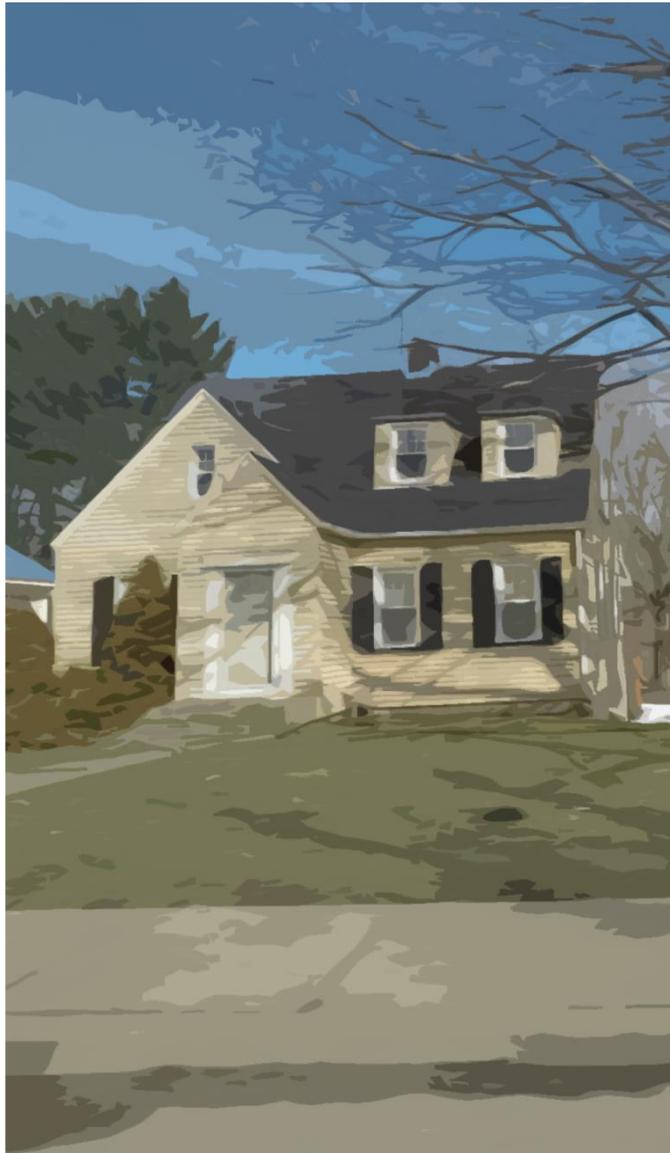


Crawford County Housing Plan



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Executive Summary

Introduction

The Crawford County Housing Plan stems from the adopted 2014 Crawford County Comprehensive Plan, *Cultivating Crawford Growing a Community*. Since the Plan's adoption, Crawford County has seen resurgence in specific housing markets that were not identified in the Comprehensive Plan and an increase in request to address blight or abandoned properties by local municipalities. This study will examine Crawford County's current housing market and trends, analyzing factors that both positively and negatively influence housing markets, as well as identify housing supply and demand.

The objective of this housing plan is to accomplish the following:

- 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
- Present information on existing and available funding sources or tools that the county can use to address current and future housing needs
- Examine the need for county-wide assistance or intervention on behalf of local municipalities, with respect to housing blight, Uniform Construction Code and property maintenance issues, and abandonment or blight concerns
- Collect information regarding housing agencies and organizations across Crawford County to determine gaps and overlaps in services provided to specific populations, so as funding and technical resources can be more effectively and economically delivered

Study Areas

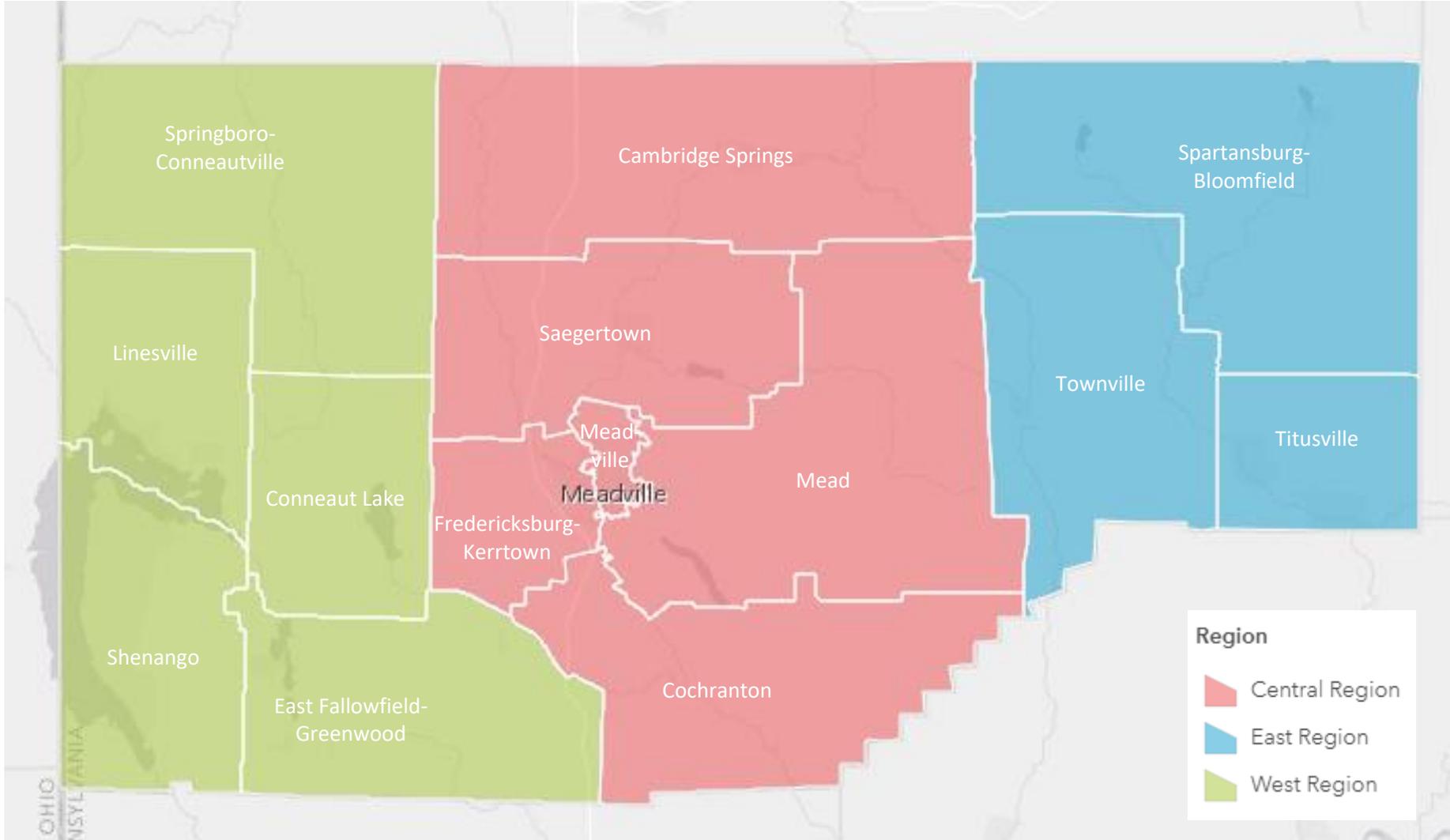
Located in northwest Pennsylvania, Crawford County is approximately 35 miles south of Erie City and 90 miles north of Pittsburgh City. Crawford County is located within the Northwest Workforce Development Area or WDA, which also includes Clarion, Erie, Forest, Venango, and Warren Counties. While Interstate 79 is the only interstate (north-south) within the county, there are several other major U.S. and state arterial roadways which pass through the county, including US Highways 6, 19, and 322, and Pennsylvania Highways 8, 18, and 27. The map on the following page illustrates housing regions and submarkets (grouped by census tracts) based on employment, housing, and population centers, and commuting patterns.

Study Areas



Source: Esri; 4ward Planning Inc., 2018

Crawford County Housing Regions and Submarkets



Source: Esri; 4ward Planning Inc., 2018

Key Findings

Demographics

Population in the county is projected to decline further

While population change within Crawford County, the Northwest WDA, and the nation has been relatively flat since 2000, the number of total residents within the county has declined by nearly 1,370 since 2010 and is projected to further decrease by 1,450 persons over the next five years. The county's negative total net migration is driven primarily by the relatively large net loss of domestic residents over the past seven years. According to data provided by the U.S. Census Bureau, from 2011 to 2015, the largest outflow of residents from Crawford County (408 persons) moved to neighboring Erie County, likely for purposes of securing employment. Declining population often is 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 represents opportunities and challenges

Despite relatively flat overall population growth, 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 – creating increased demand for senior-type housing. Compared to the state, a higher share of county residents ages 65 to 84 are living alone in non-family households and have a disability that could affect their housing situations. Furthermore, the county's older housing stock (81 percent of Crawford County's housing stock was built before 1990, prior to the Americans with Disabilities Act), combined with an aging population, 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, lead to neighborhood blight. A growing senior population will also increase demand on local and county services (e.g., transportation-, emergency-, and welfare-related services), placing fiscal strains on local and county government

Housing

Shortage of small housing units relative to household size

Currently, the share of one-person households in the county (27 percent) is much larger than the share of studio or one-bedroom units, combined (nine percent). Likewise, the share of one- and two-person households combined (65 percent) is much larger than the share of studio, one-, and two-bedroom units, combined (35 percent). In other words, the 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 through 2022 (2.4 persons), 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 percent) is due to a number of factors. For example, there is a large number of "other vacant" units dedicated to seasonal, recreational, or occasional use (2,020 vacant seasonal homes within the Shenango submarket alone). There are also units that have been abandoned due to physical obsolescence, particularly in rural areas of Crawford County, as well as units that are vacant due to lack of qualifying renters or buyers (like the Timbercrest Apartments in the Fredericksburg-Kerrtown submarket, which in more economically robust times, would have a much lower vacancy rate).

Economy

Declining manufacturing sector, growing health care sector

The manufacturing sector, the county's top industry by total employment (26 percent of total jobs) has experienced the greatest employment decline over the past two decades and is projected to lose 25 more jobs by 2022. In contrast, the county's second top industry, the health care and social assistance sector (20 percent of total employment), has experienced the greatest employment gain in the county over the past two decades and is expected to continue growing the fastest through 2022. The health care and social assistance sector will provide relatively mid-wage job opportunities for county residents (\$39,870 per year).

Employment clusters represent potential housing submarkets

Based on employment data by census tract provided by the U.S. Census Bureau, 4ward Planning identified 14 employment clusters representing potential labor and housing submarkets. The Meadville, Fredericksburg-Kerrtown, and Titusville submarkets are the three largest submarkets in the county by total employment share, representing 66 percent of the county's total employment. These employment clusters are the prime drivers of housing submarkets in their respective areas. The health of the surrounding housing markets is, principally, linked to the health of these employment submarkets.

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 percent, respectively. Business vacancy rates, particularly in Titusville, are relatively high.

Cost and Affordability

Deferred housing maintenance may be a growing challenge

The median household income in Crawford County (\$44,790) is lower than that observed in the WDA (\$47,260) and state (\$56,180). Because older homes require more upkeep, deferred housing maintenance and repairs may be a growing challenge among lower-income or senior households that may lack the financial means or physical ability to repair older homes. This may be especially the case in housing submarkets like Titusville that have a relatively high share of older housing stock and low median household incomes (\$37,245), or Saegertown that have a relatively high share of older housing stock and large population growth expected among persons ages 55 and older (175 new persons over 55 years by 2022, representing a seven percent increase).

High shares of cost-burdened renter households

On average, Crawford County households allocate 30 percent of household expenditures on housing. Nevertheless, in 2015, 41 percent of renter households in the county were paying more than 30 percent of their incomes on rent (considered cost-burdened by HUD) and 21 percent were paying more than 50 percent of their incomes on rent (severely rent-burdened). The share of renter households that are cost-burdened is particularly high in the Meadville and Titusville submarkets (53 and 49 percent, respectively). While inflation-adjusted rents in the Meadville submarket rose by 0.8 percent per year from 2010 to 2016, the median household income declined by -0.8 percent per year from 2010 to 2017. In contrast, from 2010 to 2016, inflation-adjusted rents declined by -0.4 percent per year in the Titusville submarket, while median household income grew by 0.2 percent per year from 2010 to 2017.

Median home values growing faster than median household incomes

Although the median home value for owner-occupied homes in Crawford County (\$119,900) is relatively low compared to the median home value within the state (\$182,730), in recent years, median home values have been increasing at a rate faster than median household incomes. For example, while the median household income in Crawford County remained relatively flat from 2010 to 2017, after adjusting for inflation (increasing by just 0.7 percent per year), the median adjusted home value in the county increased by 2.0 percent per year.

Financial Strengths and Challenges

Foreclosures as a share of total housing units has been increasing

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. Although foreclosures as a share of total housing units in the county has remained lower than that observed in the state and nation, from 2013 to 2017, foreclosures as a share of total housing units has increased slightly in the county, while it has been declining nationally.

Share of successful loan applications has been increasing

Based on HMDA data provided via the Consumer Financial Protection Bureau (CFPB), although the number of total loan applications in Crawford County has been decreasing over the past decade, overall, the share of loan applications resulting in successful loan originations has been increasing. Successful loan originations as a share of total loan applications within the county increased from 40 to 58 percent from 2007 to 2016 (compared to an increase from 39 to 51 percent within the nation, over the same period). Conversely, the share of total applications denied by financial institutions within the county declined from 36 to 23 percent from 2007 to 2016 (compared to a decrease from 22 to 16 percent within the nation, over the same period).

Home sales may be being diverted due to unusual loan requirements

From 2007 to 2016, the number-one reason cited for loan denials (2,424 applications) was an applicant's poor credit history. Collateral (representing the asset that secures the mortgage, which in most cases is the home being financed) and debt-to-income ratios (ratio of monthly debts to annual income) were the second and third top loan denial reasons cited (1,708 and 1,485 incidents, respectively). Interviews with residential real estate professionals suggest that many home sales in the county are diverted due to unusually stringent loan application requirements. Where some of their clients are denied housing loans, they are still considered qualified for comparable rental payments. Encouraging partnerships with local banks to find lending solutions for potential homeowners would be beneficial to the health of the county's housing market.

Improvement-to-Land Value Analysis

412 parcels with low ILVs (255 acres) in Meadville

In the City of Meadville, 204 single-family residential parcels (101.25 acres), three multi-family residential parcels (1.1 acres), and 205 commercial parcels (152.7 acres) exhibit low improvement-to-land value (ILV) ratios. While there are numerous low-ILV parcels in the study area, many of them are small, potentially making redevelopment of these parcels less attractive. Since developers are likely to target large or contiguous parcels of underutilized land for residential development, the 17 identified low-ILV parcels over two acres in size in Meadville may be the most attractive for redevelopment.

278 parcels with low ILVs (148 acres) in Titusville

In the City of Titusville, 162 single-family residential parcels (53.7 acres) and 116 commercial parcels (93.9 acres) exhibit low ILV ratios. Many low-ILV residential parcels are small and concentrated in the north of the study area. Since developers are likely to target large or contiguous parcels of underutilized land for residential development, the 11 identified low-ILV parcels over two acres in size in Titusville may be the most attractive for redevelopment.

Housing Plan Recommendations

Recommendations

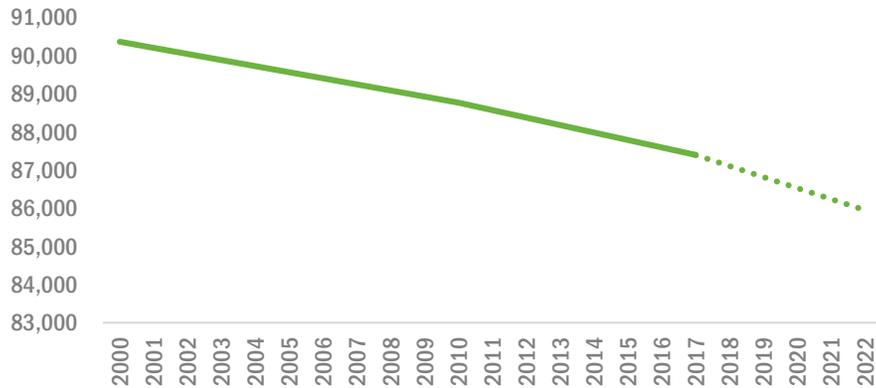
- Relax zoning to allow for assessor-unit apartments and mixed-use, multi-family residential development in urban areas.
- Adopt uniform county-wide code enforcement policies. Local municipalities enter into a local service agreement with county, agreeing to share data into a county-wide database.
- The county planning department should host a quarterly meeting with planning, zoning, and code enforcement officials to discuss related blight, zoning and code enforcement issues.
- Utilize federal and state resources (such as CDGB funds, DCED) to create a proactive blight avoidance program, which should include low-interest loan and grants for exterior home improvements and commercial façade improvements.
- Prioritize resources within concentrations of blight in urban areas (e.g. Meadville, Titusville) where economic activities are concentrated.
- Address real property tax inequity that exists between the urban and non-urban areas.
- Utilize an algorithm model to making strategic time and resource investment decisions.

Demographics

Population

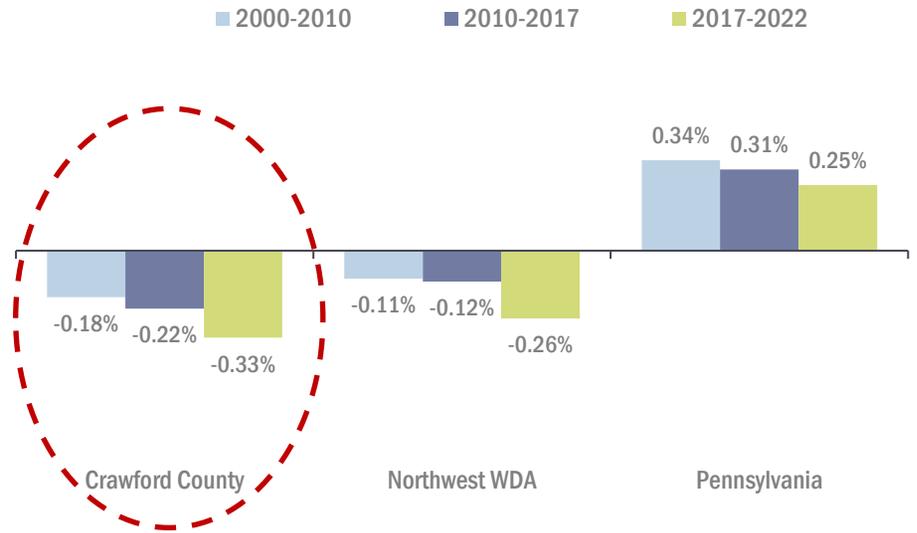
According to 2017 estimates provided by Esri, with approximately 87,400 residents in Crawford County, the county is the second highest populated county in the Northwest WDA (second to Erie County with 279,800 residents). While population change within Crawford County, the Northwest WDA, and the nation has been relatively flat since 2000 (changing between -0.75 and 0.75 percent per year), the number of total residents within the county has declined by nearly 1,370 since 2010 and is projected to further decrease by approximately 1,450 persons over the next five years. Declining population often is accompanied by a rise in residential vacancy rates, flat-to-declining housing values, and increases in blight – all characteristics currently observed throughout Crawford County.

Historic and Projected Population Change, Crawford County



Source: Esri; 4ward Planning Inc., 2018

Annualized Population Growth Rates



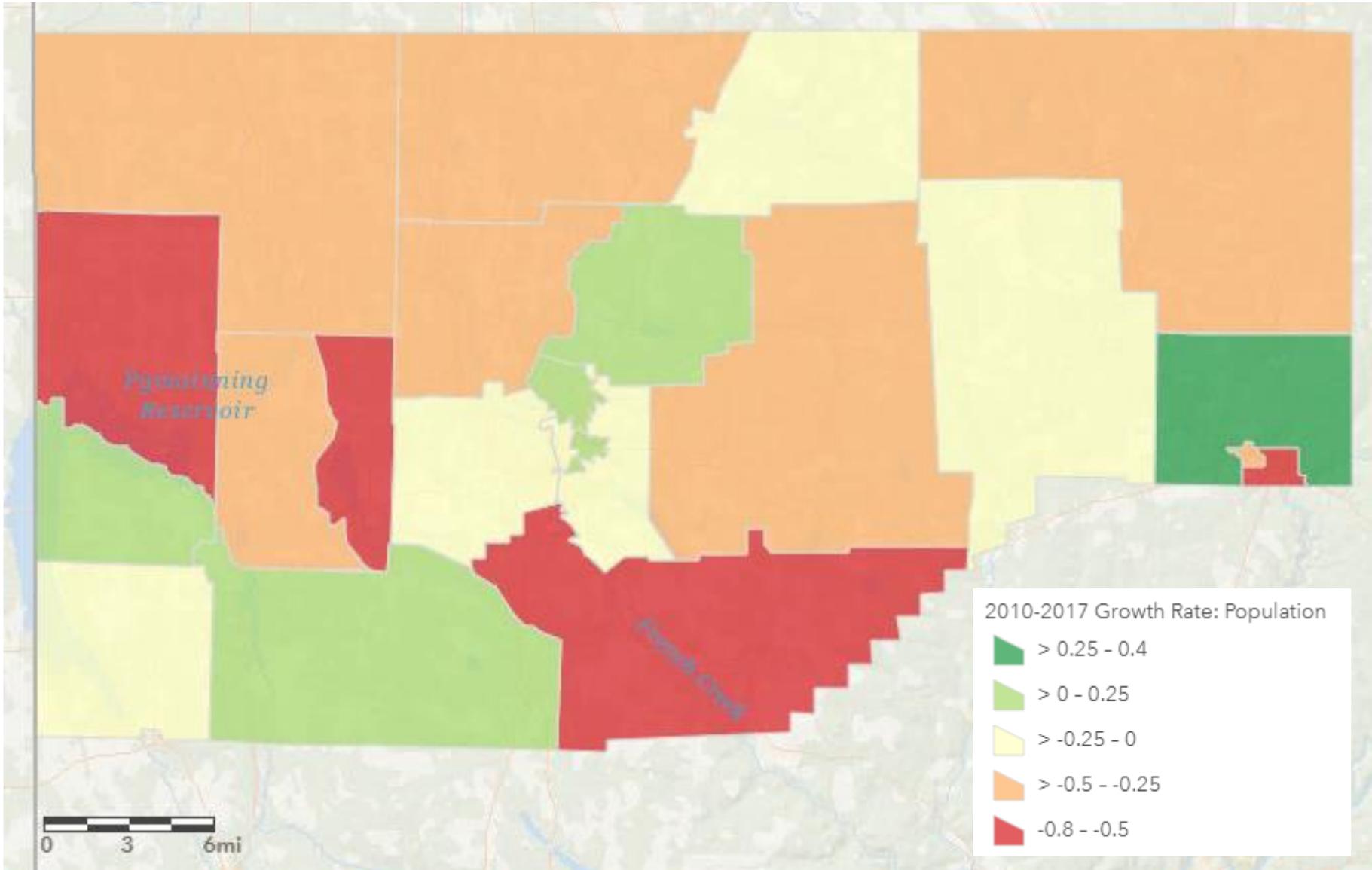
Source: Esri; 4ward Planning Inc., 2018

Population by Geography

Study Area	2000	2010	2017	2022	Change	
					2010-2017	2017-2022
County	90,366	88,765	87,397	85,951	-1,368	-1,446
WDA	519,348	513,834	509,608	503,053	-4,226	-6,555
PA	12,281,054	12,702,379	12,976,662	13,138,130	274,283	161,468

Source: Esri; 4ward Planning Inc., 2018

Annualized Population Change by Census Tract, 2010-2017

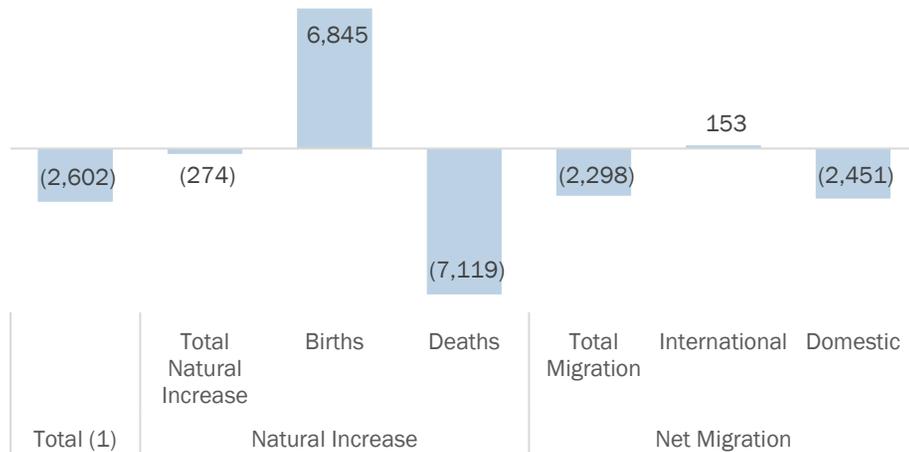


Source: Esri

Population Change

For planners and economic development professionals, it is important to know not only if the area’s population is changing and at what rate, but also the underlying reasons for such change. Population change within a county (whether a decrease or increase) is due to the following demographic trend factors including births, deaths, in-migration and out-migration. According to data provided by the U.S. Census for Crawford County, from April 2010 to July 2017, the number of deaths (7,119) was greater than the number of births (6,845), resulting in net negative natural population decline of 274 persons. The county’s negative total net migration is driven primarily by the relatively large net loss of domestic residents over the past seven years. More detail on county migration flows is provided in the economy section of this report.

Cumulative Population Change: Crawford County, April 1, 2010 To July 1, 2017



(1) Total population change includes a residual. This residual represents the change in population that cannot be attributed to any specific demographic component.

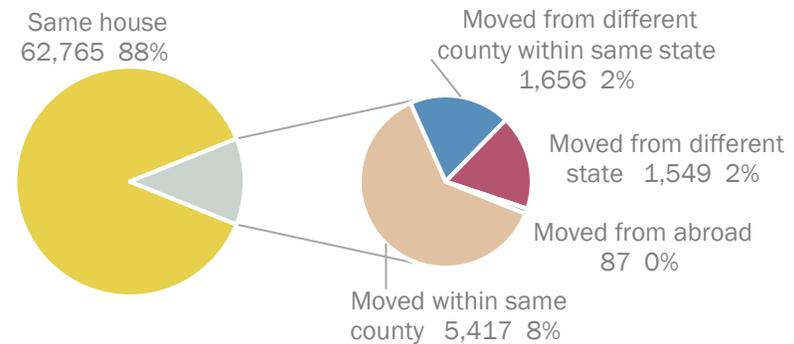
Source: U.S. Census, Estimates of the Components of Resident

Mobility Patterns

Understanding the degree and direction of migration is important in developing land regulations and tax policies. Based on longitudinal surveys of random samples of people who move from their counties of residence, the primary reason for doing so is often related to employment – that is, people typically relocate from one county to another (usually within the same state) for purposes of securing employment. Other top reasons for inter-county moves include caring for family members or attending school.

According to data provided by the American Community Survey (ACS), from 2015 to 2016, 88 percent of Crawford County residents reported living in their homes for the whole year, while eight percent changed addresses within the county, two percent moved from elsewhere within the state, two percent moved from another state, and less than one percent moved from abroad.

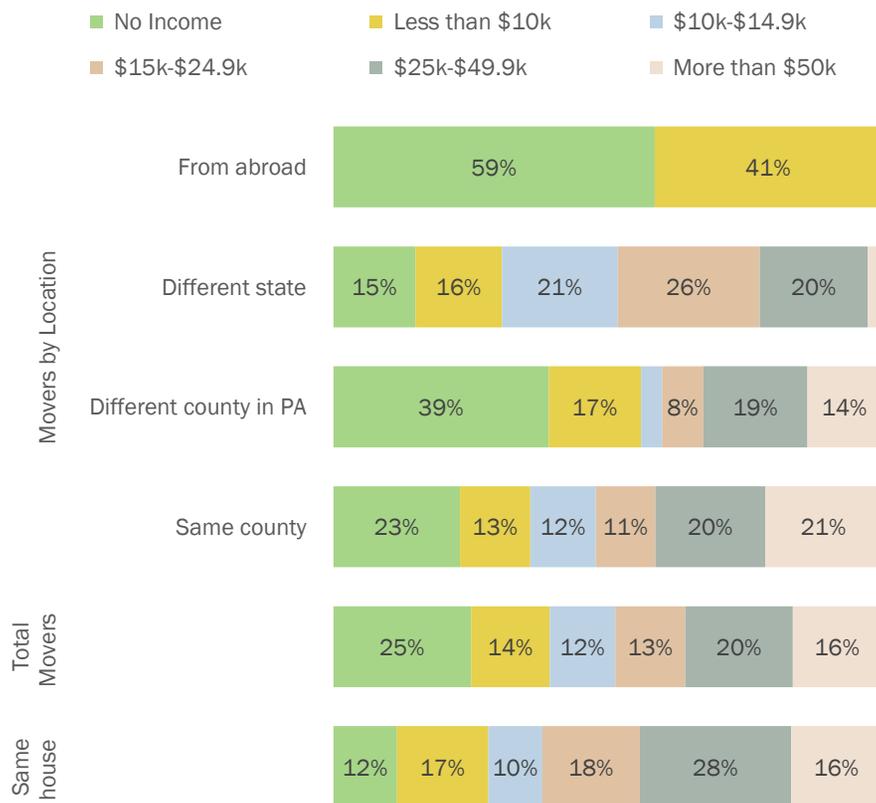
Mobility Status, 2015-2016



Source 2016 ACS B07010

Overall, residents relocating to Crawford County (total movers) were more likely to have no income (25 percent), compared to residents who remained in the same house during the past 12 months (12 percent). Residents relocating from within Crawford County were those most likely to earn more than \$50,000 per year (21 percent), compared to residents who remained in the same house during the past 12 months (16 percent).

Migration Status by Household Income:
Crawford County, 2015-2016

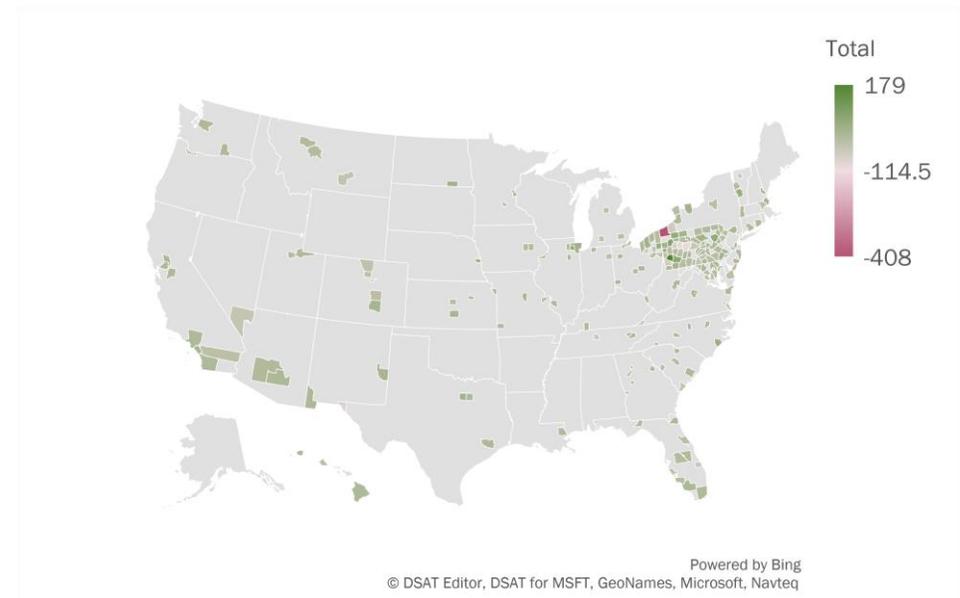


Source 2016 ACS B07010

According to data provided by the U.S. Census Bureau, from 2011 to 2015, the largest influx of residents to Crawford County (179 persons) moved from Allegheny County, while the largest outflow of residents from Crawford County (408 persons) moved to neighboring Erie County.

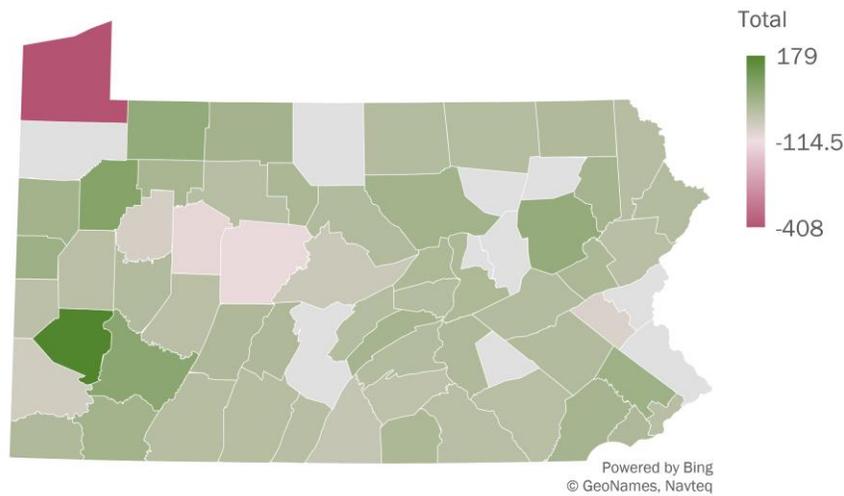
Migration Flows: Crawford County, PA (2011-2015)

	County	State	Persons
Top Net Positive			
1	Allegheny County	Pennsylvania	179
2	Venango County	Pennsylvania	82
3	DuPage County	Illinois	75
4	Westmoreland County	Pennsylvania	71
Top Net Negative			
1	Erie County	Pennsylvania	(408)
2	Clearfield County	Pennsylvania	(103)
3	Jefferson County	Pennsylvania	(97)
4	El Paso County	Texas	(80)



Source: U.S. Census Bureau, 201-2015 5-year ACS

Migration Flows: Crawford County, 2011-2015



Source: U.S. Census Bureau, 201-2015 5-year ACS

Special 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 and Old Order Mennonite families. 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 Crawford County, or about 4.4 percent of the county’s total population. The largest shares of the county’s group populations live in the Meadville (43.7 percent), Cambridge Springs (28.4 percent), Seagertown (10.9 percent), and Titusville submarkets (10.6 percent).

According to data provided by Ohio State University, in 2010, the Spartansburg-Bloomfield and East Fallowfield-Greenwood submarket had the largest Amish population as percent of total population.

Amish Population by Submarket, 2010

Submarket	Settlement	Amish Pop.	Total Pop.	Share of Total Pop.
Spartansburg-Bloomfield	Spartansburg	1,418	6,114	23.2%
East Fallowfield-Greenwood	Atlantic	763	3,679	20.7%
Linesville	Linesville, Pierpont/Conneaut	427	2,978	14.3%
Townville	Townville	372	3,098	12.0%
Springboro-Conneautville	Conneautville	222	4,920	4.5%
Cochranon	Union City	173	5,662	3.1%
Saegertown	Saegertown	135	6,950	1.9%
		3,510	33,401	10.5%

Source: Ohio State University, *Journal of Amish and Plain Anabaptist Studies*, Volume 1, Issue 1 (April), 2013

Persons with Disabilities

Approximately 81 percent of Crawford County’s housing stock was built before 1990, prior to the Americans with Disabilities Act (ADA). The county’s older housing stock, combined with an aging population, will make accessible housing an important issue for the future. Persons with disabilities often require accessible housing features such as ramps, wide doorways, large bathrooms, and grab bars.

Over 13,680 residents in Crawford County have a disability that could affect their housing situations, representing 16.0 percent of the population (compared to just 13.7 percent within the state). The largest share of residents with disabilities are between ages 35 and 64 (42 percent), representing the prime working-age population. The second largest share of county residents with disabilities (21 percent) are persons ages 75 and older, representing residents most likely to have ambulatory disabilities. Because this type of disability is correlated with increasing age, and the number of senior citizens is expected to rise significantly, the number of accessible housing units required in the county is expected to increase.

Disability by Type, 2016

Disability Type	With a Disability	% with a Disability
With a hearing difficulty	4,429	5.2%
With a vision difficulty	2,100	2.5%
With a cognitive difficulty	4,884	5.7%
With an ambulatory difficulty	6,573	7.7%
With a self-care difficulty	2,193	2.6%
With an independent living difficulty	4,076	4.8%
Crawford County	13,684	16.0%
Pennsylvania	1,719,069	13.7%

Source: 2012-2016 ACS 5-Year Estimates, S1810

Households

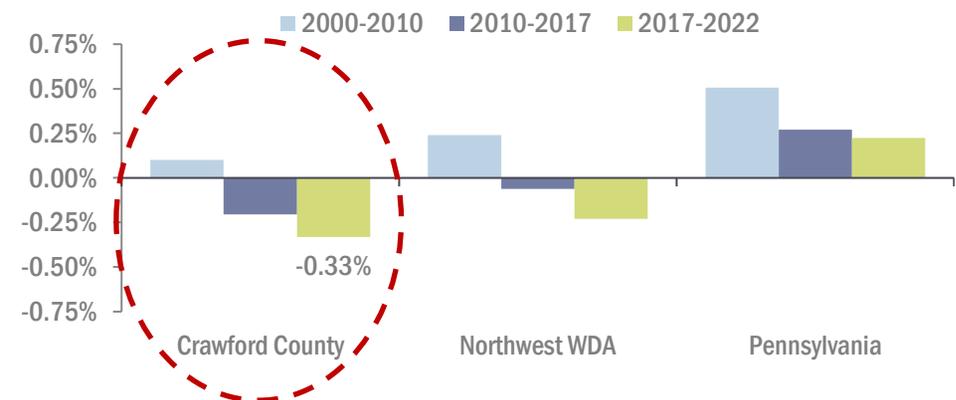
According to 2017 estimates provided by Esri, there are approximately 33,960 households in Crawford County. Similar to population, household change within Crawford County, the Northwest WDA, and the nation has been relatively flat since 2000. The number of total households within the county has declined by approximately 500 since 2010, and is projected to decline by another 570 over the next five years.

Households by Geography

Study Area	2000	2010	2017	2022	Change	
					2010-2017	2017-2022
Crawford County	34,678	35,028	34,528	33,955	-500	-573
Northwest WDA	199,680	204,468	203,596	201,267	-872	-2,329
PA	4,777,003	5,018,904	5,113,907	5,171,350	95,003	57,443

Source: Esri; 4ward Planning Inc., 2018

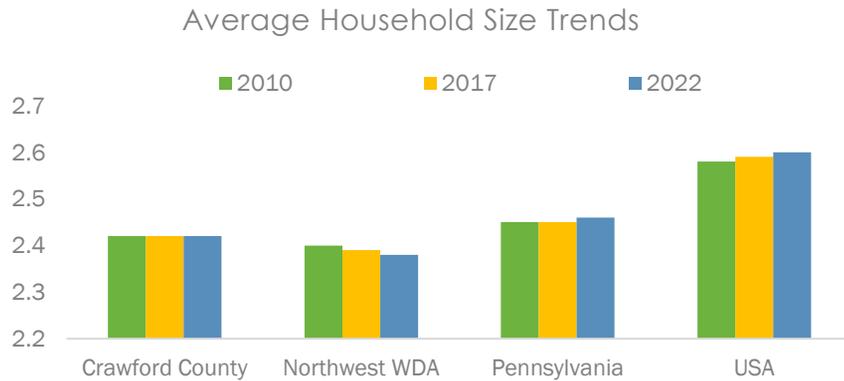
Annualized Percent Household Change



Source: Esri; 4ward Planning Inc., 2018

Household Size

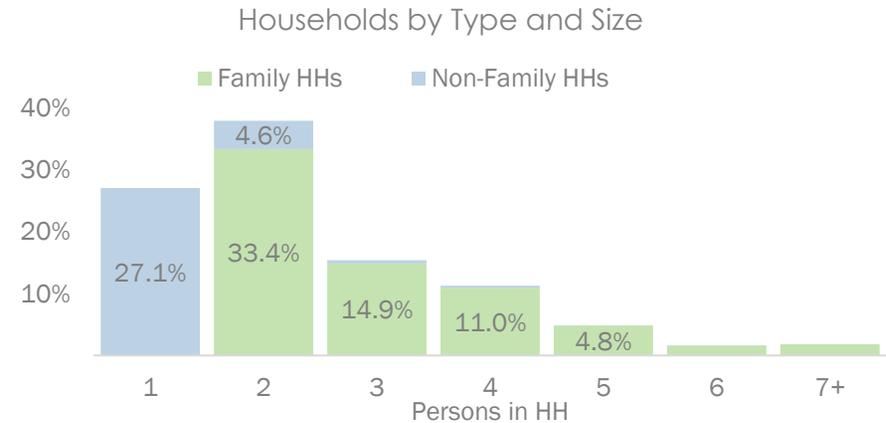
While average household size in Crawford County (2.4 persons per household) is comparable to that within the WDA and the state (2.4 and 2.5 per household, respectively), it is relatively smaller than that within the nation (2.6 per household). Furthermore, while the average household size in Crawford County is expected to remain relatively flat through 2022, it is expected to decrease within the WDA and increase within the nation. One takeaway from the relatively small household size within the county is that new housing units (whether rental or for-sale) will likely need to be smaller, as well.



Source: Esri; 4ward Planning Inc., 2018

Household Type

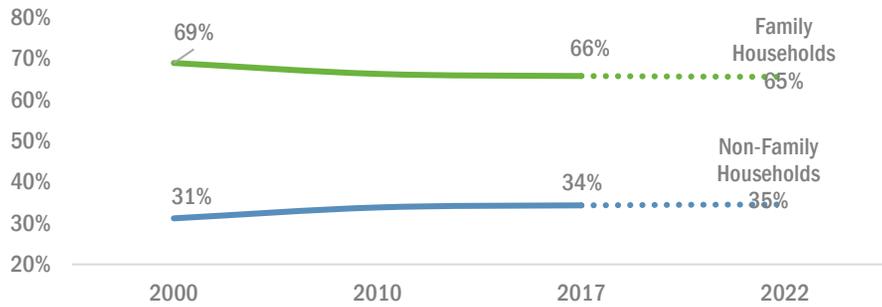
According to the 2011-2015 ACS, approximately 27 percent of Crawford County households are characteristic of single-person households (a person living alone or unrelated persons sharing the housing unit) and 38 percent are characteristic of family households (includes at least two persons related by birth, marriage, or adoption).



Source: ACS, 2011-2015

In recent years, the share of family households in Crawford County has been declining, while the share of non-family households has been increasing. In 2000, for example, family households represented 69 percent of county households, compared to 66 percent in 2017. By comparison, non-family households represented 31 percent of county households in 2000, compared to 34 percent in 2017. Although overall household growth in the county is expected to remain relatively flat over the next five years, the share of non-family households as percentage of all households in the county is anticipated to increase to 35 percent by 2022. The stronger increase in non-family households, a national trend, is due to a variety of demographic, cultural, and economic factors including the general aging of the American population and a high rate of divorce. Furthermore, the trend among young adults to delay or decline marriage, and rising household costs and/or relatively flat income growth are requiring more nonrelatives (e.g., unmarried partners or roommates) to live together.

Households by Type, Crawford County

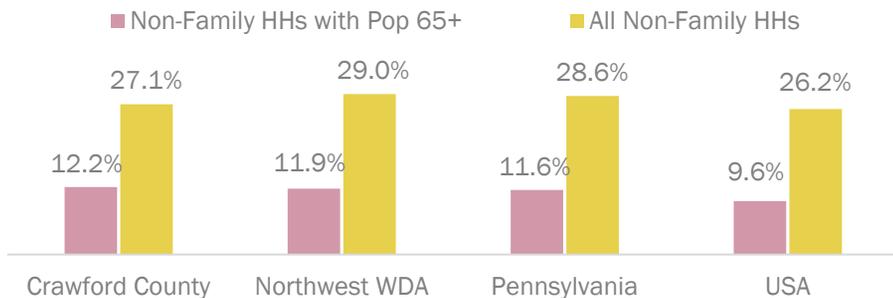


Source: Esri; 4ward Planning Inc., 2018

Single-Person Households

Although the share of single-person households in the county (27.1 percent) is lower than the share within the WDA and the state (29.0 and 28.6 percent, respectively), the share of non-family households headed by a person 65 years or older is slightly higher in the county (12.2 percent), than in the WDA and state (11.9 and 11.6 percent, respectively). While higher shares of 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 local and county government.

Single-Person Households

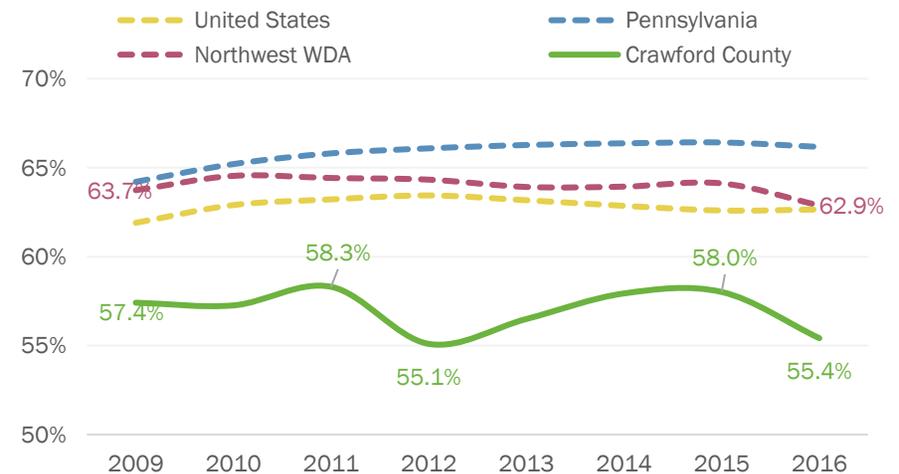


Source: ACS, 2011-2015

Dual-Income Households with Children

According to the ACS survey, in 2016, 55.4 percent of married couples with children under 18 years old in Crawford County were dual-income households (both mother and father are employed). While the share of dual-income married households with children in the state and the nation has increased since 2009, the share of dual-income married households with children in the WDA and the county has declined. 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.

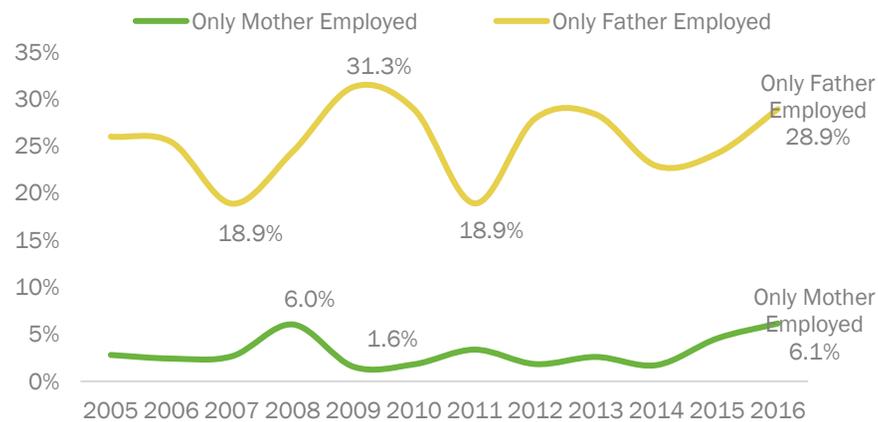
Share Dual-Income Couples with Children Under 18



Source: ACS 5-Year Estimates

Some of the wide fluctuations in dual-income households is specifically related to corresponding fluctuations in the share of employed fathers in the county. This share, which dropped significantly after the 2008 to 2009 recession, has been increasing in recent years (currently 28.9 percent), but remains lower than it was before the recession (31.3 percent in 2009). In contrast, the share of employed mothers in the county (currently 6.1 percent), which has been consistently much lower than the share of employed fathers, has rebounded to slightly above pre-recession levels (6.0 percent in 2008). These trends may be explained, in part, by the greater likelihood that men will work in the manufacturing sector (which has lost approximately 2,160 jobs in the county over the past two decades), while women have been better represented in sectors such as health care and social assistance (which has gained 1,450 jobs in the county over the past two decades).

Share Dual-Income Couples with Children, Crawford County



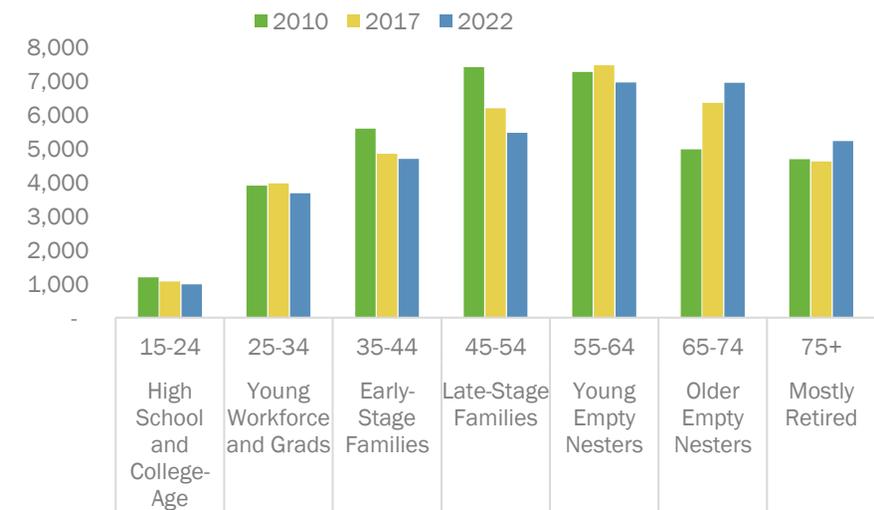
Source: ACS, 2011-2015

Households by Age of Householder

As illustrated below, while the number of households headed by persons between ages 35 and 54 (representing early- and late-stage families) is expected to continue declining over the next five years, the number of households headed by persons ages 65 and over (representing older empty-nesters and mostly retired individuals) is expected to continue increasing, overall. According to interviews with local realtors, there is a decent number of older homeowners who are choosing to not downsize, anticipating that their adult children or grandchildren might choose to live with them.

By 2022, while the number of county households headed by persons between ages 35 and 54 is expected to decrease by approximately 880 households (from 11,040 to 10,160 households), the number of households headed by persons ages 65 and over is expected to increase by approximately 690 households (18,440 to 19,130 households). Further, the decline in households headed by persons ages 35 to 54 also represents a decline in the prime working-age population – creating further fiscal challenge for local and municipal government.

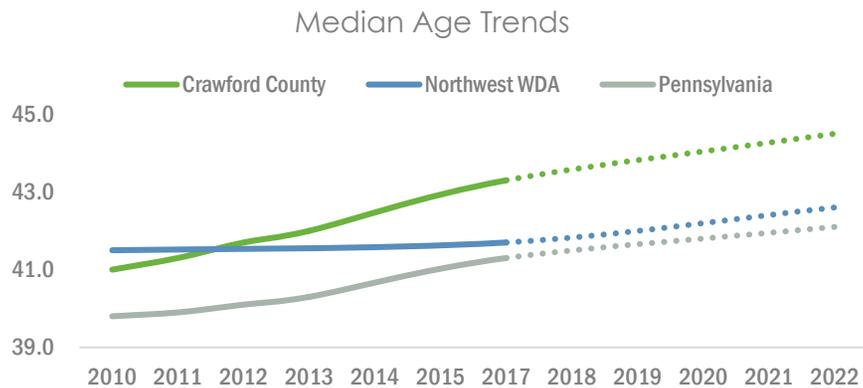
Total Households by Householder Age, Crawford County



Source: Esri; 4ward Planning Inc., 2018

Age

The population in Crawford County is older than those within the WDA and state. The 2017 median age within the county is an estimated 43.3 years, compared to 41.7 years in the WDA and 41.3 years in the state. Despite relatively flat overall population growth expected in the county through 2022, overall, the number of persons ages 65 to 84 (representing the older empty-nester and mostly retired age cohorts) is expected to increase within the county. As a result of this growth, by 2022, the median age in the county is expected to increase to 44.5 years, increasing the demand for senior-type housing



Source: Esri; 4ward Planning Inc., 2018

Housing Demand Drivers

4ward Planning’s housing market research experience demonstrates that a housing market is not unlike an ecosystem, where the healthy function of the system is predicated on maintaining a balanced hierarchical structure of essential organisms. In the case of a housing market, the hierarchical structure is comprised thusly:

- **The bottom tier:** This housing market segment is typically comprised of persons ages 20 to 34 and younger who are, generally, renters. Some of this segment will eventually become first-time home buyers, stimulating demand for “starter homes,” which are typically modest in size and amenities and at the lower end of the house pricing spectrum. Further, this demand segment

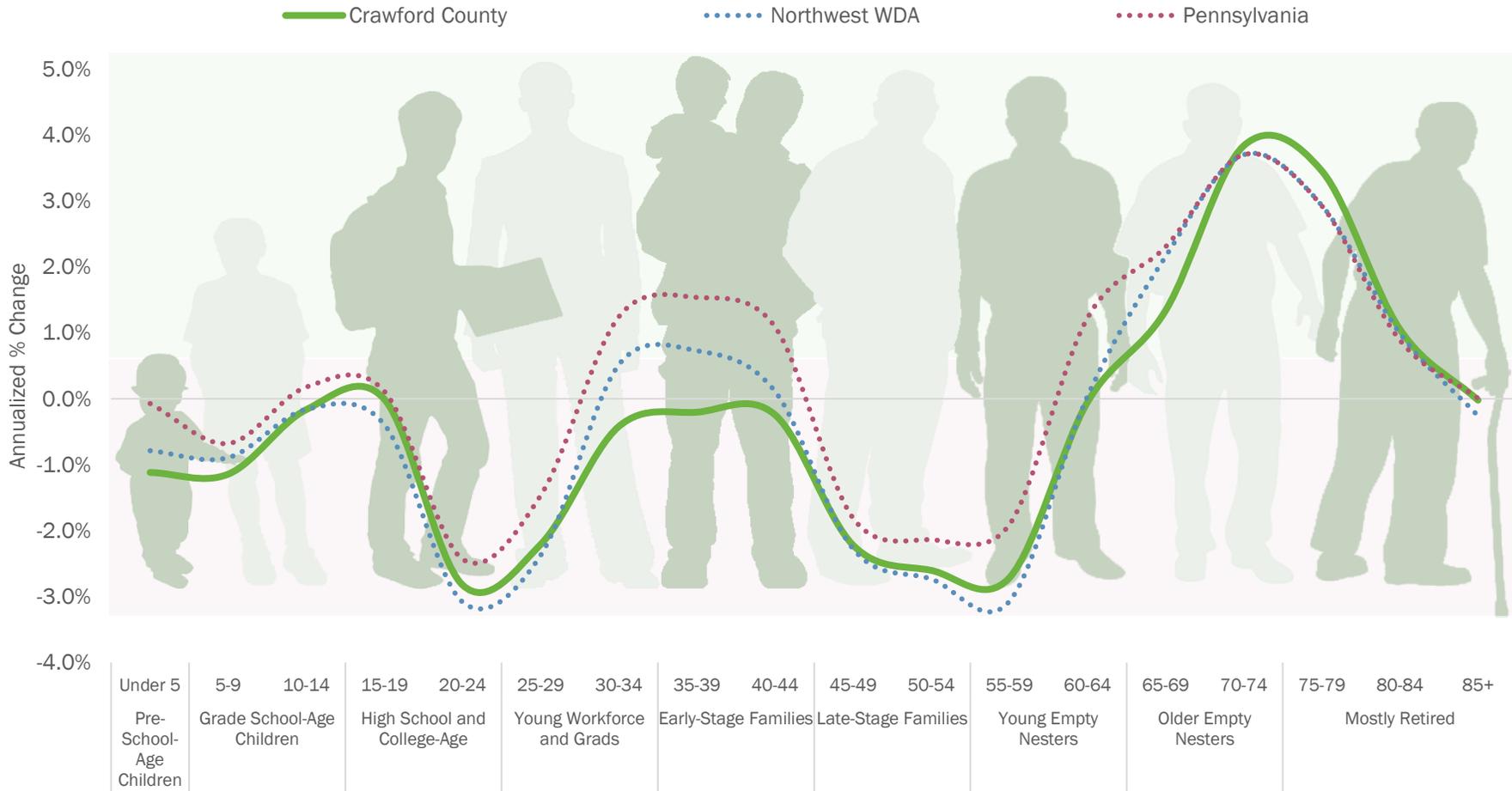
of the housing market ecosystem wields great influence over the rental housing submarket (as the segment grows and rental stock remains steady, rental rates rise) and is also critically important to the “move-up” housing market, as owners of starter homes need buyers prior to move-up house purchases. So, for example, if the size of the bottom tier were to decline over time and/or were its members to demonstrate a decreased appetite for home ownership, the implications (negative) would ripple through the rest of the housing market ecosystem – fewer buyers of starter homes would lead to fewer move-up buyers, resulting in attendant downward pressure on housing values, generally.

- **The upper tier:** This housing market segment is largely comprised of persons who own and occupy starter and move-up housing units and, generally, the heads of households are between ages 55 and 64. The owner occupants of move-up housing who are at or nearing retirement, and particularly those who have children who have moved out, will likely be seeking to move into smaller housing units (whether renter- or owner-occupied units) which require less maintenance and, perhaps, a lower overall cost of occupancy.

Further, the move-up segment provides the principal demand for the market-rate senior housing market (in particular, for age-restricted and independent living developments). Consequently, the functioning health of the market-rate senior housing market is dependent on the functioning health of the move-up housing market.



Annualized Population Change, 2017-2022

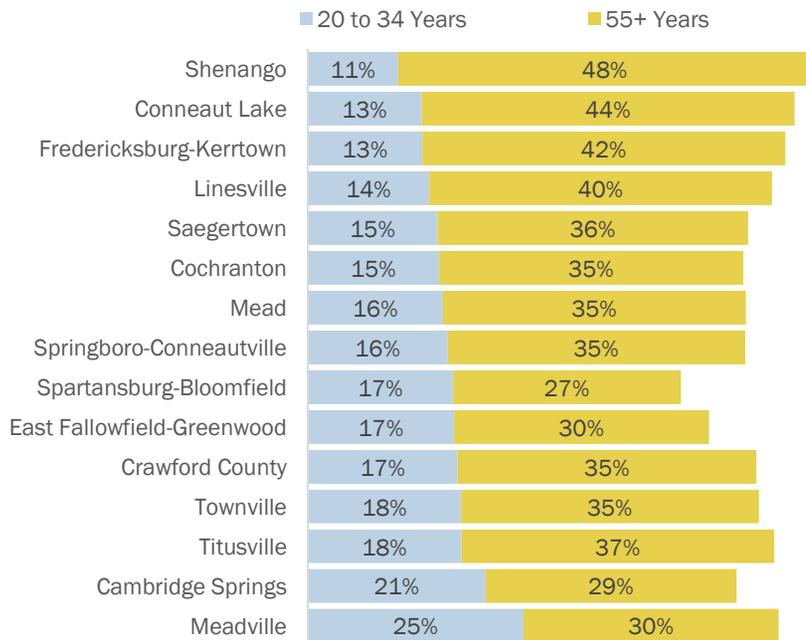


Source: Esri; 4ward Planning Inc., 2018

Population Change by Age and Submarket

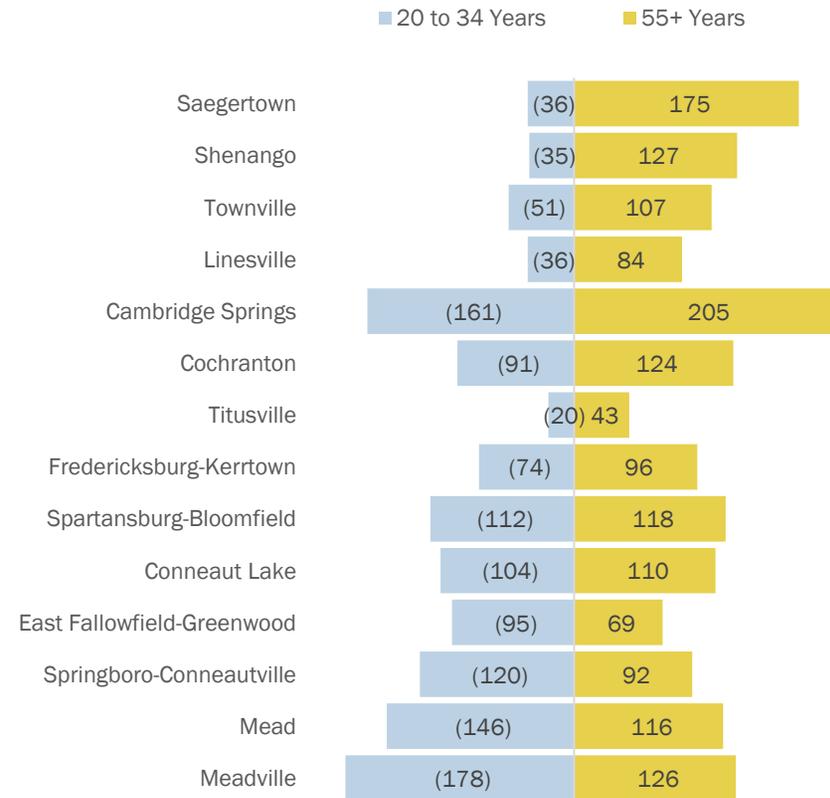
According to data provided Esri, the share of the population by age varies by submarket. While the Meadville submarket has the highest share of persons ages 20 to 34 (25 percent), the Shenango submarket has the highest share of persons ages 55 and over (48 percent). While the share of residents ages 20 to 35 is expected to decline within all submarkets over the next five years, the share of persons ages 55 and over is expected to increase within all submarkets within the same period. Most notably, population decline among those ages 20 to 35 years is expected to be greatest in the Meadville submarket (178 persons), while the population growth among persons ages 55 and over is expected to be greatest in the Cambridge Springs submarket (205 persons).

Population Share by Age Cohort, 2017



Source: Esri; 4ward Planning Inc., 2018

Population Change by Age Cohort, 2017-2022



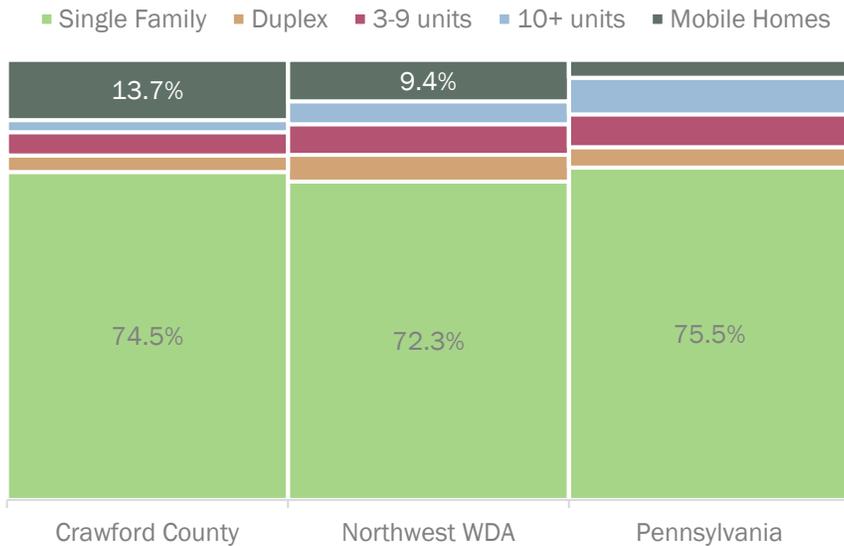
Source: Esri; 4ward Planning Inc., 2018

Housing

Inventory

According to 2011-2015 ACS data provided by Esri, Crawford County is predominately composed of single-family housing, characteristic of 74.5 percent of the housing stock. A relatively large share (13.7 percent) of the county’s housing stock is composed of mobile homes, providing an affordable housing option for the county’s low- and moderate-income residents.

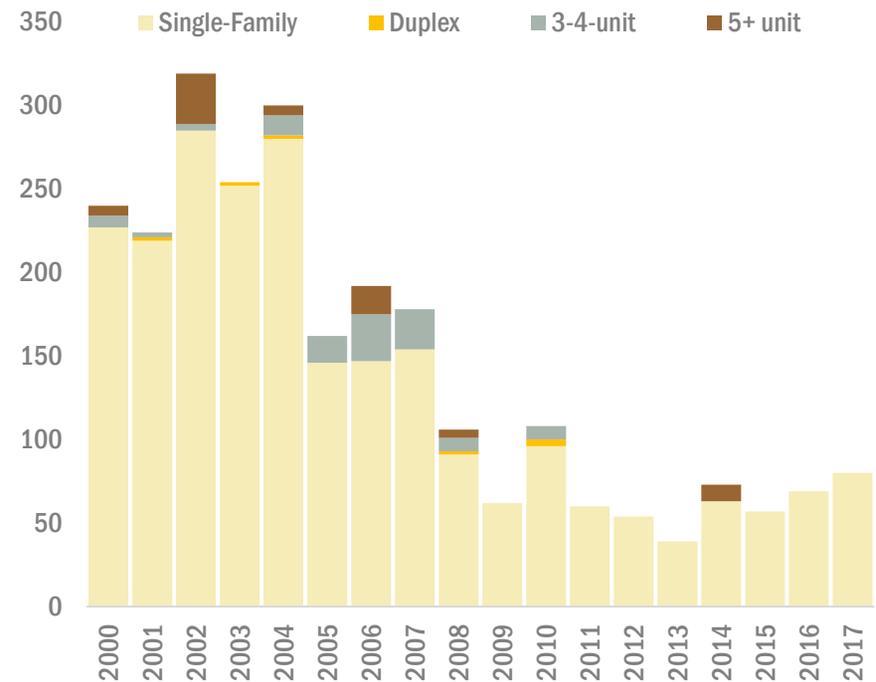
Housing Inventory by Building Type



Source: Esri; 4ward Planning Inc., 2018

According to data provided by the U.S. Census Building Permits Survey, between 2000 and 2017, approximately 2,508 units were permitted within Crawford County, with 92 percent of these units characteristic of single-family homes. Between 2000 and 2017, Crawford County’s total housing stock grew from 42,420 to 44,450 units, increasing by 2,270 units.

Housing Permits, Crawford County

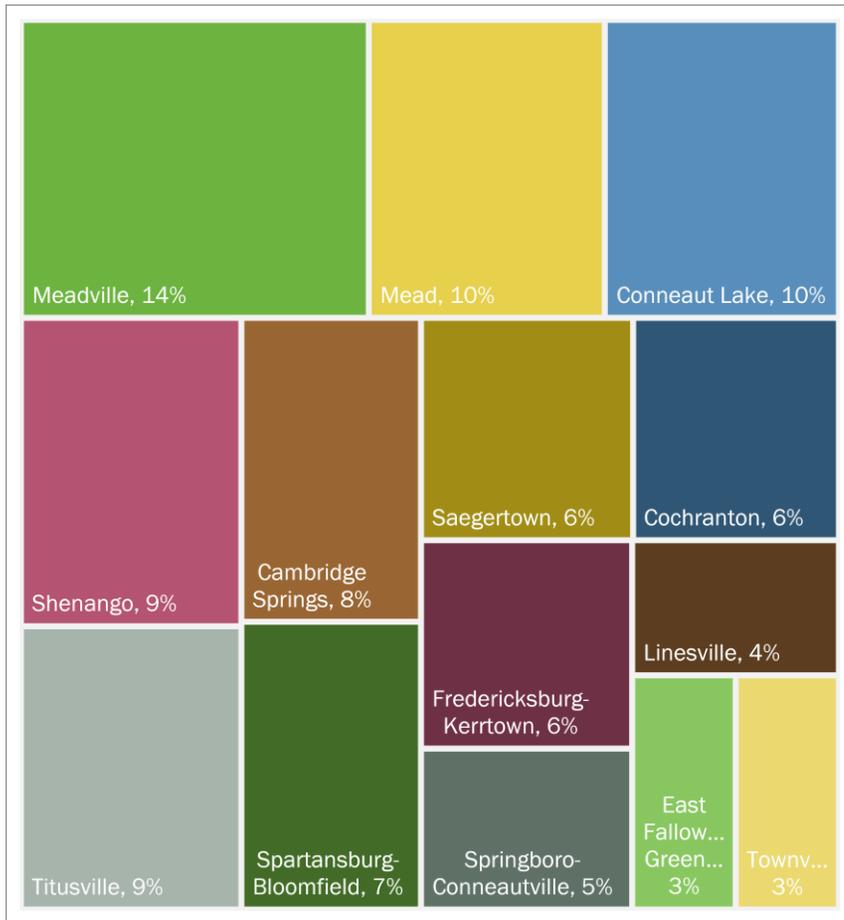


Source: U.S. Census, Building Permits Survey, 2018

Approximately half of all units within the county are located within the Meadville, Mead, Conneaut Lake, Shenango, and Titusville housing submarkets, combined. Living quarters including dormitories, bunkhouses, barracks, transient hotels or motels, institutional quarters, hospitals, and military installations are not included in the housing unit inventory.

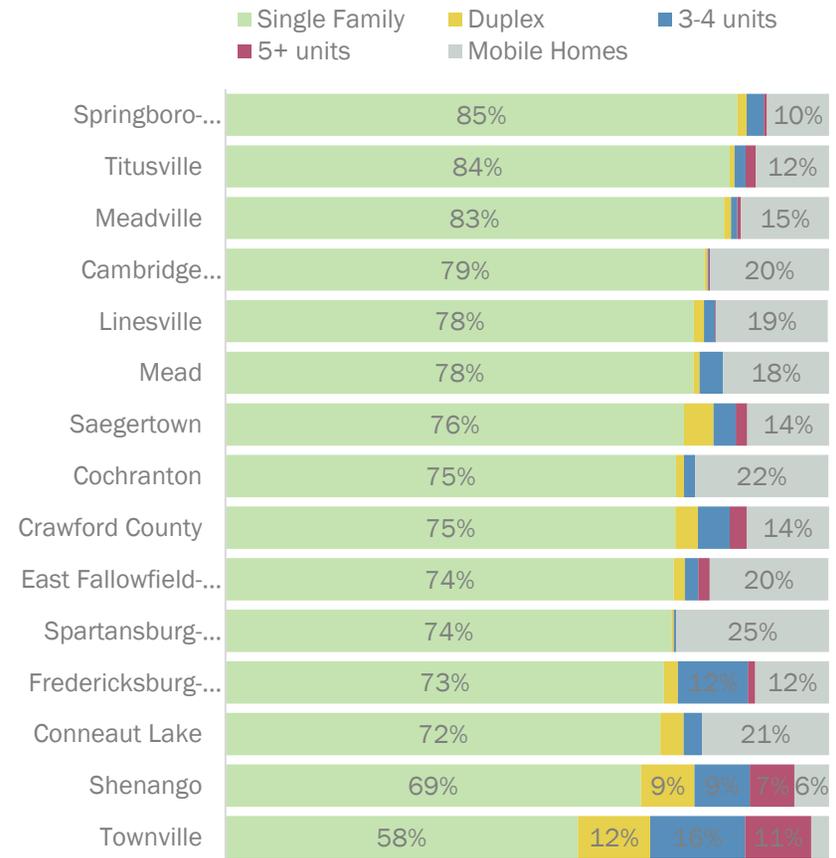
The Springboro-Conneautville submarket has the highest share of single-family units (85 percent), while the Townville submarket has the highest share of multi-family units with five units or more (11 percent). The Spartansburg-Bloomfield submarket has the highest share of mobile homes (25 percent).

Total Housing by Submarket, 2017



Source: Esri; 4ward Planning Inc., 2018

Housing Inventory by Building Type



Source: Esri; 4ward Planning Inc., 2018

Assisted Housing Inventory

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. Within Crawford County, there are two housing authorities that provide both public housing, and run a tenant based Section 8 program (where low and extremely low income families rent off the private sector with subsidized rents). These programs are income-based and the eligibility guidelines are set by the U.S. Department of Housing and Urban Development (HUD).

- **Housing Authority of the City of Meadville (HACM)** owns and manages 347 units within four facilities (Elmwood Village, Morgan Village, Holland Towers, and William Gill Commons) and 15 scattered sites within the City of Meadville. HACM also manages the 11-unit Snodgrass Apartments. HACM has the capacity to manage 153 units of Section 8 vouchers.
- **Titusville Housing Authority (THS)** owns and manages 216 units within two facilities (Central Towers and the Billie Brown Building) and 61 Family Units scattered at three sites in the City of Titusville (on East Spruce, West Oak, and Jones streets). THS has the capacity to manage 103 units of Section 8 vouchers.

In addition to the units provide by Crawford County’s two housing authorities, there are other housing units within the county that operate with a public source of financing in order to provide affordable rental apartment options for senior adults, families, and people with disabilities. For example, the Section 202 Supportive Housing for the Elderly program provides funding to nonprofit organizations that develop and operate housing for seniors with very low incomes. The Section 811 program allows persons with disabilities to live as independently as possible by subsidizing rental housing opportunities which provide access to appropriate supportive services.

According to HUD’s 2017 Picture of Subsidized Households (PSH) database, there are a total of 1,237 subsidized units in Crawford County that are administered by HUD or predecessor agencies, which provide housing for 2,070 people. The subsidized unit household contains 1.8 persons and has a household income of approximately \$12,637 per year. Ninety-one percent of these households are very low income (VLI) and 61 percent are extremely low income (ELI). These units have an annual occupancy of 92 percent and a turnover of 15 percent. The average household waited an average of ten months on the waiting list, and has received housing benefits for six years and nine months.

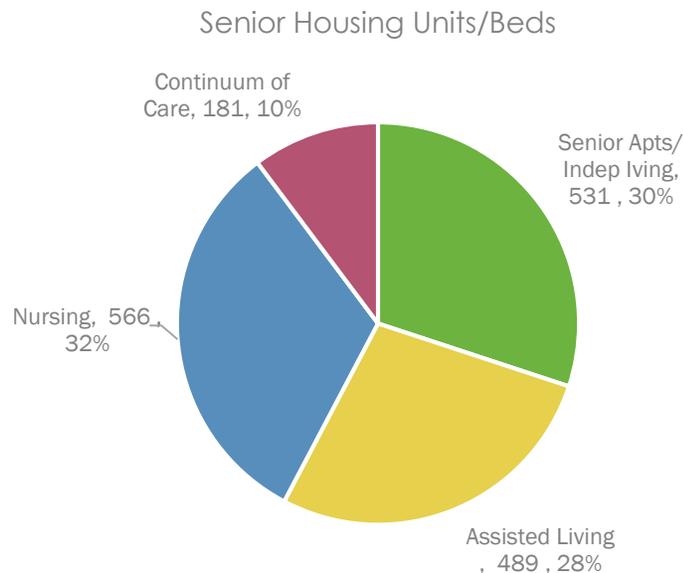
Summary of HUD Programs, Crawford County, 2017

Program	Public Housing	Housing Choice Vouchers	Project Based Section 8	202/PRAC	811/PRAC	All
Subsidized units available	498	297	339	61	42	1,237
% Occupied	93%	88%	94%	97%	97%	92%
HH income per year	\$13,411	\$11,035	\$12,639	\$14,403	\$10,998	\$12,637
Number of total people	867	437	658	60	48	2,070
Number of people per unit	1.9	1.7	2.0	1.0	1.1	1.8
% Moved in past year	15%	12%	20%	5%	11%	15%
% of local median (HH income)	30%	25%	28%	37%	27%	29%
% Very low income	87%	98%	90%	91%	100%	91%
% Extremely low income	60%	72%	57%	33%	67%	61%
Average months on waiting list	6	20	-1	-1	-1	10
Average years since moved in	7.1	7.8	5.8	6.3	8.5	6.9

Source: HUD, Picture of Subsidized Households, accessed May 2018

Senior Housing

There are approximately 1,880 units/beds dedicated to seniors in Crawford County (44.5 percent within the Meadville, Titusville, and Sagertown submarkets). Specifically, there are approximately 530 affordable senior apartment units/independent living facility units, 490 assisted living beds, and 570 nursing facility beds. The Rolling Fields Elder Care Community in Conneautville provides a continuum of care option, including additional independent living units. Furthermore, there are four projects either underway or planned within Crawford County. In Meadville, there are two senior housing complexes being planned, including the conversion of the 163-room former Days Inn 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 is finishing up construction of the 40-unit Evans Square senior housing complex at Conneaut Lake and has plans for the 39-unit Adams Place senior housing complex in Cochranton.



Source: Internet, HUD, PHFA, 2018.

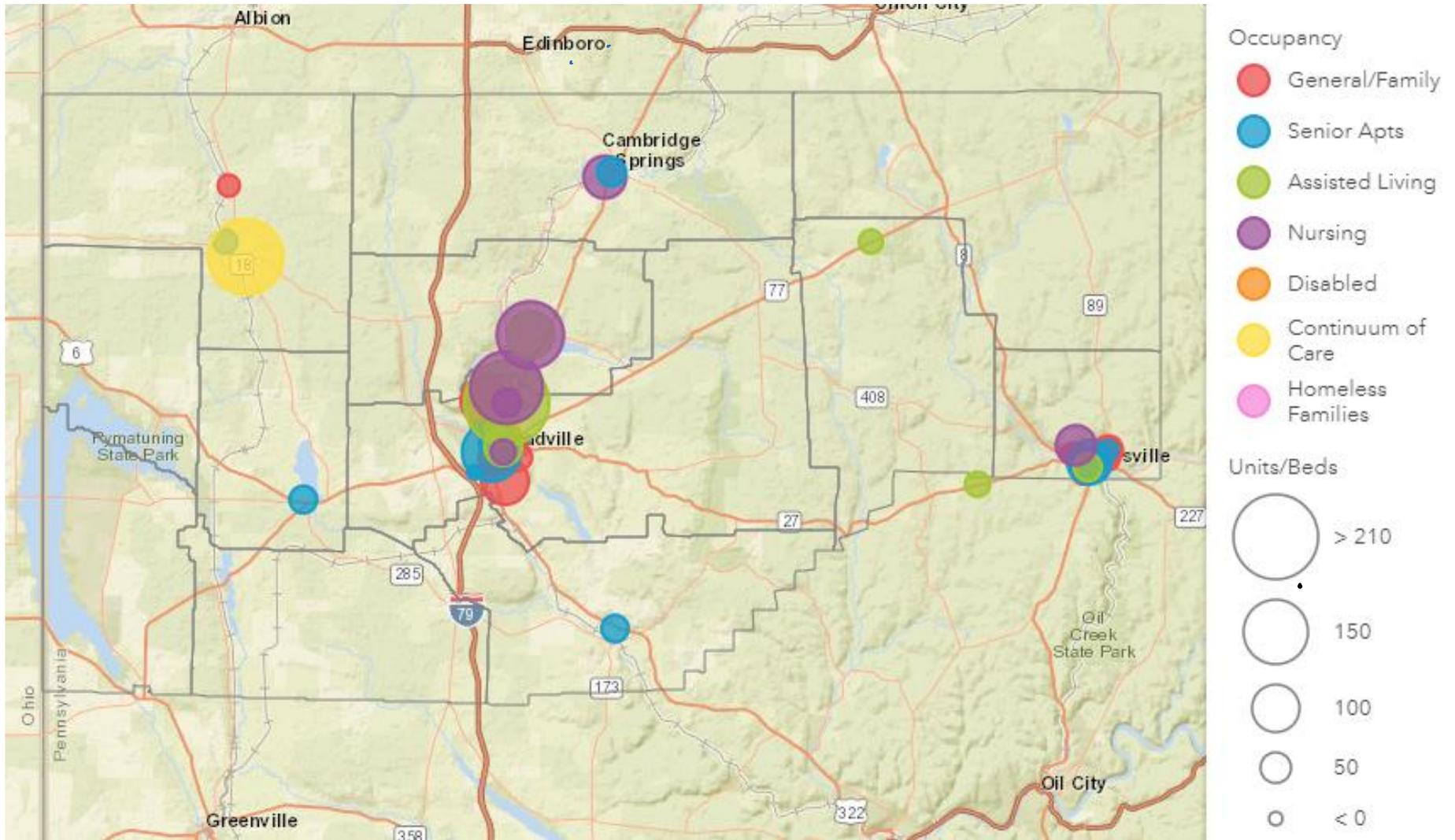
Inventory of Senior and Affordable Rental Housing, 2018

	Affordable Units	Senior Units/beds
Meadville	55.4%	21.4%
Titusville	27.9%	12.8%
Sagertown	0.0%	10.2%
Springboro-Conneautville	4.6%	8.4%
Fredericksburg-Kerrtown	0.0%	8.3%
Cambridge Springs	3.7%	5.1%
Mead	8.5%	0.0%
Conneaut Lake	3.4%	1.6%
Cochranton	3.3%	1.6%
Townville	0.0%	1.2%
East Fallowfield-Greenwood	0.0%	0.0%
Linesville	0.0%	0.0%
Shenango	0.0%	0.0%
Spartansburg-Bloomfield	0.0%	0.0%
Crawford County	100%	100%

Source: Internet, HUD, Caring.com, 2018.

According to Caring.com, 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 percent 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.

Inventory of Senior and Affordable Rental Housing, 2018



Sources: U.S. Department of Housing and Urban Development, Open Data; PA Housing Finance Agency, January 2018; Internet, 4ward Planning, Inc..

Inventory of Senior and Affordable Rental Housing, 2018

Property Name	Submarket	Occupancy	Bedrooms					Capacity	
			0-1 BR	2 BR	3 BR	4 BR	5 BR	Units	Beds
Capabilities of Crawford County	Meadville	Disabled	12	-	-	-	-	12	-
Terrace Overview Apts.	Meadville	Disabled	8	2	-	-	-	10	-
Hands Triad Housing	Meadville	Disabled	14	-	-	-	-	14	-
Highland Pointe	Meadville	Disabled	8	-	-	-	-	8	-
<i>Disabled Subtotal</i>			<i>42</i>	<i>2</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>44</i>	<i>-</i>
611 Terrace Street	Meadville	General/Family	-	-	1	-	-	1	-
613 Terrace Street	Meadville	General/Family	-	-	1	-	-	1	-
676 Baldwin Street	Meadville	General/Family	-	-	1	-	-	1	-
674 Baldwin Street	Meadville	General/Family	-	-	1	-	-	1	-
669 Baldwin Street	Meadville	General/Family	-	-	1	-	-	1	-
610 Park Ave	Meadville	General/Family	-	-	1	-	-	1	-
275 Loomis Street	Meadville	General/Family	-	-	1	-	-	1	-
277 Loomis Street	Meadville	General/Family	-	-	1	-	-	1	-
553 Arch Street	Meadville	General/Family	-	-	1	-	-	1	-
1177 Elm Street	Meadville	General/Family	-	-	1	-	-	1	-
350 Willow Street	Meadville	General/Family	-	-	1	-	-	1	-
704 State Street	Meadville	General/Family	-	-	1	-	-	1	-
786 Grove Street	Meadville	General/Family	-	-	1	-	-	1	-
777 North Morgan Street	Meadville	General/Family	-	-	1	-	-	1	-
413 Pine Street	Meadville	General/Family	-	-	1	-	-	1	-
702 - 722 Jones Street	Titusville	General/Family	2	5	4	-	-	11	-
317 - 323 N. Fourth Street	Titusville	General/Family	2	1	-	1	-	4	-
802- 828 W. Oak Street	Titusville	General/Family	-	7	7	-	-	14	-
218 - 224 Schwartz Lane	Titusville	General/Family	2	-	2	1	-	5	-
902 - 954 E. Spruce Street	Titusville	General/Family	2	10	13	2	-	27	-
Briarwood Manor Apts.	Titusville	General/Family	29	18	-	-	-	47	-
Country Place Apts	Springboro-Conneautville	General/Family	8	16	-	-	-	24	-
Elm Street Apartments	Titusville	General/Family	18	-	-	-	-	18	-
Elmwood Village	Meadville	General/Family	7	33	15	4	2	61	-
Fairmont Apts.	Meadville	General/Family	15	16	20	4	-	55	-
Fairview Apts.	Meadville	General/Family	-	10	32	6	-	48	-
Forest Green Estates	Meadville	General/Family	13	43	34	10	-	100	-
Liberty House	Meadville	Homeless Families	-	4	2	-	-	6	-
Morgan Village	Meadville	General/Family	9	9	14	7	-	39	-
Parkside Commons	Meadville	General/Family	48	8	-	-	-	56	-
Popular Street Homes	Meadville	General/Family	-	-	3	-	-	4	-
Shrubb Drive Home	Meadville	General/Family	-	1	-	-	-	1	-
Snodgrass Building	Meadville	General/Family	11	-	-	-	-	11	-
South Main Place	Meadville	General/Family	2	2	1	-	-	5	-
Titusville Apts.	Titusville	General/Family	-	30	-	-	-	30	-
William Gill Commons	Meadville	General/Family	4	42	33	21	-	100	-
<i>General/Family Subtotal</i>			<i>172</i>	<i>255</i>	<i>195</i>	<i>56</i>	<i>2</i>	<i>681</i>	<i>-</i>
Bartlett Gardens	Cambridge Springs	Senior Apts	41	2	-	-	-	43	-
Billie Brown Building	Titusville	Senior Apts	63	2	-	-	-	65	-
Brookside Apartments	Meadville	Senior Apts	20	-	-	-	-	20	-
Central Towers	Titusville	Senior Apts	88	2	-	-	-	90	-
Holland Towers	Meadville	Senior Apts	130	2	-	-	-	132	-
Shryock Senior Apts.	Meadville	Senior Apts	41	-	-	-	-	41	-
Triad Apts.	Meadville	Senior Apts	14	-	-	-	-	14	-
Von Bora Place	Titusville	Senior Apts	17	-	-	-	-	17	-

Inventory of Senior and Affordable Rental Housing, 2018 (Continued)

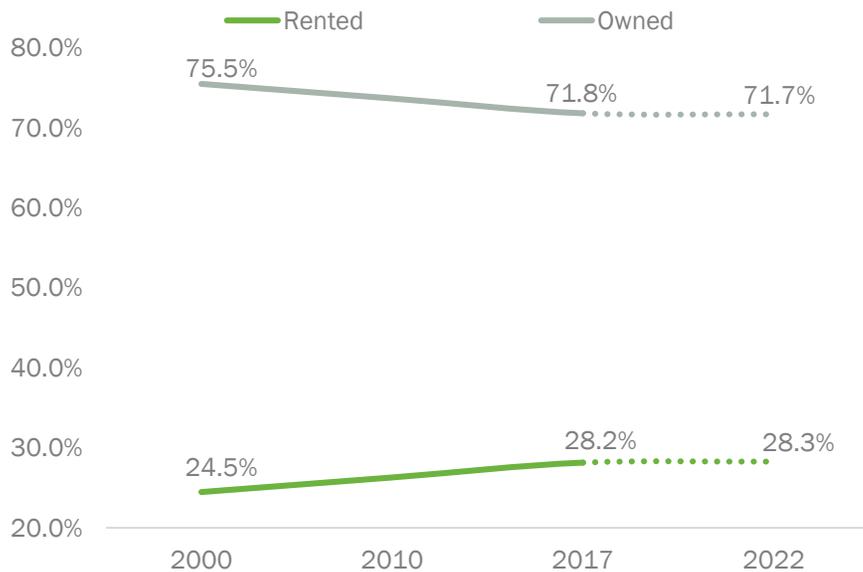
Property Name	Submarket	Occupancy	Bedrooms					Capacity	
			0-1 BR	2 BR	3 BR	4 BR	5 BR	Units	Beds
Washington Street Apts	Springboro-Conneautville	Senior Apts	30	-	-	-	-	30	-
Adams Place (Proposed)	Cochranon	Senior Apts	37	2	-	-	-	39	-
Evans Square (Proposed)	Conneaut Lake	Senior Apts	36	4	-	-	-	40	-
Pine Street Commons Active Living (Construction)	Meadville	Senior Apts	NA	NA	-	-	-	-	-
Wesbury United Methodist Community (Planned)	Meadville	Senior Apts	NA	NA	-	-	-	-	-
Carousel House	Meadville	Assisted Living	5	10	-	-	-	15	15
Country Acres Personal Care Home	Titusville	Assisted Living	33	-	-	-	-	33	33
Homestead Hearth Personal Care Home	Townville	Assisted Living	5	10	-	-	-	15	30
Juniper Village	Meadville	Assisted Living	-	-	-	-	-	-	70
Quality Living Center of Crawford County	Saegertown	Assisted Living	-	-	-	-	-	-	99
Southwoods Assisted Living	Titusville	Assisted Living	41	-	-	-	-	41	41
Wesbury United Methodist Community	Fredericksburg-Kerrtown	Assisted Living	-	-	-	-	-	-	210
Cambridge Springs Rehabilitation & Nursing Center	Cambridge Springs	Nursing	-	-	-	-	-	-	85
Crawford County Care Center	Saegertown	Nursing	-	-	-	-	-	-	157
Pattisville Healthcare And Rehab (Formerly Golden Living)	Titusville	Nursing	-	-	-	-	-	-	77
Meadville Medical Center (Stepping Stones)	Meadville	Nursing	-	-	-	-	-	-	32
Meadville Rehabilitation and Nursing Center (Aristocare)	Meadville	Nursing	-	-	-	-	-	-	173
Wesbury Hillside Home	Meadville	Nursing	-	-	-	-	-	-	42
Rolling Fields Elder Care Community	Springboro-Conneautville	Continuum of Care	-	-	-	-	-	-	181
<i>Senior Subtotal</i>			<i>601</i>	<i>34</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>635</i>	<i>1,245</i>
Total			815	291	195	56	2	1,360	1,245

Sources: U.S. Department of Housing and Urban Development, Open Data; PA Housing Finance Agency, January 2018; Internet, 4ward Planning, Inc.

Housing Tenure

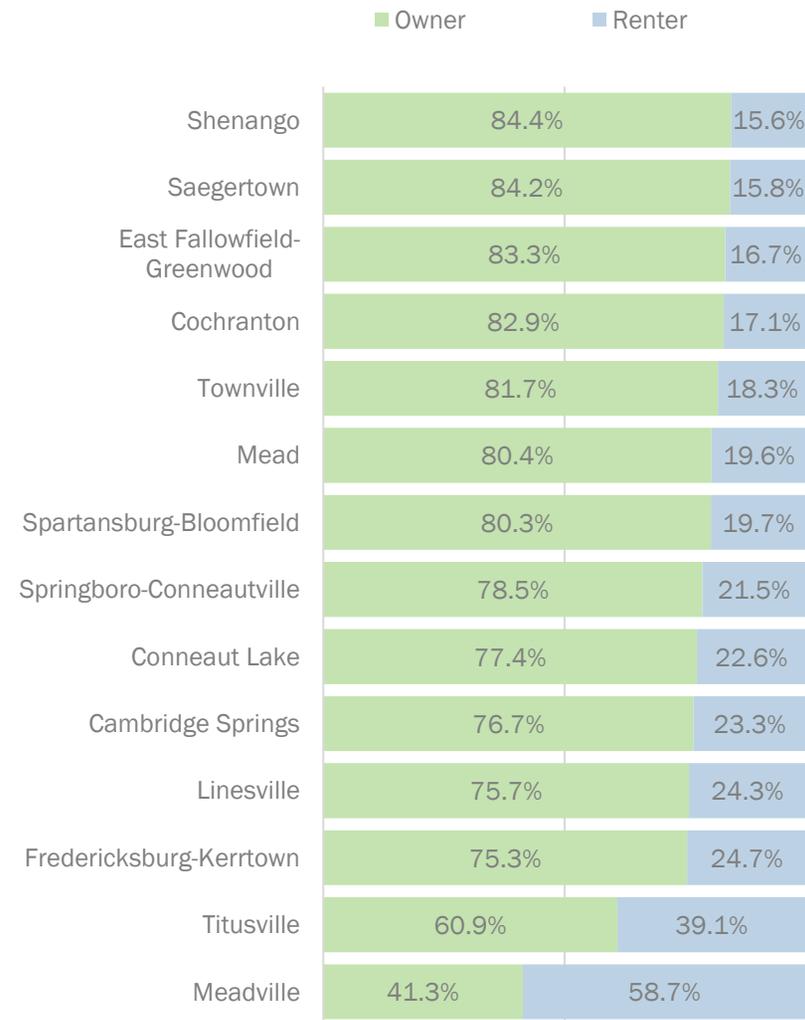
From 2000 to 2017, the share of renter-occupied housing units in Crawford County increased from 24.5 to 28.2 percent, while the share of owner-occupied housing units decreased from 75.5 to 71.8 percent. The increasing share of renter-occupied housing reflects a trend observed nationally. According to 2017 estimates provided by Esri, the Meadville and Titusville submarkets have the highest share of renter-occupied housing units (58.7 and 39.1 percent, respectively). Given that these cities also contain the largest concentrations of employment, this housing tenure ratio is unsurprising.

Share of Housing by Occupancy, Crawford County



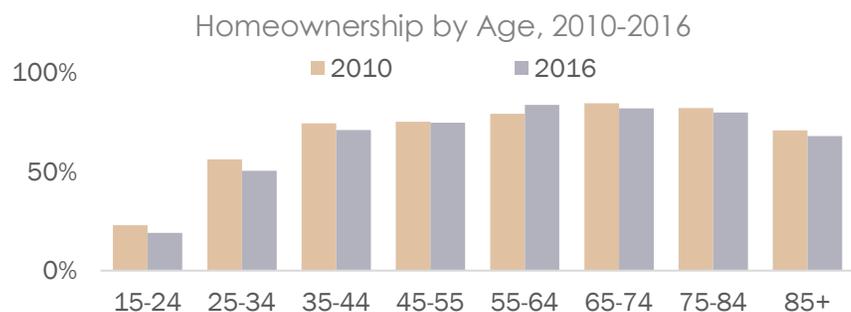
Source: Esri; 4ward Planning Inc., 2018

Housing Tenure by Occupied Housing

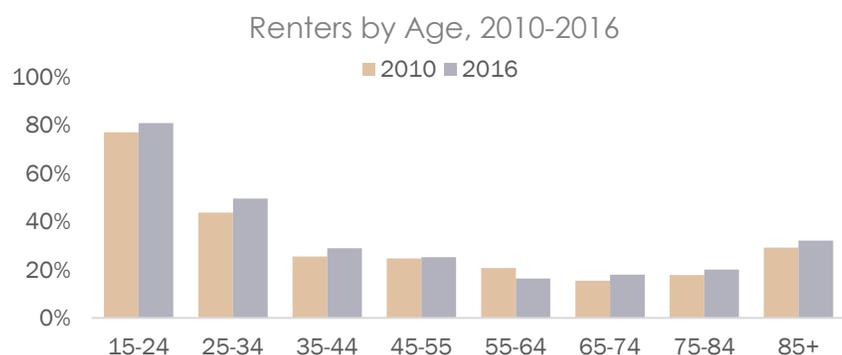


Source: Esri; 4ward Planning Inc., 2018

In Crawford County, rates of homeownership peak among householders between ages 55 and 64, while rates of renting are highest among younger households. From 2000 to 2016, the share of county households that own their homes decreased among nearly all age groups (except those headed by persons between ages 55 and 64), while the share of households that rent their homes increased. A falling ownership rate in younger age groups can signal the difficulty of making a first-time home purchase, while falling ownership rates among the middle-aged usually signal moves to the rental market.



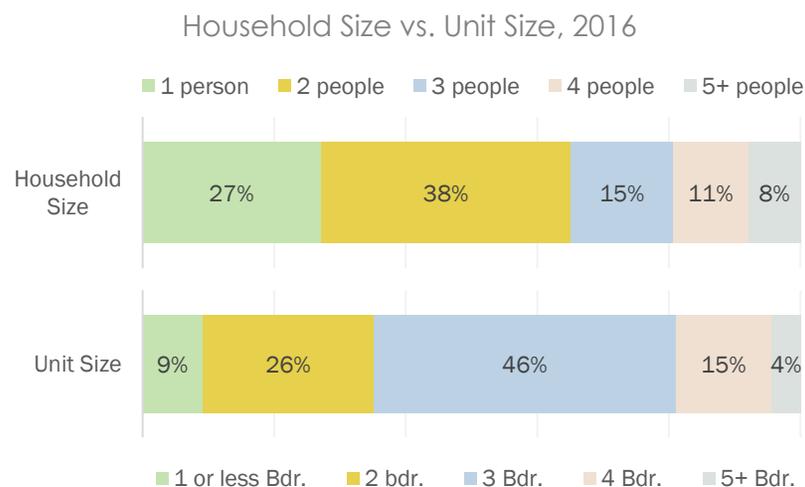
Source: 2016 ACS, B25007



Source: 2016 ACS, B25007

Household Size and Unit Size

One way to measure whether housing stock is suited to the local population is to compare household size to the number of bedrooms in dwelling units in the local inventory. The share of one-person households in Crawford County (27 percent) is much larger than the share of studio or one-bedroom units, combined (nine percent). Likewise, the share of one- and two-person households combined (65 percent) is much larger than the share of studio, one-, and two-bedroom units, combined (35 percent). In other words, the 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 through 2022 (2.4 persons per household), a shortage of small housing units relative to household size will likely continue.



Source: 2012-2016 ACS 5-Year Estimates, B11016; DP04

Housing Vacancy

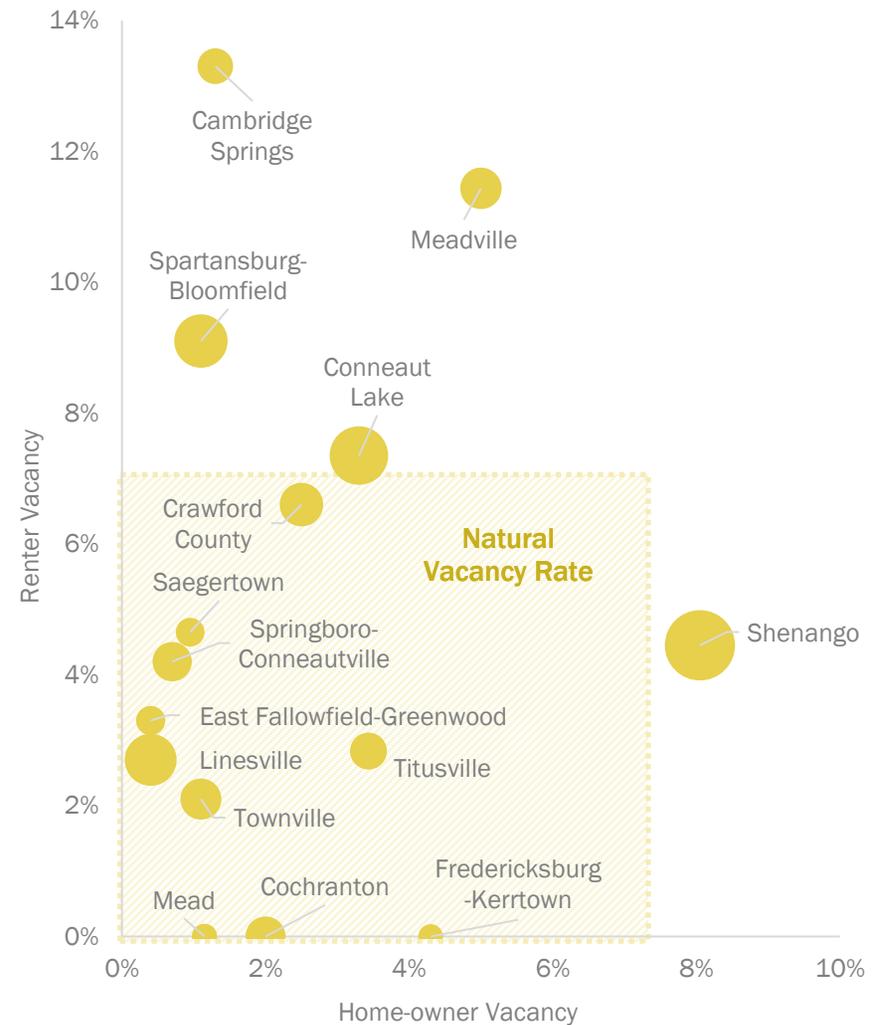
In general, a vacancy rate of approximately five percent is an indicator of a relatively healthy housing market, although naturally occurring vacancy rates can range from two to seven percent. Typically, vacancy rates over seven percent reflect an oversupply of available housing. According to 2016 American Community Survey 5-Year Estimates, summarized below, the county's overall housing vacancy rate was a relatively high 22.2 percent, which includes seasonal and units vacant due to other reasons, such as physical obsolescence. Furthermore, vacancy rates vary widely by submarket, reaching as high as 57.8 percent within the Shenango submarket, and as low as 7.1 percent within the Fredericksburg-Kerrtown Bloomfield submarket. According to interviews with local real estate brokers, Meadville's high rental vacancy rate is partially attributed to a lack of qualifying renters. One realtor cited an unusually high vacancy rate in Timbercrest Apartments, described as a modest but well-kept apartment complex in Meadville which, in more economically robust times, would have a much lower vacancy rate.

Detailed Housing Vacancy by Tract and Submarket, 2016

Submarket Name	Avg. Vacancy by Type		Overall Vacancy
	Home-owner	Renter	
Shenango	8.1%	4.5%	57.8%
Conneaut Lake	3.3%	7.4%	40.1%
Spartansburg-Bloomfield	1.1%	9.1%	33.4%
Linesville	0.4%	2.7%	31.6%
Meadville	5.0%	11.4%	20.1%
Townville	1.1%	2.1%	19.7%
Cochranton	2.0%	0.0%	18.8%
Springboro-Conneautville	0.7%	4.2%	18.1%
Titusville	3.4%	2.8%	16.0%
Cambridge Springs	1.3%	13.3%	14.9%
East Fallowfield-Greenwood	0.4%	3.3%	10.0%
Saegertown	1.0%	4.7%	9.7%
Mead	1.2%	0.0%	7.5%
Fredericksburg-Kerrtown	4.3%	0.0%	7.1%
Crawford County	2.5%	6.6%	22.2%

Source: 2016 ACS 5-Year Estimates; 4ward Planning Inc., 2017

Detailed Housing Vacancy by Tract and Submarket, 2016

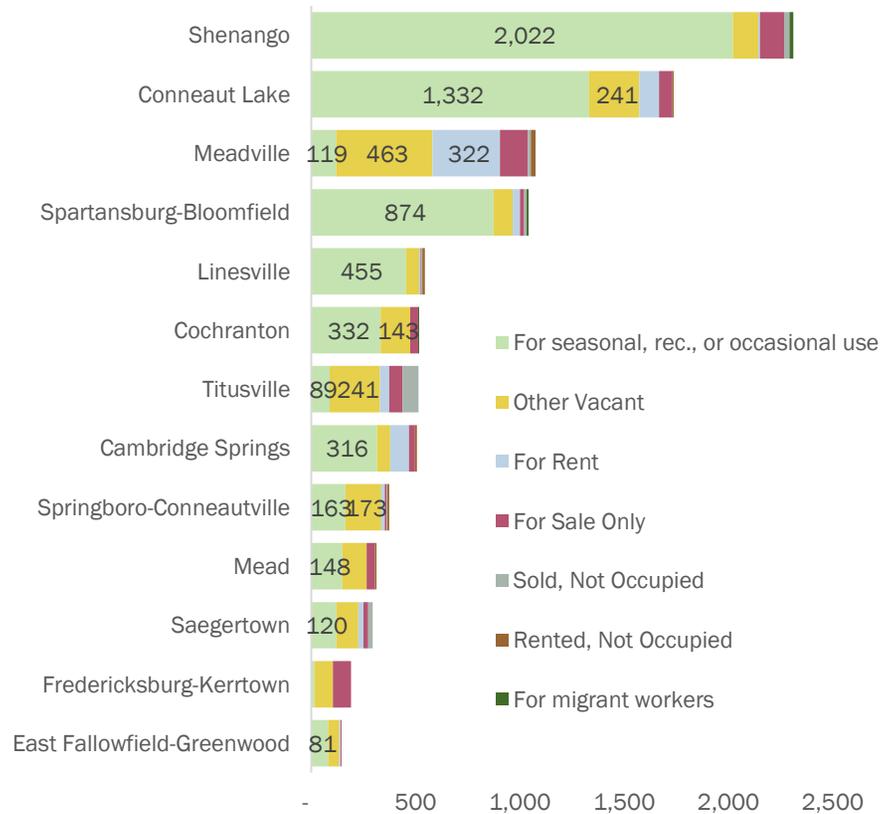


Note: Bubble size represents 2017 overall vacancy rate
 Source: 2016 ACS 5-Year Estimates; 4ward Planning Inc., 2017

Vacancy Status

The data presented below helps explain the relatively high average vacancy rate within Crawford County and its submarkets. For example, there are approximately 2,020 homes within the Shenango submarket and 1,330 homes within the Conneaut Lake submarket that are vacant because they are dedicated to seasonal, recreational, or occasional use. Furthermore, there is a high number of “other vacant” homes within the Meadville, Titusville, and Conneaut Lake submarkets, which may be vacant due to repairs, foreclosure, or other personal reasons.

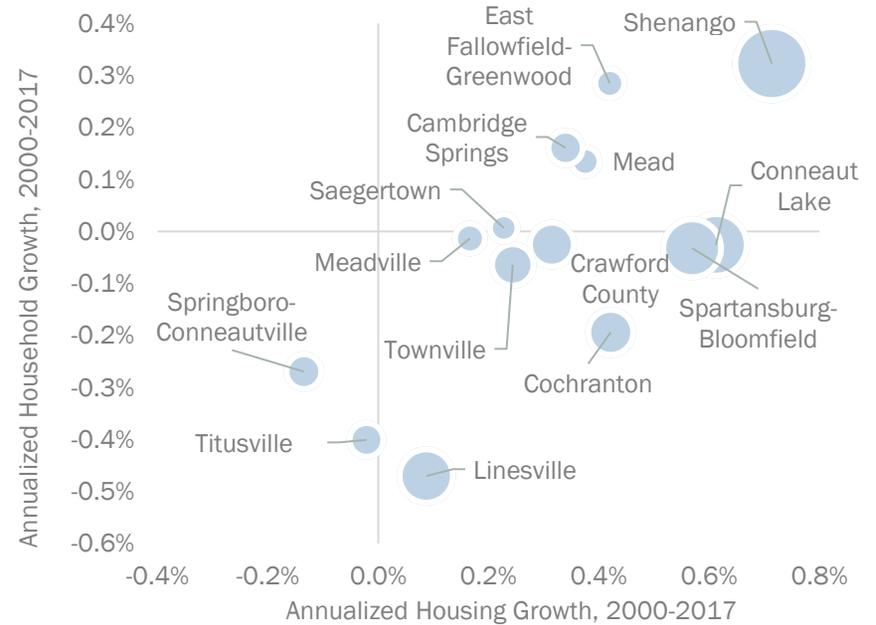
Vacant Housing by Status and Submarket, 2016



Source: 2016 ACS 5-Year Estimates; 4ward Planning Inc., 2017

Between 2000 and 2017, although Crawford County gained approximately 2,270 housing unit, it lost approximately 150 households during the same time. Despite the combination of positive housing growth and negative household growth, the county’s vacancy rate remained relatively flat (23 percent), albeit remaining relatively high. Nevertheless, housing and household change during this period varied widely by submarket. For example, the Shenango submarket experienced both positive housing and household growth during this period (0.7 and 0.3 percent per year, respectively), decreasing its overall vacancy rate from 65 to 57 percent (but remaining the submarket with the highest vacancy rate). In contrast, during the same period, the Springboro-Conneautville submarket experienced both negative housing and household growth (-0.1 and -0.3 percent per year), increasing its overall vacancy rate from 13 to 15 percent.

Annualized Growth Trends by Submarket, 2000-2017

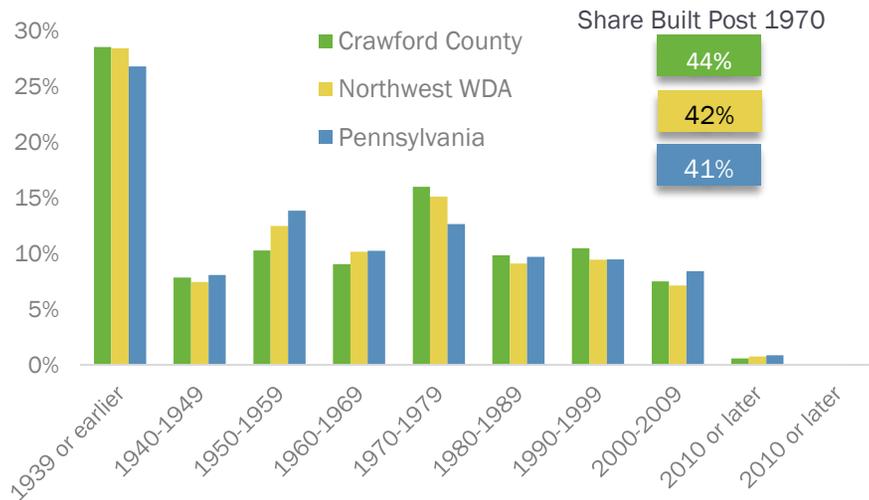


Note: Bubble size represents 2017 overall vacancy rate
Source: US Census, Esri

Housing Age

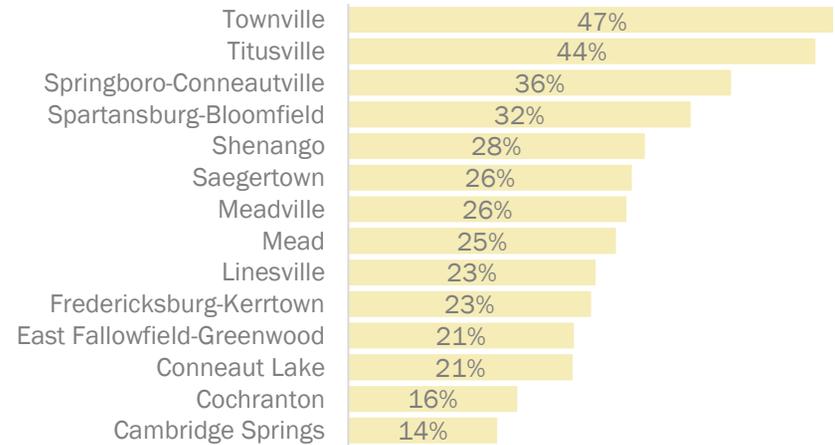
According to 2011-2015 ACS data provided by Esri, a higher share of housing in the county was built before 1940 (44 percent), compared to the WDA and state (42 and 41 percent, respectively). The Townville and Titusville submarkets have the highest share of housing built before 1940 (47 and 44 percent, respectively). Because older homes require more upkeep, deferred housing maintenance and repairs may be a growing challenge among lower income or senior households who may lack the financial means or physical ability to repair older homes. This may be especially the case in housing submarkets like Titusville that have relatively high share of older housing stock and low median household incomes (\$37,245) or Saegertown that have relatively high share of older housing stock and large population growth expected among persons age 55 and older (175 new persons over 55 years by 2022). These factors may account for a portion of the housing blight observed in these submarkets.

Share Housing Built by Year of Structure



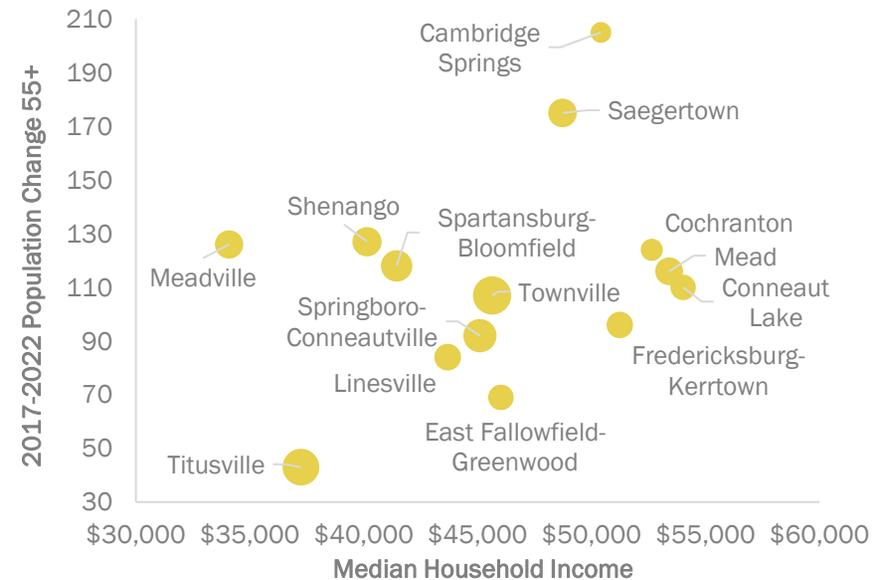
Source: 2011-2015 ACS, Esri; 4ward Planning Inc., 2018

Share of Housing Built Pre-1940



Source: 2011-2015 ACS, Esri; 4ward Planning Inc., 2018

Population Change and Median Household Income

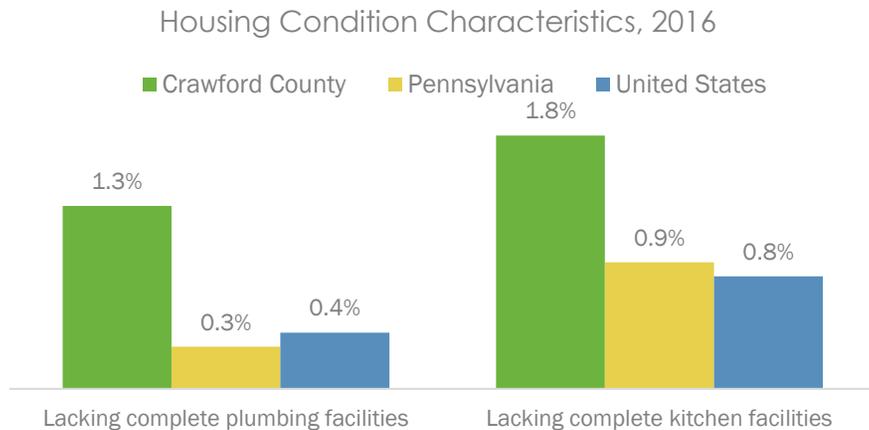


Note: Bubble size represents share housing built before 1940

Source: 2011-2015 ACS, Esri; 4ward Planning Inc., 2018

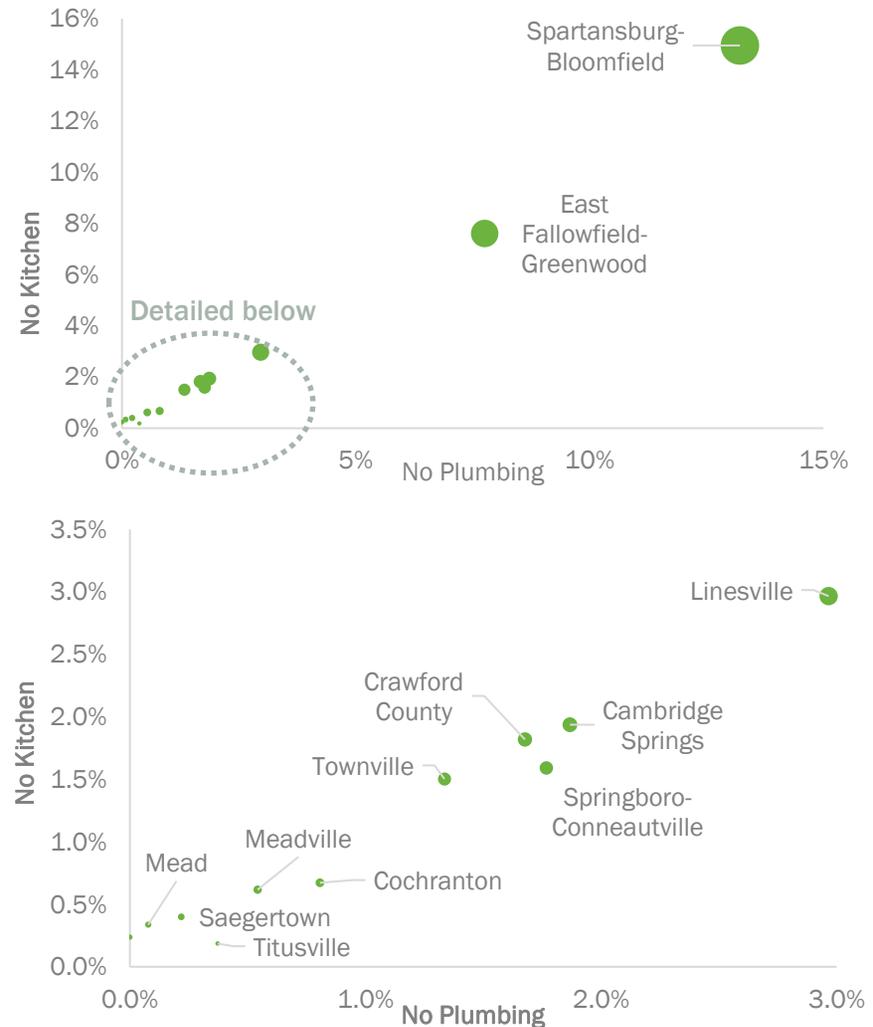
Housing Condition

According to the 2016 American Community Survey, 1.3 percent of the county’s occupied housing units do not have complete plumbing facilities and 1.8 percent do not have complete kitchen facilities, both shares significantly higher than those found in both the state and nation. The share of occupied housing units lacking complete plumbing and kitchen facilities is particularly high in the census tracts representing the East Fallowfield-Greenwood and Spartansburg-Bloomfield submarkets. In 2016, the share of occupied housing units in the Spartansburg-Bloomfield submarket lacking complete plumbing and kitchen facilities was as high as 8.8 and 10.0 percent, respectively. The relatively high share of occupied housing units lacking complete plumbing and kitchen facilities in these submarkets is likely due to the number of Amish settlements located in the Spartansburg-Bloomfield submarket (Spartansburg settlement) and East Fallowfield-Greenwood submarket (Atlantic settlement).



Source: ACS 5-Year Estimates, 2012-2016

Housing Condition Characteristics by Submarket, 2016



Source: ACS 5-Year Estimates, 2012-2016

The photos on the following page illustrate the range of existing housing conditions (from good to poor) across the county’s different community landscapes (urban, small town, suburban, rural, and recreation).

Community Snapshots

Urban

Small Town

Suburban

Rural

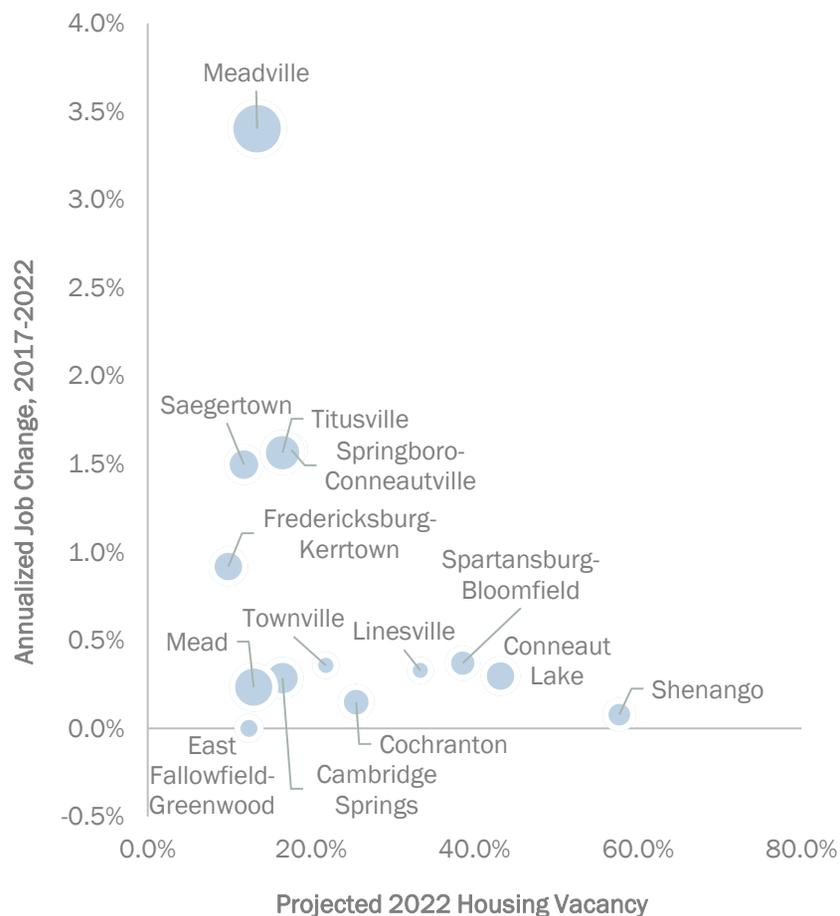
Recreation



Housing Demand

Despite continued overall negative household growth projected for Crawford County through 2022 (-0.3 percent per year), projected employment growth, particularly within the Meadville submarket (3.1 percent per year), will drive new housing demand within the county. Given the high vacancy within the county (projected to increase from 22.7 in 2017 to 24.3 percent in 2022), this new housing demand does not necessarily require an increase in housing production. The number of new occupied housing units required to accommodate additional population is also influenced by changing family size, vacancy and demolition rates, conversions between different housing types, and other similar factors.

Annualized Growth Trends by Submarket, 2000-2017



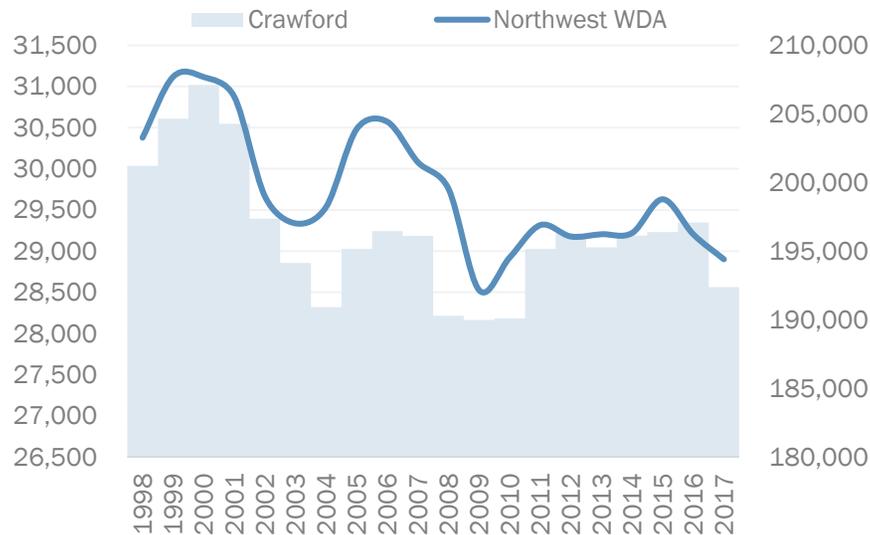
Note: Bubble size represents 2022 households
 Source: US Census, Esri

Economy

Jobs

According to third-quarter 2017 data provided by the U.S. Bureau of Labor Statistics (BLS), there are approximately 195,780 jobs in the Northwest WDA with 28,935 of these jobs (15 percent) located in Crawford County. From third-quarter 2010 to third-quarter 2017, the WDA lost approximately 4,110 jobs, with 250 of these jobs (six percent) lost within Crawford County. From 2010 to 2017, the WDA’s population also declined by approximately 4,230 persons, with the population within the county declining by 1,370 persons.

Total Job Trends

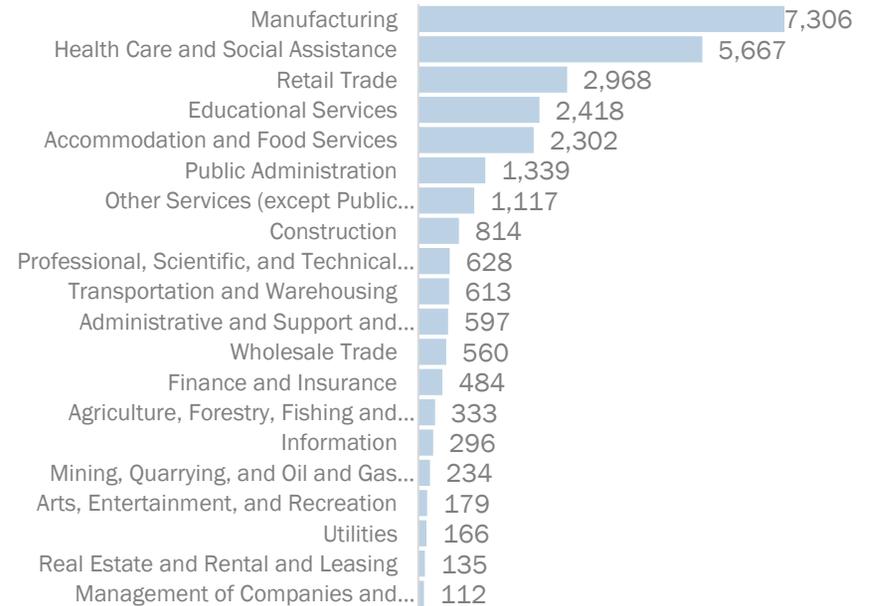


Source: BLS

Employment by Sector

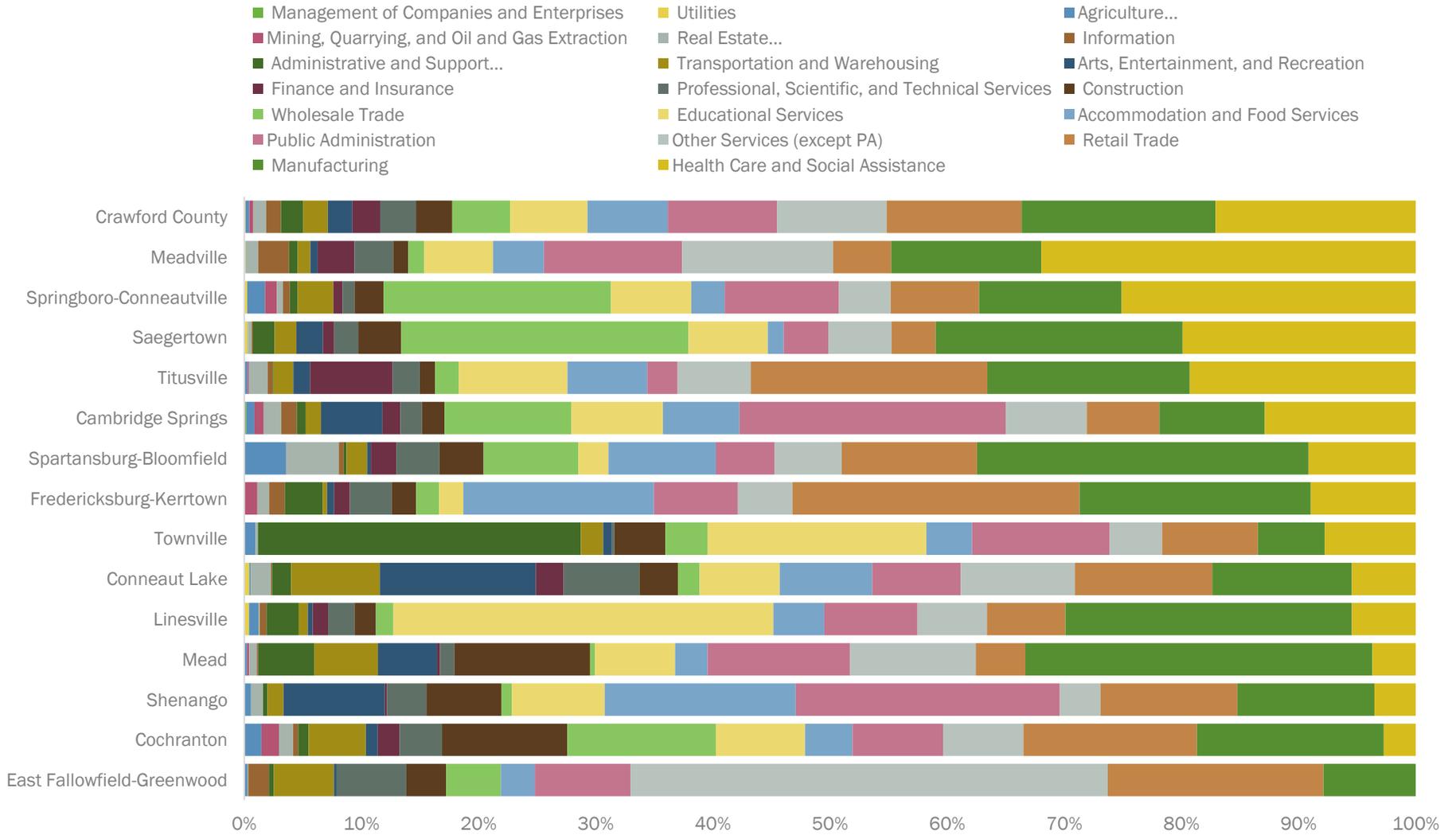
The manufacturing industry sector is the top industry by total employment in Crawford County, representing approximately 7,300 jobs or 26 percent of total employment in the county (a share much higher than those within the WDA and state, at 18 and 10 percent, respectively). The health care and social assistance industry sector is the second top industry by total employment in Crawford County, representing approximately 5,670 jobs or 20 percent of total employment in the county (a share comparable to those within the WDA and state, at 21 and 18 percent, respectively). The relatively lower-paying retail trade and accommodation and food services industries employed approximately 5,400 workers or just under 20 percent of total county employment in 2017.

Jobs by Industry: Crawford County, 2017



Source: U.S. Census Bureau, 4ward Planning Inc., 2018

Share of Total Jobs by Industry, 2017



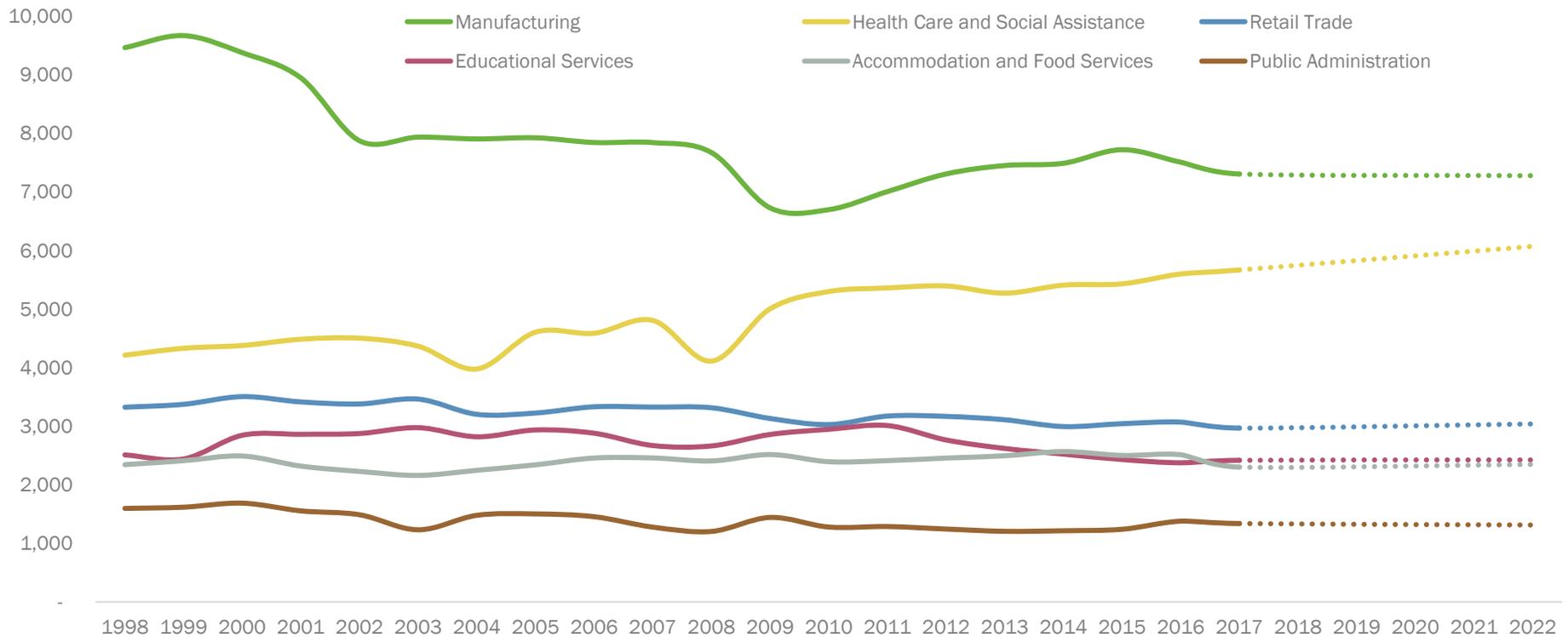
Source: U.S. Census Bureau, 4ward Planning Inc., 2018

Historical and Projected Employment Change

From 1998 to 2017, the manufacturing sector lost approximately 2,160 jobs, while the health care and social assistance sector gained approximately 1,450 jobs, over the same period. Further, the loss in manufacturing employment, generally, represented higher-wage jobs than those gained within the health care and social assistance industry sector – a material factor relating to the health of housing submarkets, generally.

Based on 2017 employment data provided by Esri for Crawford County and long-term projected employment growth rates by industry provided by the Pennsylvania Center for Workforce Information and Analysis for the Norwest WDA, the health care and social assistance sector is expected to add approximately 450 new jobs in the county by 2022 (36 percent within the Meadville submarket). Other top sectors by employment growth include the retail trade sector (104 new jobs), the construction sector (100 new jobs), and the other services sector (87 new jobs).

Employment by Top Six Industries, Crawford County



Source: U.S. Census Bureau, Center for Economic Studies

Projected New Jobs by Industry and Submarket, 2017-2022

Industry	Shen- ango	Lines- ville	Town- ville	Sparta nsburg- Bloom- field	East Fallow- field- Green- wood	Cam- bridge Springs	Spring- boro- Connea- utville	Coch- ranton	Conn- eaut Lake	Mead	Saeger- town	Titus- ville	Frederi- cksbur- Kerr- town	Mead- ville	Total
Health Care & Social Ass.	1	4	3	6	-	17	21	3	7	7	37	55	41	246	449
Retail Trade	1	2	1	3	5	3	2	5	5	3	2	20	39	13	104
Construction	3	2	2	3	3	3	3	13	5	26	9	5	12	12	100
Other Services	-	1	1	1	12	3	1	2	5	7	4	6	8	35	87
Accom. & Food Services	2	1	-	2	1	2	1	1	3	1	1	5	21	9	50
Transpo. & Warehousing	-	-	1	1	3	1	2	4	8	8	3	4	1	7	42
Arts, Entert., & Rec.	2	-	-	-	-	4	-	1	10	5	3	2	2	3	33
Professional, Scientific, & Technical Services	-	1	-	1	2	1	-	1	3	1	2	3	7	10	32
Admin. & Support	-	1	6	-	-	1	-	-	1	5	2	-	8	3	28
Real Estate & Rental	-	-	-	1	-	1	-	1	1	1	-	2	2	4	13
Educational Services	-	1	-	-	-	-	-	-	-	-	-	1	-	2	7
Wholesale Trade	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2
Finance & Insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mining	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Management of Companies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manufacturing	-	(1)	-	(1)	-	(1)	(1)	(1)	(1)	(3)	(2)	(3)	(5)	(6)	(25)
Information	-	-	-	-	(1)	(1)	-	-	-	-	-	(1)	(5)	(15)	(25)
Public Administration	(2)	(2)	(1)	(1)	(2)	(8)	(2)	(2)	(3)	(6)	(2)	(2)	(9)	(25)	(67)
Total	7	10	13	16	23	26	27	28	44	55	60	97	122	298	831

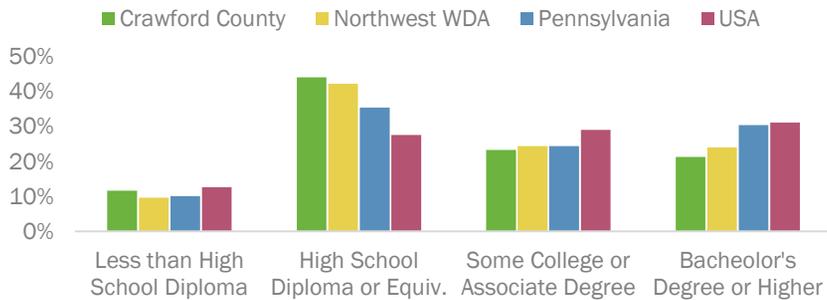
Note: Job estimates rounded to one.

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

Earnings

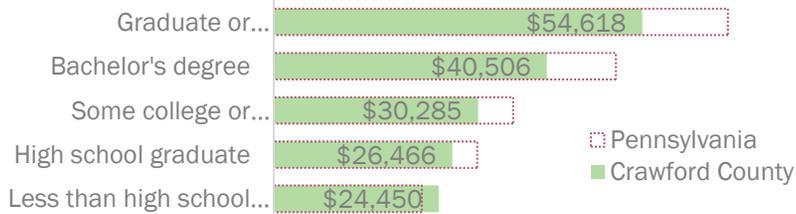
Currently, an estimated 21 percent of Crawford County’s adult residents ages 25 and over have a bachelor’s degree or higher - a share comparable to that estimated for the WDA (24 percent), but relatively low compared to those estimated for the state and nation (30 and 31 percent, respectively). Since 2000, the share of adults with a bachelor’s degree or higher within the WDA has been increasing (except within Forest County). Within Crawford County, between 2000 and 2017, the share of adults with a bachelor’s degree or higher increased by 2.5 points. Since median earnings typically increases along with educational attainment, increasing educational attainment is a favorable trend for the county and region.

Adults Residents by Highest Level of Education Attainment



Source: Esri; 4ward Planning Inc., 2018

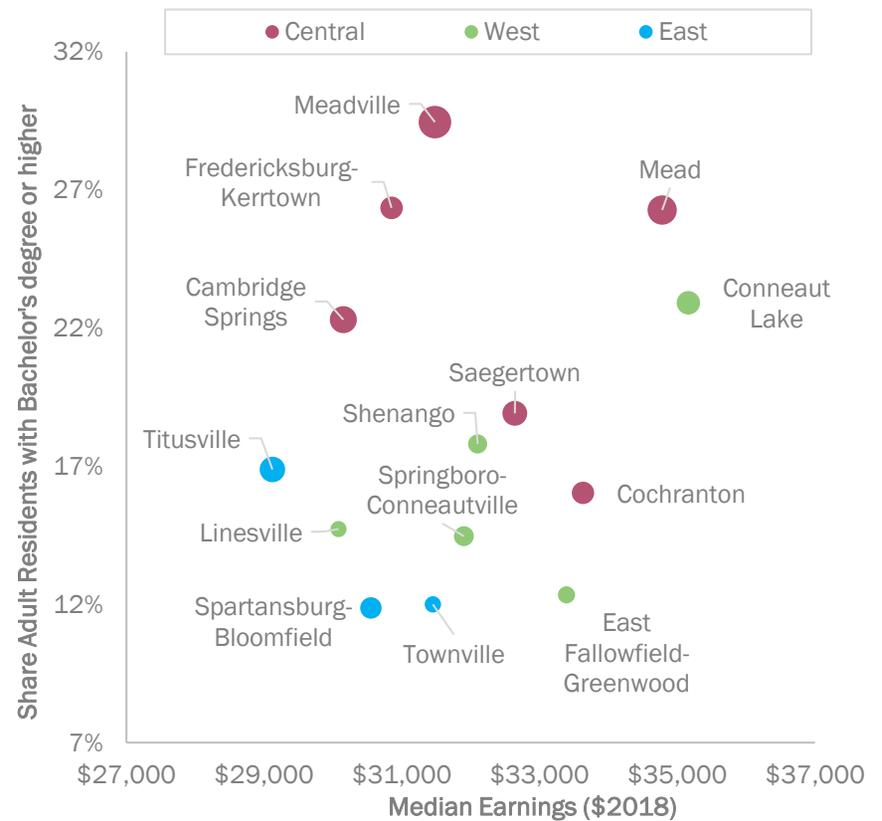
Median Earnings by Education Attainment, 2016



Source: 2016 ACS 5-year estimates

The Meadville submarket has the highest share of adult residents with a bachelor’s degree or higher (29 percent) but median annual earnings (\$31,480) lower than that within the county overall (\$32,070). The Titusville submarket has the lowest median annual earnings (\$29,120) and a relatively low share of adult residents with a bachelor’s degree or higher (17 percent). In general, the submarkets in the Central Region have higher educational attainment and median earnings levels, while the submarkets in the East Region have lower levels.

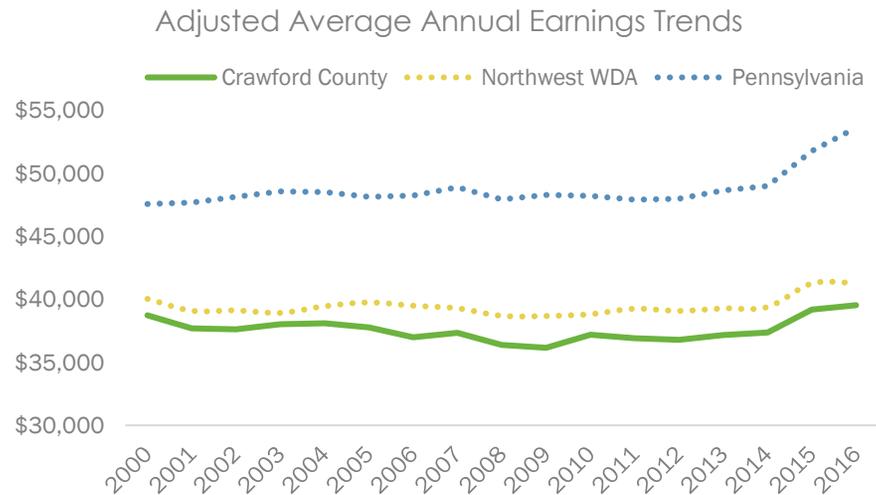
Median Earnings and Education by Submarket, 2016



Bubble size represents total population 25 years and over
Source: 2016 ACS 5-year estimates

Adjusted Earnings

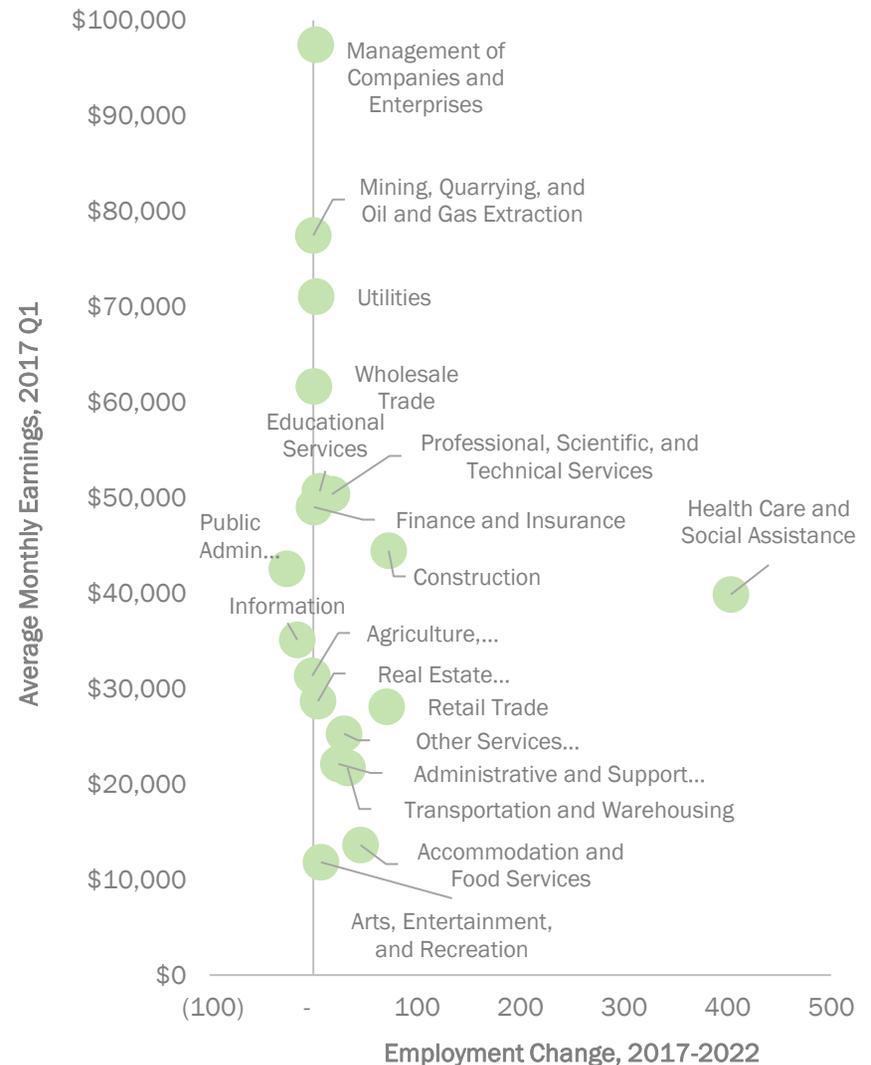
As of first-quarter 2017 data provided by BLS, average worker earnings within Crawford County was \$40,750 per year, slightly lower than within the WDA (\$41,760) and much lower than that within the state (\$56,720). From 2000 to 2016, after adjusting for inflation, average annual earnings within all three geographies has remained relatively flat. Within Crawford County, average adjusted earnings rose by just \$814 dollars per year (equivalent to just 0.1 percent per year) over the same six-year period.



Source: BLS

Based on first-quarter 2017 average earnings and growth projection data provided by the Pennsylvania Center for Workforce Information and Analysis (CWIA), the health care and social assistance sector is the industry projected to grow the fastest in the county over the next five years. With an average annual wage of \$39,870 per year, the health care and social assistance sector will provide new relatively mid-wage job opportunities for county residents. The second top industry by employment growth within the county, the construction sector, will also provide relatively mid-wage job opportunities (\$44,450 per year).

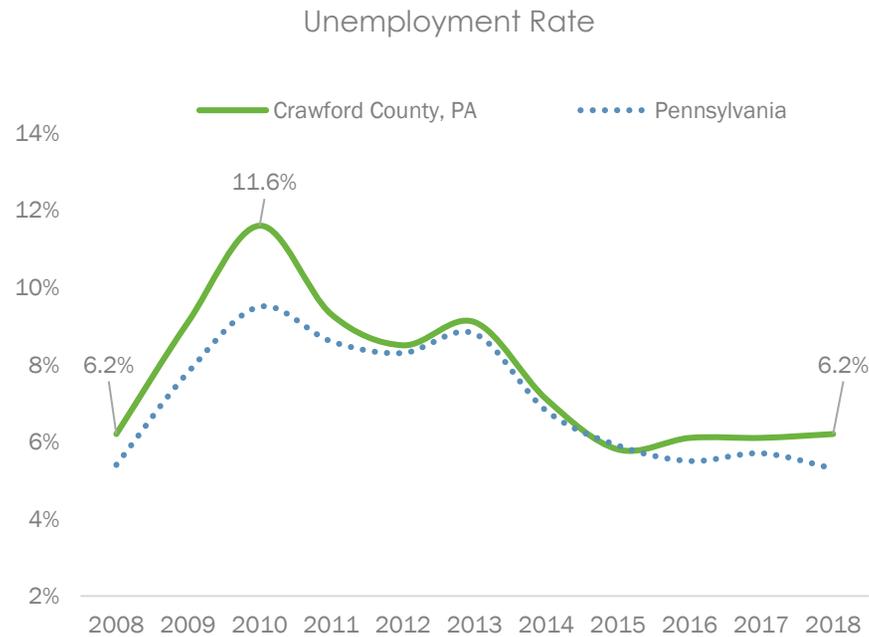
Average Annual Earnings and Employment Projections



Source: CWIA; Award Planning Inc., 2018

Unemployment

Over the past decade, average unemployment rates in Crawford County have remained higher than those in the state. As of February 2018, the average unemployment rate in the Crawford County was 6.1 percent, a rate comparable to pre-recession levels and a significant improvement from 2010 levels (when unemployment reached as high as 10.6 percent).



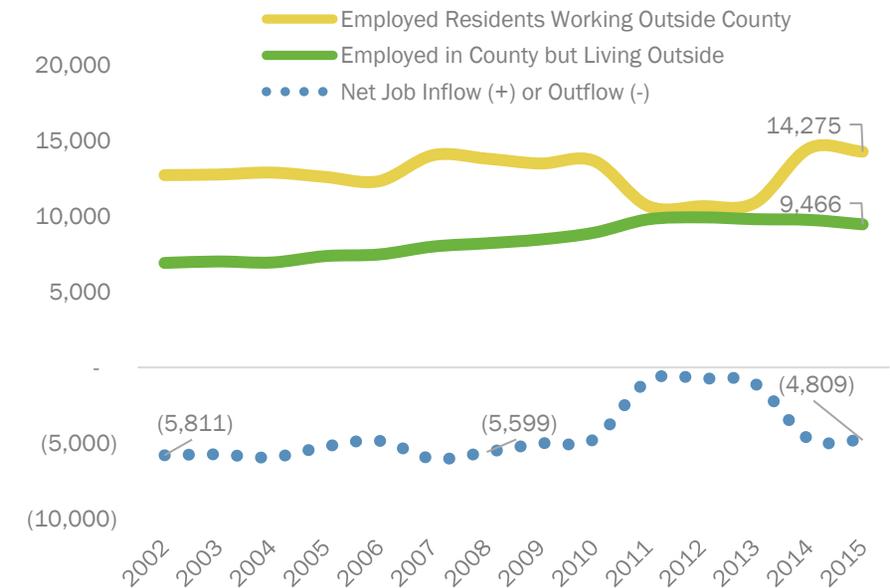
Source: BLS

Commuting

Job Inflow and Outflow

In 2015, approximately 9,470 persons were employed in the county but living outside of it, while 14,275 employed county residents were working outside the county. Overall, there was a net outflow of approximately 4,810 employed persons in the county, an improvement over the 5,810 employed county residents who worked outside of the county in 2002. Though slight, the steady increase in those employed in the county but living outside of it is a favorable trend for housing demand in Crawford County, as a fraction of these workers will eventually consider relocating closer to their places of employment.

Historical Resident and Worker Populations, Crawford County



Source: U.S. Census Bureau, OnTheMap; 4ward Planning Inc., 2018

Where County Residents Work

Meadville City is the most common work destination among Crawford County residents (20.2 percent). Other employment centers in the county include Titusville City, Kerrtown census-designated place (CDP), Saegertown Borough, Cambridge Springs Borough, Fredericksburg CDP, Corry City, and Edinboro Borough. Approximately 5.2 percent of Crawford County residents commute as far north as Erie City (Erie County) and 1.2 percent of Crawford County residents commute as far south as Pittsburgh City (Allegheny County). In general, the county’s employment centers are fairly dispersed, with just 39 percent of Crawford County residents commuting to these top 10 work destinations.

Where County Residents Work, 2015

	Jobs	Share
Meadville city, PA	6,641	20.2%
Erie city, PA	1,728	5.2%
Titusville city, PA	1,258	3.8%
Kerrtown CDP, PA	708	2.1%
Saegertown borough, PA	536	1.6%
Cambridge Springs borough, PA	509	1.5%
Pittsburgh city, PA	395	1.2%
Fredericksburg CDP, PA	382	1.2%
Corry city, PA	353	1.1%
Edinboro borough, PA	347	1.1%
All Other Locations	20,093	61.0%

Source: U.S. Census Bureau, OnTheMap; 4ward Planning Inc., 2018

Where County Workers Live

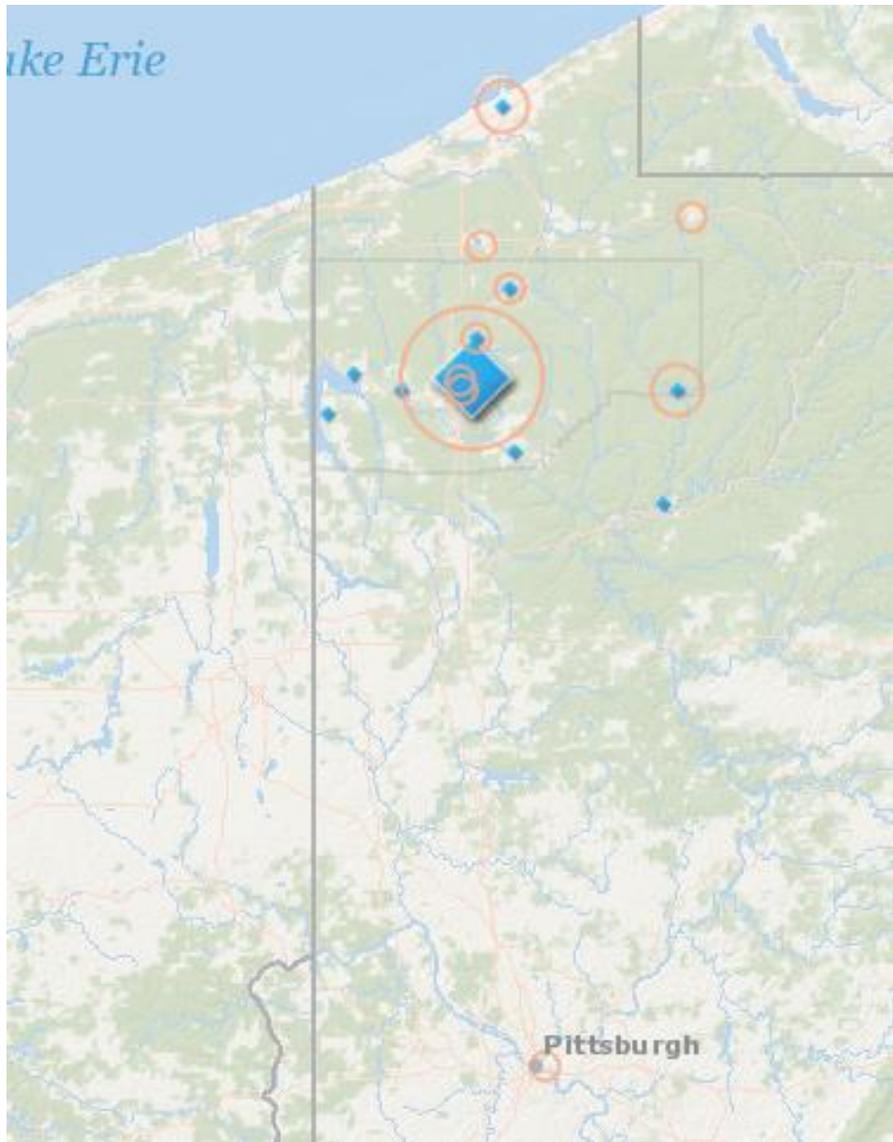
Meadville City is the most common home destination among Crawford County workers (11.0 percent). Other common places of residence in the county among Crawford County workers include Titusville City, Conneaut Lakeshore CDP, Kerrtown CDP, Cambridge Springs Borough, Pymatuning Central CDP, Cochranon Borough, Saegertown Borough, and Linesville Borough. Approximately 1.2 percent of Crawford County workers live as far north as Erie City (Erie County) and 0.7 percent of Crawford County workers live as far south as Oil City (Venango County). In total, 22.6 percent of Crawford County workers live in these top 10 home destinations.

Where County Workers Live, 2015

	Commuters	Share
Meadville city, PA	3,099	11.0%
Titusville city, PA	885	3.1%
Conneaut Lakeshore CDP, PA	522	1.9%
Erie city, PA	351	1.2%
Cambridge Springs borough, PA	292	1.0%
Pymatuning Central CDP, PA	284	1.0%
Cochranon borough, PA	269	1.0%
Saegertown borough, PA	253	0.9%
Linesville borough, PA	210	0.7%
Oil City, PA	197	0.7%
All Other Locations	21,779	77.4%

Source: U.S. Census Bureau, OnTheMap; 4ward Planning Inc., 2018

Top Ten Work/Home Destinations, 2015



Where Workers Live



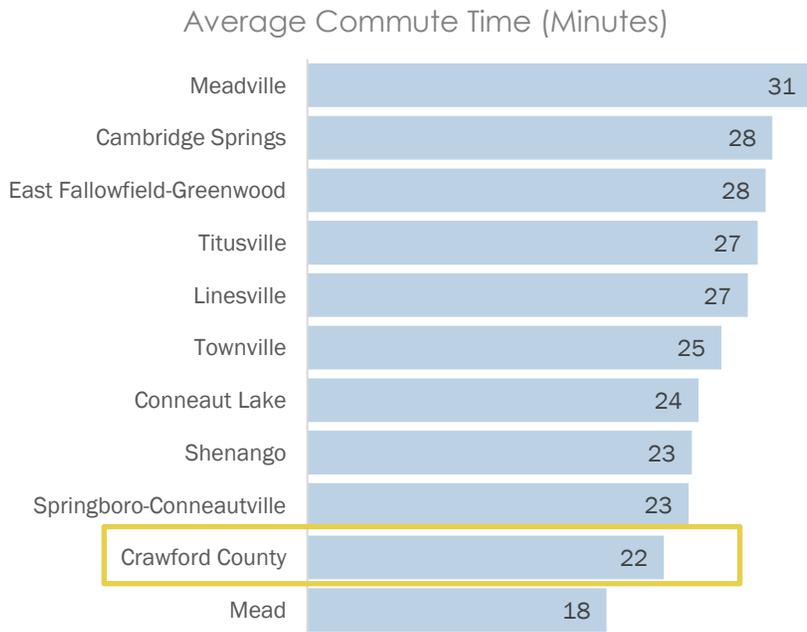
Where Workers are Employed



Source: U.S. Census Bureau, OnTheMap; 4ward Planning Inc., 2018

Travel Time to Work

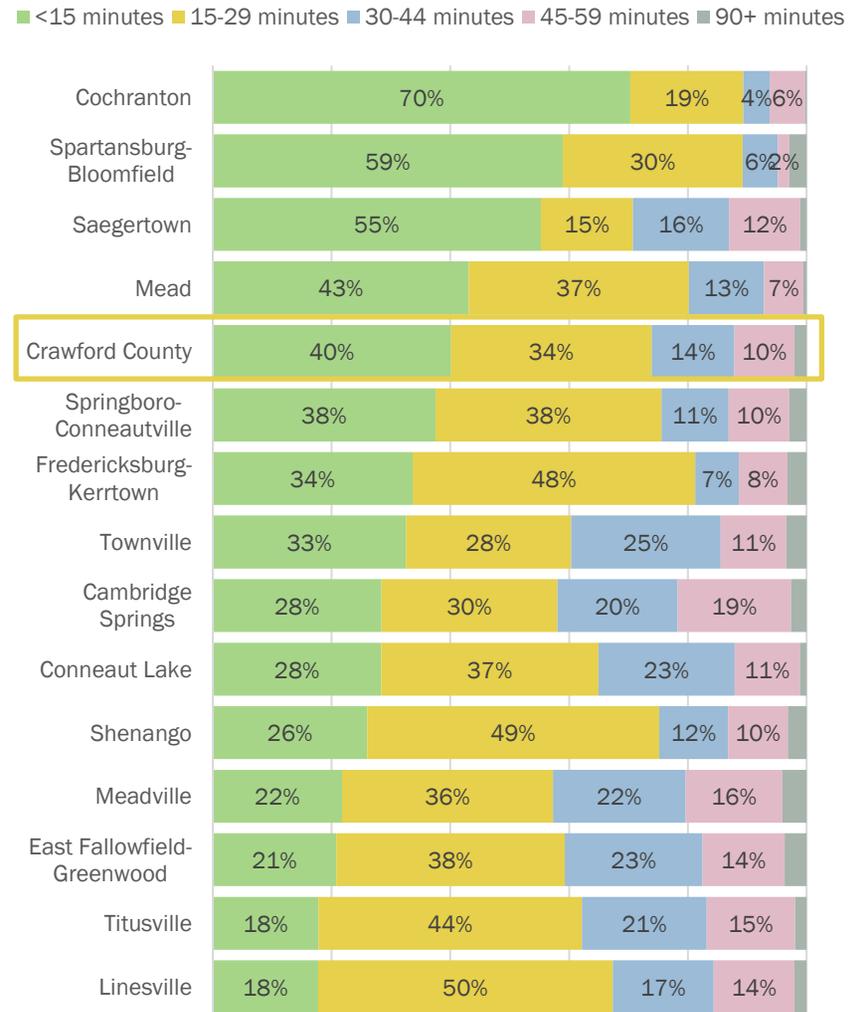
According to 2011-2015 ACS data provided by Esri, 40 percent of county workers traveled less than 15 minutes to work, 34 percent traveled between 15 and 29 minutes to work, 14 percent traveled between 30 and 44 minutes to work, 10 percent traveled between 45 and 89 minutes to work, and two percent traveled more than 90 minutes to work. The average commute time in the county is approximately 22 minutes. For the submarkets with average commuting time data available, the Mead submarket has the shortest average commute time (18.2 minutes) and the Meadville submarket has the longest average commute time (30.7 minutes).



Note: Data not available for all submarkets

Source: 2011-2015 ACS; 4ward Planning Inc., 2018

Travel Time to Work (Minutes)

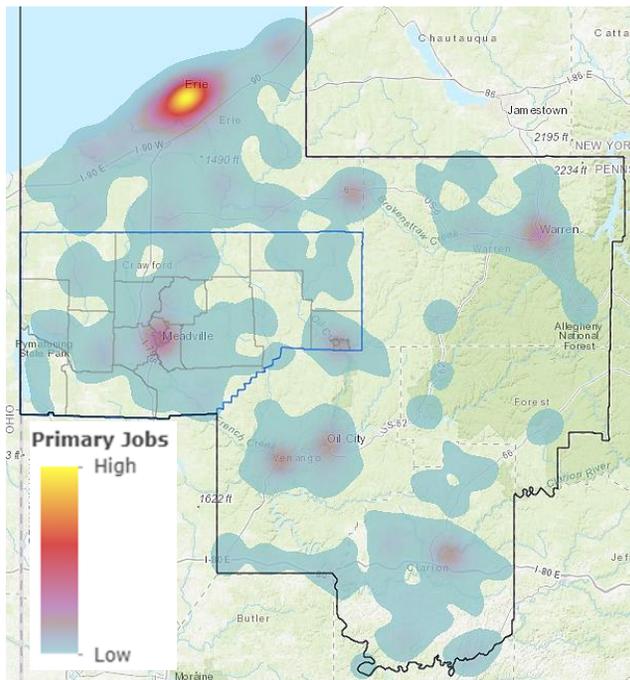


Source: 2011-2015 ACS; 4ward Planning Inc., 2018

Job Clusters

According to 2015 data provided by the U.S. Census Bureau, the Meadville, Fredericksburg-Kerrtown, and Titusville submarkets are Crawford County’s three largest employment submarkets by total employment share, representing 66 percent of the county’s total employment. Located in the center of Crawford County, Meadville is the largest employment submarket, containing 33.5 percent of jobs in the county. The adjacent Fredericksburg-Kerrtown employment submarket is the second largest, containing 18.3 percent of jobs in the county. Located in the southeast corner of Crawford County, the Titusville employment submarket is the third largest, containing 11.4 percent of jobs in the county.

Job Clusters: Northwest WDA, 2015

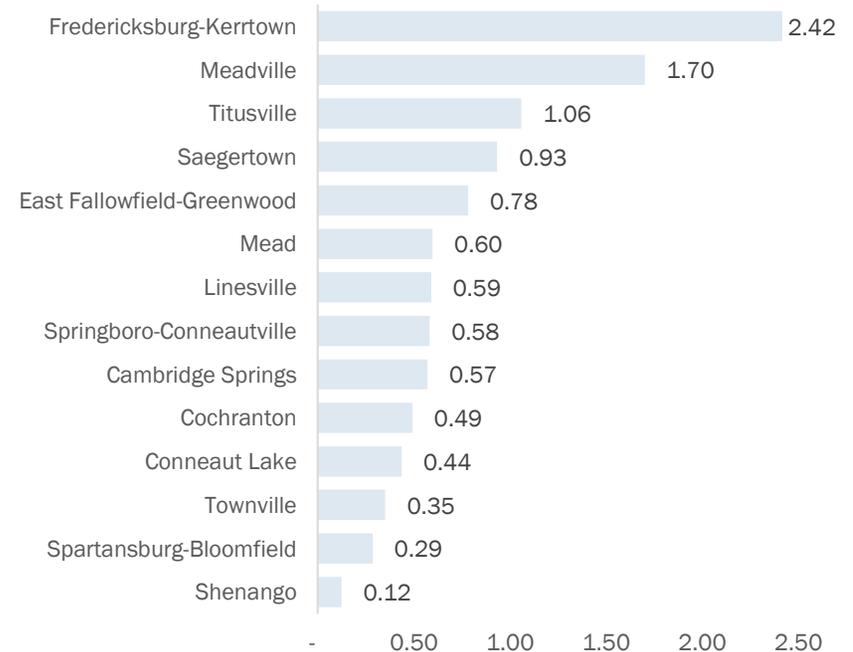


Source: U.S. Census Bureau, Esri; 4ward Planning Inc., 2018

Job to Housing Ratio

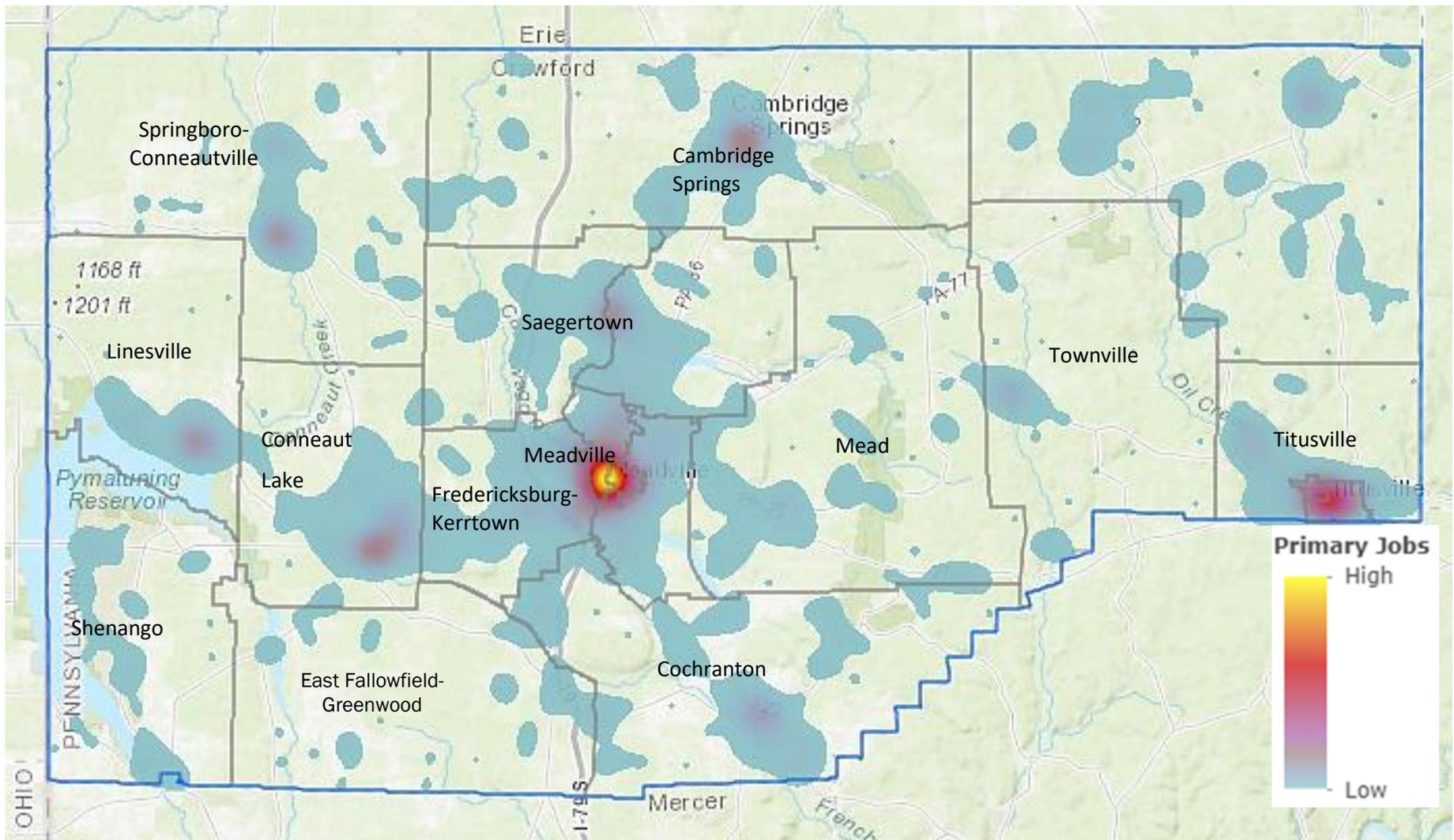
A job to housing ratio is one measure of examining whether a submarket has enough housing for employees to live near employment centers and sufficient jobs in residential areas. Typically, a job to housing ratio between 0.75 to 1.5 is considered beneficial for reducing vehicle miles traveled while ratios higher than 1.5 indicate that there may be more workers commuting into the area because of lack of local housing options (e.g. Fredericksburg-Kerrtown and Meadville submarket). An imbalance in jobs and housing creates longer commute times, more single driver commutes, loss of job opportunities for workers without vehicles, traffic congestion, and poor air quality.

Job to Housing Ratio by Submarket, 2017



Source: OnTheMap; Esri, 4ward Planning Inc., 2018

Primary Job Clusters: Crawford County, 2015

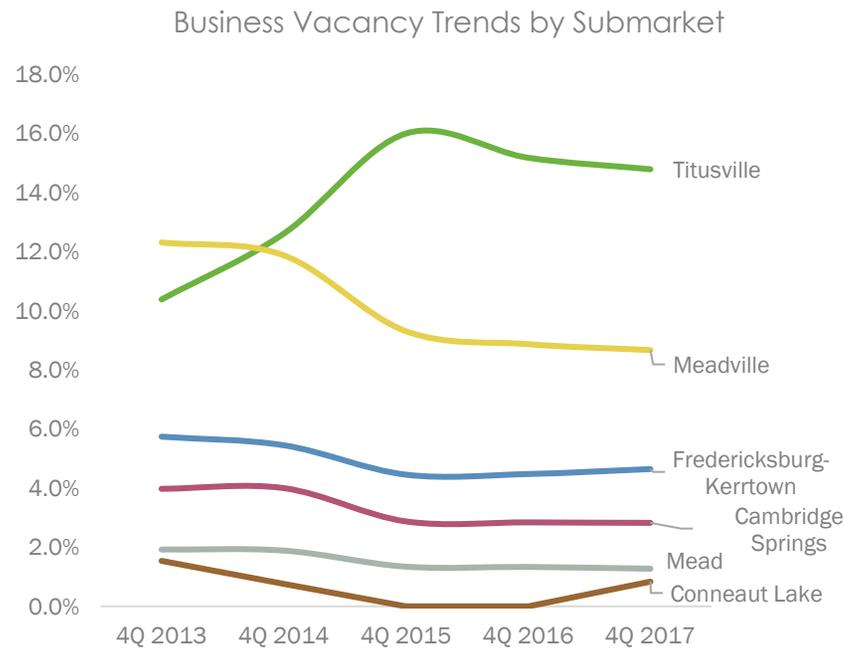


Source: U.S. Census Bureau, OnTheMap; 4ward Planning Inc., 2018

Business Vacancies

Vacant sites and buildings provide potential opportunities for accommodating growth and spurring economic development through redevelopment and infill, and generation of additional tax revenues.

The chart below presents business vacancy data by submarket, according to the U.S. Department of Housing and Urban Development's (HUD's) Aggregated U.S. Postal Service (USPS) Administrative data. As summarized below, over the past five years, Titusville and Meadville have had the highest business vacancies in the county. As of fourth-quarter 2017, business vacancies in the Titusville and Meadville submarkets were 14.8 and 8.7 percent, respectively.



Source: HUD, USPS; 4ward Planning Inc., 4Q 2017

Top Employers

The table below presents the top 50 employers in Crawford County. Currently, the Meadville Medical Center is the county's top employer. Most notably, public- and non-profit-sector employers comprise six of the top 10 employers. When other private-sector industries shrink, as they have in the county and the region, what's left, typically, are government, education and non-profits.

Top 50 Employers: Crawford County, 2Q 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 Distr.	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	Channellock 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

Source: BLS, Quarterly Census of Employment and Wages

Cost and Affordability

Affordability is an issue for many households across the county, and understanding the level of affordability of the current housing supply is a critical component for determining housing need. This section describes factors that determine the relative affordability of housing, to whom it is affordable, and what places are more affordable than others.

Income

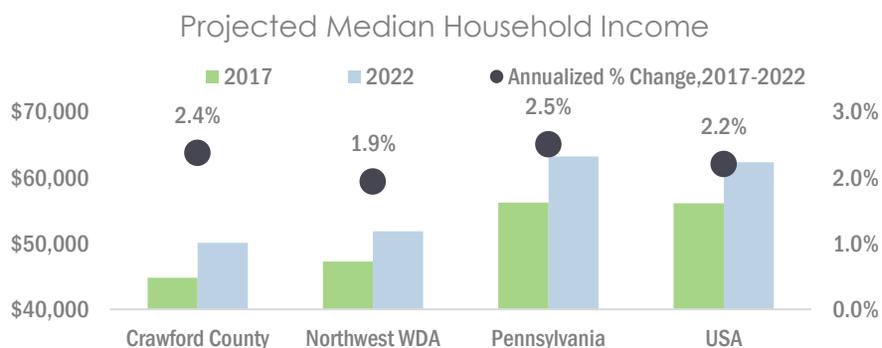
Since household income is often correlated with educational attainment, and overall educational attainment is lower in Crawford County, it is not surprising that the 2017 median household income in Crawford County (\$44,790) is lower than those observed in the WDA (\$47,260) and state (\$56,180). Nevertheless, from 2010 to 2017, after adjusting for inflation, the median household income in Crawford County increased by just 0.7 percent per year. While this increase was greater than that observed within the state, over the same period (0.3 percent per year), changes in median household income within the county varied by submarket. For example, the median income in the Conneaut Lake submarket increased by 3.6 percent per year, while the median household income in the Saegertown and Meadville submarkets decreased by -0.8 percent per year, over the same period.

While median household income levels are expected to increase across all geographies over the next five years, the county's median household income will still remain comparatively low. According to Esri, the median household income in the county is expected to increase by 2.4 percent per year, an annualized growth rate faster than that expected for the WDA (1.9 percent per year), but comparable to that expected for the state (2.5 percent 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 percent per year over the past decade, according to the Bureau of Labor Statistics.

Change in Median Household Income, 2010-2017

Submarket Name	2010	2010 (Inflation Adjusted)	2017	Annualized % Change
Conneaut Lake	\$39,412	\$43,138	\$54,018	3.6%
Linesville	\$34,259	\$37,498	\$43,684	2.4%
Fredericksburg-Kerrtown	\$42,254	\$46,249	\$51,238	1.5%
Cochranon	\$46,471	\$50,865	\$52,642	0.5%
Shenango	\$35,466	\$38,820	\$40,145	0.5%
Spartansburg-Bloomfield	\$36,701	\$40,171	\$41,445	0.5%
East Fallowfield-Greenwood	\$41,286	\$45,190	\$46,021	0.3%
Titusville	\$33,648	\$36,830	\$37,245	0.2%
Mead	\$48,550	\$53,140	\$53,404	0.1%
Townville	\$41,619	\$45,554	\$45,633	0.0%
Cambridge Springs	\$46,108	\$50,468	\$50,410	0.0%
Springboro-Conneautville	\$42,241	\$46,235	\$45,100	-0.4%
Meadville	\$32,884	\$35,993	\$34,090	-0.8%
Saegertown	\$47,093	\$51,545	\$48,725	-0.8%
Crawford County	\$38,924	\$42,604	\$44,793	0.7%
Pennsylvania	\$50,398	\$55,163	\$56,184	0.3%

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



Source: Esri; 4ward Planning Inc., 2018

Income by Tenure

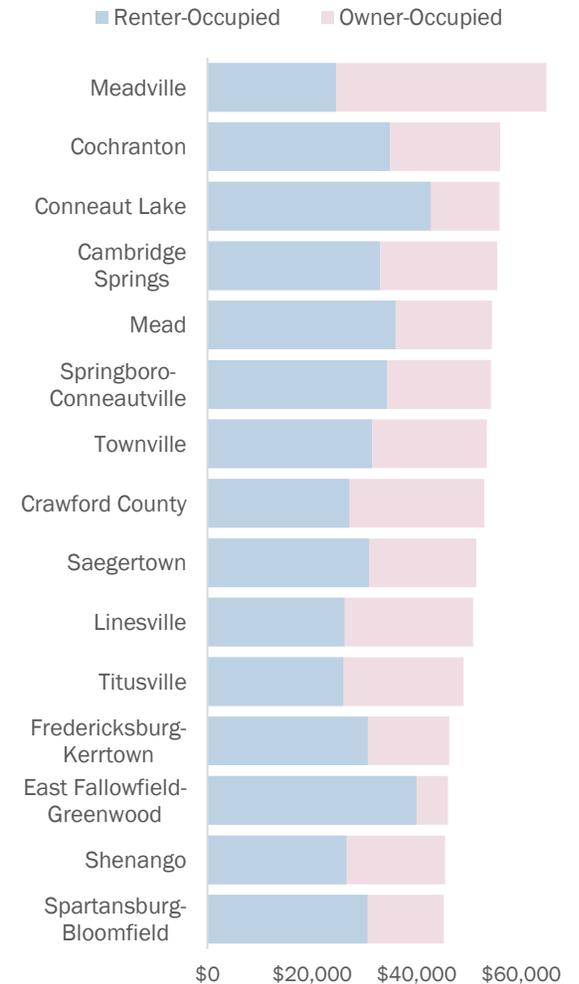
According to ACS data, the 2016 median household income among owner-occupied households in Crawford County was \$52,950 per year, while the median household income among renter-occupied households was \$27,160 per year (a difference of \$25,790). The median household income among owner-occupied households was highest within the Meadville submarket (\$64,840 per year), while the median household income among renter-occupied households was highest within the Conneaut Lake submarket (\$42,760 per year). In 2016, the difference in median household income between owner- and renter-occupied households was highest in the Meadville submarket (a difference of \$40,240) and lowest in the East Fallowfield-Greenwood submarket (a difference of \$6,000). Between 2010 and 2016, the rate of median household income growth among owner-occupied households was highest in the Conneaut Lake submarket (14.0 percent per year), while the rate of median household income growth among renter-occupied households was highest in the Meadville submarket (3.9 percent per year).

Change in Median Household Income by Tenure, 2010-2016

	Owner-Occupied				Renter-Occupied			
	2010	2010 (Inflation Adj.)	2016	Annualized % Change	2010	2010 (Inflation Adj.)	2016	Annualized % Change
Conneaut Lake	\$47,140	\$50,790	\$55,910	1.7%	\$21,550	\$23,220	\$42,760	14.0%
Cochrannton	\$49,700	\$53,550	\$56,000	0.8%	\$32,500	\$35,020	\$34,890	-0.1%
Springboro-Conneautville	\$45,370	\$48,890	\$54,270	1.8%	\$24,060	\$25,920	\$34,330	5.4%
Mead	\$51,700	\$55,710	\$54,440	-0.4%	\$23,180	\$24,980	\$36,000	7.4%
Cambridge Springs	\$53,090	\$57,200	\$55,480	-0.5%	\$25,250	\$27,210	\$33,000	3.5%
Townville	\$43,160	\$46,500	\$53,440	2.5%	\$31,380	\$33,810	\$31,460	-1.2%
Saegertown	\$49,660	\$53,510	\$51,440	-0.6%	\$17,440	\$18,790	\$30,950	10.8%
Linesville	\$39,250	\$42,290	\$50,860	3.4%	\$23,010	\$24,790	\$26,250	1.0%
Shenango	\$36,690	\$39,530	\$45,450	2.5%	\$19,800	\$21,330	\$26,610	4.1%
East Fallowfield-Greenwood	\$43,510	\$46,880	\$46,000	-0.3%	\$35,000	\$37,710	\$40,000	1.0%
Spartansburg-Bloomfield	\$39,470	\$42,530	\$45,220	1.1%	\$27,550	\$29,690	\$30,630	0.5%
Fredericksburg-Kerrtown	\$44,380	\$47,820	\$46,290	-0.5%	\$39,310	\$42,360	\$30,710	-4.6%
Meadville	\$48,750	\$52,530	\$64,840	3.9%	\$22,980	\$24,760	\$24,600	-0.1%
Titusville	\$45,070	\$48,560	\$48,980	0.1%	\$21,370	\$23,030	\$25,980	2.1%
Crawford County	\$46,640	\$50,250	\$52,950	0.9%	\$21,820	\$23,510	\$27,160	2.6%

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

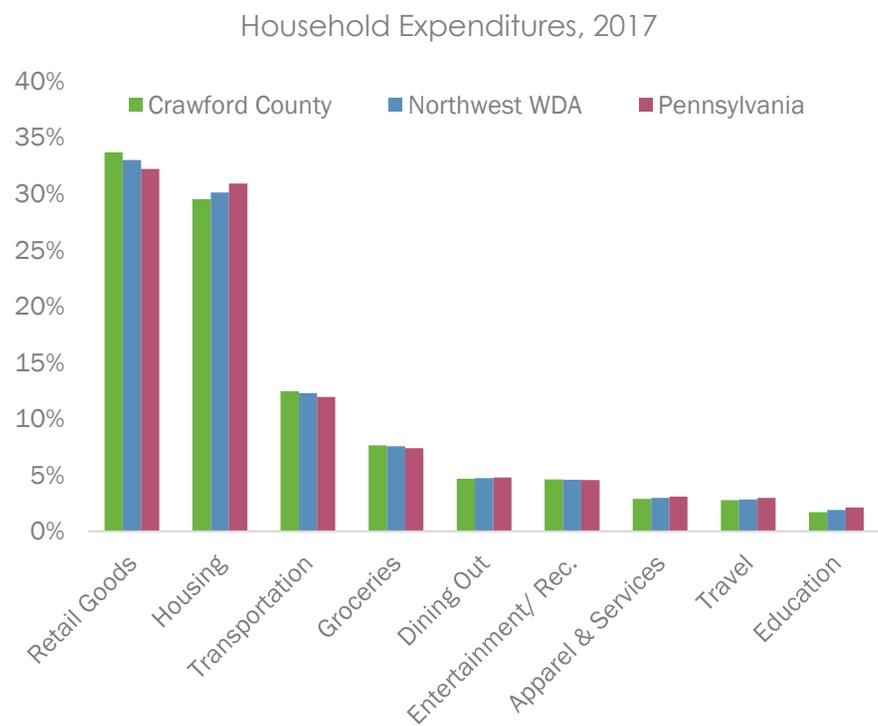
Median Household Income by Tenure, 2016



Source: 2010 ACS 5-Year Estimates

Cost Burden

HUD defines cost-burdened families as those “who pay more than 30 percent of their incomes for housing” and “may have difficulty affording necessities such as food, clothing, transportation, and medical care.” Severe rent burden is defined as paying more than 50 percent of one's income on rent. On average, Crawford County households allocate approximately 30 percent of household expenditures on housing, the same share among households in the WDA and state.



Source: Esri; 4ward Planning Inc., 2018

In 2015, HUD considered 41 percent of renter households in Crawford County cost-burdened (paying more than 30 percent of their incomes on rent) and 21 percent to be severely cost-burdened (paying more than 50 percent of their incomes on rent). The share of renter households that are cost-burdened is particularly high in the Meadville and Titusville submarkets (53 and 49 percent, respectively).

Share of Cost-Burdened Renter Households, 2015

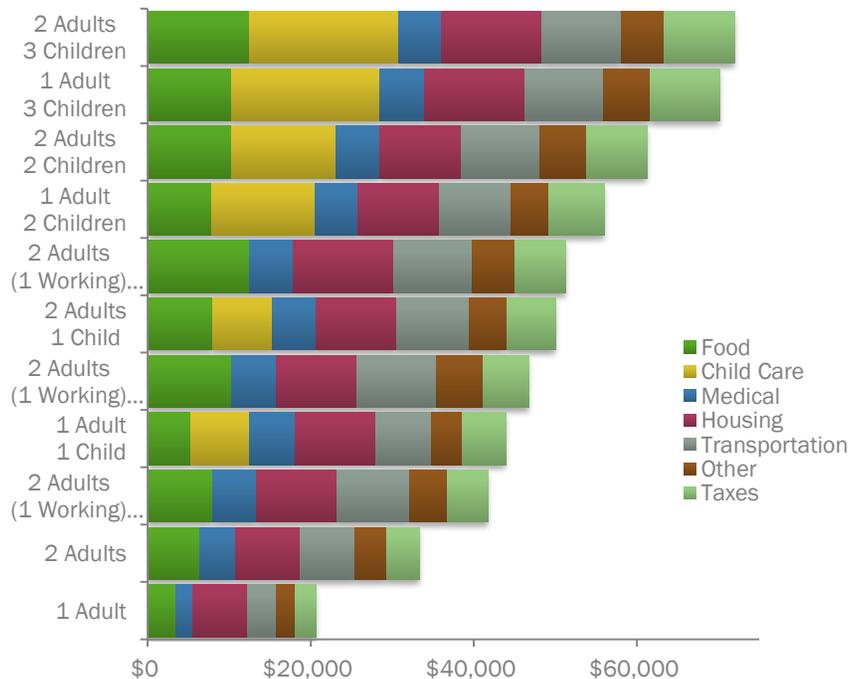
	30-34.9%	35-39.9%	40-49.9%	50% +	Subtotal 30%+
Meadville	13%	6%	6%	27%	53%
Titusville	10%	6%	5%	28%	49%
Linesville	9%	8%	3%	23%	43%
Cambridge Springs	10%	10%	6%	10%	36%
Mead	3%	5%	5%	22%	35%
Townville	8%	5%	6%	16%	35%
Fredericksburg-Kerrtown	5%	10%	3%	17%	34%
Springboro-Conneautville	3%	3%	4%	22%	32%
Shenango	4%	4%	5%	18%	32%
Conneaut Lake	2%	5%	12%	12%	30%
Spartansburg-Bloomfield	7%	4%	2%	15%	30%
Saegertown	10%	3%	7%	6%	27%
Cochranon	6%	5%	1%	13%	24%
East Fallowfield-Greenwood	7%	0%	5%	8%	20%
Crawford County	9%	6%	5%	21%	41%

Source: 2011-2015 ACS Households; 4ward Planning Inc., 2018

Living Wage

According to the 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, annual living wages in Crawford County average about \$21,700 for a single adult, to a little over \$72,500 for two working adults with three children.

Typical Expenses, Crawford County

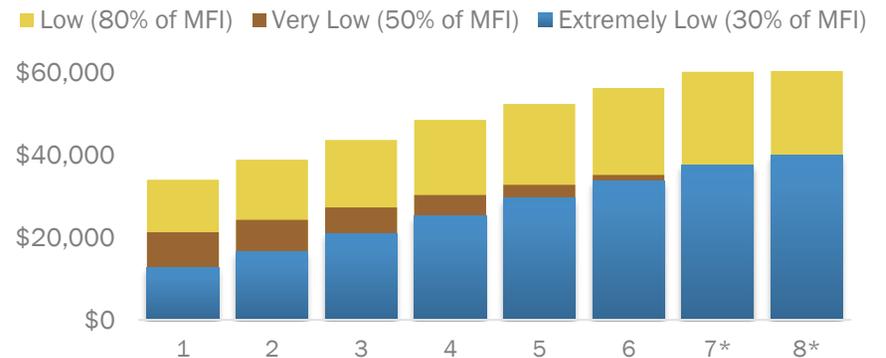


Source: MIT, 2016

Income Limits

The Department of Housing and Urban Development (HUD) sets income limits that determine eligibility for assisted housing programs including the Public Housing, Section 8 project-based, Section 8 Housing Choice Voucher, Section 202 housing for the elderly, and Section 811 housing for persons with disabilities programs. 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 (80 percent of MFI) in the county ranges from \$33,900 per year for a one-person household to \$63,900 per year for an eight-person household. The annual household income threshold for a very-low income household (50 percent of MFI) in the county ranges from \$21,200 per year for a one-person household to \$39,950 per year for an eight-person household. The annual income threshold for an extremely low income household* in the county ranges from \$12,750 per year for a one-person household to \$39,950 per year for an eight-person household.

Income Limits by Family Size: Crawford County, 2018



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

Source: HUD, FY 2018

Home Sales

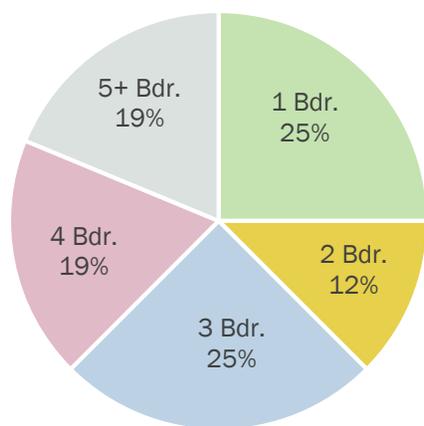
According to March and April 2018 data provided by the National Association of Realtors (NAR), the median list price in the county ranges from \$92,050 for a two-bedroom home to \$299,050 for a home with five or more bedrooms. On a per-square-foot basis, the median list price ranges from \$90 per square foot for a one-bedroom home to \$49 per square foot for a home with five or more bedrooms.

Home Sale Characteristics by Bedrooms, March-April, 2018

Bedrooms	Listings	Median SF	Median List Price	Median List Price per SF
1 Bdr.	4	682	\$141,425	\$90
2 Bdr.	2	1,253	\$92,050	\$75
3 Bdr.	4	1,628	\$96,969	\$63
4 Bdr.	3	2,139	\$152,967	\$73
5+ Bdr.	3	3,090	\$229,050	\$49
Total	16	1,714	\$142,733	\$70

Source: NAR; realtor.com residential listings database, 2018

Home Sale Listing by Bedrooms



Source: NAR; realtor.com residential listings database, 2018

Median List Price per Square Foot



Source: NAR; realtor.com residential listings database, 2018

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 Characteristics

Date	Median Listing Price	Price Decrease Count	Days on Market	Total Listings
Feb 2013	\$101,500	40	190	569
Feb 2014	\$97,800	22	161	557
Feb 2015	\$104,975	38	177	566
Feb 2016	\$109,050	30	139	529
Feb 2017	\$119,950	46	151	517
Feb 2018	\$111,000	42	155	474
2013-2018 Change	\$9,500	2	(35)	(96)

Source: NAR; realtor.com residential listings database, 2018

Home Values

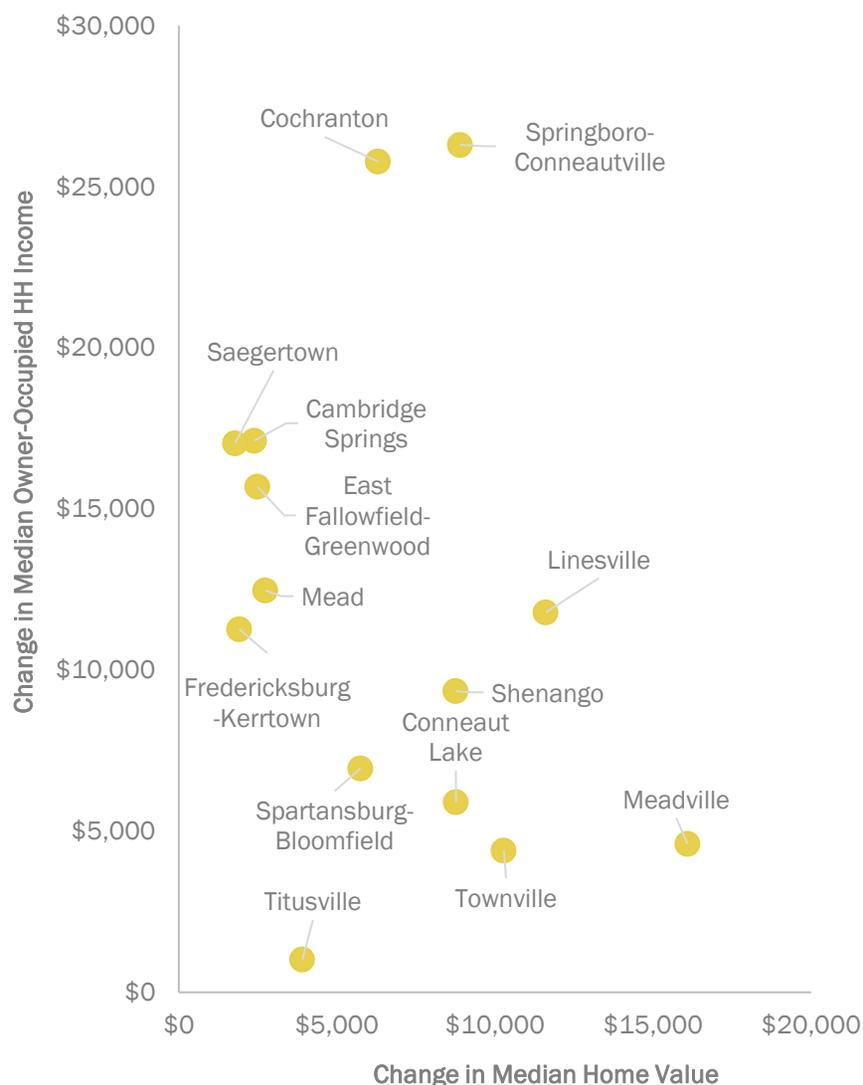
In 2017, the median home value for owner-occupied homes in Crawford County was \$119,900, \$62,850 lower than the median home value within the state (\$182,730). By submarket, median home values were lowest within the Titusville submarket (\$80,190) and highest within the Conneaut Lake submarket (\$140,580). From 2010 to 2017, the median home value in the county increased by 2.0 percent per year, after adjusting for inflation. Over this six-year period, median home values increased the fastest in the Springboro-Conneautville and Cochranon submarkets.

Real Median Home Value, 2010-2017

Submarket Name	2010 Median Home Value	2010 Median Home Value in \$2017	2017 Median Home Value	Annualized % Change, 2010-2017
Springboro-Conneautville	\$96,300	\$105,410	\$131,710	4.2%
Cochranon	\$100,900	\$110,440	\$136,220	3.9%
Saegertown	\$100,350	\$109,840	\$126,880	2.6%
East Fallowfield-Greenwood	\$96,000	\$105,080	\$120,770	2.5%
Cambridge Springs	\$109,950	\$120,350	\$137,470	2.4%
Linesville	\$90,900	\$99,490	\$111,280	2.0%
Mead	\$107,350	\$117,500	\$129,970	1.8%
Shenango	\$86,600	\$94,790	\$104,140	1.6%
Fredericksburg-Kerrtown	\$105,700	\$115,690	\$126,960	1.6%
Spartansburg-Bloomfield	\$95,200	\$104,200	\$111,150	1.1%
Townville	\$86,000	\$94,130	\$98,530	0.8%
Meadville	\$92,500	\$101,250	\$105,860	0.8%
Conneaut Lake	\$123,050	\$134,680	\$140,580	0.7%
Titusville	\$72,330	\$79,170	\$80,190	0.2%
Crawford County	\$97,900	\$107,160	\$119,880	2.0%
Pennsylvania	\$159,300	\$174,360	\$182,730	0.8%

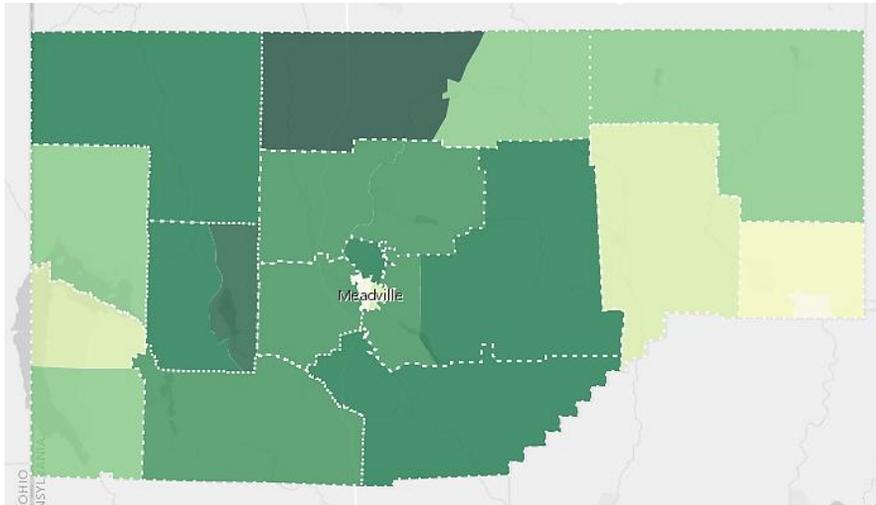
Source: ACS 5-year estimates DP04, BLS, Esri, 2018

Adjusted Median Owner-Occupied Household Income and Adjusted Median Home Value Change, 2010-2017

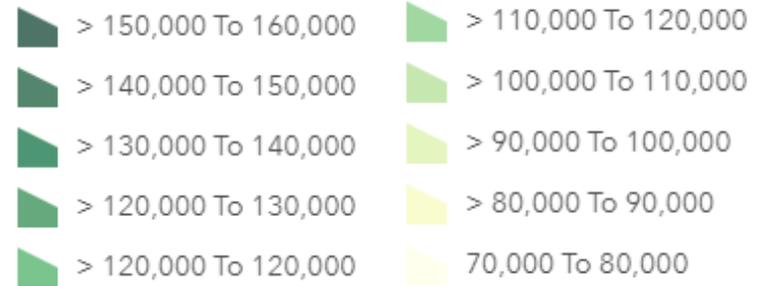


Source: ACS 5-year estimates DP04, B25119

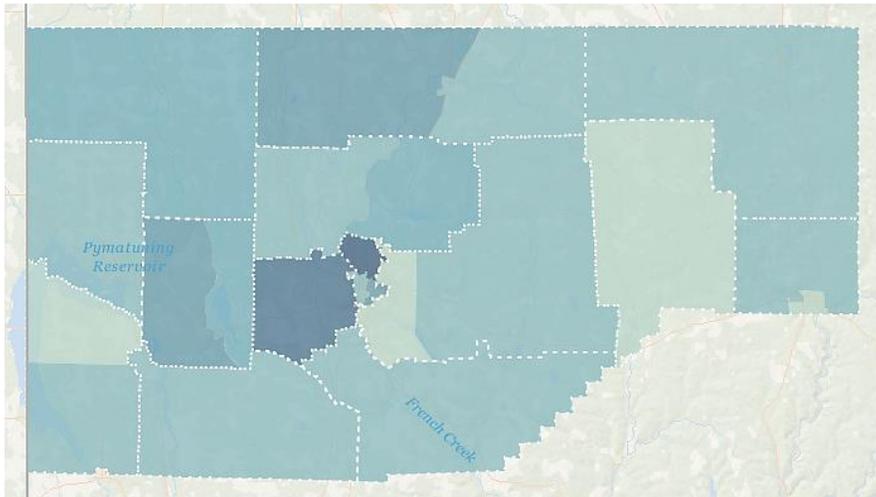
Median Home Value by Census Tract, 2017



Source: Esri



Median Contract Rent by Census Tract, 2015



Source: Esri



Rent Costs

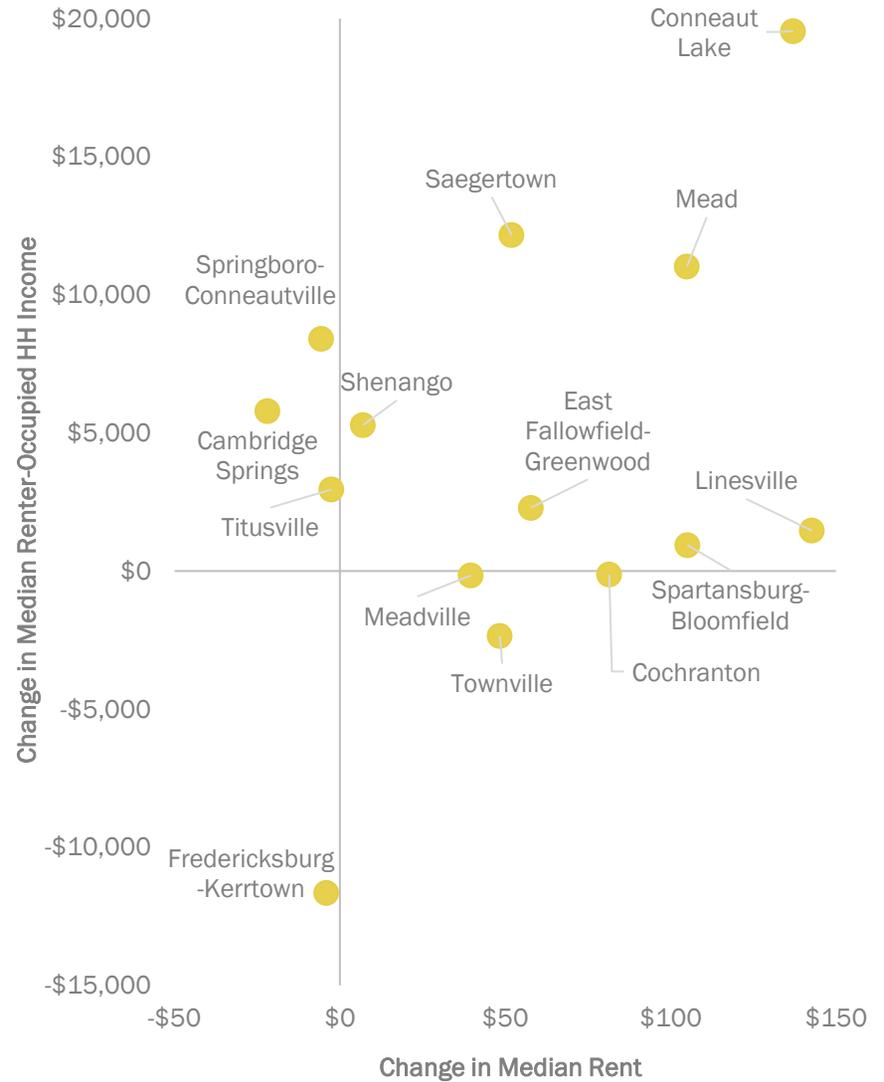
In recent years, inflation-adjusted rents in Crawford County and the state have remained relatively flat. In 2016, the median gross rent (which includes monthly utilities) in the county was \$633 per month, compared to an inflation-adjusted rent of \$609 in 2010, equivalent to an increase of 0.7 percent per year. Nevertheless, changes in average median gross rents have varied across the submarkets, rising the most in the Linesville submarket (3.9 percent per year) and declining the most in the Cambridge Springs submarket (0.9 percent per year), over the same six-year period.

Change in Median Rent, 2010-2016

Submarket Name	2010 Median Gross Rent	2010 Median Gross Rent in \$2016	2016 Median Gross Rent	Annual % Change, 2010-2016
Linesville	\$506	\$557	\$688	3.9%
Conneaut Lake	\$554	\$610	\$734	3.4%
Spartansburg-Bloomfield	\$502	\$553	\$646	2.8%
Mead	\$640	\$704	\$794	2.1%
Cochranon	\$536	\$590	\$659	2.0%
East Fallowfield-Greenwood	\$519	\$571	\$617	1.3%
Saegertown	\$556	\$611	\$651	1.1%
Townville	\$550	\$605	\$641	1.0%
Meadville	\$543	\$597	\$624	0.8%
Shenango	\$646	\$710	\$703	-0.2%
Titusville	\$575	\$633	\$617	-0.4%
Fredericksburg-Kerrtown	\$672	\$740	\$720	-0.4%
Springboro-Conneautville	\$588	\$647	\$628	-0.5%
Cambridge Springs	\$579	\$637	\$602	-0.9%
Crawford County	\$553	\$609	\$633	0.7%
Pennsylvania	\$739	\$813	\$859	0.9%

Source: ACS 5-year estimates DP04

Adjusted Median Renter-Occupied Household Income and Adjusted Median Rent Change, 2010-2016

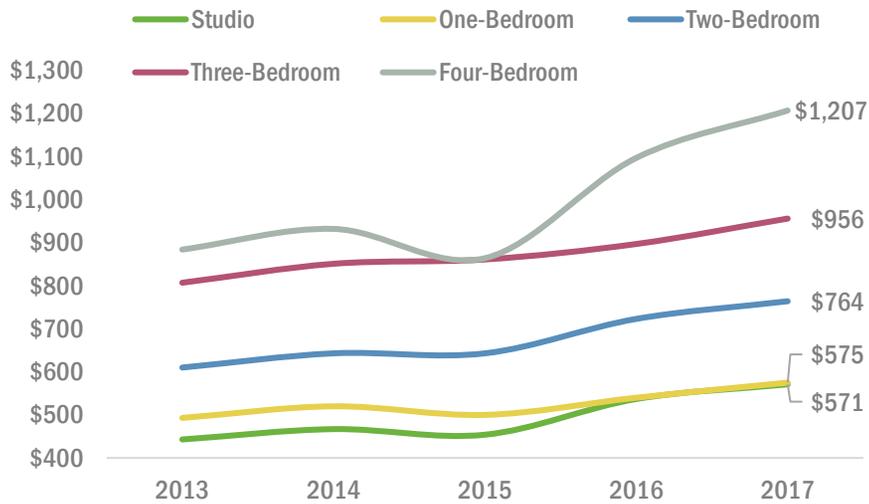


Source: ACS 5-year estimates DP04, B25119

Fair Market Rents

Fair Market Rent (FMR) is determined each fiscal year by HUD and is used to set payment standards for federal housing assistance programs in Crawford County. In 2017, FMR in the Crawford County ranged from \$571 per month for a studio apartment to \$1,207 for a four-bedroom apartment. Over the past five years, the FMR for a four-bedroom apartment in the county has increased the most (9.1 percent per year).

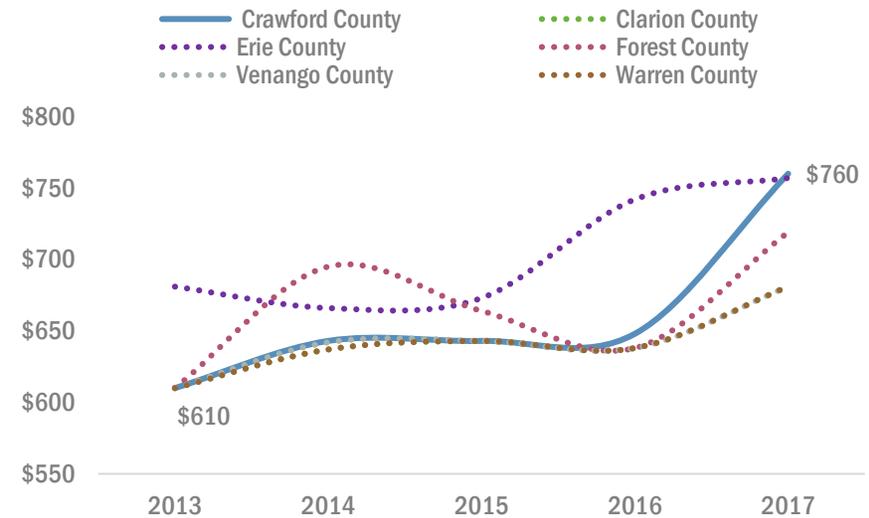
Fair Market Rent, Crawford County, Pennsylvania



Source: HUD; 4ward Planning Inc., 2018

While FMRs in Crawford County are very low compared to the national average (this FMR area is less expensive than 71 percent of other FMR areas), they are relatively comparable with other counties in the Northwest WDA. In 2017, the FMR for a two-bedroom apartment in Crawford County was \$760 per month, higher than the equivalent rent in Clarion, Venago, and Warren Counties (all \$681 per month) but comparable to the equivalent rent in Erie County (\$757 per month). Over the past five years, the FMR for a two-bedroom apartment in Crawford County has increased by 6.1 percent per year (from \$610 per month in 2013).

2-Bedroom Fair Market Rent: Northwest WDA



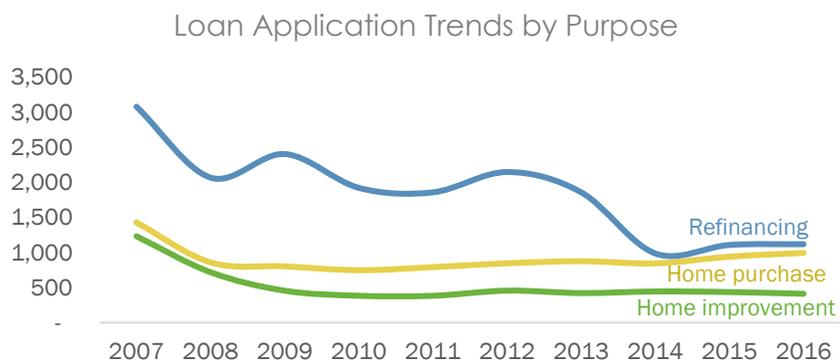
Source: HUD; 4ward Planning Inc., 2018

Financial Strengths and Challenges

A concentration of housing loan application declinations can serve as an early warning sign that a particular housing market may be experiencing challenges (e.g., due to borrower’s poor credit, housing prices not appraising, etc.). Conversely, where there is a relatively high concentration of home loan and refinancing approvals, a healthy housing market area is likely. Consequently, identifying and understanding home loan-related activity in given geographic areas will permit greater insights into where there are current or potential future housing market challenges.

Loan Applications

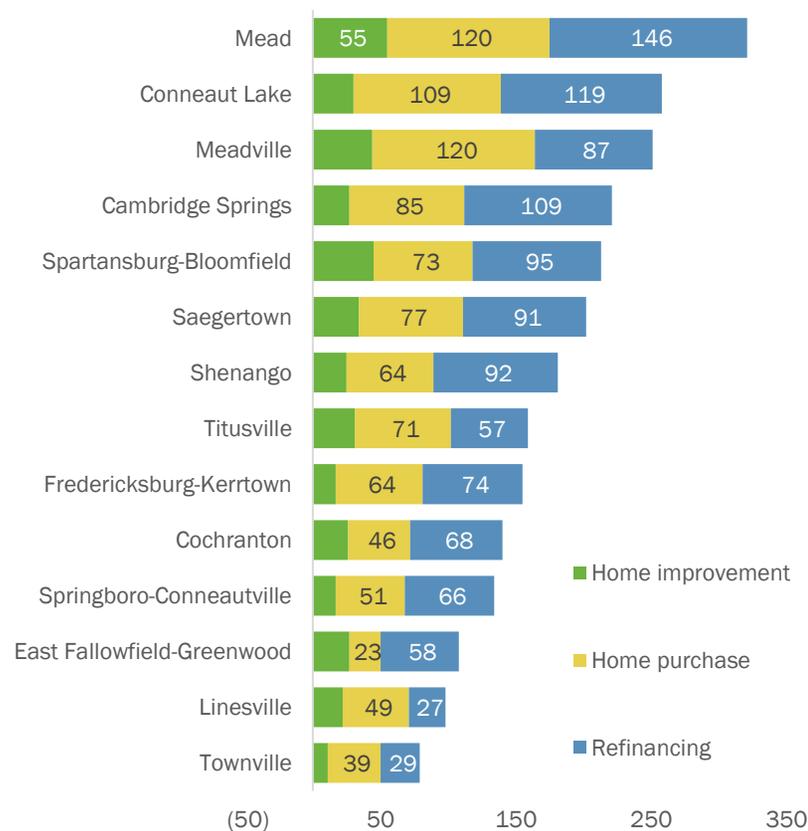
The Home Mortgage Disclosure Act (HMDA) requires many financial institutions to maintain, report, and publicly disclose information about mortgages. Based on HMDA data provided via the Consumer Financial Protection Bureau (CFPB), the number of loan applications (for home refinancing, home purchase, and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



Source: Consumer Financial Protection Bureau

In 2016, the Mead submarket has the highest number of loan applications (320 applications), with 45 percent of these applications intended for home refinancing. The Conneaut Lake submarket had the second highest number of loan applications (260 applications) with 46 percent of these applications intended for home refinancing. The Meadville submarket had the third highest number of loan applications (250 applications) with the highest share of applications (48 percent) intended for home purchases.

Loans by Purpose and Submarket, 2016

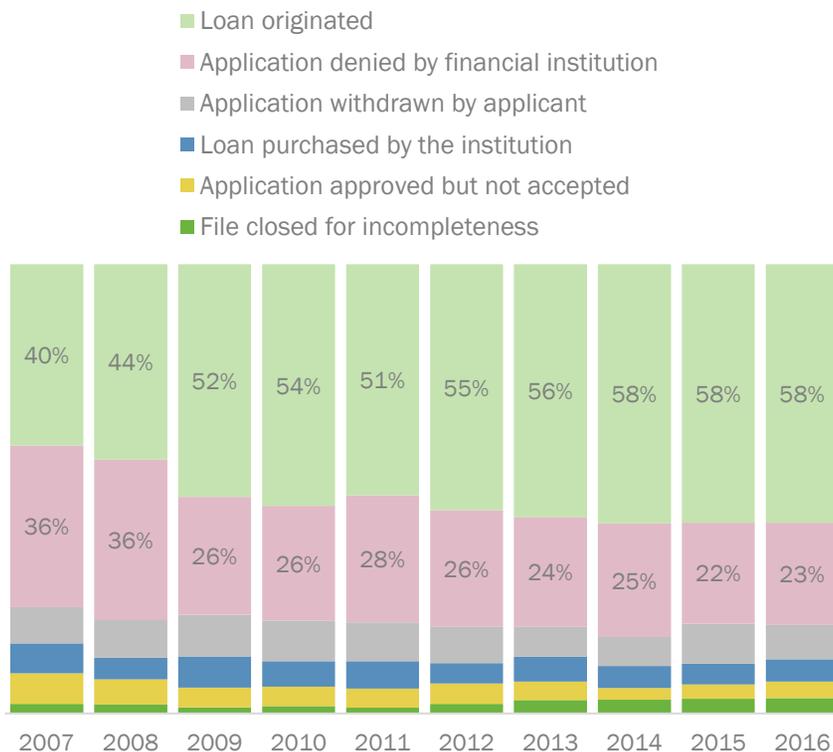


Source: Consumer Financial Protection Bureau

Loan Actions

Although the number of total loan applications has been decreasing over the past decade in Crawford County, overall, the share of loan applications resulting in successful loan originations has been increasing. Successful loan originations as a share of total loan applications within the county increased from 40 to 58 percent from 2007 to 2016 (compared to an increase from 39 to 51 percent within the nation, over the same period).

Loans Applications by Action Taken Trends



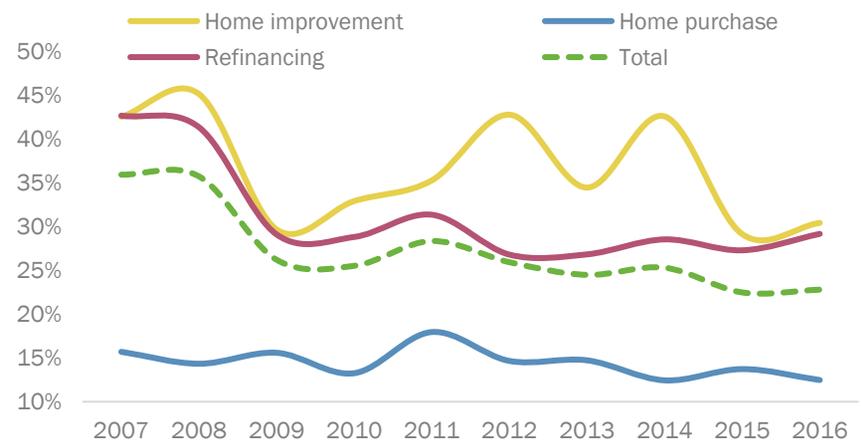
Source: Consumer Financial Protection Bureau

Loan Denials

Conversely, the share of total applications denied by financial institutions within the county declined from 36 to 23 percent from 2007 to 2016 (compared to a decrease from 22 to 16 percent within the nation, over the same period). From 2007 to 2016, the number-one reason cited for loan denials (2,424 applications) was an applicant's poor credit history. Collateral (representing the asset that secures the mortgage, which in most cases is the home being financed) and debt-to-income ratios (ratio of monthly debts to annual income) were the second and third top loan denial reasons cited (1,708 and 1,485 incidents, respectively).

Interviews with residential real estate professionals suggest that many home sales in the county are diverted due to unusually stringent loan application requirements. Where some of their clients are denied housing loans, they are still considered 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.

Share of Total Applications Denied by Financial Institutions



Source: Consumer Financial Protection Bureau

Applications Denied by Financial Institutions by Submarket

Submarket Name	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Mead	237	161	134	122	97	99	93	66	73	70	1,152
Conneaut Lake	171	109	91	67	74	70	68	50	43	58	801
Spartansburg-Bloomfield	153	100	62	64	99	77	72	55	56	46	784
Meadville	190	115	77	61	61	81	63	42	46	45	781
Cambridge Springs	147	122	71	65	65	83	61	40	42	55	751
Saegertown	163	102	76	65	72	78	57	43	46	45	747
Shenango	148	88	52	48	69	71	44	51	51	48	670
Cochranton	151	79	89	51	61	53	62	51	32	37	666
Titusville	161	88	64	36	51	47	55	42	35	36	615
Springboro-Conneautville	136	89	67	53	62	55	42	36	27	37	604
Fredericksburg-Kerrtown	129	85	64	50	62	58	32	25	24	29	558
East Fallowfield-Greenwood	94	60	44	31	37	37	30	28	34	30	425
Linesville	89	52	34	35	21	38	45	24	29	20	387
Townville	89	51	33	28	27	41	38	21	17	18	363
Crawford County	2,058	1,301	958	776	858	888	762	574	555	574	9,304

Applications Denied by Financial Institutions by Share of Total Applications and Submarket

Submarket Name	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Mead	35%	35%	26%	28%	25%	24%	22%	23%	20%	22%	27%
Conneaut Lake	35%	35%	27%	23%	25%	22%	21%	24%	19%	22%	26%
Spartansburg-Bloomfield	38%	37%	29%	29%	40%	32%	32%	29%	35%	22%	33%
Meadville	31%	32%	21%	19%	20%	24%	19%	19%	16%	18%	23%
Cambridge Springs	33%	36%	23%	23%	25%	25%	26%	23%	19%	25%	27%
Saegertown	37%	35%	25%	25%	28%	26%	21%	23%	20%	22%	27%
Shenango	39%	37%	27%	25%	37%	33%	23%	33%	29%	27%	32%
Cochranton	36%	33%	29%	23%	26%	22%	28%	33%	20%	26%	29%
Titusville	38%	34%	26%	22%	30%	25%	28%	27%	22%	23%	29%
Springboro-Conneautville	43%	40%	35%	29%	38%	32%	27%	33%	27%	28%	35%
Fredericksburg-Kerrtown	30%	35%	24%	25%	30%	22%	14%	16%	19%	19%	25%
East Fallowfield-Greenwood	35%	37%	28%	30%	27%	24%	27%	28%	31%	28%	30%
Linesville	44%	44%	29%	40%	26%	31%	41%	28%	39%	20%	35%
Townville	45%	43%	24%	31%	32%	34%	33%	24%	22%	23%	33%
Crawford County	36%	36%	26%	26%	28%	26%	24%	25%	22%	23%	28%

Source: Consumer Financial Protection Bureau

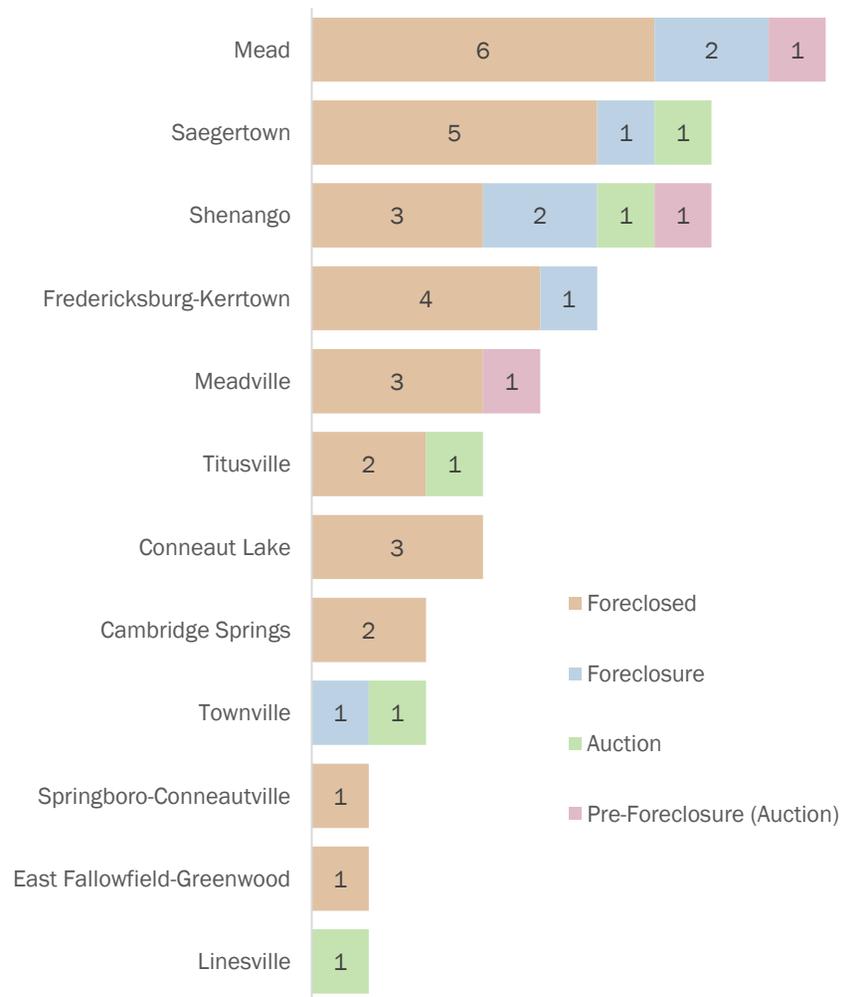
Foreclosures

A foreclosure, the legal process a lender must follow to take possession of a property after an owner defaults on a mortgage, is considered costly and undesirable for families, neighborhoods, lenders, and the housing market. Better understanding pre-foreclosure and foreclosure data in a given area can help communities target policy initiatives aimed at preventing the financial losses associated with foreclosures.

According to May 2018 data provided by Zillow, 30 homes are listed as foreclosed in Crawford County and another 15 homes are in some stage of the foreclosure process. Approximately 56 percent of these foreclosed and pre-foreclosure properties are located within the Meadville, Fredericksburg-Kerrtown, 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, May 2018



Source: Zillow, May 2018

The level of foreclosure filing activity in a given area relative to other areas is an indicator of distress in a local housing market. According to Zillow, foreclosures in Crawford County represent 0.10 percent of total housing units, a share much lower than that observed within both the state (0.58 percent) and nation (0.33 percent). As summarized below, the share of foreclosures as a percent of total housing units is highest within the Saegertown and Mead submarkets (0.24 and 0.21 percent, respectively).

Foreclosures as Share of Total Housing, March 2018

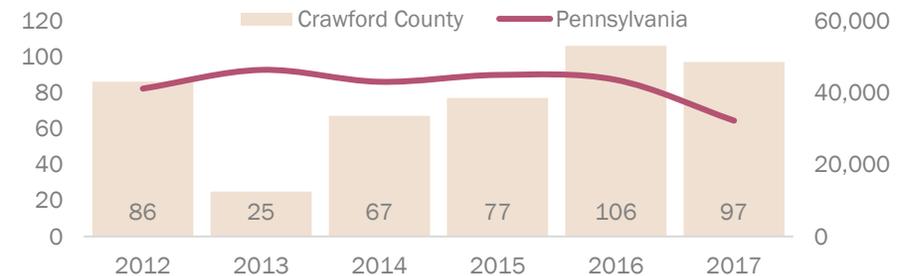
Submarket	Foreclosures	Share of Housing Units
Saegertown	7	0.24%
Mead	9	0.21%
Fredericksburg-Kerrtown	5	0.19%
Shenango	7	0.17%
Townville	2	0.13%
Titusville	3	0.08%
Conneaut Lake	3	0.07%
East Fallowfield-Greenwood	1	0.07%
Meadville	4	0.06%
Cambridge Springs	2	0.06%
Linesville	1	0.06%
Springboro-Conneautville	1	0.05%
Cochranon	-	-
Spartansburg-Bloomfield	-	-
Crawford County	45	0.10%
Pennsylvania	33,253	0.58%
United States	452,674	0.33%

Source: Zillow, Esri, May 2018

Foreclosure Trends

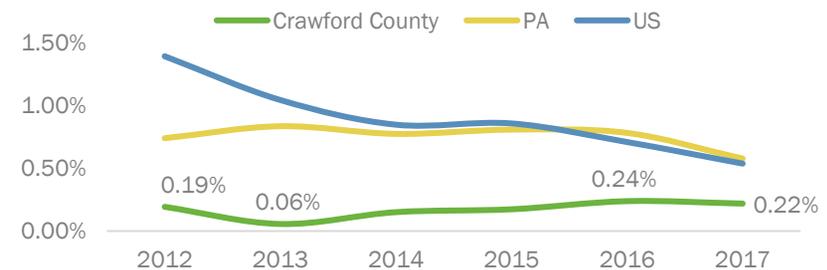
According to data provided by ATTOM Data Solutions, a firm that tracks foreclosure data, the number of foreclosures in Crawford County was as low as 25 in 2013 (0.06 percent of total housing units) and as high as 106 in 2016 (0.24 percent of total housing units). Although foreclosures as a share of total housing units in the county has remained lower than that observed in the state and nation, from 2013 to 2017, foreclosures as a share of total housing units has increased slightly in the county, while it has been declining nationally.

Total Foreclosure Trends



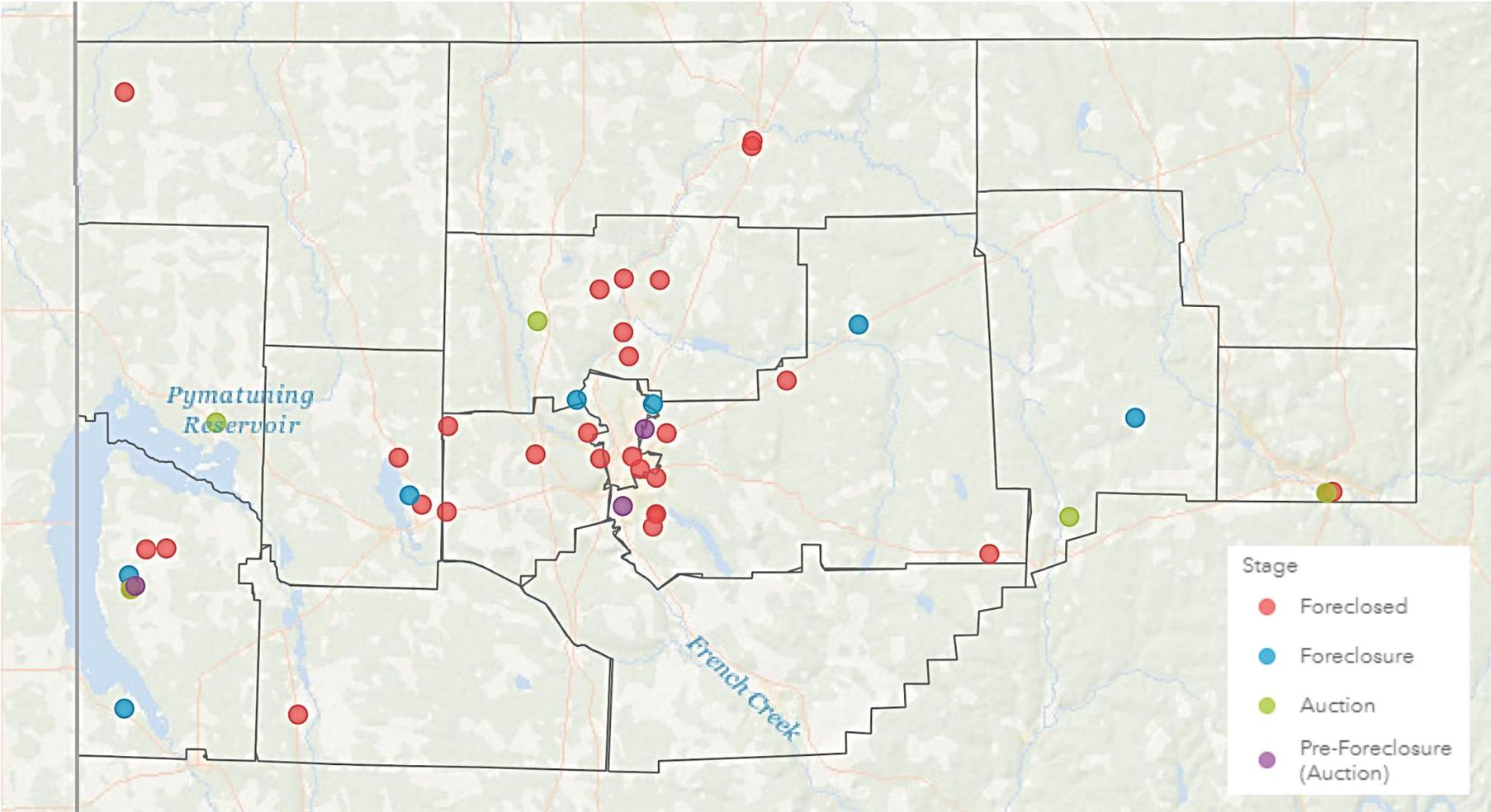
Source: ATTOM Data Solutions

Foreclosures as Share of Total Housing



Source: ATTOM Data Solutions

Homes by Foreclosure Stage



Source: Zillow, May 2018

Improvement-to-Land-Value Analysis

The improvement-to-land value (ILV) analysis is a technique which graphically identifies likely redevelopment parcels based on low improvement value relative to the base land value - providing a quantitative approach to identifying land parcels which are likely near-term (zero to three years) redevelopment opportunities. The ILV is just one technique to screen for such potential opportunities, identifying parcels with generally healthy land values on which higher and better uses could be supported. This analysis is of importance when developing redevelopment recommendations requiring higher-density housing.

Meadville

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.

Single-Family Residential

There are 2,885 single-family residential parcels in Meadville, covering 816.5 acres. Based on local tax assessment data provided by the Crawford County Assessment Office, the median ILV ratio of these parcels is 7.5, making the target low-ILV ratio 3.75. Based on this measure, 204 single-family residential parcels in the study area exhibit a low ILV ratio, for a total of 101.25 acres. These properties are highlighted on the below map in dark yellow. While these parcels are scattered throughout the city and many are small, there are several large low-ILV single-family residential properties in the northern part of Meadville. These properties are categorized as vacant residential allotments and are owned by the Wesbury United Methodist Retirement Community. Based on the low-ILV metric, these properties may be appropriate for development.

Duplexes

There are 89 residential duplex parcels in Meadville, covering 15.7 acres. The median ILV ratio of these parcels is 8.0, making the target low-ILV ratio 4.0. Based on this measure, 13 residential duplex parcels in Meadville exhibit a low ILV ratio, for a total of 2.9 acres. Like many of the single-family residential parcels, the residential duplex parcels are small, making them less likely candidates for redevelopment.

Multi-Family Residential

There are 43 multi-family residential parcels in Meadville, covering 16.5 acres. The median ILV ratio of these parcels is 8.6, making the target low-ILV ratio 4.3. Based on this measure, three multi-family residential parcels in Meadville exhibit a low ILV ratio, for a total of 1.1 acres. These parcels are also small and scattered, with the largest such property under one acre.

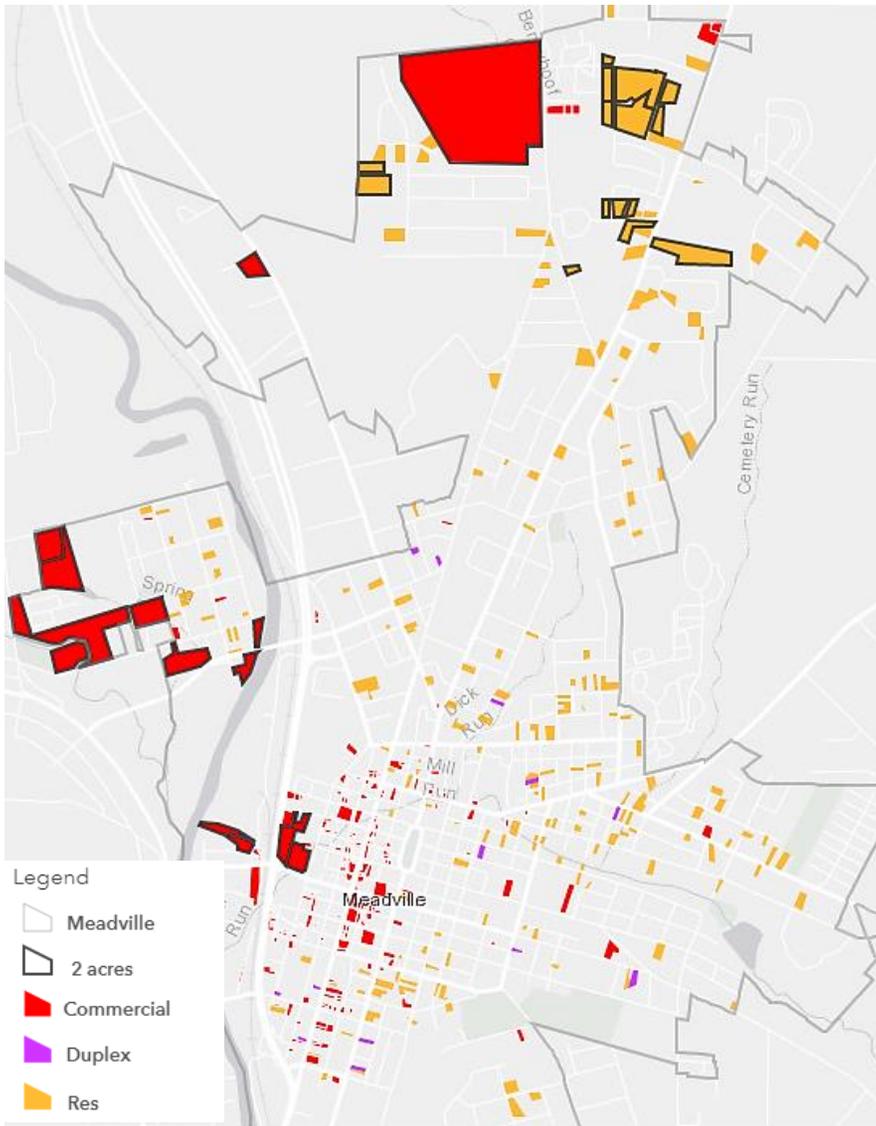
Commercial

There are 635 commercial parcels in Meadville, covering 387.1 acres. The median ILV ratio of these parcels is 4.2, making the target low-ILV ratio 2.1. Based on this measure, 205 commercial parcels in Meadville exhibit a low ILV ratio, for a total of 152.7 acres. Additionally, there is a concentration of low-ILV commercial parcels in the southern part of the city, centered around Park Avenue, as well as some large parcels in the western part of Meadville.

Large Sites

Developers are likely to target large or contiguous parcels of underutilized land for residential development. As presented in more detail in the Appendix, there are 17 low ILV parcels over two acres in size in Meadville, totaling approximately 146 acres. The largest parcel, the 67.2-acre parcel owned by Glenn E. & Gail L. Peterson at 562 Park Avenue is the site of the Hailwood Golf Course. The next largest contiguous parcels of underutilized land is the 22.3 acres owned by the Wesbury United Methodist Retirement Community.

Low ILV Parcels: Meadville



Source: Crawford County Assessment Office; Award Planning Inc. 2018

Titusville

Land Use

Land use in Titusville was categorized in the same way as that of Meadville. In Titusville, commercial uses are concentrated between Central Avenue and Oil Creek. There are large tracts of vacant land in the southwest of the study area, as well as publicly owned land in the southeast. Residential properties are scattered throughout, with single-family residential the prevailing typology. While duplexes and multi-family residential properties were examined as part of this analysis, no low-ILV duplexes or multi-family residential properties were identified.

Single-Family Residential

There are 1,664 single-family residential parcels in Titusville, covering 395.9 acres. The median ILV ratio of these parcels is 10.0, making the target low-ILV ratio 5.0. Based on this measure, 162 single-family residential parcels in Titusville (concentrated in the northern part of the city) exhibit low ILV ratios, for a total of 53.7 acres. While many of these parcels are small, making them less likely candidates for large-scale redevelopment, redevelopment can also occur on smaller parcels, depending on the type of redevelopment. The largest low-ILV property is just over two acres.

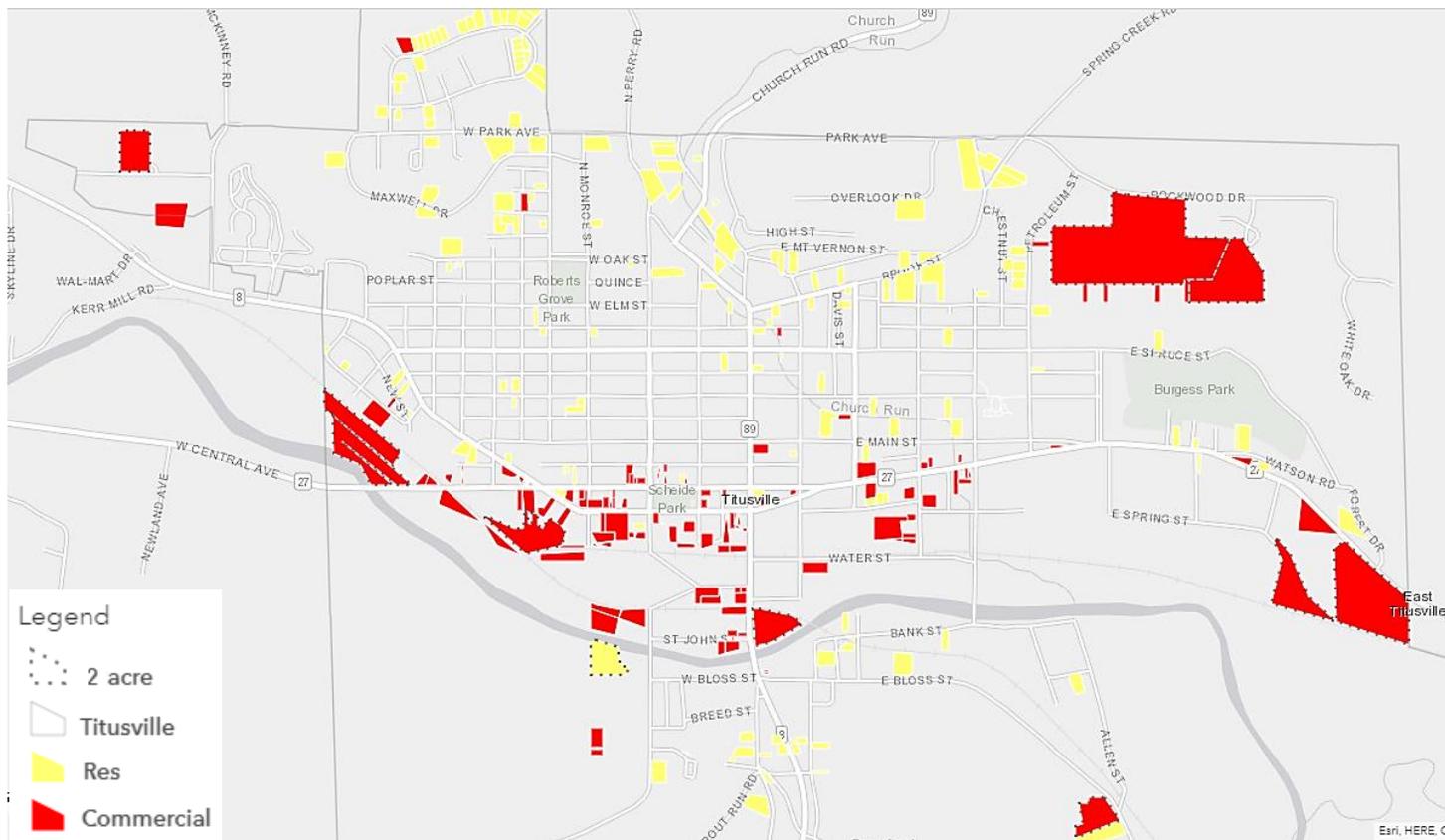
Commercial

There are 356 commercial parcels in Titusville, covering 218.9 acres. The median ILV ratio of these parcels is 5.4, making the target low-ILV ratio 2.7. Based on this measure, 116 commercial parcels in the study area exhibit a low ILV ratio, for a total of 93.9 acres.

Large Sites

As presented in more detail in the Appendix, there are 11 low ILV parcels over two acres in size in Titusville, totaling approximately 65 acres. The largest parcel, the 25.2-acre parcel owned by Joseph and Erica Altomare, is currently vacant and could be potentially assembled with the 6.9-acre adjacent underutilized parcel owned by Titusville Senior Housing Corporation. The second largest parcel, the 10.4-acre parcel owned by Skat Oil Company is currently vacant but had previously been the site of a gas station. While it may be cost-prohibitive or too environmentally challenging to redevelop a gas station for housing, there may be enough vacant land on site to consider developing.

Low ILV Parcels: Titusville



Source: Crawford County Assessment Office; 4ward Planning Inc. 2018

Recommendations

Based on the foregoing analysis and major findings, 4ward Planning has identified the following recommendations for Crawford County's consideration.

Relax Zoning Regulations

Existing zoning regulations should be relaxed to allow for accessory-unit apartments and mixed-use, multi-family residential development within the densely populated urban areas of the county (e.g., Meadville and Titusville). Such a policy change is warranted, given the identified pent-up demand for smaller rental dwelling units. Further, the increase in higher quality multi-family rental units in downtown areas, in particular, will prove beneficial to nearby retail and service businesses and lead to increased private investment.

Adopt Uniform County-wide Code Enforcement Policies

Current zoning enforcement efforts in the county are akin to a patch quilt – some municipalities have code enforcement personnel while many others do not. And within communities which have code enforcement officers, enforcement efforts are not always evenly administered. Consequently, it is recommended that a uniform county-wide code enforcement policy be adopted; and to ensure that code enforcement services are available throughout Crawford County, an interlocal services agreement between Crawford County's planning department and municipalities which lack the personnel and/or resources for code enforcement should be created. As part of such an agreement, local municipalities would share land-use data (e.g., locations of vacant and/or blighted properties; properties undergoing extensive renovations, etc.) within a county-wide property database.

Convene Quarterly Meetings of Public Sector Land-Use Professionals

In an effort to improve communication between county planning staff and municipal land-use professionals, the county planning department should host quarterly meetings with municipal planning, zoning, and code enforcement officials (which should also include representatives of local planning and zoning boards) to discuss county-wide blight, zoning and code enforcement issues and trends. These quarterly meetings would also afford municipal attendees to hear of successful land-use practices they may be able to employ within their respective community.

Leverage Federal and State Resources

Utilizing federal and state resources (such as U.S. HUD Community Development Block Grant (CDBG) and community development funding through the Pennsylvania Department of Community and Economic Development (DCED)), the Crawford County Planning Department should create a proactive blight avoidance program which would facilitate low-interest rate loans and grant funding for exterior home rehabilitation and commercial building façade improvements.

Prioritize County Financial and Planning Staff Resources

As the health of local housing markets and economies are inextricably linked, it is of critical importance that Crawford County prioritize the investment of its staff time and financial resources within geographic areas of the county that serve as economic centers (see the Economy section of this report). This recommendation is being supported through an Excel based algorithm which will assist county staff with prioritization of blight remediation funding, code enforcement efforts and municipal zoning recommendations, in particular.

Address Real Property Tax Inequity

A recurring refrain from the many interviews and focus groups conducted in this study is that real property tax levies in the urban areas of the county – and, specifically, within the city of Meadville – are extremely onerous and have led to disinvestment. Indeed, several real estate agents in Meadville stated that they have lost housing sales as a consequence of the relatively high real property tax rates in the city.

It should also be stated that high property tax rates within certain county jurisdictions can influence the location of commercial and industrial investment activity – businesses will escape high property tax levies by simply relocating across municipal boundaries, further exacerbating the fiscal issues of the high tax jurisdiction.

Consequently, it is strongly recommended that county planning commissioners examine ways in which the real property tax disparities between the county's urban and non-urban areas can be rectified.

Appendix

Methodology

Public Outreach

Housing Organizations

Critical to the study effort and development of a strategic housing plan, interviews and/or focus groups were conducted with Crawford County’s local housing organizations. 4ward Planning, in coordination with county staff, conducted a series of phone interviews (up to 10, but not less than 6 in total) and focus groups (a total of two with no more than 10 persons per focus group). The interviews and focus group sessions allowed 4ward Planning to share key findings, as well as participants to provide their insights concerning perceived housing-related challenges and opportunities.

Municipal Officials

Municipal officials, particularly appointed officials responsible for addressing housing-related issues, represent an important constituency for this study effort and, therefore, were afforded an opportunity to participate in Focus Groups. As with the housing organizations, these focus group sessions allowed 4ward Planning to share key findings, as well as participants to provide their insights concerning perceived housing-related challenges and opportunities.

Large Employer’s Employees

In coordination with Crawford County, 4ward Planning developed and implemented an online survey (using Survey Monkey as the platform) targeted to large employers (organizations with at least 200 employees) within the county. The online survey solicited input from 549 employees, regarding their current housing choices, observed impediments, if any, to securing housing which is both affordable of decent quality and location. Survey responses help in the identification of strategic housing development interventions.

Residential Realtors

4ward Planning conducted phone interviews with knowledgeable local residential brokers in order to “ground truth” data findings. Interview findings provide insight into present and future housing development potential, desirable development locations, area perceptions, real or perceived regulatory barriers, and infrastructure adequacy and specific public services necessary to catalyze development.

Melissa Kruse

ReMAX Hometown Realty
369 Chestnut Street
Meadville, PA 16335
(814) 853-7224

Debbie Miller

Northwood Realty Services
490 North Kerrwood Drive
Hermitage, PA, 16148
(814) 853-3743

Linda Peters

ERA Richmond Real Estate
751 N. Main Street
Meadville, PA, 16335
(814) 337-6000 ext. 4169

David Schepner

Coldwell Banker Bainbridge
Kaufman
12213 Midway Drive
Conneaut Lake, PA, 16316
(814) 720-0810

Amy Zuver

ERA Richmond Real Estate
751 N. Main Street
Meadville, PA, 16335
(814) 337-6000

Demographics

Utilizing a combination of published government data (U.S. Census, American Community Survey) and proprietary analysis software (ESRI Community Analyst), 4ward Planning collected socio-economic trend data (e.g., population, households, household income, and housing type) for Crawford County, as well as the Northwest Workforce Development Area or WDA (includes Clarion, Crawford, Erie, Forest, Venango, and Warren Counties), and Pennsylvania, for comparative purposes. Housing data analyzed includes but is not limited to: total number of households, senior households, single-person households, family and non-family households, and dual-income households without children. Additionally, we analyzed income distribution and homeownership rates by household type. Demographic data provided by ESRI is displayed for 2010, 2017 (estimated), and 2022 (projected).

Housing

To better understand existing housing supply, 4ward Planning conducted a comprehensive survey of existing and recently completed housing within Crawford County using published government data (U.S. Census, American Community Survey, U.S. Department of Housing and Urban Development, the Crawford County Assessment Office, Pennsylvania Housing Finance Agency), private data (Zillow), and proprietary analysis software (ESRI Community Analyst). At a minimum, factors profiled include total inventory (market-rate and subsidized, senior/assisted living options), property tenure (renter and ownership), housing age and condition, residential building permit data, sales prices and rental rate trends, and owner- and renter-occupancy rates.

Economy

Based on data provided by the Census Bureau's *OnTheMap* tool, the top six industries by employment area are identified within the County and region, as well as employment centers within the county (e.g., concentrations of employment). Next, 4ward Planning grouped 2010 census tracts to create housing submarkets within Crawford County based on employment, housing, and population centers and commuting patterns, presented in more detail in the following table.

Housing Submarkets by 2010 Census Tracts

Submarket Name	Census Tract
Meadville	42039111500
	42039111600
	42039111700
Fredericksburg-Kerrtown	42039111800
Titusville	42039111000
	42039111100
	42039111200
Saegertown	42039110600
	42039110700
Mead	42039110800
	42039111400
Cambridge Springs	42039110200
Conneaut Lake	42039110500
Cochranton	42039111300
East Fallowfield-Greenwood	42039111900
Springboro-Conneautville	42039110300
Linesville	42039110400
Spartansburg-Bloomfield	42039110100
Townville	42039110900
Shenango	42039112000

Source: U.S. Census Bureau, *OnTheMap*; 4ward Planning Inc., 2018

Cost and Affordability

Utilizing data provided by ACS, 4ward Planning profiled local housing affordability trends at the census-tract level. Factors profiled include median gross rent and median renter income and the percentage of cost-burdened households (based on U.S. HUD standards). The purpose of this particular analysis is to understand local housing supply and affordability trends, and to begin identifying opportunities and challenges within the county's residential marketplace.

Financial Strengths & Challenges of Local Housing Areas

A concentration of housing loan application declinations can serve as an early warning sign that a housing market may be experiencing challenges (e.g., due to borrower's poor credit, housing prices not appraising, etc.). Conversely, where there is a relatively high concentration of home loan and refinancing approvals, there likely exists a healthy housing market area. Consequently, identifying and understanding home loan-related activity in given geographies can permit greater insight into where there are currently, or may be in the future, housing market challenges.

4ward Planning examined Housing Mortgage Disclosure Act (HMDA) data within Crawford County, by year and census tract, including:

- Number of home purchase applications submitted
- Number of declined home purchase applications & denial reasons
- Number of refinancing applications submitted
- Number of declined refinancing applications & reasons for denial

Next, using Zillow and RealtyTrac, 4ward Planning identified and mapped foreclosure activity in Crawford County, including pre-foreclosures, and auction and bank-owned property activity. Mapping said data will allow for an examination of where foreclosure housing clusters exist (and lead to a determination as to why they exist). In many cases, the geographic concentration of foreclosure activity will be consistent with the geographic concentration of housing abandonment and blight (which will help confirm the likely reasons for blight and abandonment, and inform future policy recommendations).

Improvement-to-Land-Value Analysis

Land use in the City of Meadville and Titusville were separated into general categories. Land-use categories analyzed in this study include single-family residences, residential duplexes, multi-family residential (buildings with three or more residential units), and commercial (including retail stores, office buildings, hotels, recreational uses, etc.).

Meadville

- Single-Family Residential: The median ILV ratio of these parcels is 7.5, making the target low-ILV ratio 3.75.
- Duplexes: The median ILV ratio of these parcels is 8.0, making the target low-ILV ratio 4.0.
- Multi-Family Residential: The median ILV ratio of these parcels is 8.6, making the target low-ILV ratio 4.3.
- Commercial: The median ILV ratio of these parcels is 4.2, making the target low-ILV ratio 2.1.

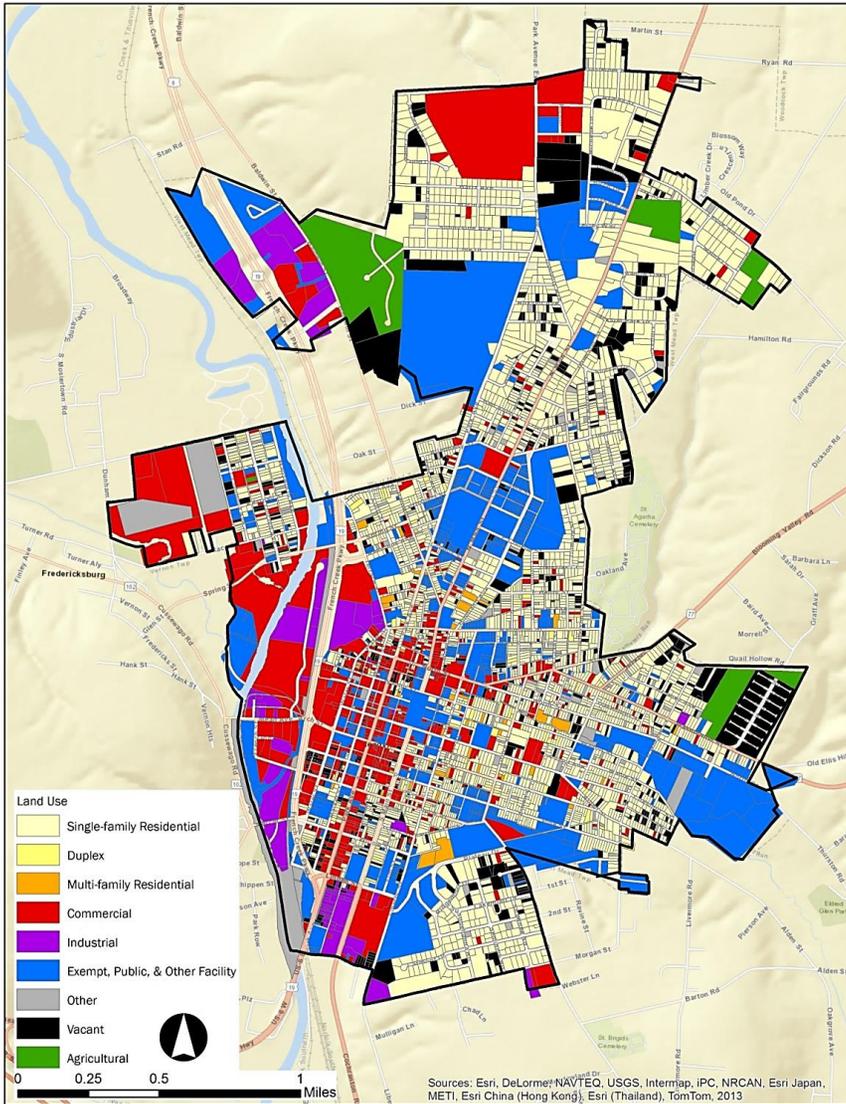
Titusville

- Single-Family Residential: The median ILV ratio of these parcels is 10.0, making the target low-ILV ratio 5.0.
- Commercial: median ILV ratio of these parcels is 5.4, making the target low-ILV ratio 2.7.

Large Sites

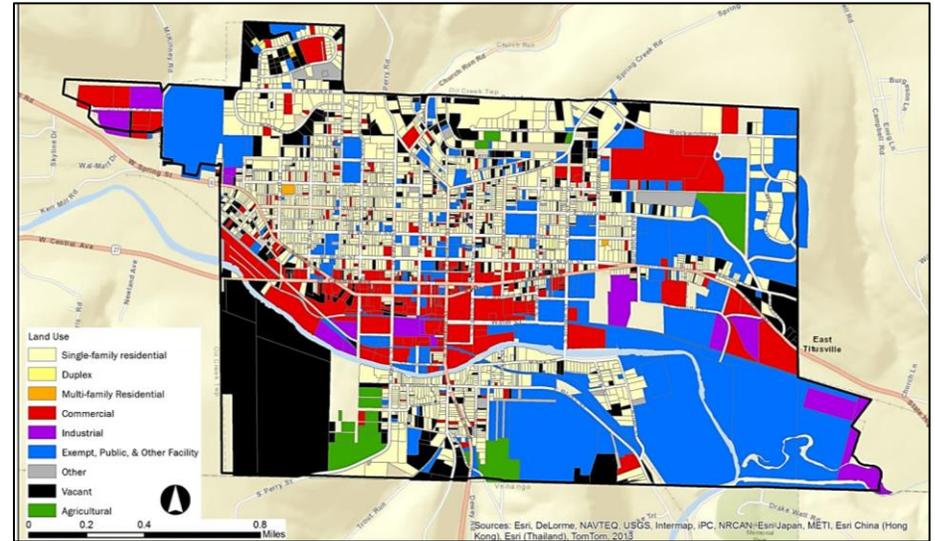
Large low ILV properties over two acres were identified and presented in more detail in the following tables.

Land Use: Meadville



Source: Crawford County Assessment Office; 4ward Planning Inc. 2018

Land Use: Titusville



Source: Crawford County Assessment Office; 4ward Planning Inc. 2018

Large Sites: Meadville

Owner	Address	Land Use	Improvement Value	Land Value	Land Area (Acres)	ILV Ratio
Ainsworth Pet Nutrition, LLC	18746 Mill St	Commercial	\$0	\$3,700	12.2	-
Ainsworth Pet Nutrition, LLC	18746 Mill St	Commercial	\$0	\$3,700	6.3	-
D Chris Coldren, LLC	246 Race St	Commercial	\$0	\$1,350	3.9	-
Greenleaf, Elizabeth H.	655 N Main St	Single Family	\$2,000	\$2,700	5.93	0.7
Hubbard Bus Service, Inc.	355 Rogers Ferry Rd	Commercial	\$29,996	\$15,550	3.7	1.9
Keltner, Jim & Carolyn	16260 Battles Rd.	Commercial	\$7,750	\$5,400	2.5	1.4
Lincoln Recycling, Inc.	1602 Selinger Avenue	Commercial	\$0	\$8,410	2.5	-
Peterson, Glenn E. & Gail L.	562 Park Ave. Ext.	Commercial	\$207,050	\$146,450	67.2	1.4
Race Street Lumber Co. Inc.	245 Race Street	Commercial	\$0	\$650	4.0	-
Race Street Lumber Co. Inc.	246 Race Street	Commercial	\$0	\$3,050	3.7	-
Smith, Donald J.	2 Forest Ave.	Single Family	\$0	\$2,540	4.40	-
Tri County Developers	664 Water St	Commercial	\$18,900	\$26,850	3.2	0.7
Tri County Developers	664 Water St	Commercial	\$209,350	\$133,900	2.3	1.6
Universal Well Services, Inc.	159 Northwood Dr.	Commercial	\$0	\$12,150	2.0	-
Wesbury United Methodist Community	31 North Park Ave.	Single Family	\$0	\$10,450	10.48	-
Wesbury United Methodist Community	31 North Park Ave.	Single Family	\$0	\$10,450	7.53	-
Wesbury United Methodist Community	32 North Park Ave.	Single Family	\$0	\$85,700	4.34	-
Total					146.1	

Source: Crawford County Assessment Office; 4ward Planning Inc. 2018

Large Sites: Titusville

Owner	Address	Land Use	Improvement Value	Land Value	Land Area (Acres)	ILV Ratio
Altomare, Joseph E & Erica	700 Rockwood Dr.	Commercial	\$0	\$7,331	25.2	-
Charter Plastics, Inc.	221 S. Perry St., Po Box 770	Commercial	\$0	\$5,750	3.5	-
Day, Ronald G. & Catherine M.	315 S Franklin St	Single Family	\$3,700	\$5,400	2.2	0.7
Franchise Realty Inter State Corp.	420 S Franklin St	Commercial	\$167,400	\$89,100	2.6	1.9
International Waxes, Inc	1007 East Spring St	Commercial	\$0	\$2,282	3.7	-
Keystone Tube Company	Titusville Industrial Park	Commercial	\$0	\$8,290	2.7	-
Morrison Builder'S Supply, Inc.	650 W. Central Ave.	Commercial	\$0	\$1,350	3.6	-
Morrison Builder'S Supply, Inc.	650 W. Central Ave.	Commercial	\$0	\$2,700	3.1	-
Skat Oil Company	1001 East Spring Street	Commercial	\$55,700	\$24,950	10.4	2.2
Steinberg, Robert B.	Allen St	Single Family	\$6,050	\$3,700	2.4	1.6
Titusville Senior Housing Corporation	819 Rockwood Estates	Commercial	\$57,386	\$90,481	6.9	0.6
Total					66.4	

Source: Crawford County Assessment Office; 4ward Planning Inc. 2018

Glossary of Terms

Employment by Industry: The industry is the type of activity that occurs at a person’s place of work. Industries are classified through the North American Industry Classification System (NAICS), the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

Empty-Nester Household: A household in which one or more parents live after the children have left home, typically represented by ages 55 to 74.

Family: A family is a group of two or more people (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people are considered members of one family.

Growth Rates: The chart below outlines how 4ward Planning defines growth rates. For example, flat growth reflects an annualized rate of change between -0.75 and 0.75 percent.

Strong Positive Growth	Greater than	1.50%			annually
Modest Positive Growth	Between	1.50%	and	0.75%	annually
Flat Growth	Between	0.75%	and	-0.75%	annually
Modest Negative Growth	Between	-0.75%	and	-1.50%	annually
Strong Negative Growth	Less than	-1.50%			annually

Household: A household consists of all the people who occupy a housing unit. A house, apartment, or other group of rooms or a single room, is regarded as a housing unit when occupied or intended for occupancy as a separate living quarter. The count of households excludes group quarters and institutions.

Household Population: Household population, as compared to total population, excludes persons living in dormitories, penal facilities, hospitals, and other institutional settings.

Non-Family Household: A non-family household consists of a householder living alone (a one-person household) or a householder sharing the home exclusively with people to whom he/she is not related.

Primary job: The one job that provides a person with the most earnings. If a person holds one job, that that is there dominant/primary job. If a person holds two or more jobs, then the one with the most earnings is defined as the dominant/primary job.

Data Sources

American Community Survey (ACS): The American Community Survey is the most reliable demographic dataset available today. However, because it is only a sample comprised of self-reported data, its values are subject to a margin of error. For smaller, more rural places such as Crawford County, that margin of error can make a meaningful difference in the numbers reported. All data referenced from the ACS should be taken as a close estimate only and not a perfectly accurate figure.

ATTOM Data Solutions: An provider of public property records including real estate data: sale, ownership, tax, and more - for more than 150 million U.S. properties.

Building Permits Survey (BPS): National, state, and local statistics on the number of new privately owned housing units authorized by building permits in the United States.

Bureau of Labor Statistics (BLS): A unit of the U.S. Department of Labor that collects, analyzes, and disseminates statistical data to the American public and governmental agencies. Bureau of Labor Statistics is a unit of the United States Department of Labor. BLS's Quarterly Census of Employment and Wages (QCEW) program publishes a quarterly count of employment and wages reported by employers at the county, MSA, state and national levels by industry.

Center for Workforce Information & Analysis (CWIA): The state of Pennsylvania's labor market information unit, providing workforce and economic development data.

Consumer Financial Protection Bureau: US Agency responsible for consumer protection in the financial sector. CFPB jurisdiction includes banks, credit unions, securities firms, payday lenders, mortgage-servicing operations, foreclosure relief services, debt collectors and other financial companies operating in the United States.

Crawford County Assessment Office: Department in charge of the uniform valuing of over 57,000 land parcels in the county and the structures on them for the purpose of real estate taxation.

Esri's Community Analyst: A web application that provides access to more than 2,000 variables on current-year estimates and five-year projection of US demographics including population, households, income, age, and ethnicity. Data is also provided on education, labor force, journey to work, marital status, languages spoken, home value, and more.

National Association of REALTORS (NAR): Online provider of real estate market trends and monthly statistics for active for-sale listings (including median list price, average list price, luxury list price, median days on market, average days on market, total active listings, new listings, price increases, price reductions).

OnTheMap: Web-based mapping application provided by U.S. Census Bureau's Center for Economic Studies, that shows where employees in a given trade area work and live.

US Department of Housing & Urban Development (HUD): US department dedicated to creating strong, sustainable, inclusive communities and quality affordable homes for all. Fair Market Rents (FMRs) are published by HUD each year. HUD's Picture of Subsidized Households database allows users to sort and query data on more than five million households living in HUD-subsidized housing. HUD has an agreement with the United States Postal Service (USPS) to receive quarterly aggregate data on addresses identified by the USPS as having been "vacant" or "No-Stat" in the previous quarter.

Zillow: online real estate database company providing data for 110 million homes across the United States, not just those homes currently for sale.