right, it is apparent that the Mead Submarket contains more population than one standard deviation above the submarket average.



Source: Esri, Retrieved 2017

MEAD SUBMARKET POPULATION PYRAMID & PROJECTION



Source: Esri, Retrieved 2018

By this standard, the Mead Submarket is a regional population center within Crawford County. It is possible that the housing demand created by the cycling of households between different homes within the community, may exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers. Additionally, from the Submarket's relative population size, the Mead Submarket may have the gravity to attract new residents on a speculative basis. When considering that the Mead Submarket is located near the Meadville and Vernon submarkets the possibility of attracting new residents in a speculative capacity increases to an extent. However, despite the increased possibility of attracting residents for reasons beyond those which personally anchor people, such as moving for a recently secured job or to be closer to family, the scope of our analysis isn't able to determine if such a trend is taking place.

AGE BRACKET COMPOSITION

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population's age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional "starter home" housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Mead Submarket in 2017 with a projection to 2022. Age cohorts within the Mead Submarket are projected to either remain stable or decline across both the youth and working age brackets which together constitute all individuals below age 64. Such declines are most pronounced across both the 45-to-54 and 55-to-64 age brackets. Conversely, the age brackets comprising individuals ages 65-to-74 and 75-to-84 are projected to increase. Population projections within the Mead Submarket suggest a decline in the demand for rental units, starter homes, and move-up housing while also suggesting an increase in the demand for downsizing homes and senior living accommodations.

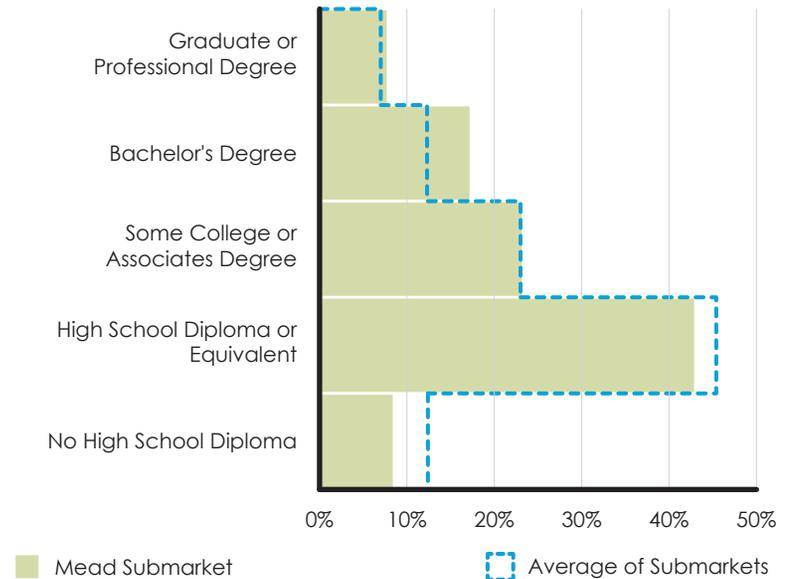
POPULATION GROWTH ANALYSIS:

The demographic trends and household formation trends addressed earlier provide mixed signals concerning the demand for starter homes and move-up housing while suggesting a decrease in the demand for rental units but an increase in the demand for downsizing units. Furthermore, growth in older age brackets suggest that many new two person households within the submarket may be formed by seniors after their children have moved out.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Mead Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Mead Submarket is more educated than the submarket average specifically in that it contains a much higher portion of individuals holding a bachelors degree. The Submarket's higher level of overall educational attainment may make it more economically competitive over the long run.

MEAD SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

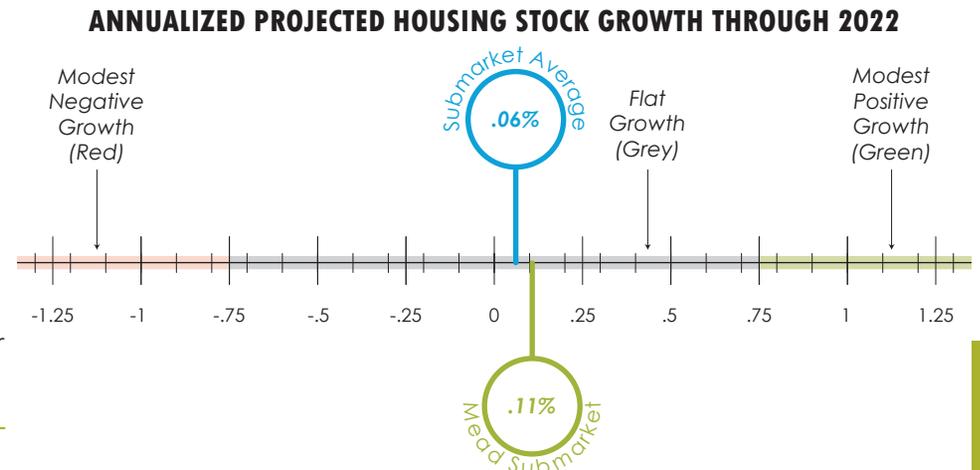
In summary, the Mead Submarket is a regional population center within Crawford County. However, the Submarket has experienced a population decline which is projected to continue into the future. Such decline suggests that most of the demand for housing within the Mead Submarket will come from the cycling of existing households. In terms of household formation trends, non-family households comprised of one to two people have declined while those composed of four people have increased only marginally. Family households of all sizes have increased in number over recent years with a substantial increase observed for those comprised of three people. Despite population declines, household formation trends appear to have translated into gains for both rent prices and home values. Even though rents have increased, the Mead Submarket has a similar rate of cost burdened renters than the submarket average and Crawford County on the whole. Demographic projections within the Submarket show declines across both the youth and working age cohorts while showing an increase in the population of seniors. In terms of educational attainment, the Mead Submarket is more educated than the submarket average.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

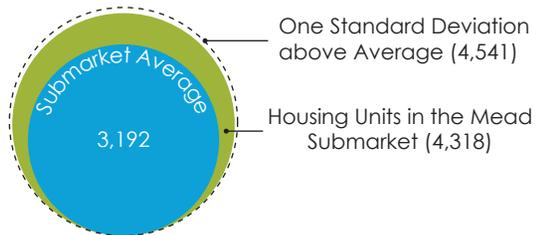
The graph at right presents the housing stock growth rate for the Mead Submarket. Although flat, the Submarket's housing stock growth rate is similar to the submarket average.



Source: U.S. Census, Retrieved 2018

TOTAL HOUSING STOCK —

It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Mead Submarket's housing stock, we compared the number of housing units located within the submarket to the average number of housing units within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average number of housing units within a submarket. From the graphic on the left, we see that the Mead Submarket has more housing units than the submarket average but does not deviate significantly above the average. Based on this analysis, it can be safely assumed that housing development within the Mead Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

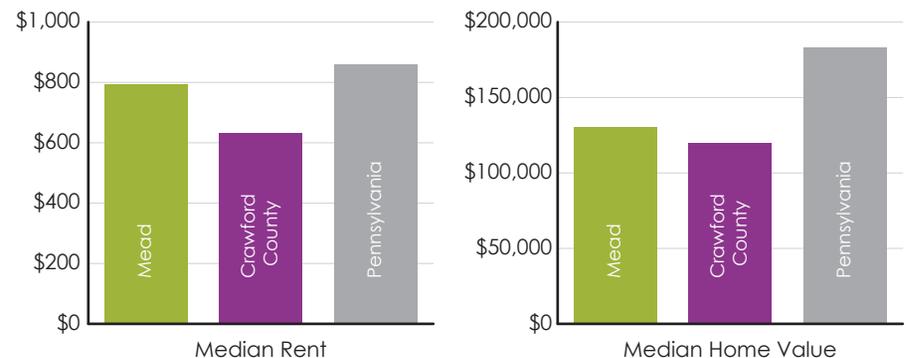


Source: Esri, Retrieved 2018

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, the Mead Submarket has a median rent price well above that for all of Crawford County and similar to Pennsylvania. For home values, the Mead Submarket outperforms the county but is well below Pennsylvania. Such figures suggest that the Submarket's rental and home ownership markets are among the most desirable in the county.

MEAD SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 –

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that one quarter of the Mead Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. From this observation, the Mead Submarket does contain its fair share of historical homes but does not seem burdened with an out-sized portion of such residences. Given the Submarket's aging population, opportunities to encourage accessibility upgrades should be considered from time to time.

MEAD SUBMARKET HOUSING UNITS BUILT PRE-1940

25%



Homes Built Pre-1940

75%



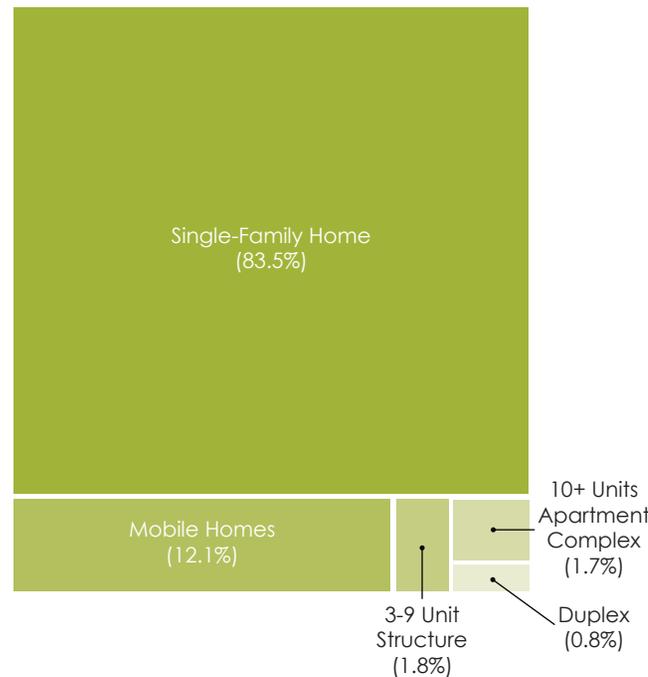
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

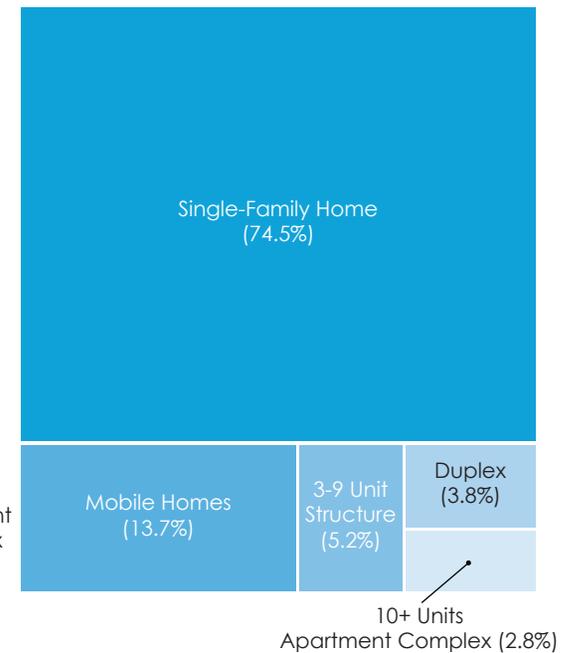
HOUSING BUILDING TYPES –

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Mead Submarket is somewhat comparable to the submarket average in that single-family and mobile homes dominate its housing building stock. However, the Submarket contains a much larger share of single-family homes than the submarket average. The combination of single-family and mobile homes comprise nearly 96% of the Cochran Submarket's housing stock despite the fact that the Submarket contains a lesser portion of mobile homes than the submarket average. Conversely, multi-unit structures constitute a smaller portion of the Cochran Submarket's housing building stock than the submarket average.

MEAD SUBMARKET



SUBMARKET AVERAGE

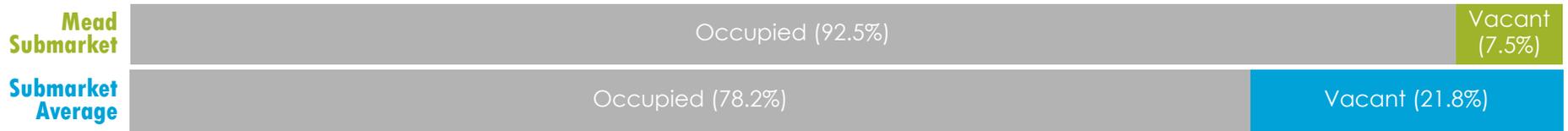


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

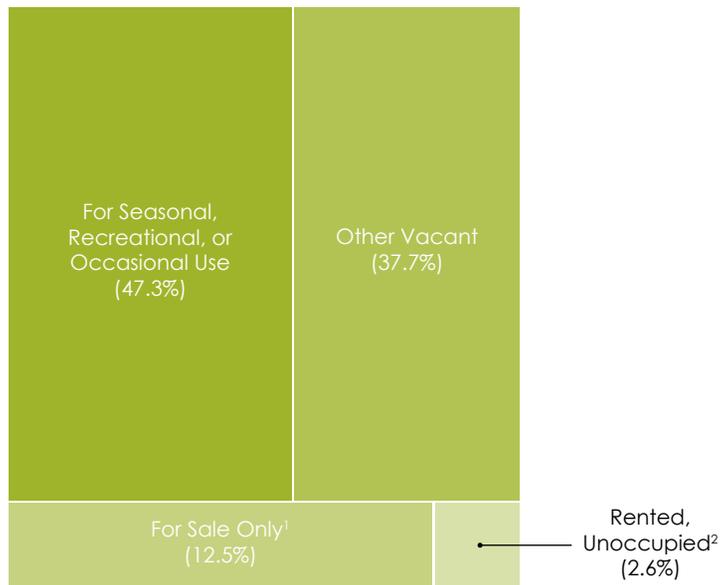
OVERALL VACANCY & VACANCY BY TYPE –

The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Mead Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. The Mead Submarket has an overall vacancy rate slightly above what is considered the natural range (4% to 7%) by real estate professionals. Despite its much lower overall vacancy rate, more than one-third (38%) of the Submarket’s vacancy results from “other” reasons while another nearly 13% can be reduced from homes that are currently listed for sale. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market. Even though the Mead Submarket has a relatively low vacancy rate, the proportion of vacancy resulting from “other” reasons indicates the existence of serious problems within certain portions of the Mead Submarket’s housing stock.

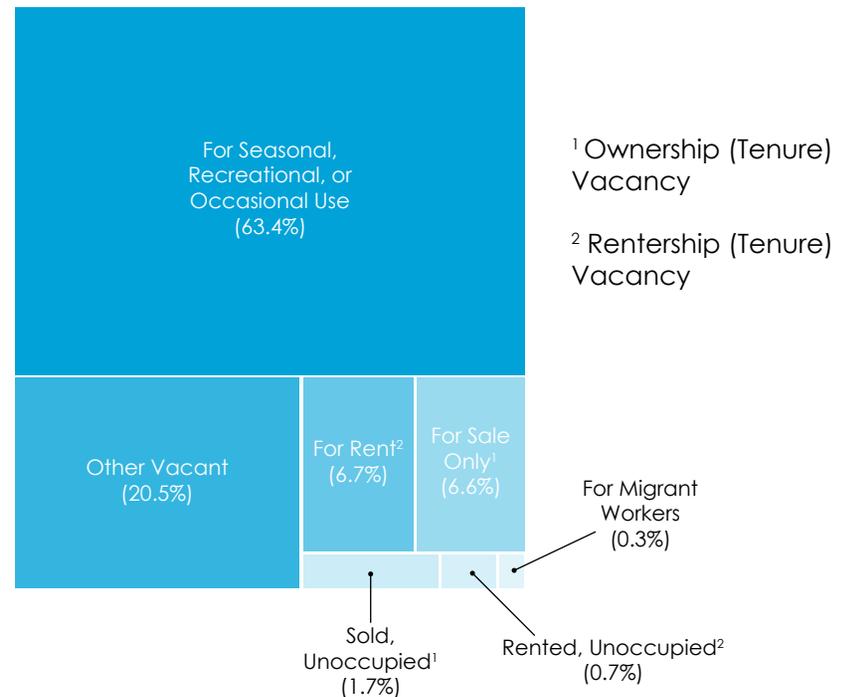


Source: U.S. Census, Retrieved 2018

MEAD SUBMARKET



SUBMARKET AVERAGE

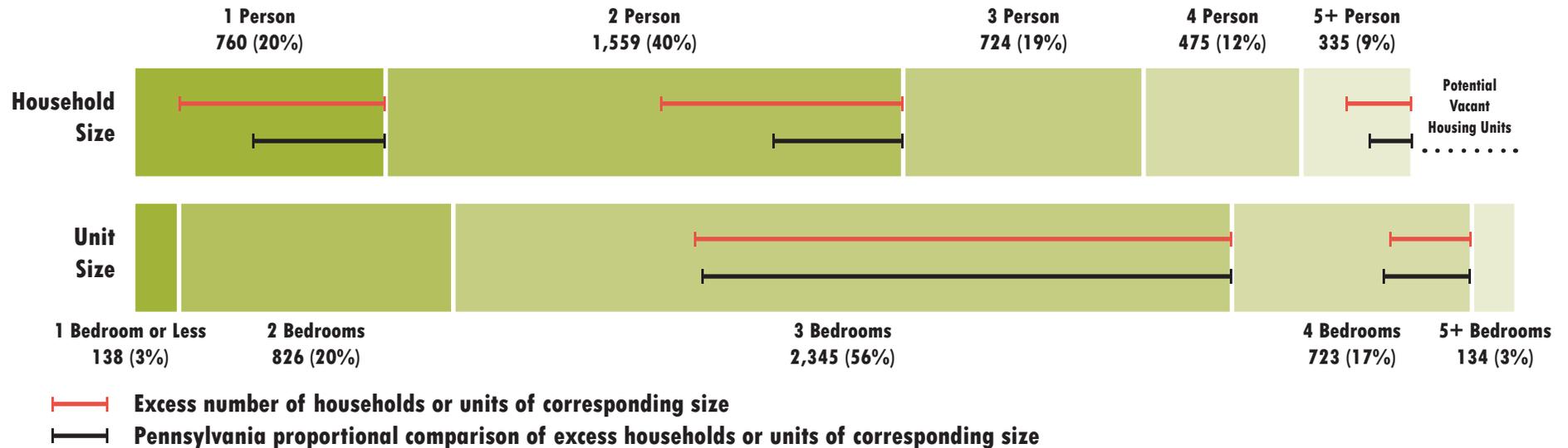


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Mead Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket figures for comparison purposes. From comparing these graphs, the Mead Submarket exhibits a substantial shortage of one-, two-, and five-or-more-bedroom housing units along with a minor shortage of homes comprised of four bedrooms. When compared against Pennsylvania's proportion, the Mead Submarket appears to have an adequate supply of three-bedroom homes.

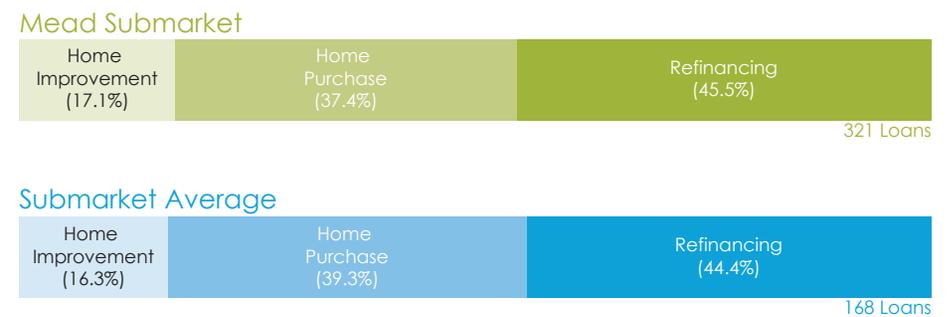


Source: U.S. Census, Retrieved 2018

THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right, demonstrate the purpose of loan activity within the Mead Submarket. From these graphs, it appears that loan activity within the Mead Submarket has been less investment oriented, at least in 2016, than activity reported across the submarket average. This is apparent from a stronger showing of the portion of loans for refinancing activities.

MEAD SUBMARKET LOANS BY PURPOSE (2016)



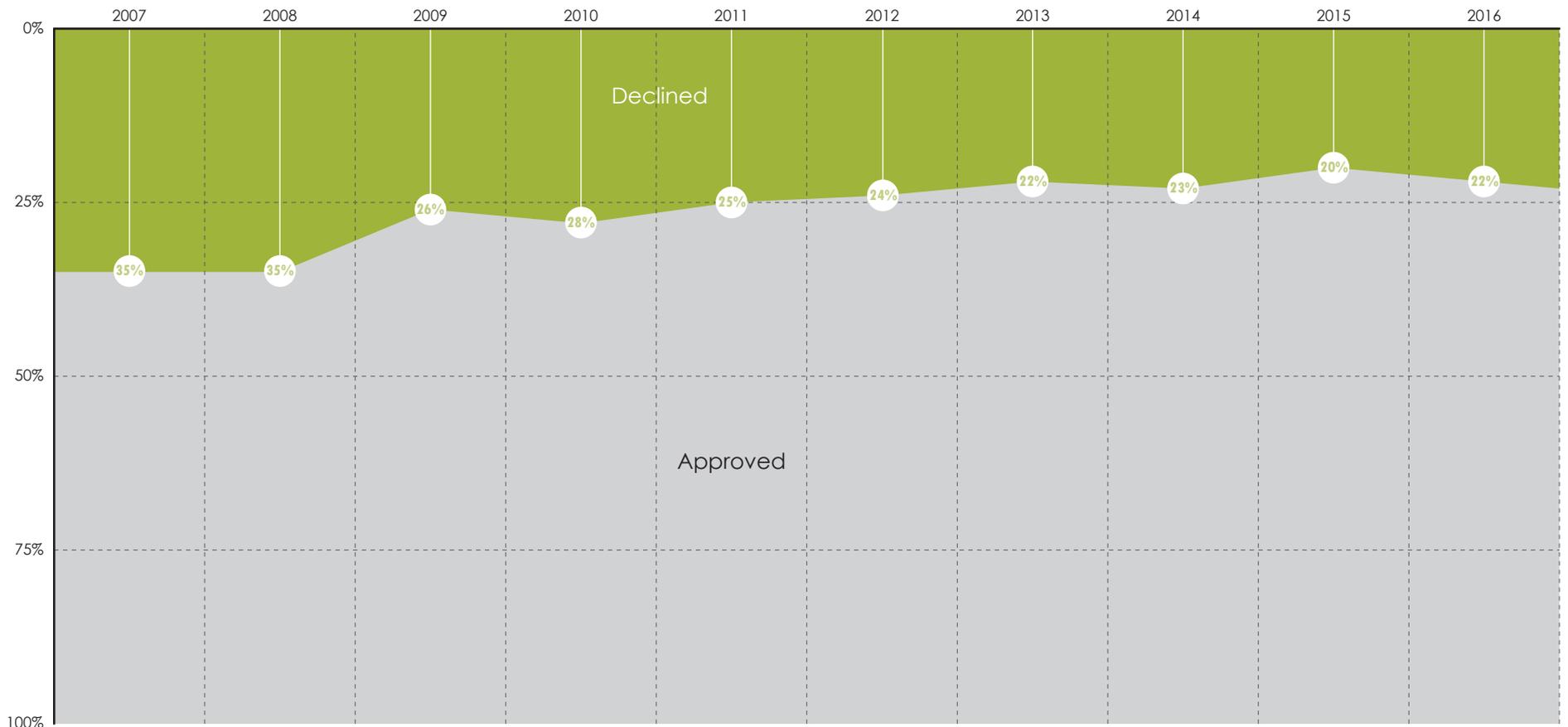
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Mead Submarket, the rate of declined loans has hovered in the mid-twenties in recent years (see below) and appears to show slight improvement since 2007.

MEAD SUBMARKET DECLINED HOUSING LOANS (2007-2016)



MEAD SUBMARKET

Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Mead Submarket contains a greater concentration of housing units than the submarket average and its housing stock isn't growing at a significant rate. This finding is consistent with observations of median home values which are above those observed across Crawford County but below Pennsylvania's figures. However, median rent prices within the Submarket are much higher than those observed across Crawford County and may even signify demand for new rental units. The lack of new housing construction leaves around 25% of the Submarket's stock as having been constructed prior to 1940. Single-family structures are proportionally more represented within the Mead Submarket than across the submarket average. In terms of vacancy, the Submarket's vacancy rate is fairly healthy and much lower than the submarket average, but a larger composition of its vacancy is due to "other" reasons. When assessing how well the Mead Submarket's housing stock meets the needs of its residents, it appears that the Submarket may lack opportunities for single individuals, couples without children, and large family comprised of at least five members. Loan activity within the Submarket has been less investment oriented than the submarket average and the rate of approved loans has hovered around 78% and does not appear to be showing much improvement.

OVERALL STATUS OF THE MEAD HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

The Mead Submarket is not a job center in Crawford County and such observation is unlikely to change into the near future given its flat job growth rate. Residents living within the Mead Submarket work at locations outside the Submarket by a ratio of more than nine-to-one. This leaves most of the Submarket's workers commuting to jobs in Meadville or to points further north along the I-79 and State Routes 6 and 19 corridors. Consistent with commuter trends observed within the Mead Submarket, the Submarket has a job-to-housing ratio of 0.60 which lies below the beneficial range discussed within our analysis. The combination of the Submarket's commuter trends and its job-to-housing ratio demonstrate that the Mead Submarket is used as a bedroom community by the vast majority of its residents. In terms of economic stability, the Mead Submarket is largely dependent on the growth and development of nearby job centers throughout the greater region. Despite the Submarket's dependence on neighboring job centers, its median household income is projected to increase which will translate into the stability of its housing market. Further stability may also be attribute to the Submarket's workforce whose overall educational attainment is above the submarket average and likely provides for a more competitive labor force. However, recent observations of loan originations have been less investment oriented than the submarket average despite reporting a greater proportion of loan activity for home improvements. Housing related loan originations have been approved at around a 78% success rate in recent years.

POPULATION TRENDS —

The Mead Submarket is a regional population center within Crawford County. Despite its prominence as a regional population center, the Submarket's population has declined slightly since 2000. Population decline has translated into a drop in the number of one- and two-person non-family households. However, family household formation trends have shown minor growth in the number of two- and three-person households with those comprised of four- and five-or-more people holding steady. Demographic projections for the Submarket provide a forecast similar to many other submarkets across the county with youth and working age population brackets either remaining flat or declining while the population of those over the age of 65 is expected to increase. Overall, the Mead Submarket is aging, but family household formation remains stable.

THE HOUSING MARKET GENERALLY —

The overall supply of new housing units within the Mead Submarket is not increasing at a significant rate. Given the Submarket's aging population, it is possible that senior citizen households may increasingly have to contend with the accessibility challenges presented by older homes. If current trends continue, the Submarket may need more housing units that are senior-friendly. Despite a decline in the number of non-family households, rent prices in the Mead Submarket are increasing at a strong rate. Home values have increased as well albeit at a modest-to-strong growth rate. Observations uncovered within our analysis suggest that the Mead Submarket might lack units to accommodate the demand for rental housing, and the Submarket's rate of cost-burdened renter households is comparable to the submarket average. Such conclusion is derived from observations of potential mismatches between the supply of housing units by size and the composition of households by size within the Submarket that suggest a shortage of one-bedroom homes which are often suitable for renter households. The Mead Submarket also appears to have a shortage of two-bedroom homes, which often provide good opportunities for starter and downsizing home consumers. Furthermore, the Submarket also seems to have a shortage of larger homes which can benefit families composed of more than five members. Overall, the Mead Submarket's vacancy rate is much lower than the submarket average and just above what is considered a healthy rate by real-estate industry standards. However, vacant homes attributed to "other" reasons as well as those listed currently for sale comprise a much larger portion of vacancy within the Mead Submarket than the submarket average.

THE MEAD SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Mead Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Mead Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment which constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — Consumer demand for the new household market within the Mead Submarket may decline as a result of a slight drop in the number of non-family households observed within the Submarket. The decline in the number of non-family households has also been accompanied by demographic projections forecasting an overall drop in the population of individuals between the ages of 15 and 34. A demographic decline for the population of individuals between the ages of 15 and 34 will likely have a negative impact on the demand for the new household consumer segment as many of the participants in this segment are within that age group. Overall, household formation trends and demographic projections suggest a decline in consumer demand for the types of housing that support the new household market.

Despite trends and projections which suggest a decline in consumer demand within the new household market, median rent prices are well above those observed county-wide and such prices have increased at a strong rate over recent years. In fact, the Mead Submarket may represent the only place in Crawford County where median rent prices approach the figure observed for such prices for Pennsylvania as a whole. These findings are significant for the new household market since most, if not all, of those participating in this consumer segment will be renters. Strong median rent prices and growth trends are also paired with projections showing strong household income growth. However, despite projections showing strong household income growth, the Mead Submarket's rate of cost-burdened renter households is comparable to the submarket average which is relatively high overall.

Another factor which may be negatively impacting the Mead Submarket's new household market is that multi-family housing structures are limited in supply. A lack of multi-family unit developments may make it more difficult for renter households to find housing that is both suitable for their living needs and affordable. Comparisons between the composition of households and housing units by size suggest that the Mead Submarket severely lacks one-bedroom housing units. A lack of one-bedroom housing units will make it tougher for many new renter households to finding housing and could even lead to circumstances which enable landlords to increase prices.

Despite relatively high median rent prices when compared to Crawford County and projections forecasting strong household income growth, the Mead Submarket's new household consumer segment is inadequate. Even though some of this report's findings suggest that demand within this consumer segment is on the decline, the Submarket's apparent shortage of the types and sizes of housing most suitable for the needs of the new household market may present significant problems. Additionally, relatively high rent prices paired with a high rate of cost-burdened renter households suggest that the ability for a household to transition into the starter home market may be inhibited. As a result, the ability to transition out of the new household market appears inadequate.

STARTER HOME & DOWNSIZING MARKETS — Increases observed in the number of two- and three-person family households within the Mead Submarket are a good sign for both its starter and downsizing markets. However, these household formation trends are contradicted somewhat by demographic projections forecasting an overall decline in the population of individuals between the ages of 15 and 34. While the number of individuals within this age range is decreasing, the population of senior citizens within the Mead Submarket is growing. The combination of household formation trends and demographic projections suggest that demand for starter homes is either stagnant or in decline while the demand for downsizing homes may be increasing.

The Mead Submarket supports median home values above the figure observed county-wide and such values are increasing at a modest-to-strong rate. Additionally, household income within the Submarket is projected to experience strong growth. These factors lend stability to all consumer segments within the Mead Submarket including the starter and downsizing segments. However, comparisons between the composition of households and housing units by size suggest that the Submarket severely lacks two-bedroom homes. Homes of this size are often suitable for the needs of those participating in the starter and

THE MEAD SUBMARKET'S HOUSING ECOSYSTEM:

downsizing segments. Even though the Mead Submarket has an abundant supply of single-family home structures, which often fit the preference of those in the starter and downsizing home segments, around a quarter of its overall housing stock was built prior to 1940 which may present some of the challenges and renovation issues associated with older homes.

Even though the Mead Submarket has one of the lowest housing vacancy rates of all submarkets within the county, the composition of its vacancy attributable to homes currently listed for sale is much higher than the submarket average. This could indicate that home sales within the Submarket are sluggish. Such a conclusion is consistent with the finding that loan originations within the Mead Submarket have been less oriented towards home purchases than the submarket average. However, the success rate for securing real-estate loan related financing has shown steady improvement.

Although many observations within our analysis suggest that the overall housing market within the Mead Submarket is doing okay, population projections showing a decline in the number of individuals between the ages of 15 and 34 place serious question over the well-being of its starter home market. However, the number of two-person family households has continued to grow, albeit very slightly, leaving the starter home consumer segment as adequate for now. The presence of conditions that represent a healthy overall housing market within the Mead Submarket also suggest that the ability to transition from the starter home consumer segment and into the move-up market is adequate.

When the combination of household formation trends and demographic projections which suggest an increase in consumer demand for downsizing homes is paired with the Mead Submarket's apparent lack of two-bedroom housing units, the well-being of its downsizing home market is called into question. Seniors and couples looking to downsize often have specific accessibility needs which can complicate the ability to find a suitable downsizing home when considering the Submarket's limited supply for smaller houses. Questions over whether the Mead Submarket's downsizing housing segment has the supply necessary to accommodate potential demand leaves this segment as inadequate. Although some relief may be provided by the slight abundance of three-bedroom homes in the Submarket, such surplus does not appear large enough to mitigate housing supply concerns for the downsizing market. However, given the Submarket's strong potential demand for downsizing homes, paired with other factors suggesting a healthy overall housing market, the ability to transition from the downsizing segment and into a senior living accommodation is considered to be adequate.

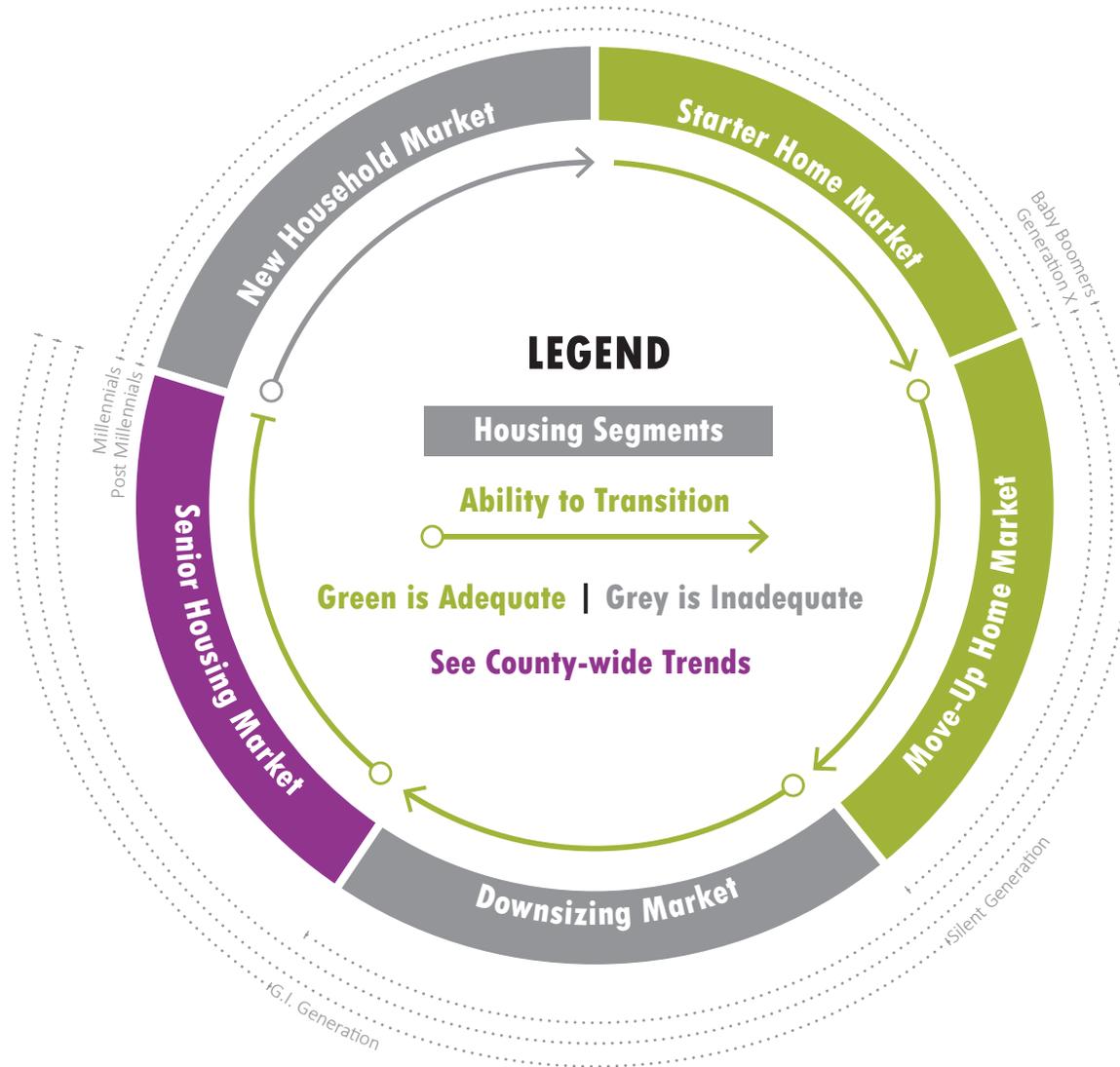
MOVE-UP MARKET – The move-up housing market within the Mead Submarket may benefit from many of the same indicators of overall well-being discussed from the starter and downsizing markets. These include relatively high median home values, modest-to-strong home value growth, strong projected increases in household income, a healthy overall vacancy rate, and an abundance of single-family home structures. Conversely, the presence of a significant concentration of older homes and a disproportionately large share of homes that are vacant because they are currently listed for sale present potential challenges and hardships that may impact the move-up market.

Trends showing an increase in the number of family households comprised of three people within the Mead Submarket while those with four and five-or-more individuals remain stable suggest healthy demand for move-up housing. However, such household formation trends are accompanied by demographic projections showing an overall decline in the population between the ages of 35 and 64. When comparing the compositions of households and housing units by size, it appears that the Submarket's supply of three-bedroom homes is adequate. However, the Submarket appears to have a minor shortage of four-bedroom units and a significant shortage of five-or-more bedroom units. At the moment, housing supplies may meet the needs of the move-up consumer segment but an increase in demand could cause unhealthy mismatches.

Overall, since household formation trends show an increase in the number of family households composed of more than three people, the move-up housing consumer segment is considered to be performing adequately. Also, because the demand for move-up housing within the Submarket appears stable, at least for now, the ability of a household to transition from this segment into the downsizing home market is also adequate.

SENIOR HOUSING MARKET – Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE MEAD SUBMARKET'S HOUSING ECOSYSTEM:



THE MEADVILLE SUBMARKET

Located in central Crawford County, the Meadville Submarket consists of the City of Meadville along with a portion of West Mead Township and lies adjacent to the Saegertown, Vernon, and Mead Submarkets.

A HOUSING ECOSYSTEM ANALYSIS OF THE MEADVILLE SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

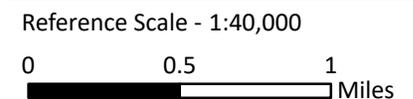
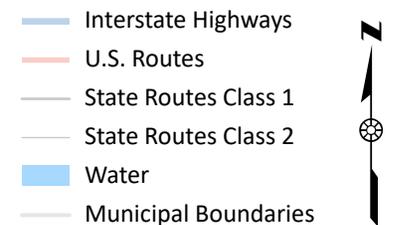
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚙️). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

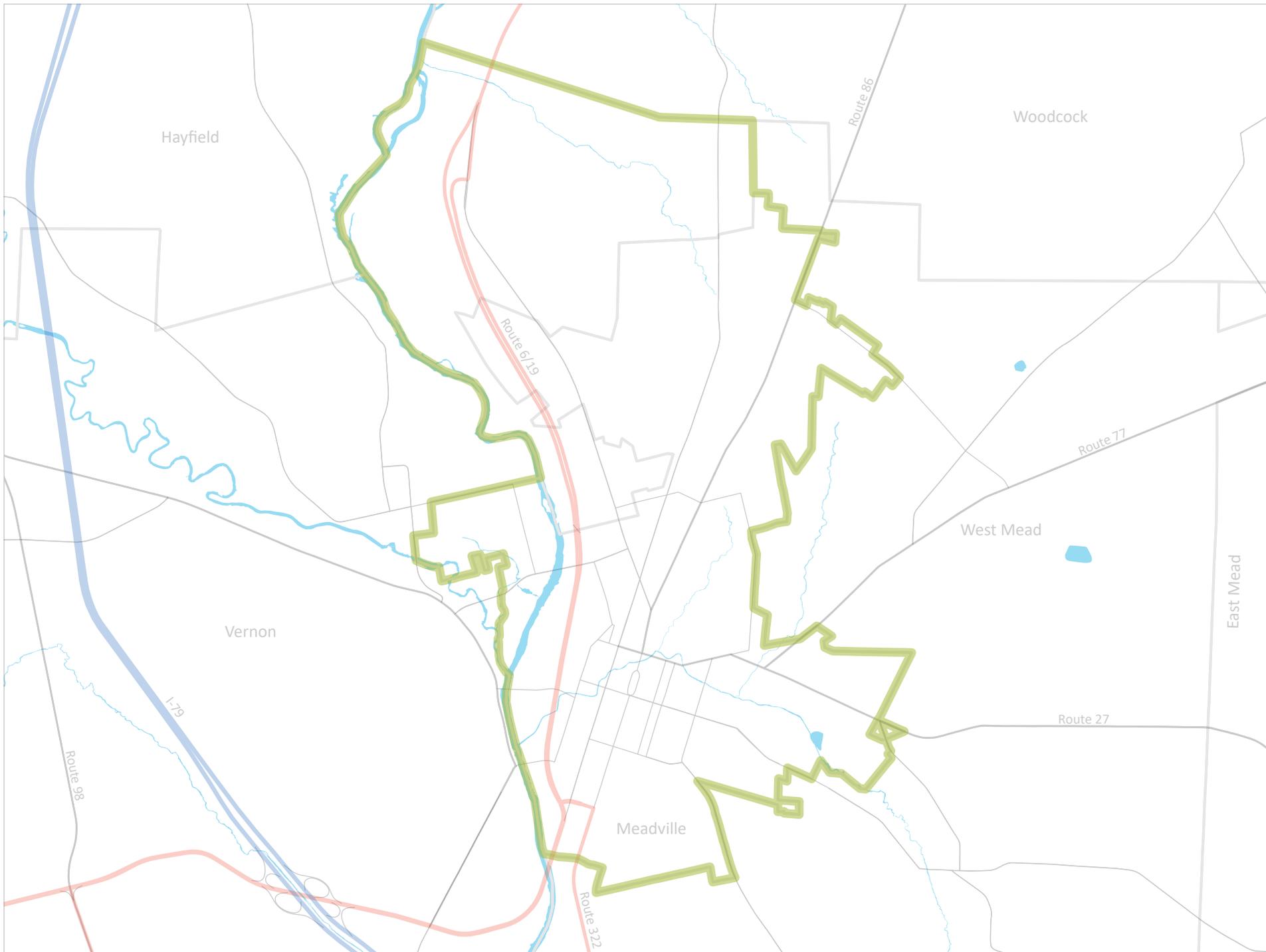
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (📊). These indicators generally gauge how well parts of the market are responding to each other or how well people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Meadville Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends for Meadville Submarket residents.

LIVE-WORK TRENDS OF MEADVILLE SUBMARKET RESIDENTS —

The map on the next page uses dots to represent where residents living within the Meadville Submarket work. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Meadville Submarket produces a job-to-housing ratio of 1.70, just above this range, which may indicate that workers prefer to not live within the Submarket.

The radar graph on the bottom left displays the distance and direction of where Meadville Submarket residents work. From the dark green wedges of the graph, we see that 63% of workers commute less than ten miles to work – a finding consistent with expected job center growth patterns. Thirty-one percent (31%) of commuters travel more than 25 miles to reach work particularly going northward towards Erie and southbound either in or near Pittsburgh. An impressive 39% of Meadville Submarket residents also work at jobs inside the Submarket.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries



Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE MEADVILLE SUBMARKET RESIDENTS WORK



- Less than 10 Miles
- 10 - 24 Miles
- 25 - 50 Miles
- 50 + Miles

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

39.3%

of Meadville Submarket residents work at a location **inside the submarket**.

65.7%

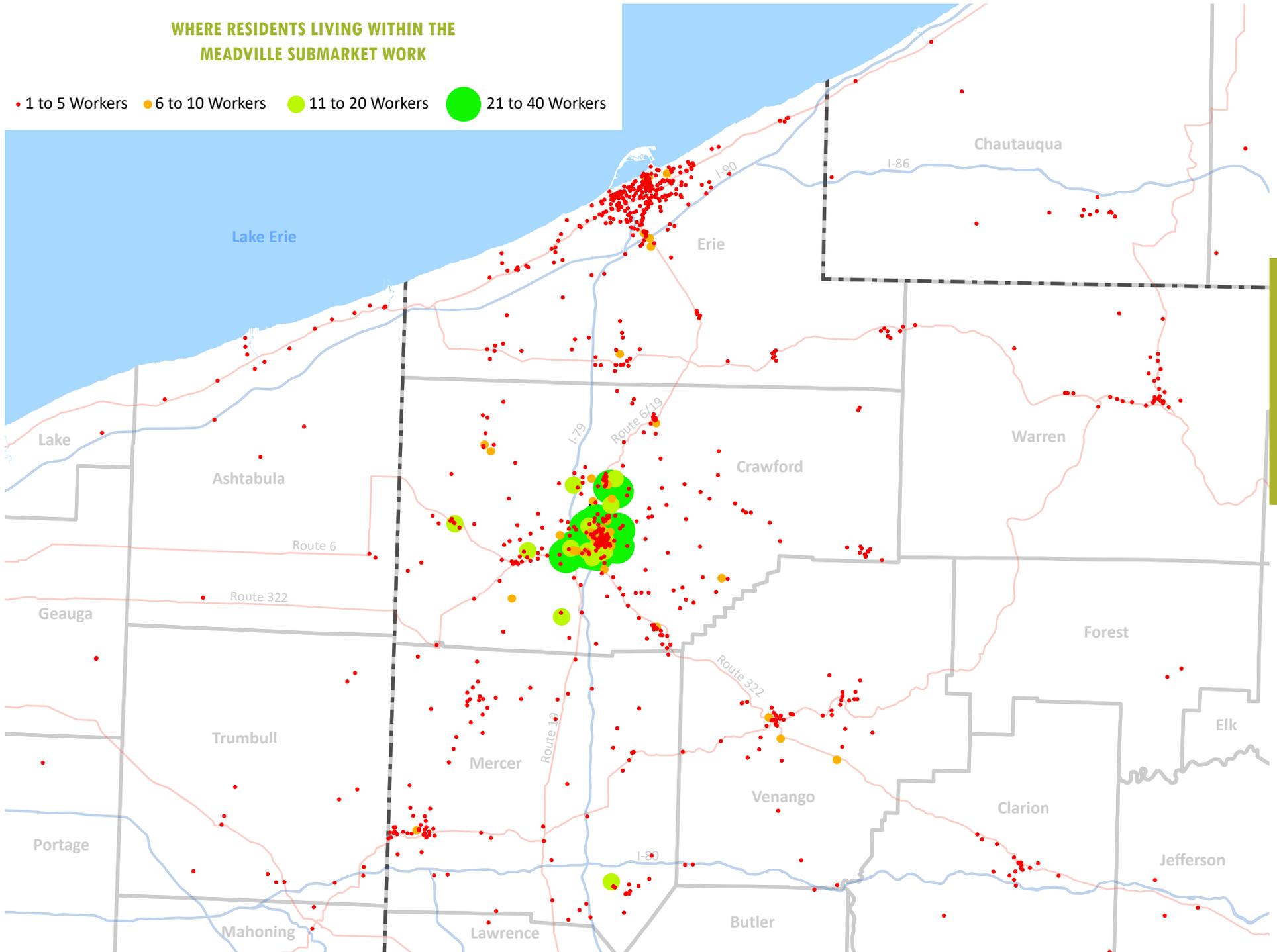
of Meadville Submarket residents work inside **Crawford County**.

34.3%

of Meadville Submarket residents work outside **Crawford County**.

WHERE RESIDENTS LIVING WITHIN THE MEADVILLE SUBMARKET WORK

• 1 to 5 Workers ● 6 to 10 Workers ● 11 to 20 Workers ● 21 to 40 Workers



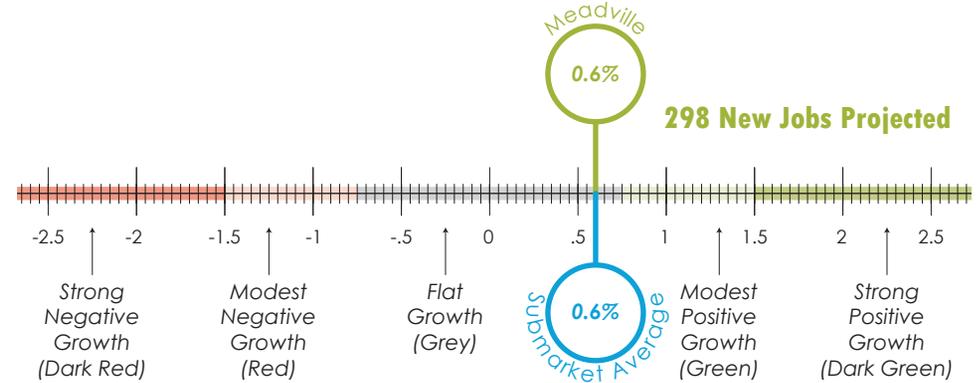
MEADVILLE SUBMARKET

JOB GROWTH ANALYSIS:

⚙️ JOB GROWTH —

From the graph on the right, the Meadville Submarket’s 0.6% projected annual job growth rate is identical to the submarket average. However, this rate lies within the “flat growth” range. Recognizing this, it can be assumed that projected job growth within the Meadville Submarket will not provide workers additional employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



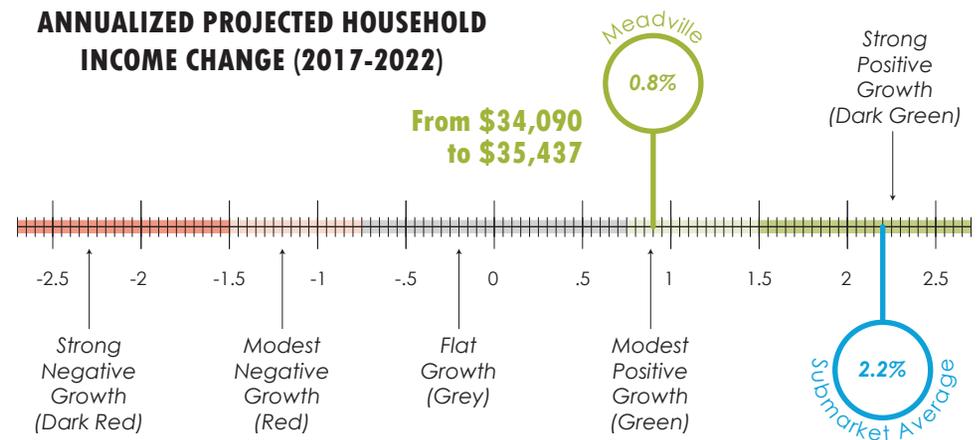
Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

MEADVILLE SUBMARKET

🏠 HOUSEHOLD INCOME CHANGE —

Despite the flat job growth trends observed above, the Meadville Submarket is expected to experience a modest rate of household income growth as shown in the graph on the right. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)

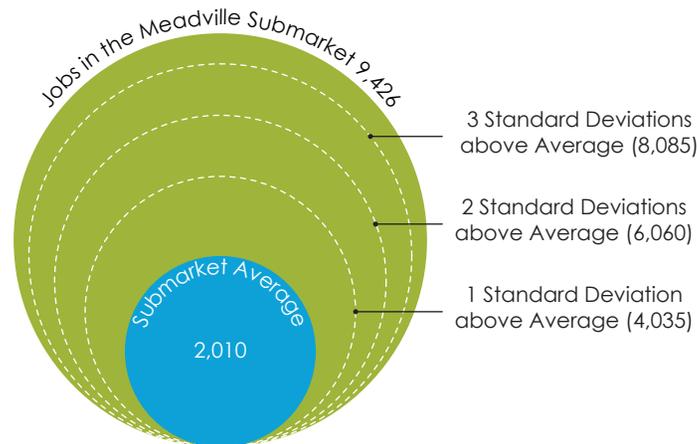


Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

POPULATION GROWTH ANALYSIS:

TOTAL JOBS —

To explore the magnitude of the Meadville Submarket's employment base, we compared the number of jobs inside the Submarket to the average number of jobs located within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average value of jobs present within a submarket. If the Meadville Submarket contained more jobs than two standard deviations above the submarket average, then it was considered as a job center. From the graphic below, the number of jobs within the Meadville Submarket is clearly more than two standard deviations above the submarket average. Although our analysis did not have access to enough survey samples (submarkets) to garner statistical confidence in our application of standard deviation as a measure of central tendency, and thus assumes a normal distribution, the size of the discrepancy between the number of jobs within the Meadville Submarket and the submarket average is substantial. From this observation, it can be safely concluded that the Meadville Submarket is a prominent job center within Crawford County. Furthermore, the substantial supply of job opportunities within the Meadville Submarket likely plays an important role in stabilizing other submarkets.

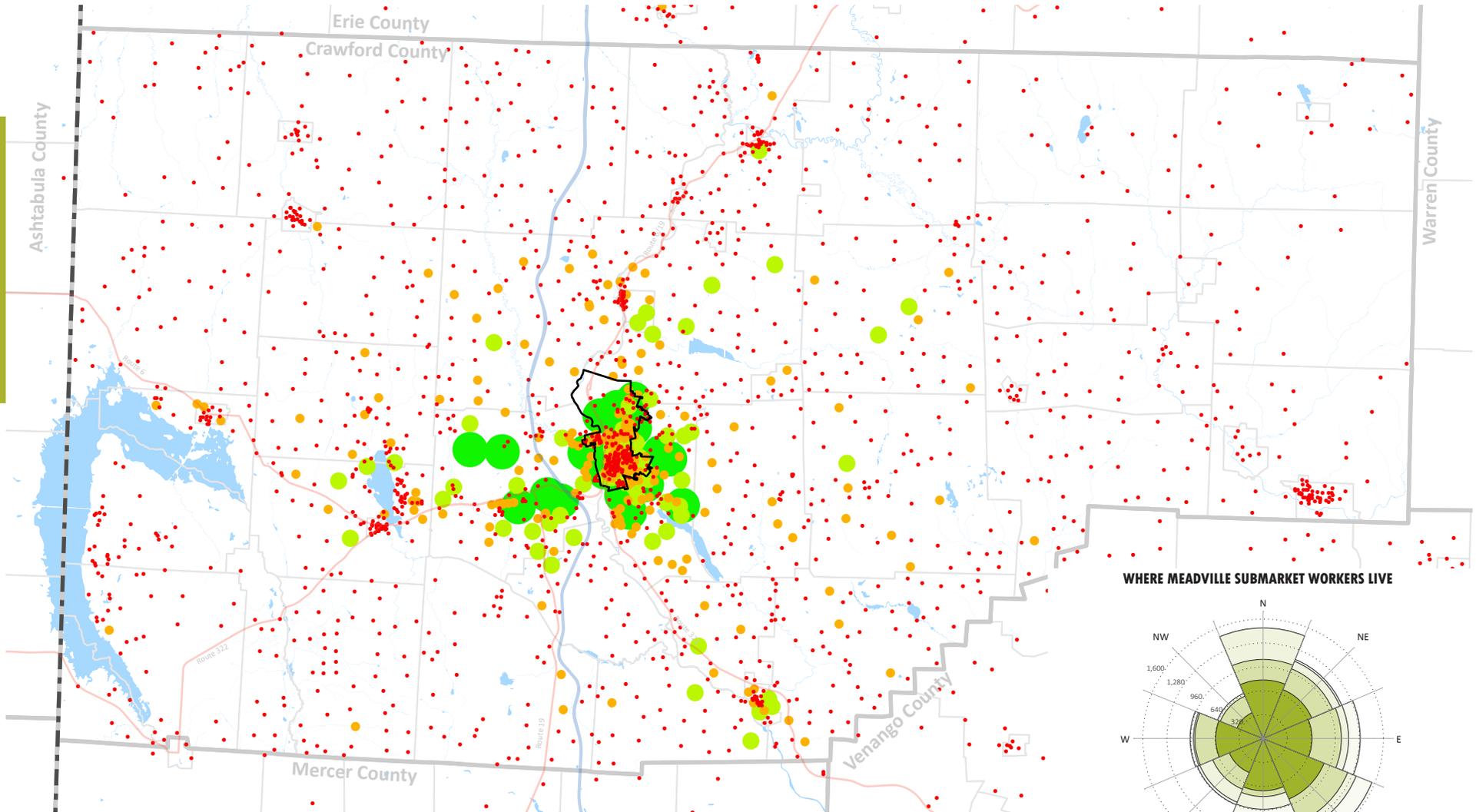


Source: U.S. Census 2011-2015 ACS

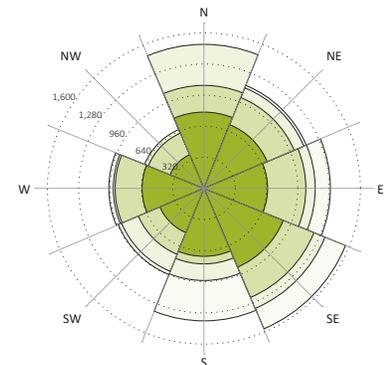
JOB GROWTH ANALYSIS:

WHERE MEADVILLE SUBMARKET WORKERS LIVE —

The map below showing where those working within the Meadville Submarket live complements our earlier live-work analysis. About 20% of Meadville Submarket workers also live inside the Submarket with the balance (80%) preferring to live outside it in suburban West Mead and Vernon townships along with the rural stretches of the county. Additionally, many of the Submarket's workers also live outside the county.



WHERE MEADVILLE SUBMARKET WORKERS LIVE



● Less than 10 Miles ● 10 - 24 Miles ○ 25 - 50 Miles ○ 50 + Miles

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

In summary, the Meadville Submarket is a prominent job center despite flat job growth in recent years. Household income is projected to increase at a modest rate, which may support the stability of the housing market. Additionally, 80% of those working within the Submarket live outside it.

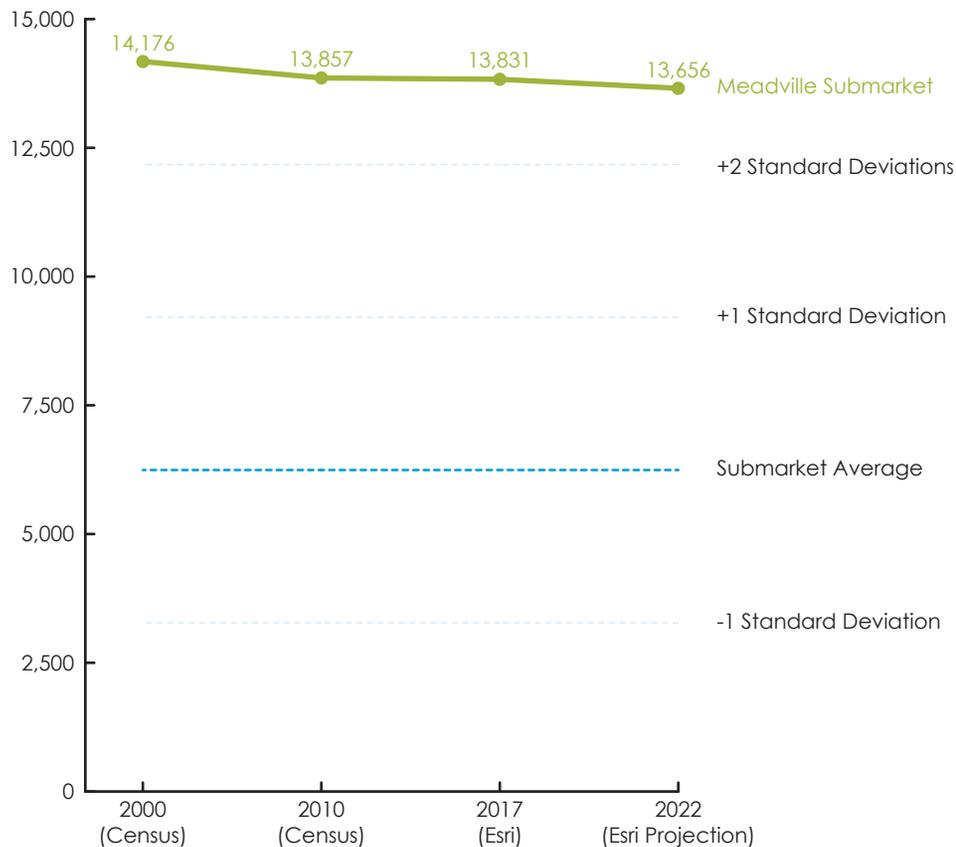
POPULATION GROWTH ANALYSIS:

This section explores population growth as a driver and the relationships between its influencers, which leads to a submarket's total population. Population growth within the Meadville Submarket would directly lead to household formation and increase housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH –

However, from the graph below, the population of the Meadville Submarket has declined just over 2% since 2000 and is projected to decrease into the future. This decline suggests that population growth is not driving the demand for housing within the Submarket.

MEADVILLE SUBMARKET POPULATION GROWTH



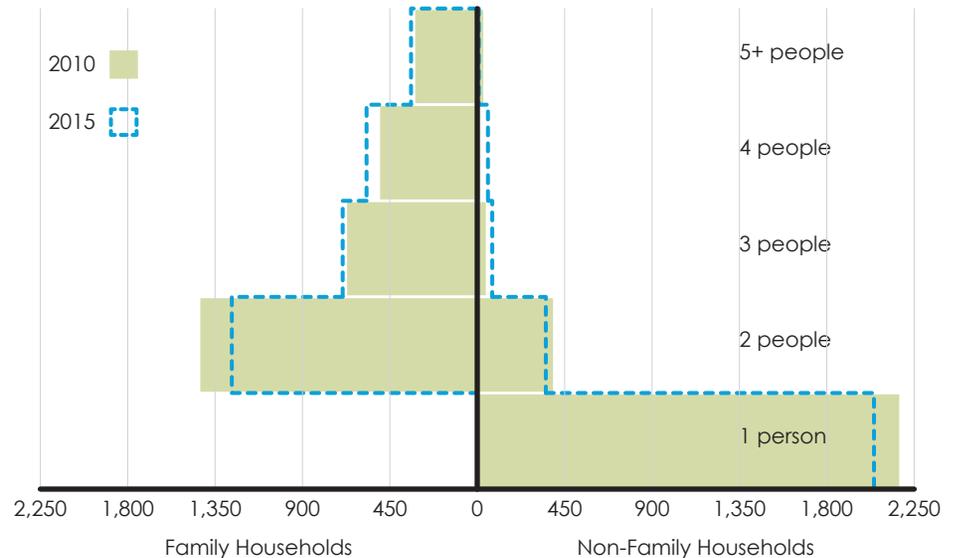
HOUSEHOLD FORMATION –

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

A household must comprise at least one person in a dwelling unit. As more households are formed, demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph below demonstrates the composition of Meadville Submarket households by size between 2010 and 2015. Non-family households comprised of one or two people as well as two-person family households have declined. Interestingly, all other household sizes experienced minor increases. Such household formation trends suggest a decline in the internal demand for rental units¹ with the local demand for larger homes (move-up homes) holding firm.

MEADVILLE SUBMARKET HOUSEHOLD FORMATION TRENDS



Source: U.S. Census

¹ – Given the Meadville Submarket's role as a regional population center, the submarket may still exhibit demand for rental units from outside consumers.

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

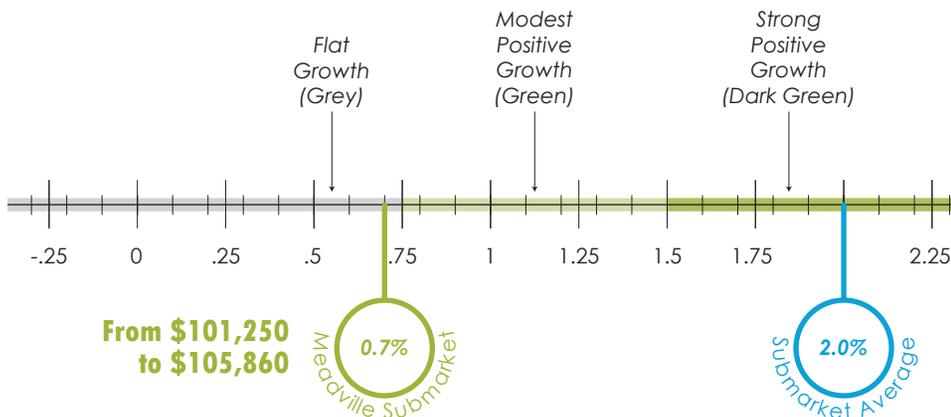
An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Meadville Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rent prices just barely lie within the growth range while home prices are just below this range.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30% of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Meadville Submarket with comparisons to Crawford County and the submarket average. We see that the Meadville Submarket struggles with more cost-burdened renter households than other submarkets and the county. In fact, more than half of all renter households within the Meadville Submarket are cost-burdened.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



52.5% of Meadville Submarket Renters
(1,538 Households)

41.3% of Crawford County Renters

34.3% Submarket Average

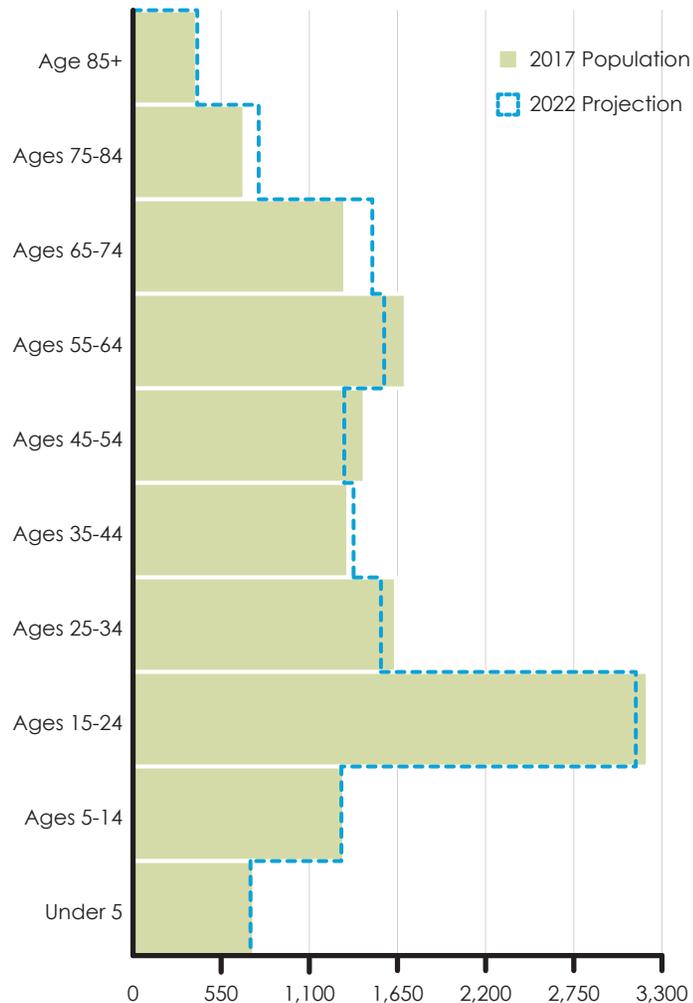
Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

TOTAL POPULATION –

The cycling of households between different homes creates some of the housing demand within a community. To understand this type of housing demand, we established what type of population center is represented by the Meadville Submarket by comparing its population to the average population living within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average population living within a submarket. If the Meadville Submarket contained more residents than one standard deviation above the submarket average,

MEADVILLE SUBMARKET POPULATION PYRAMID & PROJECTION



Source: Esri, Retrieved 2018

then it was considered a regional population center.

From the graphic shown on the top right, the Meadville Submarket is not only more populated than the submarket average, its population is more than two standard deviations above the submarket average. By this standard, the Meadville Submarket is a regional population center within Crawford County. It is possible that the housing demand created by the cycling of households between different homes within the community may exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers. Additionally, from the Submarket's relative population size, the Meadville Submarket may have the gravity to attract new residents on a speculative basis.

AGE BRACKET COMPOSITION –

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population's age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional "starter home" housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Meadville Submarket in 2017 with a projection to 2022. Working age brackets comprising individuals ages 15-to-34 and 45-to-64 are projected to decline. These demographic changes may negatively impact the internally generated consumption of rental units, starter homes, and move-up homes. However, the noticeable increase projected for those ages 65 and up may produce local demand for both downsizing homes and rental units as well as senior living accommodations.

The demographic trends and household formation trends addressed earlier suggest increased local pressure on the market for downsizing and senior housing accommodations.



Source: Esri, Retrieved 2017

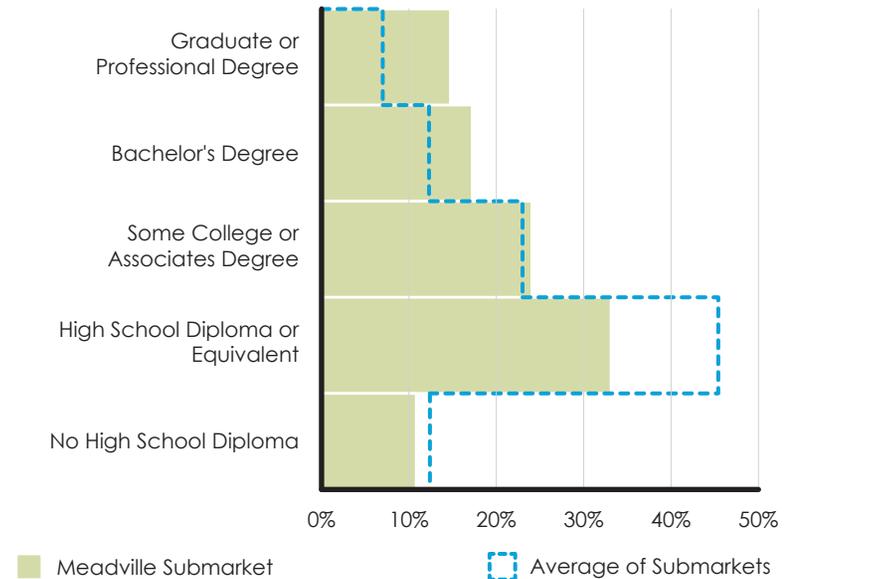
POPULATION GROWTH ANALYSIS:

Furthermore, projected changes in population age cohorts do not align with current growth trends in the number of households comprised of more than three individuals. However, given that many homes within the Meadville Submarket are renter households¹ combined with the earlier observation that more than half of these households are cost burdened, it is possible that growth in the number of households comprised of more than three people could be encouraged by high rent prices within an environment of limited rental options. This assumption is based on the idea that financial hardships mixed with a tight rental market could be encouraging people to group up in homes or stay with family members.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Meadville Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Meadville Submarket is considerably more educated than the submarket average with a significantly higher portion of people holding bachelor's and graduate/professional degrees. Additionally, when compared with the submarket average, the Meadville Submarket has a much smaller portion of its population only holding a high school diploma and a lessor portion of those with no high school diploma.

MEADVILLE SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri

In summary, the Meadville Submarket has declined slightly in population since 2000 and is projected to continue to decrease into the near future. The Submarket's population decline aligns with the observation that job growth has been flat. Population decline has translated into a drop in households consisting of either one or two people. However, despite this population decline, both family and non-family households consisting of three or more people have either held steady or increased in number. This unexpected observation may stem from interactions between the needs of the Submarket's population, rent prices, and available rental units. Both rent prices and home values within the Meadville Submarket have experienced near moderate growth in recent years. However, such increases aren't extreme. Despite experiencing a moderate annualized increase in rent prices, more than half of renter households are cost-burdened by housing. This observation may explain recent growth trends for households comprised of more than three people as the ability for individuals to branch out into their own units is inhibited. Demographic projections for the Meadville Submarket forecast growth across ages brackets over 65 may place demand on downsizing and senior housing units in the future while also suggesting overall population decline across age brackets from 15-to-64, which may inhibit the renter, starter home, and move-up markets down the road.

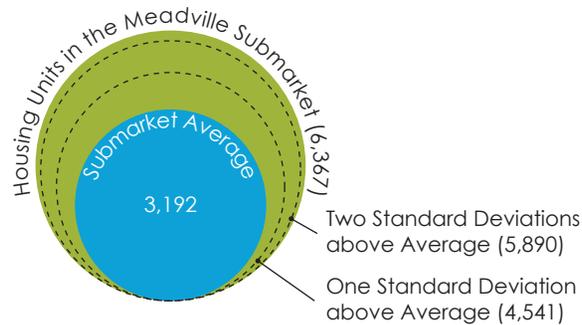
¹ – 59% of all households within the Meadville Submarket are renter occupied with the balance (41%) representing owner occupancy.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers, which lead to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

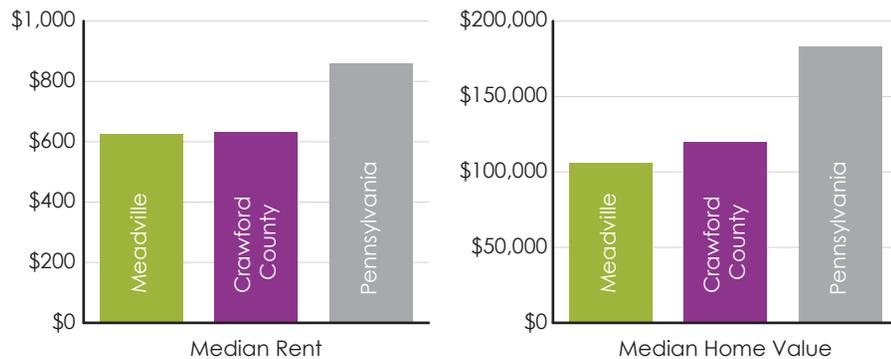
HOUSING STOCK GROWTH —

The graph on the right presents the projected housing stock growth rate for the Meadville Submarket. Although within the flat growth range, the Submarket's forecast is similar to the submarket average.



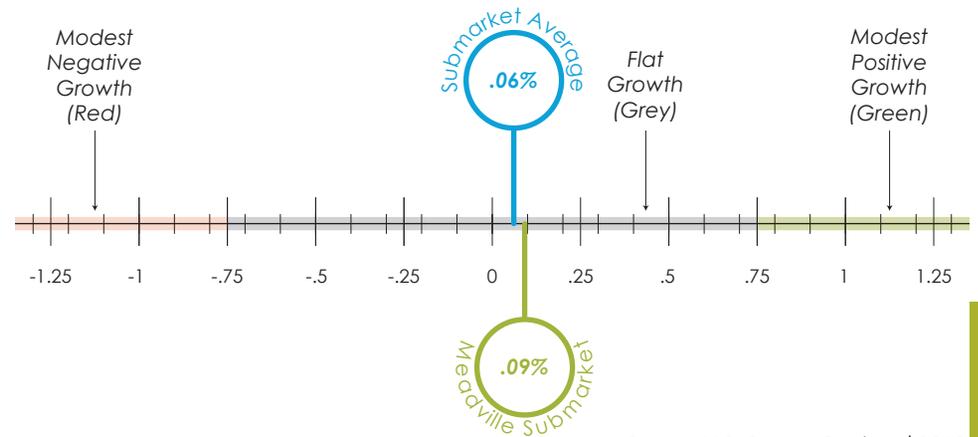
Source: Esri, Retrieved 2018

MEADVILLE SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

ANNUALIZED PROJECTED HOUSING STOCK GROWTH THROUGH 2022



Source: U.S. Census, Retrieved 2018

TOTAL HOUSING STOCK —

Larger communities are more likely to attract speculative real estate investment than smaller communities, where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Meadville Submarket's housing stock, we compared the number of housing units located within the Submarket to the average number of housing units within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average number of housing units within a submarket. From the graphic at left, we see that the Meadville Submarket has many more housing units than the submarket average. The number of housing units within the Submarket is more than two standard deviations above the submarket average. Based on this analysis, it is more likely that the Meadville Submarket may exhibit more speculative activity than other submarkets.

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs at left, the Meadville Submarket has a median rent price similar to Crawford County but much lower than Pennsylvania on the whole. For home values, the Meadville Submarket has lower home values than Crawford County and Pennsylvania. These figures alone likely do not signal for new housing investment in the Submarket.

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 —

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic at right shows that close to 44% of the Meadville Submarket housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they are usually maintenance intensive and inaccessible for seniors and those with disabilities. This finding is concerning given that the Meadville Submarket is projected to see growth in its population over the age of 65.

MEADVILLE SUBMARKET HOUSING UNITS BUILT PRE-1940

43.6%



Homes Built Pre-1940

56.4%



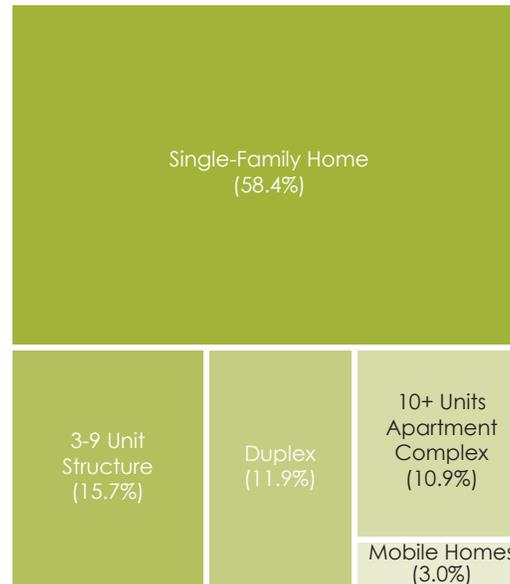
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

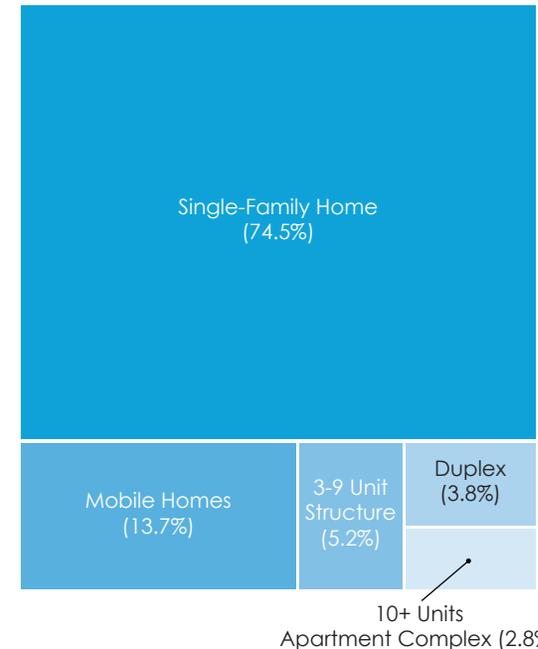
HOUSING BUILDING TYPES —

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Meadville Submarket is similar to the submarket average in that single-family homes comprise more than half of all units. However, within the Meadville Submarket, multi-unit structures and complexes are more represented than mobile homes. Although the Meadville Submarket has a few mobile home parks, the higher density nature of this relatively urban Submarket's built form has favored multi-unit structures. Additionally, the Submarket has a higher proportion of renters than the submarket average, which encourages either the construction or conversion into multi-unit housing structures and complexes.

MEADVILLE SUBMARKET



SUBMARKET AVERAGE



Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

OVERALL VACANCY & VACANCY BY TYPE –

The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Meadville Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. The overall vacancy rate for the Meadville Submarket is similar to the submarket average; however, the reasons for such vacancies appear to be more adverse. Forty-three percent (43%) of vacancy within the Meadville Submarket arises from “other” reasons with almost 30% comprised of units actively seeking renters. It should also be noted that nearly 13% of vacant housing units within the Submarket consists of homes that are for sale – double the submarket average for that type of vacancy. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market unintentionally. Such unintentional vacancy may demonstrate a significant cycle of disinvestment as landlords struggle to profit from their properties and owners abandon them.

Meadville Submarket

Occupied (79.9%)

Vacant (20.1%)

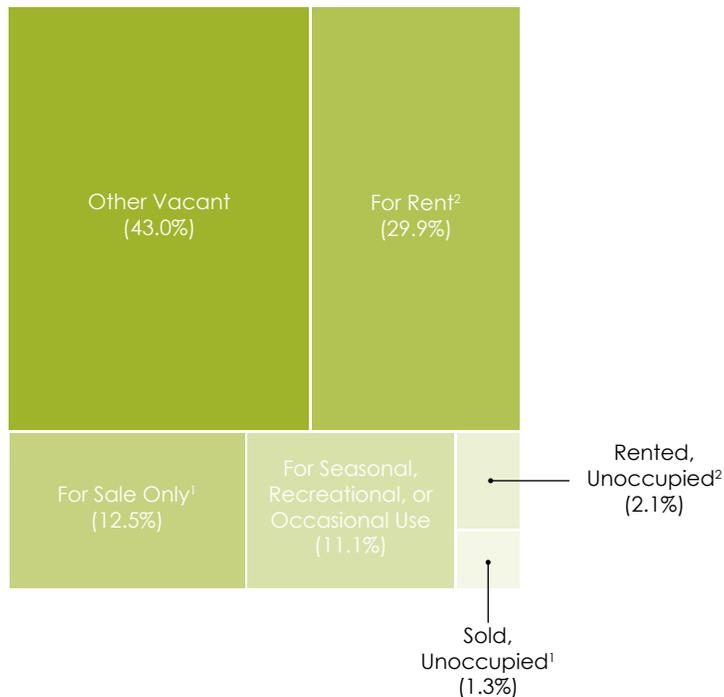
Submarket Average

Occupied (78.2%)

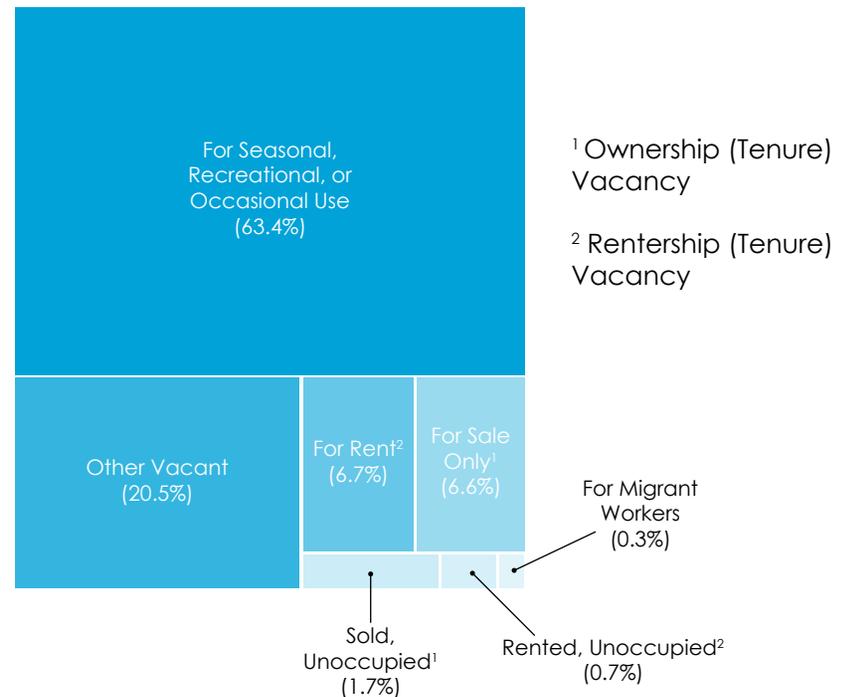
Vacant (21.8%)

Source: U.S. Census, Retrieved 2018

MEADVILLE SUBMARKET



SUBMARKET AVERAGE



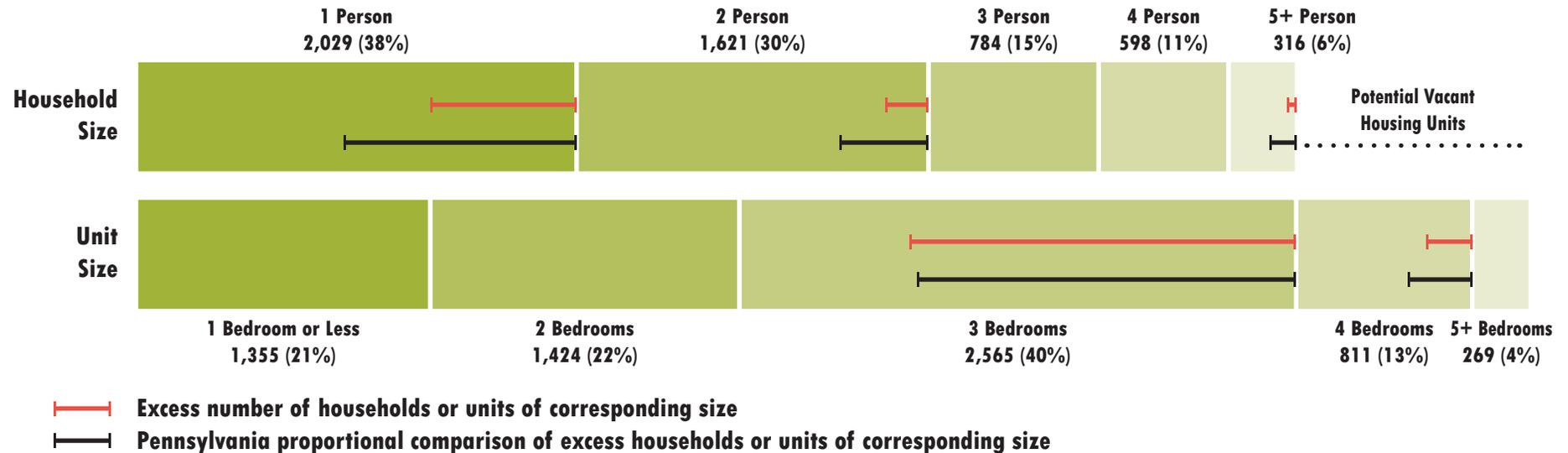
¹ Ownership (Tenure) Vacancy
² Rentership (Tenure) Vacancy

Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Meadville Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket figures for comparison purposes. From comparing these graphs, the Meadville Submarket appears to have a surplus of one-, two-, and five-or-more-bedroom housing units. The Submarket's stock is three-bedroom homes appears adequate but it seems to have a shortage of four-bedroom houses.



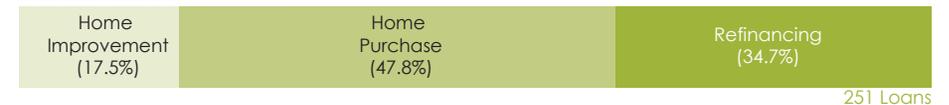
Source: U.S. Census, Retrieved 2018

THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The graphic on the right demonstrates the purpose of loan activity within the Meadville Submarket. It appears that loan activity within the Meadville Submarket has been more investment oriented, at least in 2016, than activity reported across the submarket average. This is apparent from a stronger showing of the portion of loans for home improvement and purchase activities.

MEADVILLE SUBMARKET LOANS BY PURPOSE (2016)

Meadville Submarket



Submarket Average



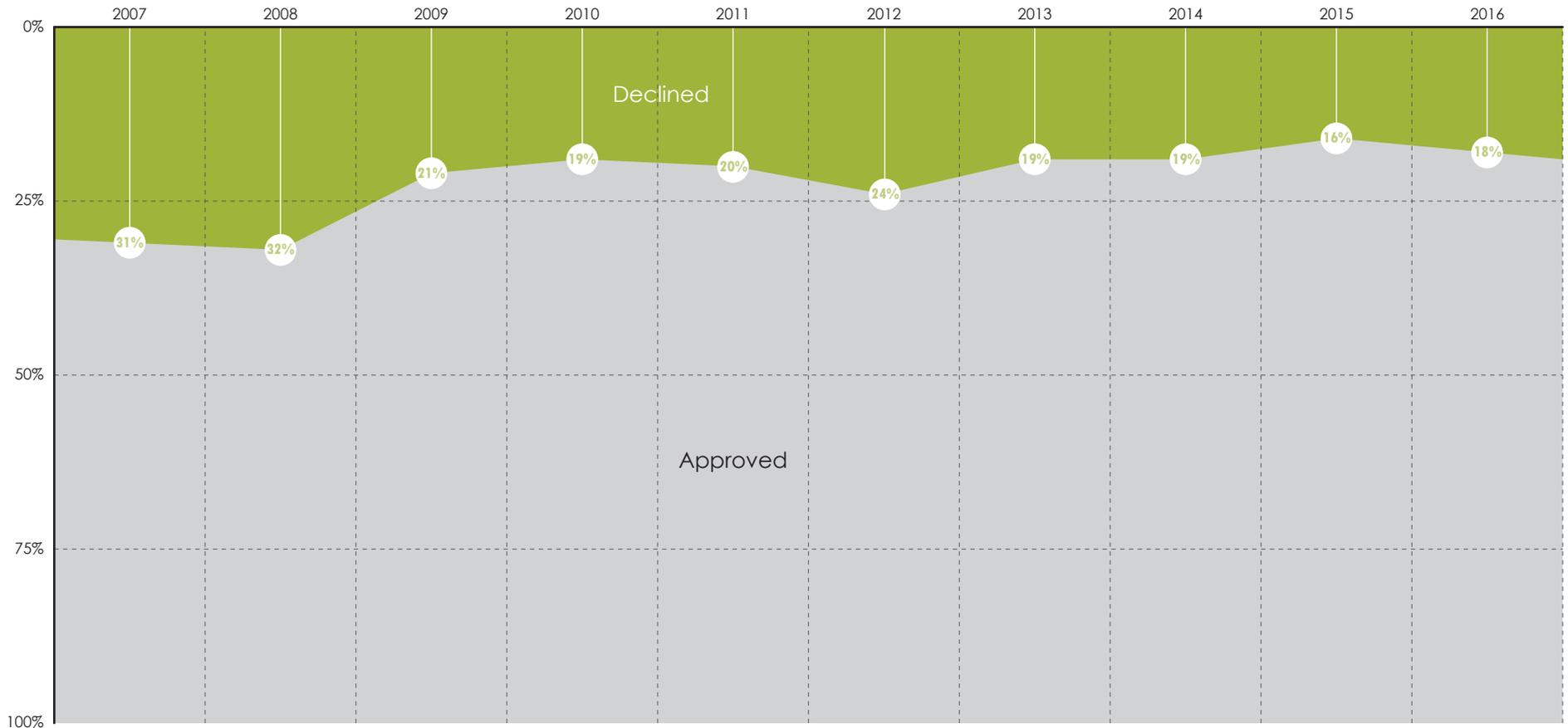
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Meadville Submarket, the rate of declined loans has hovered in the high-teens in recent years (see below) and appears to show slight improvement since 2007.

MEADVILLE SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Meadville Submarket contains far more housing units than the submarket average. However, many of the units are older homes, which may present issues for investors, homeowners, and the community's aging population. Furthermore, the Submarket's existing stock appears to contain a surplus of smaller units, one- and two-bedroom homes, and larger homes that contain five-or-more bedrooms. The Submarket's apparent surplus of smaller units could become a significant problem down the road if it continues to see declines in the number of all households comprised of either one or two people. Furthermore, vacancy conditions within the Submarket may compound problems of mismatches within its housing stock. However, despite the apparent surplus of smaller units, rent prices within the Meadville Submarket are aligned with those of Crawford County on the whole. Flat housing stock growth is consistent with the finding that home values lag county-wide figures. Despite the challenges facing the Submarket's housing stock, loan originations were more investment oriented in 2016 when compared to the submarket average, and the rate of declined loans has declined slightly since 2007.

OVERALL STATUS OF THE MEADVILLE HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

The Meadville Submarket is a prominent job center within Crawford County and will remain so despite projections for flat job growth. Although many of the Submarket's workers also choose to live within the Submarket, nearly 80% of those working within the Meadville Submarket live outside the Submarket. On one hand, this statistic shows that the abundance of employment opportunities within the Submarket support the livelihoods of households throughout the county. On the other hand, the Meadville Submarket seems to struggle to retain its own workforce as residents. This observation is troubling for the Submarket's prospects of improving its own local housing marketplace and may indicate that job growth within the City of Meadville will not easily translate to an improved housing ecosystem without the influence of larger changes in local policy. Also of note, just over 60% of Meadville Submarket residents work outside the Submarket and a sizable portion of the Submarket's population may not participate in the labor force at all, presumably due to the presence of a college and many senior citizen households. For those residing within the Meadville Submarket, household income projections show moderate growth over the next few years, which may support housing market stability and ease cost burdens on some renters. In terms of educational attainment, the Meadville Submarket's labor force is more educated than the submarket average, with a much higher portion of residents holding college degrees.

POPULATION TRENDS —

The Meadville Submarket is a regional population center. However, its population has been in decline since 2000, leaving much of the demand for housing units to the cycling of households within the community. Given the Submarket's size, it is possible that the housing demand created by the cycling of households between different homes within the community may exist at a magnitude large enough to drastically transform individual neighborhoods. Whether or not such movement is happening or has already happened remains unclear. In terms of household formation, all one- and two-person households have declined while those with three or more people have either increased slightly in number or held steady. The stagnation in home values and relatively slow growth in rent prices might be partially explained by such household formation trends. However, growth in the number of households comprised of more than three people may stem from interactions between the needs of the Submarket's population, rent prices, and available rental units. Since more than half of renter households are cost burdened, the tendency to either form, in the case of roomers, or retain, in the case of families, larger households may stem from difficulties facing individuals seeking to form their own household.

THE HOUSING MARKET GENERALLY —

The Meadville Submarket contains a much larger housing stock than the submarket average within Crawford County. From the size of the Submarket's housing stock, it is possible that its marketplace is more fertile for speculative real-estate activities in addition to direct investments. However, a spike in real estate investment seems unlikely in the near future, based on observations of home values that lag Crawford County figures and are well below Pennsylvania on the whole. This assumption is backed by projections that show a flat annualized housing stock growth rate. For existing homes, many are of older construction that might present difficulties for home owners, investors, and the community's aging population. Comparisons between the composition of households and housing units by size suggest that the Meadville Submarket has a surplus of homes that contain one-, two-, or five-or-more bedrooms, an adequate supply of three-bedroom homes, and a shortage of four-bedroom units. However, issues arising from household-housing unit size mismatches might be altered by housing stock conditions, particularly the nature of vacancy, within the Submarket. Despite having a similar vacancy rate to the submarket average, 43% of all vacancy is due to "other" reasons, which is a strong indicator of homes sitting in dilapidated or abandoned condition, and another 30% of vacant homes are currently for rent. The high portion of vacant homes for rent may indicate a struggling rental market. Homes listed for sale also appear distressed, as vacancy for such units is twice as represented in the Meadville Submarket as the submarket average. Even so, loan originations within the Meadville Submarket were more investment oriented than the submarket average, with higher portions originating for home purchase and improvement activities and the overall rate of declined loans dropping slightly in recent years.

THE MEADVILLE SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Meadville Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Meadville Submarket, the conditions and trends explored within this section are examined at the level of each consumer segment that constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — The Meadville Submarket's new household market will likely be negatively impacted by household formation trends that show a decline in the overall number of non-family households. This trend is accompanied by demographic projections that forecast a decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggests that the consumer demand within the new household housing market is in decline.

Projections that forecast that household income will increase at a modest rate provide a sign for supporting the stability of the new household market. Comparisons between the composition of households and housing units by size suggests that the Meadville Submarket has a surplus of one- and two-bedroom housing units. Such findings may benefit consumers entering the new household market as smaller housing units are typically suitable for those participating in this segment. Fortunately, the Meadville Submarket contains a higher share of multi-unit housing structures when compared to the submarket average. An abundance of multi-unit housing structures will support the Submarket's new household market as such buildings are often more accommodating to the needs of those participating within this consumer segment.

The combination of median rent prices aligned with those observed county-wide along with the modest growth of such prices both provide positive signs for suppliers participating the Meadville Submarket's new household market. However, the Submarket's overall rate of cost-burdened renter households is much higher than the already relatively high submarket average, which suggests that many renters are struggling to afford housing based on their income. Such observation indicates instability within the Submarket's new household marketplace.

Overall, the Meadville Submarket's new household market is considered inadequate largely due to a combination of household formation trends and demographic projections suggesting a decline in consumer demand. However, a niche market for larger renter units may exist based purely on household formation trends. Additionally, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is also considered inadequate because of the Submarket's relatively high rate of cost-burdened renter households.

STARTER HOME & DOWNSIZING MARKETS —

The Meadville Submarket's starter and downsizing markets will likely be negatively impacted by household formation trends that show an decline in the overall number of two-person family households. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 may translate into reduced consumer demand for starter homes as residents within this age range are mostly likely to constitute those within this consumer segment. However, an increase in the population of those over age 65 is a sign for growing consumer demand in the downsizing market.

The smaller share of single-family homes within the Meadville Submarket compared to the submarket average will potentially place stress on both the starter and downsizing markets since consumers within these segments often prefer this type of home. However, accessible multi-unit structures of quality construction are also attractive to many downsizing senior couples, of which the Submarket appear to have an abundant supply. Comparisons between the composition of households and housing units by size suggests that the Submarket has a shortage of two-bedroom homes along with a very minor surplus of three-bedroom houses. Two- and three-bedroom homes are important in that they often fit the preferences of most consumers within the starter and downsizing market segments. Additionally, consumers within the starter and downsizing home segments will have to contend with the Submarket's relatively old housing stock, of

THE MEADVILLE SUBMARKET'S HOUSING ECOSYSTEM:

which close to half was built prior to 1940. This significant concentration of older homes could present either financial or physical burdens on younger and older buyers alike. Another challenge may come from the Meadville Submarket's proportionally larger share of homes vacant from "other" reasons when compared against the submarket average as the presence of such structures may be an indicator of disinvestment issues.

Projections that forecast household income will increase at a modest rate provide support for consumer stability within both the starter and downsizing markets. Less optimistically, the Submarket's median home value is below the county-wide figure and appreciation has been flat over recent years. The combination of relatively low median home values and household income projections may be reflected in real-estate loan activity across the Meadville Submarket which has been more investment oriented than the submarket average overall with higher portions of originations for home improvements and purchases.

Overall, the Meadville Submarket's starter home market is considered inadequate largely as the result of household formation trends suggesting a decrease in consumer demand. Furthermore, if demographic projections hold true, starter home demand could decline more with dwindling numbers of individuals between the ages of 15 and 34. Additionally, the potential for continued declines in consumer demand suggest that the ability of a household participating in the Submarket's starter home market to transition into the move-up segment may be inadequate. Household formation trends also suggest a decrease in the demand for downsizing homes. However, demographic projections that show gains in the number of senior citizens indicates that future demand for this housing segment may be strong. Overall, the downsizing housing segment is inadequate due to trends showing a decline in consumer demand. However, demographic and household income projections suggest that the ability to transition from this segment and into a senior living accommodation is adequate.

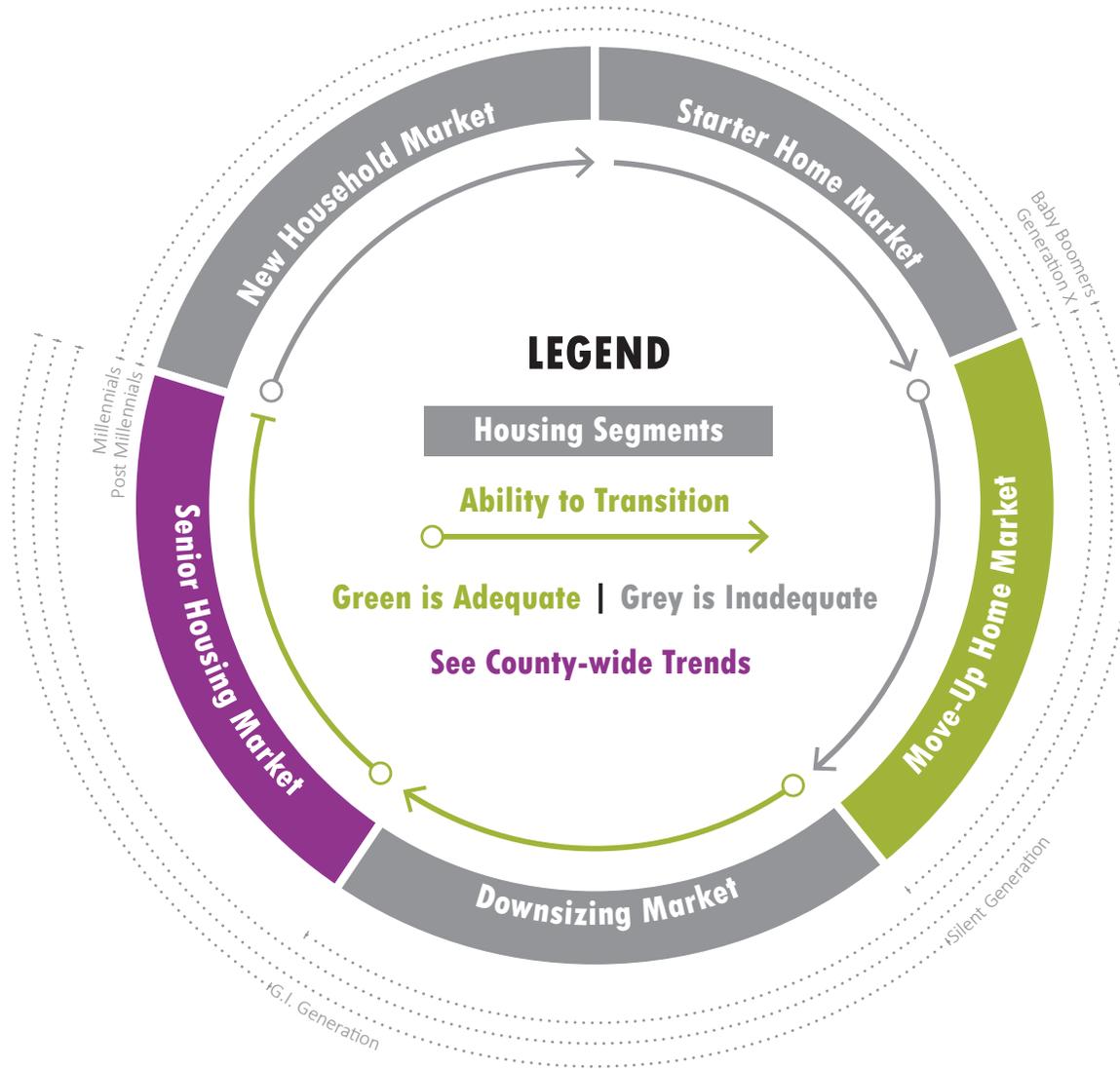
MOVE-UP MARKET – The move-up housing market within the Meadville Submarket will likely benefit from household formation trends that show an increase in the overall number of family households comprised of at least three members. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range is problematic for the move-up market as these residents are mostly likely to participate in this consumer segment. Overall, household formation trends suggest that the demand for move-up housing will grow.

Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by modest gains in household income if such projections hold up. Real-estate loan originations have been more investment oriented overall even as the Submarket's median home value lags behind the county's overall figure. Comparisons between the composition of households and housing units by size suggests that the Submarket has an adequate supply of three-bedroom homes, a shortage of four-bedroom houses, and a surplus of five-or-more-bedroom homes. However, consumers must contend with the Submarket's relatively old housing stock, of which close to half was built prior to 1940.

Overall, the Meadville Submarket's move-up market is considered adequate largely due to a combination of household formation trends that suggest an increase in consumer demand. However, demographic forecasts that show a decline in the population of individuals between the ages of 34 and 64 could lead to reduced demand for move-up housing if such projections hold up. Base upon such projections, the ability for households currently participating in the move-up market to transition into the downsizing segment is considered inadequate.

SENIOR HOUSING MARKET – Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE MEADVILLE SUBMARKET'S HOUSING ECOSYSTEM:



THE SAEGERTOWN SUBMARKET

Due directly north of the Meadville Submarket, the Saegertown Submarket includes four municipalities including Hayfield and Woodcock townships along with Woodcock and Saegertown boroughs. The Saegertown Submarket lies entirely inside Crawford County and is adjacent to the Cambridge Springs, Mead, Meadville, Vernon, Conneaut Lake, and Springboro-Conneautville submarkets.

A HOUSING ECOSYSTEM ANALYSIS OF THE SAEGERTOWN SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

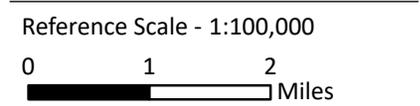
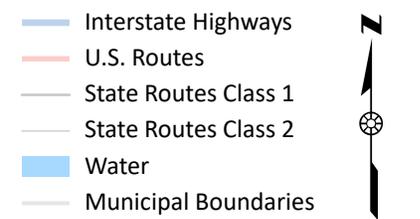
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚙️). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

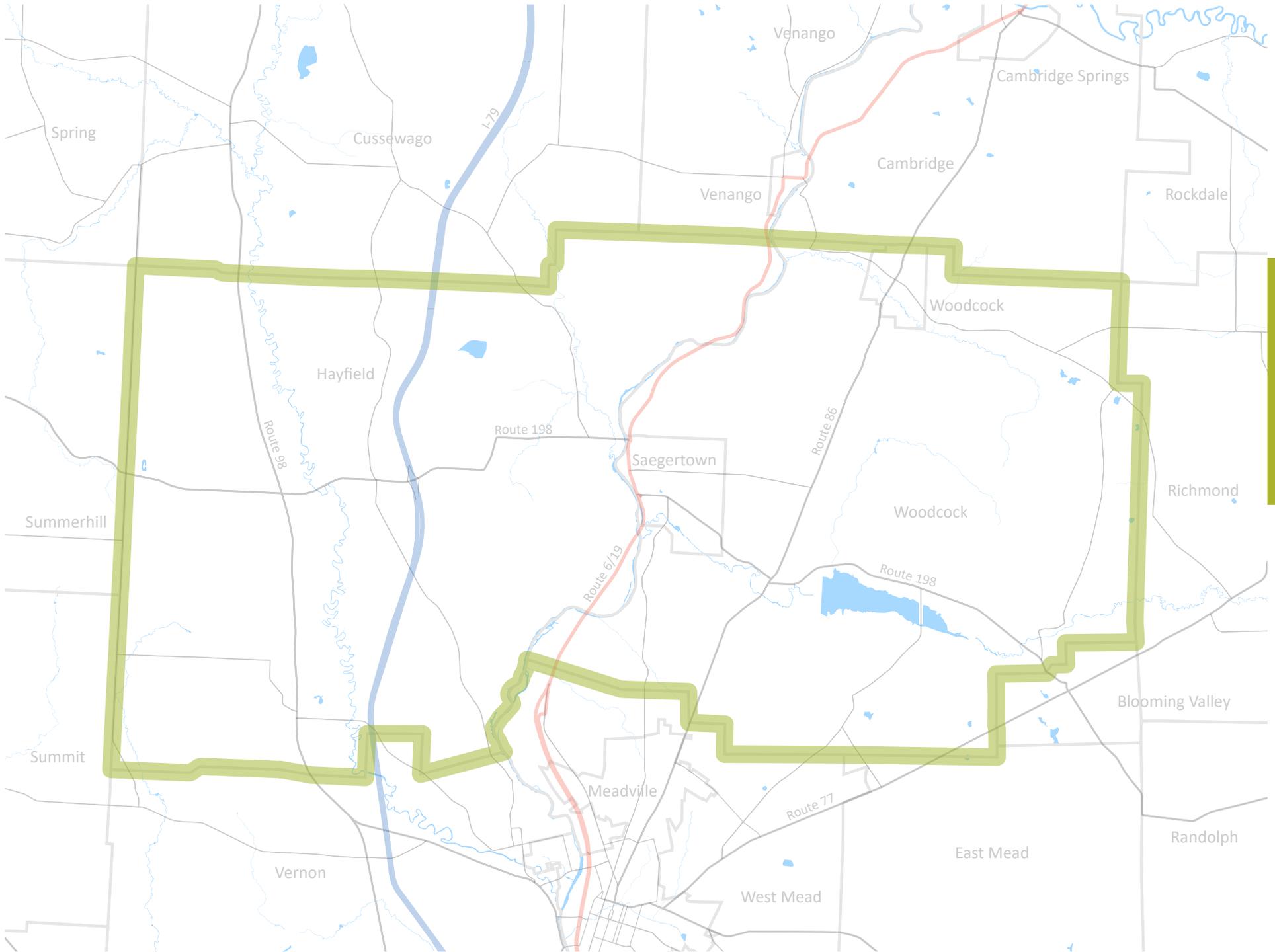
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (📊). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Saegertown Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



SAEGERTOWN SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends of residents living within the Saegertown Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE SAEGERTOWN SUBMARKET —

The map on the next page uses dots to represent where residents living within the Saegertown Submarket work. From this map, it is apparent that many Submarket residents find work in and near Meadville with a considerable number commuting north to the Erie area to reach their jobs. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Saegertown Submarket produces a job-to-housing ratio of 0.93, which lies nicely within the beneficial range.

The radar graph on the bottom left displays the distance and direction of where Saegertown Submarket residents work. The dark green wedges of the graph demonstrate those commuting less than ten miles which appears to define the commuting distance for just over half of the Submarket's workers. Live-work observations within the Saegertown Submarket demonstrate that although it does contain a healthy share of employment opportunities many of its workers are employed outside the Submarket. The combination of a beneficial job-to-housing ratio and live-work trends showing shorter commutes provide indicators of housing market stability. A break down of such commuter trends is presented on the bottom right.

-  Interstate Highways
-  U.S. Routes
-  County Boundaries
-  State Boundaries

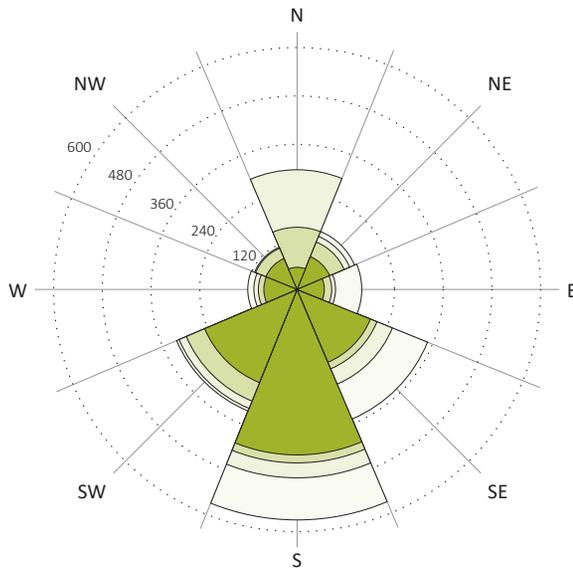


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE SAEGERTOWN SUBMARKET RESIDENTS WORK



-  Less than 10 Miles
-  10 - 24 Miles
-  25 - 50 Miles
-  50 + Miles

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

18.2%

of Saegertown Submarket residents work at a location **inside the submarket.**

65.1%

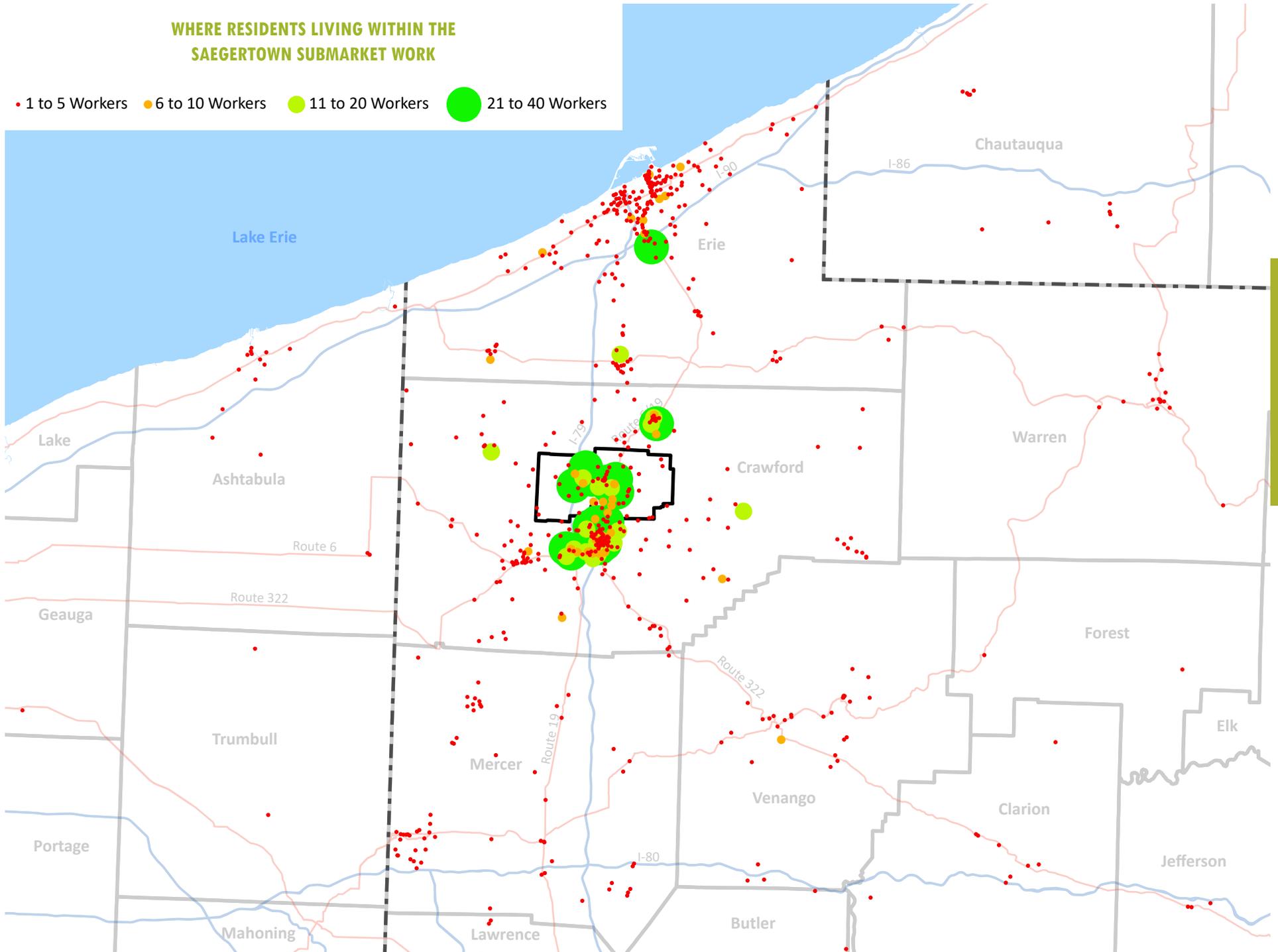
of Saegertown Submarket residents work inside **Crawford County.**

34.9%

of Saegertown Submarket residents work outside **Crawford County.**

WHERE RESIDENTS LIVING WITHIN THE SAEGERTOWN SUBMARKET WORK

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



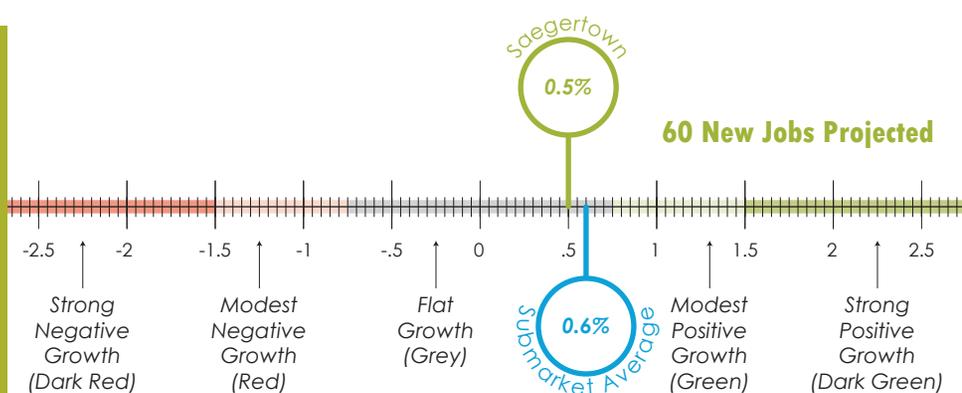
SAEGERTOWN SUBMARKET

JOB GROWTH ANALYSIS:

JOB GROWTH —

From the graph below, the Saegertown Submarket's 0.5% projected annual job growth rate is similar to the submarket average of 0.6% and lies within the "flat growth" range. Recognizing this, it is unlikely that projected job growth within the Submarket will provide workers the extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)

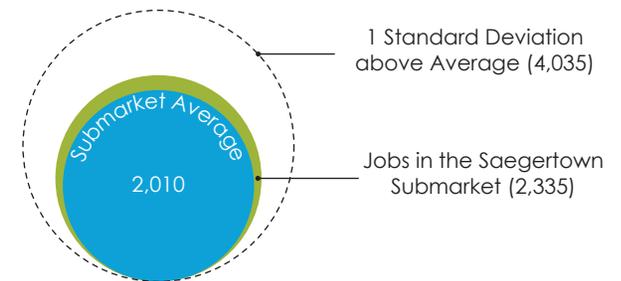


HOUSEHOLD INCOME CHANGE —

Despite flat job growth projections, from the graph on the bottom left, household income within the Saegertown Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

TOTAL JOBS —

To explore the magnitude of the Saegertown Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. The standard deviation was applied to measure the average

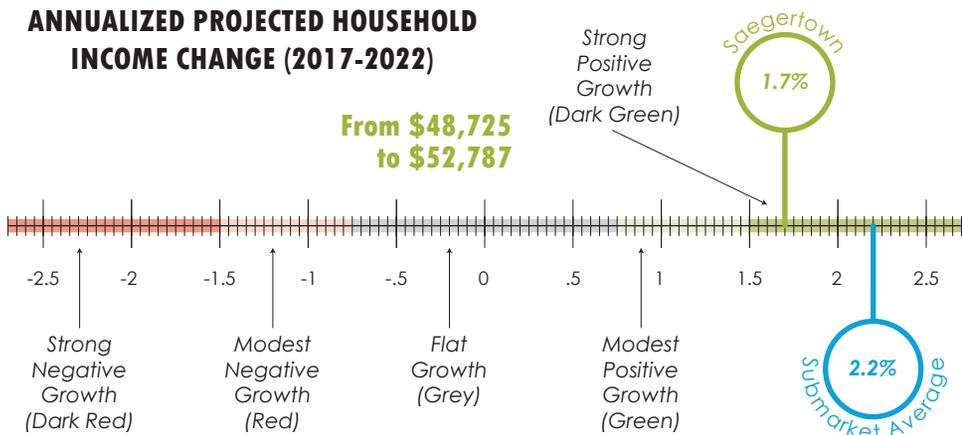


Source: U.S. Census 2011-2015 ACS

difference from the average value of jobs present within a submarket. If the Saegertown Submarket contained more jobs than two standard deviations above the submarket average, then that submarket was considered as a job center. From the graphic above, the Saegertown Submarket contains more jobs than the submarket average but doesn't deviate significantly above the average. This finding aligns with our earlier conclusion that the Saegertown Submarket is more of a bedroom community than a job center. Although jobs within the submarket provide important opportunities for local residents, the Saegertown Submarket is currently more reliant on the growth and stability of nearby job centers.

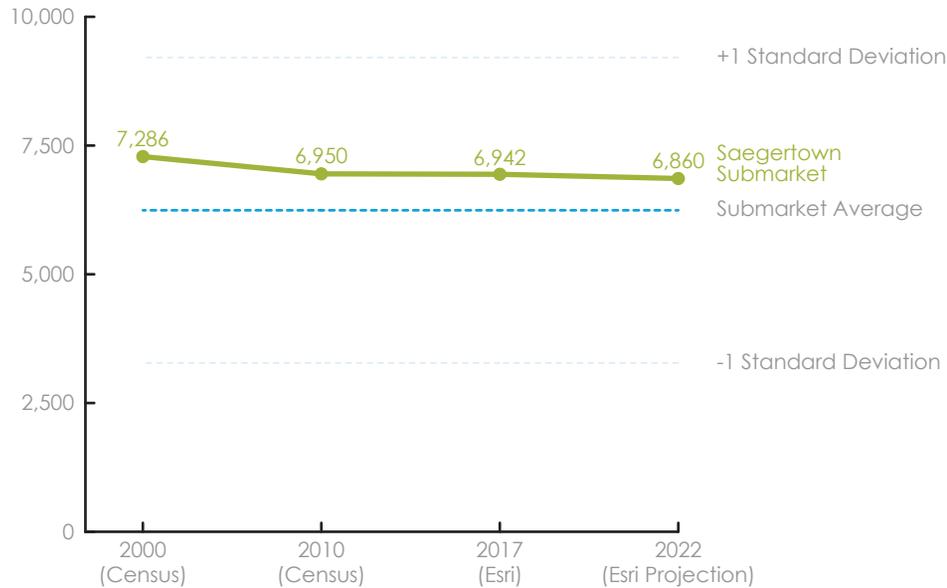
In summary, despite containing a considerable share of local employment opportunities, many of the residents within the Saegertown Submarket commute to jobs located elsewhere in the region. The Submarket is not quite a bedroom community but also not a job center. Although the Submarket is projected to have a flat job growth rate, it is expected to experience a strong household income growth rate. Such household income growth may bolster housing market stability.

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)



POPULATION GROWTH ANALYSIS:

SAEGERTOWN SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers leading to a submarket’s total population. Population growth within the Saegertown Submarket would directly lead to household formation and increase housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH –

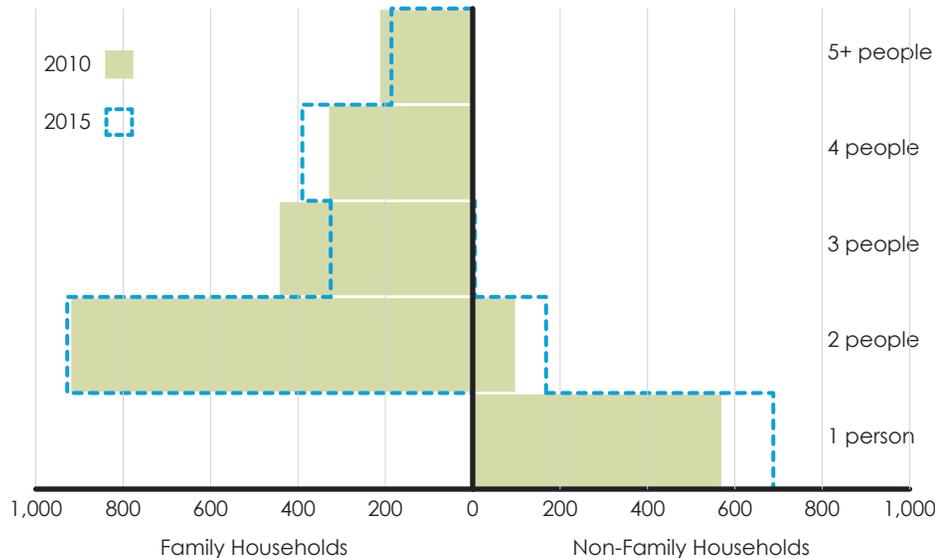
An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, although the Saegertown Submarket’s population has declined since 2000, it appears to be leveling off. Despite leveling off more recently, overall population trends and projections suggest that housing demand within the submarket isn’t being generated by local population growth.

HOUSEHOLD FORMATION –

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

SAEGERTOWN SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Saegertown Submarket households by size between 2010 and 2015. One- and two-person non-family households have increased substantially within the Submarket. In terms of family households, two-person households held steady while those comprised of three or more people have fluctuated. Specifically, three- and five-or-more person family households have declined while those comprised of four people have increased.

Household formation trends within the Saegertown Submarket suggest an increase in the local demand for rental units, steady internal demand for both starter and downsizing homes and an overall decline in the local demand for move-up housing.

Source: U.S. Census

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Saegertown Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rent prices have seen modest growth while home values have experienced strong growth.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Saegertown Submarket with comparisons to Crawford County and the submarket average. We see that renter households within the Saegertown Submarket are less cost-burdened overall than the submarket average and are faring much better than those across Crawford County on the whole.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



27% of Saegertown Submarket Renters
(105 Households)

41.3% of Crawford County Renters

34.3% Submarket Average

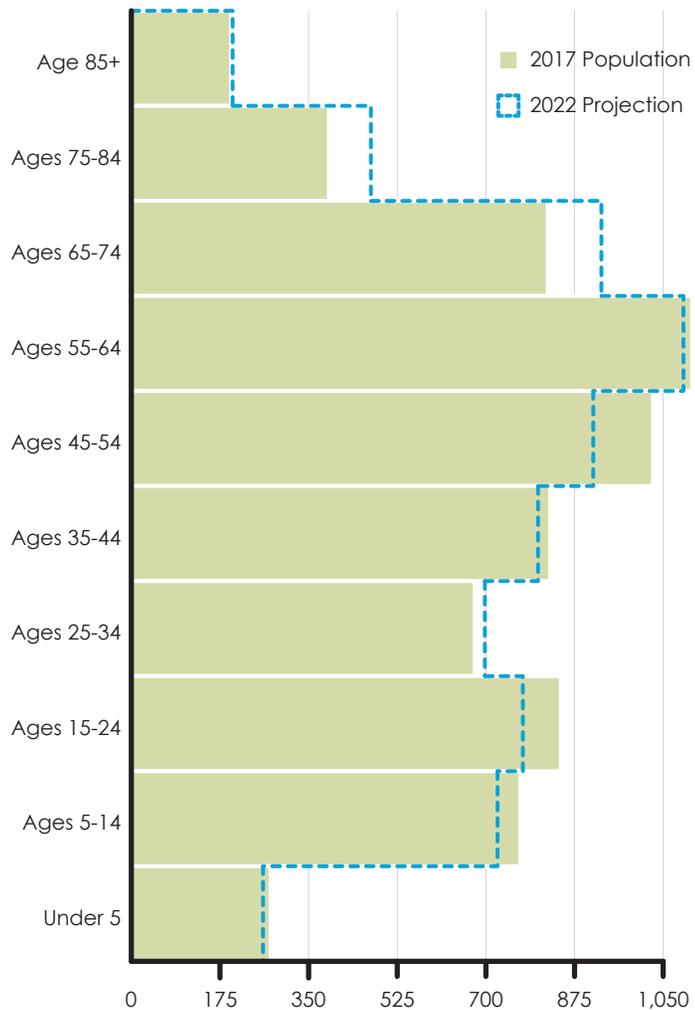
Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

TOTAL POPULATION –

The cycling of households between different homes creates some of the housing demand within a community. To attempt to understand this type of housing demand, we established whether the Saegertown Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average population living within a submarket. If the Saegertown Submarket contained more residents than one standard deviation above the submarket average, then that submarket was considered a regional population

SAEGERTOWN SUBMARKET POP. PYRAMID & PROJECTION



Source: Esri, Retrieved 2018

center.

From the graphic shown on the right, although the Saegertown Submarket is more populated than the submarket average, its population is less than one standard deviation above the submarket average. By this standard, the Saegertown Submarket is not a regional population center but a local population center instead. Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the submarket's relative population size, it can be assumed that the Saegertown Submarket does not have the gravity to attract new residents on a speculative basis. This assumption infers that those moving into the submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION –

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by its age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional “starter home” housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Saegertown Submarket in 2017 with a projection to 2022. Age cohorts within the Saegertown Submarket are projected to decline across both the youth and working age brackets which together constitute all individuals below the age of 64. However, projections shown an increase in the population ages 25-to-34, which likely constitutes many consumers within the starter home market. Conversely, population is projected to increase across the age brackets comprising individuals ages 65-to-84. Such population projections suggest a decline in the demand for rental units and move-up housing while also suggesting an increase in the demand for starter and downsizing homes along with senior living accommodations.



Source: Esri, Retrieved 2017

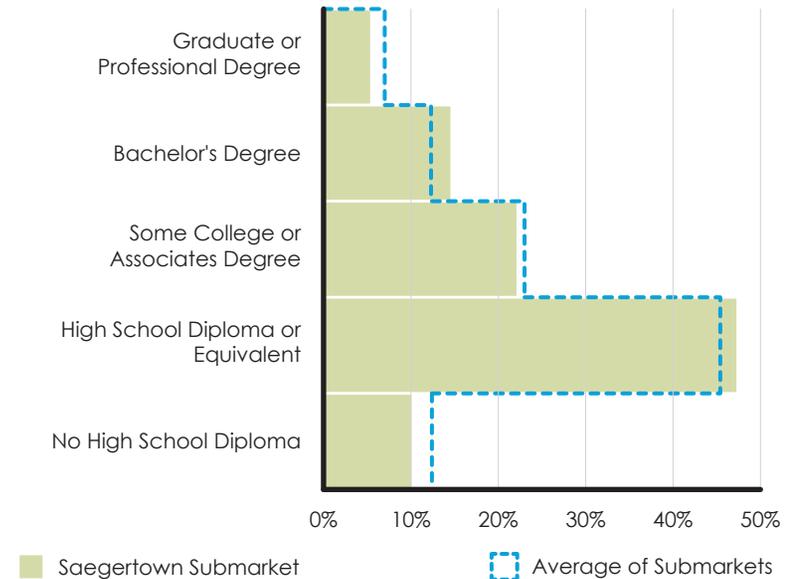
POPULATION GROWTH ANALYSIS:

The demographic trends and household formation trends addressed earlier suggest a decline in the local demand for rental units and move-up housing. Furthermore, gains in the number of two-person non-family households may be reflected in projections showing an increase in the population ages 25-to-34.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Saegertown Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Saegertown Submarket is a little bit more educated than the submarket average. The Saegertown Submarket has a smaller portion of its population not holding a high school diploma with larger portions holding either high school diplomas or bachelor's degrees. The Submarket's higher level of overall educational attainment may make it more economically competitive over the long run.

SAEGERTOWN SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

In summary, the Saegertown Submarket is a local population center within Crawford County. However, the Submarket has experienced a slight population decline which is projected to stabilize into the future.

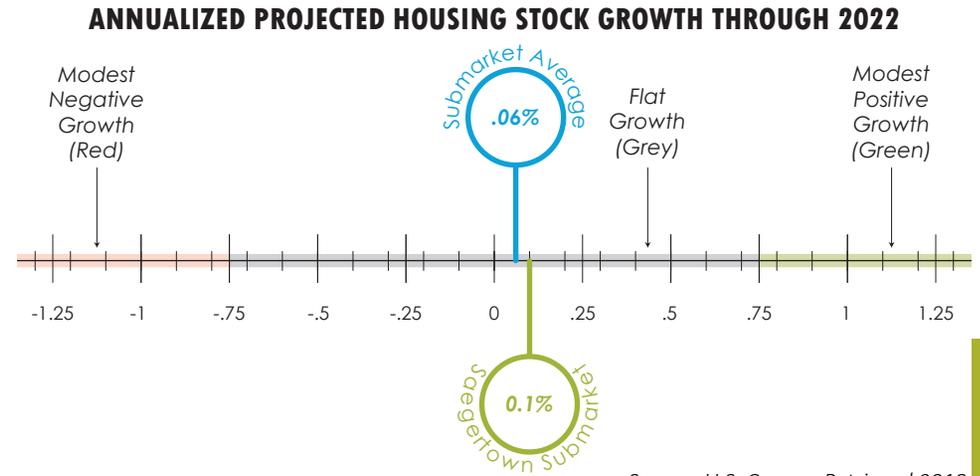
Such decline suggests that most of the demand for housing within the Saegertown Submarket will come from the cycling of existing households. In terms of household formation trends, non-family households comprised of one to two people have increased considerably. Family household formation trends have varied across the board with those comprised of two people increasing slightly, those with three people declining significantly, those with four people increasing, and five-or-more people family households declining. Despite significant gains in the number of non-family households within the Submarket, rent prices have grown at a modest rate whereas home values have seen strong growth. Even though rents have increased, the Saegertown Submarket has a lower rate of cost burdened renters than the submarket average and Crawford County on the whole. Demographic projections within the Submarket show declines across most youth and working age cohorts while showing an increase in the population of seniors. Notably, the population of individuals between the age of 25-to-34 is projected to increase within the Submarket, a finding which may be a good sign for the starter home marketplace. In terms of educational attainment, the Saegertown Submarket is more educated than the submarket average.

HOUSING STOCK GROWTH ANALYSIS:

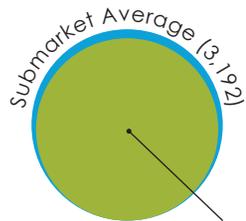
This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph at right presents the housing stock growth rate for the Saegertown Submarket. Although flat, the Submarket's housing stock growth rate is similar to the submarket average.



Source: U.S. Census, Retrieved 2018



Housing Units in the Saegertown Submarket (2,899)

Source: Esri, Retrieved 2018

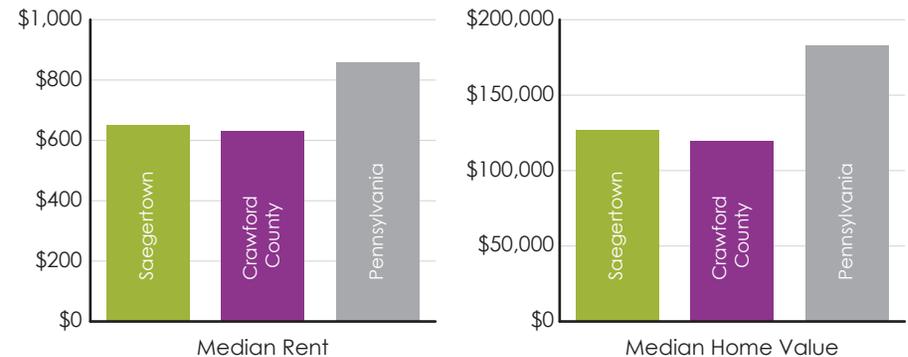
TOTAL HOUSING STOCK —

It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Saegertown Submarket's housing stock, we compared the number of housing units located within the submarket to the average number of housing units within a Crawford County submarket. From the graphic on the left, we see that the Saegertown Submarket has fewer housing units than even the submarket average. Based on this analysis, it can be safely assumed that housing development within the Saegertown Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, both median rent prices and home values within the Saegertown Submarket are slightly above the corresponding figures for all of Crawford County yet well below those observed for Pennsylvania on the whole. However, such figures suggest that the Submarket's rental and home ownership markets are considered desirable within the county.

SAEGERTOWN SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 –

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that nearly one quarter of the Saegertown Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. From this observation, the Saegertown Submarket does contain its fair share of historical homes but does not seem burdened with an out-sized portion of such residences. Given the Submarket's aging population, opportunities to encourage accessibility upgrades should be considered from time to time.

SAEGERTOWN SUBMARKET HOUSING UNITS BUILT PRE-1940

22.6%



Homes Built Pre-1940

77.4%



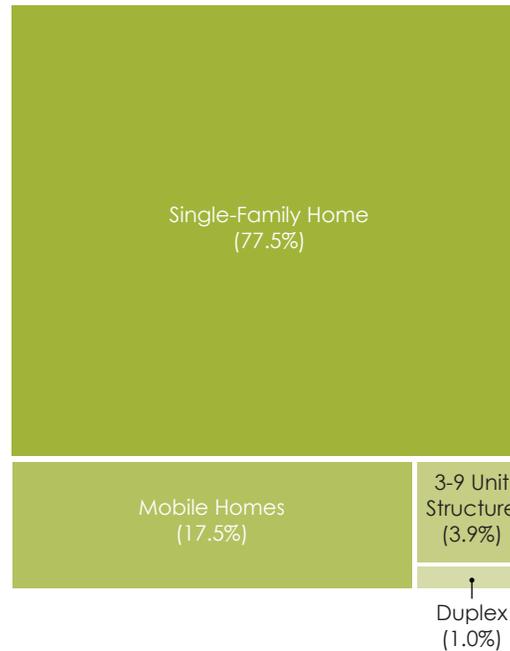
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

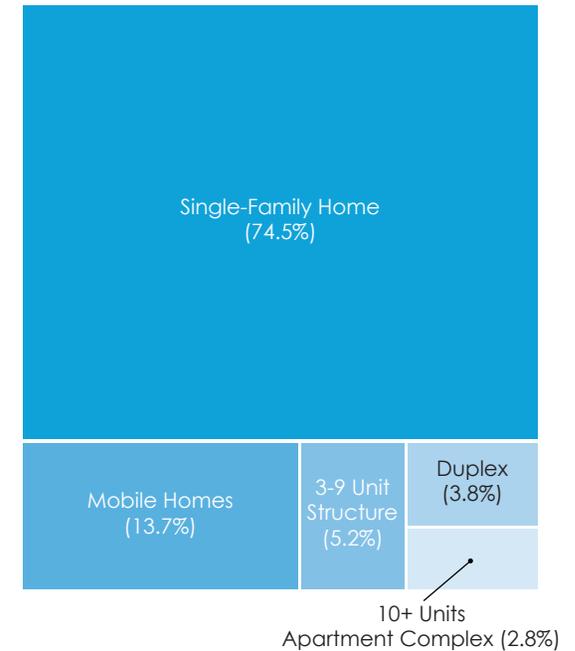
HOUSING BUILDING TYPES –

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Saegertown Submarket is somewhat comparable to the submarket average in that single-family and mobile homes dominate its housing building stock. The Submarket contains larger shares of both single-family and mobile homes (more than 95% combined) than the submarket average. Conversely, multi-unit structures constitute a smaller portion of the Saegertown Submarket's housing building stock than the submarket average.

SAEGERTOWN SUBMARKET



SUBMARKET AVERAGE

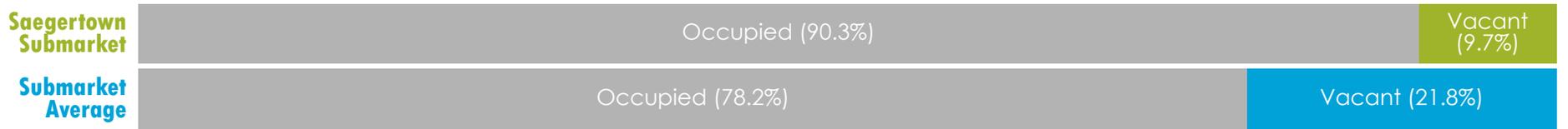


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

OVERALL VACANCY & VACANCY BY TYPE —

The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Saegertown Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. The Saegertown Submarket has an overall vacancy rate above what is considered the natural range (4% to 7%) by real estate professionals. Despite its much lower overall vacancy rate, more than one-third (36%) of the Submarket’s vacancy results from “other” reasons. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market. Even though the Saegertown Submarket has a relatively low vacancy rate, the proportion of vacancy resulting from “other” reasons indicates the existence of serious problems within certain portions of the Saegertown Submarket’s housing stock.

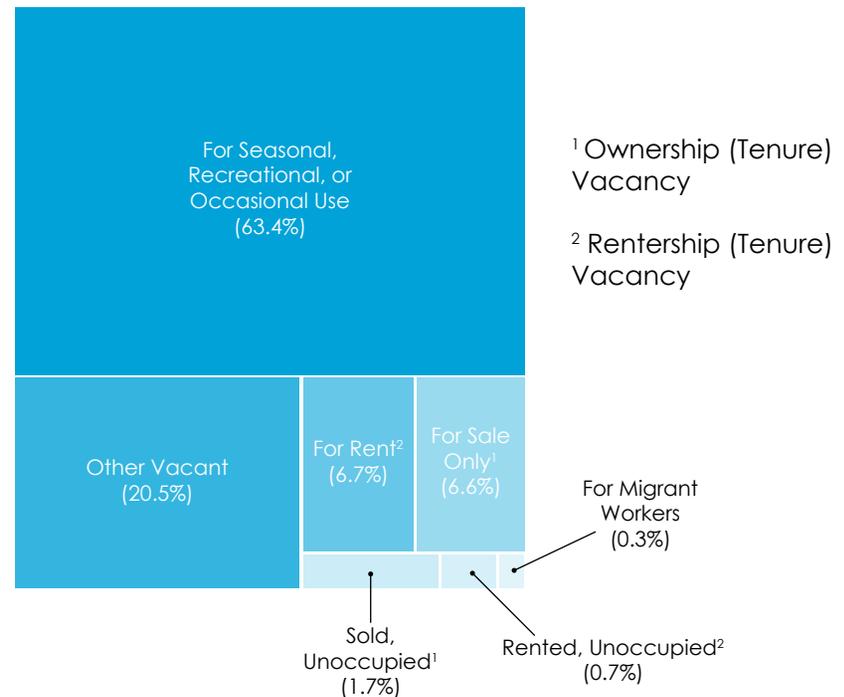


Source: U.S. Census, Retrieved 2018

SAEGERTOWN SUBMARKET



SUBMARKET AVERAGE



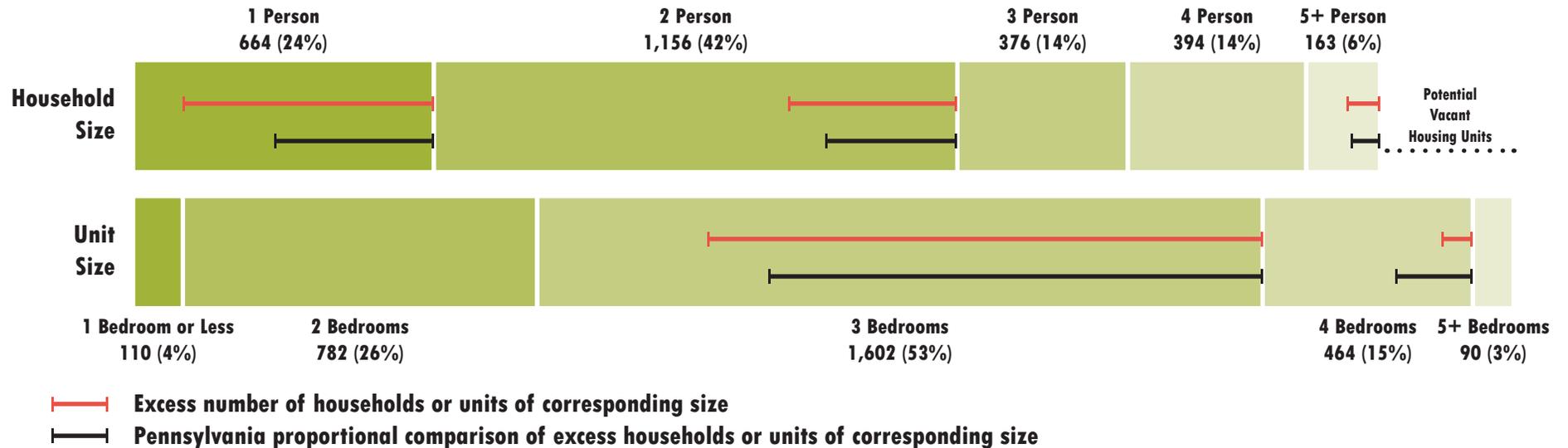
Source: U.S. Census, Retrieved 2018

SAEGERTOWN SUBMARKET

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Saegertown Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket figures for comparison purposes. From comparing these graphs, the Saegertown Submarket appears to have a substantial shortage of one- and four-bedroom homes as well as a notable shortage of two-bedroom houses. There appears to be a surplus of three-bedroom homes within the Submarket and the supply of housing structures containing five-or-more bedrooms seems to be in adequate supply.



Source: U.S. Census, Retrieved 2018

THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right demonstrate the purpose of loan activity within the Saegertown Submarket. From these graphs, it appears that loan activity within the Saegertown Submarket has been about as investment-oriented, at least in 2016, as activity reported across the submarket average.

SAEGERTOWN SUBMARKET LOANS BY PURPOSE (2016)

Saegertown Submarket



Submarket Average



Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Saegertown Submarket, the rate of declined loans has hovered in the mid-twenties in recent years (see below) and appears to show slight improvement since 2007.

SAEGERTOWN SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Saegertown Submarket contains a lesser concentration of housing units than the submarket average and its housing stock isn't growing at a significant rate. This finding is consistent with observations of median rent and home values which are above those observed across Crawford County but below Pennsylvania's figures. The lack of new housing construction leaves around 23% of the Submarket's stock as having been constructed prior to 1940. Single-family structures and mobile homes are proportionally more represented within the Saegertown Submarket than across the submarket average. In terms of vacancy, the Submarket's vacancy rate is much lower than the submarket average, but a larger composition of its vacancy is due to "other" reasons. When assessing how well the Saegertown Submarket's housing stock meets the needs of its residents, it is clear that it doesn't provide many opportunities for one and two person households. Loan activity within the Submarket has been less investment oriented than the submarket average and the rate of approved loans has hovered around 78% and does not appear to be showing much improvement.

OVERALL STATUS OF THE SAEGERTOWN HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

Observations of live-work trends within the Saegertown Submarket show that most of its workers commute to jobs outside the Submarket with many traveling to jobs in the Meadville area, Cambridge Springs, or Erie. However, despite the dominance of workers commuting to jobs elsewhere, the Saegertown Submarket contains a significant concentration of jobs within its limits. Such finding is observable within the Saegertown Submarket's job-to-housing ratio which, at 0.93, lies within the beneficial range. The combination of these observations suggests that the Saegertown Submarket isn't entirely a bedroom community but also does not represent a job center within Crawford County. The Saegertown Submarket's economic role is unlikely to change in the near future given recent observations of flat job growth. Even in the presence of flat job growth, household income is projected to see a strong increase within the Submarket. In terms of educational attainment, the Saegertown Submarket is about as educated overall as the submarket average. When exploring how economic conditions within the Saegertown Submarket may be impacting real-estate investment activities it was uncovered that loan originations within the Submarket have been less investment oriented. The recent success rate for securing housing related loans is around 78% with this rate showing improvement since 2007.

POPULATION TRENDS —

The Saegertown Submarket represents a local population center within Crawford County. Despite declining in population overall since 2000, such decline has begun to level off as early as 2010. Within the context of stagnant population growth, the Saegertown Submarket has experienced significant growth in the number of one- and two-person non-family households. When considering family households, those composed of two people have remained stable while four-person households have increased and those comprised of either three or five-or-more people have declined. In terms of demographics, the Saegertown Submarket is projected to see a decline in population across all youth and working age brackets except for those ages 25-to-34. Similar to many other submarkets across the county, the senior population within the Saegertown Submarket is projected to increase. Overall, the Saegertown Submarket is aging but to a less exaggerated extent than many other submarkets in the county, and the combination of household formation trends and population projections suggest that demand for rental units, starter homes, and downsizing homes will be stable going into the near future.

THE HOUSING MARKET GENERALLY —

Despite observations showing strong growth in home values and modest increases in rent prices, the overall housing stock within the Saegertown Submarket is not growing at a significant rate. Without the new supply of more accessible housing units, the significant concentration of older homes within the Submarket's housing stock may present physical and financial challenges for both smaller households and older residents. The Saegertown Submarket's overall housing vacancy rate is lower much lower than the submarket average however, vacancy attributable to "other" reasons is more represented. Vacancy for "other" reasons rather than for seasonal use or being current listed for sale is a sign of potential disinvestment issues within the housing stock. Despite the presence of a higher proportion of vacancy for "other" reasons than the submarket average, it should be noted that the Submarket's overall vacancy is still quite low thus minimalizing both the impact and salience of "other" vacancy. When exploring how the composition of housing units by size within the Submarket may be meeting the needs of its residents, it appears that the Saegertown Submarket has a shortage of one- and two-bedroom units. In addition, three bedroom units appears in generous supply while there may be a potential shortage of four-bedroom homes and those with five-or-more bedrooms are adequate in quantity for meeting the demand for Submarket residents.

THE SAEGERTOWN SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Saegertown Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Saegertown Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment which constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — Household formation trends showing a substantial increase in the number of one- and two-person non-family households may benefit the Saegertown Submarket's new household market. However, such trends are accompanied by demographic projections showing an overall decline in the population of individuals between the ages of 15 and 34. Despite a forecasted population decline for individuals within this age range, modest rent growth paired with median rent prices above county-wide figures suggest that the market is currently responding to strong non-family household formation within the Saegertown Submarket. Additionally, projections show strong household income growth within the Submarket and observations of overall renter cost-burden rates suggest that lesser proportion of renter households face affordability issues than the submarket average.

Even though economic and demographic conditions generally present positive signs for the Saegertown Submarket's new household consumer segment, comparisons between the composition of households and housing units by size, show that the Submarket lacks one-bedroom housing units. In addition to having a shortage of housing units sized to meet the needs of the many new non-family households, the Submarket appears to lack multi-family structures which could supply necessary units for its new household consumer segment.

Even though the Saegertown Submarket is seeing a significant increase in the number of one- and two-person non-family households, it appears to lack the housing stock necessary to support these new households. As a result, the Submarket's new household market segment is inadequate. However, a low renter cost-burdened rate paired with projections showing strong increases in household income suggests that the ability of a household to transition into the starter home market is adequate.

STARTER HOME & DOWNSIZING MARKETS — A very slight increase in the number of two-person family households within the Saegertown Submarket presents a good sign for both its starter and downsizing markets. However, such trends are contradicted somewhat by demographic projections forecasting an overall decline in the population of individuals between the ages of 15 and 34. While the number of individuals within this age range is decreasing, the population of senior citizens within the Saegertown Submarket is growing. The combination of household formation trends and demographic projections suggest that demand for starter homes is either stagnant or in decline while the demand for downsizing homes may be increasing.

The Saegertown Submarket supports median home values above the figure observed county-wide and such values are increasing at a strong rate. Additionally, household income within the Submarket is projected to experience strong growth. These factors lend stability to all consumer segments within the Saegertown Submarket including the starter and downsizing segments. Participants in these consumer segments are also greeted by the appearance of an abundant stock of single-family homes. However, the Submarket's housing stock appears to have a shortage of two-bedroom units but a surplus of homes with three bedrooms. This conclusion arises from observations between the composition of households and housing units by size within the Submarket. Such observations suggest that the Saegertown Submarket's housing stock trends toward larger homes, which may present challenges for those participating in the starter and downsizing home consumer segments. Additionally, nearly a quarter of the Submarket's overall housing stock was built prior to 1940, which may translate into the challenges and renovation issues associated with older homes which can also inhibit the starter and downsizing home consumer segments.

In terms of vacancy, the Saegertown Submarket has an overall vacancy rate that is much lower than the submarket average but the composition of its vacancy attributed to "other" vacant housing units is much higher than the corresponding submarket average. Vacant homes for "other" reasons are often those which have lost their economic value in the marketplace and may contribute to property violations and a blighted environment. The composition of vacant housing

THE SAEGERTOWN SUBMARKET'S HOUSING ECOSYSTEM:

units that are “sold, unoccupied” within the Saegertown Submarket is also proportionally larger than that observed within the submarket average. Such observations might suggest the presence of real-estate issues which could negatively impact the starter and downsizing home consumer segments within the Submarket. Such a conclusion is consistent with the finding that loan originations within the Saegertown Submarket have been less oriented towards home purchases than the submarket average. However, the success rate for securing real-estate loan related financing has shown steady improvement.

Although many observations within our analysis suggest that the overall housing market within the Saegertown Submarket is stable, population projections showing a decline in the number of individuals between the ages of 15 and 34 place serious questions over the well-being of its starter home market. However, the number of two-person family households has grown, albeit very slightly, leaving the starter home consumer segment as adequate for now. The downsizing home consumer segment is considered adequate due to the projected increase in the population of senior citizens. Since both housing consumer segments appear adequate and overall market conditions within the Submarket are performing well, the ability to transition beyond both segments is considered to be adequate as well.

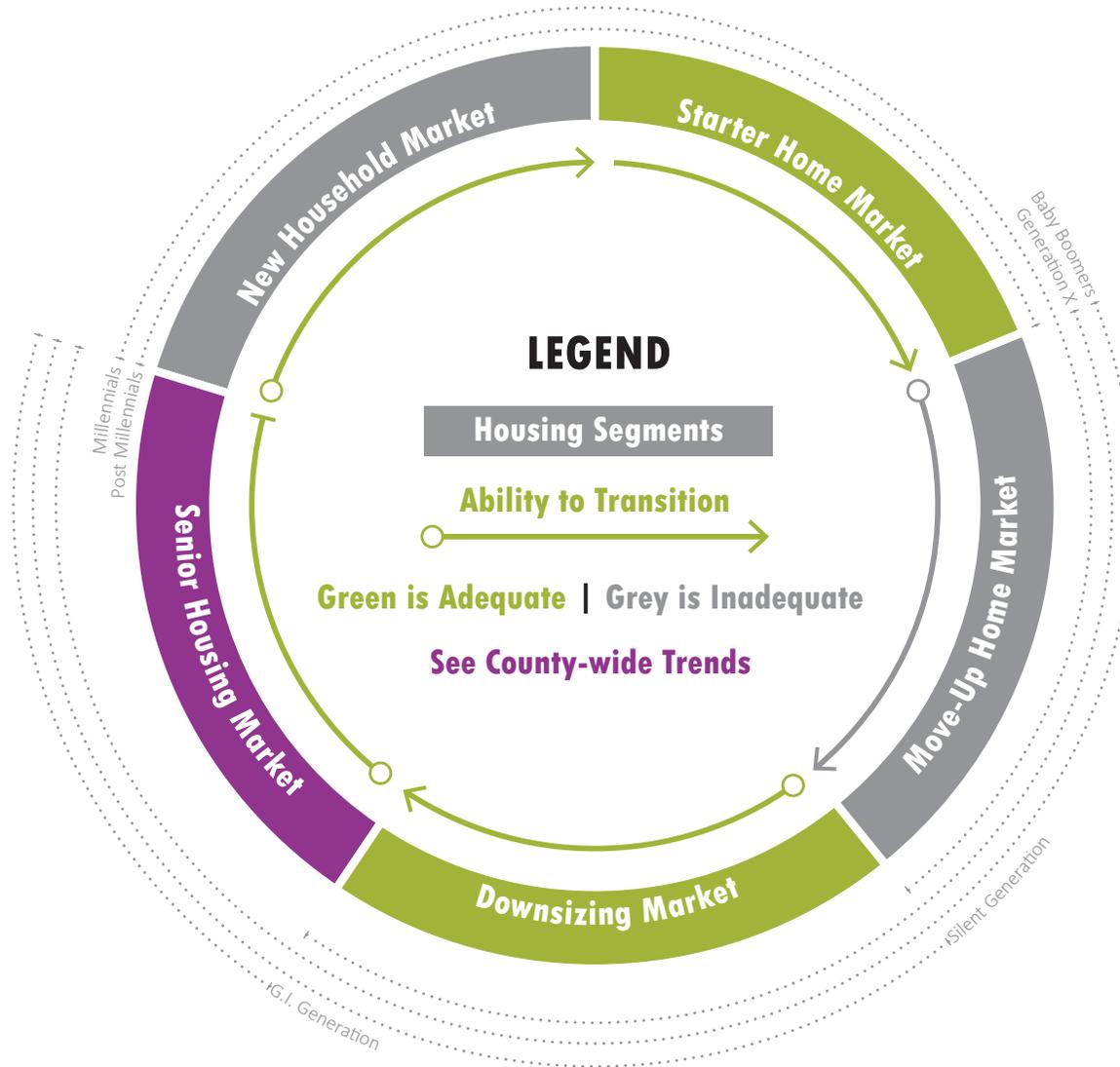
MOVE-UP MARKET – The move-up housing market within the Saegertown Submarket may benefit from many of the same indicators of overall well-being discussed from the starter and downsizing markets. These include relatively high median home values, strong home value growth, strong projected increases in household income, a healthy overall vacancy rate, and an abundance of single-family home structures. Conversely, the presence of a significant concentration of older homes and a disproportionately large share of homes that are vacant for “other” reasons may present potential challenges and hardships impacting the move-up market.

Trends showing an overall decrease in the number of family households comprised of three, four, and five-or-more people within the Saegertown Submarket suggest a decline in demand for move-up housing. These household formation trends are accompanied by demographic projections showing an overall decline in the population between the ages of 35 and 64. When comparing the compositions of households and housing units by size, it appears that the Submarket contains a proportionately larger share of three-bedroom homes relative to Pennsylvania’s share but a smaller proportion of four and five-or-more bedroom homes. Although the Submarket might lack housing units larger than three-bedrooms in size, household formation trends and projections suggesting a decline in the number of larger families presents should provide some relief.

Overall, since household formation trends show a decrease in the number of family households composed of more than three people, the move-up housing consumer segment is considered to be performing inadequately. Also, because the demand for move-up housing within the Submarket appears somewhat questionable, the ability of a household to transition from this segment into the downsizing home market is also inadequate.

SENIOR HOUSING MARKET – Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE SAEGERTOWN SUBMARKET'S HOUSING ECOSYSTEM:



THE VERNON SUBMARKET

Nestled in the heart of central Crawford County and providing the “Golden Link” between Meadville and Conneaut Lake, the Vernon Submarket is truly unique in that it contains only one municipality: Vernon Township. The Vernon Submarket lies entirely inside Crawford County and is adjacent to the Saegertown, Meadville, Mead, Cochranon, East Fallowfield-Greenwood, and Conneaut Lake submarkets.

A HOUSING ECOSYSTEM ANALYSIS OF THE VERNON SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

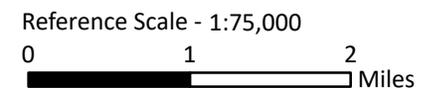
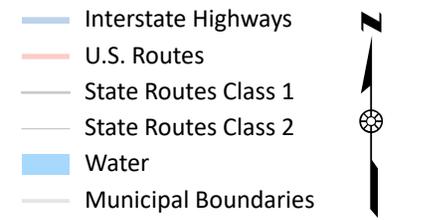
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚙️). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

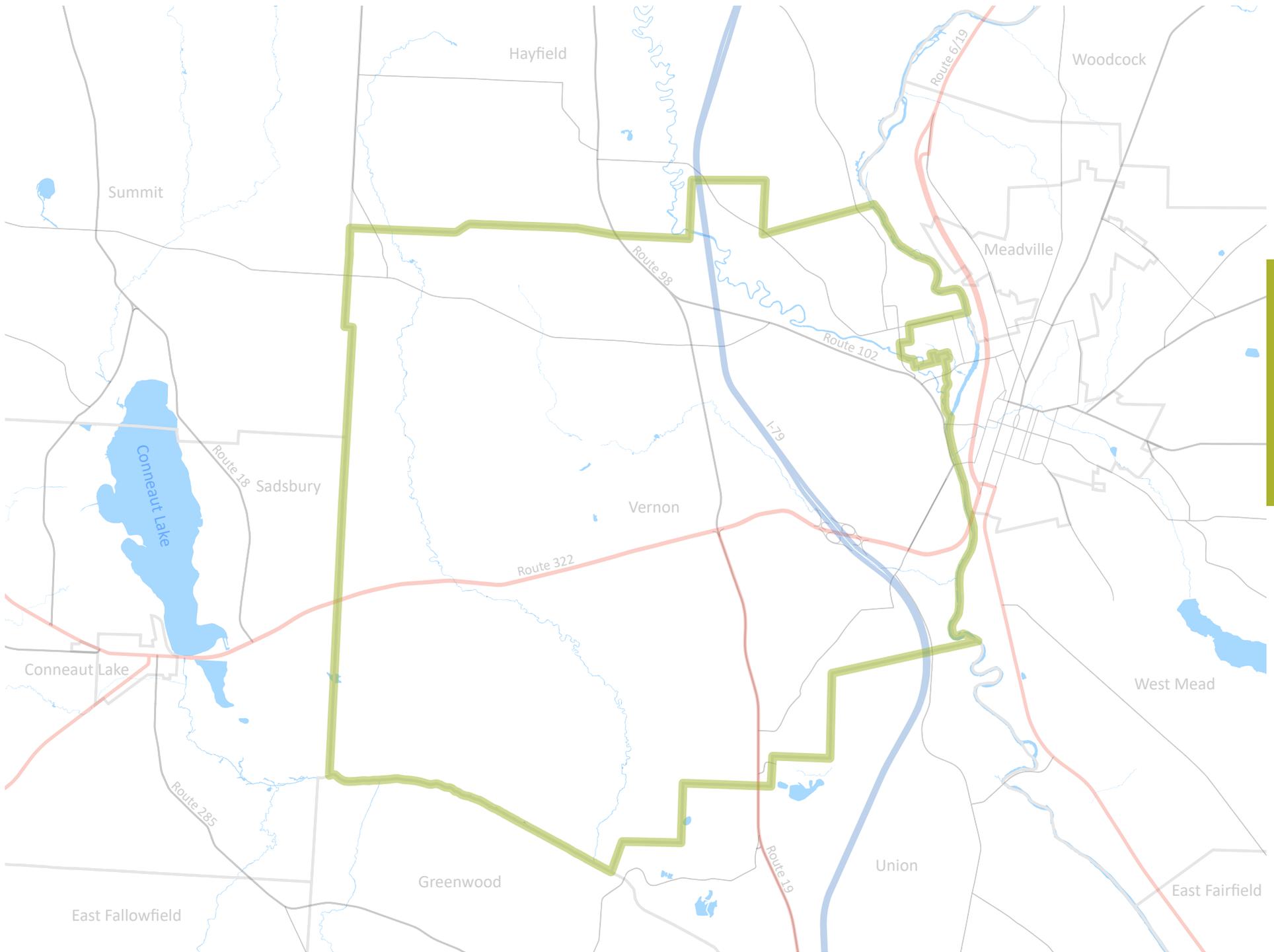
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (📊). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Vernon Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



VERNON SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends of residents living within the Vernon Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE VERNON SUBMARKET —

The map on the next page uses dots to represent where residents living within the Vernon Submarket work. From this map, it is apparent that many Vernon Submarket residents have taken up employment within Meadville and the Saegertown area despite the Submarket's healthy concentration of jobs. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Vernon Submarket produces a job-to-housing ratio well above this range at 2.42. This finding may indicate the presence of desirability factors which may discourage people from living within the Submarket.

The radar graph on the bottom left displays the distance and direction of where Vernon Submarket residents work. The dark green wedges of the graph demonstrate those commuting less than ten miles which appears to define most Vernon Submarket workers and presents a good sign for the stability of its housing marketplace. Live-work observations paint the overall picture of the Vernon Submarket being primarily used as residential community with close access to jobs in neighboring submarkets. A break down of such commuter trends is presented on the bottom right.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries

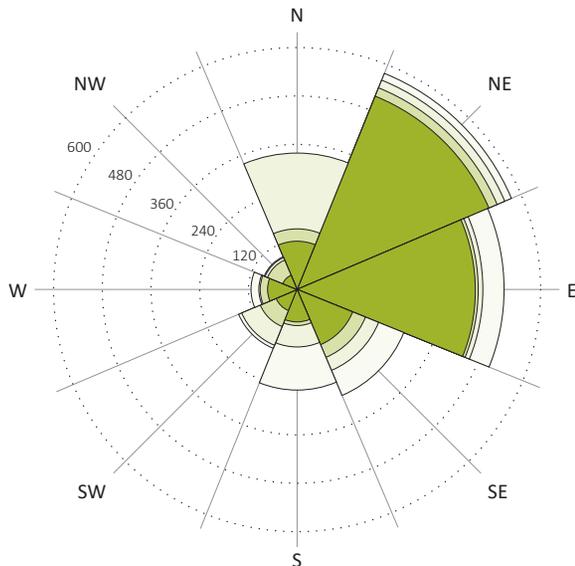


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE VERNON SUBMARKET RESIDENTS WORK



- Less than 10 Miles
- 10 - 24 Miles
- 25 - 50 Miles
- 50 + Miles

17.6%

of Vernon Submarket residents work at a location **inside the submarket**.

68.5%

of Vernon Submarket residents work inside **Crawford County**.

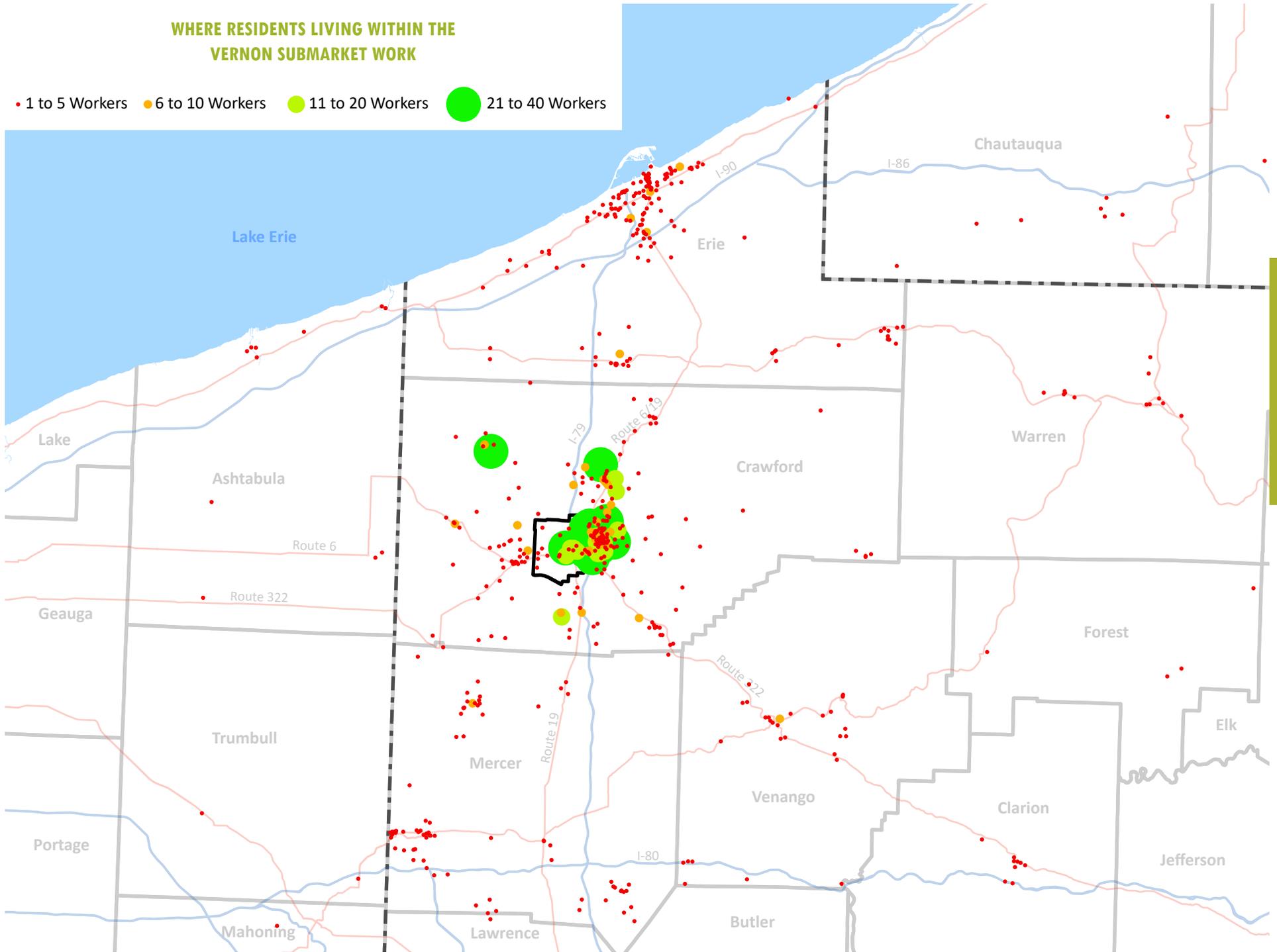
31.5%

of Vernon Submarket residents work outside **Crawford County**.

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

WHERE RESIDENTS LIVING WITHIN THE VERNON SUBMARKET WORK

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



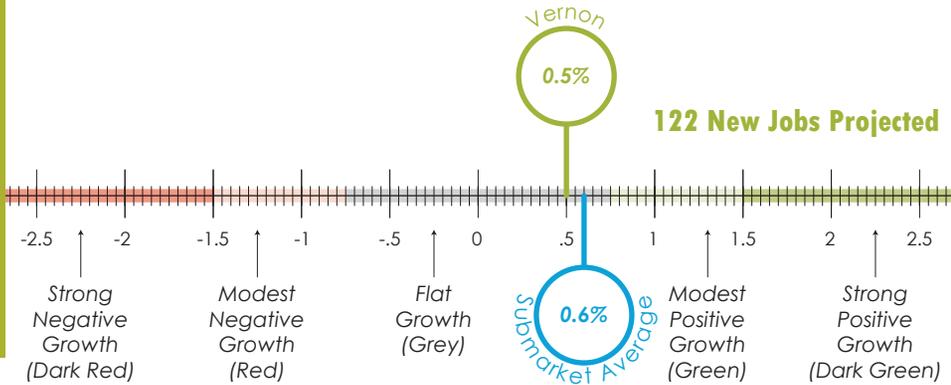
VERNON SUBMARKET

JOB GROWTH ANALYSIS:

⚙️ JOB GROWTH —

From the graph below, the Vernon Submarket's 0.5% projected annual job growth rate is just below the submarket average of 0.6% and lies within the "flat growth" range. Recognizing this, it is unlikely that projected job growth within the Submarket will provide workers the extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



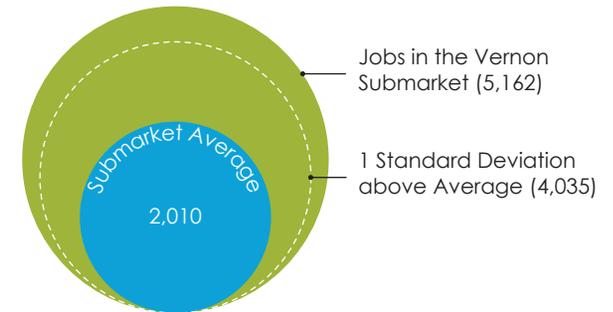
Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

👤 HOUSEHOLD INCOME CHANGE —

Despite flat job growth projections, from the graph on the bottom left, household income within the Vernon Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

📊 TOTAL JOBS —

To explore the magnitude of the Vernon Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average value of

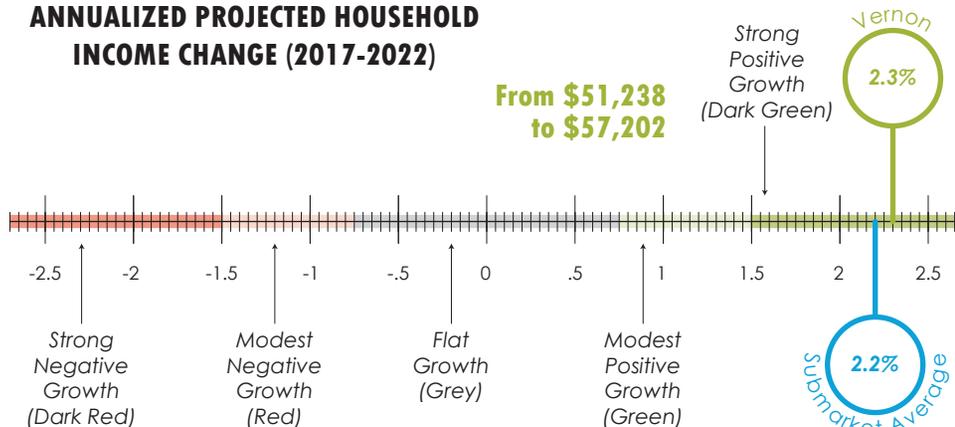


Source: U.S. Census 2011-2015 ACS

jobs present within a submarket. If the Vernon Submarket contained more jobs than two standard deviations above the submarket average, then that submarket was considered as a job center. From the graphic above, the Vernon Submarket contains more jobs than one standard deviation above the submarket average but does not fit our test for being considered as a job center. However, given the Submarket's concentration of jobs, it should be recognized that it is likely an emerging job center. At the present time, housing activity within the Vernon Submarket is still highly reliant on the growth and stability of nearby job centers.

In summary, despite containing a considerable share of local employment opportunities, many of the residents within the Vernon Submarket commute to jobs located elsewhere in the region. The Submarket is not quite a bedroom community but also not a job center. Although the Submarket is projected to have a flat job growth rate, it is expected to experience a strong household income growth rate. Such household income growth may bolster housing market stability.

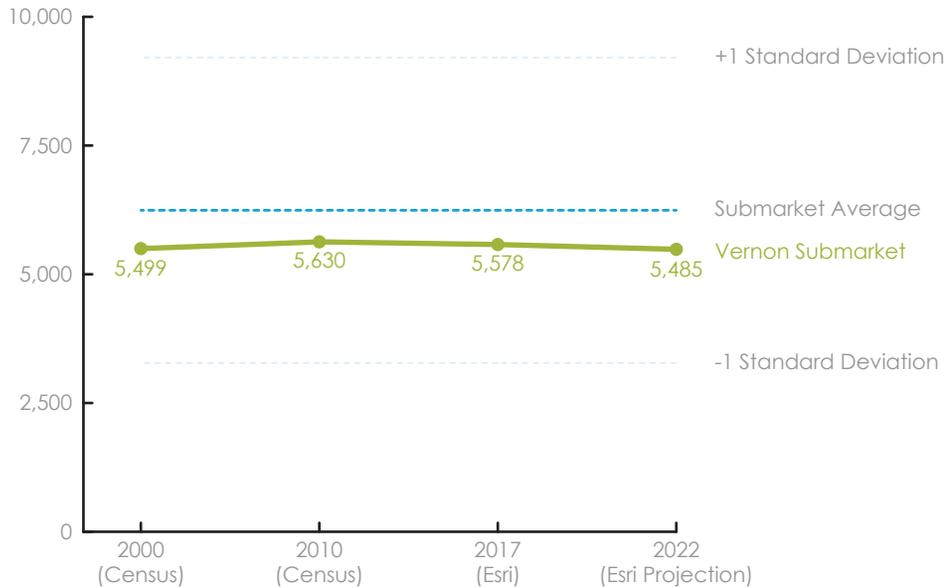
ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)



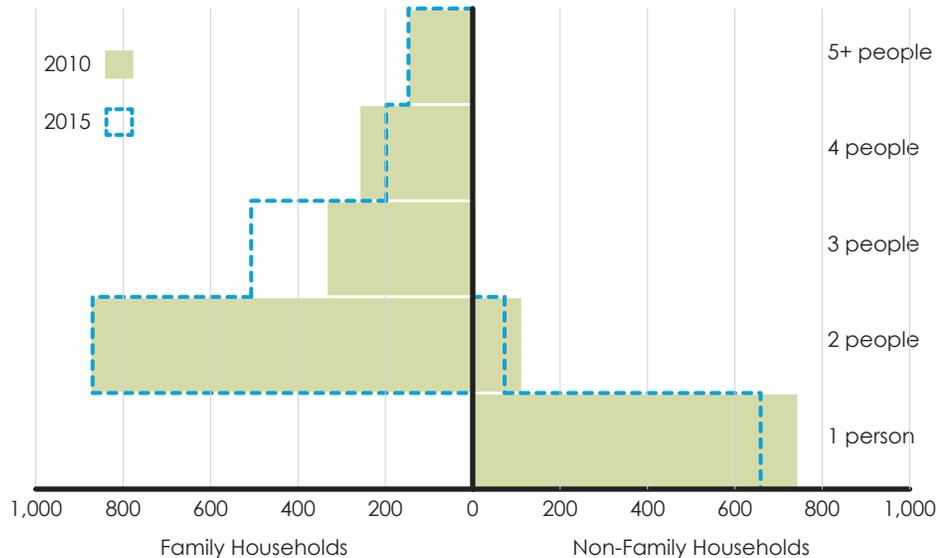
Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

POPULATION GROWTH ANALYSIS:

VERNON SUBMARKET POPULATION GROWTH



VERNON SUBMARKET HOUSEHOLD FORMATION TRENDS



Source: U.S. Census

This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the Vernon Submarket would directly lead to household formation and increased housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, the population of the Vernon Submarket has been stable since 2000. Absent any natural increase, outside buyers may be taking interest in the Submarket.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph at left demonstrates the composition of Vernon Submarket households by size between 2010 and 2015. One- and two-person non-family households declined substantially over this time period. For family households, those comprised of two-people have remained flat while those composed of three or more inhabitants have fluctuated. Three-person family households increased drastically while those with four people declined over the same period. Additionally, five-or-more person family households remained stable in the Vernon Submarket between 2010 and 2015.

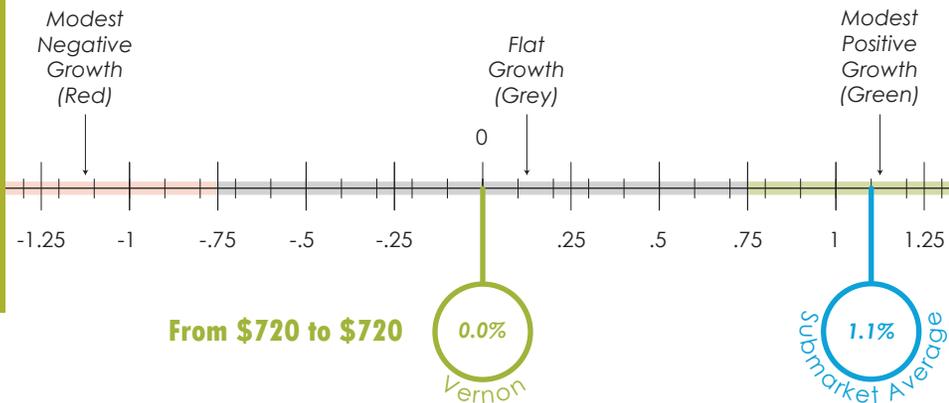
Household formation trends observed within the Vernon Submarket suggest a decline in the demand for rental units, stable demand for starter and downsizing homes, and an increase in the demand for move-up housing.

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into one's own unit becomes more attainable. The line graphs below demonstrate how the Vernon Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rent prices have remained flat while home values have fared better with modest growth.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Vernon Submarket with comparisons to Crawford County and the submarket average. We see that renter households within the Vernon Submarket are about as cost-burdened overall as the submarket average but are faring better on the whole than those across Crawford County.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



34.4% of Vernon Submarket Renters
(186 Households)

41.3% of Crawford County Renters

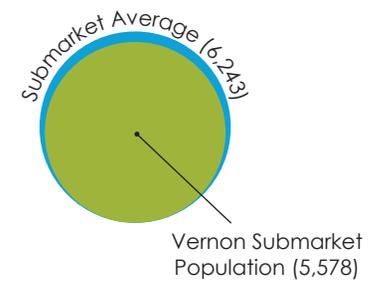
34.3% Submarket Average

Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

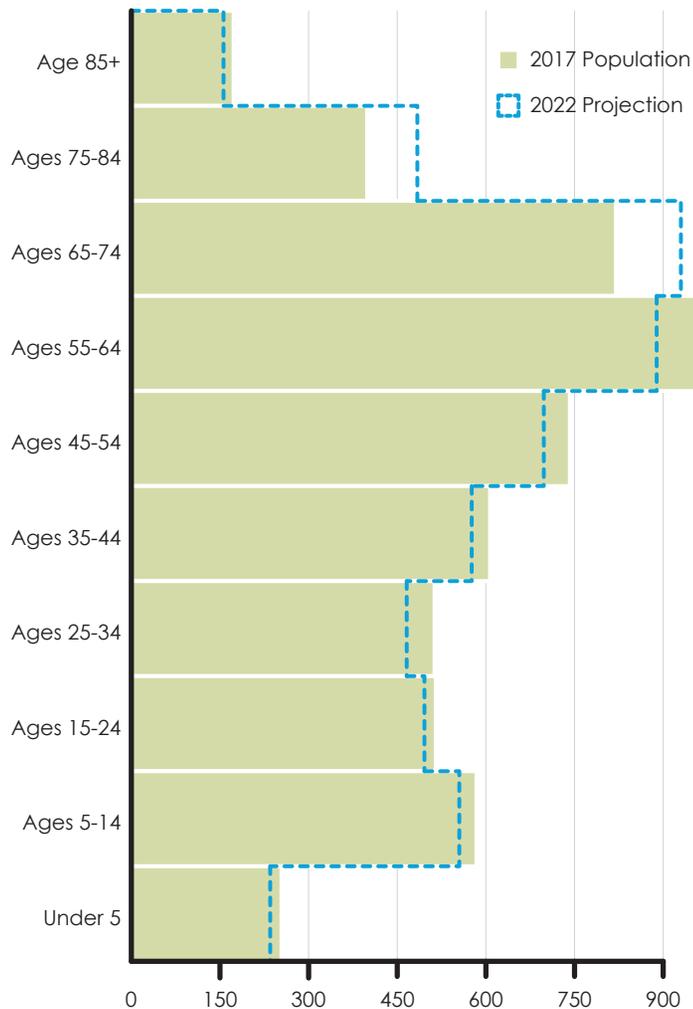
TOTAL POPULATION – The cycling of households between different homes creates some of the housing demand within a community. To understand this type of housing demand, we established whether the Vernon Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket.

From the graphic shown on the right, the Vernon Submarket is less populated than the submarket average. By this standard, the Vernon Submarket is not a regional population center or even a local population center despite its proximity to the Meadville area. In terms of population, the Vernon Submarket is a rural population area. Before analyzing the Vernon Submarket as a rural population area it is important to consider a few caveats. As the only single municipality submarket, the Vernon



Source: Esri, Retrieved 2017

VERNON SUBMARKET POPULATION PYRAMID & PROJECTION



Source: Esri, Retrieved 2018

Submarket constitutes a significantly smaller area than the other submarkets except for the entirely urban Meadville Submarket. Despite its actual population size, the Vernon Submarket should be evaluated within the context of its role as a part of the Meadville area and a community with extensive commercial areas connecting the City of Meadville to the Conneaut Lake area. When these caveats are considered, the Vernon Submarket may have some ability to attract residents on a speculative basis rather than drawing only those who are anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by its age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional “starter home” housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Vernon Submarket in 2017 with a projection to 2022. Age cohorts within the Vernon Submarket are projected to decline across both the youth and working age brackets which together constitute all individuals under the age of 64. Conversely, population is projected to increase across the age brackets comprising individuals ages 65-to-84. Such demographic projections suggest a decline in the local demand for rental units, starter homes, and move-up housing while also suggesting an increase in the internal demand for downsizing homes and senior living accommodations.

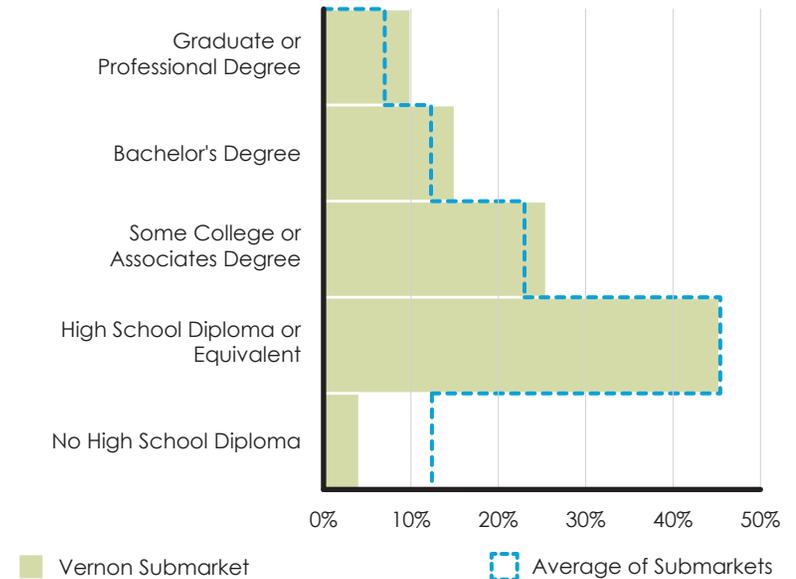
POPULATION GROWTH ANALYSIS:

The demographic trends and household formation trends addressed earlier provide mixed messages concerning the demand for starter homes and move-up housing while suggesting that the local demand for rental units and downsizing homes will increase. The combination of these trends appear only somewhat consistent with the rough finding that rental prices have slightly declined while home values have fared better.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Vernon Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Vernon Submarket is more educated than the submarket average. The Submarket contains higher portions of individuals holding either associates level, bachelor's, and graduate/professional degrees than the submarket average. Even though the Submarket has a similar proportion of people holding a high school diploma as their maximum educational attainment, it contains a much lower portion of those without a high school diploma. The Submarket's higher level of overall educational attainment may make it more economically competitive over the long run.

VERNON SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

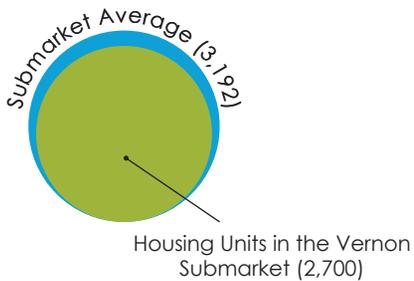
In summary, the Vernon Submarket is not a population center within Crawford County and its population has been stable since 2000. Such stability suggests that demand for new housing within the Submarket may be split between the cycling of existing households and the arrival of new residents. In terms of household formation trends, non-family households comprised of one to two people have declined. Family households comprised of two and five-or-more people have remained stable while three person family households have increased significantly as those with four people have declined. Household formation trends appear consistent with the Submarket's modest increases in home values and observations of flat rent prices. Even though rents have seen flat growth, the Vernon Submarket has a similar rate of cost burdened renters than the submarket average and Crawford County on the whole. Demographic projections within the Submarket show declines across both the youth and working age cohorts while showing an increase in the population of seniors. In terms of educational attainment, the Vernon Submarket is more educated than the submarket average.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph at right presents the housing stock growth rate for the Vernon Submarket. Although flat, the Submarket's housing stock growth rate is similar to the submarket average.

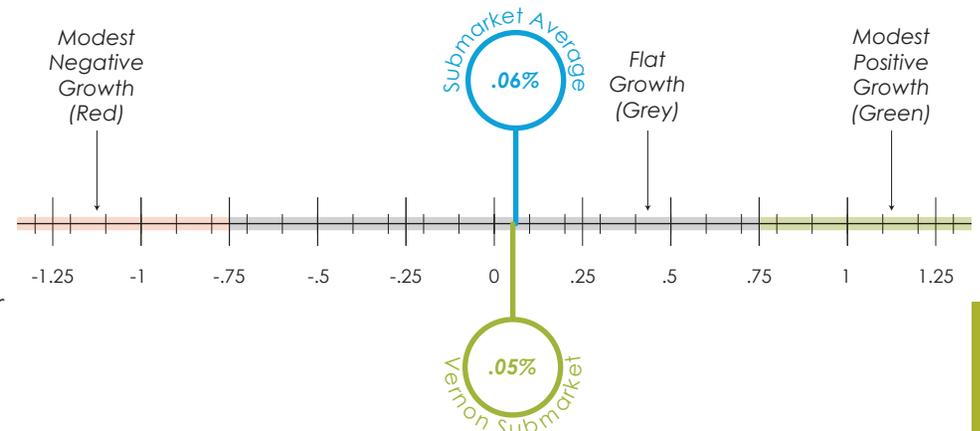


Source: Esri, Retrieved 2018

TOTAL HOUSING STOCK —

It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Vernon Submarket's housing stock, we compared the number of housing units located within the submarket to the average number of housing units within a Crawford County submarket. From the graphic on the left, we see that the Vernon Submarket has fewer housing units than the submarket average. Based on this analysis, it can be safely assumed that housing development within the Vernon Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

ANNUALIZED PROJECTED HOUSING STOCK GROWTH THROUGH 2022

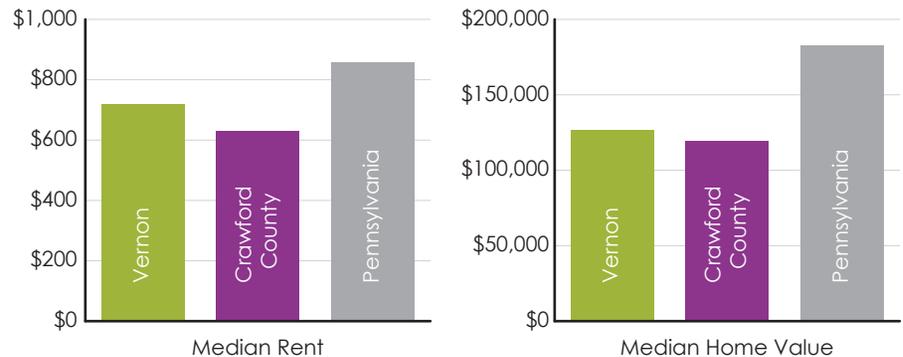


Source: U.S. Census, Retrieved 2018

VERNON SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, both median rent prices and home values within the Saegertown Submarket are above the corresponding figures for all of Crawford County yet well below those observed for Pennsylvania on the whole. However, such figures suggest that the Submarket's rental and home ownership markets are among the most desirable in the county. Most significantly, the Vernon Submarket is carrying a much stronger rent price than that observed across the county.



Source: U.S. Census, Esri - Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 –

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that nearly 16% of the Vernon Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. From this observation, the Vernon Submarket has a young housing stock which suggests that its housing units may, on the whole, be more physically accessible and provide more modern amenities. It is also possible that the Vernon Submarket may have a desirable housing stock for seniors wishing to live out their latter years at home. Despite its young housing stock, the Submarket should still consider providing for Aging-in-Place opportunities and senior living accommodations given its proximity to submarkets with an older housing stock.

VERNON SUBMARKET HOUSING UNITS BUILT PRE-1940

15.8%



Homes Built Pre-1940

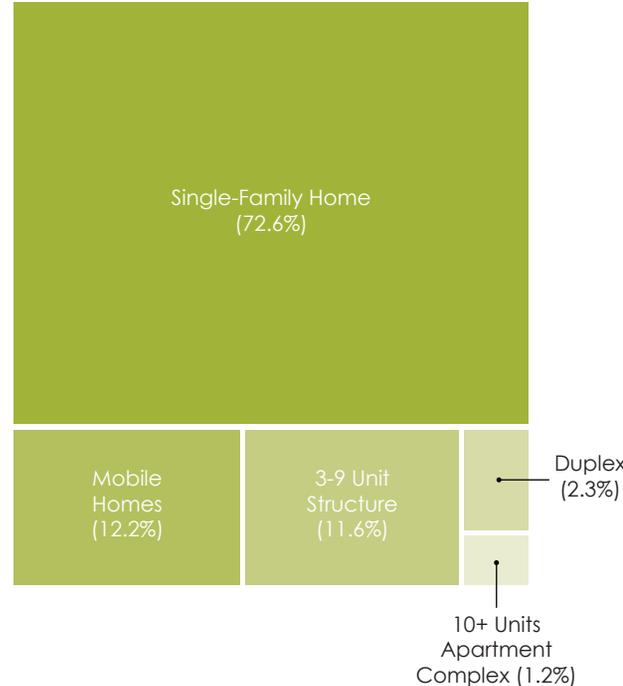
84.2%



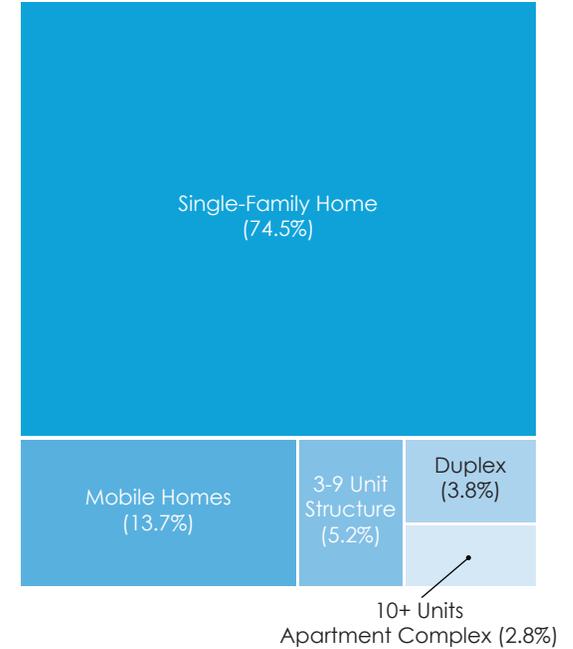
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

VERNON SUBMARKET



SUBMARKET AVERAGE



Source: U.S. Census, Retrieved 2018

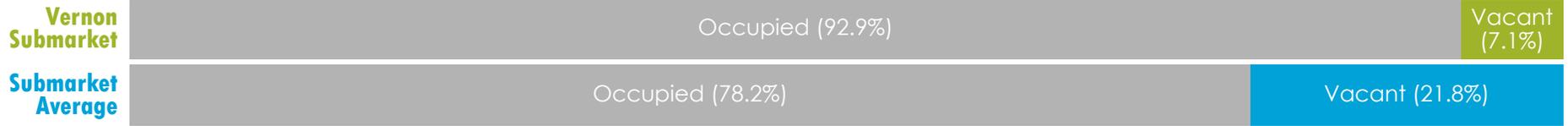
HOUSING BUILDING TYPES –

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Vernon Submarket is similar to the submarket average except that three-to-nine unit structures and complexes comprise a larger share of the Submarket's overall housing building stock. The Vernon Submarket has similar proportions of single-family and mobile homes but a lesser share of duplexes and apartment complexes consisting of ten-or-more units.

HOUSING STOCK GROWTH ANALYSIS:

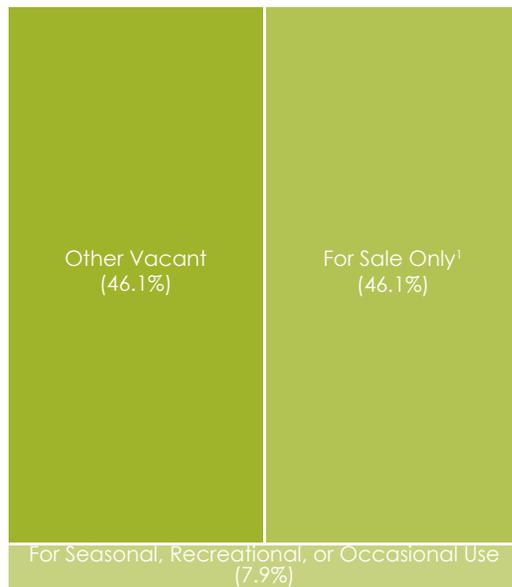
OVERALL VACANCY & VACANCY BY TYPE –

The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Vernon Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. The Vernon Submarket has an overall vacancy rate barely above what is considered the natural range (4% to 7%) by real estate professionals. Despite its much lower overall vacancy rate, nearly half (46%) of the Submarket’s vacancy results from “other” reasons while another identically sized share is reduced from homes that are currently listed for sale. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market. For homes currently listed for sale, at 46% of all vacancy the sum of such units relative to the Vernon Submarket’s housing stock amounts to a natural vacancy rate of 3.3%. Even though the Vernon Submarket has a relatively low vacancy rate, the proportion of vacancy resulting from “other” reasons might indicate the existence of disinvestment issues within certain portions of its overall housing stock.

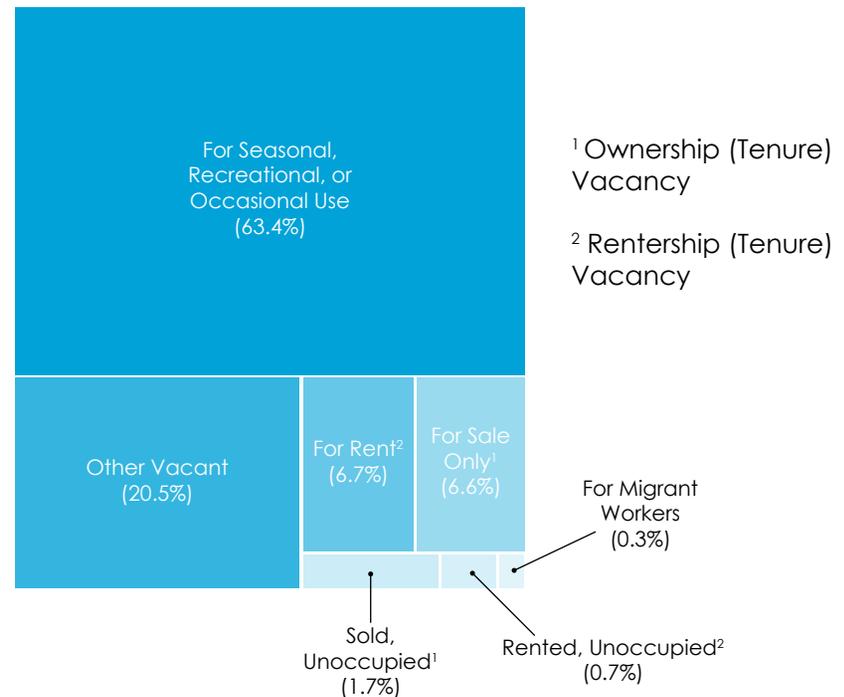


Source: U.S. Census, Retrieved 2018

VERNON SUBMARKET



SUBMARKET AVERAGE

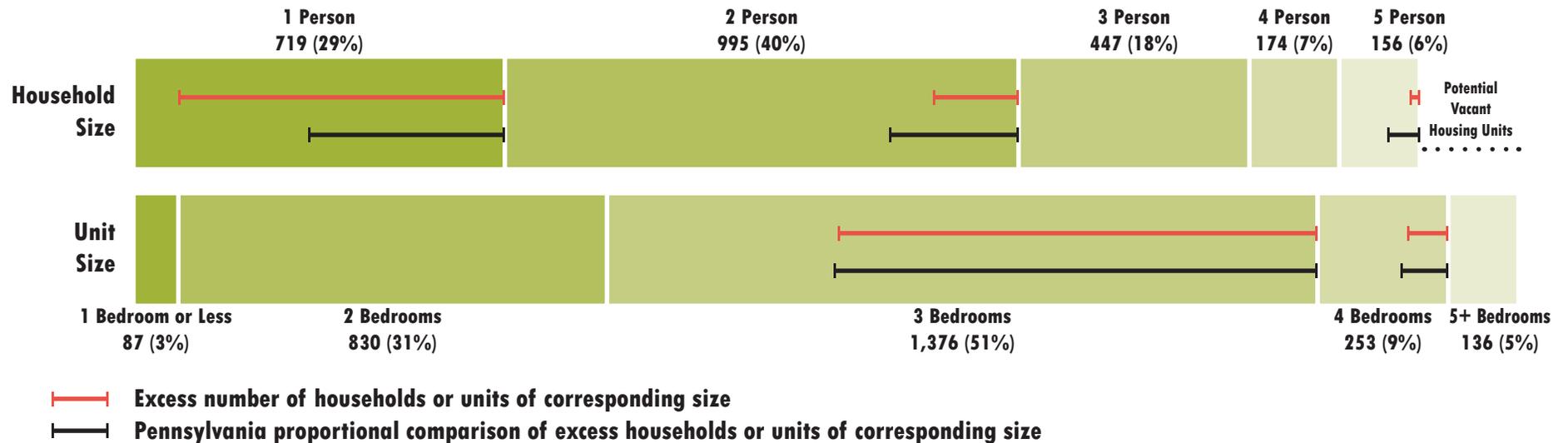


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

🏠 HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Vernon Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket figures for comparison purposes. From comparing these graphs, it is clear that the Vernon Submarket exhibits a household to housing unit size mismatch beyond what is observed throughout Pennsylvania for single person to one-bedroom units. Beyond having a major shortage of one-bedroom units, mismatches between household and housing unit sizes within the Submarket are comparable to statewide proportions with the exception of having a relatively larger share of two-bedroom and five-bedroom units.

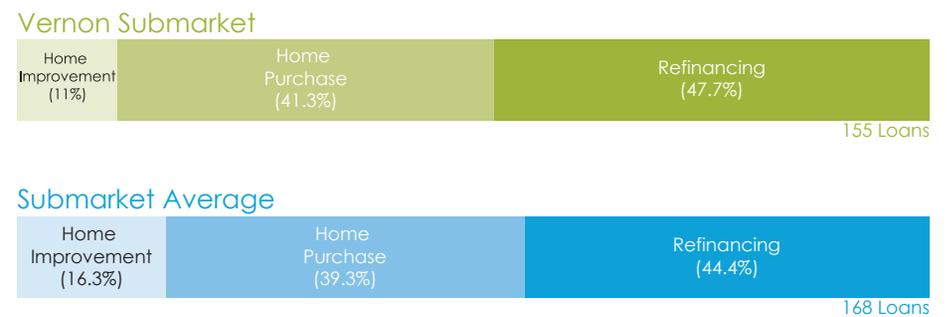


Source: U.S. Census, Retrieved 2018

🏠 THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right demonstrate the purpose of loan activity within the Vernon Submarket. From this graphic, it appears that loan activity within the Vernon Submarket has been less investment oriented, at least in 2016, than activity reported across the submarket average. This is apparent from a stronger showing of the portion of loans for refinancing activities. However, loan originations for home purchases outperformed the submarket average.

VERNON SUBMARKET LOANS BY PURPOSE (2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Vernon Submarket, the rate of declined loans has hovered in the mid-twenties in recent years (see below) and appears to show improvement since 2007.

VERNON SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Vernon Submarket contains a lesser concentration of housing units than the submarket average and its housing stock isn't growing at a significant rate. This finding is consistent with observations of median rent and home values which are above those observed across Crawford County but below Pennsylvania's figures. However, despite a lack of recent construction, around 16% of the Submarket's stock was constructed prior to 1940. Single-family structures and mobile homes are about as represented within the Submarket as the submarket average but three-to-nine unit structures are more represented. In terms of vacancy, the Submarket's vacancy rate is healthy and much lower than the submarket average, but a larger composition of its vacancy is due to "other" reasons. When assessing how well the Vernon Submarket's housing stock meets the needs of its residents, it is clear that it doesn't offer many opportunities for single person households. Loan activity within the Submarket has been less investment oriented than the submarket average and the rate of approved loans has hovered around 81% while showing some improvement.

OVERALL STATUS OF THE VERNON HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

The Vernon Submarket is not currently a job center according to our methodology, but such finding could be subject to change in the near future. Such change could occur somewhat soon as a new medical campus is planned inside the Submarket which could employ upwards of 1,000 people. Currently, despite the Vernon Submarket's concentration of jobs, many of its residents commute to opportunities within the Meadville Submarket, Saegertown area, and north towards the Erie area. Though many residents commute to jobs outside the Submarket, a significant portion, nearly 18%, both live and work inside the Vernon Submarket. This observation is also supported by our analysis of the Submarket's job-to-housing ratio which, at 2.42, lies well above the beneficial range and is the highest reported across any submarket in Crawford County. A job-to-housing ratio this high may indicate that the Submarket either lacks housing opportunities or has living conditions that many view as undesirable. The combination of the above findings suggests that the Vernon Submarket is not entirely a bedroom community due to its concentration of employment, and that the Submarket could potentially absorb more housing activity in the future.

Overall, the educational attainment of residents within the Vernon Submarket is well above the submarket average with much higher proportions of those attaining either associates, bachelor's, or graduate and professional level degrees. Though the Submarket's higher overall educational attainment makes it more economically competitive, the recent job growth rate within the Submarket has been flat. Despite flat job growth, household income is projected to increase at a strong rate leading out to 2022. Potential household income growth may partially explain why the success rate for securing real-estate related loans has dropped since 2007. However, the composition of loan originations within the Submarket has been less investment oriented than the submarket average despite containing a higher proportion of activity for home purchases. Ultimately, the anticipated opening of the new medical center paired with projected gains in household income could make the Vernon Submarket one of the most stable housing markets in Crawford County.

POPULATION TRENDS —

According to our methodology, the Vernon Submarket represents a rural population area within Crawford County. It should be noted that this conclusion is based purely on the number of people living within the Submarket. Therefore, before considering the Vernon Submarket as a rural population area, it should be recognized that the Submarket largely functions as a suburban community on the edge of a larger city and is a part of a greater micropolitan region. Population growth within the Submarket has been flat since 2000, and demographic projections of the composition of its population by age show declines across all youth and working age cohorts paired with an increase in its senior citizen population. Household formation trends show a decline in the number of one- and two-person non-family households whereas family households formation trends have been more dynamic. Family households comprised of two- and five-or-more people have remained stable, those containing four people have declined, and three-person family households have increased. Overall, the Vernon Submarket's population has seen stagnant growth and is continuing to age. Despite such observations and projections, the Submarket is showing signs of attracting small families while also losing non-family households.

THE HOUSING MARKET GENERALLY —

The Vernon Submarket's housing stock isn't growing at a significant rate despite modest growth in home values. In terms of affordability, the cost burdened rate among renter households within the Submarket is nearly identical to the submarket average. When considering the accessibility needs of older residents, the Submarket's relatively newer housing stock is less likely to present challenges for most residents. The Vernon Submarket's vacancy rate is significantly lower than the submarket average and lies just slightly above what is considered to be a healthy or acceptable rate according to real-estate industry analysts. Due to the Submarket's low vacancy rate, the composition of its vacancy by type is unlikely to present significant issues for its residents. Homes currently listed for sale along with "other" vacant properties together comprise around 92% of the vacant housing units within the Vernon Submarket. Household to housing unit size comparisons within the Submarket suggest that it has a shortage of one-bedroom units but a more generous supply of two- and five-or-more-bedroom homes. Additionally, the supply of three and four bedroom units relative to household sizes within the Submarket is comparable to the ratios observed across the State of Pennsylvania.

THE VERNON SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Vernon Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Vernon Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment which constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — The Vernon Submarket's new household market may be negatively impacted by trends that show a decline in the number of one- and two-person non-family households. These household formation trends are further supported by demographic projections which show an overall decline in the population of individuals between the ages of 15 and 34. Observations of declining non-family household formation trends and demographic projections which appear to forecast a decline in the population most likely to participate in the new household market are further corroborated by rent price trends. Although median rent prices within the Vernon Submarket are above county-wide figures rent price growth has been flat. This observation is somewhat unusual when considered relative to other submarkets within the county, many of which have experienced growth in rent prices. Additionally, despite projections showing strong household income growth within the Vernon Submarket, its rate of cost-burdened renter households is similar to the submarket average, which rests at a relatively high rate.

When considering how the Vernon Submarket's existing housing stock may impact its new household market, some relief can be drawn from the observation that the composition of its stock contains a proportionally larger share of multi-unit residential structures. Such multi-unit residential structures are typically more accommodating for participants in the new household market as they often either don't require or can't afford all the features of a single-family home. However, comparisons between the composition of households and housing units by size show that the Submarket severely lacks housing units with only one-bedroom or less. The result may be that those in the new household consumer segment are pushed into larger housing than what is necessary to meet their needs. In terms of vacancy, the Vernon Submarket has the lowest vacancy rate of all submarkets within the county and likely isn't experiencing significant problems as a result of vacant homes.

The combination of trends and projections suggesting a decline in consumer demand for the Submarket's new household market paired with observations of flat rent growth and relatively high renter household cost-burdened rates leave the Vernon Submarket's new household market segments as performing inadequately. The Submarket's high renter household cost-burdened rate likely inhibits the ability of households to transition into the starter home market and therefore the ability to make such transition is inadequate.

STARTER HOME & DOWNSIZING MARKETS — Trends showing that the number of two-person family households in the Vernon Submarket has been stable potentially indicate stability for its starter and downsizing home markets. However, demographic projections within the Submarket forecast a decline in the population of individuals between the ages of 15 and 34 while also showing an increase in the population of individuals over the age of 65. The combination of household formation trends and demographic projections for the Vernon Submarket suggest that the demand for starter homes is stagnant while demand for downsizing homes is on the rise.

Both the starter and downsizing home consumer segments may be positively affected by projections showing strong household income growth. Additionally, home values have seen modest growth and median home values are above county-wide figures. The Vernon Submarket's housing stock is relatively modern and contains an abundance of single-family building types and an adequate supply of both two- and three-bedroom homes. Loan originations within the Submarket have been more oriented towards home purchases than the submarket average and the rate of declined loans has been improving over recent years.

Overall, a series of relatively positive observations of the Vernon Submarket's housing stock, median home values, and financing activity may lend stability to the Submarket's starter and downsizing markets. However, demographic projections suggest that the starter home market segment within the Submarket might be less stable. For now, the stable number of two-person family households paired with positive economic conditions suggests that both the starter home housing

THE VERNON SUBMARKET'S HOUSING ECOSYSTEM:

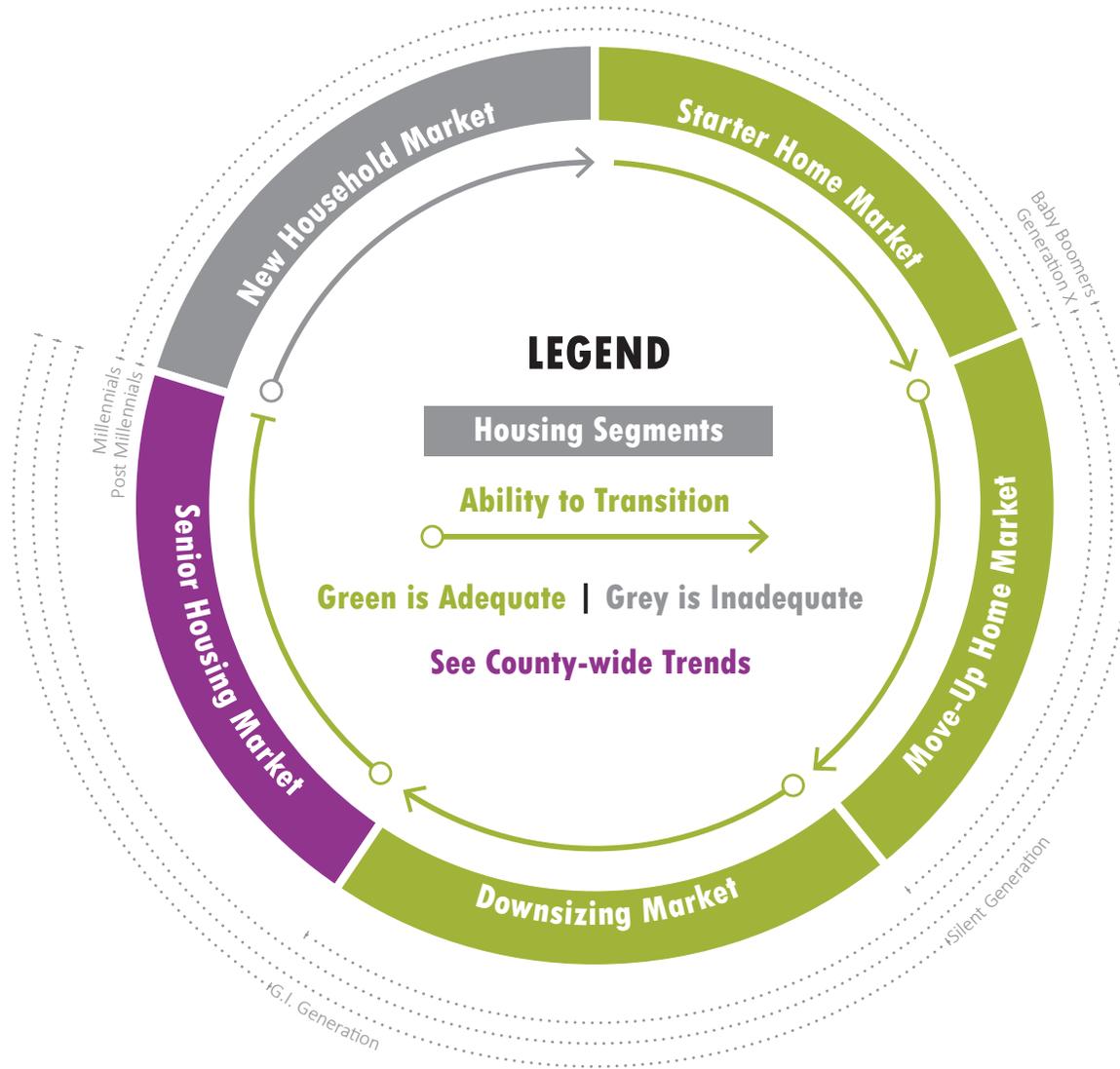
segment and the ability to transition from this segment and into the move-up market are adequate. For the downsizing market, demographic projections suggest that demand may pick up in the future. As a result, the downsizing housing market segment and the ability to transition from this segment and into a senior living accommodation are both considered to be adequate.

MOVE-UP MARKET – Trends showing an overall increase in the number of family households containing three-or-more people suggest that the demand for move-up housing within the Vernon Submarket may increase. However, such trends are contradicted by demographic projections that show a decline in the population of individuals between the ages of 35 and 64. Similar to the starter and downsizing markets, the Vernon Submarket's move-up marketplace should benefit from projections showing strong household income growth and trends of modest gains in home values which currently lie around county-wide figures. Additionally, the Submarket's relatively new housing stock appears to supply an adequate amount of larger single-family homes which may meet the needs of many households seeking move-up housing. Furthermore, loan originations within the Submarket have been more oriented towards home purchases than the submarket average and the rate of declined loans has been improving over recent years.

Overall, household formation trends suggest that the demand for move-up housing within the Vernon Submarket is stable, and therefore the performance of this housing segment is considered adequate. Additionally, a series of relatively positive economic conditions suggest that the ability of households currently within the move-up market to transition into the downsizing consumer segment should be adequate as well.

SENIOR HOUSING MARKET – Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE VERNON SUBMARKET'S HOUSING ECOSYSTEM:



THE CONNEAUT LAKE SUBMARKET

Comprising the communities surrounding Pennsylvania’s largest natural lake, the Conneaut Lake Submarket contains three municipalities including Summit and Sadsbury townships and the Borough of Conneaut Lake. The Conneaut Lake Submarket is adjacent to the Vernon, Saegertown, Springboro-Conneautville, Linesville, Shenango, and East Fallowfield-Greenwood Submarkets within Crawford County.

A HOUSING ECOSYSTEM ANALYSIS OF THE CONNEAUT LAKE SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

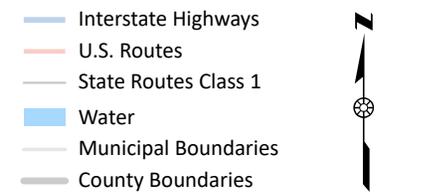
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚡). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

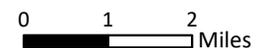
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Conneaut Lake Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

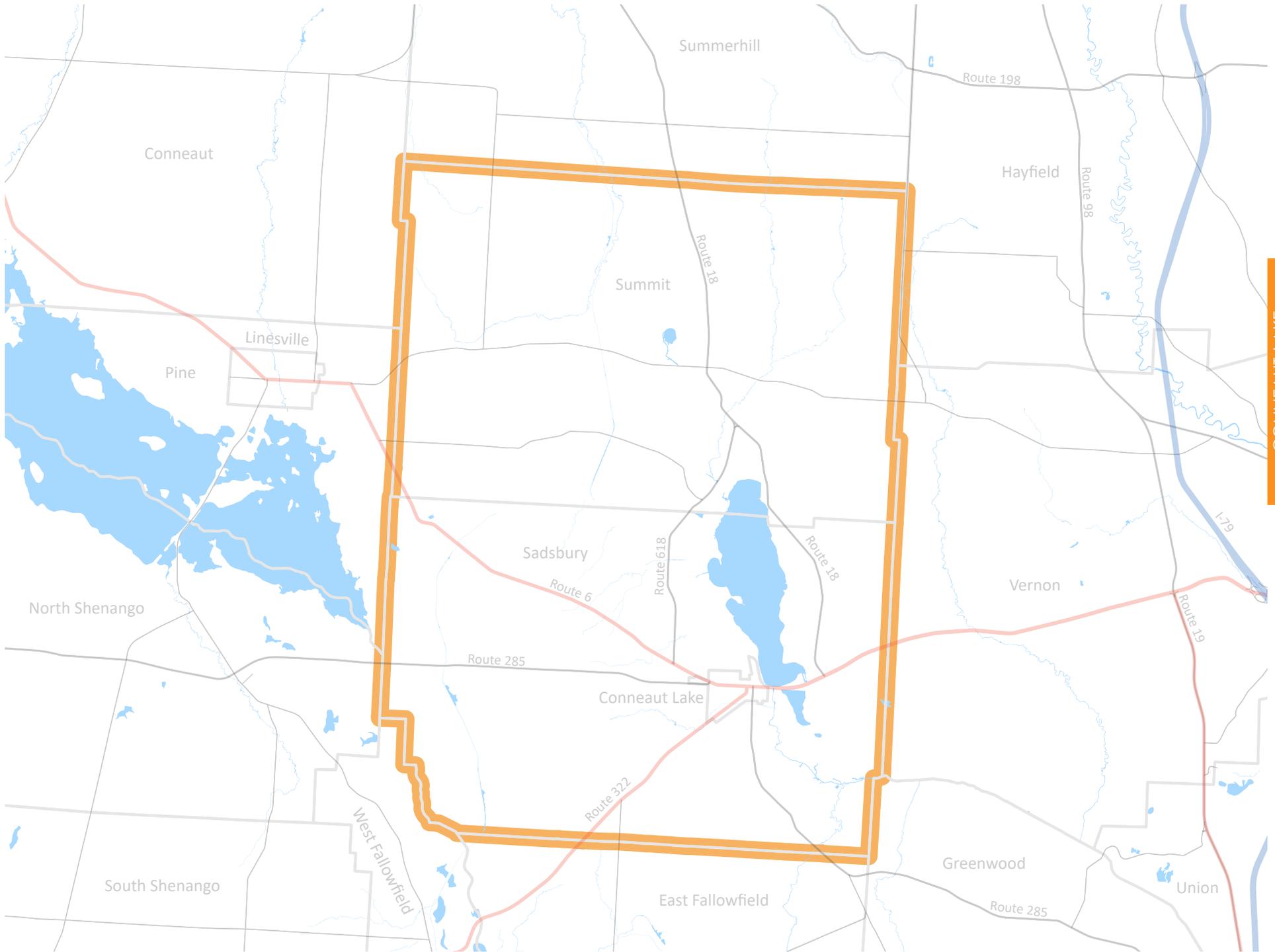
A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Reference Scale - 1:125,000



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



CONNEAUT LAKE
SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends for residents living within the Conneaut Lake Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE CONNEAUT LAKE SUBMARKET —

The map on the next page uses dots to represent where residents living within the Conneaut Lake Submarket work. From this map, it is apparent that many workers living within the Submarket work at locations outside the Submarket. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Conneaut Lake Submarket produces a job-to-housing ratio of 0.44, which lies below the beneficial range.

The radar graph on the bottom left displays the distance and direction of where Conneaut Lake Submarket residents work. The dark orange wedges of the graph demonstrate those commuting less than ten miles. However, a larger share of residents travel beyond ten miles to reach work. Consistent with the Submarket's job-to-housing ratio, live-work observations demonstrate that most residents treat the Submarket as a bedroom community and commute to work elsewhere. The radar graph also shows a clear eastward commuter pattern which highlights the importance of the Meadville area in the lives of Submarket residents. A break down of such commuter trends is presented on the bottom right and the map on the next page shows that many Conneaut Lake Submarket residents rely heavily on locations off U.S. Highway 322 and State Routes 6 and 19 for employment.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries

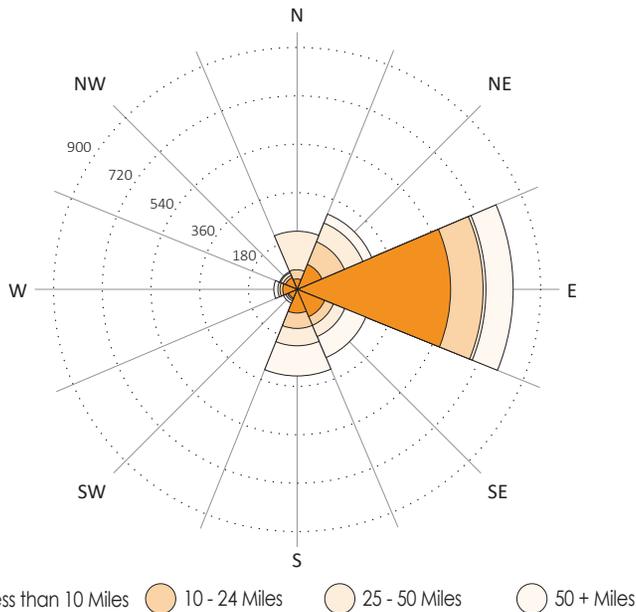


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE CONNEAUT LAKE SUBMARKET RESIDENTS WORK



12.7%

of Conneaut Lake Submarket residents work at a location **inside the submarket**.

61%

of Conneaut Lake Submarket residents work inside **Crawford County**.

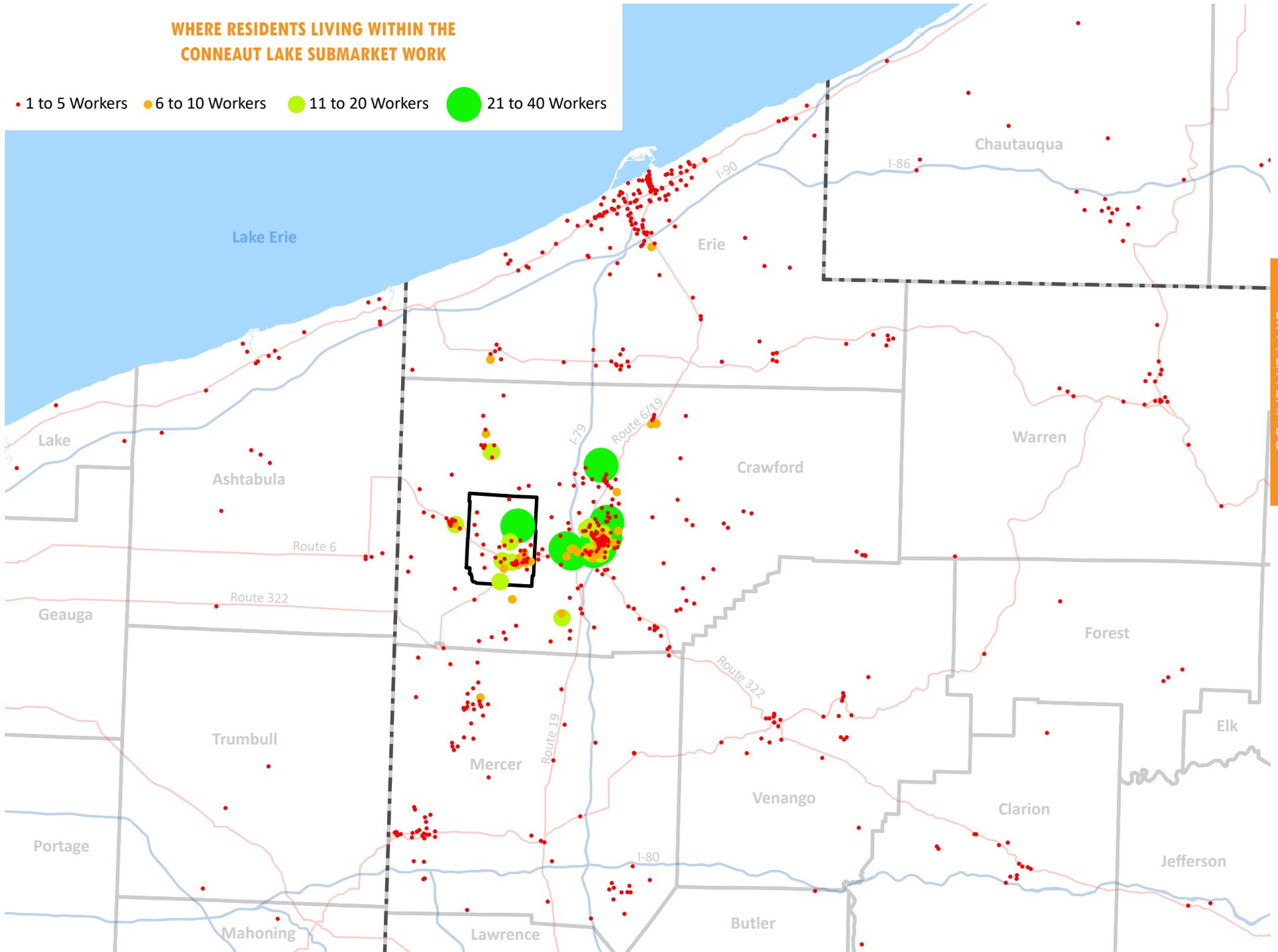
39%

of Conneaut Lake Submarket residents work outside **Crawford County**.

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

WHERE RESIDENTS LIVING WITHIN THE CONNEAUT LAKE SUBMARKET WORK

• 1 to 5 Workers • 6 to 10 Workers • 11 to 20 Workers • 21 to 40 Workers



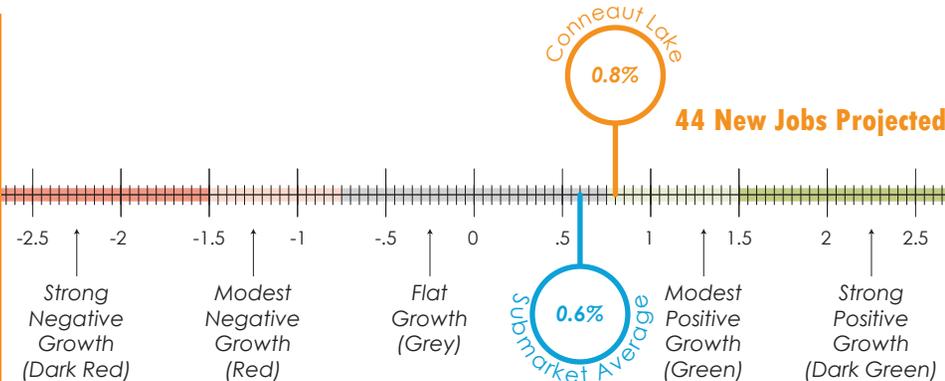
CONNEAUT LAKE
SUBMARKET

JOB GROWTH ANALYSIS:

☀️ JOB GROWTH —

From the graph below, the Conneaut Lake Submarket's 0.8% projected annual job growth rate is just above the submarket average of 0.6% and lies within the "modest positive growth" range. Submarket workers may benefit from the advantages of additional employment options which can also translate into housing market stability with time.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



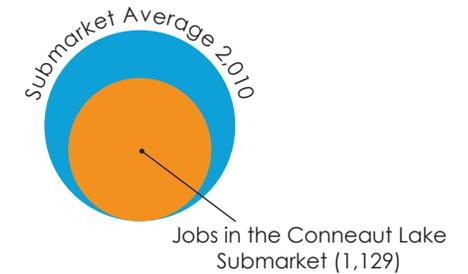
Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

🏠 HOUSEHOLD INCOME CHANGE —

In addition to modest job growth projections, from the graph on the bottom left, household income within the Conneaut Lake Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

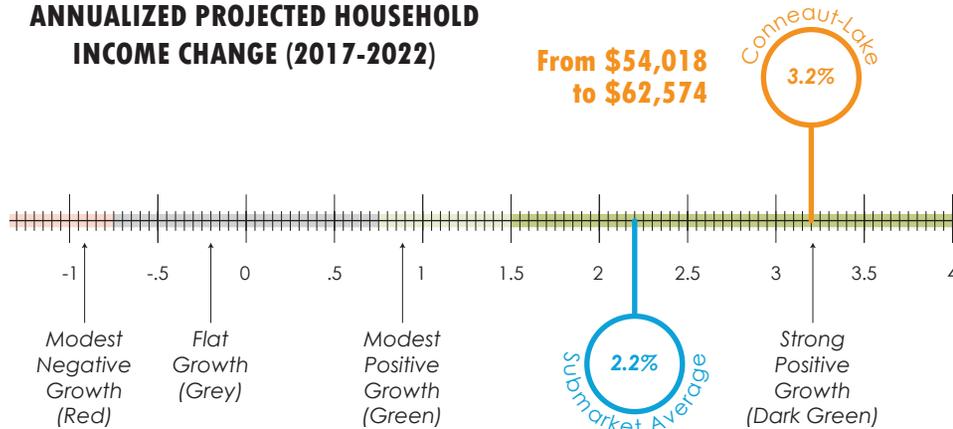
📈 TOTAL JOBS —

To explore the magnitude of the Conneaut Lake Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. From the graphic on the right, the Conneaut Lake Submarket contains fewer jobs than even the submarket average. This finding aligns with our earlier conclusion that the Submarket is more of a bedroom community than a job center. Although jobs within the Submarket provide important opportunities for local residents, the Conneaut Lake Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)

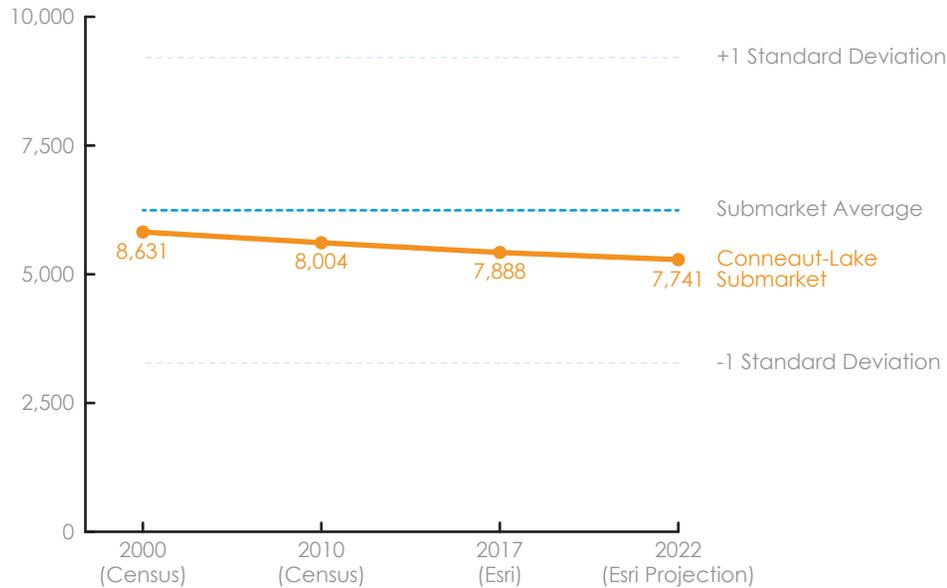


Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

In summary, the Conneaut Lake Submarket is projected to experience modest job growth with strong household income growth during the same period. Growth in household income may bolster housing market stability. However, the submarket is a bedroom community and therefore relies substantially on the productivity and growth of its surrounding region.

POPULATION GROWTH ANALYSIS:

CONNEAUT LAKE SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the Conneaut Lake Submarket would directly lead to household formation and increase housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

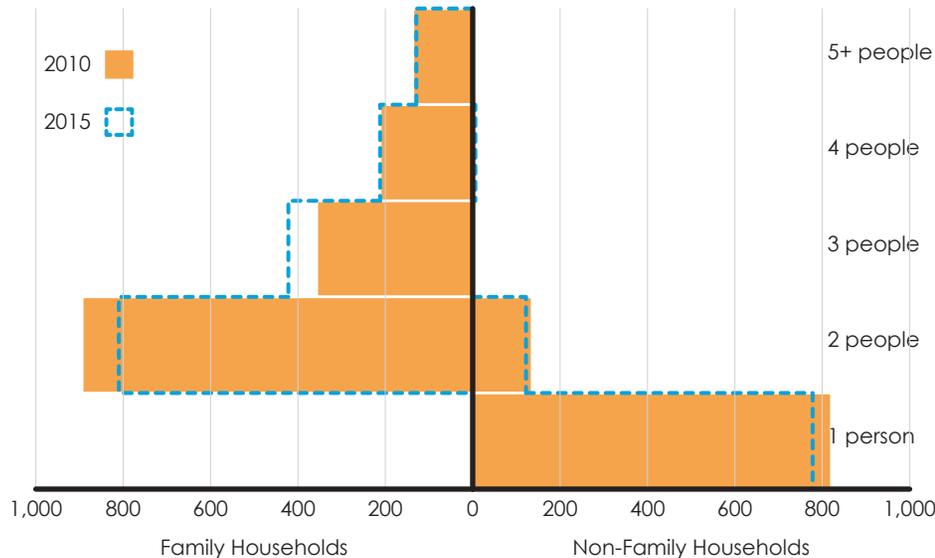
An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, the population of the Conneaut Lake Submarket has declined since 2000.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

CONNEAUT LAKE SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed, demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Conneaut Lake Submarket households by size between 2010 and 2015. Non-family households composed of one- or two-persons have declined in number. The number of three- and four-person family households has held steady while those composed of two people have declined and those with three people have increased. These household formation trends suggest a decline in the demand for rental units and starter homes while potentially indicating an increase in demand for move-up housing.

Source: U.S. Census

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Conneaut Lake Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rent prices have experienced strong growth while home values have remained flat.

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

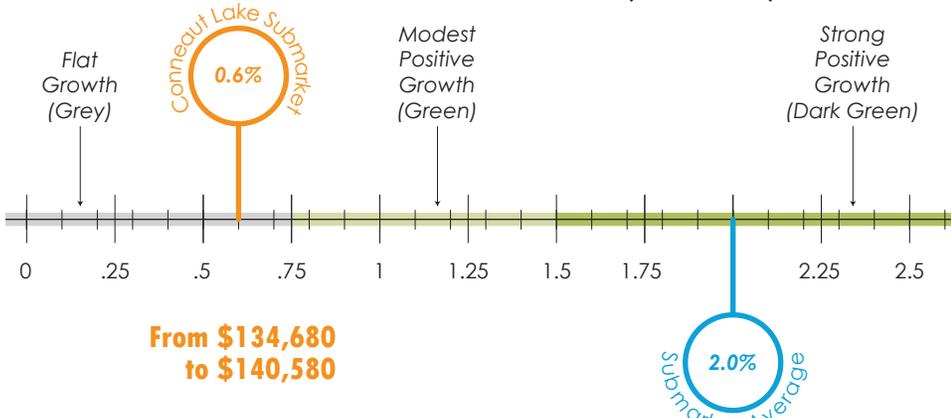
A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Conneaut Lake Submarket with comparisons to Crawford County and the submarket average. We see that the Cambridge Springs Submarket has a slightly lower proportion of cost-burdened renters to the submarket average and performs better than Crawford County on the whole.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



30.4% of Conneaut Lake Submarket Renters (160 Households)

41.3% of Crawford County Renters

34.3% Submarket Average

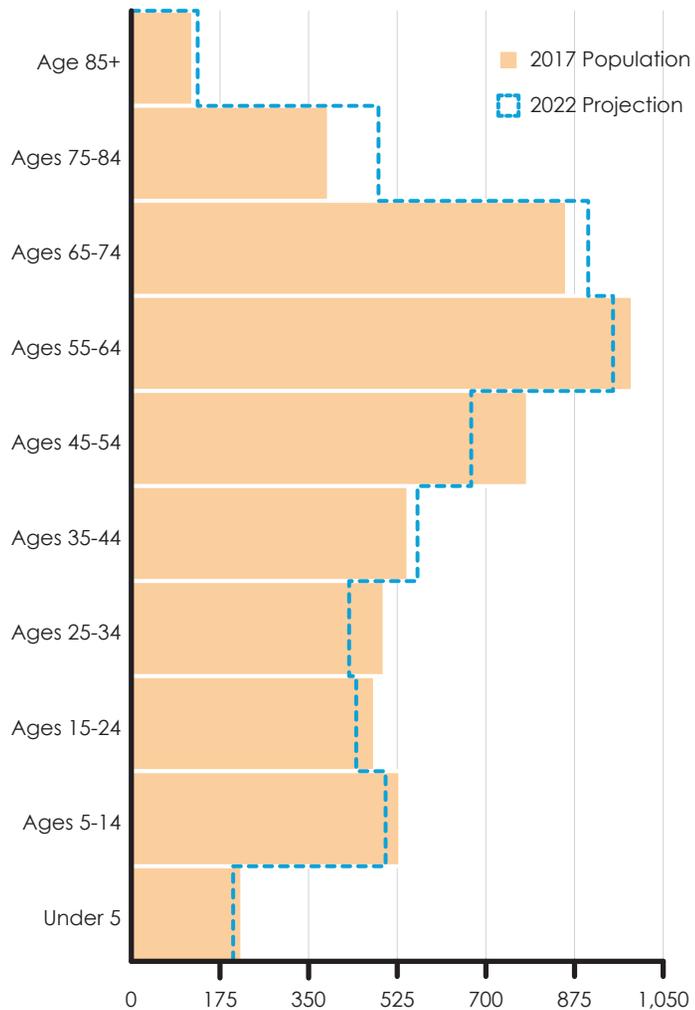
Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

TOTAL POPULATION —

The cycling of households between different homes creates some of the housing demand within a community. To understand this type of housing demand, we established whether the Conneaut Lake Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. If the Submarket contained more residents than the submarket average, then it was considered a local population center. From the graphic on the right, the Conneaut Lake Submarket is less populated than the submarket average. By this standard, the Conneaut Lake Submarket is a rural population area. Despite the Submarket’s relatively low

CONNEAUT LAKE SUBMARKET POPULATION PYRAMID



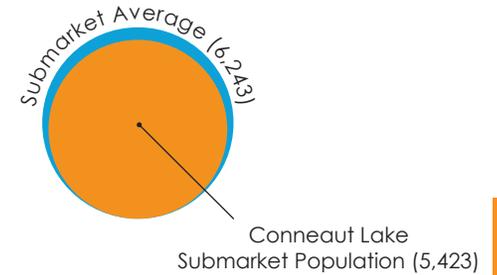
Source: Esri, Retrieved 2018

population, it should be recognized that the Conneaut Lake Submarket has attracted significant housing and commercial development based around its appeal as a regional vacation destination and tourist hotspot.

Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the Submarket’s relative population size, it can be assumed that it does not have the gravity to attract new residents on a speculative basis. This assumption infers that those moving into the Submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION —

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population’s age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional “starter home” housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Conneaut Lake Submarket in 2017 with a projection to 2022. Age cohorts within the Submarket are projected to decline across all youth and working age brackets with the exception of those ages 35-to-44. This projection suggests a decline in the demand for rental units, starter homes, and move-up housing. However, the population of senior age individuals within the Submarket is projected to increase, a finding which may translate into demand for downsizing homes and senior living accommodations.



Source: Esri, Retrieved 2017

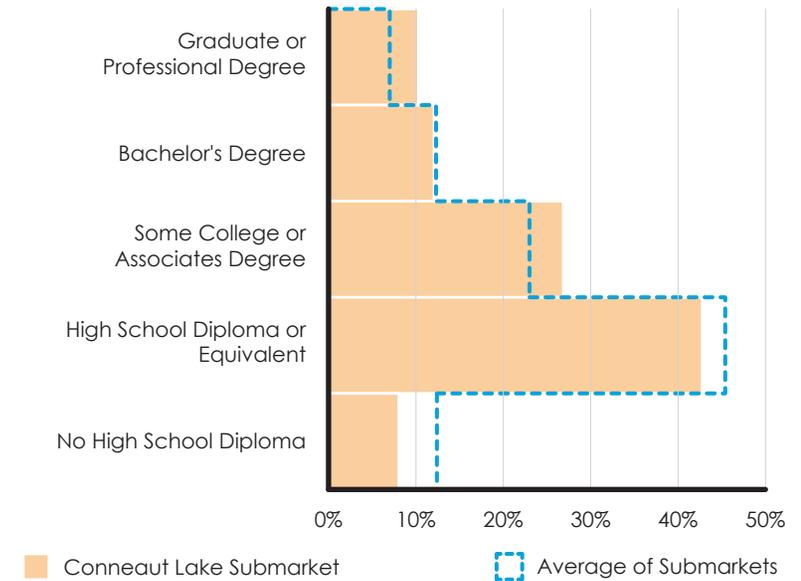
POPULATION GROWTH ANALYSIS:

The demographic projections addressed earlier suggest an increase in the demand for downsizing homes despite a decline in the number of two-person family households in the Submarket. Additionally, an increase in the number of three-person households might translate into demand for move-up homes even in the presence of demographic projections forecasting a decline in the population of individuals most likely to comprise this consumer segment. However, such trends are inconsistent with observations of changes in rent prices or home values.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Conneaut Lake Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Conneaut Lake Submarket is more educated than the submarket average with a higher portion of individuals holding either associates or graduate/professional degrees along with a lower representation of those with only high school diplomas or no diploma. Despite having a higher overall educational attainment, the Submarket contains a similar portion of those holding bachelor's degrees as the submarket average. This could be a sign that the Conneaut Lake Submarket appeals more to older professionals rather than a more balanced labor force representing workers of all ages.

CONNEAUT LAKE SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

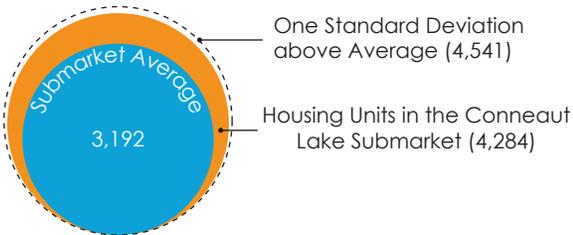
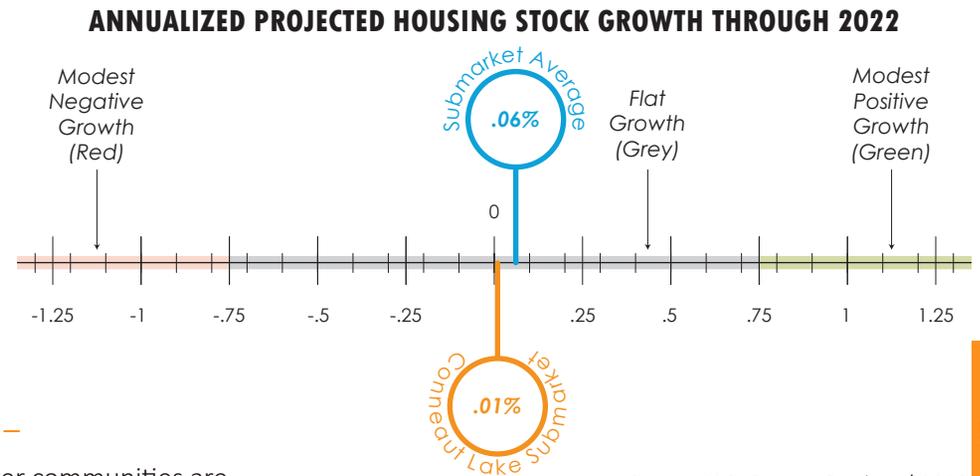
In summary, the Conneaut Lake Submarket is a rural population area despite its relatively high concentration of housing structures. Since 2000, its population has declined. Demographic projections forecast an overall decline in population across the youth and working age brackets within the Conneaut Lake Submarket. Household formation trends show a decline in the number of one- and two-person non-family households. Family households comprised of two people have declined, those with three people have increased, and four and five-or-more-person family households remained stable during the same time period. Household formation trends and demographic projections seem inconsistent with changes in rent prices, which have grown at a strong rate, and home values, which have seen flat growth. Despite the strong growth observed in rent prices, the Submarket's rate of cost-burdened renter households is somewhat below the submarket average. In terms of educational attainment, the Conneaut Lake Submarket is more educated on the whole than the submarket average.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph on the right presents the housing stock growth rate for the Conneaut Lake Submarket. Although housing stock growth within the Submarket has been flat, its rate is similar to the submarket average.



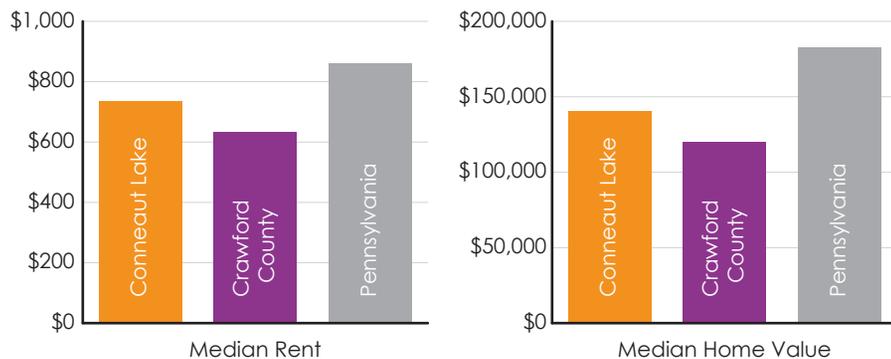
Source: Esri, Retrieved 2018

TOTAL HOUSING STOCK —

It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Conneaut Lake Submarket's housing stock, we compared the number of housing units located within the Submarket to the average number of housing units within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average number of housing units within a submarket. From the graphic on the left, we see that the Conneaut Lake Submarket has more housing units than the submarket average but does not deviate significantly above the average. However, when considering that the Submarket's supply of housing units is significantly greater than the submarket average whereas its population is less than the submarket average, it is apparent that housing development within the Conneaut Lake Submarket is not purely based on responses to demand resulting from household formation. Though not necessarily speculative in nature, the demand for seasonal homes has driven much of the new housing investment within the Submarket.

Source: U.S. Census, Retrieved 2018

CONNEAUT LAKE SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the right, the Conneaut Lake Submarket has a median rent price well above that of Crawford County but lower than Pennsylvania on the whole. For home values, the Submarket significantly outperforms Crawford County but also falls shy of Pennsylvania. These figures suggest that the Conneaut Lake Submarket's renter and home marketplaces are more competitive than many other submarkets across the county.

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 —

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that more than one-fifth of the Conneaut Lake Submarket housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. This finding is mildly concerning given that the Conneaut Lake Submarket is projected to see growth in its population over the age of 65.

HOUSING BUILDING TYPES —

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. The composition of housing building types within the Conneaut Lake Submarket is more composed of single-family homes than the submarket average. After this observation, all other building types within the Submarket are similar in order to the submarket average but smaller proportioned.

CONNEAUT LAKE SUBMARKET HOUSING UNITS BUILT PRE-1940

20.9%



Homes Built Pre-1940

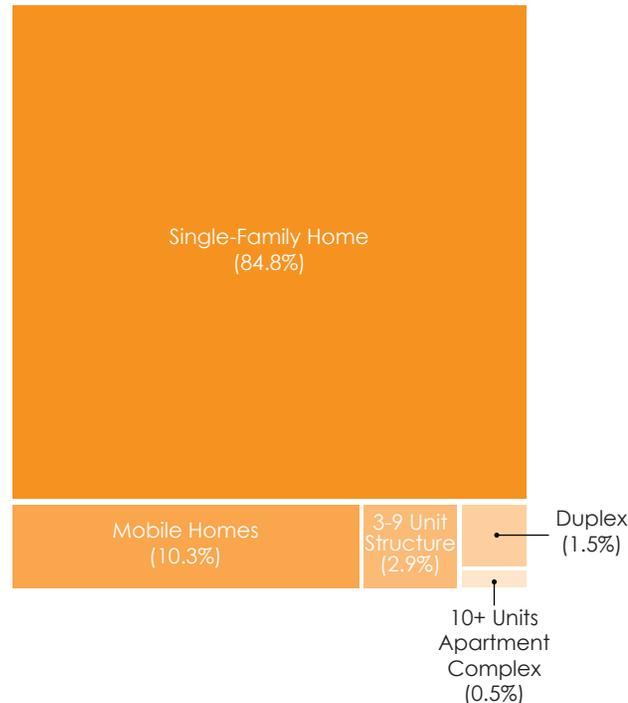
79.1%



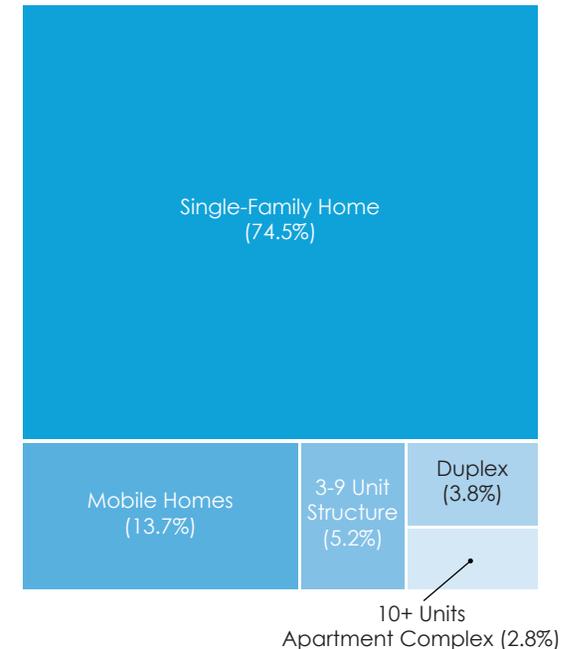
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

CONNEAUT LAKE SUBMARKET



SUBMARKET AVERAGE

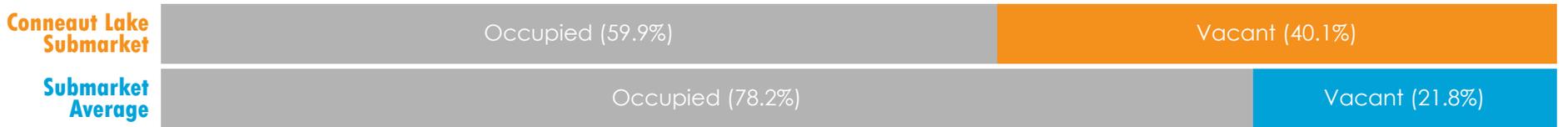


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

🍷 OVERALL VACANCY & VACANCY BY TYPE —

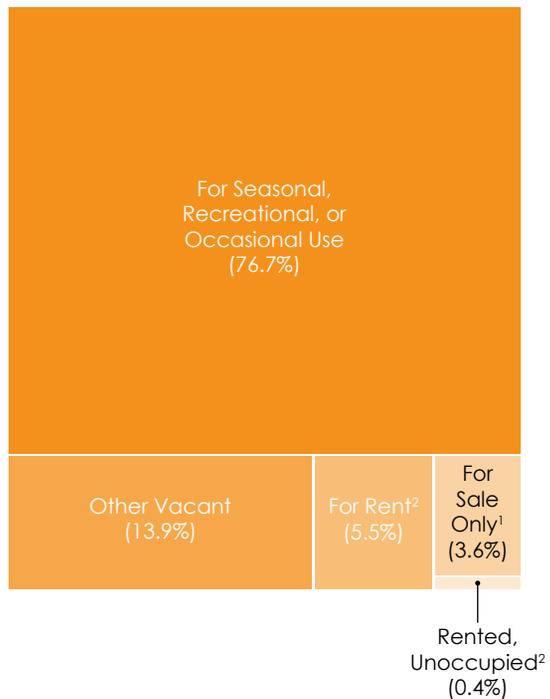
The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Conneaut Lake Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. The Conneaut Lake Submarket’s vacancy rate is nearly double the submarket average. However, this startling finding is mitigated by observations of the composition or nature of vacancy within the Submarket. More than three-quarters of all vacancy within the Conneaut Lake Submarket can be attributed to housing units used for seasonal, recreational, or occasional use purposes. Similar to how the Submarket’s composition of housing building types compares to its corresponding submarket average, all other vacancy types within the Conneaut Lake Submarket are similar to the submarket average but smaller in proportion. Vacancy attributable to seasonal, recreational, or occasional reasons is the least concerning type of vacancy, but too much of this vacancy can lead to other non-housing related community concerns.



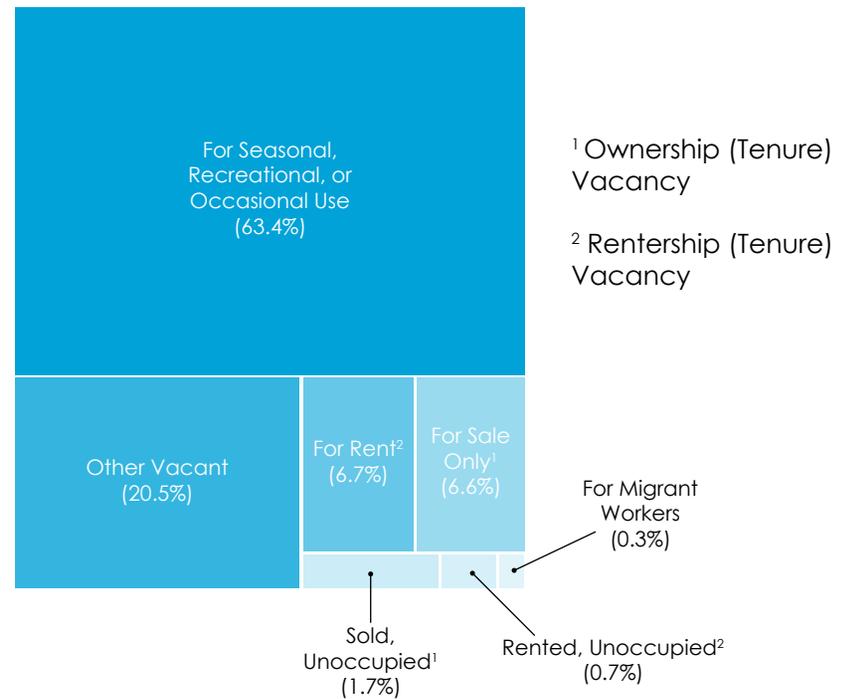
Source: U.S. Census, Retrieved 2018

CONNEAUT LAKE SUBMARKET

CONNEAUT LAKE SUBMARKET



SUBMARKET AVERAGE

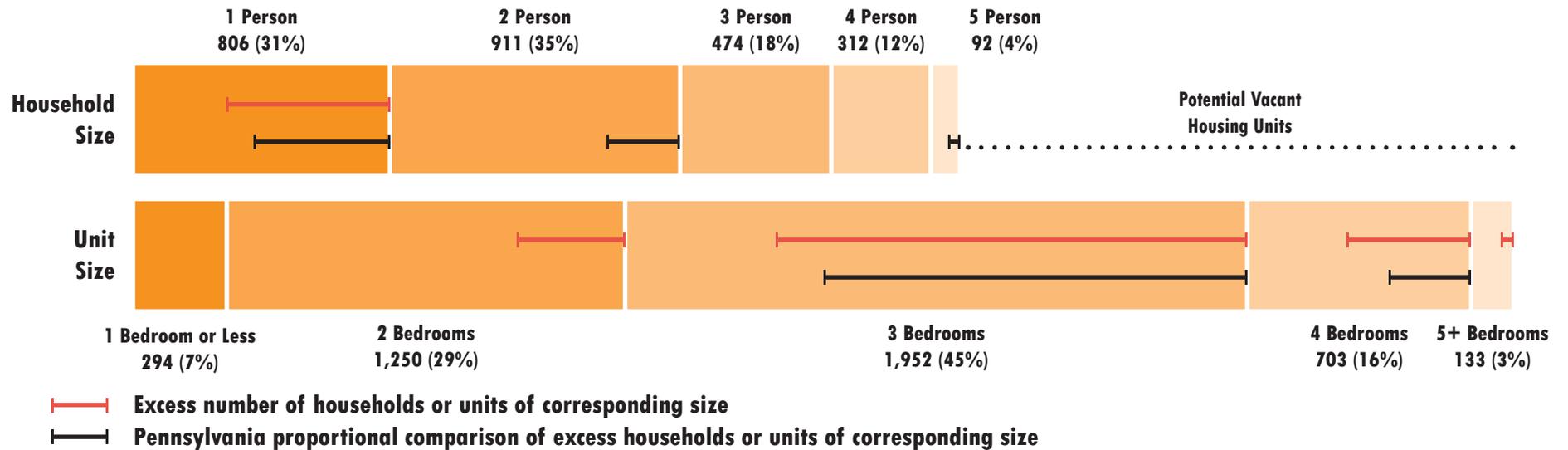


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Conneaut Lake Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket's figures for comparison purposes. The Conneaut Lake Submarket exhibits a shortage of one-bedroom housing units. However, relative surpluses are present for two-, three-, four-, and five-or-more-bedroom homes. The mismatch is particularly notable for two- and five-or-more-bedroom housing units as the corresponding proportional statewide mismatch or surplus for units of those sizes is actually on the side of households. For the Conneaut Lake Submarket to have a surplus of housing units of those sizes is a substantial departure from statewide trends. Such observations are likely attributable to the Submarket's abundant supply of seasonal, recreational, and occasional use homes.

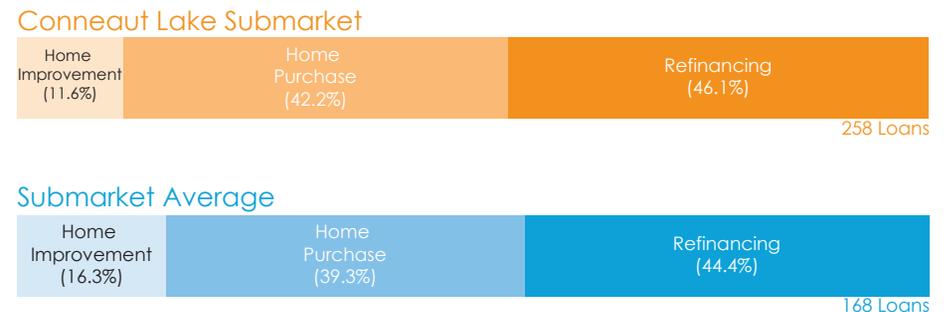


Source: U.S. Census, Retrieved 2018

THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right demonstrate the purpose of loan origination activities within the Conneaut Lake Submarket. From these graphs, it appears that loan activity within the Submarket has been less investment oriented, at least in 2016, than the submarket average despite its greater proportion of loan originations intended for home purchases.

CONNEAUT LAKE SUBMARKET LOANS BY PURPOSE (2016)



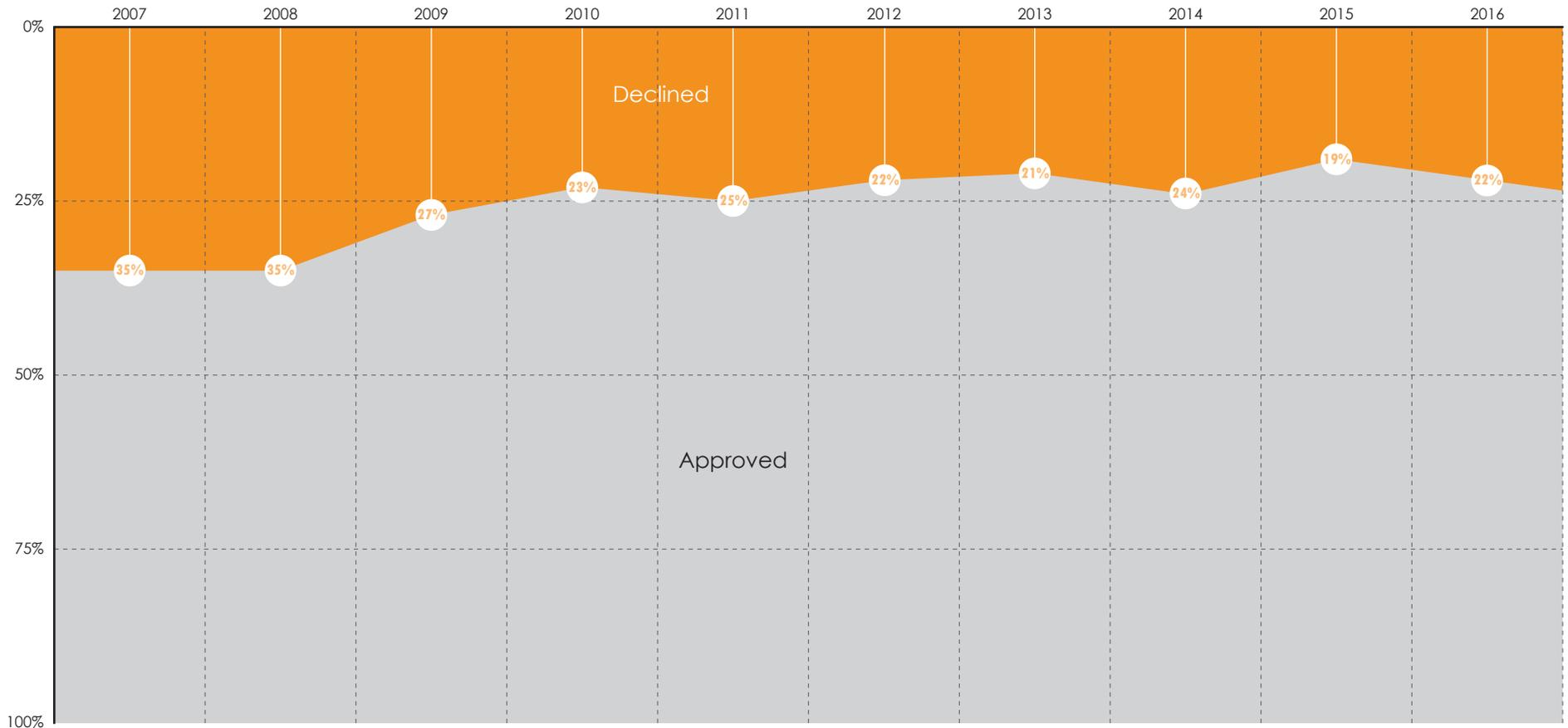
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Conneaut Lake Submarket, the rate of declined loans has hovered in the low-twenties in recent years (see below) and does not appear to be showing significant improvement.

CONNEAUT LAKE SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Conneaut Lake Submarket contains a higher number of housing units than the submarket average despite being a submarket of less than average population. Its housing stock has seen flat growth over recent years although pending developments could increase this rate. Despite limited construction activity, median rent prices and home values are well above those observed county-wide. Just over one-fifth of the homes within the Conneaut Lake Submarket were built prior to 1940 and a much higher proportion of the Submarket's housing stock is comprised of single-family structures than the submarket average. Even though the Submarket's overall housing vacancy rate is nearly double the submarket average, more than three-quarters of its vacancy is composed of units vacant for seasonal, recreational, or occasional use purposes. Outside of vacancy related to seasonal and occasional uses, other types of vacancy comprise a much smaller proportion of overall vacancy within the Submarket than seen within the submarket average. Comparisons between the composition of households and housing units by size suggests that the Submarket lacks one-bedroom housing units while having a surplus of all units containing two-bedrooms or more. Real-estate loans have been less investment oriented overall, and approval rates have held steady.

OVERALL STATUS OF THE CONNEAUT LAKE HOUSING SUBMARKET:

AN ECONOMIC OVERVIEW —

Observations of live-work trends within the Conneaut Lake Submarket suggest that most of its residents treat it as a bedroom community. The Submarket's job-to-housing ratio of 0.44, which lies below the beneficial range, supports this conclusion. This finding can also be observed through commuter trends showing that many of the Submarket's residents travel to the Meadville area to reach work. The combination of these live-work, job-to-housing, and commuter trends are consistent with our analysis which showed that the Conneaut Lake Submarket is not a job center. This observation is unlikely to change in the near future given projections showing that the Submarket will experience only a modest job growth rate. Despite forecasts showing only modest job growth on the horizon, household income within the Submarket is projected to see strong growth. Educational attainment figures showing that the Submarket is more educated on the whole than the submarket average which suggests that its labor force might present a more competitive environment for attracting certain kinds of employers. Real estate loan activity within the Conneaut Lake Submarket has been less investment oriented than the submarket average overall but with a higher proportion of activity for home purchases. Recent loan originations have been approved at around a 78% success rate which has slowly improved since 2007.

POPULATION TRENDS —

Based on its number of residents, the Conneaut Lake Submarket is a rural population area. The Submarket's population has declined since 2000. Such population decline may normally indicate that housing demand within the Submarket is largely left to the cycling of existing households. However, the Conneaut Lake area's ability to attract vacation or recreational home dwellers should be recognized. Household formation trends show a decline in the number of one- and two-person non-family households. For family households, those comprised of two people have declined in number while those with three people have increased with four- and five-or-more-person households remaining stable. Demographic projections forecast an overall decline in the population of individuals comprising the youth and working age brackets while the number of senior citizens within the Submarket is projected to increase. The combination of these trends indicates that demand for downsizing homes could rise in the near future. Additionally, growth in the number of three-person family households suggests an increase in the demand for move-up housing despite demographic projections suggesting a drop in the population that usually participates in that consumer segment.

THE HOUSING MARKET GENERALLY —

The Conneaut Lake Submarket has a greater concentration of housing development than the submarket average. Despite its concentration, projections forecast that the Submarket's housing stock will not grow considerably in the coming years. However, recent senior housing developments within Conneaut Lake Borough will likely counter development projections and show modest growth in the number of housing units across the Submarket.

Even though non-family households have declined in number, rent prices within the Conneaut Lake Submarket have seen strong growth and its median rent price sits comfortably above that observed for the county. Despite median home values also sitting above county figures, home value growth has been flat. Flat home value growth appears inconsistent with observations of family household formation trends showing an increase in the number of homes comprised of three people while those of four-or-more persons have held steady. Such unique observations suggest that prices within the Conneaut Lake Submarket are largely driven by external forces or consumers rather than local housing formation trends and demographic projections. In this sense, the Conneaut Lake Submarket's housing market may be operating along speculative lines rather than observing local interactions between supply and demand. Strong rent price growth does not appear to have encumbered many renter households as the Submarket's overall renter cost-burdened rate is below the submarket average.

Consumers of housing within the Conneaut Lake Submarket recognize that just over one-fifth of all homes within the Submarket were built prior to 1940. The Submarket's older housing stock could present issues in the future as its population continues to age. For non-renter households, consumers will benefit from an abundance of single-family structures. The Conneaut Lake Submarket's housing stock exhibits an overall vacancy rate well above the submarket average, however, this observation is primarily due to its concentration of seasonal housing and doesn't present considerable alarm as a result. When examining how well the size of the Submarket's composition of housing units by size meets the needs of its households, the Conneaut Lake Submarket appears to have a minor shortage of one-bedroom units but a surplus of all units that are two-bedrooms or larger.

THE CONNEAUT LAKE SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Conneaut Lake Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Conneaut Lake Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment which constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET —

The Conneaut Lake Submarket's new household market will likely be negatively impacted by household formation trends that show a decline in the overall number of non-family households. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggests that the consumer demand within the new household housing market is in decline.

Projections that forecast that household income will increase at a strong rate provide a sign of stability for the new household market. Comparisons between the composition of households and housing units by size suggests that the Conneaut Lake Submarket has a shortage of housing units composed of one-bedroom or less. Although such finding may be beneficial for landlords holding such units, this observation likely places stress on housing consumers within the new household market. Fortunately, some participants within the new household market will be able to comfortably consume two-bedroom homes, which are in abundant supply in the Submarket. However, the Conneaut Lake Submarket contains a lesser share of multi-unit housing structures when compared to the submarket average. The lack of multi-unit housing structures may place stress on the Submarket's new household market as such buildings are often more accommodating to the needs of those participating within this consumer segment.

Median rent prices above those observed county-wide along with the strong growth of such prices provide positive signs for the Conneaut Lake Submarket's new household market. However, the Submarket's overall rate of cost-burdened renter households is near the relatively high submarket average, which suggests that many renters are struggling to afford housing. Such observation provides a sign of instability within the Submarket's new household marketplace.

Overall, the Conneaut Lake Submarket's new household market is considered inadequate largely due to a combination of household formation trends and demographic projections suggesting a decline in consumer demand. Additionally, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is also considered inadequate because of the Submarket's relative high rate of cost-burdened renter households.

STARTER HOME & DOWNSIZING MARKETS —

The Conneaut Lake Submarket's starter and downsizing markets will likely be negatively impacted by household formation trends that show a decline in the overall number of two-person family households. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 is problematic for the starter home market as these residents are mostly likely to participate in this consumer segment. However, an increase in the population of those over age 65 is a good sign for consumer demand in the downsizing market.

The healthy composition of single-family homes within the Conneaut Lake Submarket will benefit both the starter and downsizing markets since participants in these consumer segments are often in the market for this type of home. However, accessible multi-unit structures of quality construction are also attractive to many senior couples looking to downsize. Fortunately, the Conneaut Lake Submarket will soon provide a considerable supply of senior apartments or condominiums within the development of a new multi-unit structure. Comparisons between the composition of households and housing units by size suggests

THE CONNEAUT LAKE SUBMARKET'S HOUSING ECOSYSTEM:

that the Submarket has an abundance of two- and three-bedroom homes, which will likely support the needs of most consumers within the starter and downsizing market segments. However, consumers within the starter and downsizing home segments will have to contend with the Submarket's relatively old housing stock of which just over one-fifth was built prior to 1940. This significant concentration of older homes could present either financial or physical burdens on younger and older buyers alike.

Projections that forecast that household income will increase at a strong rate provides a sign for consumer stability within both the starter and downsizing markets. Providing landlords some assurance, the Submarket's median home value continues to rest well above the county's figure despite trends showing flat appreciation over recent years. The combination of household income projections and median home value observations may be reflected in real-estate loan origination activity across the Conneaut Lake Submarket, which is comprised in part of a larger proportion of loans intended for home purchases despite overall originations being less investment oriented.

Overall, the Conneaut Lake Submarket's starter home market is considered inadequate largely due to a combination of household formation trends and demographic projections suggesting a decline in consumer demand. However, the combination of projections showing an increase in household income paired with median home values that outpace county-wide figures suggests that the ability of a household participating in the Submarket's starter home market to transition into the move-up housing segment may be adequate. Consumers within the Submarket's starter home market may be particularly capable of making the transition into the move-up housing segment if their current home is both senior-friendly and appealing to vacation home buyers. Household formation trends also suggest a decline in the demand for downsizing homes. However, this could turn around in the future if demographic projections hold true. For now, the Submarket's downsizing market segment is inadequate, but the ability to transition from this segment and into a senior living accommodation is adequate in large part because of the versatility of the Submarket's housing stock in catering to vacation home buyers.

MOVE-UP MARKET —

The move-up housing market within the Conneaut Lake Submarket will likely be positively impacted by household formation trends, which show an increase in the overall number of family households comprised of at least three members. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range is problematic for the move-up market as these residents are mostly likely to participate in this consumer segment. For now, household formation trends suggest that the demand for move-up housing will increase. However, such demand could wane if population projections hold true.

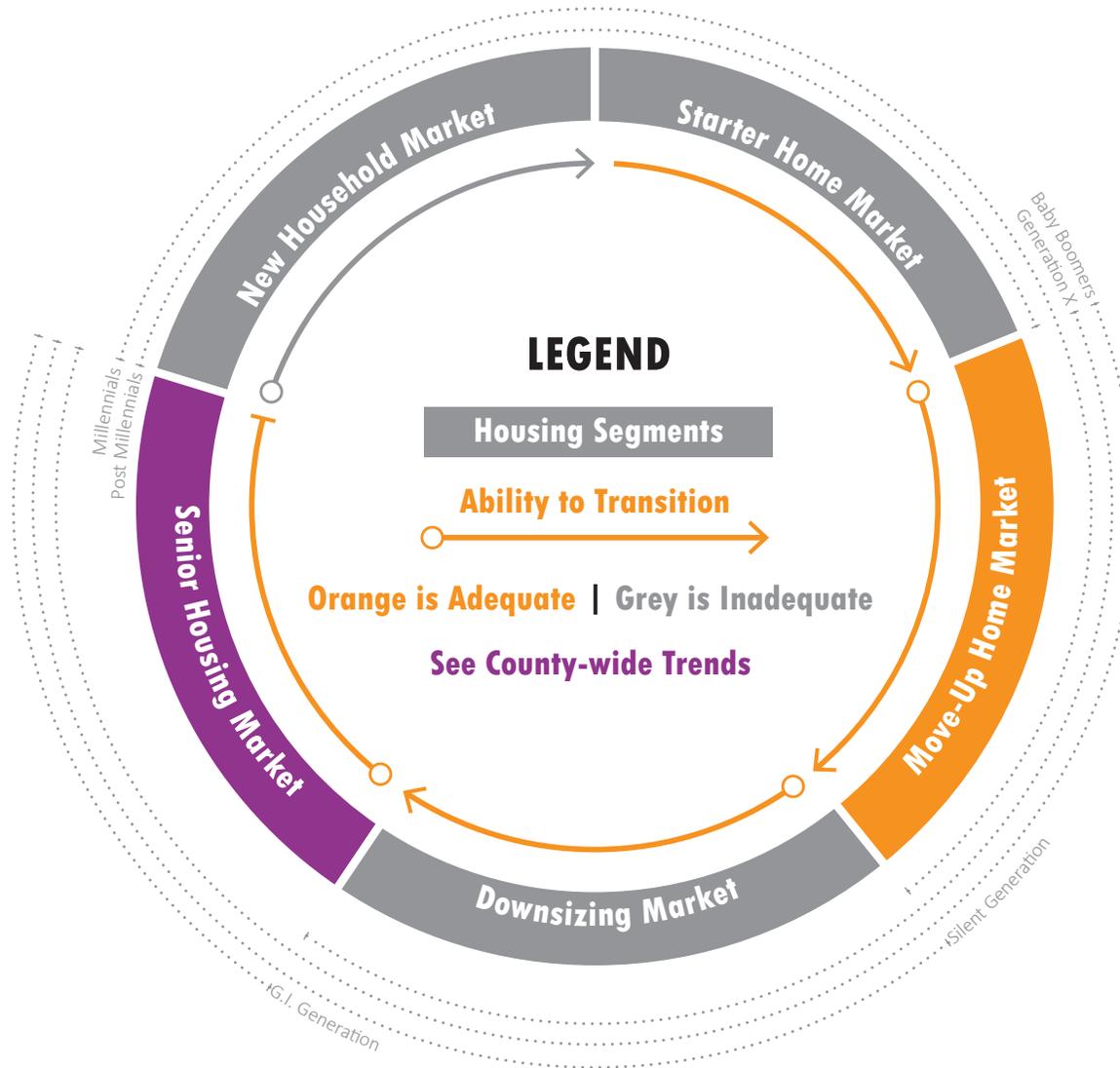
Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by projections showing a strong increase in household income as well as relatively high median home values. However, move-up market consumers may have to contend with recent observations that home value growth has been flat. Furthermore, the Submarket does not have a higher proportion of vacancy related to "other" reasons when compared to the submarket average and loan originations within the Conneaut Lake Submarket have been more oriented towards homes purchases. Both observations present positive signs for the Submarket's move-up housing segment.

Comparisons between the composition of households and housing units by size suggests that the Submarket has an abundance of homes containing at least three bedrooms, which will likely support the needs of most consumers within the move-up market segment. However, such consumers face the Submarket's relatively old housing stock, of which just over one-fifth was built prior to 1940.

Overall, the Conneaut Lake Submarket's move-up market is considered adequate largely due to a combination of household formation trends that suggest an increase in consumer demand. Additionally, relatively high median home values paired with the potential market versatility that comes with the ability to sell to vacation home buyers suggest that the ability of a household participating in the Submarket's move-up consumer segment to transition into the downsizing home segment is adequate.

SENIOR HOUSING MARKET — Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE CONNEAUT LAKE SUBMARKET'S HOUSING ECOSYSTEM:



THE EAST FALLOWFIELD-GREENWOOD SUBMARKET

Introducing north bound travelers along I-79 into Crawford County, the East Fallowfield-Greenwood Submarket contains three municipalities that include West Fallowfield, East Fallowfield, and Greenwood townships. The East Fallowfield-Greenwood Submarket is adjacent to the Cochranon, Vernon, Conneaut Lake, and Shenango submarkets within Crawford County and shares its southern border with Mercer County.

A HOUSING ECOSYSTEM ANALYSIS OF THE EAST FALLOWFIELD-GREENWOOD SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

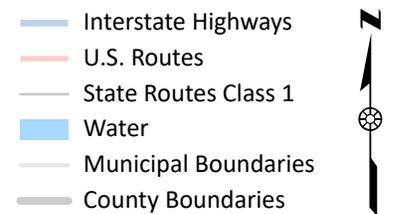
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚡). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

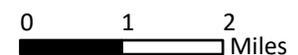
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the East Fallowfield-Greenwood Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

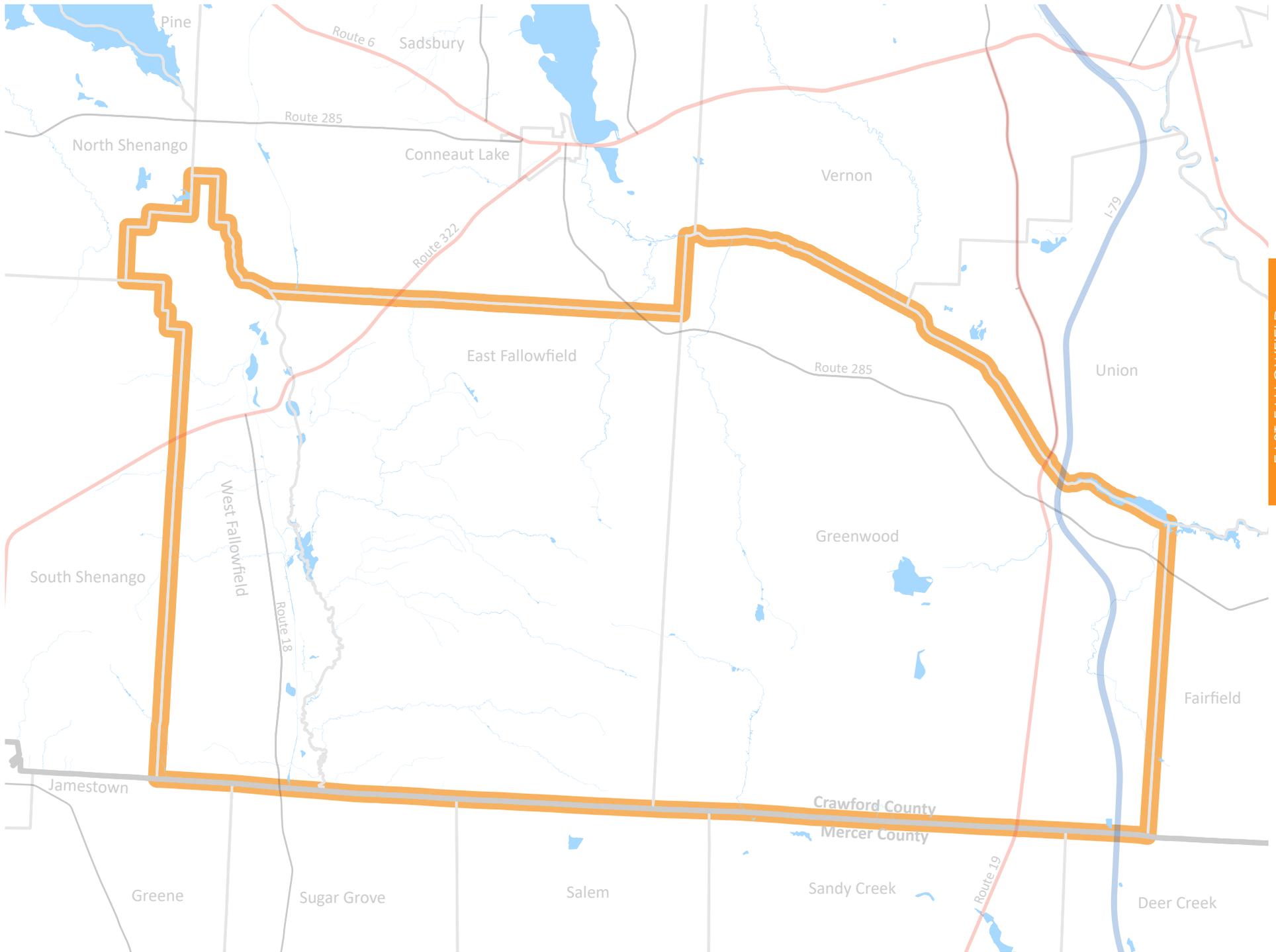
A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Reference Scale - 1:120,000



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



EAST FALLOWFIELD-
GREENWOOD SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends of residents living within the East Fallowfield-Greenwood Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE EAST FALLOWFIELD-GREENWOOD SUBMARKET —

The map on the next page uses dots to represent where residents living within the East Fallowfield-Greenwood Submarket work. From this map, the distribution of where the Submarket's residents work is fairly spread out. Many residents work within the Meadville area, but the influence of jobs in the Greenwood Industrial Park, Conneaut Lake area and Mercer County is noticeable. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The East Fallowfield-Greenwood Submarket produces a job-to-housing ratio of 0.78, which lies within the beneficial range and potentially indicates housing market stability.

The radar graph on the bottom left displays the distance and direction of where East Fallowfield-Greenwood Submarket residents work. The dark orange wedges of the graph demonstrate those commuting less than ten miles. However, a much larger share of residents travel beyond ten miles to reach work. Despite the Submarket's beneficial job-to-housing ratio, live-work observations within the East Fallowfield-Greenwood Submarket demonstrate that it is more of a bedroom community with the vast majority of residents commuting outside the Submarket for work.

-  Interstate Highways
-  U.S. Routes
-  County Boundaries
-  State Boundaries

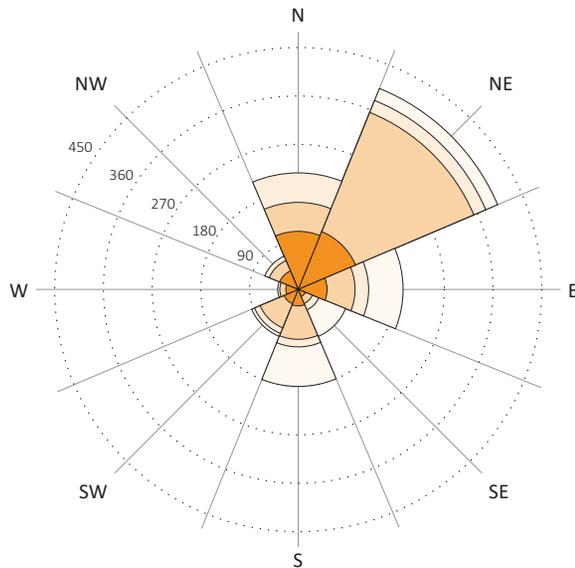


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE EAST FALLOWFIELD-GREENWOOD SUBMARKET RESIDENTS WORK



-  Less than 10 Miles
-  10 - 24 Miles
-  25 - 50 Miles
-  50 + Miles

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

11.5%

of East Fallowfield-Greenwood Submarket residents work at a location **inside the submarket**.

56.3%

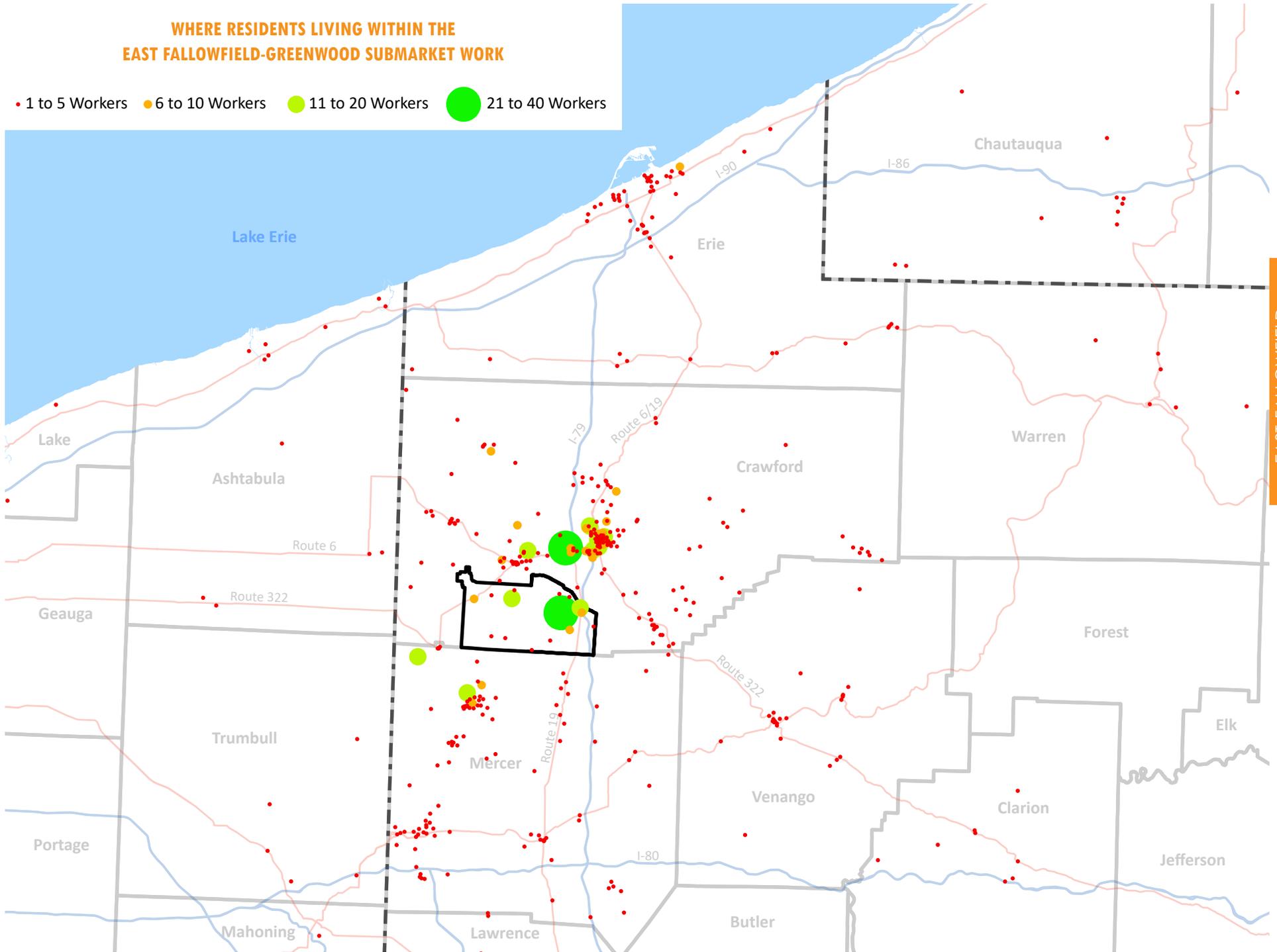
of East Fallowfield-Greenwood Submarket residents work inside **Crawford County**.

43.7%

of East Fallowfield-Greenwood Submarket residents work outside **Crawford County**.

**WHERE RESIDENTS LIVING WITHIN THE
EAST FALLOWFIELD-GREENWOOD SUBMARKET WORK**

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



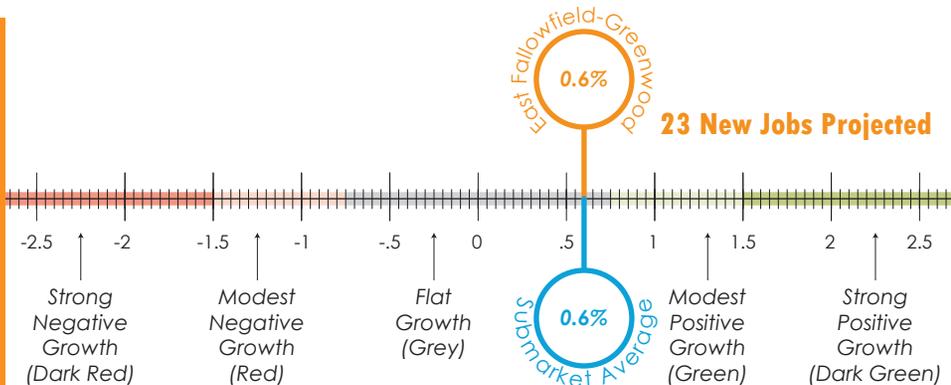
EAST FALLOWFIELD-
GREENWOOD SUBMARKET

JOB GROWTH ANALYSIS:

JOB GROWTH —

From the graph below, the East Fallowfield-Greenwood Submarket's 0.6% projected annual job growth rate is identical to the submarket average and lies within the "flat growth" range. Recognizing this, it is unlikely that projected job growth within the Submarket will provide workers the extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



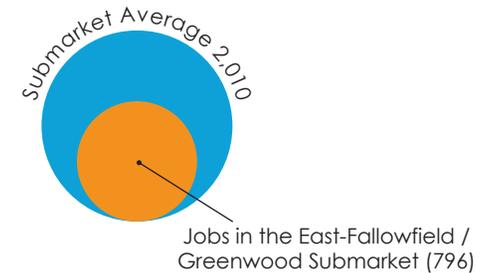
Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

HOUSEHOLD INCOME CHANGE —

Despite flat job growth projections, from the graph on the bottom left, household income within the East Fallowfield-Greenwood Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

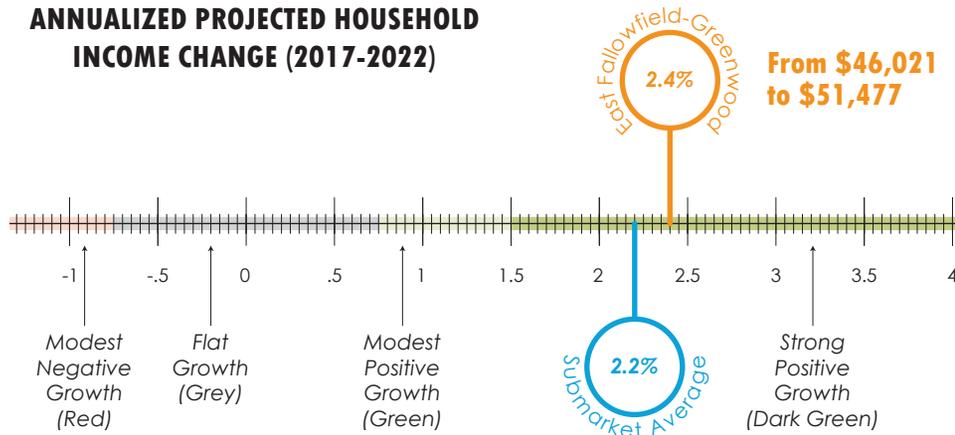
TOTAL JOBS —

To explore the magnitude of the East Fallowfield-Greenwood Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. From the graphic on the right, the East Fallowfield-Greenwood Submarket does not contain as many jobs as the submarket average. This finding aligns with our earlier conclusion that the East Fallowfield-Greenwood Submarket is not a job center and primarily functions as a bedroom community. Although jobs within the Submarket provide important opportunities for local residents, the East Fallowfield-Greenwood Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)

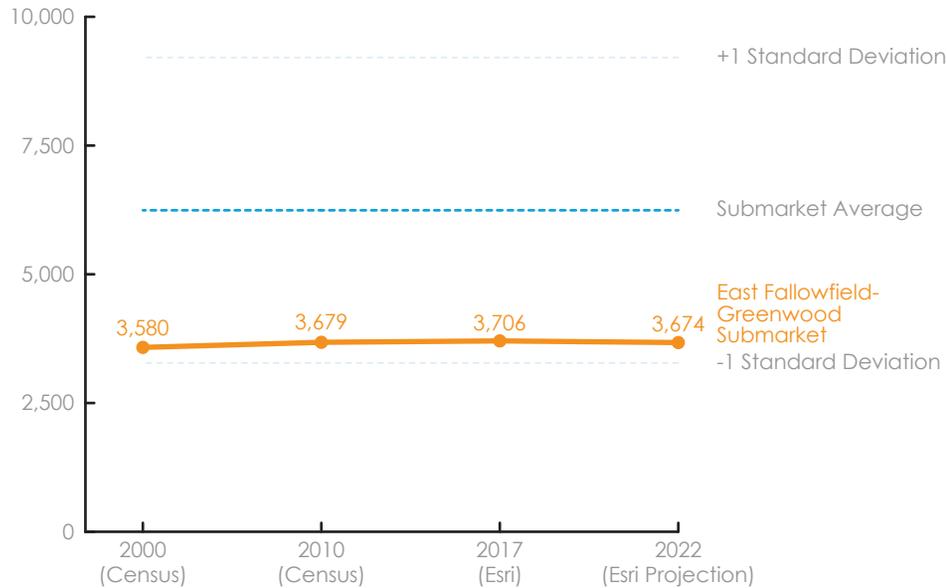


Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

In summary, although the East Fallowfield-Greenwood Submarket is projected to have a flat job growth rate, it is expected to experience strong household income growth. Such growth in household income may bolster housing market stability. However, at present, the Submarket is more of a bedroom community than a job center and therefore relies significantly on the productivity and growth of its surrounding region.

POPULATION GROWTH ANALYSIS:

EAST FALLOWFIELD GREENWOOD SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the East Fallowfield-Greenwood Submarket would directly lead to household formation and increased housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

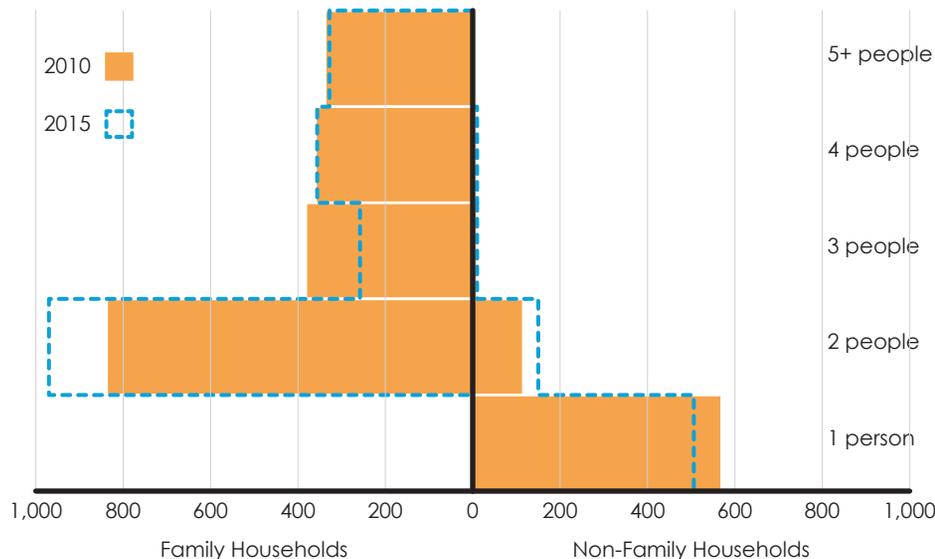
An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, the population of the East Fallowfield-Greenwood Submarket has remained stable since 2000. Although not likely increasing, housing demand appears stable from this observation.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

EAST FALLOWFIELD-GREENWOOD SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed, demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of East Fallowfield-Greenwood Submarket households by size between 2010 and 2015. One-person non-family households have declined while those comprised of two people have increased. For family households, those with two people have increased while those with three people have declined. Four- and five-or-more-person family households remained stable.

Household formation trends seen within the East Fallowfield-Greenwood Submarket suggest a stagnant rental market, an increase in the demand for starter and downsizing homes, and a decline in demand for move-up housing.

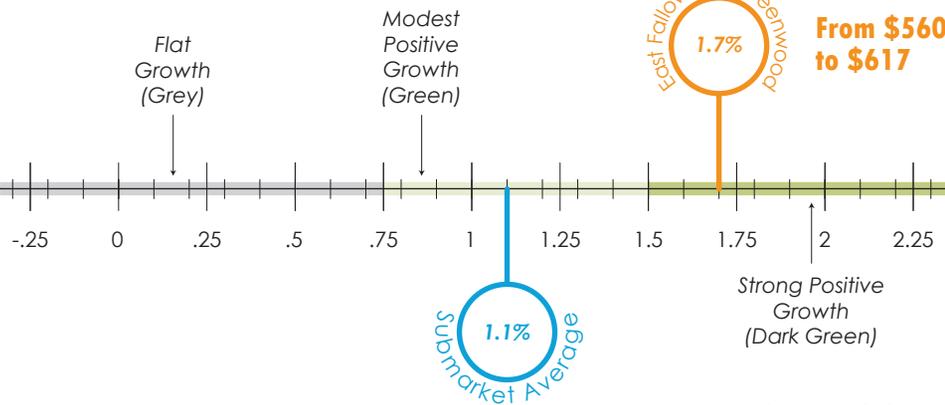
Source: U.S. Census

POPULATION GROWTH ANALYSIS:

🏠 RENT PRICE & HOME VALUE CHANGES —

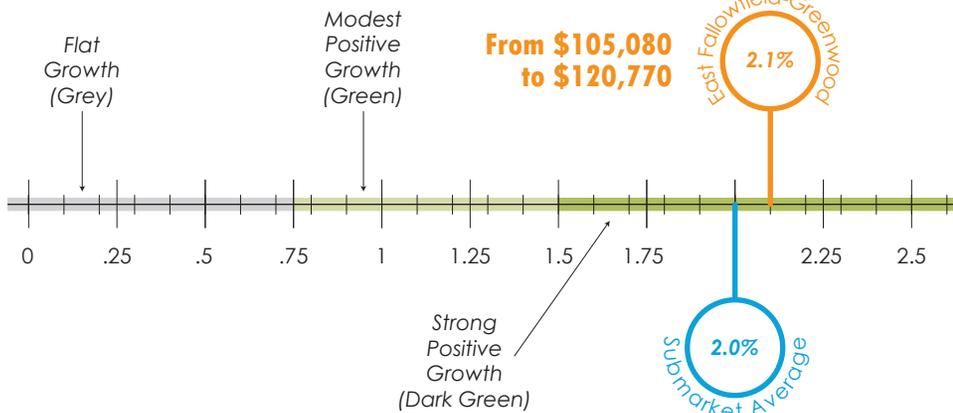
An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the East Fallowfield-Greenwood Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Both have outpaced the submarket average.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

🏠 RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the East Fallowfield-Greenwood Submarket with comparisons to Crawford County and the submarket average. We see that renter households within the East Fallowfield-Greenwood Submarket are far less cost-burdened overall than other submarkets and the county.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



19.8% of East Fallowfield-Greenwood Submarket Renters (36 HHs)

41.3% of Crawford County Renters

34.3% Submarket Average

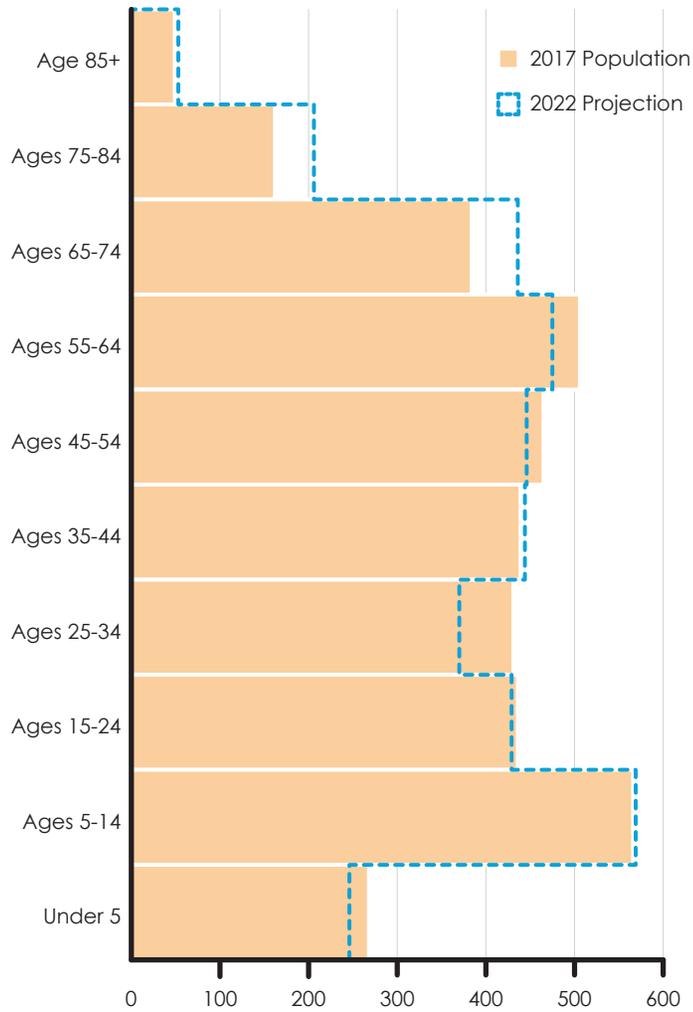
Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

TOTAL POPULATION —

The cycling of households between different homes creates some of the housing demand within a community. To attempt to understand this type of housing demand, we established whether the East Fallowfield-Greenwood Submarket represents a population center by comparing its population to the average Crawford County submarket population. From the graphic shown on the right, it is clear that the East Fallowfield-Greenwood Submarket contains

EAST FALLOWFIELD-GREENWOOD SUBMARKET POP. PYRAMID

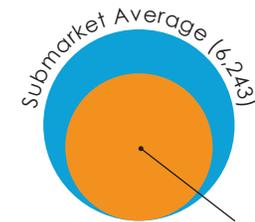


Source: Esri, Retrieved 2018

less population than even the submarket average. By this standard, the East Fallowfield-Greenwood Submarket is considered a rural population area. Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the Submarket’s relative population size, it can be assumed that the East Fallowfield-Greenwood Submarket does not have the gravity to attract new residents on a speculative basis. This assumption infers that those moving into the Submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION —

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population’s age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional “starter home” housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the East Fallowfield-Greenwood Submarket in 2017 with a projection to 2022. Contrary to the projections shown for many other submarkets, youth age cohorts within the East Fallowfield-Greenwood Submarket are expected to remain stable. Working age cohorts, which comprise those between the ages of 15 and 64, are projected to decline overall, albeit only slightly. Similar to projections seen across Crawford County, the population of seniors over the age of 65 is projected to increase. Such demographic projections suggest that the demand for rental units, starter homes, and move-up housing will be stagnant while a greater share of consumers will be seeking downsizing home accommodations.



East-Fallowfield / Greenwood Submarket Population (3,706)

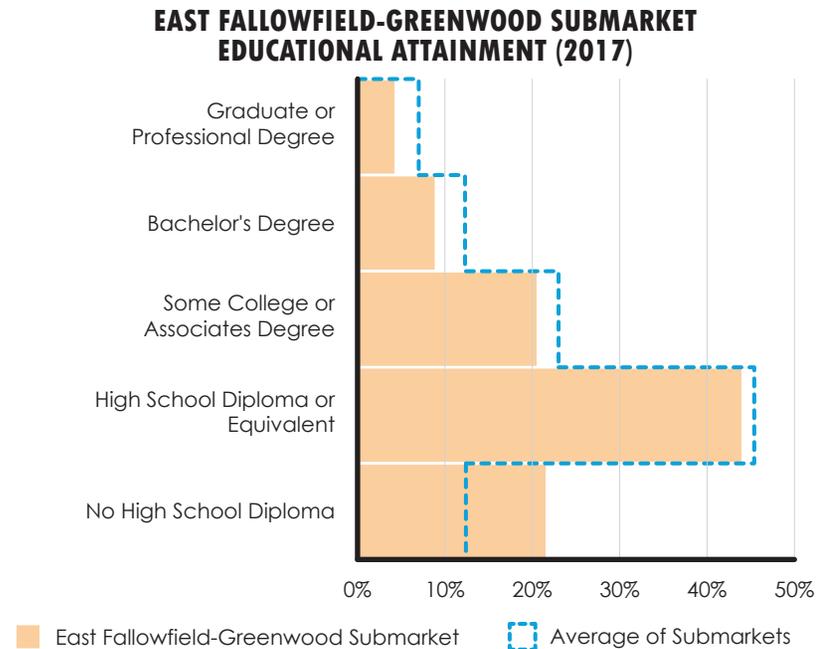
Source: Esri, Retrieved 2017

POPULATION GROWTH ANALYSIS:

The demographic projections and household formation trends addressed earlier suggest that demand for rental units, starter homes, and move-up homes will be relatively flat. However, the same observations also suggest that demand for downsizing homes will increase. This conclusion arises from projections showing growth in the Submarket's senior citizen population, which suggest that many of the new two-person family households within the Submarket may be formed by seniors after their children have moved out.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the East Fallowfield-Greenwood Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the East Fallowfield-Greenwood Submarket is less educated than the submarket average in that it contains a much higher proportion of individuals not holding a high school diploma. The Submarket's lower level of overall educational attainment may make it less economically competitive over the long run.



Source: Esri, Retrieved 2018

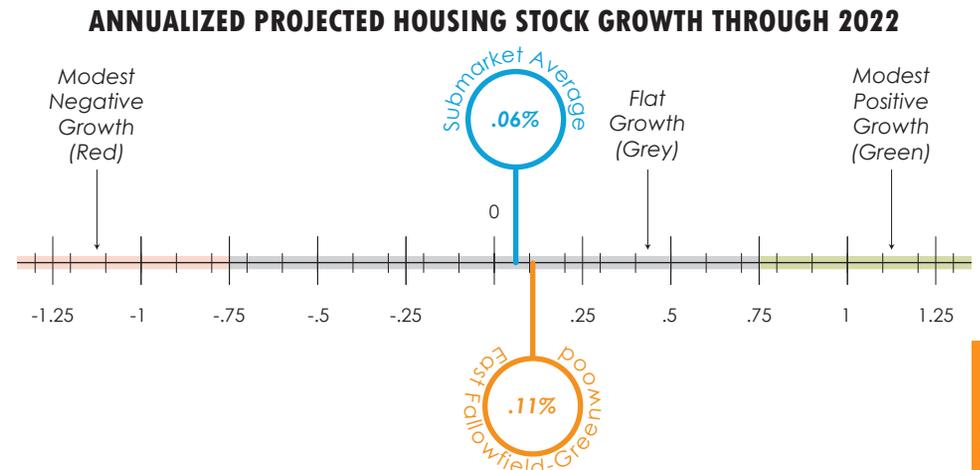
In summary, the East Fallowfield-Greenwood Submarket is less populated than the submarket average and represents a rural population area. The Submarket's population has been relatively stable, which likely leaves housing demand largely to the cycling of existing residents. Household formation trends within the submarket suggest a decline in the demand for rental units and move-up housing but an increase in demand for starter and downsizing homes. When demographic projections are considered, it appears that there will be additional demand for downsizing homes in the East Fallowfield-Greenwood Submarket but not for starter homes. Despite trends and projections suggesting that the downsizing consumer segment will likely be the only consumer segment to see additional housing demand, observations of changes in rent prices and home values show strong growth. Even in the face of strong rent price growth, the East Fallowfield-Greenwood Submarket's overall rate of cost burdened renter households is well below the submarket average. Additionally, the East Fallowfield-Greenwood Submarket is less educated overall than the submarket average.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph on the right presents the housing stock growth rate for the East Fallowfield-Greenwood Submarket. Although flat, the Submarket's housing stock growth rate is similar to the submarket average.



Source: U.S. Census, Retrieved 2018



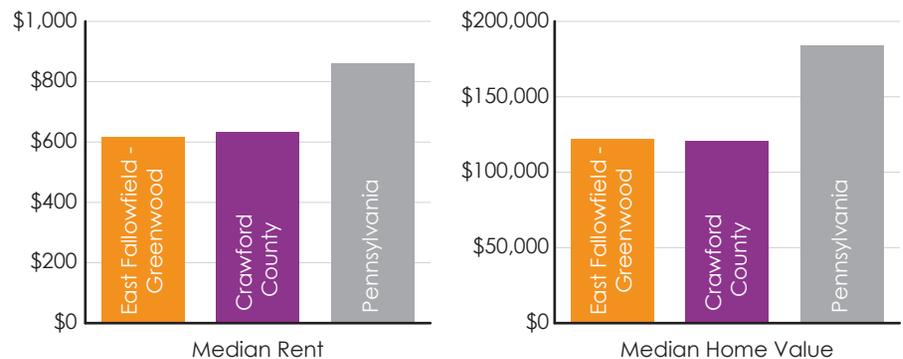
Housing Units in the East-Fallowfield / Greenwood Submarket (1,486)

Source: Esri, Retrieved 2018

TOTAL HOUSING STOCK —

It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities, where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the East Fallowfield-Greenwood Submarket's housing stock, we compared the number of housing units located within the submarket to the submarket average. From the graphic on the left, we see that the East Fallowfield-Greenwood Submarket has fewer housing units than the submarket average. Based on this analysis, it can be safely assumed that most housing development within the East Fallowfield-Greenwood Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

EAST FALLOWFIELD-GREENWOOD SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the right, median rent prices and home values within the East Fallowfield-Greenwood Submarket are similar to those of Crawford County but much lower than Pennsylvania on the whole. These figures are unlikely to indicate a significant increase in development activity within the Submarket.

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 —

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that more than one-fifth of the East Fallowfield-Greenwood Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. From this observation, the East Fallowfield-Greenwood Submarket does contain its fair share of historical homes but does not seem burdened with an oversized portion of such properties. Given the Submarket's aging population, opportunities to encourage accessibility upgrades should be considered from time to time.

EAST FALLOWFIELD-GREENWOOD SUBMARKET HOUSING UNITS BUILT PRE-1940

21%



Homes Built Pre-1940

79%



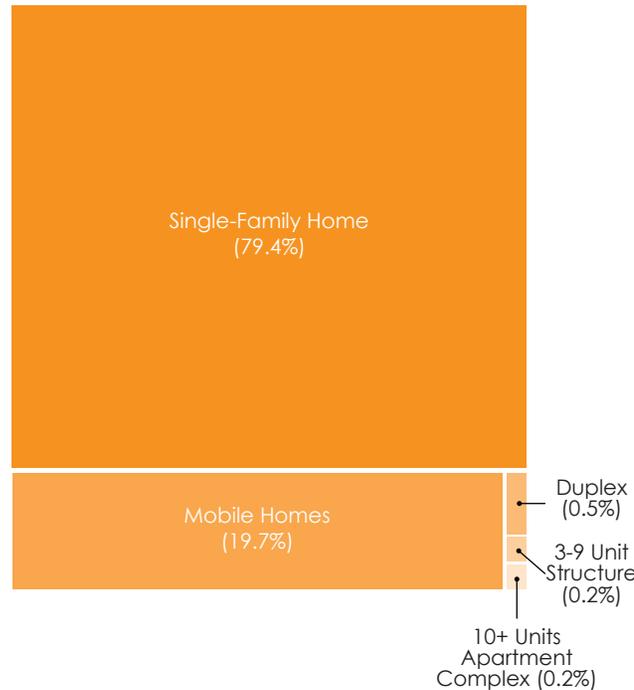
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

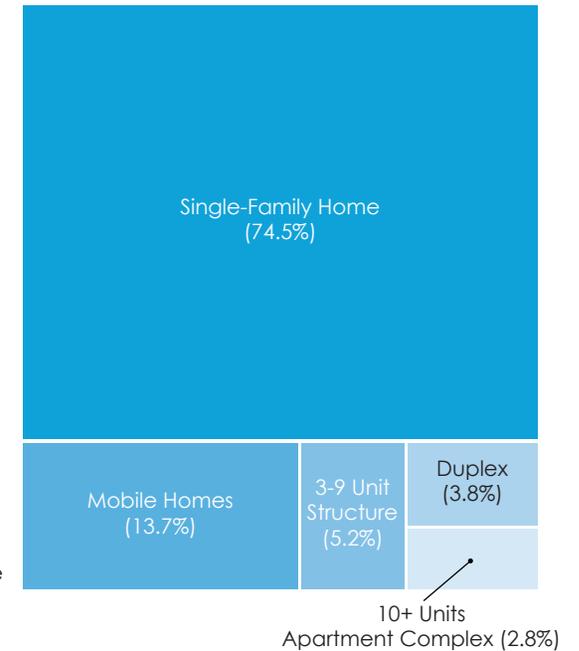
HOUSING BUILDING TYPES —

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the East Fallowfield-Greenwood Submarket deviates substantially from the submarket average in that it is comprised of higher shares of single-family and mobile homes. Mobile homes are especially more represented within the Submarket's stock of housing structures than within the submarket average. Overall, multi-unit housing structures are much less represented in the East Fallowfield-Greenwood Submarket than across the submarket average.

EAST FALLOWFIELD-GREENWOOD SUBMARKET



SUBMARKET AVERAGE

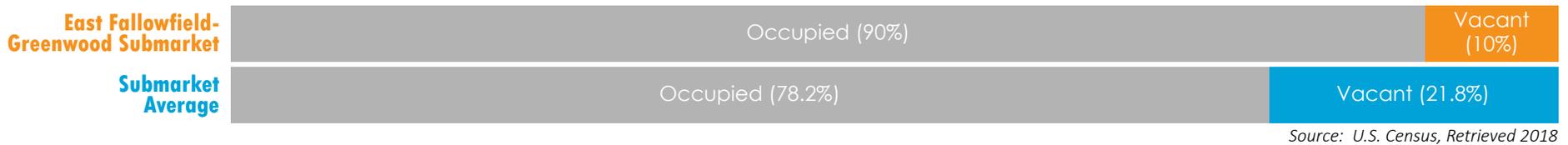


Source: U.S. Census, Retrieved 2018

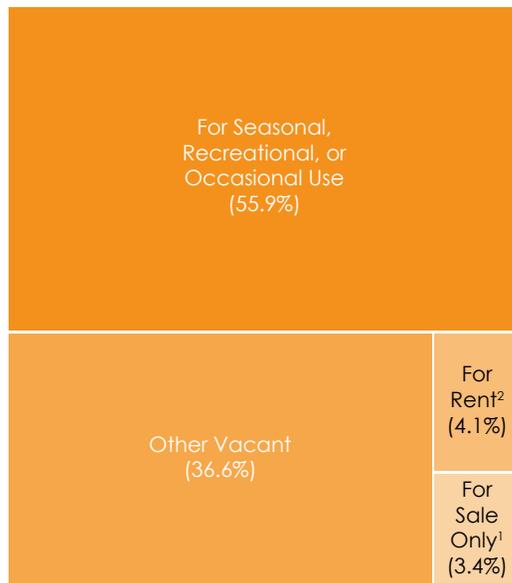
HOUSING STOCK GROWTH ANALYSIS:

🍷 OVERALL VACANCY & VACANCY BY TYPE —

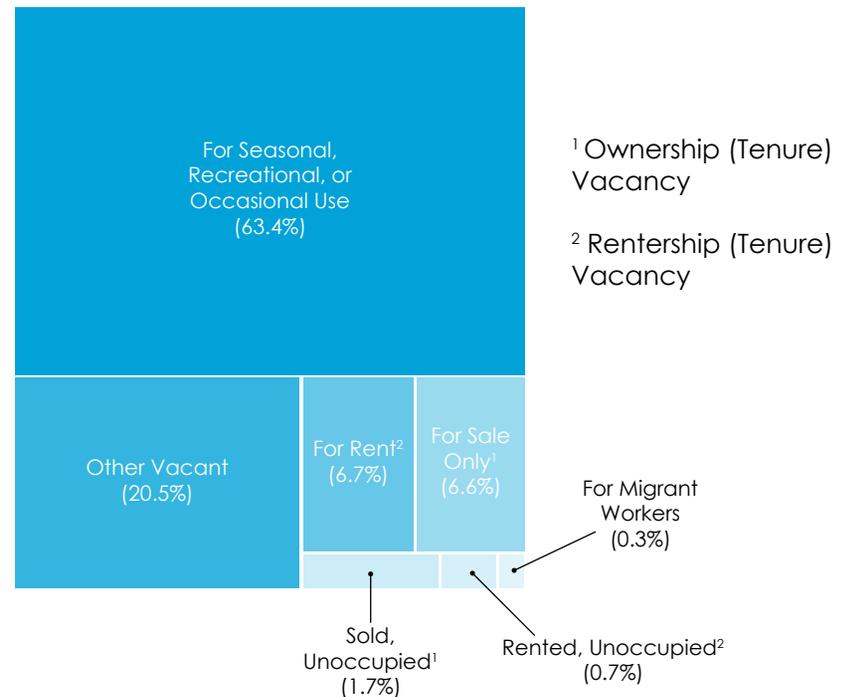
The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the East Fallowfield-Greenwood Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. Although still substantial at 10%, the East Fallowfield-Greenwood Submarket reported a much lower vacancy rate than the submarket average. Despite its lower overall rate, the portion of housing vacancy attributable for “other” reasons is higher than the submarket average. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market. This observation indicates that the East Fallowfield-Greenwood Submarket’s housing marketplace may be experiencing problems that can result in unintentional vacancy to a greater extent than most submarkets across Crawford County. Such unintended vacancy may demonstrate a significant cycle of disinvestment as landlords struggle to profit from their properties and owners abandon them.



EAST FALLOWFIELD-GREENWOOD SUBMARKET



SUBMARKET AVERAGE



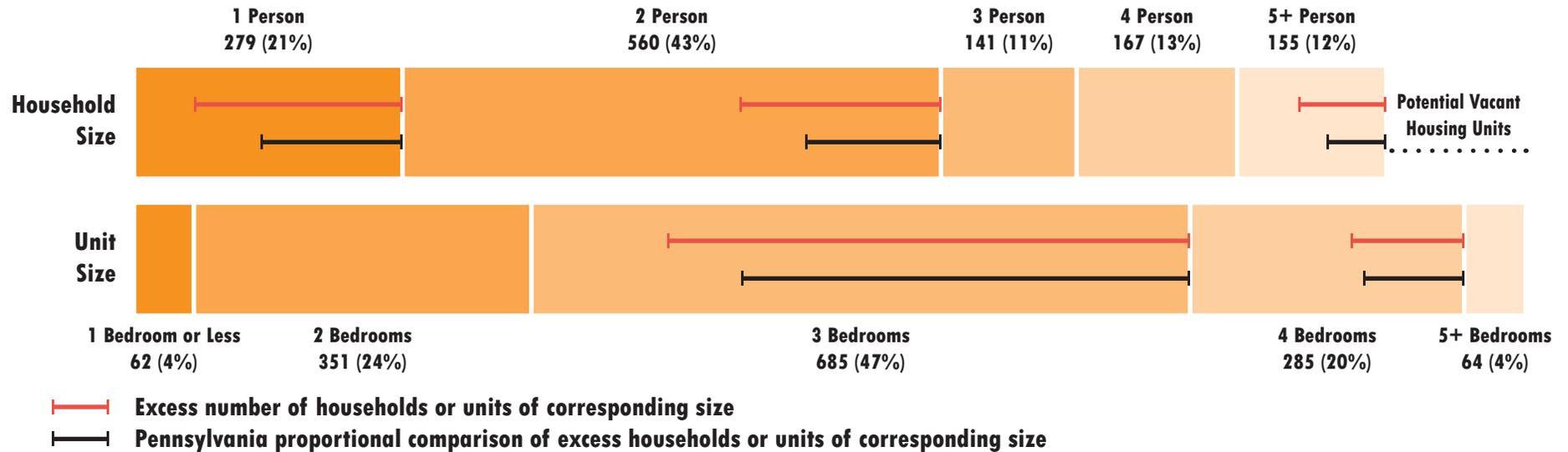
¹ Ownership (Tenure) Vacancy
² Rentership (Tenure) Vacancy

Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

🍷 HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the East Fallowfield-Greenwood Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket's figures for comparison purposes. From comparing these graphs and the lines within them, it is clear that the East Fallowfield-Greenwood Submarket appears to have a shortage of one-, two-, and five-or-more-bedroom housing units. However, the Submarket appears to have a potential oversupply of three-bedroom homes along with an adequate proportion of four-bedroom units. Such a finding suggests that the Submarket's housing stock is comprised of units that are somewhat larger on average than the needs of its households. Overall, there appears to be a shortage of both smaller and larger housing units.



Source: U.S. Census, Retrieved 2018

EAST FALLOWFIELD-GREENWOOD SUBMARKET LOANS BY PURPOSE (2016)

East Fallowfield-Greenwood Submarket



Submarket Average



Source: Consumer Financial Protection Bureau, Retrieved 2018

🍷 THE PURPOSE OF LOAN ORIGINATIONS —

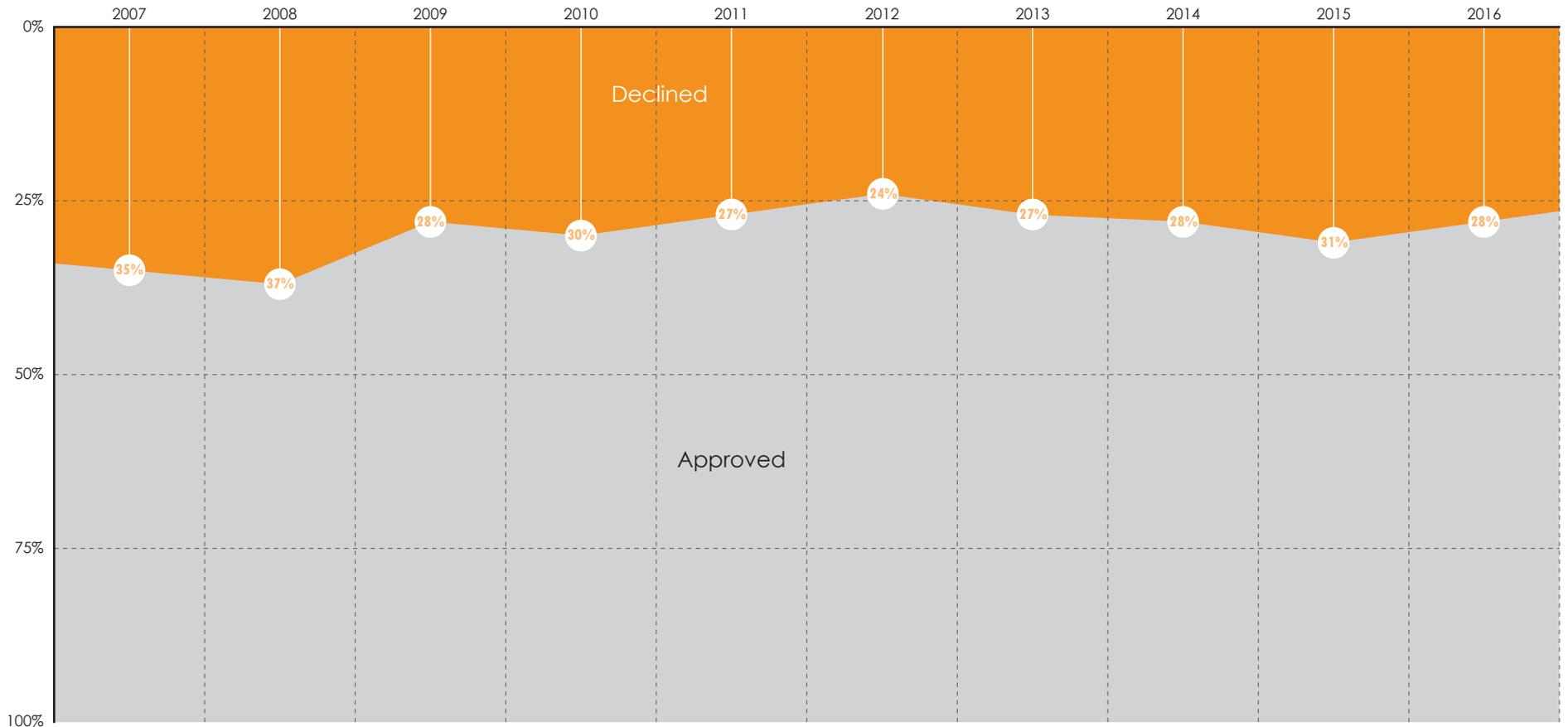
The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The graphic on the right demonstrates the purpose of loan activity within the East Fallowfield-Greenwood Submarket. From these graphs, it appears that loan activity within the East Fallowfield-Greenwood Submarket has been less investment oriented, at least in 2016, than activity reported across the submarket average. This is apparent from a stronger showing of the portion of loans for refinancing activities.

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the East Fallowfield-Greenwood Submarket, the rate of declined loans has hovered in the mid-twenties since the end of the Great Recession (see below) without signs of improvement.

EAST FALLOWFIELD-GREENWOOD SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, housing stock growth within the East Fallowfield-Greenwood Submarket has been flat and the overall size of this Submarket's housing stock does not generally lend toward speculative investment but rather to responses to preceived demand. Median rent and home value prices are not at levels that may incentivize new homebuilding. Despite current price levels, only one-fifth of the Submarket's housing stock was constructed prior to 1940, which does not present an immediate challenge but accessibility concerns should be evaluated from time to time. Overall vacancy within the East Fallowfield-Greenwood Submarket is much lower than the submarket average, but the composition of its vacancy resulting from "other" reasons is much higher. In terms of financial activity, real-estate loan originations have been less investment oriented than the submarket average with the rate of declined loans holding steady. Comparisons between the composition of household and unit sizes demonstrate clear mismatches within the East Fallowfield-Greenwood Submarket's housing stock, which may present suitability issues for both smaller and larger households.

OVERALL STATUS OF THE EAST FALLOWFIELD-GREENWOOD SUBMARKET:

AN ECONOMIC OVERVIEW —

Observations of live-work trends within the East Fallowfield-Greenwood Submarket suggest that most of its residents treat it as a bedroom community. This finding can also be observed through commuter trends showing that many of the Submarket's residents travel to the Meadville area or points to the south to reach work. However, the Submarket's job-to-housing ratio of 0.78, which lies within the beneficial range, suggests that it isn't as commuter dependent as some bedroom communities. The combination of these live-work, job-to-housing, and commuter trends are consistent with our analysis which showed that the East Fallowfield-Greenwood Submarket is not a job center. This observation is unlikely to change in the near future given projections showing that the Submarket will experience a flat job growth rate. Despite forecasts showing flat job growth on the horizon, household income within the Submarket is projected to see strong growth. Educational attainment figures showing that the Submarket is less educated on the whole than the submarket average, which suggests that its labor force might present a less competitive environment for attracting certain kinds of employers. Real estate loan activity within the East Fallowfield-Greenwood Submarket has been less investment oriented than the submarket average overall but with a higher proportion of activity for home improvements. Recent loan originations have been approved at around a 72% success rate which has held steady since 2009.

POPULATION TRENDS —

Based on its number of residents, the East Fallowfield-Greenwood Submarket is a rural population area. The Submarket's population has increased since 2000, suggesting that it is benefitting from either natural population growth or the ability to attract new residents. Household formation trends are split for non-family households in that they show a decline in the number of those composed of a single-person but an increase in two-person households. For family households, those comprised of two people have increased substantially in number while those with three people have decreased with four- and five-or-more-person households remaining stable. Demographic projections forecast a slight overall decline in the population of individuals comprising the youth and working age brackets while the number of senior citizens within the Submarket is projected to increase. Consistent with observed population growth within the East Fallowfield-Greenwood Submarket, demographic projections forecast that the number of children living within the Submarket will remain stable. The combination of these trends indicates that downsizing and possibly even starter homes are in demand within the Submarket.

THE HOUSING MARKET GENERALLY —

The East Fallowfield-Greenwood Submarket has a lower concentration of housing development than the submarket average and development projections forecast that its housing stock will not grow considerably in the coming years.

Rent prices within the East Fallowfield-Greenwood Submarket have seen strong growth despite stagnant non-family household formation trends yet the Submarket's median rent price sits just below that observed for the county. Strong rent price growth does not appear to have encumbered many renter households as the Submarket's overall renter cost-burdened rate is well below the submarket average. It is possible that the formation of new two-person family households may be driving strong home value growth as median home values sit just above the county's figures.

Just over one-fifth of all homes within the Submarket were built prior to 1940. The Submarket's older housing stock could present issues in the future as its population continues to age. For non-renter households, consumers will benefit from an abundance of single-family structures and mobile homes, which are proportionally more plentiful in the Submarket than the submarket average. The East Fallowfield-Greenwood Submarket's housing stock exhibits an overall vacancy rate well below the submarket average, but a larger proportion of its vacancy is comprised of homes vacant for "other" reasons, which may signify issues within certain portions of its housing stock. When examining how well the size of the Submarket's composition of housing units by size meets the needs of its households, one-, two-, and five-or-more-bedroom homes within the East Fallowfield-Greenwood Submarket appear to be in short supply while the Submarket seems to have a surplus of three-bedroom homes and an adequate supply of four-bedroom housing units.

THE EAST FALLOWFIELD-GREENWOOD SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the East Fallowfield-Greenwood Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the East Fallowfield-Greenwood Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment that constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET — The East Fallowfield-Greenwood Submarket's new household market will likely be negatively impacted by household formation trends, which show a slight decline in the overall number of non-family households. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggests that the consumer demand within the new household housing market is in decline.

Projections that forecast that household income will increase at a strong rate provide a sign of stability for the new household market. Comparisons between the composition of households and housing units by size suggests that the East Fallowfield-Greenwood Submarket has a shortage of housing units composed of one-bedroom or less. Although such finding may be beneficial for landlords holding such units, this observation likely places stress on housing consumers within the new household market. Unfortunately for participants in the new household market, an apparent shortage in the number of two-bedroom homes within the Submarket fails to lend comfort to those who could be accommodated in such units. Additionally, the East Fallowfield-Greenwood Submarket contains a lesser share of multi-unit housing structures when compared to the submarket average. The lack of multi-unit housing structures may place stress on the Submarket's new household market as such buildings are often more accommodating to the needs of those participating within this consumer segment.

Median rent prices just below those observed county-wide along with the strong growth of such prices both provide somewhat positive signs for the East Fallowfield-Greenwood Submarket's new household market. Even better, the Submarket's overall rate of cost-burdened renter households is well below the submarket average which suggests that many renters aren't struggling to afford housing. Such observation provides a good sign of stability within the Submarket's new household marketplace.

Overall, the East Fallowfield-Greenwood Submarket's new household market is considered inadequate largely due to a combination of household formation trends and demographic projections suggesting a decline in consumer demand. The Submarket's limited stock of housing options for consumers within the new household market also places stress upon consumers within this segment. However, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is considered adequate because of the Submarket's relative low rate of cost-burdened renter households.

STARTER HOME & DOWNSIZING MARKETS — The East Fallowfield-Greenwood Submarket's starter and downsizing markets will likely be positively impacted by household formation trends, which show an increase in the overall number of two-person family households. This trend is accompanied by demographic projections which forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 is problematic for the starter home market as these residents are mostly likely to participate in this consumer segment. However, an increase in the population of those over age 65 is a good sign for consumer demand in the downsizing market.

The healthy composition of single-family homes within the East Fallowfield-Greenwood Submarket will benefit both the starter and downsizing markets since participants in these consumer segments are often in the market for this type of home. However, accessible multi-unit structures of quality construction are also attractive to many senior couples looking to downsize of which the Submarket has very few. Comparisons between the composition of households and housing units by size suggests that the Submarket has a shortage of two-bedroom homes but an abundance of three-bedroom housing units. The Submarket's supply of

THE EAST FALLOWFIELD-GREENWOOD SUBMARKET'S HOUSING ECOSYSTEM:

two- and three-bedroom homes is critical for supporting the needs of most consumers within the starter and downsizing market segments. However, consumers within the starter and downsizing home segments will have to be content with the Submarket's relatively old housing stock, of which just over one-fifth was built prior to 1940. This significant concentration of older homes could present either financial or physical burdens on younger and older buyers alike. Another challenge may come from the East Fallowfield-Greenwood Submarket's proportionally larger share of homes vacant from "other" reasons when compared against the submarket average as the presence of such structures may be a sign of disinvestment issues.

Projections that forecast that household income will increase at a strong rate provide a sign for consumer stability within both the starter and downsizing markets. Providing landlords some assurance, the Submarket's median home value lies near the county-wide figure and home values have appreciated at a strong rate over recent years. The combination of household income projections and median home value observations may be reflected in real-estate loan origination activity across the East Fallowfield-Greenwood Submarket which is comprised in part of a larger proportion of loans intended for home improvements despite overall originations being far less investment oriented.

Overall, the East Fallowfield-Greenwood Submarket's starter home market is considered adequate largely as the result of household formation trends suggesting an increase in consumer demand. However, if demographic projections hold true, starter home demand could decline with dwindling numbers of individuals between the ages of 15 and 34. Additionally, the combination of projections showing an increase in household income paired with median home values aligned with county-wide figures suggests that the ability of a household participating in the Submarket's starter home market to transition into the move-up segment may be adequate. Household formation trends also suggest an increase in the demand for downsizing homes with demographic projections which show gains in the number of senior citizens indicating that future demand for this housing segment may be strong. Therefore, the Submarket's downsizing market segment is adequate, and the ability to transition from this segment and into a senior living accommodation is also adequate.

MOVE-UP MARKET — The move-up housing market within the East Fallowfield-Greenwood Submarket will likely be negatively impacted by household formation trends that show a decrease in the overall number of family households comprised of at least three members. This trend is accompanied by demographic projections, which forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range is problematic for the move-up market as these residents are mostly likely to participate in this consumer segment. The combination of household formation trends and population projections suggest that the demand for move-up housing will decrease.

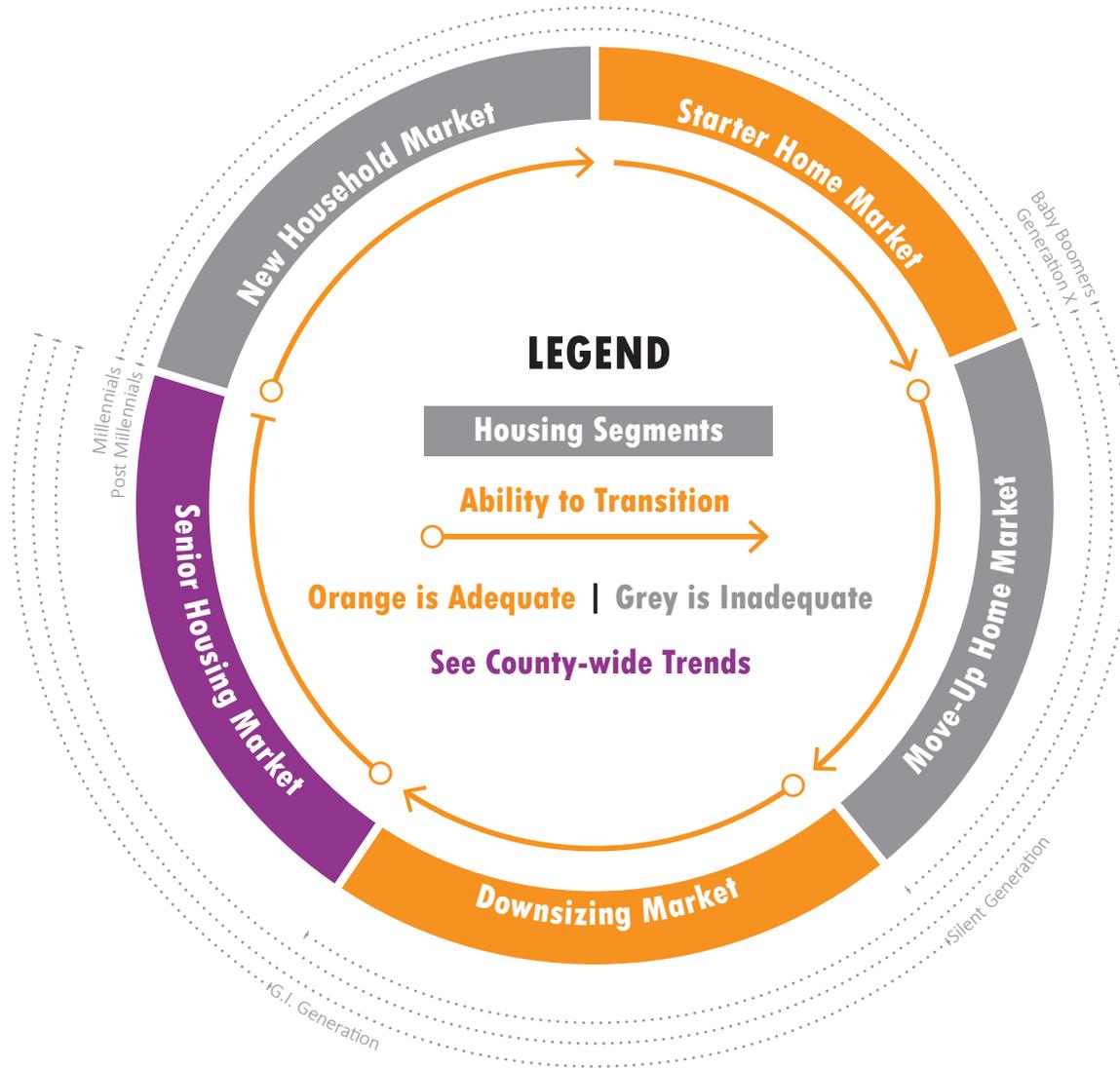
Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by projections showing strong increases in both household income and home value appreciation. Additionally, median home values within the East Fallowfield-Greenwood Submarket sit near county-wide figures. However, the Submarket's higher proportion of vacancy related to "other" reasons when compared to the submarket average indicates signs of potential disinvestment issues. However, despite its higher proportion of vacancy attributable to "other" reasons, overall loan originations comprised in part of a stronger showing for home improvements present a positive sign for the move-up market.

Comparisons between the composition of households and housing units by size suggests that the Submarket has an abundance of homes containing three- and four-bedrooms but a shortage of those with five-or-more-bedrooms. Housing units of such size are important as they likely support the needs of most consumers within the move-up market segment.

Overall, the East Fallowfield-Greenwood Submarket's move-up market is considered inadequate largely due to a combination of household formation trends which suggest a decline in consumer demand. However, projections showing an increase in household income paired with median home prices comparable to county-wide figures suggest that the ability of a household participating in the Submarket's move-up consumer segment to transition into the downsizing home segment is adequate.

SENIOR HOUSING MARKET — Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE EAST FALLOWFIELD-GREENWOOD SUBMARKET'S HOUSING ECOSYSTEM:



THE LINESVILLE SUBMARKET

Located halfway between Chicago and New York City and sitting squarely on the western edge of Crawford County, the Linesville Submarket contains three municipalities including Conneaut and Pine townships and the Borough of Linesville. The Linesville Submarket is adjacent to the Shenango, Conneaut Lake, and Springboro-Conneautville submarkets within Crawford County and shares its western border with Astabula County, in Ohio.

A HOUSING ECOSYSTEM ANALYSIS OF THE LINESVILLE SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

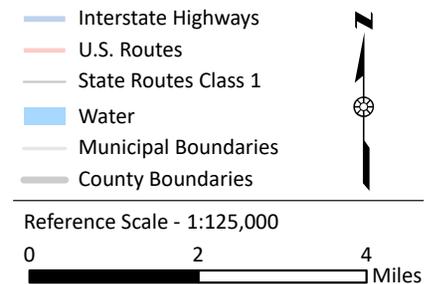
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚡). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

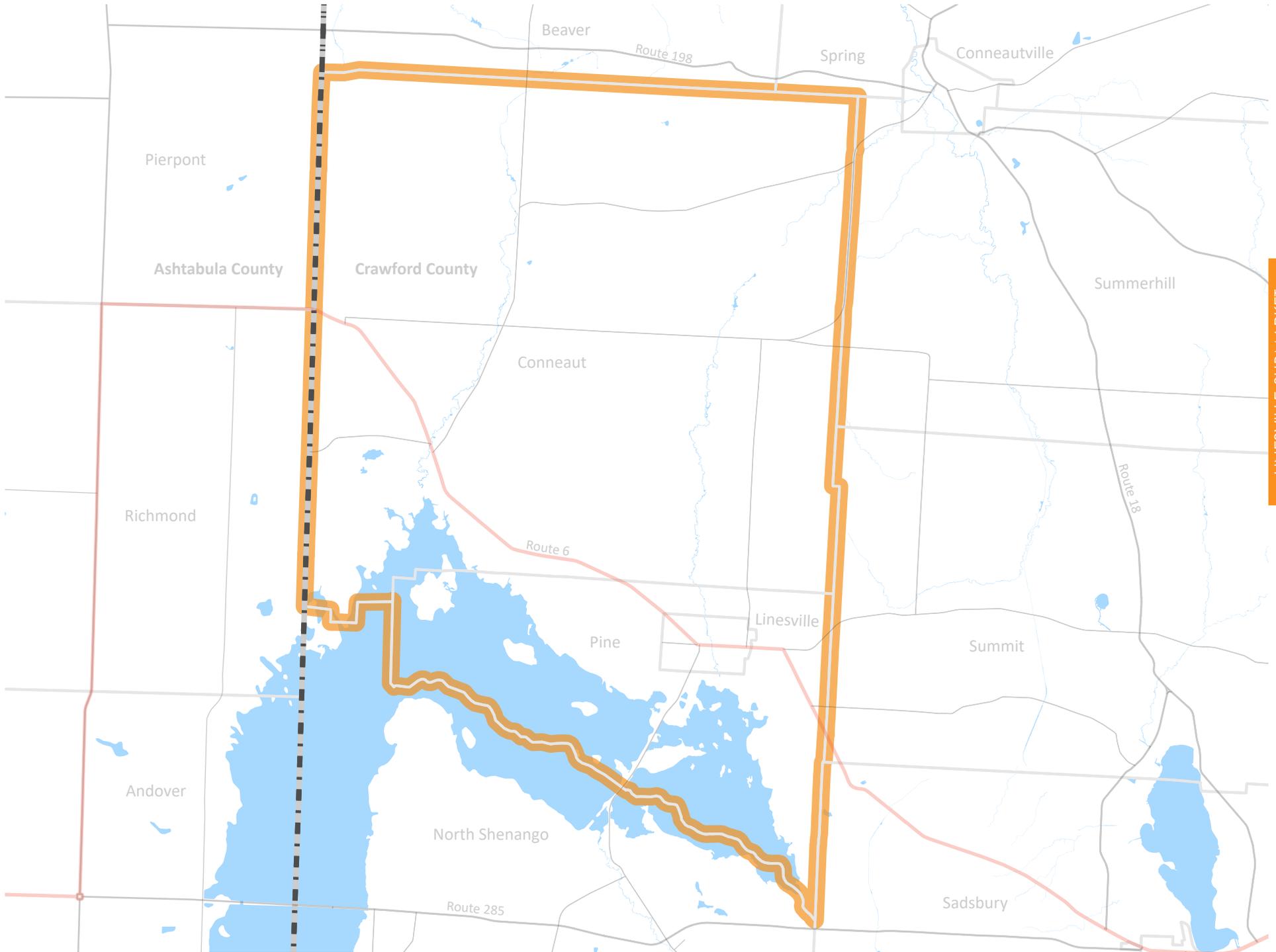
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Linesville Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



LINESVILLE SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends of residents living within the Linesville Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE LINESVILLE SUBMARKET —

The map on the next page uses dots to represent where residents living within the Linesville Submarket work. From this map, it is apparent that many Submarket residents find work along the U.S. Highway 322 corridor with a considerable number commuting all the way to the Meadville area to reach work. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Linesville Submarket produces a job-to-housing ratio of 0.59, which lies below the beneficial range and potentially indicates instability.

The radar graph on the bottom left displays the distance and direction of where Linesville Submarket residents work. The dark orange wedges of the graph demonstrate those commuting less than ten miles; however, a larger share of residents travel beyond ten miles to reach work. Consistent with the Submarket's job-to-housing ratio, live-work observations demonstrate that most residents treat the Linesville Submarket as a bedroom community and commute to work elsewhere. The radar graph also shows a clear eastward commuter pattern which highlights the importance of the U.S. Highway 322 corridor and the Meadville area in the lives of Submarket residents.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries

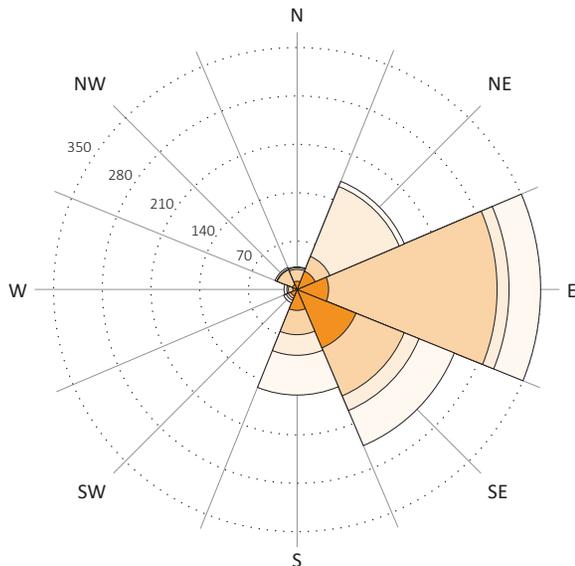


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE LINESVILLE SUBMARKET RESIDENTS WORK



- Less than 10 Miles
- 10 - 24 Miles
- 25 - 50 Miles
- 50 + Miles

12.6%

of Linesville Submarket residents work at a location **inside the submarket.**

56.3%

of Linesville Submarket residents work inside **Crawford County.**

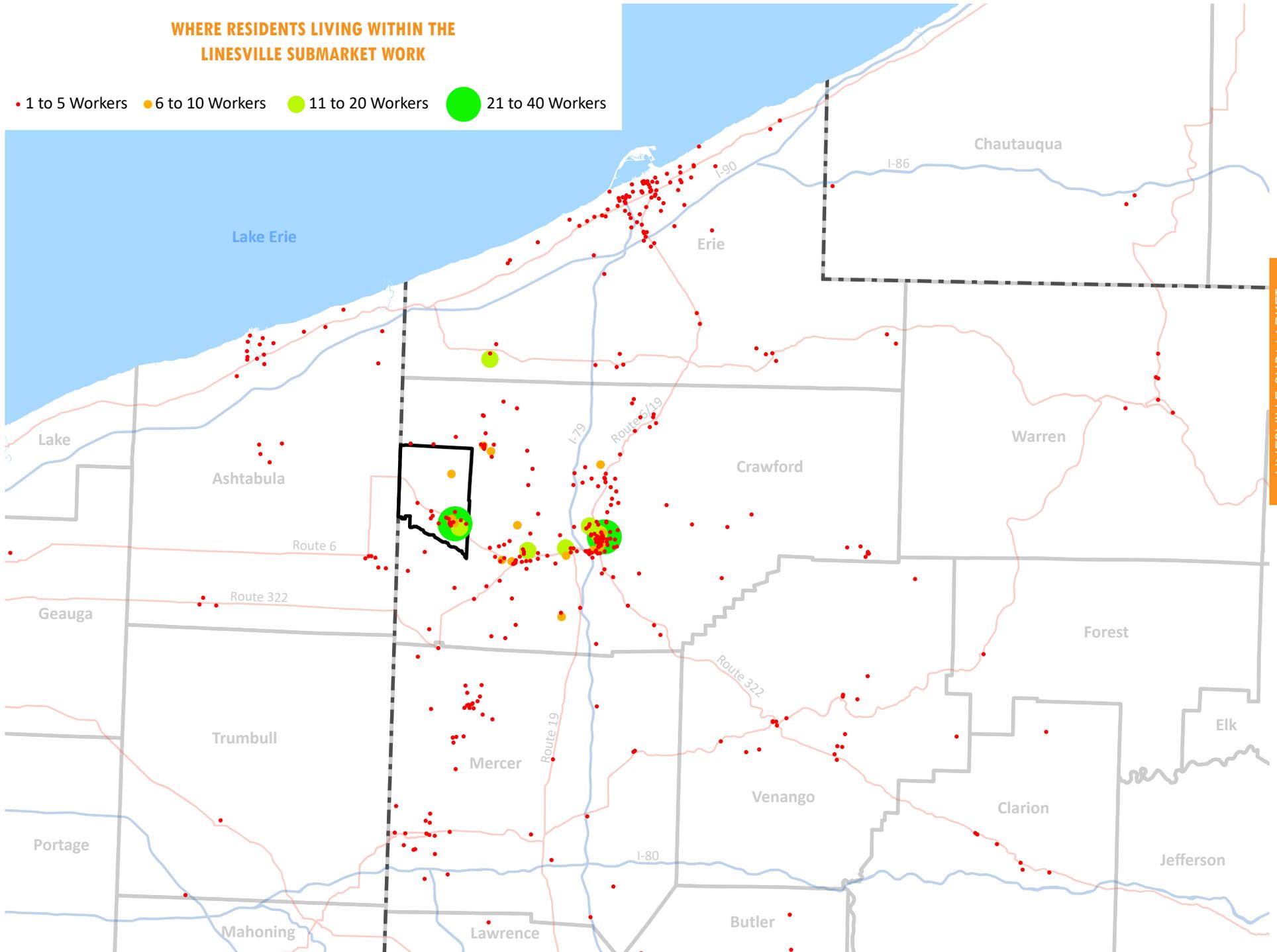
43.7%

of Linesville Submarket residents work outside **Crawford County.**

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

WHERE RESIDENTS LIVING WITHIN THE LINESVILLE SUBMARKET WORK

• 1 to 5 Workers • 6 to 10 Workers • 11 to 20 Workers • 21 to 40 Workers



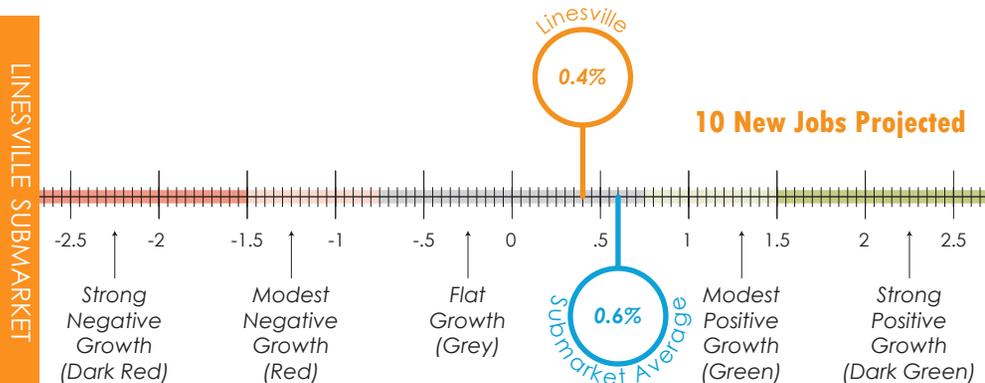
LINESVILLE SUBMARKET

JOB GROWTH ANALYSIS:

JOB GROWTH —

From the graph below, the Linesville Submarket's 0.4% projected annual job growth rate is just below the submarket average of 0.6% and lies within the "flat growth" range. Recognizing this, it is unlikely that projected job growth within the Submarket will provide workers the extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

HOUSEHOLD INCOME CHANGE —

Despite flat job growth projections, from the graph on the bottom left, household income within the Linesville Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

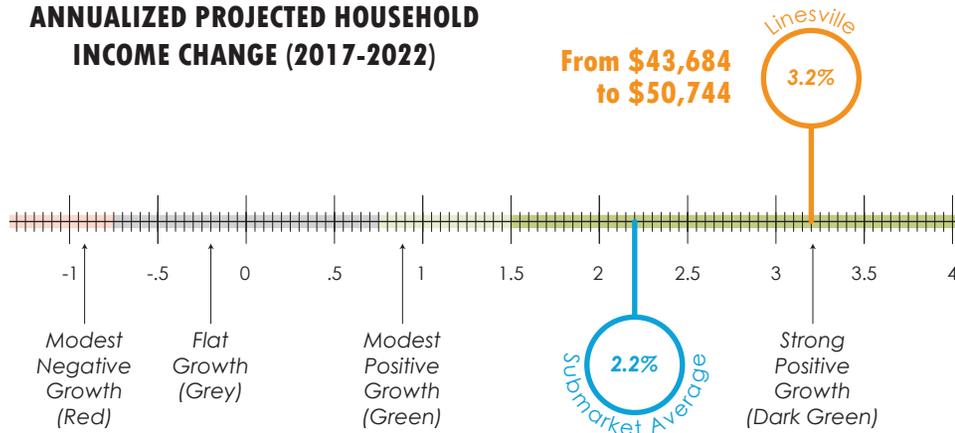
TOTAL JOBS —

To explore the magnitude of the Linesville Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. From the graphic on the right, the Linesville Submarket contains fewer jobs than the submarket average. This finding aligns with our earlier conclusion that the Linesville Submarket is a bedroom community and not a job center. Although jobs within the Submarket provide important opportunities for local residents, the Linesville Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)

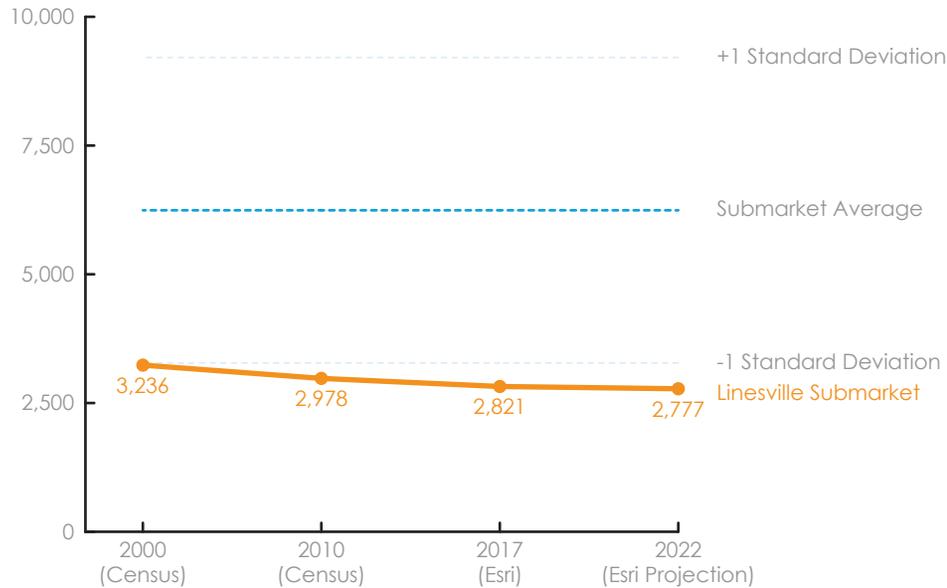


Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

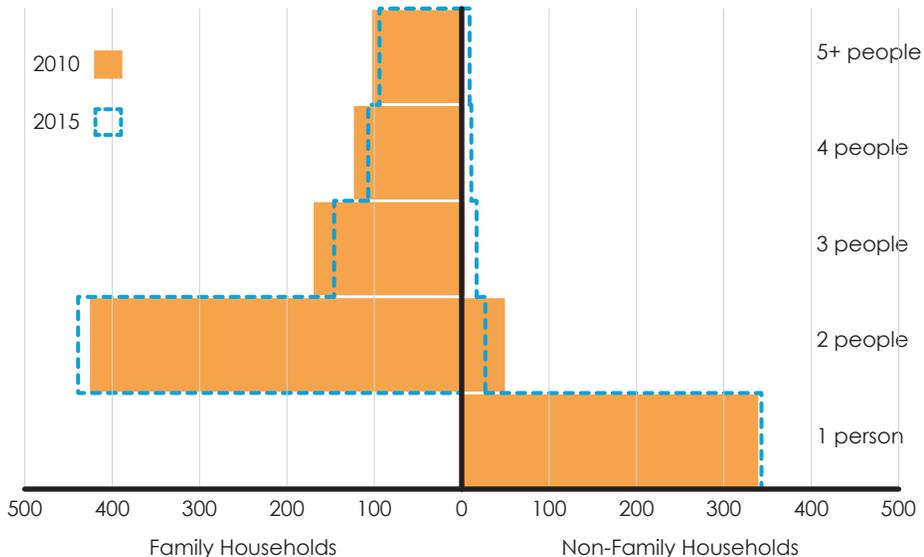
In summary, although the Linesville Submarket is projected to have a flat job growth rate, it is expected to experience strong household income growth rate. Such growth in household income may bolster housing market stability. However, at present, the submarket is more of a bedroom community than a job center and therefore relies significantly on the productivity and growth of its surrounding region.

POPULATION GROWTH ANALYSIS:

LINESVILLE SUBMARKET POPULATION GROWTH



LINESVILLE SUBMARKET HOUSEHOLD FORMATION TRENDS



Source: U.S. Census

This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the Linesville Submarket would directly lead to household formation and increase housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, the population of the Linesville Submarket has declined since 2000. This decline suggests that population growth is not driving the demand for housing within the Submarket.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed, demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Linesville Submarket households by size between 2010 and 2015. One-person non-family households remained stable while those composed of two people have declined. Interestingly, non-family households comprised of three-or-more-people have increased in number. For family households, those composed of two people have increased while all of those comprised of at least three people have declined in number.

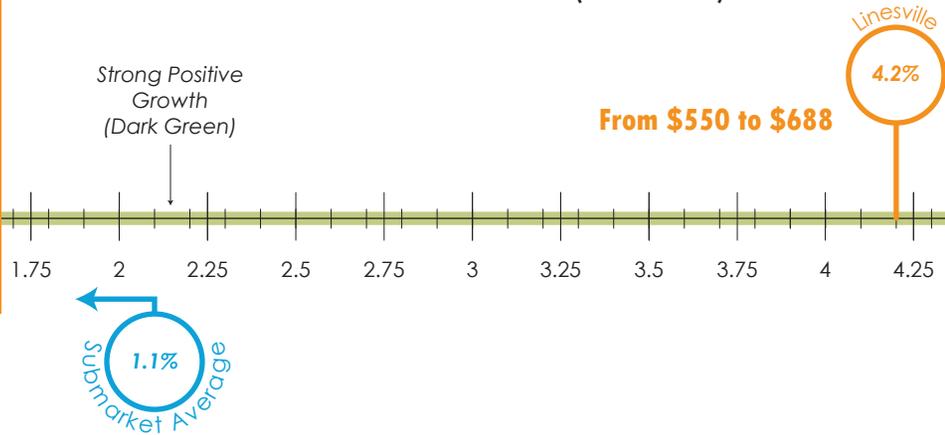
Household formation trends observed within the Linesville Submarket suggest stable demand for rental units, increasing demand for starter and downsizing homes, and a drop in demand for move-up housing.

POPULATION GROWTH ANALYSIS:

🏠 RENT PRICE & HOME VALUE CHANGES —

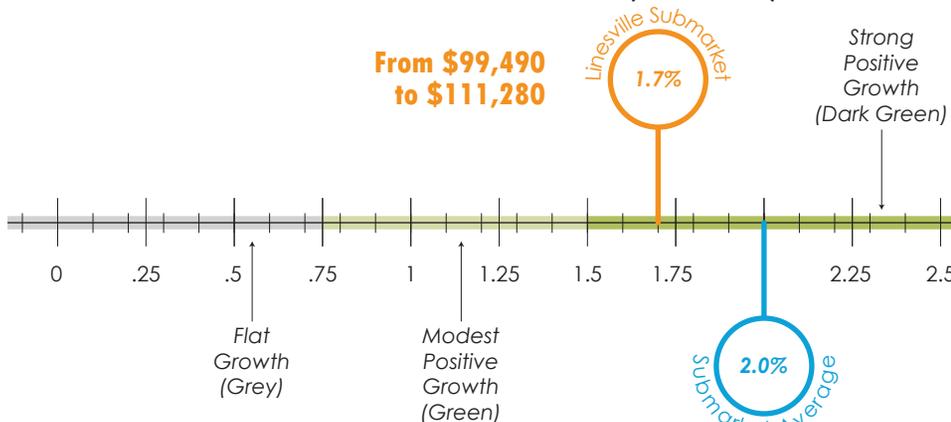
An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Linesville Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rents have seen very strong growth while home values have also grown at a strong rate.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

🏠 RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Linesville Submarket with comparisons to Crawford County and the submarket average. We see that renter households within the Linesville Submarket are more cost-burdened overall than the submarket average with a rate faring worse even than Crawford County as a whole.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



43.5% of Linesville Submarket Renters
(103 Households)

41.3% of Crawford County Renters

34.3% Submarket Average

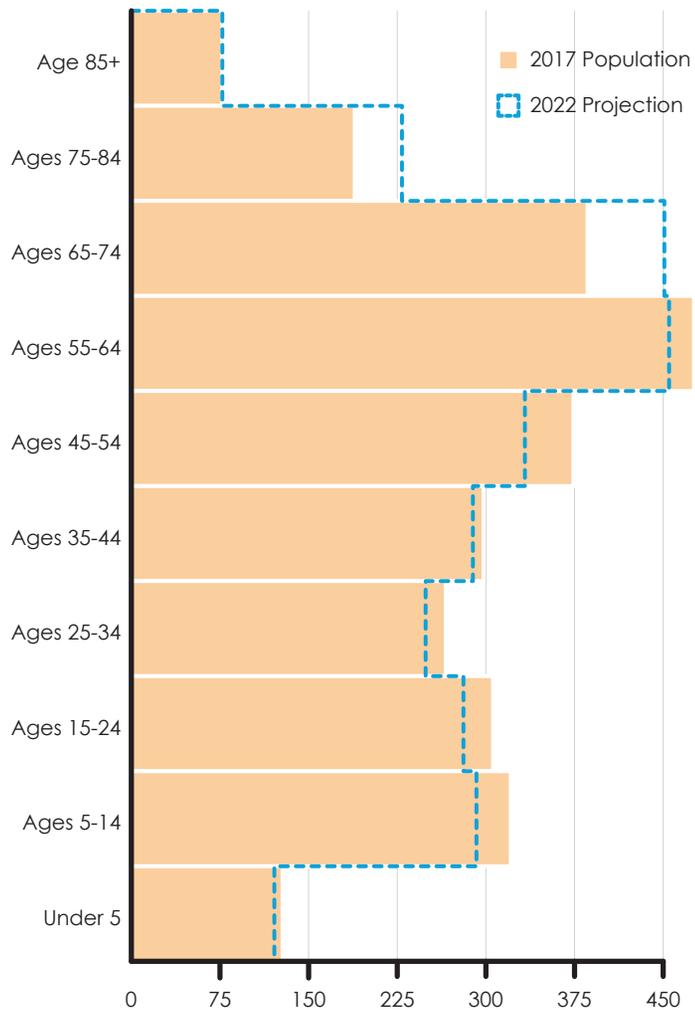
Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

TOTAL POPULATION —

The cycling of households between different homes creates some of the housing demand within a community. To understand this type of housing demand, we established whether the Linesville Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. From the graphic shown on the right, it is clear that the Linesville Submarket contains less population than the submarket average. By this standard, the Linesville Submarket is considered a rural population area. Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a

LINESVILLE SUBMARKET POPULATION PYRAMID & PROJECTION



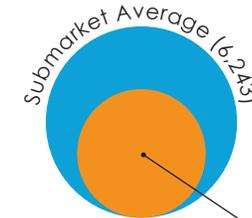
Source: Esri, Retrieved 2018

magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the Submarket’s relative population size, it can be assumed that the Linesville Submarket does not have the gravity to attract new residents on a speculative basis. This assumption infers that those moving into the Submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION —

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population’s age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional “starter home” housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Linesville Submarket in 2017 with a projection to 2022. Demographic projections within the Linesville Submarket forecast an overall decline in the population of individuals within the youth and working age brackets which comprise people between the ages of 15 and 64. Despite projected declines across the youth and working age brackets, the population of individuals over the age of 65 is forecasted to increase.

Population projections within the Linesville Submarket suggest a decline in the demand for rental units, starter homes, and move-up housing while also suggesting an increase in the demand for downsizing homes and senior living accommodations.



Linesville Submarket Population (2,821)

Source: Esri, Retrieved 2017

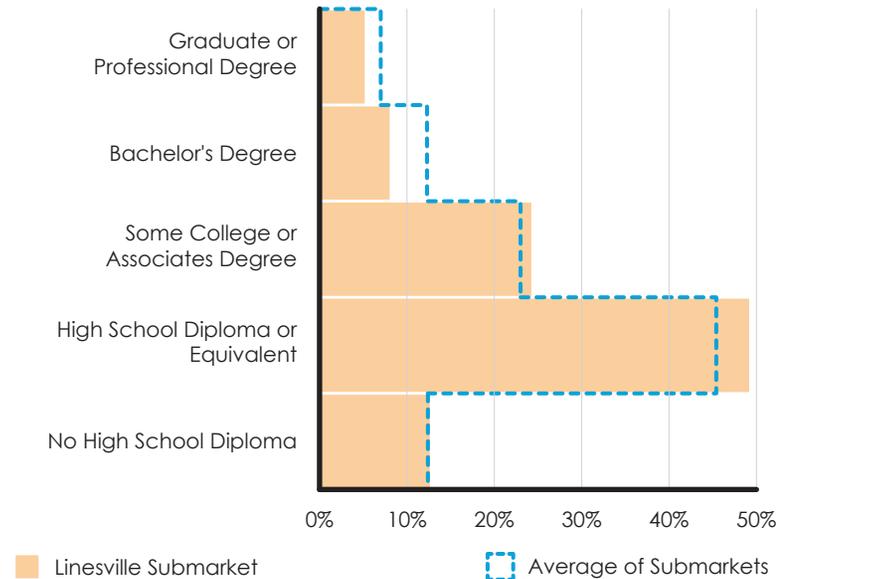
POPULATION GROWTH ANALYSIS:

The combination of demographic projections and household formation trends addressed earlier both suggest an increase in the demand for downsizing homes while sending mixed signals over the other housing segments. Such trends are inconsistent with observations of changes in rent prices and home values which have seen strong growth.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Linesville Submarket with a comparison to the submarket average. From this graph, it appears that the Linesville Submarket is less educated than the submarket average specifically in that it contains a smaller overall proportion of individuals holding some level of a college degree. The Submarket's lower level of educational attainment may make it less economically competitive over the long run.

LINESVILLE SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

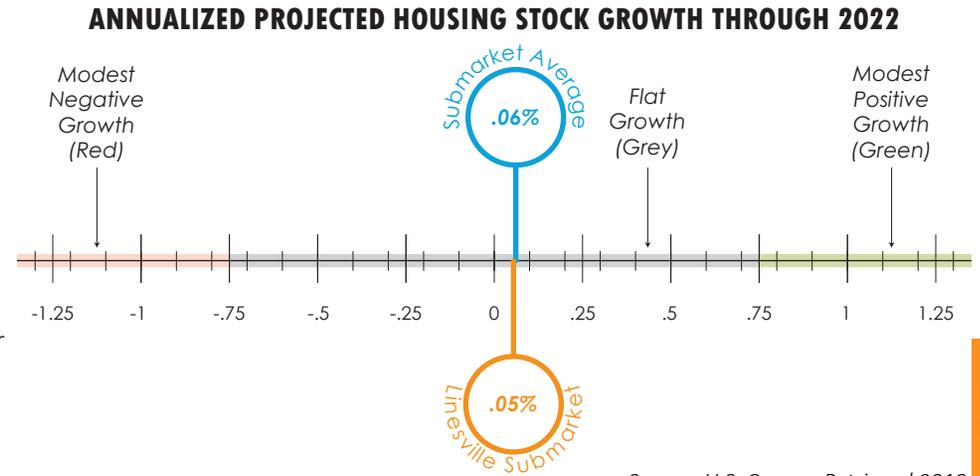
In summary, the Linesville Submarket is a rural population area and its population has declined since 2000. Although household formation trends show that the overall number of non-family households has remained stable, the composition of such households by size has shifted towards a larger number of unrelated roomers per home. Two-person family households have slightly increased within the Submarket while those containing three-or-more people have declined. Demographic projections forecast that the population of individuals within the Submarket's youth and working age brackets will decline while its number of senior citizens will increase. Rent prices have increased at a very strong rate even while non-family household formation appears mostly stagnant. In addition to strong rent price growth, home values have increased at a strong rate as well though not as quickly as rents. Renter households within the Linesville Submarket are more burdened overall by the cost of housing than the submarket average and even Crawford County on the whole. In terms of educational attainment, the Linesville Submarket is less educated than the submarket average with a lesser overall proportion of adults holding some level of a college degree.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph at right presents the housing stock growth rate for the Linesville Submarket. Although flat, the Submarket's housing stock growth rate is similar to the submarket average.



Source: U.S. Census, Retrieved 2018



TOTAL HOUSING STOCK —

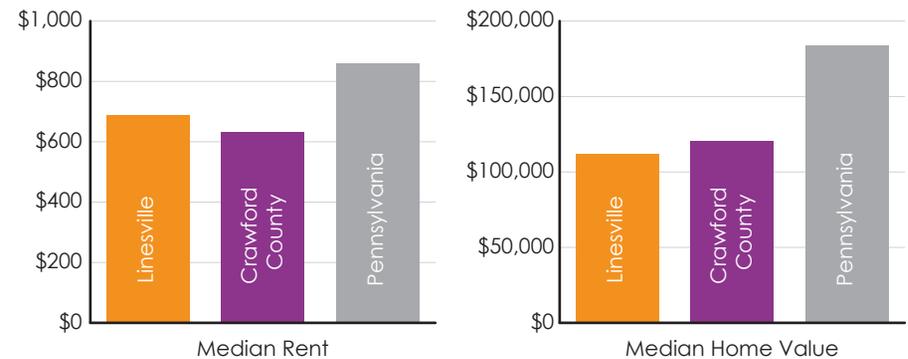
It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Linesville Submarket's housing stock, we compared the number of housing units located within the submarket to the submarket average. From the graphic on the left, we see that the Linesville Submarket has fewer housing units than the submarket average. Based on this analysis, it can be safely assumed that most housing development within the Linesville Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

Source: Esri, Retrieved 2018

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, the Linesville Submarket has a median rent price above that for all of Crawford County but below Pennsylvania on the whole. The Linesville Submarket's median home value is below the county's figure and well below Pennsylvania's median. Such figures suggest that rental activity within the Submarket may be more promising than the development of new homes for sale.

LINESVILLE SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 –

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that just over one quarter of the Linesville Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. From this observation, the Linesville Submarket does contain its fair share of historical homes but does not seem burdened with an out-sized portion of such residences. Given the Submarket's aging population, opportunities to encourage accessibility upgrades should be considered from time to time.

LINESVILLE SUBMARKET HOUSING UNITS BUILT PRE-1940

25.9%



Homes Built Pre-1940

74.1%



Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

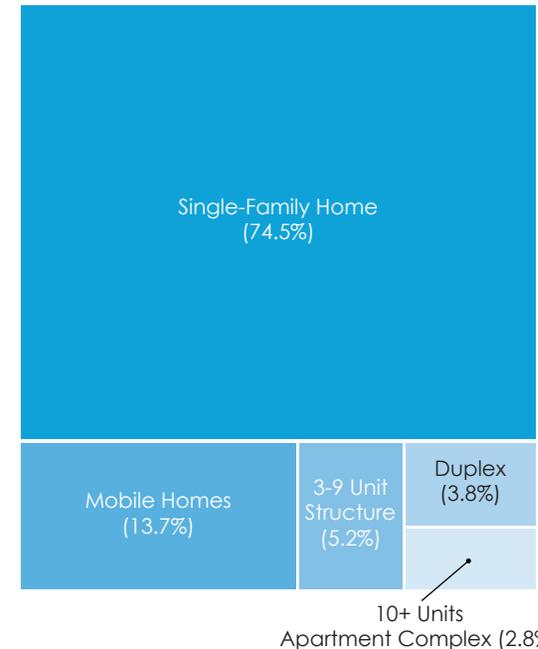
HOUSING BUILDING TYPES –

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Linesville Submarket is somewhat comparable to the submarket average in that single-family and mobile homes dominate its housing building stock. However, the Submarket contains a much larger share of mobile homes than the submarket average. The combination of single-family and mobile homes comprise just over 93% of the Linesville Submarket's housing building stock. Conversely, multi-unit structures constitute a smaller portion of the Submarket's housing building stock than the submarket average.

LINESVILLE SUBMARKET



SUBMARKET AVERAGE

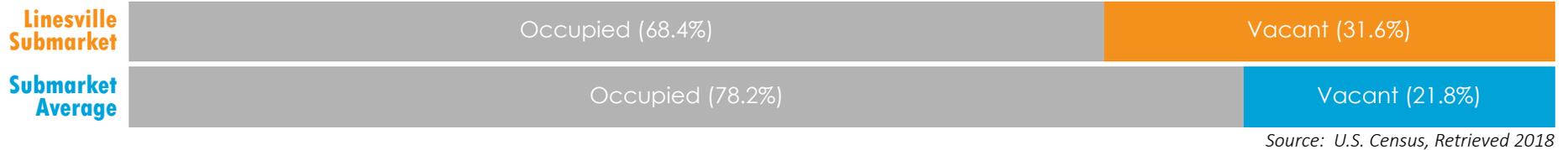


Source: U.S. Census, Retrieved 2018

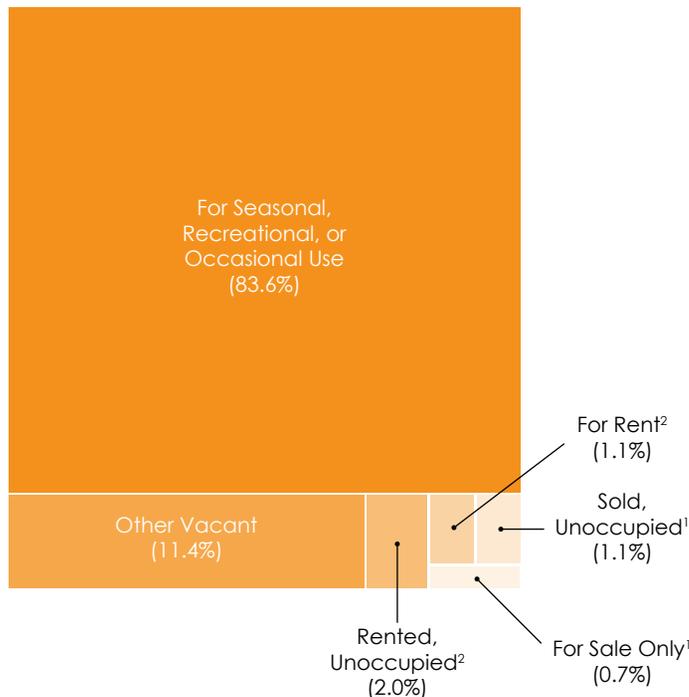
HOUSING STOCK GROWTH ANALYSIS:

🍷 OVERALL VACANCY & VACANCY BY TYPE —

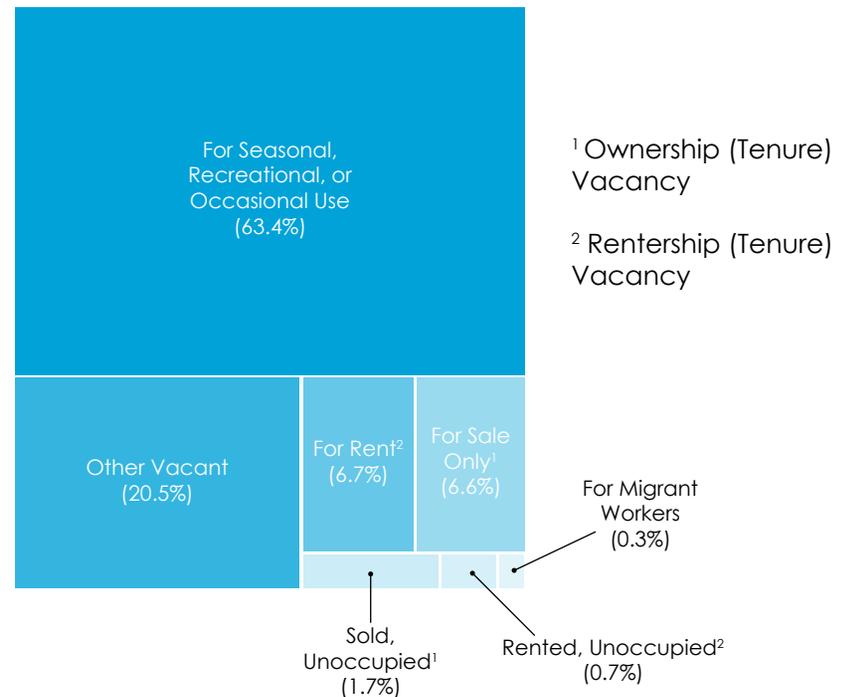
The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Linesville Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. The Linesville Submarket’s vacancy rate is well above the submarket average. However, this startling finding is mitigated by observations of the composition or nature of vacancy within the Submarket. More than four-fifths of all vacancy within the Linesville Submarket can be attributed to housing units used for seasonal, recreational, or occasional use purposes. All other vacancy types within the Linesville Submarket are smaller in proportion when compared against the submarket average. Vacancy attributable to seasonal, recreational, or occasional reasons is the least concerning type of vacancy, but too much of this vacancy can lead to other non-housing related community concerns.



LINESVILLE SUBMARKET



SUBMARKET AVERAGE



¹ Ownership (Tenure) Vacancy
² Rentership (Tenure) Vacancy

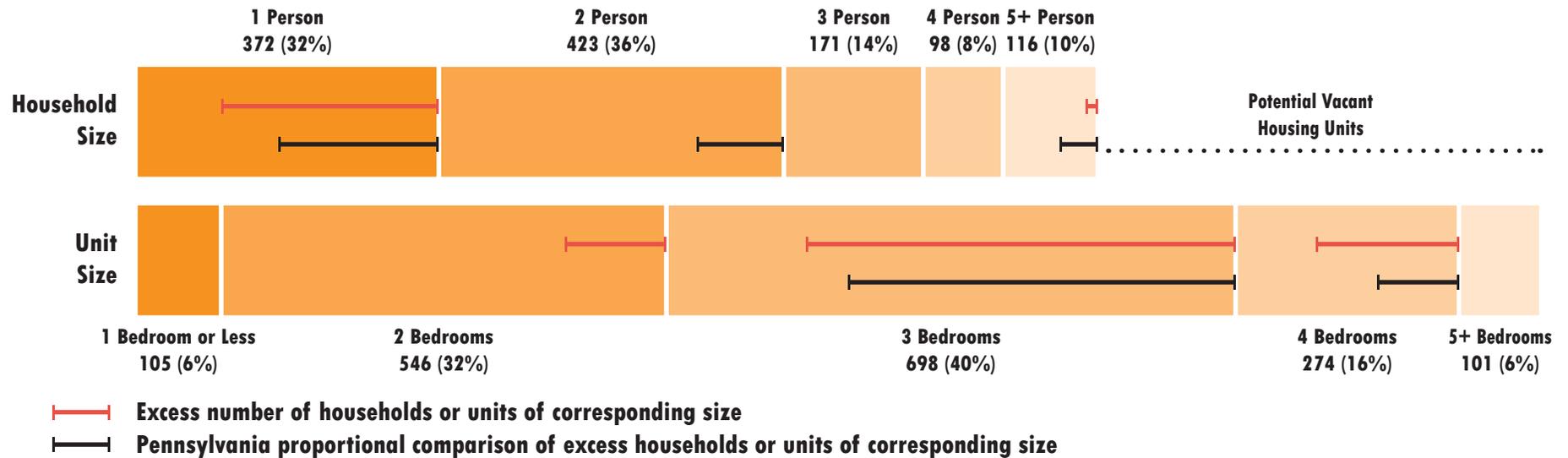
Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

🍷 HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Linesville Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket's figures for comparison purposes. The Linesville Submarket exhibits a shortage of one-bedroom housing units, however, relative surpluses are present for two-, three-, four-, and five-or-more-bedroom homes. The mismatch is particularly notable for two-bedroom housing units, as the corresponding proportional statewide mismatch or surplus for units of that size is actually on the side of households. For the Linesville Submarket to have a surplus of two-bedroom housing units is a substantial departure from statewide trends. Such observations are likely attributable to the Submarket's abundant supply of seasonal, recreational, and occasional use homes.

LINESVILLE SUBMARKET

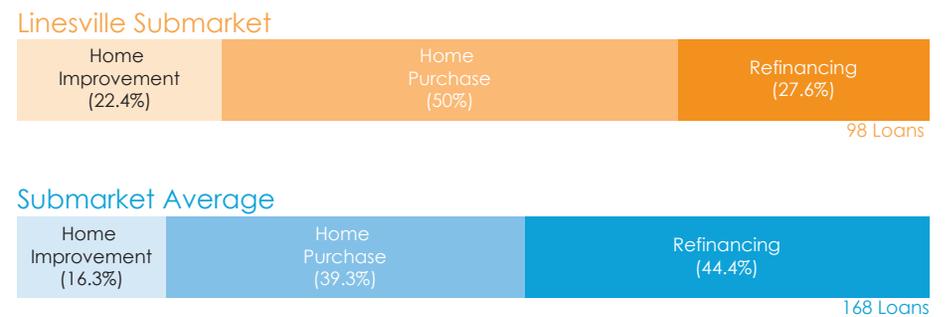


Source: U.S. Census, Retrieved 2018

🍷 THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right, demonstrate the purpose of loan activity within the Linesville Submarket. From these graphs, it appears that loan activity within the Linesville Submarket has been much more investment oriented overall, at least in 2016, than activity reported across the submarket average. This is apparent from a smaller portion of loans for refinancing activities.

LINESVILLE SUBMARKET LOANS BY PURPOSE (2016)



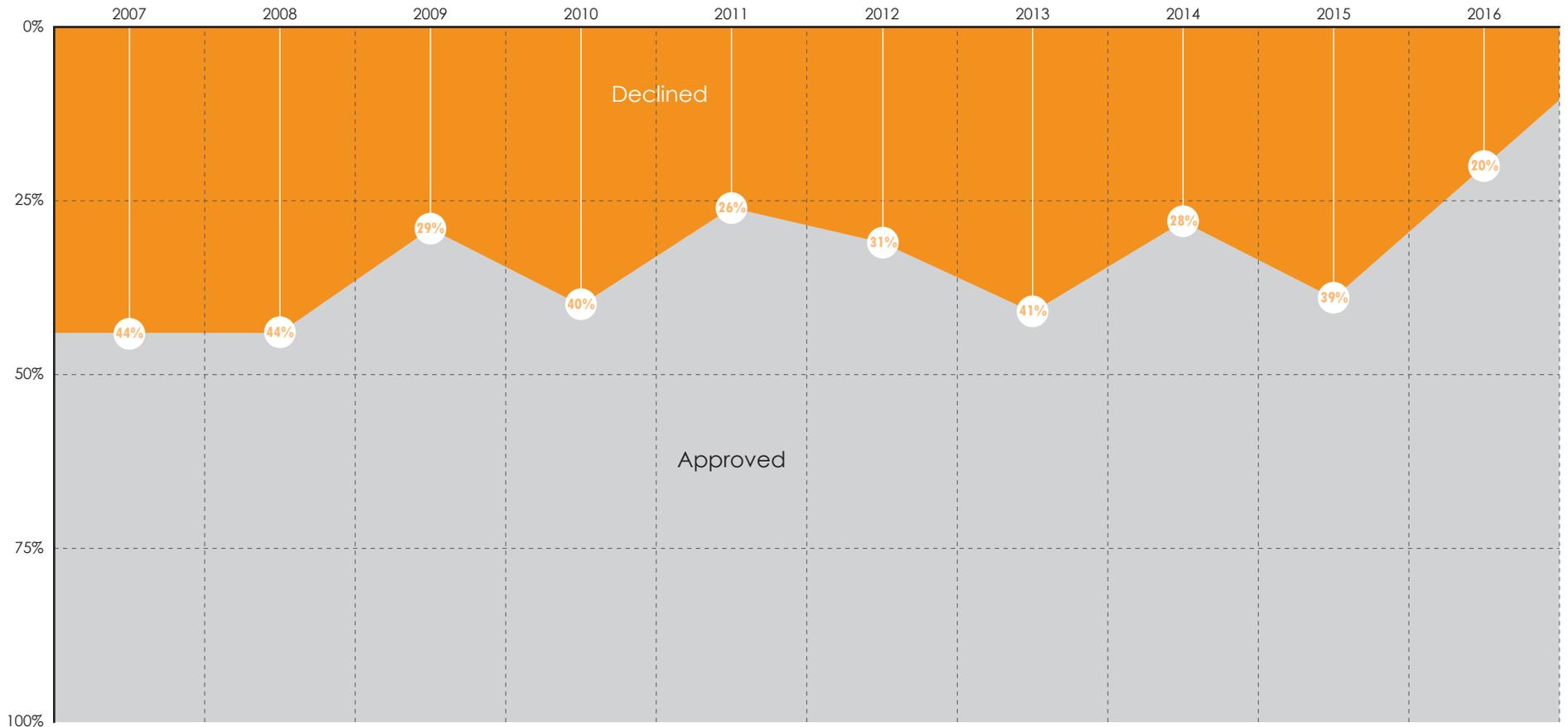
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Linesville Submarket, the rate of declined loans has hovered in the mid-thirties in recent years (see below) and appears to show slight improvement only very recently.

LINESVILLE SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Linesville Submarket's housing stock contains fewer housing units than the submarket average and new construction is projected to be flat. Consistent with flat housing growth projections, median home values lag below the county's figure. Median rent prices are well above county-wide figures. Lacking recent construction, more than a quarter of the Submarket's housing stock was built prior to 1940. The Submarket's stock of older homes may present challenges for the Linesville Submarket's aging population down the road. The building types which comprise the Submarket's housing stock are similar in quantity to the submarket average except that mobile homes make up a larger share. With an overall vacancy rate well above the submarket average, many of the Linesville Submarket's housing structures are unused. The composition of such vacancy includes a much higher portion attributed to seasonal homes which is generally non-problematic. Comparisons between the composition of households and housing units by size suggest that the Submarket lacks one-bedroom units while having an abundance of all units containing two-or-more bedrooms. Real-estate loan originations have been much more investment oriented than the submarket average but the approval rate for such loans has not been improving.

OVERALL STATUS OF THE LINESVILLE SUBMARKET:

AN ECONOMIC OVERVIEW —

Observations of live-work trends within the Linesville Submarket suggest that most of its residents treat it as a bedroom community. The Submarket's job-to-housing ratio of 0.59, which lies below the beneficial range, supports this conclusion. This finding can also be observed through commuter trends showing that many of the Submarket's residents travel to the Meadville area or locations along the U.S. Highway 322 corridor to reach work. The combination of these live-work, job-to-housing, and commuter trends are consistent with our analysis that showed that the Linesville Submarket is not a job center. This observation is unlikely to change in the near future given projections showing that the Submarket will experience a flat job growth rate. Despite forecasts showing flat job growth on the horizon, household income within the Submarket is projected to see strong growth. Educational attainment figures show that the Submarket is less educated on the whole than the submarket average which suggests that its labor force might present a less competitive environment for attracting certain kinds of employers. Real estate loan activity within the Linesville Submarket has been more investment oriented than the submarket average overall with especially higher proportions of activity for home purchases and improvements. Recent loan originations have been approved at around a 68% success rate, which has not improved considerably since 2009.

POPULATION TRENDS —

Based on its number of residents, the Linesville Submarket is a rural population area. The Submarket's population has declined since 2000, leaving much of its housing demand to the cycling of existing residents. However, the Linesville Submarket's ability to attract vacation or recreational home dwellers should be recognized. Household formation trends for single-person non-family households have been stable. However, two-person non-family households have declined in number while all of those comprised of at least three people have increased. For family households, those comprised of two people have increased in number while all of those comprised of at least three people have declined. Demographic projections forecast an overall decline in the population of individuals comprising the youth and working age brackets while the number of senior citizens within the Submarket is projected to increase. The combination of these trends indicates an increase in the demand for downsizing homes and potentially even larger rental units to accommodate non-family households comprised of at least three members.

THE HOUSING MARKET GENERALLY —

The Linesville Submarket has a lower concentration of housing development than the submarket average and development projections forecast that its housing stock will not grow considerably in the coming years.

The Linesville Submarket's overall increase in non-family households as well as family households comprised of two people may be driving rent prices which have grown at a strong rate over recent years. Partially due to this observation, median rent prices within the Submarket sit above the county's figure. However, strong rent price growth may be encumbering many renter households as the Submarket's overall renter cost-burdened rate is well above the submarket average as well as the county-wide rate. Despite stagnant overall family household formation trends, home values have also experienced strong growth, yet median home prices within the Submarket sit below the county's figure.

For non-renter households, consumers will benefit from an abundance of single-family structures and mobile homes, which are proportionally more plentiful in the Submarket than the submarket average. The Linesville Submarket's housing stock exhibits an overall vacancy rate well above the submarket average, however, this observation is primarily due to its concentration of seasonal housing and doesn't present considerable alarm as a result. When examining how well the size of the Submarket's composition of housing units by size meets the needs of its households, the Linesville Submarket appears to have a shortage of one-bedroom units but a surplus of all units that are two-bedrooms or larger.

THE LINESVILLE SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Linesville Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Linesville Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment that constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET —

The Linesville Submarket's new household market will likely be negatively impacted by stagnant household formation trends for non-family households. This trend is accompanied by demographic projections which forecast a decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggests that the consumer demand within the new household housing market is stagnant.

Projections that forecast that household income will increase at a strong rate provide a sign of stability for the new household market. Comparisons between the composition of households and housing units by size suggests that the Linesville Submarket has a shortage of housing units composed of one-bedroom or less. Although such finding may be beneficial for landlords holding such units, this observation likely places stress on housing consumers within the new household market. Fortunately, some participants within the new household market will be able to comfortably consume two-bedroom homes, which are in abundant supply in the Submarket. However, the Linesville Submarket contains a lesser share of multi-unit housing structures when compared to the submarket average. The lack of multi-unit housing structures may place stress on the Submarket's new household market as such buildings are often more accommodating to the needs of those participating within this consumer segment.

Median rent prices above those observed county-wide along with the strong growth of such prices both provide positive signs for the Linesville Submarket's new household market. However, the Submarket's overall rate of cost-burdened renter households is well above the already relatively high submarket average which suggests that many renters are struggling to afford housing. Such observation provides a sign of instability within the Submarket's new household marketplace.

Overall, the Linesville Submarket's new household market is considered inadequate largely due to a combination of household formation trends and demographic projections suggesting stagnant consumer demand which may begin to decline if projections hold true. Additionally, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is also considered inadequate because of the Submarket's relative high rate of cost-burdened renter households.

STARTER HOME & DOWNSIZING MARKETS —

The Linesville Submarket's starter and downsizing markets will likely be positively impacted by household formation trends which show an increase in the overall number of two-person family households. This trend is accompanied by demographic projections which forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 is problematic for the starter home market as these residents are mostly likely to participate in this consumer segment. However, an increase in the population of those over age 65 is a good sign for consumer demand in the downsizing market.

The healthy composition of single-family homes within the Linesville Submarket will benefit both the starter and downsizing markets since participants in these consumer segments are often in the market for this type of home. However, accessible multi-unit structures of quality construction are also attractive to many senior couples looking to downsize, of which the Submarket has few. Comparisons between the composition of households and housing units by size suggests that the Submarket has an abundance of two- and three-bedroom homes, which will likely support the needs of most consumers within the starter and downsizing market segments. However, consumers within the starter and downsizing home segments will have to be content with the Submarket's relatively

THE LINESVILLE SUBMARKET'S HOUSING ECOSYSTEM:

old housing stock, of which just over one-quarter was built prior to 1940. This significant concentration of older homes could present either financial or physical burdens on younger and older buyers alike.

Projections that forecast that household income will increase at a strong rate provides a sign for consumer stability within both the starter and downsizing markets. Less assuring for landlords, the Submarket's median home value continues to rest below the county's figure despite trends showing strong appreciation over recent years. Strong household income growth projections may be reflected in real-estate loan origination activity across the Linesville Submarket, which is comprised in part of a much larger proportion of loans intended for home purchases with overall originations being far more investment oriented.

Overall, the Linesville Submarket's starter home market is considered adequate largely due to household formation trends showing an increase in the number of two-person family households. However, if demographic projections hold true, starter home demand could decline with dwindling numbers of individuals between the ages of 15 and 34. Additionally, the combination of projections showing an increase in household income paired with median home values aligned with county-wide figures suggests that the ability of a household participating in the Submarket's starter home market to transition into the move-up segment may also be adequate. Household formation trends also suggest an increase in the demand for downsizing homes, which could become even stronger in the future if demographic projections hold true. As a result, the Submarket's downsizing market is adequate with the ability of consumers participating within this segment to transition into a senior living accommodation as adequate for similar reasons as those households in the starter home market.

MOVE-UP MARKET —

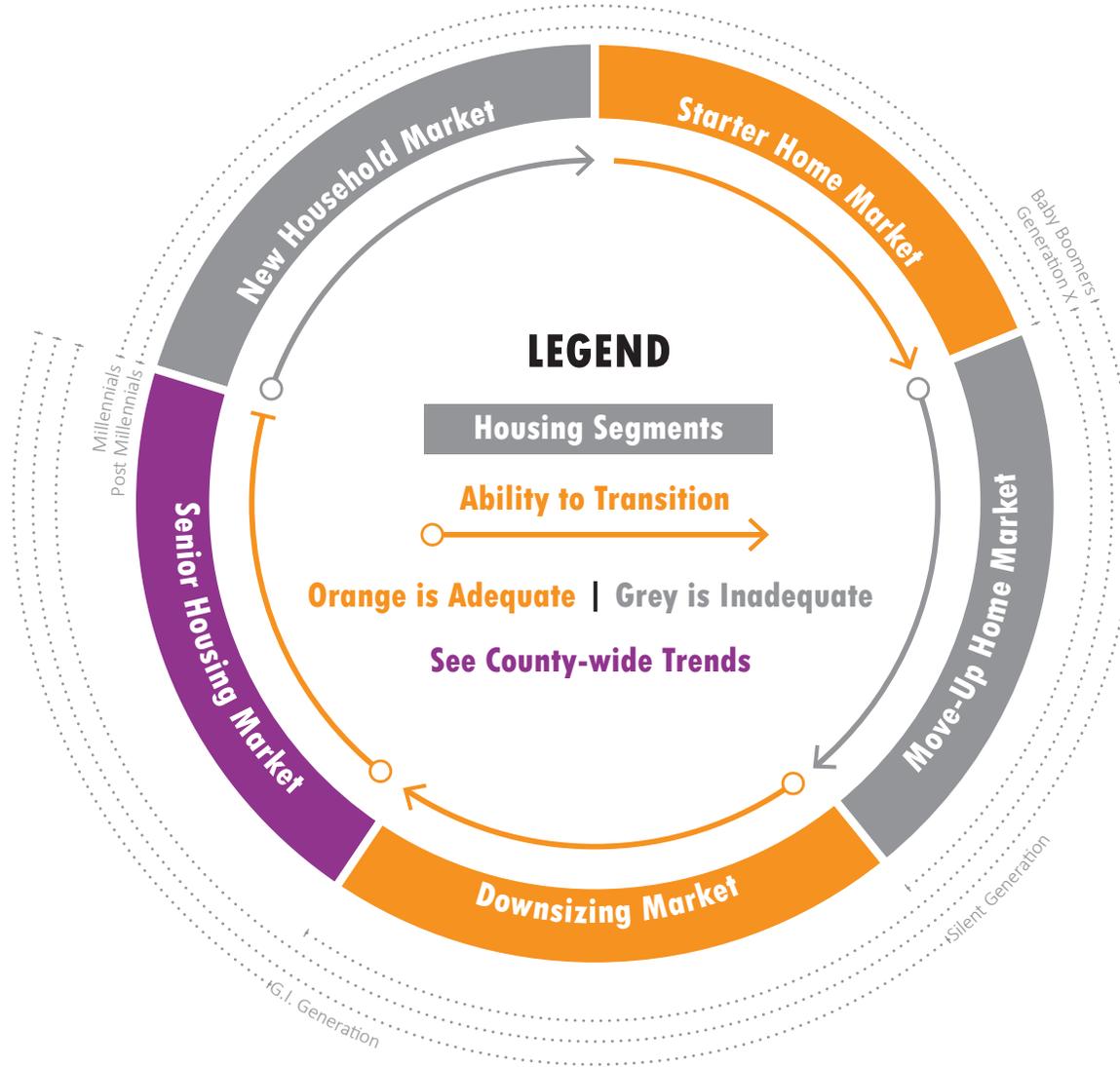
The move-up housing market within the Linesville Submarket will likely be negatively impacted by household formation trends that show a decrease in the overall number of family households comprised of at least three members. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range is problematic for the move-up market as these residents are mostly likely to participate in this consumer segment. The combination of household formation trends and population projections suggest that the demand for move-up housing will decrease.

Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by projections showing strong increases in both household income and home value appreciation. However, median home values within the East Fallowfield-Greenwood Submarket sit below county-wide figures. Despite relatively low median home values, loan originations are much more investment oriented than the submarket average with a much greater showing of activity related to home purchases. This last finding likely presents an obvious positive sign for the Submarket's move-up housing segment. Comparisons between the composition of households and housing units by size suggest that the Submarket has an abundance of homes containing at least three bedrooms, which will likely support the needs of most consumers within the move-up market segment. However, such consumers face the Submarket's relatively old housing stock of which just over one-quarter was built prior to 1940.

Overall, the Linesville Submarket's move-up market is considered inadequate largely due to a combination of household formation trends and demographic projections that suggest an increase in consumer demand. Despite signs of a fertile investment climate, relatively low median home values may make it difficult for households currently participating in the move-up market to transition into the downsizing segment. As a result, this transition is considered inadequate.

SENIOR HOUSING MARKET — Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE LINESVILLE SUBMARKET'S HOUSING ECOSYSTEM:



THE SHENANGO SUBMARKET

Squaring off the southwestern corner of Crawford County, the Shenango Submarket consists of three municipalities which include North Shenango, South Shenango, and West Shenango townships. The Shenango Submarket is adjacent to the East Fallowfield-Greenwood, Conneaut Lake, and Linesville submarkets within Crawford County and shares its southern boarder with Mercer County and its western border between Trumbull and Ashtabula counties in Ohio.

A HOUSING ECOSYSTEM ANALYSIS OF THE SHENANGO SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

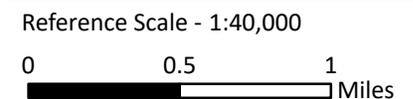
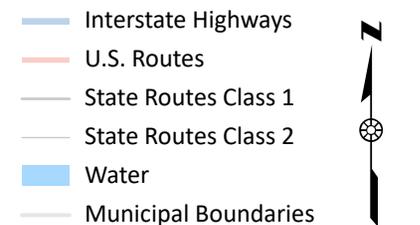
Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚡). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

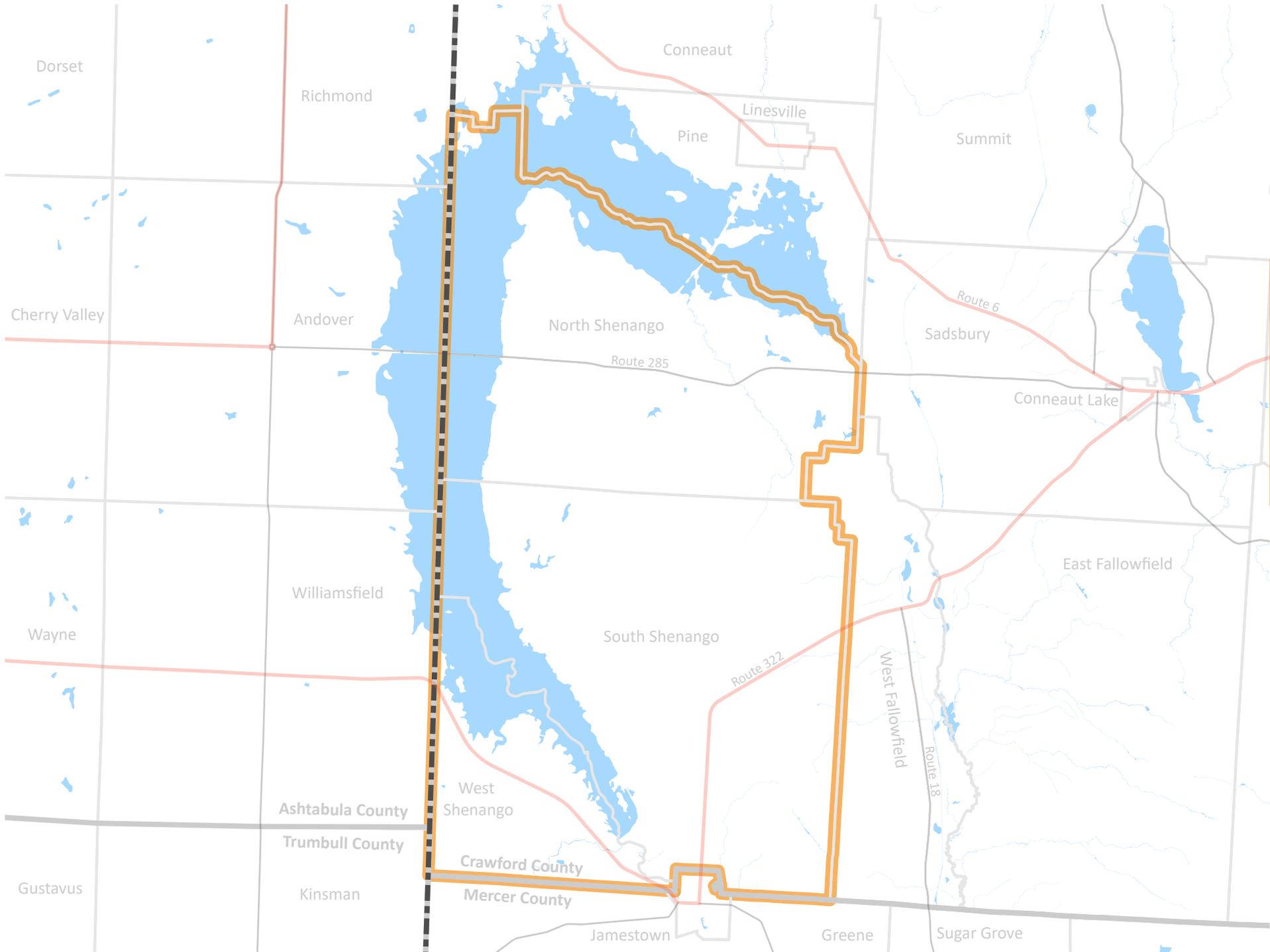
Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how well people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Shenango Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



SHENANGO SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends for Shenango Submarket residents.

LIVE-WORK TRENDS OF SHENANGO SUBMARKET RESIDENTS —

The map on the next page uses dots to represent where residents living within the Shenango Submarket work. From this map, it is apparent that many Submarket residents find work along the U.S. Highway 322 corridor, within the Meadville area, and down in Mercer County. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Shenango Submarket produces a job-to-housing ratio of 0.12, which lies well below the beneficial range and potentially indicates instability.

The radar graph on the bottom left displays the distance and direction of where Shenango Submarket residents work. The dark orange wedges of the graph demonstrate those commuting less than ten miles; however, the vast majority of residents travel beyond ten miles to reach work. Consistent with the Submarket's job-to-housing ratio, live-work observations demonstrate that most residents treat the Shenango Submarket as a bedroom community and commute to work elsewhere. The radar graph also shows clear eastern and southeastern commuter patterns highlighting the importance of the U.S. Highway 322 corridor and routes leading to job centers in Mercer County.

- Interstate Highways
- U.S. Routes
- County Boundaries
- - - State Boundaries

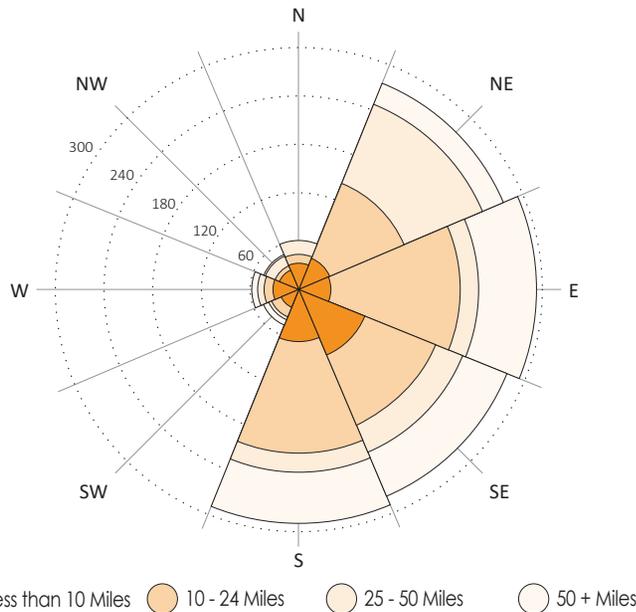


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE SHENANGO SUBMARKET RESIDENTS WORK



7.5%
32.6%
67.4%

of Shenango Submarket residents work at a location **inside the submarket**.

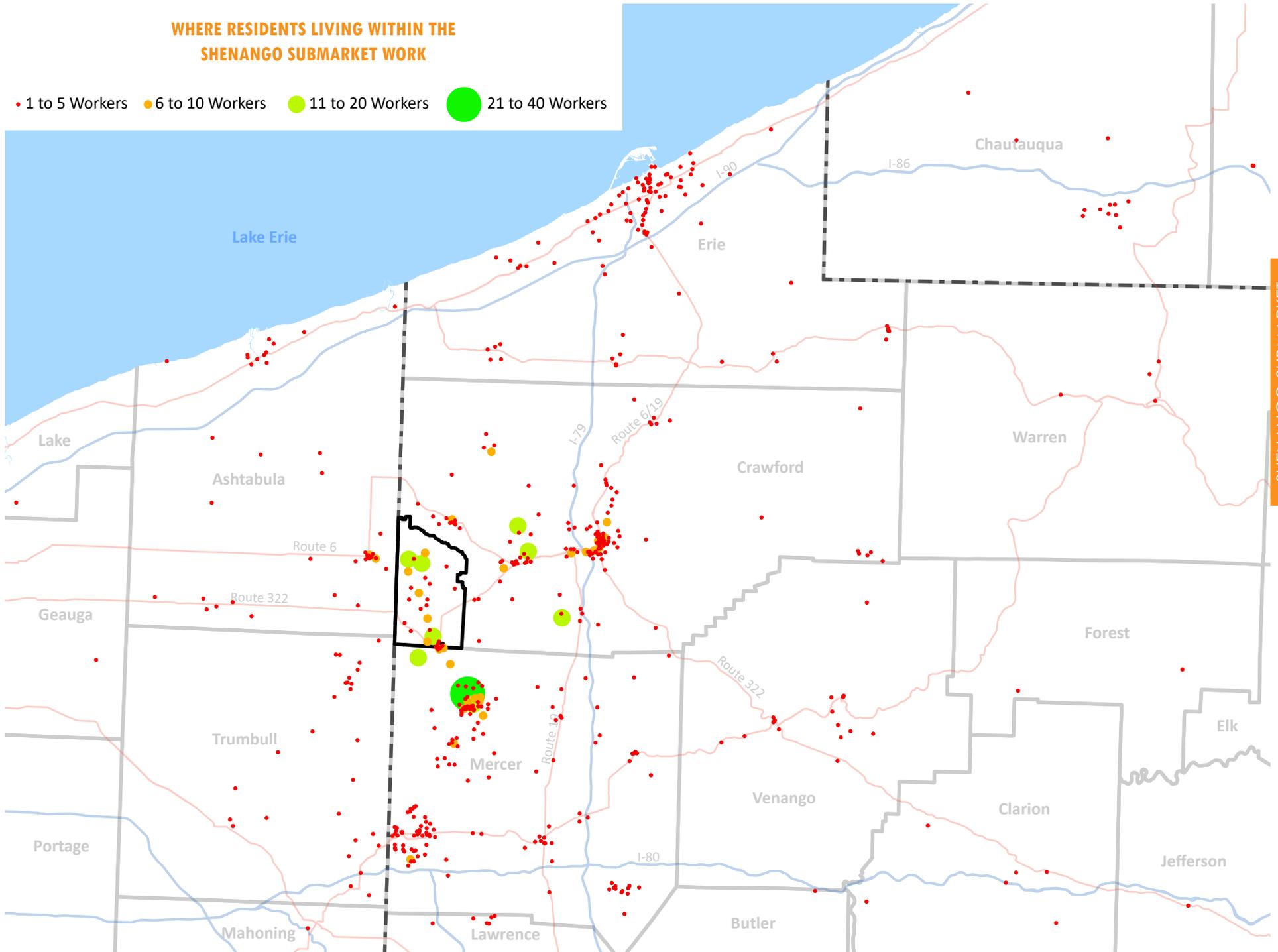
of Shenango Submarket residents work inside **Crawford County**.

of Shenango Submarket residents work outside **Crawford County**.

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

WHERE RESIDENTS LIVING WITHIN THE SHENANGO SUBMARKET WORK

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



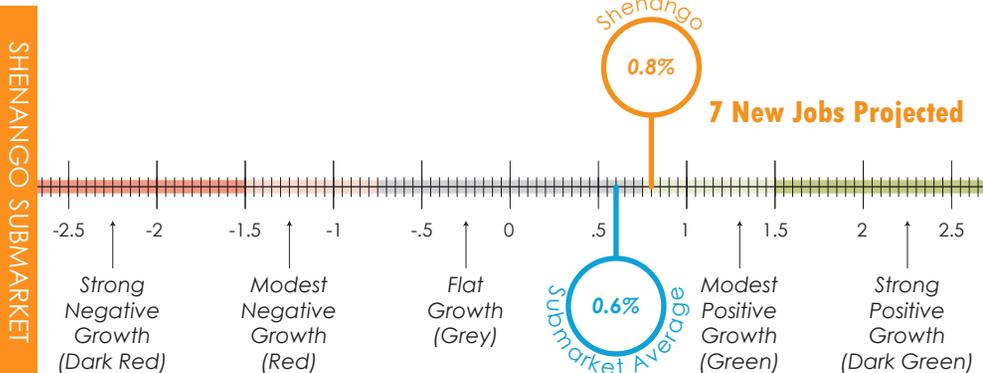
SHENANGO SUBMARKET

JOB GROWTH ANALYSIS:

⚙️ JOB GROWTH —

From the graph below, the Shenango Submarket's 0.8% projected annual job growth rate is just above the submarket average of 0.6% and represents modest growth. Though beneficial, job growth alone likely isn't occurring at a magnitude that could provide workers with enough extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



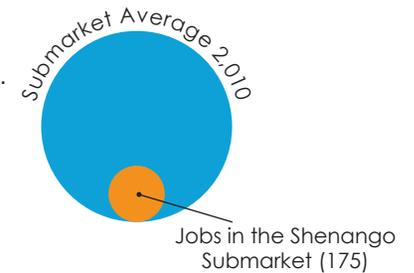
Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

🏠 HOUSEHOLD INCOME CHANGE —

Building upon modest job growth projections, from the graph on the bottom left, household income within the Shenango Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

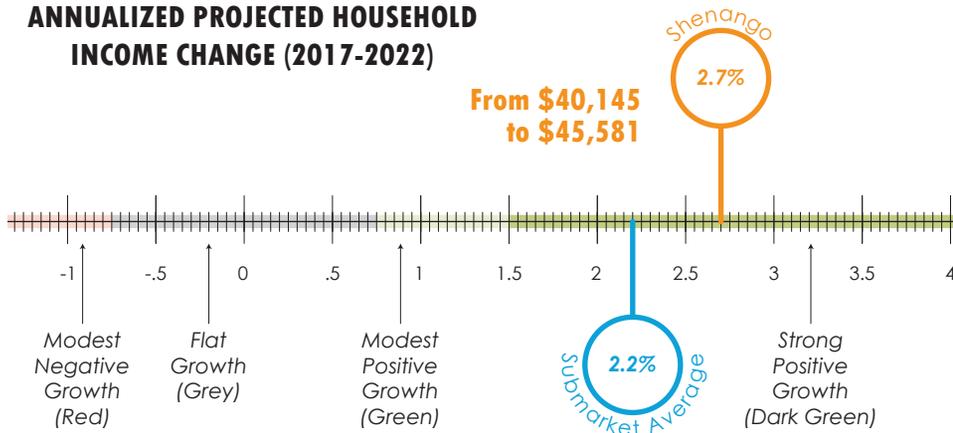
📊 TOTAL JOBS —

To explore the magnitude of the Shenango Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. From the graphic on the right, the Shenango Submarket contains fewer jobs than the submarket average. This finding aligns with our earlier conclusion that the Shenango Submarket is a bedroom community and not a job center. Although jobs within the Submarket provide important opportunities for local residents, the Shenango Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)

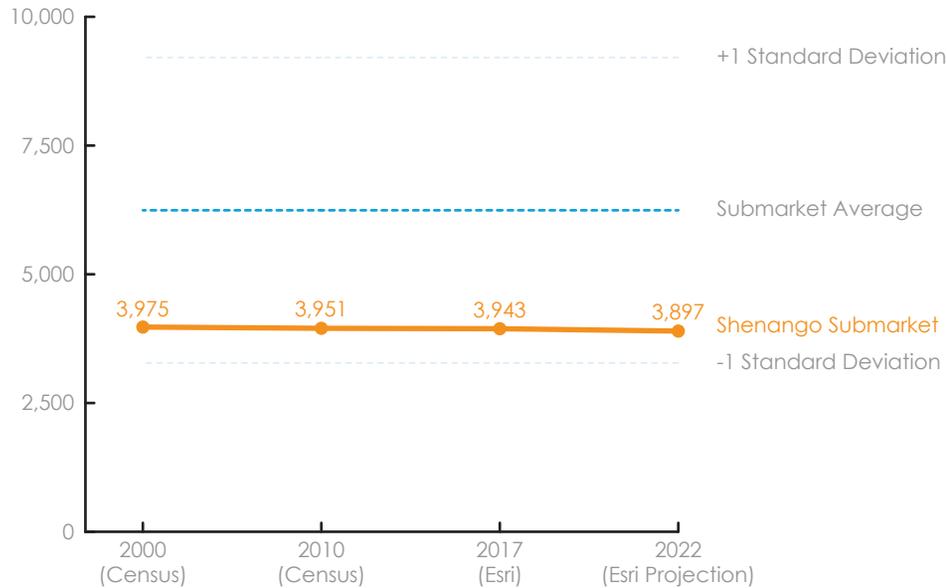


Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

In summary, the Shenango Submarket is projected to experience modest job growth and strong household income growth. Such growth in job opportunities and household income may bolster housing market stability. However, at present, the submarket is more of a bedroom community than a job center and therefore relies significantly on the productivity and growth of its surrounding region.

POPULATION GROWTH ANALYSIS:

SHENANGO SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the Shenango Submarket would directly lead to household formation and increase housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

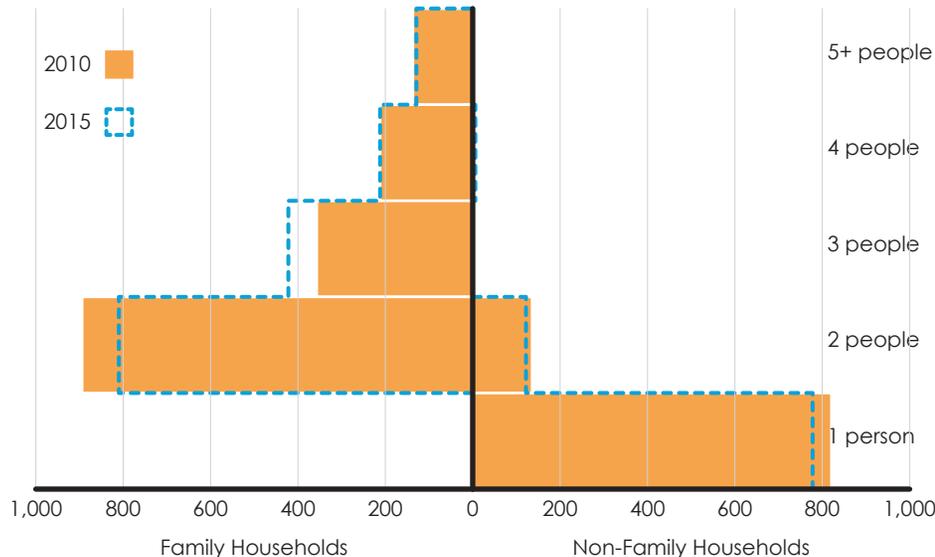
An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, the population of the Shenango Submarket has remained flat since 2000. Stagnant population numbers likely suggest that housing demand is relatively flat.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

SHENANGO SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed, demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Shenango Submarket households by size between 2010 and 2015. One- and two-person non-family households declined slightly during this time frame. Family households composed of two members have declined while those with three members have increased in number. Both four- and five-or-more person family households remained stable in number.

Household formation trends observed within the Shenango Submarket suggest a decline in the internal demand for rental apartments, starter homes, and downsizing units but an increase in the local demand for move-up homes.

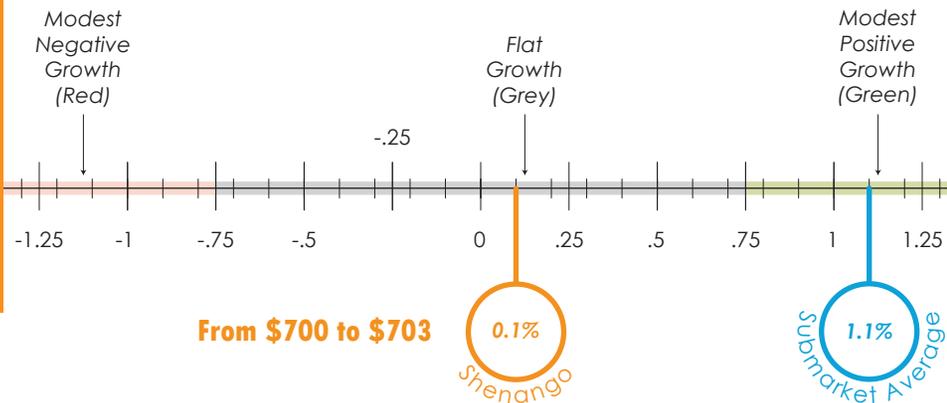
Source: U.S. Census

POPULATION GROWTH ANALYSIS:

🔗 RENT PRICE & HOME VALUE CHANGES —

An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Shenango Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rents have seen flat growth while home values have also grown at a modest rate.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

🏠 RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30% of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost burdened rental households within the Shenango Submarket with comparisons to Crawford County and the submarket average. We see that renter households within the Shenango Submarket are about as cost-burdened overall as the submarket average.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



32% of Shenango Submarket Renters
(74 Households)

41.3% of Crawford County Renters

34.3% Submarket Average

Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

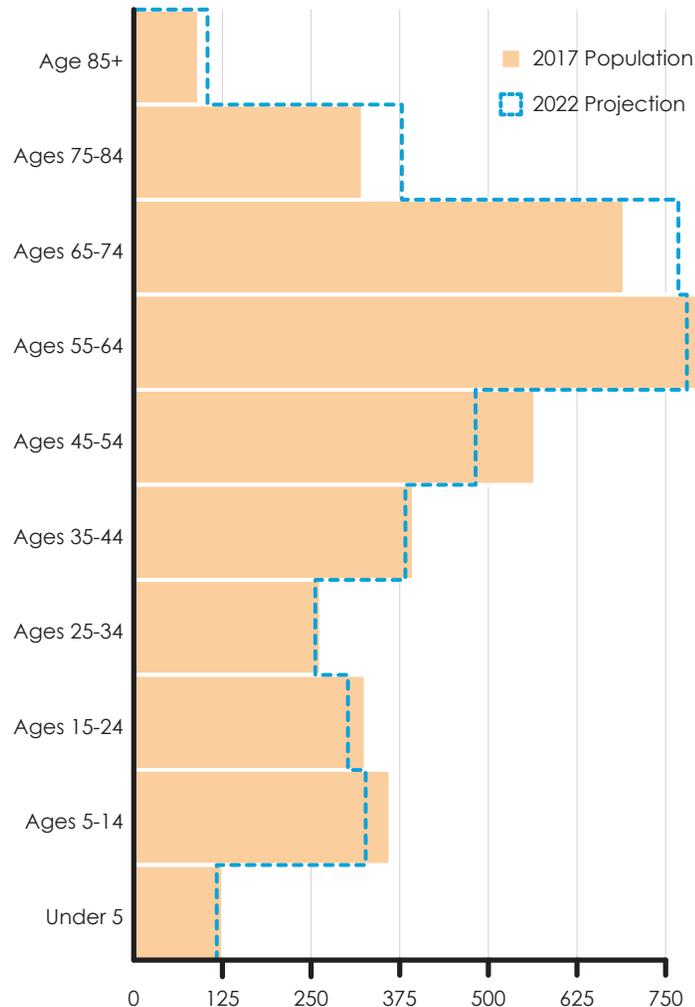
POPULATION TOTAL POPULATION —

The cycling of households between different homes creates some of the housing demand within a community. To attempt to understand this type of housing demand, we established whether the Shenango Submarket represents a population center by comparing its population to the average population living within a Crawford County submarket. From the graphic shown on the right, it is clear that the Shenango Submarket contains less population than even the submarket average. By this standard, the Shenango Submarket is considered a rural population area. Although there must be some housing demand created by the cycling of households between different homes within the community, such demand may not exist at a



Source: Esri, Retrieved 2017

SHENANGO SUBMARKET POPULATION PYRAMID & PROJECTION



Source: Esri, Retrieved 2018

magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. However, the Shenango Submarket does appear to be a popular destination for retirees and those simply looking to own a vacation home. This can be observed through the Submarket’s relatively top heavy population pyramid.

AGE BRACKET COMPOSITION —

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population’s age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional “starter home” housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Shenango Submarket in 2017 with a projection to 2022. Demographic projections within the Shenango Submarket forecast an overall decline in the population of individuals within the youth and working age brackets which comprise people between the ages of 15 and 64. Despite projected declines across the youth and working age brackets, the population of individuals over the age of 65 is forecasted to increase. Population projections within the Shenango Submarket suggest a decline in the demand for rental units, starter homes, and move-up housing while also suggesting an increase in the demand for downsizing homes and senior living accommodations.

POPULATION GROWTH ANALYSIS:

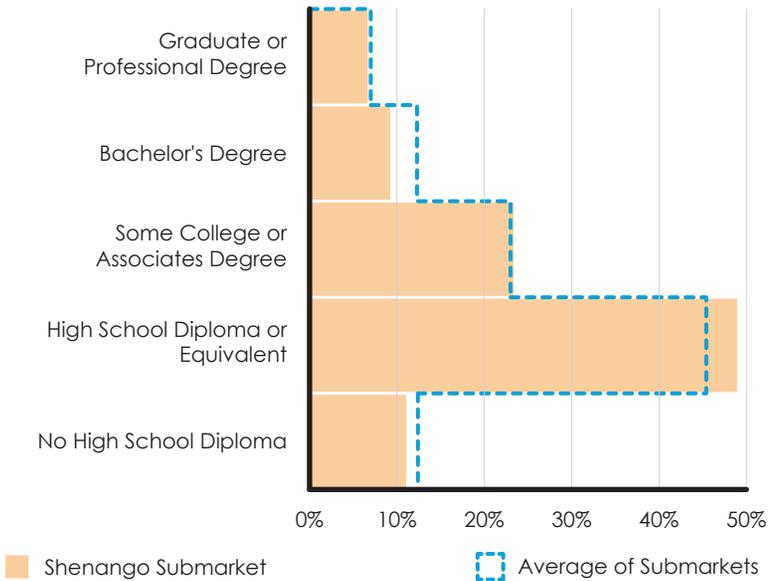
The household formation trends addressed earlier suggest increased local pressure on the market for move-up homes. However, such demand could wane in the future if demographic projections hold true. If such event does occur, the Shenango Submarket might experience an increase in demand for downsizing homes.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Shenango Submarket with a comparison to the submarket average. From this graph, it appears that the Shenango Submarket is slightly less educated than the submarket average specifically in that it contains a smaller overall proportion of individuals holding bachelor's degrees. The Submarket's lower level of educational attainment may make it less economically competitive over the long run.

In summary, the Shenango Submarket is a rural population area and its population has remained stable since 2000. Household formation trends show a decline in the number of non-family households. Two-person family households have declined in number within the Submarket while three-person households have increased with those comprised of four and five-or-more people holding steady. Demographic projections forecast that the population of individuals within the Submarket's youth and working age brackets will decline while its number of senior citizens will increase. Consistent with a decline in the number of non-family households, rent prices have seen flat growth. However, home values have increased at a modest rate during the same time. Renter households within the Shenango Submarket are about as burdened overall by the cost of housing as the submarket average. In terms of educational attainment, the Shenango Submarket is less educated than the submarket average with a lesser overall proportion of adults holding bachelor's degrees.

SHENANGO SUBMARKET EDUCATIONAL ATTAINMENT (2017)



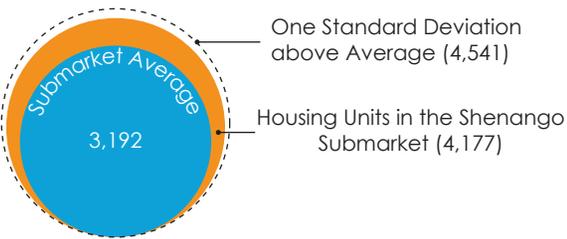
Source: Esri, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph at right presents the housing stock growth rate for the Shenango Submarket. Although within the flat growth range, the Submarket's rate is

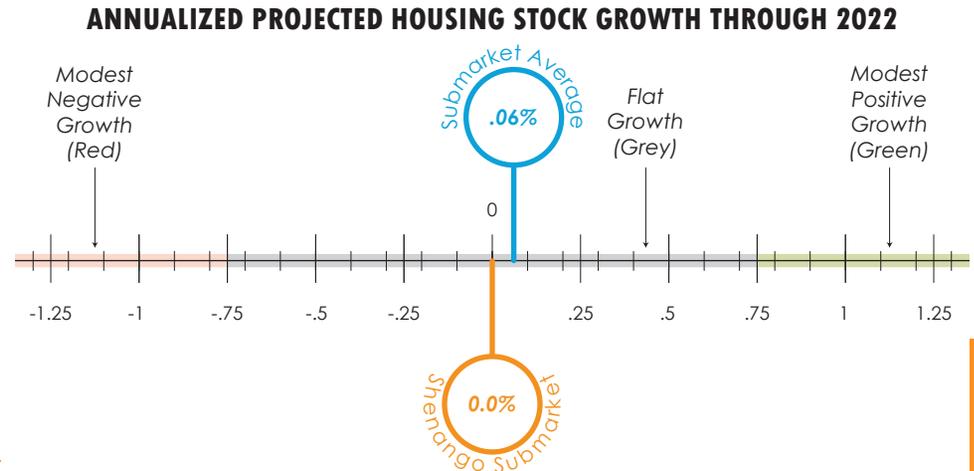


Source: Esri, Retrieved 2018

similar to the submarket average.

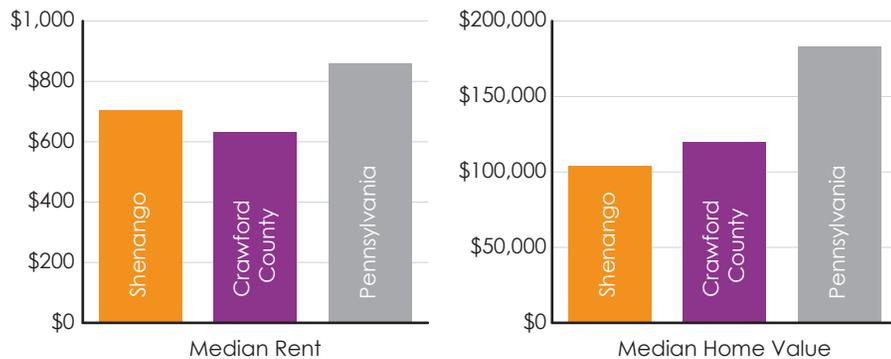
TOTAL HOUSING STOCK —

It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Shenango Submarket's housing stock, we compared the number of housing units located within the Submarket to the average number of housing units within a Crawford County submarket. The standard deviation was applied to measure the average difference from the average number of housing units within a submarket. From the graphic on the left, we see that the Shenango Submarket has more housing units than the submarket average but does not deviate significantly above the average. However, when considering that the Submarket's supply of housing units is significantly greater than the submarket average whereas its population is less than the submarket average, it is apparent that housing development within the Shenango Submarket is not purely



Source: U.S. Census, Retrieved 2018

SHENANGO SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

based on responses to demand resulting from household formation. Though not necessarily speculative in nature, the demand for seasonal homes has driven much of the new housing investment within the Submarket.

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the left, the Shenango Submarket has a median rent price above that for all of Crawford County but below Pennsylvania on the whole. The Shenango Submarket's median home value is below the county's figure and well below Pennsylvania's median. Such figures suggest that rental activity within the Submarket may be more promising than the development of new homes for sale.

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 —

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that less than one-fifth of the Shenango Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. However, the Shenango Submarket does not seem burdened with an over-sized portion of older residences.

SHENANGO SUBMARKET HOUSING UNITS BUILT PRE-1940

13.9%



Homes Built Pre-1940

86.1%



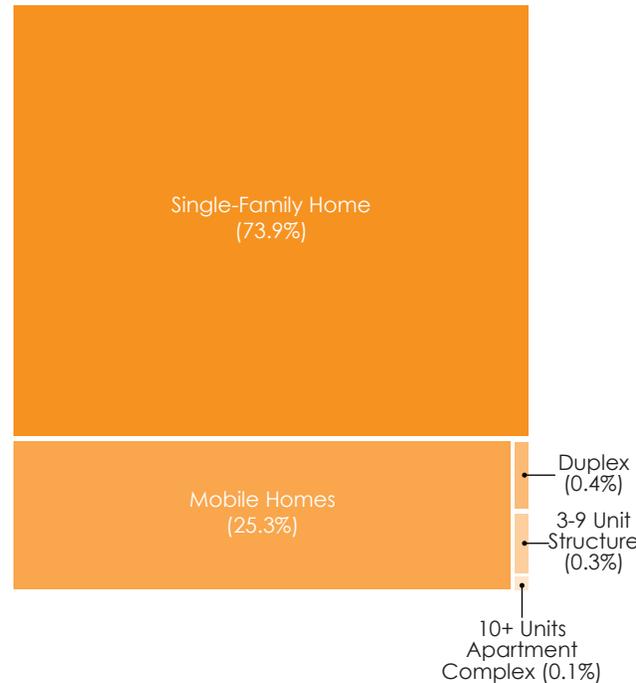
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

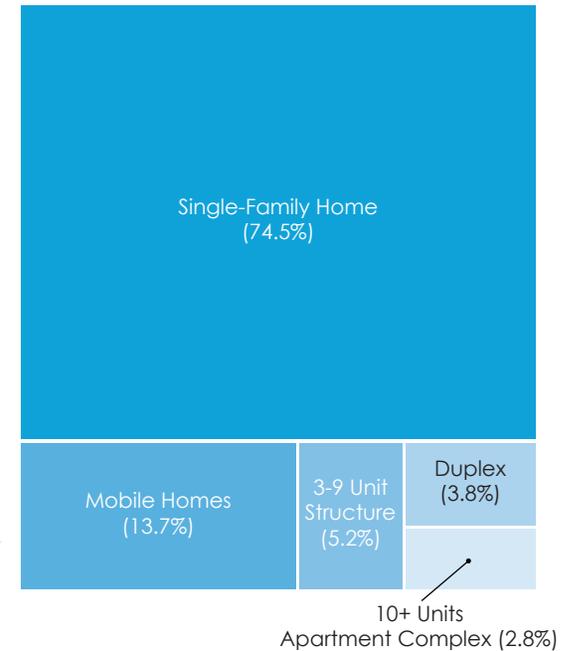
HOUSING BUILDING TYPES —

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Shenango Submarket is somewhat comparable to the submarket average in that single-family and mobile homes dominate its housing building stock. However, the Submarket contains a much larger share of mobile homes than the submarket average. The combination of single-family and mobile homes comprises just over 99% of the Shenango Submarket's housing building stock. Conversely, multi-unit structures constitute a smaller portion of the Submarket's housing building stock than the submarket average.

SHENANGO SUBMARKET



SUBMARKET AVERAGE

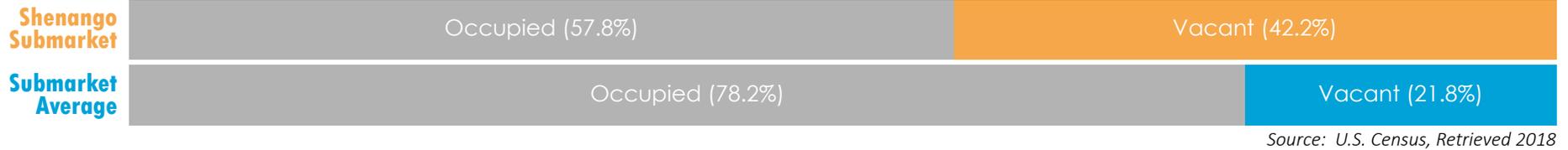


Source: U.S. Census, Retrieved 2018

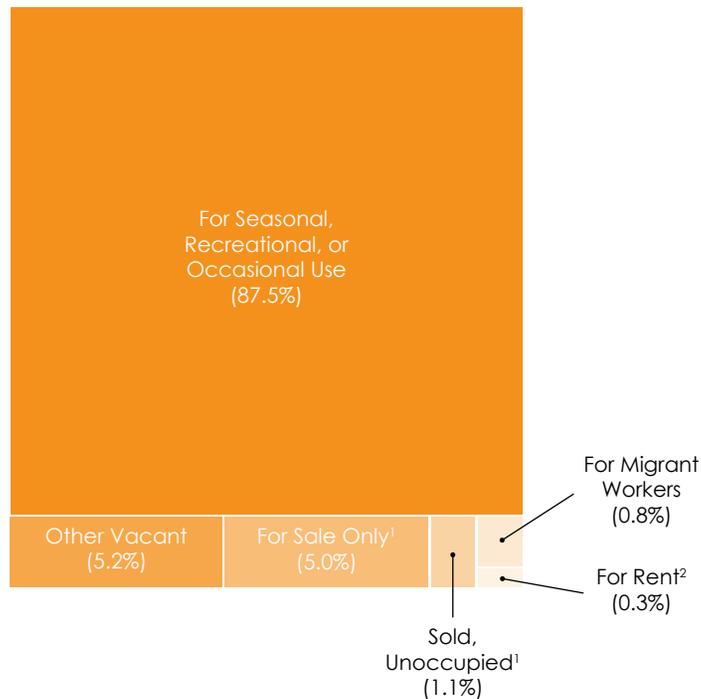
HOUSING STOCK GROWTH ANALYSIS:

🍷 OVERALL VACANCY & VACANCY BY TYPE —

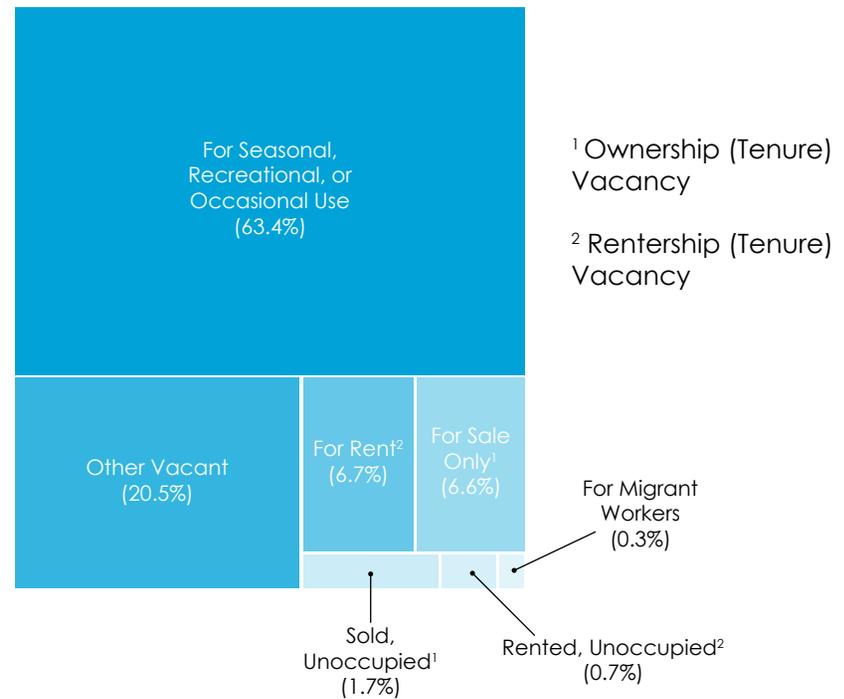
The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Shenango Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. The Shenango Submarket’s vacancy rate is well above the submarket average. However, this startling finding is mitigated by observations of the composition or nature of vacancy within the Submarket. Nearly nine-tenths of all vacancy within the Shenango Submarket can be attributed to housing units used for seasonal, recreational, or occasional use purposes. All other vacancy types within the Shenango Submarket are smaller in proportion when compared against the submarket average. However, with an overall vacancy rate nearly double the submarket average, the Submarket’s proportion of vacant homes listed as “for sale only” may be concerning. Otherwise, vacancy from seasonal, recreational, or occasional reasons is the least concerning type of vacancy, but too much of this vacancy can lead to other non-housing related community concerns.



SHENANGO SUBMARKET



SUBMARKET AVERAGE



¹ Ownership (Tenure) Vacancy
² Rentership (Tenure) Vacancy

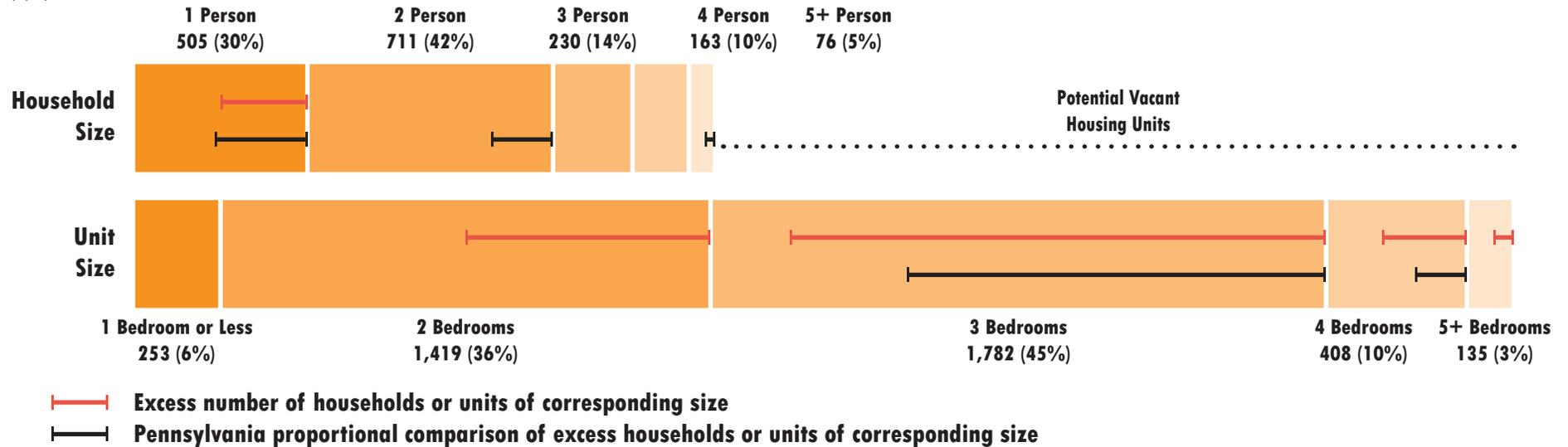
Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Shenango Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket's figures for comparison purposes. The Shenango Submarket exhibits a surplus of homes comprised of all sizes. The mismatch is particularly notable for two- and five-or-more-bedroom housing units as the corresponding proportional statewide mismatch or surplus for units of those sizes is actually on the side of households. For the Shenango Submarket to have a surplus of two- and five-or-more-bedroom housing units is a substantial departure from statewide trends. Such observations are likely attributable to the Submarket's abundant supply of seasonal, recreational, and occasional use homes.

SHENANGO SUBMARKET

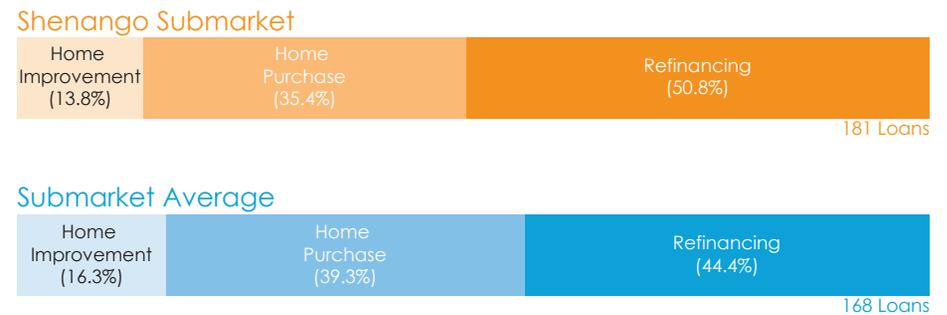


Source: U.S. Census, Retrieved 2018

THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right demonstrate the purpose of loan activity within the Shenango Submarket. From these graphs, it appears that loan activity within the Shenango Submarket has been less investment oriented overall, at least in 2016, than activity reported across the submarket average. This is apparent from showing a larger portion of loans for refinancing activities.

SHENANGO SUBMARKET LOANS BY PURPOSE (2016)



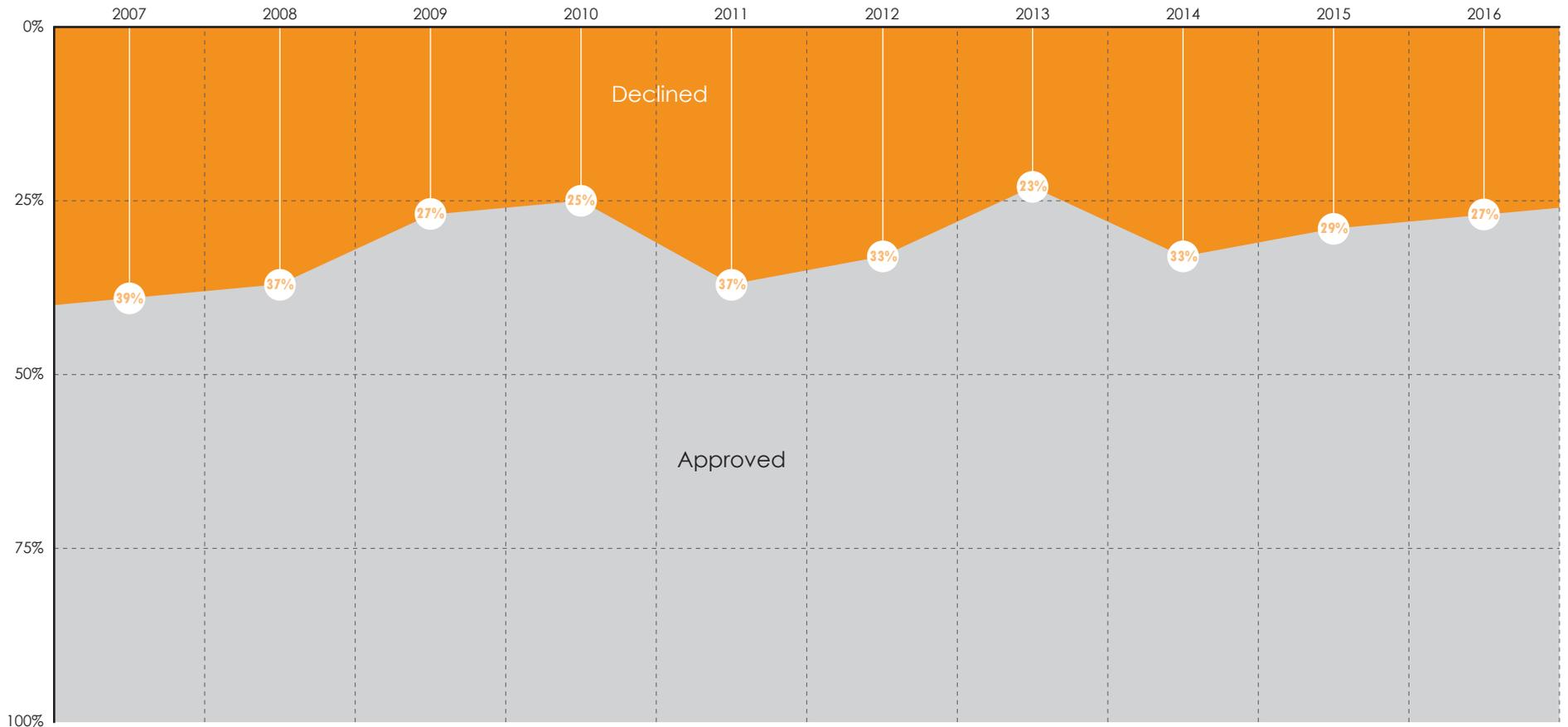
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Shenango Submarket, the rate of declined loans has hovered in the mid-thirties in recent years (see below) and appears to show mild improvement since 2007.

SHENANGO SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Shenango Submarket contains a higher number of housing units than the submarket average despite being a submarket of less than average population. Its housing stock has seen flat growth over recent years. Despite limited construction activity, median rent prices sit comfortably above county-wide figures whereas the Submarket's median home value is noticeably below the county's median. Less than one-fifth of the homes within the Shenango Submarket were built prior to 1940 and a much higher proportion of the Submarket's housing stock is comprised of single-family structures and mobile homes than the submarket average. Even though the Submarket's overall housing vacancy rate is nearly double the submarket average, around 88% of its vacancy is composed of units vacant for seasonal, recreational, or occasional use purposes. Outside of vacancy related to seasonal and occasional uses, homes currently listed for sale only may be concentrated enough within the Submarket to be cause for concern. Comparisons between the composition of households and housing units by size suggests that the Submarket has a surplus of housing units of all sizes. Real-estate loans have been less investment oriented overall with approval rates showing mild improvement since 2007.

OVERALL STATUS OF THE SHENANGO SUBMARKET:

AN ECONOMIC OVERVIEW —

Observations of live-work trends within the Shenango Submarket suggest that most of its residents treat it as a bedroom community. The Submarket's job-to-housing ratio of 0.12, which lies well below the beneficial range, supports this conclusion. This finding can also be observed through commuter trends showing that many of the Submarket's residents travel to locations along the U.S. Highway 322 corridor as well as into Mercer County to reach work. The combination of these live-work, job-to-housing, and commuter trends are consistent with our analysis which showed that the Shenango Submarket is not a job center. This observation is unlikely to change in the near future given projections showing that the Submarket will experience a modest job growth rate. Despite forecasts showing modest job growth on the horizon, household income within the Submarket is projected to see strong growth. Educational attainment figures show that the Submarket is less educated on the whole than the submarket average which suggests that its labor force might present a less competitive environment for attracting certain kinds of employers. Real estate loan activity within the Shenango Submarket has been less investment oriented than the submarket average overall. Recent loan originations have been approved at around a 73% success rate, which has not improved since 2009.

POPULATION TRENDS —

Based on its number of residents, the Shenango Submarket is a rural population area. The Submarket's population has held stable since 2000, leaving much of its housing demand to the cycling of existing residents. However, the Shenango Submarket's ability to attract vacation or recreational home dwellers must be recognized. Household formation trends show a decline in the number of one- and two-person non-family households. For family households, those comprised of two people have declined in number while those with three people have increased with four- and five-or-more-person households remaining stable. Demographic projections forecast an overall decline in the population of individuals comprising the youth and working age brackets while the number of senior citizens within the Submarket is projected to increase. The combination of these trends potentially indicates that demand for downsizing homes could rise in the near future. Additionally, growth in the number of three-person family households suggests an increase in the demand for move-up housing despite demographic projections suggesting a drop in the population that usually participates in that consumer segment.

THE HOUSING MARKET GENERALLY —

The Shenango Submarket has a greater concentration of housing development than the submarket average even though recent projections forecast that the Submarket's housing stock will not grow considerably in the coming years.

Consistent with the observation that non-family households have declined in number, rent prices within the Shenango Submarket have remained flat but its median rent price still sits comfortably above that observed for the county. Flat rent price growth may provide relief for some renter households since the Submarket's overall renter cost-burdened rate is similar to the submarket average, which is relatively high. Despite stagnant overall family household formation trends, home values have experienced modest growth, yet median home prices within the Submarket sit below the county's figure.

Consumers of housing within the Shenango Submarket will benefit from a relatively new housing stock which is particularly a good sign when considering that the Submarket's senior age population is projected to increase. For non-renter households, consumers will benefit from an abundance of single-family structures and mobile homes, which are proportionally more plentiful in the Submarket than the submarket average. The Shenango Submarket housing stock exhibits an overall vacancy rate well above the submarket average, however, this observation is primarily due to its concentration of seasonal housing and doesn't present considerable alarm as a result. When examining how well the size of the Submarket's composition of housing units by size meets the needs of its households, the Shenango Submarket appears to have an adequate supply of one-bedroom units but a surplus of all units that are two-bedrooms or larger.

THE SHENANGO SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Shenango Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Shenango Submarket, the conditions and trends explored within this chapter are examined at the level of each consumer segment which constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET —

The Shenango Submarket's new household market will likely be negatively impacted by household formation trends which show a decline in the overall number of non-family households. This trend is accompanied by demographic projections which forecast a slight decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggests that the consumer demand within the new household housing market is in decline.

Projections that forecast that household income will increase at a strong rate provide a sign of stability for the new household market. Comparisons between the composition of households and housing units by size suggest that the Shenango Submarket has a surplus of both one- and two-bedroom housing units, which often accommodate the needs of consumers within the new household market. However, the Shenango Submarket contains a lesser share of multi-unit housing structures when compared to the submarket average. The lack of multi-unit housing structures may place stress on the Submarket's new household market as such buildings are often more accommodating to the needs of those participating within this consumer segment.

Although median rent prices are above those observed county-wide, rent price growth has been flat. It is possible that stagnant consumer demand paired with an oversupply of housing units could be placing downward pressure on rent prices. Despite flat rent price growth, the Submarket's overall rate of cost-burdened renter households is near the relatively high submarket average which suggests that many renters are struggling to afford housing. Such observation provides a sign of instability within the Submarket's new household marketplace.

Overall, the Shenango Submarket's new household market is considered inadequate largely due to a combination of household formation trends and demographic projections suggesting a decline in consumer demand. Additionally, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is also considered inadequate because of the Submarket's relative high rate of cost-burdened renter households.

STARTER HOME & DOWNSIZING MARKETS —

The Shenango Submarket's starter and downsizing markets will likely be negatively impacted by household formation trends that show a decrease in the overall number of two-person family households. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 is problematic for the starter home market as these residents are mostly likely to participate in this consumer segment. However, an increase in the population of those over age 65 is a good sign for consumer demand in the downsizing market.

The healthy composition of single-family homes within the Shenango Submarket will benefit both the starter and downsizing markets since participants in these consumer segments are often in the market for this type of home. However, many senior couples looking to downsize may find accessible multi-unit structures attractive of which the Submarket has few. Comparisons between the composition of households and housing units by size suggests that the Submarket has an abundance of two- and three-bedroom homes, which will likely support the needs of most consumers within the starter and downsizing market segments.

THE SHENANGO SUBMARKET'S HOUSING ECOSYSTEM:

Projections which forecast that household income will increase at a strong rate provides a sign for consumer stability within both the starter and downsizing markets. Less assuring for landlords, the Submarket's median home value continues to rest below the county's figure despite trends showing modest appreciation over recent years. However, strong household income growth projections have not shifted real-estate loan activity in a more investment-oriented direction.

Overall, the Shenango Submarket's starter home market is considered inadequate largely due to household formation trends and demographic projections that show a decline in the number of two-person family households. Despite observations which suggest a decline in demand for starter homes, the significant concentration of seasonal homes within the Submarket may indicate that many homeowners are capable of marketing their property as a seasonal residence. This potential opportunity may make the difference for many households and the ability to transition out of the starter home consumer segment is considered adequate as a result. Household formation trends also suggest a decline in the demand for downsizing homes. However, this could turn around in the future if demographic projections hold true. For now, the Submarket's downsizing market segment is inadequate, but the ability to transition from this segment and into a senior living accommodation is adequate in large part because of the versatility of the Submarket's housing stock in catering to vacation home buyers.

MOVE-UP MARKET —

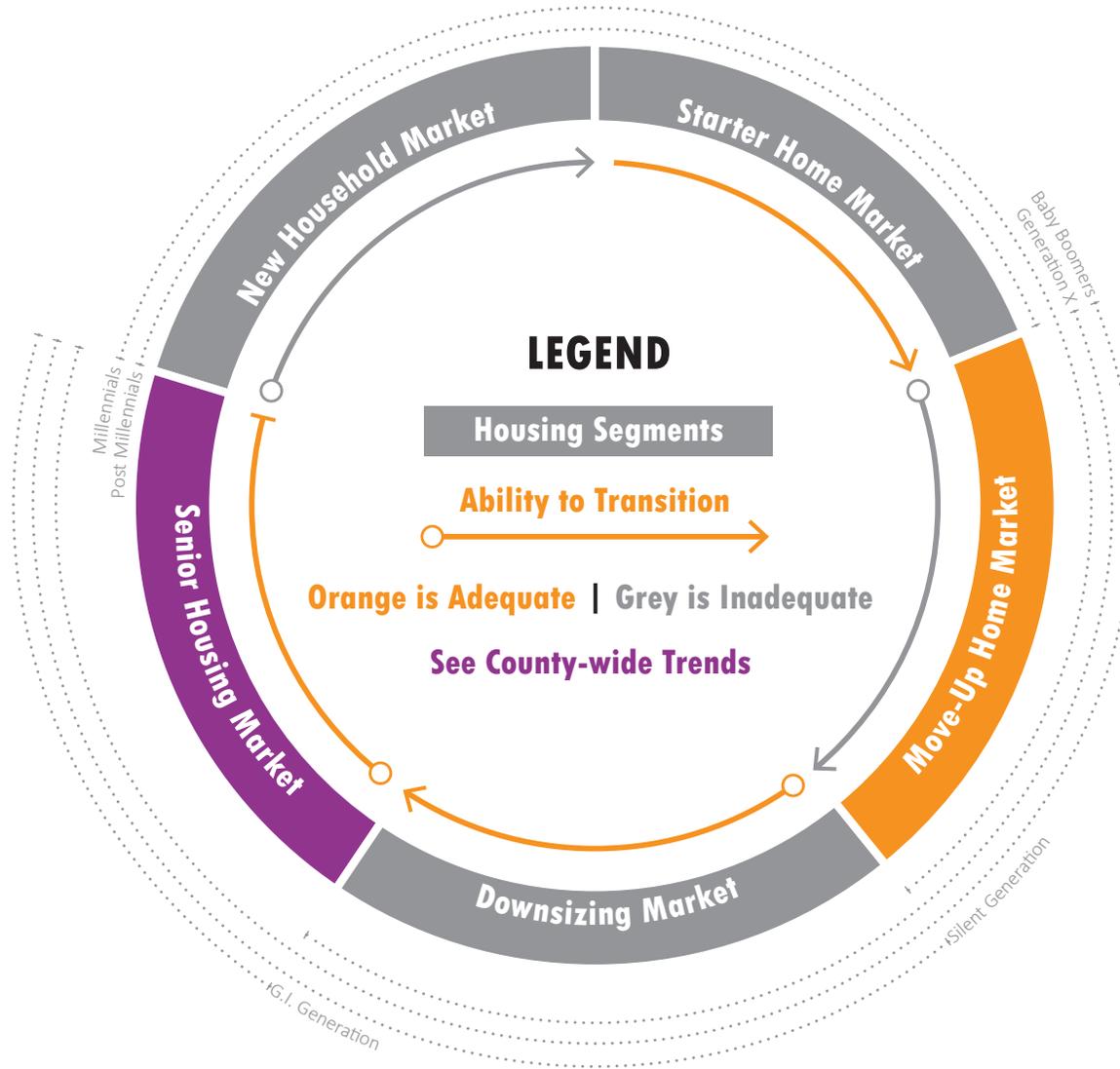
The move-up housing market within the Shenango Submarket will likely be positively impacted by household formation trends which show an increase in the overall number of family households comprised of at least three members. However, this trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range is problematic for the move-up market as these residents are mostly likely to participate in this consumer segment. For now, household formation trends suggest that the demand for move-up housing will increase. However, such demand could wane if population projections hold true.

Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by projections showing strong increases in both household income and home value appreciation. However, median home values within the Shenango Submarket sit below county-wide figures. When considering that the Submarket's overall vacancy rate is nearly double the submarket average, it appears to have a higher proportion of vacant homes that are currently for sale when factoring out seasonal vacancy. Such observation may be a sign of sluggish home sales within the Submarket. This potential finding is consistent with loan origination activity with the Shenango Submarket which has been less investment oriented. In terms of housing stock suitability, comparisons between the composition of households and housing units by size suggests that the Submarket has an abundance of homes containing at least three bedrooms, which will likely support the needs of most consumers within the move-up market segment.

Overall, the Shenango Submarket's move-up market is considered adequate largely due to a combination of household formation trends which suggest an increase in consumer demand. However, signs of sluggish home sales, relatively low median home values, and demographic projections which show a decline in the working age population all suggest that the ability of a household currently participating in the move-up market to transition into the downsizing segment may be inhibited and therefore inadequate.

SENIOR HOUSING MARKET — Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

THE SHENANGO SUBMARKET'S HOUSING ECOSYSTEM:



THE SPRINGBORO-CONNEAUTVILLE SUBMARKET

Squaring off the northwestern corner of Crawford County, the Springboro-Conneautville Submarket includes the five municipalities of Beaver, Spring, and Summerhill townships along with Springboro and Conneautville boroughs. The Springboro-Conneautville Submarket is adjacent to the Linesville, Conneaut Lake, Saegertown, and Cambridge Springs submarkets within Crawford County and borders Erie County as well as Ashtabula County in the State of Ohio.

A HOUSING ECOSYSTEM ANALYSIS OF THE SPRINGBORO-CONNEAUTVILLE SUBMARKET (FOR A VISUALIZATION OF THE TEXT BELOW, SEE PAGE 10) –

We have placed the factors that determine a housing market’s characteristics into three categories: drivers, influencers, and indicators. Analyzing the trends and statistics related to these characteristics can guide local communities towards those housing interventions and strategies that make the most sense for them.

Drivers are those forces that directly propel the need for housing units or development. Drivers are designated by this icon (⚡). Our analysis identifies three major drivers: job growth, population growth, and housing stock growth. The pushing and pulling of these driving forces with each other creates the broad model of the housing market. To simplify, job opportunities attract people to an area, and in reverse, a population already in place may help attract employers. The housing stock of an area is the physical result of these population and economic trends and also drives them in turn, since its attractiveness and contribution to quality of life may attract people, or if in poor condition or unable to meet their needs, may repel them. We can collect the results of these broad forces into broad outcomes, designated by this icon (📊), namely total jobs, total population, and total housing stock.

Within this model, influencers are more specific, measurable aspects of the housing market that reflect these driving forces and, in response, may make an impact elsewhere in the market. Influencers have this icon (🔗). For instance, the influencer “Household Income Change” may be a response to a change in the wages offered from area jobs; in turn, this change in income may influence the choice of the homeowner to make renovations or move to a better home, which impacts the housing stock. We have identified eight influencers. Within Job Growth is the influencer “Household Income Change;” within Population Growth are “Home Value Change,” “Rent Change,” “Household Formation,” “Education,” and “Demographics;” and within Housing Stock Growth are “Building Type” and “Housing Units Built Pre-1940.”

Indicators are metrics useful for providing further insight but are not assumed to produce wider impacts on their own. Indicators have this icon (🍷). These indicators generally gauge how well parts of the market are responding to each other or how people are being accommodated by the housing market. For instance, the indicator “Household Size vs. Unit Size” gauges whether available homes are too big or too small for the families that would occupy them, which indicates inefficiencies that may be harming the community. Useful indicators we have identified are “Vacancy Type,” “Vacancy Tenure,” “Median Home Value,” “Median Rent,” “Household Size vs. Unit Size,” “Loan Approval Rates,” and “Loan Purposes.”

Our analysis of the Springboro-Conneautville Submarket is based on the premise that a healthy housing marketplace consists of an environment where households have access to adequate housing and maintain the ability to willingly transition between housing segments in order to meet their needs. The terms “new household market,” “starter home market,” “move-up home market,” “downsizing market,” and “senior housing market” are used to define the stages of housing consumption that exist within a healthy housing market ecosystem. Since these terms are used frequently, please refer to the “glossary of terms” in the appendix for a definition of each.

A second premise built into our analysis is that positive growth in terms of jobs, housing units, population, incomes and other characteristics is necessary to sustain a housing market. Not all communities within submarkets may desire to take on significant development. The assumptions inherent within our analysis should be taken into consideration by municipalities when setting their local objectives and strategies.

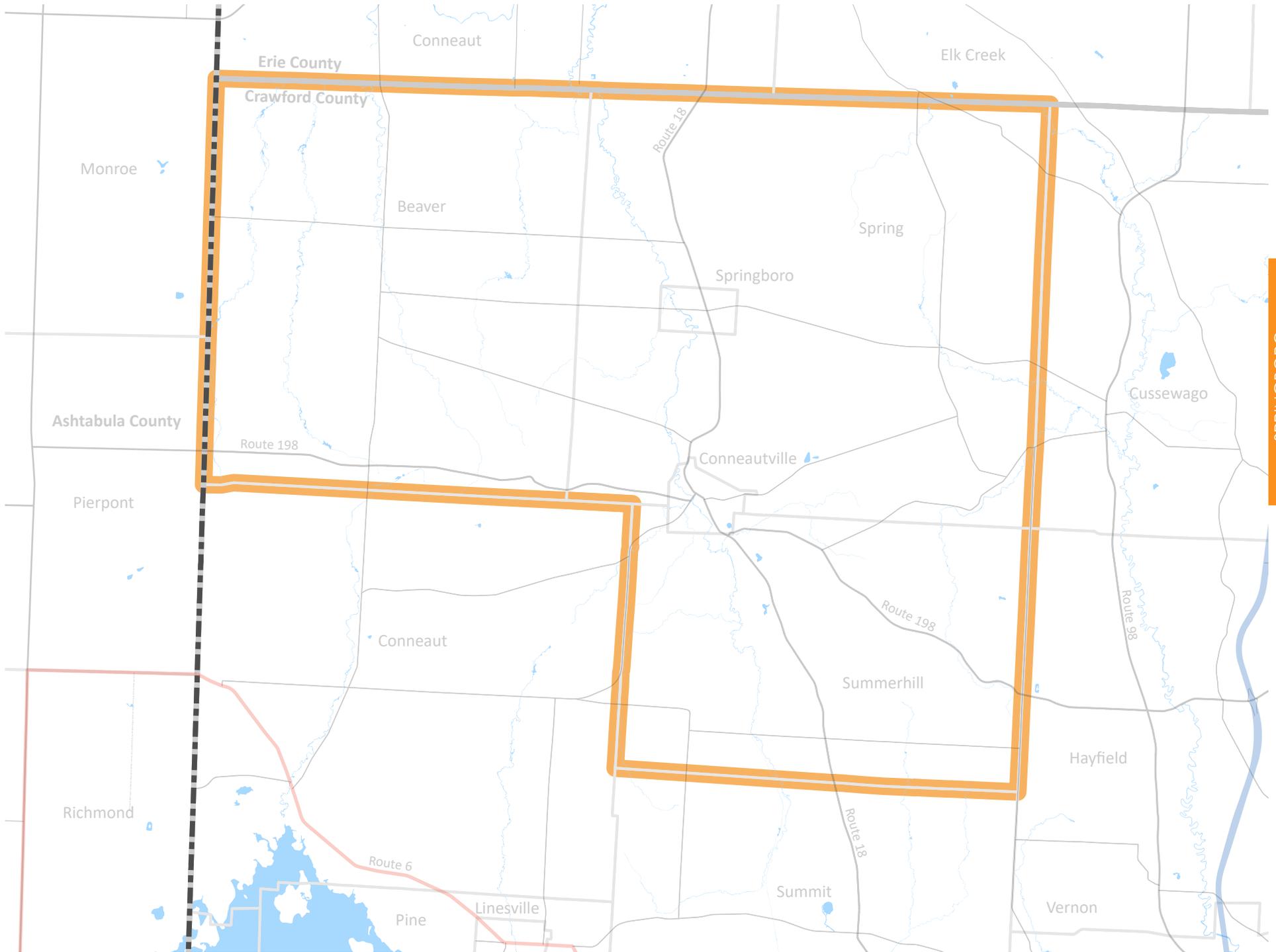
- Interstate Highways
 - U.S. Routes
 - State Routes Class 1
 - State Routes Class 2
 - Water
 - Municipal Boundaries
- 

Reference Scale - 1:100,000

0 1 2
Miles



Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau



SPRINGBORO-
CONNEAUTVILLE SUBMARKET

JOB GROWTH ANALYSIS:

This section explores job growth as a driver and relationships between its influencers, leading to the outcome of total jobs. Before exploring job growth trends, this section provides a study of the live-work trends of residents living within the Springboro-Conneautville Submarket.

LIVE-WORK TRENDS OF RESIDENTS LIVING WITHIN THE SPRINGBORO-CONNEAUTVILLE SUBMARKET —

The map on the next page uses dots to represent where residents living within the Springboro-Conneautville Submarket work. From this map, common employment areas for Submarket residents are widely distributed with significant concentrations working in the Meadville area, around Erie, and even inside the Submarket around Springboro and Conneautville boroughs. Based on analysis from 4ward Planning, a strong concentration of employment opportunities within a submarket is crucial for producing an adequate job-to-housing ratio. A job-to-housing ratio between 0.75 and 1.5 is beneficial for potentially reducing vehicle miles traveled, which in turn promotes housing market stability since a portion of long distance commuters tend to move out of the submarket and closer to their job. The Springboro-Conneautville Submarket produces a job-to-housing ratio of 0.58, which lies below the beneficial range and potentially indicates housing market instability.

The radar graph on the bottom left displays the distance and direction of where Springboro-Conneautville Submarket residents work. The dark orange wedges demonstrate those commuting less than ten miles to reach work, however, most residents commute further to reach their jobs. Live-work observations within the Springboro-Conneautville Submarket demonstrate that although it does contain a healthy share of employment opportunities many of its workers are employed outside the Submarket. A break down of such commuter trends is presented on the bottom right.

-  Interstate Highways
-  U.S. Routes
-  County Boundaries
-  State Boundaries

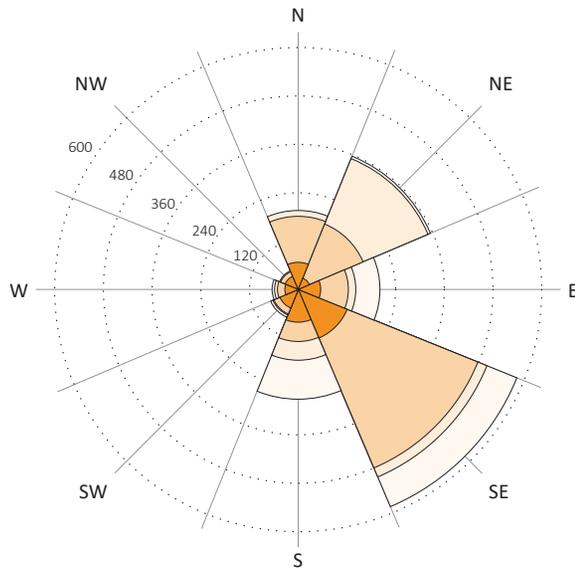


Reference Scale - 1:750,000

0 10 20 Miles

Source: Created by the Crawford County Planning Office with data from the U.S. Census Bureau

WHERE SPRINGBORO/CONNEAUTVILLE SUBMARKET RESIDENTS WORK



-  Less than 10 Miles
-  10 - 24 Miles
-  25 - 50 Miles
-  50 + Miles

Source: U.S. Census Bureau Center for Economic Studies - Local Employment Dynamics Partnership

17.5%

of Springboro-Conneautville Submarket residents work at a location **inside the submarket**.

50.6%

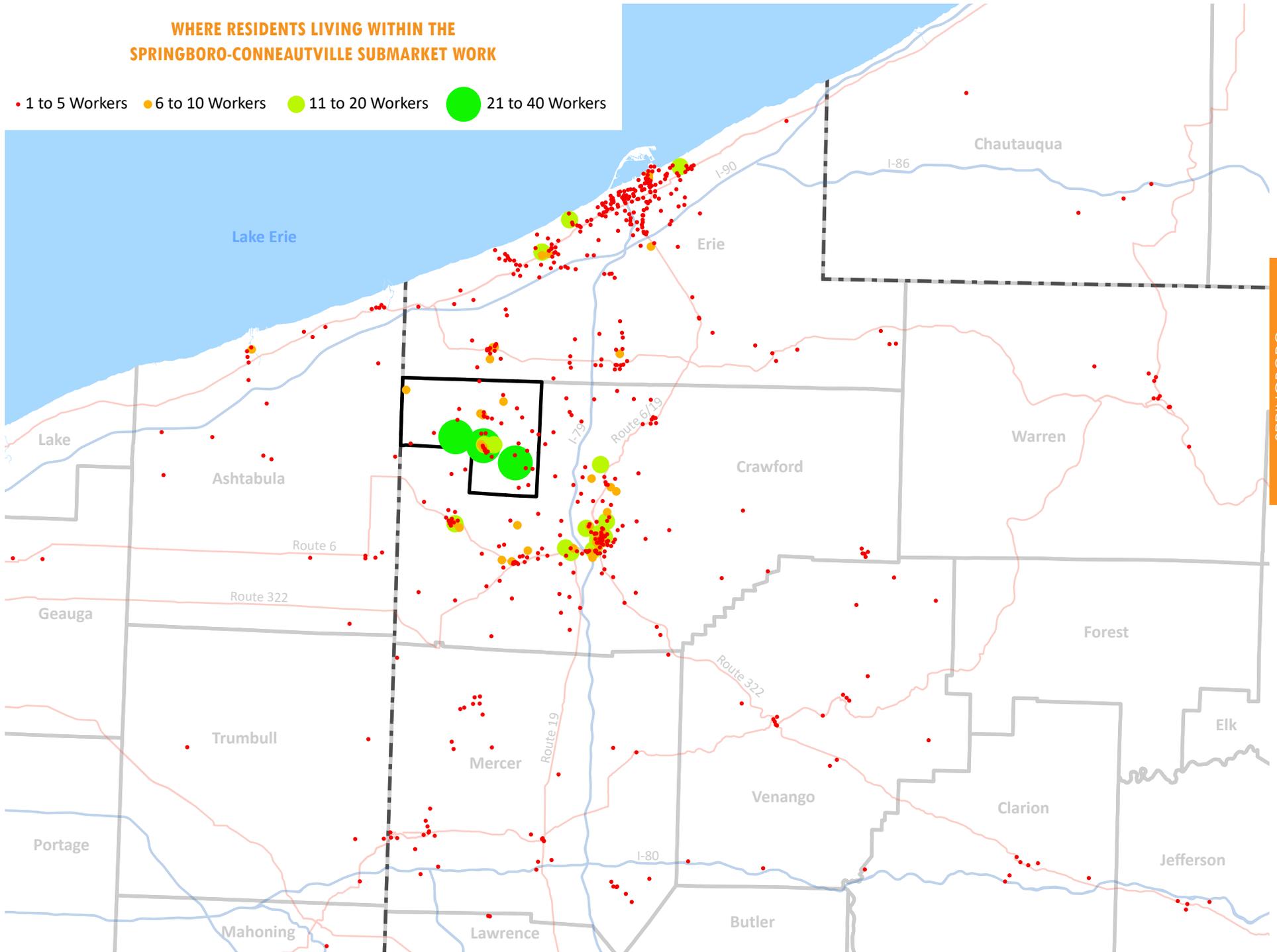
of Springboro-Conneautville Submarket residents work inside **Crawford County**.

49.4%

of Springboro-Conneautville Submarket residents work outside **Crawford County**.

WHERE RESIDENTS LIVING WITHIN THE SPRINGBORO-CONNEAUTVILLE SUBMARKET WORK

- 1 to 5 Workers
- 6 to 10 Workers
- 11 to 20 Workers
- 21 to 40 Workers



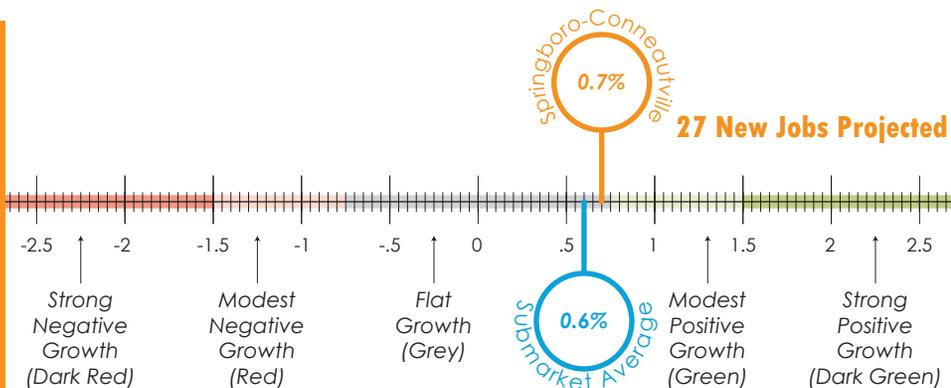
SPRINGBORO-
CONNEAUTVILLE SUBMARKET

JOB GROWTH ANALYSIS:

☀️ JOB GROWTH —

From the graph below, the Springboro-Conneautville Submarket's 0.7% annual job growth rate is similar to the submarket average of 0.6% and lies within the "flat growth" range. Recognizing this, it is unlikely that projected job growth within the Submarket will provide workers the extra employment options which can be leveraged to encourage an increase in wages.

ANNUALIZED PROJECTED JOB GROWTH RATE (2017-2022)



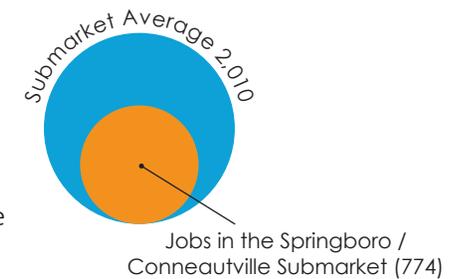
Source: Esri; PA CWIA; 4ward Planning, Inc., Retrieved 2018

👤 HOUSEHOLD INCOME CHANGE —

Despite flat job growth projections, from the graph on the bottom left, household income within the Springboro-Conneautville Submarket is projected to grow at a strong rate. An increase in household income will bolster the stability of existing households while opening up housing opportunities for those seeking new accommodations.

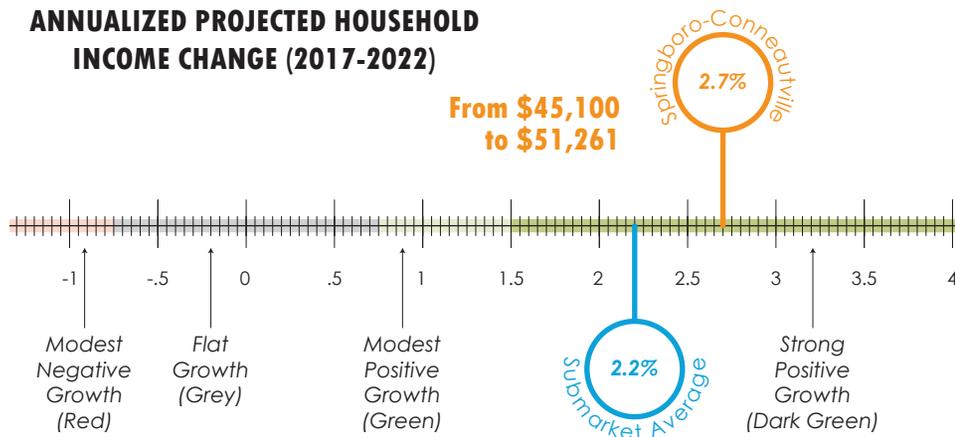
📊 TOTAL JOBS —

To explore the magnitude of the Springboro-Conneautville Submarket's employment base, we compared the number of jobs inside the submarket to the average number of jobs located within a Crawford County submarket. From the graphic on the right, the Springboro-Conneautville Submarket contains fewer jobs than the submarket average. This finding aligns with our earlier conclusion that the Springboro-Conneautville Submarket is a bedroom community and not a job center. Although jobs within the Submarket provide important opportunities for local residents, the Springboro-Conneautville Submarket is currently more reliant on the growth and stability of nearby job centers.



Source: U.S. Census 2011-2015 ACS

ANNUALIZED PROJECTED HOUSEHOLD INCOME CHANGE (2017-2022)

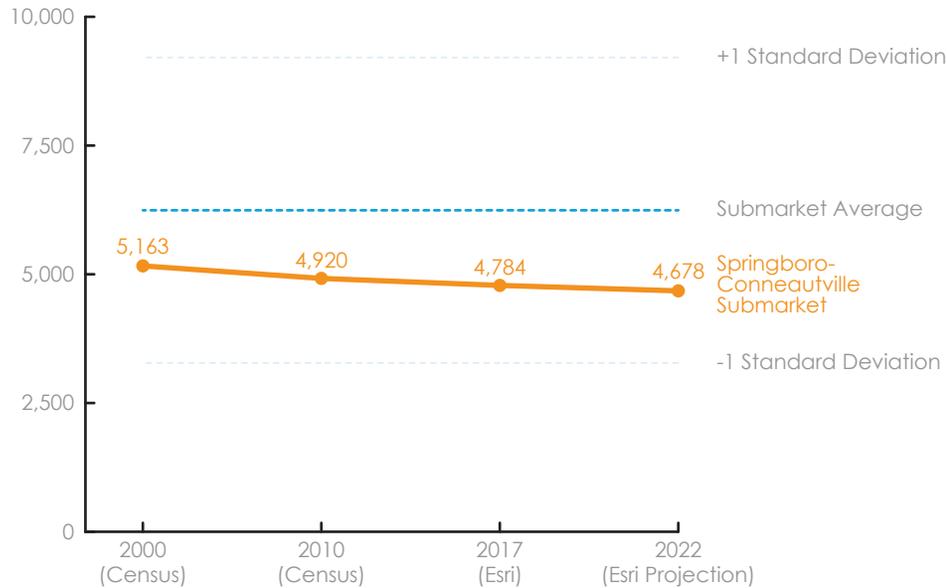


Source: 2010 ACS 5-Year Estimates; BLS., Esri, Retrieved 2018

In summary, although the Springboro-Conneautville Submarket is projected to have a flat job growth rate, it is expected to experience strong household income growth. Such growth in household income may bolster housing market stability. However, at present, the Submarket is more of a bedroom community than a job center and therefore relies significantly on the productivity and growth of its surrounding region.

POPULATION GROWTH ANALYSIS:

SPRINGBORO-CONNEDAUTVILLE SUBMARKET POPULATION GROWTH



This section explores population growth as a driver and relationships between its influencers leading to a submarket's total population. Population growth within the Springboro-Conneautville Submarket would directly lead to household formation and increase housing demand. Stagnant population growth may make it more difficult for homeowners to sell their homes when transitioning into other housing segments.

POPULATION GROWTH —

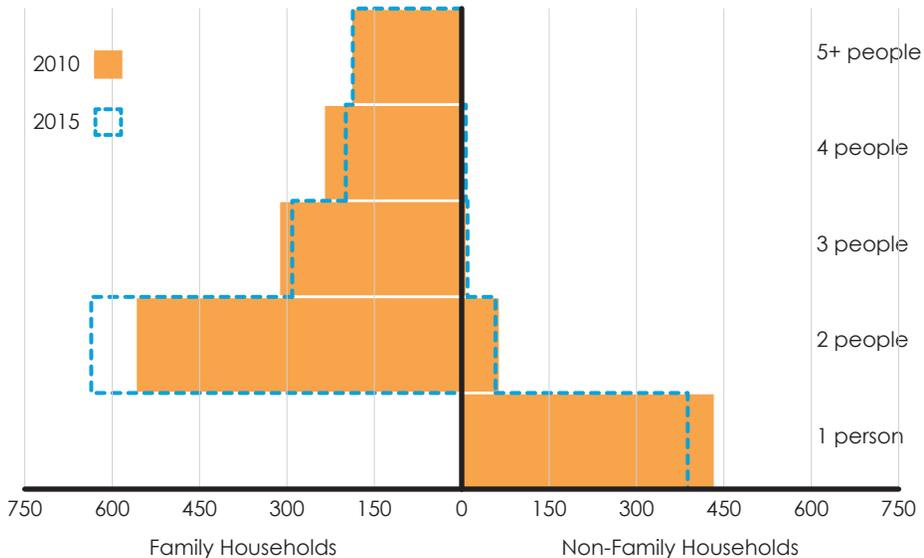
An increase in population will increase the local demand for housing. As demonstrated within the graph on the left, the population of the Springboro-Conneautville Submarket has declined since 2000. This decline suggests that population growth is not driving the demand for housing within the Submarket.

HOUSEHOLD FORMATION —

According to the U.S. Department of Housing and Urban Development, a household is:

all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household.

SPRINGBORO-CONNEDAUTVILLE SUBMARKET HOUSEHOLD FORMATION TRENDS



A household must comprise at least one person in a dwelling unit. It is almost impossible to experience population growth without seeing an increase in the number of households within a community. As more households are formed, demand for housing units increases as individuals, couples, families, and roomers seek living accommodations. The graph on the left demonstrates the composition of Springboro-Conneautville Submarket households by size between 2010 and 2015. Non-family households declined in number overall, with a particularly notable drop in those comprised of a single individual. Family households composed of two people increased significantly while those with three or four members declined and those containing five or more people held steady.

The Submarket's households formation trends suggest a decline in the local demand for rental units and move-up housing but an increase in the demand for both starter and downsizing homes.

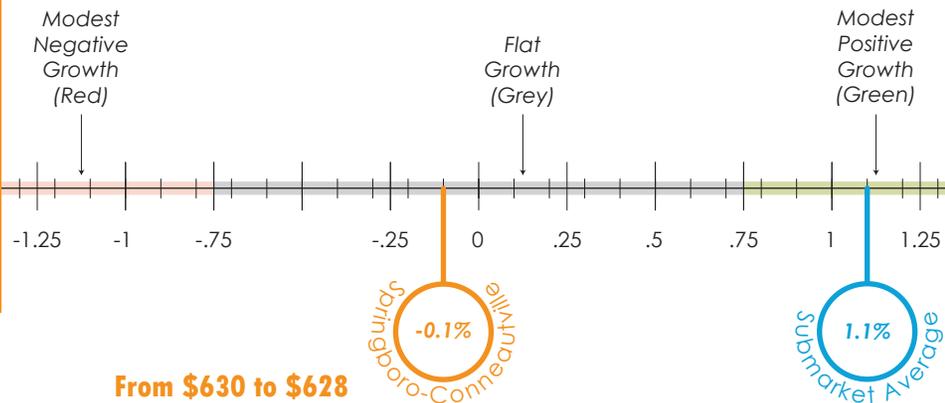
Source: U.S. Census

POPULATION GROWTH ANALYSIS:

RENT PRICE & HOME VALUE CHANGES —

An increase in median rents or home values may delay individuals from forming new households and thus ease housing demand. Conversely, declines in these values may encourage household formation as the ability to move into your own unit becomes more attainable. The line graphs below demonstrate how the Springboro-Conneautville Submarket's median rent prices and median home values have changed compared to the corresponding submarket averages. Rents have been flat while home values have seen strong growth.

ANNUALIZED RENT CHANGE (2010-2016)



Source: U.S. Census

ANNUALIZED HOME VALUE CHANGE (2010-2017)



Source: U.S. Census (inflation adjusted)

RENTAL COST BURDEN —

Rental cost burden or “affordability” is an important indicator of how household income and median rent prices interact. The U.S. Department of Housing and Urban Development defines affordable housing as:

In general, housing for which the occupant(s) is/are paying no more than 30 percent of his or her income for gross housing costs, including utilities. Please note that some jurisdictions may define affordable housing based on other, locally determined criteria, and that this definition is intended solely as an approximate guideline or general rule of thumb.

A household that is spending more than 30% of its total income on housing, including essential utilities, is considered cost burdened. Cost burdened renter households may have more difficulty saving the money for a down payment on a home. The infographic below demonstrates the percentage of cost-burdened rental households within the Springboro-Conneautville Submarket with comparisons to Crawford County and the submarket average. We see that renter households within the Springboro-Conneautville Submarket are about as cost-burdened overall as the submarket average but faring better than those across all of Crawford County.

RENTERS PAYING MORE THAN 30% OF INCOME ON HOUSING



32.4% of Springboro-Conneautville Submarket Renters (128 HHs)

41.3% of Crawford County Renters

34.3% Submarket Average

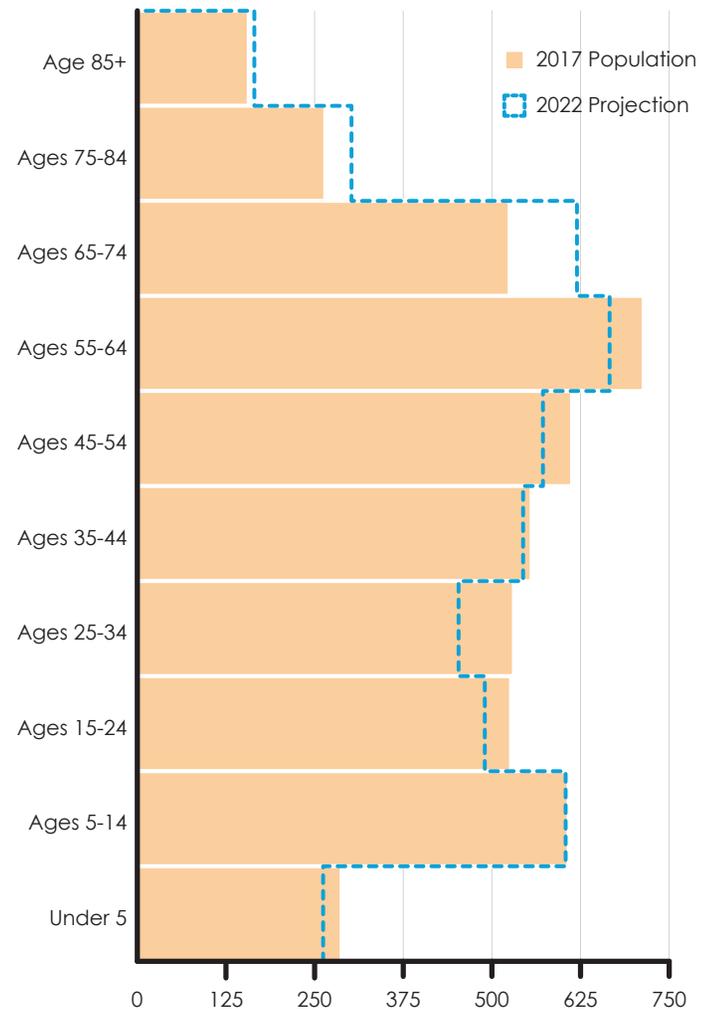
Source: U.S. Census 2011-2015 ACS

POPULATION GROWTH ANALYSIS:

POPULATION —

The cycling of households between different homes creates some of the housing demand within a community. To attempt to understand this type of housing demand, we established whether the Springboro-Conneautville Submarket represents a population center by comparing its population to the average Crawford County submarket population. From the graphic shown on the right, it is clear that the Springboro-Conneautville Submarket contains less population than the submarket average. By this standard, the Springboro-Conneautville Submarket is considered a rural population area. Although there must be some housing demand created by the cycling of households between different homes within the community,

SPRINGBORO-CONNEAUTVILLE SUBMARKET POP. PYRAMID



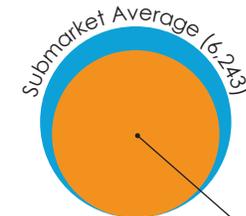
Source: Esri, Retrieved 2018

such demand may not exist at a magnitude large enough to drastically transform individual neighborhoods based on the shifting preferences of local consumers alone. Additionally, from the Submarket’s relative population size, it can be assumed that the Springboro-Conneautville Submarket does not have the gravity to attract new residents on a speculative basis. This assumption infers that those moving into the Submarket are likely anchored in some personal manner such as to be close to a recently secured job or to be near family members.

AGE BRACKET COMPOSITION —

Whether the type or quantity of housing within a community meets the needs of its population is largely influenced by the population’s age composition. For example, a community with a large senior population will likely generate demand for senior living accommodations such as older-age communities and assisted living facilities. Similarly, a community with an emerging population of younger, family age residents will likely produce demand for additional “starter home” housing units. Additionally, significant voids in certain age cohorts comprising a community will produce lopsided demand for certain types of housing. The graph on the left demonstrates the age composition of the Springboro-Conneautville Submarket in 2017 with a projection to 2022. Demographic projections within the Springboro-Conneautville Submarket forecast an overall decline in the population of individuals within the youth and working age brackets, which comprise people between the ages of 15 and 64. Despite the declines, the population of individuals over the age of 65 is forecasted to increase.

These projections suggest a decline in the demand for rental units, starter homes, and move-up housing while also suggesting an increase in the demand for downsizing homes and senior living accommodations.



Springboro-Conneautville Submarket Population (4,784)

Source: Esri, Retrieved 2017

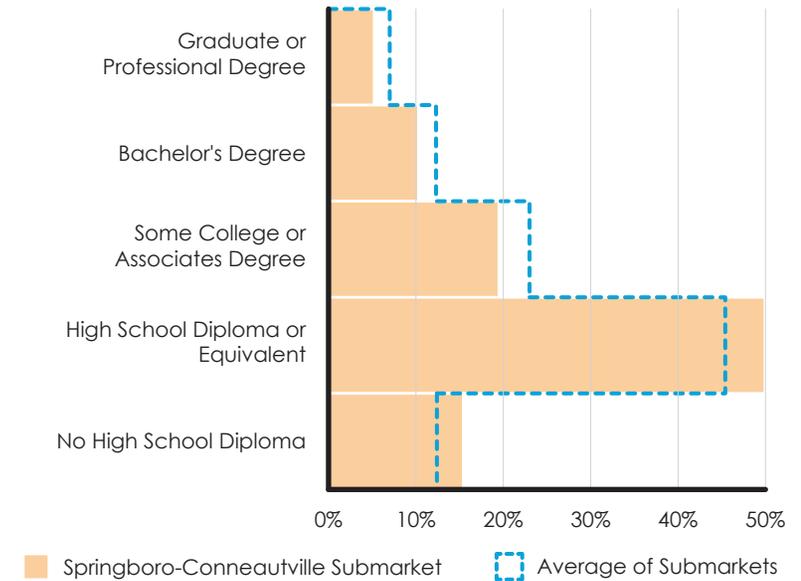
POPULATION GROWTH ANALYSIS:

The household formation trends addressed earlier suggest increased pressure on the market for both starter and downsizing homes. However, demographic projections suggest that much of the formation of new two-person family households may be attributed to “empty nesters” (older couples living together after their children have moved out). The combination of these trends appears consistent with the rough finding that rental prices have held flat while home values have fared well.

EDUCATIONAL ATTAINMENT —

The educational attainment of residents within a community will influence its potential for job growth. In general, a more educated community presents a more inviting environment for a greater range of potential employers. Similarly, a more educated community will also better encourage existing employers to remain and expand their operations. The graph on the right demonstrates the educational attainment of the Springboro-Conneautville Submarket with a comparison to the average educational attainment of all submarkets across the county. From this graph, it appears that the Springboro-Conneautville Submarket is less educated overall than the submarket average in that it has a smaller proportion of individuals holding some type of college degree. The Submarket’s lower level of educational attainment may make it less economically competitive over the long run.

SPRINGBORO-CONNEAUTVILLE SUBMARKET EDUCATIONAL ATTAINMENT (2017)



Source: Esri, Retrieved 2018

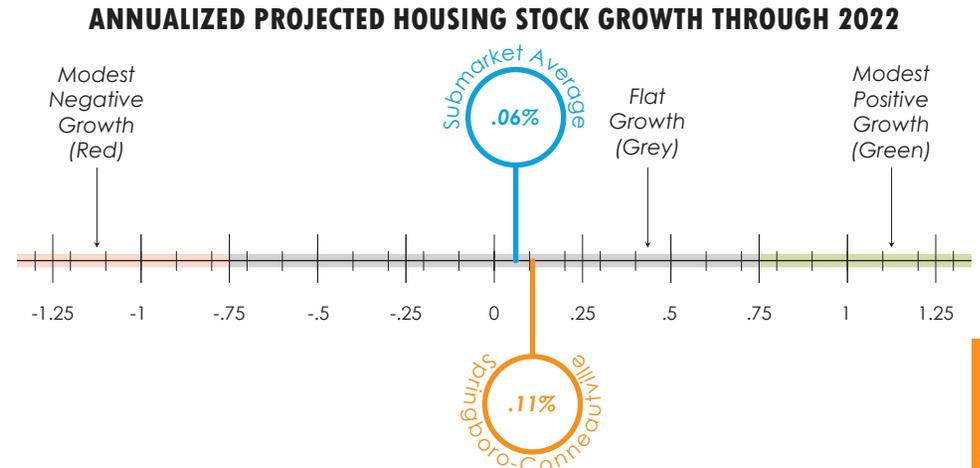
In summary, the Springboro-Conneautville Submarket represents a rural population area within Crawford County and its population has declined since 2000. With overall population decline, households formation trends show a decrease in the number of non-family households within the Submarket. Family households composed of two people have increased while those comprised of three or more people have either declined or remained stable. Such household formation trends are consistent with observations of rent prices, which have been flat, and home values, which have experienced strong growth. Demographic projections forecasting a decline in the population of youth and working age individuals but an increase in the number of senior citizens within the Springboro-Conneautville Submarket suggest that many new two-person family households will consist of senior couples living together after their children have moved out. Such two-person households are typically in the market for downsizing housing rather than starter units. In terms of affordability, the Springboro-Conneautville Submarket’s rate of cost-burdened renter households is comparable to the submarket average. Additionally, residents within the Submarket are less educated overall than the submarket average.

HOUSING STOCK GROWTH ANALYSIS:

This section of our analysis explores housing stock growth as a driver and relationships between its influencers leading to the outcome of the total housing stock. A stable and growing housing stock, balanced with population and job growth, is essential for sustaining a healthy housing market. A healthy housing market ecosystem provides housing opportunities for individuals and families at every stage.

HOUSING STOCK GROWTH —

The graph at right presents the housing stock growth rate for the Springboro-Conneautville Submarket. Although flat, the Submarket's housing stock growth rate is similar to the submarket average.



Source: U.S. Census, Retrieved 2018



Housing Units in the Springboro / Conneautville Submarket (2,087)

TOTAL HOUSING STOCK —

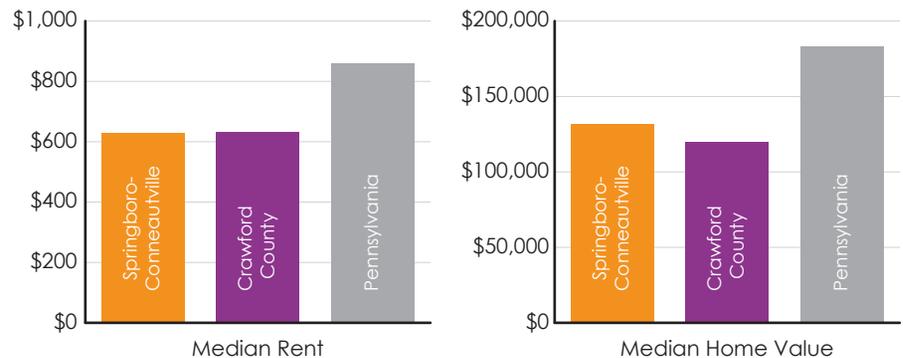
It can be assumed that larger communities are more likely to attract speculative real estate investment than smaller communities, where developers may more strictly adhere to the fundamentals of supply and demand. A larger housing stock may indicate the presence of niche investment opportunities for housing developers. To study the relative size of the Springboro-Conneautville Submarket's housing stock, we compared the number of housing units located within the submarket to the average number of housing units within a Crawford County submarket. From the graphic on the left, we see that the Springboro-Conneautville Submarket has fewer housing units than even the submarket average. Based on this analysis, it can be safely assumed that housing development within the Springboro-Conneautville Submarket is largely a creature of immediate responses to observable market demand rather than along speculative lines.

Source: Esri, Retrieved 2018

MEDIAN RENT & HOME VALUES —

High median rent prices and home values may encourage the development of additional housing units as developers look to capitalize on greater and more reliable profit margins. From the graphs on the right, median rent prices within the Springboro-Conneautville Submarket are similar to those of Crawford County while median home values sit above the county-wide figure. Such figures suggest that the Submarket's rental and home ownership markets are faring well. These figures do not appear to signal a significant increase in development activity within the Submarket.

SPRINGBORO-CONNEAUTVILLE SUBMARKET MEDIAN RENT (2016) & MEDIAN HOME VALUE (2017)



Source: U.S. Census, Esri - Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

UNITS BUILT PRE-1940 –

A home's age may influence a consumer's or investor's decision to purchase or renovate the property. A submarket with a high proportion of older housing units might encounter extra challenges meeting the needs of its population or attracting reinvestment. The infographic on the right shows that nearly one-third of the Springboro-Conneautville Submarket's housing stock was built prior to 1940. Although older homes are often of quality construction and contain fine architectural details, they're usually maintenance intensive and inaccessible for seniors and those with disabilities. From this observation, households within the Springboro-Conneautville Submarket may face considerable physical and financial challenges presented by the age of its housing stock. Given the Submarket's aging population, opportunities to encourage accessibility upgrades should be considered.

SPRINGBORO-CONNEAUTVILLE SUBMARKET HOUSING UNITS BUILT PRE-1940

31.9%



Homes Built Pre-1940

68.1%



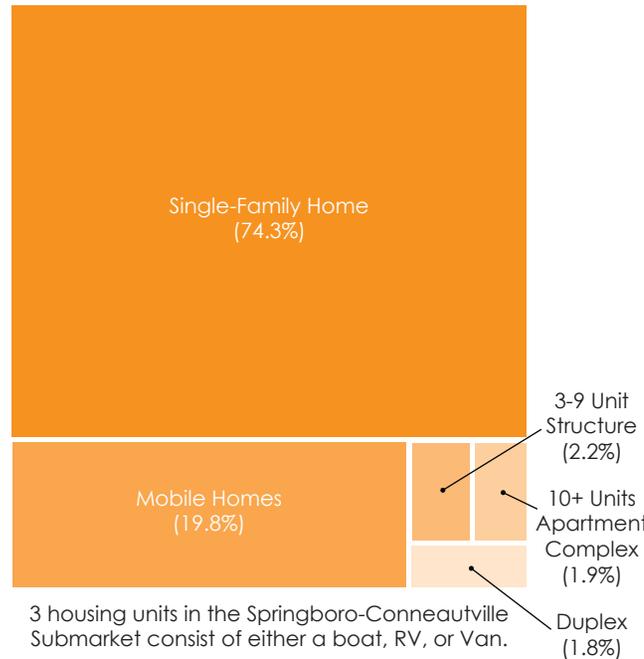
Homes Built Post 1940

Source: U.S. Census, Retrieved 2018

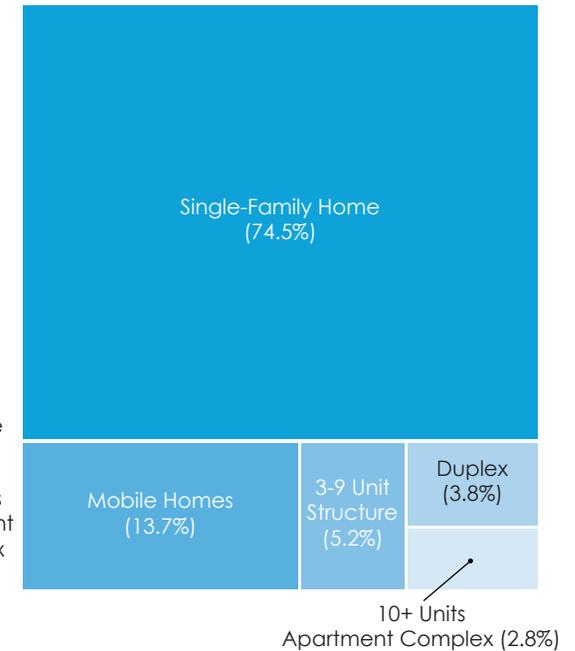
HOUSING BUILDING TYPES –

The graphic on the right divides housing structures into five categories of common forms: single-family homes, duplexes, three-to-nine unit structures and complexes, ten-or-more unit structures and complexes (apartment complexes) and mobile homes. In terms of building types, the Springboro-Conneautville Submarket is somewhat comparable to the submarket average in that single-family and mobile homes dominate its housing building stock. The Submarket contains larger shares of both single-family and mobile homes (more than 94% combined) than the submarket average. Conversely, multi-unit structures constitute a smaller portion of the Springboro-Conneautville Submarket's housing building stock than the submarket average.

SPRINGBORO-CONNEAUTVILLE SUBMARKET



SUBMARKET AVERAGE

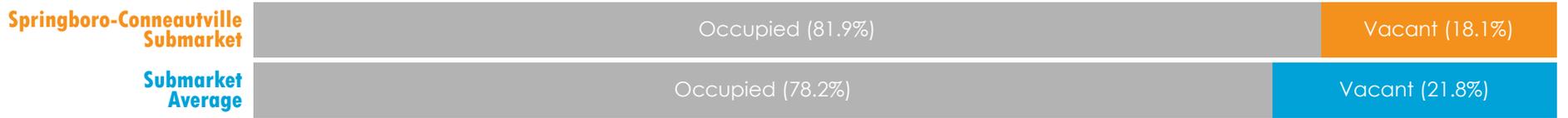


Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

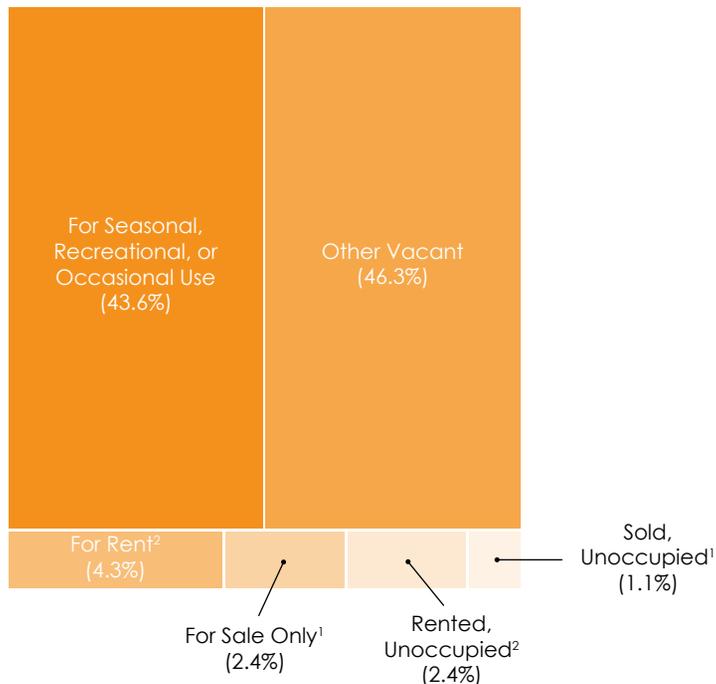
🍷 OVERALL VACANCY & VACANCY BY TYPE —

The overall rate and type of vacancy is an important indicator of the stability of a submarket’s housing market. The bar graphs below display the Springboro-Conneautville Submarket’s recorded vacancy rate in 2016 with a comparison to the submarket average. Although still substantial at just over 18%, the Springboro-Conneautville Submarket reported a lower vacancy rate than the submarket average. Despite its lower overall rate, the portion of housing vacancy attributable for “other” reasons is much higher than the submarket average. “Other vacant” housing units are likely those which are abandoned, condemned, dilapidated, or off the market. This observation indicates that the Springboro-Conneautville Submarket’s housing marketplace may be experiencing problems that can result in unintentional vacancy to a greater extent than most submarkets across Crawford County. Such unintended vacancy may demonstrate a significant cycle of disinvestment as landlords struggle to profit from their properties and owners abandon them.

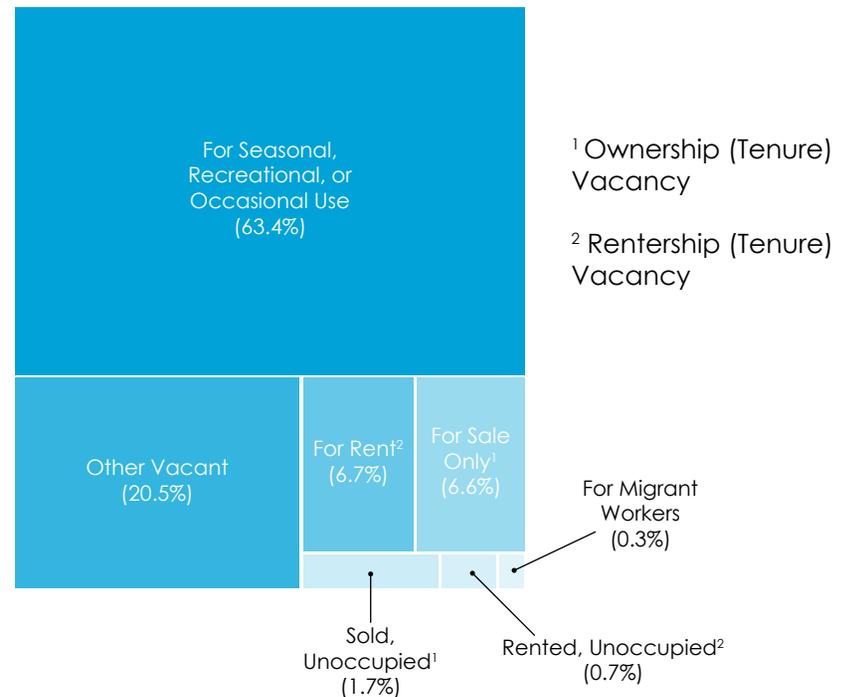


Source: U.S. Census, Retrieved 2018

SPRINGBORO-CONNEAUTVILLE SUBMARKET



SUBMARKET AVERAGE



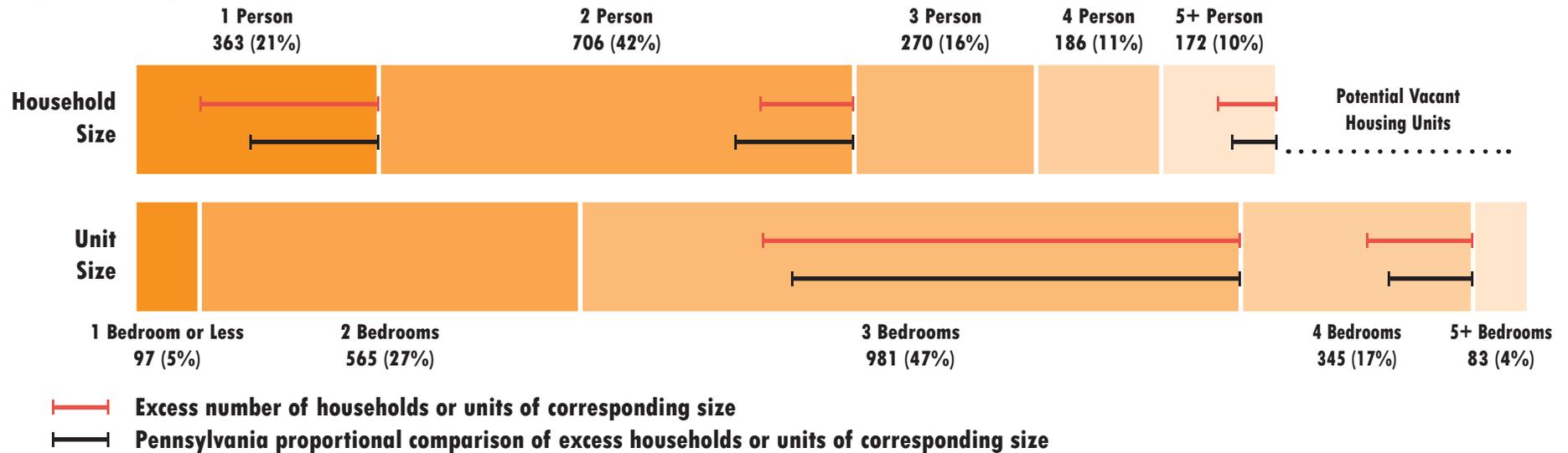
¹ Ownership (Tenure) Vacancy
² Rentership (Tenure) Vacancy

Source: U.S. Census, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

🍷 HOUSEHOLD SIZE V. UNIT SIZE —

Exploring the relationship between household and unit sizes can reveal whether there are potential mismatches between a community's available housing stock and the needs of its population. The bar graphs below represent the compositions of households and housing units by size within the Springboro-Conneautville Submarket. The red lines within the bars show either the excess of households or housing units of corresponding size within the Submarket while the black lines show the same corresponding mismatch for the whole Commonwealth scaled down to the size of the Submarket's figures for comparison purposes. The Springboro-Conneautville Submarket exhibits a shortage of one-bedroom and five-or-more-bedroom housing units, however, relative surpluses are present for two-, three-, and four-bedroom homes. It is possible that the Submarket's apparent shortage of one-bedroom units may be relieved somewhat by its minor surplus of two-bedroom homes. The comparisons presented below seem to accommodate the Submarket's growing number of two-person family households, though the shortage of one-bedroom homes may be a concern.



Source: U.S. Census, Retrieved 2018

🍷 THE PURPOSE OF LOAN ORIGINATIONS —

The purpose of loan originations is a key indicator of real estate investment. A marketplace experiencing a great deal of loans for new purchases may indicate its desirability for attracting new residents, whereas one with a significant amount of refinancing loans might be experiencing economic difficulties. Along different lines, a submarket exhibiting a great deal of renovation activity might be experiencing the beginnings of an economic resurgence. The bar graphs on the right demonstrate the purpose of loan activity within the Springboro-Conneautville Submarket. From these graphs, it appears that loan activity within the Springboro-Conneautville Submarket has been less investment oriented, at least in 2016, than the submarket average. This is apparent from a stronger showing of the portion of loans for refinancing activities.

SPRINGBORO-CONNEAUTVILLE SUBMARKET LOANS BY PURPOSE (2016)

Springboro-Conneautville Submarket



Submarket Average



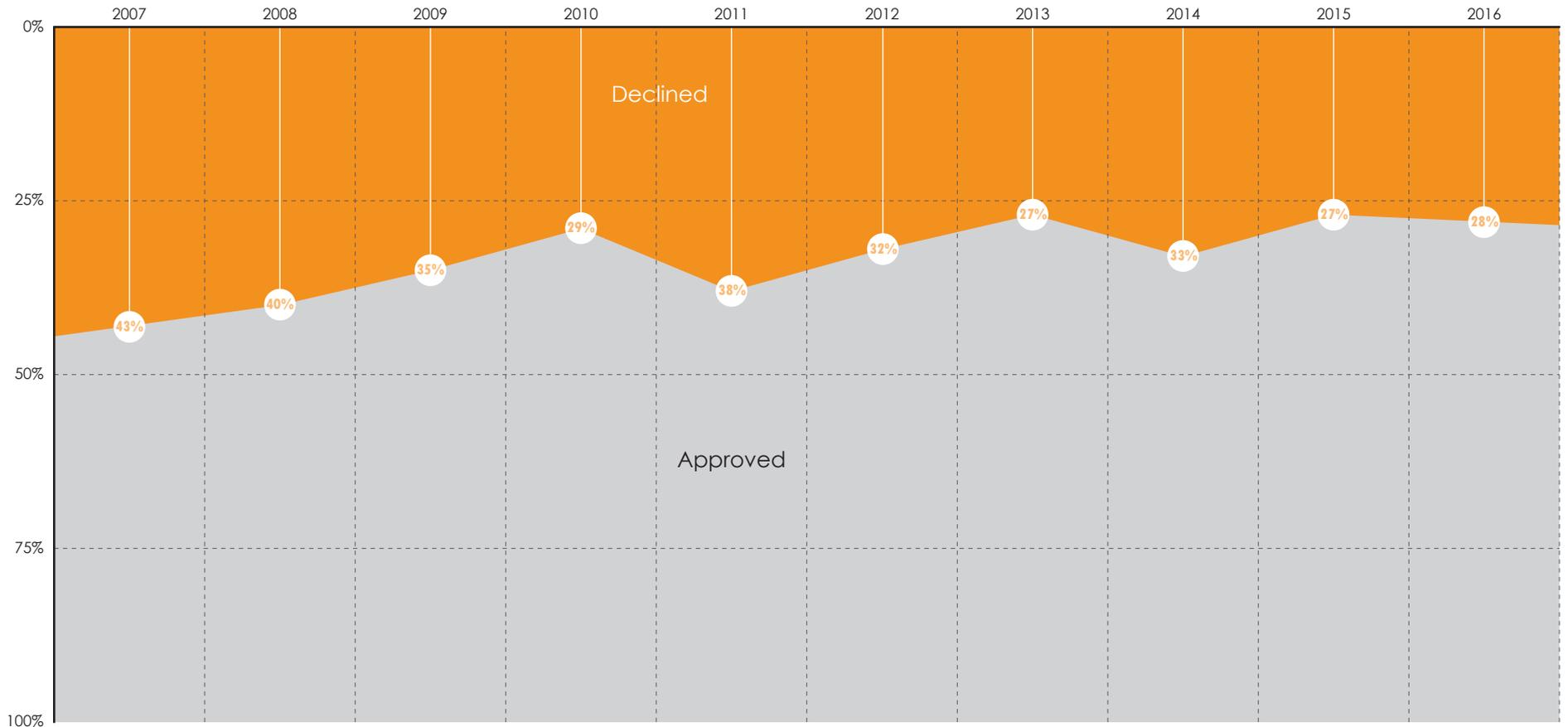
Source: Consumer Financial Protection Bureau, Retrieved 2018

HOUSING STOCK GROWTH ANALYSIS:

RATE OF DECLINED LOANS —

The rate of declined loans is an indicator of the ability of potential home buyers to purchase homes. Within the Springboro-Conneautville Submarket, the rate of declined loans has hovered in the mid-thirties in recent years (see below) and appears to show slight improvement since 2007.

SPRINGBORO-CONNEAUTVILLE SUBMARKET DECLINED HOUSING LOANS (2007-2016)



Source: Consumer Financial Protection Bureau, Retrieved 2018

In summary, the Springboro-Conneautville Submarket has a smaller concentration of housing development than the submarket average and its housing stock has not grown at a significant rate over recent years. Flat housing stock growth may partially explain why nearly one-third of the Submarket's housing stock was built prior to 1940. Despite such observations, median rents are similar to county-wide figures and median home values sit above the county's figure. The vast majority of housing units within the Submarket are either single-family or mobile homes. Comparisons between the composition of households and housing units by size suggest that the Submarket has a shortage of units containing either one-bedroom or more than five. Despite having an overall vacancy rate that is lower than the submarket average, vacancy attributable to "other" reasons is proportionally higher within the Springboro-Conneautville Submarket. The Submarket's relatively high proportion of "other" vacancy may be a sign of significant disinvestment issues within its housing market. Real-estate loan originations have been less investment oriented than the submarket average, and approval rates for such loans have improved slightly since 2007.

OVERALL STATUS OF THE SPRINGBORO-CONNEAUTVILLE SUBMARKET:

AN ECONOMIC OVERVIEW —

Observations of live-work trends within the Springboro-Conneautville Submarket show that many of its residents work outside the Submarket despite its local concentration of jobs. The Submarket's job-to-housing ratio of 0.58, which lies below the beneficial range, supports this conclusion. This finding can also be observed through commuter trends showing that many of the Submarket's residents travel to the Meadville and Erie areas to reach work. The combination of these live-work, job-to-housing, and commuter trends are consistent with our analysis, which showed that the Springboro-Conneautville Submarket is not a job center. This observation is unlikely to change in the near future given projections showing that the Submarket will experience a flat job growth rate. Despite this, household income within the Submarket is projected to see strong growth. Educational attainment figures show that the Submarket is less educated on the whole than the submarket average, which suggests that its labor force might present a less competitive environment for attracting certain kinds of employers. Real estate loan activity within the Springboro-Conneautville Submarket has been less investment-oriented than the submarket average overall. Recent loan originations have been approved at around a 72% success rate, which has slowly improved since 2007.

POPULATION TRENDS —

Based on its number of residents, the Springboro-Conneautville Submarket is a rural population area. The Submarket's population has held stable since 2000 leaving much of its housing demand to the cycling of existing residents. Household formation trends show a decline in the number of one-person non-family households while those composed of two people have held steady. For family households, those comprised of two people have increased in number while three- and four-person households have decreased with those of five or more persons holding steady. Demographic projections forecast an overall decline in the population of individuals comprising the youth and working age brackets while the number of senior citizens within the Submarket is projected to increase. The combination of these trends potentially indicates an increase in the demand for starter and downsizing homes while the demand for move-up housing may cool off. Additionally, demand for smaller renter units may drop as a result of the decline in the number of single-person non-family households.

THE HOUSING MARKET GENERALLY —

The Springboro-Conneautville Submarket has a lower concentration of housing development than the submarket average and development projections forecast that its housing stock will not grow considerably in the coming years.

Consistent with the observation that non-family households have declined in number, rent prices within the Springboro-Conneautville Submarket have remained flat but its median rent price still sits near the county's figure. Flat rent price growth may provide relief for some renter households since the Submarket's overall renter cost-burdened rate is similar to the submarket average, which is relatively high. The potential demand for starter homes brought upon by the Submarket's increase in its number of two-person family households might explain observations of strong home value growth within the Submarket. Strong home value growth within the Springboro-Conneautville Submarket may partially explain median home values that are above county-wide figures.

Consumers of housing within the Springboro-Conneautville Submarket recognize that just under one-third of all homes within the Submarket were built prior to 1940. The Submarket's older housing stock could present issues in the future as its population continues to age. For non-renter households, consumers will benefit from an abundance of single-family structures and mobile homes, which are proportionally more plentiful in the Submarket than the submarket average. The Springboro-Conneautville Submarket's housing stock exhibits a somewhat lower overall vacancy rate than the submarket average. However, the composition of its vacancy consists of a substantially larger proportion of homes that are vacant for "other" reasons when compared to the submarket average. The presence of vacant for "other" reasons is troubling in that it is a strong indicator of economic hardships within the Submarket's housing marketplace. When examining how well the size of the Submarket's composition of housing units by size meets the needs of its households, the Springboro-Conneautville Submarket appears to have a shortage of one-bedroom units, a small surplus of two-, three, and four-bedroom homes, and a minor shortage of five-or-more bedroom units.

THE SPRINGBORO-CONNEAUTVILLE SUBMARKET'S HOUSING ECOSYSTEM:

HOUSING MARKET ECOSYSTEM —

The graphic on the next spread demonstrates the housing market ecosystem for the Springboro-Conneautville Submarket. Consumer housing segments are represented by the arch-like blocks with the ability of households to transition between segments displayed as arrows. All segments are impacted by the economic conditions, population trends, and overall housing market dynamics discussed on the previous page. However, to better understand the Springboro-Conneautville Submarket, the conditions and trends explored within this chapter are examined at the level of each housing segment that constitutes a portion of the overall housing ecosystem.

NEW HOUSEHOLD MARKET —

The Springboro-Conneautville Submarket's new household market will likely be negatively impacted by household formation trends that show a decline in the overall number of non-family households. This trend is accompanied by demographic projections which forecast a decline in the population of all individuals between the ages of 15 and 34. A decline in the population of individuals within this age range is problematic for the new household market as these residents are mostly likely to participate in this consumer segment. As a result, the combination of household formation trends and demographic projections suggests that the consumer demand within the new household housing market is in decline.

Projections that forecast that household income will increase at a strong rate provide a sign of stability for the new household market. Comparisons between the composition of households and housing units by size suggests that the Springboro-Conneautville Submarket has a shortage of housing units composed of one bedroom or less. Although such finding may be beneficial for landlords holding such units, this observation likely places stress on housing consumers within the new household market. Fortunately, some participants within the new household market will be able to comfortably consume two-bedroom homes, which are in abundant supply in the Submarket. However, the Springboro-Conneautville Submarket contains a lesser share of multi-unit housing structures when compared to the submarket average. The lack of multi-unit housing structures may place stress on the Submarket's new household market as such buildings are often more accommodating to the needs of those participating within this consumer segment.

The combination of median rent prices similar to those observed county-wide along with the flat growth of such prices both provide negative signs for the Springboro-Conneautville Submarket's new household market. Unfortunately, relatively lower rent prices do not appear to have translated into affordability as the Submarket's overall rate of cost-burdened renter households is similar to the relatively high submarket average, which suggests that many renters are struggling to afford housing. Such observation provides another sign of instability within the Submarket's new household marketplace.

Overall, the Springboro-Conneautville Submarket's new household market is considered inadequate largely due to a combination of household formation trends and demographic projections suggesting a decline in consumer demand. Additionally, the ability of a household participating in the Submarket's new household consumer segment to transition into the starter home segment is also considered inadequate because of the Submarket's relative high rate of cost-burdened renter households.

STARTER HOME & DOWNSIZING MARKETS —

The Springboro-Conneautville Submarket's starter and downsizing markets will likely be positively impacted by household formation trends, which show an increase in the overall number of two-person family households. This trend is accompanied by demographic projections that forecast an overall decline in the population of all individuals between the ages of 15-to-34 but an increase in the number of those over age 65. A decline in the population of those between the ages of 15 and 34 is problematic for the starter home market as these residents are mostly likely to participate in this consumer segment. However, an increase in the population of those over age 65 is a good sign for consumer demand in the downsizing market.

The healthy composition of single-family homes within the Springboro-Conneautville Submarket will benefit both the starter and downsizing markets since participants in these consumer segments are often in the market for this type of home. However, many senior couples looking to downsize may find accessible multi-unit structures attractive of which the Submarket has few. Comparisons between the composition of households and housing units by size suggests that

THE SPRINGBORO-CONNEAUTVILLE SUBMARKET'S HOUSING ECOSYSTEM:

the Submarket has an abundance of two- and three-bedroom homes that will likely support the needs of most consumers within the starter and downsizing market segments. However, consumers within the starter and downsizing home segments will have to be content with the Submarket's relatively old housing stock, of which nearly a third was built prior to 1940. This significant concentration of older homes could present either financial or physical burdens on younger and older buyers alike. Another challenge may come from the Springboro-Conneautville Submarket's proportionally larger share of homes vacant from "other" reasons when compared against the submarket average, as the presence of such structures may be a sign of disinvestment issues.

Projections that forecast that household income will increase at a strong rate provides a sign for consumer stability within both the starter and downsizing markets. Providing landlords some assurance, the Submarket's median home value sits above the county-wide figure and home values have appreciated at a strong rate over recent years. However, the combination of household income projections and median home value observations and changes is not reflected in real-estate loan origination activity across the Springboro-Conneautville Submarket, which has been less investment oriented overall.

Overall, the Springboro-Conneautville Submarket's starter home market is considered adequate largely as the result of household formation trends suggesting an increase in consumer demand. However, if demographic projections hold true, starter home demand could decline with dwindling numbers of individuals between the ages of 15 and 34. Additionally, the combination of projections showing an increase in household income paired with median home values above county-wide figures suggest that the ability of a household participating in the Submarket's starter home market to transition into the move-up segment may be adequate. Household formation trends also suggest an increase in the demand for downsizing homes with demographic projections which show gains in the number of senior citizens, indicating that future demand for this housing segment may be strong. Therefore, the Submarket's downsizing market segment is adequate, and the ability to transition from this segment and into a senior living accommodation is also adequate.

MOVE-UP MARKET —

The move-up housing market within the Springboro-Conneautville Submarket will likely be negatively impacted by household formation trends, which show a decrease in the overall number of family households comprised of at least three members. This trend is accompanied by demographic projections which forecast an overall decline in the population of all individuals between the ages of 35 and 64. A decline in the population of individuals within this age range is problematic for the move-up market as these residents are mostly likely to participate in this consumer segment. The combination of household formation trends and population projections suggest that the demand for move-up housing will decrease.

Similar to the Submarket's starter and downsizing segments, the move-up market may be positively affected by projections showing strong increases in both household income and home value appreciation. Despite supporting a median home value above county-wide figures, real-estate loan originations have been less investment oriented. Comparisons between the composition of households and housing units by size suggests that the Submarket has an abundance of three- and four-bedroom homes but a shortage of five-or-more-bedroom housing units. However, such consumers face the Submarket's relatively old housing stock, of which nearly a third was built prior to 1940.

Overall, the Springboro-Conneautville Submarket's move-up market is considered inadequate largely due to a combination of household formation trends and demographic projections, which suggest a decrease in consumer demand. Despite supporting relatively high median home values, limited consumer demand may make it difficult for households currently participating in the move-up market to transition into the downsizing segment. As a result, this transition is considered inadequate.

SENIOR HOUSING MARKET — Please see the chapter on county-wide trends for details regarding the senior housing marketplace.

